



2.4 GHz 18 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna

Antennas Technical Data Sheet

PE51PD1004

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 PE51PD1004 is a high performance 18 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 PE51PD1004 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 PE51PD1004 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 Female
Interface 2	N Female
Number of Ports	2
Lightning Protection	DC Ground

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain		18		dBi
Front to Back Ratio		25		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 18 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna PE51PD1004](#)



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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	18					dBi
Horizontal Beam Width	18					Degrees
Vertical Beam Width	19					Degrees
Maximum Input Power	100					Watts

Mechanical Specifications

Radome Material

Polymer

Size

Overall Length

15.75 in [400.05 mm]

Width

15.75 in [400.05 mm]

Mounting Mast Diameter

1.38 to 1.96 in [35.05 to 49.78 mm]

Weight

14.8 lbs [6.71 kg]

Mechanical Specification Notes:

Radome material is UV-stable Polymer.

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

Plotted and Other Data

Notes:

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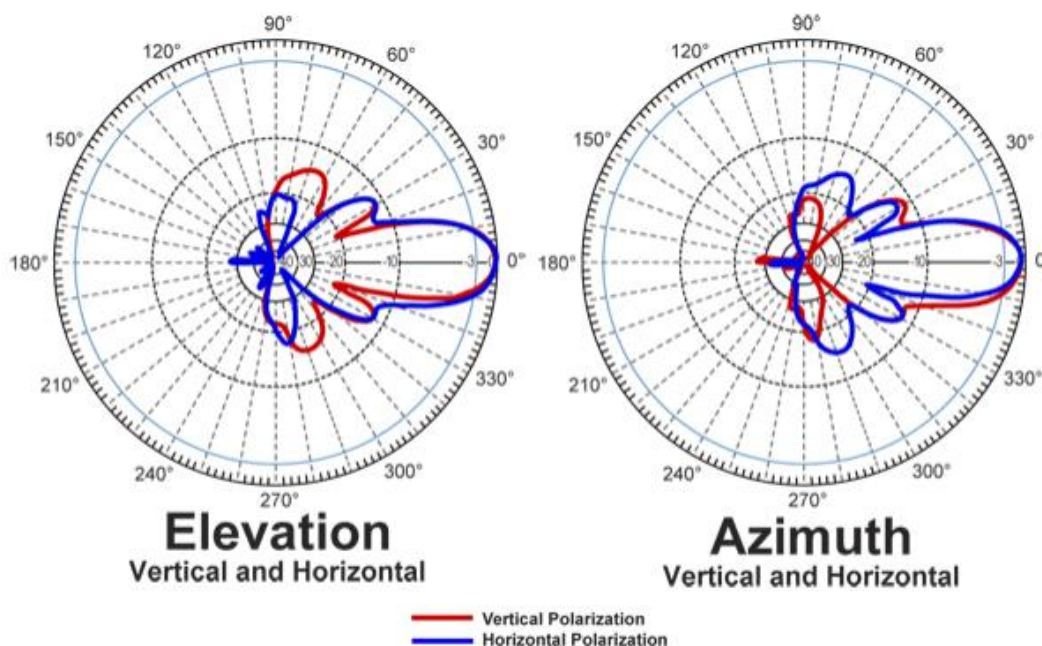


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Typical Radiation Pattern



2.4 GHz 18 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 18 dBi Dual & X-Polarized/Dual Feed Parabolic Dish Antenna PE51PD1004](https://www.pasternack.com/single-antenna-18-dbi-gain-n-pe51pd1004-p.aspx)

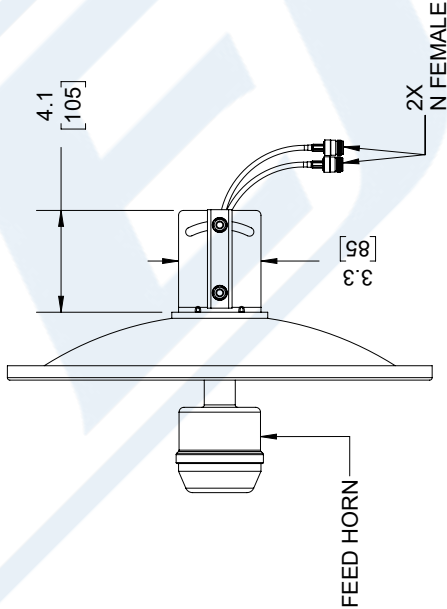
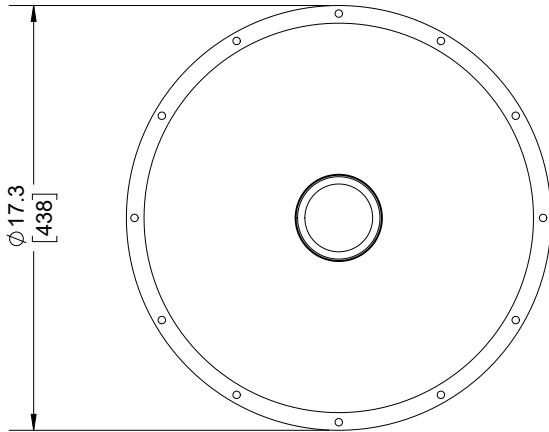
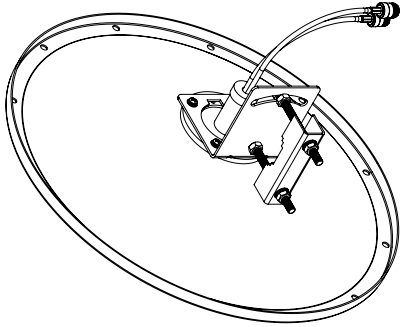
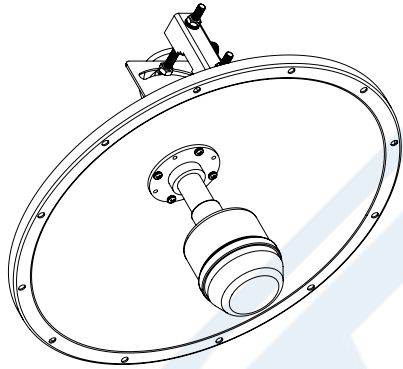
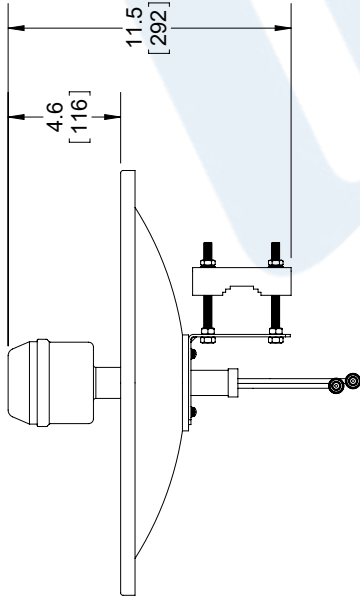
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PE51PD1004 CAD Drawing

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



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	K.DANG	PE51PD1004

REV A

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.

REGULATORY COMPLIANCE:

EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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