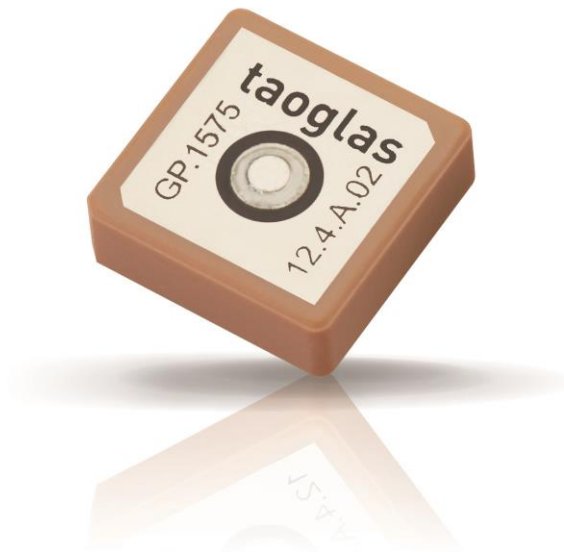


SPECIFICATION

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

Product Name : GPS/Galileo Patch Antenna for 1575MHz

Features : Passive GPS/Galileo Patch Antenna
Centre Frequency: 1575MHz
Mounted with pin and adhesive tape
Dimensions: 12mm*12mm*4mm
RoHS & REACH Compliant



1. Introduction

This miniaturized ceramic GPS/GALILEO 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.

