



# WR-10 Waveguide Dual Polarized Horn Antenna, 75 GHz to 110 GHz Frequency Range, 15 dBi Gain, UG-387/U-Mod Flange

## Waveguide Antennas Technical Data Sheet

PEWAN1137

### Features

- High Isolation
- Low Insertion Loss
- Full Band Performance

### Applications

- Radar Systems
- Communication Systems
- Circular and Linear Waveform Separation and Combination

### Description

Pasternack's PEWAN1137 is a full band, dual polarized, WR-10 horn antenna assembly that operates in the frequency range of 75 GHz to 110 GHz. The antenna features an integrated orthomode transducer that provides high port isolation. PEWAN1137 supports either vertical or horizontal polarized waveguide forms with a typical 35 dB cross polarization rejection, 15 dBi nominal gain at center frequency, typical 45 dB port isolation between the horizontal and vertical ports, typical half power beamwidth of 22 degrees on the E-plane, typical half power beamwidth of 33 degrees on the H-plane, and -19 dB sidelobe levels. The input of this antenna is a WR-10 waveguide with UG-387/U-M threaded flange.

### Configuration

Design: WR-10 Dual Polarized Horn  
Polarization: Linear/Vertical

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	75		110	GHz
Nominal Gain		15		dBi
Horizontal Half Power Beam Width		33		Degrees
Vertical Half Power Beam Width		22		Degrees
VSWR		1.4:1		
V and H Port Isolation		45		dB
Cross Polarization Rejection		35		dB

### Mechanical Specifications

#### Size

Length: 1.96 in [49.78 mm]  
Width: 0.8 in [20.32 mm]  
Height: 0.8 in [20.32 mm]  
Weight: 0.1 lbs [45.36 g]

#### Waveguide Interface

Waveguide Size: WR-10

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-10 Waveguide Dual Polarized Horn Antenna, 75 GHz to 110 GHz Frequency Range, 15 dBi Gain, UG-387/U-Mod Flange PEWAN1137](#)



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Flange Type  
Flange Designation  
Body Material and Plating

