

SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A0)

	CUSTOMER(客户名称)	TCLSCBC	
	CS P/N(客户机种)	WCT5J-45 (Black TCL)	
	PART NAME(品名)	WIFI antenna	L=451mm
	FREQUENCY(频率)	2.4G~2.5G / 5.15G~5.85G	
	DATE(日期)	2021-03-01	

CUSTOMER

ZHONG TIAN XUN TECHNOLOGY CO., LTD

MANAGER
CHECKED

MANAGER
CHECKED

ME
CHECKED

RF
CHECKED

LISTER

陈正伟

韦进

Remark

Sign(客户)



Shenzhen ZTX Communication Technology Co., Ltd

Address: No.34 Shilong Avenue, Shiyan Town, Baoan District, Shenzhen (Tengda Industrial Park)

zip code: 518000

TEL: 0755-27588320

Fax: 0755-27588045

<http://www.chinaztx.com>

MANAGER
CHECKED

MANAGER
CHECKED

ME
CHECKED

RF
CHECKED

LISTER

ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (b l a c k T C L) W I F I antenna

Rev: R:A0
Page 1 of 10

Revision history

version	date	status
A0	2021-03-01	version

ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (b l a c k TCL) WIFI antenna

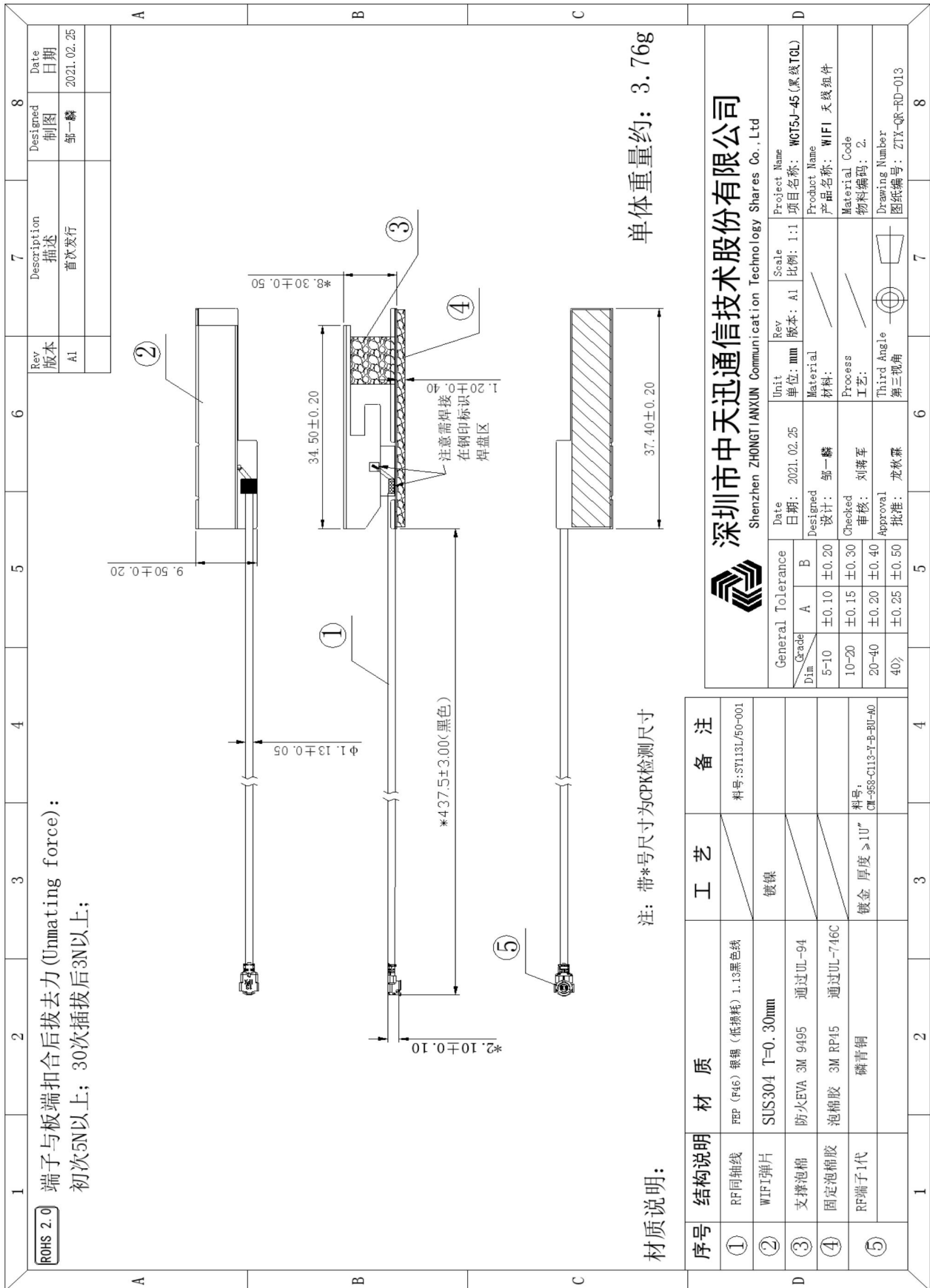
Rev: R:A0
Page 2 of 10

Index

		Revision history	1
		Index	2
1		Mechanical Specification	3~5
	1-1	Mechanical Specification (WIFI element)	3
	1-2	Mechanical Specification (WIFI antenna)	4
	1-3	Mechanical Specification (Coaxial line)	5
2		Test equipment	6
3		Antenna test data	7
	3-1	VSWR	7
	3-2	Matching circuit	7~8
	3-3	No-source test data	8
	3-4	Environment treatment	8
	3-5	Directional drawing of horizontal plane of	8~9
	3-6	3D radiation drawing	9
	3-7	antenna photo	9
4		Environment Characteristic	10

Rev: R:A0
Page 3 of 10

1-1 Mechanical Configuration (WIFI element)



