

## SPECIFICATION

- Part No. : **CGGBP.35.6.A.02**
- Product Name : 35mm\*35mm\*6.5mm 3~4dBi  
GPS/GLONASS/GALILEO/BEIDOU  
Embedded Patch Antenna  
BEIDOU 1561MHz / GPS-GALILEO 1575MHz /  
GLONASS 1602MHz
- Feature : Dielectric Ceramic  
Pin Mount  
RoHS Compliant



## 1. Introduction

This 35mm square ceramic GPS/GLONASS/GALILEO/BEIDOU patch antenna's wide band of operation leads to excellent gain and radiation pattern stability on all three GNSS system bands.

Compared to using a smaller antenna, this will translate into the GNSS system having much higher location accuracy, improved reliability of lock in urban areas, better signal reception, with more satellites acquired and a quicker time to first fix.

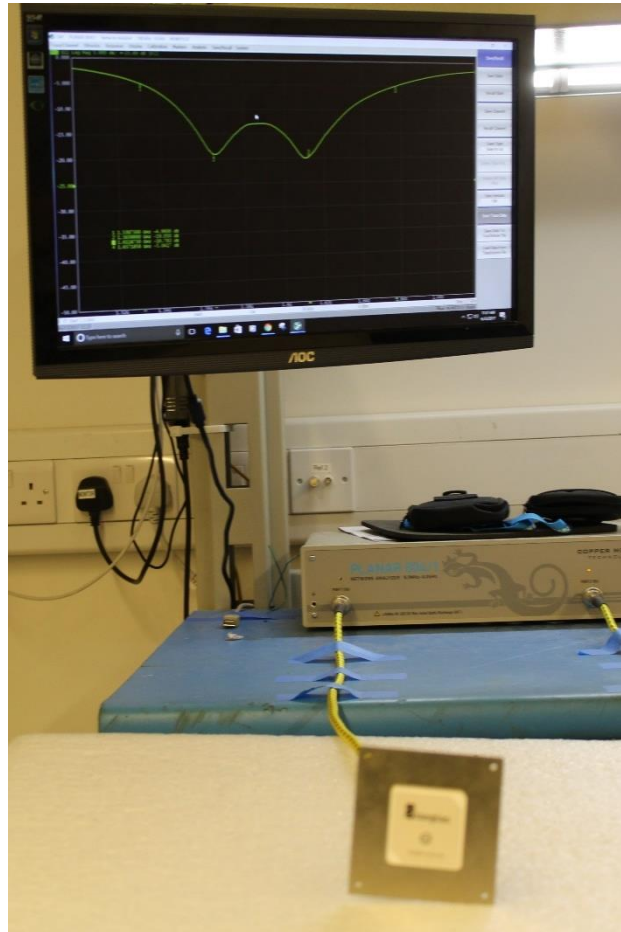
The patch is mounted via pin and double-sided adhesive.

## 2. Specification

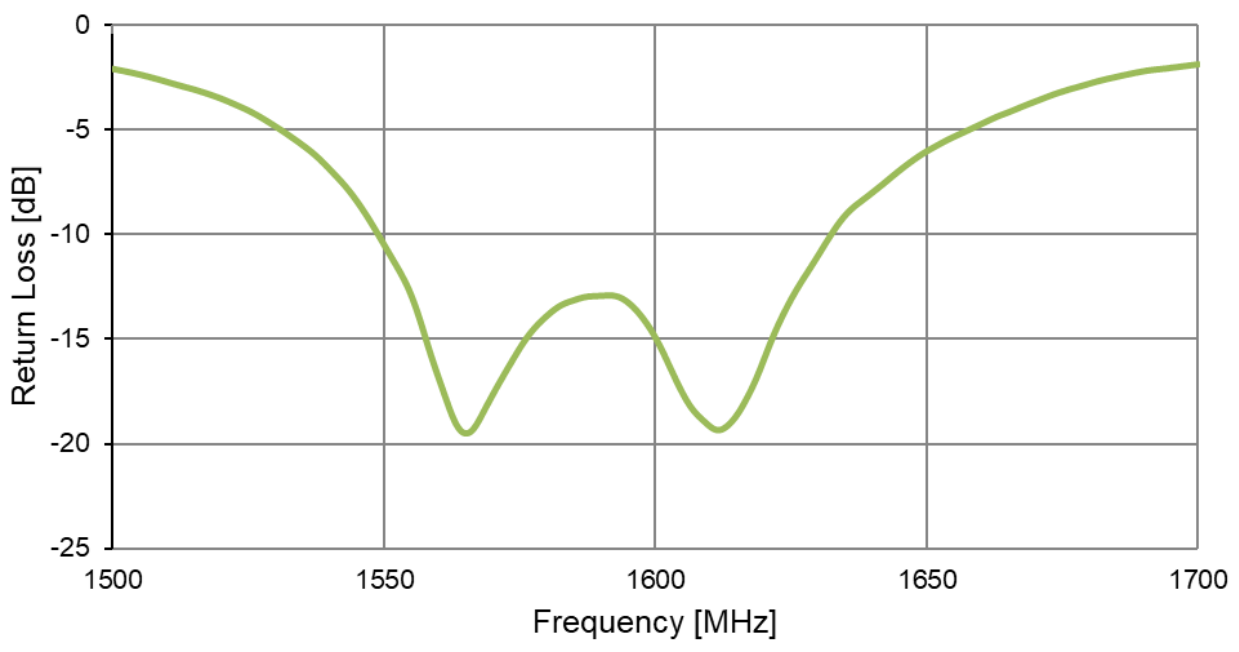
ELECTRICAL	
Frequency	BeiDou: 1561.098MHz $\pm$ 2.046MHz GPS/GALILEO: 1575.42 $\pm$ 1.023MHz GLONASS: 1602 $\pm$ 5MHz
Centre Frequency	1594MHz $\pm$ 6MHz
VSWR	1.8: 1 max
Bandwidth	80MHz Return Loss @-10dB
Peak Gain	BeiDou: +6.0dBi typ. GPS/GALILEO: +6.0dBi typ. GLONASS: +6.1dBi typ.
Impedance	50 $\Omega$
MECHANICAL	
Dimensions	35 x 35 x 6.5mm
Material	Ceramic
Pin Diameter	0.9mm
Pin Length	4.0mm
ENVIRONMENTAL	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 105°C
Humidity	Non-condensing 65°C 95% RH

