



# 800/900 MHz 3 dBi Omnidirectional Antenna

## Antennas Technical Data Sheet

PE51OM1013

### Features

- Superior all weather performance
- Rugged industrial grade design
- Lightweight fiberglass radome
- Integral N-Female connector
- Heavy-duty steel mounting bracket

### Applications

- 900 MHz ISM band and Wireless LAN systems
- Multipoint applications
- Non Line of Sight (NLOS)
- LPWAN , LoRA, IoT, M2M applications
- GSM, SCADA applications

### Description

The HyperLink PE51OM1013 is a high performance omnidirectional antenna designed for the 800 MHz / 900 MHz ISM band. It is ideally suited for multipoint, Non Line of Sight (NLOS) and mobile applications where high gain and wide coverage is desired. Typical applications include 900 MHz Wireless LAN, SCADA, Wireless Video Links, LPWAN/IoT/M2M, and 800 MHz as well as 900 MHz Cellular band applications.

This antenna features an integral N-Female bulkhead type connector that mounts through the wall of an equipment enclosure. Included with the PE51OM1013 is a mast mounting kit. Consisting of a heavy-duty steel bracket and a pair of U-bolts, this kit allows installation on masts up to 2.0" in diameter.

This omni antenna's construction features a rugged 1.3" diameter white high intensity fiberglass radome for durability and aesthetics. It is designed for all weather operation.

### Configuration

Design	Omni
Band Type	Wide
Radiation Pattern	Omni Directional
Polarization	Vertical
Connector Type	N Female
Number of Ports	1

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR		1.5:1		
Impedance		50		Ohms
Gain		3		dBi
Input Power			100	Watts

### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	824-960					MHz
Gain	3	6				dBi
Horizontal Beam Width	360					Degees

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [800/900 MHz 3 dBi Omnidirectional Antenna PE51OM1013](#)



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Vertical Beam Width	70	Degees
Maximum Input Power	100	Watts

#### Mechanical Specifications

Radome Material	Fiberglass
<b>Size</b>	
Overall Length	13.4 in [340.36 mm]
Width	1.3 in [33.02 mm]
Height	1.3 in [33.02 mm]
Mounting Mast Diameter	1.2 to 2 in [30.48 to 50.80 mm]
Weight	1.5 lbs [680.39 g]

#### Environmental Specifications

<b>Temperature</b>	
Operating Range	-40 to +85 deg C
Wind Loading	130 MPH [209.21 KPH]

**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: [800/900 MHz 3 dBi Omnidirectional Antenna PE51OM1013](#)

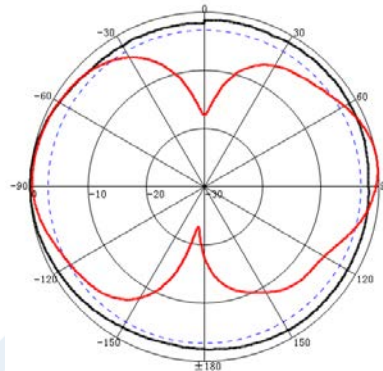


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PE510M1013

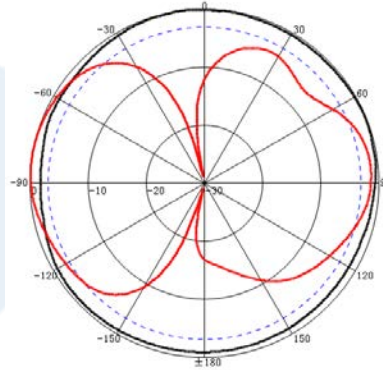
RF Antenna Patterns – PE510M1013



Freq:824MHz  
Date:2014-04-10  
Elevation:H-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:12.30dB  
HPBW(3dB):360.00°  
FDR:1.24dB

Freq:824MHz  
Date:2014-04-10  
Elevation:V-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:15.65dB  
HPBW(3dB):49.17°  
FDR:0.33dB

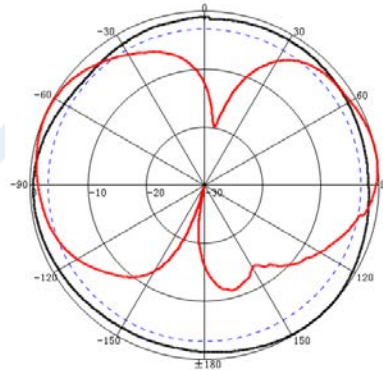
Gain:3.58dBi



Freq:890MHz  
Date:2014-04-10  
Elevation:H-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:12.22dB  
HPBW(3dB):360.00°  
FDR:0.75dB

Freq:890MHz  
Date:2014-04-10  
Elevation:V-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:16.25dB  
HPBW(3dB):97.37°  
FDR:1.27dB

Gain:3.45dBi



Freq:960MHz  
Date:2014-04-10  
Elevation:H-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:13.42dB  
HPBW(3dB):360.00°  
FDR:1.35dB

Freq:960MHz  
Date:2014-04-10  
Elevation:V-plane  
Polar-Across:Main  
Polarization:Vertical  
Max:16.20dB  
HPBW(3dB):63.92°  
FDR:0.18dB

