SEYA 東莞市仕研電子通訊有限公司
DONGGUAN SEYA ELECTRONIC COMMUNICATION CO.,LTD

規格承認書
SPECIFICATION FOR APPROVAL

客　　戶
CUSTOMER: _____

客 戶 料 号
CUSTOMER NO: _____

品　　名　2450MHZ　CHIP　ANTEENA
PART NAME: _____

供 方 料 号　SY52H2450 – S85
SUPPLIER NO: _____

送样日期 Date:　　送样数量 Q'TY: PCS

客户确认 **CUSTOMER APPROVED BY**		
APPROVAL	CHIEF	SUPERVISOR

供方确认 **SUPPLIER SIGNATURE**		
APPROVAL	CHECK	DESIGN
Jammy	**Jeff**	**Patrick**

SH-RD-F04-A

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Add: XiangWei community JuXiang1road26,SEYA Industrial park Dongguan,Guangdong

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1. 概述 INTRODUCTION

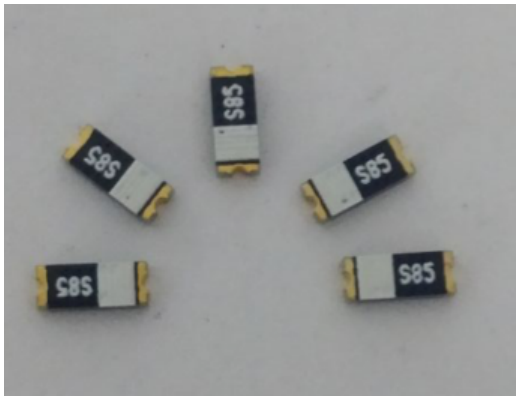
SY 系列产品设计用于 WLAN、WiFi、蓝牙、PHS，手机多频天线, FM 等小体积 SMD 片式设计。

