



SPECIFICATION

APPLICATION FOR APPROVAL

PART NAME : FPC Antenna
 PART NO : ANTFP1-CC0700B5
 DATE : 2024/12/20

Release : Full release

Customer Approval	
Program Manager	R & D director
Supplier Approval	
Program Manager	R & D director
Jingqiang Hao	GaoHe Sun

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• Ad: 2-805, Fubao Industrial Park, Fubao Road, Xiqing District, Tianjin Tel: 022-89545892



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

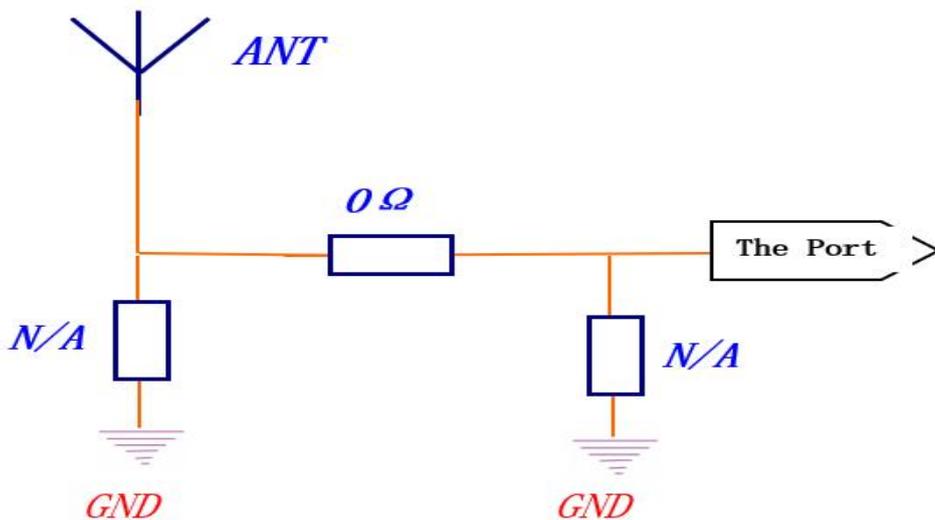
Nominal Impedance(including matching circuit) : 50 ohms



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



1-4 VSWR

FREE SPAC

Freq. Band	spec
2400-2500	<2

※Measuring a 50 Ω 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: 48hrss	
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.

