

A

承认书

PPROVAL SHEET

客 户

乔安

Customer name

客户料号

6. W21X. W160001

Customer P/N

品 名

迷你球机 (WIFI小杆套)

Article Description

同讯料號

KC. DA. 00265

TOXU Part No.

承认书号码

A20240618-001

Approval sheet No.

日 期

2024. 06. 18

Date

承认填写栏

供应商确认 (供方填写栏)			客户承认 (需方填写栏)		
工程	品质	批准	工程	品质	批准
刘双生	曾志松	李			
2024.6.18					
公司盖章:			公司盖章:		
2024.06.18					
日期			日期		
资料发行章					
客户批示:			☐ 可接受 ☐ 有条件接受		
备注:					

TOXU

同讯技术

深圳市同讯精密技术有限公司

ShenZhen Tongxun Precision Technology Co., Ltd

地址: 深圳市龙华区福城街道茜坑社区茜坑路52号

ADDRESS: 5th floor, No. 52, Xikeng Road, Xikeng community, Fucheng street, Longhua District, Shenzhen

TEL: 0755-28199597

WEB: www.toxutech.com

Mail: sales@toxutech.com/sales01@toxutech.com/sales02@toxutech.com

POST CODE: 518100

KC.DA.00265

Antenna Specification

1. Application:

This application shall apply for antenna unit which shall be used such as automotive, conventional communications, smart home, etc..

2.Electrical Specification:

Those specifications were specially defined for customer's model, and all characteristics were measured under the model's handset testing jig .

2-1. Frequency Band:

Frequency Band	MHz
WiFi	2400-2500/5150-5850MHz

2-2. Impedance

50 ohm nominal

2-3. VSWR

2-3-1.Measurement frequency points and VSWR value

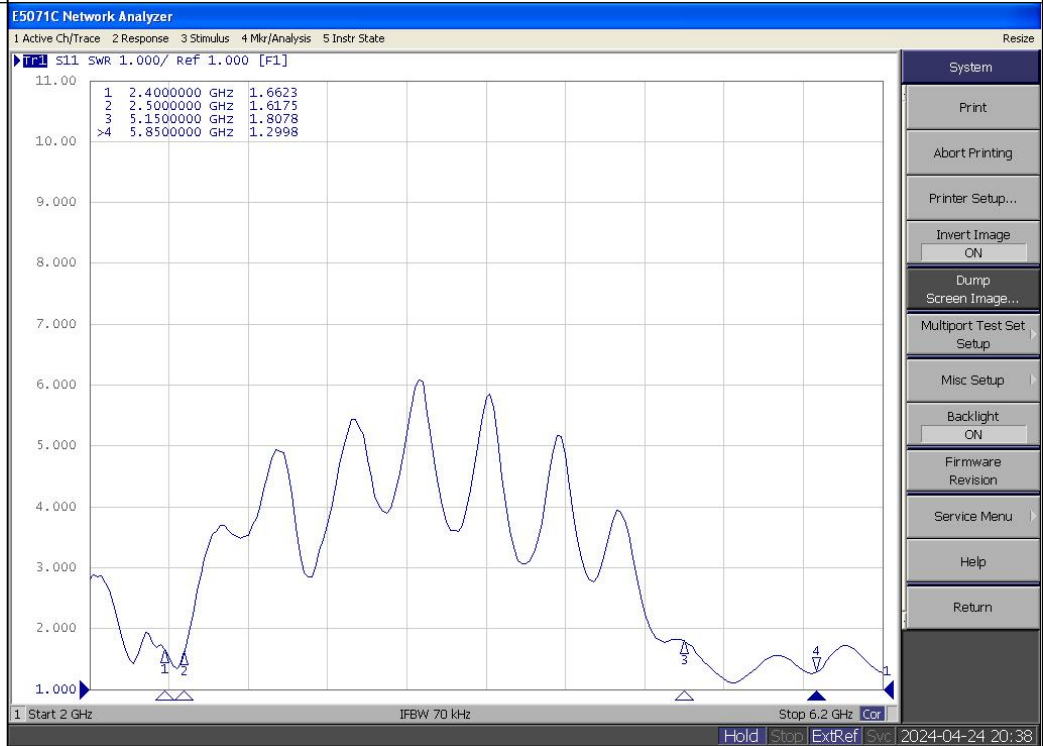
Frequency Band(MHz)	2400	2500	5150	5850
Typical Value: (VSWR)	1.6	1.6	1.8	1.2

