



Front View



Underside View

WLP.4958.12.4.A.02

## Specification

<b>Part No.</b>	WLP.4958.12.4.A.02
<b>Product Name</b>	12mm*12mm*4mm 4.9~5.8GHz Patch Pin Fed Embedded High Gain Antenna
<b>Features</b>	For Wi-Fi/WLAN/ISM/Public Safety/Zigbee Industrial and Consumer Applications High Gain 6dBi RoHS Compliant

## 1. Introduction

This 12mm\*12mm\*4mm 6dBi high gain 4.9~5.8GHz patch pin fed antenna is ideally suited for high performance industrial and consumer applications in

Wi-fi, ISM, Public Safety, and Zigbee bands. It can also be placed anywhere on the device ground-plane, unlike most chip or loop antennas which need to be edge

mounted. The antenna can be matched by a PI matching circuit, or by creating a custom tuned part for a specific layout configuration on a board.

## 2. Specification\*

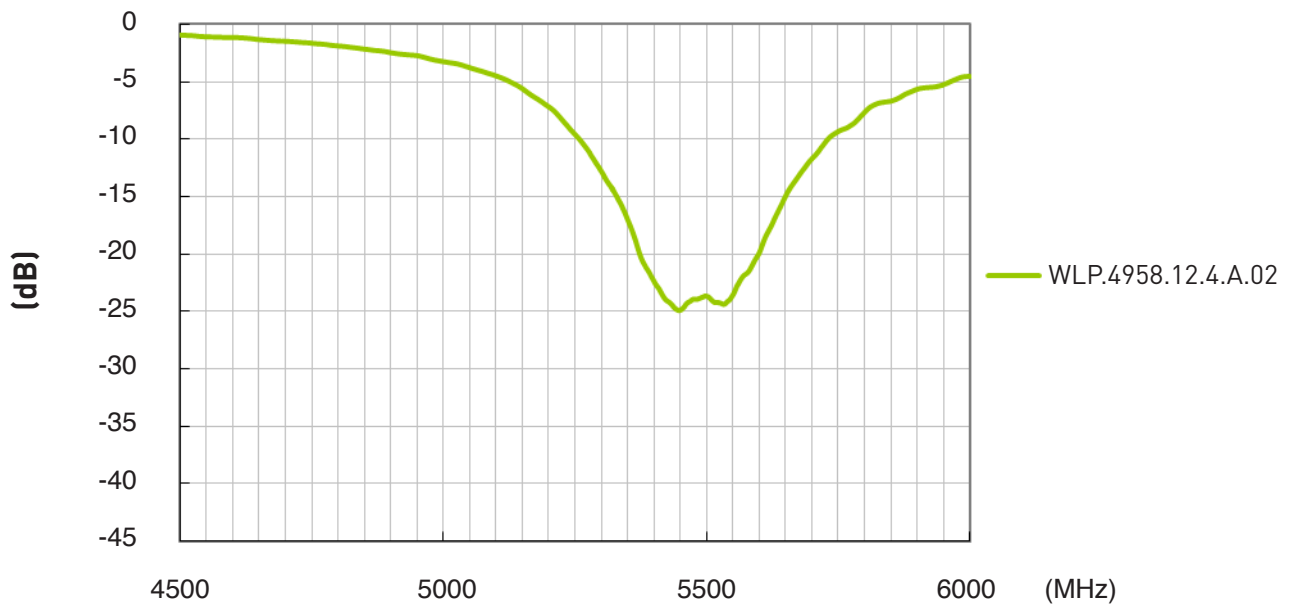
### Specification

<b>Range of Receiving Frequency</b>	4900MHz to 5825MHz
<b>Center Frequency</b>	5180MHz±5.0MHz
<b>Bandwidth</b>	450 MHz @ Return Loss ≤-10dB
<b>Polarization</b>	RHCP
<b>VSWR</b>	1.5 max @ Center Frequency
<b>Peak Gain</b>	+6.0dBic typ. @ Center Frequency
<b>Impedance</b>	50 Ohms
<b>Dimensions</b>	12mm x 12mm x 4mm
<b>Frequency Temperature Coefficient (τf)</b>	0 ± 20ppm / °C -40°C to +85°C
<b>Operating Temperature</b>	-40°C to +85°C

