

# SPECIFICATION

## SHEET FOR APPROVAL

(Revision: R: A0)

CUSTOMER(客户名称)	高盛达	
CS P/N(客户机种)	WF6E-30(113 黑)	
PART NAME(品名)	WIFI Antenna	L=300mm
FREQUENCY(频率)	2.4G+5G+6GHz	
ZTX NO.(物料编号)	/	
DATE(日期)	2023-05-16	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注):

Sign(客户确认签字盖章): \_\_\_\_\_

Shenzhen ZTX Communication Technology Co., Ltd				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		邹一麟	赵烽	



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# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)

ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0

Editor:

Page 1 of 12

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## Revision history

版本	日期	状态
A0	2023-05-16	初版

# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023

Rev: R:A0

ZTX P/N :WF6E-30(113 黑)

Editor:

Page 2 of 12

---

## Index

		<b>Revision history</b>	<b>1</b>
		<b>Index</b>	<b>2</b>
<b>1</b>		<b>Mechanical Specification</b>	<b>3</b>
	<b>1-1</b>	<b>Mechanical Specification (WIFI 天线)</b>	<b>3</b>
<b>2</b>		<b>Test equipment</b>	<b>4</b>
<b>3</b>		<b>Antenna test data</b>	<b>5</b>
	<b>3-1</b>	<b>VSWR&amp;Return loss plot</b>	<b>5</b>
	<b>3-2</b>	<b>Matching circuit</b>	<b>6</b>
	<b>3-3</b>	<b>No-source test data</b>	<b>6</b>
	<b>3-4</b>	<b>2D/3D Radiation Pattern Results</b>	<b>6~8</b>
	<b>3-5</b>	<b>Environment treatment</b>	<b>8</b>
<b>4</b>		<b>Environment Characteristic</b>	<b>9</b>
<b>5</b>		<b>Notes for antenna use</b>	<b>9</b>
<b>6</b>		<b>Raw Material Detection List</b>	<b>10</b>
<b>7</b>		<b>The packing way</b>	<b>11</b>

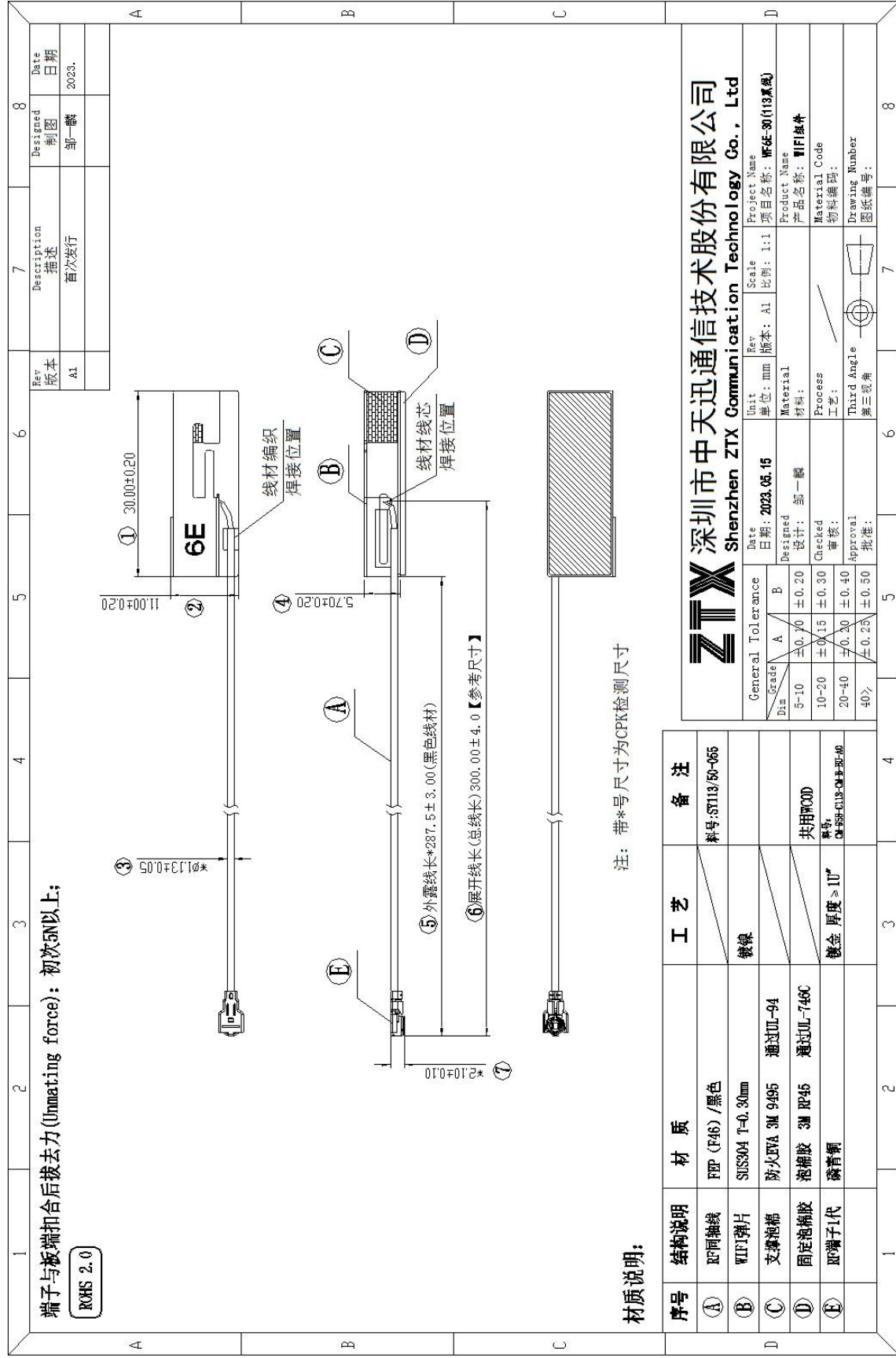
# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 3 of 12

