

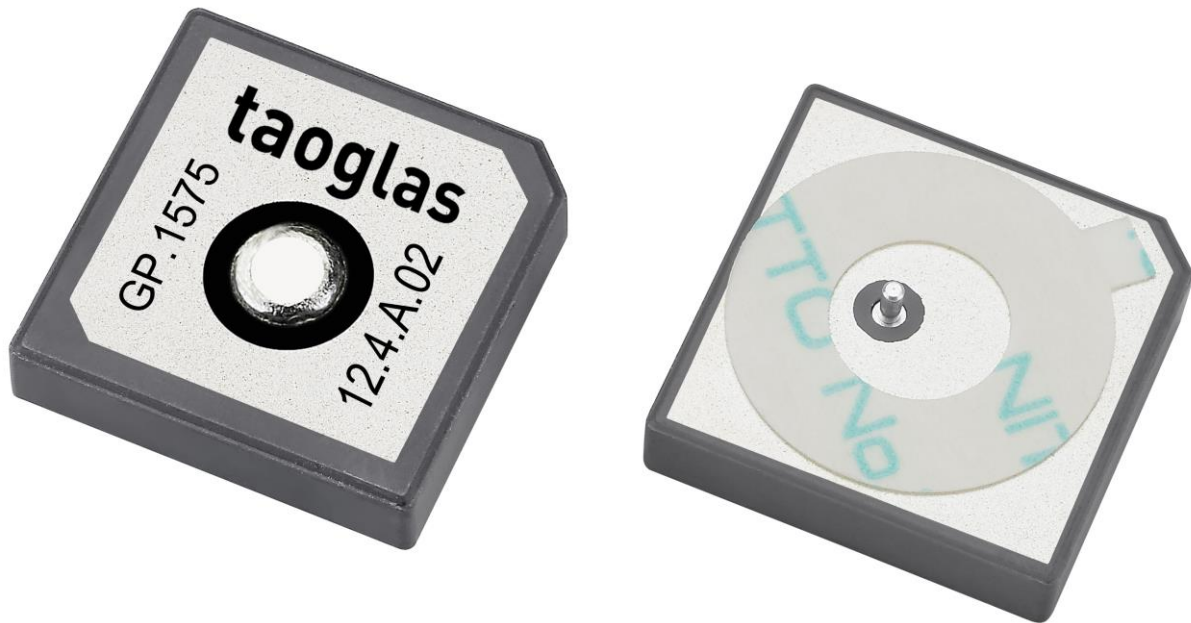
## SPECIFICATION

Part No. : **GP.1575.12.4.A.02**

Product Name : **4mm thick GPS Patch Antenna, 1575MHz**

Features : 12mm\*12mm\*4mm  
Halogen Free  
RoHS Compliant

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# 1. Introduction

This miniaturized ceramic GPS patch antenna is based on smart **XtremeGain™** technology. It is mounted via pin and double-sided adhesive and has been selected as optimal solution for the customer device environment.

