



698-960 MHz / 1350-2700 MHz / 3300-4200 MHz
 Low PIM Rated HH-pol MIMO Omni Low Profile Ceiling
 Antenna, 1.5-6 dBi, 2xType N Female Connector

Antennas Technical Data Sheet

PE51221

Features

- Low Passive Intermodulation (PIM) <-153 dBc @ 2x20W
- 2 x Horizontal Polarization for MIMO
- Low Profile 3/4" thick antenna
- Two N Female connector with 12 inch pigtails
- 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)
- Discrete Ceiling Mounts

Description

The PE51221 from Pasternack is a high performance, low PIM rated, MIMO ceiling mount omnidirectional antenna designed for in-building Distributed Antenna System (DAS) Networks. The PE51221 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 PE51221 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 PE51221 can be used to distribute Cellular and WiFi signals throughout a building or area.

The omnidirectional antenna with 2xhorizontal polarization PE51221 from Pasternack has Type N connectors and 1.5-6 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 PE51221 helps meets the most demanding PIM requirements for 5G and LTE/4G bands.

The Type N connectorized PE51221 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 MIMO ceiling mount omnidirectional 5G cellular antennas.

Configuration

Design	Ceiling
Band Type	Wide
Radiation Pattern	Omni Directional
Polarization	Linear/Horizontal
Connector Type	N Female
Interface 2	N Female
Number of Ports	2

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	698		4200	MHz
Input VSWR			2:1	

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 / 1350-2700 MHz / 3300-4200 MHz Low PIM Rated HH-pol MIMO Omni Low Profile Ceiling Antenna, 1.5-6 dBi, 2xType N Female Connector PE51221](#)



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Impedance	50		Ohms
Gain	1.5	6	dBi
Input Power		50	Watts
Passive Intermodulation 3rd Order, 2 x 20 W	-153		

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	1.35 to 1.55	1.71 to 2.7	3.3 to 4.2	GHz
Gain	1.5	2.2	3.5	4.5	6	dBi
Port to Port Isolation	16	16	15	20	25	dB
VSWR Max	1.8:1	1.8:1	2:1	1.8:1	1.8:1	

Mechanical Specifications

Radome Material ABS

Size

Overall Length 10.47 in [265.94 mm]
 Width 10.47 in [265.94 mm]
 Height 0.71 in [18.03 mm]
 Weight 1.1 lbs [498.95 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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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 / 1350-2700 MHz / 3300-4200 MHz Low PIM Rated HH-pol MIMO Omni Low Profile Ceiling Antenna, 1.5-6 dBi, 2xType N Female Connector PE51221](https://www.pasternack.com/698-mhz-4200-mhz-indoor-4g-5g-omni-antenna-1.5-6-dbi-low-pim-low-profile-2-x-n-female-connector-hg74206dpcupr-nf-p.aspx)

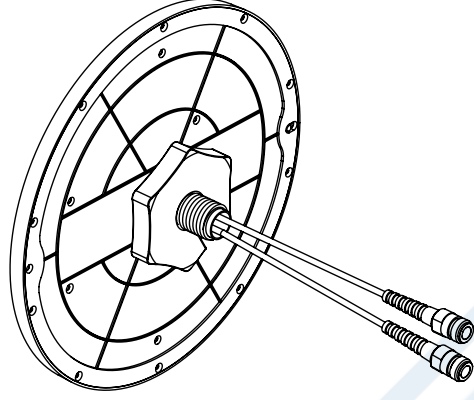
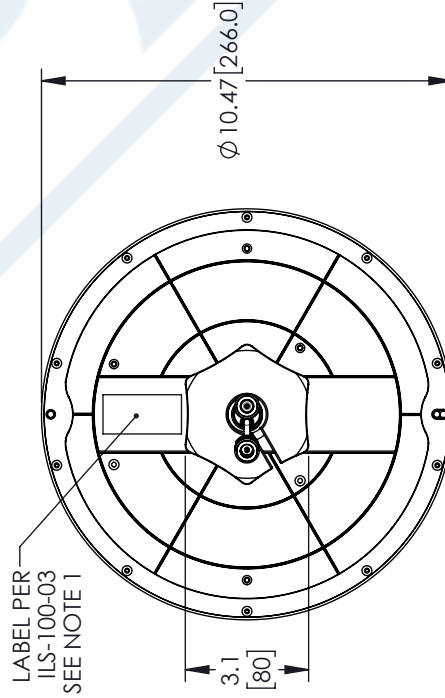
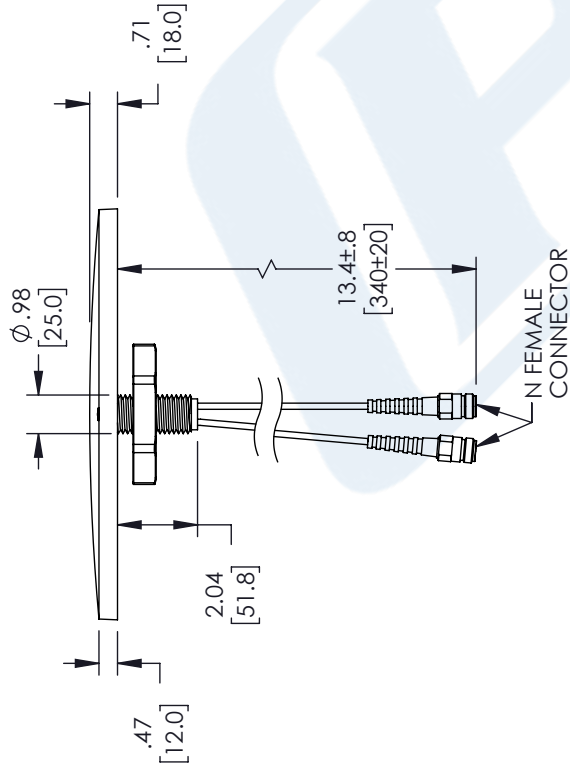
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PE51221 CAD Drawing

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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.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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SIZE A CAGE CODE 53919 DRAWN BY DZINN ITEM NO. PE51221 REV A

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

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