



Shenzhen Shuodian Electronic Technology Co.,Ltd
Page number 1-11

SPECIFICATION

for

HUB3 BLE1 antenna

Customer No.

Product No.

WA-HUB3 BLE1 ANT-FPC

Author: XiaofengZeng Review: Liming

Release Date: 2024.12.27

ShenZhen Shuodian Electronic Technology Co., Ltd

Room 201, Building 2, Nantaiyun Chuanggu Park, Tangwei Community, Fenghuang Street,
Guangming District, Shenzhen City, Guangdong Province

E-mail: sz_shuodian@163.com

Tel: 0755-86006322

Fax: 0755-86006323

Shenzhen Shuodian Electronic Technology Co.,Ltd



Contents

SPECIFICATION	1
SHENZHEN SHUODIAN ELECTRONIC TECHNOLOGY CO., LTD	1
CONTENTS	2
1. BILATERAL CONFIRMATION PAGE	3
2. GENERAL	4
3. GENERAL PRODUCT SPECIFICATIONS	4
4. SPECIFICATION DETIALS	5
4.1 MECHANICAL PROPERTIES	5
4.2 ELECTRIC PERFORMANCE	7
5. PRODUCT PACKAGING	11
6. DOCUMENT RESUME	11



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-BLE1 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 BLE1 antenna
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤ 2.0
4	Impedance	50Ω
5	Antenna Type	PIFA
6	Antenna composition	FPC
7	Entity Picture	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

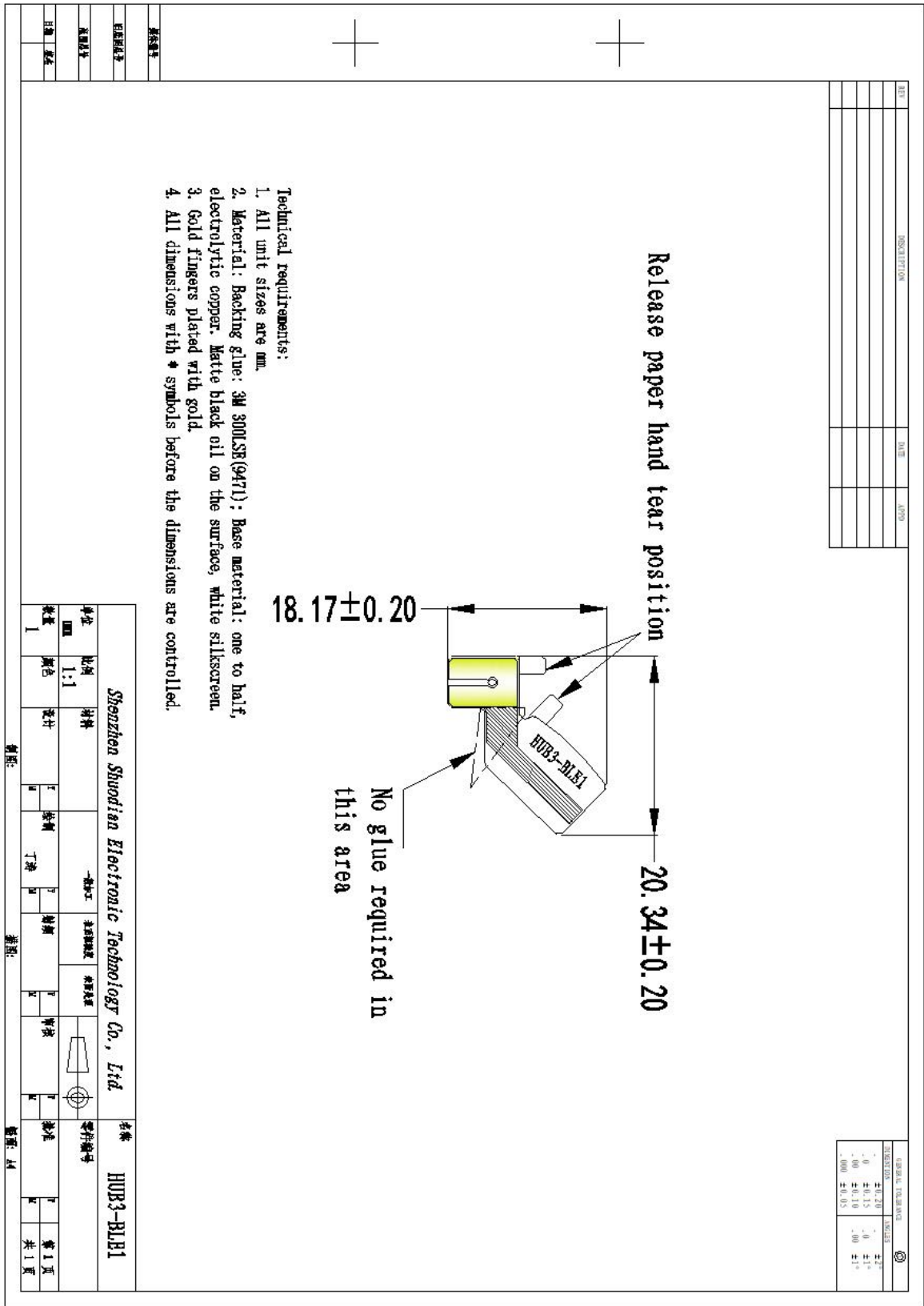
No.	Material	Size (MM)
1	FPC	20.34*18.17 Black

