

ATTENUATORS

PRECISION VARIABLE ATTENUATOR

DiCon's Precision Variable Attenuator is a TTL-driven component which sets attenuation levels in the 0 to 30 dB range with superior repeatability and absolute accuracy. The attenuation level is set using a high-precision motor with either the I²C standard interface or a proprietary Step-Up/Step-Down interface.



FEATURES

- Superior repeatability and absolute accuracy
- Singlemode or multimode fiber type
- Up to two calibration wavelengths
- Direct motor control or absolute attenuation setting
- Compatible with 60 dB Variable Attenuator

APPLICATIONS

Precision Variable Attenuators can be used to adjust the power level in automated test systems. Applications include bit error rate testing of transmitters and receivers as well as channel equalization in testing of WDM systems.



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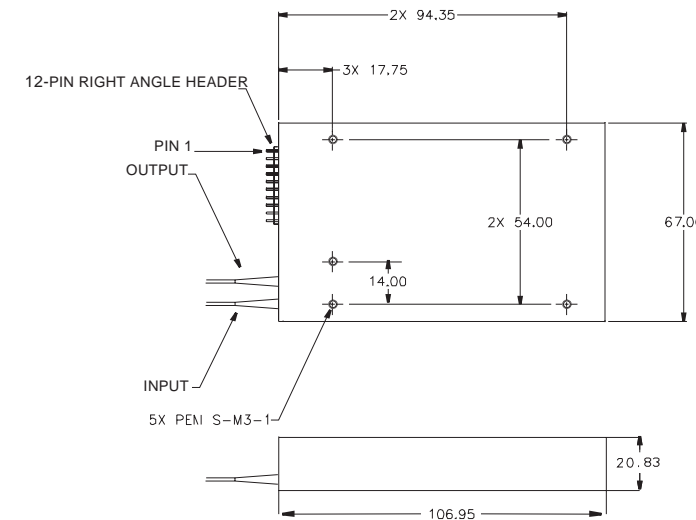
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SPECIFICATIONS¹

Attenuation range ²	0-30 dB max.
Resolution	0.1 dB max.
Repeatability	±0.01 dB max.
Absolute accuracy ³	±0.1 dB max.
Insertion loss	0.8 dB typ., 1.3 dB max.
PDL ⁴	0.2 dB max.
Back-reflection ⁴	-50 dB max.
Flatness ⁵	±0.1 dB max.
Tuning speed	50 ms min., 1400 ms max.
Optical power	300 mW max.
Operating temperature	0°C to +50°C
Storage temperature	-20°C to +70°C
Humidity	40°C/90%RH/5 days
Power requirements ⁶	+12 VDC, 250 mA max.
Fiber jacket	0.9 mm tight buffer

1. All specifications referenced without connectors.
2. For 60 dB attenuation range, see 60 dB Variable Attenuator datasheet.
3. At calibration wavelength.
4. Singlemode fiber only.
5. Within 100 nm window centered around calibration wavelength.
6. +5 VDC, 500 mA version available upon request.

HOUSING DIMENSIONS



Units: mm
Electrical connector is 12-pin right-angle header (Molex part number 22-12-2124). Mate with Molex part number 22-01-3127 or equivalent.

ORDERING INFORMATION

NAT500 - [] - [] - [] - []

Calibration Wavelength	
8	850 nm ¹
8/13	850 and 1310 nm ¹
13	1310 nm
13/15	1310 and 1550 nm
15	1550 nm
15/16	1550 and 1610 nm
16	1610 nm
Fiber Type	
9	9/125 Corning SMF-28
50	50/125 multimode fiber
62	62/125 multimode fiber
Connector Type	
FC	FC/SPC
FC/APC	FC/APC
FC/UPC	FC/UPC
SC	SC/SPC
SC/APC	SC/APC
SC/UPC	SC/UPC
ST	ST/SPC
ST/UPC	ST/UPC
LC	LC/UPC
N	None
Pigtail Length	
1	1 meter
X	Specify X meters

1. Multimode fiber only.