

## QDA-18000-50000-31.75-0.25

18~50GHz, 31.75dB, 0.25dB

### Features:

- \* Broadband
- \* High Dynamic Range

### Applications:

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



### Electrical

Frequency:	18~50GHz
Insertion Loss:	8dB typ.
Step:	0.25dB
Attenuation Range:	0~31.75dB
Attenuation Accuracy:	±1.5dB typ. @0~16dB ±4dB typ. @16.25~31.75dB
VSWR:	2 typ.
Voltage/Current:	-5V @6mA typ.

### Absolute Maximum Ratings\*1

Input Power: +24dBm max.

[1] Permanent damage may occur if any of these limits are exceeded.

### Mechanical

Size*2:	36*26*12mm 1.417*1.024*0.472in
RF Connectors:	2.4mm Female
Switching Time:	20ns typ.
Power Supply & Control	30J-9ZKP
Interface Connectors:	
Mounting:	4-Φ2.8mm through-hole
Logic Input:	On: 1( +2.3~+5V) Off: 0( 0~+0.8V)

[2] Exclude connectors.

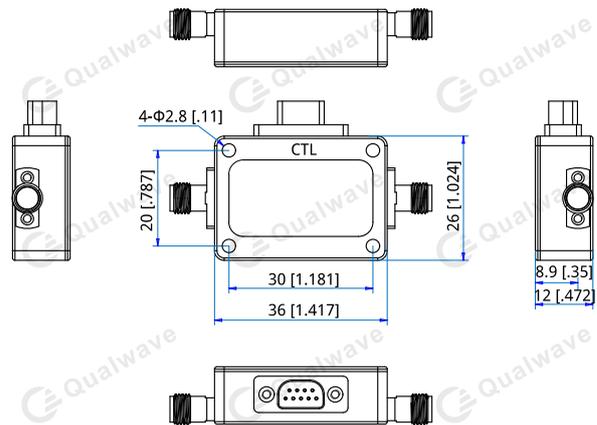
### Pin Numbering

Pin	Function	Pin	Function
1	C1:-0.25dB	6	C6:-8dB
2	C2:-0.5dB	7	C7:-16dB
3	C3:-1dB	8	VEE
4	C4:-2dB	9	GND
5	C5:-4dB		

### Environmental

Operating Temperature:	-45~+85°C
Non-operating Temperature:	-55~+125°C

### Outline Drawings



Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

### Logic Table

State	C1	C2	C3	C4	C5	C6	C7	VEE	Attenuation State
-	0	0	0	0	0	0	0	-5V	Reference IL
1	1	0	0	0	0	0	0	-5V	0.25dB
2	0	1	0	0	0	0	0	-5V	0.5dB
3	0	0	1	0	0	0	0	-5V	1dB
4	0	0	0	1	0	0	0	-5V	2dB
5	0	0	0	0	1	0	0	-5V	4dB
6	0	0	0	0	0	1	0	-5V	8dB
7	0	0	0	0	0	0	1	-5V	16dB
8	1	1	1	1	1	1	1	-5V	31.75dB

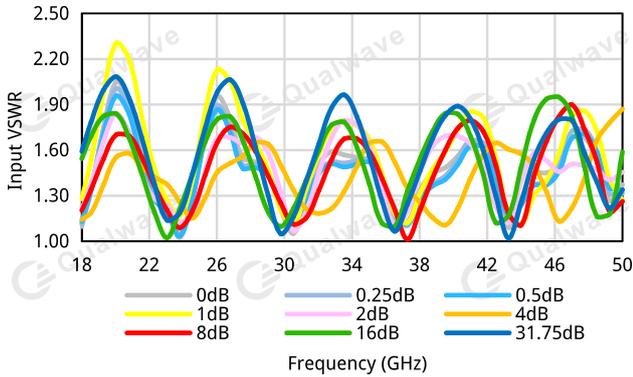
### How To Order

[QDA-18000-50000-31.75-0.25](#)

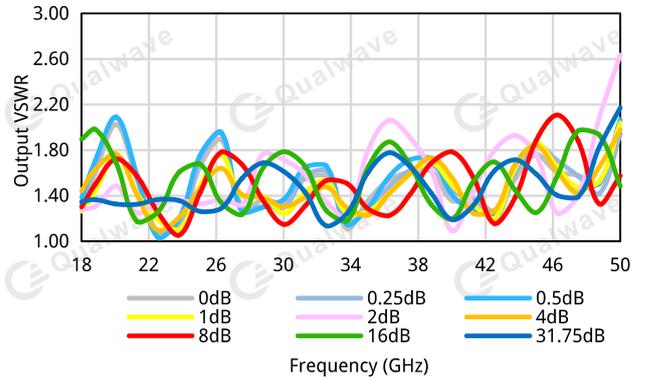
Customization is available upon request.

## Typical Performance Curves

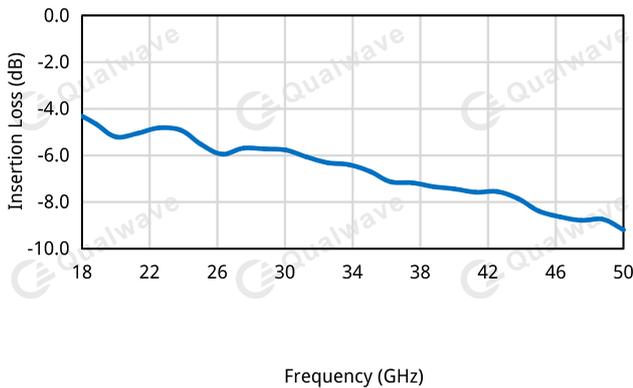
Input VSWR vs. Frequency



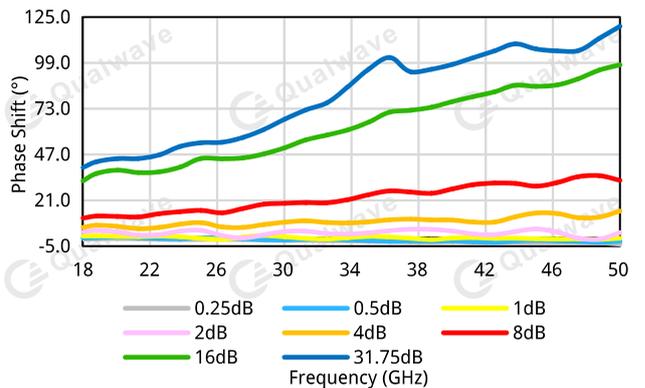
Output VSWR vs. Frequency



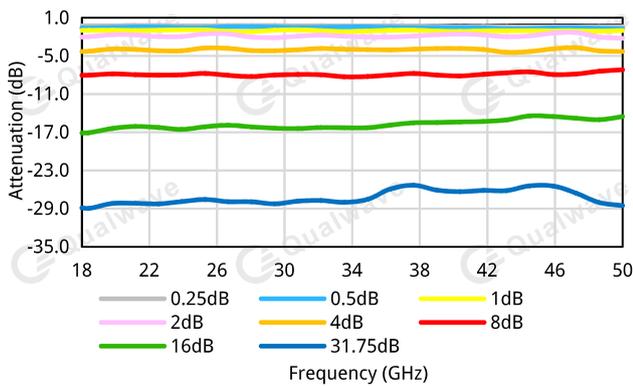
Insertion Loss vs. Frequency



Phase Shift vs. Frequency



Attenuation vs. Frequency



Attenuation Accuracy vs. Frequency

