
# CERAMIC PATCH ANTENNA, 1561-1602MHz, SMD, 18X18X6MM

Part Numbers:
L000695-01
L000695-80

## FEATURES

- Covers all L1 GPS / BEIDOU bands for GNSS
- SMD type passive patch antenna; High efficiency/ peak gain
- The following data is based on 50x50x1mm and 100x100x1mm ground size
- No matching circuits required for evaluation board

## RF SPECIFICATIONS

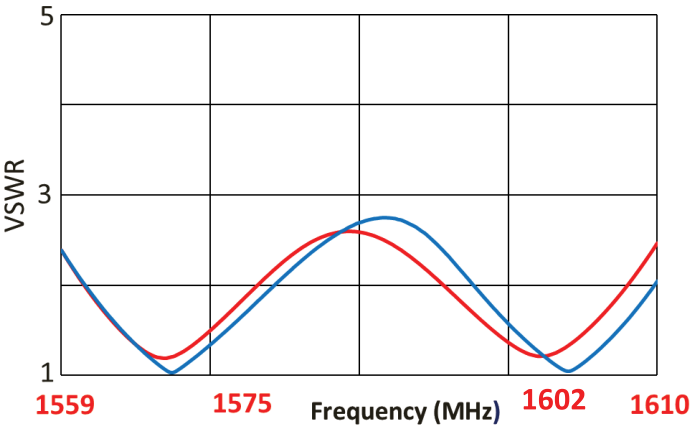
| | | | |
|---|---|---|---|
| **Frequency Range (MHz)** | 1561.098 | 1575.42 | 1602 |
| **Bandwidth (MHz)** | ±2.046 | ±1.023 | ±5 |
| **VSWR (center frequency)** | <2.8 :1 | <2.4 :1 | <2.8 :1 |
| **Peak Gain at Zenith** | Typ. 0.5 dBi | Typ. 0.7 dBi | Typ. 0.9 dBi |
| **Average Gain** | -1.5 dB | -1.6 dB | -1.7 dB |
| **Efficiency (%)** | 73% | 75% | 83% |
| **Feed Point Impedance** | 50 ohms | | |
| **Polarization** | Right Hand Polarization (RHP) | | |

## MECHANICAL SPECIFICATIONS

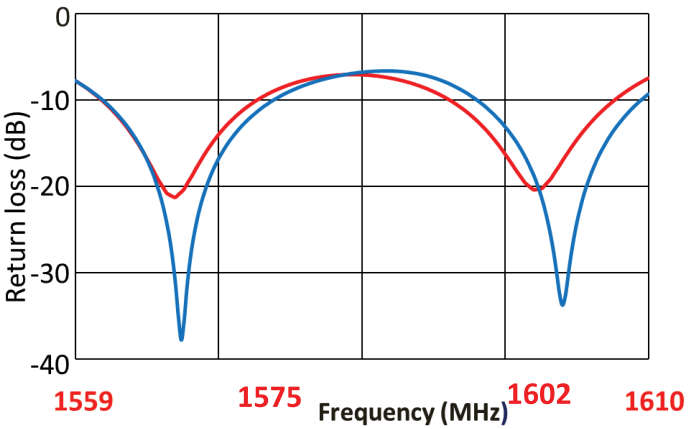
| | |
|---|---|
| **Size ( L x W x H )** | 18.0 mm x 18.0 mm x 6.0 mm ( L/W/H ± 0.15) |
| **Weight** | < 10 g |
| **Mounting** | SMD (Surface Mount Device) |
| **Mating Connector** | N/A |
| **Cable** | N/A |
| **Operating Temperature** | -40 to +105°C |
| **Storage Temperature** | -40 to +105°C |
| **Dielectric Material** | Ceramic |
| **Hazardous Materials** | A certificate of conformance is available from the product page on TE website. |

