

Confirmation of product specifications

SPECIFICATIONS

CUSTOM

ER:

customer:

Product name:

DESCRIPTION: Bluetooth antenna

Customer model:

CUSTOMER PART No:

Product model:

OUR MODEL NO: PBX3216MC02

Date:

DATE: 2020/12/22

Please confirm your signature and seal, and return a copy of the acknowledgement.

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR

APPROVAL" WITH YOUR APPROVED SIGNATURES

check and ratify	Wang hai	check	Liu Fei	make	Liu Xiaomei
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Customer acknowledges signing.	
date	

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ANGLES = ± HOLEDIA = ±



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SCALE: N/A

UNIT: mm

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CHECKED BY: XD

DESIGNED BY: Sera

APPROVED BY: XD

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SPEC REV

TITLE: CHIP2450-3216 Specification

**DOCUMENT
NO.**

3216

P1

PBX3216MC02 Specification

Operating Temp. : -40°C~+85°C

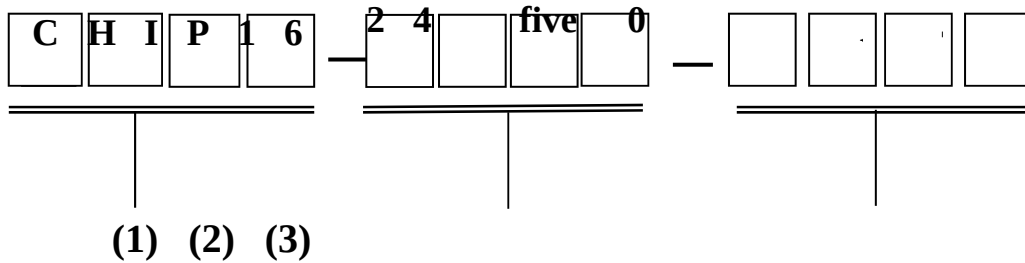
1. FEATURES:

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

2. APPLICATIONS:

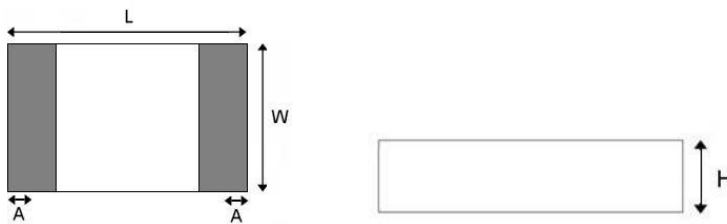
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

3. PRODUCT IDENTIFICATION




- (1) Product type: Multilayer chip Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 3.2*1.6

