



Front View



Underside View

WLP.4958.12.4.A.02

Specification

Part No.	WLP.4958.12.4.A.02
Product Name	12mm*12mm*4mm 4.9~5.8GHz Patch Pin Fed Embedded High Gain Antenna
Features	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*

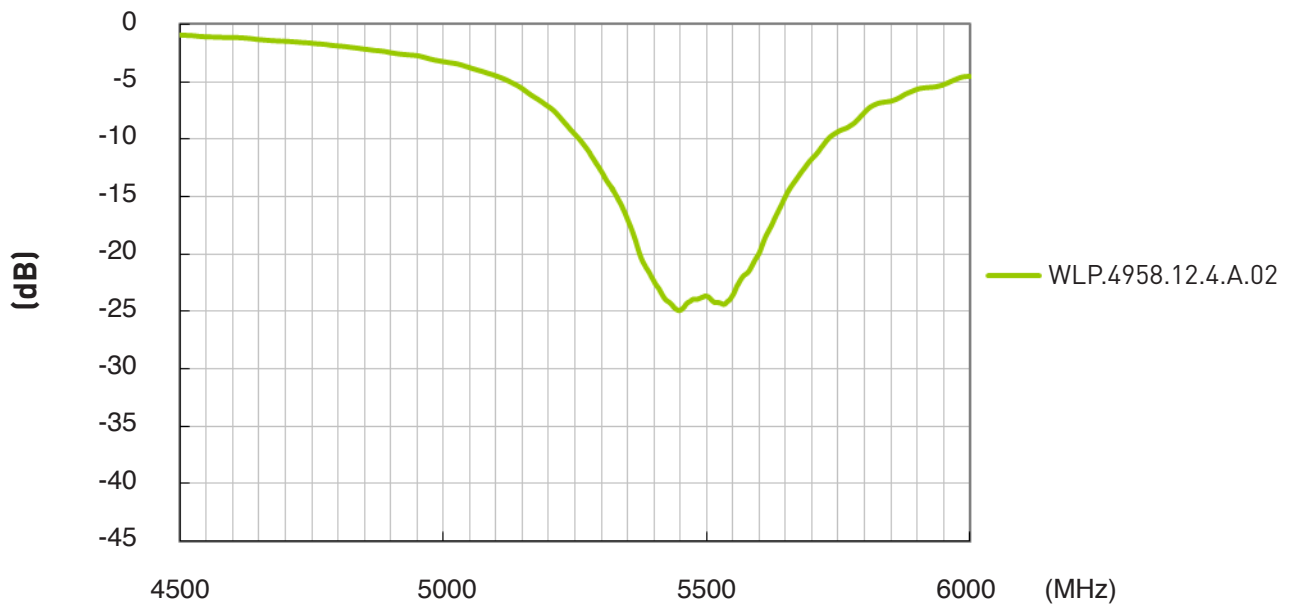
Specification

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

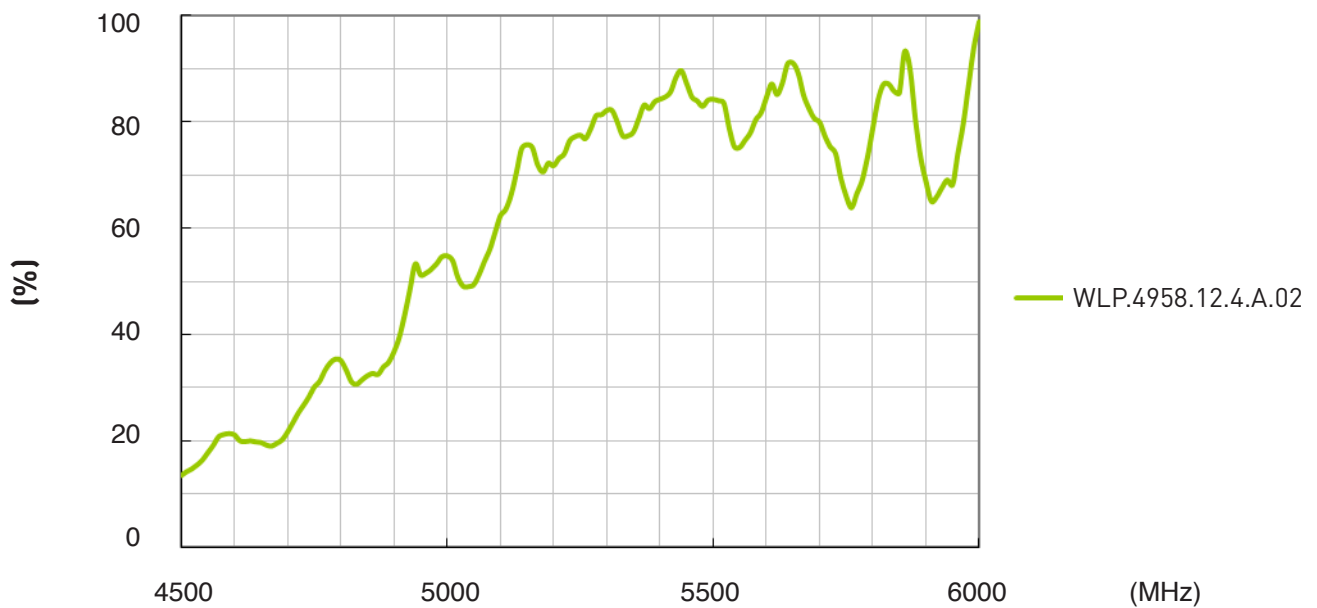
*Original Patch Specification measured on EVB 70*70mm, actual value depends on ground-plane and housing

