



WR-10 Waveguide Dual Polarized Scalar Feed  
Horn Antenna, 75 GHz to 110 GHz Frequency  
Range, 13 dBi Gain, UG-387/U-Mod Flange

Waveguide Antennas Technical Data Sheet

PEWAN1121

**Features**

- 75 GHz to 110 GHz Frequency Range
- Linear and Circular Polarization
- High Port Isolation
- High Cross-Polarization Rejection

**Applications**

- 5G Systems
- Radar Systems
- Communication Systems
- Circular and Linear Waveform Separation and Combination

**Description**

Pasternack's PEWAN1121 is a WR-10 dual polarized scalar feed horn antenna that operates in the frequency range of 75 GHz to 110 GHz. PEWAN1121 features an integrated orthomode transducer that provides high port isolation and cross-polarization cancellation and a broad band scalar feed horn that provides low sidelobe levels. The antenna supports either vertical or horizontal polarized waveguide forms with a typical 30 dB cross polarization rejections, 13 dBi nominal gain at center frequency, typical 30 dB port isolation between horizontal and vertical ports, typical half power beamwidth of 40 degrees, and -25 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 Scalar Feed Horn  
Polarization: Linear/Circular

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	75		110	GHz
Nominal Gain		13		dBi
Horizontal Half Power Beam Width		40		Degrees
Vertical Half Power Beam Width		40		Degrees
VSWR		1.4:1		

**Mechanical Specifications**

**Size**

Length: 2.7 in [68.58 mm]  
Width: 0.8 in [20.32 mm]  
Height: 0.8 in [20.32 mm]  
Weight: 0.236 lbs [107.05 g]

**Waveguide Interface**

Waveguide Size: WR-10  
Flange Designation: UG-387/U-Mod  
Body Material and Plating: Aluminum, Gold

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 Scalar Feed Horn Antenna, 75 GHz to 110 GHz Frequency Range, 13 dBi Gain, UG-387/U-Mod Flange PEWAN1121](#)



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### Environmental Specifications

