



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2450-33BC01RS-B

Product Name: Antenna

Specification For Approval

Date: 2025.8.11

Version: 1.0

客户名称

Customer:

深圳市先智物联科技有限公司

客户料号

Customer P/N:

腾祥料号

T X P/N:

AN2450-33BC01RS-B

规格描述

Description:

2.4G/5G 黑色天线, SMA 公头母针

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



edwin

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Product Number:AN2450-33BC01RS-B

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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2025.8.11	初版	

Product Number:AN2450-33BC01RS-B

Product Name: Antenna

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency 频率	2400-2500 MHz/5150-5800 MHz
S.W.R. 驻波比	<= 2.0 / <= 2.5
Antenna Gain 增益	2.89dBi / 3.61dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm
B. Material & Mechanical Characteristics	
Material of Plastic 塑胶材质	ABS/PC+PBT/POM/
Cable Type 线材规格	RG178
Connector Type 连接器规格	RP SMA Plug
C. Environmental	
Storage Temperature 存储温度	- 30°C ~ +65°C
Operation Temperature 工作温度	- 30°C ~ +65°C

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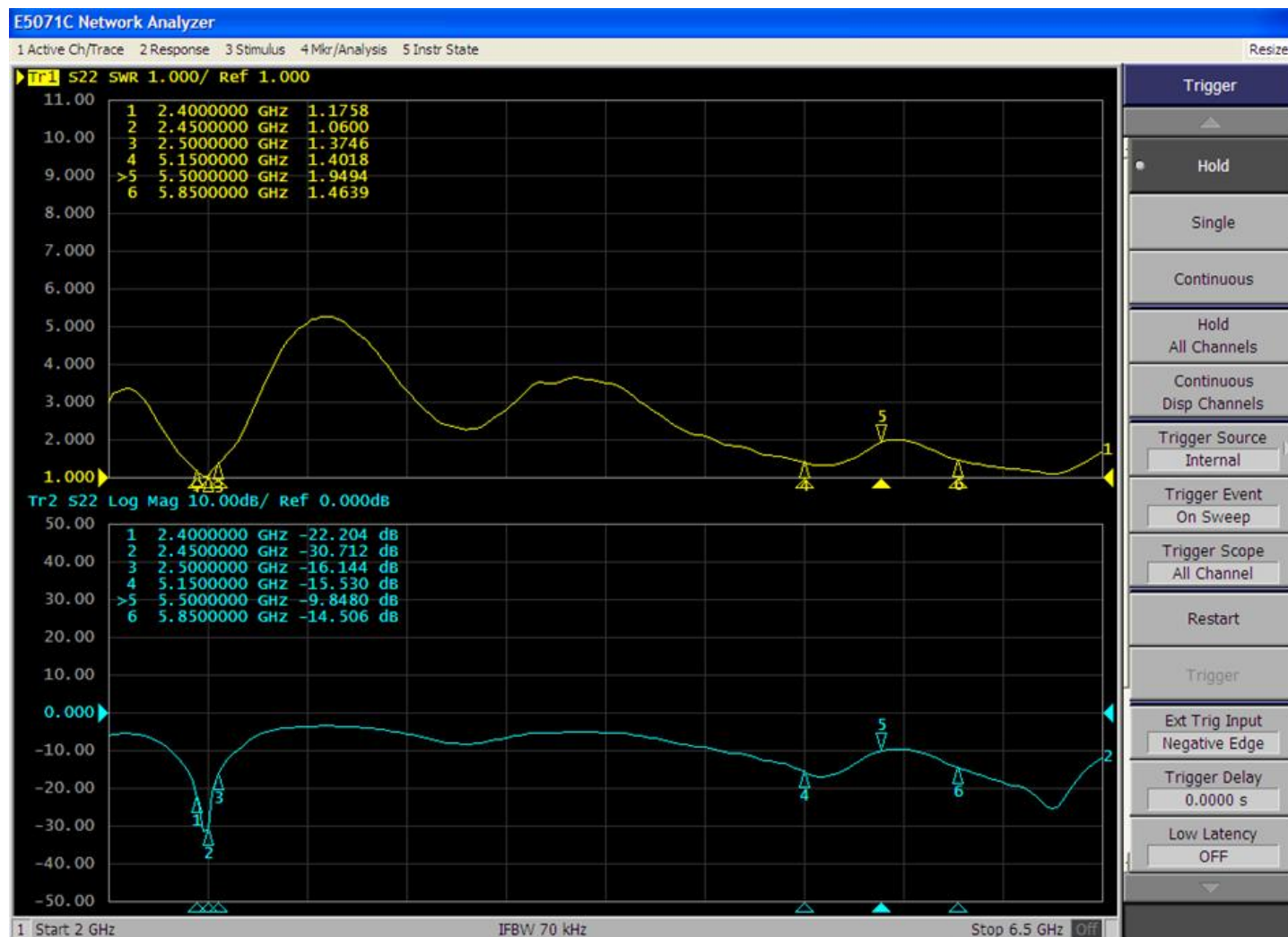
2. Characteristics and Reliability Test