## 1. Mechanical Specification

### 1-1 Mechanical Configuration(WIFI 天线)



材质说明:

序号	结构说明	材质	工艺	备注
①	RF同轴线	FRP (F46) / 黑色		料号:ST113/50-065
②	WiFi弹片	SUS304 T=0.30mm	镀锌	
③	支撑泡棉	防火EVA 3M 9495	通过UL-94	
④	固定泡棉胶	泡棉胶 3M RP45	通过UL-746C	共用PCOD
⑤	RF端子1代	磷青铜	镀金 厚度 ≥ 1μ	料号: CM-FSR-CL13-CH#RF-40

**ZTX** 深圳市中天迅通信科技股份有限公司  
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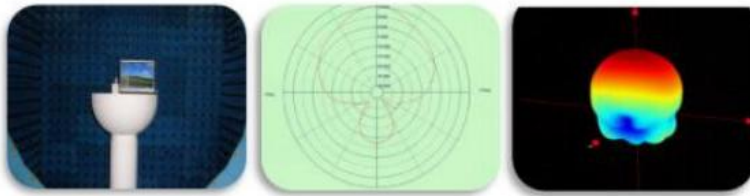
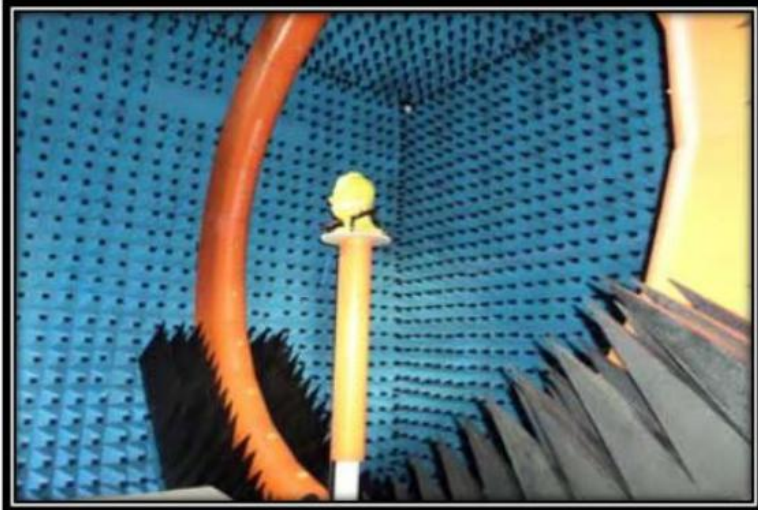
General Tolerance	Unit	Rev	Scale	Project Name
±0.20	mm	A1	1:1	项目名称: WF6E-30(113黑线)
±0.15				产品名称: WiFi贴片
±0.10				Material Code
±0.05				物料编号:
±0.20				Third Angle
±0.10				第三视角
±0.05				批注:
±0.02				图纸编号:

# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 4 of 12

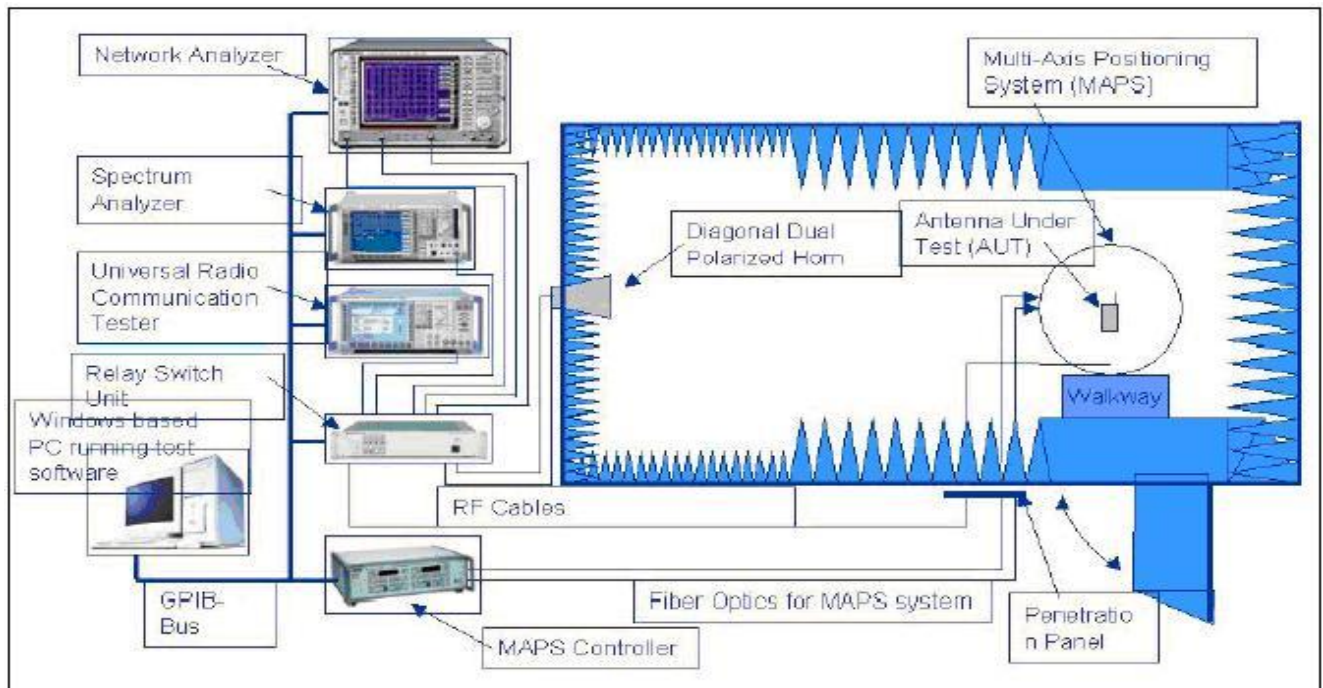
## 2. Test equipment



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 CTIA 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 :WF6E-30(113 黑)

ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023

Editor:

Rev: R:A0

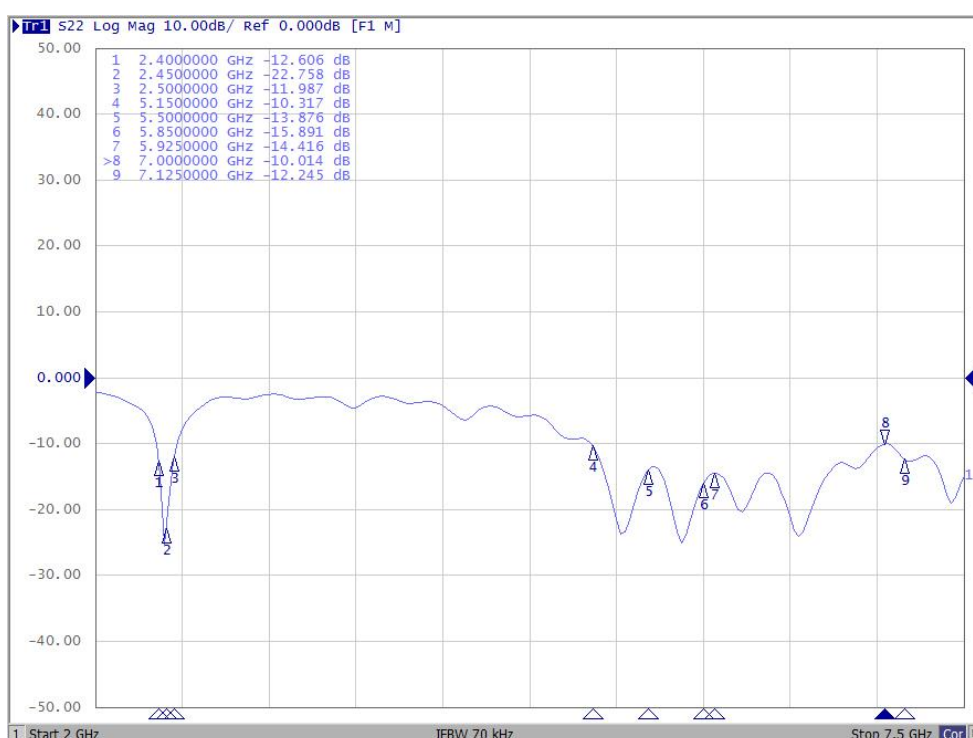
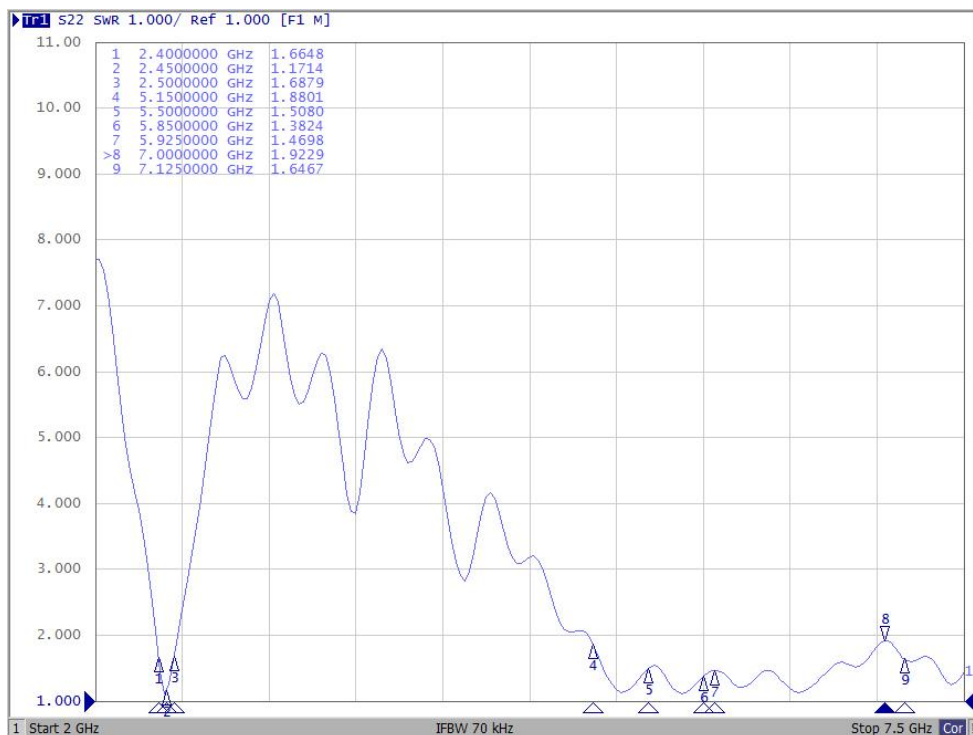
Page 5 of 12

## 3. Antenna test data

### 3-1 VSWR&Return loss plot

Line loss table

Frequency(GHz)	2.40	2.45	2.50	5.15	5.50	5.85	5.925	6.525	7.125
Line Loss(dB) (300mm)	0.95	0.98	0.99	1.62	1.54	1.61	1.76	1.72	1.90



# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)

ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023

Editor:

Rev: R:A0

Page 6 of 12

## 3-2 Matching circuit

N/A

## 3-3 No-source test data

Frequency Mhz	Peak Gain		Efficiency	
	dB	%	dB	%
2400	3.77	58.61	-2.32	
2410	3.71	60.29	-2.20	
2420	3.68	61.88	-2.08	
2430	3.86	62.80	-2.02	
2440	4.00	63.86	-1.95	
2450	4.02	63.08	-2.00	
2460	4.09	63.63	-1.96	
2470	3.93	62.39	-2.05	
2480	3.74	59.74	-2.24	
2490	3.69	58.43	-2.33	
2500	3.55	55.68	-2.54	
4800	2.63	23.89	-6.22	
4850	2.82	26.30	-5.80	
4900	2.91	27.63	-5.59	
4950	3.02	28.35	-5.47	
5000	3.16	32.73	-4.85	
5050	3.15	33.61	-4.74	
5100	3.48	35.63	-4.48	

