

# **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  $XtremeGain^{TM}$  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

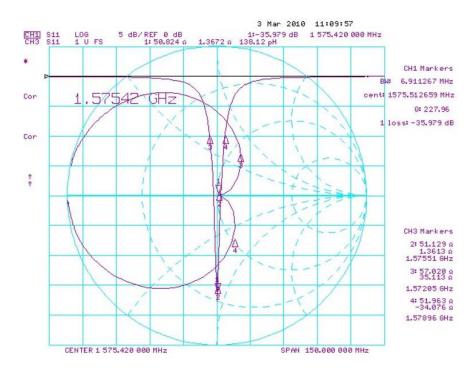
Original Patch Specification tested on 50\*50mm ground plane

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

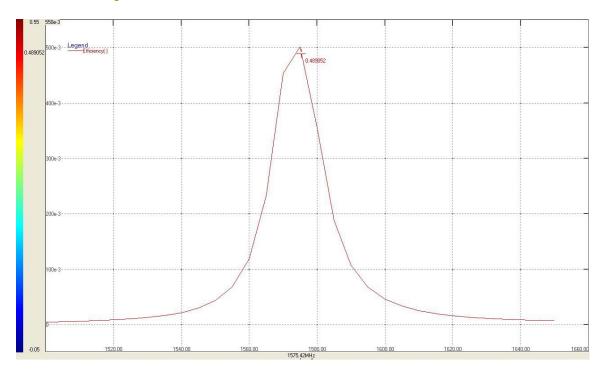


# 3. Electrical Specification

#### 3.1. Smith Chart



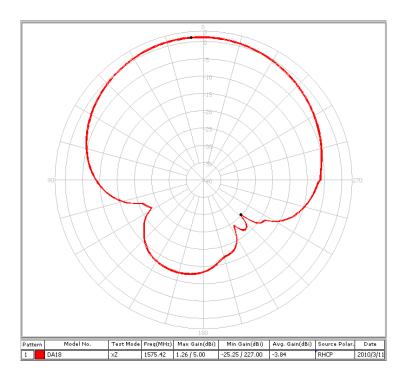
### 3.2. Efficiency



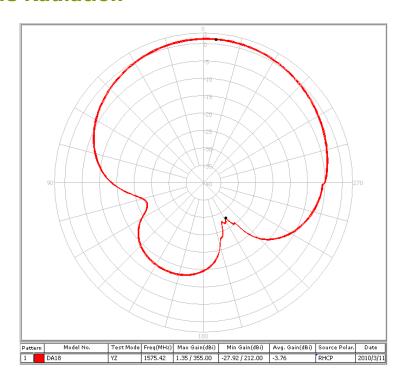


## 4. 2D Radiation Patterns

#### 4.1. XZ Plane Radiation

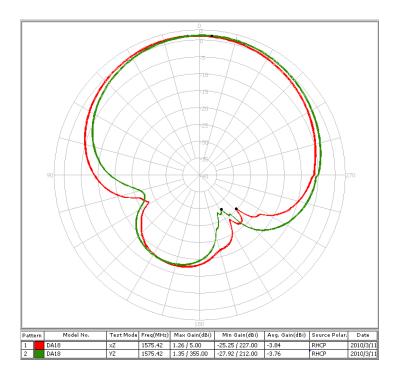


#### 4.2. YZ Plane Radiation



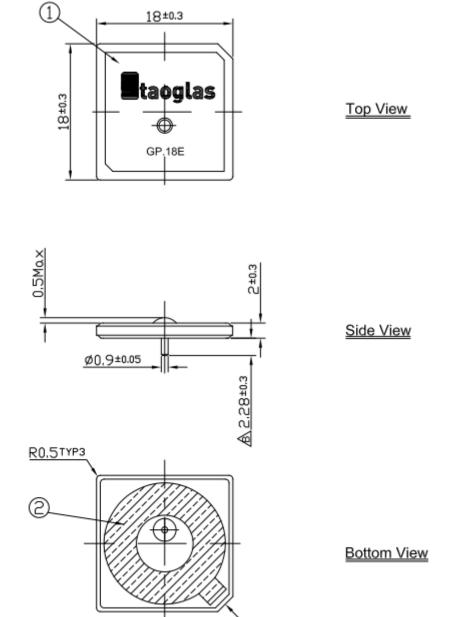


### 4.3. XZ Plane Radiation





# 5. Mechanical Drawing (Unit: mm)

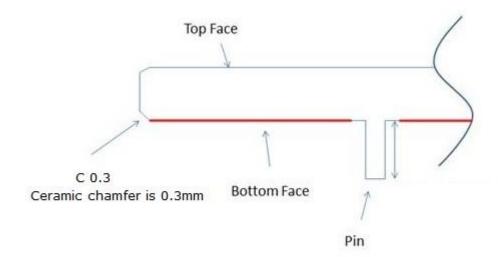


