



## 4.9-5.8 GHz Dual Polarized/X-Polarity 30dBi Dish Antenna

### Antennas Technical Data Sheet

PE51PD1002

#### Features

- Adjustable dual polarity feed horn system allows the antenna to be configured for Dual Polarization (horizontal and vertical) or for X-Polarization (+45° and -45°)
- (2) N-Female connectors
- Includes tilt and swivel mast mount kit
- Optional radome cover kits available
- Aluminum reflector dish with UV stable light gray polymer finish

#### Applications

- 5.1/5.3/5.4/5.8 GHz ISM and UNII Band Applications
- 4.9 GHz Public Safety Band
- MIMO and 802.11 n Applications
- WiMAX Applications
- Long Distance Backhaul and Point to Point Data Links

#### Description

The HyperLink model PE51PD1002 is a high performance broadband dual polarized solid dish antenna. Because of its' superb electrical performance and mechanical stability, the parabolic dish antenna can be used in a wide variety of high performance 4.9GHz and 5GHz range (5.1/5.3/5.4/5.8GHz) wireless applications. The wide band design of this antenna eliminates the need to purchase different antennas for each frequency. This simplifies installations since the same antenna can be used for a wide array of wireless applications. This antenna features 28 - 30 dBi of gain with a 4.8° horizontal beam-width and 4.9° vertical beam-width.

The PE51PD1002 features an adjustable dual polarity feed horn system which allows the antenna to be configured for Dual Polarization (horizontal and vertical) or for X-Polarization (+45° and -45°). It is fed via two N-Female connectors, one for each polarized signals. This feature makes it ideal for MIMO/802.11n and polarization diversity systems.

The reflector dish of the PE51PD1002 is constructed from high quality aluminum which gives it superior strength. The dish is coated in a light gray UV-inhibited polymer for durability and aesthetics. The small diameter of the dish helps minimize wind loading.

The PE51PD1002 is supplied with a tilt and swivel mast mount kit. This allows installation at various degrees of incline for easy alignment. It can be adjusted up or down from 0° to 30°.

#### Configuration

Design	Dish
Band Type	Wide
Radiation Pattern	Directional
Polarization	H/V or 45 Deg. Slant
Connector Type	N Female
Interface 2	N Female
Number of Ports	2

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			1.5:1	
Impedance		50		Ohms
Front to Back Ratio		35		dB
Input Power			100	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz Dual Polarized/X-Polarity 30dBi Dish Antenna PE51PD1002](#)



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**Electrical Specification Notes:**

Polarization is adjustable - Dual Polarized (Vertical and Horizontal) or X-Polarized (+45degree and -45degree Slant)

**Specifications by Band**

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	4,750-5,850	5,400-5,800				MHz
Gain	30	28				dBi
Horizontal Beam Width	4.8					Degees
Vertical Beam Width	4.9					Degees
Maximum Input Power	100					Watts

**Mechanical Specifications**

Radome Material

ABS

**Size**

Overall Length

23.6 in [599.44 mm]

Width

23.6 in [599.44 mm]

Mounting Mast Diameter

1.6 to 3 in [40.64 to 76.20 mm]

Weight

15 lbs [6.8 kg]

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

**Plotted and Other Data**

Notes:

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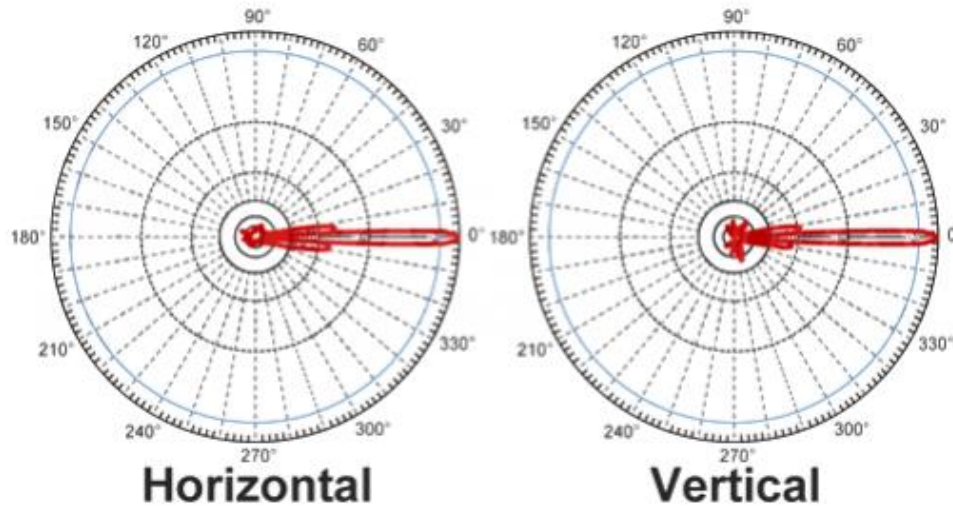


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#### Typical Radiation Pattern



