

SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A1)

	CUSTOMER(客户名称)	利利普	
	CS P/N(客户机种)	AN-UW	
	PART NAME(品名)	MAIN	
	FREQUENCY(频率)	700-960MHz, 1710-2690MHz。	
	ZTX NO.(物料编号)	F.00000690	
	DATE(日期)	2024-8-28	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注):

Sign(客户确认签字盖章):

ZHONG TIAN XUN TECHNOLOGY CO., LTD				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		胡小良	王而栋	



福州中天迅通信技术有限公司

ZHONGTIAN XUN Communication Technology Co.,Ltd.

总部地址:深圳市宝安区石岩街道石龙大道 34 号 (原腾达工业园) 邮编: 518000

福州地址: 福建省福州市仓山区金山工业区桔园洲园 45 号楼 2 层 SC02 单元 邮编: 350000

电话: 0591-83582969

传真: 0591-83583660

<http://www.chinaztx.com>

ANTENNA SPECIFICATION

Revision history

版本	日期	状态
A1	2024-8-28	初版。



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 3 of 30

Index

		<i>Revision history</i>	
1.		<i>Test equipment</i>	4
2.		<i>Antenna test data</i>	5~21
	2-1	<i>VSWR</i>	5
	2-2	<i>Antenna passive test</i>	6~9
	2-3	<i>3D radiation drawing</i>	10
	2-4	<i>Active test data</i>	11~24
	2-5	<i>Matching circuit</i>	25
	2-6	<i>Environment treatment</i>	26~27
3.		<i>Mechanical Specification</i>	28
4.		<i>Size report</i>	29
5.		<i>Salt-Spray test</i>	29
6.		<i>Environment Characteristic</i>	29
7.		<i>The packing way</i>	30



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

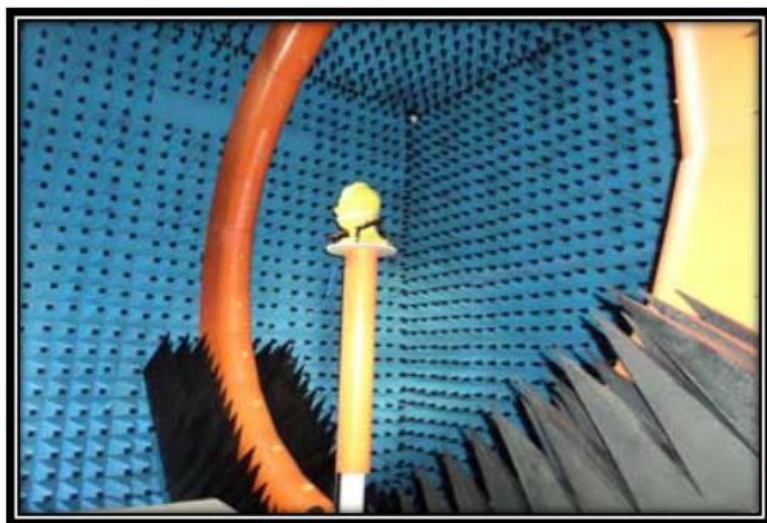
Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 4 of 30

