



5 dBi MultiBand Embedded PCB Antenna 698-2,700 MHz UMCX Connector

Antennas Technical Data Sheet

PE51200

Features

- Highly efficient flexible 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
- Multiband cellular frequencies

Description

The PE51200 is a multiband omnidirectional antenna designed to integrate into devices requiring wireless capability. By embedding these antennas directly into a device, the need for external antennas is eliminated. The omni-directional radiation pattern makes it ideal for multipoint and mobile wireless systems.

Configuration

Design	PCB
Band Type	Multi
Radiation Pattern	Omni Directional
Polarization	Vertical
Cable Type	1.13mm
Cable Length	3.937 in [100 mm]
Connector Type	UMCX Plug
Number of Ports	1
Housing Material and Plating	Polymer

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	698		2,700	MHz
Input VSWR			2.5:1	
Impedance		50		Ohms
Gain		5		dBi
Gain	1			dBi
Input Power			5	Watts

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	698-960	1,710-2,170	2,300-2,700			MHz
Gain	1	2.5	5			dBi

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [5 dBi MultiBand Embedded PCB Antenna 698-2,700 MHz UMCX Connector PE51200](#)



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Mechanical Specifications

Housing Material	Polymer
Size	
Overall Length	3.74016 in [95 mm]
Width	0.826772 in [21 mm]
Height	0.00787402 in [0.2 mm]

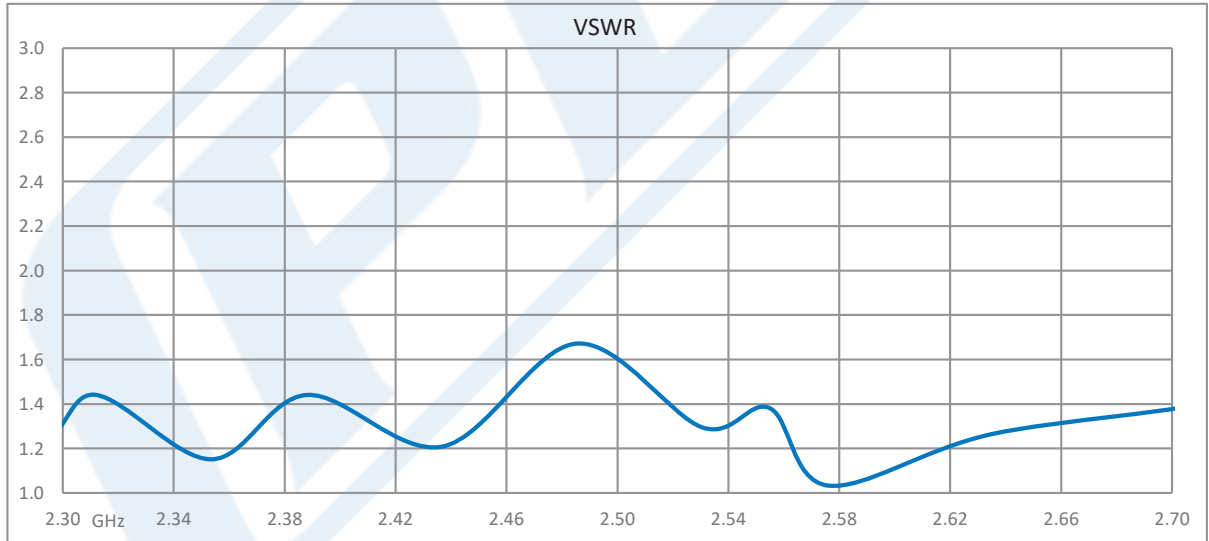
Environmental Specifications

Temperature	
Operating Range	-40 to +85 deg C
Storage Range	-40 to +85 deg C

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

Plotted and Other Data

Notes:



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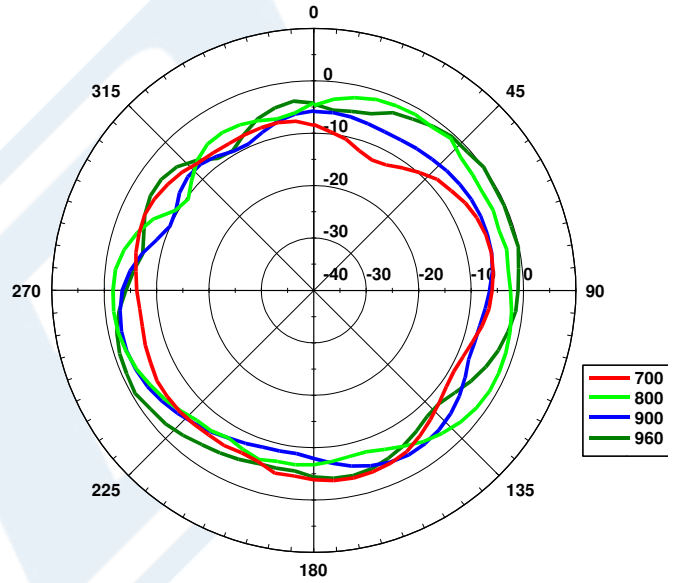


