

CER CHIP ANT, 868MHz, 5x3x0.5mm

Part Numbers: L000970-01
L000970-80

FEATURES & BENEFITS

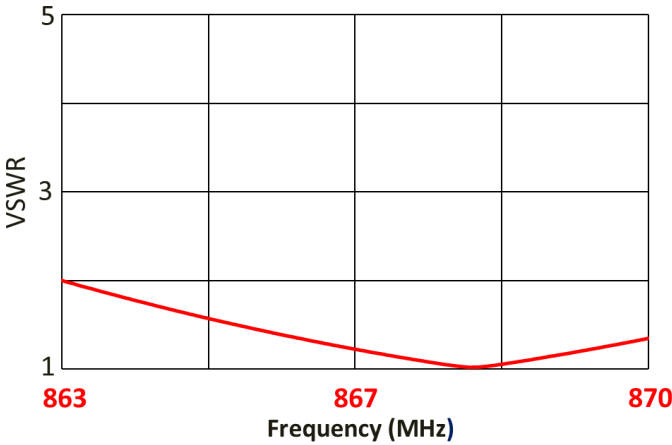
- Omnidirectional coverage
- High efficiency, low profile, Ceramics chip antenna
- Wide Band coverage for LPWAN, LoRa and ISM
- Evaluation board available for testing (L000970-80)
- Bandwidth and performance dependent on ground plane size
- Available in Tape & Reel packaging for automatic mounting
- RoHS 2.0 Compliant, Road Vehicle Compliant, REACH Compliant

SPECIFICATIONS

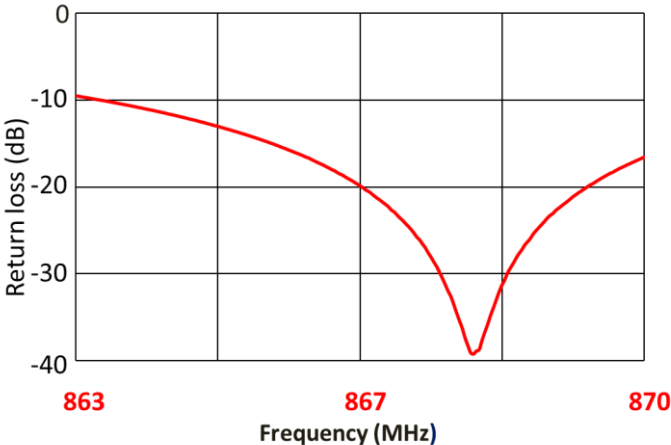
Frequency Range (MHz)	863-970 MHz
VSWR	< 2.5:1
Average Efficiency	47 %
Peak Gain	0.5 dBi
Average Gain	-3.3 dBi
Power Handling	10 Watt cw
Feed Point Impedance	50 ohms
Polarization	Linear
Size	5 mm x 3 mm x 0.5 mm
Weight	< 1 g
Mounting	surface mount
Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +85°C
Hazardous Materials	A certificate of conformance is available from the product page on TE website.

