DiCon Fiberoptics, Inc.

SPACE QUALIFIED MEMS 1X4 OPTICAL SWITCH

Cylindrical Package, Singlemode Fiber

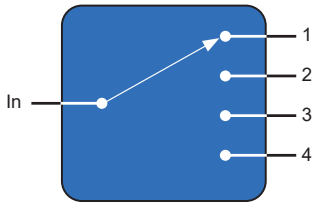
DiCon's **Space Qualified MEMS 1x4 Optical Switch** allows channel selection between an input fiber and up to N output fibers. The switch is bi-directional and can also be used as an Nx1 selector switch. Built using DiCon's industry proven MEMS fiber optic switch technology, this optical switch offers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

MEMS 1x4 OPTICAL SWITCH



ORDERING INFORMATION

MSQ - ☐ - 9 - ☐ - ☐ - ☐ - N - ☐ - ☐

Switch Configuration

1xN	1xN (N≤4)

Fiber Type

9	Corning SMF-28

**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

Pigtail Length

1	1 Meter
X	Specify X Meters

**Tolerance is +/- 0.1 m*

Pin Bending

S	Straight Pins
B	Bent Pins

TAA COMPLIANT

DiCon® FIBEROPTICS

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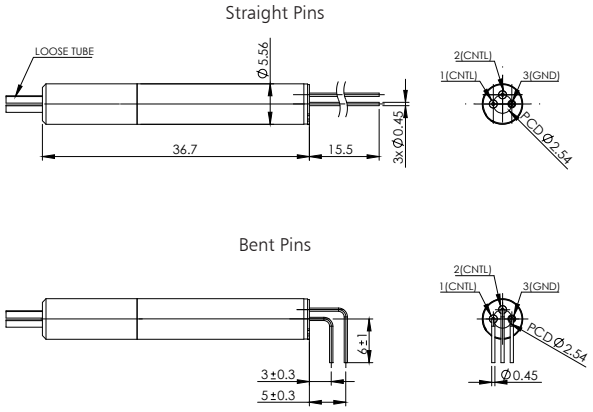
OPTICAL SPECIFICATIONS[1]

Insertion Loss[2,3,4]	0.7 dB max.
Crosstalk[5]	-50 dB max.
Back Reflection	-50 dB max.
TDL	0.30 dB max.
WDL[6]	0.20 dB max.
PDL	0.10 dB max.
Repeatability[7]	0.02 dB
Optical Power	500 mW max.
Durability	10^9 cycles min.
Optical Transition Time[8]	10 ms max.

1. Measured separately for each Test Wavelength at room temperature
2. Measured with 3-jumper method or equivalent. See TIA/EIA 526-7.
3. IL is for standard opaque model.
4. IL is for single-band. Dual-band adds 0.1 dB.
5. Power off isolation is same as crosstalk.
6. WDL is measured in a +/- 20 nm range at 23°C.
7. Repeatability is defined after 100 cycles.
8. When using optimized voltage ramp.

MECHANICAL SPECIFICATIONS

Dimensions in mm



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

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

ENVIRONMENTAL SPECIFICATIONS

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