



## 2.4 GHz 22 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna

### Antennas Technical Data Sheet

PE51PD1005

#### Features

- Aluminum reflector dish with UV stable light gray polymer finish
- Dual 12 inch antenna leads with terminated with N-Female connectors
- Includes tilt and swivel mast mount kit
- Optional radome cover kits available
- 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°)

#### Applications

- 2.4 GHz ISM band
- IEEE 802.11b/g/n wireless LAN, WiFi systems
- Long range directional applications
- Point to point and point to multi-point applications
- Wireless bridges and backhaul applications

#### Description

The HyperLink PE51PD1005 is a high performance 22 dBi dual polarized parabolic dish antenna ideal for long range directional applications such as point to point systems, point to multi-point and wireless bridges. It is designed for use in the 2.4GHz ISM band as well as IEEE 802.11b/g/n wireless LAN systems.

The PE51PD1005 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 12 inch N-Female antenna leads, one for each polarized signals. This feature makes it ideal for MIMO/802.11n and polarization diversity systems. For outdoor 802.11n or MIMO applications, two polarization diverse antennas are required for the radio to operate at its highest data rate. These features make this antenna ideal for MIMO systems.

The reflector dish of the PE51PD1005 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. Supplied with the antenna is a tilt and swivel mast mount kit. This allows installation at various degrees of incline for easy alignment.

#### Configuration

Design	Reflector Dish
Band Type	Single
Radiation Pattern	Directional
Polarization	H/V or 45 Deg. Slant
Connector Type	N Male
Interface 2	N Male
Number of Ports	2
Lightning Protection	DC Ground

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain		22		dBi
Front to Back Ratio		30		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: [2.4 GHz 22 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna PE51PD1005](#)



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#### Electrical Specification Notes:

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

#### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2,400-2,500					MHz
Gain	22					dBi
Horizontal Beam Width	13					Degrees
Vertical Beam Width	13					Degrees
Maximum Input Power	100					Watts

#### Mechanical Specifications

##### Size

Overall Length

23.62 in [599.95 mm]

Width

23.62 in [599.95 mm]

Mounting Mast Diameter

1.57 to 2.36 in [39.88 to 59.94 mm]

Weight

25.6 lbs [11.61 kg]

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

#### Plotted and Other Data

Notes:

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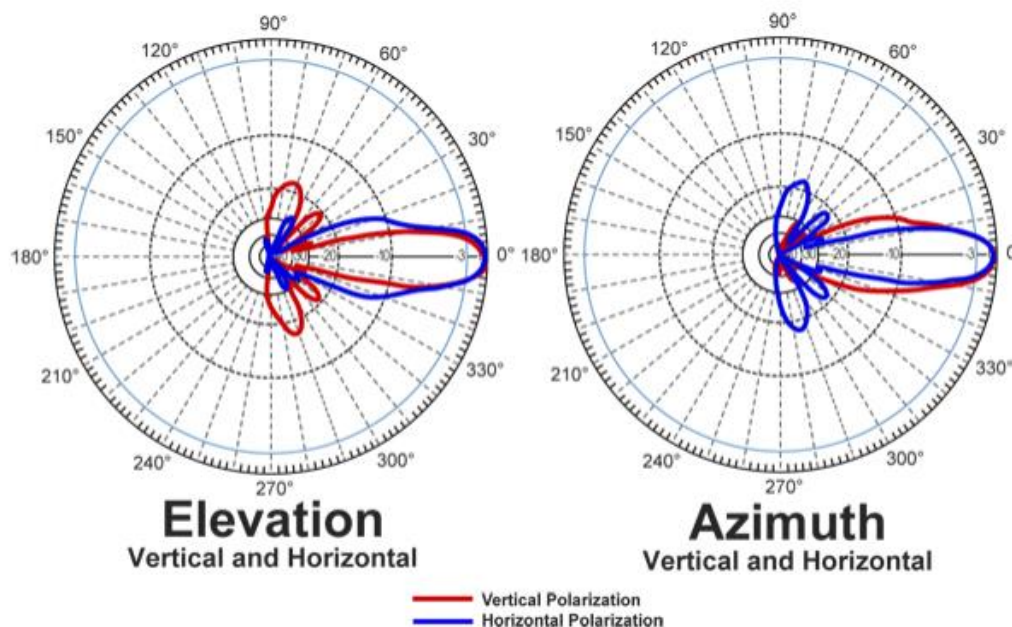


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#### Typical Radiation Pattern



2.4 GHz 22 dBi Dual & X-Polarized/Dual Feed Parabolic 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: [2.4 GHz 22 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna PE51PD1005](https://www.pasternack.com/single-antenna-22-dbi-gain-n-pe51pd1005-p.aspx)

