



WR-90 Waveguide Antenna, 8.2 GHz to 12.4 GHz
Frequency Range, 10 dBi Gain, UG-135/U Flange

Waveguide Antennas Technical Data Sheet

PEWAN090-10

Features

- WR-90 Rectangular Waveguide Interface
- 8.2 GHz to 12.4 GHz
- 10 dBi Nominal Gain
- UG-135/U Cover Flange
- X Band

Applications

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

Description

The PEWAN090-10 X Band standard gain horn antenna (also known as waveguide horn) from Pasternack has a nominal gain of 10 dBi. This WR-90 standard gain horn has a UG-135/U type flange. The Pasternack 10 dBi WR-90 horn antenna operates from 8.2 GHz to 12.4 GHz. The WR-90 PEWAN090-10 waveguide horn is Powder coated Aluminum for added protection and corrosion resistance. It is part of over 40,000 RF, microwave and millimeter wave components available from Pasternack. 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. Pasternack's WR-90 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and rectangular input. Our WR-90 standard gain horn antennas can ship worldwide the same day as it is purchased as with our other available RF parts.

Configuration

Design	WR-90
Polarization	Linear

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
Nominal Gain		10		dB
Horizontal Half Power Beam Width		52.1		Degrees
Vertical Half Power Beam Width		51.6		Degrees
VSWR		1.3:1		

Mechanical Specifications

Size	
Length	1.851 in [47.02 mm]
Width	1.63 in [41.4 mm]
Height	1.63 in [41.4 mm]
Weight	0.1 lbs [45.36 g]

Waveguide Interface

Waveguide Size	WR-90
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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 Antenna, 8.2 GHz to 12.4 GHz Frequency Range, 10 dBi Gain, UG-135/U Flange PEWAN090-10](#)



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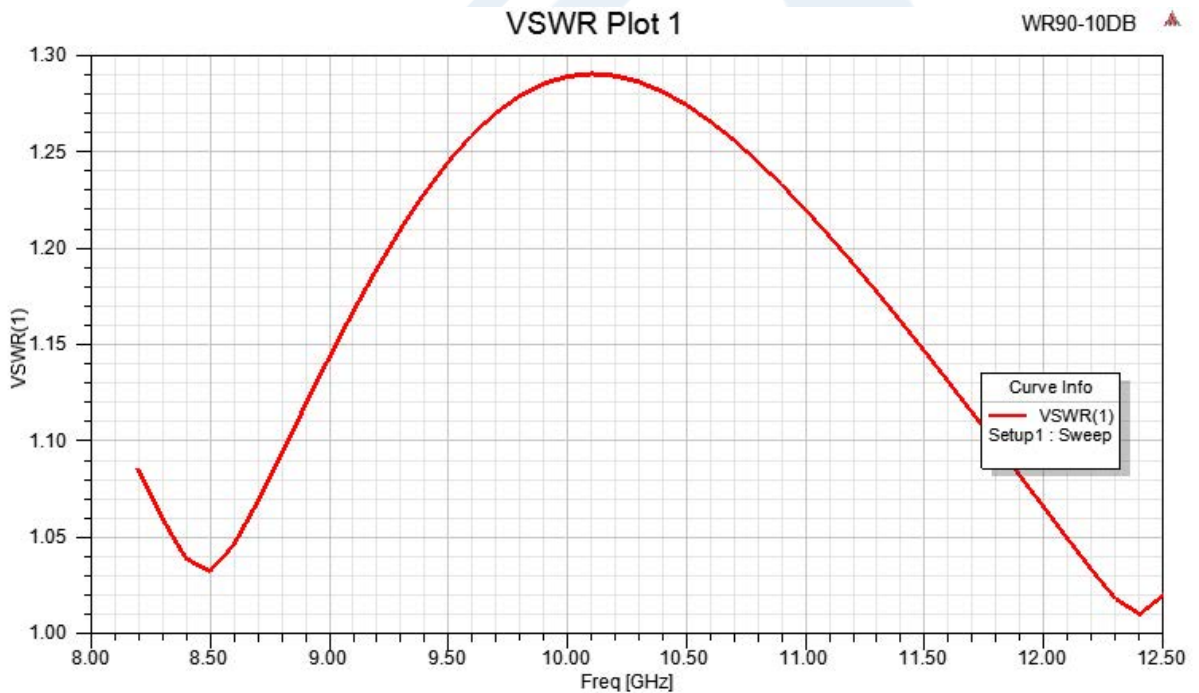
Flange Type
Flange Designation
Body Material and Plating

