



WR-12 Waveguide Dual Polarized Horn Antenna, 60 GHz to 90 GHz Frequency Range, 15 dBi Gain, UG-387/U Flange

Waveguide Antennas Technical Data Sheet

PEWAN1138

Features

- Full E Band Operations
- Linear and Circular Polarizations
- High Port Isolation
- High Cross Polarization Rejection

Applications

- IEEE 802.11ab WiGig
- Radar Systems
- Circular and Linear Waveform Separation and Combination

Description

Pasternack's PEWAN1138 is a full band, dual polarized, WR-12 horn antenna assembly that operates in the frequency range of 60 GHz to 90 GHz. The antenna features an integrated orthomode transducer that provides high port isolation. PEWAN1138 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 28 degrees on the E-plane, typical half power beamwidth of 33 degrees on the H-plane, and -15 dB sidelobe levels. The input of this antenna is a WR-12 waveguide with UG-387/U-M threaded flange.

Configuration

Design: WR-12 Dual Polarized Horn
Polarization: Linear/Circular

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	60		90	GHz
Nominal Gain		15		dBi
Horizontal Half Power Beam Width		33		Degrees
Vertical Half Power Beam Width		28		Degrees
VSWR		1.4:1		
V and H Port Isolation		45		dB
Cross Polarization Rejection		35		dB
Port Return Loss		15		dB

Mechanical Specifications

Size
Length: 2.03 in [51.56 mm]
Width: 0.8 in [20.32 mm]
Height: 0.8 in [20.32 mm]
Weight: 0.0875 lbs [39.69 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-12 Waveguide Dual Polarized Horn Antenna, 60 GHz to 90 GHz Frequency Range, 15 dBi Gain, UG-387/U Flange PEWAN1138](#)



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Waveguide Interface

Waveguide Size	WR-12
Flange Type	Square Cover
Flange Designation	UG-387/U
Body Material and Plating	Aluminum, Gold