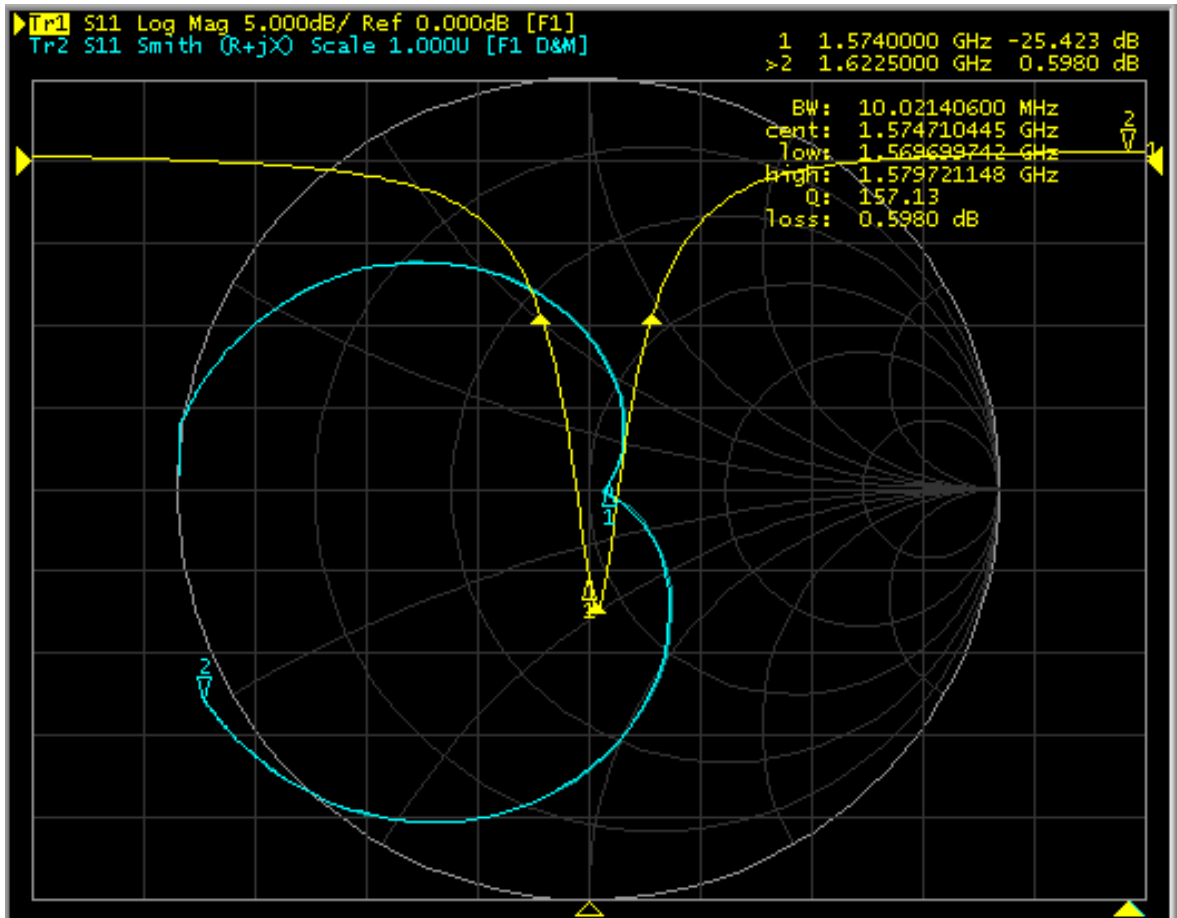
# 2. Specification Table

**Original Patch Specification tested on 50\*50mm ground plane**

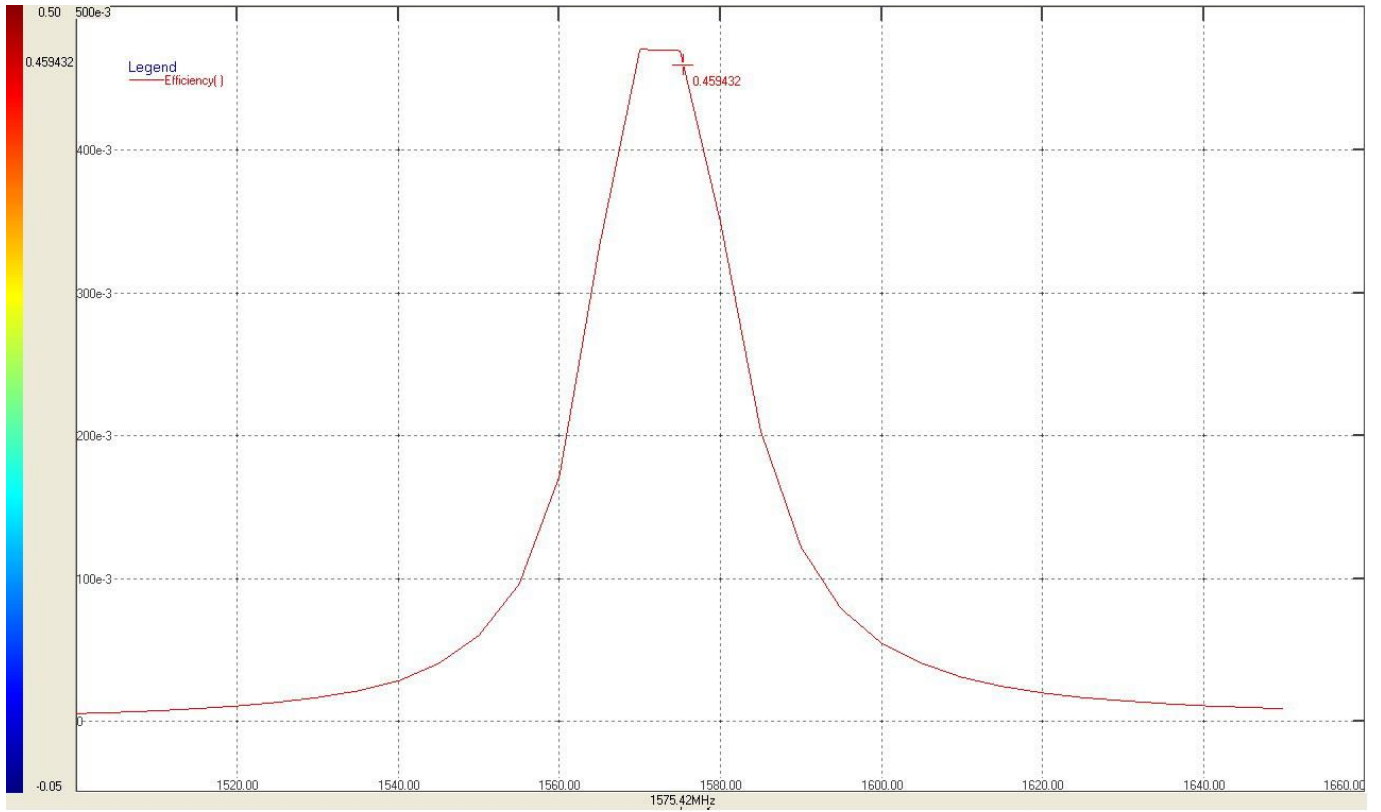
No	Parameter	Specification
1	Center Frequency	1575MHz +/- 3MHz
2	Impedance	50Ω
3	Bandwidth	8MHz min Return Loss <-10dB
4	VSWR	1.5 max
5	Gain toward Zenith	-0.5 dBic typ.
6	Gain at 10°Elevation	-----
7	Axial Ratio	4dB Max.
8	Polarization	Right Hand Circular Polarization
9	Frequency Temperature Coefficient ( τf )	0 ± 20ppm/°C
10	Operating Temperature	-40°C to +85°C

