

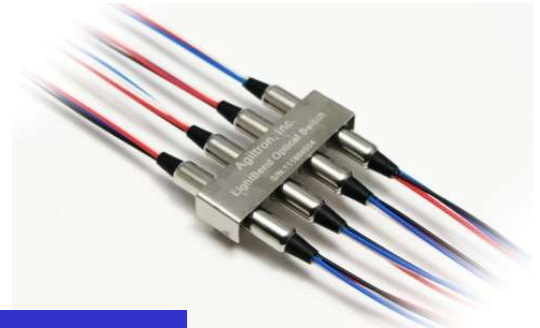
etMEMS™ Octo Full 2x2 Multi-Mode Fiberoptic Switch

(Protected by U.S. pending patents)

Product Description

The etMEMS™ Series Octo Full 2x2 multi-mode fiber optic switch integrates 8 Full 2×2 switches in a single compact format. It is designed for 40G/100G transceiver bypass application. The device connects optical channels by redirecting incoming optical signals into selected output fibers. This is achieved using a proprietary etMEMS™ configuration and activated via an electrical control signal. It uniquely features rugged thermal activated micro-mirror movement instead of rotation, and the novel design significantly simplify the control electronics, offering unprecedented high stability and an unmatched low cost.

We offer the straight and reflective versions for the flexibility to connect fibers. In addition, we also offer the built-in driver version, which features a convenient user interface.



Performance Specifications

etMEMS™ 2x2 MM Switch	Min	Typical	Max	Unit
Operation Wavelength	Single band 820-880, 1260-1360, 1510-1610 Dual band 850/1310, 1310/1550 Broad band 1260-1620			nm
Insertion Loss ^[1, 3]		0.6	1.0	dB
Wavelength Dependent Loss		0.2	0.3 ^[2]	dB
Return Loss ^[1]	35			dB
Cross Talk ^[1]	35			dB
Switching Speed		20		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	MM 50/125, MM 62.5/125, OM4			

[1]. Excluding connectors.

[2]. Dual band and Broad band.

[3]. Measured at CPR=14dB.

