



698-960 MHz / 1710-2700 MHz / 3400-4200 MHz
 Low PIM Rated Indoor/Outdoor V-pol Omni Antenna, 3-4 dBi,
 Type N Female Connector

Antennas Technical Data Sheet

PE51OM1031

Features

- Low Passive Intermodulation (PIM) <-150 dBc @ 2x20W
- Vertical Polarization
- Compact and lightweight for indoor or outdoor use
- Type N Female connector
- Covers 5G, WiFi and LTE frequency bands including extended CBRS

Applications

- Indoor distribution of 5G, LTE, GSM/CDMA
- In-building public or private networks
- LPWAN, LoRA, LTE-M, NB-IoT, IoT, M2M applications
- MIMO DAS (Distributed Antenna Systems)
- Indoor or Outdoor Applications

Description

The PE51OM1031 from Pasternack is a high performance, low PIM rated, indoor/outdoor omnidirectional antenna designed for in-building Distributed Antenna System (DAS) Networks. The PE51OM1031 operates from 698 to 4200 MHz which is ideal for 5G, LTE, CDMA, LPWAN/IoT/M2M applications including LoRA, LTE-M, and NB-IOT. The Multi-Band design of the Pasternack PE51OM1031 antenna eliminates the need to purchase different antennas for each frequency. The same antenna can be used for a wide array of in-building wireless applications where wide coverage is desired. Pasternack's PE51OM1031 can be used to distribute Cellular and WiFi signals throughout a building or area.

The omnidirectional antenna with vertical polarization PE51OM1031 from Pasternack has Type N connectors and 3-4 dBi of gain. The key to providing the best performance in telecommunications is to ensure the components used are low PIM rated. This helps meet the increasing demand for higher data rates and the ability to provide streaming video for mobile devices. With a low PIM rating of <-150 dBc, the 698-4200 MHz PE51OM1031 helps meet the most demanding PIM requirements for 5G and LTE/4G bands.

The Type N connectorized PE51OM1031 antenna from Pasternack excels in large open areas such as indoor courtyards, indoor sporting venues, convention centers and shopping malls. The mounting bracket and hardware are included for easy installation. Our Pasternack ISO 9001:2008 registered facilities in Irvine, CA ships all Type N RF, microwave and millimeter wave waveguide components from stock the same day you purchase them. Pasternack offers the broadest and deepest in-stock inventory and is where to buy 5G antennas. Our expert technical support and friendly, knowledgeable customer service personnel are available to assist you with your particular needs for indoor/outdoor omnidirectional 5G cellular antennas.

Configuration

Design	Omni
Band Type	Wide
Radiation Pattern	Omni Directional
Polarization	Vertical
Connector Type	N Female
Number of Ports	1

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	698		4200	MHz
Input VSWR			1.8:1	
Impedance		50		Ohms

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [698-960 MHz / 1710-2700 MHz / 3400-4200 MHz Low PIM Rated Indoor/Outdoor V-pol Omni Antenna, 3-4 dBi, Type N Female Connector PE51OM1031](#)



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Gain	3	4	dBi
Input Power		50	Watts
Passive Intermodulation 3rd Order, 2 x 20 W	-150		

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	0.698 to 0.806	0.806 to 0.96	1.71 to 2.7	3.4 to 4.2		GHz
Gain	3.5	3	3.5	4		dBi
Horizontal Beam Width	360	360	360	360		Degrees
Vertical Beam Width	83	65	45	35		Degrees

Mechanical Specifications

Radome Material	ABS
Size	
Overall Length	8.31 in [211.07 mm]
Width	2.64 in [67.06 mm]
Height	2.64 in [67.06 mm]
Weight	0.66 lbs [299.37 g]

Environmental Specifications

Temperature	
Operating Range	-55 to +60 deg C
Humidity	< 95

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

Plotted and Other Data

Notes:

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698-960 MHz / 1710-2700 MHz / 3400-4200 MHz Low PIM Rated Indoor/Outdoor V-pol Omni Antenna, 3-4 dBi, Type N Female 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: [698-960 MHz / 1710-2700 MHz / 3400-4200 MHz Low PIM Rated Indoor/Outdoor V-pol Omni Antenna, 3-4 dBi, Type N Female Connector PE51OM1031](https://www.pasternack.com/698-960-mhz-1710-2700-mhz-3400-4200-mhz-low-pim-rated-indoor-outdoor-v-pol-omni-antenna-3-4-dbi-type-n-female-connector-pe51om1031)

