

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: _____ PBX3216

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
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Customer Acknowledges Signature	
Date	

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		3216	P1

PBX3216 Specification

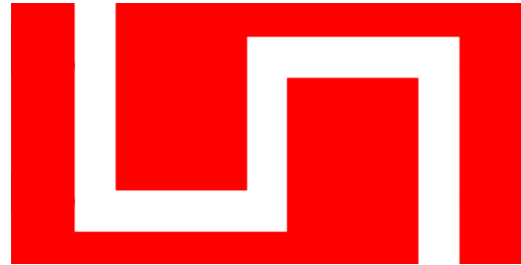
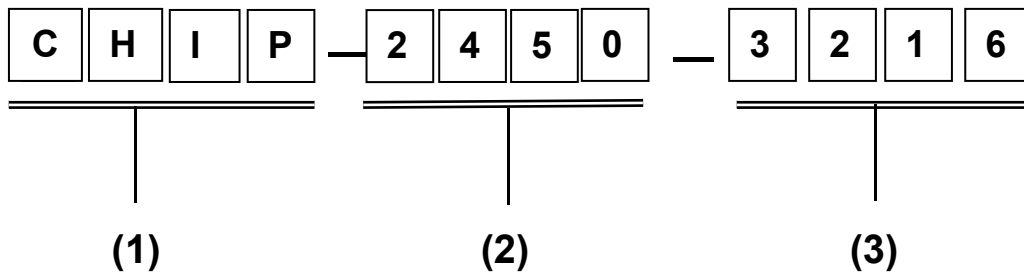
Operating Temp. : -40℃~+85℃

1. FEATURES:

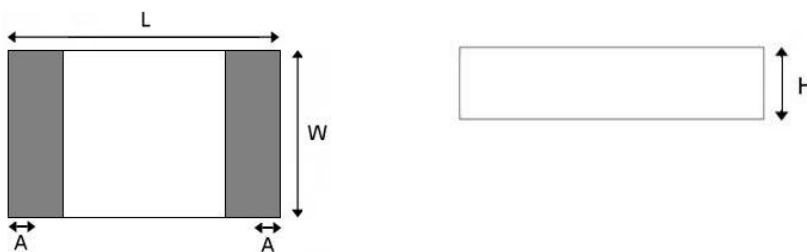
- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain

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 (L×W) (mm): 3.2*1.6

4. SHAPE AND DIMENSIONS: (Unit: mm)

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

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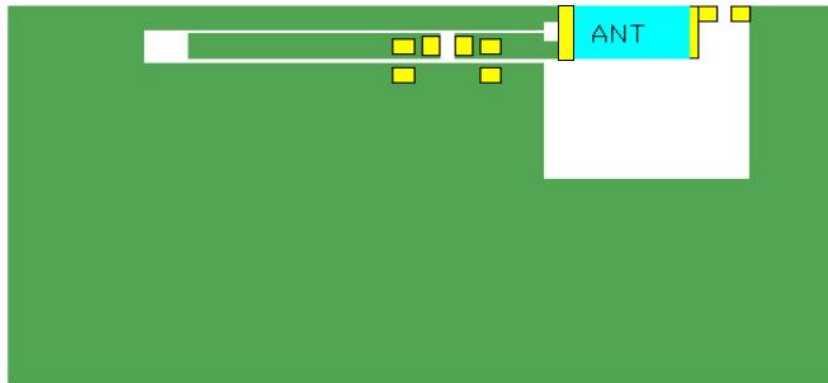
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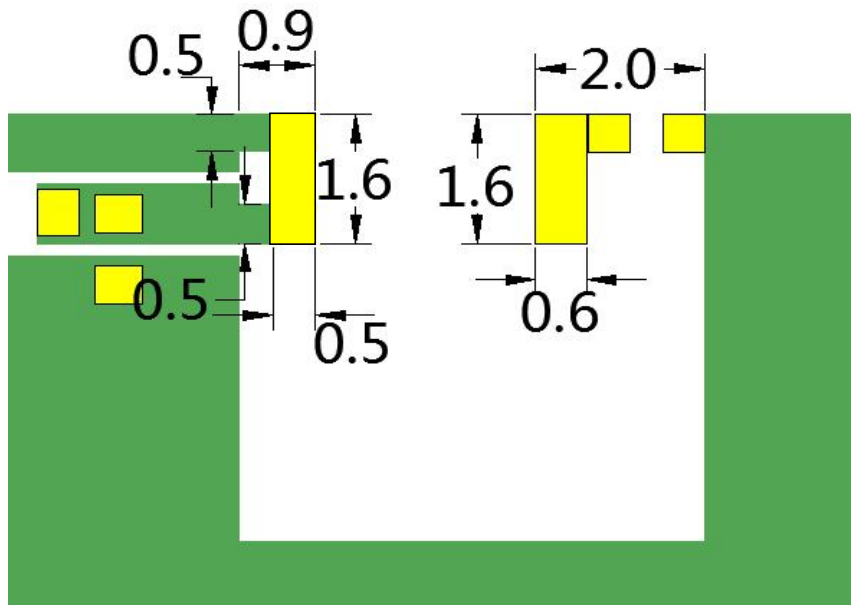
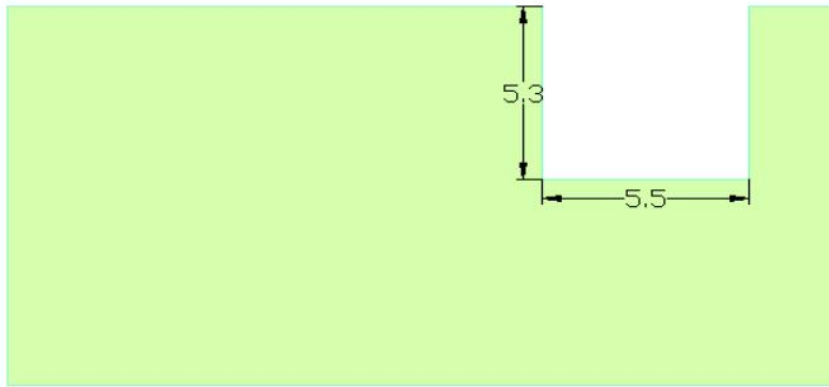
P1

