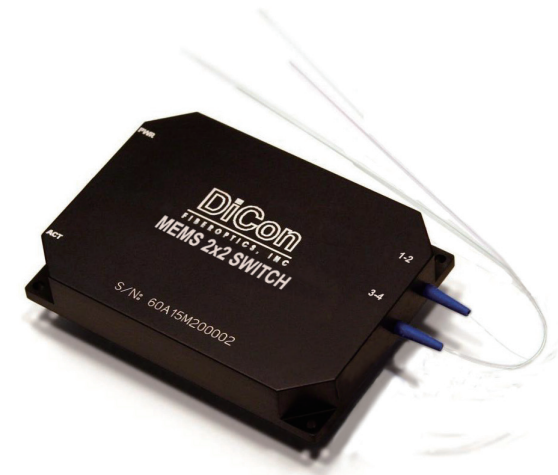


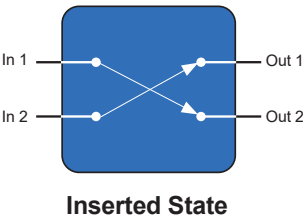
MEMS 2X2 OPTICAL SWITCH

Singlemode Fiber

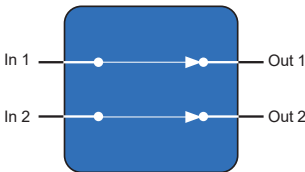


DiCon’s **MEMS 2x2 Optical Switch** is a true 2x2 optical switch. It has two fiber inputs and two fiber outputs and can be switched to one of two configurations, shown below. This optical switch utilizes DiCon’s proprietary MEMS technology to achieve reliable optical performance and excellent durability; DiCon’s Optical Switches have been shown to last for over 1 billion switch cycles and are qualified to Telcordia GR-1221 environmental standards.

- Reliable Optical Performance
- Excellent Durability
- Compact Form Factor
- Low Power Consumption



Inserted State



Bypass State

ORDERING INFORMATION

MS2 - □ - □ - □ - □ - □ - □ - □

Switch Configuration	
2X2	2X2 Switch
M/2X2	M 2x2 Switches (Specify M between 2 & 5)

Control Interface	
I2C	I ² C
RS2	RS232
TTL	TTL

Wavelength Range	
13	1290 - 1330 nm
15	1530 - 1570 nm
16	1570 - 1610 nm
13/15	1290 - 1330 & 1530 - 1570 nm
15/16	1530 - 1570 & 1570 - 1610 nm

Fiber and Jacket Type	
9/BF	Corning SMF-28, Bare fiber
9/LT	Corning SMF-28, Loose-tube
*Or other equivalent 9mm Single-mode fiber	

Connector Type	
FC/SPC	FC/SPC
FC/APC	FC/APC
LC/SPC	LC/SPC
LC/APC	LC/APC
SC/SPC	SC/SPC
SC/APC	SC/APC
N	None
*Other connector options are also available	

Pigtail Length	
1	1 Meter
X	Specify X Meters
*Tolerance is +/- 0.05 m	

MEMS 2X2 OPTICAL SWITCH

Singlemode Fiber

OPTICAL SPECIFICATIONS^{1,2}

Insertion Loss ^{3,4,5}	1.0 dB max.
Crosstalk	-50 dB max.
Back Reflection	-50 dB max.
Switching Time	30 ms max.
TDL ⁶	0.30 dB max.
WDL ^{6,7}	0.20 dB max.
PDL ⁶	0.10 dB max.
Repeatability ⁸	0.02 dB max.
Durability	10 ⁹ cycles min.
Optical Power	500 mW max.
Operating Temp	-5 to 70 °C
Storage Temp	-40 to 85°C
Fiber Type	9/125 µm Singlemode

1. Specifications are without connectors
2. Specifications are for a single pass through the switch. The optical path from In 2 to Out 2 uses an internal double pass through the switch.
3. IL is measured at CWL, 23°C ± 5°C.
4. IL is for single-band. Dual-band adds 0.2 dB.
5. In 2 to Out 2 path adds 0.8 dB
6. In 2 to Out 2 path adds 0.1 dB
7. WDL is measured in a +/- 20nm range at 23°C.
8. Repeatability is defined within 100 cycles. In 2 to Out 2 adds 0.02 dB

ELECTRICAL SPECIFICATIONS

Latching Type	non-latching	
Control Type	I ² C, RS232 or TTL	
Vcc Voltage	I ² C, RS232	12 VDC
	TTL	5 VDC
Power Consumption	I ² C, RS232	2 W max.
	TTL	1.5 W max.
Connector Type	Molex 87833-1620	

MECHANICAL DRAWING

Dimensions in mm

