

MEMS 1xN OPTICAL SWITCH

DiCon's MEMS 1xN Optical Switch is a high reliability, cost effective fiber optic switch available in any 1xN size up to 1x128, making it ideal for PON fiber monitoring applications. Based upon DiCon's industry proven MEMS technology, this optical switch has a lifetime greater than 1 billion switch cycles and performance can be optimized to any requested monitoring wavelength or wavelength range. Its compact design, 165 x 136 x 26 mm, makes it easy to integrate into a rack mount system.



FEATURES

- High Reliability
- Cost Effective
- Available up to 1x128
- Proven DiCon MEMS Technology

APPLICATIONS

- Fiber Monitoring
- Fiber Sensing



MEMS 1xN OPTICAL SWITCH

OPTICAL SPECIFICATIONS¹

| PARAMETER | | RATING |
|-------------------------------|-------------|-----------------------------|
| Insertion Loss ^{2,3} | Up to 1x96 | 2.0 dB max. |
| | Up to 1x128 | 2.4 dB max. |
| Crosstalk ⁴ | | -50 dB max. |
| Back Reflection | | -50 dB max. |
| Switching Time | | 30 ms max. |
| TDL | | 0.40 dB max. |
| WDL ⁵ | | 0.40 dB max. |
| PDL ⁶ | | 0.10 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 | | 9/125 μm single mode |

- Specifications are without connectors.
- Insertion Loss is for single band. Dual-Band adds 0.2 dB
- Measured at CWL, 23°C.
- Power off isolation is the same as crosstalk.
- WDL is measured in a +/- 20nm range at 23°C.
- PDL is for single-band. Dual-band adds 0.05 dB.
- Repeatability is defined after 100 cycles.

ORDERING INFORMATION

MS5 - - - - - - -

Product Code

MS5 MEMS Switch

Switch Configuration

1xN 1xN, Specify N≤128
(ex. 1x128)

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

Other wavelength ranges available upon request.

Fiber and Jacket Type

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

Connector Type

LC LC/SPC
N NONE

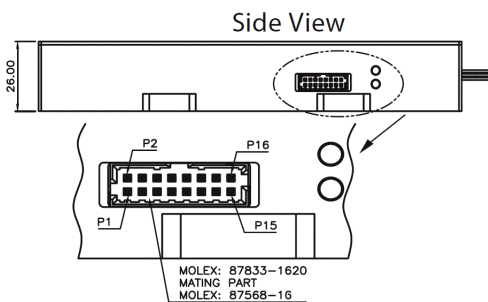
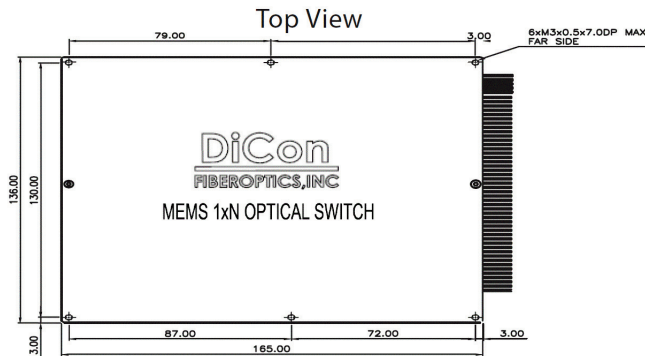
Other connectors available upon request.

Pigtail Length

1 1 Meter
X Specify X Meters

Tolerance is +/- 10 cm

MECHANICAL DIMENSIONS (Units: mm)



ELECTRICAL SPECIFICATIONS

| PARAMETER | RATING |
|-------------------|---------------------------|
| Latching Type | non-latching |
| Control Type | I ² C or RS232 |
| Vcc Voltage | 12 VDC |
| Power Consumption | 1 W max. |
| Connector Type | Molex 87833-1620 |