Rev: R:A0
Page 4 of 10

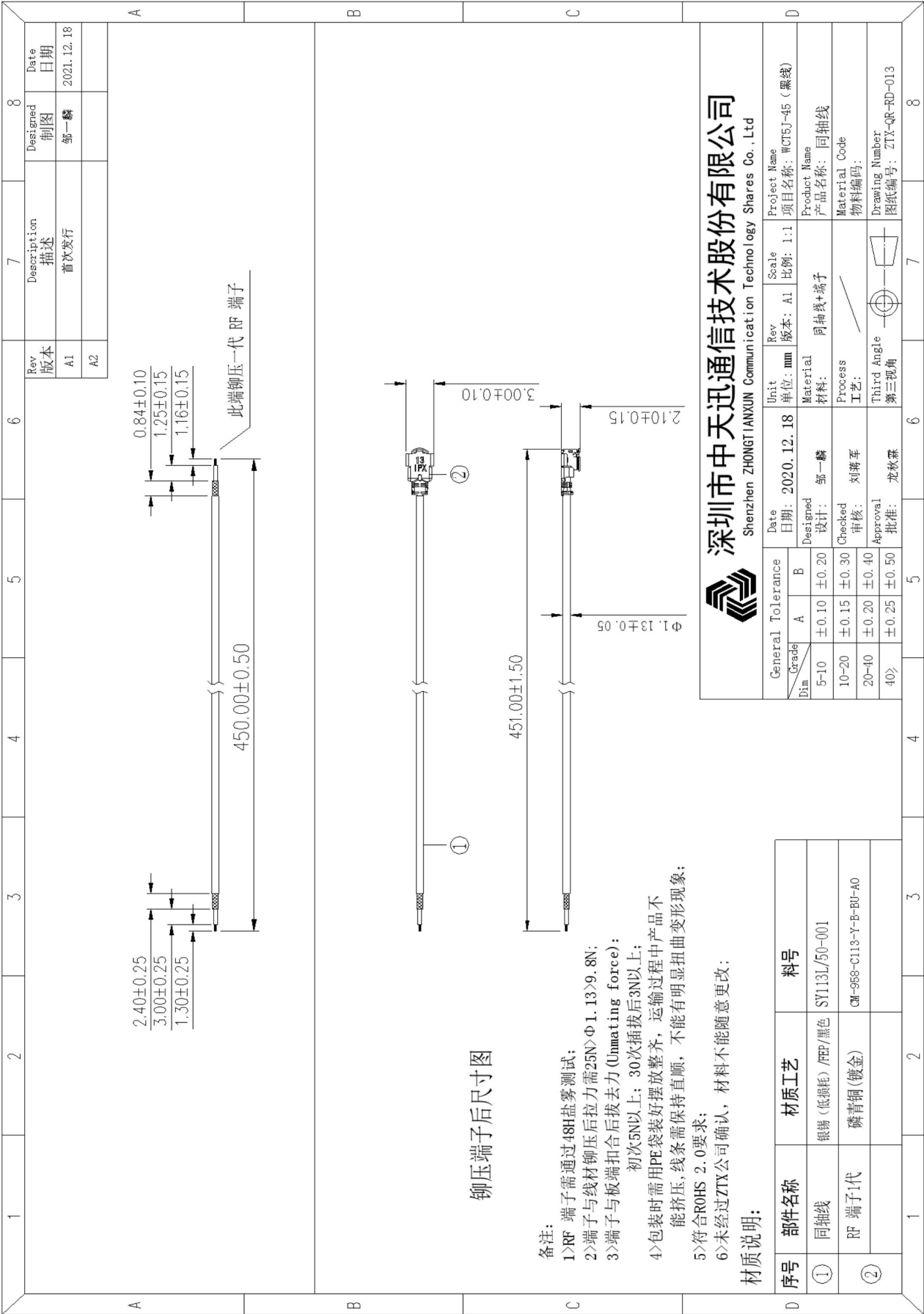
[illegible]

ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (black TCL) WIFI antenna

Rev: R:A0
Page 5 of 10

1-3 Mechanical Configuration (Coaxial line)

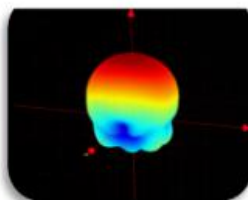
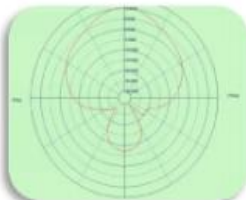
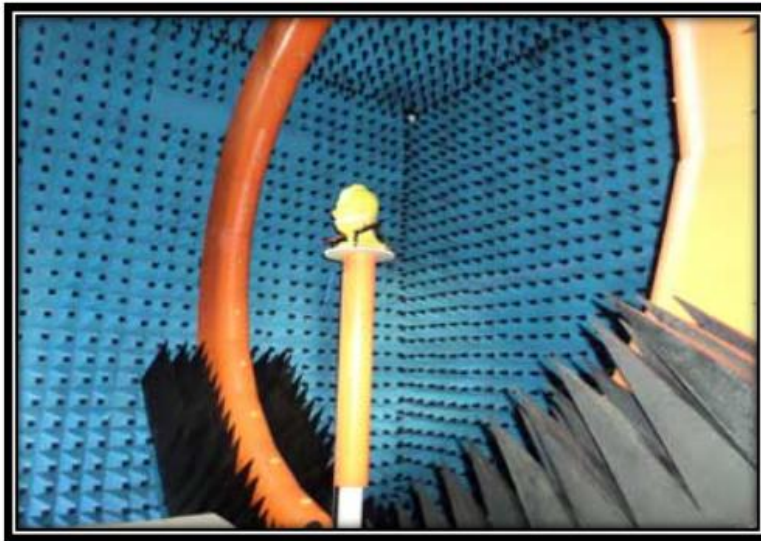


ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (black TCL) WIFI antenna

Rev: R:A0
Page 6 of 10

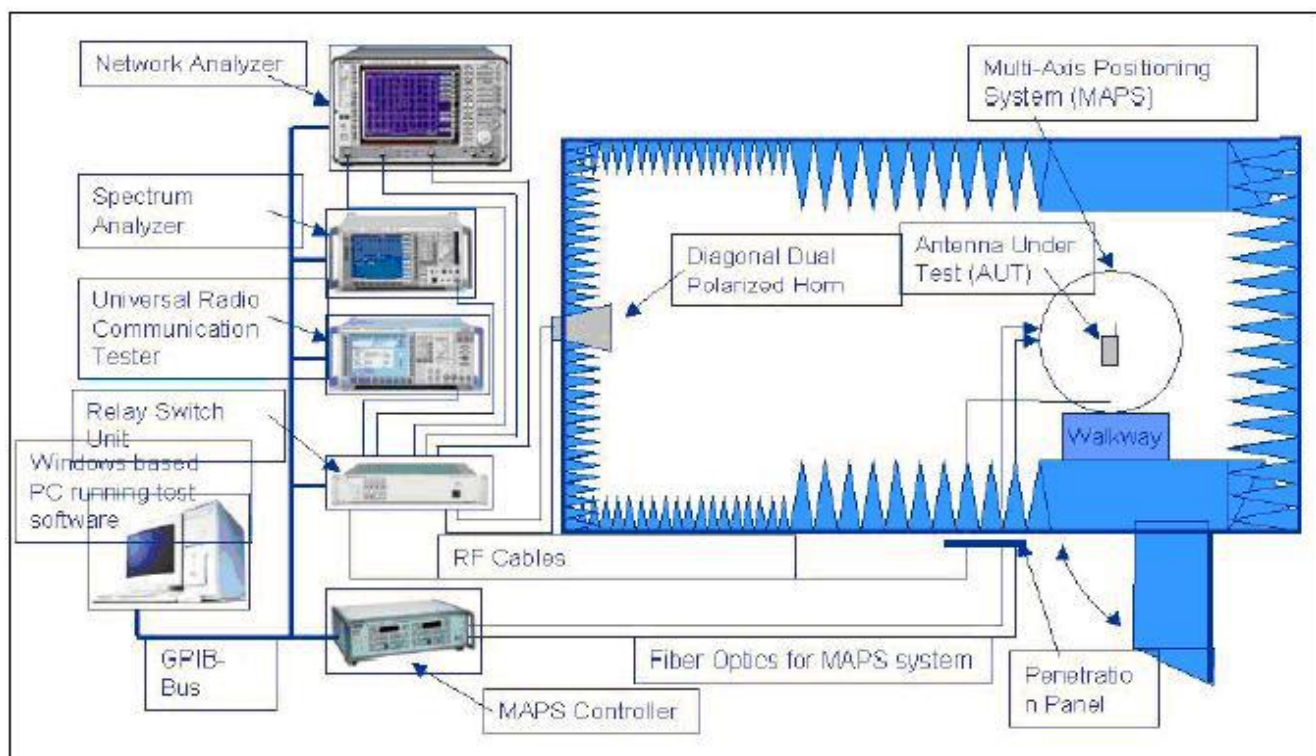
2. Test equipment



Owned 6 microwave dark room, equipped 2 sets world leading France Satimo SG24 OTA certification test systems (one in SHENZHEN, another one in Shanghai), ETS OTA Standard test system, Blue test reverberation test system which is High repeatability, high accuracy and high resolution. It can quickly provide accurate test reports, fully meet the CITA standards.