UNLESS OTHER SPECIFIED TOLERANCES ON :		TOXU 同讯技术	TOXU TECHNOLOGY CO., LTD.
X = ± X.X = ± X.XX = ± ANGLES = ± HOLEDIA = ±			
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.DA.00265 Antenna Specification			SPEC REV.
			P0

2-3-4 Measuring Method

1. A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR.
2. Keeping this jig away from metal at least 20 cm

2-3-5 Picture



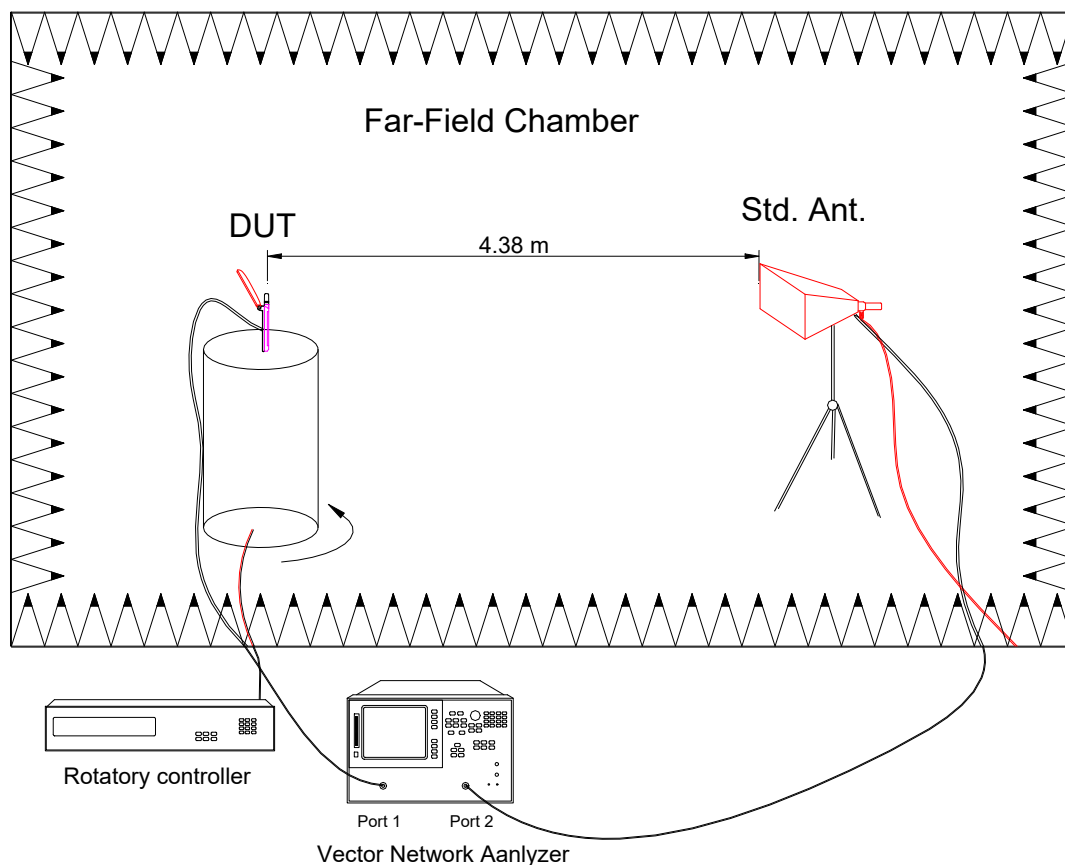
UNLESS OTHER SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES = ± HOLEDIA = ±		TOXU 同讯技术 TOXU TECHNOLOGY CO., LTD.
SCALE :	UNIT : mm	
DRAWN BY: LI	CHECKED BY: YS	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
DESIGNED BY: De wen	APPROVED BY: YS	
TITLE : KC.DA.00265 Antenna Specification		SPEC REV. P0

