

MEMS 1X2 OPTICAL SWITCHING SYSTEM

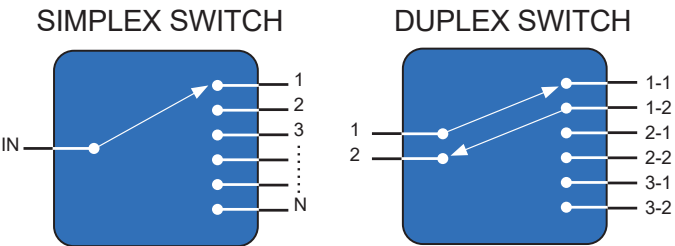
GP800 Model, Multimode Fiber



DiCon's **GP800 1x2 Optical Switching System** enables the automated connection of one common fiber to any of N output fibers.

The **GP800 System** comes with multiple control interfaces for users to choose from and there are many options to customize the product, including adding other optical components to meet unique requirements.

- Interfaces - Web GUI, SSH, RS232, REST API, Telnet
- Optical Transition Time < 25 ms
- Lifetime > 1 billion switch cycles
- Low power consumption
- Proven MEMS platform - commercial deployment since 2001
- Low MEMS drive voltage - simple and reliable electronics
- Intelligent hardware - field serviceable electronics



ORDERING INFORMATION

GP800 - ☐ - M - ☐ - ☐ - ☐ - ☐ - ☐ - ☐ - N - ☐

|                                                             |                             |
|-------------------------------------------------------------|-----------------------------|
| Chassis Type                                                |                             |
| 1U                                                          | 1U                          |
| 2U                                                          | 2U                          |
| 3U                                                          | 3U                          |
| 4U                                                          | 4U                          |
| <i>*Please consult DiCon</i>                                |                             |
| Device Type                                                 |                             |
| M                                                           | MEMS Switch                 |
| Configuration                                               |                             |
| X/1x2                                                       | # of Switches / 1x2 Simplex |
| X/1x2/DS                                                    | # of Switches / 1x2 Duplex  |
| Alignment Type                                              |                             |
| T                                                           | Transparent                 |
| P                                                           | Opaque                      |
| Fiber Type                                                  |                             |
| 50                                                          | 50/125 $\mu$ m MMF          |
| 62                                                          | 62/125 $\mu$ m MMF          |
| <i>*Other fiber options available upon request</i>          |                             |
| Test Wavelength                                             |                             |
| 850                                                         | 850 nm                      |
| 980                                                         | 980 nm                      |
| O                                                           | 1310 nm                     |
| C                                                           | 1550 nm                     |
| <i>*Use "/" to add multiple wavelengths (E.g., 850/980)</i> |                             |
| Power-On State                                              |                             |
| 0                                                           | Channel 0 (Off state)       |
| 1                                                           | Channel 1                   |
| X                                                           | Channel X                   |
| Connector Type                                              |                             |
| FC                                                          | FC/UPC                      |
| FC/APC                                                      | FC/APC                      |
| LC                                                          | LC/UPC                      |
| LC/APC                                                      | LC/APC                      |
| SC                                                          | SC/UPC                      |
| SC/APC                                                      | SC/APC                      |
| <i>*Other connector types are available upon request</i>    |                             |
| Connector Key Orientation                                   |                             |
| N                                                           | None                        |
| Connector Location                                          |                             |
| F                                                           | Front                       |
| R                                                           | Rear                        |

# MEMS 1X2 OPTICAL SWITCHING SYSTEM

## GP800 Model, Multimode Fiber

### OPTICAL SPECIFICATIONS<sup>1,2</sup>

|                                |                            |             |
|--------------------------------|----------------------------|-------------|
| Operating Wavelength           | 850 / 980 / 1310 / 1550 nm |             |
| Insertion Loss <sup>3</sup>    | 1.0 dB max. <sup>4</sup>   |             |
| Repeatability <sup>5</sup>     | 0.04 dB max.               |             |
| Transition Time <sup>6,7</sup> | 25 ms max.                 |             |
| Crosstalk <sup>7</sup>         | 50 µm                      | -25 dB max. |
|                                | 62.5 µm                    | -20 dB max. |
| Back Reflection                | -20 dB max.                |             |
| Durability <sup>7</sup>        | 1 Billion Cycles min.      |             |
| Optical Power <sup>7</sup>     | 500 mW max.                |             |
| Fiber Type                     | Multimode                  |             |

1. Measured separately for each Test Wavelength at room temperature

2. Multimode fiber specification are based on LED light source

3. Measured with 3-jumper method or equivalent (See TIA/EIA 526-7)

4. Multi-band adds 0.4 dB

5. Repeatability is defined over 100 cycles

6. Optical transition time for all ports switching concurrently, not including command processing overhead

7. Met by design, not measured

### ELECTRICAL SPECIFICATIONS

|                   |                                                   |
|-------------------|---------------------------------------------------|
| Power Supply      | 100-240 VAC, 50/60 Hz                             |
| Connectors        | RJ45 (Ethernet)<br>DB9 (RS232)<br>USB-C (Service) |
| Control Interface | Web GUI, SSH, RS232, REST API, Telnet, gNMI       |

### ENVIRONMENTAL SPECIFICATIONS

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

### MECHANICAL SPECIFICATIONS

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Chassis Width  | 483 mm (19")                                                               |
| Chassis Depth  | 435 mm (17")                                                               |
| Chassis Height | 1U/2U (Front/Back, FC)<br>1U/2U (Front/Back, SC)<br>1U/1U (Front/Back, LC) |

#### Front View



#### Rear View

