

# Fixed Coaxial Attenuators



## Model 47 Medium Power Fixed Coaxial Attenuator

dc to 18.0 GHz  
50 Watts

Type N Connectors



### Features

- /// Designed to meet environmental requirements of MIL-DTL-3933.
- /// Low Intermodulation option available.
- /// Rugged injection molded connector dielectric.

### Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: dc to 18.0 GHz

#### MAXIMUM DEVIATION OVER FREQUENCY:

Nominal ATTN (dB)	47	47 LIM	
		dc-8 GHz	8-18 GHz
3, 6	± 0.75	---	---
10, 20	± 0.75	± 0.75	+2.0/-0.5
30, 40	± 1.00	± 0.75	+2.0/-0.5

#### MAXIMUM SWR:

Frequency (GHz)	3, 6 dB	10, 20, 30, 40 dB
dc - 8	1.25	1.20
8 - 12.4	1.35	1.25
12.4 - 18	1.45	1.35

**3rd ORDER INTERMODULATION (47-XX-XX-LIM ONLY):** Reflected Levels (IM3), -90 & Through Levels (IM3), -100 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +43 dBm each. Option only available 10, 20, 30, 40 dB.

**POWER RATING (mounted horizontally):** 50 watts average (unidirectional) to 25°C ambient temperature, derated linearly to 5 watts @ 125°C. Note: 3 dB model can handle 100 Watts average (unidirectional). 1 kilowatt peak (5 μsec pulse width; 2.5% duty cycle). Maximum power rating into output port is 10 Watts average.

POWER COEFFICIENT: <0.0003 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, 12.0, 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.

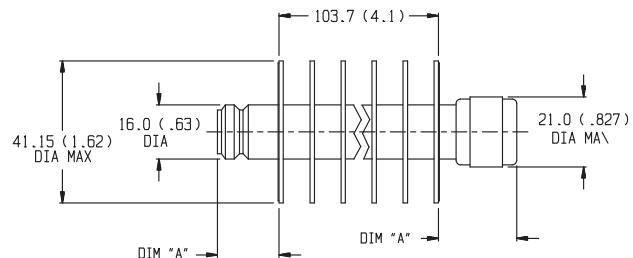
3.5mm Connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

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

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

WEIGHT: 175 g (6 oz.) maximum

#### PHYSICAL DIMENSIONS:



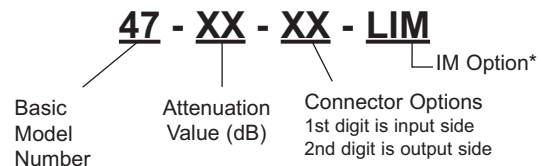
Connector	DIM A	Connector	DIM A
N Male	24.1 (0.95)	3.5mm Female	14.0 (0.55)
N Female	19.0 (0.75)	3.5mm Male	13.2 (0.52)

#### NOTE:

1. 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:



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