



# **SMD CERAMIC ANTENNA**

## **Data Sheet**

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# **TS3216E245K06**

For 2400-2484MHz  
3.2x1.6mm [EIA1206]

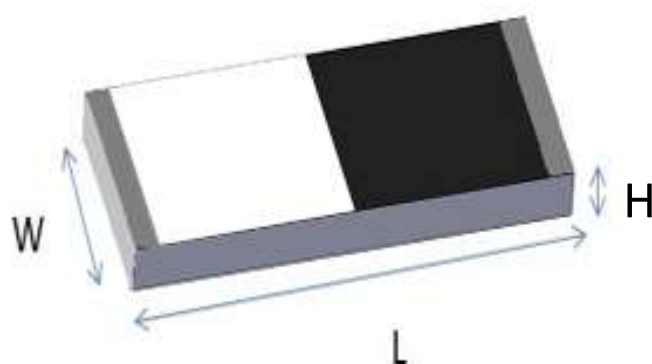
## ■ FEATURES

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

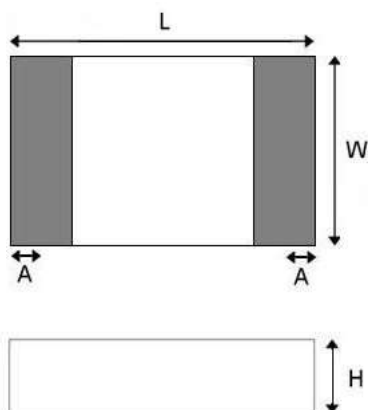
## ■ APPLICATIONS

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

## ■ SHAPES AND DIMENSIONS Dimensions in mm



**TS3216E245K06**



| L         | W         | A         | H         |
|-----------|-----------|-----------|-----------|
| 3.10±0.10 | 1.55±0.10 | 0.40±0.20 | 0.50±0.10 |

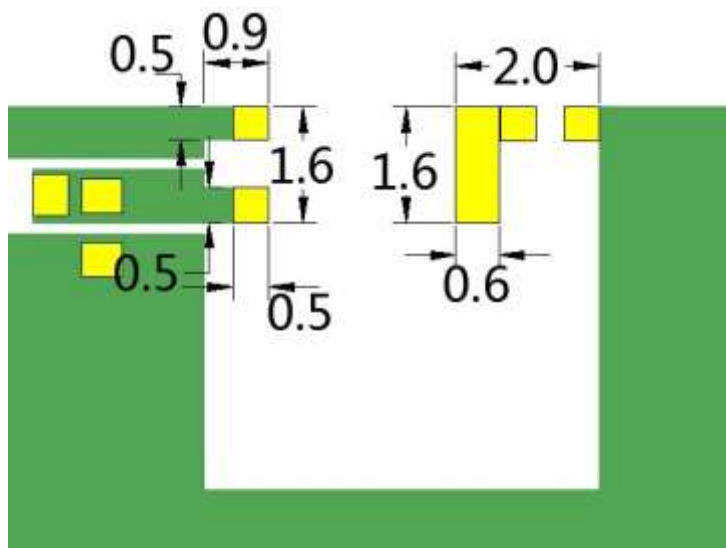
## ELECTRIC SPECIFICATIONS

|                        |               |
|------------------------|---------------|
| Product type           | TS3216E245K06 |
| Center Frequency Range | 2450MHZ       |
| Input Impedance        | 50 $\Omega$   |

