

40.00x6.00x0.50mm BT PCB Antenna (PB4006-00)

1.Explanation of Product Number

S	2	B	1	C	D	1	F	1	B	0	1	0	0	0
		(1)	(2)	(3)	(4)	(5)	(6)							



Product Code:

(1) Product Categories:

B1: PCB Substrate Antenna(PCB+Cable)

(2) Application:

C: BT antenna

(3) Dimensions:

D1: 40.00x6.00x0.5mm/ L=1.13*170mm IPEX I

(4)Material:

F:PCB

(5) Working Frequencies

1B: 2400~2500

(6) Antenna Series:

01: serial number

Tolerances (Unless otherwise specified) X : ± 1 X.X : ± 0.1 X.XX : ± 0.01 Angle : $\pm$ Hole Dia. : $\pm$		 Unictron Technologies (Shenzhen) Co. LTD 609,Building 3,Pingshan Minqi Technopark,No.65 Lishan Road,Pingshan Community,Taoyuan Stree,Nanshan,Shenzhen.	
Scale :	Unit: mm	THIS SPECIFICATION IS THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN ALL CIRCUMSTANCES WITHOUT WRITTEN PERMISSION	
Drawn By : Mia	Checked By :Joy		
Designed By : Joy	Approved By :Craig		
TITLE: 40.00x6.00x0.50mm BT PCB Antenna (PB4006-00)		PART NO.	S2B1CD1F1B01000 REV. A
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2.Features

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

3.Applications

- * IEEE802.11 (b/g/n).
- * Hand-held devices when WiFi / BT (802.11 b/g/n) functions are needed.

4.Description

Unictron's PCB antenna series are specially designed for WiFi/BT (802.11 b/g/n) applications. Based on Unictron's proprietary design and processes, this PCB antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency.

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5. Electrical Specifications

5-1. Electrical Table (2400~2500MHz Band)

Characteristics	Specifications			Unit
Outline Dimensions	40.00x6.00x0.50			mm
Frequency	2400-2500			MHz
Impedance	50			Ω
Polarization	Linear Polarization			
Return Loss Table	Return Loss			
Freq.Band	2.4G Hz		2.5G Hz	
dB	-10.58		-10.66	
GAIN Table	Total Gain =Xpol + Ppol			
Freq.Band	2400MHz	2450MHz	2480MHz	2500MHz
Peak Gain(dBi)	3.39	3.58	2.64	2.35

*The data was measured on the customer's prototype.

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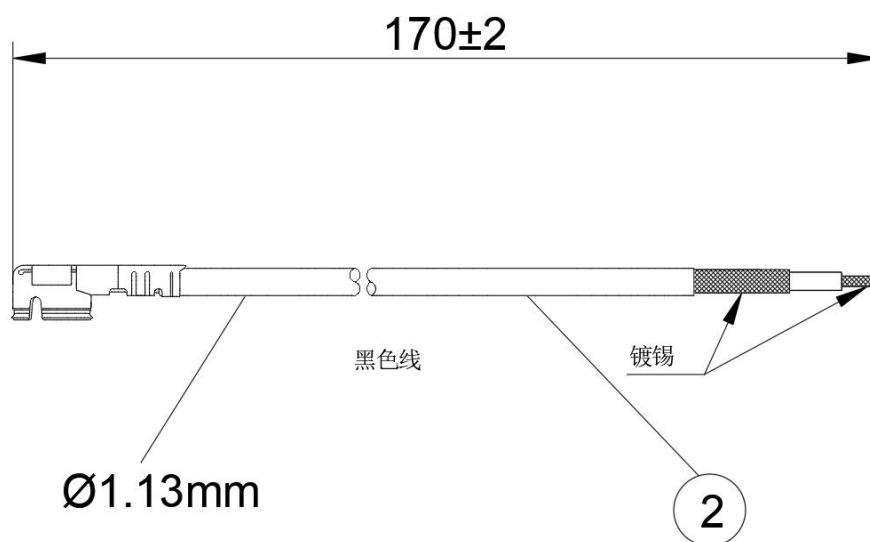
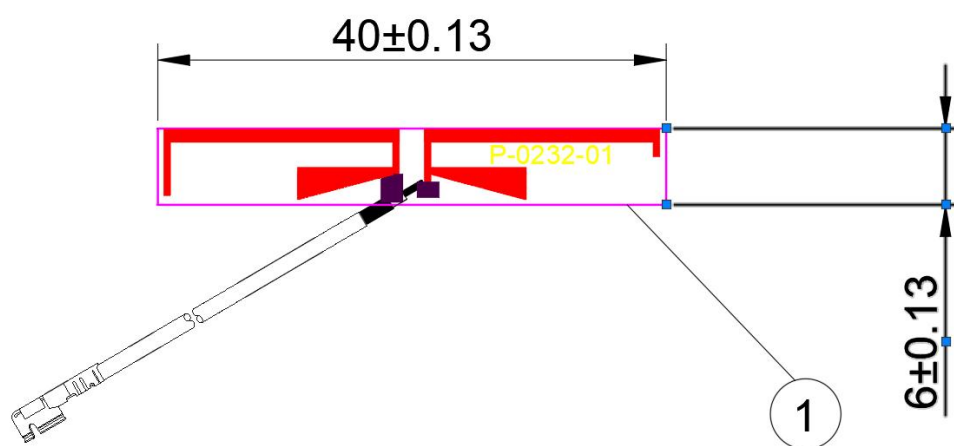
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6. Antenna Dimensions (unit: mm) .



