

WR-51 Standard Gain Horn with 20 dBi gain, End Launch SMA Female Connector, Integrated Cage-Style Mount



PE1WAN051-20ELSF

Features

- 15 GHz to 22 GHz
- WR-51 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 PE1WAN051-20ELSF 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-51 to SMA Female End Launch waveguide to coaxial adapter and operates from 15 GHz to 22 GHz.

Our PE1WAN051-20ELSF 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 17.50 and 17.30 degrees respectively. Pasternack's SMA Female End Launch to WR-51 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the PE1WAN051-20ELSF 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-51 waveguide antennas with SMA Female End Launch interface is part of over 40,000 RF, microwave and millimeter wave components from Pasternack available worldwide and ship same day.

Configuration

Design	WR-51
Polarization	Linear
Coaxial Interface	SMA Female

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	15		22	GHz
Gain		20		
Horizontal Half Power Beam Width		17.5		Degrees
Vertical Half Power Beam Width		17.3		Degrees
Waveguide to Coaxial Adapter				
VSWR		1.3:1		

Mechanical Specifications

Size	
Length	14.772 in [375.21 mm]
Width	7 in [177.8 mm]
Height	6.7 in [170.18 mm]

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Weight 1.181 lbs [535.69 g]

RF Connector

Type SMA Female
Specification End Launch
Body Material and Plating Passivated Stainless Steel

Waveguide Interface

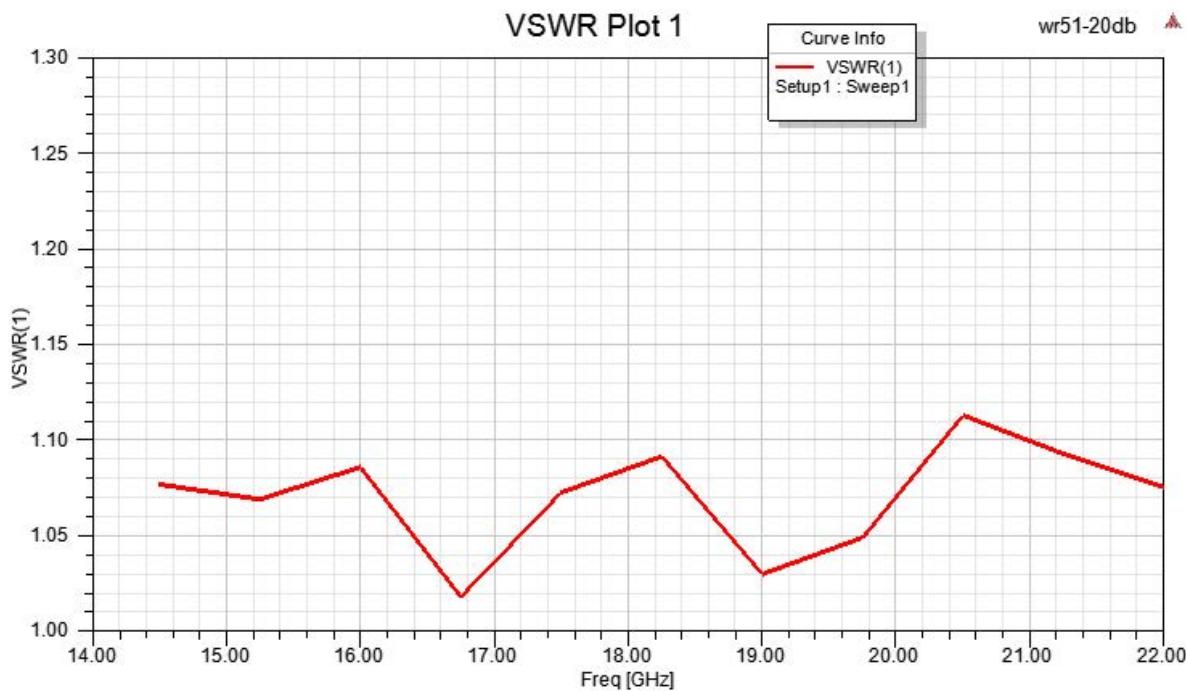
Waveguide Size WR-51
Flange Type Square Cover
Flange Designation None
Body Material and Plating Aluminum

