

Sample acceptance letter

File number			
version			
material code	15830000500		
Material name	FPC board -AN2400- FPC0847		
Material specification	OPEN/2.4G antenna/no bonding wire /8.0*47*0.15MM/ Tengxiang /TX		
Material classification	☐ Outsourcing key components ☐ Customize packaging materials for ordinary components.	☐ Outsourcing common components Customize common spare parts accessories and tools.	Customize wire samples of key components Guest-supplied materials
supplier	Dongguan tengxiang electronics co., ltd ☒		
Date of sample delivery	2024-2-27		
Annex list	☒ Specification ☒ Drawings ☐ Function and Performance Test Report ☐ Hazardous Substances ☐ Questionnaire ☐ Material certification	☐ Dimensional inspection report ☐ reliability inspection report ☐ third-party environmental protection report	Appearance inspection report Appearance inspection report MSDS report

深圳市好盈科技股份有限公司

Shenzhen Hobbywing Technology Co., Ltd

	report	☐ PPAP data	sample	
Approval signature				
Supplier development management department	R &D Center	Quality engineering center	market department	Sales department
Confirmation result: ☐ qualified ☐ not conform to other				

深圳市好盈科技股份有限公司
Shenzhen Hobbywing Technology Co

[illegible]



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

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- 2. Characteristics and reliability test (product characteristics and reliability test standard)
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- 5. Mechanical and Packing Drawing Revision History.

Revision	Date	Change Notification	Description
A2	2024.2.27	first edition	

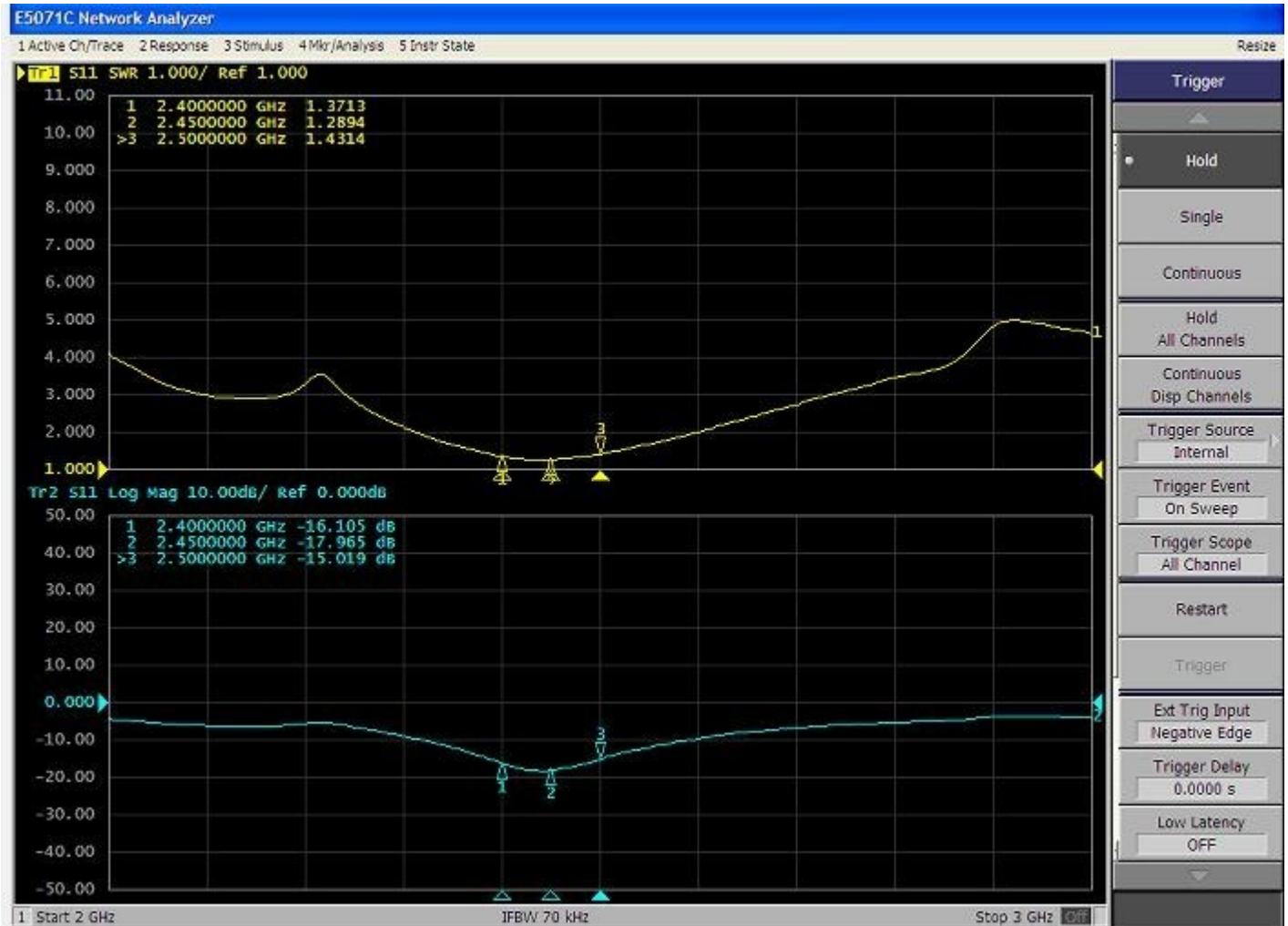
1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency frequency	2400-2500 MHz
S.W.R standing wave ratio	<= 2.0
Polarization polarization mode	2.12Bi
Impedence Impedance	50 Ohm
B. Material & Mechanical Characteristics	
C. Environmental	
Storage Temperature	- 40°C ~ +80 °C
Storage temperature	
Operation Temperature	- 40°C ~ +80 °C
Working temperature	

