



# SPECIFICATION

## APPLICATION FOR APPROVAL

PART NAME : RVI FPC ANTENNA  
 PART NO : ANTFP1-CC0370B5  
 DATE : 2023/06/16

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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## NTS

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## REVISION

REV. NO.	DATE	DESCRIPTION
A	2023/06/16	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

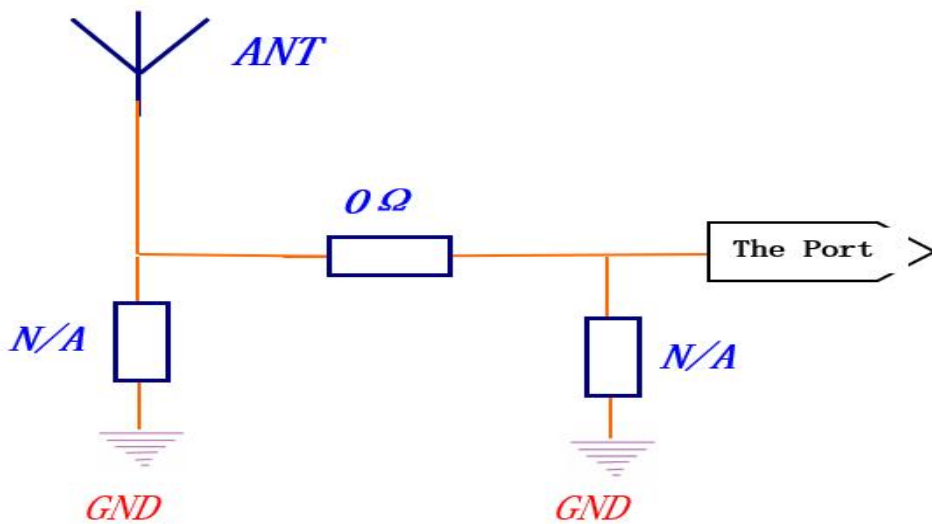
Nominal Impedance(including matching circuit) : **50** ohms



### 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



### 1-4 VSWR

#### FREE SPAC

Freq. Band	spec
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※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

2. ENVIRONMENTAL CHARACTERISTICS

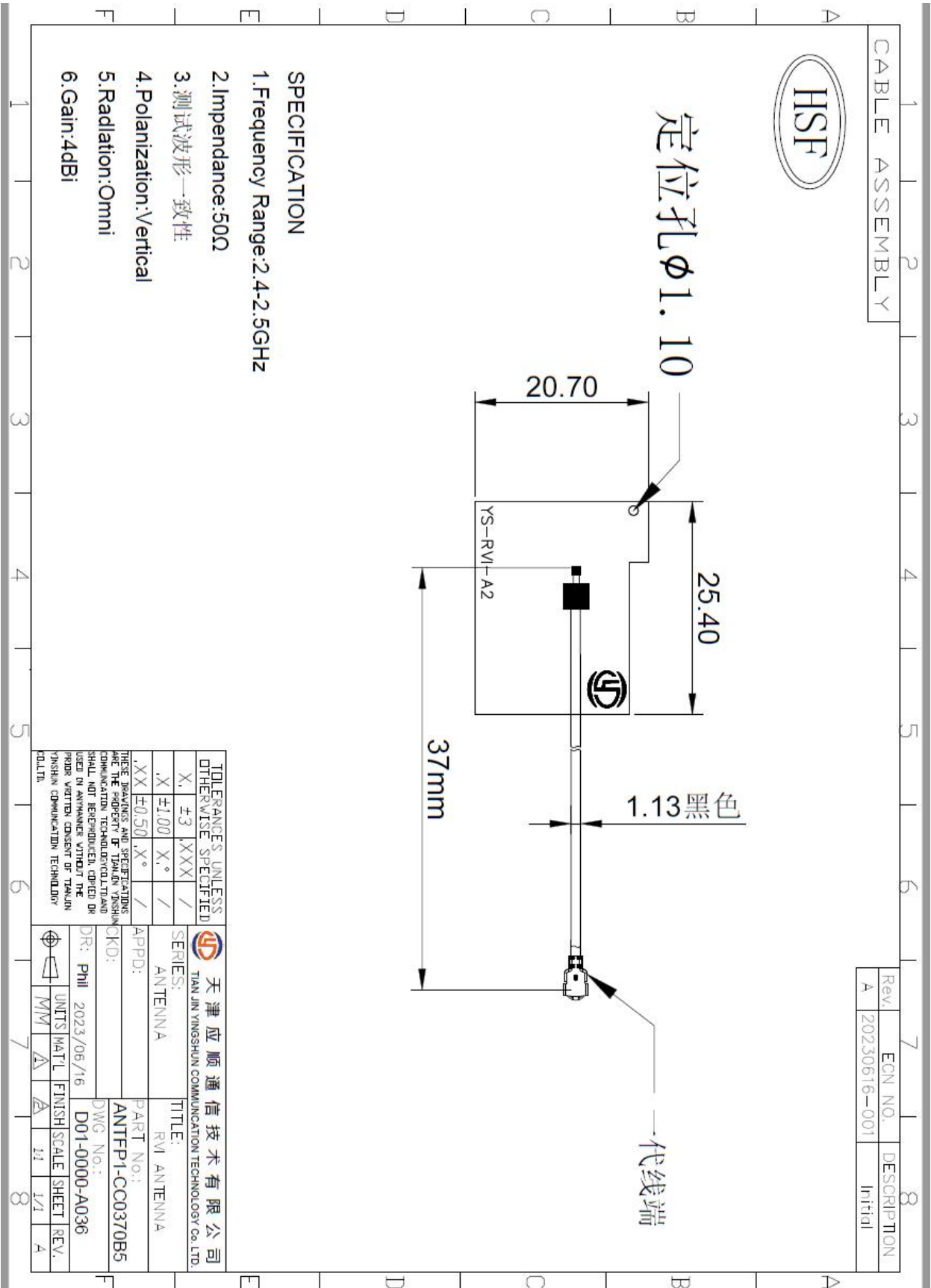
NO.	ITEM	TEST CONDITION	SPECIFICATION
3-1	Low Temperature Test	1. Temperature: $-40 \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	No material deformation is allowed.
3-2	High Temperature Test	1. Temperature: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	
3-3	High Temperature/Humidity Storage Test (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.



