



## WR-51 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input

### Technical Data Sheet

PE9853B/SF-15

#### Features

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

#### Applications

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

#### Description

The Proline series PE9853B/SF-15 standard gain horn antenna (also known as waveguide horn) from Pasternack is part of our huge selection of waveguide antennas. This Pasternack standard gain horn antenna is manufactured with a WR-51 input and a waveguide to coaxial transition adapter. Our WR-51 standard gain horn antenna has a nominal gain of 15 dBi. This WR-51 standard gain horn has a SMA waveguide to coax transition adapter that is female gender.

The Pasternack 15 dBi WR-51 horn antenna operates from 15 GHz to 22 GHz. The WR-51 PE9853B/SF-15 waveguide horn is US made and TAA compliant. It is part of over 40,000 RF, microwave and millimeter wave components available from Pasternack. Waveguide standard gain horn antennas, such as the PE9853B/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. Pasternack's SMA female WR-51 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and rectangular input. Our WR-51 standard gain horn Proline antennas with SMA female interface can ship worldwide the same day as it is purchased as with our other available RF parts.

#### Configuration

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

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	15		22	GHz
Impedance		50		Ohms
<b>Waveguide Standard Gain Horn</b>				
Gain		15		dB
Horizontal Half Power Beam Width		32		Degrees
Vertical Half Power Beam Width		31.8		Degrees
<b>Waveguide to Coaxial Adapter</b>				
Input VSWR		1.3:1		

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-51 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input PE9853B/SF-15](#)



WR-51 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input

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PE9853B/SF-15

### Mechanical Specifications

#### Size

#### RF Connector

Type

SMA Female

#### Waveguide Interface

Waveguide Size

WR-51

Body Material and Plating

Aluminum

### Environmental Specifications

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

### Plotted and Other Data

2 Dimensional OML Drawing

PE9853B/SF-15

Notes:

WR-51 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input 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 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input PE9853B/SF-15](#)

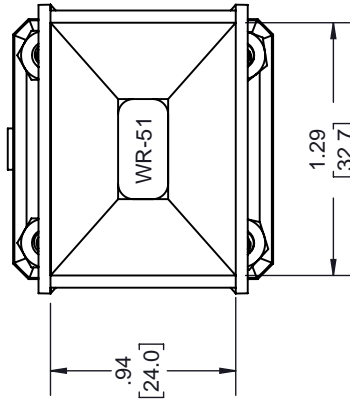
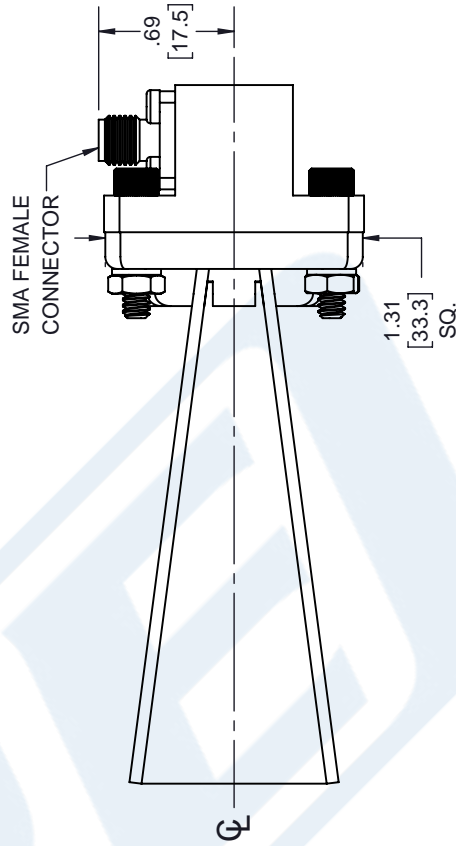
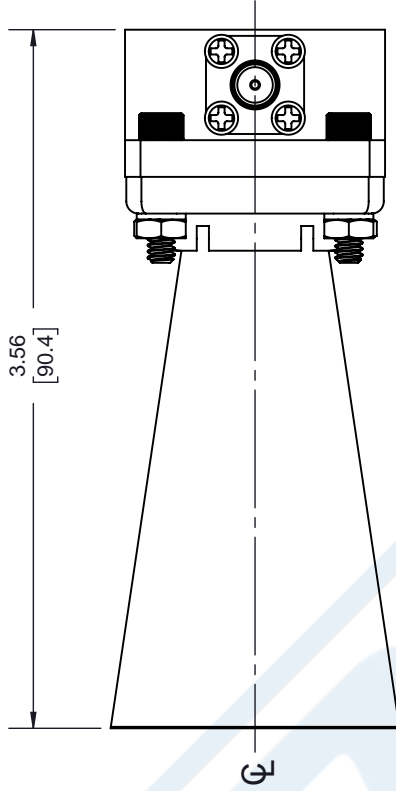
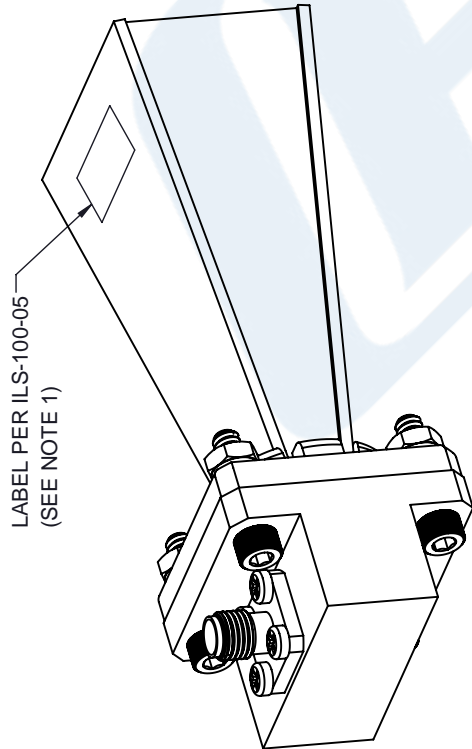
URL: <https://www.pasternack.com/wr-51-waveguide-standard-gain-horn-antenna-15-db-sma-pe9853b-sf-15-p.aspx>

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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE9853B/SF-15 CAD Drawing

WR-51 Waveguide Standard Gain Horn Antenna Operating from 15 GHz to 22 GHz with a Nominal 15 dB Gain SMA Female Input

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/16/2020	KHIETPAS



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

TOLERANCES:

.X = ±.2	[.08]	FRACTIONS	± 1/32
.XX = ±.02	[.51]	ANGLES ± 1°	
.XXX = ±.005	[.13]	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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**PE PASTERNAK**  
an INFINITE brand

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SIZE A CAGE CODE 53919 DRAWN BY BPUCHASKI ITEM NO. PE9853B/SF-15

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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

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