2. Characteristics and Reliability Test

Test Items test project		Test Condition and Procedure test method	Requirements requirements	Result result
one	V.S.W.R. voltage standing wave ratio	Set DUT on Network Analyzer; make individual Calibration to test sets parameters of network analyzer for testing.	Directive DUT specification Conform to the specification of the object to be tested	PASS
2	Insertion Loss insertion loss lose	Set DUT on Network Analyzer; Make individual calibration to test set network analyzer parameters for testing.	Directive DUT specification Conform to the specification of the object to be tested	PASS
three	Antenna Gain antenna gain	Set DUT on Antenna Chamber; Make individual calibration to test set antenna darkroom parameters for testing.	Directive DUT specification Conform to the specification of the object to be tested	PASS
four	Solderability weldability	GB / T2423.28-2005 Temp: 260±5°C; Duration: 5 seconds temperature 260 5°C; Lasts for 5 seconds	Tin evenly on full Uniform and full tin plating	PASS
five	Pull Test pulling force	Holding with individual specification; Force applied to axis of terminal. Define product terminal tension separately.	1. Directive DUT specification 2. Frequency Tol.≤5% Conform to the specification of the object to be tested; Frequency offset ≤5%	PASS
six	Dimension measure	Inspection of dimension, color, material, package, Surface process. Check the size, color, material, packaging and surface treatment.	Directive DUT specification Conform to the specification of the object to be tested	PASS
seven	Salt Spray salt spray	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%; Time: 24H Temperature 35°C; ; Humidity ≥95%; Saline concentration ≥ 5%; Test for 24 hours	1. No Visual Damage 2. Frequency Tol.≤5% No obvious bad appearance; Frequency offset ≤5%	PASS
eight	RoHS	With Reference to IEC 62321:2008 with flow chart Refer to IEC 62321 test flow.	Directive RoHS 2015/863/EU Comply with RoHS 2015/863/EU standard.	PASS

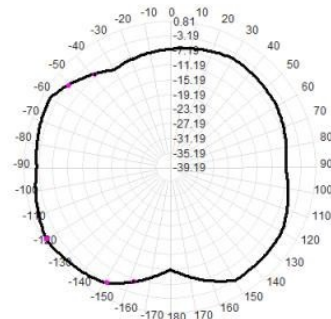
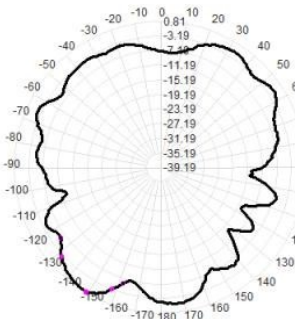
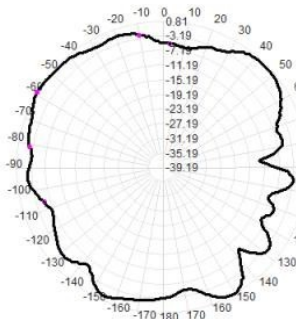
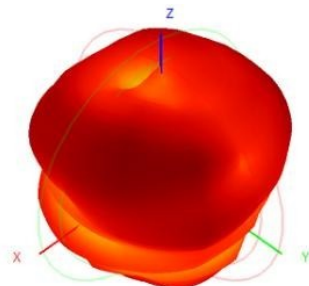
3. Antenna - S Parameter Test Data



