

# 3500 – 8500 MHz UWB EMBEDDED CHIP ANTENNA

Part Numbers: L000801-01  
L000801-80

## FEATURES & BENEFITS

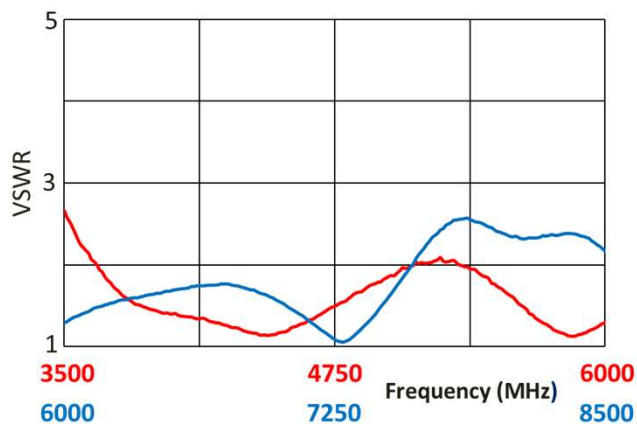
- UWB channel 1,2,3,4,5,6,7,8,9
- On board SMD PCB antenna
- Bandwidth and performance dependent on ground plane size/ design suggested minimum ground plane length from antenna feed is 64mm

## SPECIFICATIONS

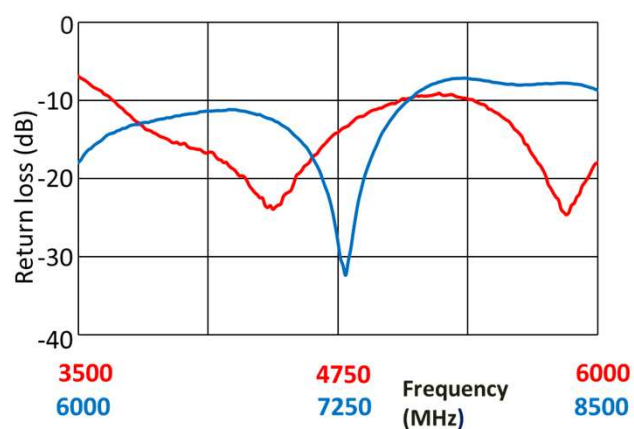
Frequency Range (MHz)	3500-6000	6000-8500
VSWR	< 3.5:1	< 3.5:1
Average Efficiency	56 %	41 %
Peak Gain	1.8 dBi	1.9 dBi
Average Gain	-2.6 dBi	-4.0 dBi
Power Handling	10 Watt cw	
Feed Point Impedance	50 ohms	
Polarization	Linear	
Size (L x W x H)	8.0 mm x 6.0 mm x 0.5 mm (L/W ± 0.3mm ; H ± 0.15mm)	
Weight	< 1.5 g	
Mounting	Surface mount	
Operating Temperature	-40 to +125°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 on reference ground plane of 64 mm ground length and 28 mm width, application data might vary.		

