

# 1570-1580, 2400-2500 MHz GPS/WiFi BAND ANTENNA

## Standard Antenna Solutions

Includes Frequencies of GNSS, Bluetooth, ZigBee and WiFi Products

Part Number: 2195765-1

### PRODUCT FACTS:

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

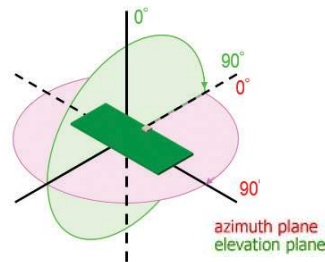
### RECOMMENDATIONS:

- Minimum or no matching circuits required
- Bandwidth and performance is dependent on ground plane size. Evaluation board size is 100mm x50mm
- PCB ground is to be on top layer

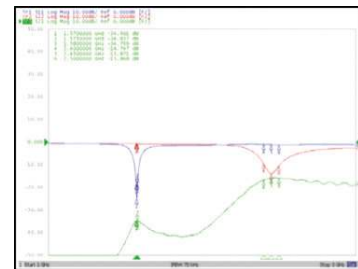
### SPECIFICATIONS:

- Frequency Range: 1570-1580 MHz/2400-2500 MHz
- Peak Gain:
  - 1570-1580 MHz  $\leq$  0.69 dBi (Max)
  - 2400-2500 MHz  $\leq$  0.97 dBi (Max)
- Return Loss: <-10 dB
- Size: 3.2mm x 1.7mm x 0.5mm
- Mounting: Surface-mount technology
- Mounting Guide: See diagram on page 2
- Weight: 0.1 g
- Operating Temperature: -40° to 105°C

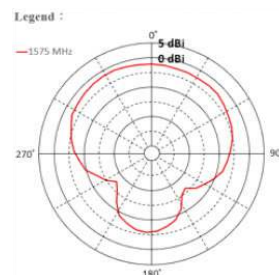
### TEST ORIENTATION IN FREE SPACE:



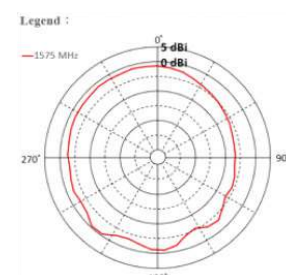
### RETURN LOSS:



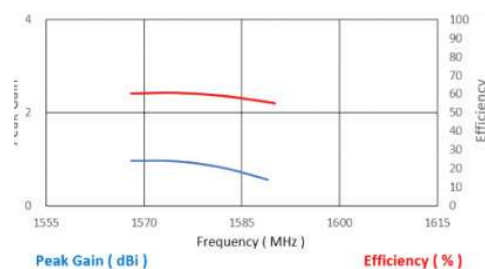
### AZIMUTH:



### ELEVATION:



### EFFICIENCY:

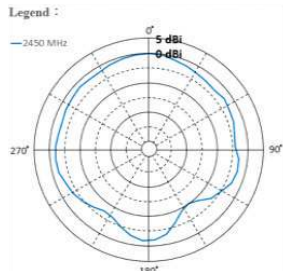


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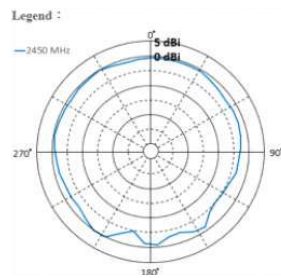
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## 2400-2500MHz

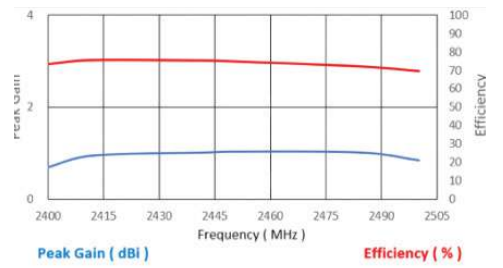
### AZIMUTH:



