



# Freflex

Broadband Microwave and Millimeter-Wave Components Manufacturer



2025



## About Freflex Inc.

Freflex Inc. is the top designer and manufacturer of microwave and millimeter wave products. We supply both active and passive components in a wide frequency range from DC to 110GHz all over the world. We provide a series of standard products to meet the needs of most customers. Meanwhile we customize products according to special requirements.

Our company is equipped with 67GHz vector network analyzers, signal sources, spectrum analyzers, power meters, oscilloscopes, welding platforms, resistance and voltage withstand test instruments, high and low temperature test systems and other research and development, production and testing equipments. Our quality management system has been successfully registered for GB/T19001-2016/ISO9001:2015. Like the name, quality is one of the key success factors. Our products are designed and manufactured with the latest tools and the best quality materials. Our engineers are keeping quality in mind through designing, manufacturing and testing. We are proud that many clients rated five stars in their feedback for product quality.

Our team is comprised of professional microwave and millimeter wave engineers and specialized support staff. We take customer's needs as the first priority, as the success of our customers is also our success. We optimized design and manufacture processes by adding more flexibility, which helps to shorten the lead time. Our management and service are customer oriented, ensuring to response to customer as soon as possible.

## Products

Amplifiers	Antennas	Attenuators	Baluns	Bias Tees
Cable Assemblies	Calibration Kits	Circulators/Isolators	Coaxial Adapters	Connectors
Couplers	DC Blocks	Detectors	Equalizers	Filters/ Multiplexers
Frequency Dividers/ Multipliers	Impedance Matching Pads	Frequency Sources	Limiters	Mixers
Phase Shifters	Probes	Dividers/Combiners	Rotary Joints	RF Surge Protectors
Switches	Terminations	Tools	Waveguide To Coax Adapters	



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latest product  
catalog.*



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## Amplifiers

Freflex supplies broadband, low noise and high power amplifiers in a broad range from 4kHz to 260GHz.

### Power Amplifiers

Power amplifier, connected in the end of transmitter, is used to amplify the power of modulated signal in HF, which will then be transmitted to the space by antennas, and ensure the receiver could get proper signal level and the signal does not interfere with the communication of adjacent channels.

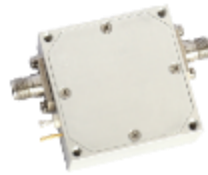
**Features:** Broadband, High Power; **Applications:** Wireless, Transmitter, Radar, Laboratory Test.

#### How To Order:

FPAV-W-X-Y-Z

Modules: Blank, Systems: S  
 Start Frequency (MHz)  
 Stop Frequency (MHz)

P1dB (dBm)  
 (Note: if it is Psat, add "S" at the end)  
 Gain (dB)



**Examples:** To order a power amplifier module, 0.03~1GHz, gain 45dB, Psat 30dBm, specify FPA-30-1000-45-30S.

### Power Amplifier Modules

The sizes in the following table do not include connectors. PA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Psat (dBm)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FPA-0.1-500-43-40	0.0001~0.5	-	40	43	±2.5	24	2	200*101*27.8
FPA-0.1-3000-25-26	0.0001~3	-	26	25	±4	28	2	118*73*35
FPA-1-60-23-23	0.001~0.06	-	23	23	-	5	1.8	32*30*12
FPA-2-30-58-60S	0.002~0.03	60	-	58	±2	50	2	240*125*45
FPA-5-500-46-37S	0.005~0.5	37	-	46	±2	24~28	2	116*49*25
FPA-10-2500-30-37S	0.01~2.5	37	-	30	±3.5	32	2.4	120*68.5*25
FPA-10-2500-40-40S	0.01~2.5	40	-	40	±3.5	32	2.4	120*68.5*25
FPA-10-3000-30-29	0.01~3	-	29	30	±2	24	2	75.5*48*15
FPA-10-3000-30-29-1	0.01~3	-	29	30	±2	24	2	75*48*15
FPA-20-500-40-50S	0.02~0.5	50	-	40	±2.5	32	2	198*88*25
FPA-20-1000-36-18	0.02~1	-	18	36	±2.5	5	2	40*30*15
FPA-20-6000-40-36	0.02~6	38	36	40	±4	15	2.5	135*100*25
FPA-25-530-48.5-51.8S	0.025~0.53	51.8	-	48.5	±1.5	28	1.5	190.5*86.4*27.2
FPA-30-80-16-23	0.03~0.08	23	-	16	±1	12	1.8	64.3*34.3*20
FPA-30-500-32-37S	0.03~0.5	37	-	32	±1.5	12	2	80*50*20
FPA-30-1000-16-23	0.03~1	23	-	16	±1	12	1.8	64.3*34.3*20
FPA-30-1000-45-30S	0.03~1	30	-	40~45	±2.5	28	2	61*45*15
FPA-50-1000-26-35	0.05~1	-	35	26	±1	28	-	65*35*20
FPA-100-500-30-40S	0.1~0.5	40	-	30	±1	28	2	100*50*20
FPA-100-4000-60-20	0.1~4	-	20	60	±3	5	2	80*60*20
FPA-200-300-42-40S	0.2~0.3	40	-	42	±1	28	2	98*58*20
FPA-300-8000-12-27	0.3~8	-	27	12	±2	12	2	50*30*15
FPA-400-6000-30-25	0.4~6	-	25	30	±2	12	2	30*25*10
FPA-400-8000-40-22	0.4~8	-	22	40	±1.5	12	1.8	50*30*15
FPA-410-950-45-47S	0.41~0.95	47	-	45	±2	28	2	200*89*25
FPA-500-1000-49-52S	0.5~1	52	-	49	±1	28	1.5	190.5*86.36*27.178
FPA-500-2000-30-40S	0.5~2	40	-	30	±2	28	2	130*50*20
FPA-500-2500-46-43	0.5~2.5	-	43	46	±2.5	28	2	160*100*25
FPA-500-3000-47-46S	0.5~3	46	-	47	±3	32	2.4	198*88*25
FPA-500-6000-30-37	0.5~6	-	37	30	±3.5	50	2	80*60*20
FPA-600-12000-30-20	0.6~12	-	20	30	±1	12	1.8	50*30*15
FPA-617-894-42-48S	0.617~0.894	48	-	42	±2	32	2	198*88*35.7
FPA-700-4200-43-40S	0.7~4.2	40	-	43	±3	30	2	162*72*26
FPA-703-748-34.25-33	0.703~0.748	-	33	34.25	±0.75	12	2	98*58*20
FPA-750-6000-35-35	0.75~6	39	35	35	±3.5	50	2	61*45*15
FPA-791-821-45-40	0.791~0.821	-	40	45	±0.5	30	2	98*58*20
FPA-800-2000-40-39	0.8~2	-	39	40	±2	32	2	162*72*26
FPA-800-4200-47-46.5S	0.8~4.2	46.5	-	47	±2.5	32	2	198*88*25
FPA-925-960-42-48S	0.925~0.960	48	-	42	±2	32	2	198*88*35.7
FPA-950-2150-25-25	0.95~2.15	-	25	25	±1.5	5	2	48.5*29*10
FPA-1000-4000-43-40S	1~4	40	-	43	±2.5	32	2	158.5*68.5*25
FPA-1000-18000-35-30	1~18	-	30	35	±2	12	2	61*45*15
FPA-1000-26500-28-24	1~26.5	-	24	28	±1.5	12	2	50*30*15

The sizes in the following table do not include connectors. PA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Psat (dBm)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FPA-1100-1700-48-47S	1.1~1.7	47	-	48	±1.5	32	2	135*75*24.5
FPA-1500-1700-48-47S	1.5~1.7	47	-	48	±1.5	32	2	158.5*68.5*25
FPA-1500-1700-48-50S	1.5~1.7	50	-	48	±1.5	32	2	158.5*68.5*25
FPA-1500-5000-30-34	1.5~5	-	34	30	±5	32	2.4	162*72*26
FPA-1710-1785-35-33	1.71~1.785	-	33	35	±0.75	12	2	98*58*20
FPA-1800-2200-46-45S	1.8~2.2	45	-	46	±1	30	1.5	120*120*20
FPA-1805-1880-35-33	1.805~1.88	-	33	35	±0.75	28	2	98*58*20
FPA-1805-1880-45-40	1.805~1.88	-	40	45	±0.75	30	2	98*58*20
FPA-1805-1880-42-48S	1.805~1.88	48	-	42	±2	32	2	198*88*35.7
FPA-1920-1960-35-40	1.92~1.96	-	40	35	±0.5	220	2	98*58*20
FPA-1920-1980-34-33	1.92~1.98	-	33	34	±1	12	2	98*58*20
FPA-2000-3000-33-33	2~3	-	33	33	±3	30~32	2	120*75*18
FPA-2000-3500-46-42S	2~3.5	42	-	46	-	28	2	180*70*20
FPA-2000-6000-35-33S	2~6	33	-	35	±4	28	2	70*50*20
FPA-2000-6000-40-39	2~6	-	39	40	±2.5	28	2	80*60*20
FPA-2000-6000-40-39S	2~6	39	-	40	±2.5	28	2	-
FPA-2000-18000-40-40S	2~18	40	-	40	±3	32	2	120*80*15
FPA-2000-18000-40-47S	2~18	47	-	40	±6	28	2	230*180*35
FPA-2300-2700-30-42S	2.3~2.7	42	-	30	3	28	-	180*60*20
FPA-2110-2170-42-48S	2.11~2.17	48	-	42	±2	32	2	198*88*35.7
FPA-2300-2700-30-42S	2.3~2.7	42	-	30	3	28	-	180*60*20
FPA-2300-4200-53-47.8S	2.3~4.2	47.8	-	53	±2.5	50	2	200*89*25
FPA-2500-2570-34-33	2.5~2.57	-	33	34	±1	12	2	98*58*20
FPA-2500-2700-50-47.8S	2.5~2.7	47.8	-	50	±1	32	2	200*89*25
FPA-2570-2620-45-40	2.57~2.62	-	40	45	±0.75	30	2	98*58*20
FPA-2620-2690-45-40	2.62~2.69	-	40	45	±0.75	30	2	98*58*20
FPA-2620-2690-42-48S	2.62~2.69	48	-	42	±2	32	2	198*88*35.7
FPA-2700-2900-42-50S	2.7~2.9	50	-	42	±1	32	1.8	135*69
FPA-3300-3800-33.5-33	3.3~3.8	-	33	33.5	±1.5	28	2	98*58*20
FPA-3300-3800-42-48S	3.3~3.8	48	-	42	±2	32	2	198*88*35.7
FPA-3500-5000-47-47S	3.5~5	47	-	47	-	32	-	220*110*20
FPA-3500-5000-50-50S	3.5~5	50	-	50	-	32	-	260*180*20
FPA-4000-5000-42-41.7S	4~5	41.7	-	42	±2	24	2	165*50*20
FPA-4000-6000-40-47S	4~6	47	-	40	-	32	2	200*80*20
FPA-4400-4950-46-40S	4.4~4.95	40	-	46	±2	32	2	158.5*68.5*25
FPA-4400-5000-35-33	4.4~5	-	33	35	±2	12	2	80*55*20
FPA-5000-6000-32-32	5~6	-	32	32	±1	28	2	98*58*20
FPA-5100-5900-33-40S	5.1~5.9	40	-	33	±1.5	24	2	162*72*26
FPA-5250-5850-46-40S	5.25~5.85	40	-	46	±2	32	2	158.5*68.5*25
FPA-5600-5800-18-47	5.6~5.8	50	47	18~25	1	30	2	198*98*22.8
FPA-6000-18000-25-26S	6~18	26	-	25	±1	12	2	61*45*15
FPA-6000-18000-33-26S	6~18	26	-	33	±1	12	2	60*60*15
FPA-6000-18000-35-33S	6~18	33	-	35	±3	12	2	60*60*15
FPA-6000-18000-35-35S	6~18	35	-	35	±2.5	24~28	2	61*45*15
FPA-6000-18000-40-40S	6~18	40	-	40	±3	24~28	2	61*45*15
FPA-6000-18000-45-47S	6~18	47	-	45	-	28	2	240*200*40
FPA-8000-12000-45-46S	8~12	46	-	45	±2	28	2	100*80*20
FPA-8000-18000-30-30S	8~18	30	-	30	±3	8	2	61*45*15
FPA-8500-10500-25-43S	8.5~10.5	43	-	25	±0.5	28	2	100*80*20
FPA-12000-18000-25-30S	12~18	30	-	25	±2	5	2.5	61*45*15
FPA-12000-18000-38-27	12~18	-	27	38	±1.5	12	2	50*30*15
FPA-14400-15350-33-39	14.4~15.35	-	39	33	±0.5	12	2	150*120*20
FPA-15000-18000-30-33	15~18	-	33	30	±0.5	8	2	61*45*15
FPA-18000-22000-35-13	18~22	-	13	35	±1	5	2	50*30*15
FPA-18000-22000-40-33	18~22	-	33	40	±1	7.5	2	61*45*15
FPA-18000-26000-30-30S	18~26	30	-	30	±3.5	8	2.5	61*45*15
FPA-18000-26500-15-23	18~26.5	-	23	15	±1	9	1.8	50*30*15
FPA-18000-26500-30-30	18~26.5	-	30	30	-	8	2	61*45*15
FPA-18000-26500-40-40S	18~26.5	40	-	40	±2	8	2	150*120*20
FPA-18000-26500-45-40S	18~26.5	40	-	45	±3	28/5	2	165*140*61
FPA-18000-40000-20-20	18~40	-	20	20	-	6	2	50*30*15
FPA-18000-40000-30-20	18~40	-	20	30	±2	12	1.8	30*20*12

The sizes in the following table do not include connectors. PA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Psat (dBm)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FPA-18000-40000-30-23S	18~40	23	-	30	±2.5	12	2.5	61*45*15
FPA-18000-40000-30-27	18~40	-	27	30	±2.5	12	2	150*120*15
FPA-18000-40000-30-30	18~40	-	30	30	±2.5	6	2	61*45*15
FPA-19000-21000-40-30	19~21	-	30	40	±1	8	2	61*45*15
FPA-20000-32000-22-21	20~32	-	21	22	±2.5	5	2	50*30*15
FPA-20000-32000-25-21	20~32	-	21	25	±1	8	1.5	50*30*15
FPA-20000-40000-33-29S	20~40	29	-	33	±2.5	5	2	61*45*15
FPA-22000-24000-25-30S	22~24	30	-	25	±1	6	1.8	50*30*15
FPA-23000-25000-15-27S	23~25	27	-	15	±0.5	12	1.5	61*45*15
FPA-24000-26000-30-30	24~26	-	30	30	-	8	2	50*30*15
FPA-24000-26000-30-32	24~26	-	32	30	-	8	2	80*60*20
FPA-25000-28000-18-25	25~28	-	25	18	-	6	2	50*30*15
FPA-25500-27500-20-30	25.5~27.5	-	30	20	±1.5	12	2	60*60*15
FPA-26000-40000-30-30S	26~40	30	-	30	±4	8	2, 5	61*45*15
FPA-26500-40000-18-23	26.5~40	-	23	18	±1.5	6	1.8	60*40*15
FPA-26500-40000-25-30S	26.5~40	30	-	25	±5	12	2	50*50*15
FPA-26500-40000-27-27	26.5~40	-	27	27	±2	6.5	2	61*45*15
FPA-26500-40000-30-26S	26.5~40	26	-	30	±2	6	2	50*30*15
FPA-27000-31000-30-23	27~31	-	23	30	±1.5	12	2	50*30*15
FPA-27500-31200-25-25	27.5~31.2	-	25	25	±1	12	2	50*30*15
FPA-29000-31000-35-30	29~31	-	30	35	±1	6	2	61*45*15
FPA-29500-31500-20-30	29.5~31.5	-	30	20	±1	12	2	60*60*15
FPA-32000-36000-35-35S	32~36	35	-	35	±2.5	24~28	2	61*45*15
FPA-36000-50000-20-30	36~50	-	30	20	±1.5	5	2	120*100*28.6
FPA-37000-40000-45-34-F	37~40	-	34	45	-	6	2	80*60*20
FPA-37000-43000-10-15	37~43	-	15	10	±1.5	6	2	50*30*15
FPA-38000-42000-25-30	38~42	-	30	25	±1.5	6	2	80*60*20
FPA-39000-40000-40-33	39~40	-	33	40	-	6	2	61*45*15
FPA-40000-50000-20-20	40~50	-	20	20	-	6	2	50*30*28.6
FPA-40000-50000-45-29S	40~50	29	-	45	±2	5~6	2	150*120*30
FPA-40000-53000-40-18S	40~53	18	-	40	±2	5	2	50*30*15
FPA-40000-60000-35-20S	40~60	20	-	35	±5	7	2	45*30*40
FPA-40000-60000-25-26S	40~60	26	-	25	-	25	2	45*30*40
FPA-40000-60000-40-20S	40~60	20	-	40	±2.5	15	2	50*30*15
FPA-47000-52000-20-30S	47~52	30	-	20	±1.5	15	2	61*45*15
FPA-47000-52000-25-30S	47~52	30	-	25	±1.5	15	2	61*45*15
FPA-47000-52000-30-30S	47~52	30	-	30	±2	15	2	61*45*28.6
FPA-50000-75000-35-19S	50~75	19	-	35	-	7	2.5	50*40*24
FPA-55000-90000-20-19S	55~90	19	-	20	±1.5	5	2	35*30*22
FPA-60000-67000-30-27	60~67	30	27	30	±2	4.5	2	80*60*20
FPA-60000-90000-27-20S	60~90	20	-	27	-	7	2	75*40*22
FPA-61000-65000-18-26S	61~65	26	23	18	±1	5	2	100*80*19
FPA-61000-65000-20-20S	61~65	20	17	20	±1.5	5	2	30*19*19
FPA-75000-110000-25-15S	75~110	15	-	25	-	7	1.8	52*30*24
FPA-110000-150000-18-15S	110~150	15	-	18	-	7	3	35*30*22
FPA-210000-230000-12-20S	210~230	20	-	12	-	5	2	73*70*22
FPA-210000-230000-18-14S	215~230	14	-	18	-	7	3	35*28*22
FPA-215000-230000-16-10.5S	215~230	10.5	-	16	1.5	7	2.5	73*70*22

### Power Amplifier Systems

The sizes in the following table do not include connectors, rack mount brackets, handles.

Part Number	Frequency (GHz)	Psat (dBm)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage (V AC)	VSWR	Size* (mm)
FPAS-20-500-40-50S	0.02~0.5	50	-	40	±2.5	220	2	483*400*133
FPAS-20-2700-50-44S	0.02~2.7	44	-	50	±2.5	220	2.2	460*491*88
FPAS-30-1000-40-47S	0.03~1	47	-	40	±2.5	220	2	483*400*133
FPAS-108-400-55-54S	0.108~0.4	54	-	55	±1.5	220	2	483*440*133
FPAS-200-2000-40-47S	0.2~2	47	-	40	±2.5	220	2	483*440*133
FPAS-500-2700-51-50	0.5~2.7	-	50	51	±2.5	220	3	602.5*482.6*310.3
FPAS-500-3000-50-50S	0.5~3	50	45	50	±2.5	220	2	483*400*133
FPAS-600-6000-43-43S	0.6~6	43	-	43	±4	220	2	526.7*483*147



The sizes in the following table do not include connectors, rack mount brackets, handles.

Part Number	Frequency (GHz)	Psat (dBm)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage (V AC)	VSWR	Size* (mm)
FPAS-700-2000-40-40S	0.7~2	40	-	40	±2	220	2	483*400*133
FPAS-700-2500-55-52S	0.7~2.5	52	-	55	±2.5	220	2	483*420.8*133
FPAS-700-2700-50-50S	0.7~2.7	50	-	50	±2	220	2	544.5*426*128
FPAS-1000-26500-20-18	1~26.5	-	18	20	±2.5	220	2.6	166*106.4*56.4
FPAS-2000-6000-40-46S	2~6	46	-	40	±3	220	2	481.8*500*88.5
FPAS-2000-18000-40-38S	2~18	38	-	40	±2.5	220	2	166*106.4*56.4
FPAS-2000-18000-40-40S	2~18	40	-	40	±3	220	2	430*500*44.3
FPAS-3300-4900-55-55S	3.3~4.9	55	-	55	±1.5	220	2	481.8*500*88.5
FPAS-5000-6000-55-63S	5~6	63	-	55	±1	220	2	482.6*559*132.5
FPAS-6000-18000-45-45S	6~18	45	-	45	±2.5	220	2	481.8*338*44.3
FPAS-6000-18000-68-54S	6~18	54	-	68	±5.3	220	2	701.5*434*265
FPAS-8000-12000-40-47S	8~12	47	-	40	±2	220	2	481.8*500*88.5
FPAS-8000-18000-40-45S	8~18	45	-	40	±2	220	2	538*430*44.3
FPAS-23000-25000-40-40S	23~25	40	-	40	±2	220	1.8	274*238*50
FPAS-23000-25000-40-43S	23~25	43	-	40	±2	220	1.8	481.8*350*44.3
FPAS-24000-43000-30-30S	24~43	30	-	30	±3	220	2	481.8*500*44.3
FPAS-47000-51000-55-43S	47~51	43	-	55	4	220	1.6	328.5*226*180.5

## Low Noise Amplifiers

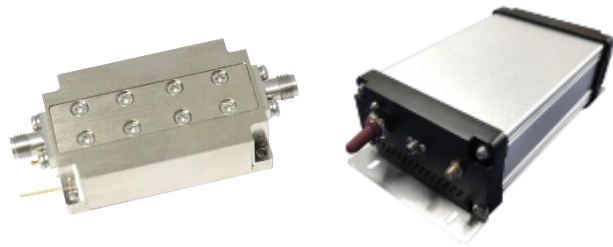
LNA features very low noise and is normally used as pre-amplifier in HF or IF of radio receiver and amplifier circuit in high-sensitivity electronic detection equipment. In weak signal environment, LNA could lower the noise of amplifier itself and increase SNR (Signal to Noise Ratio).

**Features:** Broadband, Low Noise; **Applications:** Wireless, Receiver, Radar, Laboratory Test.

### How To Order:

FLAV-W-X-Y-Z

Modules: Blank, Systems: S  
 Start Frequency (MHz)  
 Stop Frequency (MHz)  
 Noise Figure \* 10 (dB)  
 Gain (dB)



**Examples:** To order a low noise amplifier module, 1~18GHz, gain 45dB, noise figure 3dB, specify FLA-1000-18000-45-30.

## Low Noise Amplifier Modules

The sizes in the following table do not include connectors. LNA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FLA-9K-3000-43-30	9K~3	3	16	43	±1.5	12	1.8	38.1*21.59*9.5
FLA-0.01-15000-12-60	0.00001~15	6(typ.)	10	12	±2.5	12	2	40*35*12
FLA-0.09-2000-42-30	0.00009~2	3(typ.)	15(typ.)	42(typ.)	-	12	2(typ.)	40*32*12
FLA-0.1-500-24-30	0.0001~0.5	3	5	24	±0.5	15	1.5	50*30*15
FLA-0.1-500-30-30	0.0001~0.5	3	5	30	±0.5	5	1.5	50*30*15
FLA-0.5-1000-23-12	0.0005~1	1.2(typ.)	23(typ.)	23(typ.)	-	5	1.8(typ.)	32*30*12
FLA-1-400-50-20	0.001~0.4	2	20	50	±0.5	15	2	69.7*26.9*17.5
FLA-1-12000-30-55	0.001~12	5.5(typ.)	15	30	±2.5	12	2.5	40*35*12
FLA-1-26500-17-55	0.001~26.5	5.5(typ.)	10	17	±1.0	12	2.5	40*35*12
FLA-1.6-30-13.5-42	1.6~30	4.2	26	13.5	0.25	15	1.2	88*80*36
FLA-5-1000-46-15	0.005~1	1.5(typ.)	20(typ.)	46(typ.)	-	5	2(typ.)	44*30*15
FLA-10-60-15-50	0.01~0.06	5	23	15	±1.0	12	1.5	50*30*15
FLA-10-60-16-50	0.01~0.06	5	23	16	±1.5	5	-	48.5*29
FLA-10-2500-30-40	0.01~2.5	4(typ.)	10	30	±1.0	12	2	16.2*12.2*7.4
FLA-10-18000-25-50	0.01~18	5	10	25	±1.0	12	2.2	27.2*17.8*7.4
FLA-20-3000-30-35	0.02~3	3.5	15	30	±2.5	15	2	50*30*20
FLA-20-6000-32-15	0.02~6	1.5(typ.)	12	32	±1.5	5	2.5	40*35*12
FLA-20-8000-20-30	0.02~8	3(typ.)	12	20	±2.0	12	2(typ.)	60*45*15
FLA-25-1000-50-13	0.025~1	1.3	14	50	-	5~20	2.5	60*30*20
FLA-30-1000-15-20	0.03~1	2	18	15	±3	5.5	2	50*30*20
FLA-30-1000-50-13	0.03~1	1.3	15	50	±2.5	12	1.5	50*30*15
FLA-30-3000-40-30	0.03~3	3	12	40	±2	15	2	50*30*20
FLA-30-6000-25-50	0.03~6	5	10	25	±3	15	2	50*30*15
FLA-30-18000-15-25	0.03~18	2.5(typ.)	10	15	±1.0	12	1.8	16.2*12.2*7.4
FLA-50-90-15-32	0.05~0.09	3.2	10	15	±0.2	15	1.5	50*30*15
FLA-50-3000-17-15	0.05~3	1.5	15	17	±1.5	5	2	18.8*19.1*11.7
FLA-50-6000-25-40	0.05~6	4	22	25	±3	12	2	50*30*15
FLA-100-6000-16-10	0.1~6	1	21	16	±8	5	2	30*30*15
FLA-100-6000-25-25	0.1~6	2.5	15	25	±2	12	1.5	50*30*15
FLA-100-12000-25-25	0.1~12	2.5	15	25	±2	12	1.5	50*30*15
FLA-100-15000-45-22	0.1~15	2.2	5	45	±2.5	12	1.5	50*30*15
FLA-100-20000-25-40	0.1~20	4	20	25	±1.5	12	3	30*20*12
FLA-100-26500-30-30	0.1~26.5	3	20	30	±2.5	12	2	40*35*12
FLA-100-30000-18-55	0.1~30	5.5	15	18	±2.5	12	2.5	40*35*12
FLA-100-50000-28-50	0.1~50	5(typ.)	10	28	±3.0(max.)	12	3	21.8*17.8*7.4
FLA-200-2000-30-30	0.2~2	3	10	30	±2	5	2	50*30*20
FLA-200-6000-42-13	0.2~6	1.3	15	42	±2	12	2	50*30*15
FLA-200-10000-45-50	0.2~10	5	23	45	±2.0(max.)	12	2.2	35*40*12
FLA-300-40000-40-55	0.3~40	5.5(typ.)	14	40	±2.5	12	2.5	40*35*12
FLA-400-2000-25-20	0.4~2	2	20	25	±1.5	9	2.5	18.8*19.1*11.7
FLA-400-8000-40-25	0.4~8	2.5	14	40	±1.5	12	2	50*30*15
FLA-500-8000-20-16	0.5~8	1.6(typ.)	18(typ.)	20(typ.)	±1.0	6	3.5	18.8*19.1*11.7
FLA-500-18000-10-30	0.5~18	3(typ.)	12	10	±1.5	15	2	21.8*17.8*7.4
FLA-500-18000-14-30	0.5~18	3(typ.)	17	14	±0.75	15	2	16.2*17.8*7.4
FLA-500-18000-16-50	0.5~18	5	18	16	±1.5(max.)	12	2.2	38*20*8
FLA-500-18000-40-30	0.5~18	3	10	40	±1.5	12	2.5	40*35*12

The sizes in the following table do not include connectors. LNA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FLA-500-18000-40-35	0.5~18	3.5	12	40	±2	5	2	50*30*15
FLA-500-40000-43-50	0.5~40	5	14	43	±2.5	12	2	40*35*12
FLA-600-4200-20-10	0.6~4.2	1(typ.)	21(typ.)	20(typ.)	±2(typ.)	5	2(typ.)	30*30*15
FLA-600-4200-30-08	0.6~4.2	0.8	21	30	±2.5	5	2	40*30*15
FLA-600-4200-35-10	0.6~4.2	1	21	35	±2	5	2	40*30*15
FLA-600-4200-55-11	0.6~4.2	1.1	21	55	±3	5	2	56*30*15
FLA-700-1100-20-25	0.7 ~ 1.1	2.5	13	20	±1	12	1.5	50*30*15
FLA-700-1100-25-25	0.7 ~ 1.1	2.5	13	25	±1.5	5	-	48.5*29
FLA-800-18000-25-35	0.8 ~ 18	3.5	13	25	±2.5	12	2	50*30*15
FLA-950-2150-20-20	0.95 ~ 2.15	2	15	20	±1.5	5	2	48.5*29*10
FLA-1000-6000-15-20	1 ~ 6	2	12	15	±4.5	5	2	50*30*20
FLA-1000-12000-25-50	1~12	5(typ.)	-	25	±1.5(max.)	12	2	39.1*18.8*9.27
FLA-1000-12000-28-30	1~12	3	15	28	±1.0	12	2	16.2*17.8*7.4
FLA-1000-18000-30-40	1 ~ 18	4	10	30	±1.5	12	1.5	50*30*15
FLA-1000-18000-40-32	1~18	3.2	8	40	±2	12	1.8	50*30*15
FLA-1000-18000-42-25	1~18	2.5	10	42	±1.5	9	2	21.8*17.8*7.4
FLA-1000-18000-45-30	1~18	3	10	45	±2	5, 12	1.5	50*30*15
FLA-1000-18000-47-25	1~18	2.5	10	50	±1.5	9	2	21.8*17.8*7.4
FLA-1000-18000-47-32	1~18	3.2	12	47	-	12	1.8	50*30*15
FLA-1000-18000-50-30	1~18	3	20	50	±2.5	12	2	50*30*15
FLA-1000-18000-55-22	1~18	2.2	10	55	±1.5	12	2.5	40*35*12
FLA-1000-20000-25-35	1~20	3.5	21	25	±2.5	12	2	50*30*15
FLA-1000-20000-40-40	1~20	4	16	40	±2	12	1.5	50*30*15
FLA-1000-40000-30-80	1~40	8	10	30	±3.0	12	2.5	21.8*17.8*7.4
FLA-2000-6000-30-15	2~6	1.5	2	30	±1.0	5	2	27.4*25.4*10
FLA-2000-6000-39-45	2~6	4.5	23	39	±0.8	10	2	27.508*27.762*9.703
FLA-2000-8000-20-40	2~8	4	8	20	±1.5	5	1.6	50*30*15
FLA-2000-10000-30-40	2~10	4	15	30	±1.0	12	2	40.208*27.762*9.703
FLA-2000-18000-12-32	2~18	3.2	13	12	±1.5	12	2	16.2*17.8*7.9
FLA-2000-18000-18-30	2~18	3	10	18	±1.5	12	1.5	50*30*15
FLA-2000-18000-18-40	2~18	4	19	18	±1.0	12	2	25*20*10
FLA-2000-18000-21-40	2~18	4	23	21	±1.0	12	2	34.5*16.8*7.6
FLA-2000-18000-28-30	2~18	3	10	28	±1.5	12	1.5	50*30*15
FLA-2000-18000-30-45	2~18	4.5	10	30	±2.0	12	2	16.2*17.8*7.4
FLA-2000-18000-34-30	2~18	3	22	34	±1.5	12	2.2	29.5*19.05*9.27
FLA-2000-26500-25-40	2~26.5	4	8	25	±2	12	1.8	50*30*15
FLA-2000-26500-48-50	2~26.5	5	10	48	±4.5	9	2.5	50*30*15
FLA-3000-12000-24-30	3~12	3	21	24	±1.5	12	1.5	50*30*15
FLA-3000-15000-15-30	3~15	3	8	15	±1.0	5	1.5	50*30*15
FLA-4000-8000-22-25	4~8	2.5	14	22	±1.0	12	2	16.2*17.8*7.4
FLA-4000-8000-40-11	4~8	1.1	10	40	±1.5	12	2	17.8*16.2*7.4
FLA-4000-12000-14-30	4~12	3	15	14	±2.0	12	2	27.2*17.8*7.4
FLA-4000-12000-30-15	4~12	1.5	10	30	±2.0	12	2	17.8*16.2*7.4
FLA-5000-10000-30-23	5~10	2.3	10	30	±1.2	5	1.5	50*30*15
FLA-5400-5900-35-08	5.4~5.9	0.8	10	35	±0.3	5	1.4	50*30*15
FLA-6000-18000-20-28	6~18	2.8	13	20	±1.2	12	2	27.6*27.8*9.9
FLA-6000-18000-25-50	6~18	5	10	25	±3	5	2	50*30*15
FLA-6000-18000-50-30	6~18	3	15	50	±1.5	12	2	50*30*15
FLA-8000-12000-15-40	8~12	4	13	15	±0.5	5	1.5	50*30*15
FLA-8000-12000-32-11	8~12	1.1	10	32	±1.0	12	2	17.8*16.2*7.4
FLA-8000-18000-20-40	8~18	4	8	20	±1.5	5	1.6	50*30*15
FLA-8000-26500-15-35	8~26.5	3.5	8	15	±1.5	5	1.5	50*30*15
FLA-8000-26500-40-65	8~26.5	6.5	18	40	±2	12	2	50*30*15
FLA-9000-10000-25-15	9~10	1.5	20	25	±0.5	9	1.8	50*30*15
FLA-10700-12750-25-30	10.7~12.75	3	8	25	±0.5	5	1.5	50*30*15
FLA-12000-18000-20-40	12~18	4	15	20	±1.5	12	1.5	50*30*15
FLA-12000-18000-36-18	12~18	1.8	10	36	±1.2	12	2	17.8*16.2*7.4
FLA-12000-40000-30-40	12~40	4	5	30	±2.5	12	2.5	50*30*15
FLA-16000-22000-35-25	16~22	2.5	19	35	±1.5	12	2	50*30*15
FLA-16000-40000-20-35	16~40	3.5	16	20	±3.5	5	2	50*30*15
FLA-17500-20200-20-20	17.5~20.2	2	2	20	±0.5	5	1.5	50*30*15

The sizes in the following table do not include connectors. LNA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
FLA-17700-21200-30-80	17.7~21.2	8	10	30	±2	15~24	2	50*30*15
FLA-18000-26500-30-40	18~26.5	4	5	30	±1	12	1.8	50*30*15
FLA-18000-26500-48-25	18~26.5	2.5	10	48	±2.5	12	2.3	17.8*16.2*7.4
FLA-18000-26500-45-32	18~26.5	3.2	10	45	±2	5	1.8	50*30*15
FLA-18000-28000-20-40	18~28	4	8	20	±1.5	5	1.6	50*30*15
FLA-18000-40000-25-50	18~40	5	12	25	±1.5(max.)	12	2.5	16.2*17.8*7.4
FLA-18000-40000-25-50(P10)	18~40	5	10	25	±3	5	2	50*30*15
FLA-18000-40000-25-50(P15)	18~40	5	15	25	±2.5	12	2	50*30*15
FLA-18000-40000-30-50(P20)	18~40	5	20	30	±2.5	12	2.5	50*30*15
FLA-18000-40000-30-35	18~40	3.5	8	30	±2.5	12	2.2	17.8*16.2*7.4
FLA-18000-40000-40-45	18~40	4.5	6	40	±2.5	15	2	50*30*15
FLA-18000-40000-50-45	18~40	4.5	5	50	±3	15	2	50*30*15
FLA-20000-32000-40-25	20~32	2.5	10	40	±2.5	5	2	50*30*15
FLA-23000-25000-35-20	23~25	2	-3	35	±1.5	5	1.8	50*30*15
FLA-23000-40000-34-35	23~40	3.5	10	34	±2.5	12	2	50*30*15
FLA-24000-28000-30-40	24~28	4	10	30	±1	5	2	50*30*15
FLA-24000-30000-30-20	24~30	2	10	30	±1	5	1.5	50*30*15
FLA-25300-27200-50-18	25.3~27.2	2.1	5	49~51	±1	12	1.7	58*40*22.1
FLA-26000-40000-30-28	26~40	2.8	10	30	±2.5	12	2.3	17.8*16.2*7.4
FLA-26000-40000-30-30	26~40	3	-	30	-	15	2.2	40*40*24
FLA-26500-40000-20-30	26.5~40	3	5	20	±1.5	5	1.5	50*30*15
FLA-26500-40000-25-40	26.5~40	4	-	25	±2	5	1.8	40*19.1*19.1
FLA-39000-41000-30-32	39~41	3.2	10	30	±0.5	5	2	50*30*15
FLA-40000-53000-40-50	40~53	5	10	40	±2	5	2	50*30*15
FLA-50000-59000-40-55	50~59	5.5	10	40	±1	8	2	50.2*40*25
FLA-50000-75000-25-30	50~75	3	-	25	-	7	2	35*30*22
FLA-57000-67000-30-50	57~67	5	10	30	-	12	2	50*30*15
FLA-60000-90000-35-40	60~90	4	9	35	-	5	3	40*30*22
FLA-60000-90000-26-43	60~90	4.3	-	26	-	7	2	35*30*22
FLA-75000-110000-20.5-32	75~110	3.2	-	20.5	±2.5	10	2	35*30*24
FLA-75000-110000-38-36	75~110	3.6	-	38	-	10	2.2	35*30*22
FLA-110000-170000-16-40	110~170	4(typ.)	-	16	±3	7	2.2	35*30*22
FLA-140000-200000-15-45	140~200	4.5	-	15	±3	7	2.5	35*30*22
FLA-200000-230000-22-72	200~230	7.2	-	22	±3	8	2.5	35*30*22
FLA-230000-260000-19-85	230~260	8.5	-	19	-	8	3.5	35*30*22

## Low Noise Amplifier Systems

The sizes in the following table do not include connectors, rack mount brackets, handles.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage (V AC)	VSWR	Size* (mm)
FLAS-0.01-15000-12-70	0.00001~15	7	15	12	±3	220	2	136*186*52
FLAS-0.03-40000-54-60	0.00003~40	6	10	54	±3	220	1.8	481.80*350*44.3
FLAS-0.1-500-24-30	0.0001~0.5	3	5	24	±0.5	220	1.5	136*186*52
FLAS-0.1-500-30-30	0.0001~0.5	3	5	30	±0.5	220	1.5	136*186*52
FLAS-10-60-15-50	0.01~0.06	5	23	15	±1.0	220	1.5	136*186*52
FLAS-10-60-16-50	0.01~0.06	5	23	16	±1.5	220	-	136*186*52
FLAS-10-8000-40-20	0.01~8	2	18	40	±3	220	2	136*186*52
FLAS-10-18000-50-40	0.01~18	4(0.2~18GHz)	10	50	±3	220	2.5	136*186*52
FLAS-25-1000-50-13	0.025~1	1.3	14	50	-	220	2.5	136*186*52
FLAS-30-1000-50-13	0.03~1	1.3	15	50	±2.5	220	1.5	136*186*52
FLAS-30-6000-25-50	0.03~6	5	10	25	±3	220	2	136*186*52
FLAS-50-90-15-32	0.05~0.09	3.2	10	15	±0.2	220	1.5	136*186*52
FLAS-50-6000-25-40	0.05~6	4	22	25	±3	220	2	136*186*52
FLAS-100-6000-25-25	0.1~6	2.5	15	25	±2	220	1.5	136*186*52
FLAS-100-12000-25-25	0.1~12	2.5	15	25	±2	220	1.5	136*186*52
FLAS-100-15000-45-22	0.1~15	2.2	5	45	±2.5	220	1.5	136*186*52
FLAS-100-18000-35-40	0.1~18	4	10	35	±3	220	2.5	166*106.4*56.4
FLAS-100-26500-30-55	0.1~26.5	5.5	20	30	±3	220	2	136*186*52
FLAS-200-6000-42-13	0.2~6	1.3	15	42	±2	220	2	136*186*52
FLAS-400-8000-40-25	0.4~8	2.5	14	40	±1.5	110	1.8	166*106.4*56.4
FLAS-500-8000-20-25	0.5~8	2.5	20	20	±2	220	2	166*106.4*56.4

The sizes in the following table do not include connectors, rack mount brackets, handles.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage (V AC)	VSWR	Size* (mm)
FLAS-500-18000-40-30	0.5~18	3	10	40	±1.5	220	2.5	136*186*52
FLAS-500-18000-40-35	0.5~18	3.5	12	40	±2	220	2	136*186*52
FLAS-500-18000-45-30	0.5~18	3	10	45	±1.5	220	2.5	136*186*52
FLAS-700-1100-20-25	0.7 ~ 1.1	2.5	13	20	±1	220	1.5	136*186*52
FLAS-700-1100-25-25	0.7 ~ 1.1	2.5	13	25	±1.5	220	-	136*186*52
FLAS-700-8000-30-25	0.7~8	2.5	13	30	±2	220	2	161*135*50
FLAS-800-18000-25-35	0.8 ~ 18	3.5	13	25	±2.5	220	2	136*186*52
FLAS-950-2150-20-20	0.95 ~ 2.15	2	15	20	±1.5	220	2	136*186*52
FLAS-1000-2000-30-20	1 ~ 2	2	15	30	±1.5	220	2	136*186*52
FLAS-1000-5000-25-40	1~5	4	20	25	-	110	1.8	166*106.4*56.4
FLAS-1000-12000-45-30	1 ~ 12	3	10	45	±2	220	1.5	136*186*52
FLAS-1000-18000-30-40	1 ~ 18	4	10	30	±1.5	220	1.5	136*186*52
FLAS-1000-18000-40-30	1~18	3	15	40	±2	220	2	166*106.4*56.4
FLAS-1000-18000-40-32	1~18	3.2	8	40	±2	220	1.8	136*186*52
FLAS-1000-18000-42-25	1~18	2.5	10	45	±1.5	220	2	136*186*52
FLAS-1000-18000-45-30	1~18	3	10	45	±2	220	1.5	136*186*52
FLAS-1000-18000-47-25	1~18	2.5	10	50	±1.5	220	2	136*186*52
FLAS-1000-18000-47-32	1~18	3.2	12	47	-	220	1.8	136*186*52
FLAS-1000-18000-50-30	1~18	3	20	50	±2.5	220	2	136*186*52
FLAS-1000-18000-55-22	1~18	2.2	10	55	±1.5	220	2.5	166*106.4*56.4
FLAS-1000-20000-25-35	1~20	3.5	21	25	±2.5	220	2	136*186*52
FLAS-1000-20000-40-40	1~20	4	16	40	±2	220	1.5	136*186*52
FLAS-1000-40000-40-50	1~40	5	16(Psat)	45	±4.5	220	3	136*186*52
FLAS-2000-8000-20-40	2~8	4	8	20	±1.5	220	1.6	136*186*52
FLAS-2000-18000-18-30	2~18	3	10	18	±1.5	220	1.5	136*186*52
FLAS-2000-18000-28-30	2~18	3	10	28	±1.5	220	1.5	136*186*52
FLAS-2000-26500-25-40	2~26.5	4	8	25	±2	220	1.8	136*186*52
FLAS-3000-12000-24-30	3~12	3	21	24	±1.5	220	1.5	136*186*52
FLAS-2000-26500-48-50	2~26.5	5	10	48	±4.5	220	2.5	136*186*52
FLAS-3000-15000-15-30	3~15	3	8	15	±1.0	220	1.5	136*186*52
FLAS-5400-5900-35-08	5.4~5.9	0.8	10	35	±0.3	220	1.4	136*186*52
FLAS-6000-18000-25-50	6~18	5	10	25	±3	220	2	136*186*52
FLAS-6000-18000-50-30	6~18	3	15	50	±1.5	220	2	166*106.4*56.4
FLAS-6000-40000-45-35	6~40	3.5	10	45	±2.5	220	2	120*90*46.2
FLAS-6000-40000-55-35	6~40	3.5	10	55	±3.5	220	2	166*106.4*56.4
FLAS-8000-12000-15-40	8~12	4	13	15	±0.5	220	1.5	136*186*52
FLAS-8000-18000-20-40	8~18	4	8	20	±1.5	220	1.6	136*186*52
FLAS-8000-26500-15-35	8~26.5	3.5	8	15	±1.5	220	1.5	136*186*52
FLAS-8000-26500-40-65	8~26.5	6.5	18	40	±2	220	2	136*186*52
FLAS-12000-18000-20-40	12~18	4	15	20	±1.5	220	1.5	136*186*52
FLAS-12000-40000-30-40	12~40	4	5	30	±2.5	220	2.5	136*186*52
FLAS-16000-22000-35-25	16~22	2.5	19	35	±1.5	220	2	136*186*52
FLAS-16000-40000-20-35	16~40	3.5	16	20	±2	220	2	136*186*52
FLAS-17500-20200-20-20	17.5~20.2	2	2	20	±0.5	220	1.5	136*186*52
FLAS-17700-21200-30-80	17.7~21.2	8	10	30	±2	220	2	136*186*52
FLAS-18000-26500-30-40	18~26.5	4	5	30	±1	220	1.8	136*186*52
FLAS-18000-26500-45-32	18~26.5	3.2	10	45	±2	220	1.8	136*186*52
FLAS-18000-28000-20-40	18~28	4	8	20	±1.5	220	1.6	136*186*52
FLAS-18000-28000-28-30	18~28	3	5	28	±1.5	220	1.8	136*186*52
FLAS-18000-40000-25-50	18~40	5	10	25	±3	220	2	136*186*52
FLAS-18000-40000-25-50(P15)	18~40	5	15	25	±2.5	220	2	136*186*52
FLAS-18000-40000-30-50(P20)	18~40	5	20	30	±2.5	220	2.5	136*186*52
FLAS-18000-40000-40-35	18~40	3.5	8	40	±2.5	220	2.5	120*90*46.2
FLAS-18000-40000-40-45	18~40	4.5	6	40	±2.5	220	2	136*186*52
FLAS-18000-40000-45-40	18~40	4	10	45	3.5	220	2	166*106.4*56.4
FLAS-18000-40000-50-45	18~40	4.5	5	50	±3	220	2	136*186*52
FLAS-18000-40000-55-40	18~40	4	10	55	±3.5	110~220	2	166*106.4*56.4
FLAS-20000-32000-40-25	20~32	2.5	10	40	±2.5	220	2	136*186*52
FLAS-23000-25000-35-20	23~25	2	-3	35	±1.5	220	1.8	136*186*52
FLAS-23000-40000-34-35	23~40	3.5	10	34	±2.5	220	2	136*186*52
FLAS-25300-27200-50-18	25.3~27.2	1.8	5	50	±1	220	1.5	136*186*52
FLAS-26000-30000-25-50	26~30	5	20 (Psat)	25	-	110	1.8	166*106.4*56.4



The sizes in the following table do not include connectors, rack mount brackets, handles.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage (V AC)	VSWR	Size* (mm)
FLAS-26500-40000-20-30	26.5~40	3	5	20	±1.5	220	1.5	136*186*52
FLAS-39000-41000-30-32	39~41	3.2	10	30	±0.5	220	2	136*186*52
FLAS-40000-53000-40-50	40~53	5	10	40	±2	220	2	136*186*52
FLAS-40000-60000-35-70	40~60	7	20	35	±2.5	220	2	214*218*48
FLAS-50000-59000-40-55	50~59	5.5	10	40	±1	220	2	136*186*52
FLAS-57000-67000-30-50	57~67	5	10	30	-	220	2	136*186*52

## Antennas

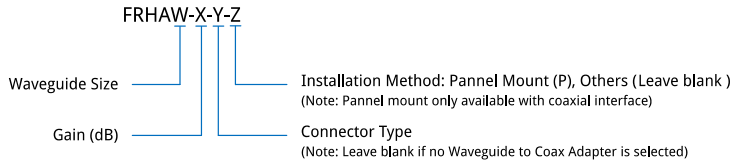
Horn antenna, also called microwave horn antenna, is an antenna that consists of a flaring metal waveguide shaped like a horn to direct radio waves in a beam. Horns are widely used as antennas at UHF and microwave frequencies, above 300 MHz. They are used as feed antennas (called feed horns) for larger antenna structures such as parabolic antennas, as standard calibration antennas to measure the gain of other antennas, and also as directive antennas.

### Standard Gain Horn Antennas

The standard gain horn antenna is commonly used as a gain reference antenna for antenna measurement, and the accuracy of its gain calibration value determines the accuracy of the measured antenna gain measurement.

**Features:** Broadband, Low VSWR; **Applications:** Telecom, Instrumentation, Laboratory Test, Radar.

#### How To Order:



**Examples:** To order a rectangular horn antenna, 26.5~40GHz, gain 15dB, WR-28, specify FRHA28-15.



'X' in the below table represents gain (dB). "Y" represents the type of coaxial connector (leave blank if waveguide interface is selected); "Z" represents the installation method (only available with coaxial interface).

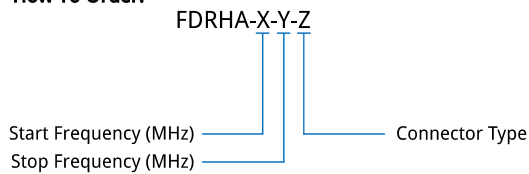
Part Number	Frequency (GHz)	Gain (dB)	VSWR (Waveguide) (max.)	VSWR (Coaxial) (max.)	Interface	Flange	Connectors
FRHA10-X-Y-Z	73.8~112	15, 20, 25	1.2	1.6	WR10 (BJ900)	UG387/UM	1.0mm
FRHA12-X-Y-Z	60.5~91.9	10, 15, 20, 25	1.2	1.6	WR12 (BJ740)	UG387/U	1.0mm
FRHA15-X-Y-Z	49.8~75.8	10, 15, 20, 25	1.2	1.5	WR15 (BJ620)	UG385/U	1.85mm
FRHA19-X-Y-Z	39.2~59.6	10, 15, 20, 25	1.2	1.3	WR19 (BJ500)	UG383/UM	1.85mm
FRHA22-X-Y-Z	32.9~50.1	10, 15, 20, 25	1.2	1.3	WR22 (BJ400)	UG383/U	2.4mm
FRHA28-X-Y-Z	26.5~40	10, 15, 20, 25	1.2	1.4	WR28 (BJ320)	FBP320	2.92mm
FRHA34-X-Y-Z	21.7~33	10, 15, 20, 25	1.2	1.35	WR34 (BJ260)	FBP260	2.92mm
FRHA42-X-Y-Z	17.6~26.7	10, 15, 20, 25	1.2	1.5	WR42 (BJ220)	FBP220	2.92mm or SMA
FRHA51-X-Y-Z	14.5~22	10, 15, 20, 25	1.2	1.2	WR51 (BJ180)	FBP180	SMA
FRHA62-X-Y-Z	11.9~18	10, 15, 20, 25	1.2	1.4	WR62 (BJ140)	FBP140	SMA or N
FRHA75-X-Y-Z	9.84~15	10, 15, 20, 25	1.2	1.2	WR75 (BJ120)	FBP120	SMA or N
FRHA90-X-Y-Z	8.2~12.5	10, 15, 20, 25	1.2	1.4	WR90 (BJ100)	FBP100	SMA or N
FRHA112-X-Y-Z	6.57~9.99	10, 15, 20	1.2	1.4	WR112 (BJ84)	FBP84	SMA or N
FRHA137-X-Y-Z	5.38~8.17	10, 15, 20	1.2	1.4	WR137 (BJ70)	FDP70	SMA or N
FRHA159-X-Y-Z	4.64~7.05	10, 15, 20	1.2	1.2	WR159 (BJ58)	FDP58	SMA or N
FRHA187-X-Y-Z	3.94~5.99	10, 15, 20	1.2	1.6	WR187 (BJ48)	FDP48	SMA or N
FRHA229-X-Y-Z	3.22~4.9	10, 15, 20	1.2	1.4	WR229 (BJ40)	FDP40	SMA or N
FRHA284-X-Y-Z	2.6~3.95	10, 15, 20	1.2	1.4	WR284 (BJ32)	FDP32	SMA or N
FRHA340-15-Y-Z	2.17~3.3	15	-	1.4	WR340 (BJ26)	FDP26	SMA or N
FRHA510-15-Y-Z	1.45~2.2	15	-	1.4	WR510 (BJ18)	FDP18	SMA or N
FRHA770-15-Y-Z	0.96~1.46	15	-	1.4	WR770 (BJ12)	FDP12	SMA or N

## Broadband Horn Antennas

Broadband horn antenna refers to a horn antenna that operates in a wide frequency band.

**Features:** Broadband, Low VSWR, Small Size; **Applications:** Wireless, Transceiver, Laboratory Test, Broadcast.

**How To Order:**



**Examples:** To order a double ridged horn antenna, 0.4~4GHz, N, specify FDRHA-400-4000-N.

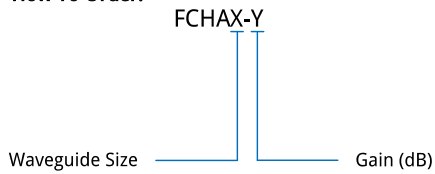
Part Number	Frequency (GHz)	Gain (dB)	VSWR (max.)	Interface	Material	Size (mm)
FDRHA-400-4000-N	0.4~4	6~17	2	N (f)	Aluminium	480*285*440
FDRHA-650-6000-N	0.65~6	6~16	2	N (f)	Aluminium	480*270*380
FDRHA-700-8000-S	0.7~8	10	2	SMA (f)	Aluminium	Φ220*262.5
FDRHA-800-18000-S	0.8~18	3.5~14.5	2	SMA (f)	Aluminium	222*130*212
FDRHA-1000-6000-N	1~6	10	2.5	N (f)	-	190*114.1*164.1
FDRHA-1000-18000-S	1~18	10.7	2.5	SMA (f)	-	284*160
FDRHA-1000-20000	1~20	12.58	2	-	-	243*163.5*205.7
FDRHA-18000-40000-K	18~40	16	2.5	2.92mm (f)	Silver Plated Copper	122*50*38

## Conical Horn Antennas

Freflex conical horn antennas cover frequency range up to 116GHz with high gain up to 25dB and low VSWR 1.25 max. The conical shape of these horns make them ideal for use in the feed section of tapered chambers.

**Features:** Broadband, Low VSWR; **Applications:** Wireless, Transceiver, Laboratory Test, Broadcast.

**How To Order:**



**Examples:** To order a conical horn antenna, 7.27~9.97GHz, gain 15dB, C76, specify FCHA76-15.

'X' in the below table represents gain (dB).

Part Number	Frequency (GHz)	Gain (dB)	VSWR (max.)	Interface
FCHA22-X	2.07~2.83	10, 12, 15, 18	1.25	C22
FCHA25-X	2.42~3.31	10, 12, 15, 18	1.25	C25
FCHA30-X	2.83~3.88	10, 12, 15, 18	1.25	C30
FCHA35-X	3.13~4.54	10, 12, 15, 18	1.25	C35
FCHA40-X	3.89~5.33	12, 15, 18, 20	1.25	C40
FCHA48-X	4.54~6.23	12, 15, 18, 20	1.25	C48
FCHA56-X	5.3~7.27	12, 15, 18, 20	1.25	C56
FCHA65-X	6.21~8.51	12, 15, 18, 20	1.25	C65
FCHA76-X	7.27~9.97	15, 18, 20, 22	1.25	C76
FCHA89-X	8.49~11.6	15, 18, 20, 22	1.25	C89
FCHA104-X	9.97~13.7	15, 18, 20, 22	1.25	C104
FCHA120-X	11.6~15.9	15, 18, 20, 22	1.25	C120
FCHA140-X	13.4~18.4	18, 20, 22, 25	1.25	C140
FCHA165-X	15.9~22.8	18, 20, 22, 25	1.25	C165
FCHA190-X	18.2~24.9	18, 20, 22, 25	1.25	C190
FCHA220-X	21.2~29.1	18, 20, 22, 25	1.25	C220
FCHA255-X	24.3~33.2	18, 20, 22, 25	1.25	C255
FCHA290-X	28.3~38.8	18, 20, 22, 25	1.25	C290
FCHA330-X	31.8~43	18, 20, 22, 25	1.25	C330
FCHA380-X	36.4~49.8	18, 20, 22, 25	1.25	C380
FCHA430-X	42.4~58.1	18, 20, 22, 25	1.25	C430
FCHA495-X	46.3~63.5	18, 20, 22, 25	1.25	C495
FCHA580-X	56.6~77.5	18, 20, 22, 25	1.25	C580
FCHA660-X	63.5~87.2	18, 20, 22, 25	1.25	C660
FCHA765-X	72.7~99.7	18, 20, 22, 25	1.25	C765
FCHA890-X	84.8~116	18, 20, 22, 25	1.25	C890

## Attenuators

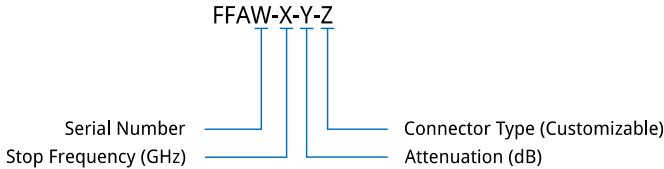
Attenuator is an electronic component that provides attenuation. It is widely used in electronic equipment. Its main purposes are: (1) adjust the strength of the signal in the circuit; (2) In the comparison method measuring circuit, it can be used to directly read the attenuation of the tested network; (3) Improve impedance matching. If some circuits require a relatively stable load impedance, an Attenuator can be inserted between this circuit and the actual load impedance to buffer the change of impedance.

Freflex supplies a series of attenuators, including fixed attenuators, manually variable attenuators, digitally controlled attenuators and voltage controlled attenuators. The frequency range is up to 110GHz. We can also customize digitally controlled attenuators and voltage controlled attenuators according to customer's needs. No customization charge, no MOQ requirement for customization.

## Coaxial Fixed Attenuators (50Ω)

Coaxial fixed attenuator, the attenuation is a fixed value, the attenuation curve fluctuates with the frequency, and the fluctuation range is accuracy.

### How To Order:



**Examples:** To order a coaxial fixed attenuator, DC~67GHz, 1.85mm male to 1.85mm female, attenuation 20dB, specify FFA6702-67-20-V.

### Features:

- ※ High Precision
- ※ High Power
- ※ Broadband

### Applications:

- ※ Wireless
- ※ Radar
- ※ Laboratory Test



## 1W Series

### 1W, 1.0mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			3	6	10		
FFA11001-110-X-1	DC~110	1	-1.0/+2.0	-1.0/+2.0	-1.0/+2.0	1.6	1.0mm

'X' in the above table represents attenuation (dB). Size: L: 15.4mm. Operating temperature: -55~+125°C.

Derated linearly to 0.1W@125°C. Peak Power: 5W (5μs pulse width, 10% duty cycle).

## 2W Series

### 2W, 1.85mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1~10	20	30		
FFA6702-67-X-V	DC~67	2	-1.0/+1.2	-1.2/+1.2	-1.5/+1.5	1.35	1.85mm

'X' in the above table represents attenuation (dB). Size: Φ9\*18.5mm. Operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5μs pulse width, 1% duty cycle).

## 2W, 2.4mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)			Connector
			0	1~10/12/15/20	30	40/50	0~20	30	40~50	
FFA5002-50-X-2	DC~50	2	-0.2/+1.0	-1.0/+1.0	-1.0/+1.2	-1.5/+1.5	1.40	1.30	1.45	2.4mm

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size: Φ9\*23.5mm; 30dB Size: Φ9\*19.7mm. Operating temperature: -55~+125°C.

40, 50dB: Derated linearly to 0.2W@125°C. Peak Power@40, 50dB: 200W (5μs pulse width, 1% duty cycle).

30dB: Derated linearly to 0.5W@125°C. Peak Power@30dB: 20W (5μs pulse width, 1% duty cycle).



**2W, 2.92mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)						VSWR (max.)			Connector
			0	1~3	4~15	20/25	30	40/50	0	1~30	40~40	
FFA4002-40-X-K	DC~40	2	-0.2/+0.8	±0.6	±0.7	±0.8	±1	-1.0/+2.0	1.35	1.25	1.40	2.92mm

\*X' in the above table represents attenuation (dB). 0 dB Size: Φ9\*21.9mm; 1~30 dB Size: Φ9\*17.2mm; 40 dB Size: Φ8\*47.6mm; 50 dB Size: Φ8\*49mm. Operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power@1~30dB: 200W (5μS pulse width, 1% duty cycle); Peak Power@40dB & 50dB: 20W (5μS pulse width, 1% duty cycle).

**2W, SMP**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30		
FFA4002-40-X-P	DC~40	2	0.2/+0.8	-0.4/+1.0	-0.6/+1.0	-1.2/+1.2	1.45	SMP

\*X' in the above table represents attenuation (dB). 0~10, 12, 15, 20 dB Size: Φ4.8\*16.6mm; 30, 40 dB Size: Φ4.8\*18.6mm. Operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5μS pulse width, 1% duty cycle).

**2W, SMP**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA2602-26.5-X-P	DC~26.5	2	-0.2/+0.6	-0.4/+0.8	-0.6/+0.8	-0.8/+1.0	1.40	SMP

\*X' in the above table represents attenuation (dB). 0~10, 12, 15, 20 dB Size: Φ4.8\*16.8mm; 30, 40 dB Size: Φ4.8\*18.6mm. Operating temperature: -55~+85°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5μS pulse width, 1% duty cycle).

**2W, SMP**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA1802-18-X-P	DC~18	2	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.8/+0.8	1.35	SMP

\*X' in the above table represents attenuation (dB). 0~10, 12, 15, 20 dB Size: Φ4.8\*16.6mm; 30, 40dB Size: Φ4.8\*18.6mm. Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5μS pulse width, 1% duty cycle).

**2W, SSMP**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30		
FFA4002-40-X-G	DC~40	2	0.2/+0.8	-0.4/+1.0	-0.6/+1.0	-1.2/+1.2	1.45	SSMP

\*X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size: Φ4.8\*16.5mm; 30, 40dB Size: Φ4.8\*18.5mm. Operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5μS pulse width, 1% duty cycle).

**2W, SSMP**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA2602-26.5-X-G	DC~26.5	2	-0.2/+0.6	-0.4/+0.8	-0.6/+0.8	-0.8/+1.0	1.40	SSMP

\*X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size: Φ4.8\*16.5mm; 30, 40dB Size: Φ4.8\*18.5mm. Operating temperature: -55~+85°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5μS pulse width, 1% duty cycle).

## 2W, SSMP

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA1802-18-X-G	DC~18	2	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.8/+0.8	1.35	SSMP

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size:  $\Phi 4.8 \times 16.5\text{mm}$ ; 30, 40dB Size:  $\Phi 4.8 \times 18.5\text{mm}$ . Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

## 2W, SSMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30		
FFA4002-40-X-A	DC~40	2	0.2/+0.8	-0.4/+1.0	-0.6/+1.0	-1.2/+1.2	1.45	SSMA

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size:  $\Phi 7.3 \times 25\text{mm}$ ; 30, 40dB Size:  $\Phi 7.3 \times 27\text{mm}$ . Operating temperature: -55~+125°C.

Derated linearly to 0.5W@25°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

## 2W, SSMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA2602-26.5-X-A	DC~26.5	2	-0.2/+0.6	-0.4/+0.8	-0.6/+0.8	-0.8/+1.0	1.40	SSMA

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20 dB Size:  $\Phi 7.3 \times 25\text{mm}$ ; 30, 40 dB Size:  $\Phi 7.3 \times 27\text{mm}$ . Operating temperature: -55~+85°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

## 2W, SSMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			0	1~6	7~10/12/15/20	30/40		
FFA1802-18-X-A	DC~18	2	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.8/+0.8	1.35	SSMA

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20dB Size:  $\Phi 7.3 \times 25\text{mm}$ ; 30, 40dB size:  $\Phi 7.3 \times 27\text{mm}$ . Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

## 2W, 3.5mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)					VSWR (max.)	Connector
			1~19	20~30	40	50	60~70		
FFA2602-26.5-X-3	DC~26.5	2	-0.3/+1.0	-0.3/+1.0	-1.0/+1.5	-1.5/+1.5	-1.0/+1.0	1.25	3.5mm

'X' in the above table represents attenuation (dB). 1~20, 30 dB Size:  $\Phi 10 \times 37\text{mm}$ ; 40 dB Size:  $\Phi 10 \times 40.3\text{mm}$ ; 50~70 dB Size:  $\Phi 10 \times 46\text{mm}$ . Operating temperature: -55~+85°C.

Derated linearly to 0.1W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 0.2% duty cycle).

## 2W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)							VSWR (max.)		Connector
			0	1-6	7~10/12/15/20	30/40	50/60/70	80/90	0~40	50~90		
FFA2602-26.5-X-S	DC~26.5	2	-0.2/+0.6	-0.4/+0.8	-0.6/+0.8	-0.8/+1.0	-2.0/+2.0	-	1.40	1.35	SMA	

'X' in the above table represents attenuation (dB). 0~10, 12, 15, 20 dB Size:  $\Phi 9 \times 21.6\text{mm}$ ; 30, 40 dB Size:  $\Phi 9 \times 25.1\text{mm}$ ; 50~90 dB Size:  $\Phi 10 \times 43\text{mm}$ . Operating temperature: -55~+85°C.

Derated linearly to 0.1W@120°C. Peak Power@0~40dB: 20W (5 $\mu$ S pulse width, 1% duty cycle); Peak Power@50~70dB: 500W (5 $\mu$ S pulse width, 0.4% duty cycle).

**2W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)						VSWR (max.)		Connector
			0	1-6	7-10/12/15/20	30/40	50	60	0-50	60	
FFA1802-4-X-S	DC~4	2	-0.2/+0.2	-0.4/+0.4	-0.6/+0.4	-0.8/+0.6	-1.0/+0.9	±0.8	1.25	1.2	SMA
FFA1802-8-X-S	DC~8	2	-0.2/+0.2	-0.4/+0.4	-0.6/+0.4	-0.8/+0.6	-1.0/+0.9	±0.9	1.25	1.25	SMA
FFA1802-12.4-X-S	DC~12.4	2	-0.2/+0.3	-0.4/+0.5	-0.6/+0.5	-0.8/+0.7	-1.0/+1.0	±1.1	1.30	1.25	SMA
FFA1802-18-X-S	DC~18	2	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.8/+0.8	-1.0/+1.5	±1.5	1.35	1.30	SMA

\*X' in the above table represents attenuation (dB). 0~10, 12 dB Size: Φ9\*21.6mm; 15, 20, 30, 40, 50 dB Size: Φ9\*25.1mm; 60 dB Size: Φ9\*30mm. Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power@0~50dB: 20W (5μS pulse width, 1% duty cycle); Peak Power@60dB: 500W (5μS pulse width, 0.2% duty cycle).

**2W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1~10	11~20	21~30		
FFA0602-6-X-S	DC~6	2	-0.6/+0.6	-0.8/+0.8	-1.0/+1.0	1.20	SMA

\*X' in the above table represents attenuation (dB). Size: Φ9.1\*25.6mm. Operating temperature: -55~+125°C.

**2W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Connector
			1~10	20	30	40	50	60		
FFA1802-4-X-N	DC~4	2	0.4	0.5	0.6	0.7	0.7	0.8	1.20	N
FFA1802-8-X-N	DC~8	2	0.5	0.6	0.8	0.8	0.8	0.9	1.20	N
FFA1802-12.4-X-N	DC~12.4	2	0.6	0.7	0.8	0.9	1.0	1.1	1.30	N
FFA1802-18-X-N	DC~18	2	0.7	0.8	1.0	1.2	-	-	1.35	N

\*X' in the above table represents attenuation (dB). 1~10, 20, 30 dB Size: Φ16.5\*45mm; 40, 50, 60 dB Size: Φ16.5\*48mm. Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 500W (5μS pulse width, 0.2% duty cycle).

**2W, TNC**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Connector
			1~10	11~20	21~30	40	50	60		
FFA1802-4-X-T	DC~4	2	0.4	0.5	0.7	0.7	0.7	0.8	1.20	TNC
FFA1802-8-X-T	DC~8	2	0.5	0.6	0.8	0.8	0.8	0.9	1.25	TNC
FFA1802-12.4-X-T	DC~12.4	2	0.6	0.7	0.9	0.9	1.0	1.1	1.35	TNC
FFA1802-18-X-T	DC~18	2	0.6	0.8	1.0	1.2	1.5	1.5	1.30	TNC

\*X' in the above table represents attenuation (dB). Size: Φ15\*35mm. Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 500W (5μS pulse width, 0.2% duty cycle).

**2W, BNC**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~7	7~20	21~30	40~60		
FFA1802-4-X-B	DC~4	2	0.3	0.5	0.75	0.8	1.25	BNC
FFA1802-6-X-B	DC~6	2	0.3	0.5	0.75	0.8	1.25	BNC

\*X' in the above table represents attenuation (dB). 1~10, 20, 30 dB Size: Φ14.5\*35mm; 40, 50, 60 dB Size: Φ14.5\*38mm. Temperature: -55~+125°C.

Derated linearly to 0.1W@120°C. Peak Power: 500W (5μS pulse width, 0.2% duty cycle).


**5W Series**
**5W, 1.85mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-10	20	30		
FFA6705-67-X-V	DC-67	5	-1.0/+1.5	-1.2/+1.5	-1.5/+2.0	1.4	1.85mm

'X' in the above table represents attenuation (dB). Size:  $\Phi 31.8 \times 17.8$ mm (exclude connector). Operating temperature: -55--+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

**5W, 2.4mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-10	20	30		
FFA5005-50-X-2	DC-50	5	-1.0/+1.2	-1.0/+1.2	-1.0/+1.2	1.3	2.4mm

'X' in the above table represents attenuation (dB). Size:  $\Phi 31.8 \times 17.8$ mm (exclude connector). Operating temperature: -55--+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5 $\mu$ S pulse width, 2.5% duty cycle).

**5W, 2.92mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-10	20/30	40		
FFA4005-40-X-K	DC-40	5	-0.7/+1.0	-0.7/+1.0	-1.0/+2.0	1.25	2.92mm

'X' in the above table represents attenuation (dB). 1-30 dB Size:  $\Phi 15.8 \times 39.6$ mm; 40dB:  $\Phi 38 \times 47.6$ mm. Operating temperature: -55--+85°C.

Derated linearly to 0.5W@125°C. Peak Power@1-30dB: 200W (5 $\mu$ S pulse width, 1.25% duty cycle); Peak Power@40dB: 50W (5 $\mu$ S pulse width, 1% duty cycle).

**5W, 3.5mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			1-10	11-20/30/40	50/60/70	80		
FFA2605-26.5-X-3	DC-26.5	5	-1.0/+1.0	-0.5/+1.2	-1.0/+1.5	-1.2/+1.5	1.25	3.5mm

'X' in the above table represents attenuation (dB). 1-20, 30 dB Size:  $\Phi 15.7 \times 37$ mm; 40 dB Size:  $\Phi 16.5 \times 40.3$ mm; 50, 60, 70, 80 dB Size:  $\Phi 16.5 \times 46$ mm. Operating temperature: -55--+85°C.

Derated linearly to 0.5W@125°C. Peak Power: 1KW (5 $\mu$ S pulse width, 0.5% duty cycle).

**5W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)				VSWR (max.)	Connector
			1-10	20	30	40/50		
FFA2605-26.5-X-S	DC-26.5	5	-0.7/+0.7	-0.7/+0.7	-0.8/+0.8	-0.5/+1.5	1.35	SMA

'X' in the above table represents attenuation (dB). 1-20 dB Size:  $\Phi 19 \times 27$ mm; 30 dB Size:  $\Phi 19 \times 30$ mm; 40, 50 dB Size:  $\Phi 16.5 \times 37$ mm. Operating temperature: -55--+85°C.

Derated linearly to 0.25W@120°C@1-30dB; Derated linearly to 0.5W@125°C@40-50dB.

Peak Power@1-30dB: 200W (5 $\mu$ S pulse width, 0.012% duty cycle); Peak Power@40-50dB: 1KW (5 $\mu$ S pulse width, 0.5% duty cycle).

## 5W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-10	11-20	21-30		
FFA1805-4-X-S	DC-4	5	0.4	0.5	0.7	1.20	SMA
FFA1805-8-X-S	DC-8	5	0.5	0.6	0.8	1.25	SMA
FFA1805-12.4-X-S	DC-12.4	5	0.6	0.7	0.9	1.35	SMA
FFA1805-18-X-S	DC-18	5	0.6	0.8	1.0	1.45	SMA

\*X' in the above table represents attenuation (dB). Size:  $\Phi 19 \times 27$ mm. Temperature: -55~+125°C.

Derated linearly to 0.25W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 0.5% duty cycle).

## 5W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)						VSWR (max.)	Connector
			1-10	20	30	40	50	60		
FFA1805-4-X-N	DC-4	5	0.4	0.5	0.6	0.7	0.7	0.8	1.15	N
FFA1805-8-X-N	DC-8	5	0.5	0.6	0.8	0.8	0.8	0.9	1.20	N
FFA1805-12.4-X-N	DC-12.4	5	0.6	0.7	0.8	0.9	1.0	1.1	1.30	N
FFA1805-18-X-N	DC-18	5	0.7	0.8	1.0	1.2	1.3	1.3	1.35	N

\*X' in the above table represents attenuation (dB). Size:  $\Phi 16.5 \times 58$ mm. Temperature: -55~+125°C.

Derated linearly to 0.25W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 0.25% duty cycle).



## 10W Series

### 10W, 1.85mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)		VSWR (max.)	Connector
			20			
FFA6710-67-20-V	DC-67	10	-1.5/+2.0		1.45	1.85mm

Size:  $\Phi 40 \times 70.7$ mm. Operating temperature: -55~+125°C. Non-operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).

### 10W, 2.4mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-10	20	30		
FFA5010-50-X-2	DC-50	10	-1.5/+2.0	-1.5/+2.0	-1.5/+2.0	1.4	2.4mm

\*X' in the above table represents attenuation (dB). Size:  $\Phi 40 \times 70.7$ mm. Operating temperature: -55~+125°C.

Derated linearly to 1W@125°C. Peak Power: 20W (5 $\mu$ S pulse width, 1% duty cycle).



## 10W, 2.92mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)		Connector
			1~10	20/30	40	1~30	40	
FFA4010-40-X-K	DC~40	10	-0.7/+1.0	-0.7/+1.0	-1.0/+2.0	1.25	1.4	2.92mm

\*X' in the above table represents attenuation (dB). 1~30 dB Size:  $\Phi 31.8 \times 39.6$ mm; 40dB:  $\Phi 38 \times 47.6$ mm. Operating temperature: -55~+85°C.

Derated linearly to 0.5W@125°C. Peak Power@1~30dB: 100W (5 $\mu$ S pulse width, 5% duty cycle); Peak Power@40dB: 200W (5 $\mu$ S pulse width, 1.25% duty cycle).

## 10W, 3.5mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	20/30/40	50/60	70		
FFA2610-26.5-X-3	DC~26.5	10	-1.0/+1.0	-0.5/+1.2	-1.0/+1.5	-1.2/+1.8	1.25	3.5mm

\*X' in the above table represents attenuation (dB). Size:  $\Phi 26 \times 45.8$ mm. Operating temperature: -55~+85°C.

Derated linearly to 1W@125°C. Peak Power: 1KW (5 $\mu$ S pulse width, 0.5% duty cycle).

## 10W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	31~40		
FFA2610-26.5-X-S	DC~26.5	10	-1.0/+1.0	-1.1/+1.1	-1.2/+1.2	-1.3/+1.3	1.35	SMA

\*X' in the above table represents attenuation (dB). Size:  $\Phi 15.8 \times 47.5$ mm. Operating temperature: -55~+85°C.

Derated linearly to 0.5W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 1% duty cycle).

## 10W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	31~40		
FFA1810-4-X-S	DC~4	10	0.4	0.5	0.6	0.7	1.20	SMA
FFA1810-8-X-S	DC~8	10	0.5	0.6	0.8	0.8	1.25	SMA
FFA1810-12.4-X-S	DC~12.4	10	0.6	0.7	0.8	0.9	1.35	SMA
FFA1810-18-X-S	DC~18	10	0.8	0.9	1.0	1.2	1.45	SMA

\*X' in the above table represents attenuation (dB). Size:  $\Phi 15.8 \times 47.5$ mm. Temperature: -55~+125°C.

Derated linearly to 0.5W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 1% duty cycle).

## 10W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	31~40		
FFA1810-4-X-N	DC~4	10	0.4	0.5	0.6	0.7	1.20	N
FFA1810-8-X-N	DC~8	10	0.5	0.6	0.8	0.8	1.25	N
FFA1810-12.4-X-N	DC~12.4	10	0.6	0.7	0.8	0.9	1.35	N
FFA1810-18-X-N	DC~18	10	0.8	0.9	1.0	1.2	1.45	N

\*X' in the above table represents attenuation (dB). Size:  $\Phi 30 \times 84.5$ mm. Temperature: -55~+125°C.

Derated linearly to 0.5W@120°C. Peak Power: 1KW (5 $\mu$ S pulse width, 0.5% duty cycle).


**20W Series**
**20W, 2.92mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)		Connector
			3~10	15/20/30	40	3~30	40	
FFA4020-40-X-K	DC~40	20	-1.5/+1.5	-1.5/+1.5	-1.0/+2.0	1.3	1.4	2.92mm

'X' in the above table represents attenuation (dB). 3~30 dB Size:  $\Phi 44 \times 55.6$ mm; 40dB:  $\Phi 45 \times 96$ mm. Operating temperature: -55~+85°C.

Derated linearly to 1W@120°C. Peak Power@3~30dB: 200W (5 $\mu$ S pulse width, 10% duty cycle); Peak Power@40dB: 200W (5 $\mu$ S pulse width, 5% duty cycle).

**20W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			10	20	30		
FFA2620-26.5-X-S	DC~26.5	20	-1.5/+1.5	-1.5/+1.5	-1.5/+1.5	1.30	SMA

'X' in the above table represents attenuation (dB). Size:  $\Phi 44 \times 54.7$ mm. Operating temperature: -55~+125°C.

Derated linearly to 2W@125°C. Peak Power: 200W (5 $\mu$ S pulse width, 10% duty cycle).

**20W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)						VSWR (max.)	Connector
			1~10	11~20	21~30	31~40	41~50	51~60		
FFA1820-4-X-S	DC~4	20	0.4	0.5	0.6	0.7	0.8	0.9	1.20	SMA
FFA1820-8-X-S	DC~8	20	0.5	0.6	0.8	0.8	0.8	1.0	1.25	SMA
FFA1820-12.4-X-S	DC~12.4	20	0.6	0.7	0.8	0.9	1.0	1.2	1.30	SMA
FFA1820-18-X-S	DC~18	20	0.6	0.8	1.0	1.2	1.3	1.5	1.35	SMA

'X' in the above table represents attenuation (dB). Size:  $\Phi 15 \times 73.5$ mm. Temperature: -55~+125°C.

Derated linearly to 1W@120°C. Peak Power: 500W (5 $\mu$ S pulse width, 2% duty cycle).

**20W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy ( $\pm$ dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	31~40		
FFA1820-4-X-N	DC~4	20	0.4	0.5	0.6	0.7	1.20	N
FFA1820-8-X-N	DC~8	20	0.5	0.6	0.8	0.8	1.25	N
FFA1820-12.4-X-N	DC~12.4	20	0.6	0.7	0.8	0.9	1.35	N
FFA1820-18-X-N	DC~18	20	0.6	0.8	1.0	1.2	1.45	N

'X' in the above table represents attenuation (dB). Size:  $\Phi 38 \times 84.5$ mm. Temperature: -55~+125°C.

Derated linearly to 1W@120°C. Peak Power: 1KW (5 $\mu$ S pulse width, 1% duty cycle).


**25W Series**
**25W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	40~50		
FFA1825-4-X-S	DC~4	25	0.4	0.5	0.6	0.7	1.20	SMA
FFA1825-8-X-S	DC~8	25	0.5	0.6	0.8	0.8	1.25	SMA
FFA1825-12.4-X-S	DC~12.4	25	0.7	0.8	0.9	1.0~1.1	1.35	SMA
FFA1825-18-X-S	DC~18	25	0.8	0.9	1.1	1.2~1.3	1.45	SMA

\*X' in the above table represents attenuation (dB). Size: Φ44\*94mm. Temperature: -55~+125°C.

Derated linearly to 1.25W@120°C. Peak Power: 500W (5μS pulse width, 2.5% duty cycle).

**25W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	40~50		
FFA1825-4-X-N	DC~4	25	0.4	0.5	0.6	0.7	1.20	N
FFA1825-8-X-N	DC~8	25	0.5	0.6	0.8	0.8	1.25	N
FFA1825-12.4-X-N	DC~12.4	25	0.7	0.8	0.9	1.0~1.1	1.35	N
FFA1825-18-X-N	DC~18	25	0.8	0.9	1.1	1.2~1.3	1.45	N

\*X' in the above table represents attenuation (dB). Size: Φ44\*89mm. Temperature: -55~+125°C.

Derated linearly to 1.25W@120°C. Peak Power@DC~12.4GHz: 5000W (5μS pulse width, 1.25% duty cycle); Peak Power@18GHz: 1000W (5μS pulse width, 1.25% duty cycle).

**30W Series**
**30W, 2.92mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			10/20	30	40		
FFA4030-40-X-K	DC~40	30	-1.5/+2.0	-1.5/+2.0	-1.5/+2.0	1.35	2.92mm

\*X' in the above table represents attenuation (dB). Size: Φ54\*63.6mm. Operating temperature: -55~+125°C.

Derated linearly to 3W@125°C. Peak Power: 200W (5μS pulse width, 10% duty cycle).

**30W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			1-5/ 6-10	20/30/40	50/60		
FFA2630-26.5-X-S	DC~26.5	30	-	-1.5/+1.5	-	1.30	SMA

\*X' in the above table represents attenuation (dB). 1~10, 50, 60 dB Size: Φ38\*59.2mm; 20, 30, 40dB Size: Φ54\*62.7mm. Operating temperature: -55~+125°C.

Derated linearly to 3W@125°C. Peak Power: 200W (5μS pulse width, 10% duty cycle).

**30W, SMA**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	31~40		
FFA1830-4-X-S	DC~4	30	0.4	0.5	0.6	0.7	1.20	SMA
FFA1830-8-X-S	DC~8	30	0.5	0.6	0.8	0.8	1.25	SMA
FFA1830-12.4-X-S	DC~12.4	30	0.6	0.7	0.8	0.9	1.35	SMA
FFA1830-18-X-S	DC~18	30	0.8	0.9	1.2	1.5	1.45	SMA

\*X' in the above table represents attenuation (dB). Size: Φ38\*110mm. Temperature: -55~+125°C.

Derated linearly to 1.5W@120°C. Peak Power: 500W (5μS pulse width, 6% duty cycle).

**30W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1~10	11~20	21~30	40~50		
FFA1830-4-X-N	DC~4	30	0.4	0.5	0.6	0.7	1.20	N
FFA1830-8-X-N	DC~8	30	0.5	0.6	0.8	0.8	1.25	N
FFA1830-12.4-X-N	DC~12.4	30	0.6	0.7	0.8	0.9	1.35	N
FFA1830-18-X-N	DC~18	30	0.8	0.9	1.2	1.5	1.45	N

\*X' in the above table represents attenuation (dB). Size: Φ38\*105mm. Temperature: -55~+125°C.

Derated linearly to 1.25W@120°C. Peak Power@DC~12.4GHz: 5000W (5μS pulse width, 0.15% duty cycle); Peak Power@18GHz: 1000W (5μS pulse width, 0.15% duty cycle).

**50W Series**
**50W, 2.92mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			20	30	40		
FFA4050-40-X-K	DC~40	50	-3.0/+3.0	-3.0/+3.0	-3.0/+3.0	1.35	2.92mm

\*X' in the above table represents attenuation (dB). Size: Φ54\*109.8mm. Operating temperature: -55~+125°C.

Derated linearly to 2.5W@120°C.

**50W, 3.5mm**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)		Connector
			3	6	10/20/30/40	50/60	3/6/50/60	10/20/30/40	
FFA2650-26.5-X-3	DC~26.5	50	-0.8/+1.0	-1.0/+1.7	-2.0/+2.0	-1.0/+1.0	1.3	1.35	3.5mm

\*X' in the above table represents attenuation (dB). 3, 6, 50, 60 dB Size: Φ63\*74mm; 10, 20, 30, 40 dB Size: Φ54\*128.1mm. Operating temperature: -55~+85°C.

Derated linearly to 5W@125°C. 3, 6, 50, 60dB Peak Power: 1000W (5μS pulse width, 2.5% duty cycle); 10, 20, 30, 40dB Peak Power: 200W (5μS pulse width, 10% duty cycle).

## 50W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			1-9	10	20/30/40	50/60		
FFA2650-26.5-X-S	DC~26.5	50	-1.0/+2.5	-2.0/+2.0	-2.0/+2.0	-1.0/+1.0	1.30	SMA

\*X' in the above table represents attenuation (dB). 1-9 dB Size:  $\Phi 38 \times 90$ mm; 10, 20, 30, 40 dB Size:  $\Phi 54 \times 109.7$ mm; 50, 60 dB Size:  $\Phi 63 \times 71$ mm. Operating temperature: -55--+85°C.

Derated linearly to 5W@125°C. 10, 20, 30, 40dB Peak Power: 200W (5μs pulse width, 10% duty cycle); 50, 60dB Peak Power: 500W (5μs pulse width, 10% duty cycle);

1-9dB Peak Power: 500W (5μs pulse width, 5% duty cycle).

## 50W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1-10	11-20	21-30	31-50		
FFA1850-4-X-S	DC~4	50	0.4	0.5	0.7	0.7	1.20	SMA
FFA1850-8-X-S	DC~8	50	0.5	0.6	0.8	0.8	1.25	SMA
FFA1850-12.4-X-S	DC~12.4	50	0.6	0.7	0.8	1.1	1.35	SMA
FFA1850-18-X-S	DC~18	50	0.8	0.9	1.1	1.3	1.45	SMA

\*X' in the above table represents attenuation (dB). Size:  $\Phi 64 \times 110.5$ mm. Temperature: -55--+125°C.

Derated linearly to 2.5W@120°C. Peak Power: 500W (5μs pulse width, 5% duty cycle).

## 50W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			1-10	11-20	21-30	31-50		
FFA1850-4-X-N	DC~4	50	0.4	0.5	0.7	0.7	1.20	N
FFA1850-8-X-N	DC~8	50	0.5	0.6	0.8	0.8	1.25	N
FFA1850-12.4-X-N	DC~12.4	50	0.6	0.7	0.8	1.1	1.35	N
FFA1850-18-X-N	DC~18	50	0.8	0.9	1.1	1.3	1.45	N

\*X' in the above table represents attenuation (dB). Size:  $\Phi 64 \times 105$ mm. Temperature: -55--+125°C.

Derated linearly to 2.5W@120°C. Peak Power@DC~12.4GHz: 5000W (5μs pulse width, 0.5% duty cycle); Peak Power@18GHz: 1000W (5μs pulse width, 2.5% duty cycle).



## 100W Series

### 100W, 2.92mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Connector
			20	30	40		
FFA40K1-40-X-K	DC~40	100	-4.0/+4.0	-4.0/+4.0	-4.0/+4.0	1.40	2.92mm

\*X' in the above table represents attenuation (dB). Size:  $160 \times 178 \times 90$ mm. Operating temperature: -55--+125°C.

Derated linearly to 10W@125°C.

## 100W, 3.5mm

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)					VSWR (max.)	Connector
			3	6	10	20	30/40/50		
FFA26K1-26.5-X-3	DC~26.5	100	-1.0/+1.5	-1.0/+2.5	-1.0/+3.5	-1.0/+3.0	-1.0/+1.5	1.40	3.5mm

'X' in the above table represents attenuation (dB). Size: Φ63\*129mm. Operating temperature: -55~+85°C.

Derated linearly to 5W@120°C. Peak Power: 0.5KW (5μS pulse width, 2.5% duty cycle).

## 100W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	11~20	21~30	31~40	41~60			
FFA18K1-4-X-S1 FFA18K1-4-X-S2	DC~4	100	0.4	0.7	0.7	0.8	0.8	0.9~1.0	1.20	Cylinder Cuboid	SMA
FFA18K1-8-X-S1 FFA18K1-8-X-S2	DC~8	100	0.5	0.8	0.8	0.9	0.9	1.0	1.25	Cylinder Cuboid	SMA
FFA18K1-12.4-X-S1 FFA18K1-12.4-X-S2	DC~12.4	100	0.6	0.9	0.9	1.0	1.0	1.1	1.35	Cylinder Cuboid	SMA
FFA18K1-18-X-S1 FFA18K1-18-X-S2	DC~18	100	0.8	1.5	1.5	1.3	1.3	1.4	1.45	Cylinder Cuboid	SMA

'X' in the above table represents attenuation (dB). Temperature: -55~+125°C.

Cylinder: Size: Φ64\*161mm.

Cuboid: Size: 161\*120\*110mm.

Derated linearly to 5W@120°C. Peak Power@DC~12.4GHz: 1KW (5μS pulse width, 7.5% duty cycle); Peak Power@18GHz: 500W (5μS pulse width, 10% duty cycle).

## 100W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)					VSWR (max.)	Connector
			3	6	10	20	30/40/50		
FFA26K1-26.5-X-S	DC~26.5	100	-1.0/+1.5	-1.0/+2.5	-1.0/+3.5	-1.0/+3.0	-1.0/+1.5	1.40	SMA

'X' in the above table represents attenuation (dB). Size: Φ63\*129mm. Operating temperature: -55~+85°C.

Derated linearly to 5W@120°C. Peak Power: 0.5KW (5μS pulse width, 2.5% duty cycle).

## 100W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	11~20	21~30	31~40	41~60			
FFA18K1-4-X-N1 FFA18K1-4-X-N2	DC~4	100	0.4	0.7	0.7	0.8	0.8	0.9~1.0	1.20	Cylinder Cuboid	N
FFA18K1-8-X-N1 FFA18K1-8-X-N2	DC~8	100	0.5	0.8	0.8	0.9	0.9	1.0	1.25	Cylinder Cuboid	N
FFA18K1-12.4-X-N1 FFA18K1-12.4-X-N2	DC~12.4	100	0.6	0.9	0.9	1.0	1.0	1.1	1.35	Cylinder Cuboid	N
FFA18K1-18-X-N1 FFA18K1-18-X-N2	DC~18	100	0.8	1.5	1.5	1.3	1.3	1.4	1.45	Cylinder Cuboid	N

'X' in the above table represents attenuation (dB). Temperature: -55~+125°C.

Cylinder: 3 dB Size: Φ64\*105mm; 6~60 dB Size: Φ64\*156mm.

Cuboid: Size: 156\*120\*110mm.

Derated linearly to 5W@120°C. Peak Power@DC~12.4GHz: 5KW (5μS pulse width, 1% duty cycle); Peak Power@18GHz: 1KW (5μS pulse width, 5% duty cycle).

## 100W, 7/16(DIN)

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	11~20	21~30	31~40	41~60			
FFA18K1-4-X-7 FFA18K1-4-X-7NF	DC~4	100	0.4	0.7	0.7	0.8	0.8	0.9~1.0	1.20	Cylinder Cylinder	7/16(DIN) 7/16(DIN)/N (f)
FFA18K1-6-X-7 FFA18K1-6-X-7NF	DC~6	100	0.5	0.8	0.8	0.9	0.9	1.0	1.25	Cylinder Cylinder	7/16(DIN) 7/16(DIN)/N (f)

\*X' in the above table represents attenuation (dB). Temperature: -55~+125°C.

Cylinder: 7/16(DIN), Size: Φ41\*179mm.

Cylinder: Input: 7/16(DIN) male, Output: N female, Size: Φ64\*160mm.

Derated linearly to 5W@120°C. Peak Power@DC~12.4GHz: 5KW (5μS pulse width, 1% duty cycle).

## 100W, 4.3-10

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	11~20	21~30	31~40	41~60			
FFA18K1-4-X-4FSF1 FFA18K1-4-X-4SF1	DC~4	100	0.4	0.7	0.7	0.8	0.8	0.9~1.0	1.20	Cylinder	4.3-10/ SMA
FFA18K1-6-X-4FSF1 FFA18K1-6-X-4SF1	DC~6	100	0.5	0.8	0.8	0.9	0.9	1.0	1.25	Cylinder	4.3-10/ SMA

\*X' in the above table represents attenuation (dB). Temperature: -55~+125°C.

Cylinder: Input: 4.3-10 female, Output: SMA female, Size: Φ64\*160mm.

Cylinder: Input: 4.3-10 male, Output: SMA female, Size: Φ64\*160mm.

Derated linearly to 5W@120°C. Peak Power@DC~12.4GHz: 5KW (5μS pulse width, 1% duty cycle).

## 150W Series

### 150W, SMA

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	20	30	40	50~60			
FFA18K15-4-X-S1 FFA18K15-4-X-S2 FFA18K15-4-X-SFSF1 FFA18K15-4-X-SFSF2	DC~4	150	0.7	0.7	0.7	0.8	0.9	0.9	1.20	Cylinder Cuboid Cylinder Cuboid	SMA
FFA18K15-8-X-S1 FFA18K15-8-X-S2 FFA18K15-8-X-SFSF1 FFA18K15-8-X-SFSF2	DC~8	150	0.8	0.8	0.8	0.9	0.9	0.9	1.25	Cylinder Cuboid Cylinder Cuboid	SMA
FFA18K15-12.4-X-S1 FFA18K15-12.4-X-S2 FFA18K15-12.4-X-SFSF1 FFA18K15-12.4-X-SFSF2	DC~12.4	150	-	0.9	0.9	1.0	1.1	1.1	1.35	Cylinder Cuboid Cylinder Cuboid	SMA
FFA18K15-18-X-S1 FFA18K15-18-X-S2 FFA18K15-18-X-SFSF1 FFA18K15-18-X-SFSF2	DC~18	150	-	2.0	1.5	1.5	1.3	1.4	1.45	Cylinder Cuboid Cylinder Cuboid	SMA

\*X' in the above table represents attenuation (dB). Temperature: -55~+125°C.

Cylinder: 6~60 dB Size: Φ64\*235.5mm; SMA female, 6~60dB Size: Φ64\*234mm.

Cuboid: 6~60 dB Size: 212\*120\*110mm; SMA female, 6~60dB Size: 211\*120\*110mm.

Derated linearly to 7.5W@120°C. Peak Power@DC~12.4GHz: 1KW (5μS pulse width, 10% duty cycle); Peak Power@18GHz: 500W (5μS pulse width, 15% duty cycle).

## 150W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Shape	Connector
			3	6~10	20	30	40	50~60			
FFA18K15-4-X-N1 FFA18K15-4-X-N2 FFA18K15-4-X-NFNF1 FFA18K15-4-X-NFNF2	DC~4	150	0.7	0.7	0.7	0.8	0.9	0.9	1.20	Cylinder Cuboid	N
FFA18K15-8-X-N1 FFA18K15-8-X-N2 FFA18K15-8-X-NFNF1 FFA18K15-8-X-NFNF2	DC~8	150	0.8	0.8	0.8	0.9	0.9	0.9	1.25	Cylinder Cuboid Cylinder Cuboid	N
FFA18K15-12.4-X-N1 FFA18K15-12.4-X-N2 FFA18K15-12.4-X-NFNF1 FFA18K15-12.4-X-NFNF2	DC~12.4	150	-	0.9	0.9	1.0	1.1	1.1	1.35	Cylinder Cuboid Cylinder Cuboid	N
FFA18K15-18-X-N1 FFA18K15-18-X-N2 FFA18K15-18-X-NFNF1 FFA18K15-18-X-NFNF2	DC~18	150	-	2.0	1.5	1.5	1.3	1.4	1.45	Cylinder Cuboid Cylinder Cuboid	N

'X' in the above table represents attenuation (dB). Temperature: -55--+125°C.

Cylinder: 3 dB Size: Φ64\*156mm; 6~60 dB Size: Φ64\*230mm; N female, 6~60dB Size: Φ64\*225mm.

Cuboid: 3 dB Size: 156\*120\*110mm; 6~60 dB Size: 207\*120\*110mm; N female, 6~60dB Size: 202\*120\*110mm.

Derated linearly to 7.5W@120°C. Peak Power@DC~12.4GHz: 5KW (5μS pulse width, 1% duty cycle); Peak Power@18GHz: 1KW (5μS pulse width, 5% duty cycle).



## 200W~600W Series

### 200W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Connector
			10	20	30	40	50	60		
FFA18K2-4-X-N	DC~4	200	0.7	0.7	0.8	0.9	0.9	0.9	1.20	N
FFA18K2-8-X-N	DC~8	200	0.8	0.8	0.9	0.9	0.9	0.9	1.25	N
FFA18K2-12.4-X-N	DC~12.4	200	1.5	0.9	1.0	1.1	1.1	1.1	1.35	N
FFA18K2-18-X-N	DC~18	200	3.5	2.5	1.5	1.3	1.4	1.4	1.45	N

'X' in the above table represents attenuation (dB). Size: 203\*120\*110mm (exclude connector). Temperature: -55--+125°C.

Derated linearly to 10W@120°C. Peak Power@DC~12.4GHz: 5KW (5μS pulse width, 2% duty cycle); Peak Power@18GHz: 1KW (5μS pulse width, 10% duty cycle).



## 250W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)						VSWR (max.)	Connector
			10	20	30	40	50	60		
FFA18K25-4-X-N	DC~4	250	0.7	0.7	0.8	0.9	0.9	0.9	1.20	N
FFA18K25-8-X-N	DC~8	250	0.8	0.8	0.9	0.9	0.9	0.9	1.25	N
FFA18K25-12.4-X-N	DC~12.4	250	2.5	0.9	1.0	1.1	1.1	1.1	1.35	N
FFA18K25-18-X-N	DC~18	250	3	-	1.5	1.3	1.4	1.4	1.45	N

\*X' in the above table represents attenuation (dB). Size: 254\*120\*110mm (exclude connector). Temperature: -55~+125°C.

Derated linearly to 12.5W@120°C. Peak Power@DC~12.4GHz: 5KW (5µs pulse width, 2.5% duty cycle); Peak Power@18GHz: 1KW (5µs pulse width, 12.5% duty cycle).

## 300W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)								VSWR (max.)	Connector
			3	6	10	20	30	40	50	60		
FFA18K3-4-X-N	DC~4	300	-	-	0.7	0.7	0.8	0.9	0.9	0.9	1.20	N
FFA18K3-8-X-N	DC~8	300	-	-	0.8	0.8	0.9	0.9	0.9	0.9	1.25	N
FFA18K3-12.4-X-N	DC~12.4	300	-	-	3.0	0.9	1.0	1.1	1.1	1.1	1.35	N
FFA18K3-18-X-N	DC~18	300	-	-	3.5	-	1.5	1.3	1.3	1.4	1.45	N

\*X' in the above table represents attenuation (dB).

10~60dB, DC~18GHz Size: 305\*120\*110mm (exclude connector). Temperature: -55~+125°C.

Derated linearly to 15W@120°C. Peak Power@DC~12.4GHz: 5KW (5µs pulse width, 3% duty cycle); Peak Power@18GHz: 1KW (5µs pulse width, 15% duty cycle).

## 400W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)				VSWR (max.)	Connector
			20	30	40	50~60		
FFA18K4-4-X-N	DC~4	400	1.2	0.8	0.9	0.9	1.20	N
FFA18K4-8-X-N	DC~8	400	1.5	0.9	0.9	0.9	1.25	N
FFA18K4-12.4-X-N	DC~12.4	400	2.0	1.0	1.1	1.1	1.35	N
FFA18K4-18-X-N	DC~18	400	4.5	1.5	1.5	1.5	1.45	N

\*X' in the above table represents attenuation (dB). Size: 462\*120\*110mm. Temperature: -55~+125°C.

Derated linearly to 20W@120°C. Peak Power@DC~12.4GHz: 5000W (5µs pulse width, 4% duty cycle); Peak Power@18GHz: 1000W (5µs pulse width, 20% duty cycle).

## 500W, N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)					VSWR (max.)	Connector
			3	10	20	30	40/50/60		
FFA18K5-4-X-N FFA18K5-4-X-NF	DC~4	500	+2.3	-0.6/+1.5	1.2	1.0	1.0	1.25	N
FFA18K5-8-X-N FFA18K5-8-X-NF	DC~8	500	+3.5	-0.5/+2.0	2.0	1.5	1.1	1.30	N
FFA18K5-12.4-X-N FFA18K5-12.4-X-NF	DC~12.4	500	-	3.0	2.0	-1.5/+2.0	1.2	1.35	N
FFA18K5-18-X-N FFA18K5-18-X-NF	DC~18	500	-	6.0	5.0	0/+6.0	1.5	1.50	N

\*X' in the above table represents attenuation (dB). N male Input, N femaleOutput, 10~60dB, DC~18GHz Size: 564\*120\*110mm (exclude connector);

N female, 3dB, DC~8GHz Size: 304\*120\*110mm (exclude connector)Temperature: -55~+125°C.

Derated linearly to 25W@120°C. Peak Power@DC~12.4GHz: 5KW (5µs pulse width, 5% duty cycle); Peak Power@18GHz: 1KW (5µs pulse width, 25% duty cycle).

**600W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (±dB) and Attenuation (dB)							VSWR (max.)	Connector
			3	6	10	20	30	40	50/60		
FFA18K6-4-X-N FFA18K6-4-X-NF	DC~4	600	0/+2	-1/+1.5	-0.6/+1.5	1.2	1.0	1.0	1.0	1.25	N
FFA18K6-8-X-N FFA18K6-8-X-NF	DC~8	600	-	-	-0.5/+2.0	2.0	1.1	1.1	1.1	1.30	N
FFA18K6-12.4-X-N FFA18K6-12.4-X-NF	DC~12.4	600	-	-	3.0	2.0	-1.5/+2.0	1.2	1.2	1.35	N
FFA18K6-18-X-N FFA18K6-18-X-NF	DC~18	600	-	-	6.0	5.0	-2.0/+6.0	2.0	1.5	1.50	N

'X' in the above table represents attenuation (dB). N male Input – female output, 3 dB Size: 305\*120\*110mm (exclude connector); 6 dB Size: 407\*120\*110mm (exclude connector);

10–60 dB Size: 509\*120\*110mm (exclude connector). Temperature: -55~+125°C.

N female Input Output, 10–60dB Size: 509\*120\*110mm.

Derated linearly to 30W@120°C. Peak Power@DC~12.4GHz: 5000W (5µs pulse width, 6% duty cycle); Peak Power@18GHz: 1000W (5µs pulse width, 30% duty cycle).

**1000W~5000W Series**
**1000W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)		VSWR (max.)	Connector
			30–50dB			
FFA031K-3-X-N	DC~3GHz	1000	±2dB		1.35	N

'X' in the above table represents attenuation (dB). Size: 614\*360\*140mm. Temperature: -55~+125°C. Derated linearly to 50W@120°C.

**1500W, N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			20	30	40	50		
FFA031K5-3-X-N	DC~3GHz	1500	±3.0	±2.5	±2.5	±2.5	1.25	N

'X' in the above table represents attenuation (dB). Size: 564\*508\*220mm. Temperature: -55~+125°C. Derated linearly to 75W@120°C.

**2000W, N / 7/16 DIN**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			20	30	40	50		
FFA022K-2-X-7F	DC~0.7	2000	-	±1.0	±1.0	±1.0	1.2	7/16 DIN (f)
FFA022K-2-X-NF	0.7~2	2000	-	-	-	-	1.3	N (f)

'X' in the above table represents attenuation (dB). Size: 840\*330\*840mm. Temperature: -40~+45°C.

**3000W, 7/16 DIN & N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)		VSWR (max.)	Connector
			50			
FFA033K-3-50-7NF	DC~3	3000	±3		1.40	7/16 DIN (m)-N (f)
FFA033K-3-50-7FNF	DC~3	3000	±3		1.40	7/16 DIN (f)-N (f)

Size: 781.5\*351\*200mm. Temperature: -55~+125°C.

Derated linearly to 300W@125°C. Peak Power: 10KW (5µs pulse width, 5% duty cycle).

**4000W, 7/16 DIN & N**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			20	30	40	50		
FFA014K-1-X-7F	DC~0.5	4000	/	±1.0	±1.0	±1.0	1.25	7/16 DIN (f)
FFA014K-1-X-NF	0.5~1			/	/	/	1.40	N (f)

\*X' in the above table represents attenuation (dB). Size: 840\*330\*840mm. Temperature: -40~+45°C. Peak Power: 100KW (10μS pulse width).

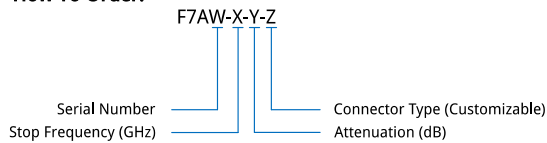
**5000W, 7/16 DIN**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.)	Connector
			20	30	40	50		
FFA015K-1-X-7F	DC~0.5	5000	/	±1.0	±1.0	±1.0	1.25	7/16 DIN (f)
FFA015K-1-X-7	0.5~1			/	/	/	1.40	7/16 DIN (m)

\*X' in the above table represents attenuation (dB). Size: 905\*340\*930mm. Temperature: -40~+45°C. Peak Power: 100KW (1μS pulse width, 5% duty cycle).

## Coaxial Fixed Attenuators (75Ω)

### How To Order:



**Examples:** To order a 75Ω coaxial fixed attenuator, DC~1GHz, 1W, attenuation 10dB, F male to F female, specify F7A0101-1-10-F.



### 1W, F

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.) 1/2/4/8/10/16/20	Impedance	Connector
			1/2/4/8	10	16	20			
F7A0101-1-X-F	DC~1	1	±0.4	±0.5	±0.5	±1.0	1.1	75Ω	F

\*X' in the above table represents attenuation (dB). Size: 50\*18\*20mm. Operating temperature: -55~+125°C.

Derated linearly to 0.2W@125°C. Peak Power: 0.5KW (5μS pulse width, 0.2% duty cycle).

### 1W, F/N

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)				VSWR (max.) 10/ 20/ 30/ 40	Impedance	Connector
			10	20	30	40			
F7A0101-1-X-FF-A	0.1~1	1	±0.5	±1.0	±0.5	-2.0	1.15	75Ω	F (f)
F7A0101-1-X-FF-B	0.1~1	1	±0.5	±1.0	±0.5	-2.0	1.15	75Ω	F (f)
F7A0101-1-X-N	0.1~1	1	±0.5	±1.0	±0.5	-2.0	1.15	75Ω	N

\*X' in the above table represents attenuation (dB). F (f) A Size: 47.5\*37\*20mm, F (f) B Size: 59\*37\*20mm. Operating temperature: -55~+125°C.

Derated linearly to 0.2W@125°C. Peak Power: 0.5KW (5μS pulse width, 0.2% duty cycle).

### 2W, F/N/BNC

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.) 10/20/30	Impedance	Connector
			10	20	30			
F7A0302-1-X-F	DC~1	2	±0.4	±0.4	±0.4	1.15	75Ω	F
F7A0302-1-X-N	DC~1	2	±0.4	±0.4	±0.4	1.15	75Ω	N
F7A0302-1-X-B	DC~1	2	±0.4	±0.4	±0.4	1.15	75Ω	BNC
F7A0302-3-X-F	DC~3	2	±0.4	±0.5	±0.6	1.25	75Ω	F
F7A0302-3-X-N	DC~3	2	±0.4	±0.5	±0.6	1.25	75Ω	N
F7A0302-3-X-B	DC~3	2	±0.4	±0.5	±0.6	1.25	75Ω	BNC

\*X' in the above table represents attenuation (dB). Size: Φ20\*70mm. Operating temperature: -55~+125°C.

Derated linearly to 0.5W@125°C. Peak Power: 0.5KW (5μS pulse width, 0.5% duty cycle).

**5W, F/ N/ BNC**

Part Number*	Frequency (GHz)	Average Power* (W@25°C)	Accuracy (dB) and Attenuation (dB)			VSWR (max.)	Impedance	Connector
			10	20	30	10/20/30		
F7A0305-1-X-F	DC~1	5	±0.4	±0.4	±0.4	1.15	75Ω	F
F7A0305-1-X-N	DC~1	5	±0.4	±0.4	±0.4	1.15	75Ω	N
F7A0305-1-X-B	DC~1	5	±0.4	±0.4	±0.4	1.15	75Ω	BNC
F7A0305-3-X-F	DC~3	5	±0.4	±0.5	±0.6	1.25	75Ω	F
F7A0305-3-X-N	DC~3	5	±0.4	±0.5	±0.6	1.25	75Ω	N
F7A0305-3-X-B	DC~3	5	±0.4	±0.5	±0.6	1.25	75Ω	BNC

\*X' in the above table represents attenuation (dB). Size: Φ20\*70mm. Operating temperature: -55~+125°C.

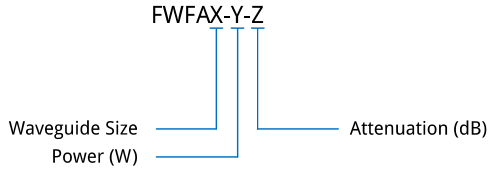
Derated linearly to 0.5W@125°C. Peak Power: 1KW (5μS pulse width, 0.5% duty cycle).

## Waveguide Fixed Attenuators

Waveguide fixed attenuator, the attenuation is a fixed value, the attenuation curve fluctuates with the frequency, and the fluctuation range is accuracy.

**Features:** Low VSWR, High Accuracy, High Power; **Applications:** Wireless, Radar, Transmitter, Laboratory Test.

### How To Order:



**Examples:** To order a waveguide fixed attenuator, WR-12, 40W, attenuation 30dB, specify FWFA12-40-30.

Part Number	Frequency (GHz)	Interface	Power (W)	Attenuation (dB)	VSWR (max.)
FWFA10-1-10	75~110	WR-10	1	10±1	1.25
FWFA12-40-30	60.5~91.9	WR-12	40	30	1.25
FWFA12-R5-10	60.5~91.9	WR-12	0.5	10±2.5	1.25
FWFA12-R5-20	60.5~91.9	WR-12	0.5	20±5	1.25
FWFA12-R5-30	60.5~91.9	WR-12	0.5	30	1.25
FWFA15-10	49.8~75.8	WR-15	-	10	1.3
FWFA15-20	49.8~75.8	WR-15	-	20	1.3
FWFA19-K15-50	39.2~59.6	WR-19	150	50	1.25
FWFA28-K1-10	26.3~40	WR-28	100	10	1.15
FWFA28-K1-20	26.3~40	WR-28	100	20	1.15
FWFA28-K1-30	26.3~40	WR-28	100	30	1.15
FWFA28-K1-40	26.3~40	WR-28	100	40	1.15
FWFA28-K1-50	26.3~40	WR-28	100	50	1.15
FWFA28-K1-60	26.3~40	WR-28	100	60	1.15
FWFA34-75-40	22~33	WR-34	75	40±1	1.2
FWFA34-K1-30	21.7~33	WR-34	100	30±1	1.3
FWFA34-K25-50	21.7~33	WR-34	250	50±1	1.3
FWFA42-60-30	18~26.5	WR-42	60	30±1.5	1.2
FWFA51-K16-40	14.5~22	WR-51	160	40±1	1.3
FWFA62-60-30	12.4~18	WR-62	60	30±1.5	1.2
FWFA90-60-30	8.2~12.4	WR-90	60	30±1.5	1.2
FWFA112-425-40	7.05~10	WR-112	425	40±1	1.2
FWFA159-60-30	4.9~7.05	WR-159	60	30±1.5	1.2
FWFA229-1K-40	3.3~4.9	WR-229	1000	40±1	1.2

## Coaxial Manually Variable Attenuators

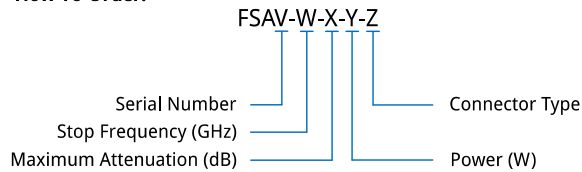
Coaxial manually variable attenuator, including rotary stepped attenuators and coaxial continuously variable attenuators. Adjust the attenuation by turning the knob or key manually.

### Coaxial Rotary Stepped Attenuators

Coaxial rotary stepped attenuator, attenuation is adjusted manually according to step. Different scales or keys correspond to different attenuation. Its precision is higher than that of continuously variable attenuator.

**Features:** Low VSWR, High Attenuation Flatness; **Applications:** Wireless, Radar, Laboratory Test.

#### How To Order:



**Examples:** To order a coaxial manually variable attenuator, DC~6GHz, attenuation 0~60dB, 2W, SMA female, specify FSA06A-6-60-2-S.

### FSA40, DC~40GHz, 0~9dB, 2W

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA40-32-9-2-Z	DC~32	0~9/1	1.8	2	1.2	2	2.92mm, 3.5mm
FSA40-40-9-2-Z	DC~40		1.9	2.2	1.5		

### FSA28, DC~28GHz, 0~90dB, 25W

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA28-18-9-Y-Z	DC~18		1.6	1	0.8	2, 10	SMA, 3.5mm
FSA28-26.5-9-Y-Z	DC~26.5	0~9/1	1.7	1.8	1	10	
FSA28-28-9-10-Z	DC~28		1.75	1.8	1.5	10	
FSA28-18-70-Y-Z	DC~18	0~70/10	1.6	1	1.5 / 4%	2, 10	SMA, 3.5mm
FSA28-26.5-60-Y-Z	DC~26.5	0~60/10	1.75	1.8	1.5 / 4%	2, 10	SMA, 3.5mm
FSA28-8-90-Y-Z	0.1~8						
FSA28-12.4-90-Y-Z	0.1~12.4	0~90/10	1.6	1	1.5 / 4%	2, 10	SMA, 3.5mm
FSA28-18-90-Y-Z	0.1~18						
FSA28-18-70-25-Z	DC~18		1.6	1	1.5 / 4%		
FSA28-26.5-70-25-Z	DC~26.5	0~70/10	1.75	1.8	1.5 / 4%	25	SMA, 3.5mm
FSA28-28-70-25-Z	DC~28		1.75	1.8	2 / 5%		

**FSA26A, DC~26.5GHz, 0~99dB, 10W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA26-8-69-Y-Z	DC~8	0~69/1	1.5	1.25	0.5 (0~9dB@DC~8GHz), 0.8 (0~9dB@8~18GHz), 1 (10~19dB), 1.5 (20~49dB), 2 (50~69dB)	2, 10	N, SMA, 3.5mm
FSA26-12.4-69-Y-Z	DC~12.4		1.6	1.5			
FSA26-18-69-Y-Z	DC~18		1.75	1.75			
FSA26-26.5-69-2-3	DC ~ 26.5		1.85	2	1.5 (0~9dB), 1.75 (10~19dB), 2 (20~49dB), 2.5 (50~69dB)	2	3.5mm
FSA26-8-99-2-Z	DC~8	0~99/1	1.5	1.25	0.5 (0~9dB@0.1~8GHz), 0.8 (0~9dB@8~18GHz), 1 (10~19dB), 1.5 (20~49dB), 2 (50~69dB), 2.5 / 3.5% (70~99dB)	2	N, SMA, 3.5mm
FSA26-12.4-99-2-Z	DC~12.4		1.5	1.5			
FSA26-18-99-2-Z	DC~18		1.75	1.5			
FSA26-8-99-10-Z	0.1~8	0~99/1	1.5	1.25	0.5 (0~9dB@0.1~8GHz), 0.8 (0~9dB@8~18GHz), 1 (10~19dB), 1.5 (20~49dB), 2 (50~69dB), 2.5 or 3.5% (70~99dB)	10	N, SMA, 3.5mm
FSA26-8-99-10-Z	0.1~12.4		1.6	1.5			
FSA26-12.4-99-10-Z	0.1~18		1.75	1.75			

**FSA26B, DC~26.5GHz, 0~60dB, 25W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA26-26.5-60-25-S	DC~26.5	0~60/10	1.8	1.8	1.5 or 4%	25	SMA

**FSA18A, DC~18GHz, 0~90dB, 25W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA18A-8-9-Y-S	DC~8	0~9/1	1.4	0.8	0.6 0.8 1	2, 10	SMA
FSA18A-12.4-9-Y-S	DC~12.4		1.5	1			
FSA18A-18-9-Y-S	DC~18		1.6	1.2			
FSA18A-8-90-Y-S	DC~8	0~90/10	1.4	1	1.5 (0~60dB), 2.5 / 3.5% (70~90dB)	2, 10	SMA
FSA18A-12.4-90-Y-S	DC~12.4		1.5	1.2			
FSA18A-18-90-Y-S	DC~18		1.6	1.5			
FSA18A-18-70-Y-S	DC~18	0~70/10	1.65	1	1.5 or 4%	25	SMA

**FSA18B, DC~18GHz, 0~99dB, 5W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy (±dB)	Power (W)	Connector
FSA18B-8-69-Y-S	DC~8	0~69/1	1.5	1	0.5 (0~9dB@DC~8GHz), 0.8 (0~9dB@8~18GHz), 1 (10~19dB), 1.5 (20~49dB), 2 (50~69dB)	2, 5	SMA
FSA18B-12.4-69-Y-S	DC~12.4		1.6	1.25			
FSA18B-18-69-Y-S	DC~18		1.75	1.5			
FSA18B-8-99-Y-S	0.1~8	0~99/1	1.5	1	0.5 (0~9dB@0.1~8GHz), 0.8(0~9dB@8~18GHz), 1 (10~19dB), 1.5 (20~49dB), 2 (50~69dB), 2.5 / 3.5% (70~99dB)	2, 5	SMA
FSA18B-12.4-99-Y-S	0.1~12.4		1.6	1.25			
FSA18B-18-99-Y-S	0.1~18		1.75	1.5			



**FSA18C, DC~18GHz, 0~99.9dB, 2W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy ( $\pm$ dB)	Power (W)	Connector
FSA18C-8-99.9-Y-Z	DC~8	0~99.9/0.1	1.5	1.3	0.5 (0.1~0.9dB@DC~8GHz), 0.8 (1~9.9dB@DC~8GHz), 1 (1~9.9dB@8~18GHz), 1.5 (10~19dB), 2 (20~49dB), 2.5 (50~69dB), 3 or 3.5% (70~99dB)	2	N, SMA, 3.5mm
FSA18C-12.4-99.9-Y-Z	DC~12.4		1.65	1.6			
FSA18C-18-99.9-Y-Z	DC~18		2	1.7			

**FSA06A, DC~6GHz, 0~90dB, 10W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy ( $\pm$ dB)	Power (W)	Connector
FSA06A-2.5-1-Y-Z	DC~2.5	0~1/0.1	1.25	0.5	0.2	2, 10	SMA, N
FSA06A-3-1-Y-Z	DC~3		1.3	0.5	0.2		
FSA06A-4.3-1-Y-Z	DC~4.3		1.35	0.75	0.3		
FSA06A-6-1-Y-Z	DC~6		1.4	1	0.3		
FSA06A-2.5-10-Y-Z	DC~2.5	0~10/1	1.25	0.4	0.4	2, 10	SMA, N
FSA06A-3-10-Y-Z	DC~3		1.3	0.5	0.5		
FSA06A-4.3-10-Y-Z	DC~4.3		1.35	0.75	0.5		
FSA06A-6-10-Y-Z	DC~6		1.4	1	0.5		
FSA06A-2.5-60-Y-Z	DC~2.5	0~60/10	1.25	0.4	0.5	2, 10	SMA, N
FSA06A-3-60-Y-Z	DC~3		1.3	0.5	0.5 (1~50dB), 0.8 / $\pm$ 3% (50~60dB)		
FSA06A-4.3-60-Y-Z	DC~4.3		1.35	0.75			
FSA06A-6-60-Y-Z	DC~6		1.4	1			
FSA06A-2.5-90-Y-Z	DC~2.5	0~90/10	1.25	0.4		0.5 (1~50dB), $\pm$ 3% (50~90dB)	2, 10
FSA06A-3-90-Y-Z	DC~3		1.3	0.5	0.5 (1~50dB), $\pm$ 3.5% (50~90dB)		

**FSA06B, DC~6GHz, 0~100dB, 10W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (max.)		Insertion Loss (dB, Max.)	Accuracy ( $\pm$ dB)	Power (W)	Connector
			SMA	N				
FSA06B-2.5-11-Y-Z	DC~2.5	0~11/0.1	1.3	1.45	1	0.2 (1dB), 0.4(2~11dB)	2, 10	SMA, N
FSA06B-3-11-Y-Z	DC~3		1.35	1.45	1.2			
FSA06B-4.3-11-Y-Z	DC~4.3		1.4	1.55	1.5	0.3 (1dB), 0.5(2~11dB)		
FSA06B-6-11-Y-Z	DC~6		1.55	1.6	1.8			
FSA06B-2.5-50-Y-Z	DC~2.5	0~50/1	1.3	1.35	1	0.5 (1~10dB), 0.8 / 3% (50~60dB)	2, 10	SMA, N
FSA06B-2.5-70-Y-Z	DC~2.5	0~70/1	1.3	1.45	1	0.5 (1~10dB), 0.8 / 3% (11~59dB), 1.5 / 3% (60~70dB)	2, 10	SMA, N
FSA06B-3-70-Y-Z	DC~3		1.35	1.45	1.2			
FSA06B-4.3-70-Y-Z	DC~4.3		1.4	1.55	1.5			
FSA06B-6-70-Y-Z	DC~6		1.55	1.6	1.8			
FSA06B-2.5-100-Y-Z	DC~2.5	0~100/1	1.3	1.45	1	0.5 (1~10dB), 0.8 / 3% (11~59dB), 1.5 / 3% (60~69dB), $\pm$ 3.5% (70~100dB)	2, 10	SMA, N
FSA06B-3-100-Y-Z	DC~3		1.35	1.45	1.2			

**FSA06C, DC~6GHz, 0~100dB, 10W**

Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy ( $\pm$ dB)	Power (W)	Connector
FSA06C-2.5-11-Y-N	DC~2.5	0~11/0.1	1.4	1.2	0.3 (1dB), 0.5 (2~11dB)	2, 10	N
FSA06C-3-11-Y-N	DC~3		1.45	1.2			
FSA06C-4.3-11-Y-N	DC~4.3		1.5	1.5			
FSA06C-6-11-Y-N	DC~6		1.65	1.8			
FSA06C-2.5-70-Y-N	DC~2.5	0~70/1	1.4	1.2	0.8 / 3% (0~60dB), 1.5 / 3% (61~70dB)	2, 10	N
FSA06C-3-70-Y-N	DC~3		1.45	1.2			
FSA06C-4.3-70-Y-N	DC~4.3		1.5	1.5			
FSA06C-6-70-Y-N	DC~6		1.65	1.8			
FSA06C-2.5-100-Y-N	DC~2.5	0~100/1	1.4	1.2	0.8 / 3% (0~59dB), 1.5 / 3% (60~69dB), $\pm$ 3.5% (70~100dB)	2, 10	N
FSA06C-3-100-Y-N	DC~3		1.45	1.2			

**FSA06D, DC~6GHz, 0~101dB, 10W**

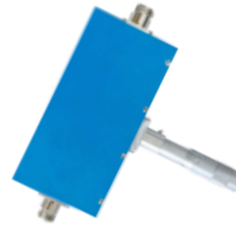
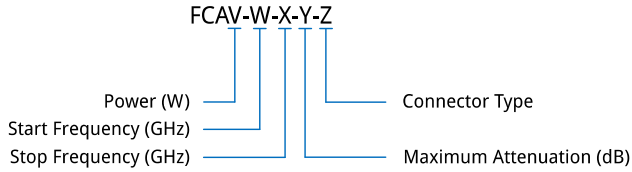
Part Number	Frequency (GHz)	Attenuation Range/Step (dB)	VSWR (Max.)	Insertion Loss (dB, Max.)	Accuracy ( $\pm$ dB)	Power (W)	Connector
FSA06D-2.5-71-Y-N	DC~2.5	0~71/0.1	1.5	1.5	0.3 (0.1~1dB), 0.4 (1~10dB), 0.8 (10~60dB), 1.5 (71dB)	2, 10	N
FSA06D-3-71-Y-N	DC~3		1.6	1.7			
FSA06D-4.3-71-Y-N	DC~4.3		1.7	2			
FSA06D-6-71-Y-N	DC~6		1.75	2.5			
FSA06D-2.5-101-Y-N	DC~2.5	0~101/0.1	1.5	1.5	0.3 (0.1~1dB), 0.4 (1~10dB), 0.8 (10~60dB), 1.5 (61~70dB), $\pm$ 3.5% (70~101dB)	2, 10	N
FSA06D-3-101-Y-N	DC~3		1.6	1.7			

## Coaxial Continuously Variable Attenuators

Coaxial continuously variable attenuators, adjust the attenuation by turning the knob manually. Theoretically, any attenuation can be adjusted within the nominal range.

**Features:** Low VSWR, High Attenuation Flatness; **Applications:** Wireless, Radar, Laboratory Test.

**How To Order:**



**Examples:** To order a coaxial continuously variable attenuator, 75W, 2.9~3.1GHz, attenuation 0~10dB, N Female, specify FCA75-2.9-3.1-10.

\* The 'W' and 'X' in the following table represent the frequency range. Only 100MHz and 200MHz bandwidth is provided.

Part Number	Frequency (GHz)	Attenuation Range (dB)	Power (W)	Connector	Size (mm)
FCA1-0-2.5-10-N	DC~2.5	0~10	1	N	47.5*42*20
FCA1-0-2.5-16-N		0~16			
FCA1-0-2.5-10-S	DC~2.5	0~10	1	SMA	41*38*20
FCA1-0-2.5-16-S		0~16			
FCA10-0.5-4-20	0.5~4	0~20	10	N	148*170*19
FCA50-W-X-10-N	0.9~4	0~10	50	N	120*96.5*75
FCA75-W-X-10-N	0.9~4	0~10	75	N	134.4*98*75
FCA75-W-X-15-N		0~15			
FCAK1-W-X-10-N	0.9~10.5	0~10	100	N	190*102*75
FCAK1-W-X-12-N		0~12			
FCAK1-W-X-15-N		0~15			
FCAK1-W-X-20-N		0~20			
FCAK3-W-X-10-N	0.9~10.5	0~10	300	N	259*102*75
FCAK3-W-X-12-N		0~12			
FCAK3-W-X-15-N		0~15			
FCAK3-W-X-25-N		0~25			
FCA10-2-18-40-S	2~18	0~40	10	SMA	148*170*21
FCA10-2-18-40-N				N	

## Waveguide Manually Variable Attenuators

Waveguide manually variable attenuator, including waveguide manually stepped attenuators and waveguide continuously variable attenuators. Adjust the attenuation by turning the knob manually.

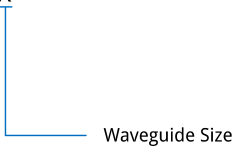
### Waveguide Continuously Variable Attenuators

Waveguide continuously variable attenuator, attenuation can be adjusted by knob. Theoretically, any attenuation can be adjusted within the nominal range.

**Features:** Low VSWR, High Attenuation Flatness; **Applications:** Wireless, Radar, Laboratory Test.

**How To Order:**

FWVA-X



**Examples:** To order a waveguide continuously variable attenuator, WR-12, specify FWVA-10.

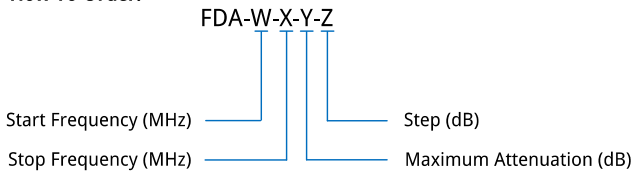
Part Number	Frequency (GHz)	Interface	Attenuation Range (dB)	Insertion Loss (dB, max.)	VSWR (max.)
FWVA-10	75~110	WR-10	0~30	0.5	1.4
FWVA-12	60.5~91.5	WR-12	0~30	0.5	1.4
FWVA-15	49.8~75.8	WR-15	0~30	-	1.3

## Digitally Controlled Attenuators

The digitally control attenuator uses the code to control the electronic switches of all levels to realize the step or superposition of attenuators as required.

**Features:** Broadband, High Dynamic Range, Customization on Demand; **Applications:** Wireless, Radar, Laboratory Test.

### How To Order:



**Examples:** To order a digitally control attenuator, 1~2GHz, attenuation range 0~30dB, step 0.5dB, specify FDA-1000-2000-30-0.5.