### 3. Electrical Specifications

#### 3.1 Smith Chart

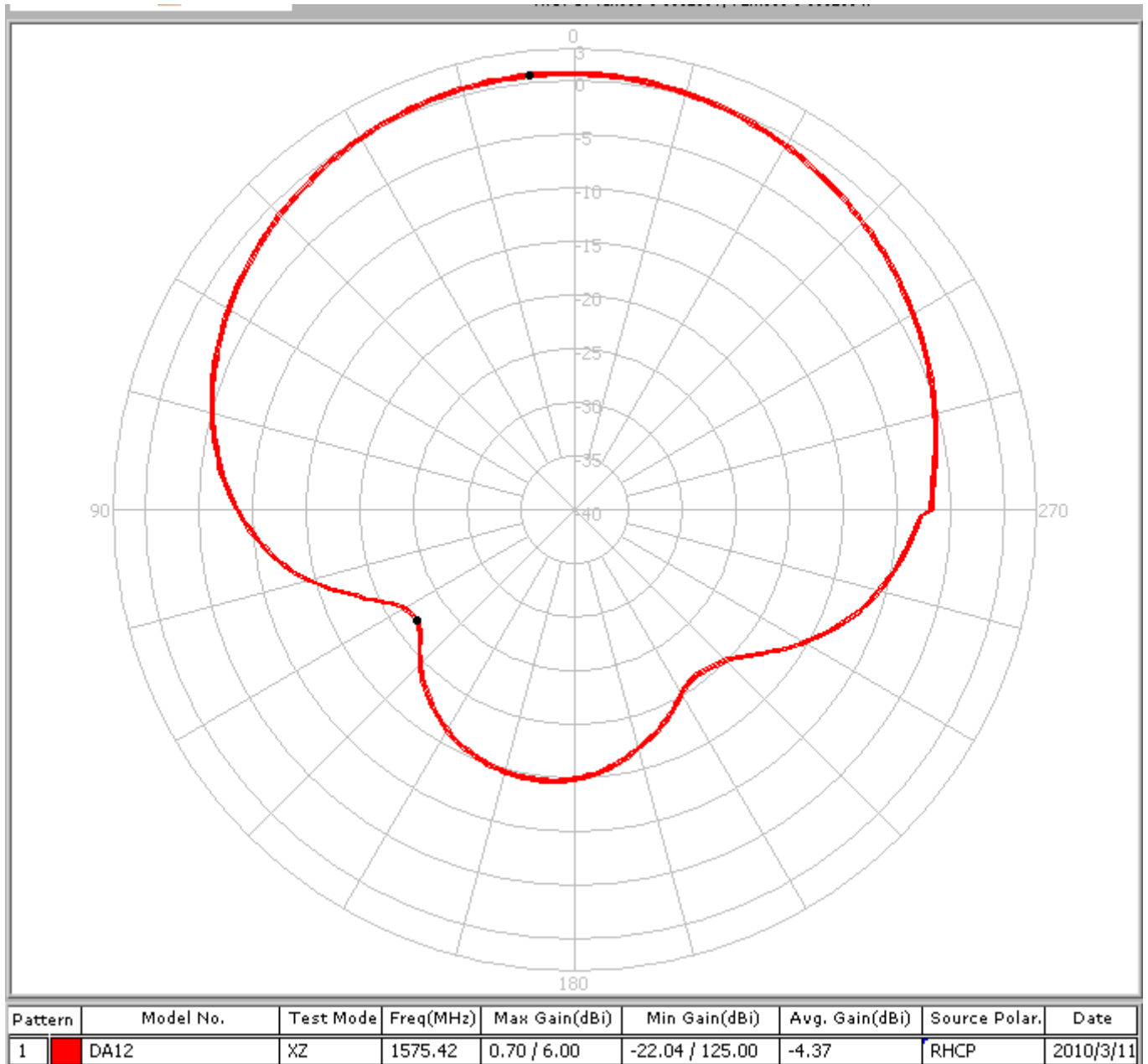


### 3.2 Efficiency

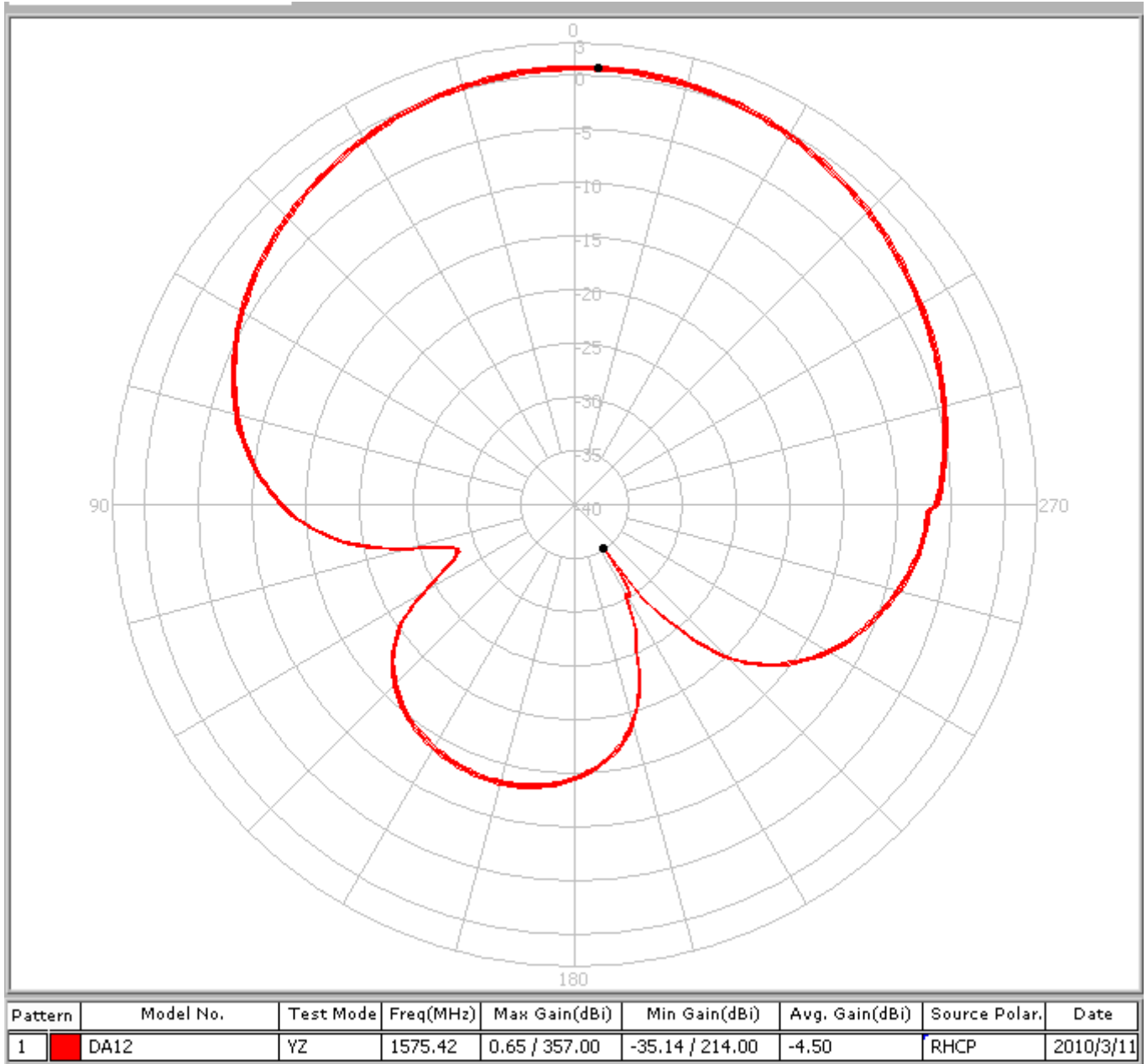