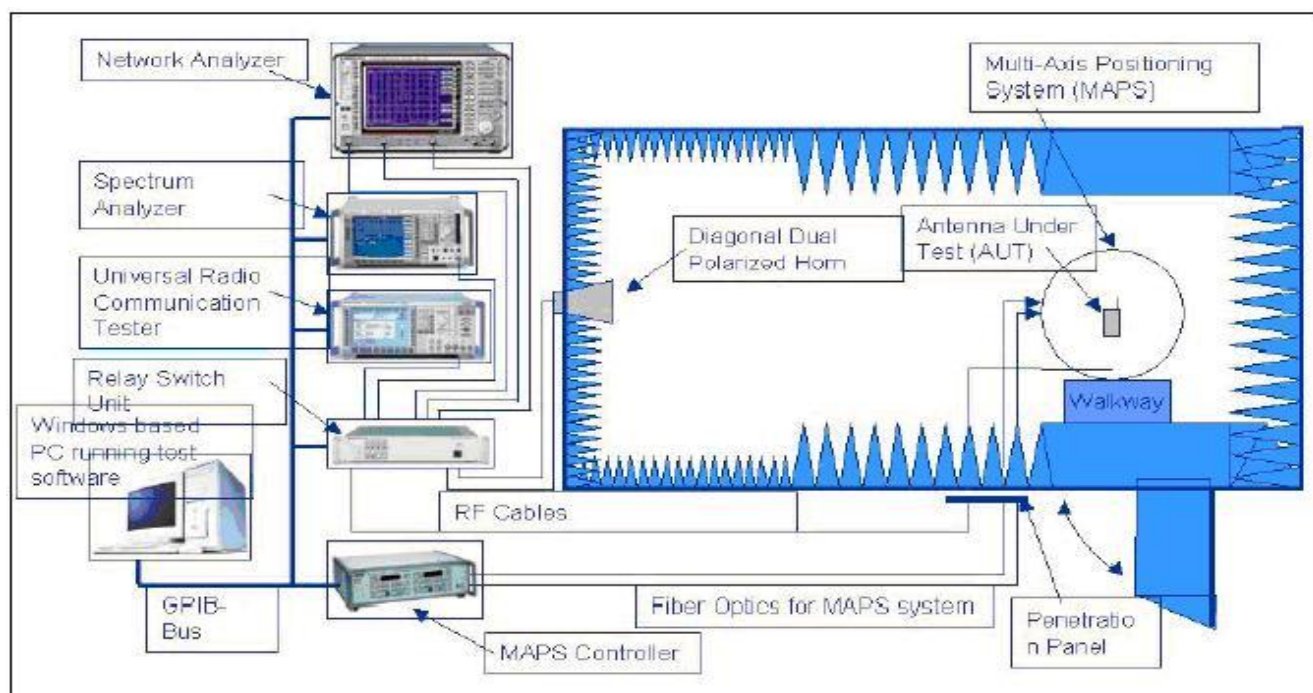
1. Test equipment



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 : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