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	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
3	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. $\leq 5\%$ 符合待测物规范; 频率偏移 $\leq 5\%$	PASS
4	Torque Test 扭力	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal 单独定义产品端子之顺时针及逆时针扭力	1. Directive DUT specification 2. Frequency Tol. $\leq 5\%$ 符合待测物规范; 频率偏移 $\leq 5\%$	PASS
5	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
6	Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: $\geq 95\%$; NaCl solution: $\geq 5\%$; Time: 24H 温度 35°C; 湿度 $\geq 95\%$; 盐水浓度 $\geq 5\%$; 测试 24H	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
7	Temperature and Humidity Chamber 恒温恒湿	GB / T 2423.3-2006 Temp: 65°C / 12 H; -30°C / 12H RH: $\geq 90\%$; Time: 24H 温度 65°C 测试 12H 转 -30°C 测试 12H; 湿度 $\geq 90\%$; 时间 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 恢复 2H 后, 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
8	Aging test 老化	GB / T 2423.2 - 2008 Temp: 65°C; Time: 24 hours 温度 65°C, 测试 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
9	RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2011/65/EU 符合 RoHS 2015/863/EU 标准	PASS

Product Number: AN2450-33BC01RS-B

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3. Antenna - S Parameter Test Data



Product Number:AN2450-33BC01RS-B

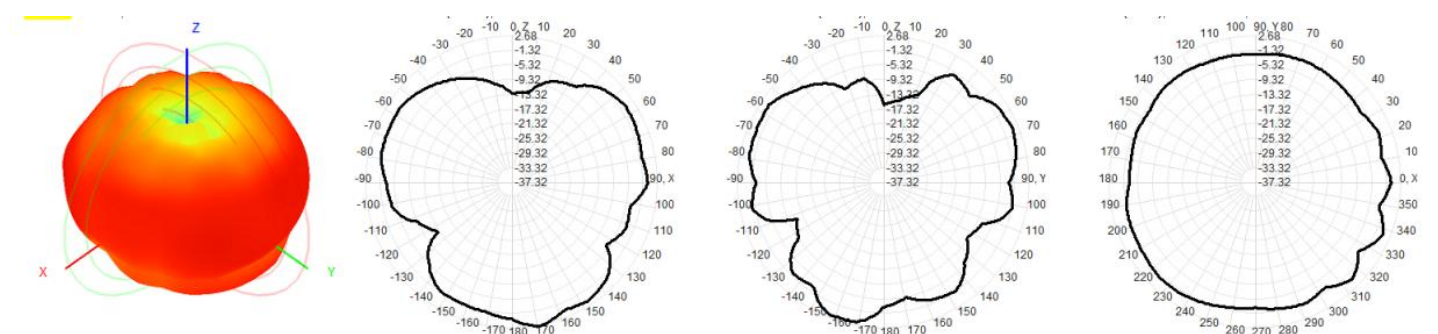
Product Name: Antenna

4. Antenna - Radiation Pattern Test Data

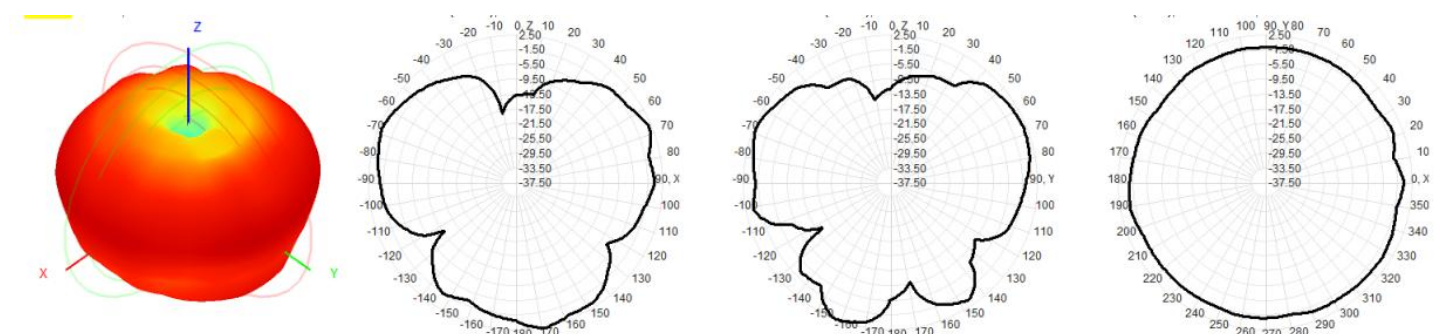
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	2.04	2.12	2.38	2.04	2.89	2.59	2.13	2.35	2.49	2.44	2.56
Efficiency (%)	60.70	61.54	65.86	67.83	69.04	70.62	68.09	70.33	72.93	72.76	76.84

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
3.61	3.31	3.06	3.11	3.05	3.59	3.28	3.49	3.45	2.35	2.25	2.38	2.93	2.93	3.44
82.15	78.79	78.50	78.57	75.35	69.86	68.78	67.02	64.77	63.80	63.04	64.65	65.62	68.46	71.59

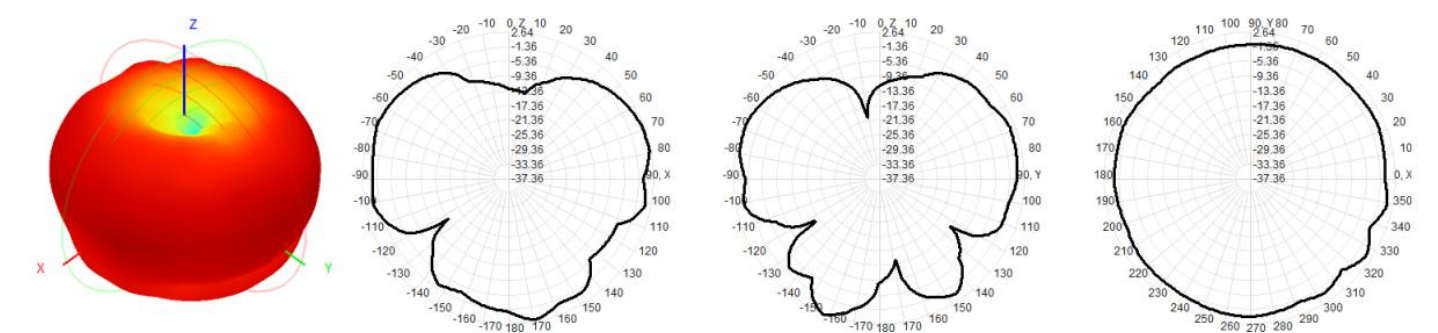
2400MHz



2450MHz



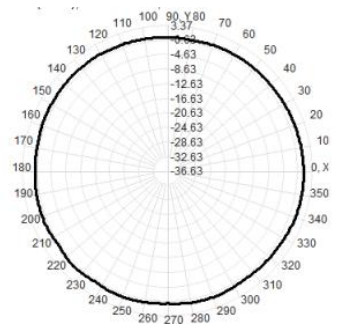
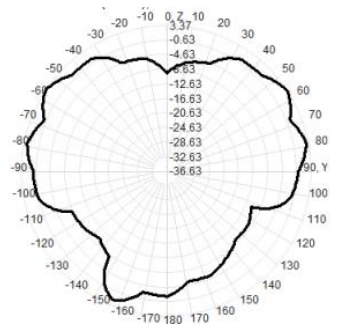
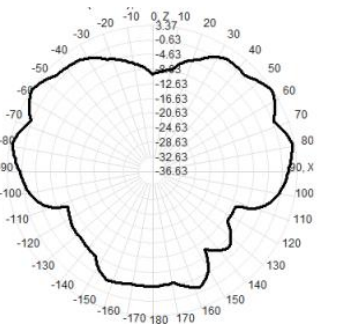
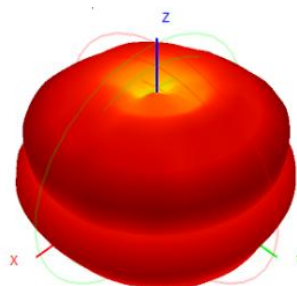
2500MHz



