

SPECIFICATION

Shenzhen Daxian Technology Co., Ltd.



GGEC SS5-B BT antenna assembly

Product specification

Guest households	GCEC	frequency band	2400MHz~2500MHz
Project name	SS5-B	version	V1.3
Material No.	2S-S5XXX-119	color	White
Customer Item Number	EAN004704		
R F design	Chuan.Shen	structure design	RuiBin.Zhou
Quality Manager	ZiYin.Hu	R & D director	Lei.Zhang
Date	2025-2-26		



client confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

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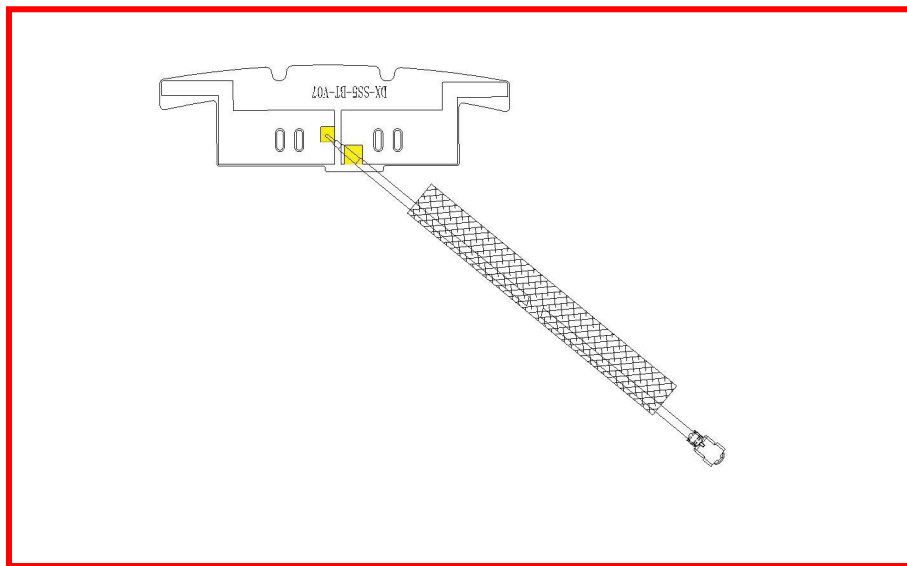
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— Project description

Customer name:	GSEC
Whole machine type:	Loudspeakerbox
Antenna band:	2400 ~ 2500MHz
Antenna form:	FPC+coaxialline+wiresponge
Feed form:	weld
Hardwareversion:	/

一、 BT antenna

This report provides a variety of measurements of the electrical performance of the SS5-B Bantenna. Figure 1 shows the antenna designed by the display.



antenna appearing diagram

Figure 1

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1.1 Electrical specification standard

The frequency range of the antenna is 2400 ~ 2500MHz. The following table indicates the electrical performance specifications of the antenna. The antenna is designed and manufactured by a large display.

Frequency Range	Frequency (MHz)	VSWR
BT	2400 ~ 2500	≤ 2

1.2 Antenna composition

The antenna is mainly composed of FPC+coaxialline+wiresponge.

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2、 The Equipment of Active Test

Satimo 3D Chamber $6 \times 4 \times 4$ (m)

Agilent 8960 E5515c

Network analyzer-R&S ZVL



Figure 2

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3 test

3.1 The Test of standing Wave (VSWR)

3.1.1 The Test of standing Wave (VSWR): In turn, the connection of the VSWR testing device is as follows: RES ZVL Network Analyzer / testing Line / testing tool

Actual measurement (with diagram)

3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS)

3.2.1 Test site:

Large-scale microwave darkroom. The test frequency range is 400MHz / 6GHz, the static range is 50cm circumferential and the reflectivity is less than-50 dB..

3.2.2 Test instrument:

Rs ZVL Network Analyzer, Agilent8960 E5515C, Standard Horn Antenna, French SATIMO-SG24SYSTEM system, Printer, etc.

3.2.3 test data : In microwave anechoic chambers, the power and sensitivity values measured are shown in the following table:

OTAactivetesting:

BAND	CH	TRP (dBm)	TIS (dBm)
BT	0	6. 49	-92. 32
	39	6. 83	-92. 77
	78	6. 65	-92. 58