3. Antenna Characteristics

3.1 Return Loss

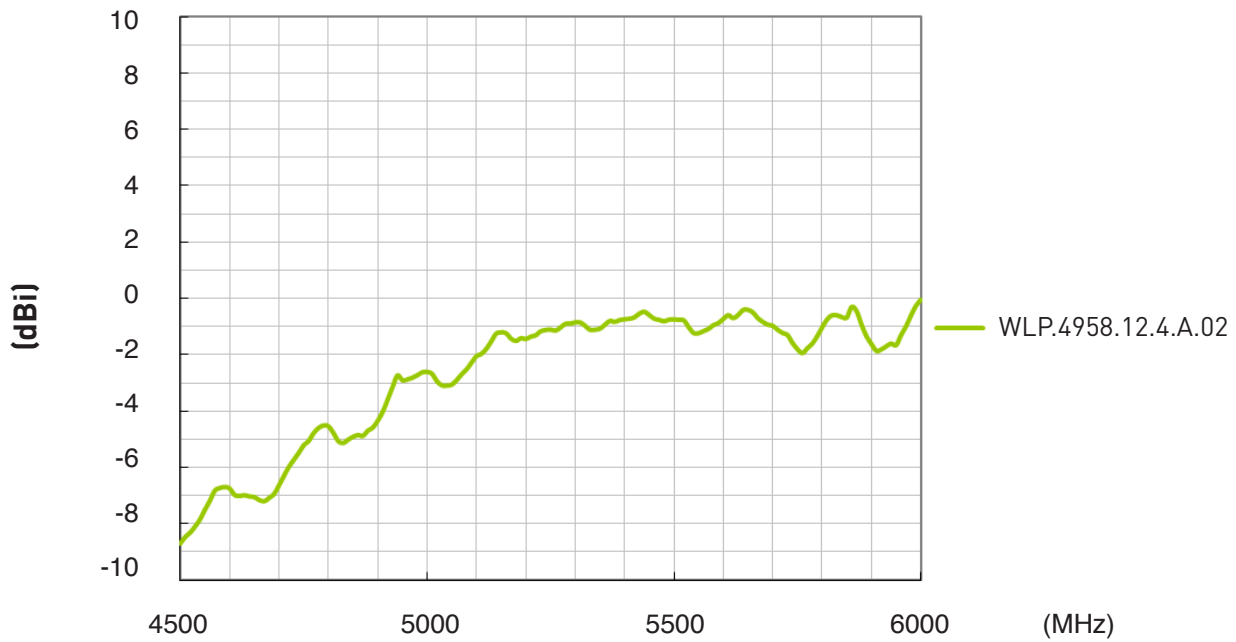


3.2 Efficiency Chart