Square Cover
UG-135/U
Aluminum, Gray

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

Plotted and Other Data

Typical Performance Data



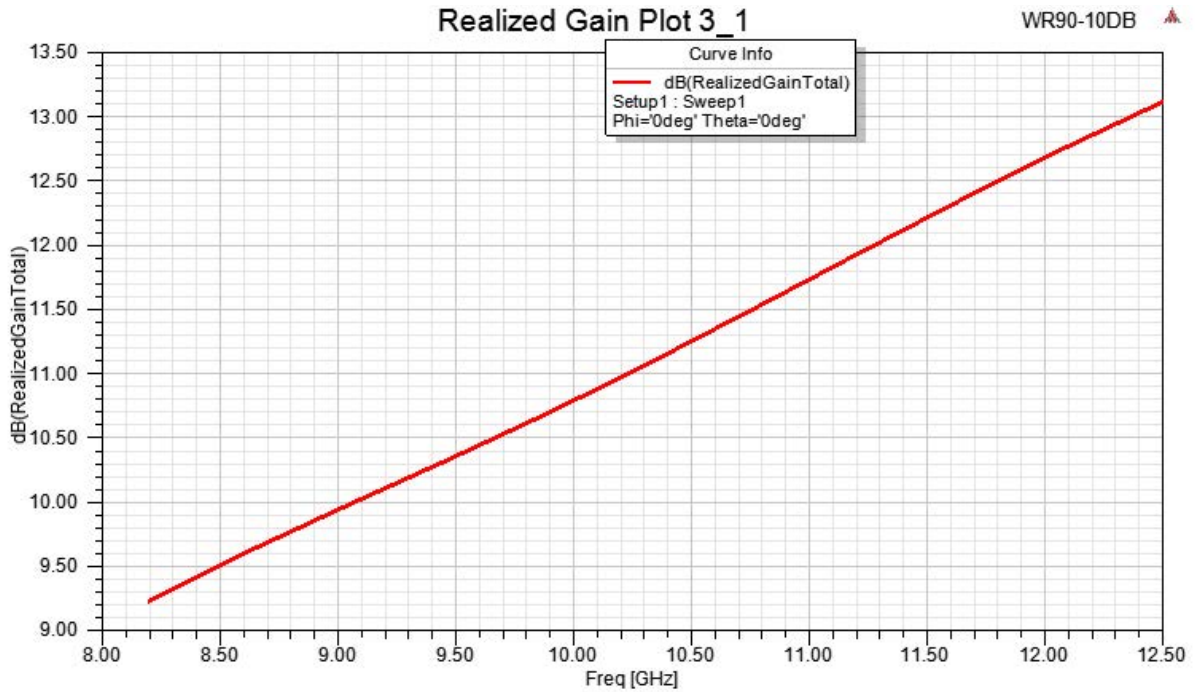
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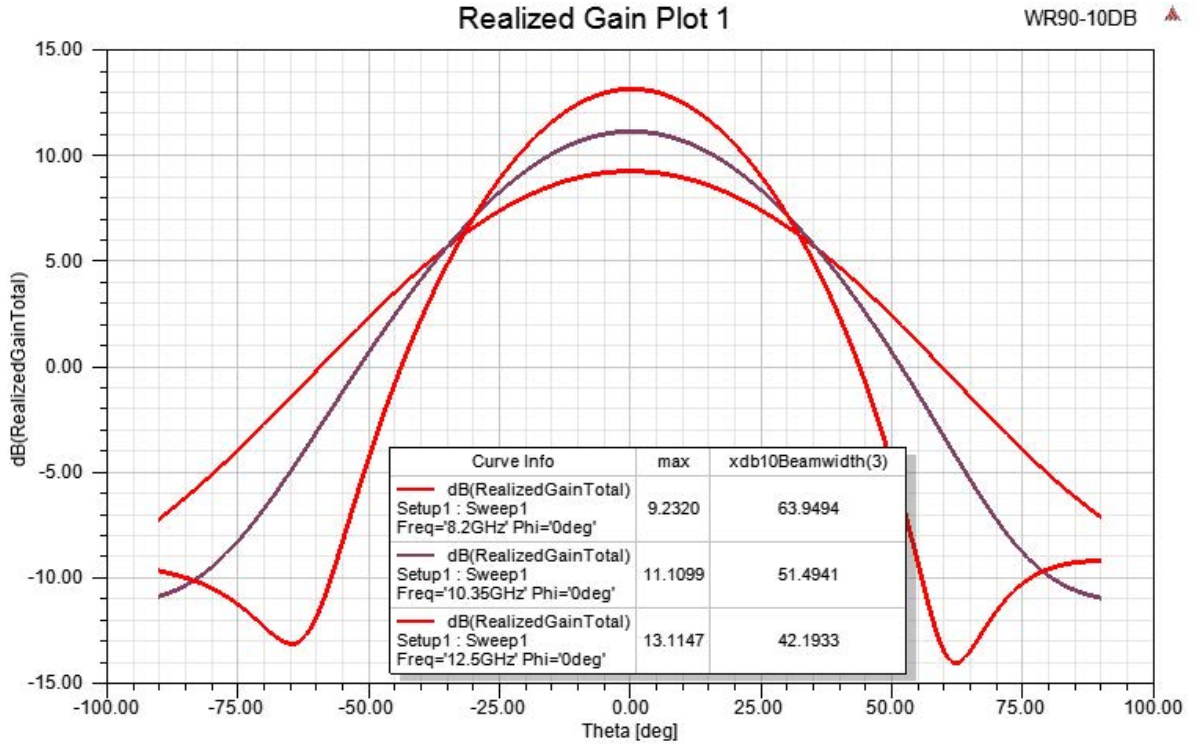
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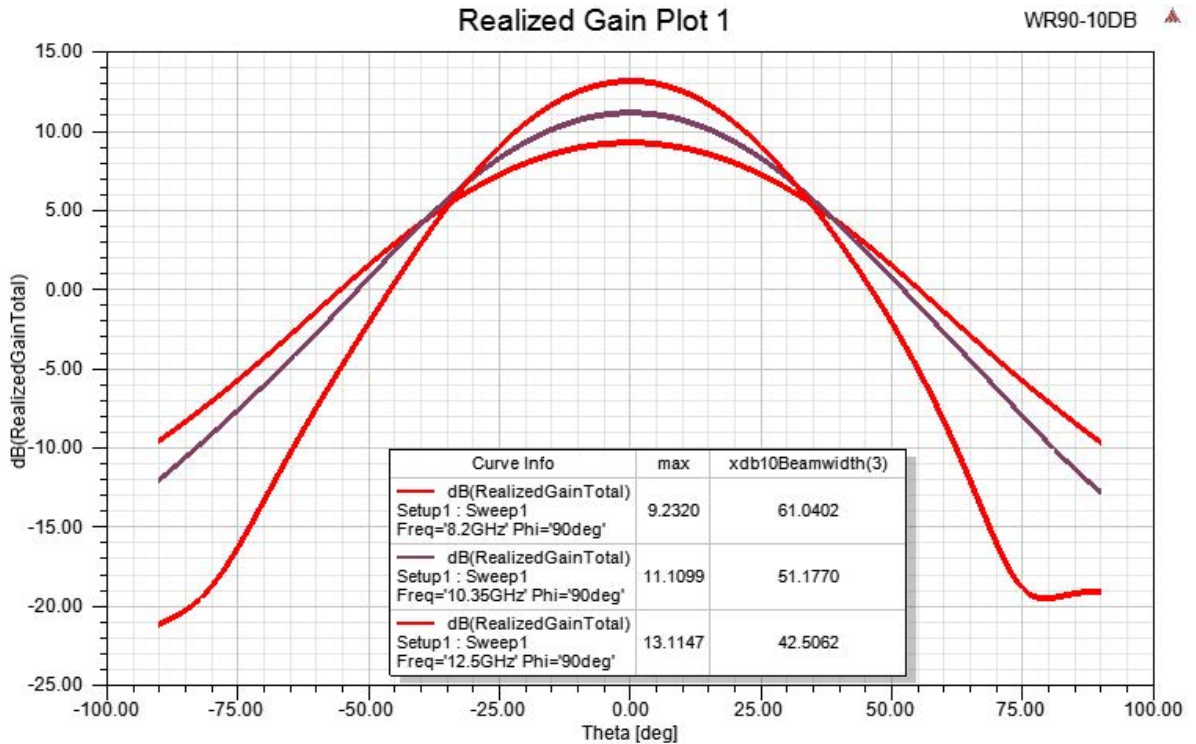
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WR-90 Waveguide Antenna, 8.2 GHz to 12.4 GHz Frequency Range, 10 dBi Gain, UG-135/U Flange from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability 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-90 Waveguide Antenna, 8.2 GHz to 12.4 GHz Frequency Range, 10 dBi Gain, UG-135/U Flange PEWAN090-10](https://www.pasternack.com/wr-90-waveguide-gain-horn-antenna-10db-ug-135-square-flange-pewan090-10-p.aspx)

