

广州极飞科技股份有限公司

样品承认书

产品料号: 01-003-00491

产品版本: A1

产品名称: 球阀加长版2. 4G外置天线

产品规格: 2.4G PCB 天线 RG178 黑色线
L=2475mm+FAKRA A 母头黑色

原料牌号:

表面处理: 镭雕

供 应 商: 东莞市海恒电子科技有限公司

极飞签核		
结构设计	可靠性质量	中试审批
说明:		

供应商签核		
制作	审核	核准
邓文兵	胡超	陈鹏
说明:		

Product Number: AN2400-PCB211BX
Product Name: Antenna

Index:

- 1. Specification (规格)
- 2. Antenna - S Parameter Test Data (样品测试数据)
- 3. Antenna - Radiation Pattern Test Data (辐射模式测试数据)
- 4. Mechanical and Packing Drawing (图纸包装规范)

Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2024.12.10	初版	
1.1	2025.02.15	修改178线材型号， 增加镭雕打印二维码	

Product Number: AN2400-PCB211BX

Product Name: Antenna

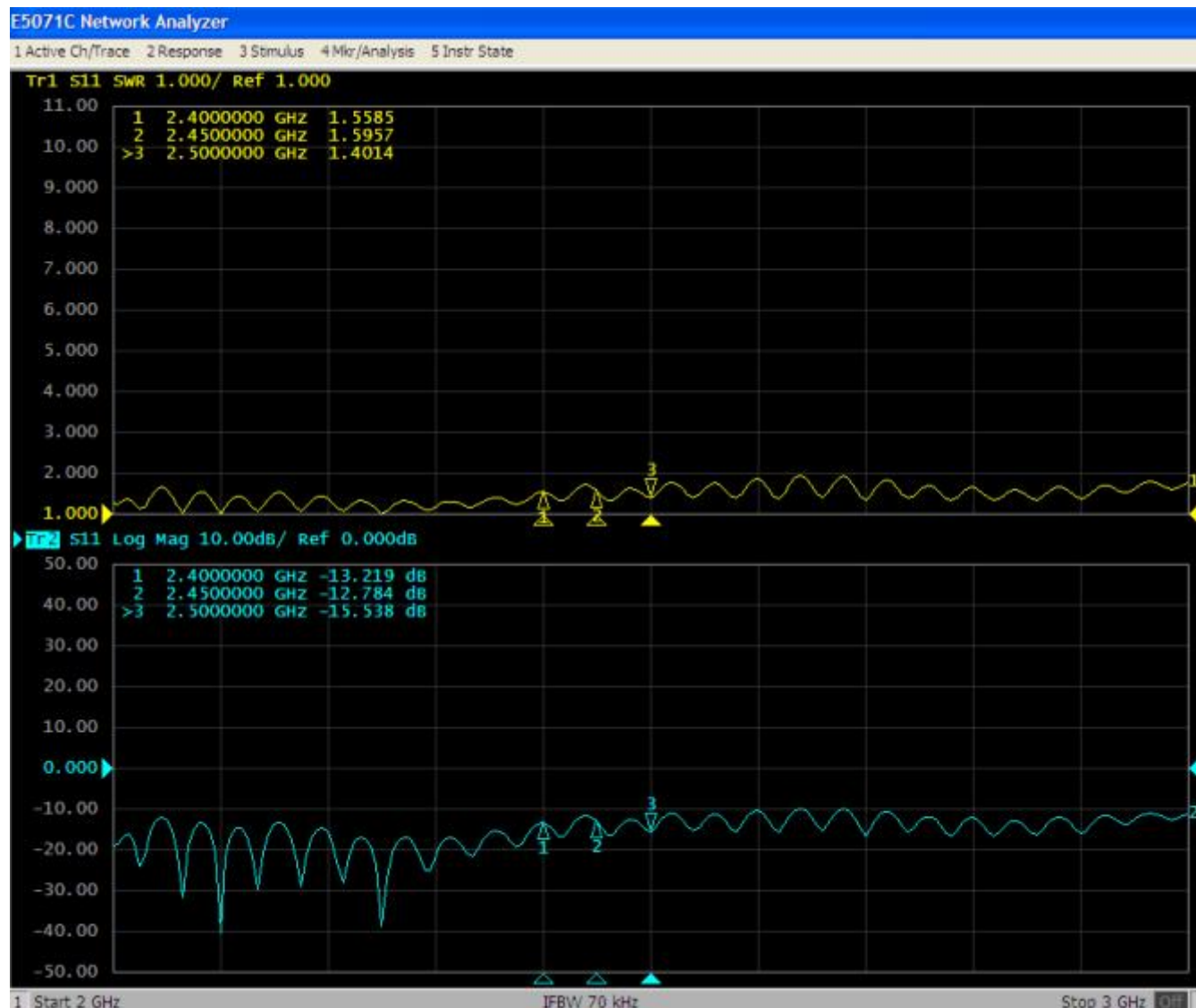
1. Specification

Sample Photo	
	
Frequency 频率	2400-2500 MHz
S.W.R. 驻波比	≤ 2.0
Antenna Gain 增益	-1.07dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm
Cable Type 线材规格	RG178,Black
Connector Type 连接器规格	FAKRA A 母头黑色
Pull Test 拉力	5kg