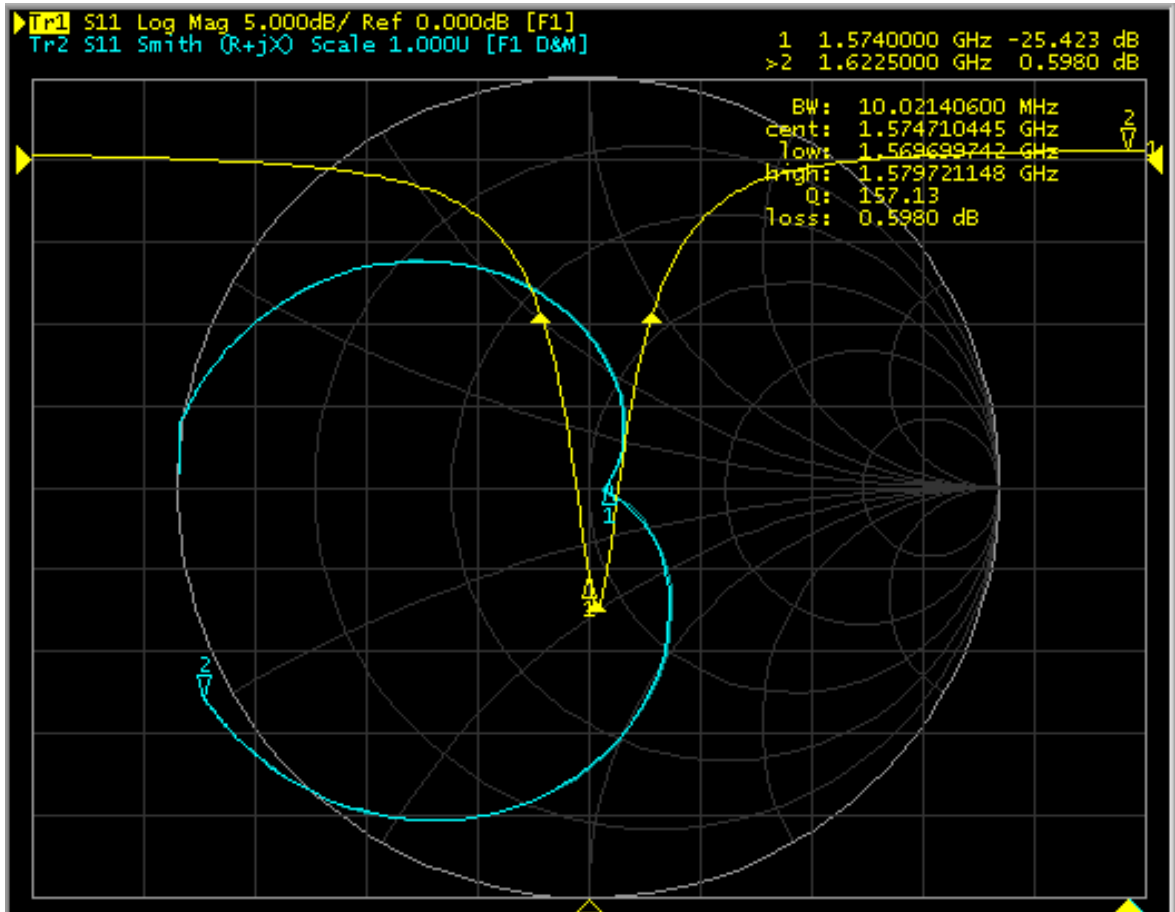
2. Specification Table

Original Patch Specification tested on 50*50mm ground plane

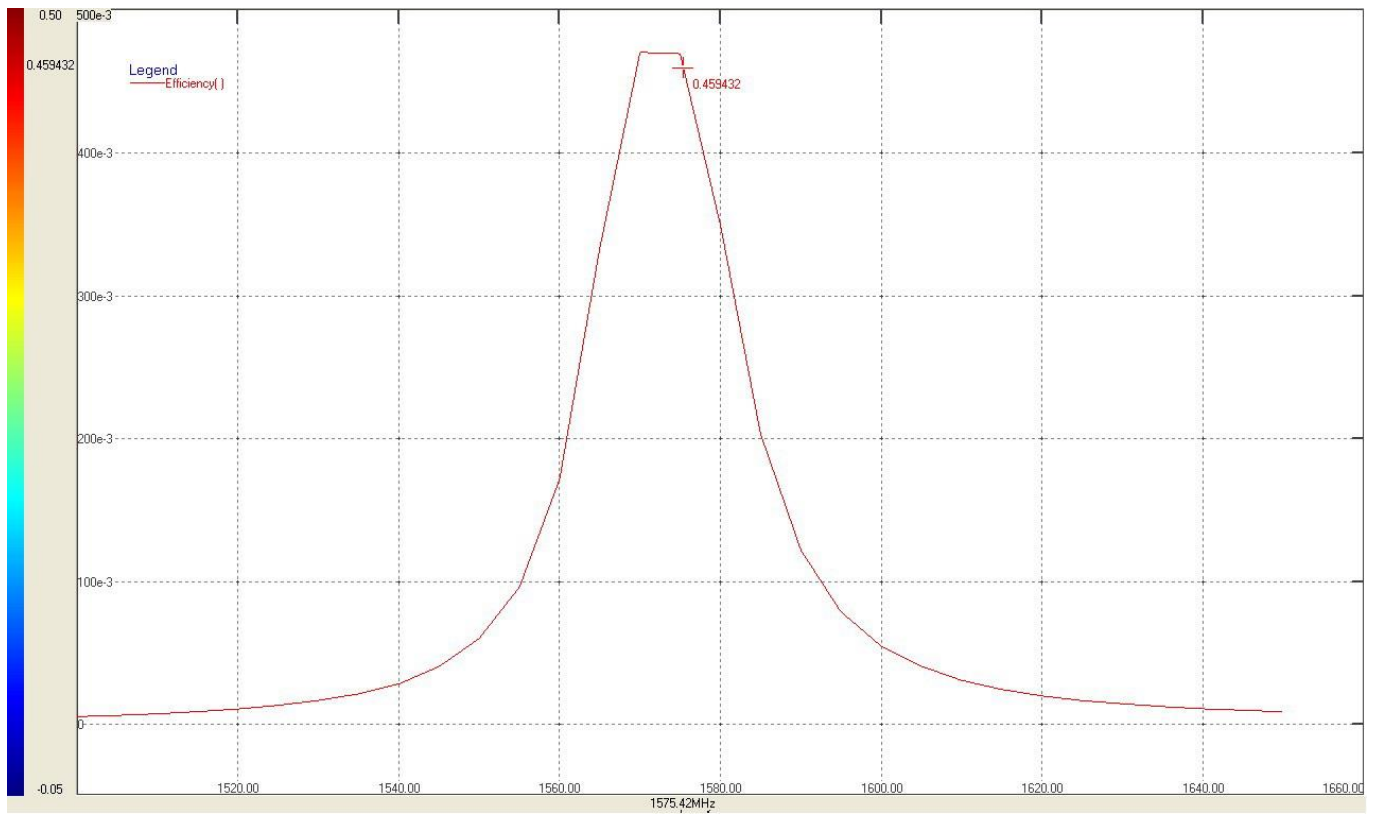
No	Parameter	Specification
1	Center Frequency	1575MHz +/- 3MHz
2	Impedance	50Ω
3	Bandwidth	8MHz min Return Loss <-10dB
4	VSWR	2
5	Gain toward Zenith	-0.5 dBic typ. Center Frequency
6	Gain at 10°Elevation	-----
7	Axial Ratio	4dB Max.
8	Polarization	Right Hand Circular Polarization
9	Frequency Temperature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

