



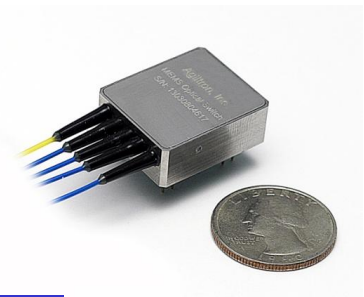
etMEMS™ 1x3, 1x4 Multimode Fiberoptic Switch

(Protected by U.S. pending patents)

Product Description

The etMEMS™ Series 1x3,1x4 MM Fiberoptic switch connects optical channels by redirecting incoming optical signals into selected output fibers. This is achieved using a patent pending etMEMS™ 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

Performance Specifications

etMEMS™ 1x3, 1x4 MM Switch	Min	Typical	Max	Unit
Operation Wavelength	Single Band 850, 1310 or 1550			nm
	Dual Band 850 and 1310			
Insertion Loss [1]		0.6	1.2 [2]	dB
Wavelength Dependent Loss		0.2	0.3 [2]	dB
Return Loss [1]	35			dB
Cross Talk [1]	35			dB
Switching Time		10		ms
Repeatability			±0.05	dB
Repetition Rate			20	Hz
Durability	10 ⁹			Cycle
Switching Type		Non-Latching		
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C
Optical Power Handling		300	500	mW
Fiber Type	MM50/125, MM62.5/125 [3]			

[1]. Exclude connectors.

[2]. Dual Band.

[3]. Please contact us for other MM fiber type.

Applications

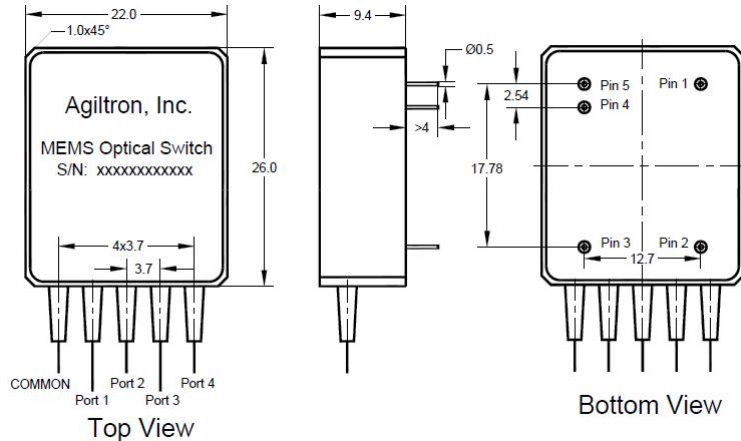
- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation



Revision: 9-9-16

etMEMS™ 1x3, 1x4 Multimode Fiberoptic Switch

Mechanical Dimensions (Unit: mm)



Electronic Control Requirements

Optical Path	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
Common↔Port 1	H	L	L	NC [1]	GND
Common↔Port 2	L	H	L	NC	GND
Common↔Port 3	L	L	H	NC	GND
Common↔Port 4	L	L	L	NC	GND

[1] NC: No connect.

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

Ordering Information

MEMM ^[1]	Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1x3=13 1x4=14 Special=00	1310=3 1550=5 780=7 850=8 850/1310=A Special=0	2 Non-Latching=2	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Standard=1 Special=0	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> MM50/125=5 MM62.5/125=6 Special=0	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Bare fiber=1 900um tube=3 Special=0	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0.25m=1 0.5m=2 1.0m=3 Special=0	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 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]. MEMM: MEMS 1x3, 1x4 MultiMode Switch



Revision: 9-9-16