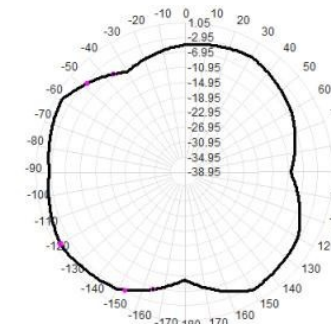
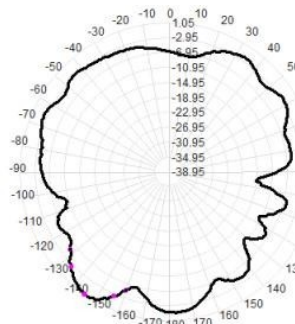
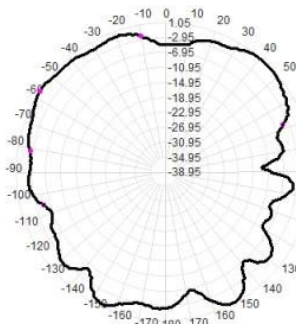
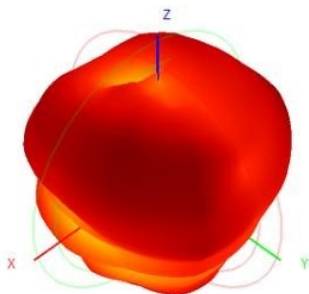
4. Antenna - Radiation Pattern Test Data

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)	1.35	1.62	1.74	1.95	2.12	2.11	1.92	1.88	1.82	1.86	1.96
Efficiency (%)	52.13	55.36	55.68	56.69	58.73	58.73	56.10	57.03	55.16	54.50	54.49

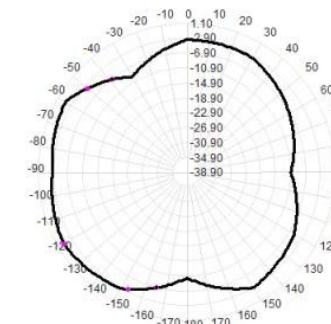
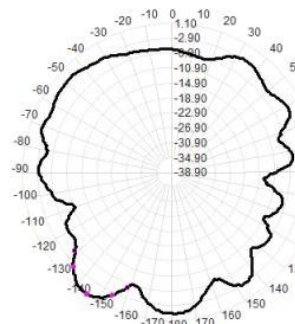
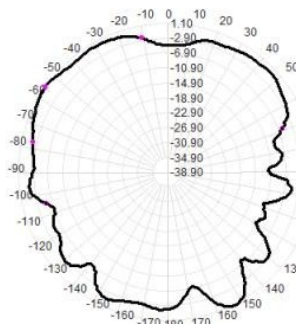
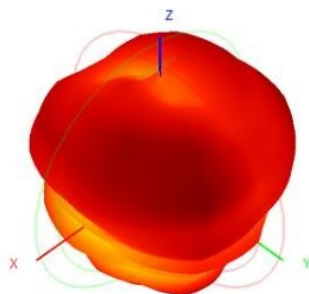
2400MHz



