

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.

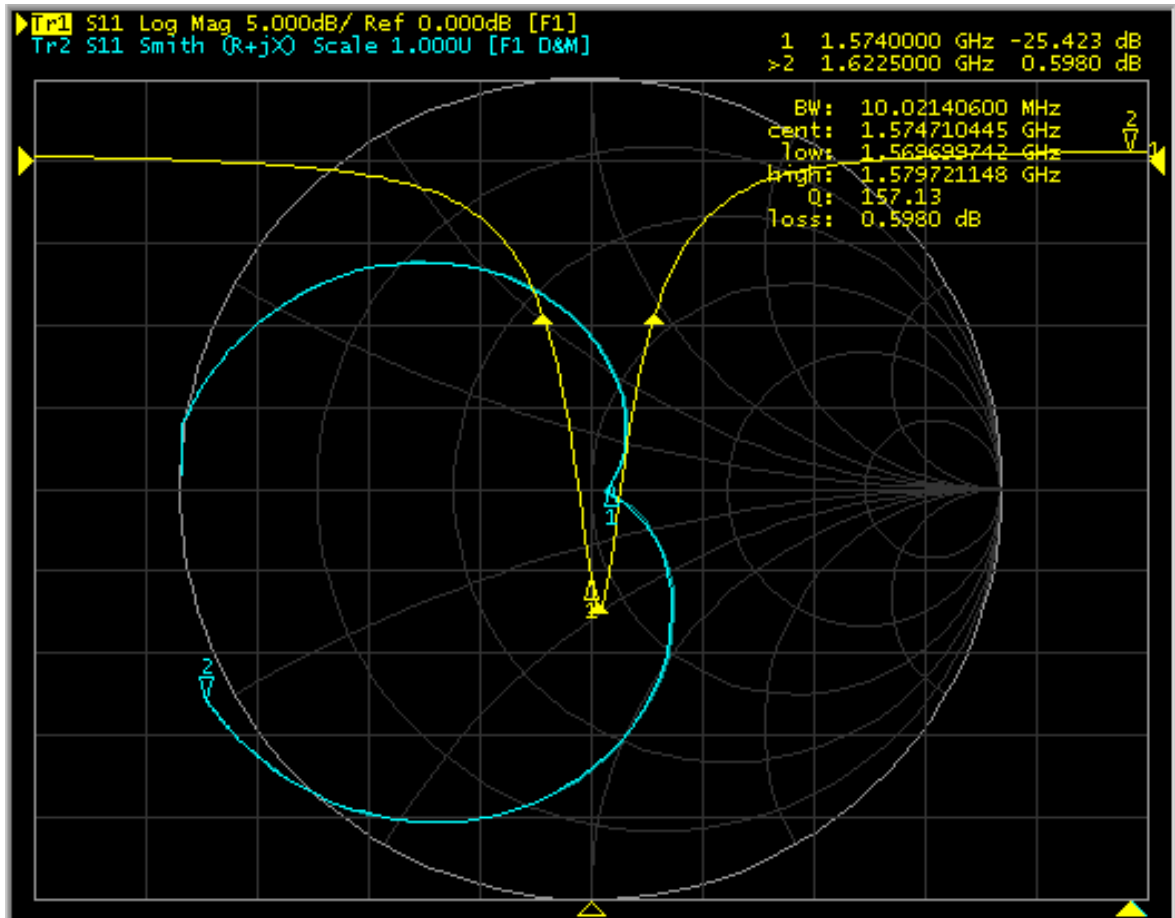
2. Specification Table

Original Patch Specification tested on 50*50mm ground plane

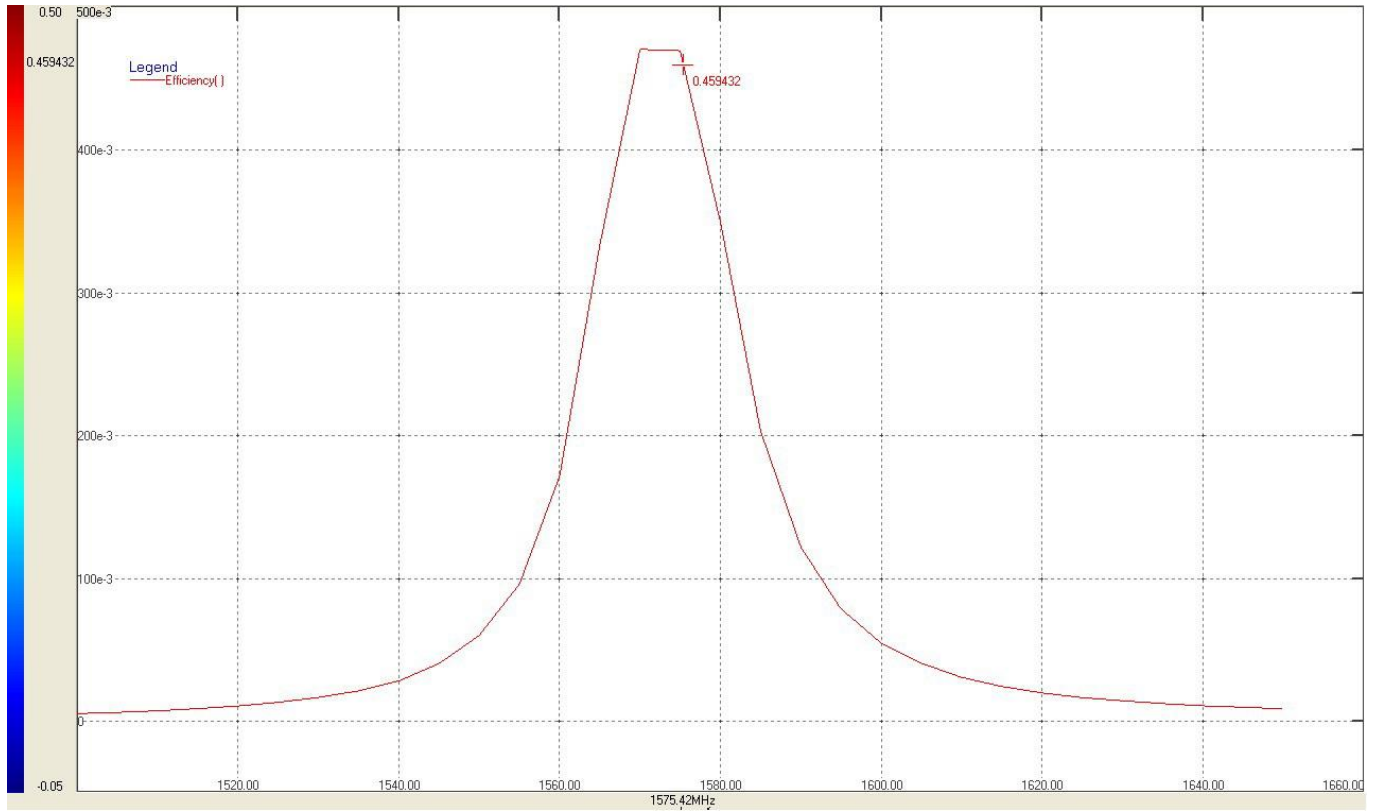
No	Parameter	Specification
1	Center Frequency	1575MHz +/- 3MHz
2	Impedance	50Ω
3	Bandwidth	8MHz min Return Loss <-10dB
4	VSWR	1.5 max
5	Gain toward Zenith	-0.5 dBic typ.
6	Gain at 10°Elevation	-----
7	Axial Ratio	4dB Max.
8	Polarization	Right Hand Circular Polarization
9	Frequency Temperature Coefficient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

