

SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A2)

	CUSTOMER(客户名称)	Newland	
	CS P/N(客户机种)	P180	
	PART NAME(品名)	WIFI	
	FREQUENCY(频率)	2400-2500MHz, 5150-5850MHz。	
	ZTX NO.(物料编号)	E.03.00989	
	DATE(日期)	2024-1-4	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED



福州中天迅通信技术有限公司
ZHONGTIAN XUN Communication Technology Co.,Ltd.

ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 2 of 14

Revision history

版本 version	日期 date	状态 status
A1	2023-12-25	初版。 First issue.
A2	2024-1-3	FPC 外形更新。 FPC form factor update



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 3 of 14

Index

		<i>Revision history</i>	
1.		<i>Test equipment</i>	4
2.		<i>Antenna test data</i>	5~11
	2-1	<i>VSWR</i>	5
	2-2	<i>Antenna passive test</i>	6
	2-3	<i>3D radiation drawing</i>	7
	2-4	<i>Active test data</i>	8~9
	2-5	<i>Matching circuit</i>	10
	2-6	<i>Environment treatment</i>	11
3.		<i>Mechanical Specification</i>	12
4.		<i>Size report</i>	13
5.		<i>Salt-Spray test</i>	13
6.		<i>Environment Characteristic</i>	13
7.		<i>The packing way</i>	14



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

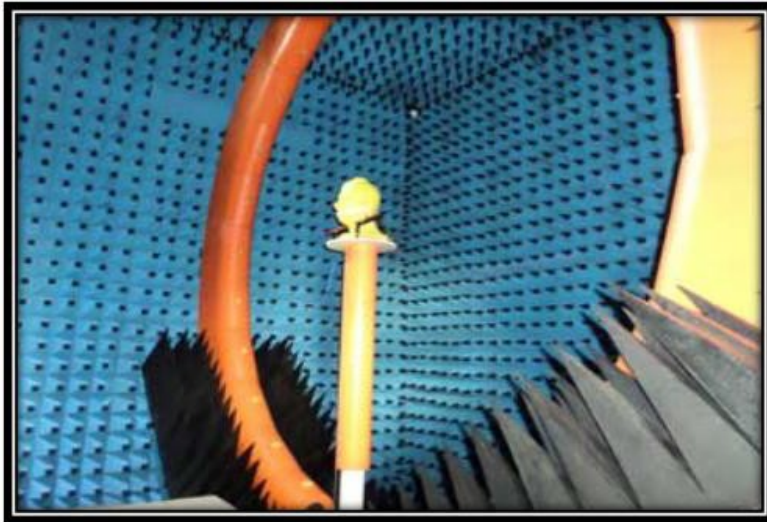
Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 4 of 14

