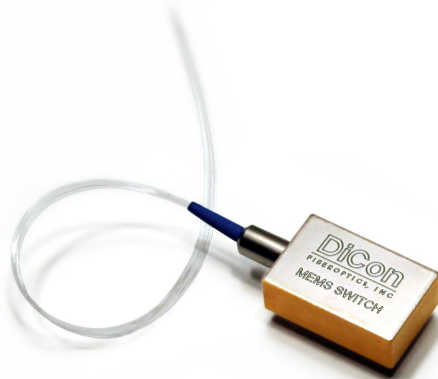


# MEMS MULTI-MODE 1xN OPTICAL SWITCH

DiCon's MEMS Multi-Mode 1xN Optical Switch is an industry proven fiber optic switch with excellent durability and reliability. It allows channel selection between a single input fiber and N output fibers, and can be specified for any 1xN size from 1x2 up to 1x8. In addition, this optical switch is bi-directional and can be used in either 1xN or Nx1 direction.



## FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Fast Switching Time
- Qualified to GR-1221

## APPLICATIONS

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



# MEMS MULTI-MODE 1XN OPTICAL SWITCH

## OPTICAL SPECIFICATIONS<sup>1,2</sup>

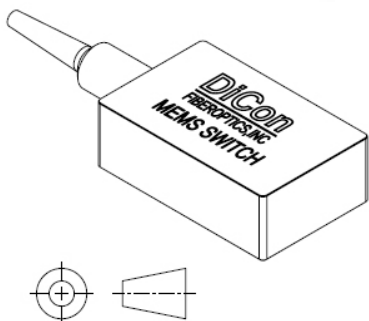
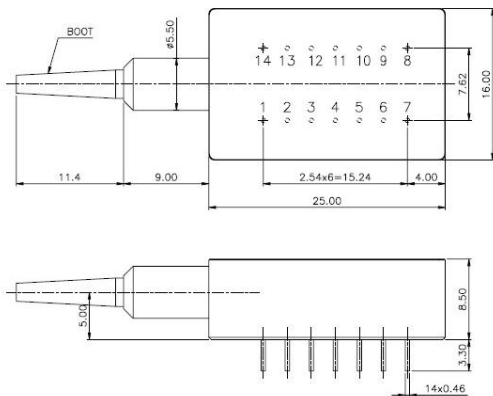
PARAMETER		RATING
Insertion Loss <sup>3,4</sup>	1x2, 1x4	1.0 dB max.
	1x6, 1x8	1.2 dB max.
Crosstalk <sup>5</sup>	50 $\mu$ m	-25 dB max.
	62.5 $\mu$ m	-20 dB max.
Back Reflection		-20 dB max.
TDL		0.30 dB max.
Repeatability <sup>6</sup>		0.02 dB max.
Optical Power		500 mW max.
Durability		10 <sup>9</sup> cycles min.
Switching Time	1x2, 1x4	20 ms max.
	1x6, 1x8	30 ms max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		Multi-mode, Bare Fiber

- Specifications are without connectors.
- Aligned transparent to channel 1.
- IL is measured at specified wavelength, 23°C.
- IL is for single-band. Dual-band option adds 0.3 dB.
- Optical off state isolation is the same as crosstalk.
- Repeatability is defined within 100 cycles.

## MECHANICAL DIMENSIONS

(Units: mm)

Bare Fiber



## ORDERING INFORMATION

MS1 -  -  -  -  -  -  -

**Product Code**  
MS1 MEMS Switch

**Switch Configuration**  
1xN 1xN Switch  
*Specify N ≤ 8 for 50um or N ≤ 4 for 62.5um*

**Control Interface**  
TTL TTL  
I2C I2C

**Wavelength Range**  
8 850 nm only  
9 980 nm only  
8/13 850 & 1310 nm  
*Other wavelengths available upon special request*

**Fiber and Jacket Type**  
50/BF 50um core, bare fiber  
62/BF 62.5um core, bare fiber  
50/LT 50um core, loose tube  
62/LT 62.5um core, loose tube

**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 <sup>2</sup> C and TTL
Vcc Voltage	12 VDC
Power Consumption	170 mW max.
Vcc Damage Threshold	15 VDC

Loose Tube