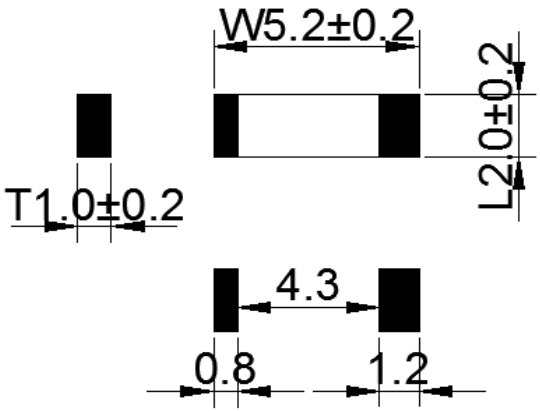
2. 型号 Part Number

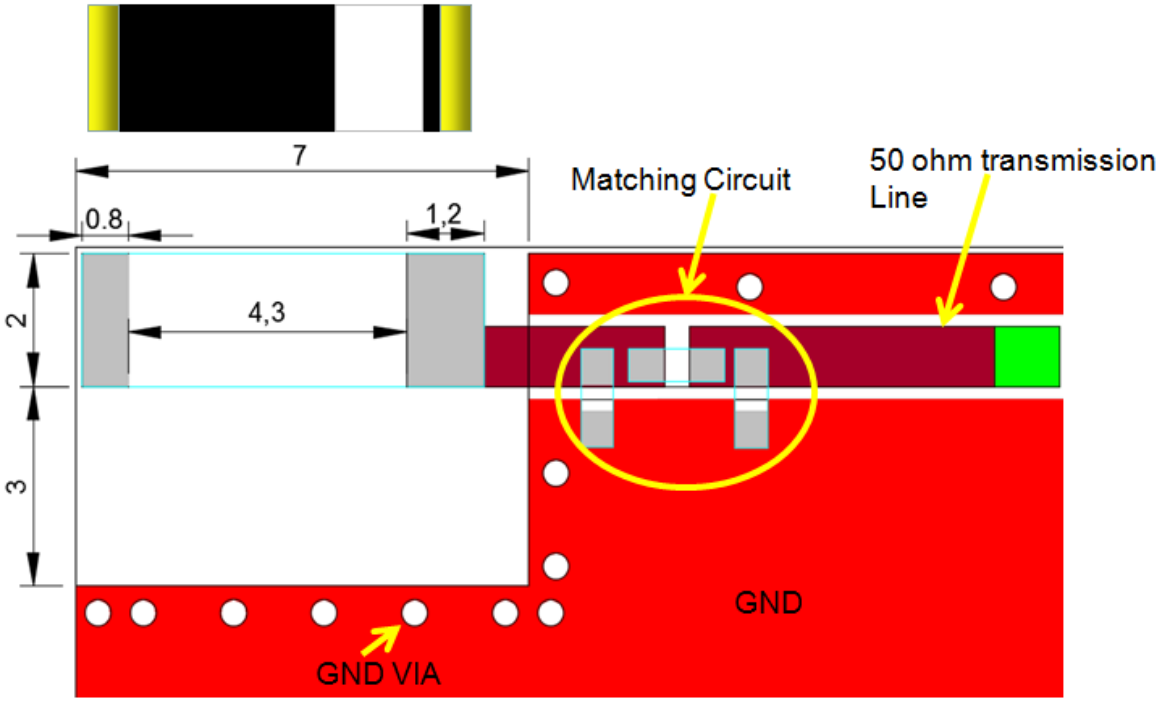
SY 52 H 2450 – S85

- S85 — 产品名称，编号 S85Proudct Name:S85
- 2450 — 天线频率/ Antenna Frequency: 2450 MHz
- H — 产品设计结构 H 型/Via Design Series
- 52 — 产品尺寸/Size：5.2×2.0×1.0
- SY — 多层结构天线/Multi-layer Antenna

