Gentong Communication Technology Co.,Ltd

5/F, Building 7, Fujian Branch Park, National University Science Park, Nan'an, Quanzhou, China, Tel: 15889795946

WiFi Antenna Specification

Client Name: Proficient

Project Name:380P

Band: WIFI/BT Antenna

Antenna type: FPC

Version: R:A

Signature column.

R&D	Structure:	Approval:
	RF:	
Client sign back.		

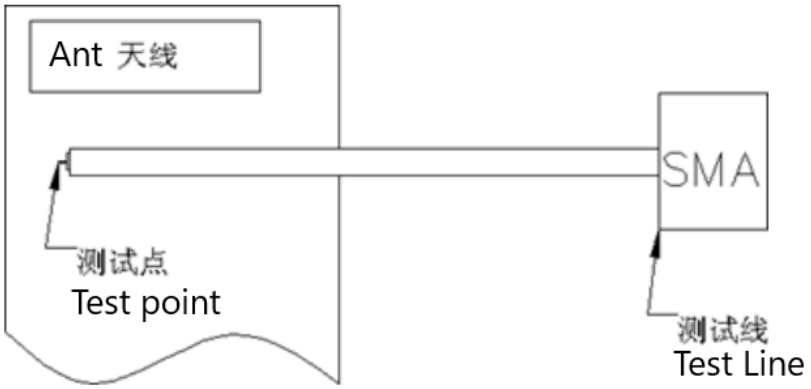
Production date: 2021.09.06

CONTENTS

1、 Passive test fixtures

Purpose: To test the passive parameters of the antenna as accurately as possible.

Production method: The manual device is a 50 ohm coaxial cable, one end of which is connected to the test point at the rear end of the matching circuit of the mobile phone's main board (the front end of the RF test hole), and the other end is connected to the SMA connector. The schematic diagram is as follows:



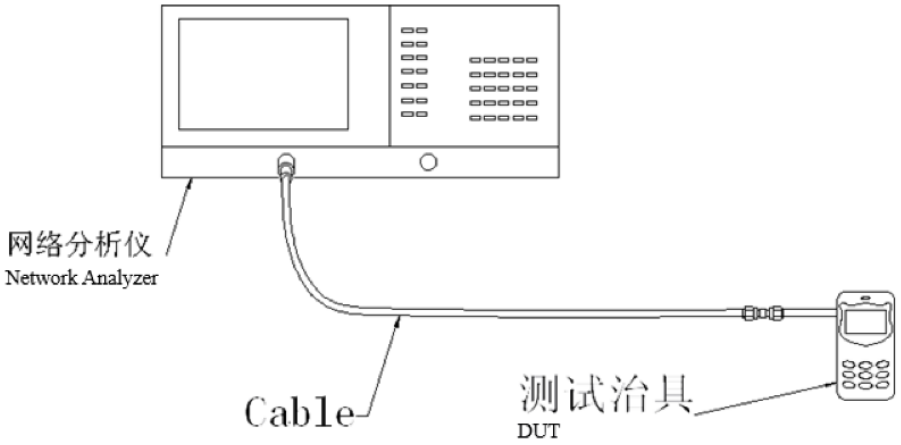
2、 S11 test

S11 Test method description:

Test Equipment: Network Analyzer (Agilent 8753D)

Test method: Use a 50 ohm CABLE from the instrument's test port, calibrate it with a calibration piece and then connect it to the SMA connector of the handmade instrument to record the return loss and VSWR corresponding to the relevant frequency point.

The test schematic is shown below:

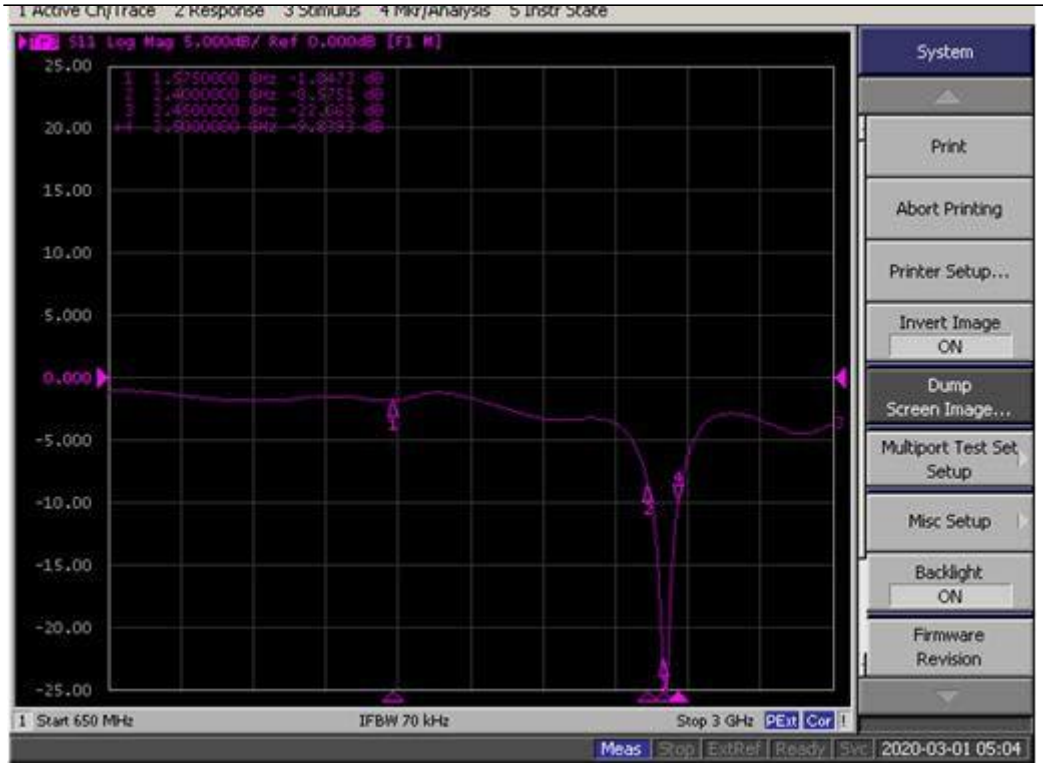


Test Schematic

3 S11 parameters

WiFi Antenna

Frequency (MHZ)	2400	2450	2500
Return loss (dB)	-8.57	-22.66	-9.83
VSWR	1.3	1.26	1.29



2 、 Darkroom Test

4.0 Test equipment

Test System: ETS Shielded Darkroom

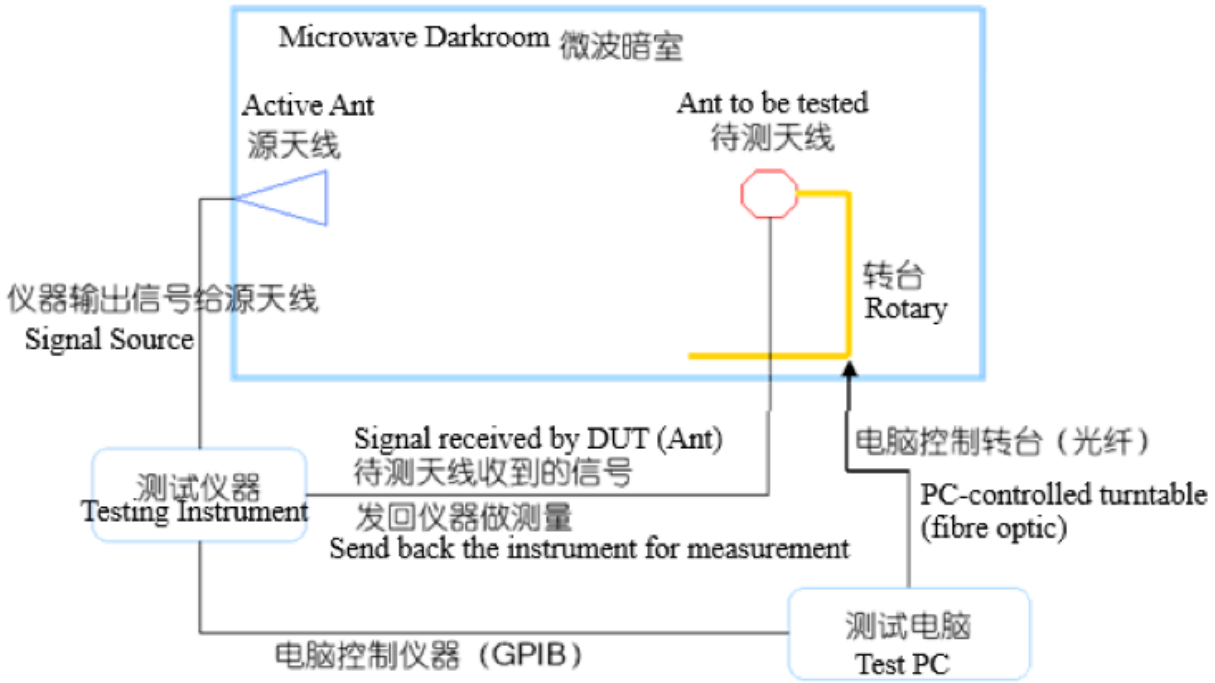
Test environment: Temperature 22℃±3℃, Humidity 50%±15%

