

Jiaxing Glead Electronics Co., Ltd

SPECIFICATION

PART NO: LA31P2450-A02

CUSTOMER PART NO:

CUSTOMER APPROVED BY:

APPROVED DATE:

RoHS Compliant Parts

No.66 ZhengyuanRoad, Tanghui Street, Jiaxing, Zhejiang, China

TEL : 0086-573-83651818 FAX : 0086-573-83651858

Prepared by:	Checked by :	Approved by:
Formed On: 2012.06.13	Document Version	LA31P2450-A02 V1.1

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Product specification (LA31P2450-A02)

Version rejigger track record

1. INTRODUCTION

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

2. Part Number

LA 31 P 2450 - A02

A02/Product Name: A02

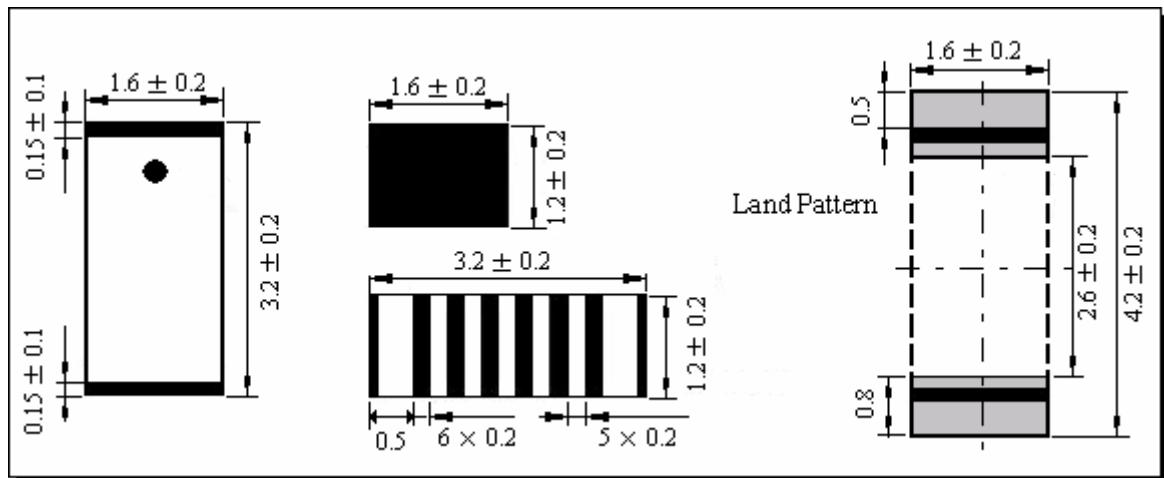
Antenna Frequency: 2450 MHz

Planar Structure

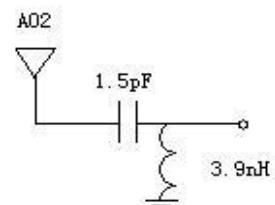
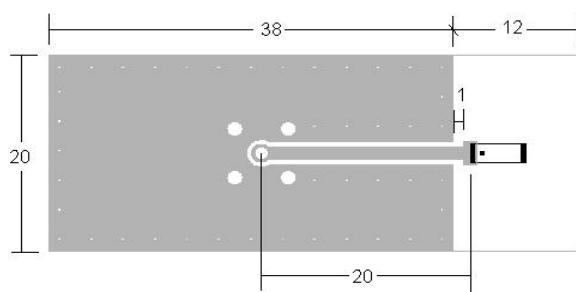
Size: $3.2 \times 1.6 \times 1.2$

