



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2450-FPC318BX

Product Name: Antenna

Specification For Approval

Date: 2025.3.17

Version: 1.0

客户名称

Customer:

九安

客户料号

Customer P/N:

腾祥料号

T X P/N:

AN2450-FPC318BX

规格描述

Description:

2.4G/5G FPC 天线 1.13mm 黑色线 L=150mm +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	江美如	Q.C.DEPT. 品管	
APPROVED BY 核准	韦佳	APPROVED BY 核准	



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Product Number: AN2450-FPC318BX

Product Name: Antenna

Index:

1. Specification (规格)
2. Characteristics and Reliability Test (产品特性和可靠性测试标准)
3. Antenna - S Parameter Test Data (样品测试数据)
4. Antenna - Radiation Pattern Test Data (辐射模式测试数据)
5. Mechanical and Packing Drawing (图纸包装规范)

Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2025.3.17	初版	

Product Number: AN2450-FPC318BX

Product Name: Antenna

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency 频率	2400-2500 MHz/5150-5850MHz
S.W.R. 驻波比	≤ 2.0
Antenna Gain 增益	4.48dBi /4.62dBi
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	I-PEX
C. Environmental	
Storage Temperature 存储温度	- 40°C ~ +80 °C
Operation Temperature 工作温度	- 40°C ~ +80 °C

Product Number: AN2450-FPC318BX

Product Name: Antenna

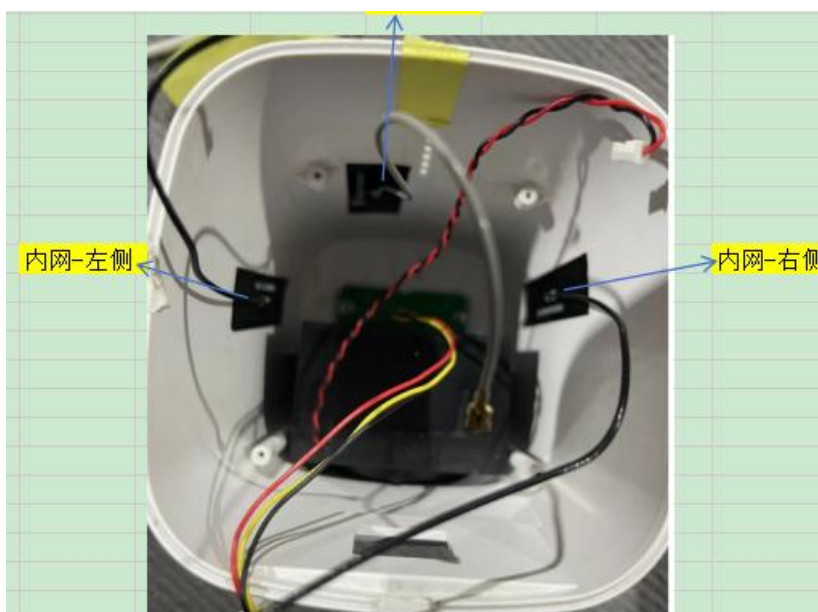
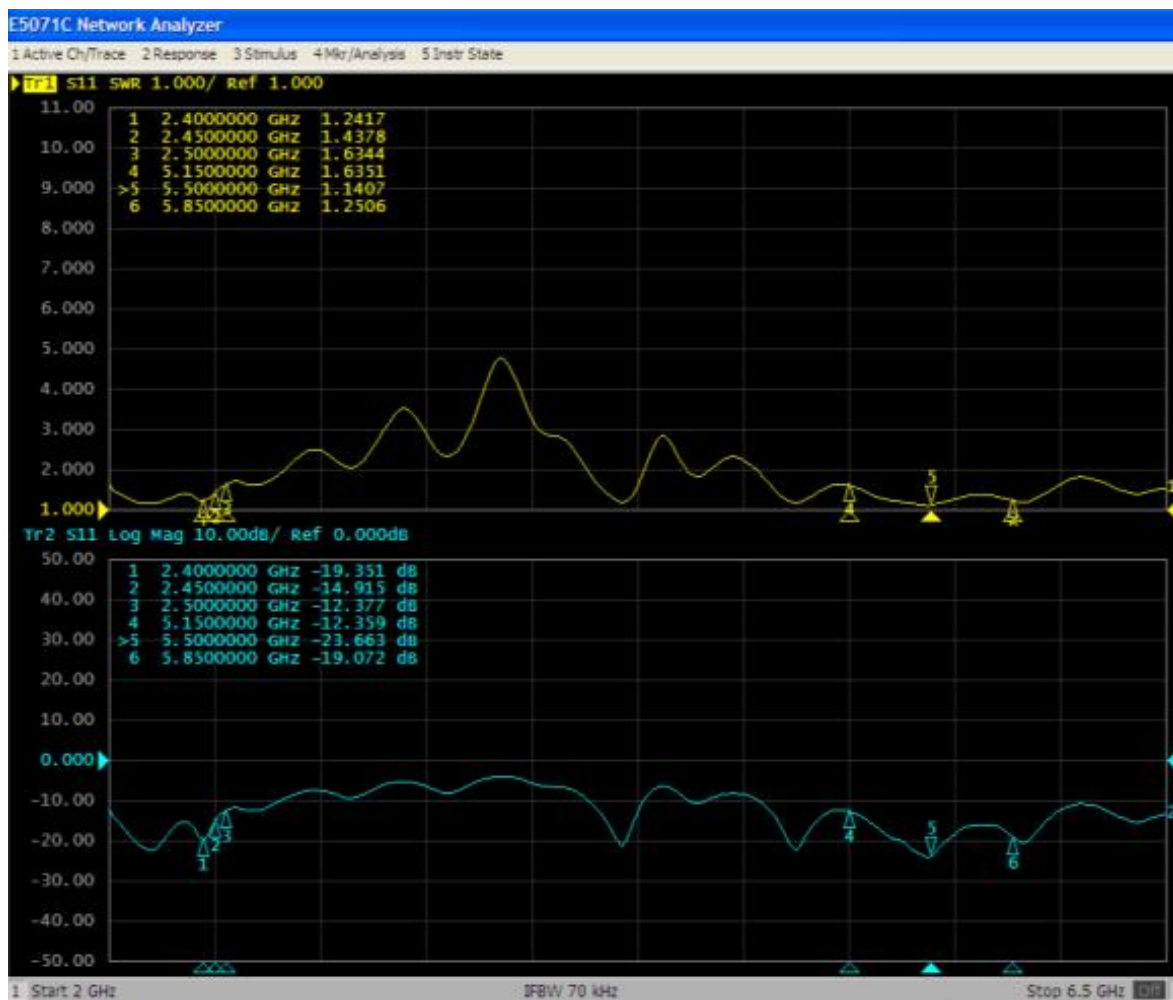
2. Characteristics and Reliability Test