2-4. Efficiency and Gain

4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition



1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quite room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF

UNLESS OTHER SPECIFIED TOLERANCES ON :		TOXU 同讯技术	TOXU TECHNOLOGY CO., LTD.
X = ± X.X = ± X.XX = ± ANGLES = ± HOLEDIA = ±			
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.DA.00265 Antenna Specification			SPEC REV.
			P0

2-4-1 Efficiency and Gain and 3D Date

Frequency/MHz	Efficiency / %	MaxGain/dBi	Frequency/MHz	Efficiency / %	MaxGain/dBi
2400	51.88	2.76	5390	55.72	2.28
2410	54.95	3.06	5410	54.95	1.87
2420	54.2	3.03	5430	55.72	1.59
2430	55.21	3.11	5450	59.16	1.58
2440	56.75	3.2	5470	63.24	1.84
2450	57.94	2.67	5490	62.52	1.67
2460	57.28	2.62	5510	61.8	1.43
2470	58.61	2.51	5530	60.26	1.27
2480	60.12	2.58	5550	58.34	1.23
2490	63.53	2.59	5570	56.89	1.27
2500	63.68	2.33	5590	58.75	1.46
			5610	59.7	1.69
5150	51.88	1.09	5630	60.53	1.58
5170	53.7	1.29	5650	58.75	1.32
5190	54.58	1.35	5670	56.89	1.2
5210	56.49	1.65	5690	52.84	1.04
5230	55.85	1.71	5710	51.05	1.03
5250	52.97	1.54	5730	47.1	0.62
5270	51.17	1.54	5750	47.1	0.86
5290	53.09	1.9	5770	49.2	1.32
5310	54.2	2.22	5790	51.29	1.45
5330	54.2	2.31	5810	48.98	1.11
5350	53.95	2.16	5830	50.82	1.31
5370	54.58	2.21	5850	51.76	1.51

UNLESS OTHER SPECIFIED TOLERANCES ON :

