SPECIFICATION

PART NO：LTA312450 - P3M **CUSTOMER PART NO：**
Manufacturer: Shenzhen Yingtian Electronics Co., LTD Address: Room 403, 404, Building B, Runfengyuan, No. 5175, Yiyuan Road, District 74, Buxin Community, Xin 'an Subdistrict, Bao 'an District , Shenzhen City.

Prepared by：	Checked by ：	Approved by：
Formed On	Document Version (V1.0)	

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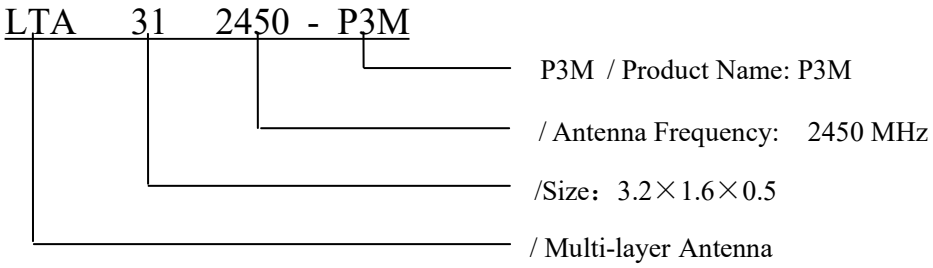
Version rejigger track record

Version	Rejigger	Prepared	Approve	Date
V1.0				

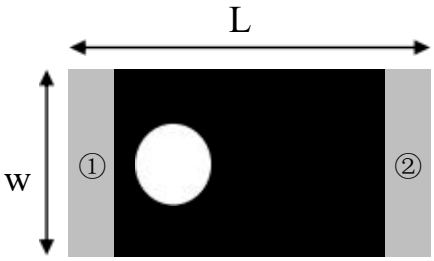
1. INTRODUCTION

Microwave Multi -Layer Ceramic Antenna LA series are designed to be used in WLAN、Wi-Fi、Bluetooth、PHS、 Multiple-band Mobile phone antenna, FM, etc and compact size SMD chip design.

2. Part Number



3. Dimensions（Unit：mm）



(Top View)

