MEMS 192X192 OPTICAL SWITCHING SYSTEM

GP800 Model, Single Mode Fiber



DiCon's **GP800 192x192 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
- Advanced WebGUI for port partitions
- · Low insertion loss 0.8dB typical (excluding connector 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

Chassis Type 4U 4U 5U 5U 7U 7U 8U 8U *Please consult DiCon Product Type SX MEMS Matrix Switch Configuration T192x192 192x192 TMxN MxN (M, N≤192) Fiber Type 9 9/125 μ m SMF *Other fiber options available upon request Test Wavelength 0 1310 nm E 1410 nm S 1490 nm C 1550 nm L 1590 nm U 1650 nm U 1650 nm U 550 rm U 1650 nm U 1650 nm C 1550 nm L 1590 rm U 1650 nm U 1650 nm C 1650 nm U 1650 nm U 1650 nm U 1650 nm Vuse '7" to add multiple wavelengths. E.g., O/C or O/C/L Connector Type FC FC/UPC SC/APC SC/APC SC/APC SC/APC SC/APC SC/APC C LC/UPC on Removable Panel RLC/APC LC/APC on Removable Panel Connector Key Orientation N None		GP800 - 🗌 - SX - 🗌 - 9 - 🗌 - 🔲 - N - 🗌
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MEMS 192X192 OPTICAL SWITCHING SYSTEM

GP800 Model, Single Mode Fiber

OPTICAL SPECIFICATIONS¹

Wavelength Range	1260 to 1675 nm
Insertion Loss ²	< 1.9 dB
Loss Repeatability ³	+/- 0.03 dB
Connection Stability ^{4,5}	+/- 0.03 dB
PDL⁵	< 0.1 dB
WDL ^{5,6}	< 0.3 dB
Crosstalk ⁵	< -60 dB
Back Reflection	< -50 dB
Optical Transition Time ^{5,7}	< 25 ms
Switch Lifetime	> 1 Billion Cycles
Input Power Range	Dark to +27 dBm

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	7U/8U (Front/Back, FC) 8U/8U (Front/Back, SC) 4U/4U (Front/Back, LC) 4U/5U (Front/Back, RLC)

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. WDL is defined within Test Wavelength $\pm 20 \text{ nm}$

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