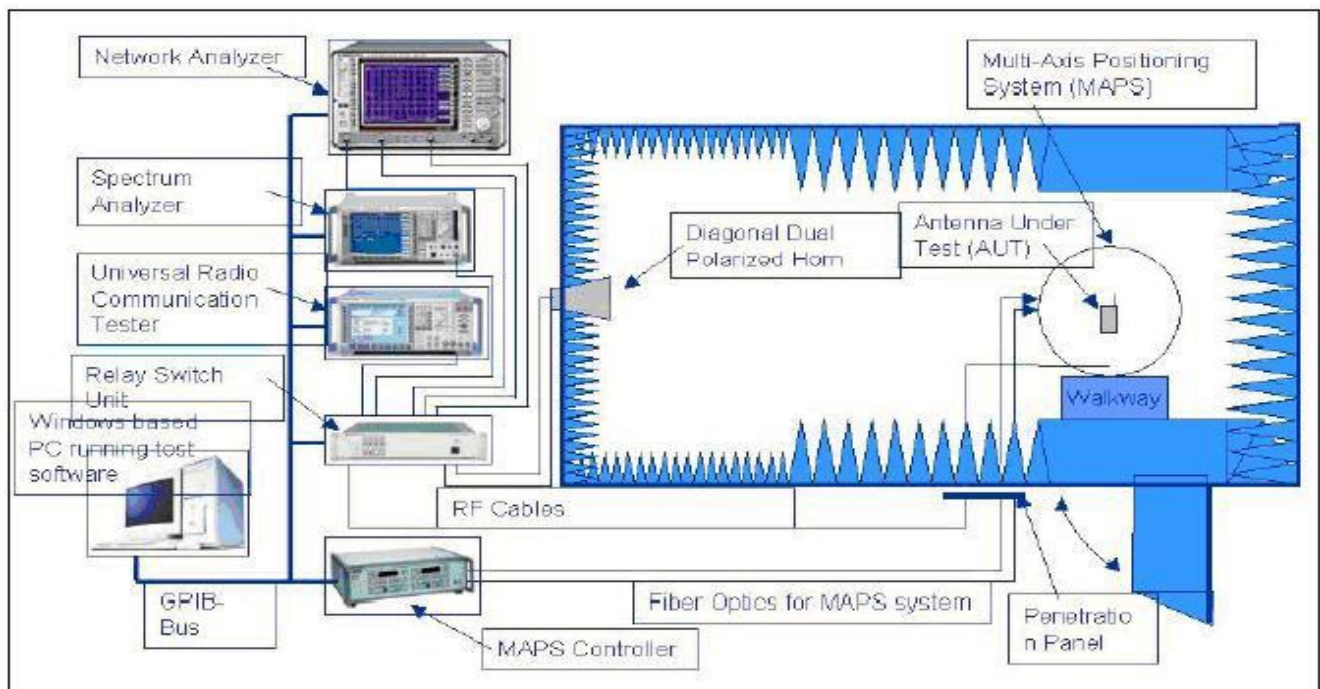
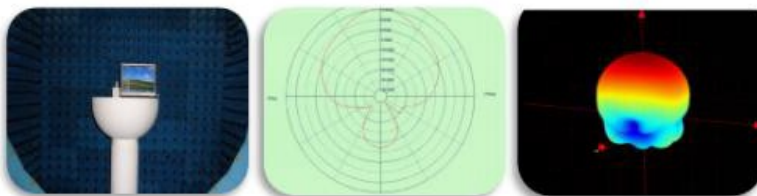
1. Test equipment



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 : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