## 3. Antenna Characteristics

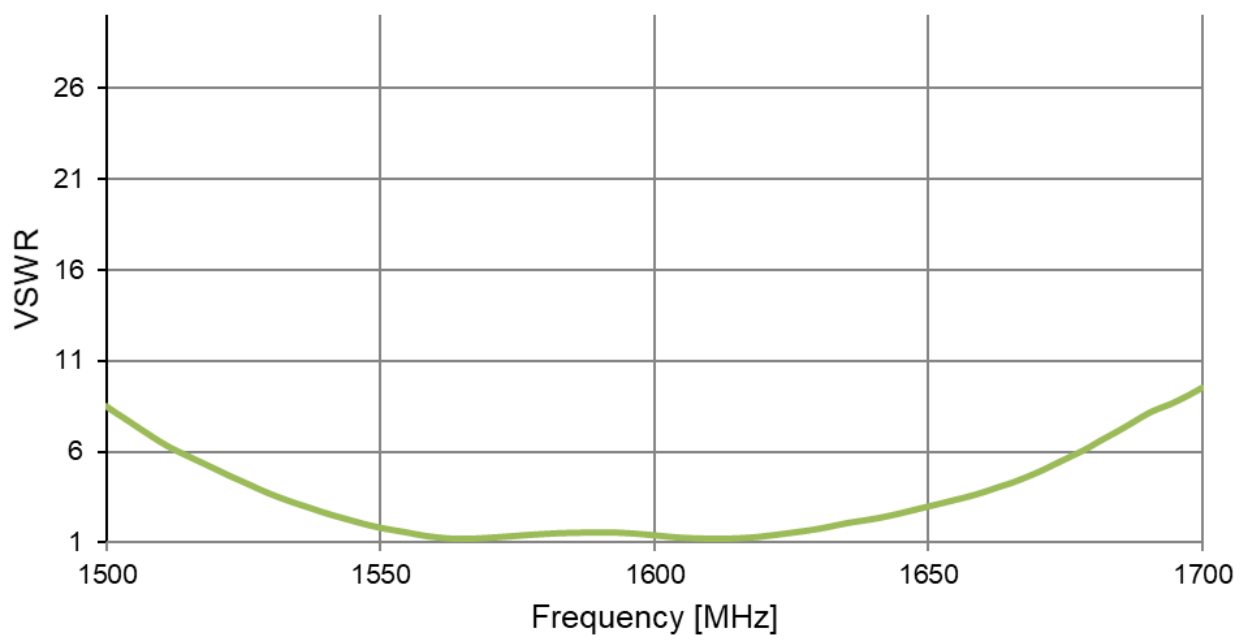
### 3.1. Test Setup



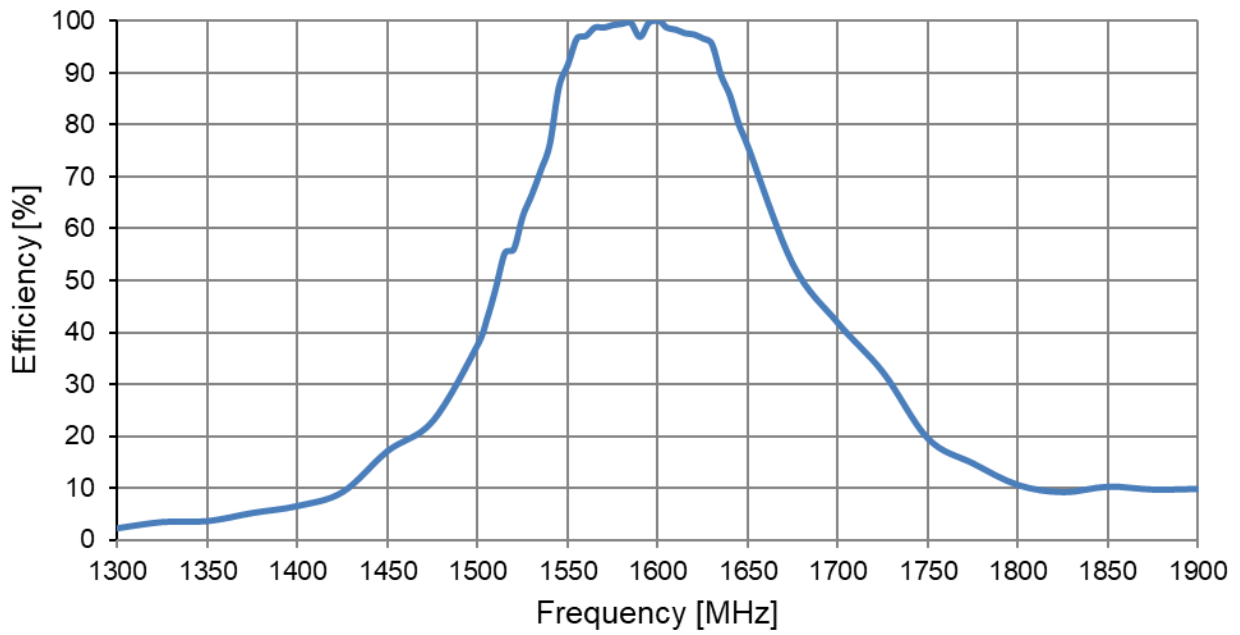
### 3.2. Return Loss



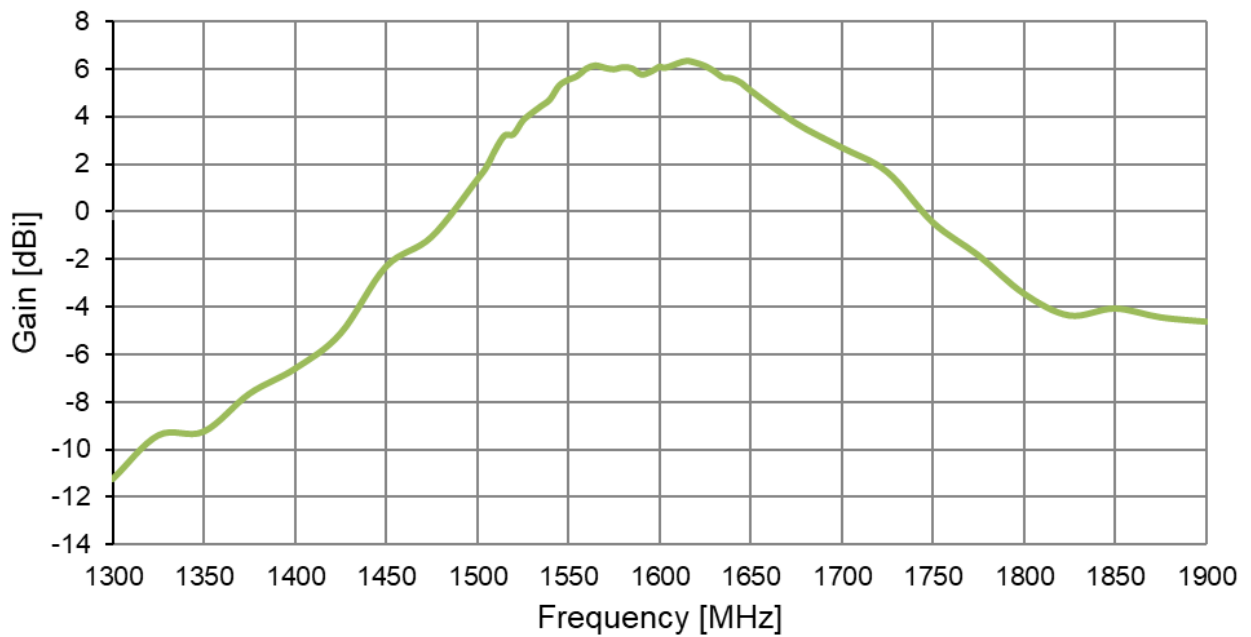
