

# SMD CERAMIC ANTENNA

## Data Sheet

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### CS-2450-31-L

Chip Antenna

For 2400-2484MHz

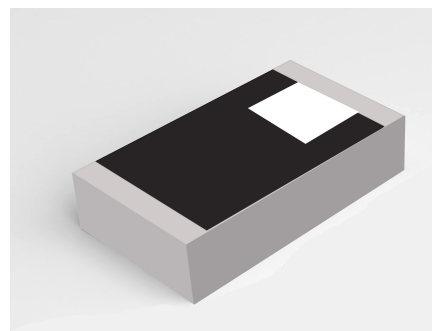
3.2x1.6mm [EIA1206]

Company: SHENZHEN YAOXINGGE TECHNOLOGY CO., LTD.

Address: EAST ZONE OF SHANGXUE SCIENCE AND TECHNOLOGY PARK, BANTIAN STREET, LONGGANG DISTRICT, SHENZHEN, China

### 特征 Feature

- 重量轻, 结构紧凑  
Light weight, compact
- 宽带大, 低成本  
Wide bandwidth, low cost
- 高增益内置天线  
Built-in antenna with high gain

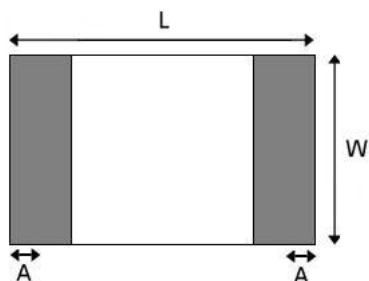


### 应用 Application

- 蓝牙技术Bluetooth  
2.4GHz频段 IEEE802.11g/b
- 齐格比系统  
Zigbee systems
- 其它etc...

### 形状和尺寸(单位: mm)

#### Shapes And Dimensions Dimensions in mm



| L         | W         | A         | H        |
|-----------|-----------|-----------|----------|
| 3.10±0.10 | 1.55±0.10 | 0.40±0.20 | 0.55±0.1 |

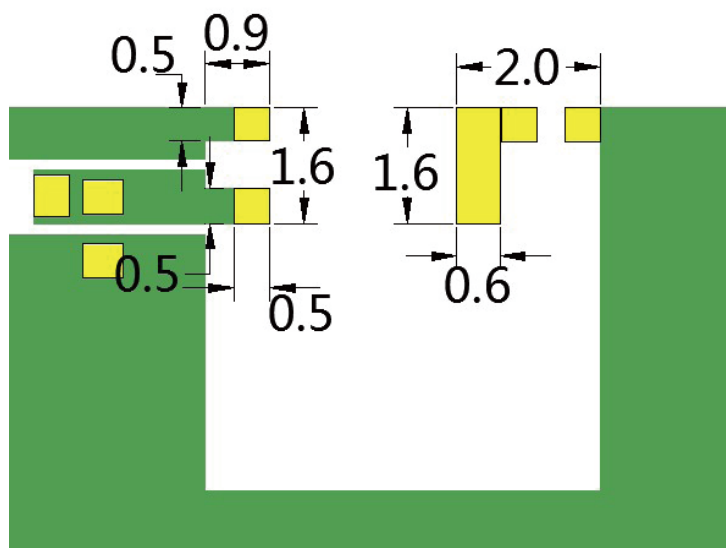


## 电气特性 Electrical Characteristics per line(TA= 25°C)

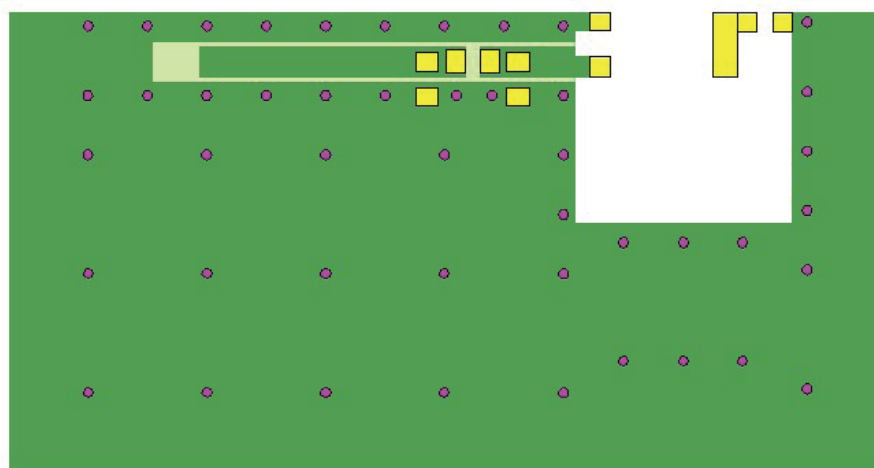
| 参数Parameter       | 规格Specification         | 单位Units  |
|-------------------|-------------------------|----------|
| 频带 Frequency Band | 2400~2483               | MHz      |
| 极化 Polarization   | 线极化/linear polarization |          |
| *最大增益 Peak Gain   | 2.58                    | dBi      |
| *效率 Efficiency    | 72.30                   | %        |
| 阻抗 Impedance      | 50                      | $\Omega$ |