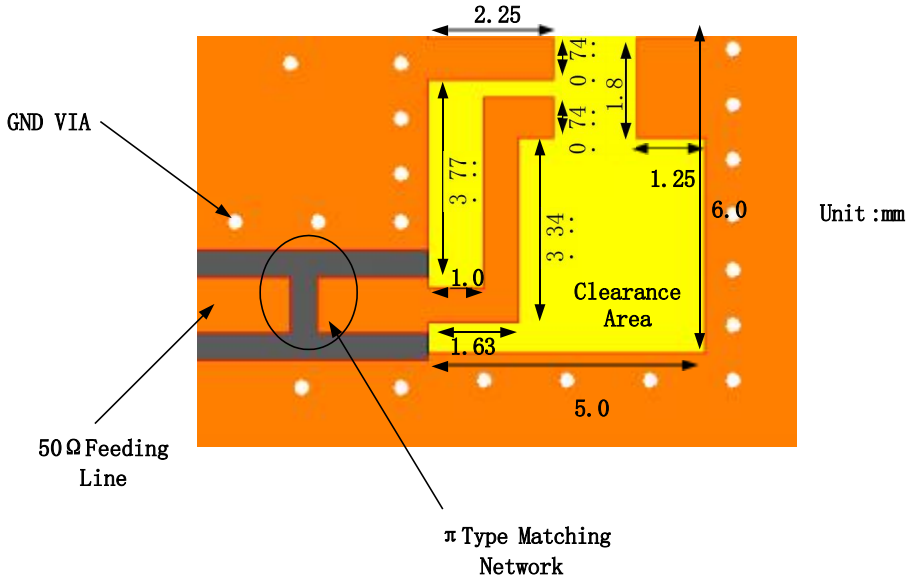
Number	Terminal Name
①	INPUT
②	NC

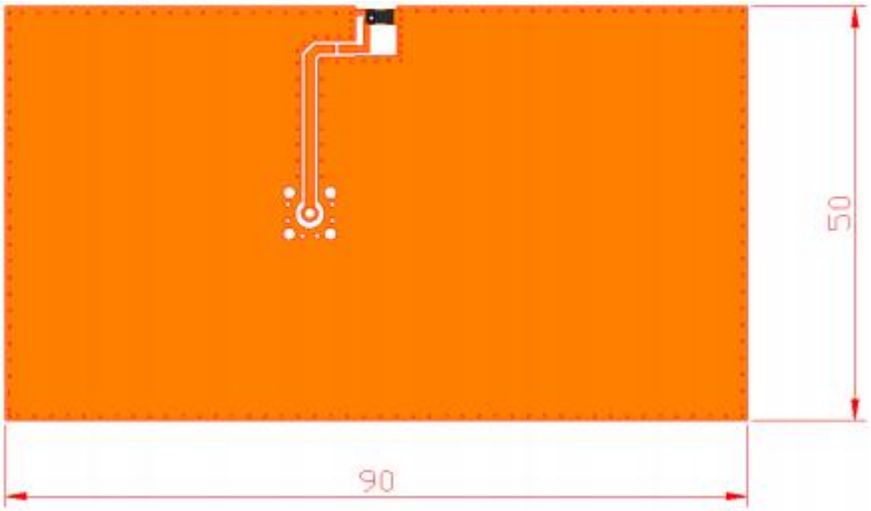
(Bottom View)

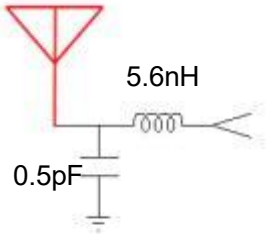
(Side View)

Symbols	L	W	T	A
Dimensions	3.2+/-0.2	1.6+/-0.2	0.5+/-0.1	0.4+/-0.1

4 Evaluation Board and Matching Circuits



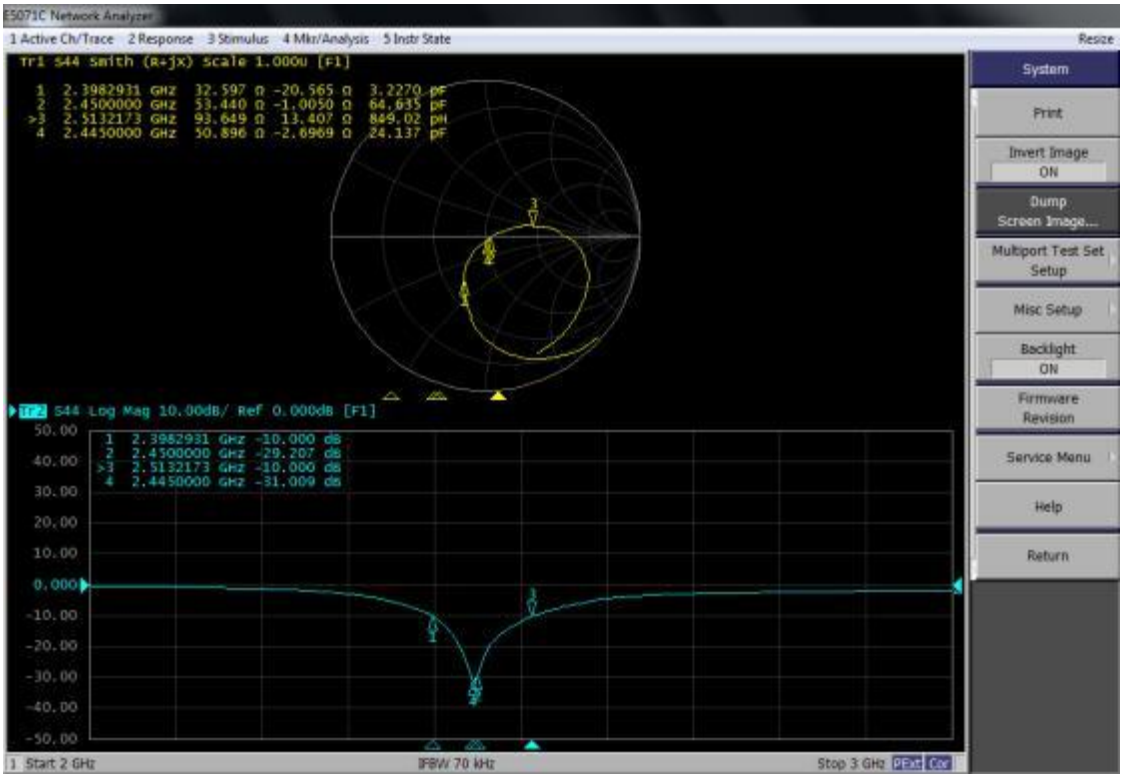




5. Electrical Characteristics

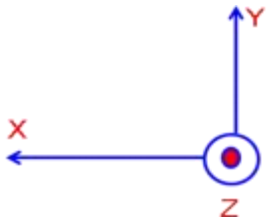
No.	Item	Specifications
5.1	Central Frequency	2450MHz
5.2	Band Width	100 MHz typ.
5.3	Peak Gain	3.62 dBi
5.4	Return Loss	≤2.0
5.5	Polarization	Linear
5.6	Azimuth Beam width	Omni-directional
5.7	Impedance	50 Ohm