RF DATA

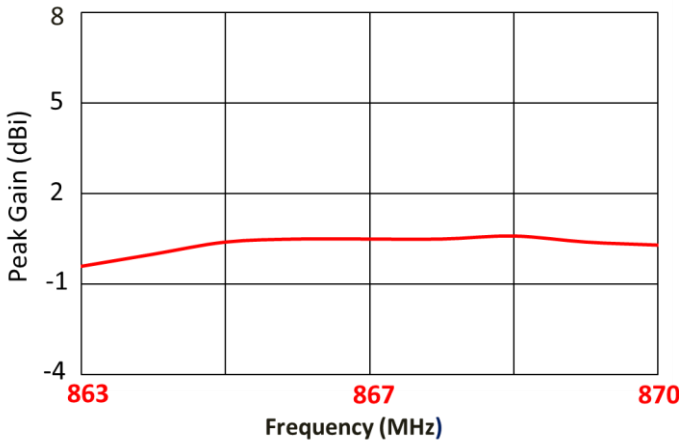
VSWR



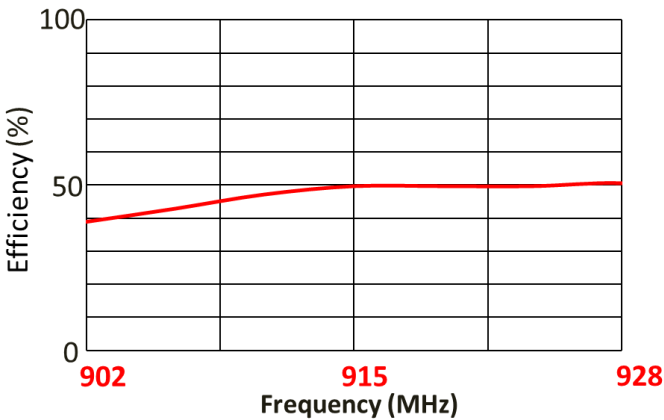
Return Loss



Peak Gain



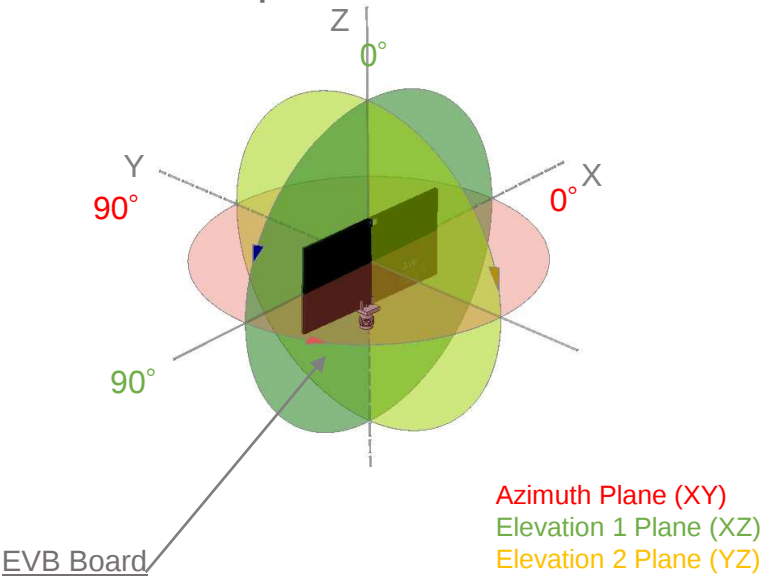
Efficiency



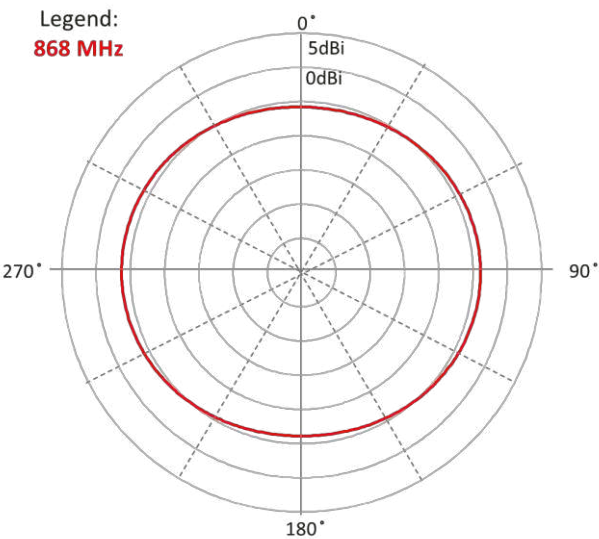
Data measured in free space and on reference ground plane of 40mm ground length and 80mm width, application data might vary.

