

WR-42 Standard Gain Horn Antenna Operating From 18 GHz to 26.5 GHz, 20 dBi Nominal Gain, UG-597/U Flange, Integrated Cage-Style Mount



FM1WAN042-20

Features

- WR-42 Rectangular Waveguide Interface
- 18 GHz to 26.5 GHz
- 20 dBi Nominal Gain
- UG-597/U Cover Flange
- K Band
- Ruggedized Aluminum Cage-Style Mount
- Integrates with Positioning Systems

Applications

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems

Description

The FM1WAN042-20 standard gain horn antenna (also known as waveguide horn) from Fairview Microwave has a nominal gain of 20 dBi. The Fairview Microwave 20 dBi WR-42 horn antenna operates from 18 GHz to 26.5 GHz (K Band). This WR-42 standard gain horn has a UG-597/U type flange and integrated cage-style mount. The mount is a ruggedized aluminum mounting solution that integrates with test and measurement positioning systems, ensuring precise alignment and protection of the antenna.

Waveguide standard gain horn antennas are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near constant electrical performance. These units are Aluminum and powder coated for increased resistance to weather and corrosion with a Horizontal and Vertical Beam Width of 17.5 and 17.3 degrees respectively.

Fairview Microwave's WR-42 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and rectangular input. K Band standard gain horn antenna can ship the same day to anywhere in the world. The WR-42 FM1WAN042-20 waveguide horn is part of over 40,000 RF, microwave and millimeter wave components available from Fairview Microwave.

Configuration

Design	WR-42
Polarization	Linear

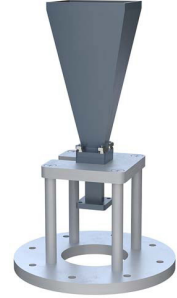
Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		26.5	GHz
Nominal Gain		20		dBi
Horizontal Half Power Beam Width		17.5		Degrees
Vertical Half Power Beam Width		17.3		Degrees
VSWR		1.3:1		

Mechanical Specifications

Size	
Length	2.44 in [61.98 mm]
Width	2.44 in [61.98 mm]
Height	7.64 in [194.06 mm]
Weight	0.7615 lbs [345.41 g]

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Waveguide Interface

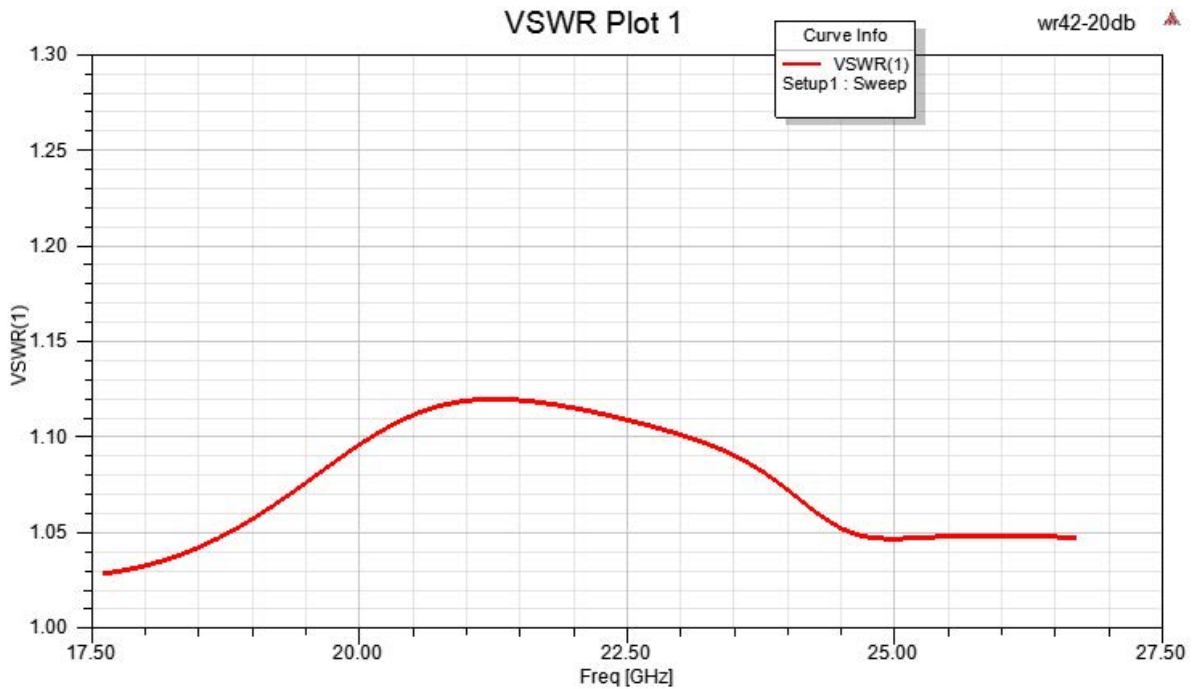
Waveguide Size	WR-42
Flange Type	Square Cover
Flange Designation	UG-597/U
Body Material and Plating	Aluminum, Gray

