

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

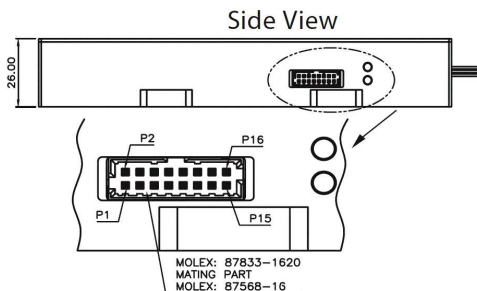
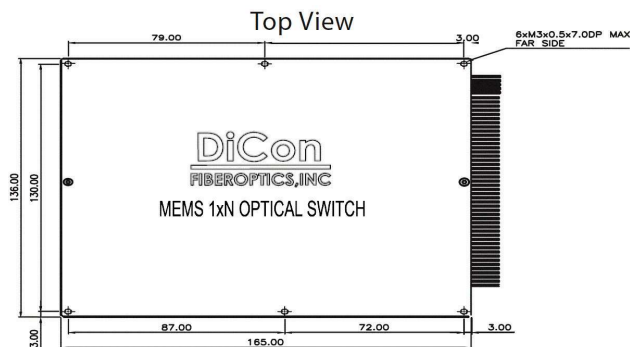
- Specifications are without connectors.
- Insertion Loss is for single band. Dual-Band adds 0.2 dB
- Measured at CWL, 23°C.
- Power off isolation is the same as crosstalk.
- WDL is measured in a +/- 20nm range at 23°C.
- PDL is for single-band. Dual-band adds 0.05 dB.
- Repeatability is defined after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

ORDERING INFORMATION

MS5 - □ - □ - □ - □ - □ - □

Product Code		MS5 MEMS Switch
Switch Configuration		1xN 1xN, Specify N≤128 (ex. 1x128)
Control Interface		I2C I ² C 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 <i>Other wavelength ranges available upon request.</i>
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 <i>Other connectors available upon request.</i>
Pigtail Length		1 1 Meter X Specify X Meters <i>Tolerance is +/- 10 cm</i>

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