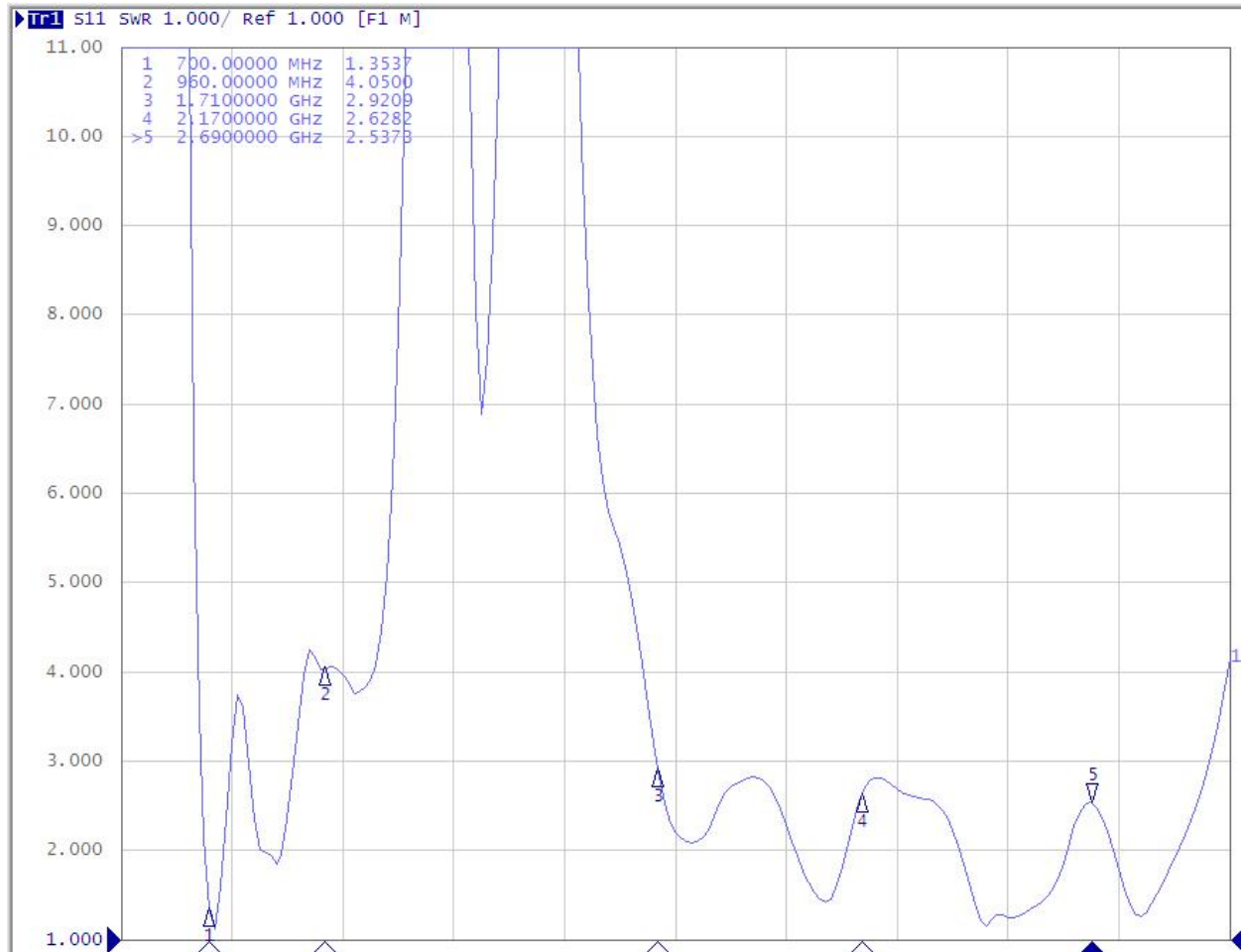
ZTX P/N : AN-UW MAIN

Editor:

Page 5 of 30

2. Antenna test data

2-1 VSWR



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 6 of 30

2-2 Antenna passive test

chNo	Freq	Gain	Efficiency_Pcent
1	700	-0.15512	48.04008
2	710	0.228429	51.34036
3	720	0.006446	47.53065
4	730	-0.4603	40.62887
5	740	-0.64311	36.69457
6	750	-1.18883	31.16822
7	760	-2.28736	24.40508
8	770	-2.6452	23.72099
9	780	-3.1564	24.14859
10	790	-2.14588	26.05938
11	800	-0.64607	32.44837
12	810	-0.36259	37.56957
13	820	-0.27747	42.004
14	830	-0.74555	39.64469
15	840	-1.01513	34.94222
16	850	-0.81816	31.35478



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 7 of 30

17	860	-0.18775	31.29308
18	870	0.173298	32.52515
19	880	-0.02614	34.75153
20	890	0.036604	37.97784
21	900	0.315214	39.55716
22	910	-0.22323	34.39653
23	920	-0.37156	32.29839
24	930	-0.11469	35.24505
25	940	-0.45404	38.03003
26	950	-0.41506	36.1026
27	960	-1.08639	30.02766
28	1710	0.616181	35.79789
29	1730	0.766192	36.39931
30	1750	0.608299	39.11685
31	1770	0.468967	42.88603
32	1790	1.135242	44.91906
33	1810	1.545001	47.44137
34	1830	1.356552	48.00681



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 8 of 30

35	1850	0.137524	41.02721
36	1870	0.303692	38.91627
37	1890	0.718014	40.85342
38	1910	0.382201	38.71084
39	1930	0.448066	39.32502
40	1950	0.181839	41.8814
41	1970	0.354039	44.61369
42	1990	1.334213	47.13609
43	2010	1.413007	48.43954
44	2030	2.058159	54.25723
45	2050	1.851947	58.28722
46	2070	1.465559	58.87815
47	2090	0.796019	54.65118
48	2110	0.693417	48.6694
49	2130	0.308036	42.30564
50	2150	0.400651	40.75778
51	2170	0.381181	42.46289
52	2300	0.717843	42.09327



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 9 of 30

53	2320	1.237806	42.39365
54	2340	1.621197	44.0654
55	2360	2.240588	51.12793
56	2380	1.872978	53.14527
57	2400	1.726327	53.78178
58	2500	0.8094	39.82682
59	2520	0.209785	37.81945
60	2540	1.010652	39.61894
61	2560	1.553621	43.95253
62	2580	1.807496	44.88153
63	2600	1.677469	44.27057
64	2620	1.547851	42.48508
65	2640	1.428484	40.98973
66	2660	1.148588	40.7533
67	2680	1.036794	39.7289
68	2690	0.961676	39.565



