## **Fixed Coaxial Attenuators**



# Model 48 High 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-DTL-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	48	48 LIM			
ATTN (dB)		dc-8 GHz	8-18 GHz		
6	<u>+</u> 2.00				
10	<u>+</u> 1.25	<u>+</u> 1.00	+3.0/-0.0		
20	<u>+</u> 0.75	<u>+</u> 1.00	+3.0/-0.0		
30, 40	<u>+</u> 1.00	<u>+</u> 1.00	+3.0/-0.0		

MAXIMUM SWR:						
Frequency	48			48 LIM		
(GHz)	6 dB	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 μsec 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.

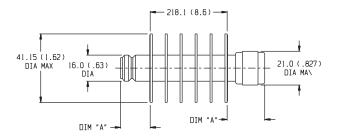
3.5mm (Male/Female) connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

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:



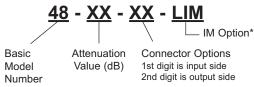
Connector	DIM A
3.5mm Female	13.2 (0.52)
3.5mm Male	14.0 (0.55)
N Male	24.1 (0.95)
N Female	19.0 (0.75)

#### NOTE:

- All dimensions are given in mm (inches) and are maximum, unless otherwise specified.
- 2. Unit available with RoHS compliant materials, specify when ordering.

### MODEL NUMBER DESCRIPTION:

Example:



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

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