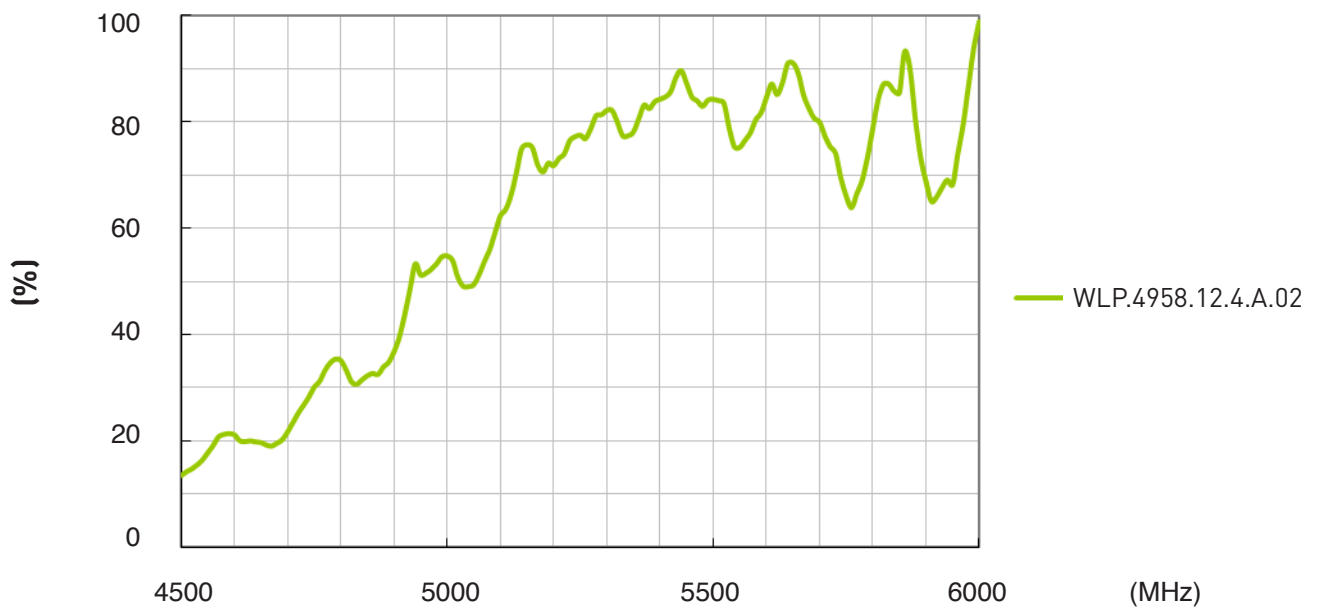
\*Original Patch Specification measured on EVB 70\*70mm, actual value depends on ground-plane and housing

