

## **SPECIFICATION**

PART NO. **GP.1575.15.4.B.02** 

SPEC NO. **GP.15A** 

PRODUCT NAME 15mm\*15mm\*4mm

1575mhz GPS Patch Antenna

**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 selected as optimal solution for the customer device environment.

## 2. Specification Table

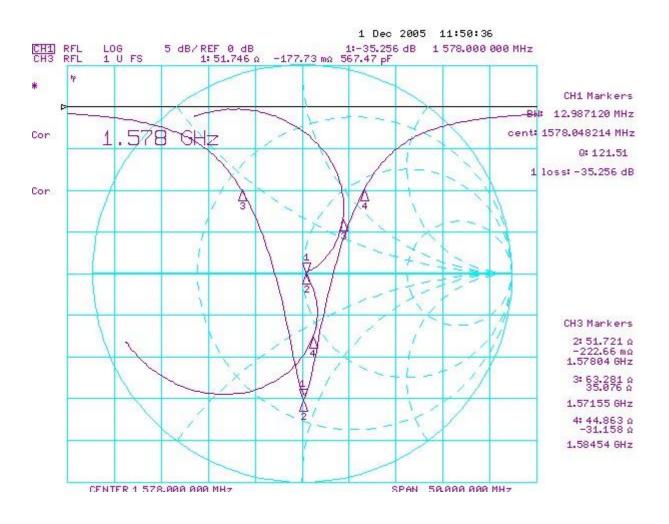
| No | Parameter                                 | Specification           | Notes                       |
|----|---|-------------------------|-----------------------------|
| 1  | Range of Receiving<br>Frequency           | 1575.42 MHz ± 1.023 MHz |                             |
| 2  | Center Frequency                          | 1578 ± 2MHz             | With 66x52.5mm ground plane |
| 3  | Bandwidth                                 | 6 MHz min               | Return Loss <-10 dB         |
| 4  | VSWR                                      | 1.5 max                 | Center Frequency            |
| 5  | Gain at Zenith                            | 1.0 dBic typ.           |                             |
| 6  | Gain at 10°elevation                      |                         |                             |
| 7  | Axial Ratio                               | 3 dB max                |                             |
| 8  | Polarization                              | RHCP                    |                             |
| 9  | Impedance                                 | 50 Ohms                 |                             |
| 10 | Frequency Temperature<br>Coefficient (Tf) | 0 ± 20ppm / °C          | -40°C to +85°C              |
| 11 | Operating Temperature                     | -40°C to +85°C          |                             |

