

产品规格承认书

SPECIFICATIONS

客户:

CUSTOMER: _____

产品名称:

DESCRIPTION: SMD ANT

客户型号:

CUSTOMER PART NO: _____

产品型号:

OUR MODEL NO: **PBX1608MA01**

日期:

DATE: 2021/09/01

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL"


WITH YOUR APPROVED SIGNATURES

company: Shenzhen Pengbian Industrial Technology Co., LTD

site: Room 605, Building 4, 1970 Science Park, Minzhi
Community, Minzhi Street, Longhua District, Shenzhen

核准 confirm		审核 audit	刘飞	制作 make	刘小美
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日期 DATE	

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DESIGNED BY: Sera	APPROVED BY: XD	
TITLE: CHIP2450-1608 Specification	DOCUMENT NO.	1608
		SPEC REV. P1

PBX1608MA01 Specification

Operating Temp. : -40°C~+85°C

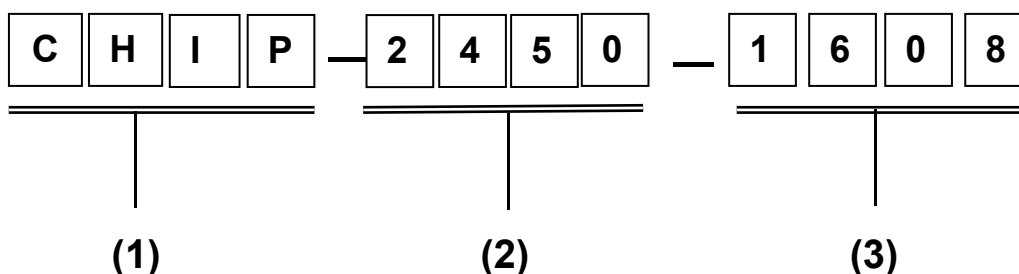
1. FEATURES:

- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain

2. APPLICATIONS:

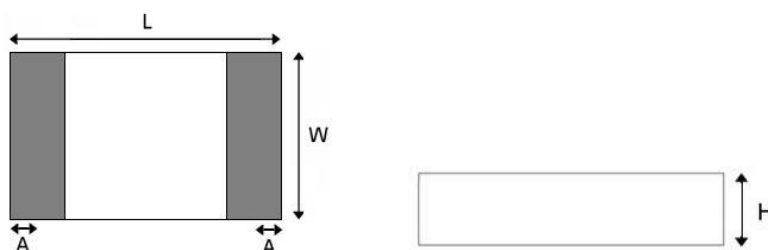
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

3. PRODUCT IDENTIFICATION



- (1) Product type: SMD Antenna
 (2) Center Frequency: 2450MHz
 (3) External Dimensions (L×W) (mm):
 1.6*0.8

