

# SPECIFICATION

## APPLICATION FOR APPROVAL

PART NAME : FPC ANTENNA  
DATE : 2022/08/01

Release : Full release

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

### Confidential

This message contains information that may be confidential and privileged. Unless you are the addressee (or authorized to receive messages for the addressee), you can not use, copy or disclose to any third party or any information contained in the message. If you have received the message in error, please advise the sender by reply e-mail and delete the message. Nothing in this message should be interpreted as a digital or electronic signature that can be used to authenticate a contract or other legal document. Thank you very much.

# NTS

0.	DEFINITIONS	1
1.	ELECTRICAL SPECIFICATIONS	1~2
1-1.	FREQUENCY BAND	1
1-2.	IMPEDANCE	1
1-3.	MATCHING REQUIREMENTS	1
1-4.	VSWR	2, 5
2.	MECHANICAL SPECIFICATION	3, 4
2-1.	MECHANICAL CONFIGURATION	
3.	ENVIRONMENT CHARACTERISTICS	3
4.	PACKAGING	3
5.	APPENDIX	5~6

## REVISION

REV. NO.	DATE	DESCRIPTION
0	2022/08/01	APPROVAL

## 0. DEFINITIONS

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	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 Handy-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	2400-2500

### 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

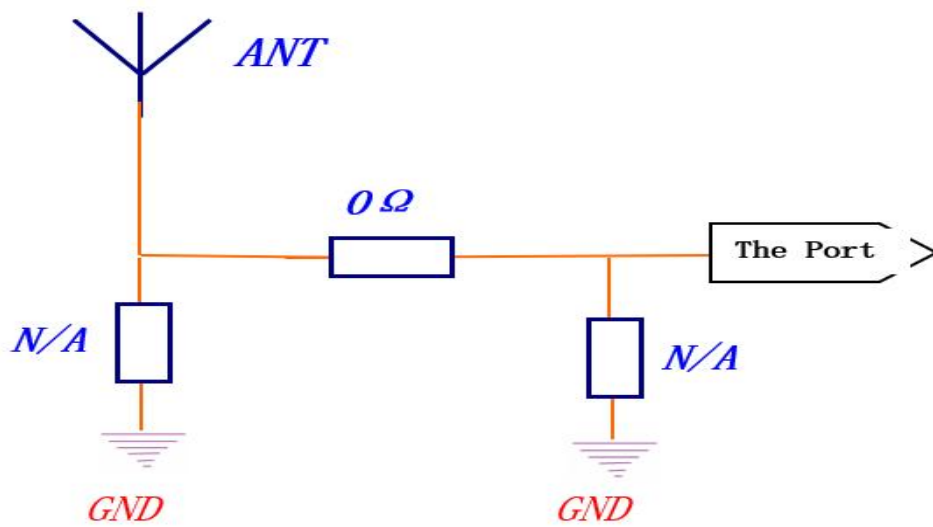


Figure 1-3

### 1-4 VSWR

#### FREE SPAC

Freq. Band	spec
------------	------

※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 PE bag. Each 100 pcs per bag.

## 5. APPENDIX

All of the specifications are shown as the attached files.