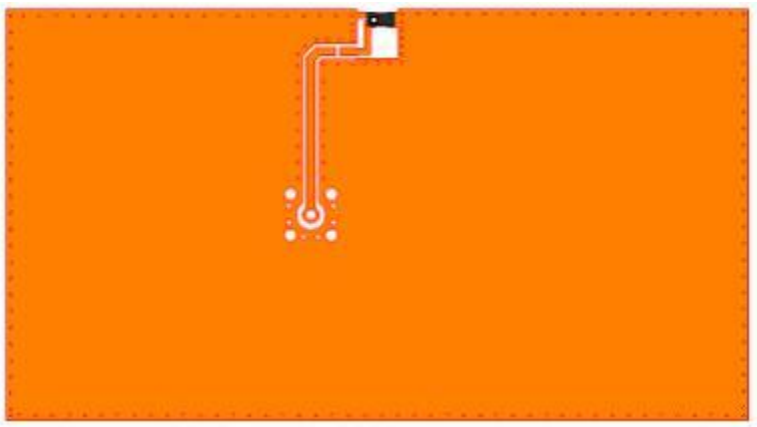
6. Characteristic curve



7. Radiation Pattern

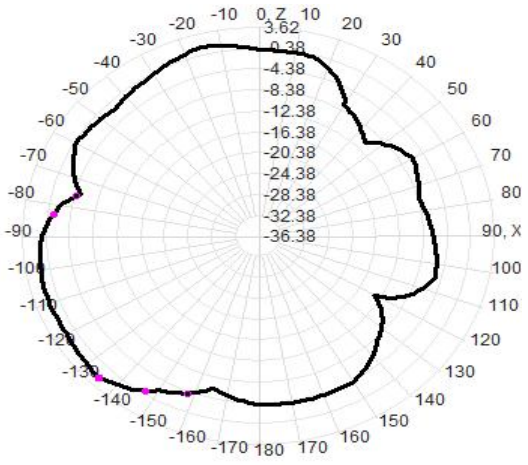
coordinates：





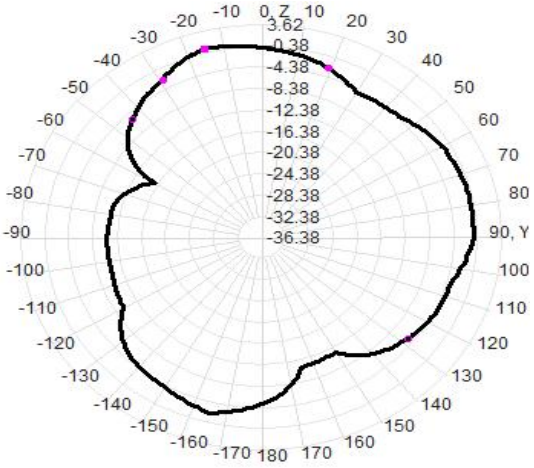
X-ZPlane

Frequency(MHz): 2450



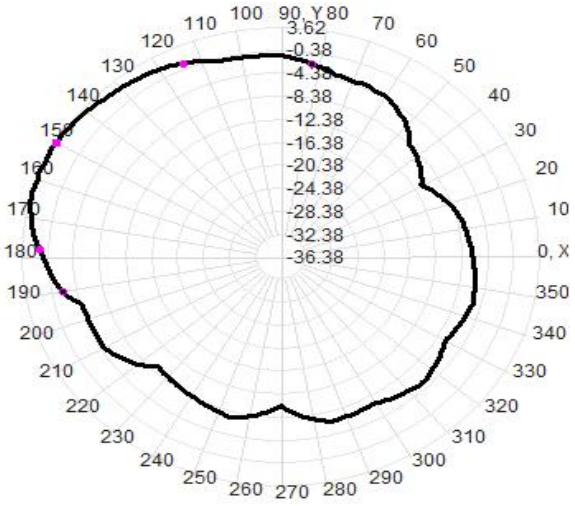
X-YPlane

Frequency(MHz): 2450



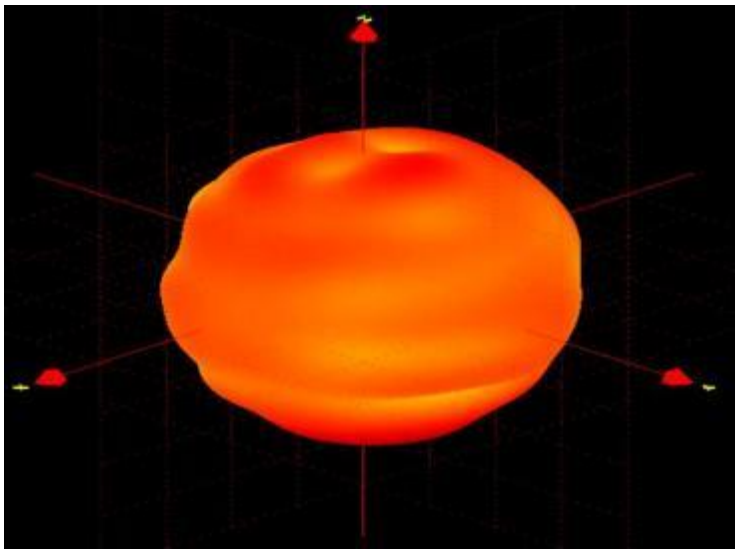
Y-ZPlane

Frequency(MHz): 2450



Z-

3D Radiation Pattern(Frequency: 2450MHz)



Frequency (MHz)	2400	2450	2500
Avg. Gain (dBi)	-1.91	-1.30	-1.48
Peck Gain (dBi)	1.76	3.62	2.53
Efficiency (%)	72.1	78.2	71.8

8 Dependability Test

Temperature range	25±5℃
Relative Humidity range	55~75%RH
Operating Temperature range	-40℃~+85℃
Storage Temperature range	-40℃~+85℃

8.1 Vibration Resist

The device should fulfill the electrical specification after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

8.2 Drop Shock

The device should have no mechanical damage after dropping onto the hard wooden board from the height of 100cm for 3 times each facet ofthe 3 dimensions of the device.

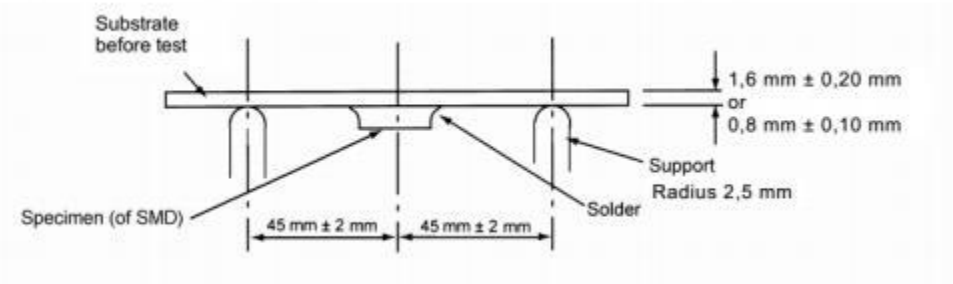
8.3 Solder Heat Proof

The device should be satisfied after preheating at 120℃~150℃ for 120 seconds and dipping in soldering Sn at 255℃+10℃ for 5±0.5 seconds，or electric iron 300℃-10℃ for 3±0.5 seconds，without damnify.

8.4 Adhesive Strength of Termination

The device have no remarkable damage or removal of the termination after horizontal force of 5N(≤0603)；10N(>0603)with 10±1 seconds.

8.5 Bending Resist Test



Weld the product to the center part of the PCB with the thickness 1.6±0.2mm or 0.8±0.1mm as the illustration shows, and keep exerting force arrow-ward on it at speed of :1mm/S , and hold for 5±1S at the position of 1.5mm bending distance , so far , any peeling off of the product metal coating should not be detected .

8. 6 Moisture Proof

The device should fulfill the electrical specification after exposed to the temperature 60±2℃and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

8. 7 High Temperature Endurance

The device should fulfill the electrical specification after exposed to temperature 85±5℃for 96±2 hours and 1~2 hours recovery time under normal temperature.