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

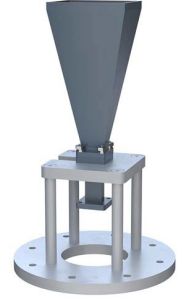
Plotted and Other Data

Notes:

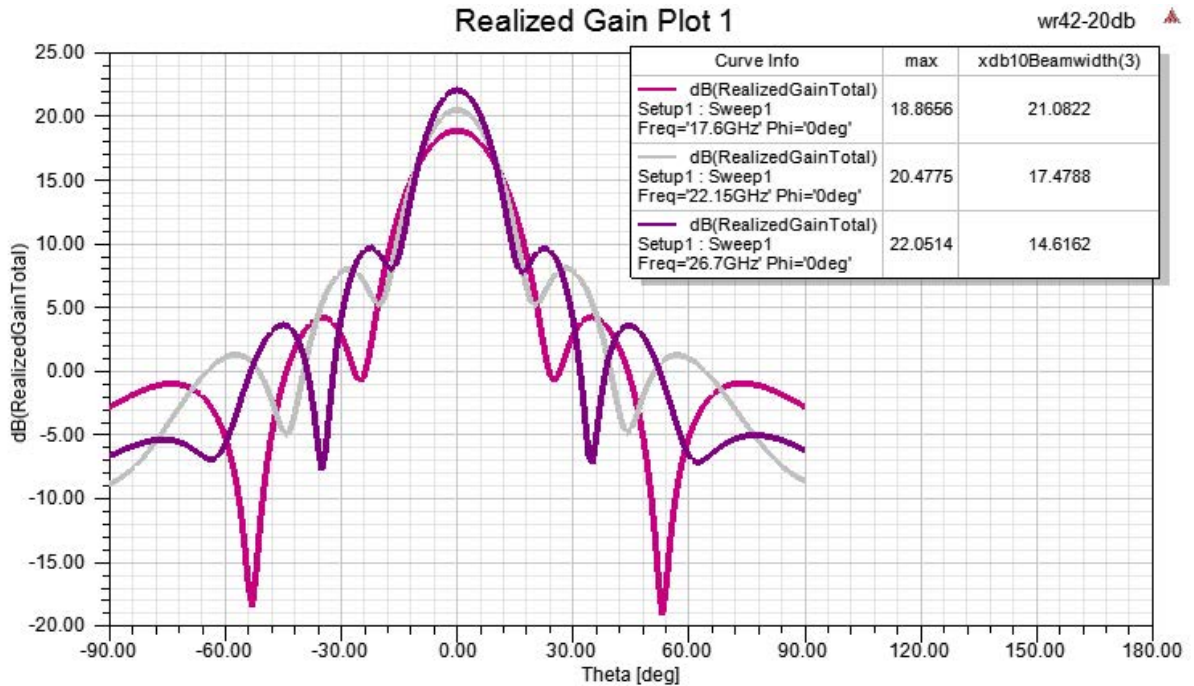
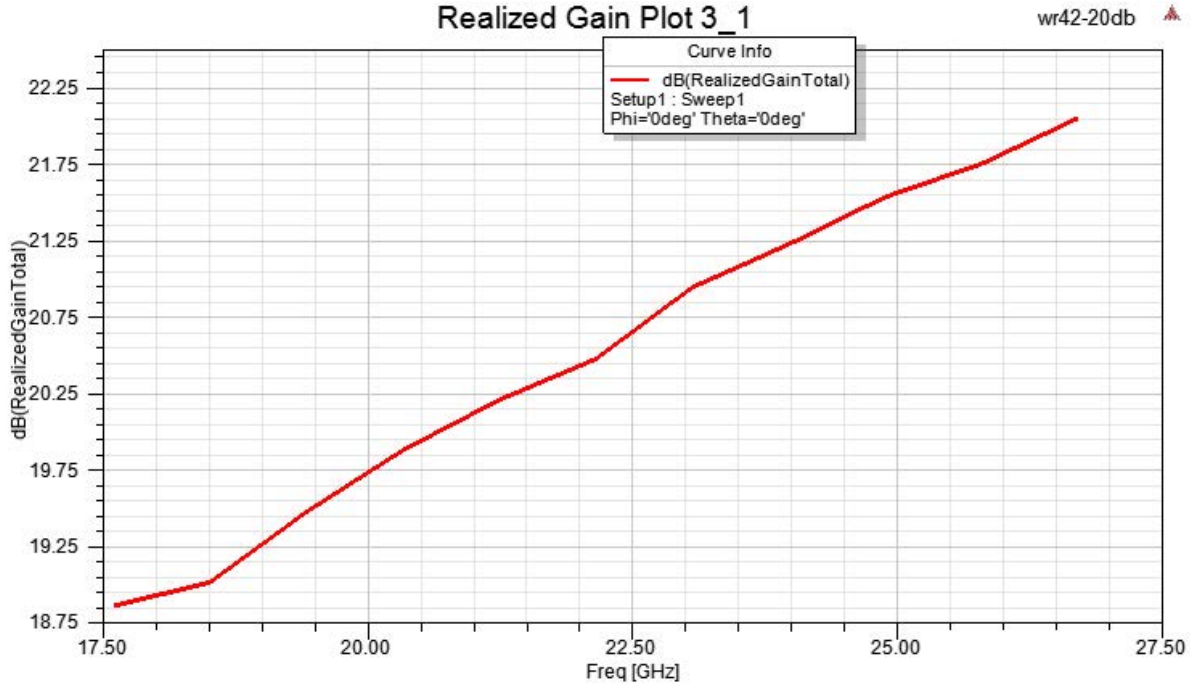
Typical Performance Data



