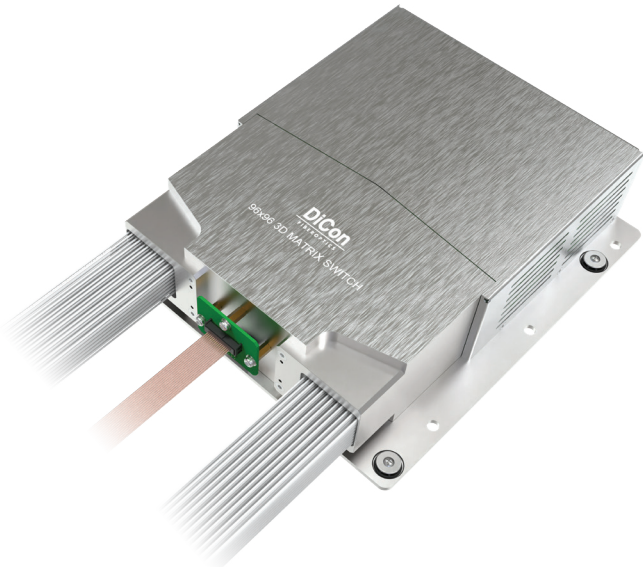


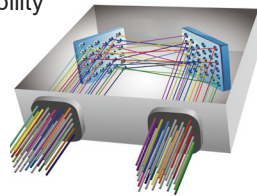
# MEMS 96X96 OPTICAL MATRIX SWITCH MODULE

SX3 Model, Single Mode Fiber, Standard 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<sup>9</sup> 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

SX3 - T□ - 9 - C - T - □ - N - □

### Grade

**T** Standard

### Switch Configuration

**96x96** 96x96

**MxN** M≤96, N≤96

### Fiber Type

**9** 9/125 μm SMF

*\*Other fiber options available upon request*

### Selectable Wavelength Ranges

**C** 1530-1625 nm

### 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*

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## SX3 Model, Single Mode Fiber, Standard Grade

### OPTICAL SPECIFICATIONS

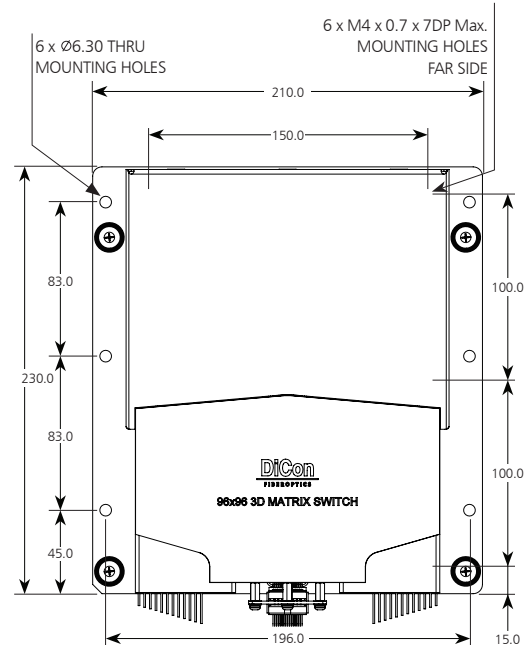
|                                   |                    |
|-----------------------------------|--------------------|
| Wavelength Range                  | 1260 to 1675 nm    |
| Insertion Loss <sup>1</sup>       | < 1.2 dB           |
| Loss Repeatability <sup>2</sup>   | +/- 0.03 dB        |
| Connection Stability <sup>3</sup> | +/- 0.03 dB        |
| PDL, C+L Band (1530-1625 nm)      | < 0.1 dB           |
| WDL, C+L Band (1530-1625 nm)      | < 0.3 dB           |
| Crosstalk                         | < -60 dB           |
| Back Reflection                   | < -50 dB           |
| Switching Time, All Channels      | < 25 ms            |
| Switch Lifetime                   | > 1 Billion Cycles |
| Input Power Range                 | Dark to +27 dBm    |

1. Measured at optimized  $\lambda$  (e.g. 1550 nm), 25°C, excluding connectors (Each pair of connectors will add extra 0.2 dB loss.)

2. Over 100 cycles

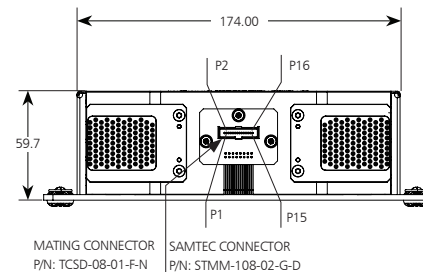
3. 1 Hz sampling rate for 15 min

Dimensions in mm



### ELECTRICAL SPECIFICATIONS

|                          |   |
|--------------------------|---|
| Module Power Consumption | 19 W max. Operating<br>24 W max. Start Up |
| Supply Voltage           | 12V DC                                    |
| Module Interface         | 16-Pin Samtec                             |
| Module Control           | USB, RS232, I <sup>2</sup> C              |



### ENVIRONMENTAL SPECIFICATIONS

|                       |                       |
|-----------------------|-----------------------|
| Operating Temperature | 0 to 45°C, < 85% RH   |
| Storage Temperature   | -40 to 70°C, < 40% RH |

### MECHANICAL SPECIFICATIONS

|                             |                           |
|-----------------------------|---------------------------|
| Module Size                 | 230 mm x 210 mm x 59.7 mm |
| Module Weight (with fibers) | 3.3 kg                    |