## RF DATA (SHOWN AS L000695-01: GROUND SIZE : 50 X 50 X 1.0 MM & 100 X 100 X 1.0 MM )

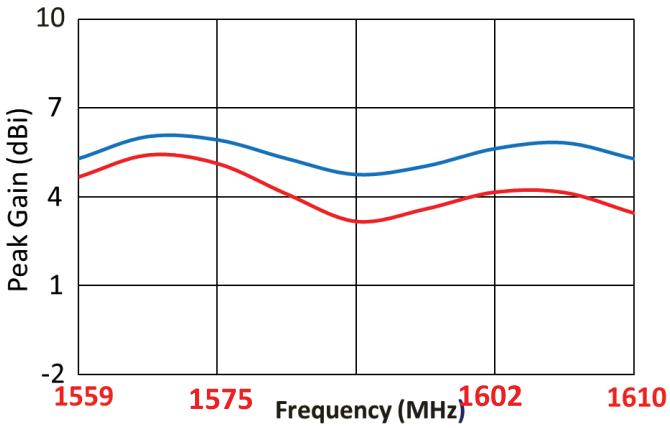
### VSWR



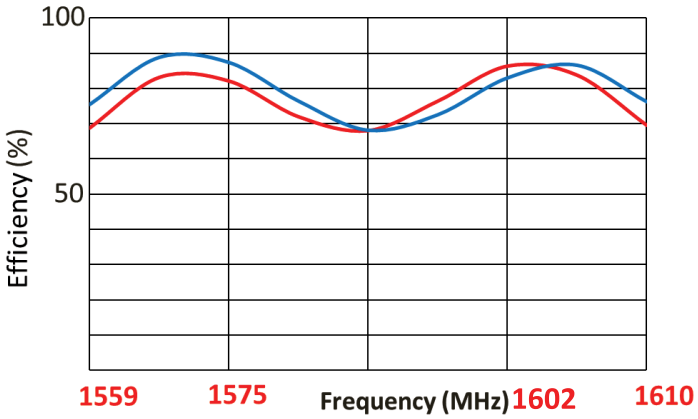

### Return Loss




### Peak Gain




### Efficiency



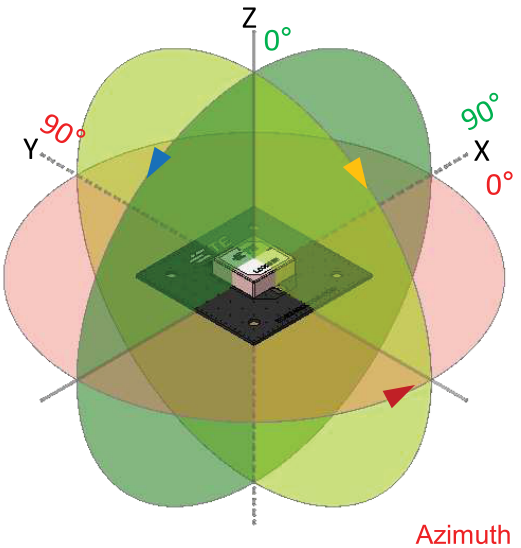

GND 50mm x 50 mm

GND 100mm x 100 mm

Data measured in free space and on reference ground plane of 50x50x1.0 & 100x100x1.0 mm ground plane condition, application data might vary.

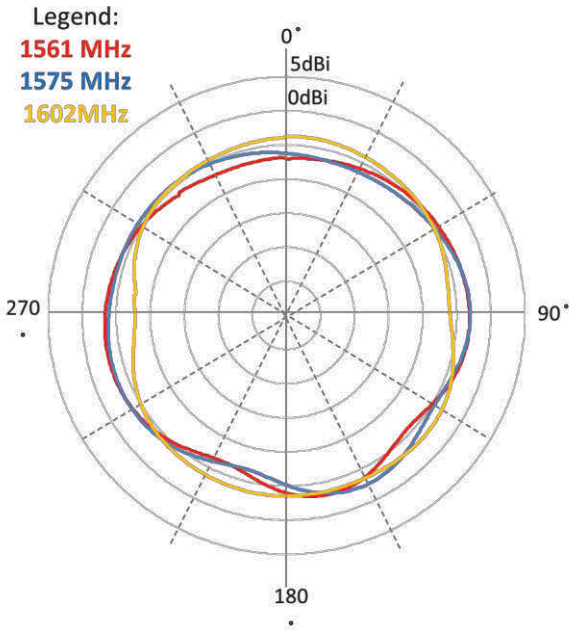
## RADIATION PATTERN (SHOWN AS L000695-01 : GROUND SIZE : 50 X 50 X 1.0 MM.)

