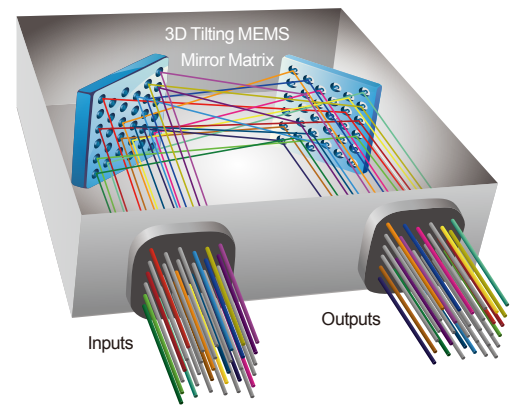


# PM MEMS 3D MATRIX OPTICAL SWITCH

DiCon's PM MEMS 3D Matrix Optical Switch is a proprietary optical switch structure that allows any of the inputs to connect to any of the outputs in a fully non-blocking, all-optical cross-connect configuration. This innovative design is based on DiCon's industry proven MEMS mirror technology and offers the same level of durability and reliability that can be expected from any of the DiCon's MEMS fiber optic switch solutions.



## OPERATING PRINCIPLE (ANY PORT TO ANY PORT FUNCTIONALITY)



## FEATURES

- High Reliability
- Proven MEMS Technology
- Lifetime > 1 Billion Switch Cycles
- Available in any MxN configuration up to 96x96

## APPLICATIONS

- Dynamic Management of Optical Networks
- Configurable Test & Measurement
- ROADM



# PM MEMS 3D MATRIX OPTICAL SWITCH

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

PARAMETER		RATING
Insertion Loss <sup>2</sup>	64x64	0.8 dB typ. 1.4 dB max.
	96x96	0.8 dB typ. 1.4 dB max.
Crosstalk		-70 dB typ. -55 dB max.
Back Reflection		-55 dB typ. -45 dB max.
Extinction Ratio		18 dB min
Switching Time		15 ms typ. 20 ms max.
TDL		0.1 dB typ. 0.4 dB max.
WDL <sup>3</sup>		0.1 dB typ. 0.4 dB max.
Repeatability <sup>4</sup>		0.01 dB typ. 0.06 dB max.
Durability		10 <sup>9</sup> cycles min.
Optical Power		500 mW max.
Operating Temperature		-5 to 70°C
Storage Temperature		-40 to 85°C
Fiber Type		9/125 μm Panda Fiber

- All specifications are without connectors at room temp.
- IL is measured at CWL.
- WDL is measured from CWL in a +/- 20nm range.
- Repeatability is defined within 100 cycles.

## ORDERING INFORMATION

MN8 -  -  -  -  -  -  -

### Product Code

MN8 MEMS 3D Matrix

### Switch Configuration

MxN MxN Non-Blocking  
(Specify M, N ≤ 96)

### Control Interface

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

### Wavelength Range

13 1290 - 1330 nm  
15 1530 - 1570 nm  
16 1570 - 1610 nm  
*Other wavelengths available upon special*

### Connector Key Orientation

PMF Fast axis  
PMS Slow axis  
PMN No connector

### Fiber and Jacket Type

2/LT 9/125μm Panda Fiber, 900 μm Loose Tube

### 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 types are also available*

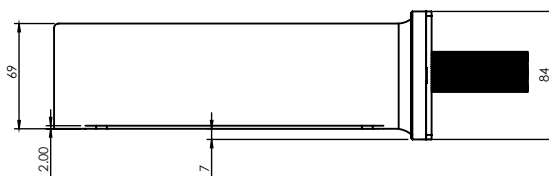
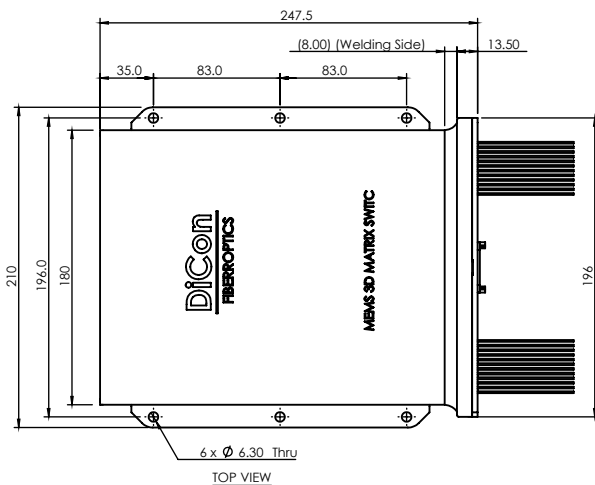
### Pigtail Length

1 1 Meter  
X Specify X Meters

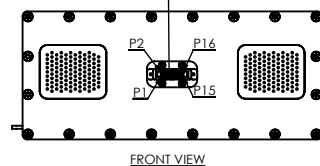
*Tolerance is +/- 0.05 m*

## MECHANICAL DIMENSIONS

(Units: mm)



MALE CONNECTOR MATES WITH MOLEX 87568-1697 OR 51110-1651



## ELECTRICAL SPECIFICATIONS

PARAMETER		RATING
Latching Type		Non-latching
Control Type		I <sup>2</sup> C or RS232
Vcc Voltage		12 VDC
Power	Start Up	18 W max.
Consumption	Operating	6.5 W max.
Connector Type		Molex 87833-1620