



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2400-FPC53BX

Product Name: Antenna

Specification For Approval

Date: 2022.09.14

Version: 1.0

客户名称

Customer:

客户料号

Customer P/N:

腾祥料号

TX P/N:

AN2400-FPC53BX

规格描述

Description : 2.4G FPC 天线带支架 OD1.13mm 黑色双出线 35mm&45mm +IPEX

Tengxiang Checked By: 腾祥审核		Customer Approved By: 客户审核	
DRAWN 制作	路婷	TESTED BY 检测	
CHECKED BY 审核	胡超	CHECKED BY 审核	
Q.C.DEPT. 品管	梁凤珍	Q.C.DEPT. 品管	
APPROVED BY 核准	韦佳	APPROVEDBY 核准	



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Revision History (变更履历)

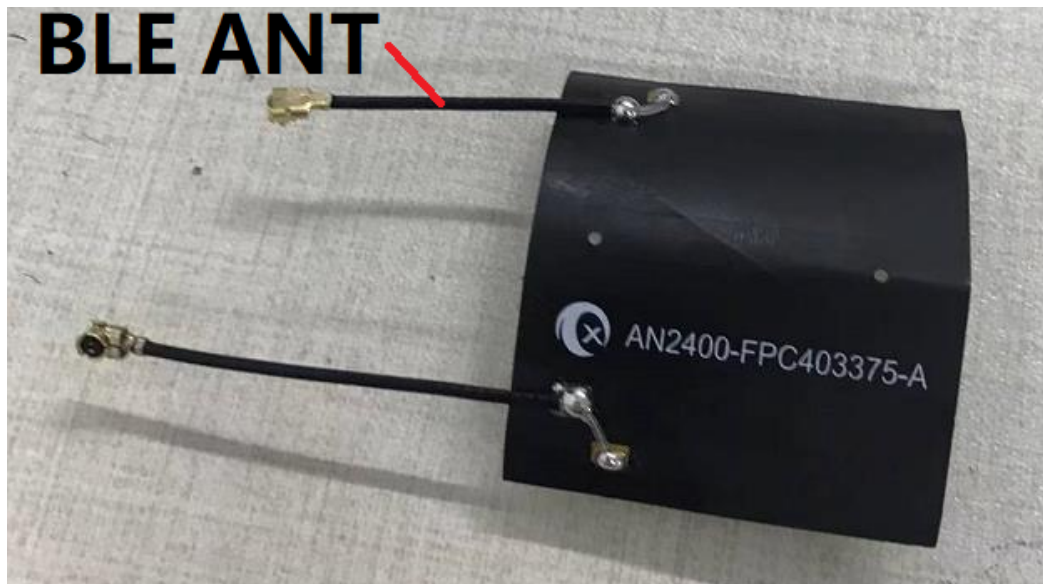
Revision	Date	Change Notification	Description
1.0	2022.09.14	初版	

Product Number: AN2400-FPC53BX

Product Name: Antenna

1. Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	2400-2500 MHz
S.W.R. 驻波比	≤ 2.0
Antenna Gain 增益	L=35mm : 4.36dBi / L=45mm : 3.77dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm

B. Material & Mechanical Characteristics

Cable Type 线材规格	OD1.13mm ,Black
Connector Type 连接器规格	Mini con

C. Environmental

Storage Temperature 存储温度	- 40°C ~ +80 °C
Operation Temperature 工作温度	- 40°C ~ +80 °C

