api technologies corp. ›WEINSCHEL

Fixed Coaxial Attenuators

Model 253
High Power, N or SMK Connectors
Conduction Cooled

dc to 6 GHz
500 Watts

☑ **RoHS**

Features

- ✍ **Precision Connectors with high temperature support beads.**
- ✍ **Designed to meet environmental requirements of MIL-DTL-3933.**
- ✍ **10 Kilowatts peak, Conduction Cooled**
- ✍ **Wireless Applications** - Optimized for use in the communications bands.

Specifications

NOMINAL IMPEDANCE: 50 Ω
FREQUENCY RANGE: dc to 6.0 GHz

MAXIMUM DEVIATION OVER FREQUENCY:	
Nominal ATTN (dB)	Deviation (dB)
10, 20, 30, 40	± 1.50

MAXIMUM SWR:	
Frequency (GHz)	SWR
dc - 2.5	1.10
2.5 - 6	1.20

3rd ORDER INTERMODULATION (253-XX-XX-LIM ONLY): Reflected Levels (IM3), -100 & Through Levels (IM3), -110 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +43 dBm each.

POWER RATING: 500 watts **average (unidirectional),** 10 kilowatt **peak** (5 μsec pulse width; 2.5% duty cycle) with case temperature held within **100 °C maximum** with appropriate conductive heat sink. Maximum power into output is 50 Watts **average**.

TEMPERATURE COEFFICIENT: <0.0004 dB/dB/°C

TEMPERATURE RANGE: -55 to 100°C (case temperature)

TEST DATA: Swept data plots of attenuation and SWR from 50 MHz to 6 GHz.
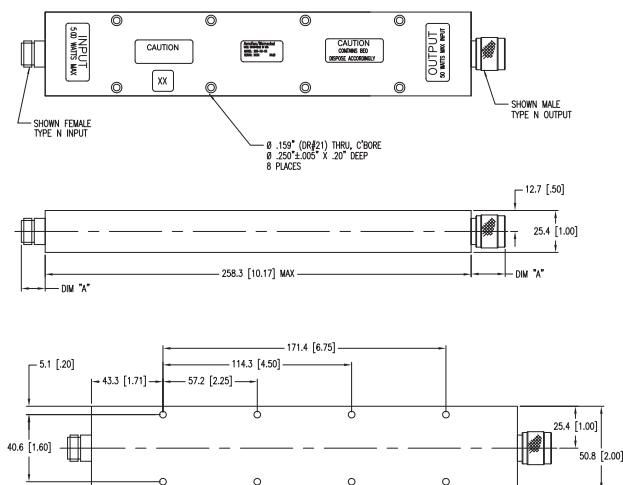
CONNECTORS: Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. SMK (2.92mm) connectors mate with SMA, 3.5mm and other 2.92mm connectors.

Options	Description	Options	Description
1	SMK Female	3	Type N Female
2	SMK Male	4	Type N Male

CONSTRUCTION: Aluminum alloy body, gold plated beryllium copper contacts.

WEIGHT: 900 (31.3 oz.) maximum

PHYSICAL DIMENSIONS:

Connector	DIM A	Connector	DIM A
N Male	22.9 (0.90)	2.92mm Male	14.0 (0.55)
N Female	15.0 (0.59)	2.92mm Female	12.7 (0.50)

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

MODEL NUMBER DESCRIPTION:

Example:

253 - XX - XX - LIM

IM Option*

Basic Model Number

Attenuation Value (dB)

Connector Options
1st digit is input side
2nd digit is output side

* Add -LIM for Low Intermodulation option.