

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-A-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.

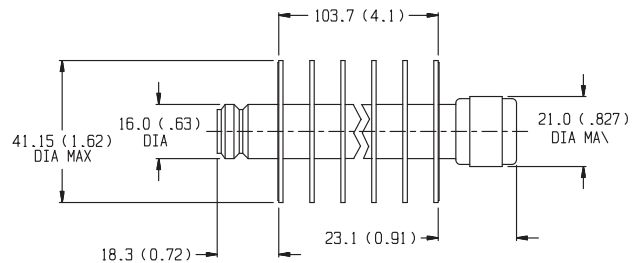
3.5mm Connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

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:

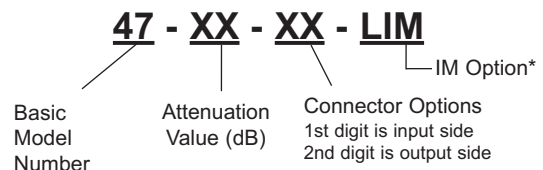


Connector	DIM A	Connector	DIM A
N Male	24.1 (0.95)	3.5mm Female	14.0 (0.55)
N Female	19.0 (0.75)	3.5mm Male	13.2 (0.52)

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

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.

Fixed Coaxial Attenuators



Model 86 Medium Power Fixed Coaxial Attenuator

dc to 22.0 GHz
50 Watts

Conduction Cooled, 3.5mm Connectors



Features

- /// **Compact Construction** - Lowest size/power ratio.
- /// **Precision Connectors** with high temperature support beads.
- /// **Designed to meet environmental requirements of MIL-A-3933.**
- /// **Ideal for Airborne or Space Applications.**

Specifications

NOMINAL IMPEDANCE: 50 Ω
FREQUENCY RANGE: dc to 22.0 GHz

MAXIMUM DEVIATION OVER FREQUENCY:	
Nominal ATTN (dB)	Deviation (dB)
3, 6, 10, 20, 30	± 0.80

MAXIMUM SWR: 1.30

POWER RATING 50 watts **average (bi-directional)**, 1 kilowatts **peak** (5 μsec pulse width; 0.5 % duty cycle) with case temperature held within **90 °C maximum** with appropriate conductive heat sink.

POWER COEFFICIENT: <0.0006 dB/dB/watt

TEMPERATURE COEFFICIENT: <0.0004 dB/dB/°C

TEMPERATURE RANGE: -55°C to 90°C (case)

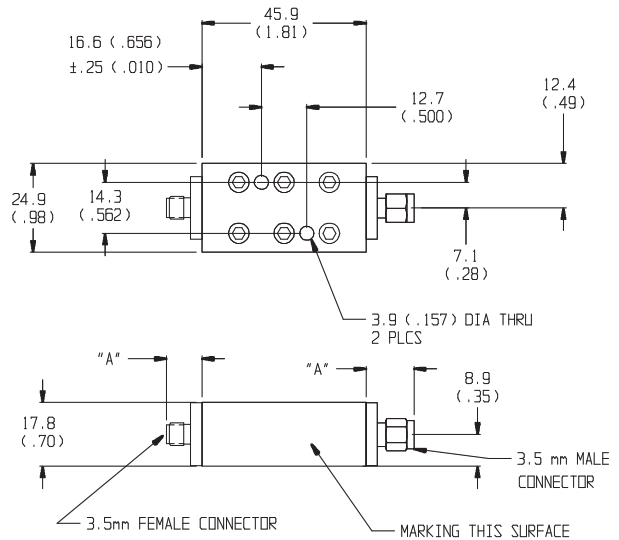
CONNECTORS: 3.5mm connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

Options	Description
1	3.5mm Female
2	3.5mm Male

CONSTRUCTION: Aluminum body, stainless steel connectors; gold plated beryllium copper contacts.

WEIGHT: 60 g (2.1 oz.) maximum

PHYSICAL DIMENSIONS:



Connector	DIM A
3.5mm Male	13.4±0.5 (0.53±0.02)
3.5mm Female	9.9±0.5 (0.32±0.02)

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

MODEL NUMBER DESCRIPTION:

Example:

