

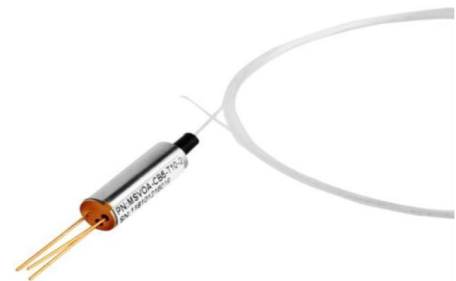
## MEMS VOA

### Description

The Gigalight MEMS VOA (Micro Electro-Mechanical Systems Variable Optical Attenuator) is a micro-optic component designed for next generation, dynamically configurable optical networks. It is based on the Photonic Integrated Circuit (PIC) and electrostatic MEMS technology. The reflective mirror MEMS technology enables the creation of products with high attenuation levels and can be configured as bright or dark devices. When combined with the advanced packaging and manufacturing capabilities, this results in a new category of MEMS components that are designed to exceed specifications for performance, compactness, manufacturability and reliability. Gigalight provides a series of customized MEMS VOA products to meet different requirements on operating wavelength, attenuation type, drive voltage, fiber type, fiber length, input connector, and output connector.

### Features

- ✓ Low Insertion Loss (IL)
- ✓ High isolation
- ✓ Low Polarization Dependent Loss (PDL)
- ✓ Compact design
- ✓ Wide attenuation range: >30dB
- ✓ Operating wavelength range: C-band or L-band
- ✓ Low power consumption < 2mW
- ✓ Insensitive to shock and vibration
- ✓ Telcordia GR-1209-CORE-2001 compliant
- ✓ Telcordia GR-1221-CORE-1999 compliant
- ✓ ITU-T G.694.1 compliant
- ✓ RoHS-6 compliant (lead free)



### Applications

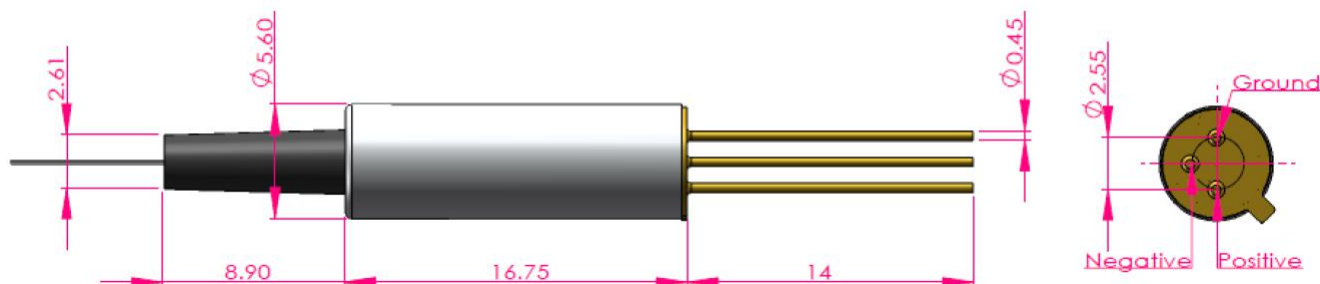
- ✓ Power control and equalization in multi-channel systems
- ✓ Gain-tilt control in EDFAs
- ✓ Receiver protection
- ✓ Channel on/off switching
- ✓ OADM

Parameters	MEMS VOA <sup>[1]</sup>	
Operating Wavelength range (nm)	C-band: 1530 ~ 1570 or L-band: 1570 ~ 1610	
Attenuation Type	Bright or Dark	
Attenuation Range (dB)	>30	
Blocking State Attenuation (dB)	>40 (Dark type)	
Insertion Loss (dB)	<0.7 (0.5 Typical) (Excluding Connectors)	
Attenuation Resolution (dB)	Continuous	
Wavelength Dependent Loss (dB)	<0.3 @ <0dB Attenuation	<1.5 @ <20dB Attenuation
Ripple (dB)	<0.05 Within 0.4nm window @20dB	
Return Loss (dB)	>45	
Polarization Dependent Loss (dB)	<0.1 @ <0dB Attenuation	<0.3 @ <20dB Attenuation
Temperature Dependent Loss (dB)	<0.7 @ <0dB Att. compare with RT	<1.0 @ <20dB Att. compare with RT
Polarization Mode Dispersion (ps)	<0.1	
Response Time (ms)	<3 (10-90% Optical Power)	
Optical Power Handling (mw)	300	
Driving Voltage (V <sub>DC</sub> )	6V or 15V	
Power Consumption (mw)	<2	
Operating Temperature (°C)	-5 ~ 75	
Storage Temperature (°C)	-40 ~ 85	

### Note:

[1] All specifications are based on the devices with connectors, and guaranteed over wavelength and temperature. Fiber type is G657A1.

### Mechanical Dimensions



### Ordering Information

GMSVOA-	x	x	xx	x	xx-	x	x
	Center Wavelength	Attenuation Type	Drive Voltage	Fiber Type	Fiber Length	Input Connector	Output Connector
MEMS VOA	C=C-band	B=Bright	06=6V	B=250um bare fiber	10=1.0m	0=None	0=None
	L=L-band	D=Dark	15=15V	L=0.9mm loose tube	15=1.5m	1=FC/UPC	1=FC/UPC
					20=2.0m	2=FC/APC	2=FC/APC
					25=2.5m	3=SC/UPC	3=SC/UPC
					...	4=SC/APC	4=SC/APC
						5=LC/UPC	5=LC/UPC
						6=LC/APC	6=LC/APC

#### Note :

If there is a demand for orders that are different from those described above, please contact Gigalight sales.

E-mail: [sales@gigalight.com](mailto:sales@gigalight.com)

Official Site: [www.gigalight.com](http://www.gigalight.com)