

# Antenna data sheet

DESCRIPTION: Chip Antenna

MODEL NO: LTC-3216MLT

Peak Gain 2.67dBi

Manufacturer : Shenzhen Litongchuang Technology Co., LTD

Add : Room 603, Huashenghui Commercial Building, Jinhai Road, Yantian Community, Xixiang Sub-district, Bao 'an District, Shenzhen City

UNLESS OTHER SPECIFIED TOLERANCES ON: X=±      X.X=±      X.XX= A N G L E S = ±      H O L E D I A = ±			
SCALE: N/A	UNIT: mm	These drawings and specifications are the property of Litongchuang Technology Limited and shall not be reproduced or used as a basis for the manufacture or sale of instruments or equipment without permission	
DRAWN BY : Sera	CHECKED BY: XD		
DESIGNED BY: Sera	APPROVED BY: XD		
TITLE: LTC2-2405-3216 Specification		DOCUMENT NO.	SPEC REV.
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## LTC-3216MLT Specification

Operating Temp. : -40℃~+85℃



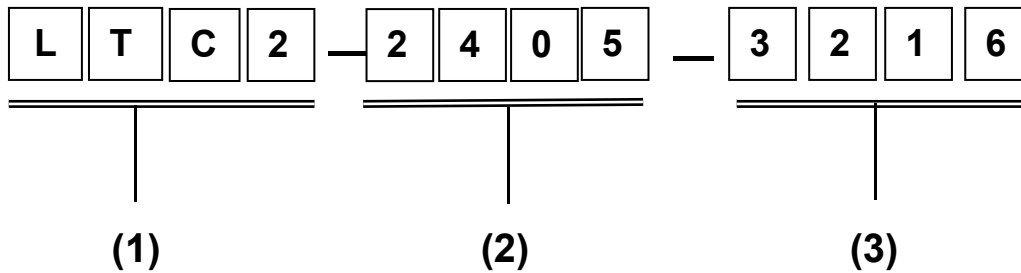
### 1. FEATURES:

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

### 2. APPLICATIONS:

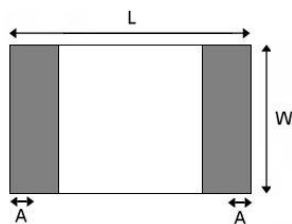
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

