

SPECIFICATION



深圳市大显科技有限公司

Shenzhen Daxian Technology Co., Ltd.

通力 C35 WIFI 天线

Tonly C35 WIFI Antenna

产 品 规 格 书

Product Specification

客 户 connection	通力 Tonly	频 段 frequency range	2350 ~ 2550MHz
项目名称 entry name	C35	版 本 edition	V2.0
物料编号 Material No	1C-35XXX-003	颜 色 Color	黑色 Black
客户料号 Customer Item Number			
环保要求 environmental requirement			
	☒ RoHS ☒ REACH ☒ HF		
R F 设计 R F Design	靳 群 Qun.Jin	结构设计 Structural Design	周锐斌 Rui Bin.Zhou
品质经理 Quality Manager	潘帅帅 ShuaiShuai.Pan	技术总监 Technical Director	张 磊 Lei.Zhang
日 期 Date	2025-04-27		

客户确认:

Customer confirmation:

装配是否符合贵司要求: ☐OK ☐NG

Whether the assembly meets your company's requirements: ☐OK ☐NG

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变更履历

Revision history

[illegible]

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一 项目说明 Project Description

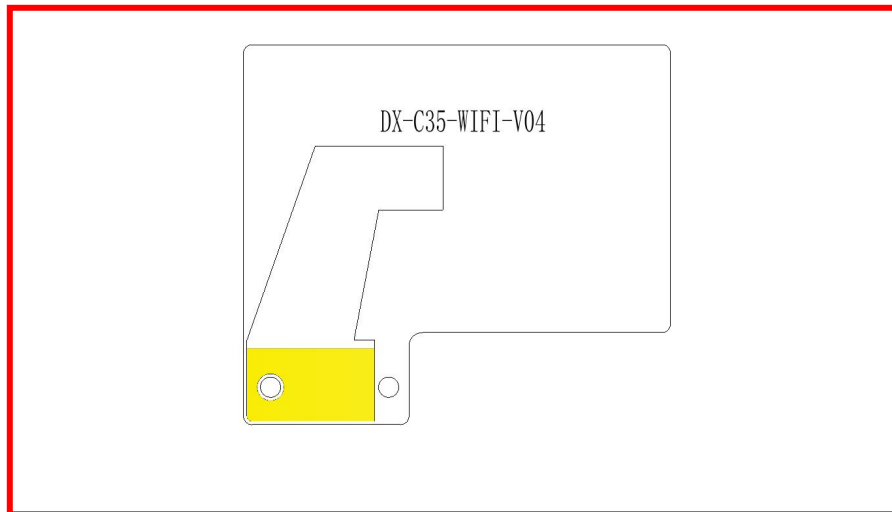
客户名: Customer Name:	通力 Tonly
整机类型: Type of complete machine:	监控摄像头 surveillance camera
天线频段: Antenna band:	2400 ~ 2500MHz
天线形式: Antenna form:	FPC
馈电形式: Feed form:	顶针接触 Ejector contact
硬件版本: Hardware version:	/

二 WIFI 天线 Antenna

1 规格 specifications

本报告主要提供 **C35** 项目天线的各项电气和结构性能参数的测试状况。下图为大显设计的天线图片。

This report mainly provides the testing status of various electrical and structural performance parameters of the antenna for the **C35** project. The following image shows an antenna with a large display design.



天线外观图

antenna appearing diagram

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1.1 电气规格标准 Electrical specifications and standards

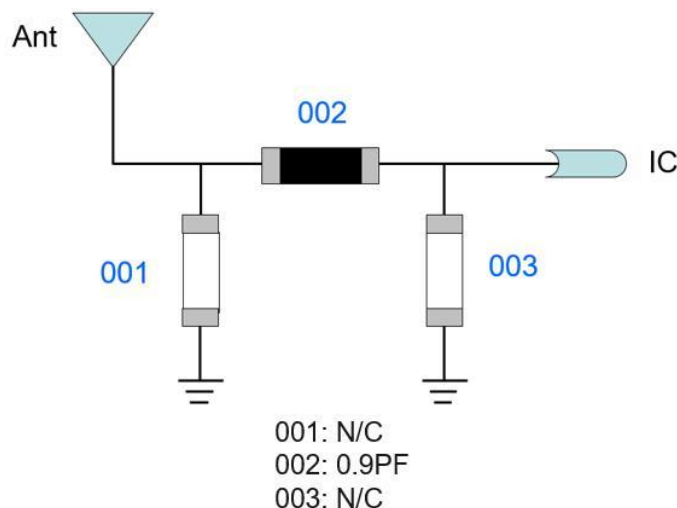
1.1.1 电性能指标 Electrical performance index

天线工作频段在 **2350~2550 MHz。** 下表是大显设计和量产天线的电性能的指标。

The operating frequency band of the antenna is between **2350 and 2550 MHz**. The following table shows the electrical performance indicators of large display design and mass production antennas.