Test plate reference size:

Company: mm



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



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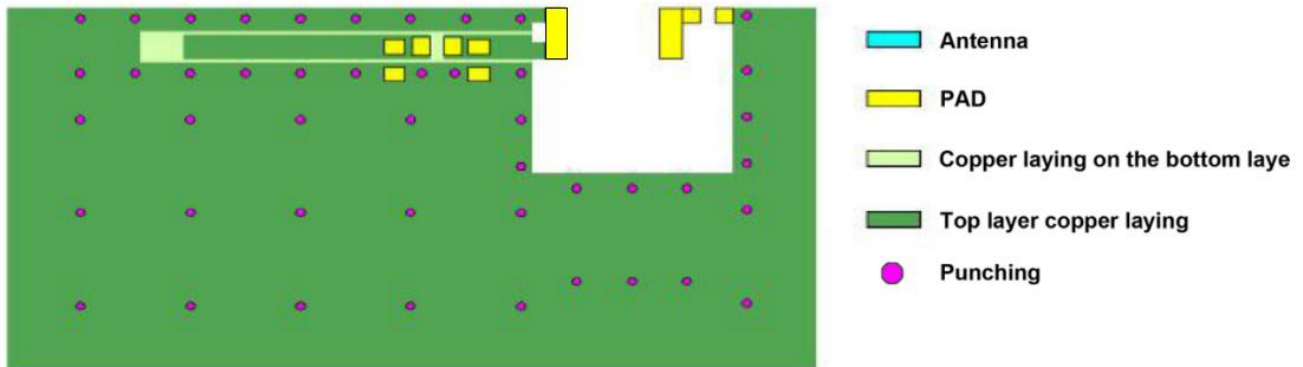
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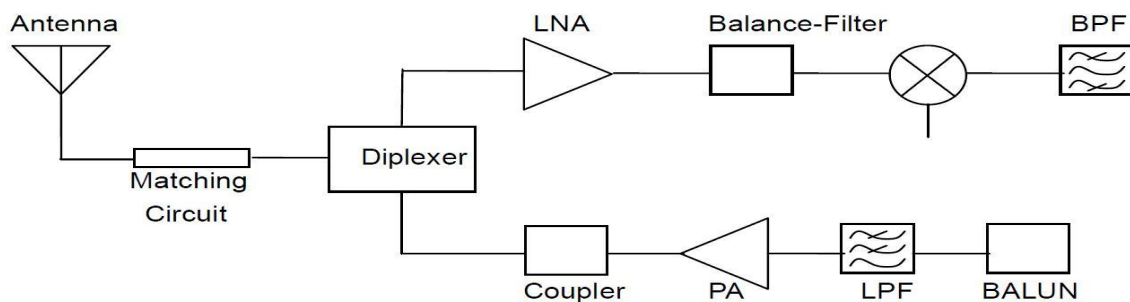
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P1