## ■ 编码 Part Numbering System

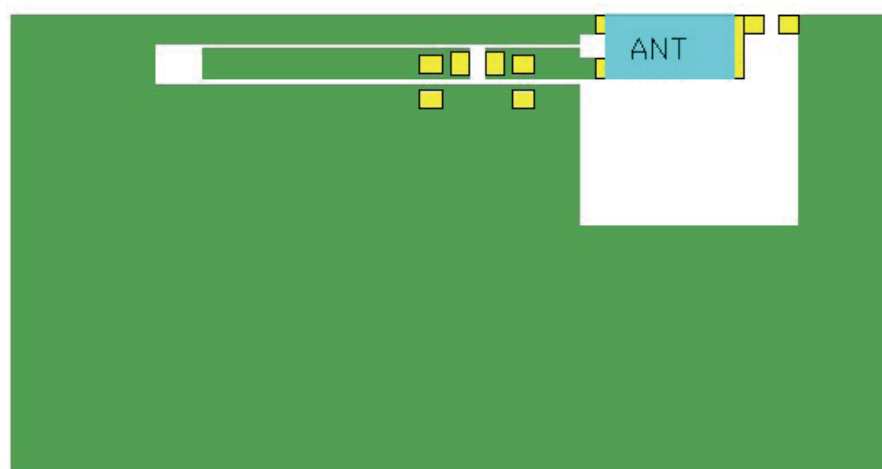
CS      -      2450      -      31      -      L  
 Material      Frequency      Size      Type