Salt Spray 盐雾	48H
Waterproof rating 防水等级	IP54
Storage Temperature 存储温度	- 40°C ~ +80 °C
Operation Temperature 工作温度	- 40°C ~ +80 °C
Environment Protections 环保要求	RoHS

Product Number: AN2400-PCB211BX

Product Name: Antenna

2. Antenna - S Parameter Test Data



3. Antenna - Radiation Pattern Test Data

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	-1.26	-1.25	-1.18	-1.12	-1.16	-1.07	-1.38	-1.77	-1.81	-1.51	-1.47
Efficiency (%)	15.41	15.26	15.98	15.91	16.70	16.47	14.96	13.93	13.79	12.82	13.13

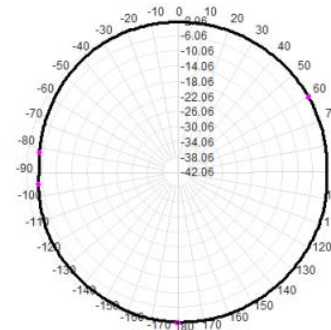
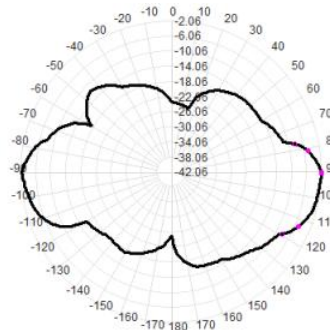
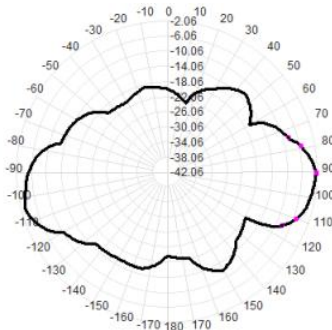
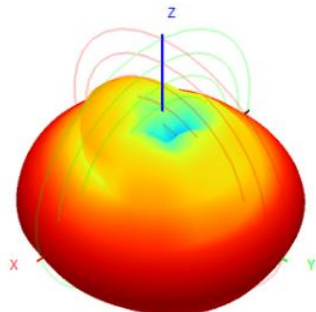
Product Number: AN2400-PCB211BX
 Product Name: Antenna

XZ

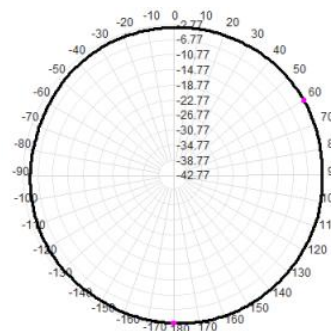
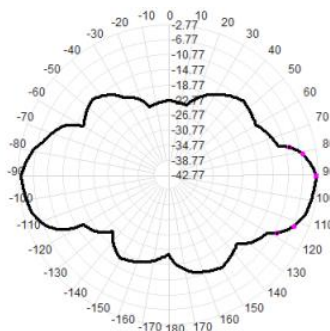
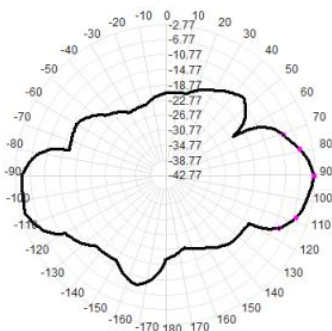
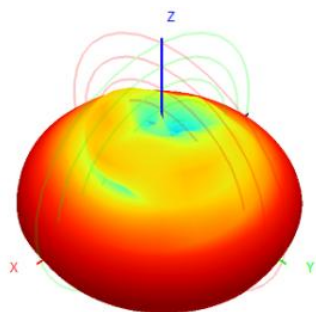
YZ

