



LTE BAND 28 COMPACT HELICAL SCREW MOUNT WITH SHELL ANTENNA

PART NUMBER: L000939-01

L000939-01 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 L000939-01 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 with shell 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	< 3.4:1
Average Efficiency	59%
Peak Gain	1.0 dBi
Average Gain	-2.3 dBi
Feed Point Impedance	50 ohms
Polarization	Linear polarization

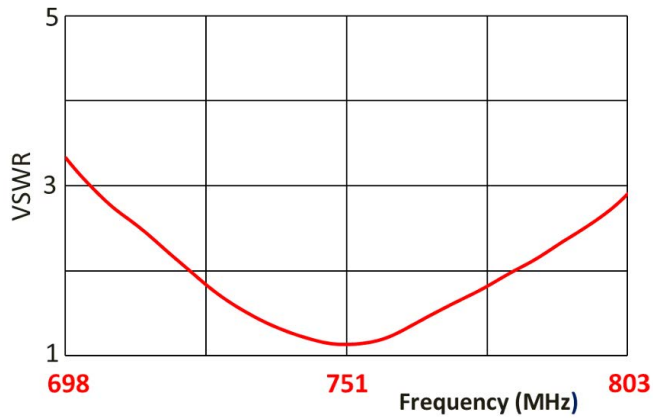
MECHANICAL SPECIFICATIONS

Size (L x W x H) without screw	50.3 mm x Φ 10.5 mm (L / D \pm 0.3)
Weight	< 10 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 / ABS
Hazardous Materials	N/A

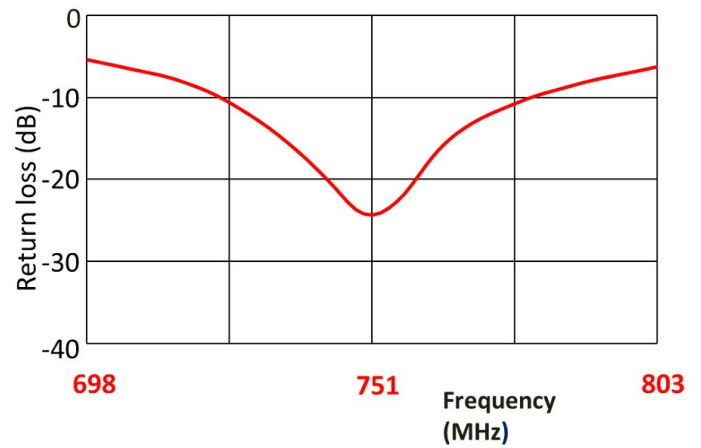
RF DATA

(shown as L000939-01 : Ground size : 41 x 90 x 1.6 mm).