4. SHAPE AND DIMENSIONS:

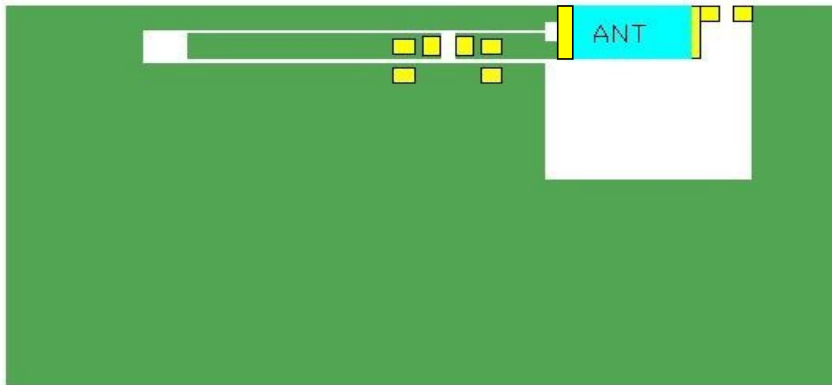


L	W	H	A
3.2±0.2	1.6±0.2	0.52±0.1	0.4±0.1

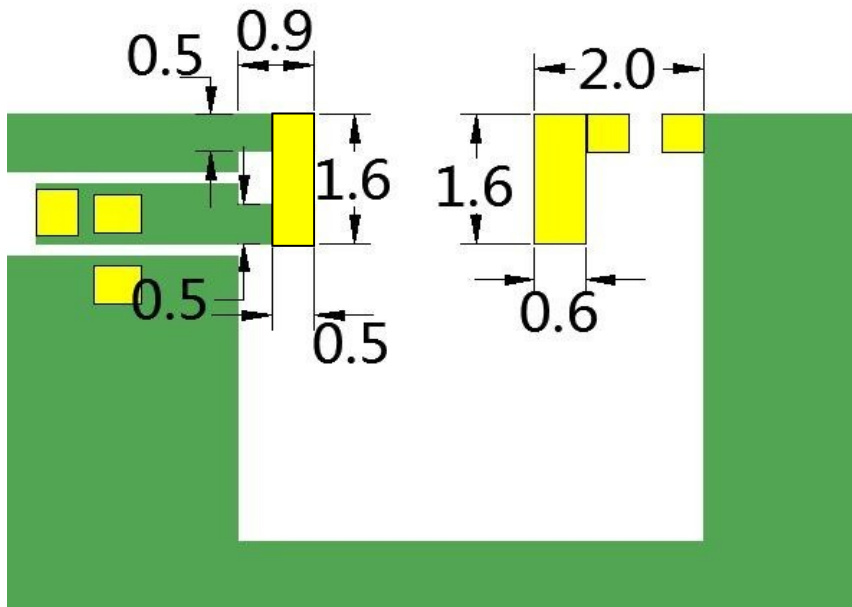
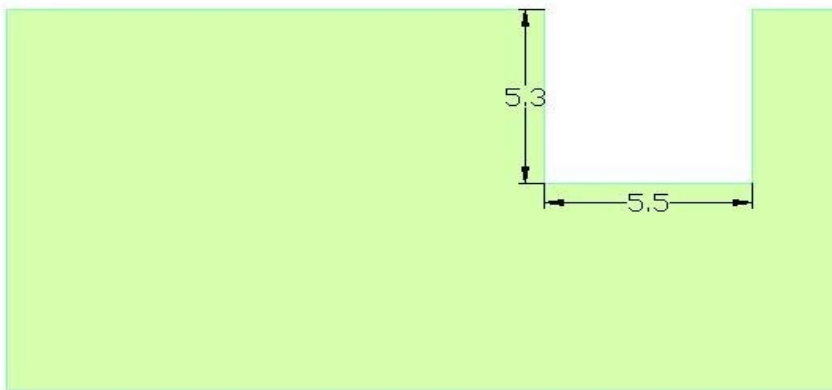
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Reference size of test board:

