



Applications

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

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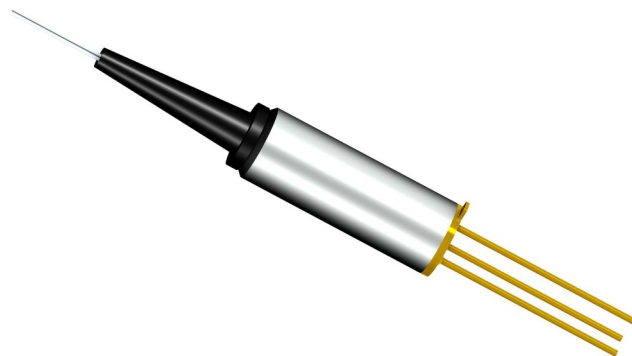
WEBSITE: www.optimems.com

Variable Optical Attenuator

Single-Channel Micro VOA

Micro 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 Micro VOA is the best-in-class miniature VOA product with uncompromised performance and durability.



Quality Performance Excellence

Features

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

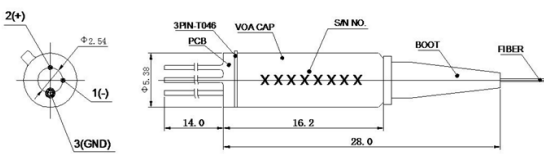
Variable Optical Attenuator

Specifications

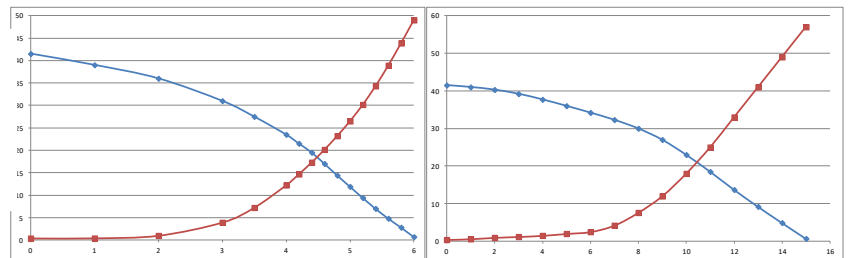
Parameter		Specification		Unit		
Configuration		Bright	Dark			
Operating Wavelength Range		1260—1620		nm		
Wavelength—tested		1330 / 1550		nm		
Attenuation Range	(LV / HV)	Min	30/40	30/40	dB	
Driving Voltage	(LV / HV)	Max	6 /16	6/16	V	
Insertion loss		Max	0.7	0.7	dB	
Polarization Dependent Loss	0 dB	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	Broadband	0 dB	Max	0.2	0.2	dB
		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		16×Φ5.4 (L×D)		mm		
Fiber Type		Corning SMF-28 (9/125μm)				
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.

Dimension



Optical performance



Low Voltage: Attenuation Curve

High Voltage: Attenuation Curve

Ordering Information

A	B	C	S	N	N	0	0	1	0
Package Type:	Attenuation Type:	Wavelength Range:	Optical Modes:	Attenuation Range:	Test Mode:	Connector Type:	Fiber Protection:	Fiber Length:	Mfg Spec:
A: Mirror Type, Short "Micro"	B Bright 5V C Bright 15V D Dark 5V E Dark 15V	C 1525-1570nm L 1570-1610nm S 850nm H 1060nm D 1310&1550nm	S Single-mode	L: 25dB N: 35dB W: 45dB	N Narrow-band B Broad-band	0 None 1 FC/UPC 2 FC/APC 3 SC/APC 4 LC/UPC 5 LC/UPC 6 LC/APC	0: No jacket 1: 0.9mm OD jacket	1: 1m 2: 0.5m	0: None