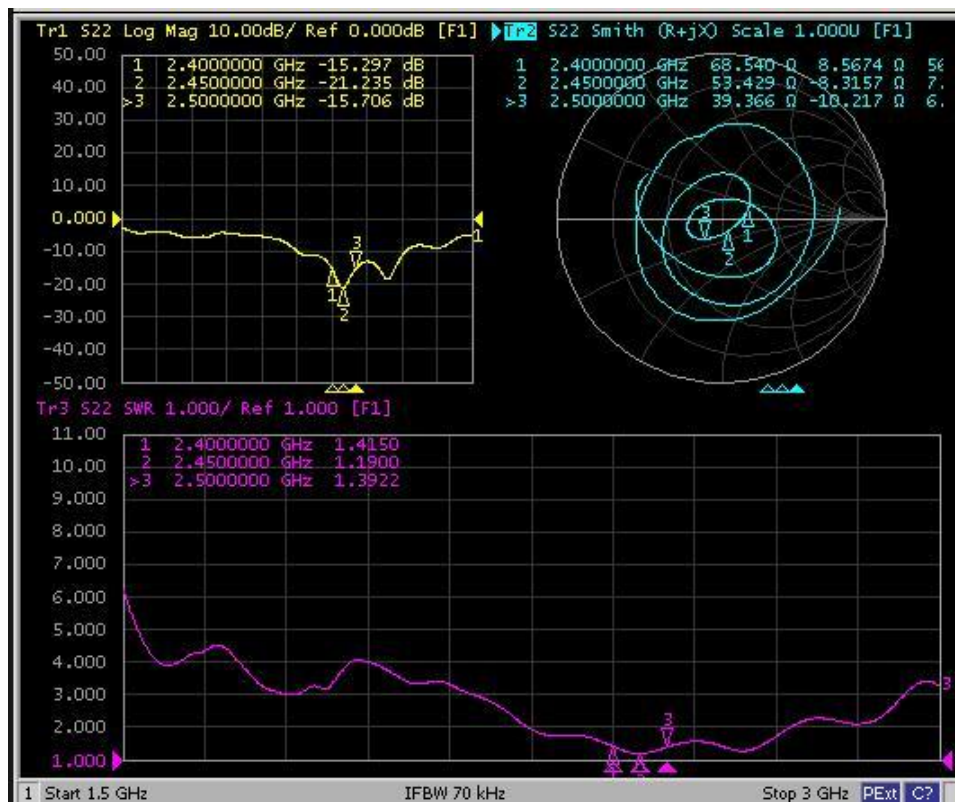
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Passive efficiency & gain:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	52.38	-2.81	2.19
2410	52.61	-2.79	2.24
2420	53.18	-2.74	2.29
2430	53.29	-2.73	2.36
2440	54.03	-2.67	2.33
2450	54.63	-2.65	2.38
2460	54.33	-2.63	2.31
2470	54.14	-2.66	2.33
2480	53.87	-2.69	2.24
2490	53.04	-2.75	2.26
2500	52.17	-2.83	2.17