### Test setup

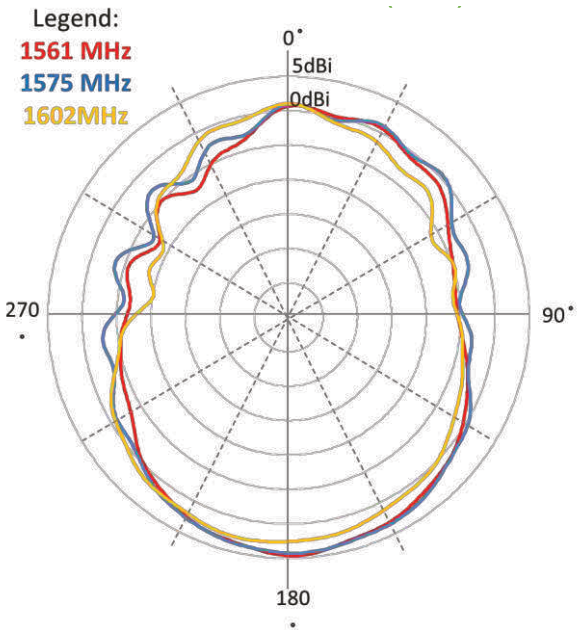



Azimuth Plane (XY)
Elevation 1 Plane (XZ)
Elevation 2 Plane (YZ)

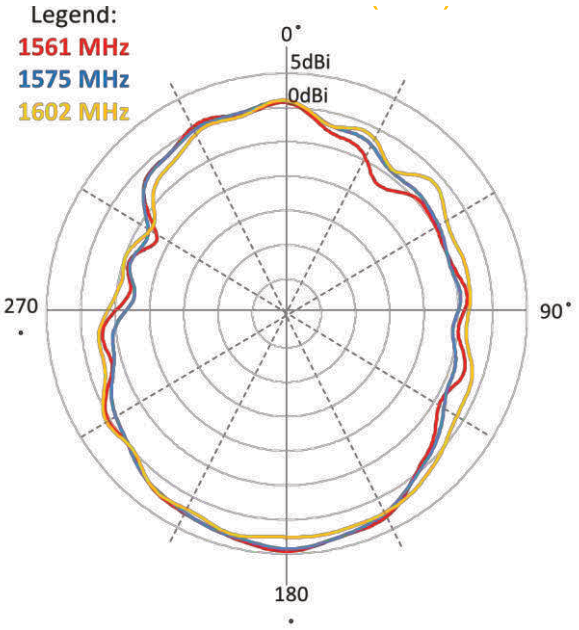
### Azimuth (XY)




### Elevation 1(XZ)



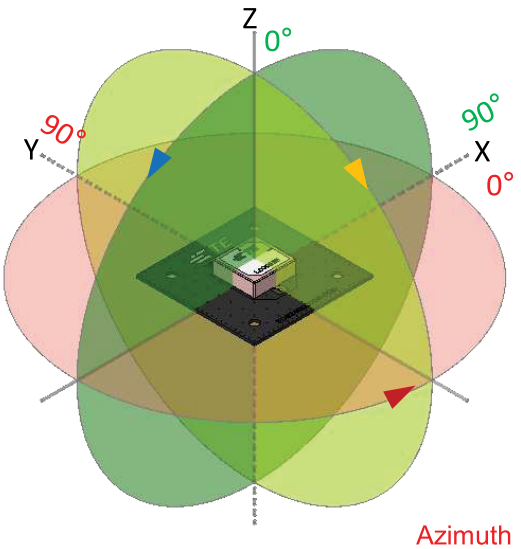

### Elevation 2 (YZ)




Data measured in free space and on reference ground plane of 50x50x1.0 & 100x100x1.0 mm ground plane condition, application data might vary.