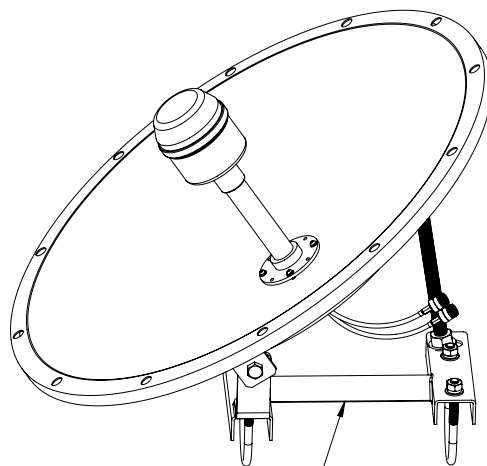
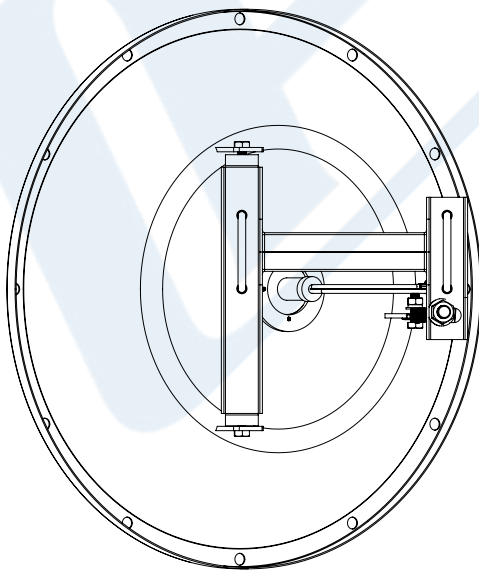
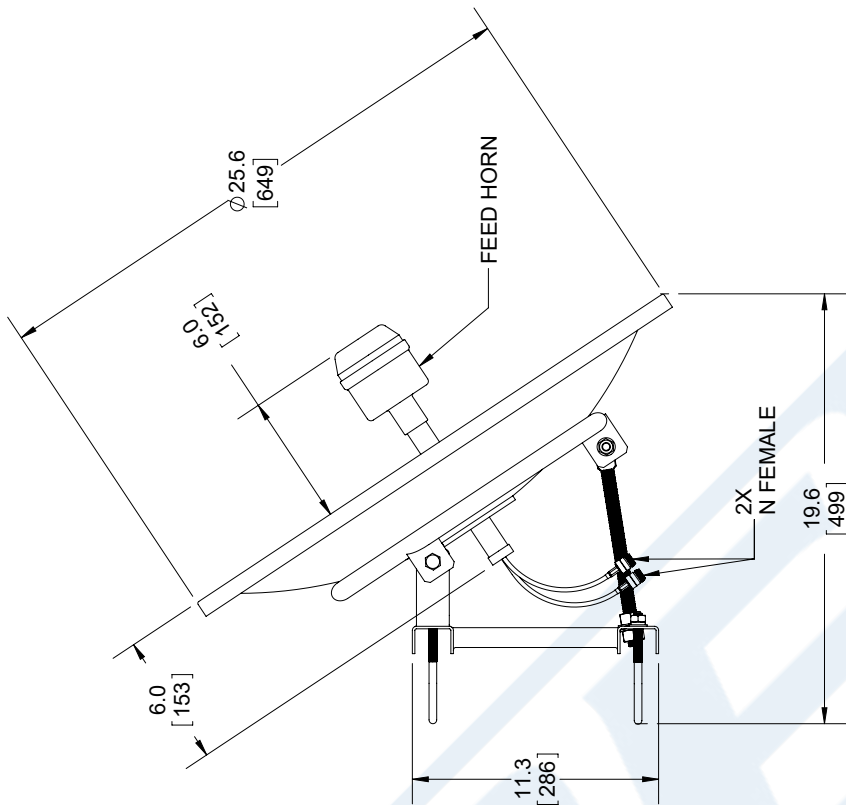
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# PE51PD1005 CAD Drawing

2.4 GHz 22 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna

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



MOUNTING BRACKET  
WITH U-BOLTS

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

**TOLERANCES:**

.X = ± .2	[ .08 ]	FRACTIONS	± 1/32
.XX = ± .02	[ .51 ]	ANGLES	± 1°
.XXX = ± .005	[ .13 ]	CABLE LENGTH (L)	TOLERANCES:

L ≤ 12 [305] = ± 1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5% L / -0

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

**THIRD-ANGLE PROJECTION**

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SHEET 1 OF 1

SCALE N/A

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SIZE A

CAGE CODE 53919

DRAWN BY K.DANG

ITEM NO. PE51PD1005

REV A

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EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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