

产品规格承认书

SPECIFICATIONS

客户:

CUSTOMER: _____

产品名称:

DESCRIPTION: Bipolar antenna

客户型号:

CUSTOMER PART No: _____

产品型号:

OUR MODEL NO: PBX3216MA01

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

| | | | | | |
|----------|--------|-------|--------|--------|------------|
| Approved | LiuFei | Audit | LiuFei | Making | LiuXiaoMei |
|----------|--------|-------|--------|--------|------------|

| | |
|---------------------------------|--|
| Customer Acknowledges Signature | |
| Date | |

| | | | |
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| DESIGNED BY: Sera | APPROVED BY: XD | | |
| TITLE: CHIP2450-3216 Specification | DOCUMENT NO. | 3216 | SPEC REV. P1 |

PBX3216MA01 Specification

Operating Temp. : -40°C~+85°C

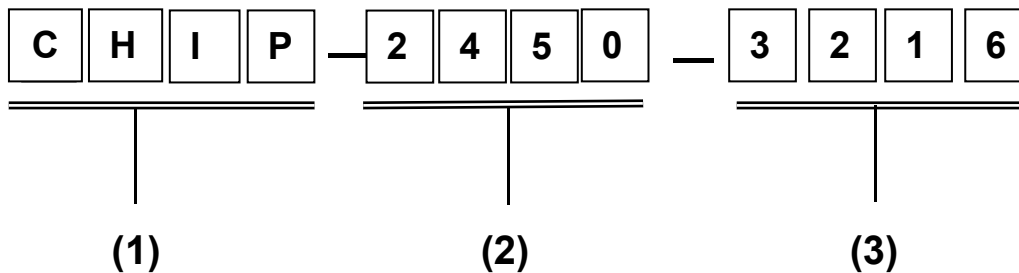
1. FEATURES:

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

2. APPLICATIONS:

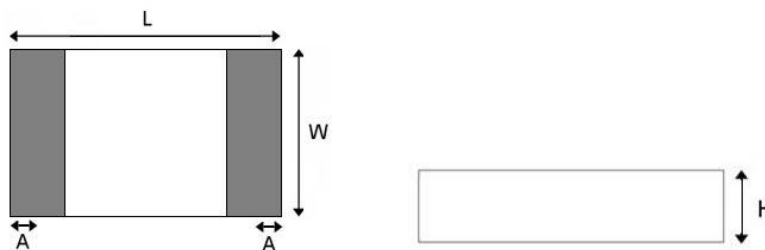
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

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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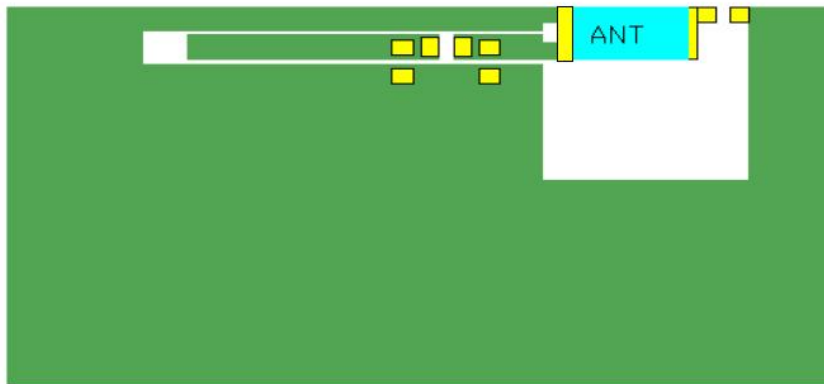
3216

