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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.

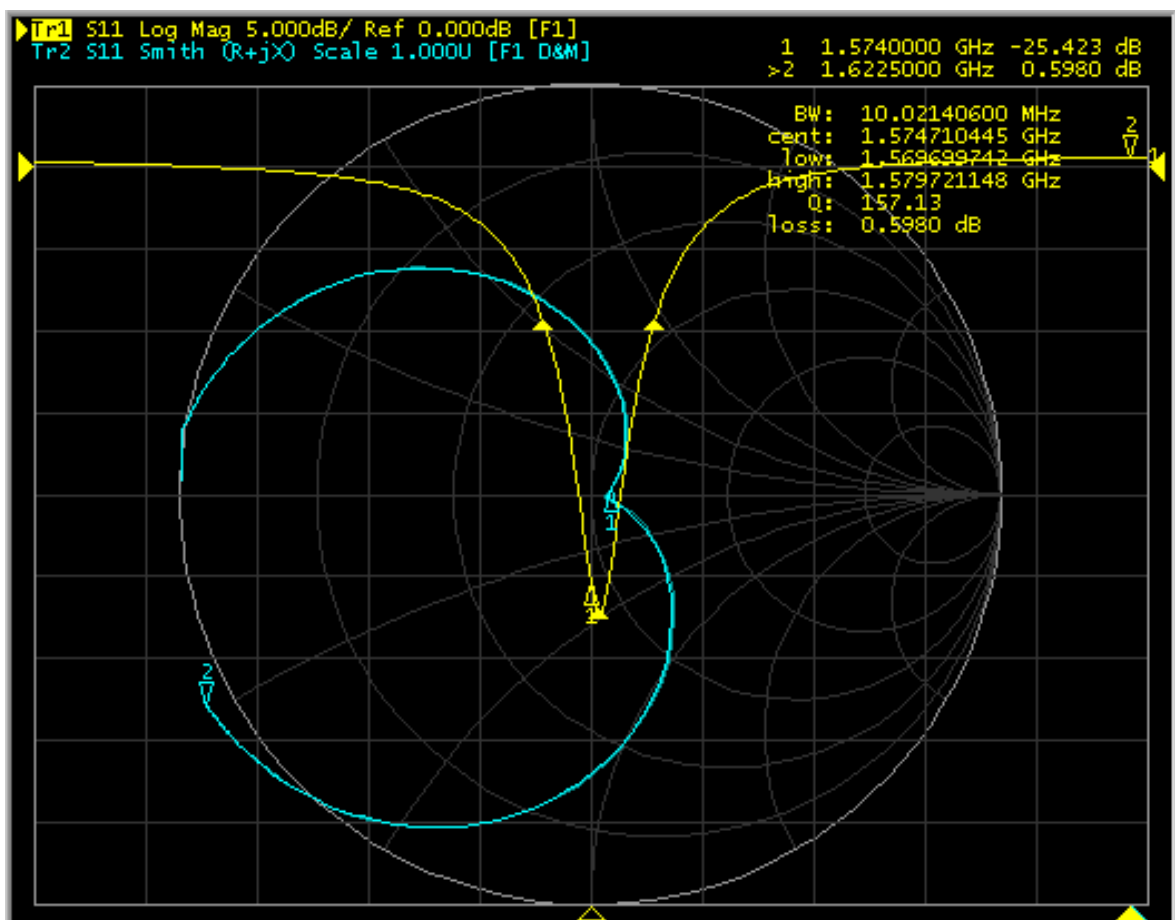