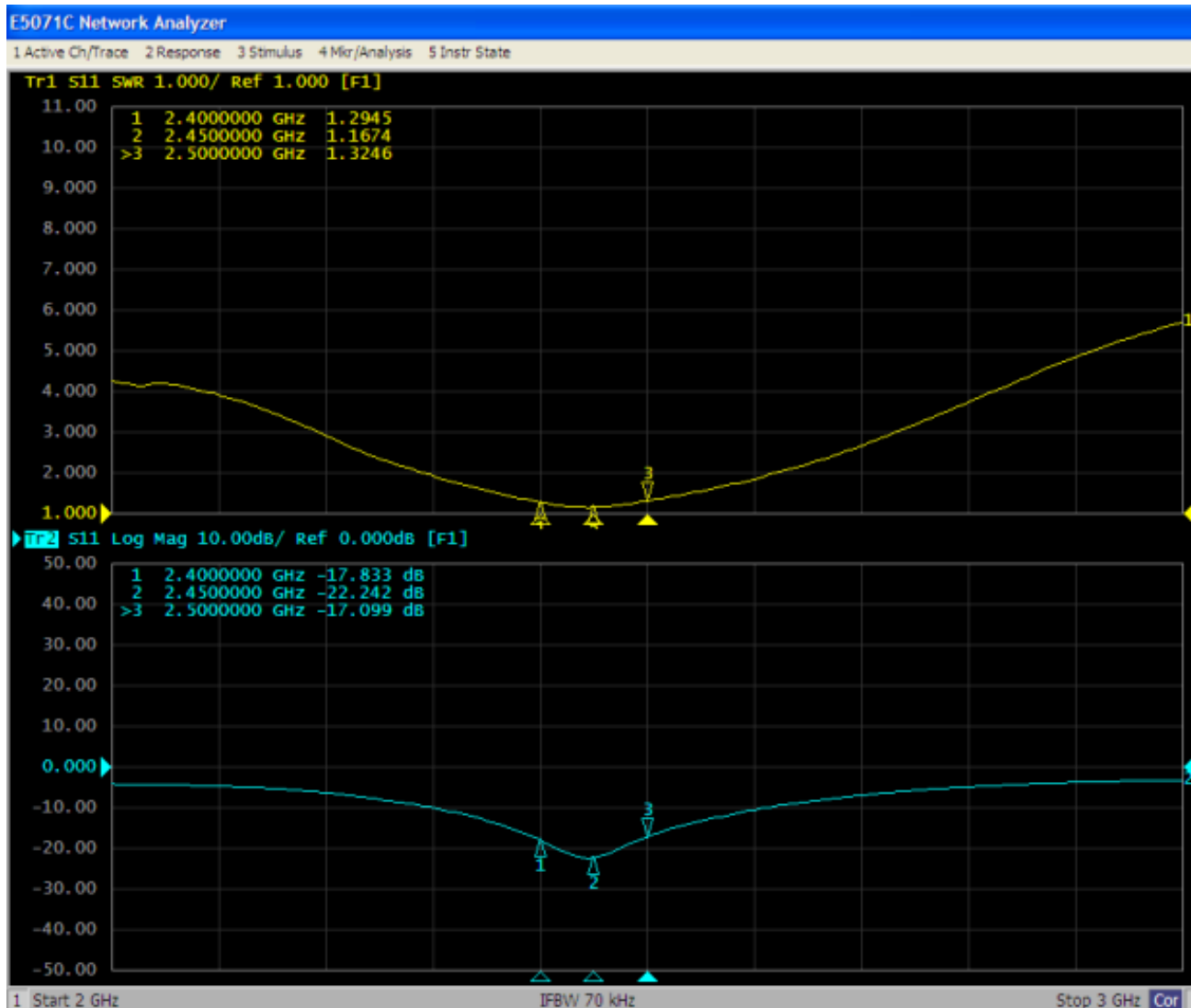
2. Characteristics and Reliability Test

Test Items 测试项目		Test Condition and Procedure 测试方法	Requirements 要求	Result 结果
1	V.S.W.R. 电压驻波比	Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试	Directive DUT specification 符合待测物规范	PASS
2	Insertion Loss 插入损失	Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试	Directive DUT specification 符合待测物规范	PASS
3	Antenna Gain 天线增益	Set DUT on Antenna Chamber; make individual calibration to test 设置天线暗室参数进行测试	Directive DUT specification 符合待测物规范	PASS
4	Solderability 可焊性	GB / T2423.28-2005 Temp: 260±5° C;Duration: 5 seconds 温度 260±5° C;持续 5 秒	Tin evenly on full 上锡均匀饱满	N/A
5	Pull Test 拉力	Holding with individual specification; force applied to axis of terminal .单独定义产品端子拉力	1. Directive DUT specification 2. Frequency Tol.≤5% 符合待测物规范;频率偏移≤5%	PASS
6	Dimension 尺寸	Inspection of dimension, color, material, package, surface process.检查尺寸,颜色,材料,包装,表面处理	Directive DUT specification 符合待测物规范	PASS
7	Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%;Time: 24H 温度 35°C; 湿度≥95%;盐水浓度≥5%; 测试 24H	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤5%	PASS
8	RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2015/863/EU 符合 RoHS 2015/863/EU 标准	PASS

