

MEMSLatch™ 1x8 Fiberoptic Switch

(Protected by U.S. patent 13/210,703 and pending patents)

Product Description

The MEMSLatch Series 1x8 Fiberoptic switch connects optical channels by redirecting incoming optical signals into selected output fibers. This is achieved using a patent pending MEMS configuration and activated via an electrical control signal. It uniquely features rugged thermal activated micro-mirror and latches to preserve the selected optical path after the drive signal has been removed. This novel design significantly reduces packaging requirement, offering unprecedented high stability as well as an unmatched low cost. It is conveniently driven by 5V.

We offer tight-bend-fiber version, which reduces the minimum bending radius from normal 15 mm to 7 mm. This feature enables smaller overall foot print.

Performance Specifications

MEMS 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 2}		0.7	1.2	dB
Wavelength Dependent Loss		0.2	0.3 (DW) ³	dB
Polarization Dependent Loss			0.1	dB
Return Loss ^{1 2}	50			dB
Cross Talk ^{1 2}	50			dB
Switching Time		1		ms
Repeatability			±0.05	
Durability	10 ⁹			Cycle
Switching Type		Latching		
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C
Optical Power Handling		300	500 ⁴	mW
Fiber Type		SMF-28		
Package Dimension		41.0L x 40.0W x 9.0H		mm

1. Within operating temperature and SOP.
2. Excluding connectors.
3. DW: Dual band and Broad band.
4. CW laser source.

Applications

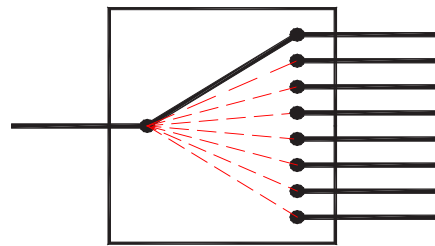
- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation



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Functional Diagram



MEMS 1x8 Switch

Ordering Information

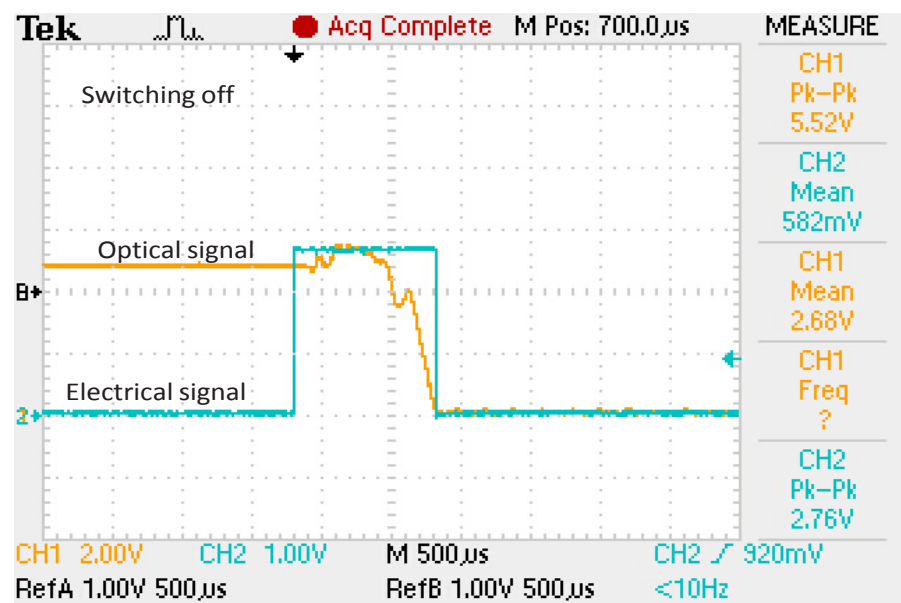
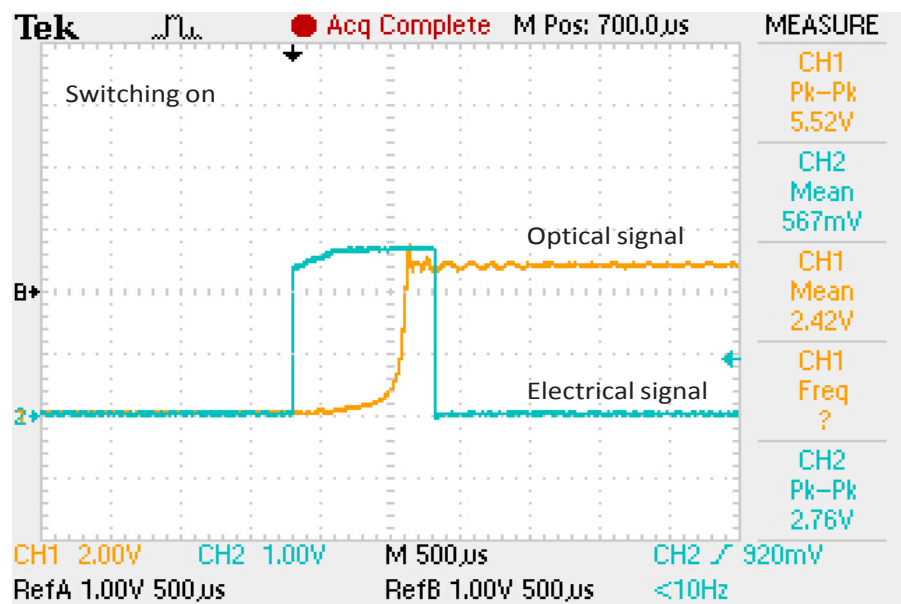
MEMS-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
	1x8=18 8x1=81 Special=00	1060=1 C+L=2 1310=3 1410=4 1550=5 650=6 780=7 850=8 1310 & 1550=9 Special=0	Latching Type=1 Special=0	Standard=1 Special=0	SMF-28=1 Special=0	Bare fiber=1 900um 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



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MEMS switching response



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