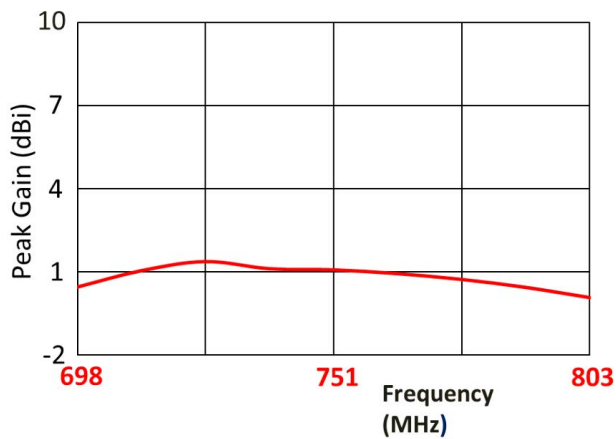
VSWR



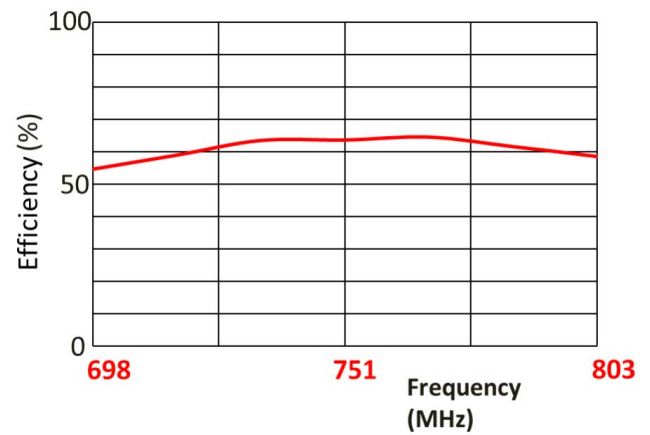
Return Loss



Peak Gain



Efficiency

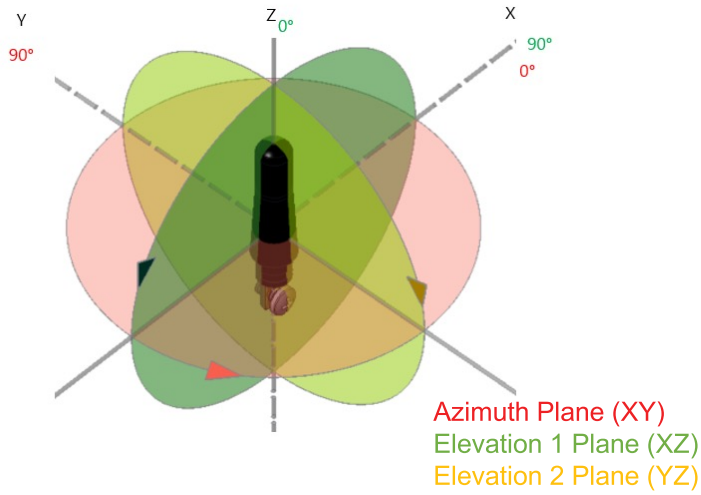


Data measured in free space and on reference ground plane of 41 x 90 x 1.6 mm ground plane condition, application data might vary.

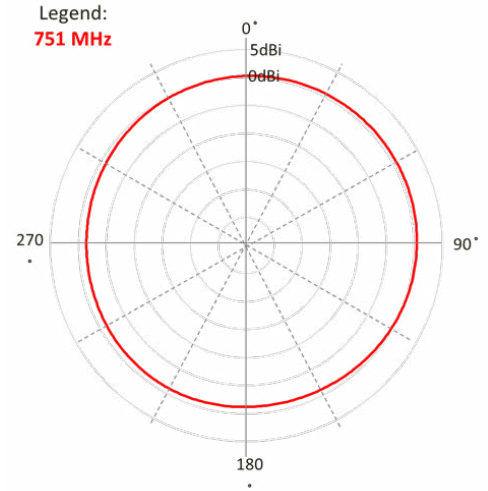
RADIATION PATTERN

(shown as L000XXX-80 : Ground size : 41 x 90 x 1.6 mm).

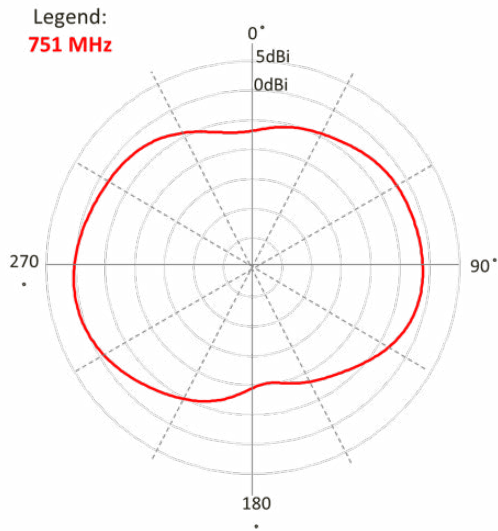
Test setup



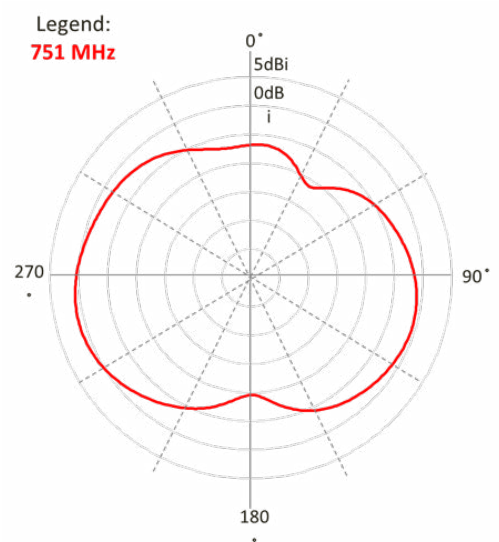
Azimuth (XY)



Elevation 1(XZ)