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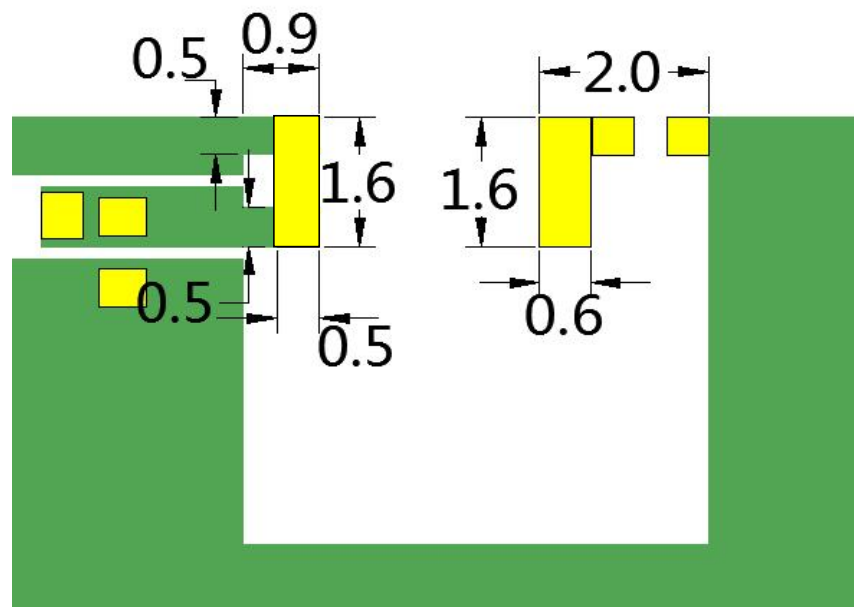
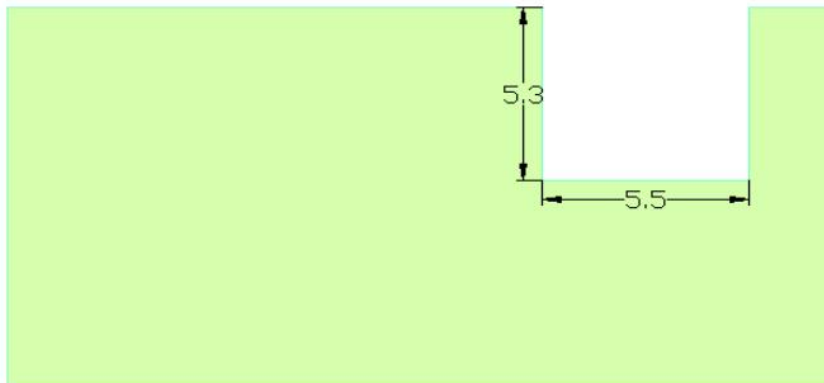
P1

Test plate reference size:

Company: mm



- Antenna
- PAD
- Copper laying on the bottom layer
- Top layer copper laying



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ANGLES = \pm **HOLEDIA** = \pm



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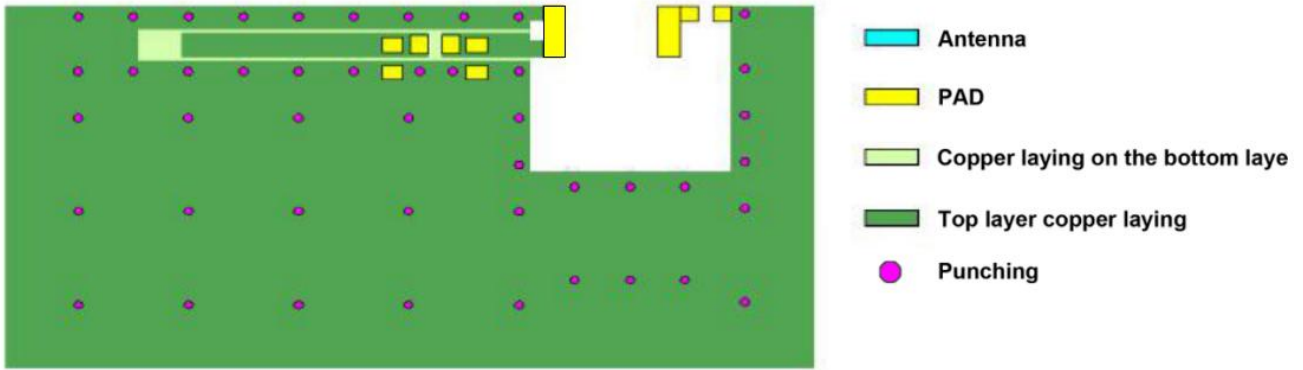
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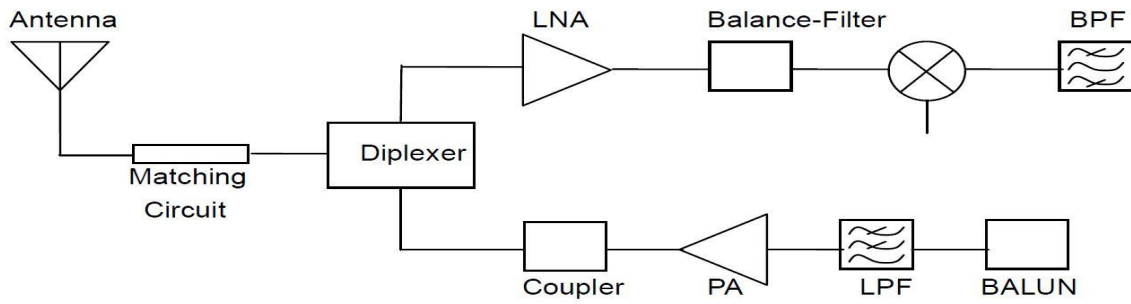
SPEC REV.

