SPECIFICATION

Part No.	:	**WLP.2450.25.4.A.02**
Product Name	:	2450MHz Patch Antenna
Features	:	25mm*25mm*4.5mm ROHS Compliant
Photo	:	

1. Introduction

This WLP.25 patch antenna for ISM, Wi-Fi, Bluetooth and Zigbee is based on smart *XtremeGain*™ technology. It is mounted via pin and double-sided adhesive and has been selected as optimal solution for the 50*50mm ground plane. This passive patch offers typical gain response from 2.5 dBi and a higher gain can be achieved, depending on the Ground Plane, the space available and clearance afforded. The WLP.25's high gain performance is a perfect solution for metering and remote monitoring applications; it can deliver longer range than smaller chip antennas.

2. Key Antenna Performance Indicators

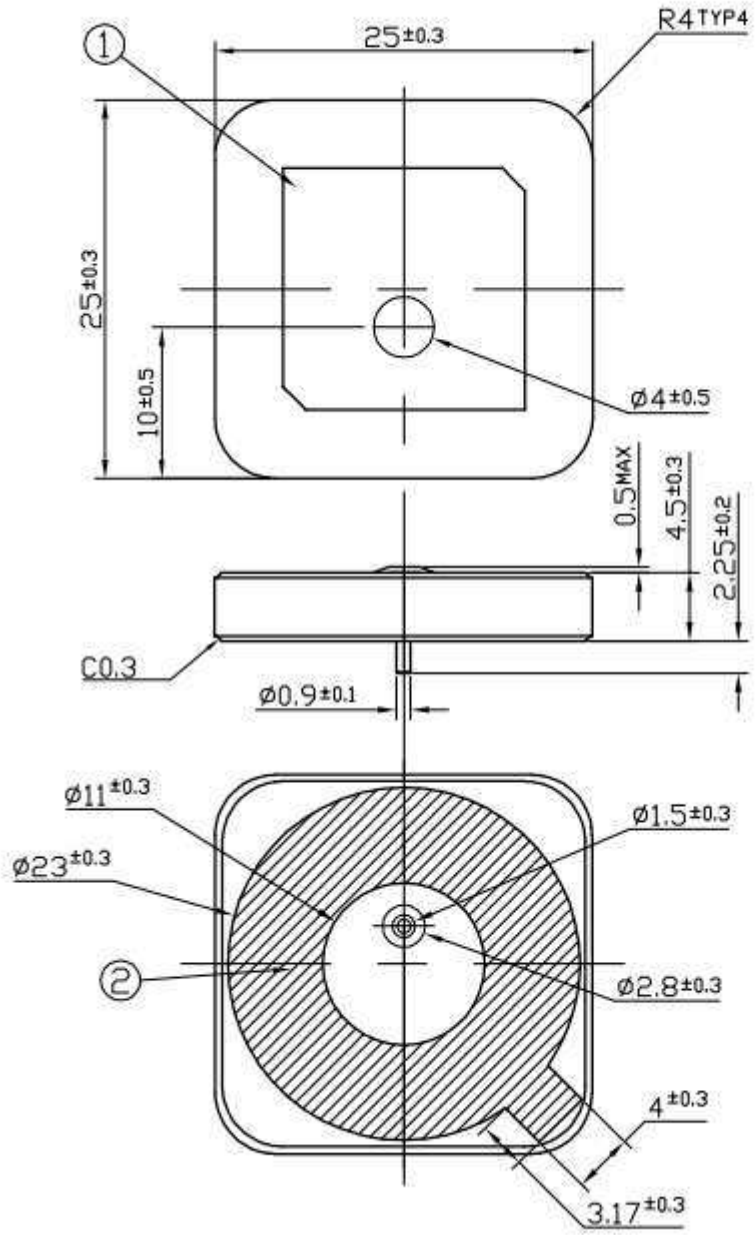
Original Patch Specification tested on 50*50mm ground plane

No	Parameter	Specification	Notes
1	Center Frequency	2482MHz	with 50*50mm GND Plane
2	Bandwidth	85 MHz min	Return Loss ≤-10dB
3	VSWR	2.0 max	Center Frequency
4	Gain at Zenith	+5.0dBic typ.	Center Frequency
5	Gain at 10° Elevation	-1.0dBic typ.	Center Frequency
6	Axial Ratio	3 dB Max	Center Frequency
7	Polarization	RHCP	
8	Impedance	50Ω	
9	Frequency Temp Coefficient (Tf)	0±20ppm/°C	-40°C to +105°C
10	Operating Temperature	-40°C to +105°C	

