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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

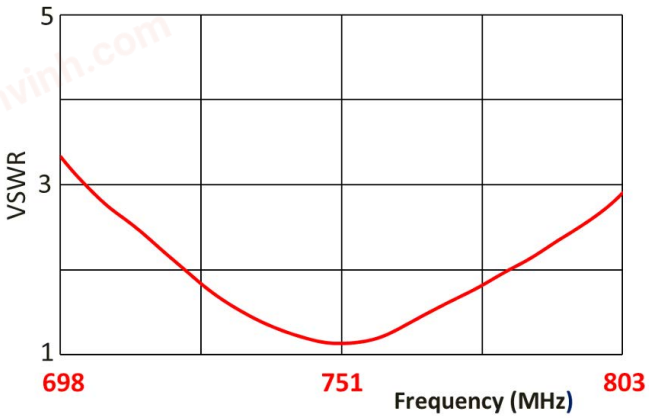
Size (L x W x H) without screw	50.3 mm x Φ 10.5 mm (L / D ± 0.3)
Weight	< 10 g
Mounting	Screw mount 6-32UNC
Mating Connector	N/A
Cable	N/A
Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +85°C
Dielectric Material	Phosphor Bronze/ Brass C3604 / ABS
Hazardous Materials	N/A

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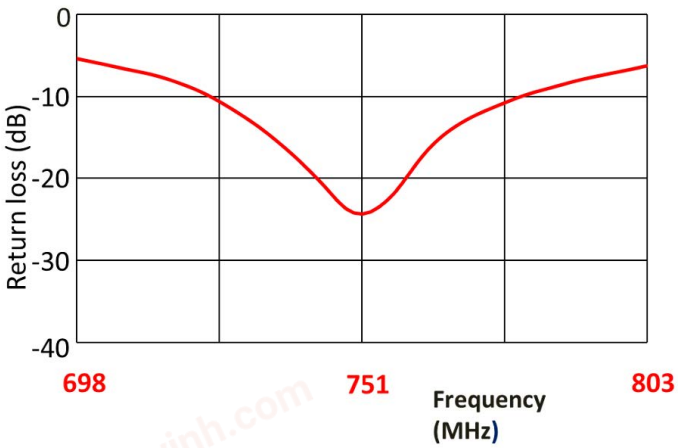
RF DATA

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

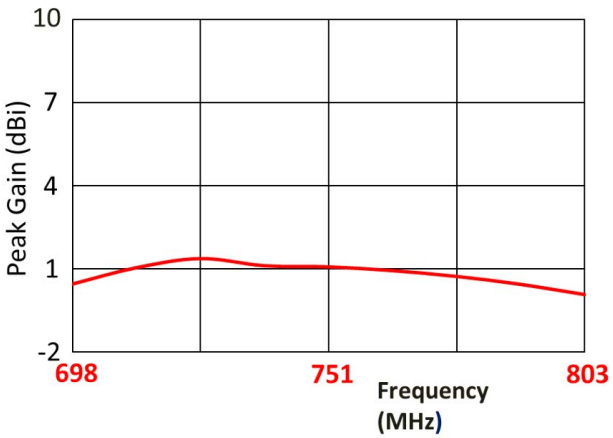
VSWR



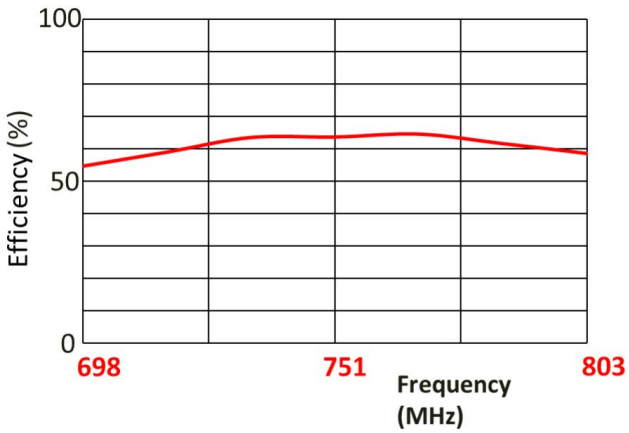
Return Loss



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.

