



## WR-42 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount

### Technical Data Sheet

### PE1WAN042-20SF

#### Features

- 18 GHz to 26.5 GHz
- WR-42 Waveguide Band
- 20 dBi Nominal Gain
- SMA Female Connector
- Ruggedized Aluminum Cage-Style Mount
- Integrates with Positioning Systems

#### Applications

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems
- Radome Testing
- Automotive Antenna Test
- Solutions
- Radar Cross Section
- Satellite Antenna Testing

#### Description

The PE1WAN042-20SF standard gain horn antenna with integrated cage-style mount (also known as waveguide horn) from Pasternack is part of our comprehensive selection of waveguide antennas. The cage-style mount is a ruggedized aluminum mounting solution that integrates with test and measurement positioning systems, ensuring precise alignment and protection of the antenna. This standard gain horn is mated with a WR-42 to SMA Female waveguide to coaxial adapter and operates from 18 GHz to 26.5 GHz.

Our PE1WAN042-20SF standard gain horn antenna with integrated cage-style mount has a nominal gain of 20 dBi with a Horizontal and Vertical HPBW (Half Power Beam Width) of 17.5 dB and 17.3 dB respectively. Pasternack's SMA Female to WR-42 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the PE1WAN042-20SF are used in a wide variety of applications due to the high-power handling capability, low loss, high directivity, and near constant electrical performance. Our WR-42 waveguide antennas with SMA Female interface is part of over 40,000 RF, microwave and millimeter wave components from Pasternack available worldwide and ship same day.

#### Configuration

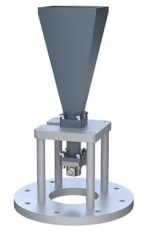
Design  
Coaxial Interface

WR-42 Standard Gain Horn  
SMA Female

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		26.5	GHz
<b>Waveguide Standard Gain Horn</b>				
Gain		20		dBi
Horizontal Half Power Beam Width		17.5		Degrees
Vertical Half Power Beam Width		17.3		Degrees
<b>Waveguide to Coaxial Adapter</b>				
Input VSWR			1.3:1	

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-42 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount PE1WAN042-20SF](#)



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### Mechanical Specifications

#### Size

Length	4.724 in [119.99 mm]
Width	4.724 in [119.99 mm]
Height	7.64 in [194.06 mm]
Weight	0.7844 lbs [355.8 g]

#### RF Connector

Type	SMA Female
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#### Waveguide Interface

Waveguide Size	WR-42
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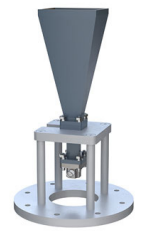
### Environmental Specifications

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

### Plotted and Other Data

Notes:

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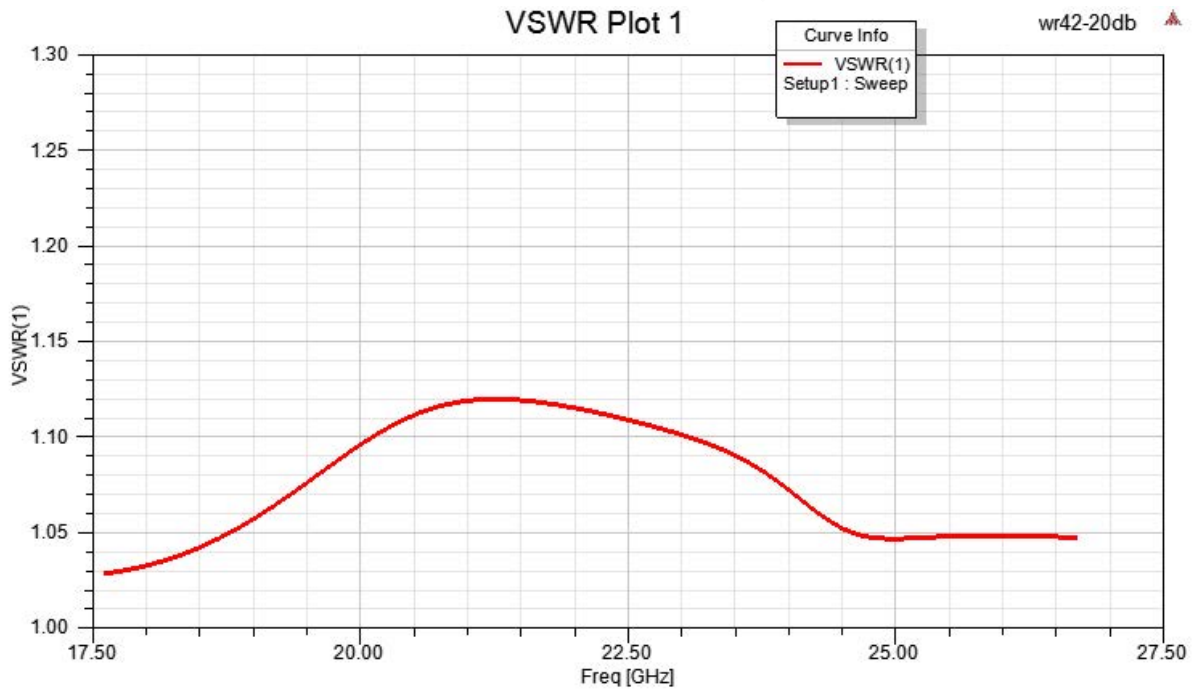


