



# 5G FR1, LTE GLOBAL WORLD BAND COMBINATION ANTENNA

Part Numbers:

L000810-01

L000810-80

## FEATURES & BENEFITS

- Omnidirectional coverage
- High efficiency, low profile, on board SMD PCB antenna
- Wideband coverage for CBRS and 5G Midband without matching circuit
- Evaluation board available for testing (L000810-80)
- Bandwidth and performance dependent on ground plane size/ design
- Suggested minimum ground plane length from antenna feed is 150mm
- Available in tape & reel packaging for automatic mounting
- RoHS 2.0 compliant, Road vehicle compliant, REACH compliant

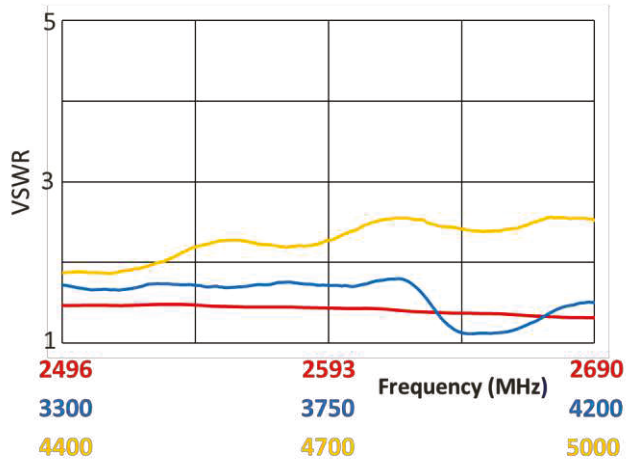
## SPECIFICATIONS

| Frequency Range (MHz)   | 2484-2690                                                                      | 3300-4200 | 4400-5000 |
|-------------------------|--------------------------------------------------------------------------------|-----------|-----------|
| VSWR                    | < 1.5:1                                                                        | < 1.8:1   | < 2.6:1   |
| Average Efficiency      | 76.05%                                                                         | 69.36%    | 59.43%    |
| Peak Gain               | 4.2dBi                                                                         | 3.3dBi    | 2.2dBi    |
| Average Gain            | -1.21dBi                                                                       | -1.62dBi  | -2.29dBi  |
| Power Handling          | 5 Watt cw                                                                      |           |           |
| Feed Point Impedance    | 50 ohms unbalanced                                                             |           |           |
| Polarization            | Linear                                                                         |           |           |
| Size                    | 20.0 mm x 10.0 mm x 1.61 mm ( $\pm$ 0.13mm)                                    |           |           |
| Weight                  | < 1.5 g                                                                        |           |           |
| Mounting                | Surface mount                                                                  |           |           |
| Operating Temperature   | -40 to +85°C                                                                   |           |           |
| Storage Temperature     | -40 to +85°C                                                                   |           |           |
| Packaging Specification | Bag & Box / Tape & Reel                                                        |           |           |
| Hazardous Materials     | A certificate of conformance is available from the product page on TE website. |           |           |

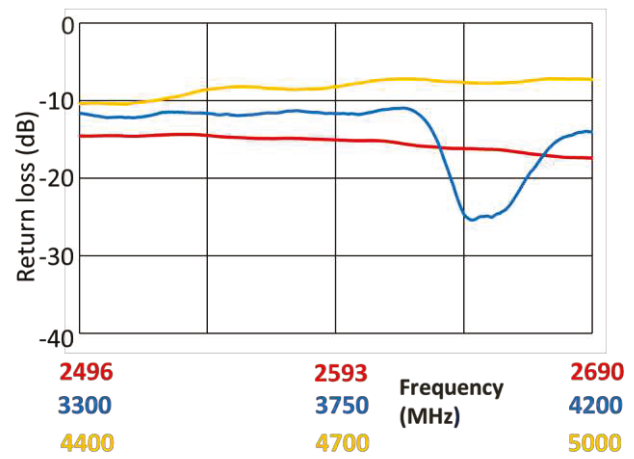
Data measured in free space and on reference ground plane of 150mm ground length and 55mm width, application data might vary.