3. Electrical Specifications

3.1 Smith Chart

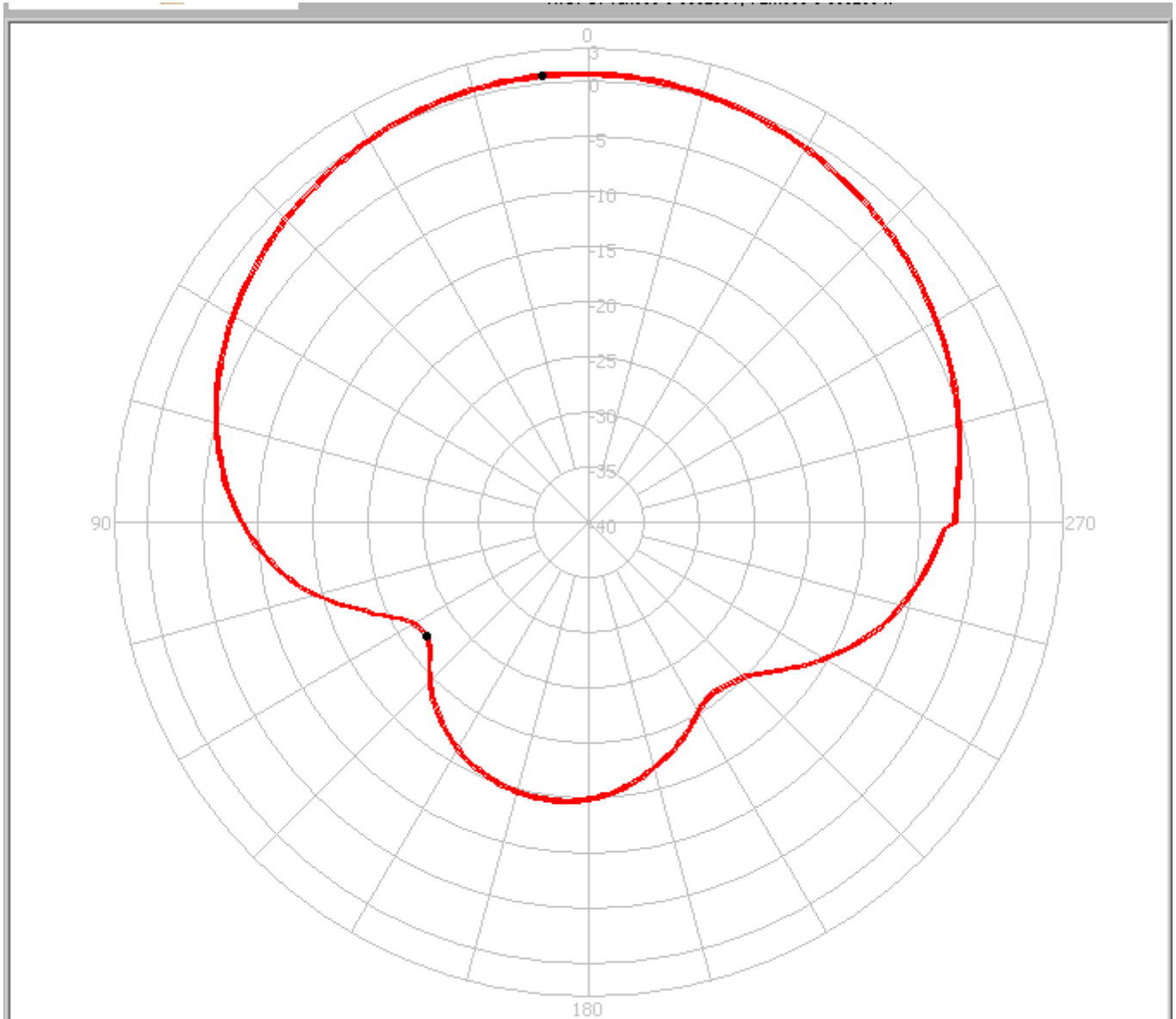


3.2 Efficiency



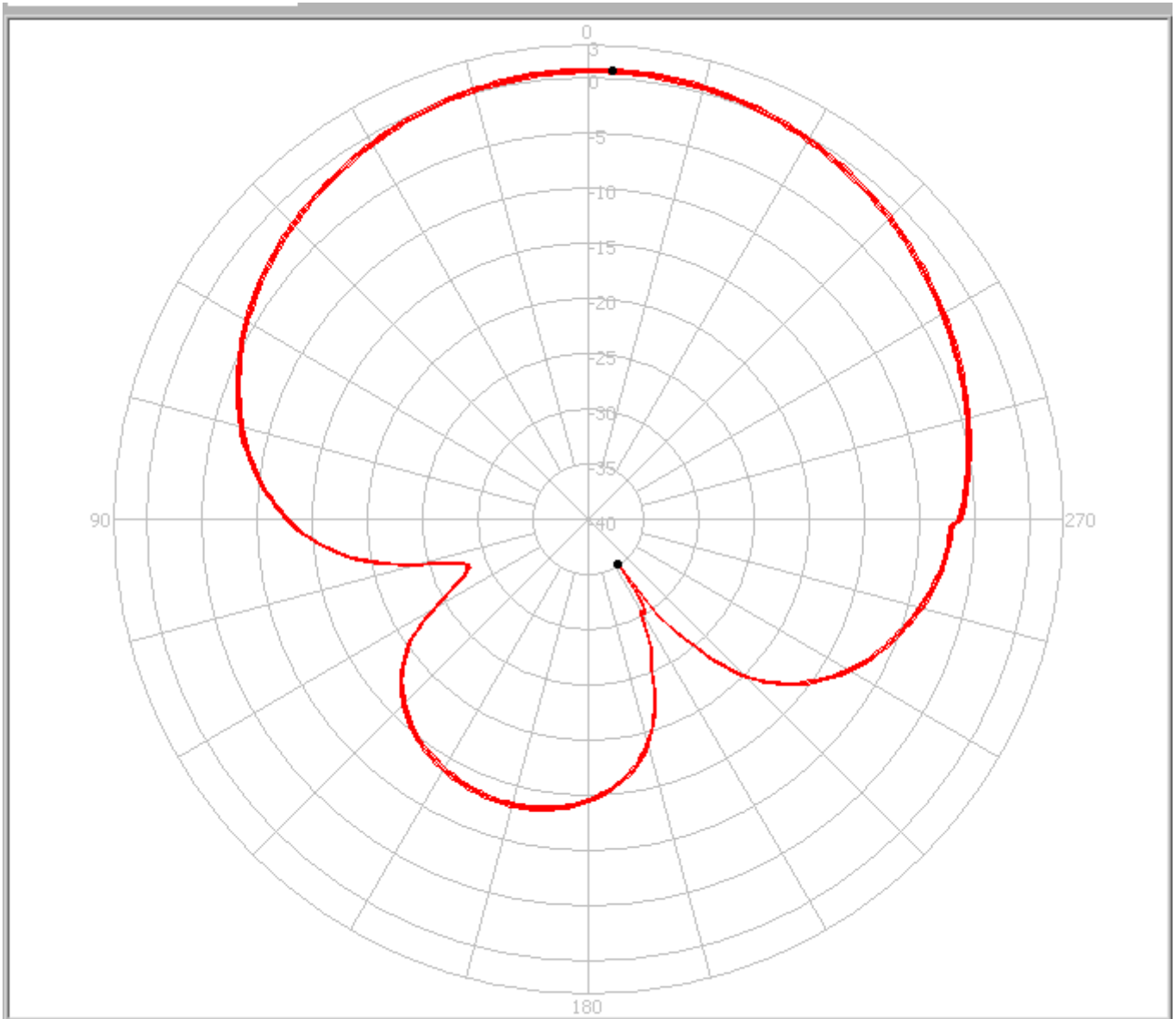
4. 2D Radiation Patterns