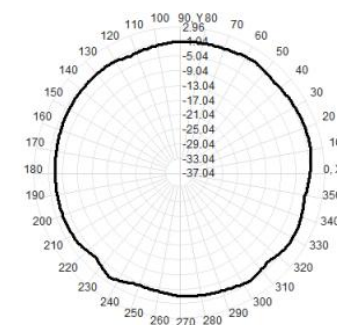
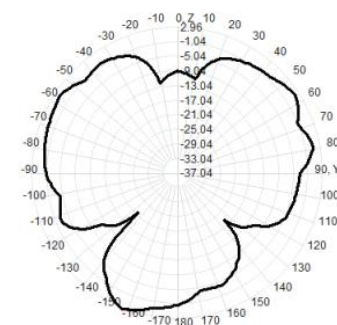
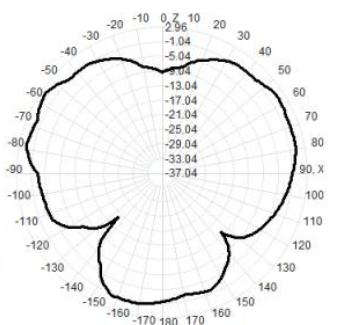
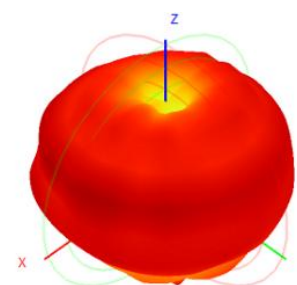
Product Number:AN2450-33BC01RS-B

Product Name: Antenna

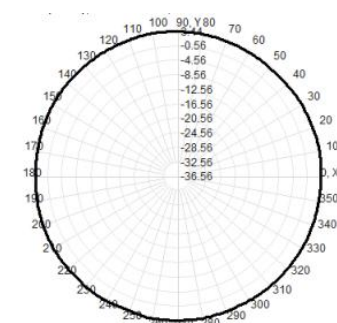
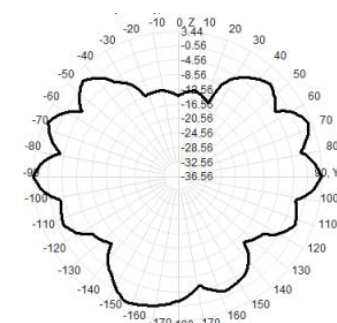
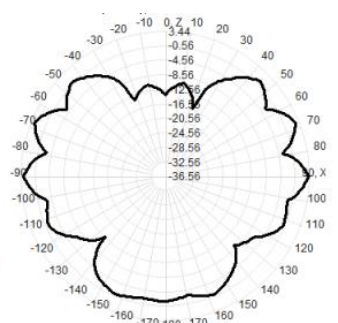
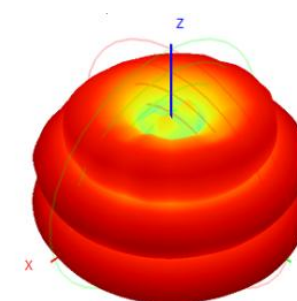
5150MHz



