



26.5 to 40 GHz Orthomode Transducer, 40 dB Isolation, 35 dB
Cross Polarization, 0.280" x 0.280" Square Waveguide

TECHNICAL DATA SHEET

PEWOT0007

Pasternack's PEWOT0007 is a WR-28 orthomode transducer (OMT) operating across a frequency range from 26.5 GHz to 40 GHz. The OMT separates a circular or elliptical polarized waveform into two linear orthogonal waveforms or combines two linear polarized waveforms into one circular or elliptical polarized waveform or vice versa. The OMT supports either vertical or horizontal polarized waveguide forms with more than 30 dB cross polarization rejections. The OMT is configured with a 0.280" x 0.280" square waveguide for the antenna port and two WR-28 waveguides for the horizontal and vertical ports. All ports have standard UG-599/U flanges and 4-40 threaded holes.

Features

- WR-28 Orthomode Transducer
- Frequency Range: 26.5 GHz to 40 GHz
- High Isolation
- Low Insertion Loss
- Full Band Performance
- High Crosspol Rejection

Applications

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

Product Configuration

Design

Orthomode Transducer

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	26.5		40	GHz
Insertion Loss (H to A Port)		0.5		dB
Insertion Loss (V to A Port)		0.5		dB
Isolation (H to V Port)		40		dB
Cross Polarization (H to A Port)		35		dB
Cross Polarization (V to A Port)		35		dB
Return Loss (H Port)		15		dB
Return Loss (V Port)		15		dB
Vertical Return Loss (Port A)		15		dB
Horizontal Return Loss (Port A)		15		dB

Mechanical Specifications

Antenna Port	0.280" x 0.280" Square Waveguide
Waveguide Size (Horizontal & Vertical Ports)	WR-28
Flange Type	UG-599/U 4-40 Threaded Holes
Material	Aluminum
Plating	Gold

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [26.5 to 40 GHz Orthomode Transducer, 40 dB Isolation, 35 dB Cross Polarization, 0.280" x 0.280" Square Waveguide PEWOT0007](#)



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Size

Length	1.7 in [43.18 mm]
Width	1.25 in [31.75 mm]
Height	0.72 in [18.29 mm]
Weight	0.144 lbs [65.32 g]

Environmental Specifications

Temperature

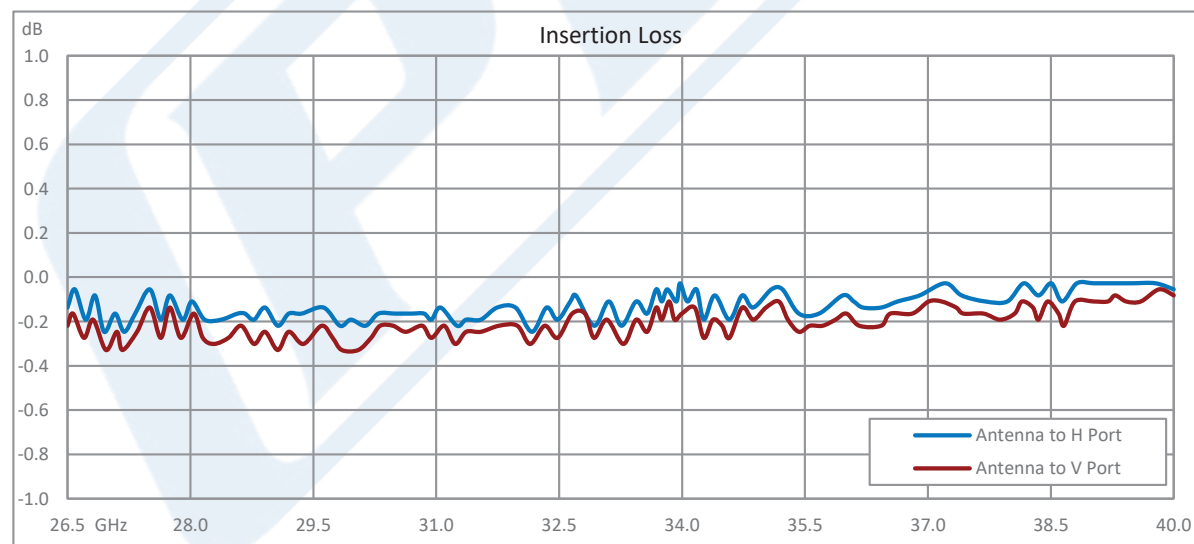
Operating Range -40 to +85 deg C

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

Plotted and Other Data

Notes:

