

# MEMS 72-PORT ANYPORT OPTICAL SWITCHING SYSTEM

## GP800 Model, Polarization Maintaining Fiber, Anyport-to-Anyport



The **DiCon GP800 72-Port AS** is a high-density, all-optical non-blocking cross-connect switch designed for maximum architectural flexibility. Featuring a true **Anyport-To-Anyport (ATA)** design, any of the 72 ports can be dynamically connected to any of the remaining 71 ports. This “universal” port mapping allows test engineers to conveniently reconfigure the system—moving from a **1x71** switch to a **36x36** matrix—to meet the shifting demands of complex test environments without manual recabling.

Built on DiCon’s proprietary **3D MEMS mirror platform**, the GP800 delivers elite optical performance within a robust rack-mount form factor. Unlike competing systems that rely on complex feedback loops, the GP800 operates with open-loop precision.

- **Zero-Dither Signal Integrity:** Because the unit functions without position sensors or active feedback, optical signals pass through with no observable dithering artifacts, ensuring pristine data transmission.
- **"Dark Fiber" Stability:** The system maintains long-term connectivity and switching accuracy even in the absence of an optical signal, providing a "set-and-forget" reliability that is essential during network downtime or staged testing.
- **Precision & Repeatability:** Engineered for high-cycle environments, the GP800 switches repeatedly with exceptional accuracy and superior long-term stability.
- **Intelligent hardware:** The GP800 features field-serviceable hardware designed for rapid on-site maintenance, ensuring maximum operational uptime by eliminating the need for costly production shutdowns.

### ORDERING INFORMATION

GP800 - □ / □ - AS - □ - □ - □ - □ - □ - □ - □ - □

#### Chassis Type

**2U** 2U  
**3U** 3U  
*\*Please Consult DiCon*

#### Chassis Depth

**17** 17"  
*\*Please Consult DiCon*

#### Product Type

**AS** Anyport Singlemode

#### Configuration

**T72** 72 Ports  
**TM** M Ports (M<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*

#### Power

**A1** AC 100-240V Single  
**D1** DC -48V Single  
**A2** AC 100-240V Redundant  
**D2** DC -48V Redundant

#### 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<sup>1</sup>

Test Wavelength	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 at room temperature
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, gNMI

### 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	FC	Front Panel	2U
		Back Panel	3U
	SC	Front Panel	2U
		Back Panel	2U
	LC	Front Panel	2U
		Back Panel	2U
	RLC	Front Panel	2U
		Back Panel	2U

