



Shenzhen Shuodian Electronic Technology Co.,Ltd
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SPECIFICATION

for

Gamepad antenna

Customer No.

Product No.

RFECA3216060A1T

Author: XiaofengZeng **Review:** Liming

Release Date: 2025.4.18

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1. Bilateral Confirmation page

1.1 Customer signature

Customer:

Seapartment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

1.2 Signature of ShuoDian Technology company

Seapartment/post	Sign	Date
Antenna Engineer/RD	何世东	2025-4-18
Mechanical/MD	丁涛	2025-4-18
Project Manager/PM	李鸣	2025-4-18
QA	李秀	2025-4-18
Checker	李鸣	2025-4-18



2. General

2.1 Scope of application

This specification is only applicable to BT WiFi antenna

2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 °C

2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 °C

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	Gamepad
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤ 2.0
4	Gain	3.85dBi
5	Radiation Efficiency	$\geq 50\%$
6	Impedance	50 Ω
7	Antenna Type	PIFA
8	Entity Picture	



9	Matching circuit	
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4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

4.12 Apperance

Good appearance without scars 、 dirts、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:

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DIMENSIONS

Figure	Symbol	Dimension (mm)
	L	3.10 ± 0.20
	W	1.60 ± 0.20
	T	0.60 ± 0.10
	A	0.25 ± 0.20

