915 MHz Directional Embedded Ceramic Patch ANTENNA

Part Number: L001119-01
L001119-80

FEATURES & BENEFITS

- Antenna is for LPWA applications including LoRaWAN, Sigfox, remote contros.
- Passive Patch Antenna
- The following data is based on 70 x 70 x 0.8mm ground size
- Through-hole pin and adhesive on bottom assembly
- No matching circuits required

RF SPECIFICATIONS

Frequency Range (MHz)	900-928
VSWR (center frequency)	< 2:1 @915MHz
Peak Gain at Zenith	Typ. 4.1 dBic @915MHz
Average Gain	-2.7dB @915MHz
Axial Ratio	< 2 at 915MHz
Feed Point Impedance	50 ohms
Polarization	Circular polarization

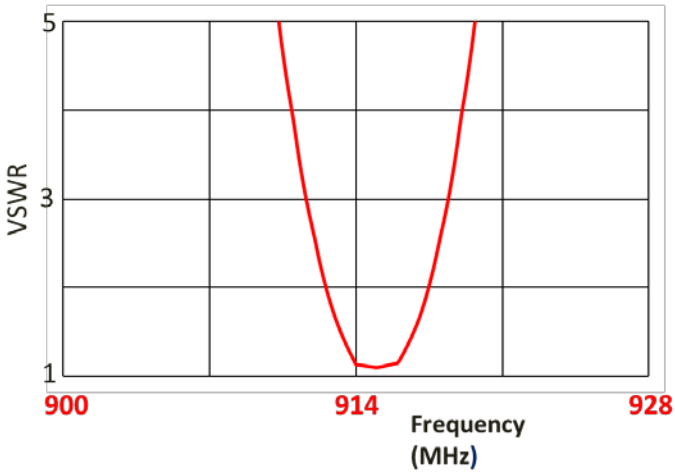
MECHANICAL SPECIFICATIONS

Size (L x W x H)	40.0 mm x 40.0 mm x .4.0 mm (L/W/H ± 0.2)
Weight	< 16 g
Mounting	Adhesive Tape
Mating Connector	N/A
Cable	N/A
Operating Temperature	-40 to +105°C
Storage Temperature	-40 to +105°C
Dielectric Material	Ceramic
Hazardous Materials	A certificate of conformance is available from the product page on TE website.

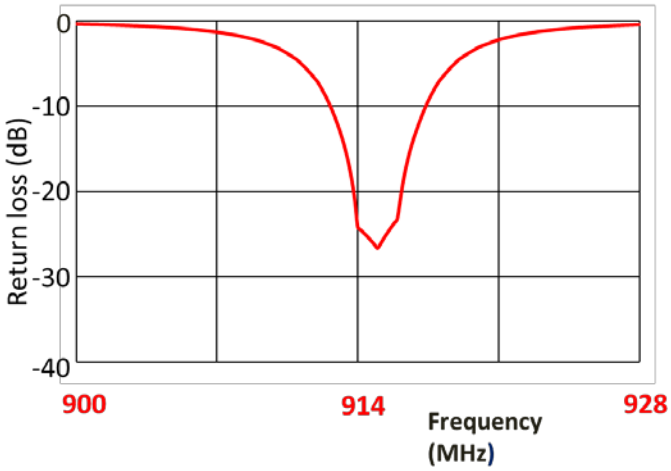
RF DATA

(shown as L001119-01 : Ground size : 70 x 70 x 0.8 mm.)