4. SHAPE AND DIMENSIONS:



L	W	H	A
1.6±0.2	0.8±0.2	0.8±0.2	0.3±0.1

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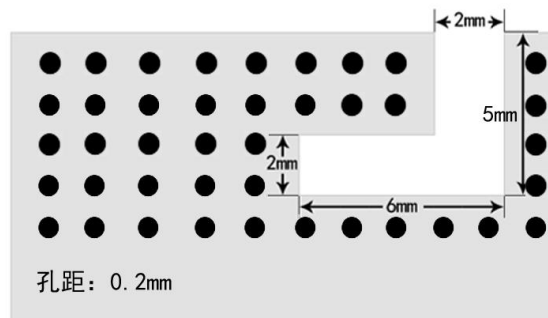
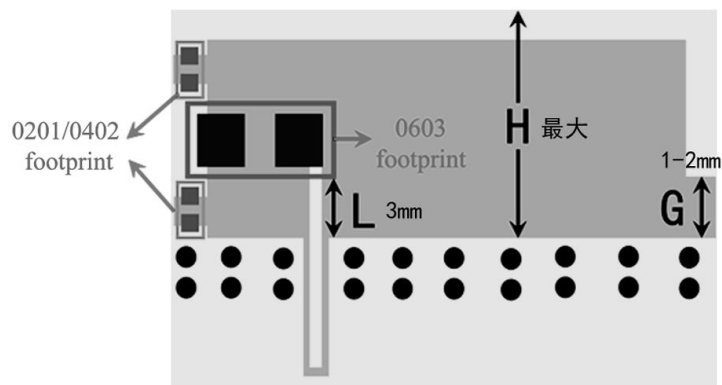
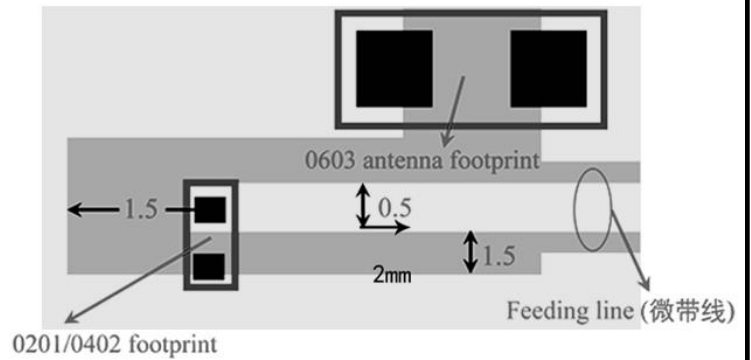
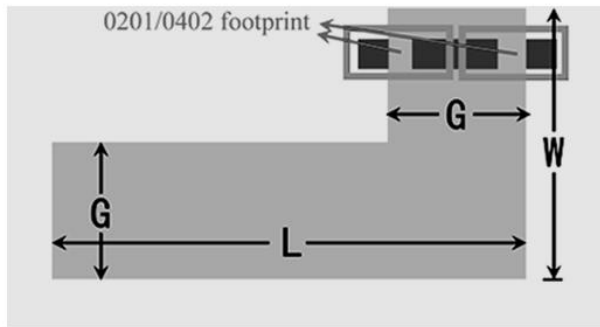
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P1

●单位: mm



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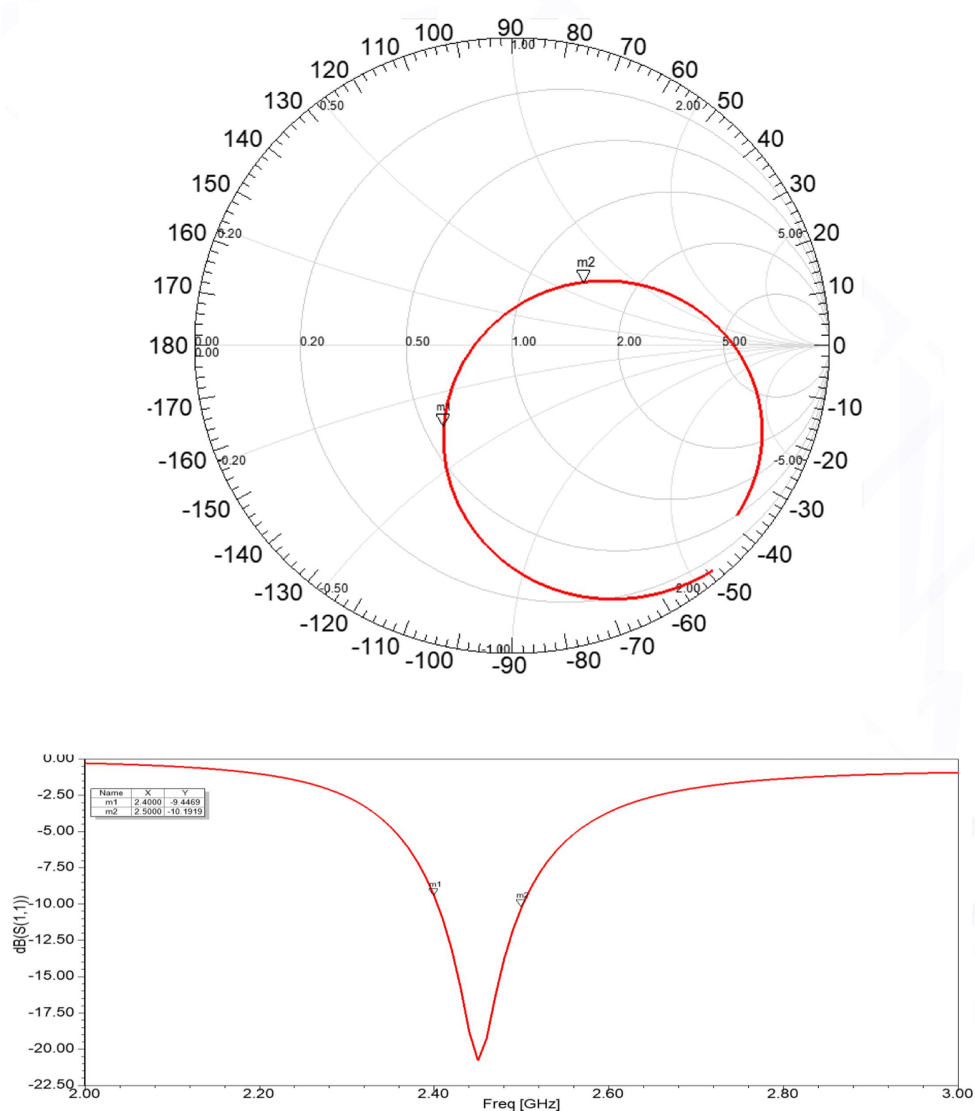
SPEC REV.

