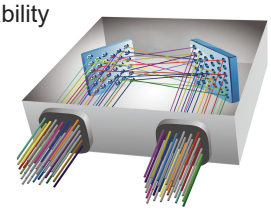
DiCon Fiberoptics, Inc.

MEMS 16X16 OPTICAL MATRIX SWITCH MODULE

MX1 Model, Multimode Fiber, Standard Grade

MEMS Optical Matrix Switch Module is built with DiCon's proprietary MEMS technology. Each module contains 2 sets of MEMS mirrors for making 1-to-1 connections between input and output ports. The MEMS mirrors are held in position using precisely calibrated voltages and require no feedback control. This unique quality enables the switch to maintain stable connections and allows the device to function when there is no light in the fiber. This innovative platform has an outstanding track record and delivers best-in-class optical performance

- Proven MEMS technology
- Lifetime > 10^9 switch cycles
- No dithering or active alignment artifacts
- Switches and holds dark fiber connections
- Low insertion loss with excellent stability
- Compact and lightweight
- Asymmetric MxN available



About DiCon

- Headquartered in California since 1986
- US based in-house MEMS fab
- Over 3 million MEMS mirrors produced since 1999
- Manufactures TAA compliant products

ORDERING INFORMATION

MX1 - T□ - 50 - □ - T - □ - N - □

Grade

T	Standard

Switch Configuration

16x16	16x16
MxN	M≤16, N≤16

Fiber Type

50	50 µm

**Other fiber options available upon request*

Test Wavelength

850	850 nm
O	1310 nm
C	1550 nm
850/O	850/1310 nm
O/C	1310/1550 nm

**Other wavelength options are available upon request*

Fiber Jacket

T	900 µm Tight Buffer

**Other fiber options available upon request*

Connector Type

N	None
FC	FC/UPC
FC/APC	FC/APC
LC	LC/UPC
LC/APC	LC/APC
SC	SC/UPC
SC/APC	SC/APC

**Other connector types available upon request*

Connector Key Orientation

N	None

Pigtail Length

1	1 Meter
X	Specify X Meters

**Tolerance is +/- 0.05 m*

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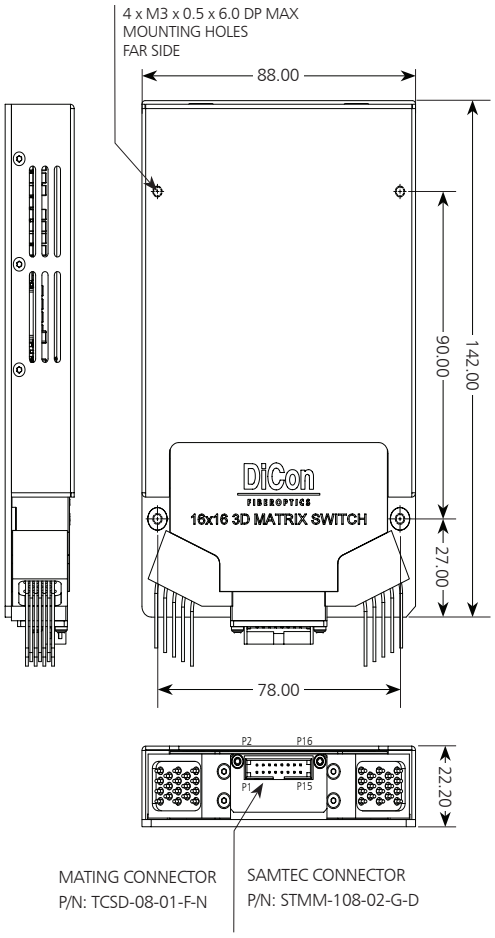
OPTICAL SPECIFICATIONS[1,2,3]

Operating Wavelength	850 / 1310 / 1550 nm
Insertion Loss	< 1.3 dB
Loss Repeatability[4]	+/- 0.03 dB
Connection Stability[5,6]	+/- 0.03 dB
Crosstalk[6]	< -60 dB
Back Reflection	< -30 dB
Optical Transition Time[6,7]	< 25 ms
Switch Lifetime[6]	> 1 Billion Cycles
Input Power Range[6]	Dark to +27 dBm

1. All specifications are measured separately at room temperature for each Test Wavelength
2. Tested with Encircled flux compliant light source
3. Excluding connector loss. Measured with 3-jumper method or equivalent (See TIA/EIA 526-7)
4. Over 100 cycles
5. 1 Hz sampling rate for 15 min
6. Met by design, not measured
7. Optical transition time for all ports switching concurrently, not including command processing overhead

Dimensions in mm



ELECTRICAL SPECIFICATIONS

Module Power Consumption	3.8 W max. Operating 6.5 W max. Start Up
Supply Voltage	12V DC
Module Interface	16-Pin Samtec
Module Control	USB, RS232, I^2C

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 to 50°C, < 85% RH
Storage Temperature	-40 to 70°C, < 40% RH

MECHANICAL SPECIFICATIONS

Module Size	142 mm x 88 mm x 22.2 mm
Module Weight (with fibers)	0.42 kg