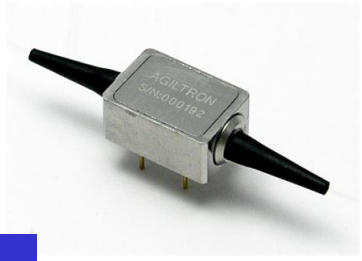
*et*MEMS™ 1x2 Multimode Fiberoptic Switch

(Protected by U.S. pending patents)

Product Description

The *et*MEMS™ Series 1x2 Fiberoptic switch connects optical channels by redirecting incoming optical signals into selected output fibers. This is achieved using a proprietary *et*MEMS™ configuration and activated via an electrical control signal. It uniquely features rugged thermal activated micro-mirror, moving-in and -out optical paths instead of mirror rotation. This novel design significantly simplify the control electronics, offering unprecedented high stability and an unmatched low cost.

We also offer the built-in driver version, which features a convenient user interface.



Features

- High Reliability
- Intrinsic tolerance to ESD

Applications

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

Performance Specifications

*et*MEMS™ 1x2 Switch	Min	Typical	Max	Unit
Operation Wavelength	Single Band: 820~880, 1260~1360 or 1510~1610 Dual Band: 850/1310, 1310/1510 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
Repeatability			±0.05	dB
Switching Speed		10		ms
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]. Measure at Light source CPR<14dB.

RoHS Compliant

Revision: 10-07-15

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

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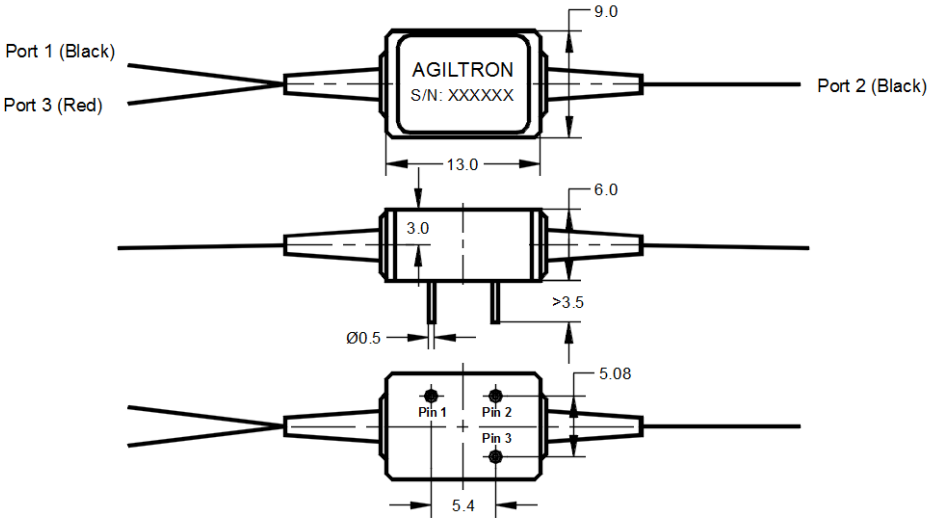
Mechanical Dimensions (Unit: mm)



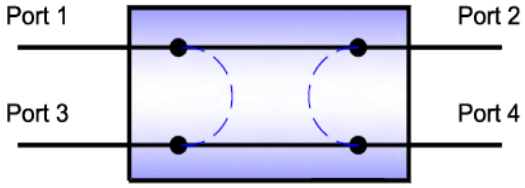
Electrical Driving Requirements

Optical Path	Pin 1	Pin 2	Pin 3
Port 1→2, Port 4→3	NC [1]	GND	L
Port 1→3, Port 4→2			H

[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



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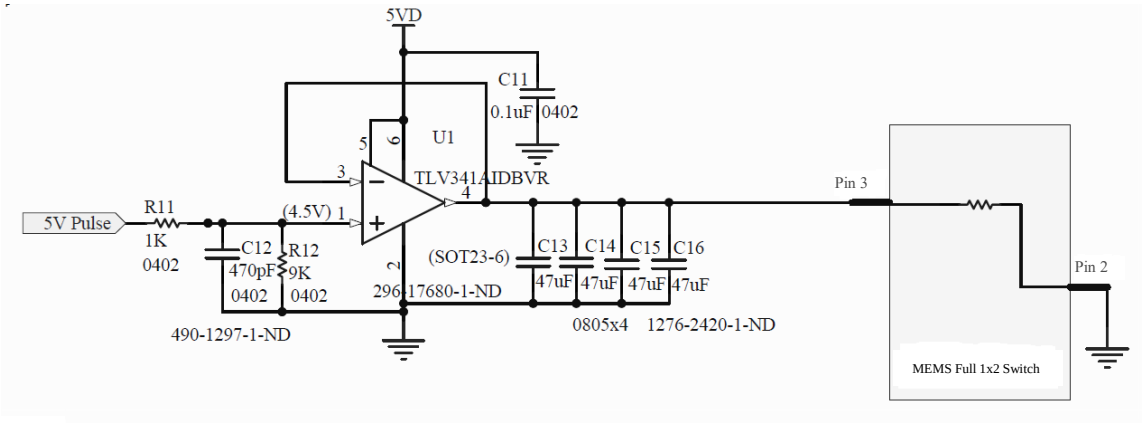
Ordering Information

MEMS -	☐☐	☐	☐	☐	☐	☐	☐	☐
	Type	**Wavelength**	**Switch**	**Package**	**Fiber Type**		**Fiber Length**	**Connector**
	1x1 Latching=11 1x1 N/T [1] =1T 1x1 N/D [2] =1D 1x2=12 Special=00	1060=1 C+L=2 1310=3 1550=5 780=7 850=8 1310 & 1550=9 850/1310=A Special=0	Non-latching=2	Standard=2 Special = 0	MM 50/125=5 MM 62.5/125=6 OM4=7 Special=0	Bare fiber=1 900µm 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].1x1 **N/T**: LB 1x1 Non-Latching Switch, **N**ormally **T**ransparent.
[2].1x1 **N/D**: LB 1x1 Non-Latching Switch, **N**ormally **D**ark.

Recommend MEMS Non-Latching Switch Driver



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