### 3. Antenna Characteristics

#### 3.1 Return Loss

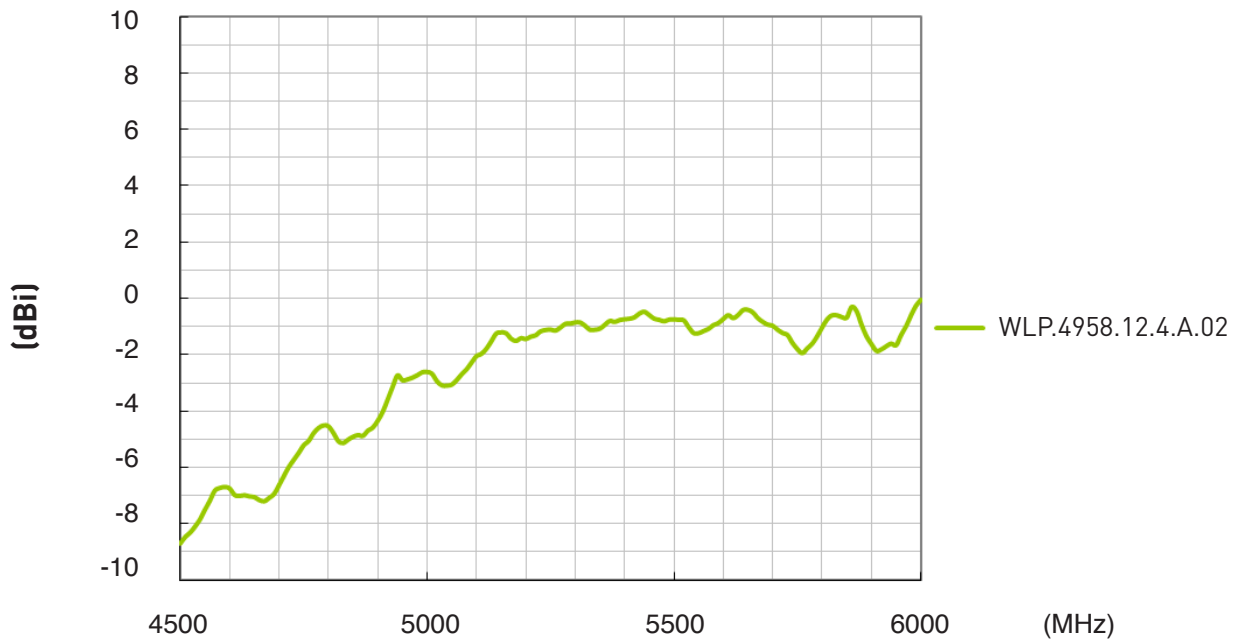


#### 3.2 Efficiency Chart

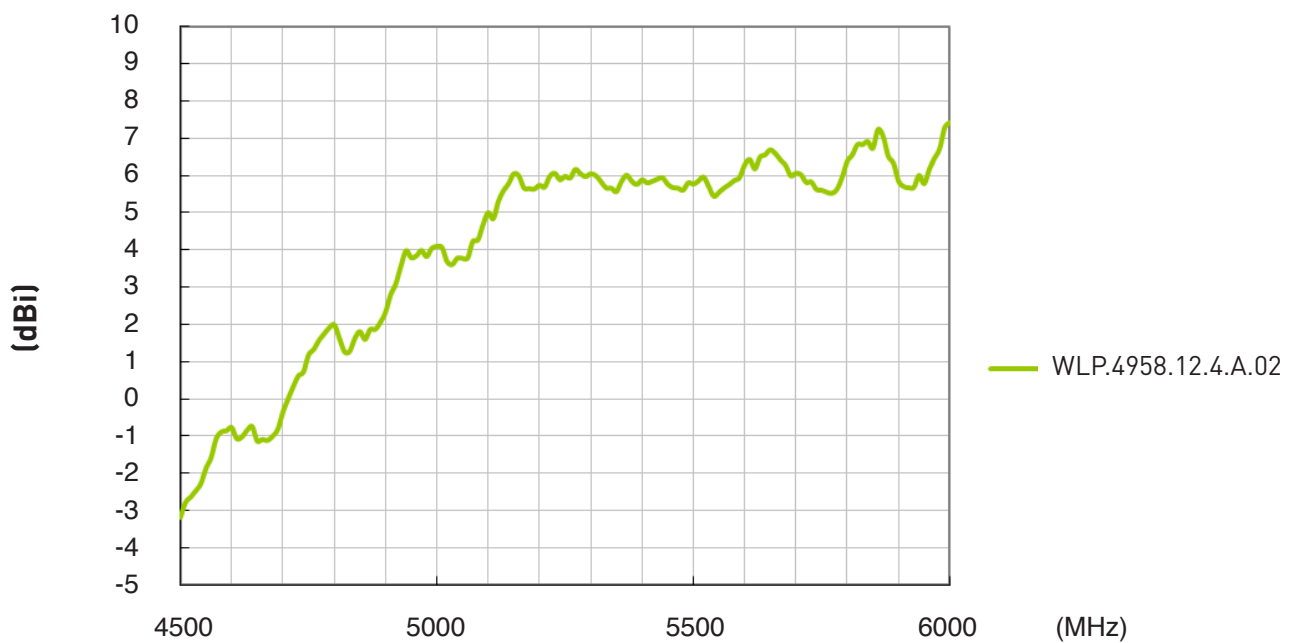


### 3. Antenna Characteristics

#### 