

## Model 48 Medium Power Fixed Coaxial Attenuator

dc to 18.0 GHz  
100 Watts

Type N or 3.5mm Connectors



### Features

- Designed to meet environmental requirements of MIL-A-3933.
- Low Intermodulation option available.
- Rugged injection molded connectors.

### Specifications

NOMINAL IMPEDANCE: 50  $\Omega$

FREQUENCY RANGE: dc to 18.0 GHz

MAXIMUM DEVIATION OVER FREQUENCY (dB):			
Nominal ATTN (dB)	48	48 LIM	
		dc-8 GHz	8-18 GHz
6	$\pm 2.00$	---	---
10	$\pm 1.25$	$\pm 1.00$	$+3.0/-0.0$
20	$\pm 0.75$	$\pm 1.00$	$+3.0/-0.0$
30, 40	$\pm 1.00$	$\pm 1.00$	$+3.0/-0.0$

MAXIMUM SWR:				
Frequency (GHz)	6 dB	48	48 LIM	
		10 dB	20, 30, 40 dB	
dc - 8	1.30	1.40	1.25	1.40
8 -12.4	1.45	1.40	1.35	1.45
12.4 - 18	1.60	1.55	1.45	1.45

**POWER RATING (mounted horizontally):** 100 watts average (unidirectional) to 25°C ambient temperature, derated linearly to 10 watts @ 125°C. 1 kilowatt peak (5  $\mu$ sec pulse width; 5% duty cycle). Maximum power rating into output port is 10 Watts average.

**3rd ORDER INTERMODULATION (48-XX-XX-LIM only):** Reflected Levels (IM3), -90 dBc & Through Levels (IM3), -100 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +43 dBm each.

**POWER COEFFICIENT:** <0.00015 dB/dB/watt

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

**TEMPERATURE RANGE:** -55°C to 125°C

**TEST DATA:** Insertion loss test data supplied at 0.05, 4.0, 8.0, 12.4, and 18.0 GHz. Other test data can be provided at additional cost.

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

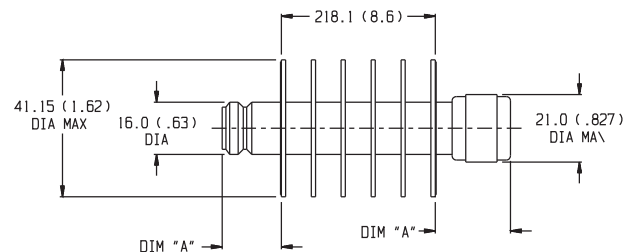
3.5mm (Male/Female) connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

Connector Options	Type/Description
1	3.5mm, Female
2	3.5mm, Male
3	Type N, Female
4	Type N, Male

**CONSTRUCTION:** Black, finned aluminum body, stainless steel connectors, gold plated beryllium copper contacts.

**WEIGHT:** 320 g (11 oz.) maximum

**PHYSICAL DIMENSIONS:**

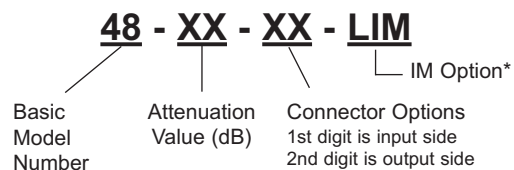


Connector	DIM A
3.5mm Female	13.2 (0.52)
3.5mm Male	14.0 (0.55)
N Male	24.1 (0.95)
N Female	19.0 (0.75)

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

### MODEL NUMBER DESCRIPTION:

Example:



\* Add -LIM to entire model number for Low Intermodulation option. Option is not available through Express.