

0 to 50 dB WR-42 Waveguide Direct Read Attenuator
From 18 GHz to 26.5 GHz, Dial UG-595/U Flange



SMW42AT5001

Features

- WR-42
- 18 to 26.5 GHz
- 0 to 50 dB minimum attenuation range
- Stable base with height adjustable feet (1/2 inch)
- UG-595/U Flange
- 1.15:1 Maximum VSWR
- 2% attenuation accuracy over most of the attenuation range.
- 1 Watt Maximum Power
- Easy to read drum scale

Applications

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

Description

The SMW42AT5001 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-42 frequency range (18 to 26.5 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	18		26.5	GHz
Attenuation	0		50	dB
Accuracy %		±2	±4	%
VSWR			1.15:1	
Insertion Loss			0.5	dB
Input Power, CW			1	Watt

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 4.74 in [120.4 mm]
- Width 9.38 in [238.25 mm]
- Height 5.4 in [137.16 mm]
- Weight 2.9895 lbs [1.36 kg]

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Tuner Body Material and Plating Aluminum
Tuner Finish Black

Configuration

Connectors

Description	Flange 1	Waveguide	Flange 2
Designation	UG-595/U	WR-42	UG-595/U
Type	Square Cover		Square 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-42 Waveguide Direct Read Attenuator From 18 GHz to 26.5 GHz, Dial UG-595/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.

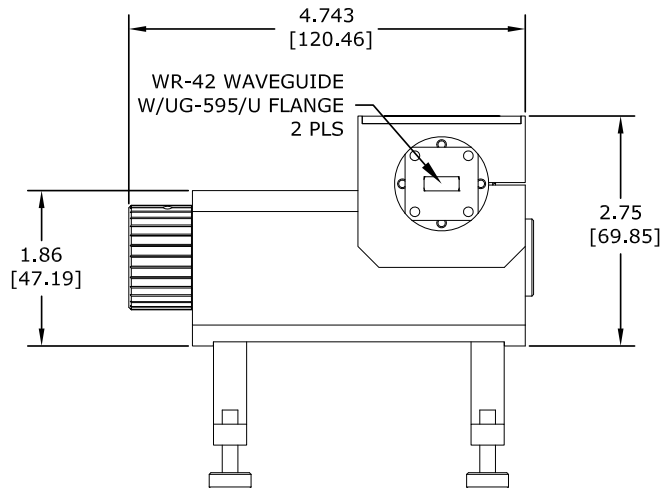
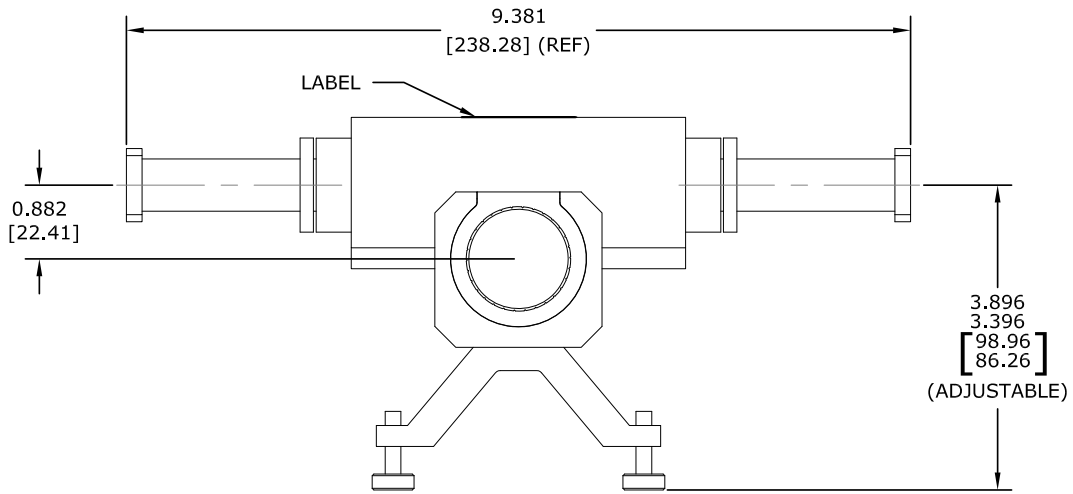
For additional information on this product, please click the following link: [0 to 50 dB WR-42 Waveguide Direct Read Attenuator From 18 GHz to 26.5 GHz, Dial UG-595/U Flange SMW42AT5001](#)

URL: <https://www.fairviewmicrowave.com/50-db-wr-42-waveguide-direct-read-attenuators-26.5-ghz-smw42at5001-p.aspx>

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SMW42AT5001 CAD Drawing

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN: inches
 TOLERANCES ARE: [mm]
 .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].			
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TITLE		CAD FILE	SHEET	SCALE	SIZE
		121415		N/A	A 2233