### 3.3. VSWR



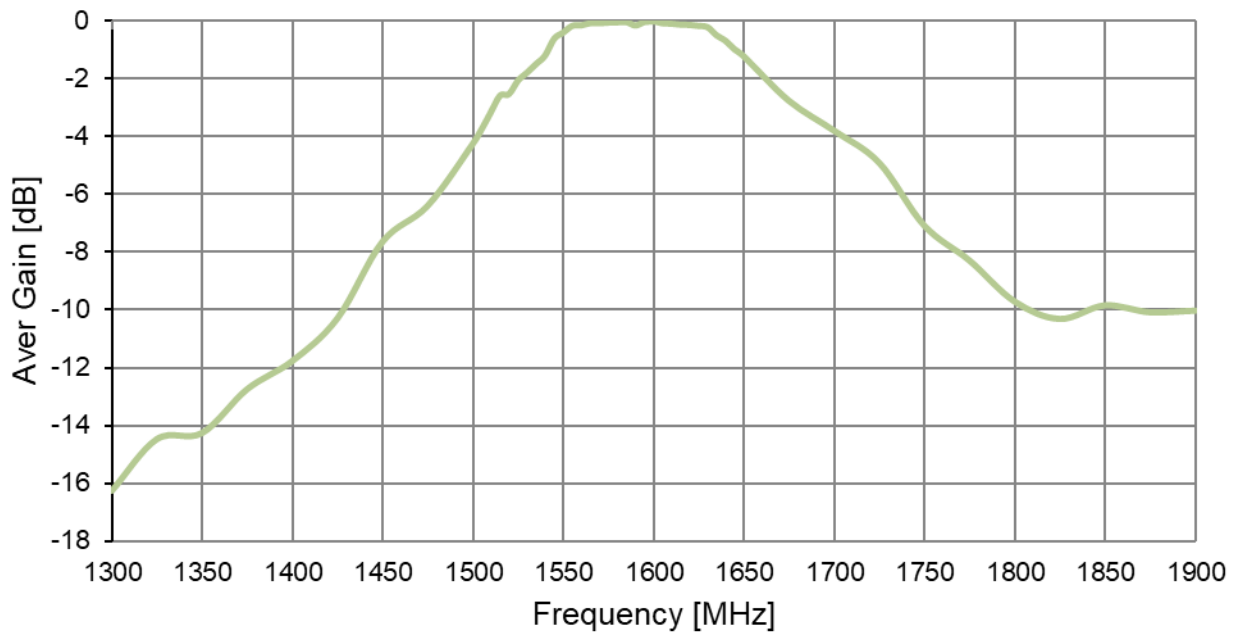
### 3.4. Efficiency



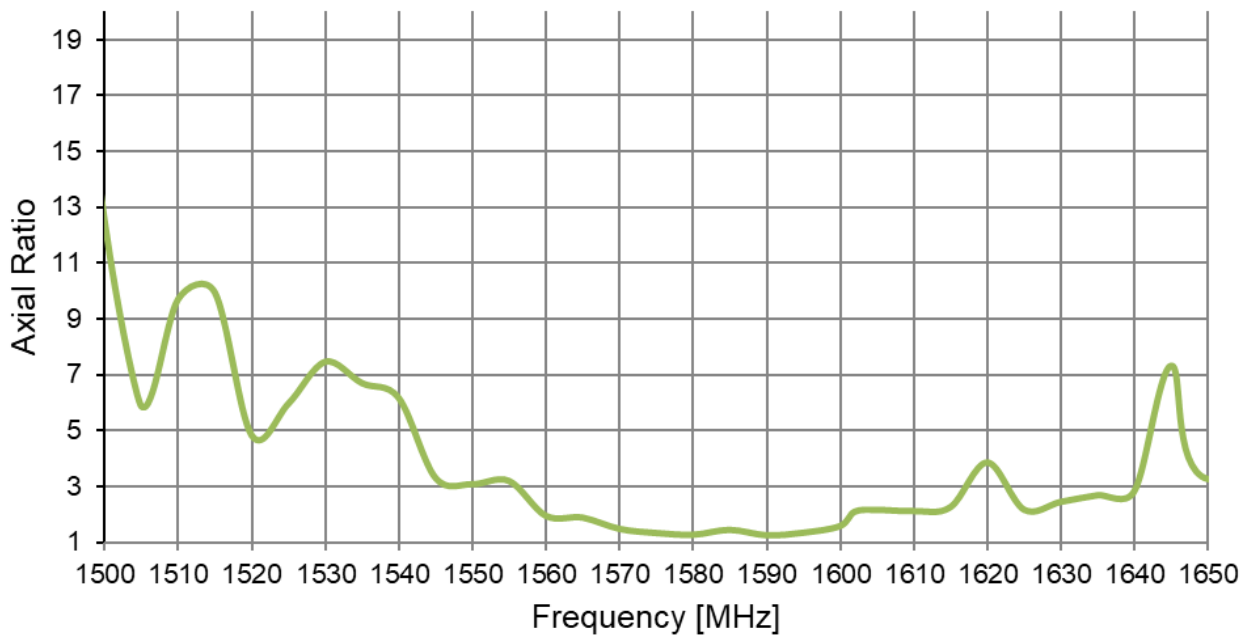
### 3.5. Peak Gain



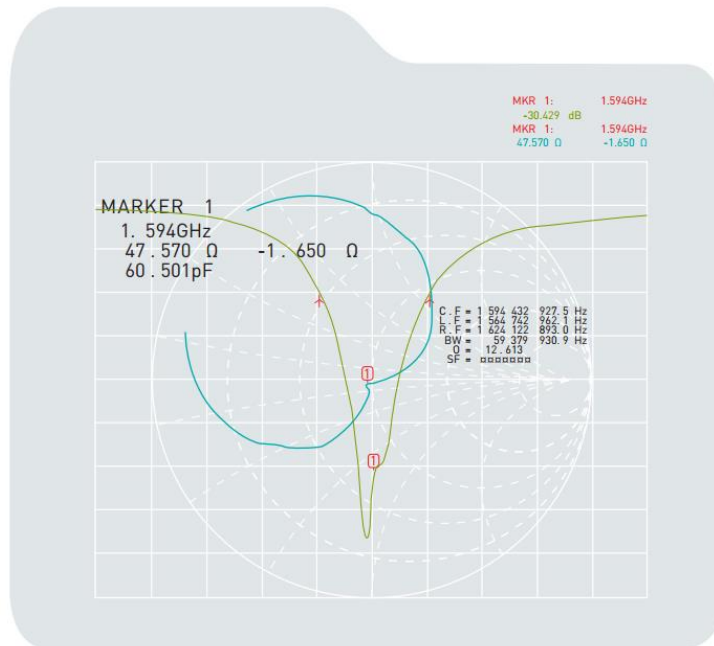
