MEMS NxM Fiber Optical Switch

(Non-Blocking, Bidirectional, Passive)

(Protected by U.S. patents 7224860，6757101，6577430 and pending patents)

Product Description

The MEMS FIBER Optical switches establish optical signal paths passively in milliseconds supporting all date rates, ideally suited to manage and monitor large optical networks intelligently and remotely. The flexible platform supports NxM configurations (N, M=1 to 64). The MEMS switches are reliable with longevity suited for continuous operation. The control is TTL based with underneath pins. We provide a USB/RS232 GUI control board on which the switch is soldered for ease of use and integration.

Features

- Low Cost
- High Reliability
- Low Insertion Loss
- Broad Band
- Compact Design
- Low Voltage

Applications

- Optical Signal Routing
- Network Protection
- Wavelength Management
- Signal Monitoring
- Instrumentation

Performance Specifications

Parameters	Min	Typical	Max	Unit
Operation Wavelength		1270~1630		nm
Wavelength Bandwidth		± 30		nm
Insertion Loss [1] (SM)		1.3	2.2	dB
Insertion Loss [1] (MM)		1.8	2.8	dB
Dynamic Cross Talk	50			dB
Static Cross Talk	60			dB
Switch Speed		10	20	ms
Durability	10^9			cycle
Polarization Dependent Loss		0.04	0.2	dB
Wavelength Dependence Loss [2]		0.1	0.3	dB
Return Loss	50 [6]			dB
Repeatability		0.3	0.5	dB
Operating Temperature [3]	-5		65	°C
Transit Time Delay			0.2	ms
Port to Port Time Delay Difference			0.5	ns
Optical Power Handling (CW) [4]		300	500	mW
Storage Temperature	-40		85	°C
Electrical Power Consumption			10 [5]	W
DC Power			5	V

1. Up to 18x18, Measured without connectors for SM only, each connector adds 0.2-0.3dB
2. Within 50nm bandwidth
3. -25 °C~75°C version is also available.
4. High power version available
5. For the non-latching version
6. For SM fiber, MM fiber is 35dB

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www.agiltron.com

Revised on 01/15/23

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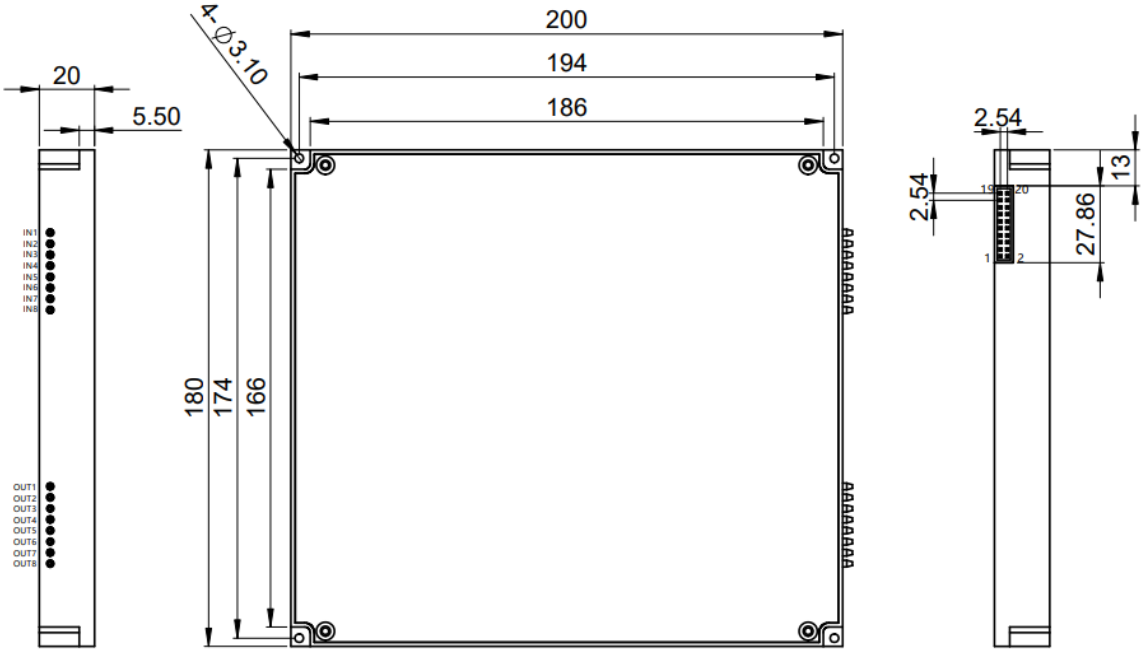
Mechanical Dimensions (Unit:mm)

19-inch rack with 1U, 1.5U or 2U depending on the connector type



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

Ordering Information

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Prefix	**Type** [1]	**Wavelength** [2]	**Package**	**Fiber Type**		**Connector**
MEMM-	2x12 = 0212 6x18 = 0618 16x12 = 1612 ... Special=0000	1310 = 3 1410 = 4 1550 = 5 1310/1550 = 2 850 = 8 Special = 0	Module = A Module/PCB = B Special = 0	SMF-28 = 1 MM 50/125 = 2 PM1550 = 5 Special = 0		None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 LC = 7 LC/APC = 8 Special = 0

[1]. MxN, Up to 18x18

[2]. Measured wavelength. The device has a wider wavelength coverage. Customers can request to measure at several wavelengths.

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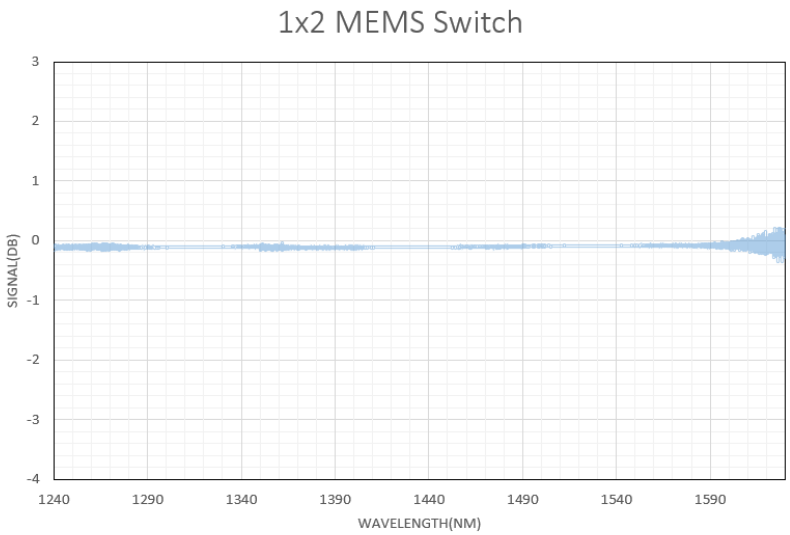
Typical Insertion Loss vs Wavelength (1240-1630nm)



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