



WR-28 Waveguide Dual Polarized Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 10 dBi Gain, UG-599/U Flange

Waveguide Antennas Technical Data Sheet

PEWAN1142

Features

- 24 GHz to 42 GHz Frequency Range
- Linear and Circular Polarizations
- High Port Isolation
- High Cross Polarization Rejection

Applications

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

Description

Pasternack's PEWAN1142 is a dual polarized, WR-28 choke flange feed horn antenna assembly that operates in the frequency range of 24 GHz to 42 GHz. The antenna features an integrated orthomode transducer that provides high port isolation. PEWAN1142 supports either vertical or horizontal polarized waveguide forms with a typical 35 dB cross polarization rejection, 10 dBi nominal gain at center frequency, typical 35 dB port isolation between the horizontal and vertical ports, typical half power beamwidth of 60 degrees on the E-plane, typical half power beamwidth of 60 degrees on the H-plane, -25 dB sidelobe level on the E-plane, and -35 dB sidelobe level on the H-plane. The input of this antenna is a WR-28 waveguide with UG-599/U-M flanges and 4-40 threaded holes.

Configuration

Design: WR-28 Dual Polarized Feed Horn
 Polarization: Linear/Circular

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	24		42	GHz
Nominal Gain		10		dBi
Horizontal Half Power Beam Width		60		Degrees
Vertical Half Power Beam Width		60		Degrees
VSWR		1.1:1		
V and H Port Isolation		35		dB
Cross Polarization Rejection		35		dB
Port Return Loss		25		dB

Mechanical Specifications

Size:
 Length: 4.1 in [104.14 mm]
 Width: 1.48 in [37.59 mm]
 Height: 0.75 in [19.05 mm]
 Weight: 0.35 lbs [158.76 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-28 Waveguide Dual Polarized Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 10 dBi Gain, UG-599/U Flange PEWAN1142](#)



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Waveguide Interface

Waveguide Size	WR-28
Flange Type	Square Choke
Flange Designation	UG-599/U
Body Material and Plating	Aluminum, Gold

Environmental Specifications

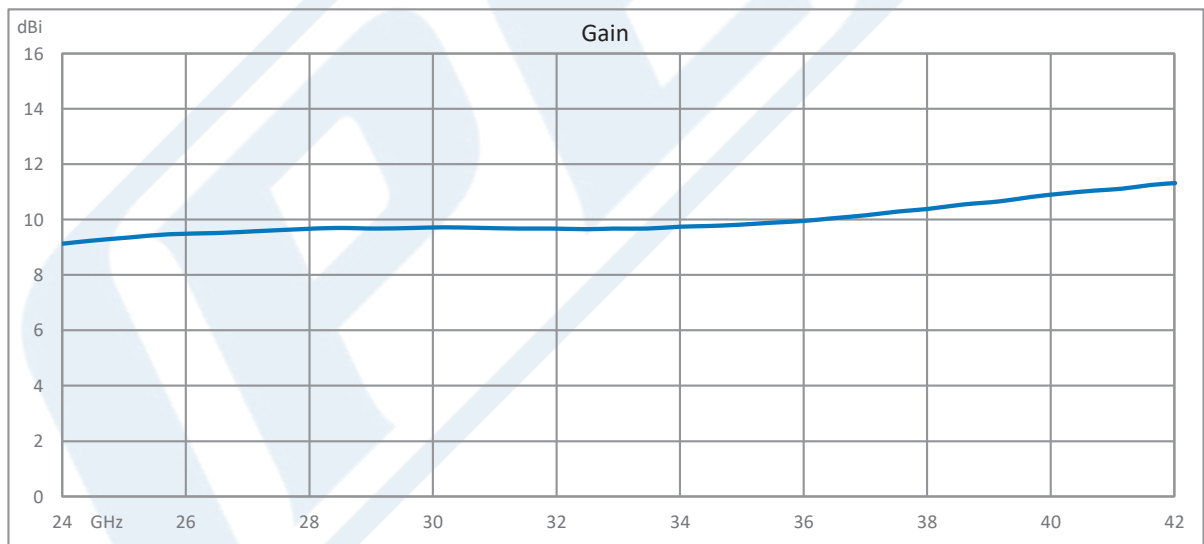
Temperature

Operating Range	-40 to 85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Typical Performance Data



