Model 3100-127
Precision Continuously Variable Attenuator

dc to 2.0 GHz
2 Watts

SMA Connector

Features

- **Compact Size -** Smallest available precision variable attenuator with 127 dB incremental range. Provides the OEM with new flexibility in designing compact instrumentation.
- **Continuously Variable -** Attenuation is continuously variable between "minimum insertion loss (6 dB)" and 133 dB providing a 127 dB incremental range.
- **Rugged -** Designed to meet many requirements of MIL-A-24215.

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: dc to 2.0 GHz

INCREMENTAL ATTENUATION RANGE: 127 dB

CHARACTERISTIC INSERTION LOSS, RESIDUAL:
6 ± 0.5 dB

CALIBRATION FREQUENCY/ACCURACY (including resetability): ±0.5 dB or 1% whichever is greater. Test data is available at additional cost.

FREQUENCY SENSITIVITY:
± {0.015 x A x (F - Fd) + 0.5} or
± {0.015 x A x (F - Fd) + 0.01 x A}

A = Attenuation setting in dB, Fd = Dial cut frequency in GHz, F = Operation frequency in GHz

DIRECT READING DIAL CALIBRATED AT: 1.0 GHz

DIAL INCREMENTS: 2 dB increments from 6 to 130 dB plus 3 dB

RESOLUTION OF DIAL: ~ 270° full scale (6 to 133 dB)

LIFE: 50,000 Cycles (A cycle consists of a rotation from minimum to maximum and back to minimum).

MAXIMUM SWR (Input & Output):	
Frequency (GHz)	SWR
dc - 2.0	1.60

PHASE SHIFT WITH CHANGE IN ATTENUATION:
~ 1° per dB x f(GHz)

POWER RATING: 2 watts **average** to 25°C ambient temperature, derated linearly to 0 watts @ 85°C. 500 watts **peak** (5 µsec pulse width; 0.2% duty cycle)

MAXIMUM STARTING TORQUE: 30 inch ounces

POWER COEFFICIENT: <0.005 dB/dB/watt

TEMPERATURE COEFFICIENT: < 0.001 dB/dB/ °C

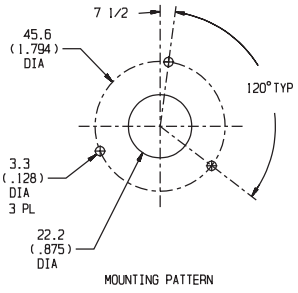
TEMPERATURE RANGE:
Operating: 0°C to 85°C
Non-operating: -55°C to 85°C.

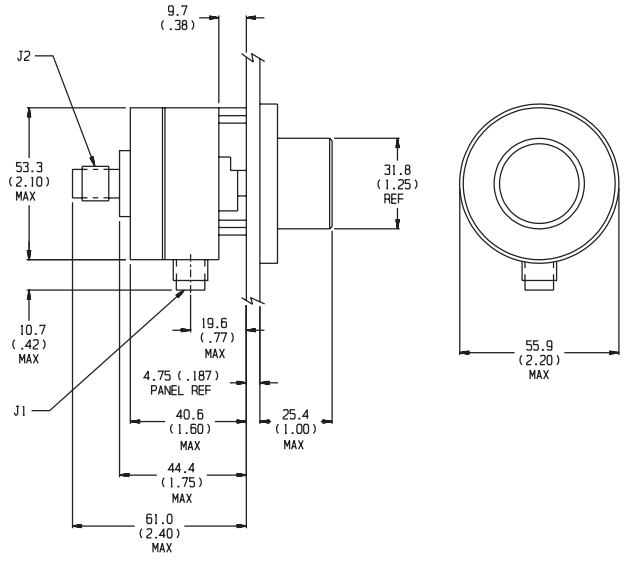
CONNECTOR: SMA female connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors.

CONSTRUCTION: Aluminum body and stainless steel connectors; gold plated beryllium copper contacts. Knob is included with each unit.

WEIGHT: 247 g (8.75 oz)

PHYSICAL DIMENSIONS:





NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

5305 Spectrum Drive, Frederick, MD 21703-7362 • TEL: 301-846-9222, 800-638-2048 • Fax: 301-846-9116
web: www.weinschel.com • email: sales@weinschel.com

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