



Shenzhen Shuodian Electronic Technology Co.,Ltd
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SPECIFICATION

for

HUB3 BLE2 antenna

Customer No.

Product No.

WA-HUB3 BLE2 ANT-FPC

Author: XiaofengZeng **Review:** Liming

Release Date: 2024.12.27

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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		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		



2. General

2.1 Scope of application

This specification is only applicable to WOAN HUB3-BLE2 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	HUB3 BLE2 antenna
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤2.0
4	Impedance	50Ω
5	Antenna Type	monopole
6	Antenna composition	FPC
7	Entity Picture	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	FPC	14.36*14.83 Black

4.12 Apperance

Good appearance without scars 、dirts、protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:



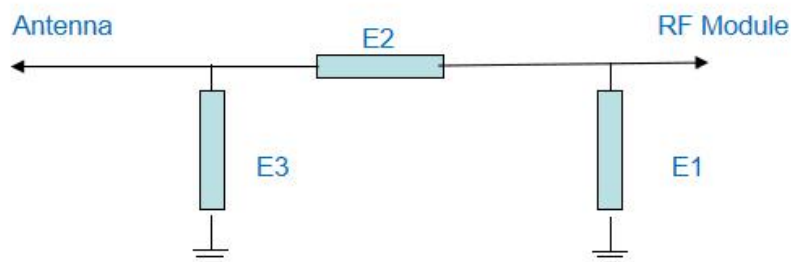
4.2 Electric Performance

4.21 Test condition

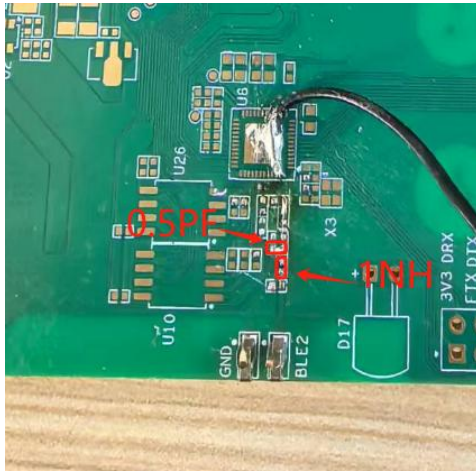
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Multi-probe microwave anechoic chamber
Atmospher: 750mmkg±30mmkg	

4.22 Test Data for Electrical Performance:

BLE 2 antenna matching parameters:

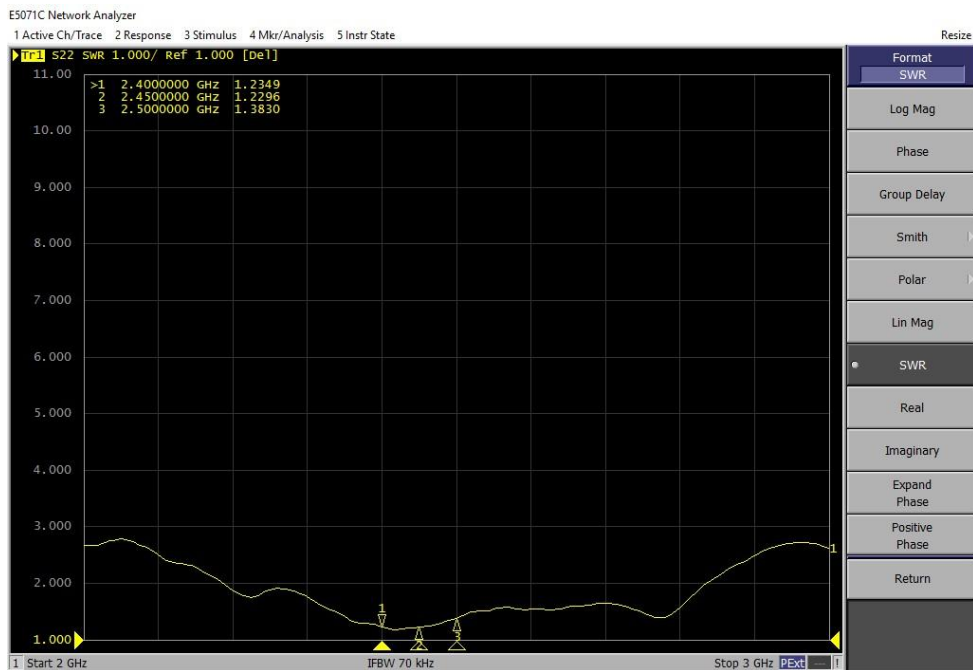
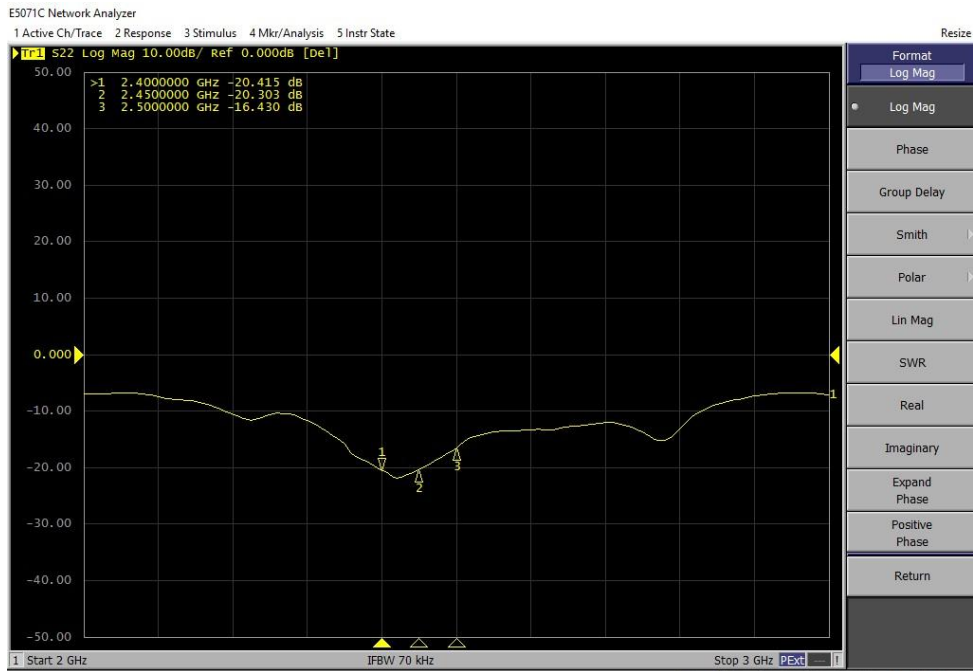


