



# MEMS 192X192 OPTICAL MATRIX SWITCH MODULE

## SX4 Model, Single Mode Fiber, Performance Grade

### OPTICAL SPECIFICATIONS<sup>1</sup>

|                                                |                    |
|------------------------------------------------|--------------------|
| Operating Wavelength                           | 1260 to 1675 nm    |
| Insertion Loss <sup>2</sup>                    | < 1.5 dB           |
| Loss Repeatability <sup>3</sup>                | +/- 0.01 dB        |
| Connection Stability <sup>4</sup>              | +/- 0.01 dB        |
| Connection Stability (Short Term) <sup>5</sup> | +/- 0.005 dB       |
| PDL                                            | < 0.1 dB           |
| WDL <sup>6</sup>                               | < 0.3 dB           |
| Crosstalk                                      | < -70 dB           |
| Back Reflection                                | < -50 dB           |
| Optical Transition Time <sup>7</sup>           | < 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

### ELECTRICAL SPECIFICATIONS

|                          |                                           |
|--------------------------|-------------------------------------------|
| Module Power Consumption | 23 W max. Operating<br>36 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 50°C, < 85% RH   |
| Storage Temperature   | -40 to 70°C, < 40% RH |

### MECHANICAL SPECIFICATIONS

|                             |                              |
|-----------------------------|------------------------------|
| Module Size                 | 292 mm x 273.2 mm x 126.1 mm |
| Module Weight (with fibers) | 8.65 kg                      |