3.3 Average Gain



#### 3.4 Peak Gain

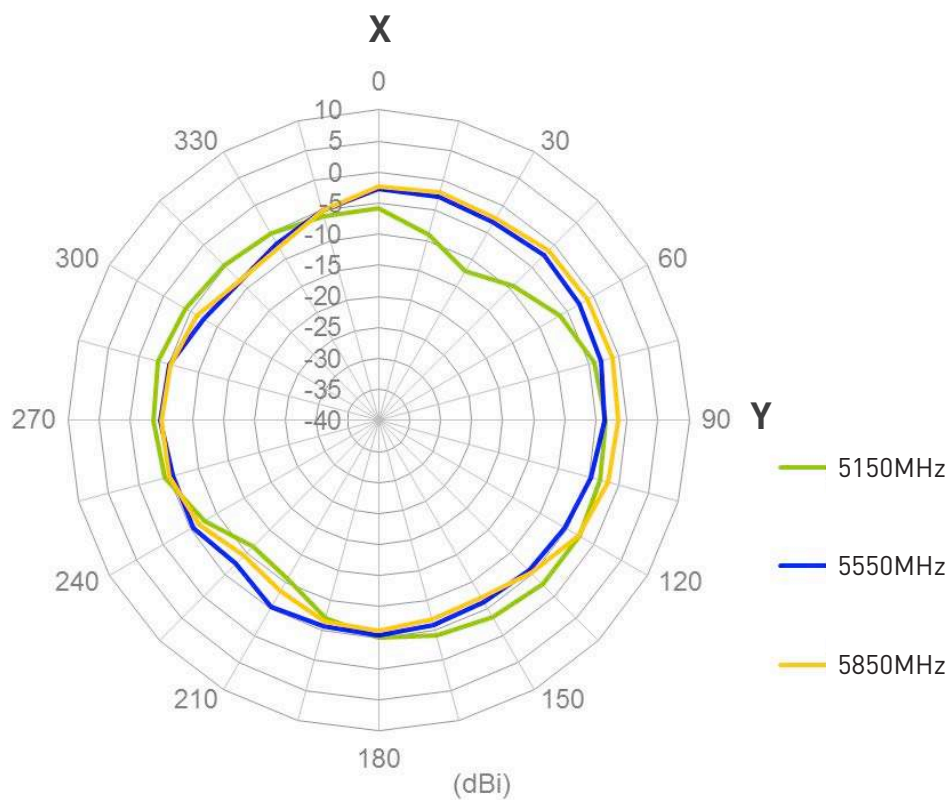


## 4. 2D Radiation Patterns

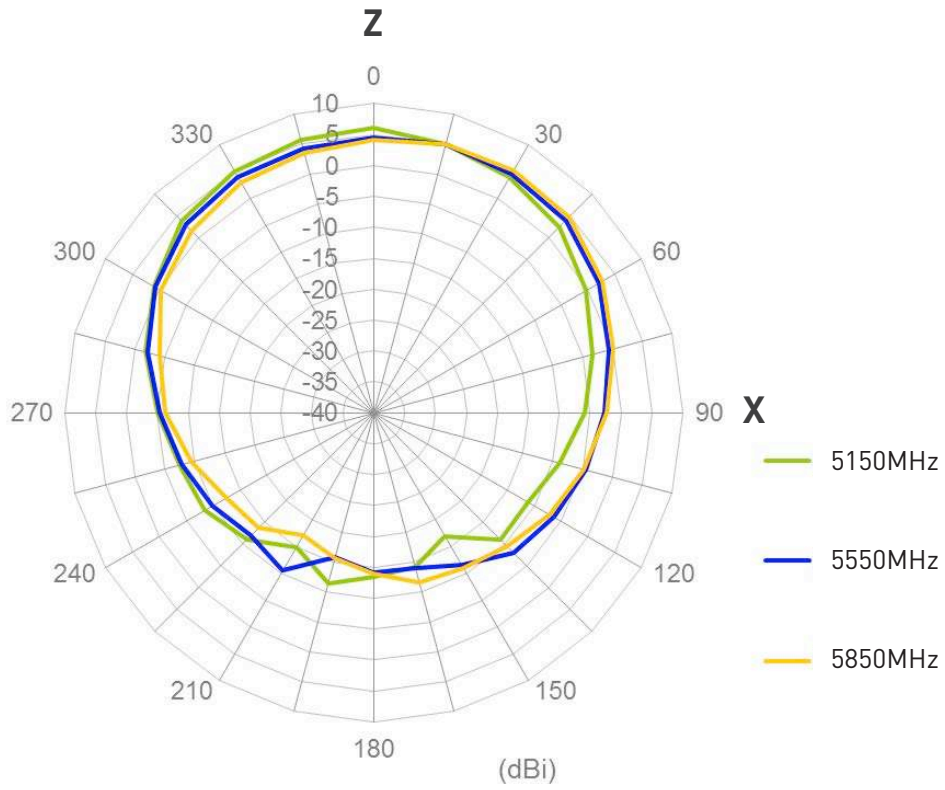
### 4.1 Antenna Setup (70\*70mm Ground Plane)



