

## Model 253

**High Power, N or SMK Connectors**  
**Conduction Cooled**

**dc to 6 GHz**  
**500 Watts**



### 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.

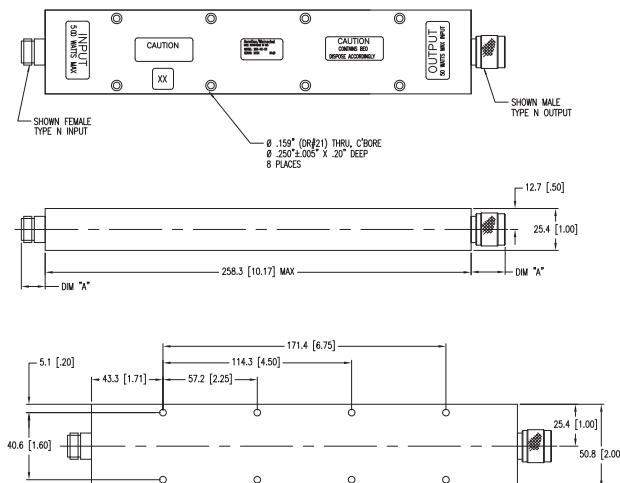
**CONNECTORS:** Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. SMK (2.92mm) connectors mate with SMA, 3.5mm and other 2.92mm connectors.

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:

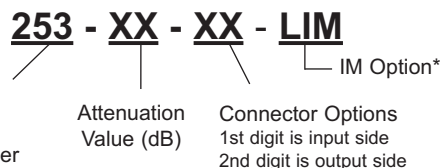


Connector	DIM A	Connector	DIM A
N Male	22.9 (0.90)	2.92mm Male	14.0 (0.55)
N Female	15.0 (0.59)	2.92mm Female	12.7 (0.50)

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

#### MODEL NUMBER DESCRIPTION:

Example:



\* Add -LIM for Low Intermodulation option.