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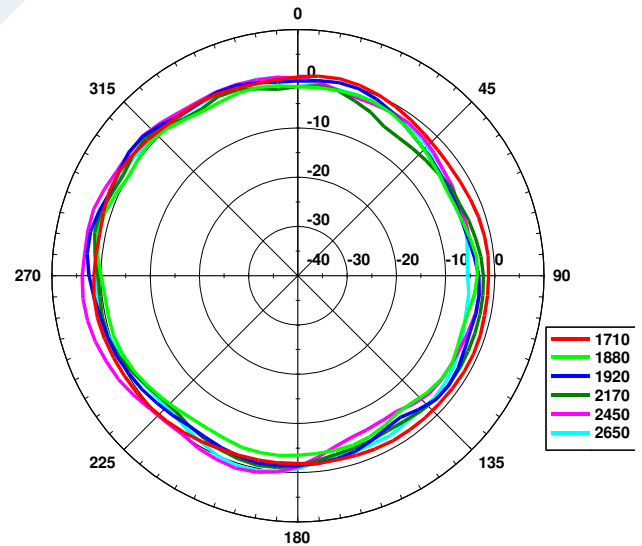
XZ Plane

Total power	Max (dBi)	Min (dBi)	Average (dBi)
700	-3.41	-12.76	-6.33
800	-0.96	-10.40	-3.68
900	-2.45	-9.94	-5.87
960	0.04	-9.16	-3.22



XZ Plane

Total power	Max (dBi)	Min (dBi)	Average (dBi)
1710	2.00	-1.96	-0.14
1880	1.48	-5.56	-2.10
1920	3.06	-4.87	-0.65
2170	2.21	-5.28	-1.27
2450	3.90	-5.92	0.10
2650	1.80	-5.51	-0.98



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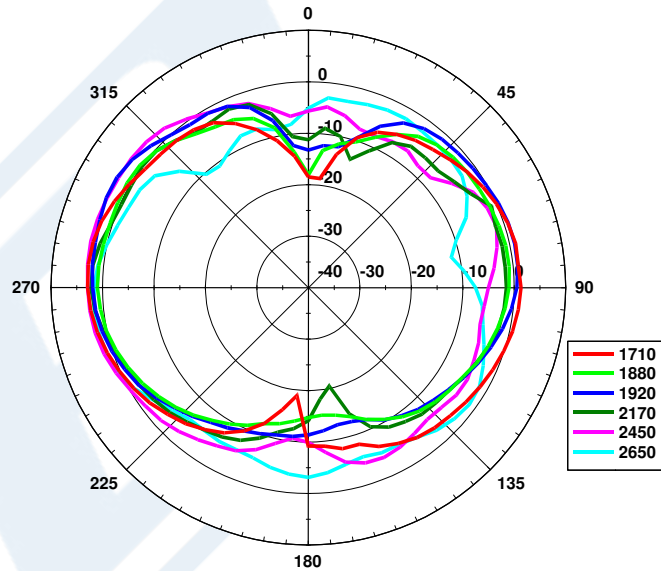


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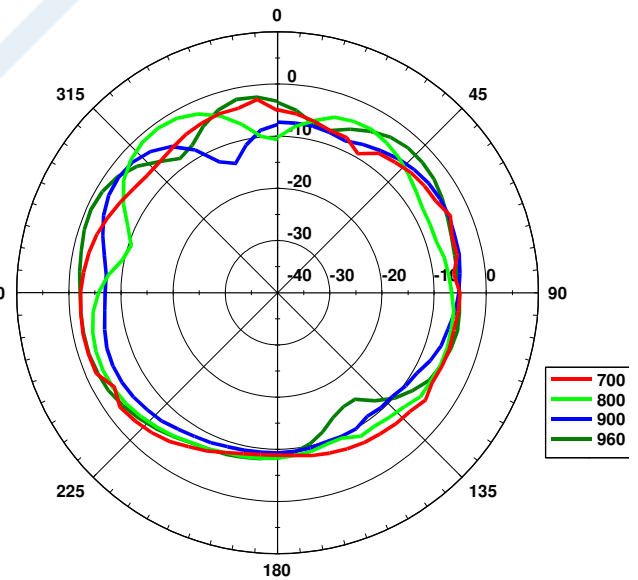
XY Plane