- Values at +25 °C, sea level



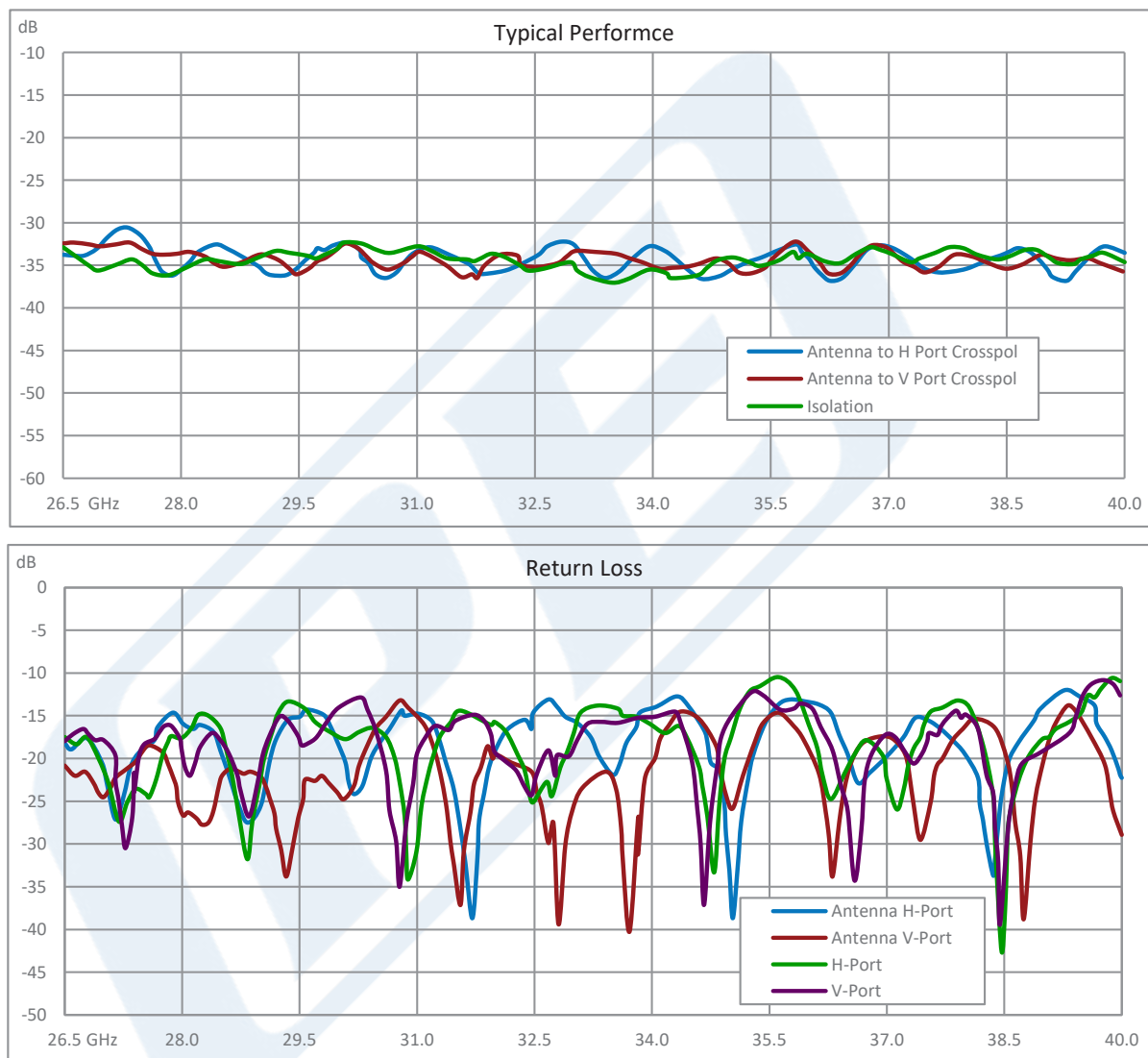
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26.5 to 40 GHz Orthomode Transducer, 40 dB Isolation, 35 dB Cross Polarization, 0.280" x 0.280" Square Waveguide from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products 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: [26.5 to 40 GHz Orthomode Transducer, 40 dB Isolation, 35 dB Cross Polarization, 0.280" x 0.280" Square Waveguide PEWOT0007](https://www.pasternack.com/pewot0007-p.aspx)

