



**WR-28 Waveguide Dual Polarized Scalar Feed
Horn Antenna, 24 GHz to 42 GHz Frequency
Range, 15 dBi Gain, UG-599/U Flange**

Waveguide Antennas Technical Data Sheet

PEWAN1112

Features

- 24 GHz to 42 GHz Frequency Range
- WR-28 Waveguide
- UG-599/U Threaded Flange
- Dual Linear Polarization
- High Port Isolation
- High Cross-Polarization Rejection

Applications

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

Description

Pasternack's PEWAN1112 is a WR-28 dual polarized scalar feed horn antenna that operates in the frequency range of 24 to 42 GHz. It 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 OMT enables the antenna to separate a circular or elliptical polarized waveform into two linear orthogonal waveforms, or vice versa. The antenna supports either vertical or horizontal polarized waveguide forms with a typical 35 dB cross polarization rejections, 15 dBi nominal gain at center frequency, typical 35 dB port isolation between horizontal and vertical ports, typical half power beamwidth of 35 degrees, and -25 dB sidelobe levels. The input of this antenna is a WR-28 waveguide with UG-599/U threaded flange.

Configuration

Design: WR-28 Dual Polarized Scalar Feed Horn
Polarization: Vertical/Horizontal

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	24		42	GHz
Nominal Gain		15		dBi
Horizontal Half Power Beam Width		35		Degrees
Vertical Half Power Beam Width		35		Degrees
VSWR		1.1:1		

Mechanical Specifications

Size:
Length: 4.1 in [104.14 mm]
Width: 1.6 in [40.64 mm]
Height: 0.75 in [19.05 mm]
Weight: 0.35 lbs [158.76 g]

Waveguide Interface

Waveguide Size: WR-28

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 Scalar Feed Horn Antenna, 24 GHz to 42 GHz Frequency Range, 15 dBi Gain, UG-599/U Flange PEWAN1112](#)



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Flange Designation
Body Material and Plating