2. Specification Table

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

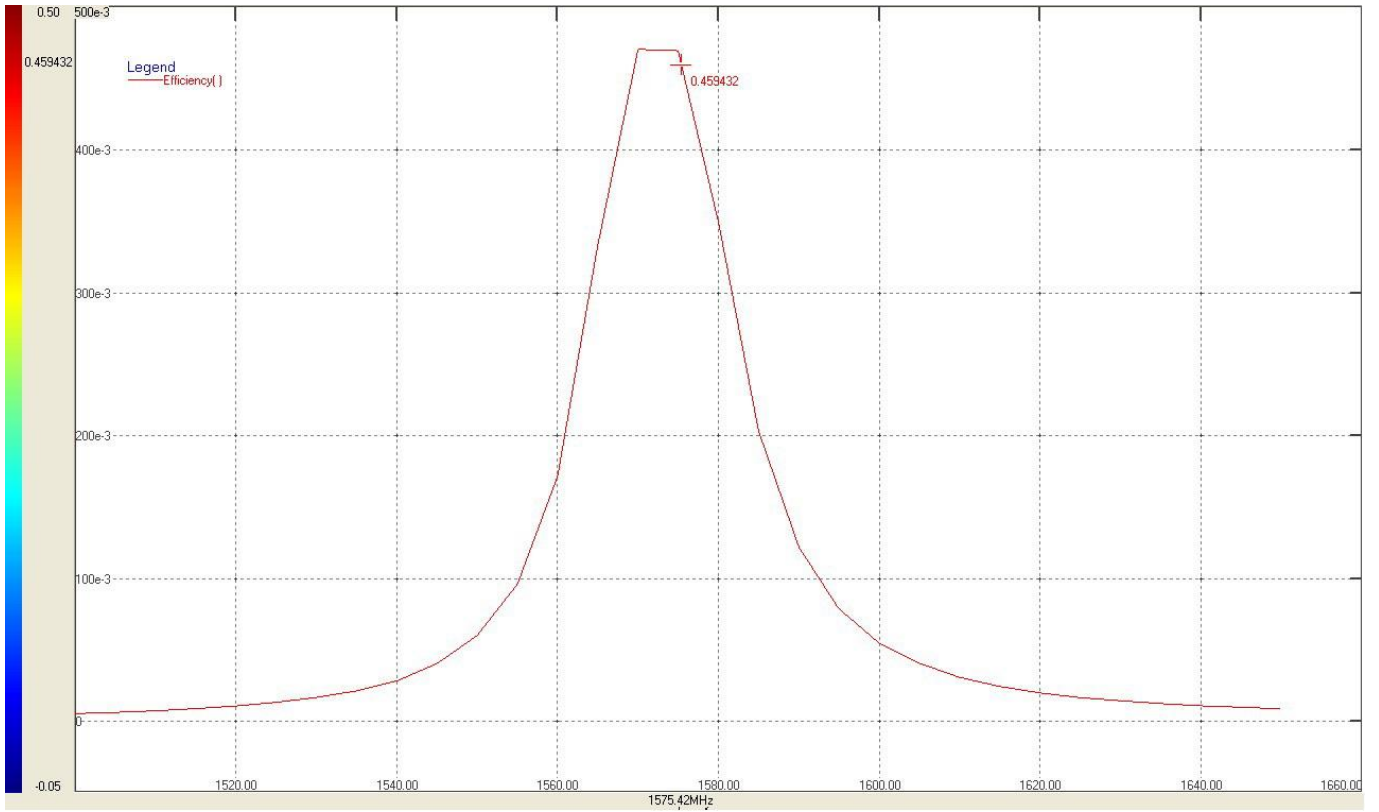