***Changes in user groundplane and environment will have an effect on the antennas performance**

3. Mechanical Specifications

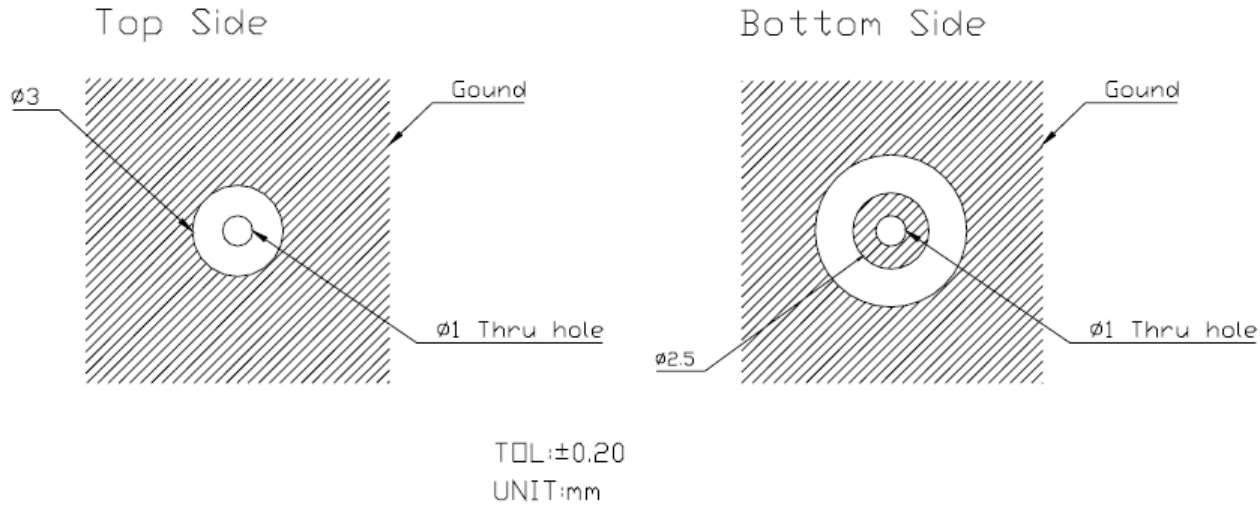
3.1 Dimensions and Drawing



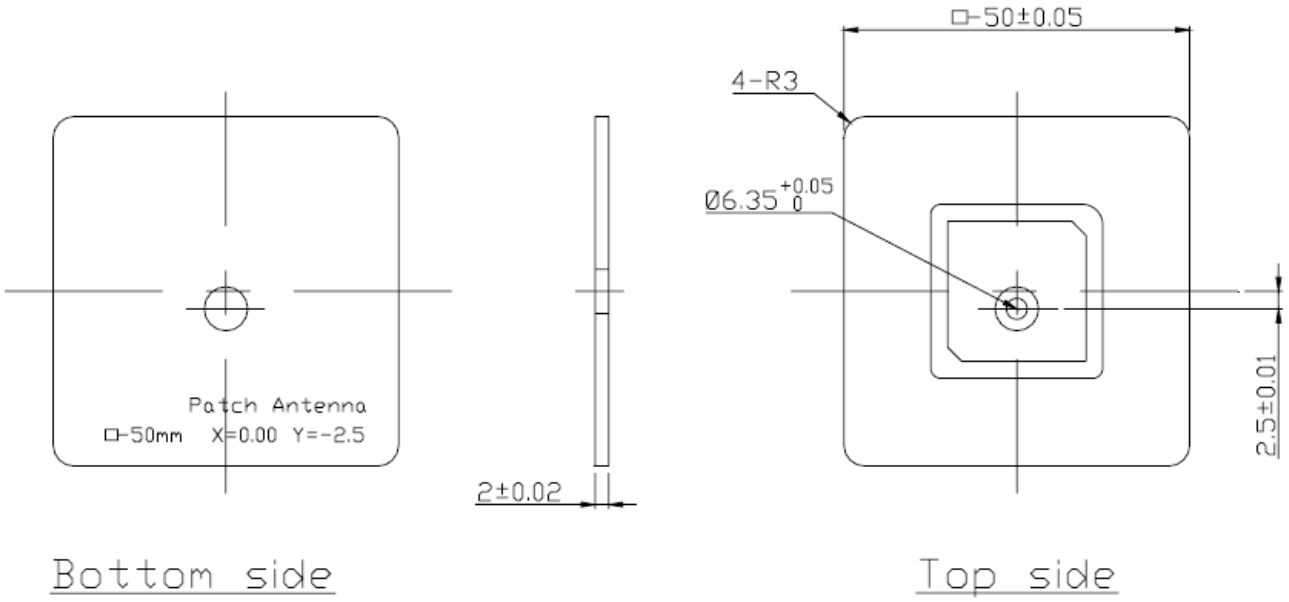
	Name	Material	Finish	QTY
1	WLP.2450 Patch 25x25x4	Ceramic	Clear	1
2	Double Sided Adhesive	NITTO 5015	White Liner	1