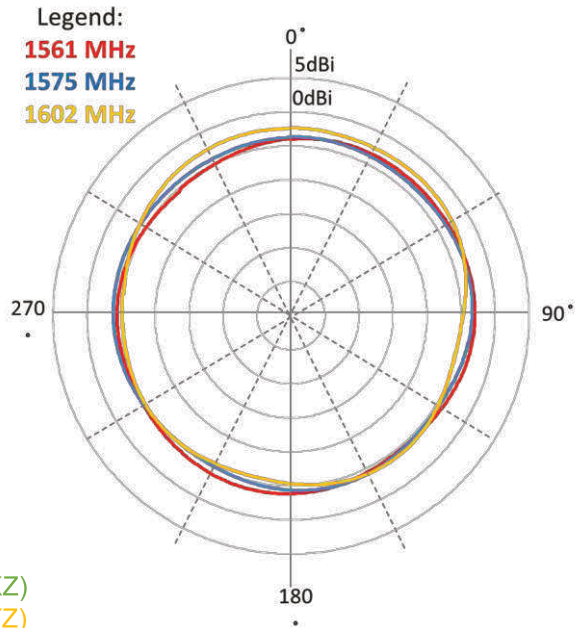
## RADIATION PATTERN (SHOWN AS L000695-01 : GROUND SIZE : 100 X 100 X 1.0 MM.)

### Test setup

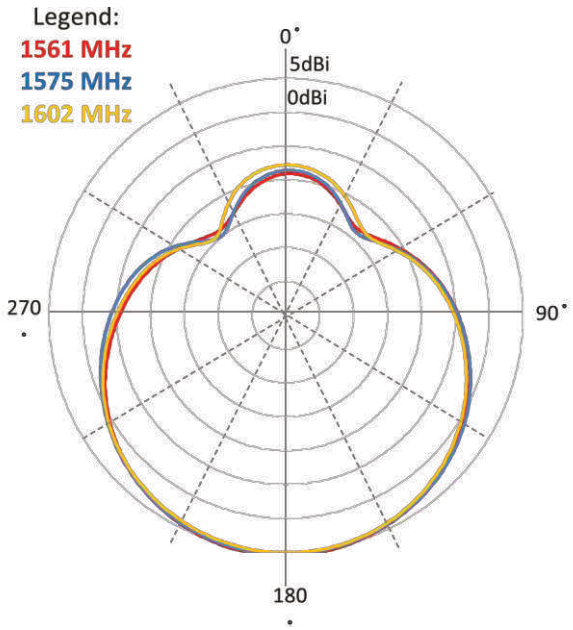



Azimuth Plane (XY)
Elevation 1 Plane (XZ)
Elevation 2 Plane (YZ)

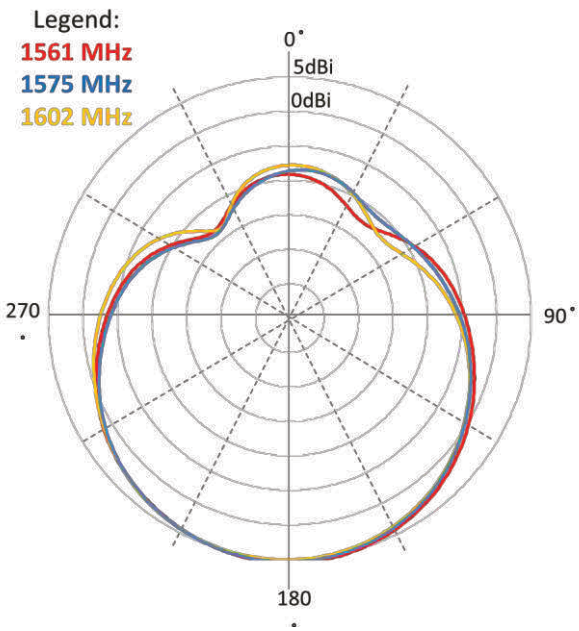
### Azimuth (XY)