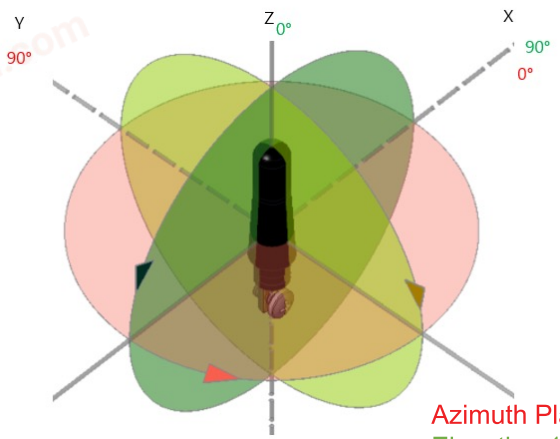
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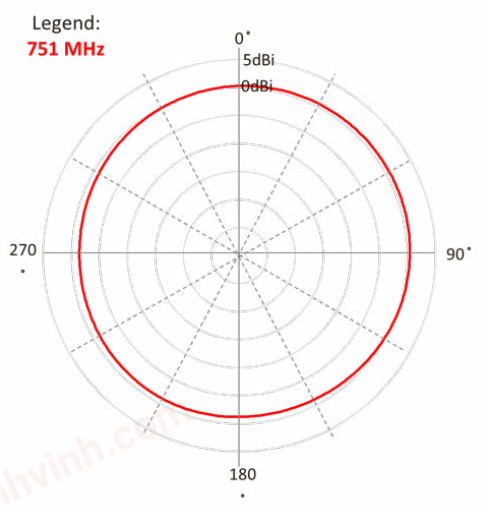
RADIATION PATTERN

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

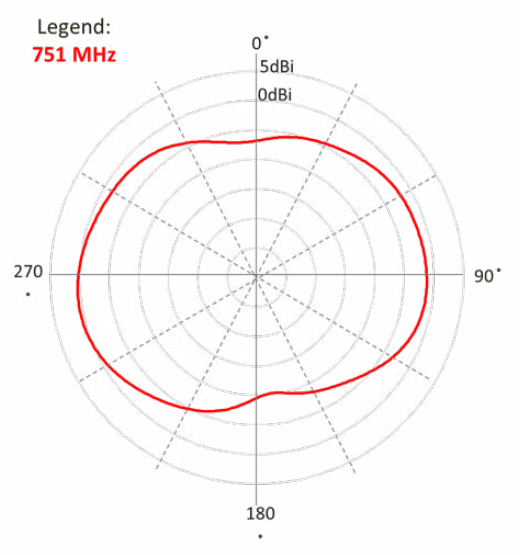
Test setup



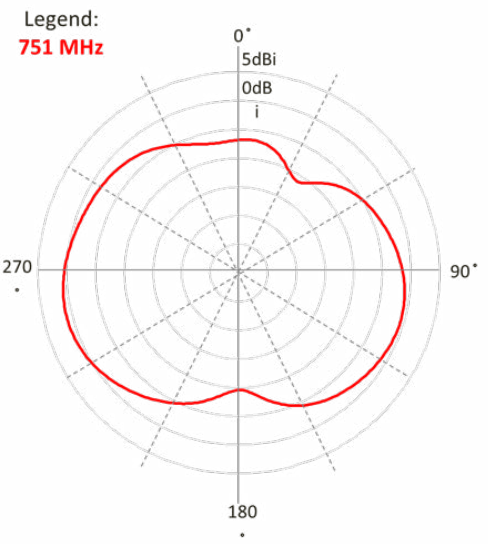
Azimuth (XY)



Elevation 1(XZ)



