



## 4.9-5.8 GHz Dual Polarized/X-Polarity 34dBi Dish Antenna

### Antennas Technical Data Sheet

PE51PD1003

#### 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
- Perforated aluminum reflector dish helps reduce wind loading and features a 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 802.11n Applications
- WiMAX Applications
- Long Distance Backhaul and Point to Point Data Links

#### Description

The HyperLink model PE51PD1003 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 31 - 34 dBi of gain with a 3.3° horizontal beam-width and 3.3° vertical beam-width.

The PE51PD1003 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 PE51PD1003 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. Perforated holes in the dish helps minimize wind loading.

The PE51PD1003 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		40		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 34dBi Dish Antenna PE51PD1003](#)



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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	34					dBi
Horizontal Beam Width	3.3					Degrees
Vertical Beam Width	3.3					Degrees
Maximum Input Power	100					Watts

#### Mechanical Specifications

##### Size

Overall Length	35.43 in [899.92 mm]
Width	35.43 in [899.92 mm]
Mounting Mast Diameter	1.6 to 3 in [40.64 to 76.20 mm]
Weight	25 lbs [11.34 kg]

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

#### Plotted and Other Data

Notes:

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 34dBi Dish Antenna PE51PD1003](#)

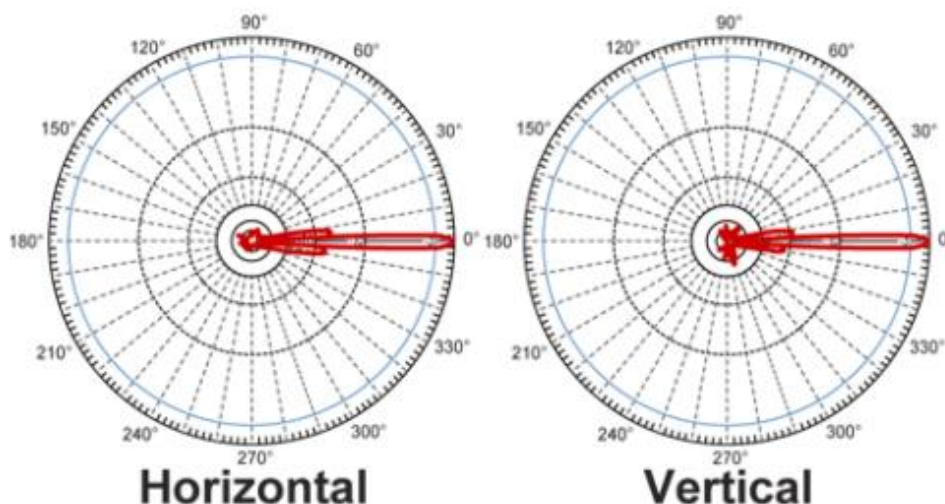


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Typical Radiation Pattern



4.9-5.8 GHz Dual Polarized/X-Polarity 34dBi 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.

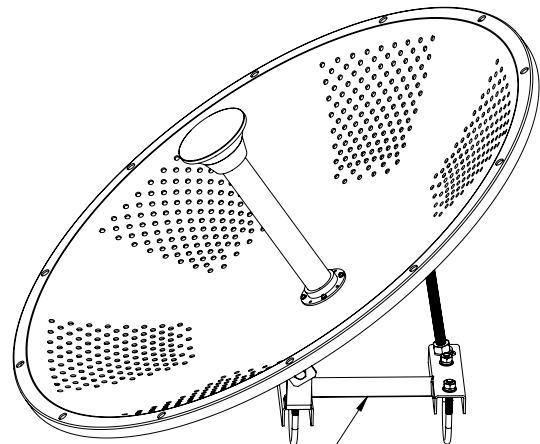
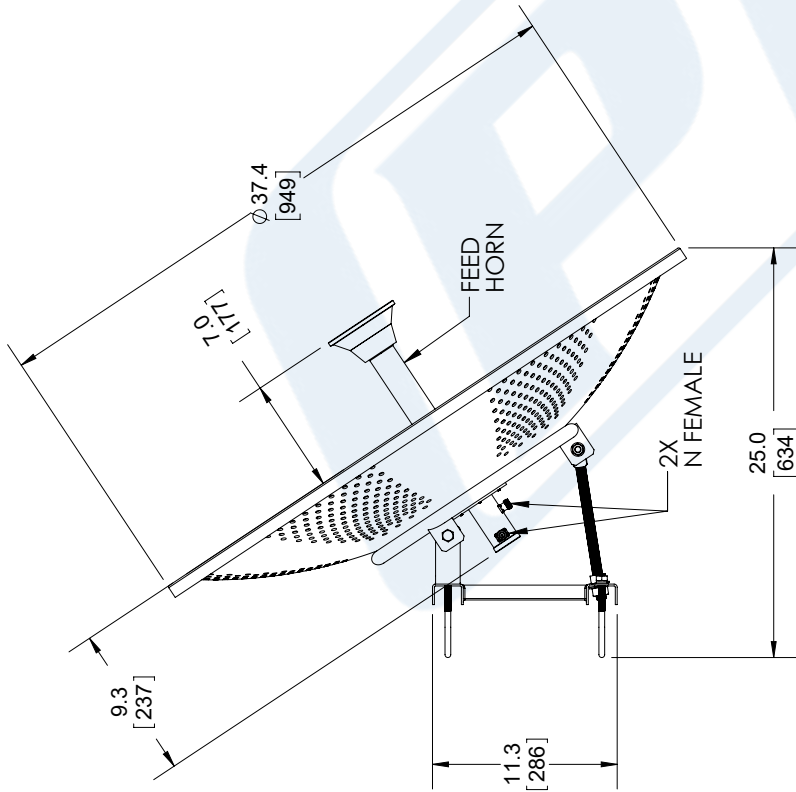
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.9-5.8 GHz Dual Polarized/X-Polarity 34dBi Dish Antenna PE51PD1003](https://www.pasternack.com/wide-antenna-0-gain-n-pe51pd1003-p.aspx)

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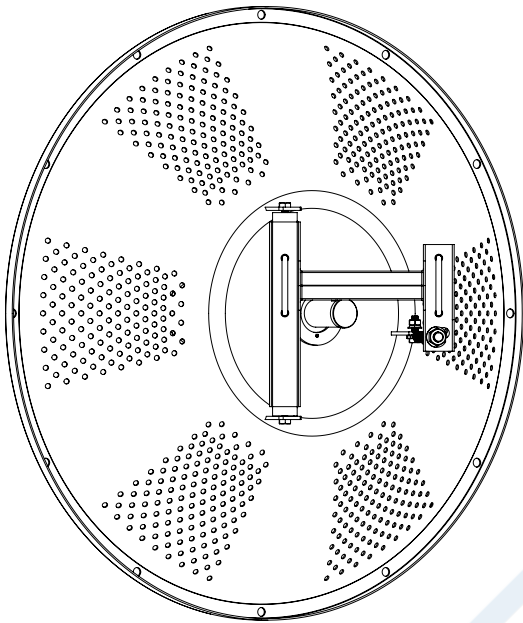
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PE51PD1003 CAD Drawing  
4.9-5.8 GHz Dual Polarized/X-Polarity 34dBi Dish Antenna

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	[5.08]	FRACTIONS
.XX = ± .02	[.51]	± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°

**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.

**PE PASTERNAK**  
an INFINITI brand

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SHEET 1 OF 1

SCALE N/A

SIZE A

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DRAWN BY K.DANG

ITEM NO. PE51PD1003

REV A

**REGULATORY COMPLIANCE:**  
EU RoHS Directive (Most Recent Released Version)

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