Shutter MEMS VOA

Product Introduction

Shutter MEMS VOA is manufactured based on the MEMS technology, achieving variable optical attenuation by a thermally-actuated MEMS shutter moving in/out of the optical path when powered. The product is available in normally open (Bright) and normally blocked (Dark) states, both of which have passed the Telcordia GR-1221 Reliability Test. The product features in its compact size, low WDL and high reliability, providing passive/active optical component developers with a highly integrated solution and reliable technology platform. It is an ideal solution for hybrid transceiver/VOAs that are widely deployed in transponders for metro applications.

Features

- Low polarization dependent loss
- Low wavelength dependent loss
- Insensitive to vibration and electrostatic discharge
- Available in both normally open and normally blocked states
- Two types of packages

Applications

- Power equalization in multi-channel , optically amplified networks
- Gain-tilt control in EDFAs
- Dynamic Gain/Channel Equalizers in DWDM/CWDM networks
- ROADM power balancing

Standards

- Telcordia GR-1221-CORE
- RoHS

Specifications

Parameter		Unit	Specification	
Configuration			Bright	Dark
Operating Wavelength Range		nm	C-band: 1528~1578	
			L-band: 1570~1610	
Attenuation Range		dB	25	30
Insertion Loss (BOL)	Max	dB	0.8	0.9
Insertion Loss (EOL)	Max	dB	1	1.1
Tuning Speed	Max	ms	20	20

Wavelength Dependent Flatness	0~10dB attenuation	Max	dB	0.2	0.3
	10~20dB attenuation	Max	dB	0.4	0.4
	20~30dB attenuation	Max	dB	-	0.6
Temperature Dependent Attenuation	at IL	Max	dB	±0.3	±0.3
	at 10dB	Max	dB	±0.5	±1.2
	at 20dB	Max	dB	±0.7	±1.5
	at 30dB	Max	dB	-	±2.0
Polarization Dependent Loss	0~10dB attenuation	Max	dB	0.1	0.1
	10~20dB attenuation	Max	dB	0.2	0.2
	20~30dB attenuation	Max	dB	-	0.3
Return Loss		Min	dB	45	45
Repeatability		Max	dB	0.1	0.1
Optical Power Handling		Max	dBm	24	24
Power Consumption		Max	mW	150	150
Drive Voltage		Max	V	6	5
Package Dimension (L*W*H)	7PIN		mm	39.4*12.6*6.5	39.4*12.6*6.5
	3PIN			29*8.3*5.9	29*8.3*5.9

Ordering Information

MSVOA- □-□-□-□-□-□-□

Package：F:39.4x12.6x6.5、E:29x8.3x5.9

Connector：00：no connector、FC,SC,LC,MU/PC,UPC,APC

NA：the connectors are different between input ports and

output ports.

Fiber length：1:1m、customer specify

Fiber Dia.：025: Φ0.25mm、09：Φ0.9mm

Attenuation Range.：15: 15dB、20:20dB、25:25dB

Operating Wavelength：C:C Bband、L:L Bband

Type：HD:Dark、HB:Bright