

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

### FM1WAN051-20ELSF



#### 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 FM1WAN051-20ELSF 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 End Launch waveguide to coaxial adapter and operates from 15 GHz to 22 GHz.

Our FM1WAN051-20ELSF 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. Fairview Microwave'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 FM1WAN051-20ELSF 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 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
<b>Waveguide to Coaxial Adapter</b>				
VSWR		1.3:1		

#### Mechanical Specifications

<b>Size</b>	
Length	14.772 in [375.21 mm]
Width	7 in [177.8 mm]
Height	6.7 in [170.18 mm]

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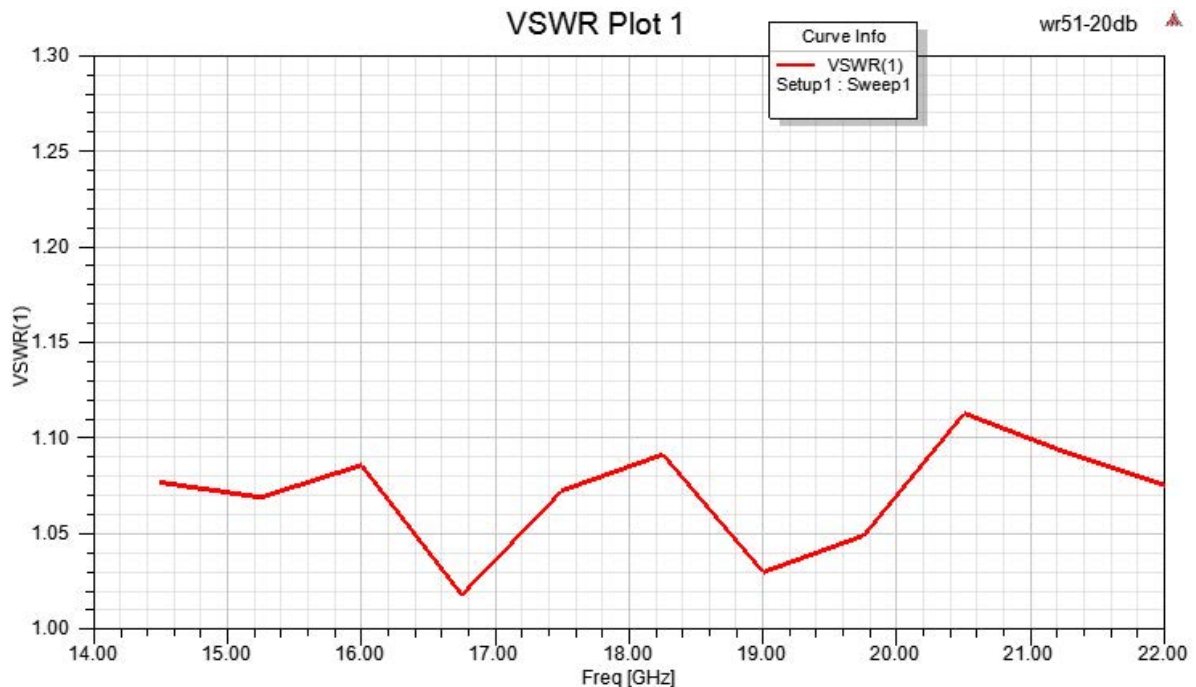
Weight	1.181 lbs [535.69 g]
<b>RF Connector</b>	
Type	SMA Female
Specification	End Launch
Body Material and Plating	Passivated Stainless Steel
<b>Waveguide Interface</b>	
Waveguide Size	WR-51
Flange Type	Square Cover
Flange Designation	None
Body Material and Plating	Aluminum

