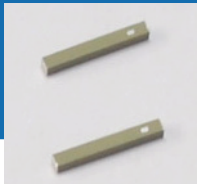


# High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)



ACAG0801-2450-T



8.0 x 1.0 x 1.0mm  
RoHS/RoHS II Compliant  
MSL = 1

## FEATURES

- High gain of 7.29 dBi
- Made using LTCC (low temperature co-fired ceramic) technology
- Compact 8.0 x 1.0 x 1.0mm
- High efficiency
- Omni-directional

## APPLICATIONS

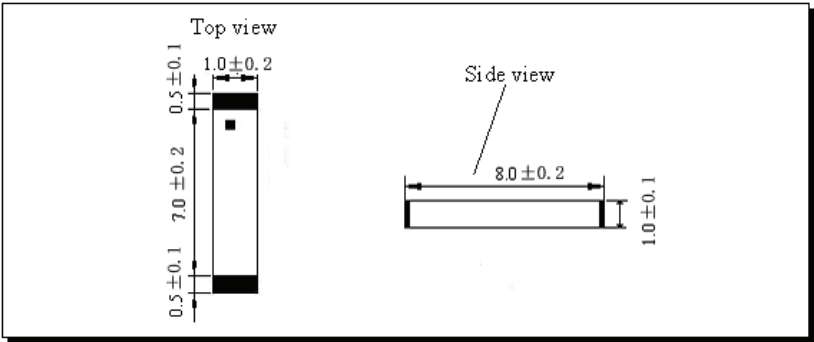
- Wifi
- Bluetooth
- ZigBee
- ISM applications
- IoT and wearable
- Remote Technology
- M2M

## ELECTRICAL CHARACTERISTICS

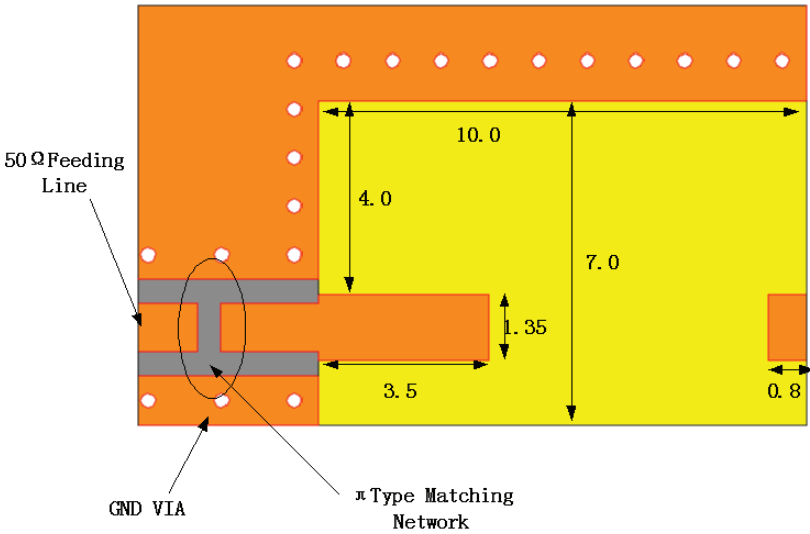
| Item                              | Spec             |
|-----------------------------------|------------------|
| Centre Frequency (No matching)    | 2857 MHz         |
| Centre Frequency (After matching) | 2450 MHz         |
| Bandwidth                         | 180 MHz typ      |
| VSWR                              | ≤2.0             |
| Impedance                         | 50Ω              |
| Gain                              | 7.29 dBi         |
| Azimuth                           | Omni-directional |
| Polarization                      | Linear           |
| Operating Temperature range       | -40°C ~+ 85°C    |

## MECHANICAL DIMENSIONS

Antenna Dimensions



Layout Dimensions



Dimensions (mm)

