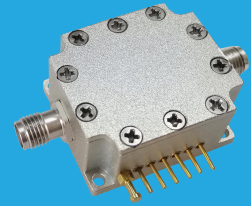


## QDA-50-4000-31-1

### 50MHz~4GHz

Features:  
 \* Broadband  
 \* High Dynamic Range

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



### Electrical

|                       |                      |
|-----------------------|----------------------|
| Frequency:            | 0.05~4GHz            |
| Insertion Loss:       | 1.5dB typ., 3dB max. |
| Attenuation Flatness: | ±1.5dB max.          |
| Control Bits:         | 5                    |
| Step:                 | 1dB                  |
| Attenuation Range:    | 0~31dB               |
| Attenuation Accuracy: | ±0.5dB typ.          |
| Switching Time:       | 1uS typ.             |
| Input VSWR:           | 1.2 typ.             |
| Output VSWR:          | 1.8 typ.             |
| Voltage:              | +5V DC               |
| Current:              | 1mA typ.             |
| Input Power:          | 24dBm max.           |

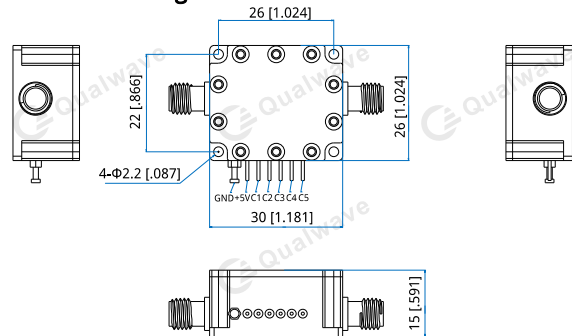
### Environmental

|                            |           |
|----------------------------|-----------|
| Operating Temperature:     | -40~+60°C |
| Non-operating Temperature: | -55~+70°C |

### Pin Numbering

| Pin | Function | Pin | Function |
|-----|----------|-----|----------|
| 1   | GND      | C3  | 4dB      |
| 2   | +5V      | C4  | 8dB      |
| C1  | 1dB      | C5  | 16dB     |
| C2  | 2dB      |     |          |

### Outline Drawings



Unit: mm [in]  
 Tolerance: ±0.2mm [±0.008in]

### How To Order

**QDA-50-4000-31-1**

Customization is available upon request.

### Absolute Maximum Ratings<sup>\*1</sup>

|                 |                        |
|-----------------|------------------------|
| RF Input Power: | 30dBm                  |
| Voltage:        | -0.3V min., +5.5V max. |

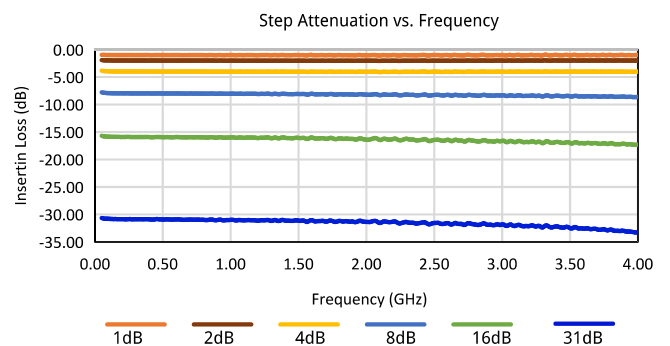
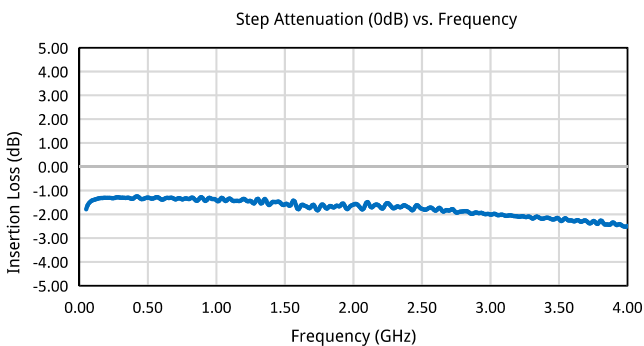
[1] Permanent damage may occur if any of these limits are exceeded.

