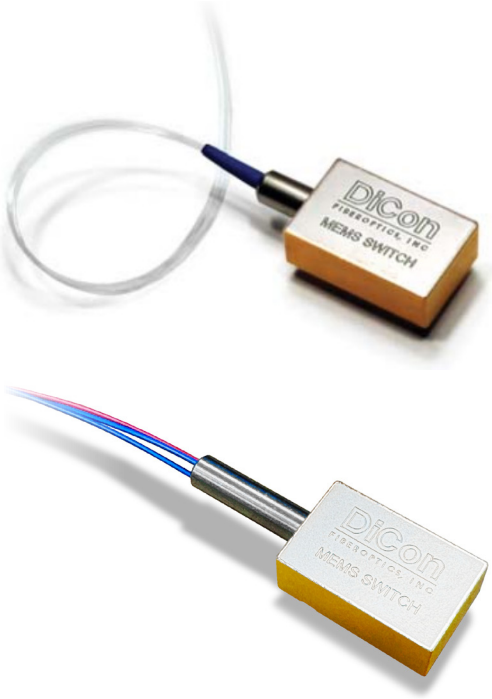
DiCon Fiberoptics, Inc.

MEMS 1XN OPTICAL SWITCH MODULE

DIP Package, Single Mode Fiber, Standard Grade



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 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.

FEATURES

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

APPLICATIONS

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

ORDERING INFORMATION

MS1 - □ - □ - □ - □ - □ - □

Product Code

MS1	MEMS Switch

Switch Configuration

1xN	1xN Switch

**Specify N, where N≤8*

Control Interface

TTL	TTL
I2C	I²C

Test Wavelength

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 9 µm Singlemode fiber*
**The loose tube is 0.9 mm in diameter.*

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*

TAA COMPLIANT

DiCon® FIBEROPTICS

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OPTICAL SPECIFICATIONS[1]

Test Wavelength		1260 to 1675 nm
Insertion Loss[2,3]	1x2,1x4	< 0.7 dB max.
	1x8	< 0.8 dB max.
Crosstalk[4]		< -50 dB max
Back Reflection		< -50 dB max.
TDL[5]		< 0.3 dB max.
WDL[5,6]		< 0.2 dB max.
PDL[5]		< 0.1 dB max
Repeatability[7]		+/- 0.02 dB max.
Optical Power		500 mW max.
Switch Lifetime		> 1 Billion Cycles
Optical Transition Time[5,8]	1x2	< 10 ms max.
	1x4,1x8	< 15 ms max.
Fiber Type		9/125 µm single mode

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 single-band. Dual-band adds 0.1 dB.
4. Power off isolation is the same as crosstalk
5. Met by design, not Measured
6. Test Wavelength ±20 nm
7. Over 100 cycles
8. Optical transition time for all ports switching concurrently, not including command processing overhead

ELECTRICAL SPECIFICATIONS

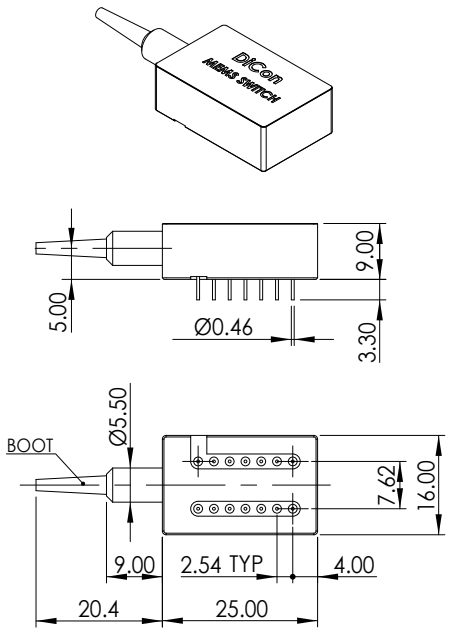
Module Power Consumption	170 mW max.
Latching Type	non-latching
Control Type	I²C and TTL
Vcc Voltage	12 VDC
Vcc Damage Threshold	15 VDC

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-5 to 70°C, < 85% RH
Storage Temperature	-40 to 85°C, < 40% RH

Dimensions in mm

Bare Fiber



Loose Tube