P1

Electrical Characteristics

	Feature	Specification
1	Central frequency	2.45GHz&5.5GHz
2	Bandwidth	>100MHz
3	Peak gain	>3dBi
4	VSWR	<2
5	Polarization	Linear
6	Azimuth beamwidth	Omnidirectional
7	Impedance	50 Ω

Characteristic Curves



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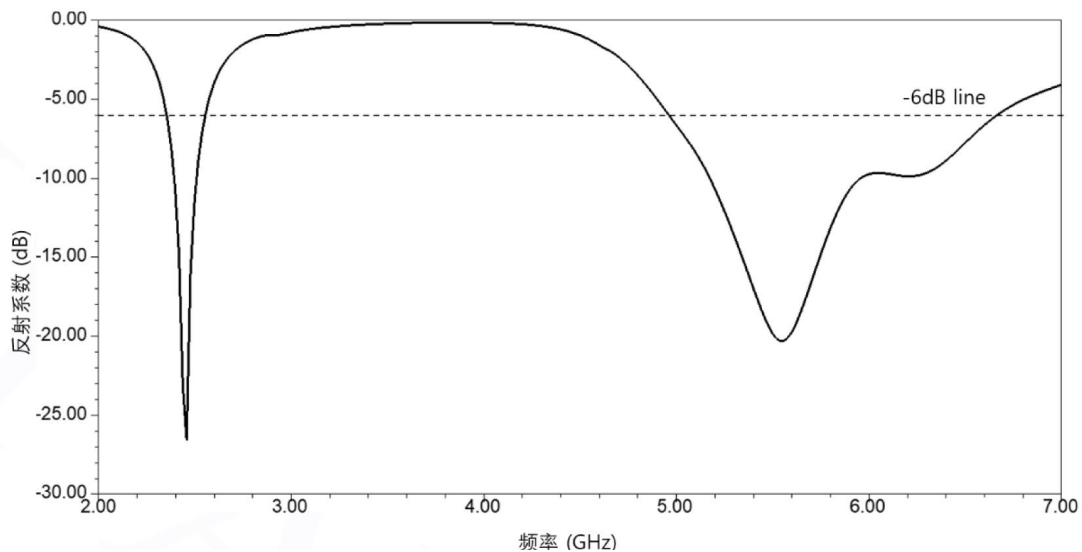
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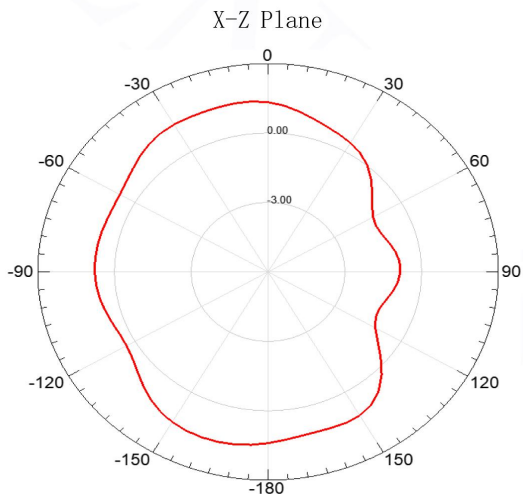
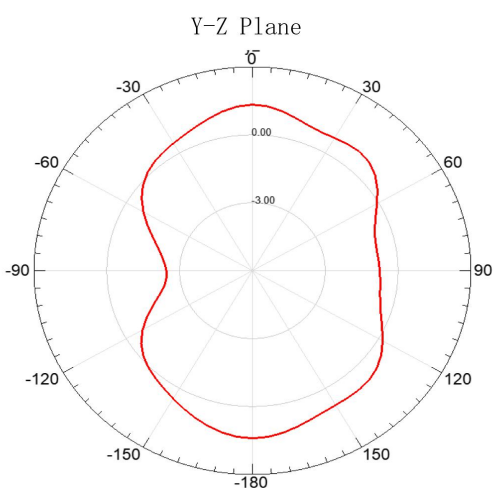
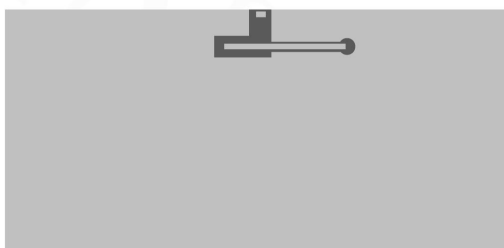
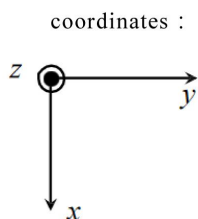
1608