### RF DATA (SHOWN AS L000810: OTHERS CAN VARY WITH DIFFERENT GROUND LENGTHS.)

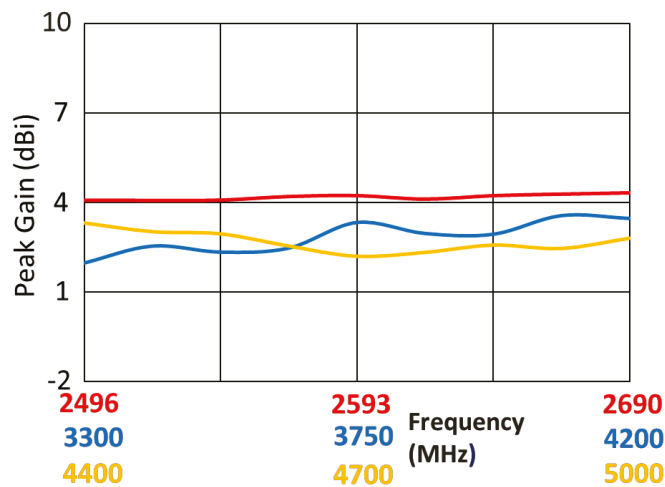
#### VSWR



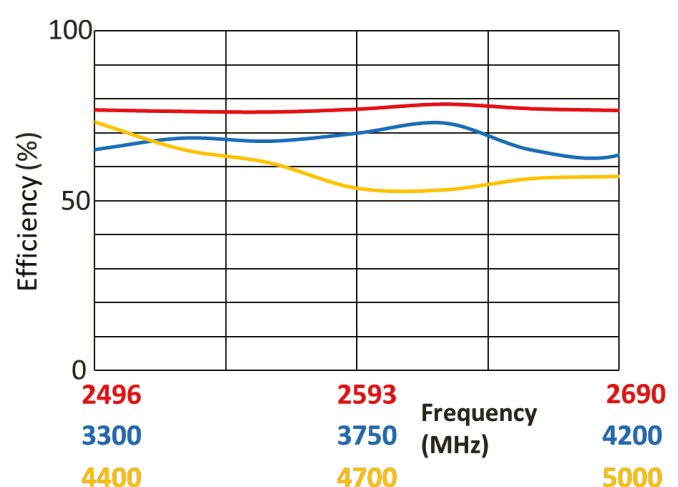
