

MEMS Variable Optical Attenuation Collimator

(patents pending)

Product Description

The MEMS VOA series product is based on a proprietary micro-electro-mechanical mechanism featuring compact design, simple construction, easy direct drive, and excellent optical performance. The MEMS VOA series is compliant with the Telcordia 1209 and 1221 reliability standards. The MEMS VOA collimator integrates MEMS VOA chip in regular collimator, providing easy solution for where VOA function is needed. Its IL can be adjusted with a low voltage.

The MEMS VOA collimator is available in either normally- transparent or normally-opaque configurations.



Performance Specifications

MM Series VOA		Min	Typical	Max	Unit
Wavelength			1260-1620		nm
Insertion Loss ¹			0.15	0.5	dB
Attenuation Range		25	30	>50	dB
Polarization Dependent Loss	@10dB		0.1	0.2	dB
	@20dB		0.25	0.5	dB
Wavelength Dependent Loss within 40nm band	@10dB		0.15	0.4	dB
	@20dB		0.35	0.7	dB
Temperature Dependent Loss ²	@10dB		0.4	0.7	dB
	@20dB		0.8	1.2	dB
Attenuation Resolution			Continuous		
Polarization Mode Dispersion			0.01	0.05	ps
Return Loss		45	50		dB
Repeatability			0.06	0.1	dB
Response Time			3	6	ms
Driving voltage ³			3.5	5	V
Device resistance		100	106		ohm
Power consumption			40	80	mW
Optical Power Handling			200	500	mW
Operating Temperature		-5		75	°C
Storage Temperature		-40		85	°C
Reliability		Telcordia 1209 and 1221			
Fiber Type		Corning SMF28 or equivalent			
Package Dimension		ø3.2x11.5			mm

Notes:

1. Excluding connectors
2. Reference to room temperature
3. For 20dB (normal transparent version) or 0.5dB (normal opaque version).

Features

- Compact
- Low Cost
- High Reliability
- Low IL, PDL, WDL & TDL
- Low Power Consumption

Applications

- Power Control
- Power Adjust
- Channel Balance
- Instrumentation
- Hybrid integration

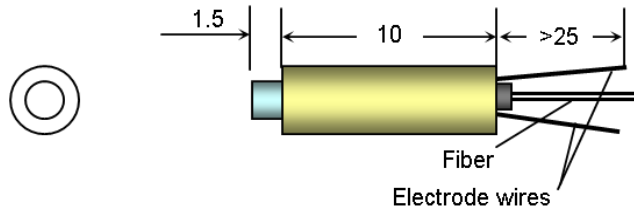


Revision: 060-18
05-24-11

MEMS Variable Optical Attenuator

Mechanical Footprint Dimensions (mm)

Standard Package



Electrical Driving Instruction

NOTES

- Electrode wires are for control voltage that are reversible.
- Do not applying more than 7V.

Ordering Information

VOAC-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Wavelength	Off State	Package	Fiber	Fiber Length	Connector	
	Single fiber =11 Dual fiber=22 Special=00	1310 window =3 1550 window =5 1260-1620nm=8 Special = 0	Transparent=1 Opaque = 2	Standard=1 Special=0	SMF-28 =1 Special = 0	Bare fiber=1 900um loose tube=3 Special = 0	0.25m= 1 0.5m = 2 1.0m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0



MEMS Variable Optical Attenuator

Typical Performance Charts