3. Electrical Specifications

3.1 Smith Chart

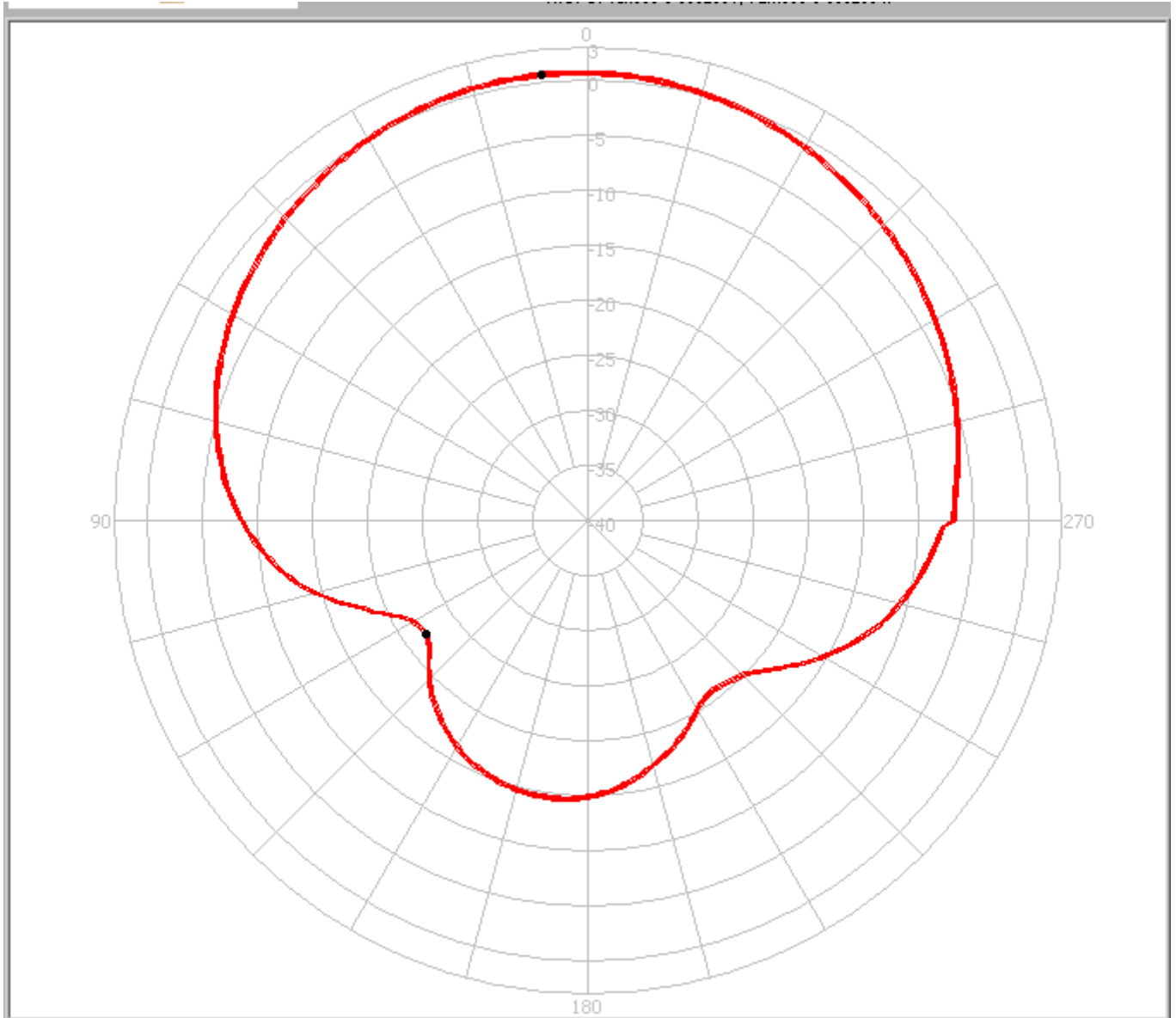


3.2 Efficiency



