

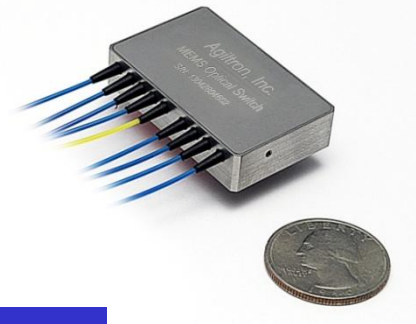
etMEMS™ 1x8 Fiberoptic Switch

(Protected by U.S. pending patents)

Product Description

The etMEMS™ Series 1x8 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 the driving electronics, offering unprecedented high stability as well as an unmatched low cost.



Performance Specifications

etMEMS™ Series 1x8 Switch	Min	Typical	Max	Unit
Operation Wavelength	Single Band: 1260-1360 or 1510-1610			nm
	Dual Band: 1260-1360 and 1510-1610			
	Broad Band: 1260-1620			
Insertion Loss ^[1]		0.7	1.4 ^[2]	dB
Wavelength Dependent Loss		0.2	0.3 ^[2]	dB
Polarization Dependent Loss			0.1	dB
Return Loss ^[1]	50			dB
Cross Talk ^[1]	50			dB
Switching Time		10		ms
Repeatability			±0.05	dB
Repetition Rate			10	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		SMF-28 ^[3]		

[1]. Excluding connectors.

[2]. Dual band and Broad band.

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

Features

- High reliability
- Intrinsic tolerance to ESD

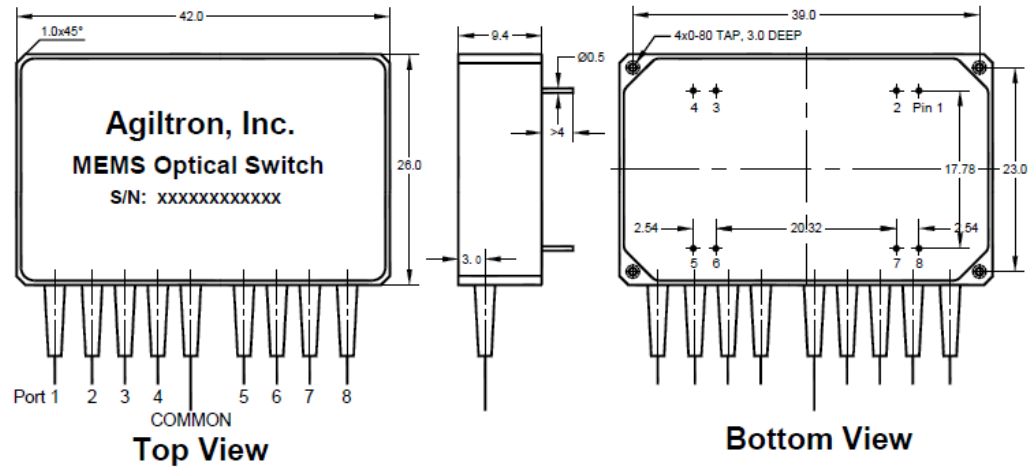
Applications

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



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Mechanical Dimensions (Unit: mm)

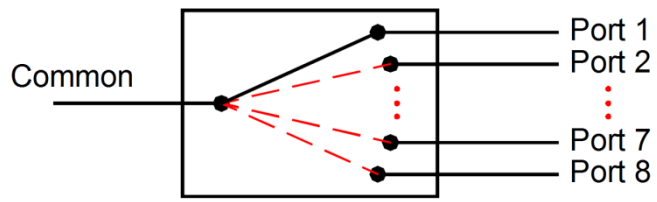


Driving Requirements

Optical Path	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
COMM↔Port 1	L	L	L	L	L	L	L	GND
COMM↔Port 2	H	L	L	L	L	L	L	
COMM↔Port 3	L	H	L	L	L	L	L	
COMM↔Port 4	L	L	H	L	L	L	L	
COMM↔Port 5	L	L	L	H	H	L	L	
COMM↔Port 6	L	L	L	H	L	H	L	
COMM↔Port 7	L	L	L	H	L	L	H	
COMM↔Port 8	L	L	L	H	L	L	L	

Driving Voltage	Min	Typical	Max	Unit
H	4.0	4.5	5.0	V
L			0.8	V
Power Consumption (for each MEMS chip)		170		mW

Functional Diagram



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Ordering Information

MEMS-	Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1x8=18 8x1=81 Special=00	1060=1 C+L=2 1310=3 1410=4 1550=5 1310 & 1550=9 1260-1620=B Special=0	Non-Latching=2	Standard=2 Special=0	SMF-28=1 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 Special=0

Recommend MEMS Non-Latching Switch Driver