3. Electrical Specifications

3.1 Smith Chart



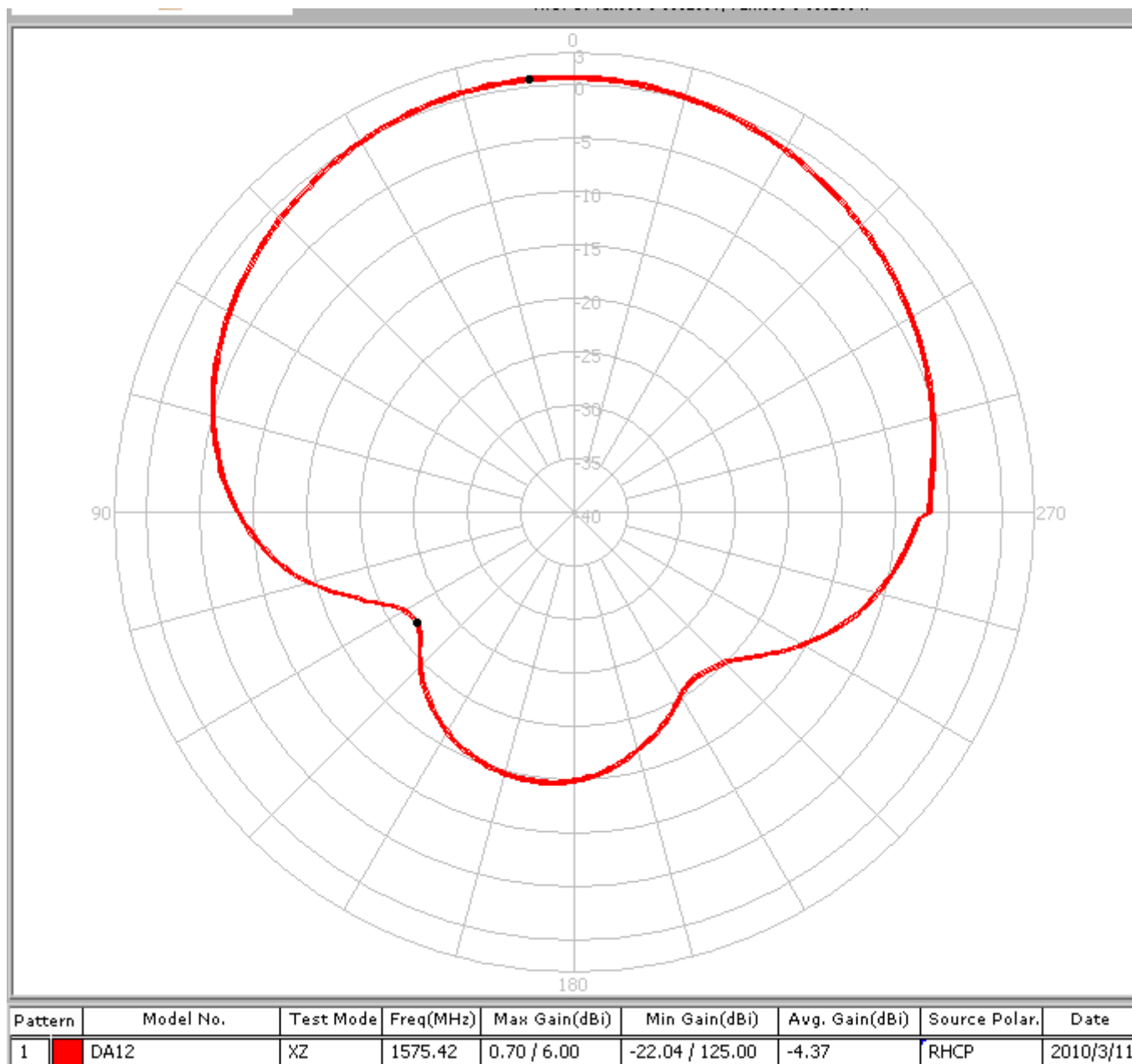


3.2 Efficiency



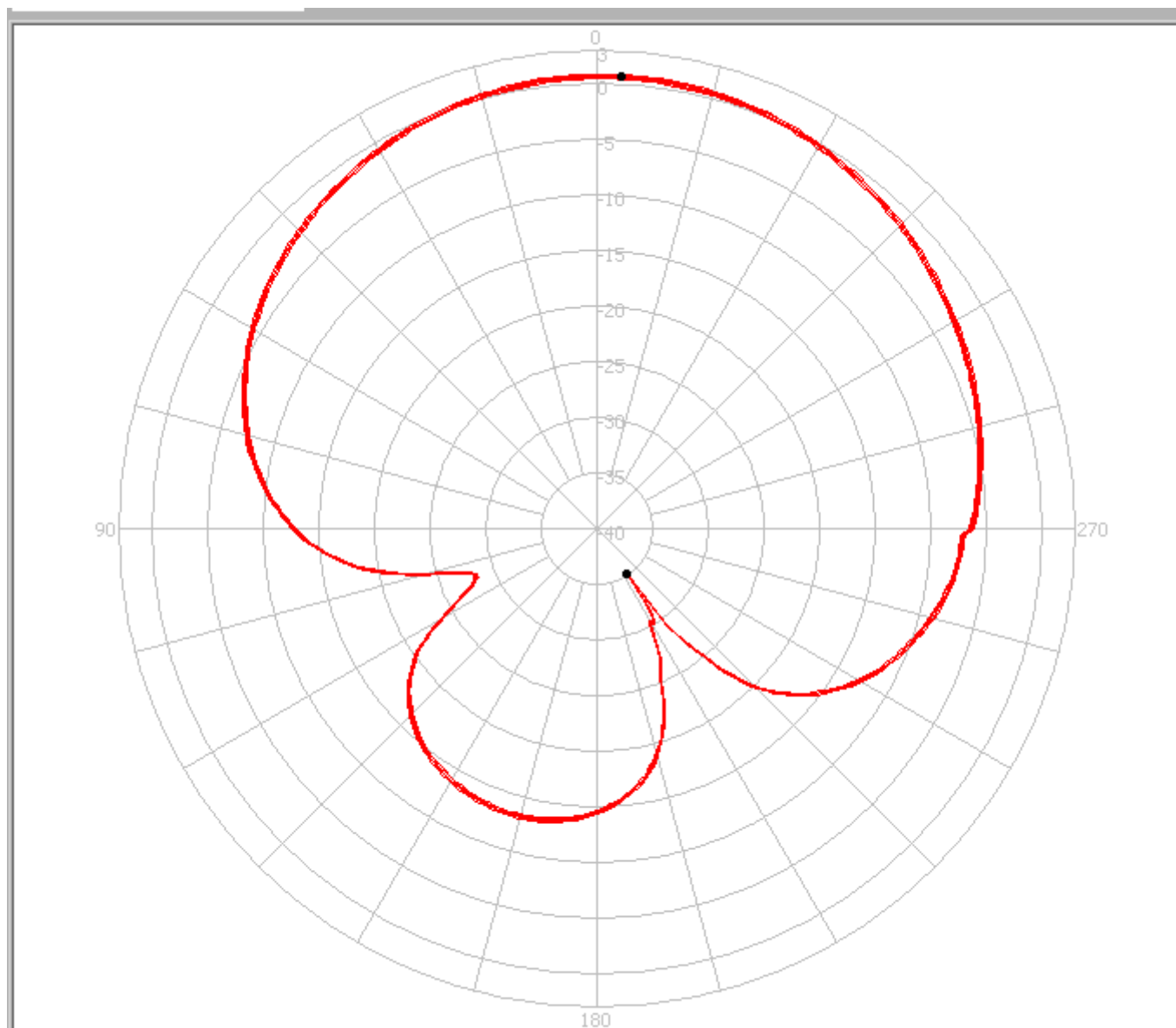
