



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

### Antennas Technical Data Sheet

PE51RD1023

#### Features

- Flexible “Rubber Duck” Antenna
- Optional Magnetic Mount Available
- High Performance 3 dBi
- Reverse Polarity SMA Plug Connector
- Tilt and Swivel Design

#### 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 PE51RD1023 is an economical yet high performance omnidirectional “rubber-duck” antenna designed for the 2.4 GHz ISM band. It features a tilt-and-swivel Reverse Polarized 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 performance PE51RD1023 rubber-duck from Pasternack is a flexible antenna providing broad coverage and 3 dBi gain. 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		3		dBi

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: [3 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector PE51RD1023](#)



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#### Mechanical Specifications

Housing Material	TPEE
Housing Plating/Color	Black
Radiator Material	Copper

#### Size

Overall Length	5.55 in [140.97 mm]
Width	0.51 in [12.95 mm]
Height	0.51 in [12.95 mm]

#### 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:

3 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: [3 dBi Rubber Duck Antenna 2,400-2,500 MHz RP-SMA Connector PE51RD1023](#)

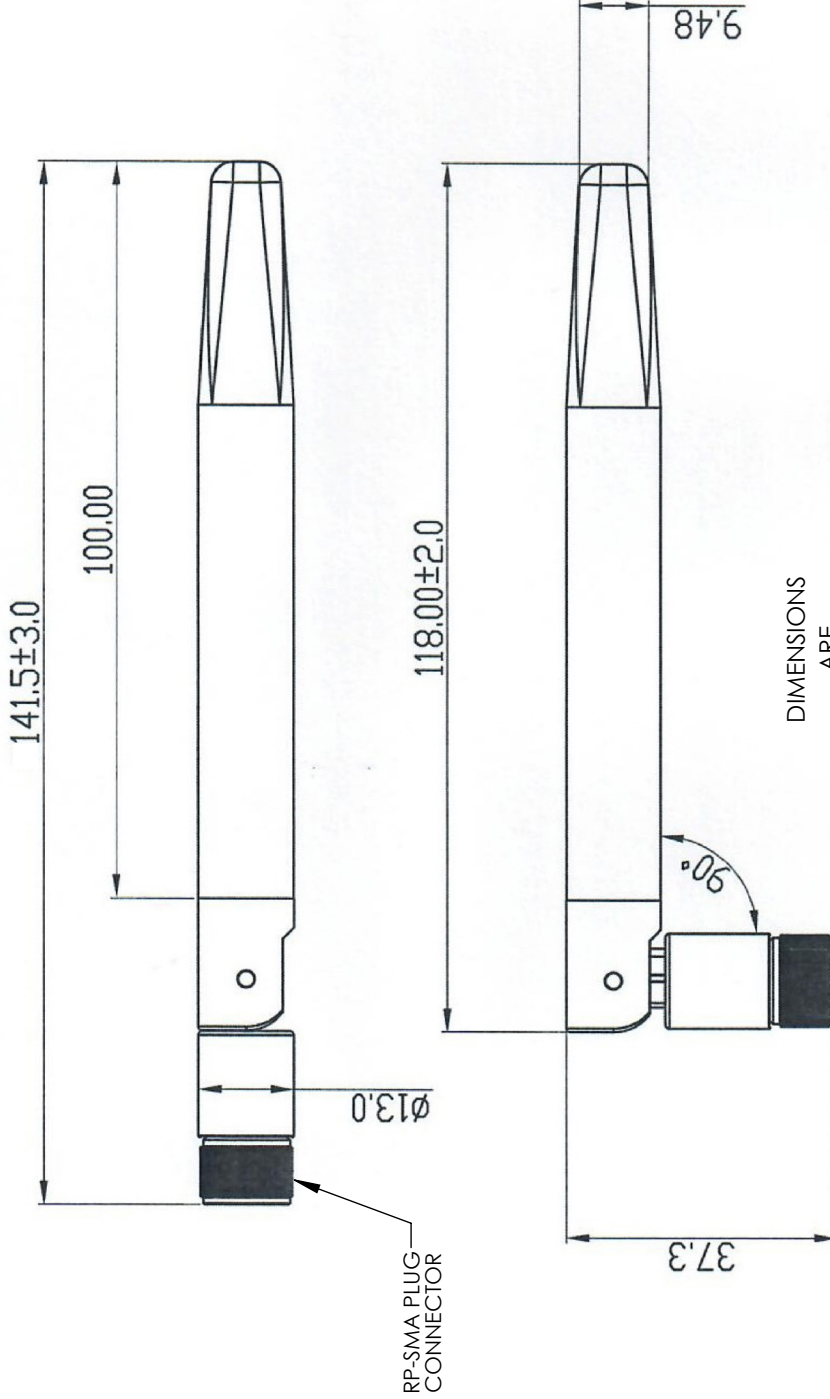
URL: <https://www.pasternack.com/single-antenna-2.4-2.5-ghz-3-dbi-gain-sma-pe51rd1023-p.aspx>

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.

# PE51RD1023 CAD Drawing

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

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



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

TOLERANCES:

.X = ±.2 [ .08] 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.

**PE PASTERNAK**  
 an INFINITI brand

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SIZE A CAGE CODE 53919 DRAWN BY DZINN ITEM NO. PE51RD1023

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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