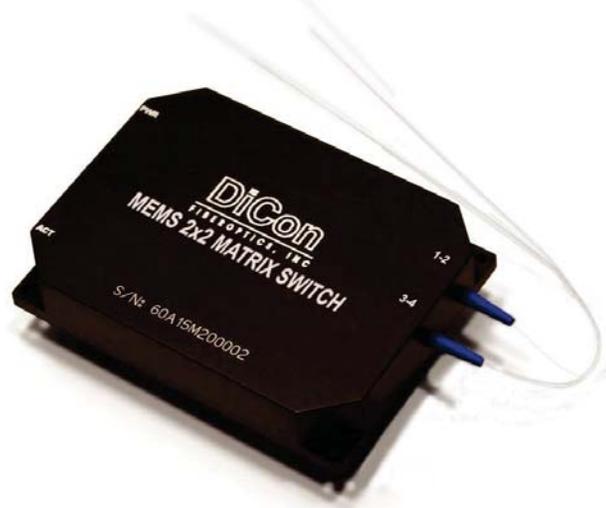


# MEMS 2X2 OPTICAL MATRIX SWITCH

DiCon's MEMS 2x2 Optical Matrix 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.



## FEATURES

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

## APPLICATIONS

- Optical Communications
- Bio-medical Instrumentation
- Test Applications
- Add/Drop Applications



# MEMS 2X2 OPTICAL MATRIX SWITCH

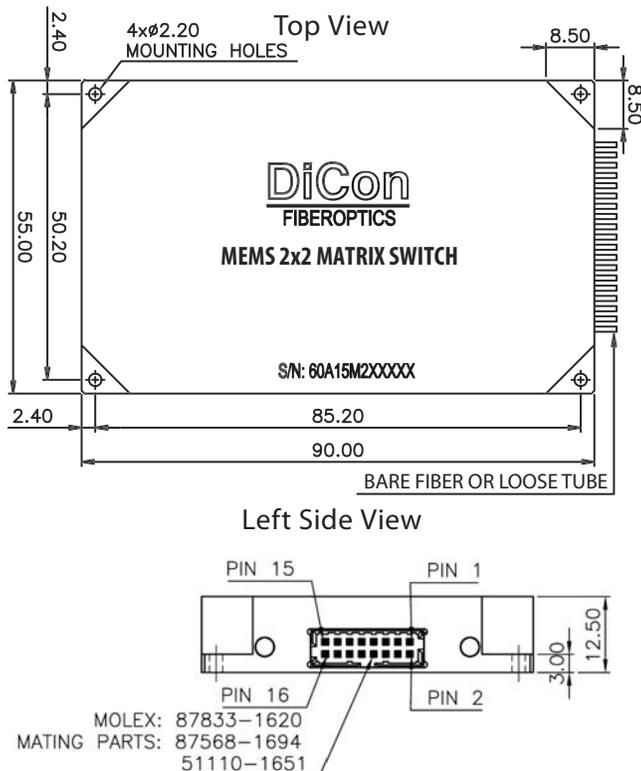
## OPTICAL SPECIFICATIONS<sup>1,2</sup>

PARAMETER	RATING
Insertion Loss <sup>3,4</sup>	1.8 dB max.
Crosstalk	-50 dB max.
Back Reflection	-50 dB max.
Switching Time	30 ms max.
TDL	0.40 dB max.
WDL <sup>5</sup>	0.30 dB max.
PDL	0.15 dB max.
Repeatability <sup>6</sup>	0.04 dB max.
Durability	10 <sup>9</sup> cycles min.
Optical Power	500 mW max.
Operating Temp	-5 to 70°C
Storage Temp	-40 to 85°C
Fiber Type	9/125 μm single mode

- Specifications are without connectors.
- Specifications only guaranteed in defined switch states.
- IL is measured at CWL, 23°C.
- IL is for single-band. Dual-band adds 0.2 dB.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

## MECHANICAL DIMENSIONS

(Units: mm)



## ORDERING INFORMATION

MS2 - □ - □ - □ - □ - □ - □

### Product Code

MS2 MEMS Switch

### Switch Configuration

2X2 2x2 Matrix Switch

### Control Interface

I2C I<sup>2</sup>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 9 μm Singlemode*

### Connector Type

FC/SPC FC/SPC  
FC/APC FC/APC  
N NONE

*Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC*

### Pigtail Length

1 1 Meter  
X Specify X Meters

*Tolerance is +/- 0.05 m*

## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING	
Latching Type	non-latching	
Control Type	I <sup>2</sup> C, RS232 or TTL	
Vcc	I <sup>2</sup> C, RS232	12 VDC
Voltage	TTL	5 VDC
Power	I <sup>2</sup> C, RS232	700 mW max.
Consumption	TTL	1.5 W max.
Connector Type	Molex 87833-1620	