P1

Hole punching reference diagram



APPLICATION GUIDE




5. SPECIFICATIONS:

| Test Item | Specifications |
|-------------------|---------------------|
| Bandwidth | 2400-2483MHz |
| Polarization mode | Linear polarization |
| * Maximum gain | 2.67dBi |
| * Efficiency | 72.3% |
| Input Impedance | 50Ω |

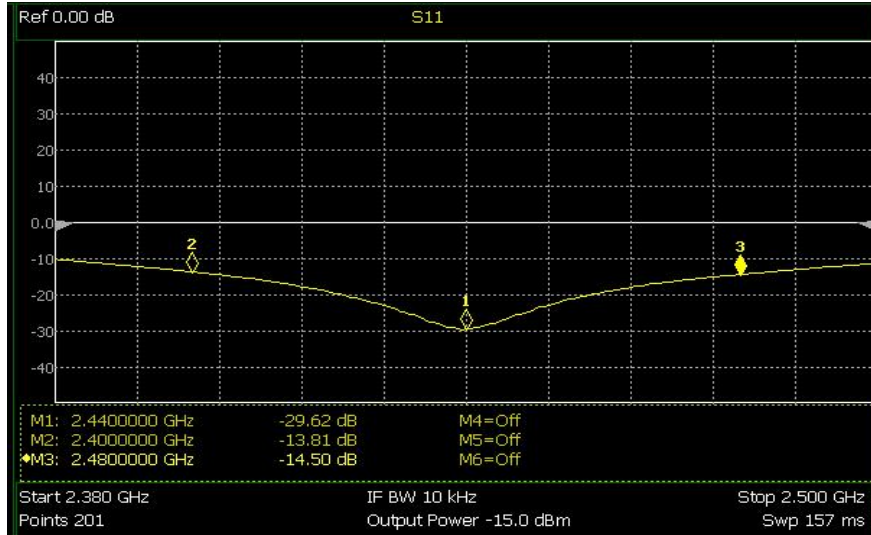
* Test condition: Test board size 90*40 mm

Matching circuit: Pi matching circuit will be required

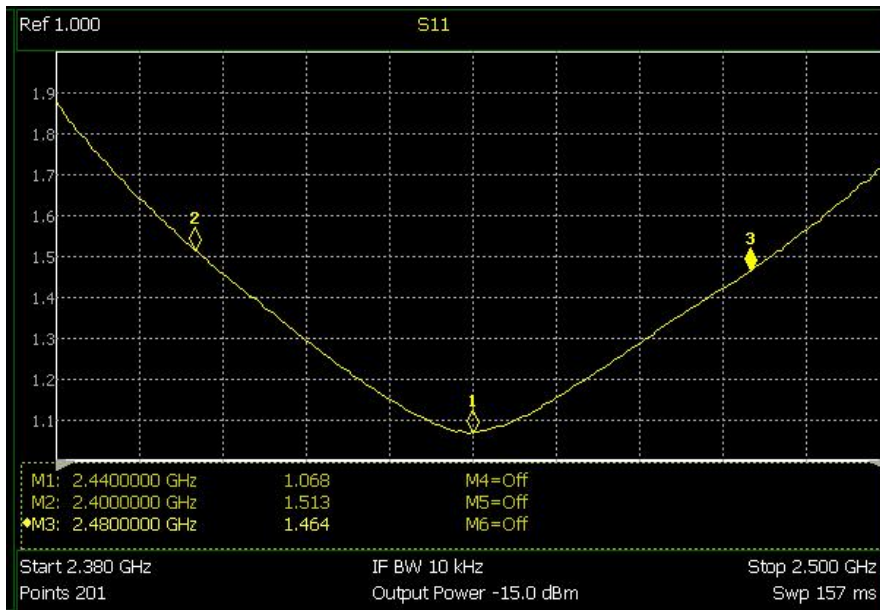
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6. Electrical Characteristics :