4. 2 Electric Performance

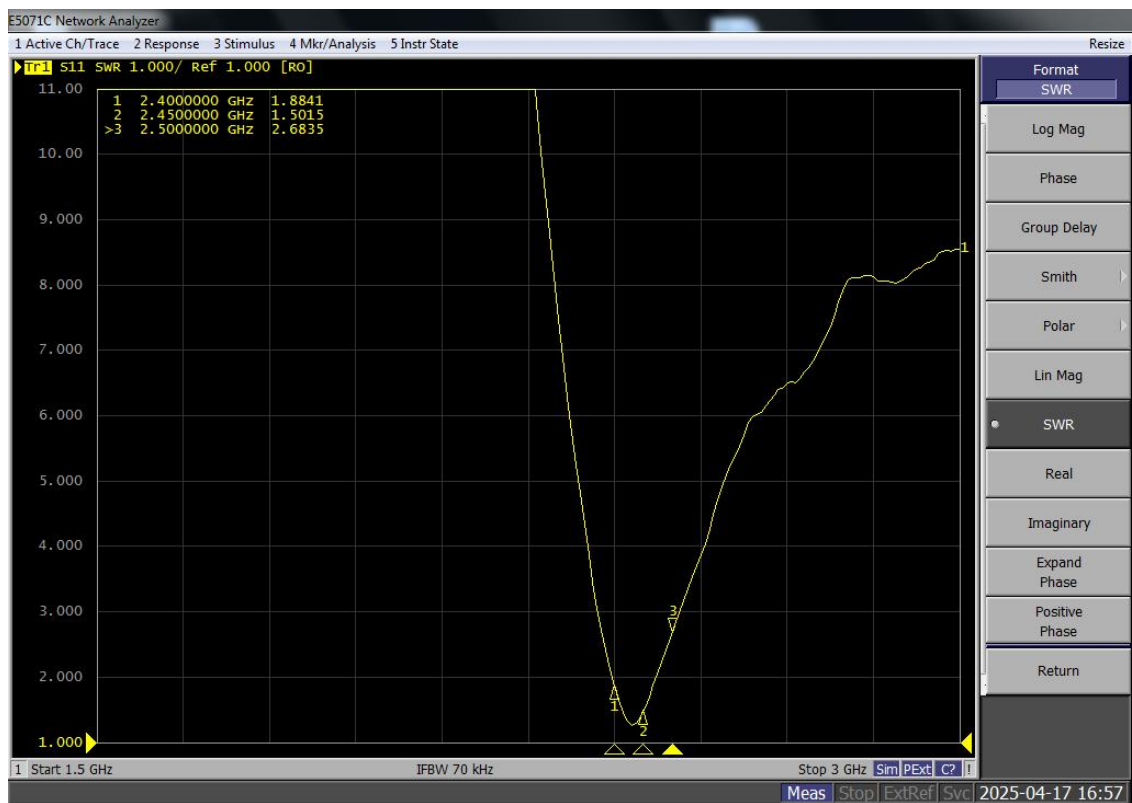
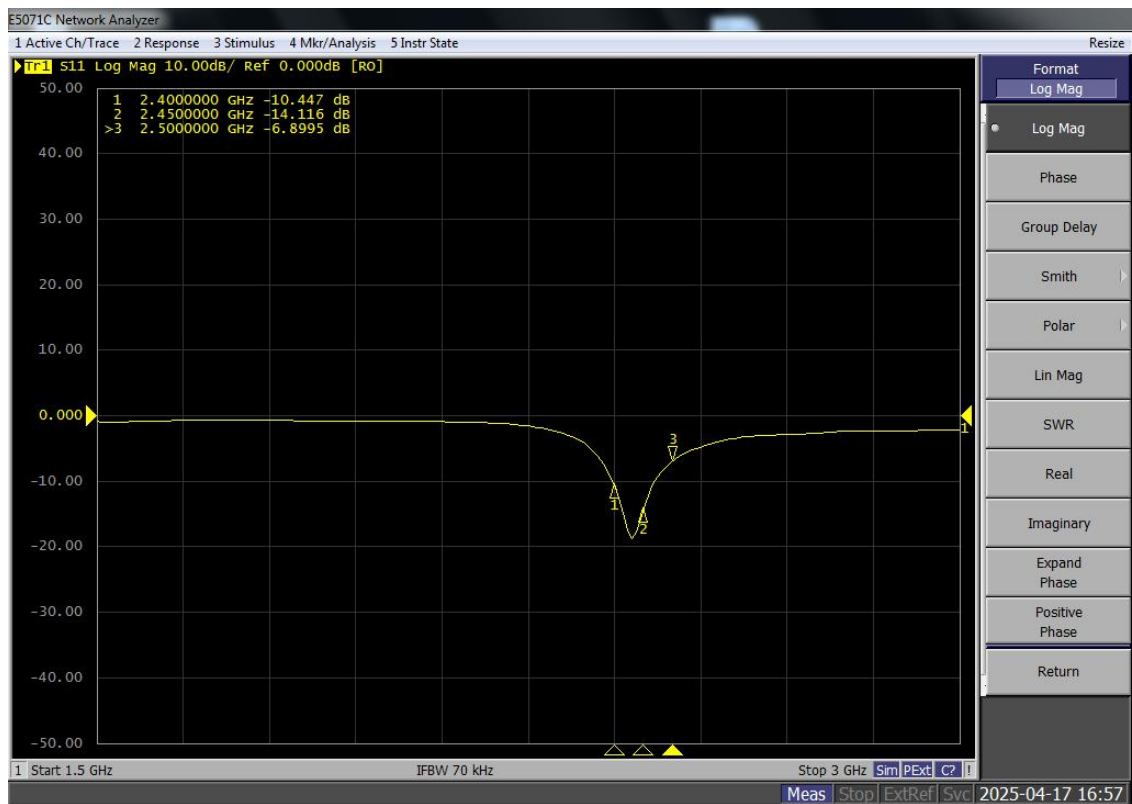
4. 21 Test condition

