

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
- 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 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.



PRECISION VARIABLE ATTENUATOR

SPECIFICATIONS¹

PARAMETER		RATING
Attenuation Range ²		0-30 dB max.
Tuning Resolution		0.01 dB max.
Tuning Speed		50 ms min., 1400 ms max.
Excess Loss		0.8 dB typ., 1.3 dB max.
Flatness ³		±0.1 dB max.
PDL ⁴		0.2 dB max.
Back Reflection	9um	-50 dB max.
	50um/62.5um	-20 dB max.
Repeatability	9um	±0.01 dB max.
	50um/62.5um	±0.1 dB max.
Absolute Accuracy ^{5, 6}	9um	±0.1 dB max.
	50um/62.5um	±0.2 dB max.
Optical Power		300 mW max.
Power Requirement ⁷		+12 VDC, 250 mA max.
Fiber Jacket		0.9 mm tight buffer
Operating Temperature		0°C to +50°C
Storage Temperature		-20°C to +70°C
Humidity		40°C / 90% RH / 5 days

- All Specifications at room temperature, without connectors
- For 60 dB attenuation range, see 60 dB Variable Attenuator datasheet.
- With ±25 nm centered around calibration wavelength at 23°C.
- Single mode fiber only.
- At calibration wavelength.
- Accuracy is specified over an attenuation range of 0-20 dB.
- +5 VDC, 500 mA version available upon request.

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 multi-mode fiber
62	62.5/125 multi-mode fiber

Connector Type

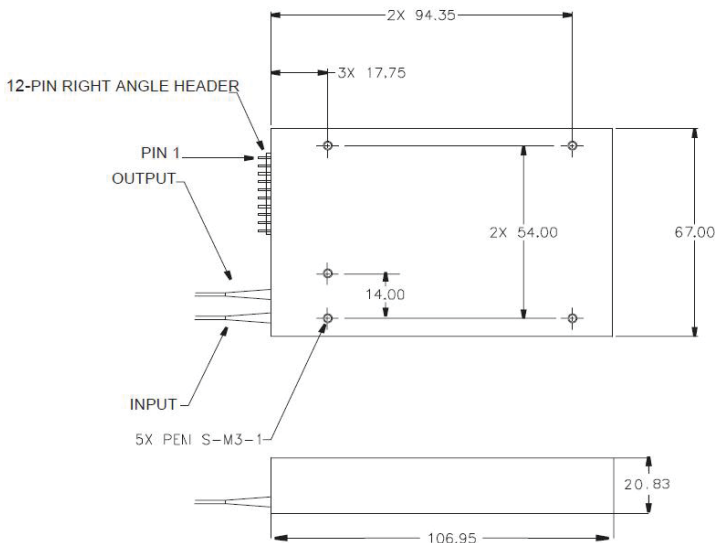
FC	FC/SPC
FC/APC	FC/APC
FC/UPC	FC/UPC
SC	SC/SPC
SC/APC	SC/APC
SC/UPC	SC/UPC
ST	ST/SPC
ST/UPC	ST/UPC
LC	LC/UPC
N	None

Pigtail Length

1	1 meter
X	Specify X meters

- Multimode fiber only.

MECHANICAL 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.