

SPECIFICATION

for

2.4G antenna

Customer No.

Product No.

SD601- 2.4G -FPC-300MM

Author: XiaofengZeng Review: Liming

Release Date: 2025.11.11

Shanxi Dongxin Hengke Electronics Co., Ltd.
Building H3, 2nd Floor, Intelligent Terminal Industrial Park, High-tech
Zone, Ankang City, Shaanxi Province

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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 HY Technology company

Seapartment/post	Sign	Date
Antenna Engineer/RD		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		

2. General

2.1 Scope of application

This specification is only applicable to WOAN 2.4G 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	SD601
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤2.0
4	Impedance	50Ω
5	Antenna Type	Dipole
6	Antenna composition	FPC+CABLE
7	Entity Picture	

4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	FPC	46.5*14.2 Black
2	CABLE	IPEX-3 ϕ 0.81 L=300 black

4.12 Apperance

Good appearance without scars 、 dirt、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Product drawings:

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REV	DESCRIPTION	DATE	APPD

Technical requirements:
1. All unit dimensions are in mm.
2. Materials:
Adhesive backing: 3M 300LSE(9471);
Base material: half and half, electrolytic copper.
Surface black oil, bare copper.
Third generation terminal, $\phi 0.81$ black coaxial cable
3. The soldering pad is made of bare copper and treated with anti-oxidation treatment.
4. All dimensions marked with an * symbol are controlled dimensions.

Unit	Proportion	Material	General processing	Surface roughness	Surface treatment	Review	Part number	Page 1
mm	1:1	Design	Draw	LFL	RF		Approve	1 pages in total