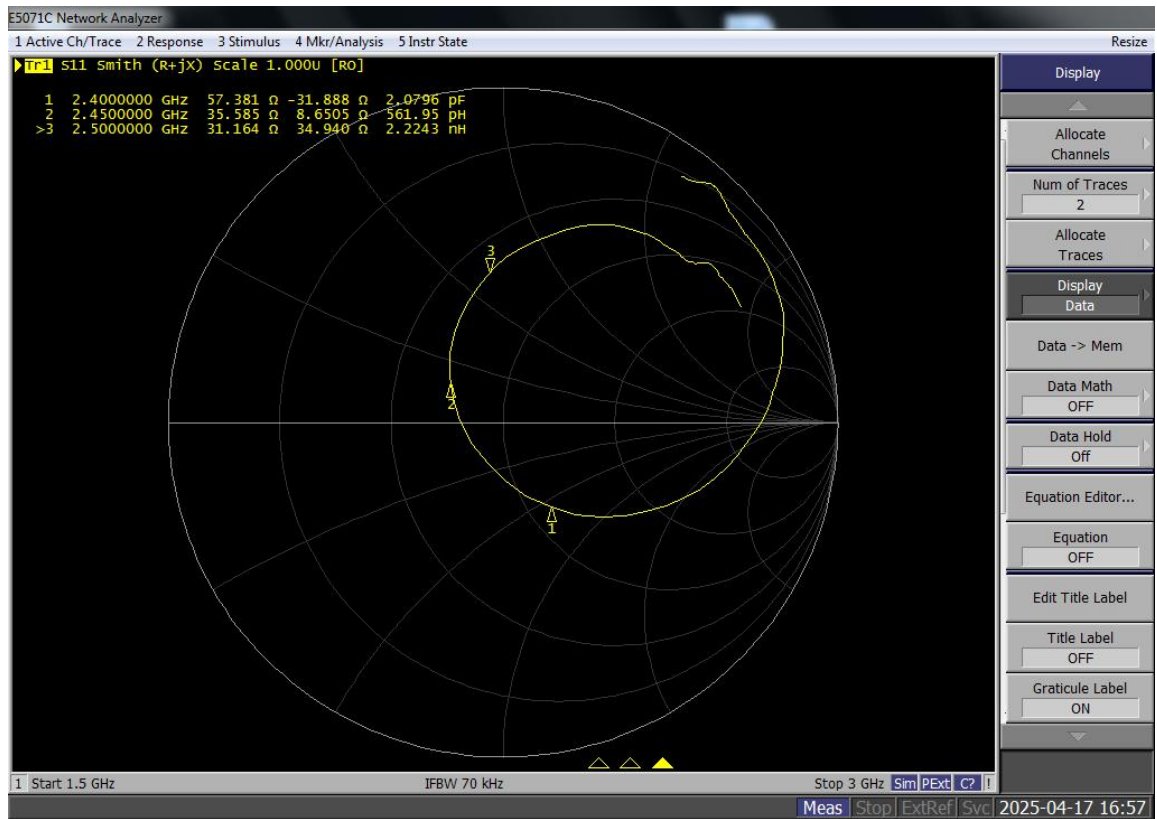
Environment:	Equipment:
Temperature: 10°C —— $+30^{\circ}\text{C}$	Network Analyzer: KEYSIGHT E5071C
Humidity: $\leq 80\%$ ($+40^{\circ}\text{C}$)	Multi-probe microwave anechoic
Atmospher: $750\text{mmkg} \pm 30\text{mmkg}$	chamber

