

# SMD CERAMIC ANTENNA

## Data Sheet

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# HZ3216WA02

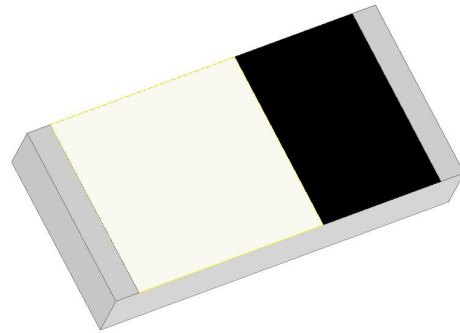
## CA-2450-31-A

For 2400-2484MHz

3.2x1.6mm [EIA1206]

## Feature

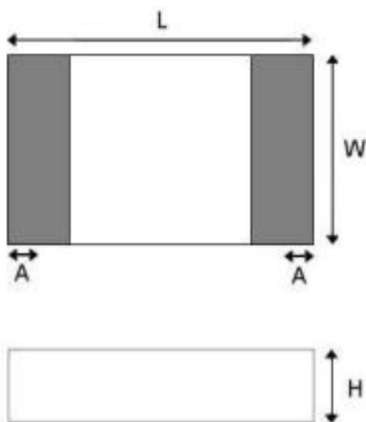
- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain



## ■ Application

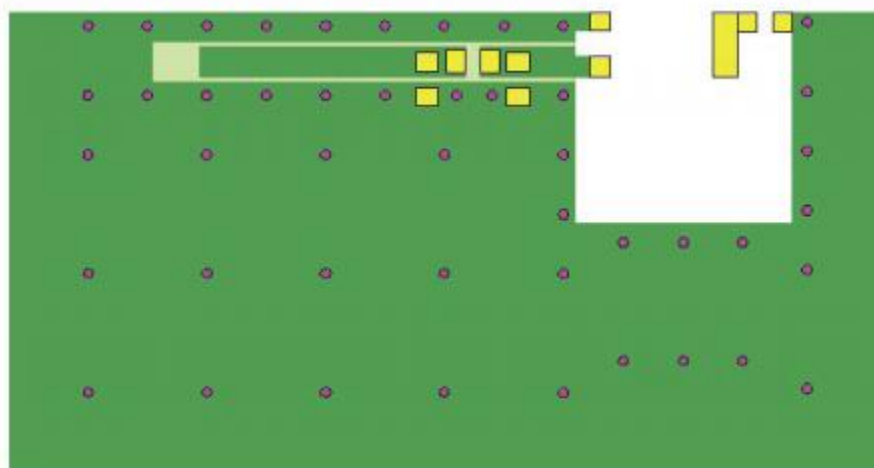
- Bluetooth
- IEEE802.11g/b
- Zigbee systems
- etc...

## ■ Shapes And Dimensions      Dimensions in mm

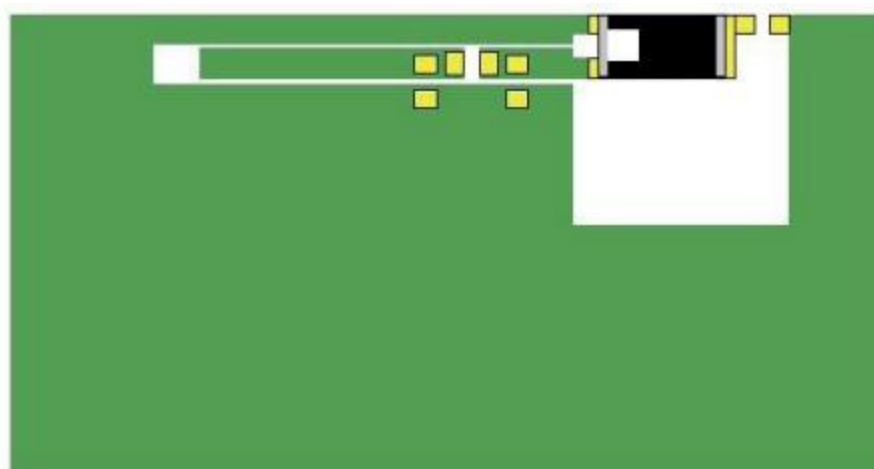


| L         | W         | A         | H        |
|-----------|-----------|-----------|----------|
| 3.10±0.10 | 1.55±0.10 | 0.40±0.20 | 0.55±0.1 |