1	P-0232-01 40*6*0.5mm	
2	Cable (Ø1.13*170mm+IPEX 一代)	
3	3#9448A 背胶 39*5*0.1mm	
ITEM	Description	Q'ty
Material		

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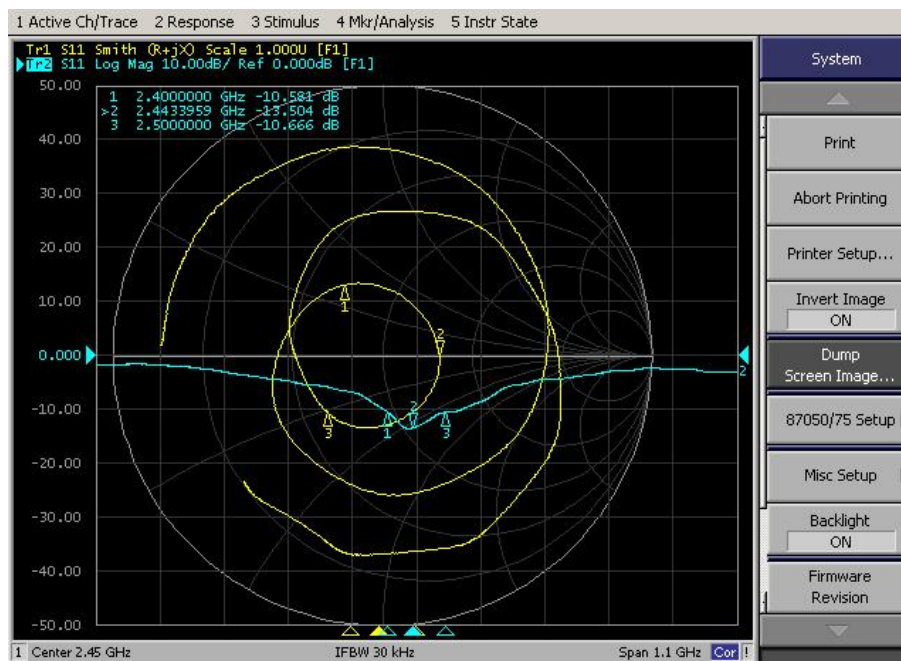
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7.Return Loss

Return Loss (S_{11})



Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	3.39	-5.06	31.18
2410	3.58	-4.89	32.45
2420	3.62	-4.77	33.32
2430	3.7	-4.67	34.14
2440	3.72	-4.66	34.18
2450	3.58	-4.82	32.97
2460	3.32	-4.96	31.91
2470	3.02	-5.12	30.75
2480	2.64	-5.20	30.22
2490	2.50	-5.43	28.66
2500	2.35	-5.54	27.92

