

Haiheng Technology.Inc

东莞市海恒电子科技有限公司

Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

Revision History（变更履历）

Revision	Date	Change Notification	Description
1.0	2025.3.15	初版	

Haiheng Technology.Inc

东莞市海恒电子科技有限公司

公司 Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	433MHz/2400-2500MHz
Antenna Type	PCB
S.W.R. 驻波比	≤ 2.5 / ≤ 2.0
Antenna Gain 增益	2.54dBi / 4.66 dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm

B. Material & Mechanical Characteristics

Cable Type 线材规格	RG174
Connector Type 连接器规格	SMB

C. Environmental

Storage Temperature 存储温度	- 40 °C ~ +80 °C
Operation Temperature 工作温度	- 40 °C ~ +80 °C

Test Subject and Time Information

Drawner	Checker	Approver	Test data	Testing Company
Cai huiping	Wu Yi	Deng Haibo	2025.3.15	Haiheng Technology.Inc

Testing Company Address: Room209, 2F, No.51 Jinghai East Rd, Shatou South District, Changan Town, Dongguan City, Guangdong, China

Haiheng Technology.Inc

东莞市海恒电子科技有限公司

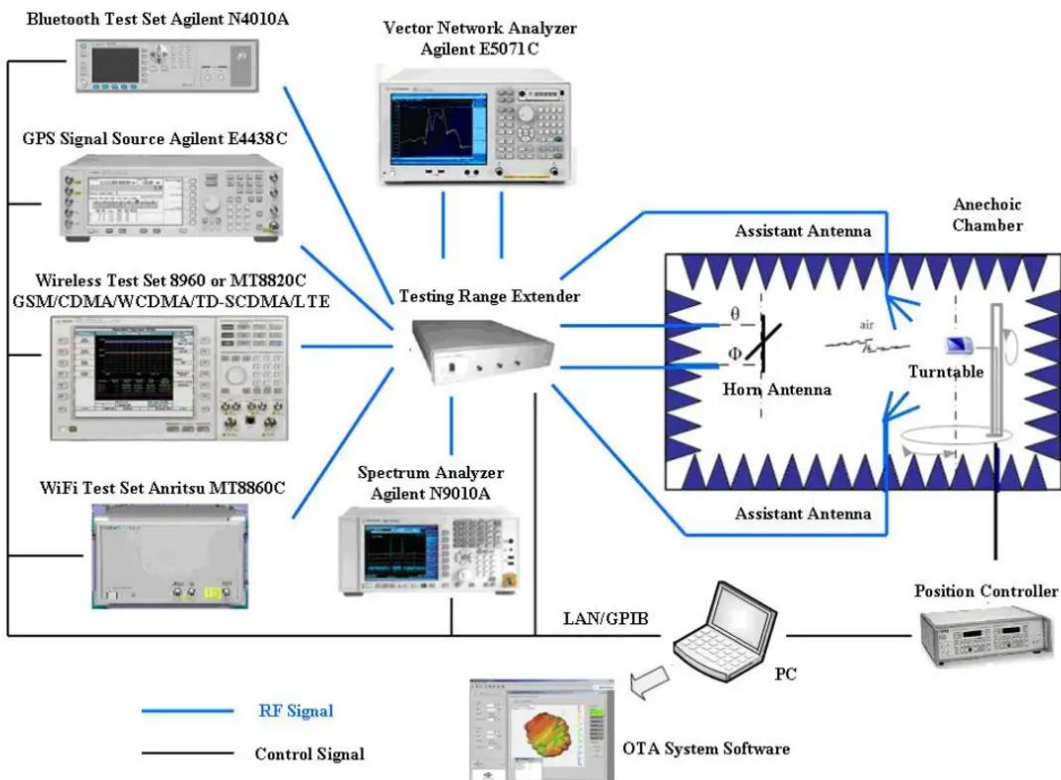
Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

Testing Methods and Testing Standards

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSIIEEE Std 149-2021

Test configuration diagram:



Haiheng Technology.Inc

东莞市海恒电子科技有限公司

Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

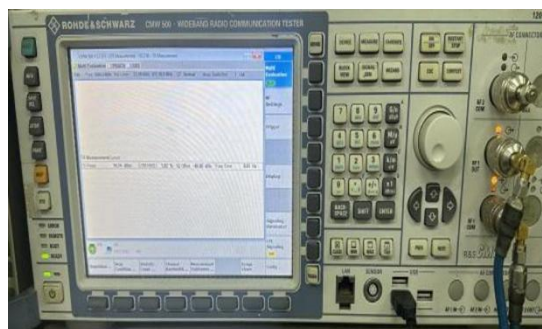
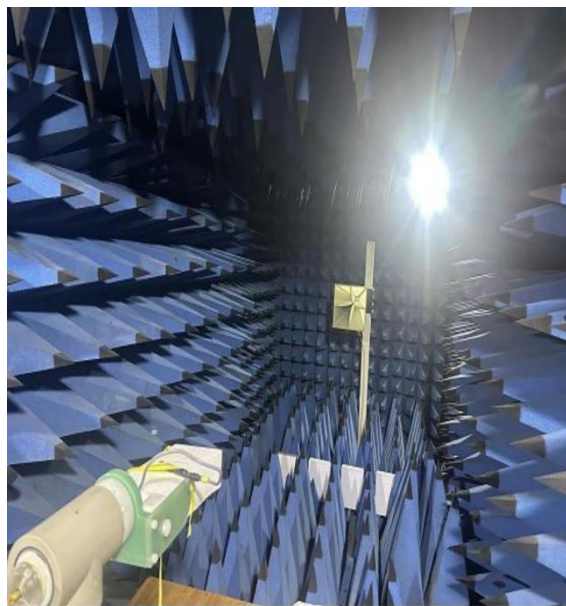
Test environment and equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	XAG20200510	2025.9.11	2026.9.10
LTE-TDD/FDD-SCDMA		ROHDE&SC HWARZ CMW500		2025.9.11	2026.9.10
	Agilent	E5071B		2025.9.11	2026.9.10

Darkroom specifications: 6m*6m*6m/7m*3m*3m Last Cal: 2025.9.11 Due Date : 2026.9.10

Testing software: Keysight PathWave VNA A.19.55.14

Test setup photos



Haiheng Technology.Inc

东莞市海恒电子科技有限公司

Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

Antenna - Radiation Pattern Test Data

序号	1	2	3	4	5	6	7	8	9
频率(MHz)	400.0	410.0	420.0	430.0	433.0	440.0	450.0	460.0	470.0
增益 (dBi)	1.96	2.12	2.30	2.31	2.54	2.25	2.19	1.96	1.75
效率 (%)	59.50	59.85	60.50	61.71	62.31	61.93	61.12	60.51	59.78

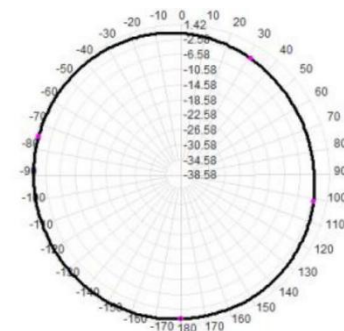
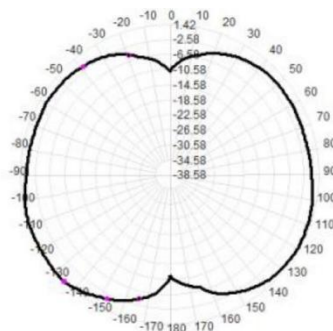
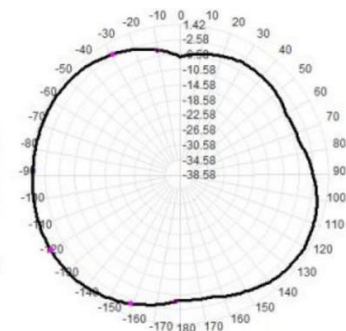
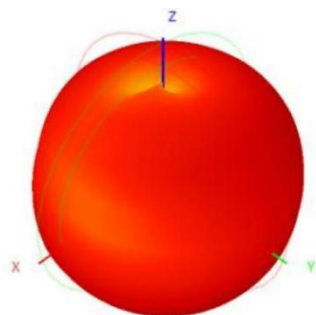
10	11	12	13	14	15	16	17	18	19	20
2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
4.21	4.33	4.41	4.46	4.54	4.66	4.65	4.55	4.34	4.21	4.13
60.68	61.04	61.56	62.33	63.21	65.73	63.95	62.45	61.28	60.48	60.45