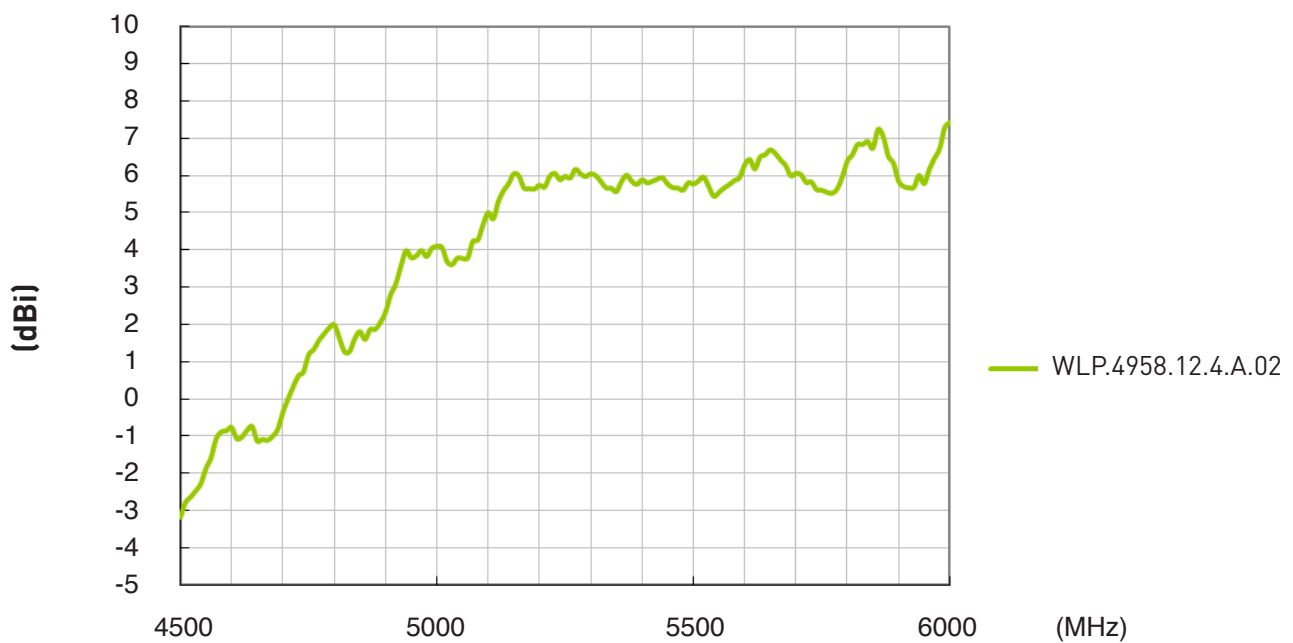


3. Antenna Characteristics

3.3 Average Gain



3.4 Peak Gain

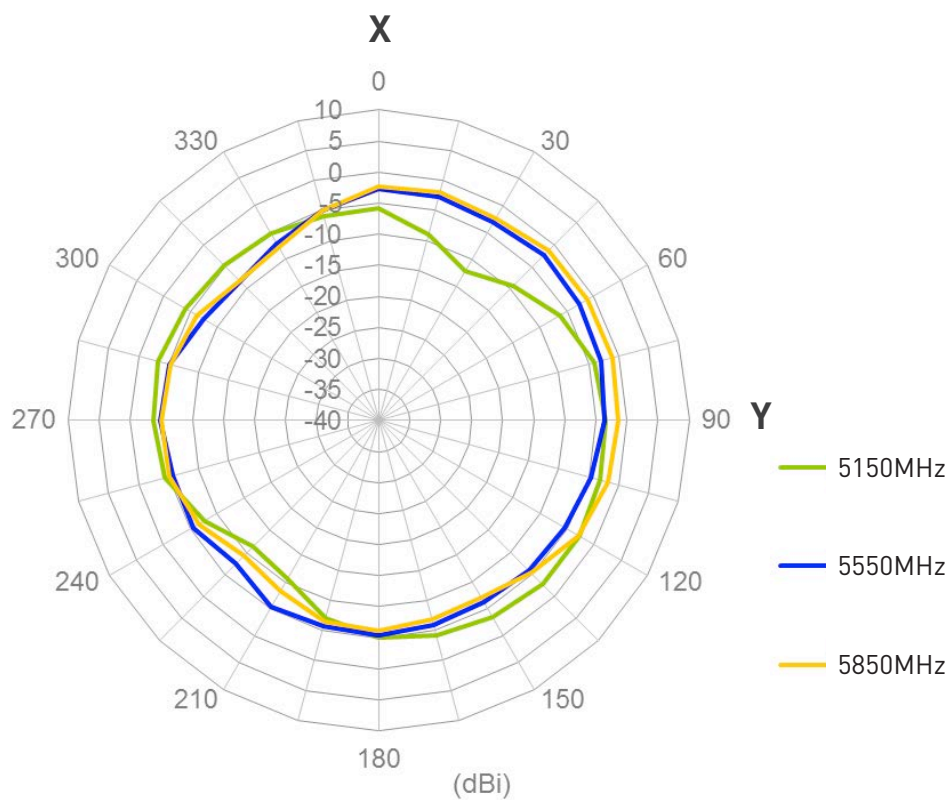