NOTE:
1.Double Sided Adhesive

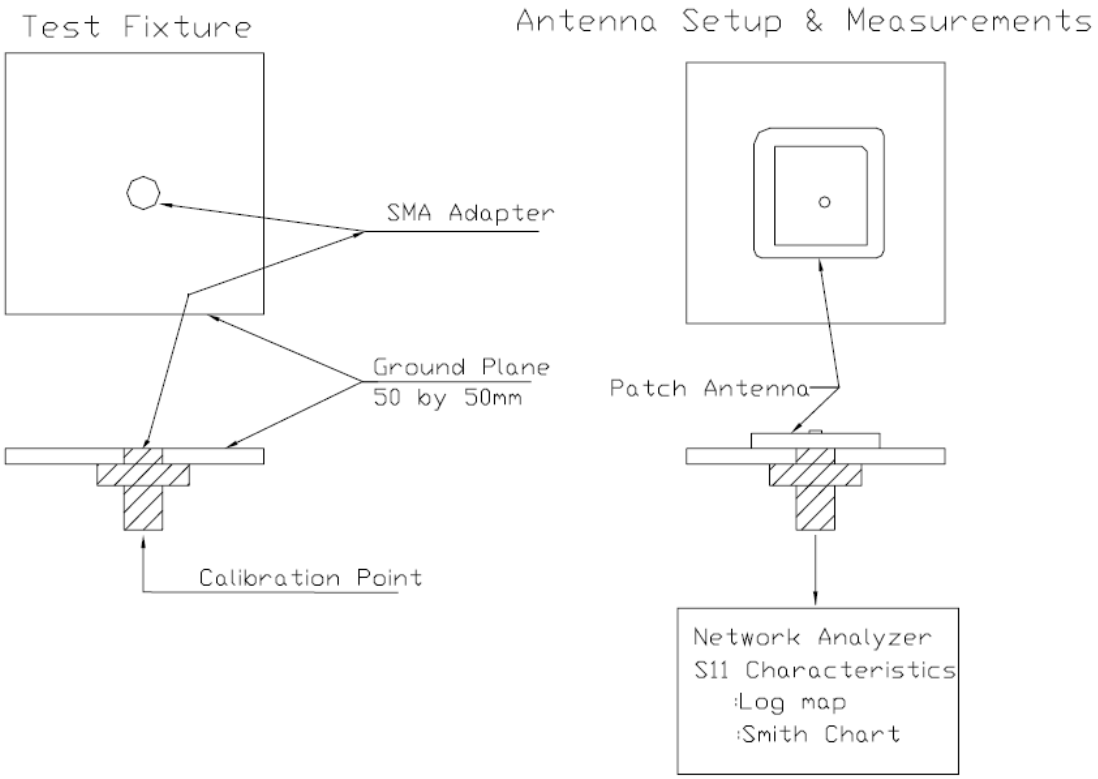
3.2 Layout Dimensions



3.3Ground Plane Dimension

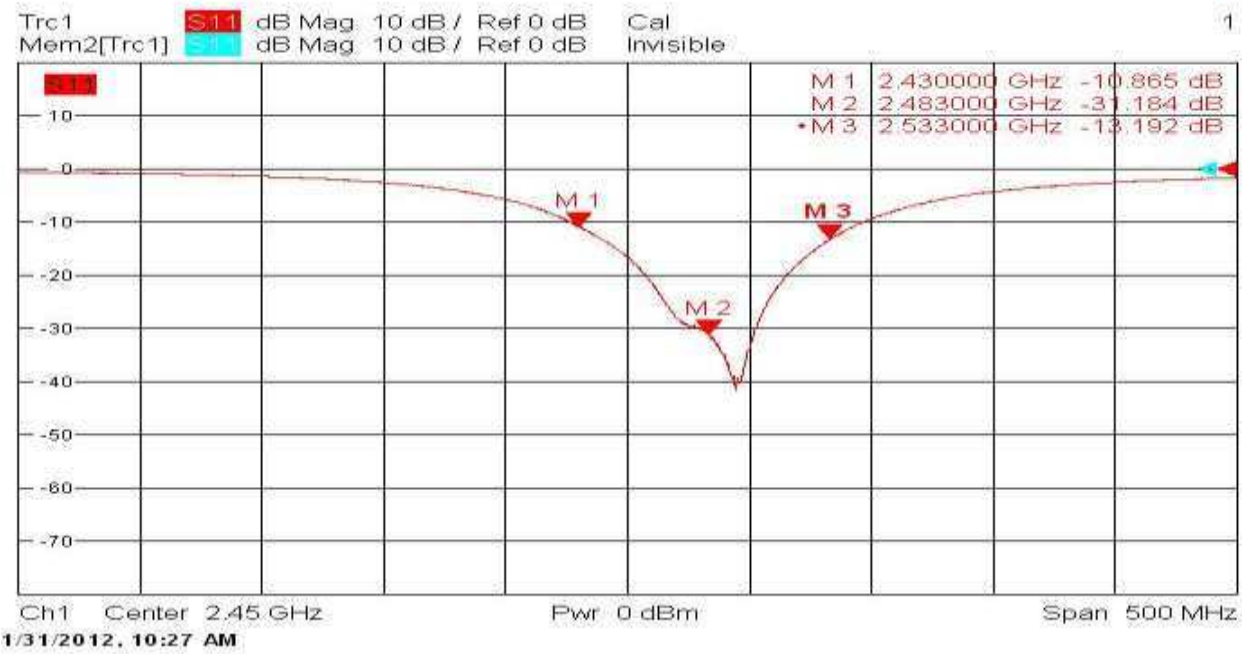


