

# FFA1850

## DC~18GHz, 50W

**Features:**

- \* Low VSWR
- \* High Attenuation Flatness

**Applications:**

- \* Wireless
- \* Transmitter
- \* Laboratory Test
- \* Radar

**Electrical**

Frequency:	DC~18GHz
Attenuation:	1~60dB
Impedance:	50Ω
Average Power*1:	50W@25°C max.

[1] Derated linearly to 2.5W@120°C.

**Mechanical**

RF Connectors\*2: SMA, N

[2] Female connectors can be replaced with male connectors on request.

**Environmental**

Temperature: -55~+125°C

**Peak Power**

Peak Power (W)	Pulse Width (μs)	Duty Cycle (%)	Applicable Scope
500	5	5	@SMA,DC~18GHz
5000		0.5	@N,DC~12.4GHz
1000		2.5	@N,18GHz

**Length (mm/in)**

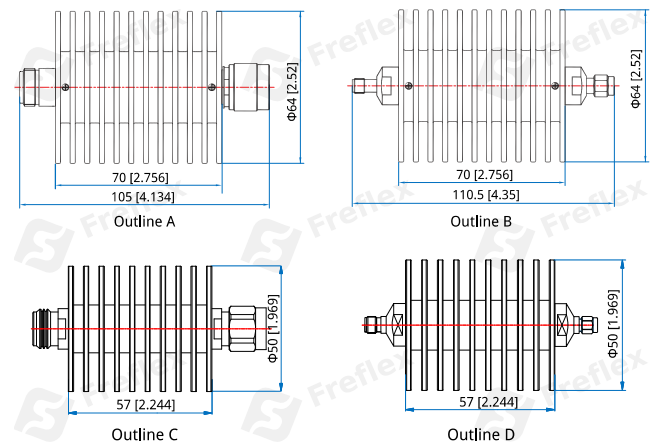
Attenuation (dB)	Frequency (GHz)	N
1~10, 15, 20, 30, 40, 50, 60	DC~4GHz	57 [2.244]
1~10, 15, 20, 30, 40, 50, 60	DC~8GHz	57 [2.244]
1~10, 15, 20, 30, 40, 50	DC~12.4GHz	70 [2.756]
1~10, 15, 20, 30, 40, 50	DC~18GHz	70 [2.756]

**Length (mm/in)**

Attenuation (dB)	Frequency (GHz)	SMA
1~10, 15, 20, 30	DC~4GHz	57 [2.244]
1~10, 15, 20, 30	DC~8GHz	57 [2.244]
1~10, 15, 20, 30, 40, 50	DC~12.4GHz	70 [2.756]
1~10, 15, 20, 30, 40, 50	DC~18GHz	70 [2.756]

**Attenuation Accuracy and VSWR (N)**

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	0.7	1.20
DC~8	0.6	0.8	1.0	1.2	1.7	4.5	1.25
DC~12.4	0.6	0.7	0.8	1.1	1.1	/	1.35
DC~18	0.8	0.9	1.1	1.3	1.3	/	1.45

**Outline Drawings**


Unit: mm [in]

Tolerance: ±2mm [±0.08in]

**How To Order**

**FFA1850-X-Y-Z**

X: Frequency in GHz

Y: Attenuation in dB

Z: Connector type

Connector naming rules:

N - N (Outline A, C)

S - SMA (Outline B, D)

Examples:

To order an attenuator, DC-12.4GHz, N male to N female, 3dB attenuation, specify FFA1850-12.4-3-N.

## Attenuation Accuracy and VSWR (SMA)

Frequency (GHz)	Attenuation Accuracy ( $\pm$ dB) vs. Attenuation (dB)					VSWR (max.)
	1~10	11~20	21~30	40	50	
DC~4	0.4	0.5	0.7	0.7	0.7	1.20
DC~8	0.6	0.8	1.0	1.2	1.2	1.25
DC~12.4	0.6	0.7	0.8	1.1	1.1	1.35
DC~18	0.8	0.9	1.1	1.3	1.3	1.45

## Typical Performance Curves N (DC~8GHz)