### 3.6. Average Gain



### 3.7. Axial Ratio



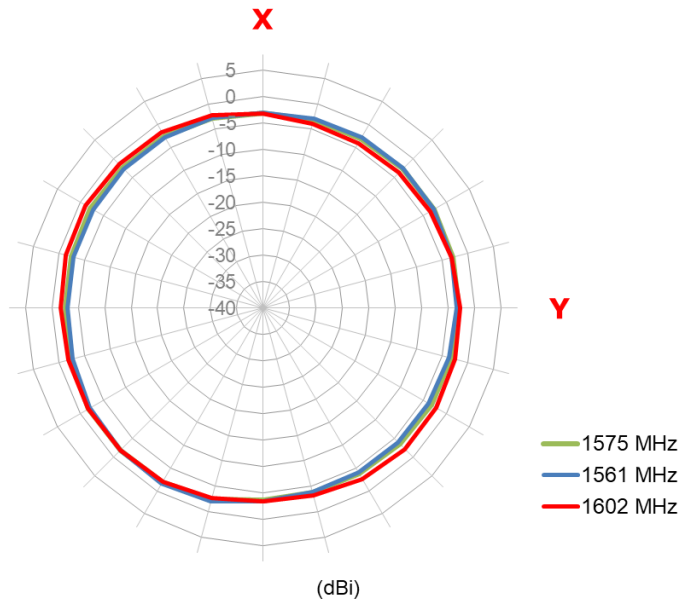
### 3.8. S11 Properties



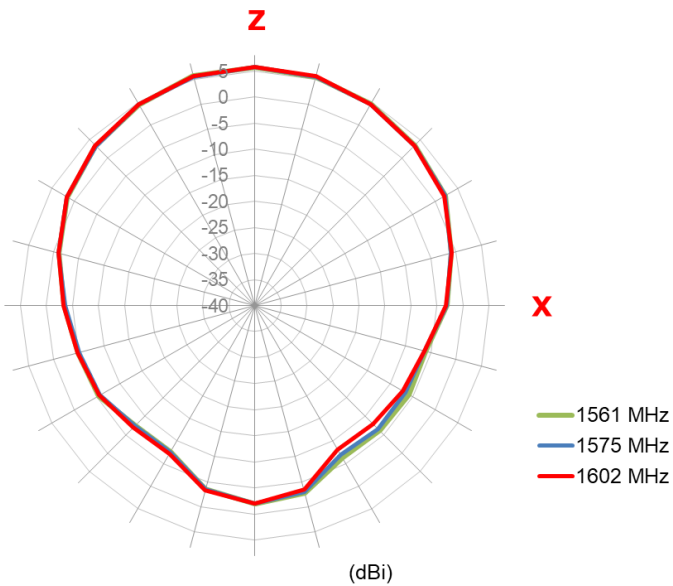


## 4. 2D Antenna Radiation