4. 2D Radiation Patterns

4.1 XZ Plane Radiation



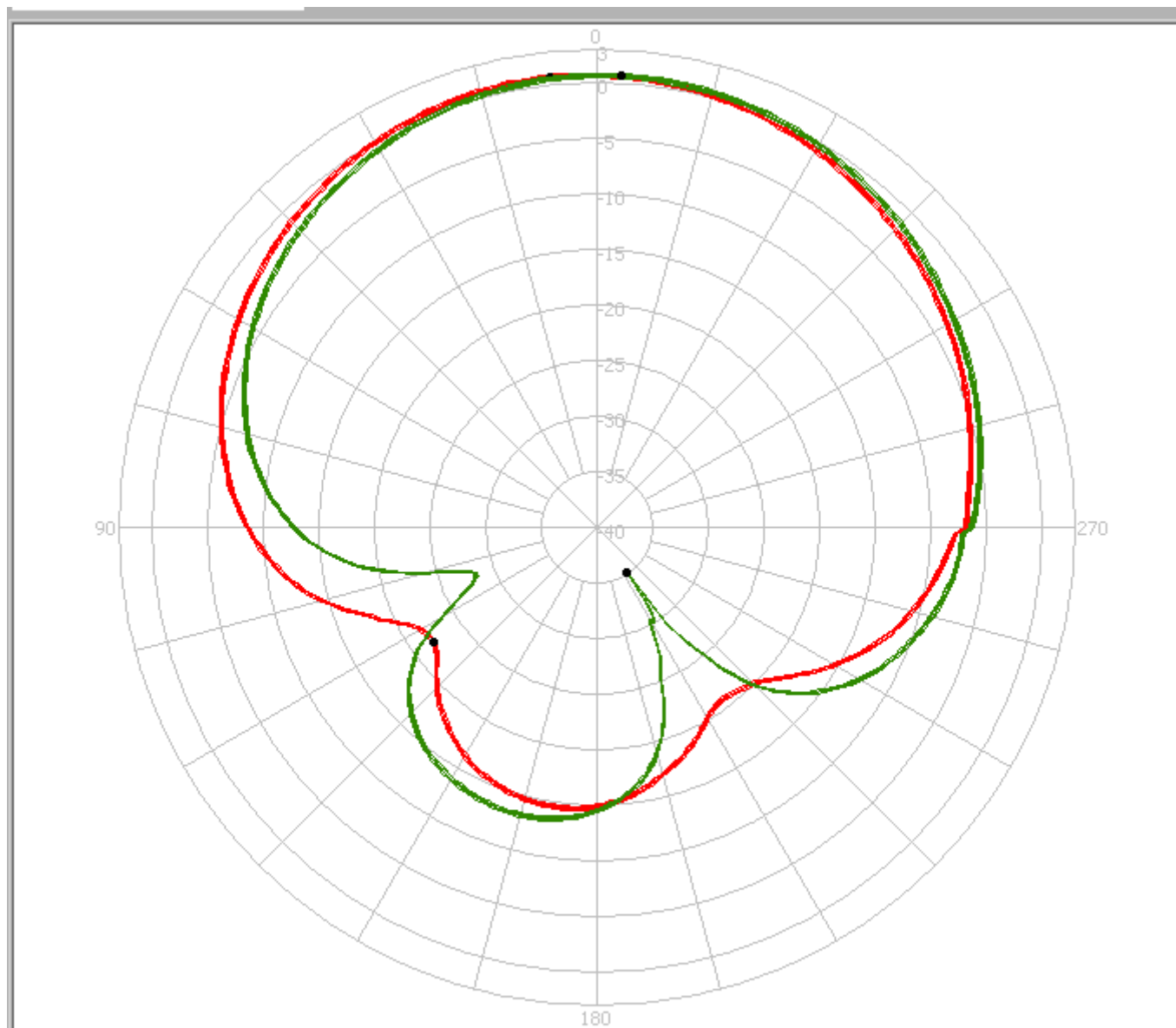


4.2 YZ Plane Radiation