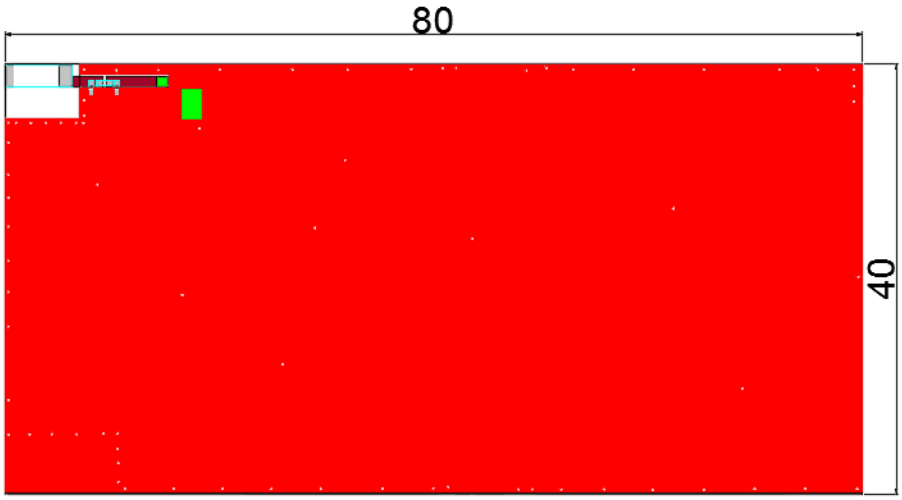
3.外型尺寸及测试板焊盘尺寸 Dimensions（Unit：mm）



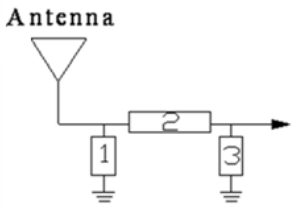




4. 测试电路和匹配电路　Evaluation Board and Matching Circuits



单位：mm

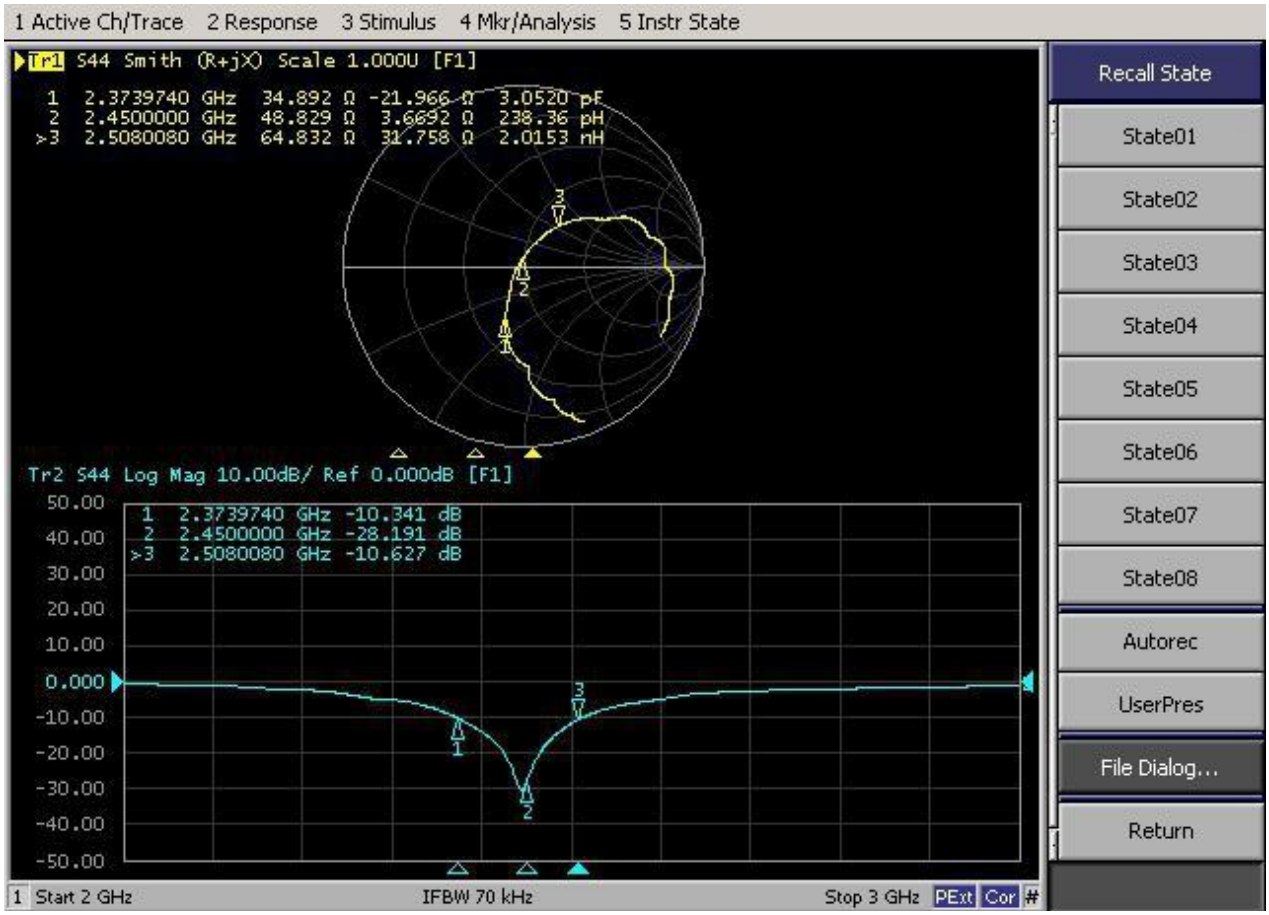


System Matching Circuit Component	
Location	Description
Antenna	S85
1	2.0NF
2	1.5NF
3	NC

5. 电气性能 Electrical Characteristics

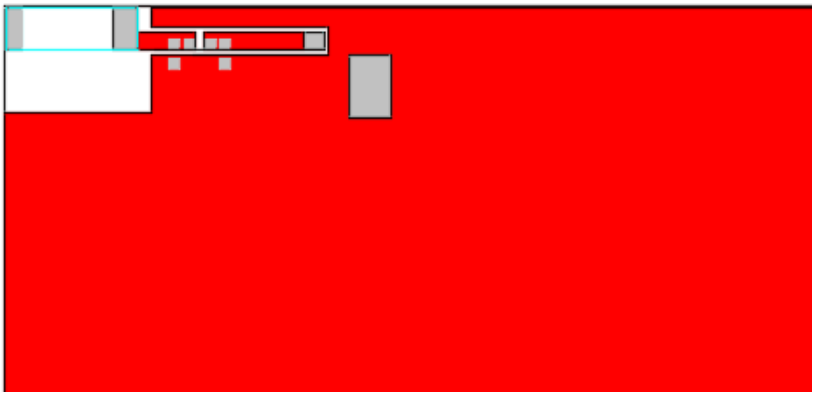
No.	Item （项目）	Specifications （特性）
5.1	Working Central Frequency 中心工作频率	2450 MHz
5.2	Band Width 通带宽度	100MHz typ.
5.3	Peak Gain 峰值增益	4.25 dBi
5.4	V.S.W.R 驻波比	≤2.0
5.5	Polarization 极化方式	Linear 线性
5.6	Azimuth Beam width 方位角	Omni-directional 全向
5.7	Impedance 阻抗	50 Ω