## 4. 2D Radiation Patterns

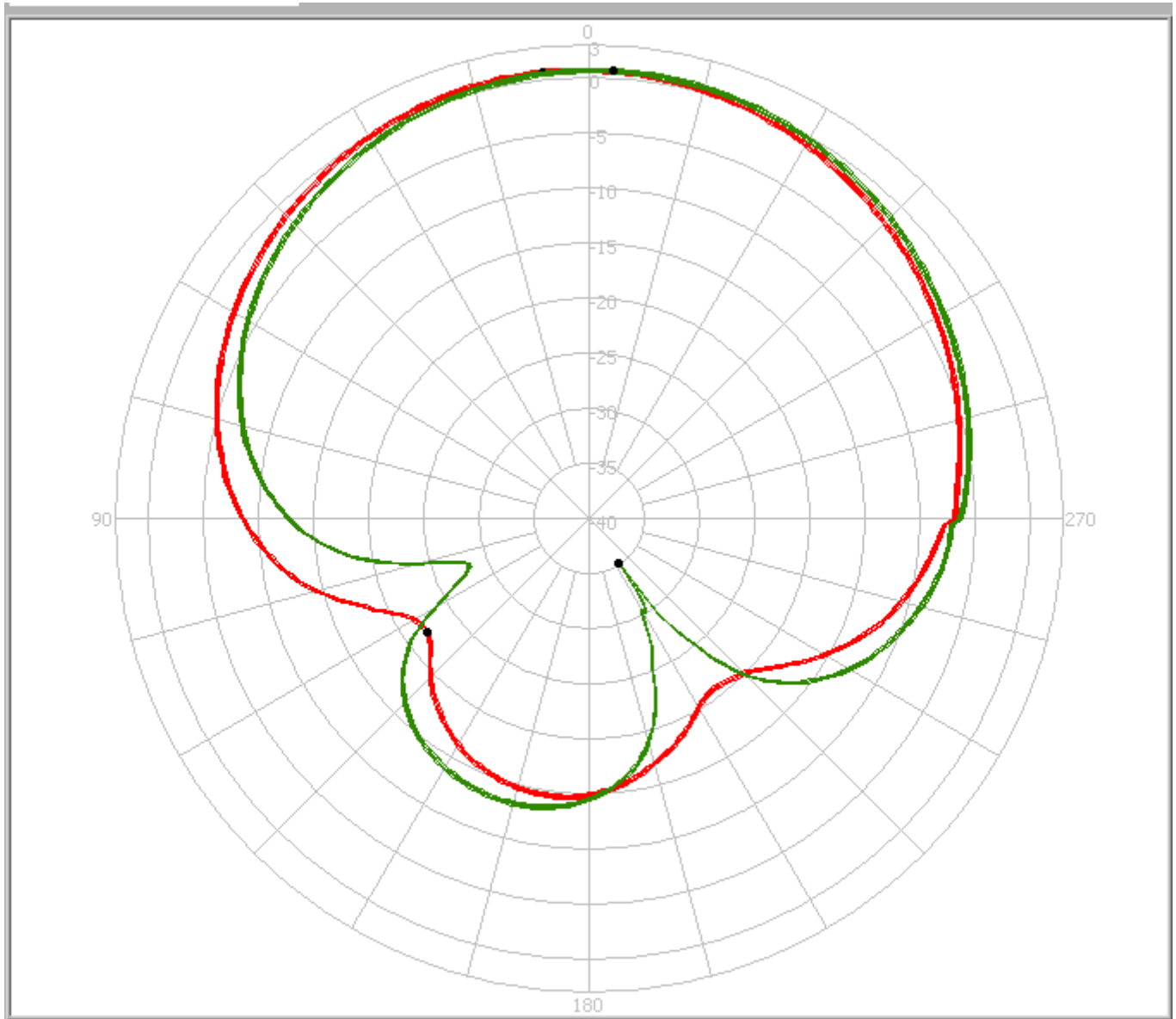
### 4.1 XZ Plane Radiation



## 4.2 YZ Plane Radiation