### Elevation 1(XZ)

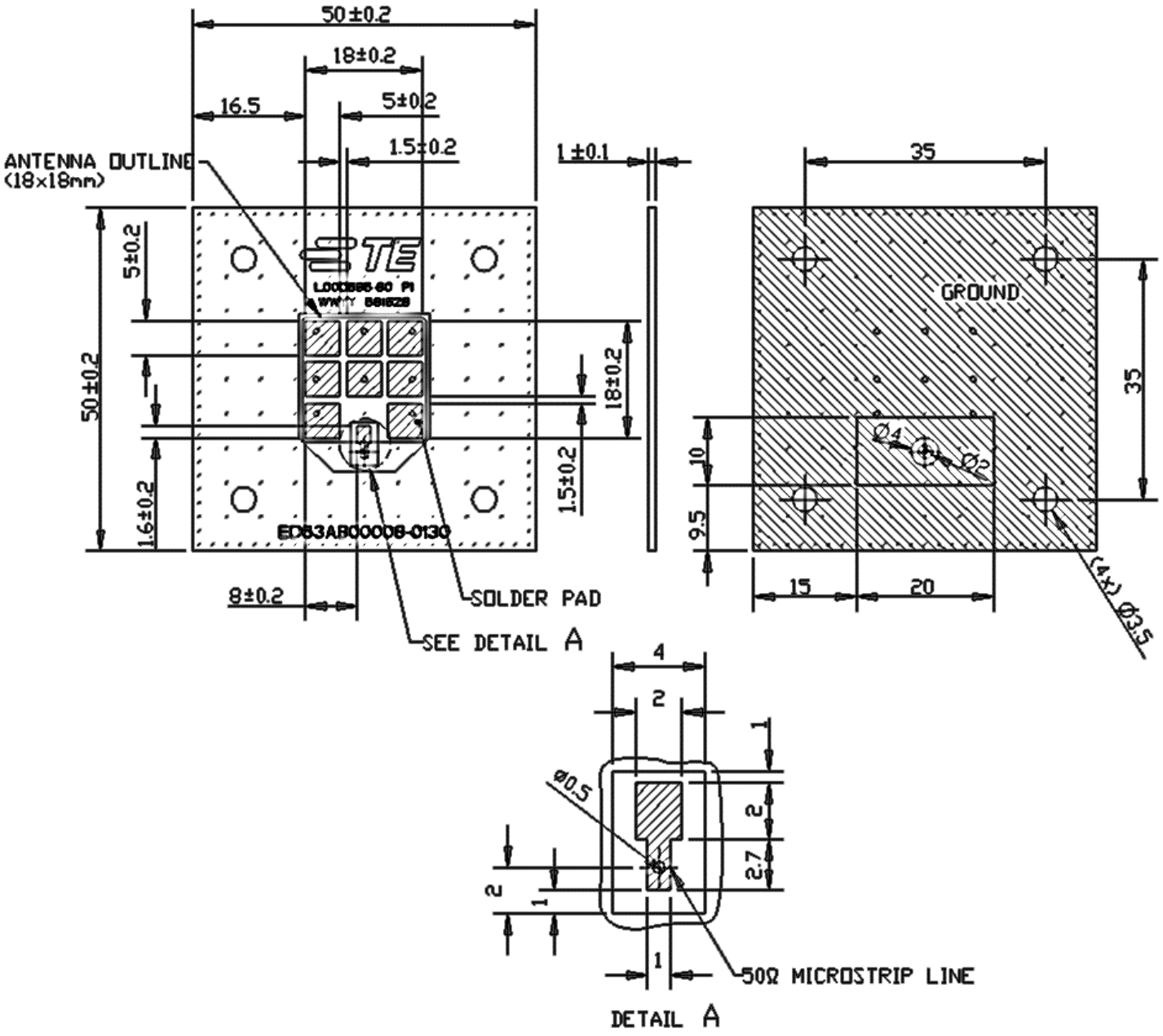



### Elevation 2 (YZ)




Data measured in free space and on reference ground plane of
100 x 100 x 1.0 mm ground plane condition, application data might vary.