- SPECIFICATION**
1. Frequency Range: 2.4-2.5GHz
  2. Impedance: 50 $\Omega$
  3. 测试波形一致性
  4. Polarization: Vertical
  5. Radiation: Omni
  6. Gain: 4dBi

TOLERANCES UNLESS OTHERWISE SPECIFIED	X.	$\pm 3$	.XXX	X.	$\pm 1.00$	X.	$\pm 0.50$	X.	$\pm 0.25$
	/	/	/	/	/	/	/	/	/

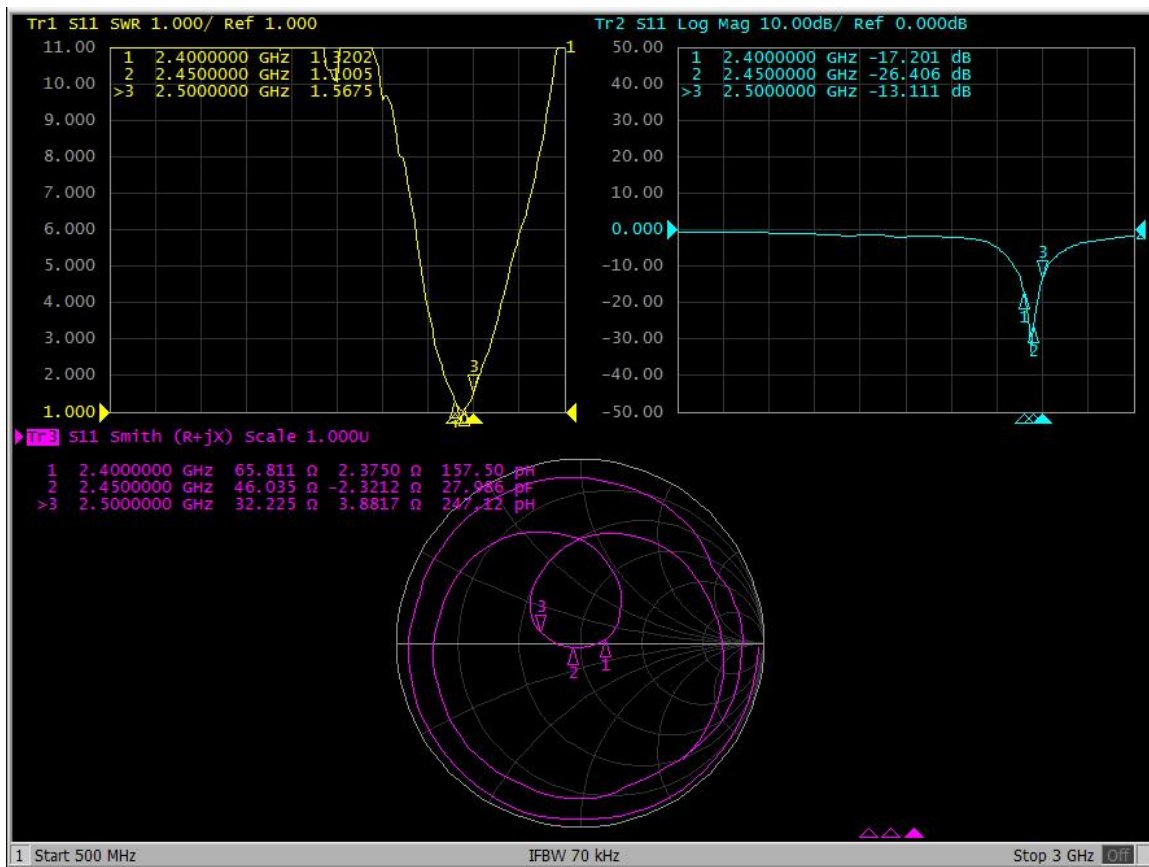
<p>天津应顺通信技术有限公司 TIAN JIN YINGSHUN COMMUNICATION TECHNOLOGY Co.LTD.</p>		<p>DR: Phil 2023/06/16</p>	
SERIES: ANTENNA	TITLE: RVI ANTENNA	PART No.: ANTFP1-CC0370B5	DWG No.: D01-0000-A036
APPD:	CKD:	UNITS: MATL	FINISH: SCALE
		M/M	A
		A	A