Table 1



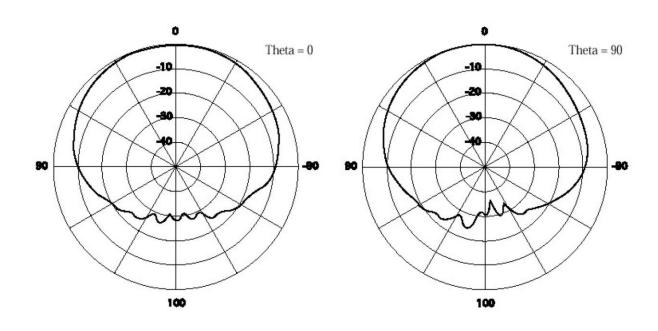
## 3. Electrical Specification

#### 3.1 Smith Chart



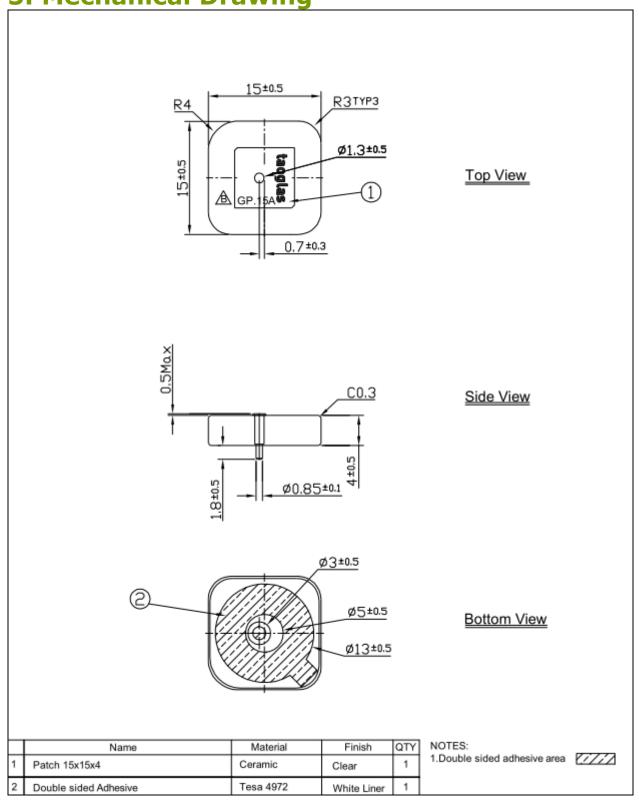


## 4. Antenna Gain Chart (Spin Dipole Method)



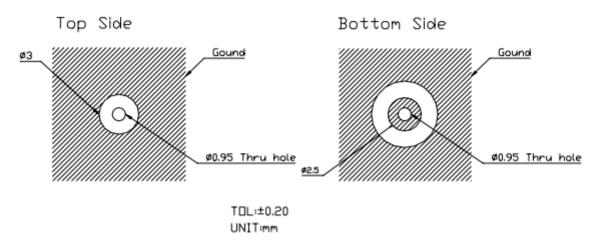


# 5. Mechanical Drawing



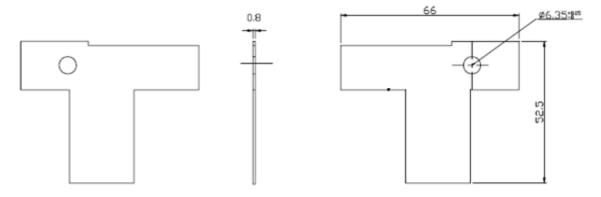


#### **5.1 Layout Dimension**



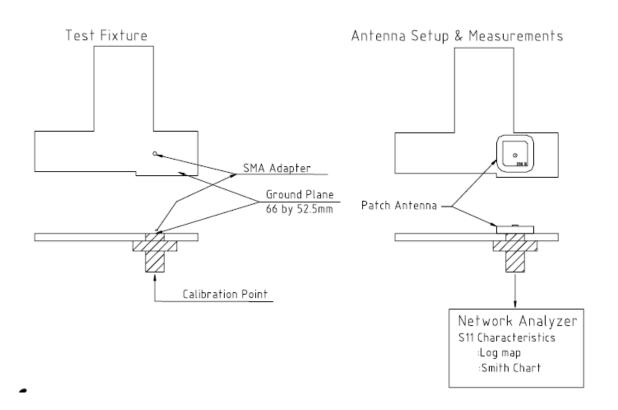
\*Note Layout Dimensions may be affected by the thickness of the PCB

## 6. Test Jig and Dimensions





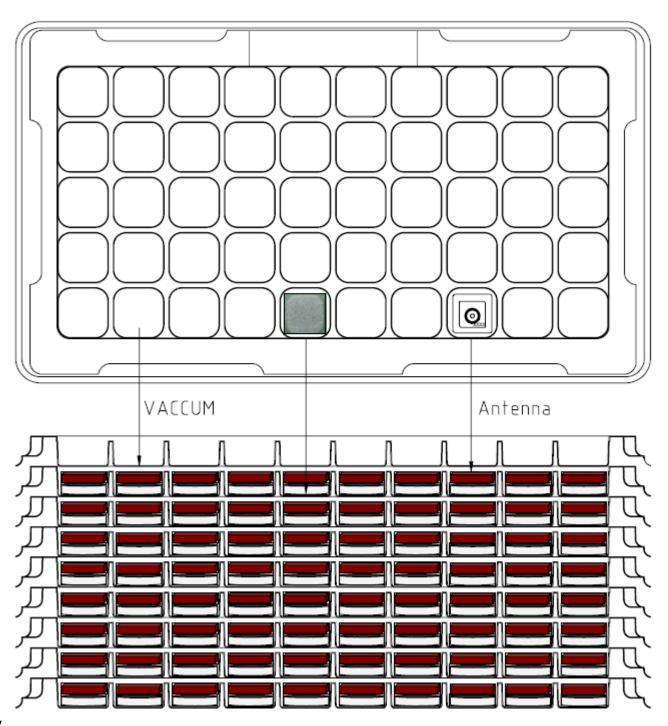
#### **6.1 Test Fixture Antenna Setup & Measurements**



SPE-12-8-094/A/SS

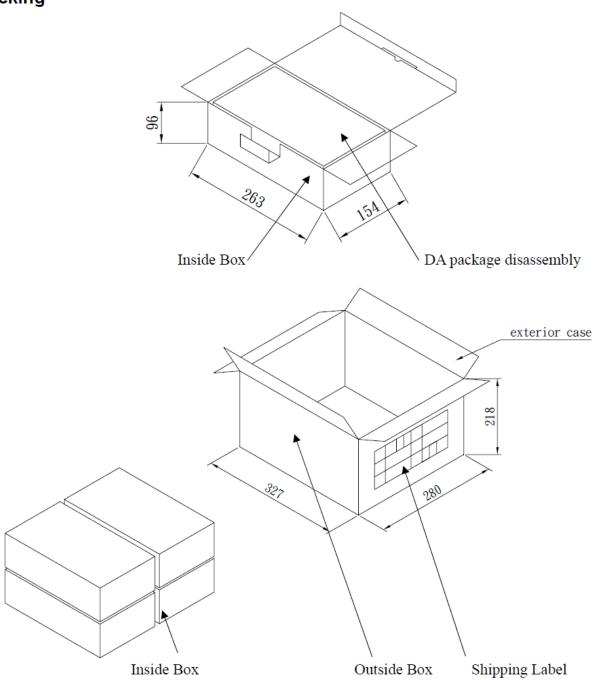


**7. Packaging**Pieces per Inner Carton: 400





### **Packing**



### **Mouser Electronics**

**Authorized Distributor** 

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Taoglas:

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