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

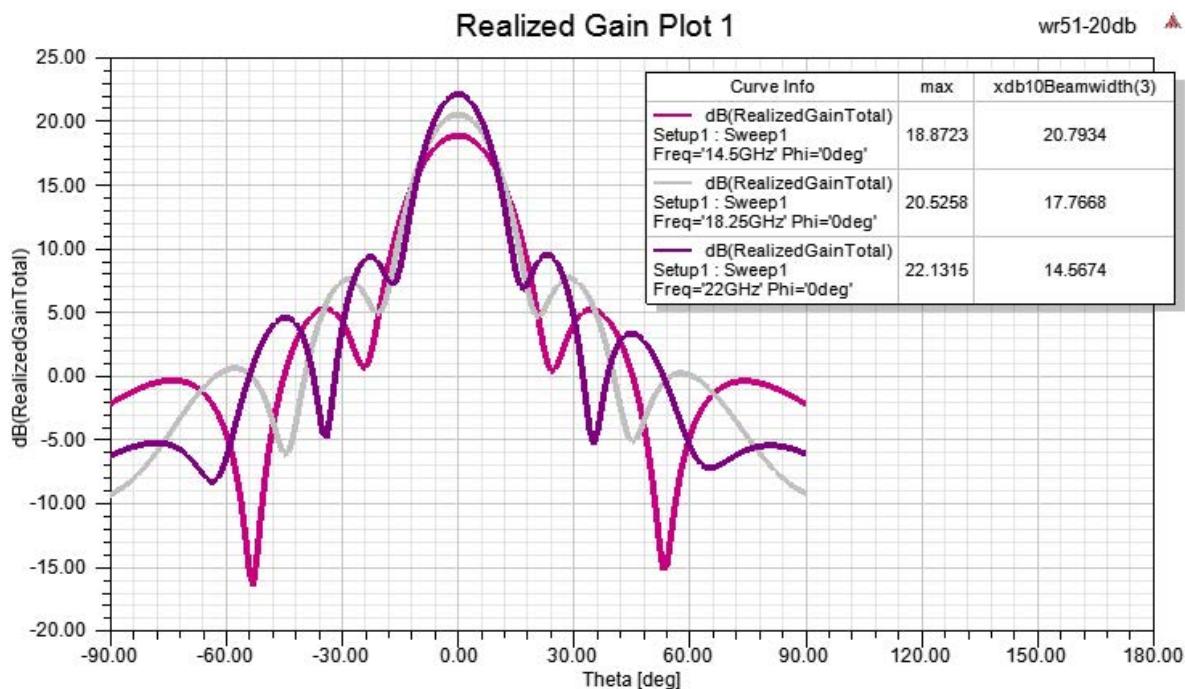
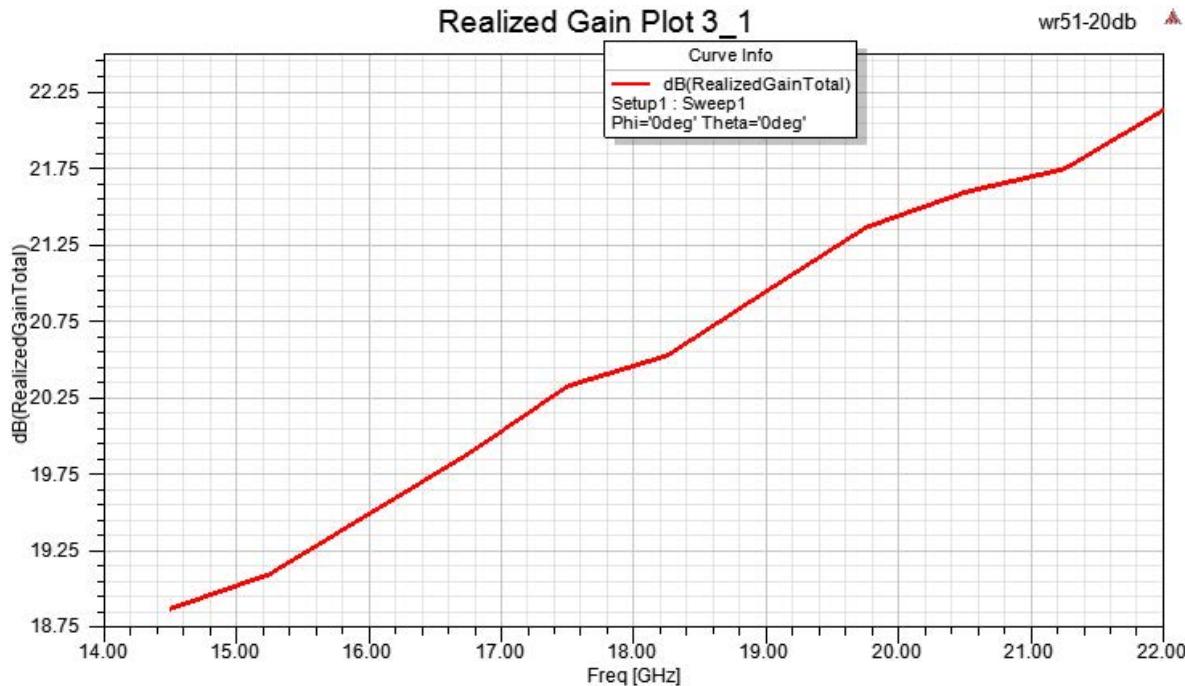
Typical Performance Data