UG-599/U
Aluminum, Gold

Environmental Specifications

Temperature

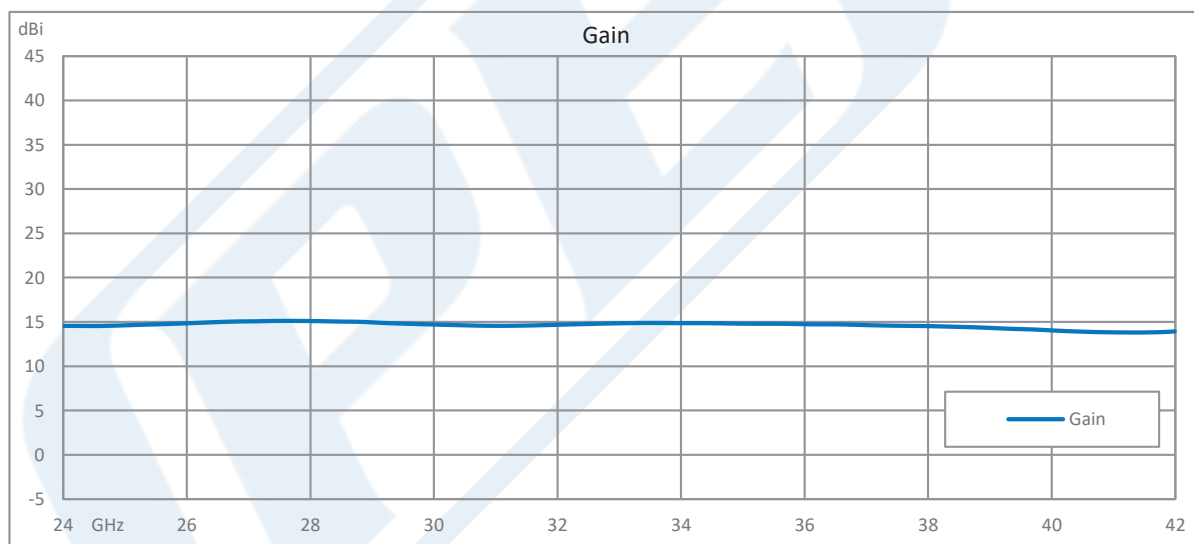
Operating Range

-40 to 85 deg C

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

Plotted and Other Data

Typical Performance Data