Part Number	Frequency (GHz)	Attenuation Range (dB)	Control Bits (bit)	Step (dB)	Accuracy (±dB)	Insertion Loss (dB, max.)	VSWR	Switching Time (nS, max.)	Input Power (dBm, max.)
FDA-0-6000-30-1	DC~6	0~30	-	1	3~5%	2	1.5	-	20
FDA-0-18000-11-1	DC~18	0~11	-	1	1	0.6+0.09/GHz	1.75	-	30
FDA-0-18000-110-10	DC~18	0~110	-	10	4.5	0.6+0.09/GHz	1.75	-	30
FDA-9K-20000-31.5-0.5	9K~20	0~31.5	-	0.5	1 typ.	6	2	-	25
FDA-0.1-5000-110-1	0.0001~5	0~110	7	1	3	8	2.5	500	30
FDA-1-4000	0.001~4	0~60	-	0.25	0.03	5	1.8	200	27
FDA-10-13000-40-10	0.01~13	0~40	4	10	0.03	7	1.5	100	37
FDA-10-18000-63.75-0.25	0.01~18	0~63.75	8	0.25	2	6	2.5	-	-
FDA-10-18000-63.5-0.5	0.01~18	0~63.5	7	0.5	2	5	2.5	-	-
FDA-10-18000-63-1	0.01~18	0~63	6	1	2	5	2.5	-	-
FDA-10-18000-31.5-0.5	0.01~18	0~31.5	6	0.5	2	3.5	2.5	-	-
FDA-10-20000-63.75-0.25	0.01~20	0~63.75	8	0.25	2	6.5	2.5	-	-
FDA-20-6000-31.5-0.5	0.02~6	0~31.5	-	0.5	0.5 typ.	6	2	-	25
FDA-20-18000-31.5-0.5	0.02~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-20-20000-31.5-0.5	0.02~20	0~31.5	-	0.5	1 typ.	6	2	-	25
FDA-50-4000-31-1	0.05~4	0~31	5	1	0.5 typ.	3	1.8	1000	24
FDA-100-18000-32-0.03	0.1~18	0~32	10	0.03	2	4.7	2.5	-	-
FDA-100-40000-32-0.03	0.1~40	0~32	10	0.03	2	6	2.5	-	-
FDA-100-40000-31-1	0.1~40	0~31	5	1	2	9	2.2	-	-
FDA-100-18000-31.5-0.5	0.1~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-100-40000-31.5-0.5	0.1~40	0~31.5	-	0.5	2 typ.	7	2	-	25
FDA-108-400-31-1	0.108~0.4	0~31	-	1	0.03	2.5	2	500	-
FDA-500-18000-31.5-0.5	0.5~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-500-18000-62-2	0.5~18	0~62	5	2	0.03	9	2	100	27
FDA-500-40000-31.5-0.5	0.5~40	0~31.5	-	0.5	2	7	2	-	25
FDA-500-40000-63.5-0.5	0.5~40	0~63.5	-	0.5	2	11.5	1.7	-	25
FDA-1000-2000-31.5-0.5	1~2	0~31.5	-	0.5	0.5 typ.	3.6	1.8	-	25
FDA-1000-2000-47.5-0.5	1~2	0~47.5	7	0.5	0.03	3.5	1.5	100	27
FDA-1000-2000-63-1	1~2	0~63	6	1	0.03	2.5	1.5	100	30
FDA-1000-2000-63.5-0.5	1~2	0~63.5	-	0.5	1.5	5	1.7	-	25
FDA-1000-2000-63.75-0.25	1~2	0~63.75	8	0.25	1.5	1.5	1.5	-	-
FDA-1000-12000	1~12	0~60	-	0.25	0.03	6	2	200	27
FDA-1000-18000-31.5-0.5	1~18	0~31.5	-	0.5	1	5.5	2	-	25
FDA-1000-18000-31.5-0.5-1	1~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-1000-18000-127-0.5	1~18	0~127	8	0.5	2.5	8	2.5	-	-
FDA-1000-20000-63.5-0.5	1~20	0~63.5	-	0.5	3	7	1.8	-	25
FDA-1000-40000-31-1	1~40	0~31	5	1	0.05	8	2	-	27
FDA-1000-40000-63.5-0.5	1~40	0~63.5	-	0.5	2	11.5	2	200	25
FDA-2000-4000-63.75-0.25	2~4	0~63.75	8	0.25	1.5	2	1.5	-	-
FDA-2000-4000-31.5-0.5	2~4	0~31.5	-	0.5	0.5 typ.	3.8	1.8	-	25
FDA-2000-10000-60-0.1	2~10	0~60	-	0.1	-	7	2	-	25
FDA-2000-18000	2~18	0~60	-	0.25	0.04	6	2	200	27
FDA-2000-18000-15-1	2~18	0~15	4	1	0.04	7	2.2	500	20
FDA-2000-18000-31.5-0.5	2~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-2000-18000-60-0.1	2~18	0~60	-	0.1	0.05	6	2	-	20
FDA-2000-18000-60-10	2~18	0~60	3	10	0.04	14	2.2	500	20
FDA-2000-40000-31.5-0.5	2~40	0~31.5	-	10	2	7	2	1000	25
FDA-4000-8000-31.5-0.5	4~8	0~31.5	-	0.5	0.8 typ.	4.2	1.8	-	25

Part Number	Frequency (GHz)	Attenuation Range (dB)	Control Bits (bit)	Step (dB)	Accuracy (±dB)	Insertion Loss (dB, max.)	VSWR	Switching Time (nS, max.)	Input Power (dBm, max.)
FDA-4000-8000-63.75-0.25	4~8	0~63.75	8	0.25	2	2.5	1.8	-	-
FDA-4000-32000-31.5-0.5	4~32	0~31.5	-	0.5	2	5.5	2	1000	25
FDA-4000-32000-63.5-0.5	4~32	0~63.5	-	0.5	2	10	2	200	25
FDA-6000-18000-31.5-0.5	6~18	0~31.5	-	0.5	1 typ.	5.5	2	-	25
FDA-6000-26500	6~26.5	0~60	-	0.5	0.04	8	2.5	200	27
FDA-7000-9000-32-0.25	7~9	0~32	-	0.25	2	5.5	2	-	24
FDA-8000-12000-31-1	8~12	0~31	5	1	0.02	3.5	1.5	100	27
FDA-8000-12000-31.5-0.5	8~12	0~31.5	-	0.5	0.8 typ.	4.7	2	-	25
FDA-8000-12000-63.75-0.25	8~12	0~63.75	8	0.25	2	2.8	1.8	-	-
FDA-8000-12000-101.5-0.5	8~12	0~101.5	-	0.5	0.4+5%	21	2	200	25
FDA-8000-12000-110-10	8~12	0~110	4	10	3~5%	8	1.5	-	20
FDA-8000-18000-63-1	8~18	0~63	6	1	0.05	8	2	100	27
FDA-8000-18000-63.75-0.25	8~18	0~63.75	-	0.25	1.5	7.5	2	-	25
FDA-8000-18000-70-1	8~18	0~70	7	1	0.05	11	2	100	27
FDA-8200-12400-61-1	8.2~12.4	0~61	6	1	0.04	7	2.2	500	30
FDA-8500-9500-31.5-0.25	8.5~9.5	0~31.5	-	0.25	3~5%	5.5	2	-	30
FDA-9000-10000-47.5-0.5	9~10	0~47.5	7	0.5	0.03	5.5	1.8	100	27
FDA-12000-18000-63.75-0.25	12~18	0~63.75	8	0.25	2.5	3.7	2.5	-	-
FDA-18000-26000-47.5-0.5	18~26	0~47.5	8	0.5	0.03	9	2.5	100	27
FDA-18000-40000	18~40	0~60	-	0.5	0.06	9	2.5	200	27
FDA-18000-40000-31.5-0.5	18~40	0~31.5	6	0.5	0.06	8	2.5	500	27
FDA-18000-40000-50-0.05	18~40	0~50	10	0.05	2	9	2.5	-	-
FDA-26000-40000-51.5-0.5	26~40	0~51.5	7	0.5	0.05	15	2.5	100	27
FDA-30000-40000-30-0.5	30~40	0~30	-	0.5	3~5%	5.5	1.5	-	25
FDA-35000-40000-60-0.5	35~40	0~60	7	0.5	-	15	1.5	-	15

## Voltage Controlled Attenuators

The voltage controlled attenuator is a dual port component that adjusts the signal amplitude between the input and output ports by controlling the DC bias.

**Features:** Broadband, High Dynamic Range, Customization on Demand; **Applications:** Wireless, Transmitter, Laboratory Test, Radar.

### How To Order:

FVA-W-X-Y-Z

Start Frequency (MHz) ——— Connector Type  
 Stop Frequency (MHz) ——— Maximum Attenuation (dB)



**Examples:** To order a voltage controlled attenuator, 0.5~18GHz, attenuation range 0~20dB, SMA, specify FVA-500-18000-20-S.

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Attenuation Range (dB)	Attenuation Flatness (dB)	VSWR (typ.)	Flatness (dB)	Voltage (V)	Connector	Size* (mm)
FVA-500-1000-64-S	0.5-1	0~64	1.5	2	±2.5	0~+10	SMA	-
FVA-500-18000-20-S	0.5~18	0~20	3	2.2	±1.5	0~5	SMA	25*20*9
FVA-1000-2000-64-S	1~2	0~64	1.3	1.5	±2	0~+10	SMA	-
FVA-2000-4000-64-S	2~4	0~64	1.5	1.5	±2	0~+10	SMA	-
FVA-4000-8000-64-S	4~8	0~64	2	1.8	±2	0~+10	SMA	-
FVA-5000-30000-33-K	5~30	0~33	2.5	2	-	-5~0	2.92mm	25*18*9
FVA-8000-12000-64-S	8~12	0~64	2.5	1.8	±2	0~+10	SMA	-
FVA-12000-18000-64-S	12~18	0~64	3	2	±2.5	0~+10	SMA	-
FVA-18000-40000-3-K	18-40	0~30	6	2.5	±1.5	0~+10	2.92mm	-

## Programmable Attenuators

Programmable attenuators, can be controlled through software, with control interfaces including USB, Ethernet, serial ports, etc., and are typically used in automated testing environments.

**Features:** Broadband, High Dynamic Range, Customization on demand; **Applications:** Wireless, Radar, Laboratory Test.

**How To Order:**

FPRA-W-X-Y-Z



**Examples:** To order a programmable attenuator, 0.02~18GHz, attenuation range 0~63.75dB, step 0.25dB, specify FPRA-20-18000-63.75-0.25.



The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Attenuation Range (dB)	Step (dB, min.)	Accuracy (+/-)	Insertion Loss (dB, max.)	VSWR (typ.)	Switching Time (nS, max.)	Input Power (dBm, max.)
FPRA-20-18000-63.75-0.25	0.02~18	0~63.75	0.25	±2dB	8	2	-	25
FPRA-500-40000-63.5-0.5	0.5~40	0~63.5	0.5	±2dB	12	2	-	25



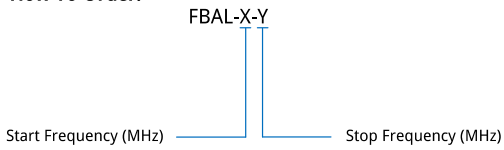
**Baluns**

Freflex supplies baluns with different type to meet the needs of customers.

**Baluns**

Balun is a type of transformer, whose main function is to complete impedance conversion and balance to unbalance conversion.

**Features:** Broadband, High Rejection; **Applications:** Analog to Digital Conversion, Balanced Receiver, Baseband Digital Modulation, Signal Integrity.

**How To Order:**


**Examples:** To order a balun, 0.01~26.5GHz, specify FBAL-10-26500.



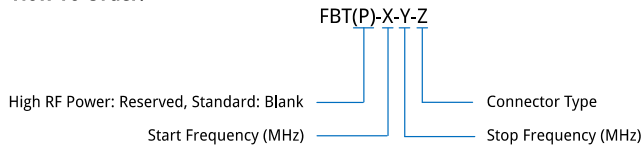
Part Number	Frequency (GHz)	Insertion Loss (dB, max.)	Amplitude Balance (dB, max.)	Phase Balance (°, max.)	Common Mode Rejection (dB, min.)	VSWR (typ.)	Input Power (W, max.)	Group Delay (ps, typ.)
FBAL-100K-67000	100K~67	10.8	±1.0	±6.5	28	1.4	1	286±5.0
FBAL-500K-6000	500K~6	6	±1.2	±10.0	20	1.5	1	-
FBAL-10-26500	0.01~26.5	10.2	±1.0	±5.0	28	1.25	1	294±4.0
FBAL-10-40000	0.01~40	10.4	±1.0	±6.0	28	1.3	1	292±5.0
FBAL-10-50000	0.01~50	10.6	±1.0	±6.0	28	1.3	1	290±5.0
FBAL-10-67000	0.01~67	10.8	±1.0	±6.5	28	1.4	1	286±5.0
FBAL-10-90000	0.01~90	11	±1.0	±7.0	27.5	1.45	1	-
FBAL-10-110000	0.01~110	11.5	±1.1	±8.0	27	1.5	1	-

**Bias Tees**

Freflex supplies bias tees with different connectors to meet the needs of customers.

The bias tee is mainly used to inject DC current or voltage into the RF circuit without affecting the RF signal passing through the main transmission path. Freflex supplies different connectors bias tees in a range from 5MHz~40GHz.

**Features:** Broadband, Small Size; **Applications:** Telecom, Satcom, Laboratory Test, Instrumentation.

**How To Order:**


**Examples:** To order a bias tee, 5~700MHz, SMA, specify FBT-5-700-S.

**Standard Bias Tees**

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Voltage (V)	Average Power (W)	Connectors				Size* (mm)
						RF Input	RF Output	DC Input	DC Output	
FBT-50K-18000	50K ~ 18	2	1.8	25	10	SMA (f)	SMA (f)	Pin	Pin	15*25*14
FBT-50K-40000	50K ~ 40	3	1.8	25	10	2.92mm (f)	2.92mm (f)	Pin	Pin	15*25*14
FBT-0.1-6000	100K ~ 6	1.5	1.5	0~50	1	SMA (m)	SMA (f)	Pin	Pin	15*20*13
FBT-10-2500	0.01 ~ 2.5	0.6	1.8	0~60	-	SMA (f)	SMA (f)	Pin	Pin	42*36*12
FBT-10-4200-S-01	0.01 ~ 4.2	1.25	1.25	72	5	SMA (m)	SMA (f)	Pin	Pin	30*30*15.5
FBT-10-4200-S-02	0.01 ~ 4.2	1.25	1.25	72	5	SMA (m)	SMA (f)	SMA (f)	SMA (f)	30*30*15.5
FBT-10-4200-N-01	0.01 ~ 4.2	1.25	1.25	72	5	N (m)	N (f)	Pin	Pin	30*32*20
FBT-10-4200-N-02	0.01 ~ 4.2	1.25	1.25	72	5	N (m)	N (f)	N (f)	N (f)	30*32*20
FBT-10-6000	0.01 ~ 6	1.25	1.5	100	5	-	-	-	-	-
FBT-10-12000	0.01 ~ 12	3	2	100	5	-	-	-	-	-
FBT-10-40000	0.01 ~ 40	2.2	2	25	10	2.92mm (f)	2.92mm (f)	Pin	Pin	16*12*10
FBT-100-6000-S	0.1 ~ 6	1.5	1.5	50	1	SMA (m)	SMA (f)	Pin	Pin	20*15*13
FBT-5000-20000	5 ~ 20	0.7	2	10	-	SMA (m)	SMA (f)	Pin	Pin	14.7*14.7*9.1
FBT-18000-40000	18 ~ 40	2	2	10	-	2.92mm (m)	2.92mm (f)	Pin	Pin	15*16*9
FBT-24900-25100	24.9 ~ 25.1	0.8	2	9~30	1	2.92mm (f)	2.92mm (f)	Pin	Pin	15*13*9

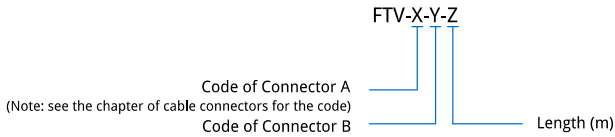
**High RF Power Bias Tees**

The sizes in the following table do not include connectors.

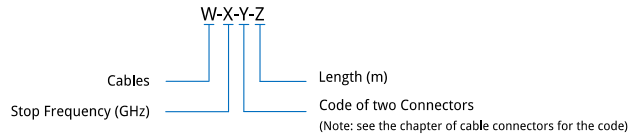
Part Number	Frequency (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Voltage (V)	Average Power (W)	Connectors				Size* (mm)
						RF Input	RF Output	DC Input	DC Output	
FBTP-5-700-S	0.005 ~ 0.7	0.5	1.8	0~48	150	SMA (m)	SMA (f)	Pin	Pin	40*20*13
FBTP-200-12000-S	0.2 ~ 12	0.6	1.8	0~36	10	SMA (f)	SMA (f)	Pin	Pin	30*20*12
FBTP-9000-11000-S	9 ~ 11	0.5	2	28	50	SMA (m)	SMA (f)	Pin	Pin	14.7*14.7*9.1
FBTP-18000-40000-K	18 ~ 40	1.2	2	50	30	2.92mm (m)	2.92mm (f)	Pin	Pin	14.7*14.7*9.1

**Cables And Cable Assemblies**

Freflex offers various RF Cables and RF Cable Assemblies to meet different requirements. Frequency range is from DC to 110GHz. Low insertion loss, high power handling, light weighted, and long life.

**How To Order FTV Series:**


**Examples:** To order a pair of VNA test cable assemblies, DC-50GHz, 0.6 meter, specify FTV-M2F-M2-0.6 and FTV-M2F-2F-0.6.

**How To Order Other Series:**


**Examples:** To order a FT67 test cable assembly with armor, DC-60GHz, 1.85mm male to 1.85mm female, 0.5 meter, specify FT67P-60-WVF-0.5.

**FT-Test Cables**

FTV series is high precision test cable, especially used for VNA with frequency up to 67GHz. The low loss, amplitude and phase stabilized cable makes it highly precise. Its special armor design ensures its compression resistance, tension resistance and torsion resistance.

FTV series is high precision test cable especially used for VNA with frequency up to 67GHz.

FT series is high performance test cable with features of frequency up to 110GHz, Phase & Loss Stable and Long Flex Life.

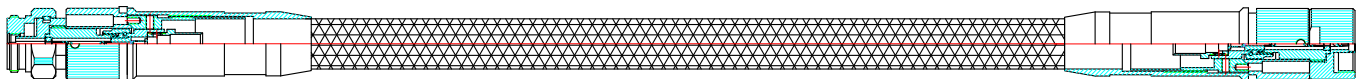
The biggest feature of FTE test cable is low price.

The biggest feature of FTF test cable is ultra-flexible.

**FTV:**

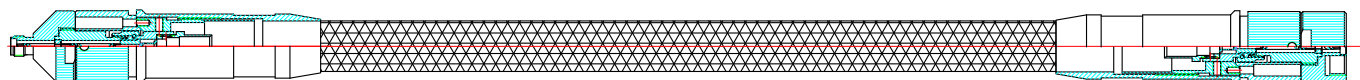
**FT50P:**

**FT50:**

**FTV - VNA Test Cables**


NMD Male

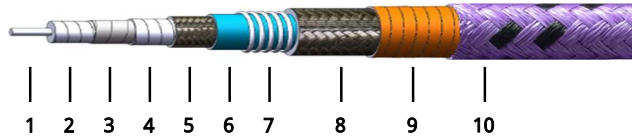
NMD Female



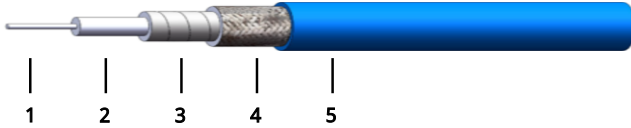
Female

NMD Female

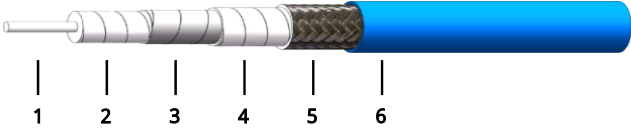
Cable	Frequency (GHz)	Bend Radius (mm)	VSWR (max.)	Phase Stability (±°)	Amplitude Stability (±dB)	Insertion Loss (dB)		
						0.6m	0.8m	1m
FTV-V	DC~67	50	1.5	10	0.13	4.91	6.11	7.31
FTV-2	DC~50	50	1.42	8	0.10	3.17	3.85	4.53
FTV-K	DC~40	50	1.35	6	0.10	2.78	3.37	3.96
FTV-3	DC~26.5	50	1.3	5	0.06	2.23	2.70	3.17
FTV-N	DC~18	50	1.3	4	0.05	1.58	1.88	2.18

**FT - High Performance Test Cable Construction**


Number	Name	Material	Size (mm)					
			FT110	FT110P	FT67	FT67P	FT50	FT50P
1	Inner Conductor	Silver-plated copper	0.31	0.31	0.50	0.50	0.72	0.72
2	Dielectric	Low density PTFE	0.88	0.88	1.38	1.38	2.10	2.10
3	Inner Shield	Silver-plated copper tape	1.00	1.00	1.54	1.54	2.25	2.25
4	Interlayer	Low density PTFE	1.20	1.20	1.82	1.82	2.55	2.55
5	Outer Shield	Silver-plated copper braid	1.45	1.45	2.17	2.17	3.01	3.01
6	Jacket	FEP	1.85	1.85	2.40	2.40	3.60	3.60
7-9	Armor (optional)	Composite		2.70		5.50		5.50
10		PTFE		3.84		6.00		6.00

**FTE - Economical Test Cables Construction**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.94	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Inner Shield	3.20	Silver-plated copper tape
4	Outer Shield	3.55	Silver-plated copper braid
5	Jacket	4.00	FEP

**FTF - Ultra-Flexible Test Cables Construction**


Number	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver plated copper
2	Dielectric	3.07	Low density PTFE
3	Inner Shield	3.27	Silver-plated copper tape
4	Interlayer	3.55	PTFE
5	Outer Shield	4.12	Silver-plated copper braid
6	Jacket	5.20	PUR

**Specifications**

Feature	Cable	Frequency (GHz)	Outer Diameter (mm)	Shielding Effectiveness (dB, min.)	Phase/ Amplitude *1 (±° / ±dB)	Installation / Repeated Bend Radius (mm, min.)	Armor	Bending / Mating Life Cycle	Temperature (°C)
High Performance	FT110	DC~110	1.85	90	- / -	10 / 20	-	50k / -	-55~+125
	FT110P		3.84			30 / 50	Armored		
High Performance	FT67	DC~67	2.4	90	7 / 0.05	12 / 24	-	100k / 5k	-55~+125
	FT67P		6			30 / 60	Armored		
<b>Hot</b> High Performance	FT50 FT50P	DC~50	3.6 6	90	7 / 0.05	18 / 36 30 / 60	- Armored	100k / 5k	-55~+125
Ultra-flexible	FTF	DC~26.5	5.2	90	- / -	20.8 / 52	-	- / -	-55~+85
Economic	FTE	DC~18	4	90	- / -	20 / 40	-	- / -	-55~+125

[1] 50mm Radius, 360°bending

**Attenuation & Power Handling**

Attenuation*1 and Power Handling*2	Cable	Frequency (G)											Coefficient K
		1	3	6	10	12.4	18	26.5	40	50	67	110	
Attenuation (dB/100m)	FT110(P)	114	199	283	368	412	500	612	760	857	1003	1314	K1=3.557846 K2=0.0012207
Average Power (W)		102	58	41	31	28	23	19	15	13	11	8	
Attenuation (dB/100m)	FT67(P)	64	112	161	210	236	288	355	445	503	594	-	K1=1.975832 K2=0.001221
Average Power (W)		97	54	38	29	25	21	17	14	12	10	-	
Attenuation (dB/100m)	<b>Hot</b> FT50(P)	48.1	83.9	119.4	155.2	173.4	210.2	257.1	319.2	359.2	-	-	K1=1.507808 K2=0.000440
Average Power (W)		506	290	204	157	140	116	95	76	68	-	-	
Attenuation (dB/100m)	FTF	38.5	69.8	103.2	139.0	157.9	198.0	252.1	-	-	-	-	K1=1.136600 K2=0.002530
Average Power (W)		149	82	55	41	36	29	23	-	-	-	-	
Attenuation (dB/100m)	FTE	38.2	71.1	107.5	147.6	169.4	216.1	-	-	-	-	-	K1=1.082677 K2=0.003937
Average Power (W)		290	156	103	75	65	51	-	-	-	-	-	

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

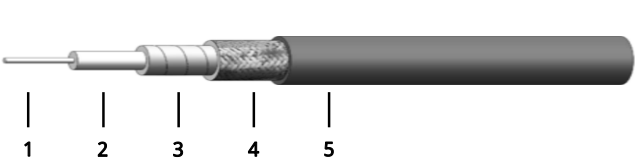
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

## FA-Ultra Low Loss & Phase Stable, Flexible Cables

FA series high-performance cable, with low loss and high power features, has good temperature vs. phase stability (750 PPM@-55~+85°C, max.) up to 50GHz. It is suitable for avionics, phased-array radar, satellite communication and other fields.



Construction			Cable	Size (mm)					
				Inner Conductor	Dielectric	Inner Shield	Outer Shield	Jacket	
			FA150	0.30	0.88	1.00	1.23	1.50	
			<b>Hot</b>	FA220	0.50	1.38	1.54	1.95	2.20
				FA300	0.70	1.93	2.09	2.66	3.10
			<b>Hot</b>	FA360	0.91	2.50	2.66	3.11	3.60
				FA400	1.05	2.85	3.05	3.40	4.00
				FA480	1.40	3.80	3.95	4.35	4.80
			<b>Hot</b>	FA500	1.45	3.99	4.19	4.60	5.20
				FA550	1.60	4.30	4.50	5.10	5.60
				FA750	2.10	5.70	5.95	6.60	7.40
				FA760	2.39	6.25	6.49	7.06	7.65
			<b>Hot</b>	FA800	2.30	6.20	6.44	7.05	7.90
				FA810	2.40	6.36	6.60	7.10	8.10
				FA830	2.44	6.50	6.90	7.65	8.30

Number	Name	Material
1	Inner Conductor	Silver-plated copper (FA760 is Stranded silver-plated copper)
2	Dielectric	Low density PTFE
3	Inner Shield	Silver-plated copper tape
4	Outer Shield	Silver-plated copper braid
5	Jacket	PFA

### Attenuation & Power Handling (Multi-channel cable assemblies are available for FA220 series.)

Cable Specifications	FA150	FA220	FA300	FA360	FA400	FA480	FA500	FA550	FA750	FA760	FA800	FA810	FA830
Frequency (GHz)	40	50	50	40	40	26.5	26.5	18	18	18	18	18	18
Cut-off Frequency (GHz)	128	83	60	48	41	31	29	27	20	19	19	18	18
Impedance (Ω)	50												
Velocity of Propagation (%)	80	81	82	82	82	83	83	83	83	83	83	83	83
Shielding Effectiveness (dB)	> 90												
Voltage Withstand (V DC)	400	400	500	500	1500	1500	1500	2000	2500	2500	2500	2500	2500
PIM (dBc)	-155												
Phase Stability (PPM@-55~+85°C)	< 1000		< 750										
Outer Diameter (mm)	1.50	2.20	3.10	3.60	4.00	4.80	5.20	5.60	7.40	7.65	7.90	8.10	8.30
Installation Bend Radius (mm)	8.0	8.8	15.0	18.0	20.0	24.0	26.0	28.0	37.0	38.0	39.0	40.0	41.0
Repeated Bend Radius (mm)	15.0	22.0	31.0	36.0	40.0	48.0	52.0	56.0	74.0	76.0	79.0	81.0	83.0
Weight (g/m)	5.4	16	29	33	36	58	67	93	125	137	130	140	162
TEMP. (°C)	-55~+125			-55~+165									

**Attenuation & Power Handling** (Multi-channel cable assemblies are available for FA220 series.)

Attenuation*1 and Power Handling*2	Frequency (G)		0.3	1	2	6	12.4	18	26.5	40	50	Coefficient K
	Cable											
Attenuation (dB/100m)	FA150		62.0	113.7	161.6	282.9	411.3	499.3	611.5	760.4	-	K1=3.557846
Average Power (W)			177	97	68	39	27	22	18	15	-	K2=0.001221
Attenuation (dB/100m)	<b>Hot</b> FA220		34.6	63.7	90.8	160.4	235.2	287.1	354	444	502.8	K1=1.975832
Average Power (W)			178	97	68	38	26	21	17	14	12	K2=0.001221
Attenuation (dB/100m)	FA300		25.5	46.8	66.6	117.1	170.8	207.9	255.4	318.9	360.1	K1=1.458470
Average Power (W)			749	407	286	163	111	92	75	60	53	K2=0.000680
Attenuation (dB/100m)	<b>Hot</b> FA360		20.4	37.5	53.4	93.9	136.9	166.7	204.8	255.7	-	K1=1.168470
Average Power (W)			936	509	358	203	139	115	93	75	-	K2=0.000550
Attenuation (dB/100m)	FA400		18.4	33.5	47.5	82.8	119.7	144.7	176.4	218.1	-	K1=1.054470
Average Power (W)			1159	634	447	257	178	147	121	98	-	K2=0.000180
Attenuation (dB/100m)	FA480		13.1	24.1	34.3	60.1	87.6	106.6	130.8	-	-	K1=0.750400
Average Power (W)			1689	919	644	368	252	207	169	-	-	K2=0.000328
Attenuation (dB/100m)	<b>Hot</b> FA500		12.8	23.5	33.3	58.6	85.4	103.9	127.6	-	-	K1=0.730000
Average Power (W)			1688	919	646	368	251	207	169	-	-	K2=0.000328
Attenuation (dB/100m)	FA550		12.2	22.3	31.6	55.0	79.5	96.1	-	-	-	K1=0.701472
Average Power (W)			1873	1024	722	415	287	237	-	-	-	K2=0.000110
Attenuation (dB/100m)	FA750		8.6	15.8	22.5	39.1	56.6	68.5	-	-	-	K1=0.496490
Average Power (W)			3186	1740	1223	704	486	401	-	-	-	K2=0.000104
Attenuation (dB/100m)	FA760		9.8	18	25.7	45.3	66.3	80.9	-	-	-	K1=0.559764
Average Power (W)			2952	1604	1126	638	436	357	-	-	-	K2=0.000320
Attenuation (dB/100m)	<b>Hot</b> FA800		8.0	14.8	21.1	37.3	54.8	67.0	-	-	-	K1=0.456300
Average Power (W)			3341	1812	1270	717	487	399	-	-	-	K2=0.000320
Attenuation (dB/100m)	FA810		7.4	13.7	19.5	34.8	51.5	63.3	-	-	-	K1=0.419490
Average Power (W)			3503	1894	1324	742	502	409	-	-	-	K2=0.000389
Attenuation (dB/100m)	FA830		7.2	13.3	18.9	33.6	49.5	60.6	-	-	-	K1=0.408997
Average Power (W)			3498	1894	1326	747	507	414	-	-	-	K2=0.000320

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)=  $K1*\sqrt{F}(\text{MHz})+K2*F(\text{MHz})$

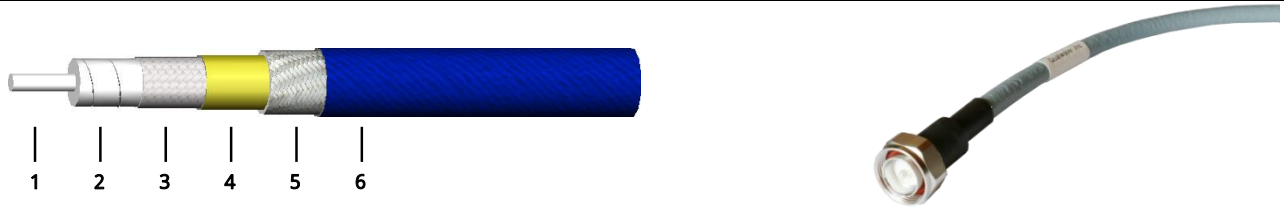
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Single Connector Attenuation: Attenuation (dB)=  $0.03*\sqrt{F}(\text{GHz})$

## FB-Stable Loss, Phase vs Flexing, Flexible Cables

FB1200 & FB1500 have large outer diameter, low insertion loss, high power and bending durable features. They are used to all kinds of low loss and high power situation, such as phased-array radar, satellite communication, avionics, telecommunications, etc.

### Construction



Number	Name	Material	Size (mm)	
			FB1200	FB1500
1	Inner Conductor	Stranded silver-plated copper	3.50	4.40
2	Dielectric	Low density PTFE	9.90	12.50
3	Inner Shield	Silver-plated copper tap	10.17	12.82
4	Interlayer	Aluminum tap	10.30	12.95
5	Outer Shield	Silver-plated copper braid	11.02	13.67
6	Jacket	FEP	12.00	14.70

### Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	PIM (dBc)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FB1200	8	11	50	76	> 90	3000	-155	12.00	60.0 / 120.0	310	-55~+200
FB1500	6	10				4000		14.70	76.0 / 150.0	400	

### Attenuation & Power Handling

Attenuation <sup>*1</sup> and Power Handling <sup>*2</sup>	Cable	Frequency (G)											Coefficient K
		0.1	0.3	0.5	1	2	3	4	5	6	8		
Attenuation (dB/100m)	FB1200	4.0	7.0	9.1	13.0	18.8	23.3	27.2	30.7	33.9	39.8	K1=0.391680	
Average Power (W)		8450	4830	3713	2590	1793	1447	1238	1098	991	844		K2=0.000600
Attenuation (dB/100m)	FB1500	3.1	5.5	7.1	10.3	14.8	18.5	21.6	24.5	27.2	-	K1=0.304208	
Average Power (W)		13440	7650	5870	4080	2818	2260	1928	1703	1537	-		K2=0.000591

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

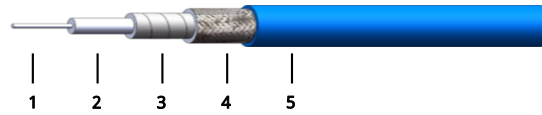
Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)



**FG-Economical Low Loss Flexible Cables**

FG series has the characteristics of low loss, and its specification and price are between FA series and FH series. It is suitable for interconnection within equipment.

**Construction**


Number	Name	Material	Size (mm)		
			FG360	FG500	FG800
1	Inner Conductor	Silver-plated copper	0.91	1.45	2.30
2	Dielectric	Low density PTFE	2.65	4.20	6.80
3	Inner Shield	Self-adhesive aluminum foil	2.78	4.32	6.95
4	Outer Shield	Silver-plated copper braid	3.25	4.65	7.50
5	Jacket	FEP	3.60	5.10	8.10

**Specifications**

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FG360	18	40	50	76	> 70	1000	3.60	18.0 / 36.0	28	-55~+125
FG500	18	28			> 70	1500	5.10	25.0 / 51.0	60	
FG800	18	19			> 90	2000	8.10	40.0 / 81.0	120	

**Attenuation & Power Handling**

Attenuation* <sup>1</sup> and Power Handling* <sup>2</sup>	Cable	Frequency (G)									Coefficient K
		0.3	0.5	1	2	6	8	10	12.4	18	
Attenuation (dB/100m)	FG360	21.0	27.2	38.7	55.1	96.9	112.5	126.4	141.5	172.3	K1=1.204032 K2=0.000600
Average Power (W)		850	657	462	325	185	159	141	126	104	
Attenuation (dB/100m)	FG500	12.8	16.6	23.8	34.3	62.1	73.0	82.7	93.4	115.9	K1=0.718000 K2=0.001088
Average Power (W)		1428	1098	766	530	293	249	220	195	157	
Attenuation (dB/100m)	FG800	8.0	10.5	15.1	21.9	40.1	47.3	53.8	61.0	76.3	K1=0.448000 K2=0.000898
Average Power (W)		3141	2409	1674	1152	629	533	469	413	331	

[1] VSWR:1.0; Ambient:+25°C(77°F)

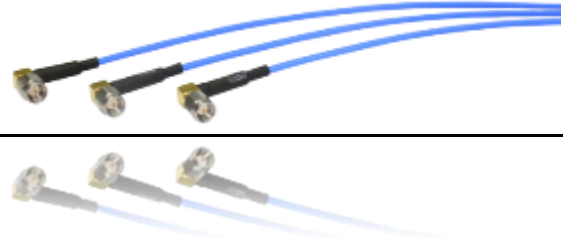
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

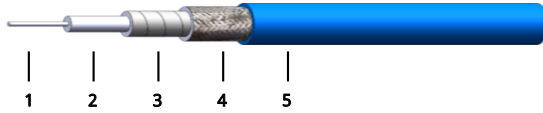
Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

## FH-Flexible, Alternative to Semirigid Cables

FH series are economical flexible cables. It can replace semi-rigid cable, semi-flexible cable, and it is suitable for interconnection inside the equipment.



### Construction



Number	Name	Material	Size (mm)		
			FH160	FH280	FH400
1	Inner Conductor	Silver-plated copper	0.30	0.53	0.94
2	Dielectric	PTFE	0.95	1.63	3.00
3	Inner Shield	Silver-plated copper tape	1.10	1.83	3.20
4	Outer Shield	Silver-plated copper braid	1.35	2.18	3.55
5	Jacket	FEP (FH160 is PFA)	1.60	2.65	4.00

### Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FH160	18	110	50	70	> 90	300	1.60	6.0 / 16.0	5	-55~+125
<b>Hot</b> FH280	40	62				500	2.65	13.0 / 26.0	22	
<b>Hot</b> FH400	26.5	34				1500	4.00	20.0 / 40.0	49	

### Attenuation & Power Handling (Multi-channel cable assemblies are available for FH280 series.)

Attenuation*1 and Power Handling*2	Frequency (G) Cable	0.3	0.5	1	2	6	8	12.4	18	26.5	40	Coefficient K
		Attenuation (dB/100m)	FH160	73.8	95.4	135.2	191.7	334.0	386.6	483.2	584.7	
Average Power (W)	FH160	150	116	82	57	33	28	23	19	-	-	K2=0.000820
Attenuation (dB/100m)	<b>Hot</b> FH280	37.0	48.2	69.3	100.4	183.7	216.4	279.0	348.2	440.8	570.9	K1=2.066929
Average Power (W)	<b>Hot</b> FH280	187	171	119	82	45	38	30	24	19	14	K2=0.003937
Attenuation (dB/100m)	<b>Hot</b> FH400	19.9	26.2	38.2	56.3	107.5	128.3	169.4	216.1	280.6	-	K1=1.082677
Average Power (W)	<b>Hot</b> FH400	512	423	290	196	103	86	65	51	39	-	K2=0.003937

[1] VSWR:1.0; Ambient:+25°C(77°F)

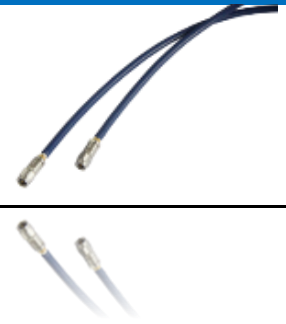
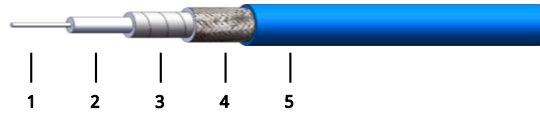
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**FZ-Ultra-Flexible Cables**

FZ series is ultra flexible RF cable, suitable for phased-array radar, laboratory test and small & complicated interconnection occasions.


**Construction**


Number	Name	Material	Size (mm)			
			FZ360	FZ500	FZ600	FZ800
1	Inner Conductor	Stranded Silver-plated copper	0.72	1.02	1.44	1.88
2	Dielectric	Low density PTFE	2.05	3.00	4.25	5.50
3	Inner Shield	Silver-plated copper tape	2.22	3.20	4.45	5.74
4	Outer Shield	Silver-plated copper braid	2.66	3.78	4.90	6.31
5	Jacket	PUR	3.60	5.00	5.90	8.00

**Specifications**

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FZ360	40	51	50	76	> 90	500	3.60	18.0 / 36.0	30	-55~+85
FZ500	26.5	35				1000	5.00	25.0 / 50.0	50	
FZ600	26.5	29.5				1700	5.90	30.0 / 60.0	82	
FZ800	18	20				1700	8.00	40.0 / 80.0	130	

**Attenuation & Power Handling**

Attenuation*1 and Power Handling*2	Cable	Frequency (G)											Coefficient K
		0.3	0.5	1	2	6	8	12.4	18	26.5	40		
Attenuation (dB/100m)	FZ360	28	36.3	51.9	74.5	133.4	156.1	198.7	244.9	305.5	388.8	K1=1.582929 K2=0.001806	
Average Power (W)		220	169	119	82	46	39	31	25	20	16		
Attenuation (dB/100m)	FZ500	20.4	26.7	38.5	55.6	103.2	122	157.9	198	252.1	-	K1=1.136600 K2=0.002530	
Average Power (W)		280	215	149	102	55	46	36	29	23	-		
Attenuation (dB/100m)	FZ600	15.6	20.2	28.7	41.2	73.6	86	109.2	134.3	167.2	-	K1=0.880600 K2=0.000900	
Average Power (W)		321	248	175	122	68	59	46	37	30	-		
Attenuation (dB/100m)	FZ800	9.5	12.5	18.2	26.8	50.9	60.7	80.0	101.9	-	-	K1=0.517315 K2=0.001806	
Average Power (W)		626	477	327	222	117	98	74	58	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

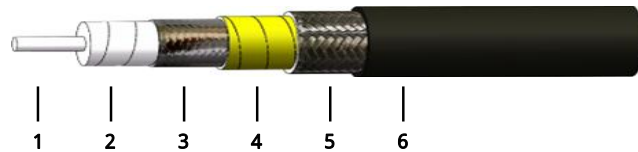
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**FY-Outdoor Use Flexible Cables**

FY is low loss flexible cable, suitable for outdoor, such as wireless base station, satellite communication, maritime communication.


**Construction**


Number	Name	Material	Size (mm)			
			FY460	FY520	FY635	FY1000
1	Inner Conductor	Silver-plated copper	1.02	1.29	1.57	2.44
2	Dielectric	Low density PTFE	3.07	3.91	4.72	7.24
3	Inner Shield	Silver-plated copper tap	3.27	4.15	4.96	7.48
4	Interlayer	Aluminum tape	3.43	4.28	5.10	7.61
5	Outer Shield	Silver-plated copper braid	3.94	4.79	5.66	8.19
6	Jacket	PUR	5.00	6.00	7.20	10.15

**Specifications**

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)	Outdoor Life (year)
FY460	18	35	50	76	> 70	1000	5.00	25.0 / 50.0	56	-55~+85	20
FY520	18	35				1000	6.00	30.0 / 60.0	70		
FY635	18	27				2000	7.20	36.0 / 72.0	89		
FY1000	10	15				3000	10.15	50.0 / 100.0	190		

**Attenuation & Power Handling**

Attenuation* <sup>1</sup> and Power Handling* <sup>2</sup>	Cable	Frequency (G)										Coefficient K
		0.3	0.5	1	3	6	8	10	12.4	18		
Attenuation (dB/100m)	FY460	19.2	24.9	35.4	62	88.8	103.2	116	129.9	158.3	K1=1.099485 K2=0.000602	
Average Power (W)		366	283	199	113	79	68	61	54	44		
Attenuation (dB/100m)	FY520	15	19.4	27.7	48.7	69.9	81.4	91.5	102.7	125.5	K1=0.856234 K2=0.000591	
Average Power (W)		484	374	263	149	104	88	79	71	58		
Attenuation (dB/100m)	FY635	12	15.6	22.2	39.2	56.4	65.8	74.2	83.4	102.2	K1=0.682743 K2=0.000591	
Average Power (W)		660	509	357	202	140	120	107	95	77		
Attenuation (dB/100m)	FY1000	7.9	10.3	14.7	26.2	38.2	44.7	50.6	-	-	K1=0.446080 K2=0.000600	
Average Power (W)		2053	1580	1104	619	425	363	321	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

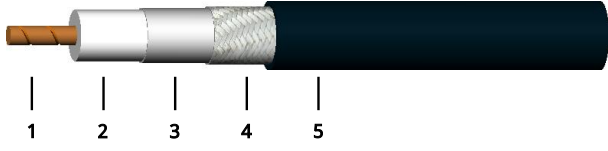
Calculate Cable Attenuation: Attenuation (dB/100m)=  $K1 \cdot \sqrt{F} + K2 \cdot F$  (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)=  $0.03 \cdot \sqrt{F}$  (GHz)

## FR-Low Loss Wireless Communication Cables

FR wireless communication cable, with low loss and low cost, is mainly used in communication field, and also can be used for microwave product interconnection.



Construction	Cable	Size (mm)				
		Inner Conductor	Dielectric	Outer Conductor	Outer Shield	Jacket
	FR280	0.46	1.52	1.65	2.11	2.80
	FR500	0.94	2.79	2.95	3.53	5.00
	FR500U	0.97	2.79	2.95	3.53	5.00
	<b>Hot</b> FR600	1.42	3.81	3.94	4.52	6.00
	FR600U	1.42	3.81	3.94	4.52	6.00
	FR700	1.78	4.83	4.98	5.72	7.60
	<b>Hot</b> FR1000	2.74	7.24	7.39	8.13	10.00
	FR1000U	2.74	7.24	7.39	8.13	10.30
	FR1500	4.47	11.56	11.72	12.45	15.00
	FR1500U	4.47	11.56	11.71	12.45	15.00

Cable	1: Inner Conductor	2: Dielectric	3: Outer Conductor	4: Outer Shield	5: Jacket
FR280	Copper-clad steel	PE	Double-edged aluminum foil	Tin-plated copper braid	PE or PVC
FR500 / FR600 / FR700	Copper	Foam PE			PE or PVC
FR1000 / FR1500	Copper-clad aluminum	Foam PE			PE or PVC
FR500U / FR600U / FR1000U / FR1500U	Stranded Copper	Foam PE			TPE

## Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)	Outdoor Life (year)
FR280	5.8	63	50	66	> 90	500	2.80	6.4 / 28.0	10	-40~+85	20 or 10
FR500	5.8	41		80		1000	5.00	12.0 / 50.0	30		20 or 10
FR500U	5.8	41		80		1000	5.00	12.0 / 50.0	30		20
FR600	5.8	30		83		1500	6.00	20.0 / 65.0	50		20 or 10
FR600U	5.8	31		84		1500	6.00	20.0 / 65.0	50		20
FR700	5.8	24.5		83		2000	7.60	25.0 / 76.0	80		20 or 10
FR1000	5.8	16.2		84		2500	10.00	25.0 / 100.0	100		20 or 10
FR1000U	5.8	16.2		85		2500	10.30	25.0 / 100.0	130		20
FR1500	5.8	10.3		87		4000	15.00	38.0 / 152.0	200		20 or 10
FR1500U	2	10		87		4000	15.00	40.0 / 80.0	250		20

**Attenuation & Power Handling** (The attenuation in this table is typical value, and the maximum value is 1.1 times of the typical value.)

Attenuation* <sup>1</sup> and Power Handling* <sup>2</sup>	Cable	Frequency (G)												Coefficient K
		0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8		
Attenuation (dB/100m)	FR280	12.9	16.7	29.4	35.8	52.0	75.1	99.0	109.3	116	132	212	K1=2.3261155 K2=0.0059055	
Average Power (W)		230	180	100	83	57	39	29	27	25	22	13		
Attenuation (dB/100m)	FR500	6.5	8.4	14.7	17.8	25.7	36.7	47.9	52.8	55.8	62.8	98.6	K1=1.1778215 K2=0.0015420	
Average Power (W)		890	680	390	320	220	160	120	110	100	90	60		
Attenuation (dB/100m)	FR500U	7.7	10.0	17.4	21.1	30.4	43.5	56.8	62.5	66.1	75.4	117	K1=1.3943570 K2=0.0018701	
Average Power (W)		780	610	350	280	200	140	100	90	90	80	50		
Attenuation (dB/100m)	<b>Hot</b> FR600	4.4	5.7	10.0	12.2	17.5	25.1	32.8	36.1	38.1	42.9	67.5	K1=0.8038058 K2=0.0010827	
Average Power (W)		1490	1150	660	540	380	260	200	180	170	150	100		
Attenuation (dB/100m)	FR600U	5.3	6.9	12.1	14.6	21.1	30.2	39.5	43.4	45.9	51.7	81.3	K1=0.9678478 K2=0.0013123	
Average Power (W)		1240	960	550	450	310	220	170	150	140	130	80		
Attenuation (dB/100m)	FR700	3.5	4.6	8.0	9.7	14.1	20.2	26.4	29.1	30.8	34.7	55.0	K1=0.6397638 K2=0.0010827	
Average Power (W)		2090	1620	920	760	520	360	280	250	240	210	130		
Attenuation (dB/100m)	<b>Hot</b> FR1000	2.2	2.9	5.1	6.2	8.9	12.8	16.9	18.6	19.7	22.3	35.6	K1=0.4022310 K2=0.0008596	
Average Power (W)		3330	2570	1470	1200	830	580	440	400	370	330	210		
Attenuation (dB/100m)	FR1000U	2.7	3.5	6.1	7.4	10.7	15.4	20.3	22.4	23.7	26.7	42.8	K1=0.4822835 K2=0.0010499	
Average Power (W)		2770	2140	1220	1000	690	480	360	330	310	280	170		
Attenuation (dB/100m)	FR1500	1.4	1.8	3.2	3.9	5.7	8.4	11.1	12.3	13.0	14.8	24.2	K1=0.2526247 K2=0.0008530	
Average Power (W)		5510	4240	2410	1970	1350	930	700	630	590	520	320		
Attenuation (dB/100m)	FR1500U	1.7	2.2	3.8	4.6	6.8	9.8	13.1	14.5	15.4	-	-	K1=0.2974409 K2=0.0010236	
Average Power (W)		4590	3540	2010	1640	1130	770	580	530	500	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

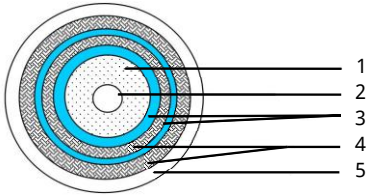
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\* $\sqrt{F}$  (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\* $\sqrt{F}$  (GHz)

**RG-Low Cost, Flexible Cables**

RG cable is a kind of low cost cable, which is mainly used for the interconnection of microwave equipments.

**RG6**


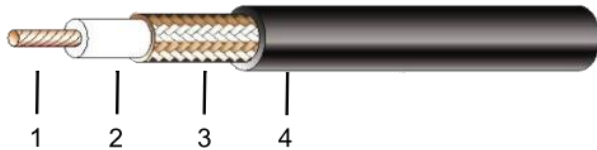
Number	Name	Size (mm)	Material
1	Dielectric	4.60	FPE
2	Inner Conductor	1.02	Copper
3	Outer Conductor	-	Aluminum plastic strip
4	Outer Conductor	-	Aluminum wire
5	Jacket	7.80	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR	Capacitance (pF / m)	Bend Radius (mm)	TEMP. (°C)
0.005~2.2	75±3	83	1.25 @ 5~1000MHz 1.45 @ 1000~2200MHz	53	> 35	-20~+70

Frequency (G)	0.055	0.211	0.35	0.55	0.87	1	2.2	Coefficient K
Attenuation*1 (dB/100m)	5.25	10	12.63	16.08	20.04	21.49	33.7	K1=0.71075768, K2=-0.00166783

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG58**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.90	Silver-plated copper
2	Dielectric	2.95	PE
3	Outer Shield	3.50	Bare copper
4	Jacket	4.95	Black PVC

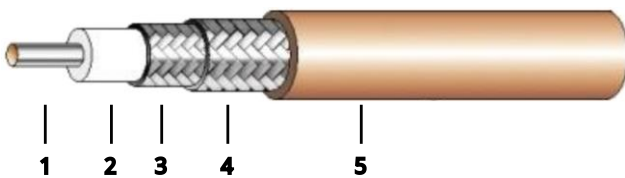
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation Bend Radius (mm)	TEMP. (°C)
DC~1	50	66	1400	101.05	25	-40~+80

Frequency (G)	0.1	0.4	1	Coefficient K
Attenuation*1 (dB/100m)	15.1	30.8	50.2	K1=1.500603, K2=0.001875

[1] VSWR:1.0; Ambient:+20°C(68°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG142**


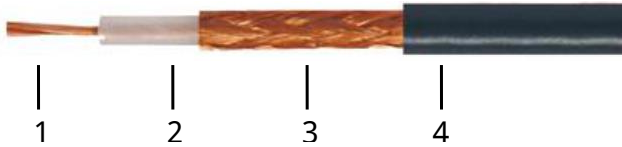
Number	Name	Size (mm)	Material
1	Inner Conductor	0.93	Silver-plated copper
2	Dielectric	2.98	PTFE
3	Inner Shield	3.45	Silver-plated copper braid
4	Outer Shield	3.95	Silver-plated copper braid
5	Jacket	4.95	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~12.4	50	70	1400	95	25 / 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	6	12.4
Attenuation*1 (dB/100m)	12.5	25.6	42	78.1	105	118.5	226.7

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG174**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.45	Bare copper wire
2	Dielectric	1.45	Solid PE
3	Outer Shield	2.00	Bare copper wire
4	Jacket	2.80	PVC

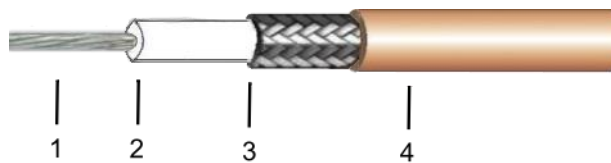
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation Bend Radius (mm)	TEMP. (°C)
DC~3	50	66	900	101	14	-20~+75

Frequency (G)	0.2	1.8	2.5	3	Coefficient K
Attenuation*1 (dB/100m)	44	147	181	199	K1=2.9578496, K2=0.011905

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG178**


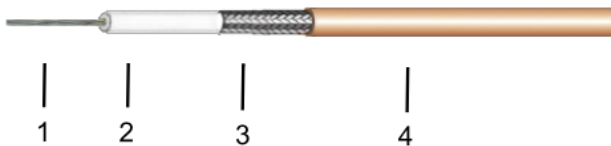
Number	Name	Size (mm)	Material
1	Inner Conductor	0.3	Silverplated copper Wire
2	Dielectric	0.9	PTFE
3	Outer Conductor	1.3	Silverplated copper Wire
4	Jacket	1.8	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~6	50±2	70	1.30@DC~6GHz	1000	96	> 10 / > 40	-55~+200

Frequency (G)	0.1	0.4	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	52	120	170	242	308	363	415	480	K1=2.577759, K2=0.004024

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG179**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.306	Silver plated copper wire
2	Dielectric	1.60	FEP
3	Outer Conductor	2.05	Silver plated copper wire
4	Jacket	2.54	FEP

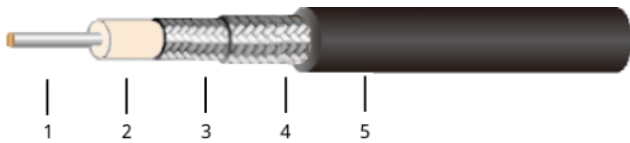
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~3	75±2	70	1.20@DC~1GHz	1200	64	> 12 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	Coefficient K
Attenuation*1 (dB/100m)	26.6	54.1	87.5	K1=2.64685263, K2=0.0028125

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)



**RG223**


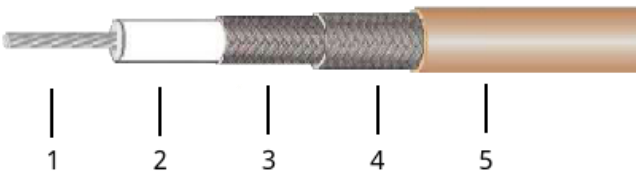
Number	Name	Size (mm)	Material
1	Inner Conductor	0.90	Silver-plated copper
2	Dielectric	2.95	PE
3	Inner Shield	112*0.12	Silver-plated copper braid
4	Outer Shield	112*0.12	Silver-plated copper braid
5	Jacket	5.4	PVC

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Bend Radius (mm)	Temperature (°C)
DC-6	50	66	1400	100	25	-20~+80

Frequency (G)	0.05	0.1	0.2	0.4	0.5	0.9	1.5	2	3	6
Attenuation*1 (dB/100m)	14	16	19	28	37	44	59	70	88	145

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG304**


Number	Name	Size (mm)	Material
1	Inner Conductor	1.48	Silverplated copper Wire
2	Dielectric	4.60	PTFE
3	Outer Conductor1	5.00	Silverplated copper Wire
4	Outer Conductor2	5.60	Silverplated copper Wire
5	Jacket	7.10	FEP

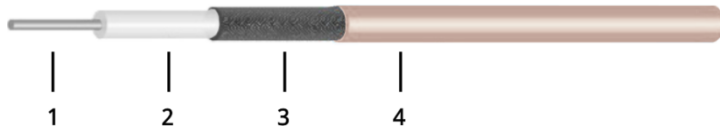
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	3200	96	> 40 / > 71	-55~+200

Frequency (G)	0.03	0.2	3	5	6	Coefficient K
Attenuation*1 (dB/100m)	6.27	16.5	73.7	78.9	86.9	K1=5.116766, K2=0.008134

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG316**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.51	Stranded Silver-plated copper
2	Dielectric	1.50	FEP
3	Outer Shield	1.95	Silver-plated copper braid
4	Jacket	2.50	FEP

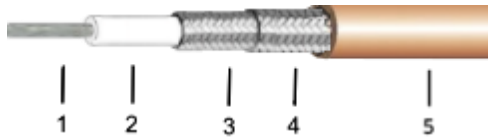
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	TEMP. (°C)
DC-6	50	70	600	96	-55~+200

Frequency (G)	0.1	0.4	1	3	6	Coefficient K
Attenuation*1 (dB/100m)	26.2	53.2	85.6	153.2	295	K1=2.583794, K2=0.003893

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG316D**


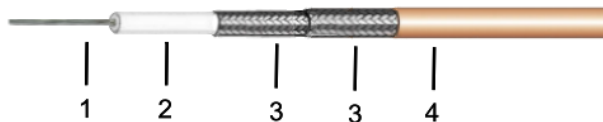
Number	Name	Size (mm)	Material
1	Inner Conductor	0.51	Silverplated copper Wire
2	Dielectric	1.52	PTFE
3	Outer Conductor1	1.95	Silverplated copper Wire
4	Outer Conductor2	2.40	Silverplated copper Wire
5	Jacket	2.90	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.20@DC-3GHz	1200	95	> 15 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	6	Coefficient K
Attenuation*1 (dB/100m)	26.2	53.1	85.6	153.2	208	226	K1=2.577759, K2=0.004024

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RG400**


Number	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silverplated copper Wire
2	Dielectric	2.98	PTFE
3	Outer Shield1	3.50	Silverplated copper Wire
3	Outer Shield2	4.00	Silverplated copper Wire
4	Jacket	4.95	TPU

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-12.4	50	70	1400	95	> 25 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	11	12.4	Coefficient K
Attenuation*1 (dB/100m)	14.1	30.5	49.2	90.2	110	190	205	K1=1.379353, K2=0.007188

[1] VSWR:1.0; Ambient:+20°C(68°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RF113**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.24	Tinned Copper Wire
2	Dielectric	0.70	FEP
3	Outer Conductor	0.92	Tinned Copper Wire
4	Jacket	1.13	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.30@DC-6GHz	1000	98	> 5 / > 10	-55~+200

Frequency (G)	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	220	310	380	440	490	540	K1=6.9592643, K2=-0.00065630

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**RF137**


Number	Name	Size (mm)	Material
1	Inner Conductor	0.306	Tinned Copper Wire
2	Dielectric	0.90	FEP
3	Outer Conductor	1.13	Tinned Copper Wire
4	Jacket	1.37	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.30@DC-6GHz	1000	96	> 5 / > 20	-55~+200

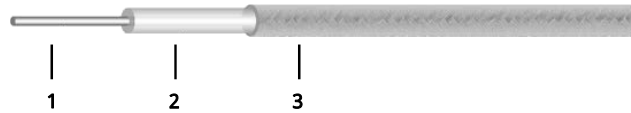
Frequency (G)	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	170	250	300	350	400	450	K1=5.3386764, K2=0.00558114

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**FD-Semiflex Cables**

FD series is a kind of semi-flexible RF cable, whose shape could be formed manually. It is easy to assembly and often used for equipment interconnection.


**Construction**


Number	Name	Material	Size (mm)			
			FD047	FD086	FD141	FD250
1	Inner Conductor	Silver-plated copper (FD047 is SCCS Silver-plated copper clad steel)	0.31	0.53	0.94	1.65
2	Dielectric	PTFE	0.94	1.65	2.98	5.25
3	Inner Shield	Tin-plated copper braid	1.19	2.17	3.55	6.30

**Specifications**

Cable	Frequency (GHz)	Cut-off Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FD047	20	-	50	70	-	900	1.19	4 / 20	-	-55~+200
<b>Hot</b> FD086	40	61			> 100	1000	2.17	10 / 20	20	-55~+150
<b>Hot</b> FD141	6	34.4			> 100	1500	3.55	17.75 / 35.5	50	-55~+150
FD250	6	19			> 100	2500	6.30	20 / 40	140	-55~+225

**Attenuation & Power Handling**

Attenuation* <sup>1</sup> and Power Handling* <sup>2</sup>	Frequency (G)											
	Cable	0.3	0.5	1	2	6	8	12.4	18	26.5	40	Coefficient K
Attenuation (dB/100m)	FD047	63	82	118	171	314	370	476	594.6	-	-	K1=3.512916 K2=0.006852
Average Power (W)		-	-	-	-	-	-	-	-	-	-	
Attenuation (dB/100m)	<b>Hot</b> FD086	38.2	49.8	71.9	104.6	193.8	229.1	297.4	373.6	476.6	622.6	K1=2.115000 K2=0.004990
Average Power (W)		135	103	72	49	27	22	17	14	11	8	
Attenuation (dB/100m)	<b>Hot</b> FD141	20.6	27	39.4	58.1	110.7	-	-	-	-	-	K1=1.119870 K2=0.003986
Average Power (W)		311	237	163	110	58	-	-	-	-	-	
Attenuation (dB/100m)	FD250	12.14	16.03	23.6	35.23	69.09	-	-	-	-	-	K1=0.645600 K2=0.003180
Average Power (W)		713	540	367	246	125	-	-	-	-	-	

[1] VSWR:1.0; Ambient:+25°C(77°F)

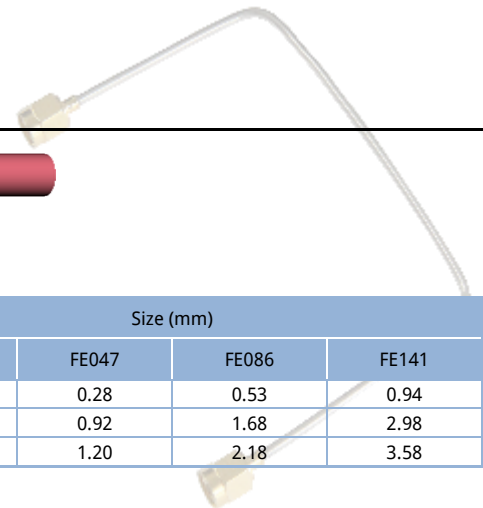
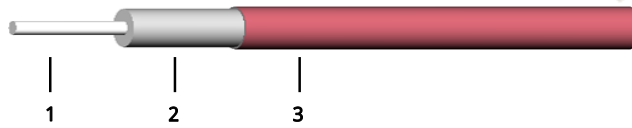
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**FE-Semirigid Cables**

FE series semirigid RF cable with low PIM, is used for internal connection of precision instruments.

**Construction**


Number	Name	Material	Size (mm)			
			FE020	FE047	FE086	FE141
1	Inner Conductor	Silver-plated copper	0.127	0.28	0.53	0.94
2	Dielectric	PTFE	0.432	0.92	1.68	2.98
3	Outer Conductor	Ternary alloy plated seamless copper tube	0.580	1.20	2.18	3.58

**Specifications**

Cable	Frequency (GHz)	Cut-off Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
FE020	40	110	50	70	> 165	100	0.58	1.27	2	-55~+125
FE047	40	110				100	1.20	4.2	3	
FE086	40	64				400	2.18	7	19	
FE141	26.5	34				500	3.58	15	46	

**Attenuation & Power Handling**

Attenuation*1 and Power Handling*2	Frequency (G) Cable	0.3	0.5	1	6	10	12.4	18	26.5	40	Coefficient K
		Attenuation (dB/100m)	FE020	130	170	240	600	780	870	1060	
Average Power (W)	FE020	99	77	54	22	17	15	12	10	8	K2=0.0029
Attenuation (dB/100m)	FE047	62	80	114	290	380	430	520	650	820	K1=3.5016
Average Power (W)	FE047	109	84	59	23	18	16	13	10	8	K2=0.0029
Attenuation (dB/100m)	FE086	35.0	45.5	64.9	166.6	219.9	247.6	304.9	379.9	482.7	K1=1.985320
Average Power (W)	FE086	475	366	256	100	76	67	55	44	34	K2=0.002140
Attenuation (dB/100m)	FE141	20.3	26.5	38.2	102.4	137.7	156.4	195.9	249.2	-	K1=1.131702
Average Power (W)	FE141	1020	782	542	203	151	133	106	83	-	K2=0.002450

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1\*√F (MHz)+K2\* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03\*√F (GHz)

**Calibration Kits**

Freflex supplies calibration kits with different types to meet the needs of customers.

**Features:** High Precision; **Applications:** Calibration, Laboratory Test.

**FCK-N-9-10:**



**FCK-3-9-3-M:**



**FCK-3-9-3-F:**


**Calibration Kits**

Components included in the calibration kits: '√' means included, 'x' means not included.

Part Number	Frequency (GHz)	Type	Conconnector	Quantity	Open		Short		Termination		Torque Wrench	Adapter		
					M	F	M	F	M	F		M to M	M to F	F to F
FCK-V-67-10	DC~67	Precision	1.85mm	10	√	√	√	√	√	√	√	√	√	√
FCK-2-50-10	0.1 ~ 50	Precision	2.4mm	10	√	√	√	√	√	√	√	√	√	√
FCK-K-40-1-10	DC~40	Precision	2.92mm	10	√	√	√	√	√	√	√	√	√	√
FCK-K-40-1-3M	DC~40	Precision	2.92mm	3	√	x	√	x	√	x	x	x	x	x
FCK-K-40-1-3F	DC~40	Precision	2.92mm	3	x	√	x	√	x	√	x	x	x	x
FCK-K-40-1-6	DC~40	Precision	2.92mm	6	√	√	√	√	√	√	x	x	x	x
FOKC-M-40-1	DC~40	Precision	2.92mm	1	√	x	x	x	x	x	x	x	x	x
FOKC-F-40-1	DC~40	Precision	2.92mm	1	x	√	x	x	x	x	x	x	x	x
FSKC-M-40-1	DC~40	Precision	2.92mm	1	x	x	√	x	x	x	x	x	x	x
FSKC-F-40-1	DC~40	Precision	2.92mm	1	x	x	x	√	x	x	x	x	x	x
FCT-K-C-M-40-1	DC~40	Precision	2.92mm	1	x	x	x	x	√	x	x	x	x	x
FCT-K-C-F-40-1	DC~40	Precision	2.92mm	1	x	x	x	x	x	√	x	x	x	x
FW-K1-CK	DC~40	Precision	2.92mm	1	x	x	x	x	x	x	√	x	x	x
FAKCC-MM	DC~40	Precision	2.92mm	1	x	x	x	x	x	x	x	√	x	x
FAKCC-MF	DC~40	Precision	2.92mm	1	x	x	x	x	x	x	x	x	√	x
FAKCC-FF	DC~40	Precision	2.92mm	1	x	x	x	x	x	x	x	x	x	√
FCK-3-26.5-1-10	DC~26.5	Precision	3.5mm	10	√	√	√	√	√	√	√	√	√	√
FCK-3-26.5-1-3M	DC~26.5	Precision	3.5mm	3	√	x	√	x	√	x	x	x	x	x
FCK-3-26.5-1-3F	DC~26.5	Precision	3.5mm	3	x	√	x	√	x	√	x	x	x	x
FCK-3-26.5-1-6	DC~26.5	Precision	3.5mm	6	√	√	√	√	√	√	x	x	x	x
FO3C-M-26.5-1	DC~26.5	Precision	3.5mm	1	√	x	x	x	x	x	x	x	x	x
FO3C-F-26.5-1	DC~26.5	Precision	3.5mm	1	x	√	x	x	x	x	x	x	x	x
FS3C-M-26.5-1	DC~26.5	Precision	3.5mm	1	x	x	√	x	x	x	x	x	x	x
FS3C-F-26.5-1	DC~26.5	Precision	3.5mm	1	x	x	x	√	x	x	x	x	x	x
FCT-3-C-M-26.5-1	DC~26.5	Precision	3.5mm	1	x	x	x	x	√	x	x	x	x	x
FCT-3-C-F-26.5-1	DC~26.5	Precision	3.5mm	1	x	x	x	x	x	√	x	x	x	x
FW-31-CK	DC~26.5	Precision	3.5mm	1	x	x	x	x	x	x	√	x	x	x
FA33C-MM-1	DC~26.5	Precision	3.5mm	1	x	x	x	x	x	x	x	√	x	x
FA33C-MF-1	DC~26.5	Precision	3.5mm	1	x	x	x	x	x	x	x	x	√	x
FA33C-FF-3	DC~26.5	Precision	3.5mm	1	x	x	x	x	x	x	x	x	x	√
FCK-3-26.5-3-3M	DC~26.5	3-in-1	3.5mm	3-in-1	√	x	√	x	√	x	x	x	x	x
FCK-3-26.5-3-F	DC~26.5	3-in-1	3.5mm	3-in-1	x	√	x	√	x	√	x	x	x	x
FA33C-MM-1	DC~26.5	-	3.5mm	1	x	x	x	x	x	x	x	√	x	x
FA33C-FF-3	DC~26.5	-	3.5mm	1	x	x	x	x	x	x	x	x	x	√
FCK-3-9-1-10	DC~9	Precision	3.5mm	10	√	√	√	√	√	√	√	√	√	√
FCK-3-9-1-3M	DC~9	Precision	3.5mm	3	√	x	√	x	√	x	x	x	x	x
FCK-3-9-1-3F	DC~9	Precision	3.5mm	3	x	√	x	√	x	√	x	x	x	x
FCK-3-9-1-6	DC~9	Precision	3.5mm	6	√	√	√	√	√	√	x	x	x	x
FO3C-M-9-1	DC~9	Precision	3.5mm	1	√	x	x	x	x	x	x	x	x	x
FO3C-F-9-1	DC~9	Precision	3.5mm	1	x	√	x	x	x	x	x	x	x	x
FS3C-M-9-1	DC~9	Precision	3.5mm	1	x	x	√	x	x	x	x	x	x	x
FS3C-F-9-1	DC~9	Precision	3.5mm	1	x	x	x	√	x	x	x	x	x	x
FCT-3-C-M-9-1	DC~9	Precision	3.5mm	1	x	x	x	x	√	x	x	x	x	x
FCT-3-C-F-9-1	DC~9	Precision	3.5mm	1	x	x	x	x	x	√	x	x	x	x
FW-31-CK	DC~9	Precision	3.5mm	1	x	x	x	x	x	x	√	x	x	x
FA33C-MM	DC~9	Precision	3.5mm	1	x	x	x	x	x	x	x	√	x	x

Components included in the calibration kits: '√' means included, 'x' means not included.

Part Number	Frequency (GHz)	Type	Conenector	Quantity	Open		Short		Termination		Torque Wrench	Adapter		
					M	F	M	F	M	F		M to M	M to F	F to F
FA33C-MF	DC~9	Precision	3.5mm	1	x	x	x	x	x	x	x	x	√	x
FA33C-FF-2	DC~9	Precision	3.5mm	1	x	x	x	x	x	x	x	x	x	√
FCK-3-9-3-M	DC~9	3-in-1	3.5mm	3-in-1	√	x	√	x	√	x	x	x	x	x
FCK-3-9-3-F	DC~9	3-in-1	3.5mm	3-in-1	x	√	x	√	x	√	x	x	x	x
FA33C-MM	DC~9	-	3.5mm	1	x	x	x	x	x	x	x	√	x	x
FA33C-FF-2	DC~9	-	3.5mm	1	x	x	x	x	x	x	x	x	x	√
FCK-3-6-2-10	DC~6	Economic	3.5mm	10	√	√	√	√	√	√	√	√	√	√
FCK-3-6-2-3M	DC~6	Economic	3.5mm	3	√	x	√	x	√	x	x	x	x	x
FCK-3-6-2-3F	DC~6	Economic	3.5mm	3	x	√	x	√	x	√	x	x	x	x
FCK-3-6-2-6	DC~6	Economic	3.5mm	6	√	√	√	√	√	√	x	x	x	x
FO3C-M-6-2	DC~6	Economic	3.5mm	1	√	x	x	x	x	x	x	x	x	x
FO3C-F-6-2	DC~6	Economic	3.5mm	1	x	√	x	x	x	x	x	x	x	x
FS3C-M-6-2	DC~6	Economic	3.5mm	1	x	x	√	x	x	x	x	x	x	x
FS3C-F-6-2	DC~6	Economic	3.5mm	1	x	x	x	√	x	x	x	x	x	x
FCT-3-C-M-6-2	DC~6	Economic	3.5mm	1	x	x	x	x	√	x	x	x	x	x
FCT-3-C-F-6-2	DC~6	Economic	3.5mm	1	x	x	x	x	x	√	x	x	x	x
FW-31-CK	DC~6	Economic	3.5mm	1	x	x	x	x	x	x	√	x	x	x
FA33C-MM-2	DC~6	Economic	3.5mm	1	x	x	x	x	x	x	x	√	x	x
FA33C-MF-2	DC~6	Economic	3.5mm	1	x	x	x	x	x	x	x	x	√	x
FA33C-FF-4	DC~6	Economic	3.5mm	1	x	x	x	x	x	x	x	x	x	√
FCK-J-18-6	DC~18	-	7mm	6	7mm: open & short & termination						√	7mm-N (m), 7mm-N (f)		
FOJC-18	DC~18	-	7mm	1	7mm: open						x	x		
FSJC-18	DC~18	-	7mm	1	7mm: short						x	x		
FCT-J-C-18	DC~18	-	7mm	1	7mm: termination						x	x		
FW-J1-CK	DC~18	-	7mm	1	x						√	x		
FANJC-M	DC~18	-	7mm	1	x						x	7mm-N (m)		
FANJC-F	DC~18	-	7mm	1	x						x	7mm-N (f)		
FCK-L1-9-10	DC~9	-	L16	10	√	√	√	√	√	√	√	√	√	√
FCK-L1-9-1-3M	DC~9	-	L16	3	√	x	√	x	√	x	x	x	x	x
FCK-L1-9-1-3F	DC~9	-	L16	3	x	√	x	√	x	√	x	x	x	x
FCK-L1-9-1-6	DC~9	-	L16	6	√	√	√	√	√	√	x	x	x	x
FOL1C-M-9	DC~9	-	L16	1	√	x	x	x	x	x	x	x	x	x
FOL1C-F-9	DC~9	-	L16	1	x	√	x	x	x	x	x	x	x	x
FSL1C-M-9	DC~9	-	L16	1	x	x	√	x	x	x	x	x	x	x
FSL1C-F-9	DC~9	-	L16	1	x	x	x	√	x	x	x	x	x	x
FCT-L1-C-M-9	DC~9	-	L16	1	x	x	x	x	√	x	x	x	x	x
FCT-L1-C-F-9	DC~9	-	L16	1	x	x	x	x	x	√	x	x	x	x
FW-L11-CK	DC~9	-	L16	1	x	x	x	x	x	x	√	x	x	x
FAL1L1C-MM	DC~9	-	L16	1	x	x	x	x	x	x	x	√	x	x
FAL1L1C-MF	DC~9	-	L16	1	x	x	x	x	x	x	x	x	√	x
FAL1L1C-FF	DC~9	-	L16	1	x	x	x	x	x	x	x	x	x	√
FCK-N-18-1-10	DC~18	Precision	N	10	√	√	√	√	√	√	√	√	√	√
FCK-N-18-1-3M	DC~18	Precision	N	3	√	x	√	x	√	x	x	x	x	x
FCK-N-18-1-3F	DC~18	Precision	N	3	x	√	x	√	x	√	x	x	x	x
FCK-N-18-1-6	DC~18	Precision	N	6	√	√	√	√	√	√	x	x	x	x
FONC-M-18-1	DC~18	Precision	N	1	√	x	x	x	x	x	x	x	x	x
FONC-F-18-1	DC~18	Precision	N	1	x	√	x	x	x	x	x	x	x	x
FSNC-M-18-1	DC~18	Precision	N	1	x	x	√	x	x	x	x	x	x	x
FSNC-F-18-1	DC~18	Precision	N	1	x	x	x	√	x	x	x	x	x	x
FCT-N-C-M-18-1	DC~18	Precision	N	1	x	x	x	x	√	x	x	x	x	x
FCT-N-C-F-18-1	DC~18	Precision	N	1	x	x	x	x	x	√	x	x	x	x
FW-N1-CK	DC~18	Precision	N	1	x	x	x	x	x	x	√	x	x	x
FANNC-MM-1	DC~18	Precision	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-MF-1	DC~18	Precision	N	1	x	x	x	x	x	x	x	x	√	x
FANNC-FF-1	DC~18	Precision	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-9-1-10	DC~9	Precision	N	10	√	√	√	√	√	√	√	√	√	√
FCK-N-9-1-3M	DC~9	Precision	N	3	√	x	√	x	√	x	x	x	x	x
FCK-N-9-1-3F	DC~9	Precision	N	3	x	√	x	√	x	√	x	x	x	x
FCK-N-9-1-6	DC~9	Precision	N	6	√	√	√	√	√	√	x	x	x	x
FONC-M-9-1	DC~9	Precision	N	1	√	x	x	x	x	x	x	x	x	x
FONC-F-9-1	DC~9	Precision	N	1	x	√	x	x	x	x	x	x	x	x
FSNC-M-9-1	DC~9	Precision	N	1	x	x	√	x	x	x	x	x	x	x

Components included in the calibration kits: '√' means included, 'x' means not included.

Part Number	Frequency (GHz)	Type	Conector	Quantity	Open		Short		Termination		Torque Wrench	Adapter		
					M	F	M	F	M	F		M to M	M to F	F to F
FSNC-F-9-1	DC~9	Precision	N	1	x	x	x	√	x	x	x	x	x	x
FCT-N-C-M-9-1	DC~9	Precision	N	1	x	x	x	x	√	x	x	x	x	x
FCT-N-C-F-9-1	DC~9	Precision	N	1	x	x	x	x	x	√	x	x	x	x
FW-N1-CK	DC~9	Precision	N	1	x	x	x	x	x	x	√	x	x	x
FANNC-MM	DC~9	Precision	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-MF	DC~9	Precision	N	1	x	x	x	x	x	x	x	x	√	x
FANNC-FF	DC~9	Precision	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-9-3-M	DC~9	3-in-1	N	3-in-1	√	x	√	x	√	x	x	x	x	x
FCK-N-9-3-F	DC~9	3-in-1	N	3-in-1	x	√	x	√	x	√	x	x	x	x
FANNC-MM	DC~9	-	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-FF	DC~9	-	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-6-1-10	DC~6	Precision	N	10	√	√	√	√	√	√	√	√	√	√
FCK-N-6-1-3M	DC~6	Precision	N	3	√	x	√	x	√	x	x	x	x	x
FCK-N-6-1-3F	DC~6	Precision	N	3	x	√	x	√	x	√	x	x	x	x
FCK-N-6-1-6	DC~6	Precision	N	6	√	√	√	√	√	√	x	x	x	x
FONC-M-6-1	DC~6	Precision	N	1	√	x	x	x	x	x	x	x	x	x
FONC-F-6-1	DC~6	Precision	N	1	x	√	x	x	x	x	x	x	x	x
FSNC-M-6-1	DC~6	Precision	N	1	x	x	√	x	x	x	x	x	x	x
FSNC-F-6-1	DC~6	Precision	N	1	x	x	x	√	x	x	x	x	x	x
FCT-N-C-M-6-1	DC~6	Precision	N	1	x	x	x	x	√	x	x	x	x	x
FCT-N-C-F-6-1	DC~6	Precision	N	1	x	x	x	x	x	√	x	x	x	x
FW-N1-CK	DC~6	Precision	N	1	x	x	x	x	x	x	√	x	x	x
FANNC-MM	DC~6	Precision	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-MF	DC~6	Precision	N	1	x	x	x	x	x	x	x	x	√	x
FANNC-FF	DC~6	Precision	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-6-2-10	DC~6	Economic	N	10	√	√	√	√	√	√	√	√	√	√
FCK-N-6-2-3M	DC~6	Economic	N	3	√	x	√	x	√	x	x	x	x	x
FCK-N-6-2-3F	DC~6	Economic	N	3	x	√	x	√	x	√	x	x	x	x
FCK-N-6-2-6	DC~6	Economic	N	6	√	√	√	√	√	√	x	x	x	x
FONC-M-6-2	DC~6	Economic	N	1	√	x	x	x	x	x	x	x	x	x
FONC-F-6-2	DC~6	Economic	N	1	x	√	x	x	x	x	x	x	x	x
FSNC-M-6-2	DC~6	Economic	N	1	x	x	√	x	x	x	x	x	x	x
FSNC-F-6-2	DC~6	Economic	N	1	x	x	x	√	x	x	x	x	x	x
FCT-N-C-M-6-2	DC~6	Economic	N	1	x	x	x	x	√	x	x	x	x	x
FCT-N-C-F-6-2	DC~6	Economic	N	1	x	x	x	x	x	√	x	x	x	x
FW-N1-CK	DC~6	Economic	N	1	x	x	x	x	x	x	√	x	x	x
FANNC-MM-2	DC~6	Economic	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-MF-2	DC~6	Economic	N	1	x	x	x	x	x	x	x	x	√	x
FANNC-FF-2	DC~6	Economic	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-6-3-M	DC~6	3-in-1	N	3-in-1	√	x	√	x	√	x	x	x	x	x
FCK-N-6-3-F	DC~6	3-in-1	N	3-in-1	x	√	x	√	x	√	x	x	x	x
FANNC-MM	DC~6	-	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-FF	DC~6	-	N	1	x	x	x	x	x	x	x	x	x	√
FCK-N-4-3-M	DC~4	3-in-1	N	3-in-1	√	x	√	x	√	x	x	x	x	x
FCK-N-4-3-F	DC~4	3-in-1	N	3-in-1	x	√	x	√	x	√	x	x	x	x
FANNC-MM	DC~4	-	N	1	x	x	x	x	x	x	x	√	x	x
FANNC-FF-3	DC~4	-	N	1	x	x	x	x	x	x	x	x	x	√



## Circulators/Isolators

Circulator, including coaxial circulators, drop-in circulators and surface mount circulators, is a multi port component which transmits the forward-travelling wave from one port to the next port in the direction determined by the static bias magnetic field. It is a non-reversible device with several terminals.

Isolator makes the RF signal transmit in one direction, including coaxial circulators, Drop-In circulators and surface mount circulators.

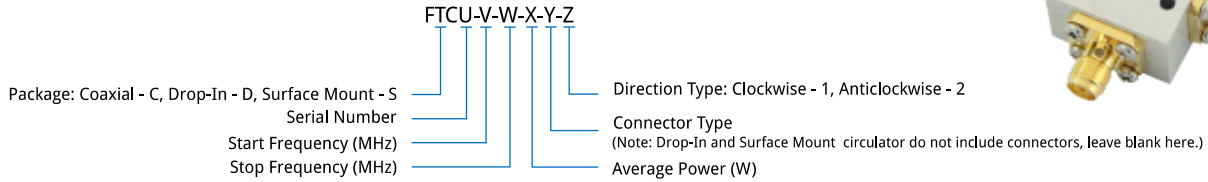
Freflex provides a series of 10MHz~110GHz broadband, high-power circulators and isolators.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Wireless, Radar, Laboratory Test.



## Coaxial Circulators

### How To Order:



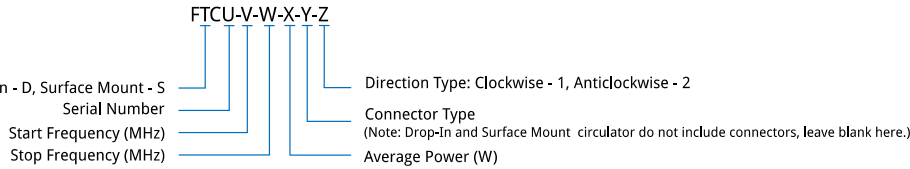
**Examples:** To order a 6466H series coaxial circulator, 55~75MHz, 100W, N female, clockwise, specify FCC6466H-55-75-K1-N-1.

The sizes in the following table do not include connectors. When the connector is SMA, the maximum average power can only reach 100W. The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	Frequency (GHz)	Bandwidth* (MHz, max.)	IL. (dB, max.)	ISO. (dB, min.)	VSWR (max.)	Average Power* (W, max.)	Connector	Direction	Temperature (°C)	Size* (mm)
FCC6466H	0.02~0.4	175	2	18	1.3	100	SMA, N	CW, ACW	-20~+70	64*66*22
FCC6466E	0.07~0.2	30	0.6	10	1.3	500	SMA, N	CW, ACW	-20~+70	64*66*22
FCC8080E	0.15~0.89	80	0.6	19	1.25	1000	7/16DIN	CW, ACW	-30~+75	80*80*34
FCC5258E	0.16~0.33	70	0.7	18	1.3	400	SMA, N	CW, ACW	-30~+70	52*57.5*22
FCC4550X	0.3~1.1	300	0.6	17	1.35	400	SMA, N	CW, ACW	-30~+70	45*49*18
FCC3538X	0.3~1.85	500	0.7	25	1.35	300	SMA, N	CW, ACW	-30~+70	35*38*15
FCC3033X	0.7~3	600	0.6	15	1.45	200	SMA	CW, ACW	-30~+70	30*33*15
FCC3232X	0.7~3	600	0.6	15	1.45	200	SMA, N	CW, ACW	-30~+70	32*32*15
FCC3434E	0.7~3	600	0.6	15	1.45	200	SMA, N	CW, ACW	-30~+70	34*34*22
FCC2528B	0.8~4	400	0.4	20	1.25	200	SMA, N	CW, ACW	-30~+70	25.4*28.5*15
FCC6466K	0.95~2	1050	0.65	16	1.4	100	SMA, N	CW, ACW	-10~+60	64*66*26
FCC2025B	1.3~4	400	0.4	20	1.25	100	SMA	CW, ACW	-30~+70	20*25.4*15
FCC5050A	1.5~3	1500	0.7	17	1.4	100	SMA, N	CW, ACW	0~+60	50.8*49.5*19
FCC4040A	1.8~3.6	1800	0.7	17	1.35	100	N	CW, ACW	-20~+85	20*25.4*14
FCC2025X	2.4~2.5	100	0.3	25	1.2	100	SMA	CW, ACW	0~+60	25.4*28*14
FCC5028B	2.6~3.2	600	1	35	1.35	100	SMA	CW, ACW	0~+60	32*34*21
FCC2528C	2.7~6.2	3500	0.8	16	1.4	200	SMA, N	CW, ACW	-40~+70	30.5*30.5*15
FCC3234A	2~4	2000	0.6	17	1.35	100	SMA, N	CW, ACW	0~+60	32*34*21
FCC3030B	2~6	4000	1.7	12	1.6	20	SMA	CW, ACW	-40~+70	30.5*30.5*15
FCC1523C	3.6~7.2	1400	0.5	18	1.35	60	SMA	CW, ACW	-10~+60	15*22.5*13.8
FCC2123B	4~8	4000	0.6	18	1.35	50	SMA, N	CW, ACW	-10~+60	15*22.5*13.8
FCC-5000-10000-10-S-1	5~10	5000	0.6	17	1.35	10	SMA	CW	-10~+60	21*22.5*15
FCC1623C	5.725~5.85	125	0.3	23	1.2	100	SMA	CW, ACW	-20~+80	16*23*13
FCC1620B	6~18	12000	1.5	10	1.9	30	SMA	CW, ACW	0~+60	16*20.3*14
FCC1319C	7~13	4000	0.5	18	1.3	50	SMA	CW, ACW	-10~+60	13*19*12.7
FCC1215C	9~16.5	2200	0.5	18	1.3	30	SMA	CW, ACW	0~+60	16*21.5*14
FCC-18000-26500-5-K-1	18~26.5	8500	0.7	16	1.4	5	2.92mm	CW	-30~+75	12*15*10
FCC-24250-33400-5-K-1	24.25~33.4	9150	1.6	14	1.6	5	2.92mm	CW, ACW	-30~+70	19*15*13
FCC-26500-40000-5-K-1	26.5~40	13500	1.6	14	1.6	5	2.92mm	CW	-30~+70	13*25*16.8

## Drop-In Circulators

### How To Order:



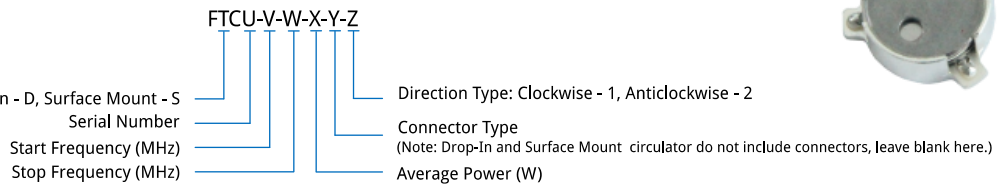
**Examples:** To order a 6060H series Drop-In circulator, 70~75MHz, 50W, clockwise, specify FDC6060H-70-75-50-1.

The sizes in the following table do not include connectors. The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	Frequency (GHz)	Bandwidth* (MHz, max.)	TL. (dB, max.)	ISO. (dB, min.)	VSWR (max.)	AVG. PWR. (W, max.)	Direction	TEMP. (°C)	Size* (mm)
FDC6060H	0.02~0.4	175	2	18	1.3	100	CW, ACW	-10~+60	60*60*25.5
FDC6466H	0.02~0.4	175	2	18	1.3	100	CW, ACW	-10~+60	64*66*22
FDC5050X	0.15~0.33	70	0.7	18	1.3	400	CW, ACW	-30~+70	50.8*50.8*14.8
FDC4545X	0.3~1	300	0.5	18	1.3	400	CW, ACW	-30~+70	45*45*13
FDC3538X	0.3~1.85	500	0.7	18	1.35	300	CW, ACW	-30~+70	35*35*11
FDC3838X	0.3~1.85	106	0.4	20	1.25	300	CW, ACW	-30~+70	38*38*11
FDC2525X	0.35~4	770	0.65	15	1.45	250	CW, ACW	-30~+70	25.4*25.4*10
FDC2020X	0.6~4	900	0.5	18	1.35	100	CW, ACW	-30~+70	20*20*8.6
FDC1919X	0.8~4.3	900	0.5	18	1.35	100	CW, ACW	-30~+70	19*19*8.6
FDC6466K	0.95~2	1050	0.7	16	1.4	100	CW, ACW	-10~+60	64*66*26
FDC1313T	1.2~6	800	0.45	18	1.3	100	CW, ACW	-30~+70	12.7*12.7*7.2
FDC5050A	1.5~3	1500	0.7	17	1.4	100	CW, ACW	0~+60	50.8*49.5*19
FDC4040A	1.7~3	1200	0.7	16	1.35	200	CW, ACW	0~+60	40*40*20
FDC1313M	1.7~6	800	0.45	18	1.3	100	CW, ACW	-30~+70	12.7*12.7*7.2
FDC2528C	2.7~6	3500	0.8	16	1.4	200	CW, ACW	-30~+70	25.4*28*14
FDC3234A	2~4	2000	0.6	16	1.35	100	CW, ACW	0~+60	32*34*21
FDC3030B	2~6	4000	1.7	12	1.6	20	CW, ACW	-40~+70	30.5*30.5*15
FDC1822D	4~5	1000	0.4	18	1.35	60	CW, ACW	-30~+70	18*22*10.4
FDC2123B	4~8	4000	0.6	18	1.35	60	CW, ACW	0~+60	21*22.5*15
FDC1220D	5~6.5	800	0.5	18	1.3	60	CW, ACW	-30~+70	12*20*9.5
FDC1623D	5~6.5	800	0.5	18	1.3	50	CW, ACW	-30~+70	16*23*9.7
FDC1319C	6~12	4000	0.5	18	1.3	50	CW, ACW	0~+60	13*19*12.7
FDC1620B	6~18	12000	1.5	10	1.9	20	CW, ACW	-30~+70	16*20.3*14
FDC0915D	7~18	6000	0.6	17	1.35	30	CW, ACW	-30~+70	8.9*15*7.8

## Surface Mount Circulators

### How To Order:



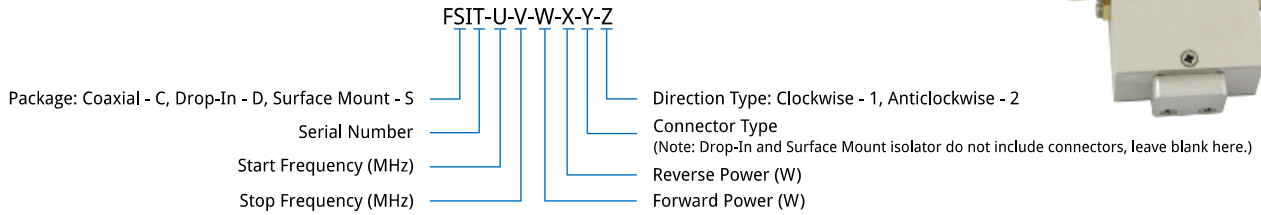
**Examples:** To order a 12R5 series surface mount circulator, 2.4~2.5GHz, 60W,, clockwise, specify FSC12R5-2400-2500-60-1.

The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	Frequency (GHz)	Bandwidth * (MHz, max.)	Insertion Loss (dB, max.)	Isolation (dB, min.)	VSWR (max.)	Average Power (W, max.)	Direction	Temperature (°C)	Size (mm)
FSC25R4	0.41~0.505	50	0.5	18	1.3	60	CW, ACW	-40~+85	Φ25.4×7
FSC20	0.7~3.655	770	0.5	15	1.3	60	CW, ACW	-40~+85	Φ20×8
FSC12R5	0.79~5.9	200	0.5	18	1.3	60	CW, ACW	-40~+85	Φ12.5×7
FSC15	0.8~3.65	400	0.6	18	1.3	60	CW, ACW	-40~+85	Φ15.2×7
FSC18	1.4~3.655	100	0.35	23	1.2	60	CW, ACW	-40~+85	Φ18×8
FSC12R3B	2.496~3.8	1000	0.6	18	1.3	60	CW, ACW	-40~+85	Φ12.3×7
FSC12R3A	3.3~6	1000	0.5	18	1.3	60	CW, ACW	-40~+85	Φ12.3×7

## Coaxial Isolators

### How To Order:



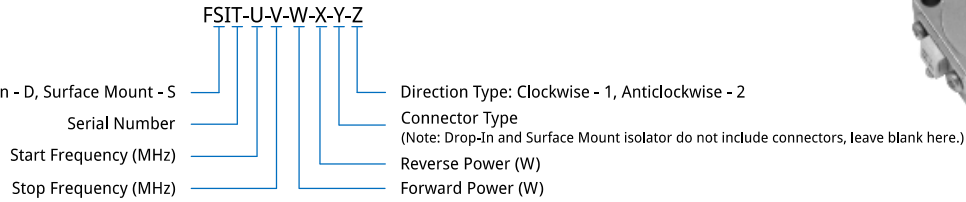
**Examples:** To order a 6466H series coaxial isolator, 30-40MHz, forward power 30W, reverse power 20W, SMA female, clockwise, specify FCI6466H-30-40-30-20-S-1.

The sizes in the following table do not include connectors and terminations. When the connector is SMA, the maximum average power can only reach 100W. The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	Frequency (GHz)	Bandwidth * (MHz, max.)	IL. (dB, max.)	ISO. (dB, min.)	VSWR (max.)	FWD. Power* (W, max.)	REV. Power (W)	Connector	TEMP. (°C)	Size* (mm)
FCI6060E	0.02-0.4	175	2	18	1.3	100	10-100	SMA, N	-20-+70	60*60*25.5
FCI6466H	0.02-0.4	175	2	18	1.3	100	20-100	SMA, N	0-+60	64*66*22
FCI12060H	0.07-0.23	56	2	40	1.3	150	10-100	SMA, N	-30-+70	120*60*25.5
FCI23085H	0.07-0.23	60	1.8	60	1.25	150	100	SMA, N	-30-+75	230*85*30
FCI5258E	0.16-0.33	70	0.7	18	1.3	500	10-100	SMA, N	-30-+70	52*57.5*22
FCI10458E	0.18-0.86	60	1	38	1.3	300	10-100	SMA, N	-30-+70	104*57.5*22
FCI12762H	0.3-0.5	40	0.8	45	1.25	300	10-100	SMA, N	-30-+70	127*62*22
FCI4550E	0.3-1.1	300	0.6	18	1.3	400	10-100	SMA, N	-30-+70	45*50*25
FCI4550X	0.3-1.1	300	0.6	18	1.3	400	10-100	SMA, N	-30-+70	45*49*18
FCI3538X	0.3-1.85	500	0.7	18	1.35	300	10-100	SMA, N	-30-+70	35*38*15
FCI9648H	0.35-0.47	70	0.7	40	1.25	150	100	SMA, N	-30-+70	96*48*24
FCI9650H	0.35-0.47	70	0.7	40	1.25	150	100	SMA, N	-30-+70	96*50*26.5
FCI9662H	0.35-0.47	70	0.7	40	1.25	150	100	SMA, N	-30-+70	96*62*26
FCI16080H	0.38-0.47	70	1.2	60	1.25	300	100	SMA, N	-10-+60	160*80*30
FCI7448H	0.45-2.7	400	0.8	38	1.25	250	10-100	SMA, N	-30-+70	73.8*48.4*22.5
FCI3033X	0.7-3	600	0.6	15	1.45	100	10-100	SMA	-30-+70	30*33*15
FCI3232X	0.7-3	600	0.6	15	1.45	200	10-100	SMA, N	-30-+70	32*32*15
FCI3434E	0.7-3	600	0.6	15	1.45	200	10-100	SMA, N	-30-+70	34*34*22
FCI2528B	0.9-4	400	0.4	20	1.25	200	10-100	SMA, N	-30-+70	25.4*28.5*15
FCI6466K	0.95-2	1050	0.65	16	1.4	100	10-100	SMA, N	-30-+70	64*66*26
FCI-1000-2000-K2-K2-N-1	1-2	1000	0.7	15	1.45	200	200	N	0-+60	70*80*21
FCI2025X	1.3-4	400	0.4	20	1.25	100	20	SMA	-30-+70	20*25.4*13
FCI5050A	1.5-3	1500	0.7	17	1.4	100	10-100	SMA, N	-10-+60	50.8*49.5*19
FCI4040A	1.5-3.6	1800	0.7	17	1.4	100	30-100	SMA, N	0-+60	40*40*20
FCI2528C	2.5-6.5	3500	0.9	17	1.4	100	20	SMA, N	-30-+70	25.4*28*14
FCI3234A	2-4	2000	0.6	18	1.3	100	20	SMA, N	0-+60	32*34*21
FCI6237A	2-8	6000	1.5	13	1.8	20	5	SMA	0-+60	62*36.8*19.6
FCI1523C	3.6-7.2	1400	0.5	18	1.3	60	10	SMA	-10-+60	15*22.5*13.8
FCI1626B	3.7-5	1000	0.4	20	1.25	60	10	SMA	-10-+60	16*26.5*14.8
FCI2123B	4-8	4000	0.6	18	1.35	60	20	SMA	0-+60	21*22.5*15
FCI1622B	6-18	12000	1.5	11	1.9	30	10	SMA	0-+60	16*21.5*14
FCI1319C	7-15	4000	0.5	18	1.3	20	10	SMA	-10-+60	13*19*12.7
FCI2619C	8-12	4000	0.8	35	1.3	30	10	SMA	-10-+60	26*19*12.7
FCI1220C	9-16.5	2200	0.5	19	1.3	30	5	SMA	-30-+70	12*20*13
FCI-18000-26500-10-5-K	18-26.5	8500	0.7	16	1.4	10	5	2.92mm	-30-+70	12*20*13
FCI-26500-40000-5-1-K	26.5-40	13500	1.3	12	1.7	5	1	2.92mm	-30-+70	26*13*16.8
FCI-26500-40000-10-1-K	26.5-40	13500	1.7	12	1.8	10	1	2.92mm	-20-+70	13*26*22

## Drop-In Isolators

### How To Order:



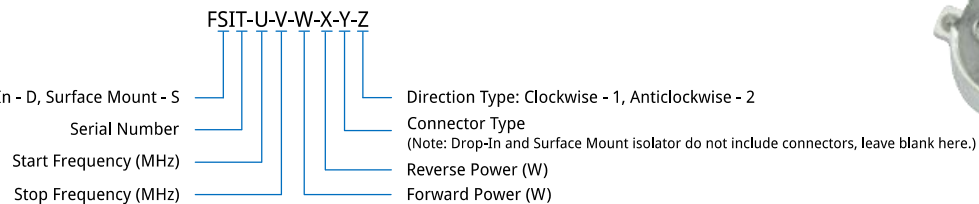
**Examples:** To order a 3538X series Drop-In isolator, 700–730MHz, forward power 300W, reverse power 10W, clockwise, specify FDI3538X-700-730-K3-10-1.

The sizes in the following table do not include connectors and terminations. The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	FREQ. (GHz)	BW.* (MHz, max.)	IL. (dB, max.)	ISO. (dB, min.)	VSWR (max.)	FWD. Power (W, max.)	REV. Power (W)	Direction	TEMP. (°C)	Size* (mm)
FDI6060H	0.02–0.4	175	2	18	1.3	100	10–100	CW, ACW	-20–+70	60*60*25.5
FDI6466H	0.02–0.4	175	2	18	1.3	100	10–100	CW, ACW	-10–+60	64*66*22
FDI7070X	0.13–2	30	0.6	10	1.3	500	10–100	CW, ACW	-20–+70	70*70*15
FDI5050X	0.16–0.33	70	0.7	18	1.3	500	10–100	CW, ACW	-30–+70	50.8*50.8*14.8
FDI4545X	0.3–1.1	300	0.6	19	1.3	500	10–100	CW, ACW	-30–+70	45*45*13
FDI3538X	0.3–1.85	500	0.7	18	1.35	300	10–100	CW, ACW	-30–+70	35*38*11
FDI3546X	0.3–1.85	500	0.7	18	1.35	300	100	CW, ACW	-30–+70	35*46*11
FDI2525X	0.35–4	770	0.65	15	1.45	250	10–100	CW, ACW	-30–+70	25.4*25.4*10
FDI2532X	0.35–4	770	0.65	15	1.45	250	100	CW, ACW	-30–+70	25.4*31.7*10
FDI5032X	0.45–2.7	400	0.8	38	1.25	250	10–100	CW, ACW	-30–+70	50.8*31.7*10
FDI4020X	0.6–2.7	400	0.8	40	1.2	100	10–100	CW, ACW	-30–+70	40*20*8.6
FDI4027X	0.6–2.7	400	0.8	40	1.2	100	10–100	CW, ACW	-30–+70	40*27.5*8.6
FDI2027X	0.6–3.6	900	0.5	18	1.35	150	100	CW, ACW	-30–+70	20*27.5*8.6
FDI2020X	0.6–4	900	0.5	18	1.35	150	20	CW, ACW	-30–+70	20*20*8.6
FDI1919X	0.8–4.3	900	0.5	18	1.35	100	20	CW, ACW	-30–+70	19*19*8.6
FDI1925X	0.8–4.3	900	0.5	18	1.35	100	100	CW, ACW	-30–+70	19*25.4*8.6
FDI6466K	0.95–2	1050	0.65	16	1.4	100	10–100	CW, ACW	0–+60	64*66*26
FDI5050A	1.5–3	1500	0.7	17	1.4	100	10–100	CW, ACW	-10–+60	50.8*49.5*19
FDI1313M	1.7–6	800	0.45	18	1.3	60	20	CW, ACW	-30–+70	12.7*12.7*7.2
FDI1313T	1.7–6	800	0.45	18	1.3	60	20	CW, ACW	-30–+70	12.7*12.7*7.2
FDI3234A	2–4	2000	0.6	18	1.3	100	10–100	CW, ACW	-10–+60	32*34*21
FDI3030B	2–6	4000	1.7	12	1.6	20	20	CW, ACW	-40–+70	30.5*30.5*15
FDI1626D	3.7–5	1000	0.5	18	1.3	100	10	CW, ACW	-30–+70	16*26*10.5
FDI2528C	3–6	3500	0.8	16	1.4	60	20	CW, ACW	-10–+60	25.4*28*14
FDI2123B	4–8	4000	0.6	18	1.35	60	20	CW, ACW	0–+60	21*22.5*15
FDI1220D	5–7	800	0.5	18	1.3	80	10	CW, ACW	-30–+70	12*20*9.5
FDI1623D	5–7	800	0.5	18	1.3	100	10	CW, ACW	-30–+70	16*23*9.7
FDI1622B	6–18	12000	1.5	11	1.9	30	10	CW, ACW	0–+60	16*21.5*14
FDI0915D	7–18	6000	0.6	17	1.35	30	10	CW, ACW	-30–+70	8.9*15*7.8

## Surface Mount Isolators

### How To Order:



**Examples:** To order a 12R5 series surface mount isolator, 790–810MHz, forward power 50W, reverse power 10W, clockwise, specify FSI12R5-790-810-50-10-1

The bandwidth column represents the maximum bandwidth that can be achieved in the corresponding frequency range of the series.

Part Number	Frequency (GHz)	Bandwidth* (MHz, max.)	Insertion Loss (dB, max.)	Isolation (dB, min.)	VSWR (max.)	FWD. Power (W, max.)	REV. Power (W)	Direction	Temperature (°C)	Size (mm)
FSI12R5	0.79–5.9	600	0.6	17	1.35	50	10	CW, ACW	-40–+85	Φ12.5×7

## Coaxial Adapters

Freflex supplies various high performance coaxial adapters which are widely used in many areas. The adapters cover frequency range DC~110GHz. They are high reliable and durable. Mating durability is up to 5000 cycles.

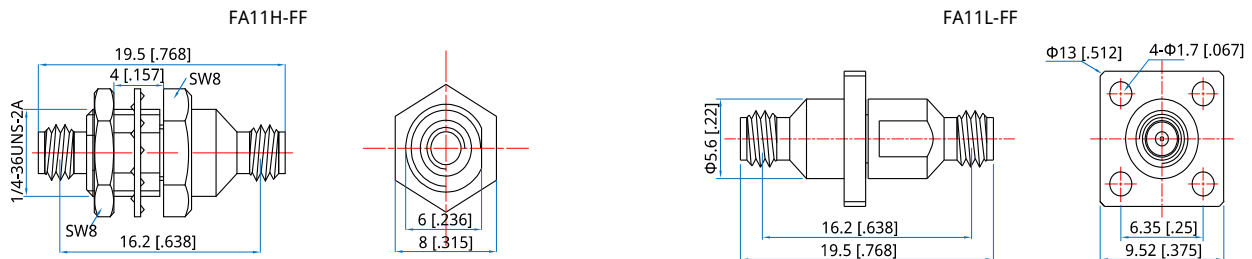
**Features:** DC~110GHz, Low VSWR, High Durable, High Reliable; **Applications:** Laboratory Test, Radar, Instrumentation.



## In Series Coaxial Adapters

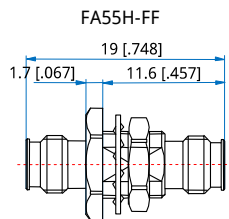
### 1.0mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA11-MM	DC~110	1.35	1.0mm (m) to 1.0mm (m)	Passivated stainless steel or Gold plated beryllium copper	-55~+85
FA11-MF			1.0mm (m) to 1.0mm (f)		
FA11-FF			1.0mm (f) to 1.0mm (f)		
FA11H-FF	DC~110	1.35	1.0mm (f) to 1.0mm (f), bulk head	Passivated stainless steel or Gold plated beryllium copper	-55~+85
FA11L-FF	DC~110	1.35	1.0mm (f) to 1.0mm (f), flange mout	Passivated stainless steel or Gold plated beryllium copper	-55~+85



### 1.35mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA55-MM	DC~90	1.3	1.35mm (m) to 1.35mm (m)	Passivated stainless steel	-55~+165
FA55-MF			1.35mm (m) to 1.35mm (f)		
FA55-FF			1.35mm (f) to 1.35mm (f)		
FA55H-FF	DC~90	1.3	1.35mm (f) to 1.35mm (f), bulk head	Passivated stainless steel	-55~+165



## 1.85mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAVV-MM			1.85mm (m) to 1.85mm (m)		
FAVV-MF	DC-67	1.25	1.85mm (m) to 1.85mm (f)	Passivated stainless steel	-55~+125
FAVV-FF			1.85mm (f) to 1.85mm (f)		
FAVVR-MM			1.85mm (m) to 1.85mm (m), right angle		
FAVVR-MF	DC-67	1.25	1.85mm (m) to 1.85mm (f), right angle	Passivated stainless steel	-55~+125
FAVVR-FF			1.85mm (f) to 1.85mm (f), right angle		
FAVVL-FF	DC-67	1.25	1.85mm (f) to 1.85mm (f), flange mout	Passivated stainless steel	-55~+125
FAVH-FF	DC-67	1.25	1.85mm (f) to 1.85mm (f), bulk head	Passivated stainless steel	-55~+125



## 2.4mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA22-MM			2.4mm (m) to 2.4mm (m)		
FA22-MF	DC-50	1.25	2.4mm (m) to 2.4mm (f)	Passivated stainless steel	-60~+165
FA22-FF			2.4mm (f) to 2.4mm (f)		
FA22R-MM			2.4mm (m) to 2.4mm (m), right angle		
FA22R-MF	DC-50	1.25	2.4mm (m) to 2.4mm (f), right angle	Passivated stainless steel	-60~+165
FA22R-FF			2.4mm (f) to 2.4mm (f), right angle		
FA22L-FF	DC-50	1.25	2.4mm (f) to 2.4mm (f), flange mout	Passivated stainless steel	-60~+165
FA22H-FF	DC-50	1.25	2.4mm (f) to 2.4mm (f), bulk head	Passivated stainless steel	-60~+165



## 2.92mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKK-MM			2.92mm (m) to 2.92mm (m)		
FAKK-MF	DC-40	1.25	2.92mm (m) to 2.92mm (f)	Passivated stainless steel	-60~+165
FAKK-FF			2.92mm (f) to 2.92mm (f)		
FAKKR-MM			2.92mm (m) to 2.92mm (m), right angle		
FAKKR-MF	DC-40	1.25	2.92mm (m) to 2.92mm (f), right angle	Passivated stainless steel	-60~+165
FAKKR-FF			2.92mm (f) to 2.92mm (f), right angle		
FAKKL-FF	DC-40	1.25	2.92mm (f) to 2.92mm (f), flange mout	Passivated stainless steel	-60~+165
FAKKH-FF	DC-40	1.25	2.92mm (f) to 2.92mm (f), bulk head	Passivated stainless steel	-60~+165



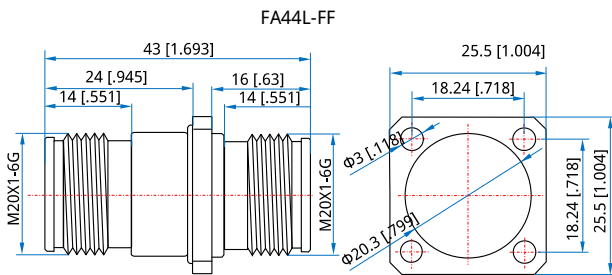
## 3.5mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA33-MM			3.5mm (m) to 3.5mm (m)		
FA33-MF	DC~33	1.15	3.5mm (m) to 3.5mm (f)	Passivated stainless steel	-55~+125
FA33-FF			3.5mm (f) to 3.5mm (f)		
FA33R-MM			3.5mm (m) to 3.5mm (m), right angle		
FA33R-MF	DC~33	1.25	3.5mm (m) to 3.5mm (f), right angle	Passivated stainless steel	-55~+125
FA33R-FF			3.5mm (f) to 3.5mm (f), right angle		
FA33L-FF	DC~33	1.15	3.5mm (f) to 3.5mm (f), flange mout	Passivated stainless steel	-55~+125
FA33H-FF	DC~33	1.25	3.5mm (f) to 3.5mm (f), bulk head	Passivated stainless steel	-55~+125



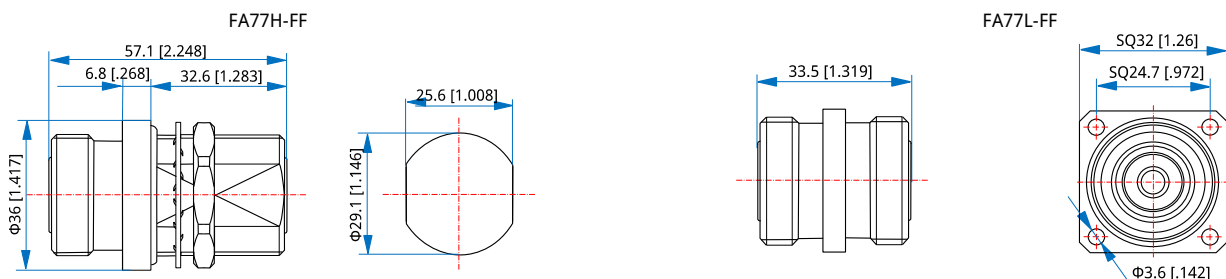
## 4.3-10 Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA44-MM			4.3-10 (m) to 4.3-10 (m)		
FA44-MF	DC~6	1.2	4.3-10 (m) to 4.3-10 (f)	Ternary alloy plated brass	-45~+88
FA44-FF			4.3-10 (f) to 4.3-10 (f)		
FA44R-MF	DC~6	1.2	4.3-10 (m) to 4.3-10 (m), right angle	Ternary alloy plated brass	-45~+88
FA44L-FF	DC~6	1.2	4.3-10 (m) to 4.3-10 (f), flange mout	Nickel plated brass	-45~+125



## 7/16 DIN Series

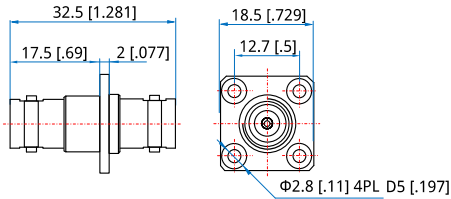
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA77-MF	DC~3	1.15	7/16 DIN (m) to 7/16 DIN (f)		-45~+85
FA77-MM	DC~6	1.2	7/16 DIN (m) to 7/16 DIN (m)	Ternary alloy plated brass	-45~+125
FA77-FF	DC~6	1.2	7/16 DIN (f) to 7/16 DIN (f)		-45~+85
FA77H-FF	DC~6	1.25	7/16 DIN (f) to 7/16 DIN (f), bulk head	Ternary alloy plated brass	-45~+85
FA77R-MF	DC~3	1.15	7/16 DIN (m) to 7/16 DIN (f), right angle	Ternary alloy plated brass	-45~+85
FA77R-MM	DC~3	1.15	7/16 DIN (f) to 7/16 DIN (f), right angle	Ternary alloy plated brass	-45~+85
FA77L-FF	DC~6	1.2	7/16 DIN (f) to 7/16 DIN (f), flange mout	Ternary alloy plated brass	-45~+125
FA777-FMF	DC~3	-	7/16 DIN (f) to 7/16 DIN (m) to 7/16DIN(f), tee	Ternary alloy plated brass	-45~+85
FA777-FFF	DC~3	-	7/16 DIN (f) to 7/16 DIN (f) to 7/16DIN(f), tee	Ternary alloy plated brass	-45~+85



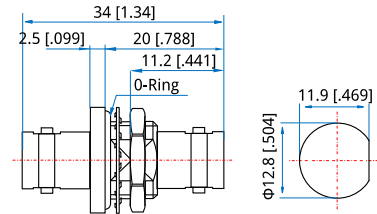
## BNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FABB-MM			BNC (m) to BNC (m)		
FABB-FF	DC~4	1.15	BNC (f) to BNC (f)	Ternary alloy plated brass or Nickel plated brass	-55~+125
FABB-MF			BNC (m) to BNC (f)		
FABBB-FFF	DC~1	1.15	BNC (f) to BNC (f) to BNC (f), tee	Ternary alloy plated brass or Nickel plated brass	-55~+125
FABBB-FMF			BNC (f) to BNC (m) to BNC (f), tee		
FABBR-MF	DC~4~3	1.45	BNC (m) to BNC (f), right angle	Ternary alloy plated brass or Nickel plated brass	-55~+125
FABBL-FF	DC~4	1.15	BNC (f) to BNC (f), flange mout	Ternary alloy plated brass or Nickel plated brass	-55~+125
FABBH-FF	DC~4	1.15	BNC (f) to BNC (f), bulk head	Ternary alloy plated brass or Nickel plated brass	-55~+125

FABBL-FF



FABBH-FF



## L16 Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAL1L1-MM			L16 (m) to L16 (m)		
FAL1L1-FF	DC~18	1.2	L16 (f) to L16 (f)	Passivated stainless steel	-55~+165
FAL1L1-MF			L16 (m) to L16 (f)		

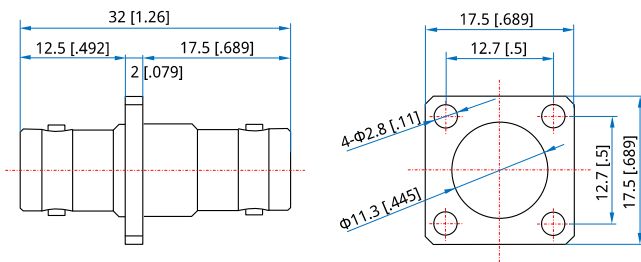
## MCX Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAMM-MM			MCX (m) to MCX (m)		
FAMM-FF	DC~6	1.2	MCX (f) to MCX (f)	Gold plated brass	-55~+165
FAMM-MF			MCX (m) to MCX (f)		

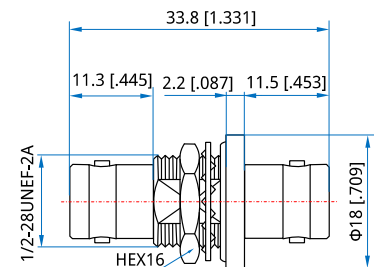
## MHV Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAM4M4L-FF	DC~0.3	1.15	MHV (f) to MHV (f), flange mout	Ternary alloy plated brass	-45~+125
FAM4M4H-FF	DC~0.3	-	MHV (f) to MHV (f), bulk head	Ternary alloy plated brass	-45~+125

FAM4M4L-FF



FAM4M4H-FF



## MMCX Series

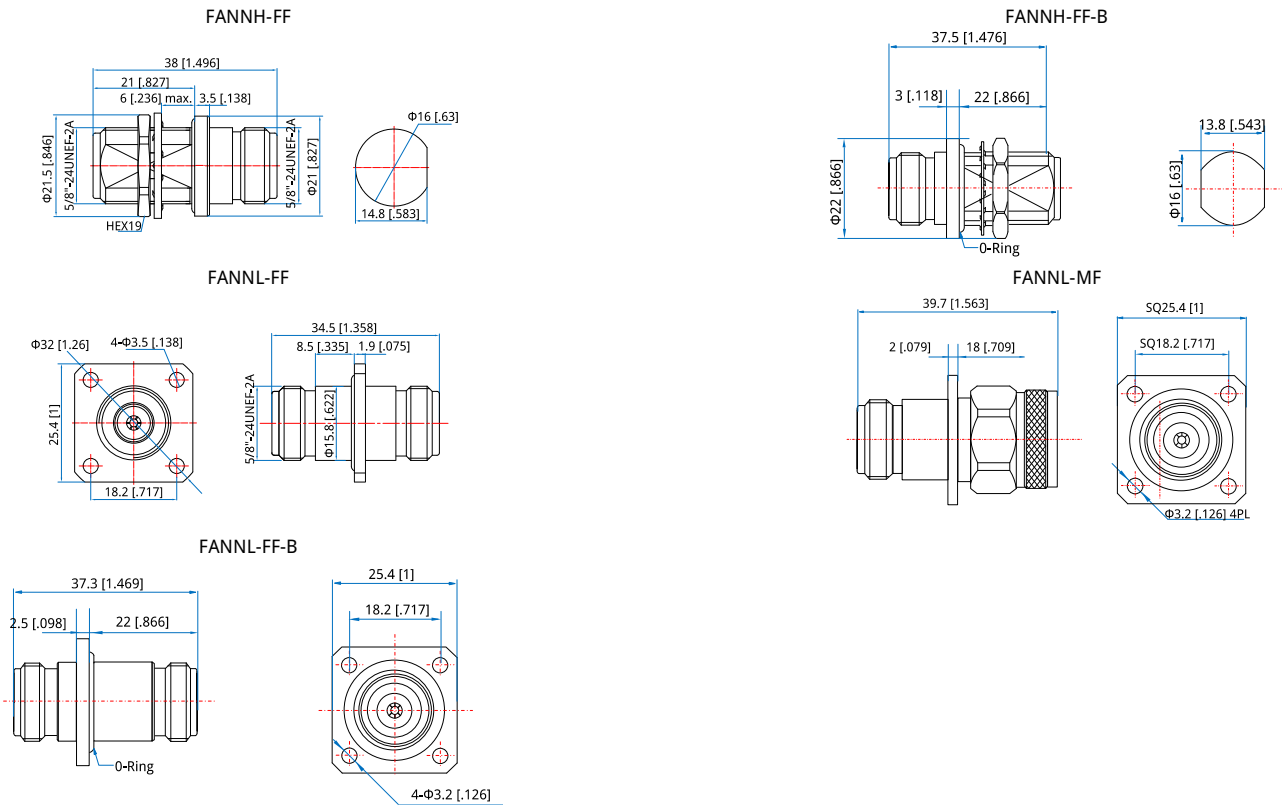
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAXX-MM		1.2	MMCX (m) to MMCX (m)		
FAXX-FF	DC~6	1.2	MMCX (f) to MMCX (f)	Gold plated brass	-55~+165
FAXX-MF		1.5	MMCX (m) to MMCX (f)		

## N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANN-MM			N (m) to N (m)		
FANN-MF	DC~18	1.15	N (m) to N (f)	Passivated stainless steel	-55~+85
FANN-FF			N (f) to N (f)		



Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANNR-MM FANNR-MF FANNR-FF	DC~18	1.15	N (m) to N (m), right angle N (m) to N (f), right angle N (f) to N (f), right angle	Passivated stainless steel	-55~+85
FANNH-FF	DC~18	1.15	N (f) to N (f), bulk head	Passivated stainless steel	-55~+85
FANNL-FF FANNL-MF	DC~18	1.2	N (f) to N (f), flange mout N (m) to N (f), flange mout	Passivated stainless steel	-55~+85
FANN-MM-B FANN-MF-B FANN-FF-B	DC~18 DC~6 DC~6	1.25 1.15 1.15	N (m) to N (m) N (m) to N (f) N (f) to N (f)	Ternary alloy plated brass or Nickel plated brass	-55~+165
FANNR-MF-B FANNL-FF-B FANNH-FF-B	DC~18 DC~6 DC~6	1.25 1.15 1.15	N (m) to N (f), right angle N (f) to N (f), flange mout N (f) to N (f), bulk head	Ternary alloy plated brass or Nickel plated brass	-55~+165
FANNN-FFF-B	DC~3	1.15	N (f) to N (f) to N (f), tee	Ternary alloy plated brass or Nickel plated brass	-55~+165

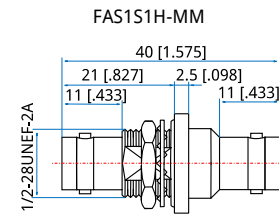
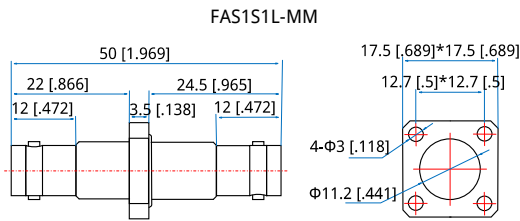


### SC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAEE-MM			SC (m) to SC (m)		
FAEE-MF	DC~11	1.25	SC (m) to SC (f)	Passivated stainless steel	-55~+165
FAEE-FF			SC (f) to SC (f)		
FAER-MF	DC~11	1.25	SC (m) to SC (f), right angle	Passivated stainless steel	-55~+165

### SHV Series

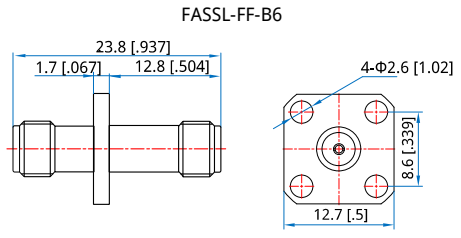
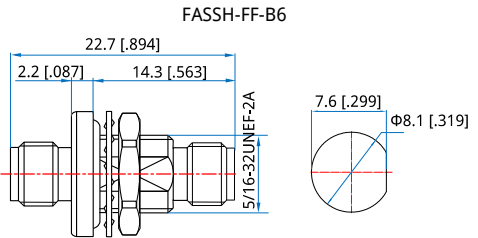
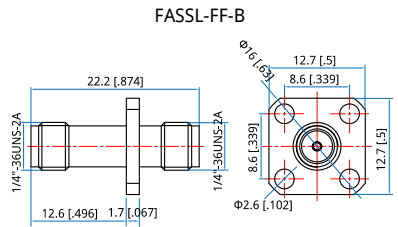
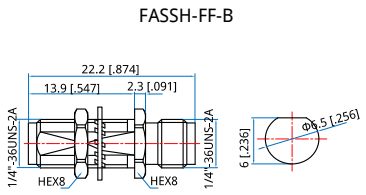
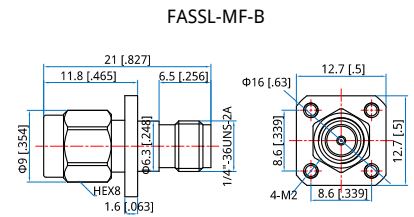
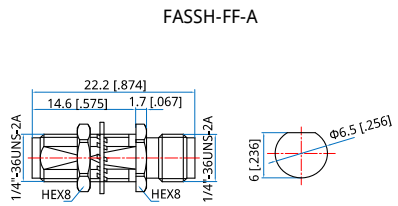
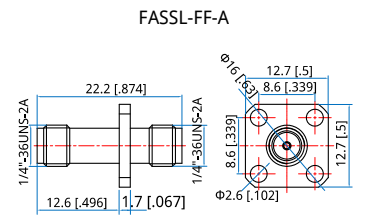
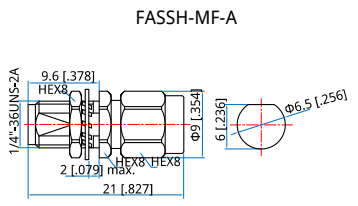
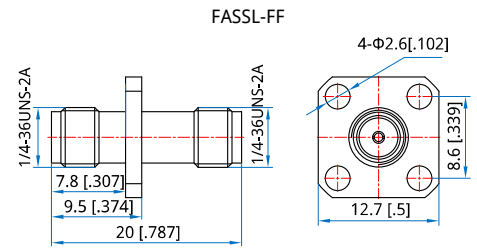
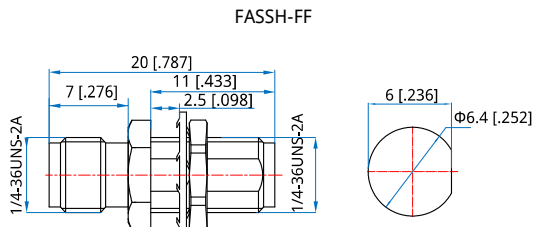
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAS1S1-MM			SHV (m) to SHV (m)		
FAS1S1-FF	DC~0.3	-	SHV (f) to SHV (f)	Nickel plated brass	-45~+125
FAS1S1L-MM	DC~0.3	-	SHV (m) to SHV (m), flange mout	Nickel plated brass	-45~+125
FAS1S1H-MM	DC~0.3	-	SHV (m) to SHV (m), bulk head	Nickel plated brass	-45~+125



### SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASS-MM	DC~26.5	1.3	SMA (m) to SMA (m)	Passivated stainless steel	-55~+85
FASS-MF			SMA (m) to SMA (f)		
FASS-FF			SMA (f) to SMA (f)		
FASSR-MM	DC~18	1.3	SMA (m) to SMA (m), right angle	Passivated stainless steel	-55~+85
FASSR-MF			SMA (m) to SMA (f), right angle		
FASSR-FF			SMA (f) to SMA (f), right angle		
FASSH-FF	DC~18	1.25	SMA (f) to SMA (f), bulk head	Passivated stainless steel	-55~+85
FASSL-FF	DC~26.5	1.2	SMA (f) to SMA (f), flange mout	Passivated stainless steel	-55~+85
FASS-MRPM	DC~18	1.3	Reversed polarity SMA (m) to SMA (m)	Passivated stainless steel	-55~+85
FASS-MRPMRP			Reversed polarity SMA (m) to Reversed polarity SMA (m)		
FASS-MRPF			Reversed polarity SMA (m) to SMA (f)		
FASS-MFRP			SMA (m) to Reversed polarity SMA (f)		
FASS-MRPF-RP			Reversed polarity SMA (m) to Reversed polarity SMA (f)		
FASS-FRPF			Reversed polarity SMA (f) to SMA (f)		
FASS-FRPF-RP			Reversed polarity SMA (f) to Reversed polarity SMA (f)		
FASS-MM-A	DC~26.5	1.2	SMA (m) to SMA (m), high performance	Passivated stainless steel	-55~+85
FASS-MF-A			SMA (m) to SMA (f), high performance		
FASS-FF-A			SMA (f) to SMA (f), high performance		
FASSR-MM-A	DC~18	1.2	SMA (m) to SMA (m), right angle, high performance	Passivated stainless steel	-55~+85
FASSR-MF-A			SMA (m) to SMA (f), right angle, high performance		
FASSR-FF-A			SMA (f) to SMA (f), right angle, high performance		
FASSH-MF-A	DC~26.5	1.2	SMA (m) to SMA (f), bulk head, high performance	Passivated stainless steel	-55~+85
FASSH-FF-A			SMA (f) to SMA (f), bulk head, high performance		
FASSL-FF-A	DC~26.5	1.2	SMA (f) to SMA (f), flange mout, high performance	Passivated stainless steel	-55~+85
FASS-MRPM-A	DC~18	1.2	Reversed polarity SMA (m) to SMA (m), high performance	Passivated stainless steel	-55~+85
FASS-MRPMRP-A			Reversed polarity SMA (m) to Reversed polarity SMA (m), high performance		
FASS-MRPF-A			Reversed polarity SMA (m) to SMA (f), high performance		
FASS-MFRP-A			SMA (m) to Reversed polarity SMA (f), high performance		
FASS-MRPF-RP-A			Reversed polarity SMA (m) to Reversed polarity SMA (f), high performance		
FASS-FRPF-A			Reversed polarity SMA (f) to SMA (f), high performance		
FASS-FRPF-RP-A			Reversed polarity SMA (f) to Reversed polarity SMA (f), high performance		
FASS-MM-B	DC~26.5	1.2	SMA (m) to SMA (m)	Gold plated brass	-55~+85
FASS-MF-B			SMA (m) to SMA (f)		
FASS-FF-B			SMA (f) to SMA (f)		
FASSR-MM-B	DC~18	1.2	SMA (m) to SMA (m), right angle	Gold plated brass	-55~+85
FASSR-MF-B			SMA (m) to SMA (f), right angle		
FASSR-FF-B			SMA (f) to SMA (f), right angle		
FASSL-MF-B	DC~26.5	1.2	SMA (m) to SMA (f), flange mout	Gold plated brass	-55~+85
FASSL-FF-B			SMA (f) to SMA (f), flange mout		
FASSH-FF-B	DC~26.5	1.2	SMA (m) to SMA (f), bulk head	Gold plated brass	-55~+85
FASS-MRPM-B	DC~18GHz	1.2	Reversed polarity SMA(m) to SMA (m)	Gold plated brass	-55~+85
FASS-MRPMRP-B			Reversed polarity SMA (m) to Reversed polarity SMA (m)		
FASS-MRPF-B			Reversed polarity SMA (m) to SMA (f)		
FASS-MFRP-B			SMA (m) to Reversed polarity SMA (f)		
FASS-MRPF-RP-B			Reversed polarity SMA (m) to Reversed polarity SMA (f)		
FASS-FRPF-B			Reversed polarity SMA (f) to SMA (f)		
FASS-FRPF-RP-B			Reversed polarity SMA (f) to Reversed polarity SMA (f)		