4.12 Apperance

Good appearance without scars 、 dirt、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:





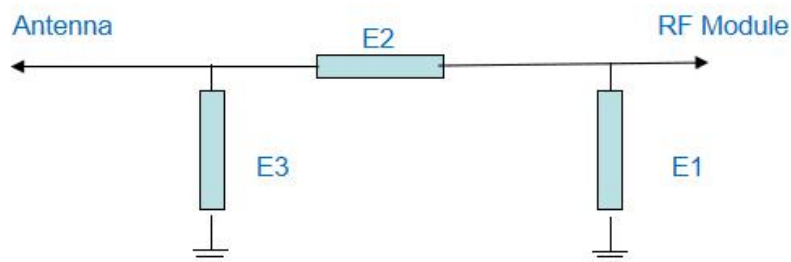
4.2 Electric Performance

4.21 Test condition

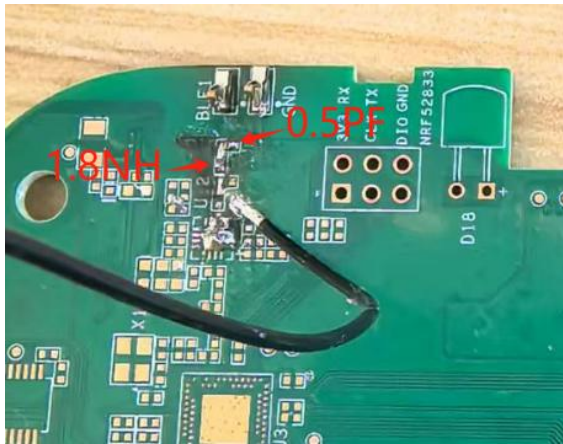
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Multi-probe microwave anechoic chamber
Atmospher: 750mmkg±30mmkg	

4.22 Test Data for Electrical Performance:

BLE 1 antenna matching parameters:

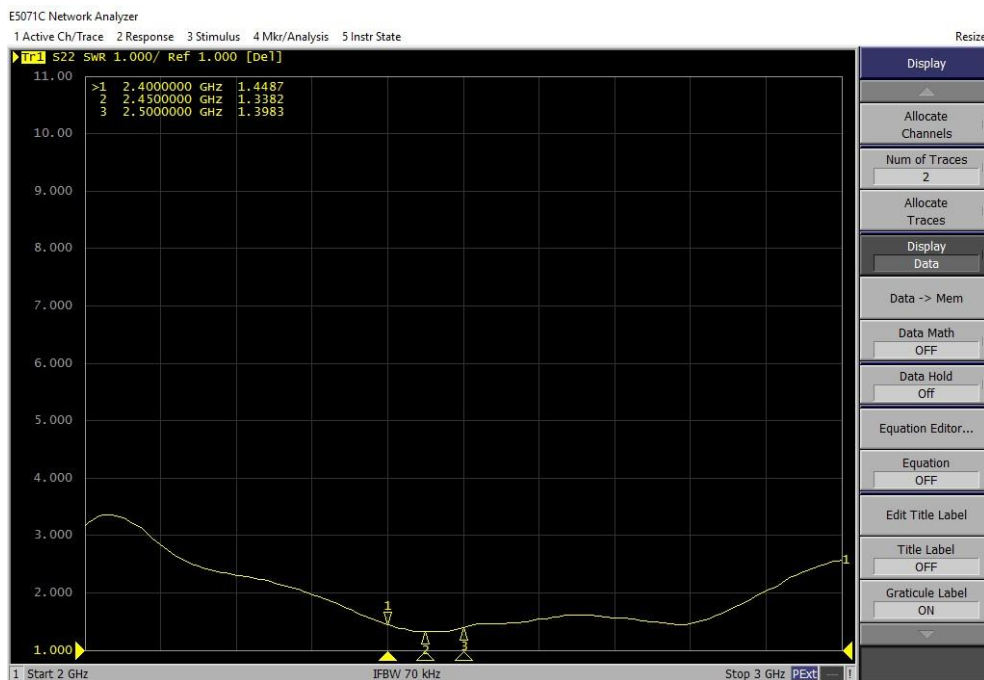
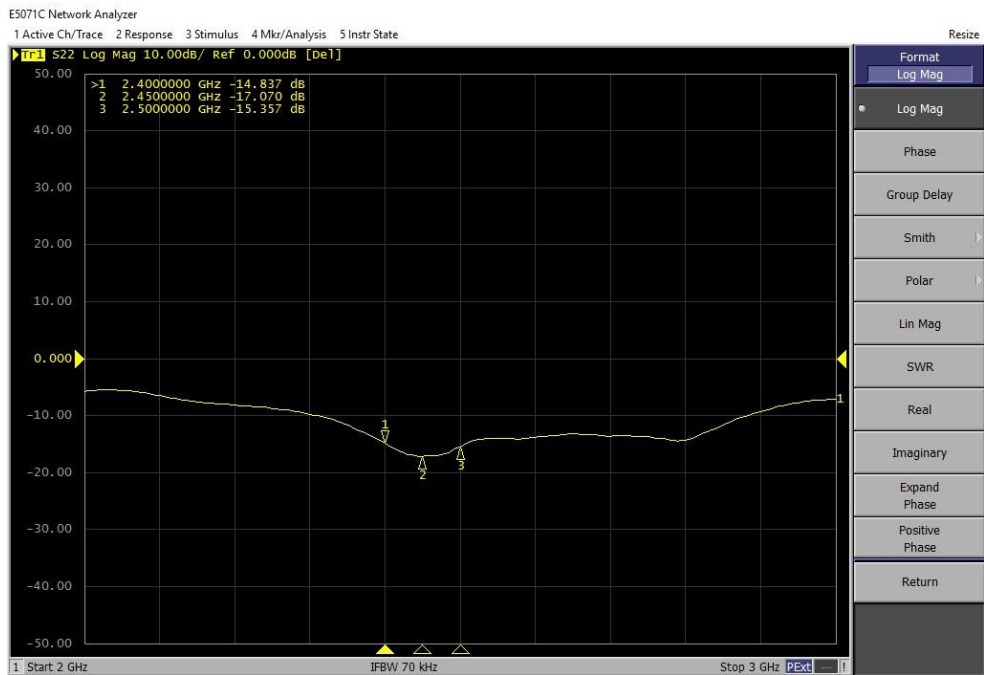


