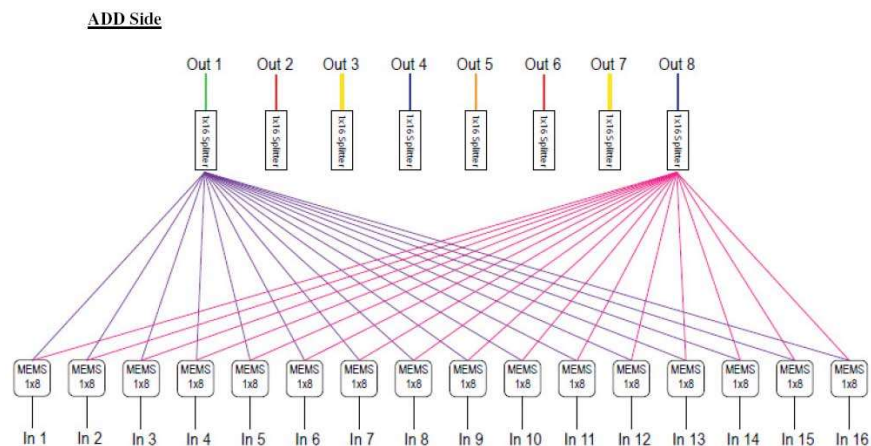


# MEMS DUAL Nx16 MULTICAST SWITCH

DiCon's MEMS Dual Nx16 Multicast Switch is based on DiCon's proven MEMS 1xN Switch, and incorporates two Nx16 Multicast Switches for add/drop functionality in a single package. For the drop side, input signals are first broadcast via 1x16 optical splitters into 16 optical switches, which are then used to independently route network traffic from any input to any or all output ports. For the add side, each switch receives an input and selects one of the N splitters to receive traffic for broadcast to the network. The MEMS Dual Nx16 Multicast Switch is ideal for colorless, directionless and contentionless add/drop multiplexing.



\* Only Add Side diagram is shown for clarity. Drop Side is functionally identical.

## FEATURES

- Compact Form Factor
- Excellent Thermal Stability
- Proven MEMS Durability and Reliability

## APPLICATIONS

The MEMS Dual Nx16 Multicast Switch allows network operators to split and dynamically route network traffic between N inputs and 16 outputs within add/drop banks in ROADM networks. Its bi-directional feature allows for flexible and dynamic traffic routing for tomorrow's reconfigurable networks.



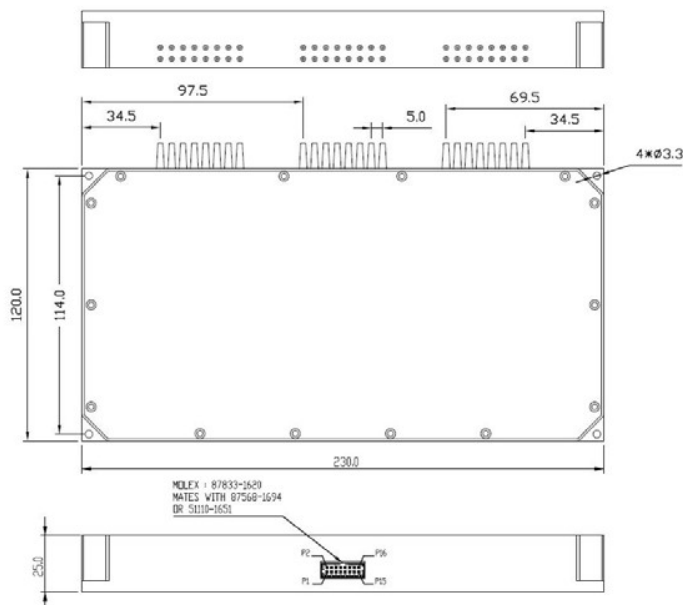
# MEMS DUAL Nx16 MULTICAST SWITCH

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

PARAMETER	RATING
Insertion Loss <sup>2,3,4</sup>	14.8 dB max.
Crosstalk <sup>5</sup>	-50 dB max.
Back Reflection	-40 dB max.
Switching Time	100 ms max.
TDL	0.5 dB max.
WDL <sup>6</sup>	0.5 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)



## ORDERING INFORMATION

MSS - □ - □ - □ - □ - □ - □

### Switch Configuration

Nx16/D Dual Nx16,  
Specify N≤8

### 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	6 W max.