

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

FM1WAN051-20SF



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 FM1WAN051-20SF standard gain horn antenna with integrated cage-style mount (also known as waveguide horn) from Fairview Microwave 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 waveguide to coaxial adapter and operates from 15 GHz to 22 GHz.

Our FM1WAN051-20SF 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 17.50 and 17.30 degrees respectively. Fairview Microwave's SMA Female 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 FM1WAN051-20SF 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-51 waveguide antennas with SMA Female interface is part of over 40,000 RF, microwave and millimeter wave components from Fairview Microwave 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	22.492 in [571.3 mm]
Width	7 in [177.8 mm]
Height	6.7 in [170.18 mm]

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Weight 1.058 lbs [479.9 g]

RF Connector

Type SMA Female
Body Material and Plating Brass, Nickel

Waveguide Interface

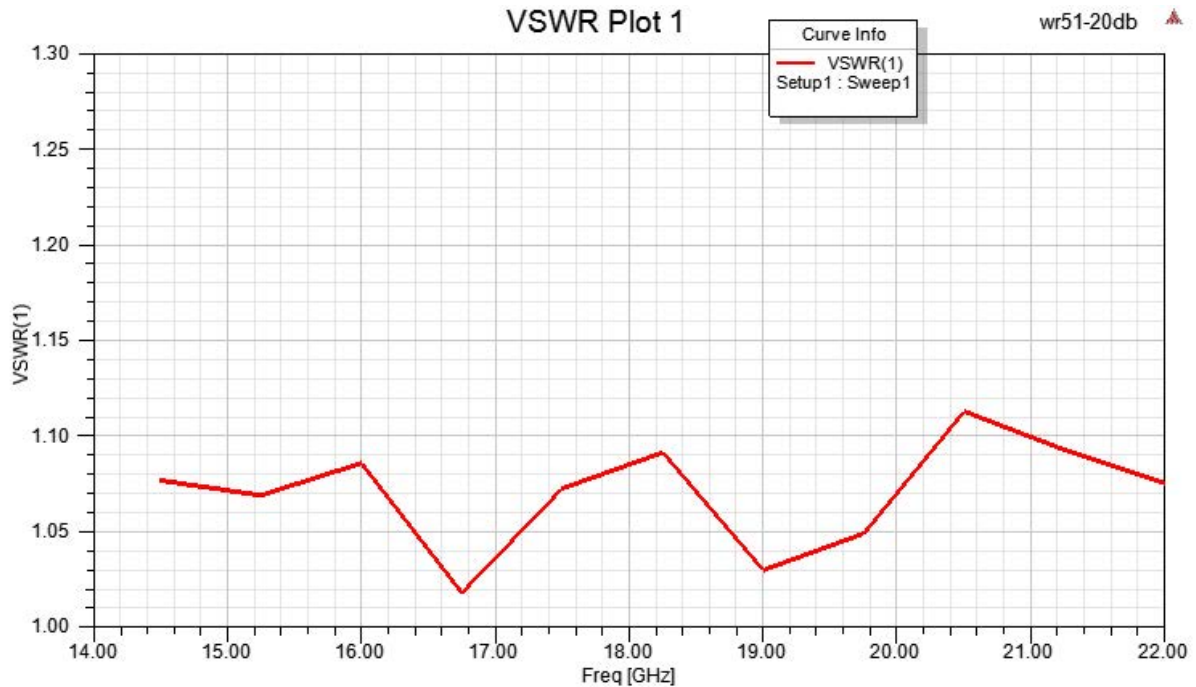
Waveguide Size WR-51
Flange Type Square Cover
Flange Designation None
Body Material and Plating Aluminum

