



WR-90 Waveguide Standard Gain Horn Antenna  
 Operating From 8.2 GHz to 12.4 GHz With a Nominal  
 15 dBi Gain With UG-135/U Square Cover Flange

## Gain Horns Technical Data Sheet

PE9856-15

### Features

- Rectangular Waveguide Interface
- 8.2 GHz to 12.4 GHz
- 15 dBi Nominal Gain
- UG-135/U Square Cover Flange

### Applications

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

### Description

Pasternack's PE9856-15 WR-90 waveguide standard gain horn antenna operating from 8.2 GHz to 12.4 GHz with a nominal 15 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 UG-135/U square cover flange. The PE9856-15 WR-90 waveguide standard gain horn antenna offers low gain variation across its operating frequency range and 29.3 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-90 standard gain horns are available in 10, 15 and 20 dB models with pyramidal shape and rectangular waveguide input.

### Configuration

Design	WR-90 Standard Gain Horn
Pattern	Directional
Polarization	Linear

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
Nominal Gain		15		dBi
Horizontal Half Power Beam Width		29		Degrees
Vertical Half Power Beam Width		29.3		Degrees

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

### Mechanical Specifications

<b>Size</b>	
Length	5.45 in [138.43 mm]
Width	2.8 in [71.12 mm]
Height	2.05 in [52.07 mm]
Weight	0.254 lbs [115.21 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Waveguide Standard Gain Horn Antenna Operating From 8.2 GHz to 12.4 GHz With a Nominal 15 dBi Gain With UG-135/U Square Cover Flange PE9856-15](#)



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**Waveguide Interface**

Waveguide Size	WR-90
Flange Type	Square Cover
Flange Designation	UG-135/U
Body Material and Plating	Anodized Aluminum, Paint

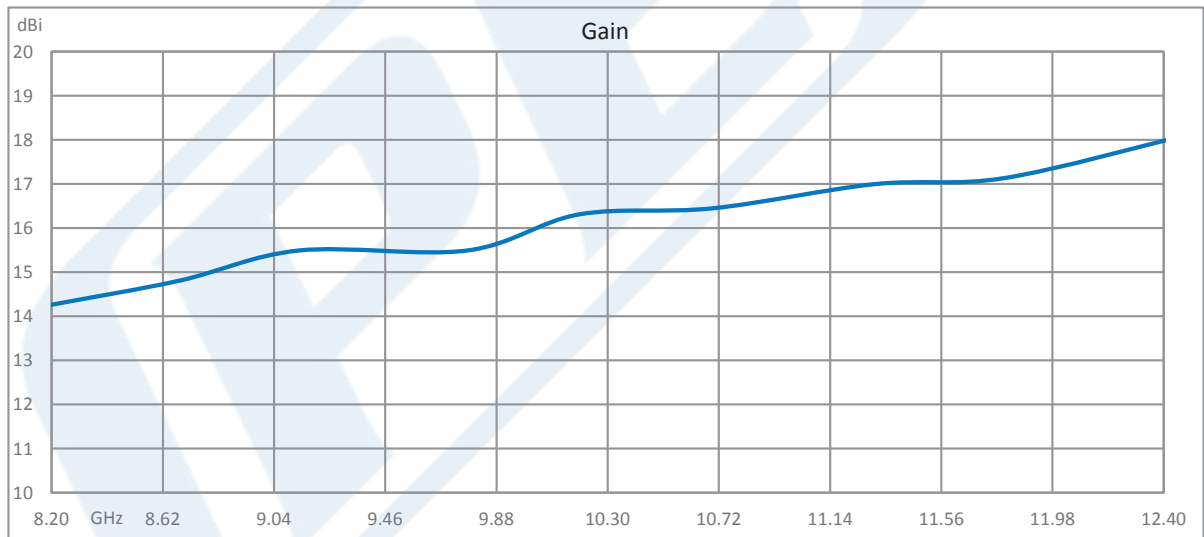
**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**



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WR-90 Waveguide Standard Gain Horn Antenna Operating From 8.2 GHz to 12.4 GHz With a Nominal 15 dBi Gain With UG-135/U 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.