Rev.	ECN NO.	DESCRIPTION
A	20230616-001	Initial



Customer No: HuaLai Tec.	File: 2023/06/16
Supplier NO:	Note: VSWR/RT/Smith Chart
Sample No:	
Test Condition:  FREE SPACE	Matching:  N/A
Confirmation: Jing Qiang Hao	Engineer: Jing Qiang Hao

Figure 2-1



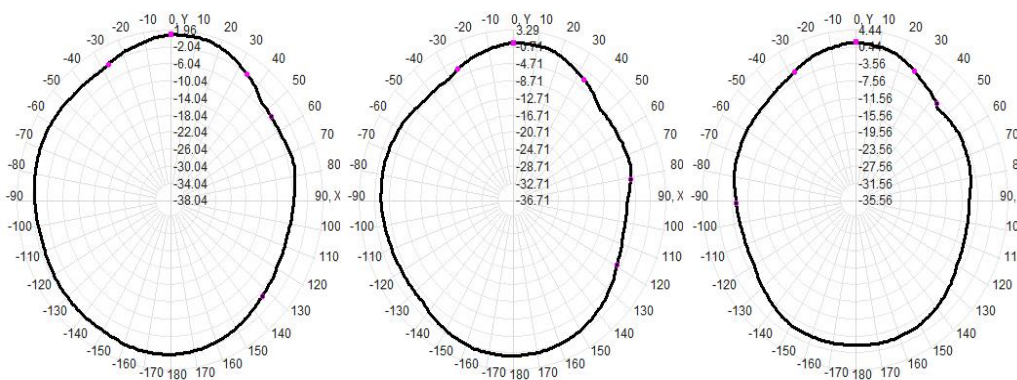


## Antenna Test Date

一：Antenna Efficiency&PeakGain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	<b>52.94</b>	<b>4.53</b>
2410	<b>51.86</b>	<b>4.56</b>
2420	<b>52.13</b>	<b>4.68</b>
2430	<b>52.93</b>	<b>4.63</b>
2440	<b>54.54</b>	<b>4.75</b>
2450	<b>56.73</b>	<b>4.92</b>
2460	<b>58.97</b>	<b>5.29</b>
2470	<b>60.82</b>	<b>5.59</b>
2480	<b>60.69</b>	<b>5.83</b>
2490	<b>58.99</b>	<b>6.03</b>
2500	<b>58.96</b>	<b>6.30</b>

二：Antenna 2D—2400/2450/2500MHz (For XY )







三: Antenna 3D-2400/2450/2500MHz