#### Return Loss



#### Peak Gain



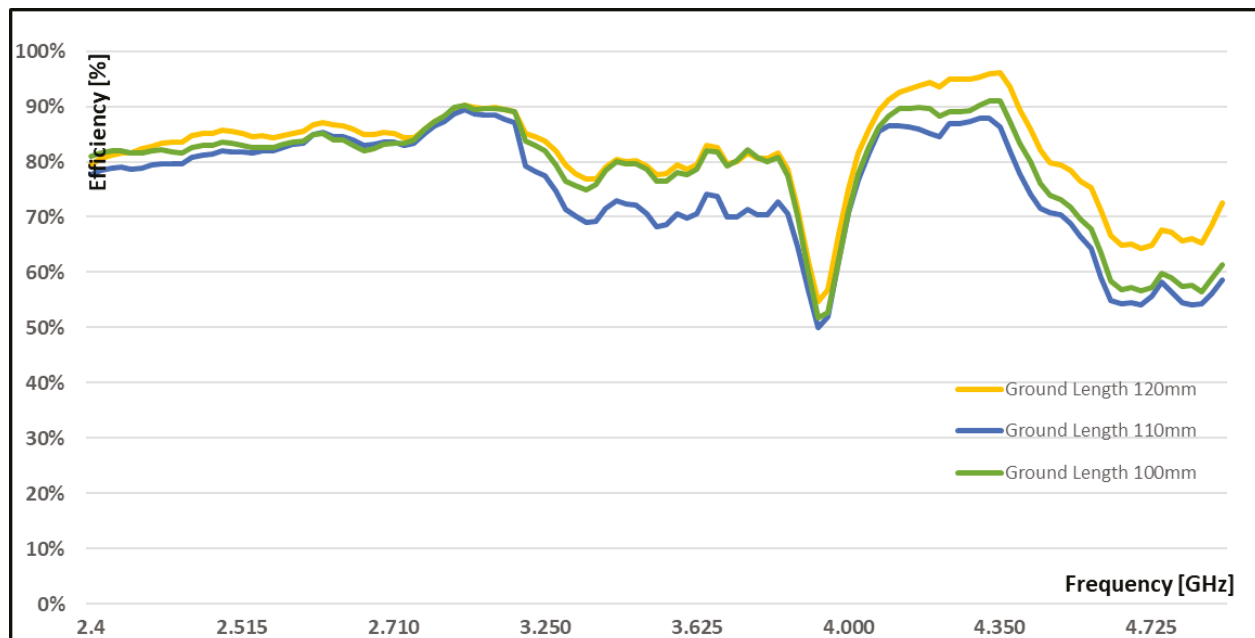
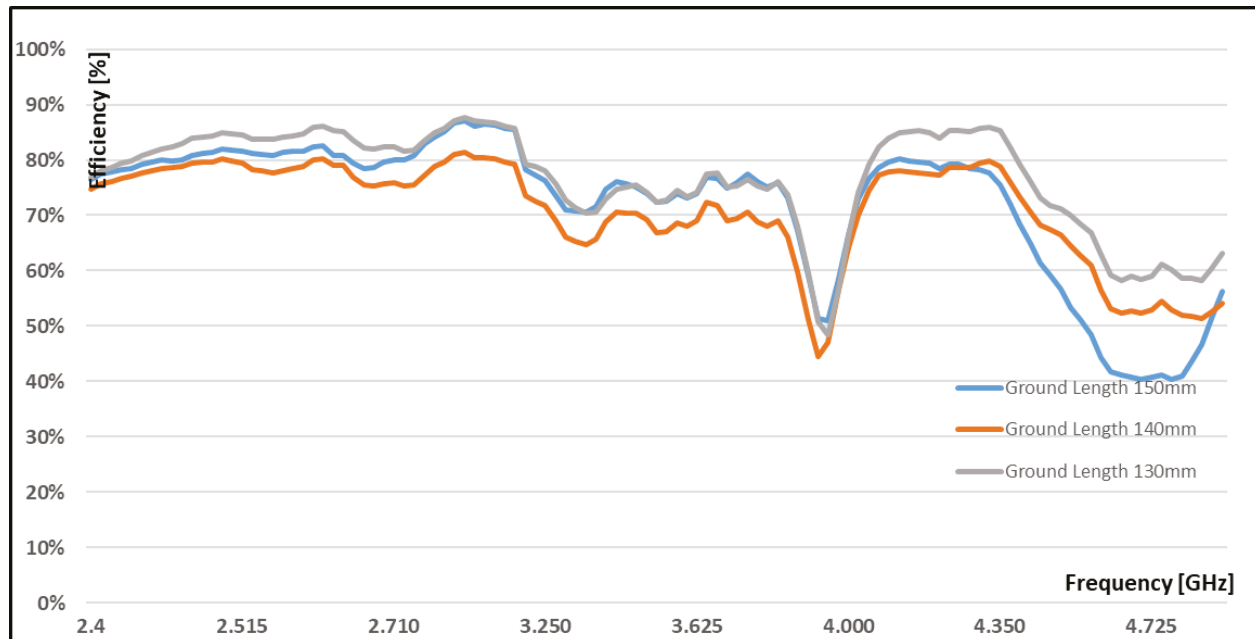
#### Efficiency