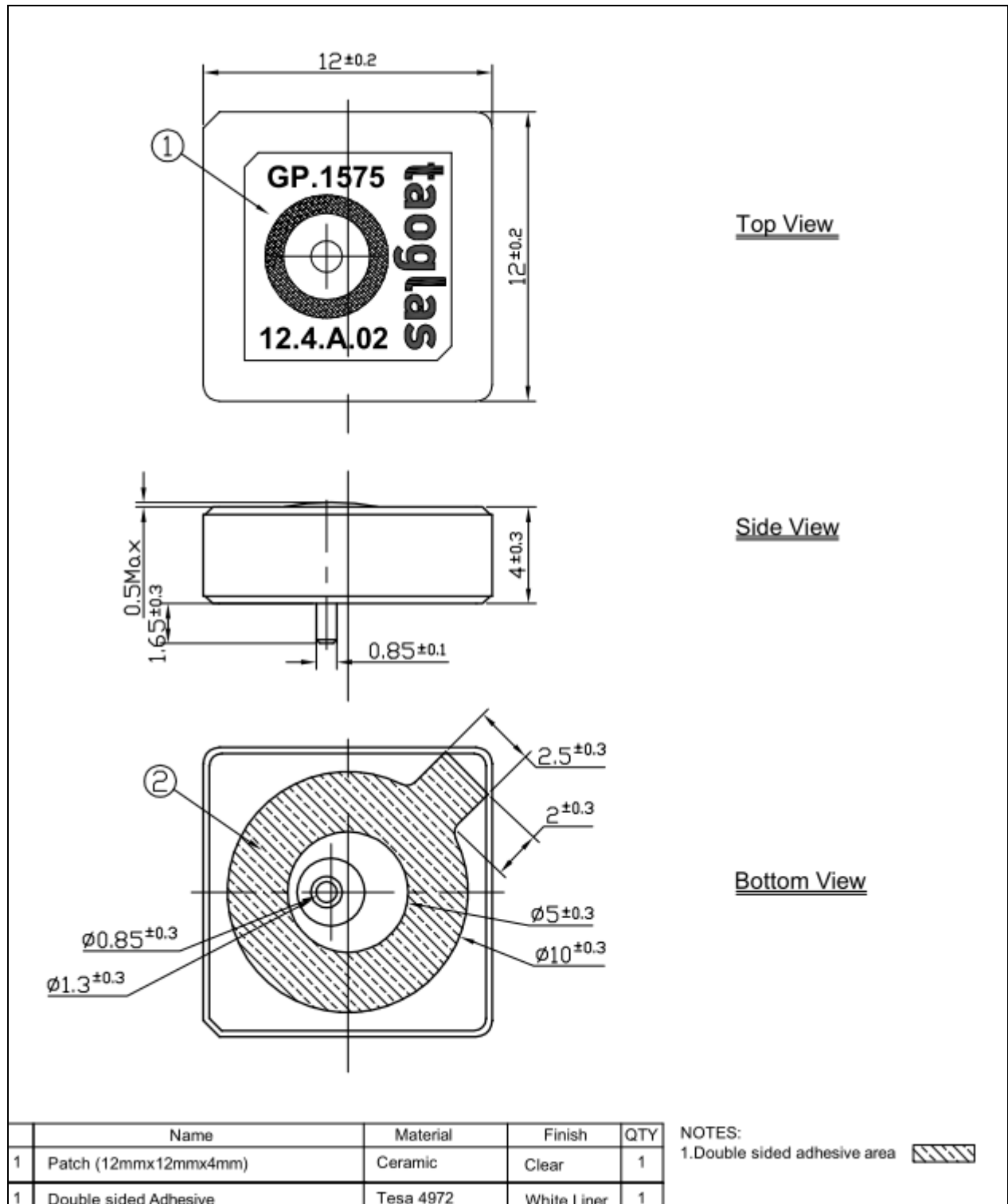
Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	YZ	1575.42	0.65 / 357.00	-35.14 / 214.00	-4.50	RHCP	2010/3/11

