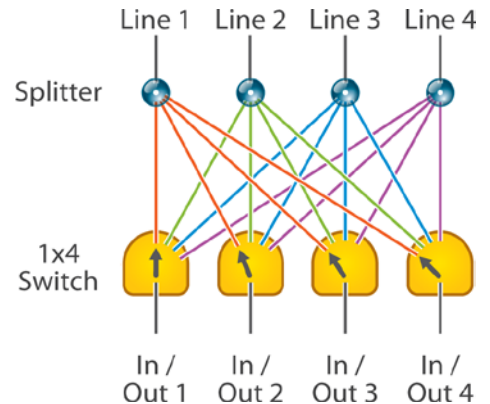
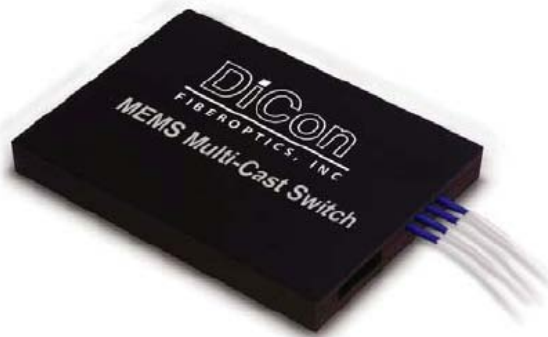


# MEMS 4x4 MULTICAST SWITCH

DiCon's MEMS 4x4 Multicast Switch is based on DiCon's proven MEMS 1xN Switch. Input signals are first broadcast via 1x4 optical splitters into four optical switches, which are then used to independently route network traffic from any input to any or all output ports. The MEMS Multicast Switch is bi-directional and may be used to route traffic in the opposite direction as well. Each switch receives an input and selects one of the four splitters to receive traffic for broadcast to the network. The MEMS Multicast Switch is ideal for use in ROADM networks for add/drop multiplexing.



## FEATURES

- < 20 ms Switching Time
- Compact Form Factor
- Excellent Thermal Stability
- Proven MEMS Durability and Reliability

## APPLICATIONS

The MEMS Multicast Switch allows network operators to split and dynamically route network traffic between four inputs and four outputs within add/drop banks in ROADM networks. Its bi-directional feature allows for flexible and dynamic traffic routing for tomorrow's reconfigurable networks.



# MEMS 4x4 MULTICAST SWITCH

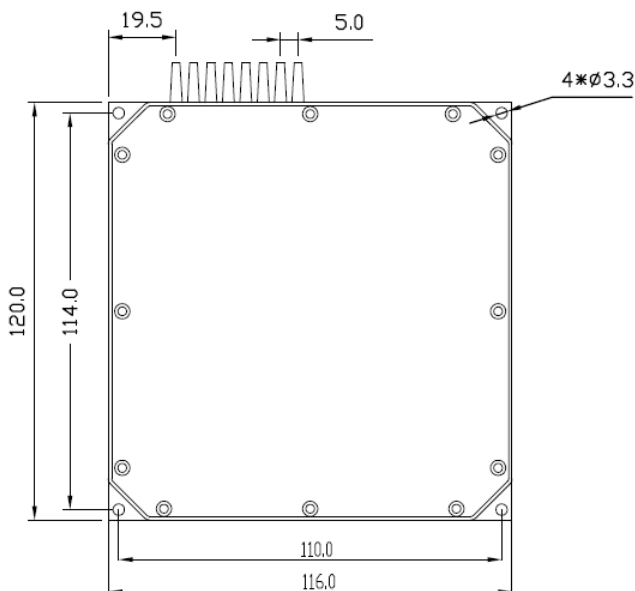
## OPTICAL SPECIFICATIONS<sup>1</sup>

PARAMETER	RATING
Insertion Loss <sup>2,3,4</sup>	8.1 dB max.
Crosstalk <sup>5</sup>	-50 dB max.
Back Reflection	-40 dB max.
Switching Time	20 ms max.
TDL	0.4 dB max.
WDL <sup>6</sup>	0.3 dB max.
PDL	0.4 dB max.
Repeatability <sup>7</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

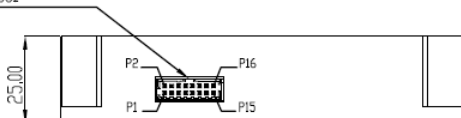
- Specifications are without connectors.
- IL is measured at CWL, 23°C.
- IL is for standard opaque model.
- IL is for single-band. Dual band adds 0.2 dB.
- Power off isolation is same as cross talk. -35 dB max. for hitless switching.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

## MECHANICAL DIMENSIONS

(Units: mm)



MOLEX : 87833-1620  
MATES WITH 87568-1694  
OR 51110-1651



## ORDERING INFORMATION

MSS - □ - □ - □ - □ - □ - □

### Switch Configuration

MxN MxN, Specify  
M, N ≤ 4

### Control Interface

I2C I<sup>2</sup>C  
RS2 RS232

### 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

### 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 or RS232
Vcc Voltage	12 VDC
Power Consumption	1.8 W max.