

## 0 to 50 dB WR-12 Waveguide Direct Read Attenuator From 60 GHz to 90 GHz, Dial UG-387/U Flange



### SMW12AT5001

#### Features

- WR-12
- 60 to 90 GHz
- 0 to 50 dB minimum attenuation range
- Stable base with height adjustable feet (1/2 inch)
- UG-387/U Flange
- 1.20:1 Maximum VSWR
- 2% attenuation accuracy over most of the attenuation range.
- 0.2 Watt Maximum Power
- Easy to read drum scale

#### Applications

- System Calibration
- Instrumentation
- Test Benches
- Research and Development

#### Description

The SMW12AT5001 is a continuously variable attenuator that has “direct read” capability which allows the user to dial-in the amount of attenuation needed to within 2% accuracy over most of the attenuation range. Designed for the WR-12 frequency range (60 to 90 GHz), it is constructed using a precision rotary resistive vane in a circular waveguide. The attenuation level is stable, highly repeatable and accurate across the full frequency and attenuation range. This attenuator is ideal for precision measurements in demanding applications like instrumentation and system calibration.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	60		90	GHz
Attenuation	0		50	dB
Accuracy %		±2	±4	%
VSWR			1.2:1	
Insertion Loss			0.9	dB
Input Power, CW			0.2	Watts

#### Attenuation Accuracy

Description	F1	F2	F3	F4	F5	Units
Attenuation Setting	10	20	30	40	50	dB
Accuracy	±0.2	±0.4	±0.6	±1.6	±2	dB

#### Electrical Specification Notes:

Attenuation Accuracy is 0.1 dB or 2% of reading, whichever is greater, to 40 dB and 4% of reading from 40 dB to 50 dB.  
Maximum attenuation setting is 60 dB

#### Mechanical Specifications

##### Size

Length	4.77 in [121.16 mm]
Width	3.86 in [98.04 mm]
Height	0 in [0 mm]
Weight	2.5728 lbs [1.17 kg]

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### SMW12AT5001

Tuner Body Material and Plating  
Tuner Finish

Aluminum  
Black

#### Configuration

#### Connectors

Description	Flange 1	Waveguide	Flange 2
Designation	UG-387/U	WR-12	UG-387/U
Type	Round Cover		Round Cover
Material	Brass	Brass	Brass
Plating	Gold	Gold	Gold
Plating Specification	ASTMB488	ASTMB488	ASTMB488
Finish	Gold	Gold	Gold

#### Environmental Specifications

##### Temperature

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

0 to 50 dB WR-12 Waveguide Direct Read Attenuator From 60 GHz to 90 GHz, Dial UG-387/U Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

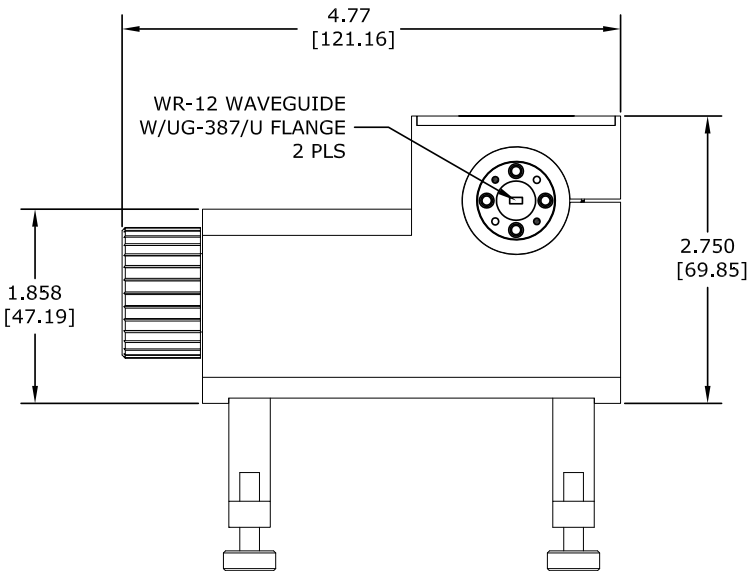
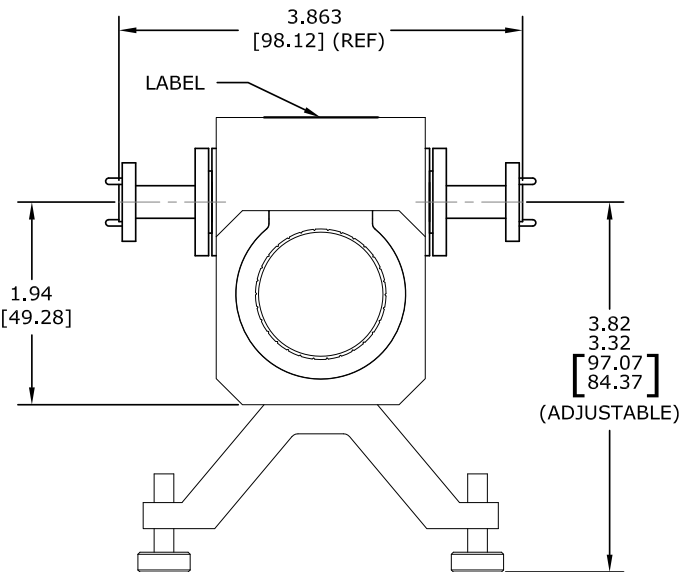
For additional information on this product, please click the following link: [0 to 50 dB WR-12 Waveguide Direct Read Attenuator From 60 GHz to 90 GHz, Dial UG-387/U Flange SMW12AT5001](#)

URL: <https://www.fairviewmicrowave.com/50-db-wr-12-waveguide-direct-read-attenuators-90-ghz-smw12at5001-p.aspx>

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SMW12AT5001 CAD Drawing

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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN: inches  
[mm]

TOLERANCES ARE:

.XX ± .10 [± 2.54]  
.XXX ± .005 [± .127]

\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

FAIRVIEW MICROWAVE INC.		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		DWG NO		CAGE CODE	
TITLE		SMW12AT5001		3FKR5	
		CAD FILE	120415	SHEET	SCALE N/A SIZE A 2233