

PM MEMS 1xN OPTICAL SWITCH MODULE



DiCon's PM MEMS 1xN Optical Switch provides channel selection between a single input fiber and N output fibers. At the core of the switch is DiCon's proprietary MEMS mirror. The mirror is capable of rotating on two axes, allowing the input light to be redirected to any desired output. In addition, this optical switch is bi-directional and can be used as a Nx1 selector switch.

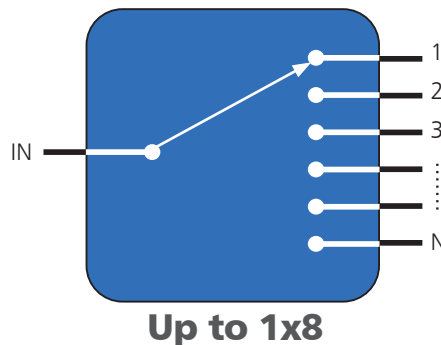
KEY FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- RS232, I²C or TTL Control

APPLICATIONS

- Quantum Photonics
- Test & Measurement
- Biomedical

MEMS 1xN OPTICAL SWITCH



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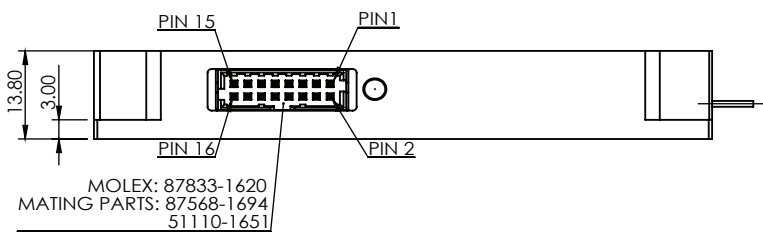
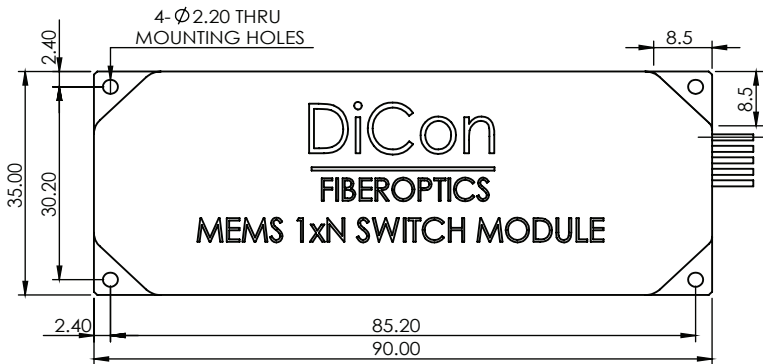
OPTICAL SPECIFICATIONS¹

PARAMETER	RATING	
Insertion Loss ²	Up to 1x2	1.0 dB max.
	Up to 1x4	1.1 dB max.
	Up to 1x8	1.2 dB max.
Crosstalk ³	-50 dB max.	
Back Reflection	-50 dB max.	
TDL	0.25 dB max.	
WDL ⁴	0.30 dB max.	
Extinction Ratio ⁵	18 dB min.	
Switching Time	30 ms max.	
Repeatability ⁶	+/- 0.05 dB max.	
Durability	10 ⁹ cycles min.	
Optical Power	500 mW max.	
Fiber Type	Panda Fiber	

- Specifications are without connectors.
- IL is measured at CWL at room temperature.
- Power off isolation is same as crosstalk.
- Wavelength Dependent Loss (WDL) is measured in a +/- 20 nm range.
- Extinction Ratio ratio with connectors is 15 dB min.
- Repeatability is defined over 100 cycles.

MECHANICAL SPECIFICATIONS

Dimensions in mm



ORDERING INFORMATION

ML1 - □ - □ - □ - □ - □ - □ - □

Switch Configuration

1xN 1xN
Specify N ≤ 8

Control Interface

I2C I²C
RS2 RS232
TTL TTL

Wavelength Range

13 1290 - 1330 nm
15 1530 - 1570 nm
16 1570 - 1610 nm

Other wavelengths ranges available upon request

Connector Key Orientation

PMS Slow Axis
PMN No Connectors

Fiber and Jacket Type

PM13/BF Corning PM 1300 Fiber, 250 μm barefiber
PM13/LT Corning PM 1300 Fiber, 900 μm loose tube over 250 μm barefiber
PM15/BF Corning PM 1550 Fiber, 250 μm barefiber
PM15/LT Corning PM 1550 Fiber, 900 μm loose tube over 250 μm barefiber

Other fiber options available upon request

Connector Type

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

Other connector types available upon request

Pigtail Length

1 1 Meter
X Specify X Meters

Tolerance is +/- 0.05 m

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Control Type	RS232, I ² C or TTL
Vcc Voltage	12 VDC
Power Consumption	1.0 W typ., 3.6 W max.
Connector Type	Molex 87833-1620

Please contact DiCon Fiberoptics to discuss any special requirements not defined above.