Unit: mm



- 天线
- PAD
- 底层铺铜
- 顶层铺铜



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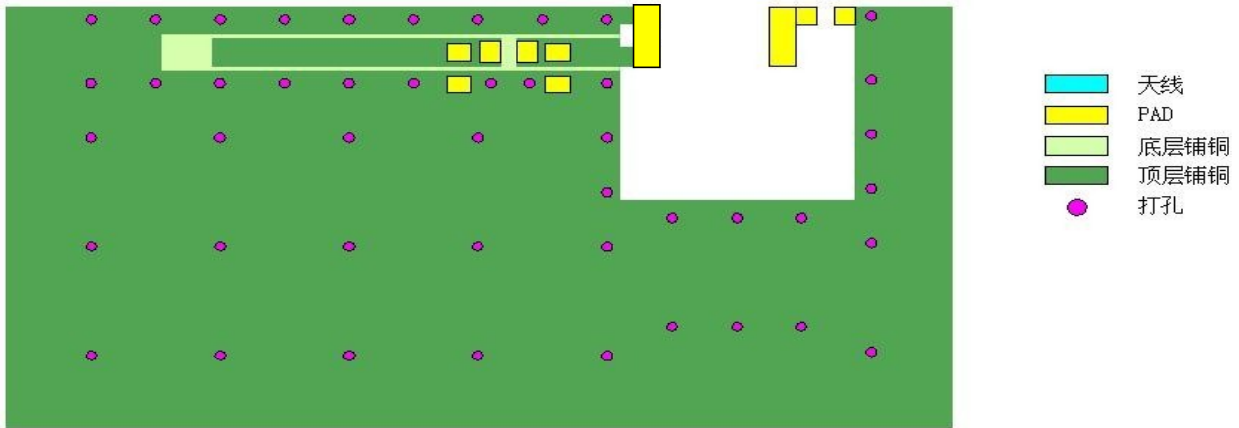
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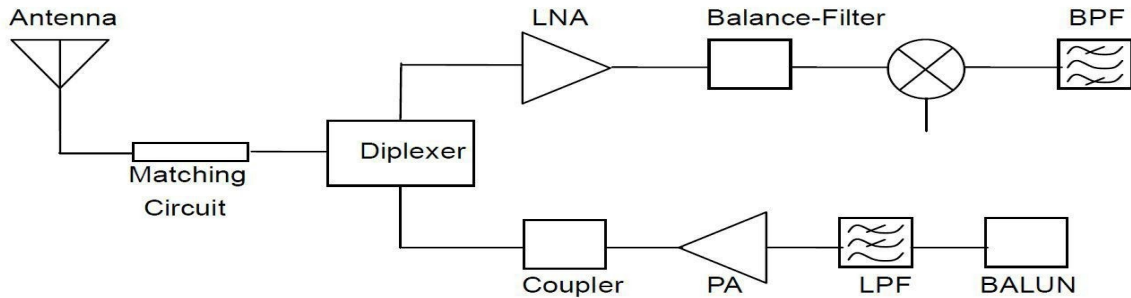
3216

P1

Punching reference diagram



APPLICATION GUIDE




5. SPECIFICATIONS:

测试项	规格
带宽	2400~2483MHz
极化方式	线极化
*最大增益	2.67dBi
*效率	72.30%
输入阻抗	50Ω

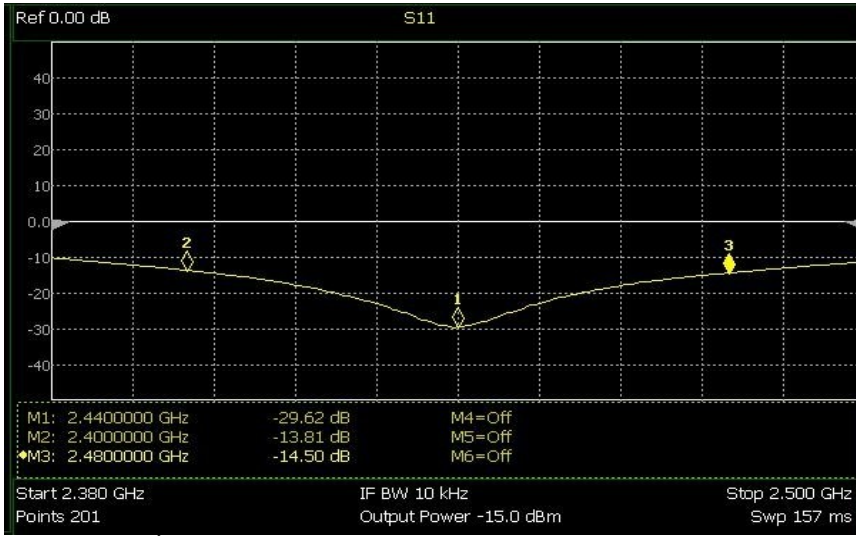
* Test condition: Test board size 90*40 mm

