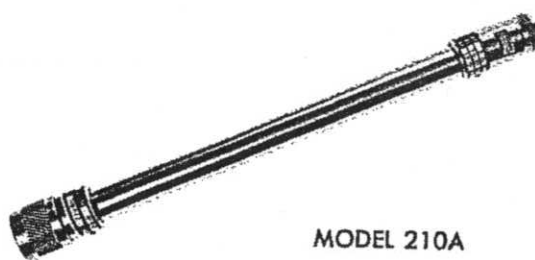


MODEL 210A 0.4 to 18.0 GHz

FIXED COAXIAL ATTENUATORS

FEATURES

- **STABILITY**— \pm Model 210A Precision Attenuators are made with \pm film resistors which are artificially aged to give maximum stability under peak pulse power and extreme temperature and humidity cycling to comply with MIL-A-3933.
- **STAINLESS STEEL CONNECTORS AND CONSTRUCTION**—Provides maximum life with minimum wear.
- **CLOSE TOLERANCE CONNECTORS**—To assure reliable mating of \pm precision Type N connectors, the critical dimension of the inner contact is held to tolerances less than those required by NBS or applicable MIL specs.



MODEL 210A

- **CERTIFICATE OF CALIBRATION**—Each attenuator is supplied with a certificate of calibration stating loss for the attenuator at four frequencies and guaranteeing SWR to be within specified limits.

SPECIFICATIONS

NOMINAL IMPEDANCE: 50 ohms

FREQUENCY RANGE AND NOMINAL ATTENUATION VALUES:

Nominal Value (dB)	Frequency Range (GHz)	Maximum Insertion Loss Deviation				Power Rating When Properly Terminated	
		From Nominal Value at 4 GHz (dB)	From 4 GHz			Average (W)	Peak * (kW)
			At 1 GHz (dB)	At 10 GHz (dB)	At 18 GHz (dB)		
1	0.4-18.0	± 0.1	-0.2	+0.2	+0.8	5	10
2	0.5-18.0	± 0.1	-0.2	+0.2	+0.8	5	10
3	0.6-18.0	± 0.1	-0.2	+0.2	+0.8	5	10
4	1.0-18.0	± 0.1	-0.3	+0.3	+0.8	4	8
5	1.0-18.0	± 0.1	-0.4	+0.3	+0.8	3	6
6	1.0-18.0	± 0.1	-0.5	+0.3	+0.8	3	6
7	1.0-18.0	± 0.1	-0.6	+0.4	+0.9	2.5	5
8	1.0-18.0	± 0.1	-0.8	+0.5	+0.9	1	1
9	1.0-18.0	± 0.1	-1.0	+0.5	+0.9	1	1
10	1.0-18.0	± 0.1	-1.1	+0.5	+0.9	1	1
20	2.0-18.0	± 0.2	-1.3 **	+1.0	+1.4	1	1

* For full peak power. Maximum pulse length, 5 microseconds.

** At 2.0 GHz.

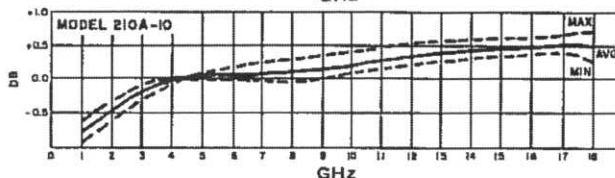
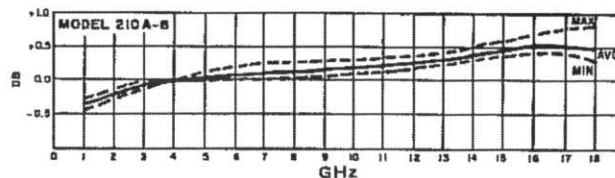
MAXIMUM SWR:

Nominal Value	Frequency Range (GHz)	SWR
1 to 6 dB	1 to 4	1.25
	4 to 12.4	1.25
	12.4 to 18.0	1.50
7 to 10 dB	1 to 2	1.35
	2 to 12.4	1.30
	12.4 to 18.0	1.50
20 dB	2 to 3	1.35
	3 to 12.4	1.30
	12.4 to 18.0	1.50

POWER COEFFICIENT: $< 0.001 \frac{\text{dB}}{\text{dB} \times \text{W}}$

TEMPERATURE COEFFICIENT: 1 to 5 dB: $< 0.0003 \frac{\text{dB}}{\text{dB} \times ^\circ\text{C}}$

6 to 20 dB: $< 0.0001 \frac{\text{dB}}{\text{dB} \times ^\circ\text{C}}$



CALIBRATION FREQUENCIES: Certificate supplied giving insertion loss in 50-ohm system at 1.0, 4.0, 10.0 and 18.0 GHz up to 10 dB, and at 2.0, 4.0, 10.0, and 18.0 GHz for 20 dB. SWR is guaranteed to be within specified limits.

CONNECTORS: Type N stainless steel. Molded captive inner contact/bead assembly provides controlled and stable interface dimensions. Standard with male and female. Units with both connectors male or female are available. With these configurations, calibration accuracy is reduced by effect of double adapters used when setting power reference for calibration. When ordering prefix M before model number for male, F for female. (For example, M210A-10 is a Model 210A, 10 dB unit with two male connectors.)

CONSTRUCTION: Stainless steel body
WEIGHT: Net, 8 oz.; Shipping, 1 lb. 2 oz.

PRICE: \$65

