

SPECIFICATION



Shenzhen Daxian Technology Co., Ltd.

Fidek Flip Essential BT antenna assembly

Product specification

Guest households	Fidek	frequency band	2400~2500MHz
Project name	Flip Essential	version	V03
Material No.	1F-LIPE3-147	color	Black
R F design	ZhuDong.Liu	structure design	RuiBin.Zhou
Quality Manager	ChongRui.Li	R & D director	Lei Zhang
Date	2025-10-17		

client confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

Shenzhen DaXian Technology Co., Ltd.

Shangshuijing Village, No. 513, ihua Road, BujiTown, Longgang District, Shenzhen (opposite to theNational Defense Training Base)reached the 7thfloor of the Industrial Park Complex

TEL:0755-28576002

FAX:0755-84276383

Shanghai Branch: Room 201, Building 8 No, 3000Longdong Avenue,Integrated Circuit IndustrialZone, Zhangjiang Hi-tech Park, Shanghai

TEL:021-61630552

FAX:755-84276383

[illegible]

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

Index

I 、 Project description.....	4
II 、 BT antenna.....	4
1、 specifications.....	4
1.1 Electrical specification standard.....	5
1.2 Antenna composition.....	5
2、 The Equipment of Active Test.....	6
3、 test.....	7
3.1 The Test of standing Wave (VSWR).....	7
3.1.1 test connection.....	7
3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS).....	7
3.2.1 Test site.....	7
3.2.2 Test instrument.....	7
3.2.3 test data	7-8
4、 Attachment chart.....	8
4.1、 VSWR parameter diagram.....	8
5、 Antenna passive field Pattern diagram.....	9
6、 Field test data (Pull distance test).....	10
7、 Conclusion.....	10
III、 schedule drawing.....	11

www.Topant.com.cn

Confidential requirement

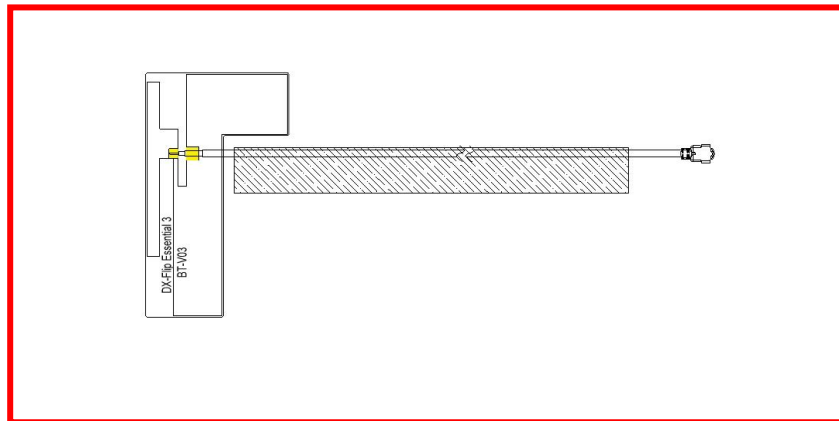
Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

I 、 Project description

Customer name:	Fidek
Whole machine type:	loudspeaker box
Antenna band:	2400 ~ 2500MHz
Antenna form:	FPC+Coaxial line+wire sponge
Feed form:	weld

II 、 BT antenna

This report provides a variety of measurements of the electrical performance of the Flip Essential 3 antenna. Figure 1 shows the antenna designed by the display.



antenna appearing diagram
Figure 1

www.Topant.com.cn
Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

1.1 Electrical specification standard

The frequency range of the antenna is 2400 ~ 2500 MHz. 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+Coaxial line+wire sponge.