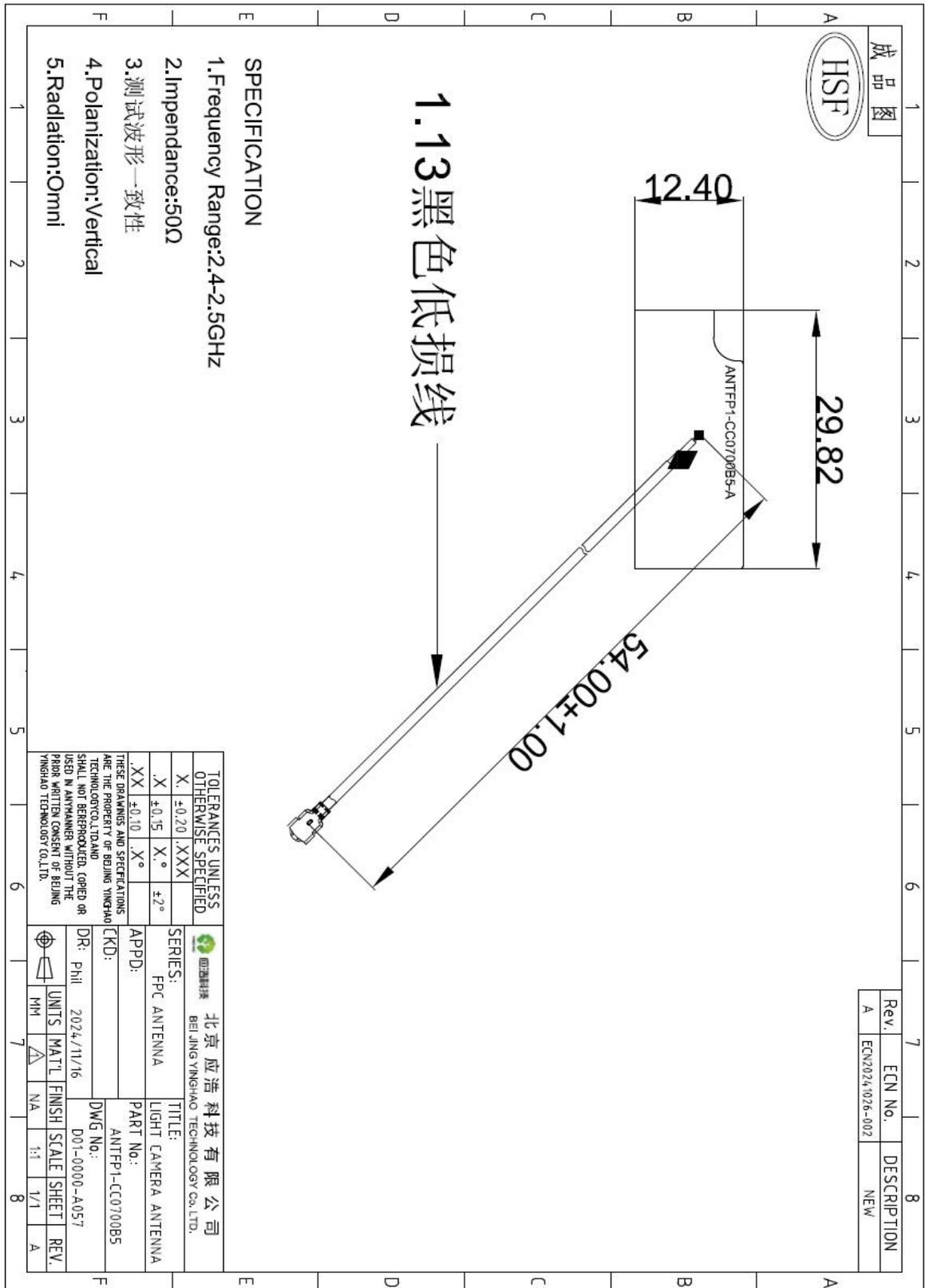
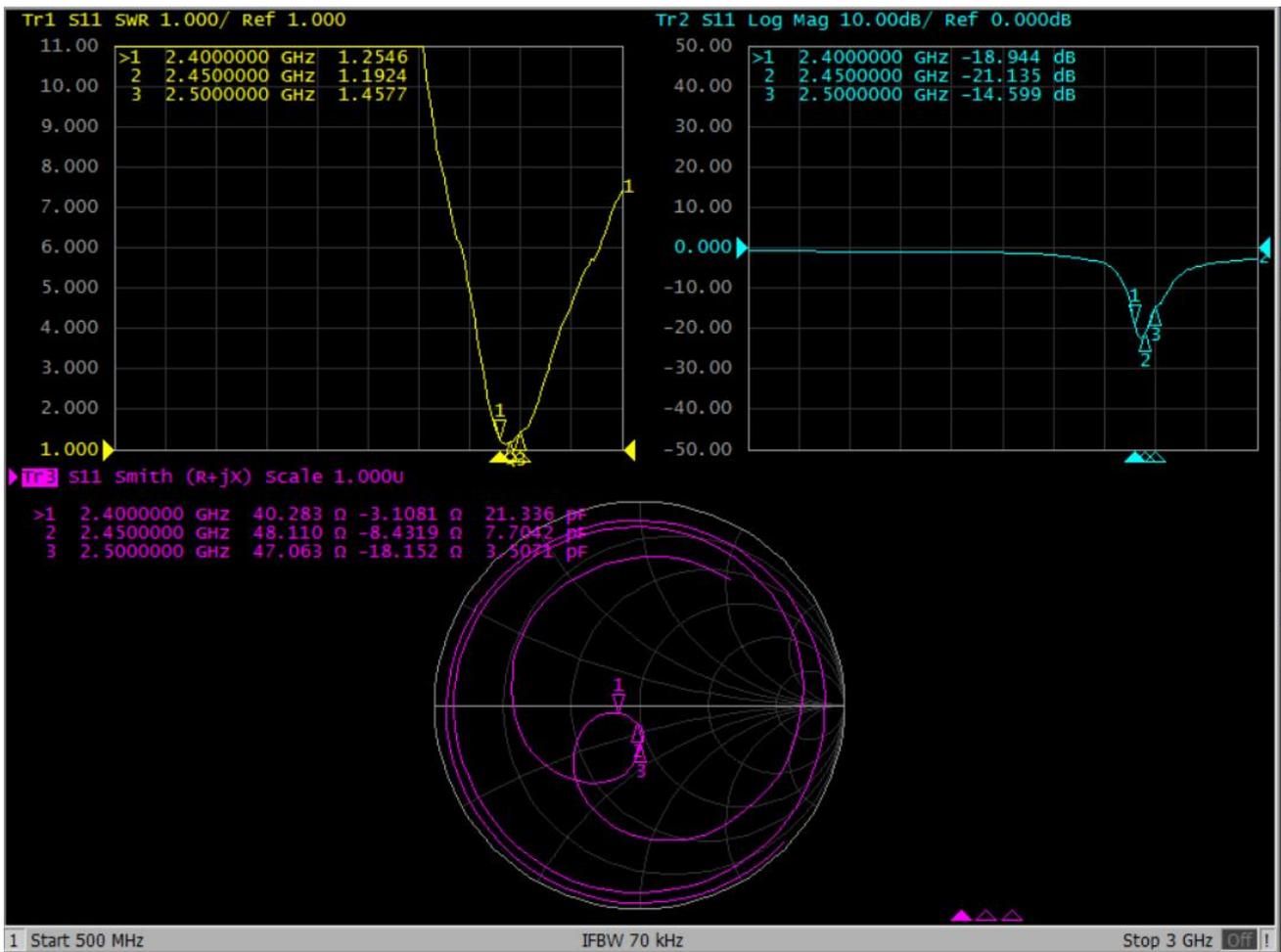