Gain:3.83dBi

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [800/900 MHz 3 dBi Omnidirectional Antenna PE510M1013](#)



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PE51OM1013

800/900 MHz 3 dBi Omnidirectional 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: [800/900 MHz 3 dBi Omnidirectional Antenna PE51OM1013](https://www.pasternack.com/wide-antenna-3-dbi-gain-n-pe51om1013-p.aspx)

URL: <https://www.pasternack.com/wide-antenna-3-dbi-gain-n-pe51om1013-p.aspx>

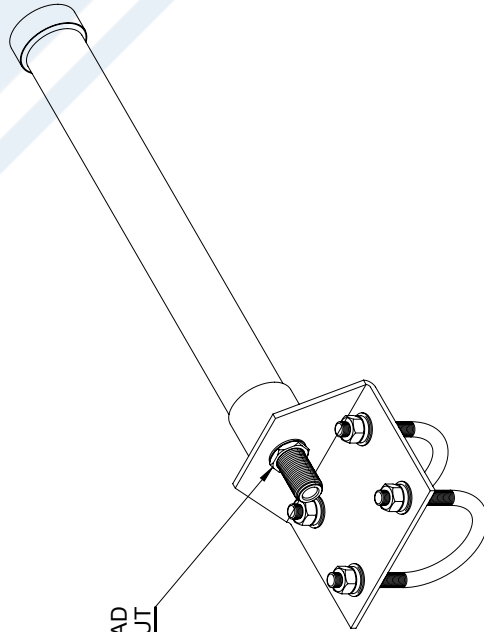
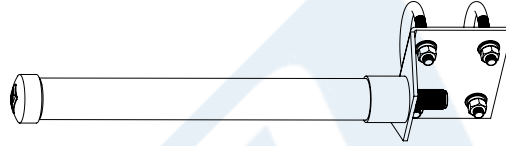
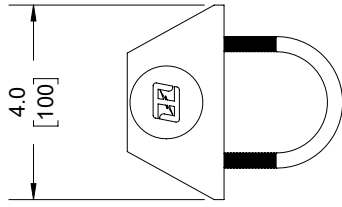
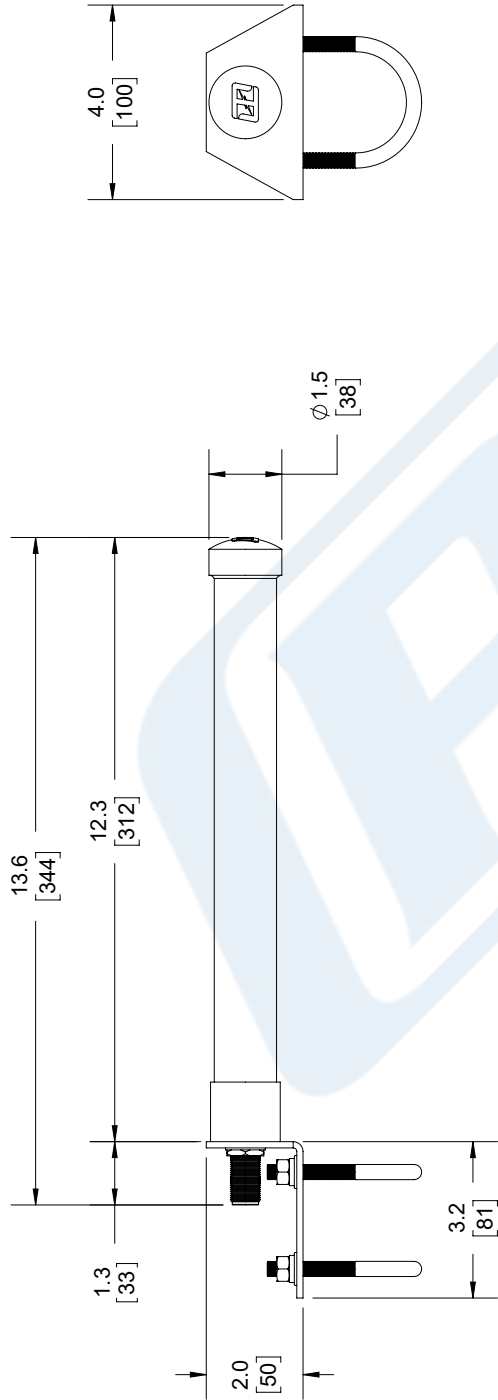
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# PE51OM1013 CAD Drawing

## 800/900 MHz 3 dBi Omnidirectional Antenna

### REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/13/2020	M.MILLER



**N FEMALE BULKHEAD  
WITH WASHER AND HEX NUT**

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

**TOLERANCES:**

.X = ±.2	[5.08]	FRACTIONS	± 1/32
.XX = ±.02	[.51]	ANGLES ± 1°	
.XXX = ±.005	[.13]	<b>CABLE LENGTH (L) TOLERANCES:</b>	
		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% / -0	

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO
A	53919	K.DANG	PE51OM1013
REV	REV		REV
			A

**REGULATORY COMPLIANCE:**  
EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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