www.Topant.com.cn

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

2、 The Equipment of Active Test

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

CMW500 E5071C

Network analyzer-R&S ZVL

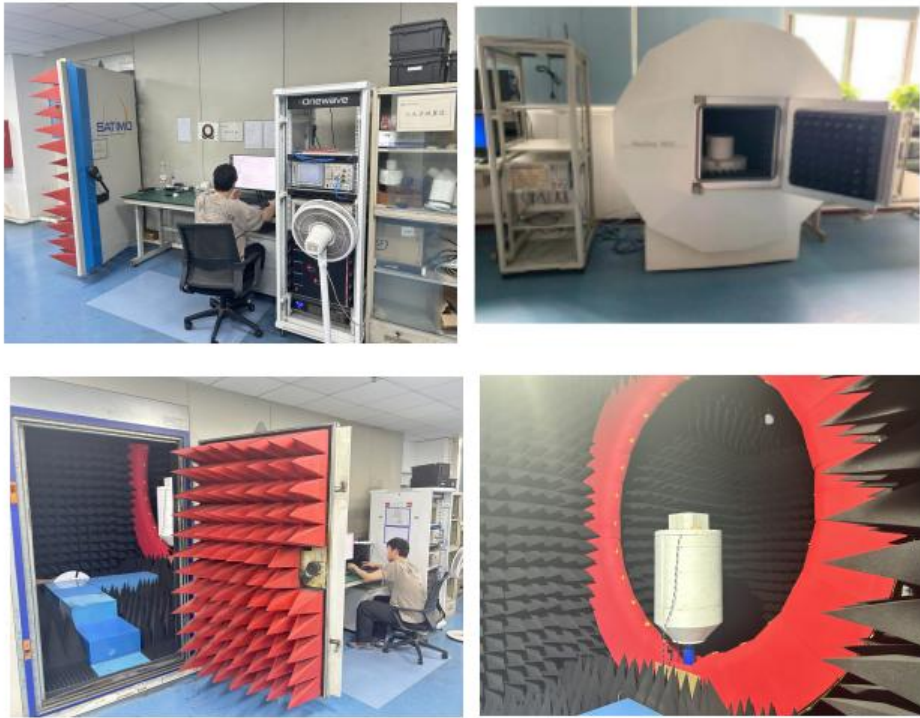


Figure 2

www.Topant.com.cn

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

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, CMW500 E5071C, 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:

OTA Active Test:

	CH	TRP (dBm)	TIS (dBm)
BT	0	6.47	-92.33
	39	6.53	-92.61
	78	6.21	-92.34

www.Topant.com.cn

Confidential requirement

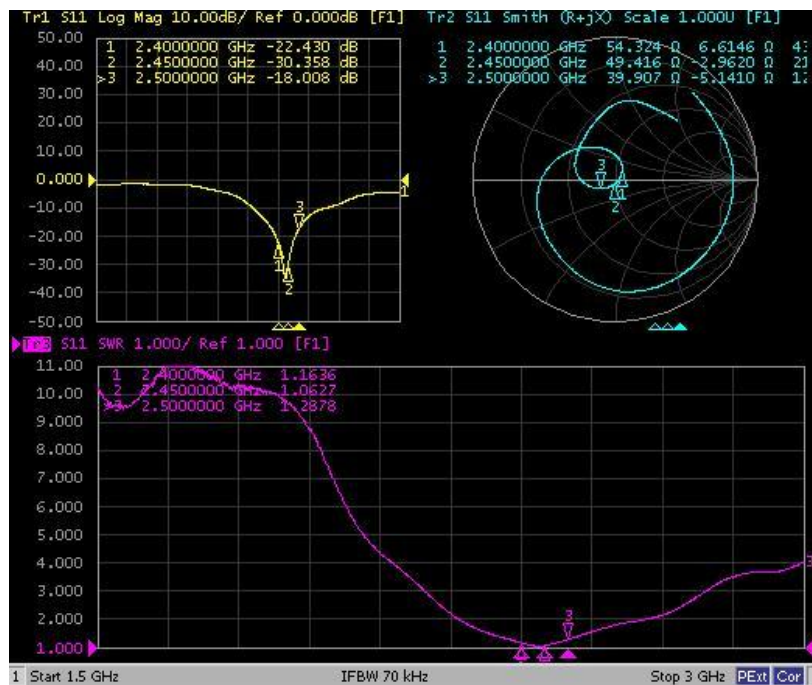
Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