## MOUNTING GUIDE



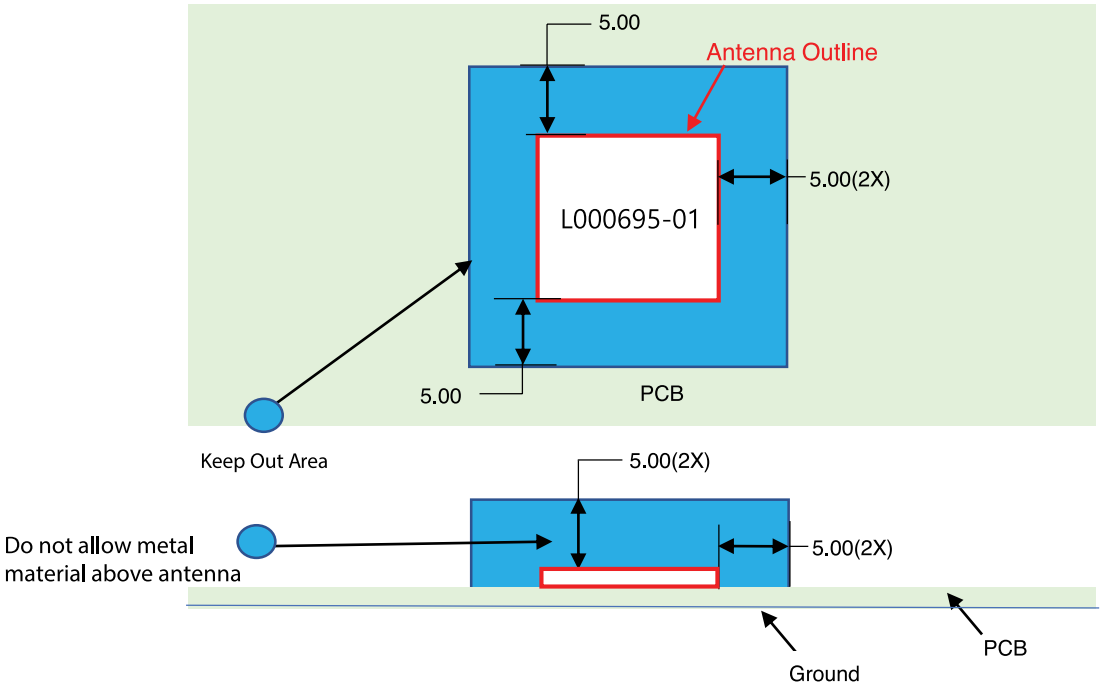

**NOTES: 1. Antenna must be mounted on the edge of PCB.**

**2. For more information please call TE.**

**3. Reference PCB Dimension(mm)**
**- 50.0 x 50.0 x 1.0**

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