3.4 Test Fixture Antenna & Performance Measurements

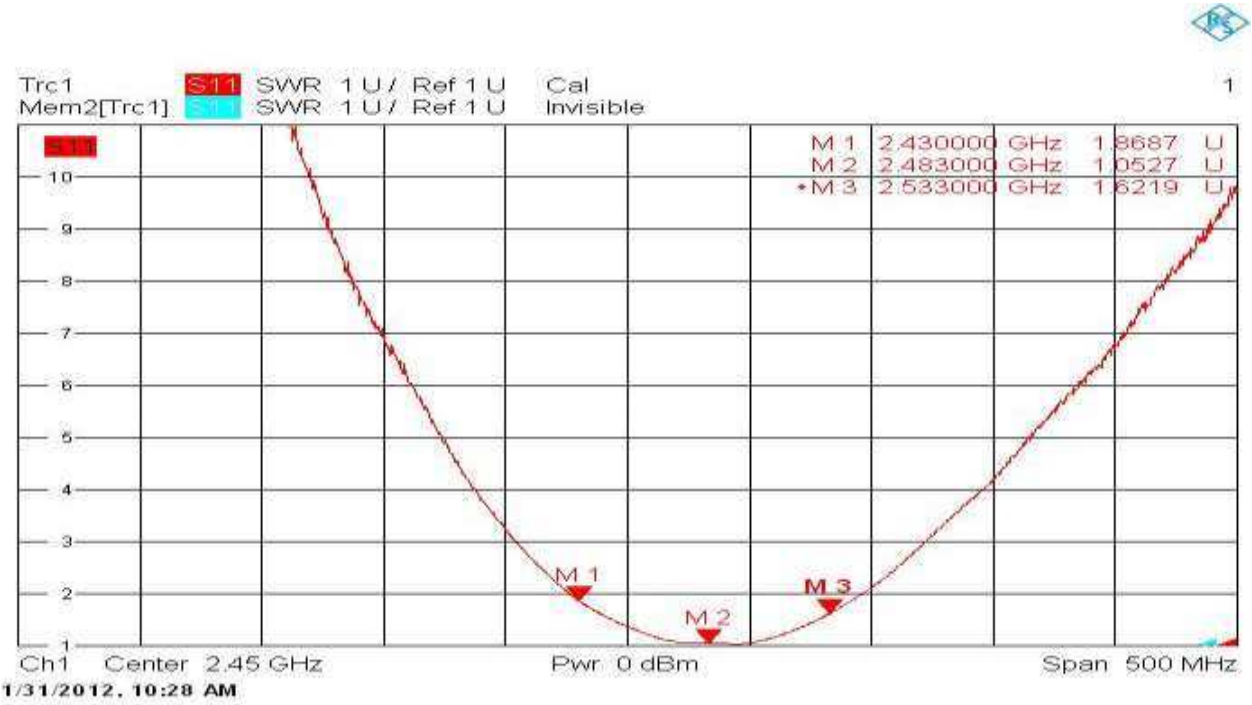


4. Performance Measurement

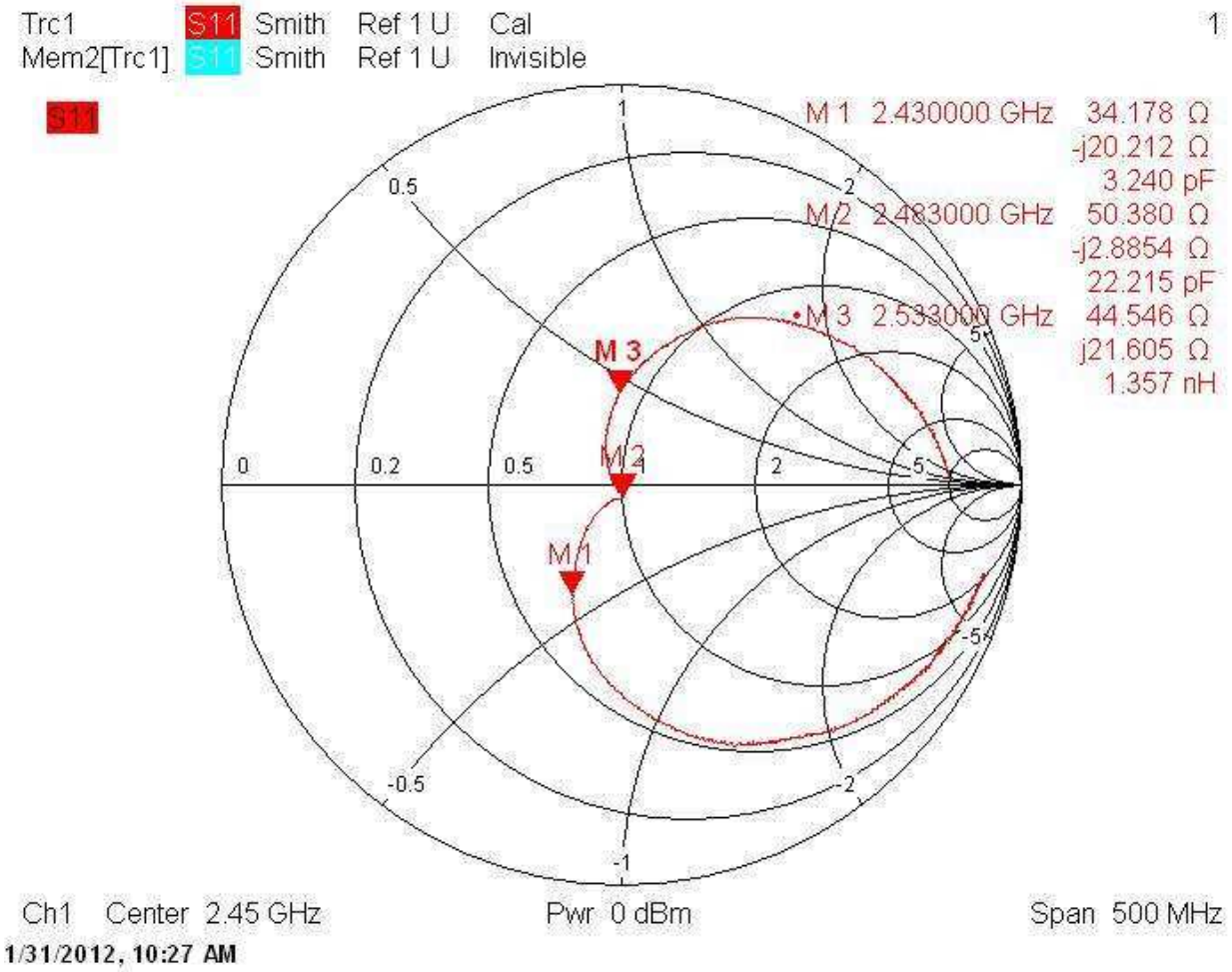
4.1 Antenna S11(Return Loss)