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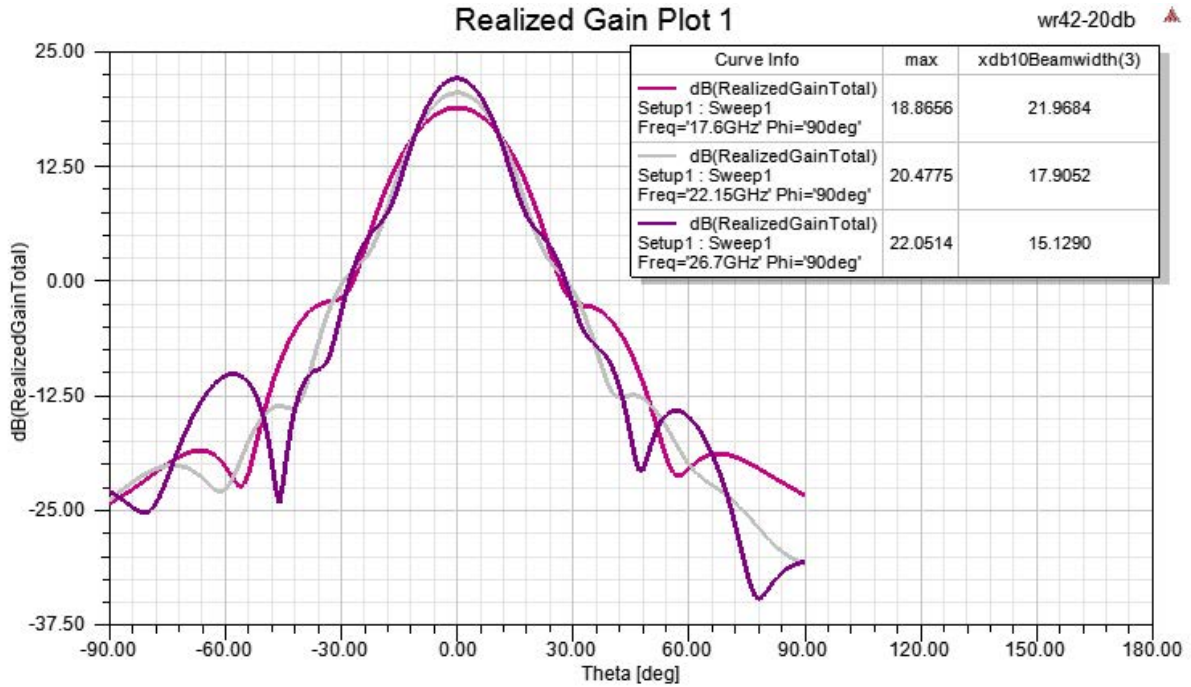
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WR-42 Standard Gain Horn Antenna Operating From 18 GHz to 26.5 GHz, 20 dBi Nominal Gain, UG-597/U Flange, Integrated Cage-Style Mount from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

