

# MEMS RACKMOUNT 3D MATRIX OPTICAL SWITCH

DiCon's 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 16x16
- 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 a automated, reliable manner.



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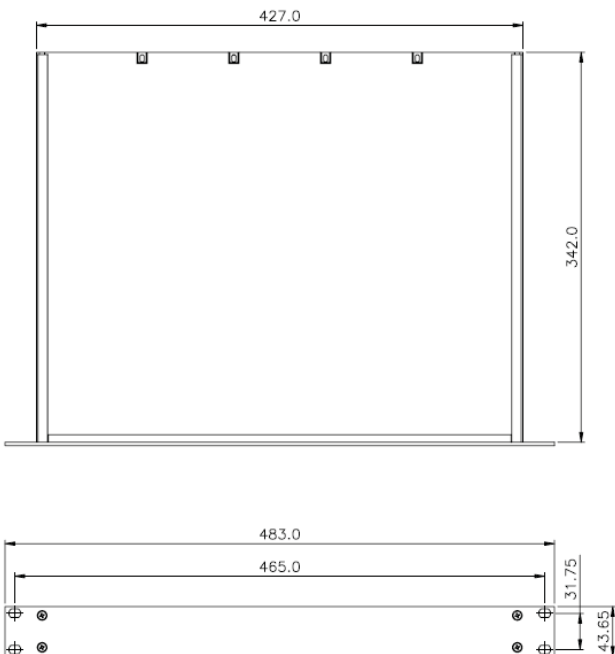
## OPTICAL SPECIFICATIONS<sup>1</sup>

PARAMETER		RATING
Insertion Loss <sup>2</sup>	Single-Band	1.8 dB max.
	Dual-Band	2.0 dB max.
Crosstalk		-60 dB max.
Back Reflection		-45 dB max.
Switching Time		40 ms max.
TDL		0.4 dB max.
WDL <sup>3</sup>		0.4 dB max.
PDL		0.3 dB max.
Repeatability <sup>4</sup>		0.04 dB max.
Durability		10 <sup>9</sup> cycles min.
Optical Power		500 mW max.
Operating Temperature		-5 to 70°C
Storage Temperature		-40 to 85°C
Fiber Type		9/125 μm single-mode

- All specifications are without connectors.
- Insertion Loss measured at CWL, 23°C
- WDL is specified in +/- 20nm range at 23°C
- Repeatability is defined after 100 cycles.

## MECHANICAL DIMENSIONS

### 1U 19" RACKMOUNT CHASSIS



## ORDERING INFORMATION

MXR -  - 1U -  -  - 9 -  - B -

### Product Code

MXR MEMS  
Rackmount  
Matrix Switch

### Switch Configuration

MxN/3D 3D MxN Non-Blocking  
Specify 9 ≤ M, N ≤ 16

### Housing Type

1U 1U Rackmount

### Control Interface

ETH Ethernet  
RS2 RS232

### Wavelength Range

13	1290 - 1330 nm
15	1530 - 1570 nm
16	1570 - 1610 nm
13/15	1290 - 1330 & 1530 - 1570 nm
15/16	1530 - 1570 & 1570 - 1610 nm

### Fiber Type

9 Corning SMF-28  
*Or other equivalent 9μm Single-mode fiber*

### Connector Type

FC/SPC FC/SPC  
FC/APC FC/APC  
MTP MTP  
*Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC*

### Port Type

B Bulkhead Adaptors

### Port Location

F Front Panel  
R Rear Panel

## ELECTRICAL SPECIFICATIONS

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