

Product Number: NB2450-F4407B65-BX
Product Name: Antenna

Index:

- 1. Revision History / Page 2**
- 2. Specification / Page 3**
- 3. Characteristics and Reliability Test / Page 4**
- 4. Antenna - S Parameter Test Data / Page 5**
- 5. Antenna - Radiation Pattern Test Data / Page 6**
- 6. Mechanical and Packing Drawing / Page 7~8**

Product Number: NB2450-F4407B65-BX
Product Name: Antenna

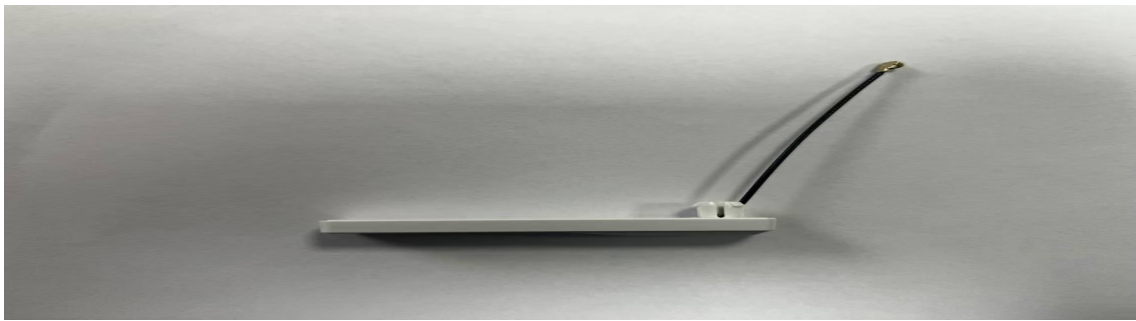
1. Revision History

Revision	Date	Change Notification	Description
1.0	2024.03.23	初版	

Product Number: NB2450-F4407B65-BX

Product Name: Antenna

2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz 5150 ~ 5800 MHz
S.W.R.	≤ 2.0 @ 2400 ~ 2500 MHz ≤ 2.0 @ 5100 ~ 5800 MHz
Antenna Gain	2 +/- 0.5 dBi @ 2400 ~ 2500 MHz 2 +/- 0.5 dBi @ 5100 ~ 5800 MHz
Efficiency(%)	75 % @ 2400~2500 MHz 75 % @ 2400~5800 MHz
Radiation Pattern	Omni-Directional
Max Input Power	≥ 2 W
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	CU
Material of Plastic	Body: FPC
Cable Type	OD1.13
Connector Type	IPEX
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

