1 × 2 PM MEMS Switch
(MEMS Switch Series)

Rev 11

Description

AFR 1 × 2 PM MEMS Optical Switch is based on an electrostatic drived micro-electro-mechanical-system (MEMS) chip. The MEMS Variable Optical Attenuator chip consists of a tilting mirror to change light coupling between input and output fibers. The components are characterized with low insertion loss, high return loss, excellent environmental stability and reliability. The optical switch has been widely used in fiber optics communication equipment, fiber instruments, fiber sensing to switch channels.

Key Features

- Durability and Reliability
- Compact Size
- Fast Switching Time

Applications

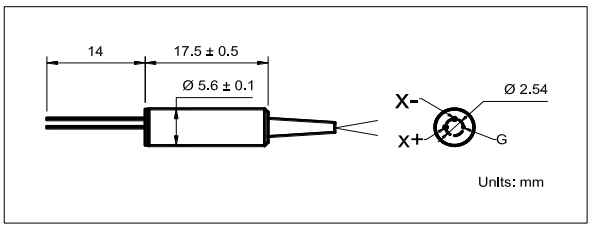
- Fiber Optics Communication
- Fiber Instruments
- Fiber Sensing

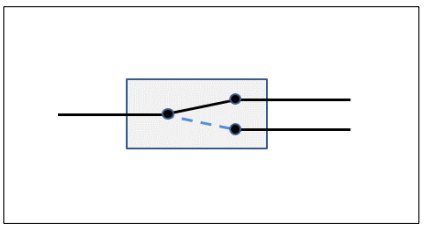
Specifications

Parameter	Unit	Value
Operating Wavelength Range	nm	1530 - 1570
Insertion Loss	dB	≤ 1.0
Channel Crosstalk	dB	≥ 50
Repeatability	dB	± 0.02
Polarization Dependent Loss	dB	≤ 0.1
Polarization Mode Dispersion	ps	≤ 0.1
Min. Extinction Ratio	dB	≥ 15
Return Loss	dB	≥ 50
Switch Time	ms	≤ 10
Drive Voltage	V	≤ 15
Durability	cycle	≥ 1 billion
Operating Power Handling	mW	≤ 500
Temperature Dependent Loss	dB	≤ 0.3
Wavelength Dependent Loss	dB	≤ 0.3
Switch Type	-	Non-Latching
Fiber Type	-	PM 1550 Panda Fiber
Operating Temperature	℃	- 5 to + 70
Storage Temperature	℃	- 40 to + 85
Package Dimension	mm	Ø 5.6 × 30

[1]L is 0.3 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

Configuration





1 × 2 Switch

Ordering Information

MEMSSW-①-②-③-④-⑤

①: Wavelength	②: SW Type	③:Connector Type	④: Fiber Jacket	⑤: Fiber Length
15 - 1550 nm	2 - 1 × 2	1 - FC/UPC	B - 250 μm Bare Fiber	Q - 0.75 m
		2 - FC/APC	S - Specify	S - Specify
		3 - SC/UPC		
		4 - SC/APC		
		N - None		
		S - Specify		