### ELEVATION:

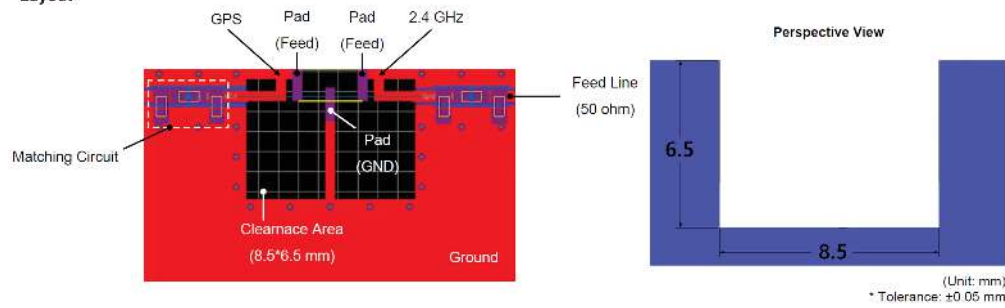


### EFFICIENCY:

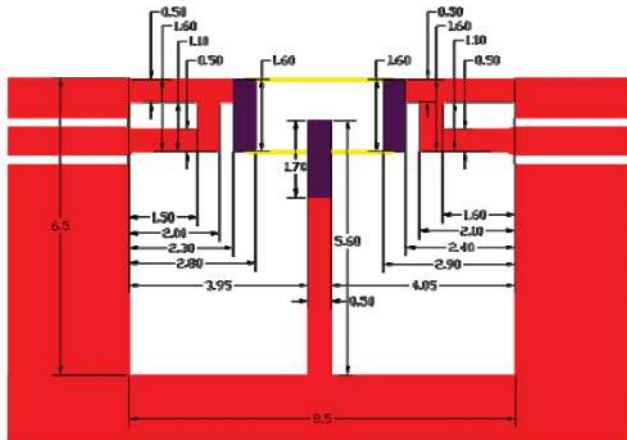


### MOUNTING GUIDE:

#### Layout



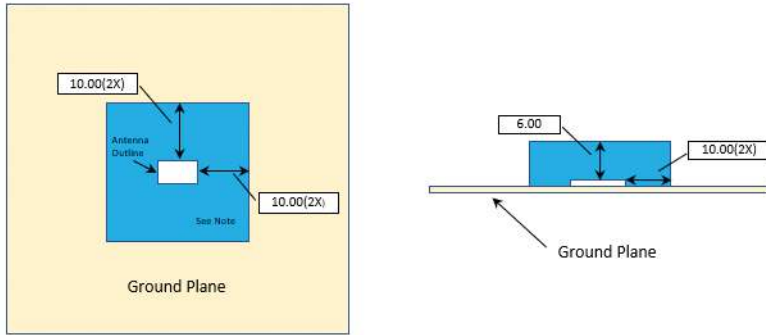
#### Top View



# 1570-1580, 2400-2500 MHz GPS/WiFi Band Antenna

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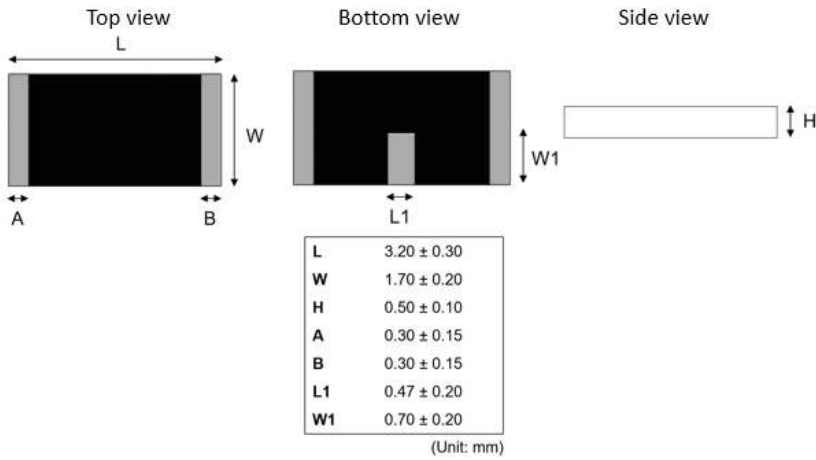
## KEEP OUT AREA:



- 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

## APPROXIMATE DIMENSIONS:

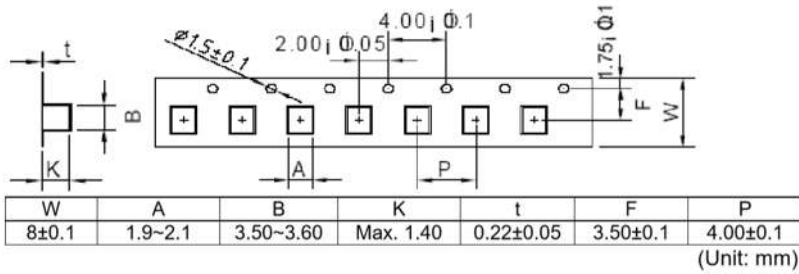


# 1570-1580, 2400-2500 MHz GPS/WiFi Band Antenna

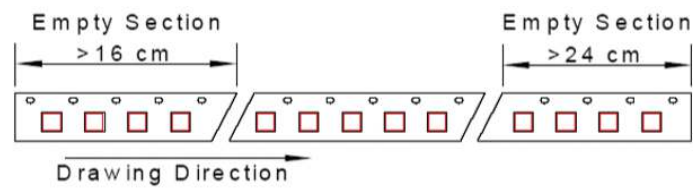
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## TAPING PACKAGE AND LABEL MARKING

- (1) Quantity: 4000pcs/reel, T (Thickness of chip)  $\leq 1.2$
- (2) Plastic tape

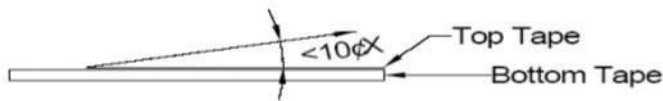


- (3) Tape Packing



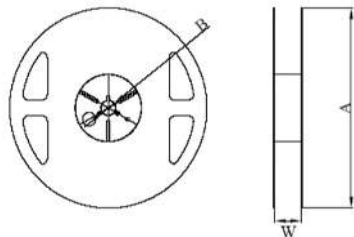
- (4) Cover Tape Reel Off Force

$$5g \cdot f \leq \text{Peel-Off Force} \leq 70g \cdot f$$



- (5) Reel Dimensions

Reel Material: Polystyrene



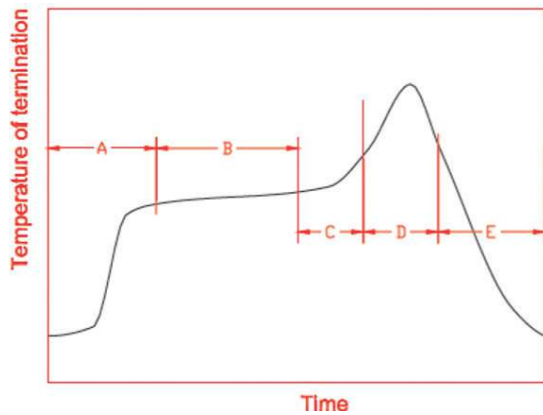
W	A	B
8±0.5	178±0.5	13±0.5
12±0.5	178±0.5	13±0.5

(Unit: mm)

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## RECOMMENDED REFLOW SOLDERING



A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 <sup>nd</sup> rising temperature	Preheating to 200°C	20s to 40s
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	if 260°C	20s~40s
		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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