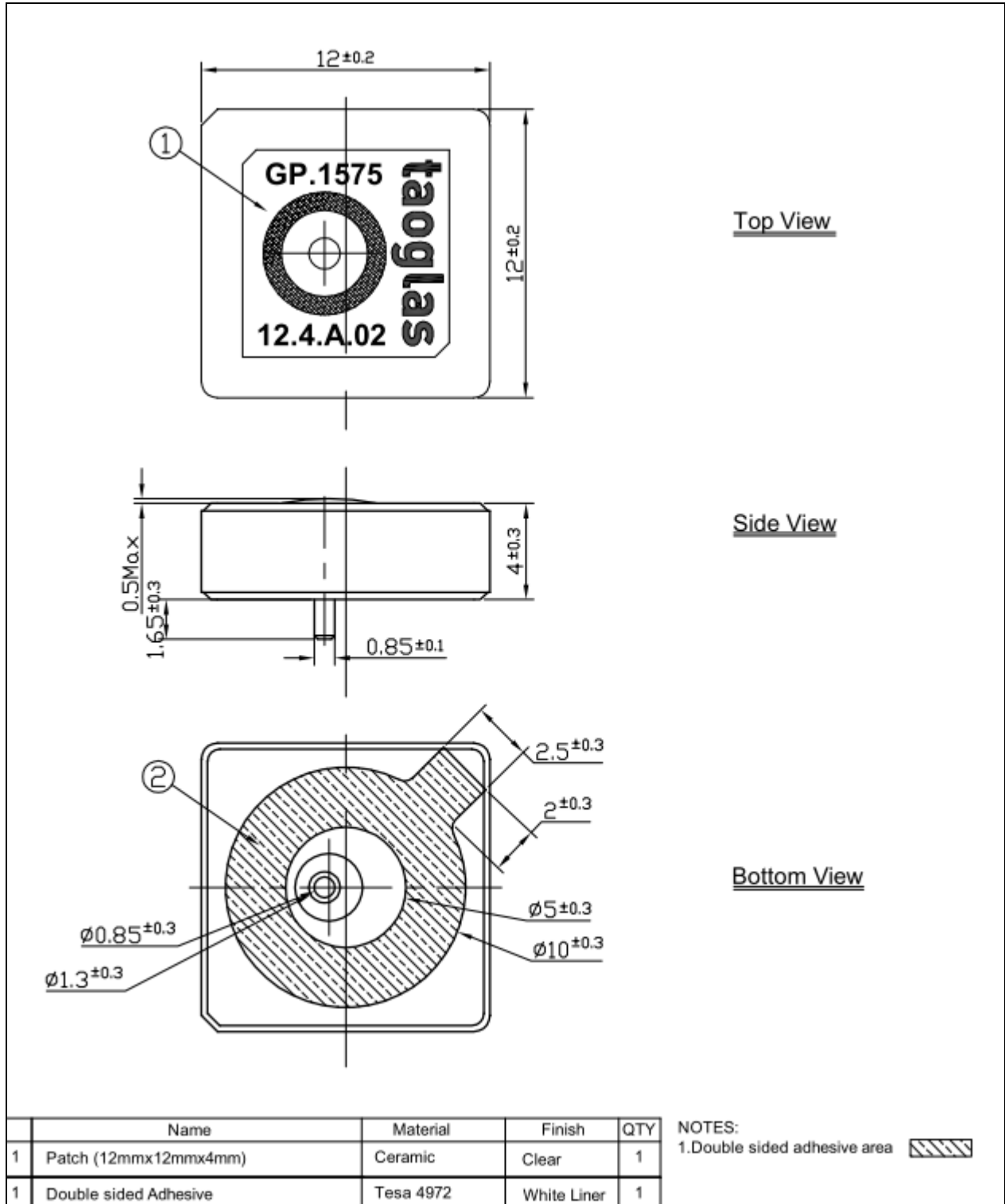


### 4.3 XY Plane Radiation



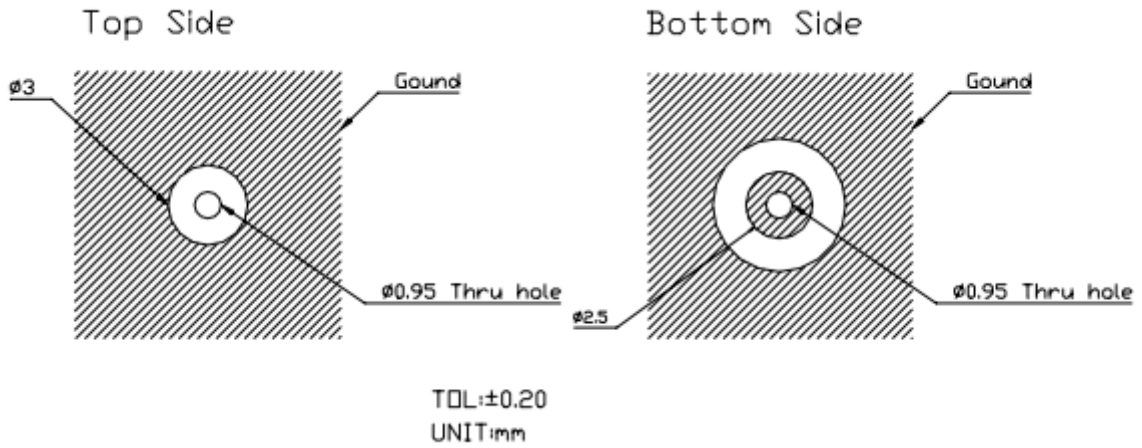
Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	XZ	1575.42	0.70 / 6.00	-22.04 / 125.00	-4.37	RHCP	2010/3/11
2	DA12	YZ	1575.42	0.65 / 357.00	-35.14 / 214.00	-4.50	RHCP	2010/3/11