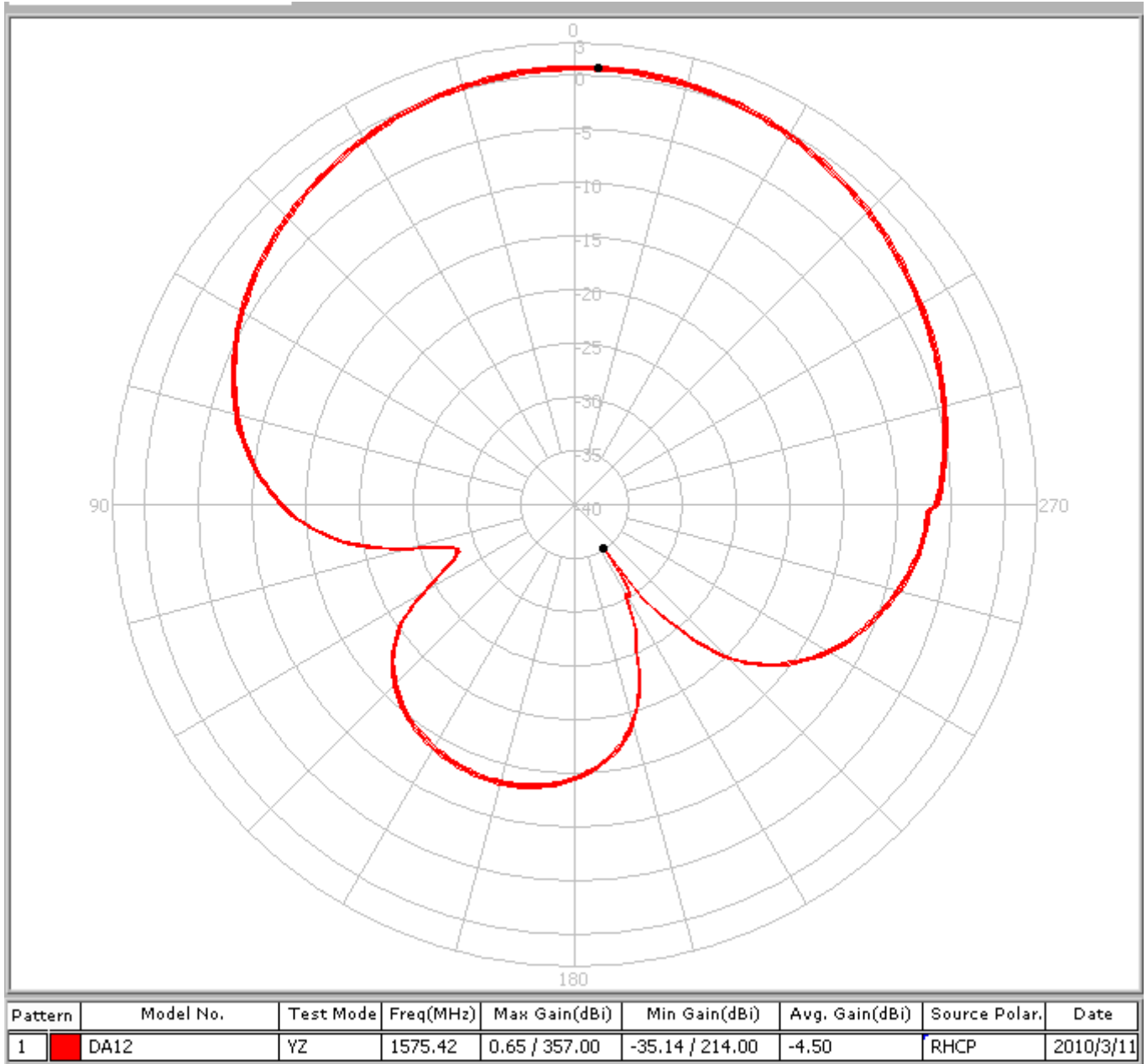
4. 2D Radiation Patterns

4.1 XZ Plane Radiation

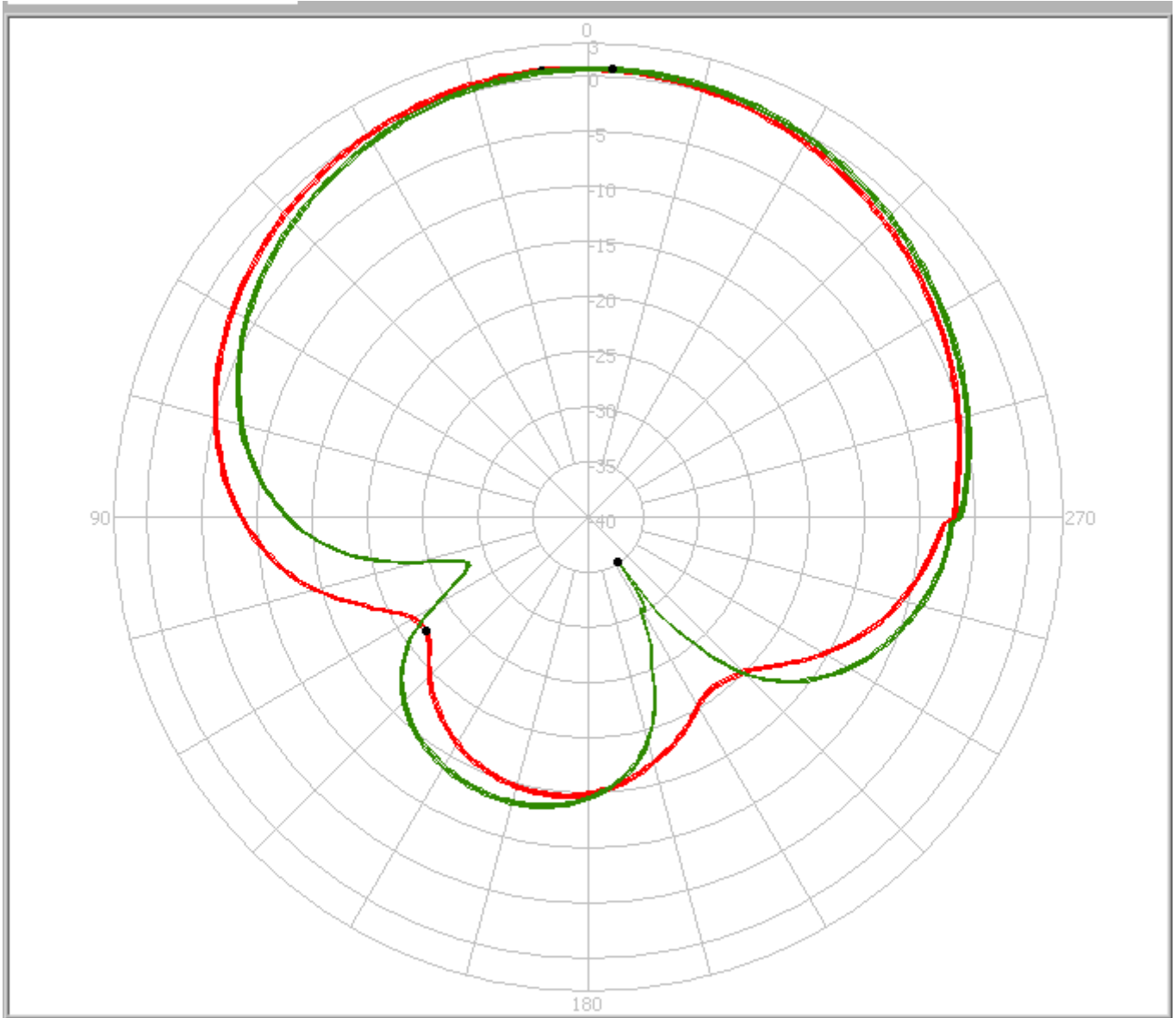


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	XZ	1575.42	0.70 / 6.00	-22.04 / 125.00	-4.37	RHCP	2010/3/11