4.1 XZ Plane Radiation



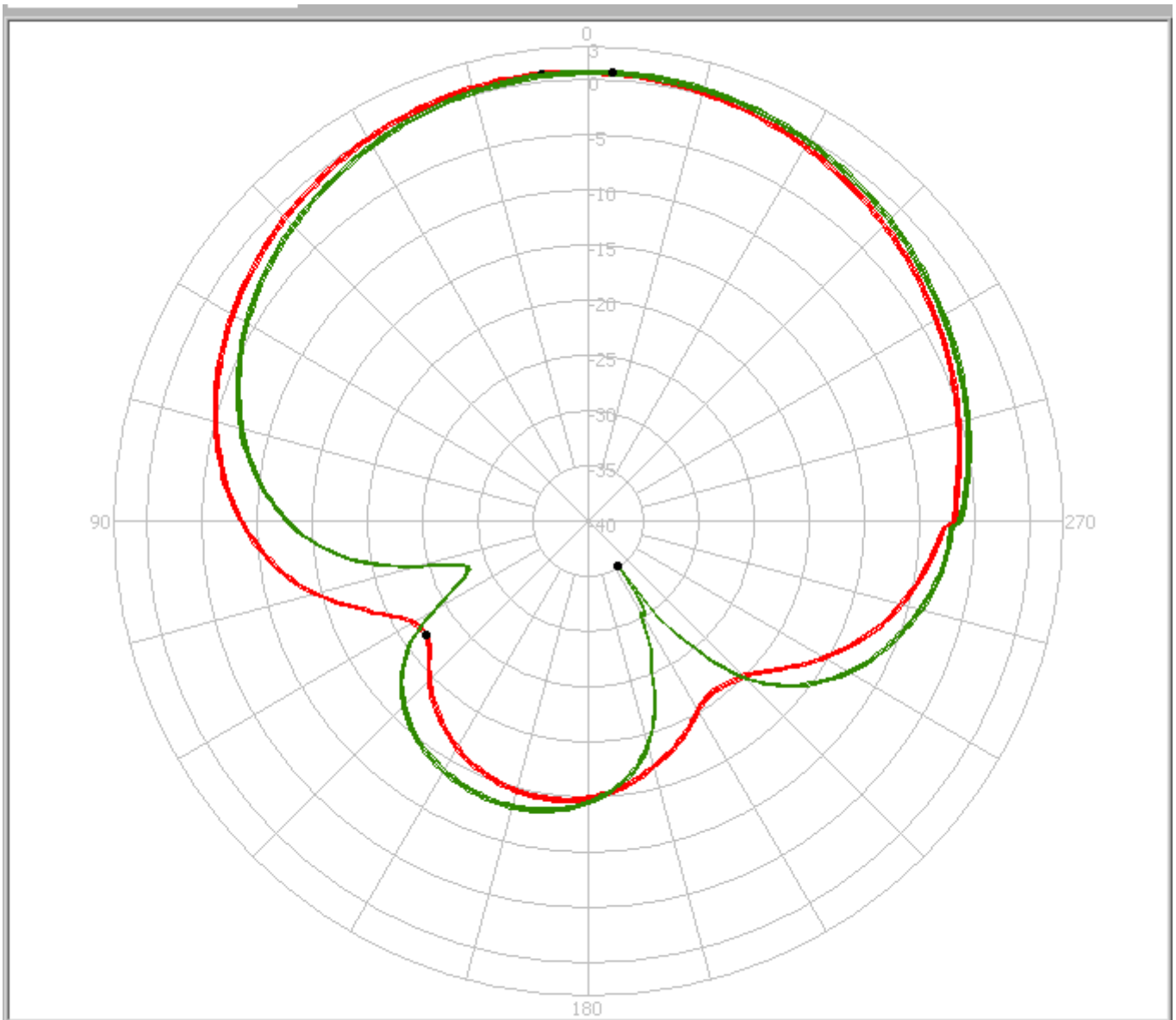
Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	DA12	XZ	1575.42	0.70 / 6.00	-22.04 / 125.00	-4.37	RHCP	2010/3/11

