

# **Direct Reading Attenuators**

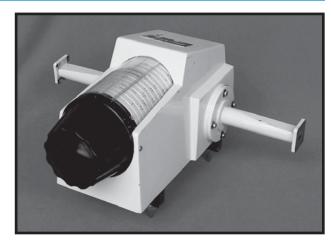
**Bulletin No. CAR** 

#### **FEATURES**

- Rugged waveguide configuration
- Full band operation
- 0 to 50 dB attenuation range
- High accuracy

#### **APPLICATIONS**

- Test benches
- Instrumentation
- Calibration



**CAR Series** 

### **DESCRIPTION**

**CAR** series direct reading attenuators are offered for the frequency range of 18 to 110 GHz in seven waveguide bands. The attenuators are constructed with a precision rotary resistive vane in a circular waveguide. Therefore, they are frequency independent. The attenuators offer a high degree of repeatability and accuracy over whole attenuation range for the full waveguide band operation. The attenuation value is read directly from the helical drum scale. These attenuators are the ideal devices when precision measurement, such as output power, gain, insertion loss, isolation, coupling and return loss is required.

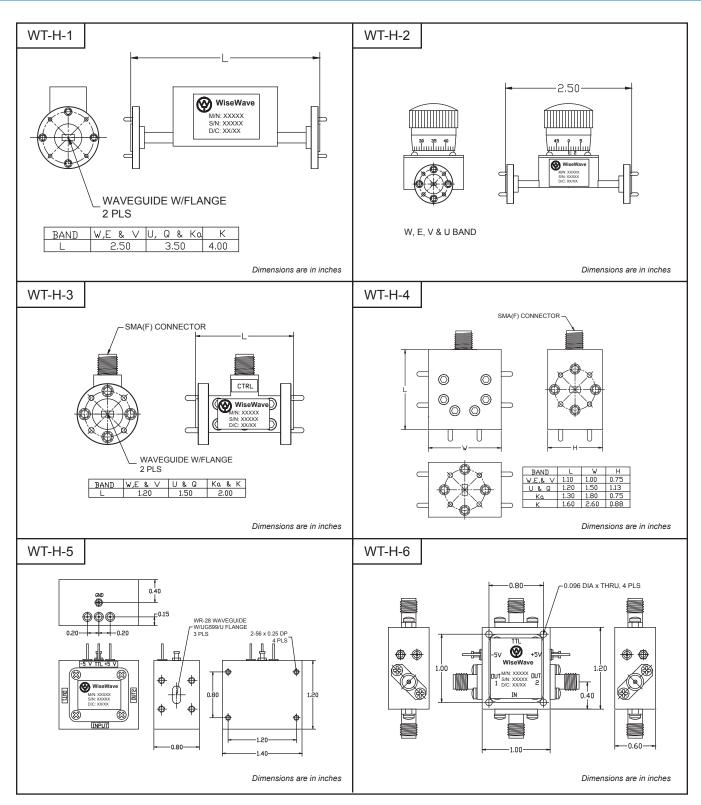
## **SPECIFICATIONS**

Waveguide Band	K	Ka	Q	U	V	E	W
Model Number	CAR-4250	CAR-2850	CAR-2250	CAR-1950	CAR-1550	CAR-1250	CAR-1050
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
Insertion Loss (dB) <sup>2</sup>	0.5	0.5	0.6	0.6	0.8	0.8	1.0
Attenuation (dB)	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50
Accuracy (Max)	0.1 dB or 2% which ever is greater.						
Return Loss (dB)	20	23	23	23	20	20	20
Power Handling (W)	1.0	0.5	0.5	0.5	0.4	0.3	0.3
Power Rating (Maximum)	0.6	0.6	0.5	0.5	0.4	0.3	0.3
Insertion Length (Inches)	8.5	6.9	6.3	5.8	4.5	4.5	4.5

#### Note:

- 1. The attenuation range is above the insertion loss value;
- 2. The maximum attenuation setting is up to 60 dB;
- 3. Other waveguide bands are available upon request.





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.