4.2 YZ Plane Radiation

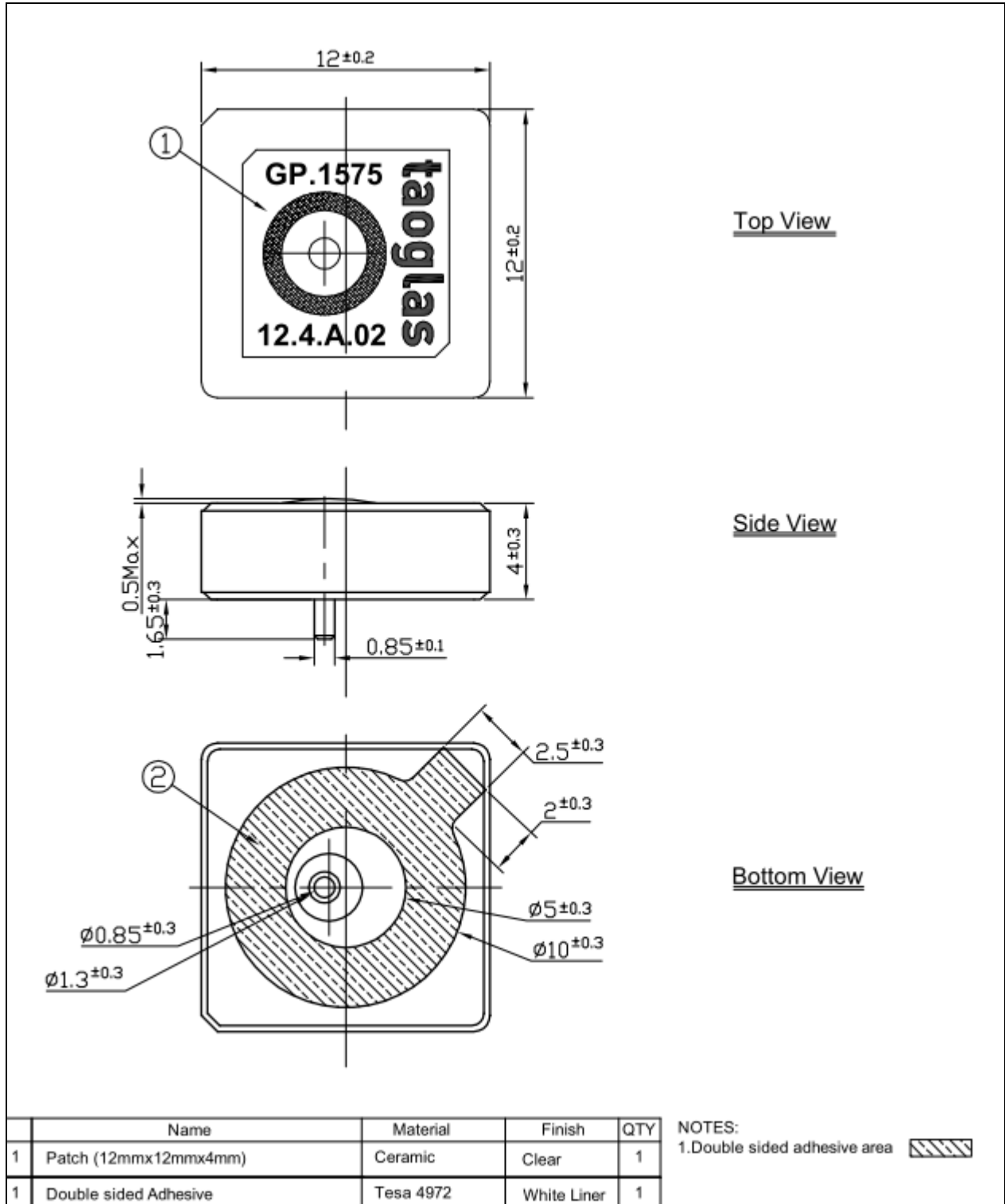


4.3 XY Plane Radiation

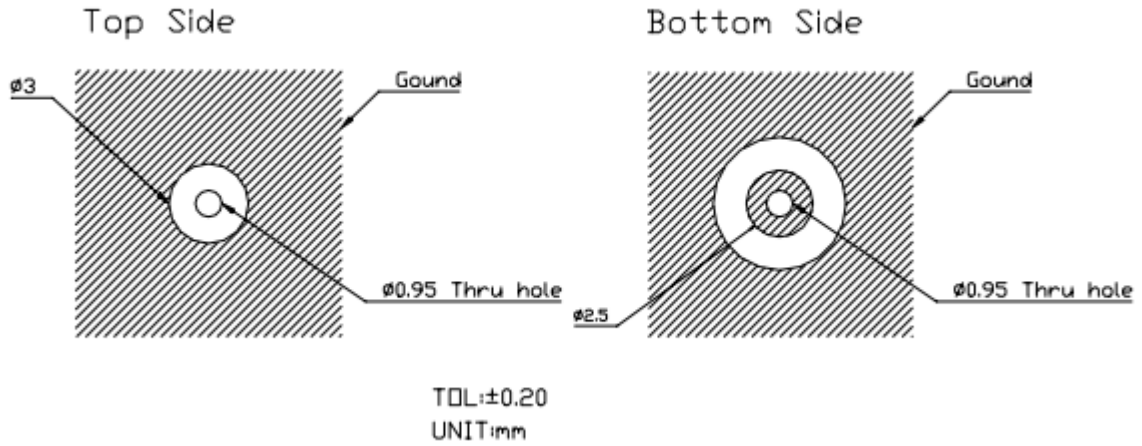


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	XZ	1575.42	0.70 / 6.00	-22.04 / 125.00	-4.37	RHCP	2010/3/11
2	DA12	YZ	1575.42	0.65 / 357.00	-35.14 / 214.00	-4.50	RHCP	2010/3/11

