



7 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector

Antennas Technical Data Sheet

PE51RD1017

Features

- High Performance 7 dBi
- Better Performance Than Most Stock AP Antennas
- Flexible “Rubber Duck” Antenna with Tilt and Swivel
- Design
- Optional Magnetic Mount Available
- RP-SMA Connector

Applications

- Multipoint and Mobile Applications & Bluetooth®
- 2.4 GHz ISM Band
- IEEE 802.11b, 802.11g, 802.11x (WiFi 6) Wireless LAN & IEEE 802.11n (Pre-N, Draft-N) Applications
- Public Wireless Hotspot
- Wireless Video Systems
- IoT Systems

Description

The Pasternack PE51RD1017 is a superior performance economical “rubber-duck” antenna designed for the 2.4 GHz ISM band with omnidirectional coverage. It features a tilt-and-swivel Reverse Polarity SMA (RP-SMA) male connector, allowing them to be used vertically, at a right angle, or any angle in-between. It is a coaxial sleeve design with an omni-directional pattern. It is ideally suited for IEEE 802.11b, 802.11g, 802.11n and 802.11ax (WiFi 6) Wireless LANs, Bluetooth, IoT and other applications.

The high performance PE51RD1017 rubber-duck from Pasternack is a flexible antenna providing broad coverage and 7.0 dBi gain. Measuring 11.6 inches long, this 7.0 dBi antenna makes a great upgrade to OEM supplied antennas offering much larger coverage area and stronger signals. It is suitable as a replacement RF antenna for 2.4 GHz radios that are equipped with RP-SMA connectors.

In addition to shipping the same day, our rubber duck antennas are high-quality components backed by expert technical support and sales personnel. Contact our knowledgeable and friendly technical support and sales staff for your answers on antennas or other Pasternack products.

Configuration

| | |
|------------------------------|---------------------------|
| Design | Rubber Duck |
| Band Type | Single |
| Polarization | Linear |
| Connector Type | SMA Male Reverse Polarity |
| Number of Ports | 1 |
| Housing Material and Plating | TPEE, Black |

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-----------------|---------|---------|---------|-------|
| Frequency Range | 2.4 | | 2.5 | GHz |
| Input VSWR | | | 2:1 | |
| Impedance | | 50 | | Ohms |
| Gain | | 7 | | dBi |

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: [7 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector PE51RD1017](#)



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Mechanical Specifications

| | |
|-----------------------|--------|
| Housing Material | TPEE |
| Housing Plating/Color | Black |
| Radiator Material | Copper |

Size

| | |
|----------------|----------------------|
| Overall Length | 11.57 in [293.88 mm] |
| Width | 0.51 in [12.95 mm] |
| Height | 0.51 in [12.95 mm] |
| Weight | 0.1 lbs [45.36 g] |

Environmental Specifications

Temperature

| | |
|-----------------|------------------|
| Operating Range | -40 to +65 deg C |
| Storage Range | -40 to +80 deg C |

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

Plotted and Other Data

Notes:

7 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector 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: [7 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector PE51RD1017](#)

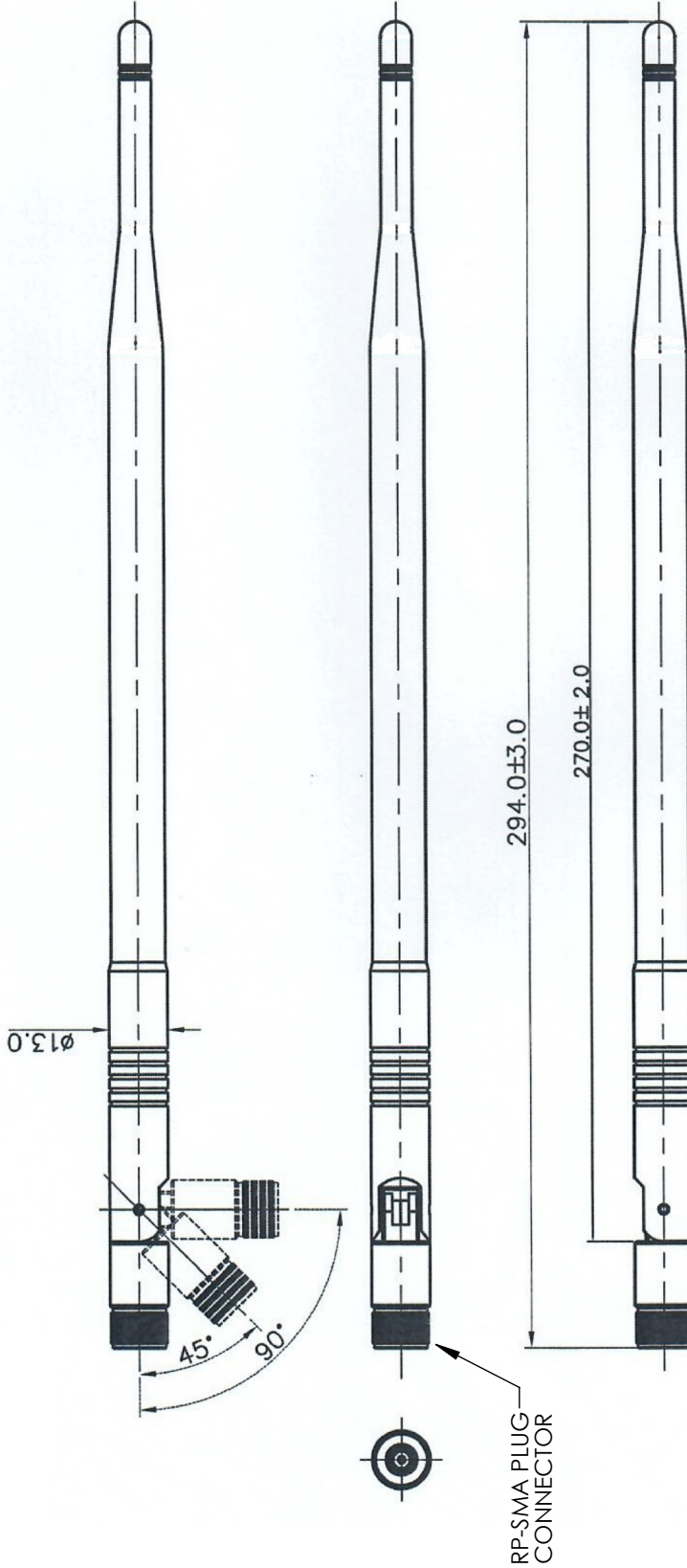
URL: <https://www.pasternack.com/single-antenna-2.4-2.5-ghz-7-dbi-gain-sma-pe51rd1017-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE51RD1017 CAD Drawing

7 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector

| REVISIONS | | |
|-----------|-----------------|------------|
| REV. | DESCRIPTION | DATE |
| A | INITIAL RELEASE | 09/14/2020 |
| | | APPROVED |
| | | KHIETPAS |



DIMENSIONS
ARE
MILLIMETERS

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

TOLERANCES:
 .X = ±.2 [.008] FRACTIONS ± 1/32
 .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% / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

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SIZE [CAGE CODE] DRAWN BY [ITEM NO.]
A 53919 DZINN PE51RD1017

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A