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	PASS
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	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: AN2450-FPC318BX

Product Name: Antenna

3. Antenna - S Parameter Test Data



Product Number: AN2450-FPC318BX

Product Name: Antenna

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)	3.99	4.18	4.26	4.34	4.48	4.43	4.40	4.38	4.30	4.20	4.28
Efficiency (%)	63.25	64.61	65.78	65.20	66.93	67.23	66.85	65.43	65.55	64.90	63.27

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
3.95	4.05	4.40	4.52	4.62	4.52	4.48	4.33	4.48	4.32	4.14	4.08	4.35	4.26	4.14
62.38	64.23	66.35	65.45	67.01	65.43	64.38	65.96	66.30	64.21	65.35	66.37	64.12	63.12	64.39

有源

802.11b 11Mbps				802.11g 54Mbps			
Test Chnanel	ch1	ch6	ch11	Test Chnanel	ch1	ch6	ch11
TRP (dBm)	20.26	21.3	20.87	TRP (dBm)	20.38	21.06	20.28
TIS (dBm)	-84.99	-85.96	-85.87	TIS (dBm)	-73.79	-75.92	-74.69

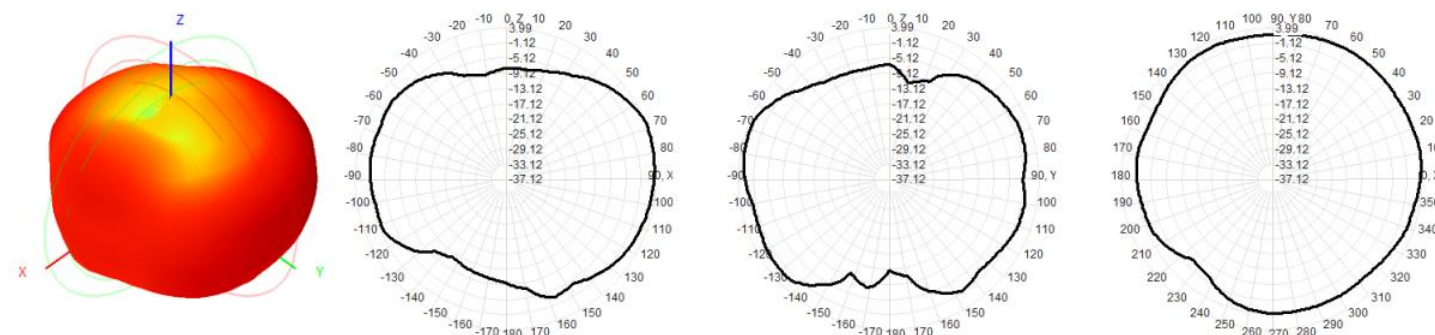
802.11n MCS7				802.11a 54Mbps				
Test Chnanel	ch1	ch6	ch11	Test Chnanel	ch36	ch120	ch132	ch149
TRP (dBm)	20.7	21.04	20.11	TRP (dBm)	19.84	20.69	20.82	20.26
TIS (dBm)	-69.69	-71.07	-70.2	TIS (dBm)	-75.76	-75.35	-76.28	-75.34

XZ

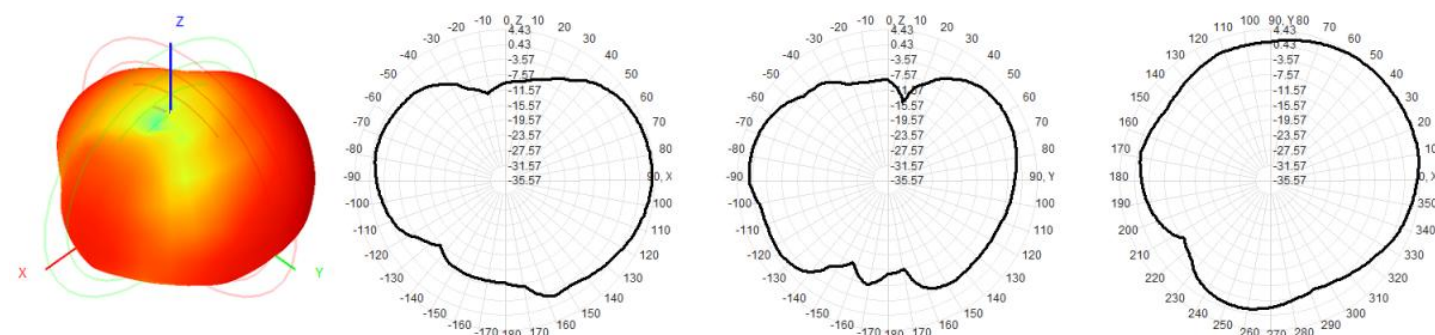
YZ

XY

2400MHz



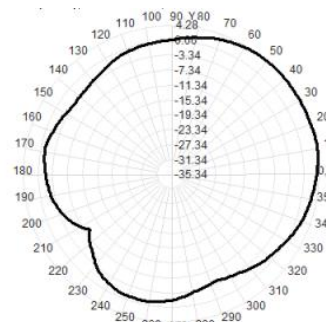
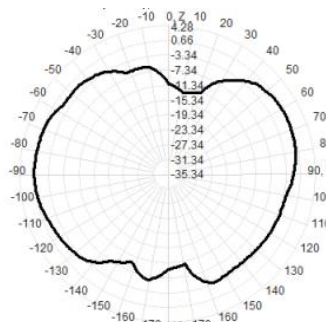
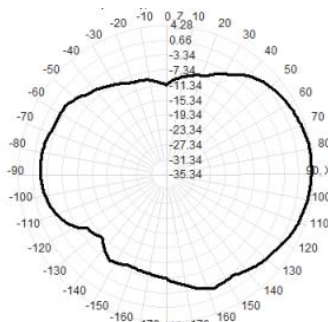
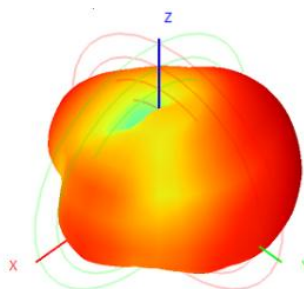
2450MHz