5. Mechanical Drawing

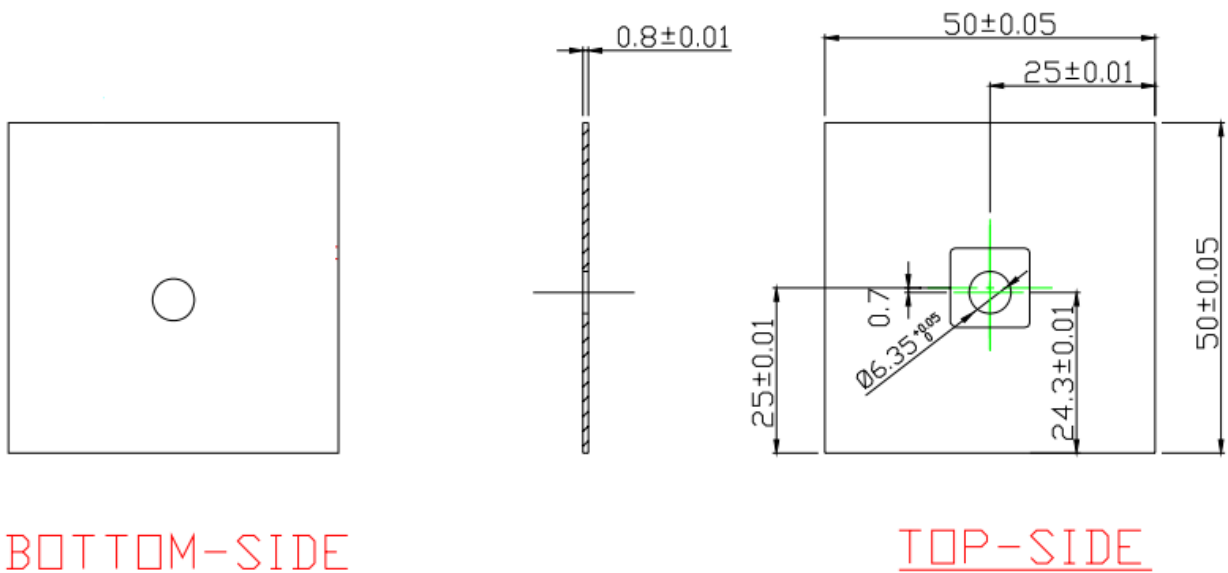


5.1 Layout Dimension

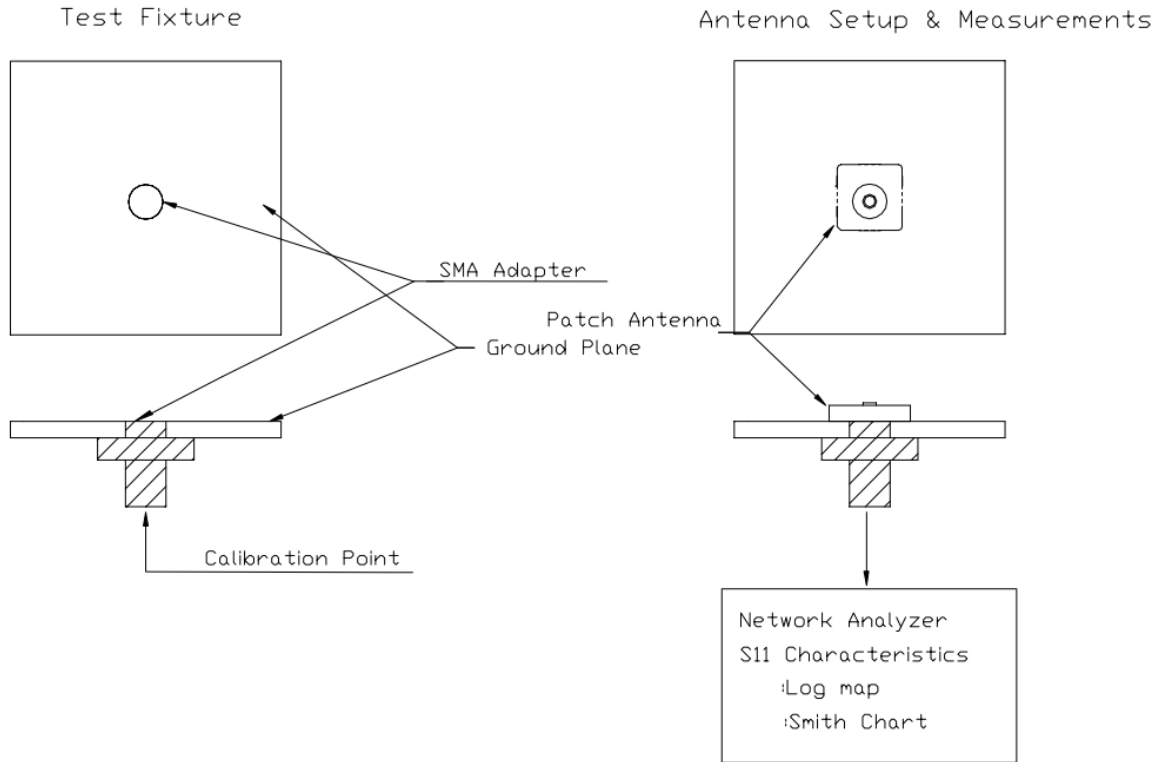


*Note Layout Dimensions may be affected by the thickness of the PCB