Testing range:

Support active, passive testing of
GSM/CDMA/WCDMA/TD-
SCDMA/LTE/WIFI/WLAN/WiMax/BT
/GPS/MIMO/UWB within 0.4-6G.



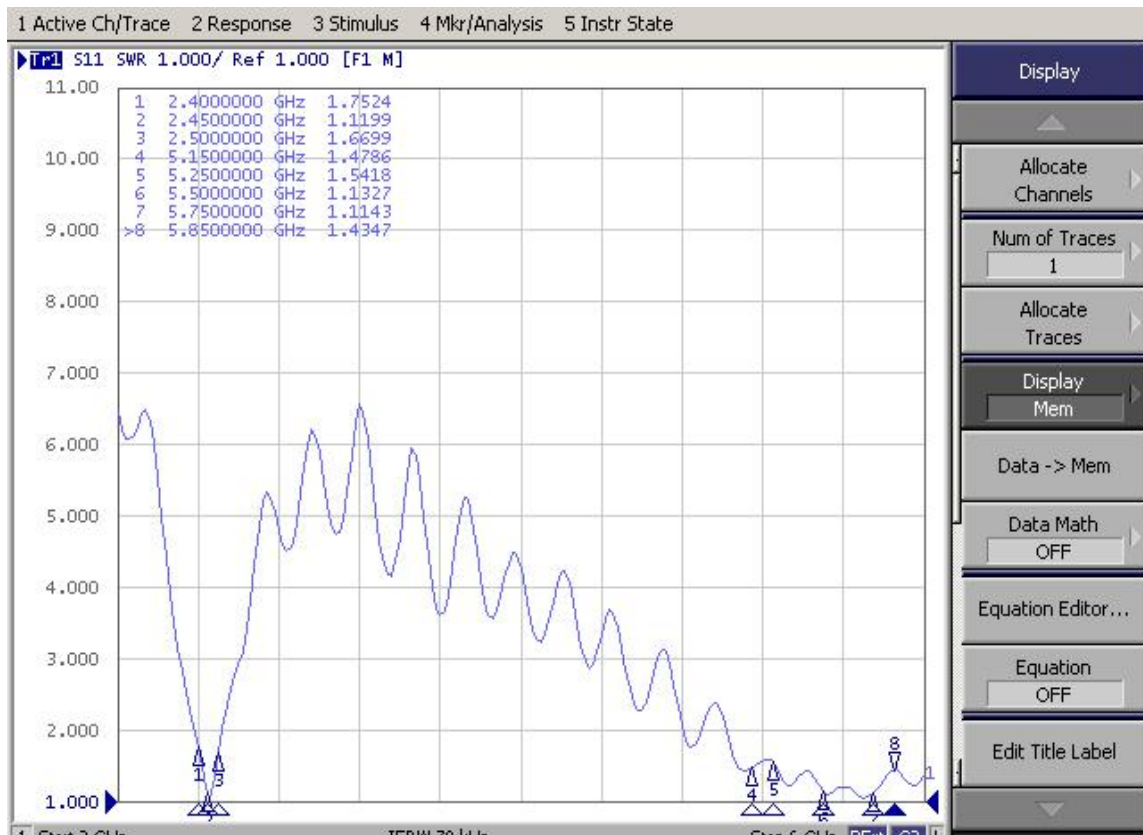
ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (black TCL) WIFI antenna

Rev: R:A0
Page 7 of 10

3.Antenna test data

3-1 VSWR



3-2 Matching circuit

N/A

3-3 No-source test data

Frequency(GHz)	2.45	5.15	5.5	5.85
Line Loss(dB/m)	2.85	4.1	4.2	4.3
Line Loss	1.14dB	1.64dB	1.68dB	1.72dB