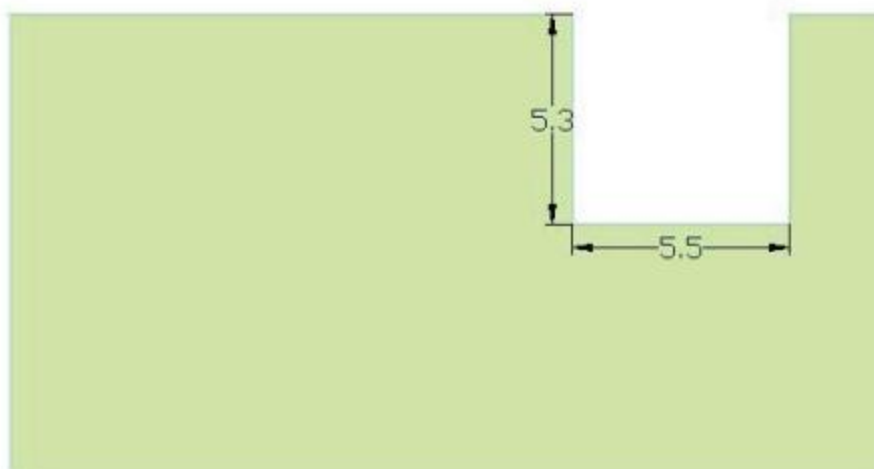
## ■ Evaluation Board



- ANT
- PAD
- TOP
- BOTTOM
- VIA



- ANT
- PAD
- TOP
- BOTTOM



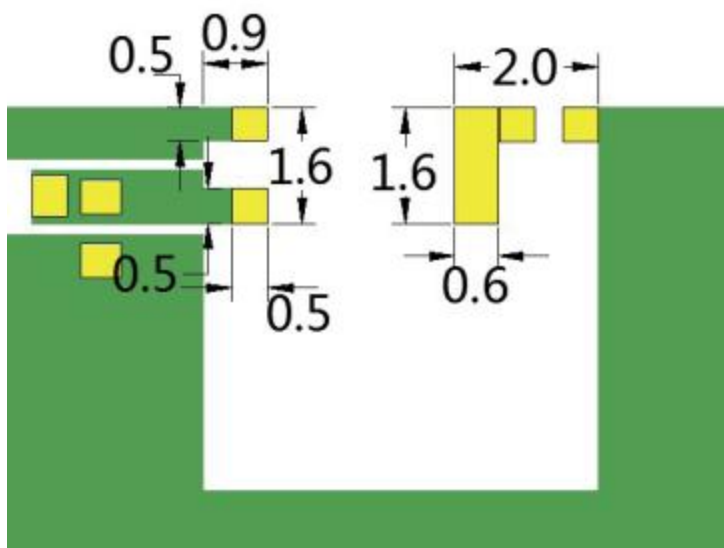
**Electrical Characteristics per line(TA=25°C)**

| Parameter      | Specification | Units    |
|----------------|---------------|----------|
| Frequency Band | 2400~2483     | MHz      |
| Polar ization  | Line          |          |
| * Peak Gain    | 2.67          | dBi      |
| * Efficiency   | 72.30         | %        |
| Im pendance    | 50            | $\Omega$ |

**■ Part Numbering System**

CA      -      2450      -      31      -      A

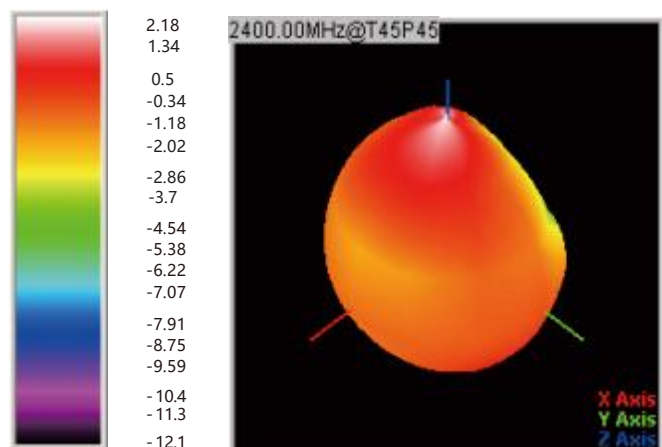
Material                      Frequency                      Size                      Type