Product Number: AN2400-FPC53BX

Product Name: Antenna

3. Antenna - S Parameter Test Data



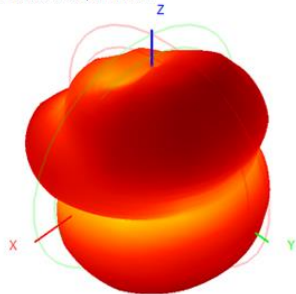
L= 35mm

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)	3.33	3.47	3.70	4.01	4.26	4.32	4.32	4.31	4.36	4.31	4.17
Efficiency (%)	60.98	62.63	64.43	65.09	66.17	64.09	61.41	59.19	59.57	58.40	57.24

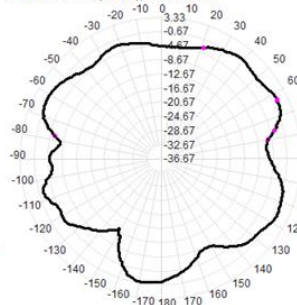
Product Number: AN2400-FPC53BX

Product Name: Antenna

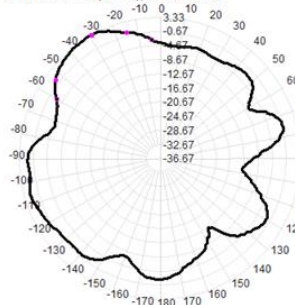