OTA Passive Efficiency & Gain Test:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	51.56	-2.88	1.69
2410	51.64	-2.87	1.79
2420	52.26	-2.82	1.83
2430	52.37	-2.81	1.87
2440	52.71	-2.78	1.98
2450	53.35	-2.73	2.03
2460	52.99	-2.76	1.88
2470	52.6	-2.79	1.87
2480	52.42	-2.81	1.69
2490	51.93	-2.85	1.68
2500	51.4	-2.89	1.64

4、 Attachment chart

4.1 VSWR parameter diagram

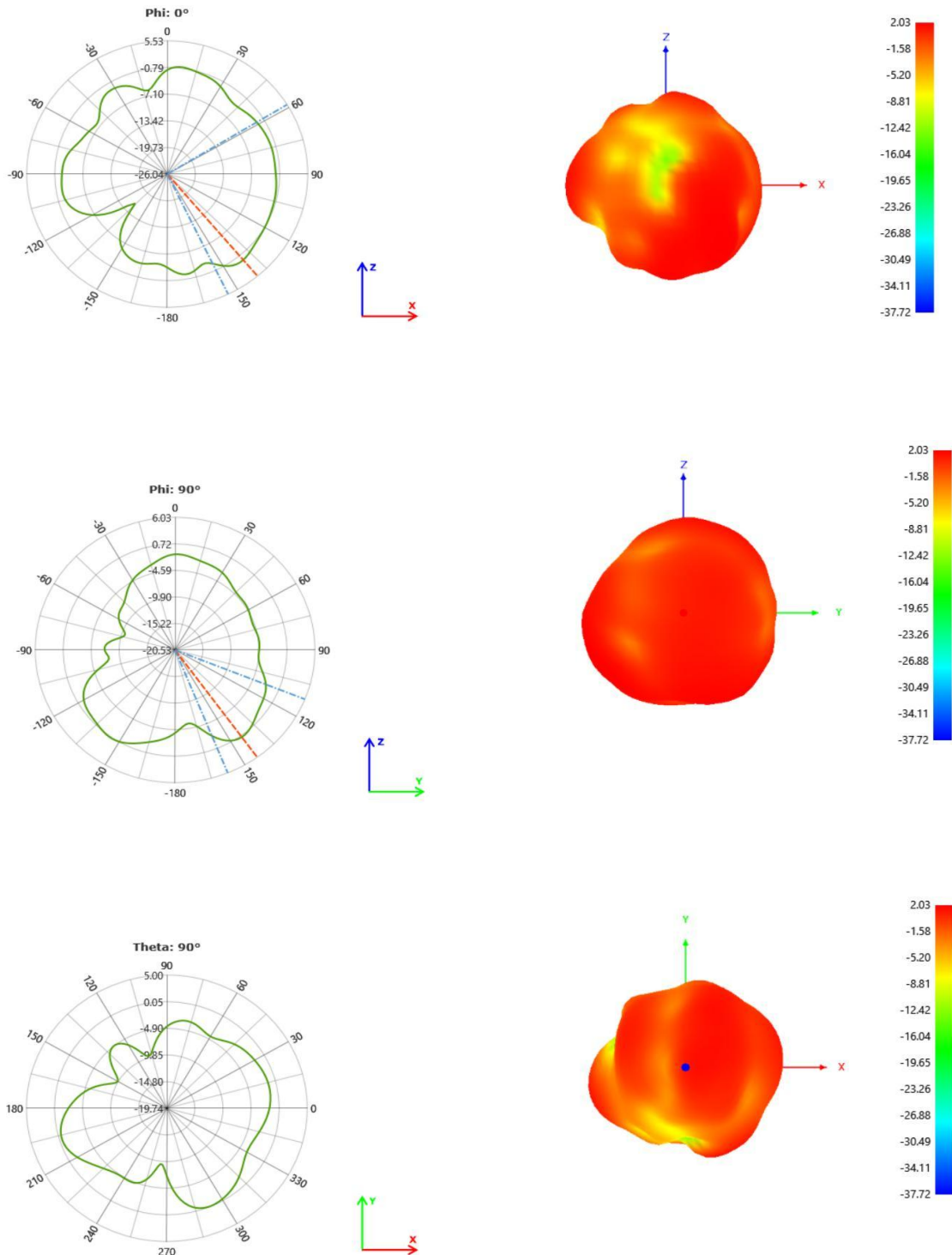


www.Topant.com.cn

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

5、Antenna passive field pattern diagram



www.Topant.com.cn

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.

6、Field test data (Pull distance test)

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

AuraCasttest

Apple mobile phone 16Pro							
1# is the master and 2# is the slave							
	mainframe 0°		mainframe 90°		mainframe 180°		mainframe 270°
Auxiliary 0°	65M+	Auxiliary 0°	65M+	Auxiliary 0°	65M+	Auxiliary 0°	65M+
Auxiliary 90°	65M+	Auxiliary 9 0°	65M+	Auxiliary 90°	65M+	Auxiliary 90°	65M+
Auxiliary 180°	65M+	Auxiliary 180°	65M+	Auxiliary 180°	65M+	Auxiliary 180°	65M+
