

# **SPECIFICATION**

Part No. : **GP.1575.25.4.A.02** 

Product Name : 4mm thick GPS Patch Antenna

Features : 25mm\*25mm\*4mm

Halogen Free

**ROHS Compliant** 

.





#### 1. Introduction

This miniaturized ceramic GPS patch antenna is based on smart  $XtremeGain^{\intercal}$  technology. It is mounted via pin and double-sided adhesive and has been tuned as optimal solution for the customer device environment.

### 2. Specification Table

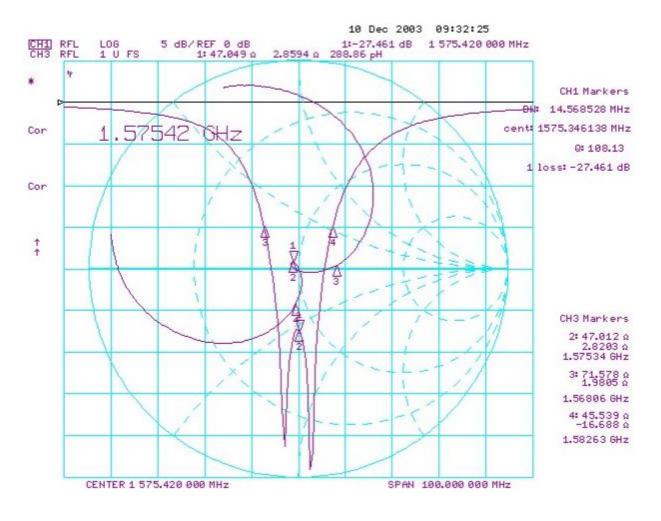
Original Patch Specification tested on 50\*50mm ground plane

| 0.15 | Original rateri Specification tested on 30 30mm ground plane |                                  |                   |  |  |  |  |  |  |
|------|--|----------------------------------|-------------------|--|--|--|--|--|--|
| No   | Parameter  | Specification                    |                   |  |  |  |  |  |  |
|      | Range of Receiving Frequency                                 | 1575.42MHz +/- 1.023MHz          |                   |  |  |  |  |  |  |
| 1    | Center Frequency   | 1575MHz +/- 3MHz                 |                   |  |  |  |  |  |  |
| 2    | Impedance  | 50Ω                              |                   |  |  |  |  |  |  |
| 3    | Bandwidth  | 10 MHz min Return Loss <-10dB    |                   |  |  |  |  |  |  |
| 4    | VSWR   | 1.5 max                          | Control Francisco |  |  |  |  |  |  |
| 5    | Gain toward Zenith   | 3.5 dBi typ.                     |                   |  |  |  |  |  |  |
| 6    | Gain at 10°Elevation   | -2.5 dBi typ.                    | Center Frequency  |  |  |  |  |  |  |
| 7    | Axial Ratio  | 3dB Max.                         |                   |  |  |  |  |  |  |
| 8    | Polarization   | Right Hand Circular Polarization |                   |  |  |  |  |  |  |
|      | Frequency Temperature  |                                  |                   |  |  |  |  |  |  |
| 9    | Coefficient $(\tau f)$                                       | 0 ± 20ppm/°C                     |                   |  |  |  |  |  |  |
| 10   | Operating Temperature  | -40°C to +85°C                   |                   |  |  |  |  |  |  |



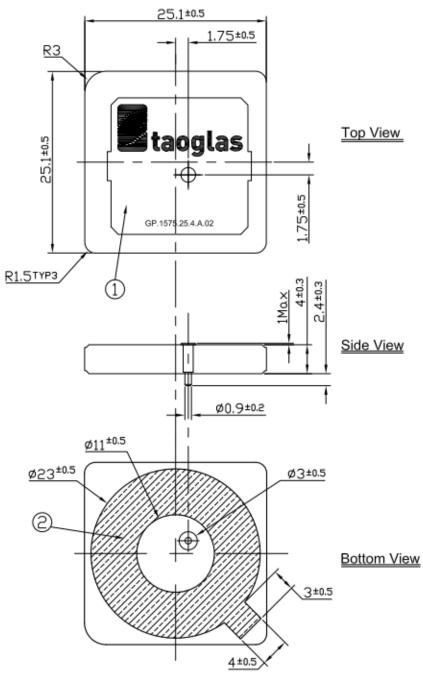
### 3. Electrical Specification

#### 3.1 Smith Chart





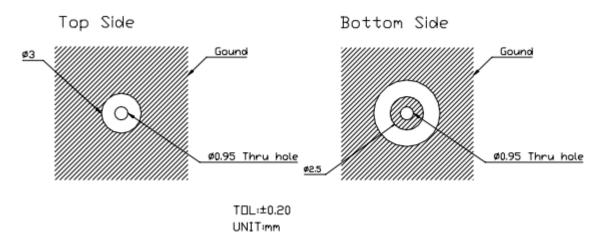
## 4. 2D Mechanical Drawing



|                              |   | Name                  | Material   | Finish      | QTY |
|------------------------------|---|-----------------------|------------|-------------|-----|
| NOTES:                       | 1 | GP.1575 Patch 25x25x4 | Ceramic    | Clear       | 1   |
| 1.Double sided adhesive area | 2 | Double sided Adhesive | NITTO 5015 | White Liner | 1   |

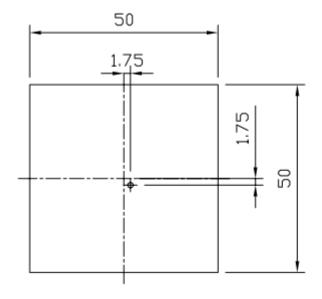


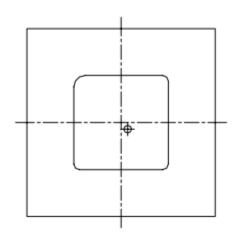
#### **5.1 Layout Dimension**



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

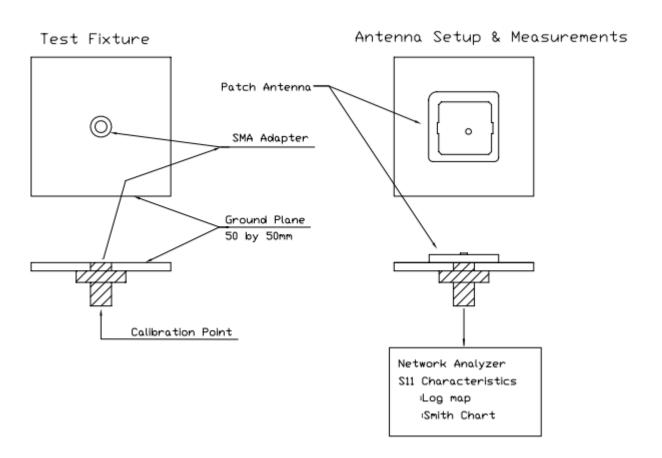
# 5. Test Jig and Dimension







#### **5.1 Test Fixture Antenna Setup and Measurements**





## 6. Packaging

50 pieces per Tray 200 per Inner Carton 4 x 200 – 800 pieces per Outer Carton