# High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)

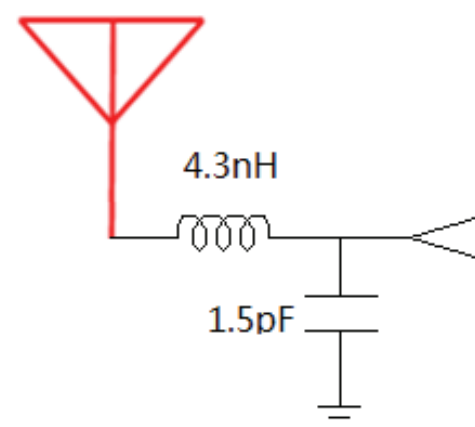
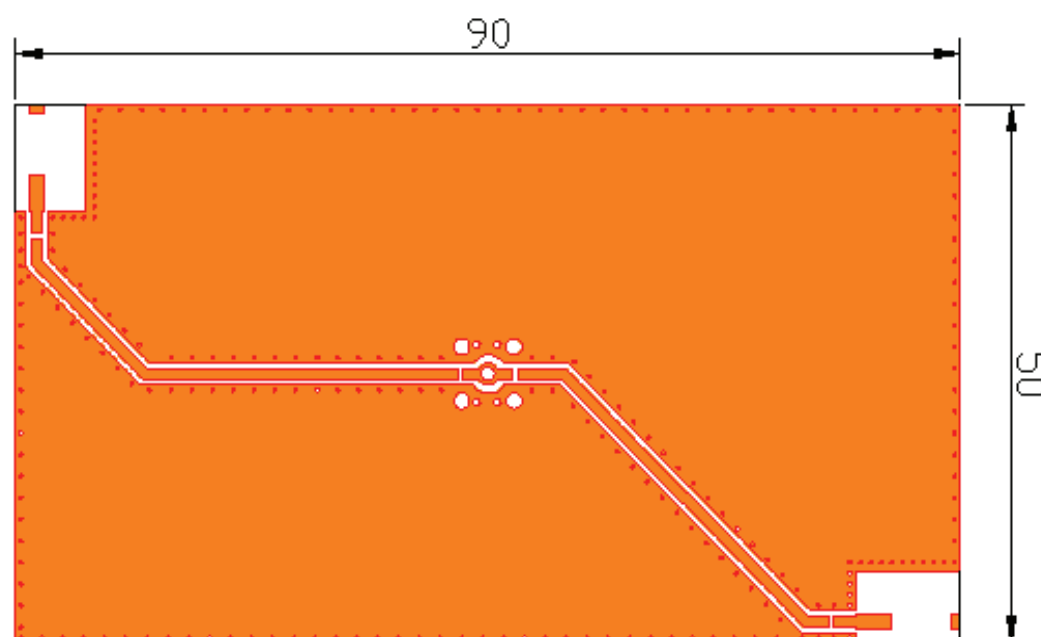