2400.0MHz H+V, Eff: 61.0%



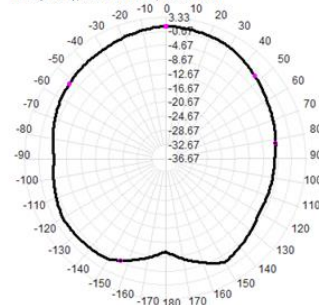
2400.0MHz Total(E1-XZ), Max= 0.13dBi



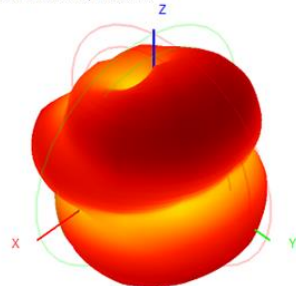
2400.0MHz Total(E2-YZ), Max= 3.33dBi



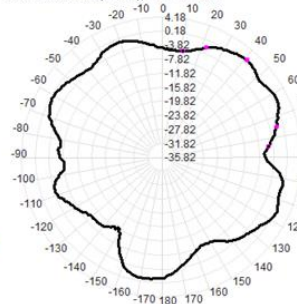
Total(H+V), Max= 0.85dBi, CirD=11.34



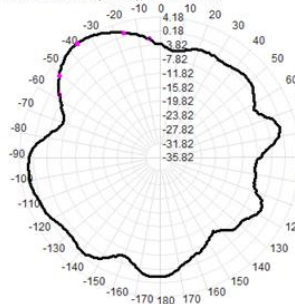
2450.0MHz H+V, Eff: 64.1%



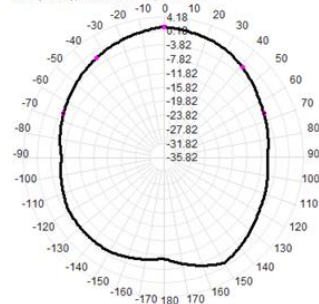
2450.0MHz Total(E1-XZ), Max= 1.01dBi



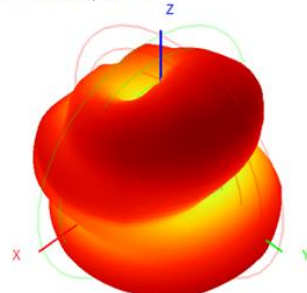
2450.0MHz Total(E2-YZ), Max= 4.18dBi



