

## FDA-1000-18000-31.5-0.5

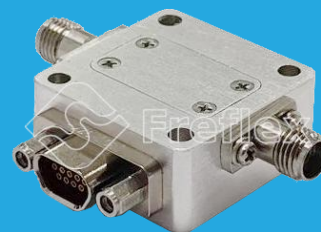
1~18GHz, 31.5dB, 0.5dB

### Features:

- \* Broadband
- \* High Dynamic Range

### Applications:

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



### Electrical

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Frequency:            | 1~18GHz                                           |
| Insertion Loss:       | 5dB typ.                                          |
| Step:                 | 0.5dB                                             |
| Attenuation Range:    | 0~31.5dB                                          |
| Attenuation Accuracy: | ±0.8dB typ. @0.5~16dB<br>±1.5dB typ. @17.5~31.5dB |
| VSWR:                 | 1.6 typ.                                          |
| Voltage/Current:      | -5V @15mA typ.                                    |

### Absolute Maximum Ratings\*1

|              |             |
|--------------|-------------|
| Voltage:     | -6V max.    |
| Input Power: | +27dBm max. |

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

### Mechanical

|                        |                                    |
|------------------------|------------------------------------|
| Size*2:                | 26*26*12mm<br>1.024*1.024*0.472in  |
| RF Connectors:         | 2.92mm Female                      |
| Switching Time:        | 50ns max.                          |
| Power Supply & Control | 30J-9ZKP                           |
| Interface Connectors:  |                                    |
| Mounting:              | 4-Φ2.8mm through-hole              |
| Logic Input:           | On: 1( +3~+5V)<br>Off: 0( 0~+0.5V) |

[2] Exclude connectors.

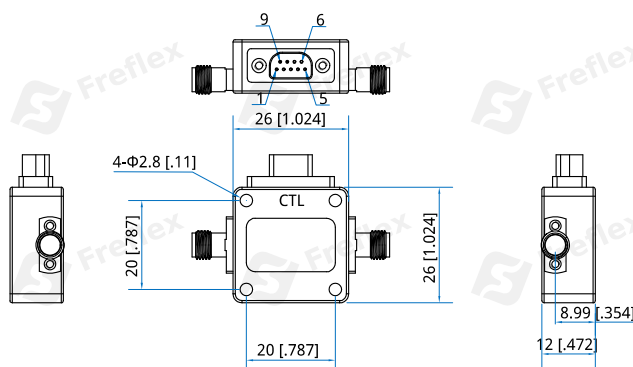
### Pin Numbering

| Pin | Function  | Pin | Function |
|-----|-----------|-----|----------|
| 1   | C1:-0.5dB | 6   | C6:-16dB |
| 2   | C2:-1dB   | 7   | VEE      |
| 3   | C3:-2dB   | 8   | NC       |
| 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: ±0.2mm [±0.008in]

### Logic Table

| State | C1 | C2 | C3 | C4 | C5 | C6 | VEE | Attenuation State |
|-------|----|----|----|----|----|----|-----|-------------------|
| -     | 0  | 0  | 0  | 0  | 0  | 0  | -5V | Reference IL      |
| 1     | 1  | 0  | 0  | 0  | 0  | 0  | -5V | 0.5dB             |
| 2     | 0  | 1  | 0  | 0  | 0  | 0  | -5V | 1dB               |
| 3     | 0  | 0  | 1  | 0  | 0  | 0  | -5V | 2dB               |
| 4     | 0  | 0  | 0  | 1  | 0  | 0  | -5V | 4dB               |
| 5     | 0  | 0  | 0  | 0  | 1  | 0  | -5V | 8dB               |
| 6     | 0  | 0  | 0  | 0  | 0  | 1  | -5V | 16dB              |
| 7     | 1  | 1  | 1  | 1  | 1  | 1  | -5V | 31.5dB            |

### How To Order

**FDA-1000-18000-31.5-0.5**

Customization is available upon request.

## Typical Performance Curves