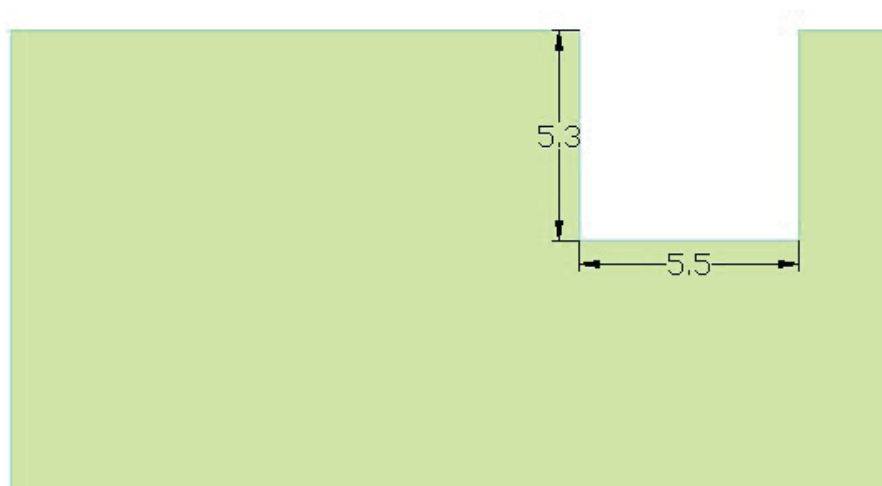
## ■ 评价板 Evaluation Board



- 天线
- PAD
- 底层铺铜
- 顶层铺铜
- 打孔

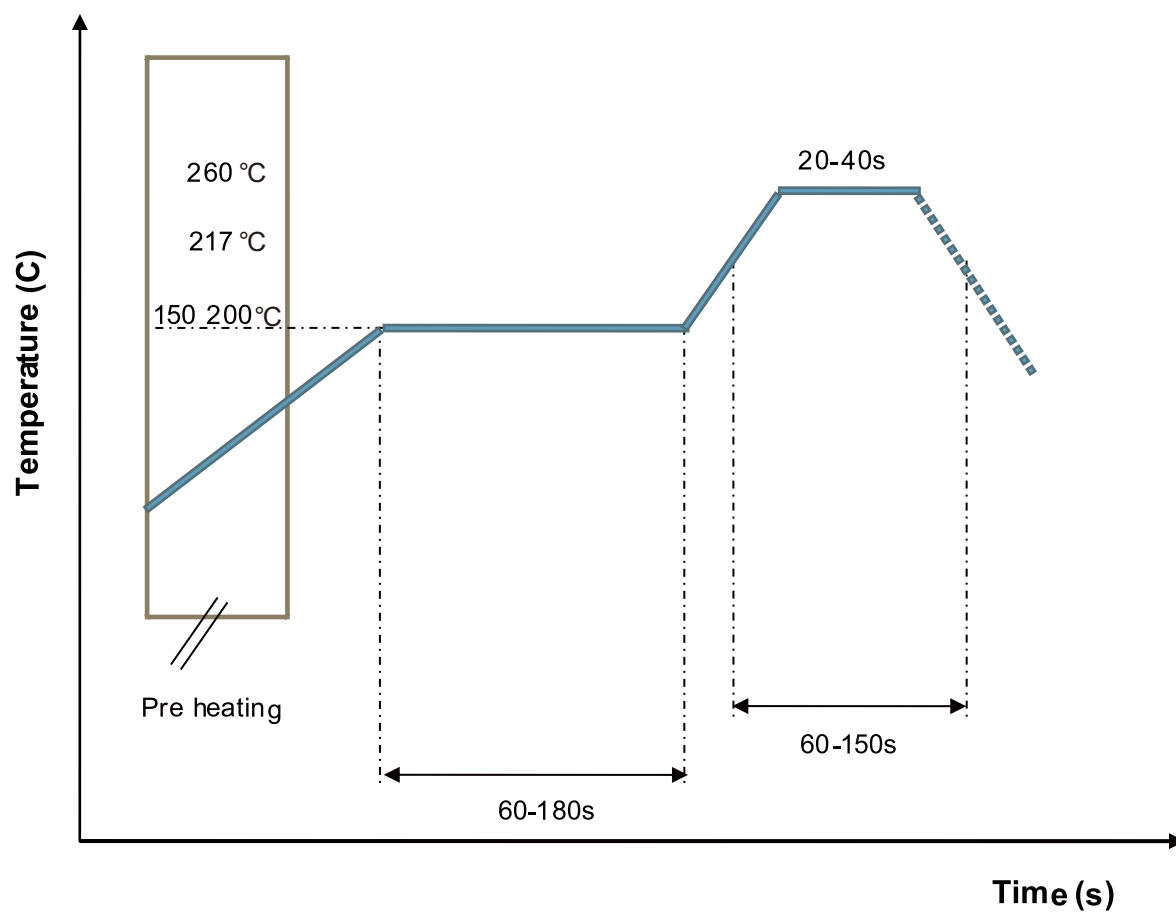


- 天线
- PAD
- 底层铺铜
- 顶层铺铜



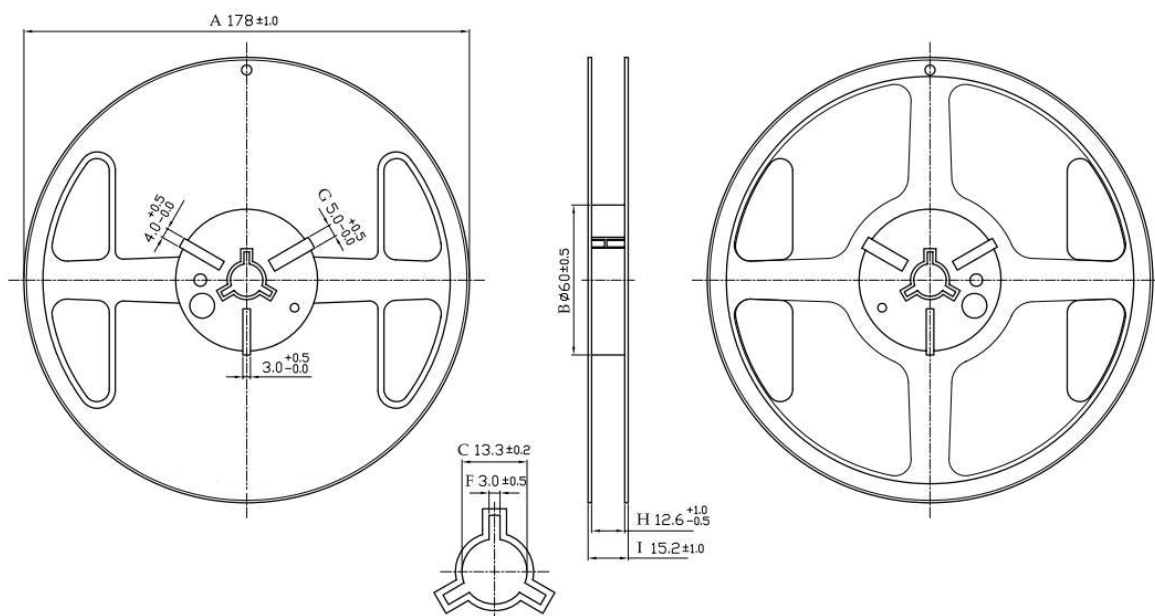
■ 推荐回流剖面

RECOMMENDED REFLOW PROFILE

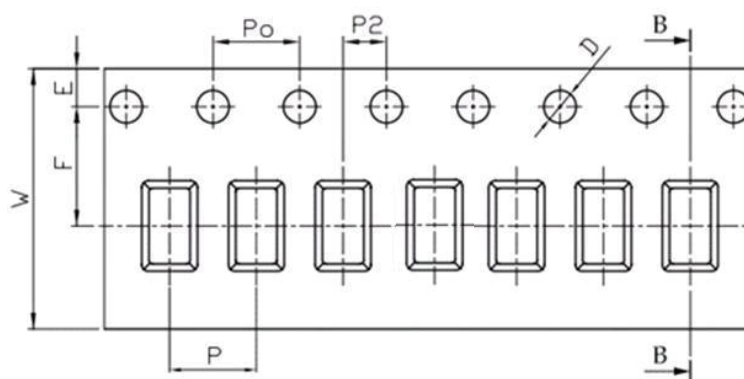


### ■ 包装形式 Packaging Style

#### □ REEL DIMENSIONS



#### □ 胶带尺寸 TAPE DIMENSIONS



| Feature | Specifications | Tolerances     |
|---------|----------------|----------------|
| W       | 8.00           | ±0.30          |
| P       | 4.00           | ±0.10          |
| E       | 1.75           | ±0.10          |
| F       | 3.50           | ±0.10          |
| P2      | 2.00           | ±0.10          |
| D       | 1.50           | +0.10<br>-0.00 |
| P0      | 4.00           | ±0.10          |
| 10P0    | 40.00          | ±0.20          |

