

Test Report

Name of the buyer: Jiangsu Austin Optoelectronic Technology Co., Ltd

Buyer's material number:

Supplier company name: Shenzhen Jia Zhichun Technology Co., LTD

Supplier product material number: JZC-FPC-WIFI-V2.1

Supplier product description: built-in WIFI antenna

Remarks:

Signature of the demander:

The demander seal:

Signature of the supplier:

Seal of the Supplier:

MAKE:

FU JIAN JUN

DATE:

2023.3.23

ADDREES

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Songbai Road, Nanshan District, Shenzhen

PHONE

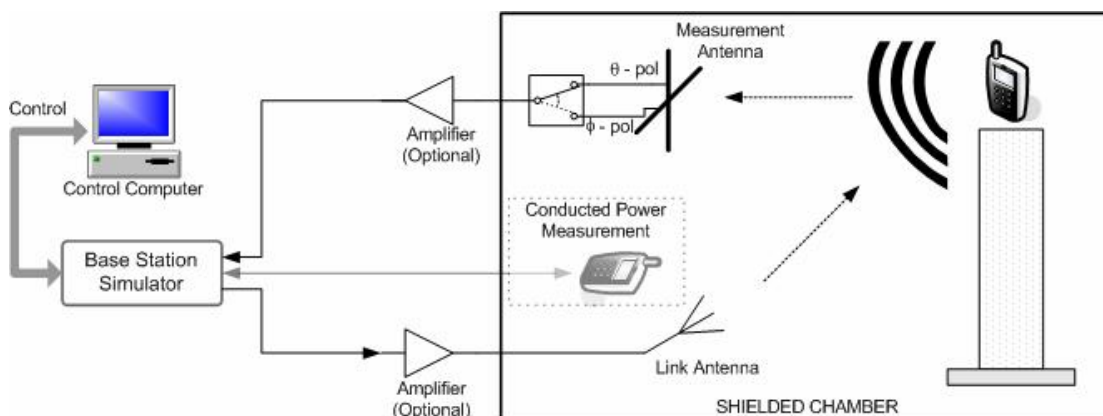
0755-86265563

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1. Introduction to the OTA test system



1.1、Place the subject DUT on the 3D all-wave dark chamber turntable.

The turntable rotates at 360 degrees to enable a 3D comprehensive measurement of the DUT. The test antenna Probe transmits the measured DUT signal to the integrated sensor via the RF coaxial cable. The comprehensive instrument then transmits the signal to the computer through the GPIB card for post-processing, and obtains the final RF test data.

1.2. Test indicators

1.2.1. TRP (Total Radiated Power): The total radiation power reflects the performance of the terminal emission part.

$$TRP \cong \frac{\pi}{2NM} \sum_{i=1}^{N-1} \sum_{j=0}^{M-1} [EiRP_{\theta}(\theta_i, \phi_j) + EiRP_{\phi}(\theta_i, \phi_j)] \sin(\theta_i).$$

1.2.2、TIS (Total Isotropic Sensitivity): Overall receiving sensitivity reflects the performance of the terminal receiving part.

$$TIS \cong \frac{2NM}{\pi \sum_{i=1}^{N-1} \sum_{j=0}^{M-1} \left[\frac{1}{EIS_{\theta}(\theta_i, \phi_j)} + \frac{1}{EIS_{\phi}(\theta_i, \phi_j)} \right] \sin(\theta_i)}$$

1.3、Testing facility

Device name	Comprehensive measuring instrument	Comprehensive measuring instrument	Network analyzer	Network Analyzer
Unit type	CMW500	8820C	E5071B	8753ES
Equipment manufacturers	Rohde & Schwarz	Antitsu	Agilent	Agilent

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2、 Product picture

2.1.The overall appearance



2.2.Antenna pictures



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3、Antenna specifications

3.1、Physical characteristics

Antenna Dimensions (mm)	39.8×18.3	Cable length (mm)	280
Connector model	Generation 1 IPEX (MHF ①)	Type of Cable	RF1.13 coaxial
Antenna material	FPC	Antenna colour	Black
Working temperature	-40℃~80℃	Working humidity	10%~95%
Storage temperature	-45℃~85℃	Storage humidity	10%~95%