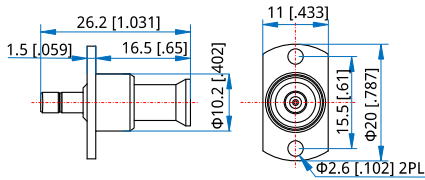
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASS-MM-B6	DC-6	1.15	SMA (m) to SMA (m)	Gold plated brass	-55~+165
FASS-MF-B6			SMA (m) to SMA (f)		
FASS-FF-B6			SMA (f) to SMA (f)		
FASSH-FF-B6	DC-6	1.15	SMA (f) to SMA (f), bulk head	Gold plated brass	-55~+165
FASSL-FF-B6	DC-6	1.15	SMA (f) to SMA (f), flange mount	Gold plated brass	-55~+165
FASS-MMRP-B6	DC-6	1.15	SMA (m) to Reversed polarity SMA (m)	Gold plated brass	-55~+165
FASS-MRPMRP-B6			Reversed polarity SMA (m) to Reversed polarity SMA (m)		
FASS-MFRP-B6			SMA (m) to Reversed polarity SMA (f)		
FASS-MRPFPR-B6			Reversed polarity SMA (m) to Reversed polarity SMA (f)		
FASS-FFRP-B6			SMA (f) to Reversed polarity SMA (f)		
FASS-FRPFPR-B6	Reversed polarity SMA (f) to Reversed polarity SMA (f)				
FASSR-MM-B6	DC-6	1.2	SMA (m) to SMA (m), right angle	Gold plated brass	-55~+165
FASSR-MF-B6			SMA (m) to SMA (f), right angle		
FASSR-FF-B6			SMA (f) to SMA (f), right angle		
FASSS-FMF-B6	DC-1	1.15	SMA (f) to SMA (m) to SMA (f), tee	Gold plated brass	-55~+165
FASSS-FFF-B6	DC-6	1.3	SMA (f) to SMA (f) to SMA (f), tee		



## SMB Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FADD-MM			SMB (m) to SMB (m)		
FADD-FF	DC~4	1.15	SMB (f) to SMB (f)	Gold plated brass	-55~+165
FADD-MF			SMB (m) to SMB (f)		
FADDL-MF	DC~6	1.2	SMB (m) to SMB (f), flange mount	Passivated stainless steel	-55~+165

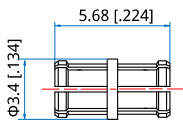
FADDL-MF



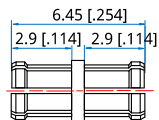
## SMP Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAPP-MM	DC~18	1.3	SMP (m) to SMP (m)		
FAPP-MF	DC~18	1.35	SMP (m) to SMP (f)		
FAPP-FF	DC~6	1.3	SMP (f) to SMP (f)	Passivated stainless steel or Gold plated brass or Gold plated beryllium copper	-55~+125
FAPP-FF-1	DC~18	1.3	SMP (f) to SMP (f)		
FAPP-FF-2	DC~18	1.35	SMP (f) to SMP (f)		
FAPP-FF-3	DC~18	1.3	SMP (f) to SMP (f)		
FAPPL-MM					
FAPPL-MM-1	DC~18	1.3	SMP (m) to SMP (m), flange mount	Passivated stainless steel or Gold plated brass or Gold plated beryllium copper	-55~+125

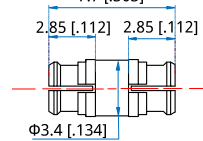
FAPP-FF



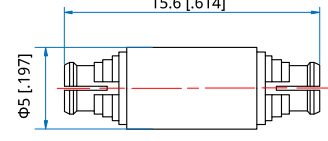
FAPP-FF-1



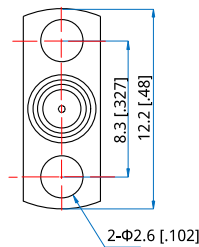
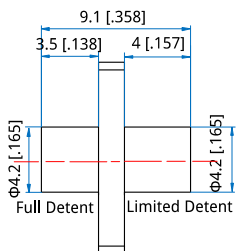
FAPP-FF-2



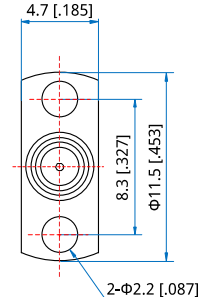
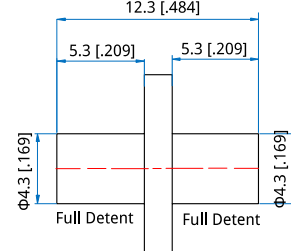
FAPP-FF-3



FAPPL-MM

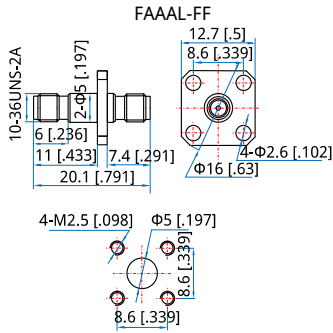


FAPPL-MM-1



## SSMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAAA-MM	DC~26.5		SSMA (m) to SSMA (m)		
FAAA-FF	DC~26.5	1.2	SSMA (f) to SSMA (f)	Passivated stainless steel	-55~+165
FAAA-MF	DC~18		SSMA (m) to SSMA (f)		
FAAAL-FF	DC~26.5	1.2	SSMA (f) to SSMA (f), flange mount	Passivated stainless steel	-55~+165

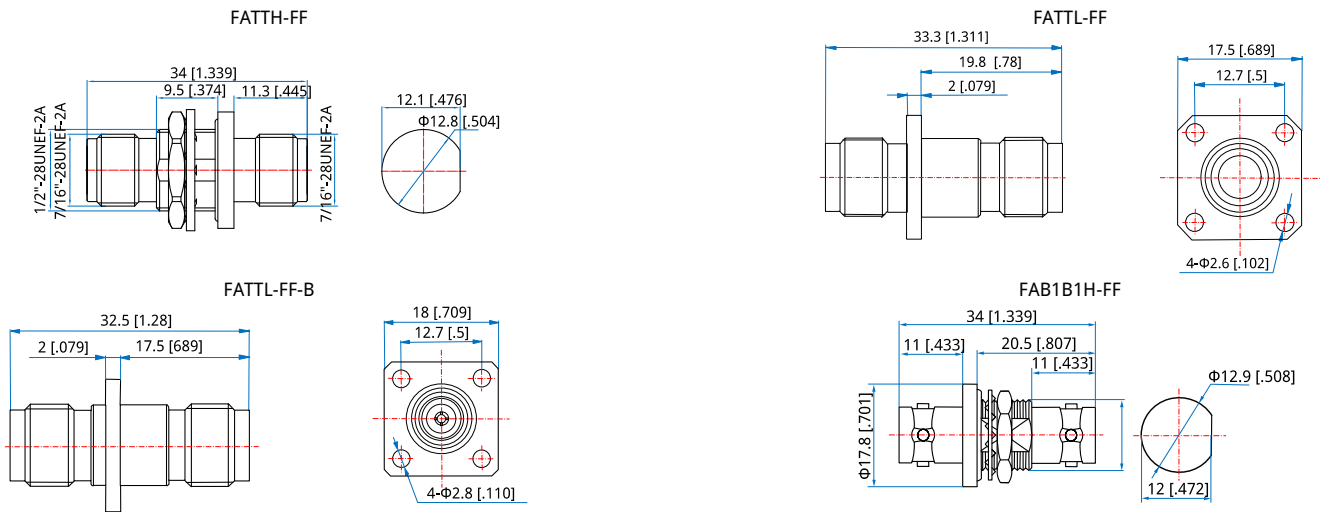


### SSMP Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAGG-FF	DC~18	1.3			-55~+165
FAGG-FF-1	DC~40	1.3	SSMP (f) to SSMP (f)	Gold plated beryllium copper	-55~+125
FAGG-FF-2	DC~30	1.35			-55~+125

### TNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FATT-MM			TNC (m) to TNC (m)		
FATT-MF	DC~18	1.2	TNC (m) to TNC (f)	Passivated stainless steel	-55~+165
FATT-FF			TNC (f) to TNC (f)		
FATTH-FF	DC~11	1.25	TNC (f) to TNC (f), bulk head	Passivated stainless steel	-55~+165
FATTL-FF	DC~18	1.25	TNC (f) to TNC (f), flange mount	Passivated stainless steel	-55~+165
FATTL-FF-B	DC~6	1.15		Ternary alloy plated brass	
FATTT-FMF	DC~4	-	TNC (f) to TNC (m) to TNC (f), tee	Ternary alloy plated brass	-45~+125
FATTT-FFF			TNC (f) to TNC (f) to TNC (f), tee		



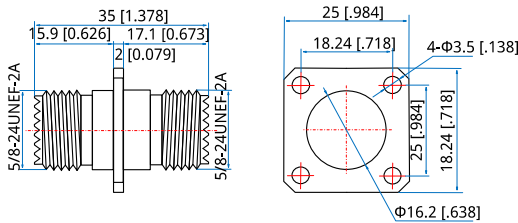
### TRB Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAB1B1-MM			TRB (m) to TRB (m)	Ternary alloy plated brass	
FAB1B1-FF	DC~3	1.2	TRB (f) to TRB (f)	Nickel plated brass	-50~+125
FAB1B1H-FF	DC~3	1.2	TRB (f) to TRB (f), bulk head	Ternary alloy plated brass	-50~+125
FAB1B1B1-FFF			TRB (f) to TRB (f) to TRB (f), tee		
FAB1B1B1-FMF	DC~3	1.2	TRB (f) to TRB (m) to TRB (f), tee	Nickel plated brass	-50~+125

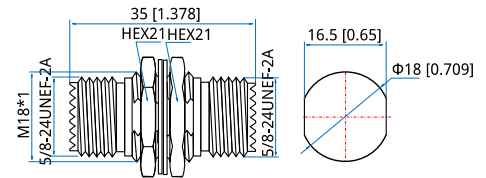
## UHF Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAZZ-MM			UHF (m) to UHF (m)		
FAZZ-MF	DC~1	1.2	UHF (m) to UHF (f)	Nickel plated brass	-45~+125
FAZZ-FF			UHF (f) to UHF (f)		
FAZZL-FF	DC~1	1.2	UHF (f) to UHF (f), flange mout	Nickel plated brass	-45~+125
FAZZH-FF-1	DC~1	1.2	UHF (f) to UHF (f), bulk head	Nickel plated brass	-45~+125
FAZZH-FF-2			UHF (f) to UHF (f), bulk head		
FAZZR-MF	DC~1	-	UHF (m) to UHF (f), right angle	Nickel plated brass	-45~+125

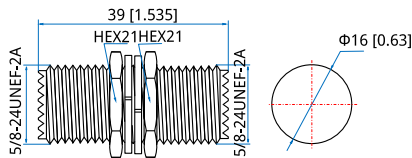
FAZZL-FF



FAZZH-FF-1



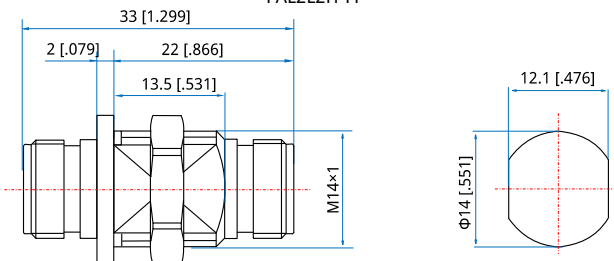
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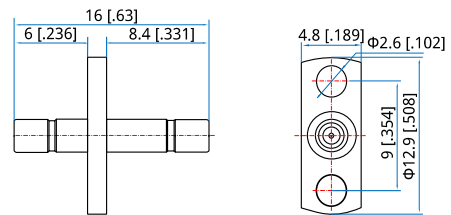
## Other Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAL2L2H-FF	DC~6	1.2	L12 (f) to L12 (f), bulk head	Ternary alloy plated brass	-55~+165
FAUUL-MM	DC~6	1.2	SSMB (m) to SSMB (m), flange mout	Gold plated brass	-55~+165
FAYYL-FF	DC~6	1.3	HN (f) to HN (f), flange mout	Ternary alloy plated brass	-55~+165
FAFFH-FF	DC~1	1.3	F (f) to F (f), bulk head	Nickel plated brass	-55~+165

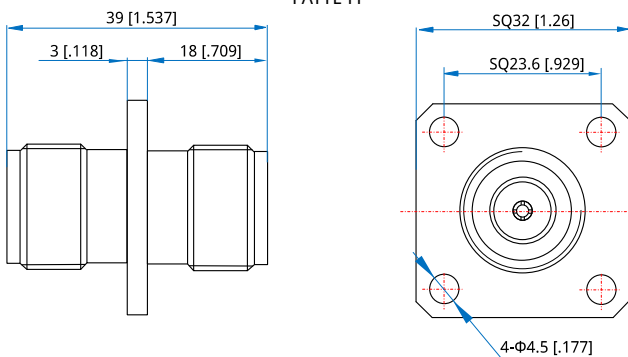
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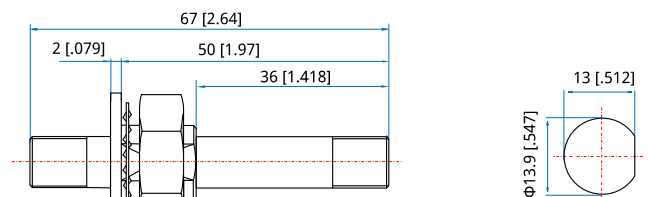
FAUUL-MM



FAYYL-FF



FAFFH-FF



## Between Series Coaxial Adapters

### 1.0mm to 1.85mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA1V-MM	DC~67	1.3	1.0mm (m) to 1.85mm (m)	Passivated stainless steel	-55--+165
FA1V-MF			1.0mm (m) to 1.85mm (f)		
FA1V-FF			1.0mm (f) to 1.85mm (f)		
FA1V-FM			1.0mm (f) to 1.85mm (m)		

### 1.85mm to 2.4mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAV2-MM	DC~50	1.2	1.85mm (m) to 2.4mm (m)	Passivated stainless steel	-55--+165
FAV2-MF			1.85mm (m) to 2.4mm (f)		
FAV2-FM			1.85mm (f) to 2.4mm (m)		
FAV2-FF			1.85mm (f) to 2.4mm (f)		
FAV2R-MM	DC~50	1.25	1.85mm (m) to 2.4mm (m), right angle	Passivated stainless steel	-55--+165
FAV2R-MF			1.85mm (m) to 2.4mm (f), right angle		
FAV2R-FM			1.85mm (f) to 2.4mm (m), right angle		
FAV2R-FF			1.85mm (f) to 2.4mm (f), right angle		

### 1.85mm to 2.92mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAVK-MM	DC~40	1.15	1.85mm (m) to 2.92mm (m)	Passivated stainless steel	-55--+165
FAVK-MF			1.85mm (m) to 2.92mm (f)		
FAVK-FM			1.85mm (f) to 2.92mm (m)		
FAVK-FF			1.85mm (f) to 2.92mm (f)		
FAVKR-MM	DC~40	1.25	1.85mm (m) to 2.92mm (m), right angle	Passivated stainless steel	-55--+165
FAVKR-MF			1.85mm (m) to 2.92mm (f), right angle		
FAVKR-FM			1.85mm (f) to 2.92mm (m), right angle		
FAVKR-FF			1.85mm (f) to 2.92mm (f), right angle		

### 1.85mm to 3.5mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAV3-MM	DC~33	1.15	1.85mm (m) to 3.5mm (m)	Passivated stainless steel	-55--+125
FAV3-MF			1.85mm (m) to 3.5mm (f)		
FAV3-FM			1.85mm (f) to 3.5mm (m)		
FAV3-FF			1.85mm (f) to 3.5mm (f)		

### 1.85mm to SSMP Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAVG-MM	DC~67	1.3	1.85mm (m) to SSMP (m)	Passivated stainless steel & Gold plated beryllium copper or Passivated stainless steel	-55--+125
FAVG-FF			1.85mm (f) to SSMP (f)		
FAVG-MF			1.85mm (m) to SSMP (f)		
FAVG-FM			1.85mm (f) to SSMP (m)		

### 2.4mm to 2.92mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2K-MM	DC~40	1.25	2.4mm (m) to 2.92mm (m)	Passivated stainless steel	-60--+165
FA2K-MF			2.4mm (m) to 2.92mm (f)		
FA2K-FM			2.4mm (f) to 2.92mm (m)		
FA2K-FF			2.4mm (f) to 2.92mm (f)		
FA2KR-MM	DC~40	1.25	2.4mm (m) to 2.92mm (m), right angle	Passivated stainless steel	-60--+165
FA2KR-MF			2.4mm (m) to 2.92mm (f), right angle		
FA2KR-FM			2.4mm (f) to 2.92mm (m), right angle		
FA2KR-FF			2.4mm (f) to 2.92mm (f), right angle		

## 2.4mm to 3.5mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA23-MM	DC~33	1.15	2.4mm (m) to 3.5mm (m)	Passivated stainless steel	-60~+165
FA23-MF			2.4mm (m) to 3.5mm (f)		
FA23-FM			2.4mm (f) to 3.5mm (m)		
FA23-FF			2.4mm (f) to 3.5mm (f)		

## 2.4mm to 7.0mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2J-M	DC ~18	1.25	2.4mm (m) to 7.0mm	Passivated stainless steel	-55~+165
FA2J-F			2.4mm (f) to 7.0mm		

## 2.4mm to N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2N-MM	DC ~18	1.2	2.4mm (m) to N (m)	Passivated stainless steel	-55~+165
FA2N-FF			2.4mm (f) to N (f)		
FA2N-MF			2.4mm (m) to N (f)		
FA2N-FM			2.4mm (f) to N (m)		

## 2.4mm to SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2S-MM	DC~26.5	1.2	2.4mm (m) to SMA (m)	Passivated stainless steel	-55~+165
FA2S-FF			2.4mm (f) to SMA (f)		
FA2S-MF			2.4mm (m) to SMA (f)		
FA2S-FM			2.4mm (f) to SMA (m)		

## 2.4mm to SMP Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2P-MM	DC~40	1.5	2.4mm (m) to SMP (m)	Passivated stainless steel or Gold plated beryllium copper	-50~+85
FA2P-FF		1.5	2.4mm (f) to SMP (f)		-50~+85
FA2P-MF		1.35	2.4mm (m) to SMP (f)		-55~+165
FA2P-FM		1.35	2.4mm (f) to SMP (m)		-55~+165

## 2.4mm to TNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA2T-MM	DC ~18	1.3	2.4mm (m) to TNC (m)	Passivated stainless steel	-55~+165
FA2T-FF			2.4mm (f) to TNC (f)		
FA2T-MF			2.4mm (m) to TNC (f)		
FA2T-FM			2.4mm (f) to TNC (m)		

## 2.92mm to 3.5mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAK3-MM	0.01~26.5	1.15	2.92mm (m) to 3.5mm (m)	Passivated stainless steel	-55~+165
FAK3-FF			2.92mm (f) to 3.5mm (f)		
FAK3-MF			2.92mm (m) to 3.5mm (f)		
FAK3-FM			2.92mm (f) to 3.5mm (m)		

## 2.92mm to 7.0mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKJ-M	DC ~18	1.25	2.92mm (m) to 7.0mm	Passivated stainless steel	-55~+165
FAKJ-F			2.92mm (f) to 7.0mm		

## 2.92mm to N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKN-MM	DC ~18	1.15	2.92mm (m) to N (m)	Passivated stainless steel	-55~+125
FAKN-MF			2.92mm (m) to N (f)		
FAKN-FM			2.92mm (f) to N (m)		
FAKN-FF			2.92mm (f) to N (f)		

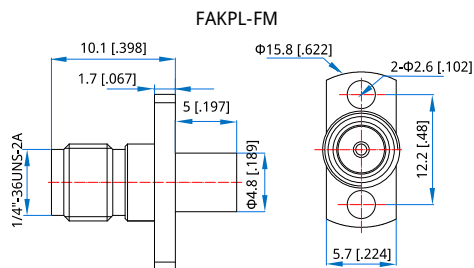


### 2.92mm to SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKS-FF	DC~27	1.15	2.92mm (f) to SMA (f)	Polished & Passivated stainless steel	-
FAKS-MM			2.92mm (m) to SMA (m)		
FAKS-MF			2.92mm (m) to SMA (f)		
FAKS-FM			2.92mm (f) to SMA (m)		

### 2.92mm to SMP Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKP-MM	DC~40	1.25	2.92mm (m) to SMP (m)	Passivated stainless steel or Gold plated beryllium copper	-55~+165
FAKP-MF			2.92mm (m) to SMP (f)		
FAKP-FM			2.92mm (f) to SMP (m)		
FAKP-FF			2.92mm (f) to SMP (f)		
FAKPL-FM	DC~40	1.25	2.92mm (f) to SMP (m), flange mount	Passivated stainless steel or Gold plated beryllium copper	-55~+165



### 2.92mm to SSMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAKA-MM	DC~40	1.2	2.92mm (m) to SSMA (m)	Passivated stainless steel	-55~+125
FAKA-MF			2.92mm (m) to SSMA (f)		
FAKA-FM			2.92mm (f) to SSMA (m)		
FAKA-FF			2.92mm (f) to SSMA (f)		

### 3.5mm to 7.0mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA3J-M	DC ~18	1.25	3.5mm (m) to 7.0mm	Passivated stainless steel	-55~+165
FA3J-F			3.5mm (f) to 7.0mm		

### 3.5mm to N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA3N-MM	DC ~18	1.2	3.5mm (m) to N (m)	Passivated stainless steel	-55~+165
FA3N-FM			3.5mm (f) to N (m)		
FA3N-MF			3.5mm (m) to N (f)		
FA3N-FF			3.5mm (f) to N (f)		

### 3.5mm to SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA3S-MM	DC~27	1.15	3.5mm (m) to SMA (m)	Polished & Passivated stainless steel	-
FA3S-FF			3.5mm (f) to SMA (f)		
FA3S-MF			3.5mm (m) to SMA (f)		
FA3S-FM			3.5mm (f) to SMA (m)		

### 4.3-10 to 7/16 DIN Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA47-MM	DC~6	1.2	4.3-10 (m) to 7/16 DIN (m)	Ternary alloy plated brass	-45~+125
FA47-MF			4.3-10 (m) to 7/16 DIN (f)		
FA47-FM			4.3-10 (f) to 7/16 DIN (m)		
FA47-FF			4.3-10 (f) to 7/16 DIN (f)		

## 7/16 DIN to L27 Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FA7L-MF	DC~6	1.2	7/16 DIN (m) to L27 (f)	Ternary alloy plated brass	-55~+165

## BNC to MHV Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FABM4-MF	DC~0.3	-	BNC (m) to MHV (f)	Nickel plated brass	-45~+125
FABM4-FM			BNC (f) to MHV (m)		
FABM4-FF			BNC (f) to MHV (f)		

## BNC to SHV Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FABS1-MM	DC~0.3	-	BNC (m) to SHV (m)	Nickel plated brass	-45~+125
FABS1-FM			BNC (f) to SHV (m)		
FABS1-FF			BNC (f) to SHV (f)		

## BNC to TRB Series

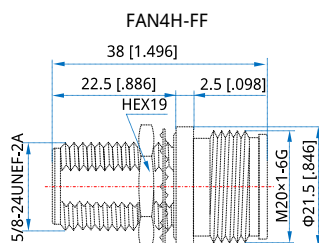
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FABB1-MM	DC~0.5	-	BNC (m) to TRB (m)	Nickel plated brass	-45~+125
FABB1-FM			BNC (f) to TRB (m)		
FABB1-MF			BNC (m) to TRB (f)		
FABB1-FF			BNC (f) to TRB (f)		

## BNC to UHF Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FABZ-MM	DC~3	-	BNC (m) to UHF (m)	Nickel plated brass	-55~+165
FABZ-FF			BNC (f) to UHF (f)		
FABZ-MF			BNC (m) to UHF (f)		
FABZ-FM			BNC (f) to UHF (m)		

## N to 4.3-10 Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAN4-MM	DC~6	1.2	N (m) to 4.3-10 (m)	Ternary alloy plated brass	-45~+125
FAN4-FF		1.2	N (f) to 4.3-10 (f)		
FAN4-MF		1.2	N (m) to 4.3-10 (f)		
FAN4-FM		1.15	N (f) to 4.3-10 (m)		
FAN4H-FF		1.25	N (f) to 4.3-10 (f), bulk head		



## N to 7.0mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANJ-M	DC ~18	1.25	N (m) to 7.0mm	Passivated stainless steel	-55~+165
FANJ-F			N (f) to 7.0mm		

**N to 7/16 DIN Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAN7-MM FAN7-MF FAN7-FM FAN7-FF	DC ~7.5	1.1@3GHz	N (m) to 7/16 DIN (m) N (m) to 7/16 DIN (f) N (f) to 7/16 DIN (m) N (f) to 7/16 DIN (f)	Ternary alloy plated brass	-40~+85

**N to BNC Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANB-MM-B FANB-MF-B FANB-FM-B FANB-FF-B	DC~6	1.35	N (m) to BNC (m) N (m) to BNC (f) N (f) to BNC (m) N (f) to BNC (f)	Nickel plated brass	-55~+155

**N to F Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANF-MM FANF-MF FANF-FM FANF-FF	DC~1	1.25	N (m) to F inch thread (m) N (m) to F inch thread (f) N (f) to F inch thread (m) N (f) to F inch thread (f)	Nickel plated brass	-

**N to L16 Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANL1-MM FANL1-FF FANL1-MF FANL1-FM	DC ~18	1.2	N (m) to L16 (m) N (f) to L16 (f) N (m) to L16 (f) N (f) to L16 (m)	Passivated stainless steel	-55~+165

**N to L27 Series**

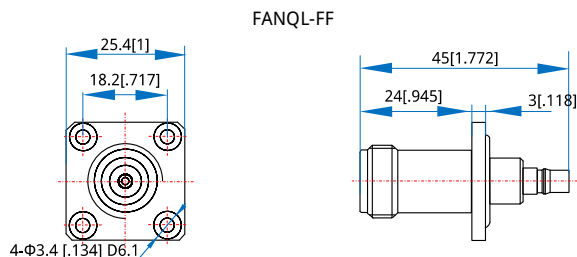
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANL-MF FANL-FF	DC~6	1.2	N (m) to L27 (f) N (f) to L27 (f)	Ternary alloy plated brass	-40~+85

**N to NEX10 Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANNEX-MF	DC~6	1.1@3GHz	N (m) to NEX10 (f)	Ternary alloy plated brass	-55~+85

**N to QMA Series**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANQ-MM FANQ-FF FANQ-MF FANQ-FM	DC~6	1.2	N (m) to QMA (m) N (f) to QMA (f) N (m) to QMA (f) N (f) to QMA (m)	Ternary alloy plated brass	-55~+165
FANQL-FF	DC~6	1.2	N (f) to QMA (f), flange mout	Ternary alloy plated brass	-55~+165

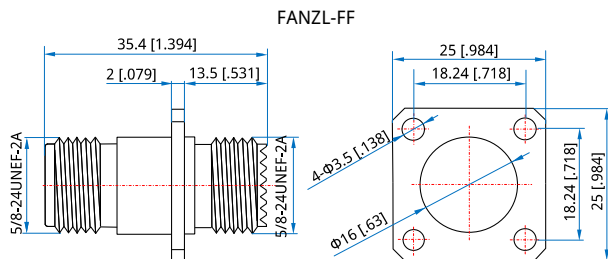


## N to SC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANE-MM	DC~8	1.15	N (m) to SC (m)	Passivated stainless steel	-55~+165
FANE-FM			N (f) to SC (m)		
FANE-MF			N (m) to SC (f)		
FANE-FF			N (f) to SC (f)		

## N to UHF Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FANZ-MM	DC~1	1.2	N (m) to UHF (SL16) (m)	Nickel plated brass	-45~+125
FANZ-MF			N (m) to UHF (SL16) (f)		
FANZ-FM			N (f) to UHF (SL16) (m)		
FANZ-FF			N (f) to UHF (SL16) (f)		
FANZL-FF	DC~1	-	N (f) to UHF (SL16) (f), flange mout	Nickel plated brass	-45~+125



## QMA to BNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAQB-FM	DC~4	1.25	QMA (f) to BNC (m)	Nickel plated brass	-45~+125
FAQB-MF			QMA (m) to BNC (f)		

## SHV to MHV Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAS1M4-MM	DC~0.3	-	SHV (m) to MHV (m)	Nickel plated brass	-45~+125
FAS1M4-MF			SHV (m) to MHV (f)		
FAS1M4-FF			SHV (f) to MHV (f)		

## SMA to 4.3-10 Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAS4-MF	DC~6	1.15@3GHz	SMA (m) to 4.3-10 (f)	Silver plated phosphor bronze	-
FAS4-FM			SMA (f) to 4.3-10 (m)		

## SMA to 7.0mm

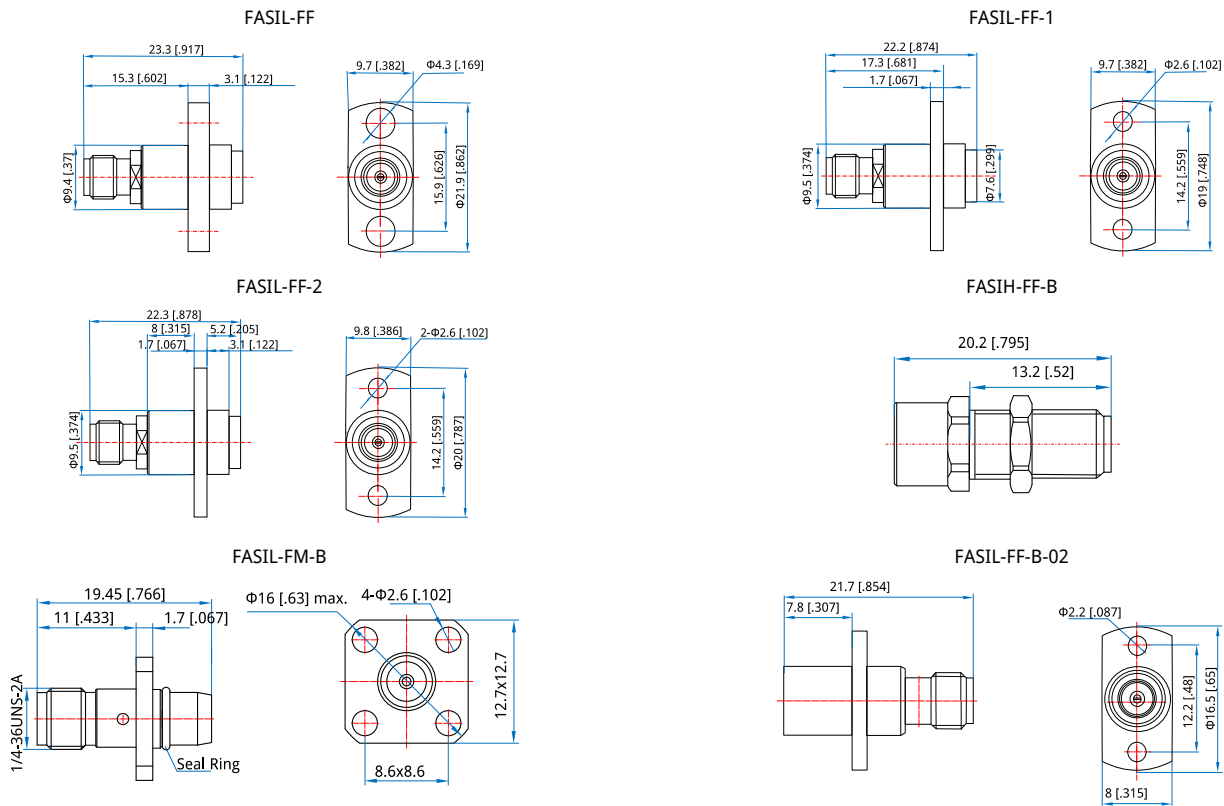
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASJ-M	DC ~18	1.25	SMA (m) to 7.0mm	Passivated stainless steel	-55~+165
FASJ-F			SMA (f) to 7.0mm		

## SMA to 7/16 DIN Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAS7-MM	DC ~7.5	1.2	SMA (m) to 7/16 DIN (m)	Gold plated brass	-55~+165
FAS7-FF			SMA (f) to 7/16 DIN (f)		
FAS7-MF			SMA (m) to 7/16 DIN (f)		
FAS7-FM			SMA (f) to 7/16 DIN (m)		

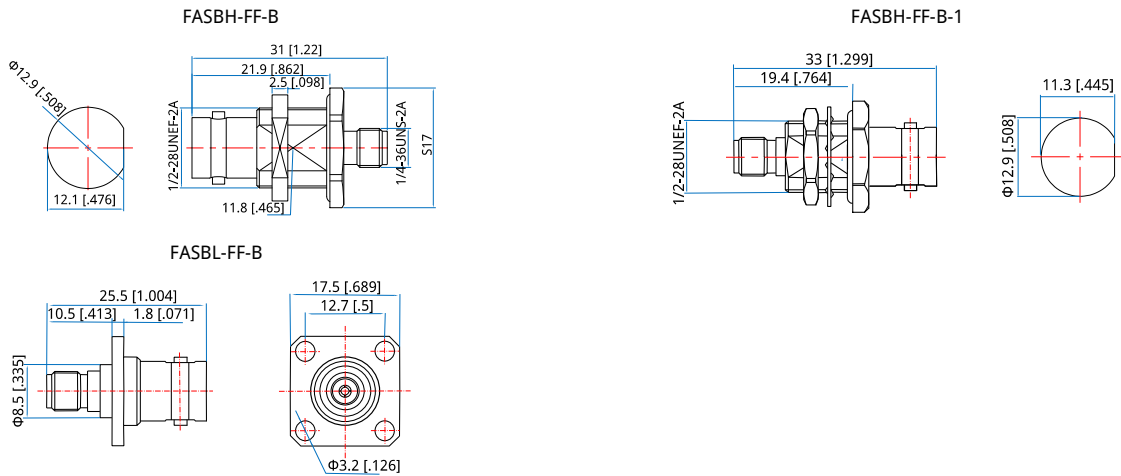
## SMA to BMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASI-MM FASI-MF FASI-FM FASI-FF	DC ~18	1.25	SMA (m) to BMA (m) SMA (m) to BMA (f) SMA (f) to BMA (m) SMA (f) to BMA (f)	Passivated stainless steel	-55~+165
FASIL-FF FASIL-FF-1 FASIL-FF-2	DC ~18	1.35	SMA (f) to BMA (f), flange mount	Passivated stainless steel	-55~+165
FASI-MM-B FASI-MF-B FASI-FM-B FASI-FF-B	DC~6	1.15	SMA (m) to BMA (m) SMA (m) to BMA (f) SMA (f) to BMA (m) SMA (f) to BMA (f)	Gold plated brass or Ternary alloy plated brass	-55~+165
FASIH-FF-B	DC~18	1.25	SMA (f) to BMA (f), bulk head	Gold plated brass or Ternary alloy plated brass	-55~+165
FASIL-FM-B	DC ~18	1.15	SMA (f) to BMA (m), flange mount	Gold plated brass or Ternary alloy plated brass	-55~+165
FASIL-FF-B-02	DC~6	1.15	SMA (f) to BMA (f), flange mount, two holes	Gold plated brass or Ternary alloy plated brass	-55~+165



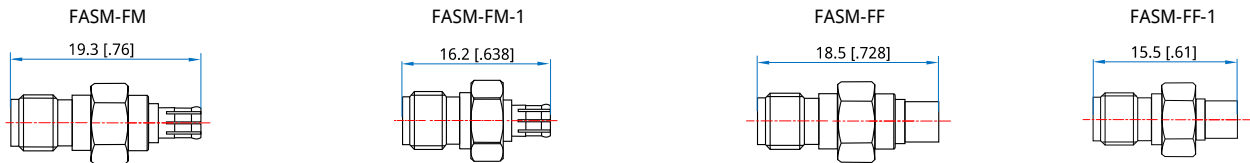
## SMA to BNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASB-MM-B FASB-FM-B FASB-MF-B FASB-FF-B	DC~6	1.35	SMA (m) to BNC (m) SMA (f) to BNC (m) SMA (m) to BNC (f) SMA (f) to BNC (f)	Nickel plated brass	-55~+155
FASBH-FF-B	DC~3	1.25	SMA (f) to BNC (f), bulk head	Nickel plated brass	-55~+155
FASBH-FF-B-1	DC~4	1.15	SMA (f) to BNC (f), bulk head	Nickel plated brass	-55~+155
FASBL-FF-B	DC~4	1.15	SMA (f) to BNC (f), flange mount	Nickel plated brass	-55~+155



### SMA to MCX Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASM-MM	DC~6	1.2	SMA (m) to MCX (m)	Gold plated brass	-55~+165
FASM-MF			SMA (m) to MCX (f)		
FASM-FM	DC~6	1.2	SMA (f) to MCX (m)	Gold plated brass	-55~+165
FASM-FF			SMA (f) to MCX (f)		
FASM-FF-1	DC~6	1.2	SMA (f) to MCX (f)	Gold plated brass	-55~+165

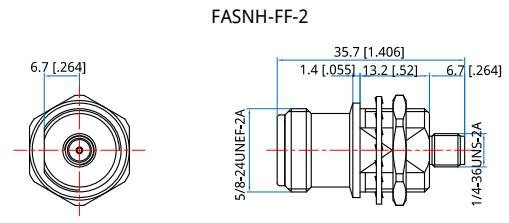
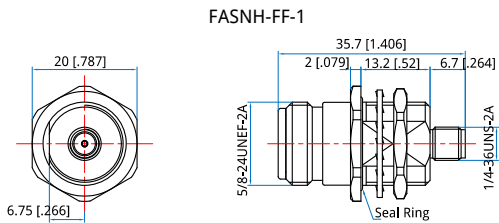
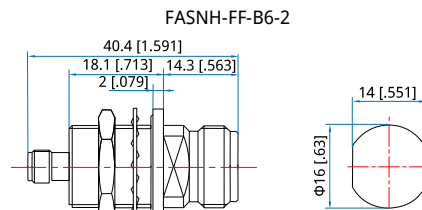
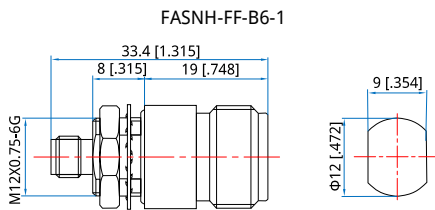
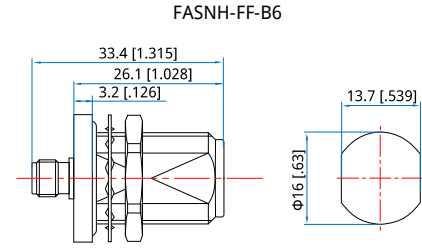
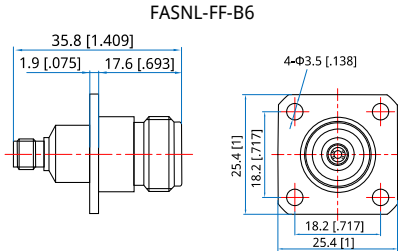
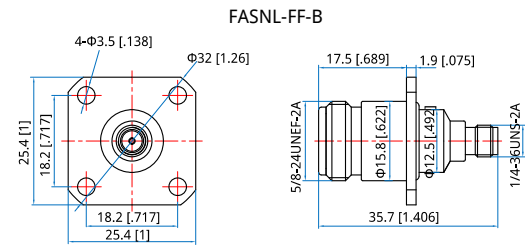
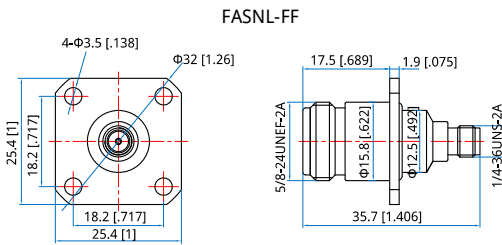


### SMA to MMCX Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASX-MM	DC~6	1.2	SMA (m) to MMCX (m)	Gold plated brass	-55~+165
FASX-MF			SMA (m) to MMCX (f)		
FASX-FM			SMA (f) to MMCX (m)		
FASX-FF			SMA (f) to MMCX (f)		

### SMA to N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASN-MM	DC ~18	1.15	SMA (m) to N (m)	Passivated stainless steel	-50~+85
FASN-MF			SMA (m) to N (f)		
FASN-FM			SMA (f) to N (m)		
FASN-FF			SMA (f) to N (f)		
FASNL-FF	DC ~18	1.15	SMA (f) to N (f), flange mout	Passivated stainless steel	-50~+85
FASNH-FF-1	DC ~18	1.15	SMA (f) to N (f), bulk head	Passivated stainless steel	-50~+85
FASNH-FF-2					
FASN-MM-B	DC ~18	1.2	SMA (m) to N (m)	Nickel plated brass	-50~+85
FASN-MF-B			SMA (m) to N (f)		
FASN-FM-B			SMA (f) to N (m)		
FASN-FF-B			SMA (f) to N (f)		
FASNL-FF-B	DC ~18	1.2	SMA (f) to N (f), flange mout	Nickel plated brass	-50~+85
FASN-MM-B6	DC~6	1.15	SMA (m) to N (m)	Ternary alloy plated brass	-55~+165
FASN-MF-B6			SMA (m) to N (f)		
FASN-FM-B6			SMA (f) to N (m)		
FASN-FF-B6			SMA (f) to N (f)		
FASNL-FF-B6	DC~6	1.15	SMA (f) to N (f), flange mout	Ternary alloy plated brass	-55~+165
FASNH-FF-B6	DC~6	1.15	SMA (f) to N (f), bulk head	Ternary alloy plated brass	-55~+165
FASNH-FF-B6-1					
FASNH-FF-B6-2					



### SMA to QMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASQ-MM-B	DC-6	1.25	SMA (m) to QMA (m)	Gold plated brass	-
FASQ-MF-B			SMA (m) to QMA (f)		
FASQ-FM-B			SMA (f) to QMA (m)		
FASQ-FF-B			SMA (f) to QMA (f)		

### SMA to SMC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAS6-MM	DC-10	1.25	SMA (m) to SMC (m)	Passivated stainless steel	-55--+165
FAS6-FF			SMA (f) to SMC (f)		
FAS6-MF			SMA (m) to SMC (f)		
FAS6-FM			SMA (f) to SMC (m)		

### SMA to SMB Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASD-MM	DC-4	1.2	SMA (m) to SMB (m)	Gold plated brass	-55--+165
FASD-MF			SMA (m) to SMB (f)		
FASD-FM			SMA (f) to SMB (m)		
FASD-FF			SMA (f) to SMB (f)		

### SMA to SSMB Series

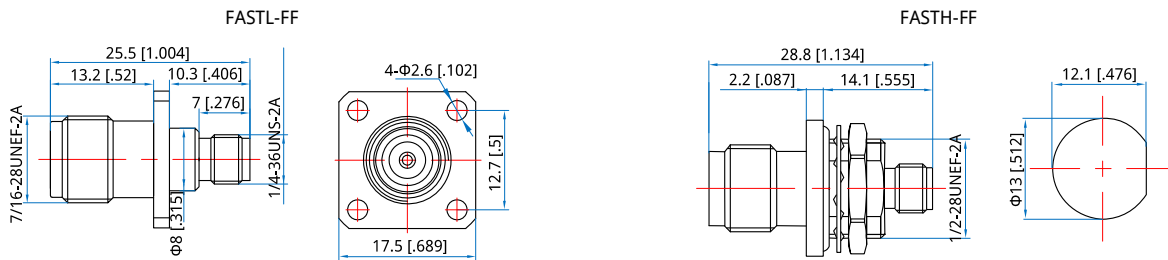
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASU-MF	DC-6	1.2	SMA (m) to SSMB (f)	Gold plated brass	-55--+165
FASU-FM			SMA (f) to SSMB (m)		
FASU-FF			SMA (f) to SSMB (f)		

### SMA to SSMC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASW-MM	DC~17	1.25	SMA (m) to SSMC (m)	Gold plated brass	-45~+125
FASW-FF			SMA (f) to SSMC (f)		
FASW-MF			SMA (m) to SSMC (f)		
FASW-FM			SMA (f) to SSMC (m)		

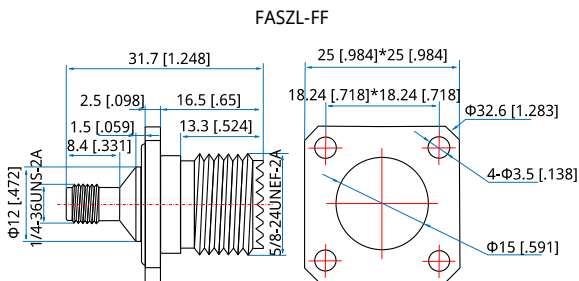
### SMA to TNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAST-MM	DC ~18	1.2	SMA (m) to TNC (m)	Passivated stainless steel	-50~+85
FAST-MF			SMA (m) to TNC (f)		
FAST-FM			SMA (f) to TNC (m)		
FAST-FF			SMA (f) to TNC (f)		
FASTL-FF	DC ~18	1.25	SMA (f) to TNC (f), flange mout	Passivated stainless steel	-50~+85
FASHT-FF	DC ~18	1.3	SMA (f) to TNC (f), bulk head	Passivated stainless steel	-55~+165



### SMA to UHF Series

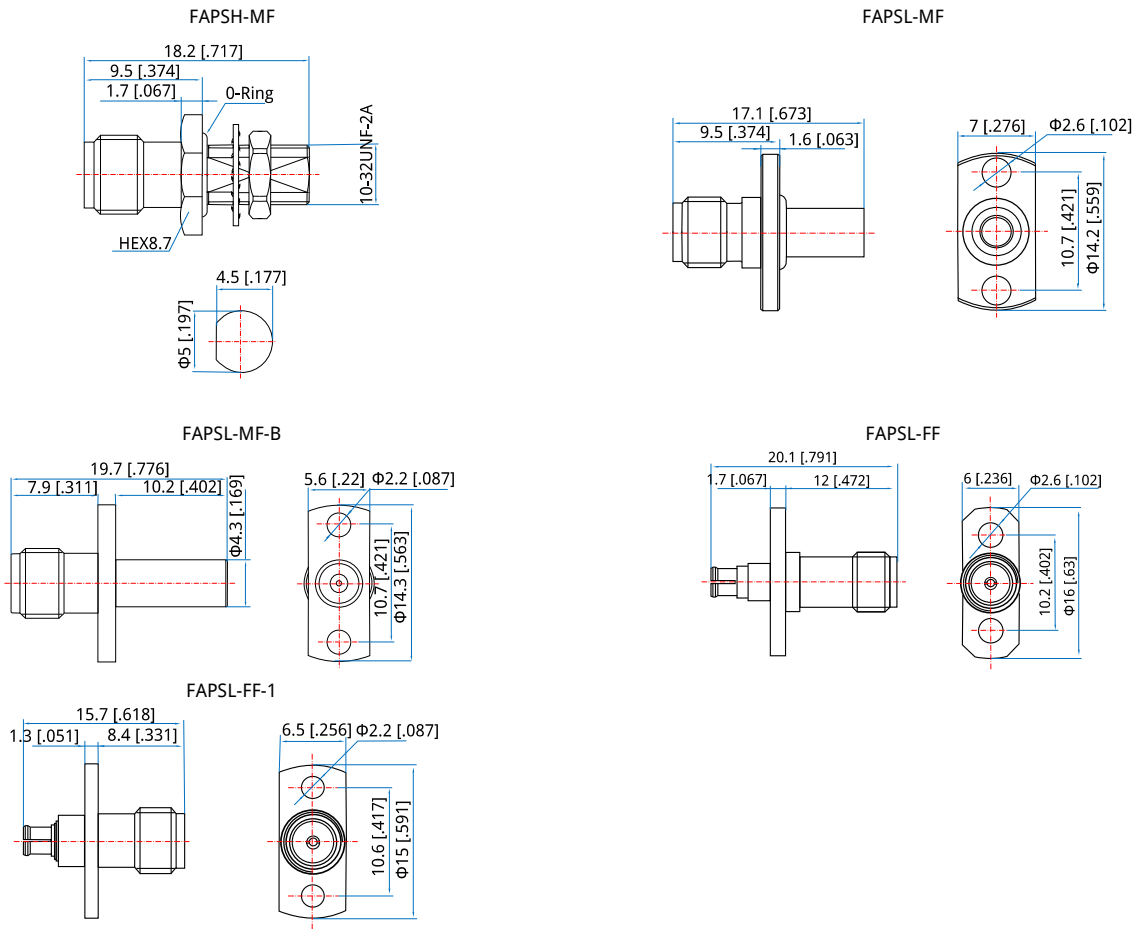
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASZ-MM	DC~1	1.25	SMA (m) to UHF (SL16) (m)	Gold plated brass (SMA)	-45~+125
FASZ-FM			SMA (f) to UHF (SL16) (m)		
FASZ-MF			SMA (m) to UHF (SL16) (f)	Nickel plated brass (UHF)	
FASZ-FF			SMA (f) to UHF (SL16) (f)		
FASZL-FF	DC~1	-	SMA (f) to UHF (SL16) (f), flange mout	Ternary alloy plated brass	-45~+125



### SMP to SMA Series

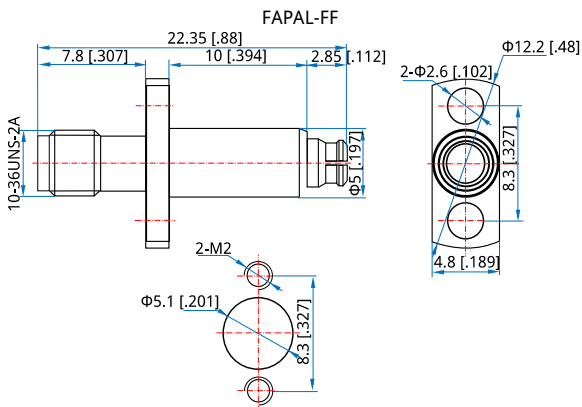
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAPS-MM	DC~26.5	1.3	SMP (m) to SMA (m)	Passivated stainless steel & Gold plated beryllium copper & Gold plated brass	-55~+85
FAPS-FM			SMP (f) to SMA (m)		
FAPS-MF			SMP (m) to SMA (f)		
FAPS-FF			SMP (f) to SMA (f)		
FAPSR-FM	DC~6	1.2	SMP (f) to SMA (m), right angle	Passivated stainless steel & Gold plated beryllium copper & Gold plated brass	-55~+165
FAPSH-MF	DC ~18	1.3	SMP (m) to SMA (f), bulk head	Passivated stainless steel & Gold plated beryllium copper & Gold plated brass	-55~+85
FAPSL-MF	DC ~18	1.3	SMP (m) to SMA (f), flange mout	Passivated stainless steel & Gold plated beryllium copper & Gold plated brass	-55~+165
FAPSL-MF-B			SMP (m) to SMA (f), flange mout		
FAPSL-FF	DC~6	1.2	SMP (f) to SMA (f), flange mout	Passivated stainless steel & Gold plated beryllium copper & Gold plated brass	-55~+165
FAPSL-FF-1			SMP (f) to SMA (f), flange mout		





### SMP to SSMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAPAL-FF	DC ~18	1.25	SMP (f) to SSMA (f), flange mount	Gold plated brass	-50~+85



### SSMA to SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAAS-MM	DC~26.5	1.3	SSMA (m) to SMA (m)	Passivated stainless steel	-55~+85
FAAS-MF			SSMA (m) to SMA (f)		
FAAS-FM			SSMA (f) to SMA (m)		
FAAS-FF			SSMA (f) to SMA (f)		

### SSMP to 2.4mm Series

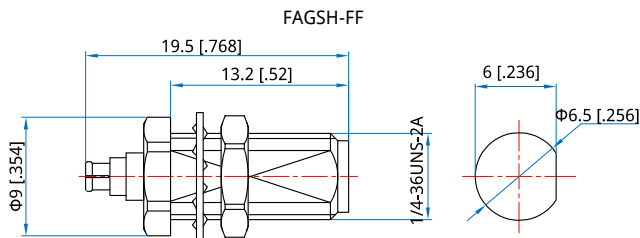
Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAG2-MM FAG2-FF FAG2-MF FAG2-FM	DC~50	1.35	SSMP (m) to 2.4mm (m) SSMP (f) to 2.4mm (f) SSMP (m) to 2.4mm (f) SSMP (f) to 2.4mm (m)	Passivated stainless steel & Gold plated beryllium copper	-55~+165

### SSMP to 2.92mm Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAGK-MM FAGK-MF FAGK-FM FAGK-FF	DC~40	1.2	SSMP (m) to 2.92mm (m) SSMP (m) to 2.92mm (f) SSMP (f) to 2.92mm (m) SSMP (f) to 2.92mm (f)	Passivated stainless steel	-60~+165

### SSMP to SMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAGS-FF	DC ~18	1.25	SSMP (f) to SMA (f)	Passivated stainless steel or Gold plated brass	-55~+125
FAGSH-FF	DC ~18	1.3	SSMP (f) to SMA (f), bulk head	Passivated stainless steel or Gold plated brass	-55~+125



### TNC to 7/16 DIN Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAT7-FM	DC ~7.5	1.2	TNC (f) to 7/16 DIN (m)	Ternary alloy plated brass	-55~+165

### TNC to BNC Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FATB-MM FATB-FM FATB-MF FATB-FF	DC~4	1.2	TNC (m) to BNC (m) TNC (f) to BNC (m) TNC (m) to BNC (f) TNC (f) to BNC (f)	Nickel plated brass	-45~+125
FATBR-FM FATBR-MF	DC~4	-	TNC (f) to BNC (m), right angle TNC (m) to BNC (f), right angle	Nickel plated brass	-45~+125

### TNC to N Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FATN-MM FATN-MF FATN-FM FATN-FF	DC ~18	1.2	TNC (m) to N (m) TNC (m) to N (f) TNC (f) to N (m) TNC (f) to N (f)	Passivated stainless steel	-55~+165

### TNC to QMA Series

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FATQ-MF FATQ-FM	DC~6	1.35	TNC (m) to QMA (f) TNC (f) to QMA (m)	Nickel plated brass	-45~+125

**Quick Adapters**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FASQS-MM FASQS-FM	DC~26.5	1.3	SMA (m) to Quick SMA (m) SMA (f) to Quick SMA (m)	Passivated stainless steel or Gold plated brass	-

**NMD Adapters**

Part Number	Frequency (GHz)	VSWR (max.)	Description	Outer Conductor	Temperature (°C)
FAMVMV-FF FAMVMV-FM	DC~67	1.35	NMD 1.85mm (f) to NMD 1.85mm (f) NMD 1.85mm (f) to NMD 1.85mm (m)	Passivated stainless steel	-55~+165
FAMVM2-FM	DC~50	1.25	NMD 1.85mm (f) to NMD 2.4mm (m)	Passivated stainless steel	-55~+165
FAMVMK-FM	DC~40	1.2	NMD 1.85mm (f) to NMD 2.92mm (m)	Passivated stainless steel	-55~+165
FAMVV-FM FAMVV-FF	DC~67	1.3	NMD 1.85mm (f) to 1.85mm (m) NMD 1.85mm (f) to 1.85mm (f)	Passivated stainless steel	-55~+165
FAMV2-FM FAMV2-FF	DC~50	1.25	NMD 1.85mm (f) to 2.4mm (m) NMD 1.85mm (f) to 2.4mm (f)	Passivated stainless steel	-55~+165
FAMVK-FM FAMVK-FF	DC~40	1.2	NMD 1.85mm (f) to 2.92mm (m) NMD 1.85mm (f) to 2.92mm (f)	Passivated stainless steel	-55~+165
FAMV3-FM FAMV3-FF	DC~33	1.2	NMD 1.85mm (f) to 3.5mm (m) NMD 1.85mm (f) to 3.5mm (f)	Passivated stainless steel	-55~+165
FAM2M2-FF FAM2M2-FM	DC~50	1.25	NMD 2.4mm (f) to NMD 2.4mm (f) NMD 2.4mm (f) to NMD 2.4mm (m)	Passivated stainless steel	-55~+165
FAM2MK-FM FAM2MK-FF	DC~40	1.2	NMD 2.4mm (f) to NMD 2.92mm (m) NMD 2.4mm (f) to NMD 2.92mm (f)	Passivated stainless steel	-55~+165
FAM2M3-FF FAM2M3-FM	DC~26.5	1.15	NMD 2.4mm (f) to NMD 3.5mm (f) NMD 2.4mm (f) to NMD 3.5mm (m)	Passivated stainless steel	-55~+165
FAM22-MM FAM22-MF FAM22-FM FAM22-FF	DC~50	1.25	NMD 2.4mm (m) to 2.4mm (m) NMD 2.4mm (m) to 2.4mm (f) NMD 2.4mm (f) to 2.4mm (m) NMD 2.4mm (f) to 2.4mm (f)	Passivated stainless steel	-55~+165
FAM2K-FM FAM2K-FF	DC~40	1.2	NMD 2.4mm (f) to 2.92mm (m) NMD 2.4mm (f) to 2.92mm (f)	Passivated stainless steel	-55~+165
FAM23-FM FAM23-FF	DC~33	1.2	NMD 2.4mm (f) to 3.5mm (m) NMD 2.4mm (f) to 3.5mm (f)	Passivated stainless steel	-55~+165
FAMKMK-FF FAMKMK-FM	DC~40	1.2	NMD 2.92mm (f) to NMD 2.92mm (f) NMD 2.92mm (f) to NMD 2.92mm (m)	Passivated stainless steel	-55~+165
FAMKM3-FF FAMKM3-FM	DC~26.5	1.15	NMD 2.92mm (f) to NMD 3.5mm (f) NMD 2.92mm (f) to NMD 3.5mm (m)	Passivated stainless steel	-55~+165
FAMKK-MM FAMKK-MF FAMKK-FM FAMKK-FF	DC~40	1.2	NMD 2.92mm (m) to 2.92mm (m) NMD 2.92mm (m) to 2.92mm (f) NMD 2.92mm (f) to 2.92mm (m) NMD 2.92mm (f) to 2.92mm (f)	Passivated stainless steel	-55~+165
FAMK3-FM FAMK3-FF	DC~33	1.2	NMD 2.92mm (f) to 3.5mm (m) NMD 2.92mm (f) to 3.5mm (f)	Passivated stainless steel	-55~+165
FAM3M3-FF FAM3M3-FM	DC~26.5	1.15	NMD 3.5mm (f) to NMD 3.5mm (f) NMD 3.5mm (f) to NMD 3.5mm (m)	Passivated stainless steel	-55~+165
FAM33-MM FAM33-MF FAM33-FM FAM33-FF	DC~33	1.2	NMD 3.5mm (m) to 3.5mm (m) NMD 3.5mm (m) to 3.5mm (f) NMD 3.5mm (f) to 3.5mm (m) NMD 3.5mm (f) to 3.5mm (f)	Passivated stainless steel	-55~+165

## Connectors

Connectors are used to transmit currents or signals.

Freflex supplies many types of connectors, including end launch connectors, vertical launch connectors, PCB connectors, cable connectors, multi-channel connectors and launch accessories etc.

## End Launch Connectors

Freflex can provide different connectors for end launch connectors, including 1.85mm, 2.4mm, 2.92mm, SMA etc.

### Features:

- ✧ Low VSWR
- ✧ No Welding
- ✧ Reusable
- ✧ Easy installation

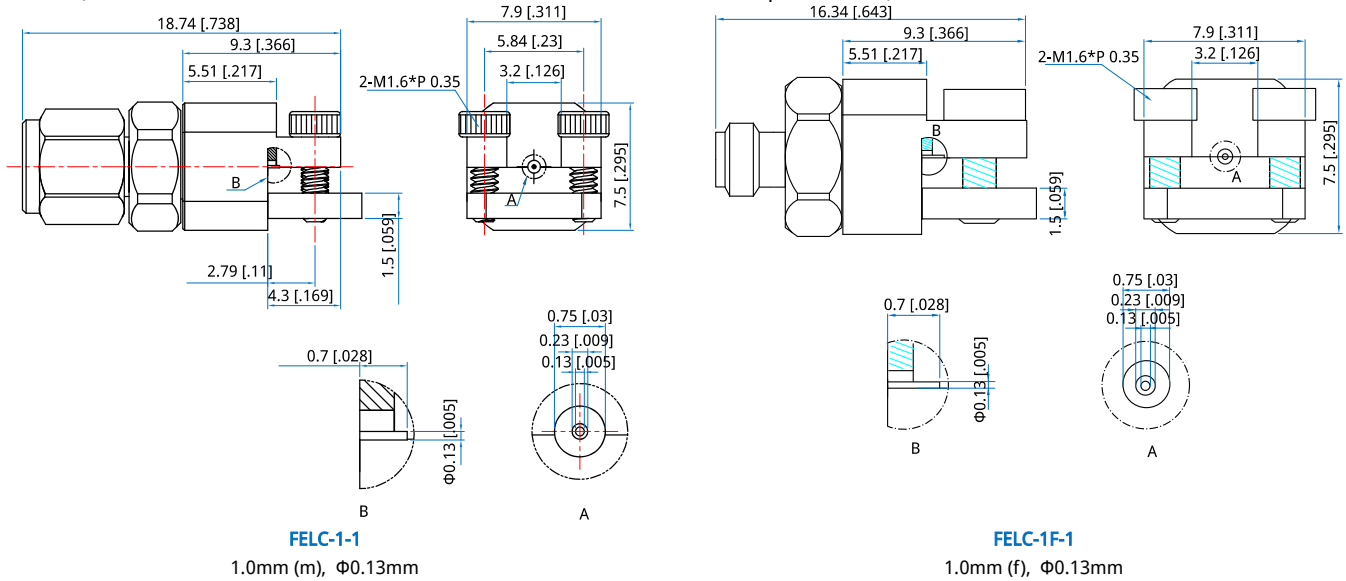
### Applications:

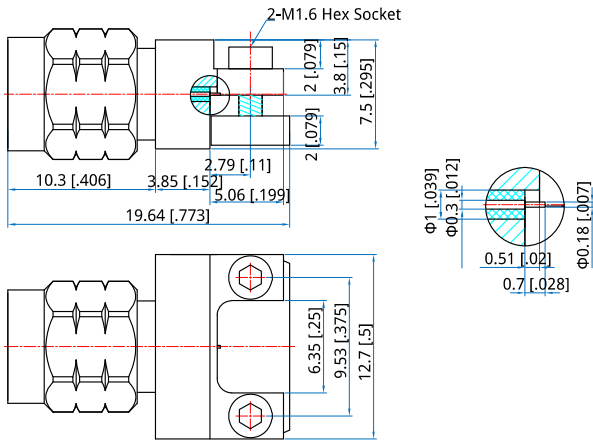
- ✧ Laboratory Test

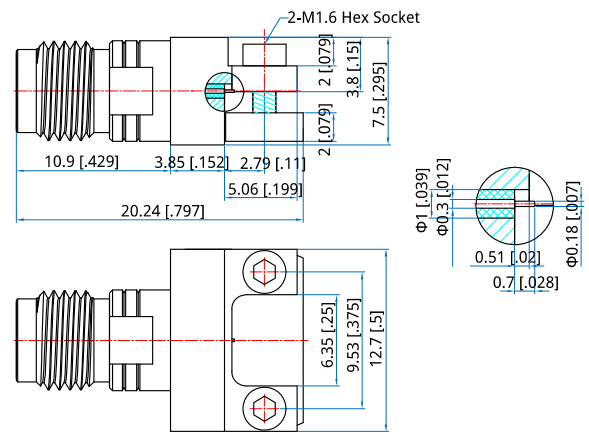


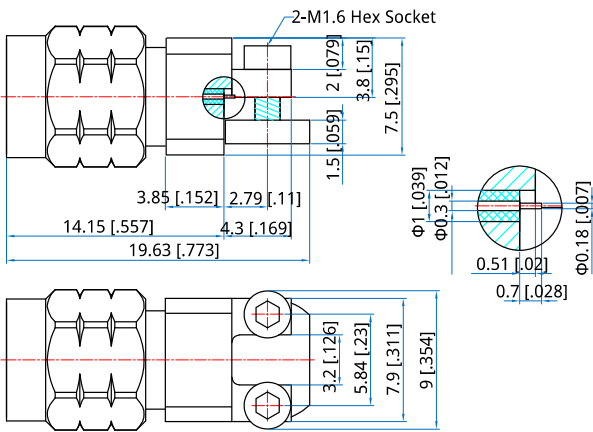
## 1.0mm Series

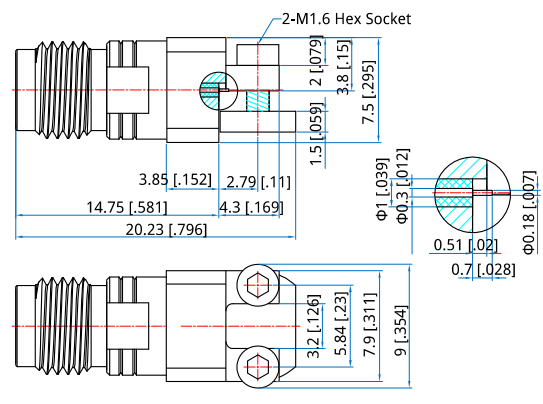
**1.0mm** (DC~110GHz, Male: VSWR≤1.6, Female: VSWR≤2, Stainless steel & Nickel plated brass)



**1.85mm Series**
**1.85mm (DC-67GHz, VSWR≤1.35, Passivated stainless steel)**

**FELC-V-2**

 1.85mm (m),  $\phi 0.18$ mm, Standard Version

**FELC-VF-2**

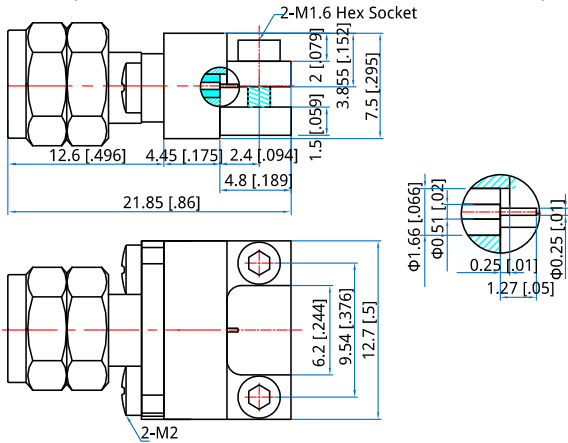
 1.85mm (f),  $\phi 0.18$ mm, Standard Version

**FELC-V-3**

 1.85mm (m),  $\phi 0.18$ mm, Small Size Version

**FELC-VF-3**

 1.85mm (f),  $\phi 0.18$ mm, Small Size Version

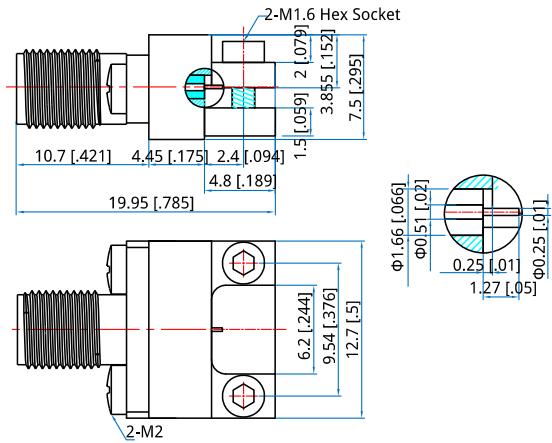
## 2.4mm Series

2.4mm (DC~50GHz, VSWR≤1.3, Passivated stainless steel )



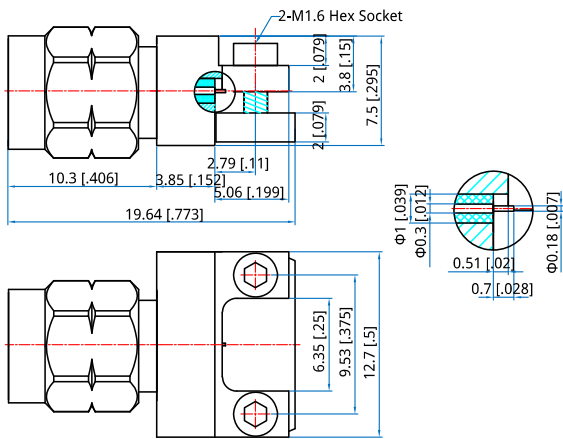
**FELC-2-1**

2.4mm (m),  $\phi 0.25$ mm, Standard Version



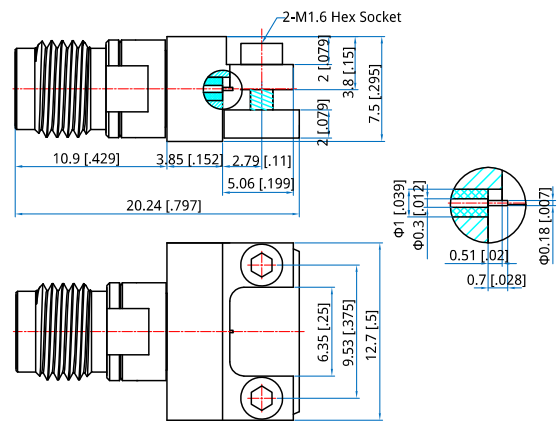
**FELC-2F-1**

2.4mm (f),  $\phi 0.25$ mm, Standard Version



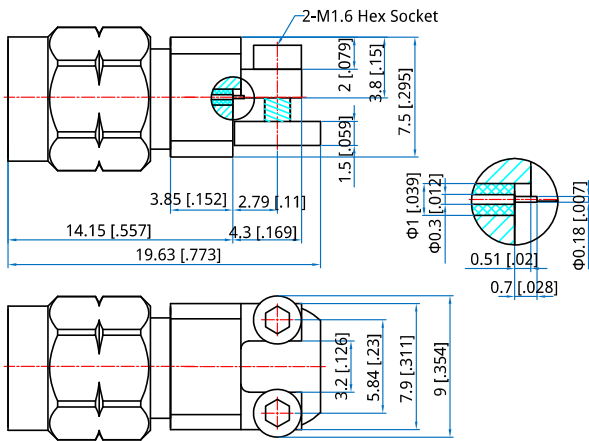
**FELC-2-2**

2.4mm (m),  $\phi 0.18$ mm, Standard Version



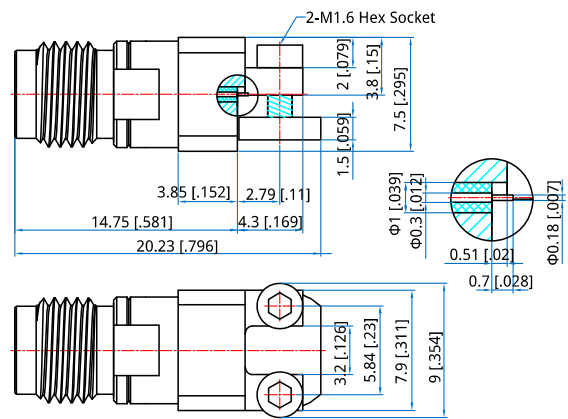
**FELC-2F-2**

2.4mm (f),  $\phi 0.18$ mm, Standard Version



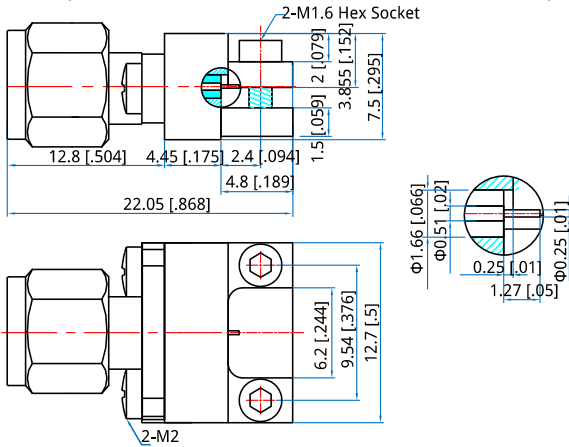
**FELC-2-3**

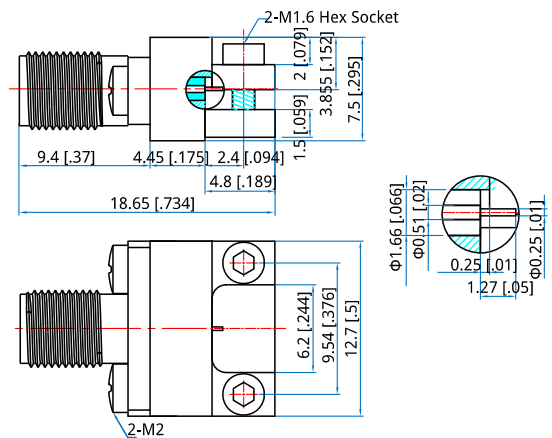
2.4mm (m),  $\phi 0.18$ mm, Small Size Version

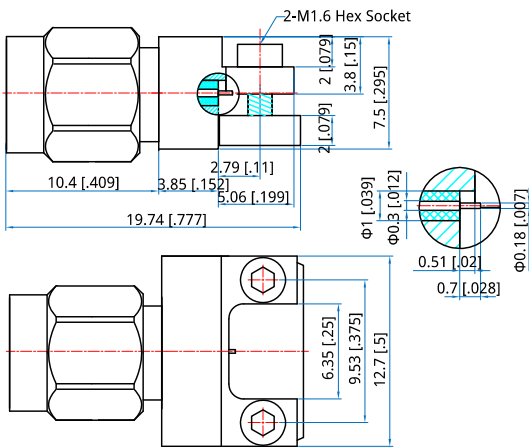


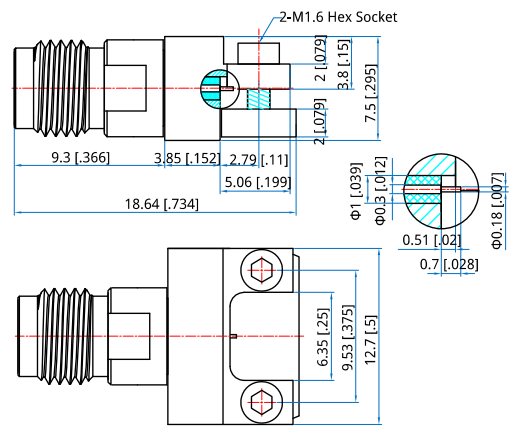
**FELC-2F-3**

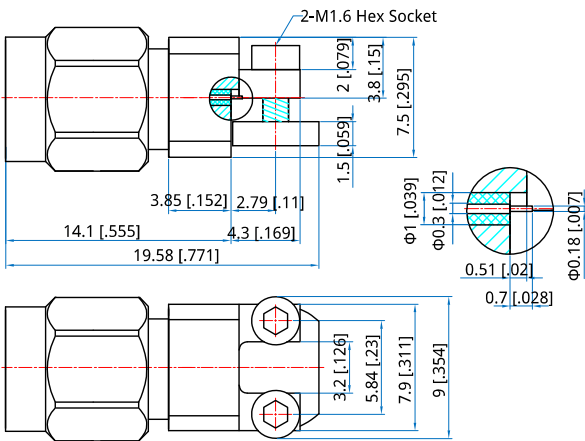
2.4mm (f),  $\phi 0.18$ mm, Small Size Version

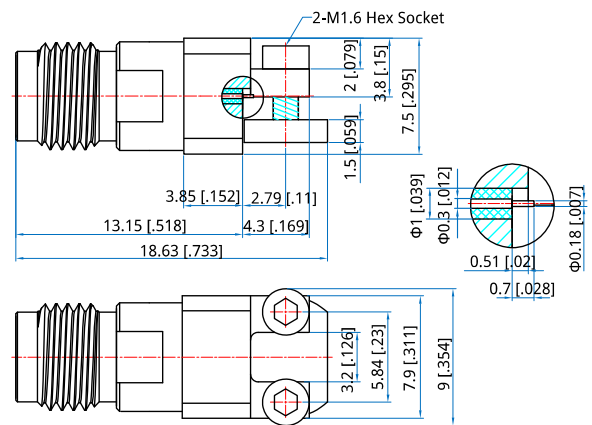
**2.92mm Series**
**2.92mm** (DC-40GHz, VSWR≤1.25, Passivated stainless steel)

**FELC-K-1**

 2.92mm (m),  $\phi 0.25$ mm, Standard Version

**FELC-KF-1**

 2.92mm (f),  $\phi 0.25$ mm, Standard Version

**FELC-K-2**

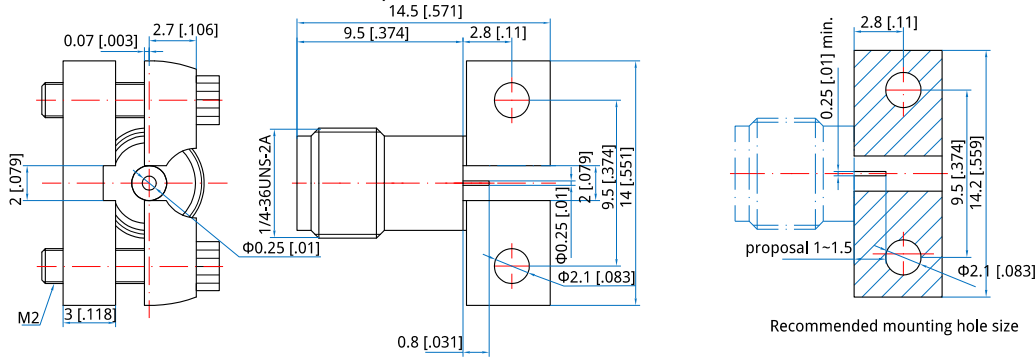
 2.92mm (m),  $\phi 0.18$ mm, Standard Version

**FELC-KF-2**

 2.92mm (f),  $\phi 0.18$ mm, Standard Version

**FELC-K-3**

 2.92mm (m),  $\phi 0.18$ mm, Small Size Version

**FELC-KF-3**

 2.92mm (f),  $\phi 0.18$ mm, Small Size Version

## 2.92mm (DC~40GHz, VSWR≤1.35, Gold plated brass)

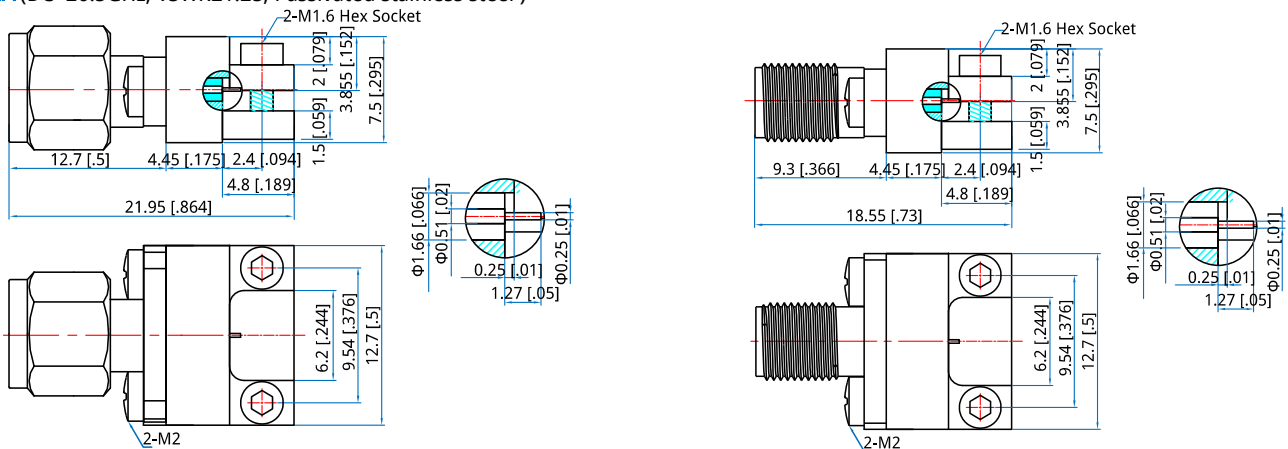


**FELC-KF-5**

2.92mm (f),  $\Phi 0.25$ mm

## SMA Series

### SMA (DC~26.5GHz, VSWR≤1.25, Passivated stainless steel)



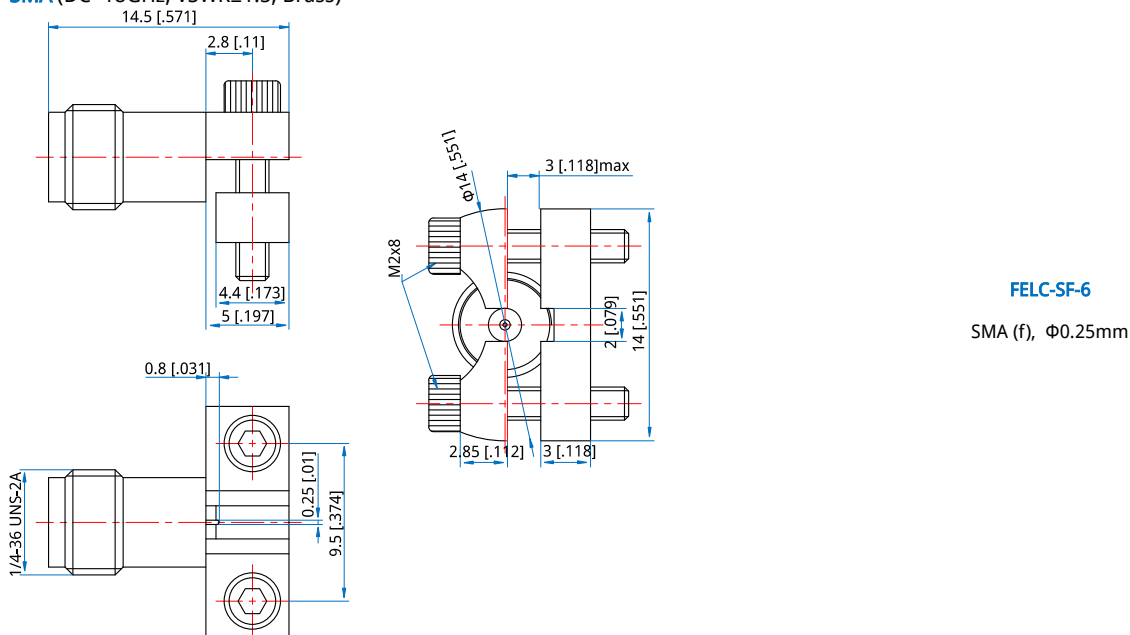
**FELC-S-1**

SMA (m),  $\Phi 0.25$ mm

**FELC-SF-1**

SMA (f),  $\Phi 0.25$ mm

### SMA (DC~18GHz, VSWR≤1.5, Brass)



**FELC-SF-6**

SMA (f),  $\Phi 0.25$ mm



## Vertical Launch Connectors

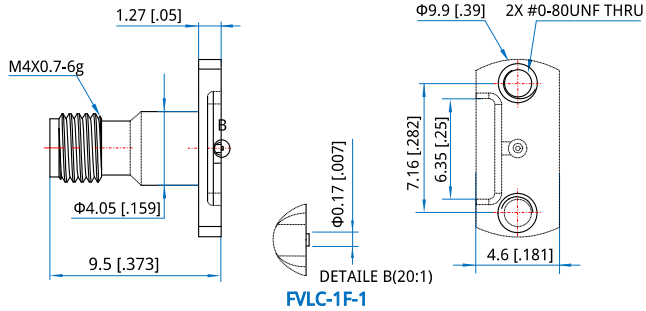
Freflex can provide different connectors for vertical launch connectors, including 1.85mm, 2.4mm, 2.92mm, SMA etc.

**Features:** Low VSWR, No Welding, Reusable, Easy Installation; **Applications:** Laboratory Test.



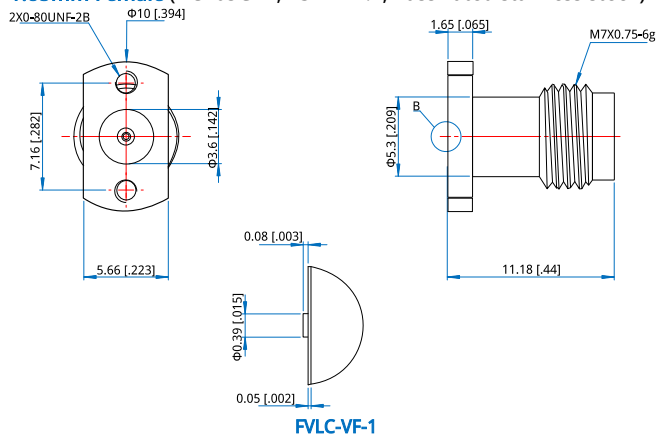
### 1.0mm Series

#### 1.0mm Female (DC~110GHz, VSWR≤1.5, Passivated stainless steel)



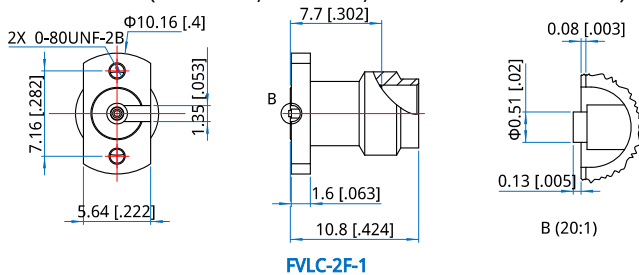
### 1.85mm Series

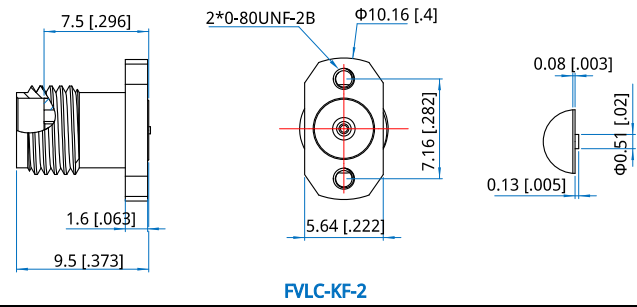
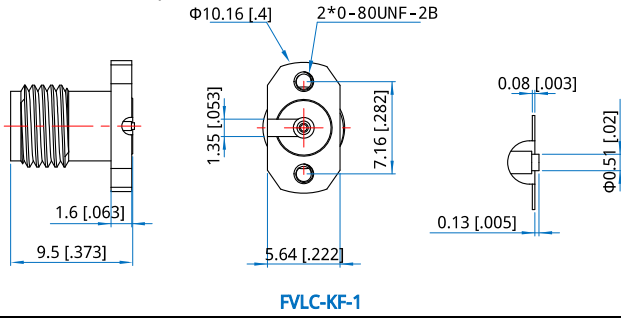
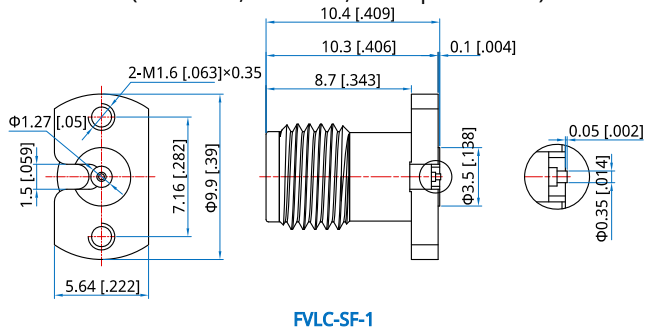
#### 1.85mm Female (DC~65GHz, VSWR≤1.4, Passivated stainless steel)



### 2.4mm Series

#### 2.4mm Female (DC~50GHz, VSWR≤1.2, Passivated stainless steel)



**2.92mm Series**
**2.92mm Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel )**

**SMA Series**
**SMA Female (DC~18GHz, VSWR≤1.3, Nickel plated brass)**


## Field Replaceable Connectors

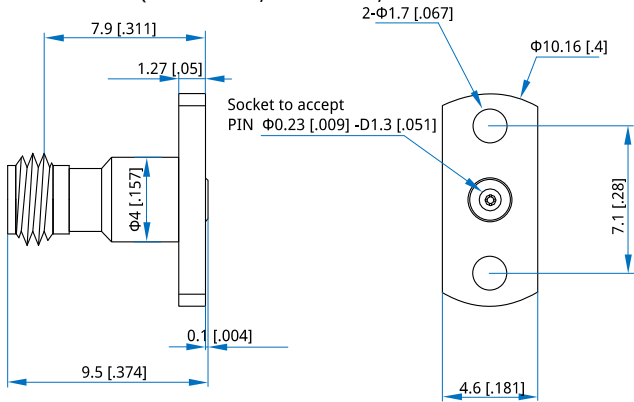
Freflex provides various field replaceable connectors, including 1.0mm, 1.85mm, 2.4mm, 2.92mm, SSMA, SMA, N, TNC etc to meet different requirements. The frequency range covers DC~110GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

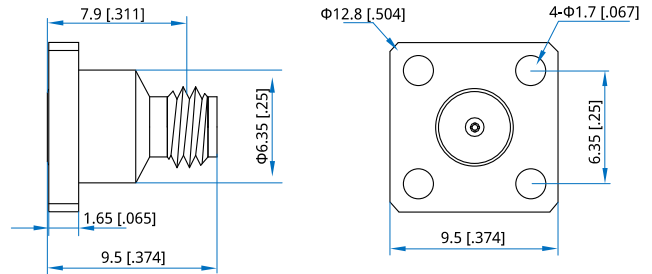
### Flange Mount

#### 1.0mm Series

##### 1.0mm Female (DC~110GHz, VSWR≤1.35, Passivated stainless steel )



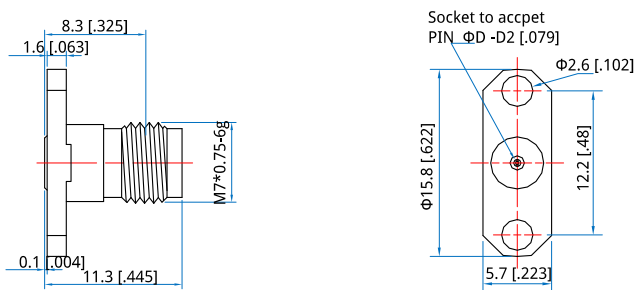
**Part Number**  
FC1-FL2G-S23-01



**Part Number**  
FC1-FL4G-S23-01

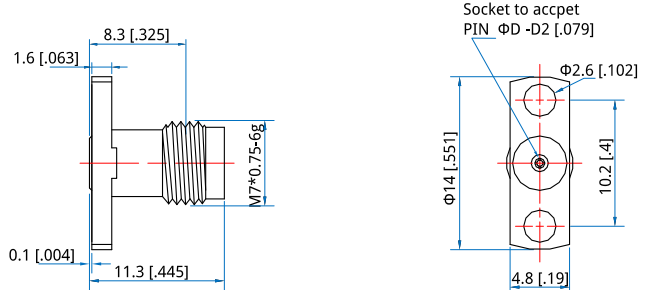
#### 1.85mm Series

##### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel )



**Part Number**  
FCV-FL2G-S23-01  
FCV-FL2G-S30-01

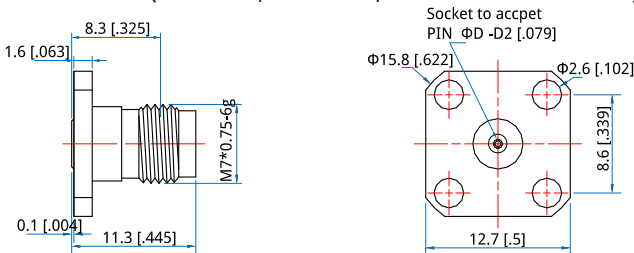
**ΦD**  
0.23 [0.009]  
0.3 [0.012]



**Part Number**  
FCV-FL2G-S23-02  
FCV-FL2G-S30-02

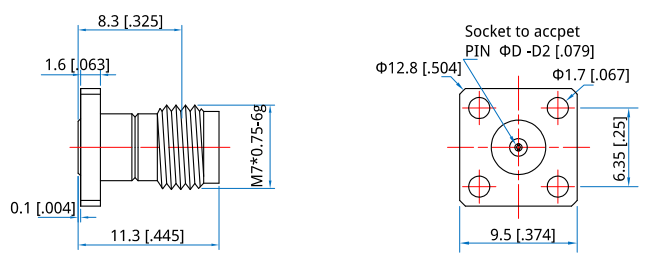
**ΦD**  
0.23 [0.009]  
0.3 [0.012]

##### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel )



**Part Number**  
FCV-FL4G-S23-01  
FCV-FL4G-S30-01

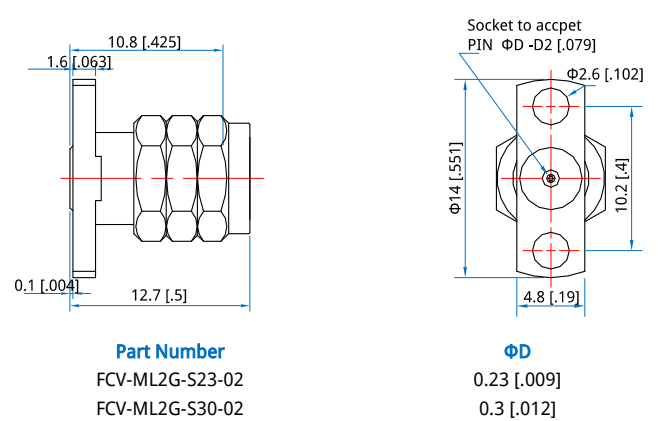
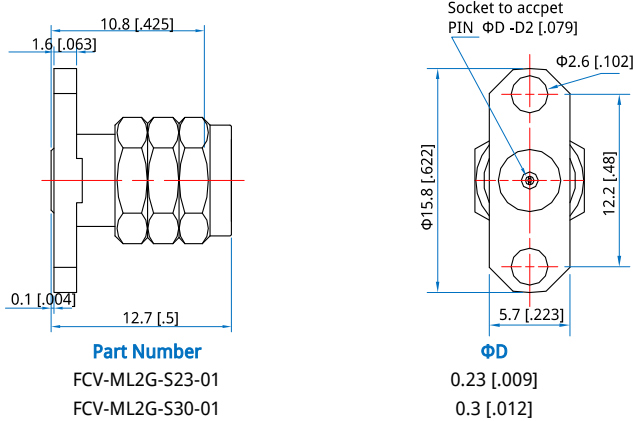
**ΦD**  
0.23 [0.009]  
0.3 [0.012]



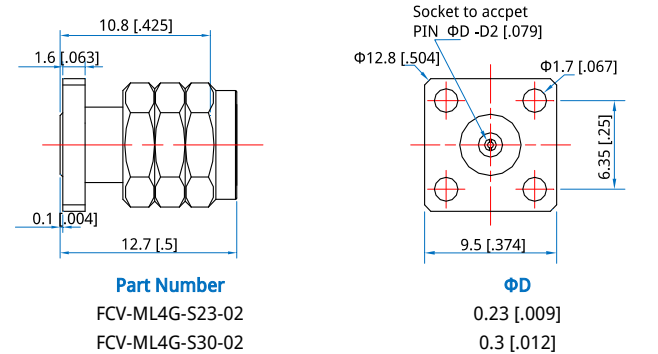
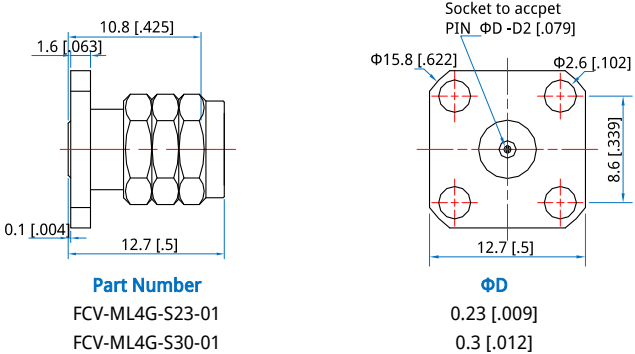
**Part Number**  
FCV-FL4G-S23-02  
FCV-FL4G-S30-02

**ΦD**  
0.23 [0.009]  
0.3 [0.012]

## 1.85mm Male (DC~67GHz, VSWR≤1.25, Passivated stainless steel)

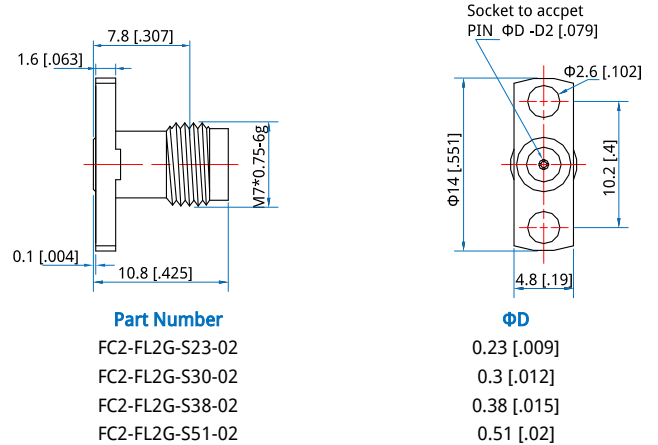
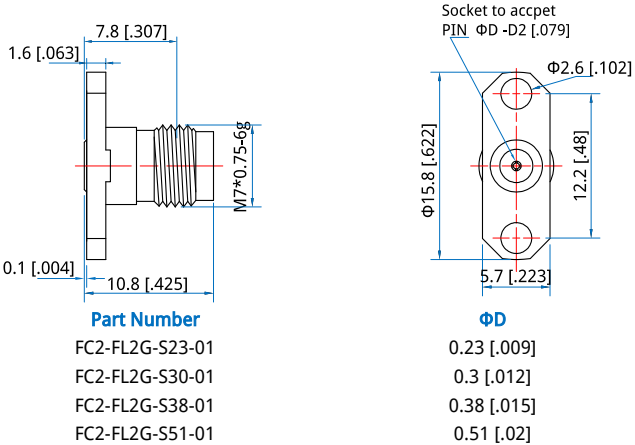


## 1.85mm Male (DC~67GHz, VSWR≤1.25, Passivated stainless steel)

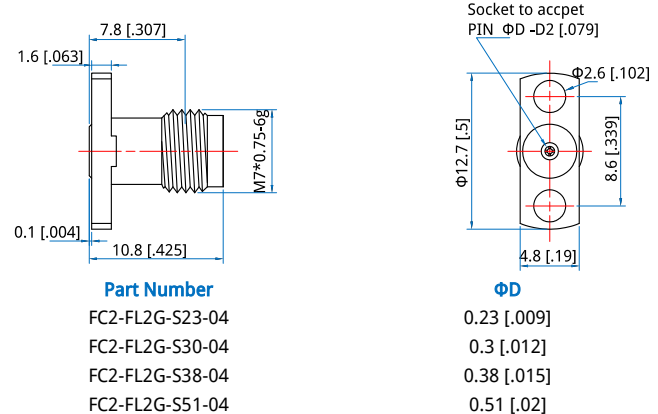
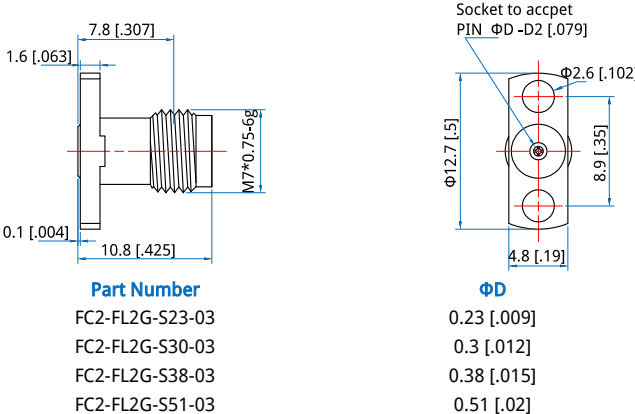


## 2.4mm Series

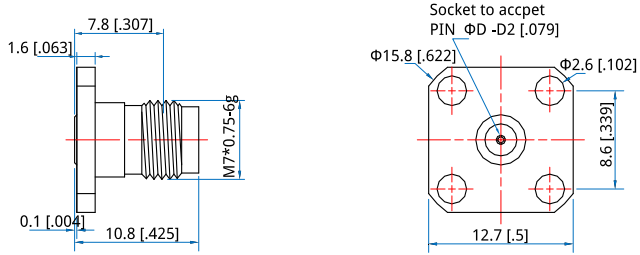
### 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel)



### 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel)



## 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )

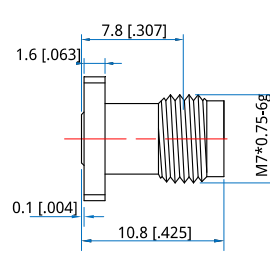


**Part Number**

FC2-FL4G-S23-01  
 FC2-FL4G-S30-01  
 FC2-FL4G-S38-01  
 FC2-FL4G-S51-01

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.51 [02]



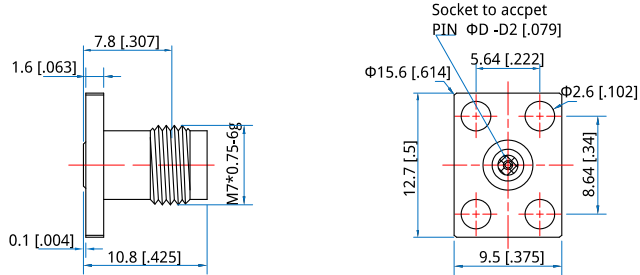
**Part Number**

FC2-FL4G-S23-02  
 FC2-FL4G-S30-02  
 FC2-FL4G-S38-02  
 FC2-FL4G-S51-02

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.51 [02]

## 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )



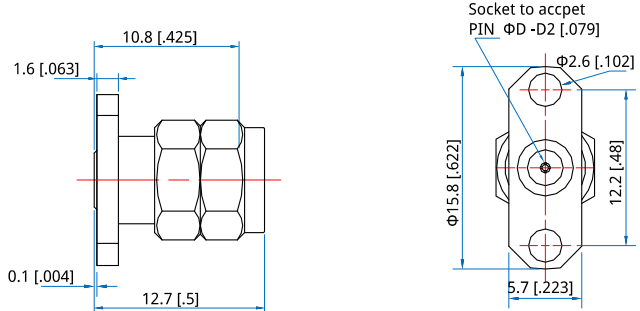
**Part Number**

FC2-FL4G-S23-03  
 FC2-FL4G-S30-03  
 FC2-FL4G-S38-03  
 FC2-FL4G-S51-03

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.51 [02]

## 2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )

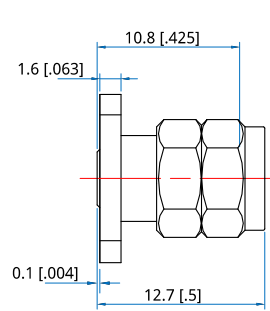


**Part Number**

FC2-ML2G-S23-01  
 FC2-ML2G-S30-01  
 FC2-ML2G-S51-01

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.51 [02]



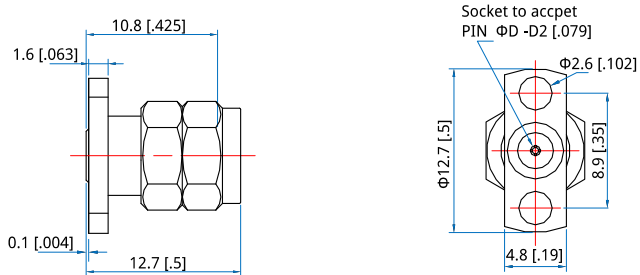
**Part Number**

FC2-ML2G-S23-02  
 FC2-ML2G-S30-02  
 FC2-ML2G-S51-02

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.51 [02]

## 2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )

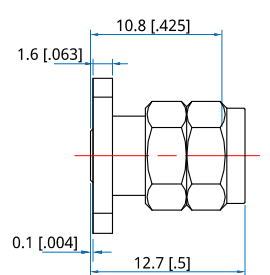


**Part Number**

FC2-ML2G-S23-03  
 FC2-ML2G-S30-03  
 FC2-ML2G-S51-03

**ΦD**

0.23 [009]  
 0.3 [012]  
 0.51 [02]



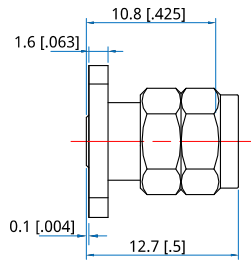
**Part Number**

FC2-ML2G-S51-04

**ΦD**

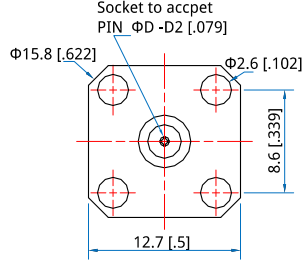
0.51 [02]

## 2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )



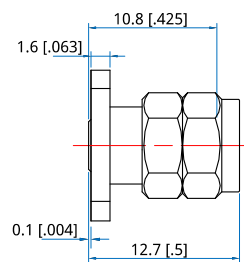
**Part Number**

- FC2-ML4G-S23-01
- FC2-ML4G-S30-01
- FC2-ML4G-S51-01



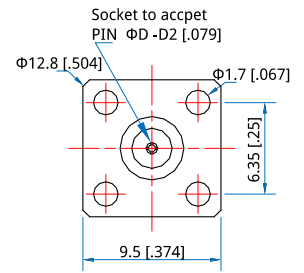
**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.51 [0.02]



**Part Number**

- FC2-ML4G-S23-02
- FC2-ML4G-S30-02
- FC2-ML4G-S51-02

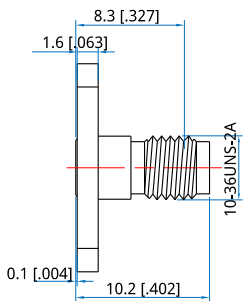


**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.51 [0.02]

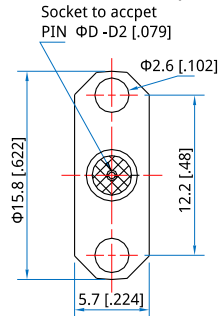
## SSMA Series

### SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel )



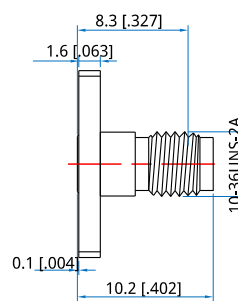
**Part Number**

- FCA-FL2G-S23-01
- FCA-FL2G-S30-01
- FCA-FL2G-S38-01
- FCA-FL2G-S46-01
- FCA-FL2G-S51-01



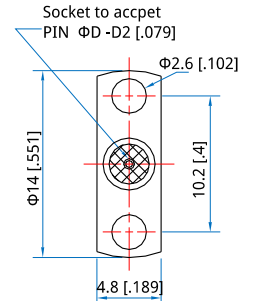
**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]



**Part Number**

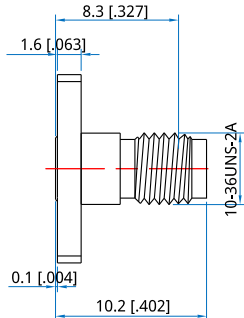
- FCA-FL2G-S23-02
- FCA-FL2G-S30-02
- FCA-FL2G-S38-02
- FCA-FL2G-S46-02
- FCA-FL2G-S51-02



**ΦD**

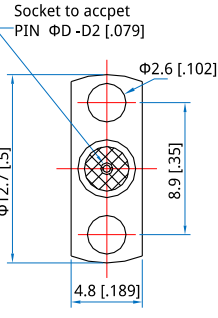
- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]

### SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel )



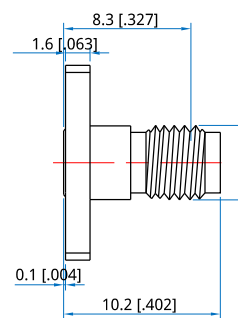
**Part Number**

- FCA-FL2G-S23-03
- FCA-FL2G-S30-03
- FCA-FL2G-S38-03
- FCA-FL2G-S46-03
- FCA-FL2G-S51-03



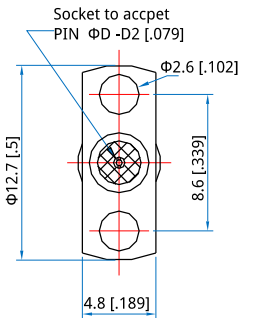
**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]



**Part Number**

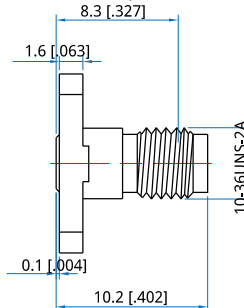
- FCA-FL2G-S23-04
- FCA-FL2G-S30-04
- FCA-FL2G-S38-04
- FCA-FL2G-S46-04
- FCA-FL2G-S51-04



**ΦD**

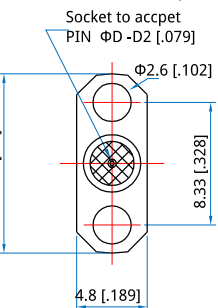
- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]

### SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel )



**Part Number**

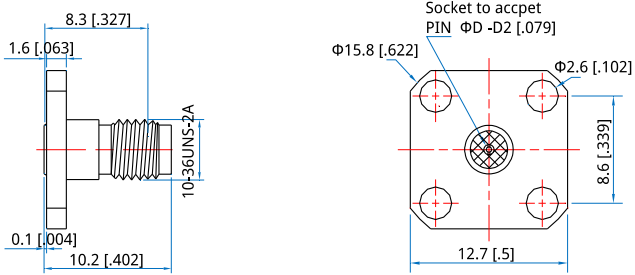
- FCA-FL2G-S23-05
- FCA-FL2G-S30-05
- FCA-FL2G-S38-05
- FCA-FL2G-S46-05
- FCA-FL2G-S51-05



**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]

## SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel)

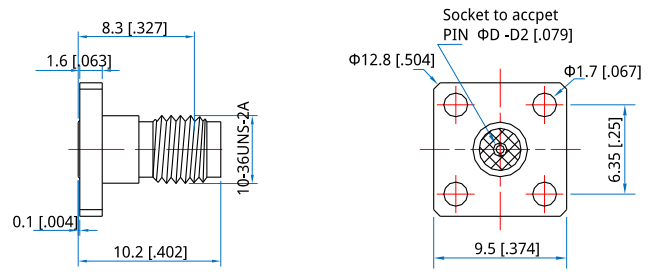


**Part Number**

FCA-FL4G-S23-01  
 FCA-FL4G-S30-01  
 FCA-FL4G-S38-01  
 FCA-FL4G-S46-01  
 FCA-FL4G-S51-01

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]



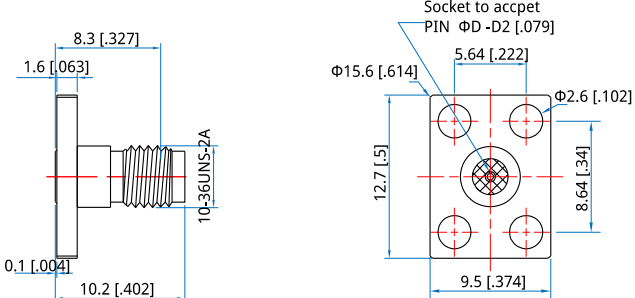
**Part Number**

FCA-FL4G-S23-02  
 FCA-FL4G-S30-02  
 FCA-FL4G-S38-02  
 FCA-FL4G-S46-02  
 FCA-FL4G-S51-02

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]

## SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel)



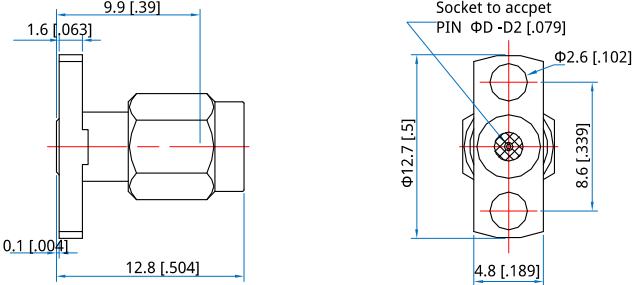
**Part Number**

FCA-FL4G-S23-03  
 FCA-FL4G-S30-03  
 FCA-FL4G-S38-03  
 FCA-FL4G-S46-03  
 FCA-FL4G-S51-03

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]

## SSMA Male (DC~40GHz, VSWR≤1.2, Passivated stainless steel)

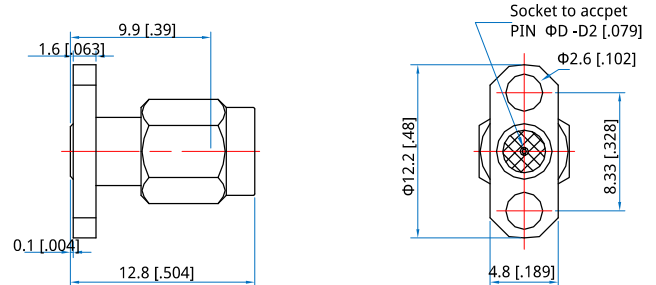


**Part Number**

FCA-ML2G-S23-01  
 FCA-ML2G-S30-01  
 FCA-ML2G-S38-01  
 FCA-ML2G-S46-01  
 FCA-ML2G-S51-01

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]



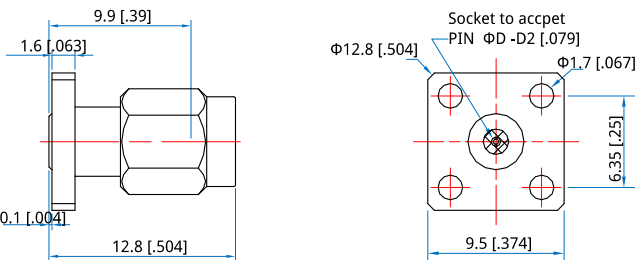
**Part Number**

FCA-ML2G-S23-02  
 FCA-ML2G-S30-02  
 FCA-ML2G-S38-02  
 FCA-ML2G-S46-02  
 FCA-ML2G-S51-02

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]

## SSMA Male (DC~40GHz, VSWR≤1.2, Passivated stainless steel)



**Part Number**

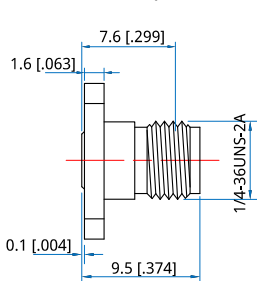
FCA-ML4G-S23-01  
 FCA-ML4G-S30-01  
 FCA-ML4G-S38-01  
 FCA-ML4G-S46-01  
 FCA-ML4G-S51-01

**ΦD**

0.23 [0.009]  
 0.3 [0.012]  
 0.38 [0.015]  
 0.46 [0.018]  
 0.51 [0.02]

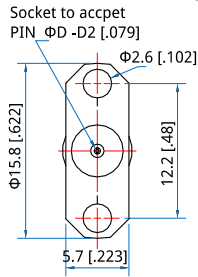
## 2.92mm Series

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



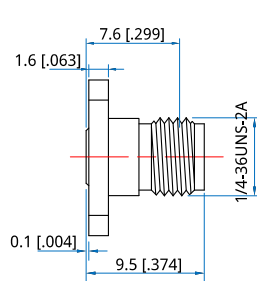
**Part Number**

FCK-FL2G-S23-01  
 FCK-FL2G-S30-01  
 FCK-FL2G-S38-01  
 FCK-FL2G-S46-01  
 FCK-FL2G-S51-01



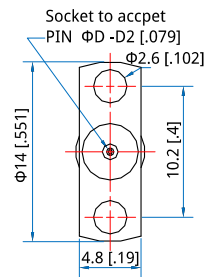
**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]



**Part Number**

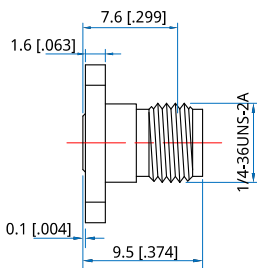
FCK-FL2G-S23-02  
 FCK-FL2G-S30-02  
 FCK-FL2G-S38-02  
 FCK-FL2G-S46-02  
 FCK-FL2G-S51-02



**ΦD**

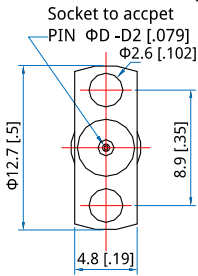
0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



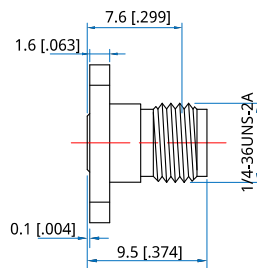
**Part Number**

FCK-FL2G-S23-03  
 FCK-FL2G-S30-03  
 FCK-FL2G-S38-03  
 FCK-FL2G-S46-03  
 FCK-FL2G-S51-03



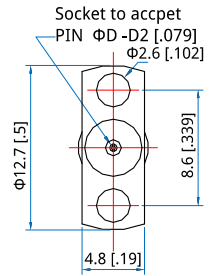
**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]



**Part Number**

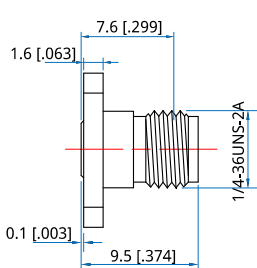
FCK-FL2G-S23-04  
 FCK-FL2G-S30-04  
 FCK-FL2G-S38-04  
 FCK-FL2G-S46-04  
 FCK-FL2G-S51-04



**ΦD**

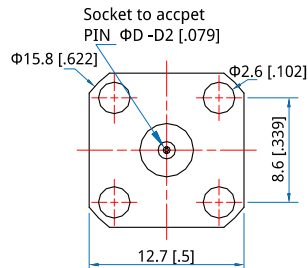
0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



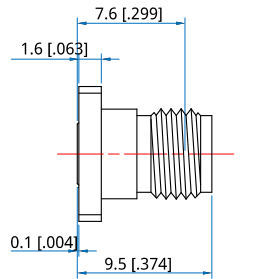
**Part Number**

FCK-FL4G-S23-01  
 FCK-FL4G-S30-01  
 FCK-FL4G-S38-01  
 FCK-FL4G-S46-01  
 FCK-FL4G-S51-01



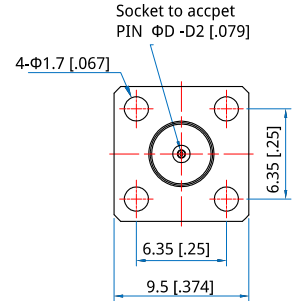
**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]



**Part Number**

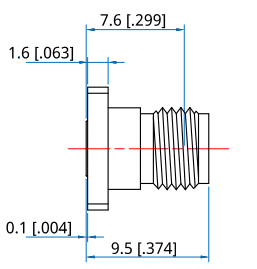
FCK-FL4G-S23-02  
 FCK-FL4G-S30-02  
 FCK-FL4G-S38-02  
 FCK-FL4G-S46-02  
 FCK-FL4G-S51-02



**ΦD**

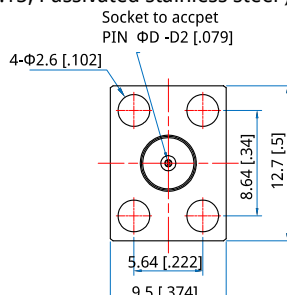
0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



**Part Number**

FCK-FL4G-S23-03  
 FCK-FL4G-S30-03  
 FCK-FL4G-S38-03  
 FCK-FL4G-S46-03  
 FCK-FL4G-S51-03

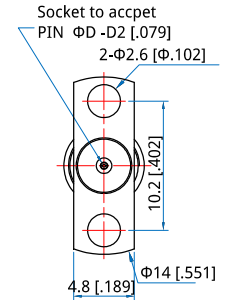
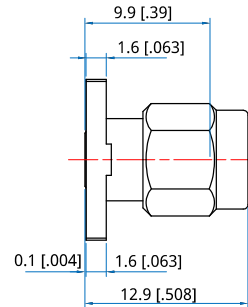
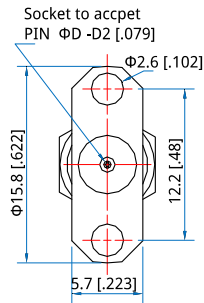
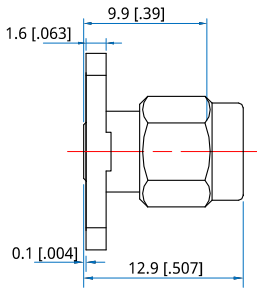


**ΦD**

0.23 [009]  
 0.3 [012]  
 0.38 [015]  
 0.46 [018]  
 0.51 [02]



## 2.92mm Male (DC-40GHz, VSWR≤1.15, Passivated stainless steel)



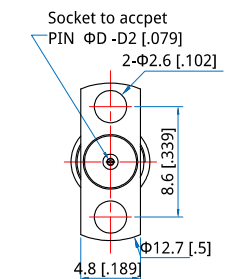
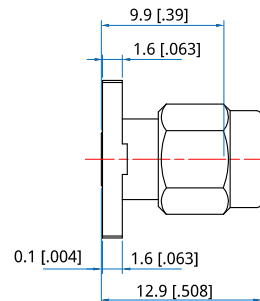
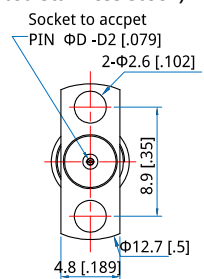
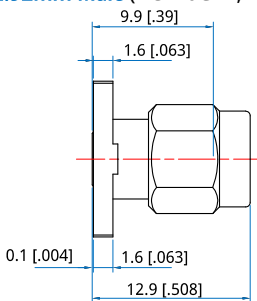
Part Number
FCK-ML2G-S23-01
FCK-ML2G-S30-01
FCK-ML2G-S38-01
FCK-ML2G-S46-01
FCK-ML2G-S51-01

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

Part Number
FCK-ML2G-S23-02
FCK-ML2G-S30-02
FCK-ML2G-S38-02
FCK-ML2G-S46-02
FCK-ML2G-S51-02

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

## 2.92mm Male (DC-40GHz, VSWR≤1.15, Passivated stainless steel)



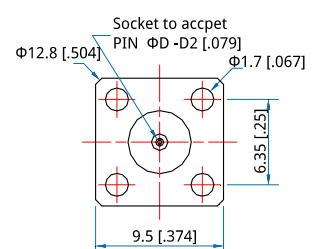
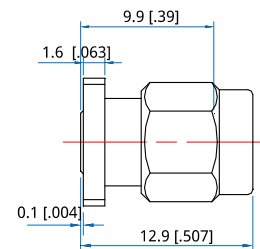
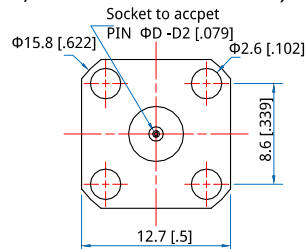
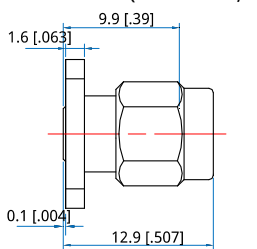
Part Number
FCK-ML2G-S23-03
FCK-ML2G-S30-03
FCK-ML2G-S38-03
FCK-ML2G-S46-03
FCK-ML2G-S51-03

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

Part Number
FCK-ML2G-S51-04

ΦD
0.51 [0.02]

## 2.92mm Male (DC-40GHz, VSWR≤1.15, Passivated stainless steel)



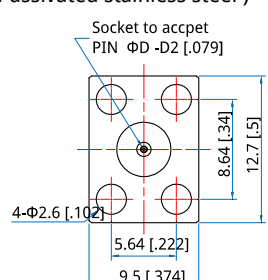
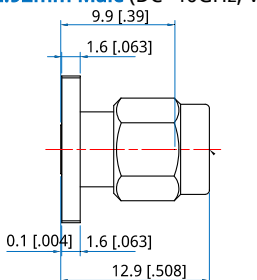
Part Number
FCK-ML4G-S23-01
FCK-ML4G-S30-01
FCK-ML4G-S38-01
FCK-ML4G-S46-01
FCK-ML4G-S51-01

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

Part Number
FCK-ML4G-S23-02
FCK-ML4G-S30-02
FCK-ML4G-S38-02
FCK-ML4G-S46-02
FCK-ML4G-S51-02

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

## 2.92mm Male (DC-40GHz, VSWR≤1.15, Passivated stainless steel)

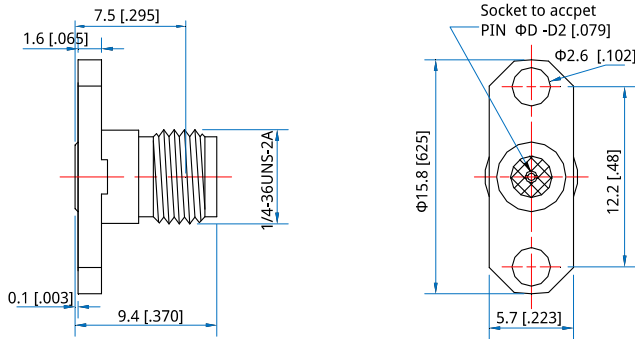


Part Number
FCK-ML4G-S23-03
FCK-ML4G-S30-03
FCK-ML4G-S38-03
FCK-ML4G-S46-03
FCK-ML4G-S51-03

ΦD
0.23 [0.009]
0.3 [0.012]
0.38 [0.015]
0.46 [0.018]
0.51 [0.02]

## SMA Series

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

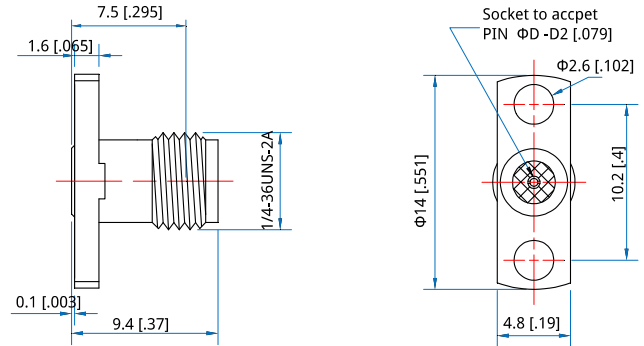


**Part Number**

- FCS-FL2G-S23-01
- FCS-FL2G-S30-01
- FCS-FL2G-S38-01
- FCS-FL2G-S46-01
- FCS-FL2G-S51-01
- FCS-FL2G-S91-01

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]



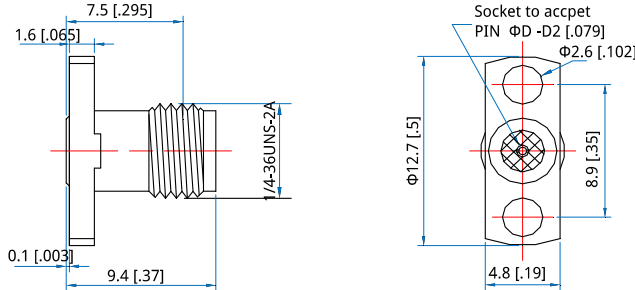
**Part Number**

- FCS-FL2G-S23-02
- FCS-FL2G-S30-02
- FCS-FL2G-S38-02
- FCS-FL2G-S46-02
- FCS-FL2G-S51-02
- FCS-FL2G-S91-02

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

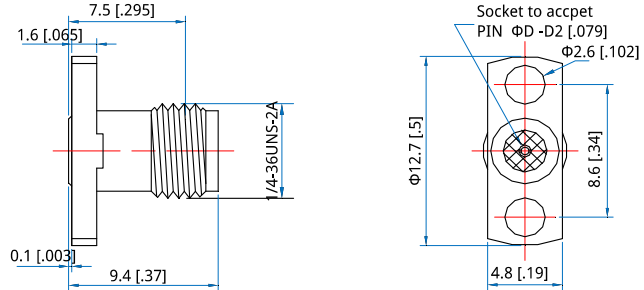


**Part Number**

- FCS-FL2G-S23-03
- FCS-FL2G-S30-03
- FCS-FL2G-S38-03
- FCS-FL2G-S46-03
- FCS-FL2G-S51-03
- FCS-FL2G-S91-03

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]



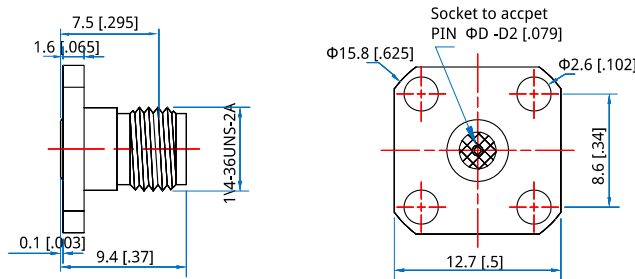
**Part Number**

- FCS-FL2G-S23-04
- FCS-FL2G-S30-04
- FCS-FL2G-S38-04
- FCS-FL2G-S46-04
- FCS-FL2G-S51-04
- FCS-FL2G-S91-04

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

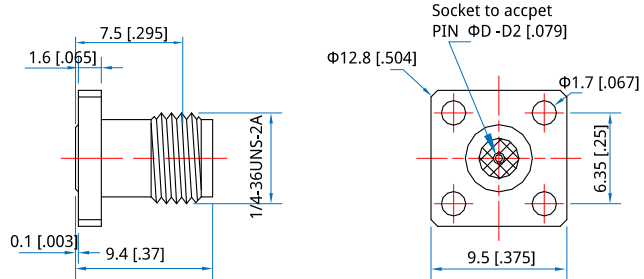


**Part Number**

- FCS-FL4G-S23-01
- FCS-FL4G-S30-01
- FCS-FL4G-S38-01
- FCS-FL4G-S46-01
- FCS-FL4G-S51-01
- FCS-FL4G-S91-01

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]



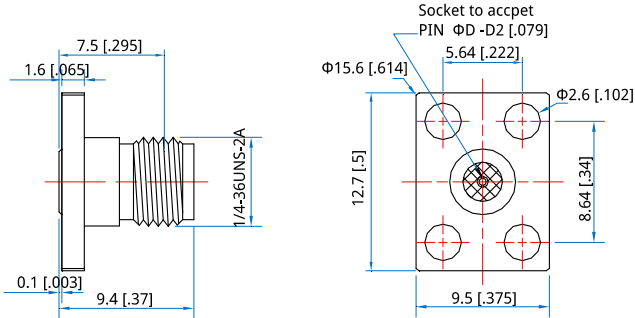
**Part Number**

- FCS-FL4G-S23-02
- FCS-FL4G-S30-02
- FCS-FL4G-S38-02
- FCS-FL4G-S46-02
- FCS-FL4G-S51-02
- FCS-FL4G-S91-02

**ΦD**

- 0.23 [0.009]
- 0.3 [0.012]
- 0.38 [0.015]
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

