

产品规格承认书

SPECIFICATIONS

客 户：

CUSTOMER:

产品名称:

DESCRIPTION:

双极天线

客 户 型 号：

CUSTOMER PART No:

产品型号:

OUR MODEL NO:

PBX3216HC01

日期:

DATE:

确认签字, 盖章后请返回承认书一份

PLEASE RETURN TO US ONE COPY OF “SPECIFICATION FOR APPROVAL”

WITH YOUR APPROVED SIGNATURES

核准		审核	刘飞	制作	刘小美
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客户承认签印	
日期	

UNLESS OTHER SPECIFIED TOLERANCES ON: X=± X.X=± X.XX=± A N G L E S = ± H O L E D I A = ±		Shenzhen Smart Technology Co., Ltd. No. 4, 4th Floor, Building 1, Luohu Grain Group Factory, 243 Guopin Road, Songyuanxia Community, Guanhu Street, Longhua District, Shenzhen City	
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DESIGNED BY: Sera	APPROVED BY: XD		
TITLE: CHIP2450-3216 Specification		DOCUMENT NO.	SPEC REV.
		3216	P1

PBX3216HC01 Specification

Operating Temp. : -40℃~+85℃

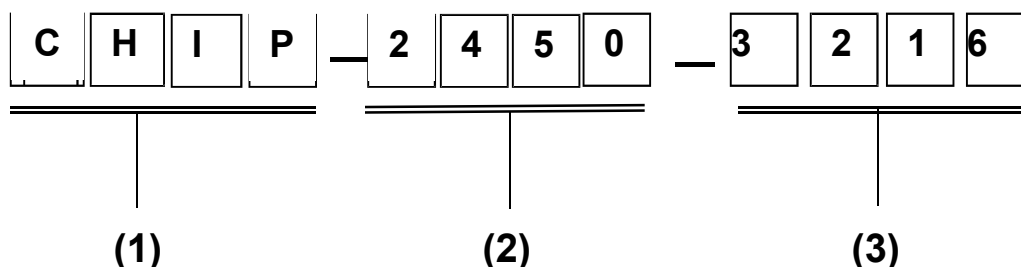
(1)FEATURES:

- 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

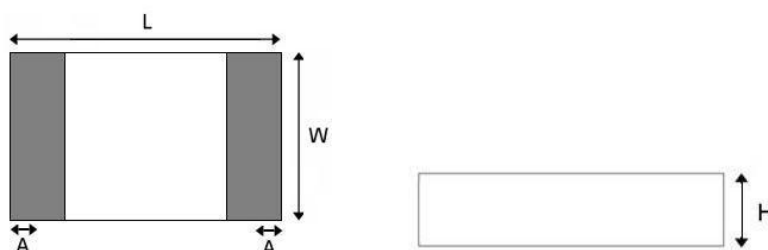


(1) Product type: Multilayer chip Antenna

(2) Center Frequency: 2450MHz

(3) External Dimensions (LxW) (mm): 3.2*1.6

(4)SHAPE AND DIMENSIONS:

