



Shenzhen Shuodian Electronic Technology Co.,Ltd
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SPECIFICATION

for

SR12 (RC330) WIFI Antenna

Xiechuang Technology (Shenzhen) Co., Ltd

Customer No.400103440

Product No.

XC-Sweeping Robot 2.4-WIFI-FPC

Author: XiaofengZeng Review: Liming

Release Date: 2023.05.30

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1. Bilateral Confirmation page

1.1 Customer signature

Customer: Xiechuang Technology (Shenzhen) Co., Ltd

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

1.2 Signature of ShuoDian Technology company

Separtment/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 SR12(RC330) FPC wifi antenna of Xiechuang technology.

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	SR12(RC330)
2	Operating Frequency Band	2.4~2.5GHz
3	VSWR	≤2.0
4	Gain	2.35±0.5dBi
5	Radiation Efficiency	≥50%
6	Impedance	50Ω
7	Antenna Type	Dipole
8	Antenna composition	FPC+cable
9	Entity Picture	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	FPC	39.8*8mm Black
2	Cable	IPEX I +Ø1.13 Cable 170MM Black

4.12 Apperance

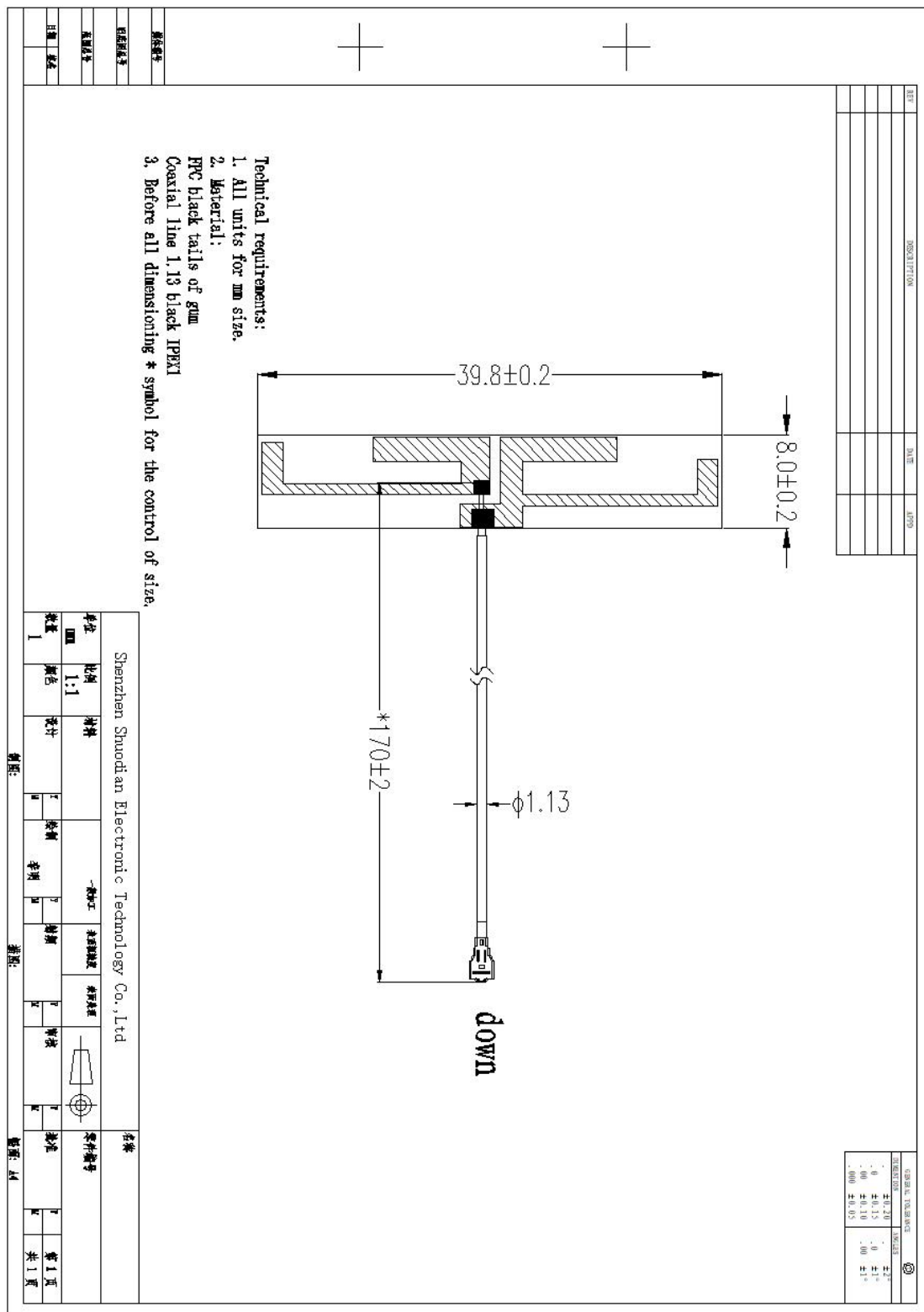
Good appearance without scars 、 dirt、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Refer to product drawings:



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Product drawings:

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4.2 Electric Performance

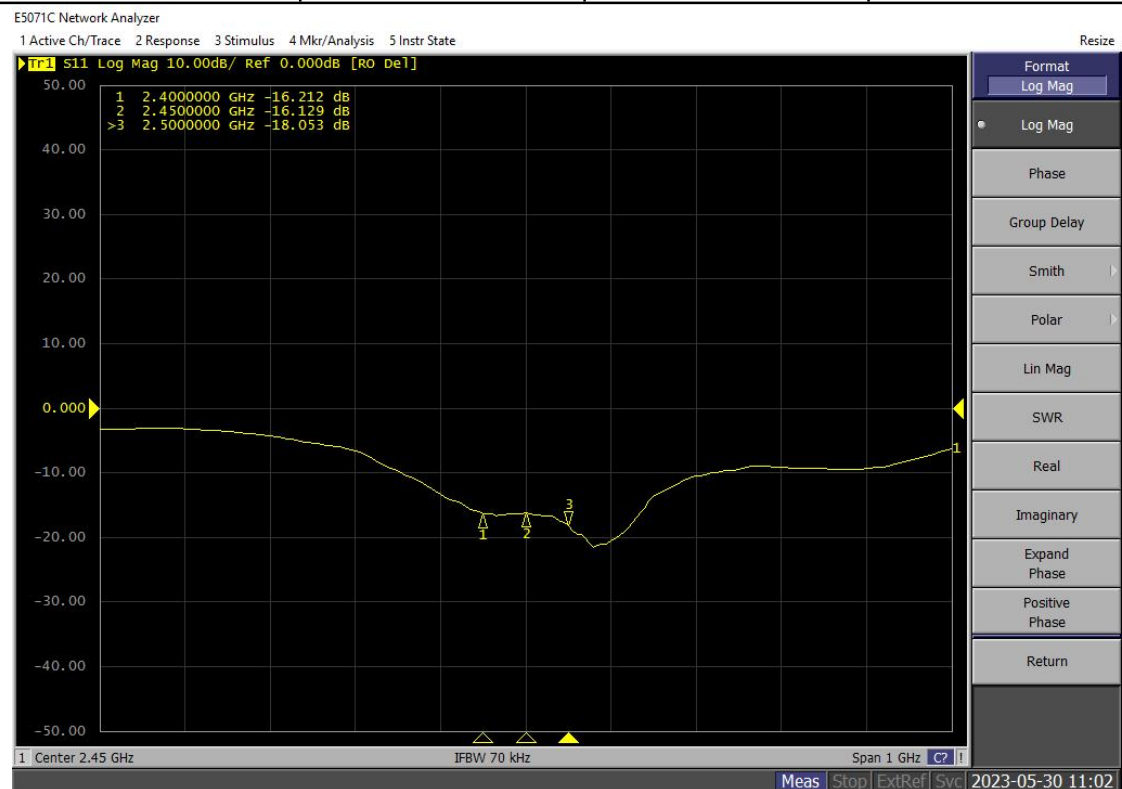
4.21 Test condition

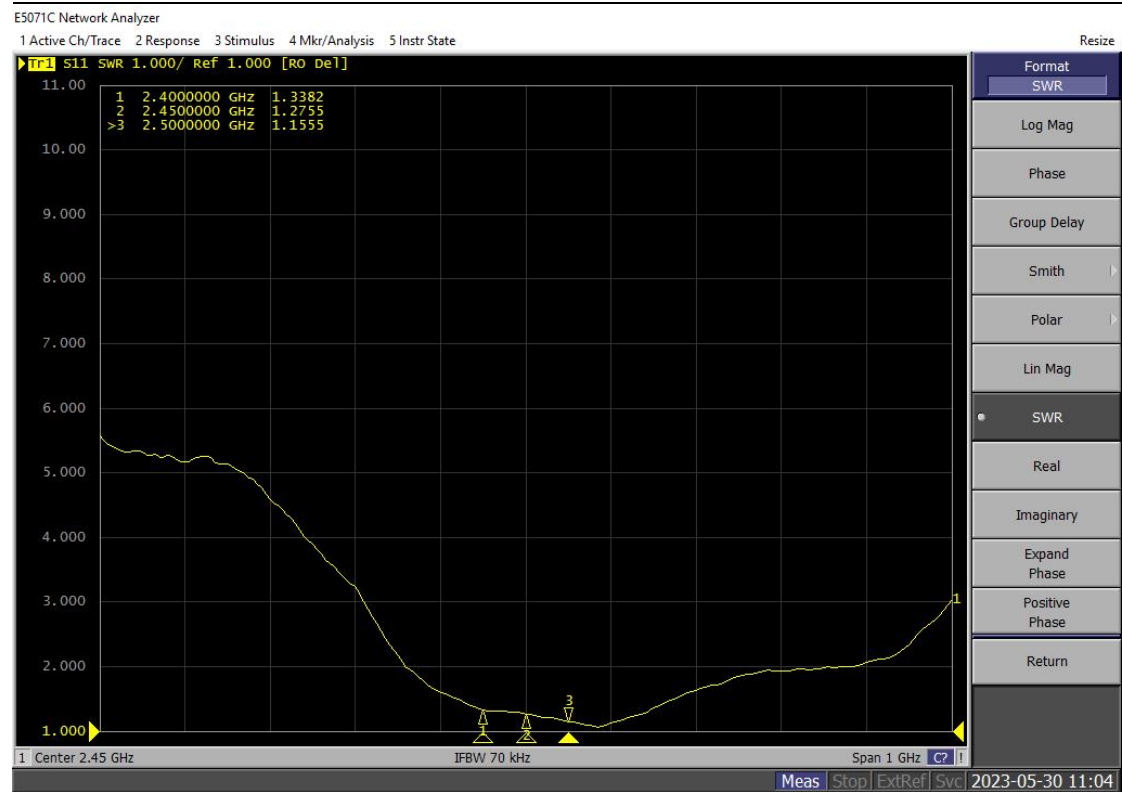
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer:
Humidity: ≤80% (+40℃)	KEYSIGHT E5071C
Atmospher: 750mmkg±30mmkg	Anechior Chamber:
	Multi probe testing system ETS

4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker	2400MHz	2450MHz	2500MHz
Returnloss	-18.2	-18.9	-12.2
VSWR	1.3	1.2	1.1