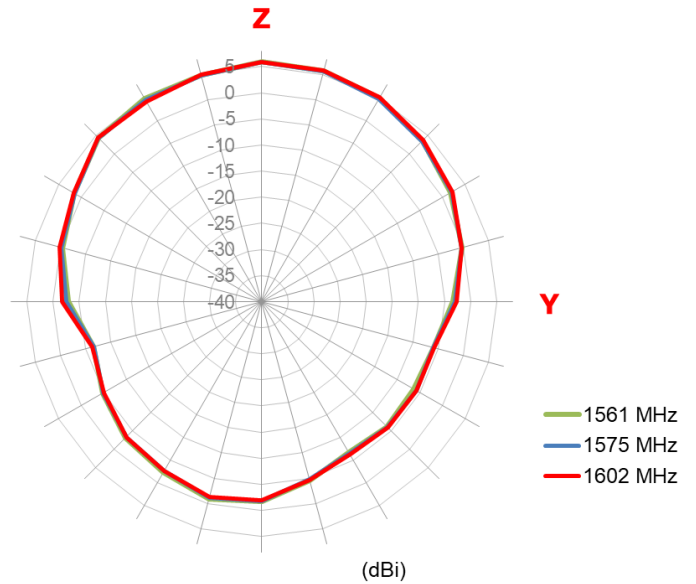
XY Plane



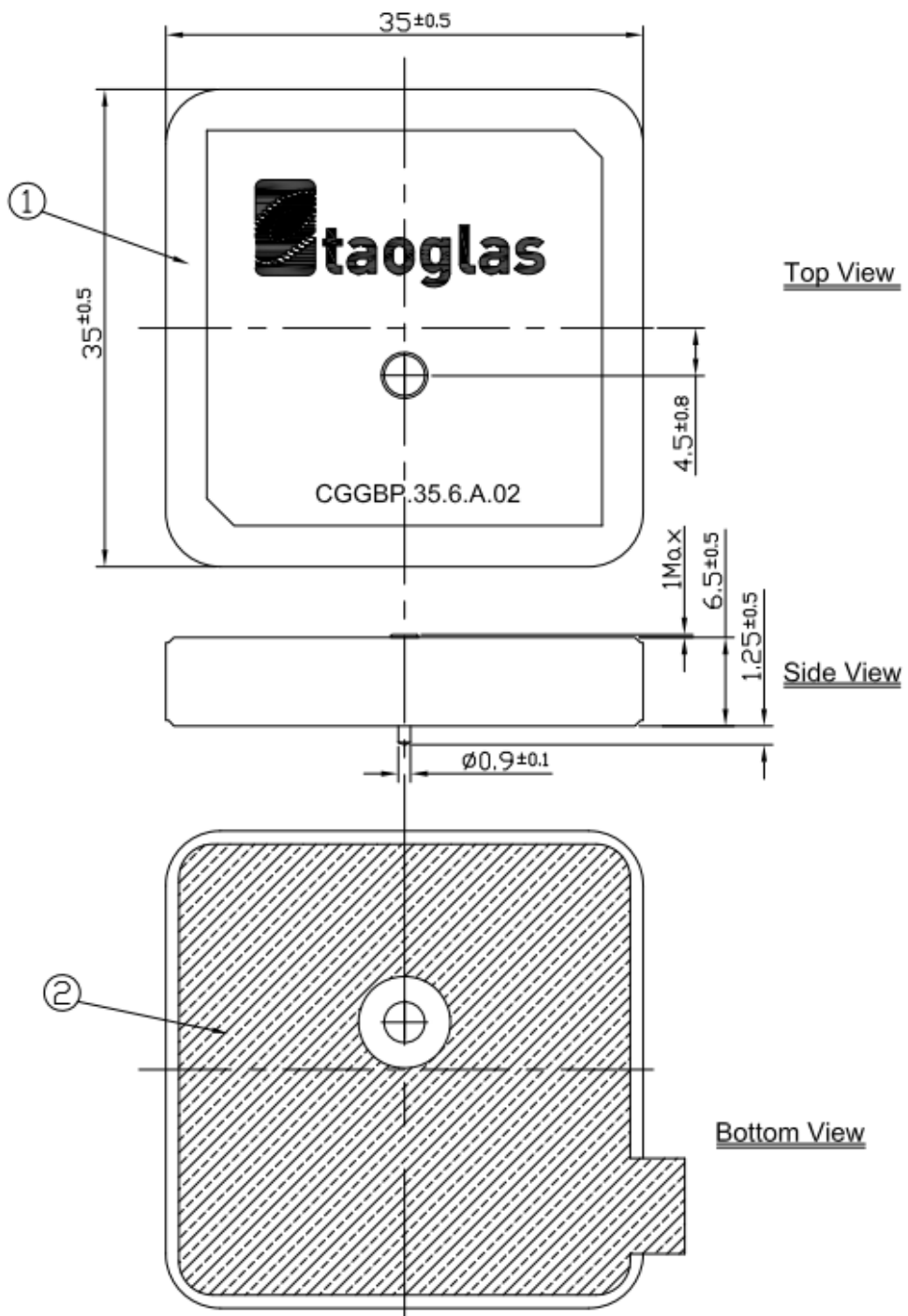
XZ Plane



YZ Plane

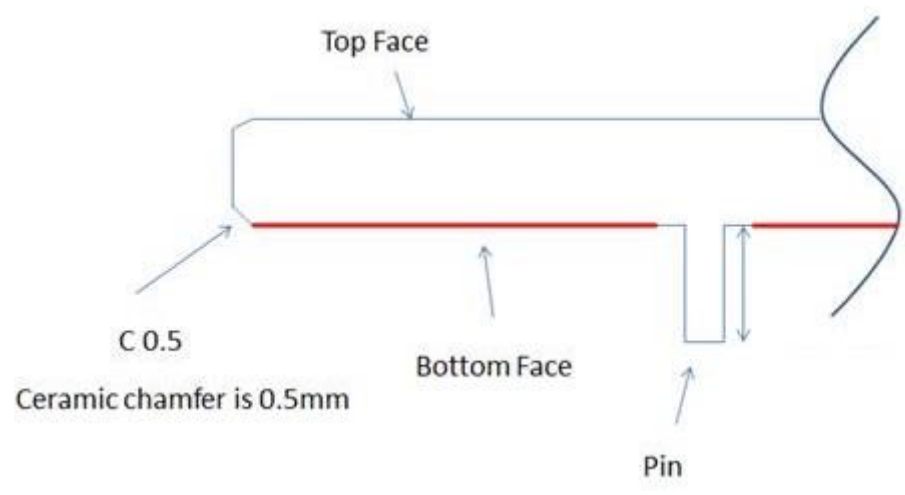


# 5. Mechanical Drawing



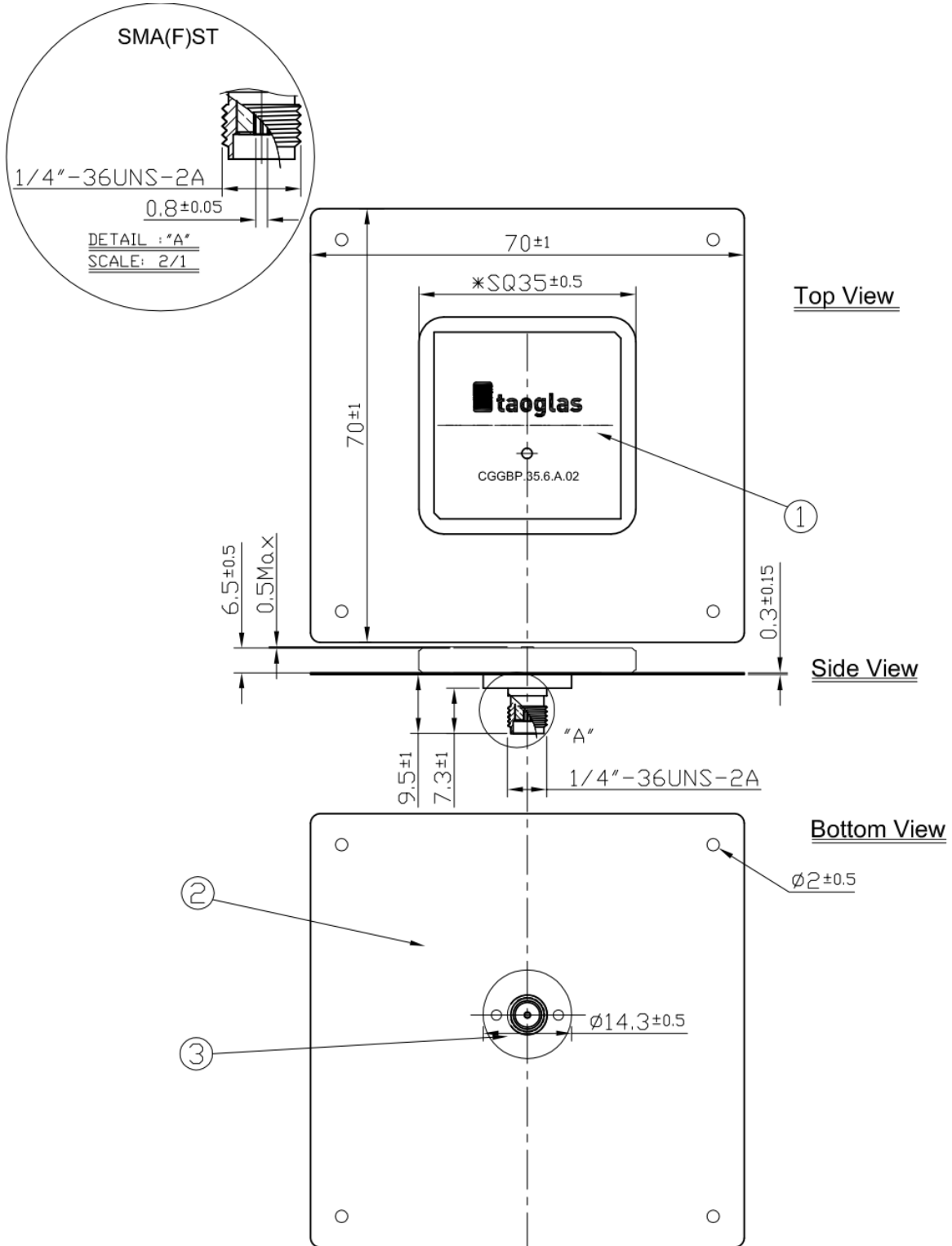