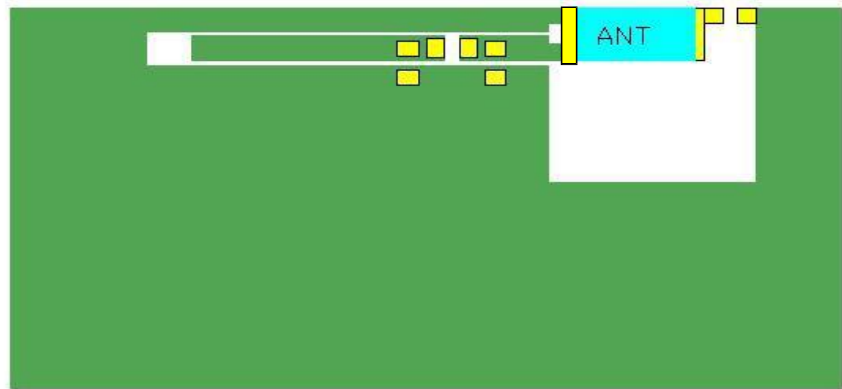


L	W	H	A
3.200	1.600	0.520	0.4±0.1

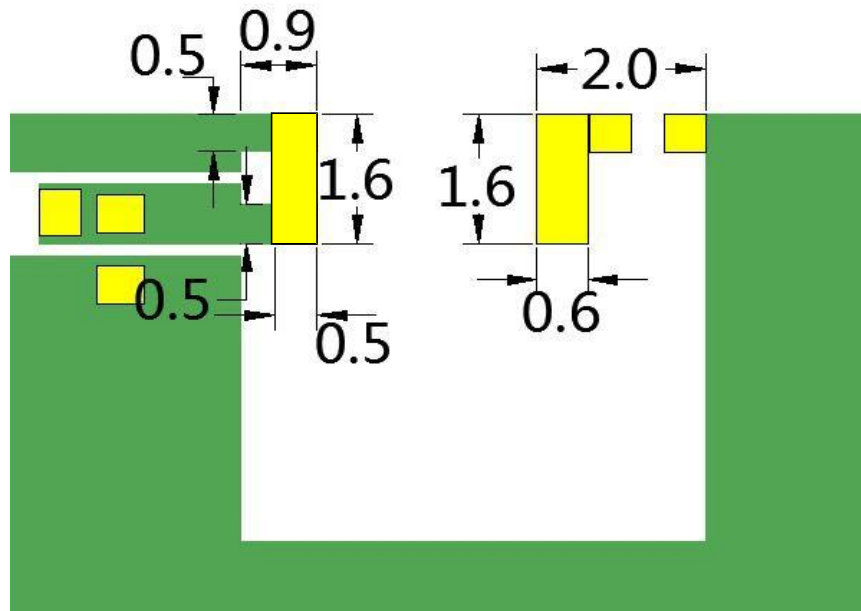
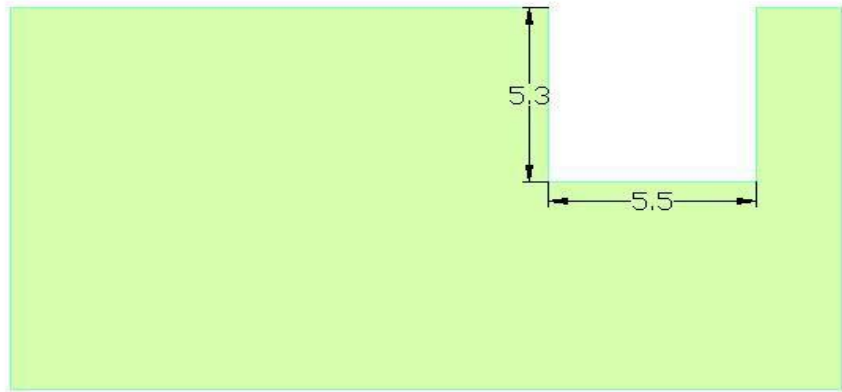
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测试板参考尺寸:

单位: mm

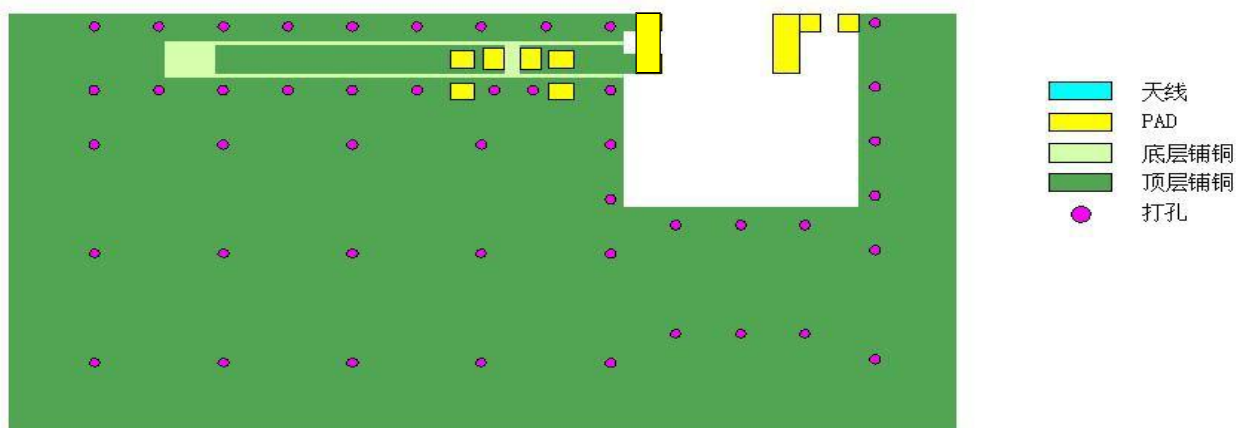


- 天线
- PAD
- 底层铺铜
- 顶层铺铜

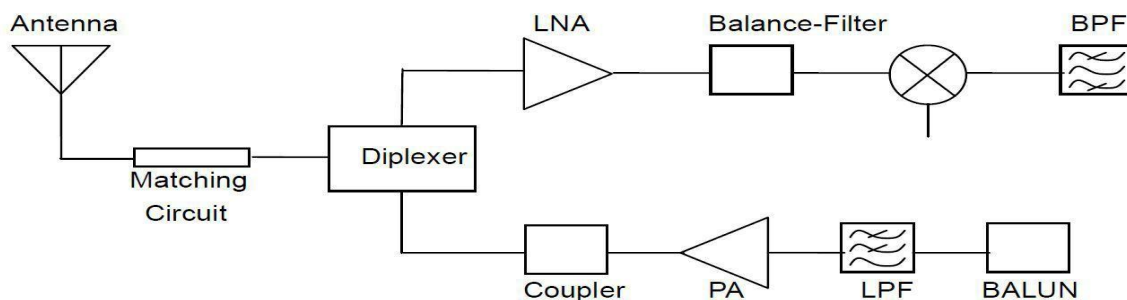


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打孔参考示意图



APPLICATION GUIDE



(5) SPECIFICATIONS:

test item	specification
bandwidth	2400~2483MHz
polarization mode	linear polarization
maximum gain	2.67dBi
efficiency	72.30%
input impedance	50Ω

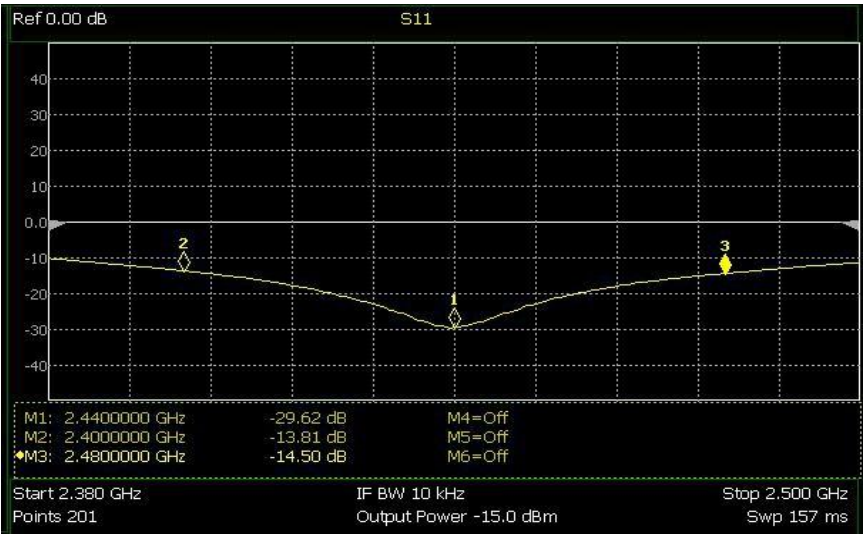
* Test condition: Test board size 90*40 mm