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

### Plotted and Other Data

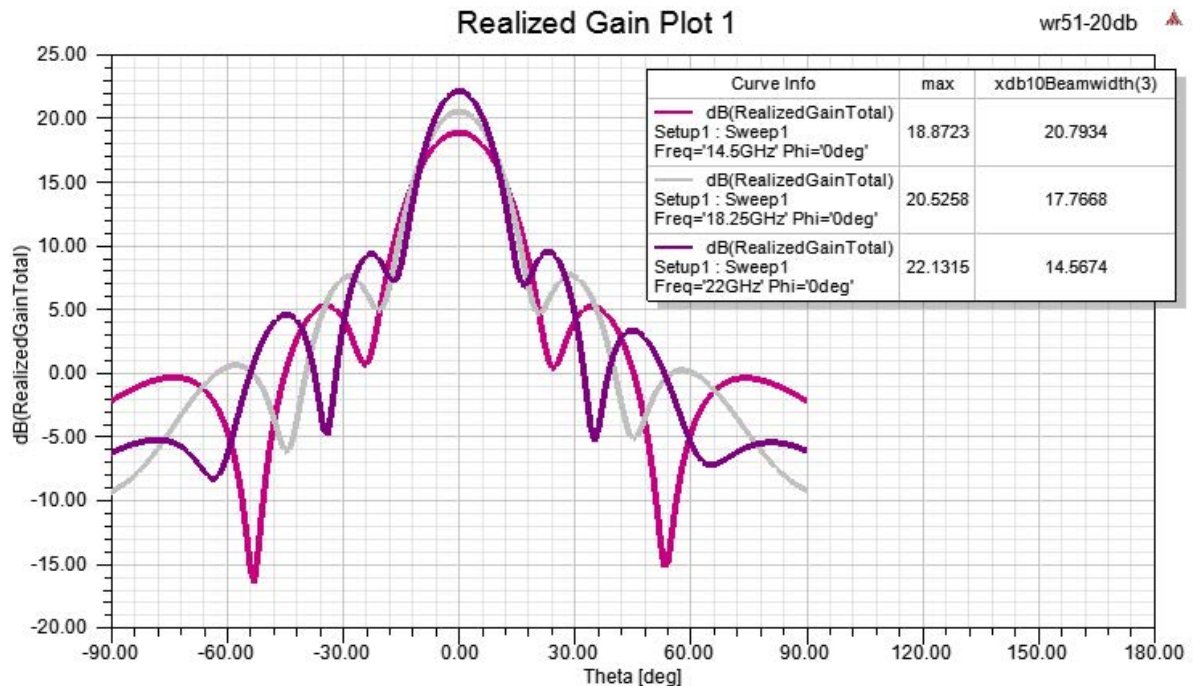
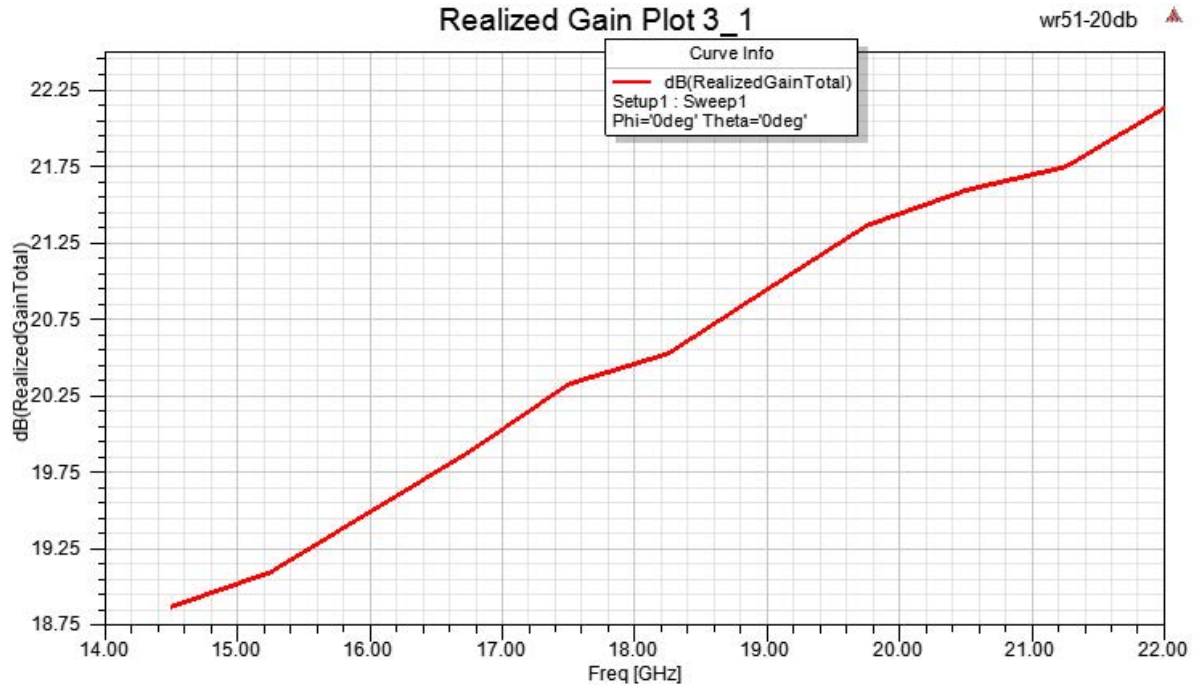
Notes:

### Typical Performance Data



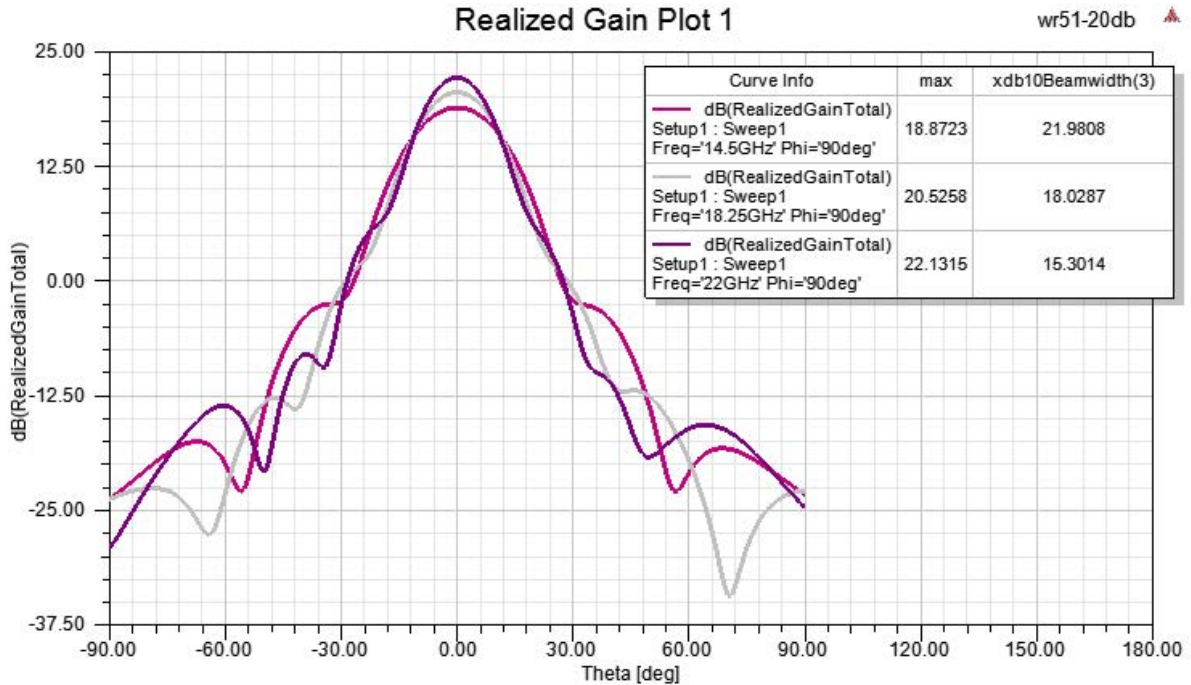
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WR-51 Standard Gain Horn with 20 dBi gain, End Launch SMA Female Connector, Integrated Cage-Style Mount from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 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, End Launch SMA Female Connector, Integrated Cage-Style Mount FM1WAN051-20ELSF](#)

URL: <https://www.fairviewmicrowave.com/wr-51-standard-gain-horn-20-db-sma-fm1wan051-20elsf-p.aspx>

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FM1WAN051-20ELSF CAD Drawing

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

