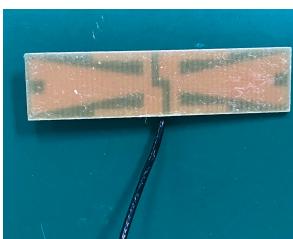
40.0 x 6.0 x 0.5 (mm) Wi-Fi Dual Band PCB Substrate Antenna (AA222) Engineering Specification

1. Explanation of Product Number

H 2 B 1 P D 1 A 1 C 3 0 5 L

(1) (2) (3) (4) (5)





Product Code:

(1) Product Applications:

P: Wi-Fi Dual Band Antenna

(2) Dimensions:

D1: 40.0 x 6.0 x 0.5 (mm)

(3) Material:

A: GF

(4) Working Frequencies:

1C: 2400~2484 & 5150~5850 MHz

(5) Antenna Series:

30: serial number



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Scale: Unit: mm			THIS	SPECIFICA ⁻	TION	IS THE	PROPERTY	OF	UNICTRON
Prepared B	Prepared By :shelley Checked By :Joy		TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODU						
	Approved By : Frank				RCUM	MSTANCES WITHOUT WRITTEN PERMISS			
FITLE: 40 x 6.0 x 0.4mmWiFi Dual Band				PART		H2B1PD1A1C305L			REV.
PCB Substrate Antenna AA222			NO.	'''	ZBII BIA 1900E		Α		
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2. Features

- *Stable and reliable in performances
- *Compact size
- *RoHS compliance

3. Applications

- * IEEE802.11(a/b/g/n).
- * Hand-held devices when IEEE802.11(a/b/g/n) functions are needed.

4. Description

Unictron's PCB antenna with cable series are specially designed for IEEE802.11(a/b/g/n) applications. Based on Unictron's proprietary design and processes, this antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency.

5. Operating Condition:

Temperature -10 to +85 °C (With double-sided tape)

- 40 to +85 °C (Without double-sided tape)

Humidity 10 to 95% RH

6. Storage Condition:

Temperature -10 to +85 °C (With double-sided tape)

- 40 to +85 °C (Without double-sided tape)

Humidity 10 to 95% RH

7. Electrical Specifications (Antenna in device)

7-1, 2400~2484 MHz Band

Char	acteristics	Specifications	Unit		
Outline Dimen	sions	40.0 x 6.0 x 0.5	mm		
Working Frequ	uency	2400~2484	MHz		
Bandwidth		84 Min (typical) M			
VSWR		2 Max. (typical)	100		
Impedance		50	Ω		
Polarization		Linear Polarization			
Peak Gain	(@ 2442 MU=)	2.7 (typical)	Ted Biogies		
Efficiency	(@ 2442 MHz)	80 (typical)	20%7-04-		

^{*}Center frequency will be offset to another frequency according to the conditions of user's ground plane and radome.

Prepared By :shelley Checked By :Joy Approved By : Frank TITLE: 40 x 6.0 x 0.4mmWiFi Dual Band PART H2B1PD1A1C305I REV.	Tolerances X: ± 1 Angle: ±	X.X: ± 0.1	wise specified) X.XX : ± 0.01 ble Dia. : ±	Unicl	ION ies Corp.		ctron Tecl Corpora te: www.u	ation	
Approved By: Frank OR USED IN ALL CIRCUMSTANCES WITHOUT WRITTEN PERMISSION TITLE: 40 x 6.0 x 0.4mmWiFi Dual Band PART H2B1PD1A1C305I REV.		v :shellev						UNICTRON	
H2B1PD1A1C:305I									
	TITLE: 40 x 6.0 x 0.4mmWiFi Dual Band PCB Substrate Antenna AA222			PART		H2B1PD1A1C305I			REV.
PCB Substrate Antenna AA222 NO.				NO.					