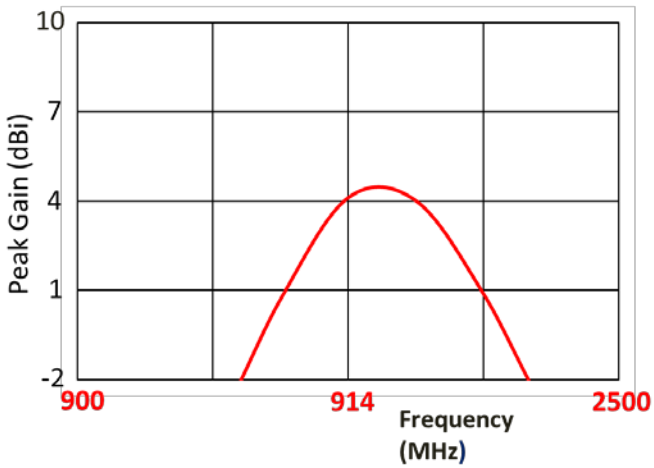
VSWR



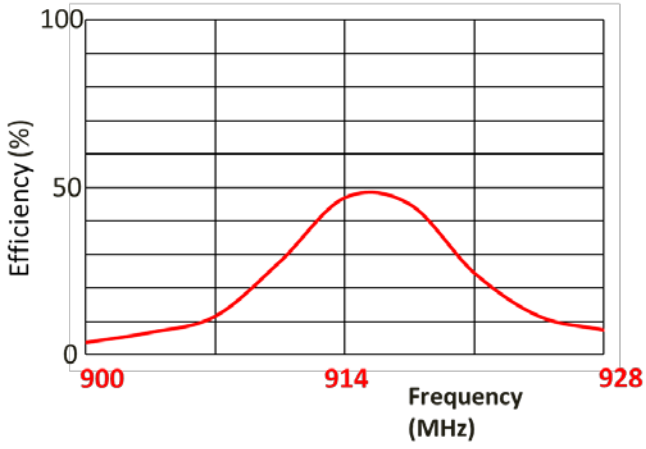
Return Loss



Peak Gain



Efficiency

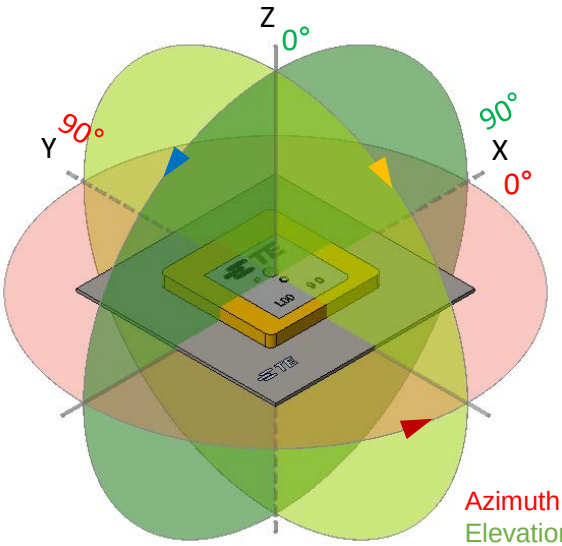


Data measured in free space and on reference ground plane of 70x70x0.8 mm ground plane condition, application data might vary.

RADIATION PATTERN

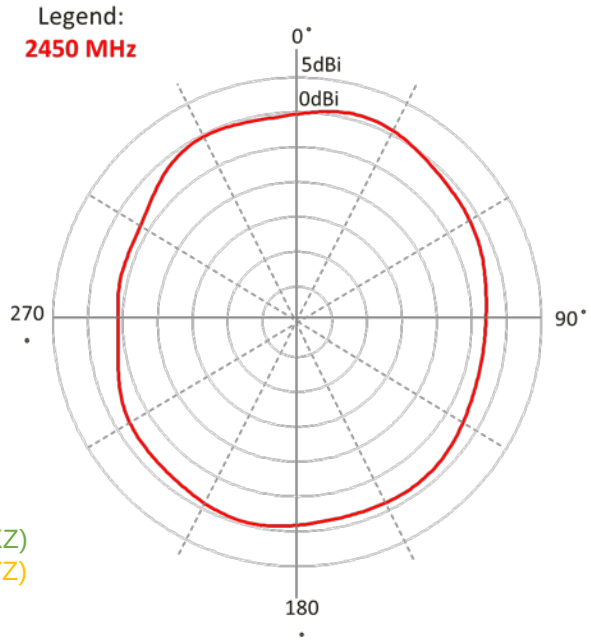
(shown as L001119-01 : Ground size : 70 x 70 x 0.8 mm.)

Test setup

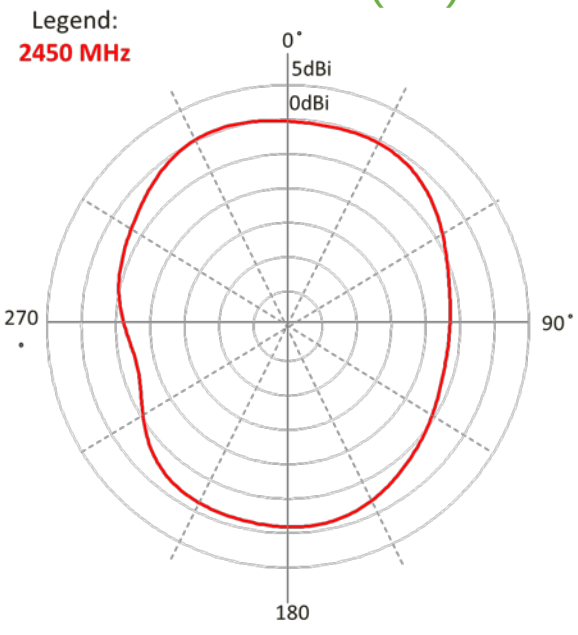


Azimuth Plane (XY)
Elevation 1 Plane (XZ)
Elevation 2 Plane (YZ)