Mapping: Trace: Formaker

Name 2.4G antenna

4.2 Electric Performance

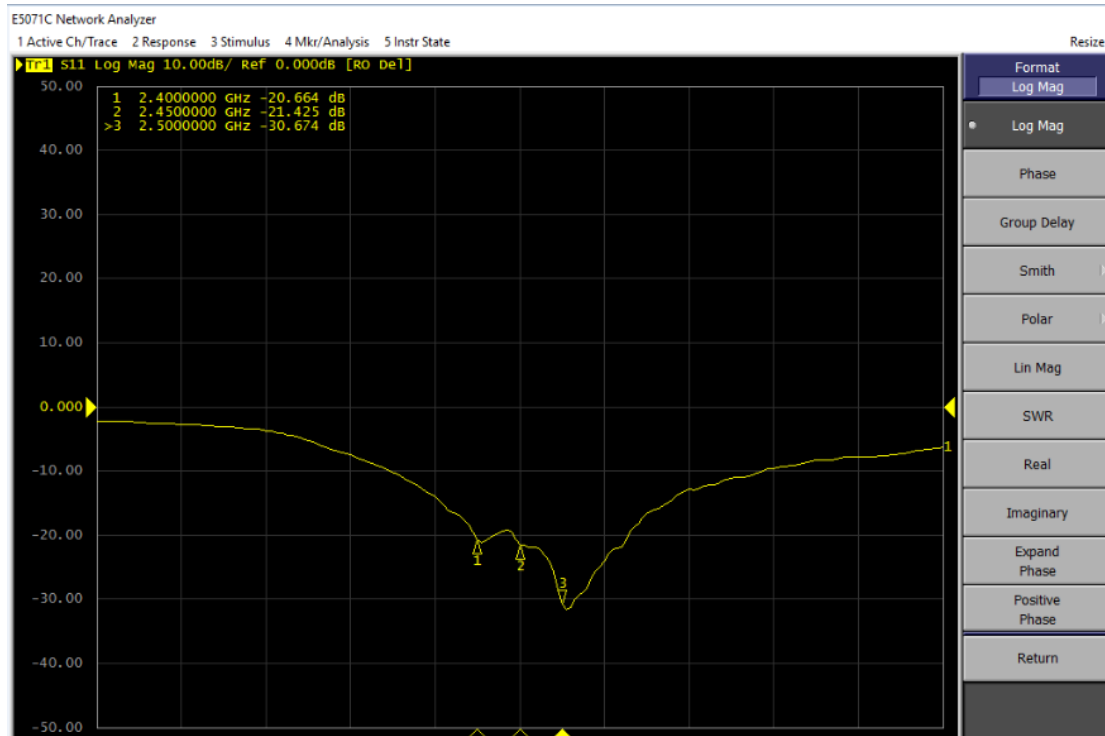
4.21 Test condition

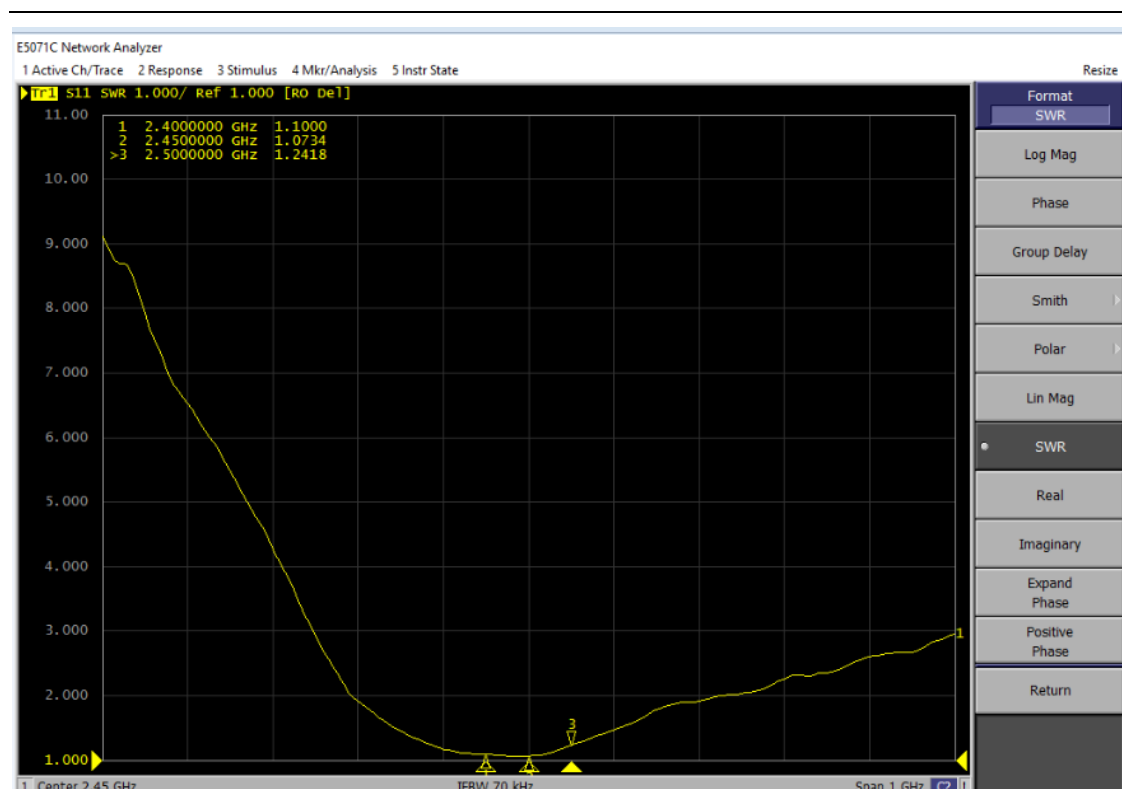
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Multi-probe microwave anechoic
Atmospher: 750mmkg±30mmkg	chamber

4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker (MHz)	2400	2450	2500
Returnloss	-20.6	-21.4	-30.7
VSWR	1.2	1.14	1.07



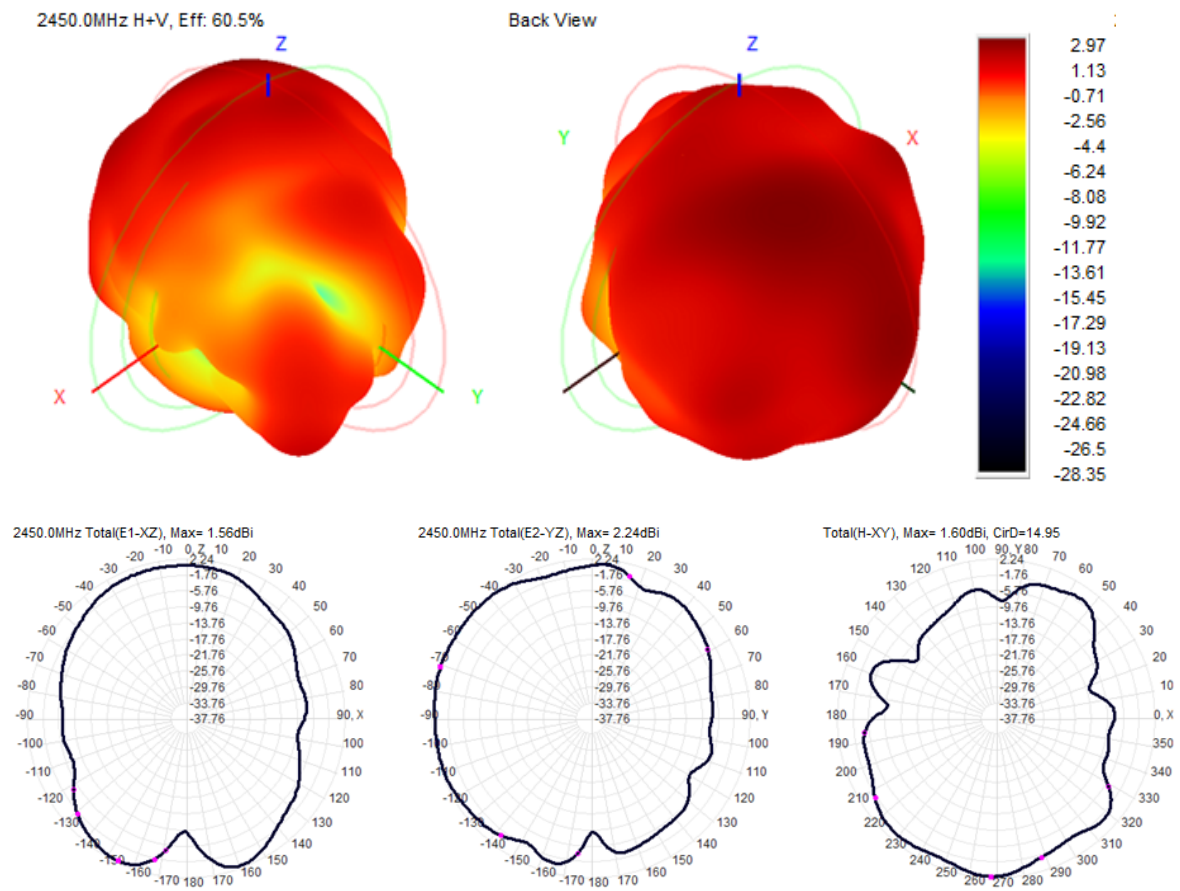


4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.93	2.91	2.81	2.83	2.91	2.97	2.92	2.74	2.43	2.35	2.5
Efficien (%)	59.2	59.4	58.7	59.1	59.2	60.4	60.8	61.0	60.5	60.6	61.7

Radiation Pattern 2450MHz

@2450MHz



5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.

6. Document Resume

Document No.	
Release Date	2025/11/11
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2025/11/11	1.00	New Project