

MEMS Variable Optical Attenuator Pigtail (patents pending)

Product Description

The MEMS VOA Pigtail is based on a micro-electro-mechanical mechanism featuring simple construction, high reliability, and excellent optical performance. It is available in either normally-open or normally-closed configurations. The VOA Pigtail is driven by an electrical voltage; and the attenuation can be continuously adjusted.

It is designed to be part of laser, WDM package, or TOSA and ROSA.



Features

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

Performance Specifications

MM VOA Pigtail	Min	Typical	Max	Unit
Wavelength		C-Band		nm
Insertion Loss ¹		0.3	0.5	dB
Attenuation Range	20			dB
Polarization Dependent Loss @10dB		0.15	0.3	dB
Wavelength Dependent Loss @10dB		0.2	0.5	dB
Temperature Dependent Loss @10dB		0.3	0.5	dB
Attenuation Resolution		Continuous		
Polarization Mode Dispersion		0.01	0.05	ps
Return Loss	45			dB
Repeatability			0.1	dB
Response Time		2	5	ms
Driving voltage ²		5	6	V
Power consumption ²		50	80	mW
Optical Power Handling		300	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		See drawing below		mm

Notes:

1. Excluding connectors
2. For full dynamic range. Other drive voltages available

Applications

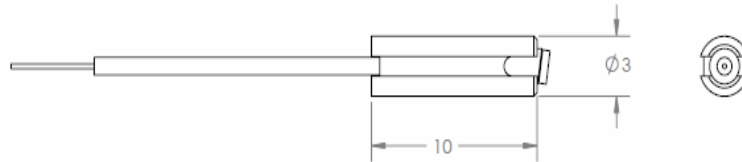
- Laser Power Control
- Power Regulate
- Channel Balance
- Instrumentation



Revision: 070-12
06-17-10

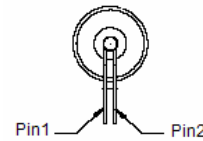
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Mechanical Footprint Dimensions (mm)



Electrical Driving Instruction

Pin 1	V+
Pin 2	V-



NOTES

- Pin1 and Pin2 are for control voltage that are reversible.
- Do not apply more than 7V.

Ordering Information

PTOA-	Type	Wavelength	Off State	Package	Fiber	Fiber Length	Connector
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Standard	1310=3 1550 = 5 C+L=2 1310&1550= 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