6. 特性曲线 Characteristic curve

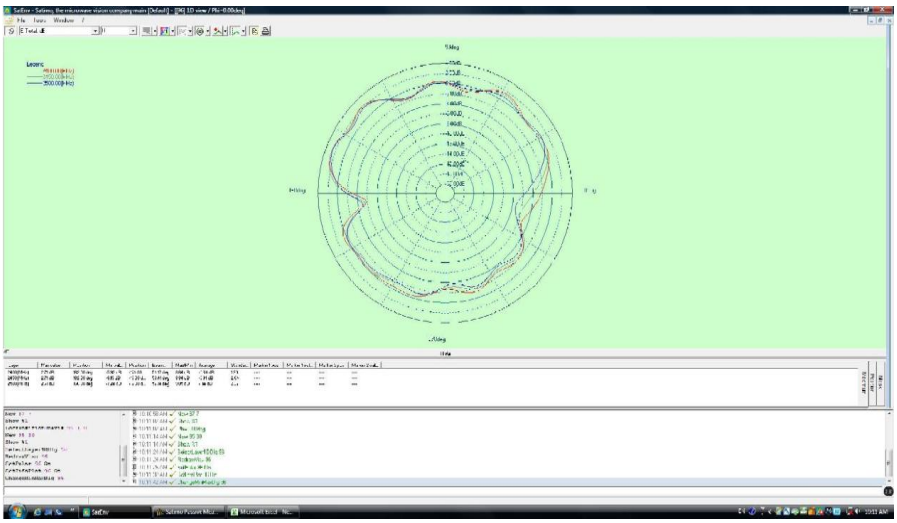


7. 方向图及效率 Radiation Pattern & Efficiency

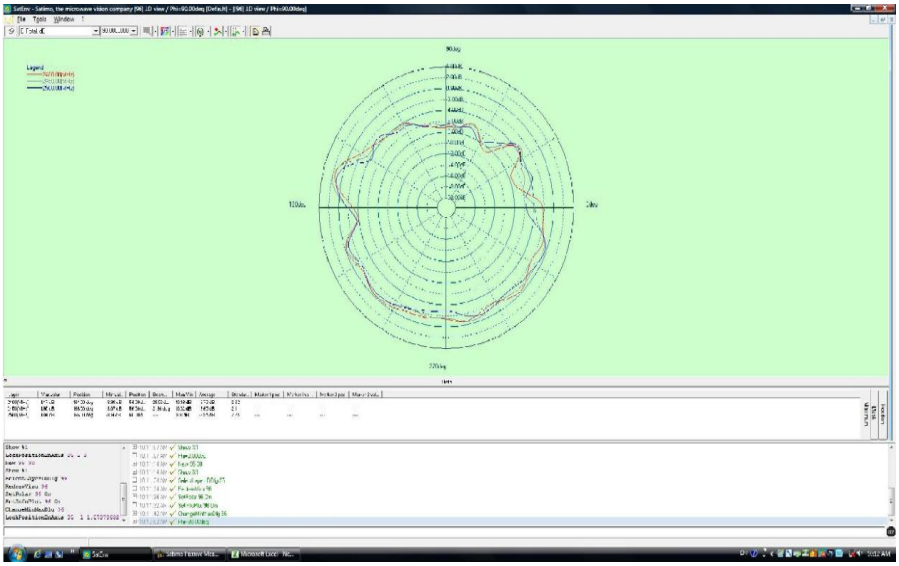
coordinates：



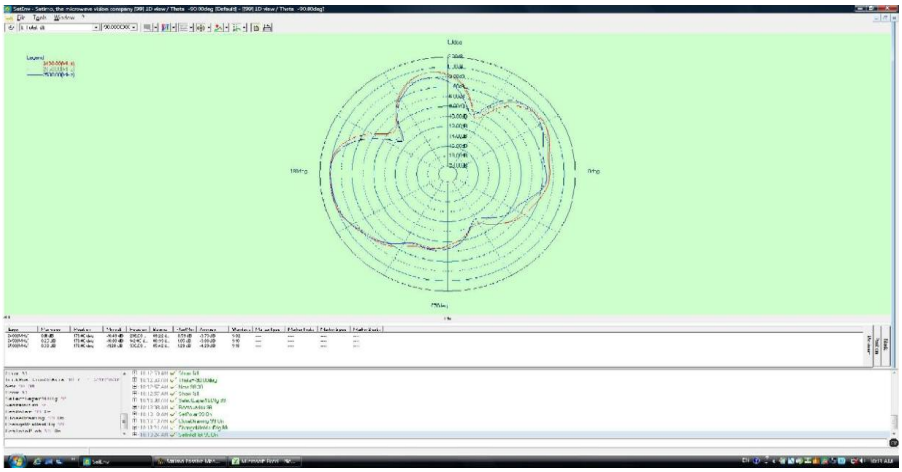
X-Z Plane Plane



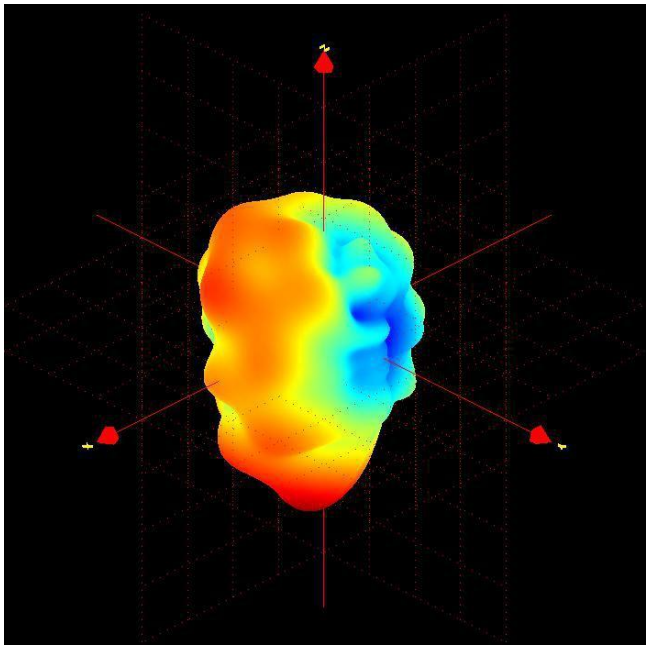
Y-Z Plane



X-Y Plane



3D Radiation Pattern



Frequency(MHz)	2400	2450	2500
Avg. Gain(dBi)	-0.64	-0.91	-1.14
Peck Gain(dBi)	3.97	4.25	4.03
Efficiency(%)	71.2	72.5	70.8

8 可靠性试验后允许误差　Post Dependability Tolerance

经可靠性试验后允许比起始读数偏差见下表

Post Dependability Tolerance　(Refer to the table)

No.	Item （项目）	Post Dependability Tolerance (可靠性试验后允许附加误差)
8.1	Central Frequency 中心频率	±5 MHz
8.2	Band Width　通带宽度	±5 MHz
8.3	Gain　增益	±0.1 dBi
8.4	V.S.W.R (in BW) 驻波比	±0.1

9 可靠性试验　Dependability Test

基准条件：温度范围 Temperature range　25±5℃
相对湿度范围 Relative Humidity range　55~75%RH
工作温度 Operating Temperature range　-40℃~+85℃
贮藏温度 Storage Temperature range　-40℃~+85℃

9.1 耐振动　Vibration Resist

在振动频率为 10~55Hz 振幅为 1.5mm　沿 X.Y.Z 方向各振动 2 小时后测试符合表 9.1~9.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 9.1~9.4 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

9.2 耐跌落冲击　Drop Shock

在 100cm 高度处按 X，Y，Z 三个面分别自由跌落在木制地板上共 3 次后测试符合表 9.1~9.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 9.1~9.4 after dropping onto the hard wooden board from the height of 100cm for 3 times each facet of the 3 dimensions of the device.