RADIATION PATTERN

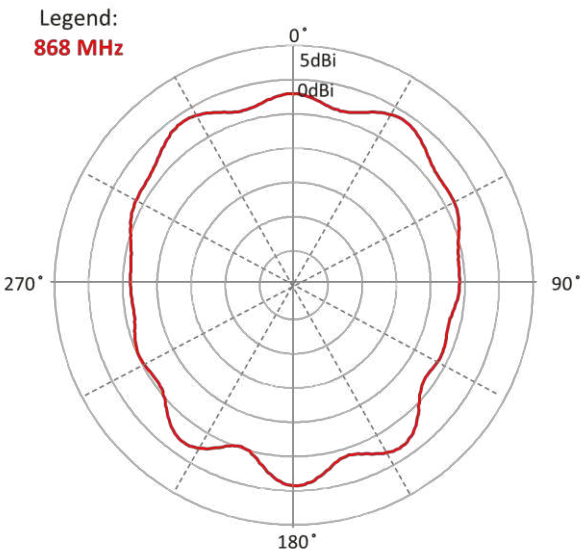
Test setup



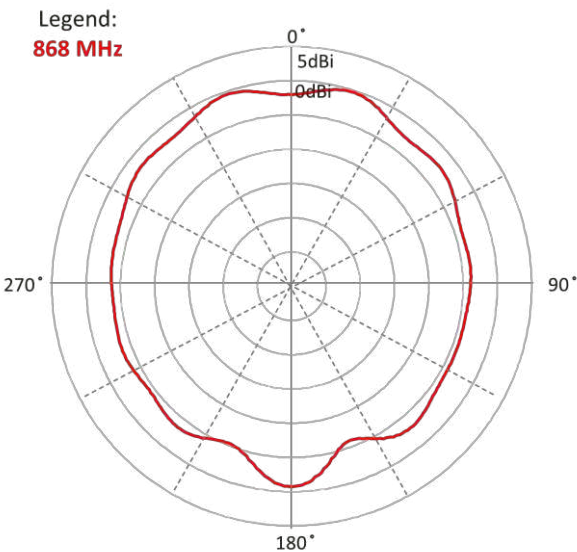
Azimuth(XY)



Elevation 1(XZ)