XY

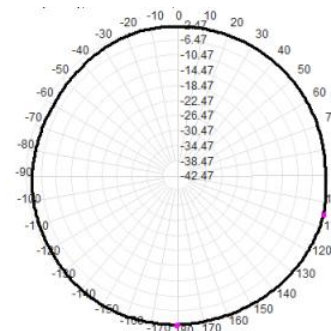
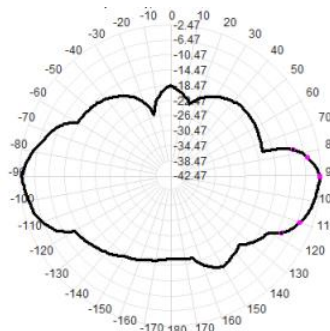
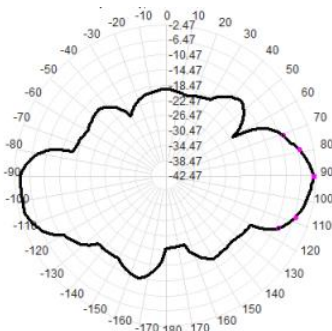
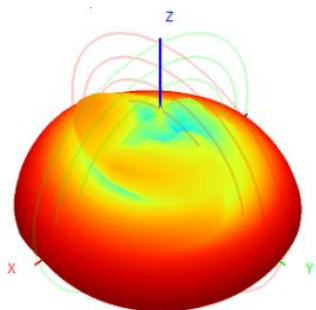
2400MHz



2450MHz

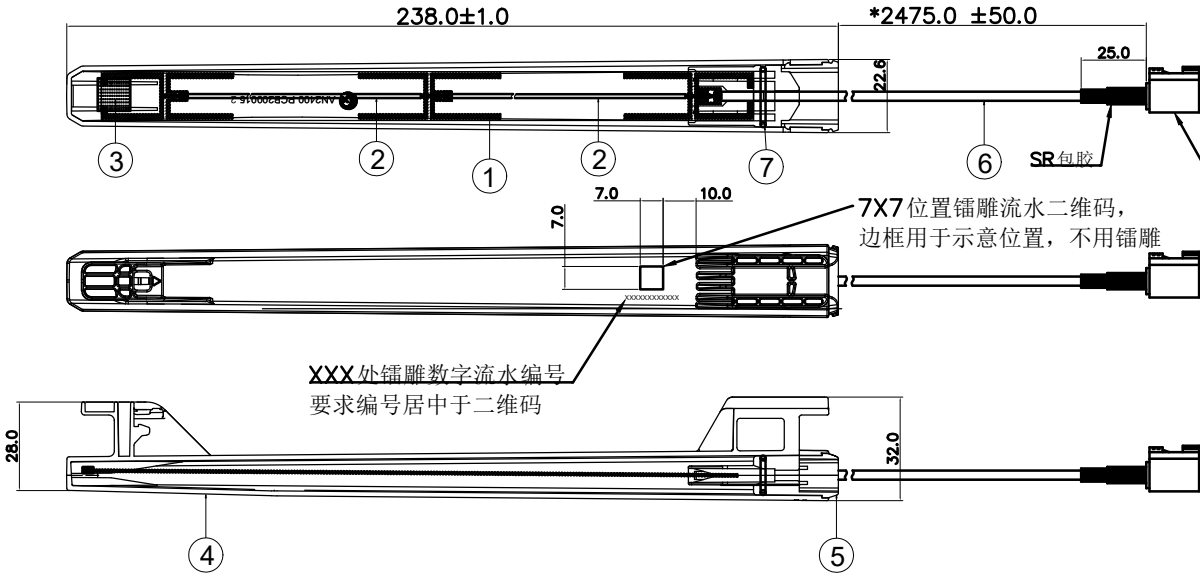


2500MHz



4. Mechanical Drawing See attached files

1	2	3	4	5	6	7	8																																																
HF☐ RoHS 2.0☒ REACH☐ CONFIDENTIAL					<table><tr><td>SIGN</td><td>DATE</td><td>DESCRIPTION</td><td>APPROVER</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>			SIGN	DATE	DESCRIPTION	APPROVER																																												
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C	 按图片所示绕线, FAKRA A 母头装进塑胶壳内						C																																																
B							B																																																
A	<table><tr><td>7</td><td>02-001-11784</td><td>客指防水胶圈</td><td>硅胶60度</td><td></td><td>1</td></tr><tr><td>6</td><td>CABLE-178-BFK-2520</td><td>Cable+FAKRA-A JACK</td><td>FEP双银线</td><td>客指指线材; OD:φ2.0</td><td>1</td></tr><tr><td>5</td><td>02-001-11783</td><td></td><td>PA6+30%GF</td><td>客指塑胶壳</td><td>1</td></tr><tr><td>4</td><td>02-001-11782</td><td></td><td>PA6+30%GF</td><td>客指塑胶壳</td><td>1</td></tr><tr><td>3</td><td>BJ-40-200100</td><td>海绵</td><td></td><td>20*10mm; T=4.0mm</td><td>1</td></tr><tr><td>2</td><td>CB-137BS</td><td>Coaxial Cable</td><td></td><td>Ø1.37mm, Black</td><td>2</td></tr><tr><td>1</td><td>AN2400-PCB200015-2</td><td>PCB</td><td>FR4</td><td>Black T=0.8mm</td><td>1</td></tr><tr><td>No.</td><td>Part Number</td><td>Name</td><td>Material</td><td>Finish</td><td>Q'ty</td></tr></table>						7	02-001-11784	客指防水胶圈	硅胶60度		1	6	CABLE-178-BFK-2520	Cable+FAKRA-A JACK	FEP双银线	客指指线材; OD:φ2.0	1	5	02-001-11783		PA6+30%GF	客指塑胶壳	1	4	02-001-11782		PA6+30%GF	客指塑胶壳	1	3	BJ-40-200100	海绵		20*10mm; T=4.0mm	1	2	CB-137BS	Coaxial Cable		Ø1.37mm, Black	2	1	AN2400-PCB200015-2	PCB	FR4	Black T=0.8mm	1	No.	Part Number	Name	Material	Finish	Q'ty	A
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238.0±1.0

