

# SPECIFICATION

## APPLICATION FOR APPROVAL

**PART NAME :** 315 PCB ANTENNA  
**DATE :** 2023/4/4

Release : Full release

Customer Approval	
Program Manager	R & D director
Peter Lu	Peter Lu
Supplier Approval	
Program Manager	R & D director
郝井强(Jingqiang Hao)	孙高鹤(Gaohe Sun)

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Company:Tianjin Yingshun Communication Technology Co., Ltd

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**REVISION**

REV.NO.	DATE	DESCRIPTION
0	2023/4/4	APPROVAL

# 1. ELECTRICAL SPECIFICATIONS

## 1-1 FREQUENCY BAND

Freq. Band	Freq.(MHz)
315	310-320MHz

## 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

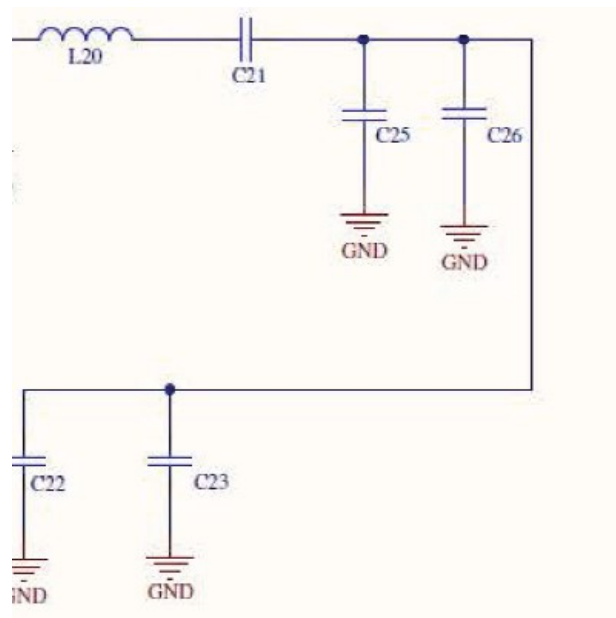


Figure 1-3

### **3.ENVIRONMENTAL CHARACTERISTICS**

Customer No: Sensata Technologies (Changzhou) Co., Ltd.	<i>File: 2023/04/04</i>
Test Condition: FREE SPACE	Note: VSWR/ReturnLoss/Smith Chart
Confirmation: Jing Qiang Hao	Engineer: GaoHe Sun

<b>NO.</b>	<b>ITEM</b>	<b>TEST CONDITION</b>
1	Normal condition	1. Temperature: 25.1±1℃ 2. Humidity: 34%±2% 3. Pressure: 100.9KPa

### **4. Test equipment**

Equipment	Model No	Manufactory	Series No
ENA vector analyzer	E5071C	Keysight	MY46900684
OTA chamber	FT-0024	FEITU	FS20200302

### **5. PACKAGING**

Antenna is PCB type , packaging with PCB board.

### **6. APPENDIX**

All of the specifications are shown as the attached files.