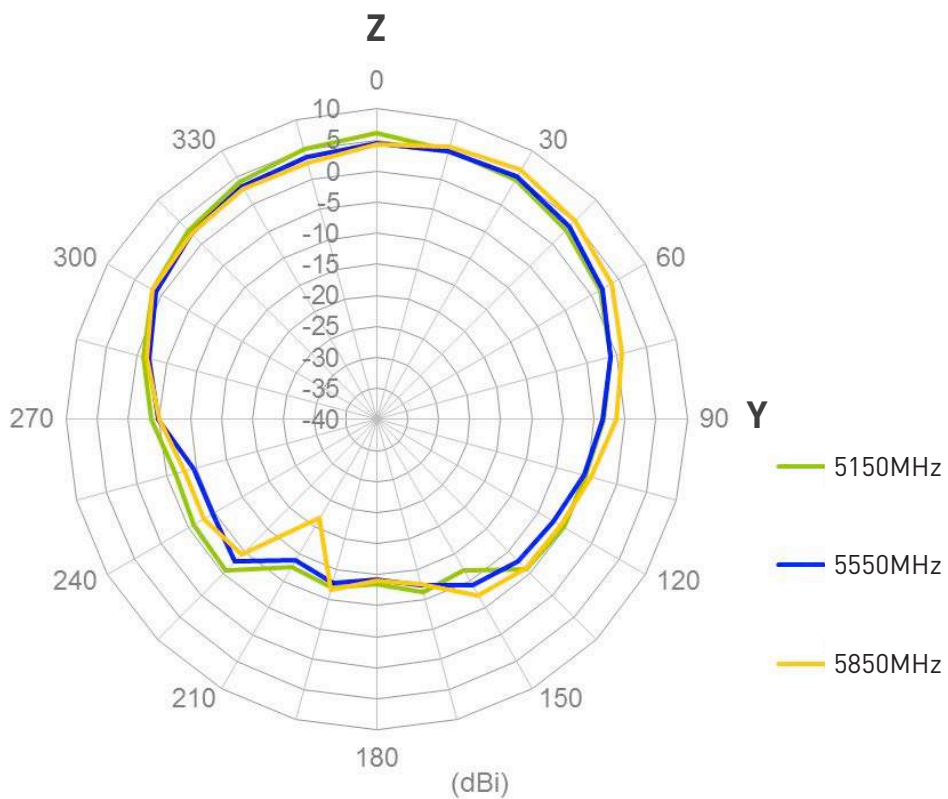
### 4.2 XY Plane Radiation



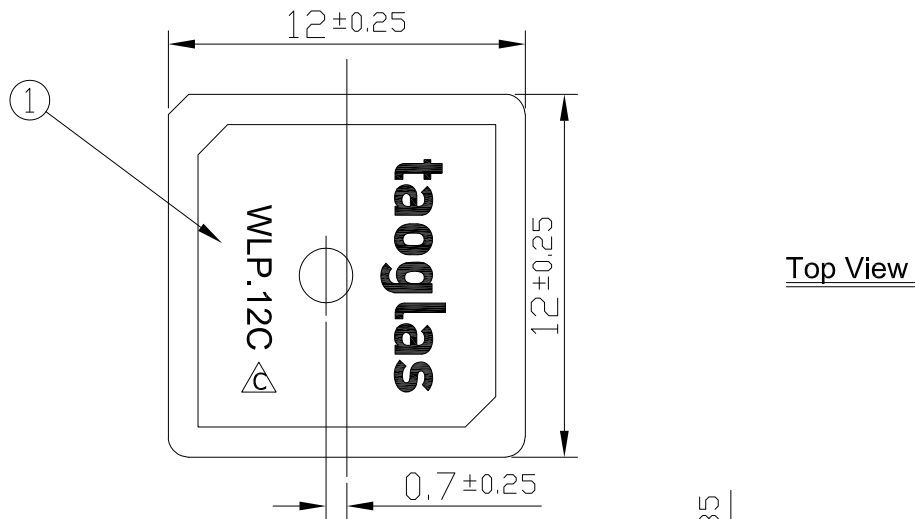
### 4.3 XZ Plane Radiation



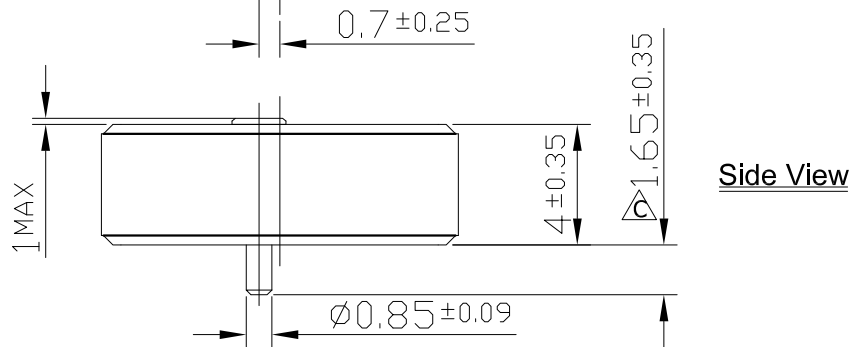
### 4.4 YZ Plane Radiation



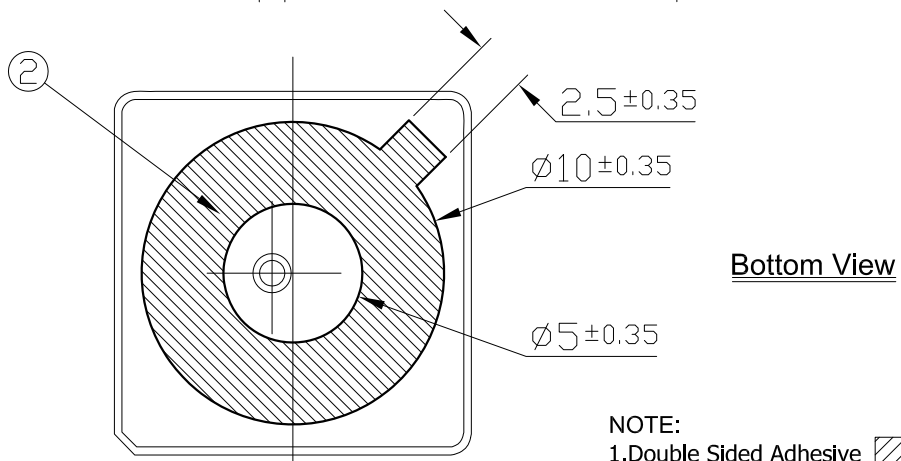