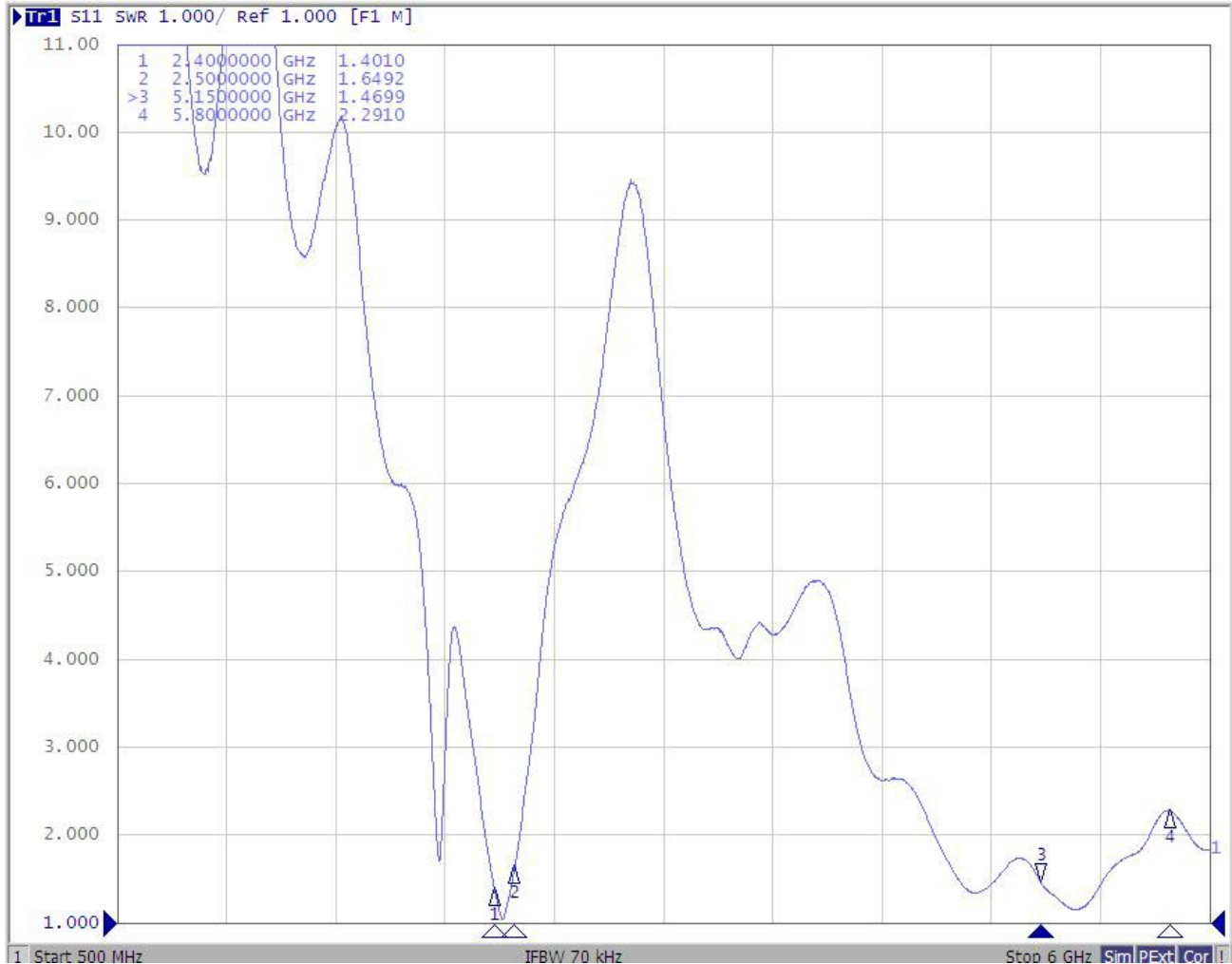
ZTX P/N : P180 WIFI

Editor:

Page 5 of 14

2. Antenna test data

2-1 VSWR



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 6 of 14

2-2 Antenna passive test

chNo	Freq (MHz)	Gain (dBi)	Efficiency (%)	chNo	Freq (MHz)	Gain (dBi)	Efficiency (%)
1	2400	0.915206	37.23094	14	5250	0.264011	38.92971
2	2410	0.884162	39.8482	15	5300	0.306463	39.37506
3	2420	1.027947	43.13168	16	5350	0.208407	37.97963
4	2430	0.814054	43.88085	17	5400	1.597212	43.34311
5	2440	0.420835	43.36142	18	5450	1.545347	37.62169
6	2450	0.299824	45.5828	19	5500	1.061728	37.13668
7	2460	0.12307	46.10727	20	5550	1.932133	39.46462
8	2470	-0.01128	46.89955	21	5600	1.693994	34.64707
9	2480	-0.21037	45.4388	22	5650	1.010298	35.95622
10	2490	-0.16444	44.86651	23	5700	0.247231	36.69941
11	2500	-0.08576	45.55115	24	5750	0.166704	36.20161
12	5150	0.341272	36.67021	25	5800	0.129381	36.97768
13	5200	0.160192	35.94942	26	5850	0.288588	41.13686