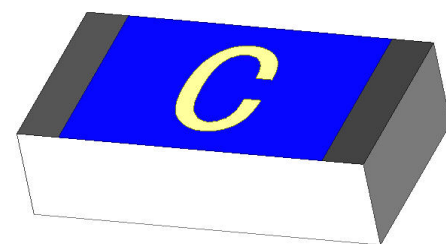
数量Quantity:5000pieces per 7 reel

## 特征 Feature

- 重量轻, 结构紧凑 Light weight, compact
- 宽带大, 低成本 Wide bandwidth, low cost
- 高增益内置天线 Built-in antenna with high gain
- 工作温度 Operating Temp.: -40°C ~ +85°C

## 应用 Application

- 蓝牙, 无线局域网, 移动电视 Bluetooth, Wireless LAN, Mobile TV
- 家用射频系统 Home RF system, etc



**CS-2450-16-C**

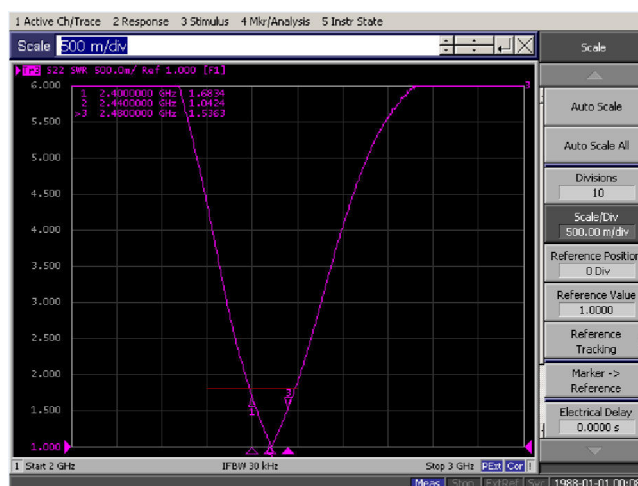
## 电气特性 Electrical Characteristics per line (TA=25°C)

| 参数Parameter           | 规格Specification | 单位Units  |
|-----------------------|-----------------|----------|
| 频带 Frequency Band     | 2400~2483       | MHz      |
| 极化 Polarization       | Linear          |          |
| *峰值增益 Peak Gain       | 2.36            | dBi      |
| *峰值效率 Peak Efficiency | 66.5%           | %        |
| 阻抗 Impedance          | 50              | $\Omega$ |