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Typical Performance Data



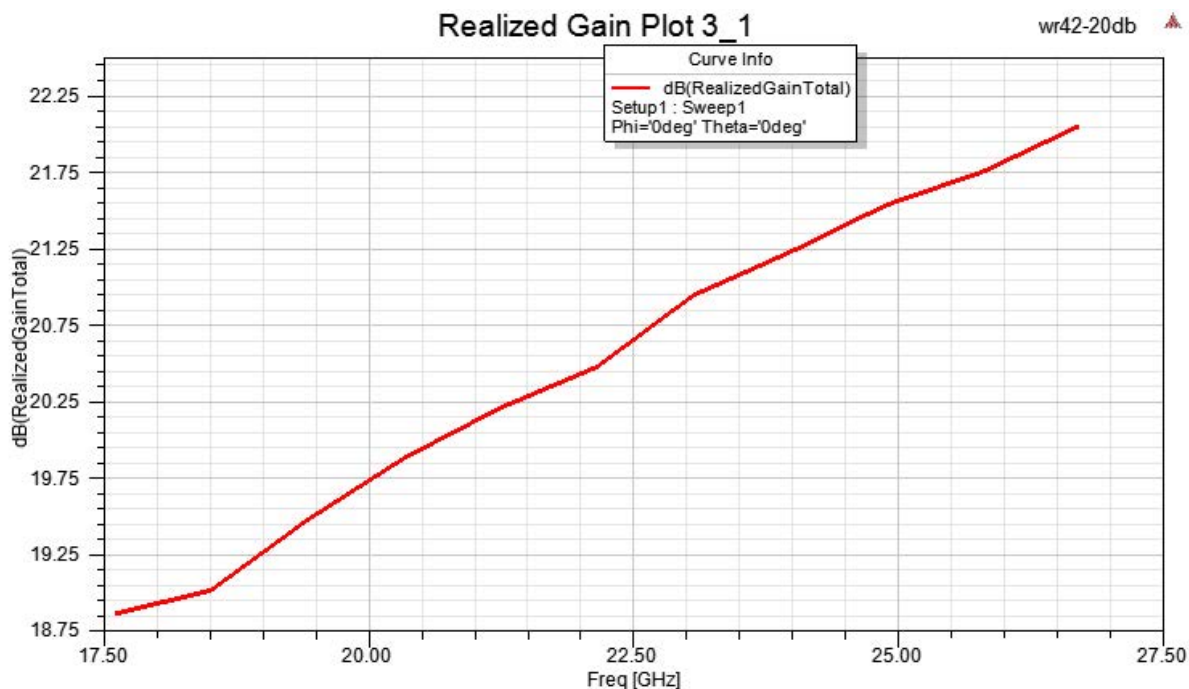
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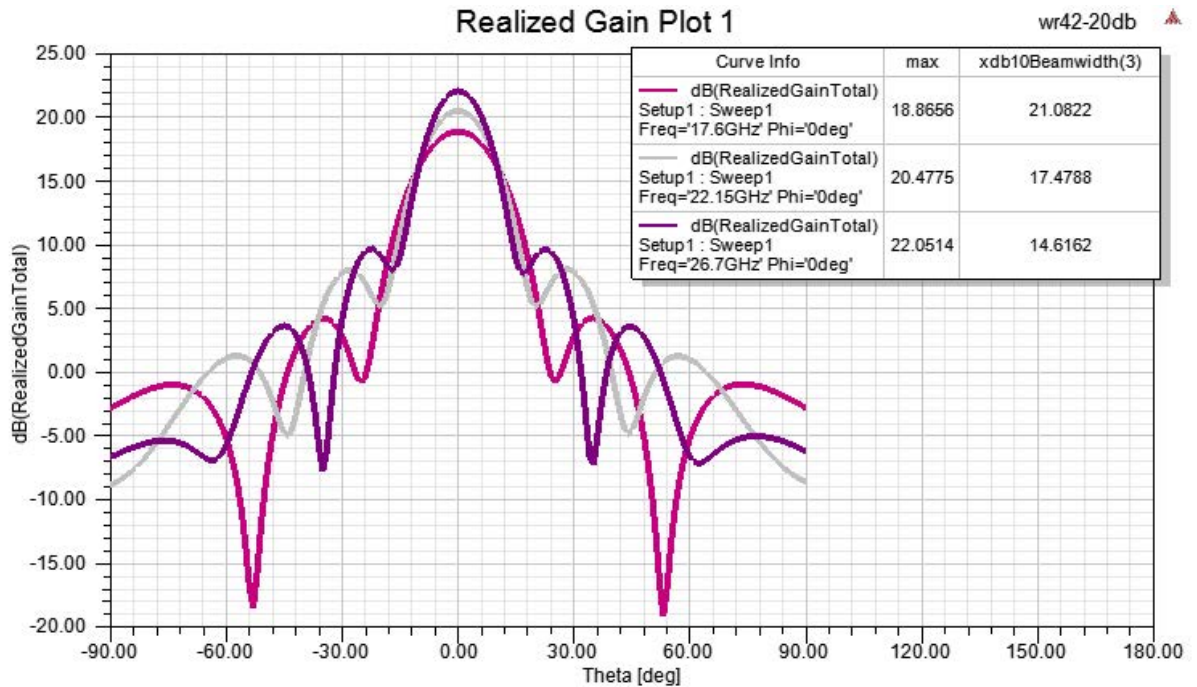
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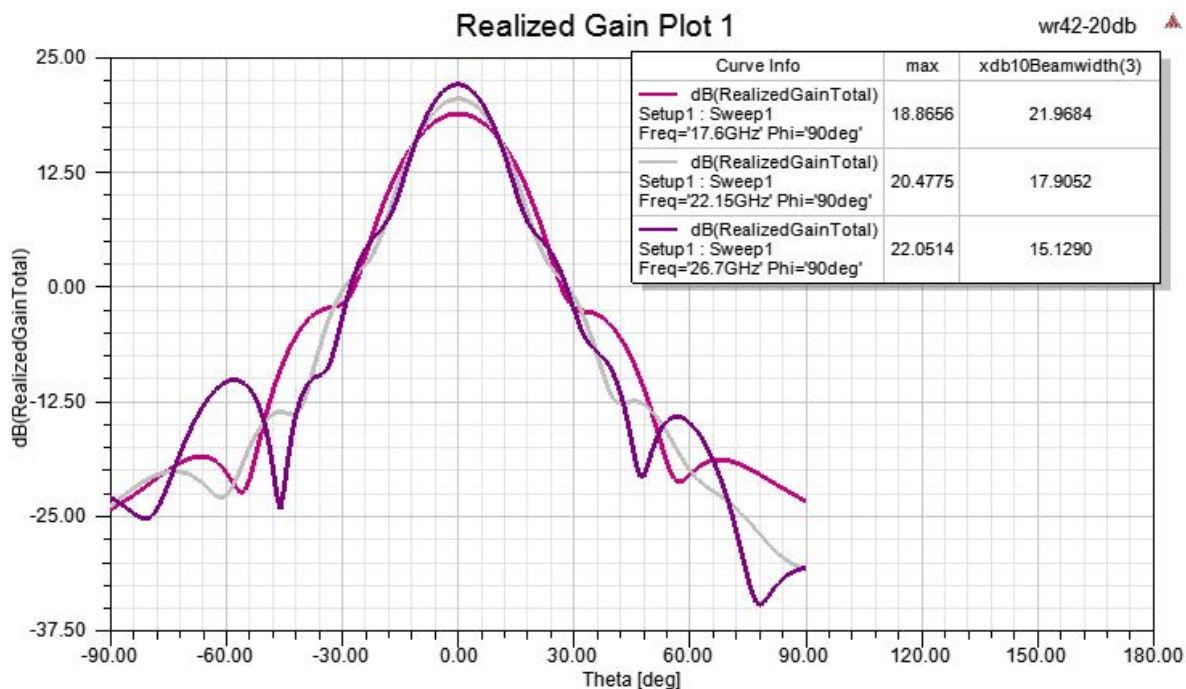
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**PE1WAN042-20SF**



WR-42 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-42 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount PE1WAN042-20SF](https://www.pasternack.com/wr-42-standard-gain-horn-with-20-dbi-gain-sma-female-connector-integrated-cage-style-mount-pe1wan042-20sf-p.aspx)

URL: <https://www.pasternack.com/wr-42-standard-gain-horn-with-20-dbi-gain-sma-female-connector-integrated-cage-style-mount-pe1wan042-20sf-p.aspx>