4.2 YZ Plane Radiation



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 / 357.00	-35.14 / 214.00	-4.50	RHCP	2010/3/11

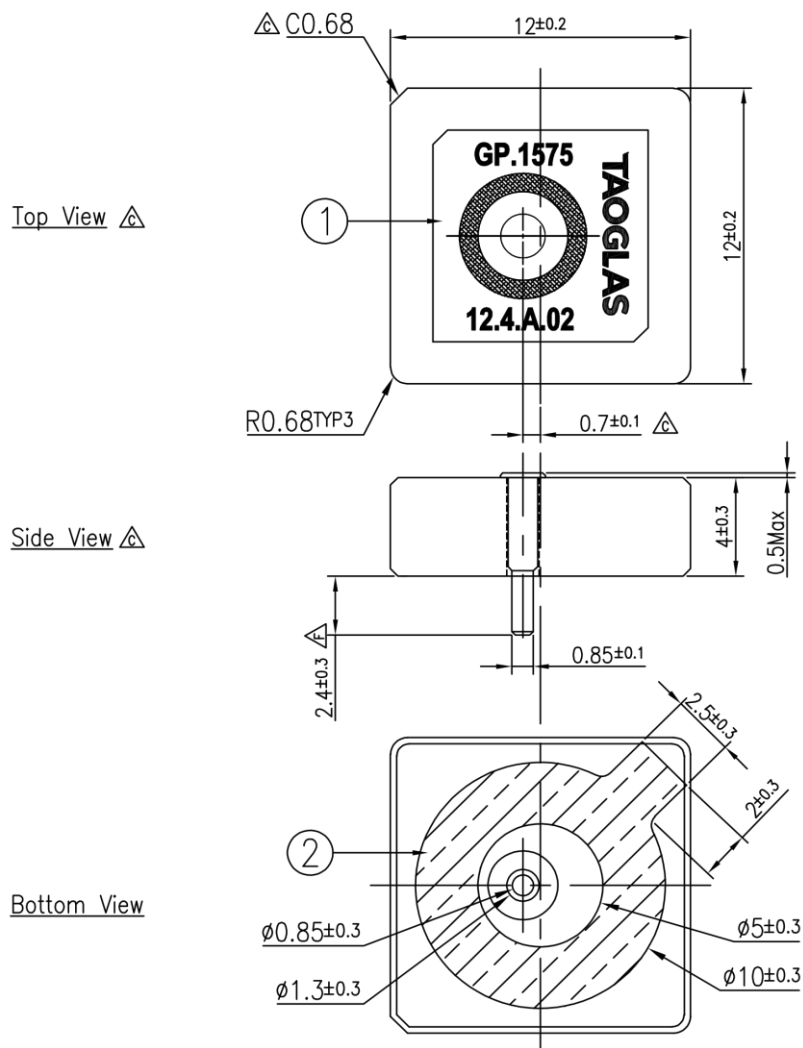
5. Mechanical Drawing

ISO NO.: EDW-12-8-0026



STATE: Release

NOTES: 1. Double sided adhesive area. 

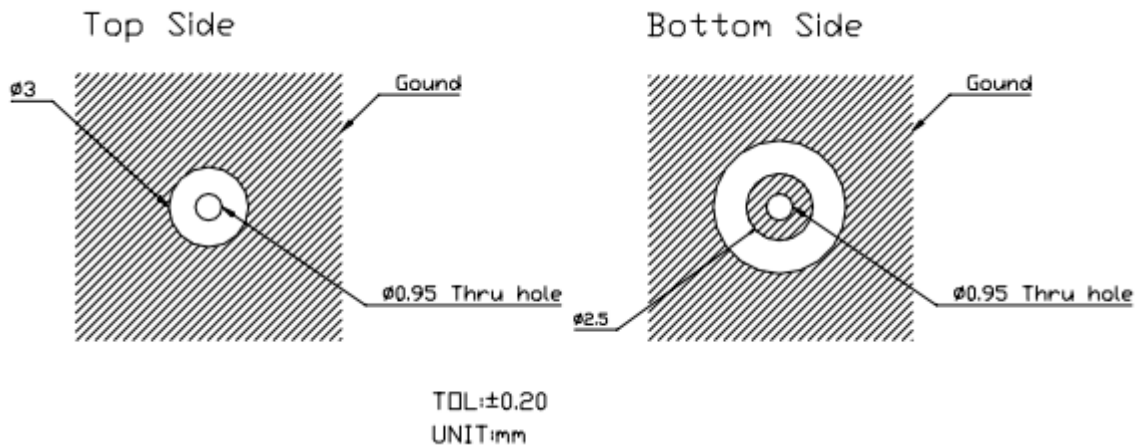
REV.	DESCRIPTION	ENG.	APPROVED	DATE
△ A	EC-21-08-010	Mickey	Buluto	2021/03/02