## RF DATA (Shown as L000801-1 : Others can vary with different ground lengths.)

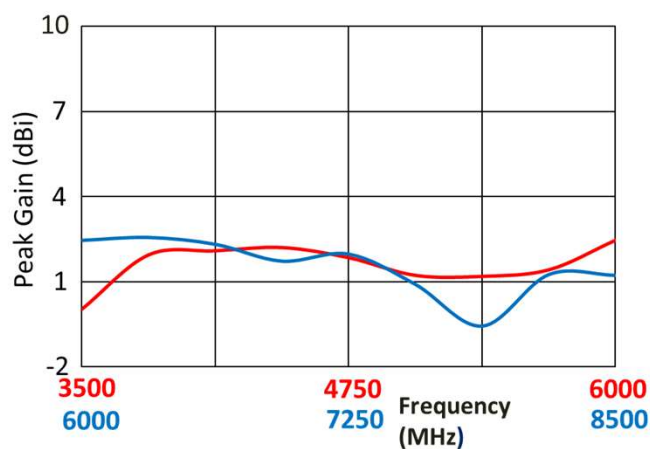
VSWR



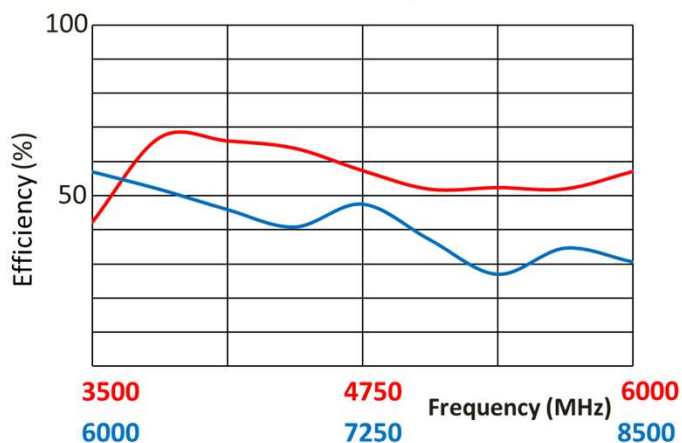
Return Loss



Peak Gain



Efficiency

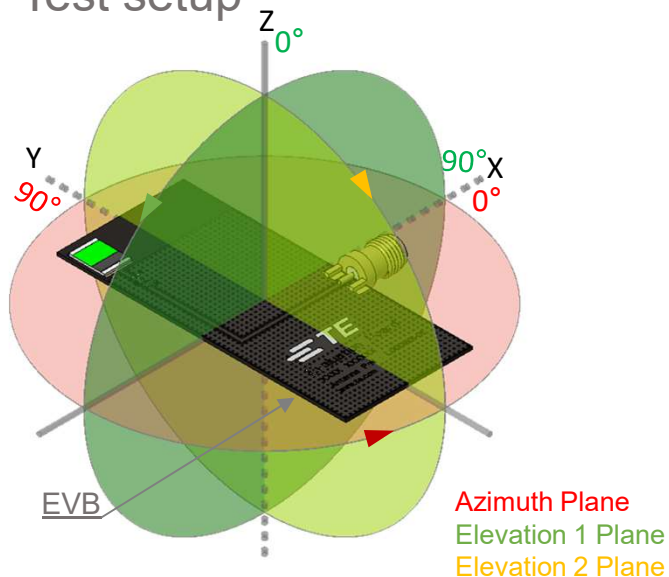


Data measured on reference ground plane of 64mm ground length and 28mm width, application data might vary.

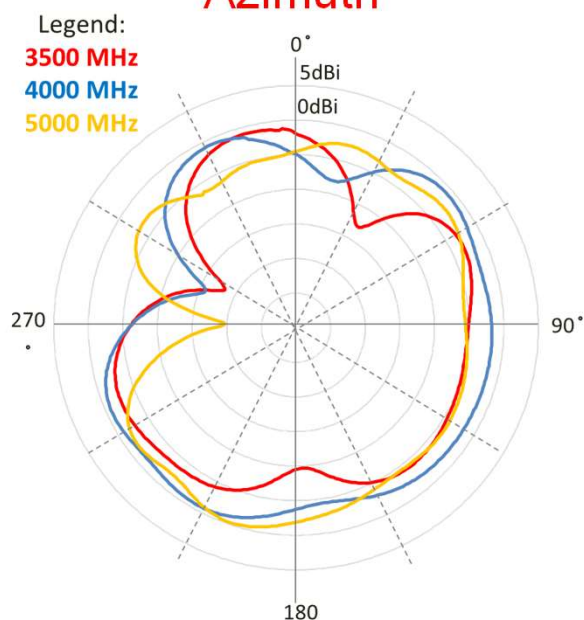
## RADIATION PATTERN

(Shown as L000801-1 : Others can vary with different ground lengths.)

