

MEMS 384X384 OPTICAL SWITCHING SYSTEM

GP800 Model, Single Mode Fiber



DiCon's **GP800 384x384 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

GP800 - [] - SX - [] - 9 - [] - [] - N - []

Chassis Type

6U 6U
7U 7U
8U 8U
9U 9U
12U 12U

**Please consult DiCon*

Product Type

SX MEMS Matrix Switch

Configuration

T384x384 384x384
TMxN MxN (M, N≤384)

Fiber Type

9 9/125 μm SMF

**Other fiber options available upon request*

Optimized Wavelength Range

O 1260-1360 nm
E 1360-1460 nm
S 1460-1530 nm
C 1530-1570 nm
L 1570-1625 nm
U 1625-1675 nm

**Multiple wavelength ranges can be supported.*

Use "/" to add multiple ranges.

For example: For 1260 - 1360 nm & 1530 - 1570nm use O/C, for 1260 to 1675 nm use O/E/S/C/L/U

Connector Type

FC FC/UPC
FC/APC FC/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

N None

Connector Location

F Front
R Rear

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OPTICAL SPECIFICATIONS

Wavelength Range	1260 to 1675 nm
Insertion Loss ¹	< 1.2 dB
Loss Repeatability ²	+/- 0.03 dB
Connection Stability ³	+/- 0.03 dB
PDL (One Operating Band)	< 0.1 dB
WDL (One Operating Band)	< 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 λ (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

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	559 mm (22")
Chassis Height	12U/12U (Front/Back, FC) 6U/7U (Front/Back, LC) 8U/9U (Front/Back, RLC)