



Variable Optical Attenuator

Single-Channel Mini VOA

Mini VOA is a VOA product family using the MEMS chip with a movable mirror on the silicon. The mirror attenuates the laser light power by coupling the input beam onto the output fiber. The applied voltage to the device controls the mirror tilt angle, thus the desired attenuation amount.

The Mini VOA is the best-in-class miniature VOA product with uncompromised stability, performance and durability.

Applications

- Channel on/off switch
- Channel equalization
- Receiver protection
- Power equalization in OADM/ROADM
- Power equalization in VMUX
- EDFA GAIN-TILT control



Quality Performance Excellence

Features

- Miniature design in a TO46 package
- Hermetically sealed
- Low insertion loss (IL)
- Low polarization dependent loss (PDL)
- **High attenuation range**
- Low power consumption
- Fast response time
- High optical power handling
- Telcordia GR-1209 & GR-1221 compliant

OptiMemS Technology, Inc.

TEL: +1 248 579-0714

E-MAIL: sales@optimems.com

WEBSITE: www.optimems.com

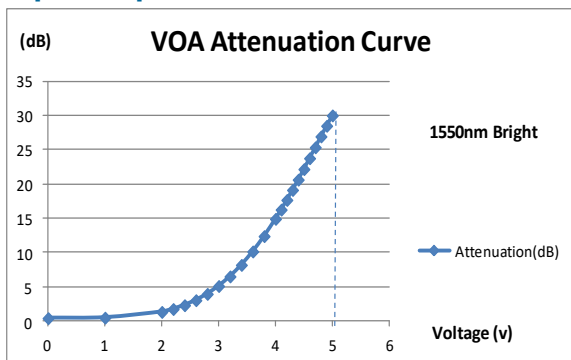
Variable Optical Attenuator

Specifications

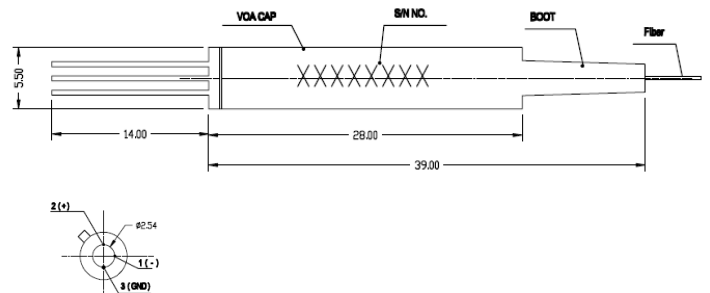
| Parameter | | Specification | | Unit | | | |
|-----------------------------|--|---------------|-----------------|-----------------|-------|-----|----|
| Configuration | | Bright | Dark | | | | |
| Operating Wavelength Range | | 1260—1620 | | nm | | | |
| Wavelength—tested | | 1330 / 1550 | | nm | | | |
| Attenuation Range | | Min | 30 | 30 | dB | | |
| Driving Voltage (LV / HV) | | Max | 5 / 16 | 5 / 16 | V | | |
| Insertion loss | | Max | 0.7 | 0.7 | dB | | |
| Polarization Dependent Loss | | 0 dB | Max | 0.15 | 0.15 | dB | |
| | | 0-10dB | Max | 0.3 | 0.3 | dB | |
| | | 10-20dB | Max | 0.5 | 0.5 | dB | |
| Wavelength Dependent Loss | | 0 dB | Max | 0.2 | 0.2 | dB | |
| | | Broadband | 0-10dB | Max | 0.6 | 0.6 | dB |
| | | | 10-20dB | Max | 1.5 | 1.5 | dB |
| (Flatness) | | Narrowband | 0 dB | Max | 0.2 | 0.2 | dB |
| | | | 0-10dB | Max | 0.2 | 0.2 | dB |
| | | | 10-20dB | Max | 0.3 | 0.3 | dB |
| Optical Return Loss | | Min | 45 | 45 | dB | | |
| Repeatability | | Max | 0.1 | 0.1 | dB | | |
| Wear-out | | Min | 10 ⁹ | 10 ⁹ | Cycle | | |
| Response Time | | Max | 5 | 5 | ms | | |
| Total Optical Power | | Max | 500 | 500 | mW | | |
| Dimension | | 28×Φ5.4 (L×D) | | mm | | | |
| Fiber Type | | Corning | SMF-28 | | | | |
| Operating Temperature | | -5~70 | | °C | | | |
| Storage Temperature | | -40~85 | | °C | | | |
| Power Consumption | | 10 | | mW | | | |

1. Maximum change of each 2 nm segment within the operating wavelength range.

Optical performance



Dimension



| B | B | C | S | N | — | N | 0 | 0 | 1 | 0 |
|-----------------------------|--|--|----------------|-------------------------------|--|--|-------------------------------|------------------|------------|---|
| Package Type: | Attenuation Type: | Wavelength Range: | Optical Modes: | Attenuation Range: | Test Method: | Connector Type: | Fiber Jacket | Fiber Length: | Mfg Spec:: | |
| B: Mirror Type, Mini-Casing | B: Bright 5V C: Bright 15V D: Dark 5V E: Dark 15V | C 1525-1570nm L 1570-1610nm S 850nm G 980nm H 1060nm D 1310&1550nm B 1525-1610nm | S: Single-mode | L: 25dB N: 35dB W: 45dB | N: Narrow-band B: Broad-band S: Super-Stable | 0 None 1 FC/UPC 2 FC/APC 3 SC/APC 4 SC/UPC 5: LC/UPC 6: LC/APC | 0: Bare 1: 0.9mm OD Jacket | 1: 1m 2: 0.5m | 0: None | |