Auxiliary 270°	65M+	Auxiliary 270°	65M+	Auxiliary 270°	65M+	Auxiliary 270°	65M+

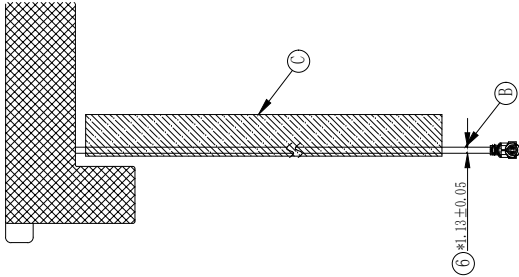
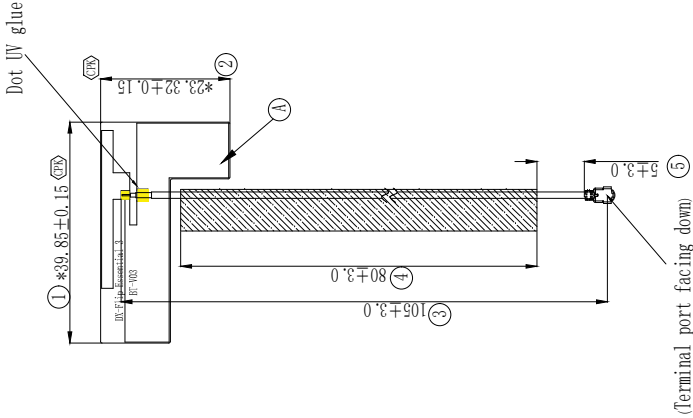
7、 conclusion:

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!

www.Topant.com.cn

Confidential requirement

Shenzhen Daxian limited company of science and technology has proprietary technology to provide information, which should be kept strictly confidential and proprietary information, without the prior written consent of Shenzhen Daxian Co. Ltd. are not allowed to disclose to any person or company.



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.

C	Cable sponge	PU	black	
B	RF connector	Cable	grey	
A	FPC	Electrolytic copper PI	black	
Serial number	Part Name	Material	Colour	Note



Shenzhen Daxian Technology Co., Ltd.

Machine model	Flip Essential 3	Product Color	Black	Date	2025/10/17
Project Code	CF-LIPE3-147	Mold surface treatment	NA	MD	Ru bin Zhou
Part Name	BT antenna	Unit	mm	比例 (scale)	1:1
Part Number	IF-LIPE3-147	Third perspective		Check	Chuan Shen
material	FPC+sponge+RF connector			Ratify	Kang Zhou
Save Path				Current version	Lei Zhang