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

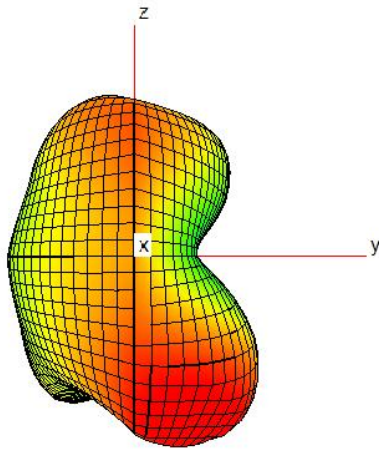
Rev: R:A1

ZTX P/N : AN-UW MAIN

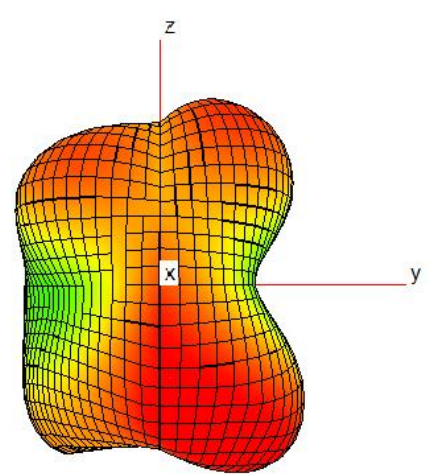
Editor:

Page 10 of 30

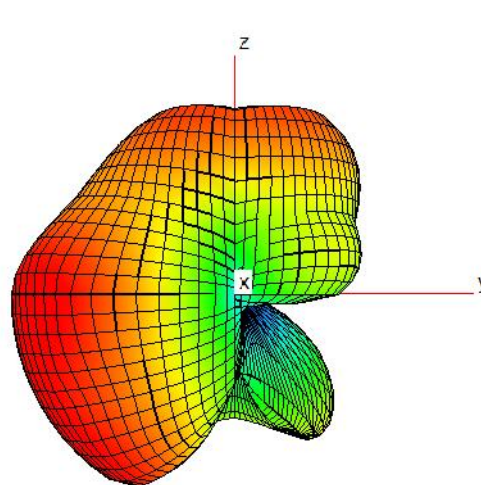
2-3 3D radiation drawing



800MHz



1710MHz



2500MHz



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 11 of 30

2-4 Active test data

EC25-AU

FDD band1	channel	18050	18300	18550
	TRP	18.24	19.12	19.14
	TIS		-96.62	
FDD band2	channel	18650	18900	19150
	TRP	18.51	18.70	18.38
	TIS		-90.94	
FDD band3	channel	19250	19575	19900
	TRP	16.61	17.53	17.56
	TIS		-92.94	
FDD band4	channel	20000	20175	20350
	TRP	16.94	17.59	17.79
	TIS		-96.20	
FDD band5	channel	20450	20525	20600
	TRP	17.94	18.78	19.64
	TIS		-88.48	
FDD band7	channel	20850	21100	21350
	TRP	19.29	19.03	18.30



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 12 of 30

	TIS		-98.54	
FDD band8	channel	21500	21625	21750
	TRP	18.48	18.07	17.29
	TIS		-92.31	
FDD band28	channel	27260	27410	27610
	TRP	19.81	20.38	19.33
	TIS		-93.66	
TDD band40	channel	38750	39150	39550
	TRP	19.45	19.03	19.11
	TIS		-92.61	
WCDMA band1	channel	9612	9750	9888
	TRP	19.17	19.73	19.78
	TIS		-113.74	
WCDMA band2	channel	9262	9400	9538
	TRP	18.76	18.55	18.61
	TIS		-104.94	
WCDMA band5	channel	4132	4183	4233
	TRP	18.21	18.71	19.21



ANTENNA SPECIFICATION

	TIS		-93.23	
WCDMA band8	channel	2937	3013	3088
	TRP	18.80	18.49	17.64
	TIS		-109.05	

ANTENNA SPECIFICATION

EC25-V

FDD band4	channel	20000	20175	20350
	TRP	17.05	17.85	18.42
	TIS		-93.84	
FDD band13	channel		23230	
	TRP		18.47	
	TIS		-86.99	

ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 15 of 30

EC25-A

FDD band2	channel	18650	18900	19150
	TRP	19.49	19.49	19.37
	TIS		-92.71	
FDD band4	channel	20000	20175	20350
	TRP	18.08	18.53	18.96
	TIS		-95.98	
FDD band12	channel	23035	23095	23155
	TRP	19.62	20.21	20.79
	TIS		-95.20	
WCDMA band2	channel	9262	9400	9538
	TRP	19.56	19.25	19.47
	TIS		-106.21	
WCDMA band4	channel	1312	1450	1513
	TRP	18.48	18.89	19.27
	TIS		-113.20	
WCDMA band5	channel	4132	4183	4233
	TRP	19.79	20.41	20.78