Features

- High Reliability
- Low Optical Distortions
- Intrinsic tolerance to ESD

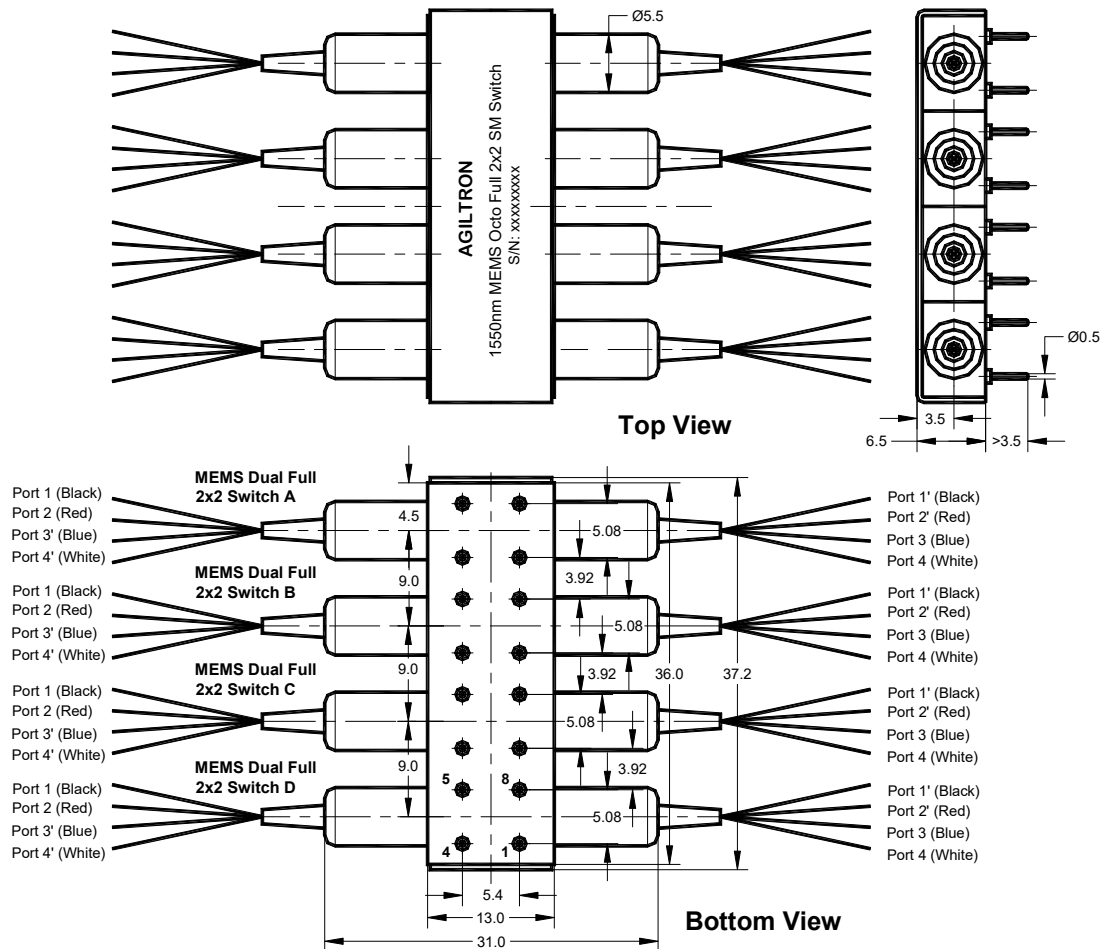
Applications

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



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Mechanical Dimensions (Unit: mm)



Electrical Driving Requirements

Optical Path	Pin 1	Pin 8	Pin 4	Pin 5
Port 1↔ Port 1', Port 2↔ Port 2' Port 3↔ Port 3', Port 4↔ Port 4'	H	GND	NC [1]	NC
Port 1↔Port 4', Port 2↔ Port 3' Port 3↔Port 2', Port 4↔Port 1'	L			

Driving Voltage	Min	Typical	Max	Unit
H	4.0	4.5	5.0	V
L		0	0.8	V
Power Consumption		170 [2]		mW

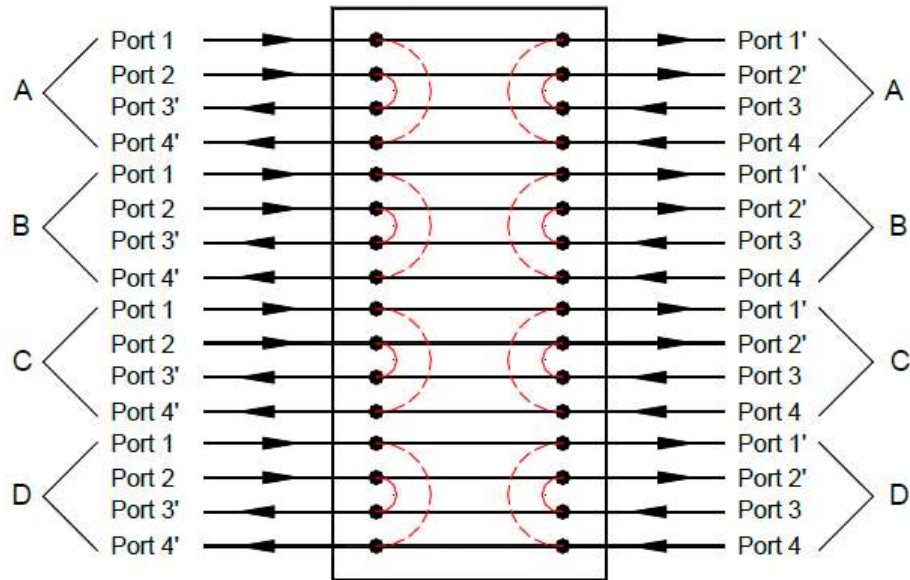
[1]. NC: No electronic connection.

[2]. For each MEMS Dual Full 2x2 Switch.



etMEMS™ Octo Full 2x2 Single Mode Fiber Optic Switch

Functional Diagram



Ordering Information

MEOF*-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector	
	2x2=22	1060=1 1310=3 1550=5 850=8 1310 & 1550=9 850/1310 = A 1260-1620 = B Special=0	Non-Latching=2	Standard=1 Special=0	MM50/125=5 MM62.5/125=6 OM4=7 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 MTP = 9 [1] Special=0	

* MEOF: MEMS Octo Full 2x2 Switch.

[1]. For MTP connector, the fiber mapping can be customized.