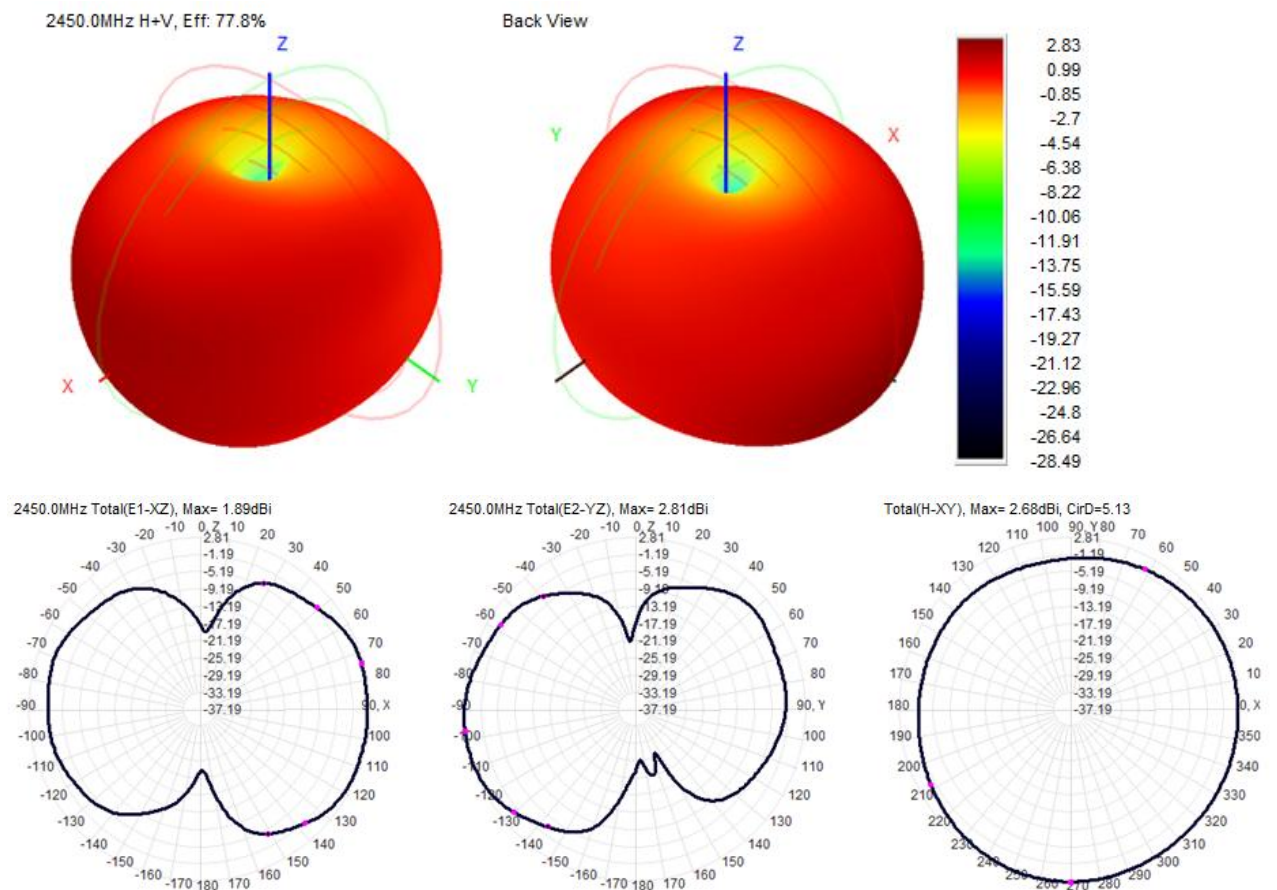


4.22.2 Passive gain、 efficiency and Radiation Pattern:

Freq. (MHz)	Gain (dBi)	Efficiency (%)
2400.0	2.17	75.17
2410.0	2.49	77.18
2420.0	2.62	77.28
2430.0	2.67	77.02
2440.0	2.74	77.29
2450.0	2.83	77.76
2460.0	2.77	77.65
2470.0	2.56	76.88
2480.0	2.22	75.19
2490.0	1.95	74.76
2500.0	1.89	75.12



4.22.3 Radiation Pattern @2450MHz





5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.

6. Document Resume

Document No.	
Release Date	2023/05/30
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2023/05/30	1.00	New Project