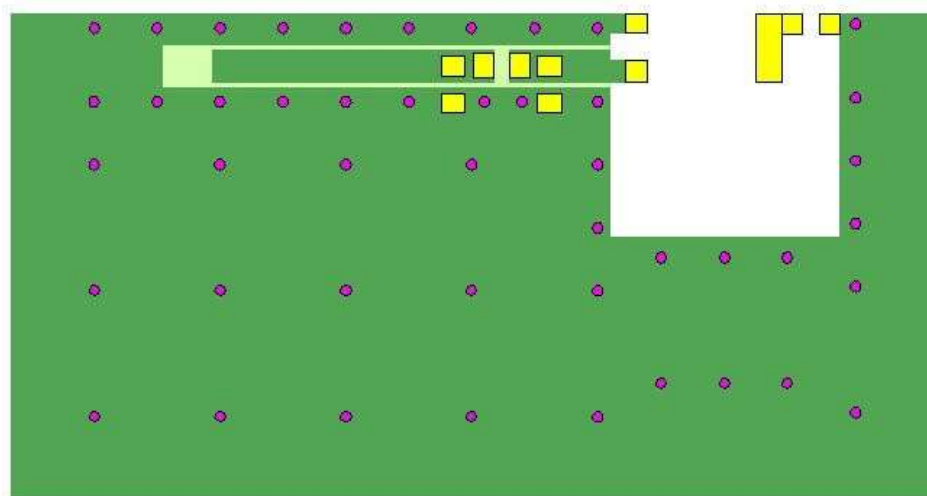
## PART NUMBERING SYSTEM

TS - 3216 - E - 2450 - K - 06

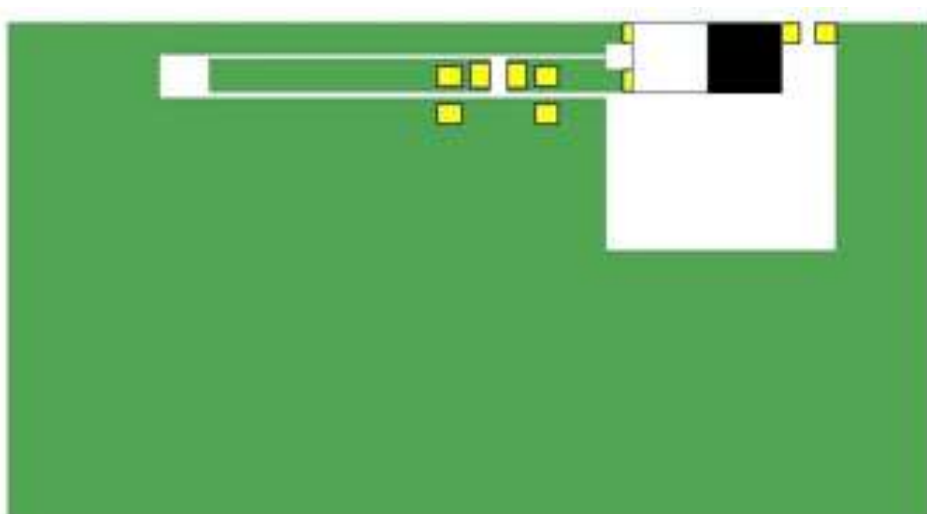
Brand      Dimension      Material      Frequency      Feeding mode      Type



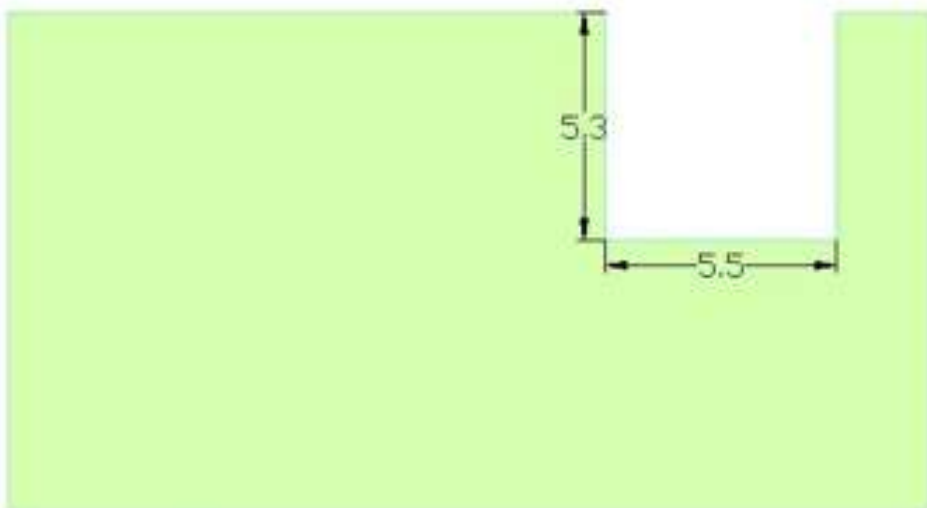
■ EVALUATION BOARD



- PAD
- Bottom Copper
- TOP Copper
- VIA



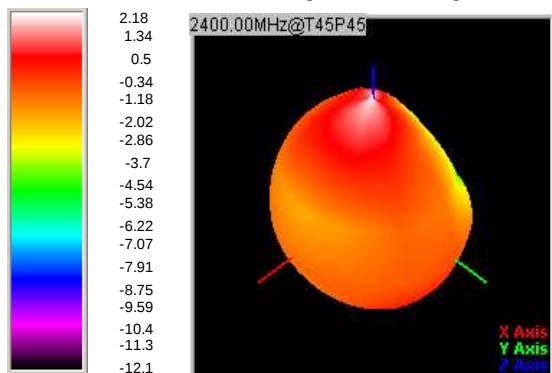
- Antenna
- PAD
- Bottom Copper
- TOP Copper



