



2.4 / 5 GHz 4/6 dBi Omni-Directional 4x4 MIMO Antenna

Antennas Technical Data Sheet

PE51OM1012

Features

- Point-to-multipoint applications
- All weather operation
- Heavy duty steel mounting bracket
- Four dual band inputs via 3 foot antenna leads with RP-SMA Plug connectors
- Compact design

Applications

- IEEE 802.11a/b/g/n and 802.11ac wireless networks
- 5.8 GHz UNII and ISM applications
- 4.9 GHz Homeland Security and Public Safety band
- 2x2, 3x3 and 4x4 MIMO applications
- Point-to-multipoint applications

Description

The HyperLink PE51OM1012 is a compact dual band omni-directional antenna specifically designed for MIMO (Multiple In / Multiple Out) applications. Unlike typical pole style omni-directional antennas, the PE51OM1012 features a compact and unobtrusive UV resistant radome. Its modern design and aesthetics helps it blend into almost any environment or structure.

The PE51OM1012 operates on both 2.4 GHz and 5.8 GHz frequencies. It is ideal for use with 4x4 MIMO radios since the PE51OM1012 features four separate 3 foot antennas leads terminated with RP-SMA Plug connectors. Each lead is dual band and supports both 2.4 GHz and 5.8 GHz. This antenna's construction features a durable UV resistant ABS radome for durability and ruggedness. Its mounting system features a heavy-duty mounting bracket and U-Bolts for superior strength.

Configuration

Design	Omni
Band Type	Multi
Radiation Pattern	Omni Directional
Polarization	Vertical
Cable Length	34.8 in [883.92 mm]
Connector Type	SMA Plug Reverse Polarity
Interface 2	SMA Plug Reverse Polarity
Interface 3	SMA Plug Reverse Polarity
Interface 4	SMA Plug Reverse Polarity
Number of Ports	4
Lightning Protection	DC Ground

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		5,850	MHz
Input VSWR		1.65:1	1.8:1	
Impedance		50		Ohms
Gain		4		dBi
Input Power			10	Watts

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2.4 to 2.5	4.9 to 5.85				GHz

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 / 5 GHz 4/6 dBi Omni-Directional 4x4 MIMO Antenna PE51OM1012](#)



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Gain	4	6	dBi
Horizontal Beam Width	360	360	Degrees
Vertical Beam Width	50	45	Degrees
Maximum Input Power	10		Watts

Mechanical Specifications

Radome Material

ABS

Size

Radome Diameter

7.3 in [185.42 mm]

Overall Length

7.3 in [185.42 mm]

Width

7.3 in [185.42 mm]

Height

3.9 in [99.06 mm]

Mounting Mast Diameter

1.4 to 2 in [35.56 to 50.80 mm]

Weight

2 lbs [907.18 g]

Mechanical Specification Notes:

Radome material is UV resistant ABS.

Environmental Specifications

Temperature

Operating Range

-40 to +60 deg C

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

Plotted and Other Data

Notes:

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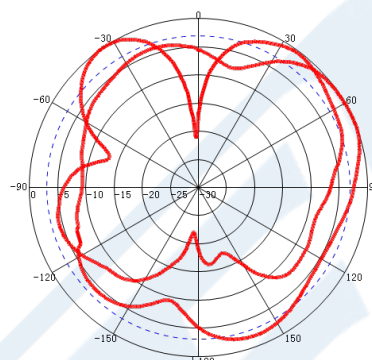


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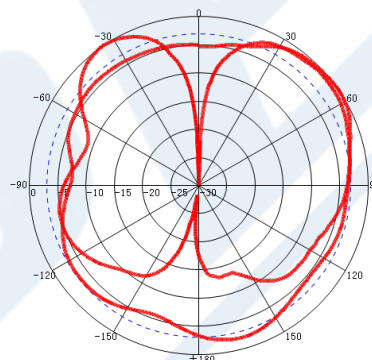
Antennas Technical Data Sheet

PE510M1012

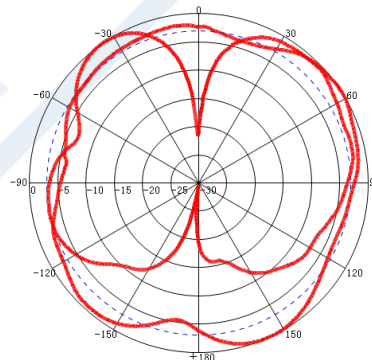
RF Antenna Patterns



Freq:2400MHz
Date:2015-07-09
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-25.97dB
HPBW(3dB):61.45°
FBR:1.68dB
Circularity:4.92



Freq:2450MHz
Date:2015-07-09
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-26.47dB
HPBW(3dB):58.38°
FBR:1.96dB
Circularity:3.96



