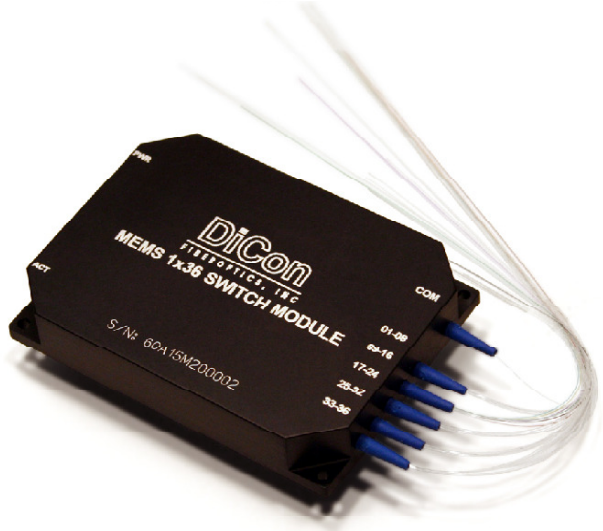
MEMS 1XN SWITCH MODULE

CONFIGURABLE UP TO 1X36

DiCon's MEMS 1xN Optical Switch Module is based on DiCon's MEMS 1x8 and 1x4 Optical Switch components. Up to five of the MEMS 1x8 switch components can be configured to provide a compact 1x36 switch. Each MEMS component is based on a micro-electromechanical system (MEMS) chip.



FEATURES

- Compact form-factor
- Fast switching time
- Low power consumption
- MEMS durability and reliability
- Available in other customized configurations

APPLICATIONS

The MEMS 1xN Switch is often used in channel or band monitoring cards to reduce the size and cost of monitoring DWDM networks. Other applications include fiber-based sensing, side-select switching for redundancy and secure communications, and bio-medical and scientific research. Excellent reliability, repeatability and temperature performance makes the MEMS 1xN switch ideal for temperature and environmental sensing equipment, as well as channel monitoring cards.

DiCon
FIBEROPTICS, INC

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MEMS 1XN SWITCH MODULE

OPTICAL SPECIFICATIONS[1]

PARAMETER		RATING
Insertion Loss[2,3]	Single-Band	1.5 dB max.
	Dual-Band	1.7 dB max.
Crosstalk[4]		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		30 ms max.
TDL		0.40 dB max.
WDL[5]		0.30 dB max.
PDL		0.15 dB max.
Repeatability[6]		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. IL is for standard opaque model.
4. Power off isolation is same as crosstalk.
5. WDL is measured in a +/- 20nm range at 23°C.
6. Repeatability is defined after 100 cycles.

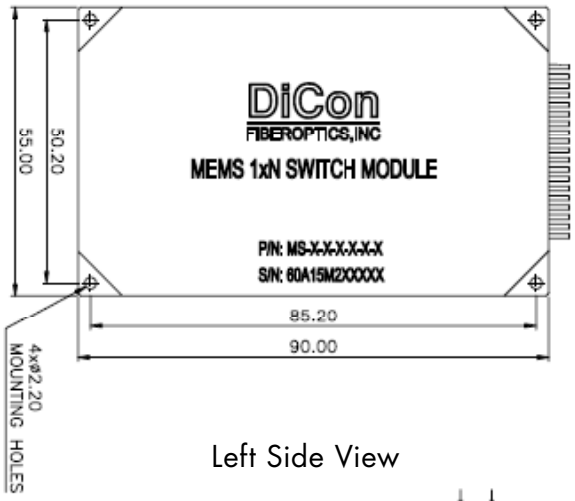
ELECTRICAL SPECIFICATIONS

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

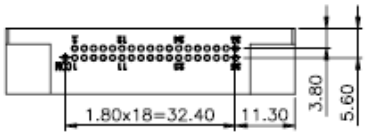
MECHANICAL DIMENSIONS

(Units: mm)

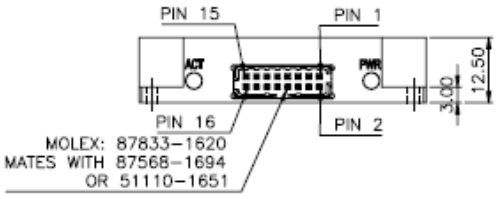
Top View



Left Side View



Right Side View



ORDERING INFORMATION

MS2 - □ - □ - □ - □ - □ - □

Product Code

MS2	MEMS Switch

Switch Configuration

1xN	1xN, Specify N<36

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

Or other equivalent 9μm Singlemode fiber