DiCon Fiberoptics, Inc.

MEMS 32X32 OPTICAL MATRIX SWITCH MODULE
SX2 Model, Single Mode Fiber, Performance Grade

MEMS Optical Matrix Switch Module is built with DiCon's proprietary MEMS technology. Each module contains 2 sets of MEMS mirrors for making 1-to-1 connections between input and output ports. The MEMS mirrors are held in position using precisely calibrated voltages and require no feedback control. This unique quality enables the switch to maintain stable connections and allows the device to function when there is no light in the fiber. This innovative platform has an outstanding track record and delivers best-in-class optical performance
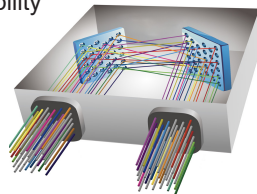
- Proven MEMS technology
- Lifetime > 10^9 switch cycles
- No dithering or active alignment artifacts
- Switches and holds dark fiber connections
- Low insertion loss with excellent stability
- Compact and lightweight
- Asymmetric MxN available

About DiCon
- Headquartered in California since 1986
- US based in-house MEMS fab
- Over 3 million MEMS mirrors produced since 1999
- Manufactures TAA compliant products

ORDERING INFORMATION

SX2 - P☐ - 9 - ☐ - T - ☐ - N - ☐

Grade

P	Performance

Switch Configuration

32x32	32x32
MxN	M≤32, N≤32

Fiber Type

9	9/125 µm SMF

Other fiber options available upon request

Test Wavelength

O	1310 nm
E	1410 nm
S	1495 nm
C	1550 nm
L	1590 nm
U	1650 nm

Use "/" to add multiple wavelengths. E.g., O/C or O/C/L

Fiber Jacket

T	900 µm Tight Buffer

Other fiber options available upon request

Connector Type

N	None
FC	FC/UPC
FC/APC	FC/APC
LC	LC/UPC
LC/APC	LC/APC
SC	SC/UPC
SC/APC	SC/APC

Other connector types available upon request

Connector Key Orientation

N	None

Pigtail Length

1	1 Meter
X	Specify X Meters

Tolerance is +/- 0.05 m

DiCon Fiberoptics, Inc. • www.diconfiberoptics.com • sales@diconfiberoptics.com • 1689 Regatta Blvd.Richmond, CA 94804, USA

0474F -052625

MEMS 32X32 OPTICAL MATRIX SWITCH MODULE
SX2 Model, Single Mode Fiber, Performance Grade

OPTICAL SPECIFICATIONS[1]

Operating Wavelength	1260 to 1675 nm
Insertion Loss[2]	< 0.8 dB
Loss Repeatability[3]	+/- 0.01 dB
Connection Stability[4]	+/- 0.01 dB
Connection Stability (Short Term)[5]	+/- 0.005 dB
PDL	< 0.1 dB
WDL[6]	< 0.3 dB
Crosstalk	< -70 dB
Back Reflection	< -50 dB
Optical Transition Time[7]	< 25 ms
Switch Lifetime	> 1 Billion Cycles
Input Power Range	Dark to +27 dBm

1. Measured separately for each Test Wavelength at 23°C
2. Measured with 3-jumper method or equivalent. See TIA/EIA 526-7
3. Over 100 cycles
4. 1 Hz sampling rate for 15 min
5. 10 KHz sampling rate for 10 sec
6. Test Wavelength ±20 nm
7. Optical transition time for all ports switching concurrently, not including command processing overhead

Dimensions in mm

MATING CONNECTOR
P/N: TCSD-08-01-F-N

SAMTEC CONNECTOR
P/N: STMM-108-02-G-D

ELECTRICAL SPECIFICATIONS

Module Power Consumption	5.6 W max. Operating 8.6 W max. Start Up
Supply Voltage	12V DC
Module Interface	16-Pin Samtec
Module Control	USB, RS232, I^{2}C

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 to 50°C, < 85% RH
Storage Temperature	-40 to 70°C, < 40% RH

MECHANICAL SPECIFICATIONS

Module Size	158 mm x 128 mm x 33.7 mm
Module Weight (with fibers)	0.87 kg