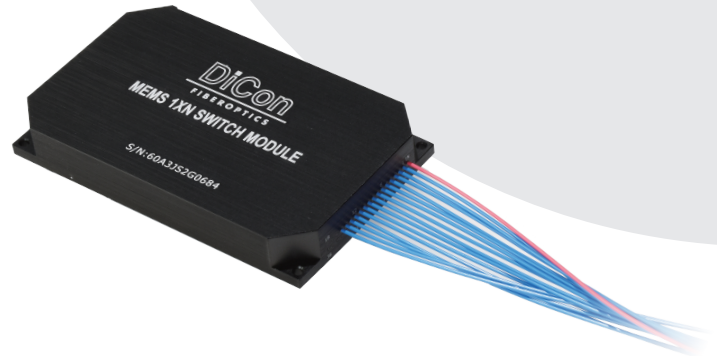


MEMS 1xN OPTICAL SWITCH

DiCon's MEMS 1xN Optical Switch is an industry proven fiber optic switch with excellent durability and reliability. It allows channel selection between a single input fiber and N output fibers, and the module allows for up to five MEMS switch components to be copackaged with the option of switching synchronously. In addition, this optical switch is bi-directional and can be used in either a 1xN or Nx1 direction.

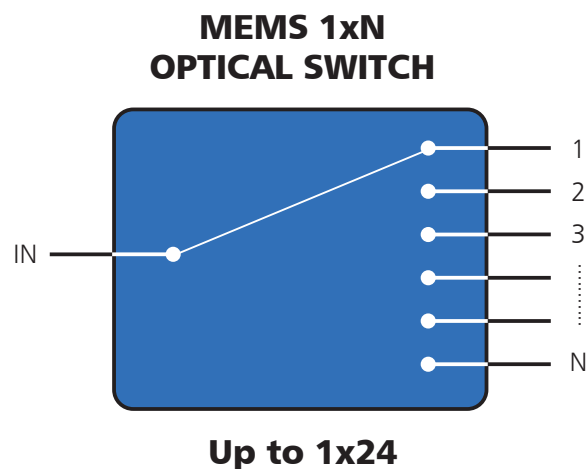


FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Fast Switching Time

APPLICATIONS

- Optical Communications
- Fiber Sensing
- Bio-medical Instrumentation
- Video Distribution



MEMS 1xN OPTICAL SWITCH

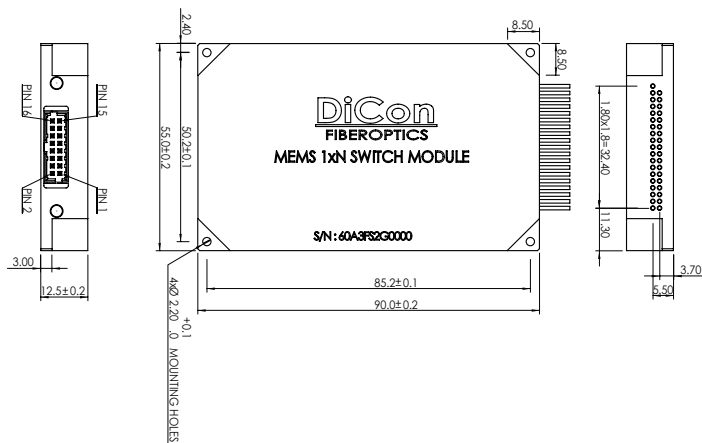
OPTICAL SPECIFICATIONS ¹

PARAMETER		RATING
Insertion Loss ^{2,3}	1x2, 1x4	0.4 dB typ. / 0.6 dB max.
	1x8	0.4 dB typ. / 0.7 dB max.
	1x12	0.4 dB typ. / 0.8 dB max.
	1x16, 1x24	0.8 dB typ. / 1.2 dB max.
Crosstalk ⁴		-50 dB max.
Back Reflection		-50 dB max.
Switching Time ⁵	Up to 1x8	15 ms max.
	Up to 1x24	20 ms max.
Array Switching Time ^{6,7}		30 ms max.
TDL		0.40 dB max.
WDL ^{8,9}		0.30 dB max.
PDL ¹⁰		0.10 dB max.
Repeatability ¹¹		0.04 dB max.
Optical Power		500 mW max.
Durability		10 ⁹ cycles min.
Operating Temperature		-5 to 70 °C
Storage Temperature		-40 to 85°C
Fiber Type		9/125 um Singlemode

- Specifications are without connectors.
- IL is measured at CWL, at room temp.
- IL is for single-band. Dual-band adds 0.3 dB.
- Power off isolation is same as crosstalk.
- Faster 1xN switching time version (10 ms max) available as a special request.
- Max switching time for all switches to the same state.
- Faster array switching time version (15 ms max) available as a special request.
- WDL is measured in a +/- 20nm range at room temp.
- WDL is N/A for the 1625 nm and 1650 nm wavelength range options.
- PDL is for single-band. Dual-band adds 0.05 dB.
- Repeatability is defined after 100 cycles.

MECHANICAL SPECIFICATIONS

Dimensions in mm



ORDERING INFORMATION

MS2 - ☐ - ☐ - ☐ - ☐ - ☐ - ☐ - ☐

Product Code

MS2 MEMS Switch

Switch Configuration

1xN 1xN, Specify N ≤ 24
M/1xN M = # of 1xN Switches
1x2: M = 1 to 5
1x4: M = 1 to 5
1x8: M = 1 to 3
1x12: M = 1 to 2

Control Interface

I2C I²C
RS2 RS232
TTL TTL

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
1625 1625 nm
1650 1650 nm

Custom Wavelength Ranges Available

Fiber and Jacket Type

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

Or other equivalent 9 um Singlemode

Connector Type

FC FC/UPC
FC/APC FC/APC
LC LC/SPC
LC/APC LC/APC
N None

Also Available: MTP, MPO, SC, SC/UPC, SC/APC, ST, LC/UPC, FC/UPC

Pigtail Length

1 1 Meter
X Specify X Meter

Tolerance is +/- 0.05 m

ELECTRICAL SPECIFICATIONS

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