3.2、Electrical character; electrical specification

frequency (MHz)	2400~2500; 5000~6000;	Impedance	50 Ω
Gain (MAX)	2dBi	VSWR	≤3
Polarization	Linear polarization		

4、OTA test data

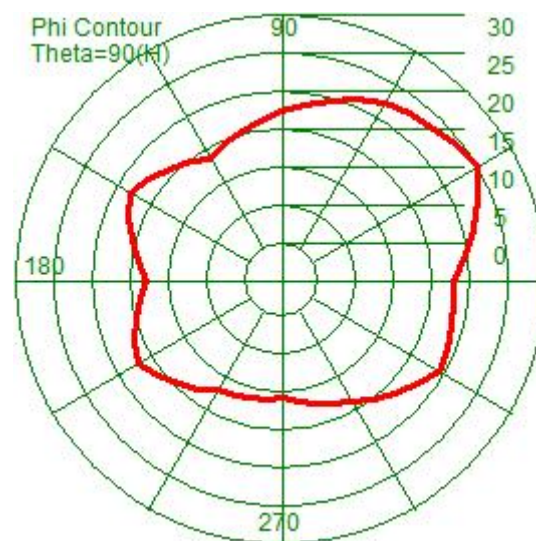
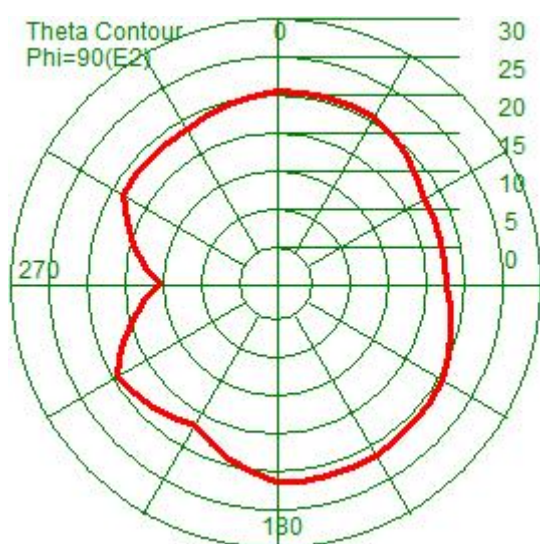
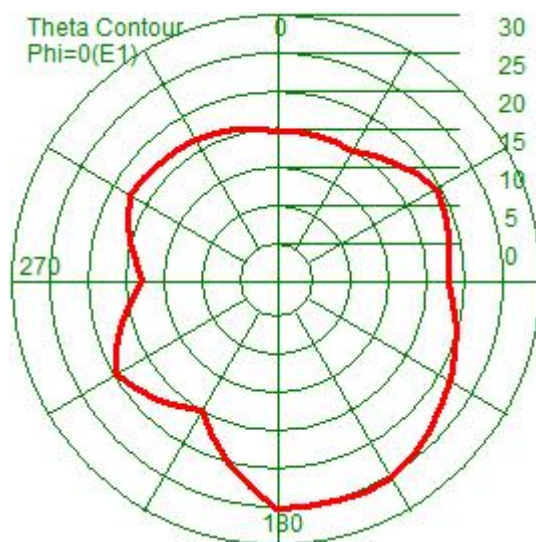
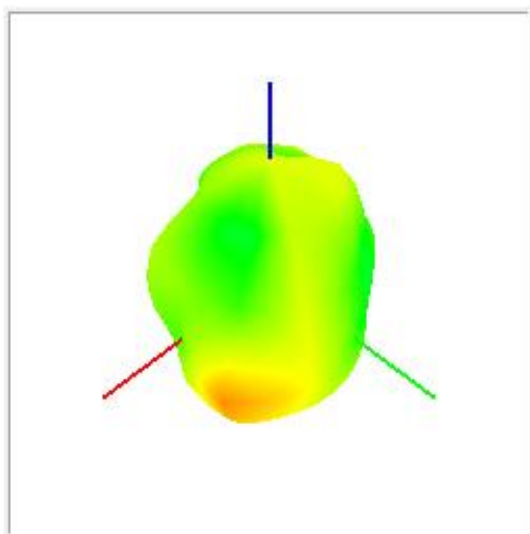
802.11b Test rate 11Mbps; 802.11a Test rate 54Mbps

