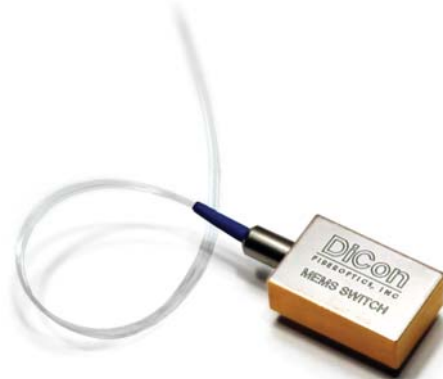


# MEMS MULTI-MODE 1xN OPTICAL SWITCH

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</sup>

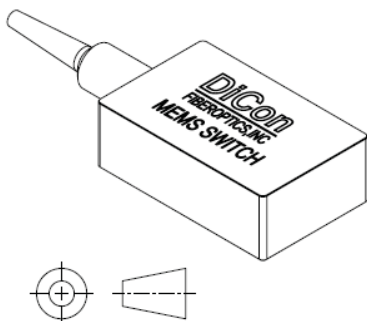
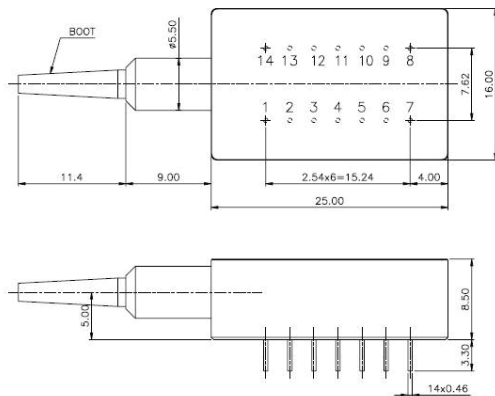
PARAMETER		RATING
Insertion Loss <sup>2,3</sup>	1x2, 1x4	1.0 dB max.
	1x6, 1x8	1.2 dB max.
Crosstalk <sup>4</sup>	50 $\mu$ m	-25 dB max.
	62.5 $\mu$ m	-20 dB max.
Back Reflection		-20 dB max.
TDL		0.30 dB max.
Repeatability <sup>5</sup>		0.02 dB max.
Optical Power		500 mW max.
Durability		10 <sup>9</sup> 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.
- IL is measured at specified wavelength, 23°C.
- IL is for single-band. Dual-band option adds 0.3 dB.
- Power off isolation is same as crosstalk.
- Repeatability is defined after 100 cycles.

## MECHANICAL DIMENSIONS

(Units: mm)

Bare Fiber



## ORDERING INFORMATION

MS1 -  -  -  -  -  -  -

<b>Product Code</b>	
MS1	MEMS Switch
<b>Switch Configuration</b>	
1xN	1xN Switch
<i>Specify N ≤ 8 for 50<math>\mu</math>m or N ≤ 4 for 62.5<math>\mu</math>m</i>	
<b>Control Interface</b>	
TTL	TTL
I <sup>2</sup> C	I <sup>2</sup> C
<b>Wavelength Range</b>	
8	850 nm only
9	980 nm only
8/13	850 & 1310 nm
<i>Other wavelengths available upon special request</i>	
<b>Fiber and Jacket Type</b>	
50/BF	50 $\mu$ m core, bare fiber
62/BF	62.5 $\mu$ m core, bare fiber
50/LT	50 $\mu$ m core, loose tube
62/LT	62.5 $\mu$ m core, loose tube
<b>Connector Type</b>	
FC/SPC	FC/SPC
FC/APC	FC/APC
N	NONE
<i>Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC</i>	
<b>Pigtail Length</b>	
1	1 Meter
X	Specify X Meters
<i>Tolerance is +/- 0.05 m</i>	

## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I <sup>2</sup> C and TTL
V <sub>cc</sub> Voltage	12 VDC
Power Consumption	170 mW max.
V <sub>cc</sub> Damage Threshold	15 VDC

Loose Tube

