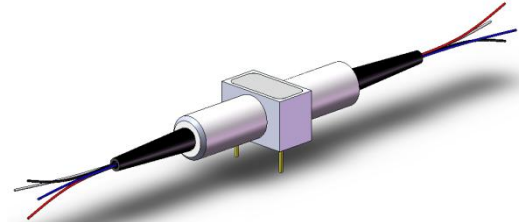


# etMEMS™ Mini Dual Full 2x2 Fiberoptic Switch

(Protected by U.S. pending patents)

## Product Description

The etMEMS™ Series Mini Dual Full 2x2 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 .



## Features

- High Reliability
- Intrinsic tolerance to ESD

## Performance Specifications

etMEMS™ Mini Dual Full 2x2 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 <sup>[1]</sup>		0.6	1.5	dB
Wavelength Dependent Loss		0.2	0.3 <sup>[2]</sup>	dB
Polarization Dependent Loss			0.1	dB
Return Loss <sup>[1]</sup>	50			dB
Cross Talk <sup>[1]</sup>	50			dB
Switching Time		10		ms
Repeatability			±0.05	dB
Repetition Rate			20	Hz
Durability	10 <sup>9</sup>			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 <sup>[3]</sup>		

[1]. Exclude connectors.

[2]. Dual band and Broad band.

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

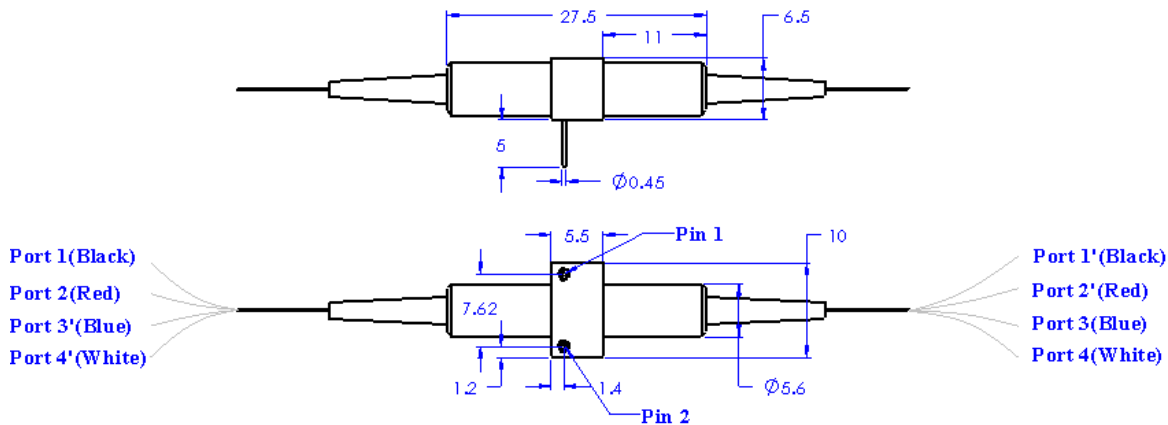
## Applications

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



# etMEMS™ Mini Dual Full 2x2 Fiberoptic Switch

## Mechanical Dimensions (Unit: mm)

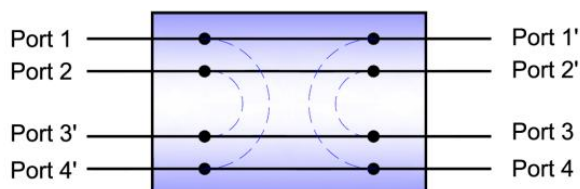


## Electrical Driving Requirements

Optical Path		Pin 1	Pin 2
Port 1→4', Port 2→3' Port 3→2', Port 4→1'	Default	L	GND
Port 1→1', Port 2→2' Port 3→3', Port 4→4'		H	

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™ Mini Dual Full 2x2 Fiberoptic Switch

## Ordering Information

MEDF*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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 Special=00	1060=1 C+L=2 1310=3 1410=4 1550=5 1310 & 1550=9 1260-1620=B Special=0	Non-latching=2	Mini = 9	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	

\* MEDF: MEMS Mini Dual Full Switch

## Recommend MEMS Non-Latching Switch Driver

