

## WR-159 Standard Gain Horn with 20 dBi gain, SMA Female connector

The FMWAN159-20SF standard gain horn antenna (also known as waveguide horn) from Fairview Microwave is part of our comprehensive selection of waveguide antennas. This standard gain horn is mated with a WR-159 to SMA Female waveguide to coaxial adapter and operates from 4.9 GHz to 7.05 GHz.

Our FMWAN159-20SF standard gain horn antenna 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. Fairview Microwave's SMA Female to WR-159 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the FMWAN159-20SF 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-159 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-159 Standard Gain Horn  
Coaxial Interface SMA Female

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	4.9		7.05	GHz
<b>Waveguide Standard Gain Horn</b>				
Gain		20		dBi
Horizontal 3dB Beam Width		17.5		Degrees
Vertical 3dB Beam Width		17.3		Degrees
<b>Waveguide to Coaxial Adapter</b>				
Input VSWR			1.3:1	

### Mechanical Specifications

**Size**  
Length 17.912 in 454.96 mm  
Width/Diameter 7.775 in 197.49 mm  
Height 5.769 in 146.53 mm  
Weight 2.3505 lbs 1.07 kg

**RF Connector**  
Type SMA Female

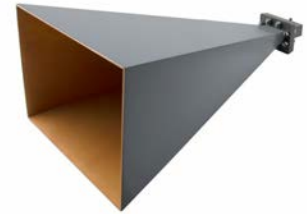
**Waveguide Interface**  
Waveguide Size WR-159

### Environmental Specifications

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

### Plotted and Other Data

Notes:



### Features:

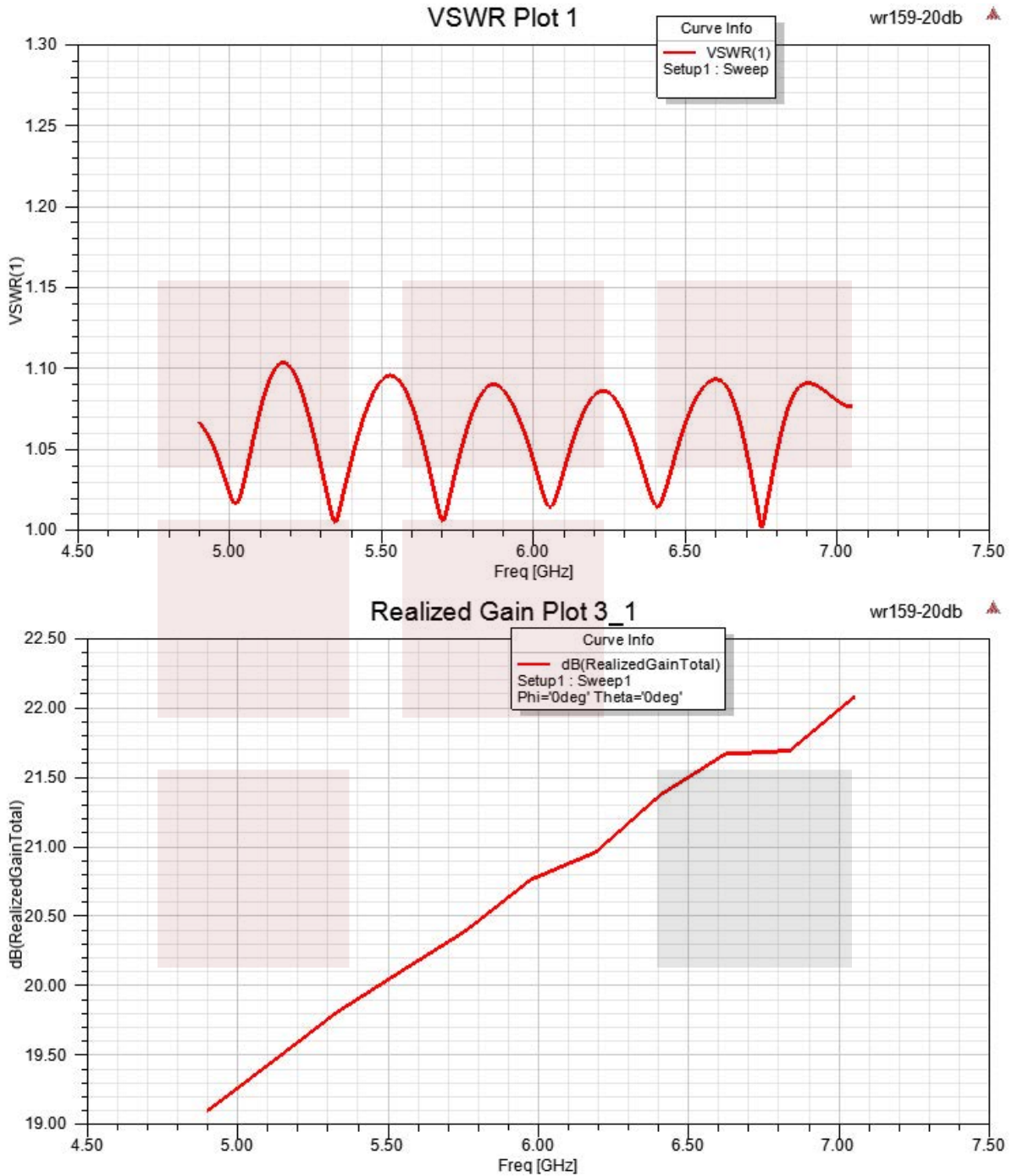
- 4.9 GHz to 7.05 GHz
- WR-159 Waveguide Band
- 20 dBi Nominal Gain
- SMA Female Connector