Square Cover  
UG-387/U-Mod  
Aluminum, Gold

**Environmental Specifications**

**Temperature**

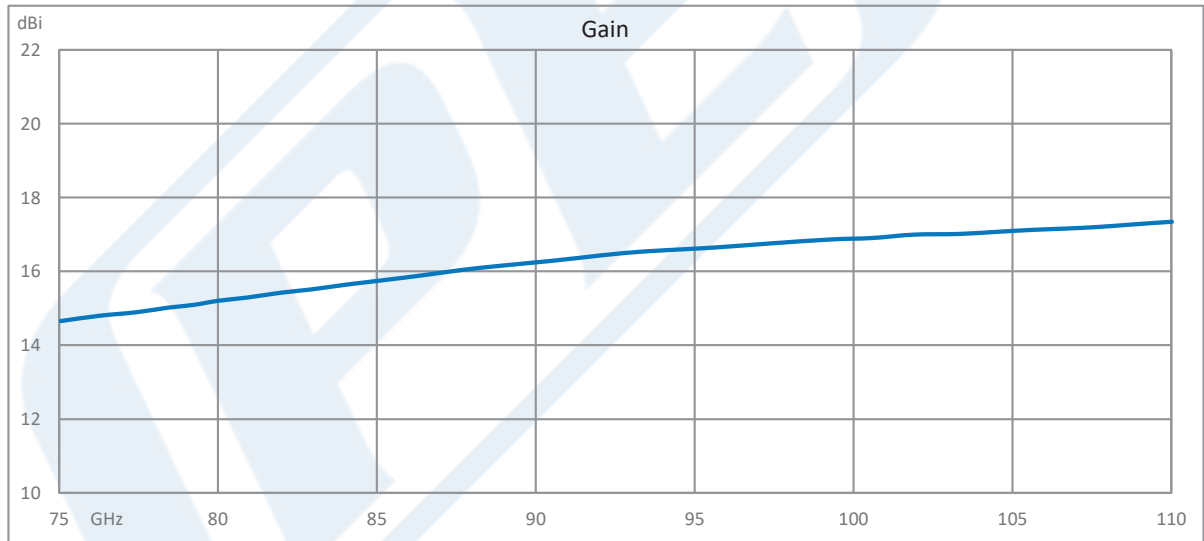
Operating Range

-40 to 85 deg C

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

**Plotted and Other Data**

**Typical Performance Data**



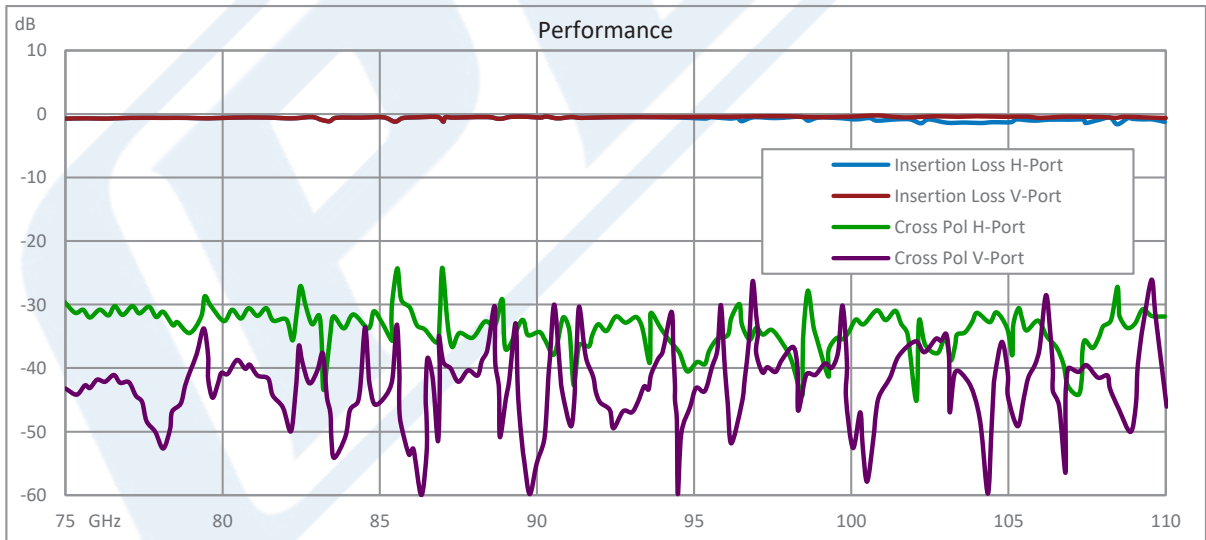