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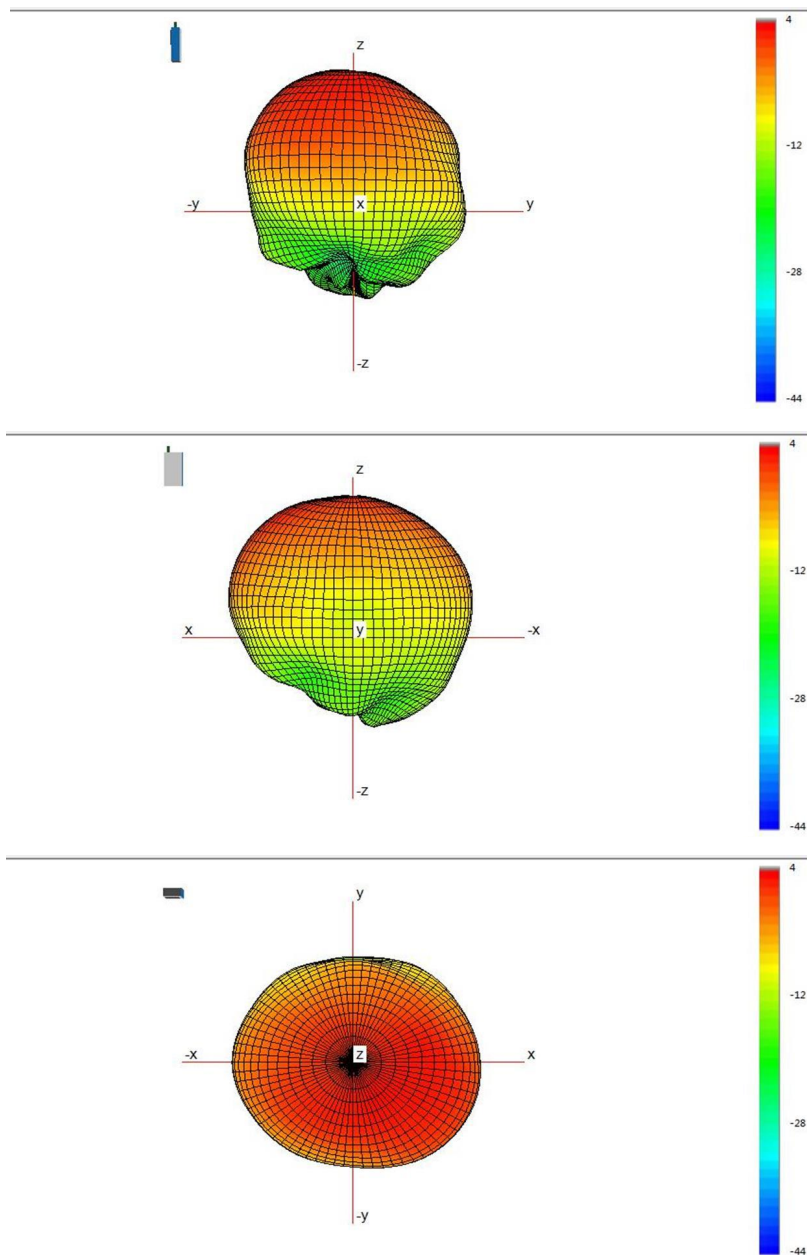
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8.Radiation Pattern

8-1.3D Gain Pattern @ 2450MHz (unit: dBi)



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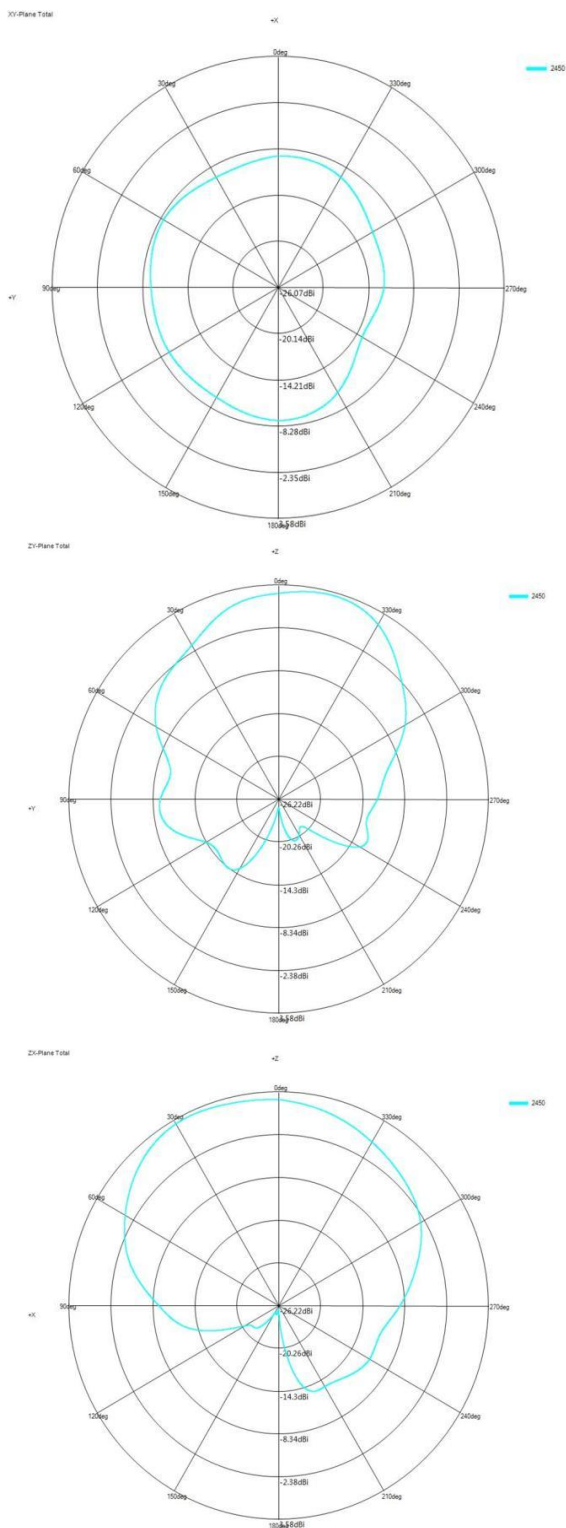
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8-1.2D Gain complete machine (Radiation Pattern at 2450 MHz)



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9. Revision Control:

Revision	Date	Content	Remark
A	Sep.2.2025	New Issued.	N/A

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