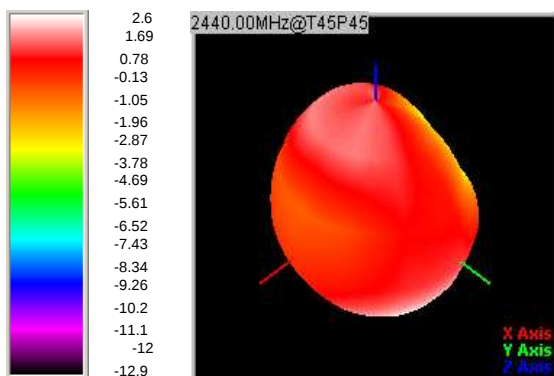
## RADIATION PATTERNS

2.4GHz BAND

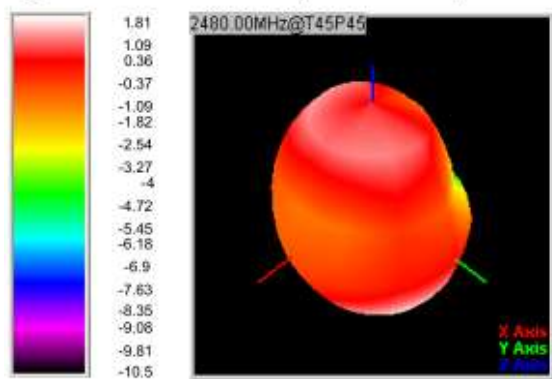
### 3D Gain Pattern (2400 MHz)



### 3D Gain Pattern (2440 MHz)



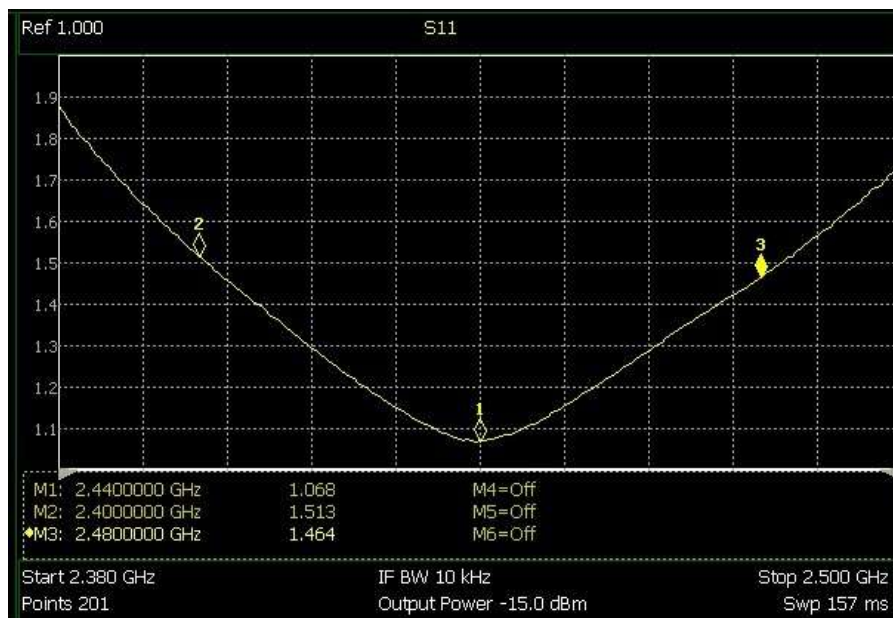
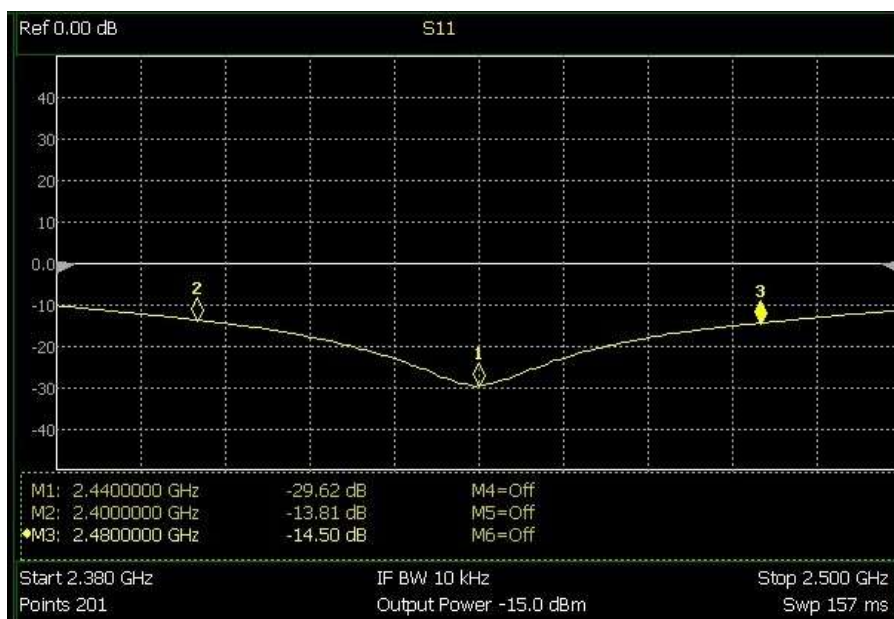
### 3D Gain Pattern (2480 MHz)