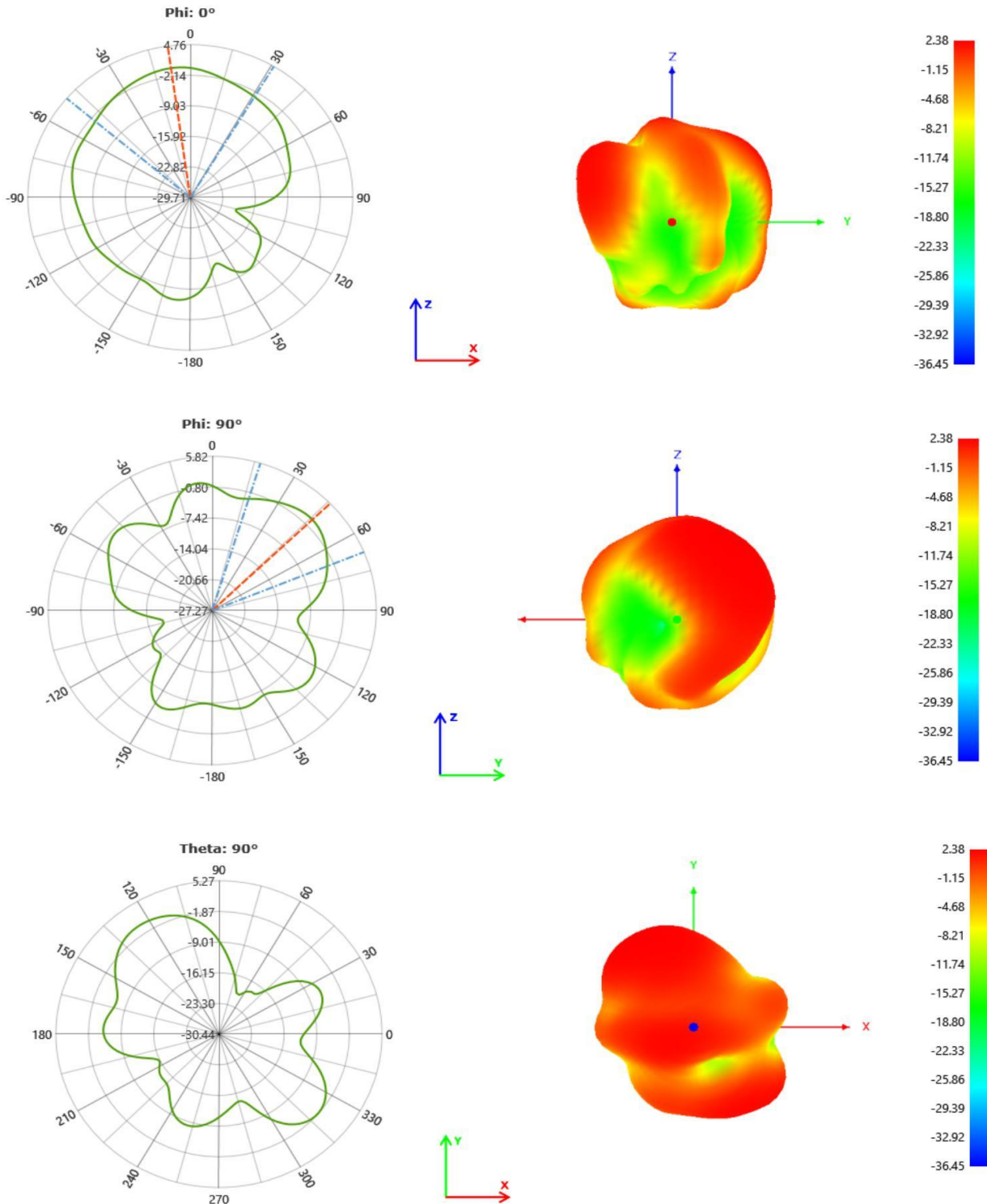
4、VSWR parameter diagram

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5、 Antenna passive field pattern diagram



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6、Outdoor Pull distance test:

Pull distance test:

Testing time: 2025/02/08

test site : Near Tiegang Reservoir, Shenzhen

Test Cell Phones : Iphone 14 Pro

Test direction	ahead	empress	left	right
	Test Distance			
BT	100M	100M	100M	100M

7、 conclusion:

This antenna is designed on the basis of the prototype provided by the customer, electrical parameters and structural performance have reached the technical requirements, please confirm!

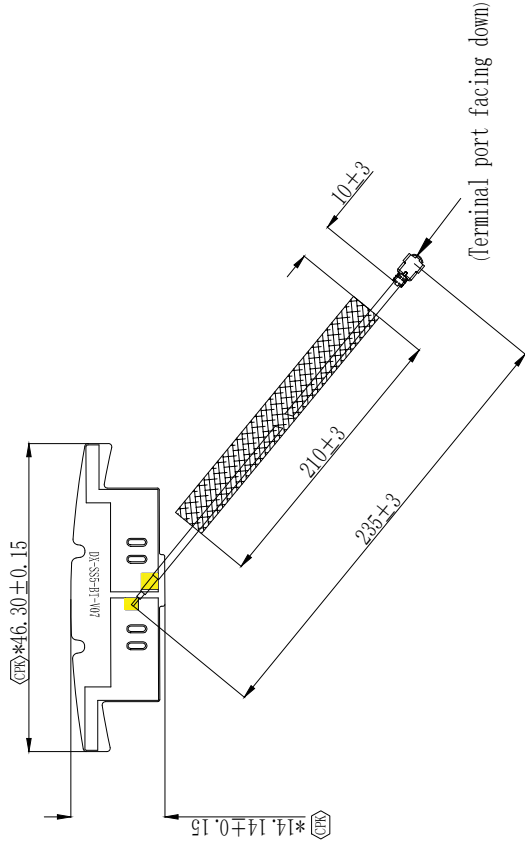
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1		2		3		4		5		6	
				0~10	10~30	30~50	50~				
				0.05	0.10	0.15	0.20	1°	0.02	0.02	0.05

A



B

C

Technical requirement:

1. "*" is the key dimension;
2. Please refer to the drawing for unspecified dimensions;
3. There should be no poor operation such as faulty soldering, missing soldering, short wires, broken wires, etc;
4. Meet RoHS requirements.

D

B

C

D

C	Cable sponge	EVA	white	
B	RF connector	Cable	white	
A	FPC	Electrolytic copper PI	white	
Serial number	Part Name	Material	Colour	Note

Shenzhen Daxian Technology Co., Ltd.						
						
Machine model	SS5B (BT)	Product Color		White	Date	2025/03/03
Project Code	CS-S5XXX-119	Mold surface treatment		NA	MD	RuibinZhou
Part Name	BT antenna	Unit	mm	比例 (scale)	1:1	ChuanShen
Part Number	2S-S5XXX-119	Third perspective			Check	KangZhou
material	FPC+sponge+RF connector				Ratify	LeiZhang
Save Path					Current version	A

1

2

3

4

5

6