Hole punching reference diagram



APPLICATION GUIDE



5. SPECIFICATIONS:

Test Item	Specifications
Bandwidth	2400-2483MHz
Polarization mode	Linear polarization
* Maximum gain	0 dBi
* 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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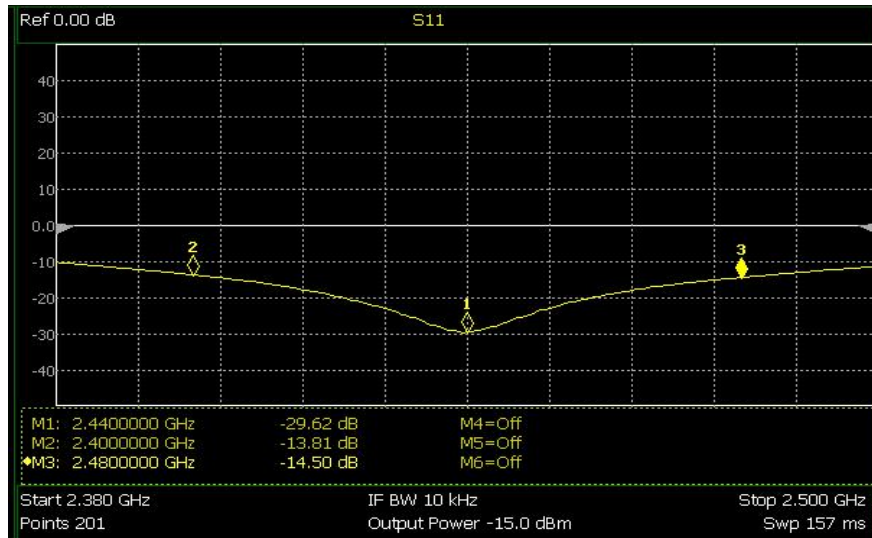
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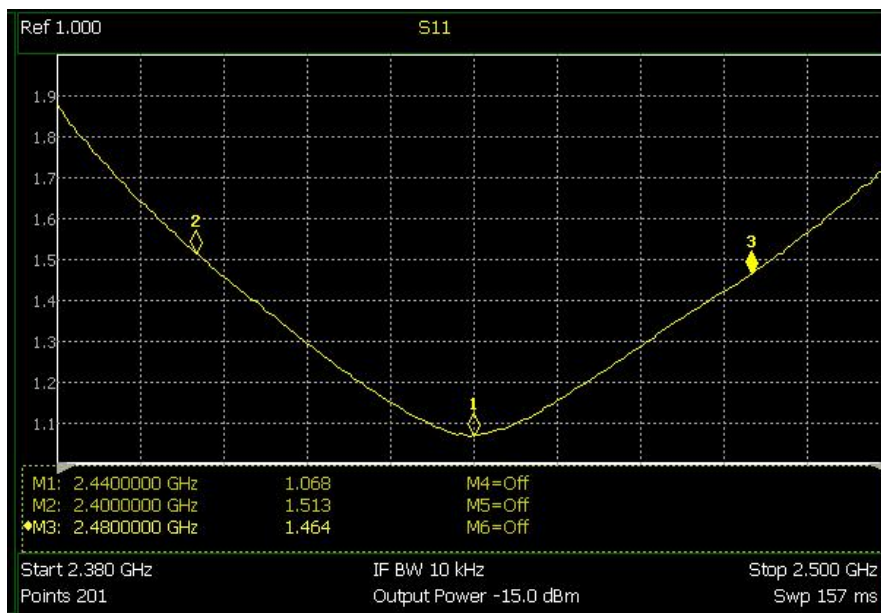
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6. Electrical Characteristics :