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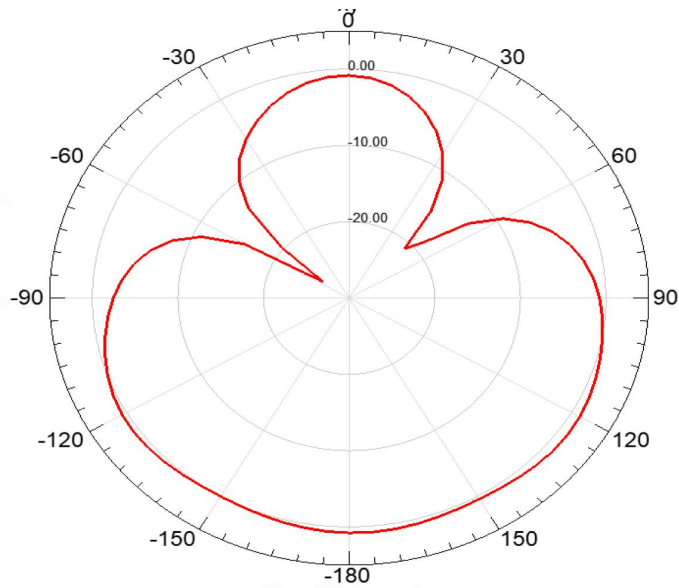
P1