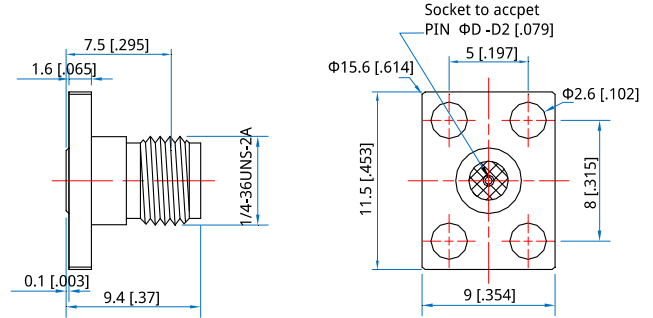


**Part Number**

FCS-FL4G-S23-03  
 FCS-FL4G-S30-03  
 FCS-FL4G-S38-03  
 FCS-FL4G-S46-03  
 FCS-FL4G-S51-03  
 FCS-FL4G-S91-03

**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]  
 0.91 [.036]



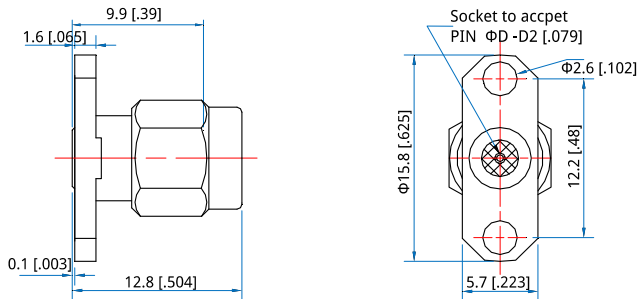
**Part Number**

FCS-FL4G-S23-04  
 FCS-FL4G-S30-04  
 FCS-FL4G-S38-04  
 FCS-FL4G-S46-04  
 FCS-FL4G-S51-04

**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]

## SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

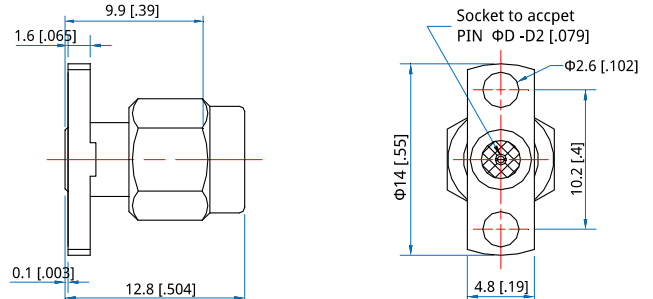


**Part Number**

FCS-ML2G-S23-01  
 FCS-ML2G-S30-01  
 FCS-ML2G-S38-01  
 FCS-ML2G-S46-01  
 FCS-ML2G-S51-01

**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]



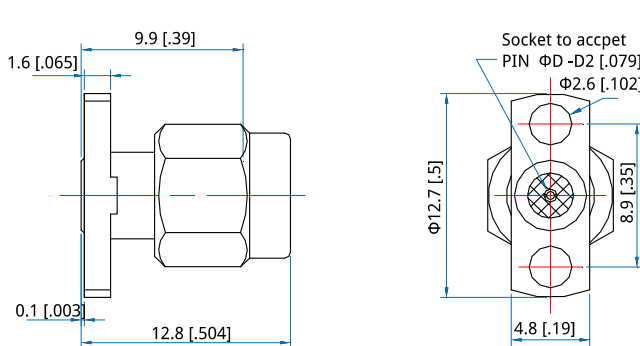
**Part Number**

FCS-ML2G-S23-02  
 FCS-ML2G-S30-02  
 FCS-ML2G-S38-02  
 FCS-ML2G-S46-02  
 FCS-ML2G-S51-02

**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]

## SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

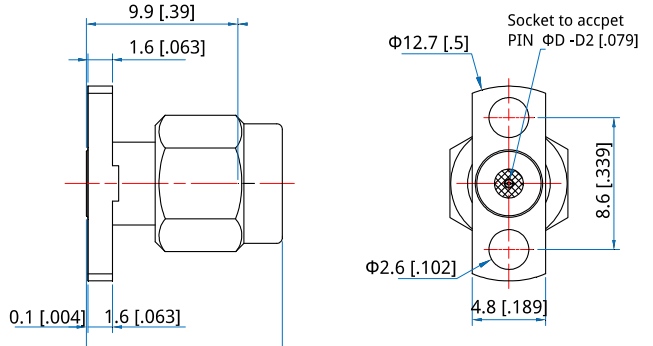


**Part Number**

FCS-ML2G-S23-03  
 FCS-ML2G-S30-03  
 FCS-ML2G-S38-03  
 FCS-ML2G-S46-03  
 FCS-ML2G-S51-03

**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]



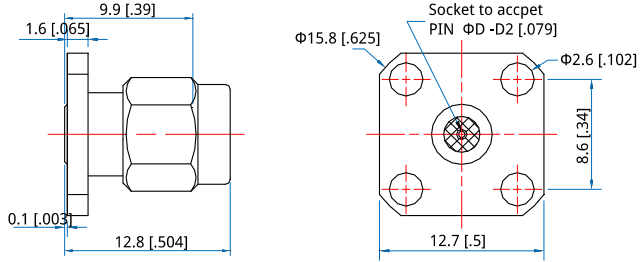
**Part Number**

FCS-ML2G-S23-04  
 FCS-ML2G-S30-04  
 FCS-ML2G-S38-04  
 FCS-ML2G-S46-04  
 FCS-ML2G-S51-04

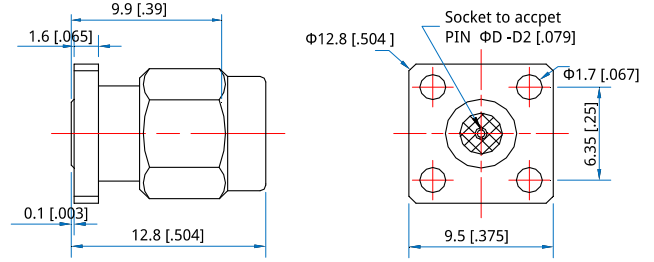
**ΦD**

0.23 [.009]  
 0.3 [.012]  
 0.38 [.015]  
 0.46 [.018]  
 0.51 [.02]

### SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

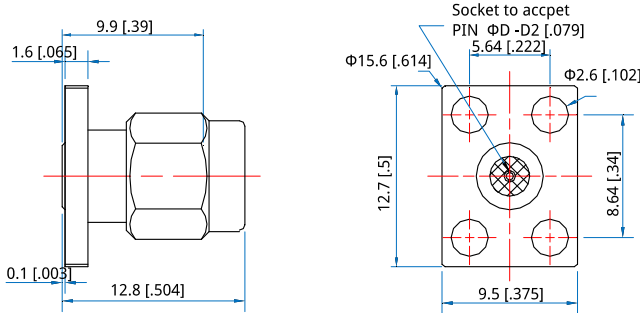


Part Number	$\Phi$ D
FCS-ML4G-S23-01	0.23 [.009]
FCS-ML4G-S30-01	0.3 [.012]
FCS-ML4G-S38-01	0.38 [.015]
FCS-ML4G-S46-01	0.46 [.018]
FCS-ML4G-S51-01	0.51 [.02]



Part Number	$\Phi$ D
FCS-ML4G-S23-02	0.23 [.009]
FCS-ML4G-S30-02	0.3 [.012]
FCS-ML4G-S38-02	0.38 [.015]
FCS-ML4G-S46-02	0.46 [.018]
FCS-ML4G-S51-02	0.51 [.02]

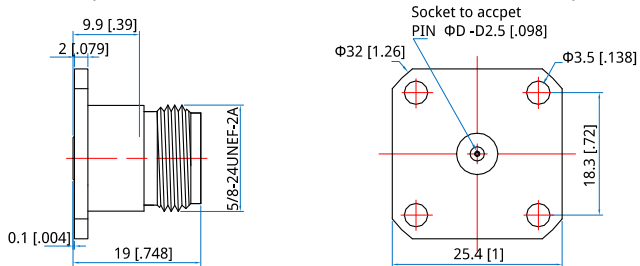
### SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



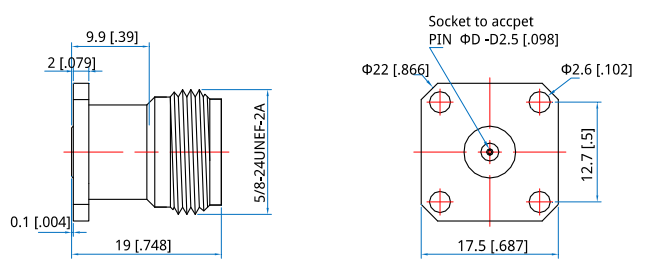
Part Number	$\Phi$ D
FCS-ML4G-S23-03	0.23 [.009]
FCS-ML4G-S30-03	0.3 [.012]
FCS-ML4G-S38-03	0.38 [.015]
FCS-ML4G-S46-03	0.46 [.018]
FCS-ML4G-S51-03	0.51 [.02]

### N Series

### N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel )

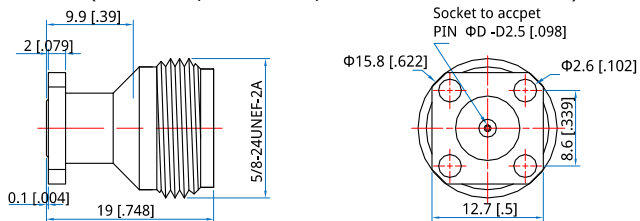


Part Number	$\Phi$ D
FCN-FL4G-S46-01	0.46 [.018]
FCN-FL4G-S51-01	0.51 [.02]
FCN-FL4G-S91-01	0.91 [.036]



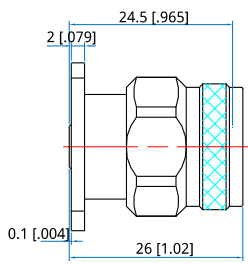
Part Number	$\Phi$ D
FCN-FL4G-S46-02	0.46 [.018]
FCN-FL4G-S51-02	0.51 [.02]
FCN-FL4G-S91-02	0.91 [.036]

### N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel )



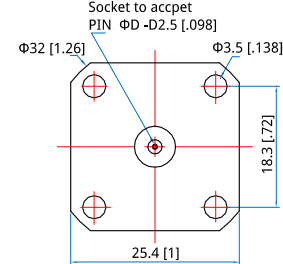
Part Number	$\Phi$ D
FCN-FL4G-S46-03	0.46 [.018]
FCN-FL4G-S51-03	0.51 [.02]
FCN-FL4G-S91-03	0.91 [.036]

### N Male (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



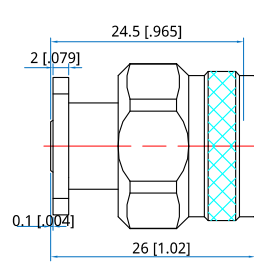
**Part Number**

- FCN-ML4G-S46-01
- FCN-ML4G-S51-01
- FCN-ML4G-S91-01



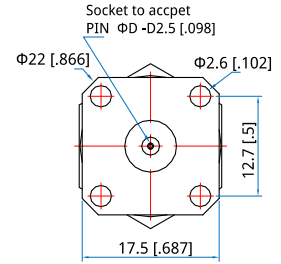
**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]



**Part Number**

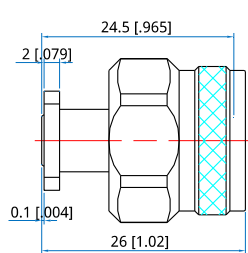
- FCN-ML4G-S46-02
- FCN-ML4G-S51-02
- FCN-ML4G-S91-02



**D**

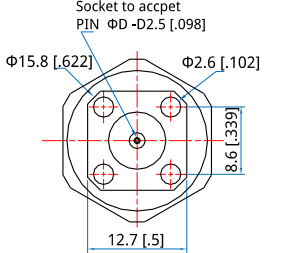
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

### N Male (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



**Part Number**

- FCN-ML4G-S46-03
- FCN-ML4G-S51-03
- FCN-ML4G-S91-03



**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

**Part Number**

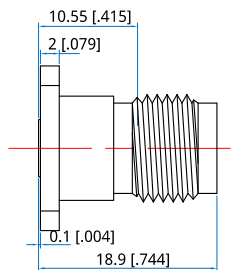
- FCN-ML4G-S46-03
- FCN-ML4G-S51-03
- FCN-ML4G-S91-03

**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

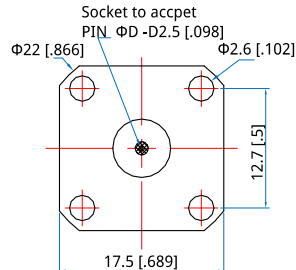
### TNC Series

#### TNC Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



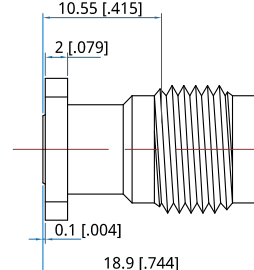
**Part Number**

- FCT-FL4G-S46-01
- FCT-FL4G-S51-01
- FCT-FL4G-S91-01



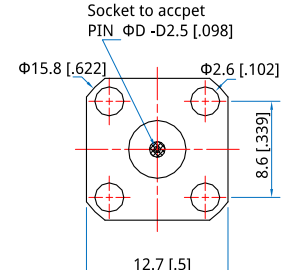
**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]



**Part Number**

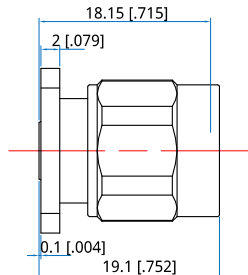
- FCT-FL4G-S46-02
- FCT-FL4G-S51-02
- FCT-FL4G-S91-02



**ΦD**

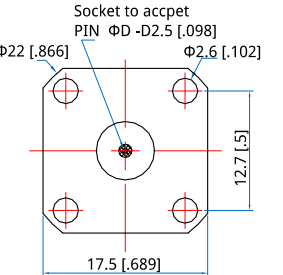
- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

#### TNC Male (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



**Part Number**

- FCT-ML4G-S46-01
- FCT-ML4G-S51-01
- FCT-ML4G-S91-01



**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

**Part Number**

- FCT-ML4G-S46-01
- FCT-ML4G-S51-01
- FCT-ML4G-S91-01

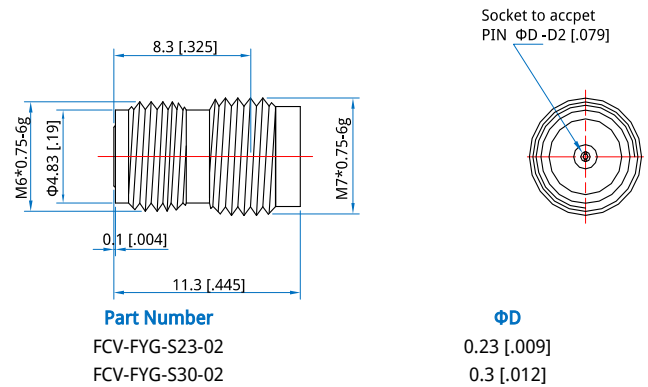
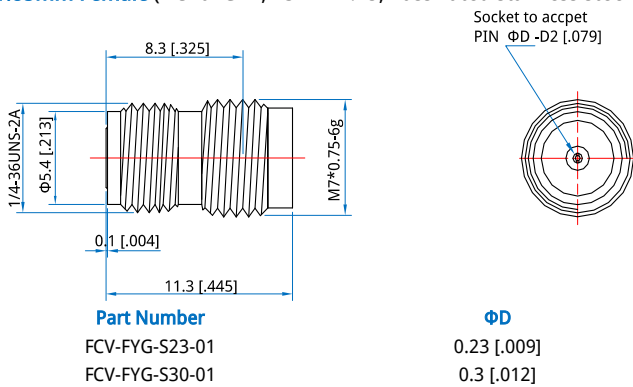
**ΦD**

- 0.46 [0.018]
- 0.51 [0.02]
- 0.91 [0.036]

## Threaded Connection

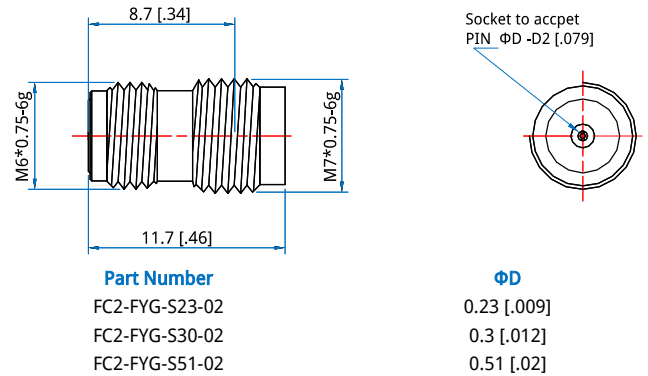
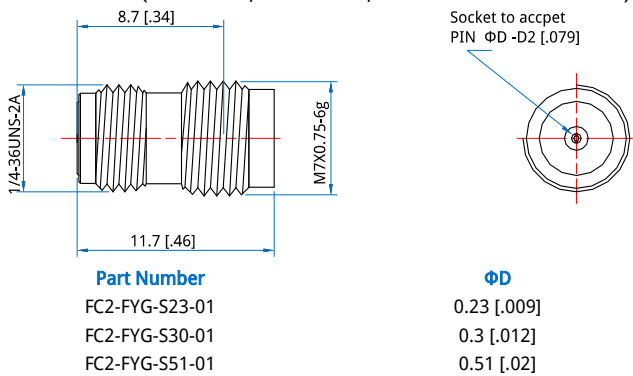
### 1.85mm Series

#### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel )



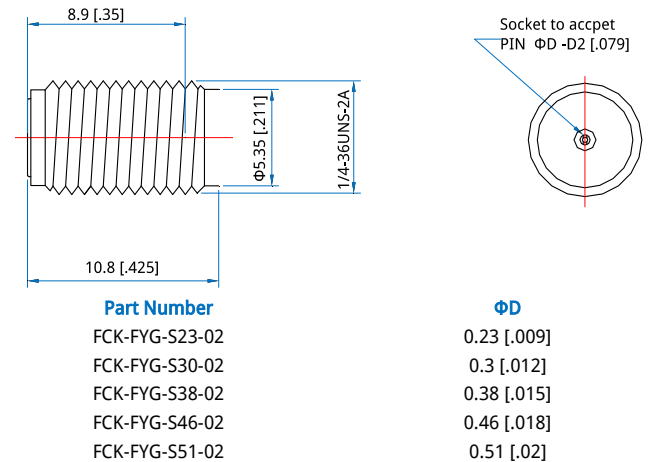
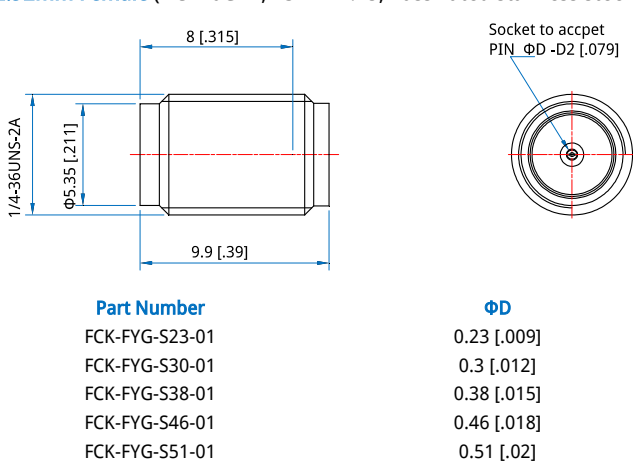
### 2.4mm Series

#### 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )



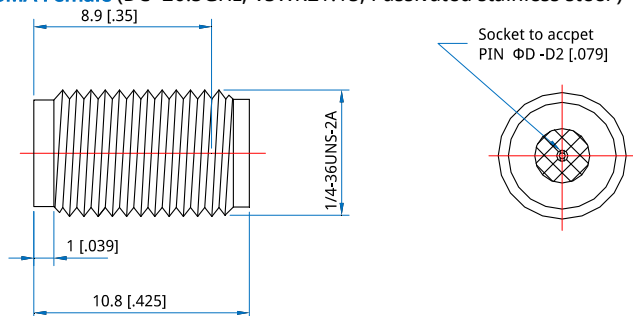
### 2.92mm Series

#### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



### SMA Series

#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD
FCS-FYG-S23-01	0.23 [.009]
FCS-FYG-S30-01	0.3 [.012]
FCS-FYG-S38-01	0.38 [.015]
FCS-FYG-S46-01	0.46 [.018]
FCS-FYG-S51-01	0.51 [.02]

## Straight Terminal With Metal Connectors

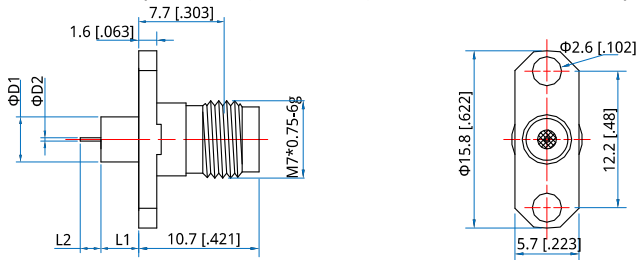
Freflex provides various straight terminal with metal connectors, including 2.4mm, 2.92mm, SMP, SSMA, SMA, N, TNC etc to meet different requirements. The frequency range covers DC-50GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

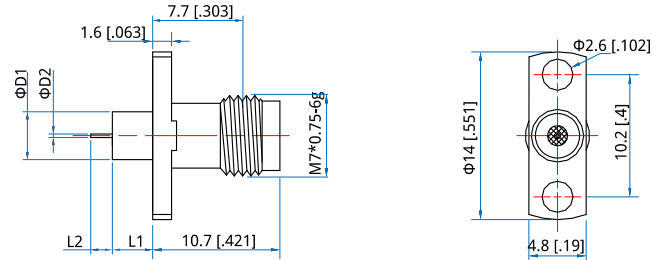
### Flange Mount

#### 2.4mm Series

##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )

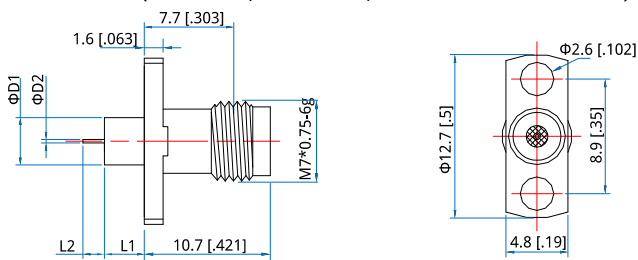


Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-M30-01	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FC2-FL2G-M30-02	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]



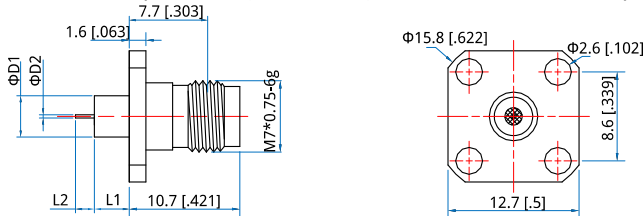
Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-M30-03	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FC2-FL2G-M30-04	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]

##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )

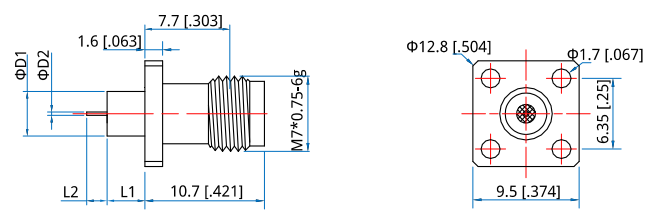


Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-M30-05	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FC2-FL2G-M30-06	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]

##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )



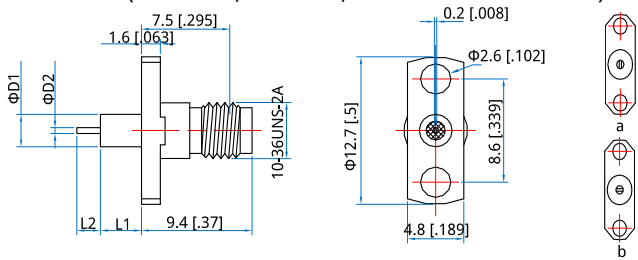
Part Number	ΦD1	ΦD2	L1	L2
FC2-FL4G-M30-01	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FC2-FL4G-M30-02	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]



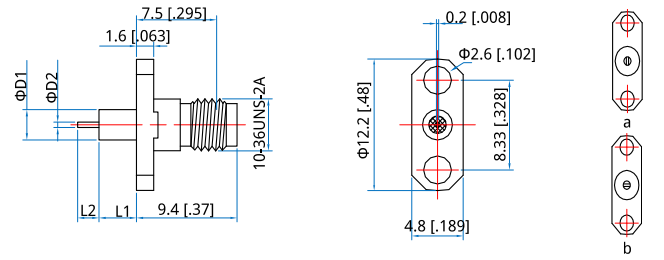
Part Number	ΦD1	ΦD2	L1	L2
FC2-FL4G-M30-03	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FC2-FL4G-M30-04	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]

### SSMA Series

##### SSMA Female (DC-40GHz, VSWR≤1.2, Passivated stainless steel )

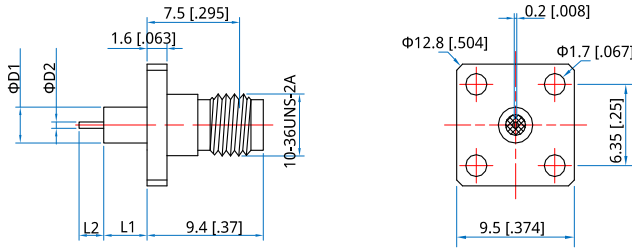


Part Number	ΦD1	ΦD2	L1	L2	
FCA-FL2G-M60-01	2.8 [.11]	0.6 [.024]	3.1 [.122]	2 [.079]	a
FCA-FL2G-M60-02	2.8 [.11]	0.6 [.024]	3.1 [.122]	2 [.079]	b



Part Number	ΦD1	ΦD2	L1	L2	
FCA-FL2G-M60-03	2.8 [.11]	0.6 [.024]	3.1 [.122]	2 [.079]	a
FCA-FL2G-M60-04	2.8 [.11]	0.6 [.024]	3.1 [.122]	2 [.079]	b

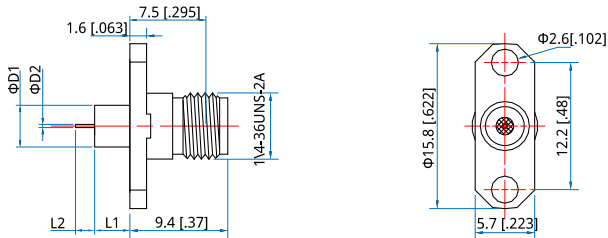
## SSMA Female (DC~40GHz, VSWR≤1.2, Passivated stainless steel)



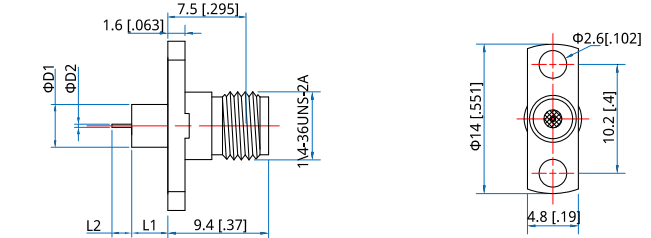
Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCA-FL4G-M60-01	2.8 [.11]	0.6 [.024]	3.1 [.122]	2 [.079]

## 2.92mm Series

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)

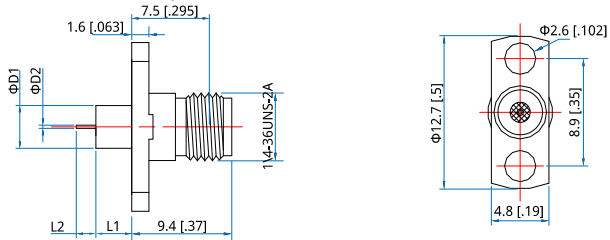


Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL2G-M30-01	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL2G-M30-02	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL2G-M60-03	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL2G-M30-04	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]

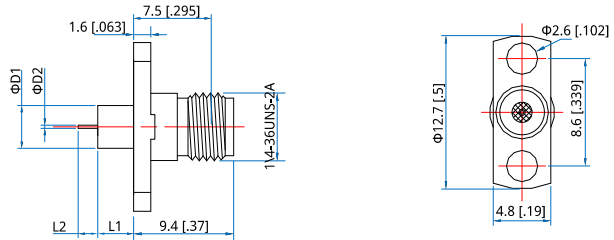


Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL2G-M30-05	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL2G-M30-06	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL2G-M60-07	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL2G-M30-08	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)

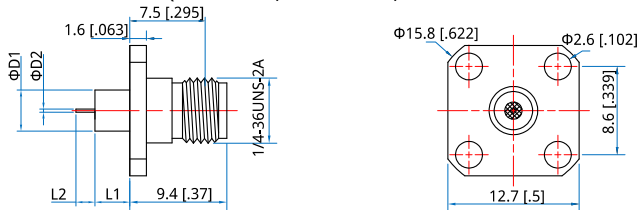


Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL2G-M30-09	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL2G-M30-10	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL2G-M60-11	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL2G-M30-12	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]

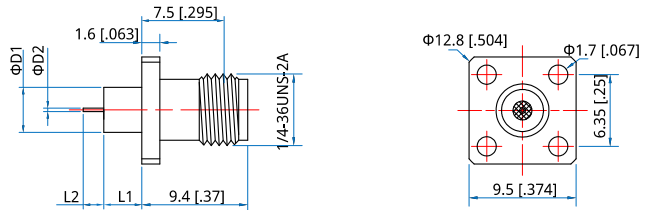


Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL2G-M30-13	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL2G-M30-14	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL2G-M60-15	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL2G-M30-16	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)



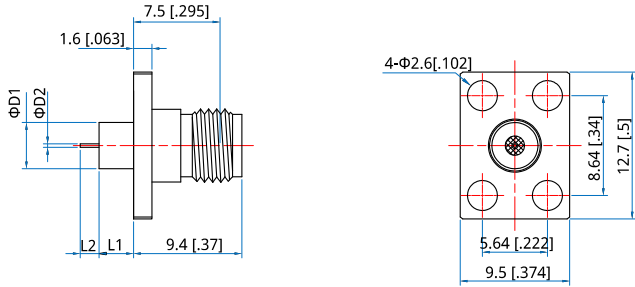
Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL4G-M30-01	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL4G-M30-02	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL4G-M60-03	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL4G-M30-04	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]



Part Number	$\Phi D1$	$\Phi D2$	L1	L2
FCK-FL4G-M30-05	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL4G-M30-06	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL4G-M60-07	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL4G-M30-08	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]



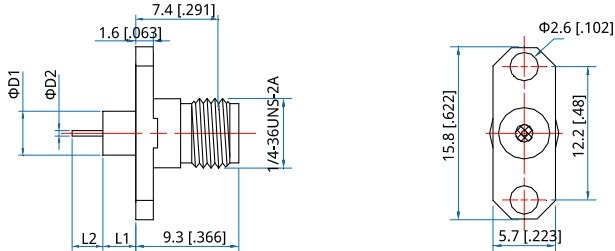
## 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



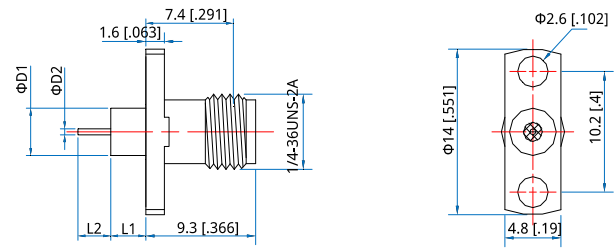
Part Number	ΦD1	ΦD2	L1	L2
FCK-FL4G-M30-09	4 [.158]	0.3 [.012]	1.4 [.055]	1.5 [.059]
FCK-FL4G-M30-10	4 [.158]	0.3 [.012]	3 [.118]	1.5 [.059]
FCK-FL4G-M60-11	4 [.158]	0.6 [.024]	10.1 [.398]	1.27 [.05]
FCK-FL4G-M30-12	4 [.158]	0.3 [.012]	3.2 [.126]	1.5 [.059]

## SMA Series

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

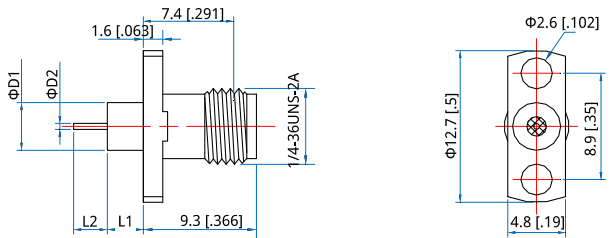


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-M80-01	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]
FCS-FL2G-M38-02	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]
FCS-FL2G-M38-03	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]
FCS-FL2G-M38-04	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]

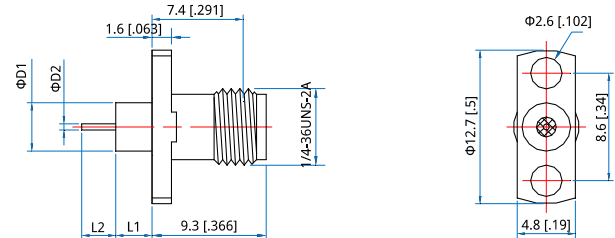


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-M80-05	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]
FCS-FL2G-M38-06	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]
FCS-FL2G-M38-07	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]
FCS-FL2G-M38-08	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

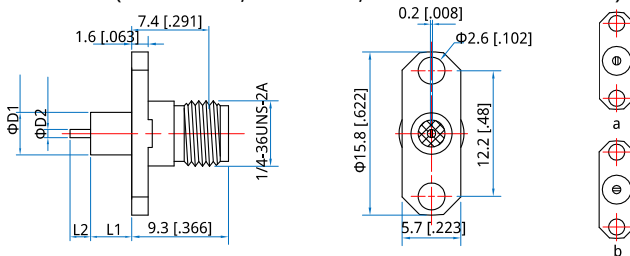


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-M80-09	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]
FCS-FL2G-M38-10	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]
FCS-FL2G-M38-11	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]
FCS-FL2G-M38-12	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]

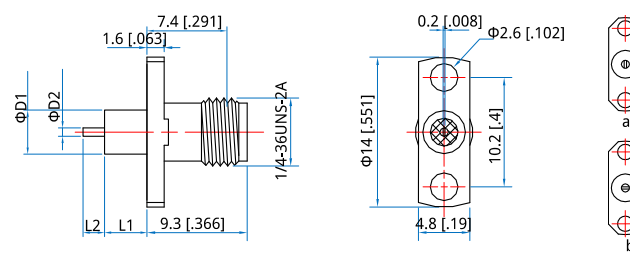


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-M80-13	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]
FCS-FL2G-M38-14	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]
FCS-FL2G-M38-15	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]
FCS-FL2G-M38-16	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]

### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

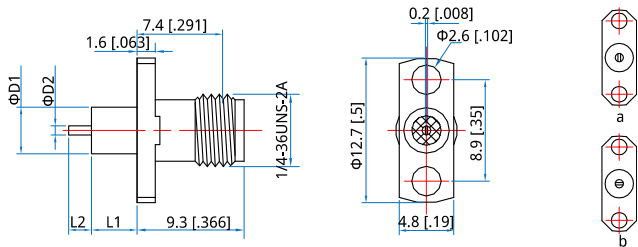


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL2G-M80-17	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL2G-M80-18	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b

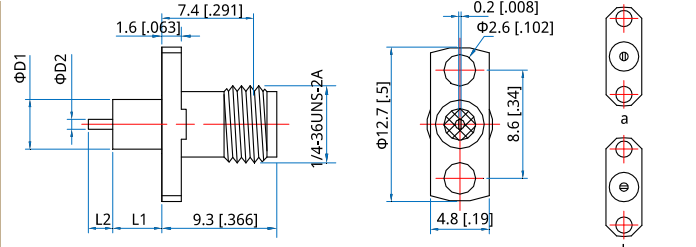


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL2G-M80-19	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL2G-M80-20	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

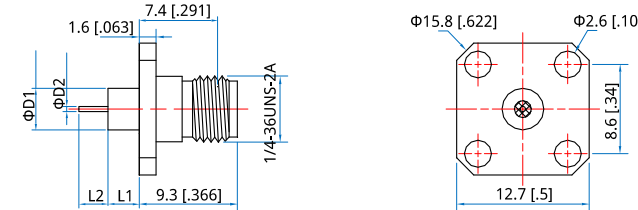


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL2G-M80-21	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL2G-M80-22	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b

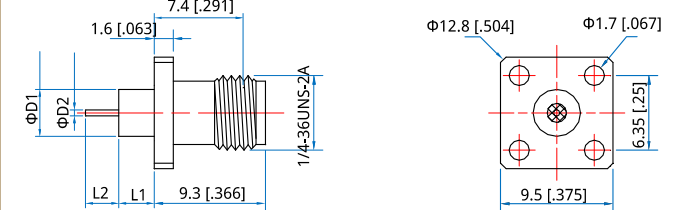


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL2G-M80-23	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL2G-M80-24	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

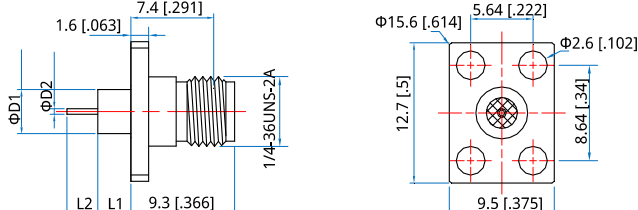


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-01	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]	
FCS-FL4G-M38-02	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]	
FCS-FL4G-M38-03	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]	
FCS-FL4G-M38-04	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]	

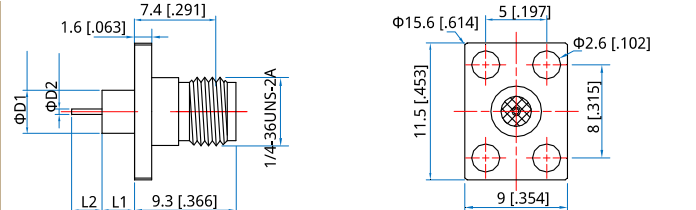


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-05	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]	
FCS-FL4G-M38-06	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]	
FCS-FL4G-M38-07	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]	
FCS-FL4G-M38-08	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]	

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

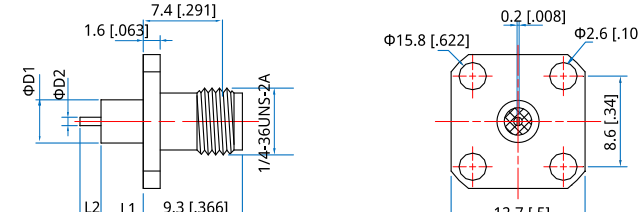


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-09	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]	
FCS-FL4G-M38-10	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]	
FCS-FL4G-M38-11	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]	
FCS-FL4G-M38-12	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]	

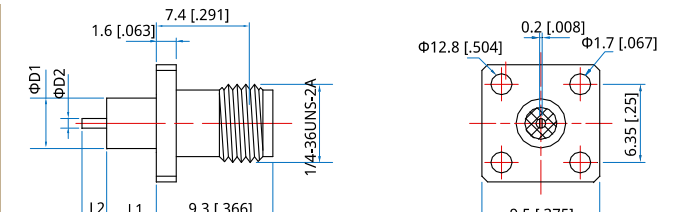


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-13	4 [.158]	0.8 [.031]	4 [.158]	2 [.079]	
FCS-FL4G-M38-14	4 [.158]	0.38 [.015]	3 [.118]	2 [.079]	
FCS-FL4G-M38-15	4 [.158]	0.38 [.015]	3 [.118]	3 [.118]	
FCS-FL4G-M38-16	4 [.158]	0.38 [.015]	3 [.118]	0.4 [.016]	

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

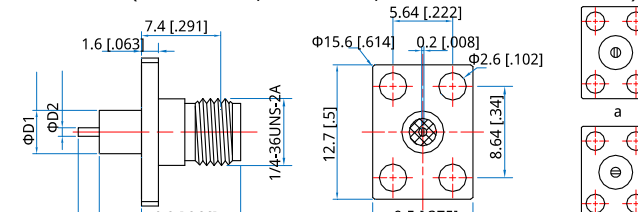


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M100-17	6 [.236]	1 [.039]	4 [.158]	1.5 [.059]	
FCS-FL4G-M80-18	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	

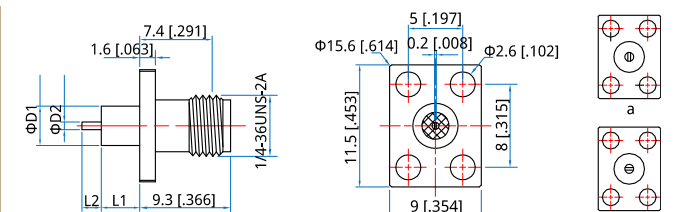


Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-19	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	

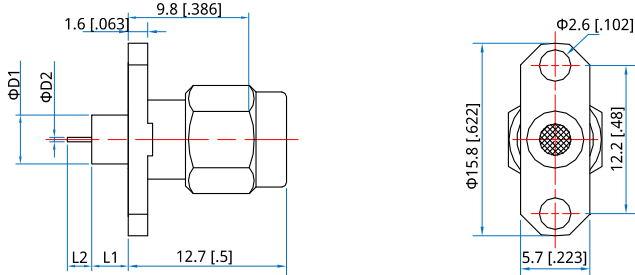
## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



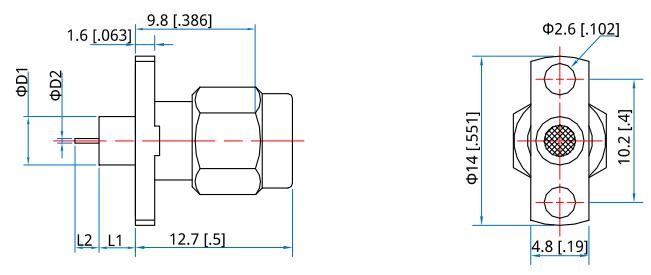
Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-20	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL4G-M80-21	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b



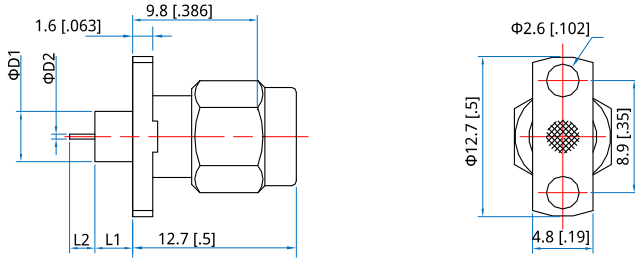
Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL4G-M80-22	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	a
FCS-FL4G-M80-23	4 [.158]	0.8 [.031]	4 [.158]	1.5 [.059]	b

**SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


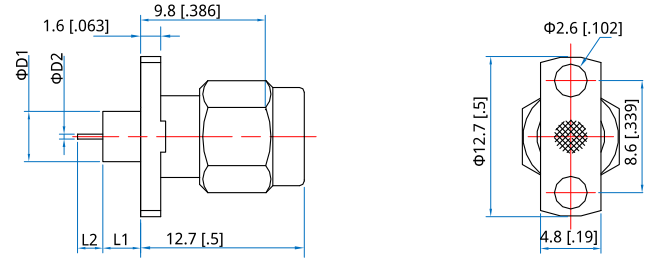
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML2G-M38-01	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]



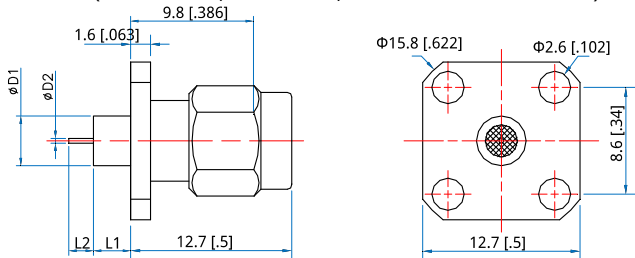
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML2G-M38-02	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]

**SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


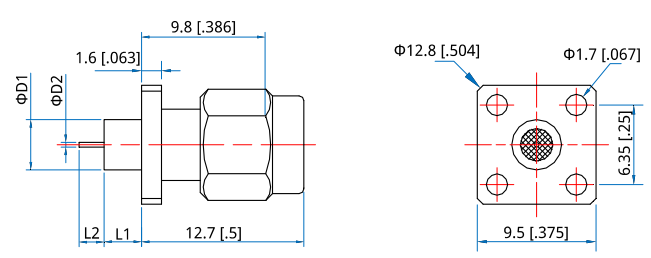
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML2G-M38-03	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]



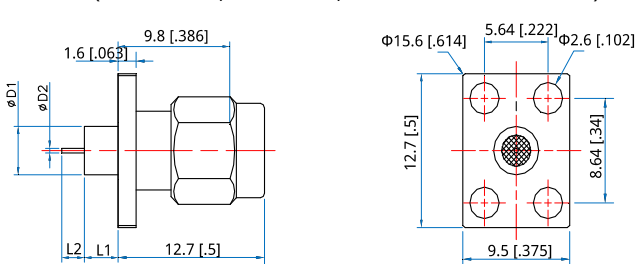
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML2G-M38-04	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]

**SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


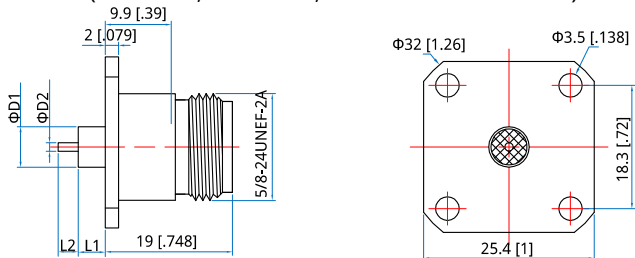
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML4G-M38-01	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]



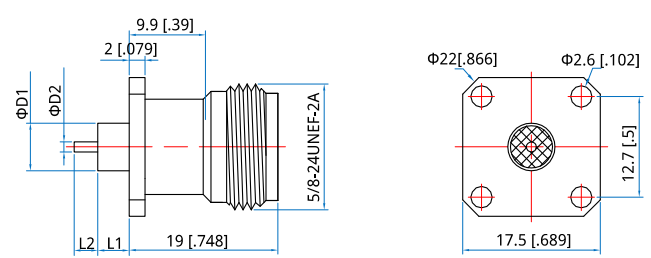
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML4G-M38-02	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]

**SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-ML4G-M38-03	4 [1.58]	0.38 [0.015]	3 [1.18]	2 [0.079]

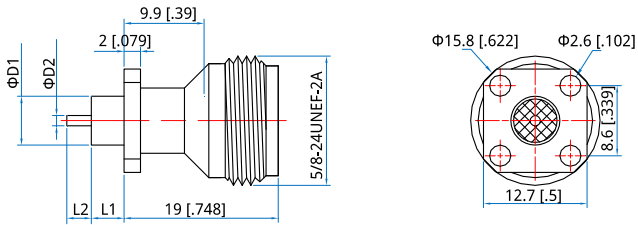
**N Series**
**N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-M127-01	6 [2.36]	1.27 [0.05]	4 [1.58]	2 [0.079]

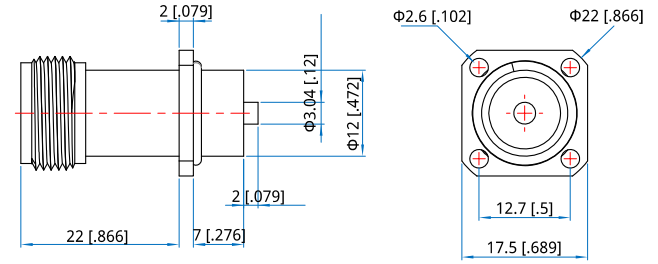


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-M127-02	6 [2.36]	1.27 [0.05]	4 [1.58]	2 [0.079]

## N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)

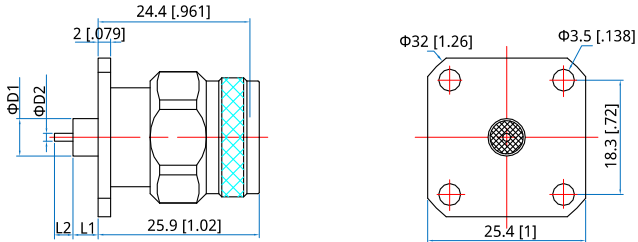


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-M127-03	6 [0.236]	1.27 [0.05]	4 [0.158]	2 [0.079]

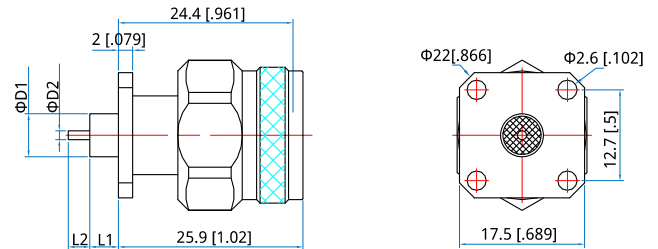


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-M304-01 (VSWR≤1.2)	6 [0.236]	1.27 [0.05]	4 [0.158]	2 [0.079]

## N Male (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



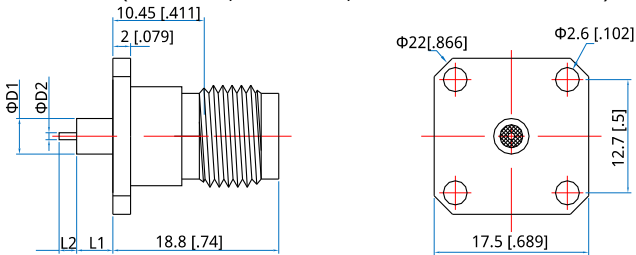
Part Number	ΦD1	ΦD2	L1	L2
FCN-ML4G-M127-01	6 [0.236]	1.27 [0.05]	4 [0.158]	2 [0.079]



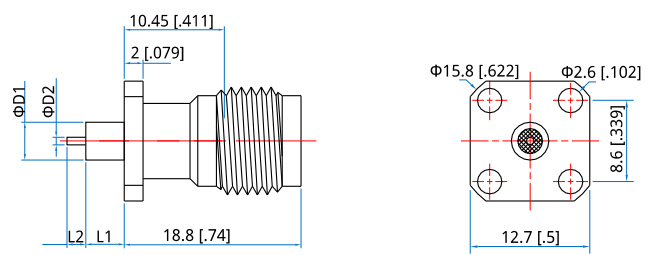
Part Number	ΦD1	ΦD2	L1	L2
FCN-ML4G-M127-02	6 [0.236]	1.27 [0.05]	4 [0.158]	2 [0.079]

## TNC Series

### TNC Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



Part Number	ΦD1	ΦD2	L1	L2
FCT-FL4G-M80-01	4 [0.158]	0.8 [0.031]	4 [0.158]	2 [0.079]

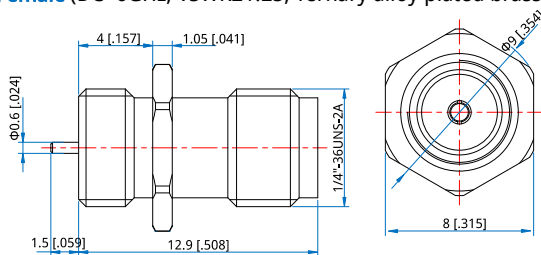


Part Number	ΦD1	ΦD2	L1	L2
FCT-FL4G-M80-02	4 [0.158]	0.8 [0.031]	4 [0.158]	2 [0.079]

## Threaded Connection

### SMA Series

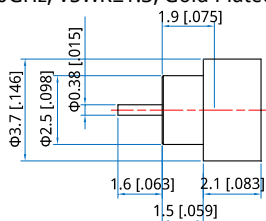
### SMA Female (DC~6GHz, VSWR≤1.25, Ternary alloy plated brass)



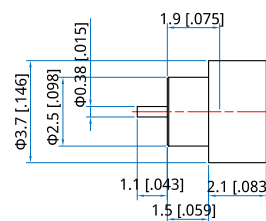
Part Number
FCS-FYB-M60

## SMP, Full Detent

### SMP Male (DC~40GHz, VSWR≤1.3, Gold Plated Kovar Material)

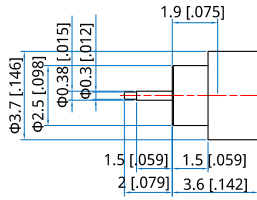


Part Number
FCPF-MB-M38-01



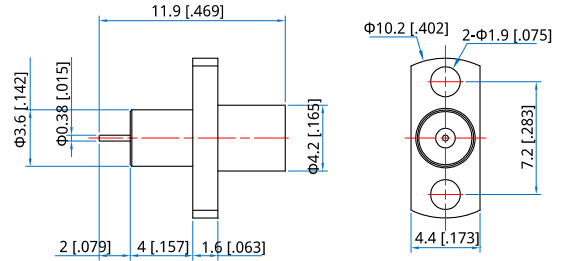
Part Number
FCPF-MB-M38-02

**SMP Male** (DC~40GHz, VSWR≤1.3, Gold Plated Kovar Material)



**Part Number**

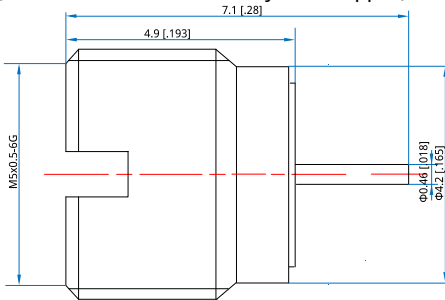
FCPF-MB-M38-03



**Part Number**

FCPF-ML2G-M38-01 (Passivated stainless steel)

**SMP Male** (DC~18GHz, Gold Plated Beryllium Copper)

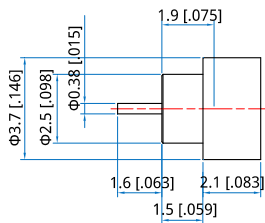


**Part Number**

FCPF-MB-M46-01

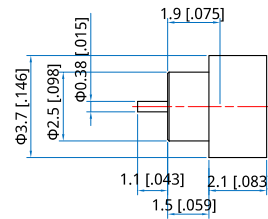
**SMP, Limited Detent**

**SMP Male** (DC~40GHz, VSWR≤1.3, Gold Plated Kovar Material)



**Part Number**

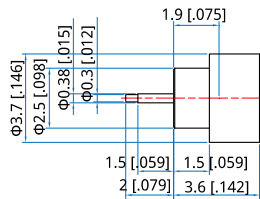
FCPL-MB-M38-01



**Part Number**

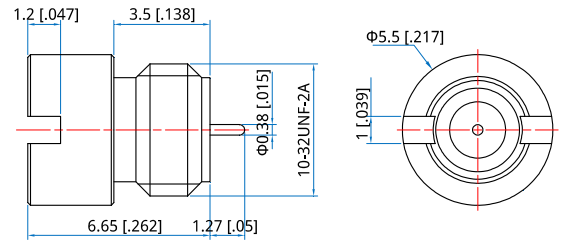
FCPL-MB-M38-02

**SMP Male** (DC~40GHz, VSWR≤1.3, Gold Plated Kovar Material)



**Part Number**

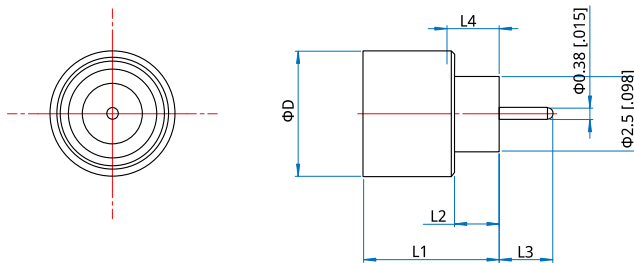
FCPL-MB-M38-03



**Part Number**

FCPL-MYB-M38-01 (Threaded Connection)

**SMP Male** (DC~40GHz, VSWR≤1.25, Kovar Material)



**Part Number**

**ΦD**

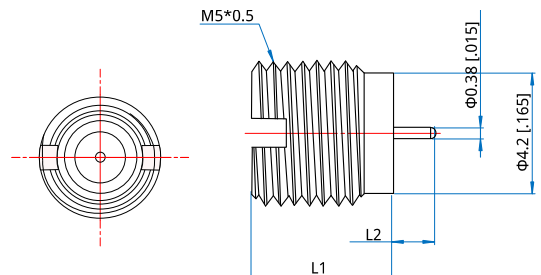
**L1**

**L2**

**L3**

**L4**

FCPL-MO-M38-01	4.2 [0.165]	4.55 [0.179]	1.5 [0.059]	1.8 [0.071]	1.75 [0.069]
FCPL-MO-M38-02	3.7 [0.146]	3.6 [0.142]	1.5 [0.059]	2.8 [0.11]	1.9 [0.075]
FCPL-MO-M38-03	3.7 [0.146]	3.6 [0.142]	1.6 [0.063]	1.6 [0.063]	-



**Part Number**

**L1**

**L2**

FCPL-MO-M38-04	4.9 [0.193]	1.5 [0.059]
FCPL-MO-M38-05	4.9 [0.193]	3.5 [0.138]

## Straight Terminal With Dielectric Connectors

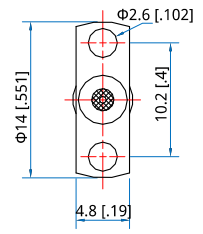
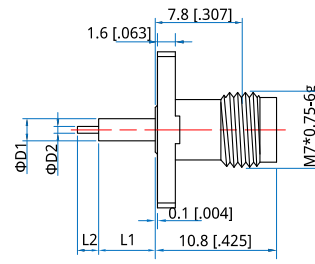
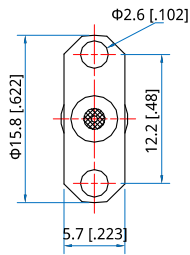
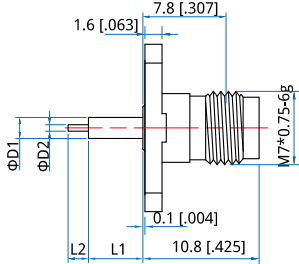
Freflex provides various straight terminal with dielectric connectors, including 2.4mm, 2.92mm, SMA, N, etc to meet different requirements. The frequency range covers DC-50GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

### Flange Mount

#### 2.4mm Series

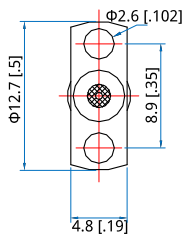
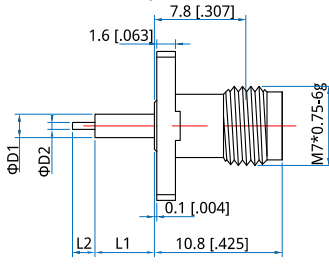
##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-P30-01	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FC2-FL2G-P30-02	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FC2-FL2G-P60-03	2 [0.079]	0.6 [0.024]	6.35 [0.25]	1.27 [0.05]
FC2-FL2G-P60-04	2 [0.079]	0.6 [0.024]	5.1 [0.201]	1.9 [0.075]

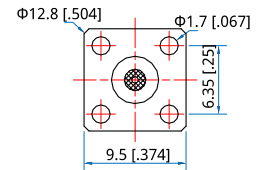
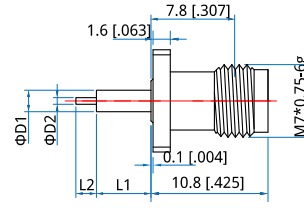
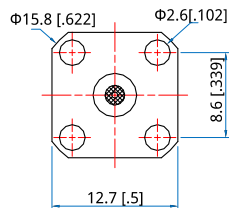
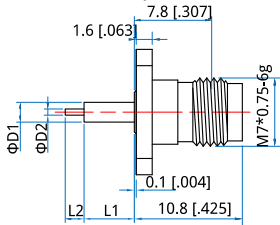
Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-P30-05	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FC2-FL2G-P30-06	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FC2-FL2G-P60-07	2 [0.079]	0.6 [0.024]	6.35 [0.25]	1.27 [0.05]
FC2-FL2G-P60-08	2 [0.079]	0.6 [0.024]	5.1 [0.201]	1.9 [0.075]

##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD1	ΦD2	L1	L2
FC2-FL2G-P30-09	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FC2-FL2G-P30-10	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FC2-FL2G-P60-11	2 [0.079]	0.6 [0.024]	6.35 [0.25]	1.27 [0.05]
FC2-FL2G-P60-12	2 [0.079]	0.6 [0.024]	5.1 [0.201]	1.9 [0.075]

##### 2.4mm Female (DC-50GHz, VSWR≤1.15, Passivated stainless steel )

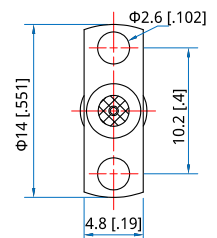
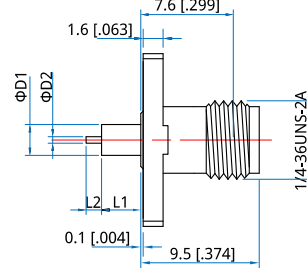
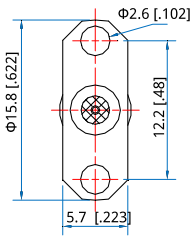
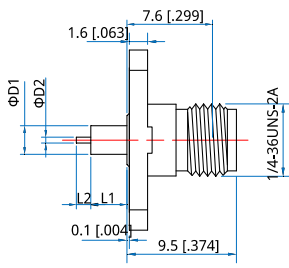


Part Number	ΦD1	ΦD2	L1	L2
FC2-FL4G-P30-01	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FC2-FL4G-P30-02	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FC2-FL4G-P60-03	2 [0.079]	0.6 [0.024]	6.35 [0.25]	1.27 [0.05]
FC2-FL4G-P60-04	2 [0.079]	0.6 [0.024]	5.1 [0.201]	1.9 [0.075]

Part Number	ΦD1	ΦD2	L1	L2
FC2-FL4G-P30-05	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FC2-FL4G-P30-06	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FC2-FL4G-P60-07	2 [0.079]	0.6 [0.024]	6.35 [0.25]	1.27 [0.05]
FC2-FL4G-P60-08	2 [0.079]	0.6 [0.024]	5.1 [0.201]	1.9 [0.075]

## 2.92mm Series

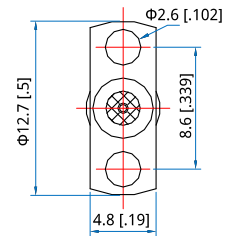
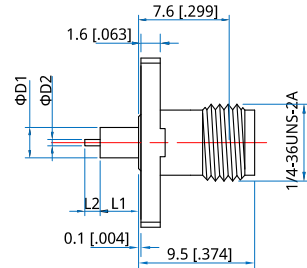
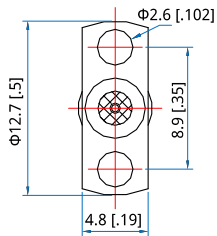
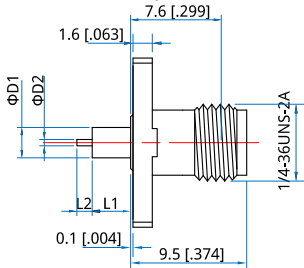
### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)



Part Number	ΦD1	ΦD2	L1	L2
FCK-FL2G-P30-01	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL2G-P30-02	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL2G-P30-03	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

Part Number	ΦD1	ΦD2	L1	L2
FCK-FL2G-P30-04	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL2G-P30-05	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL2G-P30-06	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

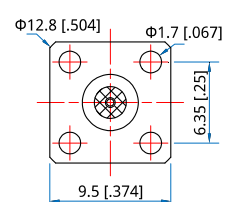
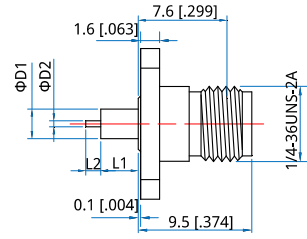
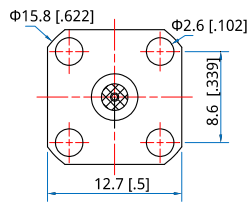
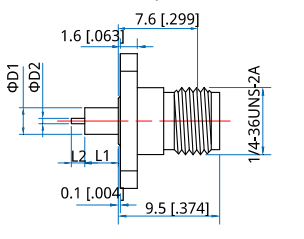
### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)



Part Number	ΦD1	ΦD2	L1	L2
FCK-FL2G-P30-07	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL2G-P30-08	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL2G-P30-09	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

Part Number	ΦD1	ΦD2	L1	L2
FCK-FL2G-P30-10	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL2G-P30-11	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL2G-P30-12	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

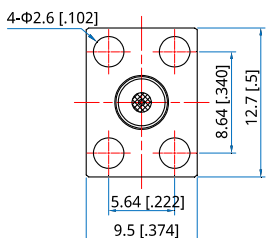
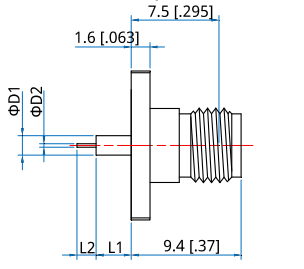
### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)



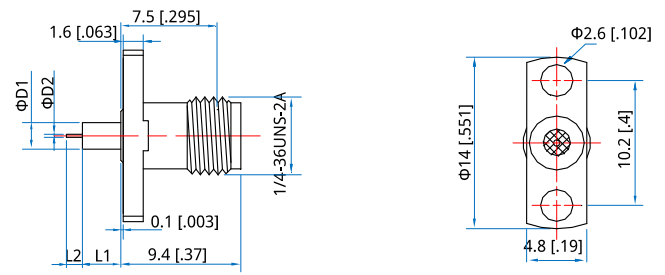
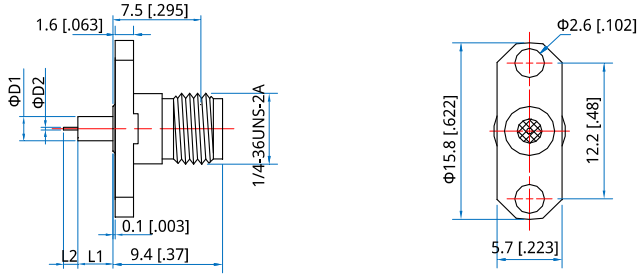
Part Number	ΦD1	ΦD2	L1	L2
FCK-FL4G-P30-01	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL4G-P30-02	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL4G-P30-03	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

Part Number	ΦD1	ΦD2	L1	L2
FCK-FL4G-P30-04	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL4G-P30-05	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL4G-P30-06	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel)

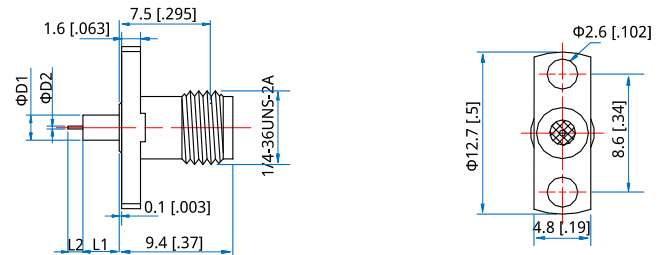
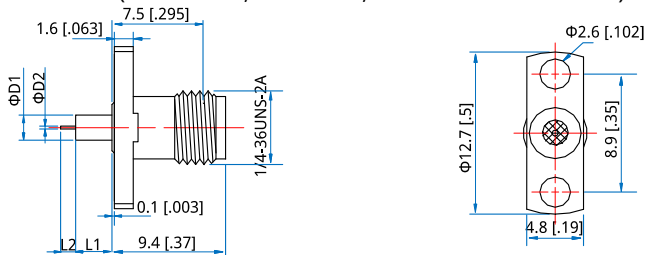


Part Number	ΦD1	ΦD2	L1	L2
FCK-FL4G-P30-07	1.67 [0.066]	0.3 [0.012]	1.4 [0.055]	1.5 [0.059]
FCK-FL4G-P30-08	1.67 [0.066]	0.3 [0.012]	3 [1.18]	1.5 [0.059]
FCK-FL4G-P30-09	1.67 [0.066]	0.3 [0.012]	3 [1.18]	4.5 [1.77]

**SMA Series**
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


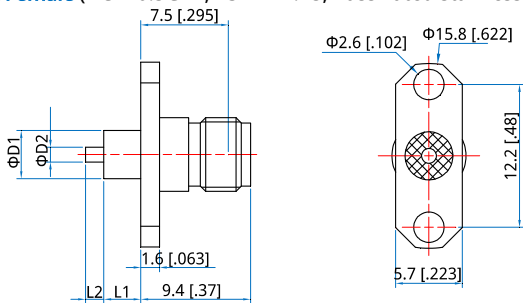
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P30-01	2.2 [0.87]	0.3 [0.12]	3.2 [1.26]	1.27 [0.05]
FCS-FL2G-P64-02	3.9 [1.54]	0.64 [0.25]	15 [5.91]	3 [1.18]
FCS-FL2G-P64-03	2.1 [0.83]	0.64 [0.25]	15 [5.91]	3 [1.18]
FCS-FL2G-P30-04	2.2 [0.87]	0.3 [0.12]	4.3 [1.69]	1.3 [0.51]

Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P30-05	2.2 [0.87]	0.3 [0.12]	3.2 [1.26]	1.27 [0.05]
FCS-FL2G-P64-06	2.1 [0.83]	0.64 [0.25]	15 [5.91]	3 [1.18]
FCS-FL2G-P30-07	2.2 [0.87]	0.3 [0.12]	4.3 [1.69]	1.3 [0.51]

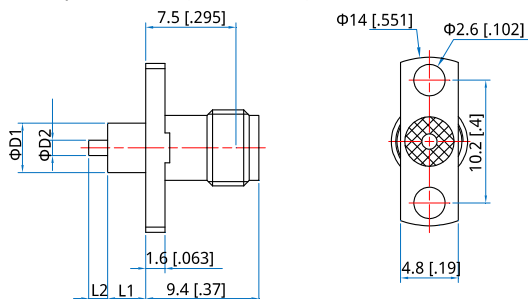
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P30-08	2.2 [0.87]	0.3 [0.12]	3.2 [1.26]	1.27 [0.05]
FCS-FL2G-P64-09	2.1 [0.83]	0.64 [0.25]	15 [5.91]	3 [1.18]
FCS-FL2G-P30-10	2.2 [0.87]	0.3 [0.12]	4.3 [1.69]	1.3 [0.51]

Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P30-11	2.2 [0.87]	0.3 [0.12]	3.2 [1.26]	1.27 [0.05]
FCS-FL2G-P64-12	2.1 [0.83]	0.64 [0.25]	15 [5.91]	3 [1.18]
FCS-FL2G-P30-13	2.2 [0.87]	0.3 [0.12]	4.3 [1.69]	1.3 [0.51]

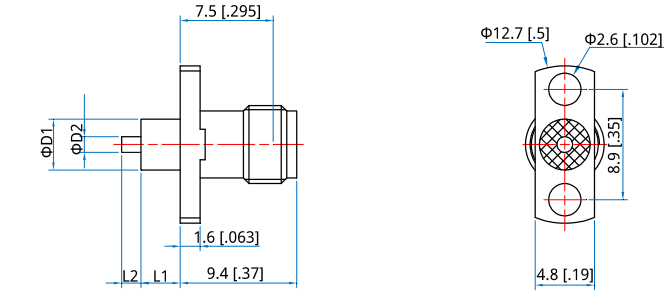
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P127-14	4.1 [1.61]	1.27 [0.05]	3.17 [1.25]	1.57 [0.62]
FCS-FL2G-P127-15	4.1 [1.61]	1.27 [0.05]	5 [1.97]	2 [0.79]
FCS-FL2G-P127-16	4.1 [1.61]	1.27 [0.05]	5 [1.97]	24 [9.45]

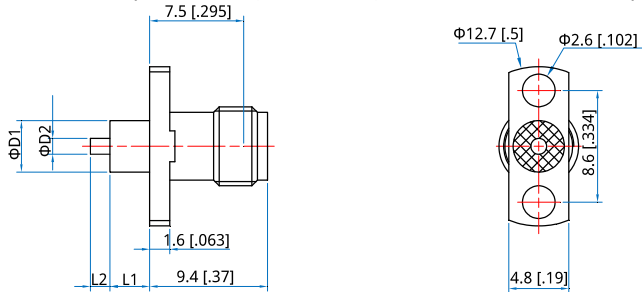
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P127-17	4.1 [1.61]	1.27 [0.05]	3.17 [1.25]	1.57 [0.62]
FCS-FL2G-P127-18	4.1 [1.61]	1.27 [0.05]	5 [1.97]	2 [0.79]
FCS-FL2G-P127-19	4.1 [1.61]	1.27 [0.05]	5 [1.97]	24 [9.45]

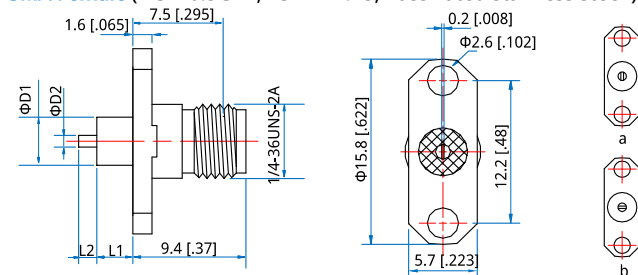


**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


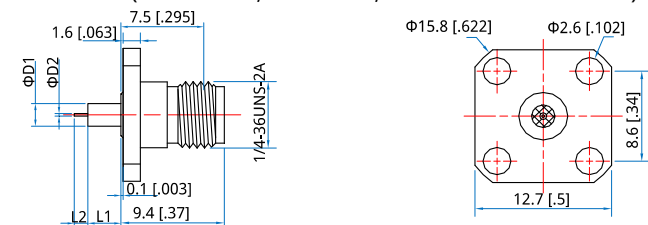
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P127-20	4.1[.161]	1.27[.05]	3.17[.125]	1.57[.062]
FCS-FL2G-P127-21	4.1[.161]	1.27[.05]	5[.197]	2[.079]
FCS-FL2G-P127-22	4.1[.161]	1.27[.05]	5[.197]	24[.945]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


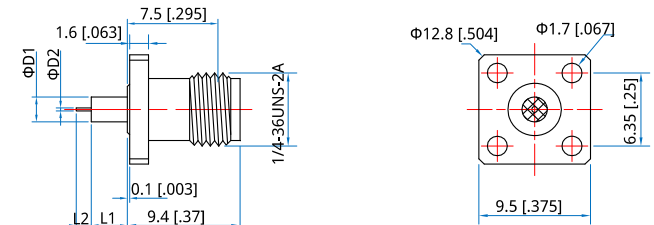
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL2G-P127-23	4.1[.161]	1.27[.05]	3.17[.125]	1.57[.062]
FCS-FL2G-P127-24	4.1[.161]	1.27[.05]	5[.197]	2[.079]
FCS-FL2G-P127-25	4.1[.161]	1.27[.05]	5[.197]	24[.945]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


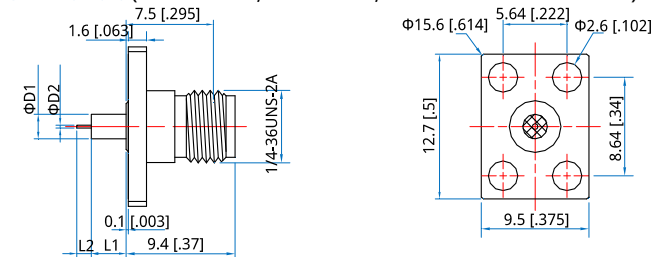
Part Number	ΦD1	ΦD2	L1	L2	
FCS-FL2G-P100-26	4.1 [ .161]	1 [ .04]	4 [ .158]	1.5 [ .059]	a
FCS-FL2G-P100-27	4.1 [ .161]	1 [ .04]	4 [ .158]	1.5 [ .059]	b
FCS-FL2G-P100-28	4.1 [ .161]	1 [ .04]	3 [ .118]	1.5 [ .059]	a
FCS-FL2G-P100-29	4.1 [ .161]	1 [ .04]	3 [ .118]	1.5 [ .059]	b

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


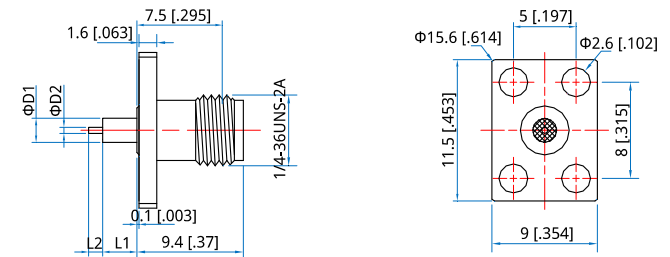
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P30-01	2.2 [ .087]	0.3 [ .012]	3.2 [ .126]	1.27 [ .05]
FCS-FL4G-P30-02	2.2 [ .087]	0.3 [ .012]	4.3 [ .169]	1.3 [ .051]
FCS-FL4G-P64-03	3.9 [ .154]	0.64 [ .025]	15 [ .591]	3 [ .118]
FCS-FL4G-P64-04	2.1 [ .083]	0.64 [ .025]	15 [ .591]	3 [ .118]



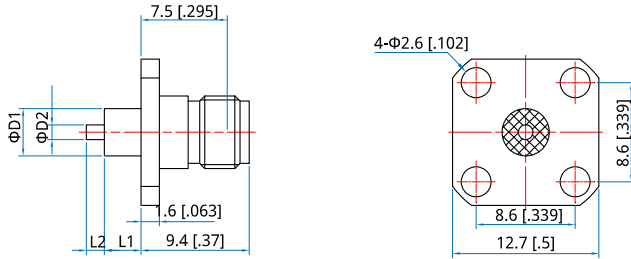
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P30-05	2.2 [ .087]	0.3 [ .012]	3.2 [ .126]	1.27 [ .05]
FCS-FL4G-P30-06	2.2 [ .087]	0.3 [ .012]	4.3 [ .169]	1.3 [ .051]
FCS-FL4G-P64-07	2.1 [ .083]	0.64 [ .025]	15 [ .591]	3 [ .118]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


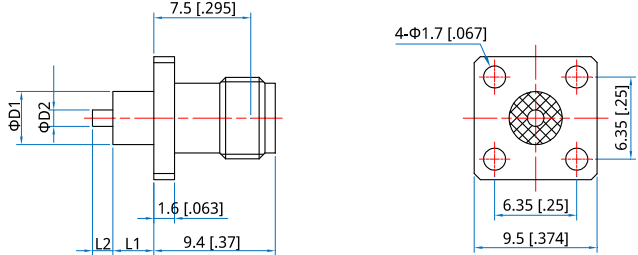
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P30-08	2.2 [ .087]	0.3 [ .012]	3.2 [ .126]	1.27 [ .05]
FCS-FL4G-P64-09	2.1 [ .083]	0.64 [ .025]	15 [ .591]	3 [ .118]
FCS-FL4G-P30-10	2.2 [ .087]	0.3 [ .012]	4.3 [ .169]	1.3 [ .051]



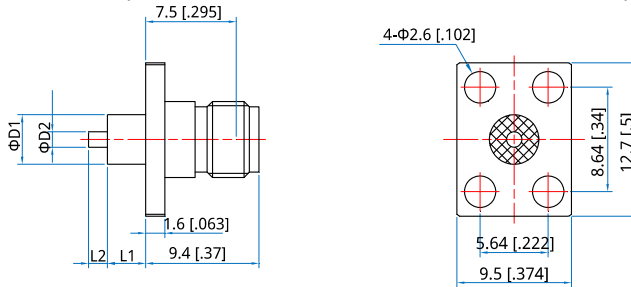
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P30-11	2.2 [ .087]	0.3 [ .012]	3.2 [ .126]	1.27 [ .05]
FCS-FL4G-P64-12	2.1 [ .083]	0.64 [ .025]	15 [ .591]	3 [ .118]
FCS-FL4G-P30-13	2.2 [ .087]	0.3 [ .012]	4.3 [ .169]	1.3 [ .051]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


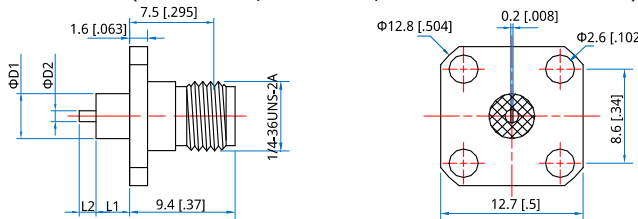
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P127-14	4.1 [161]	1.27 [05]	3.17 [125]	1.57 [062]
FCS-FL4G-P127-15	4.1 [161]	1.27 [05]	5 [197]	2 [079]
FCS-FL4G-P127-16	4.1 [161]	1.27 [05]	5 [197]	24 [945]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


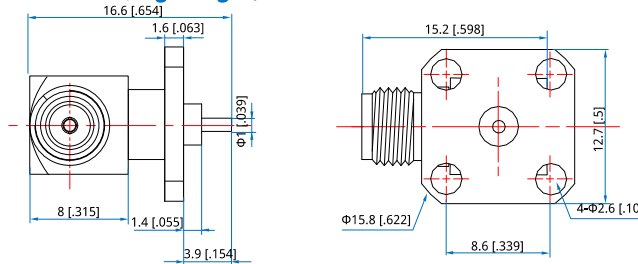
Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P127-17	4.1 [161]	1.27 [05]	3.17 [125]	1.57 [062]
FCS-FL4G-P127-18	4.1 [161]	1.27 [05]	5 [197]	2 [079]
FCS-FL4G-P127-19	4.1 [161]	1.27 [05]	5 [197]	24 [945]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P127-20	4.1 [161]	1.27 [05]	3.17 [125]	1.57 [062]
FCS-FL4G-P127-21	4.1 [161]	1.27 [05]	5 [197]	2 [079]
FCS-FL4G-P127-22	4.1 [161]	1.27 [05]	5 [197]	24 [945]

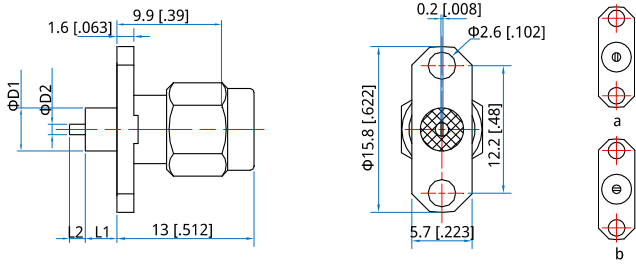
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD1	ΦD2	L1	L2
FCS-FL4G-P100-23	4.1 [161]	1 [04]	4 [158]	1.5 [059]
FCS-FL4G-P100-24	4.1 [161]	1 [04]	3 [118]	1.5 [059]

**SMA Female, Right Angle (DC~26.5GHz, VSWR≤1.2, Passivated stainless steel )**


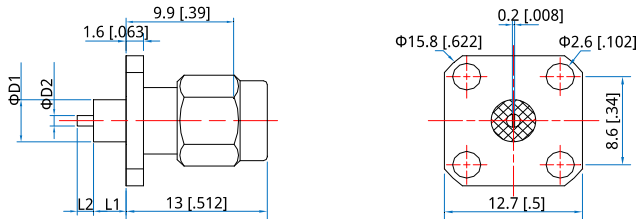
Part Number
FCS-FRL4G-P100-01

## SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)



Part Number	ΦD1	ΦD2	L1	L2	
FCS-ML2G-P100-01	4.1 [1.161]	1 [0.4]	4 [1.58]	1.5 [0.59]	a
FCS-ML2G-P100-02	4.1 [1.161]	1 [0.4]	4 [1.58]	1.5 [0.59]	b

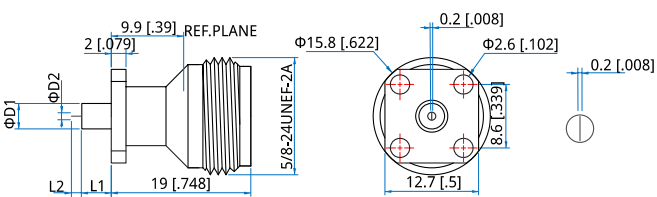
## SMA Male (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)



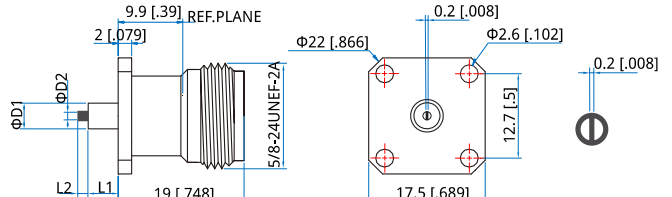
Part Number	ΦD1	ΦD2	L1	L2
FCS-ML4G-P100-01	4.1 [1.161]	1 [0.4]	4 [1.58]	1.5 [0.59]

## N Series

### N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)

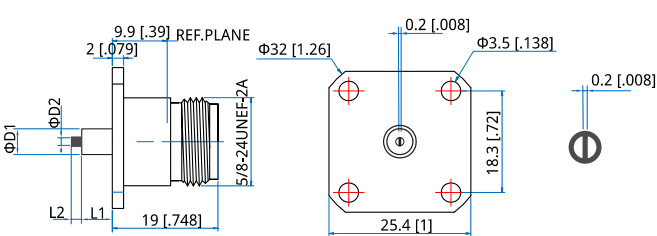


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-P127-01	4.1 [1.161]	1.27 [0.5]	4 [1.57]	1.5 [0.59]

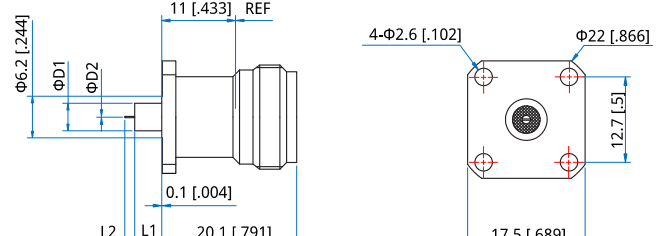


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-P127-02	4.1 [1.161]	1.27 [0.5]	4 [1.57]	1.5 [0.59]

### N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)

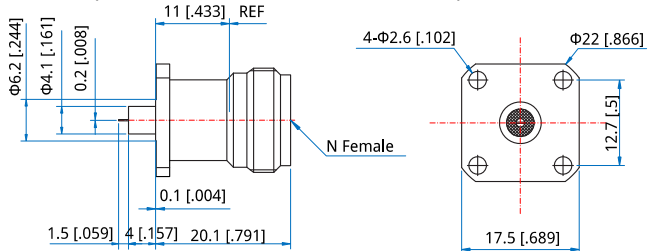


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-P127-03	4.1 [1.161]	1.27 [0.5]	4 [1.57]	1.5 [0.59]

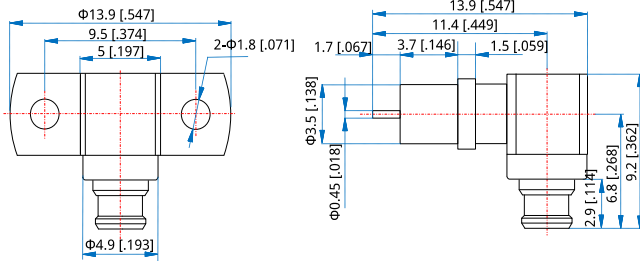


Part Number	ΦD1	ΦD2	L1	L2
FCN-FL4G-P20-01	4.1 [1.161]	0.2 [0.5]	4 [1.57]	1.5 [0.59]

### N Female (DC~18GHz, Passivated stainless steel)



Part Number
FCN-FL4G-P20-01

**SMP Series**
**SMP Female** (DC~2GHz, Gold plated brass)


**Part Number**  
FCP-FL2B-P45-01

## Straight Terminal Without Dielectric Connectors

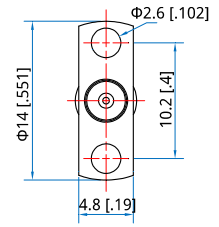
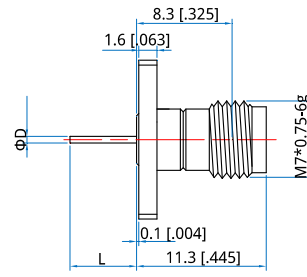
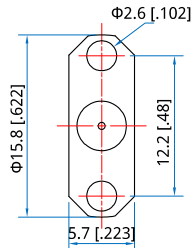
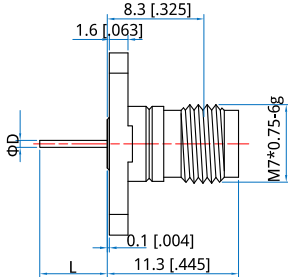
Freflex provides various straight terminal without dielectric connectors, including 1.85mm, 2.4mm, 2.92mm, SMA, etc to meet different requirements. The frequency range covers DC~67GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

### Flange Mount

#### 1.85mm Series

##### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel )



**Part Number**

**ΦD**

**L**

FCV-FL2G-D30-01  
FCV-FL2G-D30-02  
FCV-FL2G-D58-03

0.3 [.012]  
0.3 [.012]  
0.58 [.023]

1.2 [.047]  
2 [.079]  
5.85 [.23]

**Part Number**

**ΦD**

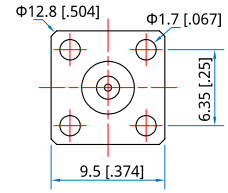
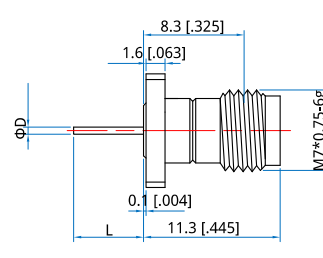
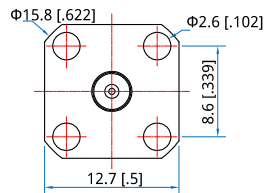
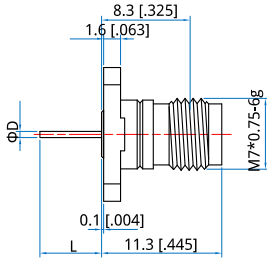
**L**

FCV-FL2G-D30-04  
FCV-FL2G-D30-05  
FCV-FL2G-D58-06

0.3 [.012]  
0.3 [.012]  
0.58 [.023]

1.2 [.047]  
2 [.079]  
5.85 [.23]

##### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel )



**Part Number**

**ΦD**

**L**

FCV-FL4G-D30-01  
FCV-FL4G-D30-02  
FCV-FL4G-D58-03

0.3 [.012]  
0.3 [.012]  
0.58 [.023]

1.2 [.047]  
2 [.079]  
5.85 [.23]

**Part Number**

**ΦD**

**L**

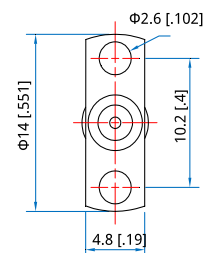
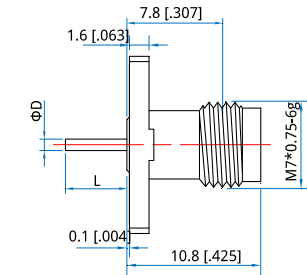
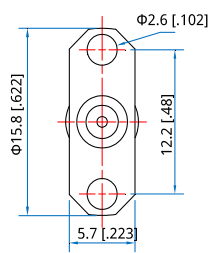
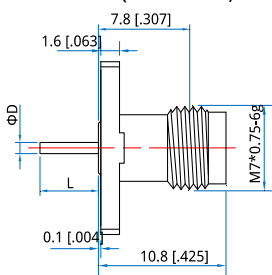
FCV-FL4G-D30-04  
FCV-FL4G-D30-05  
FCV-FL4G-D58-06

0.3 [.012]  
0.3 [.012]  
0.58 [.023]

1.2 [.047]  
2 [.079]  
5.85 [.23]

#### 2.4mm Series

##### 2.4mm female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )



**Part Number**

**ΦD**

**L**

FC2-FL2G-D64-01  
FC2-FL2G-D64-02  
FC2-FL2G-D75-03  
FC2-FL2G-D86-04  
FC2-FL2G-D100-05  
FC2-FL2G-D104-06  
FC2-FL2G-D120-07

0.64 [.025]  
0.64 [.025]  
0.75 [.029]  
0.86 [.034]  
1 [.04]  
1.04 [.041]  
1.2 [.047]

10 [.394]  
6.84 [.269]  
9 [.354]  
8.75 [.344]  
5.5 [.216]  
6.34 [.25]  
3 [.118]

**Part Number**

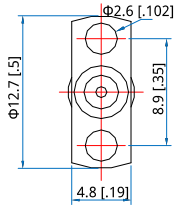
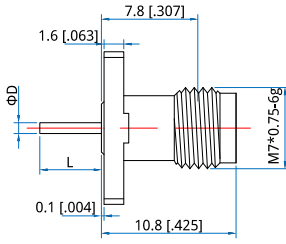
**ΦD**

**L**

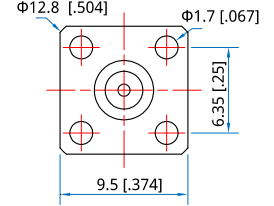
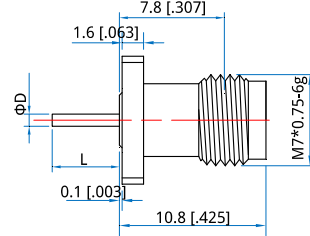
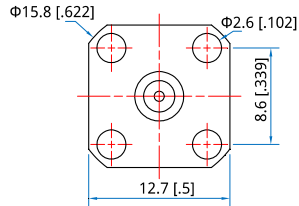
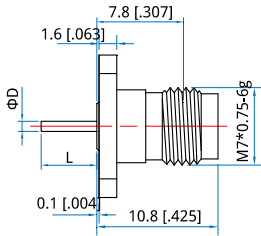
FC2-FL2G-D64-08  
FC2-FL2G-D64-09  
FC2-FL2G-D75-10  
FC2-FL2G-D86-11  
FC2-FL2G-D100-12  
FC2-FL2G-D104-13  
FC2-FL2G-D120-14

0.64 [.025]  
0.64 [.025]  
0.75 [.029]  
0.86 [.034]  
1 [.04]  
1.04 [.041]  
1.2 [.047]

10 [.394]  
6.84 [.269]  
9 [.354]  
8.75 [.344]  
5.5 [.216]  
6.34 [.25]  
3 [.118]

**2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )**

**Part Number**
**ΦD**
**L**

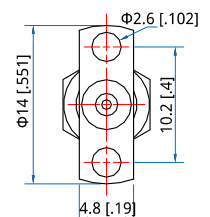
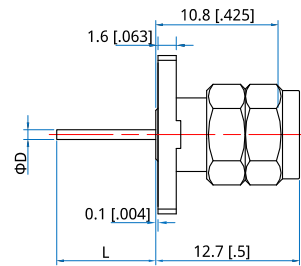
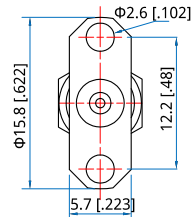
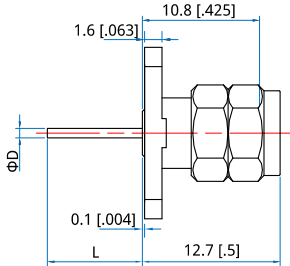
FC2-FL2G-D64-15	0.64 [0.025]	10 [0.394]
FC2-FL2G-D64-16	0.64 [0.025]	6.84 [0.269]
FC2-FL2G-D75-17	0.75 [0.029]	9 [0.354]
FC2-FL2G-D86-18	0.86 [0.034]	8.75 [0.344]
FC2-FL2G-D100-19	1 [0.04]	5.5 [0.216]
FC2-FL2G-D104-20	1.04 [0.041]	6.34 [0.25]
FC2-FL2G-D120-21	1.2 [0.047]	3 [0.118]

**2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel )**

**Part Number**
**ΦD**
**L**

FC2-FL4G-D64-01	0.64 [0.025]	10 [0.394]
FC2-FL4G-D64-02	0.64 [0.025]	6.84 [0.269]
FC2-FL4G-D75-03	0.75 [0.029]	9 [0.354]
FC2-FL4G-D86-04	0.86 [0.034]	8.75 [0.344]
FC2-FL4G-D100-05	1 [0.04]	5.5 [0.216]
FC2-FL4G-D104-06	1.04 [0.041]	6.34 [0.25]
FC2-FL4G-D120-07	1.2 [0.047]	3 [0.118]

**Part Number**
**ΦD**
**L**

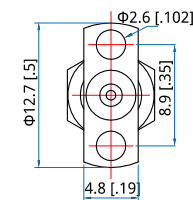
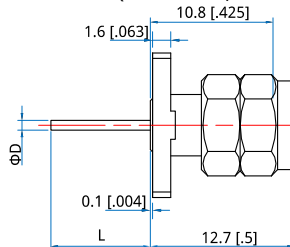
FC2-FL4G-D64-08	0.64 [0.025]	10 [0.394]
FC2-FL4G-D64-09	0.64 [0.025]	6.84 [0.269]
FC2-FL4G-D75-10	0.75 [0.029]	9 [0.354]
FC2-FL4G-D86-11	0.86 [0.034]	8.75 [0.344]
FC2-FL4G-D100-12	1 [0.04]	5.5 [0.216]
FC2-FL4G-D104-13	1.04 [0.041]	6.34 [0.25]
FC2-FL4G-D120-14	1.2 [0.047]	3 [0.118]

**2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )**

**Part Number**
**ΦD**
**L**

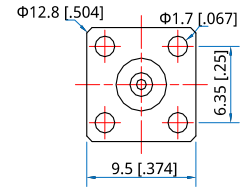
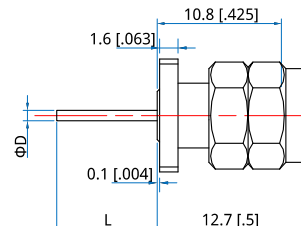
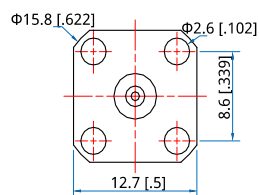
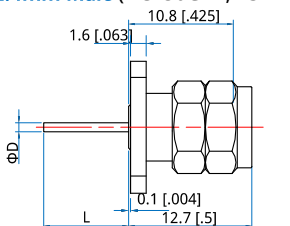
FC2-ML2G-D64-01	0.64 [0.025]	10 [0.394]
FC2-ML2G-D86-02	0.86 [0.034]	8.75 [0.344]

**Part Number**
**ΦD**
**L**

FC2-ML2G-D64-03	0.64 [0.025]	10 [0.394]
FC2-ML2G-D86-04	0.86 [0.034]	8.75 [0.344]

**2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )**

**Part Number**
**ΦD**
**L**

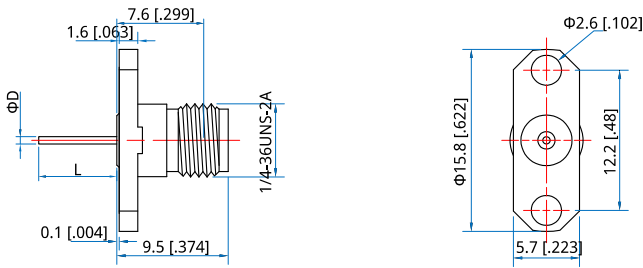
FC2-ML2G-D64-05	0.64 [0.025]	10 [0.394]
FC2-ML2G-D86-06	0.86 [0.034]	8.75 [0.344]

**2.4mm Male (DC~50GHz, VSWR≤1.15, Passivated stainless steel )**

**Part Number**
**ΦD**
**L**

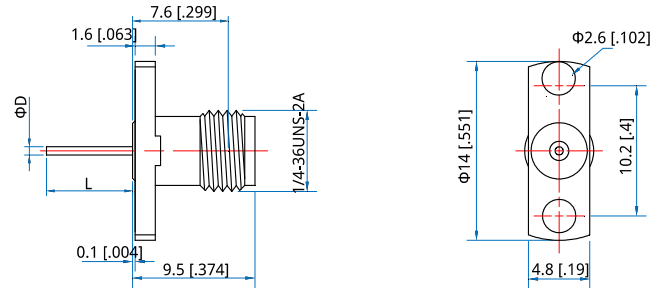
FC2-ML4G-D64-01	0.64 [0.025]	10 [0.394]
FC2-ML4G-D86-02	0.86 [0.034]	8.75 [0.344]

**Part Number**
**ΦD**
**L**

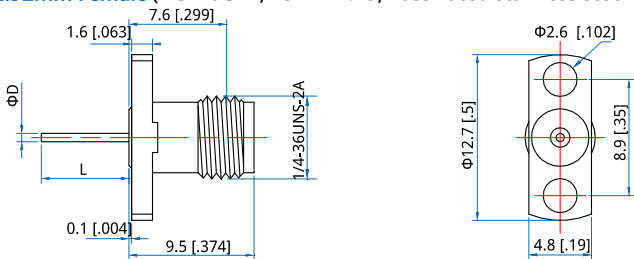
FC2-ML4G-D64-03	0.64 [0.025]	10 [0.394]
FC2-ML4G-D86-04	0.86 [0.034]	8.75 [0.344]

**2.92mm Series**
**2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )**


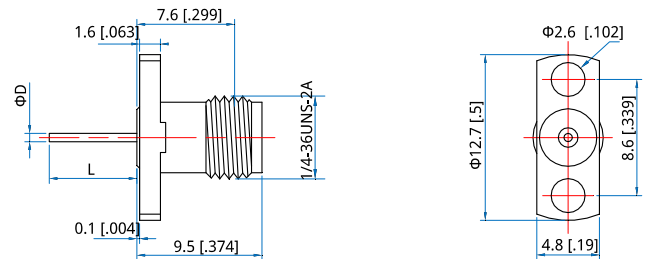
Part Number	ΦD	L
FCK-FL2G-D64-01	0.64 [0.025]	10.92 [43]
FCK-FL2G-D64-02	0.64 [0.025]	6.84 [269]
FCK-FL2G-D30-03	0.3 [0.012]	7 [276]
FCK-FL2G-D30-04	0.3 [0.012]	2 [079]
FCK-FL2G-D75-05	0.75 [0.03]	30 [1.181]



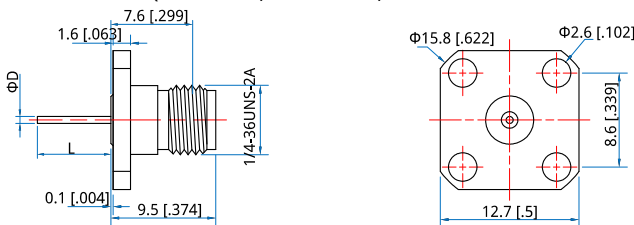
Part Number	ΦD	L
FCK-FL2G-D64-06	0.64 [0.025]	10.92 [43]
FCK-FL2G-D64-07	0.64 [0.025]	6.84 [269]
FCK-FL2G-D30-08	0.3 [0.012]	7 [276]
FCK-FL2G-D30-09	0.3 [0.012]	2 [079]
FCK-FL2G-D75-10	0.75 [0.03]	30 [1.181]

**2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )**


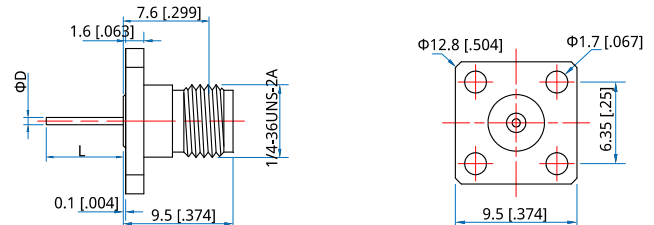
Part Number	ΦD	L
FCK-FL2G-D64-11	0.64 [0.025]	10.92 [43]
FCK-FL2G-D64-12	0.64 [0.025]	6.84 [269]
FCK-FL2G-D30-13	0.3 [0.012]	7 [276]
FCK-FL2G-D30-14	0.3 [0.012]	2 [079]
FCK-FL2G-D75-15	0.75 [0.03]	30 [1.181]



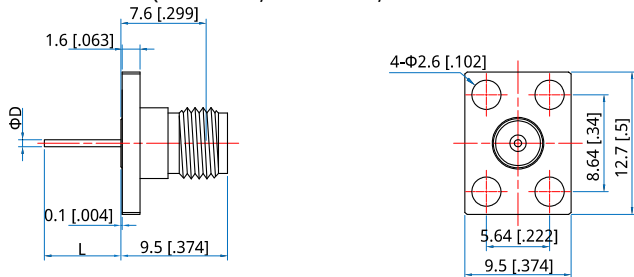
Part Number	ΦD	L
FCK-FL2G-D64-16	0.64 [0.025]	10.92 [43]
FCK-FL2G-D64-17	0.64 [0.025]	6.84 [269]
FCK-FL2G-D30-18	0.3 [0.012]	7 [276]
FCK-FL2G-D30-19	0.3 [0.012]	2 [079]
FCK-FL2G-D75-20	0.75 [0.03]	30 [1.181]

**2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD	L
FCK-FL4G-D64-01	0.64 [0.025]	10.92 [43]
FCK-FL4G-D64-02	0.64 [0.025]	6.84 [269]
FCK-FL4G-D30-03	0.3 [0.012]	7 [276]
FCK-FL4G-D30-04	0.3 [0.012]	2 [079]
FCK-FL4G-D75-05	0.75 [0.03]	30 [1.181]

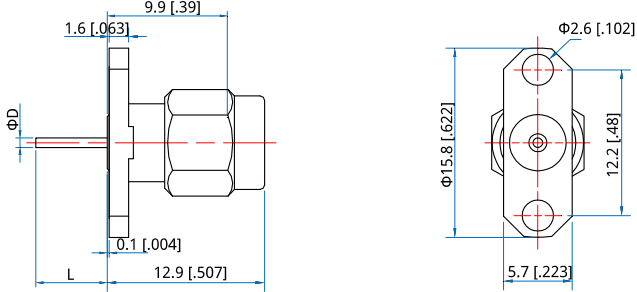


Part Number	ΦD	L
FCK-FL4G-D64-06	0.64 [0.025]	10.92 [43]
FCK-FL4G-D64-07	0.64 [0.025]	6.84 [269]
FCK-FL4G-D30-08	0.3 [0.012]	7 [276]
FCK-FL4G-D30-09	0.3 [0.012]	2 [079]
FCK-FL4G-D75-10	0.75 [0.03]	30 [1.181]

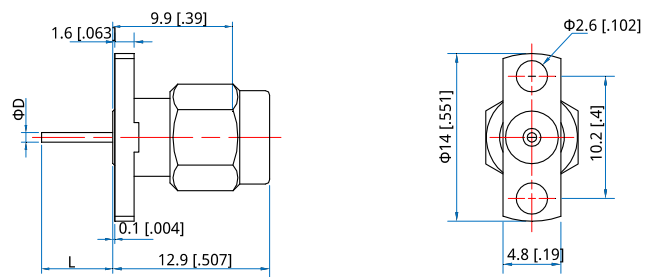
**2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD	L
FCK-FL4G-D64-11	0.64 [0.025]	10.92 [43]
FCK-FL4G-D64-12	0.64 [0.025]	6.84 [269]
FCK-FL4G-D30-13	0.3 [0.012]	7 [276]
FCK-FL4G-D30-14	0.3 [0.012]	2 [079]
FCK-FL4G-D75-15	0.75 [0.03]	30 [1.181]

### 2.92mm Male (DC~40GHz, VSWR≤1.15, Passivated stainless steel )

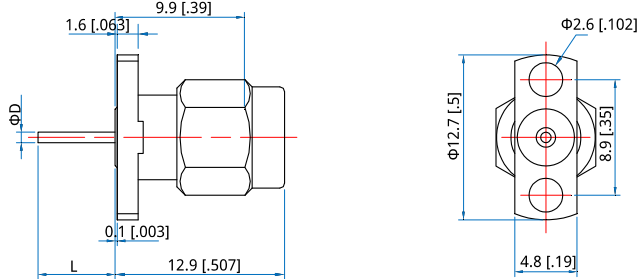


Part Number	ΦD	L
FCK-ML2G-D64-01	0.64 [0.025]	10.92 [0.43]
FCK-ML2G-D64-02	0.64 [0.025]	6.84 [0.269]



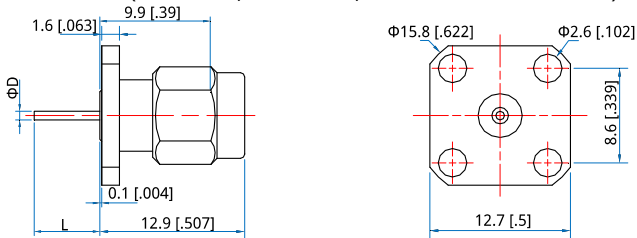
Part Number	ΦD	L
FCK-ML2G-D64-03	0.64 [0.025]	10.92 [0.43]
FCK-ML2G-D64-04	0.64 [0.025]	6.84 [0.269]

### 2.92mm Female (DC~40GHz, VSWR≤1.15, Passivated stainless steel )

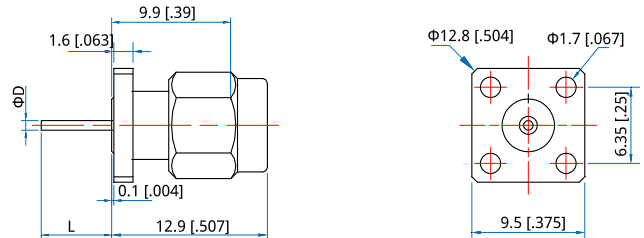


Part Number	ΦD	L
FCK-ML2G-D64-05	0.64 [0.025]	10.92 [0.43]
FCK-ML2G-D64-06	0.64 [0.025]	6.84 [0.269]

### 2.92mm Male (DC~40GHz, VSWR≤1.15, Passivated stainless steel )



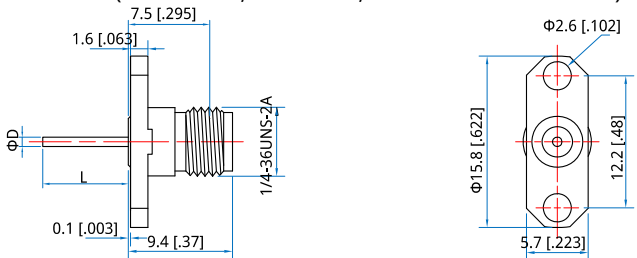
Part Number	ΦD	L
FCK-ML4G-D64-01	0.64 [0.025]	10.92 [0.43]
FCK-ML4G-D64-02	0.64 [0.025]	6.84 [0.269]



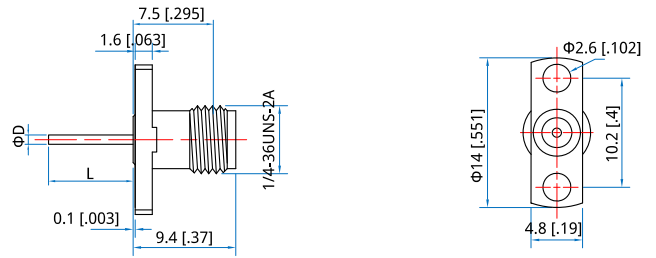
Part Number	ΦD	L
FCK-ML4G-D64-03	0.64 [0.025]	10.92 [0.43]
FCK-ML4G-D64-04	0.64 [0.025]	6.84 [0.269]

### SMA Series

#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



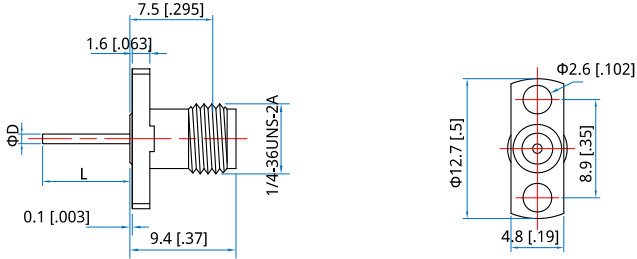
Part Number	ΦD	L
FCS-FL2G-D64-01	0.64 [0.025]	18 [0.71]
FCS-FL2G-D87-02	0.87 [0.034]	26 [1.024]
FCS-FL2G-D87-03	0.87 [0.034]	10.92 [0.43]



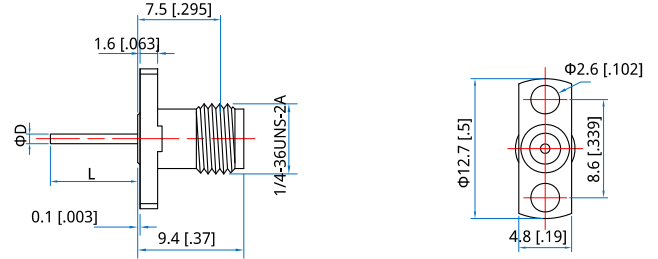
Part Number	ΦD	L
FCS-FL2G-D64-04	0.64 [0.025]	18 [0.71]
FCS-FL2G-D87-05	0.87 [0.034]	26 [1.024]
FCS-FL2G-D87-06	0.87 [0.034]	10.92 [0.43]



**SMA Female** (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

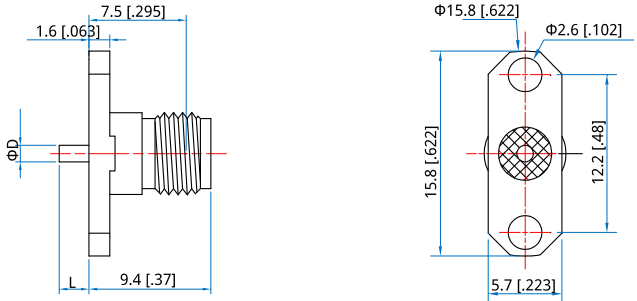


Part Number	ΦD	L
FCS-FL2G-D64-07	0.64 [.025]	18 [.71]
FCS-FL2G-D87-08	0.87 [.034]	26 [1.024]
FCS-FL2G-D87-09	0.87 [.034]	10.92 [.43]

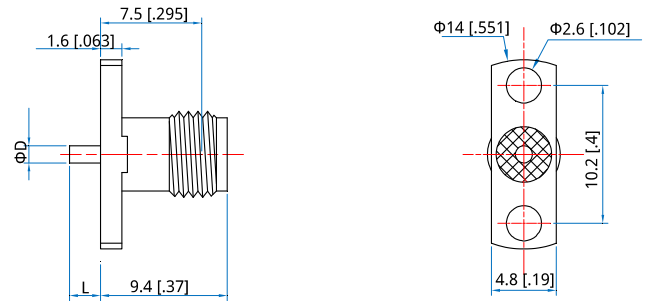


Part Number	ΦD	L
FCS-FL2G-D64-10	0.64 [.025]	18 [.71]
FCS-FL2G-D87-11	0.87 [.034]	26 [1.024]
FCS-FL2G-D87-12	0.87 [.034]	10.92 [.43]

**SMA Female** (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

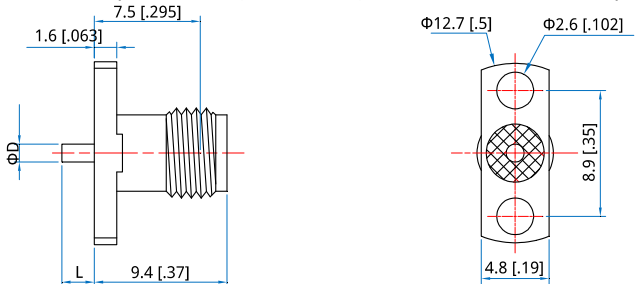


Part Number	ΦD	L
FCS-FL2G-D127-13	1.27 [.05]	2.3 [.09]

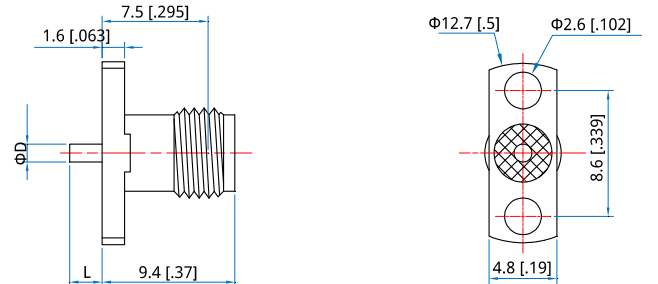


Part Number	ΦD	L
FCS-FL2G-D127-14	1.27 [.05]	2.3 [.09]

**SMA Female** (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )

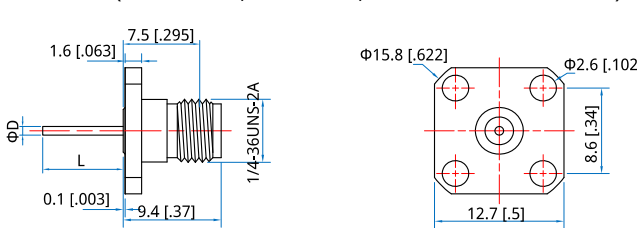


Part Number	ΦD	L
FCS-FL2G-D127-15	1.27 [.05]	2.3 [.09]

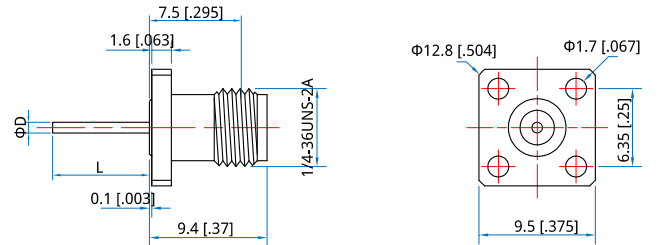


Part Number	ΦD	L
FCS-FL2G-D127-16	1.27 [.05]	2.3 [.09]

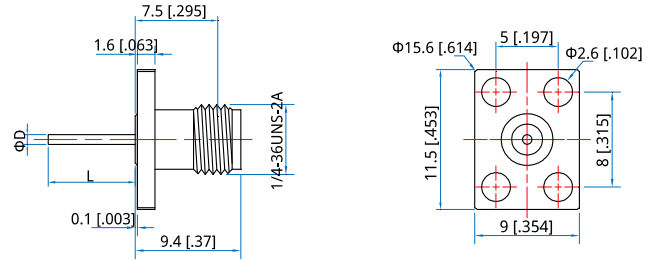
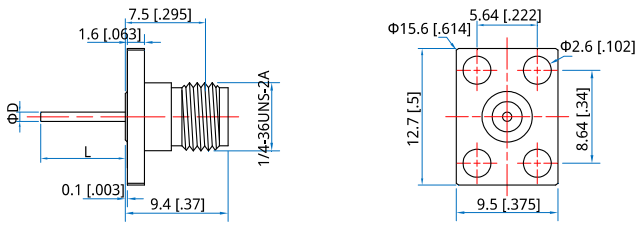
**SMA Female** (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD	L
FCS-FL4G-D64-01	0.64 [.025]	18 [.71]
FCS-FL4G-D87-02	0.87 [.034]	26 [1.024]
FCS-FL4G-D87-03	0.87 [.034]	10.92 [.43]

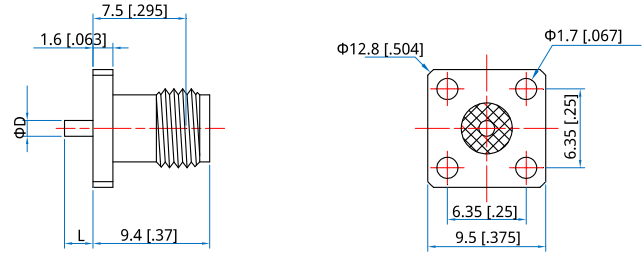
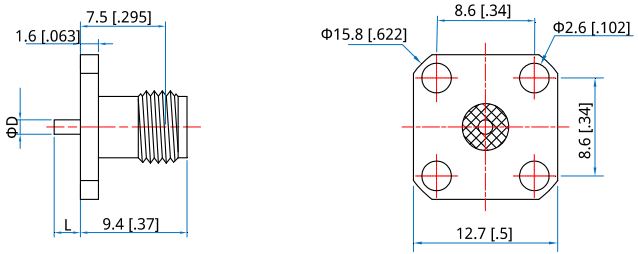


Part Number	ΦD	L
FCS-FL4G-D64-04	0.64 [.025]	18 [.71]
FCS-FL4G-D87-05	0.87 [.034]	26 [1.024]
FCS-FL4G-D87-06	0.87 [.034]	10.92 [.43]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


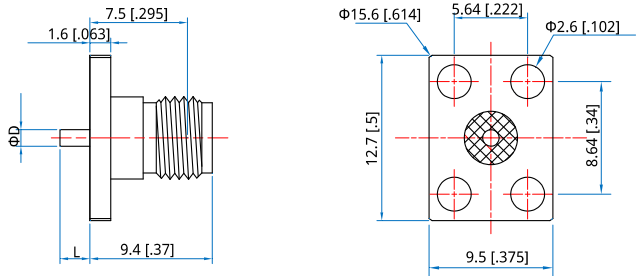
Part Number	ΦD	L
FCS-FL4G-D64-07	0.64 [0.025]	18 [0.71]
FCS-FL4G-D87-08	0.87 [0.034]	26 [1.024]
FCS-FL4G-D87-09	0.87 [0.034]	10.92 [0.43]

Part Number	ΦD	L
FCS-FL4G-D64-10	0.64 [0.025]	18 [0.71]
FCS-FL4G-D87-11	0.87 [0.034]	26 [1.024]
FCS-FL4G-D87-12	0.87 [0.034]	10.92 [0.43]

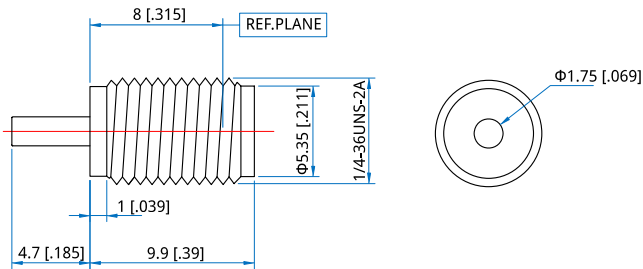
**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD	L
FCS-FL4G-D127-13	1.27 [0.05]	2.3 [0.09]

Part Number	ΦD	L
FCS-FL4G-D127-14	1.27 [0.05]	2.3 [0.09]

**SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )**


Part Number	ΦD	L
FCS-FL4G-D127-15	1.27 [0.05]	2.3 [0.09]

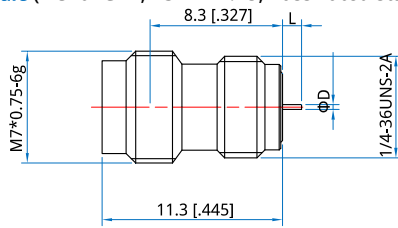
**SMA Female (DC~27GHz, Passivated stainless steel )**


Part Number
FCS-FG-D175-01

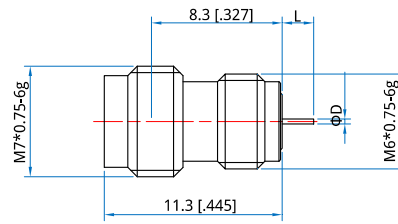
## Threaded Connection

### 1.85mm Series

#### 1.85mm Female (DC~67GHz, VSWR≤1.25, Passivated stainless steel)

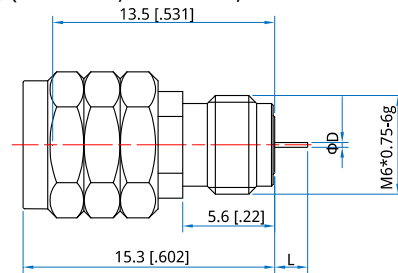


Part Number	ΦD	L
FCV-FYG-D30-01	0.3 [.012]	1.2 [.047]
FCV-FYG-D30-02	0.3 [.012]	2 [.079]



Part Number	ΦD	L
FCV-FYG-D30-03	0.3 [.012]	1.2 [.047]
FCV-FYG-D30-04	0.3 [.012]	2 [.079]

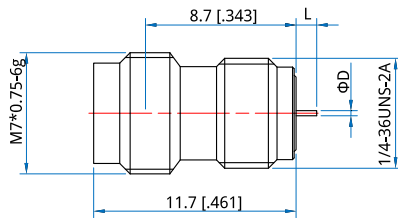
#### 1.85mm Male (DC~67GHz, VSWR≤1.25, Passivated stainless steel)



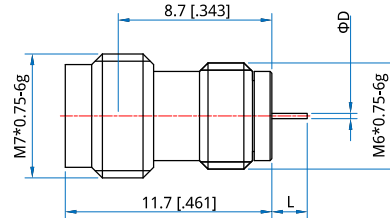
Part Number	ΦD	L
FCV-MYG-D30-01	0.3 [.012]	2 [.079]

### 2.4mm Series

#### 2.4mm Female (DC~50GHz, VSWR≤1.15, Passivated stainless steel)



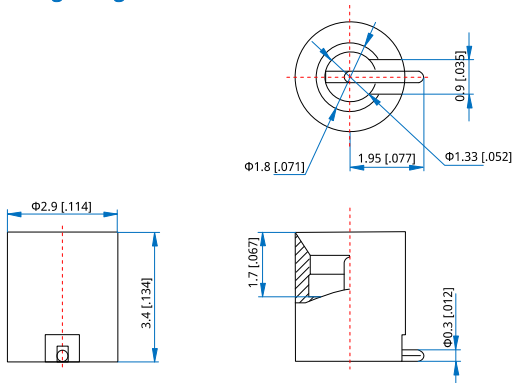
Part Number	ΦD	L
FC2-FYG-D30-01	0.3 [.012]	1.2 [.047]
FC2-FYG-D30-02	0.3 [.012]	2 [.079]



Part Number	ΦD	L
FC2-FYG-D30-03	0.3 [.012]	1.2 [.047]
FC2-FYG-D30-04	0.3 [.012]	2 [.079]

### SMP Series

#### SMP Male, Right Angle, Smooth Bore (DC~30GHz, VSWR≤1.6, Gold plated brass)



Part Number
FCPS-MRB-D30-01

## Tab Terminal Connectors

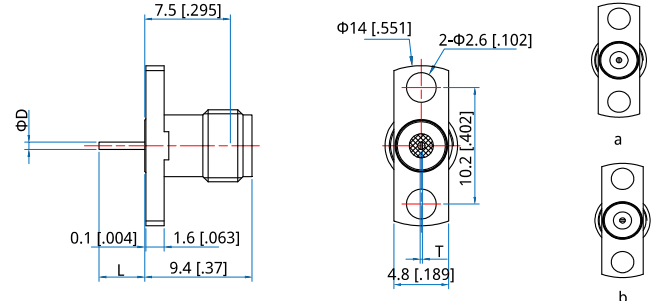
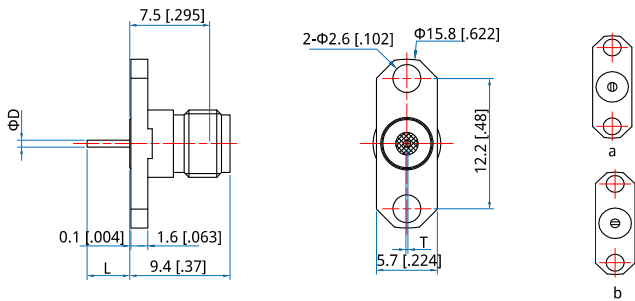
Freflex provides various tab terminal connectors, including SMA, N, TNC etc to meet different requirements. The frequency range covers DC~26.5GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

### Flange Mount

#### SMA Series

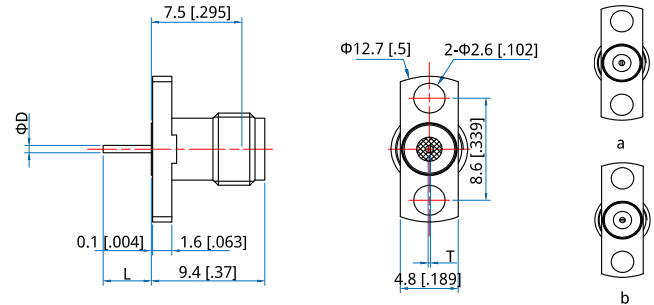
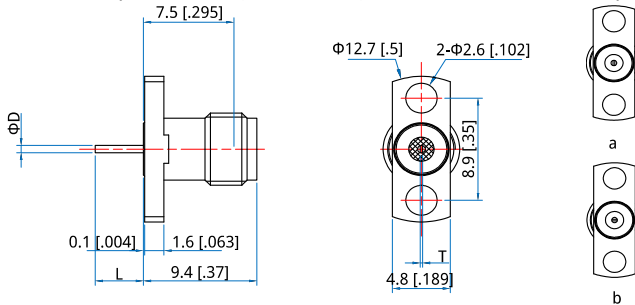
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD	L	T	
FCS-FL2G-T64-01	0.64 [0.025]	4 [1.58]	0.2 [0.008]	a
FCS-FL2G-T64-02	0.64 [0.025]	4 [1.58]	0.2 [0.008]	b

Part Number	ΦD	L	T	
FCS-FL2G-T64-03	0.64 [0.025]	4 [1.58]	0.2 [0.008]	a
FCS-FL2G-T64-04	0.64 [0.025]	4 [1.58]	0.2 [0.008]	b

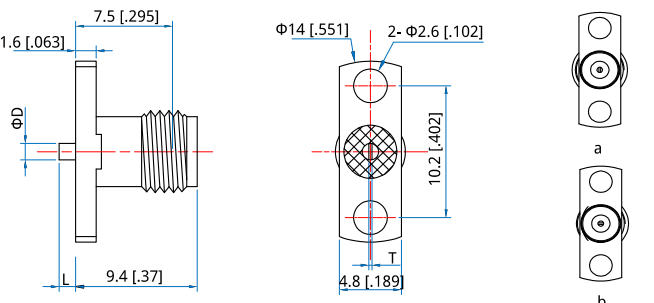
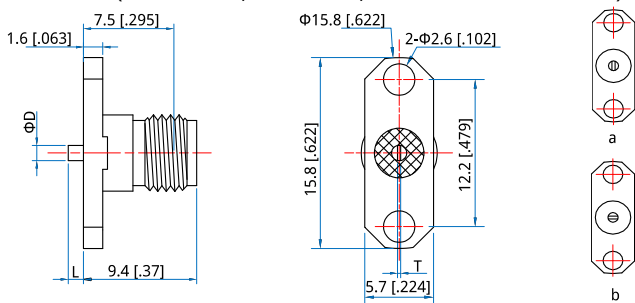
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD	L	T	
FCS-FL2G-T64-05	0.64 [0.025]	4 [1.58]	0.2 [0.008]	a
FCS-FL2G-T64-06	0.64 [0.025]	4 [1.58]	0.2 [0.008]	b