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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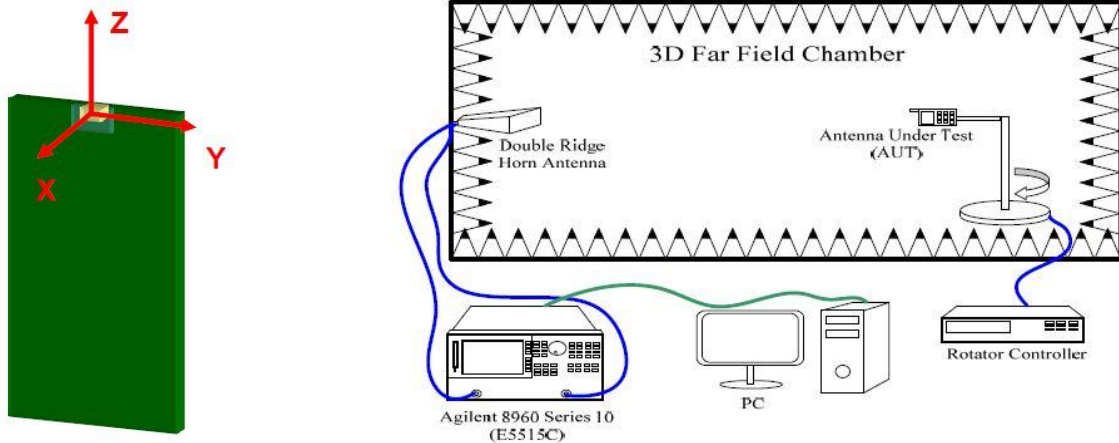
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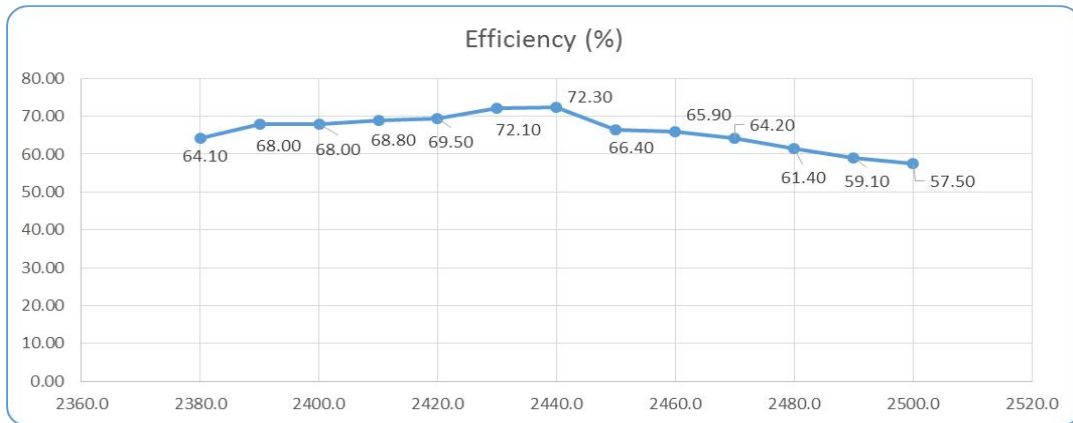
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Radiation Pattern

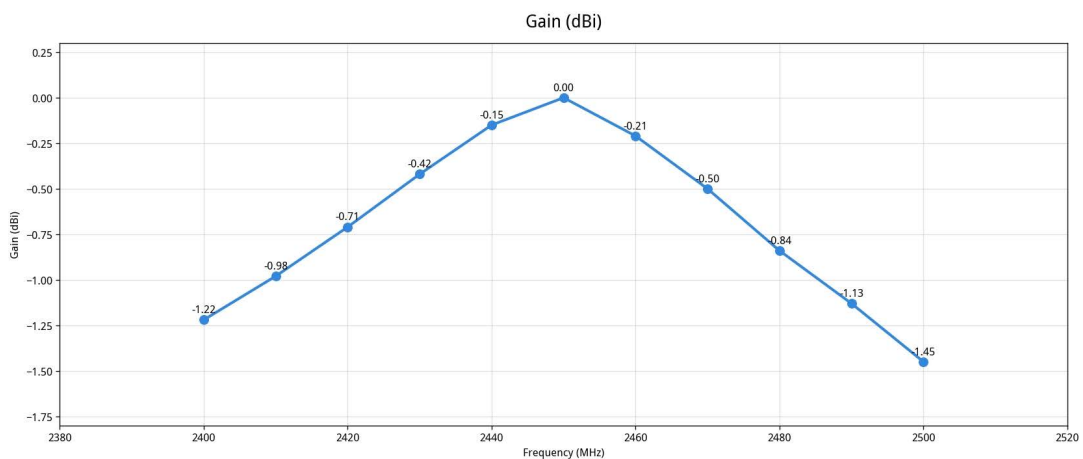
The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator,a standard horn antenna and Vector Network Analyzer is used to collect data.



