

510 Series Direct-Reading Precision Attenuators



Features

- Low VSWR
- Direct Reading
- Low Insertion Loss
- Anti-Backlash Drive
- Negligible Phase Shift
- Precision Construction
- Frequency Independent

Description 510 Series Attenuators

Mi-Wave's 510 series direct-reading precision attenuators provide 0 to 60 dB of calibrated attenuation by rotation of a resistive vane mounted in a circular waveguide section. These units are often referred to as “precision rotary vane attenuators”.

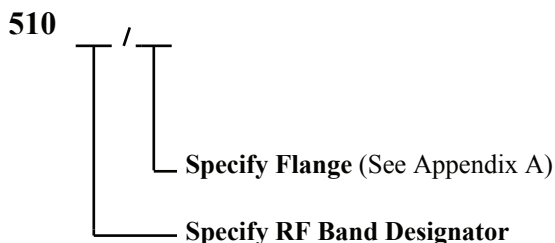
Applications

The 510 series direct reading precision attenuators are used in all RF measurement systems. They are most frequently used in RF substitution-type set-ups for precise measurement of characteristics such as isolation, coupling, insertion loss, and gain.

The following specifications are common to all bands.

Description	Specification
Attenuation Range	0 dB to 60 dB (Above Residual Attenuation) Over entire waveguide band
Accuracy (The greater of the two)	0.1 dB or 2% of reading
Scale Length	21 inches
Scale Increments	0 dB to 0.1 dB - 0.01 dB 0.1 dB to 1.0 dB - 0.05 dB 1.0 dB to 10.0 dB - 0.10 dB 10.0 dB to 20.0 dB - 0.20 dB 20.0 dB to 30.0 dB - 0.5 dB 30.0 dB to 50.0 dB - 1.0 dB Max Setting 60 dB Typical
Phase Shift vs. Attenuation	Negligible

Ordering Information



Mi-Wave

Millimeter Wave Products Inc.

www.miww.com

2200 Tall Pines Drive, Suite 100 Largo, FL 33771

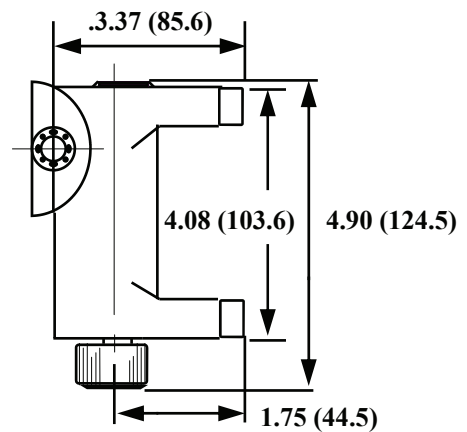
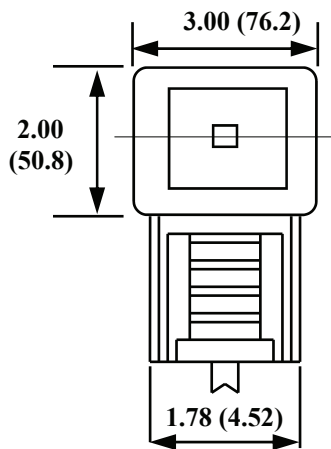
Tel. (727) 536-0033 Fax. (727) 536-0012

E: sales@miww.com

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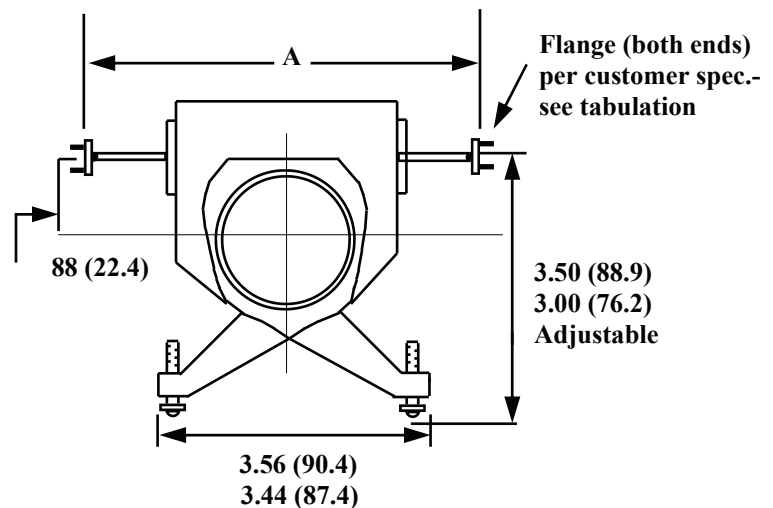
Technical Specifications

Model Number	510K	510A	510B	510U	510V	510E	510W	510F	510D	510G
Frequency Band (GHz)	18.0-26.5	26.5-40.0	33.0-50.0	40.0-50.0	50.0-75.0	60.0-90.0	75.0-110.0	90.0-140.0	110.0-170.0	140.0-220.0
Insertion Loss (dB) Max.	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	1.8
VSWR ¹ Max.	1.30	1.15	1.15	1.15	1.20	1.20	1.20	1.25	1.25	1.25
Average Power (Watts)	1.0	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1
Weight (oz)	52	38	38	36	29	28	28	.26	.24	24



Dimensional Specifications

Model No.	A	
510K	8.48	215.0
510A	6.87	174.0
510B	6.25	159.0
510U	5.76	146.0
510V	4.50	114.3
510E	4.50	114.3
510W	4.50	114.3
510F	3.53	89.7
510D	3.44	87.4
510G	3.20	81.3



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Tel. (727) 536-0033 Fax. (727) 536-0012 Email. sales@miwv.com