## ■ Radiation Patterns

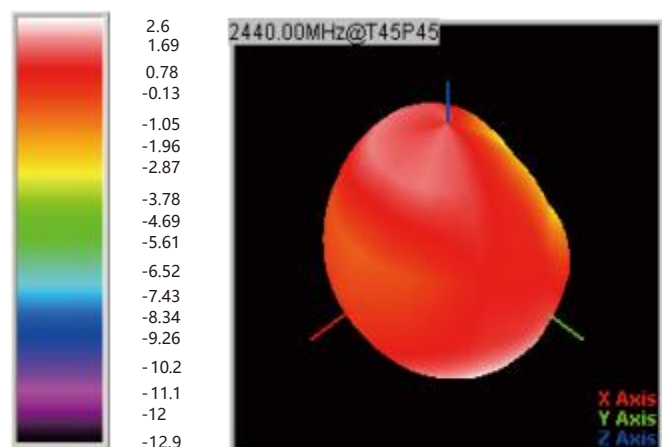
### □ 2.4GHz WLAN BAND

#### ◎ 3D Gain Pattern (2400 MHz)

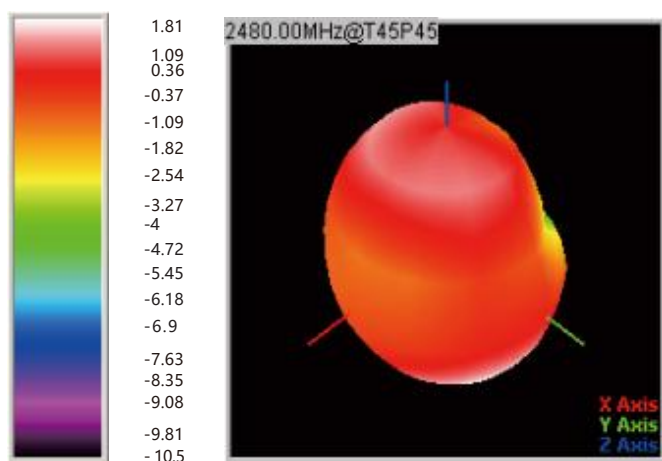


| Freq (MHz) | Effi (%) | Gain (dBi) |
|------------|----------|------------|
| 2400       | 74.8     | 2.67       |
| 2410       | 72.59    | 2.54       |
| 2420       | 71.6     | 2.25       |
| 2430       | 70.29    | 2.07       |
| 2440       | 71.23    | 2.16       |
| 2450       | 72.3     | 2.37       |
| 2460       | 71.04    | 2.52       |
| 2470       | 65.95    | 2.35       |
| 2480       | 64.42    | 2.42       |
| 2490       | 62.59    | 2.31       |
| 2500       | 60.01    | 2.07       |

#### ◎ 3D Gain Pattern (2440 MHz)

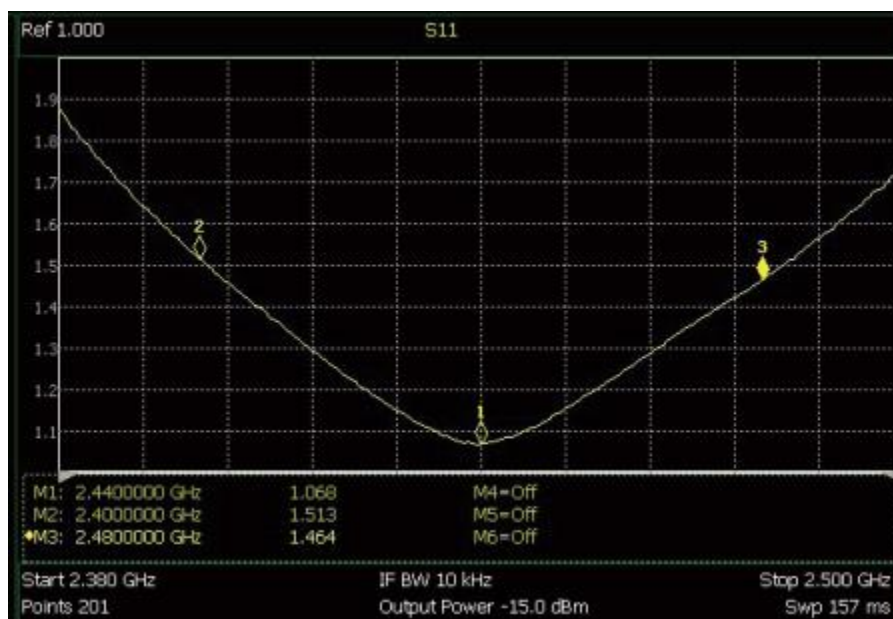
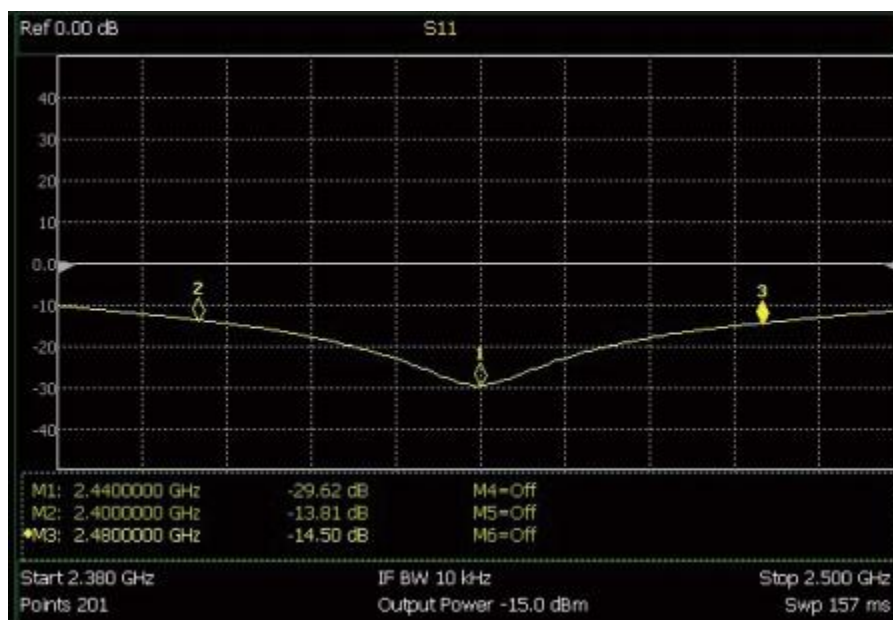