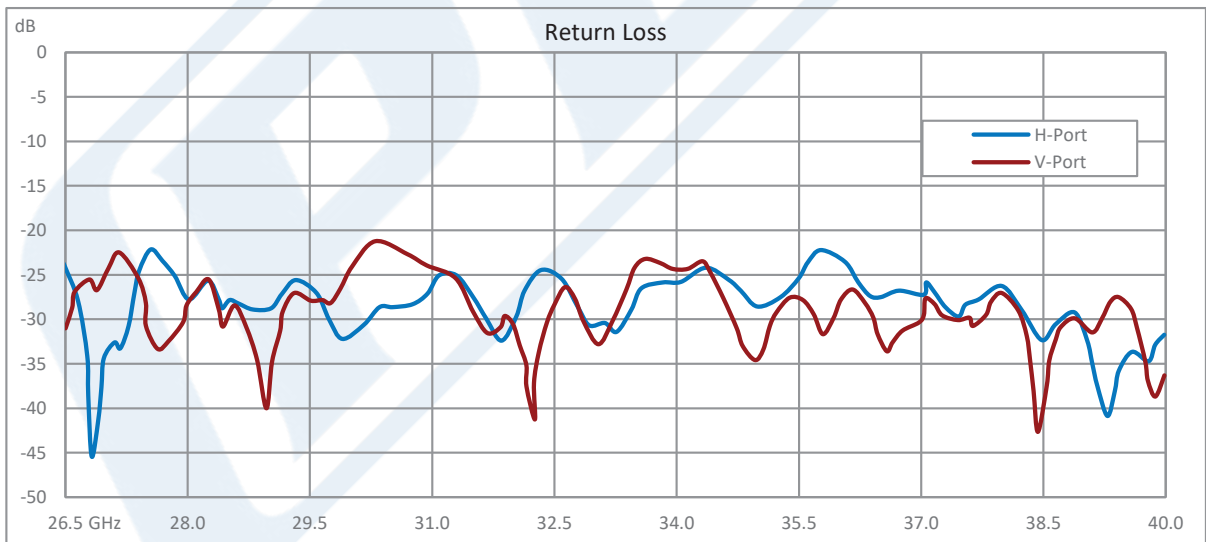
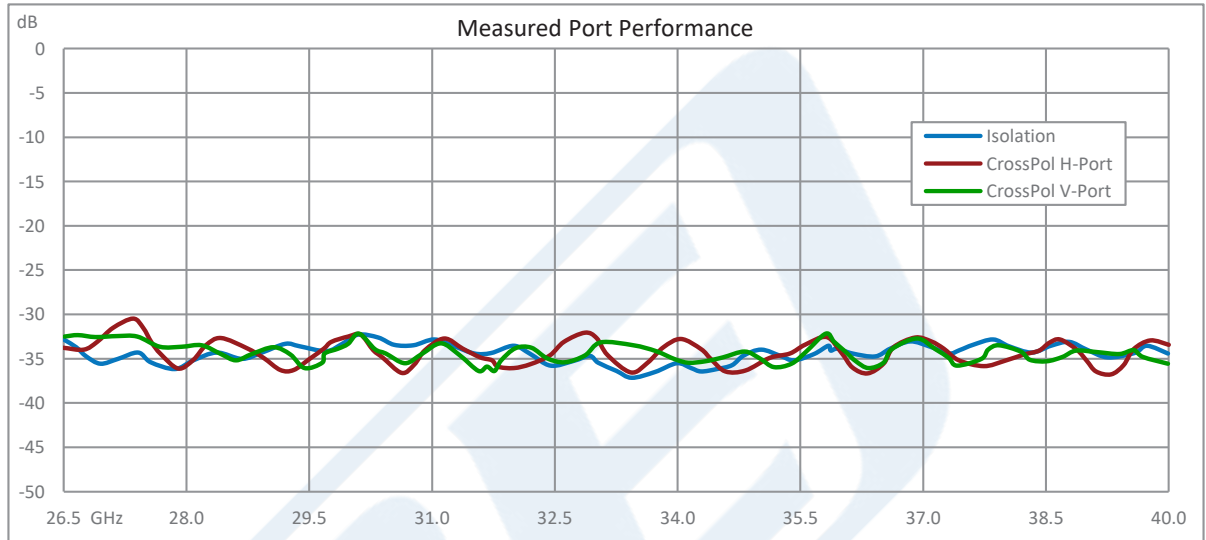
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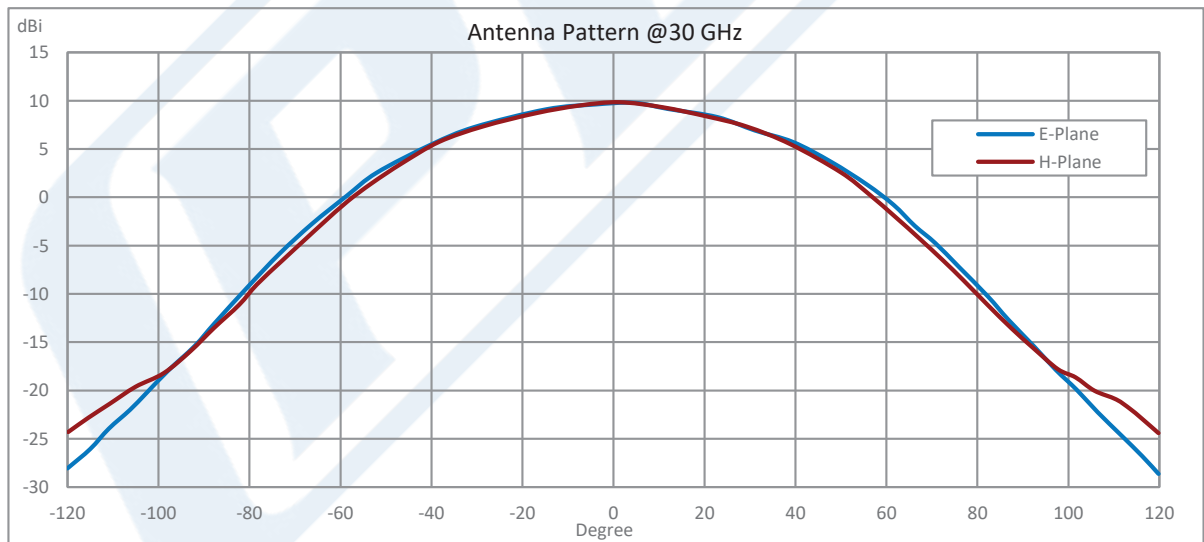
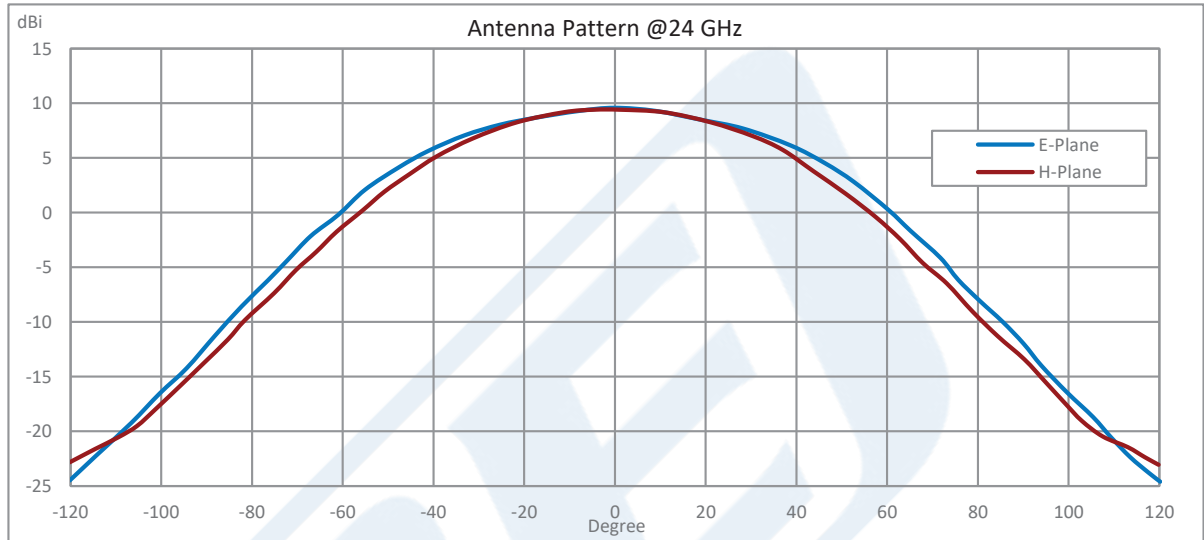
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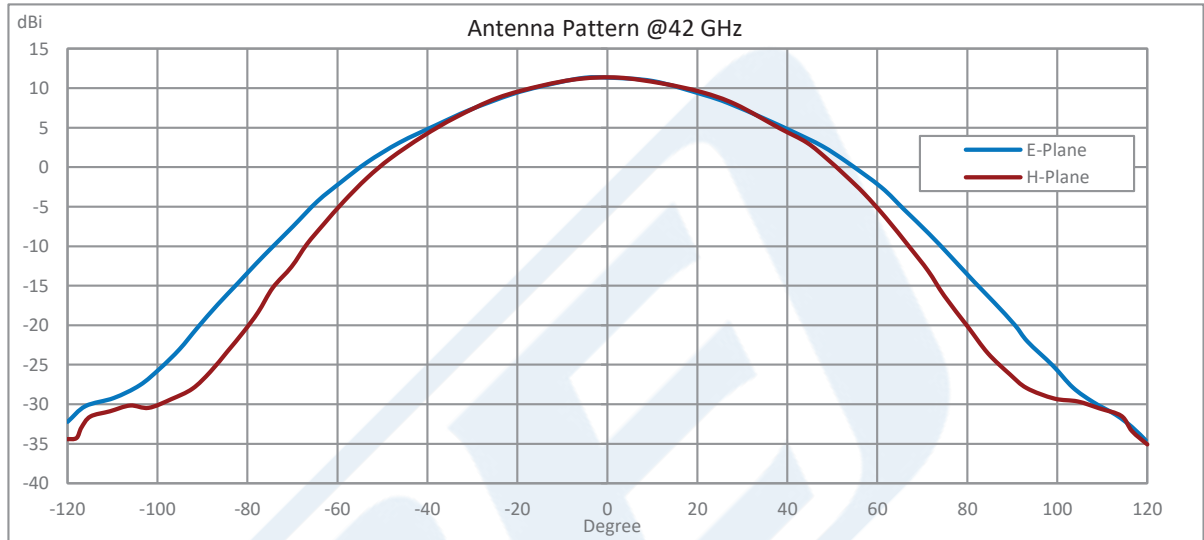
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WR-28 Waveguide Dual Polarized Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 10 dBi Gain, UG-599/U Flange from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products 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-28 Waveguide Dual Polarized Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 10 dBi Gain, UG-599/U Flange PEWAN1142](https://www.pasternack.com/wr-28-waveguide-gain-horn-antenna-10dbi-ug-599-square-choke-flange-pewan1142-p.aspx)