Elevation 2(YZ)

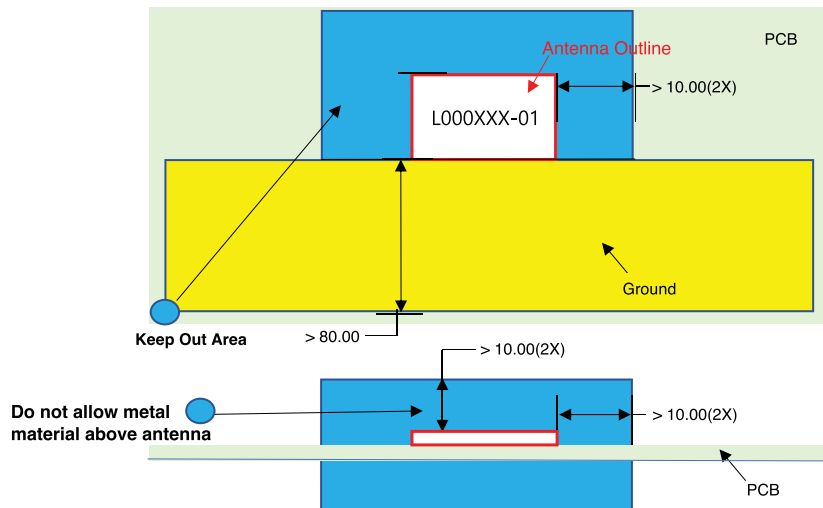


Data measured in free space and on reference ground plane of 41 x 90 x 1.6 mm ground plane condition, application data might vary.

