

## 3 dBi DualBand Embedded PCB Antenna 2,400-5,900 MHz UMCX Connector

### Antennas Technical Data Sheet

PE51214

#### Features

- Highly efficient printed circuit board (PCB) design
- Designed for omni-directional applications
- Low profile, compact size
- IPEX, U.FL, UMCX compatible connector

#### Applications

- Integrate into self contained wireless equipment
- Embedded applications requiring integration flexibility
- 2.4 GHz & 5 GHz WLAN

#### Description

The PE51214 is a dual band 2.4/5.8 GHz omni-directional antenna designed to directly integrate into devices requiring wireless capability. By embedding these antennas directly into a device, the need for external antennas is eliminated. The omni-directional design of the PE51214 makes it ideal for multipoint and mobile wireless systems since it provides 360 degree of coverage. This antenna features a 1.13mm coax lead terminated with a U.FL/IPX connector. Custom cable lengths and connector options are also available.

#### Configuration

Design	PCB
Application Band	WLAN  MIMO
Band Type	Dual
Radiation Pattern	Omni Directional
Polarization	Vertical or Horizontal
Cable Type	1.13mm
Cable Length	3.38 in [85.85 mm]
Connector Type	UMCX Plug
Number of Ports	1

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		5,900	GHz
Input VSWR			2:1	
Impedance		50		Ohms
Gain		3		dBi
Gain			6	dBi

#### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2,400-2,500	5,100-5,900				MHz
Gain	3	6				dBi
Horizontal Beam Width	360	226				Degees
Vertical Beam Width	55	54				Degees
Maximum Input Power	10					Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3 dBi DualBand Embedded PCB Antenna 2,400-5,900 MHz UMCX Connector PE51214](#)



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**Mechanical Specifications**

**Size**

Overall Length	1.6 in [40.64 mm]
Width	0.7 in [17.78 mm]
Height	0.02 in [0.51 mm]
Weight	0.06 lbs [27.22 g]

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

**Plotted and Other Data**

Notes:

3 dBi DualBand Embedded PCB Antenna 2,400-5,900 MHz UMCX 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 DualBand Embedded PCB Antenna 2,400-5,900 MHz UMCX Connector PE51214](#)

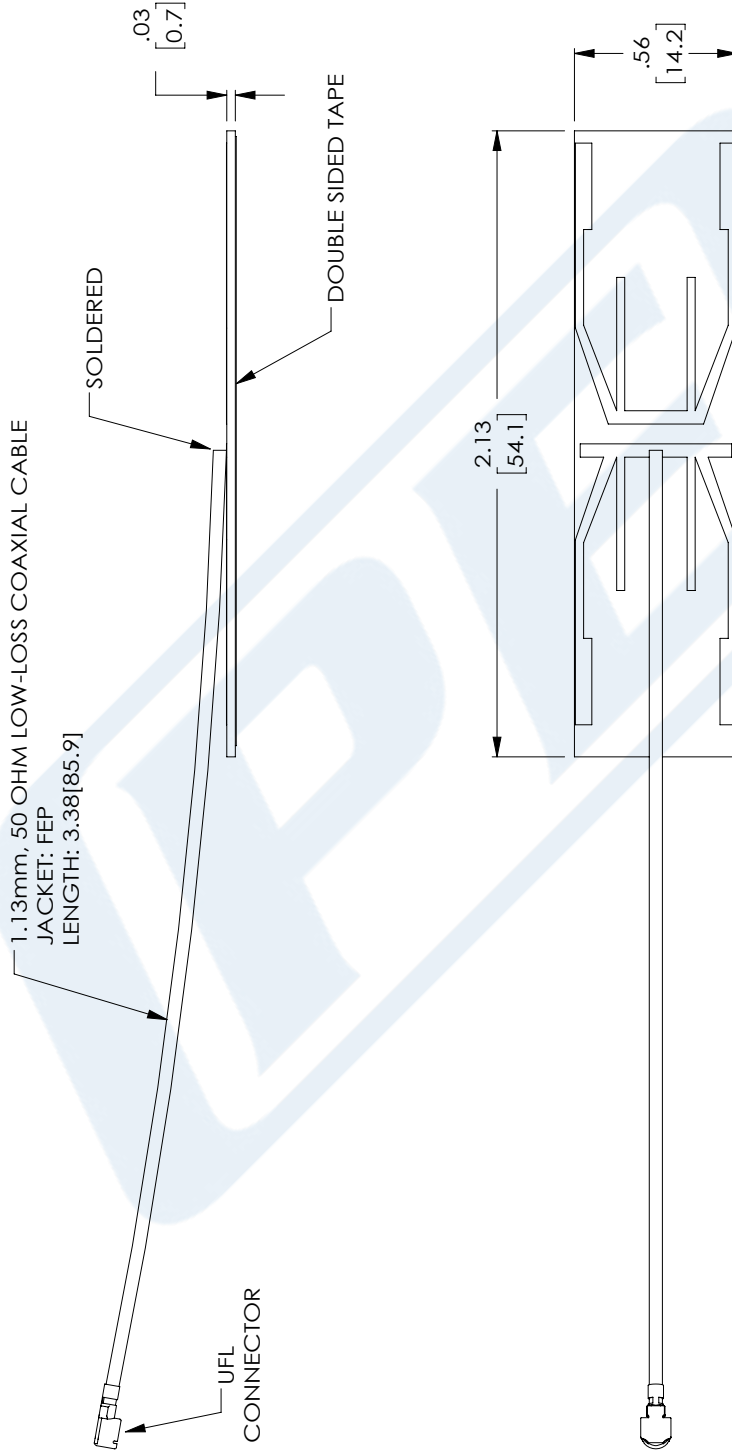
URL: <https://www.pasternack.com/dual-antenna-2.4-5.9-ghz-3-dbi-gain-umcx-pe51214-p.aspx>

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.

# PE51214 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	06/18/2020	KHIETPAS



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

TOLERANCES:

.X = ±.2 [5.08] 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%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**PE PASTERNAK**  
an INFINITE brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE51214

CAGE CODE 53919 DRAWN BY SLI

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EU RoHS Directive (Most Recent Released Version)

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