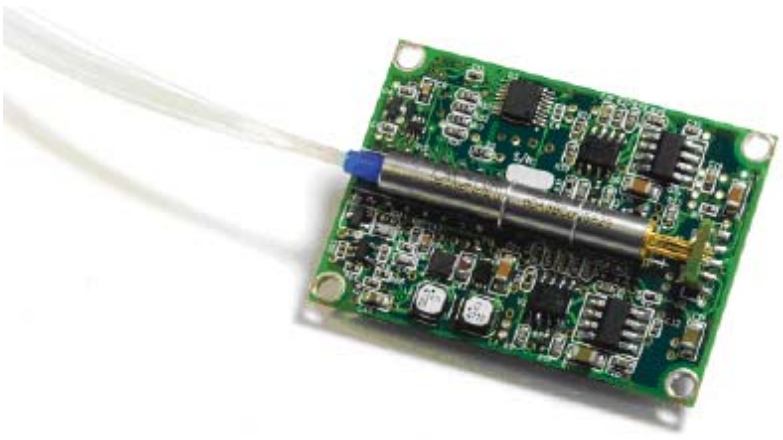
PM MEMS 1XN OPTICAL SWITCH

DiCon's PM MEMS 1xN Optical Switch provides channel selcetion between a single input fiber and N output fibers. At the core of the switch is DiCon's proprietary MEMS chip; an electrostatically driven mirror implemented using single-crystalline silicon and a stiction-free design. The mirror is capable of rotating on two axes, allowing the input light to be redirected back to any desired output. The switch is bi-directional and can be used as a Nx1 selector switch.



FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- High Extinction Ratio
- Lifetime > 1 Billion Switch Cycles

APPLICATIONS

- Optical Communications
- Fiber Optic Sensing
- Source Selection

DiCon FIBEROPTICS

PM MEMS 1XN OPTICAL SWITCH

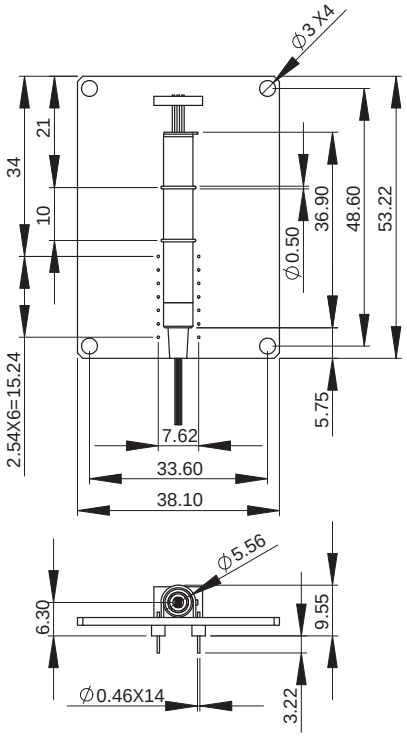
OPTICAL SPECIFICATIONS[1]

PARAMETER	RATING
Insertion Loss[2]	1.0 dB max.
Crosstalk[3]	-50 dB max.
Back Reflection	-50 dB max.
TDL	0.40 dB max.
WDL[4]	0.30 dB max.
Extinction Ratio	18 dB min.
Repeatability[5]	+/- 0.05 dB max.
Optical Power	500 mW max.
Durability	10^9 cycles min.
Switching Time	30 ms max.
Operating Temp	-5 to 70°C
Storage Temp	-40 to 85°C
Fiber Type	9/125/250μm Panda Fiber

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. Power off isolation is same as crosstalk.
4. WDL is measured in a +/- 20nm range at 23°C.
5. Repeatability is defined after 100 cycles.

MECHANICAL DIMENSIONS

(Units: mm)



ORDERING INFORMATION

MLP - □ - □ - □ - □ - 2B - □ - □

Product Code

MLP	PM MEMS Switch

Switch Configuration

1xN	1xN Specify N ≤ 4

Control Interface

TTL	TTL
I2C	I²C

Wavelength Range

13	1290 - 1330 nm
15	1530 - 1570 nm

Connector Key Orientation

PMF	Fast axis
PMS	Slow axis
PMN	No connector

Fiber and Jacket Type

2B	9/125 μm Panda fiber with 250 μm buffer

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 Meters

Tolerance is +/- 0.05 m

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I²C and TTL
Vcc Voltage	12 VDC
Power Consumption	1.2 W max.
Vcc Damage Threshold	15 VDC