\*测试条件: 测试板尺寸98×65mm; 匹配电路:  $\pi$ 型匹配电路。Test condition: Test board size 98\*65 mm; Matching circuit: Pi matching circuit will be required

## 典型特征 Typical Characteristics

Fig.1 驻波比 VSWR

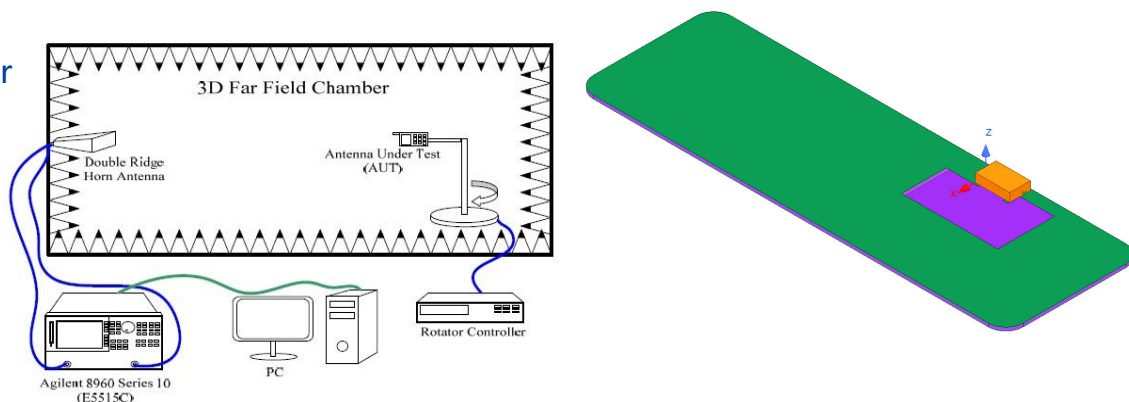


## 辐射模式 Radiation Pattern

增益模式是在暗室进行测试的，被测件放在桌肩位置，用标准的喇叭天线和矢量网络分析仪来收集数据。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.

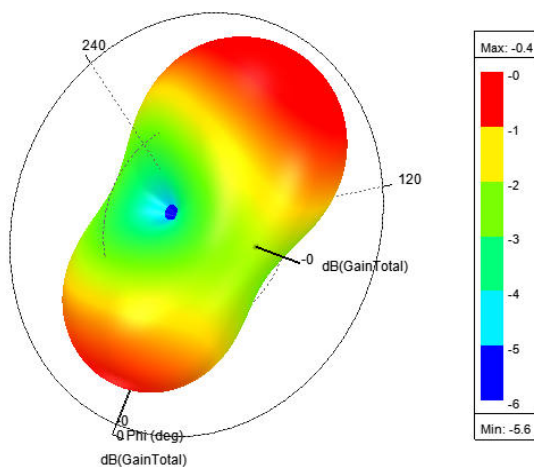
Fig.2 暗室示意图

FAR-field Chamber



## 3D 增益模式

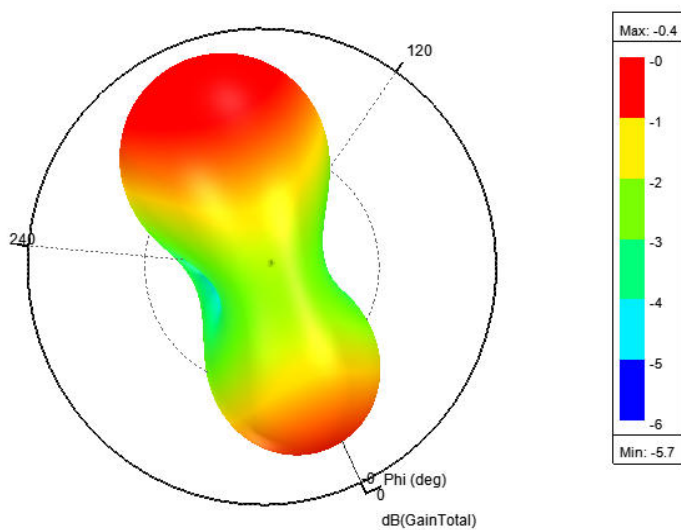
## 3D Gain Pattern (2400 MHz)





### 3D 增益模式

3D Gain Pattern (2450 MHz)



### 3D 增益模式

3D Gain Pattern (2500 MHz)