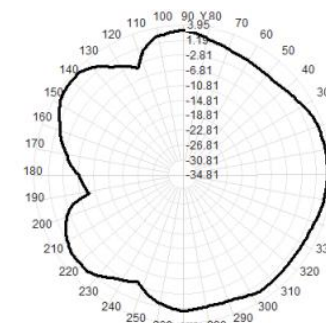
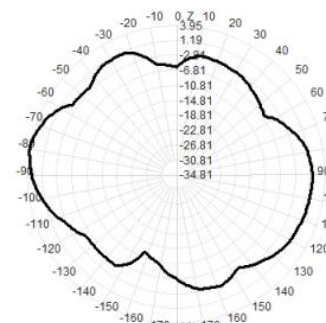
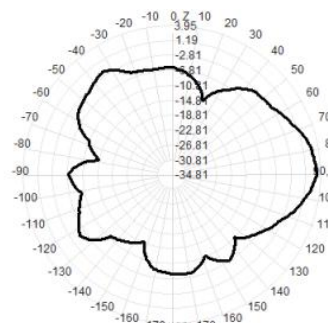
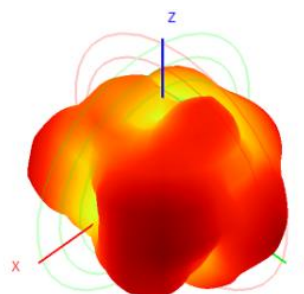
Product Number: AN2450-FPC318BX

Product Name: Antenna

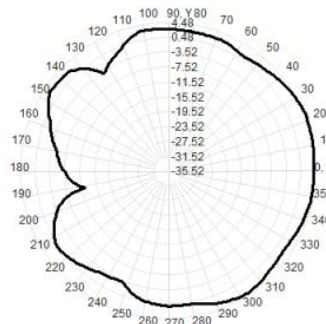
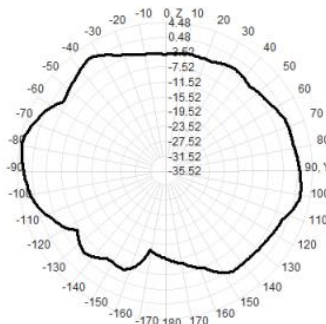
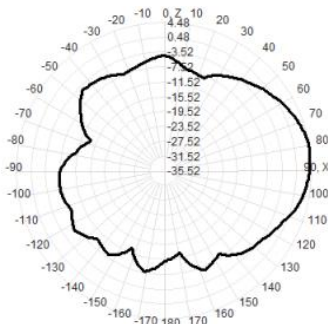
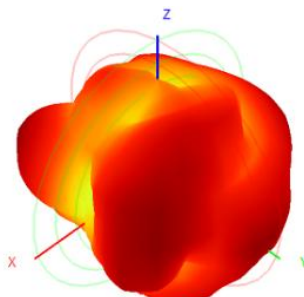
2500MHz



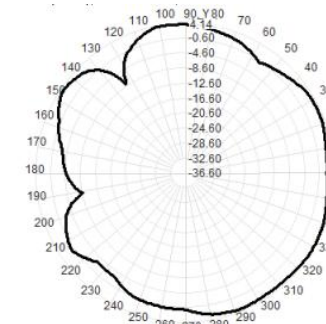
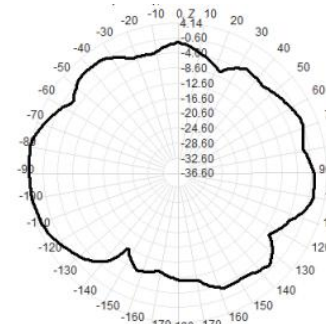
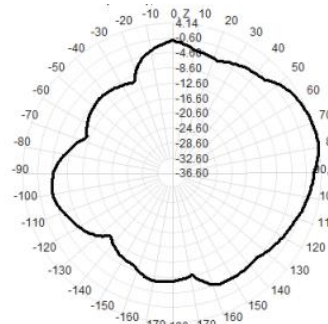
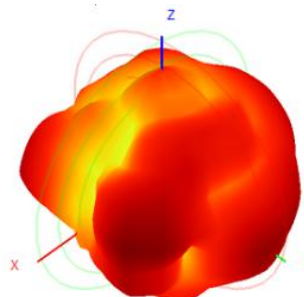
5150MHz