Matching circuit: Pi matching circuit will be required

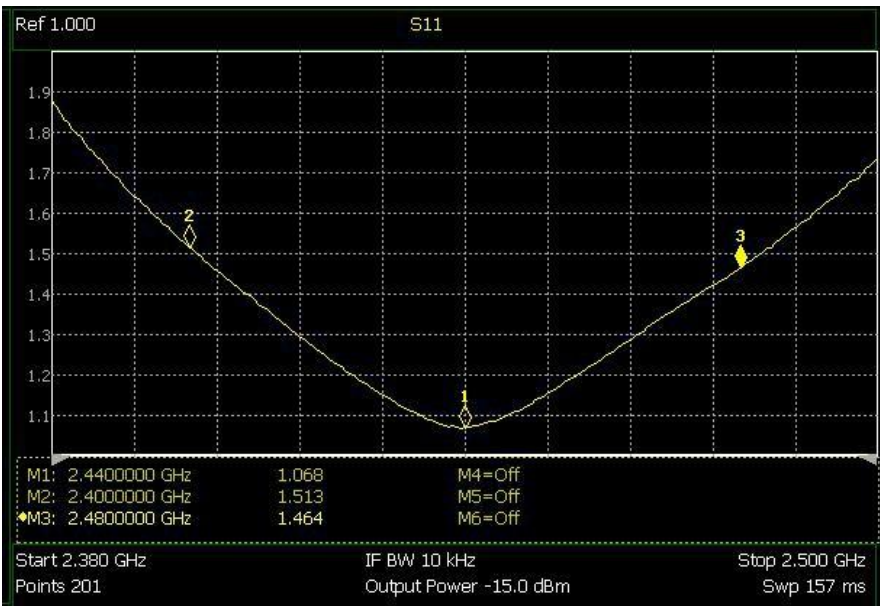
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(6)Electrical Characteristics :

回波损耗



驻波比

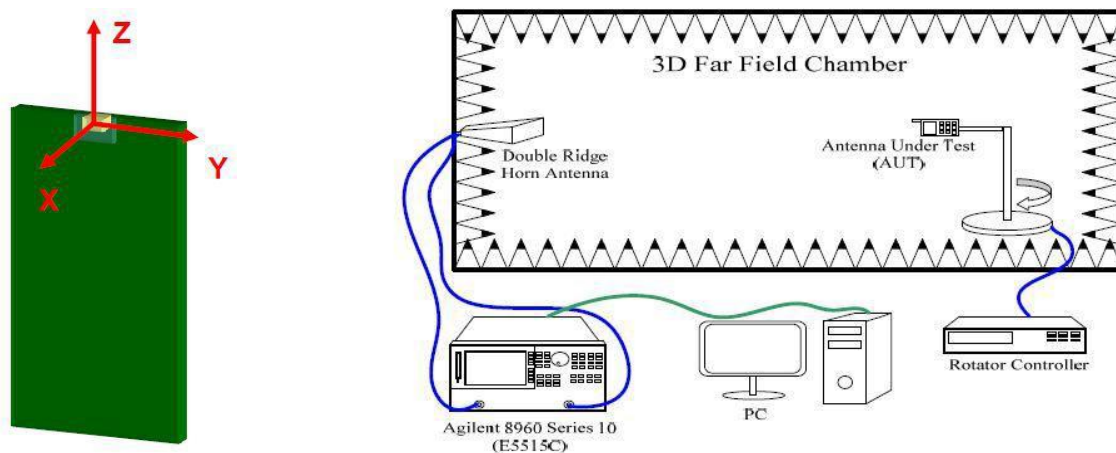


Ma	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1.464

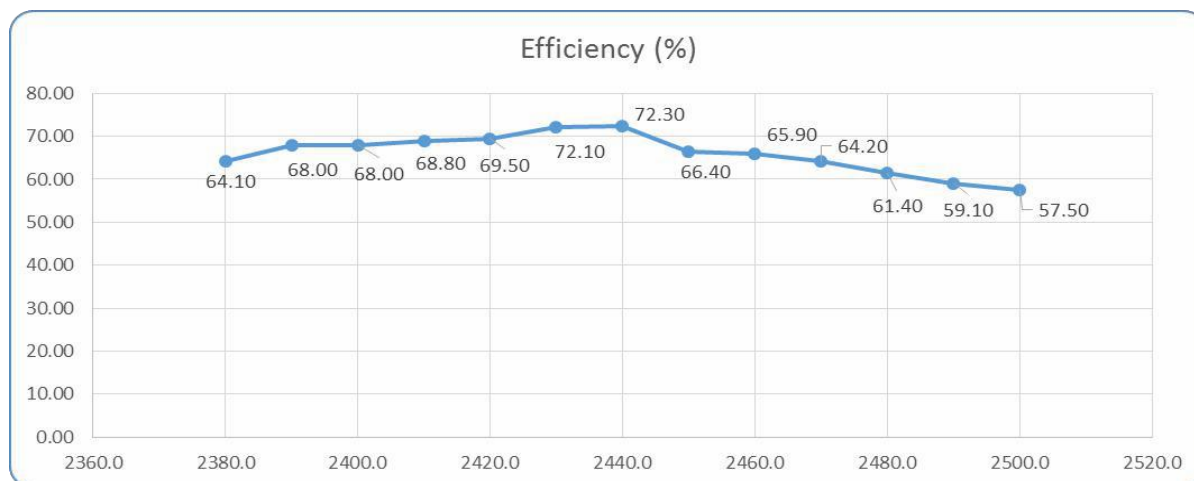
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Radiation Pattern