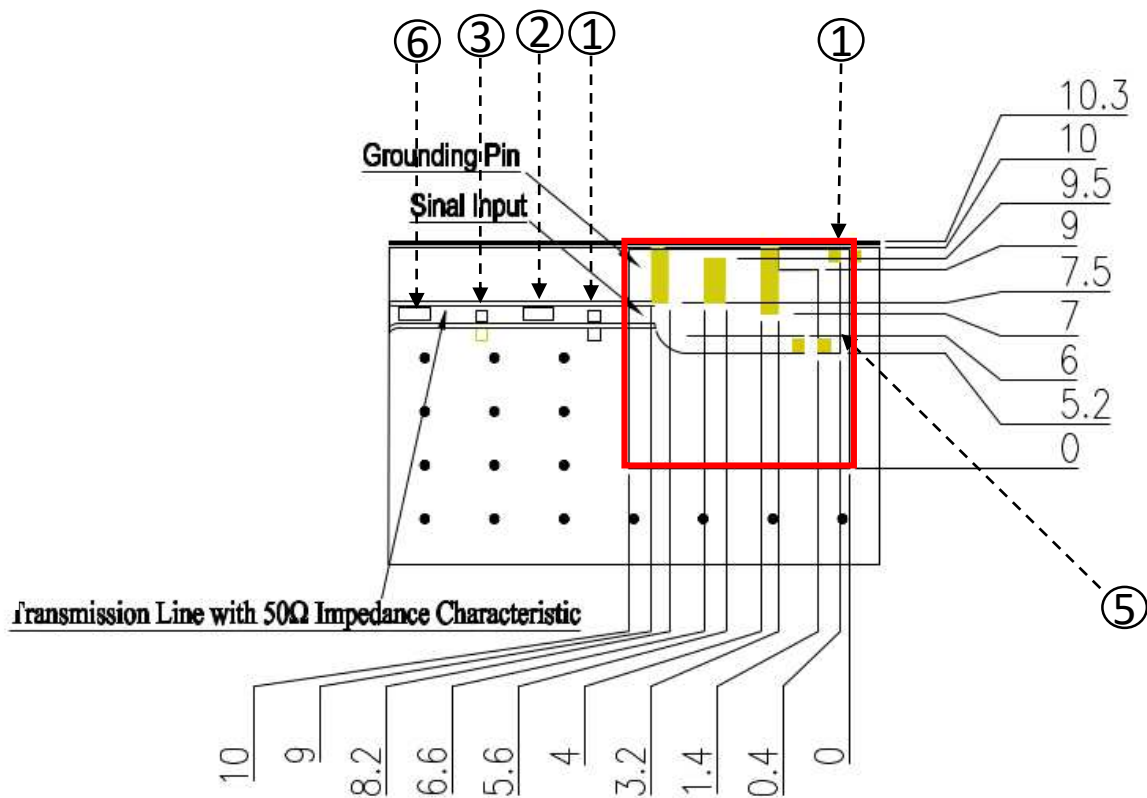


Elevation 2(YZ)



Data measured in free space and on reference ground plane of 40mm ground length and 80mm width, application data might vary.

MOUNTING GUIDE

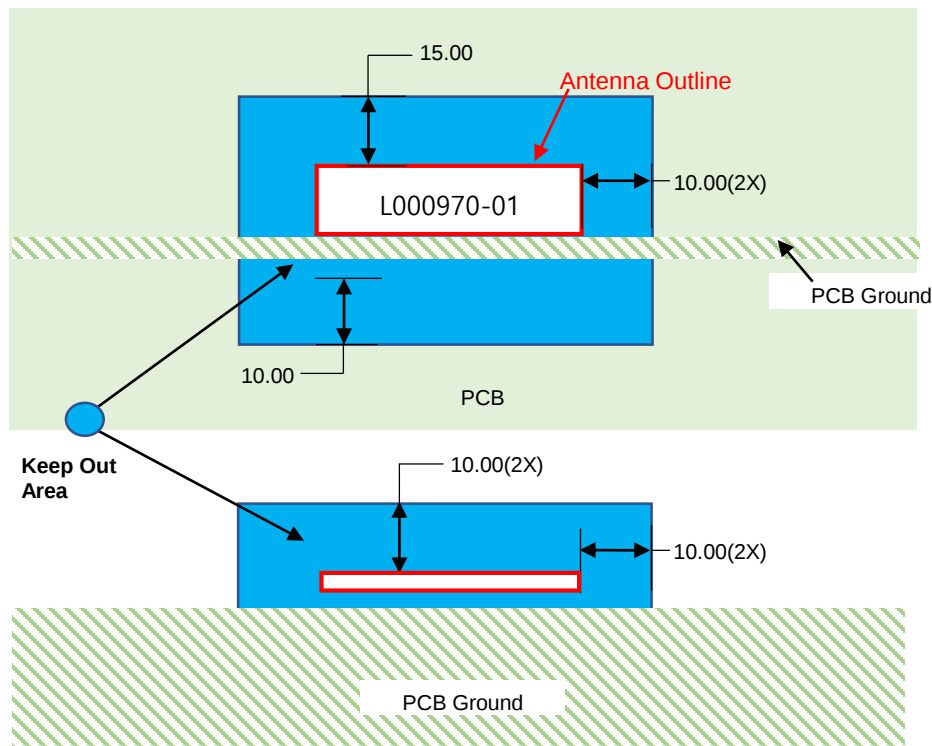


- NOTES: 1. Antenna must be mounted on the edge of PCB.
2. NC = Non connection (mechanical mounting pads).
3. No copper allowed in designated area on all PCB layers – 
4. For more information please call TE.
5. Measured with below matching circuit condition.
see table
6. Reference PCB Dimension(mm) - 80 x 40 x 1.6 (diaelectric4.3)