9.3 耐焊接热　Solder Heat Proof

能承受经 120~150℃的温度预热 120 秒后，在 255℃+10℃的焊锡浸 5±0.5 秒，或 300℃-10℃的电烙铁焊接 3±0.5 秒，焊接面无损伤。

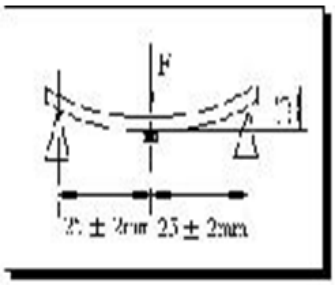
The device should be satisfied after preheating at 120℃~150℃ for 120 seconds and dipping in soldering Sn at 255℃+10℃ for 5±0.5 seconds，or electric iron 300℃-10℃ for 3±0.5 seconds， without damnify.

9.4 结合力试验　Tensile Strength of Terminal

在产品电极端子上或表面上应能承受 1kg 垂直拉力 10±1 秒。

The device should not be broken after tensile force of 1.0kg is slowly applied to pull a lead pin of the fixed device in the lead axis direction for 10±1 seconds.

9.4 9.5 耐弯曲试验　　Bending Resist Test



将产品按图焊在 1.6±0.2mm 的 PCB 板中间，由箭头方向施力：1mm/S，弯曲距离：1.5mm，保持 5±1S，产品金属层无脱落。

Weld the product to the center part of the PCB with the thickness 11.6±0.2mm as the illustration shows, and keep exerting force arrow-ward on it at speed of :1mm/S , and hold for 5±1S at the position of.5mm bending distance , so far , any peeling off of the product metal coating should not be detected .

9.6 耐湿热特性 Moisture Proof

在温度为 60±2℃，相对湿度 90~95%的恒温湿箱中放置 96 小时，在常温中恢复 1~2 小时后测试，符合表 9.1~9.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 9.1~9.4 after exposed to the temperature 60±2℃and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condlition.

9.5 9.7 高温特性　High Temperature Endurance

在温度为　85±5℃的恒温箱中放置　96±2　小时，在常温中恢复　1~2　小时后测试。符合表 9.1~9.4 规定。

The device should satisfy the electrical characteristics specified in paragraph 9.1~9.4 after exposed to temperature 85±5℃for 96±2 hours and 1~2 hours recovery time under normal temperature.

9.6 9.8 低温特性　Low Temperature Endurance

在温度为-40℃±5℃低温箱中放置 96±2　小时后恢复 1~2　小时测试符合表 9.1~9.4 规定。

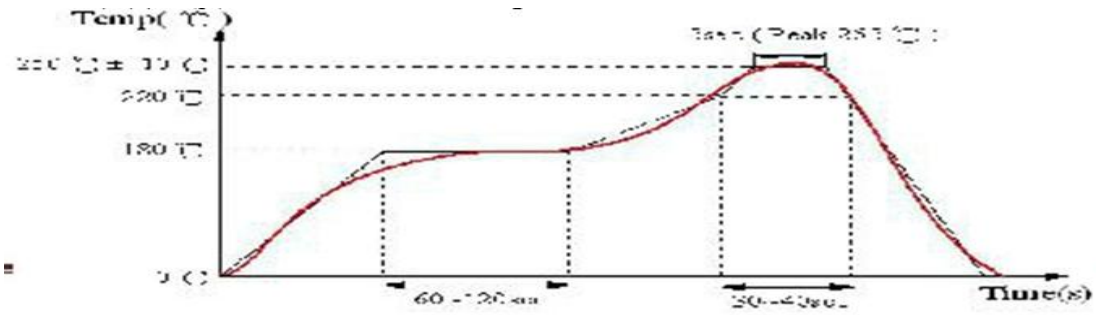
The device should also satisfy the electrical characteristics specified in paragraph 9.1~9.4 after exposed to the temperature -40℃±5℃ for 96±2 hours and to 2 hours recovery time under normal temperature.