Matching circuit: Pi matching circuit will be required

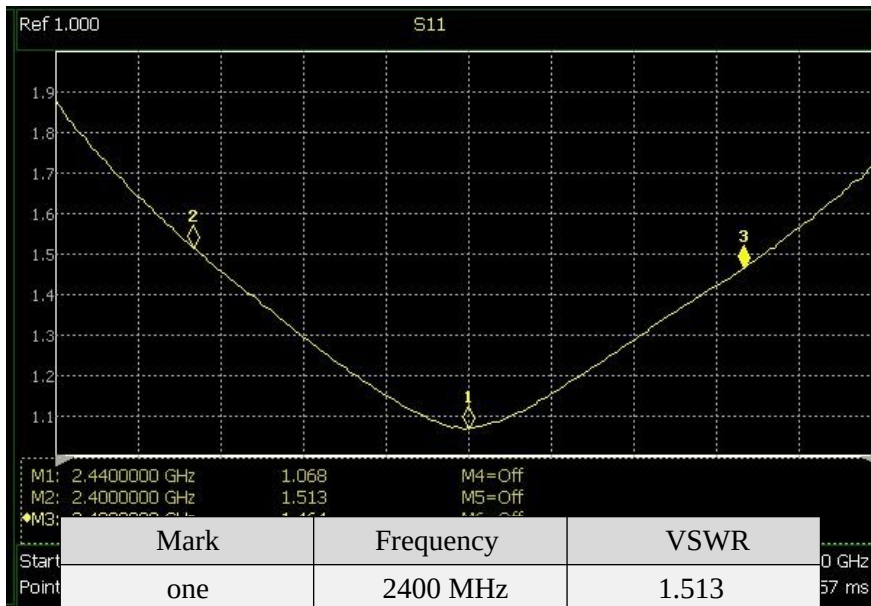
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6. Electrical Characteristics :

return loss



standing-wave ratio



Mark	Frequency	VSWR
one	2400 MHz	1.513
2	2440 MHz	1.068
three	2480 MHz	1.464

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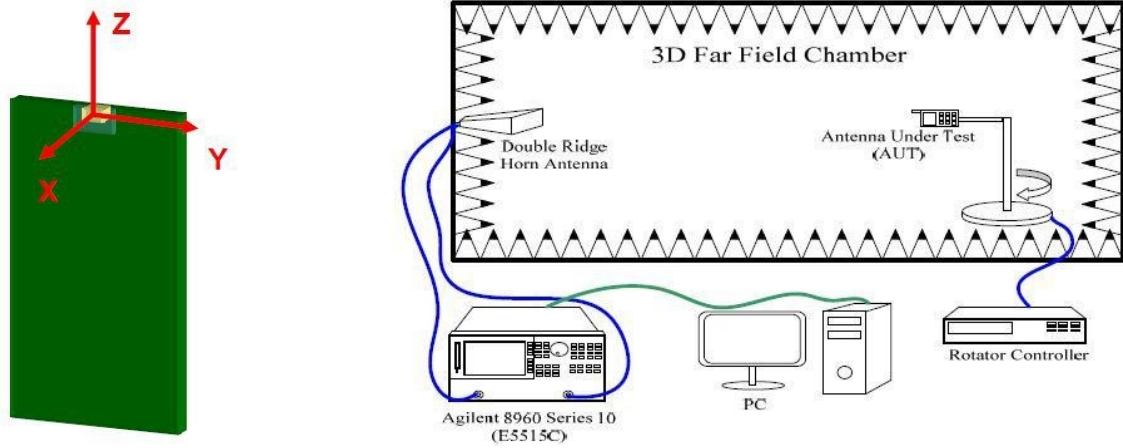
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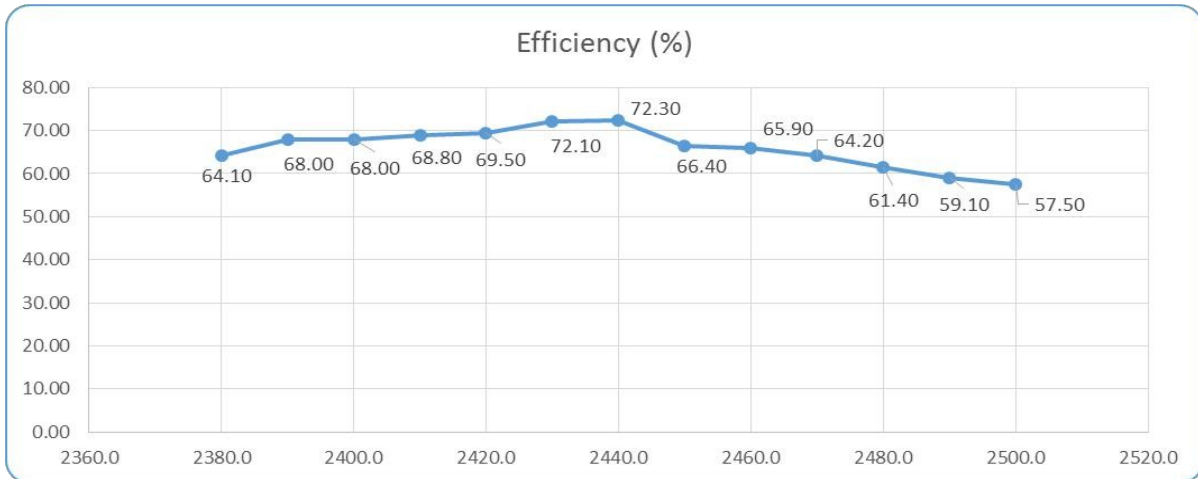
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Radiation Pattern

