

SPECIFICATION

Part No. : GP.1575.18.2.A.02

Product Name : 2mm thick GPS/GALILEO Patch Antenna,
1575MHz

Features : 18mm*18mm*2mm
Halogen Free
RoHS 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.

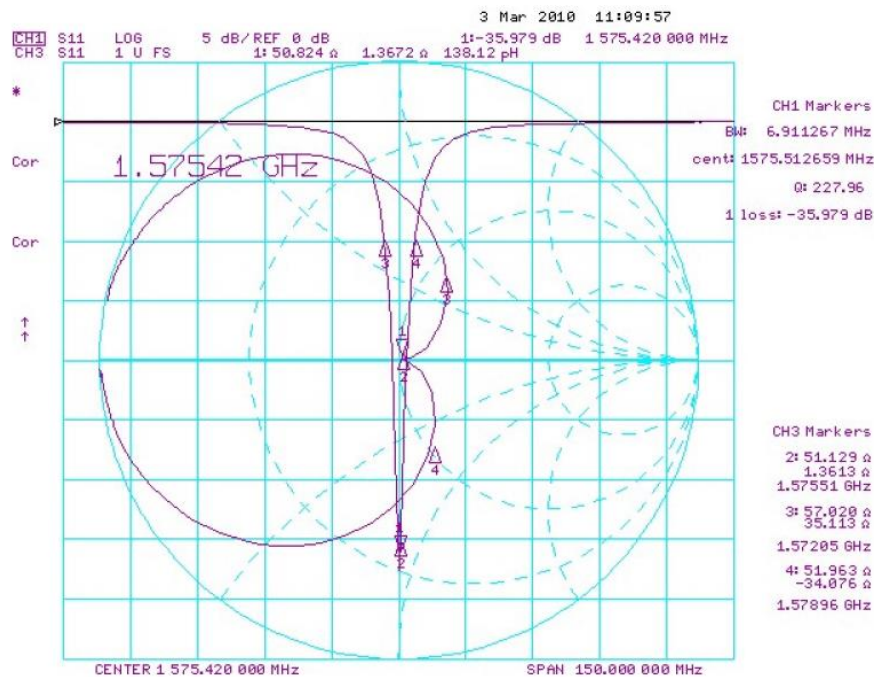
2. Specification Table

Original Patch Specification tested on 50*50mm ground plane

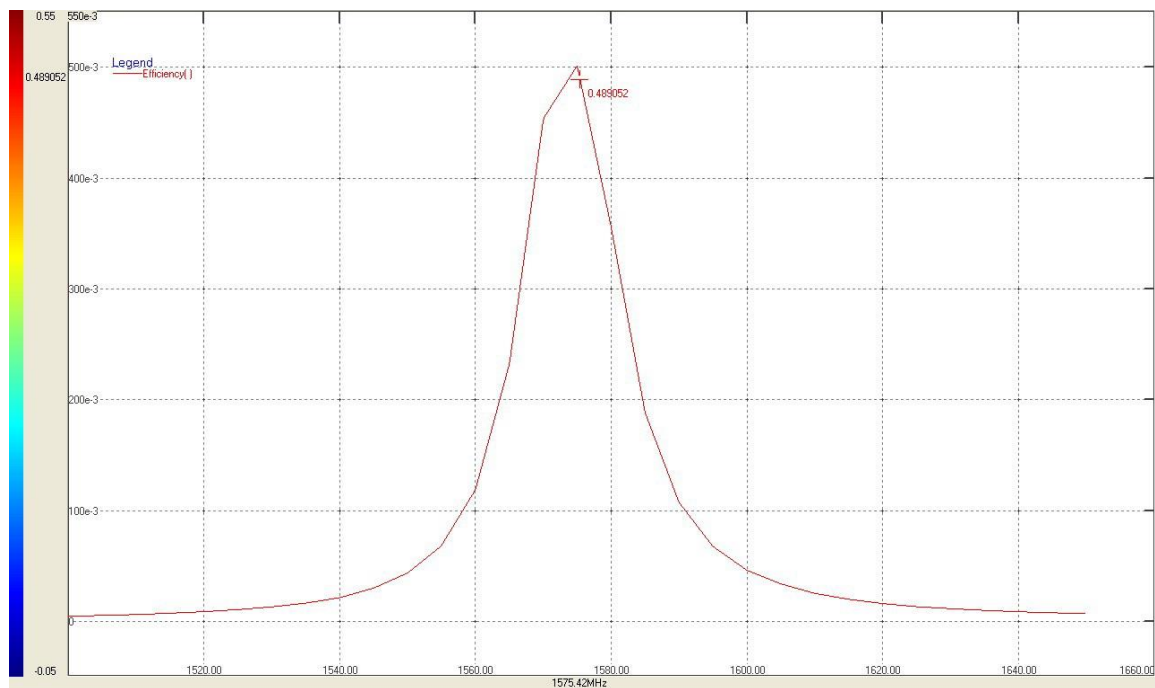
No	Parameter	Specification	
1	Center Frequency	1575MHz +/- 3MHz	
2	Impedance	50Ω	
3	Bandwidth	5 MHz min Return Loss <-10dB	
4	VSWR	1.5 max	Center Frequency
5	Gain toward Zenith	-0.5 dBic typ.	
6	Gain at 10°Elevation	-----	
7	Axial Ratio	3dB Max.	
8	Polarization	Right Hand Circular Polarization	
9	Frequency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

