

# Fixed and Level Setting Attenuators

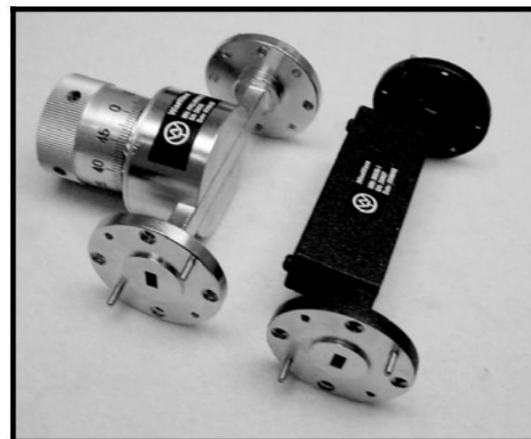
Bulletin No. CAF and CAL

## FEATURES

- ❖ Rugged waveguide configuration
- ❖ Full band operation
- ❖ Up to 30 dB attenuation
- ❖ Low cost

## APPLICATIONS

- ❖ Test benches
- ❖ Subsystems
- ❖ Prototypes



CAF & CAL Series

## DESCRIPTION

**CAF and CAL** series fixed and level setting attenuators are offered for the frequency range of 18 to 110 GHz in seven waveguide bands. The standard attenuation level for fixed attenuators are 3, 6, 10, 20 and 30 dB, while level setting attenuators are from 0 to 30 dB with full waveguide operational bandwidth. The level setting attenuators are equipped with a micrometer, which enables rapid re-setting. With calibrated charts, the level setting attenuators can be used as direct reading attenuator for bench top test set use. The fixed and level setting attenuators are typically used in the test setups and prototype assemblies where certain attenuation is required.

## SPECIFICATIONS

Fixed Attenuator	K	Ka	Q	U	V	E	W
Model Number	CAF-WG AT-02 (Where WG is the waveguide size and AT is the attenuation value in dB.)**						
Frequency Range (GHz)	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Fixed Attenuation Value (dB, Typ.)*	3, 6, 10, 20 and 30						
VSWR (Typical)	1.15:1						
Outline Drawing	WT-H-1	WT-H-1	WT-H-1	WT-H-1	WT-H-1	WT-H-1	WT-H-1

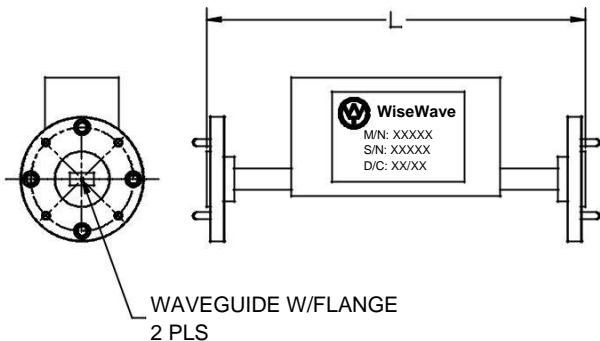
Level Setting Attenuator	K	Ka	Q	U	V	E	W
Model Number*	CAL-42-02	CAL-28-02	CAL-22-02	CAL-19-02	CAL-15-02	CAL-12-02	CAL-10-02
Frequency Range (GHz)	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Level Setting Value (dB, Minimum)	0 to 25						
VSWR (Typical)	1.30:1						
Outline Drawing	WT-H-II	WT-H-II	WT-H-II	WT-H-2	WT-H-2	WT-H-2	WT-H-2
Power Rating (Maximum)	0.6	0.6	0.5	0.5	0.4	0.3	0.3

\* Consult factory for other attenuation values, waveguide bands and specifications.

\*\* To order a WR-15 fixed attenuator with 20 dB attenuation level, specify CAF-1520-02

# Control Device Outline Drawings #1

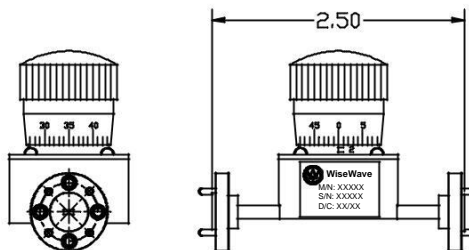
WT-H-1



BAND	W, E & V	U, Q & Ka	K
L	2.50	3.50	4.00

Dimensions are in inches

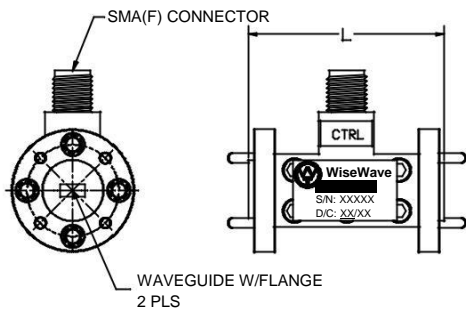
WT-H-2



W, E, V & U BAND

Dimensions are in inches

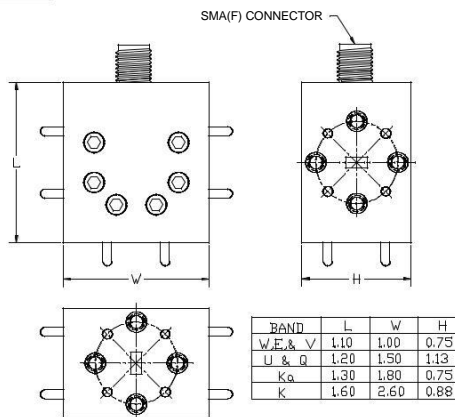
WT-H-3



BAND	W, E & V	U & Q	Ka & K
L	1.20	1.50	2.00

Dimensions are in inches

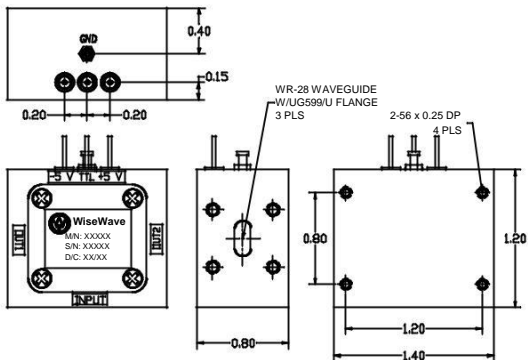
WT-H-4



BAND	L	W	H
W, E & V	1.10	1.00	0.75
U & Q	1.20	1.50	1.13
Ka	1.30	1.80	0.75
K	1.60	2.60	0.88

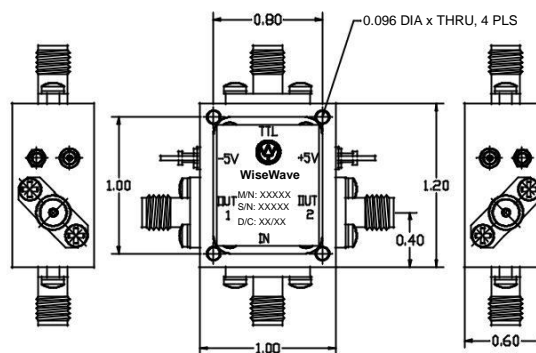
Dimensions are in inches

WT-H-5



Dimensions are in inches

WT-H-6



Dimensions are in inches

The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details. The outline drawings shown are standard versions. Contact factory for your specific package requirements.