

# MEMS RACKMOUNT OPTICAL ATTENUATOR

DiCon's MEMS Rackmount Optical Attenuator system allows easy computer control of DiCon's industry proven, long life, MEMS variable optical attenuators.



## FEATURES

- Industry Proven, DiCon MEMS Optical Attenuators
- Long Lifetime, Over 1 Billion Cycles
- Easy-To-Use Rack Mount Housing
- Ethernet or RS-232 Interface

## APPLICATIONS

- Test & Measurement
- Research & Development
- Precise Power Adjustment of Light Sources
- OSNR Measurements



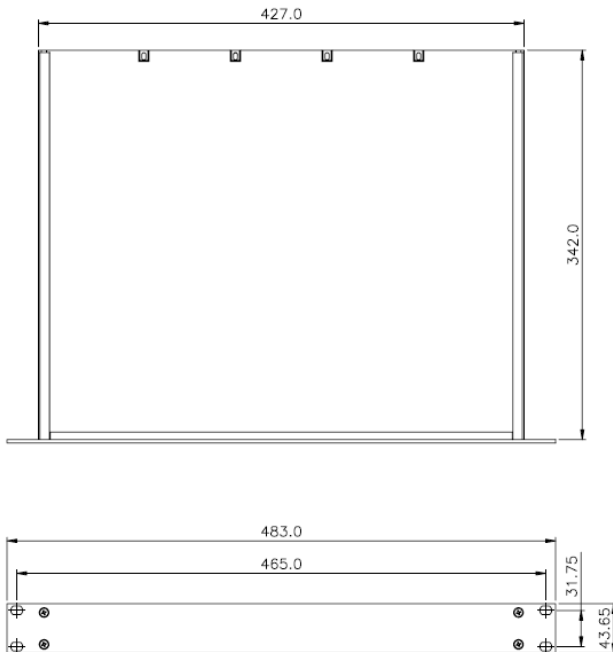
# MEMS RACKMOUNT OPTICAL ATTENUATOR

## OPTICAL SPECIFICATIONS<sup>1,8</sup>

PARAMETER		RATING	
Excess Loss		0.8 dB max.	
WDL <sup>2</sup>	Broad Band Application	0 to 5 dB	0.2 dB max. <sup>3</sup>
		5 to 10 dB	0.3 dB max. <sup>4</sup>
		10 to 20 dB	0.7 dB max. <sup>4</sup>
PDL	Narrow Band Application <sup>6</sup>	0 to 20 dB	0.2 dB max. <sup>5</sup>
	0 to 15 dB	0.15 dB max. <sup>5</sup>	
PDL	15 to 20 dB	0.2 dB max. <sup>5</sup>	
	Back Reflection		-50 dB max.
Tuning Resolution		0.01 dB max.	
Optical Power		500 mW max.	
Repeatability <sup>7</sup>		0.1 dB max.	
Durability		1 x 10 <sup>9</sup> cycles min.	
Fiber Type		9/125 single mode fiber	

- All Specifications at room temperature, without connectors
- WDL is for single band wavelength measured 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
- Repeatability is defined within 100 cycles
- DiCon recommends use of external detectors or a dynamic power equalizer module for applications requiring absolute attenuation accuracy.

## MECHANICAL DIMENSIONS 1U 19" RACKMOUNT CHASSIS



## ELECTRICAL SPECIFICATIONS

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

## ORDERING INFORMATION

MTR -  -  -  -  -  -  - 9 -  -  -

### Product Code

MTR MEMS Rackmount Attenuator

### Number of Attenuators

N # of Attenuators (Specify N≤8)

### Housing Type

1U 1U Rackmount

### Control Interface

ETH Ethernet  
RS2 RS232  
E/R Ethernet & RS232

*Only one control interface can be selected at a time.*

### Wavelength Range<sup>1</sup>

13 1290 - 1330 nm  
15 1528 - 1563 nm  
16 1570 - 1610 nm  
13/15<sup>2</sup> 1290 - 1330 nm & 1528 - 1563 nm  
15/16<sup>2</sup> 1528 - 1563 nm & 1570 - 1610 nm

- Custom wavelength ranges available
- Each wavelength band will have its own attenuation curve and only one curve can be used at a time.

### Attenuator Range

30 30 dB min.  
X Specify X dB min. (X ≤40)

### Ripple Type

S Slow Ripple (Broad band)  
F Fast Ripple (Narrow band)

### Fiber Type

9 Corning SMF-28  
*Or other equivalent 9µm Singlemode 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  
*Other connector types are also available*

### Port Type

B Bulkhead Adaptors

### Port Location

F Front Panel  
R Rear Panel