4.3 XY Plane Radiation

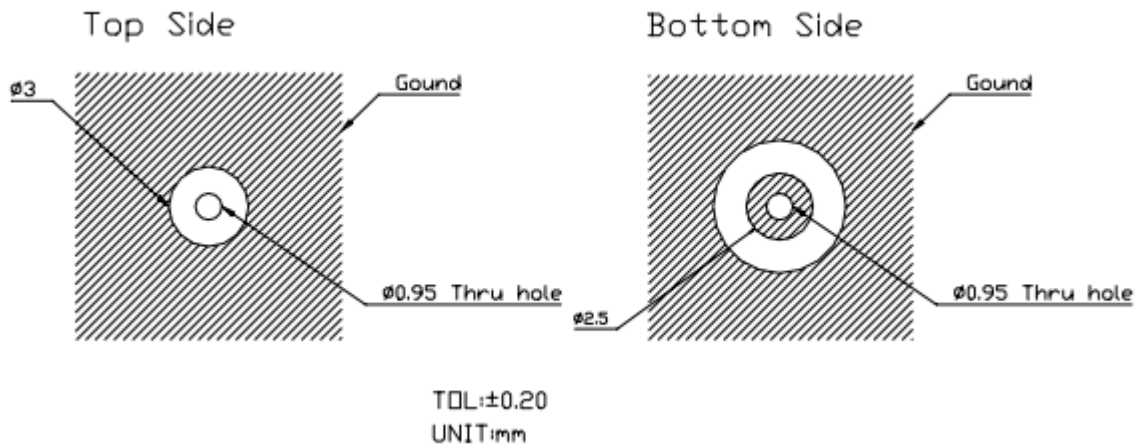


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	XZ	1575.42	0.70 / 6.00	-22.04 / 125.00	-4.37	RHCP	2010/3/11
2	DA12	YZ	1575.42	0.65 / 3.57	-35.14 / 214.00	-4.50	RHCP	2010/3/11

