FFA1802

DC~18GHz, 2W

Features:
* Low VSWR
* High Attenuation Flatness

Applications:
* Wireless
* Transmitter
* Laboratory Test
* Radar

Electrical

Frequency:	DC~18GHz DC~6GHz (BNC)
Attenuation:	0~10, 12, 15, 20, 30, 40, 50, 60dB
Impedance:	50Ω
Average Power*1:	2W@25℃ max.

[1] Derated linearly to 0.1W@120°C.

Mechanical

RF Connectors:	SMA, N, TNC, BNC, SMP, SSMP, SSMA

Peak Power

Peak Power (W)	Pulse Width (μS)	Duty Cycle (%)	Applicable Scope
20	5	1	SMP, SSMA, SSMP
200		0.5	SMA, N
500		0.2	BNC, TNC

Length (mm/in)

Attenuation (dB)	SMA
0~10, 12, 15, 20, 30	21.6 [0.85]
40	25.1 [0.988]
50, 60	30 [1.181]

Length (mm/in)

Attenuation (dB)	N	BNC
1~10, 15, 20, 30	45 [1.772]	35 [1.378]
40, 50, 60	48 [1.89]	38 [1.496]

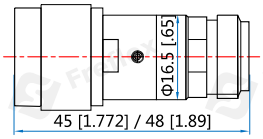
Length (mm/in)

Attenuation (dB)	SMP	SSMP	SSMA
0~10, 12, 15, 20	16.6 [.654]	16.5 [.65]	25 [0.984]
30, 40	18.6 [.732]	18.5 [.728]	27 [1.063]

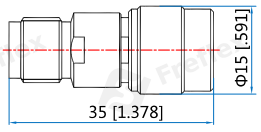
Environmental

Temperature:	-55~+125℃

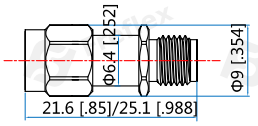
Outline Drawings



Outline A



Outline B



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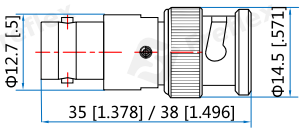
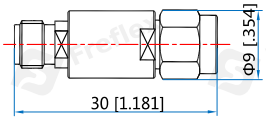
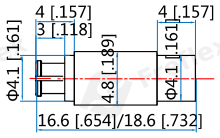


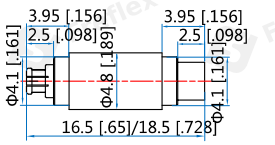
Outline D



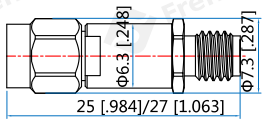
Outline E



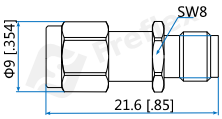
Outline F



Outline G



Outline H



Outline I

Unit: mm [in]
Tolerance: ±2mm [±0.08in]

Attenuation Accuracy and VSWR (SMA)

Frequency (GHz)	Attenuation Accuracy (±dB) vs. Attenuation (dB)						VSWR (max.)
	0	1~10	12/15/20/30	40	50	60	
DC-4	-0.2/+0.2	-0.6/+0.6	-0.6/+0.6	-0.8/+0.6	0.7	0.8	1.25, 1.2@50, 60dB
DC~8	-0.2/+0.2	-0.6/+0.6	-0.6/+0.6	-0.8/+0.6	0.8	0.9	1.25
DC~12.4	-0.2/+0.3	-0.6/+0.6	-0.6/+0.6	-0.8/+0.7	1.0	1.1	1.25, 1.3@0, 40dB
DC~18	-0.2/+0.4	-0.6/+0.6	-0.6/+0.6	-0.8/+0.8	1.5	1.5	1.25, 1.3@50, 60dB, 1.35@0, 40dB

Attenuation Accuracy and VSWR (N)

Frequency (GHz)	Attenuation Accuracy (±dB) vs. Attenuation (dB)							VSWR (max.)
	1~10	15	20	30	40	50	60	
DC~4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	1.2
DC~6	0.5	0.6	0.6	0.8	0.8	0.8	0.9	1.2
DC~12.4	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.3
DC~18	0.7	0.8	0.8	1.0	1.2	-	-	1.35

Attenuation Accuracy and VSWR (TNC)

Frequency (GHz)	Attenuation Accuracy (±dB) vs. Attenuation (dB)						VSWR (max.)
	1~10	11~20	21~30	40	50	60	
DC~4	0.4	0.5	0.7	0.7	0.7	0.8	1.2
DC~8	0.5	0.6	0.8	0.8	0.8	0.9	1.25
DC~12.4	0.6	0.7	0.9	0.9	1.0	1.1	1.25
DC~18	0.6	0.8	1.0	1.2	1.5	1.5	1.3

Attenuation Accuracy and VSWR (BNC)

Frequency (GHz)	Attenuation Accuracy (±dB) vs. Attenuation (dB)				VSWR (max.)
	1~7	7~20	21~30	40~60	
DC~4	0.3	0.5	0.75	0.8	1.2
DC~6	0.3	0.5	0.75	0.8	1.25

Attenuation Accuracy and VSWR(SMP/SSMP/SSMA)

Frequency (GHz)	Attenuation Accuracy (±dB) vs. Attenuation (dB)								VSWR (max.)
	0	1~6	7~10	12	15	20	30	40	
DC~18	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.6/+0.6	-0.6/+0.6	-0.6/+0.6	-0.8/+0.8	-0.8/+0.8	1.35

How To Order

FFA1802-X-Y-Z

X: Frequency in GHz

Y: Attenuation in dB

Z: Connector type

Examples:

To order an attenuator, DC-18GHz, SMA male to SMA female, 30dB attenuation, specify FFA1802-18-30-S.

Connector naming rules:

N - N (Outline A)

T -TNC (Outline B)

S - SMA (Oultine I - 1~10, 12, 15, 20, 30dB, Outline C -0, 40dB, Outline E -50, 60dB)

B - BNC (Oultine D)

P - SMP (Outline F)

G - SSMP (Outline G)

A - SSMA (Outline H)