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

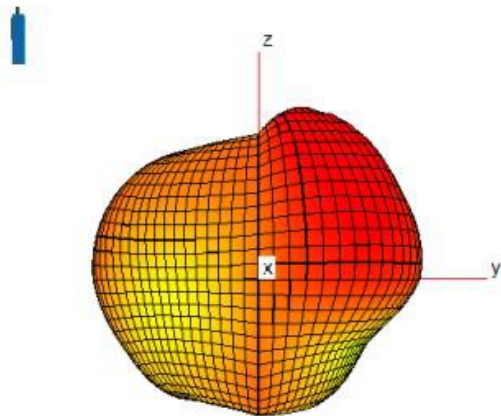
Rev: R:A2

ZTX P/N : P180 WIFI

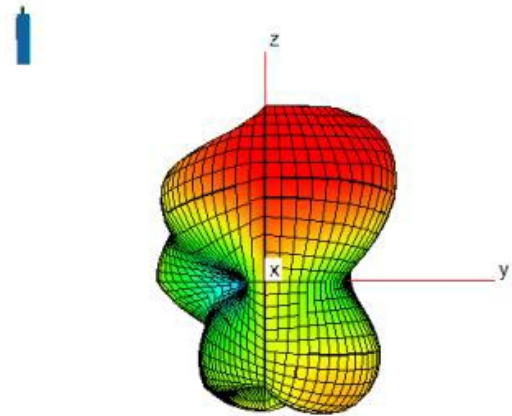
Editor:

Page 7 of 14

2-3 3D radiation drawing



2450MHz



5500MHz



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 8 of 14

2-4 Active test data

无铅板 Aluminum-free plate

频段 Frequency	参数\信道 Parameter/channel	1	7	13
11G	TRP (dBm)	17.26	16.47	14.97
	TIS (dBm)	-73.67	-73.54	-73.76
频段 Frequency	参数\信道 Parameter/channel	36	64	165
11A	TRP (dBm)	13.36	11.94	11.61
	TIS (dBm)	-73.67	-72.88	-71.05



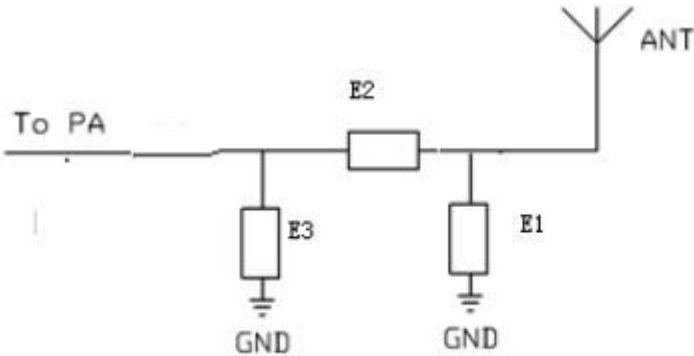
ANTENNA SPECIFICATION

加铝板 Aluminized plate

频段 Frequency	参数\信道 Parameter/channel	1	7	13
11G	TRP (dBm)	13.87	15.20	14.65
	TIS (dBm)	-70.15	-71.13	-72.11
频段 Frequency	参数\信道 Parameter/channel	36	64	165
11A	TRP (dBm)	11.17	10.23	10.18
	TIS (dBm)	-71.25	-70.24	-69.75