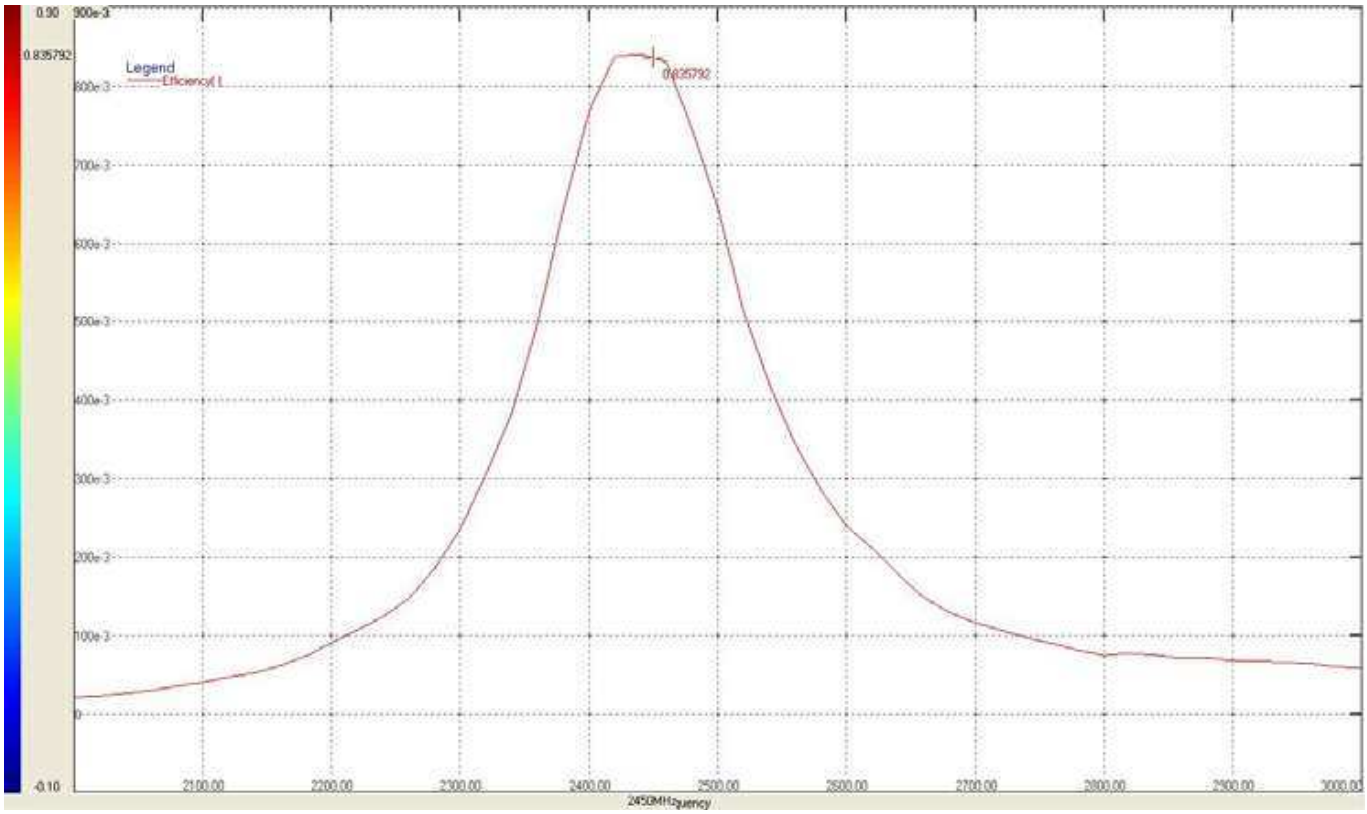
4.2 VSWR



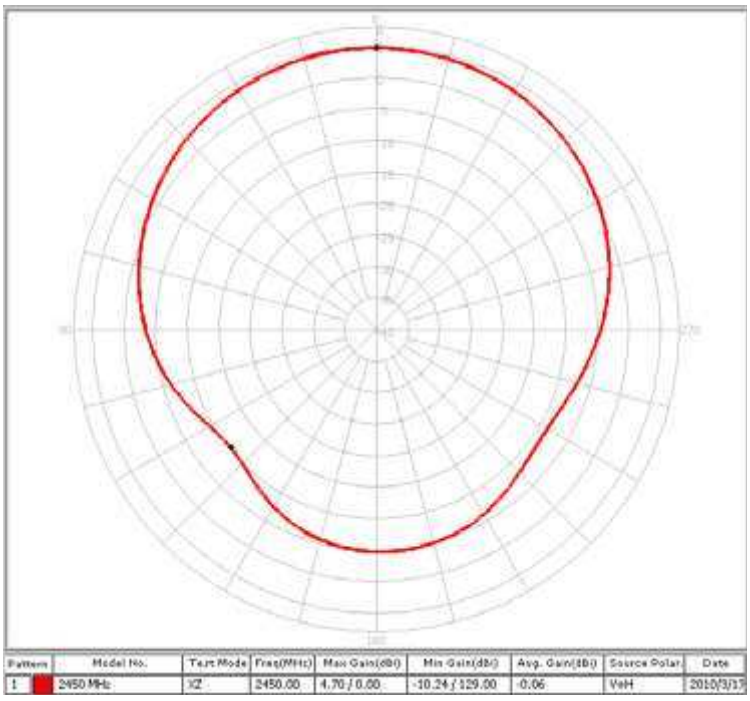
4.3 Antenna Smith Chart (Impedance)



