

# QFA1820

## DC~18GHz, 20W

Features:  
 \* Low VSWR  
 \* High Attenuation Flatness

Applications:  
 \* Wireless  
 \* Transmitter  
 \* Laboratory Test  
 \* Radar



### Electrical

Frequency: DC~18GHz  
 Attenuation: 1~60dB  
 Impedance: 50Ω  
 Average Power\*1: 20W@25°C max.

[1] Derated linearly to 1W@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	2	@SMA, DC~18GHz
5000		1	@N, DC~12.4GHz
1000		1	@N, 18GHz

### Length (mm/in)

Attenuation (dB)	N
1~10, 15, 20, 30@DC~18GHz	36 [1.417]
40, 50@DC~12.4GHz	36 [1.417]
40@18GHz	49.5 [1.949]

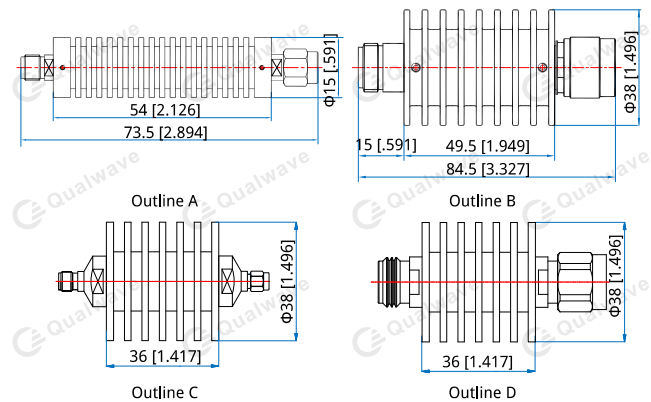
### Length (mm/in)

Attenuation (dB)	SMA
1~10, 15, 20, 30	36 [1.417]
40, 50, 60	54 [2.126]

### Attenuation Accuracy and VSWR (SMA)

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	0.6	0.7	0.8	0.9	1.2
DC~8	0.5	0.6	0.8	0.8	0.8	1.0	1.25
DC~12.4	0.6	0.7	0.8	0.9	1.0	1.2	1.3
DC~18	0.6	0.8	1.0	1.2	1.3	1.5	1.35

### Outline Drawings



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

### How To Order

#### QFA1820-X-Y-Z

X: Frequency in GHz  
 Y: Attenuation in dB  
 Z: Connector type

Connector naming rules:

S - SMA (Outline A, Outline C)  
 N - N (Outline B, D)

Examples:

To order an attenuator, DC-18GHz, N male to N female, 3dB attenuation, specify QFA1820-18-3-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	
DC~4	0.4	0.5	0.6	0.7	0.8	1.2
DC~8	0.5	0.6	0.8	0.8	0.8	1.25
DC~12.4	0.6	0.7	0.8	0.9	1.35	1.35
DC~18	0.6	0.8	1.0	1.2	/	1.45

## Typical Performance Curves

N

