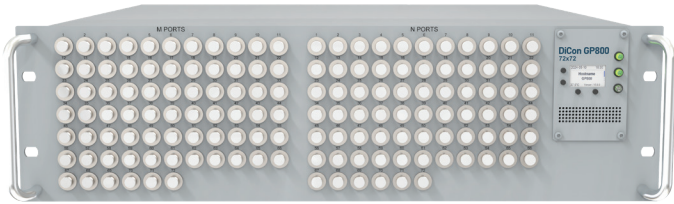


# MEMS 72X72 OPTICAL SWITCHING SYSTEM

## GP800 Model, Polarization Maintaining Fiber



DiCon's **GP800 72x72 Optical Switching System** is an all-optical non-blocking cross-connect switch. This rack-mount device is designed with DiCon's proprietary 3D MEMS mirror technology and delivers industry-leading optical performance. The unit works without any position sensor or feedback loop, and the optical signals can pass through the equipment without any observable dithering artifacts. The **GP800 System** can switch repeatedly with great accuracy and maintain long-term connectivity with superior stability even when there is no optical signal in the fiber.

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.

- High-density non-blocking Matrix Switches
- Interfaces - Web GUI, SSH, RS232, REST API, Telnet
- Powerful and intuitive user access
- Low insertion loss
- Fast switching - concurrent switching < 25 ms
- Lifetime > 1 billion switch cycles
- No position sensor nor feedback-loop used
- Works even when there is no light in the fiber
- Excellent stability with no observable dithering artifacts
- 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** - □ - **SX** - □ - □ - □ - □ - □ - □

Chassis Type

- 2U** 2U
- 3U** 3U
- 4U** 4U
- 5U** 5U

*\*Please consult DiCon*

Product Type

- SX** MEMS Matrix Switch

Configuration

- T72x72** 72x72
- TMxN** MxN (M, N≤72)

Fiber Type

- PM13** Corning PM 1310 Fiber
- PM15** Corning PM 1550 Fiber

*\*Other fiber options available upon request*

Test Wavelength

- O** 1310 nm
- C** 1550 nm
- L** 1590 nm

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

Connector Type

- FC** FC/UPC
- FC/APC** FC/APC
- SC** SC/UPC
- SC/APC** SC/APC
- LC** LC/UPC
- LC/APC** LC/APC
- RLC** LC/UPC on Removable Panel
- RLC/APC** LC/APC on Removable Panel

*\*Other connector types available upon request*

Connector Key Orientation

- S** Slow Axis
- F** Fast Axis

Connector Location

- F** Front
- R** Rear

# MEMS 72X72 OPTICAL SWITCHING SYSTEM

## GP800 Model, Polarization Maintaining Fiber

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

Wavelength Range	1260 to 1675 nm
Insertion Loss <sup>2</sup>	< 1.2 dB
Loss Repeatability <sup>3</sup>	+/- 0.03 dB
Connection Stability <sup>4,5</sup>	+/- 0.03 dB
Polarization Extinction Ratio (PER) <sup>6</sup>	> 18 dB
WDL <sup>5,7</sup>	< 0.3 dB
Crosstalk <sup>5</sup>	< -60 dB
Back Reflection	< -50 dB
Optical Transition Time <sup>5,8</sup>	< 25 ms
Switch Lifetime	> 1 Billion Cycles
Input Power Range	Dark to +27 dBm

1. Measured separately for each Test Wavelength
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. Met by design, not measured
6. PER with connectors is 18 dB typical, 16 dB minimum
7. WDL is defined within Test Wavelength  $\pm 20$  nm
8. Optical transition time for all ports switching concurrently, not including command processing overhead

### ELECTRICAL SPECIFICATIONS

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

### 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	3U/4U (Front/Back, FC) 3U/4U (Front/Back, SC) 2U/2U (Front/Back, LC) 2U/3U (Front/Back, RLC)