4.4 Efficiency

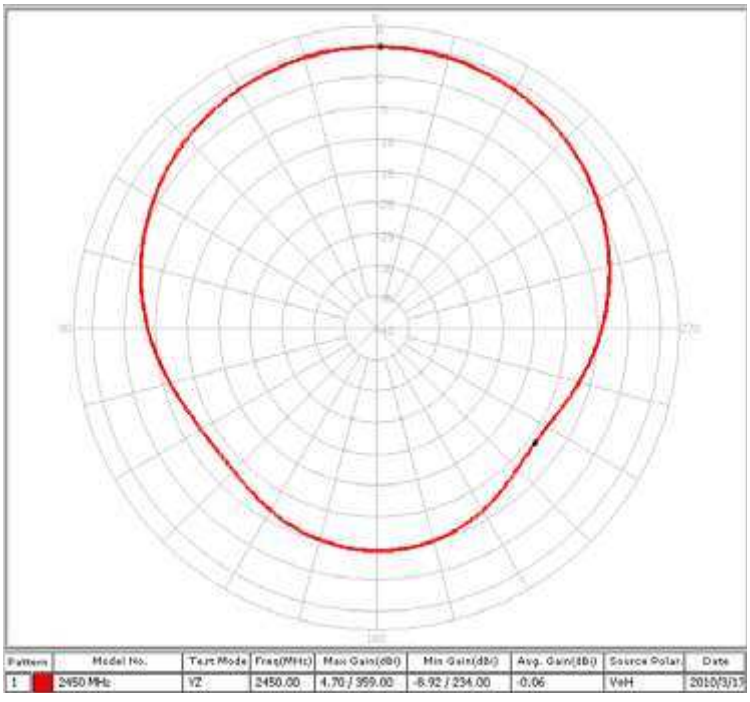


4.5 Antenna Gain



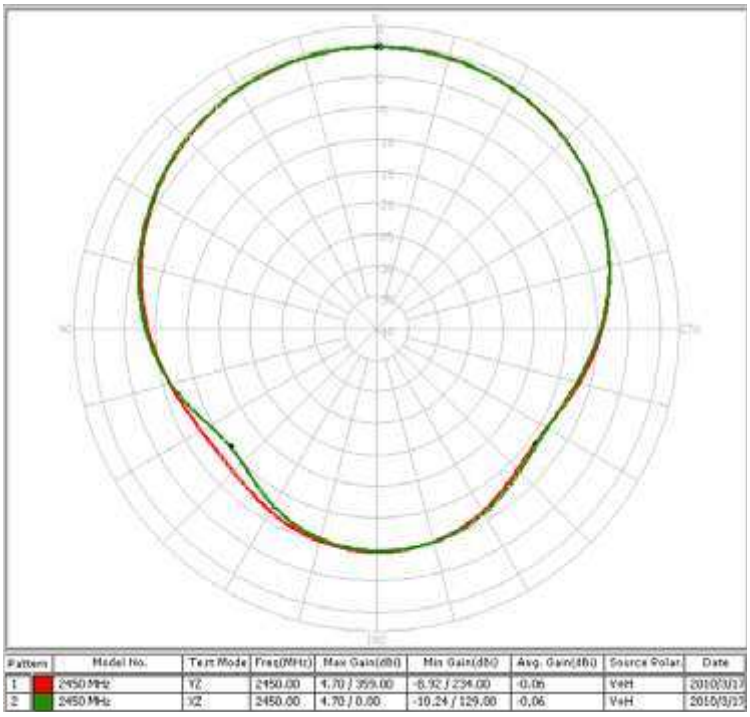
Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	2450 MHz	XZ	2450.00	4.70 / 0.00	-10.24 / 129.00	-0.06	VeH	2010/3/17

XZ-Plane



Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	2450 MHz	YZ	2450.00	4.70 / 359.00	-8.92 / 234.00	-0.06	VeH	2010/3/17

