



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: 2025.5.21

Manufacturer:

ShenZhen Shuodian Electronic Technology Co., Ltd

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Shenzhen Shuodian Electronic Technology Co.,Ltd



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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	2025-5-21
Mechanical/MD	丁涛	2025-5-21
Project Manager/PM	李鸣	2025-5-21
QA	李秀	2025-5-21
Checker	李鸣	2025-5-21



2. General

2.1 Scope of application

This specification is only applicable to Gamepad 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	≤ 2.33
4	Gain	0.44dBi
5	Radiation Efficiency	$\geq 35\%$
6	Impedance	50Ω
7	Antenna Type	Dipole
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 、 dirt、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:



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

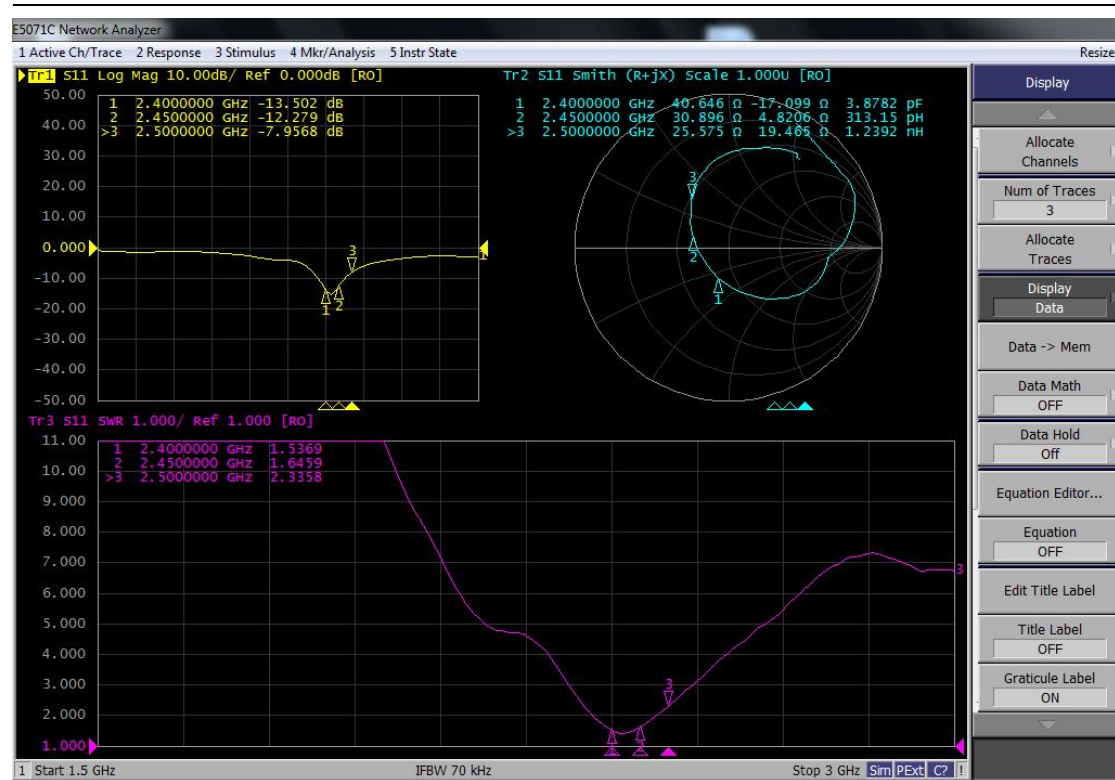
4.21 Test condition

Environment:	Equipment:
Temperature: $10^{\circ}\text{C} \text{---} +30^{\circ}\text{C}$	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	-13.50	-12.27	-7.95
VSWR	1.53	1.64	2.33