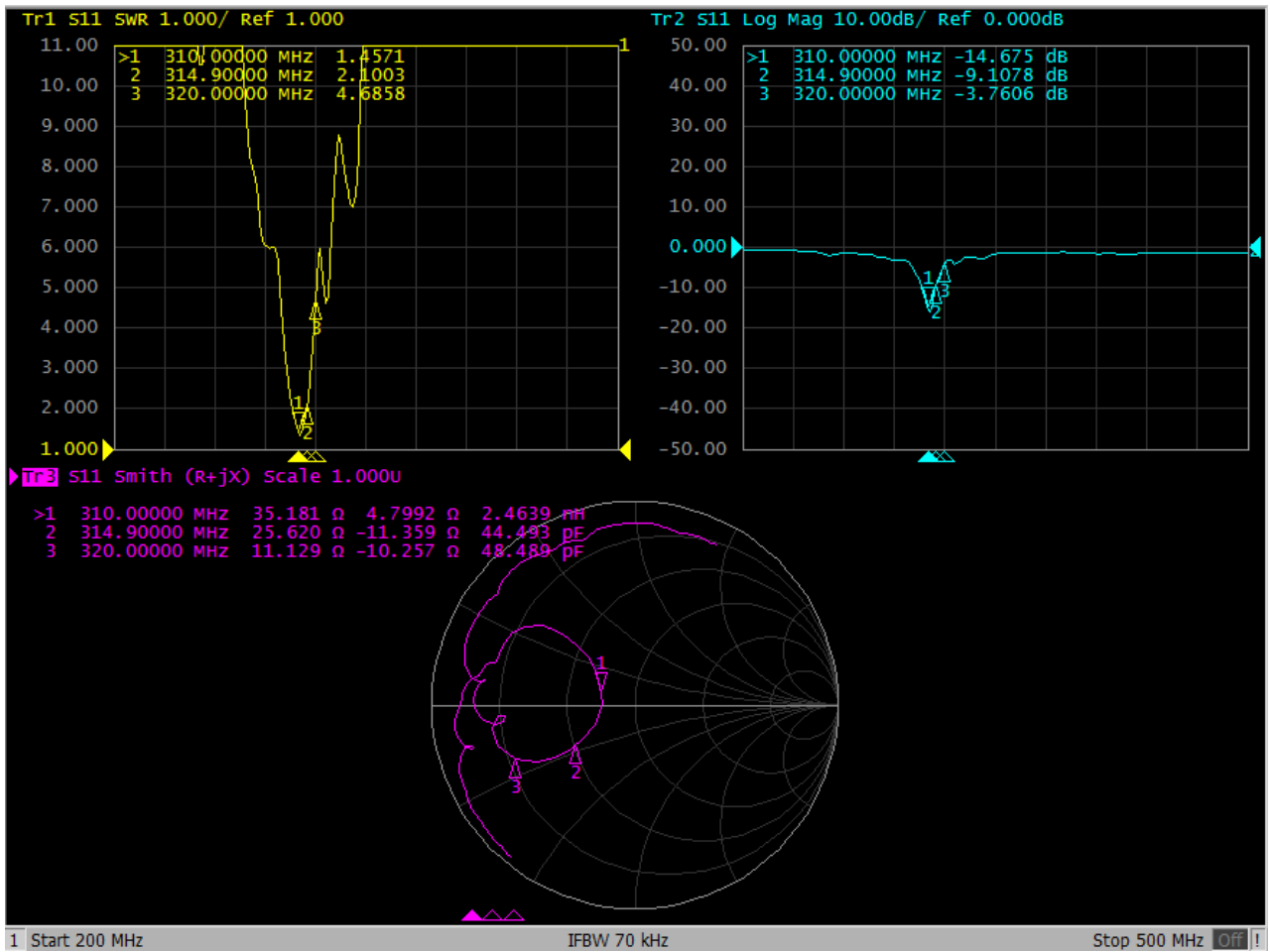
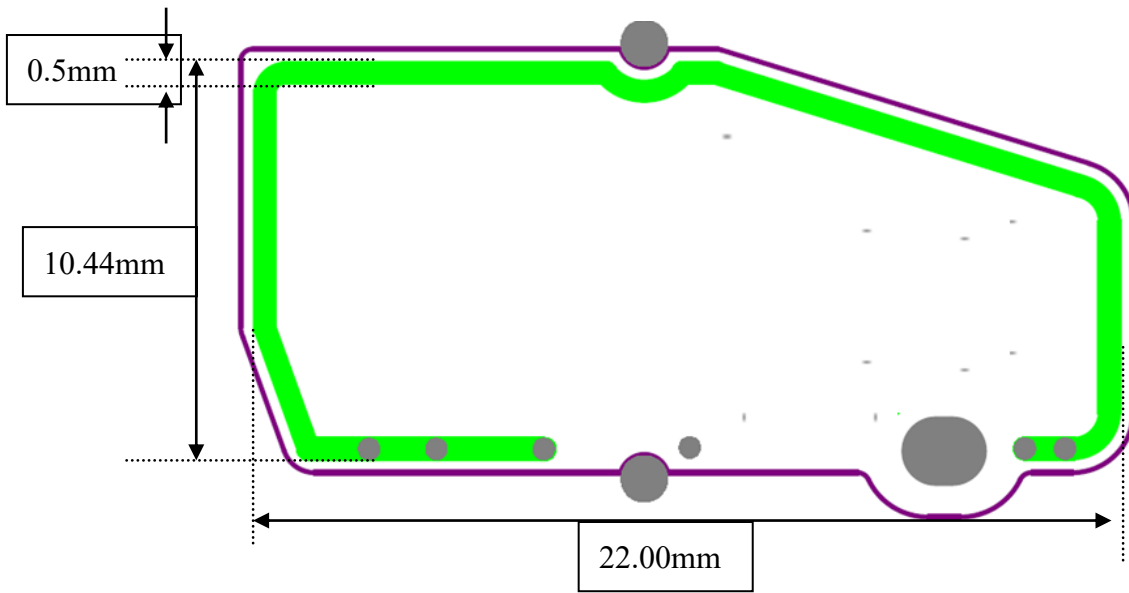


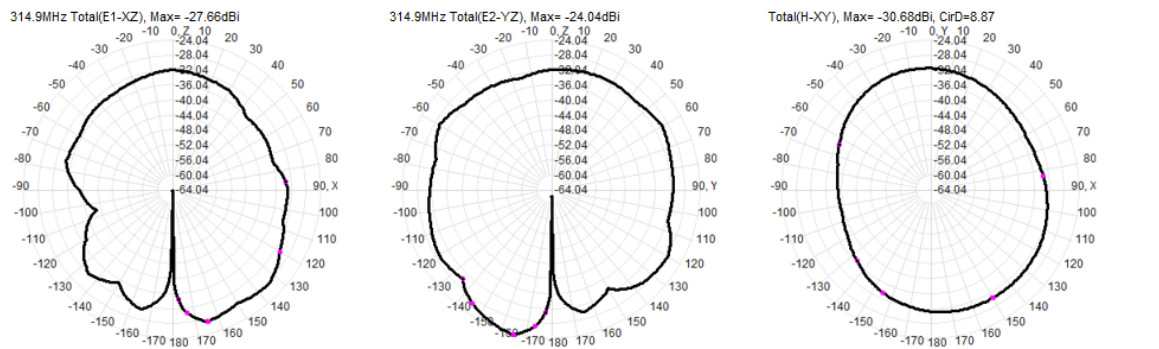
Figure 2-1

# Antenna Test Date

## 一: Antenna Efficiency&PeakGain

Frequency ID	1
Frequency (MHz)	314.9Mhz
Efficiency (dBi)	-31.51
Gain (dBi)	-24.04
Efficiency (%)	0.07
Directivity (dB)	7.48
Peak Gain Position (Theta)	165.00
Peak Gain Position (Phi)	90.00
Efficiency ThetaPol (%)	0.05
Efficiency PhiPol (%)	0.02
Upper Hem. Efficiency (%)	0.03
Lower Hem. Efficiency (%)	0.04

## 二: Antenna 2D-XZ/YZ/XY



## 三: Antenna 3D (314.9MHz)