YZ-Plane

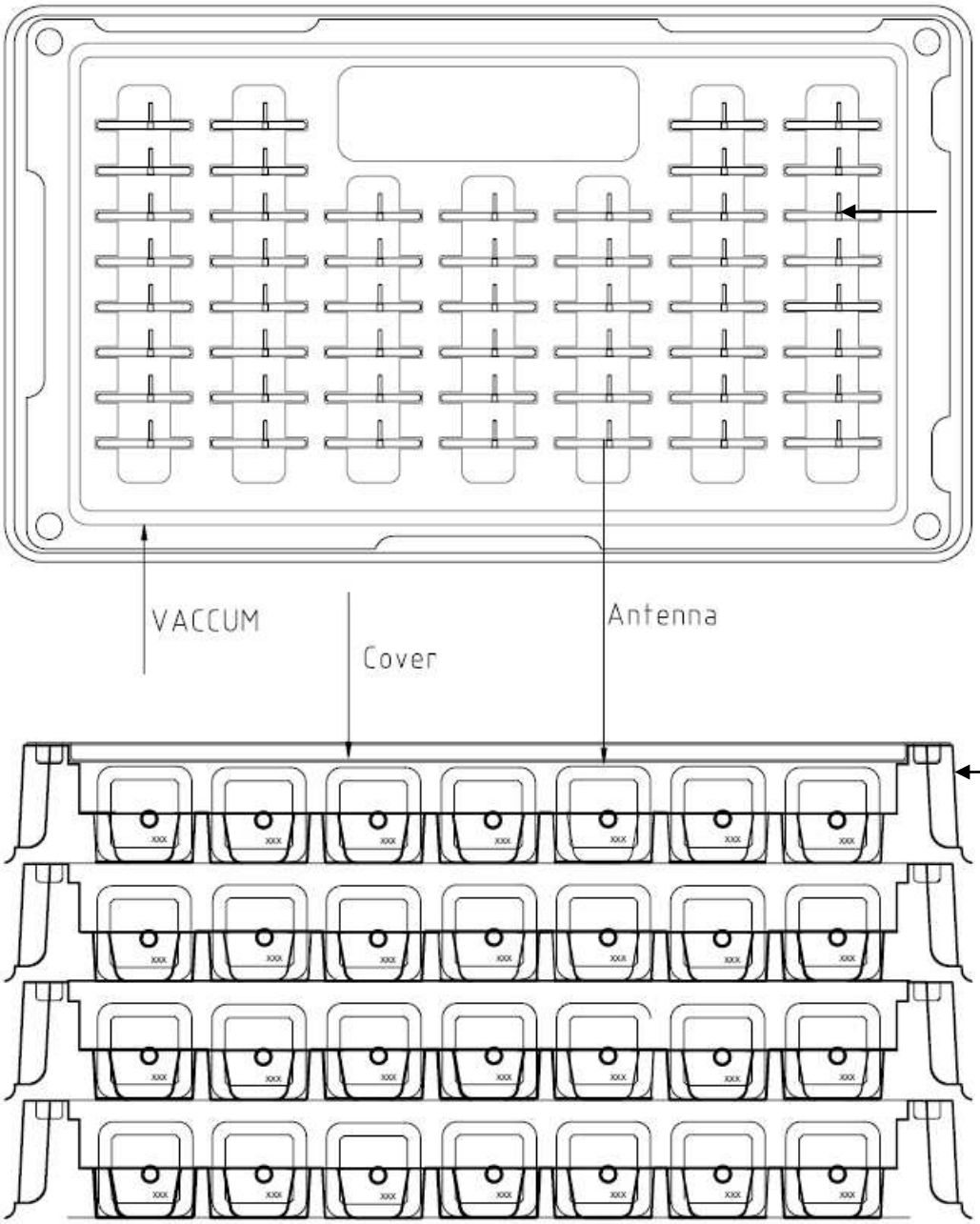


Pattern		Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1		2450 MHz	YZ	2450.00	4.70 / 359.00	-6.92 / 234.00	-0.06	V+H	2010/3/17
2		2450 MHz	XZ	2450.00	4.70 / 0.00	-10.24 / 129.00	-0.06	V+H	2010/3/17

XY Plane

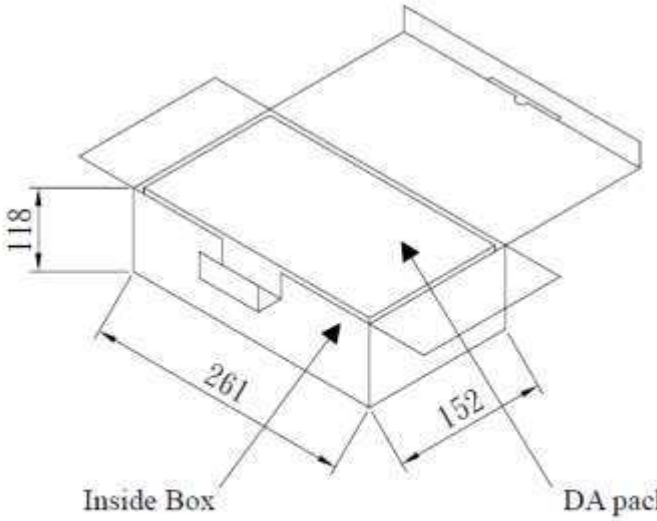
5. Packaging