### 3. PRODUCT IDENTIFICATION



- (1) Product type: 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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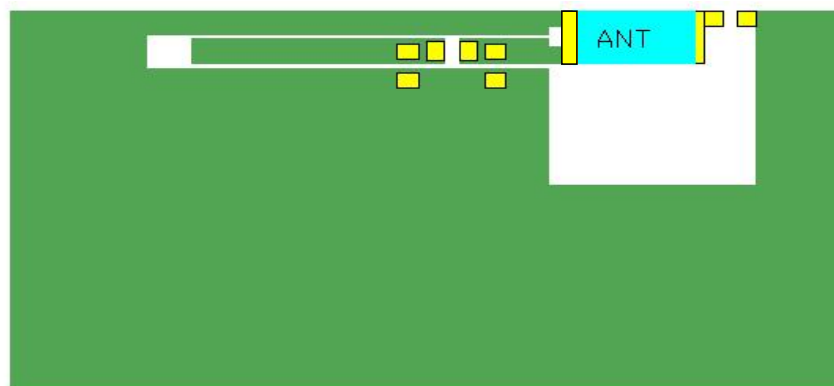
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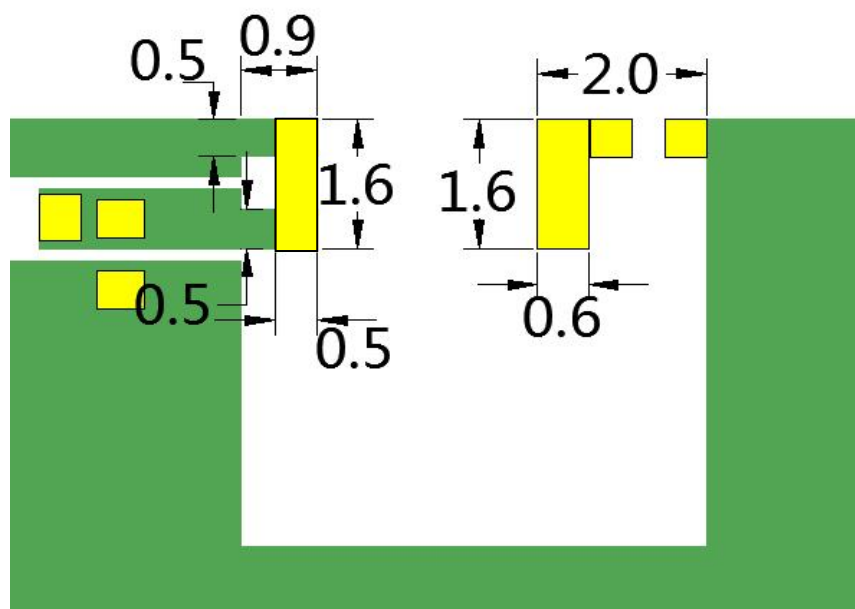
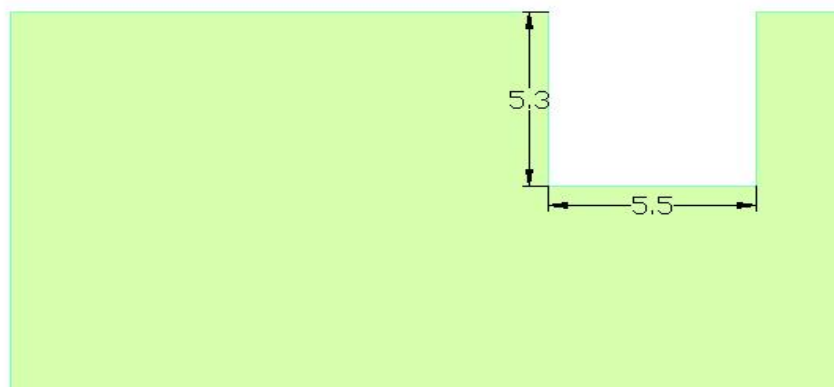
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天线  
 PAD  
 底层铺铜  
 顶层铺铜



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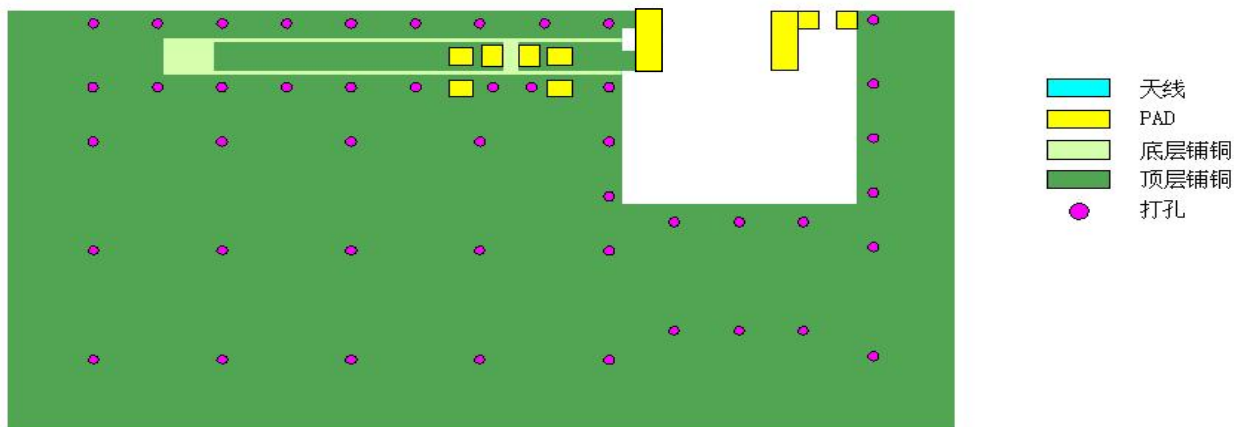
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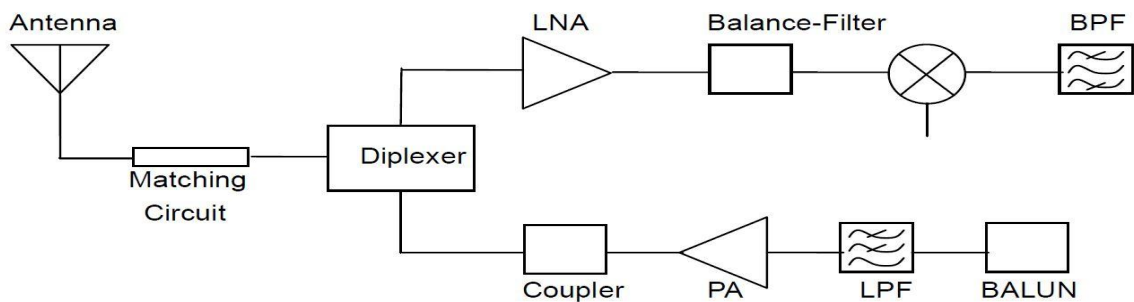
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## APPLICATION GUIDE