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Standard Antenna Solutions

KEEP OUT AREA



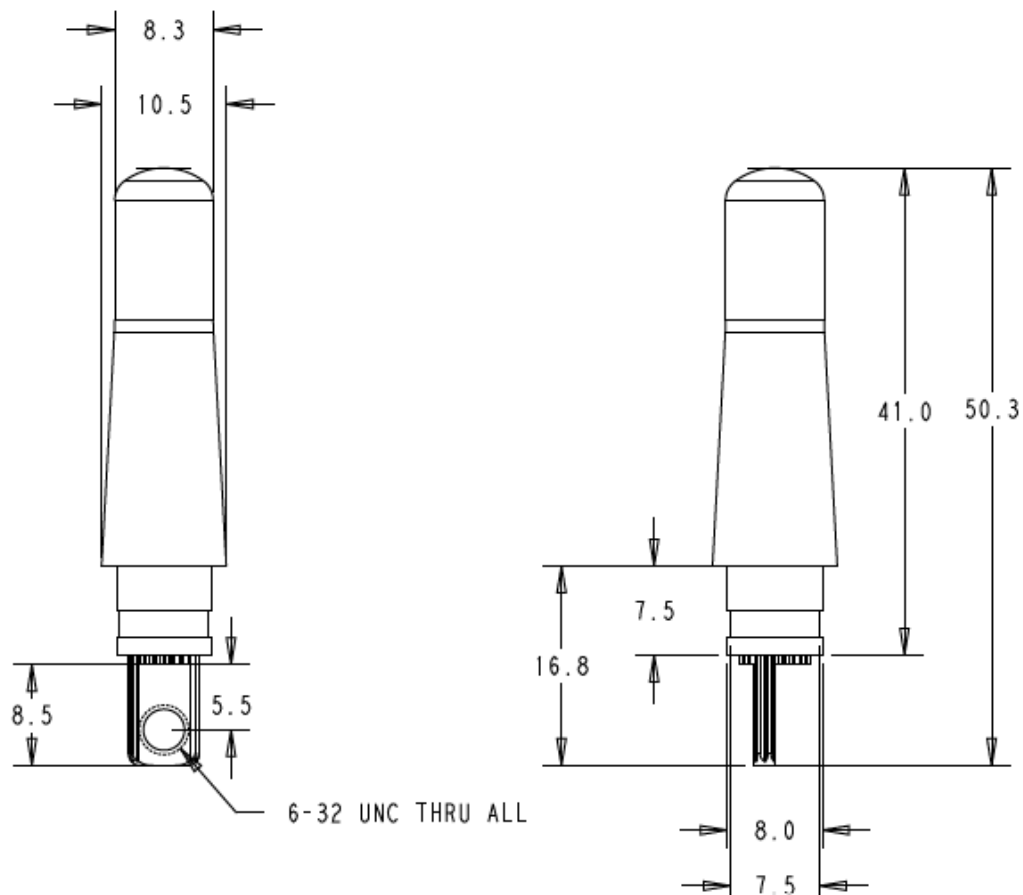
NOTES

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



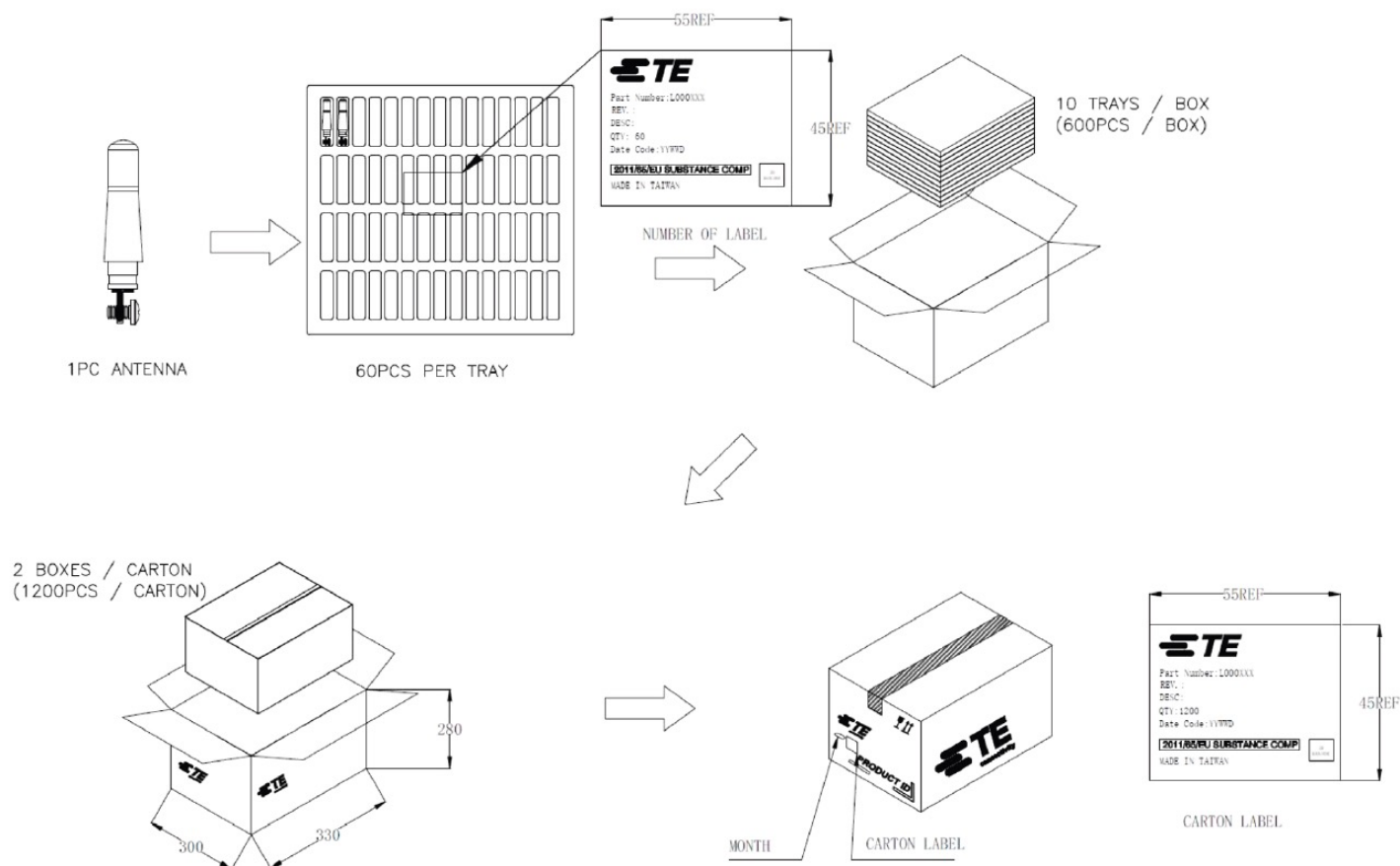
Dimension: mm

Diagram is not to scale

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Standard Antenna Solutions

PACKAGING



TE TECHNICAL SUPPORT CENTER

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