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.



Efficiency



Maximum gain



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ANGLES = ± HOLEDIA = ±



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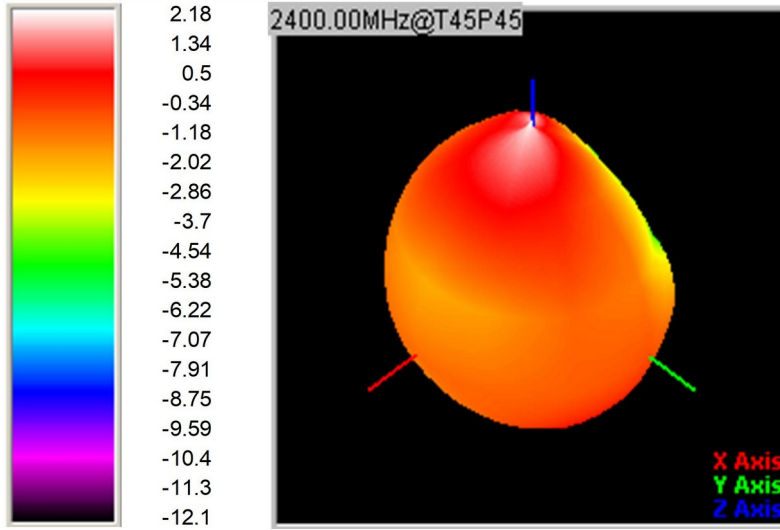
SPEC REV.

P1

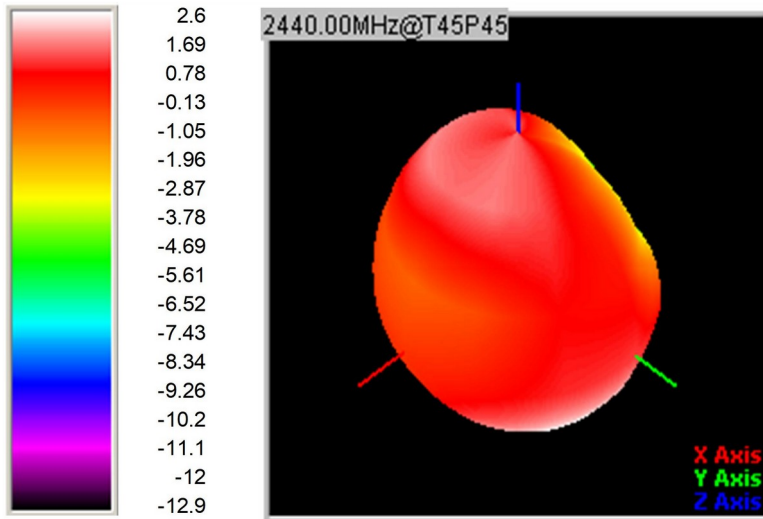
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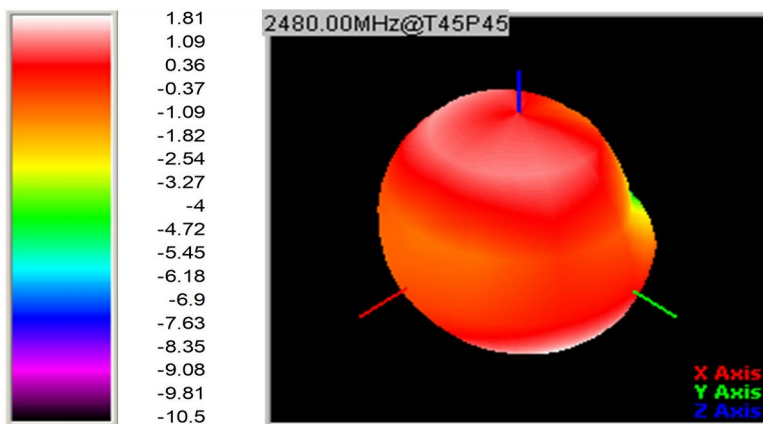
© 3D Gain Pattern (2400 MHz)