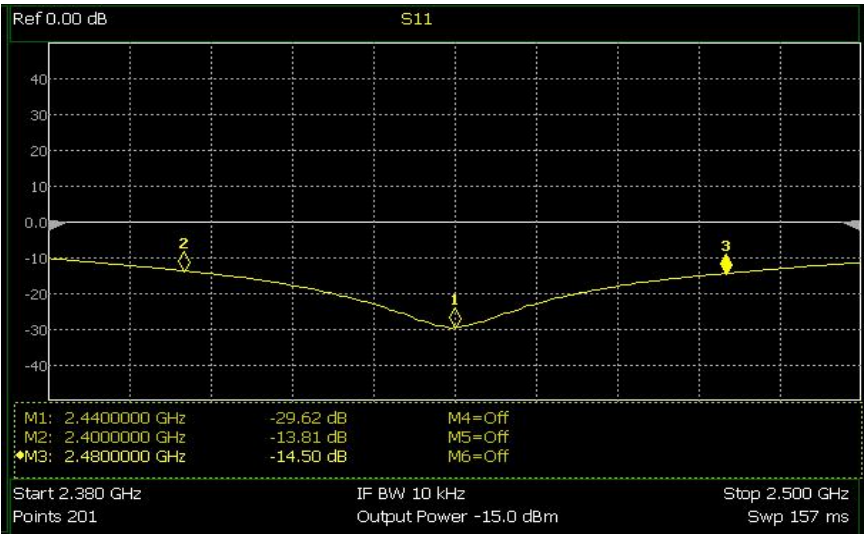
## 5. SPECIFICATIONS:

测试项	规格

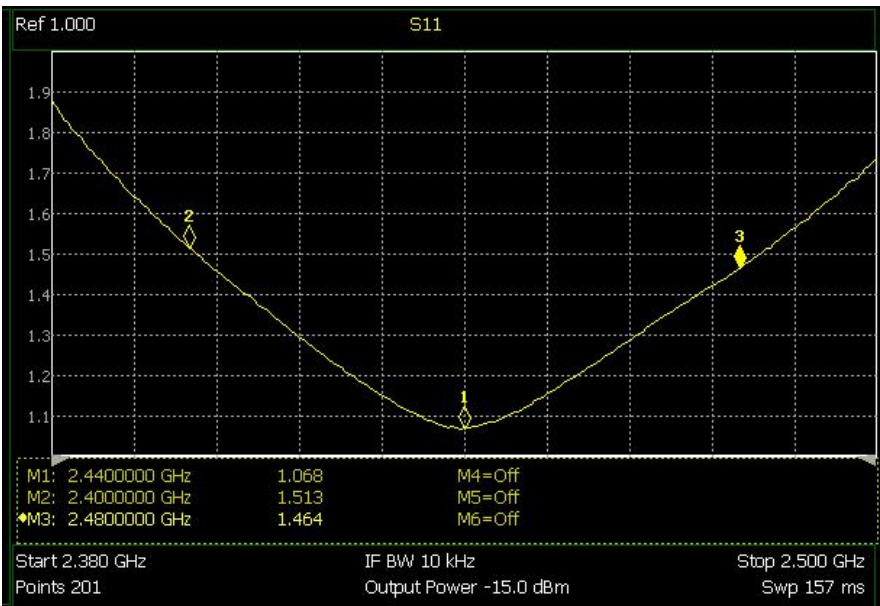
\* Test condition: Test board size 90\*40 mm  
Matching circuit: Pi matching circuit will be required