NOTES:  
 1. Double sided adhesive area 

### 5.1. Adhesive Thickness



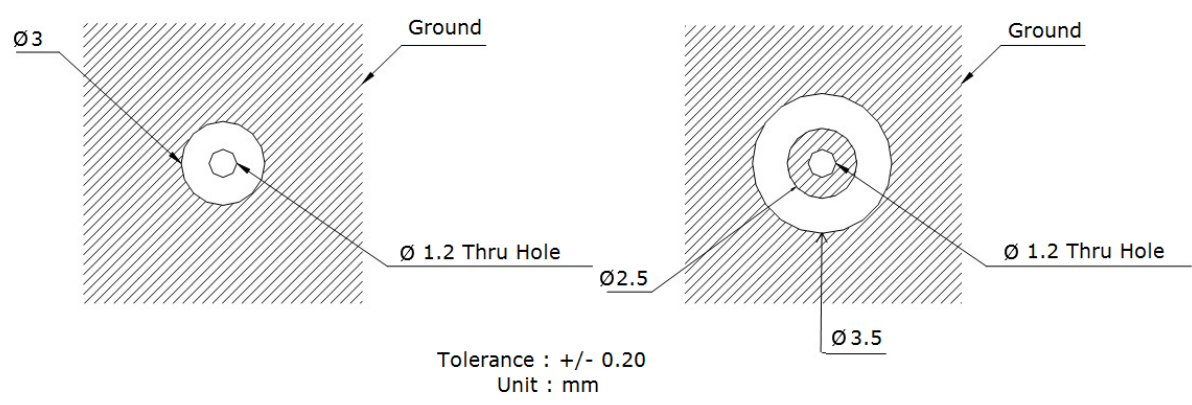
Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