Frequency Mhz	Peak Gain		Efficiency	
	dB	%	dB	%
5150	3.65	42.47	-3.72	
5200	3.04	40.49	-3.93	
5250	3.01	42.90	-3.68	
5300	3.45	48.38	-3.15	
5350	3.63	55.52	-2.56	
5400	3.76	54.46	-2.64	
5450	3.80	53.58	-2.71	
5500	3.91	53.55	-2.71	
5550	3.79	52.04	-2.84	
5600	4.10	53.69	-2.70	
5650	3.84	56.49	-2.48	
5700	3.94	56.57	-2.47	
5750	4.36	60.63	-2.17	
5800	5.10	63.14	-2.00	
5850	5.17	62.74	-2.02	
5925	4.32	53.69	-2.70	
5975	4.53	49.32	-3.07	
6025	5.49	54.78	-2.61	
6075	5.62	52.33	-2.81	
6125	5.94	54.43	-2.64	

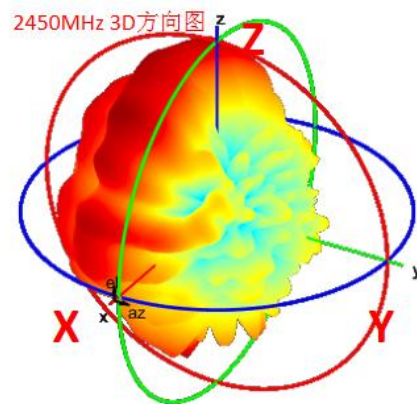
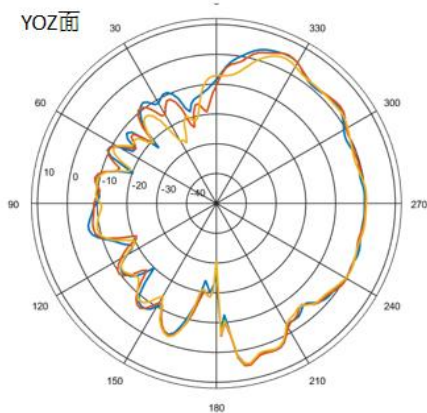
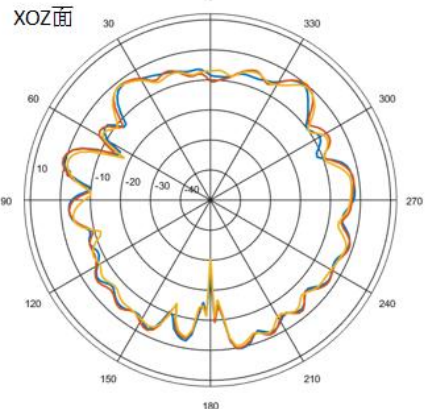
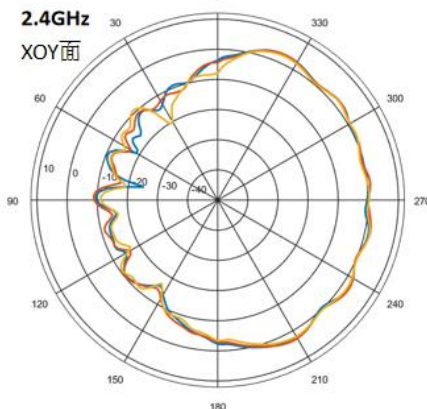
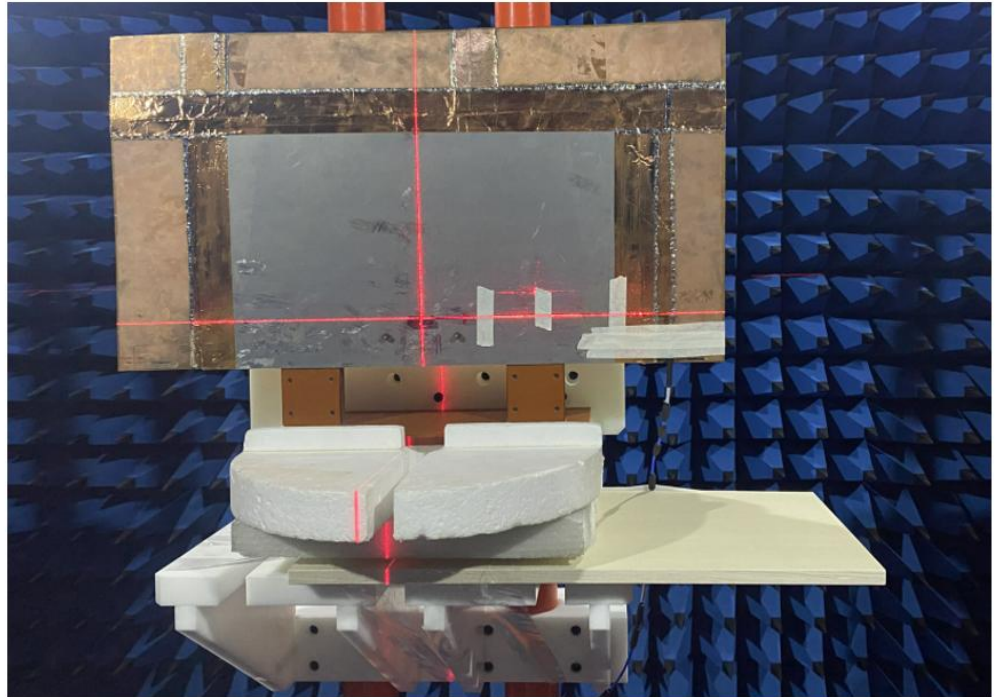
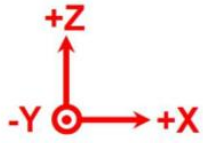
Frequency Mhz	Peak Gain		Efficiency	
	dB	%	dB	%
6175	5.83	55.00	-2.60	
6225	6.00	52.28	-2.82	
6275	5.99	54.07	-2.67	
6325	5.93	56.31	-2.49	
6375	5.58	55.43	-2.56	
6425	5.00	55.50	-2.56	
6475	4.77	55.62	-2.55	
6525	4.74	53.63	-2.71	
6575	4.90	55.96	-2.52	
6625	5.22	57.89	-2.37	
6675	5.44	55.87	-2.53	
6725	5.55	57.09	-2.43	
6775	4.96	52.88	-2.77	
6825	4.18	48.68	-3.13	
6875	3.77	49.00	-3.10	
6925	3.72	48.20	-3.17	
6975	4.25	51.15	-2.91	
7025	3.47	46.97	-3.28	
7075	4.20	49.39	-3.06	
7125	4.51	50.13	-3.00	