5500MHz



5850MHz



5. Mechanical Drawing See attached files

1	2	3	4	5	6	7	8																														
HF☐ RoHS☒ REACH☐ CONFIDENTIAL					<table border="1"><thead><tr><th>SIGN</th><th>DATE</th><th>DESCRIPTION</th><th>APPROVER</th></tr></thead><tbody><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></tbody></table>			SIGN	DATE	DESCRIPTION	APPROVER																										
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Note: 1.Mark * is important dimension;"Cpk "Identify for process control(CpK≥1.33). 2.Tolerance:Unmarked tolerance refer to the standard tolerance please.																																					
<table border="1"><thead><tr><th>No.</th><th>Part Number</th><th>Name</th><th>Material</th><th>Finish</th><th>Q'ty</th></tr></thead><tbody><tr><td>4</td><td>AN33-01B</td><td>本体</td><td>ABS</td><td>Black</td><td>1</td></tr><tr><td>3</td><td>AN01-1215-P-1</td><td>铆钉</td><td>POM</td><td>Black</td><td>2</td></tr><tr><td>2</td><td>AN33-02B</td><td>连接头</td><td>PC+PBT</td><td>Black</td><td>1</td></tr><tr><td>1</td><td>SMA508-N8MRAN02</td><td>RP SMA PIUG</td><td>POM</td><td>Black</td><td>1</td></tr></tbody></table>								No.	Part Number	Name	Material	Finish	Q'ty	4	AN33-01B	本体	ABS	Black	1	3	AN01-1215-P-1	铆钉	POM	Black	2	2	AN33-02B	连接头	PC+PBT	Black	1	1	SMA508-N8MRAN02	RP SMA PIUG	POM	Black	1
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1	SMA508-N8MRAN02	RP SMA PIUG	POM	Black	1																																
Tengxiang Electronics Co., Ltd. TITLE: 2.4/5G Antenna PART NO.: AN2450-33BC01RS-B CUSTOMER P/N: / <table border="1"><thead><tr><th>APP BY</th><th>CHK BY</th><th>RF BY</th><th>DES BY</th><th></th><th>Tolerance</th></tr></thead><tbody><tr><td>YCX</td><td>HC</td><td>WJ</td><td>DWF</td><td rowspan="3"></td><td>X.X ±0.5</td></tr><tr><td>2025.08.11</td><td>2025.08.11</td><td>2025.08.11</td><td>2025.08.11</td><td>X.XX ±0.2</td></tr><tr><td colspan="4"></td><td>X° ±1</td></tr></tbody></table> UNITS: mm SCALE: 1/1 REVISION: A								APP BY	CHK BY	RF BY	DES BY		Tolerance	YCX	HC	WJ	DWF		X.X ±0.5	2025.08.11	2025.08.11	2025.08.11	2025.08.11	X.XX ±0.2					X° ±1								
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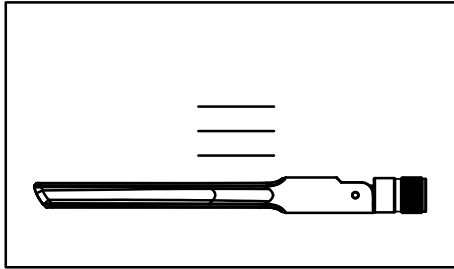
產品包裝規範

PACKING CRITERION

Date: 2025.08.11

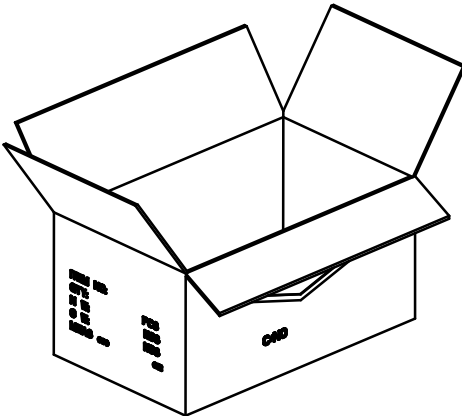
Part Number : AN2450-33BC01RS-B	Revision : A
Name: Antenna	

1 . Enter PE bag。



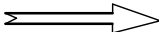
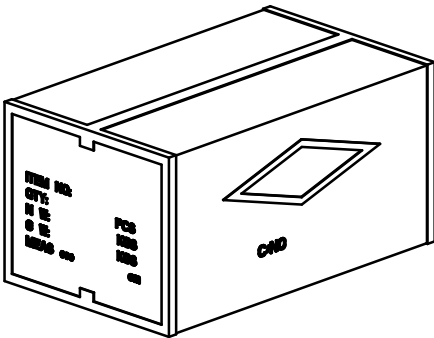
50pcs/ PE bag

2.PACKING 。

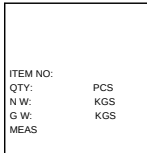


1000pcs/Carton

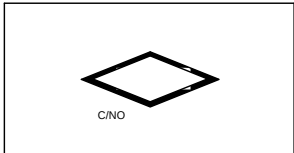
3. SEALING 。



SIDE



FRONT



APPROVED BY : YCX CHECKED BY : HC DESIGNED BY : DWF