## 5. Mechanical Drawing



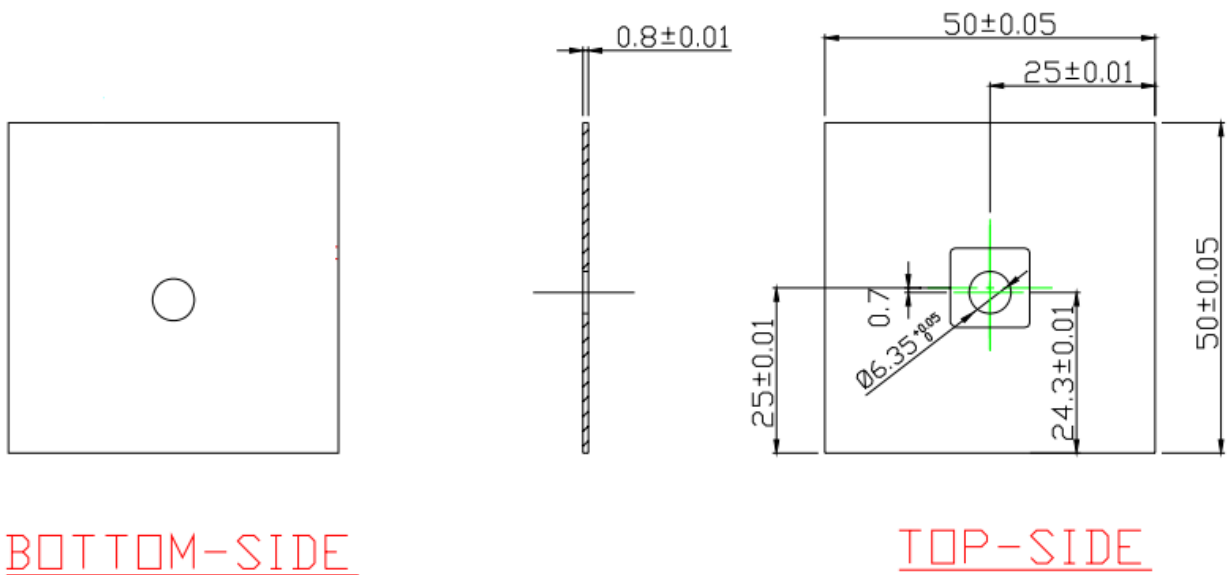


## 5.1 Layout Dimension

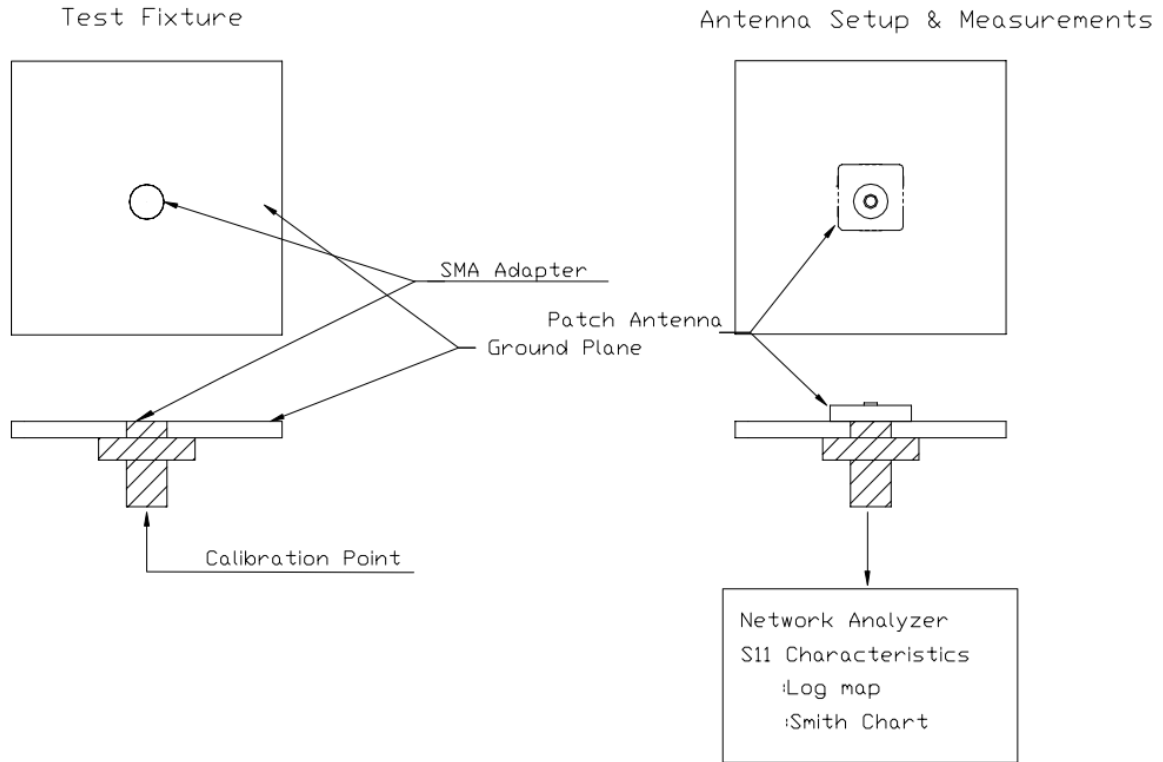


\*Note Layout Dimensions may be affected by the thickness of the PCB

