

## QDA-500-40000-31.5-0.5

0.5~40GHz, 31.5dB, 0.5dB

**Features:**  
 \* Broadband  
 \* High Dynamic Range

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

### Electrical

|                       |   |
|-----------------------|---|
| Frequency:            | 0.5~40GHz                                   |
| Insertion Loss:       | 7dB max.                                    |
| Attenuation Flatness: | ±1.2dB typ.@15dB<br>±2dB typ.@31.5dB        |
| Step:                 | 0.5dB                                       |
| Attenuation Range:    | 0~31.5dB                                    |
| Attenuation Accuracy: | ±1.2dB typ.@0.5~15dB<br>±2dB typ.@15~31.5dB |
| VSWR:                 | 1.6 max. @0.5~15GHz<br>2.0 max. @15~40GHz   |
| Voltage/Current:      | +3.3V @20mA Max.<br>-3.3V @20mA Max.        |
| Input Power:          | +25dBm max.                                 |

### Mechanical

|  |                                    |
|--|------------------------------------|
| Size*1:                                      | 34*18*12mm<br>1.339*0.709*0.472in  |
| Switching Time:                              | 1 us                               |
| RF Connectors:                               | 2.92mm Female                      |
| Power Supply & Control Interface Connectors: | D-Sub 15                           |
| Housing Material:                            | Nickel Plated                      |
| Mounting:                                    | 4-Φ2.7 through-hole                |
| Logic Input:                                 | On: 1(+1.2~3.3V)<br>Off: 0(0~0.8V) |

[1] Exclude connectors.

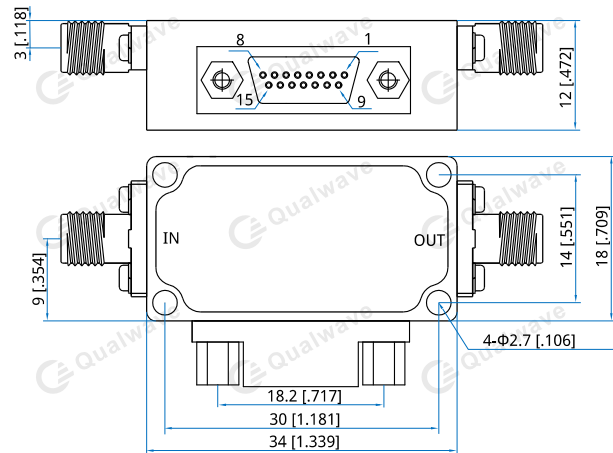
### Pin Numbering

| Pin | Function | Pin   | Function |
|-----|----------|-------|----------|
| 1   | +3.3V    | 6     | C3       |
| 2   | COM      | 7     | C4       |
| 3   | -3.3V    | 8     | C5       |
| 4   | C1       | 9     | C6       |
| 5   | C2       | 10-15 | NC       |

### 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 | Att.                      |
|-------|----|----|----|----|----|----|---------------------------|
| -     | 0  | 0  | 0  | 0  | 0  | 0  | 31.5dB<br>Reference<br>IL |
| 1     | 1  | 0  | 0  | 0  | 0  | 0  | 0.5dB                     |
| 2     | 0  | 1  | 0  | 0  | 0  | 0  | 1dB                       |
| 3     | 0  | 0  | 1  | 0  | 0  | 0  | 2dB                       |
| 4     | 0  | 0  | 0  | 1  | 0  | 0  | 4dB                       |
| 5     | 0  | 0  | 0  | 0  | 1  | 0  | 8dB                       |
| 6     | 0  | 0  | 0  | 0  | 0  | 1  | 16dB                      |
| 7     | 1  | 1  | 1  | 1  | 1  | 1  | 31.5dB                    |

### How To Order

**QDA-500-40000-31.5-0.5**

Customization is available upon request.