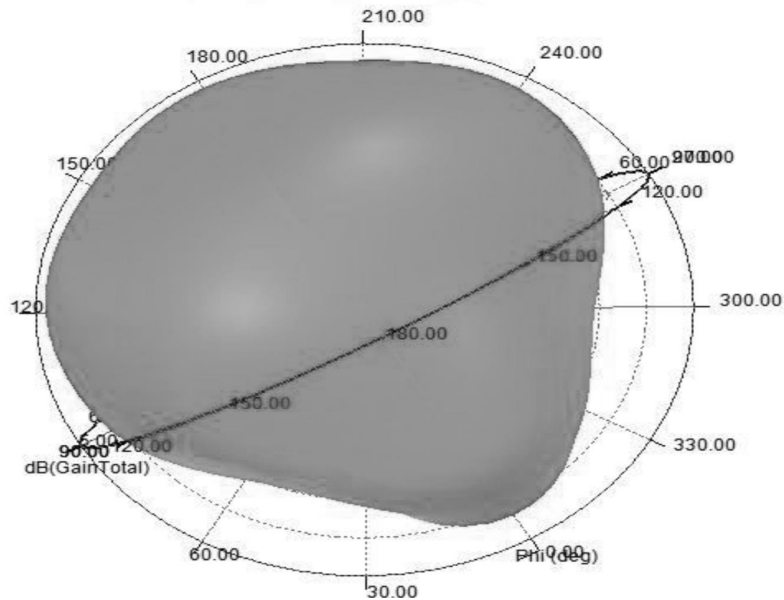
Radiation Pattern




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3D Radiation Pattern

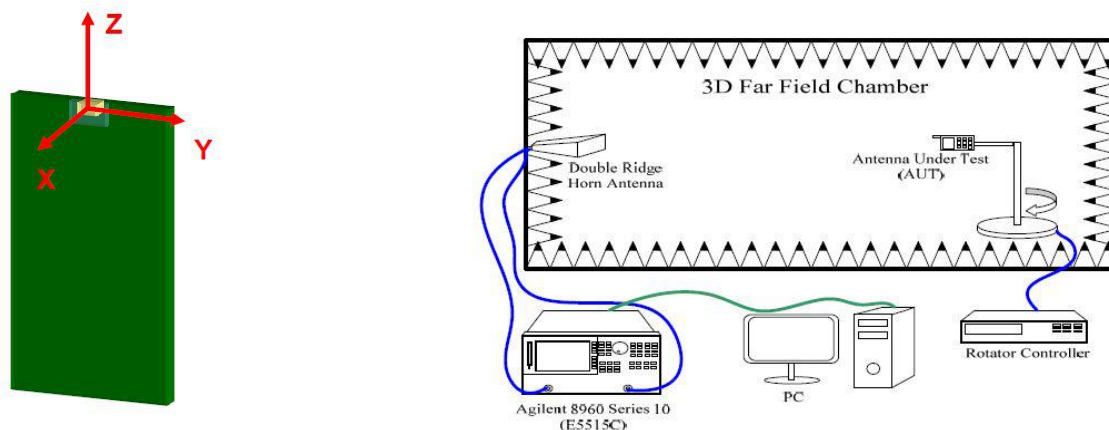


Frequency	2450MHz	5500MHz
Avg. gain	-0.85	-1.30
Peak gain	3.0	3.5
Efficiency	82%	78%

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Radiation Pattern

The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



Environmental Characteristics

(1) Reliability Test

Item	Condition	Specification
Thermal shock	<ol style="list-style-type: none"> 1. 30 ± 3 minutes at $-40^\circ \text{C} \pm 5^\circ \text{C}$, 2. Convert to $+105^\circ \text{C}$ (5 minutes) 3. 30 ± 3 minutes at $+105^\circ \text{C} \pm 5^\circ \text{C}$, 4. Convert to -40°C (5 minutes) 5. Total 100 continuous cycles 	No apparent damage Fulfill the electrical spec. after test.
Humidity resistance	<ol style="list-style-type: none"> 1. Humidity: 85% R.H. 2. Temperature: $85 \pm 5^\circ \text{C}$ 3. Time: 1000 hours. 	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	<ol style="list-style-type: none"> 1. Temperature: $150^\circ \text{C} \pm 5^\circ \text{C}$ 2. Time: 1000 hours. 	No apparent damage Fulfill the electrical spec. after test.
Low temperature resistance	<ol style="list-style-type: none"> 1. Temperature: $-40^\circ \text{C} \pm 5^\circ \text{C}$ 2. Time: 1000 hours. 	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	<ol style="list-style-type: none"> 1. Solder bath temperature : $260 \pm 5^\circ \text{C}$ 2. Bathing time: 10 ± 1 seconds 	No apparent damage
Solderability	The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of $245 \pm 5^\circ \text{C}$ for 3 ± 1 seconds.	No apparent damage

(2) Storage Condition

(a) At warehouse:

The temperature should be within $0 \sim 30^\circ \text{C}$ and humidity should be less than 60% RH.


The product should be used within 1 year from the time of delivery.

(b) On board:

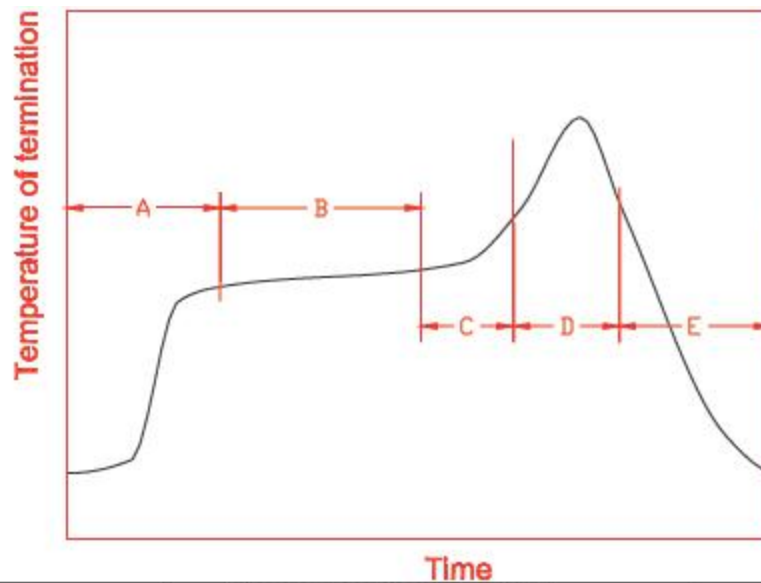
The temperature should be within $-40 \sim 85^\circ \text{C}$ and humidity should be less than 85% RH.