XZ

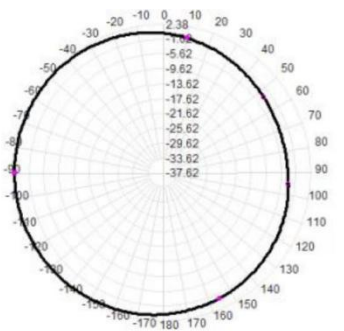
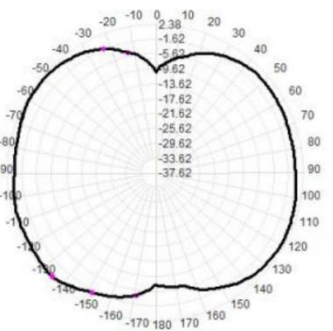
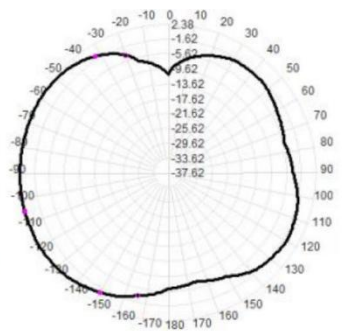
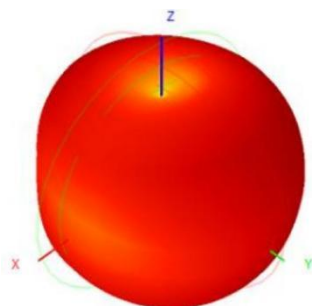
YZ

XY

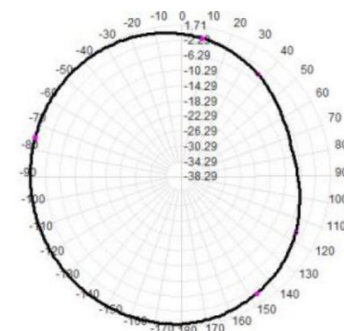
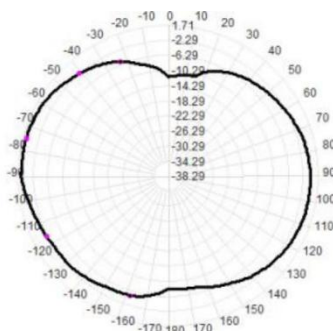
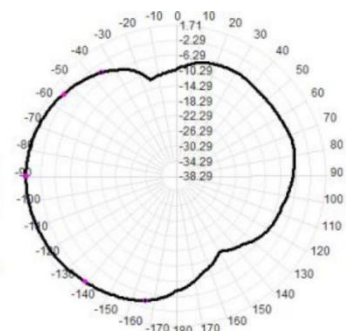
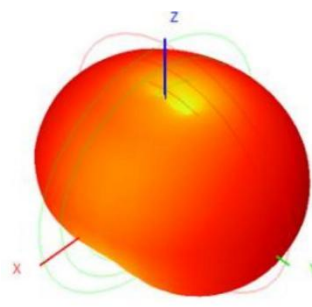
400MHz



433MHz



470MHz



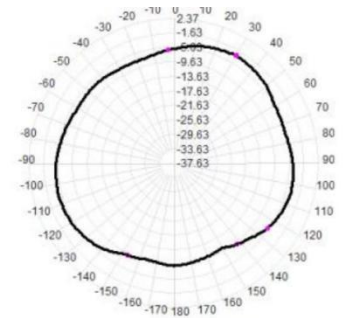
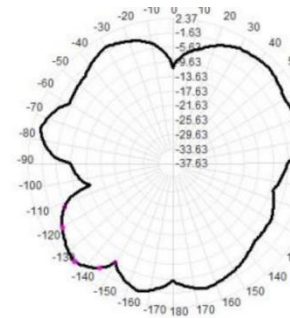
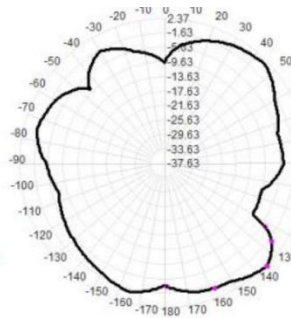
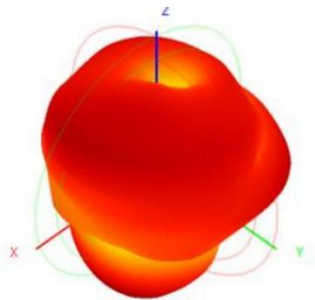
Haiheng Technology.Inc