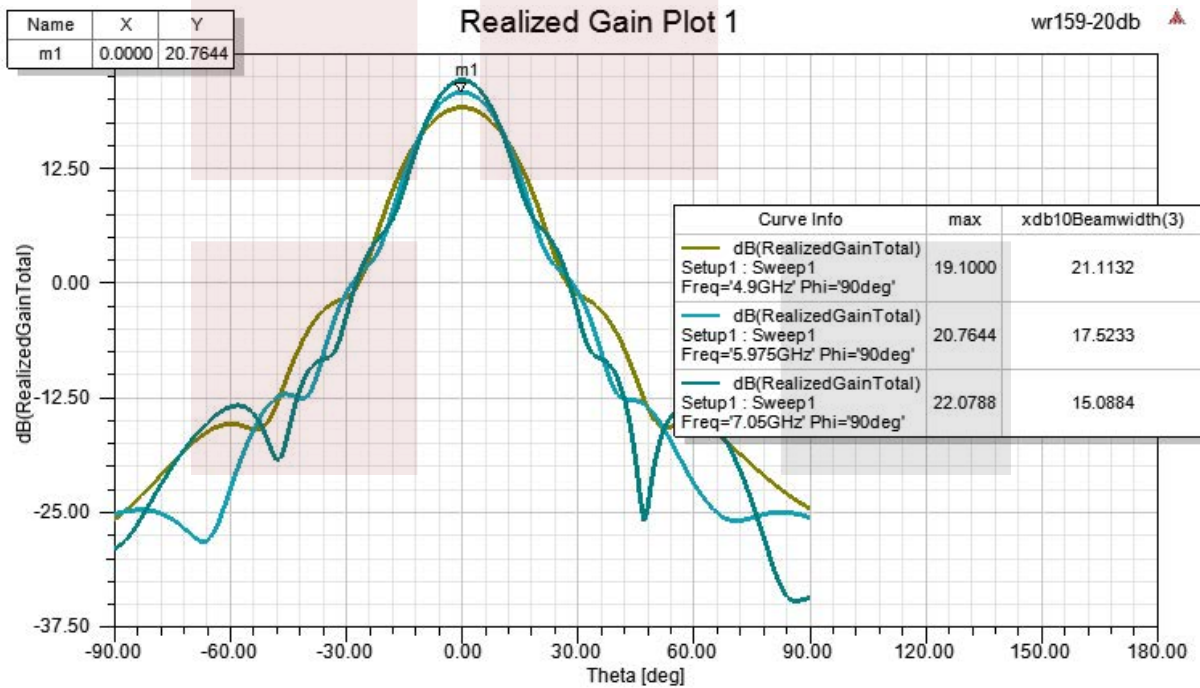
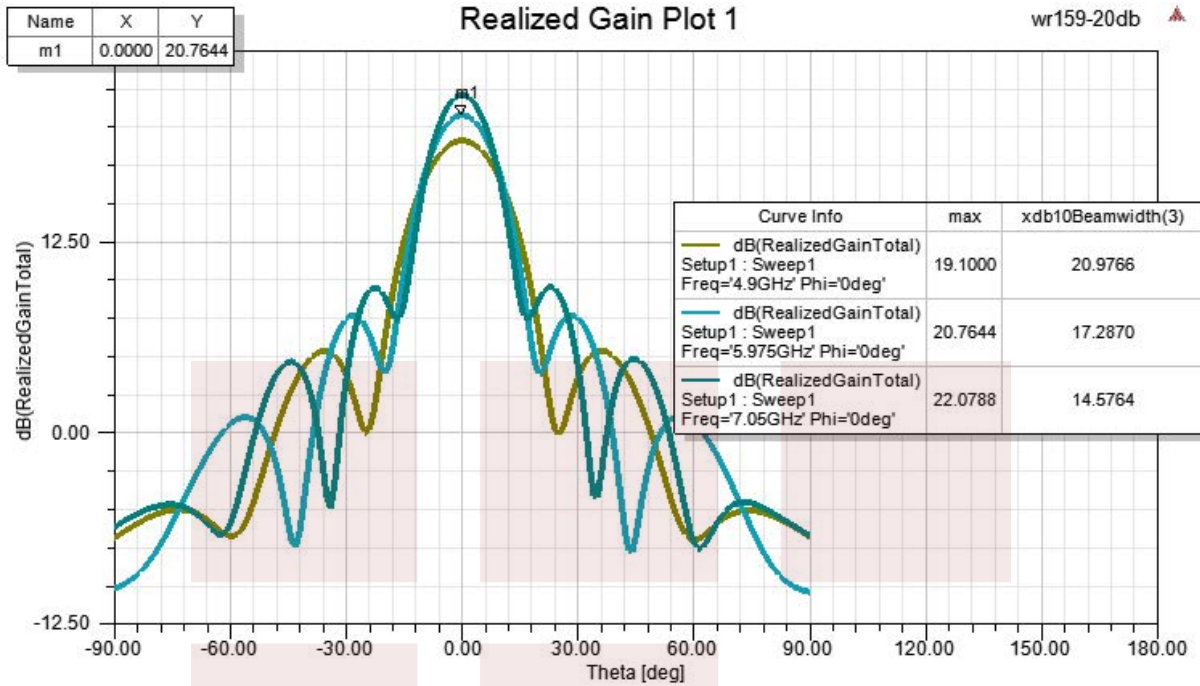
### Applications:

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

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**Typical Performance Data**





WR-159 Standard Gain Horn with 20 dBi gain, SMA Female connector 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.

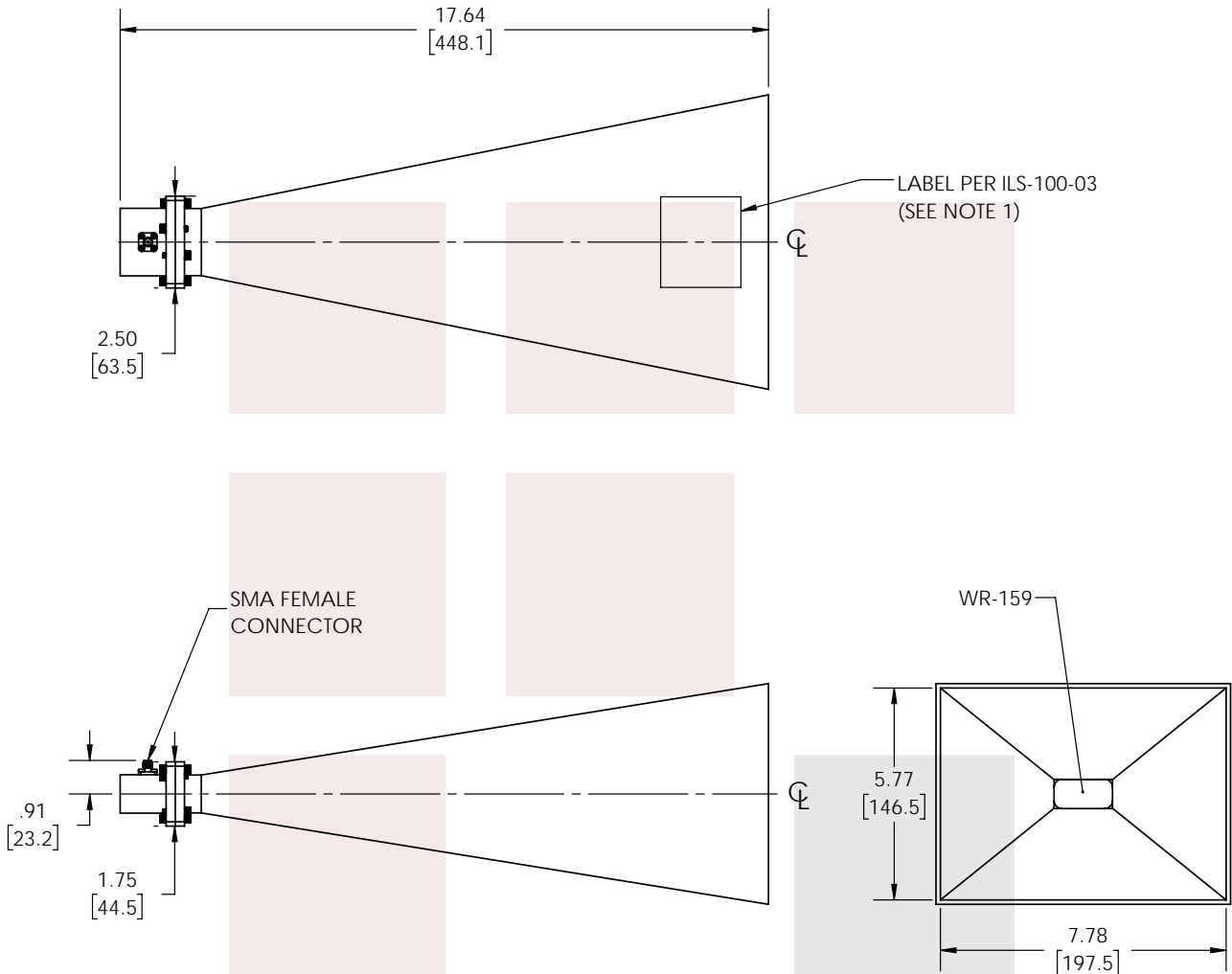
For additional information on this product, please click the following link: [WR-159 Standard Gain Horn with 20 dBi gain, SMA Female connector FMWAN159-20SF](#)

URL:

The information contained in 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 any liability arising out of the use of any part or documentation.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/04/2021	KHIETPAS



- NOTES:**  
 1. LABEL PER ILS-100-03 (FOR INTERNAL REFERENCE ONLY)  
 LABEL LOCATION FOR REFERENCE ONLY

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TITLE  
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
 DIMENSIONS IN [ ] ARE MILLIMETERS

<b>TOLERANCES:</b>		<b>CABLE LENGTH (L) TOLERANCES:</b>	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [.51]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		300 [7620] < L = +5%L / -0	

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY BPUCHASKI	ITEM NO. FMWAN159-20SF	REV A
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