3. Electrical Specification

3.1. Smith Chart

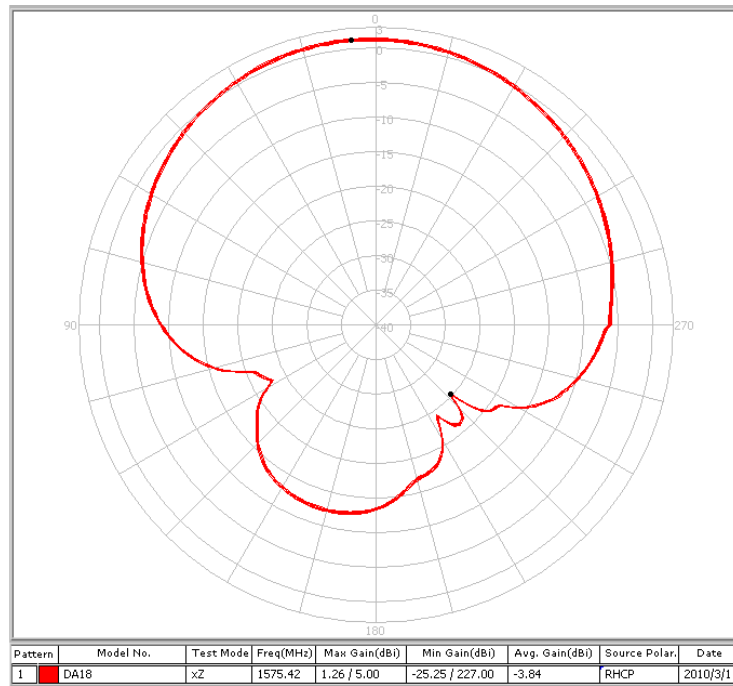


3.2. Efficiency

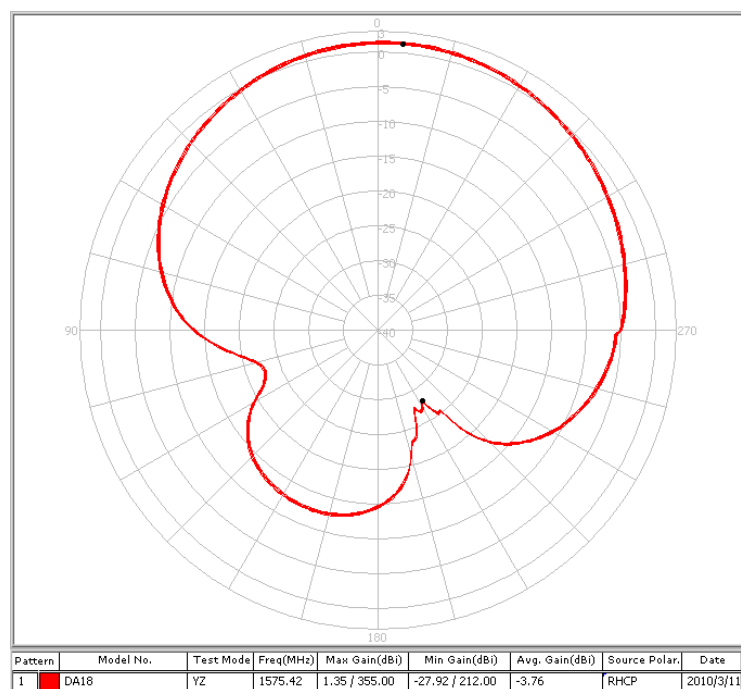


4. 2D Radiation Patterns

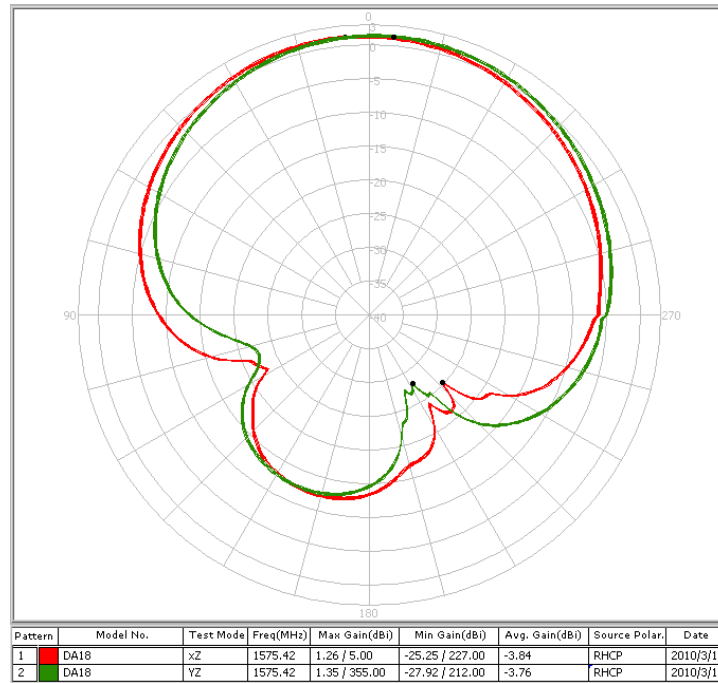