东莞市海恒电子科技有限公司

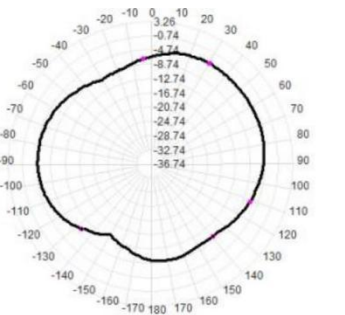
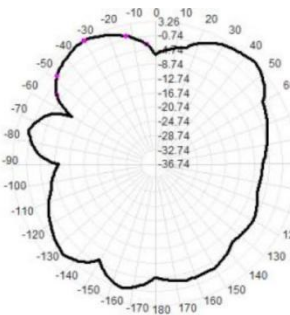
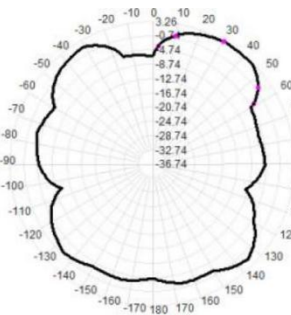
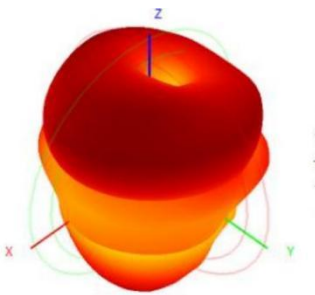
Product Number:WIFI-450-PCB01SMB

Product Name: Antenna

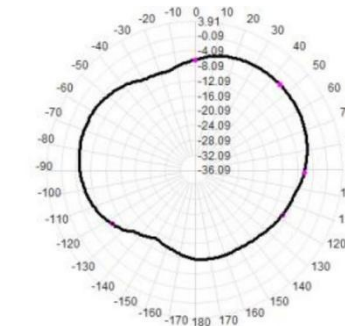
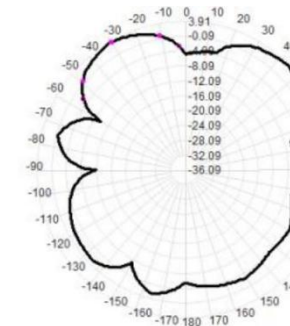
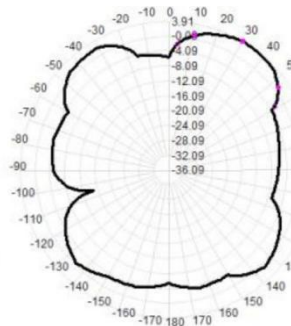
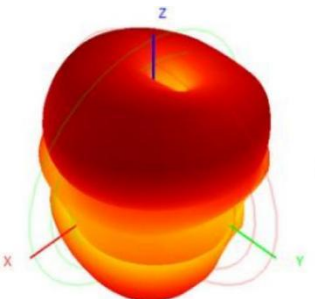
2400MHz