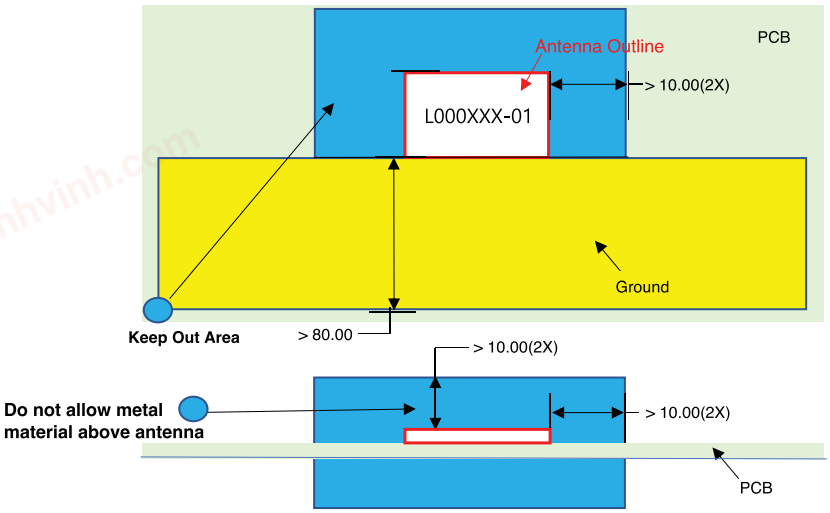
Elevation 2(YZ)



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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KEEP OUT AREA



