MEMS 1x2 PM Fiberoptic Switch

(Protected by U.S. pending patent)

Product Description

The MEMS Series 1x2 PM Fiberoptic switch connects optical channels by redirecting incoming optical signals into selected output fibers. This is achieved using a patent pending MEMS configuration and activated via an electrical control signal. It uniquely features rugged thermal activated micro-mirror movement instead of rotation.

This novel design significantly reduces packaging requirement and simplifies driving electronics, offering unprecedented high stability as well as an unmatched low cost.

Features

- High reliability
- Intrinsic tolerance to ESD

Applications

- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation

Performance Specifications

MEMS Serial 1x2 PM Switch	Min	Typical	Max	Unit
Operation Wavelength	850，980，	1060，1310，	1550	nm
Insertion Loss [1]		0.6	1.0	dB
Extinction Ratio	18			dB
Return Loss [1]	50			dB
Cross Talk [1]	50			dB
Switching Time		20		ms
Repeatability			±0.05	dB
Repetition Rate			20	Hz
Durability	10^9			Cycle
Switching Type		Non-Latching		
Operating Temperature	-5		70	ºC
Storage Temperature	-40		85	ºC
Optical Power Handling		300	500	mW
Fiber Type		Panda PM fiber [2]		

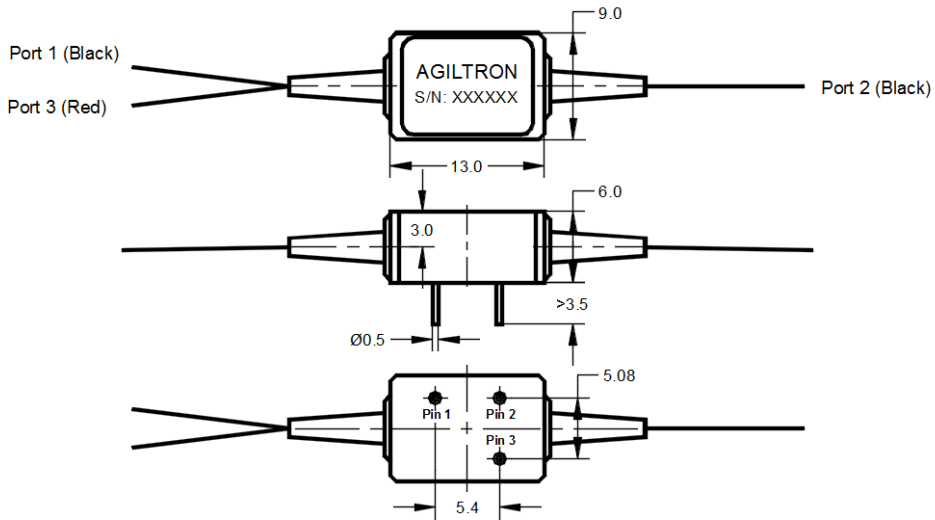[1]. Exclude connectors.

[2]. Please contact us for other fiber type.

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Mechanical Dimensions (Unit: mm)

Electronic Control Requirements

Optical Path	Pin 1	Pin 2	Pin 3
Port 1→2, Port 4→3	NC [1]	GND	L
Port 1→3, Port 4→2			H

[1]. NC: No electronic connection.

Driving Voltage	Min	Typical	Max	Unit
H	4.0	4.5	5.0	V
L			0.8	V
Power Consumption		170		mW

Ordering Information

MEPM [1]_	☐☐	☐	2	☐	☐	☐	☐	☐
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
	1x2=12 Special=00	1060=1 1310=3 1410=4 1550=5 780=7 850=8 980=9 Special=0	Non-Latching=2	Standard=1 Special=0	PM 1550=5 PM1310=7 PM850=8 PM980=9 Special=0	Bare fiber=1 900um loose tube=3 Special=0	0.25m=1 0.5m=2 1.0m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 Special=0

[1]. MEPM: MEMS 1x2 PM Switch.