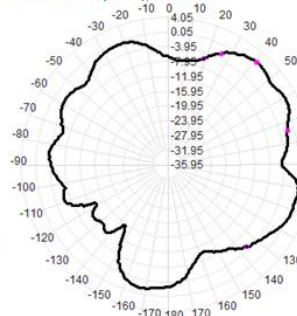
Total(H+V), Max= 1.32dBi, CirD=8.42



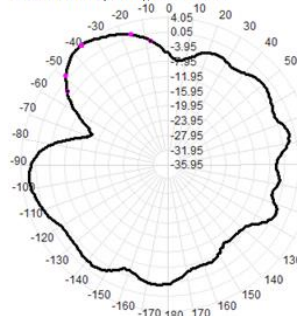
2500.0MHz H+V, Eff: 57.2%



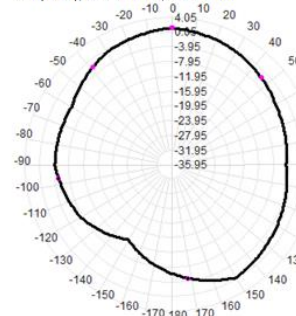
2500.0MHz Total(E1-XZ), Max= 0.93dBi



2500.0MHz Total(E2-YZ), Max= 4.05dBi

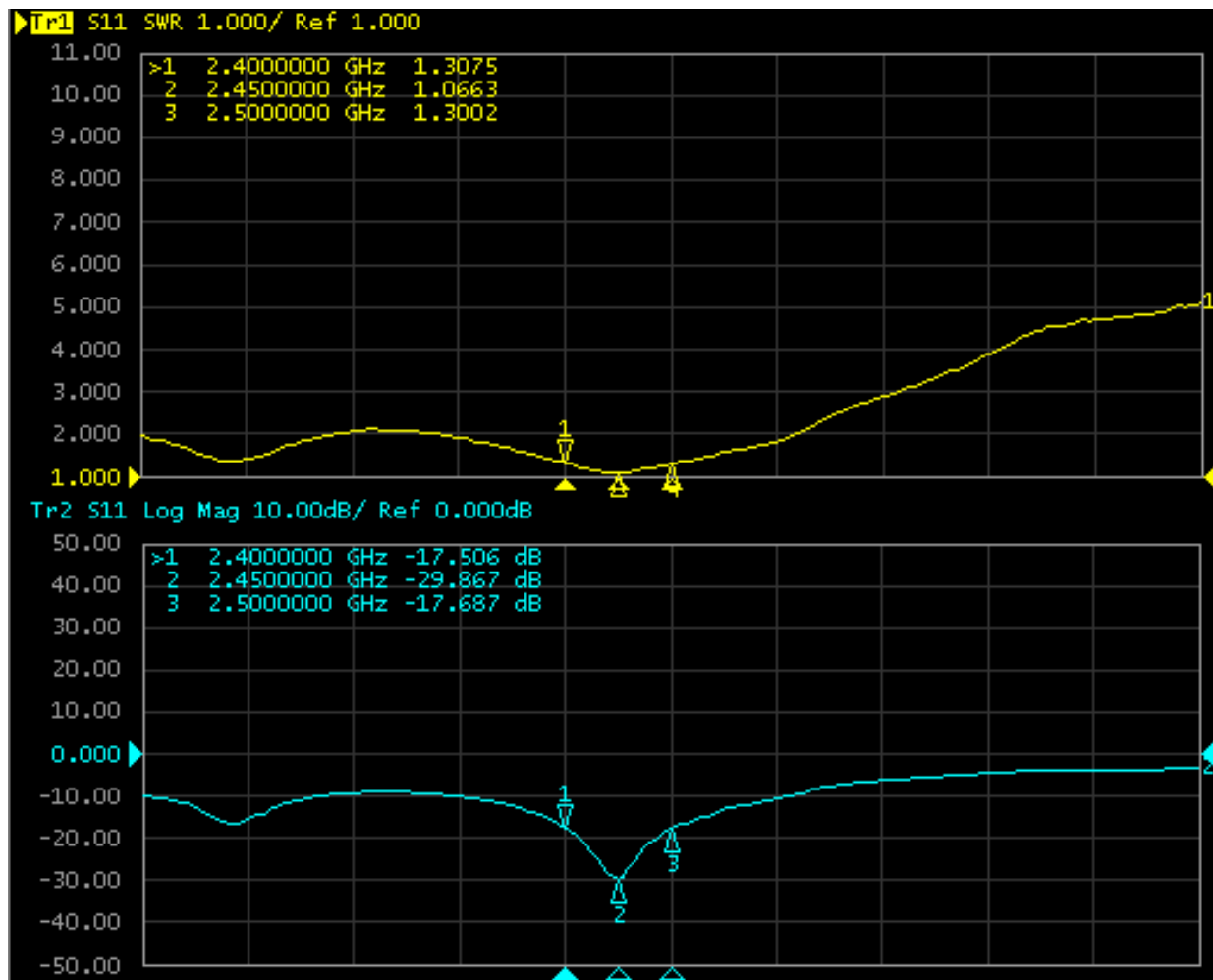


Total(H+V), Max= 1.10dBi, CirD=13.65



Product Number: AN2400-FPC53BX

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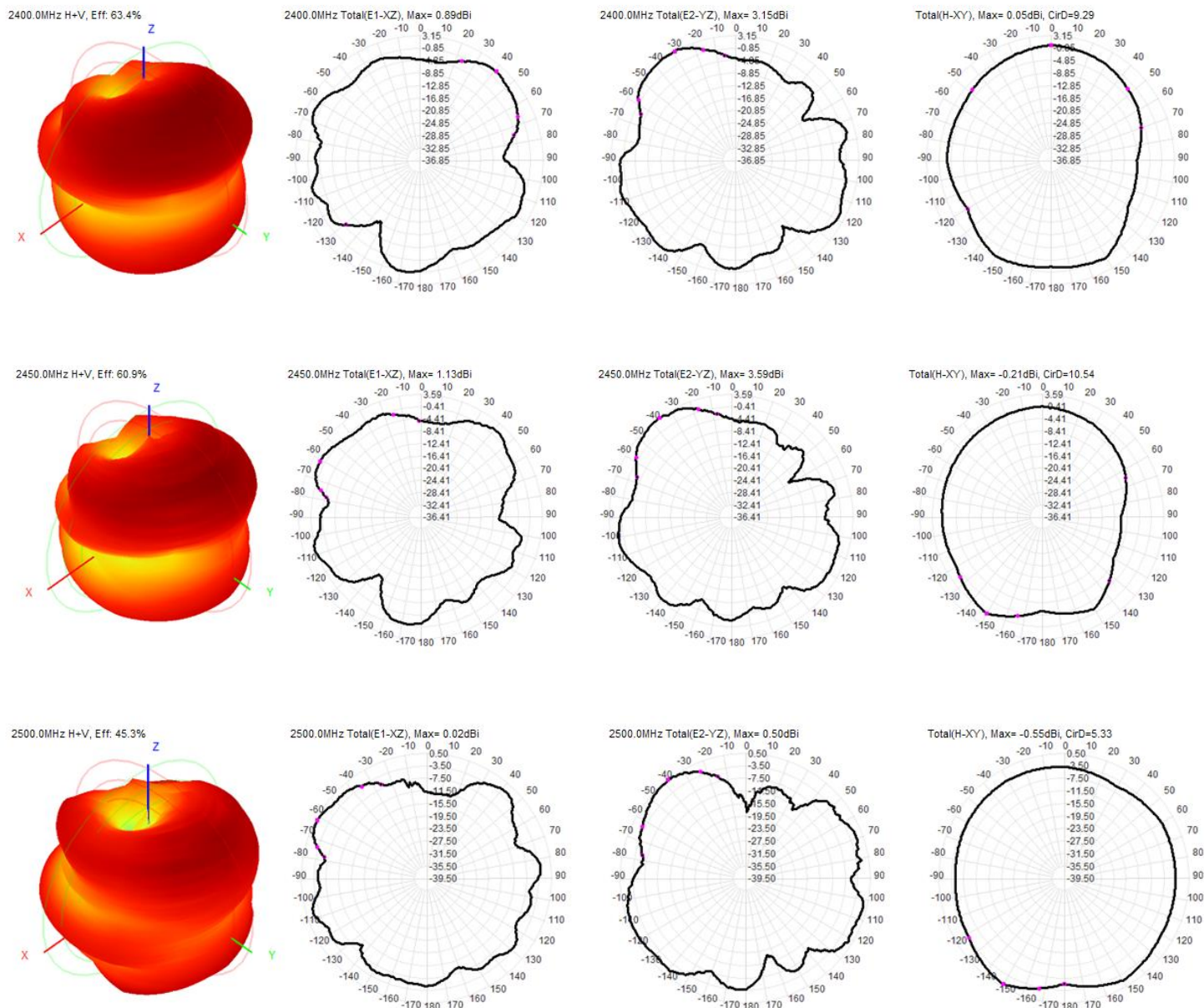