## 6. CGGBP.D.35.A EVB



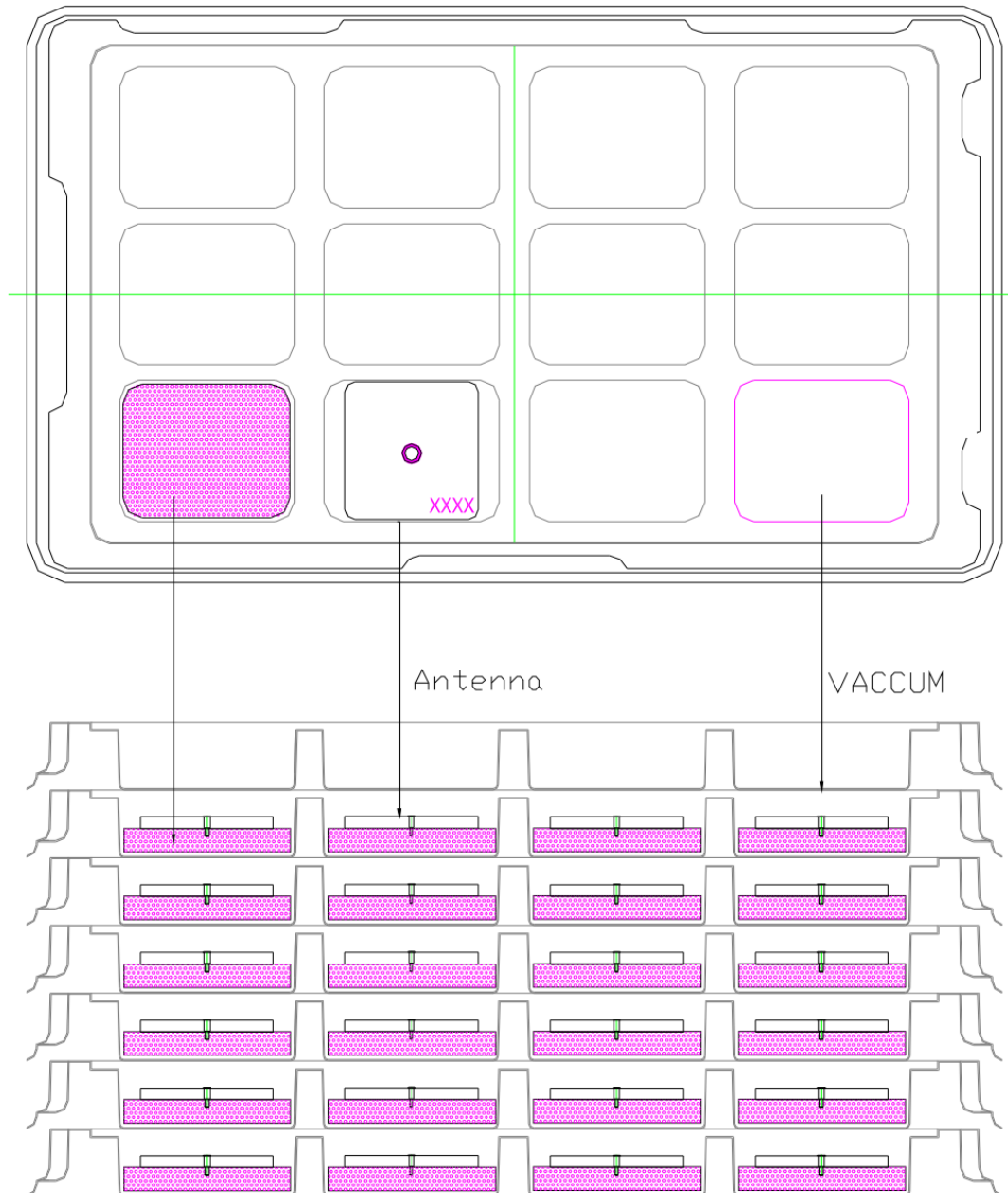


### 6.1. PCB Footprint Recommendation



## 7. Packaging

### 7.1. Inner Tray

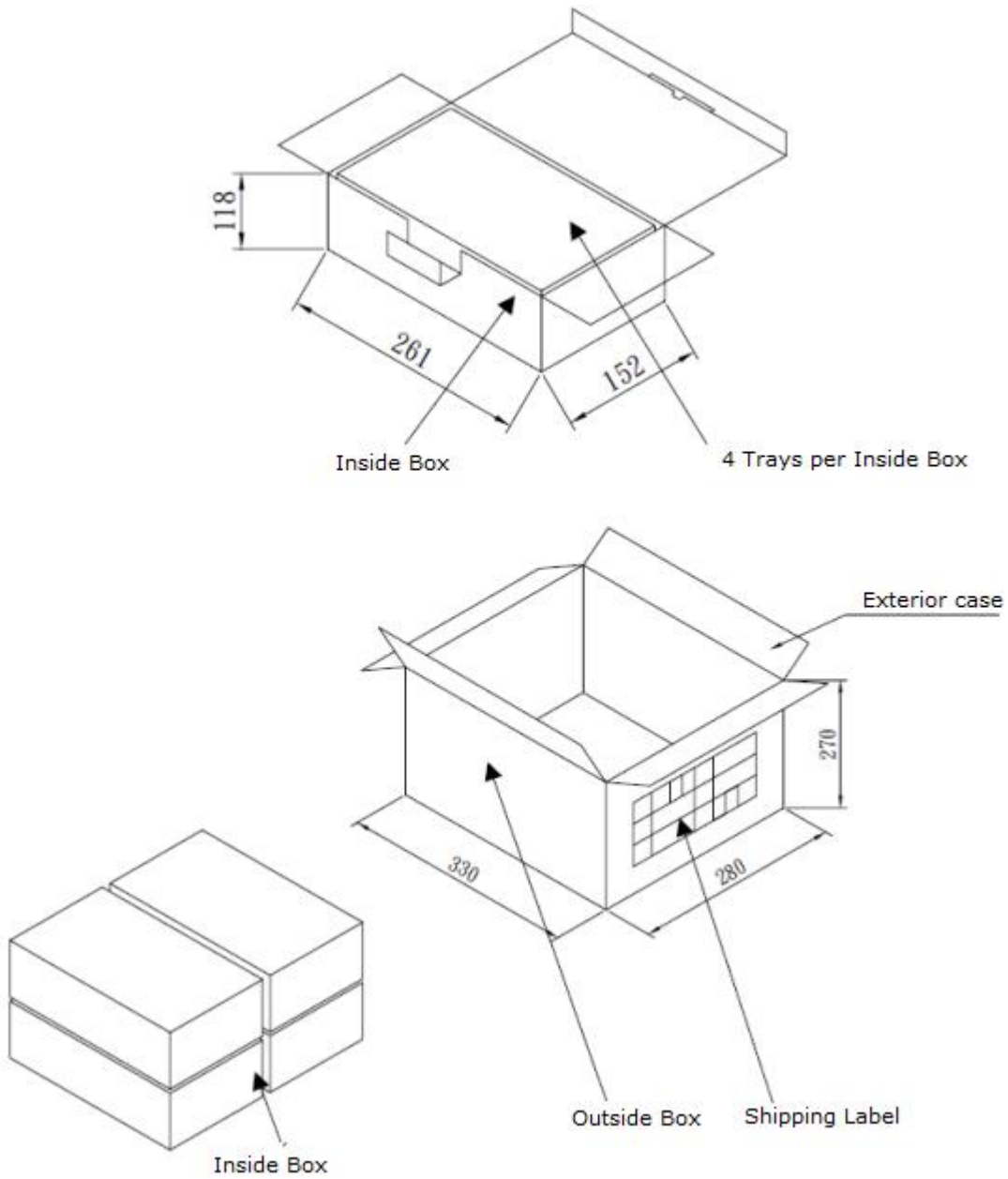


12 pieces per tray

6 Trays per Inside Box = 72

4 Inside Boxes per Outer Carton -Outer Carton contains 288 pieces

## 7.2. Carton



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