## KEEP OUT AREA



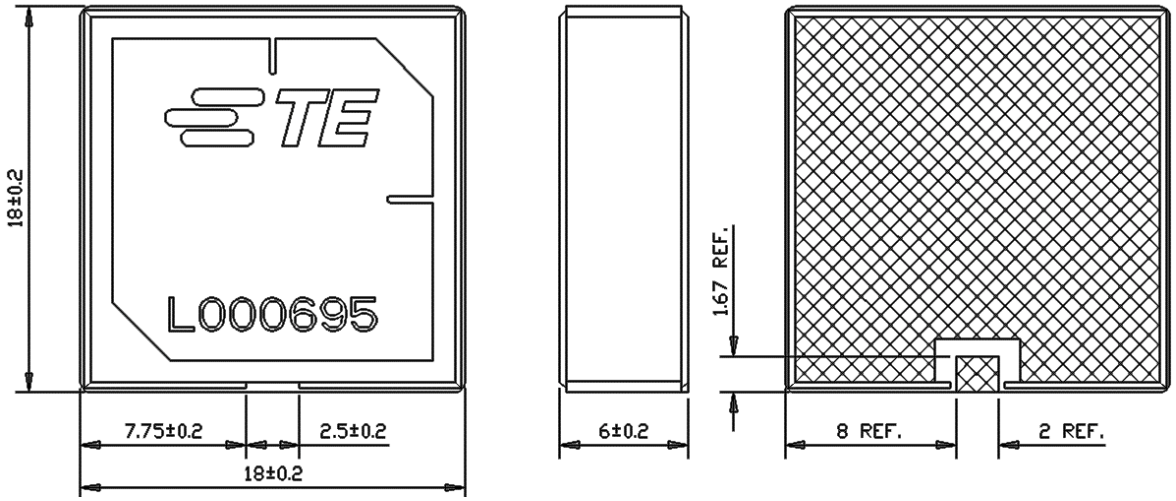

**NOTES:1. Antenna designed to be mounted on PCB.**

**2. Area in blue above indicates Keep Out Area.**

**3. For more information please call TE.**

Dimensions: mm
Diagram is not to scale