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6. Electrical Characteristics :



VSWR

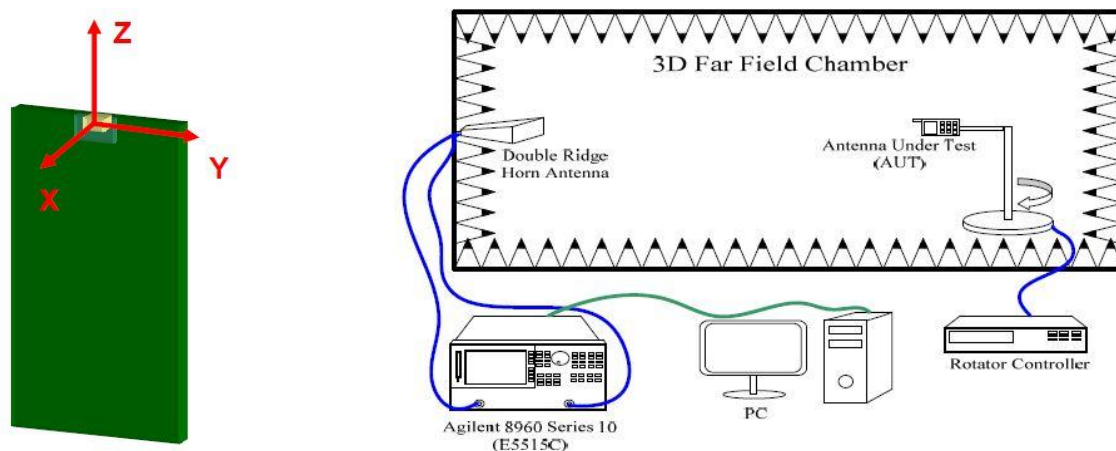


Mark	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1.464

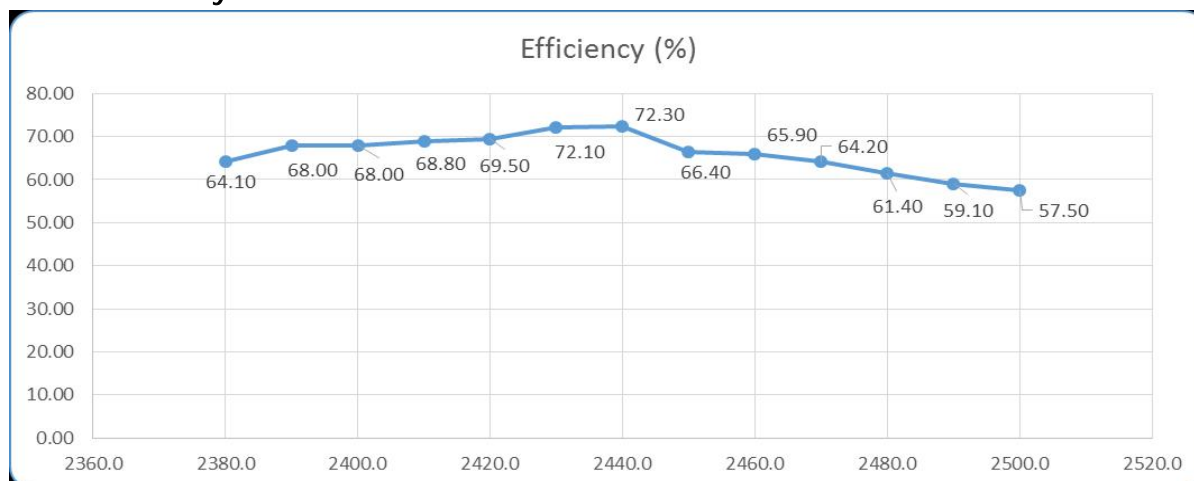
UNLESS OTHER SPECIFIED TOLERANCES ON: X=±                    X.X=±                    X.XX=				
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## Radiation Pattern

