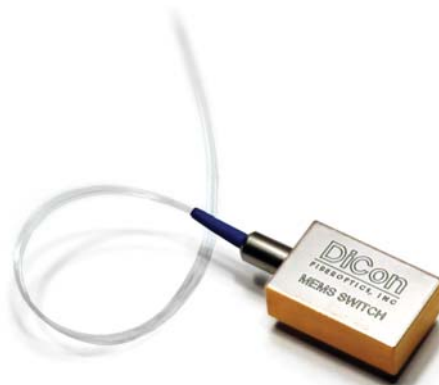


MEMS 1xN OPTICAL SWITCH

DIP PACKAGE

DiCon's MEMS 1xN 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.



FEATURES

- Proven DiCon MEMS Technology
- Excellent Reliability and Repeatability
- Lifetime > 1 Billion Switch Cycles

APPLICATIONS

- Optical Communications
- Fiber Sensing
- Bio-medical Instrumentation
- Video Distribution



MEMS 1xN OPTICAL SWITCH

DIP PACKAGE

OPTICAL SPECIFICATIONS¹

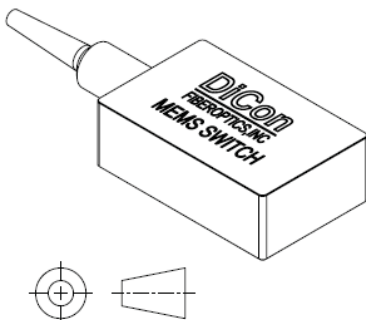
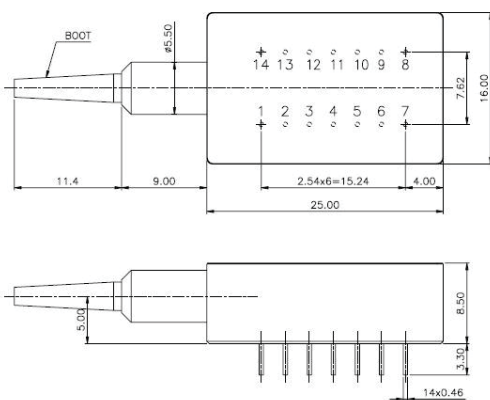
PARAMETER		RATING
Insertion	1x2, 1x4	0.7 dB max.
Loss ^{2,3,4}	1x8	0.8 dB max.
Crosstalk ⁵		-50 dB max.
Back Reflection		-50 dB max.
TDL		0.30 dB max.
WDL ⁶		0.20 dB max.
PDL		0.10 dB max.
Repeatability ⁷		0.02 dB max.
Optical Power		500 mW max.
Durability		10 ⁹ cycles min.
Switching	1x2	10 ms max.
Time	1x4, 1x8	15 ms max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		9/125 μm single mode

- Specifications are without connectors.
- IL is measured at CWL, 23°C.
- IL is for standard opaque model.
- IL is for single-band. Dual-band adds 0.1dB.
- Power off isolation is same as crosstalk.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

MECHANICAL DIMENSIONS

(Units: mm)

Bare Fiber



ORDERING INFORMATION

MS1 - □ - □ - □ - □ - □ - □

Product Code

MS1 MEMS Switch

Switch Configuration

1xN 1xN Switch

Specify N, where N ≤ 8

Control Interface

TTL TTL

I²C I²C

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

Fiber and Jacket Type

9/BF Corning SMF-28, bare fiber

9/LT Corning SMF-28, loose tube

Or other equivalent 9μm Singlemode fiber

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	I ² C and TTL
Vcc Voltage	12 VDC
Power Consumption	170 mW max.
Vcc Damage Threshold	15 VDC

Loose Tube