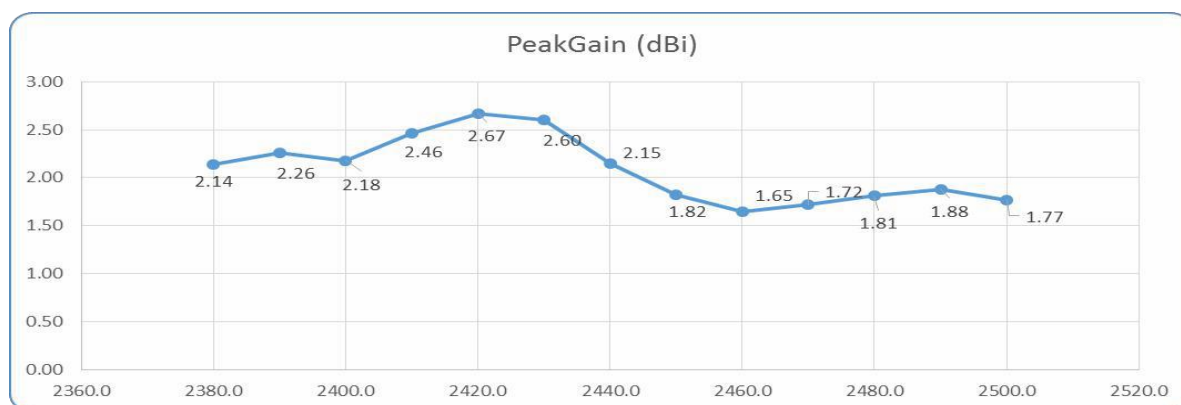
The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



◎ 效率



最大增益



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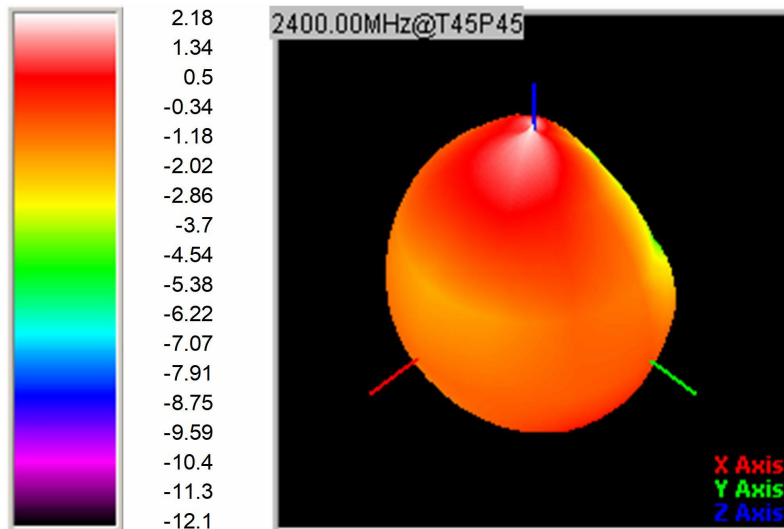
DOCUMENT NO.

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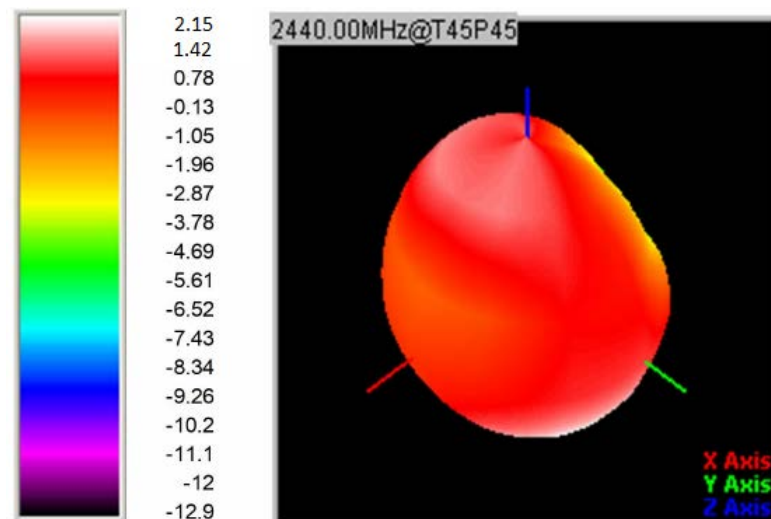
SPEC REV.

