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
- 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

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*

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
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

N	None
S	Slow Axis
F	Fast Axis

Connector Location

F	Front
R	Rear

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OPTICAL SPECIFICATIONS

Wavelength Range	1260 to 1675 nm
Insertion Loss[1]	< 1.0 dB
Loss Repeatability[2]	+/- 0.03 dB
Connection Stability[3]	+/- 0.03 dB
Polarization Extinction Ratio (PER)[4]	> 18 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
4. PER with connectors is 18 dB typical, 16 dB minimum

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)