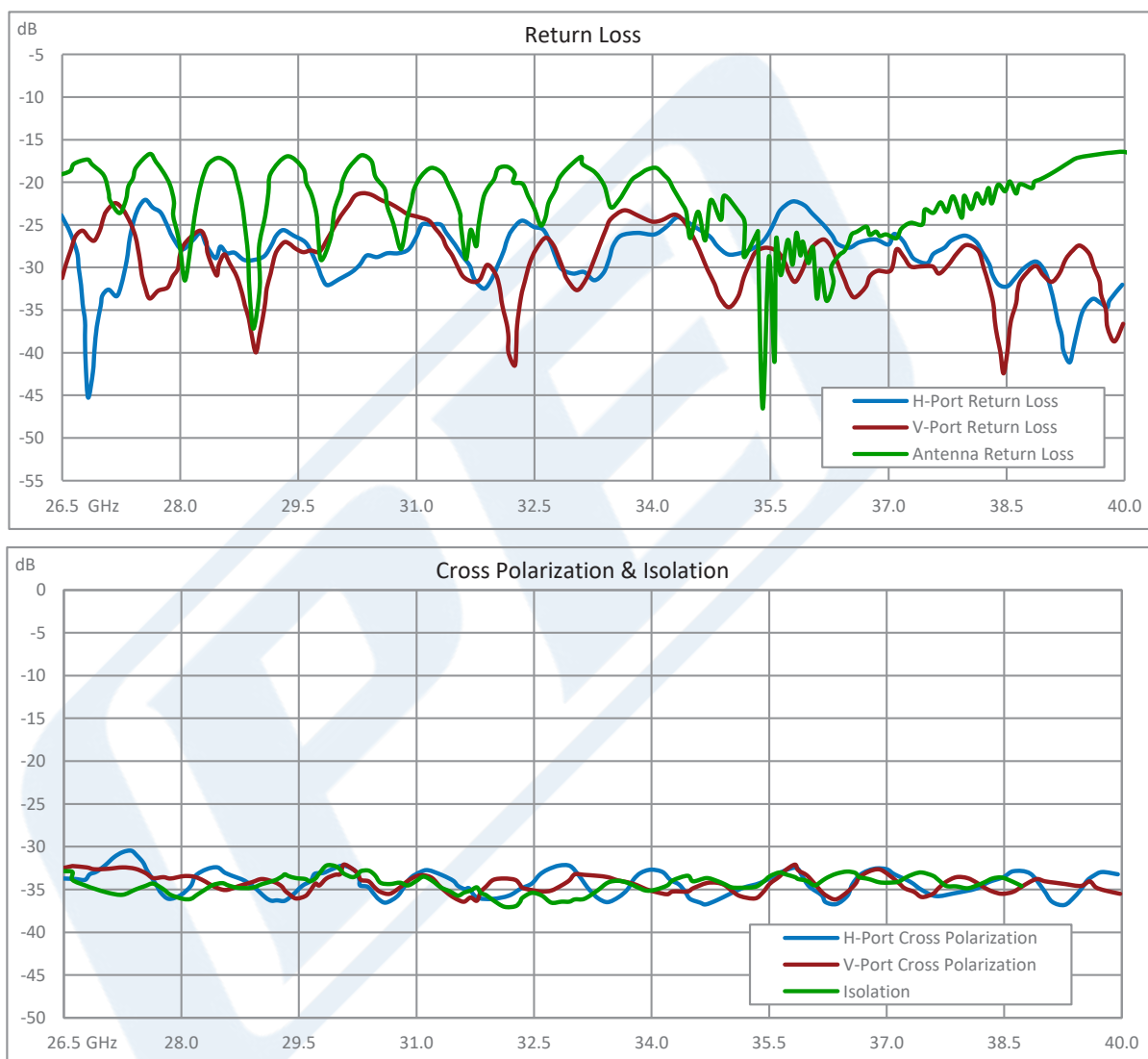
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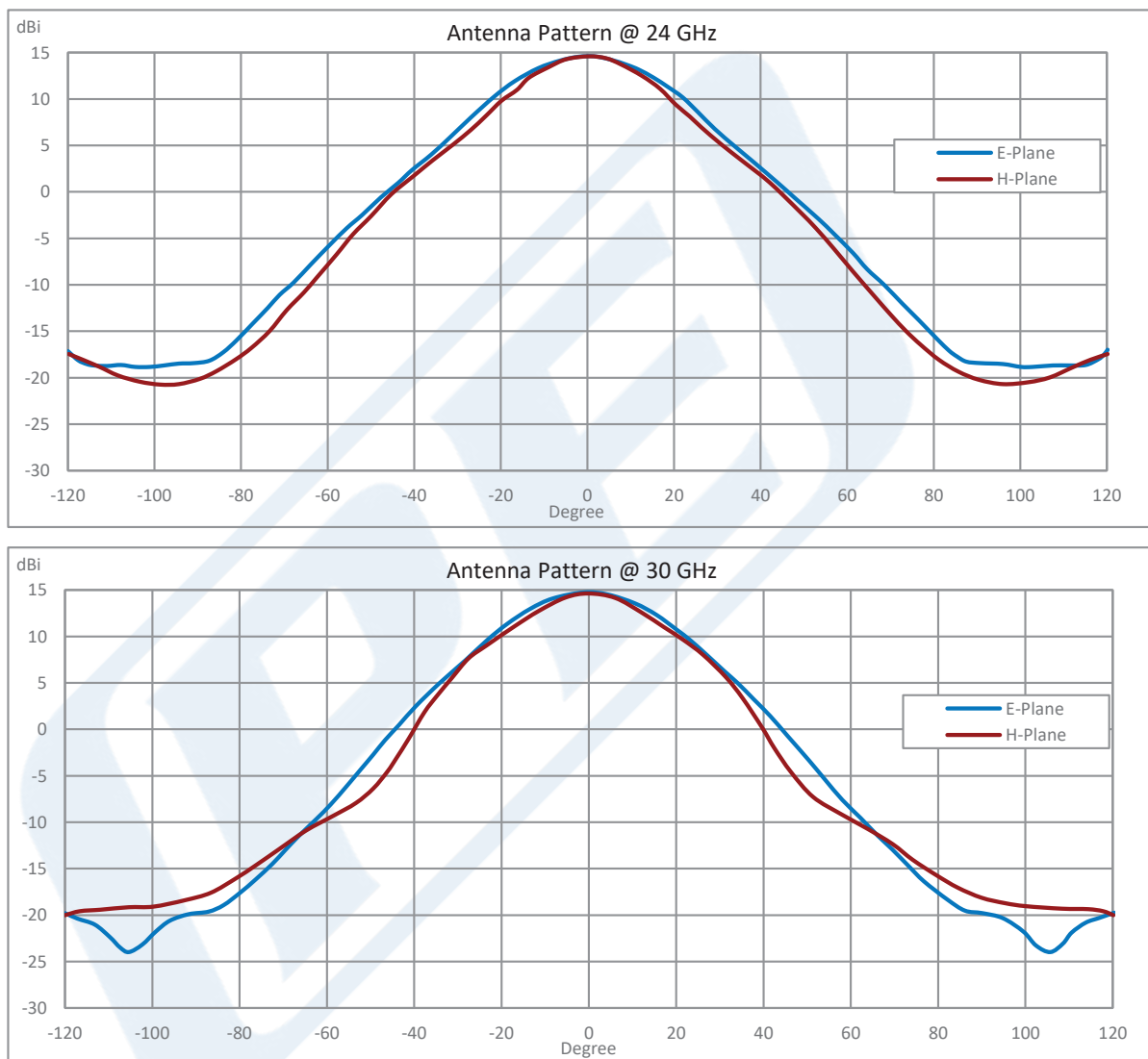
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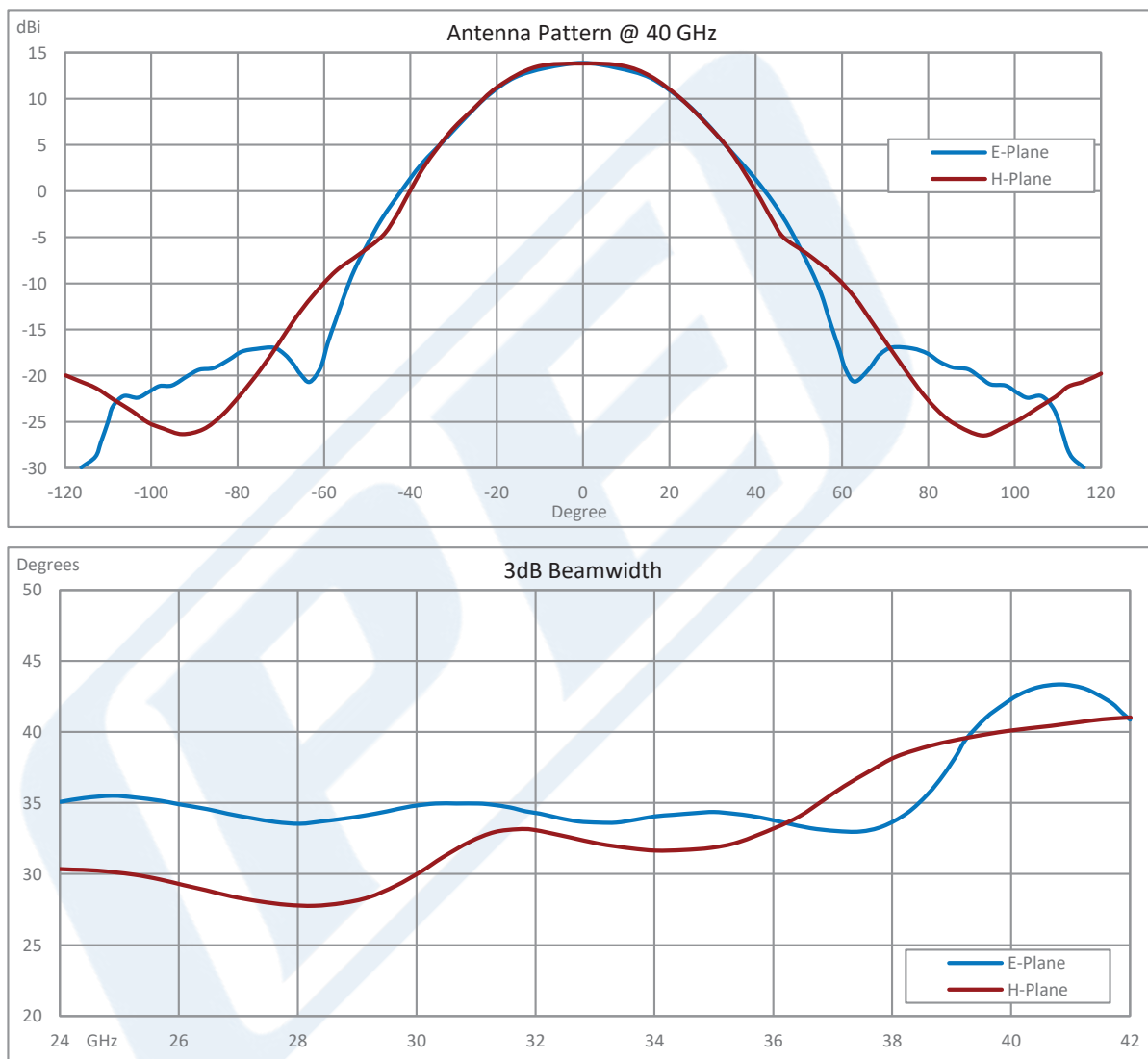