## 3-4 2D/3D Radiation Pattern Results

# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 7 of 12

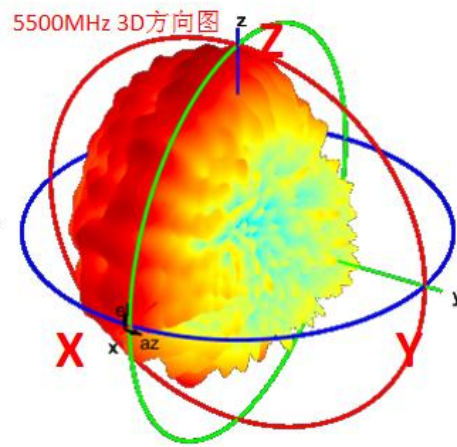
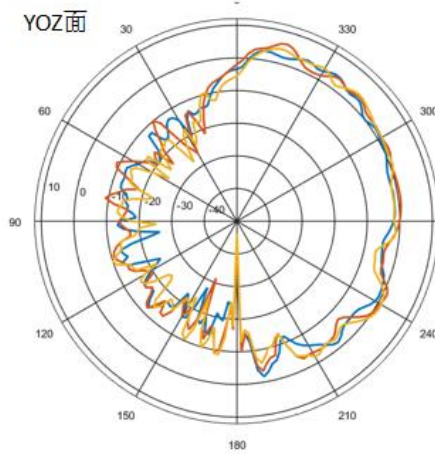
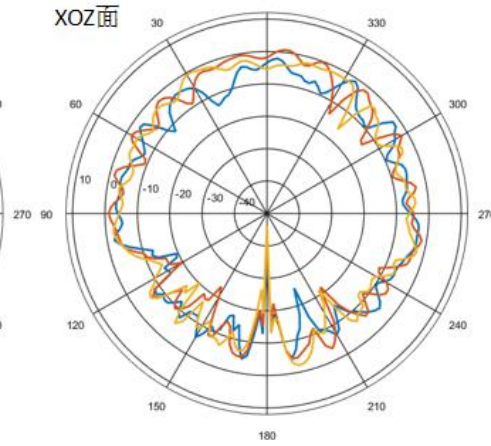
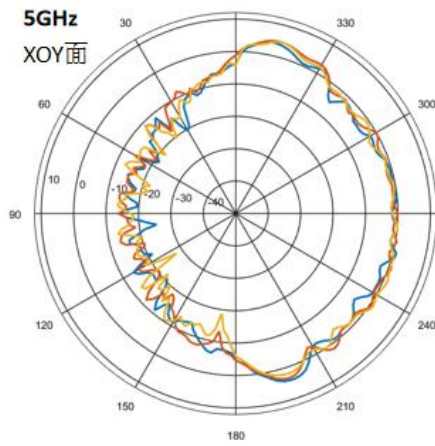




# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

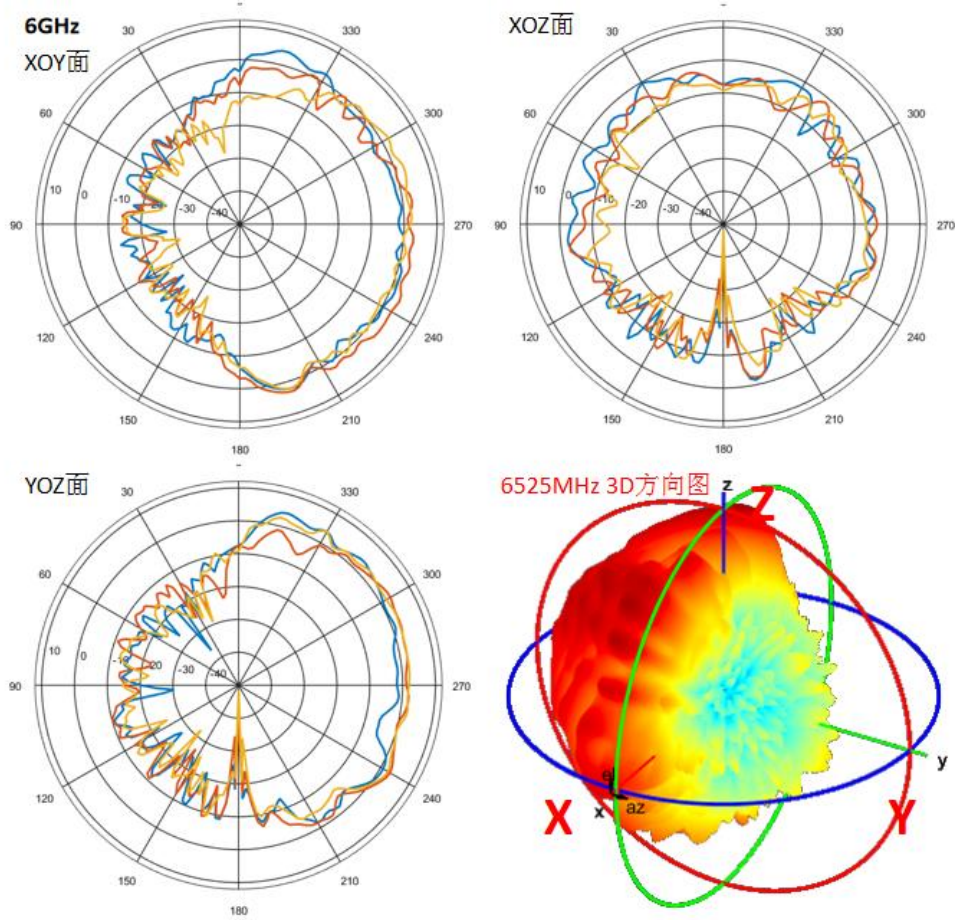
ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 8 of 12