Test equipment: For testing passive data, use the Agilent E5071B network analyzer

To test active data, use the integrated tester Agilent 8960, 8820C.

4.1 Description of test methods and diagrams:

The test system consists of darkroom, turntable, source antenna system, test instrument and control computer. Among them, the test computer is the controller of the whole system. During the test, the test computer controls the rotary table to rotate to a certain angle, and then controls the instrument to carry out the spatial attenuation test, and the raw data obtained are collected, then the data are compensated and corrected, and finally the test data are obtained. The schematic diagram is as follows:



4.2 Antenna Test Report (BT Efficiency):

Freq	Effi	Effi	Gain	Gain
(MHz)	(%%)	(dB)	(dBi)	(dBd)
2400	38.83	-0.41	-1.47	-3.62
2420	40.12	-0.39	-0.93	-3.08
2440	40.33	-0.39	-0.95	-3.1
2460	39.39	-0.40	-0.95	-3.1
2480	38.52	-0.41	-0.9	-3.05
2500	36.55	-0.43	-1.07	-3.22

5. Antenna drawing size

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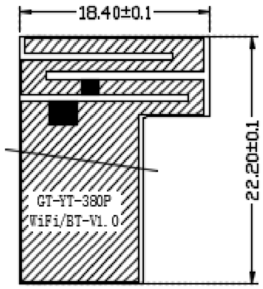

注:

1: 黄色实影为金手指区域

1: 黄色线条为布铜区域

2: 青色线条为基材区域

3、背胶采用3M 300LSE，粘性在300MP以上，无特别说明，背胶外形与基材一致,覆在基材背面，背胶做半切;
4、材料单面板，铜箔为半对半基材，柔韧性要好;
5、产品覆油后经180°折弯表面无裂痕现象,柔韧性要好;
6、金手指表面镀沉金3"5u",不可有氧化现象,以铜箔粗糙处，经180°折弯之后无裂痕、不导通现象,手模样可不电镀，
7、走线及孔精确公差范围:±0.03mm，外形尺寸公差控制在0.1mm以内;
8、未标注尺寸按CAD电子图档1:1量取;
9、未开模产品打样外形需要用激光切割，如果用手工切割，要注意外形要切割准一些，已开模产品打样外形需要用模具冲切;
10、所来非模样，需要切割好外形之后，在送样到我司;
11、表面印字，具体内容及位置见图

手撕位 ------------------------------

FPC黑色丝印亮黑色字码 白色丝印亮白字码

深圳市根通通信技术有限公司

第三角法				机种	380P	日期	2023-10-18	页码	1 of 1
0~10	±0.10	○	0.02	品名		设计		审核	
10~20	±0.12	◎	∅0.03	料号		审核	工程		
20~40	±0.15	⊥	0.02	材质	FPC		射频		
40~	±0.20	▱	0.04	模面处理		确认			
		⌰	0.02						
请勿实测图纸	位置			外观处理		单位	mm	比例 1:1	版本 REV:A

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