4. 2D Radiation Patterns

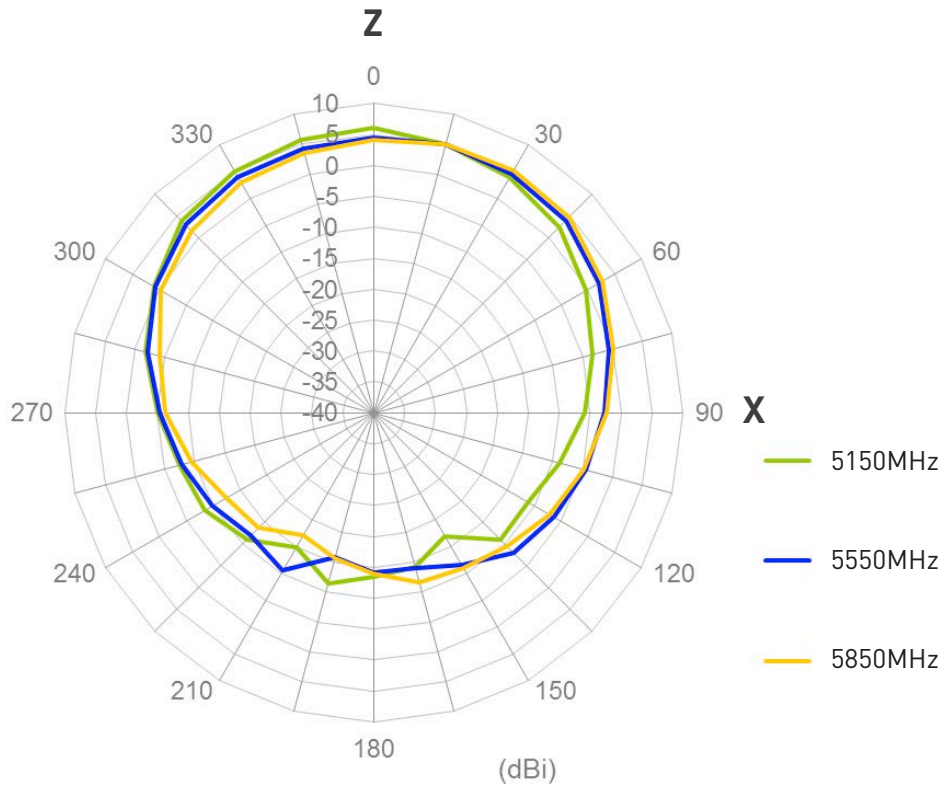
4.1 Antenna Setup (70*70mm Ground Plane)