(3) Operating Temperature Range

Operating temperature range : -40°C to $+105^\circ \text{C}$.

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8. Recommended Reflow Soldering



A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 nd rising temperature	Preheating to 200°C	20s to 40s
D	Main heating	if 220°C	50s~60s
		if 230°C	40s~50s
		if 240°C	30s~40s
		if 250°C	20s~40s
		if 260°C	20s~40s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

*reference: J-STD-020C


(1) Soldering Gun Procedure

Note the follows, in case of using solder gun for replacement.

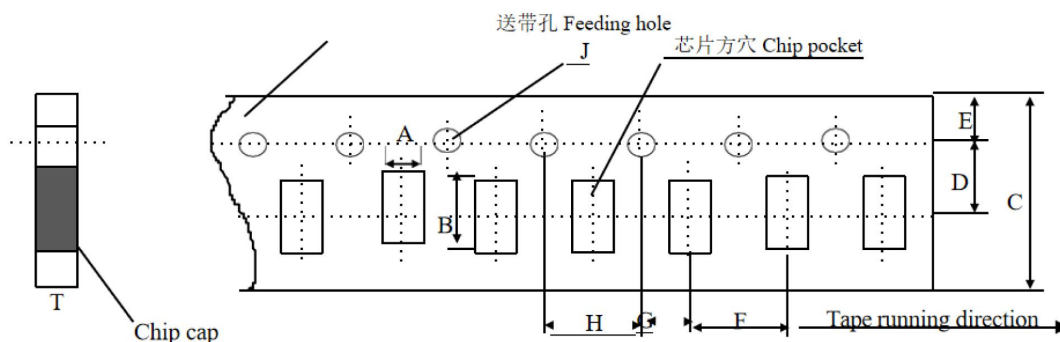
- The tip temperature must be less than 350° C for the period within 3 seconds by using soldering gun under 30 W.
- The soldering gun tip shall not touch this product directly.

(2) Soldering Volume

Note that excess of soldering volume will easily get crack the body of this product.

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Dimensions of paper taping:

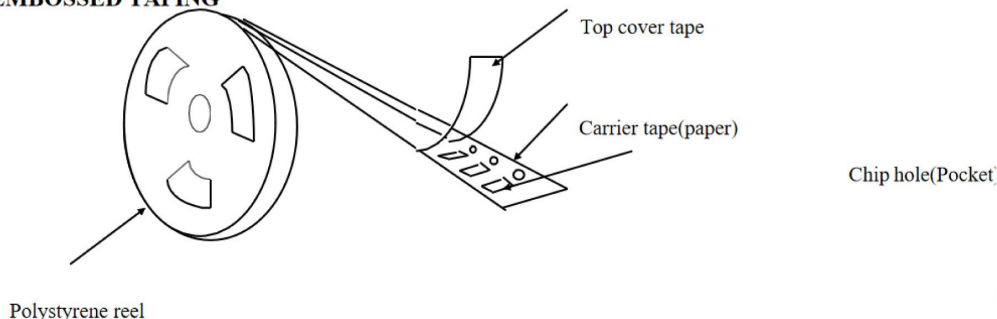


Unit: mm

代号 Code 纸带规格 papersize	A	B	C	D*	E	F	G*	H	J	T
尺寸	1.10 ±0.10	1.90 ±0.10	8.00 ±0.10	3.50 ±0.05	1.75 ±0.10	4.00 ±0.10	2.00 ±0.10	4.00 ±0.10	1.50 -0/+0.10	1.10 Max


Reel (4000 pcs/Reel)

EMBOSED TAPING



Storage Period

The guaranteed period for solderability is 6 months (Under deliver package condition).
Temperature:5~40°C /Relative Humidity:20~70%

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