Frequency	Peak Gain	Efficiency		Frequency	Peak Gain	Efficiency	
Mhz	dB	%	dB	Mhz	dB	%	dB
2400	2.64	59.06	-3.09	5150	3.66	48.62	-3.6
2410	2.63	59.46	-3.06	5200	3.68	52.3	-3.25
2420	2.63	57.03	-2.92	5250	3.68	52.71	-3.21
2430	2.68	59.02	-2.76	5300	3.49	53.01	-3.19
2440	2.6	59.24	-2.74	5350	3.23	54.02	-3.1
2450	2.51	59.51	-2.72	5400	3.63	51.34	-3.34
2460	2.73	59.28	-2.73	5450	3.61	49.93	-3.02
2470	2.55	58.7	-2.78	5500	3.49	51.53	-2.88

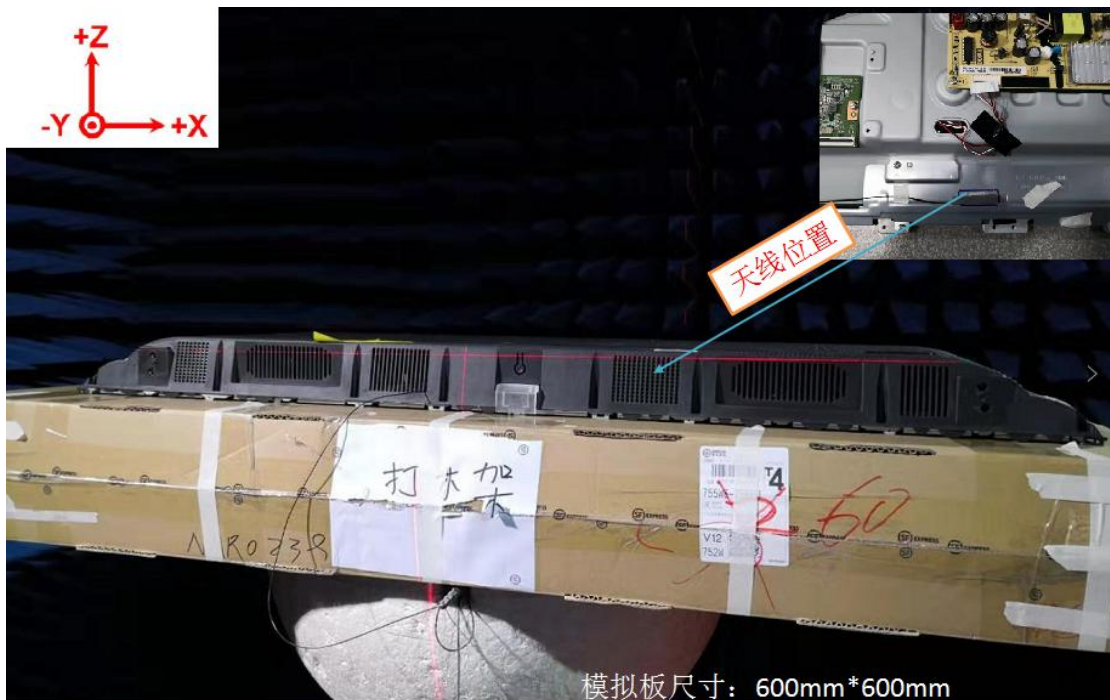
ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (black TCL) WIFI antenna