Part Number	ΦD	L	T	
FCS-FL2G-T64-07	0.64 [0.025]	4 [1.58]	0.2 [0.008]	a
FCS-FL2G-T64-08	0.64 [0.025]	4 [1.58]	0.2 [0.008]	b

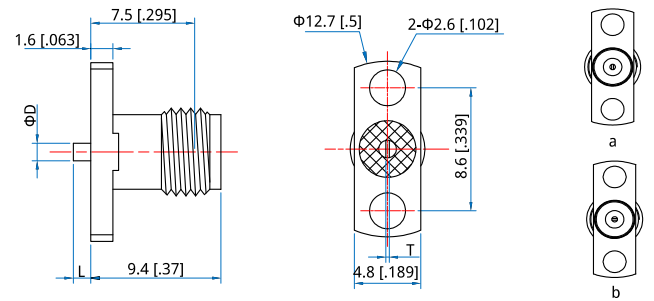
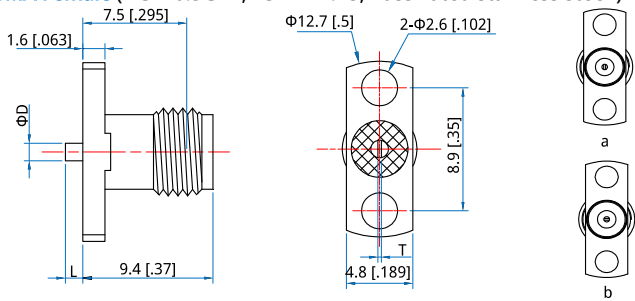
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



Part Number	ΦD	L	T	
FCS-FL2G-T127-09	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	a
FCS-FL2G-T127-10	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	b

Part Number	ΦD	L	T	
FCS-FL2G-T127-11	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	a
FCS-FL2G-T127-12	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	b

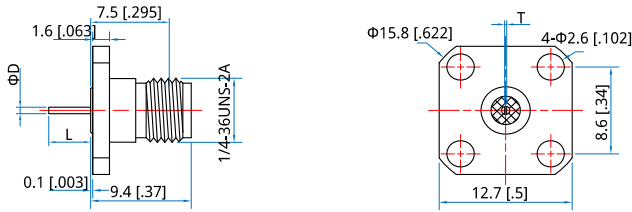
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel )



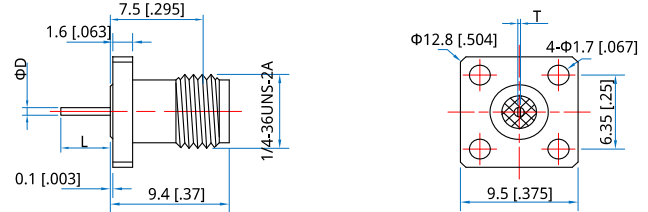
Part Number	ΦD	L	T	
FCS-FL2G-T127-13	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	a
FCS-FL2G-T127-14	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	b

Part Number	ΦD	L	T	
FCS-FL2G-T127-15	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	a
FCS-FL2G-T127-16	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	b

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

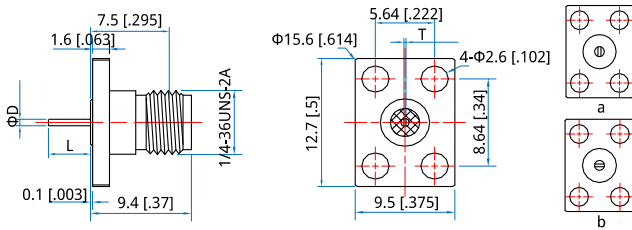


Part Number	ØD	L	T
FCS-FL4G-T64-01	0.64 [0.025]	4 [0.158]	0.2 [0.008]

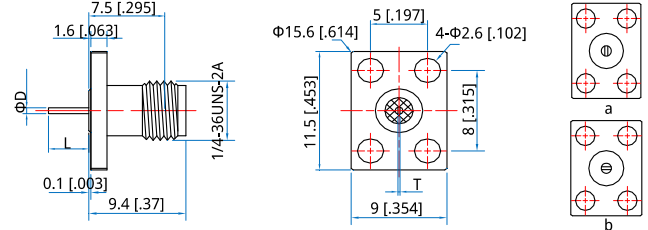


Part Number	ØD	L	T
FCS-FL4G-T64-02	0.64 [0.025]	4 [0.158]	0.2 [0.008]

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

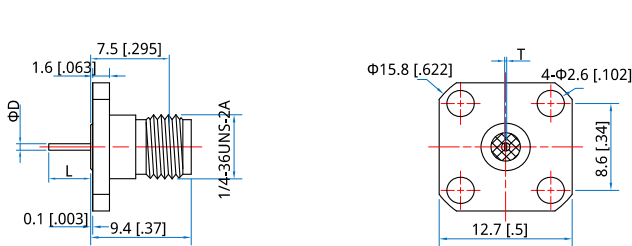


Part Number	ØD	L	T	
FCS-FL4G-T64-03	0.64 [0.025]	4 [0.158]	0.2 [0.008]	a
FCS-FL4G-T64-04	0.64 [0.025]	4 [0.158]	0.2 [0.008]	b

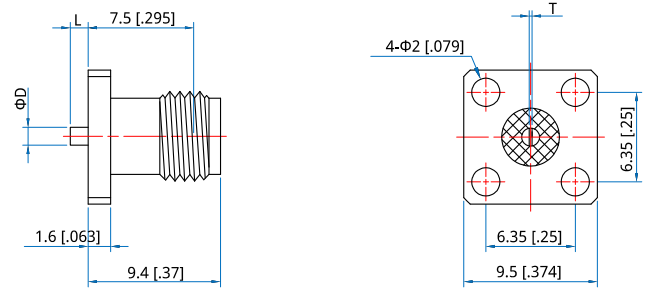


Part Number	ØD	L	T	
FCS-FL4G-T64-05	0.64 [0.025]	4 [0.158]	0.2 [0.008]	a
FCS-FL4G-T64-06	0.64 [0.025]	4 [0.158]	0.2 [0.008]	b

## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)

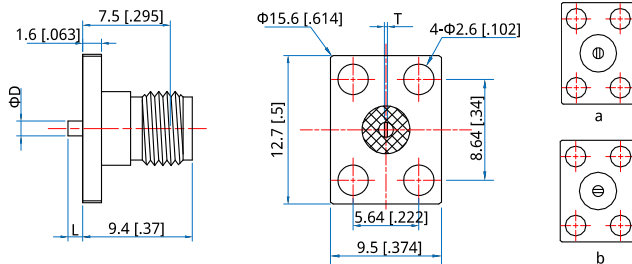


Part Number	ØD	L	T
FCS-FL4G-T127-07	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]



Part Number	ØD	L	T
FCS-FL4G-T127-08	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]

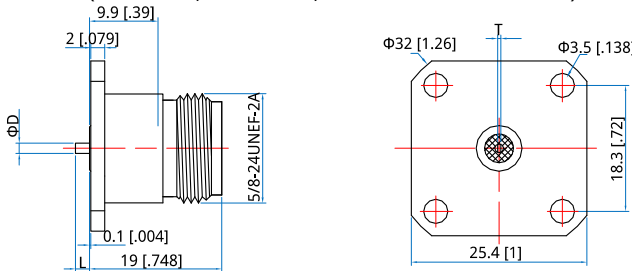
## SMA Female (DC~26.5GHz, VSWR≤1.15, Passivated stainless steel)



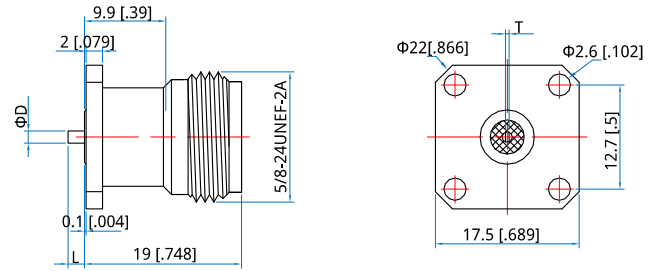
Part Number	ØD	L	T	
FCS-FL4G-T127-09	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	a
FCS-FL4G-T127-10	1.27 [0.05]	1.27 [0.05]	0.15 [0.006]	b

## N Series

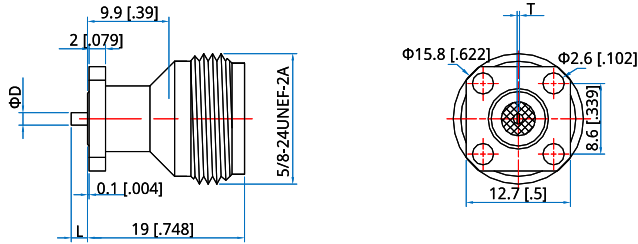
### N Female (DC~18GHz, VSWR≤1.15, Passivated stainless steel)



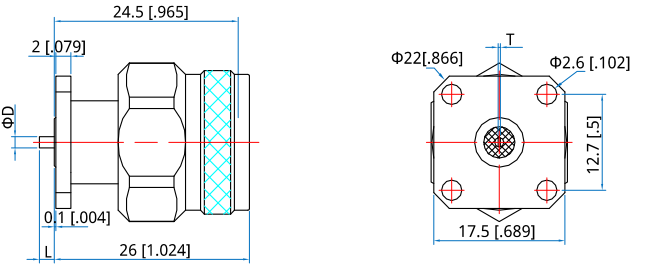
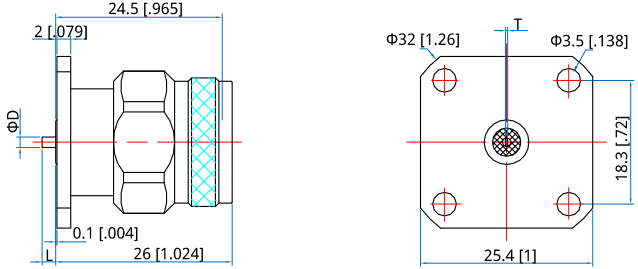
Part Number	ØD	L	T
FCN-FL4G-T150-01	1.5 [0.059]	2 [0.079]	0.2 [0.008]



Part Number	ØD	L	T
FCN-FL4G-T150-02	1.5 [0.059]	2 [0.079]	0.2 [0.008]

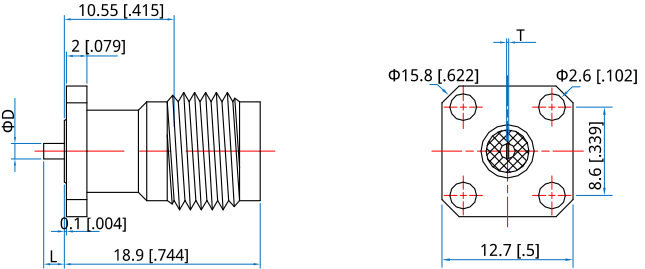
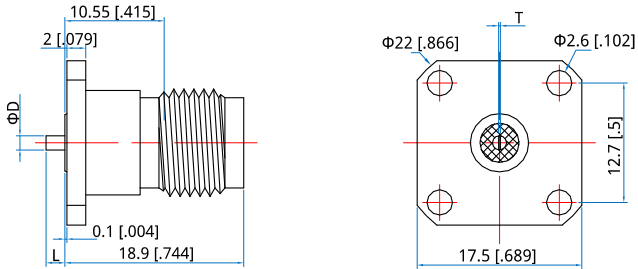
**N Female** (DC~18GHz, VSWR≤1.15, Passivated stainless steel )


Part Number	$\Phi D$	L	T
FCN-FL4G-T150-03	1.5 [.059]	2 [.079]	0.2 [.008]

**N Male** (DC~18GHz, VSWR≤1.15, Passivated stainless steel )


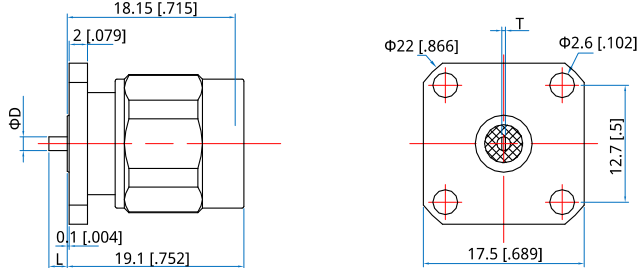
Part Number	$\Phi D$	L	T
FCN-ML4G-T150-01	1.5 [.059]	2 [.079]	0.2 [.008]

Part Number	$\Phi D$	L	T
FCN-ML4G-T150-02	1.5 [.059]	2 [.079]	0.2 [.008]

**TNC Series**
**TNC Female** (DC~18GHz, VSWR≤1.15, Passivated stainless steel )


Part Number	$\Phi D$	L	T
FCT-FL4G-T150-01	1.5 [.059]	2 [.079]	0.2 [.008]

Part Number	$\Phi D$	L	T
FCT-FL4G-T150-02	1.5 [.059]	2 [.079]	0.2 [.008]

**TNC Male** (DC~18GHz, VSWR≤1.15, Passivated stainless steel )


Part Number	$\Phi D$	L	T
FCT-FL4G-T150-01	1.5 [.059]	2 [.079]	0.2 [.008]

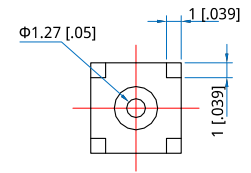
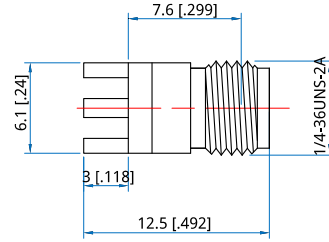
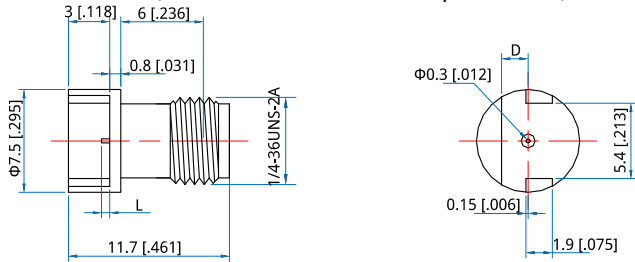
## Printed Circuit Board Mount Connectors

Freflex provides various printed circuit board mount connectors, including 2.92mm, SMA, etc to meet different requirements. The frequency range covers DC~40GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

### 2.92mm Series

#### 2.92mm Female (DC~40GHz, VSWR≤1.15, Gold plated brass)

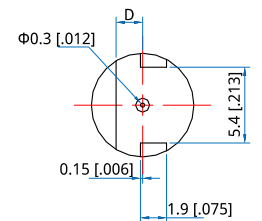
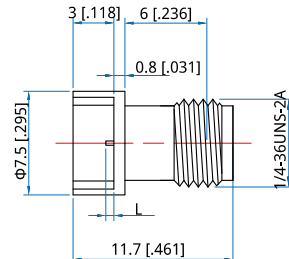
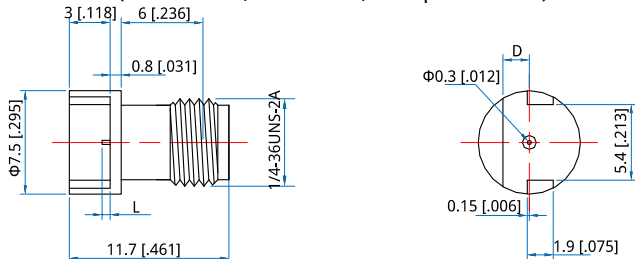


Part Number	D	L	Plate Thickness
FCK-FB-B30-02	1.93 [.076]	0.6 [.023]	1.78 [.07]
FCK-FB-B30-03	0.76 [.03]	0.6 [.023]	0.61 [.024]
FCK-FB-B30-04	1.02 [.04]	0.6 [.023]	0.87 [.034]
FCK-FB-B30-05	2.45 [.096]	0.6 [.023]	2.3 [.091]

Part Number
FCK-FB-B127-01

### SMA Series

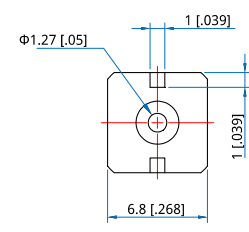
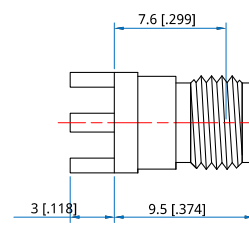
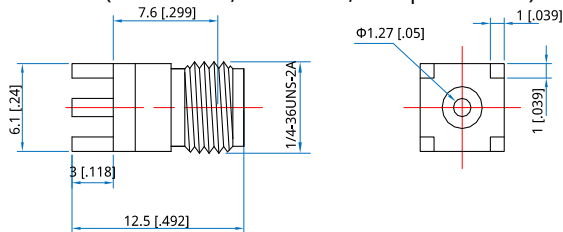
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Gold plated brass)



Part Number	D	L	Plate Thickness
FCS-FB-B30-01	1.93 [.076]	0.6 [.023]	1.78 [.07]
FCS-FB-B30-02	0.76 [.03]	0.6 [.023]	0.61 [.024]
FCS-FB-B30-03	1.02 [.04]	0.6 [.023]	0.87 [.034]
FCS-FB-B30-04	2.45 [.096]	0.6 [.023]	2.3 [.091]

Part Number	D	L	Plate Thickness
FCS-FB-B30-05	1.93 [.076]	1.22 [.048]	1.78 [.07]
FCS-FB-B30-06	0.76 [.03]	1.22 [.048]	0.61 [.024]
FCS-FB-B30-07	1.02 [.04]	1.22 [.048]	0.87 [.034]
FCS-FB-B30-08	2.45 [.096]	1.22 [.048]	2.3 [.091]

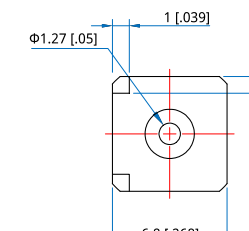
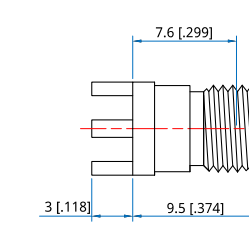
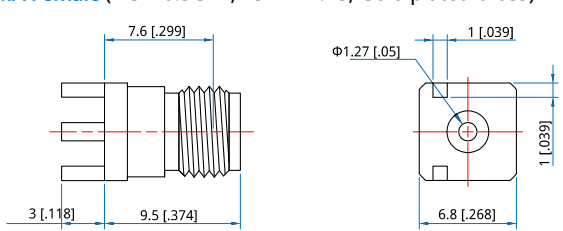
#### SMA Female (DC~26.5GHz, VSWR≤1.15, Gold plated brass)



Part Number
FCS-FB-B127-01

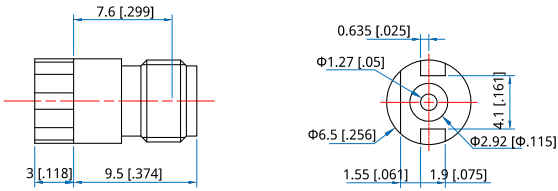
Part Number
FCS-FB-B127-02

#### SMA Female (DC~26.5GHz, VSWR≤1.15, Gold plated brass)

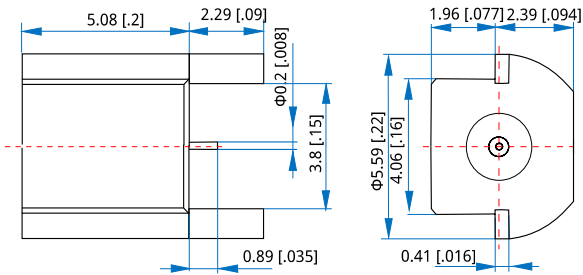


Part Number
FCS-FB-B127-03

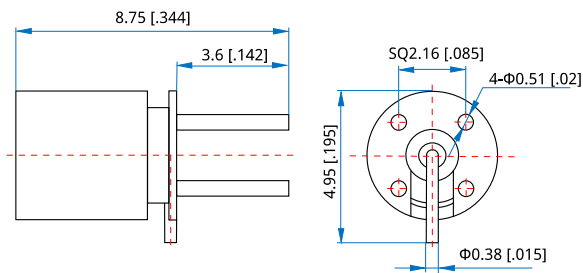
Part Number
FCS-FB-B127-04

**SMA Female** (DC~26.5GHz, VSWR≤1.15, Gold plated brass)

**Part Number**

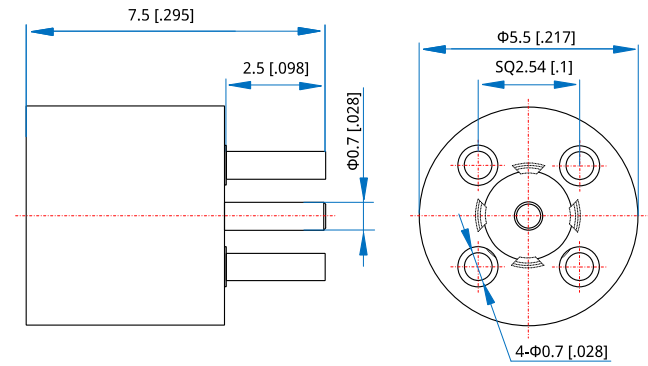
FCS-FB-B127-05

**SMP Series**
**SMP Male Limited Detent** (DC~40GHz, Gold plated brass)

**Part Number**

FCPL-MB-B20-01

**SMP Male Full Detent** (DC~18GHz, Gold plated brass)

**Part Number**

FCPF-MB-B38-01


**Part Number**

FCPF-MB-B70-02



## Cable Connectors

Freflex provides various cable connectors to meet different requirements.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.



Cable connector with Part No. stated NA in the following table is not sold separately but is available only in the form of cable assemblies.

Matching Cable	Code	Part Number	Connector	FREQ. (GHz)	VSWR (max.)	Material
FTV-V	VF	NA	1.85mm female	DC-67	1.5	Passivated stainless steel
FTV-V	MV	NA	NMD 1.85mm male	DC-67	1.5	Passivated stainless steel
FTV-V	MVF	NA	NMD 1.85mm female	DC-67	1.5	Passivated stainless steel
FTV-2	2F	NA	2.4mm female	DC-50	1.42	Passivated stainless steel
FTV-2	M2	NA	NMD 2.4mm male	DC-50	1.42	Passivated stainless steel
FTV-2	M2F	NA	NMD 2.4mm female	DC-50	1.42	Passivated stainless steel
FTV-K	KF	NA	2.92mm female	DC-40	1.35	Passivated stainless steel
FTV-K	MK	NA	NMD 2.92mm male	DC-40	1.35	Passivated stainless steel
FTV-K	MKF	NA	NMD 2.92mm female	DC-40	1.35	Passivated stainless steel
FTV-3	3F	NA	3.5mm female	DC-26.5	1.3	Passivated stainless steel
FTV-3	M3	NA	NMD 3.5mm male	DC-26.5	1.3	Passivated stainless steel
FTV-3	M3F	NA	NMD 3.5mm female	DC-26.5	1.3	Passivated stainless steel
FTV-N	NF	NA	N female	DC-18	1.3	Passivated stainless steel
FTV-N	MN	NA	NMD N male	DC-18	1.3	Passivated stainless steel
FTV-N	MNF	NA	NMD N female	DC-18	1.3	Passivated stainless steel
FT110	1	NA	1.0mm male	DC-110	1.5	Passivated stainless steel
FT110	1F	NA	1.0mm female	DC-110	1.5	Passivated stainless steel
FT110P	1	NA	1.0mm male	DC-110	1.5	Passivated stainless steel
FT110P	1F	NA	1.0mm female	DC-110	1.5	Passivated stainless steel
FT67	V	FCV-MG-T67-3	1.85mm male	DC-67	1.3	Passivated stainless steel
FT67	VF	FCV-FG-T67-2	1.85mm female	DC-67	1.3	Passivated stainless steel
FT67P	V	FCV-MG-T67P-4	1.85mm male	DC-67	1.3	Passivated stainless steel
FT67P	VF	FCV-FG-T67P-2	1.85mm female	DC-67	1.35	Passivated stainless steel
FT50	2	FC2-MG-T50-2	2.4mm male	DC-50	1.3	Passivated stainless steel
FT50	2R	FC2-MRG-T50-1	2.4mm male right angle	DC-50	1.35	Passivated stainless steel
FT50	2F	FC2-FG-T50-1	2.4mm female	DC-50	1.3	Passivated stainless steel
FT50	2FR	FC2-FRG-T50-1	2.4mm female right angle	DC-50	1.4	Passivated stainless steel
FT50P	2FL2	FC2-FL2G-T50P-1	2.4mm female 2-Hole flange mount	DC-50	1.35	Passivated stainless steel
FT50	K	FCK-MG-T50-1	2.92mm male	DC-40	1.25	Passivated stainless steel
FT50	KR	FCK-MRG-T50-1	2.92mm male right angle	DC-40	1.25	Passivated stainless steel
FT50	KF	FCK-FG-T50-1	2.92mm female	DC-40	1.25	Passivated stainless steel
FT50	KFR	FCK-FRG-T50-1	2.92mm female right angle	DC-40	1.25	Passivated stainless steel
FT50	3	FC3-MG-T50-1	3.5mm male	DC-26.5	1.25	Passivated stainless steel
FT50	3F	FC3-FG-T50-1	3.5mm female	DC-26.5	1.25	Passivated stainless steel
FT50	S	FCS-MG-T50-1	SMA male	DC-26.5	1.3	Passivated stainless steel
FT50	SF	FCS-FG-T50-1	SMA female	DC-26.5	1.3	Passivated stainless steel
FT50	N	FCN-MG-T50-4	N male	DC-18	1.25	Passivated stainless steel
FT50	NF	FCN-FG-T50-1	N female	DC-18	1.4	Passivated stainless steel
FT50	NFL4	FCN-FL4B-T50-1	N female 4-Hole flange mount	DC-18	1.3	Ternary alloy plated brass
FT50P	2	FC2-MG-T50P-4	2.4mm male	DC-50	1.3	Passivated stainless steel
FT50P	2R	FC2-MRG-T50P-1	2.4mm male right angle	DC-50	1.35	Passivated stainless steel
FT50P	2F	FC2-FG-T50P-4	2.4mm female	DC-50	1.3	Passivated stainless steel
FT50P	2FR	FC2-FRG-T50P-1	2.4mm female right angle	DC-50	1.4	Passivated stainless steel
FT50P	K	FCK-MG-T50P-4	2.92mm male	DC-40	1.25	Passivated stainless steel
FT50P	KR	FCK-MRG-T50P-1	2.92mm male right angle	DC-40	1.25	Passivated stainless steel
FT50P	KF	FCK-FG-T50P-3	2.92mm female	DC-40	1.3	Passivated stainless steel
FT50P	KFR	FCK-FRG-T50P-1	2.92mm female right angle	DC-40	1.25	Passivated stainless steel
FT50P	3	FC3-MG-T50P-1	3.5mm male	DC-26.5	1.25	Passivated stainless steel
FT50P	3F	FC3-FG-T50P-1	3.5mm female	DC-26.5	1.25	Passivated stainless steel
FT50P	S	FCS-MG-T50P-1	SMA male	DC-26.5	1.25	Passivated stainless steel
FT50P	SF	FCS-FG-T50P-1	SMA female	DC-26.5	1.25	Passivated stainless steel
FT50P	N	FCN-MG-T50P-3	N male	DC-18	1.25	Passivated stainless steel
FT50P	NF	FCN-FG-T50P-1	N female	DC-18	1.25	Passivated stainless steel
FTE	S	FCS-MG-141-3	SMA male	DC-18	1.25	Passivated stainless steel
FTE	SF	FCS-FB-141-1	SMA female	DC-18	1.25	Gold plated brass
FTE	N	FCN-MB-141-3	N male	DC-18	1.25	Nickel plated brass
FTE	NF	FCN-FB-141-1	N female	DC-18	1.25	Nickel plated brass
FTF	S	FCS-MG-Z500W-1	SMA male	DC-26.5	1.25	Passivated stainless steel
FTF	SF	FCS-FG-Z500W-1	SMA female	DC-26.5	1.3	Passivated stainless steel
FTF	N	FCN-MG-Z500W-1	N male	DC-18	1.25	Passivated stainless steel
FA220	V	FCV-MG-A220-2	1.85mm male	DC-67	1.3	Passivated stainless steel

Matching Cable	Code	Part Number	Connector	FREQ. (GHz)	VSWR (max.)	Material
FA220	VF	FCV-FG-A220-1	1.85mm female	DC-67	1.3	Passivated stainless steel
FA220	GF	FCG-FB-A220-1	SSMP female	DC-67	1.5	Beryllium copper
FA220	GF	FCG-FB-086-1	SSMP female	DC-40	1.4	Beryllium copper
FA220	GFR	FCG-FRB-086-2	SSMP female right angle	DC-50	1.5	Beryllium copper
FA220	2	FC2-MG-A220-5	2.4mm male	DC-50	1.35	Passivated stainless steel
FA220	2R	FC2-MRG-A220-1	2.4mm male right angle	DC-50	1.3	Passivated stainless steel
FA220	2F	FC2-FG-A220-1	2.4mm female	DC-50	1.3	Passivated stainless steel
FA220	2FL2	FC2-FL2G-A220-1	2.4mm female 2-Hole flange mount	DC-50	1.35	Passivated stainless steel
FA220	K	FCK-MG-A220-4	2.92mm male	DC-40	1.35	Passivated stainless steel
FA220	KR	FCK-MRG-A220-1	2.92mm male right angle	DC-40	1.3	Passivated stainless steel
FA220	KF	FCK-FG-A220-1	2.92mm female	DC-40	1.25	Passivated stainless steel
FA220	KF	FCK-FB-A220-1	2.92mm female	DC-40	1.35	Gold plated brass
FA220	KFL2	FCK-FL2G-A220-1	2.92mm female 2-Hole flange mount	DC-40	1.25	Passivated stainless steel
FA220	KFL4	FCK-FL4G-A220-1	2.92mm female 4-Hole flange mount	DC-40	1.25	Passivated stainless steel
FA220	KFH	FCK-FHG-A220-1	2.92mm female bulk head	DC-40	1.25	Passivated stainless steel
FA220	P	FCP-MB-086-1	SMP male	DC-40	1.4	Gold plated phosphor copper
FA220	PF	FCP-FB-086-3	SMP female	DC-40	1.4	Beryllium copper
FA220	A	FCA-MG-086-2	SSMA male	DC-26.5	1.25	Passivated stainless steel
FA220	3	FC3-MG-A220-1	3.5mm male	DC-26.5	1.25	Passivated stainless steel
FA220	3F	FC3-FG-A220-1	3.5mm female	DC-26.5	1.25	Passivated stainless steel
FA220	S	FCS-MG-A220-1	SMA male	DC-26.5	1.25	Passivated stainless steel
FA220	SR	FCS-MRG-086-1	SMA male right angle	DC-18	1.25	Passivated stainless steel
FA220	SF	FCS-FB-086-4	SMA female	DC-18	1.25	Brass
FA220	SFL4	FCS-FL4B-086-1	SMA female 4-Hole flange mount	DC-18	1.25	Gold plated beryllium copper
FA220	N	FCN-MB-086-1	N male	DC-18	1.3	Nickel plated brass
FA300	2	FC2-MG-T50-2	2.4mm male	DC-50	-	Passivated stainless steel
FA300	2F	FC2-FG-T50-1	2.4mm female	DC-50	1.3	Passivated stainless steel
FA300	K	FCK-MG-T50-1	2.92mm male	DC-40	1.25	Passivated stainless steel
FA300	KF	FCK-FG-T50-1	2.92mm female	DC-40	1.25	Passivated stainless steel
FA360	2	FC2-MG-A360-2	2.4mm male	DC-40	1.25	Passivated stainless steel
FA360	2F	FC2-FG-A360-3	2.4mm female	DC-40	1.25	Passivated stainless steel
FA360	K	FCK-MG-A360-1	2.92mm male	DC-40	1.3	Passivated stainless steel
FA360	KR	FCK-MRG-A360-1	2.92mm male right angle	DC-40	1.35	Passivated stainless steel
FA360	KF	FCK-FG-A360-1	2.92mm female	DC-40	1.3	Passivated stainless steel
FA360	KFL2	FCK-FL2G-A360-1	2.92mm female 2-Hole flange mount	DC-40	1.3	Passivated stainless steel
FA360	KFL4	FCK-FL4G-A360-1	2.92mm female 4-Hole flange mount	DC-40	1.3	Passivated stainless steel
FA360	PF	FCP-FB-A360-3	SMP female	DC-40	1.4	Beryllium copper
FA360	A	FCA-MG-A360-1	SSMA male	DC-26.5	1.25	Passivated stainless steel
FA360	3	FC3-MG-A360-2	3.5mm male	DC-26.5	1.25	Passivated stainless steel
FA360	3F	FC3-FG-A360-1	3.5mm female	DC-26.5	1.25	Passivated stainless steel
FA360	SFR	FCS-FRG-A360-1	SMA female right angle	DC-18	1.4	Passivated stainless steel
FA360	S	FCS-MG-A360-1	SMA male	DC-26.5	1.25	Passivated stainless steel
FA360	SR	FCS-MRG-A360-1	SMA male right angle	DC-18	1.3	Passivated stainless steel
FA360	SF	FCS-FG-A360-1	SMA female	DC-18	1.3	Passivated stainless steel
FA360	SFL4	FCS-FL4G-A360-1	SMA female 4-Hole flange mount	DC-18	1.3	Passivated stainless steel
FA360	N	FCN-MG-A360-1	N male	DC-18	1.25	Passivated stainless steel
FA360	NF	FCN-FG-A360-1	N female	DC-18	1.25	Passivated stainless steel
FA360	NFL4	FCN-FL4G-A360-1	N female 4-Hole flange mount	DC-18	1.35	Passivated stainless steel
FA360	T	FCT-MG-A360-2	TNC male	DC-18	1.25	Passivated stainless steel
FA400	K	FCK-MG-A400-1	2.92mm male	DC-40	1.3	Passivated stainless steel
FA400	KF	FCK-FG-A400-1	2.92mm female	DC-40	1.25	Passivated stainless steel
FA480/FA500/FG500	K	FCK-MG-A500-1	2.92mm male	DC-26.5	1.3	Passivated stainless steel
FA480/FA500/FG500	3	FC3-MG-A500-2	3.5mm male	DC-26.5	1.25	Passivated stainless steel
FA480/FA500/FG500	3F	FC3-FG-A500-2	3.5mm female	DC-26.5	1.25	Passivated stainless steel
FA480/FA500/FG500	S	FCS-MG-A500-2	SMA male	DC-26.5	1.3	Passivated stainless steel
FA480/FA500/FG500	SR	FCS-MRG-A500-2	SMA male right angle	DC-18	1.35	Passivated stainless steel
FA480/FA500/FG500	SF	FCS-FG-A500-2	SMA female	DC-26.5	1.3	Passivated stainless steel
FA480/FA500/FG500	NFH	FCN-FHG-A500-1	N female bulk head	DC-18	1.3	Passivated stainless steel
FA480/FA500/FG500	N	FCN-MG-A500-4	N male	DC-18	1.25	Passivated stainless steel
FA480/FA500/FG500	NR	FCN-MRG-A500-1	N male right angle	DC-18	1.25	Passivated stainless steel
FA480/FA500/FG500	NF	FCN-FG-A500-1	N female	DC-18	1.25	Passivated stainless steel
FA480/FA500/FG500	T	FCT-MG-A500-2	TNC male	DC-18	1.25	Passivated stainless steel
FA480/FA500/FG500	B	FCB-MG-A500-1	BNC male	DC-6	-	Passivated stainless steel
FA800	S	FCS-MG-A800-2	SMA male	DC-18	1.25	Passivated stainless steel
FA800	SR	FCS-MRG-A800-1	SMA male right angle	DC-18	1.35	Passivated stainless steel
FA800	SF	FCS-FG-A800-2	SMA female	DC-18	1.3	Passivated stainless steel
FA800	N	FCN-MG-A800-2	N male	DC-18	1.25	Passivated stainless steel

Matching Cable	Code	Part Number	Connector	FREQ. (GHz)	VSWR (max.)	Material
FA800	NR	FCN-MRG-A800-1	N male right angle	DC~18	1.25	Passivated stainless steel
FA800	NF	FCN-FG-A800-1	N female	DC~18	1.4	Passivated stainless steel
FA800	T	FCT-MG-A800-1	TNC male	DC~18	1.25	Passivated stainless steel
FA800	E	FCE-MG-A800-1	SC male	DC~8	1.3	Passivated stainless steel
FA800	7	FC7-MB-A800-1	7-16DIN male	DC~6	1.3	Ternary alloy plated brass
FA760/FA810	S	FCS-MG-A810-1	SMA male	DC~18	1.25	Passivated stainless steel
FA760/FA810	SF	FCS-FG-A810-1	SMA female	DC~18	1.3	Passivated stainless steel
FA760/FA810	N	FCN-MG-A810-1	N male	DC~18	1.25	Passivated stainless steel
FA760/FA810	NF	FCN-FG-A810-1	N female	DC~18	1.3	Passivated stainless steel
FA830	S	FCS-MG-A830-1	SMA male	DC~18	1.25	Passivated stainless steel
FA830	N	FCN-MG-A830-1	N male	DC~18	1.25	Passivated stainless steel
FB1200	N	FCN-MG-B1200-1	N male	DC~10	1.3	Passivated stainless steel
FB1200	E	FCE-MG-B1200-2	SC male	DC~8	1.3	Passivated stainless steel
FB1200	7	FC7-MB-B1200-1	7-16DIN male	DC~6	1.4	Ternary alloy plated brass
FB1500	N	FCN-MG-B1500-1	N male	DC~6	1.3	Passivated stainless steel
FB1500	7	FC7-MB-B1500-1	7-16DIN male	DC~6	1.4	Ternary alloy plated brass
FG360	S	FCS-MG-G360-1	SMA male	DC~26.5	1.25	Passivated stainless steel
FG360	SF	FCS-FG-G360-1	SMA female	DC~18	1.3	Passivated stainless steel
FG360	N	FCN-MG-G360-1	N male	DC~18	1.25	Passivated stainless steel
FG800	S	FCS-MG-G800-1	SMA male	DC~18	1.3	Passivated stainless steel
FG800	SF	FCS-FG-G800-1	SMA female	DC~18	1.25	Passivated stainless steel
FG800	N	FCN-MG-G800-1	N male	DC~18	1.3	Passivated stainless steel
FG800	NF	FCN-FG-G800-1	N female	DC~18	1.3	Passivated stainless steel
FZ360	K	FCK-MG-Z360-1	2.92mm male	DC~40	1.25	Passivated stainless steel
FZ360	KR	FCK-MRG-Z360-1	2.92mm male right angle	DC~40	1.25	Passivated stainless steel
FZ360	KF	FCK-FG-Z360-1	2.92mm female	DC~40	1.25	Passivated stainless steel
FZ360	KFR	FCK-FRG-Z360-1	2.92mm female right angle	DC~40	1.25	Passivated stainless steel
FZ360	3	FC3-MG-Z360-1	3.5mm male	DC~26.5	1.25	Passivated stainless steel
FZ360	3F	FC3-FG-Z360-1	3.5mm female	DC~26.5	1.25	Passivated stainless steel
FZ360	S	FCS-MG-Z360-1	SMA male	DC~26.5	1.25	Passivated stainless steel
FZ360	SF	FCS-FG-Z360-1	SMA female	DC~26.5	1.25	Passivated stainless steel
FZ360	N	FCN-MG-Z360-1	N male	DC~18	1.25	Passivated stainless steel
FZ500	S	FCS-MG-Z500-1	SMA male	DC~26.5	1.25	Passivated stainless steel
FZ500	SF	FCS-FG-Z500-1	SMA female	DC~26.5	1.25	Passivated stainless steel
FZ500	N	FCN-MG-Z500-1	N male	DC~18	1.25	Passivated stainless steel
FZ600	S	FCS-MG-Z600-1	SMA male	DC~26.5	1.3	Passivated stainless steel
FZ600	SR	FCS-MRG-Z600-1	SMA male right angle	DC~18	1.25	Passivated stainless steel
FZ600	SF	FCS-FG-Z600-1	SMA female	DC~18	1.3	Passivated stainless steel
FZ600	SFH	FCS-FHG-Z600-1	SMA female bulk head	DC~18	1.25	Passivated stainless steel
FZ600	N	FCN-MG-Z600-1	N male	DC~18	1.25	Passivated stainless steel
FZ600	NR	FCN-MRG-Z600-1	N male right angle	DC~18	1.25	Passivated stainless steel
FZ600	NF	FCN-FG-Z600-1	N female	DC~18	1.25	Passivated stainless steel
FZ600	T	FCT-MG-Z600-1	TNC male	DC~18	1.25	Passivated stainless steel
FZ600	TR	FCT-MRG-Z600-1	TNC male right angle	DC~18	1.25	Passivated stainless steel
FR600/FR600U	S	FCS-MCB-R600-2	SMA male, crimp	DC~6	1.25	Ternary alloy plated brass
FR600/FR600U	SR	FCS-MRCB-R600-1	SMA male right angle, crimp	DC~6	1.3	Ternary alloy plated brass
FR600/FR600U	SF	FCS-FCB-R600-1	SMA female, crimp	DC~6	1.25	Brass
FR600/FR600U	N	FCN-MCB-R600-2	N male, crimp	DC~6	1.3	Brass
FR600/FR600U	B	FCB-MCB-R600-3	BNC male, crimp	DC~3	1.25	Brass
FR1000/FR1000U	S	FCS-MCB-R1000-1	SMA male, crimp	DC~6	1.15@DC~3GHz	Ternary alloy plated brass/ Nickel plated brass
FR1000/FR1000U	SR	FCS-MRCB-R1000-1	SMA male right angle, crimp	DC~6	1.2@DC~3GHz	Ternary alloy plated brass/ Nickel plated brass
FR1000/FR1000U	N	FCN-MCB-R1000-1	N male, crimp	DC~6	1.3	Brass
FR1000/FR1000U	NF	FCN-FCB-R1000-1	N female, crimp	DC~6	1.3	Ternary alloy plated brass
FR1000/FR1000U	NFH	FCN-FHCB-R1000-1	N female bulk head, crimp	DC~6	1.2	Nickel plated brass
FR1000/FR1000U	T	FCT-MCB-R1000-1	TNC male, crimp	DC~4	1.2	Ternary alloy plated brass
FR1500/FR1500U	S	FCS-MCB-R1500-1	SMA male, crimp	DC~6	1.3	Ternary alloy plated brass
FR1500/FR1500U	SR	FCS-MRCB-R1500-1	SMA male right angle, crimp	DC~6	1.2@DC~3GHz	Ternary alloy plated brass- Nickel plated brass
FR1500/FR1500U	N	FCN-MCB-R1500-1	N male, crimp	DC~6	1.3	Ternary alloy plated brass
FR1500/FR1500U	NR	FCN-MRCB-R1500-1	N male right angle, crimp	DC~6	1.2@DC~3GHz	Nickel plated brass
FA150/FH160/FD047/FE047	V	FCV-MG-047-1	1.85mm male	DC~67	1.3	Passivated stainless steel
FA150/FH160/FD047/FE047	2	FC2-MG-047-1	2.4mm male	DC~50	1.3	Passivated stainless steel
FA150/FH160/FD047/FE047	G	FCG-MB-047-1	SSMP male	DC~40	1.4	Beryllium copper
FA150/FH160/FD047/FE047	GR	FCG-MRB-047-1	SSMP male right angle	DC~18	1.3	Beryllium copper
FA150/FH160/FD047/FE047	K	FCK-MG-047-1	2.92mm male	DC~40	1.25	Passivated stainless steel

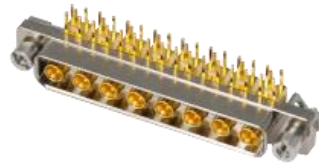
Matching Cable	Code	Part Number	Connector	FREQ. (GHz)	VSWR (max.)	Material
FA150/FH160/FD047/FE047	PF	FCP-FB-047-1	SMP female	DC~40	1.4	Beryllium copper
FA150/FH160/FD047/FE047	AF	FCA-FL2B-047-1	SSMA female	DC~26.5	1.35	Beryllium copper
FA150/FH160/FD047/FE047	AFL2	FCA-FL2G-047-1	SSMA female 4-Hole flange mount	DC~26.5	-	Beryllium copper
FA150/FH160/FD047/FE047	AFH	FCA-FHB-047-1	SSMA female bulk head	DC~26.5	1.25	Gold plated brass
FA150/FH160/FD047/FE047	S	FCS-MG-047-1	SMA male	DC~26.5	1.25	Passivated stainless steel
FA150/FH160/FD047/FE047	SR	FCS-MRG-047-1	SMA male right angle	DC~18	1.25	Passivated stainless steel
FA150/FH160/FD047/FE047	SF	FCS-FG-047-1	SMA female	DC~26.5	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	GF	FCG-FB-086-1	SSMP female	DC~40	1.4	Beryllium copper
FH280/FE086/FD086/RG316	TFH	FCT-FHB-086-1	TNC female bulk head	DC~6	1.3	Nickel plated brass
FH280/FE086/FD086/RG316	GFR	FCG-FRB-086-2	SSMP female right angle	DC~50	1.5	Beryllium copper
FH280/FE086/FD086/RG316	K	FCK-MG-086-3	2.92mm male	DC~40	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	KF	FCK-FB-086-1	2.92mm female	DC~40	1.25	Brass
FH280/FE086/FD086/RG316	KFL2	FCK-FL2G-A220-1	2.92mm female 2-Hole flange mount	DC~40	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	KFL4	FCK-FL4G-A220-1	2.92mm female 4-Hole flange mount	DC~40	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	PF	FCP-FB-086-3	SMP female	DC~40	1.4	Beryllium copper
FH280/FE086/FD086/RG316	PFR	FCP-FRB-086-1	SMP female right angle	DC~40	1.5	Beryllium copper
FH280/FE086/FD086/RG316	PFR	FCP-FRB-086-2	SMP female right angle	DC~18	1.3	Beryllium copper
FH280/FE086/FD086/RG316	A	FCA-MG-086-2	SSMA male	DC~26.5	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	AFH	FCA-FHB-086-1	SSMA female bulk head	DC~26.5	1.25	Brass
FH280/FE086/FD086/RG316	S	FCS-MB-086-4	SMA male	DC~26.5	1.25	Gold plated brass
FH280/FE086/FD086/RG316	S	FCS-MCB-RG316D-1	SMA male, crimp	DC~6	1.25	Gold plated brass
FH280/FE086/FD086/RG316	S	FCS-MG-086-3	SMA male	DC~26.5	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	SR	FCS-MRB-086-1	SMA male right angle	DC~12	1.25	Gold plated brass
FH280/FE086/FD086/RG316	SR	FCS-MRG-086-1	SMA male right angle	DC~18	1.25	Passivated stainless steel
FH280/FE086/FD086/RG316	SR	FCS-MRCB-RG316D-1	SMA male right angle, crimp	DC~6	1.3	Gold plated brass
FH280/FE086/FD086/RG316	SF	FCS-FB-086-2	SMA female	DC~26.5	1.25	Gold plated brass
FH280/FE086/FD086/RG316	SFL2	FCS-FL2B-086-1	SMA female 2-Hole flange mount	DC~18	1.25	Brass
FH280/FE086/FD086/RG316	SFL4	FCS-FL4B-086-1	SMA female 4-Hole flange mount	DC~18	1.25	Gold plated beryllium copper
FH280/FE086/FD086/RG316	SFH	FCS-FHB-086-2	SMA female bulk head	DC~18	1.25	Brass
FH280/FE086/FD086/RG316	N	FCN-MB-086-1	N male	DC~18	1.3	Nickel plated brass
FH280/FE086/FD086/RG316	NF	FCN-FB-086-1	N female	DC~18	1.25	Nickel plated brass
FH280/FE086/FD086/RG316	NFH	FCN-FHCB-RG316D-1	N female bulk head, crimp	DC~6	1.15	Nickel plated brass
FH280/FE086/FD086/RG316	M	FCM-MB-086-1	MCX male	DC~6	1.25	Brass
FH280/FE086/FD086/RG316	MR	FCM-MRB-086-2	MCX male right angle	DC~6	1.25	Gold plated brass/ Gold plated beryllium copper
FH280/FE086/FD086/RG316	MR	FCM-MRCB-RG316D-1	MCX male right angle, crimp	DC~6	-	Gold plated brass
FH280/FE086/FD086/RG316	MF	FCM-FB-086-1	MCX female	DC~6	1.2	Gold plated brass
FH280/FE086/FD086/RG316	X	FCX-MB-086-1	MMCX male	DC~6	1.25	Brass
FH280/FE086/FD086/RG316	XR	FCX-MRB-086-1	MMCX male right angle	DC~6	1.25	Brass
FH280/FE086/FD086/RG316	XF	FCX-FB-086-1	MMCX female	DC~3	1.2	Gold plated brass
FH280/FE086/FD086/RG316	B	FCB-MB-086-1	BNC male	DC~4	1.3	Ternary alloy plated brass
FH280/FE086/FD086/RG316	D	FCD-MB-086-1	SMB male	DC~6	1.2	Gold plated brass
FH280/FE086/FD086/RG316	DR	FCD-MRB-086-1	SMB male right angle	DC~4	1.3	Gold plated brass
FH280/FE086/FD086/RG316	DR	FCD-MRCB-RG316D-1	SMB male right angle, crimp	DC~3	1.2	Gold plated brass
FH280/FE086/FD086/RG316	DF	FCD-FB-086-1	SMB female	DC~6	1.25	Gold plated brass
FH280/FE086/FD086/RG316	DFR	FCD-FRB-086-1	SMB female right angle	DC~6	1.25	Gold plated brass
FH280/FE086/FD086/RG316	DFR	FCD-FRCB-RG316D-1	SMB female right angle, crimp	DC~4	1.3	Gold plated brass
FH280/FE086/FD086/RG316	Q	FCQ-MCB-316-1	QMA male	DC~6	1.25	Nickel plated brass
FH280/FE086/FD086/RG316	WR	FCW-MRB-086-1	SSMC male right angle	DC~6	-	Gold plated brass
FH280/FE086/FD086/RG316	W	FCW-MCB-316-1	SSMC male, crimp	DC~6	-	Gold plated brass
FH280/FE086/FD086/RG316	WR	FCW-MRCB-316-1	SSMC male right angle, crimp	DC~6	-	Gold plated brass
FH400/FE141/FD141	K	FCK-MG-141-1	2.92mm male	DC~40	1.35(DC~26.5GHz)	Gold plated brass
FH400/FE141/FD141	S	FCS-MG-141-3	SMA male	DC~26.5	1.25	Passivated stainless steel
FH400/FE141/FD141	SR	FCS-MRB-141-4	SMA male right angle	DC~6	1.25	Gold plated brass
FH400/FE141/FD141	SR	FCS-MRG-141-3	SMA male right angle	DC~18	1.25	Passivated stainless steel
FH400/FE141/FD141	SF	FCS-FB-141-1	SMA female	DC~18	1.25	Gold plated brass
FH400/FE141/FD141	SFL2	FCS-FL2B-141-1	SMA female 2-Hole flange mount	DC~18	1.25	Brass
FH400/FE141/FD141	SFL4	FCS-FL4B-141-1	SMA female 4-Hole flange mount	DC~18	1.25	Gold plated brass
FH400/FE141/FD141	SFH	FCS-FHB-141-1	SMA female bulk head	DC~18	1.25	Brass
FH400/FE141/FD141	N	FCN-MB-141-3	N male	DC~18	1.25	Nickel plated brass
FH400/FE141/FD141	NR	FCN-MRB-141-1	N male right angle	DC~6	1.3	Nickel plated brass
FH400/FE141/FD141	NR	FCN-MRB-141-2	N male right angle	DC~18	1.25	Gold plated brass
FH400/FE141/FD141	NF	FCN-FB-141-1	N female	DC~18	1.25	Nickel plated brass
FH400/FE141/FD141	B	FCB-MB-141-1	BNC male	DC~6	1.3	Ternary alloy plated brass
RG142/RG142U	S	FCS-MB-RG142-1	SMA male	DC~12.4	1.25	Brass
RG142/RG142U	S	FCS-MCB-RG142-3	SMA male, crimp	DC~6	1.15	Gold plated brass
RG142/RG142U	N	FCN-MB-142-1	N male	DC~12.4	1.25	Brass

Matching Cable	Code	Part Number	Connector	FREQ. (GHz)	VSWR (max.)	Material
RG142/RG142U	N	FCN-MCB-RG142-1	N male, crimp	DC-6	1.15	Ternary alloy plated brass
RG142/RG142U	NR	FCN-MRCB-RG142-1	N male right angle, crimp	DC-6	1.25	Brass
RG142/RG142U	4F	FC4-FHCB-RG142-1	4.3-10 female	DC-6	1.3	Gold plated phosphor copper or Gold plated brass
RG142/RG142U	B	FCB-MCB-RG142-1	BNC male, crimp	DC-3	1.25	Brass
RG142/RG142U	BF	FCB-FCB-RG142-1	BNC female, crimp	DC-4	1.25	Brass
RG142/RG142U	T	FCT-MCB-RG142-1	TNC male, crimp	DC-4	1.2	Nickel plated brass
RG223/RG58	B	FCB-MCB-RG142-1	BNC male, crimp	DC-3	1.25	Brass
RG223/RG58	BF	FCB-FCB-RG142-1	BNC female, crimp	DC-4	1.25	Brass

## Multi-Channel Connectors

Freflex provides various multi-channel cable and PCB connectors to meet different requirements. The frequency range covers DC~67GHz.

**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.



### Multi-Channel Cable Connectors

Number of Channels	Part Number	Frequency (GHz)	Connector Type	Connector	Mating Cable	Mating Connector Type	Mating Connector	VSWR (typ.)
8	FC-8-FA-086-1	DC~40	Cable	female	FA220, FH280, FK086, FF086, FE086, FD086	Cable	FC-8-MA-086-1	1.25
8	FC-8-MA-086-1	DC~40	Cable	male	FA220, FH280, FK086, FF086, FE086, FD086	Cable	FC-8-FA-086-1	1.25
8	FC-8-FB-086-1	DC~67	Cable	female	FA220, FH280, FK086, FF086, FE086, FD086	PCB	FC-8-MB-01	1.25@DC~40GHz
8	FC-8-MK-086-2	DC~67	Cable	male	FA220, FH280, FK086, FF086, FE086, FD086	PCB	FC-8-FRB-01	1.25@DC~40GHz

### Multi-Channel PCB Connectors

Number of Channels	Part Number	Frequency (GHz)	Connector Type	Connector	Mating Connector Type	Mating Connector	VSWR (typ.)
2	FC-2-MB-01	DC~67	PCB	SSMP male	SSMP female	SSMP female	1.25
4	FC-4-MB-01	DC~40	PCB	SSMP male	SSMP female	SSMP female	1.25
8	FC-8-MB-01	DC~40	PCB	Male	Cable	FC-8-FB-086-1	1.25
8	FC-8-FRB-01	DC~40	PCB	Female, right angle	Cable	FC-8-MK-086-2	1.25

## Launch Accessories

Freflex can provide connector accessories of different sizes and materials to meet different needs of customers.

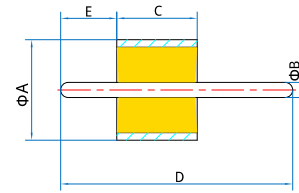
**Features:** Low VSWR; **Applications:** Wireless, Radar, Instruments, Electronics.

Outer Conductor: Gold Plated Kovar

Dielectric: Glass

Inner Conductor: Gold Plated Kovar

Operating temperature: -55~+125°C



Part Number	Frequency (GHz)	A mm [inch]	B mm [inch]	C mm [inch]	D mm [inch]	E mm [inch]
FCFT-023-1	110	1.73 [0.068]	0.23 [0.009]	1.4 [0.055]	5.2 [0.205]	3.04 [0.12]
FCFT-023-2	110	1.73 [0.068]	0.23 [0.009]	1.4 [0.055]	2.7 [0.105]	0.508 [0.02]
FCFT-030-1	65	2 [0.079]	0.3 [0.012]	1.4 [0.055]	4.4 [0.173]	1.5 [0.059]
FCFT-030-2	65	2 [0.079]	0.3 [0.012]	1.4 [0.055]	8 [0.315]	4.6 [0.181]
FCFT-030-3	65	2 [0.079]	0.3 [0.012]	1.6 [0.063]	3.9 [0.154]	0.4 [0.016]
FCFT-030-4	65	2 [0.079]	0.3 [0.012]	1.6 [0.063]	8 [0.315]	4.6 [0.181]
FCFT-038-1	40	2.5 [0.098]	0.38 [0.015]	1.6 [0.063]	8 [0.315]	4.6 [0.181]
FCFT-038-2	40	2.5 [0.098]	0.38 [0.015]	1.6 [0.063]	12 [0.472]	2 [0.079]
FCFT-038-3	40	2.5 [0.098]	0.38 [0.015]	2 [0.079]	9 [0.354]	2 [0.079]
FCFT-038-4	40	2.5 [0.098]	0.38 [0.015]	3 [0.118]	12 [0.472]	2.2 [0.087]
FCFT-045-1	40	2.8 [0.11]	0.45 [0.018]	1.6 [0.063]	5.2 [0.205]	1.1 [0.043]
FCFT-045-2	40	2.8 [0.11]	0.45 [0.018]	1.6 [0.063]	8 [0.315]	4.6 [0.181]
FCFT-045-3	40	2.8 [0.11]	0.45 [0.018]	1.6 [0.063]	12 [0.472]	3 [0.118]
FCFT-050-1	35	3 [0.118]	0.5 [0.02]	1.6 [0.063]	7.8 [0.307]	2 [0.079]
FCFT-050-2	35	3 [0.118]	0.5 [0.02]	1.6 [0.063]	12 [0.472]	5 [0.197]
FCFT-050-3	35	3 [0.118]	0.5 [0.02]	2 [0.079]	6 [0.236]	1.5 [0.059]
FCFT-050-4	35	3 [0.118]	0.5 [0.02]	2 [0.079]	6.5 [0.256]	2.2 [0.087]
FCFT-050-5	35	3 [0.118]	0.5 [0.02]	2 [0.079]	8.5 [0.335]	2.2 [0.087]
FCFT-050-6	35	3 [0.118]	0.5 [0.02]	2 [0.079]	12 [0.472]	4 [0.157]
FCFT-050-7	35	3 [0.118]	0.5 [0.02]	2 [0.079]	12 [0.472]	5 [0.197]
FCFT-050-8	35	3 [0.118]	0.5 [0.02]	2 [0.079]	14 [0.551]	4 [0.157]
FCFT-050-9	35	3 [0.118]	0.5 [0.02]	4.2 [0.165]	9 [0.354]	2.2 [0.087]
FCFT-050-10	25	3 [0.118]	0.5 [0.02]	4.7 [0.185]	9.4 [0.37]	2.2 [0.087]
FCFT-050-11	25	3 [0.118]	0.5 [0.02]	4.7 [0.185]	12 [0.472]	2.2 [0.087]
FCFT-080-1	25	4.7 [0.185]	0.8 [0.031]	2 [0.079]	6.5 [0.256]	2 [0.079]
FCFT-090-1	25	5.5 [0.217]	0.9 [0.035]	3 [0.118]	9 [0.354]	3 [0.118]



## Couplers

Freflex supplies a series of broadband and high power couplers with a wide frequency range up to 110GHz.

### Single Directional Couplers

Single directional coupler can be used to monitor and control the output power and frequency spectrum of transmitter. It can also be used as a power meter with detector and level indicator.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Power Amplifiers, Broadcast, Laboratory Test, Telecom.

#### How To Order:

FUDC-V-W-X-Y-Z

Single: S, Dual - D, Bi - B  
 Start Frequency (MHz)  
 Stop Frequency (MHz)  
 Connector Type  
 Coupling (dB)  
 Power (W)



**Examples:** To order a single directional coupler, 20M~1GHz, power 50W, coupling 10.5dB, SMA, specify FSDC-20-1000-50-10.5-S.

The sizes in the following table do not include connectors and terminations.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FSDC-0.009-50-K2-50-NS	9K-0.05	200	50±1	0.5	16	1.2	N&SMA	120*55.9*30
FSDC-0.009-250-K6-50-NS	9K-0.25	600	50±2	0.4	16	1.2	N&SMA	120*55.9*30
FSDC-0.009-400-K5-50-NS	9K-0.4	500	50±2	0.6	16	1.2	N&SMA	120*55.9*30
FSDC-1-10-K15-20-S	0.001~0.01	150	20±0.5	0.2	20	1.2	SMA	50.8*51*22.35
FSDC-10-500-K1-50-NS	0.01~0.5	100	50±1.5	0.2	18	1.2	N&SMA	49*44*26
FSDC-10-1000-1-11-S	0.01~1	1	11±2	1.8	13	1.5	SMA	32*32*10
FSDC-10-6000-R3-16-N	0.01~6	0.3	16±1.2	2.5	15	1.5	N	100.4*33.1*21.36
FSDC-20-1000-50-10.5-S	0.02~1	50	10.5±1	0.84	18	1.5	SMA	50.8*51*22.35
FSDC-20-1000-50-10.5-N	0.02~1	50	10.5±1	0.84	18	1.5	N	50.8*50.8*22.35
FSDC-20-1000-50-20-N	0.02~1	50	20±1.5	0.65	18	1.5	N	50.8*50.8*22.35
FSDC-20-1000-50-20-S	0.02~1	50	20±1.5	0.65	18	1.5	SMA	50.8*51*22.35
FSDC-20-1000-K15-50-S	0.02~1	150	50±1	0.4	20	1.5	SMA	51*50.8*22.35
FSDC-30-1000-50-20-S	0.03~1	50	20±1.5	0.65	20	1.5	SMA	50.8*51*22.35
FSDC-80-420-50-20-N-1	0.08~0.42	50	20±1	0.4	20	1.25	N&BNC	50.8*51*22.35
FSDC-80-420-50-40-N-1	0.08~0.42	50	40±1	0.4	20	1.25	N&BNC	50.8*51*22.35
FSDC-80-1000-K25-40-S	0.08~1	250	40±1	0.3	16	1.15	SMA	50.8*51*22.35
FSDC-80-1000-K25-40-N	0.08~1	250	40±1	0.3	16	1.2	N	120*55.9*30
FSDC-80-1000-K6-60-NS	0.08~1	600	60±1	0.4	20	1.2	N&SMA	152.4*80*30
FSDC-100-110-10-10-S	0.1~0.11	10	10±1	1	20	1.2	SMA	107*44*14
FSDC-100-700-10-10-S	0.1~0.7	10	10±2	0.9	12	1.3	SMA	250*66*15
FSDC-130-470-50-6-S	0.13~0.47	50	6±1.2	0.7	20	1.25	SMA	412*15*11
FSDC-200-300-K5-40-N	0.2~0.3	500	40±1.5	0.3	16	1.2	N	51*38.1*27.6
FSDC-200-2000-50-30-S	0.2~2	50	30±1.5	0.8	15	1.3	SMA	270*20*11
FSDC-300-800-50-30-S	0.3~0.8	50	30±1	0.3	10	1.2	SMA	180*15*11
FSDC-300-2400-30-10-S	0.3~2.4	30	10	1	18	1.3	SMA	115*15.5*11
FSDC-300-2400-30-20-S	0.3~2.4	30	20	1	18	1.3	SMA	115*15.5*11
FSDC-300-2400-30-30-S	0.3~2.4	30	30	1	18	1.3	SMA	115*15.5*11
FSDC-300-4000-50-30-S	0.3~4	50	30±1.5	1	12	1.4	SMA	186*20*11
FSDC-300-6000-K6-30-NS	0.3~6	600	30±0.9	0.7	15	1.4	N&SMA	217.9*43.4*30
FSDC-300-6000-K6-40-NS	0.3~6	600	40±1	0.7	15	1.4	N&SMA	217.9*43.4*30
FSDC-300-8000-20-20-S	0.3~8	20	20±1	1.3	18	1.35	SMA	152.4*18.54*12.7
FSDC-300-18000-30-6-S	0.3~18	30	6±0.8	3	13	1.4	SMA	178*23*15.4
FSDC-300-18000-30-10-S	0.3~18	30	10±0.8	2	13	1.4	SMA	178*23*15.4
FSDC-300-18000-30-20-S	0.3~18	30	20±0.8	1.4	13	1.4	SMA	178*23*15.4
FSDC-300-26500-30-6-S	0.3~26.5	30	6±0.9	3.5	11	1.5	SMA	178*23*15.4
FSDC-300-26500-30-10-S	0.3~26.5	30	10±0.9	2.7	11	1.5	SMA	178*23*15.4
FSDC-300-40000-20-30-K	0.3~40	20	30±1.2	4.2	10	1.7	2.92mm	178*23*15.4
FSDC-300-67000-12-20-V	0.3~67	12	20±2	6.1	7	1.9	1.85mm	178*23*15.4
FSDC-400-1560-30-10-S	0.4~1.56	30	10±1.5	1.1	20	1.3	SMA	115*15.5*11
FSDC-400-2500-10-10-S	0.4~2.5	10	10	1	18	1.3	SMA	115*15.5*11
FSDC-400-2500-10-20-S	0.4~2.5	10	20	0.6	18	1.3	SMA	115*16*11
FSDC-400-2500-10-30-S	0.4~2.5	10	30	0.5	18	1.3	SMA	115*16*11
FSDC-400-2700-K2-40-N	0.4~2.7	200	40±1.5	0.5	20	1.5	N	50*50*26



The sizes in the following table do not include connectors and terminations.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FSDC-400-2700-K4-40-N	0.4~2.7	400	40±1.2	0.4	20	1.2	N	158*53*26
FSDC-400-3000-10-20-S	0.4~3	10	20±1	0.5	20	1.3	SMA	149*25*14
FSDC-400-3000-K3-50-S	0.4~3	300	50±2.5	0.5	20	1.2	SMA	150*25*10
FSDC-400-3900-K1-20-N	0.4~3.9	100	20±2	0.5	17	1.2	N&SMA	99*42*22.5
FSDC-400-3900-K15-15-NS	0.4~3.9	150	15±1.5	0.5	16	1.25	N&SMA	113*25*20
FSDC-400-6000-K6-30-NS	0.4~6	600	30±0.8	0.6	15	1.3	N&SMA	187.5*43.4*30
FSDC-400-6000-K6-40-NS	0.4~6	600	40±0.9	0.6	15	1.3	N&SMA	187.5*43.4*30
FSDC-400-8000-K6-30-NS	0.4~8	600	30±0.9	0.7	14	1.4	N&SMA	187.5*43.4*30
FSDC-400-8000-K6-40-NS	0.4~8	600	40±1	0.7	14	1.4	N&SMA	187.5*43.4*30
FSDC-400-8000-K25-30-NS	0.4~8	250	30±0.9	0.7	14	1.4	N&SMA	187.5*43.4*30
FSDC-400-8000-K25-40-NS	0.4~8	250	40±1	0.7	14	1.4	N&SMA	187.5*43.4*30
FSDC-400-18000-50-10-S	0.4~18	50	10±1.5	1.5	10	1.8	SMA	113*15*11
FSDC-400-18000-50-20-S	0.4~18	50	20±1.5	1.5	10	1.8	SMA	113*15*11
FSDC-400-20000-10-20-S	0.4~20	10	20±1.5	1.5	8	1.5	SMA	137*15.5*11
FSDC-450-2500-50-6-S	0.45~2.5	50	6±1	0.8	18	1.2	SMA	112*17*11
FSDC-450-6000-30-10-S	0.45~6	30	10	1.2	12	1.5	SMA	115*16*11
FSDC-450-6000-30-20-S	0.45~6	30	20	1.2	12	1.5	SMA	115*16*11
FSDC-450-6000-30-30-S	0.45~6	30	30	1.2	12	1.5	SMA	115*16*11
FSDC-470-860-K5-30-7M7	0.47~0.86	500	30±0.75	0.3	20	1.15	7/16 DIN m/f	166*66*35
FSDC-470-860-K5-40-7M7	0.47~0.86	500	40±0.75	0.3	20	1.15	7/16 DIN m/f	166*66*35
FSDC-470-860-K5-50-7M7	0.47~0.86	500	50±0.75	0.3	20	1.15	7/16 DIN m/f	166*66*35
FSDC-500-1000-30-10-S	0.5~1	30	10	0.4	20	1.3	SMA	120*26*14
FSDC-500-1000-30-20-S	0.5~1	30	20	0.4	20	1.3	SMA	120*26*14
FSDC-500-1000-30-30-S	0.5~1	30	30	0.4	20	1.3	SMA	120*26*14
FSDC-500-2000-10-15-S	0.5~2	10	15±1	1	18	1.3	SMA	137*15.5*11
FSDC-500-2000-30-10-S	0.5~2	30	10	0.8	20	1.25	SMA	106*15.5*11
FSDC-500-2000-30-20-S	0.5~2	30	20	0.4	20	1.25	SMA	106*15.5*11
FSDC-500-2000-30-30-S	0.5~2	30	30	0.3	20	1.25	SMA	106*15.5*11
FSDC-500-2000-50-30-S	0.5~2	50	30±1	0.4	20	1.2	SMA	113*15*11
FSDC-500-3000-K5-60-NS	0.5~3	500	60±2	0.4	16	1.4	N&SMA	50*44*26
FSDC-500-6000-30-20-S	0.5~6	30	20±1	0.6	18	1.25	SMA	113*15*11
FSDC-500-6000-30-30-S	0.5~6	30	30±1.5	1	18	1.4	SMA	113*17*11
FSDC-500-6000-K2-40-S	0.5~6	200	40±2	0.6	15	1.5	S	38.1*38.1*27.6
FSDC-500-6000-K2-40-N	0.5~6	200	40±2	0.6	15	1.5	N	38.1*38.1*27.6
FSDC-500-6000-K3-40-N	0.5~6	300	40±2	0.6	15	1.5	N	38.1*38.1*27.6
FSDC-500-6000-K6-30-NS	0.5~6	600	30±0.7	0.6	15	1.3	N&SMA	174.8*30*43.4
FSDC-500-6000-K6-40-NS	0.5~6	600	40±0.8	0.6	15	1.3	N&SMA	174.8*30*43.4
FSDC-500-8000-50-10-S	0.5~8	50	10±1	1.2	15	1.4	SMA	113*15*11
FSDC-500-8000-50-20-S	0.5~8	50	20±1	1.2	12	1.5	SMA	113*15*11
FSDC-500-8000-K25-30-NS	0.5~8	250	30±0.8	0.7	14	1.4	N&SMA	174.8*30*43.4
FSDC-500-8000-K25-40-NS	0.5~8	250	40±0.9	0.7	14	1.4	N&SMA	174.8*30*43.4
FSDC-500-8000-K6-30-NS	0.5~8	600	30±0.8	0.7	14	1.4	N&SMA	174.8*30*43.4
FSDC-500-8000-K6-40-NS	0.5~8	600	40±0.9	0.7	14	1.4	N&SMA	174.8*30*43.4
FSDC-500-12000-80-20-S	0.5~12	80	20±1	1	12	1.6	SMA	113*15*11
FSDC-500-18000-50-10-S	0.5~18	50	10±1	1.6	10	1.6	SMA	113*15*11
FSDC-500-18000-50-10-N	0.5~18	50	10±1	1	15	1.4	N	116.5*17.5*23
FSDC-500-18000-50-20-S	0.5~18	50	20±1	1.6	10	1.6	SMA	113*15*11
FSDC-500-18000-50-20-N	0.5~18	50	20±1	1	15	1.4	N	116.5*17.5*23
FSDC-500-18000-50-30-S	0.5~18	50	30±1.5	1.6	10	1.6	SMA	113*15*11
FSDC-500-18000-50-30-N	0.5~18	50	30±1.5	1	15	1.4	N	116.5*17.5*23
FSDC-500-18000-30-6-S	0.5~18	30	6±0.8	2.6	14	1.5	SMA	111.8*17.8*12.7
FSDC-500-18000-K25-30-NS	0.5~18	250	30±1.2	1	10	1.6	N&SMA	168.8*20*35
FSDC-500-18000-K25-40-NS	0.5~18	250	40±1.2	1	10	1.6	N&SMA	168.8*20*35
FSDC-500-18000-K4-30-NS	0.5~18	400	30±1.2	1	10	1.6	N&SMA	174.8*30*43.4
FSDC-500-18000-K4-40-NS	0.5~18	400	40±1.2	1	10	1.6	N&SMA	174.8*30*43.4
FSDC-500-18500-20-10-S	0.5~18.5	20	10±1	1.6	10	1.6	SMA	113*15*11
FSDC-500-26500-30-6-S	0.5~26.5	30	6±0.8	2.9	13	1.6	SMA	111.8*17.8*12.7
FSDC-500-26500-30-10-S	0.5~26.5	30	10±0.7	2.2	14	1.5	SMA	111.8*17.8*12.7
FSDC-500-26500-30-20-S	0.5~26.5	30	20±0.7	1.4	14	1.5	SMA	111.8*17.8*12.7
FSDC-500-26500-30-30-S	0.5~26.5	30	30±1	1.3	13	1.6	SMA	111.8*17.8*12.7
FSDC-500-40000-20-6-K	0.5~40	20	6±1	3.9	10	1.7	2.92mm	111.8*17.8*12.7
FSDC-500-40000-20-10-K	0.5~40	20	10±1	2.9	10	1.7	2.92mm	111.8*17.8*12.7

The sizes in the following table do not include connectors and terminations.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FSDC-500-40000-20-20-K	0.5~40	20	20±1	2.6	10	1.7	2.92mm	111.8*17.8*12.7
FSDC-500-50000-20-10-2	0.5~50	20	10±1.2	3.6	8	1.8	2.4mm	111.8*17.8*12.7
FSDC-500-50000-20-20-2	0.5~50	20	20±1.2	3.3	8	1.8	2.4mm	111.8*17.8*12.7
FSDC-600-3000-K2-20-NS	0.6~3	200	20±1.2	0.7	16	1.35	N&SMA	120*26*22
FSDC-600-3000-K5-40-NS	0.6~3	500	40±1	0.35	16	1.5	N&SMA	80*40*22
FSDC-600-6000-50-10-S	0.6~6	50	10±1	1	15	1.3	SMA	112*17*12.7
FSDC-600-6000-50-20-S	0.6~6	50	20±1.2	0.8	18	1.3	SMA	113*15*11
FSDC-600-6000-50-30-S	0.6~6	50	30±1	0.5	15	1.3	SMA	100*15*11
FSDC-600-40000-30-10-K	0.6~40	30	10±2.8	3.8	8	1.8	2.92mm	154*15*11
FSDC-700-6000-50-20-S	0.7~6	50	20±1	0.7	16	1.3	SMA	115*16*11
FSDC-700-6000-50-20-N	0.7~6	50	20±1	1	12	1.3	N	125*20*20
FSDC-700-6000-K6-30-NS	0.7~6	600	30±0.7	0.5	15	1.3	N&SMA	144.3*30*43.3
FSDC-700-6000-K6-40-NS	0.7~6	600	40±0.7	0.5	15	1.3	N&SMA	144.3*30*43.3
FSDC-700-18000-K25-30-NS	0.7~18	250	30±1.2	0.9	10	1.6	N&SMA	144.3*30*43.3
FSDC-700-18000-K25-40-NS	0.7~18	250	40±1.2	0.9	10	1.6	N&SMA	144.3*30*43.3
FSDC-800-2700-50-10-S	0.8~2.7	50	10±1	1	18	1.2	SMA	112*17*12.7
FSDC-800-3500-K2-40-N	0.8~3.5	200	40±1.5	0.35	18	1.4	N	50*50*26
FSDC-800-6000-K4-20-NS	0.8~6	400	20±1	0.5	14	1.5	N&SMA	80*40*22
FSDC-910-920-K3-30-S	0.91~0.92	300	30±0.5	0.2	20	1.2	SMA	50*20*10
FSDC-1000-4000-30-10-S	1~4	30	10	1	20	1.3	SMA	73*15*11
FSDC-1000-4000-30-20-S	1~4	30	20	1	20	1.3	SMA	73*15*11
FSDC-1000-4000-30-30-S	1~4	30	30	0.5	20	1.3	SMA	73*15*11
FSDC-1000-4000-50-20-S	1~4	50	20±1	0.5	18	1.3	SMA	73*15*11
FSDC-1000-6000-K1-10-N	1~6	100	10±0.8	0.8	10	1.4	N	100*22*24
FSDC-1000-6000-K1-15-N	1~6	100	15±1.5	0.8	15	1.4	N	120*22*30
FSDC-1000-6000-K3-30-NS	1~6	300	30±1.5	0.6	16	1.35	N&SMA	100*26*22
FSDC-1000-6000-K1-40-NS	1~6	100	40±1	0.4	12	1.8	N&SMA	92*38*25.4
FSDC-1000-6000-K6-30-NS	1~6	600	30±0.7	0.5	15	1.3	N&SMA	107*30*43.4
FSDC-1000-6000-K6-40-NS	1~6	600	40±0.7	0.5	15	1.3	N&SMA	107*30*43.4
FSDC-1000-8000-30-30-S	1~8	30	30±1.2	0.8	15	1.5	SMA	73*15*11
FSDC-1000-12400-30-20-S	1~12.4	30	20±1	0.87	15	1.5	SMA	90*15.5*11
FSDC-1000-18000-30	1~18	30	10, 20, 30	1.5	10	1.6	SMA	90*15.5*11
FSDC-1000-18000-50-20-S	1~18	50	20±1	1.2	12	1.6	SMA	73*15*11
FSDC-1000-18000-30-6-S	1~18	30	6±0.6	2.5	15	1.5	SMA	88.9*17.8*12.7
FSDC-1000-18000-K25-30-NS	1~18	250	30±1.2	0.8	10	1.6	N&SMA	107.6*30*43.4
FSDC-1000-18000-K25-40-NS	1~18	250	40±1.2	0.8	10	1.6	N&SMA	107.6*30*43.4
FSDC-1000-18000-K4-30-NS	1~18	400	30±1.2	0.8	10	1.6	N&SMA	107.6*30*43.4
FSDC-1000-18000-K4-30-NS	1~18	400	40±1.2	0.8	10	1.6	N&SMA	107.6*30*43.4
FSDC-1000-26500-30-20-S	1~26.5	30	20±1.5	2.2	10	1.7	SMA	84*15*11
FSDC-1000-26500-30-6-S	1~26.5	30	6±0.7	2.8	13	1.6	SMA	88.9*17.8*12.7
FSDC-1000-26500-30-10-S	1~26.5	30	10±0.5	1.8	13	1.6	SMA	88.9*17.8*12.7
FSDC-1000-26500-30-30-S	1~26.5	30	30±0.8	1.1	13	1.5	SMA	88.9*17.8*12.7
FSDC-1000-40000-20-6-K	1~40	20	6±0.8	3.8	10	1.7	2.92mm	88.9*17.8*12.7
FSDC-1000-40000-20-30-K	1~40	20	30±1.2	1.9	9	1.7	2.92mm	88.9*17.8*12.7
FSDC-1000-40000-30-10-K	1~40	30	10±1.2	2.8	10	1.7	2.92mm	84*15*11
FSDC-1000-40000-30-16-K	1~40	30	16±1.5	2.6	10	1.7	2.92mm	84*15*11
FSDC-1000-40000-30-20-K	1~40	30	20±1.2	2.8	10	1.7	2.92mm	84*15*11
FSDC-1000-44000-1-10-2	1~44	1	10	2.5	10	2	2.4mm	90.2*18.5*13.5
FSDC-1000-50000-20-10-2	1~50	20	10±1	3.5	8	1.8	2.4mm	88.9*17.8*12.7
FSDC-1000-50000-20-20-2	1~50	20	20±2	3.0	9	1.8	2.4mm	88.9*17.8*12.7
FSDC-1000-67000-20-10-V	1~67	20	10±3.5	3.8	8	1.9	1.85mm	62.9*16*12.7
FSDC-1290-1310-70-6-N	1.29~1.31	70	6±1	1.8	20	1.3	N	120*40*16.5
FSDC-1290-1310-70-10-N	1.29~1.31	70	10±1	0.8	20	1.3	N	120*40*16.5
FSDC-1290-1310-K1-6-N	1.29~1.31	100	6±1	1.8	20	1.3	N	120*40*16.5
FSDC-1290-1310-K1-10-N	1.29~1.31	100	10±1	0.8	20	1.3	N	120*40*16.5
FSDC-1290-1310-K1-20-N	1.29~1.31	100	20±1	0.5	20	1.3	N	120*40*16.5
FSDC-2000-2500-K5-40-NS	2~2.5	500	40	0.4	15	1.4	N&SMA	44*26*22
FSDC-2000-3000-50-20-S	2~3	50	20	0.5	20	1.25	SMA	43*15*11
FSDC-2000-4000-50-10-S	2~4	50	10±1	1	18	1.3	SMA	43*15*11
FSDC-2000-4000-50-10-N	2~4	50	10±1	1	18	1.3	N	53*20*20
FSDC-2000-4000-50-20-S	2~4	50	20±1	0.4	18	1.3	SMA	43*15*11
FSDC-2000-4000-50-20-N	2~4	50	20±1	0.4	18	1.3	N	53*20*20

The sizes in the following table do not include connectors and terminations.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FSDC-2000-4000-50-30-S	2~4	50	30±1	0.4	18	1.3	SMA	43*15*11
FSDC-2000-4000-50-30-N	2~4	50	30±1	0.4	18	1.3	N	53*20*20
FSDC-2000-4000-K3-20-NS	2~4	300	20±1	0.4	18	1.35	N&SMA	44*26*22
FSDC-2000-4000-K4-40-N	2~4	400	40±1.5	0.5	10	1.3	N	50*50*19.5
FSDC-2000-4000-K5-50-NS	2~4	500	50±1.5	0.4	20	1.25	N&SMA	44*26*22
FSDC-2000-6000-K25-40-NS	2~6	250	40±2	0.6	11.5	1.3	N&SMA	50*50*22.5
FSDC-2000-6000-K6-30-NS	2~6	600	30±0.7	0.4	15	1.3	N&SMA	86.7*30*43.4
FSDC-2000-6000-K6-40-NS	2~6	600	40±0.7	0.4	15	1.3	N&SMA	86.7*30*43.4
FSDC-2000-8000-50-6-S	2~8	50	6±1	0.2	18	1.3	SMA	43*15*11
FSDC-2000-8000-50-10-S	2~8	50	10±1	1.2	16	1.3	SMA	43*15*11
FSDC-2000-8000-50-20-S	2~8	50	20±1	0.45	20	1.25	SMA	43*15*11
FSDC-2000-8000-50-30-S	2~8	50	30±1	0.4	20	1.2	SMA	86.7*30*43.4
FSDC-2000-8000-K25-30-NS	2~8	250	30±0.8	0.4	14	1.4	N&SMA	86.7*30*43.4
FSDC-2000-8000-K25-40-NS	2~8	250	40±0.8	0.4	14	1.4	N&SMA	86.7*30*43.4
FSDC-2000-8000-K5-30-NS	2~8	500	30±1	0.6	14	1.5	N&SMA	60*40*22
FSDC-2000-8000-K6-30-NS	2~8	600	30±0.8	0.4	14	1.4	N&SMA	86.7*30*43.4
FSDC-2000-8000-K6-40-NS	2~8	600	40±0.8	0.4	14	1.4	N&SMA	86.7*30*43.4
FSDC-2000-12000-30-10-S	2~12	30	10	1.1	12	1.5	SMA	51*16*11
FSDC-2000-18000-30-10-S	2~18	30	10	1	12	1.6	SMA	43*15*11
FSDC-2000-18000-30-20-S	2~18	30	20	1	12	1.6	SMA	43*15*11
FSDC-2000-18000-30-30-S	2~18	30	30	1	10	1.6	SMA	43*15*11
FSDC-2000-18000-30-6-S	2~18	30	6±0.6	2.3	15	1.6	SMA	57.2*17.8*12.7
FSDC-2000-18000-K2-50-NS	2~18	200	50±2	0.6	10	1.6	N&SMA	86.7*30*43.4
FSDC-2000-18000-K25-40-NS	2~18	250	40±1	0.6	10	1.6	N&SMA	80.7*35*20
FSDC-2000-18000-K4-30-NS	2~18	400	30±1	0.6	10	1.6	N&SMA	86.7*30*43.4
FSDC-2000-18000-K4-30-NS	2~18	400	40±1	0.6	10	1.6	N&SMA	86.7*30*43.4
FSDC-2000-26500-30-6-S	2~26.5	30	6±0.7	2.6	13	1.6	SMA	57.2*17.8*12.7
FSDC-2000-26500-30-10-S	2~26.5	30	10±0.5	1.5	13	1.5	SMA	57.2*17.8*12.7
FSDC-2000-26500-30-20-S	2~26.5	30	20±0.5	1	14	1.5	SMA	57.2*17.8*12.7
FSDC-2000-26500-30-30-S	2~26.5	30	30±0.6	1	13	1.5	SMA	57.2*17.8*12.7
FSDC-2000-40000-20-6-K	2~40	20	6±0.8	3.6	10	1.7	2.92mm	57.2*17.8*12.7
FSDC-2000-40000-20-30-K	2~40	20	30±0.8	1.4	10	1.7	2.92mm	57.2*17.8*12.7
FSDC-2000-40000-30-10-K	2~40	30	10±1.5	2	10	1.7	2.92mm	48*15*11
FSDC-2000-40000-30-16-K	2~40	30	6±1.2	1.5	10	1.7	2.92mm	48*15*11
FSDC-2000-40000-30-20-K	2~40	30	20±1.5	1.5	10	1.6	2.92mm	48*15*11
FSDC-2000-50000-20-10-2	2~50	20	10±0.8	2.1	9	1.8	2.4mm	57.2*17.8*12.7
FSDC-2000-50000-20-20-2	2~50	20	20±1.1	2	8	1.8	2.4mm	57.2*17.8*12.7
FSDC-2000-67000-10-16-V	2~67	10	16±4	3.5	8	2	1.85mm	62.9*15*11
FSDC-2000-67000-12-10-V	2~67	12	10±1.2	2.7	7	1.9	1.85mm	57.2*17.8*12.7
FSDC-2200-2300-20-10-N	2.2~2.3	20	10±1	0.5	20	1.3	N	55*30*19
FSDC-2200-2300-20-20-N	2.2~2.3	20	20±1	0.5	20	1.3	N	55*30*19
FSDC-2300-2600-K5-40-NS	2.3~2.6	500	40±0.5	0.4	20	1.25	N&SMA	44*26*22
FSDC-2500-6000-50-6-S	2.5~6	50	6±1	0.8	20	1.2	SMA	43*15*11
FSDC-2700-3100-K2-40-NS	2.7~3.1	200	40±2	0.3	18	1.3	N&SMA	44*26*22
FSDC-3000-6000-10-20-S	3~6	10	20±1	0.5	18	1.3	SMA	43*15*11
FSDC-3400-4200-50-30-S	3.4~4.2	50	30±1	0.5	15	1.3	SMA	43*15*11
FSDC-3500-4500-10-20-S	3.5~4.5	10	20±1	0.5	20	1.3	SMA	43*15*11
FSDC-3800-4300-50-20-N	3.8~4.3	50	20±1	0.5	20	1.3	N	20*20*53
FSDC-4000-6000-K4-40-N	4~6	400	40±1.5	0.6	10	1.3	N&SMA	50*50*19.5
FSDC-4000-8000-50-10-S	4~8	50	10±1	1	16	1.3	SMA	43*15*11
FSDC-4000-12000-50-6-S	4~12	50	6±1	1.2	12	1.5	SMA	33*15*11
FSDC-4000-16000-30-10-S	4~16	30	10±1.2	1.2	12	1.5	SMA	43*15*11
FSDC-4000-18000-20-10-S	4~18	20	10±1	1	12	1.5	SMA	33*15*11
FSDC-4000-18000-20-20-S	4~18	20	20±1	1	12	1.5	SMA	33*15*11
FSDC-4000-18000-20-30-S	4~18	20	30±1	1	10	1.5	SMA	33*15*11
FSDC-4000-18000-K3-30-1	4~18	300	30±1.5	0.9	10	1.4	N&SMA	77.8*23.8*30.5
FSDC-4000-18000-K3-30-2	4~18	300	30±1.5	0.9	10	1.4	N	77.8*23.8*30.5
FSDC-4000-18000-K3-40-1	4~18	300	40±1.5	0.9	10	1.4	N&SMA	77.8*23.8*30.5
FSDC-4000-18000-K3-40-2	4~18	300	40±1.5	0.9	10	1.4	N	77.8*23.8*30.5
FSDC-4000-30000-30-20-K	4~30	30	20±1	1.5	12	1.6	2.92mm	48*15*11
FSDC-4000-50000-20-10-2	4~50	20	10±2	2	10	1.8	2.4mm	50.45*15*11
FSDC-6000-18000-30-6-S	6~18	30	6±0.5	2	15	1.4	SMA	31.8*17.8*12.7

The sizes in the following table do not include connectors and terminations.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FSDC-6000-18000-50-10-S	6~18	50	10±1	1	12	1.5	SMA	33*15*11
FSDC-6000-18000-50-20-S	6~18	50	20±1	0.6	12	1.5	SMA	33*15*11
FSDC-6000-18000-50-30-S	6~18	50	30±1	0.6	12	1.5	SMA	33*15*11
FSDC-6000-18000-K2-30-NS	6~18	200	30±1.5	0.5	10	1.8	N&SMA	30*38*25.4
FSDC-6000-18000-K25-30-NS	6~18	250	30±1	0.5	10	1.6	N&SMA	69.7*20*35
FSDC-6000-18000-K25-40-NS	6~18	250	40±1	0.5	10	1.6	N&SMA	69.7*20*35
FSDC-6000-18000-K4-40-NS	6~18	400	40±1	0.5	10	1.6	N&SMA	75.7*30*43.4
FSDC-6000-18200-30-6-S	6~18.2	30	6±1	1.2	12	1.5	SMA	33*15*11
FSDC-6000-18200-30-10-S	6~18.2	30	10±1	1	12	1.5	SMA	33*15*11
FSDC-6000-18200-30-30-S	6~18.2	30	30±1	0.6	12	1.5	SMA	33*15*11
FSDC-6000-26500-30-6-S	6~26.5	30	6±0.6	2.3	14	1.5	SMA	31.8*17.8*12.7
FSDC-6000-26500-30-10-S	6~26.5	30	10±0.6	1.3	13	1.4	SMA	31.8*15.9*12.7
FSDC-6000-26500-30-20-S	6~26.5	30	20±0.5	0.7	15	1.4	SMA	31.8*15.9*12.7
FSDC-6000-26500-30-30-S	6~26.5	30	30±0.7	0.8	13	1.5	SMA	31.8*15.9*12.7
FSDC-6000-40000-20-6-K	6~40	20	6±0.8	2.6	10	1.7	2.92mm	31.8*17.8*12.7
FSDC-6000-40000-20-10-K	6~40	20	10±0.7	1.6	10	1.6	2.92mm	31.8*15.9*12.7
FSDC-6000-40000-20-20-K	6~40	20	20±0.7	1.3	10	1.6	2.92mm	31.8*15.9*12.7
FSDC-6000-40000-20-30-K	6~40	20	30±0.7	1.0	10	1.7	2.92mm	31.8*15.9*12.7
FSDC-6000-50000-20-10-2	6~50	20	10±0.8	1.9	8	1.8	2.4mm	31.8*15.9*12.7
FSDC-6000-67000-12-10-V	6~67	12	10±1.1	2.5	7	1.9	1.85mm	31.8*15.9*12.7
FSDC-6500-11500-20-20-S	6.5~11.5	20	20±1	1	12	1.5	SMA	33*15*11
FSDC-7000-7300-60-30-S	7~7.3	60	30±1	0.5	16	1.5	SMA	33*15*11
FSDC-7000-12400-50-10-S	7~12.4	50	10±1	1	12	1.5	SMA	33*15*11
FSDC-7000-12400-50-20-S	7~12.4	50	20±1	1	12	1.5	SMA	33*15*11
FSDC-7000-12400-50-30-S	7~12.4	50	30±1	1	12	1.5	SMA	33*15*11
FSDC-8000-8400-20-10-N	8~8.4	20	10±1	1	12	1.6	N	47*22*19
FSDC-8000-8400-20-20-N	8~8.4	20	20±1	1	12	1.6	N	47*22*19
FSDC-8000-12000-40-15-S	8~12	40	15±1	0.8	12	1.5	SMA	43*15*11
FSDC-8000-12400-K1-30-N	8~12.4	100	30±1	0.4	10	1.4	N	60*30*24
FSDC-10750-12750-50-20-S	10.75~12.75	50	20±1	0.6	15	1.3	SMA	33*15*11
FSDC-10750-12750-50-30-S	10.75~12.75	50	30±1	0.5	15	1.4	SMA	33*15*11
FSDC-12000-13000-10-6-S	12~13	10	6±1	0.8	12	1.5	SMA	56*15*11
FSDC-12000-18000-50-30-S	12~18	50	30±1	1	12	1.5	SMA	33*15*11
FSDC-12400-18000-50-10-S	12.4~18	50	10±1	0.8	12	1.4	SMA	33*15*11
FSDC-12400-18000-50-20-S	12.4~18	50	20±1	0.8	12	1.4	SMA	33*15*11
FSDC-14000-15000-50-10-S	14~15	50	10±1	0.6	15	1.4	SMA	33*15*11
FSDC-14000-15000-50-20-S	14~15	50	20±1	0.6	15	1.4	SMA	33*15*11
FSDC-18000-26500-30-6-S	18~26.5	30	6±0.5	2.3	14	1.5	SMA	31.8*17.8*12.7
FSDC-18000-31000-30-20-K	18~31	30	20±1	1.4	12	1.6	2.92mm	28*15*11
FSDC-18000-40000-20-6-K	18~40	20	6±0.7	2.6	12	1.7	2.92mm	31.8*17.8*12.7
FSDC-18000-40000-30-10-K	18~40	30	10±1	1.6	10	1.6	2.92mm	28*15*11
FSDC-18000-40000-30-20-K	18~40	30	20±1	1.1	12	1.6	2.92mm	28*15*11
FSDC-18000-40000-30-30-K	18~40	30	30±1	1	10	1.6	2.92mm	28*15*11
FSDC-18000-50000-20-10-2	18~50	20	10±0.7	1.8	9	1.8	2.4mm	31.8*15.9*12.7
FSDC-18000-50000-20-20-2	18~50	20	20±0.8	1.5	8	1.8	2.4mm	31.8*15.9*12.7
FSDC-18000-67000-12-10-V	18~67	12	10±1	2.5	7	1.9	1.85mm	31.8*15.9*12.7
FSDC-20000-50000-10-10-2	20~50	10	10±1.2	1.8	10	1.9	2.4mm	26*15*11
FSDC-20000-50000-10-20-2	20~50	10	20±1.2	1.6	10	1.9	2.4mm	26*15*11
FSDC-20000-50000-10-30-2	20~50	10	30±1.2	1.2	8	1.9	2.4mm	26*15*11
FSDC-26000-30000-30-10-K	26~30	30	10±1	1.6	12	1.6	2.92mm	28*15*11
FSDC-26000-30000-30-20-K	26~30	30	20±1	1.6	12	1.6	2.92mm	28*15*11
FSDC-26000-30000-30-30-K	26~30	30	30±1	1.6	12	1.6	2.92mm	28*15*11
FSDC-26500-40000-20-6-K	26.5~40	20	6±0.7	2.6	12	1.7	2.92mm	31.8*17.8*12.7
FSDC-26500-67000-12-10-V	26.5~67	12	10±1	2.5	7	1.9	1.85mm	31.8*15.9*12.7
FSDC-40000-67000-12-10-V	40~67	12	10±1	2.5	7	1.9	1.85mm	31.8*15.9*12.7
FSDC-65000-86000-20-10-1	65~86	20	10±3	2	12	2.5	1.0mm	70*40*13

## Dual Directional Couplers

Dual directional coupler is a four-port component, with signal from the input port taken by the forward coupling interface and signal from the output port taken by the reverse coupling port. It is a standard component commonly used in microwave measurement and a key component for reflectometer, RF network analyzer and other instruments. It can be used to monitor the output power and output spectrum of the transmitter, test the reflected power from the transmitter to the antenna, monitor the matching of the antenna feeder system, and control the power of the transmitter. It can also be used as a power meter in coordination with geophone and level indicator.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Power Amplifier, Transmitter, Radar, Laboratory Test.

### How To Order:

FUDC-V-W-X-Y-Z

Single: S, Dual - D, Bi - B  
 Start Frequency (MHz)  
 Stop Frequency (MHz)

Connector Type  
 Coupling (dB)  
 Power (W)

**Examples:** To order a dual directional coupler, 0.1~1000MHz, power 100W, coupling 40dB, main line N, secondary line SMA, specify FDDC-0.1-1000-K1-40-NS.



## Dual Directional Couplers

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FDDC-0.009-100-K5-50-NS	9K~0.1	500	50±1	0.3	16	1.2	N&SMA	137.16*30.48*55.9
FDDC-0.009-260-K2-40-NS	9K~0.26	200	40±1.5	0.3	14	1.2	N&SMA	152.4*55.9*55.9
FDDC-9K-260-1K-40-NS	9K~0.26	1000	40±1.5	0.4	10	1.25	N&SMA	120*55*40
FDDC-9K-1000-K1-40-NS	9K~1	100	40±1.5	0.6	13	1.25	N&SMA	132.2*57.8*43.3
FDDC-9K-1000-K3-40-NS	9K~1	300	40±1.5	0.6	13	1.25	N&SMA	132.2*57.8*43.3
FDDC-0.01-100-K5-50-NS	10K~0.1	500	50±1	0.5	16	1.3	N&SMA	120*55.9*30
FDDC-0.01-260-K25-40-NNM	10K~0.26	250	40±1	0.3	14	1.3	N	152.4*55.9*55.9
FDDC-0.1-1000-K1-40-NS	100K~1	100	40±1.2	1	13	1.25	N&SMA	132*68*43
FDDC-0.25-300-1K-50-NS	250K~0.3	1000	50±2	0.5	16	1.2	N&SMA	140*65*45
FDDC-0.25-300-1K-50-N	250K~0.3	1000	50±2	0.5	16	1.2	N	140*65*45
FDDC-0.5-32-50-30-N	500K~0.032	50	30±1	0.2	20	1.1	N	50.8*51*22.35
FDDC-0.5-32-5K-40-N7	500K~0.032	5000	40±1	0.15	18	1.2	N&L29	125*110*50
FDDC-1-10-K15-20-S	0.001~0.01	150	20±0.5	0.2	20	1.2	SMA	51*50.8*22.35
FDDC-1-50-3K-58-NS	0.001~0.05	3000	58±5@30 ~50MHz	0.1	20	1.1	N&SMA	60*36*25
FDDC-1.6-30-2K5-50-N	0.0016~0.03	2500	50±0.5	0.05	-	1.15	N	120*55.9*30
FDDC-2-30-2K-50-NS	0.002~0.03	2000	50±1.5	0.3	18	1.2	N&SMA	120*107*38
FDDC-2-32-1K-40-NS	0.002~0.032	1000	40±1	0.5	20	1.2	N&SMA	120*55.9*30
FDDC-2-32-1K-50-NS	0.002~0.032	1000	50±1.5	0.3	20	1.2	N&SMA	120*55.9*30
FDDC-10-170-5K-60-S7	0.01~0.17	5000	60±1.5	0.2	16	1.2	SMA&L29	152.4*55.9*55.9
FDDC-20-200-1-20-N	0.02~0.2	1	20±1	0.3	20	1.35	N	60*38.1*27.6
FDDC-20-520-50-50-S	0.02~0.52	50	50±1	0.35	20	1.25	SMA	58*44*15
FDDC-20-1000-K15-50-S	0.02~1	150	50±1	0.4	20	1.5	SMA	51*50.8*22.35
FDDC-20-1000-K3-50-N	0.02~1	300	50±1	0.4	20	1.5	N	60*55*22
FDDC-20-3000-20-20-S	0.02~3	20	20±1.5	1.3	15	1.8	SMA	51*50.8*22.35
FDDC-25-1000-1K-50-NS	0.025~1	1000	50±1.5	0.5	15	1.2	N&SMA	120*55.9*30
FDDC-30-80-1K5-50-NS	0.03~0.08	1500	50±1	0.4	20	1.1	N&SMA	60*36*25
FDDC-30-80-2K-60-NS	0.03~0.08	2000	60±1	0.2	20	1.1	N&SMA	60*40*25
FDDC-33-55-K2-50	0.033~0.055	200	50±1	0.4	20	1.5	-	50.8*51*22.35
FDDC-40-300-10-10-S	0.04~0.3	10	10±1	1.8	16	1.5	SMA	100*50*45
FDDC-80-1000-1K-50-NS	0.08~1	1000	50±1	0.3	20	1.3	N&SMA	85*44*26
FDDC-80-1000-1K5-50-NS	0.08~1	1500	50±1	0.3	20	1.15	N&SMA	150*65*30
FDDC-80-1000-2K-40-7S	0.08~1	2000	40±1.5	0.25	20	1.2	7/16DIN&SMA	85*50*32
FDDC-80-1000-2K-50-7S	0.08~1	2000	50±1	0.3	20	1.3	7/16DIN&SMA	85*50*32
FDDC-80-1000-2K-60-7S	0.08~1	2000	60±1.5	0.25	20	1.2	7/16DIN&SMA	85*50*32
FDDC-80-3000-K15-50-N	0.08~3	150	50±1	0.8	14	1.5	N	160*24*30
FDDC-100-1000-K2-20-N	0.1~1	200	20±1	0.2	20	1.2	N	127*68.58*24
FDDC-100-3000-K25-45-S	0.1~3	250	45±2	0.4	15	1.25	SMA	63.5*38.1*14.76
FDDC-200-400-1K-40-NS	0.2~0.4	1000	40±1	0.2	20	1.15	N&SMA	120*55.9*30
FDDC-225-460-K5-30-N	0.225~0.46	500	30±1	0.3	20	1.1	N	50.8*51*22.35
FDDC-300-2000-1K-50-N	0.3~2	1000	50±2	0.5	16	1.15	N	120*55.9*30

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FDDC-300-6000-K6-30-NS	0.3~6	600	30±0.9	0.7	15	1.4	N&SMA	225.9*25.4*47.5
FDDC-300-6000-K6-40-NS	0.3~6	600	40±1.0	0.7	15	1.4	N&SMA	225.9*25.4*47.5
FDDC-300-8000-20-20-S	0.3~8	20	20±1	1.1	18	1.35	SMA	152.4*18.54*12.7
FDDC-300-18000-30-20-S	0.3~18	30	20±1	1.8	14	1.5	SMA	178.4*12.7*24
FDDC-300-18000-30-30-S	0.3~18	30	30±1	1.7	14	1.5	SMA	178.4*12.7*24
FDDC-400-450-20-40-S	0.4~0.45	20	40±1	0.3	20	1.3	SMA	288*27*15
FDDC-400-2500-K5-50-NS	0.4~2.5	500	50±1.2	0.3	18	1.3	N&SMA	85*44*26
FDDC-400-6000-K6-30-NS	0.4~6	600	30±0.8	0.6	15	1.3	N&SMA	195.5*25.4*47.5
FDDC-400-6000-K6-40-NS	0.4~6	600	40±0.9	0.6	15	1.3	N&SMA	195.5*25.4*47.5
FDDC-400-8000-K25-30-NS	0.4~8	250	30±0.9	0.7	14	1.4	N&SMA	195.5*25.4*47.5
FDDC-400-8000-K25-40-NS	0.4~8	250	40±1.0	0.7	14	1.4	N&SMA	195.5*25.4*47.5
FDDC-400-8000-K6-30-NS	0.4~8	600	30±0.9	0.7	14	1.4	N&SMA	195.5*25.4*47.5
FDDC-400-8000-K6-40-NS	0.4~8	600	40±1.0	0.7	14	1.4	N&SMA	195.5*25.4*47.5
FDDC-500-2000-K8-50-NS	0.5~2	800	50±0.8	0.3	18	1.35	N&SMA	85*44*26
FDDC-500-3000-K5-60-NS	0.5~3	500	60±2	0.4	16	1.4	N&SMA	85*44*26
FDDC-500-6000-K25-40-N	0.5~6	250	40	0.5	10	1.25	N	131*39*20
FDDC-500-6000-K3-40-N	0.5~6	300	40±2	0.6	15	1.5	N	38.1*38.1*27.6
FDDC-500-6000-K4-40-N	0.5~6	400	40±2	0.5	15	1.5	N	38.1*38.1*27.6
FDDC-500-6000-K6-30-NS	0.5~6	600	30±0.7	0.6	15	1.3	N&SMA	182.8*25.4*47.5
FDDC-500-6000-K6-40-NS	0.5~6	600	40±0.8	0.6	15	1.3	N&SMA	182.8*25.4*47.5
FDDC-500-8000-K25-30-NS	0.5~8	250	30±0.8	0.7	14	1.4	N&SMA	182.8*25.4*47.5
FDDC-500-8000-K25-40-NS	0.5~8	250	40±0.9	0.7	14	1.4	N&SMA	182.8*25.4*47.5
FDDC-500-8000-K6-30-NS	0.5~8	600	30±0.8	0.7	14	1.4	N&SMA	182.8*25.4*47.5
FDDC-500-8000-K6-40-NS	0.5~8	600	40±0.9	0.7	14	1.4	N&SMA	182.8*25.4*47.5
FDDC-500-18000-30-10-S	0.5~18	30	10±0.7	3.3	15	1.5	SMA	223.5*15.4*15.9
FDDC-500-18000-K25-30-NS	0.5~18	250	30±1.2	1	10	1.6	N&SMA	182.8*25.4*47.5
FDDC-500-18000-K25-40-NS	0.5~18	250	40±1.2	1	10	1.6	N&SMA	182.8*25.4*47.5
FDDC-500-18000-K4-30-NS	0.5~18	400	30±1.2	1	10	1.6	N&SMA	182.8*25.4*47.5
FDDC-500-18000-K4-30-NS	0.5~18	400	40±1.2	1	10	1.6	N&SMA	182.8*25.4*47.5
FDDC-500-40000-20-10-K	0.5~40	20	10±0.9	5	12	1.7	2.92mm	223.5*15.4*15.9
FDDC-600-2700-K8-50-NS	0.6~2.7	800	50±1.2	0.3	20	1.3	N&SMA	85*44*26
FDDC-700-6000-50-10-S	0.7~6	50	10±1.2	2.2	12	1.4	SMA	202*16*11
FDDC-700-6000-50-30-S	0.7~6	50	30±1.5	1.2	10	1.4	SMA	202*16*11
FDDC-700-6000-K5-35-NS	0.7~6	500	35±1	0.5	12	1.7	SMA, N	92*38*25.4
FDDC-700-6000-K6-30-NS	0.7~6	600	30±0.7	0.5	15	1.3	N&SMA	152.3*25.4*47.5
FDDC-700-6000-K6-40-NS	0.7~6	600	40±0.7	0.5	15	1.3	N&SMA	152.3*25.4*47.5
FDDC-700-18000-K25-30-NS	0.7~18	250	30±1.2	0.9	10	1.6	N&SMA	152.3*25.4*47.5
FDDC-700-18000-K25-40-NS	0.7~18	250	40±1.2	0.9	10	1.6	N&SMA	152.3*25.4*47.5
FDDC-940-1900-50-20-S	0.94~1.9	50	20±1	0.35	20	1.2	SMA	73*20*11
FDDC-1000-2000-K5-30-N	1~2	500	30±1	0.25	26	1.5	N	38.1*38.1*27.6
FDDC-1000-2000-K5-50-N	1~2	500	50±1	0.25	26	1.5	N	38.1*38.1*27.6
FDDC-1000-6000-50-10-S	1~6	50	10±1	2	18	1.3	SMA	140*12*18
FDDC-1000-6000-50-10-N	1~6	50	10±1	0.5	16	1.3	N	90*20*40
FDDC-1000-6000-50-10-NS	1~6	50	10±1	2	18	1.3	NS	140*20*20
FDDC-1000-6000-50-40-S	1~6	50	40±1.2	2	18	1.3	SMA	140*12*18
FDDC-1000-6000-50-40-N	1~6	50	40±1.2	0.5	16	1.3	N	90*20*40
FDDC-1000-6000-50-40-NS	1~6	50	40±1.2	2	18	1.3	NS	140*20*20
FDDC-1000-6000-K1-10-N	1~6	100	10±0.8	0.7	10	1.4	N	100*30*24
FDDC-1000-6000-K1-10-NS	1~6	100	10±0.8	0.7	10	1.4	NS	92*38*25.4
FDDC-1000-6000-K1-40-N	1~6	100	40±1.5	0.7	16	1.4	N	100*30*24
FDDC-1000-6000-K1-40-NS	1~6	100	40±1.5	0.7	16	1.4	NS	92*38*25.4
FDDC-1000-6000-K5-40-NS	1~6	500	40±1	0.5	12	1.7	N&SMA	92*38*25.4
FDDC-1000-6000-K6-30-NS	1~6	600	30±0.7	0.5	15	1.3	N&SMA	115.6*25.4*47.5
FDDC-1000-6000-K6-40-NS	1~6	600	40±0.7	0.5	15	1.3	N&SMA	115.6*25.4*47.5
FDDC-1000-18000-30-10-S	1~18	30	10±0.7	2.7	14	1.5	SMA	140*12.7*15.9
FDDC-1000-18000-30-20-S	1~18	30	20±0.7	1	14	1.5	SMA	78*12.7*24
FDDC-1000-18000-30-30-S	1~18	30	30±0.7	0.9	14	1.5	SMA	78*12.7*24
FDDC-1000-18000-K25-30-NS	1~18	250	30±1.2	0.8	10	1.6	N&SMA	115.6*25.4*47.5
FDDC-1000-18000-K25-40-NS	1~18	250	40±1.2	0.8	10	1.6	N&SMA	115.6*25.4*47.5
FDDC-1000-18000-K4-30-NS	1~18	400	30±1.2	0.8	10	1.6	N&SMA	115.6*25.4*47.5
FDDC-1000-18000-K4-40-NS	1~18	400	40±1.2	0.8	10	1.6	N&SMA	115.6*25.4*47.5
FDDC-1000-26500-30-20-S	1~26.5	30	20±0.8	1.3	12	1.6	SMA	78*12.7*24



The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FDCC-1000-26500-30-30-S	1~26.5	30	30±0.8	1.2	12	1.6	SMA	78*12.7*24
FDCC-1000-40000-20-10-K	1~40	20	10±0.9	3.7	11	1.7	2.92mm	140*12.7*15.9
FDCC-1000-40000-20-20-K	1~40	20	20±1	1.7	10	1.7	2.92mm	78*12.7*24
FDCC-1000-40000-20-30-K	1~40	20	30±1	1.6	10	1.7	2.92mm	78*12.7*24
FDCC-1000-67000-12-10-V	1~67	12	10±2	5.7	8	2	1.85mm	140*12.7*15.9
FDCC-1270-1305-1K-30-7-1	1.27~1.305	1000	30±1	0.15	30	1.15	7/16 DIN	80*55.9*55.9
FDCC-1900-2200-50-10-NS	1.9~2.2	50	10±1	1.5	20	1.2	SMA, N	140*20*20
FDCC-2000-2800-K3-40-NS	2~2.8	300	40±1	0.25	20	1.3	N&SMA	53*55*22
FDCC-2000-4000-10-10-S	2~4	10	10±1	0.8	18	1.2	SMA	86*15*11
FDCC-2000-4000-K1-30-S	2~4	100	30±1.5	0.4	20	1.25	SMA	44*26*22
FDCC-2000-4000-K3-20-NS	2~4	300	20±1	0.4	18	1.35	N&SMA	44*26*22
FDCC-2000-4000-K5-50-NS	2~4	500	50±1.5	0.4	20	1.25	SMA, N	44*26*22
FDCC-2000-5000-K4-45-NS	2~5	400	45±1.5	0.5	10	1.5	N&SMA	58*40*25
FDCC-2000-6000-K4-40-8S	2~6	400	40±1	0.3	15	1.5	SMA&Mini-DIN	70*28*25.4
FDCC-2000-6000-K6-30-NS	2~6	600	30±0.7	0.4	15	1.3	N&SMA	94.7*25.4*47.5
FDCC-2000-6000-K6-40-NS	2~6	600	40±0.7	0.4	15	1.3	N&SMA	94.7*25.4*47.5
FDCC-2000-8000-K15-40-NS	2~8	150	40±1	0.3	12	1.7	N&SMA	52*38*25.4
FDCC-2000-8000-K25-30-NS	2~8	250	30±0.8	0.4	14	1.4	N&SMA	94.7*25.4*47.5
FDCC-2000-8000-K25-40-NS	2~8	250	40±0.8	0.4	14	1.4	N&SMA	94.7*25.4*47.5
FDCC-2000-8000-K6-30-NS	2~8	600	30±0.8	0.4	14	1.4	N&SMA	94.7*25.4*47.5
FDCC-2000-8000-K6-40-NS	2~8	600	40±0.8	0.4	14	1.4	N&SMA	94.7*25.4*47.5
FDCC-2000-18000-20-40-S	2~18	20	40±1.5	2	7	1.7	SMA	86*18*11
FDCC-2000-18000-30-10-S	2~18	30	10±0.7	2.4	14	1.5	SMA	90*12.7*15.9
FDCC-2000-18000-30-20-S	2~18	30	20±0.7	0.9	14	1.5	SMA	60*12.7*24
FDCC-2000-18000-30-30-S	2~18	30	30±0.7	0.8	14	1.5	SMA	60*12.7*24
FDCC-2000-18000-K25-30-NS	2~18	250	30±1	0.6	10	1.6	N&SMA	94.7*25.4*47.5
FDCC-2000-18000-K25-40-NS	2~18	250	40±1	0.6	10	1.6	N&SMA	94.7*25.4*47.5
FDCC-2000-18000-K4-30-NS	2~18	400	30±1	0.6	10	1.6	N&SMA	94.7*25.4*47.5
FDCC-2000-18000-K4-40-NS	2~18	400	40±1	0.6	10	1.6	N&SMA	94.7*25.4*47.5
FDCC-2000-26500-30-10-S	2~26.5	30	10±0.8	2.8	14	1.6	SMA	90*12.7*15.9
FDCC-2000-26500-30-20-S	2~26.5	30	20±0.8	1.2	12	1.6	SMA	60*12.7*24
FDCC-2000-26500-30-30-S	2~26.5	30	30±0.8	1.1	12	1.6	SMA	60*12.7*24
FDCC-2000-40000-20-10-K	2~40	20	10±0.9	3.3	11	1.7	2.92mm	90*12.7*15.9
FDCC-2000-40000-20-20-K	2~40	20	20±1	1.5	10	1.7	2.92mm	60*12.7*24
FDCC-2000-40000-20-30-K	2~40	20	30±1	1.4	10	1.7	2.92mm	60*12.7*24
FDCC-2700-3100-K2-40-N	2.7~3.1	200	40±2	0.3	18	1.3	N	44*26*22
FDCC-4000-6000-10-10-S	4~6	10	10±1	0.8	18	1.2	SMA	86*15*11
FDCC-4000-6000-K4-40-NS	4~6	400	40±1.5	0.6	10	1.3	N&SMA	50*50*22.6
FDCC-6000-8000-30-30-S	6~8	30	30±1	0.5	16	1.3	SMA	66*15*11
FDCC-6000-10000-K12-40-NS	6~10	120	40±1	0.3	15	1.4	N&SMA	44*28*25.4
FDCC-6000-18000-30-10-S	6~18	30	10±0.7	2	14	1.5	SMA	63.5*12.7*15.9
FDCC-6000-18000-30-20-S	6~18	30	20±0.7	0.8	14	1.5	SMA	44*12.7*24
FDCC-6000-18000-30-30-S	6~18	30	30±0.7	0.7	14	1.5	SMA	44*12.7*24
FDCC-6000-18000-60-20-S	6~18	60	20±1	1	12	1.5	SMA	66*15*11.09
FDCC-6000-18000-80-35-S	6~18	80	35±1	0.5	10	1.5	SMA	39*21*15
FDCC-6000-18000-K25-30-NS	6~18	250	30±1	0.5	10	1.6	N&SMA	83.7*25.4*47.5
FDCC-6000-18000-K25-40-NS-1	6~18	250	40±1	0.5	10	1.7	N&SMA	38*37*25.4
FDCC-6000-18000-K4-30-NS	6~18	400	30±1	0.5	10	1.6	N&SMA	83.7*25.4*47.5
FDCC-6000-18000-K4-40-NS	6~18	400	40±1	0.5	10	1.6	N&SMA	83.7*25.4*47.5
FDCC-6000-26500-30-10-S	6~26.5	30	10±0.8	2.4	14	1.6	SMA	63.5*12.7*15.9
FDCC-6000-26500-30-20-S	6~26.5	30	20±0.8	1.1	12	1.6	SMA	44*12.7*24
FDCC-6000-26500-30-30-S	6~26.5	30	30±0.8	1	12	1.6	SMA	44*12.7*24
FDCC-6000-40000-20-10-K	6~40	20	10±0.9	2.8	10	1.7	2.92mm	63.5*12.7*15.9
FDCC-6000-40000-20-20-K	6~40	20	20±1	1.4	10	1.7	2.92mm	44*12.7*24
FDCC-6000-40000-20-30-K	6~40	20	30±1	1.3	10	1.7	2.92mm	44*12.7*24
FDCC-8000-12400-K1-40-N	8~12.4	100	40±1	0.4	10	1.4	N	60*30*24
FDCC-18000-26500-30-10-S	18~26.5	30	10±1.5	2.4	10	1.6	SMA	56*15*11
FDCC-18000-26500-30-20-S	18~26.5	30	20±0.5	1	12	1.6	SMA	44*12.7*24
FDCC-18000-26500-30-30-S	18~26.5	30	30±0.5	0.9	12	1.6	SMA	44*12.7*24
FDCC-18000-40000-20-10-K	18~40	20	10±0.7	2.7	10	1.7	2.92mm	44*12.7*24
FDCC-18000-40000-20-30-K	18~40	20	30±0.7	1.3	10	1.7	2.92mm	44*12.7*24
FDCC-18000-40000-30-20-K	18~40	30	20±2	2.2	10	1.7	2.92mm	56*15*11

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FDDC-18000-67000-12-30-V	18~67	12	30±1.2	2.8	7	2	1.85mm	63.5*12.7*15.9
FDDC-24000-44000-20-10-2	24~44	20	10±0.7	2.8	10	1.7	2.4mm	63.5*12.7*15.9
FDDC-24000-44000-20-20-2	24~44	20	20±0.7	1.4	10	1.7	2.4mm	44*12.7*24
FDDC-24000-44000-20-30-2	24~44	20	30±0.7	1.3	10	1.7	2.4mm	44*12.7*24
FDDC-26500-40000-20-10-K	26.5~40	20	10±0.5	2.7	10	1.7	2.92mm	63.5*12.7*15.9
FDDC-26500-40000-20-20-K	26.5~40	20	20±0.7	1.3	10	1.7	2.92mm	44*12.7*24
FDDC-26500-40000-20-30-K	26.5~40	20	30±0.7	1.2	10	1.7	2.92mm	44*12.7*24

### Bi-Directional Couplers

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB, max.)	Directivity (dB, min.)	VSWR (max.)	Connector	Size* (mm)
FBDC-2000-4000-K4-40-NS	2~4	400	40±1.5	0.5	10	1.3	N&SMA	50*50*22.6
FBDC-4000-6000-K4-40-NS	4~6	400	40±1.5	0.6	10	1.3	N&SMA	50*50*22.6



## 90 Degree Hybrid Couplers

90 degree hybrid coupler, with signal energy obtained by coupling being half of the total energy (3dB), is similar to a 2-way power divider. The energy from the coupling port and the output port accounts for half respectively. Different from a 2-way power divider, whose signals at the two output ports are identical (the phase difference is 0 degree, so the power divider is also called 0 degree power divider), the signal phase difference between the coupling port and the output port of the 3dB hybrid coupler is 90 degrees.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Power Amplifiers, Broadcast, Laboratory Test, Telecom.

### How To Order:

FHCV-W-X-Y-Z

Phase Difference: 90° - 9, 180° - 8  
 Start Frequency (MHz)  
 Stop Frequency (MHz)

Connector Type  
 Power (W)



**Examples:** To order a 90 degree hybrid coupler, 225~400MHz, power 50W, SMA, specify FHC9-225-400-50-S.

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Bal. (±dB/°, Max.)	VSWR (max.)	Connector	Size* (mm)
FHC9-1.6-30-K25-N	0.0016 ~ 0.03	250	0.2	25	0.1/3	1.3	N	-
FHC9-50-250-1-S	0.05 ~ 0.25	1	1.6	15	0.5/6	1.5	SMA	31.75*31.95*19.05
FHC9-80-1000-K2-N	0.08 ~ 1	200	0.9	16	1.3/8	1.35	N	155*85.8*29
FHC9-100-140-10-S	0.1 ~ 0.14	10	0.5	18	0.7/5	1.3	SMA	67*60*13
FDHC9-100-520-K2	0.1 ~ 0.52	200	0.45	17	0.75/5	1.3	-	83.82*38.1*7.32
FDHC9-100-520-K8	0.1 ~ 0.52	800	0.42	16	0.75/5	1.3	-	83.82*38.1*9.32
FHC9-106-176-K2-N	0.106 ~ 0.176	200	0.25	20	0.45/2	1.25	N	162.56*30.48*20.32
FHC9-225-400-50-S	0.225~0.4	50	0.3	20	0.5/4	1.25	SMA	66*32*13
FHC9-225-400-K2-N	0.225~0.4	200	0.25	20	0.6/2	1.25	N	104.65*30.48*20.32
FHC9-300-6000-30-S	0.3~6	30	2.2	16	1.1/7	1.5	SMA	280*35*14
FHC9-400-500-10-S	0.4~0.5	10	0.5	20	0.5/3	1.3	SMA	62*26*13
FHC9-400-650-K8-N	0.4~0.65	800	0.5	16	0.6/5	1.35	N	410*102*36
FHC9-500-1000-50-S	0.5~1	50	0.3	22	0.5/2	1.25	SMA	84.5*13*11
FHC9-500-3000-10-S	0.5~3	10	1.1	20	0.9/7	1.3	SMA	153*25.4*11
FHC9-500-6000-30-S	0.5~6	30	1.4	19	0.5/5	1.4	SMA	215.9*35.6*12.7
FHC9-500-9000-30-S	0.5~9	30	1.8	19	0.7/5	1.4	SMA	215.9*35.6*12.7
FHC9-600-18000-30-S	0.6~18	30	3	16	1/8	1.4	SMA	173.7*35.6*12.7
FSHC9-800-4200-K1	0.8~4.2	100	0.8	15	1/8	1.5	SMD	45.72*10.16*4.6
FHC9-1000-3000-K1-S	1~3	100	0.6	18	0.3/3	1.35	SMA	-
FSHC9-1000-3000-K4	1~3	400	0.2	20	1/4	1.25	SMD	25.4*12.7*5.5
FHC9-1000-4000-30-S	1~4	30	0.6	20	0.6/6	1.25	SMA	76*22*11
FHC9-1000-7000-20-S	1~7	20	0.9	18	0.4/4	1.4	SMA	74*25*11
FHC9-1000-18000-30-S	1~18	30	1.5	16	1/9	1.8	SMA	74*25*11
FHC9-1500-2500-30-S	1.5~2.5	30	0.5	20	0.6/5	1.3	SMA	105*22*11
FHC9-2000-2300-K1-S	2~2.3	100	0.35	20	0.2/3	1.2	SMA	45*40*10
FHC9-2000-8000-20-S	2~8	20	0.8	18	0.8/8	1.4	SMA	60*25*11
FHC9-2000-8000-60	2~8	60	0.8	17	1/8	1.5	PIN	60*25*11
FHC9-2000-18000-30-S	2~18	30	2.2	18	1/5	1.45	SMA	60*25*11
FHC9-2000-26500-30-S	2~26.5	30	2	10	1/10	1.8	SMA	37*18*11
FHC9-2000-40000-30-K	2~40	30	2.8	10	1.5/12	2	2.92mm	37*18*11
FHC9-2400-2500-K5-N	2.4~2.5	500	0.6	18	0.3/2.5	1.4	N	100*50*20
FHC9-2500-8000-30-S	2.5~8	30	0.7	15	0.6/7	1.6	SMA	60*41*11
FHC9-2700-3500-K5-N	2.7~3.5	500	0.5	16	0.8/8	1.5	N	117.2*38*25
FHC9-3200-4000-30-S	3.2~4	30	0.5	20	0.6/2	1.3	SMA	45*17*11
FHC9-4000-18000-K1-S	4~18	100	1.4	15	0.9/6	1.7	SMA	27*16*11
FHC9-5700-5900-30-S	5.7~5.9	30	0.5	23	0.3/3	1.25	SMA	40*15*12
FHC9-6000-18000-30-S	6~18	30	1	16	0.7/8	1.5	SMA	22*34.7*11
FHC9-6000-26500-30-S	6~26.5	30	1.8	15	0.7/8	1.6	SMA	43.7*21.9*12.7
FHC9-6000-40000-20-K	6~40	20	2	14	1.2/10	1.8	2.92mm	43.7*21.9*12.7
FHC9-6000-50000-20-2	6~50	20	2.7	12	1.2/12	1.9	2.4mm	43.7*21.9*12.7
FHC9-18000-40000-30-K	18~40	30	2.2	12	0.7/10	1.8	2.92mm	25.4*16*11
FHC9-18000-50000-20-2	18~50	20	2.6	13	0.9/12	1.9	2.4mm	43.7*21.9*12.7
FHC9-24000-44000-20-2	24~44	20	2.3	14	0.7/10	1.8	2.4mm	43.7*21.9*12.7
FHC9-26000-40000-30-K	26~40	30	2.2	12	0.7/10	1.8	2.92mm	25.4*16*11

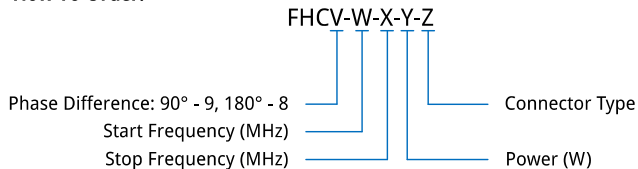
## 180 Degree Hybrid Couplers

180 degree hybrid coupler, is similar to a 2-way power divider when a signal comes in from the 0 degree port ( $\Sigma$ ) and out as two identical signals (with the same amplitude and phase) from port 1 and port 2. There' s no signal coming out of the 180 degree port ( $\Delta$ ). It is similar to a 2-way combiner when two identical signals come in from port 1 and port 2 respectively and out as one synthesized signal from port 0 ( $\Sigma$ ). There' s no signal coming out of the 180 degree port ( $\Delta$ ).

When a signal comes in from the 180 degree port ( $\Delta$ ), two signals of the same amplitude and with 180 degree phase difference will come out from port 1 and port 2, and at the time, there is no signal coming out from the 0 degree port ( $\Sigma$ ). When two signals of the same amplitude and with 180 degree phase difference come in from port 1 and port 2 respectively, they will become a synthesized signal coming out from the 180 degree port ( $\Delta$ ). There is no signal coming out from the 0 degree port ( $\Sigma$ ).

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Power Amplifiers, Broadcast, Laboratory Test, Telecom.

### How To Order:



**Examples:** To order a 180 degree hybrid coupler 225~400MHz, power 30W, SMA, specify FHC8-225-400-30-S.

The sizes in the following table do not include connectors.

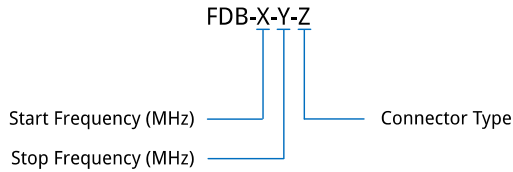
Part Number	Frequency (GHz)	Power (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Bal. ( $\pm$ dB/ $^\circ$ , Max.)	VSWR (max.)	Connector	Size* (mm)
FHC8-1.6-30-K25-N	0.0016~0.03	250	0.2	25	0.1/3	1.3	N	-
FHC8-1.6-30-2K5-N	0.0016~0.03	2500	0.2	25	0.1/3	1.2	N	-
FHC8-106-176-30-S	0.106~0.176	30	1.2	18	0.8/10	1.4	SMA	13*120*152
FHC8-225-400-30-S	0.225~0.4	30	1	18	0.8/10	1.4	SMA	13*96*96
FHC8-350-1000-K25-N	0.35~1	250	0.5	20	0.5/7	1.3	N	150*100*24
FHC8-500-6000-30-S	0.5~6	30	3.6	18	1/9	1.5	SMA	254*71.1*12.7
FHC8-500-8000-30-S	0.5~8	30	4	18	1/9	1.5	SMA	254*71.1*12.7
FHC8-1000-3000-2	1~3	2	1	18	0.7/10	1.4	SMD	67*46*10
FHC8-1000-3000-K1-S	1~3	100	0.7	18	0.3/5	1.35	SMA	-
FHC8-1000-6000-30-S	1~6	30	1.8	18	0.7/7	1.4	SMA	150*44.5*12.7
FHC8-1000-12400-30-S	1~12.4	30	2.6	17	0.7/8	1.5	SMA	150*44.5*12.7
FHC8-1000-18000-30-S	1~18	30	3.3	16	1/10	1.6	SMA	150*44.5*12.7
FHC8-1200-2700-10-S	1.2~2.7	10	0.8	20	0.8/10	1.35	SMA	65*60*14
FHC8-1500-2500-10-S	1.5~2.5	10	0.5	20	0.6/5	1.4	SMA	64*60*13
FHC8-2000-6000-30-S	2~6	30	1.5	18	0.9/11	1.35	SMA	82*36*11
FHC8-2000-18000-30-S	2~18	30	2	16	0.7/9	1.6	SMA	77.2*34.3*12.7
FHC8-2000-26500-30-S	2~26.5	30	3.2	15	1/12	1.7	SMA	77.2*34.3*12.7
FHC8-2700-3400-30-S	2.7~3.4	30	0.4	20	0.3/5	1.35	SMA	48*53*13
FHC8-3200-4000-10-S	3.2~4	10	0.5	18	0.6/5	1.4	SMA	45*60*13
FHC8-4000-10000-30-S	4~10	30	1.5	18	0.8/10	1.5	SMA	48*36*11
FHC8-6000-12400-30-S	6~12.4	30	1.8	15	-/12	1.6	SMA	49*36*11
FHC8-6000-18000-30-S	6~18	30	1.5	16	0.6/8	1.6	SMA	40*40.6*12.7
FHC8-6000-26500-30-S	6~26.5	30	2	15	0.8/10	1.7	SMA	40*40.6*12.7
FHC8-6000-40000-20-K	6~40	20	3	14	1.2/12	1.8	2.92mm	40*40.6*12.7
FHC8-6000-50000-20-2	6~50	20	3.8	12	1.5/15	2	2.4mm	40*40.6*12.7
FHC8-18000-26500-30-S	18~26.5	30	1.9	15	0.7/9	1.7	SMA	40*40.6*12.7
FHC8-18000-40000-20-K	18~40	20	2.9	15	1.2/12	1.8	2.92mm	40*40.6*12.7
FHC8-18000-50000-20-2	18~50	20	3.8	12	1.4/14	1.9	2.4mm	40*40.6*12.7
FHC8-24000-44000-20-2	24~44	20	3.4	14	1.1/11	1.8	2.4mm	40*40.6*12.7
FHC8-26500-40000-20-K	26.5~40	20	2.9	15	1/10	1.7	2.92mm	40*40.6*12.7
FHC8-26500-50000-20-2	26.5~50	20	3.8	12	1.4/13	1.9	2.4mm	40*40.6*12.7

**DC Blocks**

DC Block is used to block the DC signal for RF circuits. Freflex supplies DC blocks working up to 67GHz.