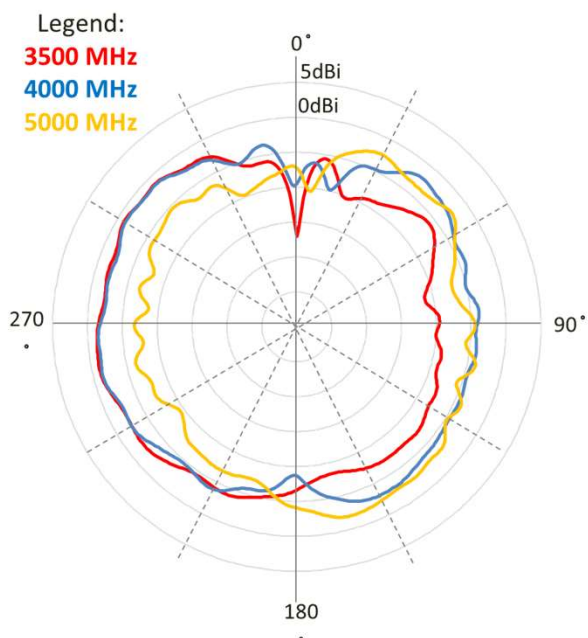
Test setup



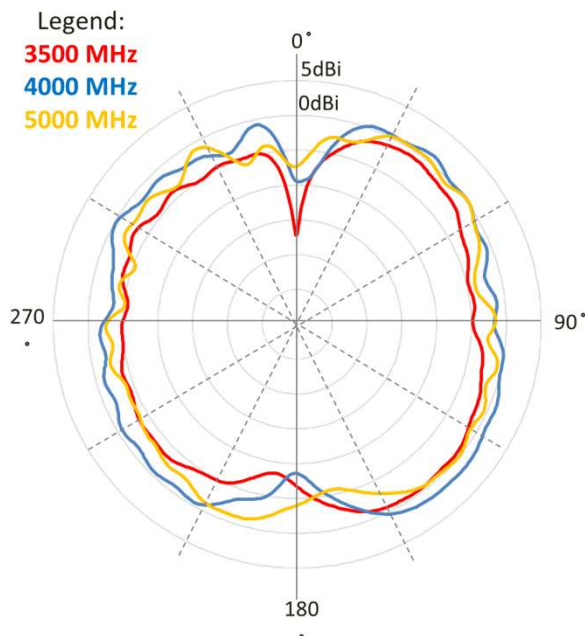
**Azimuth**



**Elevation 1**



**Elevation 2**

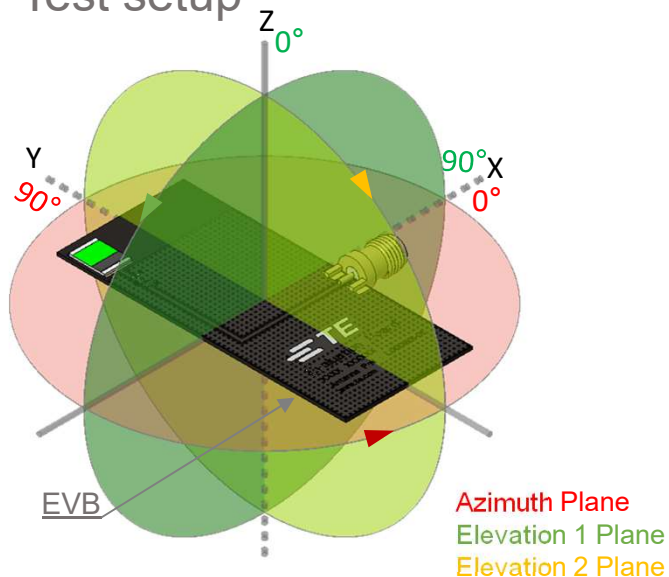


Data measured on reference ground plane of 64mm ground length and 28mm width, application data might vary.

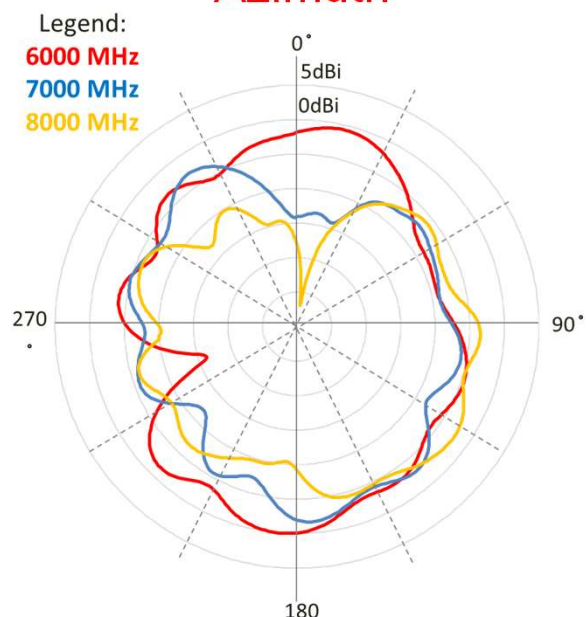
## RADIATION PATTERN

(Shown as L000801-1 : Others can vary with different ground lengths.)

