



2.4/4.9/5.8 GHz 3 dBi Multi-band Rubber Duck Antenna - RP-SMA Plug Connector

Antennas Technical Data Sheet

PE51RD1002

Features

- Three frequency ranges in one antenna
- Flexible rubber duck design
- Tilt and swivel design
- Reverse Polarity SMA (RP-SMA) Plug connector
- Provides better performance than most stock access point antennas

Applications

- 2.4 GHz, 4.9 GHz and 5.8 GHz band applications
- IEEE 802.11a/b/g/n and 802.11ac WiFi access points and routers
- 4.9 GHz homeland security, public safety services, fire, police and security applications
- 5.8 GHz wireless video and security systems

Description

The HyperLink PE51RD1002 series is a high performance tri-band rubber-duck antenna designed to operate from 2.4 GHz to 2.5 GHz, 4.9 GHz to 5.3 GHz and 5.7 GHz to 5.8 GHz which eliminates the need to purchase different antennas for each frequency. The tri-band design of this antenna helps reduce interference and noise since it will reject out-of-band signals between the three bands of this antenna. This omnidirectional “rubber-duck” antenna provides broad coverage and 3 dBi gain.

Measuring 7.79” long, this flexible antenna features a tilt-and-swivel connector which allows them to be used vertically, at a right angle, or any angle in-between. It is suitable as a replacement RF antenna for many wireless access points and routers that are equipped with similar type antennas. The PE51RD1002 features a Reverse Polarity SMA (RP-SMA) Plug connector.

Application Note: This antenna is not for use with U.S.Robotics® RP-SMA equipped devices.

Configuration

Design	Rubber Duck
Band Type	Multi
Radiation Pattern	Omni Directional
Polarization	Vertical
Cable Type	195 series
Connector Type	SMA Plug Reverse Polarity
Number of Ports	1

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			2:1	
Impedance		50		Ohms
Gain		3		dBi
Input Power			50	Watts

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2,400-2,500	4,900-5,350	5,725-5,850			MHz
Gain	3	3	3			dBi

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: [2.4/4.9/5.8 GHz 3 dBi Multi-band Rubber Duck Antenna - RP-SMA Plug Connector PE51RD1002](#)



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Horizontal Beam Width	360	360	Degees
Vertical Beam Width	70	70	Degees
Maximum Input Power	50		Watts

Mechanical Specifications

Radome Material

ABS

Size

Overall Length

7.79 in [197.87 mm]

Width

0.51 in [12.95 mm]

Height

0.51 in [12.95 mm]

Weight

0.6 lbs [272.16 g]

Environmental Specifications

Temperature

Operating Range

-40 to +60 deg C

Environment

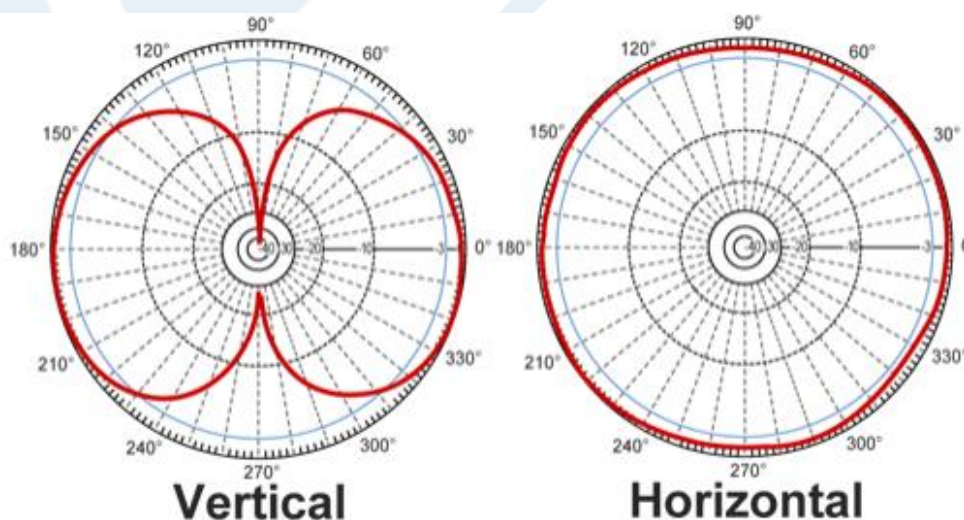
UL-94HB

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

Plotted and Other Data

Notes:

Typical Radiation Pattern



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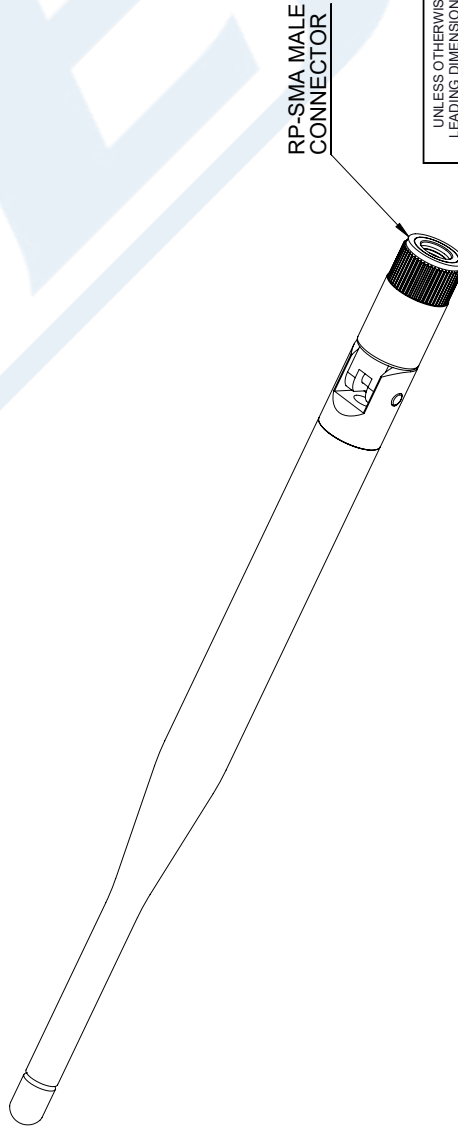
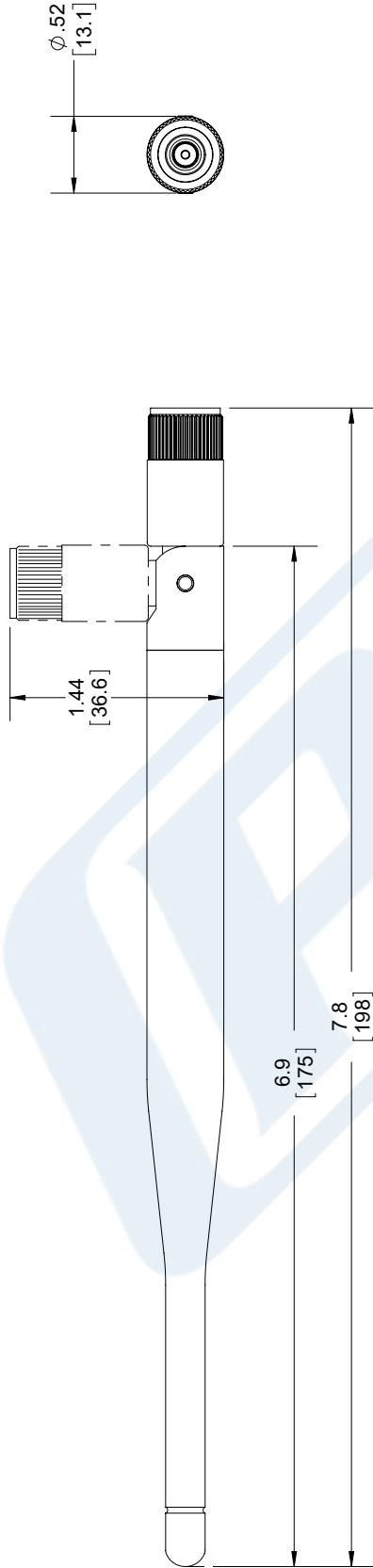
URL: <https://www.pasternack.com/multi-antenna-3-dbi-gain-sma-pe51rd1002-p.aspx>

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PE51RD1002 CAD Drawing

2.4/4.9/5.8 GHz 3 dBi Multi-band Rubber Duck Antenna - RP-SMA Plug Connector

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/18/2020	M.MILLER



RP-SMA MALE
CONNECTOR

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

TOLERANCES:
 .X = ± .2 [5.08]
 .XX = ± .02 [.51]
 .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.



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THIRD-ANGLE PROJECTION



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SHEET 1 OF 1
SCALE N/A

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