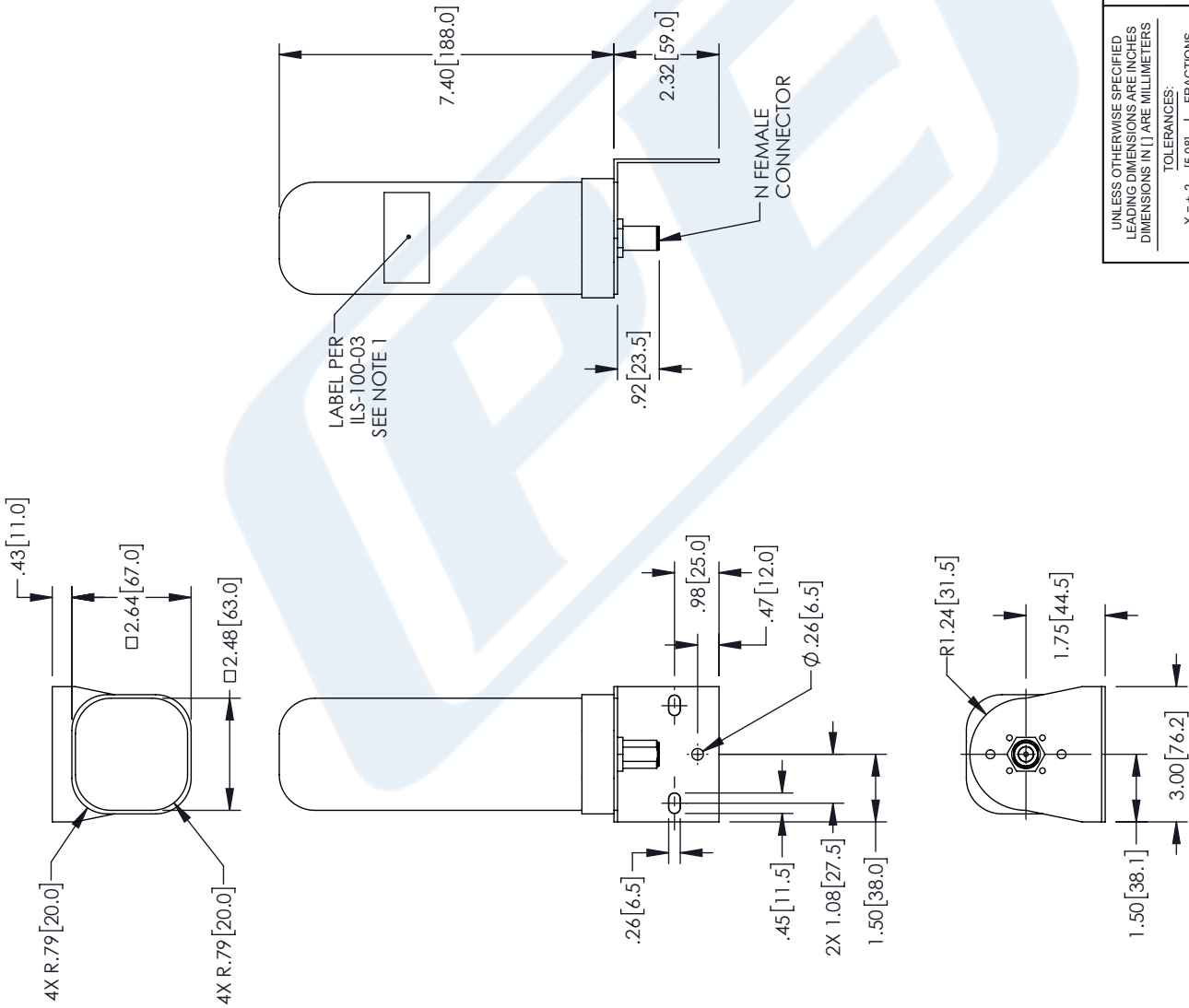
URL: <https://www.pasternack.com/698-mhz-4200-mhz-indoor-outdoor-4g-5g-omni-antenna-3-4-dbi-low-pim-n-female-connector-hg74204upr-nf-p.aspx>

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.

PE510M1031 CAD Drawing

698-960 MHz / 1710-2700 MHz / 3400-4200 MHz Low PIM Rated Indoor/
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/19/2021	KHIETPAS



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

TOLERANCES:
 .X = ±.2 [5.08] FRACTIONS ± 1/32
 .XX = ±.02 [.51] ANGLES ± 1°
 .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% / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITI brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE510M1031

DRAWN BY DZINN

CAGE CODE 53919

NOTES:
1. LABEL PER ILS-100-03 (FOR INTERNAL REFERENCE ONLY)
LABEL LOCATION FOR REFERENCE ONLY.

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