Figure 2-1



Customer No: HuaLai Tec.	File: 2024/12/20
Supplier NO:	Note: VSWR Return Loss Smith Chart
Sample No:	
Test Condition: FREE SPACE	
Confirmation: Jing Qiang Hao	Engineer: GaoHe Sun





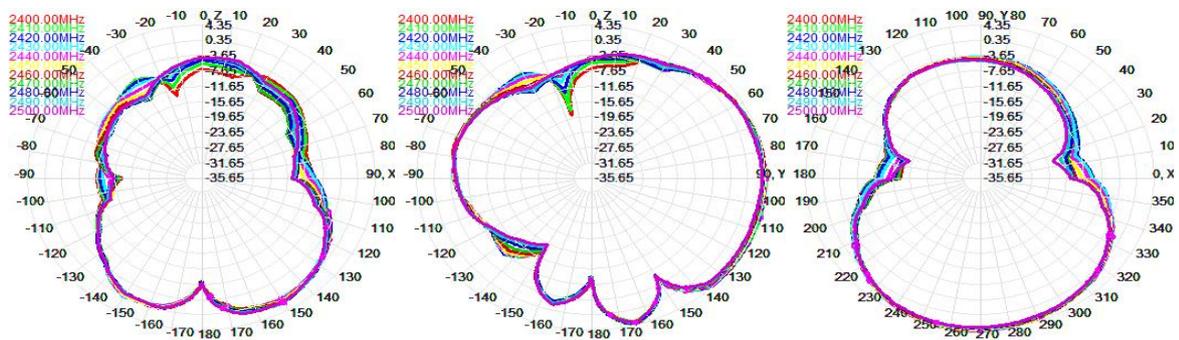
Antenna Test Data

一: Antenna Efficiency&PeakGain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	69.15	4.30
2410	68.63	4.26
2420	68.30	4.30
2430	67.81	4.35
2440	66.68	4.25
2450	65.76	4.10
2460	65.04	3.91
2470	63.43	3.68
2480	62.50	3.53
2490	62.39	3.47
2500	61.85	3.41



三: Antenna 2D (XZ/YZ/XY)



四: Antenna 3D-2400/2450/2500MHz

