

# 1570-1615 MHz GNSS ANTENNA, CHIP TYPE

## Standard Antenna Solutions

Part Number: 2195764-1

### PRODUCT FACTS:

- Embedded ceramic chip antenna
- SMT assembly
- Available in tap & reel
- RoHS compliant

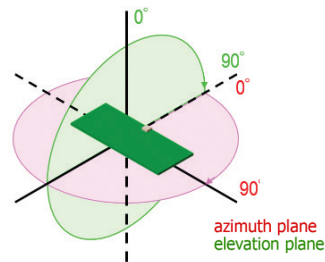
### RECOMMENDATIONS:

- Minimum or no matching circuits required
- Bandwidth and performance is dependent on ground plane size. Evaluation board size is 80mm x 40mm
- PCB ground is to be on top layer

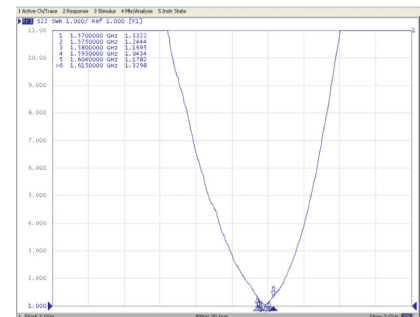
### SPECIFICATIONS:

- Frequency Range: 1570-1615 MHz
- Peak Gain:  $\leq 3.2$  dBi (Max)
- VSWR:  $< 2.0:1$
- Polarization: Linear
- Power Handling: 10 Watt cw
- Feed Point Impedance: 50 ohms
- Size: 5.2mm x 3.7mm x 0.7mm
- Mounting: Surface-mount technology
- Mounting Guide: See diagram on page 2
- Weight: 0.2 g
- Operating Temperature:  $-40^{\circ}$  to  $105^{\circ}\text{C}$

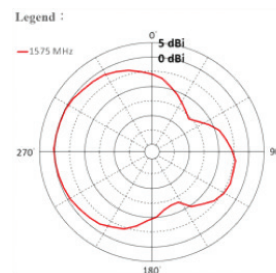
### TEST ORIENTATION IN FREE SPACE:



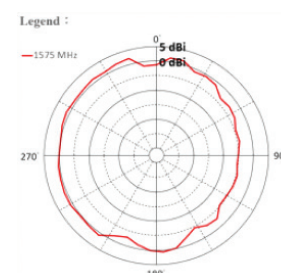
### VSWR:



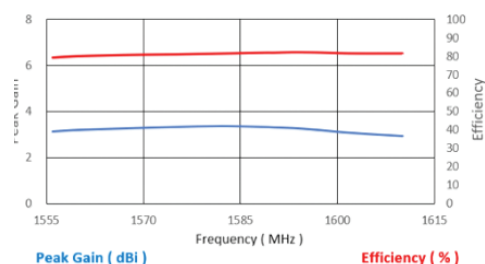
### AZIMUTH:



### ELEVATION:



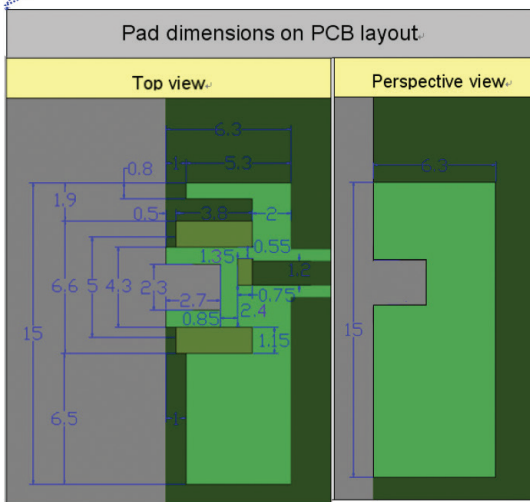
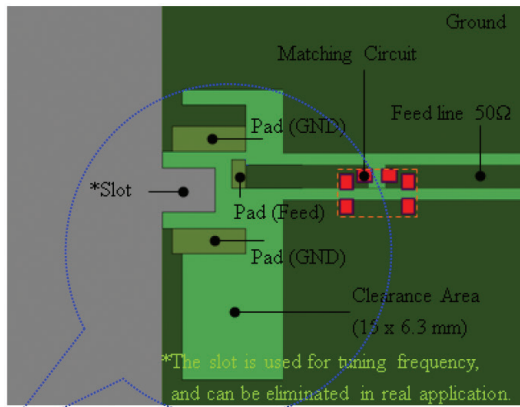
### EFFICIENCY:



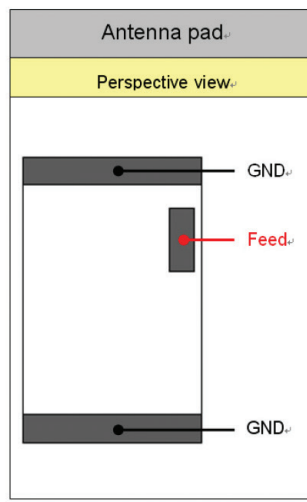
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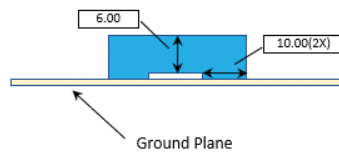
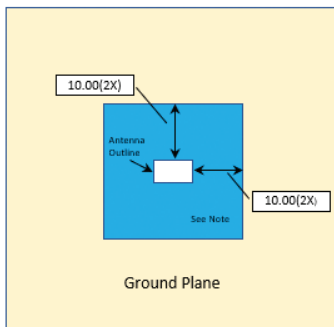
## MOUNTING GUIDE:



(Unit: mm)



## KEEP OUT AREA:



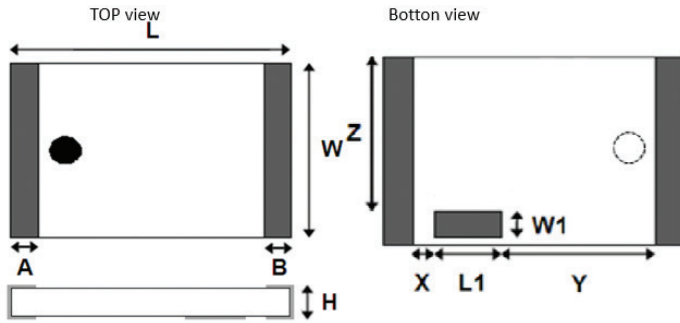
- NOTES :
1. Antenna designed to be mounted on ground plane.
  2. Area in blue above indicates Keep Out Area.
  3. For more information please call TE.

Dimensions : mm  
Diagram is not to scale

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## APPROXIMATE DIMENSIONS:

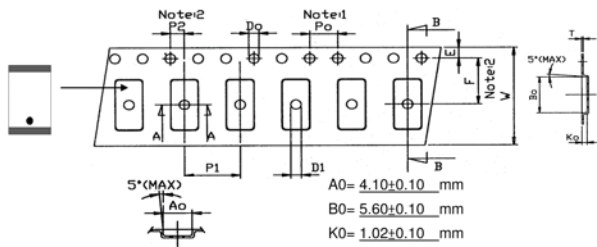


L	5.20 ± 0.30
W	3.70 ± 0.30
H	0.70 ± 0.15
A	0.50 ± 0.25
B	0.50 ± 0.25
L1	1.10 ± 0.20
W1	0.55 ± 0.20
X	0.50 ± 0.10
Y	2.60 ± 0.20
Z	2.95 ± 0.30

(Unit: mm)

## TAPING PACKAGE AND LABEL MARKING

- (1) Quantity/reel: 2000pcs/reel
- (2) Carrier tape dimensions



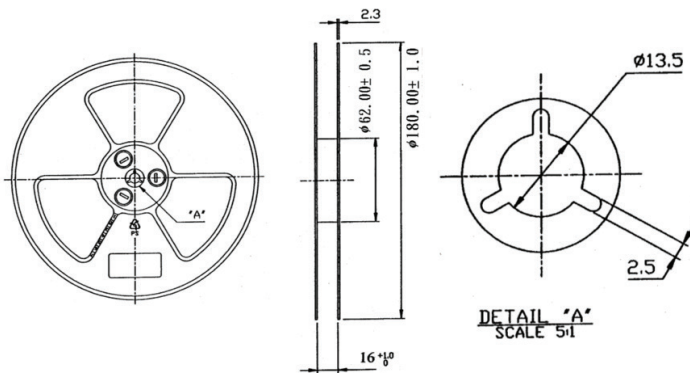
Symbol	Spec.
Po	4.00±0.1
P1	8.00±0.1
P2	2.00±0.05
Do	1.55±0.05
D1	1.50(MIN)
E	1.75±0.1
F	5.50±0.05
10Po	40.00±0.2
W	12.00±0.1
T	0.25±0.05

Notice:

1. 10 Sprocket hole pitch cumulative tolerance is ±0.1mm
2. Pocket position relative to sprocket hole measured as true position of pocket not pocket hole.
3. A0 & B0 measured on a place 0.3mm above the bottom of the pocket to top surface of the carrier.
4. K0 measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
5. Carrier camber shall be not than 1mm per 100mm through a length of 250mm.

(Unit: mm)

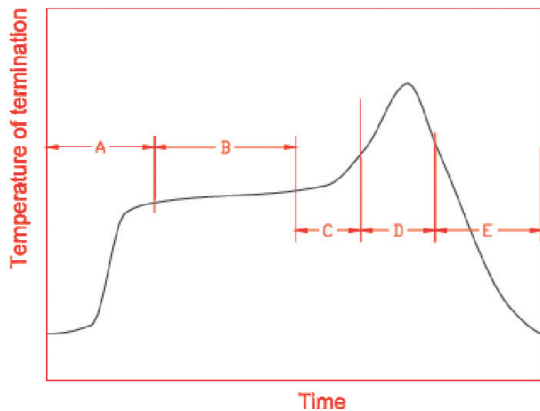
- (3) Taping reel dimensions



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## RECOMMENDED REFLOW SOLDERING



Region	Temperature Profile	Duration	
A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	
B	Preheating	140°C to 160°C	
C	2 <sup>nd</sup> rising temperature	Preheating to 200°C	
D	Main heating	if 220°C	50s~60s
		if 230°C	40s~50s
		if 240°C	30s~40s
		if 250°C	20s~40s
E	Regular cooling	200°C to 100°C	
		1°C/s ~ 4°C/s	

### (1) Soldering gun procedure

Note the following, in case of using solder gun for replacement

- (a) The tip temperature must be less than 350°C for a period within 3 seconds by using soldering gun under 30 W
- (b) The soldering gun tip shall not touch this product directly

### (2) Soldering volume

Note that excess soldering volume will easily crack the body of this product

## TE TECHNICAL SUPPORT CENTER

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Germany: +49 (0) 6251-133-1999  
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