DiCon Fiberoptics, Inc.

MEMS OPTICAL ATTENUATOR

PM780-HP Fiber MEMS VOA Component

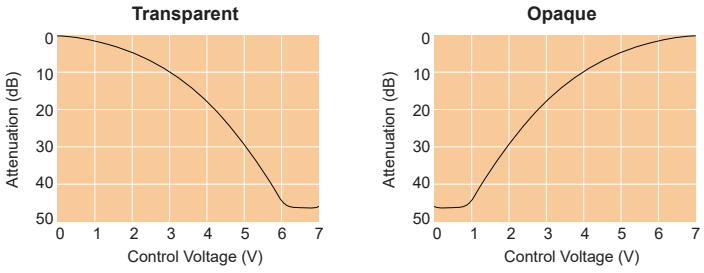
DiCon's **PM MEMS Optical Attenuator** is based on a microelectro-mechanical system (MEMS) chip. The PM MEMS chip consists of an electrically movable mirror on a silicon support. A voltage applied to the PM MEMS chip causes the mirror to rotate, which changes the coupling of light between the input and output fibers of the PM MEMS Optical Attenuator.

- Small attenuator package
- Based on DiCon's proven MEMS platform
- Available in opaque or transparent versions
- Qualified to GR-1221
- High Extinction Ratio

Applications

PM MEMS Optical Attenuators are used for distributed power equalization within OADMs, MUX/DMUXes, Band Equalizers, Channel Equalizers, Optical Cross-Connects, Line Cards and Transponders. Polarization Maintaining Optical Attenuators can also be used for power adjustment in polarization sensitive devices such as modulators.

Optical Performance



ORDERING INFORMATION

MT - C - □ - □ - □ - N - □ - □ - □ - □ - □

Housing Type

C	Cylindrical

Attenuator Type

T	Transparent*
O	Opaque**

**Minimum insertion loss at 0 V*
***Minimum insertion loss at 6-7 V (high isolation at 0 V)*

Test Wavelength

780	780 nm
808	808 nm
850	850 nm

**Custom Wavelength Ranges Available*

Attenuator Range

45	45 dB min.
X	Specify X dB min.(X <= 50)

WDL

N	Not Applicable

Connector Key Orientation

N	None
S	Slow axis
F	Fast axis

Fiber / Jacket Type

PM7/2BF	Panda PM780-HP Fiber, 250 µm barefiber
PM7/LT	Panda PM780-HP Fiber, 900 µm loose tube jacket over 250 µm barefiber

Connector Type

N	None
FC	FC/UPC
FC/APC	FC/APC
LC	LC/UPC
LC/APC	LC/APC
SC	SC/UPC
SC/APC	SC/APC

**Other connector type are available upon request*

Pigtail Length

1	1 Meter
X	Specify X Meters

Pin Bending

S	Straight Pins
B	Bent Pins

TAA COMPLIANT

DiCon® FIBEROPTICS

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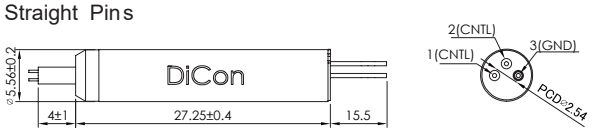
OPTICAL SPECIFICATIONS[1]

Insertion Loss[2]	1.2 dB max.
Extinction Ratio[3]	18 dB min.
Attenuation Slope	20 dB/V max.
Back Reflection	-50 dB max.
Optical Power	500 mW max.
Response Time	1 ms max.
Repeatability[4]	0.1 dB max.
Durability	1 x 10^9 cycles min.
Fiber Type	Panda PM Fiber

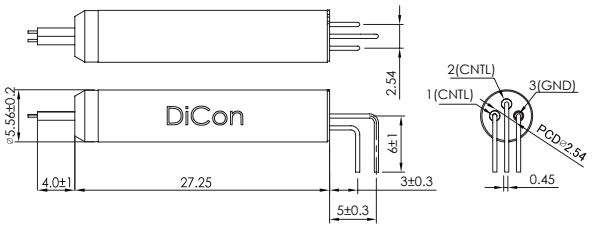
1. All specifications at room temperature
2. Excluding connector loss. Measured with 3-jumper method or equivalent (See TIA/EIA 526-7)
3. 16 dB min. with connector
4. Repeatability is defined over 100 cycles

Dimensions in mm

Straight Pins



Bent Pins



ELECTRICAL SPECIFICATIONS

Actuation type	Non-latching
DC Drive Voltage	0-7 VDC
Voltage Damage Threshold	10 VDC max.
Resistance	2 MΩ min.
Power Consumption	20 uWatt max.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-5 to 70°C
Storage Temperature	-40 to 85°C