4. 22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker (MHZ)	2400	2450	2500
Returnloss	-10. 44	-14. 11	-6. 89
VSWR	1. 88	1. 50	2. 68





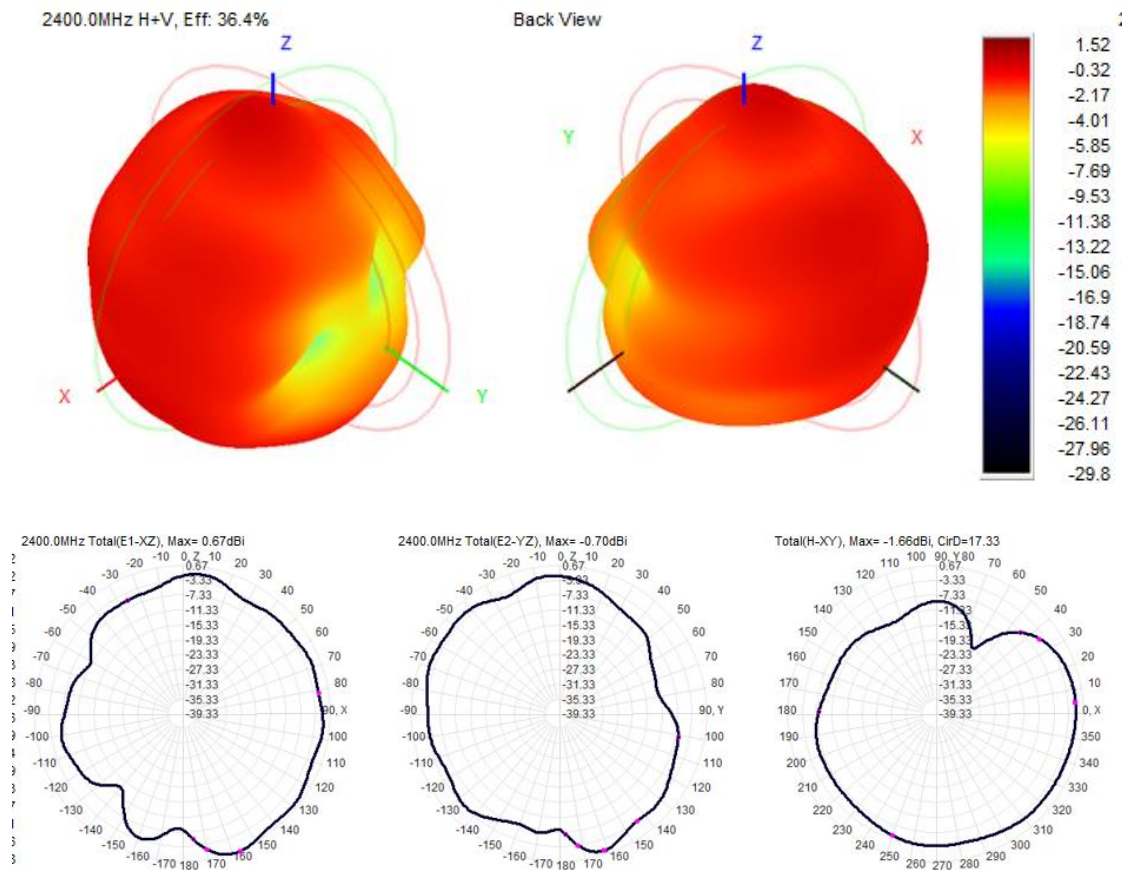
4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