4.9-5.8 GHz Dual Polarized/X-Polarity 30dBi Dish Antenna 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: [4.9-5.8 GHz Dual Polarized/X-Polarity 30dBi Dish Antenna PE51PD1002](https://www.pasternack.com/wide-antenna-0-gain-n-pe51pd1002-p.aspx)

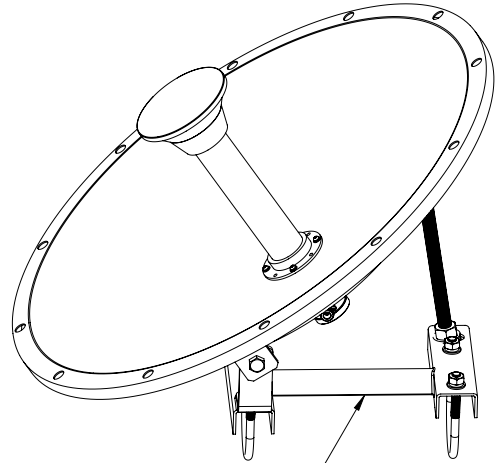
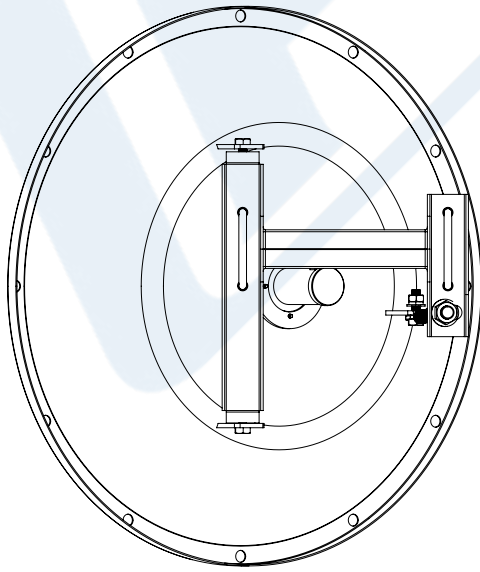
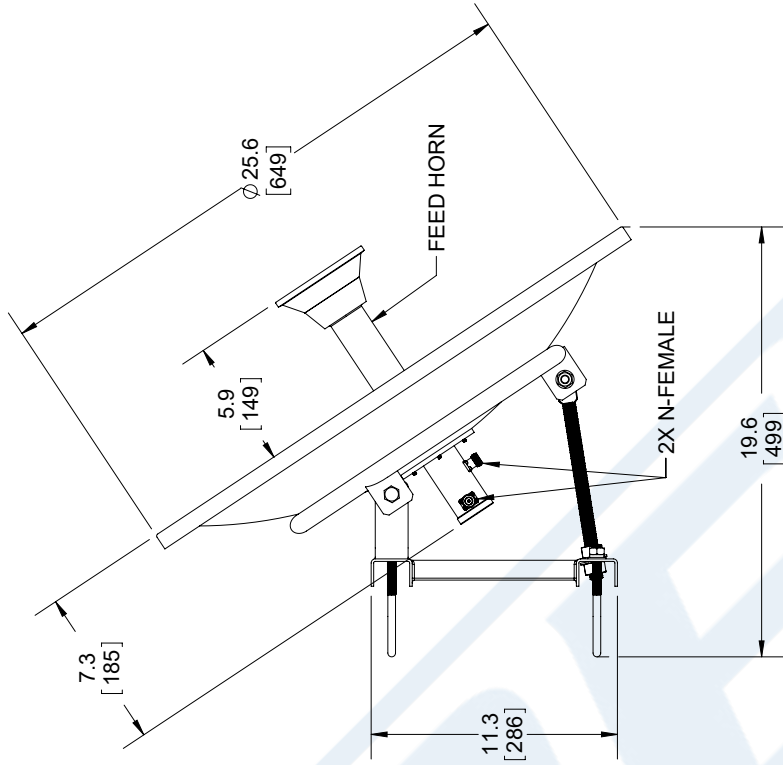
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# PE51PD1002 CAD Drawing

## 4.9-5.8 GHz Dual Polarized/X-Polarity 30dBi Dish Antenna

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/17/2020	M.MILLER



MOUNTING BRACKET WITH U-BOLTS

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 [5.08]    FRACTIONS ± 1/32</p> <p>.XX = ±.02 [.51]    ANGLES ± 1°</p> <p>.XXX = ±.005 [.13]</p> <p>CABLE LENGTH (L) TOLERANCES:</p> <p>L ≤ 12 [305] = +1 [25] / -0</p> <p>12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0</p> <p>60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0</p> <p>120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0</p> <p>300 [7620] &lt; L = +5% L / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>
<p>SIZE A</p> <p>CAGE CODE 53919</p> <p>DRAWN BY K.DANG</p> <p>ITEM NO PE51PD1002</p> <p>REV A</p>	

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EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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