

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

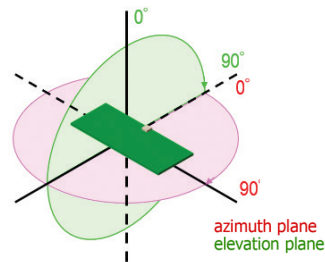
RECOMMENDATIONS:

- 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

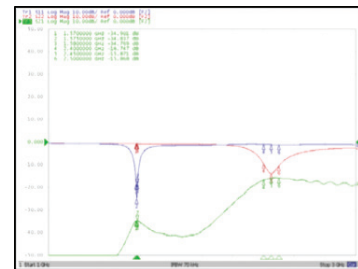
SPECIFICATIONS:

- 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

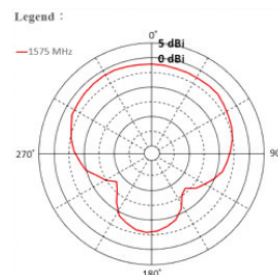
TEST ORIENTATION IN FREE SPACE:



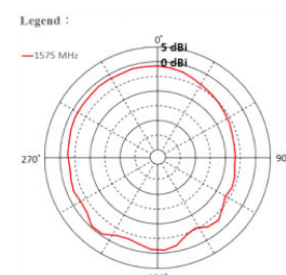
RETURN LOSS:



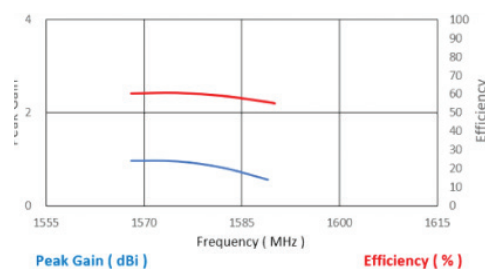
AZIMUTH:



ELEVATION:



EFFICIENCY:

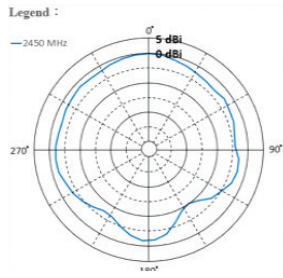


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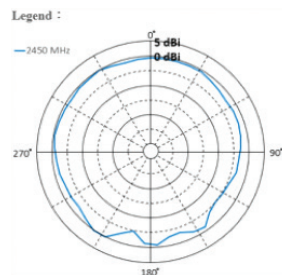
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2400-2500MHz

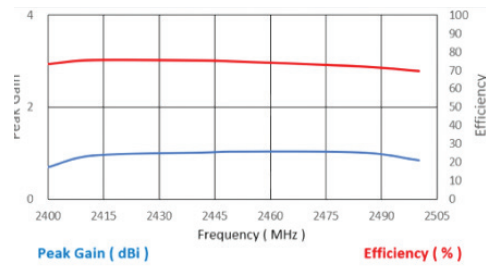
AZIMUTH:



ELEVATION:

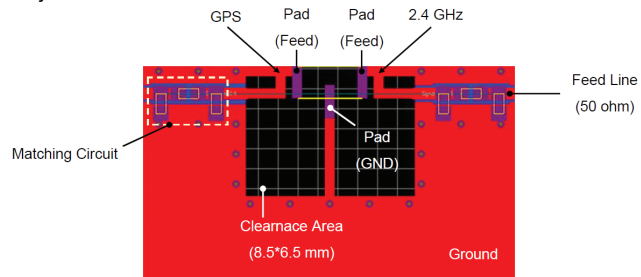


EFFICIENCY:

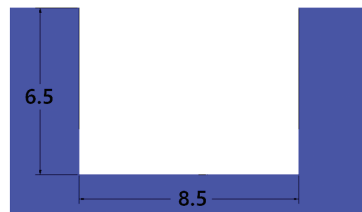


MOUNTING GUIDE:

Layout



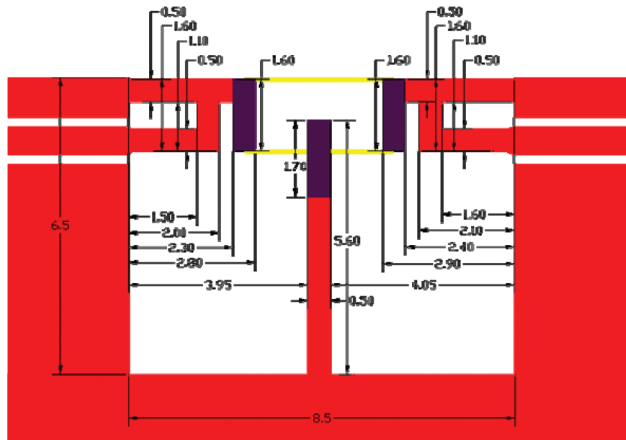
Perspective View



(Unit: mm)

