

etMEMS™ Variable Optical Attenuation Collimator

(US patent 8,666,218 and other patents pending)

Product Description

The etMEMS™ Series VOA collimator is based on a proprietary micro-electro-mechanical mechanism featuring compact design, simple construction, easy direct drive, and excellent optical performance. The etMEMS™ Series VOA collimator is compliant with the Telcordia 1209 and 1221 reliability standards. The etMEMS™ Series VOA collimator integrates etMEMS™ 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

etMEMS™ VOA Collimator	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 ^[4]	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).
4. Over this value will damage the device

Features

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

Applications

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

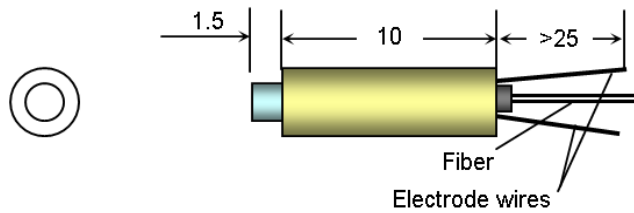


Revision: 03-10-15

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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



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Typical Performance Charts