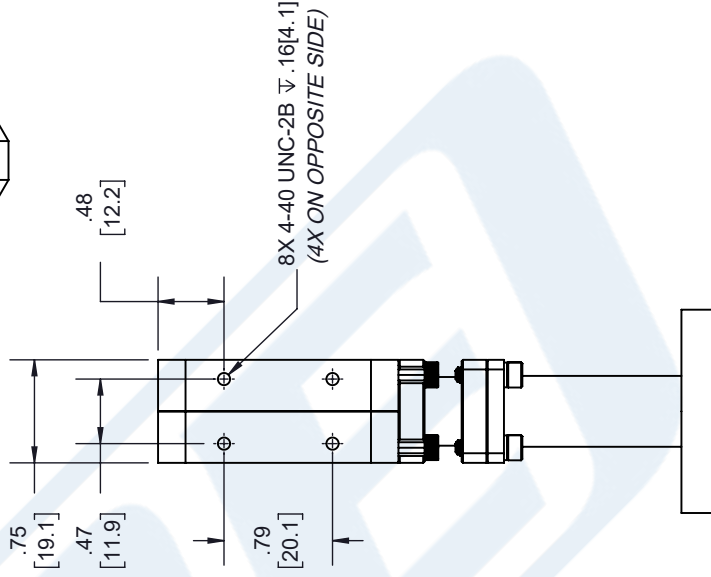
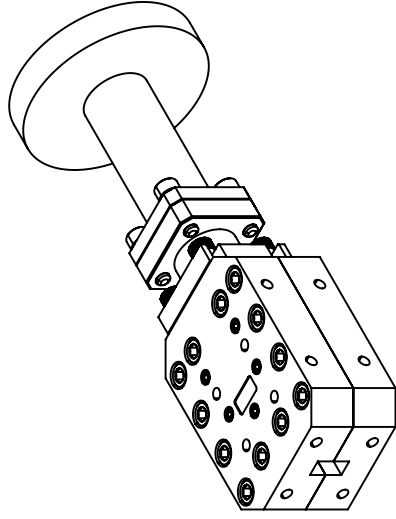
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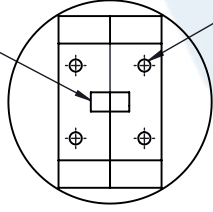
PEWAN1142 CAD Drawing