4.1. XZ Plane Radiation



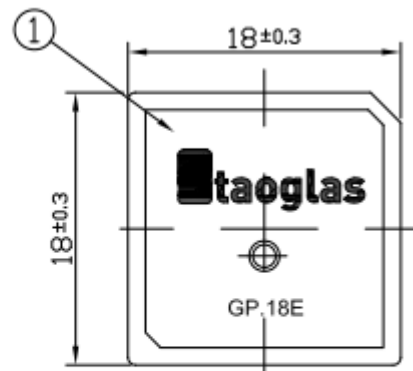
4.2. YZ Plane Radiation



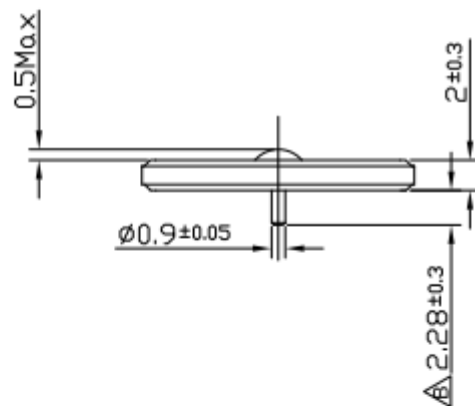
4.3. XZ Plane Radiation



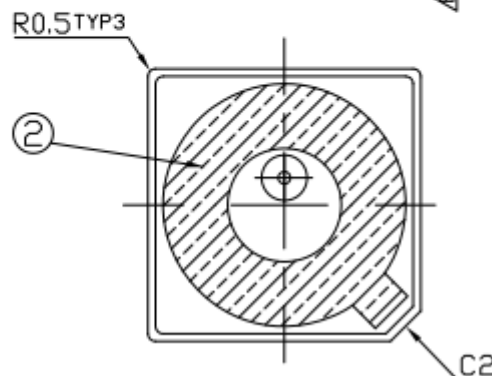
5. Mechanical Drawing (Unit: mm)