ANTENNA SPECIFICATION

	TIS		-91.75	
--	-----	--	--------	--

ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 17 of 30

EC25-E

FDD band1	channel	18050	18300	18550
	TRP	19.15	19.61	19.49
	TIS		-96.38	
FDD band3	channel	19250	19575	19900
	TRP	17.43	18.62	19.07
	TIS		-92.63	
FDD band5	channel	20450	20525	20600
	TRP	18.47	19.33	19.78
	TIS		-92.52	
FDD band7	channel	20850	21100	21350
	TRP	20.18	19.68	19.02
	TIS		-96.57	
FDD band8	channel	21500	21625	21750
	TRP	19.11	18.51	17.86
	TIS		-91.17	
FDD band20	channel	24200	24300	24400
	TRP	18.45	19.68	19.78



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 18 of 30

	TIS		-92.33	
TDD band38	channel	37850	38000	38150
	TRP	18.95	18.53	18.01
	TIS		-91.76	
TDD band40	channel	38750	39150	39550
	TRP	20.49	19.80	19.47
	TIS		-92.73	
TDD band41	channel	40540	40740	40940
	TRP	18.78	18.18	17.79
	TIS		-92.34	
WCDMA band1	channel	9612	9750	9888
	TRP	19.83	20.21	19.98
	TIS		-110.90	
WCDMA band5	channel	4132	4183	4233
	TRP	18.75	19.19	19.67
	TIS		-92.14	
WCDMA band8	channel	2937	3013	3088
	TRP	19.34	18.91	18.27



ANTENNA SPECIFICATION

	TIS		-104.04	
--	-----	--	---------	--



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 20 of 30

EG25-G

FDD band1	channel	18050	18300	18550
	TRP	18.96	19.60	19.36
	TIS		-96.01	
FDD band2	channel	18650	18900	19150
	TRP	17.62	18.45	18.73
	TIS		-94.88	
FDD band3	channel	19250	19575	19900
	TRP	17.70	16.93	16.68
	TIS		-93.83	
FDD band4	channel	20000	20175	20350
	TRP	17.78	17.46	17.02
	TIS		-96.46	
FDD band5	channel	20450	20525	20600
	TRP	16.28	16.79	17.02
	TIS		-92.47	
FDD band7	channel	20850	21100	21350
	TRP	20.44	20.78	20.08



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 21 of 30

	TIS		-97.36	
FDD band8	channel	21500	21625	21750
	TRP	17.71	18.28	17.65
	TIS		-93.85	
FDD band12	channel	23035	23095	23155
	TRP	16.30	16.69	16.87
	TIS		-91.52	
FDD band13	channel		23230	
	TRP		18.78	
	TIS		-90.03	
FDD band18	channel	23900	23925	23950
	TRP	17.31	16.85	16.89
	TIS		-95.21	
FDD band19	channel	24050	24075	24100
	TRP	17.14	17.22	17.33
	TIS		-92.55	
FDD band20	channel	24200	24300	24400
	TRP	16.35	16.41	16.82



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 22 of 30

	TIS		-93.52	
FDD band25	channel	26165	26365	26565
	TRP	19.06	19.73	19.91
	TIS		-94.40	
FDD band26	channel	26765	26865	26965
	TRP	17.16	17.45	17.51
	TIS		-90.09	
FDD band28	channel	27260	27410	27610
	TRP	16.27	17.14	18.34
	TIS		-92.46	
TDD band38	channel	37850	38000	38150
	TRP	19.62	19.31	19.32
	TIS		-92.13	
TDD band39	channel	38350	38450	38550
	TRP	19.80	20.04	19.28
	TIS		-90.47	
TDD band40	channel	38750	39150	39550
	TRP	19.75	19.97	20.99



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 23 of 30

	TIS		-92.62	
TDD band41	channel	40540	40740	40940
	TRP	19.82	19.42	19.66
	TIS		-92.15	
WCDMA band1	channel	9612	9750	9888
	TRP	20.84	21.14	20.79
	TIS		-114.00	
WCDMA band2	channel	9262	9400	9538
	TRP	18.63	19.10	19.90
	TIS		-107.42	
WCDMA band4	channel	1312	1450	1513
	TRP	19.19	18.67	18.26
	TIS		-106.17	
WCDMA band5	channel	4132	4183	4233
	TRP	17.75	17.04	17.15
	TIS		-101.59	
WCDMA band6	channel	4162	4175	4188
	TRP	16.94	16.79	16.55