△	Name	P/N	Material	Finish	QTY
1	GP.1575 Patch	001517F050000A	Ceramic	Brown	1
2	Double sided Adhesive	001517F050000A	Tesa 4972	White Liner	1

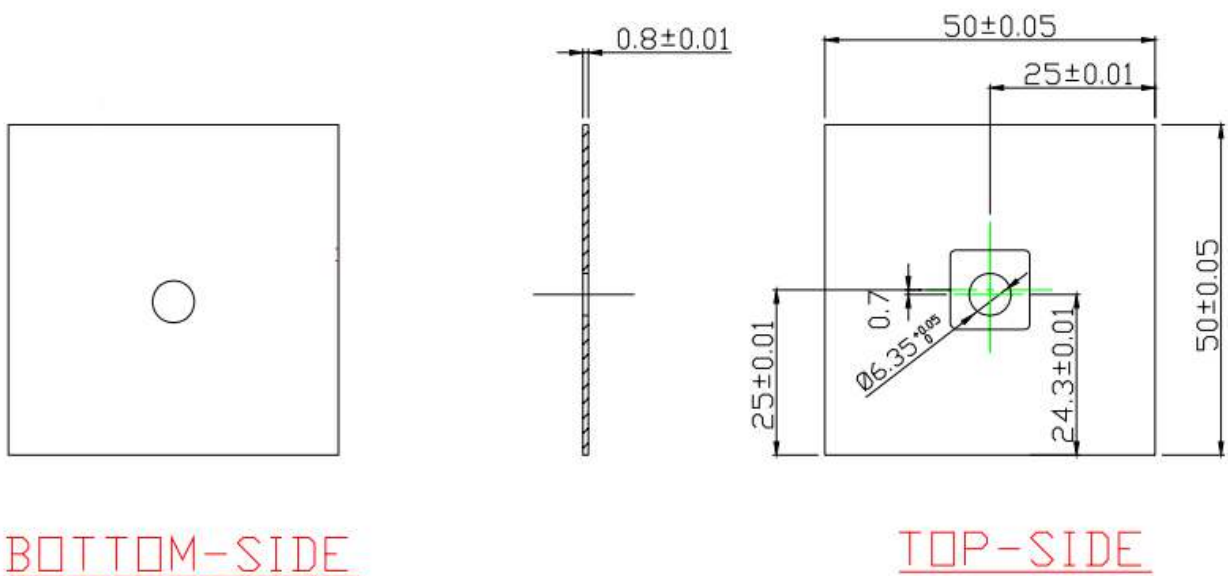
APPROVED BY: Joanna	 <p>TW Design Centre This drawing and its inherent design concepts are property of Taoglas. Not to be copied or given to third parties without the written consent of Taoglas.</p>			
CHECK BY: Joanna				
DRAWN BY: Sandy				
DATE: 2012/01/31				
UNLESS OTHERWISE SPECIFIED TOLERANCES ON:	XX±0.3 X±0.3 XX±0.2 X±0.2 XX±0.1 X±0.1			
THIRD ANGLE PROJECTION 	TITLE : GPS Patch Antenna 1575MHz Ceramic Patch PART NO. : GP.1575.12.4.A.02			
	UNIT: mm	SCALE: 4:1	PAGES: 1/1	REV. F