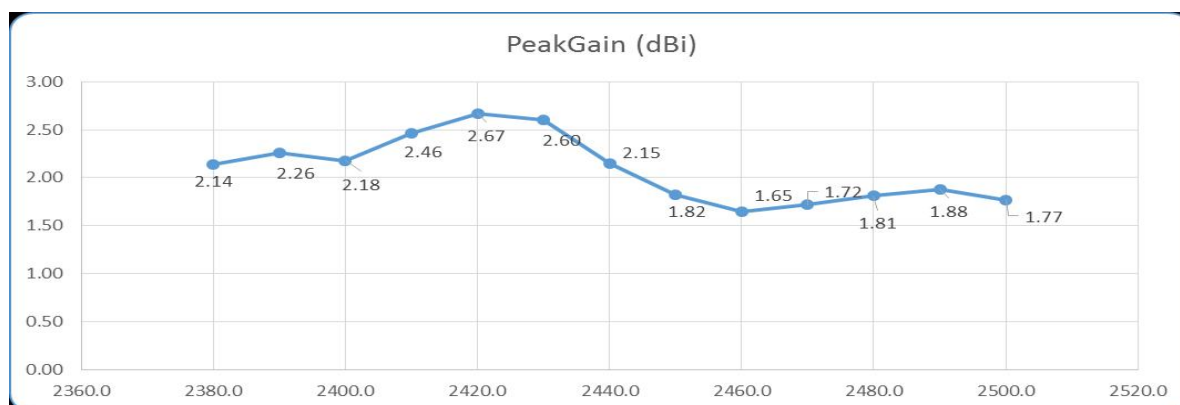
The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



## © Efficiency



## Peak Gain



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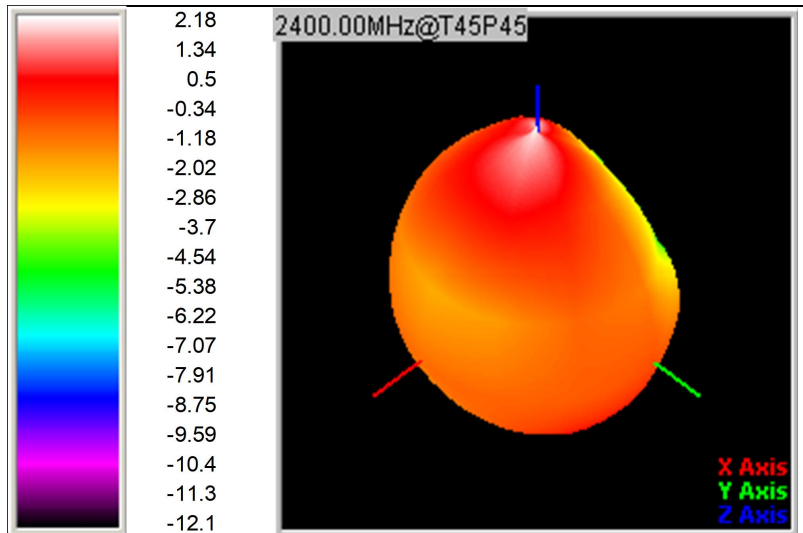
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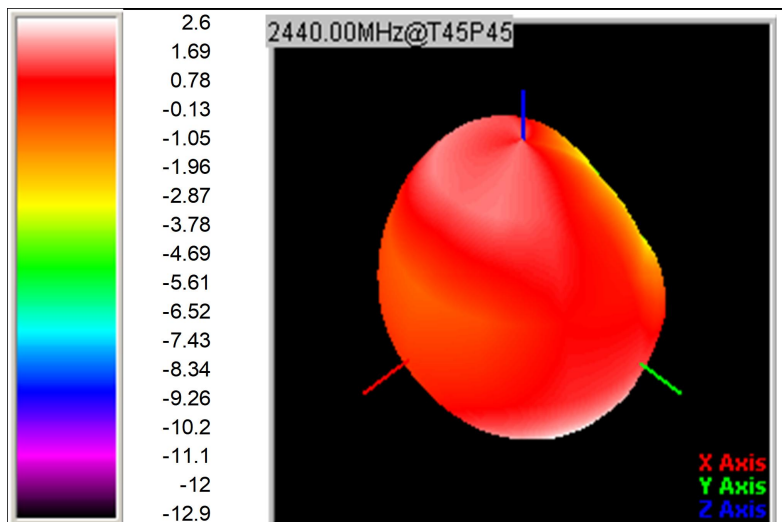
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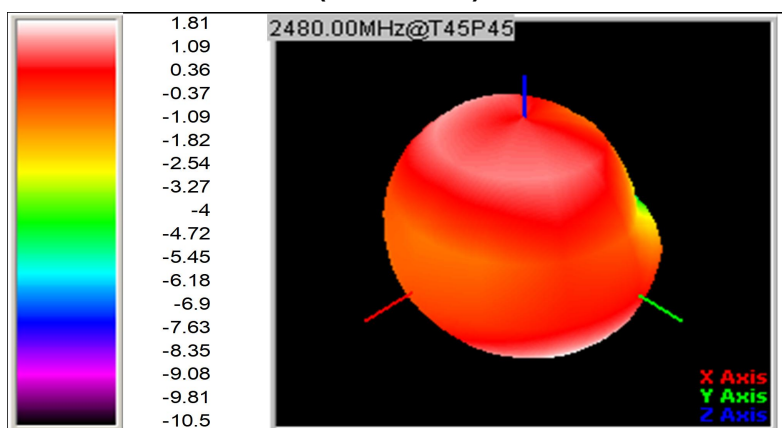
© 3D Gain Pattern (2400 MHz)