© 3D Gain Pattern (2440 MHz)



© 3D Gain Pattern (2480 MHz)



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 ANGLES = \pm HOLEDIA = \pm

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7. Environmental Characteristics

(1) Reliability Test

Item	Condition	Specification
Thermal shock	1. 30±3 minutes at -40° C±5° C, 2. Convert to +105° C (5 minutes) 3. 30±3 minutes at +105° C±5° 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±5° C 3. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	1. Temperature: 150° C±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Low temperature resistance	1. Temperature: -40° C±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : 260±5°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±5°C for 3±1 seconds.	No apparent damage

(2) Storage Condition

(a) At warehouse:

The temperature should be within 0 ~ 30°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:

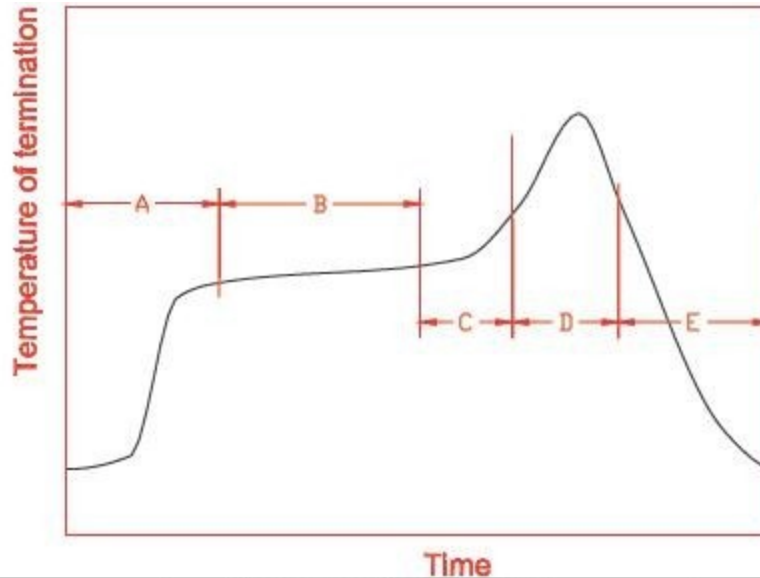
The temperature should be within -40~85°C and humidity should be less than 85% RH.

(3) Operating Temperature Range

Operating temperature range : -40°C to +105°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.

