



# LTE BAND 28 COMPACT HELICAL SCREW MOUNT ANTENNA

## PART NUMBER: L000575-01

L000575-01 band 28, compact antennas are rugged, low-cost and easy to install. The antenna targets 698 to 803 MHz for cellular IoT (LTE-M, NB-IoT) applications/ traditional LTE Band 28/17/44, UMTS and GSM. Designed for embedded, inside-the-enclosure, applications, mounting directly to a printed circuit board (PCB) using a 6-32UNC screw. By eliminating the plastic housing, and the need for an RF connector on the PCB, the helical antenna family provides a low-cost but high-performing antenna solution.

The single frequency band of L000575-01 antennas makes the job of antenna selection simple, with better performance in the target frequency band than multiband antennas and rejection of signals from unwanted frequencies.

## FEATURES & BENEFITS

- LTE band 28 helical screw mount antenna targets 698 MHz to 803 MHz for Cellular IoT (LTE-M, NB-IoT) applications/ traditional LTE Band 28/17/44 , UMTS and GSM.
- Designed for embedded, inside-the-enclosure, applications, mounting directly to a printed circuit board (PCB) using a 6-32UNC screw-mount connection.
- By eliminating the plastic housing and the need for an RF connector on the PCB.
- The following data is based on 41 x 90 x 1.6mm ground size
- No matching circuits required.

## RF SPECIFICATIONS

Frequency Range (MHz)	698-803
VSWR	< 2.5:1
Average Efficiency	87%
Peak Gain	2.0dBi
Average Gain	-0.6 dBi
Feed Point Impedance	50 ohms
Polarization	Linear polarization

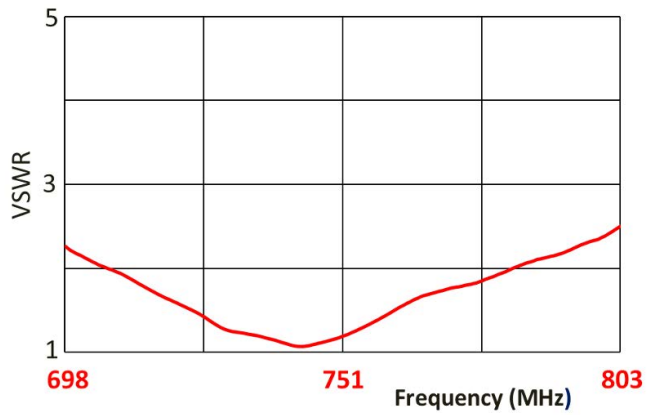
## MECHANICAL SPECIFICATIONS

Size ( L x W x H ) without screw	61.90 mm x $\Phi$ 5.25 mm ( L / D $\pm$ 1.0/ 0.05)
Weight without screw	< 5 g
Mounting	Screw mount 6-32UNC
Mating Connector	N/A
Cable	N/A
Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +85°C
Dielectric Material	Phosphor Bronze/ Brass C3604
Hazardous Materials	N/A

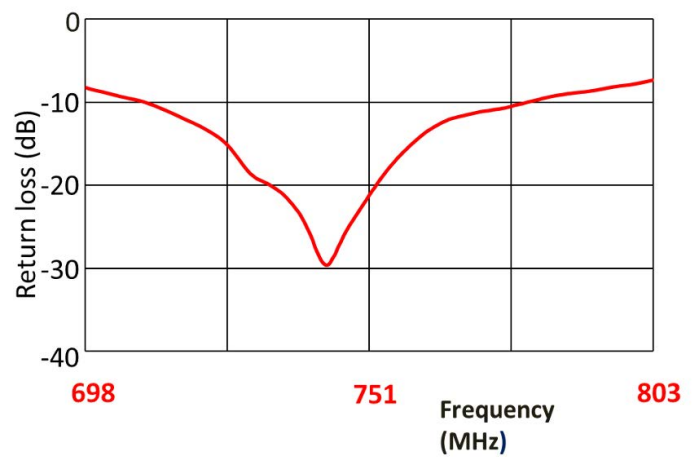
## RF DATA

(shown as L000575-01 : Ground size : 41 x 90 x 1.6 mm).