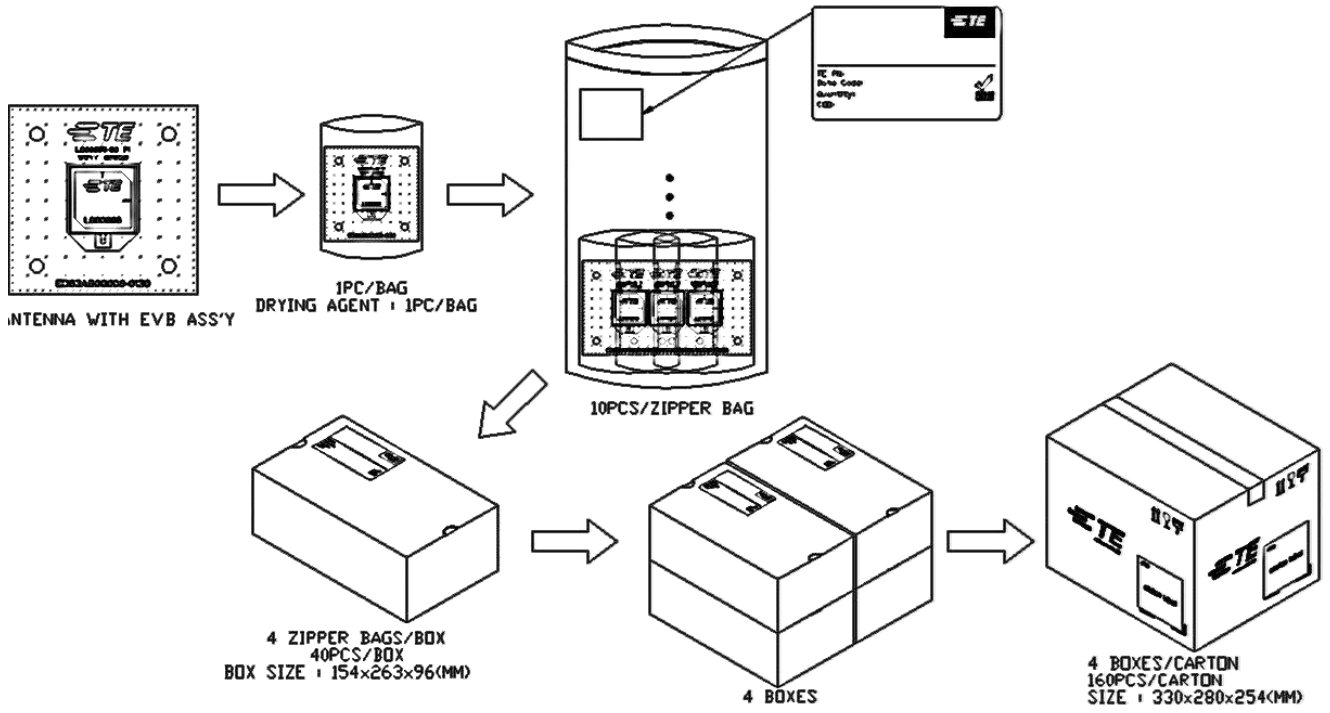
## DIMENSIONS



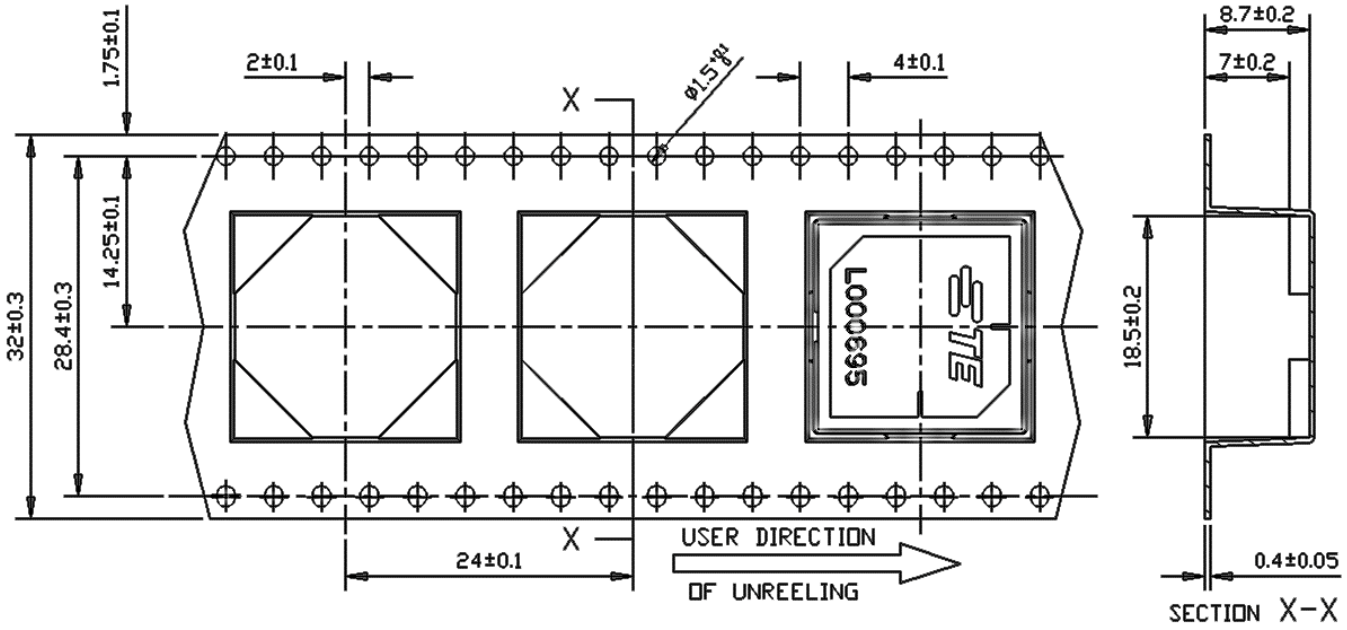

Dimensions: mm
Diagram is not to scale

## PACKAGING

### L000695-80 (BULK)




### L000695-01 (REEL)



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