Rev: R:A0
Page 8 of 10

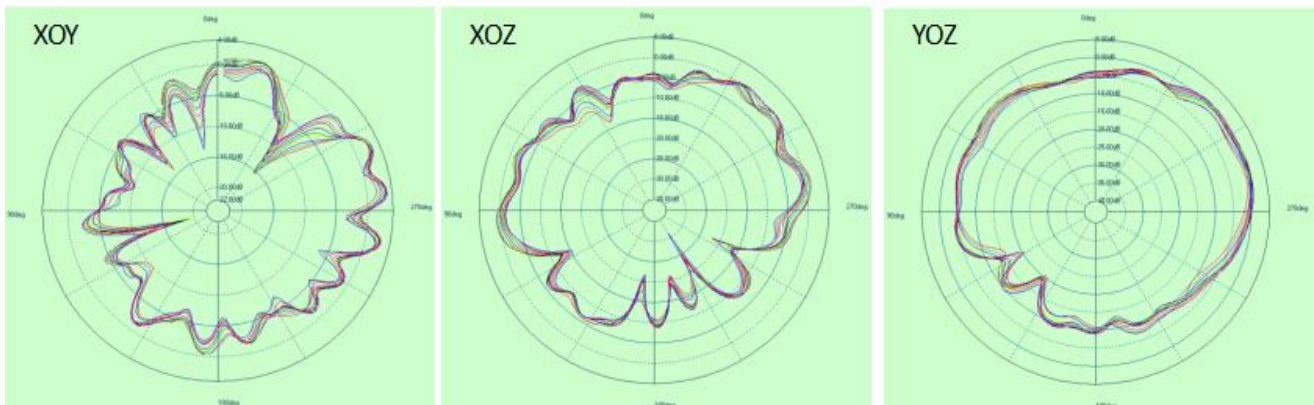
2480	2.55	60.09	-2.67	5550	3.58	54.03	-2.67
2490	2.5	58.15	-2.83	5600	3.77	54.42	-2.64
2500	2.69	57.47	-2.88	5650	3.86	51.99	-2.84
				5700	3.66	48.77	-3.12
				5750	3.72	48.41	-3.15
				5800	3.66	48.21	-3.17
				5850	3.77	50.78	-2.94