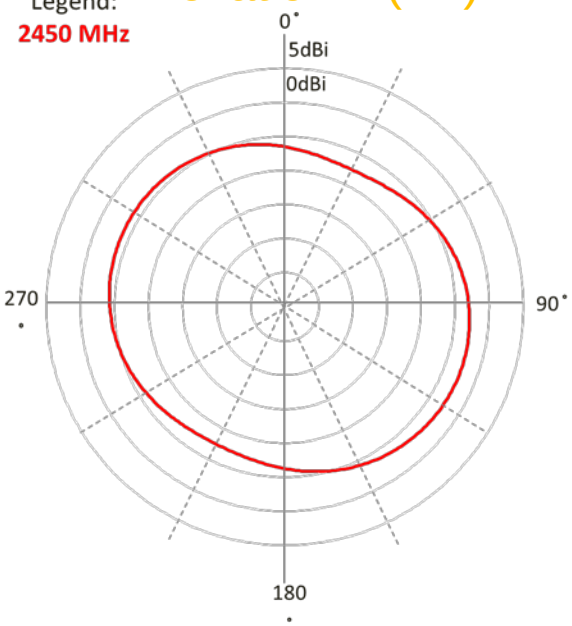
Azimuth (XY)



Elevation 1(XZ)

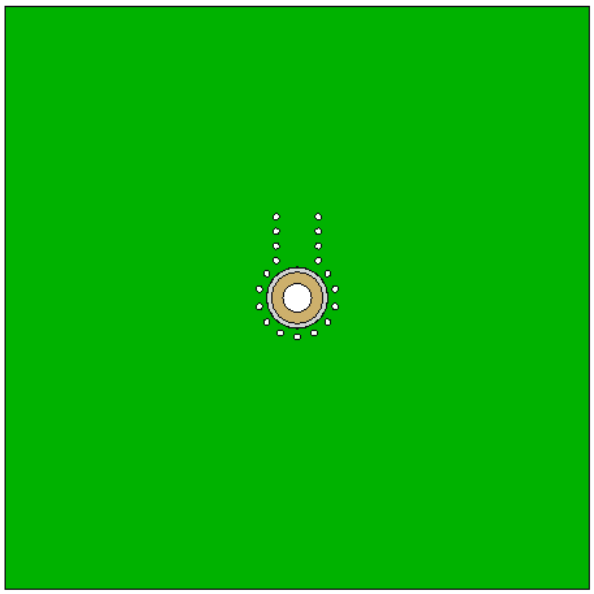


Elevation 2 (YZ)

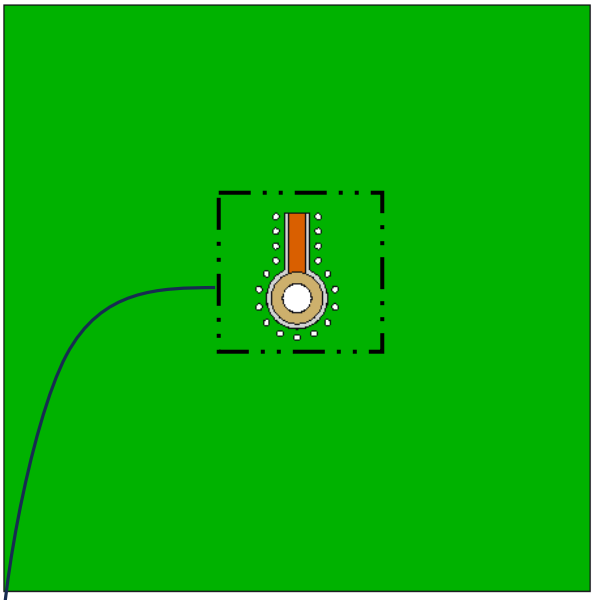


Data measured in free space and on reference ground plane of 70x70x0.8 mm ground plane condition, application data might vary.

