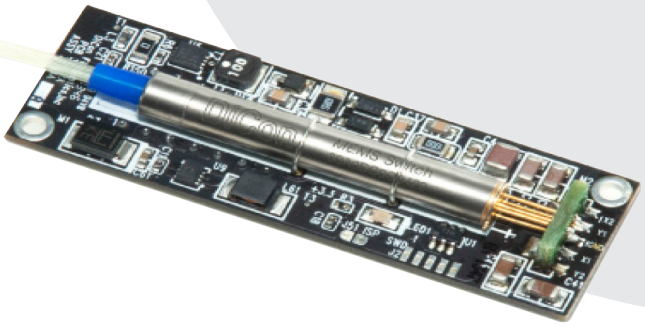
MEMS 1XN LARGE FAN-OUT OPTICAL SWITCH

WITH EXTERNAL PCB



DiCon's MEMS 1xN Large Fan-Out Optical Switch allows the automated connection between one input fiber and up to 32 output fibers. The switch is bidirectional and can be also used in the reverse direction as a Nx1 selector switch.

DiCon's optical switches operate by collecting and collimating light from the input fiber, and then reflecting this light off of an ultra-stable and reliable, 2-axis DiCon MEMS mirror, which precisely directs the lights to the requested output fiber. The input and output fibers are aligned to the MEMS mirror using a single ferrule, resulting in an extremely compact, robust design. The MEMS mirror utilizes DiCon's advanced MEMS technology, developed over many years at DiCon, and tested and proven in the telecommunications, defense and aerospace, and other demanding applications.

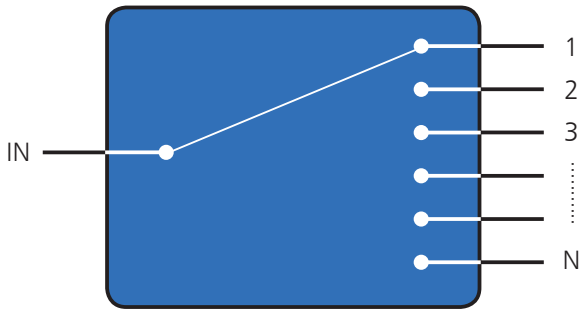
FEATURES

- Up to 1x32
- Compact Form Factor
- Lifetime > 1 Billion Switch Cycles

APPLICATIONS

- Fiber Monitoring
- Optical Network Routing
- Fiber Sensing
- Resource Sharing

MEMS 1xN OPTICAL SWITCH



Up to 1x32

DiCon FIBEROPTICS

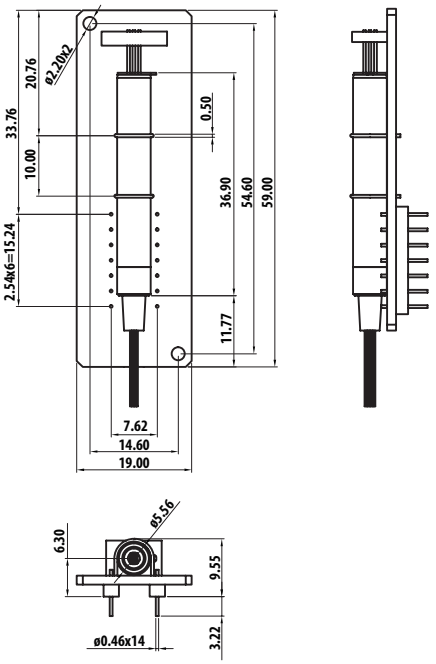
MEMS 1XN LARGE FAN-OUT OPTICAL SWITCH
WITH EXTERNAL PCB

OPTICAL SPECIFICATIONS [1]

PARAMETER		RATING
Insertion Loss[2,3]	1x24	0.5 dB typ. / 1.0 dB max.
	1x32	0.5 dB typ. / 1.0 dB max.
Crosstalk[4]		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		30 ms max.
TDL[5]		0.15 dB max.
WDL[6,7]		0.30 dB max.
PDL		0.15 dB max.
Repeatability[8]		+/- 0.05 dB max.
Optical Power		500 mW max.
Durability		10^9 cycles min.
Operating Temperature		-5 to 70 °C
Storage Temperature		-40 to 85°C
Fiber Type		9/125 um Singlemode

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. IL is for single-band. Dual-band adds 0.3dB.
4. Power off isolation is same as crosstalk.
5. TDL is for single-band. Dual-band adds 0.15dB.
6. WDL is measured in a +/- 20nm range at 23°C.
7. WDL is N/A for the 1625 nm and 1650 nm wavelength range options.
8. Repeatability is defined after 100 cycles.

MECHANICAL SPECIFICATIONS
Dimensions in mm



ORDERING INFORMATION

MLC - □ - □ - □ - □ - 9/BF - □

Product Code

MLC	MEMS Large Fan-Out Switch with PCB

Switch Configuration

1xN	1xN, Specify N≤32

Control Interface

I2C	I^2C
TTL	TTL

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
1625	1625 nm
1650	1650 nm

Custom Wavelength Ranges Available

Fiber and Jacket Type

9/BF	Corning SMF-28, Bare fiber

Or other equivalent 9 um Singlemode

Connector Type

FC	FC/UPC
FC/APC	FC/APC
N	None

Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC, LC/APC

Pigtail Length

1	1 Meter
X	Specify X Meter

Tolerance is +/- 0.05 m

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I^2C or TTL
Vcc Voltage	12 VDC
Power Consumption	700 mW max.
Vcc Damage Threshold	15 VDC