



WR-51 Waveguide Standard Gain Horn Antenna
 Operating From 15 GHz to 22 GHz With a Nominal
 20 dBi Gain With Square Cover Flange

Waveguide Antennas Technical Data Sheet

PE9853A-20

Features

- Rectangular Waveguide Interface
- 15 GHz to 22 GHz
- 20 dBi Nominal Gain
- Square Cover Flange

Applications

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

Description

Pasternack's PE9853A-20 WR-51 waveguide standard gain horn antenna operating from 15 GHz to 22 GHz with a nominal 20 dBi gain is part of our full line of RF components available for same-day shipping. This Pasternack pyramidal horn antenna has a lightweight anodized aluminum body and a precision tolerance square cover flange. The PE9853A-20 WR-51 waveguide standard gain horn antenna offers low gain variation across its operating frequency range and 18 degrees of half power beam width.

Waveguide standard gain horn antennas are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near constant electrical performance across a broad bandwidth. Pasternack's WR-51 standard gain horns are available in 10, 15 and 20 dB models with pyramidal shape and rectangular waveguide input.

Configuration

Design	WR-51 Standard Gain Horn
Pattern	Directional
Polarization	Linear

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	15		22	GHz
Nominal Gain		20		dBi
Horizontal Half Power Beam Width		18		Degrees
Vertical Half Power Beam Width		16.9		Degrees

Electrical Specification Notes:
 Half power beam width is calculated by computer simulation.

Mechanical Specifications

Size	
Length	4.89 in [124.21 mm]
Width	2.63 in [66.8 mm]
Height	2.035 in [51.69 mm]
Weight	0.082 lbs [37.19 g]

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 20 dBi Gain With Square Cover Flange PE9853A-20](#)



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Waveguide Interface

Waveguide Size

Flange Type

Body Material and Plating

WR-51

Square Cover

Anodized Aluminum, Paint

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

Plotted and Other Data

WR-51 Waveguide Standard Gain Horn Antenna Operating From 15 GHz to 22 GHz With a Nominal 20 dBi Gain With Square Cover Flange 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 20 dBi Gain With Square Cover Flange PE9853A-20](#)

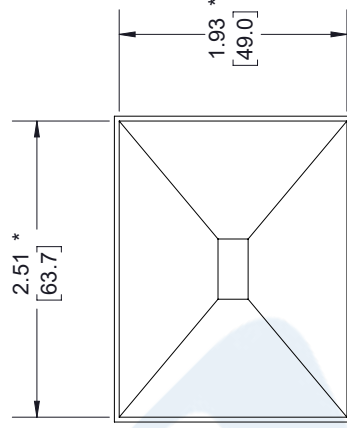
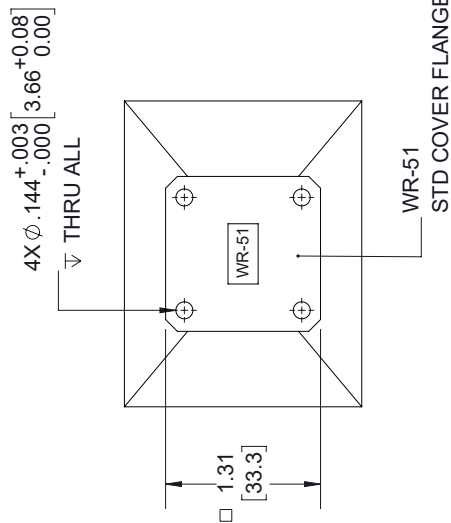
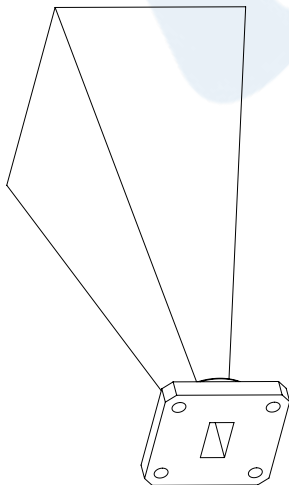
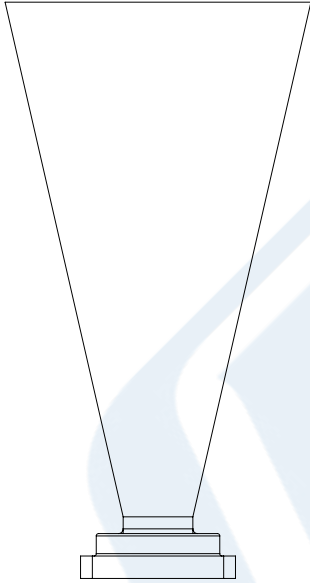
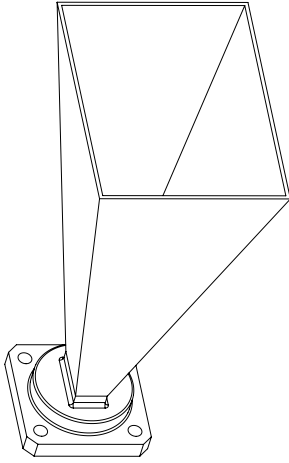
URL: <https://www.pasternack.com/wr-51-waveguide-gain-horn-antenna-20dbi-square-flange-pe9853a-20-p.aspx>

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.

PE9853A-20 CAD Drawing

WR-51 Waveguide Standard Gain Horn Antenna Operating From 15 GHz to 22 GHz With a Nominal 20 dBi Gain With Square Cover Flange

REVISIONS		
REV.	DESCRIPTION	DATE
A	PCR 9853A-20	3/24/2020
		APPROVED
		S. PONG



* INSIDE DIMENSIONS

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>.X = ±.2</td> <td>[5.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX = ±.02</td> <td>[.51]</td> <td>± 1/32</td> </tr> <tr> <td>.XXX = ±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L) TOLERANCES:</p> <table border="0"> <tr> <td>L ≤ 12</td> <td>[305]</td> <td>= +1 [25] / -0</td> </tr> <tr> <td>12 [305] < L ≤ 60</td> <td>[1524]</td> <td>= +2 [51] / -0</td> </tr> <tr> <td>60 [1524] < L ≤ 120</td> <td>[3048]</td> <td>= +4 [102] / -0</td> </tr> <tr> <td>120 [3048] < L ≤ 300</td> <td>[7620]</td> <td>= +6 [152] / -0</td> </tr> <tr> <td>300 [7620] < L</td> <td>= +5%L / -0</td> <td></td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	.X = ±.2	[5.08]	FRACTIONS	.XX = ±.02	[.51]	± 1/32	.XXX = ±.005	[.13]	ANGLES ± 1°	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		<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>
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<p>PE PASTERNAK an INFINITI brand</p> <p>Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com</p>	<p>ITEM NO. PE9853A-20</p> <p>REV A</p>																								

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