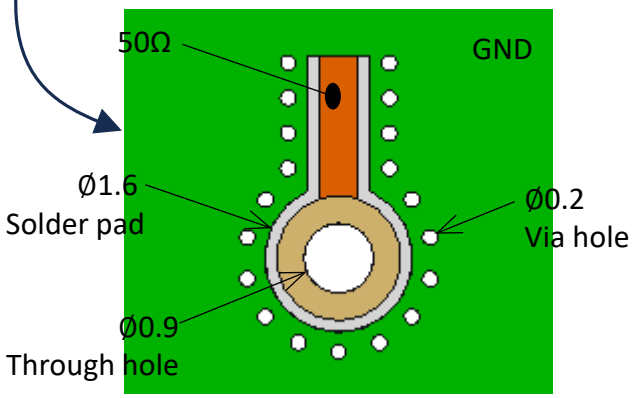
MOUNTING GUIDE



Top side



Bottom side

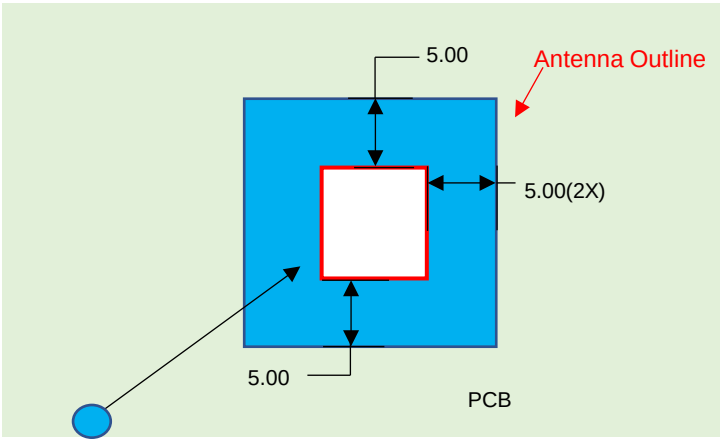


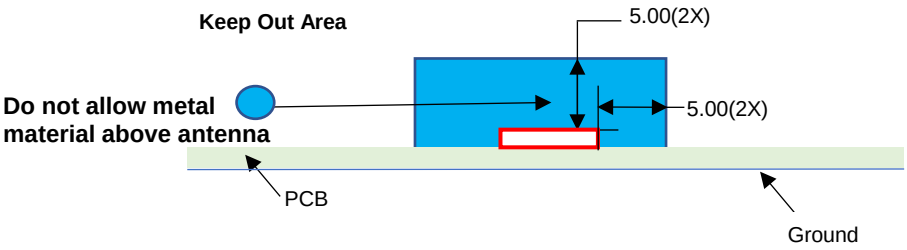
NOTES:

1. **Antenna must be mounted on the edge of PCB.**
2. **Reference PCB Dimension(mm) - 50.0 x 50.0 x 1.0 ground layer**
3. **Mounting Instructions:**
    a. **Clean PCB surface to remove any oil or grease from surface.**
    b. **Remove adhesive liner from PSA on antenna back.**
    c. **Align antenna through hole pin into plated through hole and body into desired orientation based on propagation patterns.**
    d. **Insert pin and oriented body into housing and press firmly to PCB for five to ten seconds**
    e. **Hand or wave solder pin to PCB IAW IPC-A-610**