Efficiency



Maximum gain



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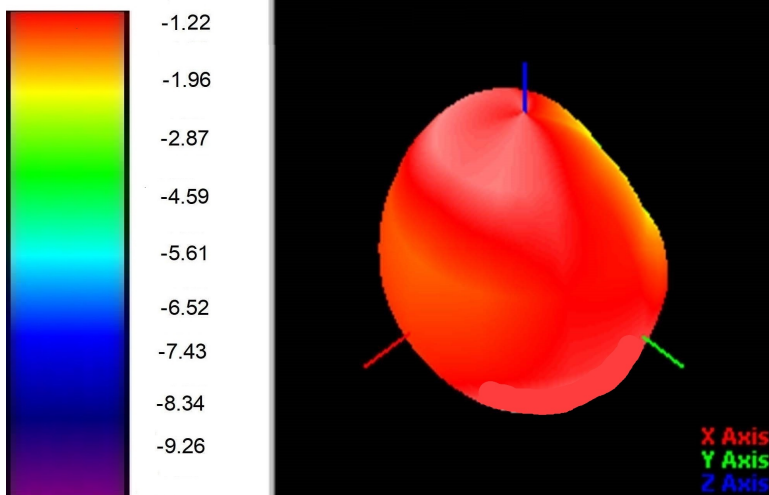
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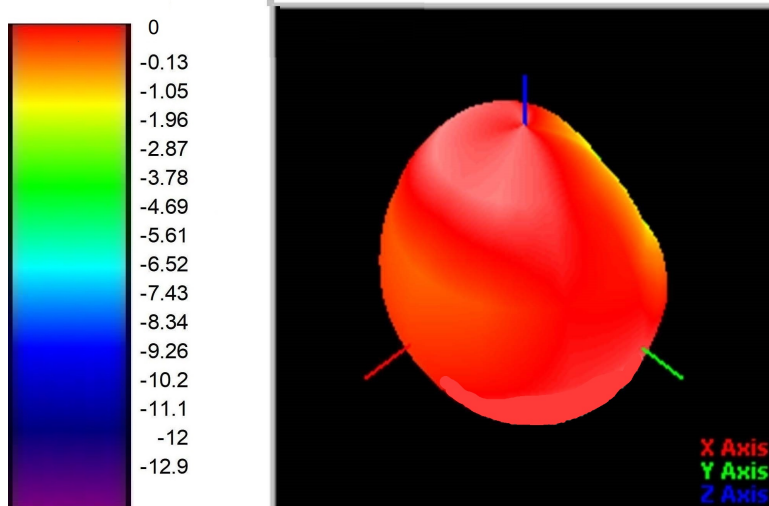
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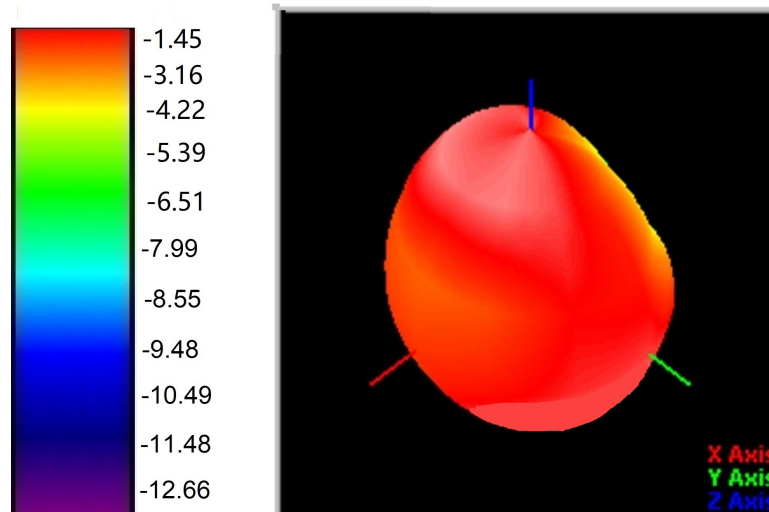
◎ 3D Gain Pattern (2400 MHz)



◎ 3D Gain Pattern (2450 MHz)



◎ 3D Gain Pattern (2500 MHz)



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P1

3D Efficiency Table

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency (dB)	-1.3	-1.2	-1.1	-1.0	-0.9	-0.8	-1.0	-1.2	-1.3	-1.4	-1.5
Efficiency (%)	56.8	57.1	58.7	60.3	62.9	65.5	63.2	59.8	56.5	53.6	50.4
Gain (dBi)	-1.22	-0.98	-0.71	-0.42	-0.15	0.00	-0.21	-0.50	-0.84	-1.13	-1.45

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℃ 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℃ for 3±1 seconds.	No apparent damage

(2) Storage Condition

(a) At warehouse:

The temperature should be within 0 ~ 30℃ 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℃ and humidity should be less than 85% RH.