#### Temperature

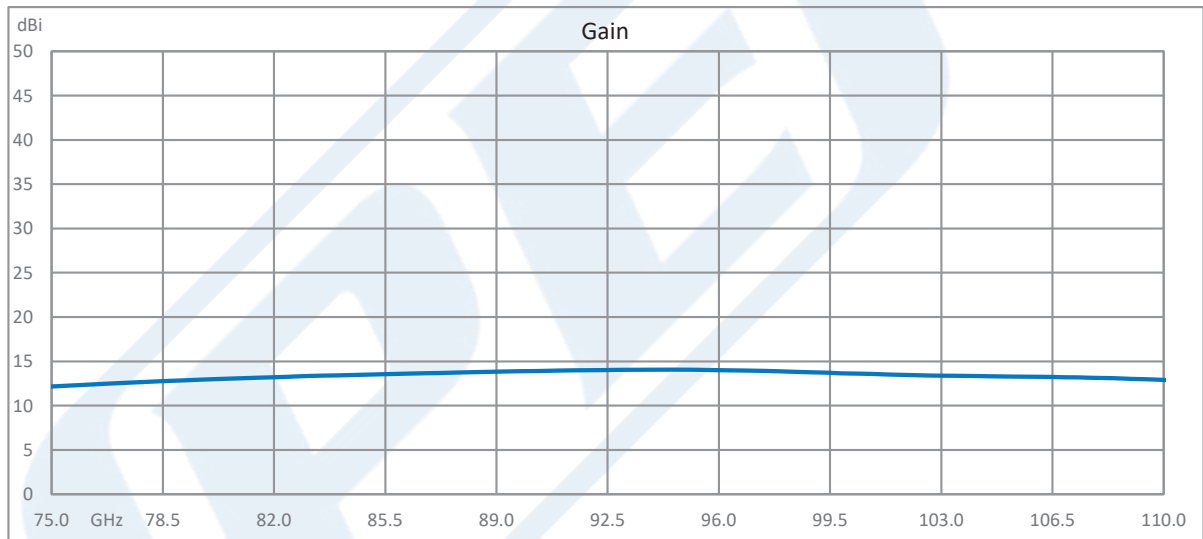
Operating Range

-40 to 85 deg C

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

### Plotted and Other Data

#### Typical Performance Data



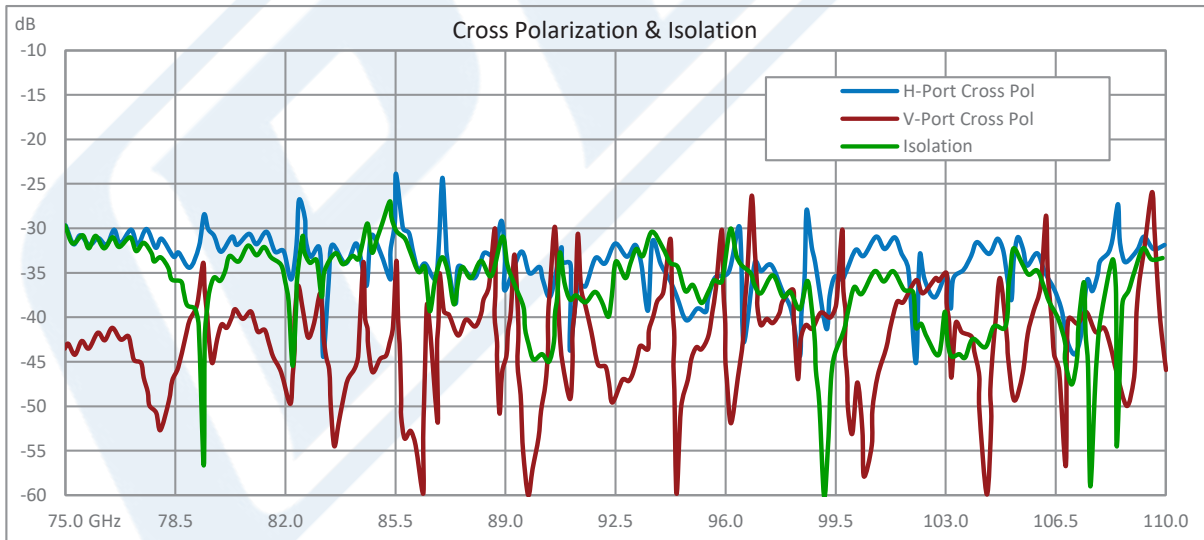
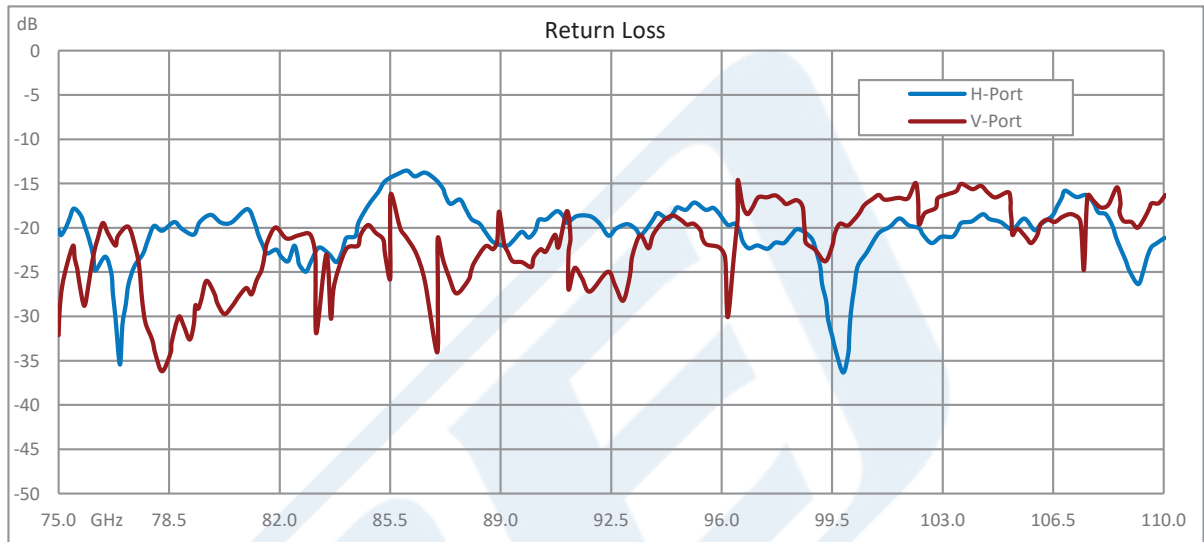
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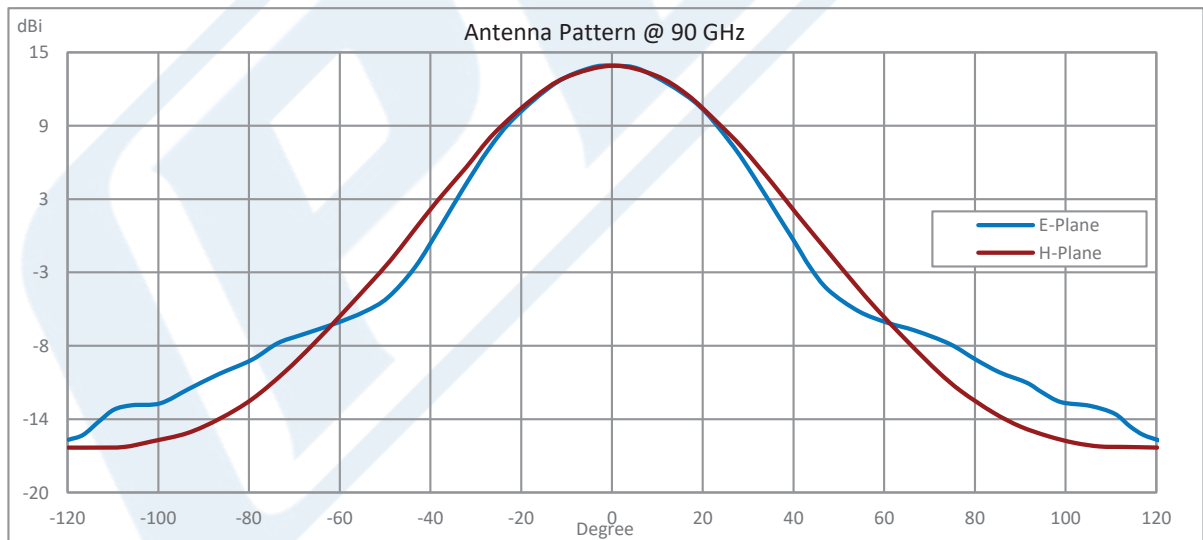