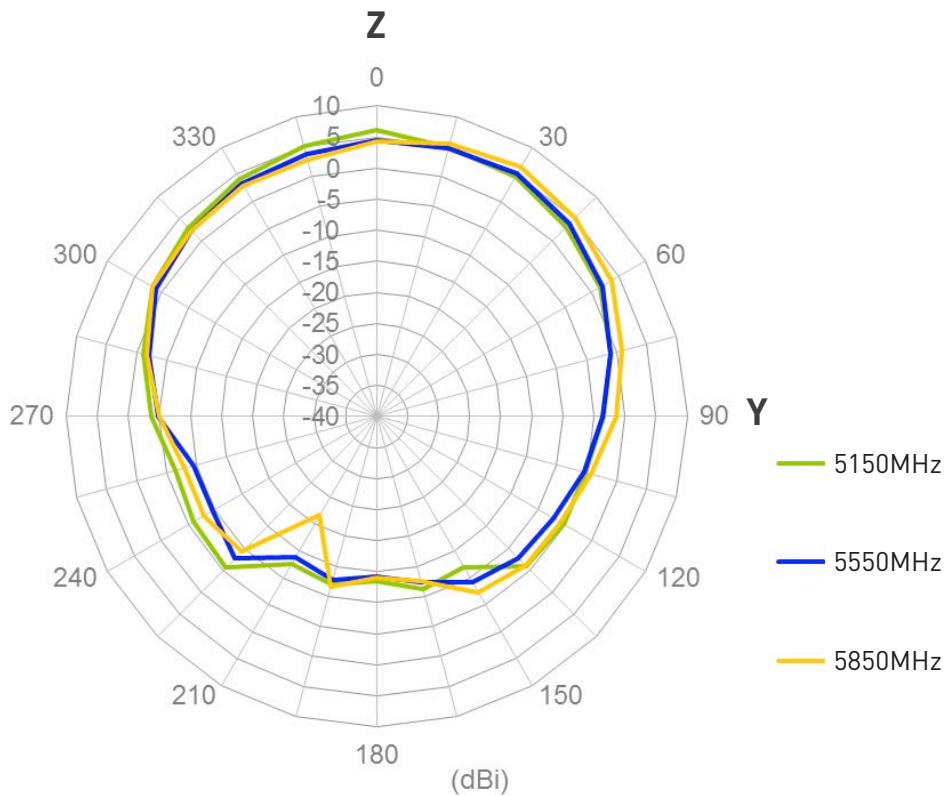
4.2 XY Plane Radiation



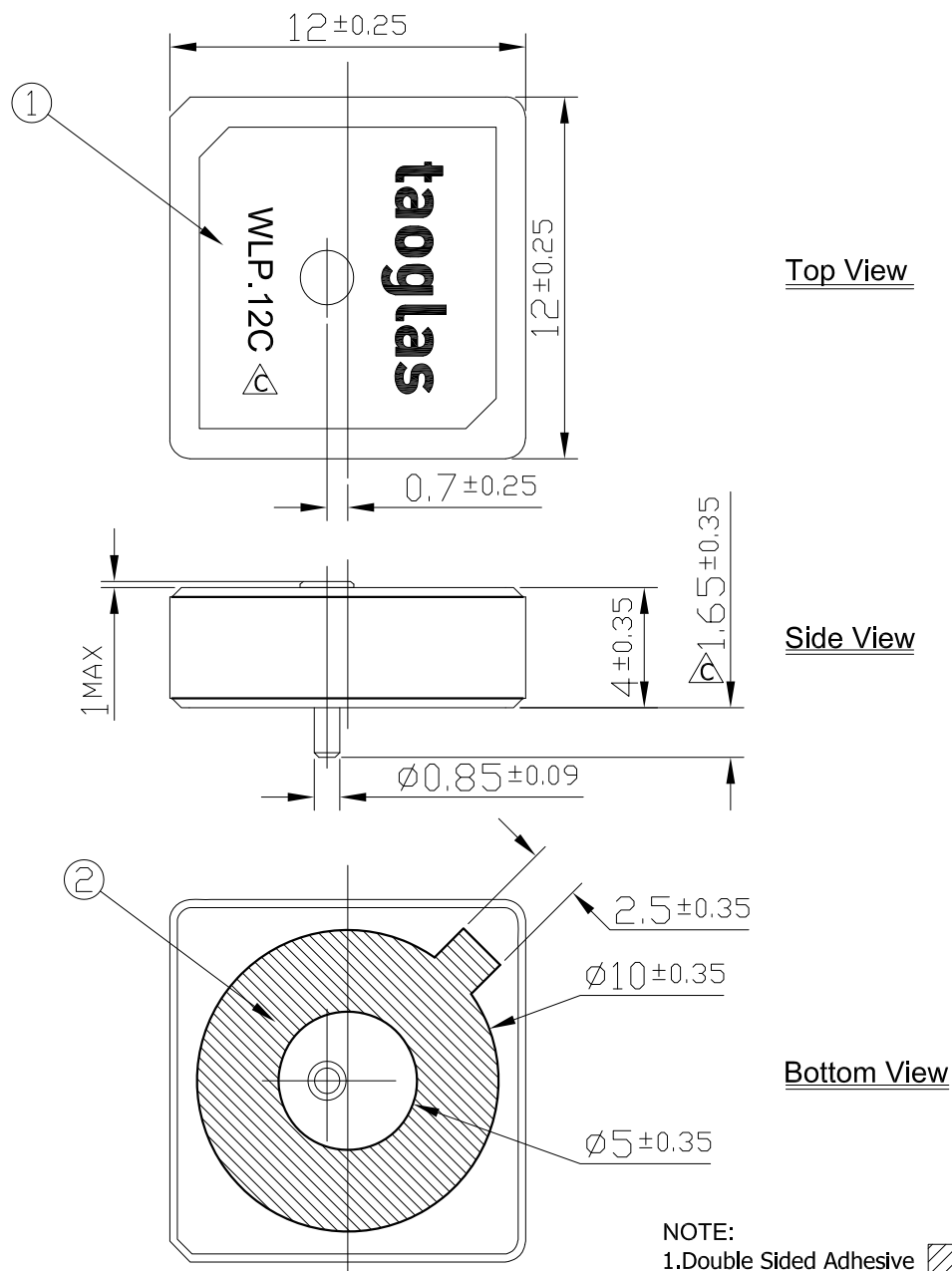
4.3 XZ Plane Radiation



4.4 YZ Plane Radiation

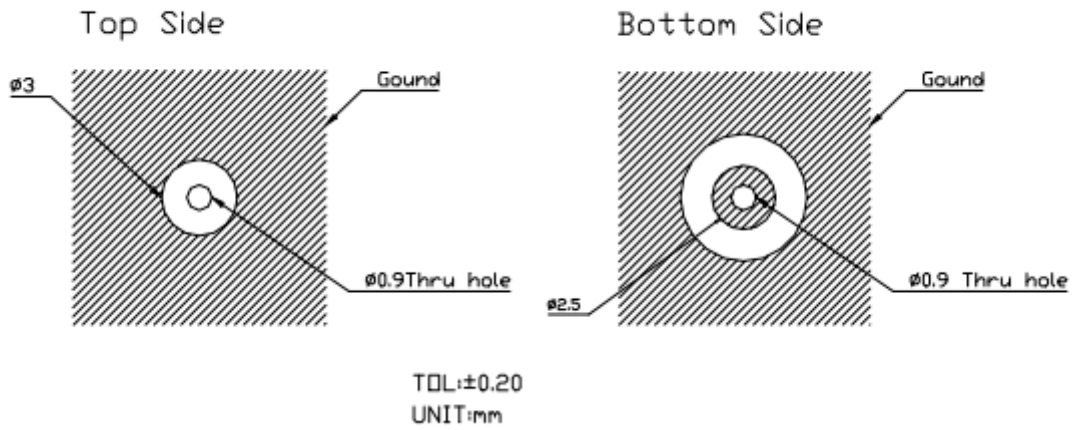