7-2. 5150~5850 MHz Band

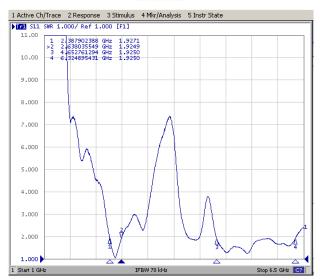
Char	acteristics	Specifications	Unit
Working Frequ	iency	5150~5850	MHz
Bandwidth	. vi	800 Min. (typical)	MHz
VSWR(2.5 Max. (typical)	3
Impedance		50	Ω
Polarization		Linear Polarization	10
Peak Gain	(@EEEO MH-)	3.5 (typical)	dBi
Efficiency	(@5550 MHz)	72.3 (typical)	%

^{*}Center frequency will be offset to another frequency according to the conditions of user's ground plane and radome

7-3. Return Loss & VSWR

Return Loss

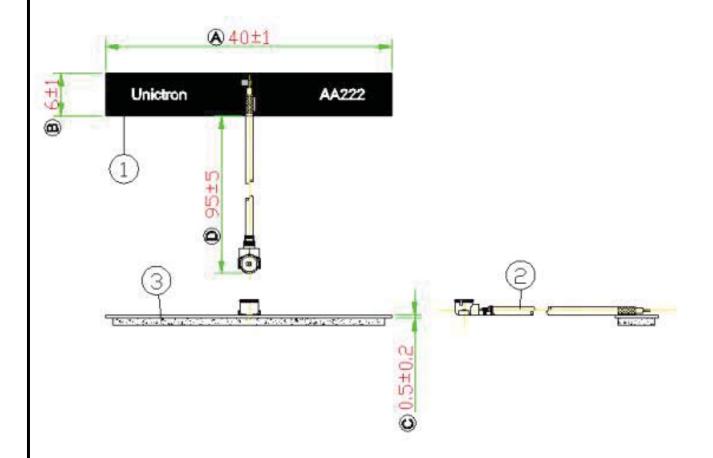
VSWR





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Scale: Unit: mm			THIS SPECIFICA	TION IS THE PROPERTY OF	UNICTRON		
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		Approved By : Frank	OR USED IN ALL CI	RCUMSTANCES WITHOUT WRITTEN P	ERMISSION		
TITLE: 40 x 6.0 x 0.4mmWiFi Dual Band PCB Substrate Antenna AA222			PART	H2B1PD1A1C305L	REV.		
			NO.		Α		
				PAGE 3 OF	9		

8. Dimensions of PCB antenna with cable (unit: mm)



NOTE:

1.All materials are RoHS compliant.

2." A~ D" Critical Dimensions.

3."()" Reference Dimensions.

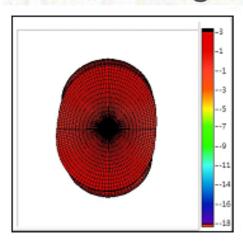
Item	Name	Material	Color	Q'ty
1	AA222_PCB	FR4	Black	1
2	I-PEX Connector (MHF I) Cable1.13mm	FEP	Gray	1
3	Adhesive	PE	Black	1

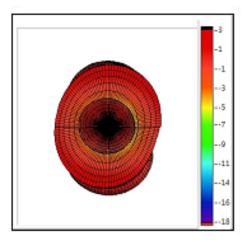
Unictron
Technologies Corp.
2017-04-14

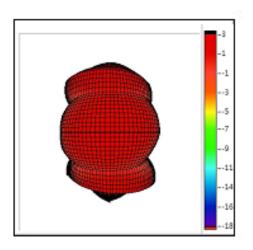
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	4mmWiFi Dual Band	PART	H2B1PD1A1C305L	REV.
PCB Substr	ate Antenna AA222	NO.	112B11 B1A1000E	Α
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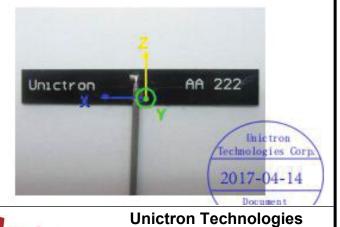
9. Radiation Pattern

9-1.2400~2484 MHz Band 9-1-1.3D Gain Pattern @ 2442 MHz (unit: dBi)









Tolerances (Unless otherwise specified)						
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Angle: ±	Н	ole Dia. : ±				
Scale :		Unit: mm				
Prepared By :s	helley	Checked By :Joy				
		Approved By : Frank				