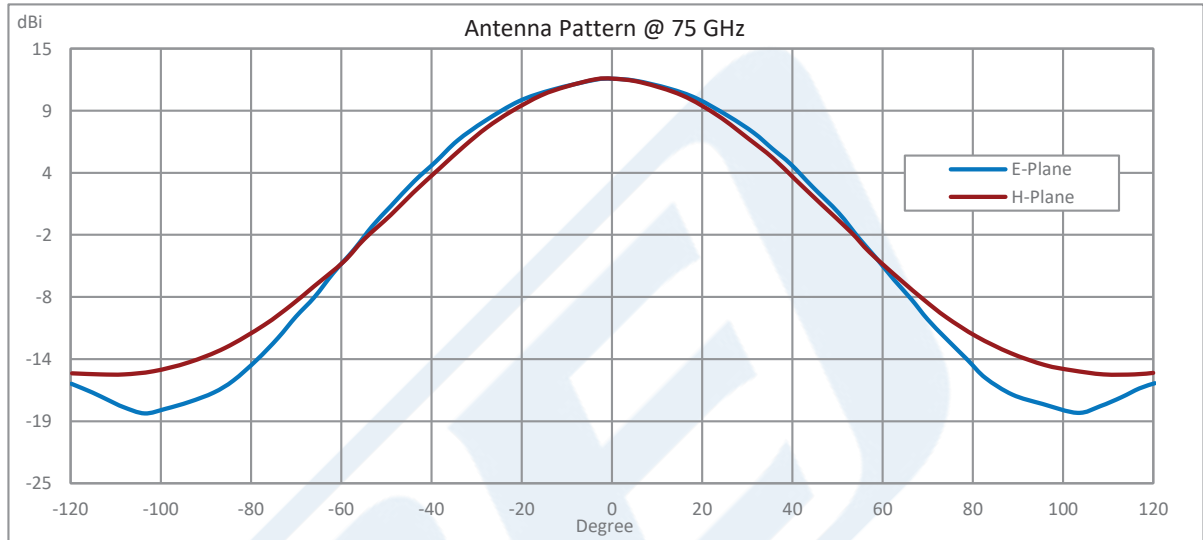
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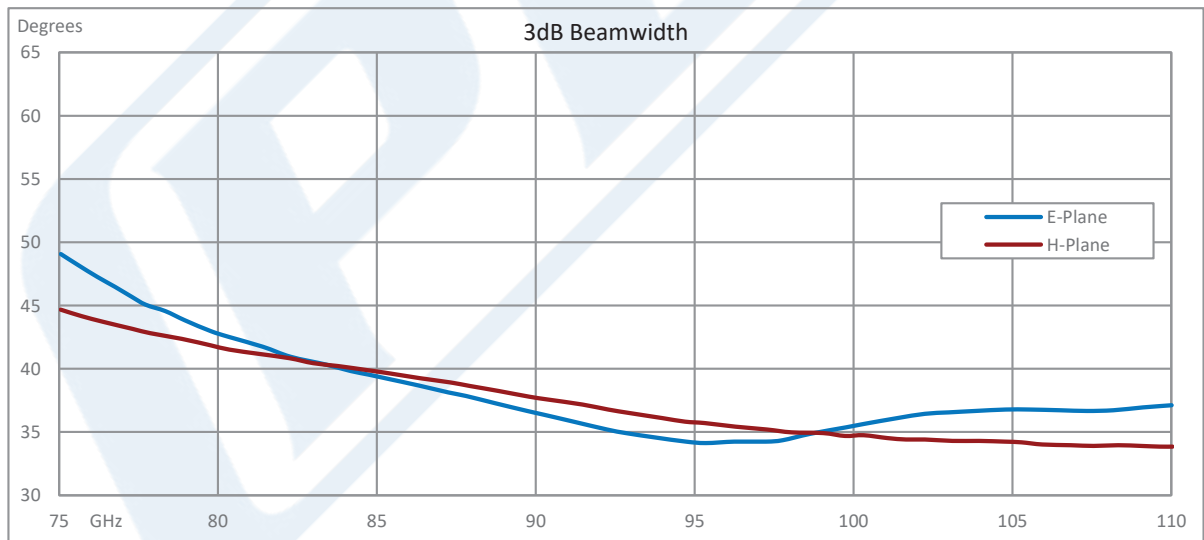
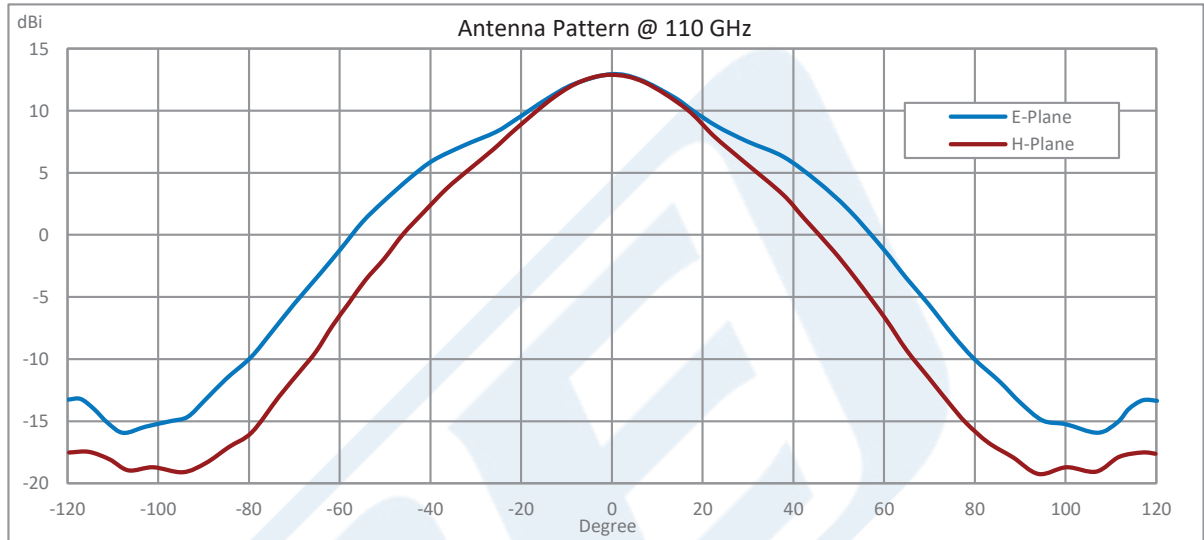
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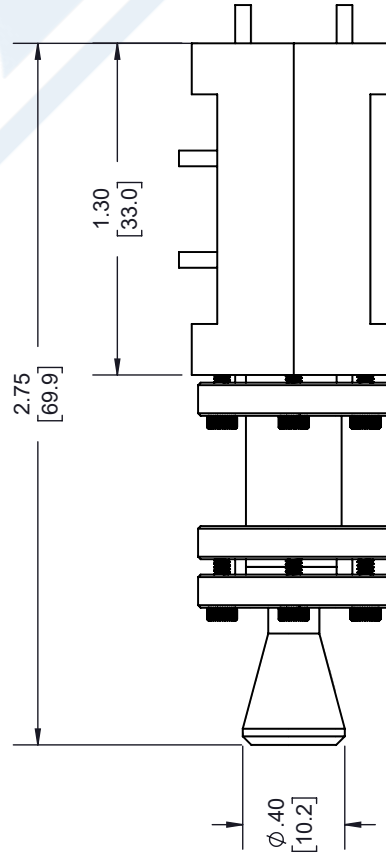
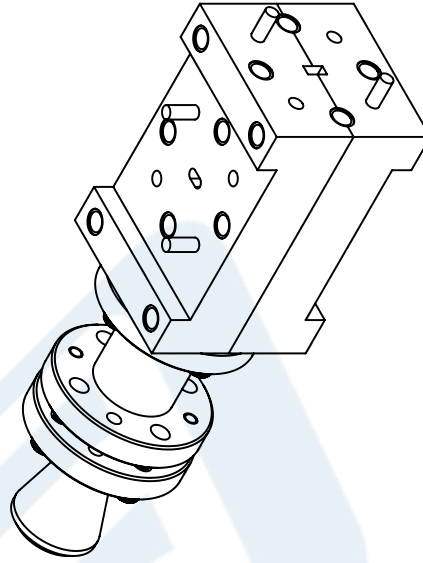