5. Drawing

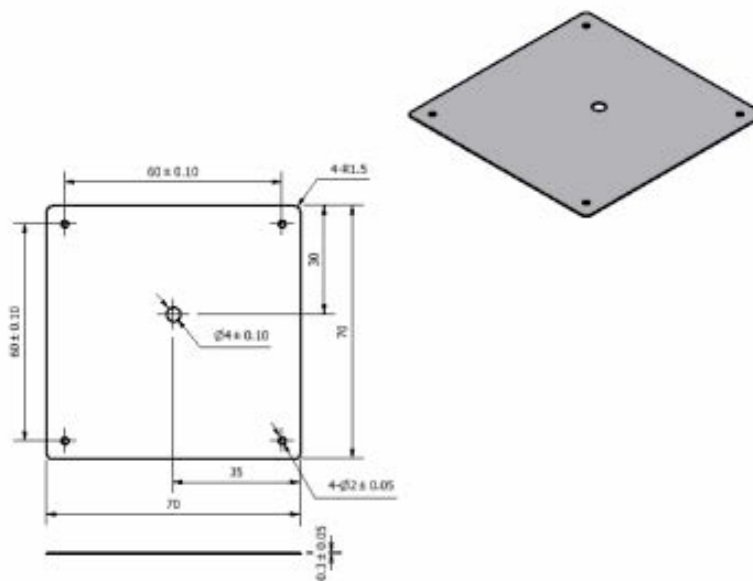


	Name	Material	Finish	QTY
1	WLP.5180 Patch 12x12x4	Ceramic	Clear	1
2	Double Sided Adhesive	Tesa 5015	N/A	1