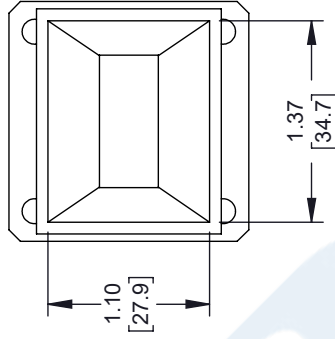
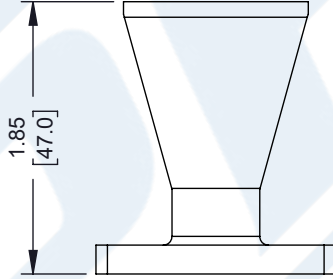
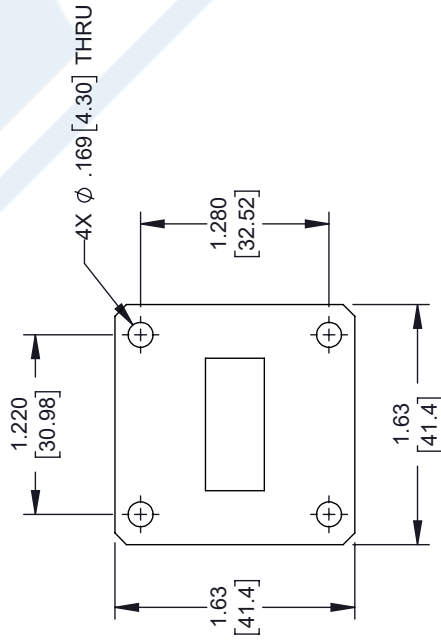
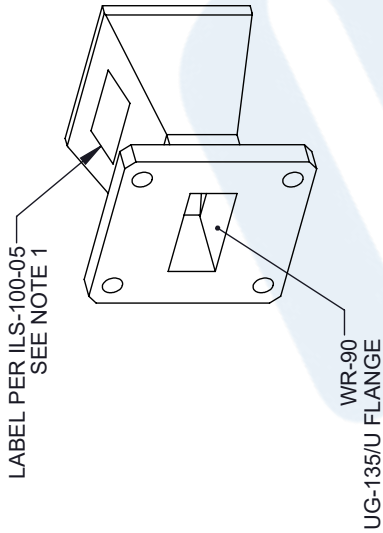
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PEWAN090-10 CAD Drawing

WR-90 Waveguide Antenna, 8.2 GHz to 12.4 GHz Frequency Range, 10 dBi Gain, UG-135/U Flange

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	06/08/2021	KHIETPAS



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

TOLERANCES:

.X = ±.2 [5.08] 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% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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ITEM NO. PEWAN090-10

SIZE A CAGE CODE 53919 DRAWN BY DZINN

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

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