

# MEMS SINGLE-MODE 2X2 ADD/DROP OPTICAL ARRAY SWITCH

DiCon's MEMS Single-mode Add/Drop 2x2 Optical Array Switch allows for precise control of up to 5 Add/Drop optical switches all through a single control interface, and housed in a compact housing. The optical switches can be controlled individually or synchronously. This optical switch utilizes DiCon's proprietary MEMS technology to achieve reliable optical performance and excellent durability.

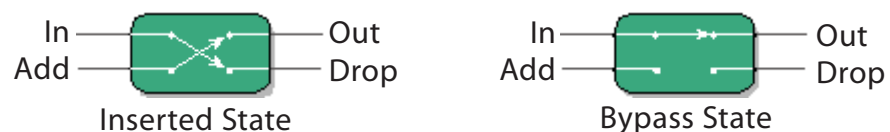


## FEATURES

- Proven MEMS Durability and Reliability
- Compact Form Factor
- Fast Switching Time
- Optional Synchronous Switching

## APPLICATIONS

MEMS Single-mode Add/Drop 2x2 Switches are two position devices that are commonly used in Optical Add/Drop Multiplexers. In the Bypass state, the Input and Output ports are connected to each other. In the Inserted state, the Input and Drop ports are connected to each other, while at the same time the Add and Output ports are connected to each other.



# MEMS SINGLE-MODE 2X2 ADD/DROP OPTICAL ARRAY SWITCH

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

PARAMETER		RATING
Insertion Loss <sup>2</sup>	Single-Band	1.0 dB max.
	Dual-Band	1.2 dB max.
Crosstalk		-50 dB max.
Back Reflection		-50 dB max.
Switching Time		20 ms max.
TDL		0.30 dB max.
WDL <sup>3</sup>		0.20 dB max.
PDL		0.10 dB max.
Repeatability <sup>4</sup>		0.02 dB max.
Durability		10 <sup>9</sup> cycles min.
Optical Power		500 mW max.
Operating Temp		-5 to 70°C
Storage Temp		-40 to 85°C
Fiber Type		9/125 μm single-mode

- Specifications are without connectors.
- IL is measured at CWL, 23°C.
- WDL is measured in a +/- 20nm range at 23°C.
- Repeatability is defined after 100 cycles.

## ORDERING INFORMATION

MS2- M/2X2AD - □ - □ - □ - □ - □

### Product Code

MS2 MEMS Switch

### Switch Configuration

M/2X2AD M 2x2 Add/Drop Array Switch (Specify M≤5)

### Control Interface

I2C I<sup>2</sup>C  
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 and Jacket Type

9/BF Corning SMF-28, Bare Fiber  
9/TB Corning SMF-28, Tight Buffer  
9/LT Corning SMF-28, Loose-tube

*Or other equivalent 9μm Single-mode fiber*

### Connector Type

FC/SPC FC/SPC  
FC/APC FC/APC  
LC/SPC LC/SPC  
LC/APC LC/APC  
SC/SPC SC/SPC  
SC/APC SC/APC  
N NONE

*Other connector options are also available*

### Pigtail Length

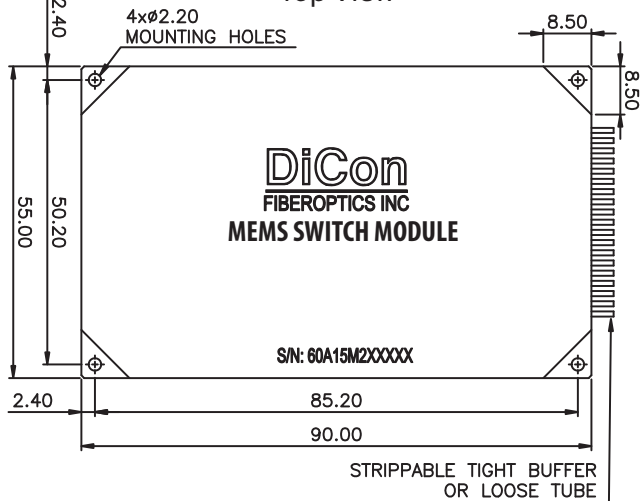
1 1 Meter  
X Specify X Meters

*Tolerance is +/- 10 cm*

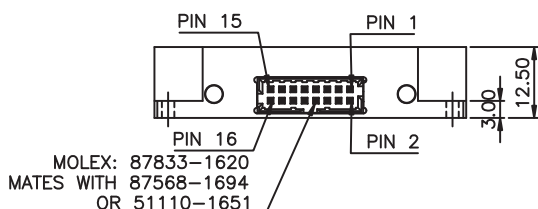
## MECHANICAL DIMENSIONS

(Units: mm)

Top View



Side View



## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	I <sup>2</sup> C, RS232
Vcc Voltage	12 VDC
Power Consumption	700 mW max.
Connector Type	Molex 87833-1620