

# SPECIFICATION

## APPLICATION FOR APPROVAL

**PART NAME :** PCB ANTENNA/ANTP1-CE0600B5  
**DATE :** 2022/09/28

Release : Full release

Customer Approval	
Program Manager	R & D director
Supplier Approval	
Program Manager	R & D director
郝井强	孙高鹤

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### **REVISION**

REV. NO.	DATE	DESCRIPTION
A0	2022/09/28	APPROVAL

## 0. DEFINITIONS

dB <sub>i</sub>	Decibel relative isotropic antenna
T <sub>x</sub>	Transmit frequency
R <sub>x</sub>	Receive frequency
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
PCS	Personal Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access
PHS	Personal Handly-phone System
SAR	Specific Absorption Rate
PCB	Printed Circuit Board
TBD	To Be Defined
P	Parallel connection
S	Series connection

## 1. ELECTRICAL SPECIFICATIONS

### 1-1 FREQUENCY BAND

Freq. Band	Freq. (MHz)
WIFI	2400-2500MHz

### 1-2 IMPEDANCE

Nominal Impedance(including matching circuit) : **50** ohms

1-3 MATCHING REQUIREMENTS

The matching circuit on the PCB of the handset is according to Figure 1-3.  
Optimum matching circuit is highly dependent on the handset and thus.

Final matching circuit layout and values will be defined when handset is available

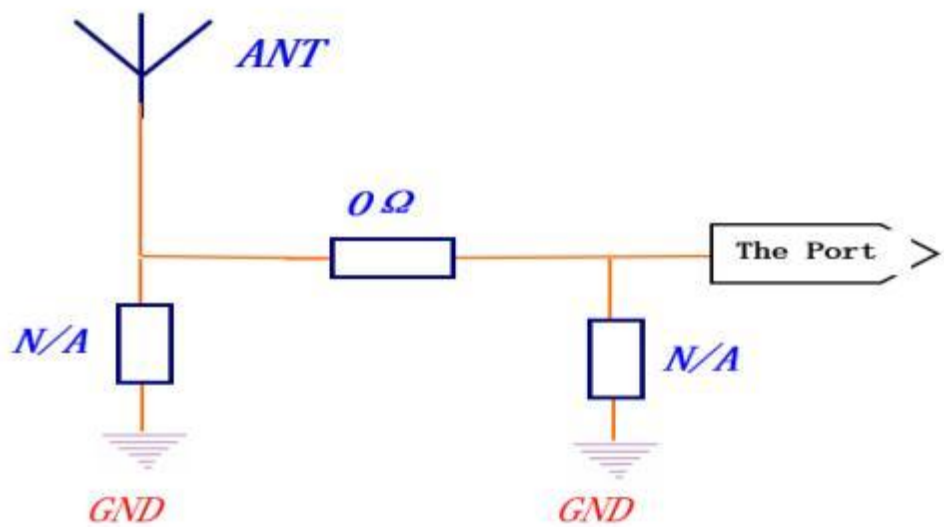


Figure 1-3

1-4 VSWR

**FREE SPAC**

Freq. Band	spec
2400-2500	<2

- ※Measuring a 50Ω test jig is connected to a network analyzer to measure the VSWR.
- ※※All test value is done in customer approval fixture.

## **2. MECHANICAL SPECIFICATIONS**

### 2-1 MECHANICAL CONFIGURATION

The appearance of the antenna is according to Figure 2-1

## **3. ENVIRONMENTAL CHARACTERISTICS**

NO.	ITEM	TEST CONDITION	SPECIFICATION
3-1	Low Temperature Test	1. Temperature: $-40 \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	No material deformation is allowed.
3-2	High Temperature Test	1. Temperature: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	
3-3	High Temperature/Humidity Storage Test (non operating)	1. Temperature: $+60 \pm 2^{\circ}\text{C}$ 2. Humidity: $93\% \pm 2\%\text{RH}$ 3. Time: 48hrs	
3-4	Salt-Spray Test	35°C, 85%RH, 48Hours (According to MIL-STD-810E) The salt-spray is generated from a 5% salt (NaCl) solution.,	NO appear rusting phenomenon is allowed

