

Straight Single Mode PI etMEMS™ Variable Optical Attenuator

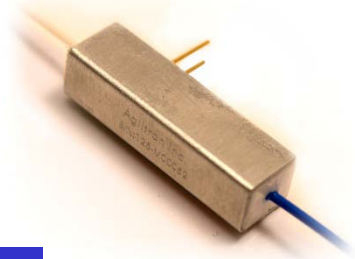
(all wavelength bands and types of fibers)

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

Product Description

The etMEMS™ Series PI variable attenuator (VOA) is based on proprietary MEMS design, offering many desirable features. The MEMS shutter is cable of totally blocking the light providing exceptionally large extinction. This device is low cost, as well as high power capability. The device features ceramic packaging providing exceptional temperature stability.

The VOA is driven with an electrical current at low voltage, and the attenuation can be continuously adjusted with the applied current or voltage. The silicon MEMS device is highly reliable with longevity. However, it can be damaged by applying voltage over the threshold.



Performance Specifications

etMEMS™ Series VOA	Min	Typical	Max	Unit
Operation Wavelength	350		2050	nm
Insertion Loss ^[1]	0.3	0.7	1.2	dB
Polarization Dependent Loss		0.15	0.4	dB
Wavelength Dependent Loss ^[2]		0.3		dB
Temperature Dependent Loss ^[3]		0.2		dB
Attenuation Range			65	dB
Attenuation Resolution		Continuous		
Return Loss		55		dB
Response Time		10		ms
Driving Voltage ^[4]		4.5	5.2 ^[5]	V
Device Electrical Resistance		100		ohm
Optical Power Handling ^[6]			500	mW
Operating Temperature	-10		75	°C
Storage Temperature	-40		85	°C
Fiber Type	See order information			
Package Dimension		22x5.6x6		mm

Notes:

[1]. Without connector and at room temperature

[2.] At attenuation of 20dB or less

[3]. At 0 attenuation and at whole temperature range.

[4]. The order of terminals does not matter

[5]. Over this value will damage the device.

[6]. High power version also available.

Features

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

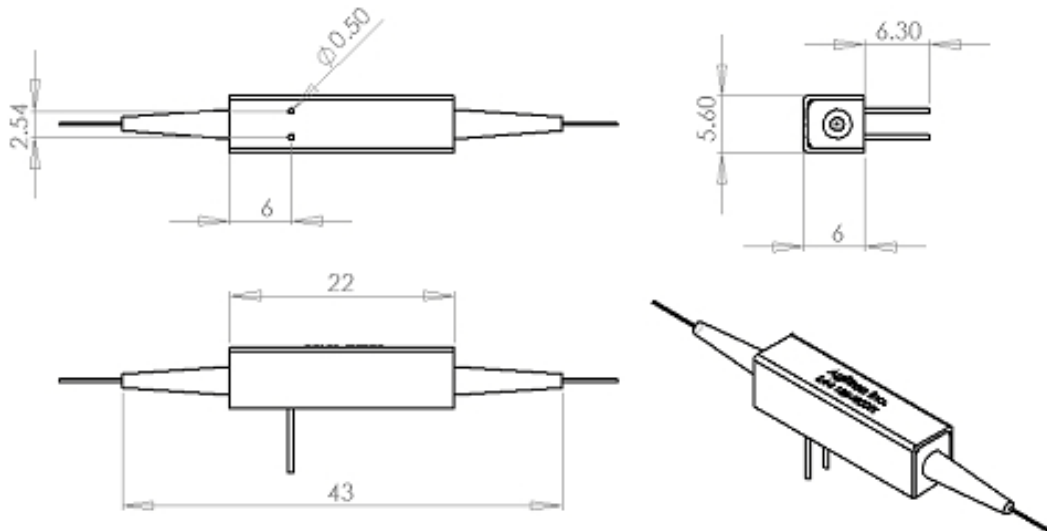
Applications

- Power Control
- Power Regulate
- Channel Balance
- Instrumentation

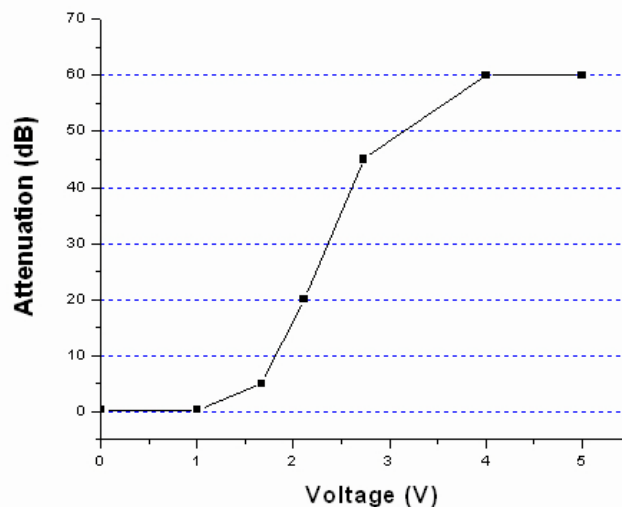


Straight Single Mode PI etMEMS™ Variable Optical Attenuator (SSMA)

Mechanical Footprint Dimensions (mm)



VOA Performance



Straight Single Mode PI etMEMS™ Variable Optical Attenuator (SSMA)

Ordering Information

SSMA -	☐	☐	☐	☐	☐	☐	☐	☐
	Type	Wavelength	Off State	Package Type	Fiber Type		Fiber Length	Connector
	Polarization Independent, Voltage control=11 Polarization Independent, Current Control=22	1060=6 1310=3 1550=5 2000=2 980=9 Special=0	Normally open =1 Normally opaque=2	Standard=1 Special=0	SMF28e=1 Hi1060=3 Special=0	Bare fiber=1 900um tube=3 Special=0	0.25m=1 0.5m=2 1.0 m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Special=0