Top View



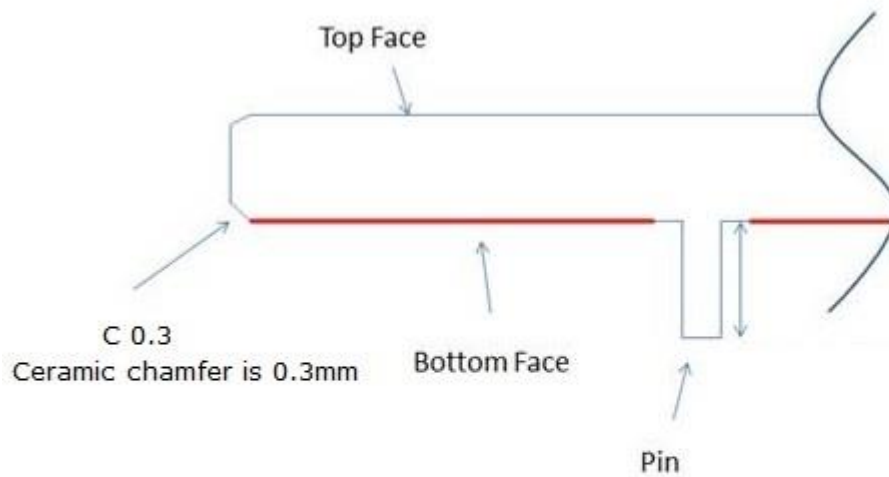
Side View



Bottom View

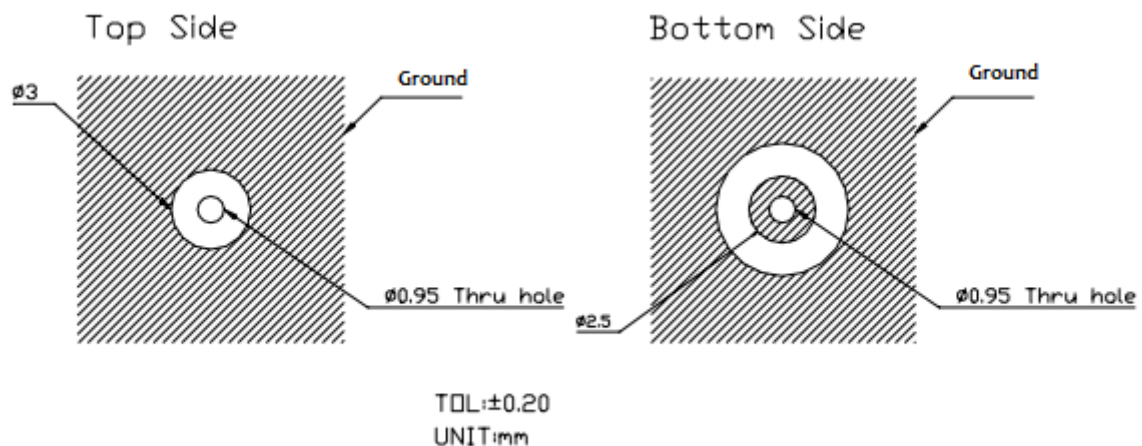
	Name	Material	Finish	QTY	NOTES: 1.Double sided adhesive area 
1	Patch 18x18x2	Ceramic	Clear	1	
2	Double sided Adhesive	NITTO 5015	White Liner	1	

5.1. Adhesive Thickness



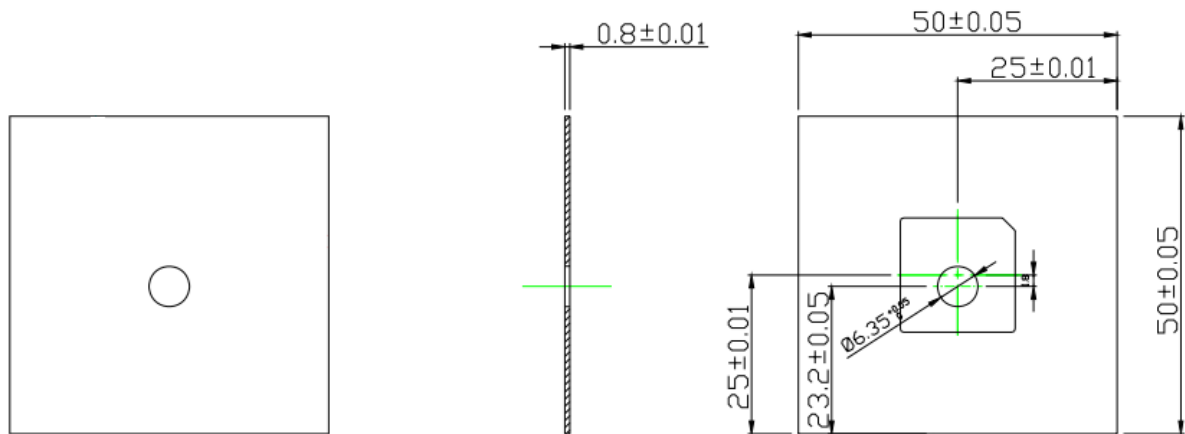
Red Line shows the adhesive without Liner - thickness 0.08~0.1mm