© 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		
Humidity resistance		
High temperature resistance		
Low temperature resistance		
Soldering heat resistance		
Solderability		

### (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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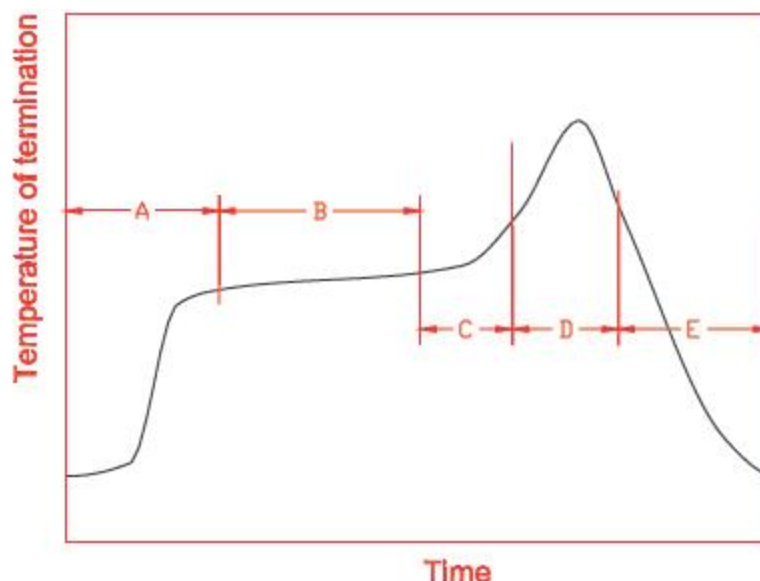
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## 8. Recommended Reflow Soldering



A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 <sup>nd</sup> 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

