



900 MHz 3 dBi Omni-directional Antenna

Antennas Technical Data Sheet

PE510M1017

Features

- Superior all weather performance
- Rugged industrial grade design
- Lightweight slim fiberglass radome
- Integral N-Female connector
- Extruded aluminum mounting bracket

Applications

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

Description

The 900 MHz UP-series are lightweight, low profile, high performance Omni-directional antennas designed for the 900 MHz ISM band. They are ideally suited for multipoint, Non Line of Sight (NLOS) and mobile applications where compact form factor, high gain and wide coverage is desired. Typical applications for these antennas include 900 MHz Wireless LAN, SCADA, Wireless Video Links, M2M, LPWAN, LoRA and M2M applications. The UP-series antennas feature an integral N-Female type connector and include a mast mounting kit. The kit consists of an extruded aluminum bracket and a pair of U-bolts which allows installation on masts up to 2.0" in diameter. To ease installation, the bracket can be installed first without the antenna which can then be mounted after the bracket is installed. The UP-series antennas feature a slim 20 mm diameter white UV-stable fiberglass radome providing durability. Additionally, these antennas are designed with a sealed aluminum end cap and includes drain holes at the aluminum base to help prevent condensation build-up inside the antenna providing trouble-free performance.

Configuration

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

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	900		928	MHz
Input VSWR		1.6:1		
Impedance		50		Ohms
Gain		3		dBi
Horizontal (Azimuth) Beam Width		Omnidirectional		
Vertical (Elevation) Beam Width		44		Degrees
Input Power			50	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [900 MHz 3 dBi Omni-directional Antenna PE510M1017](#)



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Mechanical Specifications

Radome Material	Fiberglass
Size	
Overall Length	13.8 in [350.52 mm]
Width	0.79 in [20.07 mm]
Height	0.79 in [20.07 mm]
Mounting Mast Diameter	2 in [50.80 mm]
Weight	1.06 lbs [480.81 g]

Environmental Specifications

Temperature	
Operating Range	-40 to +60 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: [900 MHz 3 dBi Omni-directional Antenna PE510M1017](#)

