

# Mini Mirror Variable Optical Attenuator (Dark Type)

#### Description

Broadex Technologies offers an electrostatically actuated VOA with a mirror type mechanism that is extremely compact and easy to integrate into any optical network. This thermally actuated VOA is available in both bright and dark configurations and features very low insertion loss and polarization dependent loss along with high dynamic range and high off-state extinction. The hermetically sealed packaging is highly insensitive to shock and vibration and is ESD safe up to 500V.

Broadex Technologies Mirror ES VOA is ideal for receiver protection or transponder power control, and it is also widely used in EDFAs for power equalization of all channels in multi-channel systems.

#### **Features**

- Compact size
- · Ultra-fast tuning speed
- · Extremely low power consumption
- Low insertion loss
- Hermetically sealed MEMS chip
- Compliance with Telcordia GR-468-CORE

#### **Applications**

- Optical network power management
- Gain-tilt control in EDFA
- Receiver protection
- · Channel on/off switching
- Mux and Demux module, OADM node



## **Specifications**

### **Optical Specifications**

|                                 |           | Min         | Тур | Max  | Unit |
|---------------------------------|-----------|-------------|-----|------|------|
| Attenuator type                 |           | ES Dark VOA |     |      |      |
| Wavelength Range, C-band option |           | 1530-1570   |     |      | nm   |
| Attenuation Range               |           | 30          |     |      | dB   |
| Insertion loss                  |           |             |     | 0.9  | dB   |
| Polarization                    | 0dB~10dB  |             |     | 0.25 | dB   |
| Dependent Loss                  | 10dB~20dB |             |     | 0.4  | dB   |
| Wavelength                      | 0dB~10dB  |             |     | 0.8  | dB   |
| Dependent Loss                  | 10dB~20dB |             |     | 1.5  | dB   |
| TDL@0-20dB                      |           |             |     | 2.0  | dB   |
| Resolution                      |           |             | 0.1 |      | dB   |
| Repeatability                   |           |             |     | 0.1  | dB   |
| Optical Return Loss             |           | 45          |     |      | dB   |
| Response Time                   |           |             |     | 5    | ms   |
| Polarization Mode Dispersion    |           |             |     | 0.05 | Ps   |
| Total Optical Power             |           |             |     | 27   | dBm  |

### **Electrical Specifications**

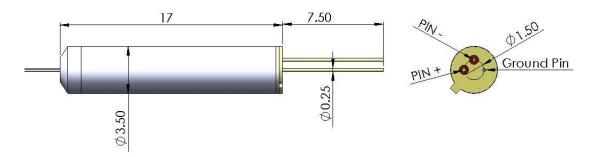
| Parameters                   |     | Typical | Max | Units |
|------------------------------|-----|---------|-----|-------|
| Control Voltage              | 0   |         | 6.5 | v     |
| Voltage damage threshold     |     |         | 7   | V     |
| Resistance                   | 5   |         |     | MOhm  |
| Electrical Power Consumption |     |         | 0.5 | mW    |
| ESD Damage                   | 500 |         |     | ٧     |

### **Mechanical Specification**

| Parameters        | description                            |  |  |
|-------------------|--|--|--|
| Package Dimension | Ф3.5x17 mm                             |  |  |
| Fiber Ture        | ITU-T G.652.D Compliant, the input por |  |  |
| Fiber Type        | fiber marked red                       |  |  |



#### **Mechanical Drawing**



### **Packaging**



#### **Contact Us**

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