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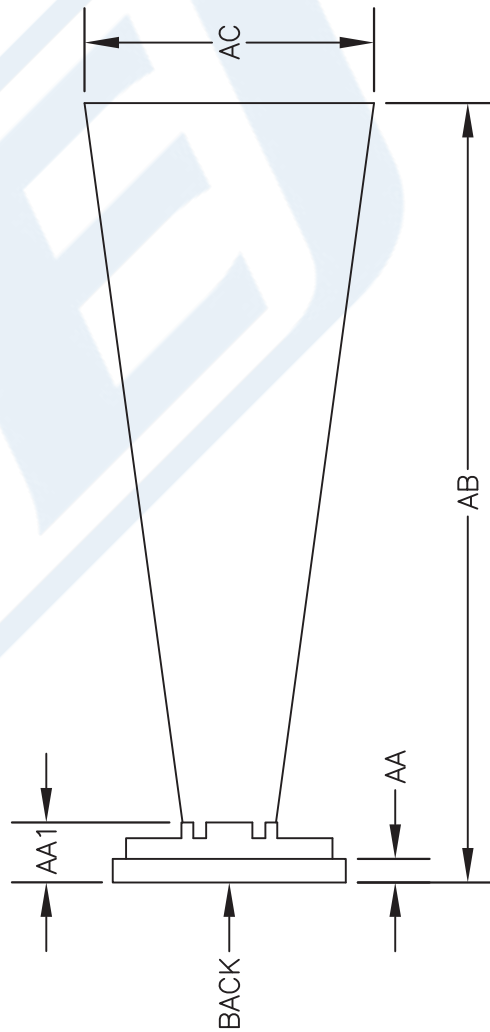
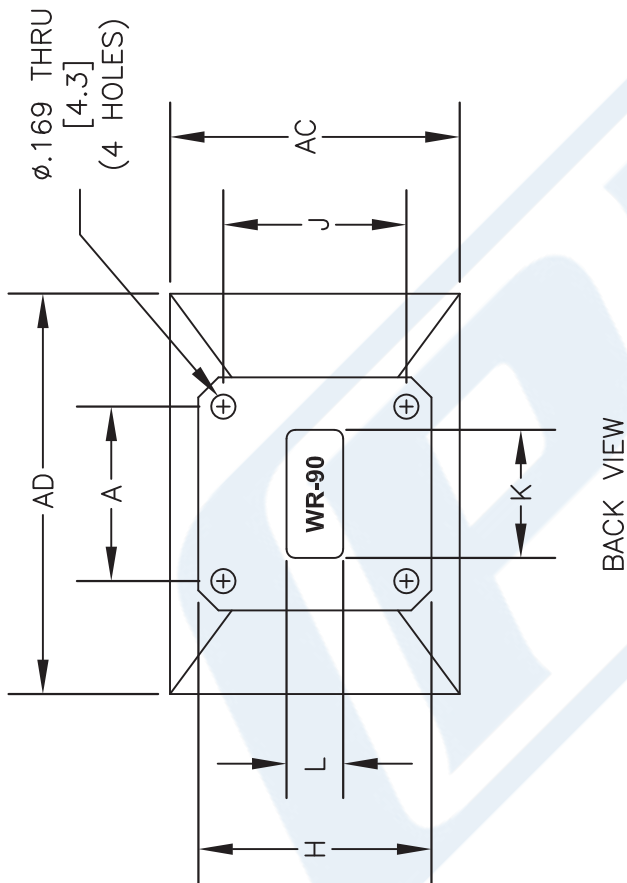
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

# PE9856-15 CAD Drawing

WR-90 Waveguide Standard Gain Horn Antenna Operating From 8.2 GHz to 12.4 GHz With a Nominal 15 dBi Gain With UG-135/U Square Cover Flange

WR90		Dimension	Inches	mm
A			1.220	30.99
H			1.630	41.40
J			1.280	32.51
K	(±0.003)		0.900	22.86
L	(±0.003)		0.400	10.16
AA			0.160	4.06
AA1			0.440	11.18
AB			5.460	138.68
AC			1.950	49.53
AD			2.660	67.56



**STANDARD TOLERANCES**

- .X ±0.2
- .XX ±0.1
- .XXX ±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTES:  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE

**PE9856-15**

FSCM NO. 53919

CAD FILE 112116

SCALE N/A

SIZE A

41742



**PASTERNAK**  
 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623  
 Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com