

PM MEMS 3D RACKMOUNT MATRIX OPTICAL SWITCH

DiCon's PM MEMS Rackmount 3D Matrix Optical Switch is a proprietary optical switch structure that allows the simultaneous connection of multiple input to output fibers in a non-blocking, all-optical cross-connect configuration.



FEATURES

- Available in any MxN Size up to 96x96
- Proven DiCon MEMS Technology
- Easy-To-Use Rackmount Housing
- Ethernet or RS232 Interface

APPLICATIONS

DiCon Fiberoptics offers a rackmount version of the 3D Matrix Optical Switch for research and production environments, and is used to share valuable resources in an automated, reliable manner.



PM MEMS 3D RACKMOUNT MATRIX OPTICAL SWITCH

OPTICAL SPECIFICATIONS¹

PARAMETER		RATING
Insertion Loss ²	8x8	0.8 dB typ. 1.4 dB max.
	16x16	0.8 dB typ. 1.4 dB max.
	32x32	0.8 dB typ. 1.4 dB max.
	96x96	0.8 dB typ. 1.4 dB max.
Crosstalk		-70 dB typ. -55 dB max.
Back Reflection		-55 dB typ. -45 dB max.
Extinction Ratio		18 dB min
Switching Time		15 ms typ. 20 ms max.
TDL		0.1 dB typ. 0.4 dB max.
WDL ³		0.1 dB typ. 0.4 dB max.
Repeatability ⁴		0.01 dB typ. 0.06 dB max.
Durability		10 ⁹ cycles min.
Optical Power		500 mW max.
Operating Temperature		-5 to 70°C
Storage Temperature		-40 to 85°C

- All specifications are without connectors at room temp.
- IL is measured at CWL.
- WDL is measured from CWL in a +/- 20nm range.
- Repeatability is defined within 100 cycles.

CHASSIS OPTIONS¹

Chassis Size	MxN Size
1U	M,N ≤ 16
2U	M,N ≤ 32
4U	M,N ≤ 96

- Based on 3D MxN module size.

MECHANICAL DIMENSIONS

Chassis	Width	Height	Depth
1U	483.0 mm	44.0 mm	342.0 mm
2U	483.0 mm	88.0 mm	434.5 mm
4U	483.0 mm	177.0 mm	434.5 mm

ORDERING INFORMATION

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Product Code

MXR MEMS
Rackmount
Matrix Switch

Switch Configuration

MxN/3D 3D MxN Non-Blocking
(Specify M,N ≤ 96)

Housing Type

1U 1U Rackmount
2U 2U Rackmount
4U 4R Rackmount

Control Interface

ETH Ethernet
RS2 RS232
E/R Ethernet & RS232

Only one control interface can be selected at a time.

Wavelength Range

13 1290 - 1330 nm¹
15 1530 - 1570 nm²
16 1570 - 1610 nm²

Other wavelengths available upon special request

Connector Key Orientation

PMF Fast axis
PMS Slow axis

Fiber Type

9P 9/125 μm Panda Fiber

Connector Type

FC/SPC FC/SPC
FC/APC FC/APC

Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC

Port Type

B Bulkhead Adaptors

Port Location

F Front Panel
R Rear Panel

- Uses Corning Panda PM 1300 Fiber
- Uses Corning Panda PM 1550 Fiber

ELECTRICAL SPECIFICATIONS

PARAMETER		RATING
Control Type		Ethernet or RS232
Input Voltage		90 - 264 VAC
Connector Type	Ethernet	RJ45
	RS232	9 Pin DB9