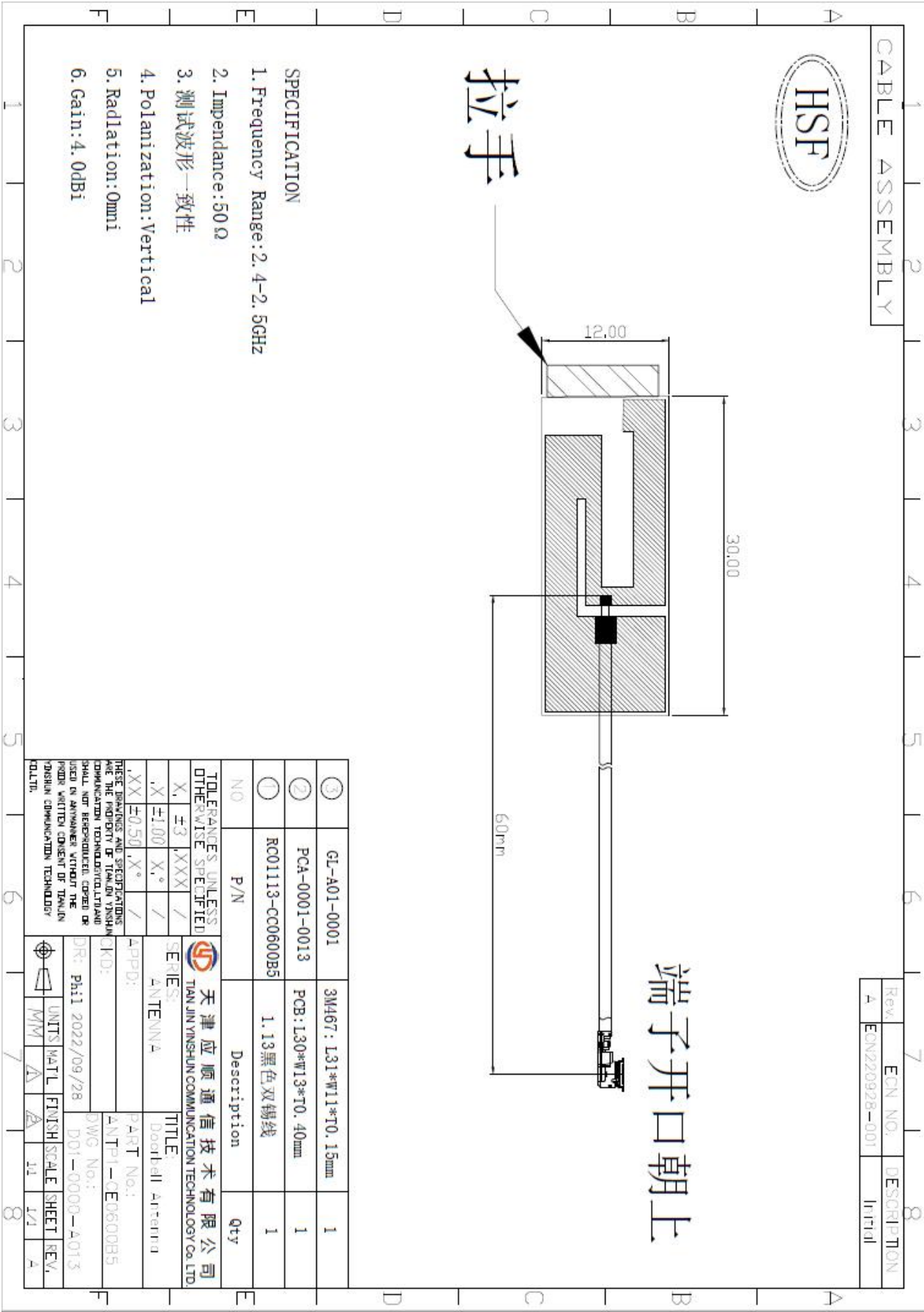
## **4. PACKAGING**

Antenna to be packed in a plastic bag. Each 100pcs per bag.

## **5. APPENDIX**

All of the specifications are shown as the attached files.

成品图



Customer No: 天津华来	File: 2022/9/28
Supplier NO:	Note: VSWR/RT/Smith Chart
Sample No:	
Test Condition:	
FREE SPACE	Matching: N/A
Confirmation: JingQiang Hao	Engineer: GaoHe Sun