5550MHz



5850MHz



5. Mechanical Drawing See attached files

1	2	3	4	5	6	7	8																								
HF☐ RoHS2.0☒ 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																				
SIGN	DATE	DESCRIPTION	APPROVER																												
E							E																								
D							D																								
C	50.0±0.2 150.0±3.0 14.0±0.2 ① ② ③						C																								
B							B																								
A	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. <table><tr><td>3</td><td>CR-113-ZP-A</td><td>I-PEX</td><td>Cu</td><td>Au Plated</td><td>1</td></tr><tr><td>2</td><td>CB-113BS-SY</td><td>Coaxial Cable</td><td>OD1.13</td><td>Black</td><td>1</td></tr><tr><td>1</td><td>AN2450–FPC500140</td><td>FPC</td><td></td><td>Black</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>						3	CR-113-ZP-A	I-PEX	Cu	Au Plated	1	2	CB-113BS-SY	Coaxial Cable	OD1.13	Black	1	1	AN2450–FPC500140	FPC		Black	1	No.	Part Number	Name	Material	Finish	Q'ty	A
3	CR-113-ZP-A	I-PEX	Cu	Au Plated	1																										
2	CB-113BS-SY	Coaxial Cable	OD1.13	Black	1																										
1	AN2450–FPC500140	FPC		Black	1																										
No.	Part Number	Name	Material	Finish	Q'ty																										
1	2	3	4	5	6	7	8																								



Tengxiang Electronics Co., Ltd.

TITLE: Antenna						
PART NO.: AN2450-FPC318BX				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

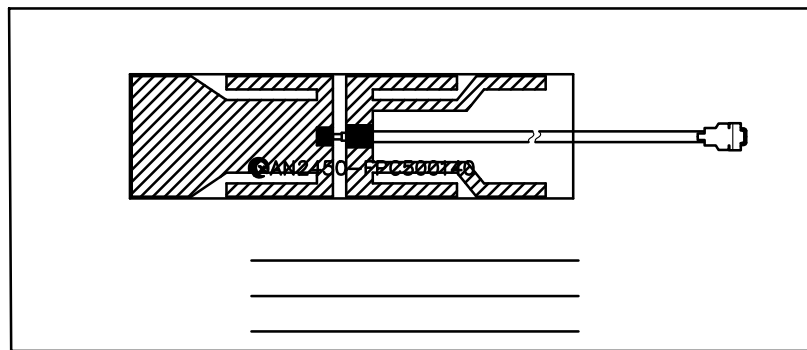
PACKING CRITERION

Date: 2025.02.17

Page: 1 of 1

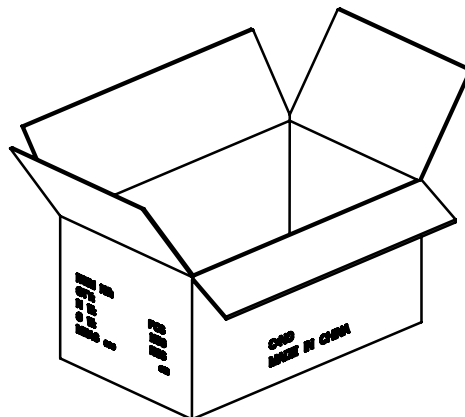
Part Number : AN2450-FPC318BX	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag。



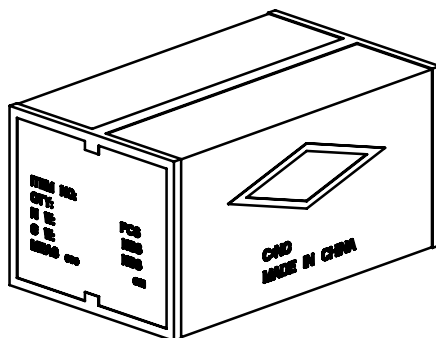
100pcs/ PE bag

2.PACKING。

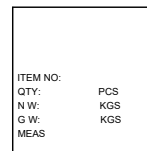


8000pcs/Carton

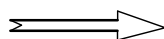
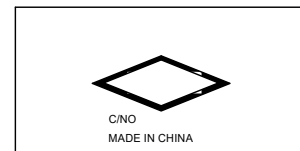
3. SEALING。



SIDE



FRONT



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