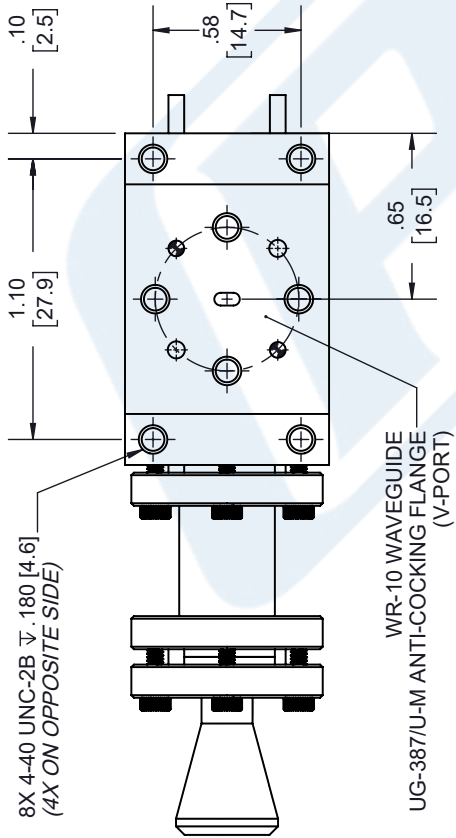
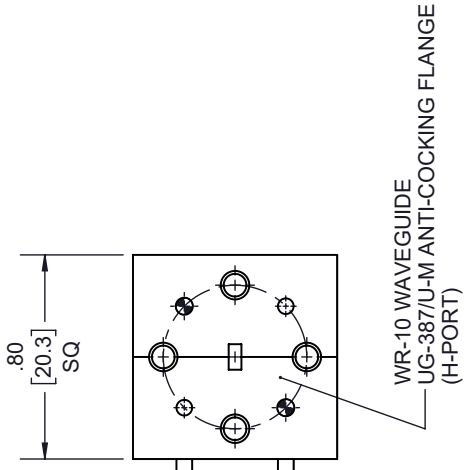
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# PEWAN1121 CAD Drawing

WR-10 Waveguide Dual Polarized Scalar Feed Horn Antenna, 75 GHz to 110 GHz Frequency Range, 13 dBi Gain, UG-387/U-Mod Flange

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



PASTERNAK  
PEWAN1121  
D/C: YYWW

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

TOLERANCES:  
X±.2 [5.08] FRACTIONS  
XX±.01 [ .25] ±1/32  
XXX±.005 [ .13] ANGLES ± 1°

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
SCALE N/A

SIZE A  
CAGE NUMBER 53919  
DRAWN BY K.DANG  
PART NUMBER PEWAN1121  
REV A

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