Environmental Specifications

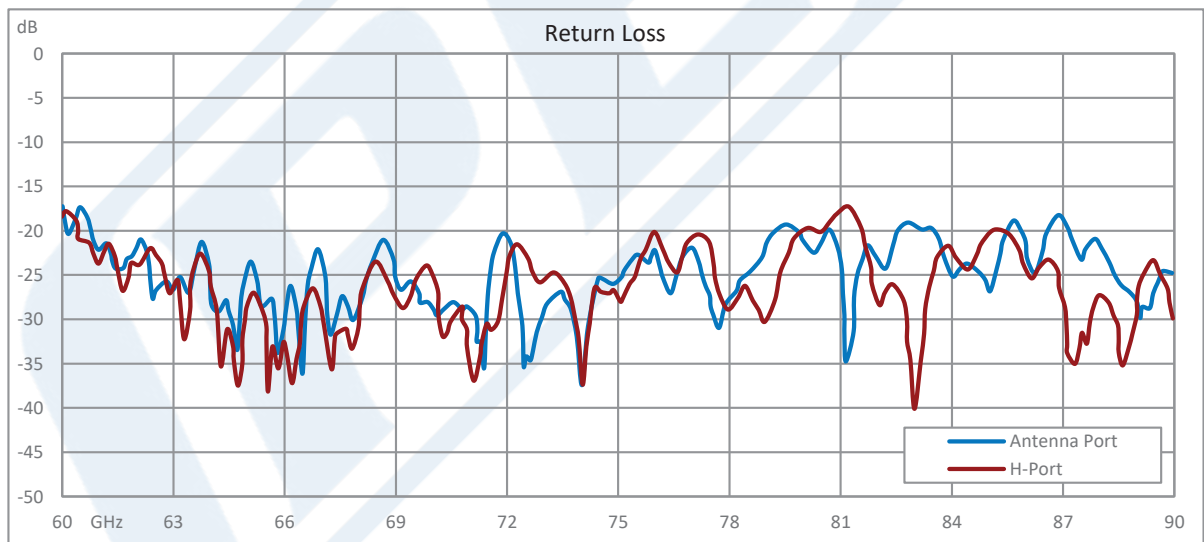
Temperature

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



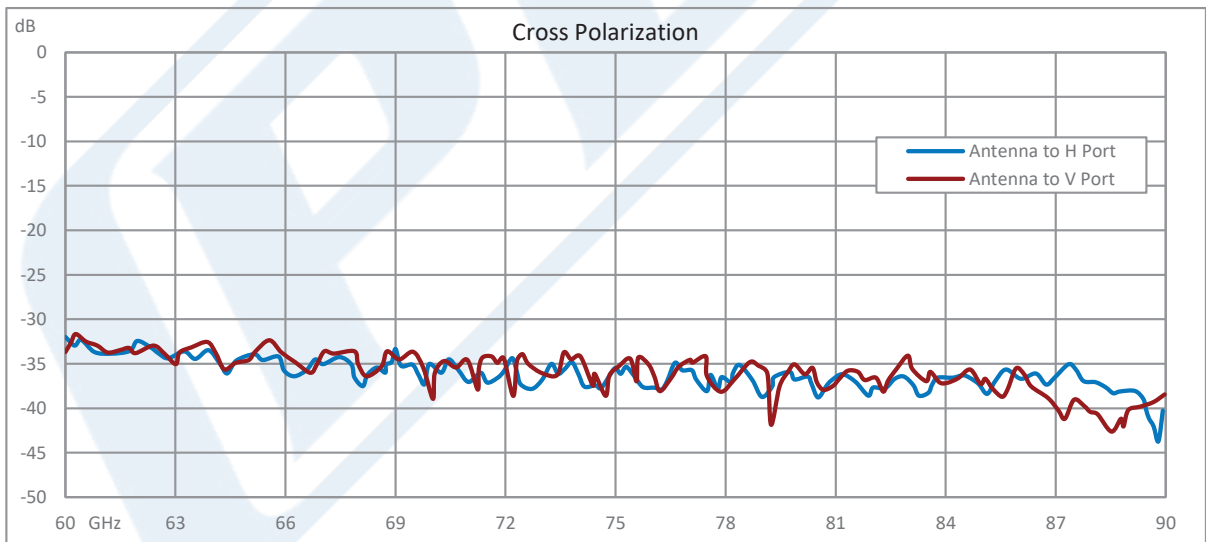
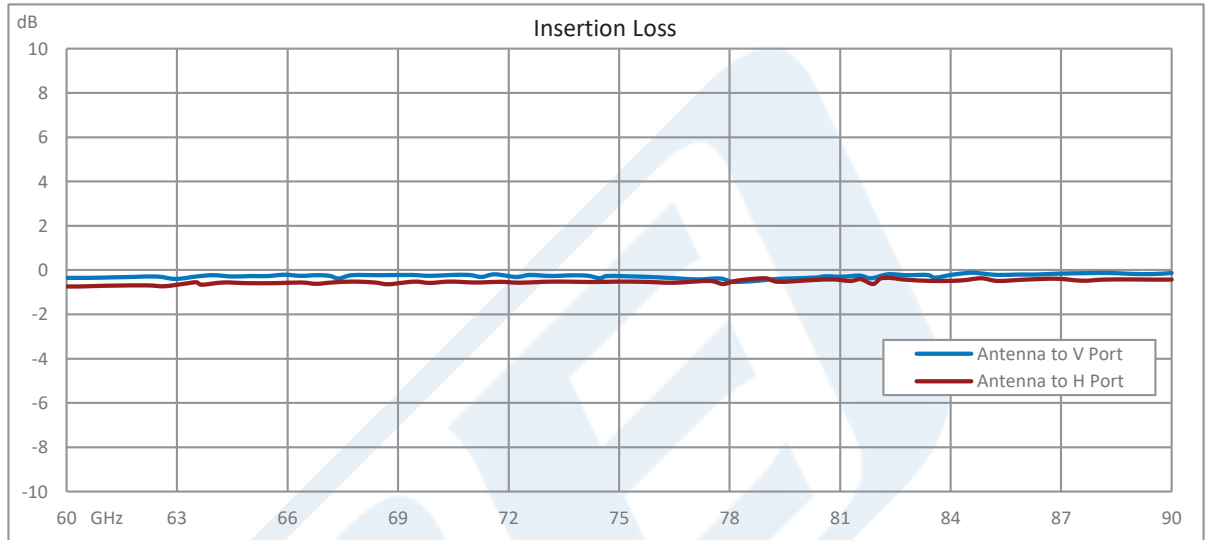
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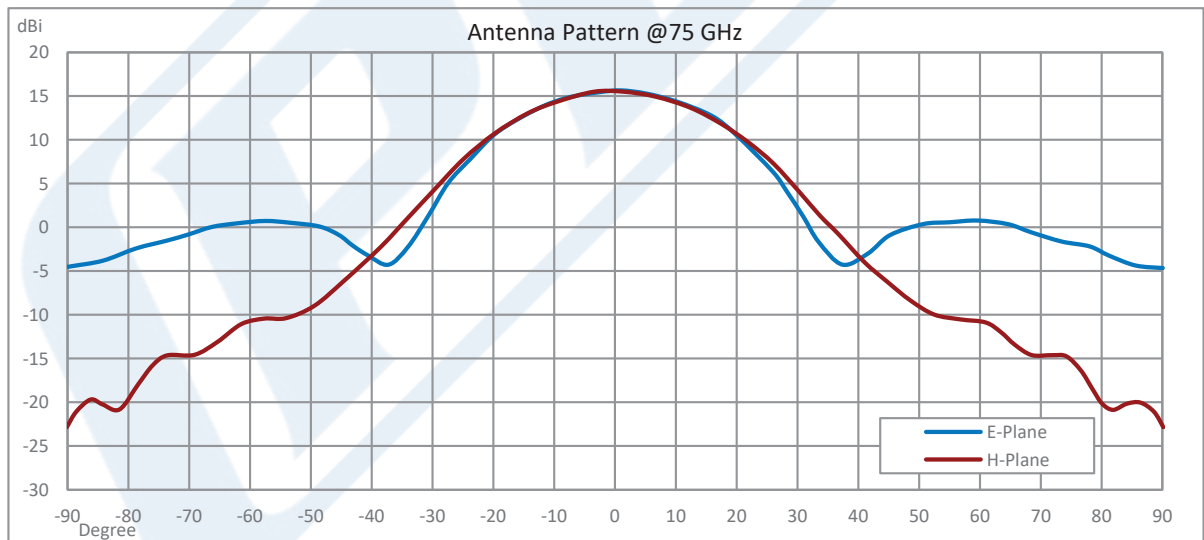
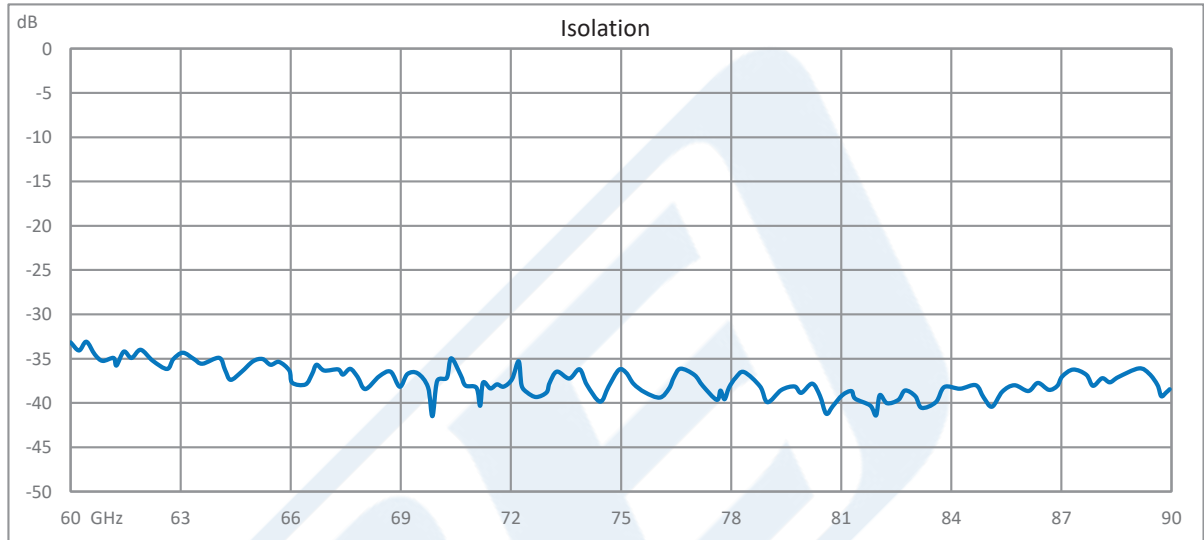
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WR-12 Waveguide Dual Polarized Horn Antenna, 60 GHz to 90 GHz Frequency Range, 15 dBi Gain, UG-387/U Flange from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain 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-12 Waveguide Dual Polarized Horn Antenna, 60 GHz to 90 GHz Frequency Range, 15 dBi Gain, UG-387/U Flange PEWAN1138](https://www.pasternack.com/wr-12-waveguide-gain-horn-antenna-15dbi-ug-387-square-flange-pewan1138-p.aspx)