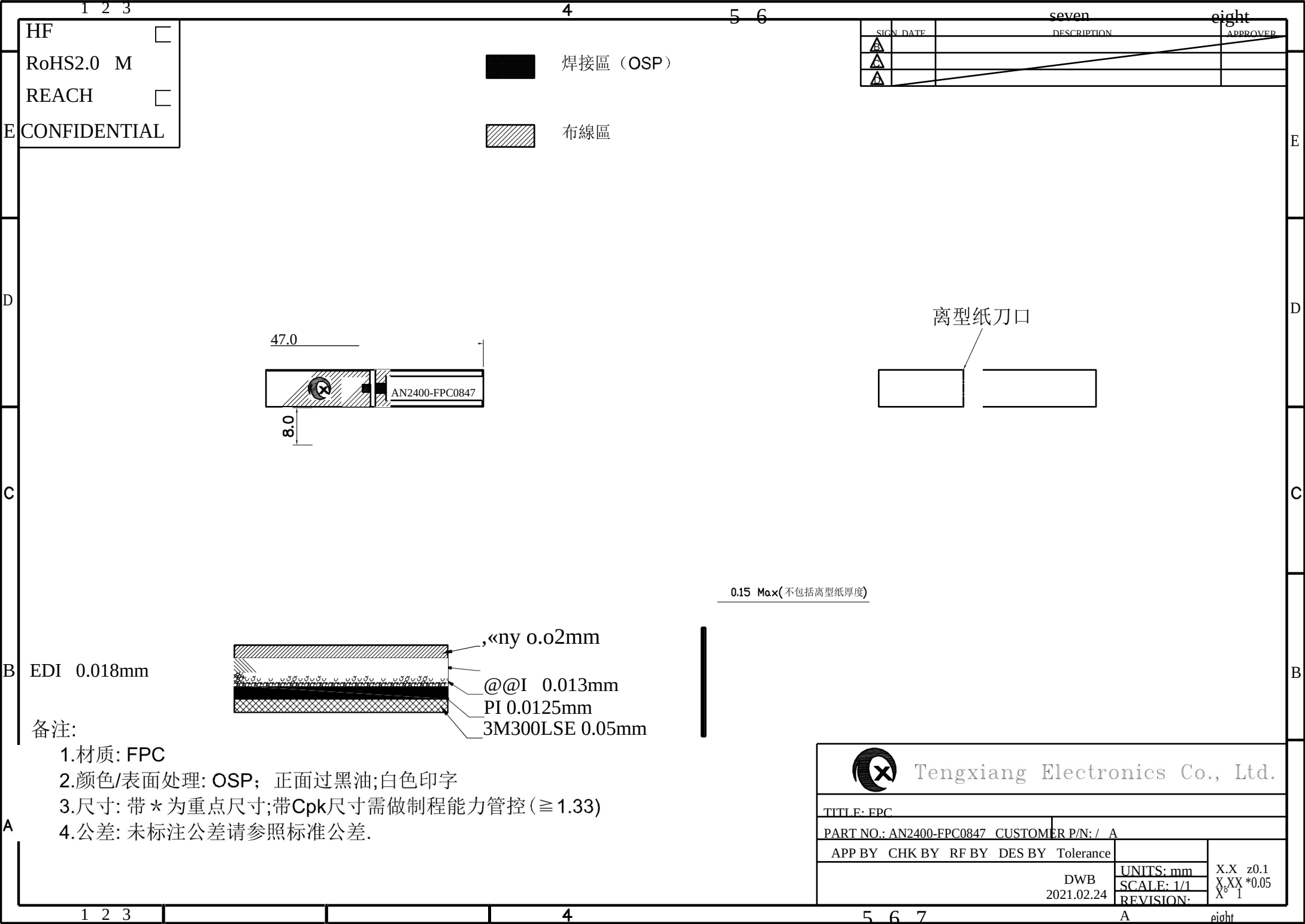
2450MHz



2500MHz

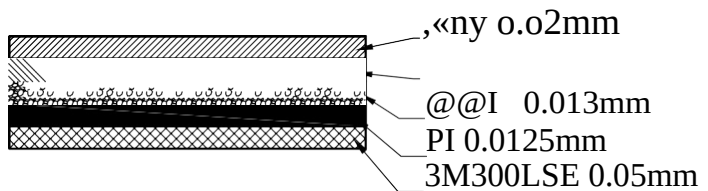
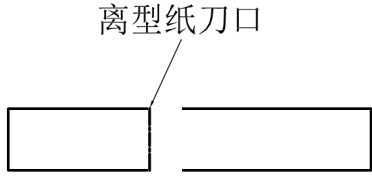
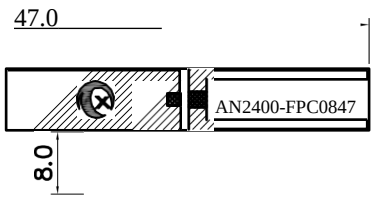


5. Mechanical Drawing See attached files



HF ☐
RoHS2.0 M
REACH ☐
CONFIDENTIAL

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



备注:

1.材质: FPC

2.颜色/表面处理: OSP; 正面过黑油;白色印字

3.尺寸: 带*为重点尺寸;带Cpk尺寸需做制程能力管控(≥ 1.33)

4.公差: 未标注公差请参照标准公差.

 Tengxiang Electronics Co., Ltd.			
TITLE: EPC			
PART NO.: AN2400-FPC0847 CUSTOMER P/N: / A			
APP BY	CHK BY	RF BY	DES BY Tolerance
DWB		UNITS: mm	X.X z0.1
2021.02.24		SCALE: 1/1	X.XX *0.05
		REVISION:	X° 1

PACKING CRITERION

Date: 2023.09.4

Page: 1 of 1

Part Number : AN2400-FPC0847	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag

500pcs/ PE bag

2.PACKING

以实际数量为准

3. SEALING o

SIDE FRONT

APPROVED BY: WJ / 2HE/3ED BY, DWF DESIGNED BY: SY Y