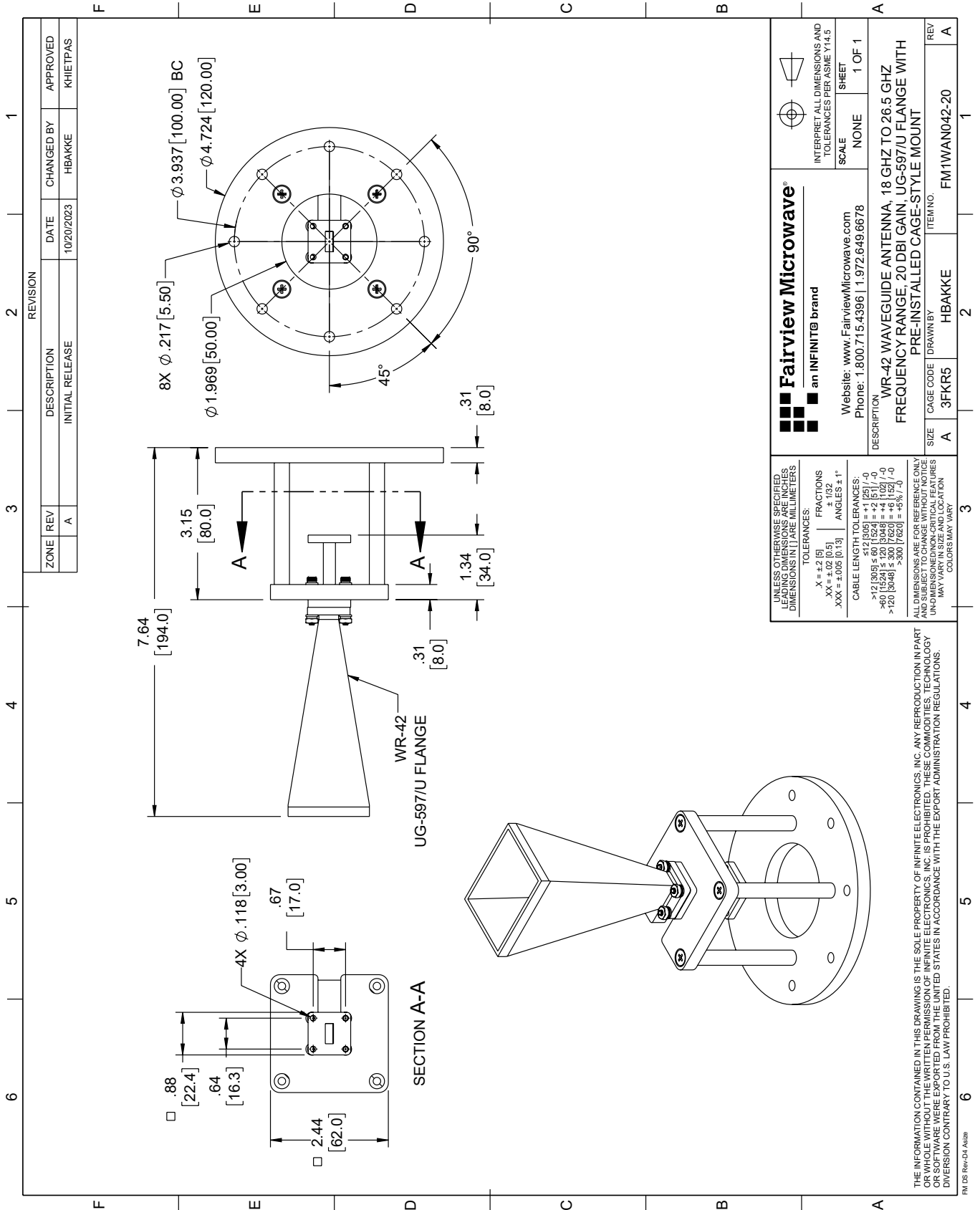
For additional information on this product, please click the following link: [WR-42 Standard Gain Horn Antenna Operating From 18 GHz to 26.5 GHz, 20 dBi Nominal Gain, UG-597/U Flange, Integrated Cage-Style Mount FM1WAN042-20](https://www.fairviewmicrowave.com/wr-42-waveguide-antenna-18-ghz-to-26.5-ghz-frequency-range-20-dbi-gain-ug-597-u-flange-integrated-cage-style-mount-fm1wan042-20)

URL: <https://www.fairviewmicrowave.com/wr-42-waveguide-antenna-18-ghz-to-26.5-ghz-frequency-range-20-dbi-gain-ug-597-u-flange-integrated-cage-style-mount-fm1wan042-20-p.aspx>

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FM1WAN042-20 CAD Drawing

WR-42 Standard Gain Horn Antenna Operating From 18 GHz to 26.5 GHz, 20 dBi Nominal Gain, UG-597/U Flange, Integrated Cage-Style Mount



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION	INITIAL RELEASE	
	A			KHETTPAS

 an INFINIT® brand		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
DESCRIPTION WR-42 WAVEGUIDE ANTENNA, 18 GHZ TO 26.5 GHZ FREQUENCY RANGE, 20 DBI GAIN, UG-597/U FLANGE WITH PRE-INSTALLED CAGE-STYLE MOUNT		SIZE: A CAGE CODE: 3FKR5 DRAWN BY: HBAKKE	ITEM NO.: FM1WAN042-20 REV: A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]
 FRACTIONS ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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FM DS Rev-D4 Alt26