

Fixed Coaxial Attenuators



Model 33 Medium Power Fixed Coaxial Attenuator

dc to 8.5 GHz
25 Watts

Bi-directional Design!



Features

- Quality Connectors with special high temperature support beads.
- Designed to meet environmental requirements of MIL-DTL-3933.
- Low Intermodulation option available.
- Mode free operation to 10 GHz.

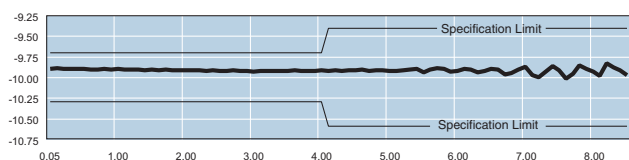
Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: dc to 8.5 GHz

MAXIMUM DEVIATION OVER FREQUENCY (dB):

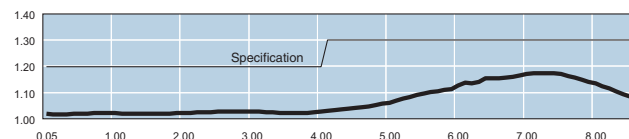
Nominal ATTN (dB)	dc-4 GHz		4 - 8.5 GHz	
	33	33-LIM	33	33-LIM
3, 6	± 0.30	---	± 0.60	---
10, 20	± 0.30	± 0.40	± 0.60	± 0.70
30	± 0.60	± 0.70	± 1.00	± 1.20



Typical Attenuation Accuracy of a 33-10-34

MAXIMUM SWR:

Frequency (GHz)	SWR
dc - 4	1.20
4 - 8.5	1.30



Typical SWR of a 33-10-34

3rd ORDER INTERMODULATION (33-XX-XX-LIM Only): Reflected Levels (IM3), -100 dBc and Through Levels (IM3), -110 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +41 dBm each. IM specification at J2 limited to 10 Watts of input power.

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). 5 kilowatt **peak** (5 μ sec pulse width; 0.25% 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, and 8.5 GHz. Other test data can be provided at additional cost.

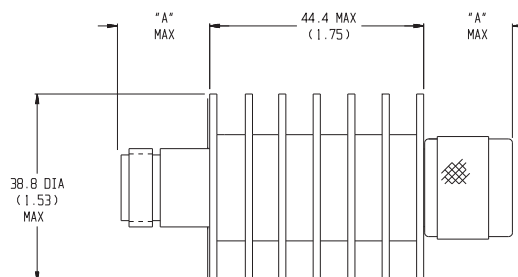
CONNECTORS: Type N & 2.92mm connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors.

Options	Description	Options	Description
1	2.92mm Female	3	Type N, Female
2	2.92mm Male	4	Type N, Male

CONSTRUCTION: Black, finned aluminum body, gold plated beryllium copper contacts.

WEIGHT: 170 g (6 oz.) maximum

PHYSICAL DIMENSIONS:



Connector	DIM A	Connector	DIM A
N Male	22.9 (0.90)	2.92mm Female	14.0 (0.55)
N Female	15.0 (0.59)	2.92mm Male	

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:

33 - XX - XX* - LIM

Basic Model Number	Attenuation Value (dB)	Connector Options	IM Option**
		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 to entire model number for Low Intermodulation option. Available in only 10, 20, 30 dB and is not available through Express.