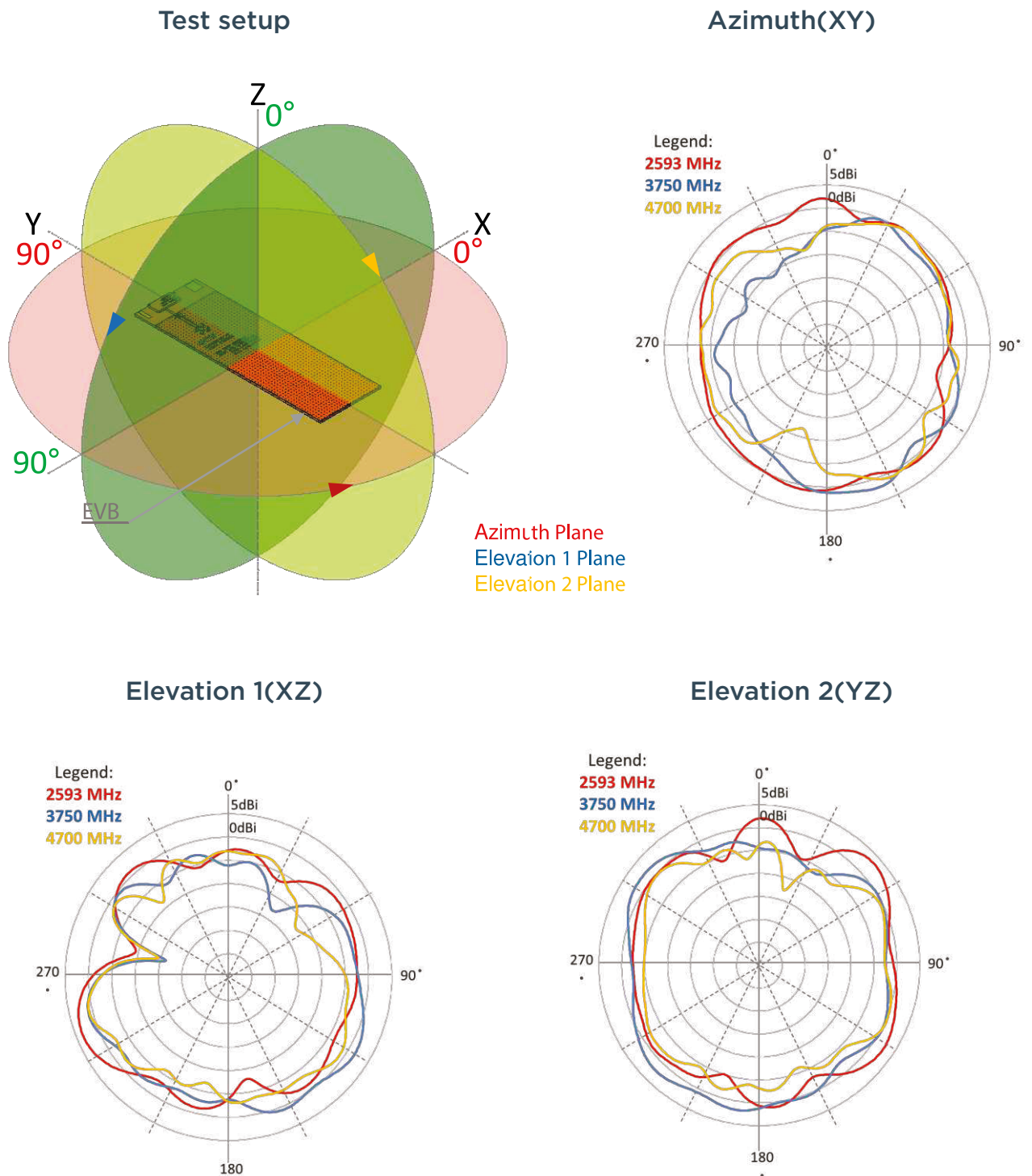
Data measured in free space and on reference ground plane of 150mm ground length and 55mm width, application data might vary.

### RF DATA (SHOWN AS L000810: OTHERS CAN VARY WITH DIFFERENT GROUND LENGTHS.)

Efficiency vs. Ground Length size



## RADIATION PATTERN



Data measured in free space and on reference ground plane of 150mm ground length and 55mm width, application data might vary.