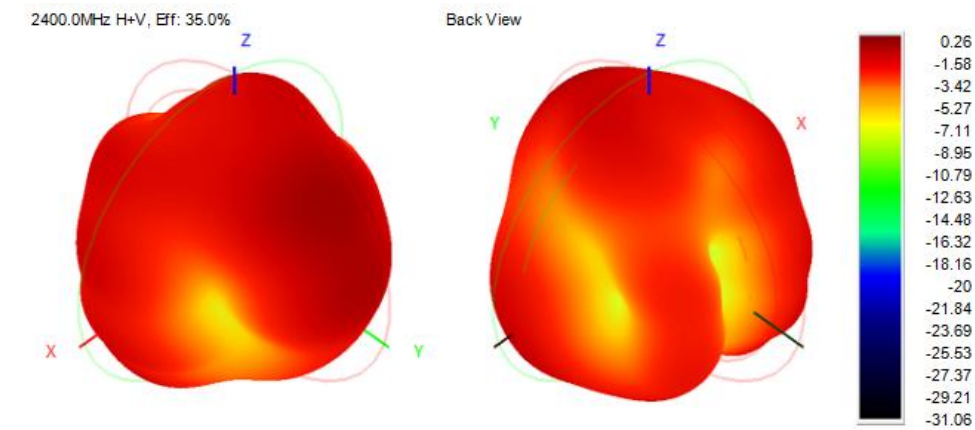
4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	0.26	0.34	0.11	-0.12	-0.17	-0.12	0.11	0.44	0.32	0.00	-0.67
Efficienc (%)	35.02	36.09	36.19	36.89	37.40	37.50	37.67	38.10	37.30	37.49	36.53

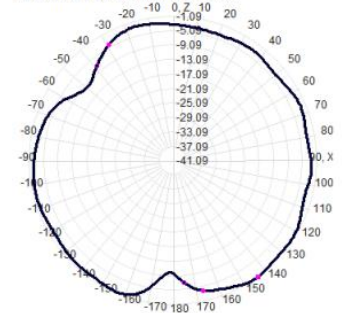


Radiation Pattern

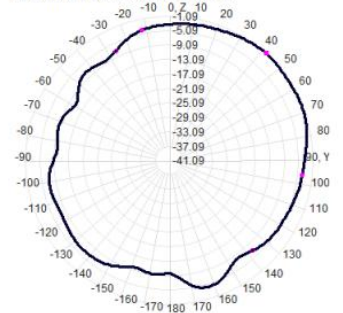
2400 MHz:



