

QFA1802

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°C max.

[1] Derated linearly to 0.1W@120°C.

Mechanical

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

Environmental

Temperature: -55~+125°C

Peak Power

Peak Power (W)	Pulse Width (μS)	Duty Cycle (%)	Applicable Scope
20	5	1	SMP,SSMA,SSMP,SMA (0 ~ 40dB)
500		0.2	SMA(50, 60dB), BNC,N,TNC

Length (mm/in)

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

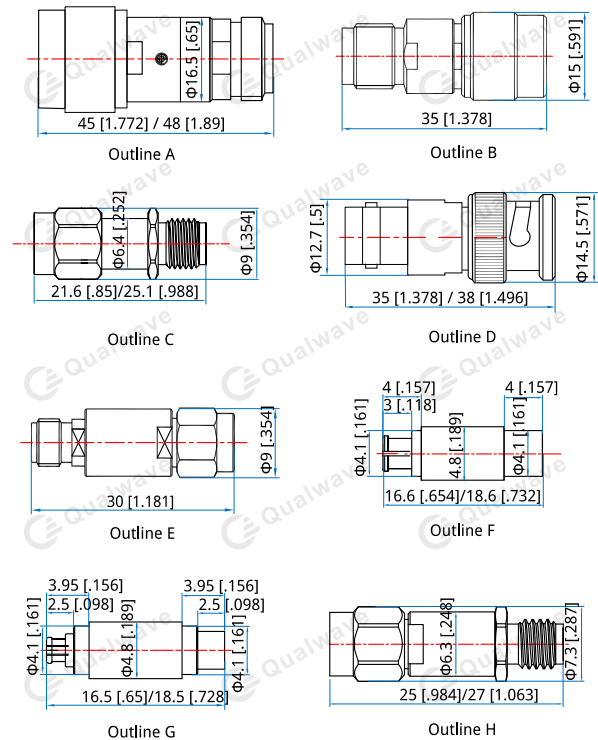
Length (mm/in)

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 [0.654]	16.5 [0.65]	25 [0.984]
30, 40	18.6 [0.732]	18.5 [0.728]	27 [1.063]

Outline Drawings



Unit: mm [in]
 Tolerance: $\pm 2\text{mm}$ [$\pm 0.08\text{in}$]

Attenuation Accuracy and VSWR (SMA)

Frequency (GHz)	Attenuation Accuracy (\pm dB) vs. Attenuation (dB)								VSWR (max.)
	0	1~6	7~10	12/15/20	30/40	50	60		
DC-4	-0.2/+0.2	-0.4/+0.4	-0.6/+0.4	-0.6/+0.4	-0.8/+0.6	0.7	0.8	1.25, 1.2@50, 60dB	
DC-8	-0.2/+0.2	-0.4/+0.4	-0.6/+0.4	-0.6/+0.4	-0.8/+0.6	0.8	0.9	1.25	
DC-12.4	-0.2/+0.3	-0.4/+0.5	-0.6/+0.5	-0.6/+0.5	-0.8/+0.7	1.0	1.1	1.3, 1.25@50, 60dB	
DC-18	-0.2/+0.4	-0.4/+0.6	-0.6/+0.6	-0.6/+0.6	-0.8/+0.8	1.5	1.5	1.35, 1.3@50, 60dB	

Attenuation Accuracy and VSWR (N)

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

Attenuation Accuracy and VSWR(SMP/SSMP/SSMA)

Frequency (GHz)	Attenuation Accuracy (\pm 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
QFA1802-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 QFA1802-18-30-S.

Connector naming rules:

N - N (Outline A)

T -TNC (Outline B)

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

B - BNC (Outline D)

P - SMP (Outline F)

G - SSMP (Outline G)

A - SSMA (Outline H)