5.1 Layout Dimension

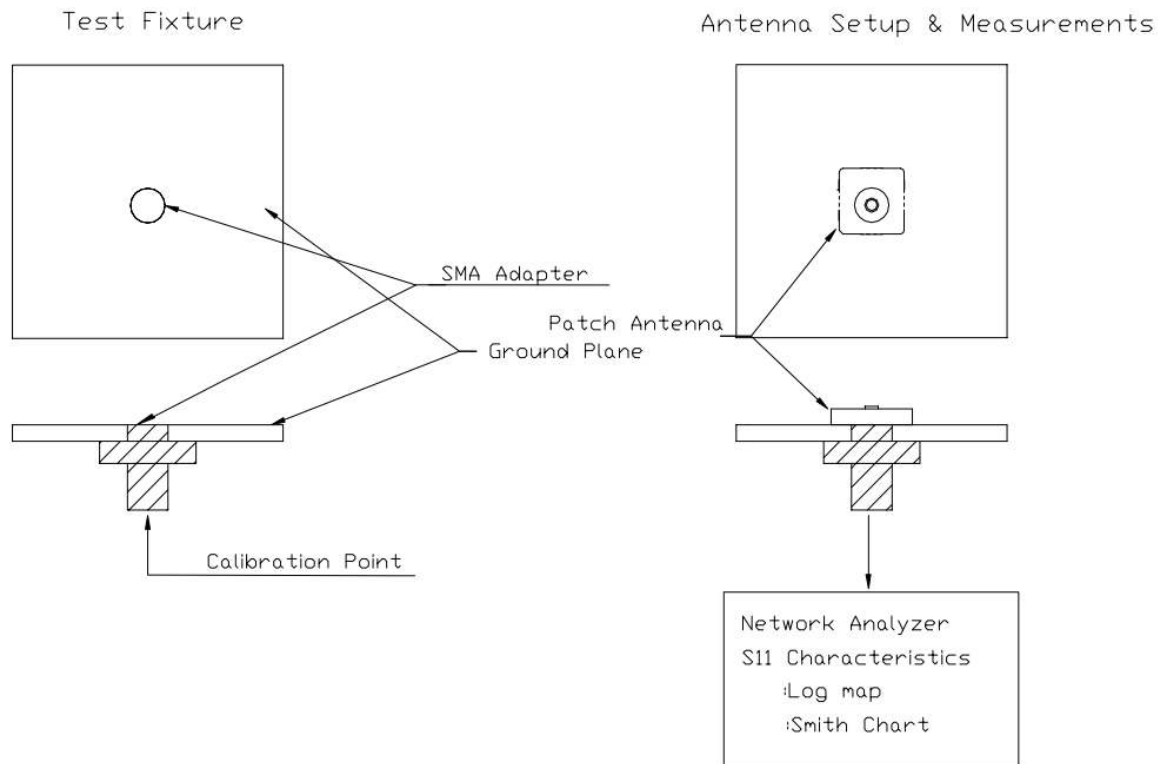


*Note Layout Dimensions may be affected by the thickness of the PCB

6. Test Jig and Dimension

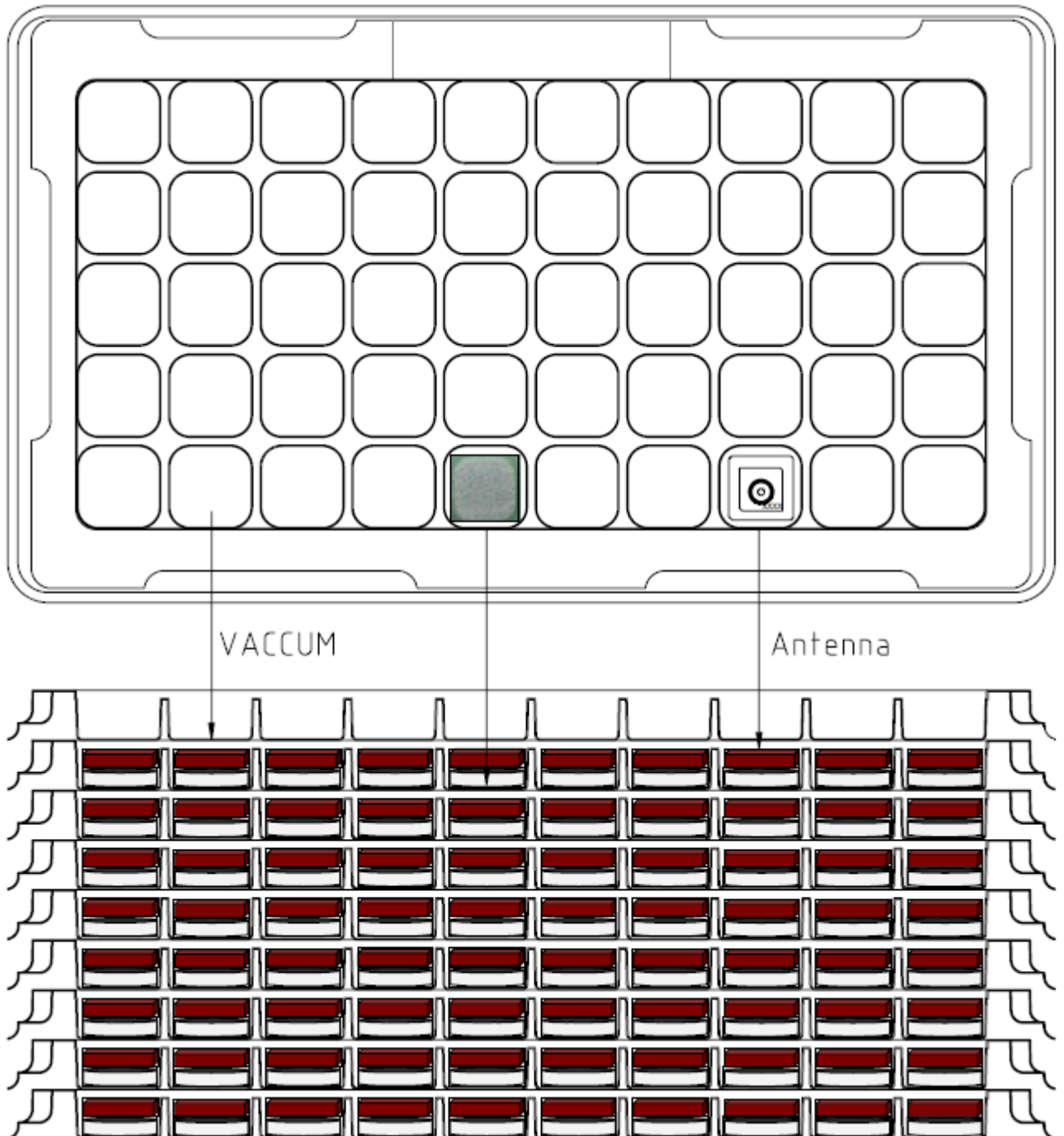


