

FRJ1-30000-56

Single Channel, DC~30GHz, 56mm

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|-------------------------------|------------------------------|
| Features: | Applications: |
| * Low VSWR | * High Speed Digital Signal |
| * Low VSWR Flatness | Transmission |
| * Low Insertion Loss Flatness | * Analog Signal Transmission |

Electrical (Rotary Joint)

Frequency:	DC~30GHz
VSWR:	1.35 max. @DC~8GHz 1.75 max. @DC~18GHz 2.5 max. @DC~30GHz
VSWR Flatness:	0.15 max.
Insertion Loss:	0.4dB max. @DC~8GHz 1.0dB max. @DC~18GHz 2.0dB max. @DC~30GHz
Insertion Loss Flatness:	0.15dB
Phase Flatness:	1.5° max.
Average Power:	20W max. @18GHz
Impedance:	50Ω

Mechanical (Rotary Joint)

Connectors:	SMA female (Φ3.5mm)
Rotating Speed:	150RPM
Rotating Torque:	0.1Nm +0.03Nm/Circuits no. 6
Operation Life:	5M Cycles
Contact Material:	Gold
Housing:	Aluminum alloy & Engineering plastic
IP Grade:	IP51

Environmental

Operating Temperature:	-30~+80°C -45~+85°C (Military optional)
Operating Humidity:	0~85% RH 0~97% RH (Military optional)

Electrical (Slip Ring)

Voltage (Power):	0~440VAC/VDC
Voltage (Signal):	0~240VAC/VDC
Impedance of Dielectric:	1000MΩ/500VDC min.
Lead Wire (Power):	AWG#17 Silver plated Teflon
Lead Wire (Signal):	AWG#22 Silver plated Teflon AWG#26 Silver plated Teflon (2A)
Wire Length:	Standard length 300mm (adjustable upon request)
Dielectric Resistance:	500VAC@50Hz, 60s
Electrical Noise:	0.01Ω max.

How To Order

FRJ1-30000-56-X-Y

X: Power Circuits

For example:

0610 - 6 circuits@10A

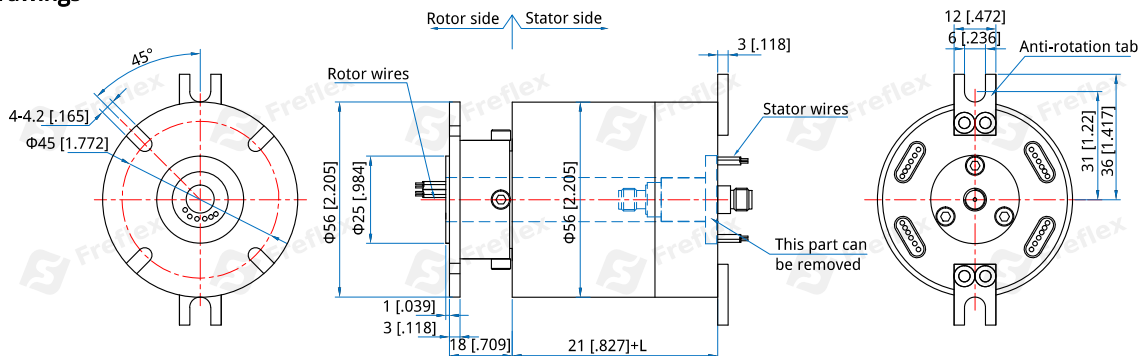
Y: Signal Circuits

For example:

06S - 6 circuits signal@5A

Customization is available upon request.

Outline Drawings



Unit: mm [in] Tolerance: ±0.2mm [±0.008in]

Standard Part Number List

Part Number	RF Channel	Frequency (GHz)	Circuits no. (10A)	Circuits no. (5A)	Length L (mm/in)
FRJ1-30000-56-06S	1	DC~30	0	6	38 [1.496]
FRJ1-30000-56-0610	1	DC~30	6	0	38 [1.496]
FRJ1-30000-56-12S	1	DC~30	0	12	54.8 [2.157]
FRJ1-30000-56-1210	1	DC~30	12	0	54.8 [2.157]
FRJ1-30000-56-0610-06S	1	DC~30	6	6	54.8 [2.157]
FRJ1-30000-56-0210-08S	1	DC~30	2	8	54.8 [2.157]
FRJ1-30000-56-0210-10S	1	DC~30	2	10	54.8 [2.157]
FRJ1-30000-56-18S	1	DC~30	0	18	71.6 [2.819]
FRJ1-30000-56-1810	1	DC~30	18	0	71.6 [2.819]
FRJ1-30000-56-0610-12S	1	DC~30	6	12	71.6 [2.819]
FRJ1-30000-56-1210-06S	1	DC~30	12	6	71.6 [2.819]
FRJ1-30000-56-0610-18S	1	DC~30	6	18	88.4 [3.48]
FRJ1-30000-56-1210-12S	1	DC~30	12	12	88.4 [3.48]
FRJ1-30000-56-1810-06S	1	DC~30	18	6	88.4 [3.48]
FRJ1-30000-56-24S	1	DC~30	0	24	88.4 [3.48]
FRJ1-30000-56-2410	1	DC~30	24	0	88.4 [3.48]
FRJ1-30000-56-30S	1	DC~30	0	30	105.2 [4.142]
FRJ1-30000-56-36S	1	DC~30	0	36	125 [4.921]
FRJ1-30000-56-48S	1	DC~30	0	48 (2A)	158.6 [6.244]

Note: N 10A current loops combined can be used as 1 N * 10A current loop; For example, combining 2 rings of 10A together can be used as 1 circuit of 20A. The number of loops and current size can be customized. If you need assistance with selection, please contact customer service.