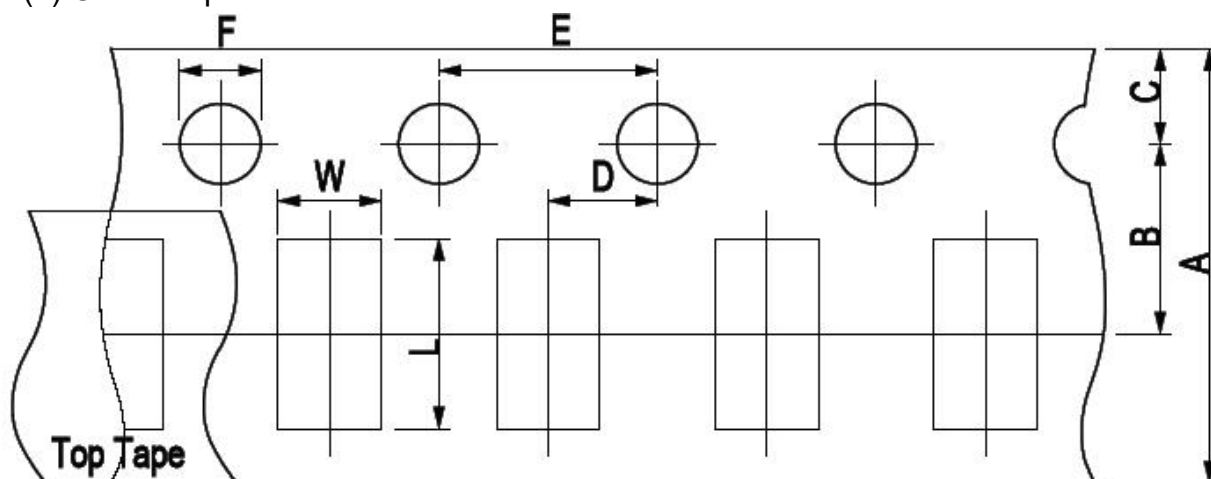
Note that excess of soldering volume will easily get crack the body of this product.

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

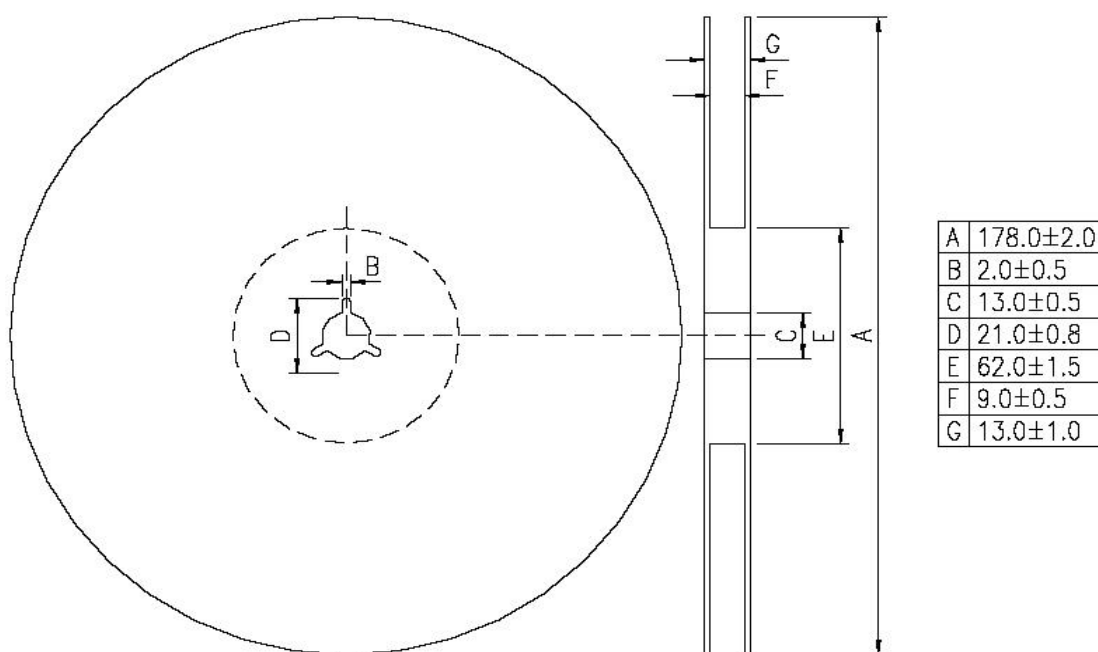
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



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

(3) Taping reel dimensions



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