ACAG0801-2450-T

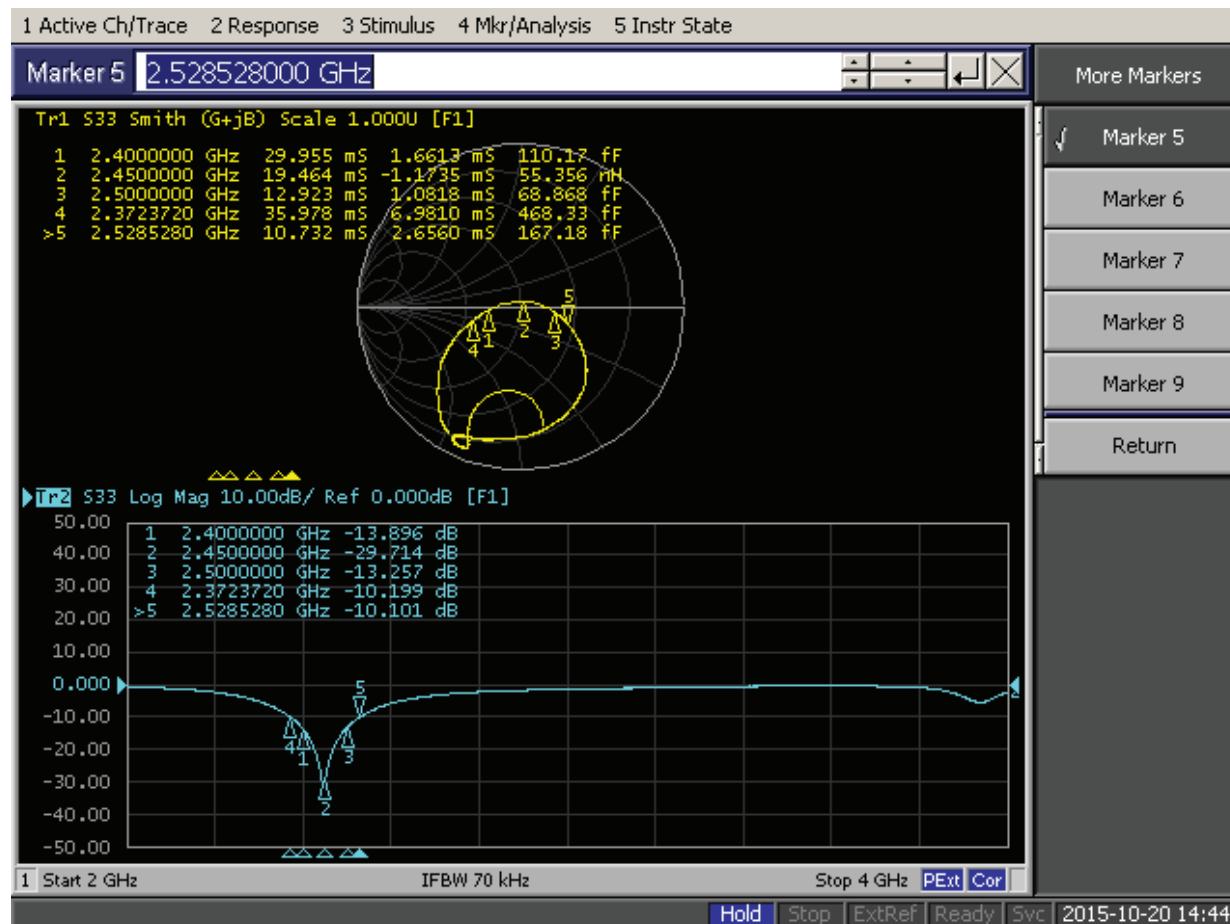


8.0 x 1.0 x 1.0mm  
RoHS/RoHS II Compliant  
MSL = 1

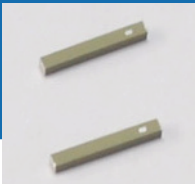
## EVALUATION BOARD AND MATCHING CIRCUITS



## ANTENNA RESPONSE – SMITH CHART AND RETURN LOSS S11



# High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)



ACAG0801-2450-T

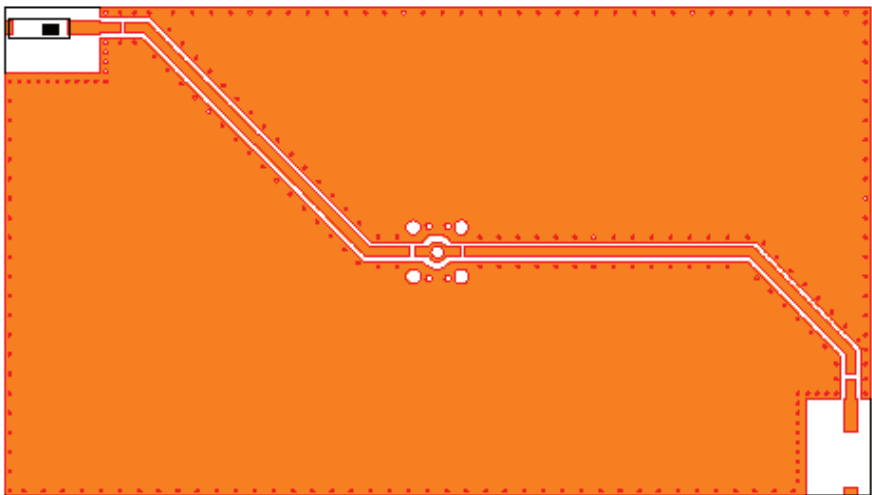
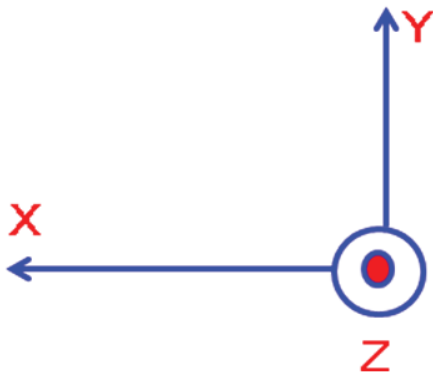
Pb

