



2.4 GHz 3 dBi Black Radome Enclosed Omni Antenna - Type-N Female Bulkhead

Antennas Technical Data Sheet

PE51OM1023

Features

- Radome Enclosed, ideal for outdoor use
- Compact size
- Integral Type-N Female bulkhead mount connector

Applications

- 2.4 GHz ISM Band
- IEEE 802.11b and 802.11g Wireless LAN
- WiFi and Bluetooth[®] applications
- Wireless Video Systems
- Multipoint and Mobile Applications

Description

The PE51OM1023 is a very compact 2.4GHz Omni WiFi antennas provide broad coverage and 3 dBi gain. They are ideally suited for IEEE 802.11b and 802.11g wireless LANs, Bluetooth[®] and other applications where wide coverage is desired.

This RF antenna is only 2.7" long and features a Black aesthetic ABS plastic radome. White radomes are also available upon request. Designed for bulkhead mounting, the PE51OM1023 features an integral Type-N Female bulkhead connector. Because of its near-invisible design this antenna is ideal for use on vehicles where vandal-resistance and aesthetics are important.

Configuration

Design	Mobile
Band Type	Single
Radiation Pattern	Omni Directional
Polarization	Vertical
Connector Type	N Female
Number of Ports	1
Lightning Protection	DC Open

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		2,500	MHz
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain		3		dBi
Horizontal (Azimuth) Beam Width		Omnidirectional		
Vertical (Elevation) Beam Width		80		Degrees
Input Power			100	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz 3 dBi Black Radome Enclosed Omni Antenna - Type-N Female Bulkhead PE51OM1023](#)



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Mechanical Specifications

Radome Material

ABS

Size

Overall Length

2.7 in [68.58 mm]

Width

1.4 in [35.56 mm]

Height

1.4 in [35.56 mm]

Weight

0.25 lbs [113.4 g]

Environmental Specifications

Temperature

Operating Range

-40 to +85 deg C

Wind Loading

150 MPH [241.4 KPH]

ESD Protection

IP66

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

Plotted and Other Data

Notes:

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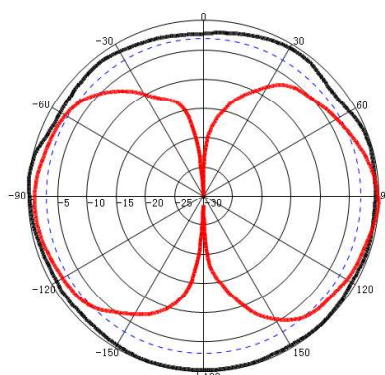


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PE510M1023

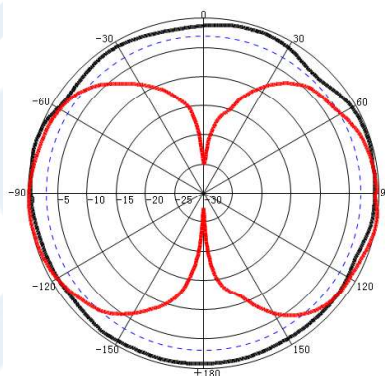
Antenna Patterns



Freq:2400MHz
Date:2016-04-18
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.48dB
HPBW(3dB):360.00°
FBR:0.22dB
Circularity:1.35

Freq:2400MHz
Date:2016-04-18
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.27dB
HPBW(3dB):74.44°
FBR:1.06dB
Circularity:24.32
Obliquity:3.05°

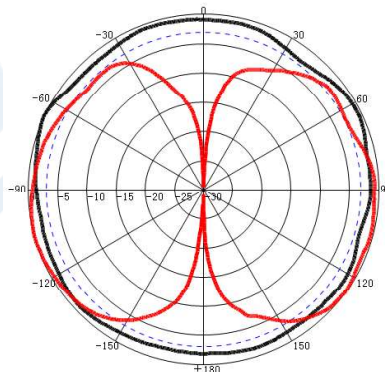
Gain:3.35dBi



Freq:2450MHz
Date:2016-04-18
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.67dB
HPBW(3dB):360.00°
FBR:0.71dB
Circularity:1.19

Freq:2450MHz
Date:2016-04-18
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-29.84dB
HPBW(3dB):80.84°
FBR:0.05dB
Circularity:21.74
Obliquity:9.92°

Gain:3.11dBi



Freq:2500MHz
Date:2016-04-18
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.67dB
HPBW(3dB):360.00°
FBR:1.44dB
Circularity:1.33

Freq:2500MHz
Date:2016-04-18
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-31.47dB
HPBW(3dB):87.35°
FBR:0.00dB
Circularity:34.60
Obliquity:25.21°

Gain:2.89dBi

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz 3 dBi Black Radome Enclosed Omni Antenna - Type-N Female Bulkhead PE510M1023](#)