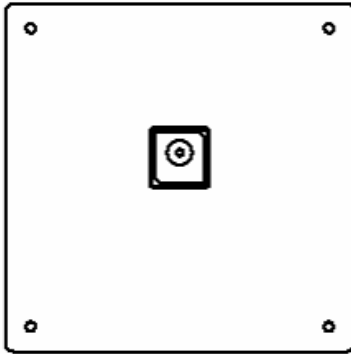
5.1 Layout Dimensions



5.2 Test Jig and Dimension

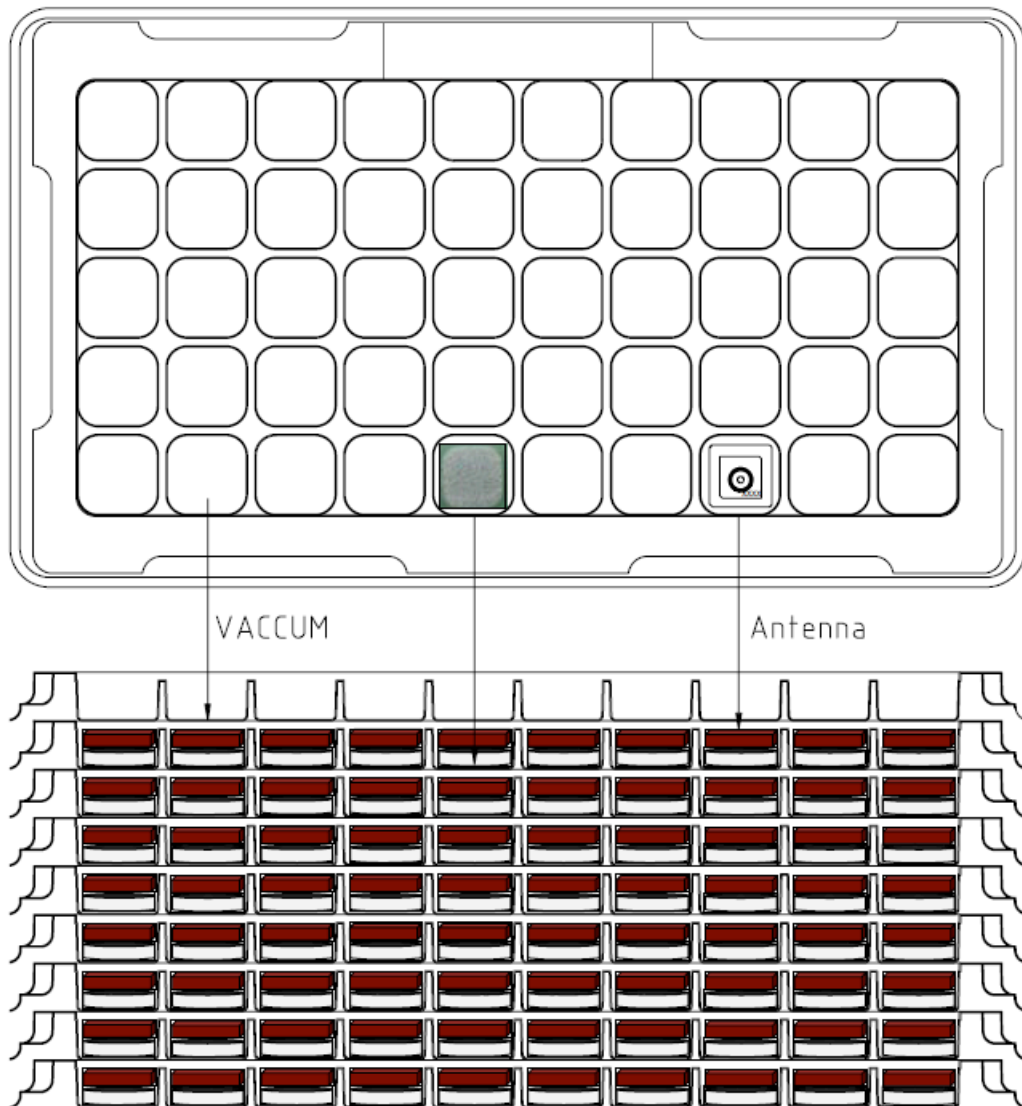


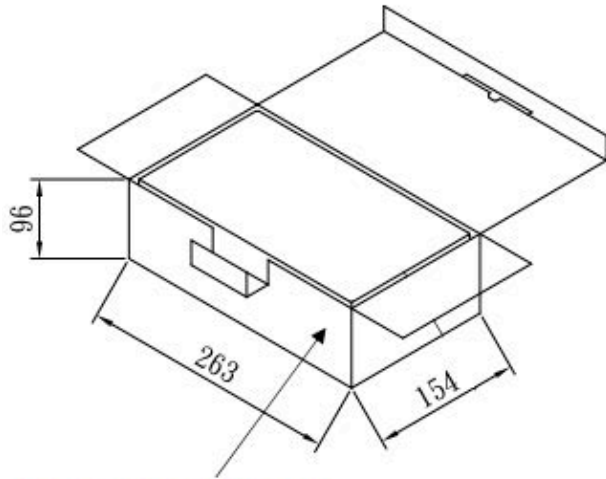
5.3 Test Fixture Antenna Setup & Measurement



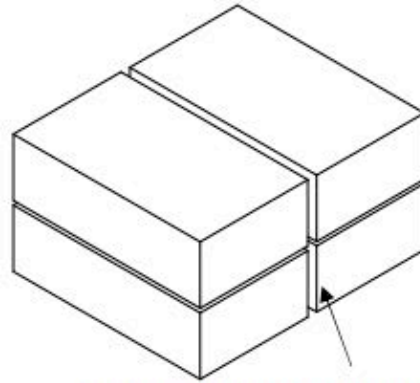