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 24 of 30

	TIS		-100.87	
WCDMA band8	channel	2712	2788	2863
	TRP	18.51	19.22	18.78
	TIS		-106.88	
WCDMA band19	channel	312	338	363
	TRP	16.65	16.45	16.33
	TIS		-104.98	



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

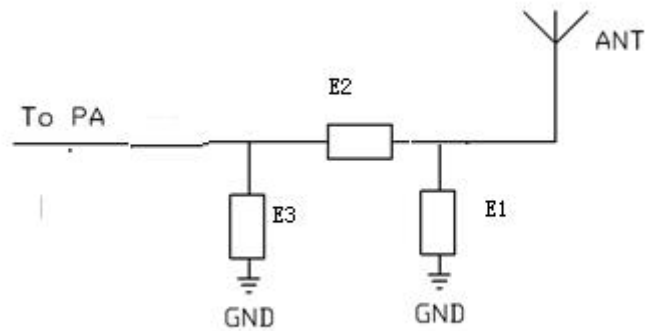
Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 25 of 30

2-5 Matching circuit



匹配说明	
E1	NC
E2	0Ω
E3	NC



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 26 of 30

2-6 Environment treatment



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

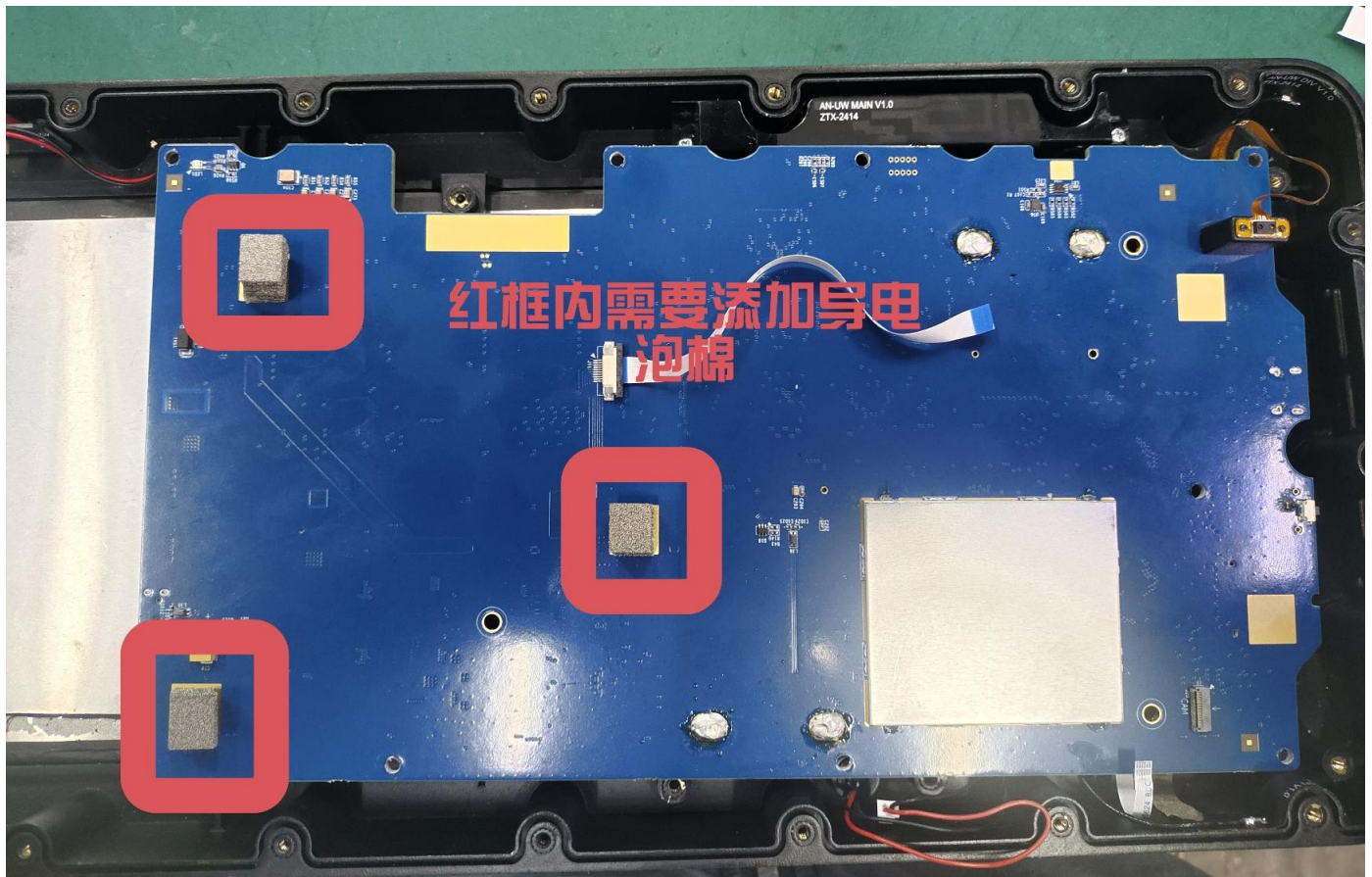
ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 27 of 30