Multi-layer Antenna

3. Dimensions (Unit: mm)



4. Evaluation Board and Matching Circuits

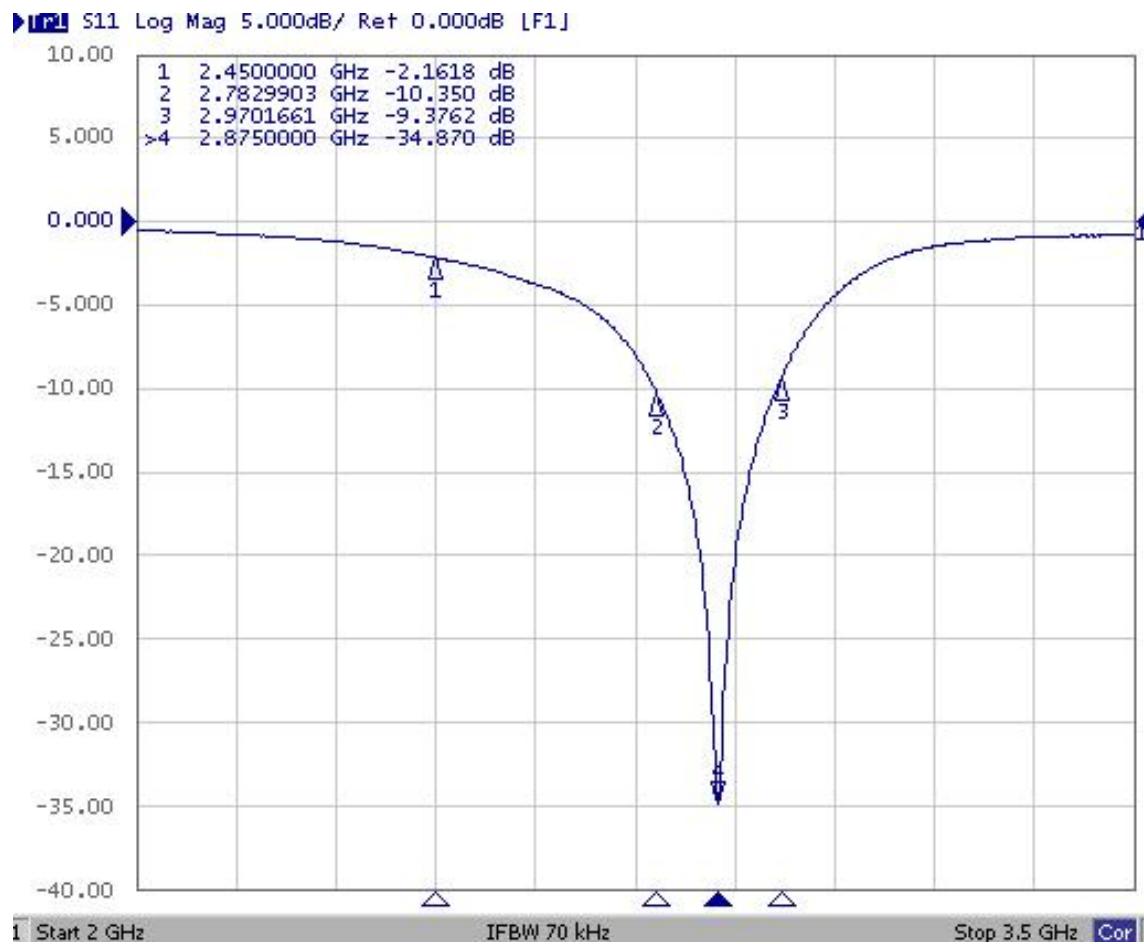


A02 Antenna Matching Circuit
* Recommended

5. Electrical Characteristics

No.	Item	Specifications
5.1	Central Frequency (No matching)	2875MHz
	After Matching	2450 MHz
5.2	Band Width (No matching)	100 MHz (2780~2970MHz)
5.3	Gain	0~1 dBi
5.4	V.S.W.R (in BW)	≤ 2.0
5.5	Polarization	Linear
5.6	Azimuth Beam width	Omni-directional
5.7	Impedance	50 Ω

6. Characteristic curve



7 Post Dependability Tolerance

Post Dependability Tolerance (Refer to the table)

No.	Item	Post Dependability Tolerance
7.1	Central Frequency	± 25 MHz
7.2	Band Width	± 20 MHz
7.3	Gain	± 0.2 dBi
7.4	V.S.W.R (in BW)	± 0.5

8 Dependability Test

Datum condition: Temperature range $25\pm 5^\circ\text{C}$

Relative Humidity range $55\sim 75\%$ RH

Operating Temperature range $-40^\circ\text{C} \sim +85^\circ\text{C}$

Storage Temperature range $-40^\circ\text{C} \sim +85^\circ\text{C}$

8.1 Vibration Resist

The device should satisfy the electrical characteristics specified in paragraph 7.1~7.6 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 satisfy the electrical characteristics specified in paragraph 7.1~7.6 after dropping onto the hard wooden board from the height of 100cm for 3 times each facet of the 3 dimensions of the device.