## Antenna Test Data

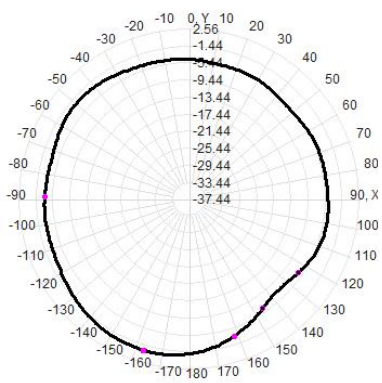
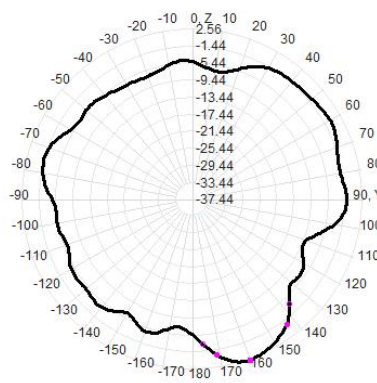
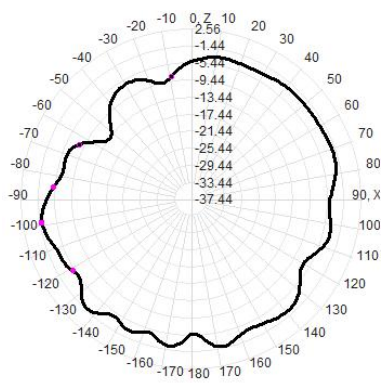
一: Antenna Efficiency & Peak Gain

Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	3.53	52.43
2410.0	3.66	52.74
2420.0	3.83	53.14
2430.0	3.93	52.99
2440.0	4.23	54.37
2450.0	4.26	53.49
2460.0	4.37	53.67
2470.0	4.38	53.63
2480.0	4.21	52.92
2490.0	3.74	50.88
2500.0	3.55	50.35

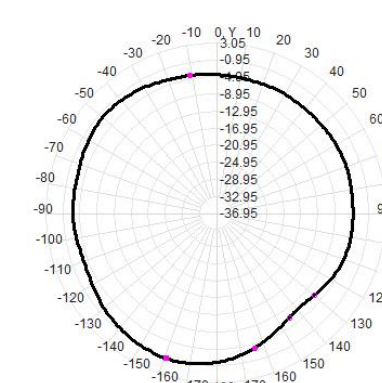
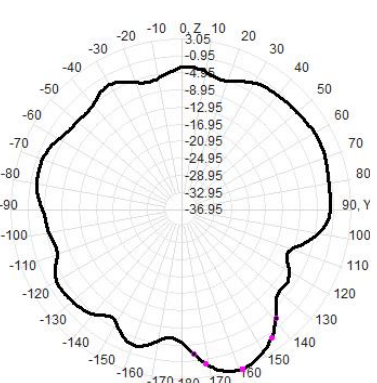
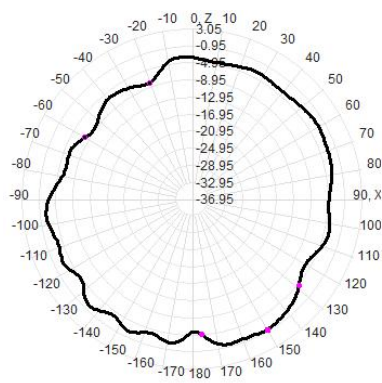


## 二： Antenna 2D—XZ/YZ/XY

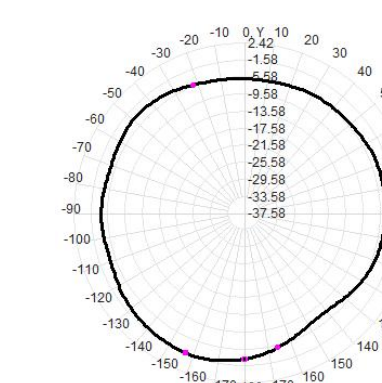
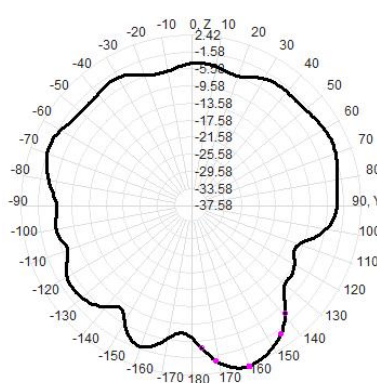
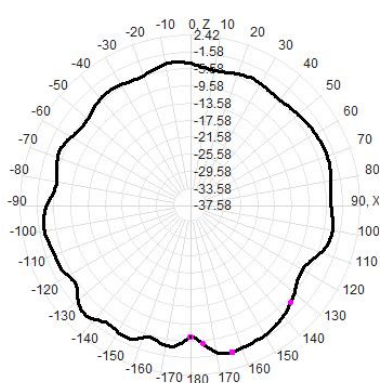
2400MHz



2450MHz



2500MHz



### 三: Antenna 3D (2400MHz/2450MHz/2500MHz)