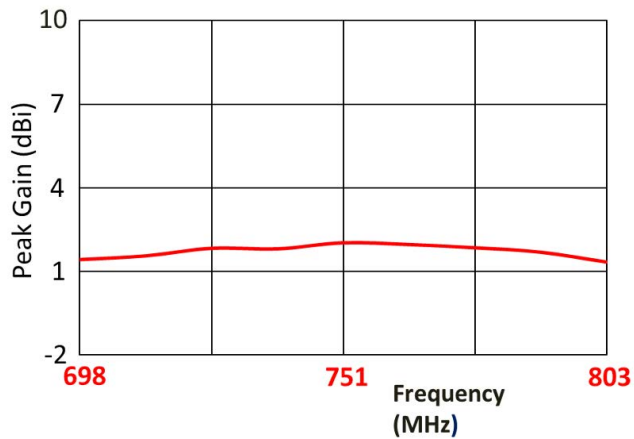
### VSWR



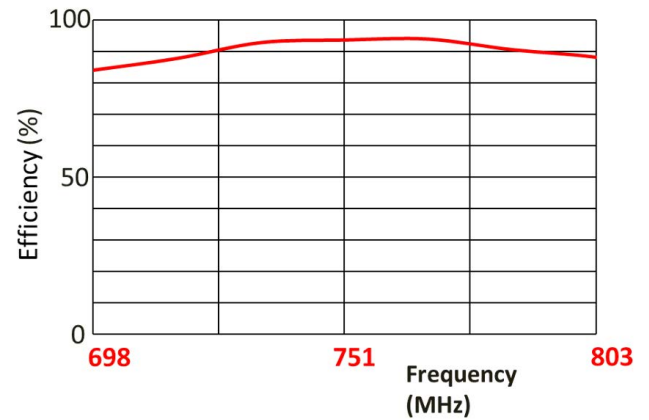
### Return Loss



### Peak Gain



### Efficiency

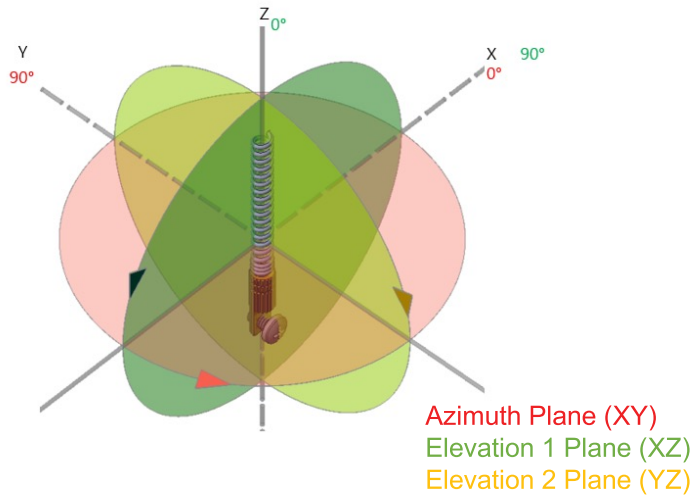


Data measured in free space and on reference ground plane of 41 x 90 x 1.6 mm ground plane condition, application data might vary.

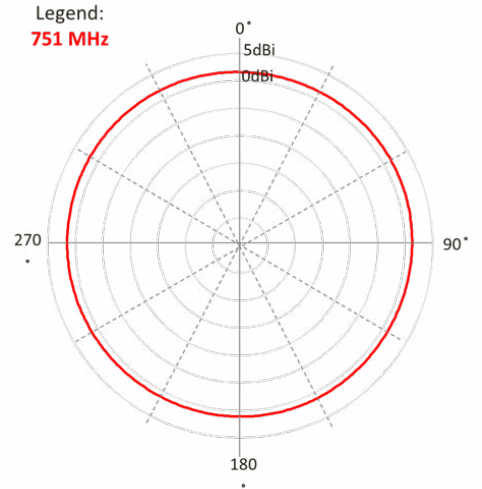
## RADIATION PATTERN

(shown as L000575-80 : Ground size : 41 x 90 x 1.6 mm).