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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 GHz 3 dBi Black Radome Enclosed Omni Antenna - Type-N Female Bulkhead PE51OM1023](https://www.pasternack.com/single-antenna-3-dbi-gain-n-pe51om1023-p.aspx)

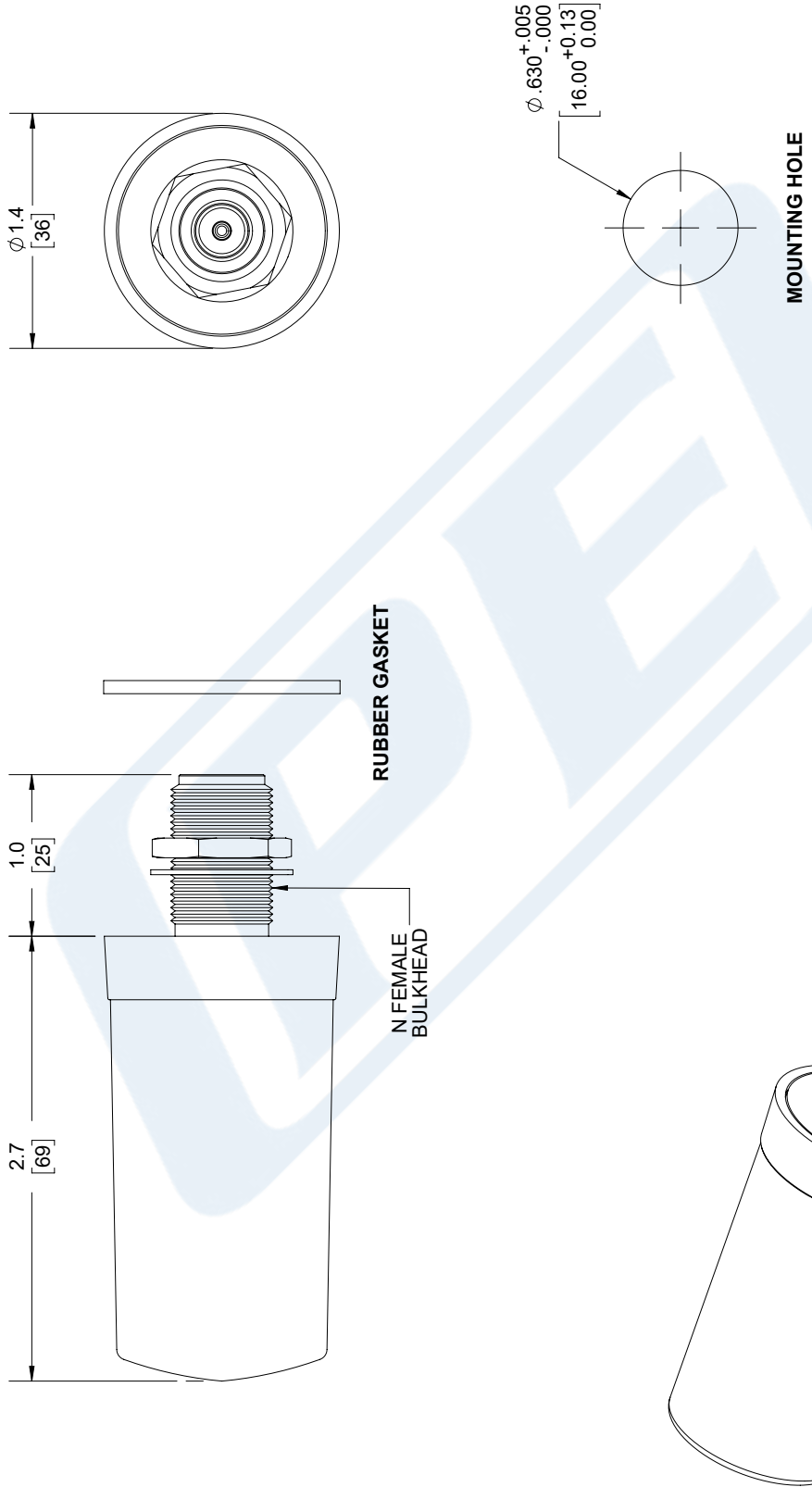
URL: <https://www.pasternack.com/single-antenna-3-dbi-gain-n-pe51om1023-p.aspx>

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PE51OM1023 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/17/2020	M.MILLER



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

TOLERANCES:
 .X = ± .2 [5.08]
 .XX = ± .02 [.51]
 .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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SHEET 1 OF 1

SCALE N/A

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Pasternack Enterprises, Inc.
P.O. Box 16759, Irvine, CA 92623.
Phone: 1.949.261.1920 | 1.866.727.8376
Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

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