

## FDA-0-50000-63.5-0.5

DC~50GHz, 63.5dB, 0.5dB

### Features:

- \* Broadband
- \* High Dynamic Range

### Applications:

- \* Laboratory Test
- \* Telecommunication
- \* Wireless
- \* Instrumentation



### Electrical

|                       |                                      |
|-----------------------|--------------------------------------|
| Frequency:            | DC~50GHz                             |
| Insertion Loss:       | 12dB typ.                            |
| Step:                 | 0.5dB                                |
| Attenuation Range:    | 0~63.5dB                             |
| Attenuation Accuracy: | ±3dB typ.                            |
| VSWR:                 | 2 typ.                               |
| Voltage/Current:      | -5V @15mA typ.                       |
| Switching Time:       | 20ns typ.                            |
| Logic Input:          | On: 1( +2.3~+5V)<br>Off: 0( 0~+0.8V) |

### Absolute Maximum Ratings\*1

|              |        |
|--------------|--------|
| Input Power: | +24dBm |
| Voltage:     | +6V    |

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

### Mechanical

|                                              |                                   |
|----------------------------------------------|-----------------------------------|
| Size*2:                                      | 36*26*12mm<br>1.417*1.024*0.472in |
| RF Connectors:                               | 2.4 Female (Removable)            |
| Power Supply & Control Interface Connectors: | J30J-9ZKP                         |
| Mounting:                                    | 4-Φ2.8mm through-hole             |

[2] Exclude connectors.

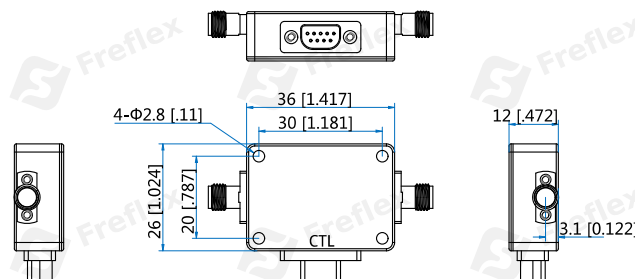
### Pin Numbering

| Pin | Function  | Pin | Function |
|-----|-----------|-----|----------|
| 1   | C1:-0.5dB | 6   | C6:-16dB |
| 2   | C2:-1dB   | 7   | C7:-32dB |
| 3   | C3:-2dB   | 8   | VEE      |
| 4   | C4:-4dB   | 9   | GND      |
| 5   | C5:-8dB   |     |          |

### Environmental

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

### Outline Drawings



Unit: mm [in]

Tolerance: ±0.5mm [±0.02in]

### 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 | 0.5dB             |
| 2     | 0  | 1  | 0  | 0  | 0  | 0  | 0  | -5V | 1dB               |
| 3     | 0  | 0  | 1  | 0  | 0  | 0  | 0  | -5V | 2dB               |
| 4     | 0  | 0  | 0  | 1  | 0  | 0  | 0  | -5V | 4dB               |
| 5     | 0  | 0  | 0  | 0  | 1  | 0  | 0  | -5V | 8dB               |
| 6     | 0  | 0  | 0  | 0  | 0  | 1  | 0  | -5V | 16dB              |
| 7     | 0  | 0  | 0  | 0  | 0  | 0  | 1  | -5V | 32dB              |
| 8     | 1  | 1  | 1  | 1  | 1  | 1  | 1  | -5V | 63.5dB            |

### How To Order

**FDA-0-50000-63.5-0.5**

Customization is available upon request.

## Typical Performance Curves