Band	Channel	3D ACTIVE	
		TRP (dBm)	TIS (dBm)
802.11b	1	15.15	-78.19
	6	16.2	-78.82
	11	15.77	-80.49
802.11a	149	15.72	-71.88
	157	14.73	-72.32
	165	14.85	-72.13

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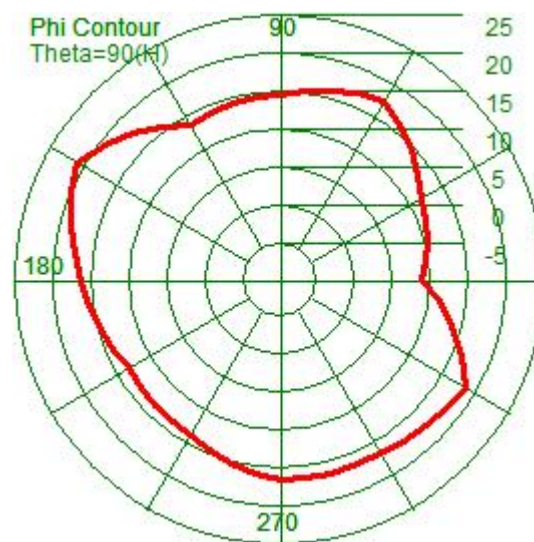
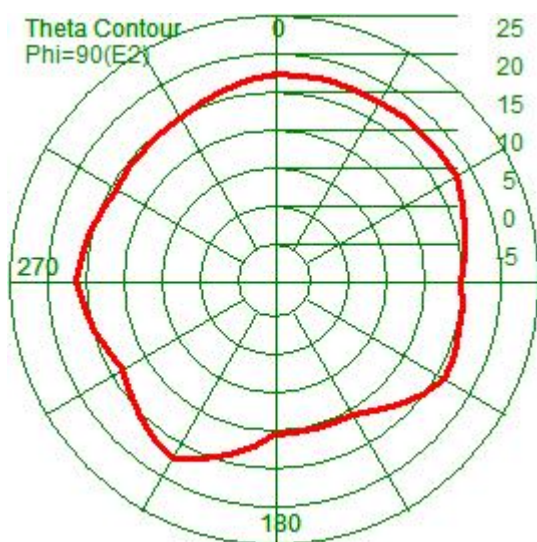
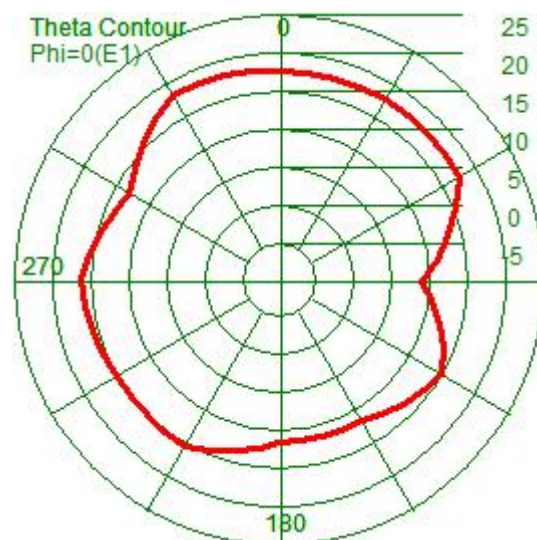
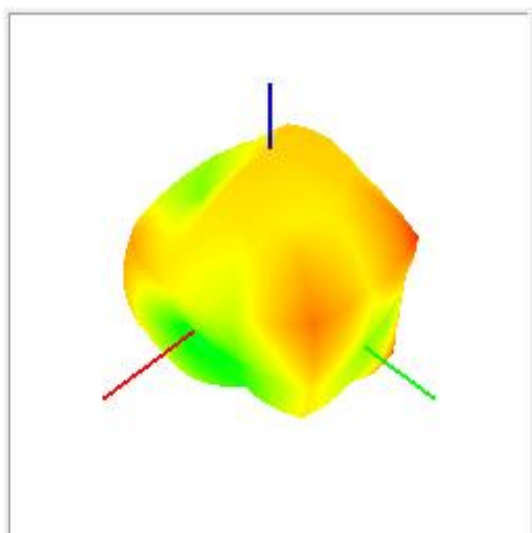
5. 3D/2D Radiation pattern