Dimension: mm
Tolerance : ±0.2mm
Diagrams is not to scale

KEEP OUT AREA

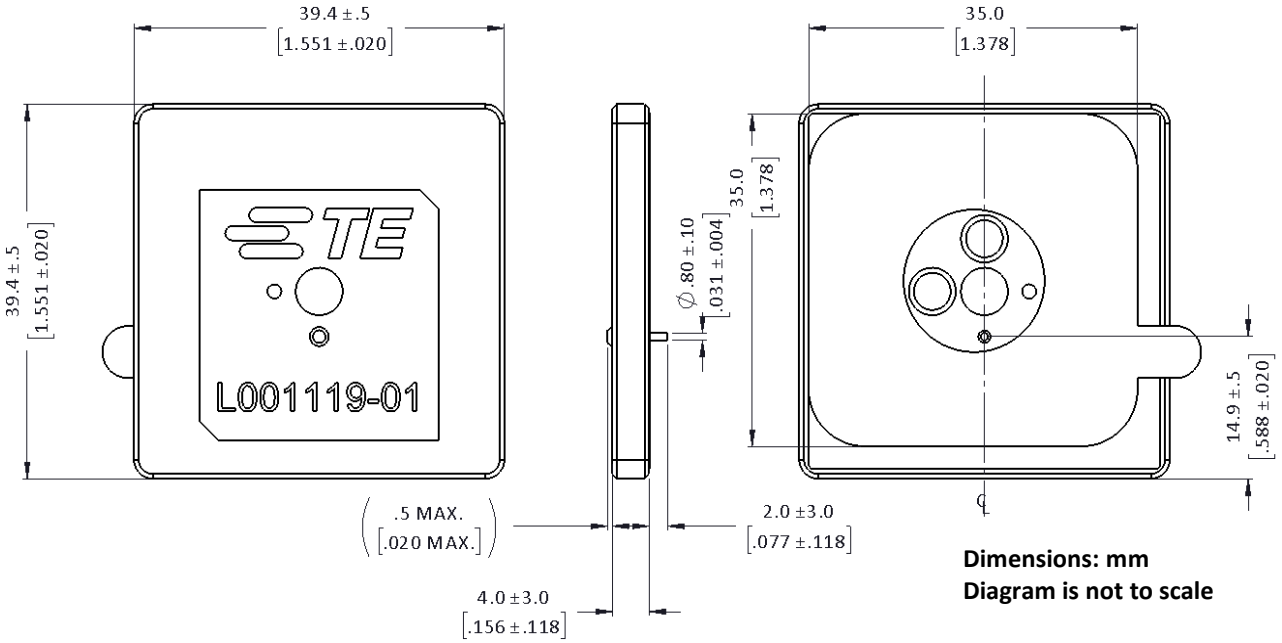




NOTES:1. Antenna designed to be mounted on PCB.
2. Area in blue above indicates Keep Out Area.
3. For more information please call TE.

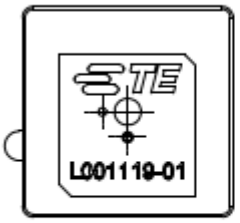
Dimensions: mm
Diagram is not to scale

DIMENSIONS



Dimensions: mm
Diagram is not to scale

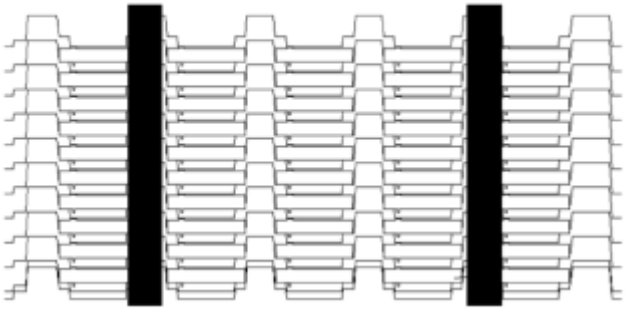
PACKAGING



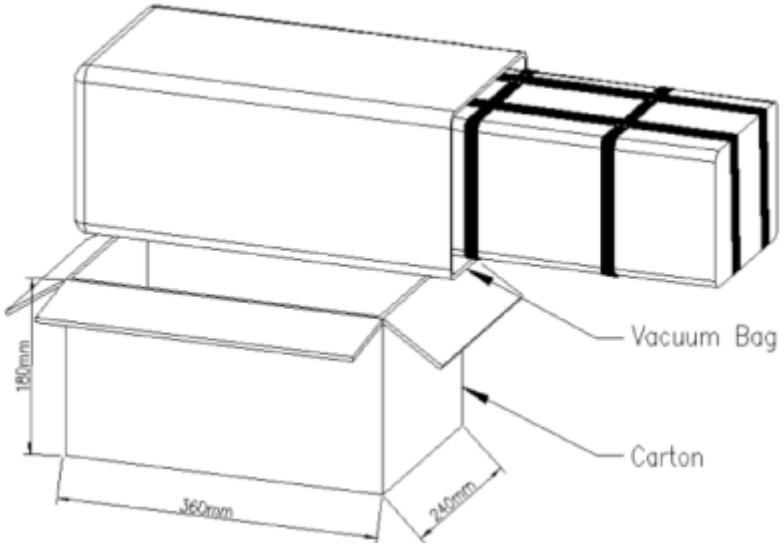
20PC PER INTERLOCKING TRAY

EACH CAVITY OF INTERLOCKING TRAY COVERED WITH 1mm THICK EVA FOAM TO PREVENT SHIFT DURING TRANSIT

200PC PER LOT BAG



- INTERLOCK 10 PRODUCT TRAYS TOGETHER
- PLACE 1 EMPTY TRAY TOP AND INTERLOCKBOTTOM TRAY FRONT TO FRONT TO PROTECT BOTTOM
- PACKING BANDS 2 PER SIDE TOTAL 4 TO KEEP STACK TOGETHER
- PLACE STACK IN VACUUM BAG



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