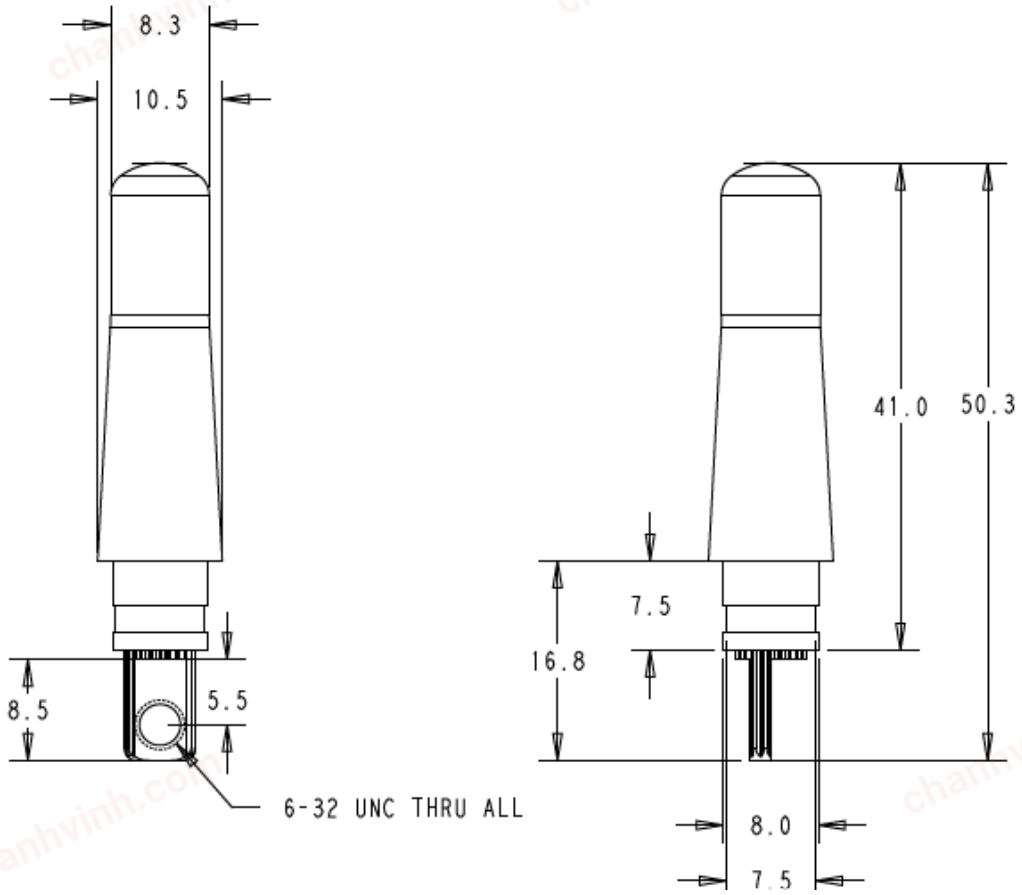
NOTES

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

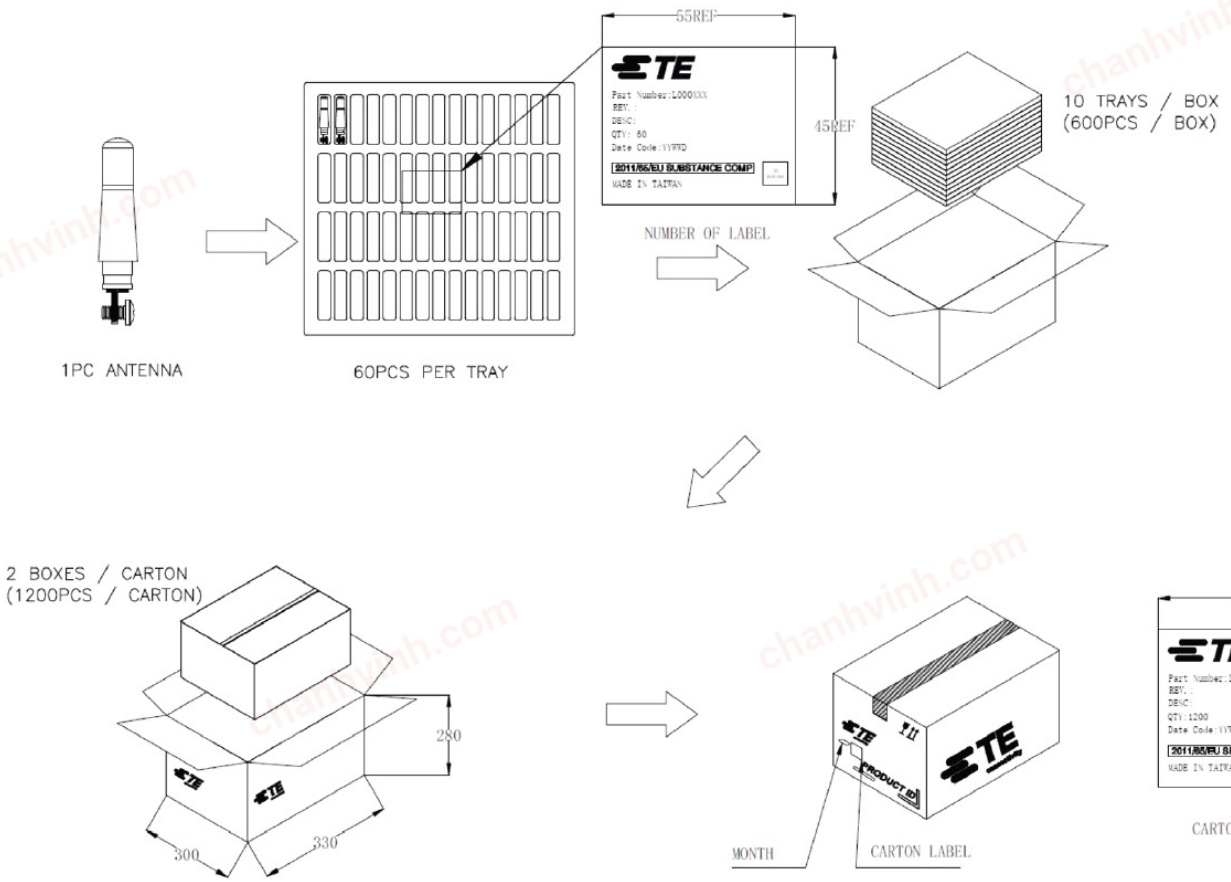
Diagram is not to scale

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PACKAGING



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Published 05-24