Dimensions: mm

Diagram is not to scale

Diagram is not to scale

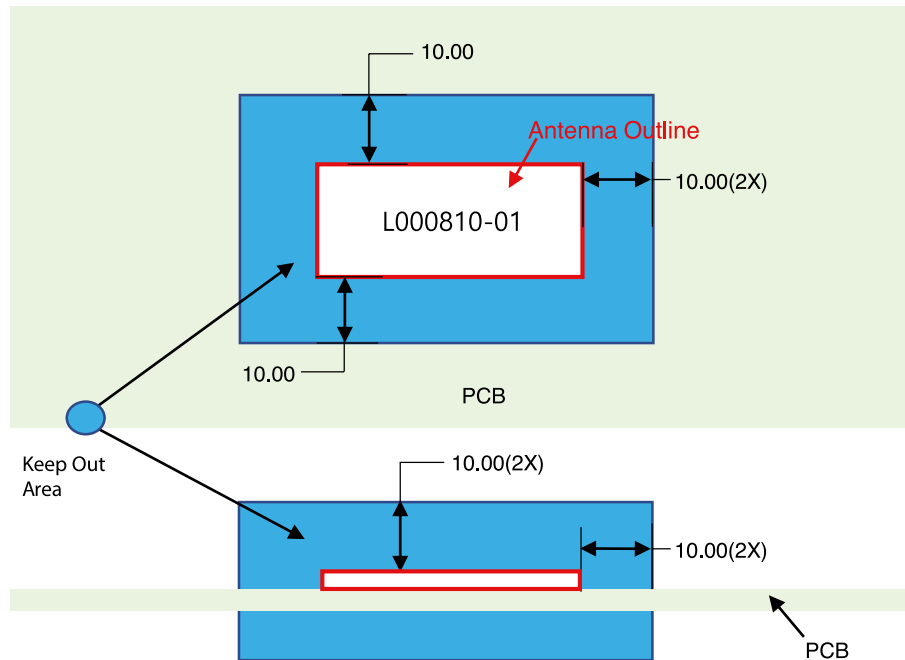
Diagram is not to scale

Diagram is not to scale

Diagram is not to scale

Diagram is not to scale

### KEEP OUT AREA



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

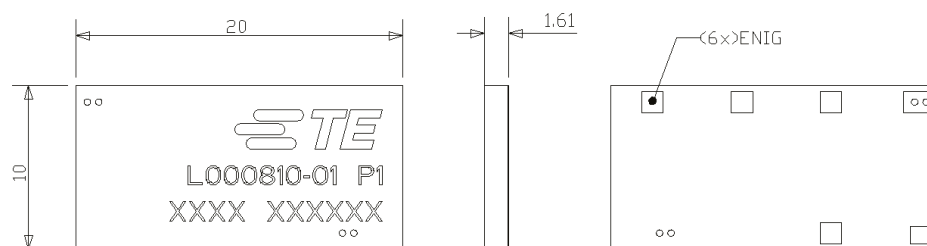
2. Area in blue above indicates Keep Out Area.

3. For more information please call TE.

Dimensions: mm

Diagram is not to scale

### DIMENSIONS

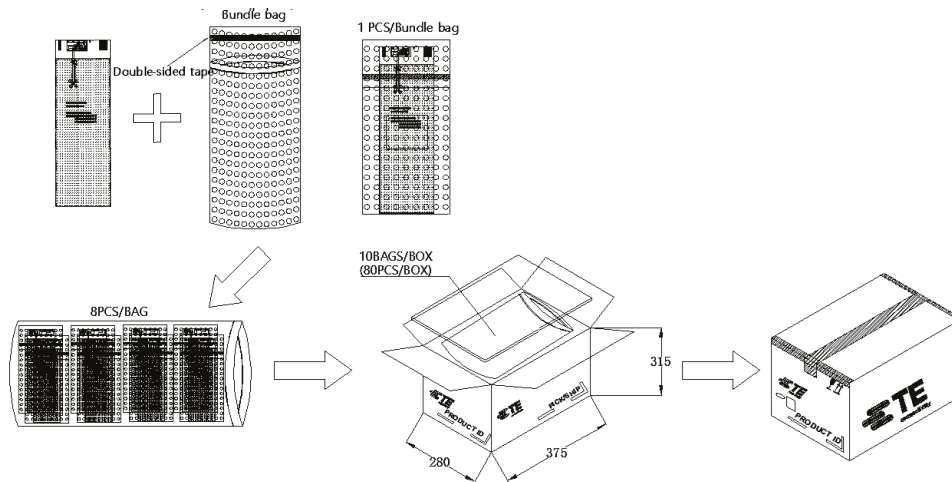


Dimensions: mm

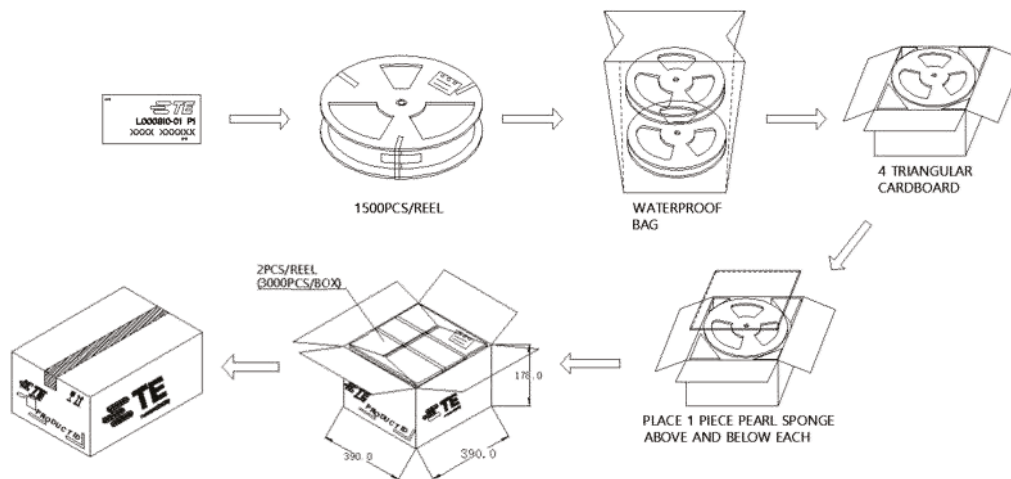
Diagram is not to scale

### PACKAGING

#### L000810-80 (BULK)



#### L000810-01 (TAPE & REEL)



## 5G FR1, LTE GLOBAL WORLD BAND COMBINATION ANTENNA

Standard Antenna Solutions

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### TE TECHNICAL SUPPORT CENTER

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Published 02-24