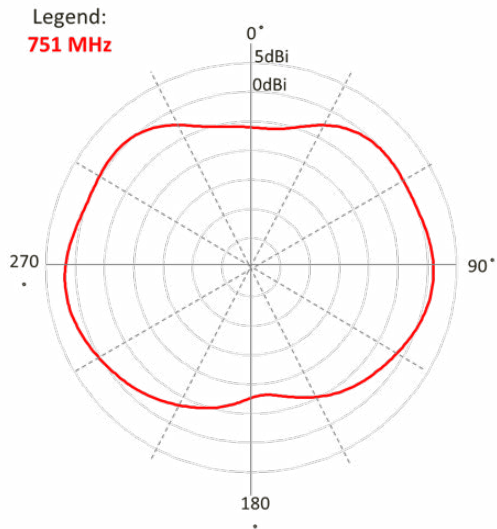
**Test setup**



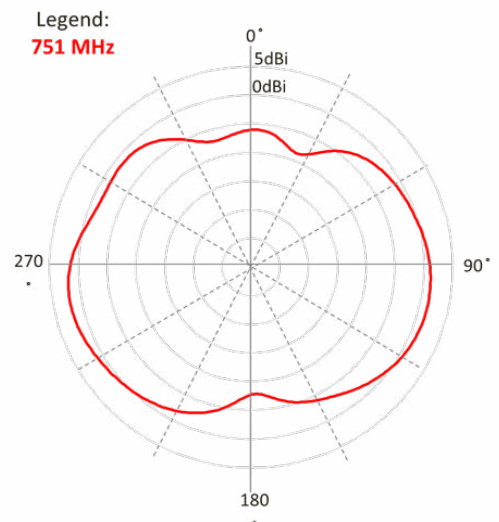
**Azimuth (XY)**



**Elevation 1(XZ)**



**Elevation 2(YZ)**

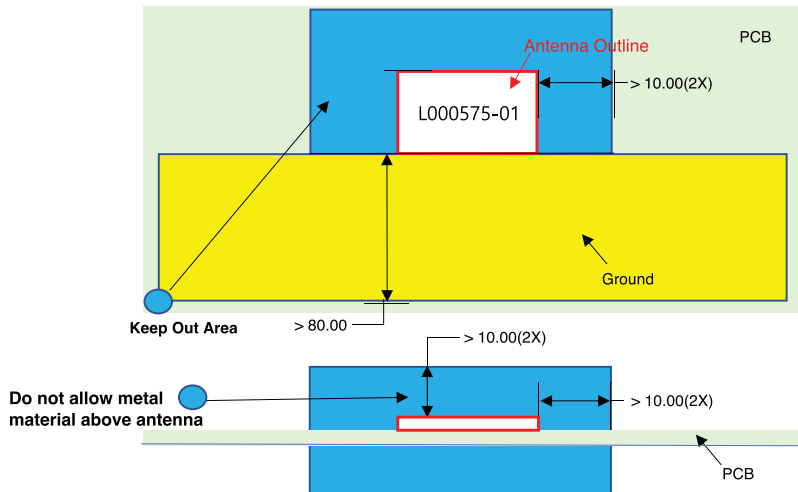


Data measured in free space and on reference ground plane of 41 x 90 x 1.6 mm ground plane condition, application data might vary.

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### KEEP OUT AREA



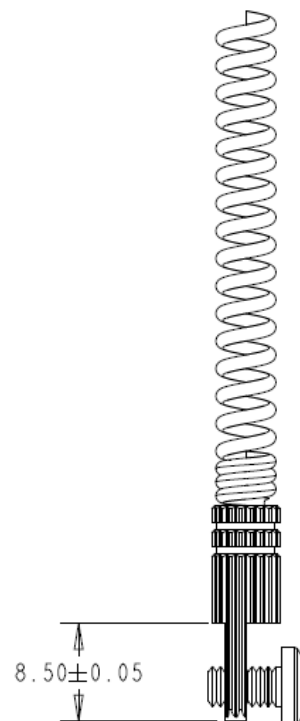
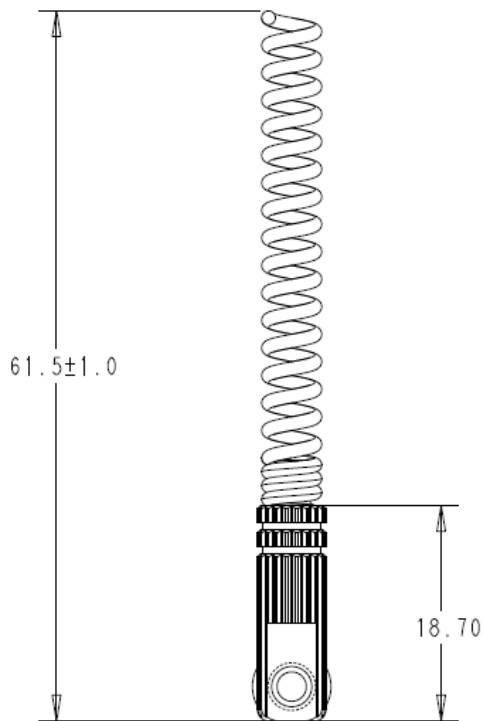
### NOTES