9.7 温度循环　Temperature Cycle Test

在-40℃温度中保持 30 分钟，再在+85℃温度中保持 30 分钟，共循环 5 次后在常温中恢复 1~2 小时后测试符合表 9.1~9.4 规定。

The device should also satisfy the electrical characteractics specified in paragraph 9.1~9.4 after exposed to the low temperature -40℃ and high temperature +85℃ for 30±2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

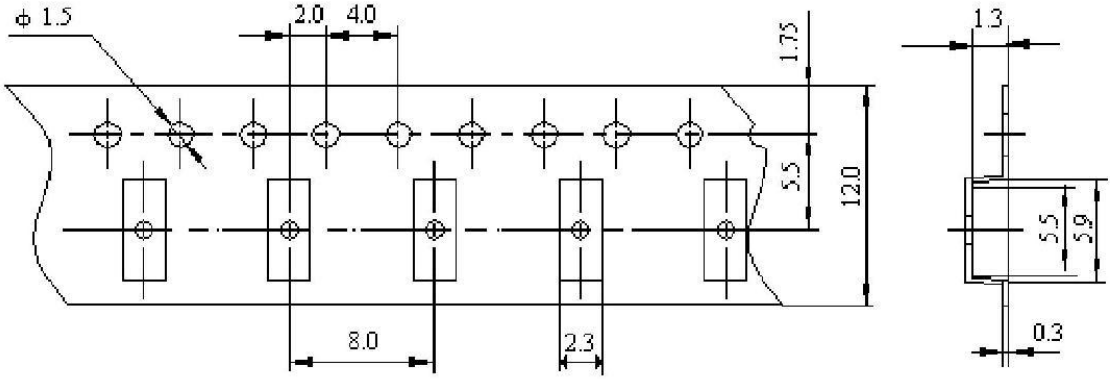
10 回流焊温度　Reflow Soldering Standard Condition



Add：东莞市大朗镇巷尾管理区聚祥一路 26 号仕研工业园 电话：0769-23076959 传真：0769-23076859

11 包装尺寸(5020) and Dimensions

Packaging 11.1 Plastic Tape

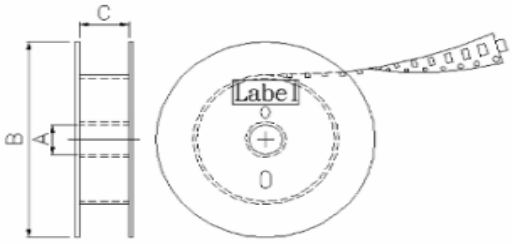


包装说明： Remarks for Package

载带尾部空穴长度 150～200mm，载带头部空穴长度 250～300mm，头部的盖带加长 250mm。

Reserve a length of 150~200mm for the trailer of the carrier and 250~300 mm for the leader of the carrier and further 250mm of cover tape at the leading part of the carrier.

11.2 Reel（5000 pcs/Reel）



☑ Cardboard reel ☐ Plastic reel

Item	Specifications	Tolerances
W	12.00	±0.20
E	1.75	± 0.10
F	5.50	± 0.05
D0	1.50	+0.10, -0
D1	1.50	± 0.10
P0	4.00	± 0.05
P1	4.00	± 0.10
P2	2.00	± 0.05
P0 x 10	40.00	± 0.20
t	0.25	± 0.05
A0	2.20	± 0.10
B0	5.10	± 0.10
K0	1.40	± 0.10

Reel Dimensions		
A	77	mm
B	560	mm
C	96	mm
Packing		
Length / Roll	700	meters
Each Carton	3	rolls
Carton Dimension (mm)		
V	575(L)*345(W)*585(H)	

Product code: 1101 - Polycarbonate natural transparent.
1201 - Polycarbonate conductive black.
Surface resistivity 10E4 to E6 ohm/sq.

11.3 储存条件 Storage Period

易氧化产品，真空状态储存一年．产品拆封后请于 168 小时内用完或重新密封包装！

Oxidizable, 12 months in vacuum sealed bag . Material,please repack within 168 hours by re-seal the package treatment after use them!

储存温度与湿度：

Storage Temperature Range : <30 degree C, Humidity : <60%RH