*2475.0 ±50.0

22.6

25.0

3

2

1

2

7

6

SR 包胶

FAKRA A 母头 黑色

7.0

7.0

10.0

7X7位置镭雕流水二维码, 边框用于示意位置, 不用镭雕

如下图所示, 出线孔处打8008白色胶水

XXX外镭雕数字流水编号 要求编号居于二维码

28.0

32.0

4

5

Note:

1.Mark * is important dimension;"Cpk "Identify for process control(CpK≥ 1.33).

2.Tolerance:Unmarked tolerance refer to the standard tolerance please.

3.Pay attention to the direction of the connector.

东莞市海恒电子科技有限公司

TITLE: Antenna

PART NO.: AN2400-PCB211BX

CUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	SY	UNITS: mm	X.X ±0.5
2025.02.17	2025.02.17	2025.02.17	2025.02.17	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X° ±1

产品包装规范

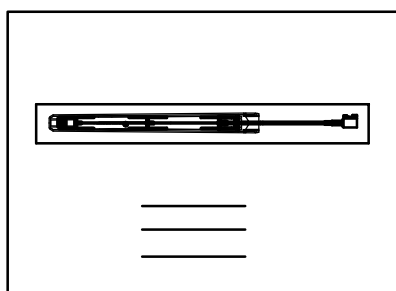
PACKING CRITERION

Date: 2025.02.14

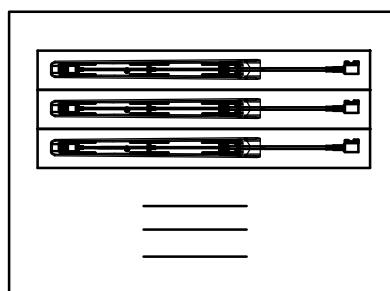
Page: 1 of 1

Part Number : AN2400-PCB211BX	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag。

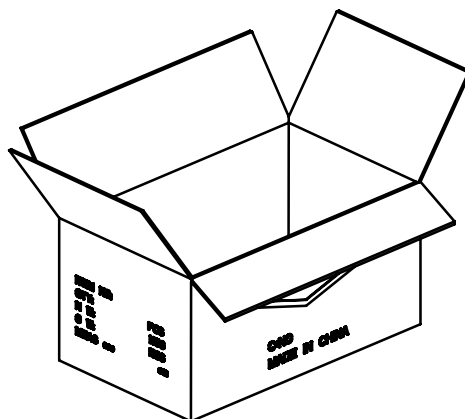


1pcs/ PE bag小袋



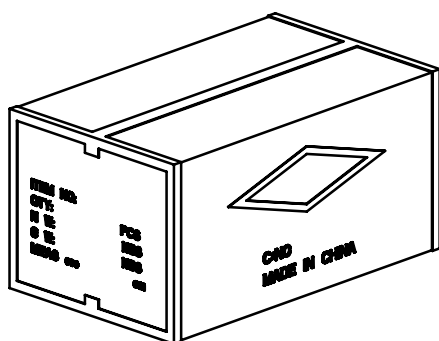
10pcs/ PE bag中袋

2.PACKING。

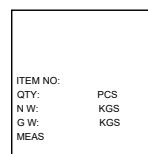


以实际数量为准

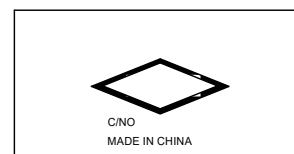
3. SEALING。



SIDE



FRONT



APPROVED BY : YCX CHECKED BY : HC DESIGNED BY : SY Y