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

Dimension: mm

Diagram is not to scale

### DIMENSIONS



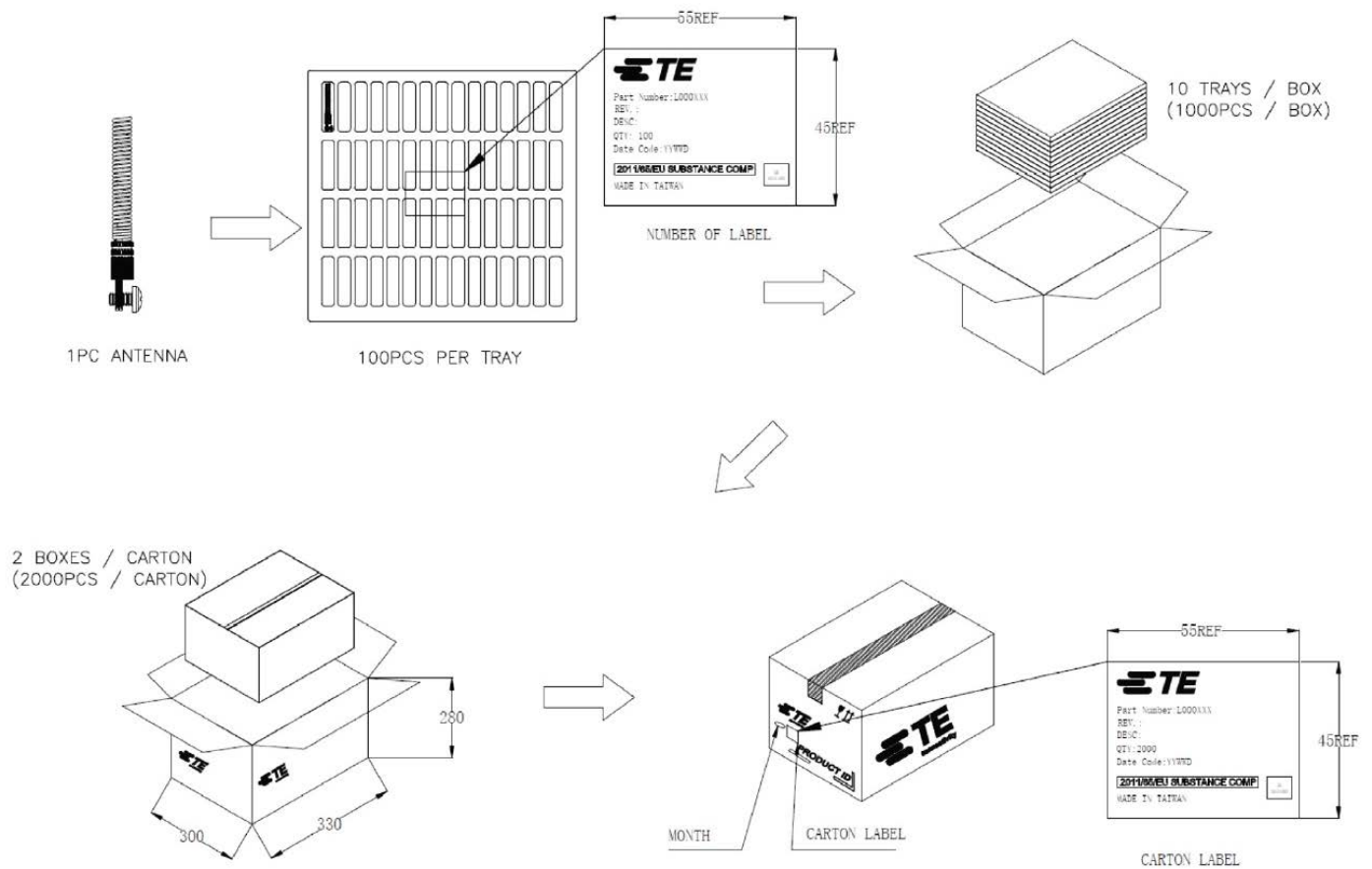
Dimension: mm

Diagram is not to scale

## LTE BAND 28 COMPACT HELICAL SCREW MOUNT ANTENNA

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### PACKAGING



### TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
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