Dimensions: mm
Diagram is not to scale

6	22pF(0402 MURATA)	1
5	0.9pF(0402 MURATA)	1
4	22pF(0402 MURATA)	1
3	0.2pF(0402 MURATA)	1
2	3.3nH(0402 MURATA)	1
1	NC	0
No.	description	QT'Y

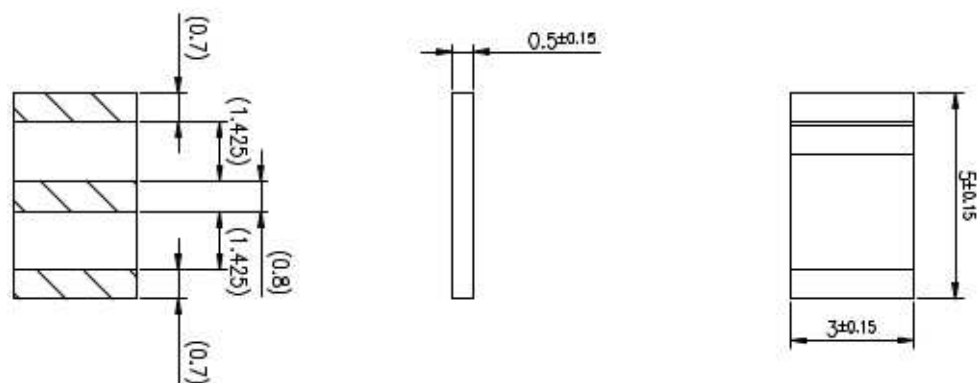
KEEP OUT AREA



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

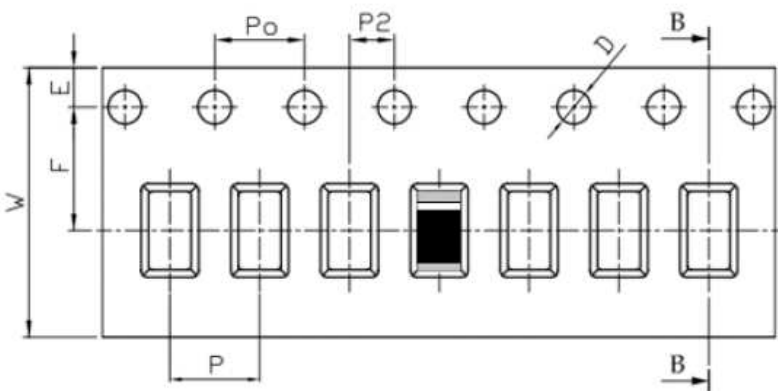


Dimensions: mm
Diagram is not to scale

PACKAGING

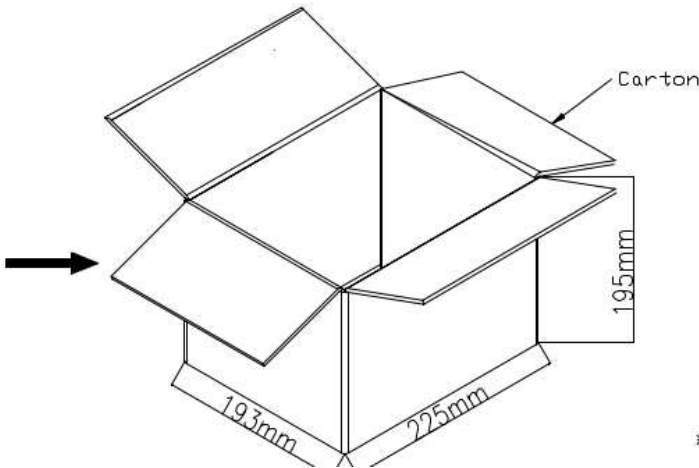
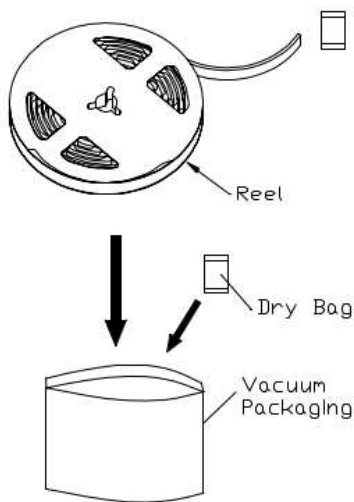
L000970-01