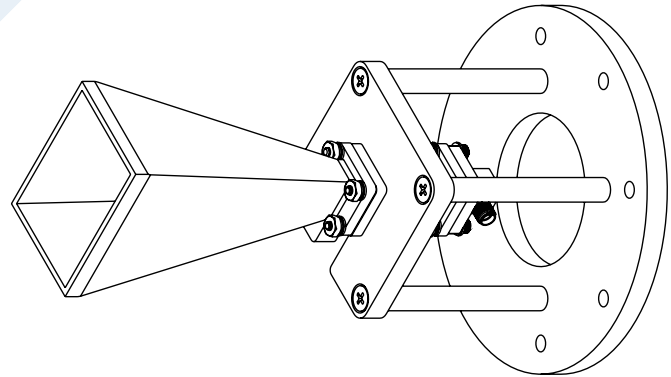
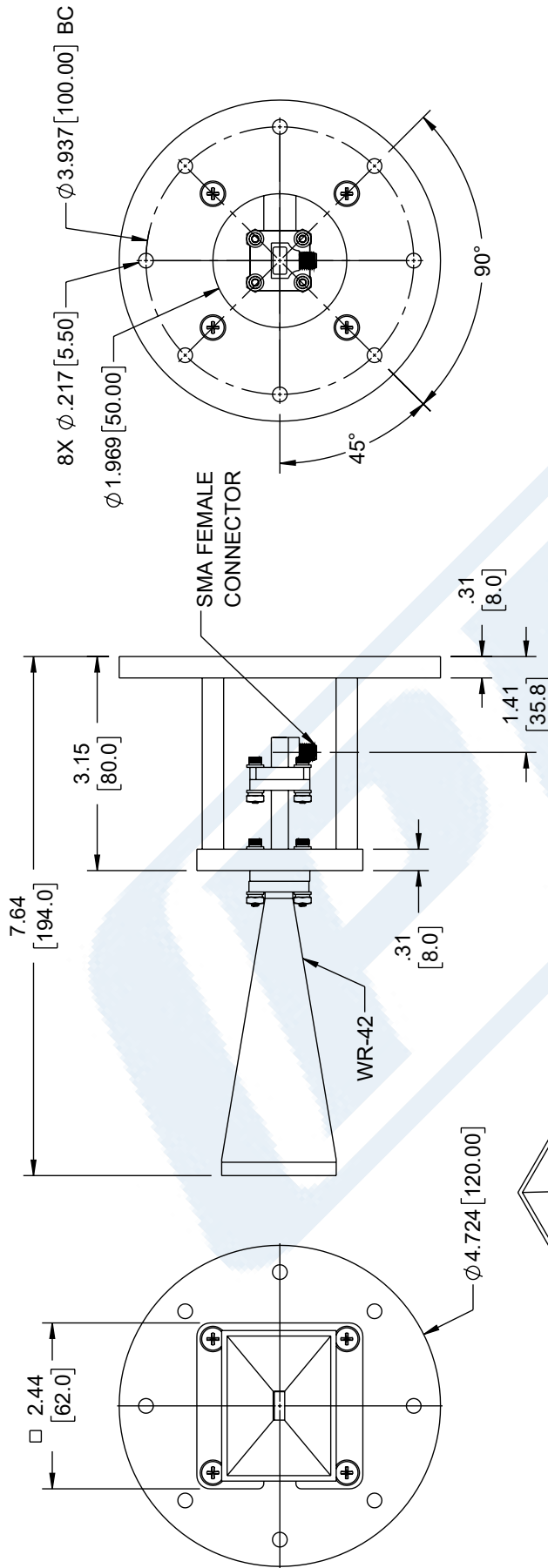
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# PE1WAN042-20SF CAD Drawing

WR-42 Standard Gain Horn with 20 dBi gain, SMA Female connector, Integrated Cage-Style Mount

REVISION			
ZONE	REV	DESCRIPTION	DATE
	A	INITIAL RELEASE	10/20/2023
		CHANGED BY	HBAKKE
		APPROVED	KHIETPAS



<b>PASTERNAK</b> an INFINIT® brand		 SCALE: NONE SHEET: 1 OF 1	
Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920		DESCRIPTION: <b>WR-42 STANDARD GAIN HORN WITH 20 DBI GAIN, SMA FEMALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE MOUNT</b>	
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] ≤ 30 [762] = ±.125 / -0 >30 [762] ≤ 60 [1524] = ±.25 / -0 >60 [1524] ≤ 120 [3048] = ±.5 / -0 >120 [3048] ≤ 300 [7620] = ±.75 / -0 >300 [7620] = +5% / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, DIMENSIONS IN [ ] ARE MILLIMETERS. DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.		SIZE: A CAGE CODE: 53919 DRAWN BY: HBAKKE ITEM NO.: PE1WAN042-20SF REV: A	1

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