**Features:** Broadband, Low VSWR, High Withstand Voltage; **Applications:** Telecom, Instrumentation, Laboratory Test, Radar.

**How To Order:**



**Examples:** To order a DC block, 10M~26.5GHz, 3.5mm female to 3.5mm female, specify FDB-10-26500-3F3F.

**Standard DC Blocks**

Part Number	Frequency (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Voltage (V, max.)	Connector	Size (mm)
FDB-0.7-67000-VVF-A	700K~67	1	1.9	16	1.85mm male-1.85mm female	Φ8*26.9
FDB-0.7-67000-VVF-B						
FDB-10-3000-SFSF	0.01~3	0.6	1.3	50	SMA female-SMA female	22*20*12
FDB-10-110000-11F	0.01~110	2	2	50	1.0mm male-1.0mm female	L: 31.3
FDB-10-67000-VVF	0.01~67	0.4	1.65	25	1.85mm male-1.85mm female	L: 18.3
FDB-10-50000-22F	0.01~50	0.8	1.3	50	2.4mm male-2.4mm female	Φ9*26.8
FDB-10-50000-22					2.4mm male-2.4mm male	Φ9*25.6
FDB-10-50000-2F2F					2.4mm female-2.4mm female	Φ9*28
FDB-10-40000-KKF	0.01~40	0.8	1.3	50	2.92mm male-2.92mm female	Φ9*25
FDB-10-40000-KK					2.92mm male-2.92mm male	Φ9*26
FDB-10-40000-KFKF					2.92mm female-2.92mm female	Φ9*24
FDB-10-26500-SSF					SMA male-SMA female	Φ9*30
FDB-10-26500-SS	0.01~26.5	0.8	1.3	50	SMA male-SMA male	Φ9*31.1
FDB-10-26500-SFSF					SMA female-SMA female	Φ9*28.8
FDB-10-26500-33F					3.5mm male-3.5mm female	Φ9*33.8
FDB-10-26500-33					3.5mm male-3.5mm male	Φ9*34.9
FDB-10-26500-3F3F					3.5mm female-3.5mm female	Φ9*32.7
FDB-10-18000-NNF	0.01~18	0.6	1.25	50	N male-N female	L: 42.6
FDB-10-18000-NN					N male-N male	L: 43.4
FDB-10-18000-NFNF					N female-N female	L: 41.8

**High Voltage DC Blocks**

Part Number	Frequency (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Voltage (V, max.)	Connector	Size (mm)
FDB-100-18000-K1-NNF	0.1~18	0.8	1.4	100	N male-N female	Φ20*61
FDB-100-18000-K1-SSF	0.1~18	0.8	1.45	100	SMA male-SMA female	Φ11*40
FDB-100-6000-3K-44F	0.1~6	0.3	1.25	3000	4.3-10 male-4.3-10 female	Φ26*60
FDB-100-6000-3K-77F	0.1~6	0.3	1.25	3000	7/16 male-7/16 female	Φ32*80
FDB-80-6000-3K-NNF	0.08~6	0.35	1.25	3000	N male-N female	Φ38*78.5
FDB-80-3000-3K-NNF-A	0.08~3	0.25	1.15	3000	N male-N female	Φ38*76
FDB-80-3000-3K-NNF-B						Φ38*78.2
FDB-50-8000-3K-NNF	0.05~8	0.5	1.5	3000	N male-N female	Φ38*78.5

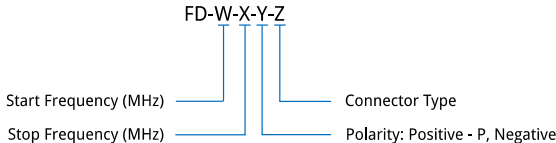
## Detectors

The detector is a component that detects useful information in the fluctuating signals. It can identify the existence and change of wave, oscillation and signal. The technical specifications of detector mainly include frequency range, sensitivity and linearity. The RF signal frequency range may be the first parameter to consider when selecting a detector. The speed of the detector must be fast enough to extract the amplitude of the signal. It must also be able to provide a constant response for a wide frequency range. Sensitivity refers to the ability of the detector to return useful information when a very low input signal is added to the input. It is the change of the detector output signal relative to the input signal, in mV/mW; it can be simply understood as how much mV the output voltage of the detector will change when the power of the input signal changes (increases or decreases) by 1mW, and the greater the change, the more sensitive it will be. The positive detector is the detector whose output voltage is positive, and the negative detector is the detector whose output voltage is negative.

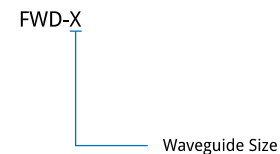
Freflex supplies coaxial and waveguide detectors working from 10MHz to 110GHz.

**Features:** Broadband, High Sensitivity; **Applications:** Telecom, Instrumentation, Laboratory Test, Radar.

### How To Order Coaxial Detectors:



### How To Order Waveguide Detectors:



**Examples:** To order a coaxial detector, 0.01~18GHz, positive, SMA male to SMA female, specify FD-10-18000-P-S.

**Examples:** To order a waveguide detector, WR-10, specify FWD-10.

## Coaxial Detectors

Part Number	Frequency (GHz)	Sensitivity (mV/mW)	Flatness (± dB, max.)	VSWR (max.)	Polarity	Input Power (dBm, max.)	Input Connector	Output Connector	Size (mm)
FD-10-4000-P-S FD-10-4000-N-S	0.01~4	500	0.3	1.2	Positive Negative	20	SMA (m)	SMA (f)	Φ9.2*36
FD-10-4000-P-SB FD-10-4000-N-SB	0.01~4	500	0.3	1.2	Positive Negative	20	SMA (m)	BNC (f)	-
FD-10-4000-P-N FD-10-4000-N-N	0.01~4	500	0.3	1.2	Positive Negative	20	N (m)	N (f)	Φ20*67
FD-10-4000-P-NS FD-10-4000-N-NS	0.01~4	500	0.3	1.2	Positive Negative	20	N (m)	SMA (f)	-
FD-10-4000-P-NB FD-10-4000-N-NB	0.01~4	500	0.3	1.2	Positive Negative	20	N (m)	BNC (f)	-
FD-10-8000-P-S FD-10-8000-N-S	0.01~8	500	0.3	1.4	Positive Negative	20	SMA (m)	SMA (f)	Φ9.2*36
FD-10-8000-P-SB FD-10-8000-N-SB	0.01~8	500	0.3	1.4	Positive Negative	20	SMA (m)	BNC (f)	-
FD-10-8000-P-N FD-10-8000-N-N	0.01~8	500	0.3	1.4	Positive Negative	20	N (m)	N (f)	Φ20*67
FD-10-8000-P-NS FD-10-8000-N-NS	0.01~8	500	0.3	1.4	Positive Negative	20	N (m)	SMA (f)	-
FD-10-8000-P-NB FD-10-8000-N-NB	0.01~8	500	0.3	1.4	Positive Negative	20	N (m)	BNC (f)	-
FD-10-12000-P-S FD-10-12000-N-S	0.01~12	500	0.5	1.5	Positive Negative	20	SMA (m)	SMA (f)	Φ9.2*36
FD-10-12000-P-SB FD-10-12000-N-SB	0.01~12	500	0.5	1.5	Positive Negative	20	SMA (m)	BNC (f)	-
FD-10-12000-P-N FD-10-12000-N-N	0.01~12	500	0.5	1.8	Positive Negative	20	N (m)	N (f)	Φ20*67
FD-10-12000-P-NS FD-10-12000-N-NS	0.01~12	500	0.5	1.8	Positive Negative	20	N (m)	SMA (f)	-
FD-10-12000-P-NB FD-10-12000-N-NB	0.01~12	500	0.5	1.8	Positive Negative	20	N (m)	BNC (f)	-
FD-10-18000-P-S FD-10-18000-N-S	0.01~18	500	0.6	1.8	Positive Negative	20	SMA (m)	SMA (f)	Φ9.2*36
FD-10-18000-P-SB FD-10-18000-N-SB	0.01~18	500	0.6	1.8	Positive Negative	20	SMA (m)	BNC (f)	-
FD-10-18000-P-N FD-10-18000-N-N	0.01~18	500	0.6	2.2	Positive Negative	20	N (m)	N (f)	Φ20*67
FD-10-18000-P-NS FD-10-18000-N-NS	0.01~18	500	0.6	2.2	Positive Negative	20	N (m)	SMA (f)	-
FD-10-18000-P-NB FD-10-18000-N-NB	0.01~18	500	0.6	2.2	Positive Negative	20	N (m)	BNC (f)	-
FD-10-26500-P-S FD-10-26500-N-S	0.01~26.5	180	1.5	2.2	Positive Negative	20	SMA (m)	SMA (f)	Φ9.2*36

Part Number	Frequency (GHz)	Sensitivity (mV/mW)	Flatness ( $\pm$ dB, max.)	VSWR (max.)	Polarity	Input Power (dBm, max.)	Input Connector	Output Connector	Size (mm)
FD-10-26500-P-SB FD-10-26500-N-SB	0.01~26.5	180	1.5	2.2	Positive Negative	20	SMA (m)	BNC (f)	-
FD-10-40000-P-K FD-10-40000-N-K	0.01~40	150	3.5	2.2	Positive Negative	20	2.92mm (f)	2.92mm (f)	29.8*9.8*9.8

## Waveguide Detectors

Part Number	Frequency (GHz)	Sensitivity (mV/ mW)	Flatness ( $\pm$ dB, max.)	VSWR (max.)	Polarity	Input Power (dBm, max.)	Input Connector	Output Connector	Size (mm)
FWD-10	75~110	100	2.2	-	Negative	20	WR-10	SMA (f)	26.5*32.2
FWD-15	50~75	200	2	-	Negative	20	WR-15	SMA (f)	30*17.6*38.6
FWD-19	40~60	300	1.8	-	Negative	20	WR-19	SMA (f)	L: 24.5
FWD-22	33~50	300	1.8	-	Negative	20	WR-22	SMA (f)	30*42.5*17
FWD-28	26.5~40	300	1.5	-	Negative	20	WR-28	SMA (f)	34.5*33.7*19

## Equalizers

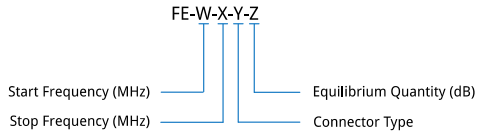
Freflex supplies equalizers working from 50MHz to 40GHz.

### Equalizers

Equalizer is a component used to compensate for the negative gain slope in the frequency response of various RF systems. Unlike a standard attenuator with a flat frequency response, an equalizer is a unique attenuator whose insertion loss varies linearly with frequency at a certain slope. For designers applying to broadband scenarios, this characteristic plays an important role in compensating for frequency response.

**Features:** Low VSWR, Small Size; **Applications:** Amplifier, Laboratory Test, Instrumentation.

#### How To Order:



**Examples:** To order an equalizer, DC~3GHz, SMA female, equilibrium quantity 1dB, specify FE-0-3000-S-1.

Part Number	Frequency (GHz)	Equilibrium Quantity (dB)	Insertion Loss (dB, max.)	VSWR (typ.)	Connector	Size (mm)
FE-0-3000-S-1	DC-3	1	1.5	1.04	SMA	16*20*10
FE-500-8000-S-6	0.5-8	6	1.5	1.5	SMA	-
FE-500-20000-S-12	0.5-20	12	2	1.8	SMA	-
FE-700-1300-S-3.5	0.7-1.3	3.5	1	1.6	SMA	26*20*12
FE-750-18000-S-25	0.75-18	25	8.5	2	SMA	20*16.8*10
FE-1000-1600-S-2	1-1.6	2	1	1.6	SMA	-
FE-1000-2000-S-3	1-2	3	1	1.5	SMA	-
FE-1000-4000-S-4	1-4	4	1	1.6	SMA	-
FE-1000-6000-S-10	1-6	10	2	2	SMA	-
FE-2000-4000-S-6	2-4	6	2	1.6	SMA	-
FE-2000-6000-S-3	2-6	3	1	1.6	SMA	-
FE-2000-18000-S-8	2-18	8	2	1.8	SMA	-
FE-2000-18000-S-10	2-18	10	3	2	SMA	-
FE-3000-6000-S-3	3-6	3	1	1.6	SMA	-
FE-4000-8000-S-4	4-8	4	2	1.8	SMA	-
FE-5000-15000-S-4	5-15	4	2	1.8	SMA	-
FE-6000-18000-S-3	6-18	3	2	1.8	SMA	-
FE-6000-18000-S-15	6-18	15	3	1.6	SMA	30*20*10
FE-7500-18000-S-25	7.5-18	25	8.5	2	SMA	20*16.8*10
FE-8000-18000-S-4	8-18	4	2	1.8	SMA	-
FE-8000-18000-S-19.5	8-18	19.5	4	1.8	SMA	30*20*12
FE-18000-40000-K-2	18-40	2	3	2	2.92mm	-
FE-18000-40000-K-4	18-40	4	3	2	2.92mm	-
FE-18000-40000-K-6	18-40	6	3	2	2.92mm	-
FE-26000-40000-K-4	26-40	4	4	2	2.92mm	-

## Filters/Multiplexers

The filter is a kind of frequency selection component, which can pass specific frequency and greatly attenuate other frequency. By using filter, the interference noise can be filtered or the spectrum can be analyzed.

Freflex supplies high stopband rejection filters with a wide frequency range up to 110GHz.

### Low Pass Filters

Low pass filter, allows signals below the cut-off frequency to pass, but signals above the cut-off frequency cannot pass.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Telecom, Laboratory Test, Receivers, Instrumentation.

**How To Order:**

FLF-X-Y

Stop Frequency of Passband (MHz)

Stopband Attenuation (dB)

**Examples:** To order a low pass filter, passband DC~300MHz, stopband attenuation 60dB@0.643~3GHz, specify FLF-300-60.



The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Stopband Attenuation (dB)	Connector	Size* (mm)
FLF-2-15-40-1	2M~15M	2.5	1.5	40@17-200MHz	SMA	50.29*17.02*7.92
FLF-2-15-40-2	2M~15M	2	1.5	40@19.5-200MHz	SMA	50.29*17.02*7.92
FLF-2-15-40-3	2M~15M	1	1.4	40@30-200MHz	SMA	50.29*17.02*7.92
FLF-45-20	DC~0.045	1	1.7	20@0.07~0.09GHz 40@0.09~1.6GHz	SMA	50.29*17.02*7.92
FLF-55-35	DC~0.055	0.8	1.5	35@0.07~0.2GHz	SMA	30*18*13
FLF-200-2400-60	0.2~2.4	5	1.5	60@3.6GHz	SMA	35*12*8
FLF-300-60	DC~0.3	0.5	1.5	60@0.643~3GHz	SMA	40*18*13
FLF-330-60	DC~0.33	0.5	1.3	60@0.643~3GHz	SMA	40*18*13
FLF-480-30	DC~0.48	3	1.5	30@0.53~3GHz	SMA	35*12*8
FLF-1000-40	DC~1	0.77	1.3	40@1.9~5GHz	SMA	36.32*Φ10.41
FLF-1400-50	DC~1.4	2	1.6	50(@2GHz max.)	SMA	35*12*8
FLF-2186-30	1.5~2.186	2	1.6	10@2.2775GHz 30@2.37~3GHz	SMA	35*12*10
FLF-2186-30-P	1.5~2.186	2	1.6	10@2.2775GHz 30@2.37~3GHz	Φ0.8mm Pin	35*12*7
FLF-2250-40	DC~2.25	0.82	1.2	40@3~5GHz	SMA	36.32*Φ10.41
FLF-2500-65	DC~2.5	3	2	65@3~13GHz	N	-
FLF-2700-90	DC~2.7	2	2	90@4.5~8.4GHz	SMA	-
FLF-3000-40	DC~3	0.72	1.2	40@4.78~7.5GHz	SMA	36.32*Φ10.41
FLF-4000-50	DC~4	0.8	1.5	50@8GHz	SMA	-
FLF-4000-60	DC~4	1.5	1.3	60@4.5~12.3GHz	SMA	35*23*10
FLF-4400-40	DC~4.4	0.73	1.2	40@6.28~9.8GHz	SMA	36.32*Φ10.41
FLF-4800-35	DC~4.8	1.5	2	35@6GHz	SMA	-
FLF-5000-40	DC~5	0.68	1.2	40@7.05~10GHz	SMA	36.32*Φ10.41
FLF-6000-20	0.5~6	2	1.8	20@6.5GHz	SMA	37*24*11
FLF-6000-60	DC~6	1.5	1.3	60@6.7~15.5GHz	SMA	29*22*10
FLF-6500-60	DC~6.5	1.5	1.3	60@7.27~15.3GHz	SMA	31*23*10
FLF-7000-50	DC~7	1.5	1.3	50@7.77~15.5GHz	SMA	31*23*10
FLF-8000-40	DC~8	2	2	40@9~25GHz	SMA	56.44*15*12.9
FLF-8000-50	DC~8	1.5	1.4	50@8.8~16.2GHz	SMA	30*22*10
FLF-9000-50	DC~9	1.5	1.4	50@9.8~17GHz	SMA	29*21*10
FLF-9000-60	DC~9	1	1.6	60@14~17GHz	SMA	29*22*12
FLF-10000-40	DC~10	2	2	40@13~18GHz	SMA	-
FLF-10000-50	DC~10	1.5	1.4	50@10.9~18.5GHz	SMA	28*21*10
FLF-11000-35	DC~11	2	2	35@12GHz	2.92mm	-
FLF-11000-50	DC~11	1.5	1.5	50@12.1~19GHz	SMA	24*19*10
FLF-11500-45	DC~11.5	2	2	45@12.8~13.3GHz	2.92mm	-
FLF-11500-40	DC~11.5	2	1.5	40@12.3~13.3GHz	2.92mm	-
FLF-12000-40	DC~12	2	2	40@13.5~25GHz	SMA	-
FLF-13000-40	DC~13	1.5	2	40@15~25GHz	2.92mm	-
FLF-13000-50	DC~13	2	1.5	50@14.1~21GHz	SMA	22*17.5*10
FLF-15000-40	DC~15	2	2	40@18~23GHz	2.92mm	-
FLF-15000-50	DC~15	2.5	1.5	50@16~22.3GHz	SMA	21*17*10

The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Stopband Attenuation (dB)	Connector	Size* (mm)
FLF-16000-40	DC~16	2	2	40@18-25GHz	SMA	-
FLF-18000-40	DC~18	2	2	40@20-38GHz	2.92mm	67*14*10
FLF-18000-50	DC~18	3	1.6	50@19.1-26GHz	SMA	18*17*10
FLF-20000-60	DC~20	1	2	60@23~40GHz	2.92mm	65*14*10
FLF-25000-40	DC~25	2	2	40@28-30GHz	2.92mm	58*13*11
FLF-28000-30	DC~28	2	2	30@30-38GHz	2.4mm	57*16*10



## Band Pass Filters

The band pass filter allows signals in a specific frequency range to pass. It refers to a filter that can pass a certain frequency, but attenuate the frequency in other ranges to a very low level, which is opposite to the concept of band reject filter.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Telecom, Laboratory Test, Receivers, Instrumentation.

### How To Order:

FBF-X-Y-Z

Start Frequency of Passband (MHz) ——— Stopband Attenuation (dB)  
 Stop Frequency of Passband (MHz) ———



**Examples:** To order a band pass filter, passband 40~100MHz, stopband attenuation 30dB@DC~0.03GHz & 30dB@0.118~0.4GHz, specify FBF-40-100-30.

The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Stopband Attenuation (dB)	Stopband Attenuation (dB)	Connector	Size* (mm)
FBF-40-100-30	0.04~0.1	1.5	1.5	30@DC~0.03GHz	30@0.118~0.4GHz	SMA	50*18*13
FBF-50-150-45	0.05~0.15	1	1.45	45@DC~0.035GHz	45@0.21~1GHz	SMA	40*18*13
FBF-50-250-30	0.05~0.25	1.2	1.8	30@DC~0.04GHz	30@0.31~0.5GHz	SMA	50*18*13
FBF-64-76-35	0.064~0.076	3	1.35	35@50MHz	35@90MHz	SMA	35*12*8
FBF-110-170-30	0.11~0.17	2	1.5	30@DC~0.08GHz	30@0.2~0.4GHz	SMA	50*18*13
FBF-136-174-60	0.136~0.174	2	1.5	60@350~530MHz	-	SMA	30*12*10
FBF-150-230-45	0.15~0.23	2	1.5	45@DC~120MHz	45@280~500MHz	SMA	40*18*13
FBF-150-350-50	0.15~0.35	1.5	1.5	50@DC~125MHz	50@430~1000MHz	SMA	35*12*8
FBF-245-355-25	0.245~0.235	2	1.5	38@DC~0.2GHz	25@0.4~0.9GHz	SMA	50*18*13
FBF-273-277-50	0.273~0.277	2.5	2	50@DC~0.26GHz	50@0.29~1GHz	SMD	3.8*3.8*1.5
FBF-300-600-30	0.3~0.6	1.8	1.5	30@0.26GHz	30@0.65GHz	SMA	40.4*12*10
FBF-310-443-50	0.31~0.443	1	1.5	50@DC~0.1765GHz	50@0.5765~1.5GHz	SMA	80*30*20
FBF-350-550-60	0.35~0.55	2	1.5	60@136~174MHz	-	SMA	30*12*10
FBF-400-700-50	0.4~0.7	2.5	1.5	50@DC~0.3GHz	50@0.85~1GHz	2.92mm	50*18*13
FBF-430-450-30	0.43~0.45	1	1.22	30@DC~0.425GHz	30@0.455~1GHz	SMA	181*93*65
FBF-497.5-502.5-40	0.4975~0.5025	1.2	1.22	40@DC~0.493GHz	40@0.507~1GHz	SMA	181*93*60
FBF-585-615-60	0.585~0.615	0.5	2	60@0.45GHz	60@0.75GHz	SMA	-
FBF-606-678-40	0.606~0.678	1.5	1.5	40@DC~0.5GHz	30@0.825~3GHz	SMA	40.4*12*10
FBF-710-730-45	0.71~0.73	2.5	1.3	45@0.695GHz	50@0.735GHz	SMA	-
FBF-710-730-65	0.71~0.73	2	1.4	65@DC~650MHz	65@790~1500MHz	SMA	116*80*20
FBF-800-1200-45	0.8~1.2	1	1.8	45@0.55GHz	45@1.45GHz	SMA	62*48*13
FBF-800-1600-40	0.8~1.6	5	2.2	40@0.75GHz	40@1.65GHz	SMA	-
FBF-818-918-45	0.818~0.918	3	1.5	45@0.668GHz	45@1.068GHz	SMA	35*12*8
FBF-818-1000-45	0.818~1	3	1.5	45@0.709GHz	45@1.109GHz	SMA	35*12*8
FBF-859-959-45	0.859~0.959	3	1.5	45@0.709GHz	45@1.109GHz	SMA	35*12*8
FBF-860-880-60	0.86~0.88	1.5	1.5	60@DC~0.8375GHz	60@0.9025~2GHz	SMA	97*67*40
FBF-890-910-60	0.89~0.91	1.5	1.5	60@DC~0.8675GHz	60@0.9325~2GHz	SMA	97*67*40
FBF-920-940-60	0.92~0.94	1.5	1.5	60@DC~0.8975GHz	60@0.9625~2GHz	SMA	97*67*40
FBF-955-2155-60	0.955~2.155	1.5	1.8	60@ DC~450MHz	60@ 2750~5000MHz	SMA	40*18*13
FBF-960-1240-30	0.96~1.24	1.5	1.5	30@860MHz	30@1350MHz	SMA	35*12*8
FBF-1000-1700-50	1~1.7	1.7	1.7	50@DC~0.9GHz	60@1.8~2.2GHz	2.92mm	100*67*11
FBF-1000-1800-30	1~1.8	2	1.5	30@0.8&2.2GHz	60@0.1&3GHz	SMA	30*12*10
FBF-1050-2250-30	1.05~2.25	5	1.5	30@0.3GHz	60@3GHz	SMA	40.4*12*10
FBF-1100-1600-50	1.1~1.6	2.5	1.5	50@0.9GHz	50@1.8GHz	SMA	35*12*8
FBF-1200-1400-50	1.2~1.4	0.3	1.35	50@0.8GHz	50@2~6GHz	N	-
FBF-1330-1430-45	1.33~1.43	0.5	1.25	45@DC~1.08GHz	45@1.68~4.5GHz	SMA	70*26*36
FBF-1390-1410-80	1.39~1.41	2	1.3	80@1.35GHz	80@1.47GHz	SMA	81*56*28
FBF-1400-1800-60	1.4~1.8	2	1.5	60@DC~1.3GHz	60@1.9~3GHz	SMA	126*59*11
FBF-1400-1850-60	1.4~1.85	2	1.5	60@DC~1.3GHz	60@1.9~3GHz	SMA	110*52*11
FBF-1500-1600-45	1.5~1.6	3	1.5	45@1.35GHz	45@1.75GHz	SMA	35*12*8
FBF-1518-1553-40	1.518~1.553	3	1.5	40@0.1GHz	40@0.5355&2.5355GHz	Pin	20*10*7
FBF-1640-1675-40	1.64~1.675	3	1.5	40@0.1GHz	40@0.6575&2.6575GHz	Pin	20*10*7
FBF-1650-3150-35	1.65~3.15	1.5	1.45	35@DC~1250MHz	35@3550~5000MHz	SMA	50*18*13
FBF-1800-2200-45	1.8~2.2	1.2	1.5	45@1.55GHz	45@2.45GHz	SMA	68*27*13
FBF-1950-2050-40	1.95~2.05	2	1.5	40@1.9GHz	40@2.1GHz	SMA	-
FBF-1980-2010-80	1.98~2.01	1.5	1.5	80@DC~1.82GHz	80@2.17~2.2GHz	SMA	78*54*24
FBF-2000-3000-50	2~3	1	1.5	50@DC~1.78GHz	50@3.22~5GHz	SMA	80*43*11

The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Stopband Attenuation (dB)	Stopband Attenuation (dB)	Connector	Size* (mm)
FBF-2000-3800-50	2~3.8	1.7	1.7	50@DC~1.7GHz	50@4.1~5GHz	2.92mm	78*41*11
FBF-2000-4000-60	2~4	1	1.6	60@1.5GHz	60@4.5GHz	SMA	51*11*10
FBF-2037.5-2272.5-50	2.0375~2.2725	2	1.16	80@DC~1.96&2.35~5GHz	50@1.96~2&2.31~2.35GHz	SMA	200*24*24
FBF-2025-2085-40	2.025~2.085	1	1.3	40@2.2~2.3GHz	-	SMA	50*50*20
FBF-2200-2400-30	2.2~2.4	1	1.5	40@DC~2.1GHz	30@2.5~4.5GHz	SMA	45*28*9
FBF-2200-2400-30-N	2.2~2.4	2.2	1.5	40@DC~2.1GHz	30@2.5~4.5GHz	N	63.5*25.4*25.4
FBF-2200-2400-60	2.2~2.4	1	1.22	60@DC~2.1GHz	60@2.5~6GHz	SMA	130*23*27
FBF-2025-2120-50	2.025~2.12	2	1.3	50@1.95GHz	50@2.2~2.3GHz	SMA	75*52*21
FBF-2200-2800-30	2.2~2.8	1	2	30@2GHz	30@3GHz	SMA	-
FBF-2240-2280-30	2.24~2.28	1.1	1.25	30@2.22~2.3GHz	-	SMA&N	76*53*22
FBF-2300-2500-45	2.3~2.5	3	1.5	45@2.05GHz	45@2.75GHz	SMA	35*12*8
FBF-2400-2500-35	2.4~2.5	1.5	1.5	35@DC~2.2GHz	35@2.7~5GHz	SMA	52*27*10
FBF-2400-2500-50	2.4~2.5	1	1.3	50@DC~2.05GHz	50@2.85~5GHz	SMA	70*21*21
FBF-2400-3600-30	2.4~3.6	1	1.5	30@2GHz	30@4GHz	SMA	-
FBF-2483.55-2499.95-40	2.48355~2.49995	1	1.25	60@DC~2.39175&2.59175~6.5GHz	40@2.39175~2.44175&2.54175~2.59175GHz	SMA	130*28*25
FBF-2500-2700-30	2.5~2.7	1.3	1.25	30@DC~2.45GHz	40@2.75~6GHz	SMA	180*27*29
FBF-2526.5-2579.5-40	2.5265~2.5795	1	1.5	40@2.3GHz	40@2.7GHz	SMA	66.1*48.3*17.8
FBF-2573.5-2626.5-40	2.5735~2.6265	0.8	1.3	40@2.5435GHz	40@2.6565GHz	SMA	94*65*25
FBF-2613.5-2666.5-40	2.6135~2.6665	0.8	1.3	40@2.5835GHz	40@2.6965GHz	SMA	94*65*25
FBF-2700-3300-60	2.7~3.3	1.8	1.22	60@DC~2.6GHz	60@3.4~7GHz	SMA	170*19*24
FBF-2700-3500-60	2.7~3.5	0.9	1.7	60@2.4GHz	60@3.8GHz	SMA	93*30*12
FBF-2900-3600-50	2.9~3.6	1	1.22	50@DC~2.57GHz	50@3.85~7GHz	SMA	110*19*19.5
FBF-3000-4300-50	3~4.3	1	1.5	50@DC~2.5GHz	50@5~7GHz	SMA	70*30*9
FBF-3400-3600-30	3.4~3.6	1.5	1.25	30@DC~3.35GHz	30@3.65~8GHz	SMA	180*27*26
FBF-3800-6800-60	3.8~6.8	1	1.7	60@DC~2.92GHz	60@8.16~9GHz	SMA	60*25*9
FBF-4000-6000-70	4~6	2	2	70@DC~3.6GHz	60@6.38~8GHz	SMA	55*16*8
FBF-4000-6000-40	4~6	1	1.5	40@3.4GHz	40@7GHz	SMA	-
FBF-4300-8200-50	4.3~8.2	1.5	1.7	50@DC~3.7GHz	50@8.8~10GHz	2.92mm	81*25*10
FBF-4950-5050-40	4.95~5.05	1.5	1.25	80@DC~4.7&5.3~17GHz	40@4.7~4.85&5.15~5.3GHz	SMA	70*16*12
FBF-4960-4980-70	4.96~4.98	0.8	1.25	70@DC~4.27&5.67~14GHz	50@4.27~4.57&5.37~5.67GHz	SMA	60*20*12
FBF-5000-6000-35	5~6	1.5	1.5	35@DC~4.6GHz	35@6.4~10GHz	SMA	50*14*9
FBF-5000-6000-35-1	5~6	1.8	1.8	35@DC~4.9GHz	35@6.1~12GHz	SMA	65*16*9
FBF-5000-6000-45	5~6	1.5	1.5	45@DC~4GHz	45@6.6~13GHz	SMA	39*15.5*8
FBF-5600-6000-60	5.6~6	0.9	1.5	60@5.05GHz	60@6.15GHz	SMA	106*18*11
FBF-5640-5660-50	5.64~5.66	0.6	1.3	50@DC~5GHz	50@6.3~18GHz	SMA	60*17*11
FBF-5645-5646-13	5.645~5.646	2.2	1.3	13@DC~5.6355GHz	13@5.6555~10GHz	SMA	140*38*18
FBF-5650.5-5651.5-13	5.6505~5.6515	3	1.3	13@DC~5.641GHz	13@5.661~8GHz	SMA	140*38*18
FBF-5652.5-5653.5-13	5.6525~5.6535	3	1.3	13@DC~5.643GHz	3@5.663~8GHz	SMA	140*38*18
FBF-5700-5900-45	5.7~5.9	1.8	1.5	45@5.5GHz	45@6.1GHz	SMA	39*15.5*8
FBF-5841-6249-50	5.841~6.249	1	1.5	50@DC~4.85GHz	50@7.15~15GHz	SMA	30*13*8
FBF-5900-7150-70	5.9~7.15	0.6	1.25	70@DC~5.08GHz	70@7.77~19GHz	SMA	70*16*11
FBF-6000-8192-20	6~8.192	3	1.8	20@5.7GHz	20@8.5GHz	SMA	79*17*8.5
FBF-6800-7800-40	6.8~7.8	2	1.5	40@6.2GHz	40@8.4GHz	SMA	48*17*8
FBF-6800-9800-60	6.8~9.8	1	1.5	60@DC~5.32GHz	60@11.76~15GHz	SMA	45*19*7
FBF-6867.2-7500-30	6.8672~7.5	2	1.5	10@6.5925GHz	30@5~6.3288GHz	Pin	27.8*14.5*7
FBF-7000-7400-40	7~7.4	1.2	1.5	40@DC~6.76GHz	40@7.64~10GHz	SMA	60*32*11
FBF-7300-8300-40	7.3~8.3	2	1.5	40@6.7GHz	40@9GHz	SMA	49*16*8
FBF-7400-12600-40	7.4~12.6	1.5	1.6	40@DC~6GHz	40@14~18GHz	SMA	52*15*10
FBF-7650-8350-50	7.65~8.35	3	1.5	50@7.15GHz	50@8.5GHz	SMA	80*13*9
FBF-7715-8695-80	7.715~8.695	3	1.5	80@7.5GHz	80@8.91GHz	SMA	50*25*12
FBF-8000-11000-45	8~11	0.65	1.8	45@5GHz	45@16~22GHz	SMA	40.8*14*9
FBF-8000-12000-30	8~12	1	1.8	45@7GHz	30@13~20GHz	SMA	81.2*17*15
FBF-8150-8250-40	8.15~8.25	3	1.5	40@8.1GHz	40@8.3GHz	SMA	-
FBF-8150-9090-50	8.15~9.09	0.6	1.16	80@DC~6.44&10.8~18GHz	50@6.44~7.24&10~10.8GHz	SMA	80*17*12
FBF-8192-16384-20	8.192~16.384	3	1.8	20@7.1GHz	20@17.5GHz	SMA	52*14.5*11.6
FBF-8250-9250-50	8.25~9.25	2.5	1.5	50@DC~7.75GHz	50@9.75~18GHz	SMA	38*13*6
FBF-8400-8500-90	8.4~8.5	1.9	1.25	90@DC~8100MHz	90@8800~22000MHz	SMA	70*16*12

The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Stopband Attenuation (dB)	Stopband Attenuation (dB)	Connector	Size* (mm)
FBF-8400-9600-30	8.4~9.6	2	1.5	30@DC~8GHz	30@10~18GHz	SMA	64*13*9
FBF-8500-9500-40	8.5~9.5	2	1.5	40@7.6GHz	40@10.3GHz	SMA	50*15*8
FBF-8500-16500-50	8.5~16.5	1.5	1.8	50@DC~7.2GHz	50@17.8~19GHz	2.92mm	67*22*9
FBF-8700-12800-35	8.7~12.8	0.5	1.5	25@8GHz	35@14GHz	SMA	54.85*15.6*11
FBF-9000-10000-40	9~10	2	1.5	40@8.3GHz	40@10.6GHz	SMA	51*14*8
FBF-9000-11700-30	9~11.7	1	1.25	45@DC~8.1& 12.3~12.6GHz	30@8.1~8.4& 12.6~25GHz	SMA	70*16*12
FBF-9000-14000-40	9~14	1.5	1.8	40@DC~8GHz	40@15~23GHz	SMA	60*14.5*9.5
FBF-9250-10750-60	9.25~10.75	1.2	1.7	60@8.9GHz	60@11.1GHz	SMA	102*14*11
FBF-9400-10600-30	9.4~10.6	1.5	1.5	30@9GHz	30@11GHz	SMA	89.3*19*18
FBF-9800-12800-60	9.8~12.8	1	1.22	60@DC~7.54GHz	60@15.26~22GHz	SMA	70*17*12
FBF-10000-10500-45	10~10.5	1	1.5	45@9.5GHz	45@11GHz	SMA	25*15*8.5
FBF-10000-12000-40	10~12	1.5	1.6	40@9.5GHz	40@12.5GHz	SMA	38*12*7
FBF-10200-10600-30	10.2~10.6	1.5	1.5	30@10GHz	30@10.8GHz	SMA	59*13*10
FBF-10200-10800-30	10.2~10.8	1.5	1.5	30@10GHz	30@11GHz	SMA	80.73*17*19
FBF-10200-12300-90	10.2~12.3	1	1.5	90@DC~7.5GHz	90@15.52~20GHz	SMA	54*15*9
FBF-10425-10575-30	10.425~10.575	0.6	1.3	30@10.2GHz	30@10.8GHz	SMA	50.5*17*11.5
FBF-11487-12000-30	11.487~12	2	1.5	10@11.0275GHz	30@9~10.5864GHz	Pin	25.8*13*7
FBF-12000-18000-50	12~18	1	1.2	50@8.2GHz	50@20.8GHz	SMA	-
FBF-12700-13300-40	12.7~13.3	1.5	1.5	40@12.3GHz	40@13.7GHz	SMA	-
FBF-12800-15800-60	12.8~15.8	1	1.22	60@DC~9.85GHz	60@18.96~23GHz	SMA	60*16*12
FBF-14000-18000-75	14~18	0.7	1.8	75@12GHz	75@20GHz	SMA	58*13*9
FBF-14700-15300-40	14.7~15.3	1.3	1.5	40@DC~14.46GHz	40@15.54~18GHz	SMA	48*27*9
FBF-15000-16000-40	15~16	2	1.5	40@DC~14.5GHz	40@16.5~18GHz	SMA	71*13*7.5
FBF-15900-16500-40	15.9~16.5	1.3	1.5	40@DC~15.66GHz	40@16.74~18GHz	SMA	48*27*9
FBF-16000-16200-40	16~16.2	1.5	1.5	40@DC~15.76GHz	40@16.44~18GHz	SMA	37*27*9
FBF-16384-24576-20	16.384~24.576	3	1.8	20@15GHz	20@26GHz	SMA	54*13*7.7
FBF-18000-20000-30	18~20	2	1.5	30@DC~17.2GHz	30@20.8~30GHz	2.92mm	51*13*7.5
FBF-18000-23000-50	18~23	1	1.3	50@DC~17GHz	50@24~36GHz	SMA	60*16*12.5
FBF-18000-25000-80	18~25	1.5	1.8	80@DC~14GHz	85@29~35GHz	2.92mm	48*13*7
FBF-18000-26500-60	18~26.5	2	1.8	60@DC~15.5GHz	60@29.5~37GHz	2.92mm	59.5*16*11
FBF-20600-25000-60	20.6~25	2	1.8	60@18.8GHz	60@26.8GHz	2.92mm	48.3*16*7
FBF-21000-28000-50	21~28	1	1.6	65@DC~19GHz	50@30~35GHz	2.92mm	65.5*16*11
FBF-21500-22500-70	21.5~22.5	2	1.3	70@DC~20.9GHz	70@23.1~40GHz	SMA	70*16*9
FBF-23000-26500-60	23~26.5	1.5	1.8	60@DC~21.3GHz	60@28.5~40GHz	2.92mm	51.2*16*10.5
FBF-23000-30000-85	23~30	1.5	1.5	85@19GHz	85@34GHz	2.92mm	50*17*10
FBF-24000-26000-35	24~26	2	1.5	35@DC~23GHz	35@27~40GHz	2.92mm	45.5*16*11
FBF-24000-27800-60	24~27.8	2	1.5	60@DC~22.4GHz	60@30~40GHz	2.92mm	67.1*17*11
FBF-24000-29500-10	24~29.5	2	1.5	10@23GHz	10@30.5GHz	2.92mm	49.7*16*11
FBF-24000-33000-60	24~33	2	1.8	60@DC~21GHz	60@37~40GHz	2.92mm	51.5*16*11
FBF-24000-34000-40	24~34	1.5	1.8	40@DC~20GHz	40@37~55GHz	2.92mm	35*13*7
FBF-24750-27750-66	24.75~27.75	1	1.4	70@23.83GHz	66@28.67GHz	2.92mm	52*15*8
FBF-25500-29500-60	25.5~29.5	1.5	1.8	60@DC~23.5GHz	60@31.5~40GHz	2.92mm	50.4*16*10.5
FBF-26000-27000-60	26~27	1	1.6	60@25GHz	60@28GHz	2.92mm	66.5*16*10
FBF-26000-28000-60	26~28	2	1.5	60@DC~23GHz	60@31~40GHz	2.92mm	47.4*16*11
FBF-26300-26900-40	26.3~26.9	0.6	1.5	60@24GHz	40@30GHz	2.92mm	35*13*8
FBF-26300-29700-60	26.3~29.7	2	1.5	60@DC~24.8GHz	60@32~40GHz	2.92mm	71.5*17*11
FBF-26400-33000-60	26.4~33	2	1.8	60@DC~24GHz	60@37~40GHz	2.92mm	59.5*16*11
FBF-27485-31315-50	27.485~31.315	2	1.5	60@26GHz	50@32.3GHz	2.92mm	70.4*17*11
FBF-27500-28500-60	27.5~28.5	1	1.6	60@26.6GHz	60@29.5GHz	2.92mm	56.3*14*7
FBF-27500-31000-40	27.5~31	1.5	2	40@26.8GHz	60@31.9GHz	2.92mm	-
FBF-27700-28300-60	27.7~28.3	1.2	1.6	60@DC~25.7GHz	60@30.3~36GHz	2.92mm	40*14*13
FBF-29500-30500-45	29.5~30.5	1.7	1.3	70@DC~28.5& 31.5~48GHz	45@28.5~29& 31~31.5GHz	2.92mm	50.4*16*10.5
FBF-32500-33500-60	32.5~33.5	1	1.6	60@31.5GHz	60@34.5GHz	2.92mm	56*16*9
FBF-32600-36360-50	32.6~36.36	1.2	1.25	80@DC~30.78& 38.18~47GHz	50@47~50GHz	2.92mm	60*16*12
FBF-33000-40000-85	33~40	1	1.5	85@30GHz	85@43GHz	2.92mm	-
FBF-33500-36500-50	33.5~36.5	3	2	50@DC~30.5GHz	50@39.5~50GHz	2.92mm	27*12*5
FBF-34000-36000-50	34~36	3	2	50@DC~31GHz	50@39~50GHz	2.92mm	27*12*5
FBF-34500-34600-50	34.5~34.6	3.4	1.3	50@DC~34.05GHz	50@35.05~43GHz	2.92mm	40*16*11
FBF-36800-40200-58	36.8~40.2	2	1.5	58@DC~35.2GHz	58@42~67GHz	2.92mm	21.4*14.6*9.8

The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Stopband Attenuation (dB)	Stopband Attenuation (dB)	Connector	Size* (mm)
FBF-38250-38750-30	38.25~38.75	3.49	1.5	30@37.95GHz	30@39.05GHz	2.92mm	76*14*9.7
FBF-39700-40300-60	39.7~40.3	1.5	1.6	60@DC~37.7GHz	60@42.3~50GHz	2.92mm	57*14*10
FBF-43500-45500-50	43.5~45.5	3	2	50@42.8GHz	50@46.2GHz	2.4mm	-
FBF-43500-49500-20	43.5~49.5	1.5	1.6	20@41.5GHz	20@51.5GHz	2.4mm	22.43*18.6*9.8
FBF-46000-52000-50	46~52	2	1.5	70@30~40GHz	50@DC~21 GHz	2.4mm	50.06*13*9
FBF-58000-62000-35	58~62	1	1.5	35@55GHz	35@65GHz	1.85mm	-

## High Pass Filters

High pass filter, allowing signals higher than the cut-off frequency to pass. It is a combined component of capacitors, inductors and resistors that allows signal above a certain frequency to pass, but greatly reject signal below the frequency.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Telecom, Laboratory Test, Receivers, Instrumentation.

### How To Order:

FHF-X-Y-Z

Start Frequency of Passband (MHz) ——— Stopband Attenuation (dB)

Stop Frequency of Passband (MHz) ———

**Examples:** To order a high pass filter, passband 0.38-1G, stopband attenuation 30dB@DC-0.35GHz, specify FHF-380-1000-30.



The sizes in the following table do not include connectors.

Part Number	Passband (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Stopband Attenuation (dB)	Connector	Size* (mm)
FHF-380-1000-30	0.38~1	2.5	1.7	30@DC~0.35GHz	SMA	30*18*13
FHF-1300-7000-40	1.3~7	2	2	40@0.915GHz	SMA	-
FHF-1500-9000-60	1.5~9	3	2	60@1GHz	SMA	-
FHF-2000-13000-40	2~13	3	2	40@1.5GHz	N	-
FHF-2500-18000-60	2.5~18	3	2	60@1.76GHz	SMA	-
FHF-2800-15000-40	2.8~15	2	2	40@1.99GHz	SMA	-
FHF-3000-13000-65	3~13	3	2	65@2.5GHz	N	-
FHF-3000-18000-55	3~18	2	1.5	70@DC~2.6GHz&55@2.6~2.7GHz	SMA	44*29*10
FHF-3500-18000-20	3.5~18	1	1.8	20@DC~3.2GHz	SMA	34*32*10
FHF-4000-10000-50	4~10	1.5	2	50@1.3GHz	SMA	-
FHF-4000-15000-40	4~15	2	2	40@2.7GHz	SMA	-
FHF-4000-18000-15	4~18	3	2	15@3GHz	SMA	-
FHF-4000-21000-20	4~21	2.5	2	20@3GHz	SMA	-
FHF-5480-18000-50	5.48~18	0.9	2	50@DC~3.5GHz	SMA	31*24*11
FHF-6000-15000-40	6~15	2	2	40@3.9GHz	SMA	-
FHF-7000-24000-60	7~24	2	1.5	60@DC~6.3GHz	SMA	30*21*10
FHF-7500-24500-60	7.5~24.5	2	1.5	60@DC~6.77GHz	SMA	30*21*10
FHF-10000-18000-50	10~18	1.5	2	50@1.3GHz	SMA	-
FHF-11000-42000-60	11~42	3.5	2.2	60@DC~10GHz	2.92mm	122*15*15
FHF-18000-40000-35	18~40	2	2.3	35@17.5GHz	2.92mm	-
FHF-22000-40000-70	22~40	3	2	70@18GHz	2.92mm	-
FHF-26500-40000-60	26.5~40	3	2	60@3~19GHz	2.92mm	-
FHF-33000-60000-40	33~60	2	2	40@30GHz	1.85mm	23.35*16*6

## Band Reject Filters

Band reject filter, which rejects signals in a specific frequency range.

**Features:** Broadband, High Power, Low Insertion Loss; **Applications:** Telecom, Laboratory Test, Receivers, Instrumentation.

### How To Order:

FRF-X-Y-Z

Start Frequency of Stopband (MHz) ——— Stopband Attenuation (dB)

Stop Frequency of Stopband (MHz)



**Examples:** To order a band reject filter, stopband 600-700MHz, stopband attenuation 45dB, specify FRF-600-700-45.

The sizes in the following table do not include connectors.

Part Number	Stopband (MHz)	Stopband Attenuation (dB)	Passband (MHz)	Passband (MHz)	Insertion Loss (dB, Max.)	VSWR (max.)	Connector	Size* (mm)
FRF-600-700-45	600-700	45	DC-500	800-2500	2	1.8	SMA	40.4*12*10
FRF-703-748-50	703-748	50	DC-683	768-4000	2	2	N	284*68*36
FRF-758-803-40	758-803	40	DC-743	818-3000	2.5	2	SMA	244*70*36
FRF-791-821-60	791-821	60	DC-781	831-2500	3	-	N	-
FRF-815-880-45	815-880	45	DC-780	920-1500	2.5	-	SMA	-
FRF-824-849-40	824-849	40	DC-814	859-3500	2	-	N	-
FRF-880-915-30	880-915	30	DC-870	925-2500	2	1.5	SMA	265*90*28
FRF-880-915-40	880-915	40	DC-865	930-2700	2	1.5	SMA	265*90*28
FRF-930-960-55	930-960	55	DC-910	975-3000	3	2	SMA	245*65.8*36
FRF-1240-1260-50	1240-1260	50	DC-1230	1270-4000	2	2	SMA	-
FRF-1350-1450-50	1350-1450	50	DC-1300	1500-2000	1	2	SMA	-
FRF-1447-1467-60	1447-1467	60	DC-1422	1492-5000	3	2	N	-
FRF-1550-1610-60	1550-1610	60	100-400	2200-2300	1	2	N	-
FRF-1710-1785-40	1710-1785	40	DC-1690	1800-3500	2	2	N	-
FRF-1785-1805-40	1785-1805	40	DC-1755	1815-5200	2	2	N	225*63*22
FRF-1805-1880-60	1805-1880	60	DC-1780	1905-5200	2 typ.	1.5 typ.	SMA	248*45*21
FRF-1805-1925-60	1805-1925	60	DC-1755	1975-5000	2	1.5	SMA	209*51*22
FRF-1850-1910-40	1850-1910	40	DC-1830	1930-3500	2	2	N	-
FRF-1880-1920-65	1880-1920	65	DC-1855	1945-2500	3	2	SMA	-
FRF-2000-2300-50	2000-2300	50	DC-1900	2400-5100	1.5	1.8	SMA	209*47*22
FRF-2110-2170-60	2110-2170	60	DC-2070	2210-6000	3	2	SMA	165*31*27
FRF-2300-2400-60	2300-2400	60	DC-2234	2480-4000	2.5	2	SMA	-
FRF-2300-2675-50	2300-2675	50	DC-2200	2775-6200	1.5	1.8	SMA	209*42*22
FRF-2400-2483.5-30	2400-2483.5	30	DC-2345	2538-15000	3	2	SMA	194*26*25.7
FRF-2400-2500-50	2400-2500	50	DC-2350	2550-5500	1.5	1.5	SMA	22*38*209
FRF-2496-2590-40	2496-2590	40	DC-2300	2700-4000	1.5	2	SMA	-
FRF-2500-2570-60	2500-2570	60	10-2450	2600-6000	1	2	SMA	-
FRF-2500-2690-40	2500-2690	40	DC-2481	2705-3000	3.2	3	SMA	352*43*36
FRF-2570-2620-55	2570-2620	55	DC-2555	2635-4000	2	2	SMA	285*40.4*33
FRF-2575-2615-50	2575-2615	50	DC-2570	2620-3000	5	2	N	-
FRF-2575-2625-60	2575-2625	60	DC-2550	2650-7700	2	1.5	SMA	173*42*18
FRF-2620-2690-60	2620-2690	60	DC-2570	2740-10000	2	2	SMA	236*35*24
FRF-3300-3800-50	3300-3800	50	DC-3190	3925-8500	1.2	1.7	SMA	141*30*16
FRF-3400-3600-50	3400-3600	50	DC-3300	3700-8000	2	1.7	SMA	141*39*16
FRF-3420-3700-60	3420-3700	60	DC-3270	3850-15000	2.5	2	SMA	159.6*17*17.5
FRF-4200-4400-60	4200-4400	60	DC-3800	4800-18000	2	2	SMA	78*20*14
FRF-4800-4900-55	4800-4900	60	DC-4720	4980-11000	2	1.7	SMA	141*35*16
FRF-5150-5850-50	5150-5850	50	DC-4950	6050-11500	1.5	1.7	N	141*36*18
FRF-5850-5925-50	5850-5925	50	DC-5620	6170-18000	2	3	SMA	104*22*36
FRF-5925-6425-50	5925-6425	50	DC-5700	6650-18000	2	3	SMA	120*22*28
FRF-5925-7125-50	5925-7125	50	DC-5325	7725-18000	2	3	SMA	170*22*30
FRF-6425-6525-50	6425-6525	50	DC-6300	6650-14000	2	1.7	SMA	141*30*16
FRF-6525-6875-50	6525-6875	50	DC-6350	7050-14200	2	1.7	SMA	141*30*16
FRF-6875-7125-50	6875-7125	50	DC-6700	7300-15000	2	1.7	SMA	141*30*16
FRF-14000-14500-50	14000-14500	50	13500-14000	14500-15000	2	-	2.92mm	-

## Multiplexers

Multiplexers are a collective term for components of this type, including diplexers, triplexers, and quadruplexers. Multiplexers have a single input port and multiple output ports. A multiplexer is a set of non overlapping filters that ensure that they are not loaded onto each other in a combined manner and that outputs are highly isolated from each other.

Freflex supplies high stopband rejection small size multiplexers in frequency range DC-14GHz.

**Features:** High Stopband Rejection, Small Size; **Applications:** Telecom, Transceiver, Laboratory Test, Instrumentation.



## Diplexers

The sizes in the following table do not include connectors.

Part Number	Channel 1 Frequency (GHz)	Channel 2 Frequency (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Channel 1 Rejection (dB, min.)	Channel 2 Rejection (dB, min.)	Input power (W)	Connector	Size* (mm)
FMP2-20-8000-1	0.02~0.8	0.93~8	2@0.02~0.8GHz 2.5@0.93~8GHz	2	45@0.93~8GHz @0.02~0.75GHz	45@0.02~0.8GHz @0.95~8GHz	1	SMA	-
FMP2-475-3200-1	0.475	3.2	1	1.5	50@1.4~5GHz	50@DC~0.95GHz	10	SMA	49*25*13.2
FMP2-2025-2300-1	2.025~2.12	2.2~2.3	2	1.5	-	-	-	SMA	53*53*11
FMP2-2400-5850-1	2.4~2.485	5.715~5.85	1	1.5	-	-	100	SMA	52*29*22
FMP2-4400-17650-1	4.4	17.65	2	2	40@10.3~25GHz	40@0.5~8.3GHz	5	2.92mm	39*50*10
FMP2-7145-9000-1	7.145~7.25	7.7~9	2.5	1.5	-	-	-	SMA	45*26*9
FMP2-11725-14375-1	11.725	14.375	1	1.45	50@13.75~18GHz	50@DC~12.75GHz	10	SMA	78*56*12.5

## Triplexers

Part Number	Channel 1 Frequency (GHz)	Channel 2 Frequency (GHz)	Channel 3 Frequency (GHz)	Insertion Loss (dB, max.)	VSWR (max.)	Channel 1 Rejection (dB, min.)	Channel 2 Rejection (dB, min.)	Channel 3 Rejection (dB, min.)	Input power (W)	Connector
FMP3-1163-1588-1	1.163~1.19	1.214~1.241	1.562~1.588	1.5	1.3	-	-	-	50	N

## Frequency Multipliers / Dividers

Frequency multiplier is a circuit that makes the frequency of the output signal equal to an integral multiple of the frequency of the input signal. If the input frequency is  $f_1$ , the output frequency is  $f_0=nf_1$ , and the coefficient  $n$  is any positive integer, which is called the frequency multiplication times. The frequency multiplier is widely used. For example, after the transmitter uses a frequency multiplier, the main oscillator can oscillate at a lower frequency to improve the frequency stability; FM equipment uses frequency multiplier to increase frequency offset; In the phase keying communication machine, the frequency multiplier is an important component of the carrier recovery circuit.

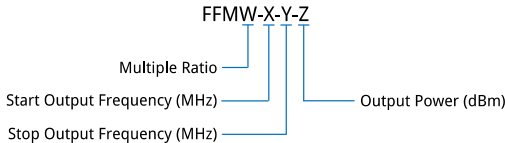
The output signal generated by the frequency divider is a part of the input signal in terms of frequency.

Freflex supplies frequency multipliers and frequency dividers in a wide frequency range up to 110GHz. We can also customize multipliers/dividers according to customer's needs.

**Features:** Broadband, Low Power Consumption, Low VSWR; **Applications:** Wireless, Transceiver, Laboratory Test.

## Frequency Multipliers

### How To Order:



**Examples:** To order a frequency multiplier, input frequency 10~25GHz, output frequency 20~50GHz, 2 multiple ratio, output power 16dBm, specify FFM2-20000-50000-16.

### 2 Frequency Multipliers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm, typ.)	Output Power (dBm, typ.)	Multiple Ratio	Voltage (+V, DC)	Current (mA, typ.)	VSWR	Size* (mm)
FFM2-20000-40000-26S	10~20	20~40	1~10	26	2	6~12	1000	1.8	50*30*15
FFM2-20000-50000-16	10~25	20~50	5~10	16	2	5	400	1.7	50*30*15
FFM2-22000-28000-10	11~14	22~28	3~6	10	2	5±0.5	100	-	15*25*8
FFM2-40000-60000	20~30	40~60	0	7	2	7	450	-	L=43
FFM2-50000-75000	25~37.5	50~75	22	6	2	5	0.1	-	32.7*19.1*21.1

### 3 Frequency Multipliers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm, typ.)	Output Power (dBm, typ.)	Multiple Ratio	Voltage (+V, DC)	Current (mA, typ.)	VSWR	Size* (mm)
FFM3-30	0.01	0.03	10	10	3	12	100	-	45*45*16

### 4 Frequency Multipliers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm, typ.)	Output Power (dBm, typ.)	Multiple Ratio	Voltage (+V, DC)	Current (mA, typ.)	VSWR	Size* (mm)
FFM4-24000-15	6	24	0~3	15	4	8	260	-	35*25*8
FFM4-28000-40000	7~10	28~40	10	13	4	5±0.5	260	-	25*25*8
FFM4-40000-65000-16S	10~16.25	40~65	0	16	4	6~12	800	1.8	50*30*15
FFM4-40000-70000-16S	10~17.5	40~70	0	16	4	6~12	800	1.8	50*30*15

### 6 Frequency Multipliers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm, typ.)	Output Power (dBm, typ.)	Multiple Ratio	Voltage (+V, DC)	Current (mA, typ.)	VSWR	Size* (mm)
FFM6-75000-110000-5	12.5~18.33	75~110	17	5	6	7	130	-	35*30*22

### 10 Frequency Multipliers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm, typ.)	Output Power (dBm, typ.)	Multiple Ratio	Voltage (+V, DC)	Current (mA, typ.)	VSWR	Size* (mm)
FFM10-100	0.01 (0dBm)	0.1	-	3~6	10	12	260	-	51*51*18



## Frequency Dividers

### How To Order:

FFDW-X-Y

Divide Ratio

Stop Output Frequency (MHz)

Start Output Frequency (MHz)

**Examples:** To order a frequency divider, input frequency 100MHz, 2 divide ratio, specify FFD2-100.



### 2 Frequency Dividers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (MHz)	Output Frequency (MHz)	Output Power (dBm)	Divide Ratio	Harmonic	Spurious	Voltage (+V, DC)	Current (mA, max.)	Connector	Size* (mm)
					(dBc, max.)					
FFD2-100	100 (2~5dBm)	50	5~8	2	-60	-75	12	150	SMA	35*35*10

### 6 Frequency Dividers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (MHz)	Output Frequency (MHz)	Output Power (dBm)	Divide Ratio	Harmonic	Spurious	Voltage (+V, DC)	Current (mA, max.)	Connector	Size* (mm)
					(dBc, max.)					
FFD6-0.001	-	1K	-	6	-	-	5	-	SMA	70*50*17

### 10 Frequency Dividers

The sizes in the following table do not include connectors.

Part Number	Input Frequency (MHz)	Output Frequency (MHz)	Output Power (dBm)	Divide Ratio	Harmonic	Spurious	Voltage (+V, DC)	Current (mA, max.)	Connector	Size* (mm)
					(dBc, max.)					
FFD10-900-1100	900~1100 (-3~+3dBm)	90~110	5~8	10	-30	-75	12	200	SMA	35*35*10
FFD10-1000	1000 (-3~+3dBm)	100	5~8	10	-30	-75	12	200	SMA	35*35*10

## Impedance Matching Pads

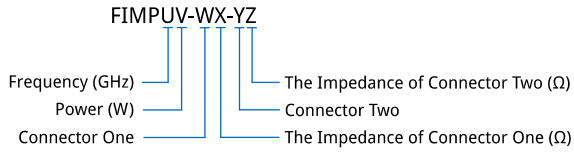
Impedance matching pads are a part of microwave electronics, mainly used on transmission lines to achieve the goal of transmitting all high-frequency microwave signals to the load point without any signal reflecting back to the source point, thereby improving energy efficiency.

Freflex provides impedance-matching-pads for 2-50W, including SMA, N, BNC and F.

**Features:** Low VSWR; **Applications:** Wireless, Transmitter, Laboratory Test, Radar.

### Impedance Matching Pads

#### How To Order:



**Examples:** To order a impedance matching pad, DC~1.3GHz, 2W, 50Ω N male, 75Ω N female, specify FIMP1302-N50-NF75.



Part Number	Frequency (GHz)	Power (W)	Insertion Loss (dB, max.)	VSWR (max.)	Typical Flatness (dB, max.)	50Ω Optional Connectors	75Ω Optional Connectors
FIMP1302-WX-YZ	DC~1.3	2	5.7	1.06	0.1	SMA, N, BNC	N, BNC, F
FIMP1305-WX-YZ	DC~1.3	5	5.7	1.06	0.1	SMA, N, BNC	N, BNC, F
FIMP1350-WX-YZ	DC~1.3	50	5.7	1.2	0.1	SMA, N, BNC	N, BNC, F
FIMP3002-WX-YZ	DC~3	2	5.7	1.15	0.15	SMA, N, BNC	N, BNC, F
FIMP3005-WX-YZ	DC~3	5	5.7	1.15	0.15	SMA, N, BNC	N, BNC, F
FIMP3050-WX-YZ	DC~3	50	5.7	1.25	0.15	SMA, N, BNC	N, BNC, F

## Frequency Sources

Freflex supplies a series low phase noise, high power frequency sources, including Frequency Synthesizers, PLDRO, PLVCO, PLXO, DRO, VCO, DRVCO, high power frequency source etc. The frequency range is up to 40GHz.

## Frequency Synthesizers

Frequency synthesizer, also known as frequency source, its main function is to generate various forms of frequency signals required by electronic systems.

Frequency synthesizers is a high frequency stability frequency source. Freflex supplies ultra low phase noise frequency synthesizers at frequencies up to 40GHz.

**Features:** High Frequency Stability, Ultra Low Phase Noise; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

### Frequency Synthesizers (PXI & Module)

Part Number	Output Frequency (GHz)	Step (Hz)	Switching Speed (μS, max.)	Output Power (dBm, min.)	Output Phase Noise @1KHz (dBc/Hz)	Reference Frequency (MHz)	Control Type	Package Type	Size* (mm)
FFS-50-22600-MS-1	0.05~22.6	0.1	200	4±5	-101	100	SPI	Module	50*50*13
FFS-50-22600-MS-2	0.05~22.6	0.1	60	4±5	-101	100	SPI	Module	50*50*13
FFS-200-19000-MS	0.2~19	100	500	0±5	-97	100	SPI	Module	80*65*13
FFS-200-15000-MS-1	0.2~15	1	500	1±6	-81	100	SPI	Module	38*38*10
FFS-200-15000-MS-2	0.2~15	0.1	200	0±4	-105	100	SPI	Module	80*65*13
FFS-200-15000-MS-3	0.2~15	0.1M	200	0±4	-108	100	SPI	Module	80*65*13
FFS-200-15000-MS-4	0.2~15	0.1	500	0±4	-113	100	SPI	Module	120*120*23
FFS-200-15000-MS-4-1	0.2~15	0.1	500	0±4	-113	10	SPI	Module	120*120*23
FFS-200-14600-MS	0.2~14.6	0.1	200	0±4	-104	100	SPI	Module	80*65*13
FFS-200-20000-MU	0.2~20	0.1	200	-40~+10	-101	-	UART	Module	146.1*95*21
FFS-200-20000-XU	0.2~20	0.1	200	-40~+10	-101	-	UART	PXI	171.8*100*20.2
FFS-200-20000-MUL	0.2~20	0.1	200	-40~+10	-105	-	UART	Module	146.1*95*21
FFS-200-20000-XUL	0.2~20	0.1	200	-40~+10	-105	-	UART	PXI	171.8*100*20.2
FFS-200-40000-MU	0.2~40	0.2	200	-40~+10	-95	-	UART	Module	146.1*95*35
FFS-200-40000-XU	0.2~40	0.2	200	-40~+10	-95	-	UART	PXI	171.8*100*20.2
FFS-200-40000-MUL	0.2~40	0.2	200	-40~+10	-99	-	UART	Module	146.1*95*35
FFS-200-40000-XUL	0.2~40	0.2	200	-40~+10	-99	-	UART	PXI	171.8*100*20.2

### Narrow Band Frequency Synthesizers

The sizes in the following table do not include connectors. The "X" in the part number represents the start output frequency (MHz), and the "Y" represents the stop output frequency (MHz). The output frequency only supports narrowband within the range of 1~40GHz.

Part Number	Output Frequency (GHz)	Step (Hz)	Switching Speed (μS, max.)	Output Power (dBm, min.)	Output Phase Noise @1KHz (dBc/Hz)	Reference Frequency (MHz)	Voltage (V, DC)	Current (A, typ.)	Size* (mm)
FFS-X-Y-MR	a narrow	0.1 (1~15GHz)			-107@10GHz	100	RS232		
FFS-X-Y-MS	band in	0.2 (15~30GHz)	200	10	-101@20GHz	100	SPI	Module	115*95*20
FFS-X-Y-MR-1	1~40GHz	0.4 (30~40GHz)			-94@40GHz	10	RS232		
FFS-X-Y-MS-1						10	SPI		

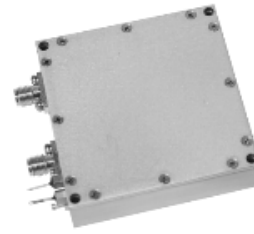
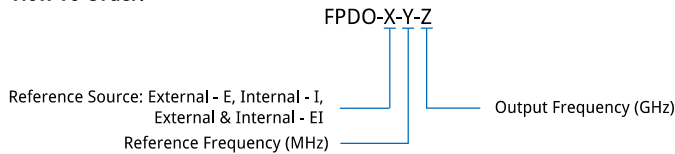
### Agile Frequency Synthesizers

Part Number	Output Frequency (GHz)	Step (Hz)	Switching Speed (μS, max.)	Output Power (dBm, min.)	Output Phase Noise @1KHz (dBc/Hz)	Reference Frequency (MHz)	Control Type	Package Type	Size* (mm)
FAFS-1250-10000-MS	1.25~10	0.1	10	5	-85	100	SPI	Module	65*65*13
FAFS-2500-20000-MS	2.5~20	0.1	10	5	-79	100	SPI	Module	65*65*13
FAFS-1250-20000-MP	1.25~20	10k	0.5	13	-104	100	Parallel Port	Module	146.1*95*18
FAFS-1250-20000-MP-1	1.25~20	10k	0.5	13	-104	10	Parallel Port	Module	146.1*95*18

**PLDRO**

PLDRO, Phase Locked Dielectric Resonator Oscillator, this is a stable and reliable frequency source, which can be simply understood as adding phase locking function to DRO. The frequency stability and phase noise are better. PLDRO is a point frequency source, which can only output the frequency of one frequency point.

**Features:** High Frequency Stability, Ultra Low Phase Noise; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

**How To Order:**


**Examples:** To order a PLDRO, internal reference, reference frequency 100MHz, output frequency 3.95GHz, specify FPDO-I-100-3.95.

**External Reference**

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz)					Ref. FREQ. (MHz)	Ref. Phase Noise (dBc/Hz@1KHz)	Current (mA, max.)	Size* (mm)
		@100Hz	@1KHz	@10KHz	@100KHz	@1MHz				
FPDO-E-10-40.5	40.5	-65	-95	-98	-98	-110	10	-155	450	57.2*57.2*33.8
FPDO-E-10-38.5	38.5	-65	-95	-98	-98	-110	10	-155	450	57.2*57.2*33.8
FPDO-E-10-37.17	37.17	-65	-85	-85	-98	-110	10	-155	450	57.2*57.2*33.8
FPDO-E-10-36.06	36.06	-65	-85	-85	-98	-110	10	-155	450	57.2*57.2*33.8
FPDO-E-10-35	35	-65	-95	-98	-98	-115	10	-155	450	57.2*57.2*33.8
FPDO-E-100-30.2	30.2	-	-102	-110	-110	-132	100	-155	300	50.8*47.8*15.7
FPDO-E-100-30	30	-	-102	-110	-110	-132	100	-155	300	50.8*47.8*15.7
FPDO-E-100-30-1	30	-75	-93	-96	-101	-129	100	-157	350	57.2*57.2*15.7
FPDO-E-10-21	21	-70	-100	-105	-105	-120	10	-155	450	57.2*57.2*33.8
FPDO-E-100-20	20	-80	-103	-112	-112	-133	100	-155	350	57.2*57.2*15.7
FPDO-E-25-20	20	-79	-89	-99	-109	-119	25	-155	450	57.2*57.2*33.8
FPDO-E-125-19.5	19.5	-71	-83	-93	-103	-113	125	-135	450	57.2*57.2*25.4
FPDO-E-25-19.25	19.25	-75	-85	-97	-104	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-100-19.05	19.05	-75	-102	-108	-110	-130	100	-102	300	57.2*57.2*15.7
FPDO-E-25-18.75	18.75	-73	-83	-95	-105	-115	25	-155	450	57.2*57.2*33.8
FPDO-E-25-18.5	18.5	-65	-80	-93	-103	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-125-18.25	18.25	-71	-83	-93	-103	-113	125	-135	450	57.2*57.2*25.4
FPDO-E-25-18.25	18.25	-75	-85	-97	-104	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-25-18.2	18.2	-65	-80	-93	-103	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-25-18	18	-65	-80	-93	-103	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-10-18	18	-65	-85	-95	-100	-110	10	-85	550	57.2*57.2*33.8
FPDO-E-100-17.95	17.95	-75	-102	-108	-110	-130	100	-	300	57.2*57.2*15.7
FPDO-E-25-17.75	17.75	-73	-83	-95	-105	-115	25	-155	450	57.2*57.2*33.8
FPDO-E-100-17.65	17.65	-80	-104	-110	-110	-132	100	-155	350	57.2*57.2*15.7
FPDO-E-50-17.65	17.65	-80	-104	-110	-110	-132	50	-155	450	57.2*57.2*15.7
FPDO-E-25-17.65	17.65	-65	-80	-93	-103	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-25-17.25	17.25	-65	-80	-93	-103	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-25-17.25-1	17.25	-75	-85	-97	-104	-115	25	-150	450	57.2*57.2*33.8
FPDO-E-100-16.75	16.75	-75	-102	-108	-110	-130	100	-	300	57.2*57.2*15.7
FPDO-E-25-16.75	16.75	-73	-83	-95	-105	-115	25	-155	450	57.2*57.2*33.8
FPDO-E-100-15.7	15.7	-	-114	-118	-118	-130	100	-160	330	50.8*47.8*15.7
FPDO-E-135-15.66	15.66	-	-110	-114	-114	-130	135	-155	330	50.8*47.8*15.7
FPDO-E-25-14.95	14.95	-83	-94	-104	-112	-124	25	-155	450	57.2*57.2*33.8
FPDO-E-10-14.7	14.7	-	-75	-78	-	-	10	-170@10KHz	400	57.2*57.2*15.7
FPDO-E-25-14.275	14.275	-76	-86	-99	-109	-121	25	-155	450	57.2*57.2*33.8
FPDO-E-25-14.05	14.05	-71	-86	-99	-109	-121	25	-150	450	57.2*57.2*33.8
FPDO-E-25-14.025	14.025	-79	-85	-90	-102	-125	25	-158	450	57.15*57.15*12.7
FPDO-E-100-14-1	14	-85	-107	-117	-117	-135	100	-155	300	50.8*47.8*15.7
FPDO-E-25-13.8	13.8	-71	-86	-99	-109	-121	25	-150	450	57.2*57.2*33.8
FPDO-E-25-13.775	13.775	-83	-100	-108	-114	-131	25	-155	450	57.2*57.2*33.8
FPDO-E-25-13.675	13.675	-76	-86	-99	-109	-121	25	-155	450	57.2*57.2*33.8
FPDO-E-25-13.525	13.525	-71	-86	-99	-109	-121	25	-150	450	57.2*57.2*33.8
FPDO-E-25-13.45	13.45	-83	-94	-104	-112	-124	25	-155	450	57.2*57.2*33.8
FPDO-E-25-13.275	13.275	-71	-86	-99	-109	-121	25	-150	450	57.2*57.2*33.8

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz)					Ref. FREQ. (MHz)	Ref. Phase Noise (dBc/Hz@1KHz)	Current (mA, max.)	Size* (mm)
		@100Hz	@1KHz	@10KHz	@100KHz	@1MHz				
FPDO-E-25-13.275-1	13.275	-83	-100	-108	-114	-131	25	-155	450	57.2*57.2*33.8
FPDO-E-25-13.025	13.025	-76	-86	-99	-109	-121	25	-155	450	57.2*57.2*33.8
FPDO-E-25-12.3	12.3	-83	-94	-104	-112	-124	25	-155	450	57.2*57.2*33.8
FPDO-E-75-12.075	12.075	-77	-87	-97	-107	-117	75	-150	450	57.2*57.2*25.4
FPDO-E-25-11.95	11.95	-83	-94	-104	-112	-124	25	-155	450	57.2*57.2*33.8
FPDO-E-75-11.55	11.55	-77	-87	-97	-107	-117	75	-150	450	57.2*57.2*25.4
FPDO-E-100-11	11	-83	-105	-113	-113	-135	100	-157	350	57.2*57.2*15.7
FPDO-E-10-10.6	10.6	-88	-112	-120	-120	-140	10	-170@10KHz	550	57.2*57.2*35.3
FPDO-E-25-10.45	10.45	-79	-89	-99	-109	-119	25	-155	450	57.2*57.2*33.8
FPDO-E-100-10.1	10.1	-88	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-100-10	10	-88	-113	-120	-120	-140	100	-157	300	50.8*47.8*15.7
FPDO-E-10-9.99	9.99	-85	-110	-115	-115	-134	10	-170@10KHz	600	57.2*57.2*33.8
FPDO-E-100-9.9	9.9	-88	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-25-9.45	9.45	-79	-89	-99	-109	-119	25	-155	450	57.2*57.2*33.8
FPDO-E-100-9.2	9.2	-88	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-100-9.1	9.1	-88	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-100-9	9	-88	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-100-8.82	8.82	-85	-108	-115	-115	-135	100	-155	350	57.2*57.2*15.7
FPDO-E-100-8.4	8.4	-92	-115	-120	-120	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-100-8.3	8.3	-90	-113	-118	-120	-140	100	-155	350	57.2*57.2*15.7
FPDO-E-100-8.14	8.14	-88	-112	-120	-120	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-100-8	8	-90	-113	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-10-8	8	-90	-113	-120	-120	-140	10	-	600	50.8*47.8*35.7
FPDO-E-10-8-1	8	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-25-7.75	7.75	-79	-89	-99	-109	-119	25	-155	450	57.2*57.2*33.8
FPDO-E-10-7.2	7.2	-86	-109	-116	-116	-133	10	-	550	57.2*57.2*33.8
FPDO-E-100-7	7	-92	-115	-120	-120	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-10-7	7	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-6.95	6.95	-90	-110	-115	-115	-135	10	-170@10KHz	600	60.2*57.2*33.8
FPDO-E-10-6.94	6.94	-	-82	-85	-	-	10	-170@10KHz	300	57.2*57.2*15.7
FPDO-E-10-6.4	6.4	-87	-110	-117	-117	134	10	-	550	57.2*57.2*33.8
FPDO-E-10-6.3	6.3	-90	-118	-120	-120	-135	10	-170@10KHz	600	60.2*57.2*33.8
FPDO-E-25-6.25	6.25	-79	-89	-99	-109	-119	25	-155	450	57.2*57.2*33.8
FPDO-E-10-6	6	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-5.6	5.6	-88	-111	-118	-118	-135	10	-	550	57.2*57.2*33.8
FPDO-E-10-5	5	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-4.8	4.8	-89	-112	-119	-119	-136	10	-	550	57.2*57.2*33.8
FPDO-E-100-4.5	4.5	-92	-116	-120	-120	-140	100	-155	300	50.8*47.8*15.7
FPDO-E-10-4.5	4.5	-92	-116	-120	-120	-140	10	-	600	50.8*47.8*35.7
FPDO-E-100-4-1	4	-88	-120	-124	-124	-140	100	-160	250	50.8*47.8*15.7
FPDO-E-10-4	4	-90	-113	-120	-120	-138	10	-	550	57.2*57.2*33.8
FPDO-E-10-4-1	4	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-3	3	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-2	2	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-10-1.6	1.6	-103	-126	-128	-133	-144	10	-170@10KHz	450	57.2*57.2*33.8
FPDO-E-100-1.1	1.1	-108	-133	-135	-135	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-100-1	1	-108	-133	-135	-135	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-10-1	1	-	-	-90	-	-	10	-	280	40*50*10
FPDO-E-10-1-1	1	-70	-95	-115	-120	-120	10	-	550	57.2*57.2*33.8
FPDO-E-100-0.9	0.9	-108	-133	-135	-135	-140	100	-155	350	50.8*47.8*15.7
FPDO-E-10-0.9	0.9	-95	-105	-110	-120	-	10	-	280	40*50*10
FPDO-E-10-0.4	0.4	-100	-110	-110	-120	-	10	-	280	40*50*10
FPDO-E-10-0.175	0.175	-	-	-90	-	-	10	-	280	40*50*10

**Internal Reference**

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz)					Ref. FREQ. (MHz)	Ref. Phase Noise (dBc/Hz@1KHz)	Current (mA, max.)	Size* (mm)
		@100Hz	@1KHz	@10KHz	@100KHz	@1MHz				
FPDO-I-100-38	38	-	-100	-	-	-	100	-	700(+12V)	70*57.2*17.5
FPDO-I-100-34.941	34.941	-65	-75	-80	-85	-85	100	-	800(+12V) 100(-12V)	65*80*28
FPDO-I-100-32	32	-65	-75	-80	-80	-115	100	-	580	88*65*19.5
FPDO-I-50-32	32	-65	-75	-80	-80	-115	50	-	800	65*80*28
FPDO-I-100-24	24	-65	-75	-80	-80	-115	100	-	950	65*80*18
FPDO-I-107-14	14	-85	-107	-117	-117	-140	-	-	500	50.8*47.8*35.7
FPDO-I-100-12	12	-86	-114	-117	-117	-130	100	-160	600	57.2*57.2*35.3
FPDO-I-75-11.85	11.85	-75	-105	-110	-110	-135	75	-	550	57.2*57.2*33.8
FPDO-I-105-11	11	-83	-105	-113	-115	-135	100	-	600	57.2*57.2*35.7
FPDO-I-20-9.6	9.6	-	-	-80	-	-	20	-	230	57.2*57.2*16
FPDO-I-100-9.2	9.2	-90	-118	-125	-125	-140	100	-	550	57.2*57.2*33.8
FPDO-I-100-8.111	8.111	-	-105	-115	-125	-140	100	-	450	57.2*57.2*33.8
FPDO-I-80-7.68-1	7.68	-80	-105	-120	-	-130	80	-160	700	57.2*57.2*15.6
FPDO-I-100-7.6275	7.6275	-	-	-	-115	-133	100	-155	650	57.2*57.2*35.7
FPDO-I-100-7.5375	7.5375	-	-	-	-115	-133	100	-155	650	57.2*57.2*35.7
FPDO-I-100-7.5	7.5	-85	-115	-120	-	-	100	-	560	57.2*57.2*33.8
FPDO-I-100-7.4475	7.4475	-	-	-	-115	-133	100	-155	650	57.2*57.2*35.7
FPDO-I-100-7.3575	7.3575	-	-	-	-115	-133	100	-155	650	57.2*57.2*35.7
FPDO-I-100-6.55	6.55	-88	-120	-126	-126	-140	100	-	600	57.2*57.2*33.8
FPDO-I-10-4.97	4.97	-	-70	-80	-100	-128	10	-	600	57.2*57.2*35.3
FPDO-I-100-4.8	4.8	-92	-118	-123	-123	-138	100	-	600	57.2*57.2*33.8
FPDO-I-100-4.1	4.1	-95	-118	-122	-122	-140	100	-	600	50.8*47.8*35.7
FPDO-I-100-3.95	3.95	-90	-124	-128	-128	-145	100	-	550	57.2*57.2*33.8
FPDO-I-100-3.9	3.9	-90	-124	-128	-128	-145	100	-	550	57.2*57.2*33.8
FPDO-I-100-3.25	3.25	-	-	-120	-	-	100	-145	560	57.2*57.2*35
FPDO-I-50-1.37	1.37	-100	-125	-128	-129	-140	50	-	600	57.2*57.2*35.3

**Internal & External Reference**

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz)					Ref. FREQ. (MHz)	Ref. Phase Noise (dBc/Hz@1KHz)	Current (mA, max.)	Size* (mm)
		@100Hz	@1KHz	@10KHz	@100KHz	@1MHz				
FPDO-EI-10-8	8	-90	-113	-120	-120	-140	10	-	600	50.8*47.8*35.7
FPDO-EI-10-4.5	4.5	-92	-116	-120	-120	-140	10	-	600	50.8*47.8*35.7

**DRO**

DRO, Dielectric Resonator Oscillator, it is realized by using the characteristics of the dielectric block.

**Features:** High Frequency Stability, Low Phase Noise; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

**How To Order:**

FDO-X-Y-Z

Start Frequency (MHz) ————  
 Stop Frequency (MHz) ————  
 Output Power (dBm)



**Examples:** To order a DRO, 29.975~30.025GHz, output power 13dBm, specify FDO-29975-30025-13.

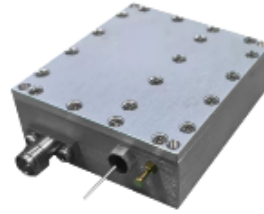
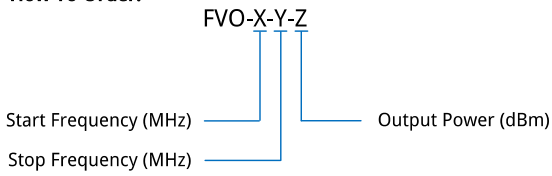
The sizes in the following table do not include connectors.

Part Number	Output Frequency (GHz)	Phase Noise (dBc/Hz)			FREQ. Temp. Stability (± ppm/°C)	Output Power (dBm, min.)	Harmonic	Spurious	Size* (mm)
		@10KHz	@100KHz	@1MHz			(dBc, max.)		
FDO-38500-10	38.5	-75	-	-	2.5	10	-25@9.625G	-85	51*40*16
FDO-35000-18	35G±10M	-85	-105	-128	2.5	18	-25@17.5G	-80	51*40*17.2
FDO-34475-10	34.475	-85	-105	-128	2.5	10	-20	-80	51*40*17.2
FDO-29975-30025-13	29.975~30.025	-	-	-	-	13	-25	-70	84*72*28
FDO-29550-13	29.55	-83	-93	-93	2.5	13	-20	-80	51*40*17.2
FDO-29050-13	29.05	-83	-93	-93	2.5	13	-20	-80	51*40*17.2
FDO-28550-13	28.55	-83	-93	-93	2.5	13	-20	-80	51*40*17.2
FDO-25950-26050-20	25.95~26.05	-	-100	-	4	20	20	75	63.48*30.48*20.8
FDO-14250-10	14.25	-75	-110	-130	5	10	-20	-80	57.15*29.21*15.75
FDO-13434-13454-13	13.434~13.454	-75	-110	-130	5	13	-20	-80	53.3*27.9*13.2
FDO-11850-13	11.85	-100	-120	-135	5	13	-20	-80	57.15*29.21*15.75
FDO-9550-9650-20	9.55~9.65	-	-100	-	4	20	20	75	63.48*30.48*20.8
FDO-9400-10	9.4	-95	-115	-	3	10	-20	-80	50.04*27.94*18.29
FDO-9200-13	9.2	-100	-120	-135	5	13	-20	-80	57.15*29.21*15.75
FDO-8000-13	8	-105	-	-	5	13	-20	-80	54*40*17.2
FDO-7600-13	7.6	-105	-	-	5	13	-20	-80	54*40*17.2
FDO-6550-13	6.55	-100	-120	-135	5	13	-20	-80	57.15*29.21*15.75
FDO-3950-13	3.95	-100	-120	-135	5	13	-20	-80	57.15*29.21*15.75
FDO-3900-13	3.9	-100	-120	-135	5	13	-20	-80	57.15*29.21*15.75
FDO-1151.8-1152.2-13	1.1518~1.1522	-85	-120	-140	5	13	-20	-80	53.3*27.9*13.2

**VCO**

VCO, Voltage Controlled Oscillator, this frequency source that generates frequency is controlled by external voltage. The characteristic is that the frequency changes with the voltage and can produce multiple frequencies.

**Features:** High Frequency Stability; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

**How To Order:**


**Examples:** To order a VCO, 9.9~10GHz, output power 30dBm, specify FVO-9900-10000-30.

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Electrically Adjustable BW. (MHz)	Output Power (dBm, min.)	Control Voltage (V, DC)	2 <sup>nd</sup> Harmonic (dBc, max.)	Spurious (dBc, max.)	Voltage (V, DC)	Current (mA, max.)	Size* (mm)
FVO-10000-20000	10~20	100	5~10	0~18	-	-60	12~15	180	45*40*16
FVO-9990-30	9.99	-	30	-	-20	-70	12	2000	84*75*16
FVO-9900-10000-30	9.9~10	100	30	4~6	-20	-70	12	2000	84*75*16
FVO-9000-9500-13	9~9.5	500	13	5-11	-20	-70	12	500	84*75*16
FVO-800-1600-9	0.8~1.6	800	9 typ.	0.5~24	-15	-70	11.5	50	32*32*10



**DRVCO**

DRVCO, the Dielectric Resonator Voltage Controlled Oscillator, uses Dielectric resonator to stabilize the frequency, which is a stable and reliable frequency source.

**Features:** High Frequency Stability, Low Phase Noise; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

**How To Order:**

FDVO-X-Y

Output Frequency (GHz)

Output Power (dBm)

**Examples:** To order a DRVCO, output frequency 10GHz, output power 13dBm, specify FDVO-10000-13.



The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz@10KHz)	FREQ. Stability (± ppm)	Output PWR. (dBm, min.)	Harmonic	Spurious	Tuning Voltage (V)	Tuning BW. (MHz)	Size* (mm)
					(dBc, max.)				
FDVO-10000-13	10	-90	5	13	-25	-70	0~12	15~20	45*40*17.2
FDVO-1000-13	1	-100	5	13	-20	-80	0~12	2	54*40*17.2

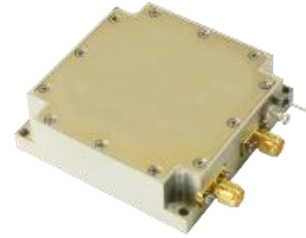
**PLVCO**

PLVCO, Phase Locked Voltage Controlled Oscillator, is simply understood as adding the phase locking function to VCO. Because of the phase lock function, only point frequency can be output. The performance is worse than PLDRO.

**Features:** High Frequency Stability, Low Phase Noise; **Applications:** Wireless, Transceiver, Radar, Laboratory Test.

**How To Order:**
**FPVO-X-Y-Z**

Reference Source: External - E, Internal - I,  
External & Internal - EI  
Reference Frequency (MHz) ———— Output Frequency (GHz)



**Examples:** To order a PLVCO, external reference, reference frequency 100MHz, output frequency 24.35GHz, specify FPVO-E-100-24.35.

**External Reference**

The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz@10KHz)	Ref. FREQ. (MHz)	Ref. Phase Noise (dBc/Hz@10KHz)	Input PWR. (dBm)	Output PWR. (dBm, min.)	Harmonic	Spurious	Size* (mm)
							(dBc, max.)		
FPVO-E-100-24.35	24.35	-85	100	-	0±3	13	-20	-60	74*50*16
FPVO-E-100-18.5	18.5	-95	100	-	0±3	13	-20	-60	74*50*16
FPVO-E-10-13	13	-80	10	-170	0±2	13	-20	-70	74*50*16
FPVO-E-10-12.8	12.8	-80	10	-170	0±2	13	-20	-70	74*50*16
FPVO-E-10-10.4	10.4	-80	10	-170	0±2	13	-20	-70	74*50*16
FPVO-E-10-6.95	6.95	-90	10	-170	0±2	13	-20	-75	57.2*57.2*16
FPVO-E-100-6.85	6.85	-105	100	-	0±3	13	-20	-60	74*50*16

**Internal Reference**

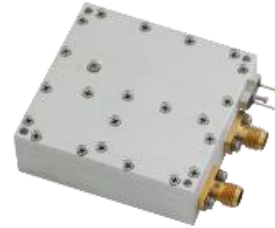
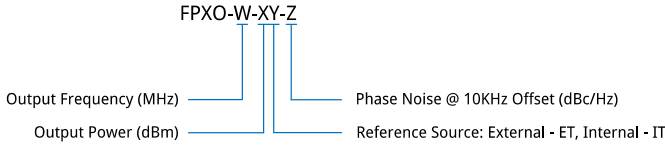
The sizes in the following table do not include connectors.

Part Number	Output FREQ. (GHz)	Phase Noise (dBc/Hz) (dBc/Hz@10KHz)	REF. FREQ. (MHz)	Output Power (dBm, min.)	FREQ. Stability (± ppm)	Harmonic	Spurious	Size* (mm)
						(dBc, max.)		
FPVO-I-10-32	32	-80	10	12	1	-	-60	50.8*47.8*15.2
FPVO-I-50-1.61	1.61	-90	50	30	1	-20	-70	90*50*16
FPVO-I-50-0.8	0.8	-90	50	13	1	-20	-70	50*40*10

**PLXO**

Phase Locked Crystal Oscillator is a point frequency source with excellent performance. All components are encapsulated in Aluminum alloy box to achieve excellent shielding and reliability. It has two operating modes: free oscillation mode (no external reference required) and phase-locked mode (external reference required). When working in free oscillation mode, the phase-locked crystal oscillator has excellent phase noise and spurious suppression performance. When working in the phase-locked mode, the atomic clock is generally used as an external reference, so that the phase-locked crystal oscillator has excellent long-term stability and short-term stability at the same time.

**Features:** Very Low Phase Noise; **Applications:** Wireless, Transceiver, Laboratory Test.

**How To Order:**


**Examples:** To order a PLXO, output frequency 100MHz, output power 5dBm, external reference, -165dBc/Hz@10KHz, specify FPXO-100-5ET-165.

**External Reference**

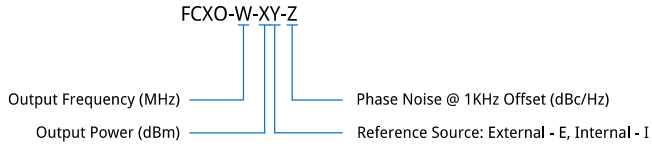
The sizes in the following table do not include connectors.

Part Number	Output Frequency (MHz)	Output Channels	Phase Noise (dBc/Hz)					REF. FREQ. (MHz)	Output PWR. (dBm)	Size* (mm)
			@100Hz	@1KHz	@10KHz	@100KHz	@1MHz			
FPXO-120-5ET-170	120	1	-125	-155	-170	-173	-	10	5	50*54*20
FPXO-110-5ET-165	110 (RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	51*60*20
FPXO-100-5ET-170	100 (RF1/RF2)	2	-125	-155	-170	-173	-	10	5	51*60*20
FPXO-100-5ET-165-1	100 (RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	50*54*20
FPXO-100-5ET-165	100 (RF1/RF2), 10 (RF3)	3	-125	-155	-165	-165	-165	10	5	51*60*20
FPXO-90-5ET-165	90 (RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	51*60*20
FPXO-80-5ET-165	80 (RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	51*60*20
FPXO-70-5ET-165	70(RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	51*60*20
FPXO-40-5ET-165	70(RF1/RF2)	2	-125	-155	-165	-165	-165	10	5	51*60*20

**OCXO**

OCXO, also known as a constant temperature crystal oscillator, is a crystal oscillator that uses a constant temperature bath to keep the temperature in the quartz crystal resonator of the crystal oscillator constant, reducing the output frequency change caused by surrounding temperature changes to the minimum.

**Features:** High Frequency Stability, Low Phase Noise; **Applications:** Wireless, Transceiver, Laboratory Test.

**How To Order:**


**Examples:** To order a OCXO, output frequency 10MHz, output power 11dBm, external reference, -165dBc/Hz@1KHz, specify FCXO-10-11E-165.

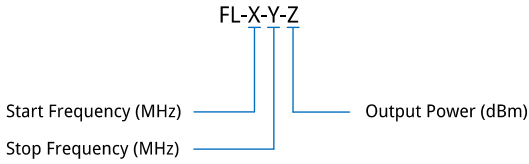
**External Reference**

Part Number	Output FREQ. (MHz)	Phase Noise (dBc/Hz)					REF. FREQ. (MHz)	Output PWR. (dBm, min.)	Harmonic	Spurious	Size* (mm)
		@10Hz	@100Hz	@1KHz	@10KHz	@100KHz			(dBc, max.)		
FCXO-10-11E-165	10	-130	-155	-165	-165	-165	10	11	-30	-80	57.2*57.2*20
FCXO-240-5E-145	240	-	-	-145	-155	-160	240	5	-30	-75	57.2*57.2*20

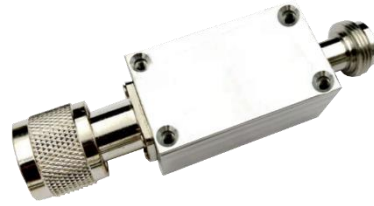
**Limiters**

Limiter is a self controlled attenuator and a power modulation component. When the input power of the signal is small and there is no attenuation, the attenuation will rapidly increase when the input power exceeds a certain value. This power value is called the threshold level. After the input power exceeds the threshold level, the output power will no longer increase.

**Features:** Broadband; **Applications:** Wireless, Transmitter, Laboratory Test, Radar.

**Limiters**
**How To Order:**


**Examples:** To order a limiter, 0.05~6GHz, output power 17dBm, SMA female, specify FL-50-6000-17-S.



The sizes in the following table do not include connectors.

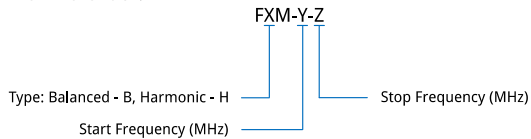
Part Number	Frequency (GHz)	Insertion Loss (dB, max.)	Average Power (W, max.)	Output Power (dBm, max.)	VSWR (max.)	Connector	Size*
FL-30-10	0.03	1.2	10	10	1.5	SMA	20*13*13
FL-50-6000-17-S	0.05~6	0.85	50	17 typ.	2.2 typ.	SMA	24*20*12
FL-50-6000-17-N	0.05~6	0.85	50	17 typ.	2.2 typ.	N	24*20*20
FL-300-6000-10	0.3~6	1.2	10	10	1.5	SMA	20*13*13
FL-2000-18000-15	2~18	0.6	5	15	2	SMA	30*20*12
FL-8000-12000-10	8~12	1.2	5	10	1.5	SMA	20*13*13

## Mixers

A mixer is a circuit whose output signal frequency is equal to the sum, difference or other combination of the two input signal frequencies. Freflex supplies low conversion loss and high isolation mixers in a broad range from 1kHz to 110GHz.

**Features:** Low Conversion Loss, High Isolation; **Applications:** Wireless, Transceiver, Laboratory Test, Broadcast.

**How To Order:**



**Examples:** To order a Balanced Mixer, 75~110GHz, specify FBM-75000-110000.



## Balanced Mixers

The sizes in the following table do not include connectors.

Part Number	RF Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	Conversion Loss (dB, typ.)	LO & RF Isolation (dB, typ.)	LO & IF Isolation (dB, typ.)	LO Input Power (+ dBm, typ.)	Size* (mm)
FBM-1-6000	0.001~6	0.001~6	DC~1	8	35	25	10	30*30*10
FBM-10-2000	0.01~2	0.01~2	0.01~1	10	30	40	7	32*32*10
FBM-300-4300	0.3~4.3	0.3~4.3	DC~1	8.5	20	7	13	32*32*10
FBM-2500-8000	2.5~8	2.5~8	DC~4	10	18~25	15~20	13	16*16*8
FBM-2500-18000	2.5~18	2.5~18	DC~6	10	16	25	13	16*13*8
FBM-5000-8000	5~8	4.5~8	0.5~3	9	55	35~42	17	17.5*16.5*8
FBM-6000-8000	6~8	7~10	DC~2	9	17~25	20~28	13	17.5*16.5*8
FBM-6000-26000	6~26	6~26	DC~8	9	37~39	21~37	13	17.5*16.5*8
FBM-6435-6935	6.435~6.935	4.435	2~2.5	8	30	25	13	16*16*10
FBM-10000-11000	10~11	10~11	DC~0.2	10	30	30	9	28*24*13.5
FBM-10000-44000	10~44	10~44	DC~14	10	47	49	15	17.5*16.5*8
FBM-10870-11370	10.87~11.37	8.87	2~2.5	8	30	30	13	16*16*10
FBM-18000-40000	18~40	26~33	6~8	10	41	32	13	17.5*16.5*8
FBM-20000-50000	20~50	20~50	DC~16	13	20	-	15	39.94*32.49*12.6
FBM-24000-40000	24~40	24~40	DC~20	10	40	30	9	17.5*16.5*8
FBM-25000-27500	25~27.5	23~24.5	1~4	12	30	25	13	17.5*16.5*8
FBM-33000-37000	33~37	33~37	DC~2	9	41	32	13	17.5*16.5*8
FBM-75000-110000	75~110	-	DC~12	10	20	-	15	30*26*22

## Phase Shifters

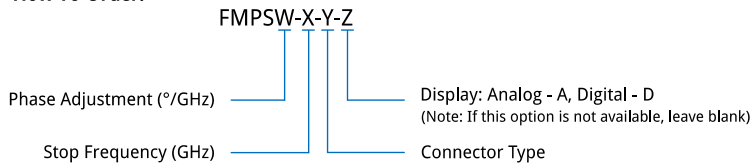
Freflex supplies low insertion loss and high power phase shifters from DC to 40GHz. The phase adjustment is up to 900°/GHz.

### Manual Phase Shifters

Manual phase shifter, which is used to adjust the phase through the manual knob.

**Features:** Broadband, High Sensitivity; **Applications:** Telecom, Instrumentation, Laboratory Test, Radar.

#### How To Order:



**Examples:** To order a manual phase shifter, DC-40GHz, 2.92mm male to 2.92mm female, specify FMPS5-40-KKF.

#### FMPS360 (Analog):



#### FMPS20 (Without Display):



#### Digital:



#### Analog:



The sizes in the following table do not include connectors.

Part Number	Phase Adjustment (°/GHz)	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Average Power (W)	Connector (Y)	Display (Z)	Size* (mm)
FMPS5-40-KKF	5.4	DC-40	1.5	0.8	-	KKF: 2.92mm (m)-2.92mm (f)	-	Φ9*41.1~45.6
FMPS10-26.5-SSF	10.2	DC-26.5	1.3	0.8	-	SSF: SMA (m)-SMA (f)	-	Φ9*50.6~59.1
FMPS20-2-S	20	DC-2	1.25	0.35	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS20-3-S	20	DC-3	1.3	0.5	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS20-6-S	20	DC-6	1.4	0.75	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS20-9-S	20	DC-9	1.5	1	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS20-12-S	20	DC-12	1.6	1.25	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS20-18-S	20	DC-18	1.6	1.5	50	S: SMA (m)-SMA (f)	-	70*13*15
FMPS45-1-S	45	DC-1	1.2	0.3	50	S: SMA (f)-SMA (f)	-	131.5*48*21
FMPS45-2-S	45	DC-2	1.3	0.5	50	S: SMA (f)-SMA (f)	-	131.5*48*21
FMPS45-4-S	45	DC-4	1.4	0.75	50	S: SMA (f)-SMA (f)	-	131.5*48*21
FMPS45-6-S	45	DC-6	1.5	1	50	S: SMA (f)-SMA (f)	-	131.5*48*21
FMPS45-8-S	45	DC-8	1.5	1.25	50	S: SMA (f)-SMA (f)	-	131.5*48*21
FMPS60-1-Y-Z	60	DC-1	1.2	0.3	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS60-2-Y-Z	60	DC-2	1.3	0.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS60-3-Y-Z	60	DC-3	1.4	0.8	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS60-4-Y-Z	60	DC-4	1.4	1	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS60-6-Y-Z	60	DC-6	1.5	1	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS60-8-Y-Z	60	DC-8	1.5	1.25	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 200*76*30.5 D: 205*76*50.5
FMPS90-1-Y-Z	90	DC-1	1.2	0.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5
FMPS90-2-Y-Z	90	DC-2	1.3	0.8	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5
FMPS90-3-Y-Z	90	DC-3	1.4	1.2	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5
FMPS90-4-Y-Z	90	DC-4	1.4	1.2	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5
FMPS90-6-Y-Z	90	DC-6	1.5	1.4	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5

The sizes in the following table do not include connectors.

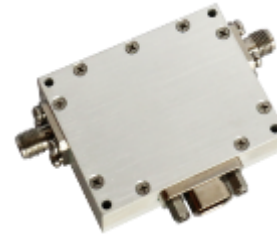
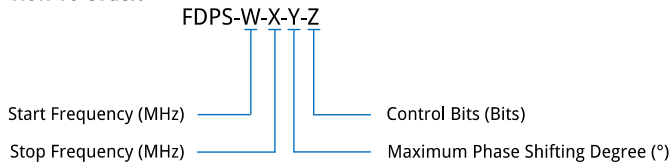
Part Number	Phase Adjustment (°/GHz)	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Average Power (W)	Connector (Y)	Display (Z)	Size* (mm)
FMPS90-8-Y-Z	90	DC-8	1.5	1.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 236*76*30.5 D: 241*76*50.5
FMPS180-1-Y-Z	180	DC-1	1.4	1	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 372*76*30.5 D: 377*76*50.5
FMPS180-2-Y-Z	180	DC-2	1.5	1.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 372*76*30.5 D: 377*76*50.5
FMPS180-3-Y-Z	180	DC-3	1.5	1.75	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 372*76*30.5 D: 377*76*50.5
FMPS180-4-Y-Z	180	DC-4	1.5	2	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 372*76*30.5 D: 377*76*50.5
FMPS360-1-Y-Z	360	DC-1	1.4	1.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 390*134*30.5 D: 395*134*50.5
FMPS360-2-Y-Z	360	DC-2	1.5	2	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog D: Digital	A: 390*134*30.5 D: 395*134*50.5
FMPS900-1-Y-A	900	DC-1	1.5	2.5	100	S: SMA (f)-SMA (f) N: N (f)-N (f)	A: Analog	692*148*67.5



## Digital Controlled Phase Shifters

Digital controlled phase shifter, a phase shifter that adjusts the phase through the combination of control voltage (generally TTL level).

### How To Order:



**Examples:** To order a digital controlled phase shifter, 1~2GHz, phase range 0~360°, 6 bits, specify FDPS-1000-2000-360-6.

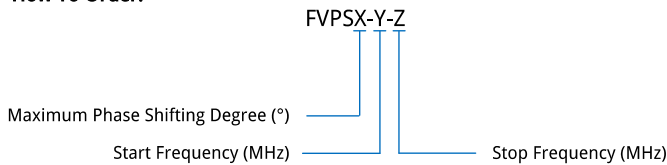
The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Phase Range (°)	Step (°)	Control Bits (Bits)	Phase Flatness (±°, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Input Power (dBm, typ.)	Size* (mm)
FDPS-400-2000-360-6	0.4~2	360	5.625	6	3	19	2.2	24	24*18*12
FDPS-1000-2000-360-6	1~2	360	5.6	6	15	5.5	2.5	27	45*43*14
FDPS-1300-1500-360-6	1.3~1.5	360	5.625	6	8	5	2	22	48*36*15
FDPS-1700-1975-360-6	1.7~1.975	360	5.625	6	3	5	2	25	32*28*9.5
FDPS-2000-4000-360-6	2~4	360	5.625	6	30	6	3	27	45*43*14
FDPS-2000-8000-360-6	2~8	360	5.625	6	4	20	2	24	24*18*12
FDPS-7000-9000-360-7	7~9	360	2.8125	7	-	14	2.2	10	35*45*12
FDPS-8000-18000-360-6	8~18	360	5.625	6	3	16	2.2	24	24*18*12
FDPS-9000-10000-360-6	9~10	360	5.625	6	8	8	2	22	48*36*15
FDPS-25000-27000-270-2	25~27	270	90	2	2	10.5	2.5	-	35*45*12

## Voltage Controlled Phase Shifters

Voltage controlled phase shifter, a phase shifter that adjusts the phase through the continuous change of voltage.

### How To Order:



**Examples:** To order a voltage controlled phase shifter, phase range 0~360°, 0.25~0.5GHz, specify FVPS360-250-500.

The sizes in the following table do not include connectors.

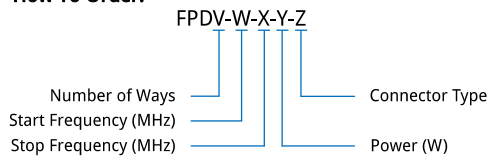
Part Number	Frequency (GHz)	Phase Range (°)	Phase Flatness (±°, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Average Power (dBm, max.)	Size* (mm)
FVPS360-250-500	0.25~0.5	360	30	5	2	30	SMA

### Power Dividers/Combiners

Power divider is a component used for power distribution, which divides the power signal into multiple outputs. Combiner, a component of power synthesis, which combines multiple signals. Generally, a combiner is a power divider when it is used reversely, but the power divider may not be used as a combiner.

Freflex supplies broadband and high reliable power dividers from DC to 110GHz. Our standard parts cover most commonly used number of ways from 2-way to 64-way.

#### How To Order:



**Examples:** To order a 2-Way power divider, 0.5-6GHz, 30W, N female, specify FPD2-500-6000-30-N.

#### Features:

- ※ Broadband
- ※ High reliability
- ※ Low insertion loss

#### Applications:

- ※ Amplifiers
- ※ Mixers
- ※ Antennas
- ※ Laboratory Test



### 2-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD2-0-8000-1-S	DC~8	1/-	7.5	6	0.5/5	1.3	SMA	28*24.2*12
FPD2-0-8000-1-N	DC~8	1/-	7.5	6	0.5/5	1.3	N	38*32*20
FPD2-0-18000-R5-S	DC~18	0.5/-	6±1.5	-	0.5/11	1.6	SMA	28*12*24.2
FPD2-0-26500-1-K	DC~26.5	1/0.1	2	-	0.3/3	1.4	2.92mm	12.7*12.7*9.52
FPD2-0-26500-2-S	DC~26.5	2/-	7.5	8	0.4/3	2.5	SMA	19.1*16.6*10
FPD2-0-40000-2-K	DC~40	2/-	7.5	9	0.5/5	2.5	2.92mm	17.5*15.8*10
FPD2-0-50000-1-2	DC~50	1/-	7.8	9	0.8/8	2.5	2.4mm	17.5*15.8*10
FPD2-0-67000-1-V	DC~67	1/-	8	9	0.9/10	2.5	1.85mm	17.5*15.8*10
FPD2-0.2-2-10-S	0.002~0.002	10/-	0.5	20	0.2/2	1.3	SMA	31.95*31.75*19.05
FPD2-1-500-25-S	0.001~0.5	25/25	1	15	0.3/5	1.4	SMA	32*32*20
FPD2-1-500-K1-S	0.001~0.5	100/100	0.5	15	0.3/5	1.4	SMA	60*80*22
FPD2-1-700-1-S	0.001~0.7	1/0.5	0.6	20	0.25/1	1.25	SMA	28*28*12.7
FPD2-1-700-2-S	0.001~0.7	2/1	0.75	20	0.1/1	1.4	SMA	28*28*12.7
FPD2-2-30-2K-N	0.002~0.03	2K/-	0.15	30	0.1/1	1.2	N	160*166*58
FPD2-2-1000-10-S	0.002~1	10/-	1.2	15	0.2/5	1.6	SMA	31.95*31.75*19.05
FPD2-4-30-K8-N	0.004~0.03	800/800	0.3	20	-/-	1.3	N	148*148*45
FPD2-5-1000-1-S	0.005~1	1/0.5	0.9	19	0.3/2	1.35	SMA	28*28*12.7
FPD2-5-1000-1-N	0.005~1	1/0.5	0.9	19	0.3/2	1.35	N	42*28*20
FPD2-5-1000-1-B	0.005~1	1/0.5	1	17	0.3/3	1.25	BNC	56*34*22
FPD2-10-500-K1-S	0.01~0.5	100/100	0.6	12	0.2/3	1.6	SMA	50.8*82.55*20
FPD2-20-500-K1-S	0.02~0.5	100/100	0.9	15	0.2/5	1.6	SMA	60*80*22
FPD2-20-500-K35-N	0.02~0.5	350/350	1	8	0.2/2	1.7	N	210*210*22
FPD2-20-1000-1K-7N	0.02~1	1000/1000	0.8	18	0.3/5	1.4	7/16DIN&N	170*160*60
FPD2-20-1000-K2-S	0.02~1	200/200	0.6	20	0.3/5	1.35	SMA	80*60*22
FPD2-30-90-K2-S	0.03~0.09	200/-	3.5	15	0.5/5	1.3	SMA	-
FPD2-30-90-K2-N	0.03~0.09	200/-	3.5	15	0.5/5	1.3	N	110*60*71
FPD2-30-300-2-N	0.03~0.3	2/-	6.8	5.6	0.3/3	1.2	N	38*32*20
FPD2-30-400-20-S	0.03~0.4	20/2	1.8	20	0.2/2	1.2	SMA	250*80*12
FPD2-30-400-K1-N	0.03~0.4	100/100	0.5	20	0.1/3	1.35	N	60*80*30
FPD2-30-406-K5-N-1	0.03~0.406	500/200	0.8	10	0.2/2	1.6	N	170*175*30
FPD2-30-406-K5-S	0.03~0.406	500/500	0.5	20	0.1/3	1.35	SMA	60*80*22
FPD2-30-512-K3-N	0.03~0.512	300/100	1.4	20	0.2/2	1.25	N	295*224*22
FPD2-30-512-30-S	0.03~0.512	30/2	2.8	20	0.3/3	1.25	SMA	-
FPD2-30-512-K2-S	0.03~0.512	200/200	0.5	20	0.2/5	1.3	SMA	80*60*22
FPD2-30-650-K2-S	0.03~0.65	200/-	0.85	10	0.2/2	1.6	SMA	160*160*17

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD2-30-1000-20-S	0.03~1	20/2	2.5	20	0.3/3	1.3	SMA	140*110*10
FPD2-30-1000-20-N	0.03~1	20/2	2.8	20	0.3/3	1.3	N	140*110*20
FPD2-30-3000-1-S	0.03~3	1/0.5	2.5	10	0.3/4	2.2	SMA	52*52*19
FPD2-30-3000-2-N	0.03~3	2/-	6.8	5.6	0.3/-	1.2	N	38*32*20
FPD2-30-3000-2-S	0.03~3	2/-	6.8	5.6	0.3/3	1.2	SMA	28*28*10
FPD2-50-500-1-S	0.05~0.5	1/0.5	0.6	18	0.3/3	1.3	SMA	28*28*12.7
FPD2-50-500-1-N	0.05~0.5	1/0.5	1	20	0.3/3	1.25	N	56*34*22
FPD2-52-57-K6-N	0.052~0.057	600/60	0.3	20	0.2/2	1.25	N	274*170*22
FPD2-68-72-1-N	0.068~0.072	1/0.5	0.3	20	0.2/2	1.2	N	56*34*22
FPD2-68-72-30-N	0.068~0.072	30/2	0.4	20	0.2/2	1.2	N	106*82*22
FPD2-68-72-K2-N	0.068~0.072	200/20	0.3	20	0.2/2	1.2	N	283*110*22
FPD2-70-2700-K1-N	0.07~2.7	100/5	2	15	0.2/3	1.5	N	334*60*20
FPD2-70-4200-20-S	0.07~4.2	20/2	5	18	0.3/3	1.5	SMA	260*42*12
FPD2-80-110-30-S	0.08~0.11	30/2	0.4	20	0.2/2	1.2	SMA	108*70*10
FPD2-80-500-30-S	0.08~0.5	30/2	0.8	19	0.2/2	1.25	SMA	110*62*12
FPD2-80-500-2K-EN	0.08~0.5	2000/2000	0.4	8	0.2/±5	1.6	SC&N	172*124*26
FPD2-80-1000-K3-S	0.08~1	300/300	0.6	15	0.3/5	1.35	SMA	80*60*22
FPD2-80-2000-30-S	0.08~2	30/2	1.8	19	0.2/2	1.25	SMA	110*62*12
FPD2-80-2000-30-N	0.08~2	30/2	1.8	20	0.2/2	1.25	N	110*62*20
FPD2-80-4000-30-S	0.08~4	30/2	2.5	16	0.3/3	1.5	SMA	156*44*12
FPD2-100-200-K1-N	0.1~0.2	100/10	0.3	20	0.2/2	1.2	N	168*90*22
FPD2-100-350-30-S	0.1~0.35	30/2	1	20	0.2/2	1.25	SMA	98*70*14
FPD2-100-400-30-N	0.1~0.4	30/2	1	22	0.2/2	1.2	N	98*72*20
FPD2-100-400-K2-N	0.1~0.4	200/20	0.4	20	0.2/2	1.2	N	195*102*22
FPD2-100-500-50-S	0.1~0.5	50/5	0.5	20	0.2/3	1.25	SMA	130*80*14
FPD2-100-500-50-N	0.1~0.5	50/3	0.5	20	0.2/2	1.25	N	132*84*22
FPD2-100-500-K3-N-20	0.1~0.5	300/20	0.5	20	0.2/2	1.25	N	262*84*22
FPD2-100-500-K3-N-K1	0.1~0.5	300/100	0.5	20	0.2/2	1.25	N	262*84*24
FPD2-100-500-K4-7	0.1~0.5	400/100	0.6	20	0.2/2	1.25	7/16DIN	260*88*35
FPD2-100-512-30-N	0.1~0.512	30/2	0.7	23	0.2/2	1.3	N	98*60*22
FPD2-100-520-2K-7N	0.1~0.52	2000/2000	0.6	15	0.3/5	1.35	7/16DIN&N	197*160*66
FPD2-100-550-K1-N	0.1~0.55	100/10	0.5	20	0.2/2	1.2	N	226*80*22
FPD2-100-600-30-S	0.1~0.6	30/2	0.8	20	0.2/2	1.2	SMA	85*70*12
FPD2-100-1000-30-S	0.1~1	30/2	1.2	20	0.2/2	1.2	SMA	110*62*12
FPD2-100-3000-30-S	0.1~3	30/2	2.5	18	0.2/3	1.25	SMA	110*50*10
FPD2-100-4000-30-S	0.1~4	30/2	2	16	0.3/3	1.4	SMA	120*40*12
FPD2-134-3700-30-N	0.134~3.7	30/2	2.2	18	0.3/3	1.3	N	111*50*20
FPD2-136-174-K3-N	0.136~0.174	300/25	0.3	20	0.2/2	1.2	N	226*90*22
FPD2-138-960-50-N	0.138~0.96	50/3	0.6	18	0.2/3	1.25	N	150*58*20
FPD2-150-980-50-N	0.15~0.98	50/2	0.6	20	0.3/3	1.3	N	150*78*20
FPD2-200-1000-30-S	0.2~1	30/2	0.6	20	0.2/2	1.25	SMA	82*48*12
FPD2-200-2000-K4-T	0.2~2	400/400	0.8	-	0.5/6	1.5	TNC	138*104*12
FPD2-200-2000-30-S	0.2~2	30/2	0.8	20	0.2/3	1.25	SMA	85*44*12
FPD2-200-6000-30-S	0.2~6	30/2	2.2	18	0.3/3	1.25	SMA	123*38*12
FPD2-200-6000-30-N	0.2~6	30/2	2.2	18	0.3/3	1.25	N	123*46*20
FPD2-200-6000-50-S	0.2~6	50/5	6	18	0.2/3	1.4	SMA	290*44*15
FPD2-210-240-50-N	0.21~0.24	50/5	0.3	20	0.2/2	1.2	N	84*76*20
FPD2-225-512-K1-N	0.225~0.512	100/10	0.3	20	0.2/2	1.2	N	134*80*22
FPD2-300-500-50-S	0.3~0.5	50/5	0.3	20	0.2/2	1.2	SMA	85*50*14
FPD2-300-600-30-S	0.3~0.6	30/2	0.4	20	0.2/2	1.2	SMA	53*52*12
FPD2-300-600-50-N	0.3~0.6	50/5	0.3	20	0.2/2	1.2	N	85*50*20
FPD2-300-900-30-S	0.3~0.9	30/2	0.6	20	0.2/2	1.2	SMA	82*48*12
FPD2-300-1000-20-S	0.3~1	20/2	0.6	20	0.2/2	1.2	SMA	60*50*12
FPD2-300-1000-20-N	0.3~1	20/2	0.8	20	0.2/2	1.25	N	60*50*20
FPD2-300-1800-K3-N	0.3~1.8	300/30	0.6	18	0.2/2	1.3	N	110*78*22
FPD2-300-3000-30-S	0.3~3	30/2	0.9	20	0.1/3	1.25	SMA	52*50*12
FPD2-300-3000-30-N	0.3~3	30/2	0.9	20	0.1/3	1.25	N	52*50*20
FPD2-300-18000-30-S	0.3~18	30/5	2.4	18	0.3/4	1.5	SMA	216.5*25.8*12.7
FPD2-300-26500-30-S	0.3~26.5	30/2	3.4	18	0.4/5	1.6	SMA	216.5*25.8*12.7
FPD2-300-67000-12-V	0.3~67	12/1	8.2	18	0.7/9	1.9	1.85mm	216.5*25.8*12.7
FPD2-336-366-30-N	0.336~0.366	30/2	0.3	20	0.2/2	1.2	N	80*52*20

The sizes in the following table do not include connectors.