RoHS/RoHS II Compliant

MSL = 1

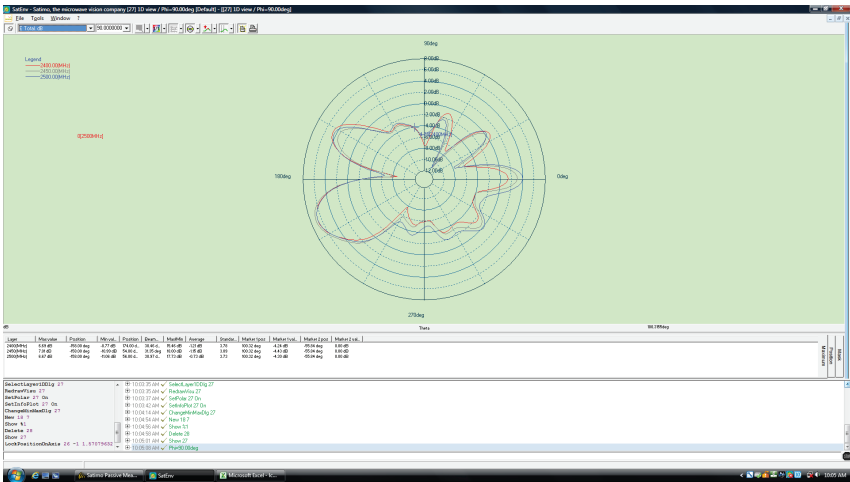
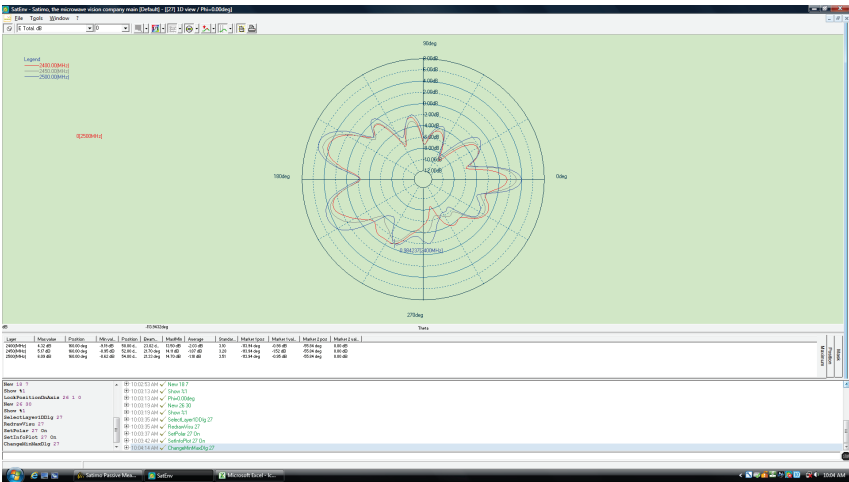
## RADIATION PATTERNS

