

## Model 53

### High Power, N Connectors

Conduction/Convection Cooled



#### Features

- Quality connectors with special high temperature support beads.
- Designed to meet environmental requirements of MIL-DTL-3933.
- **Flexible Mounting Position** - The units may be mounted in horizontal (fins up) or vertical position.
- **Low Intermodulation Distortion Option.**

#### Specifications

**NOMINAL IMPEDANCE:** 50 Ω

**FREQUENCY RANGE:** DC to 2.5 GHz

#### MAXIMUM DEVIATION OVER FREQUENCY:

Nominal ATTN (dB)	Deviation (dB)	
	53	53 LIM
3, 6	± 1.00	---
10, 20, 30, 40	± 1.00	± 1.20

#### MAXIMUM SWR:

Frequency (GHz)	53	53 LIM
dc - 2.5	1.10	1.15

**3rd ORDER INTERMODULATION (53-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 (mounted horizontally with fins vertical):** 500 watts **average (unidirectional)** to 25°C ambient temperature, derated linearly to 50 watts @ 125°C. 10 kilowatt**peak** (5 µsec pulse width; 2.5% duty cycle). Maximum power rating into output port is 50 watts average.

**TEMPERATURE COEFFICIENT:** <0.0004 dB/dB/°C

**TEMPERATURE RANGE:** -55°C to 125°C

DC to 2.5 GHz  
 500 Watts

**TEST DATA:** Swept data plots of attenuation and SWR from 50 MHz to 2.5 GHz.

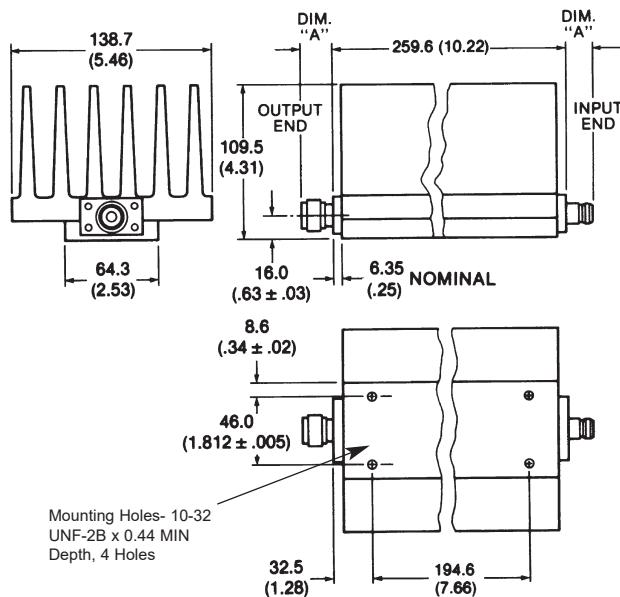
**CONNECTORS:** Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors.

Connector Options	Type/Description
3	Type N, Female
4	Type N, Male

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

**WEIGHT:** 3,640 g (8 lbs.) maximum

#### PHYSICAL DIMENSIONS



Connector	DIM A
N Male	22.9 (0.90)
N Female	15.0 (0.59)

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

#### MODEL NUMBER DESCRIPTION:

Example:

**53 - XX - XX - LIM**

Basic Model Number      Attenuation Value (dB)      Connector Options  
 IM Option\*

\*Add -LIM for Low Intermodulation option. Option only available in 10, 20, 30 and 40 dB and is not available through Express.