## 5. Drawing




Top View



Side View

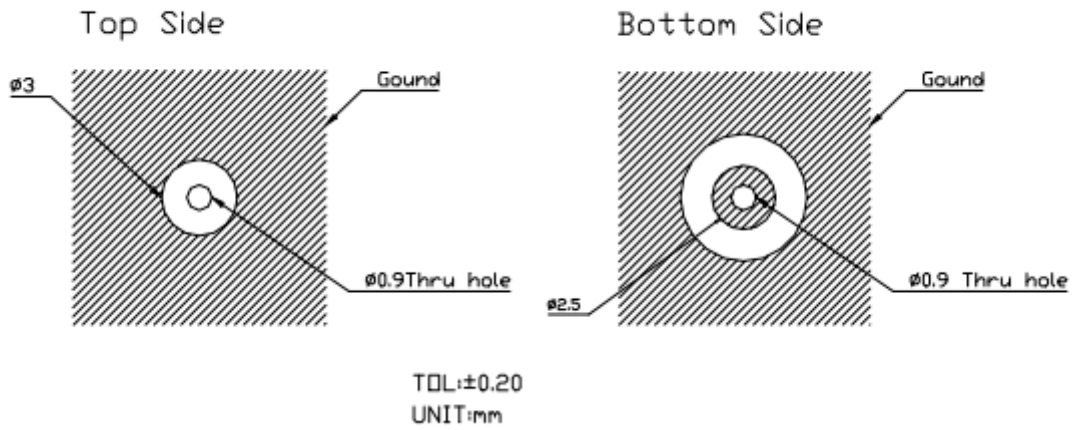


Bottom View

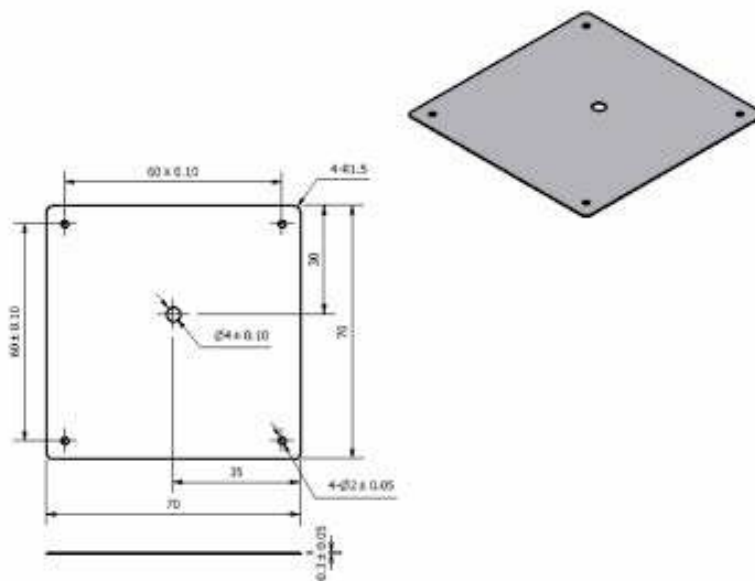
NOTE:  
1. Double Sided Adhesive 

	Name	Material	Finish	QTY
1	WLP.5180 Patch 12x12x4	Ceramic	Clear	1
2	Double Sided Adhesive	Tesa 5015	N/A	1