Return loss



Standing wave ratio



| Mark | Frequency | VSWR |
|------|-----------|-------|
| 1 | 2400 MHz | 1.513 |
| 2 | 2440 MHz | 1.068 |
| 3 | 2480 MHz | 1.464 |

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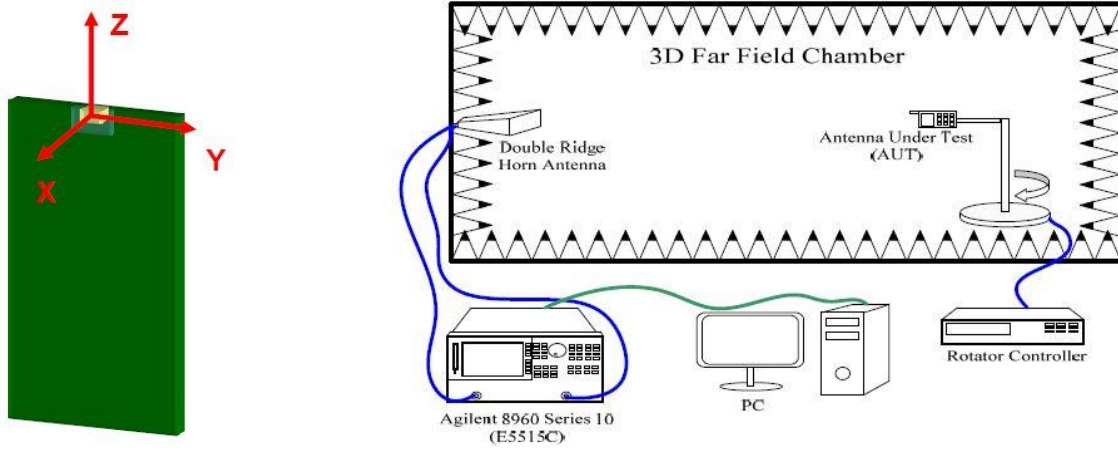
3216

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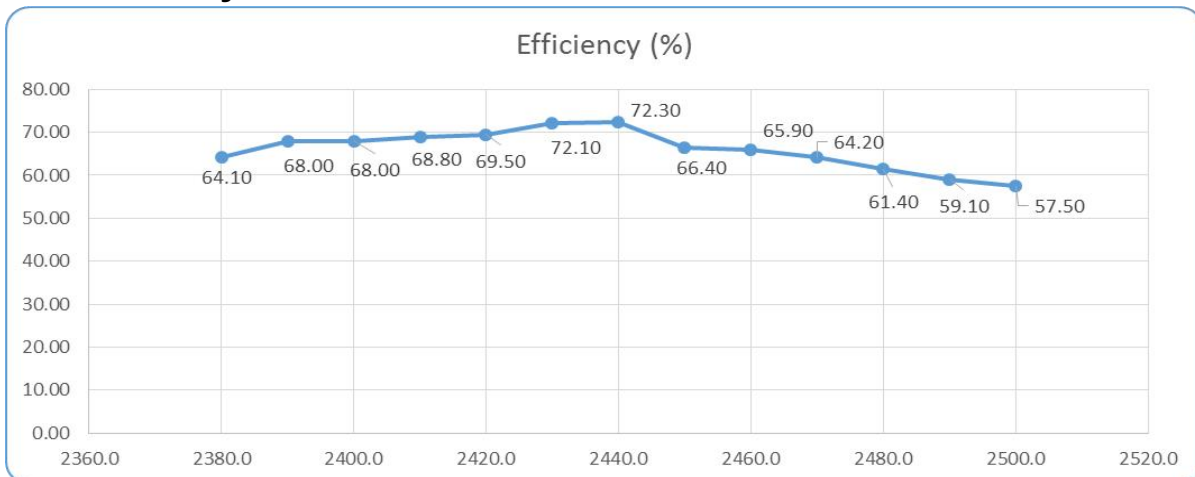
P1