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

Plotted and Other Data

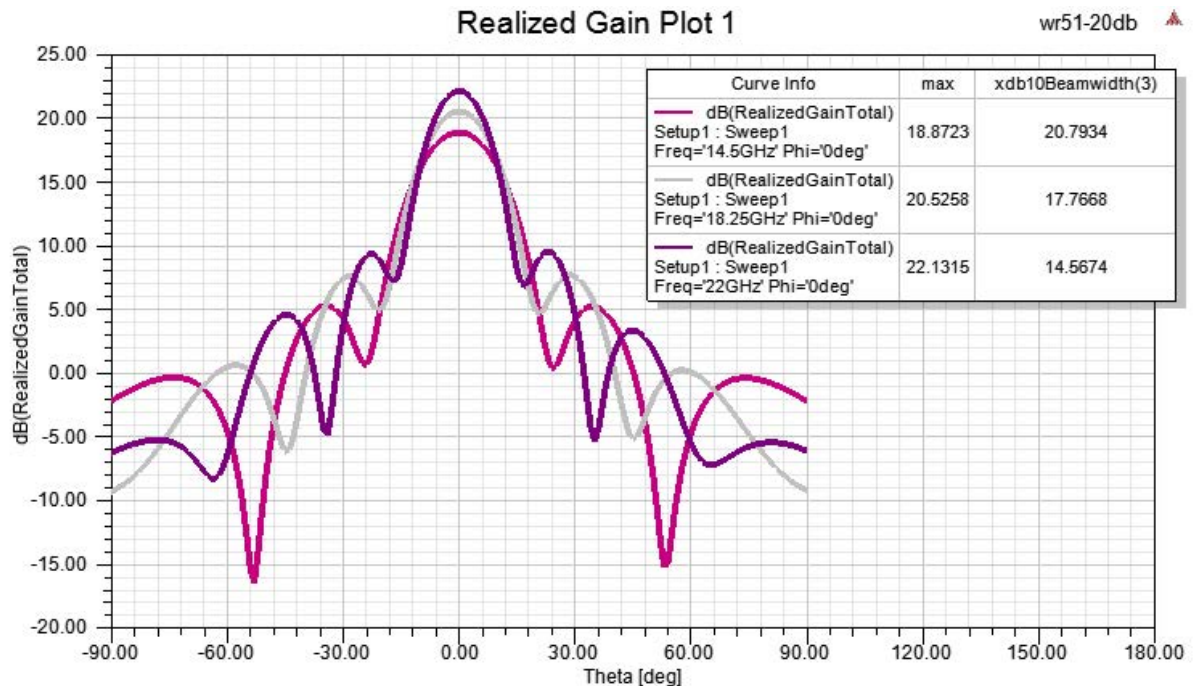
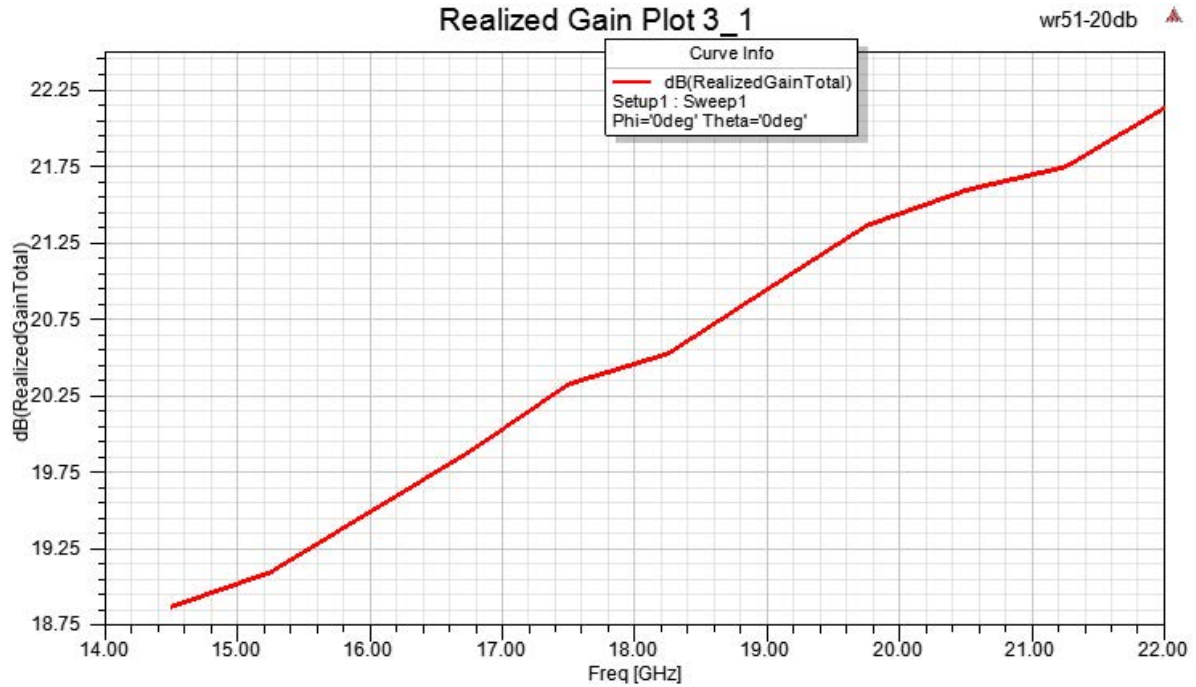
Notes:

Typical Performance Data



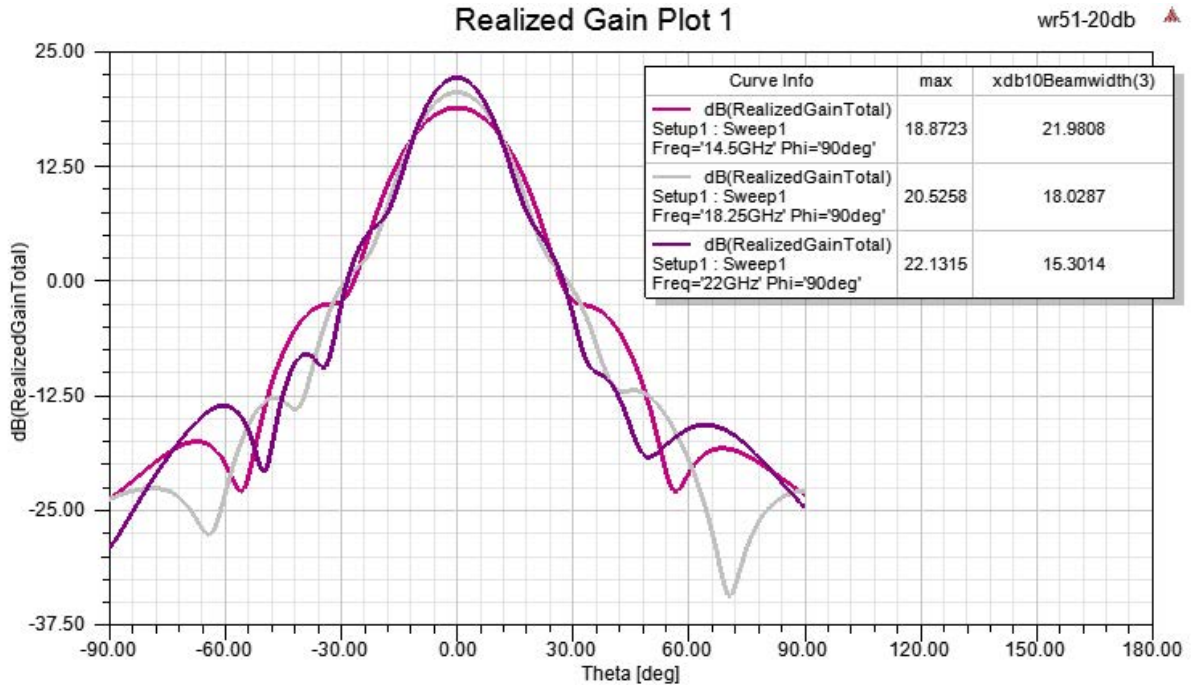
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WR-51 Standard Gain Horn with 20 dBi gain, SMA Female Connector, Integrated Cage-Style Mount from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-51 Standard Gain Horn with 20 dBi gain, SMA Female Connector, Integrated Cage-Style Mount FM1WAN051-20SF](https://www.fairviewmicrowave.com/wr-51-standard-gain-horn-20-db-sma-fm1wan051-20sf-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr-51-standard-gain-horn-20-db-sma-fm1wan051-20sf-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FM1WAN051-20SF CAD Drawing

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