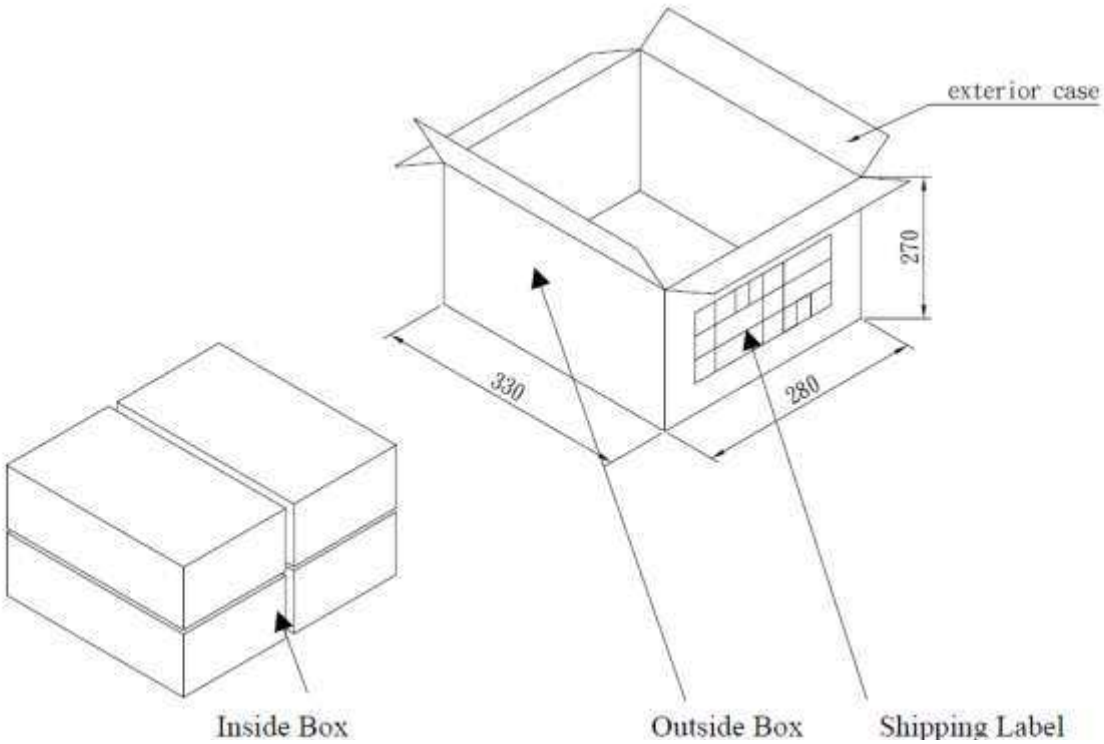
- Per Tray: 50 pieces
- Per Carton(Inside Box) – 4 Trays = 200 pieces
- Outer Carton (Outside Box)– 4 Cartons = 800 pieces



50 pieces per Tray

4 Tray's per carton


118
261
152
Inside Box
DA package disassembly


exterior case
270
330
280
Inside Box
Outside Box
Shipping Label