### Coordinates

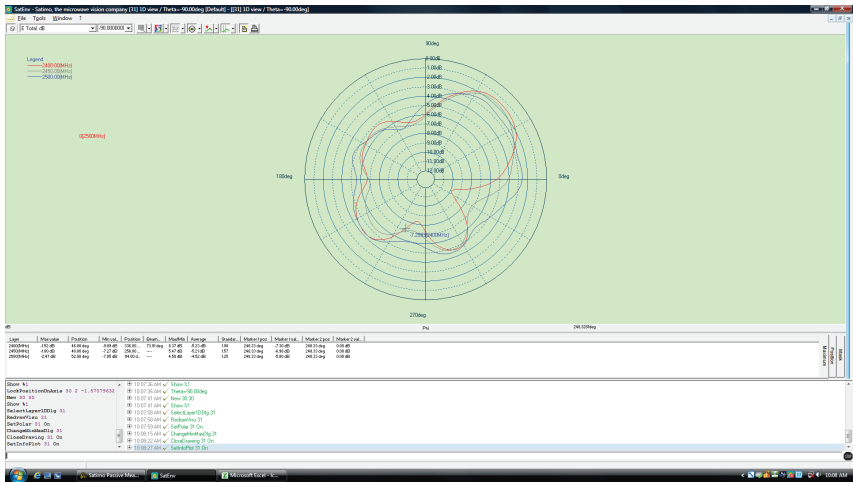


X-Z Plane

Y-Z Plane

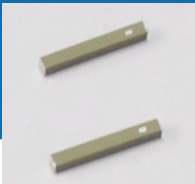


X-Y Plane



REVISED: 06.21.2018

# High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)

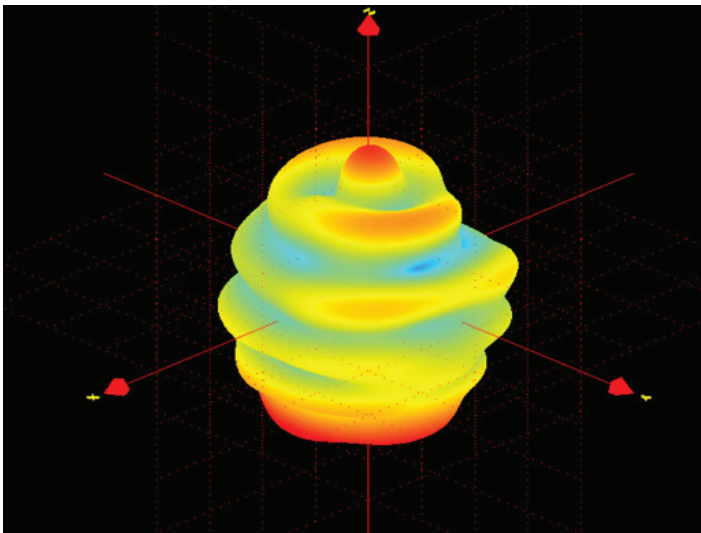


ACAG0801-2450-T



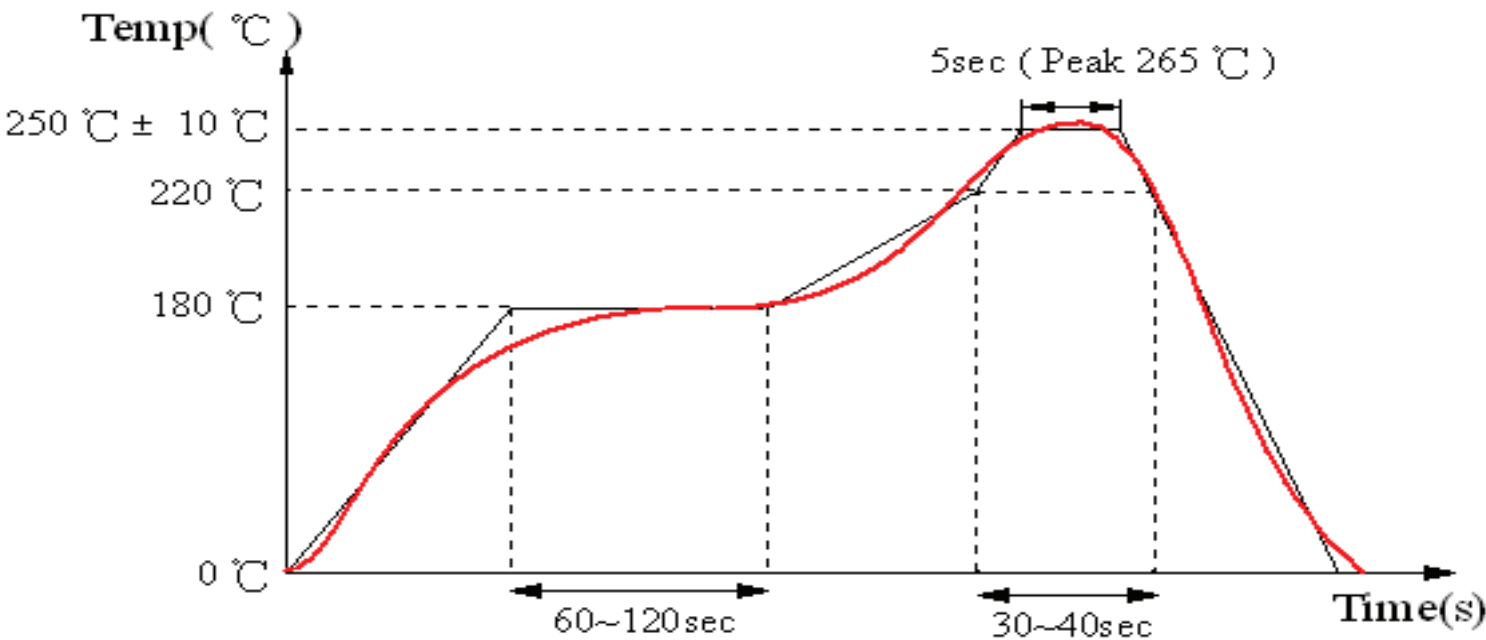
8.0 x 1.0 x 1.0mm  
RoHS/RoHS II Compliant  
MSL = 1