## 6. Test Jig and Dimension

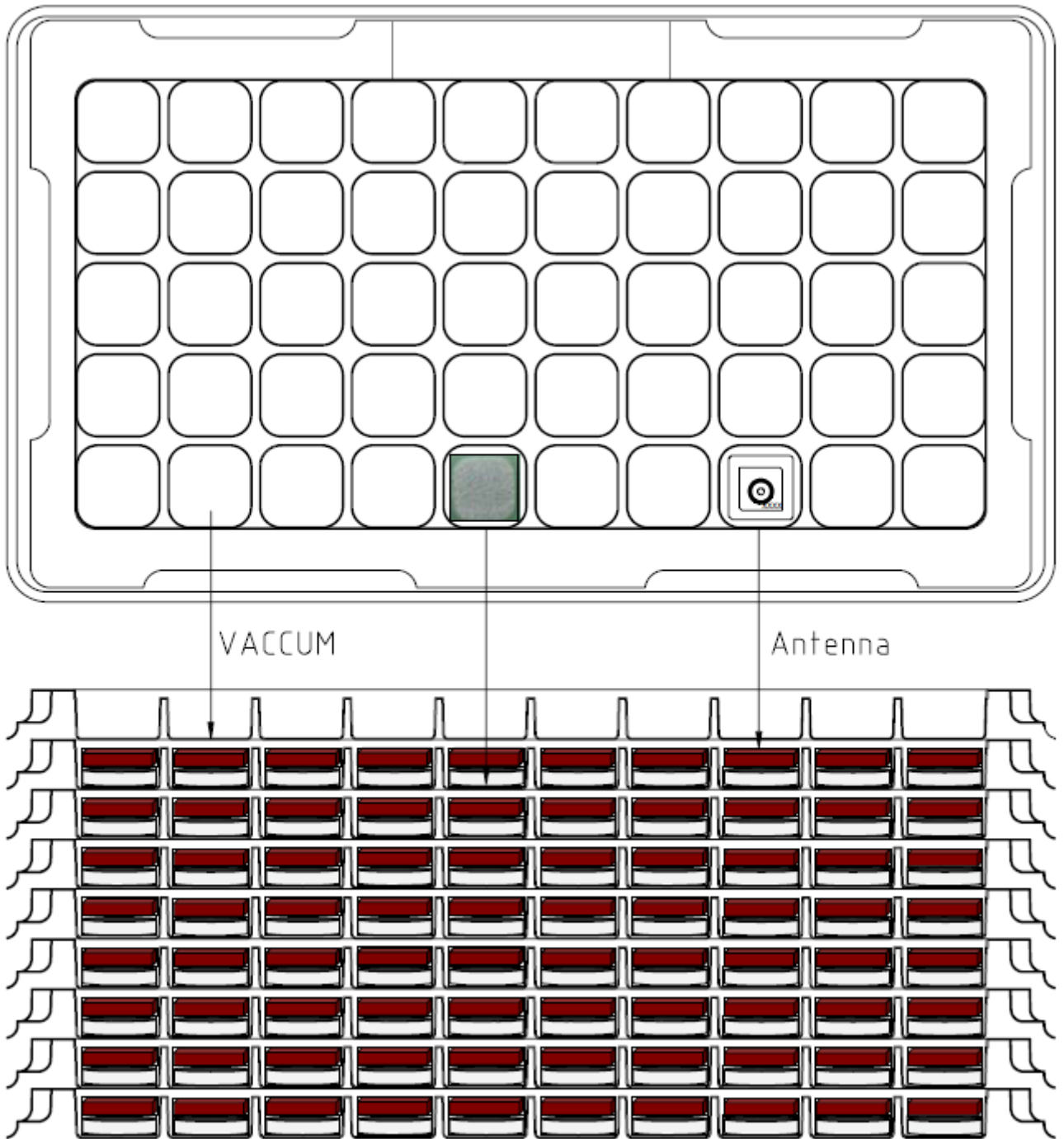


## 6.1 Test Fixture Antenna Setup and Measurements



## 7. Packaging

Pieces per Inner Carton: 400



V

# Packing