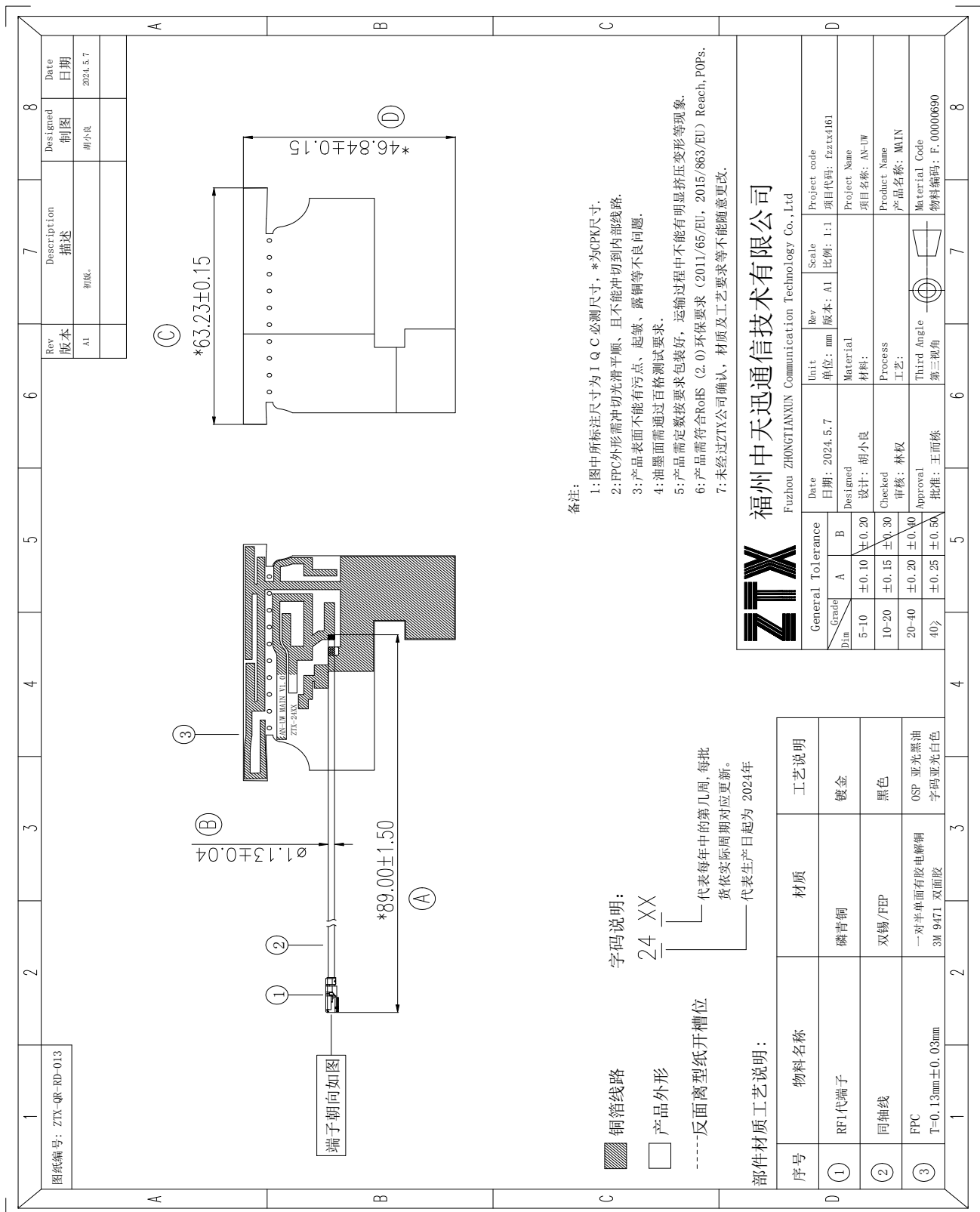
ANTENNA SPECIFICATION

ZTX P/N : AN-UW MAIN

Editor:

Page 28 of 30

3. Mechanical Specification



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 29 of 30

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 ±2℃ 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℃ 2.Humidity: 0%RH 3.Time: 48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.