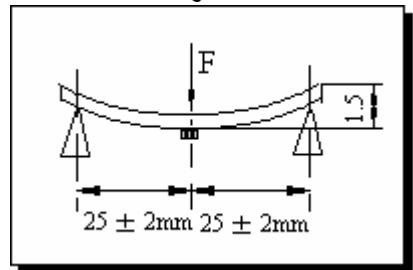
8.3 Solder Heat Proof

The device should be satisfied after preheating at $120^\circ\text{C} \sim 150^\circ\text{C}$ for 120 seconds and dipping in soldering Sn at $255^\circ\text{C} + 10^\circ\text{C}$ for 5 ± 0.5 seconds, or electric iron $300^\circ\text{C} - 10^\circ\text{C}$ for 3 ± 0.5 seconds, without damage.

8.4 Tensile Strength of Terminal

The device should not be broken after tensile force of 1.0kg is slowly applied to pull a lead pin of the fixed device in the lead axis direction for 10 ± 1 seconds.

8.5 Bending Resist Test



Weld the product to the center part of the PCB with the thickness $1.6 \pm 0.2\text{mm}$ as the illustration shows, and keep exerting force arrow-ward on it at speed of :1mm/S , and hold for $5 \pm 1\text{S}$ 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 satisfy the electrical characteristics specified in paragraph 7.1~7.6 after exposed to the temperature $60 \pm 2^\circ\text{C}$ 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 satisfy the electrical characteristics specified in paragraph 7.1~7.6 after exposed to temperature $85 \pm 5^\circ\text{C}$ for 96 ± 2 hours and 1~2 hours recovery time under normal temperature.

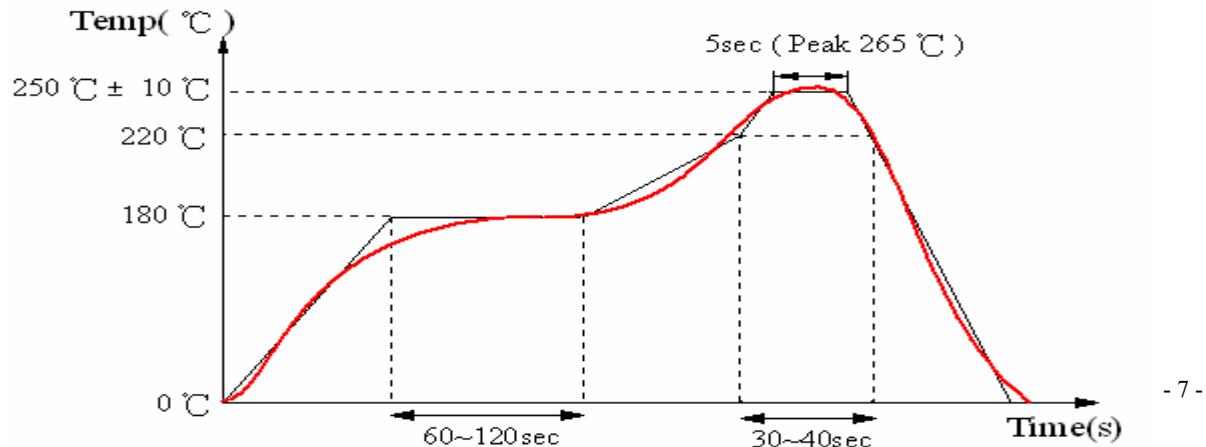
8.8 Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in paragraph 7.1~7.6 after exposed to the temperature $-40^\circ\text{C} \pm 5^\circ\text{C}$ for 96 ± 2 hours and to 2 hours recovery time under normal temperature.