Element	Value
E1(0402)	NC
E2(0402)	1.8NH
E3(0402)	0.5PF



4.22.1 S11 of the Antenna:

Marker	2400	2450	2500
Returnloss	-14.83	-17.07	-15.35
VSWR	1.44	1.33	1.39



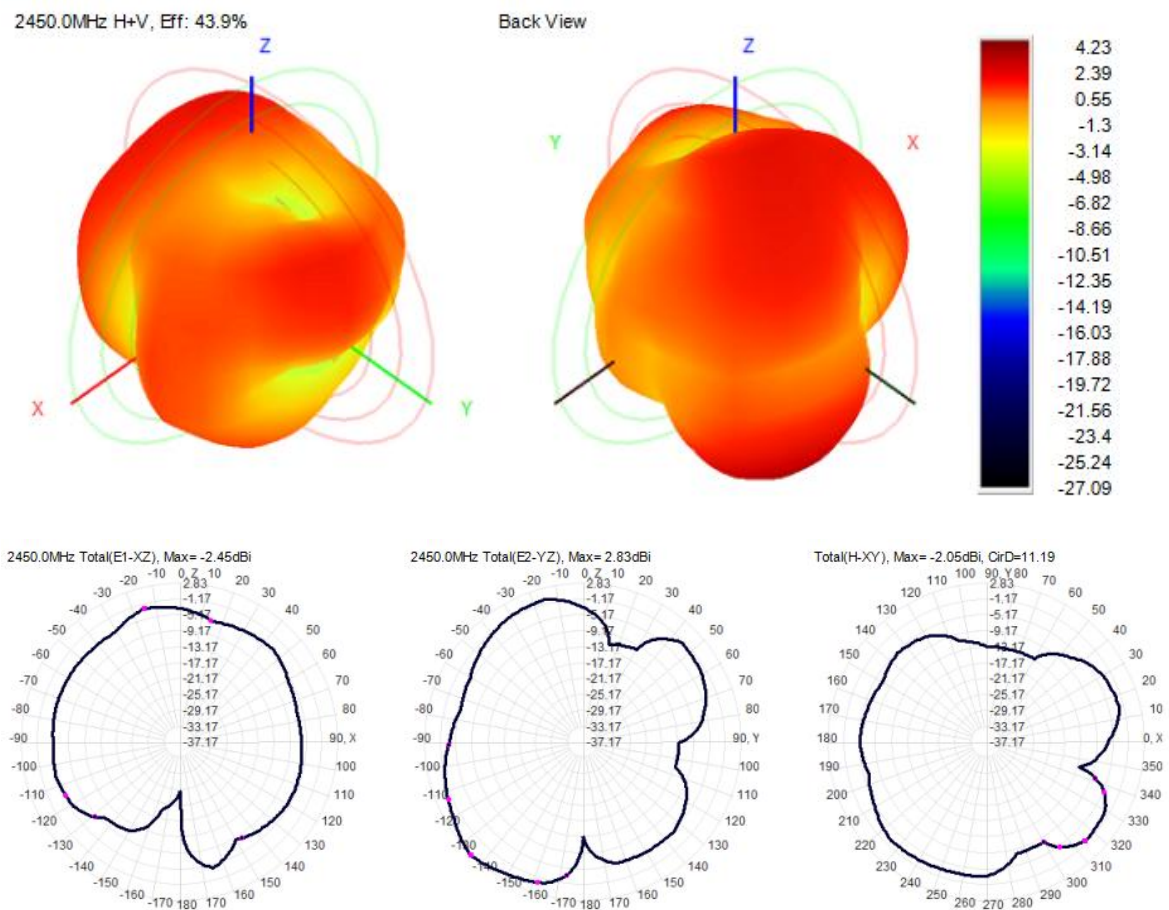


4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	4.16	4.16	4.11	4.03	4.16	4.23	4.43	4.45	4.10	4.00	3.77
Efficiency (%)	45.07	44.01	43.49	42.85	43.90	43.94	44.32	44.11	42.54	42.79	42.37

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