Freq:2500MHz
Date:2015-07-09
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.63dB
HPBW(3dB):55.98°
FBR:3.06dB
Circularity:34.05
Obliquity:124.45°

Freq:2500MHz
Date:2015-07-09
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.02dB
HPBW(3dB):51.01°
FBR:0.00dB
Circularity:3.75

Gain:4.31dBi

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 / 5 GHz 4/6 dBi Omni-Directional 4x4 MIMO Antenna PE510M1012](#)



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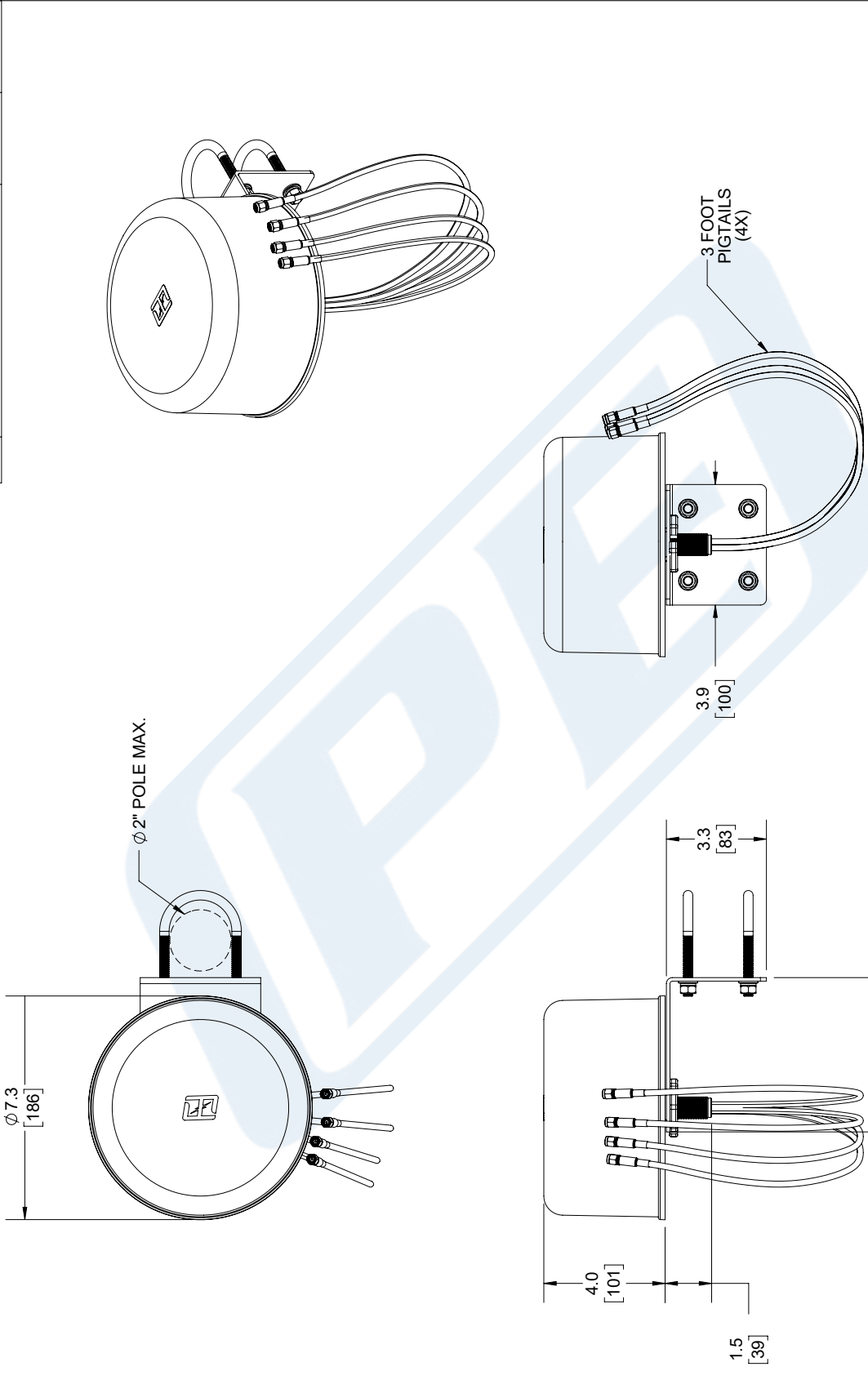
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 / 5 GHz 4/6 dBi Omni-Directional 4x4 MIMO Antenna PE51OM1012](https://www.pasternack.com/multi-antenna-4-dbi-gain-sma-pe51om1012-p.aspx)

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PE510M1012 CAD Drawing
2.4 / 5 GHz 4/6 dBi Omni-Directional 4x4 MIMO Antenna

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



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE IN 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.

THIRD-ANGLE PROJECTION

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SCALE N/A

REV A

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