Product Number: NB2450-F4407B65-BX

Product Name: Antenna

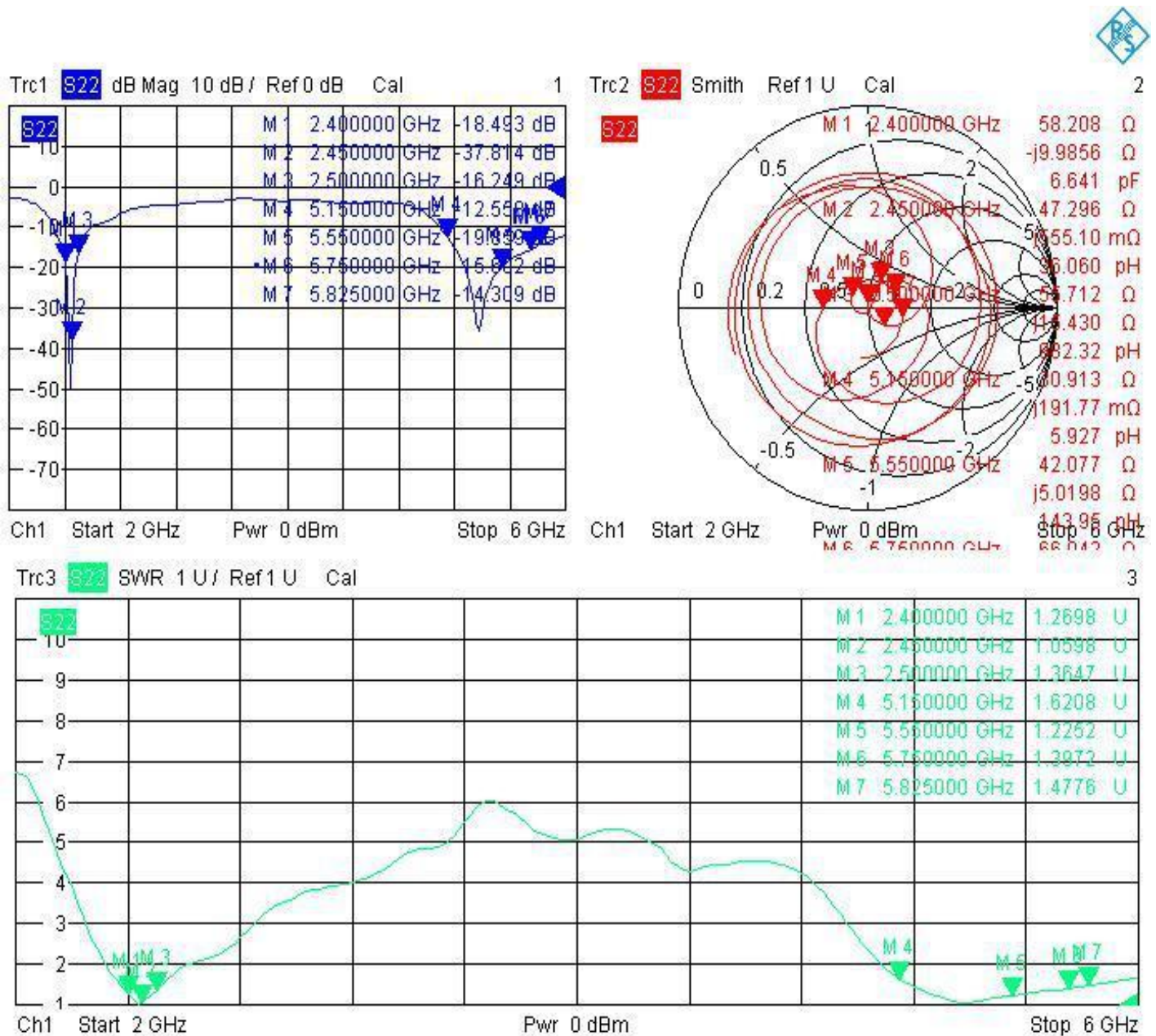
3. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB / T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2011/65/EU
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

Product Number: NB2450-F4407B65-BX

Product Name: Antenna

4. Antenna - S Parameter Test Data



Product Number: NB2450-F4407B65-BX

Product Name: Antenna

5. Antenna - Radiation Pattern Test Data

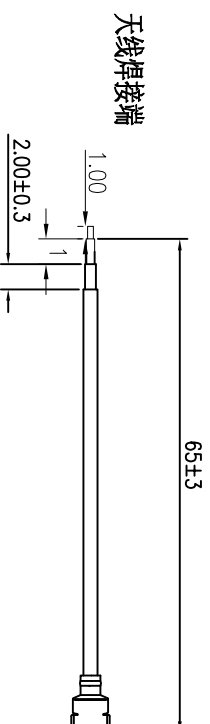
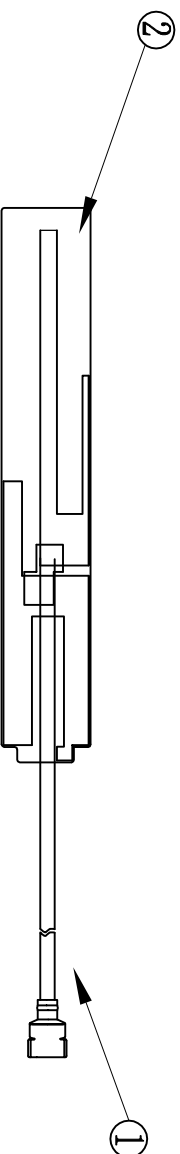
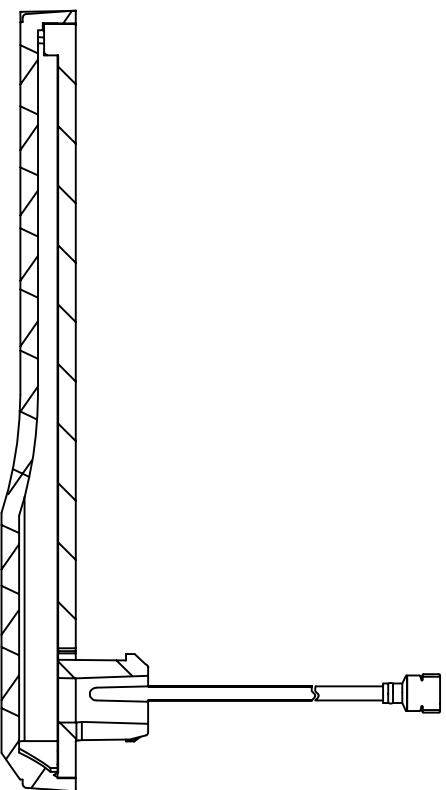
Passive Test For WIFI2400										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)
2400	72.74	-1.38	3.39	1.24	33.842	38.9	3.39	-12.53	4.77	0
2410	74.31	-1.29	3.51	1.36	34.516	39.795	3.51	-11.99	4.8	0
2420	74.57	-1.27	3.58	1.43	34.526	40.044	3.58	-12.26	4.85	0
2430	72.71	-1.38	3.55	1.4	33.563	39.143	3.55	-13.2	4.93	30
2440	70.34	-1.53	3.44	1.29	32.209	38.126	3.44	-13.32	4.97	30
2450	69.29	-1.59	3.36	1.21	31.488	37.8	3.36	-13.54	4.96	30
2460	66.54	-1.77	3.08	0.93	30.034	36.508	3.08	-14.51	4.85	30
2470	64.23	-1.92	3.03	0.88	28.913	35.317	3.03	-15.39	4.95	30
2480	65.49	-1.84	3.25	1.1	29.478	36.013	3.25	-16.28	5.09	30
2490	67.34	-1.72	3.4	1.25	30.473	36.872	3.4	-16.78	5.12	0
2500	65.96	-1.81	3.36	1.21	29.941	36.023	3.36	-17.55	5.17	0

