

## Model 24 Medium Power Fixed Coaxial Attenuator

dc to 8.5 GHz  
50 Watts

### Bi-Directional Design!



### Features

- Designed to meet environmental requirements of MIL-A-3933.
- Low Intermodulation option available.
- Mode free operation to 10 GHz.

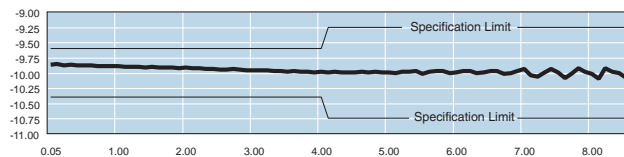
### Specifications

**NOMINAL IMPEDANCE:** 50  $\Omega$

**FREQUENCY RANGE:** dc to 8.5 GHz

#### MAXIMUM DEVIATION OVER FREQUENCY (dB):

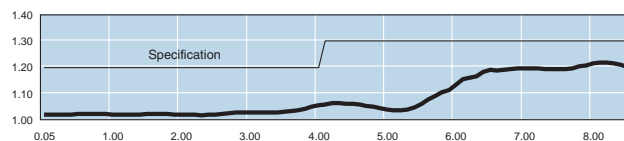
Nominal ATTN (dB)	dc-4 GHz		4 - 8.5 GHz	
	24	24-LIM	24	24-LIM
3, 6	$\pm 0.40$	---	$\pm 0.75$	---
10, 20	$\pm 0.40$	$\pm 0.50$	$\pm 0.75$	$\pm 1.00$
30, 40	$\pm 0.60$	$\pm 0.70$	$\pm 1.00$	$\pm 1.25$



Typical Attenuation Accuracy of a 24-10-34

#### MAXIMUM SWR:

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



Typical SWR of a 24-10-34

**3rd ORDER INTERMODULATION (24-XX-XX-LIM only!):** Reflected Levels (IM3), -100 & Through Levels (IM3), -110 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. IM specification at J2 limited to 20 Watts of input power.

**POWER RATING (mounted horizontally):** 50 watts average (bi-directional) to 25°C ambient temperature, derated linearly to 2.5 watts @ 125°C. Note: 3 dB model can handle 100 Watts average (bi-directional). 5 kilowatt peak (5  $\mu$ sec pulse width; 0.5% duty cycle).

**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, and 8.5 GHz. Other test data can be provided at additional cost.

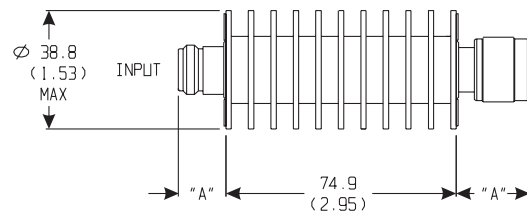
**CONNECTORS:** Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. 2.92mm connectors - mate nondestructively with SMA per MIL-C-39012, 3.5mm, SMK, and other 2.92mm.

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:** 280 g (10 oz.) maximum

### PHYSICAL DIMENSIONS:



Connector	DIM A	Connector	DIM A
N Male	22.9 (0.90)	2.92mm Male	14.0 (0.55)
N Female	15.0 (0.59)	2.92mm Female	12.7 (0.50)

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

### MODEL NUMBER DESCRIPTION:

Example:

<b>24</b>	<b>- XX</b>	<b>- XX*</b>	<b>- LIM</b>
Basic Model Number	Attenuation Value (dB)	Connector Options 1st digit is J1 side 2nd digit is J2 side	IM Option**

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

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