P1

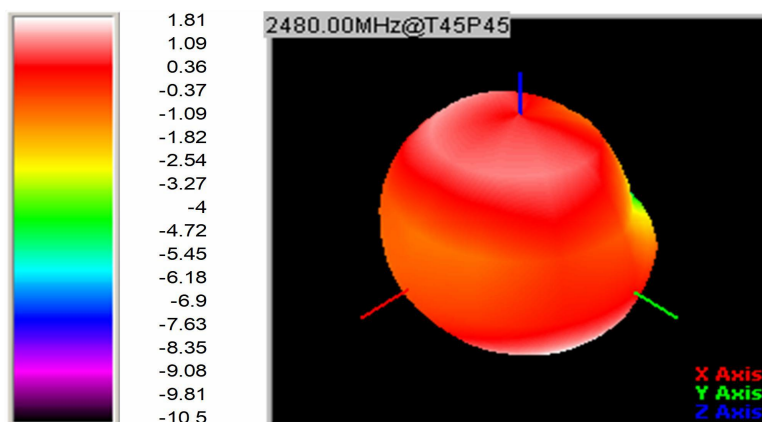
© 3D Gain Pattern (2400 MHz)



© 3D Gain Pattern (2440 MHz)



© 3D Gain Pattern (2480 MHz)



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(7)Environmental Characteristics

(1) Reliability Test

Item	Condition	Specification
Thermal shock	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	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	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	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	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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ANGLES = $\pm$ HOLEDIA = $\pm$

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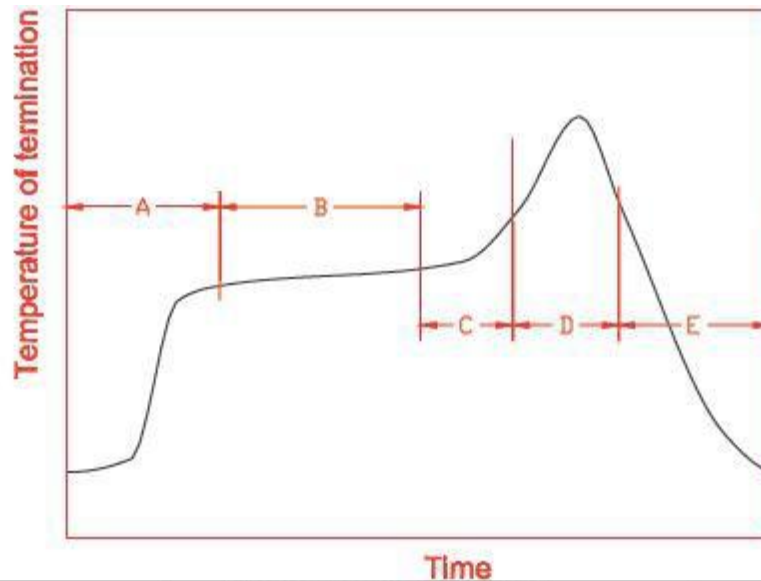
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(8) Recommended Reflow Soldering



