

# MEMS Variable Optical Attenuator

## Features:

- Low Insertion Loss
- Large Attenuation Range
- Low PDL, Low WDL
- Low Power Consumption
- Normally Closed or Normally Open
- RoHS Compliant



## Applications:

- Power Management in Optical Network
- Power Balancing Between Amplification Stages
- Dynamic Optical Power Control and Channel Equalization
- Channel Balancing for Optimizing Transmission Performance

## Specifications<sup>1</sup>:

Parameter	Unit		
Operating Wavelength Range	nm	C-Band or L-Band	
Dynamic Attenuation Range	dB	>30	
Insertion Loss	Max. dB	1.0(0.7 typ.)	
Wavelength Dependent Loss <sup>1</sup> (WDL)	Up to 20dB Attn	<1.2	
Polarization Dependent Loss <sup>1</sup> (PDL)	Up to 20dB Attn	<0.35	
Response Time <sup>2</sup>	mSec	<10	
Polarization Mode Dispersion (PMD)	pSec	<0.05	
Return Loss	dB	>50	
Temperature Dependent Loss (TDL)	at 0dB Attn at 20dB Attn	dB	<0.2 <1.5
Drive Voltage	VDC	<20	
Power Consumption	W	<1 * 10 <sup>-9</sup>	
Operating Temperature	°C	-5~70	
Storage Temperature	°C	-40~85	
Fiber Type		SMF-28	
Hermeticity	Atm.cm <sup>3</sup> /s	<10 <sup>-7</sup>	
Package Dimension	mm	5.6 dia, 26 L	
Telcordia Specs		GR-1209-Core , GR-1221-Core	

1. Over temperature and wavelength range.

2. 10%-90% response in open loop for the 19-Volt model. Other models have different response times

**Order Information:**

$$\text{MVOA} - \underset{\text{A}}{\text{X}} - \underset{\text{B}}{\text{X}} - \underset{\text{C}}{\text{XX}} - \underset{\text{D}}{\text{XX}}$$

A	Operating Wavelength	C=C Band
		L=L Band
B	Type	B=Blocking
		N=Non-Blocking
C	Driving Voltage	05=5 Volts
		07=7 Volts
		11=11 Volts
		19=19 Volts
		XX=Custom
D	Connector	NN=W/O connector
		XY=With connector <sup>2</sup>

1. Other customized MEMS VOA is also available
2. Please specify the type of connector as below when ordering.

Mechanical Type	Other	SC	FC	ST	MU	LC
X	0	1	2	3	4	5
Physical Contact Type	Other	PC	UPC	APC		
Y	0	1	2	3		