$X = \pm$ $X.X = \pm$ $X.XX = \pm$
 $\pm$

ANGLES = $\pm$ HOLEDIA = $\pm$

SCALE : UNIT : mm

DRAWN BY: LI CHECKED BY: YS

DESIGNED BY: De wen APPROVED BY: YS

TOXU
 同讯技术

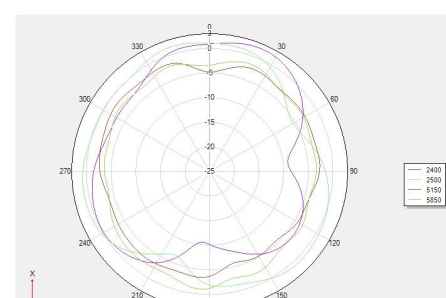
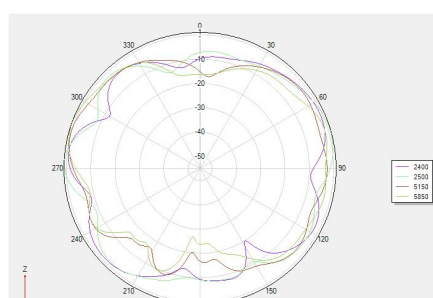
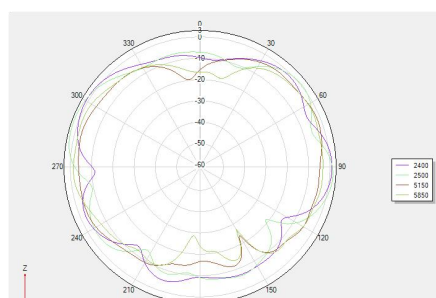
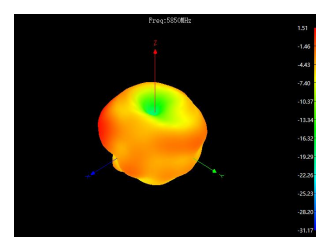
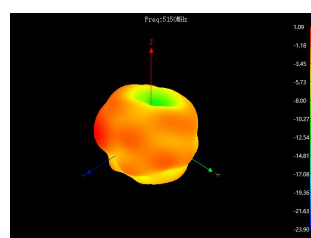
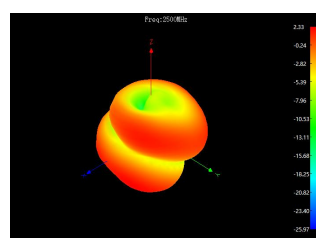
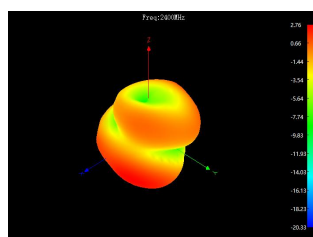
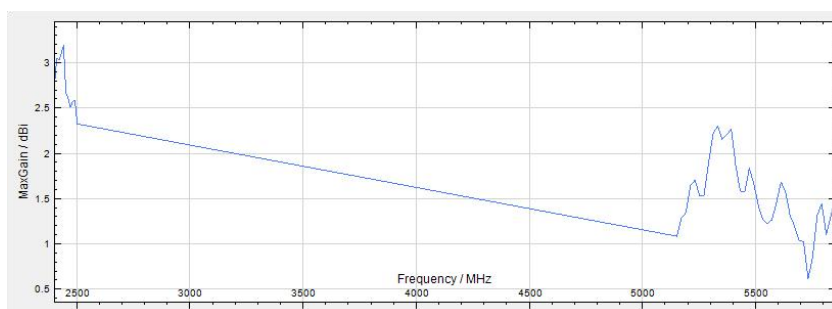
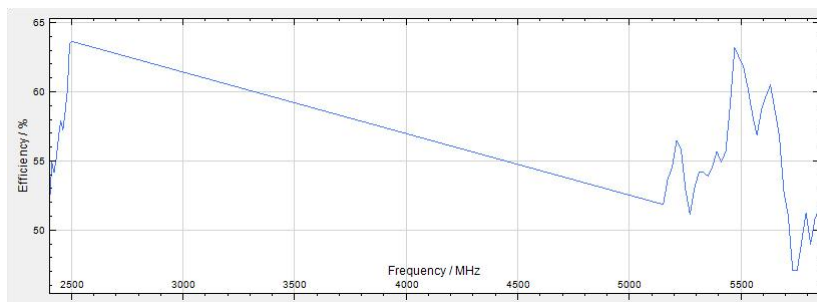
TOXU TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : KC.DA.00265 Antenna Specification

SPEC REV.

P0



UNLESS OTHER SPECIFIED TOLERANCES ON :
 $X = \pm$ $X.X = \pm$ $X.XX = \pm$
 $\pm$
ANGLES = $\pm$ **HOLEDIA = $\pm$**

SCALE :

UNIT : mm

DRAWN BY: LI

CHECKED BY: YS

DESIGNED BY: De wen

APPROVED BY: YS

TOXU
同讯技术

TOXU TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : KC.DA.00265 Antenna Specification