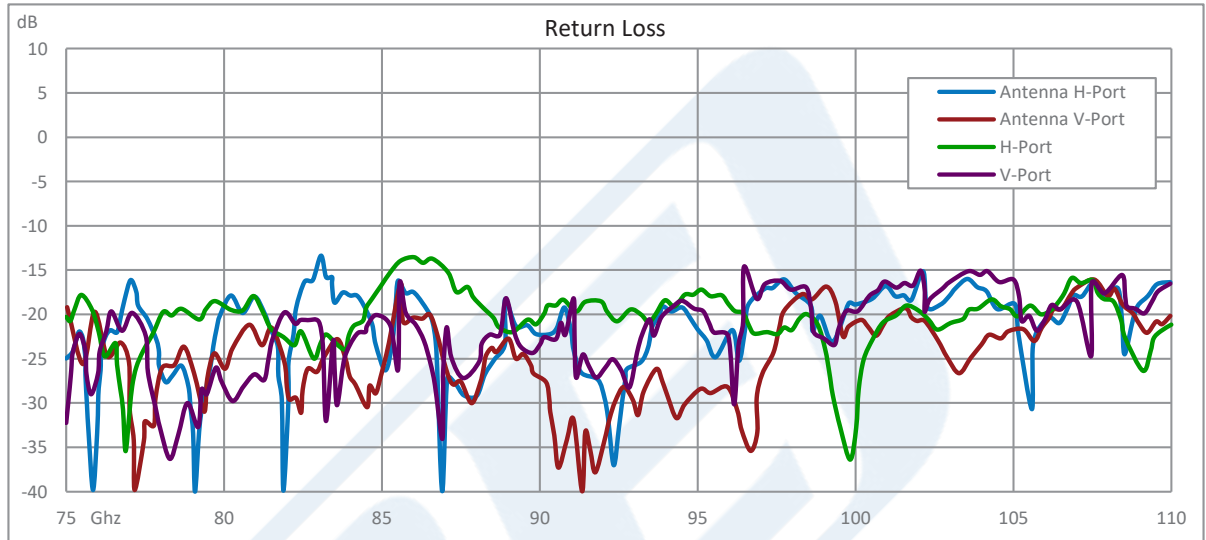
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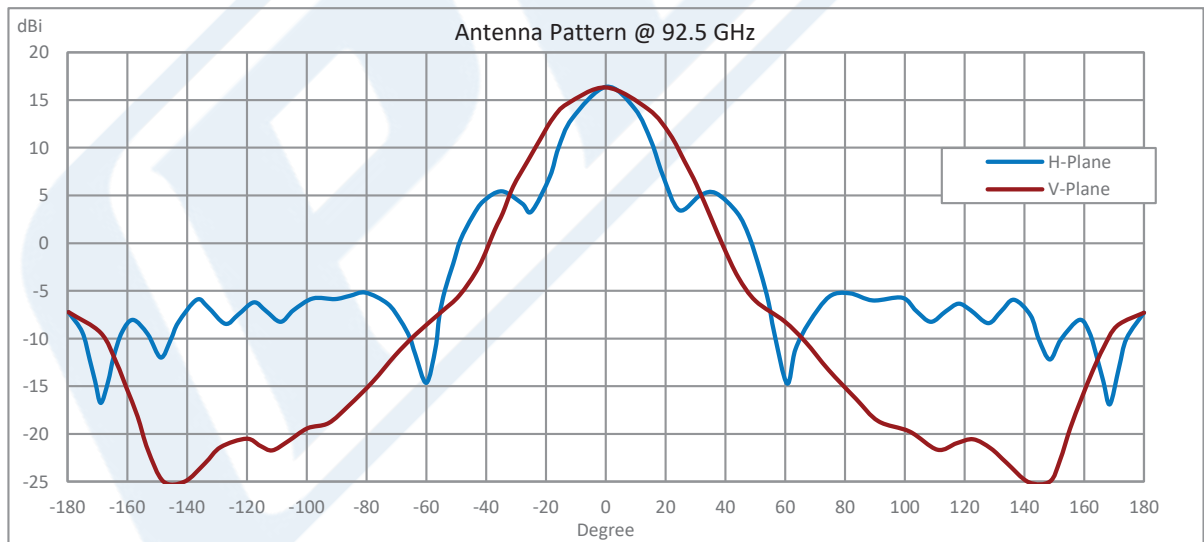
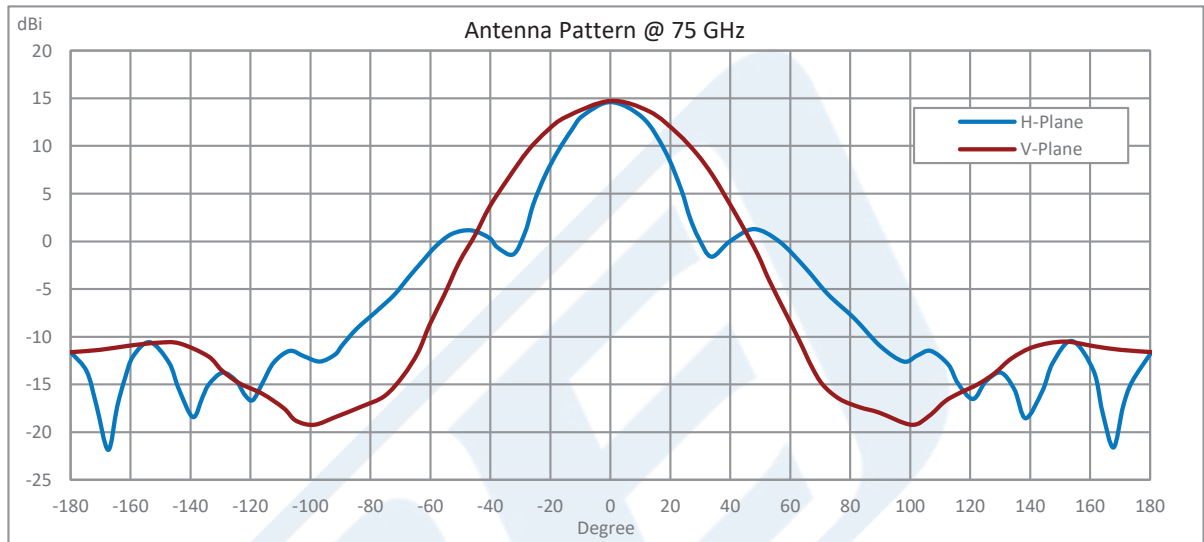
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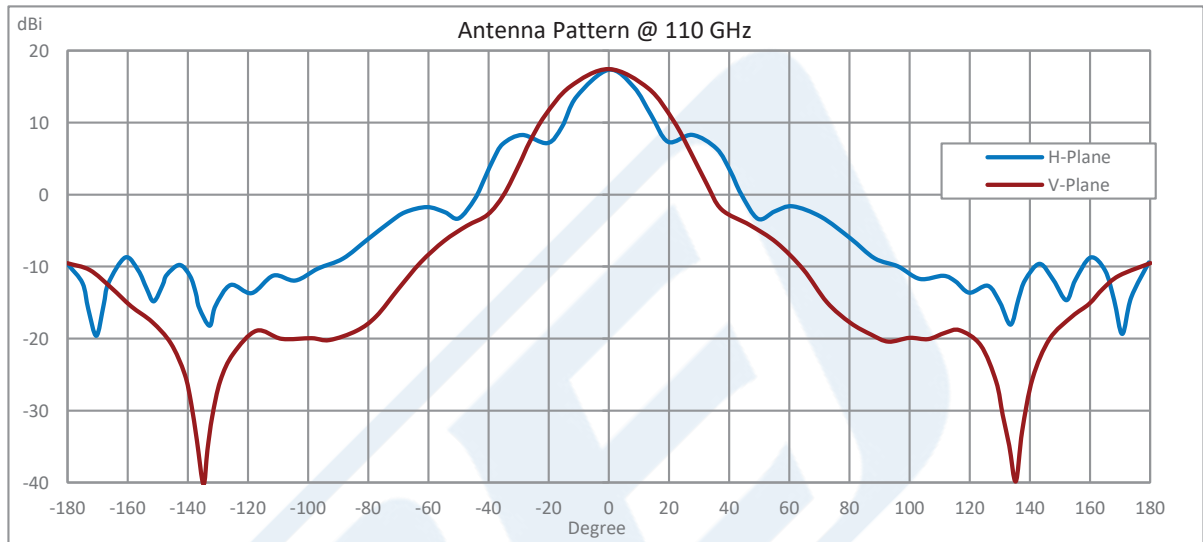
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-10 Waveguide Dual Polarized Horn Antenna, 75 GHz to 110 GHz Frequency Range, 15 dBi Gain, UG-387/U-Mod Flange PEWAN1137](https://www.pasternack.com/wr-10-waveguide-gain-horn-antenna-15dbi-ug-387-mod-square-flange-pewan1137-p.aspx)