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

1.1.2 天线电路匹配 Antenna Circuit Matching



2 结构规格标准 Structural specifications and standards

1.2.1 天线组成 Antenna composition

天线主要是由 FPC 组成。

The antenna is mainly composed of FPC.

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2、测试设备 The Equipment of Active Test

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

Agilent 8960 E5515c

Network analyzer-R&S ZVL



图 2

Figure 2

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3 测试 test

3.1 驻波(VSWR)的测试 Test of standing wave (VSWR)

3.1.1 测试连接: VSWR 测试装置依次连接为: R&S ZVL 网络分析仪 → 测试线 → 测试治

Test connection: The VSWR test device is sequentially connected as follows: R&S ZVL network analyzer → test line → test fixture

实测(附图)Actual measurement (attached drawing)

3.2 增益及效率、功率 (TRP)、灵敏度 (TIS) 的测试

Gain and efficiency, power (TRP), sensitivity (TIS) testing

3.2.1 测试的场地 Test site:

大显微波暗室。测试频率范围为 400MHz—6GHz, 静区范围为 50cm 圆周, 反射率小于-50 dB。

Large display microwave anechoic chamber. The test frequency range is 400MHz - 6GHz, the static zone range is 50cm circumferential, and the reflectivity is less than - 50dB.

3.2.2 测试的仪表 Tested Instruments:

R&S ZVL 网络分析仪、Agilent8960 E5515C、标准喇叭天线、法国 SATIMO-SG24SYSTEM 系统、打印机等。

R&S ZVL network analyzer, Agilent 8960 E5515C, standard horn antenna, French SATIMO-SG24SYSTEM system, printer, etc.

3.2.3 测试数据 : 在微波暗室中, 测试的功率和灵敏度相关的数值如下表

Test data: In a microwave anechoic chamber, the values related to the power and sensitivity tested are shown in the table bel

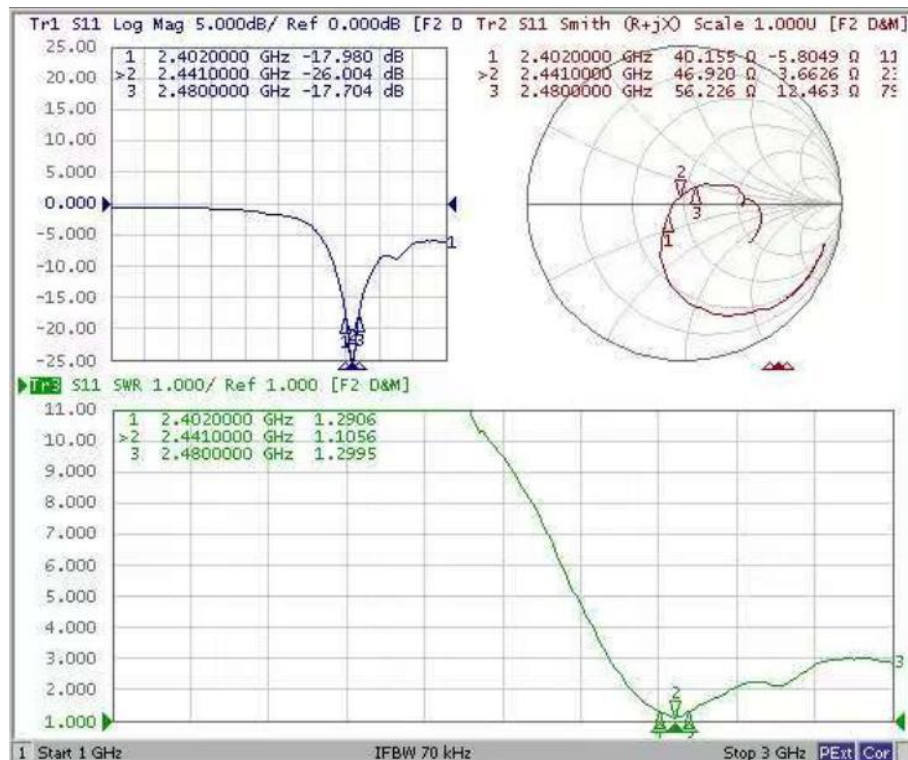
OTA 测试数据 OTA test data:

有源OTA	CH	TRP(dBm)	TIS(dBm)
	1	22.21	-81.31
	6	22.36	-82.78
	11	21.07	-83.97

无源效率&增益 Passive efficiency&gain:

Frequency(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	2.29	-2.21	60.1
2410	2.33	-2.19	60.38
2420	2.22	-2.19	60.35
2430	2.17	-2.11	61.53
2440	2.33	-2.09	61.7
2450	2.58	-2.09	61.83
2460	2.59	-2.12	61.43
2470	2.62	-2.10	61.69
2480	2.57	-2.11	61.52
2490	2.53	-2.11	61.47
2500	2.57	-2.17	60.71

4、VSWR 参数图 VSWR parameter diagram

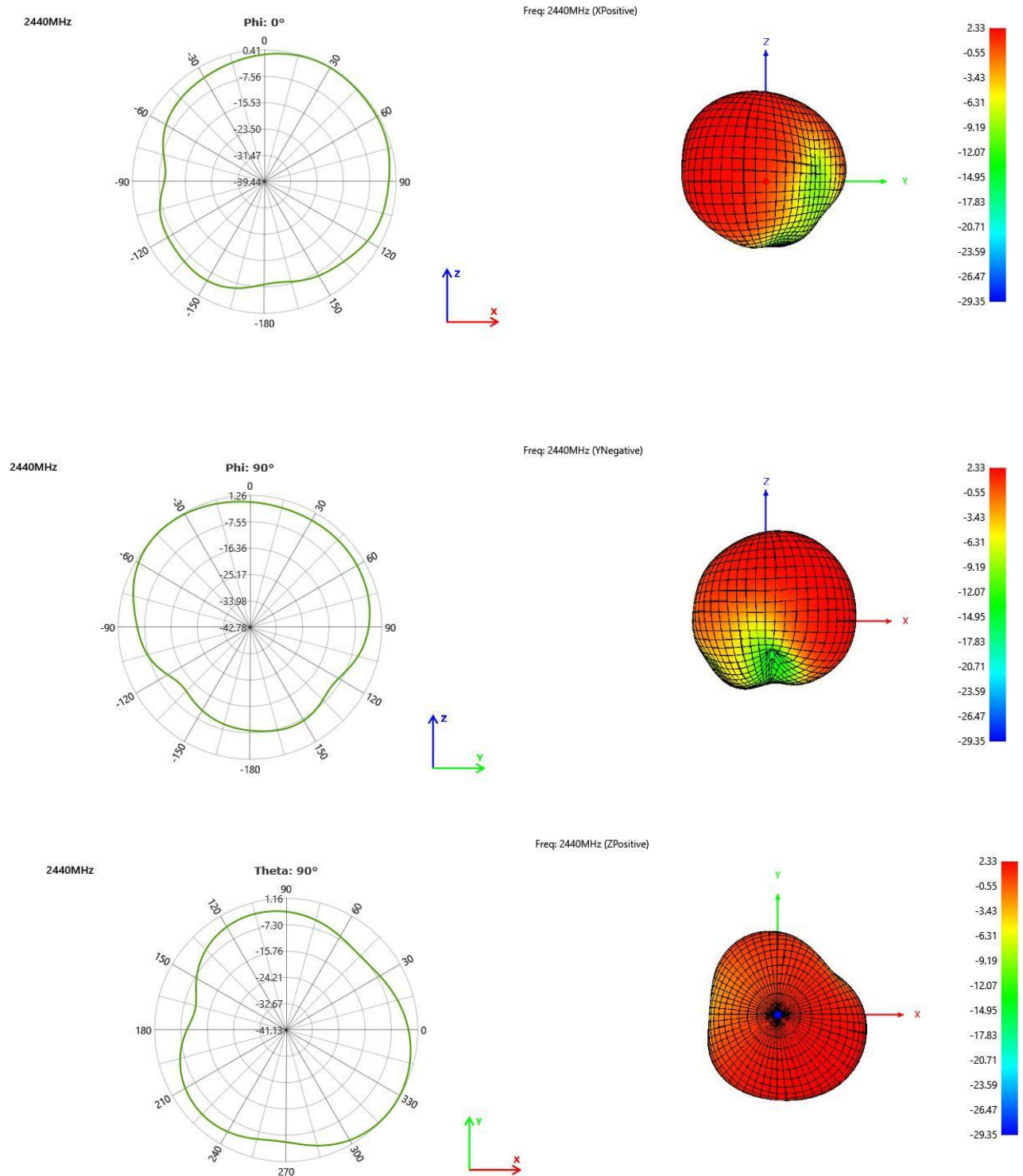


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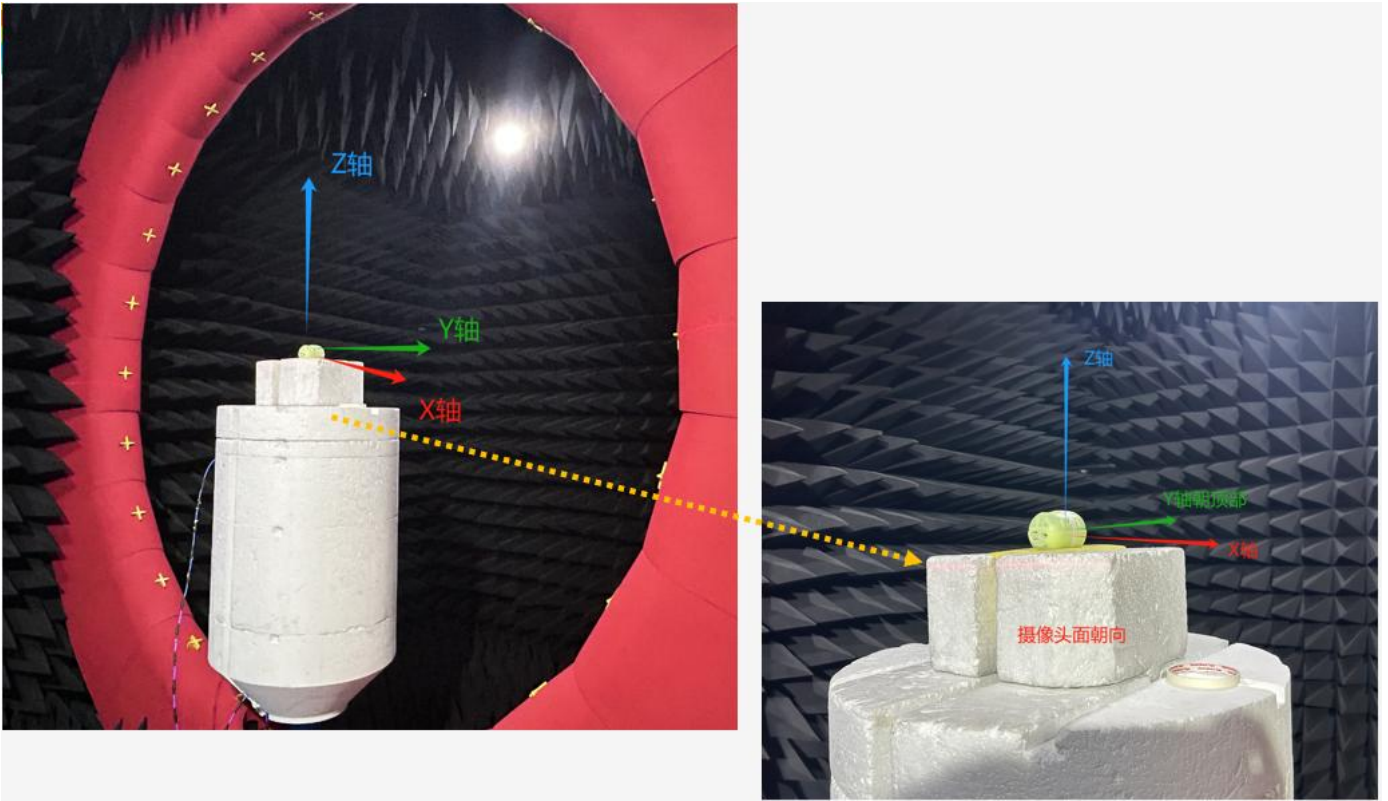
5、无源场型图 Passive Field Pattern Diagram



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6、实验室测试图片 Laboratory Test Pictures