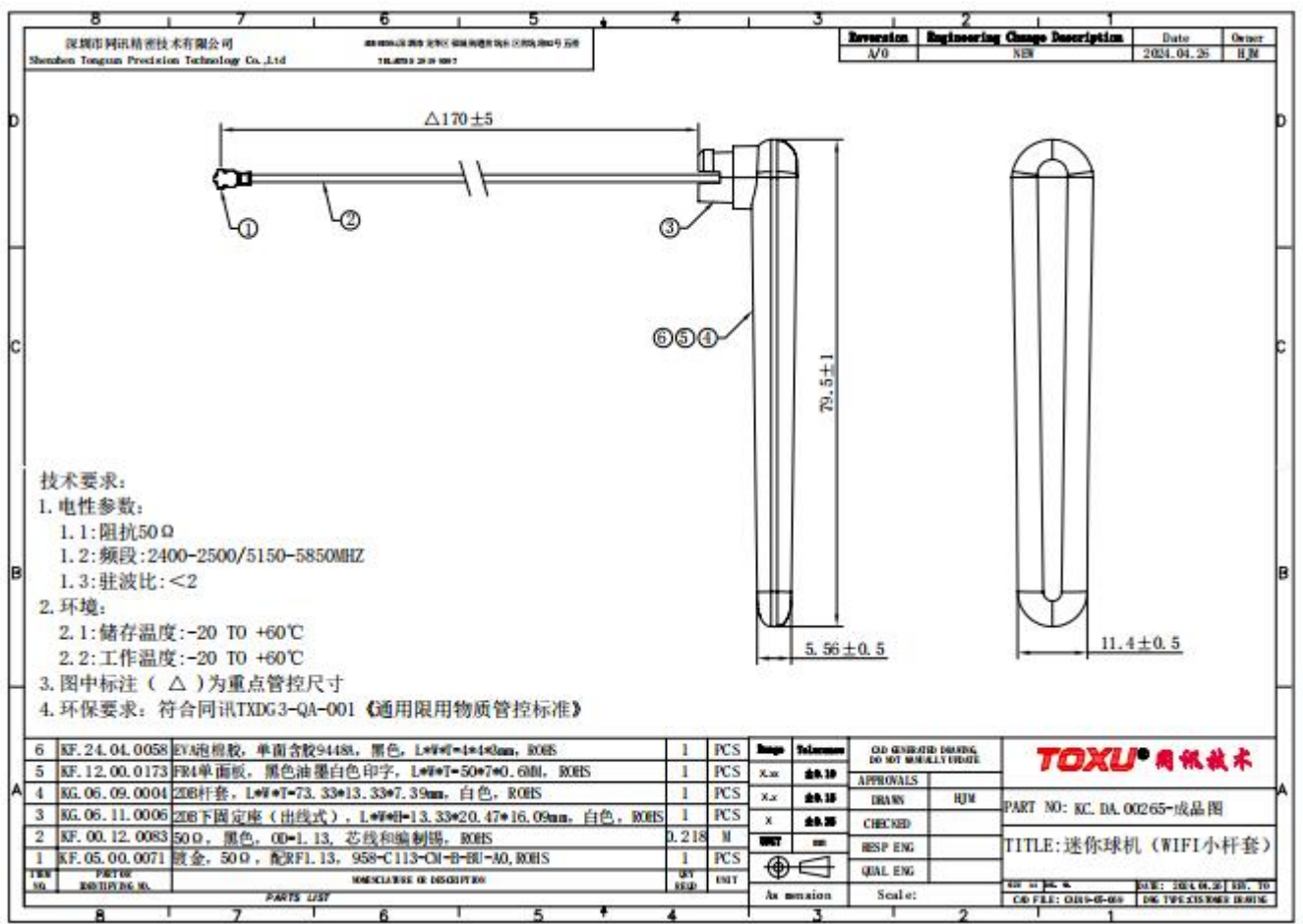
SPEC REV.

P0

3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



UNLESS OTHER SPECIFIED TOLERANCES ON : X= ± X.X= ± X.XX= ± ANGLES= ± HOLEDIA= ±		TOXU 同讯技术	TOXU TECHNOLOGY CO., LTD.
SCALE :	UNIT : mm		
DRAWN BY: LI	CHECKED BY: YS	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.DA.00265 Antenna Specification			SPEC REV.
			P0

4 .Packaging specification:

Product number: xxxxx

Product model: xxxxx

一、 Label requirements:

Customer	xxx		
supplier	xxxxx		
Material coding	xx		
Product model	xx		
Number	XXX PCS	Factory date	X X X
Remarks			

二、 Boxing:

Job description:

1. Inner packaging:

XXpcs A bag

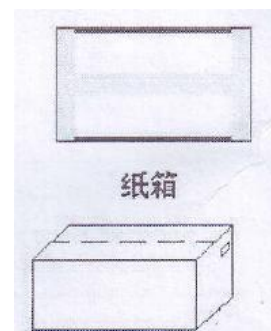
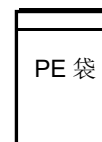
2. External packaging:

Xx PCS ;

3. Matters needing attention:

a. Whether to add partition and pearl cotton;

b. Label attachments, such as ROHS, etc.;



UNLESS OTHER SPECIFIED TOLERANCES ON :			TOXU TECHNOLOGY CO., LTD.
X = ± X.X = ± X.XX = ± ± ANGLES = ± HOLEDIA = ±			
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.DA.00265 Antenna Specification		SPEC REV. P0	