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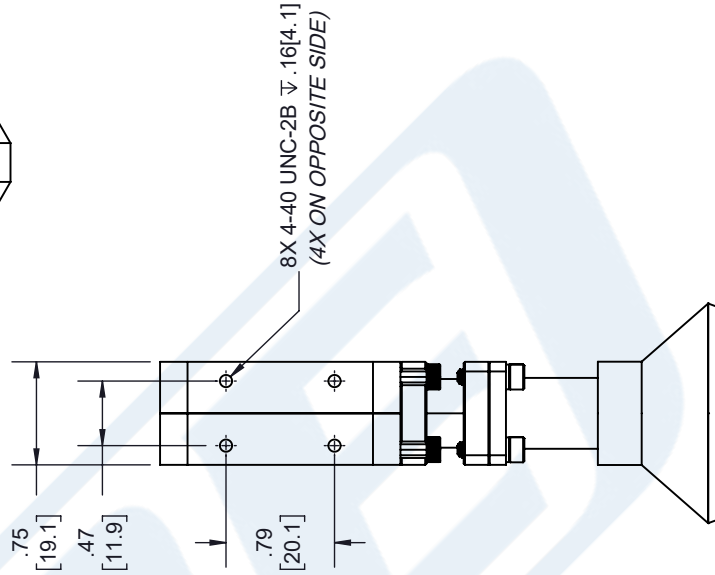
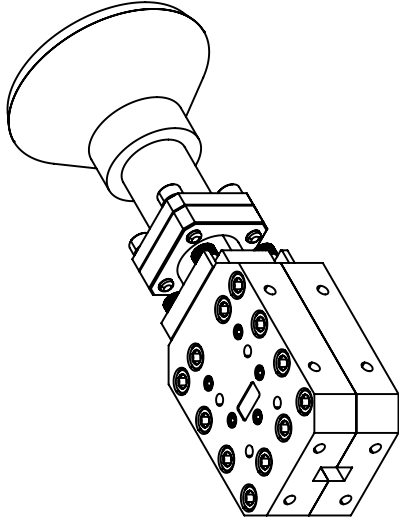
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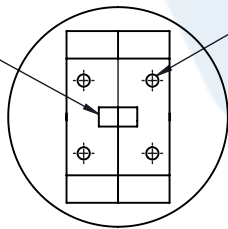
PEWAN1112 CAD Drawing

