High Precision MEMS Variable Attenuator

(patent pending)

Product Description

The High Precision Variable Fiber Optical Attenuator provide high precision control of a steady output optical power or attenuation independent of environmental variations or input laser instability. The module integrates input-tap and output-tap with VOAs in a compact format. The module eliminates laser power variations, such as PDL, WDL, TDL, etc. and is particularly suitable for continuous optical power regulation and transient optical suppression, as well as analog signal modulation applications.

The module is a platform ready for customization with control electronics option.

Features

- Highly Reliable
- Highly precise
- Low IL
- Large dynamic range

Applications

- Optical Power Control
- Optical Power Regulation
- Optical Power Balance
- Instrumentation

Performance Specifications

High Precision VOA Module	Min	Type	Max	Unit
Central Wavelength		780 ~1100, 1250~1650		nm
Insertion Loss [1]		1.5		dB
Attenuation Range		30	70[2]	dB
Control Voltage		3.5	5	V
Attenuation Setting Resolution		± 0.01		dB
Attenuation Accuracy		± 0.01		dB
Return Loss [3]	55			dB
Maximum Input Power			20	dBm
Minimum Detectable Power	-30			dBm
VOA Response Time	0.1		5	ms
Electrically Power Consumption/Channel			0.2	W
Resolution		Continuous		
Operating Temperature		-5 ~ 70		^{0}C
Storage Temperature		-40 ~ 85		^{0}C
Fiber Type		Corning SMF-28 or MMF or PMF		
Electric PIN connection		TBD		
Package Dimension		TBD		

[1] Measured without connector
[2] Special order
[3] Noted as SM fiber

VOA-ILPM Module

Mechanical Footprint Dimensions (Units: inch)

TBD

Electric PIN Assignment

TBD

Optical In/Out Assignment

TBD

Ordering Information

VOA-TAPM	☐☐	☐☐	☐	☐	☐	☐	☐
	ILPM	**Channel number**	**Wavelength**	**Off State**	**Package Type**	**Fiber Type**	**Connector Type**
	Input ILPM only = 10 Output ILPM only = 01 Input & Output ILPM = 11	Ex. 4 channels = 04	1310nm=3 1410nm=4 1550nm=5 850nm =8 1060nm = 1 1260-1620= 2 Special=0	Normally open = 1 Normally closed = 2	Standard = 1 Special = 0	SMF-28 = 1 MMF-50/125 = 5 MMF-62.2/125 = 6 PMF-1550 = 7 Special = 0	FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0