Corporation
Website: www.unictron.com

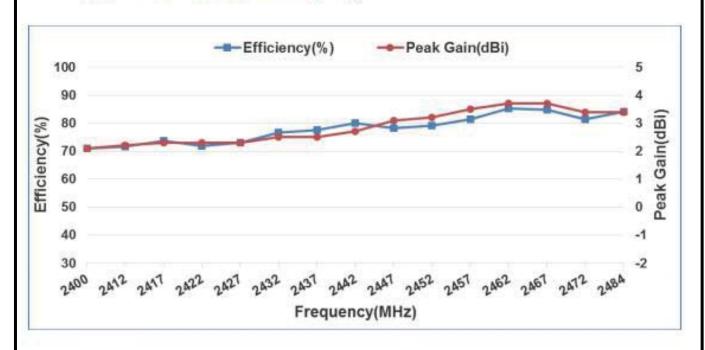
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TITLE:	40 x 6.0 x 0.4mmWiFi Dual Band	PART	H2B1PD1A1C305L	REV.
	PCB Substrate Antenna AA222	NO.	112BTFDTATC303L	Α
			PAGE 5 OF	a

9-1-2. 3D Efficiency Table

Frequency (MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency (dB)	-1.5	-1.5	-1.3	-1.4	-1.4	-1.2	-1.1	-1.0	-1.1	-1.0	-0.9	-0.7	-0.7	-0.9	-0.8
Efficiency (%)	71.0	71.6	73.8	71.8	73.1	76.7	77.5	80.0	78.3	79.1	81.5	85.3	84.8	81.5	84.2
Gain (dBi)	2.1	2.2	2.3	2.3	2.3	2.5	2.5	2.7	3.1	3.2	3.5	3.7	3.7	3.4	3.4

9-1-3. 3D Efficiency vs. Frequency

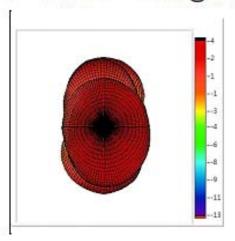


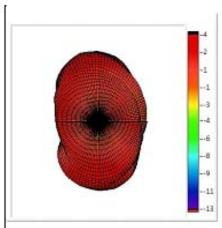


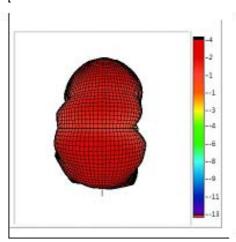
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9-2. 5150~5850 MHz Band

9-2-1.3D Gain Pattern @ 5550 MHz (unit: dBi)









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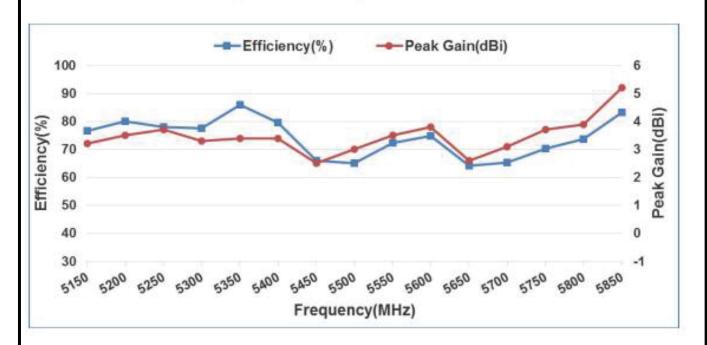
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PCB Subs	trate Antenna AA222	NO.	112511 5174100002	Α		

9-2-4. 3D Efficiency Table

Frequency(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Efficiency(dB)	-1.2	-1.0	-1.1	-1.1	-0.7	-1.0	-1.8	-1.9	-1.4	-1.3	-1.9	-1.9	-1.5	-1.3	-0.8
Efficiency(%)	76.7	80.0	78.1	77.5	86.0	79.6	65.9	65.0	72.3	74.8	64.1	65.4	70.3	73.6	83.1
Peak Gain(dBi)	3.2	3.5	3.7	3.3	3.4	3.4	2.5	3.0	3.5	3.8	2.6	3.1	3.7	3.9	5.2

9-2-5. 3D Efficiency vs. Frequency





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10. Manufacturer Information

Unictron Technologies(Shenzhen)Co. Ltd

Add: Room 609, Building 3, Pingshan Private Enterprise Technology Park, No. 65 Lishan Road, Pingshan Community, Taoyuan Street, Nanshan District, Shenzhen, Guangdong, China

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