#### ◎ 3D Gain Pattern (2480 MHz)

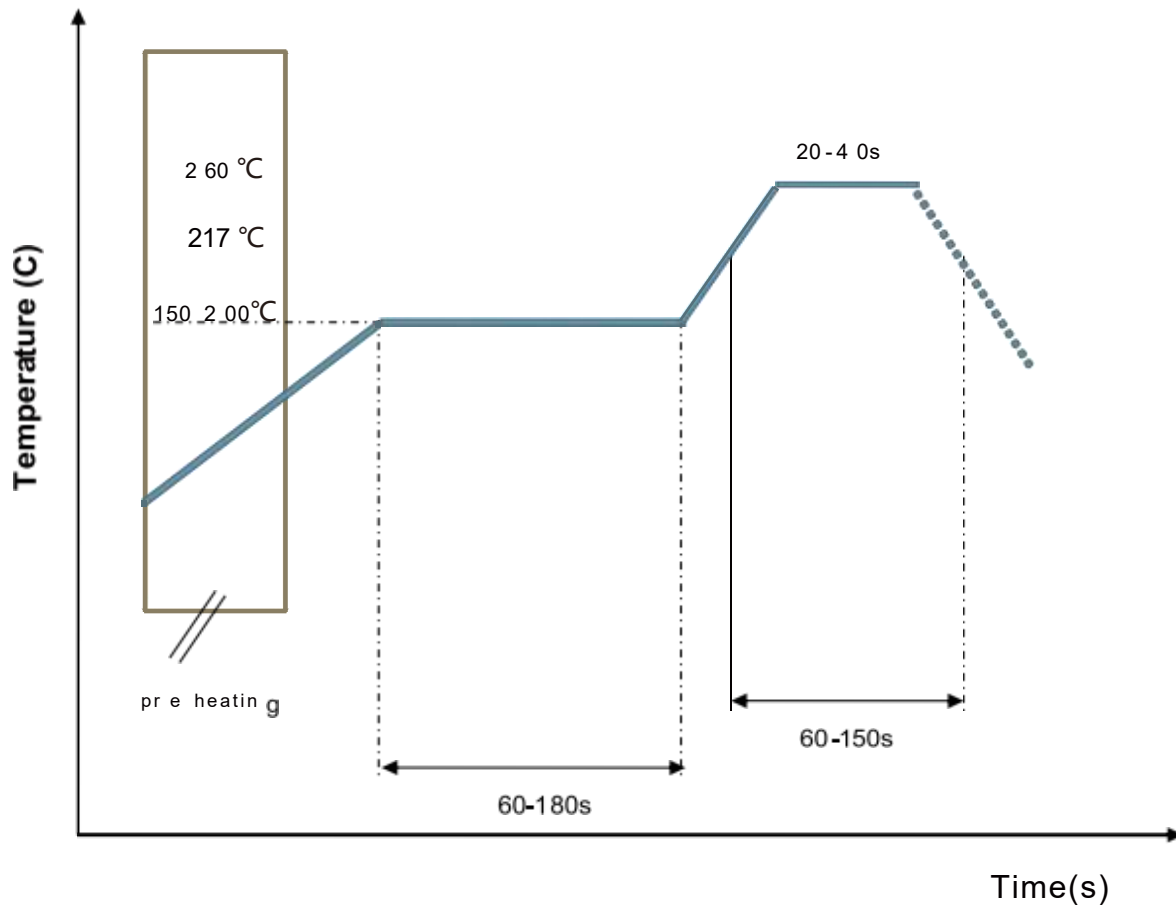


## ■ Frequency Characteristics

### □ EFFICIENCY AND VSWR

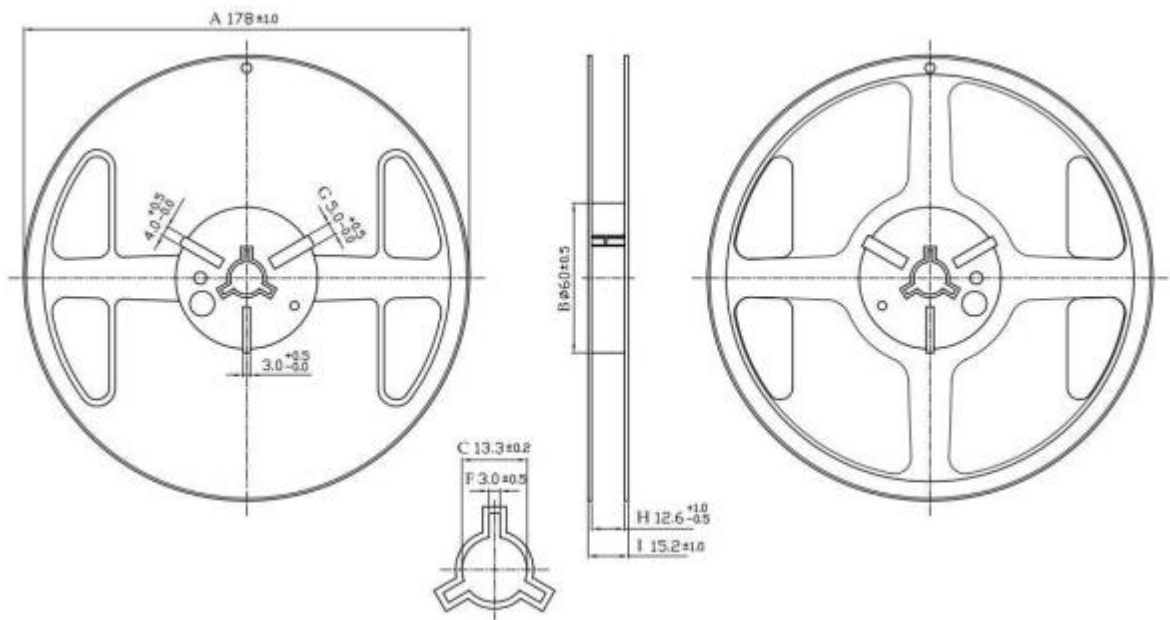


## ■ RECOMMENDED REFLOW PROFILE

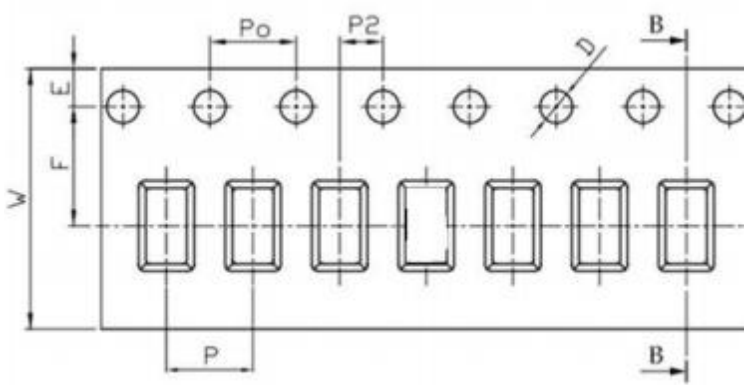


■ Packaging Style

□ REEL DIMENSIONS



□ 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          |

Quantity:5000pieces per 7 reel