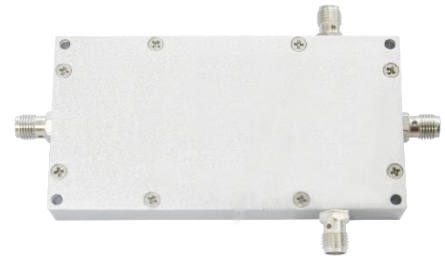
Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD2-350-520-K15-N	0.35~0.52	150/50	0.3	20	0.2/2	1.2	N	90*70*22
FPD2-350-3800-30-S	0.35~3.8	30/2	1.2	20	0.2/3	1.25	SMA	62*42*12
FPD2-350-3800-30-N	0.35~3.8	30/2	1.2	20	0.2/3	1.25	N	62*50*20
FPD2-350-6000-30-S	0.35~6	30/2	1.1	20	0.05/1	1.3	SMA	60*38*12
FPD2-380-410-K3-N	0.38~0.41	300/80	0.3	20	0.2/2	1.2	N	152*80*22
FPD2-380-460-K1-7	0.38~0.46	100/-	0.3	20	0.2/2	1.2	7/16DIN	95*78*30
FPD2-380-470-K3-N	0.38~0.47	300/25	0.3	20	0.2/2	1.2	N	144*80*22
FPD2-380-8000-30-S	0.38~8	30/1	1.6	18	0.3/3	1.25	SMA	78*28*10
FPD2-400-450-K1-N	0.4~0.45	100/10	0.4	20	0.2/2	1.2	N	70*68*20
FPD2-400-470-30-S	0.4~0.47	30/2	0.5	20	0.2/2	1.2	SMA	54*52*12
FPD2-400-1000-K2-N	0.4~1	200/20	0.4	18	0.2/2	1.25	N	126*58*22
FPD2-400-1000-K3-N	0.4~1	300/30	0.4	18	0.2/2	1.25	N	126*58*22
FPD2-400-2700-30-S	0.4~2.7	30/2	0.8	20	0.2/3	1.2	SMA	56*50*12
FPD2-400-6000-30-S	0.4~6	30/2	1	20	0.2/2	1.3	SMA	60*38*12
FPD2-400-6000-30-N	0.4~6	30/2	1	20	0.2/2	1.3	N	60*42*20
FPD2-400-7500-20-S	0.4~7.5	20/1	1.5	20	0.3/3	1.35	SMA	75*28*10
FPD2-400-8000-30-S	0.4~8	30/2	1.5	18	0.3/3	1.3	SMA	74*35*12
FPD2-400-18000-20-S	0.4~18	20/1	1.2	12	0.3/5	1.7	SMA	157*26*10
FPD2-430-950-30-S	0.43~0.95	30/2	0.3	22	0.2/2	1.2	SMA	84*50*12
FPD2-500-1000-30-S	0.5~1	30/2	0.3	20	0.2/2	1.2	SMA	56*34*12
FPD2-500-1000-30-N	0.5~1	30/2	0.4	22	0.2/2	1.2	N	52*41*20
FPD2-500-2000-20-S	0.5~2	20/-	0.5	20	0.2/2	1.3	SMA	54*28*12
FPD2-500-3000-30-S	0.5~3	30/2	0.6	22	0.2/3	1.25	SMA	48*40*12
FPD2-500-3000-30-N	0.5~3	30/2	0.6	20	0.2/3	1.25	N	56*50*20
FPD2-500-4000-30-S	0.5~4	30/2	0.8	20	0.2/3	1.25	SMA	46*42*12
FPD2-500-6000-30-S	0.5~6	30/2	1.1	20	0.2/3	1.25	SMA	48*36*12
FPD2-500-6000-30-N	0.5~6	30/2	1.2	20	0.2/3	1.25	N	56*50*20
FPD2-500-6000-30-S-DC	0.5~6	30/2	1.1	20	0.2/3	1.3	SMA	48*36*12
FPD2-500-6000-30-S-1	0.5~6	30/2	1	18	0.2/2	1.4	SMA	40*45*12
FPD2-500-8000-30-S	0.5~8	30/2	1.2	20	0.2/1	1.3	SMA	60*35*12
FPD2-500-8000-30-N	0.5~8	30/2	1.8	20	0.2/3	1.25	N	74*38*20
FPD2-500-10500-30-S	0.5~10.5	30/1	1.4	18	0.3/3	1.45	SMA	74*28*10
FPD2-500-18000-20-S	0.5~18	20/1	1.2	16	0.3/4	1.6	SMA	157*26*10
FPD2-500-18000-30-N	0.5~18	30/1	1.5	16	0.3/4	1.6	N	157*48*20
FPD2-500-26500-20-S	0.5~26.5	20/-	2.4	17	0.4/4	1.6	SMA	149.2*26.4*12.7
FPD2-500-40000-20-K	0.5~40	20/-	3.5	16	0.5/6	1.6	2.92mm	149.2*26.4*12.7
FPD2-500-50000-20-2	0.5~50	20/1	3.9	18	0.4/6	1.7	2.4mm	149.2*26.4*12.7
FPD2-555-3400-30-N	0.555~3.4	30/2	0.6	20	0.2/2	1.2	N	64*54*20
FPD2-600-2000-30-S	0.6~2	30/2	0.4	20	0.2/3	1.2	SMA	48*44*12
FPD2-600-6000-30-S	0.6~6	30/2	0.9	20	0.2/1	1.25	SMA	45*36*12
FPD2-600-6000-30-N	0.6~6	30/2	0.9	20	0.2/1	1.25	N	50*48*20
FPD2-700-2700-30-S	0.7~2.7	30/2	0.5	20	0.2/2	1.2	SMA	42*38*14
FPD2-700-2700-K2-N	0.7~2.7	200/15	0.6	18	0.2/3	1.25	N	82*62*22
FPD2-700-4000-30-S	0.7~4	30/2	0.6	20	0.2/3	1.25	SMA	42*40*12
FPD2-700-4000-30-N	0.7~4	30/2	0.6	20	0.2/3	1.25	N	50*45*20
FPD2-700-4700-30-N	0.7~4.7	30/2	1	20	0.2/3	1.25	N	56*50*20
FPD2-700-5000-30-N	0.7~5	30/2	1	18	0.2/4	1.3	N	70*54*22
FPD2-700-9000-20-S	0.7~9	20/1	1.2	18	0.2/3	1.25	SMA	55*28*10
FPD2-800-1880-K2-N	0.8~1.88	200/20	0.3	25	0.2/2	1.25	N	66*68*22
FPD2-800-2500-30-S	0.8~2.5	30/2	0.4	20	0.2/2	1.2	SMA	43*35*14
FPD2-800-2700-30-S	0.8~2.7	30/2	0.5	22	0.1/0.5	1.2	SMA	35*43*14
FPD2-800-2700-50-N	0.8~2.7	50/2	0.5	20	0.2/3	1.25	N	45.7*75*18.7
FPD2-800-3000-30-S	0.8~3	30/2	0.5	20	0.2/3	1.25	SMA	43*35*14
FPD2-800-3000-30-N	0.8~3	30/2	0.6	20	0.2/3	1.25	N	50*43*20
FPD2-800-3800-K2-7	0.8~3.8	200/10	0.9	20	0.2/3	1.3	7/16DIN	95*58*30
FPD2-800-4000-30-S	0.8~4	30/2	0.8	22	0.2/3	1.2	SMA	45*36*12
FPD2-900-1300-K1-N	0.9~1.3	100/100	0.5	20	0.1/3	1.25	N	60*80*30
FPD2-900-2100-30-N-DC	0.9~2.1	30/2	0.5	20	0.2/2	1.25	N	56*46*20.5
FPD2-950-2150-30-S	0.95~2.15	30/2	0.4	20	0.1/2	1.25	SMA	28*27.8*11.1
FPD2-950-2150-30-N	0.95~2.15	30/2	0.4	20	0.1/2	1.25	N	50*30*20
FPD2-950-2150-30-S-DC	0.95~2.15	30/2	0.3	20	0.2/2	1.2	SMA	28*27.8*11.1

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD2-950-2150-30-N-DC	0.95~2.15	30/2	0.3	20	0.2/2	1.2	N	56*46*20.5
FPD2-960-9000-10-S	0.96~9	10/-	1.2	15	0.6/10	1.6	SMA	99*24*10
FPD2-1000-2000-30-S	1~2	30/2	0.4	20	0.2/2	1.2	SMA	27.8*28*11.1
FPD2-1000-2000-30-N	1~2	30/2	0.35	20	0.2/2	1.2	N	43*29*20
FPD2-1000-2000-30-S-DC	1~2	30/2	0.4	20	0.2/2	1.2	SMA	28*27.8*11.1
FPD2-1000-2000-30-T	1~2	30/2	0.5	20	0.2/2	1.25	TNC	56*46*20.5
FPD2-1000-2500-30-N	1~2.5	30/2	0.4	20	0.2/2	1.2	N	56*46*20.5
FPD2-1000-3000-30-S	1~3	30/2	0.4	25	0.1/0.5	1.15	SMA	43*35*14
FPD2-1000-4000-30-S	1~4	30/2	0.4	20	0.2/2	1.2	SMA	28*28*10
FPD2-1000-4000-50-S	1~4	50/3	0.8	20	0.2/3	1.25	SMA	64*40*14
FPD2-1000-4000-K2-N	1~4	200/10	1.2	16	0.3/4	1.5	N	80*60*24
FPD2-1000-8000-30-S	1~8	30/2	0.8	20	0.2/3	1.25	SMA	41*28*10
FPD2-1000-9000-30-S	1~9	30/2	1.4	20	0.2/3	1.25	SMA	52*28*10
FPD2-1000-9000-30-N	1~9	30/2	1.5	20	0.2/3	1.25	N	52*50*20
FPD2-1000-12000-20-S	1~12	20/1	1	18	0.3/4	1.4	SMA	99*24*10
FPD2-1000-18000-20-S	1~18	20/1	1.2	16	0.3/3	1.4	SMA	99*24*10
FPD2-1000-26500-20-S	1~26.5	20/1	1.2	16	0.5/6	1.7	SMA	81*26*10
FPD2-1000-26500-20-K	1~26.5	20/1	1.2	16	0.5/6	1.7	2.92mm	81*26*10
FPD2-1000-40000-20-K	1~40	20/1	1.8	16	0.4/5	1.8	2.92mm	78*26*10
FPD2-1000-50000-20-2	1~50	20/1	3.2	18	0.5/6	1.7	2.4mm	95.3*25.9*12.7
FPD2-1000-65000-12-V	1~65	12/1	3.8	18	0.6/8	1.7	1.85mm	95.3*25.9*12.7
FPD2-1000-67000-12-V	1~67	12/1	3.9	18	0.6/8	1.7	1.85mm	95.3*25.9*12.7
FPD2-1100-1700-30-S	1.1~1.7	30/2	0.3	20	0.2/2	1.2	SMA	28*28*10
FPD2-1100-1700-30-B	1.1~1.7	30/2	0.4	20	0.2/2	1.2	BNC	56*46*20.5
FPD2-1300-2400-30-S	1.3~2.4	30/2	0.4	22	0.2/2	1.2	SMA	42*28*12
FPD2-1350-1450-20-S	1.35~1.45	20/1	0.3	30	0.2/2	1.2	SMA	28*28*10
FPD2-1500-18000-20-S	1.5~18	20/1	1.2	16	0.3/3	1.4	SMA	99*24*10
FPD2-1700-5900-30-N	1.7~5.9	30/2	0.5	22	0.2/3	1.2	N	38*34*20
FPD2-1700-6000-50-S	1.7~6	50/-	0.5	18	0.2/2	1.4	SMA	45.5*26.4*12.7
FPD2-1700-9000-30-S	1.7~9	30/2	0.6	18	0.2/3	1.3	SMA	34*28*10
FPD2-2000-2300-K1-S	2~2.3	100/-	0.4	20	0.2/2	1.25	SMA	31.95*31.75*19.05
FPD2-2000-2400-30-N	2~2.4	30/2	0.3	20	0.2/2	1.25	N	43*29*20
FPD2-2000-4000-30-S	2~4	30/2	0.5	20	0.2/2	1.25	SMA	36*34*12
FPD2-2000-4000-30-N	2~4	30/2	0.4	20	0.2/2	1.25	N	43*29*20
FPD2-2000-4000-125-N	2~4	125/10	0.3	20	0.2/3	1.2	N	72*50*20
FPD2-2000-4000-K3-N	2~4	300/15	0.5	18	0.2/2	1.3	N	70*52*22
FPD2-2000-6000-30-S	2~6	30/2	0.5	20	0.2/3	1.25	SMA	28*28*10
FPD2-2000-6000-30-N	2~6	30/2	0.6	20	0.2/3	1.25	N	43*29*20
FPD2-2000-8000-30-S	2~8	30/2	0.6	20	0.2/2	1.3	SMA	28*28*10
FPD2-2000-8000-30-N	2~8	30/2	0.6	20	0.2/2	1.3	N	43*29*20
FPD2-2000-9000-30-S	2~9	30/2	0.6	20	0.2/3	1.25	SMA	34*28*10
FPD2-2000-12000-20-S	2~12	20/1	1	18	0.3/4	1.4	SMA	47*24*10
FPD2-2000-18000-20-S	2~18	20/1	1	18	0.3/4	1.4	SMA	47*24*10
FPD2-2000-26500-20-S	2~26.5	20/1	1.2	17	0.4/4	1.6	SMA	45*25*10
FPD2-2000-40000-20-K	2~40	20/1	1.6	18	0.4/4	1.6	2.92mm	78*26*10
FPD2-2000-50000-20-2	2~50	20/1	2.4	18	0.4/5	1.7	2.4mm	45.5*26.4*12.7
FPD2-2000-65000-12-V	2~65	12/1	3.2	16	0.6/8	1.9	1.85mm	45.5*26.4*12.7
FPD2-2000-67000-12-V	2~67	12/1	3.3	18	0.6/8	1.8	1.85mm	45.5*26.4*12.7
FPD2-2200-2300-30-N	2.2~2.3	30/1	0.4	20	0.2/3	1.2	N	34*38*20
FPD2-2400-2500-K3-S	2.4~2.5	300/15	0.3	30	0.2/2	1.25	SMA	70*50*14
FPD2-2400-2500-K2-S	2.4~2.5	200/10	0.3	30	0.2/2	1.25	SMA	70*50*14
FPD2-2500-4000-K2-N	2.5~4	200/20	0.6	18	0.2/3	1.35	N	58*52*22
FPD2-2500-6000-30-S	2.5~6	30/2	0.4	22	0.1/0.5	1.2	SMA	28*28*10
FPD2-3000-8000-30-S	3~8	30/2	0.6	22	0.1/1	1.2	SMA	28*28*10
FPD2-3000-13000-5-S	3~13	5/1	1.2	18	0.3/5	1.5	SMA	47*24*10
FPD2-3000-26500-20-S	3~26.5	20/1	1.4	17	0.4/4	1.55	SMA	45*25*10
FPD2-3400-3800-30-N	3.4~3.8	30/2	0.3	20	0.2/2	1.2	N	54*40*20
FPD2-3400-3800-K1-N	3.4~3.8	100/10	0.3	20	0.2/2	1.2	N	62*54*20
FPD2-4000-5000-30-S	4~5	30/2	0.4	22	0.2/2	1.25	SMA	28*28*10
FPD2-4000-6000-30-S	4~6	30/2	0.4	20	0.2/2	1.2	SMA	28*28*10
FPD2-4000-8000-30-S	4~8	30/2	0.5	20	0.2/2	1.25	SMA	28*28*10

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD2-4000-8000-30-N	4-8	30/2	0.5	20	0.2/2	1.25	N	43*29*20
FPD2-4000-12000-20-S	4-12	20/1	0.5	20	0.1/1	1.25	SMA	28*28*10
FPD2-4900-5900-30-S	4.9-5.9	30/2	0.4	20	0.2/2	1.25	SMA	36*34*12
FPD2-5000-6000-K2-N-IP65	5-6	200/10	0.5	20	0.2/3	1.25	N	50*36*20
FPD2-5000-18000-20-S	5-18	20/1	1	20	0.3/4	1.35	SMA	47*24*10
FPD2-5150-5850-50-N	5.15-5.85	50/3	0.5	20	0.2/3	1.25	N	44*36*20
FPD2-5150-5850-K2-N	5.15-5.85	200/10	0.6	20	0.2/3	1.25	N	52*50*20
FPD2-5200-5900-K1-S	5.2-5.9	100/20	0.4	20	0.2/2	1.25	SMA	60*45*15
FPD2-5700-5900-30-S	5.7-5.9	30/1	0.4	22	0.2/2	1.2	SMA	28*28*10
FPD2-6000-18000-20-S	6-18	20/1	0.8	18	0.3/4	1.4	SMA	30*24*10
FPD2-6000-18000-K1-S	6-18	100/-	1	15	0.3/4	1.4	SMA	35*30*10
FPD2-6000-40000-20-K	6-40	20/1	1.4	16	0.5/5	1.7	2.92mm	26*19*10
FPD2-6000-50000-20-2	6-50	20/1	1.7	16	0.4/5	1.7	2.4mm	29.2*26.9*12.7
FPD2-6000-65000-12-V	6-65	12/1	2.5	16	0.8/9	1.9	1.85mm	29.2*26.9*12.7
FPD2-6000-67000-12-V	6-67	12/1	2.6	18	0.6/8	1.8	1.85mm	29.2*26.9*12.7
FPD2-7000-9000-K2-S	7-9	200/200	0.5	18	0.2/4	1.3	SMA	48*35*10
FPD2-7000-9000-30-S	7-9	30/2	0.4	20	0.1/2	1.25	SMA	28*28*10
FPD2-7100-7300-K4-N	7.1-7.3	400/400	0.4	18	0.3/4	1.3	N	58*50*22
FPD2-8000-12000-20-S	8-12	20/1	0.5	20	0.1/3	1.25	SMA	28*28*10
FPD2-8000-30000-20-K	8-30	20/1	1.2	16	0.4/4	1.5	2.92mm	26*19*10
FPD2-10000-43000-20-K	10-43	20/1	1.3	12	0.4/5	1.6	2.92mm	26*19*10
FPD2-10000-43300-20-K	10-43.3	20/1	1.6	14	0.5/6	1.6	2.92mm	26*19*10
FPD2-10700-12750-20-S	10.7-12.75	20/1	0.6	18	0.3/3	1.3	SMA	28*28*10
FPD2-12400-13650-20-S	12.4-13.65	20/1	0.6	18	0.2/3	1.3	SMA	30*24*10
FPD2-13500-15000-20-N	13.5-15	20/1	0.4	18	0.2/3	1.25	N	43*29*20
FPD2-17000-31000-20-K	17-31	20/1	1	16	0.4/5	1.5	2.92mm	26*19*10
FPD2-18000-26500-20-K	18-26.5	20/1	0.6	16	0.4/4	1.5	2.92mm	26*19*10
FPD2-18000-40000-20-K	18-40	20/1	1	16	0.4/5	1.5	2.92mm	26*19*10
FPD2-18000-50000-20-2	18-50	20/1	1.6	18	0.4/5	1.6	2.4mm	21.6*26.9*12.7
FPD2-18000-65000-12-V	18-65	12/1	2.2	18	0.5/8	1.8	1.85mm	21.6*26.9*12.7
FPD2-18000-67000-12-V	18-67	12/1	2.3	18	0.6/8	1.8	1.85mm	21.6*26.9*12.7
FPD2-19000-33000-20-K	19-33	20/1	0.8	18	0.4/±4	1.5	2.92mm	19*26*10
FPD2-20000-22000-20-K	20-22	20/1	1	18	0.4/4	1.4	2.92mm	26*19*10
FPD2-20000-40000-20-K	20-40	20/1	1.2	16	0.4/5	1.5	2.92mm	26*19*10
FPD2-21000-26000-1-K	21-26	1/-	0.95	20	0.5/8	1.45	2.92mm	44*19*10
FPD2-23100-23300-10-K	23.1-23.3	10/-	0.8	18	0.3/3	1.5	2.92mm	26*19*10
FPD2-24000-30000-20-K	24-30	20/1	0.8	17	0.4/4	1.5	2.92mm	26*19*10
FPD2-24000-43500-20-K	24-43.5	20/1	1.3	16	0.4/5	1.7	2.92mm	26*19*10
FPD2-24250-52600-20-V	24.25-52.6	20/-	1.5	17	0.5/5	1.7	1.85mm	25.4*15.2*12.7
FPD2-25500-25600-1-K	25.5-25.6	1/-	0.8	18	0.3/3	1.5	2.92mm	26*19*10
FPD2-26000-31000-20-K	26-31	20/1	1	16	0.4/4	1.5	2.92mm	26*19*10
FPD2-26000-40000-20-K	26-40	20/1	1.2	16	0.4/4	1.5	2.92mm	26*19*10
FPD2-26000-54000-20-2	26-54	20/-	2	14	0.8/6	1.8	2.4mm	25.4*12.7*10
FPD2-26500-67000-12-V	26.5-67	12/1	2.1	18	0.6/8	1.8	1.85mm	25.4*15.2*10
FPD2-27000-52000-10-2	27-52	10/1	1.8	14	0.6/6	1.8	2.4mm	26*19*10
FPD2-37500-40200-20-V	37.5-40.2	20/1	1	17	0.4/5	1.6	1.85mm	26*19*10
FPD2-40000-67000-12-V	40-67	12/1	2.1	18	0.6/8	1.8	1.85mm	25.4*15.2*10



#### 3-Way Power Dividers/Combiners

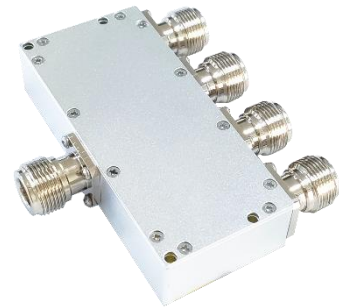
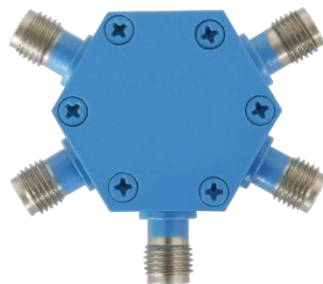
The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD3-0-3000-2-S	DC~3	2/-	9.5±0.6	9.5	0.6/-	1.25	SMA	25.4*22.2*16
FPD3-0-6000-2-S	DC~6	2/-	11	9	0.7/10	1.4	SMA	29.3*25.4*16
FPD3-0-8000-2-S	DC~8	2/-	13.4	8.9	0.5/11	1.6	SMA	45*34*12.5
FPD3-1-300-1-S	0.001~0.3	1/-	1	20	0.4/4	1.35	SMA	38.1*25.4*10
FPD3-5-1000-50-S	0.005~1	50/50	1	12	0.3/5	1.5	SMA	60*80*22
FPD3-10-500-1-S	0.01~0.5	1/0.15	1.4	16	0.6/6	1.6	SMA	60*48*12
FPD3-80-300-20-S	0.08~0.3	20/1	1	18	0.4/5	1.3	SMA	186*102*12
FPD3-100-200-K1-N	0.1~0.2	100/10	0.5	18	0.3/3	1.25	N	305*120*22
FPD3-100-350-30-S	0.1~0.35	30/2	0.8	20	0.4/4	1.25	SMA	31.95*31.75*19.05
FPD3-100-400-30-N	0.1~0.4	30/2	0.6	18	0.5/5	1.3	N	228*108*20
FPD3-100-400-50-N	0.1~0.4	50/5	0.6	18	0.6/5	1.3	N	228*165*20
FPD3-100-800-1-S	0.1~0.8	1/1	1.5	20	0.4/5	1.35	SMA	38.1*25.4*10
FPD3-100-1000-30-S	0.1~1	30/2	1.8	18	0.8/8	1.35	SMA	186*72*14
FPD3-114-178-K3-N	0.114~0.178	300/50	1	20	0.5/6	1.3	N	280*172*22
FPD3-134-3700-30-N	0.134~3.7	30/2	3.8	18	0.9/10	1.5	N	280*68*20
FPD3-136-174-K3-N	0.136~0.174	300/20	0.8	20	0.3/3	1.25	N	326*172*22
FPD3-138-960-50-N	0.138~0.96	50/3	1.2	18	0.6/6	1.3	N	148*115*20
FPD3-200-250-30-S	0.2~0.25	30/2	1	20	0.4/4	1.25	SMA	164*64*14
FPD3-200-2000-30-S	0.2~2	30/2	0.6	12	0.8/3	1.3	SMA	50.8*82.55*20
FPD3-225-2500-20-S	0.225~2.5	20/1	1.8	20	0.8/8	1.4	SMA	136*56*12
FPD3-336-366-30-N	0.336~0.366	30/2	0.6	20	0.3/3	1.25	N	195*74*20
FPD3-380-470-K3-N	0.38~0.47	300/20	0.8	20	0.3/3	1.25	N	164*155*22
FPD3-380-40000-20-K	0.38~40	20/-	4.5	17	0.9/10	1.7	2.92mm	254*40.6*12.7
FPD3-400-1000-30-S	0.4~1	30/2	0.6	20	0.4/5	1.3	SMA	112*90*14
FPD3-400-2000-30-S	0.4~2	30/-	1.8	20	0.8/10	1.3	SMA	100*70*12
FPD3-400-6000-20-S	0.4~6	20/1	2.8	18	0.8/8	1.4	SMA	130*50*12
FPD3-400-6000-20-N	0.4~6	20/1	2.8	18	0.8/8	1.5	N	130*74*20
FPD3-433-30-30-N	0.433	30/2	0.5	22	0.3/3	1.2	N	100*70*20
FPD3-440-900-60-N	0.44~0.9	60/3	1	18	0.5/6	1.35	N	100*94*20
FPD3-480-500-30-N	0.48~0.5	30/2	0.3	20	0.3/3	1.2	N	90*78*20
FPD3-480-500-50-N	0.48~0.5	50/3	0.3	20	0.3/3	1.2	N	100*90*20
FPD3-500-700-K15-S	0.5~0.7	150/20	0.6	18	0.5/6	1.3	SMA	108*86*14
FPD3-500-3000-30-S	0.5~3	30/2	1	18	0.5/5	1.3	SMA	90*48*12
FPD3-500-6000-30-S	0.5~6	30/2	2.6	20	0.8/8	1.5	SMA	130*50*12
FPD3-500-6000-30-N	0.5~6	30/2	2.8	18	0.8/8	1.5	N	130*74*20
FPD3-500-8000-20-S	0.5~8	20/2	2.2	17	1/10	1.5	SMA	160*52*12
FPD3-500-18000-30-S	0.5~18	30/5	2.1	18	0.5/5	1.45	SMA	203.2*38.8*12.7
FPD3-500-26500-30-S	0.5~26.5	30/2	3	18	0.6/5	1.6	SMA	203.2*38.8*12.7
FPD3-500-40000-20-K	0.5~40	20/2	4.3	18	0.8/9	1.7	2.92mm	203.2*38.8*12.7
FPD3-555-3400-30-N	0.555~3.4	30/2	1	20	0.7/7	1.25	N	136*78*20
FPD3-600-6000-30-S	0.6~6	30/2	1	20	0.8/8	1.5	SMA	130*50*12
FPD3-600-6000-30-N	0.6~6	30/2	2.8	20	0.8/8	1.5	N	130*74*20
FPD3-698-2700-50-N	0.698~2.7	50/2	0.6	20	0.4/4	1.25	N	94*77*19
FPD3-698-6000-30-N	0.698~6	30/2	2	18	0.8/8	1.5	N	130*74*18
FPD3-700-1100-10-S	0.7~1.1	10/-	1	20	0.6/-	1.35	SMA	86.5*45*12
FPD3-700-4000-30-S	0.7~4	30/2	1.2	15	0.5/5	1.3	SMA	94*50*12
FPD3-700-4000-30-N	0.7~4	30/2	1.4	20	0.5/5	1.3	N	94*74*20
FPD3-700-5000-30-N	0.7~5	30/2	1.5	18	0.8/8	1.4	N	138*74*22
FPD3-800-1600-30-S	0.8~1.6	30/2	0.6	20	0.4/4	1.3	SMA	71*50*14
FPD3-800-2500-K2-7	0.8~2.5	200/-	0.5	20	0.3/4	1.2	7/16DIN	89*53*28



The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance ( $\pm$ dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD3-1000-2000-30-S	1~2	30/2	0.8	20	0.4/4	1.25	SMA	71*50*14
FPD3-1000-3000-30-N	1~3	30/2	1.2	20	0.5/5	1.3	N	94*72*20
FPD3-1000-18000-20-S	1~18	20/0.5	1.5	17	0.8/7	1.7	SMA	124*41*10
FPD3-1000-26500-30-S	1~26.5	30/2	2.1	16	0.8/7	1.7	SMA	145*40.8*12.7
FPD3-1100-1700-30-S	1.1~1.7	30/2	0.4	20	0.4/4	1.25	SMA	68*50*10
FPD3-1100-1700-30-T	1.1~1.7	30/2	0.5	20	0.4/4	1.25	TNC	72*72*20
FPD3-2000-3000-20-S	2~3	20/1	0.5	18	0.5/5	1.3	SMA	55*50*12
FPD3-2000-4000-20-S	2~4	20/1	0.5	18	0.5/5	1.3	SMA	55*50*12
FPD3-2000-8000-20-S	2~8	20/1	1	18	0.5/5	1.4	SMA	66.5*37.5*10
FPD3-2000-8000-20-N	2~8	20/1	1.2	18	0.5/6	1.4	N	76*70*20
FPD3-2000-9000-30-S	2~9	30/2	1.5	18	0.5/5	1.5	SMA	66.5*37.5*10
FPD3-2000-18000-20-S	2~18	20/1	1.6	16	0.6/10	1.7	SMA	70*39*10
FPD3-2000-26500-30-S	2~26.5	30/2	2	17	0.7/7	1.6	SMA	90*40.8*12.7
FPD3-2100-8400-20-N	2.1~8.4	20/1	1.6	18	0.6/6	1.15	N	66.5*70*20
FPD3-2400-2500-20-S	2.4~2.5	20/1	0.8	30	0.4/4	1.25	SMA	48*60*10
FPD3-3400-3800-30-N	3.4~3.8	30/2	0.5	20	0.5/5	1.25	N	78*68*20
FPD3-4950-4970-20-S	4.95~4.97	20/1	0.5	20	0.4/4	1.25	SMA	55*50*12
FPD3-6000-10000-20-S	6~10	20/1	1.2	18	0.6/6	1.5	SMA	51*38*10
FPD3-6000-18000-20-S	6~18	20/1	1.2	18	0.2/6	1.25	SMA	110*50*10
FPD3-6000-26500-30-S	6~26.5	30/2	1.4	18	0.6/7	1.6	SMA	43.2*38.1*12.7
FPD3-6000-40000-20-K	6~40	20/2	1.8	18	0.8/9	1.7	2.92mm	43.2*38.1*12.7
FPD3-6000-50000-20-2	6~50	20/1	2.4	18	0.9/11	1.8	2.4mm	43.2*38.1*12.7
FPD3-7000-8000-20-S	7~8	20/1	1	20	0.4/4	1.3	SMA	66.5*37.5*10
FPD3-8000-12000-20-S	8~12	20/1	1	18	0.5/5	1.4	SMA	51*38*10
FPD3-9000-11000-20-S	9~11	20/1	0.8	18	0.5/5	1.4	SMA	51*38*10
FPD3-16000-18000-20-S	16~18	20/1	0.8	18	0.5/5	1.4	SMA	51*38*10
FPD3-17000-32000-20-K	17~32	20/1	2	15	0.8/10	1.8	2.92mm	39*25.4*10
FPD3-18000-26500-30-S	18~26.5	30/2	1.4	18	0.5/6	1.6	SMA	43.2*38.1*12.7
FPD3-18000-40000-20-K	18~40	20/2	1.8	18	0.7/8	1.7	2.92mm	43.2*38.1*12.7
FPD3-18000-50000-20-2	18~50	20/1	2.4	18	0.9/11	1.8	2.4mm	43.2*38.1*12.7
FPD3-24000-44000-20-2	24~44	20/1	2	20	0.8/9	1.7	2.4mm	43.2*38.1*12.7
FPD3-26000-31000-20-K	26~31	20/1	1.5	16	0.6/6	1.5	2.92mm	39*25.4*10
FPD3-26500-40000-20-K	26.5~40	20/2	1.8	18	0.6/7	1.7	2.92mm	43.2*38.1*12.7
FPD3-26500-50000-20-2	26.5~50	20/1	2.4	18	0.8/10	1.8	2.4mm	43.2*38.1*12.7



### 4-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance ( $\pm$ dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD4-0-1000-2-S	DC~1	2/-	12.8	11.8	0.5/8	1.2	SMA	25.4*22.2*16
FPD4-0-3000-2-S	DC~3	2/-	13	12	0.6/10	1.3	SMA	25.4*22.2*16
FPD4-0-4000-2-S	DC~4	2/-	13.5	11	0.7/15	1.4	SMA	25.4*22.2*16
FPD4-0-6000-2-S	DC~6	2/-	12 $\pm$ 1.0	12	0.8/12	1.4	SMA	25.4*22.2*16
FPD4-0-6000-2-N	DC~6	2/-	13	12	0.8/12	1.5	N	44*38.1*20
FPD4-0-8000-2-S	DC~8	2/-	12 $\pm$ 1.5	12	0.8/-	1.5	SMA	25.4*22.2*16
FPD4-0-10000-R5-S	DC~10	0.5/-	12 $\pm$ 2.0	-	1/-	1.5	SMA	54*32*12
FPD4-0-10000-R1-S	DC~10	0.1/-	12 $\pm$ 2	-	-/-	1.5	SMA	54*32*12
FPD4-0-18000-R5-S	DC~18	0.5/-	12 $\pm$ 2.8	-	-/-	1.8	SMA	31.95*31.75*19.05



The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD4-0-26500-1-S	DC-26.5	1/-	15.6	9	0.8/-	2.6	SMA	34*55*10
FPD4-0-40000-1-K	DC-40	1/-	15.6	8	0.8/-	2.6	2.92mm	33.8*50.5*10
FPD4-0.5-50-1K-N	0.0005-0.05	1K/-	0.35	20	-/-	1.3	N	168*204*74
FPD4-3-30-2K-N	0.003-0.03	2K/2K	0.35	20	-/-	1.25	N	168*204*74
FPD4-4-30-3K-N	0.004-0.03	3K/3K	0.35	20	-/-	1.25	N	200*185*165
FPD4-4-30-20K-NA1	0.004-0.03	20K/20K	0.5	20	-/-	1.4	N, IF70	692*609*266
FPD4-5-30-50K-A1A2	0.005-0.03	50K/50K	0.5	20	-/-	1.45	IF70, IF110F	785*780*400
FPD4-5-1000-1-S	0.005-1	1/0.5	2	16	0.2/1	1.4	SMA	54*40*12
FPD4-5-1000-1-N	0.005-1	1/0.5	2	16	0.2/1	1.5	N	90*40*20
FPD4-10-100-R5-S	0.01-0.1	0.5/0.375	1.2	18	0.4/4	1.4	SMA	108*40*12
FPD4-10-100-R5-B	0.01-0.1	0.5/0.375	1.5	18	0.6/4	1.3	BNC	108*40*22
FPD4-10-500-20-S	0.01-0.5	20/-	1.2	20	0.4/4	1.4	SMA	56*35*12.7
FPD4-10-500-K1-S	0.01-0.5	100/-	0.7	12	0.2/5	1.6	SMA	100*78*30
FPD4-20-500-K1-S	0.02-0.5	100/100	1	15	0.3/5	1.6	SMA	100*100*26
FPD4-40-900-R5-N	0.04-0.9	0.5/0.375	1.8	18	0.8/4	1.4	N	108*40*22
FPD4-70-2000-30-B	0.07-2	30/2	5.8	18	0.4/4	1.3	BNC	208*178*18
FPD4-80-500-30-S	0.08-0.5	30/2	11.5	20	0.2/3	1.25	SMA	170*110*12
FPD4-80-1000-K5-N	0.08-1	500/-	0.9	12	0.2/5	1.35	N	110*125*35
FPD4-80-1000-K75-N	0.08-1	750/750	0.6	15	0.3/5	1.35	N	120*120*40
FPD4-100-400-30-S	0.1-0.4	30/2	1	20	0.3/3	1.25	SMA	120*128*10
FPD4-100-500-50-S	0.1-0.5	50/3	0.8	20	0.2/3	1.25	SMA	252*126*14
FPD4-100-500-50-N	0.1-0.5	50/3	1	20	0.2/3	1.25	N	252*126*22
FPD4-100-500-K3-N-20	0.1-0.5	300/20	0.8	20	0.2/3	1.25	N	270*224*22
FPD4-100-500-K3-N-K1	0.1-0.5	300/100	0.8	20	0.2/3	1.25	N	270*224*24
FPD4-100-500-K5-7	0.1-0.5	500/100	0.6	20	0.2/2	1.3	7/16DIN	284*228*35
FPD4-100-520-2K-7N	0.1-0.52	2K/2K	0.6	15	0.3/5	1.35	7/16DIN&N	150*120*45
FPD4-100-1000-30-S	0.1-1	30/2	1.8	18	0.3/4	1.25	SMA	120*118*10
FPD4-100-2000-30-S	0.1-2	30/2	3.4	20	0.3/4	1.3	SMA	156*118*10
FPD4-100-3000-30-S	0.1-3	30/2	5.6	18	0.3/4	1.3	SMA	226*90*12
FPD4-106-176-K1-N	0.106-0.176	100/-	0.3	20	0.1/1	1.25	N	215.9*177.8*20.32
FPD4-118-138	0.118-0.138	500/200	0.5	25	0.2/2	1.2	N	278*175*20
FPD4-120-150-50-N	0.12-0.15	50/3	0.5	20	0.2/3	1.2	N	168*162*20
FPD4-120-560-50-N	0.12-0.56	50/3	1	20	0.2/3	1.2	N	202*142*20
FPD4-134-3700-30-N	0.134-3.7	30/2	4.2	18	0.4/4	1.4	N	215*96*20
FPD4-136-174-K3-N	0.136-0.174	300/25	0.4	20	0.2/2	1.2	N	255*208*22
FPD4-138-960-50-N	0.138-0.96	50/3	1	18	0.2/3	1.25	N	172*132*20
FPD4-150-960-50-N	0.15-0.96	50/2	1.4	20	0.4/4	1.4	N	214*132*20
FPD4-150-2500-30-S	0.15-2.5	30/2	2.8	18	0.3/4	1.25	SMA	142*102*10
FPD4-200-250-30-S	0.2-0.25	30/2	0.5	20	0.3/3	1.2	SMA	118*112*14
FPD4-200-500-K3-N	0.2-0.5	300/30	0.5	20	0.3/3	1.2	N	255*150*20
FPD4-200-2000-30-S	0.2-2	30/2	1.6	20	0.3/3	1.3	SMA	114*80*12
FPD4-200-4000-30-S	0.2-4	30/2	3	20	0.3/4	1.35	SMA	130*72*10
FPD4-200-6000-20-S	0.2-6	20/1	4	20	0.3/4	1.45	SMA	140*90*10
FPD4-225-400-K1-N	0.225-0.4	100/-	0.35	20	0.1/1	1.25	N	172.72*132.08*20.32
FPD4-240-270-K2-S	0.24-0.27	200/200	0.5	20	0.2/5	1.35	SMA	100*100*26
FPD4-245-255-K1-S	0.245-0.255	100/1	0.5	25	0.2/3	1.25	SMA	88*53*10
FPD4-250-6000-30-S	0.25-6	30/2	3.5	18	0.3/4	1.3	SMA	127*86*12
FPD4-300-1000-K3-N	0.3-1	300/30	0.4	18	0.3/3	1.25	N	230*124*20
FPD4-300-3000-30-S	0.3-3	30/2	1.2	20	0.3/4	1.3	SMA	93*85*12
FPD4-300-6000-30-S	0.3-6	30/2	2.5	20	0.3/4	1.35	SMA	108*92*12
FPD4-300-18000-30-S	0.3-18	30/5	5.9	18	0.4/5	1.5	SMA	254*56.5*12.7
FPD4-300-26500-30-S	0.3-26.5	30/2	8.3	18	0.5/6	1.6	SMA	254*56.5*12.7
FPD4-350-800-50-N	0.35-0.8	50/10	0.5	18	0.3/3	1.25	N	106*104*20
FPD4-350-830-K15-B	0.35-0.83	150/15	0.8	20	0.3/3	1.3	BNC	202*116*20
FPD4-350-3800-30-S	0.35-3.8	30/2	1.6	18	0.3/4	1.3	SMA	102*68*12
FPD4-350-3800-30-N	0.35-3.8	30/2	1.8	18	0.3/4	1.3	N	102*91*20
FPD4-380-460-K1-7	0.38-0.46	100/-	0.5	20	0.3/3	1.25	7/16DIN	150*118*30
FPD4-380-470-K3-N	0.38-0.47	300/25	0.4	20	0.2/2	1.2	N	184*148*22
FPD4-380-8000-30-S	0.38-8	30/2	2.6	18	0.3/4	1.35	SMA	130*58*10
FPD4-400-470-30-S	0.4-0.47	30/2	0.5	20	0.3/3	1.25	SMA	114*110*14
FPD4-400-500-10-S	0.4-0.5	10/-	0.7	20	0.4/7	1.3	SMA	94*65*11

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD4-400-1000-30-N	0.4~1	30/2	0.5	20	0.3/3	1.25	N	114*110*22
FPD4-400-1000-K1-N	0.4~1	100/10	0.5	20	0.3/3	1.25	N	150*110*22
FPD4-400-1000-K2-N	0.4~1	200/20	0.6	18	0.3/3	1.3	N	160*125*22
FPD4-400-2000-30-S	0.4~2	30/2	1	20	0.3/3	1.2	SMA	87*72*12
FPD4-400-4000-30-S	0.4~4	30/2	1.6	20	0.3/4	1.3	SMA	88*70*12
FPD4-400-6000-30-S	0.4~6	30/2	1.6	20	0.1/3	1.3	SMA	104*62*12
FPD4-400-6000-30-N	0.4~6	30/2	2	18	0.3/4	1.3	N	100*82*20
FPD4-400-6000-35-S	0.4~6	35/2.5	2.2	20	0.3/4	1.3	SMA	208*64*12
FPD4-400-8000-30-S	0.4~8	30/2	2.5	20	0.3/4	1.4	SMA	132*64*12
FPD4-400-8000-30-N	0.4~8	30/2	3.6	18	0.3/4	1.4	N	132*86*20
FPD4-450-6000-30-S	0.45~6	30/2	2.4	20	0.2/4	1.3	SMA	112*64*12
FPD4-500-1000-30-S	0.5~1	30/2	0.6	20	0.3/3	1.3	SMA	65*63*12
FPD4-500-1000-30-N	0.5~1	30/2	0.8	22	0.3/3	1.3	N	97*44*20
FPD4-500-2000-30-S	0.5~2	30/2	1	20	0.3/4	1.25	SMA	68*64*12
FPD4-500-3000-30-S	0.5~3	30/2	1	20	0.3/4	1.2	SMA	82*65*12
FPD4-500-4000-K1-S	0.5~4	100/5	3.8	18	0.3/4	1.4	SMA	200*86*16
FPD4-500-4000-K1-N	0.5~4	100/10	2	18	0.3/4	1.4	N	182*98*20
FPD4-500-6000-30-S	0.5~6	30/2	1.8	20	0.1/2	1.3	SMA	100*62*12
FPD4-500-6000-30-N	0.5~6	30/2	2	20	0.1/2	1.3	N	100*92*20
FPD4-500-18000-30-S	0.5~18	30/1	2.5	15	0.8/8	2	SMA	163*68*10
FPD4-500-26500-20-S	0.5~26.5	20/1	5.2	16	0.4/6	1.6	SMA	158*56.5*12.7
FPD4-500-40000-20-K	0.5~40	20/-	7.5	15	0.5/7	1.7	2.92mm	158.5*56.5*12.7
FPD4-555-3400-30-N	0.555~3.4	30/2	1.2	18	0.3/4	1.25	N	112*110*20
FPD4-600-2000-30-S	0.6~2	30/2	0.8	20	0.3/3	1.25	SMA	72*62*12
FPD4-600-3000-50-S	0.6~3	50/3	1	18	0.3/4	1.3	SMA	108*85*12
FPD4-600-3600-K1-S	0.6~3.6	100/5	2	10	0.3/4	1.3	SMA	128*85*12
FPD4-600-8000-30-S	0.6~8	30/2	2.2	20	0.3/4	1.3	SMA	110*58*10
FPD4-698-2700-50-N	0.698~2.7	50/3	0.8	18	0.3/4	1.3	N	123*106*20
FPD4-698-4000-50-N	0.698~4	50/3	2	20	0.3/4	1.25	N	134*96*20
FPD4-698-4000-50-4	0.698~4	50/3	1.5	20	0.3/4	1.3	4.3-10	178*128*30
FPD4-700-1100-30-S	0.7~1.1	30/2	0.4	22	0.3/3	1.2	SMA	66*66*12
FPD4-700-2000-30-N	0.7~2	30/2	0.6	20	0.3/3	1.2	N	100*45*20
FPD4-700-2700-30-S	0.7~2.7	30/2	0.8	20	0.1/1	1.3	SMA	60*58*12
FPD4-700-3000-30-S	0.7~3	30/2	0.8	20	0.3/4	1.2	SMA	72*60*12
FPD4-700-4000-30-S	0.7~4	30/2	1	20	0.3/3	1.3	SMA	66*66*12
FPD4-700-4000-30-N	0.7~4	30/2	1	20	0.4/4	1.3	N	98*74*20
FPD4-700-4700-30-N	0.7~4.7	30/2	1.6	20	0.3/4	1.3	N	100*92*20
FPD4-700-5000-30-N	0.7~5	30/2	2	18	0.3/5	1.4	N	130*130*22
FPD4-750-1710-30-S	0.75~1.71	30/2	0.4	20	0.3/3	1.2	SMA	64*52*12
FPD4-800-2500-30-S	0.8~2.5	30/2	0.5	20	0.2/0.5	1.3	SMA	58*50*12
FPD4-800-2700-30-S	0.8~2.7	30/2	0.6	20	0.3/4	1.25	SMA	64*52*12
FPD4-800-3100-K6-N	0.8~3.1	600/-	0.65	-	0.3/5	1.3	N	127*110.5*20
FPD4-800-4200-K2-N	0.8~4.2	200/5	1.8	18	0.4/4	1.4	N	152*108*20
FPD4-800-5000-20-S	0.8~5	20/1	1	18	0.15/2	1.3	SMA	120*72*12
FPD4-850-2150-30-N	0.85~2.15	30/2	0.6	22	0.3/3	1.2	N	56*34*12
FPD4-950-2150-30-S	0.95~2.15	30/2	0.6	25	0.6/1	1.25	SMA	64*56*12
FPD4-950-2150-30-N	0.95~2.15	30/2	0.6	25	0.6/1	1.25	N	100*50*20
FPD4-950-2150-30-S-DC	0.95~2.15	30/2	0.6	20	0.3/3	1.2	SMA	102*72*15
FPD4-950-2150-30-N-DC	0.95~2.15	30/2	0.6	20	0.3/3	1.2	N	102*72*20
FPD4-1000-2000-30-S	1~2	30/2	0.6	25	0.3/3	1.3	SMA	64*52*12
FPD4-1000-2000-30-N	1~2	30/2	0.8	20	0.3/3	1.3	N	97*44*20
FPD4-1000-2500-K1-N	1~2.5	100/10	0.6	18	0.3/4	1.35	N	118*110*22
FPD4-1000-2500-K1-NS	1~2.5	100/10	0.6	18	0.3/4	1.35	N&SMA	118*110*22
FPD4-1000-3000-30-S	1~3	30/2	0.9	24	0.2/3	1.25	SMA	56*43*10
FPD4-1000-4000-30-S	1~4	30/2	0.8	20	0.3/3	1.3	SMA	56*43*10
FPD4-1000-6000-30-S	1~6	30/2	1.2	20	0.3/4	1.3	SMA	60*55*12
FPD4-1000-8000-30-S	1~8	30/2	1.5	20	0.4/5	1.4	SMA	70.5*56*10
FPD4-1000-18000-20-S	1~18	20/1	3	16	0.5/6	1.55	SMA	99*71*10
FPD4-1000-26500-20-S	1~26.5	20/1	3	16	0.5/6	1.5	SMA	110.5*74*10
FPD4-1000-40000-20-K	1~40	20/1	4.8	16	0.5/7	1.7	2.92mm	110.5*74*10
FPD4-1000-50000-20-2	1~50	20/2	5.9	16	0.7/9	1.7	2.4mm	108*56.5*12.7

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD4-1100-1700-20-B	1.1~1.7	30/2	0.5	20	0.3/3	1.2	BNC	102*72*20
FPD4-1100-1700-20-T	1.1~1.7	30/2	0.5	20	0.3/3	1.2	TNC	102*72*20
FPD4-1100-1700-20-N	1.1~1.7	30/2	0.5	20	0.3/3	1.2	N	102*72*20
FPD4-1100-2700-K1-S	1.1~2.7	100/10	0.6	18	0.3/4	1.25	SMA	110*100*11
FPD4-1300-2400-30-S	1.3~2.4	30/2	0.9	22	0.1/1	1.2	SMA	50*48*20
FPD4-1900-5800-30-S	1.9~5.8	30/2	0.5	20	0.3/4	1.25	SMA	56*50*12
FPD4-2000-2400-30-N	2~2.4	30/2	0.5	20	0.3/3	1.25	N	97*40*20
FPD4-2000-4000-30-S	2~4	30/2	0.6	20	0.3/3	1.25	SMA	56*50*10
FPD4-2000-4000-30-N	2~4	30/2	0.8	20	0.3/3	1.25	N	97*49*20
FPD4-2000-6000-30-S	2~6	30/2	0.6	22	0.3/4	1.25	SMA	56*50*12
FPD4-2000-6000-30-N	2~6	30/2	1	20	0.3/4	1.25	N	97*49*20
FPD4-2000-6000-50-S	2~6	50/2.5	1.5	18	0.3/4	1.35	SMA	94*60*10
FPD4-2000-8000-30-S	2~8	30/2	0.9	20	0.3/1	1.4	SMA	58*50*12
FPD4-2000-8000-30-N	2~8	30/2	0.9	20	0.3/1	1.4	N	43*35*14
FPD4-2000-9000-30-S	2~9	30/2	1.8	18	0.3/4	1.4	SMA	56*56*10
FPD4-2000-12000-20-S	2~12	20/1	1.6	17	0.4/5	1.5	SMA	69*60*10
FPD4-2000-18000-20-S	2~18	20/1	2	17	0.4/6	1.5	SMA	69*60*10
FPD4-2000-18000-20-N	2~18	20/1	2.2	17	0.4/6	1.6	N	102*60*20
FPD4-2000-26500-20-S	2~26.5	20/1	2.6	16	0.5/6	1.7	SMA	73*59*10
FPD4-2000-40000-20-K	2~40	20/1	3	15	0.5/10	2.1	2.92mm	52*46*10
FPD4-2000-50000-20-2	2~50	20/1	4.8	16	0.6/10	1.7	2.4mm	79.2*51.6*12.7
FPD4-2400-5900-50-N	2.4~5.9	50/3	0.6	18	0.2/3	1.3	N	110*70*22
FPD4-2400-5900-K1-N	2.4~5.9	100/10	1	18	0.3/4	1.25	N	108*110*22
FPD4-2400-6000-K1-N	2.4~6	100/10	1.2	18	0.3/4	1.3	N	110*108*22
FPD4-2400-6000-K1-NS	2.4~6	100/10	1.2	18	0.3/4	1.3	N&SMA	110*108*22
FPD4-2500-4000-K2-N	2.5~4	200/20	1	18	0.3/4	1.35	N	108*102*22
FPD4-2600-3500-K15-N	2.6~3.5	150/10	0.5	18	0.2/3	1.25	N	115*104*22
FPD4-3000-5000-K1-N	3~5	100/10	0.8	18	0.3/4	1.25	N	110*108*22
FPD4-3400-3800-30-N	3.4~3.8	30/2	0.5	18	0.2/3	1.25	N	110*63*20
FPD4-3400-3800-K1-N	3.4~3.8	100/10	0.6	20	0.2/3	1.25	N	110*102*20
FPD4-3400-4800-30-SN	3.4~4.8	30/2	0.8	25	0.3/3	1.25	SMA&N	105*50*20
FPD4-4000-8000-30-S	4~8	30/2	0.6	20	0.3/3	1.3	SMA	55*36*10
FPD4-4000-12000-20-S	4~12	20/1	1.2	18	0.2/4	1.4	SMA	60*54*10
FPD4-4000-18000-20-S	4~18	20/1	2	17	0.4/6	1.5	SMA	60*69*10
FPD4-5400-6800-20-S	5.4~6.8	20/1	0.6	20	0.4/4	1.3	SMA	35*52*10
FPD4-5500-6000-30-SM	5.5~6	30/2	0.6	20	0.3/4	1.3	SMA	56*43*10
FPD4-6000-11000-20-S	6~11	20/1	1	18	0.3/4	1.3	SMA	60*58*10
FPD4-6000-18000-20-S	6~18	20/1	1.2	18	0.3/6	1.5	SMA	50.5*45*10
FPD4-6000-18000-50-SMS	6~18	50/-	1.5	18	0.4/5	1.6	SMA	85*45*10
FPD4-6000-18000-K1-S	6~18	100/-	1.5	15	0.4/5	1.6	SMA	85*50*10
FPD4-6000-26500-30-S	6~26.5	30/2	1.9	18	0.4/4	1.6	SMA	51.7*38.1*12.7
FPD4-6000-40000-20-K	6~40	20/1	3	16	0.5/6	1.6	2.92mm	50*46*10
FPD4-6000-50000-20-2	6~50	20/1	3.4	18	0.6/7	1.7	2.4mm	51.7*38.1*12.7
FPD4-6900-7400-30-S	6.9~7.4	30/2	0.5	20	0.3/3	1.25	SMA	60*36*10
FPD4-7000-8500-30-S	7~8.5	30/2	0.6	20	0.3/3	1.3	SMA	60*36*10
FPD4-7000-9000-K2-S	7~9	200/200	0.8	17	0.5/5	1.4	SMA	114*45*10
FPD4-7000-9000-30-S	7~9	30/2	0.6	18	0.2/3	1.3	SMA	60*36*10
FPD4-8000-12000-20-S	8~12	20/1	1	18	0.4/5	1.4	SMA	60*54*10
FPD4-8000-30000-20-K	8~30	20/1	1.6	16	0.4/4	1.5	2.92mm	52*35*10
FPD4-10000-26500-20-K	10~26.5	20/1	1.2	16	0.4/6	1.5	2.92mm	52*35*10
FPD4-10000-40000-20-K	10~40	20/1	1.5	16	0.4/6	1.5	2.92mm	52.3*38.1*10
FPD4-10700-12750-20-S	10.7~12.75	20/1	1	18	0.4/5	1.4	SMA	54*48*10
FPD4-10900-12700-20-S	10.9~12.7	20/1	1	18	0.4/5	1.4	SMA&N	60*50*10
FPD4-10900-12700-20-N	10.9~12.7	20/1	1	18	0.4/5	1.4	SMA&N	97*49*20
FPD4-12000-15000-20-S	12~15	20/1	1	18	0.3/4	1.4	SMA	54*50*10
FPD4-13750-14500-20-S	13.75~14.5	20/1	1	18	0.4/5	1.4	SMA	60*50*10
FPD4-13750-14500-20-N	13.75~14.5	20/1	1	18	0.4/5	1.4	N	97*49*20
FPD4-15000-17000-20-S	15~17	20/1	1.2	18	0.4/4	1.4	SMA	54*48*10
FPD4-18000-26500-20-K	18~26.5	20/1	1.6	16	0.4/6	1.6	2.92mm	52.3*38.1*10
FPD4-18000-40000-20-K	18~40	20/1	1.5	16	0.4/6	1.5	2.92mm	52.3*38.1*10
FPD4-18000-50000-20-2	18~50	20/1	2.5	15	0.6/10	1.8	2.4mm	52*24*10

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD4-19000-33000-20-K	19~33	20/1	1.5	18	0.4/5	1.5	2.92mm	52*35*10
FPD4-24000-30000-20-K	24~30	20/1	1	16	0.4/6	1.5	2.92mm	52.3*38.1*10
FPD4-24000-40000-20-K	24~40	20/1	1.6	16	0.4/8	1.8	2.92mm	52*35*10
FPD4-24500-25500-1-K	24.5~25.5	1/-	1.5	20	0.7/10	1.5	2.92mm	70*35*10
FPD4-25000-50000-20-V	25~50	20/1	2	15	0.6/10	1.8	1.85mm	52*24*10
FPD4-26000-31000-20-K	26~31	20/1	1.4	16	0.4/6	1.5	2.92mm	52*35*10
FPD4-34000-36000-20-K	34~36	20/1	1.4	16	0.4/5	1.5	2.92mm	52.3*38.1*10
FPD4-40000-67000-12-V	40~67	12/1	3.8	16	0.8/10	1.9	1.85mm	51.7*25.4*12.7

### 5-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD5-0-3000-2-S	DC~3	2/-	17.5	15	0.8/-	1.25	SMA	25.4*29.3*16
FPD5-500-18000-30-S	0.5~18	30/5	4.5	16	0.8/8	1.5	SMA	250*72.7*12.7
FPD5-2000-4000-20-S	2~4	20/1	1	18	0.8/8	1.3	SMA	100*80*12
FPD5-2000-18000-30-S	2~18	30/5	1.6	18	0.7/8	1.6	SMA	145*64.6*12.7
FPD5-2000-26500-30-S	2~26.5	30/2	2.2	18	0.9/10	1.6	SMA	145*64.6*12.7
FPD5-2400-2700-50-S	2.4~2.7	50/3	1.2	18	0.6/6	1.4	SMA	130*92*16
FPD5-6000-18000-30-S	6~18	30/5	1.4	16	0.6/7	1.6	SMA	93*68.6*12.7
FPD5-6000-26500-30-S	6~26.5	30/2	1.8	16	0.8/8	1.6	SMA	93*68.6*12.7
FPD5-6000-40000-20-K	6~40	20/2	2.5	15	0.1/10	1.7	2.92mm	93*68.6*12.7
FPD5-18000-26500-30-S	18~26.5	30/2	1.8	16	0.7/8	1.6	SMA	93*68.6*12.7
FPD5-18000-40000-20-K	18~40	20/2	2.5	16	1/10	1.7	2.92mm	93*68.6*12.7
FPD5-24000-44000-20-2	24~44	20/1	2.8	16	1/10	1.8	2.4mm	73*68.6*12.7
FPD5-26500-40000-20-K	26.5~40	20/2	2.5	16	0.8/10	1.8	2.92mm	73*68.6*12.7

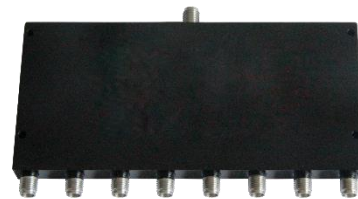
### 6-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD6-0-1000-1-S	DC~1	1/-	16±1.5	16	0.6/-	1.2	SMA	33.7*32.9*16
FPD6-0-4000-2-N	DC~4	2/-	16.5±1.5	15	1/-	1.4	N	47.19*46*20
FPD6-0-6000-2-S	DC~6	2/-	17	15	1.5/-	1.5	SMA	31.5*30.7*14
FPD6-0-8000-2-S	DC~8	2/-	18	15	2/-	1.5	SMA	31.5*30.7*14
FPD6-0-10000-R5-S	DC~10	0.5/-	16±3.5	-	3/-	1.7	SMA	80*40*12
FPD6-1-200-2-S	0.001~0.2	2/-	15.9	14.6	0.3/3	1.2	SMA	92*44*12.5
FPD6-2-250-2-S	0.002~0.25	2/-	1.3	20	0.6/5	1.65	SMA	10*9.65*6.73
FPD6-300-5000-1-S	0.3~5	1/-	18	14.5	2/-	1.5	SMA	33.7*32.9*16
FPD6-300-18000-30-S	0.3~18	30/5	6.3	18	0.7/8	1.6	SMA	299.7*78*12.7
FPD6-400-500-10-S	0.4~0.5	10/-	1.2	20	0.7/10	1.3	SMA	142*85*11
FPD6-400-4000-30-SN	0.4~4	30/2	3	18	0.9/10	1.3	SMA&N	138*132*20
FPD6-500-3000-30-S	0.5~3	30/2	2.6	18	1.5/20	1.5	SMA	118*105*12
FPD6-500-6000-30-S	0.5~6	30/1	2.2	18	0.8/8	1.3	SMA	115*85*10
FPD6-500-6000-30-N	0.5~6	30/2	4	18	1/10	1.5	N	150*142*20
FPD6-500-8000-20-S	0.5~8	20/2	3.5	17	1/10	1.55	SMA	220*94*12
FPD6-500-18000-30-S	0.5~18	30/5	4.5	18	0.7/8	1.6	SMA	265*82.3*12.7
FPD6-700-2700-40-S	0.7~2.7	40/2.5	1	20	0.5/6	1.3	SMA	124*98*12
FPD6-700-4000-30-S	0.7~4	30/2	1.6	18	0.8/8	1.4	SMA	110*80*12
FPD6-800-2500-20-S	0.8~2.5	20/1	1	20	0.4/5	1.3	SMA	88*85*14
FPD6-800-2700-30-N	0.8~2.7	30/2	1.4	18	0.5/6	1.35	N	150*95*20
FPD6-800-3000-20-S	0.8~3	20/1	1.2	20	0.5/5	1.35	SMA	88*85*12
FPD6-900-6100-20-S	0.9~6.1	20/1	3	20	0.8/8	1.5	SMA	138*94*10
FPD6-1000-1700-30-S	1~1.7	30/2	1	20	0.4/5	1.3	SMA	85*65*12
FPD6-1000-1700-30-N	1~1.7	30/2	1	20	0.4/4	1.3	N	155*98*20
FPD6-1000-1700-30-T	1~1.7	30/2	1	20	0.4/4	1.3	TNC	155*98*20
FPD6-1000-2000-30-N	1~2	30/2	1.2	20	0.5/5	1.3	N	156*76*20

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD6-1000-8000-20-S	1~8	20/1	1.8	18	0.5/6	1.5	SMA	130*80*10
FPD6-1500-5000-20-S	1.5~5	20/1	1	18	0.4/5	1.35	SMA	88*83*10
FPD6-2000-6000-30-S	2~6	30/2	1	20	0.5/6	1.35	SMA	88*83*10
FPD6-2000-8000-30-S	2~8	30/2	1.2	20	0.5/6	1.35	SMA	88*83*10
FPD6-2000-18000-20-S	2~18	20/1	2.6	16	0.6/8	1.5	SMA	109*76*10
FPD6-2000-26500-30-S	2~26.5	30/2	3	18	0.8/8	1.6	SMA	98*82.5*12.7
FPD6-3700-4900-20-SP	3.7~4.9	20/1	0.5	20	0.3/1.2	1.25	SMA&SMP	66*58*10
FPD6-4000-8000-30-S	4~8	30/2	1	20	0.5/5	1.4	SMA	83*68*10
FPD6-6000-10000-20-S	6~10	20/1	1.5	18	0.8/8	1.6	SMA	109*76*10
FPD6-6000-18000-30-S	6~18	30/1	1.8	16	0.8/10	1.8	SMA	75.5*50*10
FPD6-6000-26500-30-S	6~26.5	30/2	1.8	18	0.6/8	1.6	SMA	88.9*45.7*12.7
FPD6-6000-40000-20-K	6~40	20/2	2.8	18	0.9/11	1.7	2.92mm	88.9*45.7*12.7
FPD6-8000-17000-20-S	8~17	20/-	1.5	18	0.8/8	1.7	SMA	70.5*50*10
FPD6-18000-26500-30-S	18~26.5	30/2	1.8	18	0.5/7	1.6	SMA	88.9*45.7*12.7
FPD6-18000-40000-20-K	18~40	20/2	2.8	18	0.8/10	1.7	2.92mm	88.9*45.7*12.7
FPD6-24000-44000-20-2	24~44	20/1	3.4	18	0.8/10	1.7	2.4mm	88.9*45.7*12.7
FPD6-26500-40000-20-K	26.5~40	20/2	2.8	18	0.7/9	1.7	2.92mm	88.9*45.7*12.7



### 8-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD8-0-2000-2-N	DC~2	2/-	19	17.5	0.5/1	1.25	N	200*60*20
FPD8-0-2000-2-S	DC~2	2/-	19	17.5	0.3/3	1.15	SMA	120*60*12
FPD8-0-3000-2-S	DC~3	2/-	18±1.5	18	1/-	1.3	SMA	43.2*42.5*16
FPD8-0-3000-2-N	DC~3	2/-	19.5	18.5	0.5/2	1.3	N	60.47*59.55*20
FPD8-0-4000-2-S	DC~4	2/-	19.5	17	0.8/8	1.4	SMA	120*60*12
FPD8-0-6000-2-S	DC~6	2/-	18±2.5	18	1.2/-	1.5	SMA	43.2*42.5*16
FPD8-0-8000-2-S	DC~8	2/-	20±1.5	18	1.8/-	1.6	SMA	43.2*42.5*16
FPD8-0-10000-R5-S	DC~10	0.5/-	18±2.8	-	2/-	1.6	SMA	106*50*12
FPD8-0-18000-1-S	DC~18	1/-	23	10	1.2/12	2.5	SMA	92.5*60.18*10
FPD8-2-250-1-S	0.002~0.25	1/-	1	25	0.2/2	1.3	SMA	101.6*31.75*9.65
FPD8-5-500-10-N	0.005~0.5	10/-	1.5	20	0.3/5	1.25	N	180*50*22
FPD8-5-1000-1-S	0.005~1	1/0.5	3	18	0.5/10	1.5	SMA	120*32*13
FPD8-5-1000-50-S	0.005~1	50/50	1.6	12	0.2/5	1.5	SMA	164*126*26
FPD8-10-100-1-S	0.01~0.1	1/0.5	1	20	0.4/4	1.3	SMA	120*32*13
FPD8-20-100-K15-S	0.02~0.1	150/150	1.3	20	0.2/5	1.5	SMA	164*126*26
FPD8-30-3000-2-S	0.03~3	2/-	18.5	17	0.5/5	1.3	SMA	120*60*12
FPD8-80-500-30-S	0.08~0.5	30/2	1.8	18	0.2/3	1.3	SMA	202*166*10
FPD8-80-1000-K2-S	0.08~1	200/200	1.3	15	0.2/5	1.35	SMA	164*126*26
FPD8-80-4000-30-S	0.08~4	30/2	6.6	13	0.4/8	1.55	SMA	332*164*12
FPD8-98-102-30-N	0.098~0.102	30/2	0.8	20	0.2/3	1.2	N	215*168*20
FPD8-100-700-1-S	0.1~0.7	1/0.5	2	18	0.4/8	1.5	SMA	120*32*13
FPD8-100-700-30-S	0.1~0.7	30/2	2	20	0.3/3	1.25	SMA	190*190*12
FPD8-100-2000-30-S	0.1~2	30/2	3.4	18	0.3/4	1.35	SMA	224*220*10
FPD8-100-3000-30-S	0.1~3	30/2	6.5	18	0.3/6	1.35	SMA	322*170*10
FPD8-100-4000-30-SMS	0.1~4	30/2	6.5	12	0.5/6	1.55	SMA	252*158*10
FPD8-200-1000-30-S	0.2~1	30/2	1.4	20	0.4/4	1.25	SMA	172*138*12
FPD8-200-1000-K1-S	0.2~1	100/10	1	20	0.3/4	1.25	SMA	364*208*14
FPD8-200-2000-30-S	0.2~2	30/2	2.8	18	0.3/4	1.3	SMA	168*142*10
FPD8-200-2300-30-S	0.2~2.3	30/2	3	18	0.3/4	1.3	SMA	218*118*12

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD8-200-6000-30-S	0.2-6	30/2	6.8	17	0.5/5	1.35	SMA	260*120*12
FPD8-223-235-30-S	0.223-0.235	30/2	1.2	20	0.4/4	1.3	SMA	138*130*12
FPD8-240-30-S	0.24	30/2	0.6	20	0.2/2	1.2	SMA	202*106*14
FPD8-300-500-30-S	0.3-0.5	30/2	0.8	20	0.2/3	1.25	SMA	210*98*12
FPD8-300-3000-NS	0.3-3	30/2	2.6	20	0.3/4	1.3	SMA&N	163*120*20
FPD8-300-6000-30-S	0.3-6	30/2	4.8	20	0.3/6	1.4	SMA	176*120*12
FPD8-300-18000-30-S	0.3-18	30/5	8.3	18	0.5/6	1.5	SMA	270*117.9*12.7
FPD8-400-900-30-B	0.4-0.9	30/2	0.6	20	0.3/3	1.25	BNC	194*124*20
FPD8-400-4000-30-N	0.4-4	30/2	2.4	20	0.4/4	1.35	N	200*100*20
FPD8-400-6000-30-S	0.4-6	30/2	3.2	20	0.4/5	1.35	SMA	138*120*12
FPD8-400-6000-80-S	0.4-6	80/5	6	18	0.3/6	1.6	SMA	324*185*14
FPD8-450-6000-30-S	0.45-6	30/2	3.2	18	0.3/4	1.35	SMA	120*120*12
FPD8-470-510-10-S	0.47-0.51	10/-	2	20	0.5/5	1.3	SMA	190*60*11
FPD8-470-510-20-S	0.47-0.51	20/-	1.5	20	0.5/5	1.3	SMA	192*81*12
FPD8-500-2000-30-S	0.5-2	30/2	1.5	20	0.4/4	1.3	SMA	123*120*12
FPD8-500-3000-30-S	0.5-3	30/2	1.8	20	0.3/4	1.25	SMA	126*110*12
FPD8-500-3000-30-N	0.5-3	30/2	1.8	20	0.3/4	1.3	N	200*95*20
FPD8-500-4000-30-NS	0.5-4	30/2	2	20	0.3/4	1.3	SMA&N	120*110*20
FPD8-500-4000-30-S	0.5-4	30/2	2.3	20	0.2/4	1.3	SMA	126*110*12
FPD8-500-6000-30-S	0.5-6	30/2	3	18	0.4/4	1.4	SMA	115*113*12
FPD8-500-6000-30-N	0.5-6	30/2	3	18	0.4/5	1.4	N	200*120*20
FPD8-500-8000-20-S	0.5-8	20/1	3	18	0.4/5	1.5	SMA	114*114.5*10
FPD8-500-8000-20-N	0.5-8	20/1	4	18	0.4/5	1.5	N	190*128*20
FPD8-500-18000-20-S	0.5-18	20/1	6	14	0.8/10	2	SMA	172*160*10
FPD8-500-26500-30-S	0.5-26.5	30/2	8	18	0.5/10	1.6	SMA	161.9*117.9*12.7
FPD8-500-40000-20-K	0.5-40	20/2	11	15	0.8/12	1.8	2.92mm	161.9*147.3*12.7
FPD8-600-2000-30-S	0.6-2	30/2	1	20	0.3/4	1.25	SMA	112*70*12
FPD8-600-6000-30-S	0.6-6	30/2	2.8	18	0.4/5	1.3	SMA	115*113*12
FPD8-600-6000-30-N	0.6-6	30/2	2.5	18	0.3/5	1.4	N	200*96*20
FPD8-600-8000-30-S	0.6-8	30/2	3.6	20	0.4/5	1.4	SMA	130*118*10
FPD8-700-3000-30-S	0.7-3	30/2	1	20	0.3/4	1.3	SMA	116*86*14
FPD8-700-3000-30-N	0.7-3	30/2	1.2	20	0.4/4	1.3	N	196*88*20
FPD8-700-4000-30-N	0.7-4	30/2	1.8	20	0.4/4	1.3	N	200*100*20
FPD8-750-1710-30-S	0.75-1.71	30/2	0.6	20	0.3/3	1.2	SMA	112*70*12
FPD8-800-2000-30-S	0.8-2	30/2	1	20	0.3/4	1.25	SMA	101.6*68.58*10.16
FPD8-800-2500-30-N	0.8-2.5	30/2	1.4	20	0.4/4	1.25	N	196*88*20
FPD8-800-2700-30-N	0.8-2.7	30/2	1.5	20	0.4/4	1.3	N	196*88*20
FPD8-800-4200-30-S	0.8-4.2	30/2	1.8	20	0.4/4	1.4	SMA	120*90*12
FPD8-800-4200-K2-NS	0.8-4.2	200/-	1.2	6	0.25/7	1.3	SMA&N	155.69*144.78*25.91
FPD8-800-5000-20-S	0.8-5	20/1	1.5	20	0.4/3	1.4	SMA	150*148*12
FPD8-800-6000-20-S	0.8-6	20/2	2	20	0.4/5	1.35	SMA	118*108*10
FPD8-800-8000-30-S	0.8-8	30/2	3.6	20	0.4/5	1.4	SMA	118*115*10
FPD8-950-2150-30-S	0.95-2.15	30/2	3	30	0.3/3	1.25	SMA	110*93*12
FPD8-950-2150-30-N	0.95-2.15	30/2	1.2	22	0.4/4	1.25	N	196*88*20
FPD8-950-2150-30-T	0.95-2.15	30/2	0.8	20	0.3/3	1.25	TNC	192*62*20
FPD8-950-2150-30-NS	0.95-2.15	30/2	3	30	0.3/3	1.25	N&SMA	224*80*21
FPD8-950-2150-30-S-DC	0.95-2.15	30/1	0.6	20	0.3/3	1.25	SMA	120*114*14
FPD8-1000-1700-30-S	1-1.7	30/2	0.8	22	0.4/4	1.25	SMA	112*70*12
FPD8-1000-3000-30-S	1-3	30/2	1	18	0.3/4	1.3	SMA	112*70*12
FPD8-1000-6000-30-S	1-6	30/2	2	23	0.2/4	1.25	SMA	110*82*12
FPD8-1000-18000-20-S	1-18	20/1	4	15	0.5/10	1.8	SMA	156*110*10
FPD8-1000-26500-30-S	1-26.5	30/2	5.4	18	0.5/7	1.6	SMA	120*110*12.7
FPD8-1000-40000-20-K	1-40	20/2	7.3	18	0.7/11	1.7	2.92mm	120*110*12.7
FPD8-1000-50000-20-2	1-50	20/2	9.2	18	0.9/14	1.8	2.4mm	120*110*12.7
FPD8-1100-1700-30-T	1.1-1.7	30/2	0.8	22	0.3/3	1.25	TNC	192*62*20
FPD8-1370-30-S	1.37	30/2	0.8	20	0.2/3	1.2	SMA	112*70*12
FPD8-1500-1700-20-S	1.5-1.7	20/1	0.3	20	0.2/4	1.25	SMA	138*125*14
FPD8-1500-5000-30-S	1.5-5	30/2	1.2	20	0.2/2	1.3	SMA	108*63*10
FPD8-1525-1850-K1-N	1.525-1.85	100/10	0.8	18	0.3/4	1.2	N	212*125*22
FPD8-1850-2700-K25-N	1.85-2.7	250/15	0.8	18	0.4/4	1.3	N	212*145*22
FPD8-2000-6000-30-S	2-6	30/2	1	18	0.3/4	1.3	SMA	108*63*10



The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD8-2000-6000-30-N	2~6	30/2	1.2	20	0.4/4	1.3	N	200*60*20
FPD8-2000-8000-30-S	2~8	30/2	1.5	18	0.4/5	1.35	SMA	108*63*10
FPD8-2000-10000-30-S	2~10	30/2	2	18	0.4/4	1.4	SMA	110*80*10
FPD8-2000-18000-20-S	2~18	20/1	3.2	16	0.5/10	1.6	SMA	148.5*95*10
FPD8-2000-26500-20-S	2~26.5	20/1	3.2	16	0.8/10	1.9	SMA	123.5*88*10
FPD8-2000-26500-20-K	2~26.5	20/1	3.2	16	0.8/10	1.9	2.92mm	123.5*88*10
FPD8-2000-40000-20-K	2~40	20/2	5.9	18	0.7/10	1.7	2.92mm	117.9*88.9*12.7
FPD8-2000-50000-20-2	2~50	20/1	7.2	18	0.8/12	1.8	2.4mm	117.9*88.9*12.7
FPD8-2400-6000-30-S	2.4~6	30/2	1.5	20	0.4/4	1.35	SMA	108*63*10
FPD8-2700-3100-K2-S	2.7~3.1	200/-	0.9	18	0.3/5	1.5	SMA	110*40*14
FPD8-3000-13000-20-S	3~13	20/1	2	18	0.4/6	1.4	SMA	188*98*10
FPD8-4000-6000-30-S	4~6	30/2	1.2	18	0.4/4	1.4	SMA	108*63*10
FPD8-4000-8000-30-S	4~8	30/2	0.8	18	0.3/5	1.35	SMA	112*56*12
FPD8-4000-12000-20-S	4~12	20/1	1.5	18	0.2/4	1.5	SMA	110*82*10
FPD8-4000-18000-30-S	4~18	30/1	1.8	16	0.5/6	1.8	SMA	108*63*10
FPD8-4900-5900-30-S	4.9~5.9	30/2	0.8	20	0.3/3	1.3	SMA	108*63*10
FPD8-5000-12000-20-S	5~12	20/1	1.2	18	0.5/5	1.4	SMA	104*55*10
FPD8-6000-12000-20-SM	6~12	20/1	1.5	18	0.4/5	1.5	SMA	106*60*10
FPD8-6000-18000-50-S	6~18	50/-	2.4	17	0.5/8	1.8	SMA	191*63*10
FPD8-6000-18000-K1-S	6~18	100/-	2.4	15	0.5/8	1.8	SMA	191*70*10
FPD8-6000-26500-30-S	6~26.5	30/2	2.9	18	0.5/6	1.6	SMA	104*49*12.7
FPD8-6000-40000-20-K	6~40	20/1	3.2	15	0.5/8	2.2	2.92mm	104*40*10
FPD8-8000-9000-K1-S	8~9	100/-	1.5	18	0.5/5	1.35	SMA	191*70*10
FPD8-8000-12000-20-S	8~12	20/1	1.4	18	0.4/5	1.4	SMA	122.5*57.5*10
FPD8-9000-11000-20-S	9~11	20/1	1.2	18	0.4/5	1.4	SMA	122.5*57.5*10
FPD8-9000-45000-R1-2	9~45	0.1/-	7	15	1/20	1.4	2.4mm	120*40*12.7
FPD8-17000-31000-20-K	17~31	20/1	2	16	0.5/6	1.6	2.92mm	104*40*10
FPD8-18000-26500-20-K	18~26.5	20/1	1.8	16	0.5/6	1.6	2.92mm	104*40*10
FPD8-18000-40000-20-K	18~40	20/1	3.2	16	0.5/8	1.7	2.92mm	104*40*10
FPD8-18000-40000-30-K	18~40	30/1	3.6	15	0.6/6	1.7	2.92mm	104*40*10
FPD8-18000-50000-20-2	18~50	20/1	4.2	18	0.8/10	1.8	2.4mm	103.7*30*12.7
FPD8-24000-44000-20-2	24~44	20/1	3.6	18	0.6/8	1.7	2.4mm	103.7*30*12.7
FPD8-26500-40000-20-K	26.5~40	20/2	3	18	0.5/8	1.6	2.92mm	103.7*30*12.7
FPD8-26500-50000-20-2	26.5~50	20/1	4.2	18	0.8/10	1.8	2.4mm	103.7*30*12.7
FPD8-27000-32000-20-K	27~32	20/1	1.8	18	0.5/8	1.5	2.92mm	104*40*10
FPD8-35350-36150-20-K	35.35~36.15	20/1	1.8	18	0.5/8	1.5	2.92mm	104*40*10
FPD8-40000-67000-12-V	40~67	12/1	5.9	16	1/12	1.9	1.85mm	103.7*30*12.7
FPD8-50000-66000-R1	50~66	0.1/-	6	15	1/20	1.4	WR-15	180*50*20

## 10-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	Connector	Size* (mm)
FPD10-470-500-2-S	0.47~0.5	2/-	0.6	20	0.3/4	1.2	SMA	140*60*12.7
FPD10-500-6000-30-S	0.5~6	30/2	5.8	18	1.5/12	1.5	SMA	200*150*12
FPD10-600-6000-30-S	0.6~6	30/2	3.5	18	0.8/12	1.5	SMA	150*148*12
FPD10-2000-30-S	2	30/2	0.8	20	0.2/2	1.3	SMA	130*150*12
FPD10-2000-18000-30-S	2~18	30/5	2.8	18	0.8/9	1.6	SMA	157*129.3*12.7
FPD10-6000-18000-30-S	6~18	30/5	2.5	16	0.8/8	1.7	SMA	193*77*12.7
FPD10-6000-26500-30-S	6~26.5	30/2	3.4	15	0.9/10	1.7	SMA	193*77*12.7
FPD10-6000-40000-20-K	6~40	20/2	4.9	15	1.2/14	1.8	2.92mm	193*77*12.7
FPD10-18000-26500-30-S	18~26.5	30/2	3.4	16	0.9/10	1.7	SMA	193*77*12.7
FPD10-18000-40000-20-K	18~40	20/2	4.9	16	1.2/14	1.8	2.92mm	193*77*12.7

## 11-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	Connector	Size* (mm)
FPD11-0-1000-2-N	DC~1	2/-	20.0±1.5	20	0.5/-	1.3	N	78.4*78.4*18

## 12-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

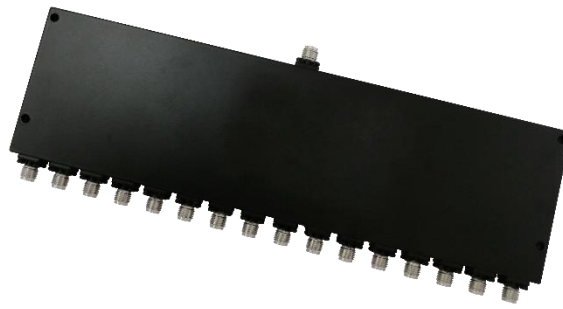
Part Number	Frequency (GHz)	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	Connector	Size* (mm)
FPD12-0-4000-2-N	DC~4	2/-	23.6	20	2/-	1.5	N	90.59*90.59*20
FPD12-0-5000-2-S	DC~5	2/-	24.5	20	0.9/9	1.3	SMA	178*70*12.5
FPD12-240-30-S	0.24	30/2	0.8	20	0.5/4	1.3	SMA	280*152*14
FPD12-300-18000-30-S	0.3~18	30/5	10	18	0.8/12	1.6	SMA	312.4*156*12.7
FPD12-500-8000-20-S	0.5~8	20/1	5	16	1.2/12	1.6	SMA	286*180*12
FPD12-500-18000-30-S	0.5~18	30/5	6.5	18	0.7/12	1.6	SMA	275*165.7*12.7
FPD12-600-6000-30-S	0.6~6	30/2	5	18	1/12	1.5	SMA	180*178*12
FPD12-700-6000-30-S	0.7~6	30/-	4.3	16	1/20	1.6	SMA	272*106*10
FPD12-900-1300-K1-N	0.9~1.3	100/100	1.5	20	0.4/8	1.5	N	300*120*20
FPD12-1000-2000-30-N	1~2	30/2	1.5	20	0.5/6	1.4	N	300*100*20
FPD12-2000-6000-30-S	2~6	30/2	2.2	18	0.8/10	1.5	SMA	156*92*10
FPD12-2000-8000-30-S	2~8	30/2	1.6	18	0.6/6	1.45	SMA	156*92*10
FPD12-2000-12000-20-S	2~12	20/1	3	17	0.8/8	1.5	SMA	168*102*10
FPD12-2000-18000-20-S	2~18	20/1	4.2	15	0.8/12	2	SMA	230*120*10
FPD12-4900-5200-30-S	4.9~5.2	30/2	1	20	0.6/3	1.4	SMA	156*92*10
FPD12-5000-6000-20-S	5~6	20/1	1.6	20	0.25/5	1.22	SMA	156*92*10
FPD12-5800-20-S	5.8	20/1	1.6	20	0.5/6	1.4	SMA	156*92*10
FPD12-6000-18000-20-S	6~18	20/1	2	16	0.6/8	1.8	SMA	154*76*10
FPD12-6000-26500-30-S	6~26.5	30/2	3.4	18	0.8/12	1.6	SMA	180.5*56*12.7
FPD12-6000-40000-20-K	6~40	20/2	6	18	1/15	1.7	SMA	180.5*56*12.7
FPD12-8000-12000-20-S	8~12	20/1	1.5	16	0.6/8	1.7	SMA	154*76*10
FPD12-18000-40000-20-K	18~40	20/2	6	18	1/15	1.7	2.92mm	180.5*56*12.7

## 14-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD14C-500-1600	0.5~1.6	-/-	18.5	18	1.5/3	1.5	SMA	110*191*10




**16-Way Power Dividers/Combiners**

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD16-0-3000-2-S	DC~3	2/-	24±2.5	24	1.5/-	1.4	SMA	81.3*80.9*16
FPD16-5-300-1-S	0.005~0.3	1/-	2.7	18	0.9/15	1.5	SMA	50*209*10
FPD16-5-1000-2-S	0.005~1	2/-	24±2.0	24	1.2/-	1.3	SMA	81.3*80.9*16
FPD16-50-1000-1-S	0.05~1	1/-	3.7	18	0.9/15	1.5	SMA	50*209*10
FPD16-50-5000-2-S	0.05~5	2/-	28	22	0.8/8	1.5	SMA	236*80*12
FPD16-98-102-30-N	0.098~0.102	30/2	1.2	20	0.3/3	1.2	N	420*196*20
FPD16-200-2000-30-NS	0.2~2	30/2	3.5	20	0.2/2	1.5	SMA&N	370*160*20
FPD16-260-460-20-S	0.26~0.46	20/2	1.5	20	0.3/4	1.25	SMA	300*138*14
FPD16-380-6000-30-S	0.38~6	30/2	6	18	0.5/8	1.5	SMA	232*180*12
FPD16-380-6000-30-N	0.38~6	30/2	6.8	18	0.5/8	1.5	N	388*180*20
FPD16-400-6000-30-S	0.4~6	30/2	5	18	0.5/8	1.5	SMA	232*160*12
FPD16-500-3000-50-S	0.5~3	50/2	3	18	1/15	1.6	SMA	217*125*12
FPD16-500-3000-50-N	0.5~3	50/2	3	18	1/15	1.6	N	386*125*18
FPD16-500-6000-30-S	0.5~6	30/2	4.8	20	0.5/8	1.5	SMA	236*150*12
FPD16-500-6000-30-N	0.5~6	30/2	4.8	18	0.5/8	1.5	N	388*150*20
FPD16-500-18000-30-S	0.5~18	30/5	8.3	18	0.6/10	1.6	SMA	240.9*210*12.7
FPD16-600-2000-30-S	0.6~2	30/2	1.4	20	0.2/2	1.3	SMA	102*218*12
FPD16-600-3000-30-NS	0.6~3	30/2	2.2	20	0.4/6	1.4	SMA&N	218*113*20
FPD16-600-6000-30-S	0.6~6	30/2	4.5	18	0.4/6	1.5	SMA	140*232*12
FPD16-700-3000-30-S	0.7~3	30/2	1.4	20	0.3/5	1.4	SMA	212*104*12
FPD16-700-3000-30-N	0.7~3	30/2	1.8	20	0.4/6	1.4	N	388*110*20
FPD16-700-4000-30-S	0.7~4	30/2	2.4	18	0.4/8	1.4	SMA	232*110*12
FPD16-700-4000-30-T	0.7~4	30/2	2.2	20	0.4/6	1.4	TNC	388*110*20
FPD16-700-6000-30-N	0.7~6	30/2	3.8	18	0.5/8	1.5	N	388*140*20
FPD16-700-6000-30-T	0.7~6	30/2	3.5	20	0.5/8	1.5	TNC	388*150*20
FPD16-800-5000-50-N	0.8~5	50/5	3.5	18	0.4/6	1.4	N	480*160*22
FPD16-950-2150-30-S	0.95~2.15	30/2	1.2	25	0.3/4	1.3	SMA	90*214*12
FPD16-1000-2000-30-S	1~2	30/2	1.2	25	0.3/4	1.3	SMA	90*214*12
FPD16-1000-4000-30-SN	1~4	30/2	1.6	20	0.4/5	1.4	SMA&N	100*224*20
FPD16-1000-6000-30-S	1~6	30/2	2.5	20	0.5/6	1.45	SMA	100*236*12
FPD16-1000-18000-20-S	1~18	20/1	6.5	15	1.8/12	2	SMA	126*315.5*10
FPD16-1100-1600-N	1.1~1.6	-/-	-	20	0.4/6	1.8	N	110*388*20
FPD16-1500-5000-30-S	1.5~5	30/2	2	18	0.2/2	1.3	SMA	218*80*12
FPD16-2000-3000-30-S	2~3	30/2	1.2	20	0.2/2	1.3	SMA	212*67*10
FPD16-2000-4000-30-S	2~4	30/2	0.6	18	0.3/5	1.35	SMA	215*130*10
FPD16-2000-4000-50-S	2~4	50/2.5	0.6	16	3/5	1.35	SMA	241*164*10
FPD16-2000-6000-30-S	2~6	30/2	2	18	0.2/2	1.3	SMA	218*80*12
FPD16-2000-18000-20-S	2~18	20/1	5	15	0.7/10	2	SMA	120*215*10
FPD16-2490-2690-30-S	2.49~2.69	30/2	1	20	0.3/4	1.25	SMA	70*212*12
FPD16-2610-3000-30-S	2.61~3	30/2	1	20	0.3/4	1.3	SMA	67*212*12.5
FPD16-2700-3500-2K-N	2.7~3.5	2K/2K	0.35	-	0.3/5	1.5	WR284&N	-
FPD16-3000-8000-30-S	3~8	30/2	2	18	0.4/6	1.45	SMA	218*100*12
FPD16-5000-12000-20-S	5~12	20/1	4	16	0.7/10	1.8	SMA	82*215*10
FPD16-5000-18000-20-S	5~18	20/1	5	15	0.7/10	2	SMA	120*215*10
FPD16-6000-18000-20-S	6~18	20/1	1.8	17	0.8/8	1.5	SMA	224*50*10
FPD16-6000-26500-30-S	6~26.5	30/2	4.4	18	0.7/8	1.7	SMA	210*44.5*12.7
FPD16-6000-40000-20-K	6~40	20/2	5.5	15	0.8/12	1.7	2.92mm	210*44.5*12.7
FPD16-8000-12000-20-S	8~12	20/1	1.8	18	0.5/6	1.5	SMA	212*85*10

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD16-18000-26500-30-S	18~26.5	30/2	3.8	16	0.5/6	1.6	SMA	210*36*12.7
FPD16-18000-40000-20-K	18~40	20/2	4.7	18	0.7/12	1.8	2.92mm	210*36*12.7
FPD16-18000-50000-20-2	18~50	20/1	6	16	1/14	1.8	2.4mm	210*36*12.7
FPD16-24000-44000-20-2	24~44	20/1	5.4	16	0.8/10	1.8	2.4mm	210*36*12.7
FPD16-40000-67000-12-V	40~67	12/1	8.3	15	1.4/16	2	1.85mm	210*36*12.7

## 18-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD18-700-4000-30-S	0.7~4	30/2	3	18	1/12	1.5	SMA	264*263*14
FPD18-900-1300-30-S	0.9~1.3	30/2	1	18	0.5/3	1.5	SMA	210*263*14
FPD18-1000-2000-30-S	1~2	30/2	2.4	18	0.1/12	1.5	SMA	185*263*14

## 20-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD20-4000-8000-K3-NS	4~8	300/300	2	18	0.8/10	1.8	SMA&N	106*261*22

## 24-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD24-20-480-1-S	0.02~0.48	1/0.15	2.4	16	1/12	1.6	SMA	348*115*14
FPD24-315-433-30-S	0.315~0.433	30/2	1.2	20	0.8/8	1.4	SMA	498*164*14
FPD24-500-3000-20-S	0.5~3	20/1	2.8	18	0.8/8	1.5	SMA	344*200*12
FPD24-1300-1600-20-S	1.3~1.6	20/2	1.4	20	0.5/6	1.35	SMA	348*115*14

## 32-Way Power Dividers/Combiners

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Power as Divider/ Combiner (W)	Insertion Loss (dB, max.)	Isolation (dB, min.)	Amplitude/ Phase Balance (±dB/°, max.)	VSWR (max.)	Connector	Size* (mm)
FPD32-400-490-30-S	0.4~0.49	30/2	1.6	22	0.3/3	1.25	SMA	482*185*15
FPD32-700-2700-30-S	0.7~2.7	30/2	1.8	18	0.5/8	1.5	SMA	430*110*14
FPD32-700-3000-30-S	0.7~3	30/2	2.2	18	0.4/6	1.4	SMA	426*105*12
FPD32-700-4000-50-N	0.7~4	50/3	2.8	18	0.5/8	1.5	N	580*444*20
FPD32-1000-2000-30-S	1~2	30/2	1.4	18	0.5/5	1.4	SMA	456*90*14
FPD32-1000-4000-K1-N	1~4	100/5	2.2	18	0.5/8	1.5	N	580*444*20
FPD32-2000-18000-30-S	2~18	30/5	5.7	16	0.8/9	1.7	SMA	419.6*95*14
FPD32-6000-18000-20-S	6~18	20/1	3.5	16	0.6/8	1.8	SMA	105*420*10
FPD32-18000-40000-20-K	18~40	20/2	6.8	16	1/13	1.8	2.92mm	210*110*14

**Probes**

Freflex provides DC~67GHz high frequency probes, which have the characteristics of long service life, low VSWR and low insertion loss, and are suitable for microwave test and other areas.

**Probes**

RF coaxial probe is a kind of measuring component, which is used for electronic testing equipment to measure the RF signal of electronic circuit in silicon chip, tube core and open microchip.

**Features:** Durable, Low Insertion Loss, Low VSWR; **Applications:** Microwave Test.

**How To Order:**

FP-F-V-W-X-Y-Z

Stop Frequency (GHz) ——— Material: Beryllium copper (C)  
 Mounting Style ——— Mounting Style: 45° (45)  
 Pitch (μm) ——— Tip Size (μm)



**Examples:** To order a probe, DC~40GHz, GSG, pitch 100μm, tip size 50μm, 45°, beryllium copper, specify FP-40-GSG-100-50-45-C.

Part Number	Frequency (GHz)	Pitch (μm)	Tip Size (μm)	IL (dB, max.)	VSWR (max.)	Configuration	Mounting Style	Connector	Material	Power (W, max.)
FP-67-GSG-100-25-45-C	DC~67	100	25	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-100-50-45-C	DC~67	100	50	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-150-25-45-C	DC~67	150	25	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-150-50-45-C	DC~67	150	50	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-200-25-45-C	DC~67	200	25	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-200-50-45-C	DC~67	200	50	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-250-25-45-C	DC~67	250	25	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-67-GSG-250-50-45-C	DC~67	250	50	1.4	1.5	GSG	45°	1.85mm	Beryllium Copper	4
FP-50-GSG-100-25-45-C	DC~50	100	25	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-100-50-45-C	DC~50	100	50	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-150-25-45-C	DC~50	150	25	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-150-50-45-C	DC~50	150	50	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-200-25-45-C	DC~50	200	25	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-200-50-45-C	DC~50	200	50	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-250-25-45-C	DC~50	250	25	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-50-GSG-250-50-45-C	DC~50	250	50	1.2	1.5	GSG	45°	2.4mm	Beryllium Copper	5
FP-40-GSG-100-25-45-C	DC~40	100	25	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-100-50-45-C	DC~40	100	50	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-150-25-45-C	DC~40	150	25	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-150-50-45-C	DC~40	150	50	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-200-25-45-C	DC~40	200	25	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-200-50-45-C	DC~40	200	50	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-250-25-45-C	DC~40	250	25	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6
FP-40-GSG-250-50-45-C	DC~40	250	50	0.8	1.45	GSG	45°	2.92mm	Beryllium Copper	6

## Rotary Joints

Freflex provides DC~50GHz high frequency rotary joints, which can support single channel or multi-channel high frequency transmission.

### Rotary Joints

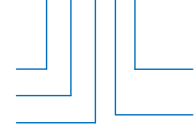
Rotary joint can also be called RF slip ring. It is used to transmit RF signal between rotor and stator in rotating system. Rotary joints can be divided into coaxial rotary joints, waveguide rotary joints and waveguide coaxial rotary joints.

**Features:** Low VSWR, Low VSWR Flatness, Low Insertion Loss Flatness; **Applications:** High Speed Digital Signal Transmission, Analog Signal Transmission.

#### How To Order:

FRJV-W-X-Y-Z

Number of RF Channels  
Stop Frequency (MHz)  
Outer Diameter (mm)



Signal Circuits (2A)  
(eg: 6 circuits signal@2A, code "065"; 12 circuits signal@2A, code "125")  
Power Circuits (10A)  
(eg: 6 circuits@10A, code "0610"; 12 circuits@10A, code "1210")



**Examples:** To order a rotary joint, single channel, DC~18GHz, outer diameter 86mm, specify FRJ1-18000-86.

Part Number	Channels	Frequency (GHz)	Outer Diameter (mm)	Power Circuits		Signal Circuits		Connectors
				10A	2A	10A	2A	
FRJ1-3000-07	1	DC~3	7	0	0	0	0	RG405 (SMA, MCX, MMCX)
FRJ1-3000-22-06S	1	DC~3	22	0	0	6	6	RG405 (SMA, MCX, MMCX)
FRJ1-3000-22-12S	1	DC~3	22	0	0	12	12	RG405 (SMA, MCX, MMCX)
FRJ1-3000-32-18S	1	DC~3	32.8	0	0	18	18	RG405 (SMA, MCX, MMCX)
FRJ1-3000-32-24S	1	DC~3	32.8	0	0	24	24	RG405 (SMA, MCX, MMCX)
FWRJ1-14500-46	1	13.75~14.5	46	0	0	0	0	-
FRJ1-18000-12	1	DC~18	12.7	0	0	0	0	SMA (f)
FRJ1-18000-32-12S	1	DC~18	32.8	0	0	12	12	SMA (f)
FRJ1-18000-32-24S	1	DC~18	32.8	0	0	24	24	SMA (f)
FRJ1-18000-56-0610	1	DC~18	56	6	0	0	0	SMA (f)
FRJ1-18000-56-06S	1	DC~18	56	0	0	6	6	SMA (f)
FRJ1-18000-56-0610-06S	1	DC~18	56	6	6	6	6	SMA (f)
FRJ1-18000-56-1210	1	DC~18	56	12	0	0	0	SMA (f)
FRJ1-18000-56-12S	1	DC~18	56	0	0	12	12	SMA (f)
FRJ1-18000-56-0610-12S	1	DC~18	56	6	12	12	12	SMA (f)
FRJ1-18000-56-1810	1	DC~18	56	18	0	0	0	SMA (f)
FRJ1-18000-56-18S	1	DC~18	56	0	0	18	18	SMA (f)
FRJ1-18000-56-0610-18S	1	DC~18	56	6	18	18	18	SMA (f)
FRJ1-18000-56-1210-12S	1	DC~18	56	12	12	12	12	SMA (f)
FRJ1-18000-56-2410	1	DC~18	56	24	0	0	0	SMA (f)
FRJ1-18000-56-24S	1	DC~18	56	0	0	24	24	SMA (f)
FRJ1-18000-56-36S	1	DC~18	56	0	0	36	36	SMA (f)
FRJ1-18000-56-48S	1	DC~18	56	0	0	48	48	SMA (f)
FRJ1-18000-86-0610	1	DC~18	86	6	0	0	0	SMA (f)
FRJ1-18000-86-06S	1	DC~18	86	0	0	6	6	SMA (f)
FRJ1-18000-86-0610-06S	1	DC~18	86	6	6	6	6	SMA (f)
FRJ1-18000-86-1210	1	DC~18	86	12	0	0	0	SMA (f)
FRJ1-18000-86-12S	1	DC~18	86	0	0	12	12	SMA (f)
FRJ1-18000-86-0610-12S	1	DC~18	86	6	12	12	12	SMA (f)
FRJ1-18000-86-1810	1	DC~18	86	18	0	0	0	SMA (f)
FRJ1-18000-86-18S	1	DC~18	86	0	0	18	18	SMA (f)
FRJ1-18000-86-0610-18S	1	DC~18	86	6	18	18	18	SMA (f)
FRJ1-18000-86-1210-12S	1	DC~18	86	12	12	12	12	SMA (f)
FRJ1-18000-86-2410	1	DC~18	86	24	0	0	0	SMA (f)
FRJ1-18000-86-24S	1	DC~18	86	0	0	24	24	SMA (f)
FRJ1-18000-86-0610-30S	1	DC~18	86	6	30	30	30	SMA (f)
FRJ1-18000-86-1210-24S	1	DC~18	86	12	24	24	24	SMA (f)
FRJ1-18000-86-3610	1	DC~18	86	36	0	0	0	SMA (f)
FRJ1-18000-86-36S	1	DC~18	86	0	0	36	36	SMA (f)
FRJ1-18000-86-0610-42S	1	DC~18	86	6	42	42	42	SMA (f)
FRJ1-18000-86-1210-36S	1	DC~18	86	12	36	36	36	SMA (f)
FRJ1-18000-86-2410-24S	1	DC~18	86	24	24	24	24	SMA (f)
FRJ1-18000-86-4810	1	DC~18	86	48	0	0	0	SMA (f)
FRJ1-18000-86-48S	1	DC~18	86	0	0	48	48	SMA (f)
FRJ1-18000-86-2410-36S	1	DC~18	86	24	36	36	36	SMA (f)

Part Number	Channels	Frequency (GHz)	Outer Diameter (mm)	Power Circuits		Signal Circuits		Connectors
				10A	2A	2A	2A	
FRJ1-18000-86-6010	1	DC~18	86	60	0	0	0	SMA (f)
FRJ1-18000-86-60S	1	DC~18	86	0	0	60	0	SMA (f)
FRJ1-18000-86-2410-48S	1	DC~18	86	24	0	48	0	SMA (f)
FRJ1-18000-86-7210	1	DC~18	86	72	0	0	0	SMA (f)
FRJ1-18000-86-72S	1	DC~18	86	0	0	72	0	SMA (f)
FRJ1-18000-86-96S	1	DC~18	86	0	0	96	0	SMA (f)
FRJ1-18000-86-120S	1	DC~18	86	0	0	120	0	SMA (f)
FRJ1-40000-12	1	DC~40	12.5	0	0	0	0	2.92mm (f)
FRJ1-50000-12	1	DC~50	12.7	0	0	0	0	2.4mm (f)
FRJ1-50000-56-0610	1	DC~50	56	6	0	0	0	2.4mm (f)
FRJ1-50000-56-06S	1	DC~50	56	0	0	6	0	2.4mm (f)
FRJ1-50000-56-0610-06S	1	DC~50	56	6	0	6	0	2.4mm (f)
FRJ1-50000-56-1210	1	DC~50	56	12	0	0	0	2.4mm (f)
FRJ1-50000-56-12S	1	DC~50	56	0	0	12	0	2.4mm (f)
FRJ1-50000-56-0610-12S	1	DC~50	56	6	0	12	0	2.4mm (f)
FRJ1-50000-56-1810	1	DC~50	56	18	0	0	0	2.4mm (f)
FRJ1-50000-56-18S	1	DC~50	56	0	0	18	0	2.4mm (f)
FRJ1-50000-56-0610-18S	1	DC~50	56	6	0	18	0	2.4mm (f)
FRJ1-50000-56-1210-12S	1	DC~50	56	12	0	12	0	2.4mm (f)
FRJ1-50000-56-2410	1	DC~50	56	24	0	0	0	2.4mm (f)
FRJ1-50000-56-24S	1	DC~50	56	0	0	24	0	2.4mm (f)
FRJ1-50000-56-36S	1	DC~50	56	0	0	36	0	2.4mm (f)
FRJ1-50000-56-48S	1	DC~50	56	0	0	48	0	2.4mm (f)
FRJ2-18000-31	2	1 Channel: DC~18GHz 2 Channel: DC~5GHz	31.7	0	0	0	0	SMA (f)
FRJ2-18000-64-0610	2	1 Channel: DC~18GHz 2 Channel: DC~4.5GHz	64	6	0	0	0	SMA (f)
FRJ2-18000-64-06S	2	1 Channel: DC~18GHz 2 Channel: DC~4.5GHz	64	0	0	6	0	SMA (f)
FRJ2-18000-64-12S	2	1 Channel: DC~18GHz 2 Channel: DC~4.5GHz	64	0	0	12	0	SMA (f)
FRJ2-18000-64-18S	2	1 Channel: DC~18GHz 2 Channel: DC~4.5GHz	64	0	0	18	0	SMA (f)
FRJ2-18000-64-24S	2	1 Channel: DC~18GHz 2 Channel: DC~4.5GHz	64	0	0	24	0	SMA (f)

**RF Surge Protectors**

RF surge protectors can protect the system from damage caused by high electromagnetic pulses (EMP) or extremely high surges (usually caused by lightning strikes), and are commonly used in antenna devices to protect sensitive equipment, allowing the desired frequency to pass through and blocking lightning surges.

Freflex Inc. supplies RF surge protectors work from DC~6GHz.

**Features:** Broadband; **Applications:** Any Applications


**RF Surge Protectors**

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Power (W)	Working Voltage (DC)	Lightning Surge Current (kA)	Connector	Size* (mm)
FSP44-MF-03	DC-3	1.2	-	400	90V/150V/230V/350V/600V	10	4.3-10 (m) to 4.3-10 (f)	Φ24.5*62.3
FSP44-FF-03	DC-3	1.2	-	400	90V/150V/230V/350V/600V	10	4.3-10 (f) to 4.3-10 (f)	Φ24.5*57.4
FSP77-MF-03	DC-3	1.2	-	2500	-	10	7/16 DIN (m) to 7/16 DIN (f)	65.5*52
FSPBB-MF-03	DC-3	1.2	-	200	90V/150V/230V/350V/600V	20	BNC (m) to BNC (f)	L: 50.4
FSPFF-MF-03-MT	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	F (m) to F (f) Metric Thread	L: 52.4
FSPFF-FF-03-IT	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	F (f) to F (f) Inch Thread	L: 46.7
FSPFF-MF-03-IT	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	F (m) to F (f) Inch Thread	L: 52.8
FSPNN-MF-03-1	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	N (m) to N (f)	Φ25.2*70.5
FSPNN-MF-03-2	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	N (m) to N (f)	21.9*69.7
FSPNN-FF-03	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	N (f) to N (f)	Φ25.2*64.2
FSPNN-MF-06	DC-6	1.2	0.25	200	90V/150V/230V/350V/600V	20	N (m) to N (f)	Φ21.65*61.1
FSPSS-MF-03	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	SMA (m) to SMA (f)	L: 47
FSPSS-FF-03	DC-3	1.2	0.25	200	90V/150V/230V/350V/600V	20	SMA (f) to SMA (f)	L: 48.4
FSPSS-MF-06	DC-6	1.2	0.25	200	90V/150V/230V/350V/600V	20	SMA (m) to SMA (f)	L: 47.3
FSPTT-MF-03	DC-3	1.25	0.45	200	90V/150V/230V/350V/600V	20	TNC (m) to TNC (f)	L: 50.2
FSPTT-MF-06	DC-6	1.25	0.45	200	90V/150V/230V/350V/600V	20	TNC (m) to TNC (f)	Φ23*69

**Quarter Wave Surge Protectors**

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Power (W)	Working Voltage (DC)	Lightning Surge Current (kA)	Connector	Size* (mm)
FWSP77-MF-02	0.8~2.5	1.2	0.3	2500	-	30	7/16 DIN (m) to 7/16 DIN (f)	63*64
FWSP77-FF-02	0.8~2.7	1.2	0.3	2500	-	30	7/16 DIN (f) to 7/16 DIN (f)	63*64
FWSPNN-MF-02	0.8~2.5	1.25	0.2	2500	-	30	N (m) to N (f)	62.6*81.2
FWSPNN-FF-02	0.8~2.5	1.25	0.2	2500	-	30	N (f) to N (f)	62.7*74
FWSPNN-MF-06	2.2~6	1.25	0.2	2500	-	30	N (m) to N (f)	42.2*64.7

## Switches

The switch is used for connecting and disconnecting RF signals. Freflex supplies a series of switches, including RF coaxial switches (electromechanical switches), PIN diode switches, waveguide switches, waveguide coaxial switches and surface mount switches. The frequency range is up to 110GHz.

### RF Coaxial Switches

RF coaxial switch, also called electromechanical switch, refers to the connecting and disconnecting of signals through relays. There are three types of actuator: Failsafe, it indicates that the common port will automatically switch to the default connection port after the switch is powered off.

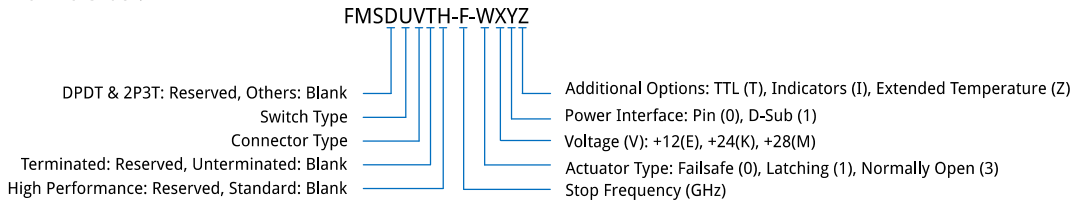
Normally open, it means that the common port of the switch will not be connected to any port when the power is off, and the switch is in the off state.

Latching, it means that the switch state will remain unchanged after normal switching until the next effective signal is triggered. This type of switch is controlled by the rising edge or falling edge of the pulse signal.

**Features:** DC-67GHz, High Isolation, 2M Cycles; **Applications:** Test Systems, Radar, Instrumentation.

### Standard & High Performance Switches

#### How To Order:



**Temperature:** Standard Temperature: -25~+65°C; Extended Temperature: -45~+85°C.

**Examples:** To order a standard SP8T switch, SMA, terminated, DC~18GHz, normally open, +12V, D-Sub, TTL control, specify FMS8ST-18-3E1T.

### SPDT

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL (dB)	ISO (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMS21T-110-WXYZ	SPDT	1.0mm	Yes	Standard	DC~20	0.8	70	1.5	Latching	+12 +24	A2004WW-2×02P
					20~50	1.4	70	1.8			
					50~67	1.8	60	1.9			
					67~90	2.2	60	2.0			
					90~110	2.5	50	2.2			
FMS2V-67-WXYZ	SPDT	1.85mm	No	Standard	DC~6	0.2	70	1.2	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.3	70	1.3			
					12~18	0.4	60	1.4			
					18~26.5	0.6	55	1.6			
					26.5~32	0.7	50	1.7			
					32~40	0.8	50	1.8			
					40~50	0.9	45	1.9			
50~67	1.2	40	2.2								
FMS22-50-WXYZ	SPDT	2.4mm	No	Standard	DC~6	0.2	70	1.2	Failsafe Latching	+12 +24 +28	Pin
					6~12	0.3	70	1.3			
					12~18	0.4	60	1.4			
					18~26.5	0.6	55	1.6			
					26.5~32	0.7	50	1.7			
FMS22T-50-WXYZ	SPDT	2.4mm	Yes	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
					18~26.5	0.6	50	1.6			
					26.5~32	0.7	50	1.7			
FMS2K-40-WXYZ	SPDT	2.92mm	No	Standard	DC~6	0.2	70	1.2	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.3	70	1.3			
					12~18	0.4	60	1.4			
					18~26.5	0.6	55	1.6			
					26.5~32	0.7	50	1.7			
FMS2KH-40-WXYZ	SPDT	2.92mm	No	High PERF.	DC~26.5	0.40	75	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					26.5~40	0.65	70	1.5			
FMS2KH-43.5-WXYZ	SPDT	2.92mm	No	High PERF.	DC~40	0.40	75	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					40~43.5	1.00	60	1.6			

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMS2KT-40-WXYZ	SPDT	2.92mm	Yes	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
					18~26.5	0.6	50	1.6			
					26.5~32	0.7	50	1.7			
32~40	0.9	50	1.9								
FMS2KTH-40-WXYZ	SPDT	2.92mm	Yes	High PERF.	DC~26.5	0.40	80	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
26.5~40					0.65	65	1.5				
FMS2KTH-43.5-WXYZ					DC~40	0.40	80	1.3			
40~43.5					1.00	60	1.6				
FMS2S-18-WXYZ	SPDT	SMA	No	Standard	DC~6	0.2	70	1.2	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.3	70	1.3			
					12~18	0.4	60	1.4			
FMS2S-26.5-WXYZ					18~26.5	0.6	55	1.6			
FMS2SH-18-WXYZ	SPDT	SMA	No	High PERF.	DC~6	0.20	80	1.1	Failsafe Latching	+12 +24 +28	Pin D-Sub
6~18					0.35	75	1.2				
DC~18					0.35	75	1.2				
FMS2SH-26.5-WXYZ					18~26.5	0.45	70	1.3			
FMS2ST-18-WXYZ	SPDT	SMA	Yes	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
FMS2ST-26.5-WXYZ					18~26.5	0.6	50	1.6			
FMS2STH-18-WX0Z	SPDT	SMA	Yes	High PERF.	DC~6	0.20	70	1.2	Failsafe Latching	+12 +24 +28	Pin
6~18					0.40	55	1.3				
DC~18					0.40	70	1.3				
FMS2STH-26.5-WX0Z					18~26.5	0.45	55	1.4			
FMS2N-12.4-WXYZ	SPDT	N	No	Standard	DC~5	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					5~12.4	0.5	60	1.5			
FMS2N-18-WXYZ					DC~5	0.3	70	1.3			
					5~18	0.7	50	1.7			

**SP3T~SP6T**

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSU2-50-3X1Z	SP3T~SP6T	2.4mm	No	Standard	DC~6	0.3	70	1.3	Normally Open	+12 +24 +28	D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	60	1.5			
					18~26.5	0.6	55	1.6			
					26.5~32	0.8	50	1.8			
					32~40	0.9	50	1.9			
FMSU2T-50-WX1Z	SP3T~SP6T	2.4mm	Yes	Standard	DC~6	0.3	70	1.3	Latching Normally Open	+12 +24 +28	D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
					18~26.5	0.7	55	1.7			
					26.5~32	0.9	50	1.9			
					32~40	1.0	50	2.0			
FMSUK-40-3X1Z	SP3T~SP6T	2.92mm	No	Standard	DC~6	0.3	70	1.3	Normally Open	+12 +24 +28	D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	60	1.5			
					18~26.5	0.6	55	1.6			
					26.5~32	0.8	50	1.8			
FMSUKH-40-3X1Z	SP3T~SP6T	2.92mm	No	High PERF.	DC~26.5	0.50	80	1.35	Normally Open	+12 +24 +28	D-Sub
					26.5~40	0.70	70	1.40			
					DC~40	0.50	80	1.35			
					40~43.5	1.10	60	1.55			



Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL (dB)	ISO (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSUKT-40-WX1Z	SP3T-SP6T	2.92mm	Yes	Standard	DC-6	0.3	70	1.3	Latching Normally Open	+12 +24 +28	D-Sub
					6-12	0.4	60	1.4			
					12-18	0.5	55	1.5			
					18-26.5	0.7	55	1.7			
					26.5-32	0.8	50	1.8			
FMSUKTH-40-WX1Z	SP3T-SP6T	2.92mm	Yes	High PERF.	DC-26.5	0.5	80	1.5	Latching Normally Open	+12 +24 +28	D-Sub
26.5-40					0.7	70	1.6				
DC-40					0.4	70	1.3				
FMSUKTH-43.5-WX1Z					40-43.5	1.0	55	1.7			
FMSUS-18-3X1Z	SP3T-SP6T	SMA	No	Standard	DC-6	0.3	70	1.3	Normally Open	+12 +24 +28	D-Sub
6-12					0.4	60	1.4				
12-18					0.5	50	1.5				
FMSUS-26.5-3X1Z					18-26.5	0.6	50	1.6			
FMSUSH-18-3X1Z	SP3T-SP6T	SMA	No	High PERF.	DC-6	0.25	80	1.20	Normally Open	+12 +24 +28	D-Sub
6-18					0.35	75	1.30				
DC-18					0.35	80	1.30				
18-26.5					0.50	70	1.35				
FMSUSH-26.5-3X1Z											
FMSUST-18-WX1Z	SP3T-SP6T	SMA	Yes	Standard	DC-6	0.3	70	1.3	Latching Normally Open	+12 +24 +28	D-Sub
6-12					0.4	60	1.4				
12-18					0.5	50	1.5				
FMSUST-26.5-WX1Z					18-26.5	0.6	50	1.6			
FMSUSTH-18-WX1Z	SP3T-SP6T	SMA	Yes	High PERF.	DC-6	0.20	80	1.2	Latching Normally Open	+12 +24 +28	D-Sub
6-18					0.35	70	1.3				
DC-18					0.40	70	1.3				
18-26.5					0.60	65	1.5				
FMSUSTH-26.5-WX1Z											
FMSUN-12.4-3X1Z	SP3T-SP6T	N	No	Standard	DC-5	0.3	70	1.3	Normally Open	+12 +24 +28	D-Sub
5-12.4					0.5	60	1.5				

### SP7T-SP8T

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL (dB)	ISO (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSUK-40-3X1Z	SP7T-SP8T	2.92mm	No	Standard	DC-12	0.5	70	1.4	Normally Open	+12 +24 +28	D-Sub
					12-18	0.6	60	1.5			
					18-26.5	0.8	55	1.7			
					26.5-40	1.1	50	2.0			
FMSUKT-40-WX1Z	SP7T-SP8T	2.92mm	Yes	Standard	DC-12	0.5	70	1.4	Latching Normally Open	+12 +24 +28	D-Sub
12-18					0.6	60	1.5				
18-26.5					0.8	55	1.7				
FMSUKT-40-WX1Z					26.5-40	1.1	50	2.0			
FMSUS-18-3X1Z	SP7T-SP8T	SMA	No	Standard	DC-6	0.3	70	1.3	Normally Open	+12 +24 +28	D-Sub
6-12					0.4	60	1.4				
12-18					0.5	55	1.5				
FMSUS-26.5-3X1Z					18-26.5	0.7	50	1.7			
FMSUSH-18-3X1Z	SP7T-SP8T	SMA	No	High PERF.	DC-6	0.20	80	1.20	Normally Open	+12 +24 +28	D-Sub
6-18					0.35	60	1.35				
DC-18					0.50	80	1.50				
18-26.5					0.60	70	1.60				
FMSUSH-26.5-3X1Z											
FMSUST-18-WX1Z	SP7T-SP8T	SMA	Yes	Standard	DC-6	0.3	70	1.3	Latching Normally Open	+12 +24 +28	D-Sub
6-12					0.4	60	1.4				
12-18					0.5	50	1.5				
FMSUST-26.5-WX1Z					18-26.5	0.6	50	1.6			
FMSUSTH-18-WX1Z	SP7T-SP8T	SMA	Yes	High PERF.	DC-6	0.20	80	1.15	Latching Normally Open	+12 +24 +28	D-Sub
6-18					0.40	70	1.50				
DC-18					0.45	80	1.40				
18-26.5					0.60	70	1.40				
FMSUSTH-26.5-WX1Z											
FMSUN-8-3XYZ	SP7T-SP8T	N	No	Standard	DC-3	0.4	70	1.5	Normally Open	+12 +24	Pin D-Sub
3-8					0.7	60	1.7				

**SP9T~SP10T**

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSUS-18-3X1Z	SP9T~SP10T	SMA	No	Standard	DC~6	0.3	70	1.3	Normally Open	+12	D-Sub
					6~12	0.4	60	1.4		+24	
					12~18	0.5	55	1.5		+28	
FMSUS-26.5-3X1Z				18~26.5	0.7	50	1.7				
FMSUSH-18-3X1Z	SP9T~SP10T	SMA	No	High PERF.	DC~6	0.3	80	1.2	Normally Open	+12	D-Sub
					6~18	0.5	70	1.3		+24	
					DC~18	0.5	80	1.4		+28	
FMSUSH-26.5-3X1Z				18~26.5	0.6	70	1.5				
FMSUST-18-WX1Z	SP9T~SP10T	SMA	Yes	Standard	DC~6	0.3	70	1.3	Latching Normally Open	+12	D-Sub
					6~12	0.4	60	1.4		+24	
					12~18	0.5	50	1.5		+28	
FMSUST-26.5-WX1Z				18~26.5	0.7	50	1.7				
FMSUSTH-18-WX1Z	SP9T~SP10T	SMA	Yes	High PERF.	DC~6	0.20	70	1.15	Latching Normally Open	+12	D-Sub
					6~18	0.50	50	1.30		+24	
					DC~18	0.45	80	1.40		+28	
FMSUSTH-26.5-WX1Z				18~26.5	0.60	70	1.40				

**SP11T~SP12T**

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMS12S-16-3X1Z	SP11T~SP12T	SMA	No	Standard	DC~6	0.3	70	1.3	Normally Open	+12	D-Sub
					6~12	0.4	60	1.4		+24	
					12~16	0.6	50	1.6		+28	
FMS12ST-16-WX1Z	SP11T~SP12T	SMA	Yes	Standard	DC~6	0.3	70	1.3	Latching Normally Open	+12	D-Sub
					6~12	0.4	60	1.5		+24	
					12~16	0.5	50	1.6		+28	

**DPDT**

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSD2V-53-WXYZ	DPDT	1.85mm	No	Standard	DC~6	0.3	70	1.2	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	70	1.3			
					12~18	0.5	60	1.3			
					18~26.5	0.7	55	1.4			
					26.5~32	0.8	50	1.4			
					32~40	0.9	50	1.7			
					40~43	1.0	50	1.7			
					43~50	1.2	50	1.8			
50~53	1.5	50	1.8								
FMSD22-50-WXYZ	DPDT	2.4mm	No	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
					18~26.5	0.7	50	1.7			
					26.5~32	0.8	50	1.8			
					32~40	0.9	50	1.9			
					40~50	1.0	45	2.0			
FMSD2K-40-WXYZ	DPDT	2.92mm	No	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
					18~26.5	0.7	50	1.7			
					26.5~32	0.8	50	1.8			
FMSD2KH-40-WXYZ	DPDT	2.92mm	No	High PERF.	DC~26.5	0.35	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					26.5~40	0.70	60	1.5			
FMSD2S-18-WXYZ	DPDT	SMA	No	Standard	DC~6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6~12	0.4	60	1.4			
					12~18	0.5	55	1.5			
FMSD2S-26.5-WXYZ					18~26.5	0.7	50	1.7			

Coaxial switches power curve please refer to appendix.

Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSD2SH-18-WXYZ	DPDT	SMA	No	High PERF.	DC-6	0.25	75	1.1	Failsafe Latching	+12 +24 +28	Pin D-Sub
6-18					0.40	70	1.2				
DC-18					0.40	70	1.3				
FMSD2SH-26.5-WXYZ					18-26.5	0.50	65	1.5			
FMSD2N-12.4-WXYZ	DPDT	N	No	Standard	DC-6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
					6-12.4	0.6	60	1.6			

**2P3T**

Coaxial switches power curve please refer to appendix.

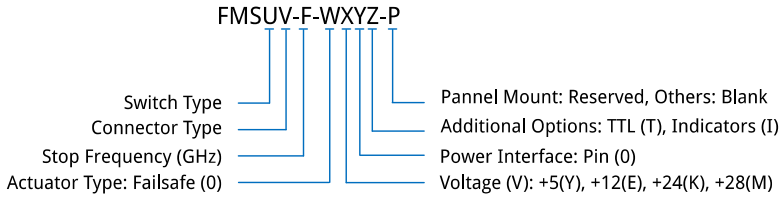
Part Number	Switch Type	Connector	Terminated	Edition	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Actuator Type	Voltage (V)	Power Interface
FMSD32-50-WX0Z	2P3T	2.4mm	No	Standard	DC-6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin
					6-12	0.4	60	1.4			
					12-18	0.5	55	1.5			
					18-26.5	0.6	50	1.6			
					26.5-32	0.7	50	1.7			
					32-40	0.9	50	1.9			
40-50	1.0	45	2.0								
FMSD3K-40-WX0Z	2P3T	2.92mm	No	Standard	DC-6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin
					6-12	0.4	60	1.4			
					12-18	0.5	55	1.5			
					18-26.5	0.6	50	1.6			
					26.5-32	0.7	50	1.7			
32-40	0.9	50	1.9								
FMSD3KH-40-WXYZ	2P3T	2.92mm	No	High PERF.	DC-26.5	0.40	80	1.3	Failsafe Latching	+12 +24 +28	Pin D-Sub
26.5-40					0.65	65	1.5				
DC-40					0.40	80	1.3				
FMSD3KH-43.5-WXYZ					40-43.5	1.00	60	1.6			
FMSD3S-18-WX0Z	2P3T	SMA	No	Standard	DC-6	0.3	70	1.3	Failsafe Latching	+12 +24 +28	Pin
					6-12	0.4	60	1.4			
					12-18	0.5	55	1.5			
FMSD3S-26.5-WX0Z					18-26.5	0.6	50	1.6			
FMSD3SH-18-WX0Z	2P3T	SMA	No	High PERF.	DC-6	0.20	70	1.2	Failsafe Latching	+12 +24 +28	Pin
					6-18	0.40	55	1.3			
					DC-18	0.40	70	1.3			
FMSD3SH-26.5-WX0Z					18-26.5	0.45	55	1.4			

**Manual Switches**

Part Number	Switch Type	Connector	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR (max.)	Power (W)
FMS2S-18-2	SPDT	SMA	DC-18	0.5	60	1.5	20
FMS2N-12.4-2	SPDT	N	DC-3	0.2	70	1.2	200
			3-6	0.4	65	1.35	150
			6-12.4	0.6	50	1.5	80

**Small Size Coaxial Switches**

Part Number	Switch Type	Connector	Frequency (GHz)	IL. (dB)	ISO. (dB)	VSWR	Power (W)	Actuator Type	Voltage (V)	Power Interface
FSMS/S-18-3X1Z	SP3T-SP6T	SMA	DC-6	0.3	70	1.3	80	Normally Open	+12 +24 +28	D-Sub
			6-12	0.4	60	1.4	60			
			12-18	0.5	60	1.5	50			

**75Ω Switches**
**How To Order:**


**Examples:** To order a SP8T switch, F Female, DC~2.15GHz, Failsafe, +12V, Pin, specify FMS8F-2.15-0E0.

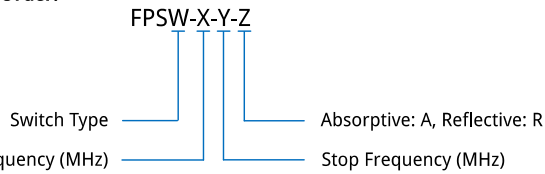
Part Number	Switch Type	Connector	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR	Power (W)	Actuator Type	Voltage (V)	Power Interface
FMS2V-F-0X0	SPDT	F BNC	DC~1	0.4	60	1.4	1	Failsafe	+12 +24	Pin
			1~2	0.5	45	1.6				
			2~3	0.8	35	1.7				
FMS2V-F-0X0-P	SPDT	F BNC	DC~1	0.2	60	1.2	1	Failsafe	+5 +12 +24	Pin
			1~2	0.5	40	1.5				
			2~3	0.8	30	1.7				
FMS4V-F-0X0	SP4T	F BNC	DC~1	0.3	60	1.2	10W @1G	Failsafe	+12 +24 +28	Pin
			1~2	0.5	50	1.4				
			2~3	1.1	40	1.6				
FMS8V-F-0E0	SP8T	F BNC	DC~1	0.8	60	1.5	10	Failsafe	+12	Pin
			1~2.15	1.2	50	1.6				

**PIN Diode Switches**

PIN diode switch, also called solid state switch.