Radiation Pattern

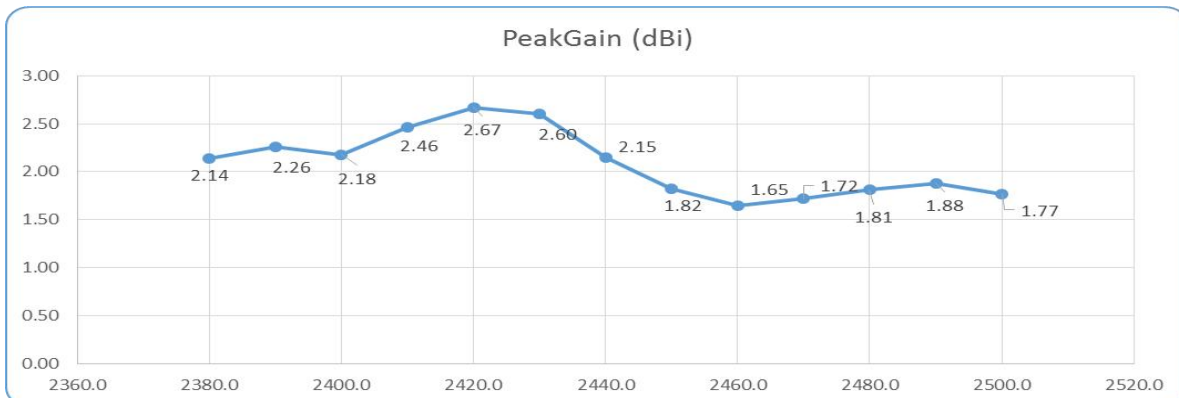
The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



Efficiency



Maximum gain



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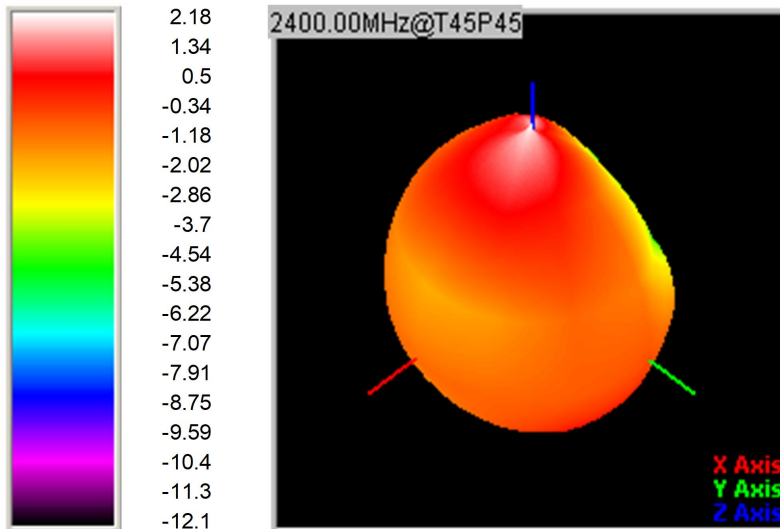
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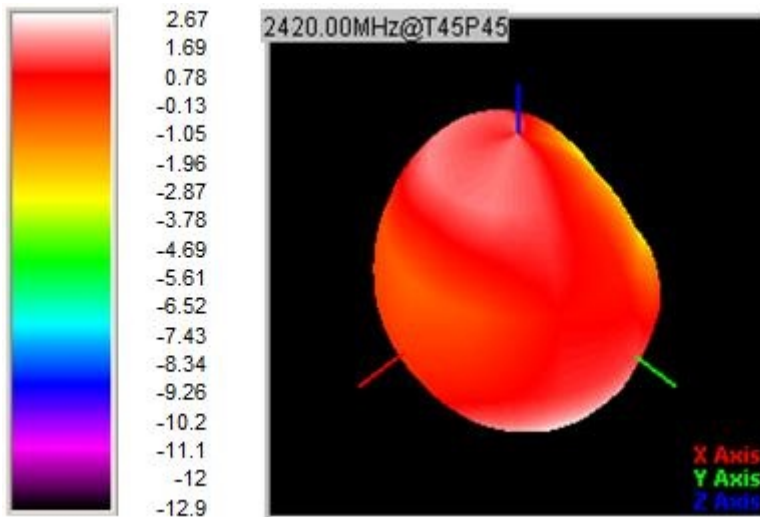
SPEC REV.

