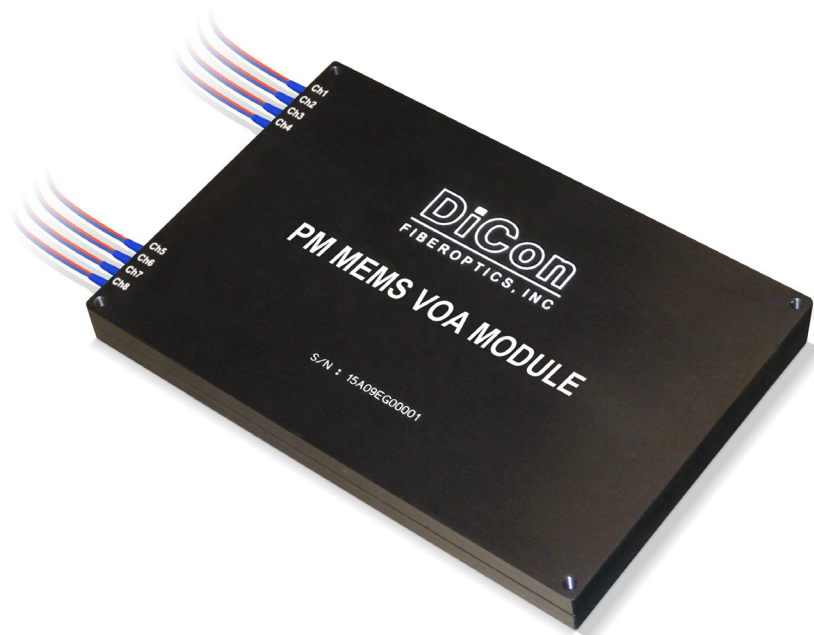


# PM MEMS VOA MODULE

DiCon's PM MEMS Variable Optical Attenuator Module can precisely control up to eight PM MEMS VOAs. This module offers a protected and easy way to control DiCon's PM MEMS VOAs through a common RS-232 or I2C control interface.



## FEATURES

- Proven MEMS Durability and Reliability
- Houses & Controls Up To 8 PM VOAs
- Precise Repeatability

## APPLICATIONS

- Test & Measurement
- OSNR Measurements
- Power Equalization



# PM MEMS VOA MODULE

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

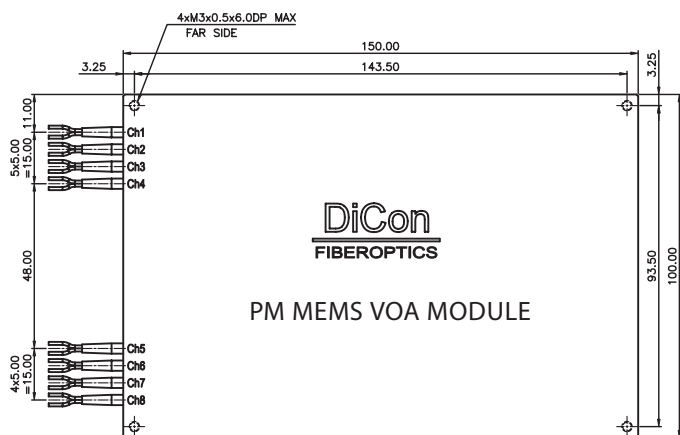
PARAMETER		RATING	
Excess Loss		0.8 dB max	
WDL <sup>2</sup>	Broad Band Application	0 to 15 dB	0.7 dB max. <sup>3</sup>
		15 to 20 dB	1.0 dB max. <sup>4</sup>
	Narrow Band Application <sup>6</sup>	0 to 15 dB	0.3 dB max. <sup>5</sup>
		15 to 20 dB	0.4 dB max. <sup>5</sup>
Extinction Ratio		18 dB min.	
Attenuation Range <sup>7</sup>		30 dB min.	
Back Reflection		-50 dB max.	
Tuning Resolution		0.01 dB max.	
Optical Power		500 mW max.	
Repeatability <sup>8</sup>		0.1 dB max.	
Durability		1 x 10 <sup>9</sup> cycles min.	
Fiber Type		Panda PM Fiber	

- All Specifications at room temperature, without connectors
- WDL is for single band wavelength measured +/- 20nm from CWL
- Operation from 1290 - 1330nm or 1570-1610 nm adds 0.2dB
- Operation from 1290 - 1330nm or 1570-1610 nm adds 0.3dB
- Operation from 1290 - 1330nm or 1570-1610 nm adds 0.1dB
- Maximum change of each 2 nm segment within the operating range
- Higher attenuation ranges are available. Contact DiCon for details.
- Repeatability is defined within 100 cycles

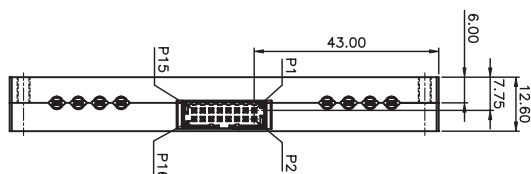
## MECHANICAL DIMENSIONS

(Units: mm)

Top View



Left Side View



## ORDERING INFORMATION

MA - □ - □ - □ - □ - □ - □ - □ - □ - □ - □

### Product Code

MA Attenuator Module

### Number of Components

N Number of Components (Specify 1 ≤ N ≤ 8)

### Attenuator Type

T Transparent<sup>1</sup>  
O Opaque<sup>2</sup>

1. Minimum attenuation with no power

2. Maximum attenuation with no power

### Control Type

I2C I<sup>2</sup>C  
RS2 RS-232

### Ripple Type

S Slow Ripple (Broad Band WDL)  
F Fast Ripple (Narrow Band WDL)

### Wavelength Range

13 1290 - 1330 nm  
15 1528 - 1563 nm  
16 1570 - 1610 nm

### Fiber and Jacket Type

2B 9/125 μm Panda Fiber, 250 μm buffer  
2/LT 9/125 μm Panda Fiber, 900 μm loose tube over 250 μm buffer  
4B 9/125 μm Panda Fiber, 400 μm buffer  
4/LT 9/125 μm Panda Fiber, 900 μm loose tube over 400 μm buffer

### Connector Key Orientation

PMF Fast axis  
PMS Slow axis  
PMN No Connector

### Connector Type

FC/SPC FC/SPC  
FC/APC FC/APC  
N NONE  
Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC

### Pigtail Length

1 1 meter  
X Specify X meters

Tolerance is +/- 0.05 m

## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	Non-latching
Control Type	I <sup>2</sup> C, RS232
Vcc Voltage	5 VDC
Power Consumption	1 W max.
Connector Type	Molex 87833-1620