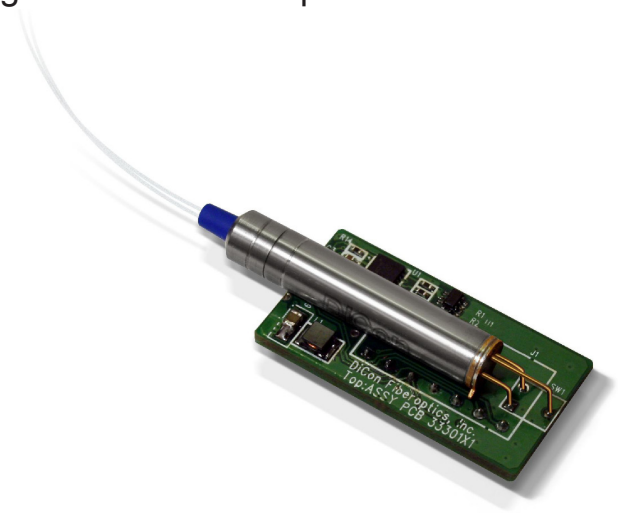
MEMS 2X2 BLOCKING SWITCH

DiCon's MEMS 2x2 Blocking Switch is based on a micro-electro-mechanical system (MEMS) chip. The MEMS chip consists of an electrically moveable mirror on a silicon support. A voltage applied to the MEMS chip causes the mirror to rotate, which changes the coupling of light between two input fibers and two output fibers.

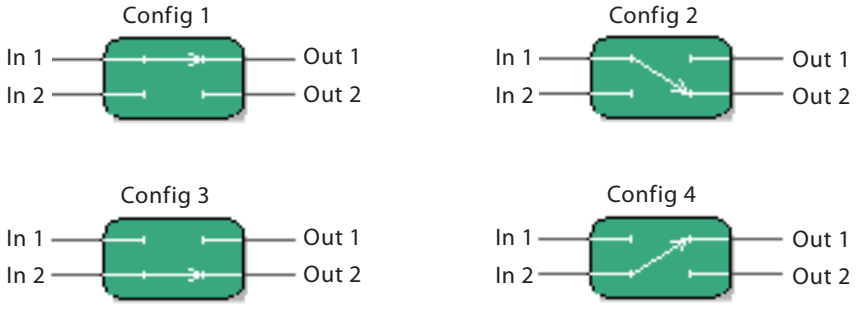


FEATURES

- Small optical switch package
- Based on DiCon's proven MEMS platform
- TTL parallel or SMBus/I^{2}C serial control interface

APPLICATIONS

The MEMS 2x2 Blocking Switch is often used in telecommunication networks, fiber-based sensing, and bio-medical and scientific research. Excellent reliability, repeatability and temperature performance makes the MEMS 2x2 Blocking switch ideal for a variety of applications.



DiCon FIBEROPTICS

MEMS 2X2 BLOCKING SWITCH

OPTICAL SPECIFICATIONS[1]

PARAMETER		RATING
Insertion Loss[2,3]	Single-Band	0.8 dB max.
	Dual-Band	0.9 dB max.
Crosstalk[4]		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		30 ms max.
TDL		0.30 dB max.
WDL[5]		0.20 dB max.
PDL		0.10 dB max.
Repeatability[6]		0.02 dB max.
Durability		10^9 cycles min.
Optical Power		500 mW max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		9/125 μm single mode

1. Specifications are without connectors.
2. IL is measured at CWL, 23°C.
3. IL is for standard opaque model.
4. Power off isolation is same as crosstalk.
5. WDL is measured in a +/- 20nm range at 23°C.
6. Repeatability is defined after 100 cycles.

ORDERING INFORMATION

MSP - □ - □ - □ - 9/BF - □ - □

Product Code

MSP	MEMS Switch with PCB

Switch Configuration

2x2/BK	2x2 Blocking Switch

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

Or other equivalent 9 μm 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

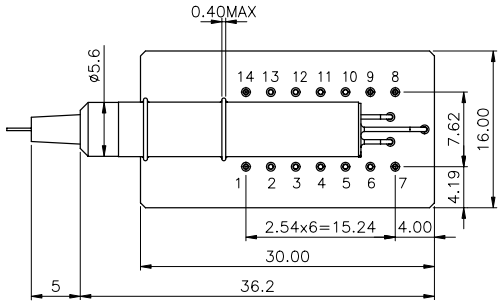
1	1 Meter
X	Specify X Meters

Tolerance is +/- 0.05 m

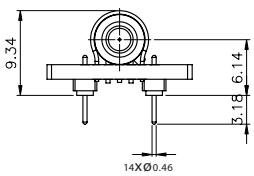
MECHANICAL DIMENSIONS

(Units: mm)

Top View



End View



ELECTRICAL SPECIFICATIONS

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