MEMS 144X144 OPTICAL SWITCHING SYSTEM

GP800 Model, Polarization Maintaining Fiber

	M PORTS		N PORTS	(0)
1234 1678	8 10 10 12 13 14 15 16 17 16 19 20	21 22 23 24 5 2 3 4 5 6 7	8 9 10 11 12 13 14 15 16 17 18 19 28	21 22 23 34
0000 0000	0000 0000 0000	0000 0000 000	0 0000 0000 0000	DiCon GP800
25 28 27 28 29 38 18 12	13 34 35 36 37 38 38 46 41 42 43 44	6464 5373 883	S2 55 34 35 36 37 38 39 40 41 42 43 44	41 44 47 40 BACK TO-DO TO
0000 0000	0000 0000 0000	0000 00000 000	0 0000 0000 0000	0000
			54 57 58 59 60 61 62 83 64 85 66 67 58	10 70 71 72 DUDR @+ @+ (
0000 0000	0000 0000 0000	0000 0000 000	0 0000 0000 0000	00000
10000 0000	[allocate lange lange	AAAAF
0000 0000	0000 0000 0000	0000 0000 000	0 0000 0000 0000	0000
07 58 00 100 101 102 103 10	14 108 106 107 108 100 080 101 112 113 114 115 114	117 WH TO 120 37 56 50 100 101 102 103	104 106 106 107 108 108 110 111 112 112 114 118 TH	NT TH HD 120
0000 0000	0000 0000 0000	0000 0000 000	0 0000 0000 0000	0000
131 122 123 124 126 126 127 12	28 130 130 131 132 133 134 135 138 137 136 139 145	141 542 143 144 121 122 129 124 128 128 127	CIR 129 TAO 134 132 TAS 134 138 TAO 137 138 139 143	141 142 143 144

DiCon's **GP800 144x144 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 Ty	pe
3U	3U
4U	4U
5U	5U
6U	6U
*Please con	sult DiCon
Product Ty	pe
SX	MEMS Matrix Switch
Confirment	
Configurati	
T144x144	
TMxN	MxN (M, N≤144)
Fiber Type	
PM13	Corning PM 1310 Fiber
PM15	Corning PM 1550 Fiber
*Other fiber	options available upon request
O C L *Use "/" to a	1310 nm 1550 nm 1590 nm <i>dd multiple wavelengths. E.g., O/C or O/C/L</i>
Connector	Туре
FC	FC/UPC
FC/APC	FC/APC
SC	SC/UPC
SC/APC	SC/APC
LC	LC/UPC
	LC/APC
LC/APC	
LC/APC RLC	LC/UPC on Removable Panel
RLC RLC/APC	LC/UPC on Removable Panel
RLC RLC/APC	LC/UPC on Removable Panel LC/APC on Removable Panel
RLC RLC/APC	LC/UPC on Removable Panel LC/APC on Removable Panel
RLC RLC/APC *Other conn	LC/UPC on Removable Panel LC/APC on Removable Panel
RLC RLC/APC *Other connor Connector	LC/UPC on Removable Panel LC/APC on Removable Panel ector types available upon request
RLC RLC/APC *Other conn	LC/UPC on Removable Panel LC/APC on Removable Panel ector types available upon request Key Orientation
RLC RLC/APC *Other connor Connector S	LC/UPC on Removable Panel LC/APC on Removable Panel ector types available upon request Key Orientation Slow Axis
RLC RLC/APC *Other connor Connector S	LC/UPC on Removable Panel LC/APC on Removable Panel ector types available upon request Key Orientation Slow Axis
RLC RLC/APC *Other connector Connector S	LC/UPC on Removable Panel LC/APC on Removable Panel ector types available upon request Key Orientation Slow Axis Fast Axis



· · · · · · · · · · · · · · · · · · ·	110110
R	Rear



MEMS 144X144 OPTICAL SWITCHING SYSTEM

GP800 Model, Polarization Maintaining 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	
Polarization Extinction Ratio (PER) ⁶	> 18 dB	
WDL ^{5,7}	< 0.3 dB	
Crosstalk⁵	< -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	

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	5U/6U (Front/Back, FC) 6U/6U (Front/Back, SC) 3U/4U (Front/Back, LC) 3U/4U (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. 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