

## WR-51 Standard Gain Horn with SMA Female Input and 15 dB Typical Gain Operating Within 15 GHz to 22 GHz Frequency Range

The Fairview Microwave FM9853B/SF-15 Proline series standard gain horn antenna (also known as waveguide horn) is part of our huge selection of waveguide antennas. This Fairview Microwave standard gain horn antenna is manufactured with a WR-51 input and a SMA waveguide to coaxial transition adapter. Our standard gain horn antenna, WR-51, has a 15 dBi nominal gain. This WR-51 standard gain horn from Fairview Microwave has a female SMA waveguide to coax transition adapter.

The 15 dBi Fairview Microwave WR-51 horn antenna operates from 15 GHz to 22 GHz. Fairview Microwave's SMA female WR-51 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and rectangular input. It is part of over 40,000 RF, microwave and millimeter wave components available at Fairview Microwave.

Waveguide standard gain horn antennas, such as the FM9853B/SF-15, are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near constant electrical performance. The WR-51 FM9853B/SF-15 waveguide horn is US made and TAA compliant. Our WR-51 standard gain horn Proline antennas with SMA female interface can ship same day to anywhere in the world.

### Configuration

Design	WR-51 Standard Gain Horn
Pattern	Directional
Polarization	Linear
Coaxial Interface	SMA Female

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	15		22	GHz
Impedance		50		Ohms
<b>Waveguide Standard Gain Horn</b>				
Gain		15		dB
Horizontal 3dB Beam Width		31.8		Degrees
Vertical 3dB Beam Width		32		Degrees
<b>Waveguide to Coaxial Adapter</b>				
Input VSWR		1.3:1		

### Mechanical Specifications

<b>Size</b>	
Length	3.56 in 90.42 mm
Width/Diameter	1.41 in 35.81 mm
Height	1.31 in 33.27 mm
Weight	0.23 lbs 104.33 g

#### RF Connector

Type	SMA Female
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#### Waveguide Interface

Waveguide Size	WR-51
Body Material and Plating	Aluminum



### Features:

- WR-51 Rectangular Waveguide Interface
- 15 GHz to 22 GHz
- 15 dBi Nominal Gain
- SMA Female Connector

### Applications:

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems

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## Environmental Specifications

Environmental Specification Notes:  
FM9853B/SF-15

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

## Plotted and Other Data

2 Dimensional OML Drawing      FM9853B/SF-15  
Notes:

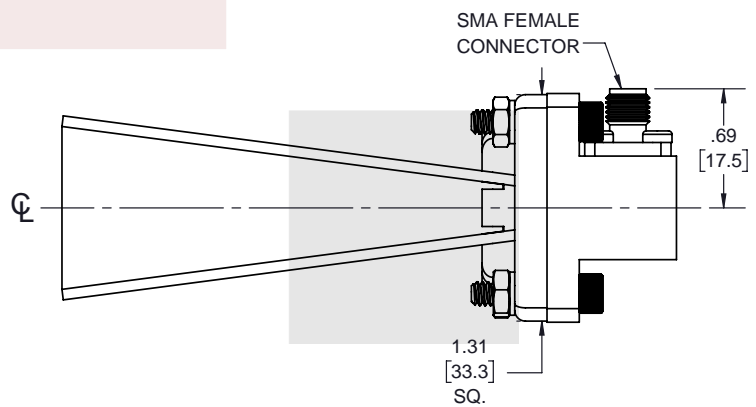
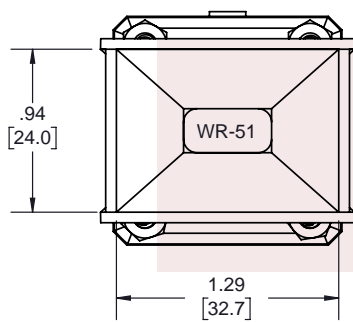
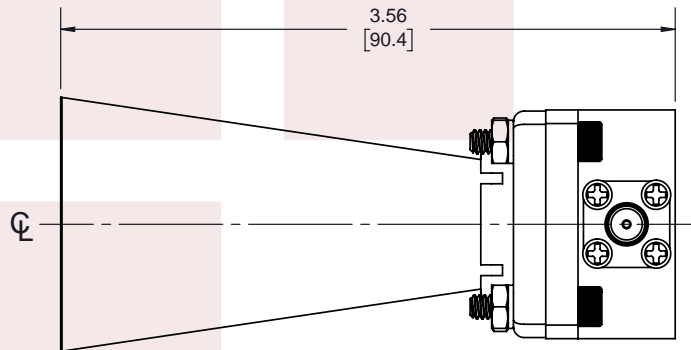
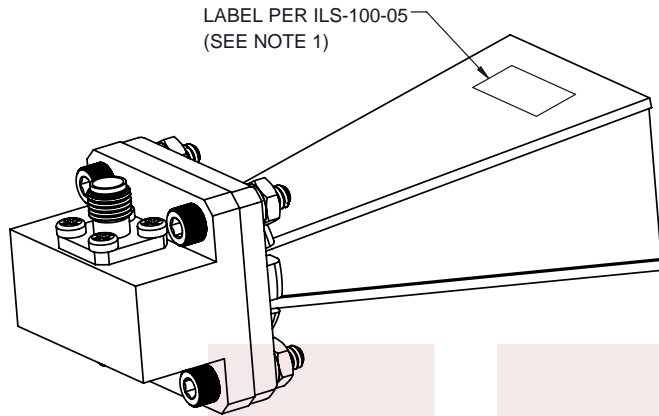
WR-51 Standard Gain Horn with SMA Female Input and 15 dB Typical Gain Operating Within 15 GHz to 22 GHz Frequency Range from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-51 Standard Gain Horn with SMA Female Input and 15 dB Typical Gain Operating Within 15 GHz to 22 GHz Frequency Range FM9853B/SF-15](#)

URL: <https://www.fairviewmicrowave.com/wr-51-standard-gain-horn-15-db-sma-fm9853b-sf-15-p.aspx>

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	11/16/2020	KHIETPAS



- NOTES:  
1. LABEL PER ILS-100-05 (FOR INTERNAL REFERENCE ONLY)  
LABEL LOCATION FOR REFERENCE ONLY

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TITLE

WR-51 Standard Gain Horn with SMA Female Input and 15 dB Typical Gain Operating Within 15 GHz to 22 GHz Frequency Range

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

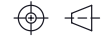
TOLERANCES:

.X = ±.2 [5.08] FRACTIONS  
.XX = ±.02 [.51] ± 1/32  
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
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

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE A	CAGE CODE 3FKR5	DRAWN BY BPUCHASKI	ITEM NO. FM9853B/SF-15	REV A
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