## 5.1 Layout Dimensions

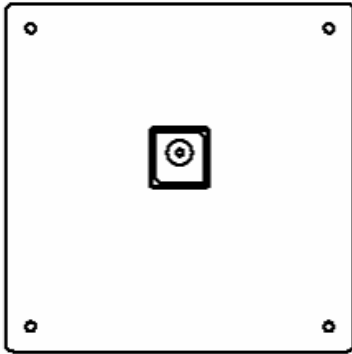


## 5.2 Test Jig and Dimension



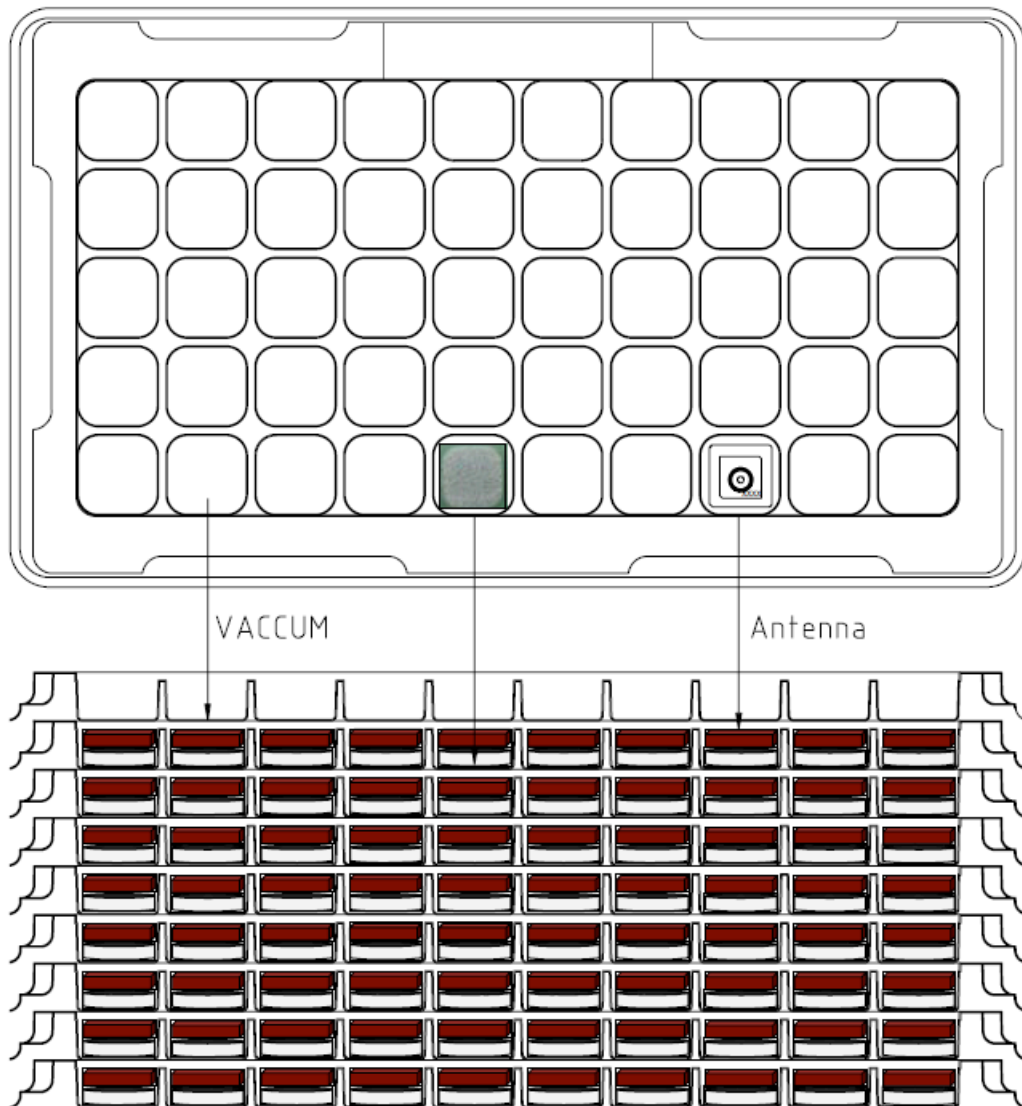


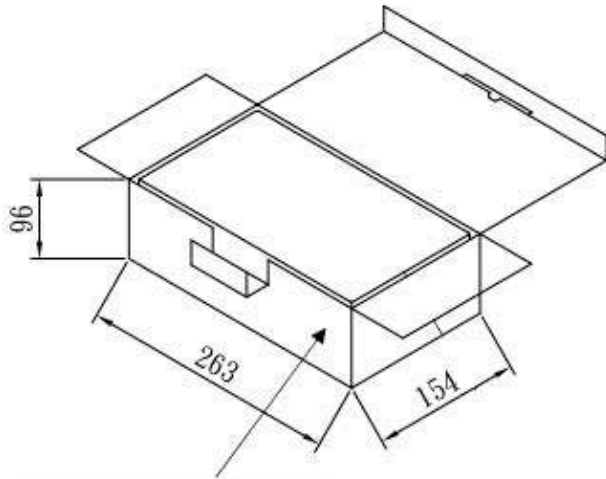
### 5.3 Test Fixture Antenna Setup & Measurement



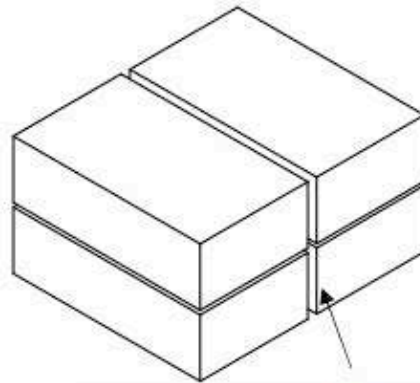