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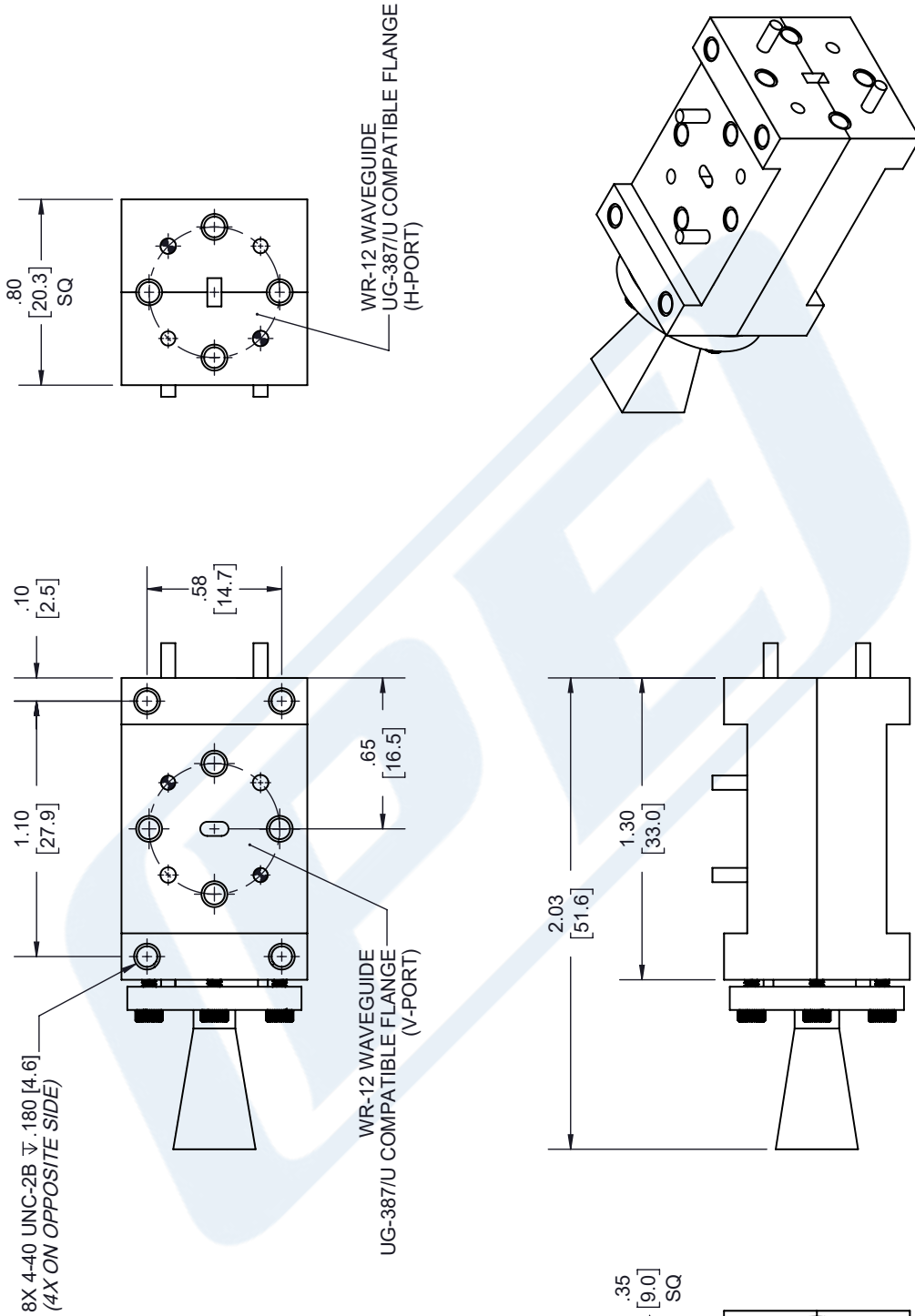
PEWAN1138 CAD Drawing

WR-12 Waveguide Dual Polarized Horn Antenna, 60 GHz to 90 GHz
 Frequency Range, 15 dBi Gain, UG-387/U Flange

REVISIONS

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

PASTERNAK
 PEWAN1138
 D/C: YYWW



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

TOLERANCES:
 X±.2 [5.08] FRACTIONS
 XX±.01 [0.25] ±1/32
 XXX±.005 [0.13] ANGLES ± 1°

ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.
 THIRD-ANGLE PROJECTION

(PE) PASTERNAK
 an INFINITO brand

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SHEET 1 OF 1
 SCALE N/A

REV A

SIZE A CAGE NUMBER 53919 DRAWN BY K.DANG PART NUMBER PEWAN1138

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