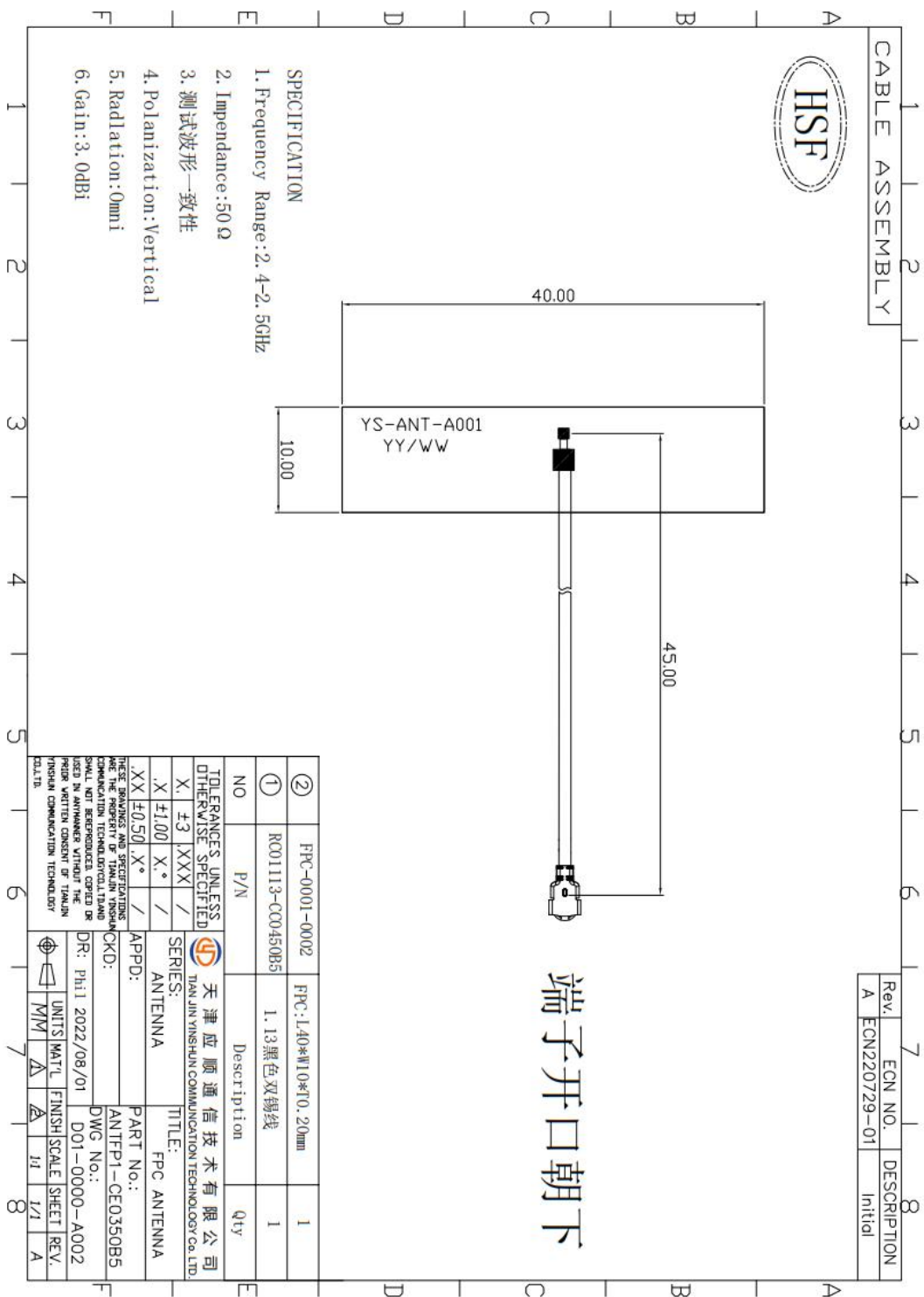
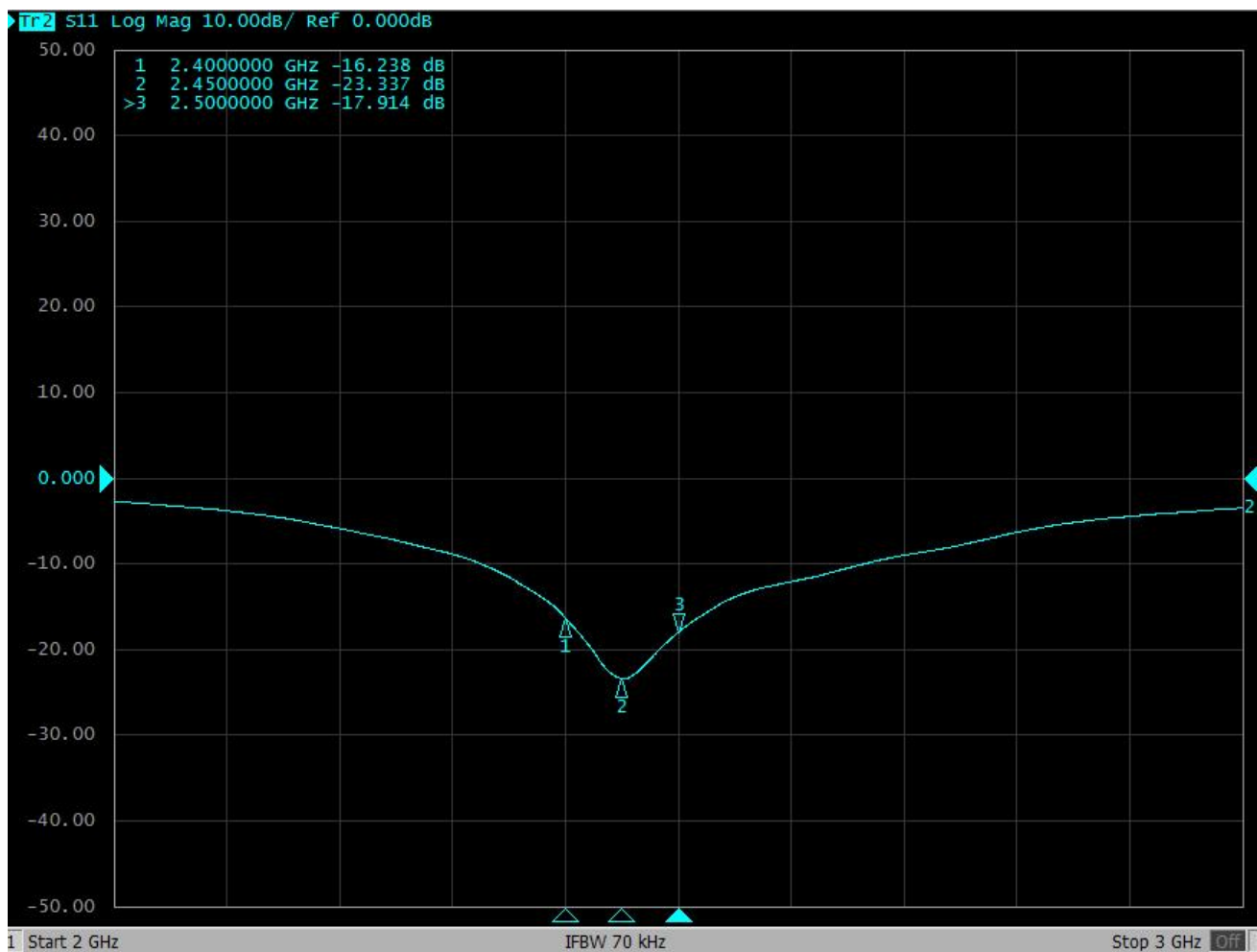