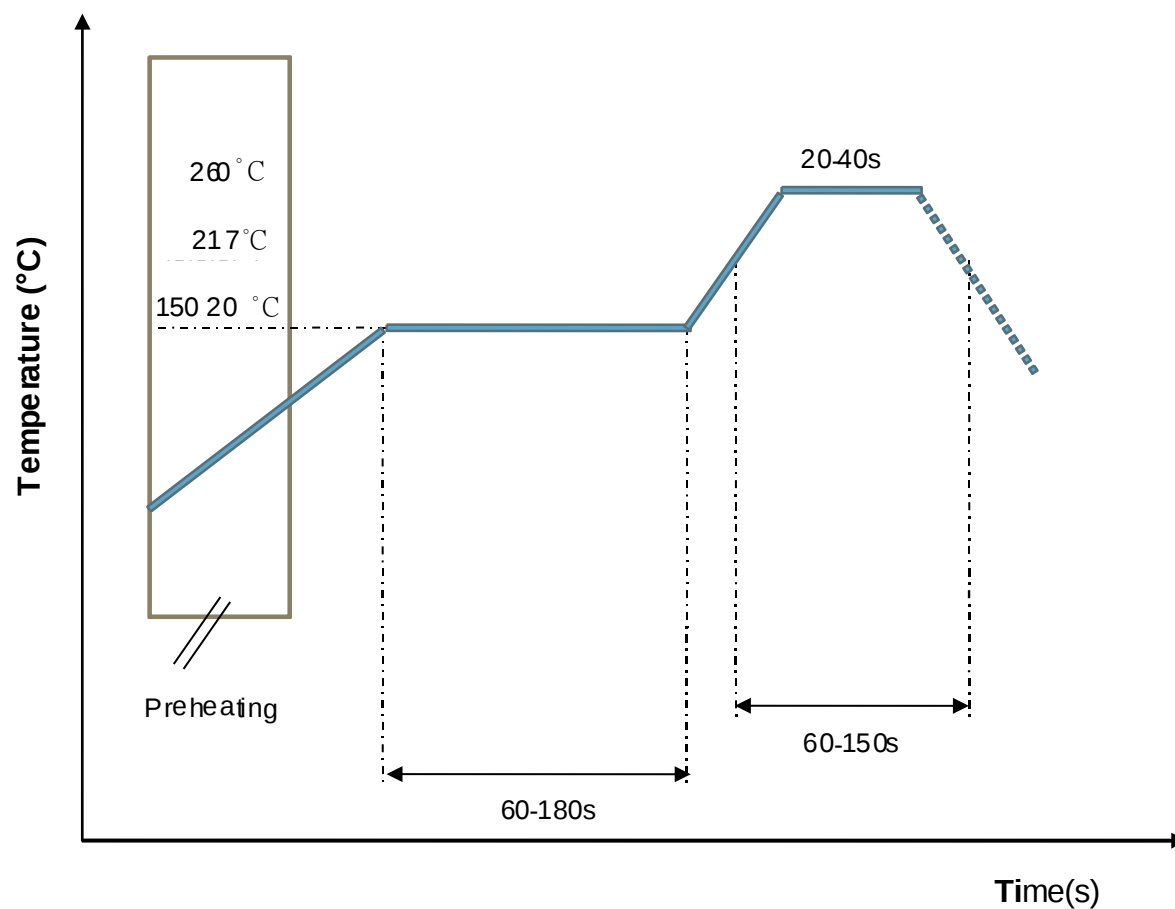
| Freq (MHz) | Effi (%) | Gain (dBi) |
|------------|----------|------------|
| 2400       | 65.03    | 2.18       |
| 2410       | 70.29    | 2.23       |
| 2420       | 71.62    | 2.35       |
| 2430       | 72.59    | 2.54       |
| 2440       | 74.81    | 2.81       |
| 2450       | 72.33    | 2.47       |
| 2460       | 71.03    | 2.32       |
| 2470       | 63.68    | 2.04       |
| 2480       | 61.42    | 1.81       |
| 2490       | 61.15    | 1.75       |
| 2500       | 61.09    | 1.69       |

