MEMS 16X16 MATRIX SWITCH

DiCon's MEMS 16x16 is an integrated switch module based on DiCon's MEMS 1x16 Optical Switch components. Thirty-two MEMS 1x16 switches, sixteen for inputs and the other sixteen for outputs, are interconnected to form a fully non-blocking, two stage, optical cross-connect. Under this matrix switch platform, different MEMS 1xN switches can be used to form customized MxN Switch Matrices.

FEATURES

- Compact form-factor
- Low insertion loss with minimal crosstalk
- Fast switching time
- Low power consumption
- MEMS durability and reliability
- Available in other customized configurations

APPLICATIONS

The MEMS 16x16 Matrix is used in an optical network to dynamically configure the system. Mounting to any network card is easily achieved with its small form factor and 1" thickness. For Test and Measurement applications, the matrix switch is a simplified alternative solution for fiber management and allows users to share resources.

DiCon
FIBEROPTICS, INC

MEMS 16X16 MATRIX SWITCH

OPTICAL SPECIFICATIONS[1]

PARAMETER		RATING
Insertion Loss[2]	Single-Band	1.8 dB max.
	Dual-Band	2.0 dB max.
Crosstalk		-70 dB max.
Back Reflection		-45 dB max.
Switching Time		40 ms max.
TDL		0.4 dB max.
WDL[3]		0.3 dB max.
PDL		0.2 dB max.
Repeatability[4]		0.04 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

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. WDL is measured in a +/- 20nm range at 23°C.
4. Repeatability is defined after 100 cycles.

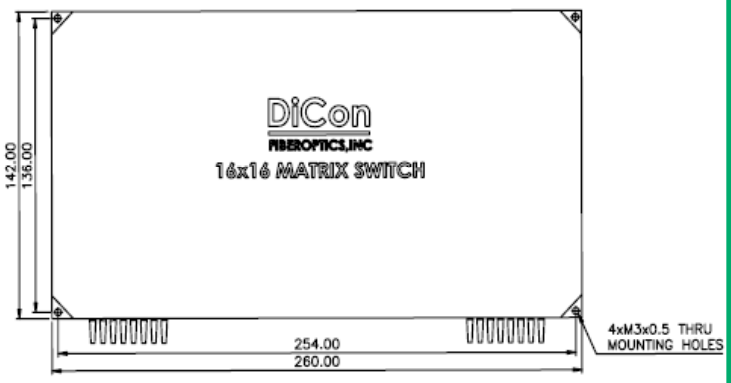
ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I²C or RS232
Vcc Voltage	12 VDC
Power Consumption	700 mW max.
Connector Type	Molex 87833-1620

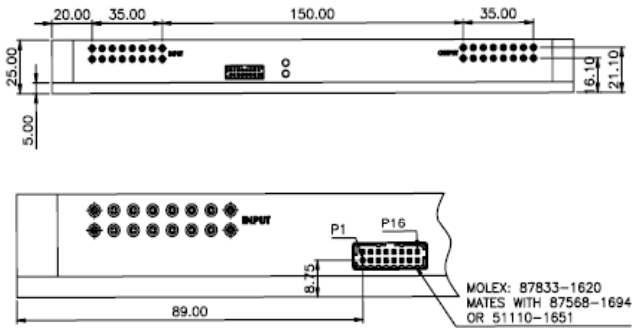
MECHANICAL DIMENSIONS

(Units: mm)

Top View



Front View



ORDERING INFORMATION

MX4 - □ - □ - □ - □ - □ - □

Product Code

MX4	MEMS Matrix

Switch Configuration

16x16	16x16 Non-Blocking
MxN	MxN Non-Blocking (Specify M, N < 16)

Control Interface

I2C	I²C
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

Pigtail Length

1	1 Meter
X	Specify X Meters

Tolerance is +/- 0.05 m

Connector Type

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

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

Fiber and Jacket Type

9/TB	Corning SMF-28, Tight Buffer
9/LT	Corning SMF-28, Loose-tube

Or other equivalent 9μm Singlemode fiber