

MEMS 1xN OPTICAL SWITCH

DiCon's MEMS 1xN Optical Switch is a compact, single mode, fiber optic switch configurable for port counts up to 1x48. It utilizes DiCon's proprietary MEMS technology to achieve reliable optical performance and excellent durability; DiCon's optical switches have been shown to last for over 1 billion switch cycles and are qualified to Telcordia GR-1221 environmental standards.

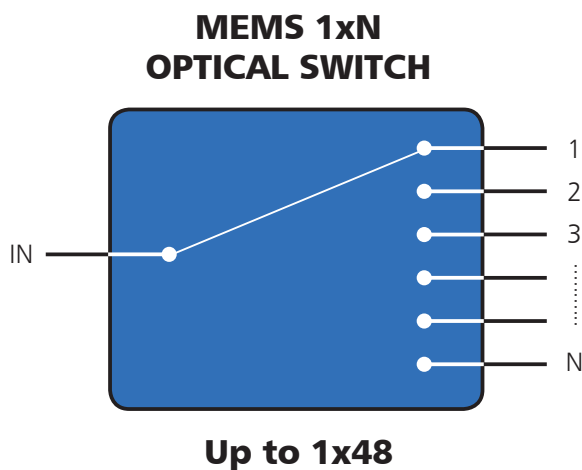


FEATURES

- Reliable Optical Performance
- Excellent Durability
- Compact Form Factor
- Low Power Consumption

APPLICATIONS

- Optical Communications
- Fiber Optic Sensing
- Bio-medical Instrumentation
- RF Distribution over Fiber



DiCon



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MEMS 1xN OPTICAL SWITCH

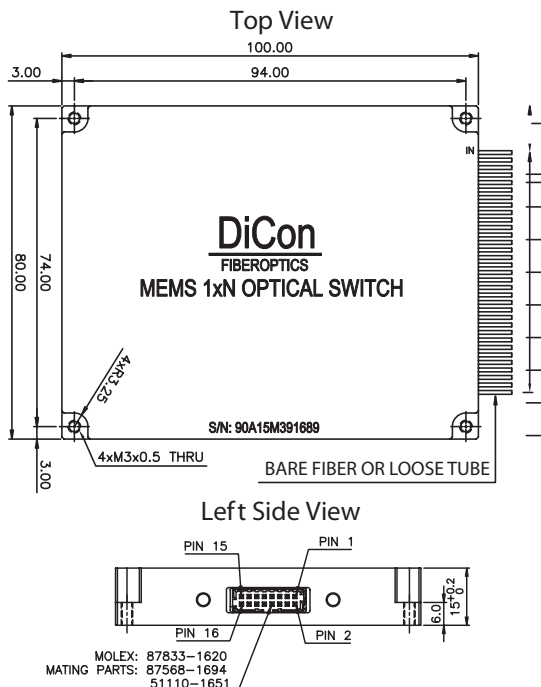
OPTICAL SPECIFICATIONS^{1,2}

PARAMETER		RATING
Insertion Loss ^{3,4}	25 ≤ N ≤ 32	0.8 dB typ. / 1.2 dB max.
	33 ≤ N ≤ 48	0.8 dB typ. / 1.2 dB max.
Crosstalk		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		30 ms max.
TDL		0.40 dB max.
WDL ⁵	25 ≤ N ≤ 32	0.30 dB max.
	33 ≤ N ≤ 48	0.40 dB max.
PDL ⁶		0.10 dB max.
Repeatability ⁷		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

1. Specifications are without connectors.
2. Specifications only guaranteed in defined switch states.
3. IL is measured at CWL, 23°C.
4. IL is for single-band. Dual-band adds 0.3 dB.
5. WDL is measured in a +/- 20nm range at 23°C.
6. PDL is for single-band. Dual-band adds 0.05 dB.
7. Repeatability is defined after 100 cycles.

MECHANICAL SPECIFICATIONS

Dimensions in mm



ORDERING INFORMATION

MS3 - □ - □ - □ - □ - □ - □

Product Code

MS3 MEMS Switch

Switch Configuration

1xN 1xN, Specify N ≤ 48

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

Fiber and Jacket Type

9/BF Corning SMF-28, Bare fiber

9/LT Corning SMF-28, Loose-tube

Or other equivalent 9 um Singlemode fiber

Connector Type

FC/SPC FC/SPC

FC/APC FC/APC

N NONE

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

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	700 mW max.
	TTL	1.5 W max.
Connector Type		Molex 87833-1620



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