**Features:** 0.02~40GHz, High Switching Speed, Low VSWR; **Applications:** Test Systems, Radar, Instrumentation.

**How To Order:**



**Examples:** To order a PIN diode switch, SPDT, 0.1~4GHz, absorptive, specify FPS2-100-4000-A.

**SPST**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS1-100-18000-A	Absorptive	0.1~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-100-40000-A	Absorptive	0.1~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-500-18000-A	Absorptive	0.5~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-500-18000-R	Reflective	0.5~18	40	2.5	1.8	70	0.2	SMA	24*18*10.2
FPS1-500-40000-A	Absorptive	0.5~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-800-18000-A	Absorptive	0.8~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-1000-2000-A	Absorptive	1~2	40	1	1.5	80	0.1	SMA	24*18*10.2
FPS1-1000-8000-A	Absorptive	1~8	40	1.6	1.5	80	0.1	SMA	24*18*10.2
FPS1-1000-18000-A	Absorptive	1~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-1000-20000-A	Absorptive	1~20	40	3	2	80	0.1	SMA	24*18*10.2
FPS1-1000-40000-A	Absorptive	1~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-2000-4000-A	Absorptive	2~4	40	1.2	1.5	80	0.1	SMA	24*18*10.2
FPS1-2000-18000-A	Absorptive	2~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-2000-20000-A	Absorptive	2~20	40	3	2	80	0.1	SMA	24*18*10.2
FPS1-2000-40000-A	Absorptive	2~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-2700-3100-A	Absorptive	2.7~3.1	100	1.1	1.5	75	1	SMA	30.48*22.86*8.89
FPS1-3000-6000-A	Absorptive	3~6	40	1.5	1.5	80	0.1	SMA	24*18*10.2
FPS1-4000-8000-A	Absorptive	4~8	40	1.6	1.5	80	0.1	SMA	24*18*10.2
FPS1-5000-10000-A	Absorptive	5~10	40	1.8	1.5	80	0.1	SMA	24*18*10.2
FPS1-6000-12000-A	Absorptive	6~12	40	2.2	1.7	80	0.1	SMA	24*18*10.2
FPS1-6000-18000-A	Absorptive	6~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-8000-40000-A	Absorptive	8~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-12000-18000-A	Absorptive	12~18	40	2.5	2	80	0.1	SMA	24*18*10.2
FPS1-18000-40000-A	Absorptive	18~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2
FPS1-20000-40000-A	Absorptive	20~40	300	6	2.5	40	1	2.92mm	35*23*12.7
FPS1-26000-40000-A	Absorptive	26~40	50	5	2.5	45	0.2	2.92mm	20*14*10.2

**SPDT**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS2-0-3000-R	Reflective	DC~3	150	1	1.3	31	39.8	SMA	40*34*9.5
FPS2-0-6000-R	Reflective	DC~6	150	1.3	1.5	23	39.8	SMA	40*34*9.5
FPS2-0.95-200-A	Absorptive	950K~0.2	1000	1	1.5	40	2	SMA	36*25*13
FPS2-0.95-200-R	Reflective	950K~0.2	100	1	1.5	40	3	SMA	33.67*20.54*12.11
FPS2-10-6000-A-1	Absorptive	0.01~6	150	2.5	2	60	1	SMA	25*17.5*10.2
FPS2-10-8000-A-1	Absorptive	0.01~8	150	2.5	2	60	1	SMA	25*17.5*10.2
FPS2-10-8000-R-1	Reflective	0.01~8	150	2	2	75	1	SMA	25*17.5*10.2
FPS2-10-12000-A-1	Absorptive	0.01~12	150	3	2	60	1	SMA	25*17.5*10.2
FPS2-10-12000-R-1	Reflective	0.01~12	150	2.3	2	70	1	SMA	25*17.5*10.2
FPS2-10-18000-A-1	Absorptive	0.01~18	150	3.8	2	60	1	SMA	25*17.5*10.2
FPS2-10-18000-R-1	Reflective	0.01~18	150	3	2	65	1	SMA	25*17.5*10.2
FPS2-10-20000-A-1	Absorptive	0.01~20	150	4.2	2	60	1	SMA	25*17.5*10.2
FPS2-10-20000-R-1	Reflective	0.01~20	150	3.2	2	65	1	SMA	25*17.5*10.2
FPS2-14-1000-A	Absorptive	0.014~1	3500	1.5	1.6	65	5	SMA	44*35*9.5
FPS2-30-500-R	Reflective	0.03~0.5	1000	0.3	1.5	55	50	SMA	70*60*22
FPS2-100-4000-A	Absorptive	0.1~4	100	1.8	1.5	35	1	SMA	30*30*12
FPS2-100-18000-A-1	Absorptive	0.1~18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-100-18000-R-1	Reflective	0.1~18	100	2.8	2	60	1	SMA	25*17.5*10.2

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS2-100-20000-A-1	Absorptive	0.1~20	100	3.5	2	60	1	SMA	25*17.5*10.2
FPS2-100-20000-R-1	Reflective	0.1~20	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-300-18000-A	Absorptive	0.3~18	35	3.5	2	60	0.1	SMA	25*17.5*10.2
FPS2-400-8000-A-1	Absorptive	0.4~8	100	1.5	1.5	80	1	SMA	25*17.5*10.2
FPS2-400-8000-A-2	Absorptive	0.4~8	100	1.5	1.5	80	1	SMA	26*18*10.2
FPS2-400-8000-R-1	Reflective	0.4~8	100	1.8	1.5	70	1	SMA	25*17.5*10.2
FPS2-400-12000-A-1	Absorptive	0.4~12	100	2.4	1.5	70	1	SMA	25*17.5*10.2
FPS2-400-12000-A-2	Absorptive	0.4~12	100	2.4	1.5	70	1	SMA	26*18*10.2
FPS2-400-12000-R-1	Reflective	0.4~12	100	2.2	1.5	70	1	SMA	25*17.5*10.2
FPS2-500-2500-R	Reflective	0.5~2.5	12ms	1	1.5	45	15	SMA	50.8*57.16*17.78
FPS2-500-18000-A-1	Absorptive	0.5~18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-500-18000-A-2	Absorptive	0.5~18	100	3	2	60	1	SMA	26*18*10.2
FPS2-500-18000-R-1	Reflective	0.5~18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-500-18000-R-2	Reflective	0.5~18	100	2.8	2	70	1	SMA	26*18*10.2
FPS2-500-20000-A-1	Absorptive	0.5~20	100	3.5	2	60	1	SMA	25*17.5*10.2
FPS2-500-20000-A-2	Absorptive	0.5~20	100	3.5	2	60	1	SMA	26*18*10.2
FPS2-500-20000-A-3	Absorptive	0.5~20	35	3.5	2	60	0.1	SMA	25*17.5*10.2
FPS2-500-20000-R-1	Reflective	0.5~20	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-500-20000-R-2	Reflective	0.5~20	100	3	2	70	1	SMA	26*18*10.2
FPS2-500-40000-A-1	Absorptive	0.5~40	50	5.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-500-40000-R-1	Reflective	0.5~40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-800-18000-A-1	Absorptive	0.8~18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-800-18000-A-2	Absorptive	0.8~18	100	3	2	60	1	SMA	26*18*10.2
FPS2-800-18000-R-1	Reflective	0.8~18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-800-20000-A-1	Absorptive	0.8~20	100	3.5	2	60	1	SMA	25*17.5*10.2
FPS2-800-20000-A-2	Absorptive	0.8~20	100	3.5	2	60	1	SMA	26*18*10.2
FPS2-800-20000-A-3	Absorptive	0.8~20	40	3	2	60	0.1	SMA	25*17.5*10.2
FPS2-800-20000-A-4	Absorptive	0.8~20	35	3.5	2	60	0.1	SMA	25*17.5*10.2
FPS2-800-20000-R-1	Reflective	0.8~20	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-1000-2000-A-1	Absorptive	1~2	100	1	1.5	80	1	SMA	25*17.5*10.2
FPS2-1000-2000-A-2	Absorptive	1~2	100	1	1.4	80	1	SMA	26*18*10.2
FPS2-1000-2000-A-3	Absorptive	1~2	40	1	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-1000-2000-A-4	Absorptive	1~2	35	1	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-1000-2000-R-1	Reflective	1~2	100	1	1.5	80	1	SMA	25*17.5*10.2
FPS2-1000-2000-R-2	Reflective	1~2	100	1	1.5	80	1	SMA	26*18*10.2
FPS2-1000-8000-A-1	Absorptive	1~8	100	1.5	1.5	80	1	SMA	25*17.5*10.2
FPS2-1000-8000-A-2	Absorptive	1~8	100	1.5	1.5	80	1	SMA	26*18*10.2
FPS2-1000-8000-A-3	Absorptive	1~8	40	1.6	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-1000-8000-A-4	Absorptive	1~8	35	1.6	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-1000-8000-R-1	Reflective	1~8	100	1.8	1.5	70	1	SMA	25*17.5*10.2
FPS2-1000-8000-R-2	Reflective	1~8	100	1.8	1.5	80	1	SMA	26*18*10.2
FPS2-1000-18000-A-1	Absorptive	1~18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-1000-18000-A-2	Absorptive	1~18	100	3	2	60	1	SMA	26*18*10.2
FPS2-1000-18000-A-3	Absorptive	1~18	40	2.5	1.8	65	0.1	SMA	25*17.5*10.2
FPS2-1000-18000-A-4	Absorptive	1~18	35	2.8	2	60	0.1	SMA	25*17.5*10.2
FPS2-1000-18000-R-1	Reflective	1~18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-1000-18000-R-2	Reflective	1~18	100	2.8	2	70	1	SMA	26*18*10.2
FPS2-1000-20000-A-1	Absorptive	1~20	100	3.5	2	60	1	SMA	25*17.5*10.2
FPS2-1000-20000-A-2	Absorptive	1~20	100	3.5	2	60	1	SMA	26*18*10.2
FPS2-1000-20000-A-3	Absorptive	1~20	40	3	2	60	0.1	SMA	25*17.5*10.2
FPS2-1000-20000-A-4	Absorptive	1~20	35	3.5	2	60	0.1	SMA	25*17.5*10.2
FPS2-1000-20000-R-1	Reflective	1~20	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-1000-20000-R-2	Reflective	1~20	100	3	2	70	1	SMA	26*18*10.2
FPS2-1000-40000-A	Absorptive	1~40	50	5.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-1000-40000-R	Reflective	1~40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-2000-4000-A-1	Absorptive	2~4	100	1.2	1.5	80	1	SMA	25*17.5*10.2
FPS2-2000-4000-A-2	Absorptive	2~4	100	1.2	1.4	80	1	SMA	26*18*10.2
FPS2-2000-4000-A-3	Absorptive	2~4	40	1.2	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-2000-4000-A-4	Absorptive	2~4	35	1.2	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-2000-4000-R-1	Reflective	2~4	100	1.2	1.5	80	1	SMA	25*17.5*10.2
FPS2-2000-4000-R-2	Reflective	2~4	100	1.2	1.5	80	1	SMA	26*18*10.2
FPS2-2000-8000-R	Reflective	2~8	100	1.8	1.5	80	1	SMA	26*18*10.2
FPS2-2000-18000-A-1	Absorptive	2~18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-2000-18000-A-2	Absorptive	2~18	100	3	2	60	1	SMA	26*18*10.2
FPS2-2000-18000-A-3	Absorptive	2~18	40	2.5	1.8	65	0.1	SMA	25*17.5*10.2
FPS2-2000-18000-A-4	Absorptive	2~18	35	2.8	2	60	0.1	SMA	25*17.5*10.2

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS2-2000-18000-R-1	Reflective	2-18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-2000-18000-R-2	Reflective	2-18	100	2.8	2	70	1	SMA	26*18*10.2
FPS2-2000-20000-A-1	Absorptive	2-20	100	3.5	2	60	1	SMA	25*17.5*10.2
FPS2-2000-20000-A-2	Absorptive	2-20	100	3.5	2	60	1	SMA	26*18*10.2
FPS2-2000-20000-A-3	Absorptive	2-20	40	3	2	60	0.1	SMA	25*17.5*10.2
FPS2-2000-20000-A-4	Absorptive	2-20	35	3.5	2	60	0.1	SMA	25*17.5*10.2
FPS2-2000-20000-R-1	Reflective	2-20	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-2000-20000-R-2	Reflective	2-20	100	3	2	70	1	SMA	26*18*10.2
FPS2-2000-40000-A	Absorptive	2-40	50	5.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-2000-40000-R-1	Reflective	2-40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-2000-40000-R-2	Reflective	2-40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-2700-3100-A	Absorptive	2.7-3.1	100	1.3	1.3	75	1	SMA	30.48*22.86*8.89
FPS2-3000-6000-A-1	Absorptive	3-6	100	1.4	1.5	80	1	SMA	25*17.5*10.2
FPS2-3000-6000-A-2	Absorptive	3-6	100	1.4	1.5	80	1	SMA	26*18*10.2
FPS2-3000-6000-A-3	Absorptive	3-6	40	1.5	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-3000-6000-A-4	Absorptive	3-6	35	1.5	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-3000-6000-R-1	Reflective	3-6	100	1.6	1.5	70	1	SMA	25*17.5*10.2
FPS2-3000-6000-R-2	Reflective	3-6	100	1.6	1.5	80	1	SMA	26*18*10.2
FPS2-4000-8000-A-1	Absorptive	4-8	100	1.5	1.5	80	1	SMA	25*17.5*10.2
FPS2-4000-8000-A-2	Absorptive	4-8	100	1.5	1.5	80	1	SMA	26*18*10.2
FPS2-4000-8000-A-3	Absorptive	4-8	40	1.6	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-4000-8000-A-4	Absorptive	4-8	35	1.6	1.5	80	0.1	SMA	25*17.5*10.2
FPS2-4000-8000-R-1	Reflective	4-8	100	1.8	1.5	70	1	SMA	25*17.5*10.2
FPS2-4000-8000-R-2	Reflective	4-8	100	1.8	1.5	80	1	SMA	26*18*10.2
FPS2-5000-10000-A-1	Absorptive	5-10	100	2	1.5	70	1	SMA	25*17.5*10.2
FPS2-5000-10000-A-2	Absorptive	5-10	100	2	1.5	70	1	SMA	26*18*10.2
FPS2-5000-10000-A-3	Absorptive	5-10	40	1.8	1.5	75	0.1	SMA	25*17.5*10.2
FPS2-5000-10000-A-4	Absorptive	5-10	35	1.8	1.5	75	0.1	SMA	25*17.5*10.2
FPS2-5000-10000-R-1	Reflective	5-10	100	2	1.5	70	1	SMA	25*17.5*10.2
FPS2-5000-10000-R-2	Reflective	5-10	100	2	1.5	80	1	SMA	26*18*10.2
FPS2-6000-12000-A-1	Absorptive	6-12	100	2.4	1.5	70	1	SMA	25*17.5*10.2
FPS2-6000-12000-A-2	Absorptive	6-12	100	2.4	1.5	70	1	SMA	26*18*10.2
FPS2-6000-12000-A-3	Absorptive	6-12	40	2.2	1.7	70	0.1	SMA	25*17.5*10.2
FPS2-6000-12000-A-4	Absorptive	6-12	35	2.2	1.7	70	0.1	SMA	25*17.5*10.2
FPS2-6000-12000-R-1	Reflective	6-12	100	2.2	1.5	70	1	SMA	25*17.5*10.2
FPS2-6000-12000-R-2	Reflective	6-12	100	2.2	1.5	80	1	SMA	26*18*10.2
FPS2-6000-18000-A-1	Absorptive	6-18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-6000-18000-A-2	Absorptive	6-18	100	3	2	60	1	SMA	26*18*10.2
FPS2-6000-18000-A-3	Absorptive	6-18	40	2.5	1.8	65	0.1	SMA	25*17.5*10.2
FPS2-6000-18000-A-4	Absorptive	6-18	35	2.8	2	60	0.1	SMA	25*17.5*10.2
FPS2-6000-18000-R-1	Reflective	6-18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-6000-40000-A-1	Absorptive	6-40	50	5	2.5	45	0.2	2.92mm	22*13*9.5
FPS2-6000-40000-R-1	Reflective	6-40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-8000-12000-R-1	Reflective	8-12	100	2.2	1.5	80	1	SMA	26*18*10.2
FPS2-10000-40000-R-1	Reflective	10-40	50	4.5	2.5	65	0.2	2.92mm	22*13*9.5
FPS2-12000-18000-A-1	Absorptive	12-18	100	3	2	60	1	SMA	25*17.5*10.2
FPS2-12000-18000-A-2	Absorptive	12-18	100	3	2	60	1	SMA	26*18*10.2
FPS2-12000-18000-A-3	Absorptive	12-18	40	2.5	1.8	65	0.1	SMA	25*17.5*10.2
FPS2-12000-18000-A-4	Absorptive	12-18	35	2.8	2	60	0.1	SMA	25*17.5*10.2
FPS2-12000-18000-R-1	Reflective	12-18	100	2.8	2	60	1	SMA	25*17.5*10.2
FPS2-12000-18000-R-2	Reflective	12-18	100	2.8	2	70	1	SMA	26*18*10.2
FPS2-18000-40000-A-1	Absorptive	18-40	50	5	2.5	45	0.2	2.92mm	22*13*9.5

**SP3T**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS3-20-18000-A	Absorptive	0.02-18	250	5	2	60	1	SMA	40*25*12.5
FPS3-100-20000-A	Absorptive	0.1-20	100	3.8	2	80	1	SMA	40*20*10.2
FPS3-100-40000-A	Absorptive	0.1-40	50	5	2.8	60	0.2	2.92mm	24*20*12
FPS3-100-40000-R	Reflective	0.1-40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-380-18000-A	Absorptive	0.38-18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-500-18000-A	Absorptive	0.5-18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-500-18000-R	Reflective	0.5-18	100	2.8	2	80	1	SMA	40*20*10.2
FPS3-500-20000-A	Absorptive	0.5-20	100	3.8	2	80	1	SMA	40*20*10.2
FPS3-500-20000-R	Reflective	0.5-20	100	3.2	2	80	1	SMA	40*20*10.2



The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS3-500-40000-A	Absorptive	0.5~40	50	5	2.8	60	0.2	2.92mm	24*20*12
FPS3-500-40000-R	Reflective	0.5~40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-500-43500-A	Absorptive	0.5~43.5	50	5.5	2.8	60	0.2	2.92mm	24*20*12
FPS3-500-43500-R	Reflective	0.5~43.5	100	4	2.2	45	0.2	2.92mm	24*20*12
FPS3-800-6000-A	Absorptive	0.8~6	100	1.8	1.5	80	1	SMA	40*20*10.2
FPS3-800-18000-A	Absorptive	0.8~18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-1000-2000-R	Reflective	1~2	100	1.1	1.5	80	1	SMA	40*20*10.2
FPS3-1000-8000-A	Absorptive	1~8	100	2	1.5	80	1	SMA	40*20*10.2
FPS3-1000-8000-R	Reflective	1~8	100	1.8	1.5	80	1	SMA	40*20*10.2
FPS3-1000-18000-A	Absorptive	1~18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-1000-18000-R	Reflective	1~18	100	2.8	2	80	1	SMA	40*20*10.2
FPS3-1000-20000-A	Absorptive	1~20	100	3.8	2	80	1	SMA	40*20*10.2
FPS3-1000-20000-R	Reflective	1~20	100	3.2	2	80	1	SMA	40*20*10.2
FPS3-1000-40000-A	Absorptive	1~40	50	5	2.8	60	0.2	2.92mm	24*20*12
FPS3-1000-40000-R	Reflective	1~40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-2000-4000-A	Absorptive	2~4	100	1.5	1.5	80	1	SMA	40*20*10.2
FPS3-2000-4000-R	Reflective	2~4	100	1.3	1.5	80	1	SMA	40*20*10.2
FPS3-2000-8000-A	Absorptive	2~8	100	2	1.5	80	1	SMA	40*20*10.2
FPS3-2000-8000-R	Reflective	2~8	100	1.8	1.5	80	1	SMA	40*20*10.2
FPS3-2000-18000-A	Absorptive	2~18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-2000-18000-R	Reflective	2~18	100	2.8	2	80	1	SMA	40*20*10.2
FPS3-2000-20000-A	Absorptive	2~20	100	3.8	2	80	1	SMA	40*20*10.2
FPS3-2000-20000-R	Reflective	2~20	100	3.2	2	80	1	SMA	40*20*10.2
FPS3-2000-40000-A	Absorptive	2~40	50	5	2.8	60	0.2	2.92mm	24*20*12
FPS3-2000-40000-R	Reflective	2~40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-3000-6000-A	Absorptive	3~6	100	1.8	1.5	80	1	SMA	40*20*10.2
FPS3-3000-6000-R	Reflective	3~6	100	1.5	1.5	80	1	SMA	40*20*10.2
FPS3-4000-8000-A	Absorptive	4~8	100	2	1.5	80	1	SMA	40*20*10.2
FPS3-4000-8000-R	Reflective	4~8	100	1.8	1.5	80	1	SMA	40*20*10.2
FPS3-5000-10000-A	Absorptive	5~10	100	2.5	1.5	80	1	SMA	40*20*10.2
FPS3-5000-10000-R	Reflective	5~10	100	2	1.8	80	1	SMA	40*20*10.2
FPS3-6000-12000-A	Absorptive	6~12	100	2.6	1.8	80	1	SMA	40*20*10.2
FPS3-6000-40000-A	Absorptive	6~40	50	5	2.8	60	0.2	2.92mm	24*20*12
FPS3-6000-40000-R	Reflective	6~40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-8000-12000-A	Absorptive	8~12	100	2.6	1.8	80	1	SMA	40*20*10.2
FPS3-8000-12000-R	Reflective	8~12	100	2.3	1.8	80	1	SMA	40*20*10.2
FPS3-10000-40000-A	Absorptive	10~40	50	5	2.2	60	0.2	2.92mm	24*20*12
FPS3-10000-40000-R	Reflective	10~40	100	3.5	2	45	0.2	2.92mm	24*20*12
FPS3-12000-18000-A	Absorptive	12~18	100	3.5	2	80	1	SMA	40*20*10.2
FPS3-12000-18000-R	Reflective	12~18	100	2.8	2	80	1	SMA	40*20*10.2
FPS3-26000-40000-A	Absorptive	26~40	50	5	2	60	0.2	2.92mm	24*20*12
FPS3-26000-40000-R	Reflective	26~40	100	3.5	2	45	0.2	2.92mm	24*20*12

**SP4T**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS4-10-20000-A	Absorptive	0.01~20	200	5.5	2	60	0.5	SMA	52*20*10.2
FPS4-100-40000-A	Absorptive	0.1~40	100	6	3	65	0.2	2.92mm	50.8*20*10.2
FPS4-100-40000-R	Reflective	0.1~40	150	5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-200-35000-A	Absorptive	0.2~35	100	5.5	2.5	60	0.2	2.92mm	50.8*20*10.2
FPS4-200-35000-R	Reflective	0.2~35	150	5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-400-8000-A	Absorptive	0.4~8	100	2	1.7	60	1	SMA	52*20*10.2
FPS4-500-18000-A-1	Absorptive	0.5~18	100	3.2	2	75	1	SMA	31.75*31.75*12
FPS4-500-18000-A	Absorptive	0.5~18	100	3.5	2	60	1	SMA	52*20*10.2
FPS4-500-18000-R	Reflective	0.5~18	100	3.3	2	80	1	SMA	52*20*10.2
FPS4-500-20000-A	Absorptive	0.5~20	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS4-500-24000-A	Absorptive	0.5~24	100	4	2.5	60	0.2	2.92mm	50.8*20*10.2
FPS4-500-24000-R	Reflective	0.5~24	150	4	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-500-26500-A	Absorptive	0.5~26.5	100	4.7	2.7	65	0.2	2.92mm	50.8*20*10.2
FPS4-500-26500-R	Reflective	0.5~26.5	150	4	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-500-40000-A-1	Absorptive	0.5~40	100	6	2.7	65	0.2	2.92mm	50.8*20*10.2



The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS4-500-40000-A-2	Absorptive	0.5~40	50	6.5	3	70	0.2	2.92mm	31.18*27*12
FPS4-500-40000-A	Absorptive	0.5~40	100	6	2.7	65	0.2	2.92mm	50.8*20*10.2
FPS4-500-40000-R	Reflective	0.5~40	150	5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-500-43500-A	Absorptive	0.5~43.5	100	6.5	3	65	0.2	2.4mm	50.8*20*10.2
FPS4-500-43500-R	Reflective	0.5~43.5	150	5.8	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-800-18000-R	Reflective	0.8~18	100	3.3	2	75	1	SMA	52*20*10.2
FPS4-800-30000-R	Reflective	0.8~30	150	4.5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-1000-2000-A	Absorptive	1~2	100	1.2	1.5	80	1	SMA	31.75*31.75*12
FPS4-1000-2000-R	Reflective	1~2	100	1.2	1.5	80	1	SMA	52*20*10.2
FPS4-1000-8000-A	Absorptive	1~8	100	2	1.5	80	1	SMA	31.75*31.75*12
FPS4-1000-8000-R	Reflective	1~8	100	2.2	1.8	80	1	SMA	52*20*10.2
FPS4-1000-18000-A	Absorptive	1~18	100	3.2	2	75	1	SMA	31.75*31.75*12
FPS4-1000-18000-R	Reflective	1~18	100	3.3	2	75	1	SMA	52*20*10.2
FPS4-1000-20000-A	Absorptive	1~20	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS4-1000-20000-R	Reflective	1~20	100	3.5	2	75	1	SMA	52*20*10.2
FPS4-1000-40000-A-1	Absorptive	1~40	100	6	2.7	65	0.2	2.92mm	50.8*20*10.2
FPS4-1000-40000-A-2	Absorptive	1~40	50	6.5	3	70	0.2	2.92mm	31.18*27*12
FPS4-1000-40000-R	Reflective	1~40	150	5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-2000-4000-A	Absorptive	2~4	100	1.6	1.5	80	1	SMA	31.75*31.75*12
FPS4-2000-4000-R	Reflective	2~4	100	1.5	1.8	80	1	SMA	52*20*10.2
FPS4-2000-8000-A	Absorptive	2~8	100	2	1.5	80	1	SMA	31.75*31.75*12
FPS4-2000-8000-R	Reflective	2~8	100	2.2	1.8	80	1	SMA	52*20*10.2
FPS4-2000-18000-A	Absorptive	2~18	100	3.2	2	75	1	SMA	31.75*31.75*12
FPS4-2000-18000-R	Reflective	2~18	100	3.3	2	75	1	SMA	52*20*10.2
FPS4-2000-20000-A	Absorptive	2~20	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS4-2000-20000-R	Reflective	2~20	100	3.5	2	75	1	SMA	52*20*10.2
FPS4-2000-40000-A-1	Absorptive	2~40	100	6	2.7	65	0.2	2.92mm	50.8*20*10.2
FPS4-2000-40000-A-2	Absorptive	2~40	50	6.5	3	70	0.2	2.92mm	31.18*27*12
FPS4-2000-40000-R	Reflective	2~40	150	5	2.2	60	0.2	2.92mm	50.8*20*10.2
FPS4-3000-6000-A	Absorptive	3~6	100	1.8	1.5	80	1	SMA	31.75*31.75*12
FPS4-4000-8000-A	Absorptive	4~8	100	2	1.5	80	1	SMA	31.75*31.75*12
FPS4-4000-8000-R	Reflective	4~8	100	2.2	1.8	80	1	SMA	52*20*10.2
FPS4-5000-10000-A	Absorptive	5~10	100	2.4	1.7	80	1	SMA	31.75*31.75*12
FPS4-5000-10000-R	Reflective	5~10	100	2.4	1.8	80	1	SMA	52*20*10.2
FPS4-6000-12000-A	Absorptive	6~12	100	2.5	1.7	80	1	SMA	31.75*31.75*12
FPS4-6000-12000-R	Reflective	6~12	100	2.6	2	80	1	SMA	52*20*10.2
FPS4-6000-40000-A	Absorptive	6~40	100	6	2.7	65	0.2	2.92mm	50.8*20*10.2
FPS4-8000-12000-A	Absorptive	8~12	100	2.5	1.7	80	1	SMA	31.75*31.75*12
FPS4-8000-18000-R	Reflective	8~18	100	3.3	2	75	1	SMA	52*20*10.2
FPS4-8000-40000-A	Absorptive	8~40	50	6.5	3	60	0.2	2.92mm	31.18*27*12
FPS4-8000-40000-R	Reflective	8~40	100	5.5	2.5	60	0.2	2.92mm	31.18*27*12
FPS4-10000-40000-A	Absorptive	10~40	100	6	2	65	0.2	2.92mm	50.8*20*10.2
FPS4-12000-18000-A	Absorptive	12~18	100	3.2	2	75	1	SMA	31.75*31.75*12
FPS4-26000-40000-A	Absorptive	26~40	100	6	2	65	0.2	2.92mm	50.8*20*10.2

**SP5T**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS5-100-18000-A	Absorptive	0.1~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-100-18000-A-1	Absorptive	0.1~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-100-18000-R	Reflective	0.1~18	120	3	2	60	1	SMA	65*22*10.2
FPS5-300-20000-A	Absorptive	0.3~20	100	3.7	2	75	1	SMA	31.75*31.75*12
FPS5-400-8000-A	Absorptive	0.4~8	120	2.2	1.5	70	1	SMA	65*22*10.2
FPS5-400-8000-R	Reflective	0.4~8	120	2	1.5	70	1	SMA	65*22*10.2
FPS5-400-12000-A	Absorptive	0.4~12	120	2.8	1.7	65	1	SMA	65*22*10.2
FPS5-400-12000-R	Reflective	0.4~12	120	2.4	1.7	65	1	SMA	65*22*10.2
FPS5-500-18000-A	Absorptive	0.5~18	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS5-500-20000-A	Absorptive	0.5~20	100	3.7	2	75	1	SMA	31.75*31.75*12
FPS5-500-40000-R	Reflective	0.5~40	100	6.5	2.5	60	0.2	2.92mm	65*20*10.2
FPS5-1000-2000-A-1	Absorptive	1~2	120	1.5	1.5	80	1	SMA	65*22*10.2
FPS5-1000-2000-A-2	Absorptive	1~2	100	1.2	1.5	80	1	SMA	31.75*31.75*12

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS5-1000-2000-R	Reflective	1~2	120	1.2	1.5	80	1	SMA	65*22*10.2
FPS5-1000-8000-A-1	Absorptive	1~8	120	2.2	1.5	70	1	SMA	65*22*10.2
FPS5-1000-8000-A-2	Absorptive	1~8	100	2.2	1.5	80	1	SMA	31.75*31.75*12
FPS5-1000-8000-R	Reflective	1~8	120	2	1.5	70	1	SMA	65*22*10.2
FPS5-1000-18000-A-1	Absorptive	1~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-1000-18000-A-2	Absorptive	1~18	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS5-1000-18000-R	Reflective	1~18	120	3	2	60	1	SMA	65*22*10.2
FPS5-1000-20000-A	Absorptive	1~20	100	3.7	2	75	1	SMA	31.75*31.75*12
FPS5-1000-40000-R	Reflective	1~40	100	6.5	2.5	60	0.2	2.92mm	65*20*10.2
FPS5-2000-4000-A-1	Absorptive	2~4	120	1.8	1.5	80	1	SMA	65*22*10.2
FPS5-2000-4000-R	Reflective	2~4	100	1.7	1.5	80	1	SMA	65*22*10.2
FPS5-2000-4000-A-2	Absorptive	2~4	100	1.7	1.5	80	1	SMA	31.75*31.75*12
FPS5-2000-8000-A-1	Absorptive	2~8	120	2.2	1.5	70	1	SMA	65*22*10.2
FPS5-2000-8000-A-2	Absorptive	2~8	100	2.2	1.5	80	1	SMA	31.75*31.75*12
FPS5-2000-8000-R	Reflective	2~8	120	2	1.5	70	1	SMA	65*22*10.2
FPS5-2000-18000-A-1	Absorptive	2~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-2000-18000-A-2	Absorptive	2~18	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS5-2000-18000-R	Reflective	2~18	120	3	2	60	1	SMA	65*22*10.2
FPS5-2000-20000-A	Absorptive	2~20	100	3.7	2	75	1	SMA	31.75*31.75*12
FPS5-2000-40000-R	Reflective	2~40	100	6.5	2.5	60	0.2	2.92mm	65*20*10.2
FPS5-3000-6000-A-1	Absorptive	3~6	120	2	1.5	75	1	SMA	65*22*10.2
FPS5-3000-6000-A-2	Absorptive	3~6	100	1.8	1.5	80	1	SMA	31.75*31.75*12
FPS5-3000-6000-R	Reflective	3~6	120	1.5	1.5	70	1	SMA	65*22*10.2
FPS5-4000-8000-A-1	Absorptive	4~8	120	2.2	1.5	70	1	SMA	65*22*10.2
FPS5-4000-8000-A-2	Absorptive	4~8	100	2.2	1.5	80	1	SMA	31.75*31.75*12
FPS5-4000-8000-R	Reflective	4~8	120	2	1.5	70	1	SMA	65*22*10.2
FPS5-5000-10000-A-1	Absorptive	5~10	120	2.6	1.7	70	1	SMA	65*22*10.2
FPS5-5000-10000-A-2	Absorptive	5~10	100	2.5	1.7	80	1	SMA	31.75*31.75*12
FPS5-5000-10000-R	Reflective	5~10	120	2.2	1.7	65	1	SMA	65*22*10.2
FPS5-6000-12000-A-1	Absorptive	6~12	120	2.8	1.7	65	1	SMA	65*22*10.2
FPS5-6000-12000-A-2	Absorptive	6~12	100	2.8	1.7	80	1	SMA	31.75*31.75*12
FPS5-6000-12000-R	Reflective	6~12	120	2.4	1.7	65	1	SMA	65*22*10.2
FPS5-6000-18000-A	Absorptive	6~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-6000-18000-R	Reflective	6~18	120	3	2	60	1	SMA	65*22*10.2
FPS5-6000-40000-R	Reflective	6~40	100	6.5	2.5	60	0.2	2.92mm	65*20*10.2
FPS5-8000-12000-A	Absorptive	8~12	100	2.8	1.7	80	1	SMA	31.75*31.75*12
FPS5-12000-18000-A-1	Absorptive	12~18	120	3.5	2	60	1	SMA	65*22*10.2
FPS5-12000-18000-A-2	Absorptive	12~18	100	3.5	2	75	1	SMA	31.75*31.75*12
FPS5-12000-18000-R	Reflective	12~18	120	3	2	60	1	SMA	65*22*10.2
FPS5-18000-40000-R	Reflective	18~40	100	6.5	2.5	60	0.2	2.92mm	65*20*10.2

**SP6T**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS6-100-12000-A	Absorptive	0.1~12	120	3.2	1.7	70	1	SMA	78*24*10.2
FPS6-100-18000-A	Absorptive	0.1~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-100-20000-A	Absorptive	0.1~20	120	4.5	2	60	1	SMA	78*24*10.2
FPS6-400-8000-A	Absorptive	0.4~8	120	2.5	2	80	1	SMA	78*24*10.2
FPS6-400-18000-A	Absorptive	0.4~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-500-18000-A	Absorptive	0.5~18	100	3.2	1.7	60	1	SMA	31.75*31.75*12
FPS6-500-20000-A-1	Absorptive	0.5~20	120	4.5	2	60	1	SMA	78*24*10.2
FPS6-500-20000-A-2	Absorptive	0.5~20	100	3.6	2	60	1	SMA	31.75*31.75*12
FPS6-800-18000-A	Absorptive	0.8~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-800-20000-A	Absorptive	0.8~20	120	4.5	2	60	1	SMA	78*24*10.2
FPS6-1000-2000-A-1	Absorptive	1~2	120	1.3	1.5	75	1	SMA	78*24*10.2
FPS6-1000-2000-A-2	Absorptive	1~2	100	1.3	1.5	80	1	SMA	31.75*31.75*12
FPS6-1000-8000-A-1	Absorptive	1~8	120	2.5	1.5	65	1	SMA	78*24*10.2
FPS6-1000-8000-A-2	Absorptive	1~8	100	2.2	1.7	70	1	SMA	31.75*31.75*12
FPS6-1000-18000-A	Absorptive	1~18	100	4.2	2	70	1	SMA	78*24*10.2
FPS6-1000-18000-A-1	Absorptive	1~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-1000-18000-A-2	Absorptive	1~18	100	3.2	2	60	1	SMA	31.75*31.75*12

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS6-1000-20000-A-1	Absorptive	1~20	120	4.5	2	60	1	SMA	78*24*10.2
FPS6-1000-20000-A-2	Absorptive	1~20	100	3.6	2	60	1	SMA	31.75*31.75*12
FPS6-2000-4000-A-1	Absorptive	2~4	120	1.8	1.5	75	1	SMA	78*24*10.2
FPS6-2000-4000-A-2	Absorptive	2~4	100	1.5	1.5	80	1	SMA	31.75*31.75*12
FPS6-2000-8000-A-1	Absorptive	2~8	120	2.5	1.5	65	1	SMA	78*24*10.2
FPS6-2000-8000-A-2	Absorptive	2~8	100	2.2	1.7	70	1	SMA	31.75*31.75*12
FPS6-2000-12000-A	Absorptive	2~12	120	3.2	1.7	65	1	SMA	78*24*10.2
FPS6-2000-18000-A-1	Absorptive	2~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-2000-18000-A-2	Absorptive	2~18	100	3.2	2	60	1	SMA	31.75*31.75*12
FPS6-2000-20000-A-1	Absorptive	2~20	120	4.5	2	60	1	SMA	78*24*10.2
FPS6-2000-20000-A-2	Absorptive	2~20	100	3.6	2	60	1	SMA	31.75*31.75*12
FPS6-3000-6000-A-1	Absorptive	3~6	120	2	1.5	65	1	SMA	78*24*10.2
FPS6-3000-6000-A-2	Absorptive	3~6	100	1.8	1.5	75	1	SMA	31.75*31.75*12
FPS6-4000-8000-A-1	Absorptive	4~8	120	2.5	1.5	65	1	SMA	78*24*10.2
FPS6-4000-8000-A-2	Absorptive	4~8	100	2.2	1.7	70	1	SMA	31.75*31.75*12
FPS6-5000-10000-A-1	Absorptive	5~10	120	2.8	1.7	65	1	SMA	78*24*10.2
FPS6-5000-10000-A-2	Absorptive	5~10	100	2.3	1.7	70	1	SMA	31.75*31.75*12
FPS6-6000-12000-A-1	Absorptive	6~12	120	3.2	1.7	65	1	SMA	78*24*10.2
FPS6-6000-12000-A-2	Absorptive	6~12	100	2.5	1.7	70	1	SMA	31.75*31.75*12
FPS6-6000-18000-A	Absorptive	6~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-8000-12000-A	Absorptive	8~12	100	2.5	1.7	70	1	SMA	31.75*31.75*12
FPS6-12000-18000-A-1	Absorptive	12~18	120	4.2	2	60	1	SMA	78*24*10.2
FPS6-12000-18000-A-2	Absorptive	12~18	100	3.2	2	60	1	SMA	31.75*31.75*12

#### SP8T

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS8-100-18000-A	Absorptive	0.1~18	120	4.8	2	80	1	SMA	104*24*10.2
FPS8-100-20000-A	Absorptive	0.1~20	120	5	2	80	1	SMA	104*24*10.2
FPS8-400-8000-A	Absorptive	0.4~8	120	3.2	1.7	70	1	SMA	104*24*10.2
FPS8-400-12000-A	Absorptive	0.4~12	120	4	1.8	80	1	SMA	104*24*10.2
FPS8-500-18000-A	Absorptive	0.5~18	120	4.8	2	80	1	SMA	104*24*10.2
FPS8-500-18000-R	Reflective	0.5~18	100	4	1.5	60	1	SMA	104*24*10.2
FPS8-500-20000-A	Absorptive	0.5~20	120	5	2	80	1	SMA	104*24*10.2
FPS8-500-40000-A	Absorptive	0.5~40	50	10	3	45	0.2	2.92mm	37*37*12
FPS8-800-18000-R	Reflective	0.8~18	100	4	1.5	60	1	SMA	104*24*10.2
FPS8-1000-2000-A	Absorptive	1~2	120	1.7	1.8	80	1	SMA	104*24*10.2
FPS8-1000-8000-A	Absorptive	1~8	120	3	1.8	80	1	SMA	104*24*10.2
FPS8-1000-18000-A	Absorptive	1~18	120	2.5	1.8	80	1	SMA	104*24*10.2
FPS8-1000-20000-A	Absorptive	1~20	120	5	2	80	1	SMA	104*24*10.2
FPS8-2000-4000-A	Absorptive	2~4	120	2.5	1.8	80	1	SMA	104*24*10.2
FPS8-2000-6000-A	Absorptive	2~6	120	2.6	1.8	80	1	SMA	104*24*10.2
FPS8-2000-8000-A	Absorptive	2~8	120	3	1.5	80	1	SMA	104*24*10.2
FPS8-2000-18000-A	Absorptive	2~18	120	4.8	2	80	1	SMA	104*24*10.2
FPS8-2000-20000-A	Absorptive	2~20	120	5	2	80	1	SMA	104*24*10.2
FPS8-3000-6000-A	Absorptive	3~6	120	2.6	1.8	80	1	SMA	104*24*10.2
FPS8-4000-8000-A	Absorptive	4~8	120	3	1.8	80	1	SMA	104*24*10.2
FPS8-5000-10000-A	Absorptive	5~10	120	3.5	1.8	80	1	SMA	104*24*10.2
FPS8-6000-12000-A	Absorptive	6~12	120	4	1.8	80	1	SMA	104*24*10.2
FPS8-6000-18000-A	Absorptive	6~18	120	4.8	2	80	1	SMA	104*24*10.2
FPS8-10000-40000-A	Absorptive	10~40	50	8.5	2.8	45	0.2	2.92mm	37*37*12
FPS8-10000-40000-R	Reflective	10~40	50	9	2.5	45	0.2	2.92mm	37*37*12
FPS8-12000-18000-A	Absorptive	12~18	120	4.8	2	80	1	SMA	104*24*10.2

#### SP12T

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS12-26000-40000-A	Absorptive	26~40	100	9	2.5	45	0.2	2.92mm	203.2*30*10.2

**SP16T**

The sizes in the following table do not include connectors.

Part Number	Switch Type	Frequency (GHz)	Switching Time (nS, max.)	Insertion Loss (dB, max.)	VSWR (max.)	Isolation (dB, min.)	Input Power (W)	Connector	Size* (mm)
FPS16-200-20000-A	Absorptive	0.2~20	150	7.5	2	80	1	SMA	203.2*30*10.2
FPS16-400-8000-A	Absorptive	0.4~8	150	4.2	1.7	80	1	SMA	203.2*30*10.2
FPS16-400-12000-A	Absorptive	0.4~12	150	5.2	1.8	80	1	SMA	203.2*30*10.2
FPS16-500-18000-A	Absorptive	0.5~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-500-20000-A	Absorptive	0.5~20	150	7.5	2	80	1	SMA	203.2*30*10.2
FPS16-500-26000-R	Reflective	0.5~26	200	9.5	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-500-40000-R	Reflective	0.5~40	200	12.5	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-800-18000-A	Absorptive	0.8~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-800-20000-A	Absorptive	0.8~20	150	7.5	2	80	1	SMA	203.2*30*10.2
FPS16-1000-2000-A	Absorptive	1~2	150	2.5	1.5	80	1	SMA	203.2*30*10.2
FPS16-1000-8000-A	Absorptive	1~8	150	4.2	1.7	80	1	SMA	203.2*30*10.2
FPS16-1000-18000-A	Absorptive	1~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-1000-20000-A	Absorptive	1~20	150	7.5	2	80	1	SMA	203.2*30*10.2
FPS16-1000-40000-R	Reflective	1~40	200	12.5	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-2000-4000-A	Absorptive	2~4	150	3.2	1.7	80	1	SMA	203.2*30*10.2
FPS16-2000-8000-A	Absorptive	2~8	150	4.2	1.7	80	1	SMA	203.2*30*10.2
FPS16-2000-12000-A	Absorptive	2~12	150	5.2	1.8	80	1	SMA	203.2*30*10.2
FPS16-2000-18000-A	Absorptive	2~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-2000-20000-A	Absorptive	2~20	150	7.5	2	80	1	SMA	203.2*30*10.2
FPS16-2000-40000-R	Reflective	2~40	200	12.5	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-3000-6000-A	Absorptive	3~6	150	3.7	1.7	80	1	SMA	203.2*30*10.2
FPS16-4000-8000-A	Absorptive	4~8	150	4.2	1.7	80	1	SMA	203.2*30*10.2
FPS16-5000-10000-A	Absorptive	5~10	150	4.7	1.8	80	1	SMA	203.2*30*10.2
FPS16-6000-12000-A	Absorptive	6~12	150	5.2	1.8	80	1	SMA	203.2*30*10.2
FPS16-6000-18000-A	Absorptive	6~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-8000-40000-R	Reflective	8~40	150	12	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-10000-40000-R	Reflective	10~40	100	15	2.5	65	0.2	2.92mm	203.2*30*10.2
FPS16-10000-40000-R-1	Reflective	10~40	150	12	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-12000-18000-A	Absorptive	12~18	150	7	2	80	1	SMA	203.2*30*10.2
FPS16-18000-40000-R	Reflective	18~40	150	12	2.5	60	0.2	2.92mm	203.2*30*10.2
FPS16-26500-40000-R	Reflective	26.5~40	150	12	2.5	60	0.2	2.92mm	203.2*30*10.2

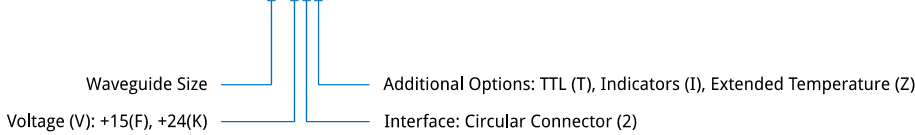
## Waveguide Switches

Waveguide switch is a common component in microwave electronic equipment. Its function is to select microwave channels on demand and achieve high-quality transmission of signals. Compared with other microwave switches, electromechanical microwave waveguide switches have the characteristics of low VSWR, low insertion loss and large power capacity, and have been widely used in radar, electronic countermeasure and other systems.

Freflex supplies waveguide switches work at 3.95~110GHz, the waveguide port covers WR-187 to WR-10.

### How To Order Waveguide Switches:

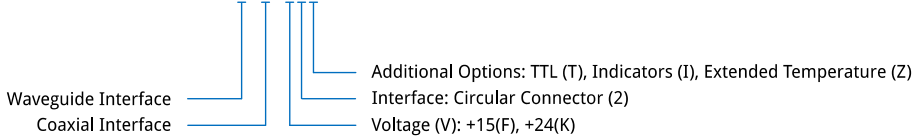
FWSD-W-XYZ



**Examples:** To order a waveguide switch, DPDT, WR-10, +24V, TTL control, indicator, specify FWSD-10-K2TI.

### How To Order Waveguide Coaxial Switches:

FWCSD-V-W-XYZ



**Examples:** To order a waveguide coaxial switch, DPDT, WR42, SMA, +24V, TTL control, indicator, specify FWCSD-42-S-K2TI.



## Waveguide Switches

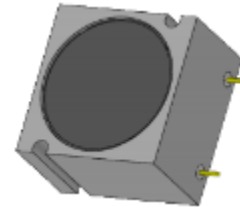
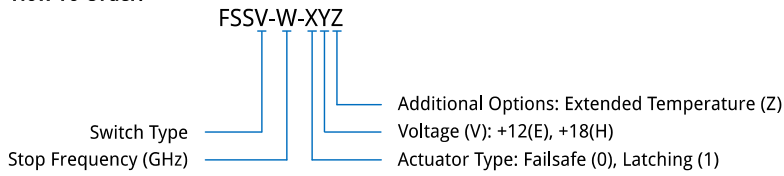
Part Number	Switch Type	Interface	Frequency (GHz)	Switching Time (mS)	IL. (dB, max.)	ISO. (dB, min.)	VSWR (max.)	Voltage (V)	O. TEMP. (°C)	Extended TEMP. (°C)	NO. TEMP. (°C)
FWSD-10-X2Z	DPDT	WR-10	75~110	50	0.4	50	1.2	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-12-X2Z	DPDT	WR-12	60~90	50	0.4	50	1.2	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-15-X2Z	DPDT	WR-15	50~75	50	0.4	50	1.2	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-18-X2Z	DPDT	WR-18	40~60	50	0.2	50	1.15	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-22-X2Z	DPDT	WR-22	33~50	50	0.2	50	1.15	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-28-X2Z	DPDT	WR-28	26.3~40	50	0.15	55	1.1	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-34-X2Z	DPDT	WR-34	22~33	50	0.15	55	1.1	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-42-X2Z	DPDT	WR-42	18~26.5	50	0.1	60	1.1	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-51-X2Z	DPDT	WR-51	15~22	50	0.1	60	1.1	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-62-X2Z	DPDT	WR-62	12.4~18	50	0.1	60	1.1	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-75-X2Z	DPDT	WR-75	10~15	50	0.05	60	1.08	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-90-X2Z	DPDT	WR-90	8.2~12.4	50	0.05	60	1.08	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-112-X2Z	DPDT	WR-112	7.05~10	60	0.05	60	1.08	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-137-X2Z	DPDT	WR-137	5.85~8.2	60	0.02	60	1.05	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-159-X2Z	DPDT	WR-159	4.9~7.05	80	0.02	70	1.05	+15, +24	-40~+85	-55~+85	-55~+105
FWSD-187-X2Z	DPDT	WR-187	3.95~5.85	80	0.02	80	1.05	+15, +24	-40~+85	-55~+85	-55~+105

**Waveguide Coaxial Switches**

Part Number	Switch Type	Interface	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR	Voltage (V)	O. TEMP. (°C)	Extended TEMP. (°C)	NO. TEMP. (°C)
FWCSD-42-S-X2Z	DPDT	SMA	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~11	0.30	60	1.30				
			11~15	0.35	50	1.35				
			15~18	0.50	50	1.50				
			WR-42	18~26.5	0.10	60				
FWCSD-51-S-X2Z	DPDT	SMA	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~11	0.30	60	1.30				
			11~15	0.35	50	1.35				
			15~18	0.50	50	1.50				
			WR-51	15~22	0.10	60				
FWCSD-62-S-X2Z	DPDT	SMA	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~11	0.30	60	1.30				
			11~15	0.35	50	1.35				
			15~18	0.50	50	1.50				
			WR-62	12.4~18	0.10	60				
FWCSD-75-S-X2Z	DPDT	SMA	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~11	0.30	60	1.30				
			11~15	0.35	50	1.35				
			15~18	0.50	50	1.50				
			WR-75	10~15	0.05	60				
FWCSD-90-S-X2Z	DPDT	SMA	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~11	0.30	60	1.30				
			11~15	0.35	50	1.35				
			15~18	0.50	50	1.50				
			WR-90	8.2~12.4	0.05	60				
FWCSD-112-N-X2Z	DPDT	N	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~8.5	0.30	60	1.30				
			WR-112	7.05~10	0.05	60				
FWCSD-137-N-X2Z	DPDT	N	DC~1	0.05	80	1.10	+15 +24	-40~+85	-55~+85	-55~+105
			1~2	0.10	70	1.15				
			2~6.5	0.25	60	1.25				
			6.5~8.5	0.30	60	1.30				
			WR-137	5.85~8.2	0.02	60				

## Surface Mount Relay Switches

### How To Order:

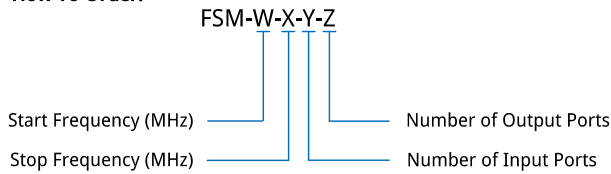


**Examples:** To order a surface mount relay switch, SPDT, DC-2GHz, failsafe, +12V, specify FSS2-2-0E.

Part Number	Switch Type	Connector	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR	Actuator Type	Voltage (V)
FSS2-W-XYZ	SPDT	PIN (Φ0.45mm)	DC~2	0.2	70	1.3	Failsafe Latching	+12 +18
			2~5	0.3	60	1.4		
			5~12	0.4	50	1.5		
			12~18	0.7	40	1.7		

## Switch Matrices

### How To Order:



**Examples:** To order a switch matrix, 30~3000MHz, 5\*15, specify FSM-30-3000-5-15.

The sizes in the following table do not include connectors.

Part Number	Frequency (GHz)	Insertion Loss (dB, max.)	Isolation (dB, min.)	VSWR (max.)	Voltage (V)	Current (mA)	Description	Connector	Size* (mm)
FSM-9K-30-8-8	9K~30	9	45	2.5	5	150	8*8	2.92mm	240*45*24
FSM-30-3000-5-15	0.03~3	2	50	-	5	500	5*15	SMA	240*60*20

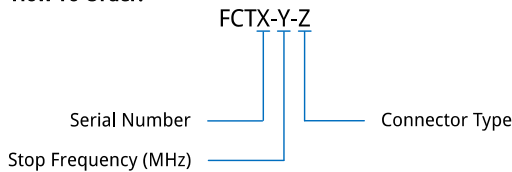
## Terminations

The main function of the termination is to absorb all the microwave energy from the transmission line and improve the matching performance of the circuit. It is usually connected to the terminal of the circuit, so it is also called terminal load or matching load.

Freflex supplies a series of terminations, including coaxial terminations, low power waveguide terminations, small size power waveguide terminations and high power waveguide terminations. The frequency range is up to 110GHz.

### Coaxial Terminations (50Ω)

#### How To Order:



**Examples:** To order a coaxial termination, DC~110GHz, 1.0mm male, specify FCT11001-110-1.

#### Features:

- ※ Low VSWR
- ※ High Power
- ※ Broadband

#### Applications:

- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching



### 0.5W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
					Male	Female	
FCT33R5-33-3	DC~33	0.5	1.25	3.5mm	L: 12	L: 11.9	-55~+125
FCT40R5-40-K	DC~40		1.25	2.92mm	L: 12	L: 11.9	
FCT40R5-40-A			1.30	SSMA	L: 10.9	L: 9.9	
FCT40R5-40-P			1.40	SMP	Φ4.8*9.9	Φ4.8*9.4	
FCT40R5-40-G			1.50	SSMP	Φ4.8*10.8	Φ4.8*10	
FCT50R5-50-2			DC~50	1.40	2.4mm	L: 12.4	
FCT67R5-67-V	DC~67		1.45	1.85mm	Φ9.3*16.1	Φ7*16.7	

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

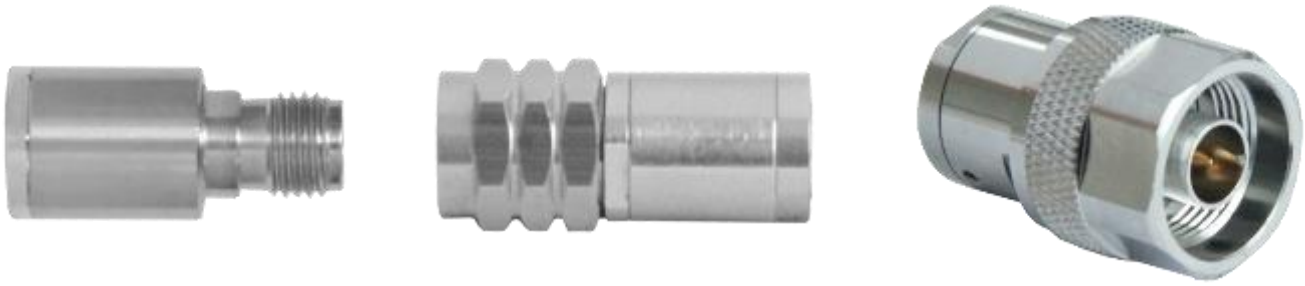
### 1W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
					Male	Female	
FCT1801-18-S	DC~18	1	1.25	SMA	Φ6.3*14.9	Φ6.3*13.8	-55~+125
FCT1801-18-A			1.25	SSMA	Φ6.3*16	-	-55~+85
FCT9001-90-5	DC~90		1.50	1.35mm	Φ8.8*15.1	-	-55~+125
FCT11001-110-1	DC~110		1.60	1.0mm	Φ7.5*13.7	Φ7.5*13.7	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

At present, only SSMA male termination can be available, SSMA female termination cannot be available.





2W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
					Male	Female	
FCT0402-4-D	DC~4	2	1.25	SMB	Φ6.4*12.9	Φ6.4*14.9	-55~+125
FCT0402-4-M			1.25	MCX	-	Φ6.1*14.9	
FCT0602-6-M	DC~6		1.25	MCX	Φ6.1*15.4	-	
FCT1802-4-N	DC~4		1.20	N	Φ16.5*30	Φ16.5*28	
FCT1802-8-N	DC~8		1.25				
FCT1802-12.4-N	DC~12.4		1.30				
FCT1802-18-N	DC~18		1.20				
FCT1802-4-T	DC~4		1.20	TNC	Φ25*68	Φ12.7*24	
FCT1802-8-T	DC~8		1.25				
FCT1802-12.4-T	DC~12.4		1.35				
FCT1802-18-T	DC~18		1.40				
FCT1802-4-A	DC~4		1.15	SSMA	Φ9*22.5	Φ9*21	
FCT1802-8-A	DC~8		1.20				
FCT1802-12.4-A	DC~12.4		1.25				
FCT1802-18-A	DC~18		1.30	SMA	Φ9*20	Φ9*19	
FCT2602-4-S	DC~4		1.15				
FCT2602-8-S	DC~8		1.20				
FCT2602-12.4-S	DC~12.4		1.25				
FCT2602-18-S	DC~18		1.15	3.5mm	L: 12.3	L: 12.6	
FCT2602-26.5-S	DC~26.5		1.20				
FCT3302-33-3	DC~33	1.15	3.5mm	L: 12	L: 11.9		
FCT4002-40-K	DC~40	1.20	2.92mm	L: 12	L: 11.9		
FCT4002-40-A		1.30	SSMA	L: 10.9	L: 9.9		
FCT4002-40-P		1.40	SMP	Φ4.8*9.9	Φ4.8*9.4		
FCT4002-40-G		1.50	SSMP	Φ4.8*10.8	Φ4.8*10		
FCT5002-50-2		DC~50	1.25	2.4mm	L: 12.4	L: 13	
FCT6702-67-V	DC~67	1.30	1.85mm	Φ9*11.9	Φ6.4*13.6		

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.



## 5W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size* (mm)		Temperature (°C)
								Male	Female	
FCT1805-4-N	DC~4	5	500	5	0.25	1.20	N	Φ16.5*36	-	-55~+125
FCT1805-8-N	DC~8					1.25				
FCT1805-12.4-N	DC~12.4					1.30				
FCT1805-18-N	DC~18					1.40				
FCT1805-4-S	DC~4		500	5	0.5	1.15	SMA	Φ19*20	-	-55~+125
FCT1805-8-S	DC~8					1.20				
FCT1805-12.4-S	DC~12.4					1.25				
FCT1805-18-S	DC~18					1.30				
FCT2605-26.5-S	DC~26.5		20	5	2.5	1.25	SMA	Φ15.8*28.4	Φ15.8*28.1	-55~+85
FCT2605-26.5-3	DC~26.5		500	5	0.5	1.20	3.5mm	Φ15.7*26.3	Φ15.7*25.5	-55~+125
FCT4005-40-K	DC~40		20	5	2.5	1.25	2.92mm	Φ15.8*29.6	Φ15.8*27.8	-55~+125
FCT5005-50-2	DC~50		20	5	2.5	1.30	2.4mm	Φ31.8*17.8	Φ31.8*17.8	-55~+125
FCT6705-67-V	DC~67		20	5	2.5	1.35	1.85mm	Φ31.8*17.8	Φ31.8*17.8	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

The sizes of FCT5005 & FCT6705 Series is exclude connector.

## 7W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
					Male	Female	
FCT1807-18-P	DC~18	7	1.50	SMP	15.4*14.5*7	-	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.



## 10W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT1810-4-N	DC~4	10	1000	5	0.5	1.20	N	Φ30*69.5	Φ30*64.5	-55~+125
FCT1810-8-N	DC~8					1.25				
FCT1810-12.4-N	DC~12.4					1.35				
FCT1810-18-N	DC~18					1.40				
FCT1810-4-T	DC~4		-	-	-	1.15	TNC	Φ30*33.5	-	
FCT1810-8-T	DC~8					1.25				
FCT1810-12.4-T	DC~12.4					1.35				
FCT1810-18-T	DC~18					1.40				
FCT1810-4-S	DC~4		500	5	1	1.20	SMA	Φ15.8*39.5	-	
FCT1810-8-S	DC~8					1.25				
FCT1810-12.4-S	DC~12.4					1.35				
FCT1810-18-S	DC~18					1.40				
FCT1810-4-P	DC~4		-	-	-	1.20	SMP	Φ14.5*15.4	-	
FCT1810-8-P	DC~8					1.25				
FCT1810-12.4-P	DC~12.4					1.35				
FCT1810-18-P	DC~18					1.50				
FCT2610-26.5-S	DC~26.5	100	5	5	1.25	SMA	Φ31.8*28.4	Φ31.8*28.1	-55~+85	
FCT2610-26.5-3	DC~26.5	1000	5	0.5	1.25	3.5mm	Φ16.5*41	Φ16.5*40.2		
FCT4010-40-K	DC~40	100	5	5	1.25	2.92mm	Φ31.8*29.6	Φ31.8*27.8	-55~+125	
FCT5010-50-2	DC~50	100	5	5	1.40	2.4mm	Φ40*47.7	-	-55~+125	
FCT6710-67-V	DC~67	100	5	5	1.40	1.85mm	Φ40*47.7	-	-55~+125	

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 20W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT1820-4-N	DC~4	20	5000	5	1	1.20	N	-	-	-55~+125
FCT1820-8-N	DC~8					1.25				
FCT1820-12.4-N	DC~12.4					1.35				
FCT1820-18-N	DC~18		1000	5	1	1.40				
FCT1820-4-S	DC~4		500	5	2	1.20	SMA	Φ38*39.5	-	
FCT1820-8-S	DC~8					1.25				
FCT1820-12.4-S	DC~12.4					1.35				
FCT1820-18-S	DC~18					1.40				
FCT2620-26.5-S	DC~26.5	200	5	10	1.30	SMA	Φ44*44.4	Φ44*44.1		
FCT4020-40-K	DC~40	200	5	10	1.30	2.92mm	Φ44*45.6	Φ44*43.8		

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 25W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT1825-4-N	DC~4	25	5000	5	1.25	1.20	N	Φ44*74	-	-55~+125
FCT1825-8-N	DC~8					1.25				
FCT1825-12.4-N	DC~12.4					1.35				
FCT1825-18-N	DC~18					1.40				
FCT1825-4-S	DC~4		500	5	2.5	1.15	SMA	Φ38*51.5	-	
FCT1825-8-S	DC~8					1.20				
FCT1825-12.4-S	DC~12.4					1.25				
FCT1825-18-S	DC~18					1.30				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 30W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT2630-26.5-S	DC~26.5	30	200	5	10	1.30	SMA	Φ54*52.4	Φ54*52.1	-55~+125
FCT4030-40-K	DC~40		200	5	10	1.30	2.92mm	Φ54*53.6	Φ54*51.8	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 50W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT1850-4-B	DC~4	50	500	5	5	1.20	BNC	Φ64*89	-	-55~+125
FCT1850-6-B	DC~6					1.25				
FCT1850-4-N	DC~4					1.20				
FCT1850-8-N	DC~8		5000	5	0.5	1.25	N	Φ64*90	Φ64*85	-55~+125
FCT1850-12.4-N	DC~12.4					1.35				
FCT1850-18-N	DC~18					1.40				
FCT1850-4-T	DC~4		5000	5	0.5	1.20	TNC	Φ64*88.5	Φ64*84.5	-55~+125
FCT1850-8-T	DC~8					1.25				
FCT1850-12.4-T	DC~12.4					1.35				
FCT1850-18-T	DC~18		1000	5	2.5	1.40	SMA	Φ38*81.5	Φ64*89.5	-55~+125
FCT1850-4-S	DC~4		500	5	5	1.15				
FCT1850-8-S	DC~8					1.20				
FCT1850-12.4-S	DC~12.4					1.25				
FCT1850-18-S	DC~18		1.30							
FCT2650-26.5-S	DC~26.5		200	5	10	1.30	SMA	Φ54*99.4	Φ54*99.1	-55~+85
FCT2650-26.5-3	DC~26.5		1000	5	2.5	1.25	3.5mm	Φ63*63.5	Φ63*62.7	-55~+85
FCT4050-40-K	DC~40		200	5	10	1.35	2.92mm	Φ54*100.6	Φ54*98.8	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.



## 100W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K1-4-N	DC~4	100	5000	5	1	1.15	N	Φ64*141	Φ64*136	-55~+125
FCT18K1-8-N	DC~8					1.20				
FCT18K1-12.4-N	DC~12.4					1.25				
FCT18K1-18-N	DC~18		1000	5	5	1.35	SMA	Φ64*141	Φ64*140.5	-55~+125
FCT18K1-4-S	DC~4		1.15							
FCT18K1-8-S	DC~8		1.20							
FCT18K1-12.4-S	DC~12.4		1.25							
FCT18K1-18-S	DC~18		500	5	10	1.35	SMA	Φ63*119.2	-	-55~+85
FCT26K1-26.5-S	DC~26.5		500	5	10	1.40	SMA	Φ63*119.2	-	-55~+85
FCT40K1-40-K	DC~40		200	5	10	1.40	2.92mm	181*160*90	-	-55~+125

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 150W

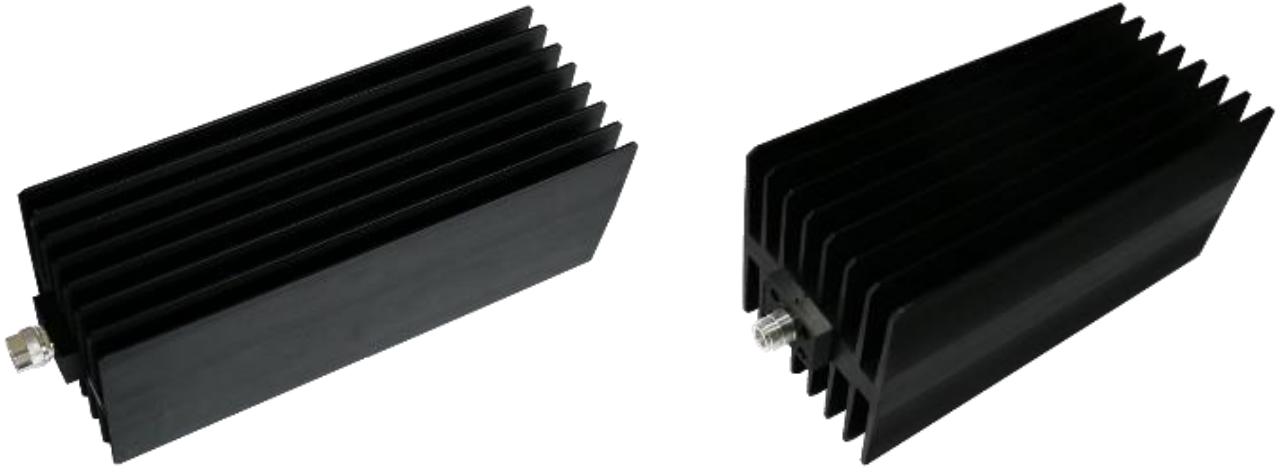
Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K15-4-N	DC~4	150	5000	5	1.5	1.20	N	192*120*110	-	-55~+125
FCT18K15-8-N	DC~8					1.25				
FCT18K15-12.4-N	DC~12.4					1.35				
FCT18K15-18-N	DC~18					1.45				
			1000	5	7.5	1.45				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 200W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K2-4-N	DC~4	200	5000	5	2	1.20	N	243*120*110	-	-55~+125
FCT18K2-8-N	DC~8					1.25				
FCT18K2-12.4-N	DC~12.4					1.35				
FCT18K2-18-N	DC~18					1.40				
			1000	5	10	1.40				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.



## 250W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K25-4-N	DC~4	250	5000	5	2.5	1.20	N	294*120*110	-	-55~+125
FCT18K25-8-N	DC~8					1.25				
FCT18K25-12.4-N	DC~12.4					1.35				
FCT18K25-18-N	DC~18					1.45				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 300W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K3-4-N	DC~4	300	5000	5	3	1.20	N	345*120*110	340*120*110	-55~+125
FCT18K3-8-N	DC~8					1.25				
FCT18K3-12.4-N	DC~12.4					1.35				
FCT18K3-18-N	DC~18					1.45				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 400W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K4-4-N	DC~4	400	5000	5	4	1.20	N	447*120*110	-	-55~+125
FCT18K4-8-N	DC~8					1.25				
FCT18K4-12.4-N	DC~12.4					1.35				
FCT18K4-18-N	DC~18					1.45				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 500W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K5-4-N	DC~4	500	5000	5	5	1.20	N	549*120*110	-	-55~+125
FCT18K5-8-N	DC~8					1.25				
FCT18K5-12.4-N	DC~12.4					1.35				
FCT18K5-18-N	DC~18					1.60				
FCT18K5-4-7	DC~4	-	-	-	-	1.2	7/16 DIN	553*120*110	-	-
FCT18K5-6-7	DC~6	-	-	-	-	1.25				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 600W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT18K6-4-N	DC~4	600	5000	5	6	1.20	N	549*120*110	544*120*110	-55~+125
FCT18K6-8-N	DC~8					1.25				
FCT18K6-12.4-N	DC~12.4					1.35				
FCT18K6-18-N	DC~18					1.45				

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

## 1000W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	With Roller	Size (mm)		Temperature (°C)
									Male	Female	
FCT081K-2-N-A	DC~2	1000	5000	5	10	1.20	N	No	-	800*130*130	-55~+125
FCT081K-4-N-A	DC~4					1.20					
FCT081K-6-N-A	DC~6					1.30					
FCT081K-8-N-A	DC~8					1.55					
FCT081K-2-N-B	DC~2		5000	5	10	1.20	N	Yes	-	806*392*128	
FCT081K-4-N-B	DC~4					1.20					
FCT081K-6-N-B	DC~6					1.30					
FCT081K-8-N-B	DC~8					1.55					

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

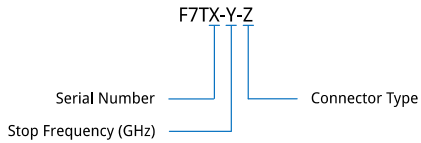
## 2000W

Part Number*	Frequency (GHz)	Average Power (W@25°C)	Peak Power (W)	Pulse Width (uS)	Duty Cycle (%)	VSWR (max.)	Connector	Size (mm)		Temperature (°C)
								Male	Female	
FCT042K-4-N	DC~4	2000	10000	5	10	1.75	N	-	627*410*170	-55~+125
FCT042K-4-7						1.75	7/16 DIN	-	-	

The part number in the above table is the default part number, and the connector type is male. If you need female termination, please add "F" after the part number.

### Coaxial Terminations (75Ω)

#### How To Order:



**Examples:** To order a coaxial termination, 1W, DC~1GHz, 75Ω, F male, specify F7T0301-1-F.

#### Features:

- ※ Low VSWR
- ※ Broadband

#### Applications:

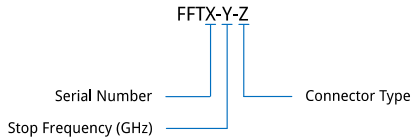
- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching

Part Number	Frequency (GHz)	Average Power (W@25°C)	VSWR	Connector	Temperature (°C)
F7T0301-1-F	DC~1	1	1.1	F (m)	-55~+125
F7T0301-1-B	DC~1	1	1.1	BNC (m)	-55~+125
F7T0301-2-F	DC~2	1	1.15	F (m)	-55~+125
F7T0301-2-B	DC~2	1	1.15	BNC (m)	-55~+125
F7T0301-3-F	DC~3	1	1.2	F (m)	-55~+125
F7T0301-3-B	DC~3	1	1.2	BNC (m)	-55~+125
F7T0302-1-F	DC~1	2	1.1	F (m)	-55~+125
F7T0302-1-B	DC~1	2	1.1	BNC (m)	-55~+125
F7T0302-1-N	DC~1	2	1.1	N (m)	-55~+125
F7T0302-2-F	DC~2	2	1.15	F (m)	-55~+125
F7T0302-2-B	DC~2	2	1.15	BNC (m)	-55~+125
F7T0302-2-N	DC~2	2	1.15	N (m)	-55~+125
F7T0302-3-F	DC~3	2	1.2	F (m)	-55~+125
F7T0302-3-B	DC~3	2	1.2	BNC (m)	-55~+125
F7T0302-3-N	DC~3	2	1.2	N (m)	-55~+125
F7T0305-3-F	DC~1	5	1.1	F (m)	-55~+125
F7T0305-3-B	DC~1	5	1.1	BNC (m)	-55~+125
F7T0305-3-N	DC~1	5	1.1	N (m)	-55~+125
F7T0305-2-F	DC~2	5	1.15	F (m)	-55~+125
F7T0305-2-B	DC~2	5	1.15	BNC (m)	-55~+125
F7T0305-2-N	DC~2	5	1.15	N (m)	-55~+125
F7T0305-3-F	DC~3	5	1.2	F (m)	-55~+125
F7T0305-3-B	DC~3	5	1.2	BNC (m)	-55~+125
F7T0305-3-N	DC~3	5	1.2	N (m)	-55~+125



## Feed-Thru Terminations

### How To Order:



**Examples:** To order a feed-thru termination, DC~2GHz, 5W, N male to N female, specify FFT0205-2-NNF.

### Features:

※ High Power

### Applications:

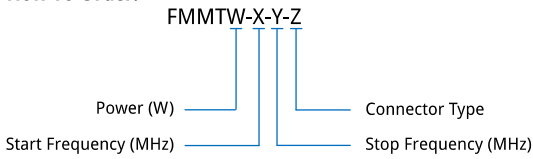
※ Instrument

Part Number	Frequency (GHz)	Power (W)	Impedance (Ω)	Weight (g)	Connector	Size (mm)	Temperature (°C)
FFT0205-2-NNF	DC~2	5	50	65	N (m)-N (f)	Φ20*70	-10~+50
FFT0205-2-BBF	DC~2	5	50	65	BNC (m)-BNC (f)	Φ20*70	-10~+50
FFT0205-2-TTF	DC~2	5	50	65	TNC (m)-TNC (f)	Φ20*70	-10~+50
FFT0210-2-NNF	DC~2	10	50	120	N (m)-N (f)	Φ38*80	-10~+50
FFT0210-2-BBF	DC~2	10	50	120	BNC (m)-BNC (f)	Φ38*80	-10~+50
FFT0210-2-TTF	DC~2	10	50	120	TNC (m)-TNC (f)	Φ38*80	-10~+50
FFT0225-2-NNF	DC~2	25	50	350	N (m)-N (f)	Φ44*116	-10~+50
FFT0225-2-BBF	DC~2	25	50	350	BNC (m)-BNC (f)	Φ44*116	-10~+50
FFT0225-2-TTF	DC~2	25	50	350	TNC (m)-TNC (f)	Φ44*116	-10~+50
FFT0250-2-NNF	DC~2	50	50	250	N (m)-N (f)	130*60*60	-10~+50
FFT0250-2-BBF	DC~2	50	50	250	BNC (m)-BNC (f)	130*60*60	-10~+50
FFT0250-2-TTF	DC~2	50	50	250	TNC (m)-TNC (f)	130*60*60	-10~+50
FFT02K1-2-NNF	DC~2	100	50	380	N (m)-N (f)	230*80*60	-10~+50
FFT02K1-2-BBF	DC~2	100	50	380	BNC (m)-BNC (f)	230*80*60	-10~+50
FFT02K1-2-TTF	DC~2	100	50	380	TNC (m)-TNC (f)	230*80*60	-10~+50

## Mismatch Terminations

### Manually Variable Mismatch Terminations

#### How To Order:



**Examples:** To order a manually variable mismatch termination, 100W, 850~960MHz, N female, specify FMMTK1-850-960-NF.

#### Features:

- ※ High Power
- ※ Narrow Band

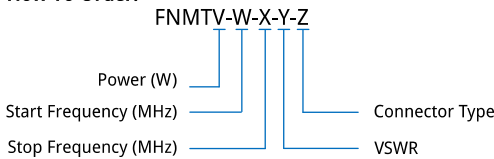
#### Applications:

- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching

Part Number	Frequency (GHz)	Power (W)	VSWR (max.)	Calibrate Frequency (MHz)	Weight (Kg)	Connector	Size (mm)	Temperature (°C)
FMMTK1-850-960-NF	0.85~0.96	100	1.2~5 (Variable)	905	1.6	N (f)	173*102*75	-40~+65
FMMTK1-1920-2170-NF	1.92~2.17	100	1.2~5 (Variable)	2045	1.6	N (f)	173*102*75	-40~+65

### Narrow Band Mismatch Terminations

#### How To Order:



**Examples:** To order a narrow band mismatch termination, 50W, 7600~8400MHz, VSWR 4, SMA female, specify FNMT50-7600-8400-4-SF.

#### Features:

- ※ Low VSWR
- ※ Narrow Band

#### Applications:

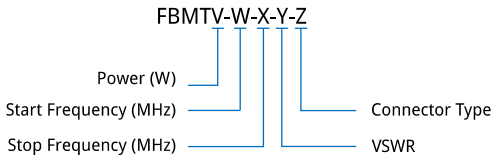
- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching

Part Number	Frequency (GHz)	Average Power (W@25°C)	VSWR	Connector	Temperature (°C)
FNMT02-W-X-Y-Z	F0±5% (F0: 5 max.)	2	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N, SMA, BNC, TNC	-55~+125
FNMT50-W-X-Y-Z	F0±5% (F0: 5 max.)	50	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N, SMA, BNC, TNC	-55~+125
FNMTK1-W-X-Y-Z	F0±5% (F0: 5 max.)	100	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N, SMA, BNC, TNC	-55~+125
FNMTK15-W-X-Y-N	F0±5% (F0: 5 max.)	150	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N	-55~+125
FNMTK2-W-X-Y-N	F0±5% (F0: 5 max.)	200	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N	-55~+125
FNMTK25-W-X-Y-N	F0±5% (F0: 4 max.)	250	1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5	N	-55~+125
FNMTK3-W-X-Y-N-A(B)	F0±5% (F0: 4 max.)	300	1.5, 2, 2.5, 3, 3.5, 4	N	-55~+125
FNMTK4-W-X-Y-N-A(B)	F0±5% (F0: 4 max.)	400	1.5, 2, 2.5, 3, 3.5, 4	N	-55~+125
FNMTK5-W-X-Y-N	F0±5% (F0: 4 max.)	500	1.5, 2, 2.5, 3, 3.5, 4	N	-55~+125
FNMTK8-W-X-Y-Z	F0±5% (F0: 4 max.)	800	1.5, 2, 2.5, 3, 3.5, 4	N, 7/16, IF45	-55~+125
FNMT1K-W-X-Y-Z	F0±5% (F0: 2 max.)	1000	1.5, 2, 2.5, 3, 3.5, 4	N, 7/16, IF45	-55~+125

FNMTK3 & FNMTK4 Series, Size A: 305\*98\*60mm, Size B: 330\*130\*140mm.

## Broadband Mismatch Terminations

### How To Order:



### Features:

- ※ Low VSWR
- ※ Broadband

### Applications:

- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching

**Examples:** To order a broadband band mismatch termination, 50W, DC~8000MHz, VSWR 3, N male, specify FBMT50-0-8000-3-N.

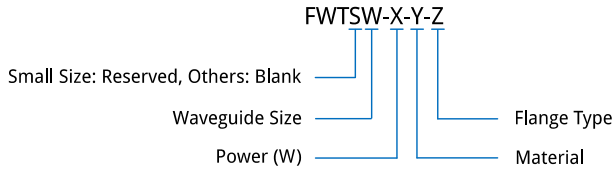
Part Number	Frequency (GHz)	Average Power (W@25°C)	VSWR	Connector	Temperature (°C)
FBMT50-0-8000-3-N	DC~8	50	3±0.3	N	-55~+125
FBMT50-30-500-Y-Z-A(B)	0.03~0.5	50	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMT50-500-800-Y-Z-A(B)	0.5~0.8	50	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMT50-800-2200-Y-Z-A(B)	0.8~2.2	50	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMTK1-30-500-Y-Z-A(B)	0.03~0.5	100	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMTK1-500-800-Y-Z-A(B)	0.5~0.8	100	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMTK1-800-2200-Y-Z-A(B)	0.8~2.2	100	1~6 (±7%)	N, SMA, 7/16	-55~+125
FBMTK15-30-500-Y-Z-A(B)	0.03~0.5	150	1~6 (±7%)	N, SMA	-55~+125
FBMTK15-500-800-Y-Z-A(B)	0.5~0.8	150	1~6 (±7%)	N, SMA	-55~+125
FBMTK15-800-2200-Y-Z-A(B)	0.8~2.2	150	1~6 (±7%)	N, SMA	-55~+125
FBMTK2-30-500-Y-Z	0.03~0.5	200	1~6 (±7%)	N, SMA	-55~+125
FBMTK2-500-800-Y-Z	0.5~0.8	200	1~6 (±7%)	N, SMA	-55~+125
FBMTK2-800-2200-Y-Z	0.8~2.2	200	1~6 (±7%)	N, SMA	-55~+125
FBMTK25-30-500-Y-Z	0.03~0.5	250	1~6 (±7%)	N, SMA	-55~+125
FBMTK25-500-800-Y-Z	0.5~0.8	250	1~6 (±7%)	N, SMA	-55~+125
FBMTK25-800-2200-Y-Z	0.8~2.2	250	1~6 (±7%)	N, SMA	-55~+125
FBMTK3-30-500-Y-Z	0.03~0.5	300	1~6 (±7%)	N, SMA	-55~+125
FBMTK3-500-800-Y-Z	0.5~0.8	300	1~6 (±7%)	N, SMA	-55~+125
FBMTK3-800-2200-Y-Z	0.8~2.2	300	1~6 (±7%)	N, SMA	-55~+125
FBMT25-600-3900-2.5-SF	0.6~3.9	25	2.5±0.2	SMA	-55~+125
FBMT30-600-3900-3-S	0.6~3.9	30	3±0.5	SMA	-55~+125
FBMTK2-9000-10000-Y-NF	9~10	200	1.5±0.3, 1.8±0.4, 2.0±0.4, 2.5±0.3, 3.0±0.5	N	-55~+125

FBMT50 Series, Size A: Φ38\*95mm, Size B: 90\*130\*75mm. FBMTK1 Series, Size A: 153\*76\*76mm, Size B: 155\*130\*75mm.

FBMTK15 Series, Size A: 153\*76\*76mm, Size B: 155\*130\*75mm.

## Waveguide Terminations

### How To Order:



**Examples:** To order a high power waveguide termination, WR-19, 1.5KW, aluminium, FUGP500, Specify FWT19-1K5-A-10.

### Features:

- ※ Low VSWR

### Applications:

- ※ Transmitters
- ※ Antennas
- ※ Laboratory Test
- ※ Impedance Matching

### Low Power Waveguide Terminations

Part Number	Frequency (GHz)	Power (W)	VSWR (max.)	Material	Waveguide Size	Flange	Temperature (°C)
FWT12-R5-B-6	60.5~91.9	0.5	1.15	Brass	WR-12 (BJ740)	FUGP740	-55~+125
FWT15-5-B-6	49.8~75.8	5	1.08	Brass	WR-15 (BJ620)	FUGP620	-55~+125
FWT19-5-B-10	39.2~59.6	5	1.05	Brass	WR-19 (BJ500)	FUGP500	-55~+125
FWT22-5-B-5	32.9~50.1	5	1.05	Brass	WR-22 (BJ400)	FUGP400	-55~+125
FWT22-10-B-5	32.9~50.1	10	1.2	Brass	WR-22 (BJ400)	FUGP400	-55~+125
FWT28-15-A-1	26.3~40	15	1.03	Aluminium	WR-28 (BJ320)	FBP320	-55~+125
FWT34-15-A-1	21.7~33	15	1.03	Aluminium	WR-34 (BJ260)	FBP260	-55~+125
FWT42-15-A-1	17.6~26.7	15	1.03	Aluminium	WR-42 (BJ220)	FBP220	-55~+125
FWT51-30-A-1	14.5~22	30	1.03	Aluminium	WR-51 (BJ180)	FBP180	-55~+125
FWT62-30-A-1	11.9~18	30	1.03	Aluminium	WR-62 (BJ140)	FBP140	-55~+125
FWT75-30-A-1	9.84~15	30	1.03	Aluminium	WR-75 (BJ120)	FBP120	-55~+125
FWT90-50-A-1	8.2~12.5	50	1.03	Aluminium	WR-90 (BJ100)	FBP100	-55~+125
FWT112-50-A-2	6.57~10	50	1.03	Aluminium	WR-112 (BJ84)	FDP84	-55~+125
FWT137-50-A-2	5.38~8.17	50	1.03	Aluminium	WR-137 (BJ70)	FDP70	-55~+125
FWT159-60-A-2	4.64~7.05	60	1.03	Aluminium	WR-159 (BJ58)	FDP58	-55~+125
FWT187-60-A-2	3.94~5.99	60	1.03	Aluminium	WR-187 (BJ48)	FDP48	-55~+125
FWT229-60-A-2	3.22~4.9	60	1.03	Aluminium	WR-229 (BJ40)	FDP40	-55~+125
FWT284-K1-A-2	2.6~3.95	100	1.03	Aluminium	WR-284 (BJ32)	FDP32	-55~+125
FWT340-K1-A-2	2.17~3.3	100	1.03	Aluminium	WR-340 (BJ26)	FDP26	-55~+125
FWT430-K1-A-2	1.72~2.61	100	1.03	Aluminium	WR-430 (BJ22)	FDP22	-55~+125
FWT510-K15-A-2	1.45~2.22	150	1.03	Aluminium	WR-510 (BJ18)	FDP18	-55~+125
FWT650-K15-A-2	1.13~1.73	150	1.03	Aluminium	WR-650 (BJ14)	FDP14	-55~+125

### Medium Power Waveguide Terminations

Part Number	Frequency (GHz)	Power (W)	VSWR (max.)	Material	Waveguide Size	Flange	Temperature (°C)
FWT15-50-B-6	49.8~75.8	50	1.2	Brass	WR-15 (BJ620)	FUGP620	-55~+125
FWT19-50-B-10	39.2~59.6	50	1.2	Brass	WR-19 (BJ500)	FUGP500	-55~+125
FWT22-50-B-5	32.9~50.1	50	1.2	Brass	WR-22 (BJ400)	FUGP400	-55~+125
FWT28-50-A-3	26.3~40	50	1.2	Aluminium	WR-28 (BJ320)	FBM320	-
FWT28-K1-A-1	26.3~40	100	1.2	Aluminium	WR-28 (BJ320)	FBP320	-55~+125
FWT34-K1-A-1	21.7~33	100	1.2	Aluminium	WR-34 (BJ260)	FBP260	-55~+125
FWT42-K1-A-1	17.6~26.7	100	1.2	Aluminium	WR-42 (BJ220)	FBP220	-55~+125
FWT51-K1-A-1	14.5~22	100	1.2	Aluminium	WR-51 (BJ180)	FBP180	-55~+125
FWT62-K1-A-1	11.9~18	100	1.2	Aluminium	WR-62 (BJ140)	FBP140	-55~+125
FWT75-K1-A-1	9.84~15	100	1.2	Aluminium	WR-75 (BJ120)	FBP120	-55~+125
FWT90-K1-A-1	8.2~12.5	100	1.2	Aluminium	WR-90 (BJ100)	FBP100	-55~+125
FWT112-K15-A-1	6.57~10	150	1.2	Aluminium	WR-112 (BJ84)	FBP84	-55~+125
FWT137-K3-A-2	5.38~8.17	300	1.2	Aluminium	WR-137 (BJ70)	FDP70	-55~+125
FWT159-K3-A-2	4.64~7.05	300	1.2	Aluminium	WR-159 (BJ58)	FDP58	-55~+125
FWT187-K3-A-2	3.94~5.99	300	1.2	Aluminium	WR-187 (BJ48)	FDP48	-55~+125
FWT229-K3-A-2	3.22~4.9	300	1.2	Aluminium	WR-229 (BJ40)	FDP40	-55~+125
FWT284-K5-A-2	2.6~3.95	500	1.2	Aluminium	WR-284 (BJ32)	FDP32	-55~+125
FWT340-K5-A-2	2.17~3.3	500	1.2	Aluminium	WR-340 (BJ26)	FDP26	-55~+125
FWT430-K5-A-2	1.72~2.61	500	1.2	Aluminium	WR-430 (BJ22)	FDP22	-55~+125
FWT19-K6-A-10	39.2~59.6	600	1.2	Aluminium	WR-19 (BJ500)	FUGP500	-

## Small Size Waveguide Terminations

Part Number	Frequency (GHz)	Power (W)	VSWR (max.)	Material	Waveguide Size	Flange	Temperature (°C)
FWTS28-15-A-1	26.3~40	15	1.2	Aluminium	WR-28 (BJ320)	FBP320	-55~+125
FWTS34-15-A-11	21.7~33	15	1.2	Aluminium	WR-34 (BJ260)	UG COVER	-55~+125
FWTS42-15-A-1	17.6~26.7	15	1.2	Aluminium	WR-42 (BJ220)	FBP220	-55~+125
FWTS51-20-A-11	14.5~22	20	1.2	Aluminium	WR-51 (BJ180)	UG COVER	-55~+125
FWTS62-20-A-1	11.9~18	20	1.2	Aluminium	WR-62 (BJ140)	FBP140	-55~+125
FWTS75-20-A-1	9.84~15	20	1.2	Aluminium	WR-75 (BJ120)	FBP120	-55~+125
FWTS90-20-A-1	8.2~12.5	20	1.2	Aluminium	WR-90 (BJ100)	FBP100	-55~+125
FWTS112-30-A-1	6.57~10	30	1.2	Aluminium	WR-112 (BJ84)	FBP84	-55~+125
FWTS137-30-A-2	5.38~8.17	30	1.2	Aluminium	WR-137 (BJ70)	FDP70	-55~+125



## High Power Waveguide Terminations

Part Number	Frequency (GHz)	Power (W)	VSWR (max.)	Material	Waveguide Size	Flange	Temperature (°C)
FWT19-1K5-A-10	39.2~59.6	1500	1.2	Aluminium	WR-19 (BJ500)	FUGP500	-55~+125
FWT22-1K5-A-5	32.9~50.1	1500	1.2	Aluminium	WR-22 (BJ400)	FUGP400	-55~+125
FWT28-2K5-A-1	26.3~40	2500	1.15	Aluminium	WR-28 (BJ320)	FBP320	-55~+125
FWT28-1K-A-1	26.3~40	1000	1.2	Aluminium	WR-28 (BJ320)	FBP320	-
FWT34-2K5-A-1	21.7~33	2500	1.15	Aluminium	WR-34 (BJ260)	FBP260	-55~+125
FWT42-2K5-A-1	17.6~26.7	2500	1.15	Aluminium	WR-42 (BJ220)	FBP220	-55~+125
FWT51-2K5-A-1	14.5~22	2500	1.2	Aluminium	WR-51 (BJ180)	FBP180	-55~+125
FWT62-2K5-A-1	11.9~18	2500	1.15	Aluminium	WR-62 (BJ140)	FBP140	-55~+125
FWT75-2K5-A-1	9.84~15	2500	1.2	Aluminium	WR-75 (BJ120)	FBP120	-55~+125
FWT75-2K5-A-2	9.84~15	2500	1.2	Aluminium	WR-75 (BJ120)	FDP120	-55~+125
FWT90-2K5-A-1	8.2~12.5	2500	1.2	Aluminium	WR-90 (BJ100)	FBP100	-55~+125
FWT90-2K5-A-2	8.2~12.5	2500	1.2	Aluminium	WR-90 (BJ100)	FDP100	-55~+125
FWT112-2K5-A-1	6.57~10	2500	1.2	Aluminium	WR-112 (BJ84)	FBP84	-55~+125
FWT112-2K5-A-2	6.57~10	2500	1.2	Aluminium	WR-112 (BJ84)	FDP84	-55~+125
FWT137-2K5-A-1	5.38~8.17	2500	1.2	Aluminium	WR-137 (BJ70)	FBP70	-55~+125
FWT137-2K5-A-2	5.38~8.17	2500	1.2	Aluminium	WR-137 (BJ70)	FDP70	-55~+125
FWT159-2K5-A-1	4.64~7.05	2500	1.2	Aluminium	WR-159 (BJ58)	FBP58	-55~+125
FWT159-2K5-A-2	4.64~7.05	2500	1.2	Aluminium	WR-159 (BJ58)	FDP58	-55~+125
FWT187-2K5-A-1	3.94~5.99	2500	1.2	Aluminium	WR-187 (BJ48)	FBP48	-55~+125
FWT187-2K5-A-2	3.94~5.99	2500	1.2	Aluminium	WR-187 (BJ48)	FDP48	-55~+125
FWT229-2K5-A-1	3.22~4.9	2500	1.2	Aluminium	WR-229 (BJ40)	FBP40	-55~+125
FWT229-2K5-A-2	3.22~4.9	2500	1.2	Aluminium	WR-229 (BJ40)	FDP40	-55~+125
FWT284-2K5-A-2	2.6~3.95	2500	1.2	Aluminium	WR-284 (BJ32)	FDP32	-55~+125
FWT430-1K-A-2	2.17~3.3	1000	1.25	Aluminium	WR-430 (BJ22)	FDP22	0~+30

**Tools**

Freflex can provide torque wrenches of different connectors.

**Features:** Easy to Use; **Applications:** Laboratory Tools.


**Wrenches**

Part Number	Connector	Torque (n.m)	Opening Size (mm)	Diameter (Φ mm)	Length (mm)
FW-71	7/16DIN	4.1	32	18.5	240
FW-L1	L27	4.1	27	18.5	240
FW-41	4.3-10	4.1	22	18.5	240
FW-T1	TNC	1.35	14.1	14.5	172
FW-T2	TNC	0.9	15	14.5	172
FW-N1	N	1.35	19.1	14.5	180
FW-N2	N	1.36	21	14.5	180
FW-N3	N	1.35	20.1	14.5	180
FW-S1	SMA, 3.5mm, 2.92mm, 2.4mm, 1.85mm	0.9	8.1	14.5	167
FW-A1	SSMA	0.5	6.5	14.5	167
FW-11	1.0mm	0.5	6	14.5	169

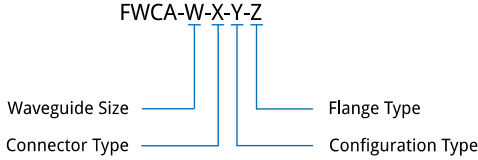
## Waveguide To Coax Adapters

In the field of radio frequency and microwave, most of the signal transmission needs transmission lines for signal transmission, and coaxial lines and waveguides are widely used to transmit microwave and radio frequency energy. The two types of transmission lines differ greatly in size, materials and transmission characteristics. In order to interconnect the two transmission lines, a waveguide to coax adapter is needed.

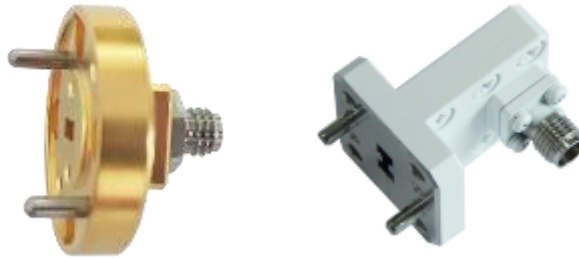
Freflex provides 0.64~110GHz high performance waveguide to coax adapters, and the interface covers WR-10 to WR-1150.

**Features:** Low VSWR; **Applications:** Wireless, Transmitters, Radar, Laboratory Test.

### How To Order:



**Examples:** To order a waveguide to coax adapter, WR-10 to 1.0mm female, end launch, UG-387/U, specify FWCA-10-1F-E-7.



## Waveguide To Coax Adapters

Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Coax Connectors	Waveguide Size	Flange	Configuration
FWCA-10-1-E-12	73.8~112	1.35	0.5	1.0mm (m)	WR-10	UG-387/UM	End Launch
FWCA-10-1F-E-12	73.8~112	1.35	0.5	1.0mm (f)	WR-10	UG-387/UM	End Launch
FWCA-10-1-R-12	73.8~112	1.6	1.15	1.0mm (m)	WR-10	UG-387/UM	Right Angle
FWCA-10-1F-R-12	73.8~112	1.6	1.15	1.0mm (f)	WR-10	UG-387/UM	Right Angle
FWCA-10-M1-E-7	75~110	1.35	0.5	NMD1.0mm (m)	WR-10	UG-387/U	End Launch
FWCA-10-M1F-E-7	75~110	1.35	0.5	NMD1.0mm (f)	WR-10	UG-387/U	End Launch
FWCA-12-1-E-7	60.5~91.9	1.35	1.1	1.0mm (m)	WR-12	UG-387/U	End Launch
FWCA-12-1F-E-7	60.5~91.9	1.35	0.5	1.0mm (f)	WR-12	UG-387/U	End Launch
FWCA-12-1-R-7	60.5~91.9	1.6	1.15	1.0mm (m)	WR-12	UG-387/U	Right Angle
FWCA-12-1F-R-7	60.5~91.9	1.6	1.15	1.0mm (f)	WR-12	UG-387/U	Right Angle
FWCA-15-1-E-11	50~75	1.35	0.8	1.0mm (m)	WR-15	UG-385/UM	End Launch
FWCA-15-1F-E-11	50~75	1.35	0.8	1.0mm (f)	WR-15	UG-385/UM	End Launch
FWCA-15-V-R-11	50~67	1.6	0.8	1.85mm (m)	WR-15	UG-385/UM	Right Angle
FWCA-15-VF-R-11	50~67	1.6	0.8	1.85mm (f)	WR-15	UG-385/UM	Right Angle
FWCA-19-V-R-10	39.2~59.6	1.5	0.6	1.85mm (m)	WR-19	UG-383/UM	Right Angle
FWCA-19-VF-R-10	39.2~59.6	1.5	0.6	1.85mm (f)	WR-19	UG-383/UM	Right Angle
FWCA-19-V-E-10	39.2~59.6	1.4	0.6	1.85mm (m)	WR-19	UG-383/UM	End Launch
FWCA-19-VF-E-10	39.2~59.6	1.4	0.6	1.85mm (f)	WR-19	UG-383/UM	End Launch
FWCA-22-V-E-5	32.9~50.1	1.3	0.3	1.85mm (m)	WR-22	UG-383/U	End Launch
FWCA-22-VF-E-5	32.9~50.1	1.3	0.3	1.85mm (f)	WR-22	UG-383/U	End Launch
FWCA-22-V-R-5	32.9~50.1	1.3	0.3	1.85mm (m)	WR-22	UG-383/U	Right Angle
FWCA-22-VF-R-5	32.9~50.1	1.3	0.3	1.85mm (f)	WR-22	UG-383/U	Right Angle
FWCA-22-2-E-5	32.9~50.1	1.3	-	2.4mm (m)	WR-22	UG-383/U	End Launch
FWCA-22-2F-E-5	32.9~50.1	1.3	-	2.4mm (f)	WR-22	UG-383/U	End Launch
FWCA-22-2-R-5	32.9~50.1	1.4	-	2.4mm (m)	WR-22	UG-383/U	Right Angle
FWCA-22-2F-R-5	32.9~50.1	1.4	-	2.4mm (f)	WR-22	UG-383/U	Right Angle
FWCA-22-K-R-1	32.9~40	1.2	0.3	2.92mm (m)	WR-22	FBP320	Right Angle
FWCA-22-K-R-5	32.9~40	1.3	0.3	2.92mm (m)	WR-22	UG-383/U	Right Angle
FWCA-22-KF-R-1	32.9~40	1.2	0.3	2.92mm (f)	WR-22	FBP320	Right Angle
FWCA-22-KF-R-5	32.9~40	1.3	0.3	2.92mm (f)	WR-22	UG-383/U	Right Angle
FWCA-28-K-E-1	26.3~40	1.2	-	2.92mm (m)	WR-28	FBP320	End Launch
FWCA-28-KF-E-1	26.3~40	1.2	-	2.92mm (f)	WR-28	FBP320	End Launch
FWCA-28-K-R-1	26.3~40	1.2	-	2.92mm (m)	WR-28	FBP320	Right Angle
FWCA-28-KF-R-1	26.3~40	1.2	-	2.92mm (f)	WR-28	FBP320	Right Angle
FWCA-28-K-E-9	26.3~40	1.2	-	2.92mm (m)	WR-28	FBR320	End Launch
FWCA-28-KF-E-9	26.3~40	1.2	-	2.92mm (f)	WR-28	FBR320	End Launch
FWCA-28-K-R-9	26.3~40	1.2	-	2.92mm (m)	WR-28	FBR320	Right Angle
FWCA-28-KF-R-9	26.3~40	1.2	-	2.92mm (f)	WR-28	FBR320	Right Angle
FWCA-34-K-E-1	22~33	1.2	0.25	2.92mm (m)	WR-34	FBP260	End Launch
FWCA-34-KF-E-1	22~33	1.2	0.25	2.92mm (f)	WR-34	FBP260	End Launch
FWCA-34-K-R-1	22~33	1.2	0.25	2.92mm (m)	WR-34	FBP260	Right Angle
FWCA-34-KF-R-1	22~33	1.2	0.25	2.92mm (f)	WR-34	FBP260	Right Angle
FWCA-42-K-E-1	17.6~26.7	1.2	-	2.92mm (m)	WR-42	FBP220	End Launch
FWCA-42-KF-E-1	17.6~26.7	1.2	-	2.92mm (f)	WR-42	FBP220	End Launch

Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Coax Connectors	Waveguide Size	Flange	Configuration
FWCA-42-K-R-1	17.6~26.7	1.2	-	2.92mm (m)	WR-42	FBP220	Right Angle
FWCA-42-KF-R-1	17.6~26.7	1.2	-	2.92mm (f)	WR-42	FBP220	Right Angle
FWCA-42-S-E-1	17.6~26.7	1.2	-	SMA (m)	WR-42	FBP220	End Launch
FWCA-42-SF-E-1	17.6~26.7	1.2	-	SMA (f)	WR-42	FBP220	End Launch
FWCA-42-S-R-1	17.6~26.7	1.2	-	SMA (m)	WR-42	FBP220	Right Angle
FWCA-42-SF-R-1	17.6~26.7	1.2	-	SMA (f)	WR-42	FBP220	Right Angle
FWCA-51-S-R-1	14.5~22	1.2	-	SMA (m)	WR-51	FBP180	Right Angle
FWCA-51-SF-R-1	14.5~22	1.2	-	SMA (f)	WR-51	FBP180	Right Angle
FWCA-51-S-E-1	14.5~22	1.3	0.3	SMA (m)	WR-51	FBP180	End Launch
FWCA-51-SF-E-1	14.5~22	1.3	0.3	SMA (f)	WR-51	FBP180	End Launch
FWCA-51-K-R-1	14.5~22	1.18	-	2.92mm (m)	WR-51	FBP180	Right Angle
FWCA-51-KF-R-1	14.5~22	1.18	-	2.92mm (f)	WR-51	FBP180	Right Angle
FWCA-62-N-R-1	11.9~18	1.2	-	N (m)	WR-62	FBP140	Right Angle
FWCA-62-NF-R-1	11.9~18	1.2	-	N (f)	WR-62	FBP140	Right Angle
FWCA-62-S-E-1	11.9~18	1.2	-	SMA (m)	WR-62	FBP140	End Launch
FWCA-62-SF-E-1	11.9~18	1.2	-	SMA (f)	WR-62	FBP140	End Launch
FWCA-62-S-R-1	11.9~18	1.2	-	SMA (m)	WR-62	FBP140	Right Angle
FWCA-62-SF-R-1	11.9~18	1.2	-	SMA (f)	WR-62	FBP140	Right Angle
FWCA-62-TF-R-1-A	11.9~18	1.2	-	TNC (f)	WR-62	FBP140	Right Angle
FWCA-75-N-E-1	9.84~15	1.2	-	N (m)	WR-75	FBP120	End Launch
FWCA-75-NF-E-1	9.84~15	1.2	-	N (f)	WR-75	FBP120	End Launch
FWCA-75-N-R-1	9.84~15	1.2	-	N (m)	WR-75	FBP120	Right Angle
FWCA-75-NF-R-1	9.84~15	1.2	-	N (f)	WR-75	FBP120	Right Angle
FWCA-75-S-E-1	9.84~15	1.2	-	SMA (m)	WR-75	FBP120	End Launch
FWCA-75-SF-E-1	9.84~15	1.2	-	SMA (f)	WR-75	FBP120	End Launch
FWCA-75-S-R-1	9.84~15	1.2	-	SMA (m)	WR-75	FBP120	Right Angle
FWCA-75-SF-R-1	9.84~15	1.2	-	SMA (f)	WR-75	FBP120	Right Angle
FWCA-90-N-R-4	8.2~12.5	1.2	-	N (m)	WR-90	FDM100	Right Angle
FWCA-90-NF-R-4	8.2~12.5	1.2	-	N (f)	WR-90	FDM100	Right Angle
FWCA-90-S-E-1	8.2~12.5	1.2	0.2	SMA (m)	WR-90	FBP100	End Launch
FWCA-90-SF-E-1	8.2~12.5	1.2	0.2	SMA (f)	WR-90	FBP100	End Launch
FWCA-90-S-R-1	8.2~12.5	1.15	0.2	SMA (m)	WR-90	FBP100	Right Angle
FWCA-90-SF-R-1	8.2~12.5	1.15	0.2	SMA (f)	WR-90	FBP100	Right Angle
FWCA-90-S-E-4	8.2~12.5	1.2	0.2	SMA (m)	WR-90	FDM100	End Launch
FWCA-90-SF-E-4	8.2~12.5	1.2	0.2	SMA (f)	WR-90	FDM100	End Launch
FWCA-90-S-R-4	8.2~12.5	1.15	0.2	SMA (m)	WR-90	FDM100	Right Angle
FWCA-90-SF-R-4	8.2~12.5	1.15	0.2	SMA (f)	WR-90	FDM100	Right Angle
FWCA-112-N-E-1	6.57~9.9	1.2	-	N (m)	WR-112	FBP84	End Launch
FWCA-112-NF-E-1	6.57~9.9	1.2	-	N (f)	WR-112	FBP84	End Launch
FWCA-112-N-R-1	6.57~9.9	1.2	-	N (m)	WR-112	FBP84	Right Angle
FWCA-112-NF-R-1	6.57~9.9	1.2	-	N (f)	WR-112	FBP84	Right Angle
FWCA-112-N-E-2	6.57~9.9	1.2	-	N (m)	WR-112	FDP84	End Launch
FWCA-112-NF-E-2	6.57~9.9	1.2	-	N (f)	WR-112	FDP84	End Launch
FWCA-112-N-R-2	6.57~9.9	1.2	-	N (m)	WR-112	FDP84	Right Angle
FWCA-112-NF-R-2	6.57~9.9	1.2	-	N (f)	WR-112	FDP84	Right Angle
FWCA-112-S-E-1	6.57~9.9	1.2	-	SMA (m)	WR-112	FBP84	End Launch
FWCA-112-SF-E-1	6.57~9.9	1.2	-	SMA (f)	WR-112	FBP84	End Launch
FWCA-112-S-R-1	6.57~9.9	1.2	-	SMA (m)	WR-112	FBP84	Right Angle
FWCA-112-SF-R-1	6.57~9.9	1.2	-	SMA (f)	WR-112	FBP84	Right Angle
FWCA-112-S-E-2	6.57~9.9	1.2	-	SMA (m)	WR-112	FDP84	End Launch
FWCA-112-SF-E-2	6.57~9.9	1.2	-	SMA (f)	WR-112	FDP84	End Launch
FWCA-112-S-R-2	6.57~9.9	1.2	-	SMA (m)	WR-112	FDP84	Right Angle
FWCA-112-SF-R-2	6.57~9.9	1.2	-	SMA (f)	WR-112	FDP84	Right Angle
FWCA-112-S-E-4	6.57~9.9	1.2	-	SMA (m)	WR-112	FDM84	End Launch
FWCA-112-SF-E-4	6.57~9.9	1.2	-	SMA (f)	WR-112	FDM84	End Launch
FWCA-112-S-R-4	6.57~9.9	1.2	-	SMA (m)	WR-112	FDM84	Right Angle
FWCA-112-SF-R-4	6.57~9.9	1.2	-	SMA (f)	WR-112	FDM84	Right Angle
FWCA-112-TF-R-1-A	6.57~9.99	1.2	-	TNC (f)	WR-112	FBP84	Right Angle
FWCA-137-N-E-2	5.38~8.17	1.25	0.3	N (m)	WR-137	FDP70	End Launch
FWCA-137-NF-E-2	5.38~8.17	1.25	0.3	N (f)	WR-137	FDP70	End Launch
FWCA-137-N-R-2	5.38~8.17	1.2	-	N (m)	WR-137	FDP70	Right Angle
FWCA-137-NF-R-2	5.38~8.17	1.2	-	N (f)	WR-137	FDP70	Right Angle



Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Coax Connectors	Waveguide Size	Flange	Configuration
FWCA-137-N-E-4	5.38~8.17	1.25	0.3	N (m)	WR-137	FDM70	End Launch
FWCA-137-NF-E-4	5.38~8.17	1.25	0.3	N (f)	WR-137	FDM70	End Launch
FWCA-137-N-R-4	5.38~8.17	1.2	-	N (m)	WR-137	FDM70	Right Angle
FWCA-137-NF-R-4	5.38~8.17	1.2	-	N (f)	WR-137	FDM70	Right Angle
FWCA-137-S-R-2	5.38~8.17	1.2	-	SMA (m)	WR-137	FDP70	Right Angle
FWCA-137-SF-R-2	5.38~8.17	1.2	-	SMA (f)	WR-137	FDP70	Right Angle
FWCA-137-S-R-4	5.38~8.17	1.2	-	SMA (m)	WR-137	FDM70	Right Angle
FWCA-137-SF-R-4	5.38~8.17	1.2	-	SMA (f)	WR-137	FDM70	Right Angle
FWCA-159-N-R-2	4.64~7.05	1.2	-	N (m)	WR-159	FDP58	Right Angle
FWCA-159-NF-R-2	4.64~7.05	1.2	-	N (f)	WR-159	FDP58	Right Angle
FWCA-159-S-E-2	4.64~7.05	1.2	-	SMA (m)	WR-159	FDP58	End Launch
FWCA-159-SF-E-2	4.64~7.05	1.2	-	SMA (f)	WR-159	FDP58	End Launch
FWCA-159-S-R-2	4.64~7.05	1.2	-	SMA (m)	WR-159	FDP58	Right Angle
FWCA-159-SF-R-2	4.64~7.05	1.2	-	SMA (f)	WR-159	FDP58	Right Angle
FWCA-159-S-E-4	4.64~7.05	1.2	-	SMA (m)	WR-159	FDM58	End Launch
FWCA-159-SF-E-4	4.64~7.05	1.2	-	SMA (f)	WR-159	FDM58	End Launch
FWCA-159-S-R-4	4.64~7.05	1.2	-	SMA (m)	WR-159	FDM58	Right Angle
FWCA-159-SF-R-4	4.64~7.05	1.2	-	SMA (f)	WR-159	FDM58	Right Angle
FWCA-187-N-R-2	3.94~5.99	1.2	-	N (m)	WR-187	FDP48	Right Angle
FWCA-187-NF-R-2	3.94~5.99	1.2	-	N (f)	WR-187	FDP48	Right Angle
FWCA-187-S-R-2	3.94~5.99	1.15	-	SMA (m)	WR-187	FDP48	Right Angle
FWCA-187-SF-R-2	3.94~5.99	1.15	-	SMA (f)	WR-187	FDP48	Right Angle
FWCA-229-N-R-2	3.22~4.9	1.2	-	N (m)	WR-229	FDP40	Right Angle
FWCA-229-NF-R-2	3.22~4.9	1.2	-	N (f)	WR-229	FDP40	Right Angle
FWCA-229-S-R-2	3.22~4.9	1.2	-	SMA (m)	WR-229	FDP40	Right Angle
FWCA-229-SF-R-2	3.22~4.9	1.2	-	SMA (f)	WR-229	FDP40	Right Angle
FWCA-229-TF-R-2-A	3.22~4.9	1.2	-	TNC (f)	WR-229	FDP40	Right Angle
FWCA-284-N-R-2	2.6~3.95	1.2	-	N (m)	WR-284	FDP32	Right Angle
FWCA-284-NF-R-2	2.6~3.95	1.2	-	N (f)	WR-284	FDP32	Right Angle
FWCA-284-S-R-2	2.6~3.95	1.2	-	SMA (m)	WR-284	FDP32	Right Angle
FWCA-284-SF-R-2	2.6~3.95	1.2	-	SMA (f)	WR-284	FDP32	Right Angle
FWCA-340-7-R-2	2.17~3.3	1.2	-	7/16 DIN (L29) (m)	WR-340	FDP26	Right Angle
FWCA-340-7F-R-2	2.17~3.3	1.2	-	7/16 DIN (L29) (f)	WR-340	FDP26	Right Angle
FWCA-340-N-R-2	2.17~3.3	1.2	-	N (m)	WR-340	FDP26	Right Angle
FWCA-340-NF-R-2	2.17~3.3	1.2	-	N (f)	WR-340	FDP26	Right Angle
FWCA-340-S-R-2	2.17~3.3	1.2	-	SMA (m)	WR-340	FDP26	Right Angle
FWCA-340-SF-R-2	2.17~3.3	1.2	-	SMA (f)	WR-340	FDP26	Right Angle
FWCA-430-N-R-2	1.72~2.61	1.2	-	N (m)	WR-430	FDP22	Right Angle
FWCA-430-NF-R-2	1.72~2.61	1.2	-	N (f)	WR-430	FDP22	Right Angle
FWCA-430-S-R-2	1.72~2.61	1.2	-	SMA (m)	WR-430	FDP22	Right Angle
FWCA-430-SF-R-2	1.72~2.61	1.2	-	SMA (f)	WR-430	FDP22	Right Angle
FWCA-510-N-R-2	1.45~2.2	1.2	-	N (m)	WR-510	FDP18	Right Angle
FWCA-510-NF-R-2	1.45~2.2	1.2	-	N (f)	WR-510	FDP18	Right Angle
FWCA-510-S-R-2	1.45~2.2	1.2	-	SMA (m)	WR-510	FDP18	Right Angle
FWCA-510-SF-R-2	1.45~2.2	1.2	-	SMA (f)	WR-510	FDP18	Right Angle
FWCA-650-N-R-2	1.13~1.73	1.2	-	N (m)	WR-650	FDP14	Right Angle
FWCA-650-NF-R-2	1.13~1.73	1.2	-	N (f)	WR-650	FDP14	Right Angle
FWCA-770-N-R-2	0.96~1.46	1.2	-	N (m)	WR-770	FDP12	Right Angle
FWCA-770-NF-R-2	0.96~1.46	1.2	-	N (f)	WR-770	FDP12	Right Angle
FWCA-770-S-R-2	0.96~1.46	1.2	-	SMA (m)	WR-770	FDP12	Right Angle
FWCA-770-SF-R-2	0.96~1.46	1.2	-	SMA (f)	WR-770	FDP12	Right Angle
FWCA-975-7-R-2	0.76~1.15	1.25	-	7/16 DIN (L29) (m)	WR-975	FDP9	Right Angle
FWCA-975-7F-R-2	0.76~1.15	1.25	-	7/16 DIN (L29) (f)	WR-975	FDP9	Right Angle
FWCA-975-N-R-2	0.76~1.15	1.2	-	N (m)	WR-975	FDP9	Right Angle
FWCA-975-NF-R-2	0.76~1.15	1.2	-	N (f)	WR-975	FDP9	Right Angle
FWCA-975-S-R-2	0.76~1.15	1.2	-	SMA (m)	WR-975	FDP9	Right Angle
FWCA-975-SF-R-2	0.76~1.15	1.2	-	SMA (f)	WR-975	FDP9	Right Angle
FWCA-1150-N-R-2	0.64~0.98	1.3	-	N (m)	WR-1150	FDP9	Right Angle
FWCA-1150-NF-R-2	0.64~0.98	1.3	-	N (f)	WR-1150	FDP9	Right Angle

### Double Ridged Waveguide to Coax Adapters

Part Number	Frequency (GHz)	VSWR (max.)	Insertion Loss (dB, max.)	Coax Connectors	Waveguide Size	Flange	Configuration
FWCA-D180-K-E-8	18~40	1.4	-	2.92mm (m)	WRD-180	FPWRD180	End Launch
FWCA-D180-KF-E-8	18~40	1.4	-	2.92mm (f)	WRD-180	FPWRD180	End Launch
FWCA-D180-K-R-8	18~40	1.3	-	2.92mm (m)	WRD-180	FPWRD180	Right Angle
FWCA-D180-KF-R-8	18~40	1.3	-	2.92mm (f)	WRD-180	FPWRD180	Right Angle
FWCA-D110-S-R-8	11~26.5	1.25	-	SMA (m)	WRD-110	FPWRD110	Right Angle
FWCA-D110-SF-R-8	11~26.5	1.25	-	SMA (f)	WRD-110	FPWRD110	Right Angle
FWCA-D750-N-R-8	7.5~18	1.3	-	N (m)	WRD-750	FPWRD750	Right Angle
FWCA-D750-NF-R-8	7.5~18	1.3	-	N (f)	WRD-750	FPWRD750	Right Angle
FWCA-D750-S-R-8	7.5~18	1.25	-	SMA (m)	WRD-750	FPWRD750	Right Angle
FWCA-D750-SF-R-8	7.5~18	1.25	-	SMA (f)	WRD-750	FPWRD750	Right Angle
FWCA-D650-N-R-8	6~18	1.3	-	N (m)	WRD-650	FPWRD650	Right Angle
FWCA-D650-NF-R-8	6~18	1.3	-	N (f)	WRD-650	FPWRD650	Right Angle
FWCA-D650-S-R-8	6~18	1.25	-	SMA (m)	WRD-650	FPWRD650	Right Angle
FWCA-D650-SF-R-8	6~18	1.25	-	SMA (f)	WRD-650	FPWRD650	Right Angle
FWCA-D580-S-R-8	5.8~16	1.4	-	SMA (m)	WRD-580	FPWRD580	Right Angle
FWCA-D580-SF-R-8	5.8~16	1.4	-	SMA (f)	WRD-580	FPWRD580	Right Angle
FWCA-D475-N-R-8	4.75~11	1.2	-	N (m)	WRD-475	FPWRD475D24	Right Angle
FWCA-D475-NF-R-8	4.75~11	1.2	-	N (f)	WRD-475	FPWRD475D24	Right Angle
FWCA-D350-N-R-8	3.5~8.2	1.4	-	N (m)	WRD-350	FPWRD350	Right Angle
FWCA-D350-NF-R-8	3.5~8.2	1.4	-	N (f)	WRD-350	FPWRD350	Right Angle
FWCA-D250-N-R-8	2.6~7.8	1.4	0.4	N (m)	WRD-250	FPWRD250	Right Angle
FWCA-D250-NF-R-8	2.6~7.8	1.4	0.4	N (f)	WRD-250	FPWRD250	Right Angle
FWCA-D250-7-R-8	2.5~6	1.5	0.3	7/16 DIN (L29) (m)	WRD-250	FPWRD250	Right Angle
FWCA-D250-7F-R-8	2.5~6	1.5	0.3	7/16 DIN (L29) (f)	WRD-250	FPWRD250	Right Angle
FWCA-D200-N-R-8	2~6	1.3	-	N (m)	WRD-200	FPWRD200	Right Angle
FWCA-D200-NF-R-8	2~6	1.3	-	N (f)	WRD-200	FPWRD200	Right Angle
FWCA-D150-N-R-8	1.5~3.6	1.35	-	N (m)	WRD-150	FPWRD150	Right Angle
FWCA-D150-NF-R-8	1.5~3.6	1.35	-	N (f)	WRD-150	FPWRD150	Right Angle
FWCA-D84-N-R-8	0.84~2	1.25	-	N (m)	WRD-84	FPWRD84	Right Angle
FWCA-D84-NF-R-8	0.84~2	1.25	-	N (f)	WRD-84	FPWRD84	Right Angle

## Appendix

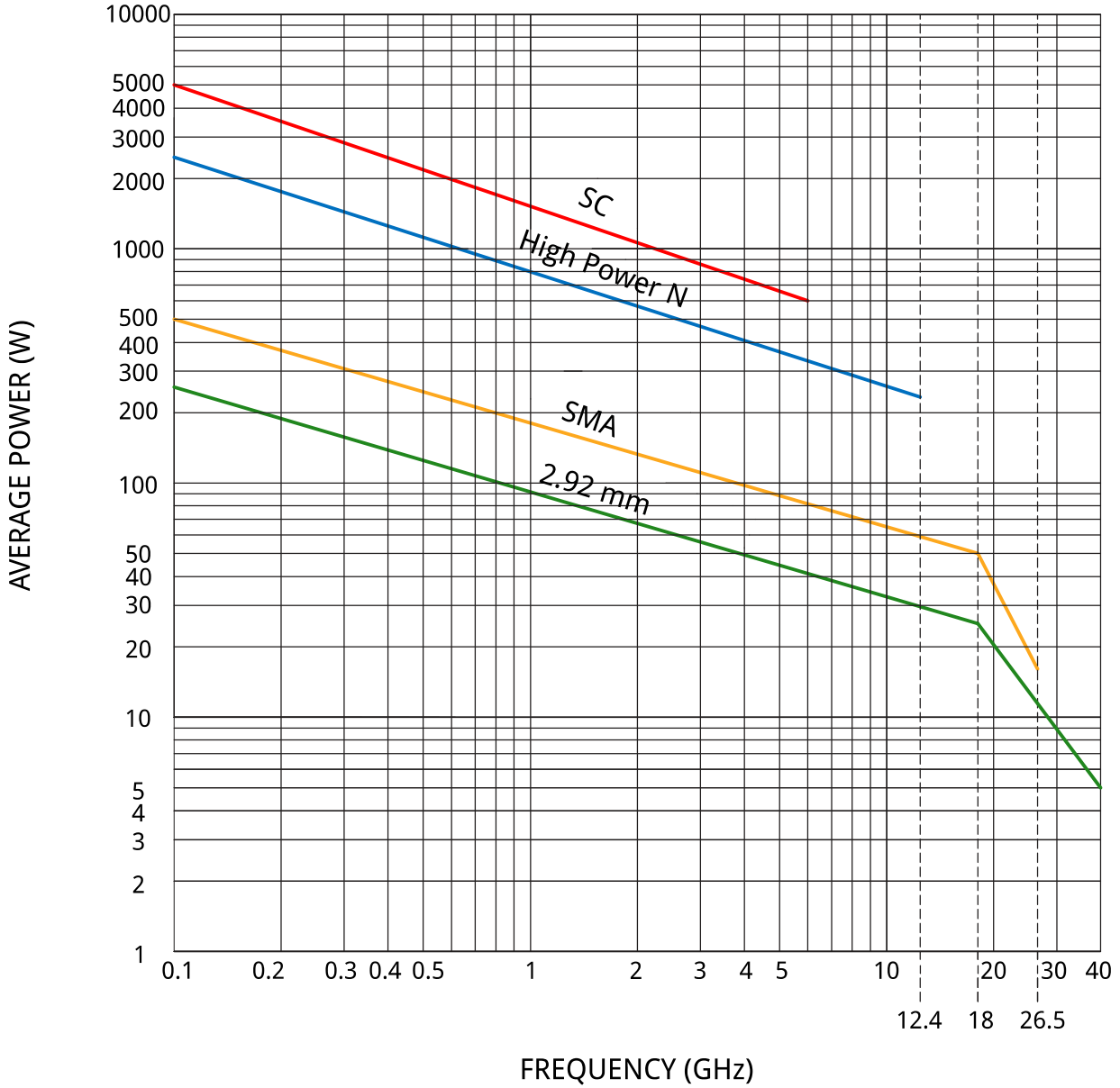
### Circular Waveguide Sizes

Frequency Band	Frequency (GHz)	Circular Waveguide Size (Inches)	Circular Waveguide Size (mm)
X	8.2~9.97	1.1	27.79
	8.5~11.6	0.9	23.83
	9.97~12.4	0.8	20.24
Ku	12.4~15.9	0.7	17.48
	13.4~18.0	0.6	15.08
	15.9~18.0	0.5	12.7
K	17.5~20.5	0.5	11.56
	20~24.5	0.4	10.06
	24~26.5	0.3	8.33
Ka	26.5~33	0.3	8
	33~38.5	0.3	6.35
	38.5~40	0.2	5.56
Q	33~38.5	0.3	6.35
	38.5~43	0.2	5.56
	43~50	0.2	4.78
U	40~43	0.2	5.33
	43~50	0.2	4.78
	50~60	0.2	4.19
V	50~58	0.2	4.19
	58~68	0.1	3.58
	68~75	0.1	3.18
E	60~66	0.1	3.45
	66~82	0.1	3.18
	82~90	0.1	2.39
W	75~88	0.11	2.84
	88~110	0.09	2.39
F	90~115	0.1	2.26
	115~140	0.1	1.91
D	110~140	0.07	1.85
	140~160	0.06	1.5
G	140~180	0.1	1.47
	180~220	0.0	1.14
?	170~260	0.05	1.25
	220~325	0.04	0.99

## Coaxial Switches Power Curve

Power handling capability of a switch depends on the connector type, materials, and the mechanical design. Temperature and frequency are also important factors which affect the power capacity of a switch in operation.

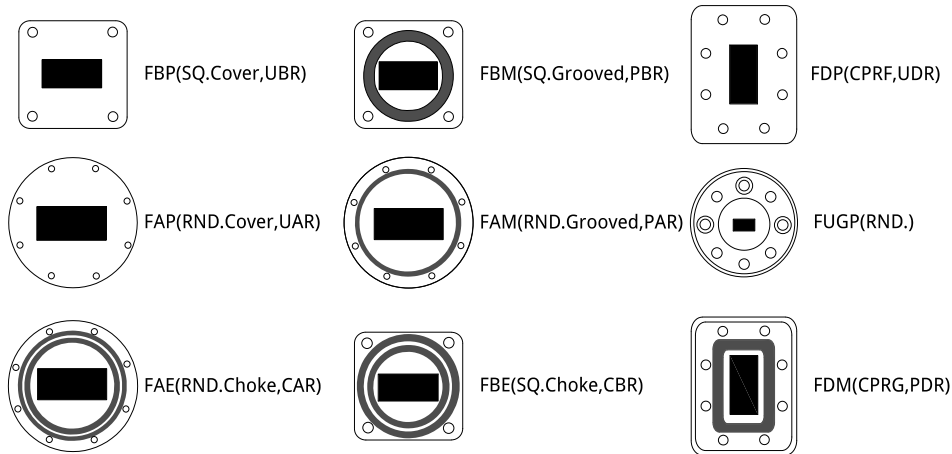
The power chart below describes the Avg. Power versus frequency for different connector types. (Based on 20°C environmental temperature.) The power capability decreases as the frequency increases. Connectors like SC, N can handle more power compared to others while the frequency is limited to a smaller range.



**dBm To Watt Conversion Table**

dBm	mW	dBm	mW	dBm	W	dBm	kW
-60	0.000001	0	1	30	1	60	1
-50	0.00001	1	1.26	31	1.3	61	1.26
-40	0.0001	2	1.58	32	1.6	62	1.58
-30	0.001	3	2	33	2	63	2
-29	0.0013	4	2.51	34	2.5	64	2.51
-28	0.0016	5	3.16	35	3.2	65	3.16
-27	0.002	6	3.98	36	4	66	3.98
-26	0.0025	7	5.01	37	5	67	5.01
-25	0.0032	8	6.31	38	6.3	68	6.31
-24	0.004	9	7.94	39	7.9	69	7.94
-23	0.005	10	10	40	10	70	10
-22	0.0063	11	12.59	41	12.6	71	12.59
-21	0.0079	12	15.85	42	15.8	72	15.85
-20	0.01	13	19.95	43	20	73	19.95
-19	0.0126	14	25.12	44	25.1	74	25.12
-18	0.0158	15	31.62	45	31.6	75	31.62
-17	0.02	16	39.81	46	39.8	76	39.81
-16	0.0251	17	50	47	50.1	77	50.12
-15	0.0316	18	63	48	63.1	78	63.1
-14	0.0398	19	79	49	79.4	79	79.43
-13	0.0501	20	100	50	100	80	100
-12	0.0631	21	126	51	125.9	81	125.98
-11	0.0794	22	158	52	158.5	82	158.48
-10	0.1	23	200	53	199.5	83	199.52
-9	0.1259	24	251	54	251.2	84	251.18
-8	0.16	25	316	55	316.2	85	316.22
-7	0.2	26	398	56	398.1	86	398.10
-6	0.25	27	501	57	501.1	87	501.18
-5	0.32	28	631	58	630.9	88	630.95
-4	0.4	29	794	59	794.3	89	794.43
-3	0.5						
-2	0.63						
-1	0.79						

## Rectangular Waveguide & Flange Cross Reference



China	Waveguide Type			Inside Dimensions (mm)	Frequency Range (GHz)	China Flange	EIA Flange	IEC Flange
	EIA	UK	153-IEC					
BJ900	WR10	WG27	R900	2.54*1.27	73.8-112	FUGP900	UG387/UM	
BJ740	WR12	WG26	R740	3.0988*1.5494	60.5-91.9	FUGP740	UG387/U	
BJ620	WR15	WG25	R620	3.795*1.88	49.8-75.8	FUGP620	UG385/U	
BJ500	WR19	WG24	R500	4.775*2.388	39.2-59.6	FUGP500	UG383/UM	
BJ400	WR22	WG23	R400	5.69*2.845	32.9-50.1	FUGP400	UG-383/U	
BJ320	WR28	WG22	R320	7.12*3.556	26.3-40	FBP320	UG599/U	UBR320
BJ320	WR28	WG22	R320	7.12*3.556	26.3-40	FBM320	UG Grooved	PBR320
BJ320	WR28	WG22	R320	7.12*3.556	26.3-40	FBE320	UG600A/U	CBR320
BJ260	WR34	WG21	R260	8.636*4.318	21.7-33	FBP260		UBR260
BJ260	WR34	WG21	R260	8.636*4.318	21.7-33	FBM260		PBR260
BJ260	WR34	WG21	R260	8.636*4.318	21.7-33	FBE260		CBR260
BJ220	WR42	WG20	R220	10.668*4.318	17.6-26.7	FBP220	UG597/U, UG595/U	UBR220
BJ220	WR42	WG20	R220	10.668*4.318	17.6-26.7	FBM220	UG Grooved	PBR220
BJ220	WR42	WG20	R220	10.668*4.318	17.6-26.7	FBE220	UG Choke	CBR220
BJ180	WR51	WG19	R180	12.95*6.477	14.5-22	FBP180		UBR180
BJ180	WR51	WG19	R180	12.95*6.477	14.5-22	FBM180		PBR180
BJ180	WR51	WG19	R180	12.95*6.477	14.5-22	FBE180		CBR180
BJ140	WR62	WG18	R140	15.799*7.899	11.9-18	FBP140	UG1665/U, UG419/U	UBR140
BJ140	WR62	WG18	R140	15.799*7.899	11.9-18	FBM140	UG Grooved	PBR140
BJ140	WR62	WG18	R140	15.799*7.899	11.9-18	FBE140	UG1666/U, UG541A/U	CBR140
BJ120	WR75	WG17	R120	19.05*9.525	9.84-15	FDP120	CPR75F	UDR120
BJ120	WR75	WG17	R120	19.05*9.525	9.84-15	FDM120	CPR75G	PDR120
BJ120	WR75	WG17	R120	19.05*9.525	9.84-15	FBP120	UG Cover	UBR120
BJ120	WR75	WG17	R120	19.05*9.525	9.84-15	FBM120	UG Grooved	PBR120
BJ120	WR75	WG17	R120	19.05*9.525	9.84-15	FBE120	UG-136B, UG-40B/U	CBR120
BJ100	WR90	WG16	R100	22.86*10.16	8.2-12.5	FDP100	CPR90F	UDR100
BJ100	WR90	WG16	R100	22.86*10.16	8.2-12.5	FDM100	CPR90G	PDR100
BJ100	WR90	WG16	R100	22.86*10.16	8.2-12.5	FBP100	UG135/U	UBR100
BJ100	WR90	WG16	R100	22.86*10.16	8.2-12.5	FBM100	UG 135 Grooved, UG 39 Grooved	PBR100
BJ100	WR90	WG16	R100	22.86*10.16	8.2-12.5	FBE100	UG-136B/U, UG 39 Grooved	CBR100
BJ84	WR112	WG15	R84	28.499*12.624	6.57-9.99	FDP84	CPR112F	UDR84
BJ84	WR112	WG15	R84	28.499*12.624	6.57-9.99	FDM84	CPR112G	PDR84
BJ84	WR112	WG15	R84	28.499*12.624	6.57-9.99	FBP84	UG138/U, UG51/U	UBR84
BJ84	WR112	WG15	R84	28.499*12.624	6.57-9.99	FBM84	UG138 Grooved, UG51 Grooved	PBR84
BJ84	WR112	WG15	R84	28.499*12.624	6.57-9.99	FBE84	UG-137B/U, UG-52B/U	CBR84
BJ70	WR137	WG14	R70	34.849*15.799	5.38-8.17	FDP70	CPR137F	UDR70
BJ70	WR137	WG14	R70	34.849*15.799	5.38-8.17	FDM70	CPR137G	PDR70
BJ70	WR137	WG14	R70	34.849*15.799	5.38-8.17	FAP70	UG441/U, UG344/U	
BJ70	WR137	WG14	R70	34.849*15.799	5.38-8.17	FAM70		
BJ70	WR137	WG14	R70	34.849*15.799	5.38-8.17	FAE70		
BJS8	WR159	WG13	R58	40.386*20.193	4.64-7.05	FDP58	CPR159F	UDR58
BJS8	WR159	WG13	R58	40.386*20.193	4.64-7.05	FDM58	CPR159G	PDR58
BJ48	WR187	WG12	R48	47.549*22.149	3.94-5.99	FDP48	CPR187F	UDR48
BJ48	WR187	WG12	R48	47.549*22.149	3.94-5.99	FDM48	CPR187G	PDR48

Waveguide Type				Inside Dimensions (mm)	Frequency Range (GHz)	China Flange	EIA Flange	IEC Flange
China	EIA	UK	153-IEC					
BJ48	WR187	WG12	R48	47.549*22.149	3.94-5.99	FAP48	UG407/U	
BJ48	WR187	WG12	R48	47.549*22.149	3.94-5.99	FAM48		
BJ48	WR187	WG12	R48	47.549*22.149	3.94-5.99	FAE48	UG-406B/U, UG-148C/U	
BJ40	WR229	WG11A	R40	58.17*29.08	3.22-4.9	FDP40	CPR229F	UDR40
BJ40	WR229	WG11A	R40	58.17*29.08	3.22-4.9	FDM40	CPR229G	PDR40
BJ32	WR284	WG10	R32	72.14*34.04	2.6-3.95	FDP32	CPR284F	UDR32
BJ32	WR284	WG10	R32	72.14*34.04	2.6-3.95	FDM32	CPR284G	PDR32
BJ32	WR284	WG10	R32	72.14*34.04	2.6-3.95	FAP32	UG584/U, UG53/U	
BJ32	WR284	WG10	R32	72.14*34.04	2.6-3.95	FAM32		
BJ32	WR284	WG10	R32	72.14*34.04	2.6-3.95	FAE32	UG-585, UG-54	
BJ26	WR340	WG9	R26	86.36*43.18	2.17-3.3	FDP26	CPR340F	UDR26
BJ26	WR340	WG9	R26	86.36*43.18	2.17-3.3	FDM26	CPR340G	PDR26
BJ22	WR430	WG8	R22	109.22*54.61	1.72-2.61	FDP22	CPR430F	UDR22
BJ22	WR430	WG8	R22	109.22*54.61	1.72-2.61	FDM22	CPR430G	PDR22
BJ18	WR510	WG7	R18	129.54*64.77	1.45-2.2	FDP18		UDR18
BJ14	WR650	WG6	R14	165.1*82.55	1.13-1.73	FDP14	CPR650F	UDR14
BJ14	WR650	WG6	R14	165.1*82.55	1.13-1.73	FDM14	CPR650G	PDR14
BJ12	WR770	WG5	R12	195.58*97.79	0.96-1.46	FDP12	CPR770F	UDR12
BJ9	WR975	WG4	R9	247.65*123.82	0.76-1.15	FDP9	CPR975F	UDR9
BJ9	WR975	WG4	R9	247.65*123.82	0.76-1.15	FDM9	CPR975G	PDR9
BJ8	WR1150	WG3	R8	292.1*146.05	0.64-0.98	FDP8		
BJ6	WR1500	WG2	R6	381*190.5	0.49-0.75	FDP6		
BJ5	WR1800	WG1	R5	457.2*228.6	0.41-0.62	FDP5		
BJ4	WR2100	N/A	R4	533.4*266.7	0.35-0.53	FDP4		
BJ3	WR2300	N/A	R3	584.2*292.1	0.32-0.49	FDP3		

**VSWR To Return Loss Conversion Table**

VSWR	Return Loss (dB)	VSWR	Return Loss (dB)	VSWR	Return Loss (dB)	VSWR	Return Loss (dB)
1.01	46.1	1.13	24.3	1.45	14.7	3.5	5.1
1.02	40.1	1.14	23.7	1.5	14	4	4.4
1.03	36.6	1.15	23.1	1.6	12.7	5	3.5
1.04	34.2	1.16	22.6	1.7	11.7	6	2.9
1.05	32.3	1.17	22.1	1.8	10.9	7	2.5
1.06	30.7	1.18	21.7	1.9	10.2	8	2.2
1.07	29.4	1.19	21.2	2	9.5	9	1.9
1.08	28.3	1.2	20.8	2.2	8.5	10	1.7
1.09	27.3	1.25	19.1	2.4	7.7	20	0.9
1.1	26.4	1.3	17.7	2.6	7		
1.11	25.7	1.35	16.5	2.8	6.5		
1.12	24.9	1.4	15.6	3	6		

**Voltage To Power Conversion Table**

Vpp (mV)	Power (dBm)	Vpp (mV)	Power (dBm)	Vpp (V)	Power (dBm)	Vpp (V)	Power (dBm)	Vpp (V)	Power (dBm)
1	-56	65	-19.8	0.45	-3	10	24	30	33.5
2	-50	70	-19.1	0.5	-2	11	24.8	31	33.8
3	-46.5	75	-18.5	0.55	-1.2	12	25.6	32	34.1
4	-44	80	-18	0.6	-0.5	13	26.3	33	34.3
5	-42	85	-17.4	0.65	0.2	14	26.9	34	34.6
6	-40.5	90	-16.9	0.7	0.9	15	27.5	35	34.9
7	-39.1	95	-16.5	0.75	1.5	16	28.1	36	35.1
8	-38	100	-16	0.8	2	17	28.6	37	35.3
9	-36.9	120	-14.4	0.85	2.6	18	29.1	38	35.6
10	-36	140	-13.1	0.9	3.1	19	29.6	39	35.8
15	-32.5	160	-11.9	0.95	3.5	20	30	40	36
20	-30	180	-10.9	1	4	21	30.4	41	36.2
25	-28.1	200	-10	2	10	22	30.8	42	36.4
30	-26.5	220	-9.2	3	13.5	23	31.2	43	36.6
35	-25.1	240	-8.4	4	16	24	31.6	44	36.8
40	-24	260	-7.7	5	18	25	31.9	45	37
45	-23	280	-7.1	6	19.5	26	32.3	50	38
50	-22	300	-6.5	7	20.9	27	32.6	100	44
55	-21.2	350	-5.1	8	22	28	32.9	120	45.6
60	-20.5	400	-4	9	23.1	29	33.2	220	50.8



## Product Naming Rules

### Connector Naming Rules

Code	Connector
1	1.0mm (110GHz)
M1	NMD1.0mm(110GHz)
5	1.35(90GHz)
V	1.85mm (67GHz)
G	Mini-SMP (mateable with GPPO & SSMP, 65GHz)
2	2.4mm (50GHz)
M2	NMD2.4mm(50GHz)
K	2.92mm (40GHz)
MK	NMD2.92mm(40GHz)
X	MMCX (40GHz)
P	SMP (40GHz)
A	SSMA (40GHz)
3	3.5mm (33GHz)
M3	NMD3.5mm(26.5GHz)
S	SMA (26.5GHz)
N	N (18GHz)
T	TNC (18GHz)
J	APC-7 (7mm, 18GHz)
I	BMA (18GHz)
W	SSMC(17GHz)
6	SMC(10GHz)
L1	L16 (9GHz)
4	4.3-10 (8GHz)
E	SC (theoretical 11GHz, usually 6GHz)

Code	Connector
Q	QMA(6GHz)
7	7/16 DIN (L29)(6GHz)
L	L27(6GHz)
L2	L12(6GHz)
M	MCX (6GHz)
D	SMB (6GHz)
U	SSMB(6GHz)
Y	HN(6GHz)
IPX	IPX-MHF(6GHz)
Nex	Nex10(6GHz)
B	BNC (4GHz)
B1	TRB/BNC Triax/Q9 female (4GHz)
F	F (2GHz)
Z	UHF(1GHz)
S1	SHV(300MHz)
M4	MHV(300MHz)
SI	SBMA
8	Mini DIN
A2	IF110
O	SSBB
IP	IPEX
9	IF45
A1	IF70

**Remarks:** The cable assembly generally has two connectors. If the two connectors are of different types, the connector with high frequency will be described first when naming, and the connector with low frequency will be described. For example, 2.4mm female - 2.92mm male Represented by "2FK", instead of "K2F".

### Connector Polarity Naming Rules

Code	Polarity of Connector	Description
M	Male	Internal Thread, Internal Needle
MRP	Reverse Polarity Male	Internal Thread, Internal Hole

Code	Polarity of Connector	Description
F	Female	External Thread, Internal Hole
FRP	Reverse Polarity Female	External Thread, Internal Needle

**Remarks:** Each type of product has a default connector polarity. In naming, for simplicity and clarity, certain deletions will be made in combination with product characteristics. For example:

Cable assembly: the default polarity of the connector is male, so the "M" indicating male should be omitted when naming. Taking connector N as an example, N is represented by "N male", and N female is represented by "NF".

Attenuator: the default input connector is male, and the output connector is female. So when naming connector N, "N" represents N male input - N female output, "NFNF" represents N female input - N female output, and "NFSF" represents N female input - SMA female output.

Other module components: all connectors are female by default, so "F" indicating female shall be omitted when naming.

### Configuration Naming Rules

Code	Configuration
E	End Launch (Only applicable to waveguide to coax adapters, other products are not marked)
L2	2-Hole Flange
H	Bulk Head

Code	Configuration
R	Right Angle
L4	4-Hole Flange
Y	Threaded Connection

**Remarks:** In the cable assembly, when describing the cable connector, the sequence is: type - polarity - configuration. For example, "SFL4" means SMA female with 4-hole flange, and "SFH" means SMA female bulk head.

## Power Naming Rules

Code	Power (dBm)
1	1
2	2
3	3
4	4
5	5
...	...

Code	Power (W)
R1	0.1
R2	0.2
R3	0.3
R4	0.4
...	...
R9	0.9

Code	Power (W)
1	1
2	2
3	3
4	4
...	...
9	9

Code	Power (W)
10	10
15	15
20	20
25	25
...	...
90	90

Code	Power (W)
K1	100
K15	150
K2	200
K25	250
...	...
K9	900

Code	Power (W)
1K	1000
1K5	1500
2K	2000
2K5	2500
...	...
75K	75000

## Waveguide Size Naming Rules

Code	Waveguide Size
10	WR-10
12	WR-12
15	WR-15
19	WR-19
...	...
1150	WR-1150

Code	Waveguide Size
D84	WRD-84
D110	WRD-110
D150	WRD-150
D180	WRD-180
...	...
D750	WRD-750

Code	Waveguide Size
22	C22
25	C25
30	C30
35	C35
...	...
890	C890

## Flange Naming Rules

Code	Flange
1	FBP
2	FDP
3	FBM
4	FDM
5	UG-383/U (mateable with FUGP400)
6	UG-385/U

Code	Flange
7	UG-387/U
8	FPWRD
9	FBR
10	UG-383/UM (mateable with FUGP500)
11	UG-385/UM (mateable with FUGP620)

## Material Naming Rules

Code	Material
A	Aluminium
G	Passivated Stainless Steel

Code	Material
B	Brass



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