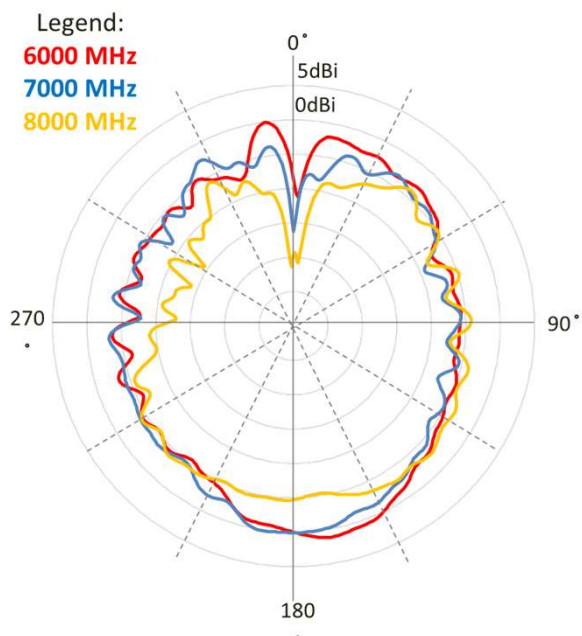
Test setup



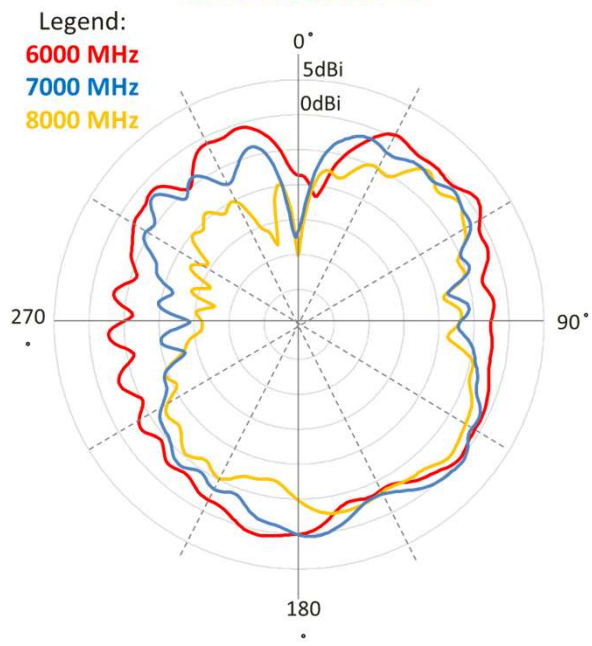
**Azimuth**



**Elevation 1**



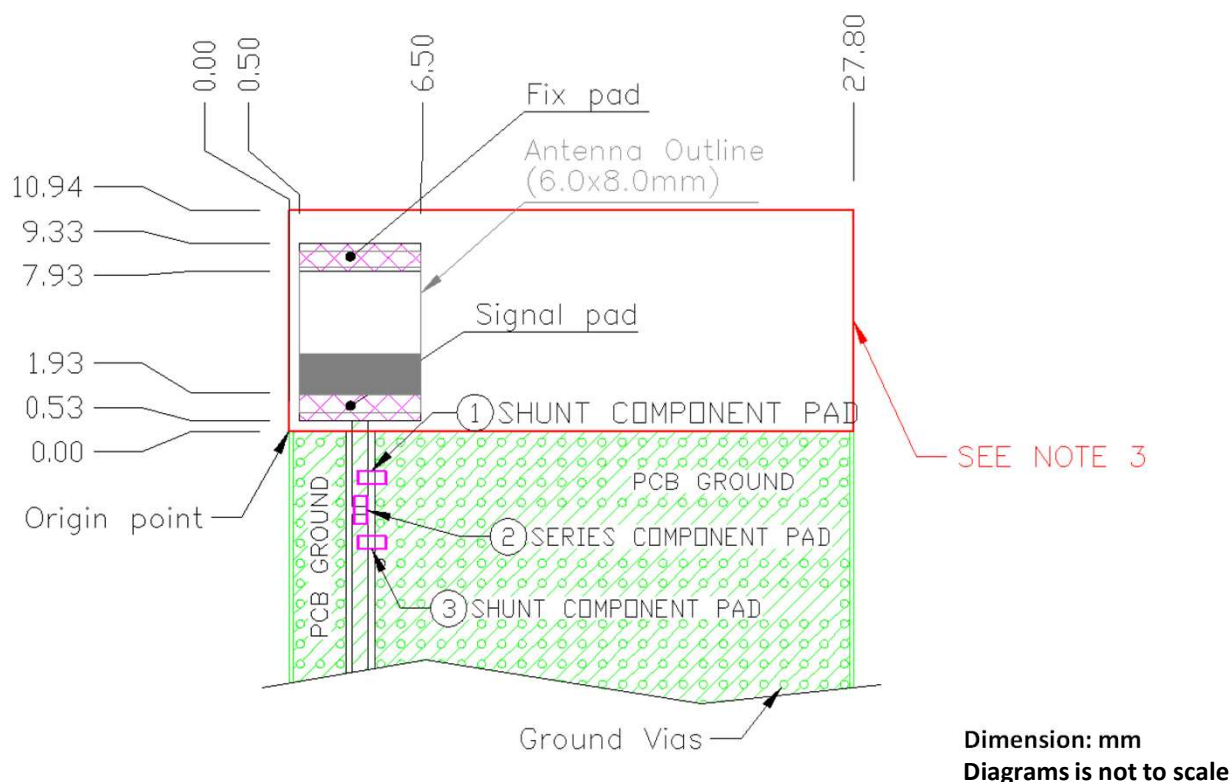
**Elevation 2**



Data measured on reference ground plane of 64mm ground length and 28mm width, application data might vary.

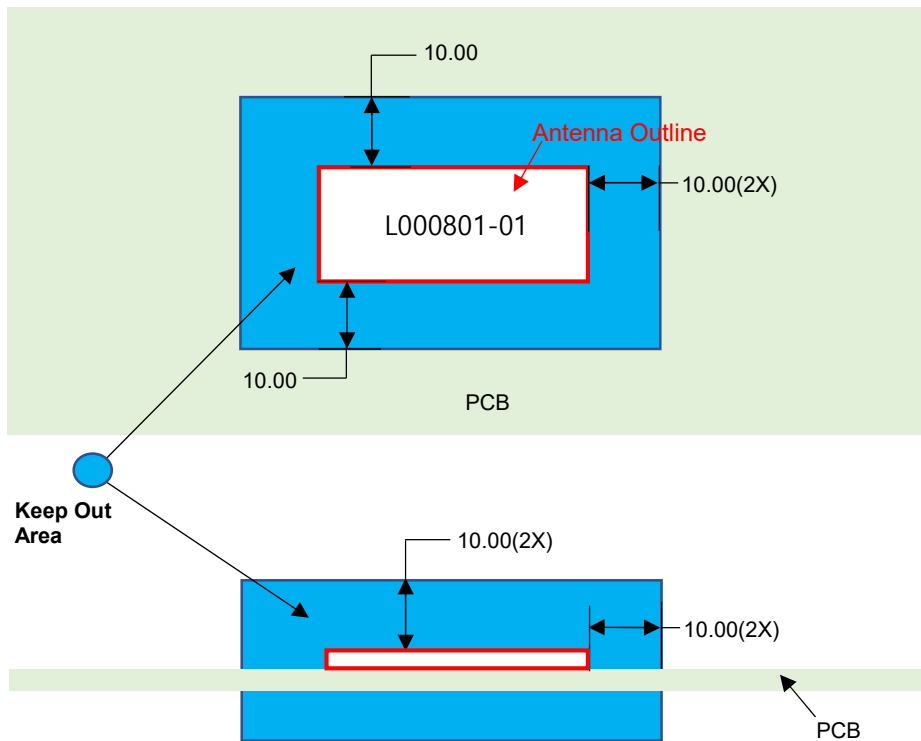
## MOUNTING GUIDE

### Top View



- NOTES:**
1. Antenna must be mounted on the edge of PCB.
  2. NC = Non connection (mechanical mounting pads).
  3. No copper allowed in designated area on all PCB layers –
  4. For more information please call TE.
  5. Measured with below matching circuit condition.  
①NC, ② 0 ohm , ③ 0.2pF .
  6. Reference PCB Dimension(mm) - 28 x 64 x 0.78

