DiCon Fiberoptics, Inc.

MEMS 24X24 OPTICAL SWITCHING SYSTEM

GP800 Model, Polarization Maintaining Fiber

DiCon's **GP800 24x24 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

1U	1U
2U	2U
3U	3U
4U	4U

**Please consult DiCon*

Product Type

SX	MEMS Matrix Switch

Configuration

T24x24	24x24
TMxN	MxN (M, N≤24)

Fiber Type

PM13	Corning PM 1300 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

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OPTICAL SPECIFICATIONS[1]

Wavelength Range	1260 to 1675 nm
Insertion Loss[2]	< 1.0 dB
Loss Repeatability[3]	+/- 0.03 dB
Connection Stability[4,5]	+/- 0.03 dB
Polarization Extinction Ratio (PER)[6]	> 18 dB
WDL[5,7]	< 0.3 dB
Crosstalk[5]	< -60 dB
Back Reflection	< -50 dB
Optical Transition Time[5,8]	< 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 ±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	2U/2U (Front/Back, FC) 1U/2U (Front/Back, SC) 1U/2U (Front/Back, LC) 1U/2U (Front/Back, RLC)