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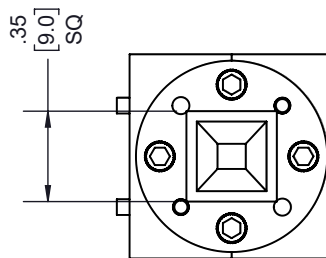
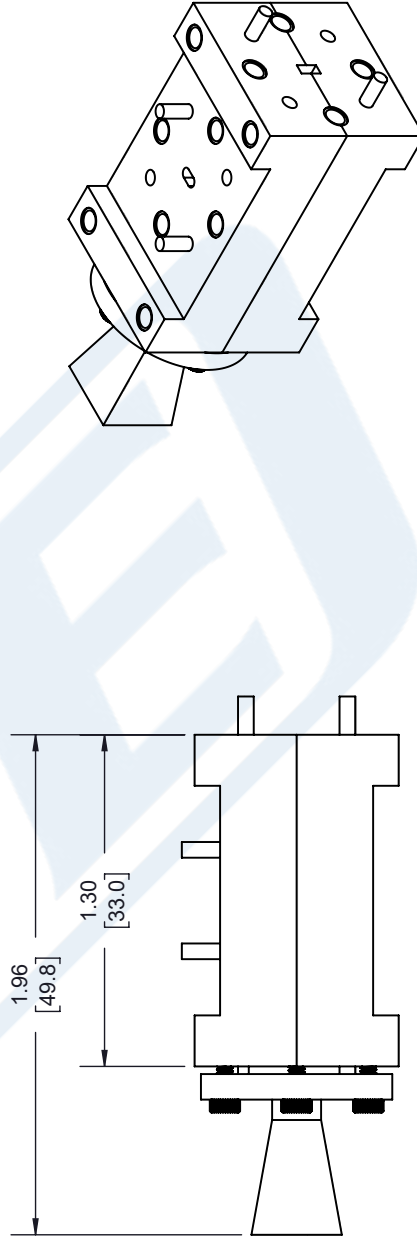
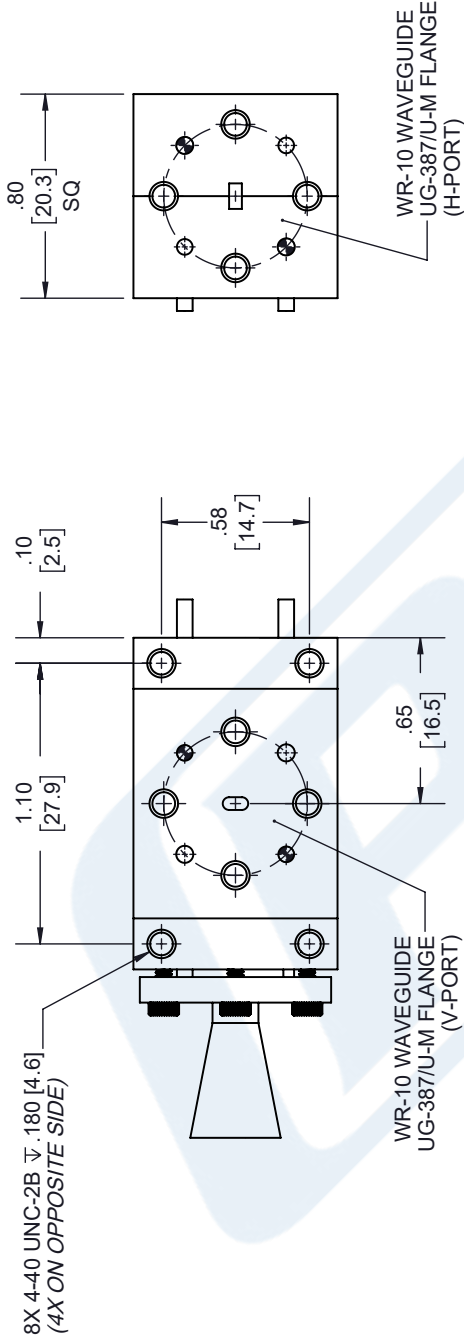
# PEWAN1137 CAD Drawing

WR-10 Waveguide Dual Polarized Horn Antenna, 75 GHz to 110 GHz  
Frequency Range, 15 dBi Gain, UG-387/U-Mod Flange

### REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/16/19	M.MILLER

PASTERNAK  
PEWAN1137  
D/C: YYWW



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

TOLERANCES:  
X $\pm$  2 [5.08] FRACTIONS  
XX $\pm$  01 [25]  $\pm$  1/32  
XXX $\pm$  .005 [1.3] ANGLES  $\pm$  1°

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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Pasternack Enterprises, Inc.  
P. O. Box 16759, Irvine, CA 92623.  
Phone: 1.949.261.1920 | 1.866.727.8376  
Fax: 1.949.261.7451  
www.pasternack.com | e-mail: sales@pasternack.com

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SHEET 1 OF 1  
SCALE N/A

REV A

SIZE A  
CAGE NUMBER 53919  
DRAWN BY K.DANG  
PART NUMBER PEWAN1137

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