	Name	Material	Finish	QTY	NOTES:	
1	Patch 18x18x2	Ceramic	Clear	1	Double sided adhesive area	(17.17)
2	Double sided Adhesive	NITTO 5015	White Liner	1		

SPE-12-8-096/C/SS

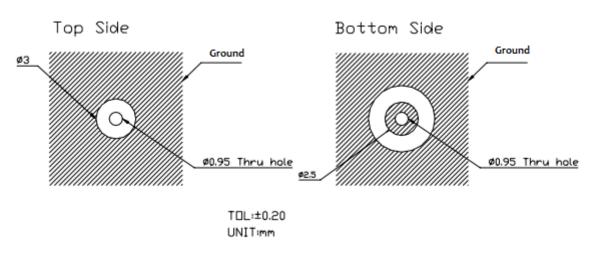


#### **5.1.** Adhesive Thickness



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

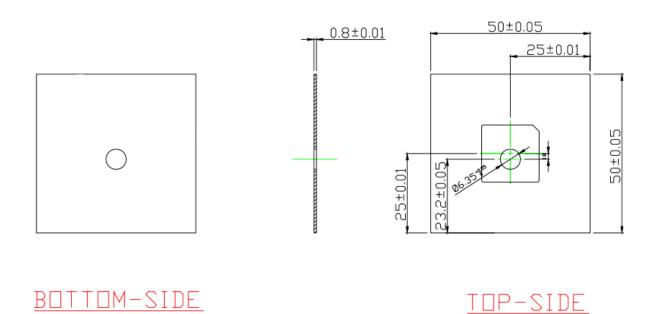
## **5.2. Layout Dimension**



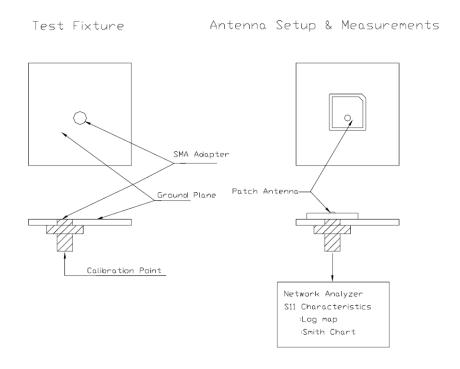
\*Note Layout Dimensions may be affected by the thickness of the PCB



# **6. Test Jig and Dimension**



### **6.1. Test Fixture Antenna Setup and Measurements**

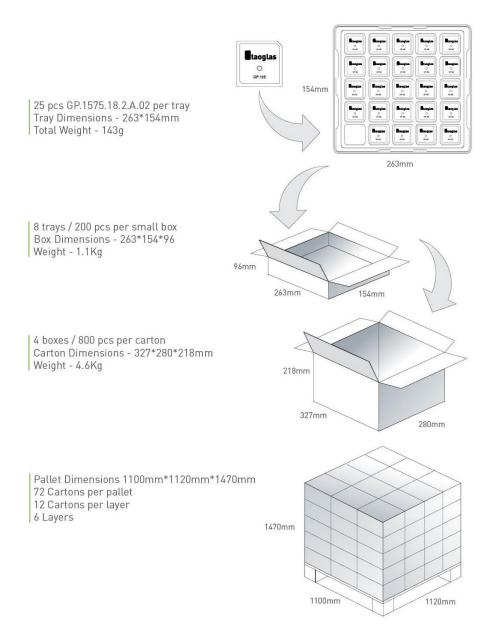




# 7. Packaging

GP.1575.18.2.A.02

#### **Packaging Specifications**



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