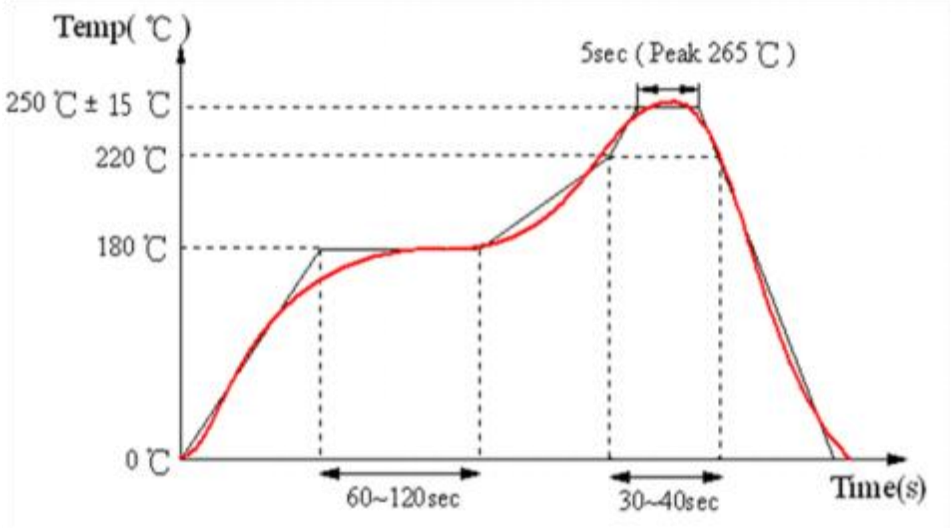
8. 8 Low Temperature Endurance

The device should fulfill the electrical specification after exposed to the temperature -40℃±5℃ for 96±2 hours and to 2 hours recovery time under normal temperature.

8. 9 Temperature Cycle Test

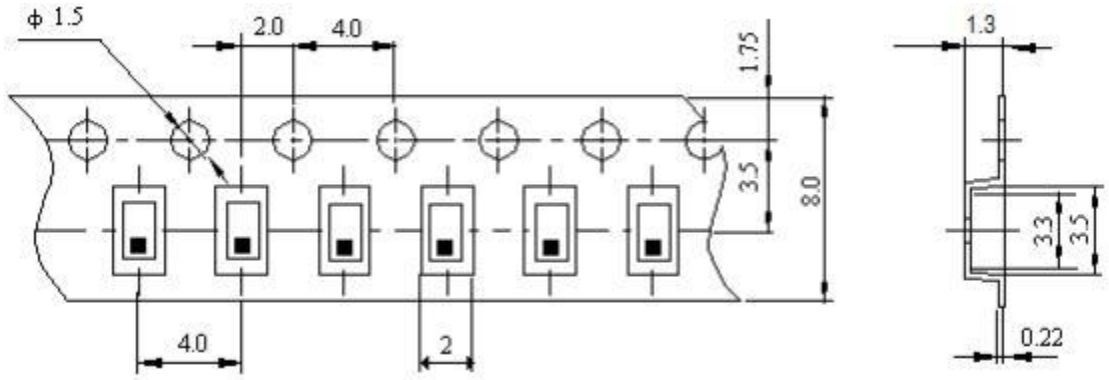
The device should fulfill the electrical specification after exposed to the low temperature -40℃ and high temperature +85℃ for 30±2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

9 Reflow Soldering Standard Condition



10 Packaging and Dimensions

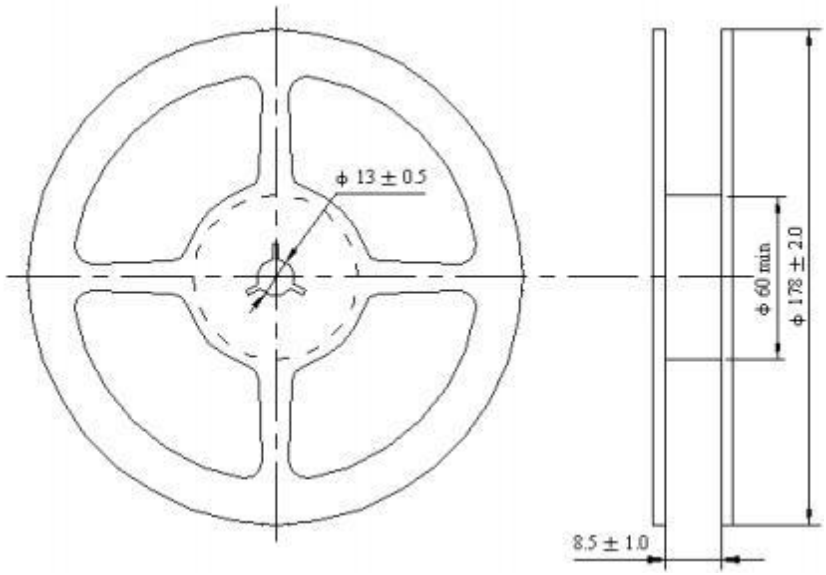
10.1 Plastic Tape



Remarks for Package

Reserve a length of 150~200mm for the trailer of the carrier and 250~300 mm for the leader of the carrier and further 250mm of cover tape at the leading part of the carrier.

10.2 Reel (3000 pcs/Reel)



10.3 Storage Period

Product should be used within six months of receipt.

MSL 1 / Storage Temperature Range : <30 degree C, Humidity : <85%RH