## 3D PATTERNS

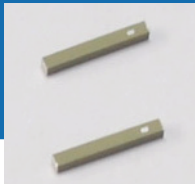


|                 |       |       |       |
|-----------------|-------|-------|-------|
| Frequency (MHz) | 2400  | 2450  | 2500  |
| Avg. Gain (dBi) | -1.30 | -1.15 | -1.26 |
| Peak Gain (dBi) | 6.67  | 7.29  | 6.69  |
| Efficiency (%)  | 72.6  | 74.5  | 72.8  |

## REFLOW SOLDERING STANDARD CONDITION



# High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)



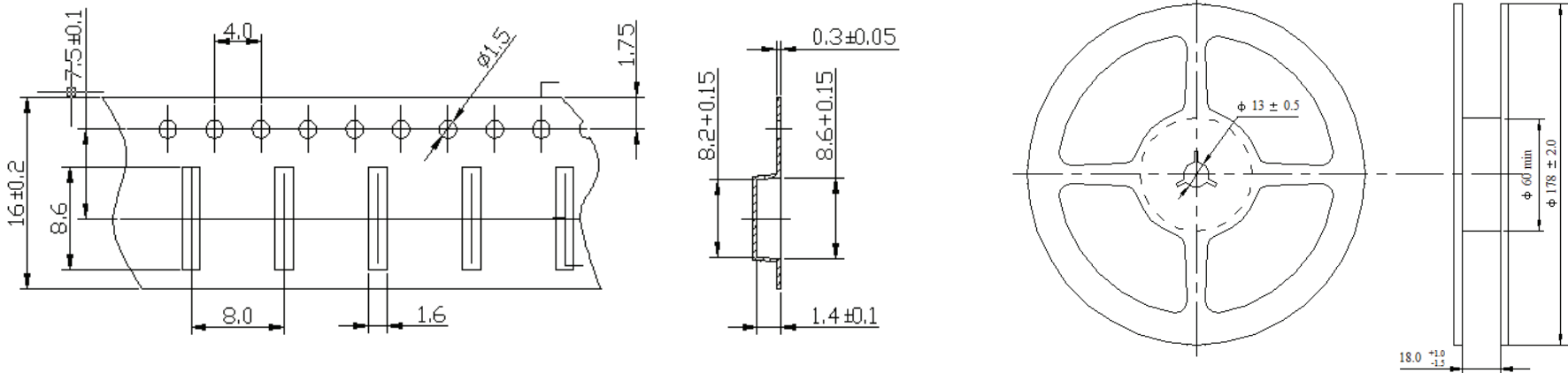
ACAG0801-2450-T



8.0 x 1.0 x 1.0mm  
RoHS/RoHS II Compliant  
MSL = 1

## PACKAGING

| Package Type                      | Quantity/Size      |
|-----------------------------------|--------------------|
| Inner Box                         | 1500 pcs/reel      |
| Centre Frequency (After matching) | 15000 pcs/carton   |
| Carton                            | 330 x 210 x 210 mm |



Storage Temperature Range : <30 degree C, Humidity : <60%RH

MSL - 1

Oxidizable, 12 months in a vacuum sealed bag.

Once opened, please repack the unused items within 168 hours by re-seal package treatment.

Dimensions: mm

## CAUTIONS

### 1. Static voltage

Static voltage between signal & ground may cause deterioration & destruction of the component. Please avoid static voltage.

### 2. Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

### 3. Soldering

Only leads of the component may be soldered. Please avoid soldering to any other part of the component, such as on the patterns as this will change the performance of the antenna.