## 6. Packaging

Pieces per Inner Carton: 400

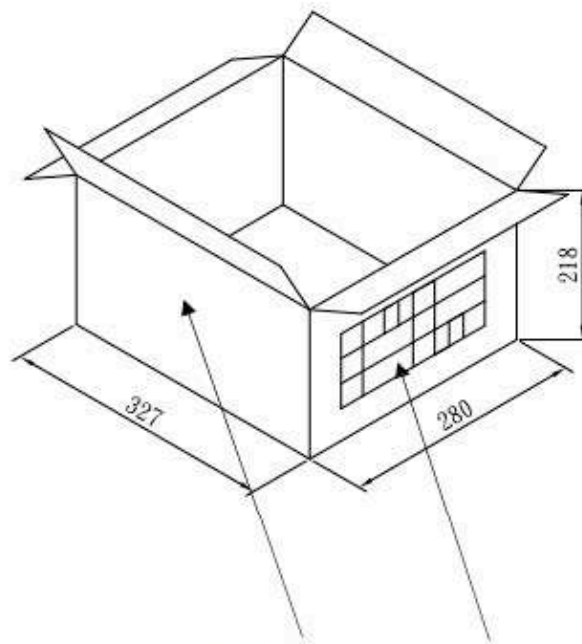




Inner Carton(400 Pieces)



4 x Inner Cartons in 1 Outer Carton  
(1600 pieces)



Outside Carton

Shipping Label

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