6.1 Test Fixture Antenna Setup and Measurements

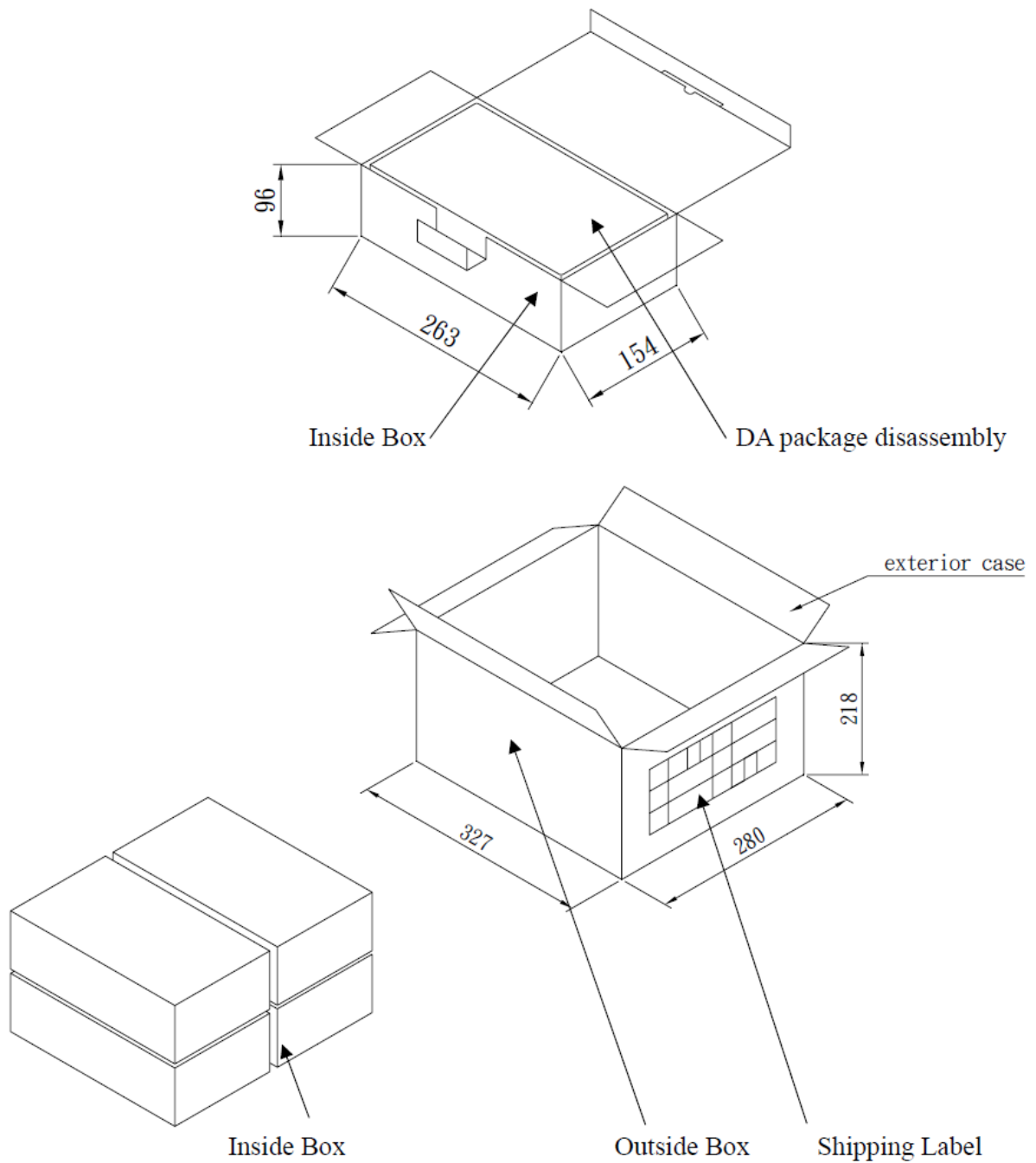


7. Packaging

Pieces per Inner Carton: 400



Packing



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