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

(2) Soldering Volume

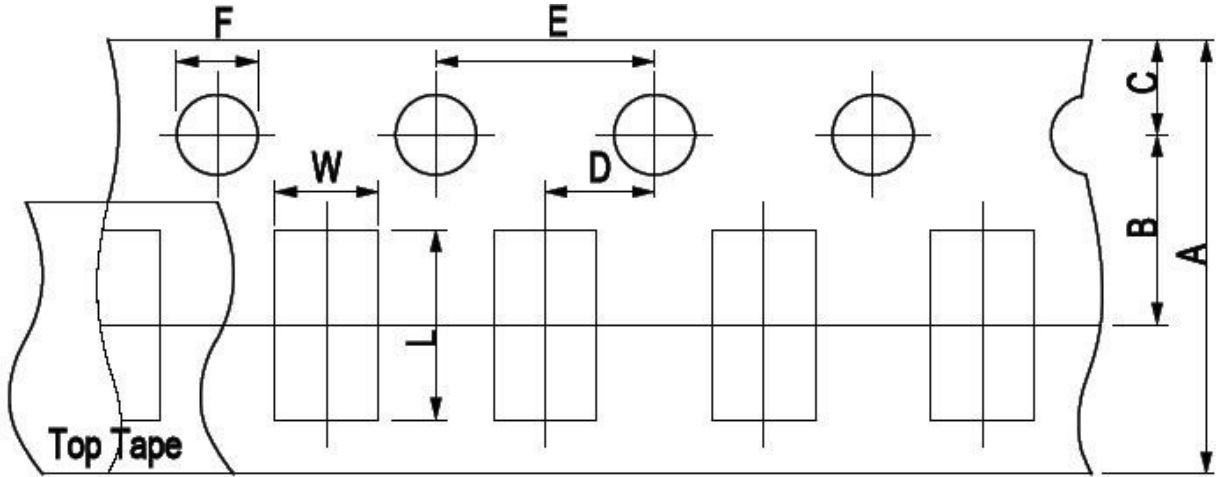
Note that excess of soldering volume will easily get crack the body of this product.

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

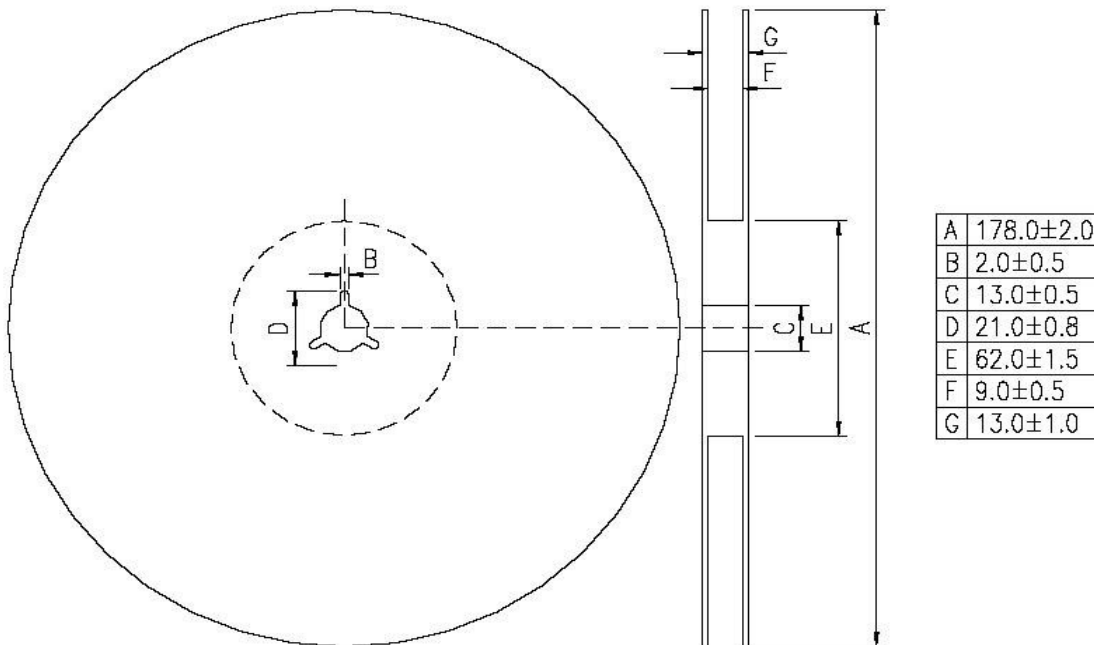
(1) Quantity/Reel: 5000pcs/Reel

(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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