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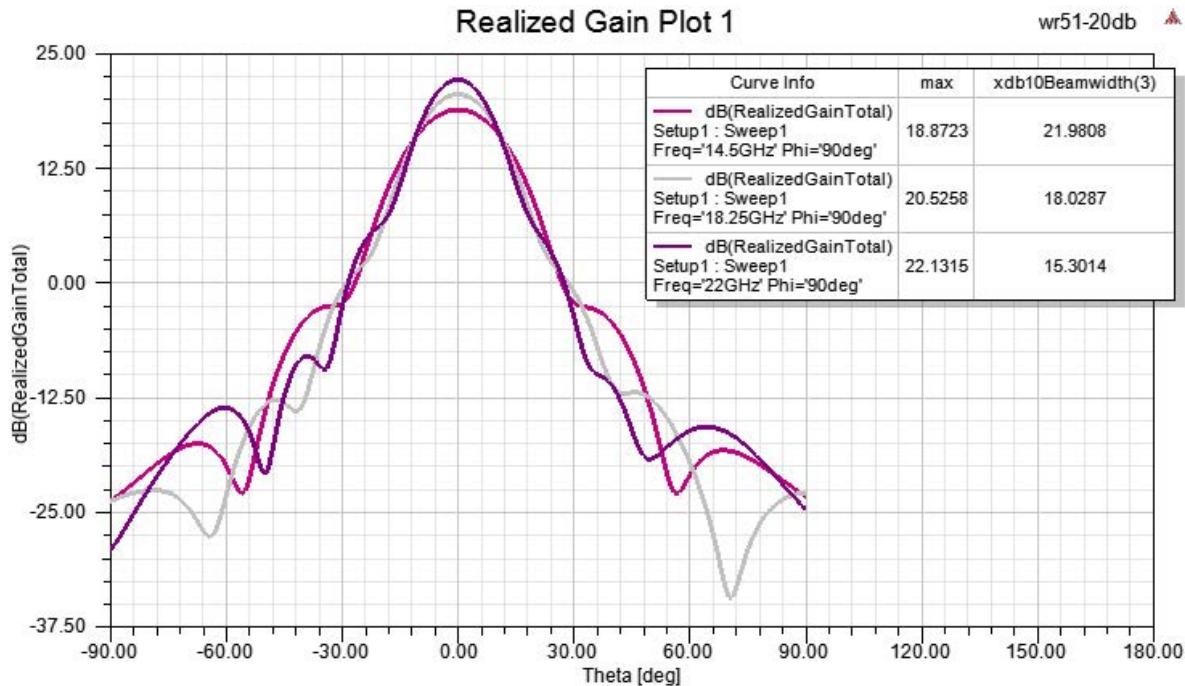
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WR-51 Standard Gain Horn with 20 dBi gain, End Launch SMA Female Connector, Integrated Cage-Style Mount from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain 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-51 Standard Gain Horn with 20 dBi gain, End Launch SMA Female Connector, Integrated Cage-Style Mount PE1WAN051-20ELSF](#)

URL: <https://www.pasternack.com/wr-51-waveguide-standard-gain-horn-antenna-20-db-sma-pe1wan051-20elsf-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE1WAN051-20ELSF CAD Drawing

WR-51 Standard Gain Horn with 20 dBi gain, End Launch SMA Female Connector, Integrated Cage-Style Mount