a. Tape Drawing



b. Tape Dimensions (unit: mm)

Feature	Specifications	Tolerances
W	12.00	±0.30
P	8.00	±0.10
E	1.75	±0.10
F	5.50	±0.10
P2	2.00	±0.10
D	1.50	+0.10 -0.00
Po	4.00	±0.10
10Po	40.00	±0.20



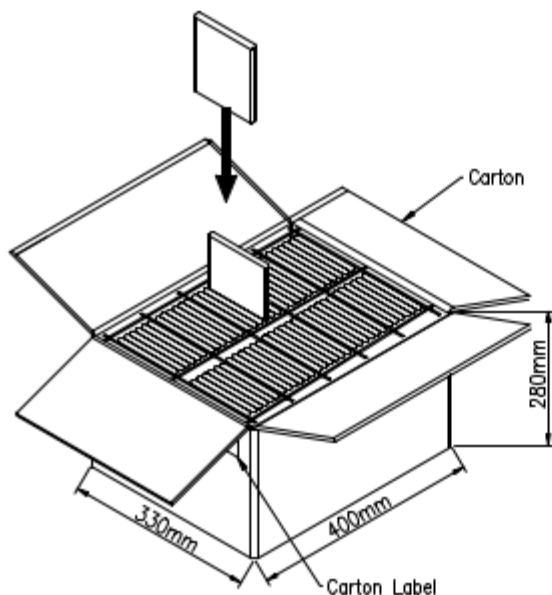
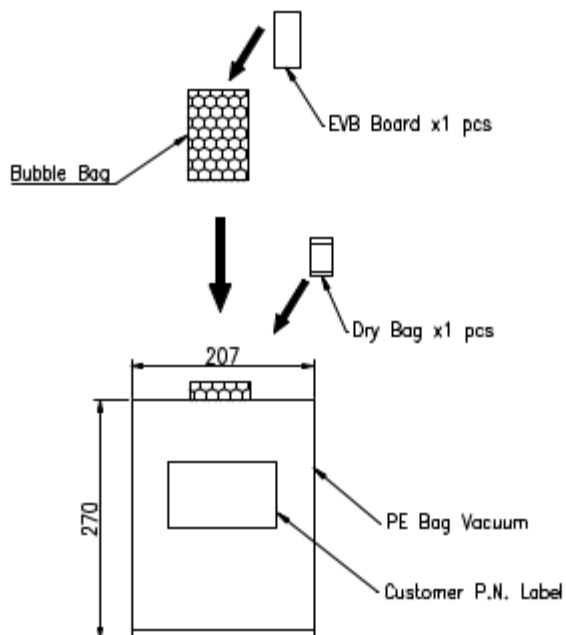
1 Reel
=2,000 pcs

1 Carton
=2 Reels
=4,000 pcs

*AIR PILLOW FOR PACKAGE

PACKAGING

L000970-80



1 PE Bag
=1 pc EVB Board

1 Carton
=15 PE Bags
=15 pcs EVB Board

*Buffer Filling Of Product Packaging

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Standard Antenna Solutions

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
Netherlands:	+31 (0) 73-6246-999
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