WR-28 Waveguide Dual Polarized Scalar Feed Horn Antenna, 24 GHz
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/16/19	M.MILLER



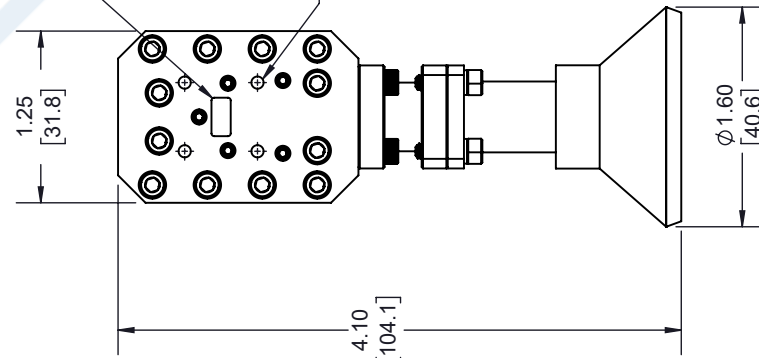
WR-28 WAVEGUIDE
UG-599/U COMPATIBLE FLANGE
(H-PORT)



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]



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±1/32
XX±.01 [.25]	ANGLES ± 1°
XXX±.005 [.13]	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

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SIZE	CAGE
A	53919
DRAWN BY	K.DANG
PART NUMBER	PEWAN1112
REV	A

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SCALE	N/A

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