6. Test Jig and Dimension

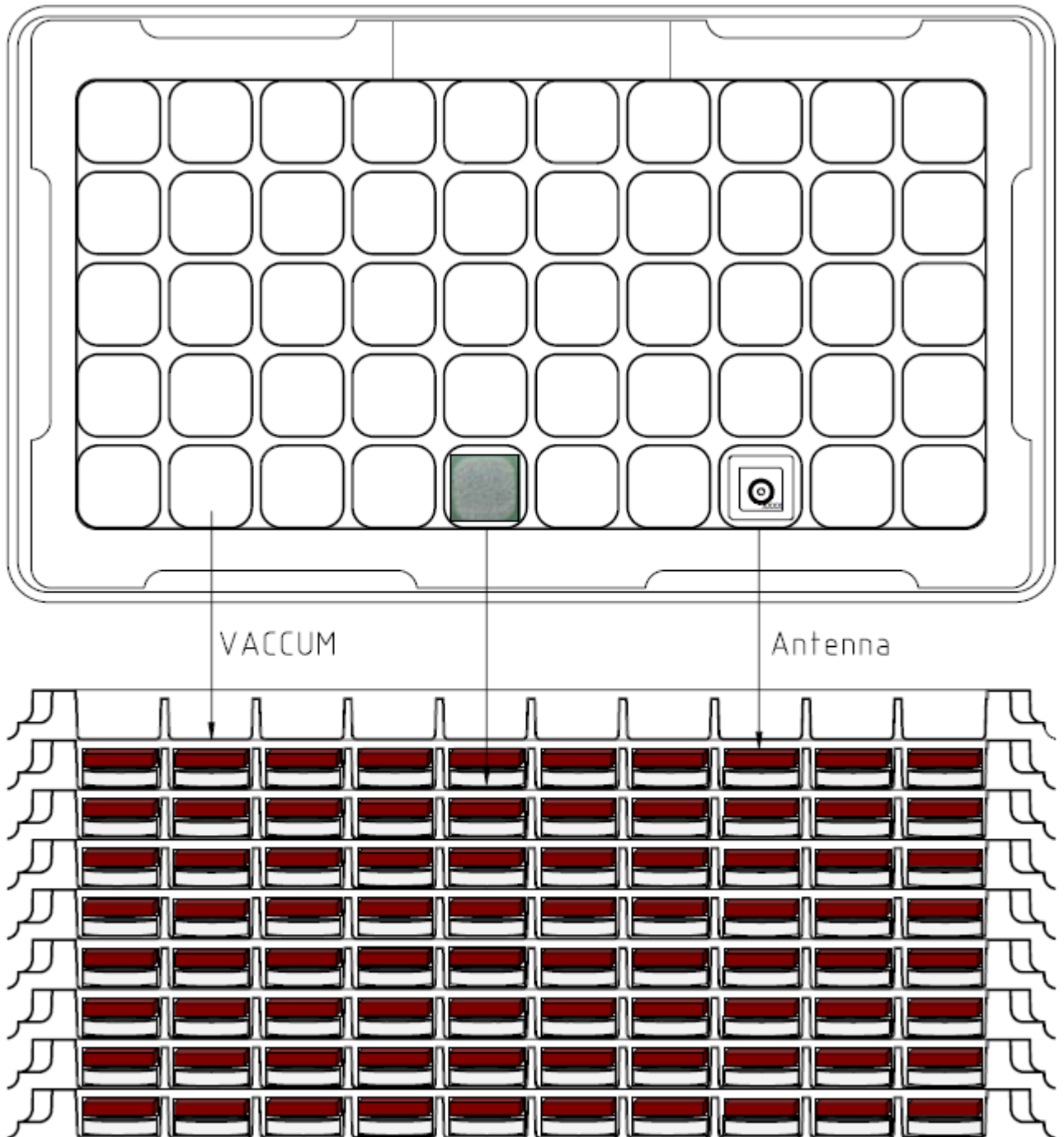


6.1 Test Fixture Antenna Setup and Measurements



7. Packaging

Pieces per Inner Carton: 400



V

Packing