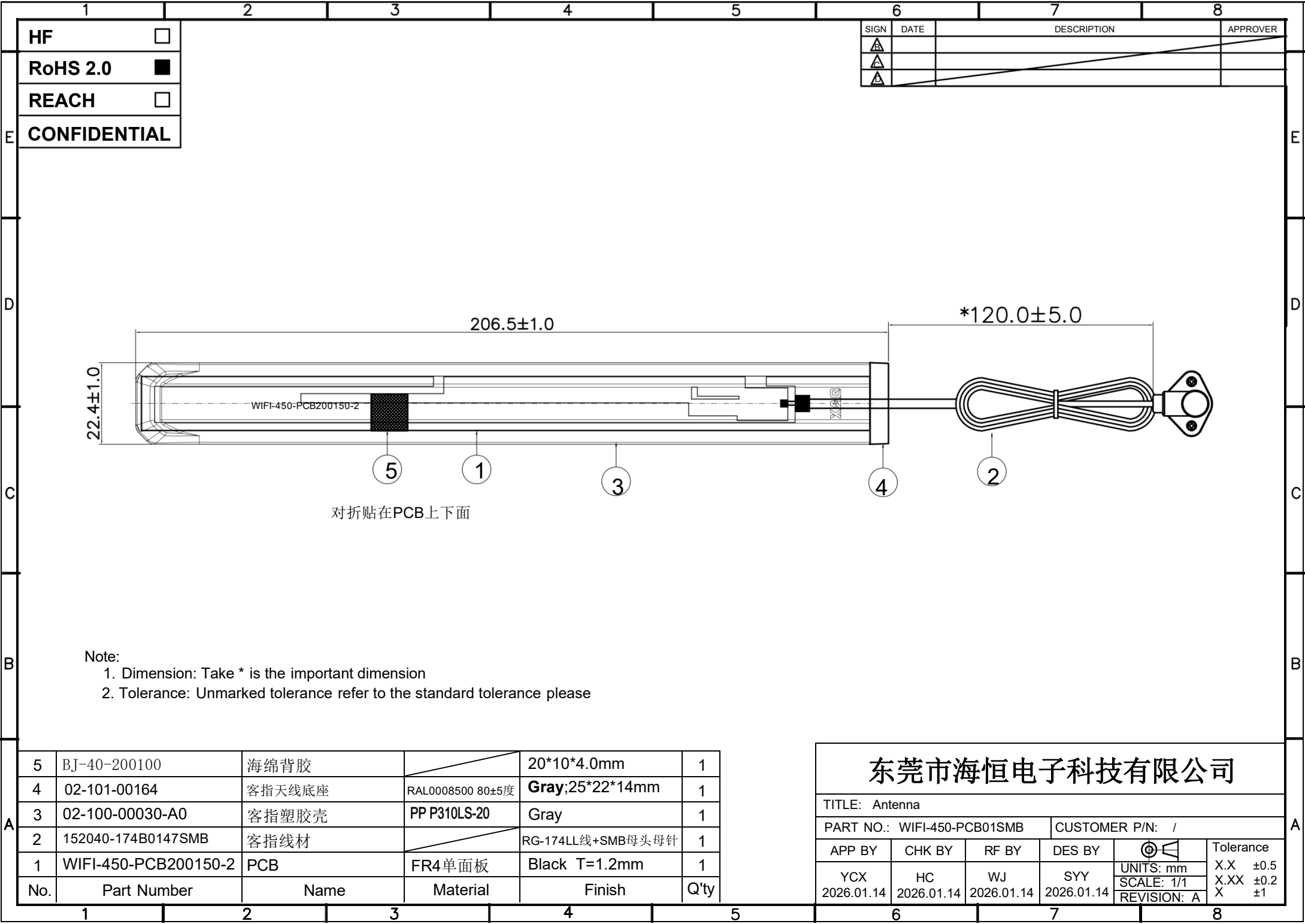
2450MHz



2500MHz



6.Mechanical Drawing See attached files



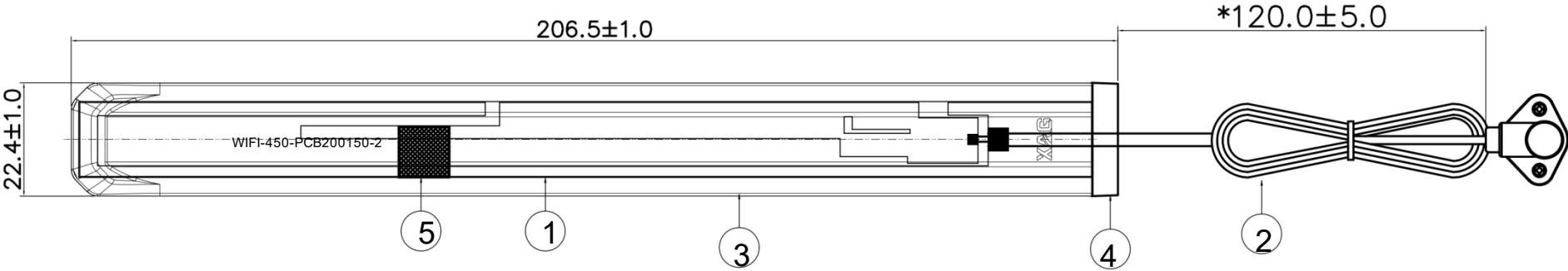
HF☐

RoHS 2.0☒

REACH☐

CONFIDENTIAL

SIGN	DATE	DESCRIPTION	APPROVER



对折贴在PCB上下面

Note:

1. Dimension: Take * is the important dimension

2. Tolerance: Unmarked tolerance refer to the standard tolerance please

5	BJ-40-200100	海绵背胶		20*10*4.0mm	1
4	02-101-00164	客指天线底座	RAL0008500 80±5度	Gray;25*22*14mm	1
3	02-100-00030-A0	客指塑胶壳	PP P310LS-20	Gray	1
2	152040-174B0147SMB	客指线材		RG-174LL线+SMB母头母针	1
1	WIFI-450-PCB200150-2	PCB	FR4单面板	Black T=1.2mm	1
No.	Part Number	Name	Material	Finish	Q'ty

东莞市海恒电子科技有限公司

TITLE: Antenna

PART NO.: WIFI-450-PCB01SMBCUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	SY	UNITS: mm	X.X ±0.5
2026.01.14	2026.01.14	2026.01.14	2026.01.14	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X ±1

