*et*MEMS™ 1x16 Non-Latching Fiberoptic Switch

(Protected by U.S. patent 13/210,703 and pending patents)

Product Description

The *et*MEMS™ Series 1x16 Non-Latching 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, and latched to preserve the selectd optical path after the drive signal has been removed.

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

Performance Specifications

*et*MEMS™ 1x16 Switch	Min	Typical	Max	Unit
Operation Wavelength	Singe Band	1260~1360 or 1510~1610		nm
	Dual Band	1260~1360 and 1510~1610		
	Broad Band	1260~1620		
Insertion Loss [1] [2]		1.0	2.0	dB
Wavelength Dependent Loss		0.2	0.3	dB
Polarization Dependent Loss			0.15	dB
Return Loss [1] [2]	50			dB
Cross Talk [1] [2]	50			dB
Repeatability			±0.05	dB
Switching Time			20	ms
Durability	10^9			Cycle
Switching Type		Non-Latching Type		
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C
Optical Power Handling [3]		300	500	mW
Fiber Type		SMF-28		

[1].Within operating temperature and SOP.
[2].Excluding connectors.
[3].Continuous operation, for pulse operation call.

Applications

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

RoHS Compliant

Revision: 1-16-17

15 Presidential Way, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040
www.agiltron.com

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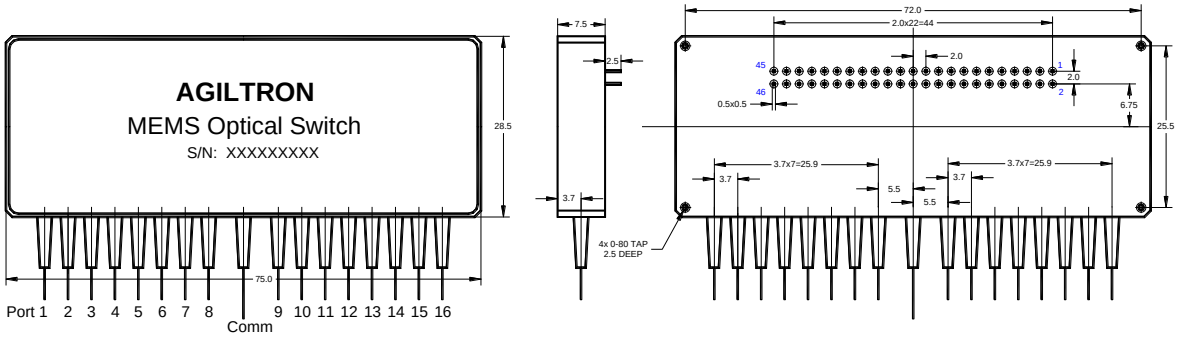
Mechanical Dimensions (mm)



Electrical Driving Requirements

MEMS 1x16 Non-Latching Switch Driving Table

| Optical Path | Control Signal Applied on Pin # | | |

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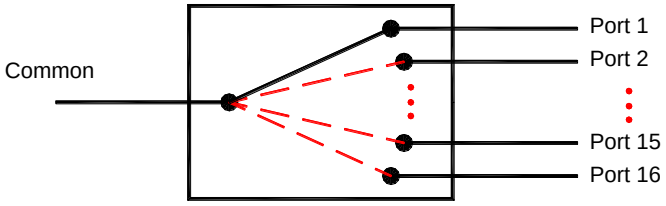
Functional Diagram



MEMS 1x16 Switch

Ordering Information

MEMS-	☐☐☐	☐	2	☐	☐	☐	☐	☐
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
	1x16=116 Special=000	C+L=2 1310=3 1550=5 1310 & 1550=9 1260~1620=B Special=0	Non-Latching=2	Standard=1 Special=0	SMF-28=1 Special=0	Bare fiber=1 900um 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

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