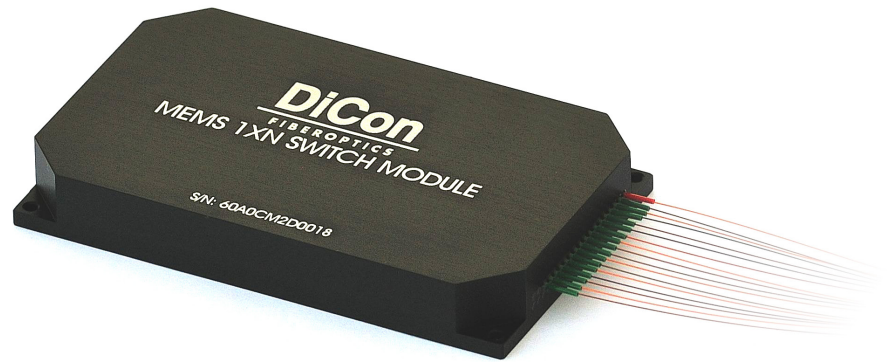


MEMS VISIBLE 1XN OPTICAL SWITCH

DiCon's MEMS Visible 1xN optical switch allows for the automated connection between one input fiber to anyone of N output fibers. The switch is bidirectional and can also be used in the reverse direction as a Nx1 selector switch. Based on DiCon's industry proven MEMS technology, DiCon uses proprietary techniques to optimize the performance in the visible wavelength region.



FEATURES

- Proven MEMS Durability and Reliability
- Lifetime > 1 Billion Switch Cycles
- Compact Form Factor

APPLICATIONS

- Biomedical Instrumentation
- Diffuse Optical Tomography
- Source or Target Selector



MEMS VISIBLE 1xN OPTICAL SWITCH

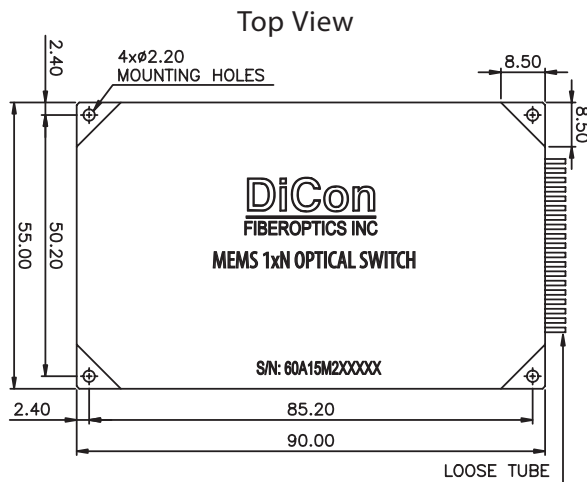
OPTICAL SPECIFICATIONS^{1,2}

PARAMETER		RATING
Insertion Loss ^{3,4}	1x2	1.6 dB max.
	1x4 ⁵	1.8 dB max.
	1x8 50 μm	2.4 dB max.
	1x8 62.5 μm	3.4 dB max.
	1x16 ⁵	3.6 dB max.
Crosstalk ⁶	50 μm	-25 dB max.
	62.5 μm	-20 dB max.
Back Reflection		-20 dB max.
Switching Time		30 ms max.
TDL		0.40 dB max.
Repeatability ⁷		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		Multi-mode, Bare Fiber

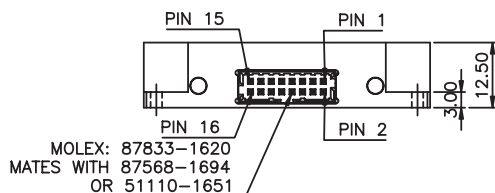
- Specifications are without connectors.
- Aligned for broadband use, with parking state.
- IL is measured at 632 nm, 23°C.
- IL is for standard opaque model.
- Transparent model only for 62.5 μm core fiber.
- Power off isolation is same as crosstalk.
- Repeatability is defined after 100 cycles.

MECHANICAL DIMENSIONS

(Units: mm)



Side View



ORDERING INFORMATION

MS2 - □ - □ - □ - □ - □ - □

Product Code

MS2 MEMS Switch

Switch Configuration

1xN 1xN Switch

Specify N, where N ≤ 16

Control Interface

I2C I²C
RS2 RS232
TTL TTL

Wavelength Range

6 500 - 800 nm

Fiber and Jacket Type

50/LT 50 μm core, 900 μm Loose Tube
62/LT 62.5 μm core, 900 μm Loose Tube

Connector Type

FC FC/PC
LC LC/PC
SC SC/PC
ST ST/PC
N NONE

Pigtail Length

1 1 Meter
X Specify X Meters

Tolerance is +/- 10 cm

ELECTRICAL SPECIFICATIONS

PARAMETER		RATING
Latching Type		non-latching
Control Type		I ² C, RS232 or TTL
Vcc Voltage	I2C, RS232	12 VDC
	TTL	5 VDC
Power Consumption	I2C, RS232	700 mW max.
	TTL	1.5 W max.
Connector Type		Molex 87833-1620