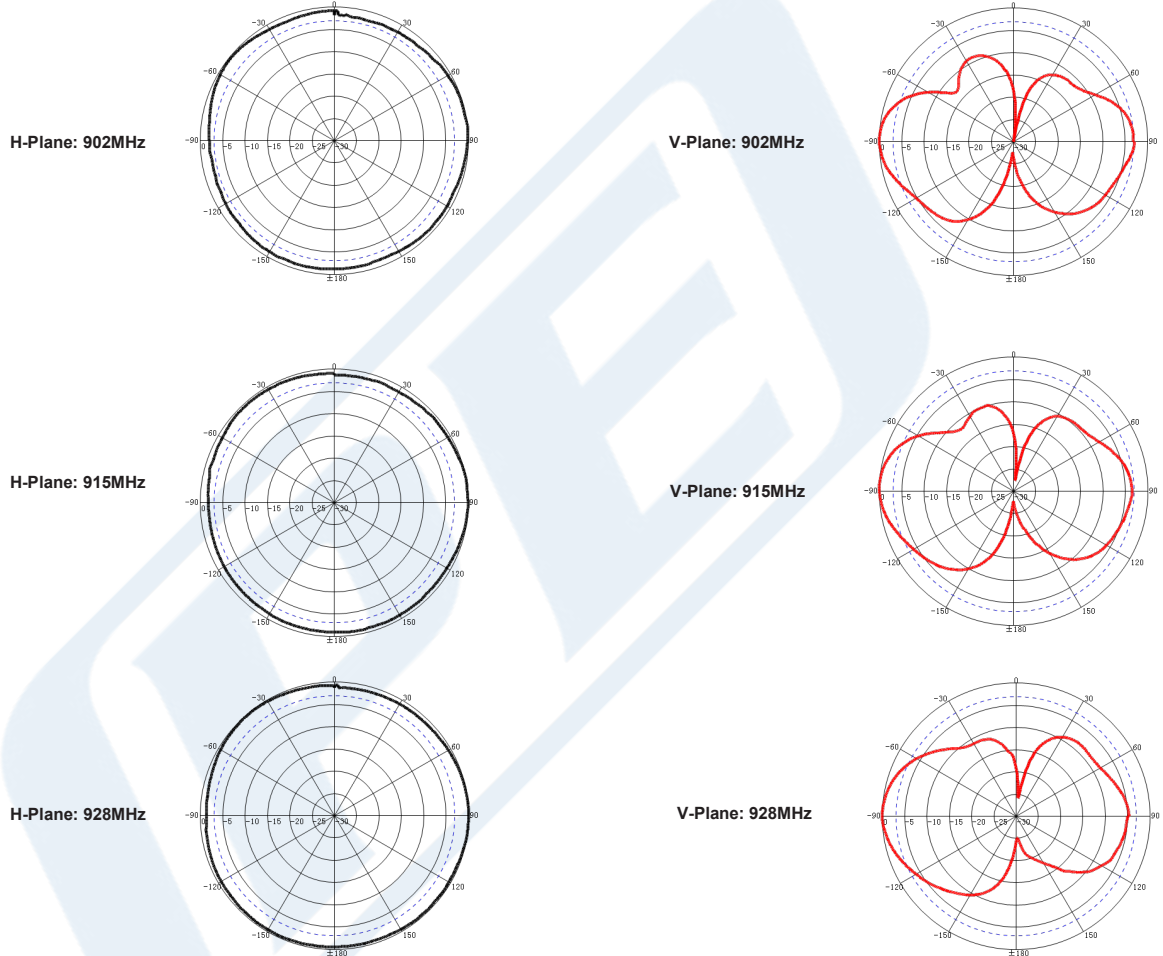


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RF Antenna Patterns – PE510M1017



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PE51OM1017

900 MHz 3 dBi Omni-directional 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: [900 MHz 3 dBi Omni-directional Antenna PE51OM1017](#)

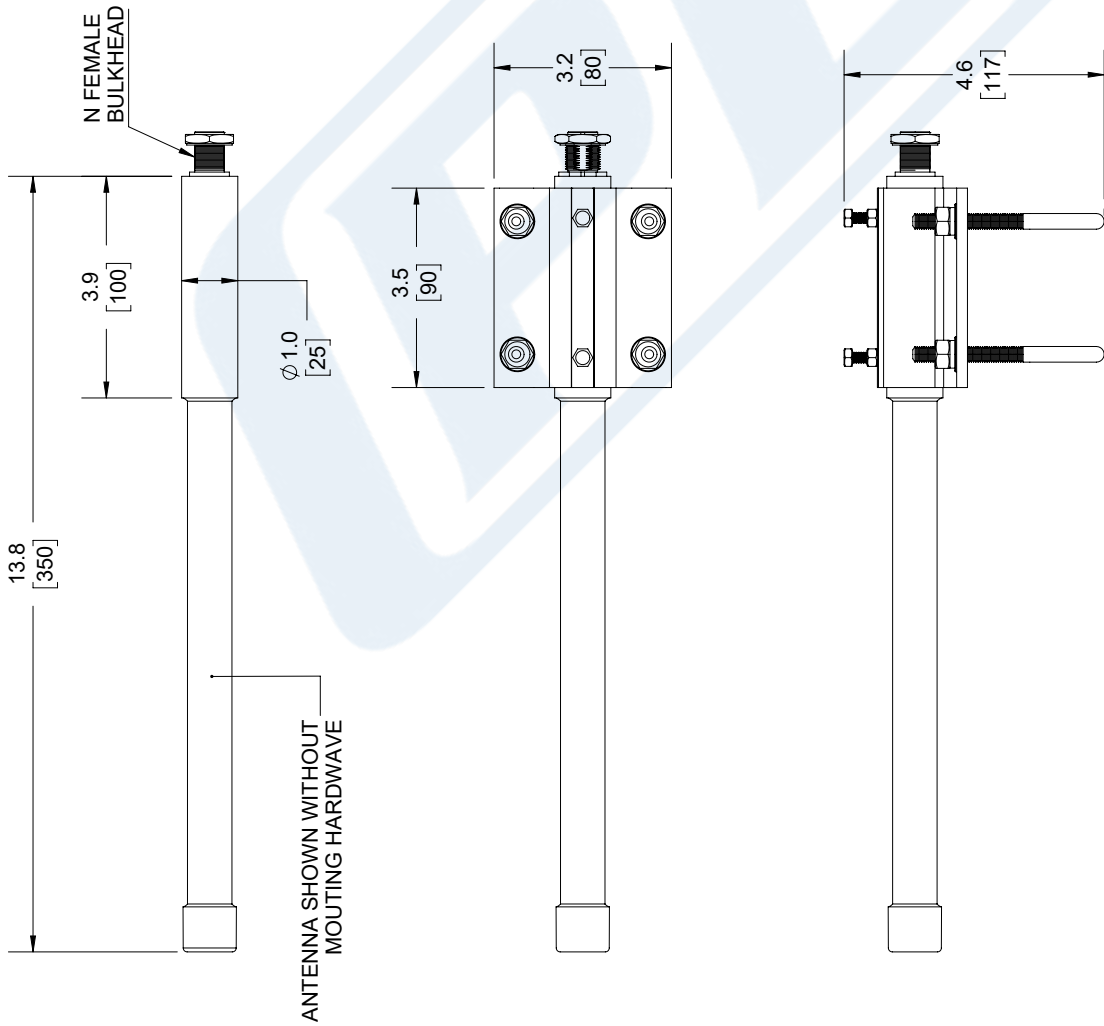
URL: <https://www.pasternack.com/single-antenna-3-dbi-gain-n-pe51om1017-p.aspx>

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PE510M1017 CAD Drawing

900 MHz 3 dBi Omni-directional Antenna

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



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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SCALE N/A

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SIZE	CAGE CODE	DRAWN BY	ITEM NO
A	53919	K.DANG	PE510M1017
REV			A

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

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