

# Fixed Coaxial Attenuators



## Model 46 Medium Power Fixed Coaxial Attenuator

dc to 18.0 GHz  
25 Watts

*Bi-directional Design!*



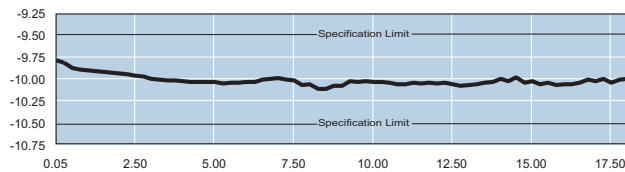
### Features

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

### Specifications

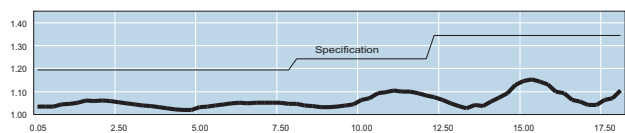
**NOMINAL IMPEDANCE:** 50 Ω  
**FREQUENCY RANGE:** dc to 18.0 GHz

MAXIMUM DEVIATION OVER FREQUENCY:			
Nominal ATTN (dB)	46	46 LIM	
		dc - 8 GHz	8- 18 GHz
1, 2	± 0.50	---	---
3, 6	± 1.00	---	---
10, 20, 30, 40	± 1.00	± 1.00	+2.0/-1.0



Typical Attenuation Accuracy of a 46-10-34

MAXIMUM SWR:	
Frequency (GHz)	SWR
dc - 8	1.20
8 -12.4	1.25
12.4 - 18	1.35



Typical SWR of a 46-10-34

**3rd ORDER INTERMODULATION (46-XX-XX-LIM ONLY):** Reflected Levels (IM3), -90 dBc and Through Levels (IM3), -100 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +41 dBm each. Option only available 10, 20, 30, 40 dB.

**POWER RATING (mounted horizontally):** 25 watts average (bi-directional) to 25°C ambient temperature, derated linearly to 2.5 watts @ 125°C. Note: 3 dB model can handle 50 Watts average (bi-directional). 1 kilowatt peak (5 μsec pulse width; 1.25% duty cycle).

**POWER COEFFICIENT:** <0.0006 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.

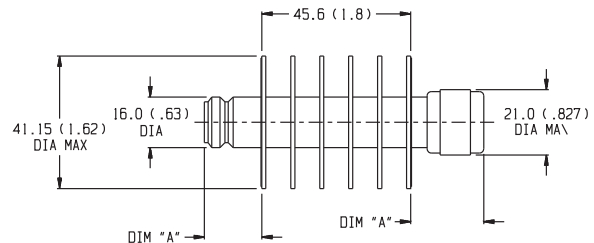
3.5mm Connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

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:** 110 g (4 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.
- Unit available with RoHS compliant materials, specify when ordering.

### MODEL NUMBER DESCRIPTION:

Example:

**46 - XX - XX\* - LIM**

Basic Model Number

Attenuation Value (dB)

Connector Options  
1st digit is J1 side  
2nd digit is J2 side

\* Unit is bi-directional & full power may be applied to either J1 or J2.

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