5. Mechanical Drawing

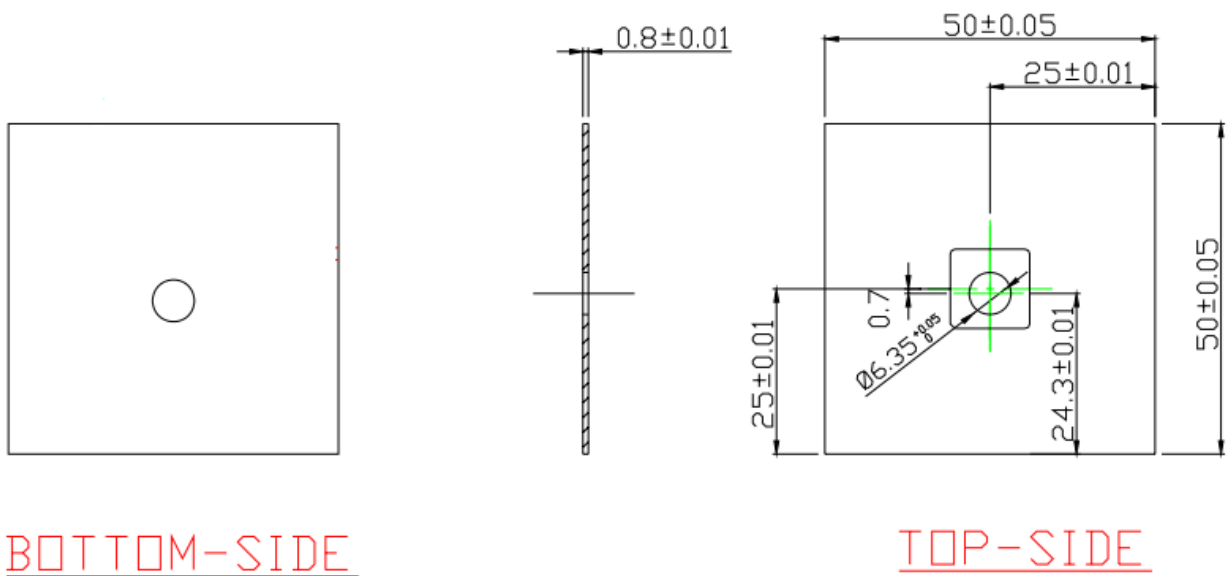


5.1 Layout Dimension

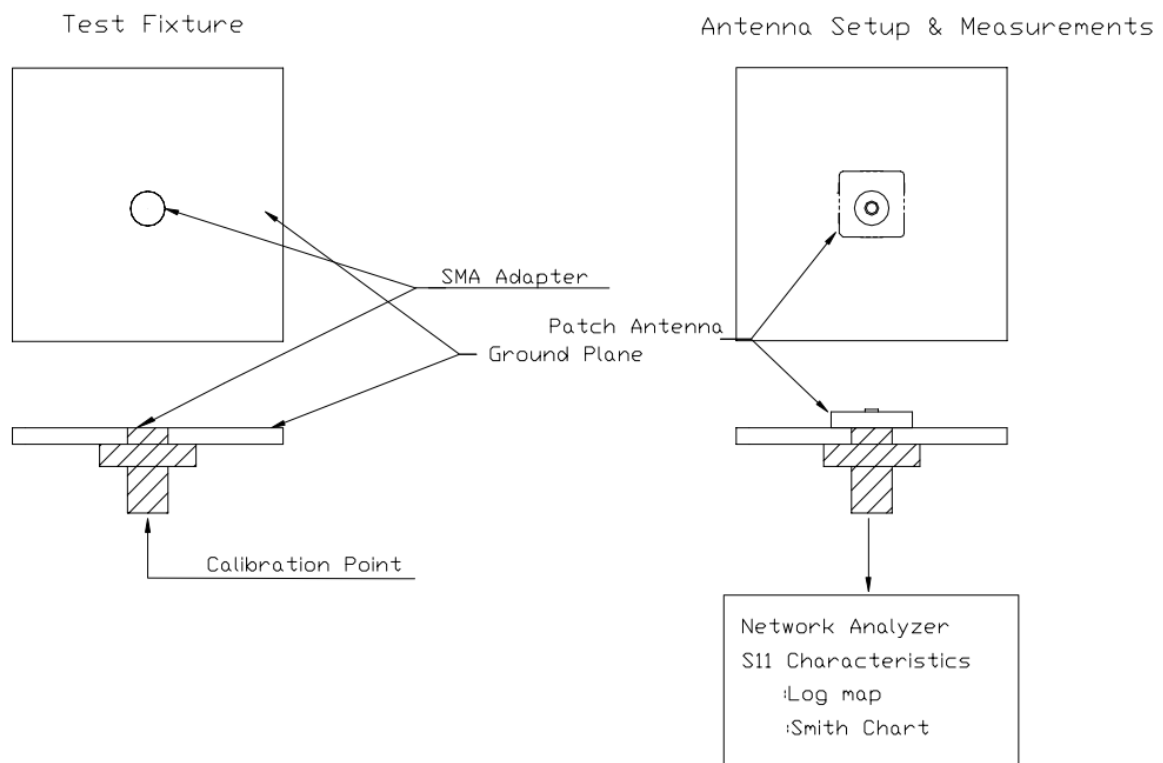


*Note Layout Dimensions may be affected by the thickness of the PCB