### Mechanical

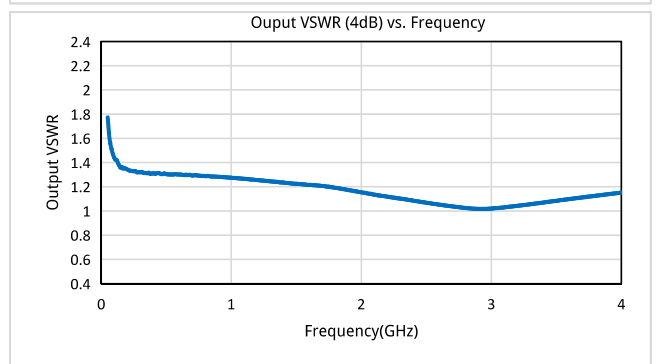
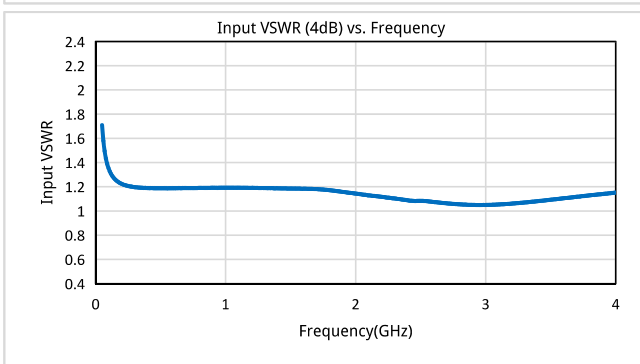
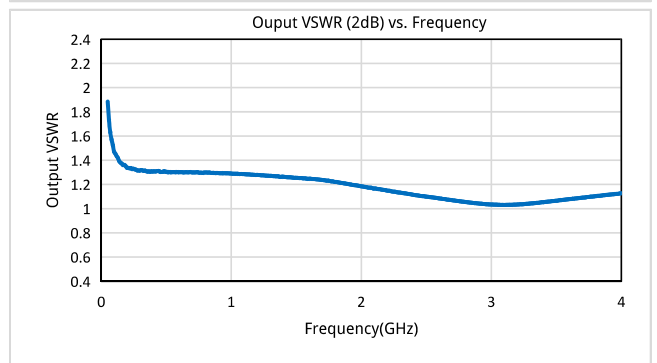
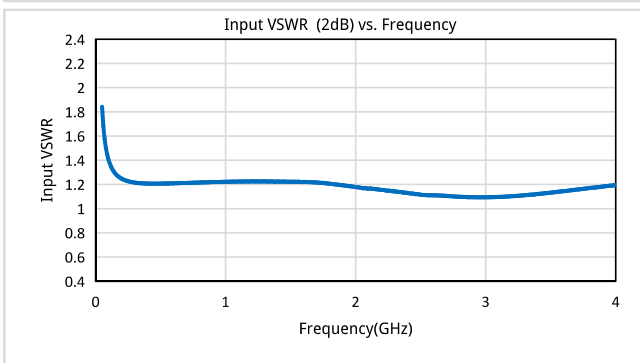
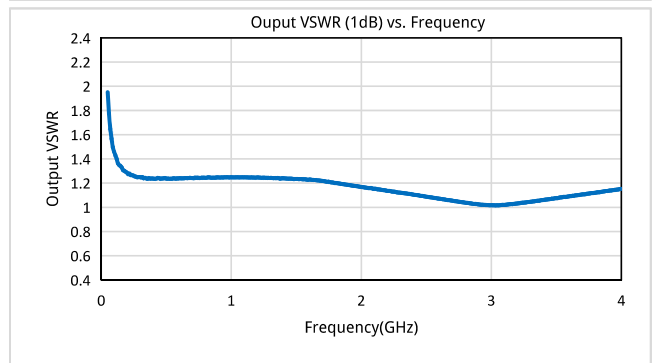
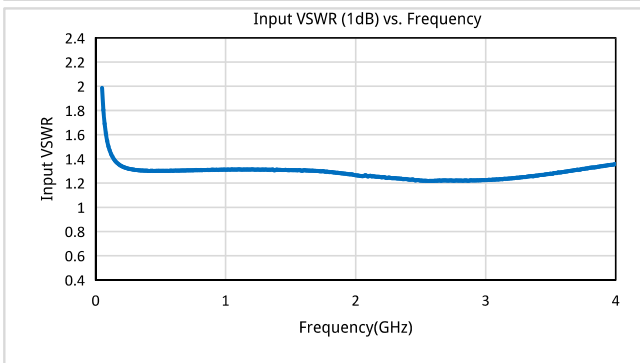
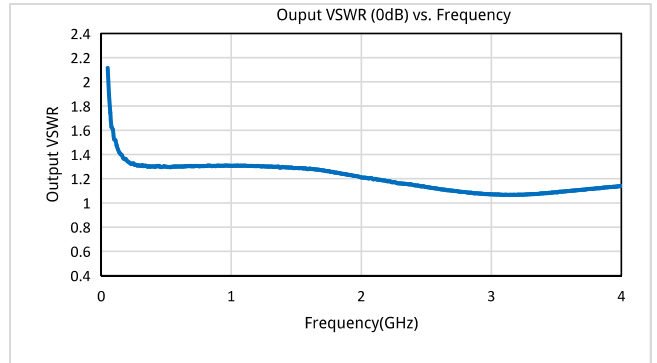
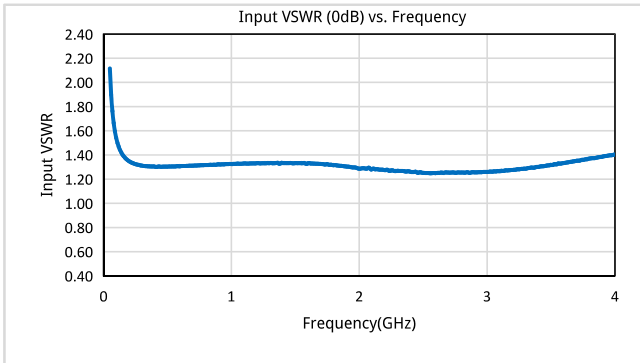
|  |                                   |
|--|-----------------------------------|
| Size <sup>*2</sup> :                         | 30*26*15mm<br>1.181*1.024*0.591in |
| RF Connectors:                               | SMA Female                        |
| Power Supply & Control Interface Connectors: | Feed Through/Terminal Post        |
| Housing Material:                            | Aluminum                          |
| Mounting:                                    | 4-Φ2.2mm through-hole             |

[2] Exclude connectors.

### Typical Performance Curves



## Digitally Controlled Attenuators



## Digitally Controlled Attenuators