5.2. Layout Dimension



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

6. Test Jig and Dimension



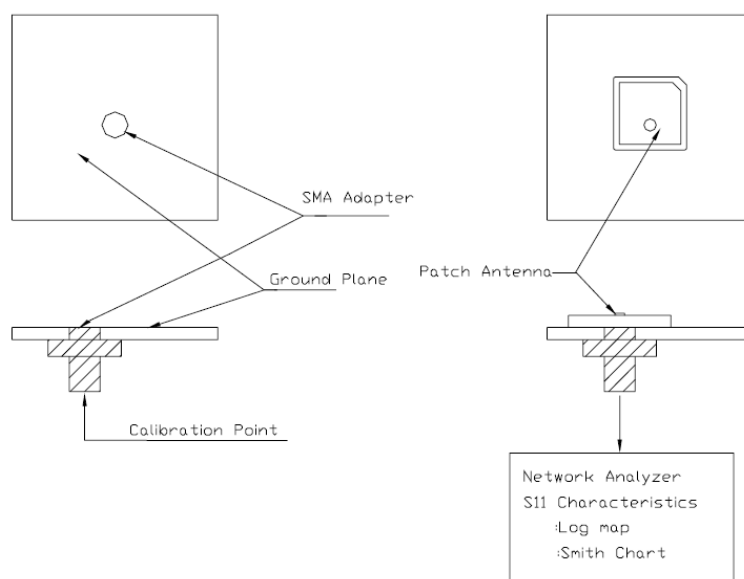
BOTTOM-SIDE

TOP-SIDE

6.1. Test Fixture Antenna Setup and Measurements

Test Fixture

Antenna Setup & Measurements

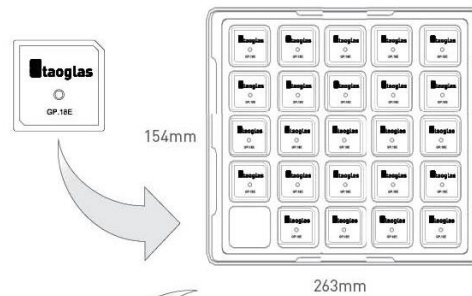


7. Packaging

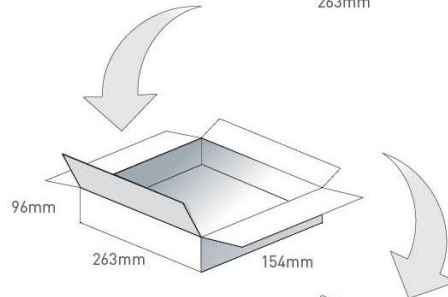
GP.1575.18.2.A.02

Packaging Specifications

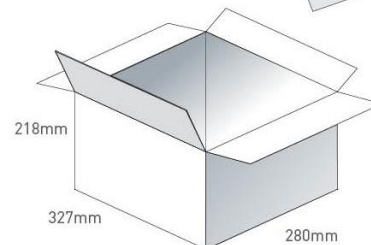
25 pcs GP.1575.18.2.A.02 per tray
Tray Dimensions - 263*154mm
Total Weight - 143g



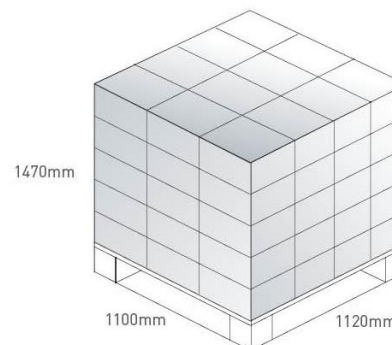
8 trays / 200 pcs per small box
Box Dimensions - 263*154*96mm
Weight - 1.1Kg



4 boxes / 800 pcs per carton
Carton Dimensions - 327*280*218mm
Weight - 4.6Kg



Pallet Dimensions 1100mm*1120mm*1470mm
72 Cartons per pallet
12 Cartons per layer
6 Layers



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