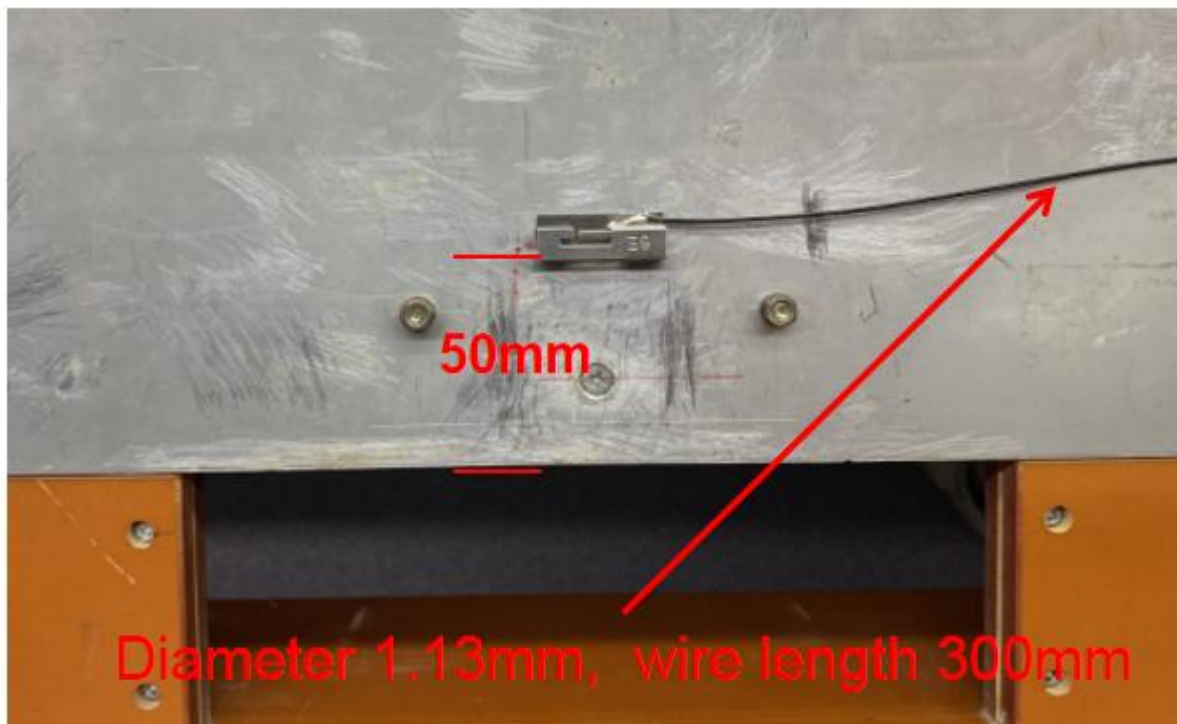
# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 9 of 12



## 3-6 Environment treatment



# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)

ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0

Editor:

Page 10 of 12

## 4. Environment Characteristic

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

## 5. Notes for antenna use

No	Type	Technical requirements
1	Antenna placement and storage environment	°C 4 to 38 °C and 0-95% relative humidity, 22 °C and 50% relative humidity storage was optimal.
2	Antenna fixed back glue use environment	The recommended temperature is between 21 °C and 38 °C; it is recommended not to use tape on surfaces temperatures below 10 °C.
3	Antenna can paste the surface material	Sheet metal surface, plastic surface, glass surface (pay attention to the paste surface can not have oil pollution, dust, debris, etc.).
4	Note for antenna assembly and paste	Tear off the detached paper and stick to the specified position and press it tight;

## 6. Raw Material Detection List(待补充)

# ANTENNA SPECIFICATION

CUS P/N :WF6E-30(113 黑)  
ZTX P/N :WF6E-30(113 黑)

ApplicationDate:May,16,2023 Rev: R:A0  
Editor: Page 11 of 12

## 7.The packing way

### 包装规范&作业指导书

客户名称	高盛达	产品型号	WF6E-30(113 黑)		产品名称	WIFI 天线组件
纸箱规格	K=K(牛皮纸) 46CM*32.5CM*42CM		物料编号	1.12.000004	用量	1PCS
纸箱规格	K3K 38*26*9CM		物料编号	1.12.000044	用量	5PCS
PE 封口袋	360*280*0.10mm		物料编号	1.12.000026	用量	10PCS
PE 开口袋	240*160*0.05mm		物料编号	1.12.000030	用量	90PCS
纸板规格	/		其他物料	标签/橡皮筋/胶带		
每箱数量	3600PCS		内箱数量	720PCS		
注意事项	1.客户物料编码和数量是否正确，标签必须用机打印的 2.内标签、外标签、出货报告、送货单内容需一致。 3.如是试产物料或有变更均需贴相应标识，尾数箱需贴尾数标识，内附检验报告等					
包装简图： 每 40PCS 装入 PE 开口袋→贴标签→每 9 袋 (360PCS) 装入 PE 封口袋→贴标签→装箱 (内箱) →贴标签→装箱 (外箱) →贴标签→封箱						
1.取 (40pcs) 产品，线端采用无卤橡皮筋包扎，装袋，贴物料标签；			2.将包装好的产品装入大袋 (360pcs)，贴物料标签；			
NO	变 更 内 容	变更人及日期				
标签简图：		外箱简图：  <p>(注意外箱标签贴纸的样板)</p>				

制表：韦泓佳

审核：向恒锋

核准：党非非