BUY NOW

PHOTONWARES

MEMS 1x16 Mini Latching Series Fiber Optic Switch

(Bidirectional, SM, PM)

(Protected by U.S. pending patents)

Features

- High reliability
- Intrinsic tolerance to ESD

Product Description

The MEMS 1x16 Latching Type Series Fiber Optic 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.

Applications

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

Performance Specifications

MEMS 1x16 Latching Switch		Min	Typical	Max	Unit
Operation Wavelength	Single Band		850±40, 1310±40 or 1510±40		nm
	Dual Band		850±40 and 1310±40 1310±40 and 1510±40		
	Broad Band		1260~1620		
Insertion Loss [1]			0.7	1.5 (1.7 [2])	dB
Wavelength Dependent Loss			0.15	0.3 [2]	dB
PDL (SM)				0.1	dB
Extinction Ratio (PM)		18			dB
Cross Talk [1]		50			dB
Return Loss [1]		50			dB
Switching Time			5	10	ms
Repeatability				±0.05	dB
Repetition Rate			5		Hz
Durability		10^9			Cycle
Switching Type			Latching		
Operating Temperature		-5		70	°C
Storage Temperature		-40		85	°C
Optical Power Handling (CW)			300	500	mW
Fiber Type	SM		SMF-28, or equivalent		
	PM		Panda 250, or equivalent		

[1]. Exclude connectors.

[2]. Dual and Broad band.

RoHS Compliant

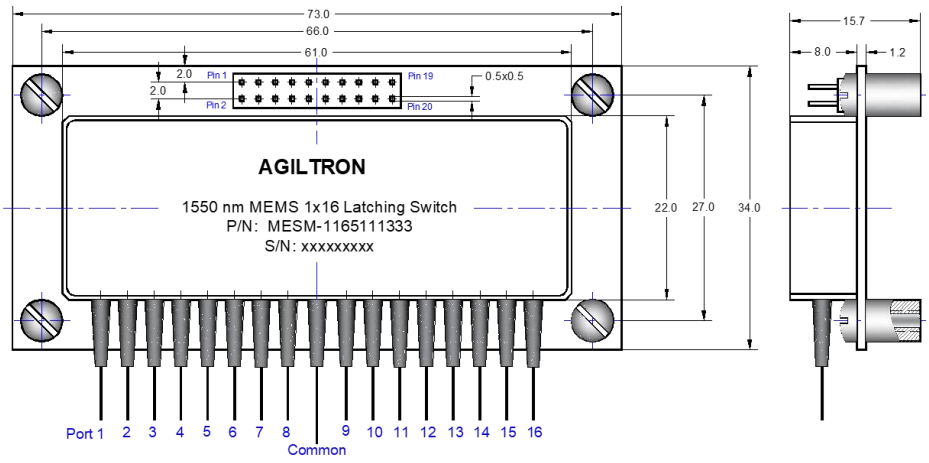
Revised on 01/27/22
(Click here for latest revision)

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

PHOTONWARES

MEMS 1x16 Mini Latching Series Fiber Optic Switch

Mechanical Dimensions (Unit: mm)

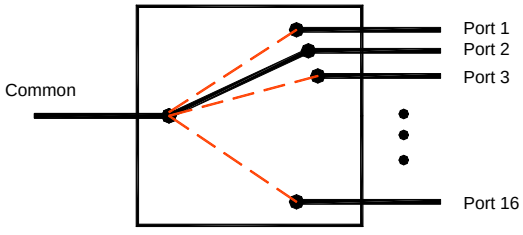


* Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Electronic Control Requirements

TBD

Functional Diagram



MEMS 1x16 Switch

Ordering Information

□□□□.	□□□	□	1	1	□	□	□	□
	Type	**Wavelength**	**Switch**	**Package**	**Fiber Type**		**Fiber Length**	**Connector**
MESM [1] MEMP [2]	1x9=109 1x10=110 1x11=111 1x12=112 1x13=113 1x14=114 1x15=115 1x16=116 Special=000	1260~1620=B 1060=1 C+L=2 1310=3 1550=5 780=7 850=8 1310/1550=9 Special=0	Latching=1	Standard=1	SMF-28=1 PM 1550/250=B PM 1310/250=D PM 980/250=E PM 850=F 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

[1]. **MESM: ME**MS 1x16 **S**M **M**ini Switch.

[2]. **MEMP: ME**MS 1x16 **M**ini **P**M Switch.

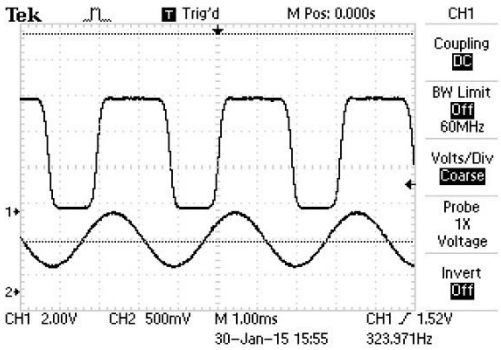
RoHS Compliant

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

MEMS 1x16 Mini Latching Series Fiber Optic Switch

10 ^{9} Switching Cycle Test

We have tested MEMS 1x2 switch at the resonant frequency ~300Hz for more than 40 days, as shown in the attachment, which corresponding over 10 ^{9} switching cycles. The measurements show little changes in Insertion loss, Cross Talk, Return loss ect, all parameters are within our specs.



RoHS Compliant

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