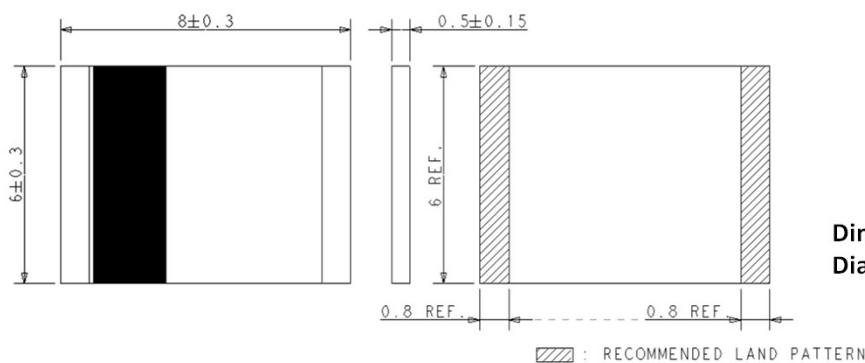
## KEEP OUT AREA



- 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

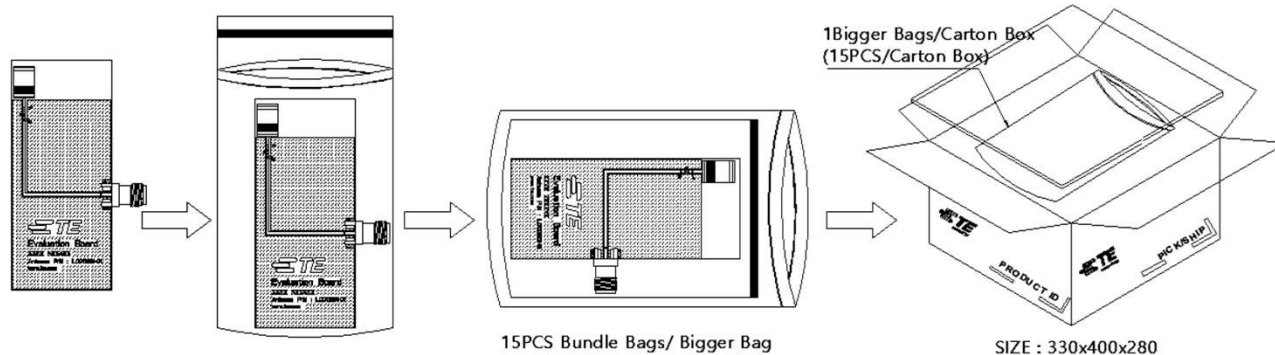


Dimension: mm  
Diagrams is not to scale

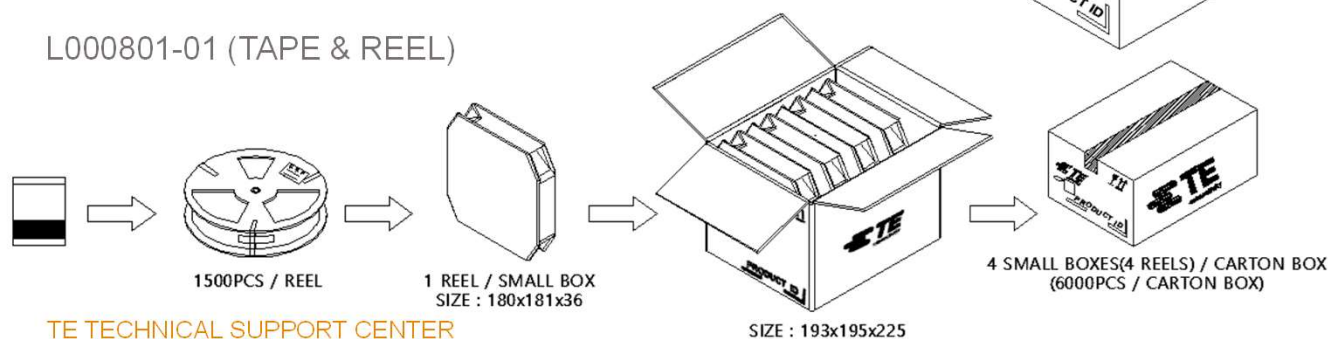


## PACKAGING

### L000801-80 (BULK)



### L000801-01 (TAPE & REEL)



### 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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