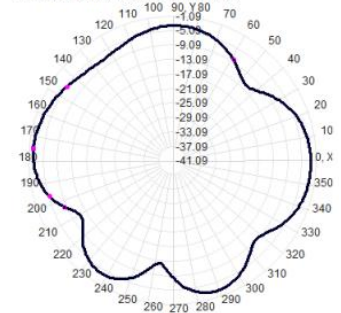
2400.0MHz Total(E1-XZ), Max=-1.35dBi



2400.0MHz Total(E2-YZ), Max=-1.09dBi

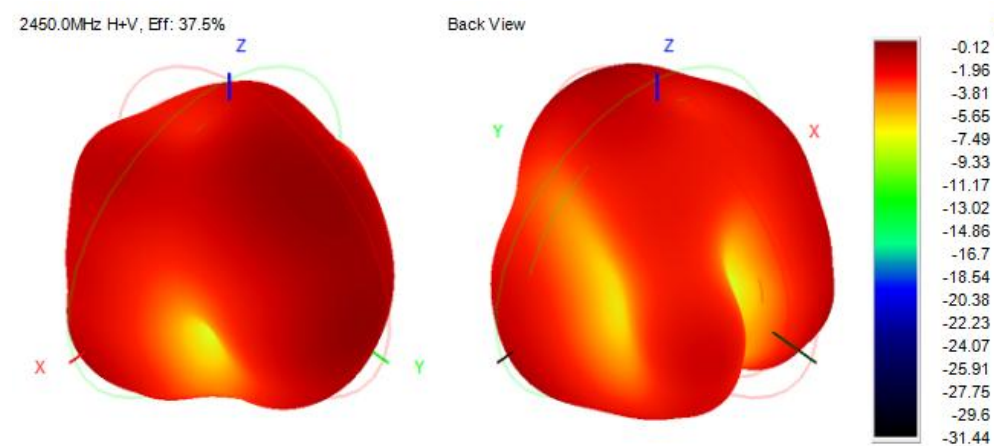


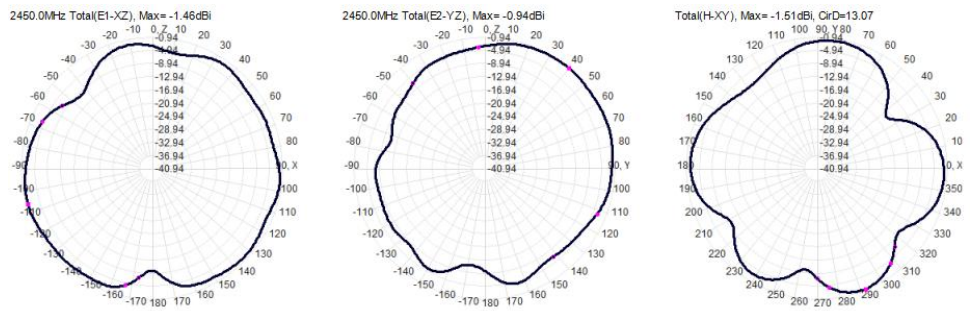
Total(H-XY), Max=-2.32dBi, CirD=10.20



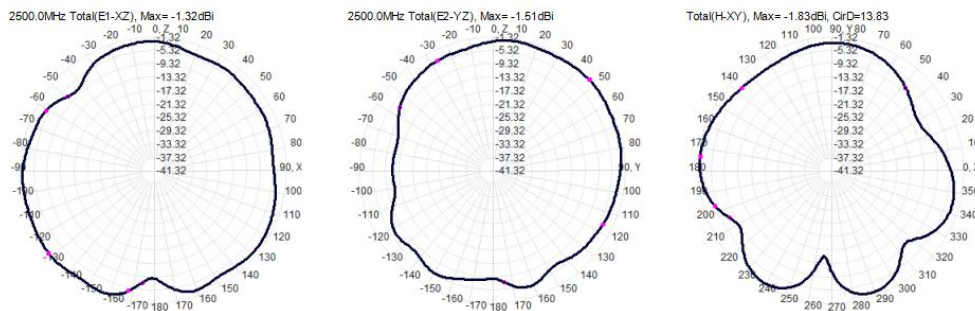
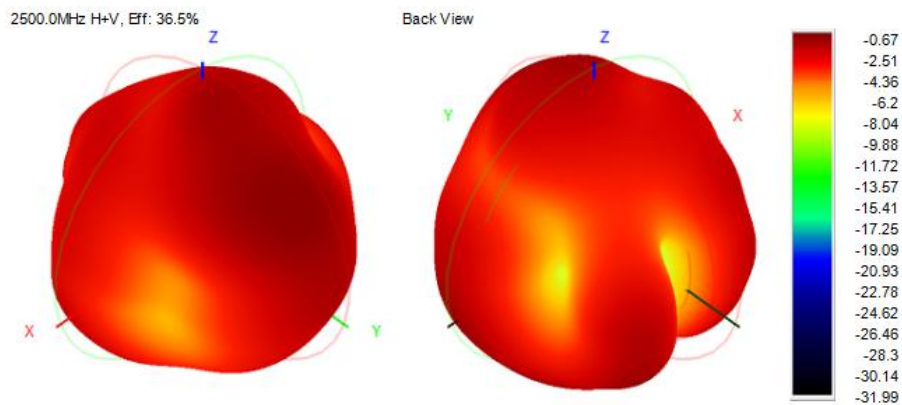
2450MHz:

2450.0MHz H+V, Eff: 37.5%





2500MHz



5. Product Packaging

Carpet tray: 2000 PCS per tray.