Figure 2-1

Customer No: 天津华来	File: 2022/08/01
Supplier NO:	Note: VSWR/ReturnLoss/Smith Chart
Sample No:	
Test Condition:  FREE SPACE	
Confirmation: Jing Qiang Hao	Matching: N/A
	Engineer: Jing Qiang Hao

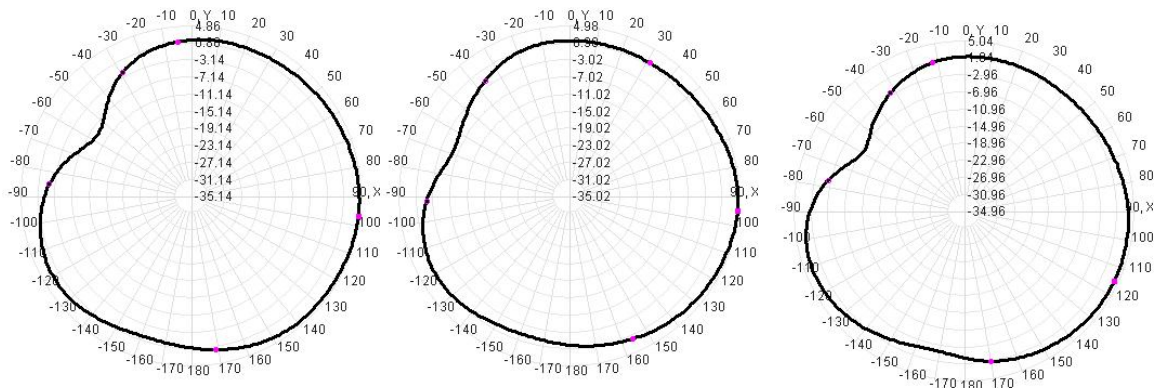


# Antenna Test Date

## 一: Antenna Efficiency&PeakGain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	60.96	3.03
2410	62.17	3.24
2420	64.10	3.42
2430	62.88	3.43
2440	59.98	3.36
2450	57.77	3.16
2460	57.66	3.05
2470	57.13	2.91
2480	57.22	2.88
2490	58.67	3.20
2500	62.03	3.52

## 二: Antenna 2D (2400MHz/2450MHz/2500MHz)





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