5.1、802.11b



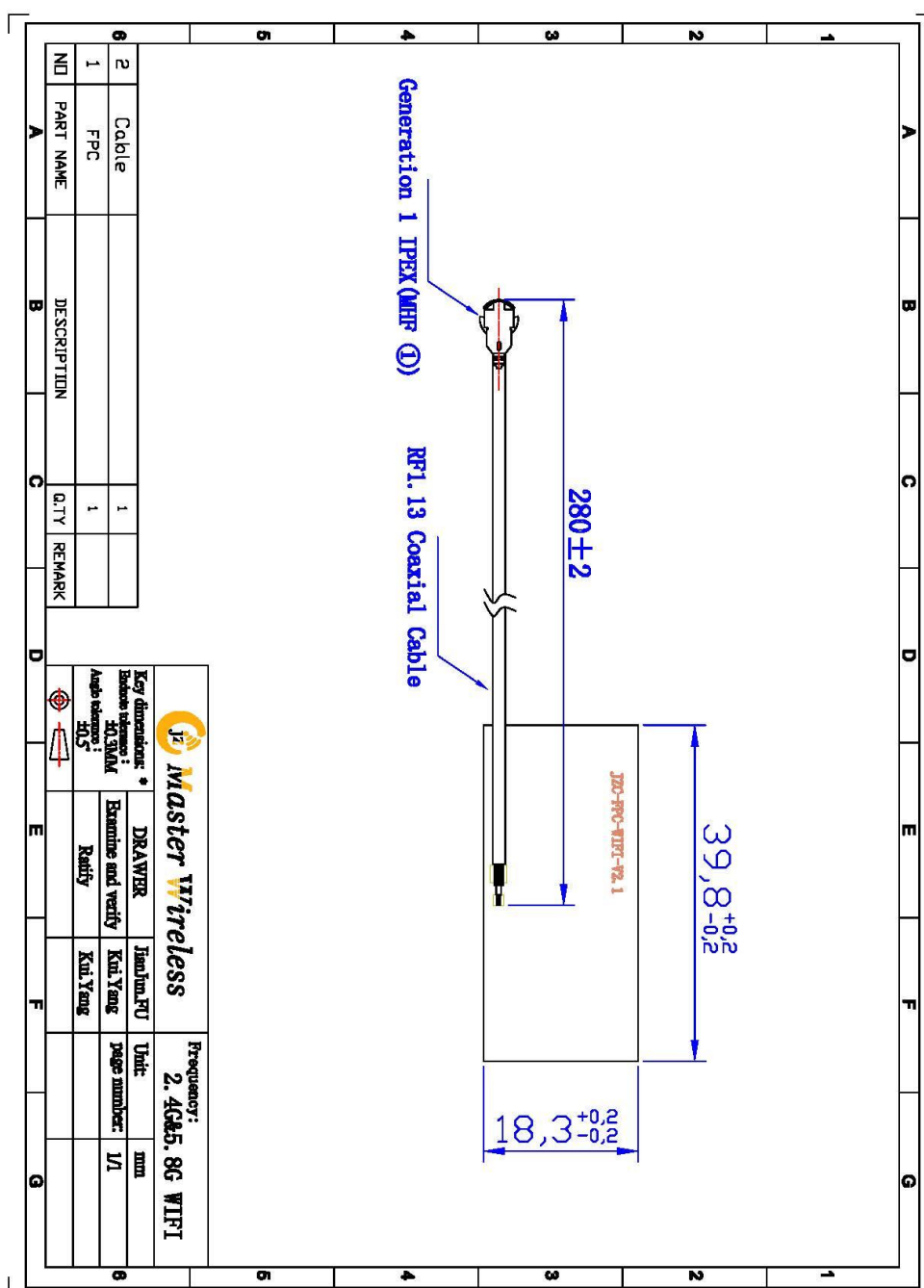
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5.2、802.11a



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6. Schedule Drawing



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Thanks !