L= 45mm

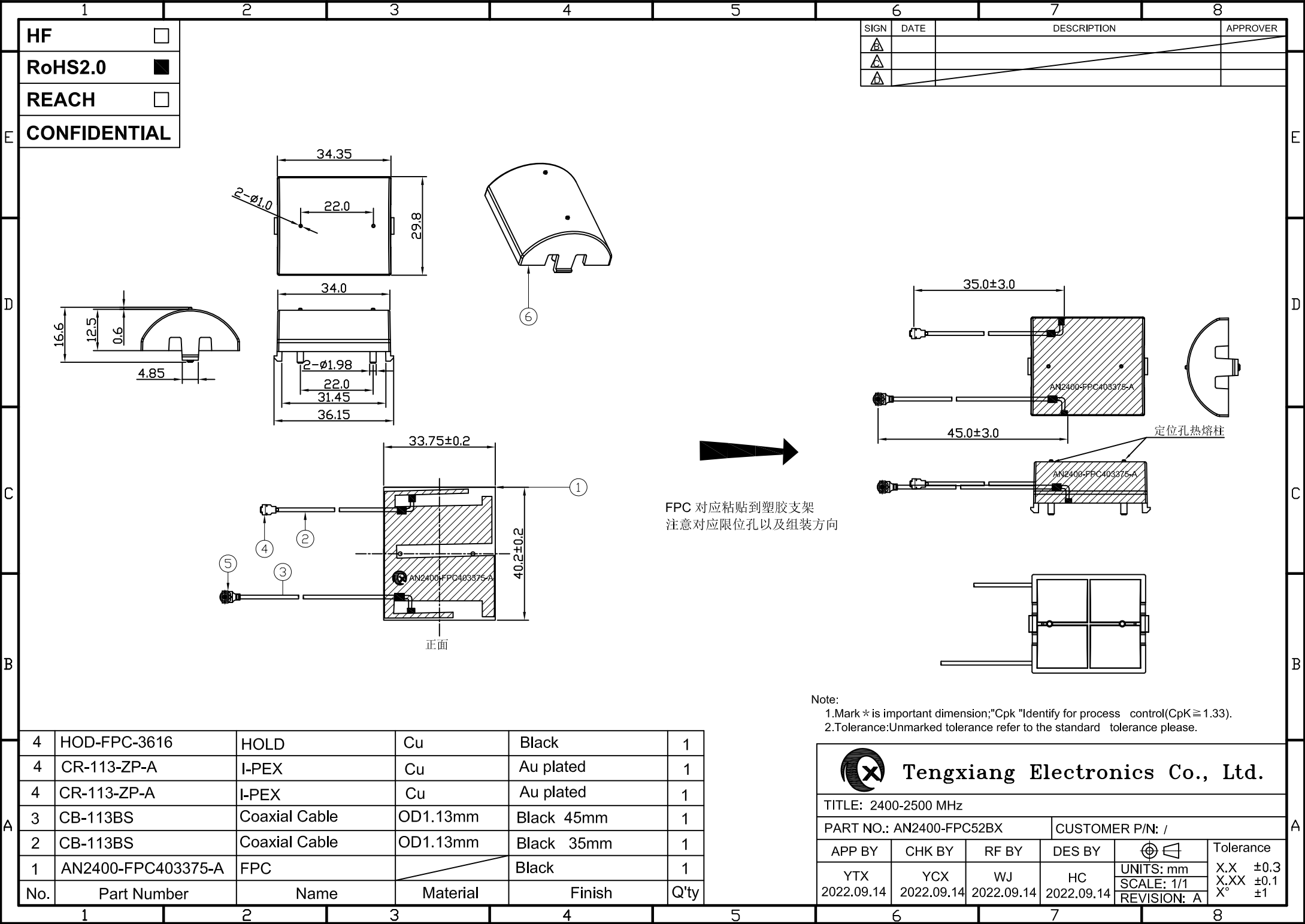
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	3.15	3.31	3.60	3.70	3.77	3.59	3.18	2.71	1.85	0.97	1.39
Efficiency (%)	63.40	64.12	66.17	64.67	63.99	60.90	54.71	50.18	46.50	44.25	45.28

