

SPACE QUALIFIED MEMS 1X4 OPTICAL SWITCH

Cylindrical Package, Polarization Maintaining Fiber

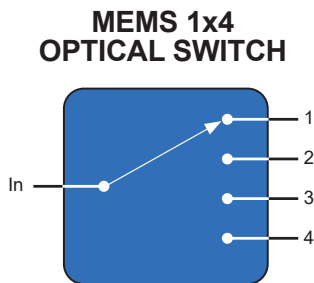


DiCon's **Space Qualified MEMS 1x4 Optical Switch** allows channel selection between an input fiber and up to N output fibers. The switch is bi-directional and can also be used as a Nx1 selector switch. Built using DiCon's industry proven MEMS fiber optic switch technology, this optical switch offers highly reliable, durable, long-life operation in a compact, OEM package.

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Fast Switching Time
- Direct Voltage Control
- Space Qualified

Applications

- Optical Communications
- Fiber Sensing
- Analog & Digital Signal Transmission
- Video Distribution



ORDERING INFORMATION

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Switch Configuration

1xN 1xN (N≤4)

Fiber Type

PM13 Corning PM1310 Fiber

PM15 Corning PM1550 Fiber

**Other fiber options are available upon request*

Test Wavelength

O 1310 nm

C 1550 nm

L 1590 nm

**Use "/" to add multiple wavelengths (E.g., O/C or O/C/L)*

Fiber Jacket

9L 900 μm Loose Tube Fiber

2BF 250 μm Bare Fiber

**Other fiber options are available upon request*

Connector Type

N None

FC FC/UPC

FC/APC FC/APC

**Other connector type are available upon request*

Connector Key Orientation

N None

S Slow axis

F Fast axis

Pigtail Length

1 1 Meter

X Specify X Meters

**Tolerance is +/- 0.1 m*

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OPTICAL SPECIFICATIONS¹

Insertion Loss ^{2,3,4}	1.0 dB max.
Crosstalk ⁵	-50 dB max.
Back Reflection	-50 dB max.
TDL	0.30 dB max.
WDL ⁶	0.30 dB max.
PER ⁷	18 dB min.
Repeatability ⁸	0.02 dB
Optical Power	500 mW max.
Durability	10 ⁹ cycles min.
Switching Time ⁹	10 ms max.

- Specifications are without connectors.
- IL is measured at room temperature for each Test Wavelength.
- IL is for standard opaque model.
- IL is for single-band. Dual-band adds 0.1 dB.
- Power off isolation is same as crosstalk.
- WDL is measured in a +/- 20 nm range at 23°C.
- PER with connectors is 15 dB min.
- Repeatability is defined after 100 cycles.
- When using optimized voltage ramp.

ELECTRICAL SPECIFICATIONS

Latching Type	non-latching
Control Type	Direct Voltage ¹
Vcc Voltage	0-30 VDC
Power Consumption	120 μW max.
Vcc Damage Threshold	40 VDC

- Tolerance is +/- 10 mV to meet optical specifications.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-5 to 70°C
Storage Temperature	-40 to 85°C

MECHANICAL SPECIFICATIONS

Dimensions in mm