WR-28 Waveguide Dual Polarized Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 10 dBi Gain, UG-599/U Flange

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



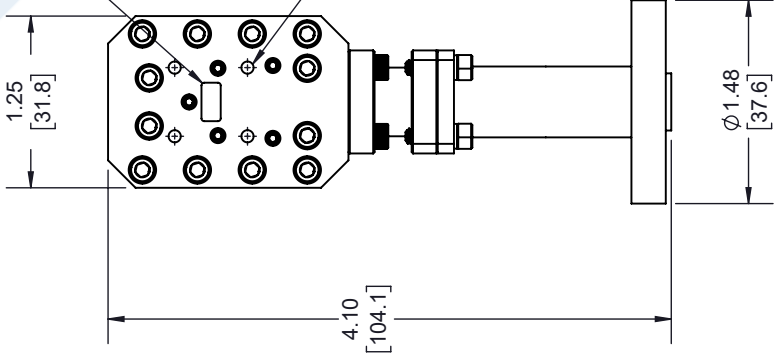
WR-28 WAVEGUIDE
UG-599/U COMPATIBLE FLANGE
(H-PORT)



4X 4-40 UNC-2B
∇ .18 [4.6]

WR-28 WAVEGUIDE
UG-599/U COMPATIBLE FLANGE
(V-PORT)

4X 4-40 UNC-2B
∇ .17 [4.3]



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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±1/32
XX±.01 [.25]	ANGLES ± 1°
XXX±.005 [0.13]	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

SIZE A
CAGE NUMBER 53919
DRAWN BY K.DANG
PART NUMBER PEWAN1142
REV A

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