

# FFA1830

## DC~18GHz, 30W

**Features:**

- \* Low VSWR
- \* High Attenuation Flatness

**Applications:**

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

**Electrical**

Frequency:	DC~18GHz
Attenuation:	1~60dB
Impedance:	50Ω
Average Power*1:	30W@25°C max.

[1] Derated linearly to 1.5W@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**

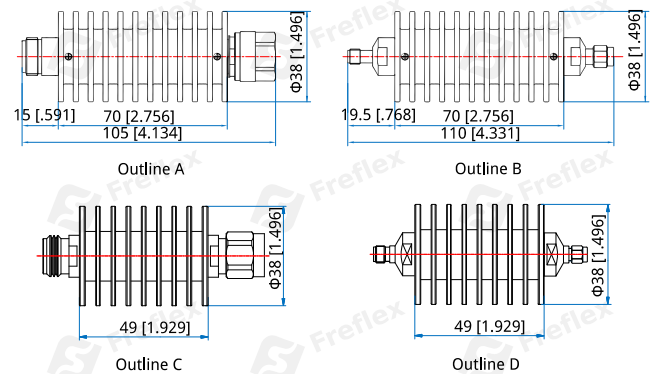
Peak Power (W)	Pulse Width (μS)	Duty Cycle (%)	Applicable Scope
500	5	3	@SMA, DC~18GHz
5000		0.3	@N, DC~12.4GHz
1000		0.15	@N, 18GHz

**Length (mm/in)**

Attenuation (dB)	Frequency (GHz)	N
1~10, 15, 20, 30, 40, 50, 60	DC~4GHz	49 [1.929]
1~10, 15, 20, 30, 40, 50, 60	DC~8GHz	49 [1.929]
1~10, 15, 20, 30, 40	DC~12.4GHz	49 [1.929]
1~10, 15, 20, 30, 40	DC~18GHz	70 [2.756]

**Length (mm/in)**

Attenuation (dB)	Frequency (GHz)	SMA
1~10, 15, 20, 30	DC~4GHz	49 [1.929]
1~10, 15, 20, 30	DC~8GHz	49 [1.929]
1~10, 15, 20	DC~12.4GHz	49 [1.929]
1~10, 15, 20, 30, 40	DC~18GHz	70 [2.756]

**Outline Drawings**


Unit: mm [in]

Tolerance: ±2mm [±0.08in]

**How To Order**
**FFA1830-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-18GHz, N male to N female, 3dB attenuation, specify FFA1830-18-3-N.

**Attenuation Accuracy and VSWR (N)**

Frequency (GHz)	Attenuation Accuracy ( $\pm$ dB) vs. Attenuation (dB)						VSWR (max.)
	1~10	11~20	21~30	40	50	60	
DC~4	0.4	0.5	0.6	0.7	1.4	1.4	1.2
DC~8	0.5	0.6	0.8	0.8	1.5	1.5	1.25
DC~12.4	0.6	0.7	0.8	0.9	/	/	1.35
DC~18	0.8	0.9	1.2	1.5	/	/	1.45

**Attenuation Accuracy and VSWR (SMA)**

Frequency (GHz)	Attenuation Accuracy ( $\pm$ dB) vs. Attenuation (dB)				VSWR (max.)
	1~10	11~20	21~30	40	
DC~4	0.4	0.5	0.6	0.7	1.2
DC~8	0.5	0.6	0.8	0.8	1.25
DC~12.4	0.6	0.7	0.8	0.9	1.35
DC~18	0.8	0.9	1.2	1.5	1.45

**Typical Performance Curves  
N (DC~12.4GHz)**