* Tolerance: ± 0.05 mm

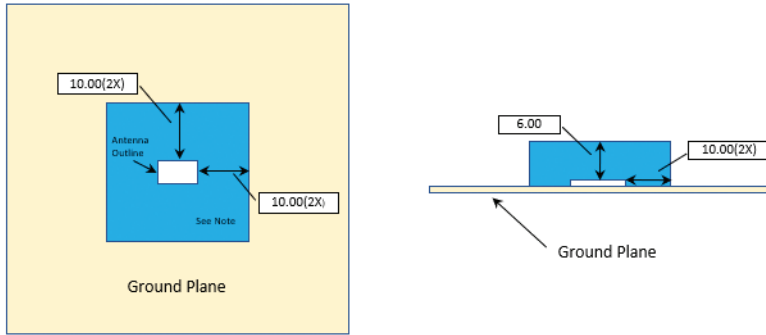
Top View



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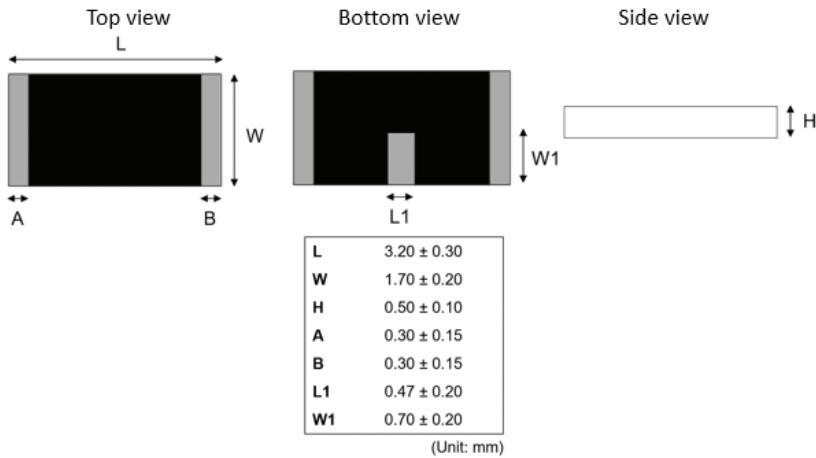
KEEP OUT AREA:



- 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:

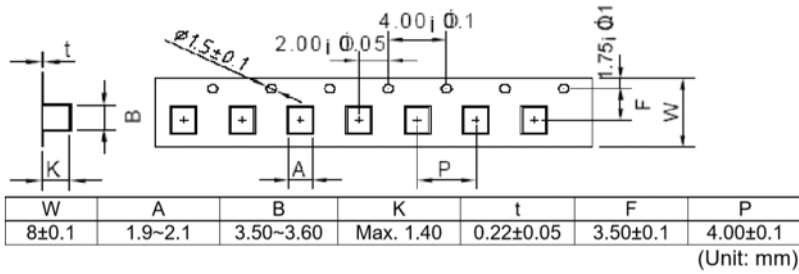


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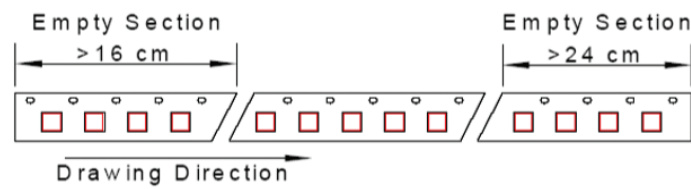
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TAPING PACKAGE AND LABEL MARKING

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



- (3) Tape Packing



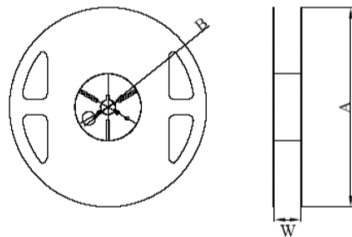
- (4) Cover Tape Reel Off Force

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



- (5) Reel Dimensions

Reel Material: Polystyrene



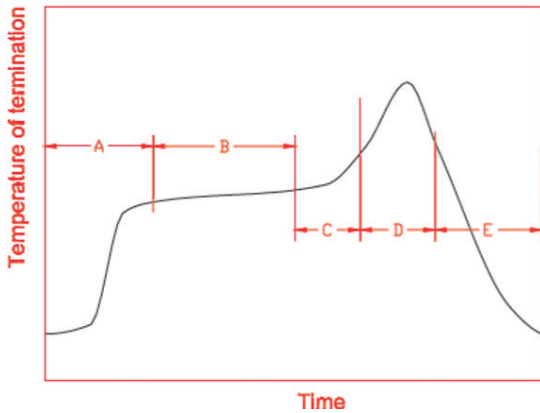
W	A	B
8±0.5	178±0.5	13±0.5
12±0.5	178±0.5	13±0.5

(Unit: mm)

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RECOMMENDED REFLOW SOLDERING



Stage	Temperature Profile	Duration	
A	1 st rising temperature	30s to 60s	
B	Preheating	60s to 120s	
C	2 nd rising temperature	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

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