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4. Mechanical Drawing See attached files



HF ☐
RoHS2.0 ☒
REACH ☐
CONFIDENTIAL

SIGN	DATE	DESCRIPTION	APPROVER

FPC 对应粘贴到塑胶支架
注意对应限位孔以及组装方向

Note:
1.Mark * is important dimension;"Cpk "Identify for process control(CpK≥1.33).
2.Tolerance:Unmarked tolerance refer to the standard tolerance please.

Tengxiang Electronics Co., Ltd.

TITLE: 2400-2500 MHz					
PART NO.: AN2400-FPC52BX				CUSTOMER P/N: /	
APP BY	CHK BY	RF BY	DES BY		Tolerance
YTX	YCX	WJ	HC	UNITS: mm	X.X ±0.3
2022.09.14	2022.09.14	2022.09.14	2022.09.14	SCALE: 1/1	X.XX ±0.1
REVISION: A					X" ±1

產品包裝規範

PACKING CRITERION

Date: 2022.09.14

Page: 1 of 1

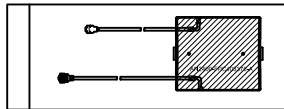
Part Number : AN2400-FPC52BX

Revision : A

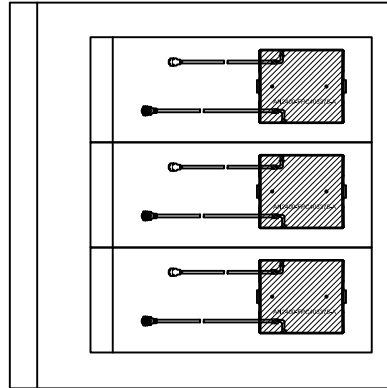
Name: Antenna

Customer : ALL

1 . Enter PE bag。

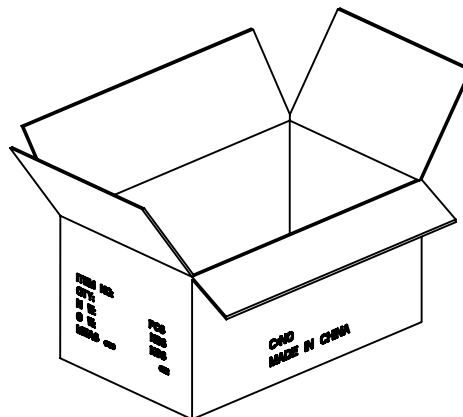


1pcs/ PE bag



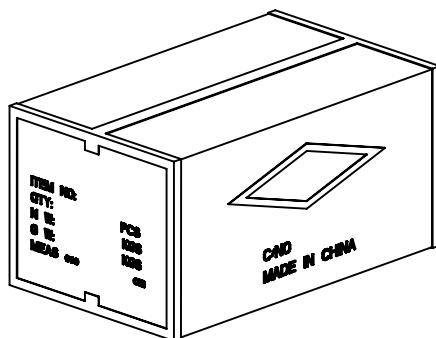
50pcs/ PE bag

2.PACKING。

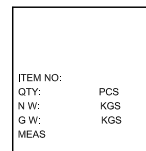


500pcs/Carton

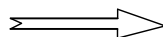
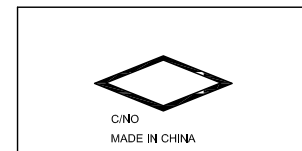
3. SEALING。



SIDE



FRONT



APPROVED BY: YTX

CHECKED BY: YCX

DESIGNED BY: HC