Marker (MHz)	2400	2410	2420	2430	2440	2450
Gain (dBi)	1.52	1.77	2.04	2.35	2.59	2.82
Efficiency (%)	36.37	38.42	40.02	44.11	44.22	45.41
Marker (MHz)	2460	2470	2480	2490	2500	
Gain (dBi)	3.2	3	3.85	2.53	2.53	
Efficiency (%)	45.39	45.66	43.61	43.26	41.98	

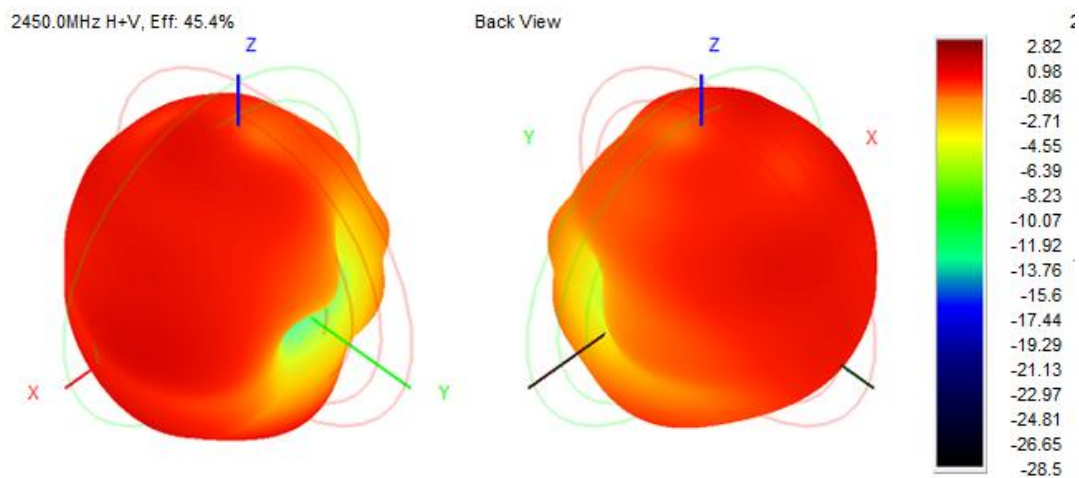


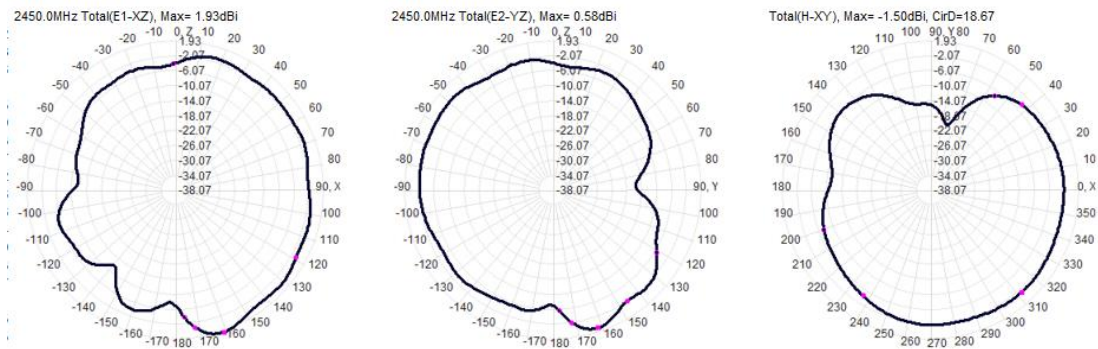
Radiation Pattern

2400 MHz:

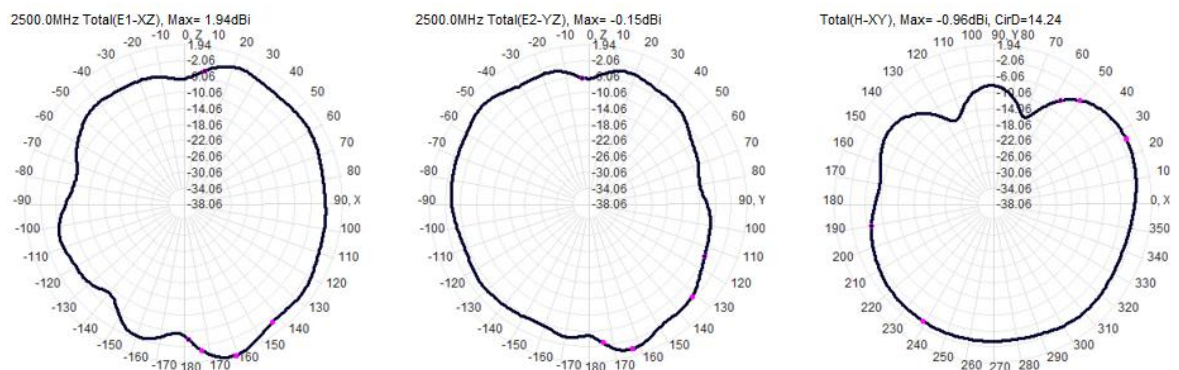
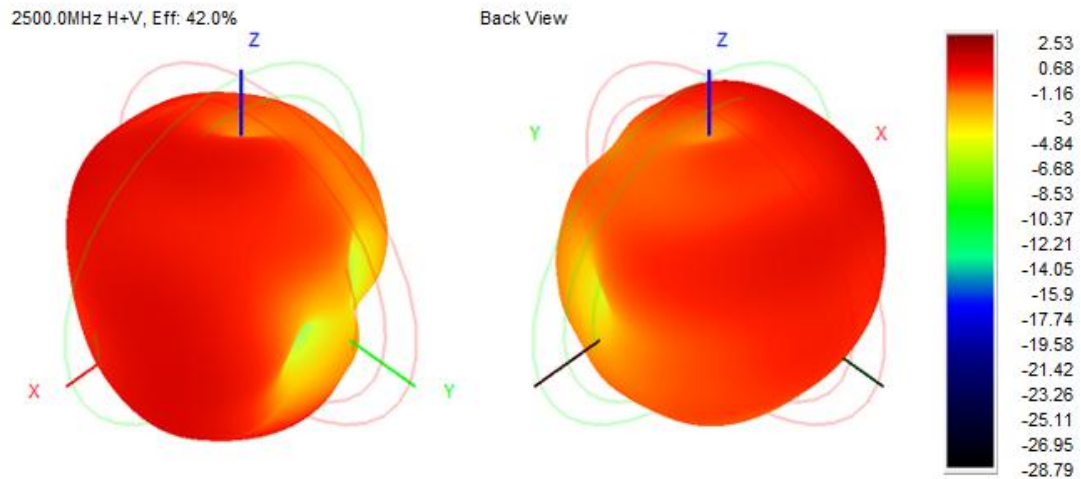


2450MHz:





2500MHz





5. Product Packaging

Carpet tray: 2000 PCS per tray.