Passive Test For WIFI-5G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)
5150	35.44	-4.51	-0.52	-2.67	20.287	15.148	-0.52	-22.4	3.99	240
5250	28.79	-5.41	-0.97	-3.12	16.294	12.5	-0.97	-21.32	4.44	180
5350	30.41	-5.17	-0.28	-2.43	16.58	13.832	-0.28	-20.91	4.89	180
5450	36.77	-4.34	1.05	-1.1	20.039	16.735	1.05	-17.83	5.39	90
5550	39.19	-4.07	1.67	-0.48	20.617	18.571	1.67	-15.5	5.74	60
5650	67.89	-1.68	3.46	1.31	34.075	33.818	3.46	-16.53	5.14	60
5750	75.13	-1.24	4.23	2.08	37.839	37.29	4.23	-18.47	5.48	60
5850	73.25	-1.35	4.25	2.1	37.538	35.711	4.25	-15.94	5.6	90

1		2	3	4
NO.	NAME	SPECIFICATION		Q'TY
1	Cable線	L=65mm O.D.=1.13mm 1代IPEX端子朝上 線黑色		1
2	ANTENNA	FPC 黑色油墨		1

	c	a	i	a
--	---	---	---	---

1		2	3	4
NO.	NAME	SPECIFICATION		Q'TY
1	Cable線	L=65mm O.D.=1.13mm 1代IPEX端子朝上 線黑色		1
2	ANTENNA	FPC 黑色油墨		1



NOTES:

1. Electrical:
 - 1.1 Impedance: 50 OHM.
 - 1.2 Frequency: 2400~5800MHz
 - 1.3 Polarization :Vertical
 - 1.4 VSWR: ≤ 2.0
 - 1.5 Gain: 2dBi
2. Environmental:
 - 2.1 Storage Temperature Range: -30 TO +70°C.
 - 2.2 Operating Temperature Range: -30 TO +70°C.
3. All Materials Must Meet & Shall RoHS Request.

组立图		设计	章兵	日期	2024-09-15		
		审核		日期			
		确认		日期			
成品料号	NB2450-F4407B65-BX			比例	1:1	单位	mm
版本号	A0	页码		共 1 页	第 1 页		
变更标记		变更数量					

东莞市腾晨电子科技有限公司

Product Number: NB2450-F4407B65-BX
Product Name: Antenna

产品规格：

一、标签要求（根据客户名称参考对应的成品标签制作要求，无要求即按普通标签要求）

内标签 长 50mm 宽 60mm 左右

需方	*****		
供方	东莞市腾晨电子科技有限公司		
物料编码	*****		
生产单号	*****		
品名规格	*****	检验员	**
数量/单位	*****	日期	****.***
追溯码	*****	流水号	**

外标签 长 50mm 宽 60mm 左右

需方	*****		
供方	东莞市腾晨电子科技有限公司		
物料编码	*****		
生产单号	*****		
品名规格	*****	检验员	**
数量/单位	*****	日期	****.***
追溯码	*****	流水号	**

二、装箱要求

作业说明：

外包装：

1. 内包装：

产品__100__PCS/PE 袋



2. 外包装：

根据实际包装定数量/箱



纸箱



注意事项：

1. 是否要增设隔板、珍珠棉；
2. 标签的贴附，如 ROHS 等；