ANTENNA SPECIFICATION

2-5 Matching circuit



匹配说明 Matching specification	
E1	NC
E2	1.8nH
E3	0.5pF



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 11 of 14

2-6 Environment treatment



ANTENNA SPECIFICATION

CUS P/N : P180

ApplicationDate:Jan,4,2024

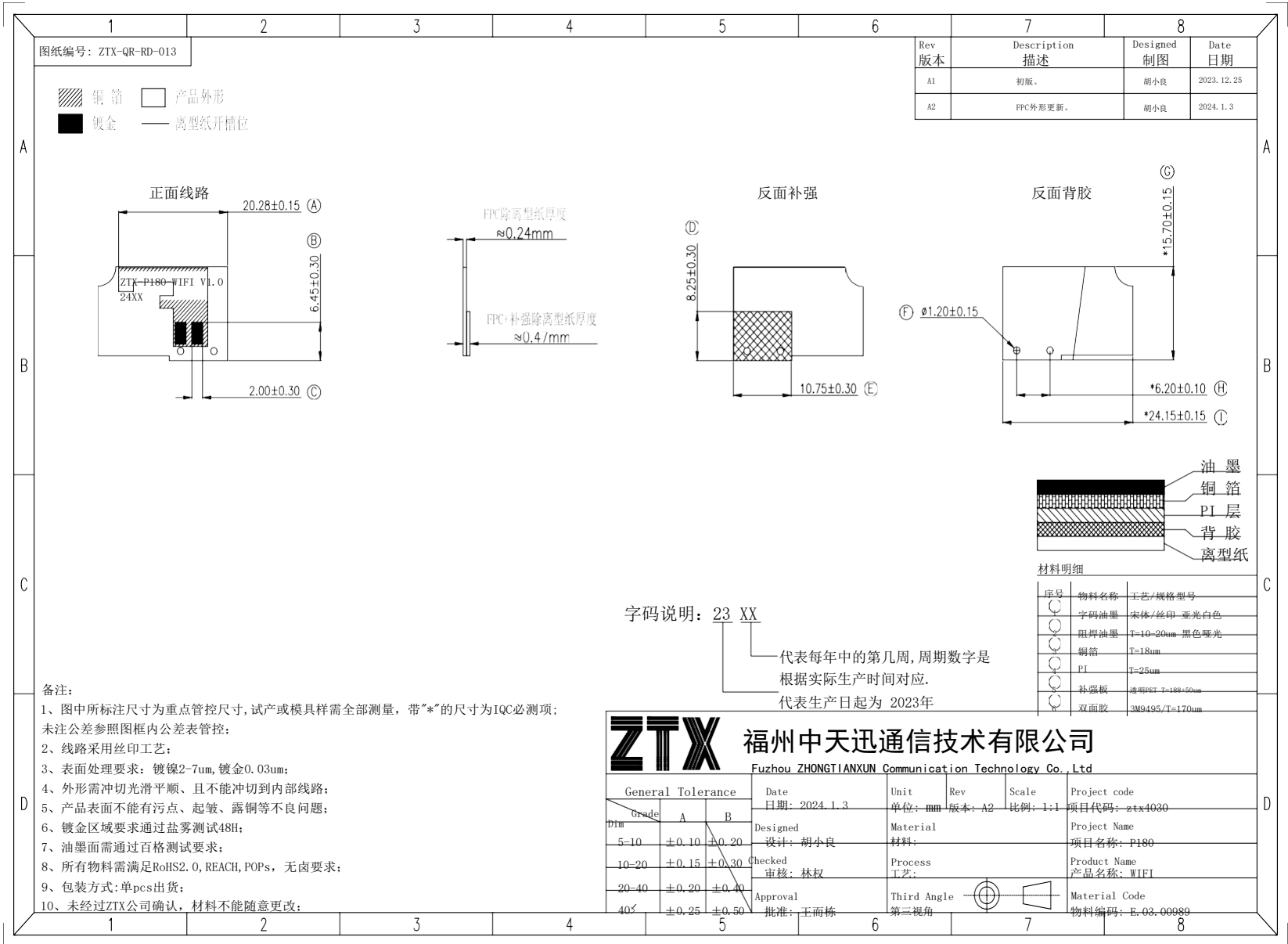
Rev: R:A2

WiFi

Editor:

Page 12 of 14

3. Mechanical Specification

福州中天迅通信技术有限公司
ZHONGTIAN XUN Communication Technology Co., Ltd.

ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 13 of 14

4.Size report

5.Salt-Spray test

6.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
4-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: $+70 \pm 2^{\circ}\text{C}$ 2.Humidity: 90~95%RH 3.Time: 48hrs	No material deformation is allowed.
4-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: $-30 \pm 2^{\circ}\text{C}$ 2.Humidity: 0%RH 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.



ANTENNA SPECIFICATION

CUS P/N : P180 WIFI

ApplicationDate:Jan,4,2024

Rev: R:A2

ZTX P/N : P180 WIFI

Editor:

Page 14 of 14

7. The packing way

[illegible]