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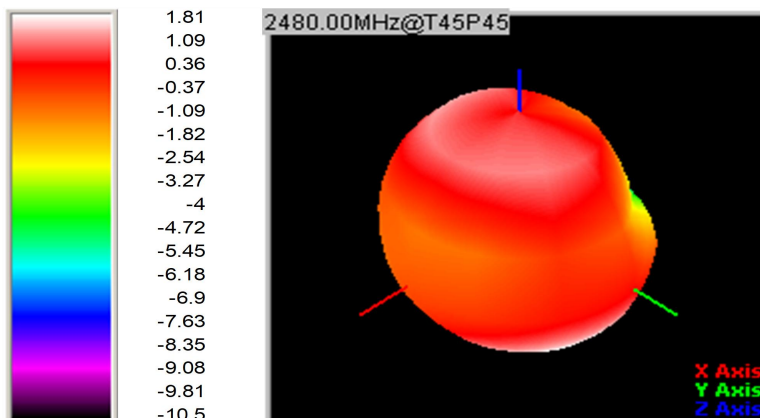
◎ 3D Gain Pattern (2400 MHz)



◎ 3D Gain Pattern (2420 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° 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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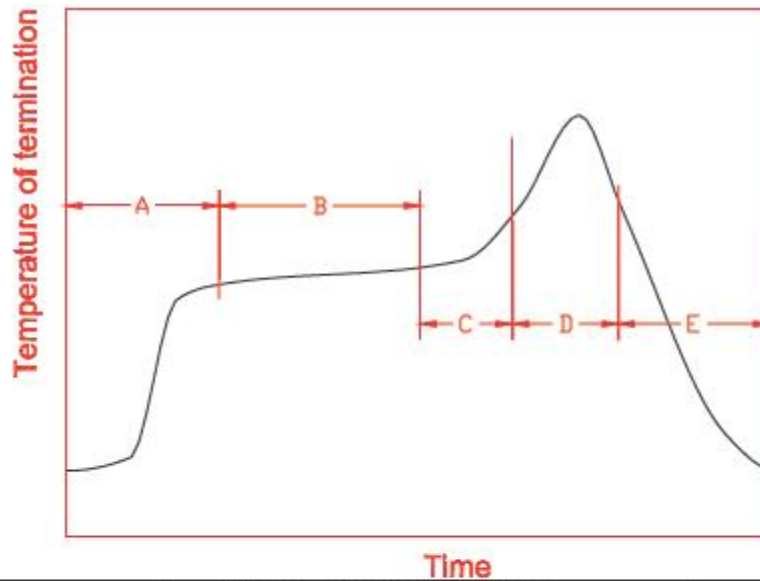
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8. Recommended Reflow Soldering



| | | | |
|---|------------------------------------|--------------------------------------|---------------|
| 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 |
| E | Regular cooling | if 260°C | 20s~40s |
| | | 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

