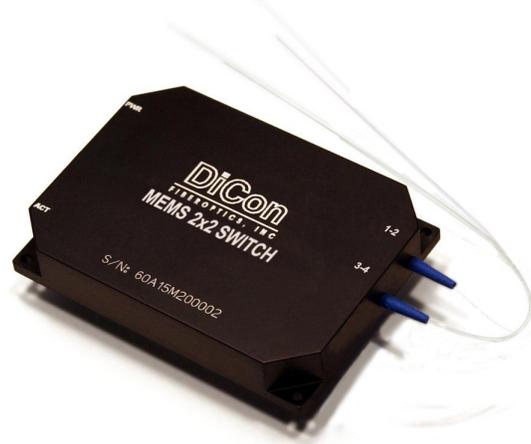


MEMS 2X2 OPTICAL SWITCH

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.

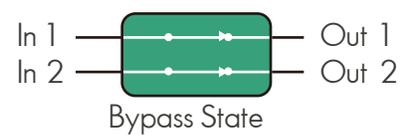
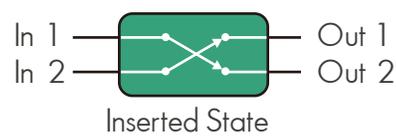


FEATURES

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

APPLICATIONS

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



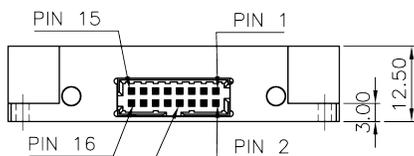
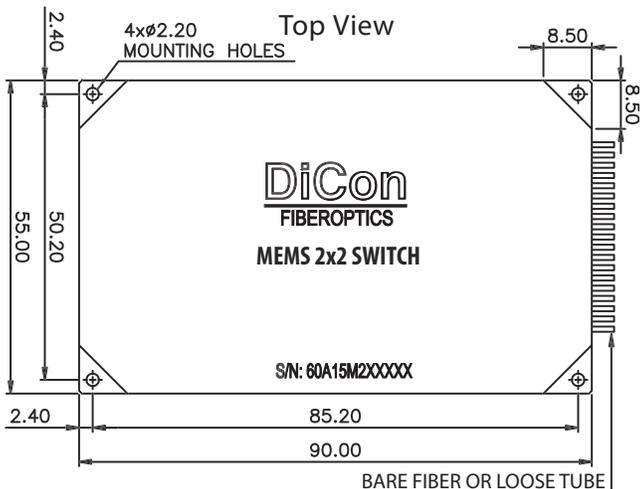
MEMS 2X2 OPTICAL SWITCH

OPTICAL SPECIFICATIONS^{1,2}

PARAMETER	RATING
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 single mode

- Specifications are without connectors
- 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.
- IL is measured at CWL, 23°C ± 5°C.
- IL is for single-band. Dual-band adds 0.2 dB.
- In 2 to Out 2 path adds 0.8 dB
- In 2 to Out 2 path adds 0.1 dB
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined within 100 cycles. In 2 to Out 2 adds 0.02 dB

MECHANICAL DIMENSIONS (Units: mm)



MOLEX: 87833-1620
MATING PARTS: 87568-1694
51110-1651

ORDERING INFORMATION

MS2 - □ - □ - □ - □ - □ - □

Product Code

MS2 MEMS Switch

Switch Configuration

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

Control Interface

I2C I²C
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 9μm 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

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING	
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	700 mW max.
	TTL	1.5 W max.
Connector Type	Molex 87833-1620	