3-4 Environment treatment



3-5 Directional drawing of horizontal plane of

2.4G

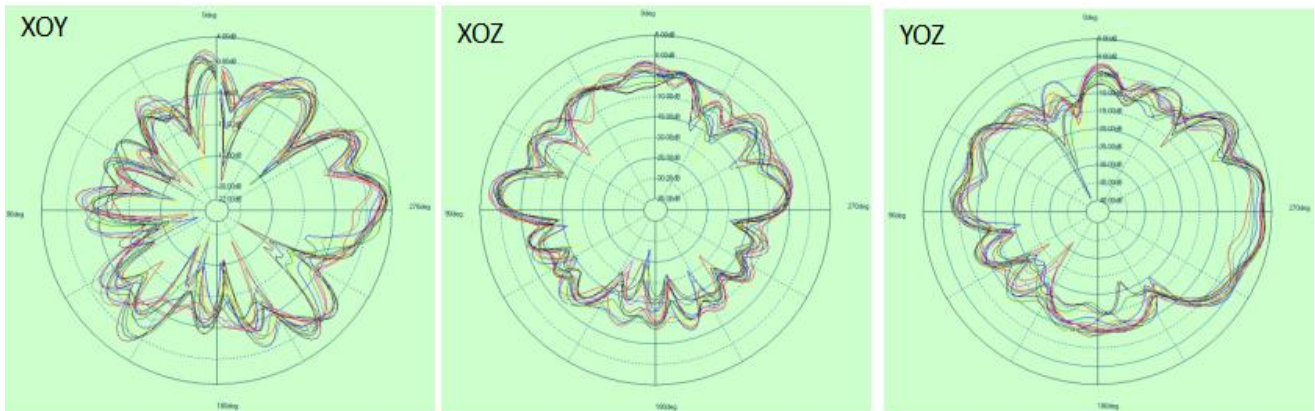


ANTENNA SPECIFICATION

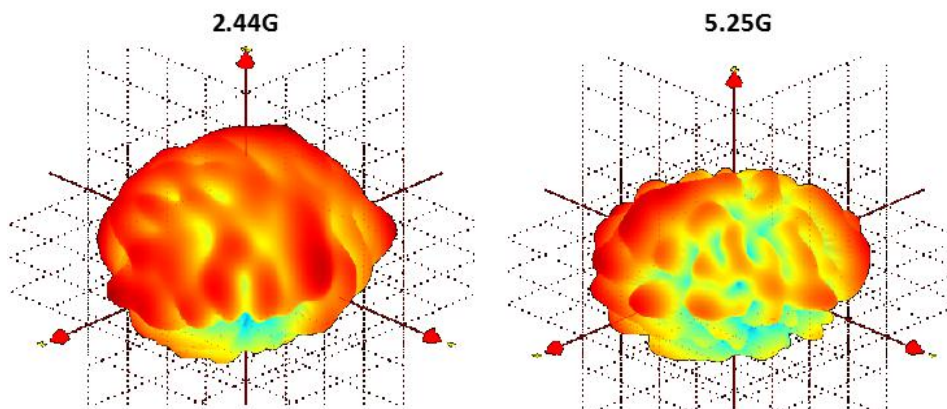
CUS P/N :WCT5J-45 (black TCL) WIFI antenna

Rev: R:A0
Page 9 of 10

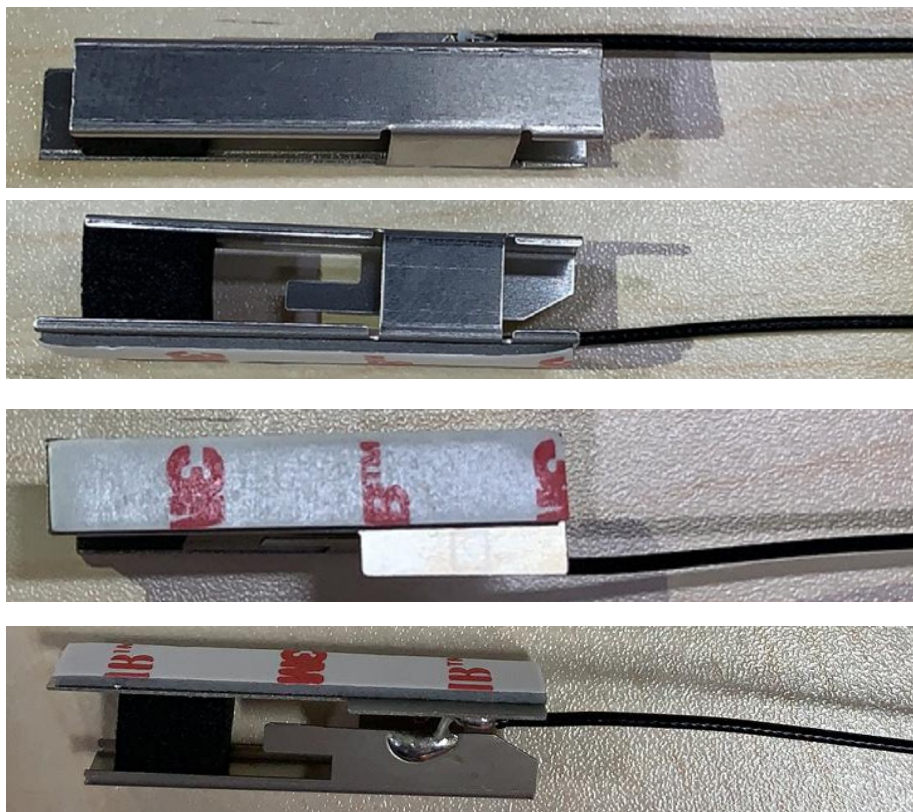
5G



3-6 3D radiation drawing



3-7 antenna photo



ANTENNA SPECIFICATION

CUS P/N :WCT5J-45 (b l a c k TCL) WIFI antenna

Rev: R:A0
Page 10 of 10

4. Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
4-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: $+80 \pm 2^{\circ}\text{C}$ 2.Humidity: $90\sim 95\%\text{RH}$ 3.Time: 48hrs	No material deformation is allowed.
4-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: $-30 \pm 2^{\circ}\text{C}$ 2.Humidity: $0\%\text{RH}$ 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.