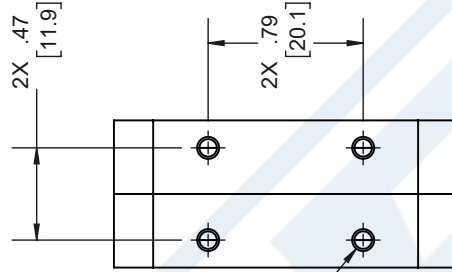
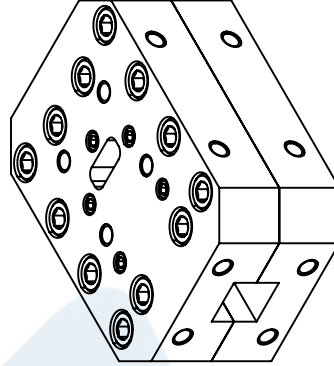
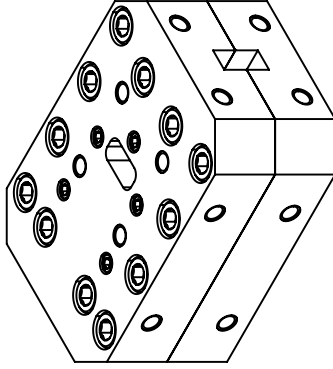
URL: <https://www.pasternack.com/pewot0007-p.aspx>

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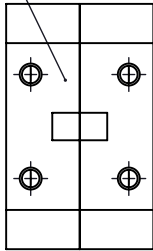
PEWOT0007 CAD Drawing

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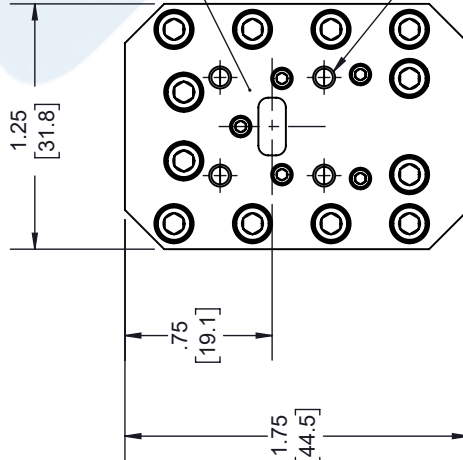
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	09/04/19	M.MILLER



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

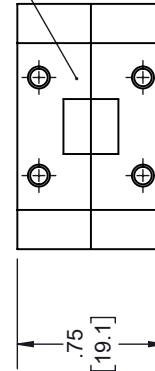


WR-28 WAVEGUIDE
UG-599/U COMPATIBLE FLANGE
(V PORT)



8X 4-40 UNC-2B .160 [4.06]
(4X ON OPPOSITE SIDE)

.280 [7.11] SQUARE WAVEGUIDE
UG-599/U COMPATIBLE FLANGE
(ANTENNA PORT)



8X 4-40 UNC-2B .180 [4.57]
(4X ON OPPOSITE SIDE)

LABEL

PASTERNAK
PEWOT0007
D/C: YYYY

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

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SCALE N/A	REV A
SIZE [CAGE] A 53919	PART NUMBER PEWOT0007
DRAWN BY K.DANG	

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