6. Packaging

Pieces per Inner Carton: 400

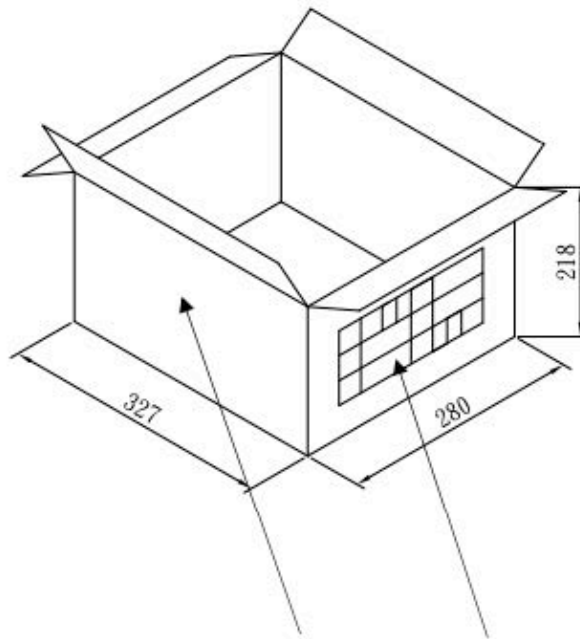




Inner Carton(400 Pieces)



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



Outside Carton

Shipping Label

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