6. Test Jig and Dimension



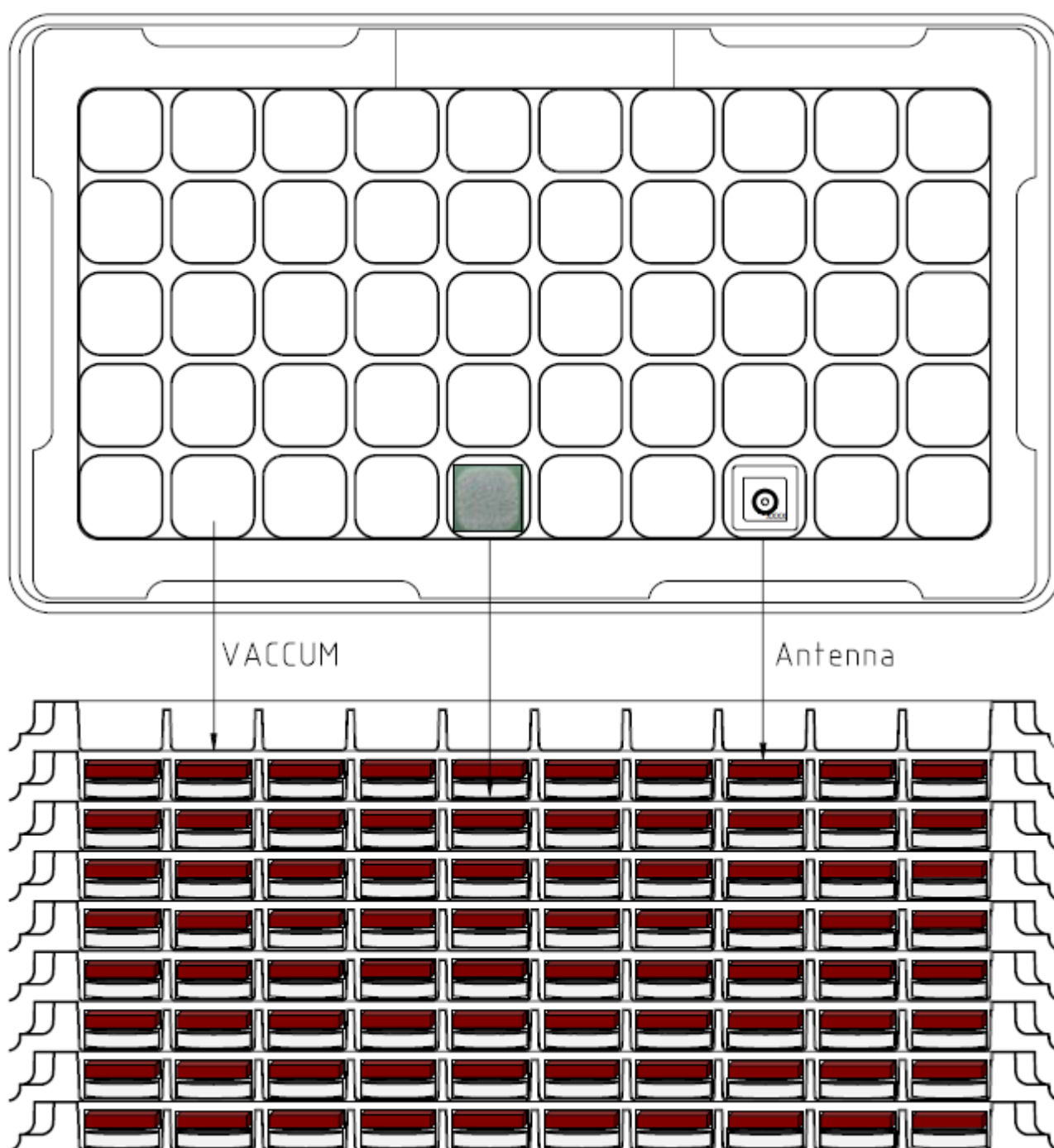
6.1 Test Fixture Antenna Setup and Measurements





7. Packaging

Pieces per Inner Carton: 400





Packing