Total power	Max (dBi)	Min (dBi)	Average (dBi)
1710	3.01	-19.80	-2.01
1880	1.00	-18.10	-3.34
1920	2.97	-13.27	-1.87
2170	2.24	-20.47	-3.18
2450	3.22	-10.60	-1.66
2650	1.83	-11.58	-3.07



XY Plane

Total power	Max (dBi)	Min (dBi)	Average (dBi)
700	-1.89	-9.23	-4.98
800	-1.04	-10.67	-5.67
900	-2.36	-13.95	-6.50
960	-0.87	-14.76	-4.45



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5 dBi MultiBand Embedded PCB Antenna 698-2,700 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: [5 dBi MultiBand Embedded PCB Antenna 698-2,700 MHz UMCX Connector PE51200](https://www.pasternack.com/multi-antenna-698-mhz-2.7-ghz-5-dbi-gain-umcx-pe51200-p.aspx)

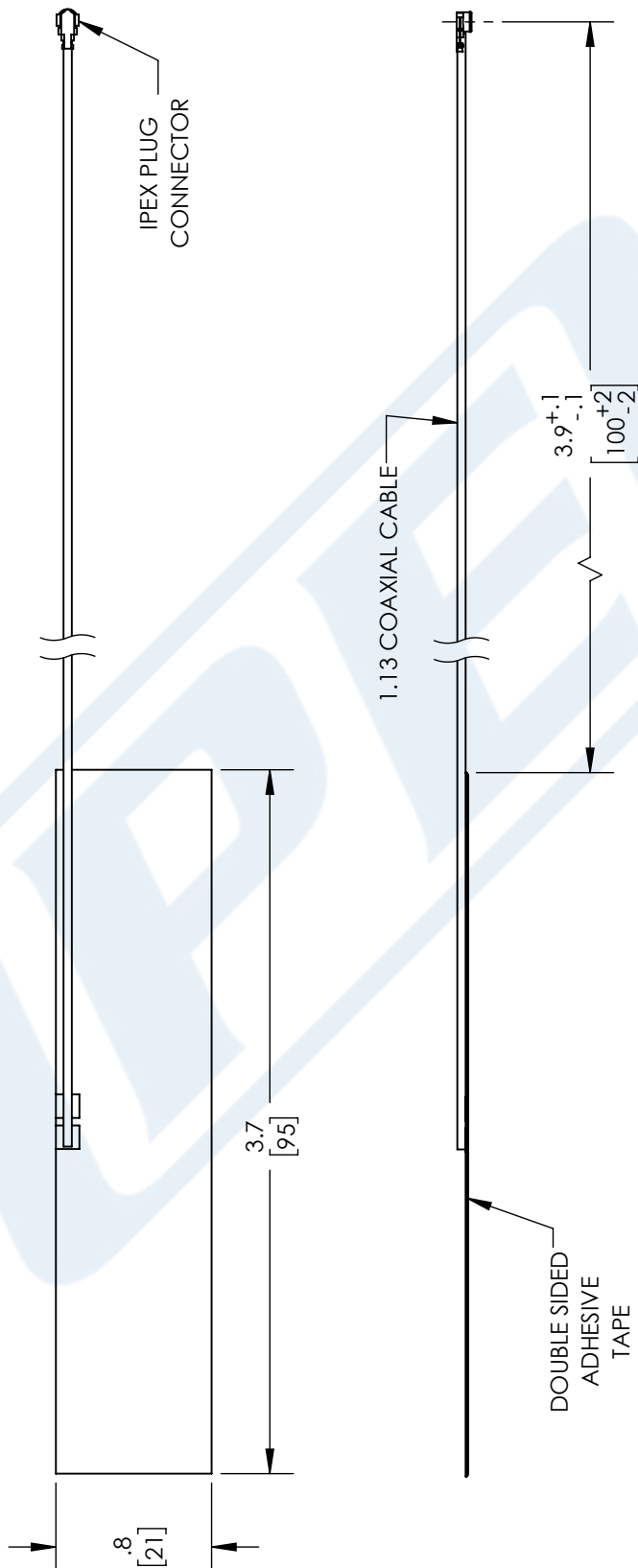
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PE51200 CAD Drawing

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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 [.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%L / -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. PE51200

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