8.9 Temperature Cycle Test

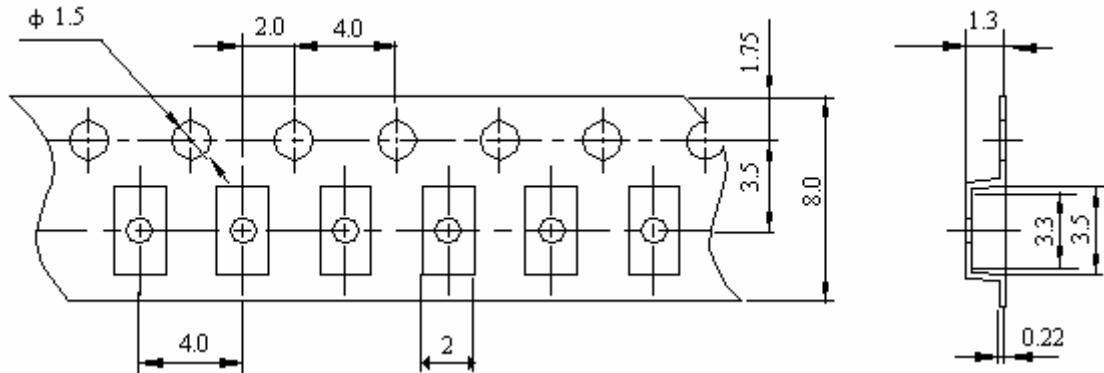
The device should also satisfy the electrical characteristics specified in paragraph 7.1~7.6 after exposed to the low temperature -40°C and high temperature $+85^\circ\text{C}$ for 30 ± 2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

9 Reflow Soldering Standard Condition



10 Packaging and Dimensions

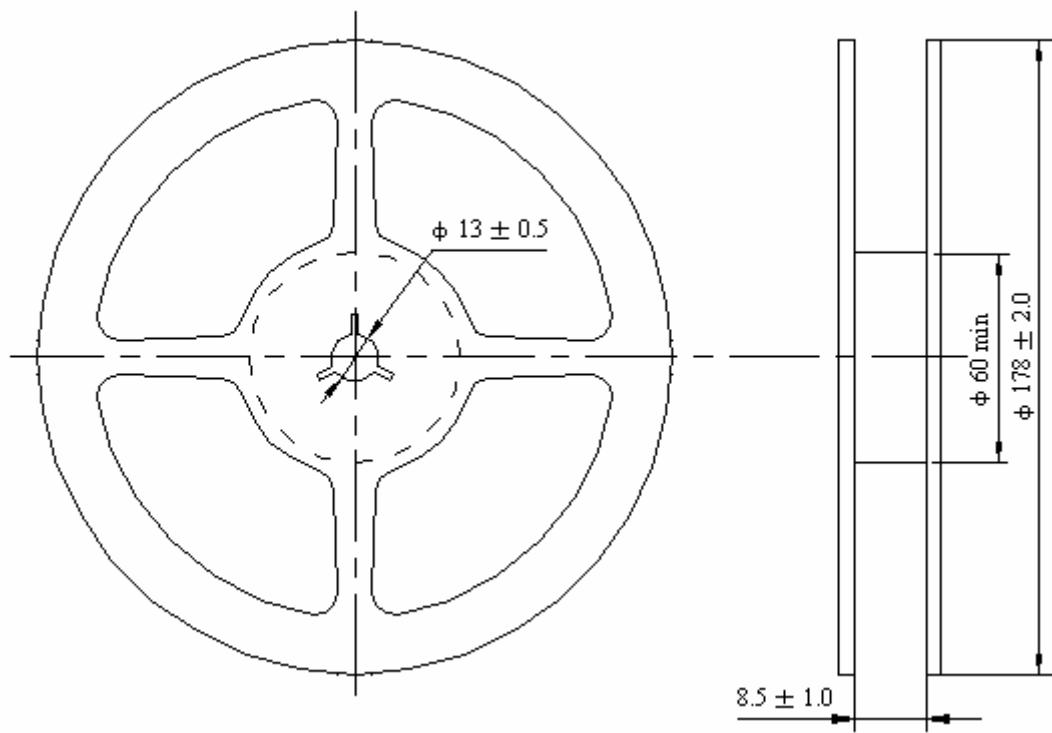
10.1 Plastic Tape



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

6 months in vacuum sealed bag and 5 days after opened.