Element	Value
E1(0402)	0.5PF
E2(0402)	1NH
E3(0402)	NC



4.22.1 S11 of the Antenna:

Marker	2400	2450	2500
Returnloss	-20.41	-20.30	-16.43
VSWR	1.23	1.22	1.38



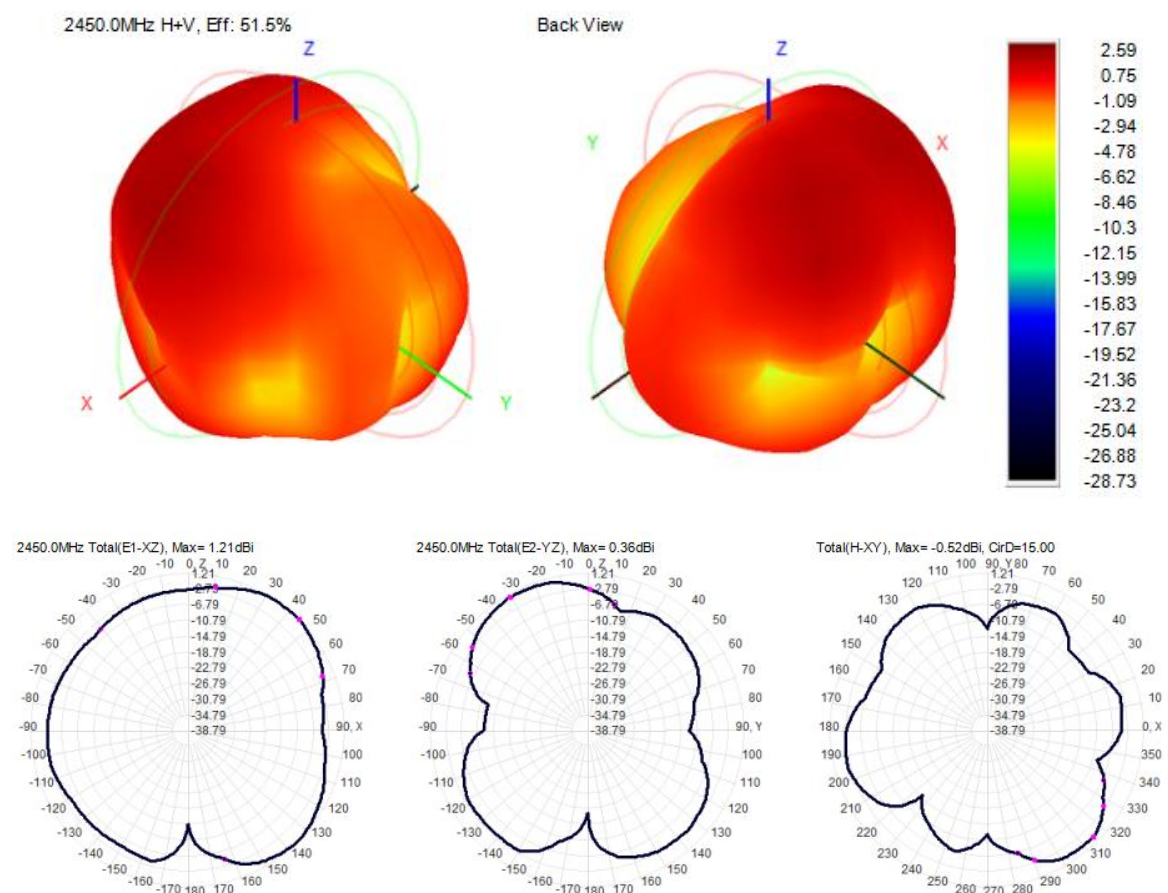


4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.39	2.56	2.61	2.54	2.61	2.59	2.67	2.63	2.39	2.39	2.38
Efficiency (%)	46.98	46.95	47.48	47.98	50.36	51.50	52.48	52.67	50.89	50.94	50.11

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	2024/12/27
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2024/12/27	1.00	New Project