## FREQUENCY CHARACTERISTICS

### EFFICIENCY AND VSWR

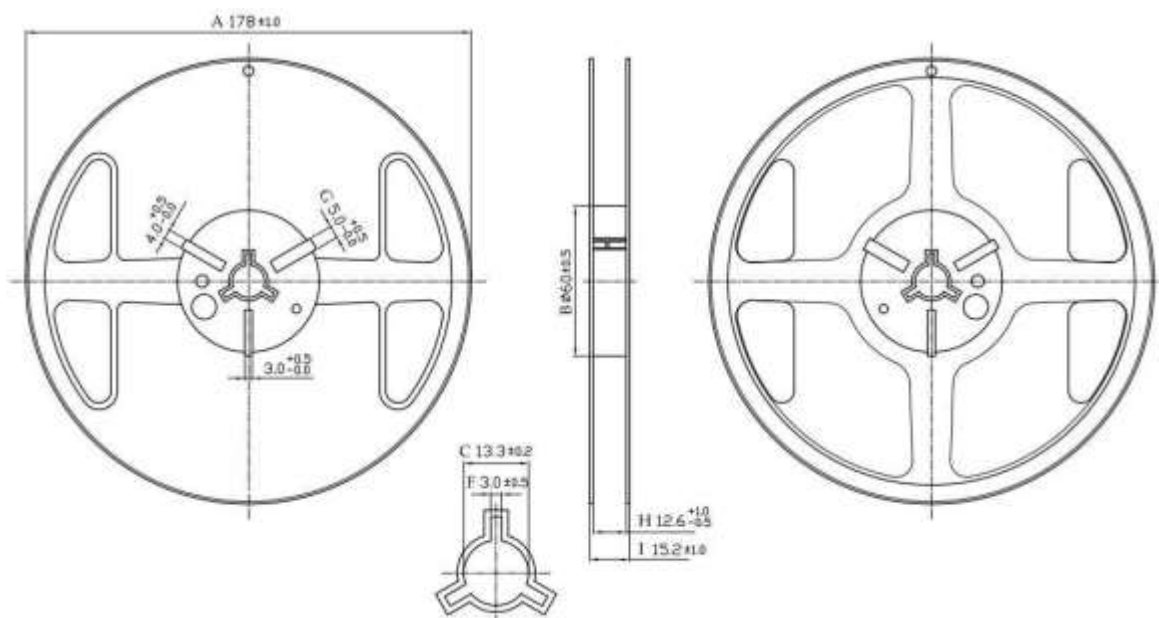


■ RECOMMENDED REFLOW PROFILE

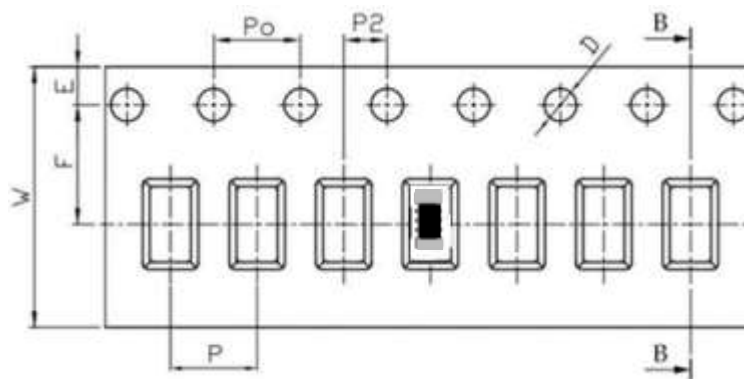


## ■ PACKAGING STYLE

### □ 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          |

Typing Quantity: 5000 pieces per 7" reel

## Order Information

| Device        | Package | Net Weight | Carrier   | Quantity | HSF Status     |
|---------------|---------|------------|-----------|----------|----------------|
| TS3216E245K06 | 3216    | 0.0089g    | Tape&Reel | 5000pcs  | RoHS compliant |

## Revision history

| Date      | Revision | Description of changes         |
|-----------|----------|--------------------------------|
| 2018-11-5 | 1.0      | First Version                  |
| 2022- 8-5 | 1.1      | Update the package information |
|           |          |                                |

The contents of this data sheet are subject to change without notice.  
Please confirm the specifications and delivery conditions when placing your order.

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