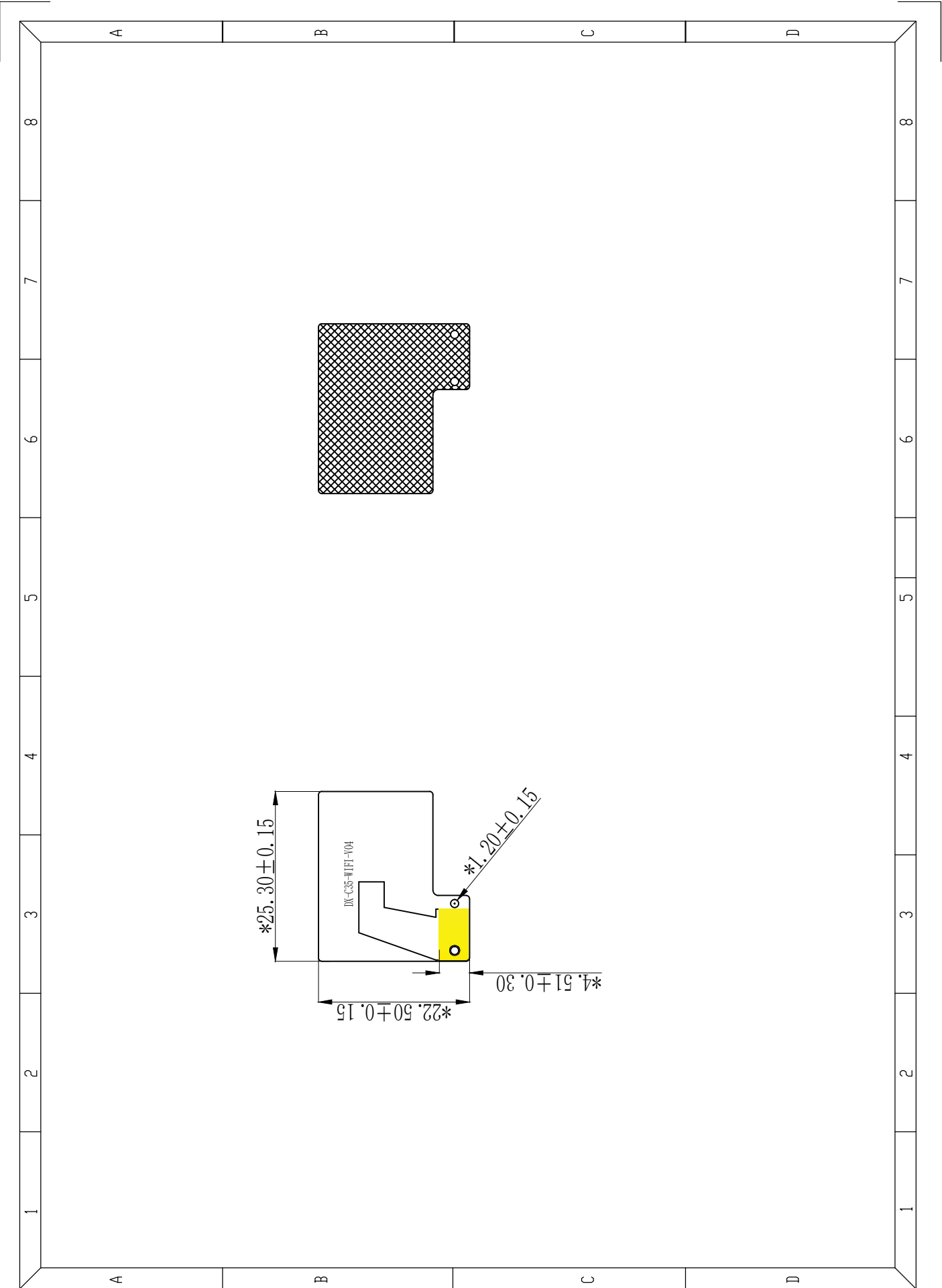
7、结论 conclusion

此天线是在客户提供样机基础上设计，电参数和结构性能已达到技术要求，请确认！

This antenna is designed based on the prototype provided by the customer. The electrical parameters and structural performance have met the technical requirements, please confirm!

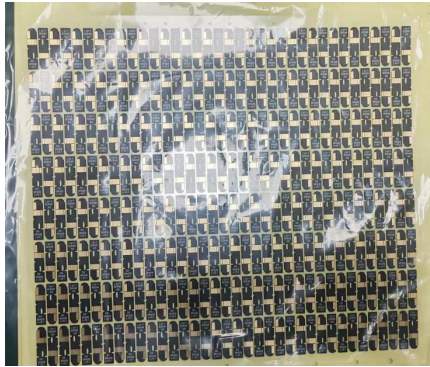
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一、包装方式 Packing method:

1 . 整版 FPC Full FPC:



2. 入盒包装, 每盒50版 Packed in boxes with 50 editions per box;



二、运输要求 Transport requirements:

产品包装件运输时, 应防潮、防破损、防污染。

When the product package is transported, it should be moisture-proof, damage-proof and pollution-proof.

三、存储要求 Storage requirements:

产品包装件应在仓库内堆放, 库房应干燥、通风、清洁。

Product packages should be stacked in the warehouse, which should be dry, ventilated and clean.

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