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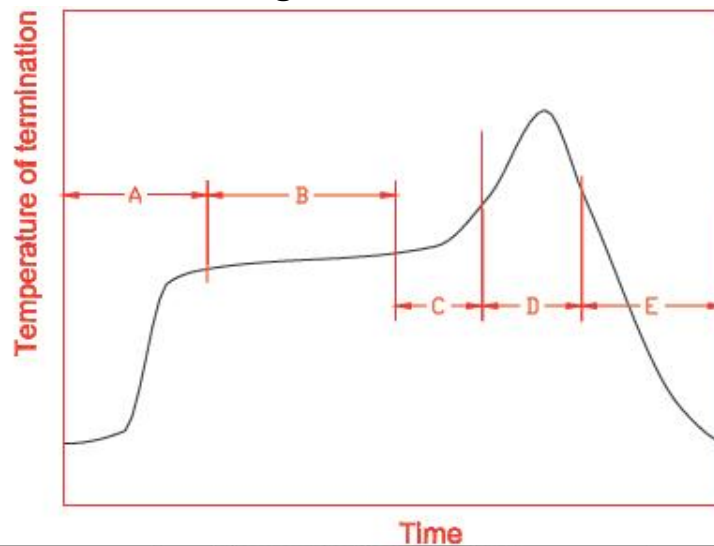
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(3) Operating Temperature Range

Operating temperature range : -40℃ to +105℃.

8. Recommended Reflow Soldering

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

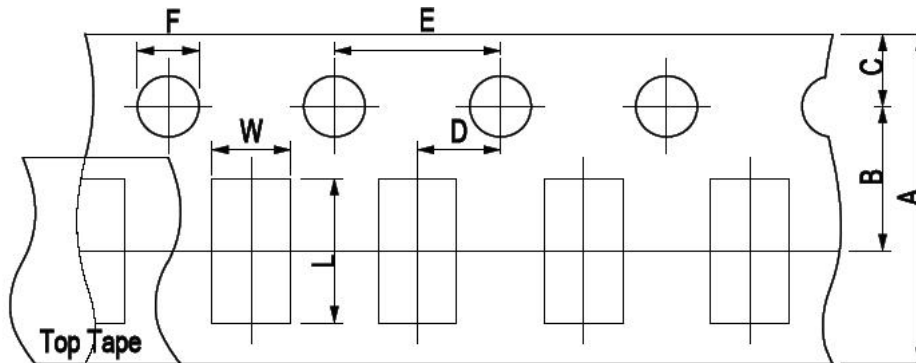
Note that excess of soldering volume will easily get crack the body of this product.

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

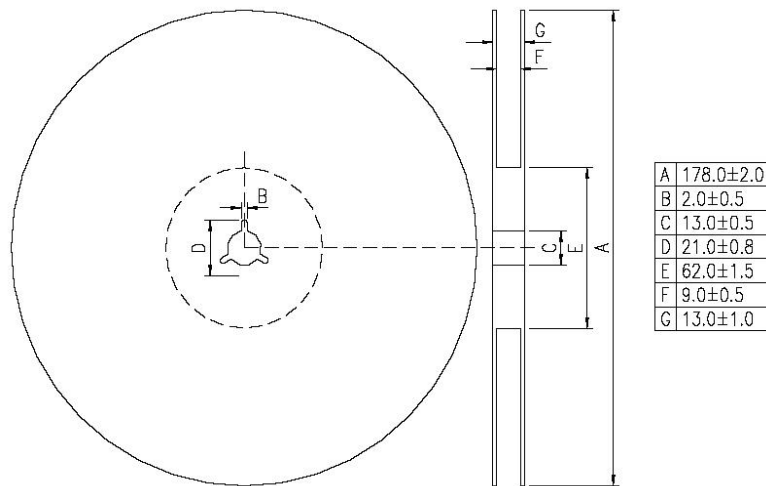
(1) Quantity/Reel: 5000pcs/Reel

(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



A	178.0 ± 2.0
B	2.0 ± 0.5
C	13.0 ± 0.5
D	21.0 ± 0.8
E	62.0 ± 1.5
F	9.0 ± 0.5
G	13.0 ± 1.0

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