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

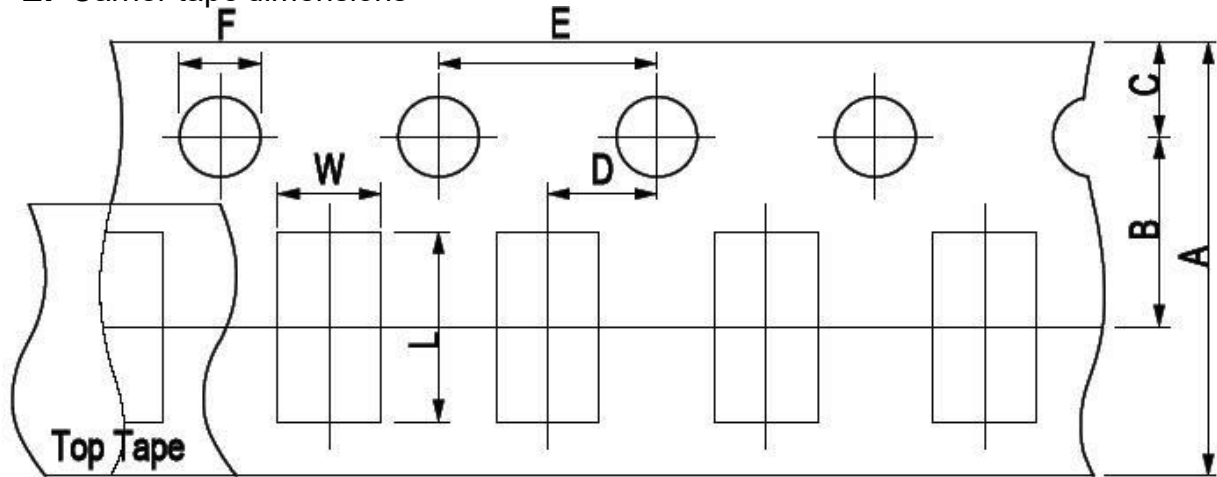
Note that excess of soldering volume will easily get crack the body of this product.

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(9) **Taping Package and Label Marking:** (unit: mm)

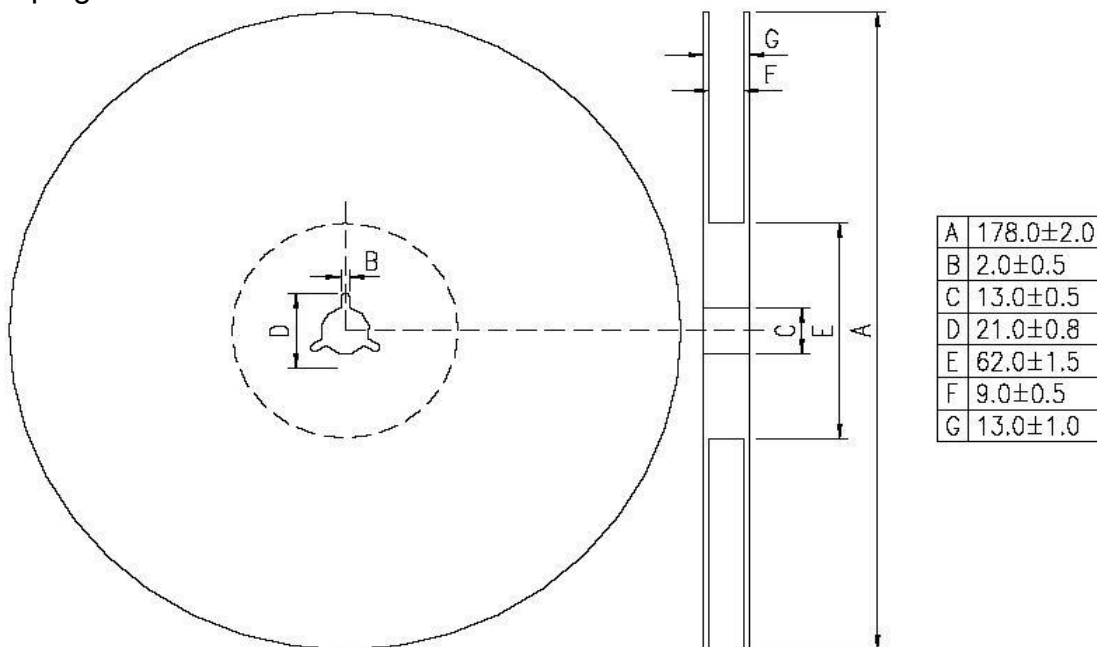
1. Quantity/Reel: 5000pcs/Reel

2. Carrier tape dimensions



Type	A	B	C	D	E	F	L	W
2450-21	8.00 ± 0.3	3.50 ± 0.05	1.75 ± 0.1	2.00 ± 0.05	4.00 ± 0.1	1.50 ± 0.1	2.30 ± 0.1	1.55 ± 0.1

3. Taping reel dimensions



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