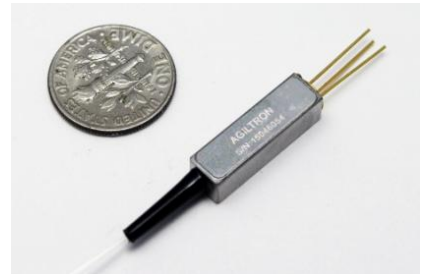


etMEMS™ 1x1, 1x2 Square Column Fiberoptic Switch

(Protected by U.S. pending patents)

Product Description

The etMEMS™ 1x2 Square Column Fiberoptic switch 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, moving-in and -out optical paths instead of rotating mirror. This novel design significantly simplify the control electronics, offering unprecedented high stability, ultra compact dimension and an unmatched low cost .



Performance Specifications

etMEMS™ 1X1, 1x2 SC Switch	Min	Typical	Max	Unit
Operating Wavelength	Single Band	1260-1360 or 1510-1610		nm
	Dual Band	1260-1360 and 1510-1610		
	Broad Band	1260-1610		
Insertion Loss ^[1]		0.5	1.0	dB
Wavelength Dependent Loss		0.15	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			20	Hz
Durability	10 ⁹			Cycles
Switching Type		Non-Latching		
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C
Optical Power Handling		300	500	mW
Fiber Type		SFM-28		

Notes:

[1].Excluding Connectors.

[2].Dual band and Broad band.

[3].Please contact us for other single mode fiber type.

Features

- High Reliability
- Intrinsic tolerance to ESD

Applications

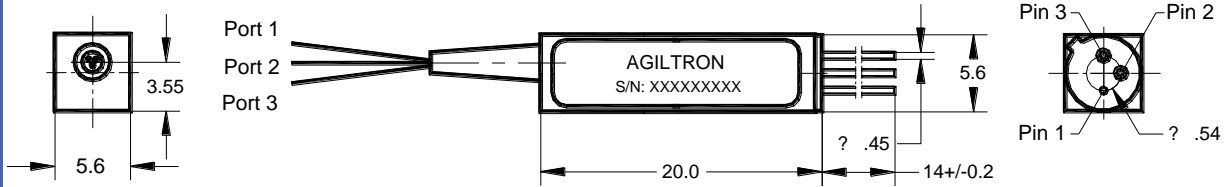
- Channel Routing
- Configurable Add/Drop
- System Monitoring
- Instrumentation



Revision: 08-20-15

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Mechanical Dimensions (Unit: mm)



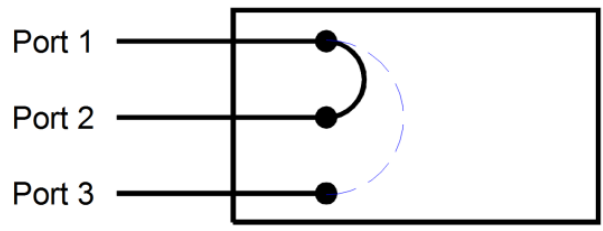
Electrical Driving Requirements

Optical Path			Pin 1	Pin 2	Pin 3
1x1 (Normally Transparent)	1x1 (Normally Dark)	1x2			
Dark	Port 1↔2	Port 1↔2	NC ^[1]	GND	H
Port 1↔2	Dark	Port 1↔3			L

[1]. NC: No electronic connection.

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

Functional Diagram



etMEMS™ 1x1, 1x2 Square Column Fiberoptic Switch

Ordering Information

MESC ^[1]	<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			
1x1N/T ^[2] =1T 1x1N/D ^[3] =1D 1x2=12 Special=00	1060=1 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 900µm tube=3 Special=0	0.25m=1 0.5m=2 1.0=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]. MESC: MEMS Square Column Switch.
- [2]. N/T: Normally Transparent 1x1 Non-Latching Switch.
- [3]. N/D: Normally Dark 1x1 Non-Latching Switch.

Recommend MEMS Non-Latching Switch Driver