ANTENNA SPECIFICATION

CUS P/N : AN-UW MAIN

ApplicationDate:Aug,28,2024

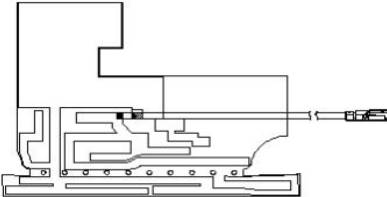
Rev: R:A1

ZTX P/N : AN-UW MAIN

Editor:

Page 30 of 30

7.The packing way

福州中天迅通信技术有限公司 Fuzhou ZHONGTIANXUN Communication Technology Co., Ltd				包装规范											
产品名称		产品型号		工序序号/名称		版本		文件编号		仪器校准及要求:					
MAIN		AN-UW		包装		A1		ZTX-QD-WI-023		1. 测试设备必须接地; 2. 重新连接接口后,就连接测试不稳定时,需对仪器进行校正; 3. 测试产品时,保持天线悬空,并远离人体或金属器件30cm以上;					
 图1: 确认数量  图2: 封口PE袋包装/贴标签  图3: 封口PE袋包装/贴标签  图4: 装箱  图5: 贴外箱标签/附出货检验报告  图6: 封箱				作业方法&作业参数 (自检该工序作业合格后,方能流入下一道工序)											
				数量 装箱		1. 确认数量50pcs产品橡皮筋包扎;									
				数量 贴标签		2. 将50pcs产品装入 (240*160mm) PE开口袋中,贴小标签,填写产品名称、物料号、数量、周期等信息;									
				数量 贴外箱		2. 每5袋装入 (330*230mm) PE封口袋装好 (250PCS)的PE装袋,贴小标签,填写产品名称、物料号、数量、周期等信息;									
				数量 贴外箱 贴标签		3. 装箱, 纸箱规格 (45*32.5*21cm), 每箱装 (5000pcs) 尾数除外,并附手写检验报告一份;									
				数量 贴外箱 贴标签		4. 标签贴于外箱的右上角, 外标签内容 (含: 企业名称, 供应商代码, 客户规格号, 生产周期, 生产批次包装数量, 供应商代码, 内附检验报告, ROHS等);									
数量 贴外箱 贴标签		5. 将贴好标签的箱子用胶纸以“工”字型封箱;													
数量 贴外箱 贴标签		6S要求: 1. 保持检测现场台面整洁, 无尘、水、油污; 2. 物料摆放整齐, 标识清楚;													
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															
物料名称		物料代码		规格		用量		备注							
PE开口袋		1. 12. 000030		240*160*0.05mm		100/袋									
PE封口袋		1. 12. 000023		330*230*mm		10/袋									
纸板		1. 13. 000003		42*30cm		2张/箱									
纸箱		1. 12. 000086		45*32.5*21cm		1/箱									
标签															
橡皮筋															
版本		修订内容				修订日期		修订人							
制订		胡小良		审核		易爱玲		批准		张武民					

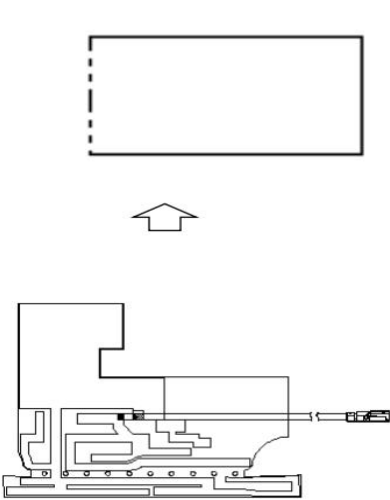


图1: 确认数量

图2: 封口PE袋包装/贴标签



图4: 装箱



图5: 贴外箱标签/附出货检验报告



图6: 封箱