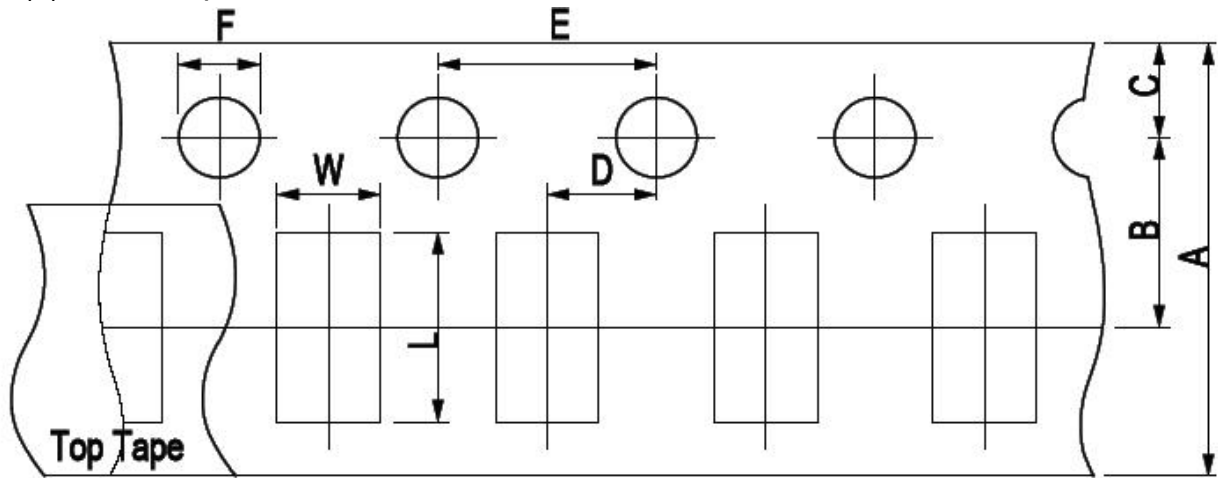
Note that excess of soldering volume will easily get crack the body of this product.

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

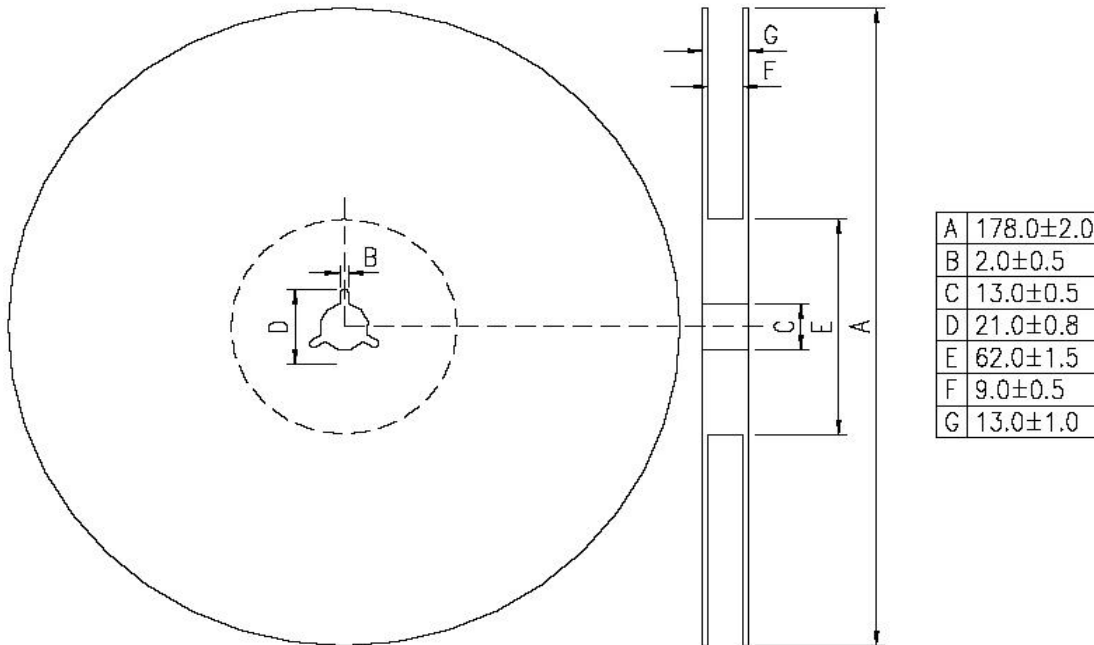
(1) Quantity/Reel: 5000pcs/Reel

(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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