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## 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.

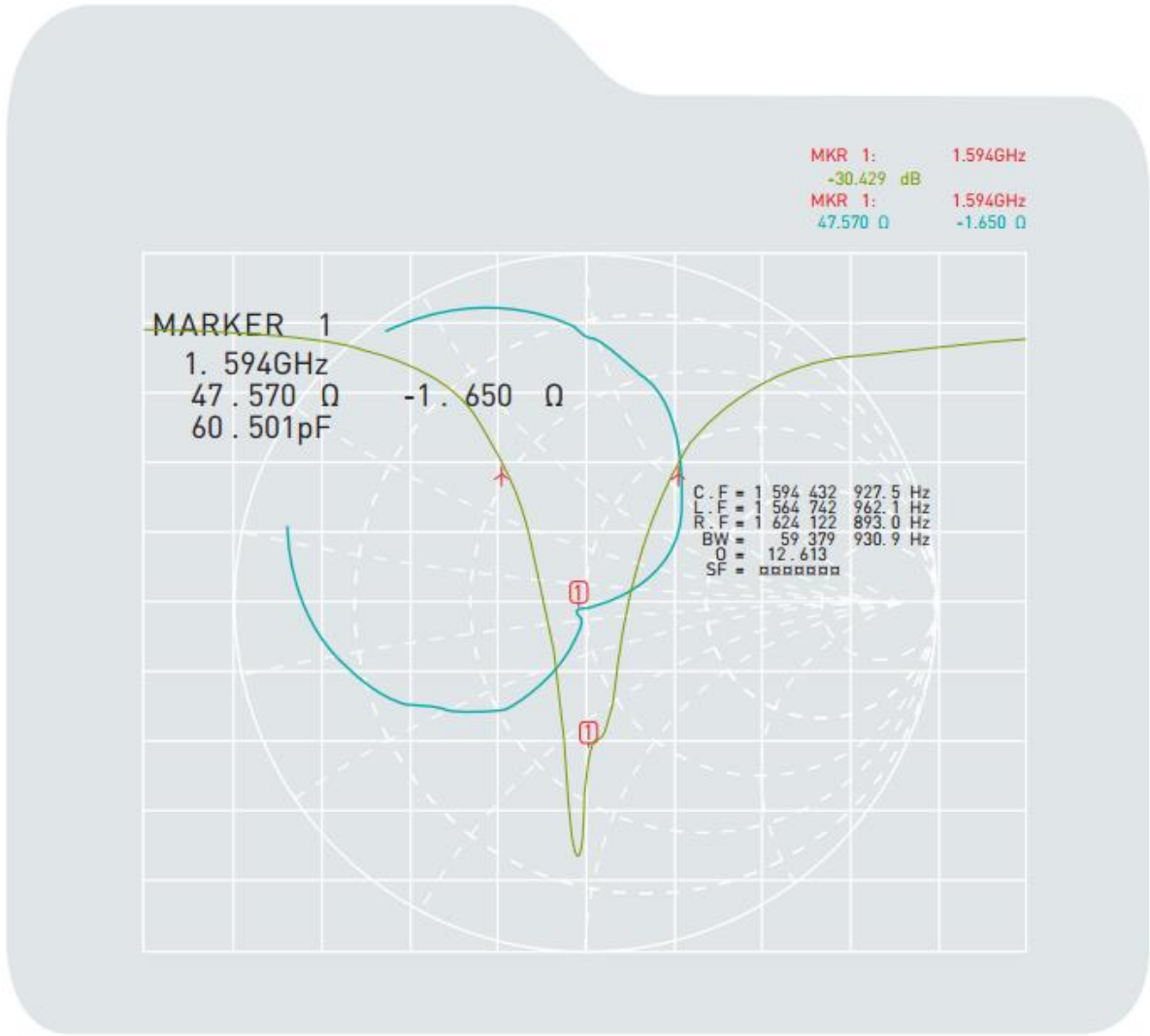
Compared to using a smaller antenna, this will translate into the GNSS system having much higher location accuracy, improved reliability of lock in urban areas, better signal reception, with more satellites acquired and a quicker time to first fix.

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

## 2. Specification

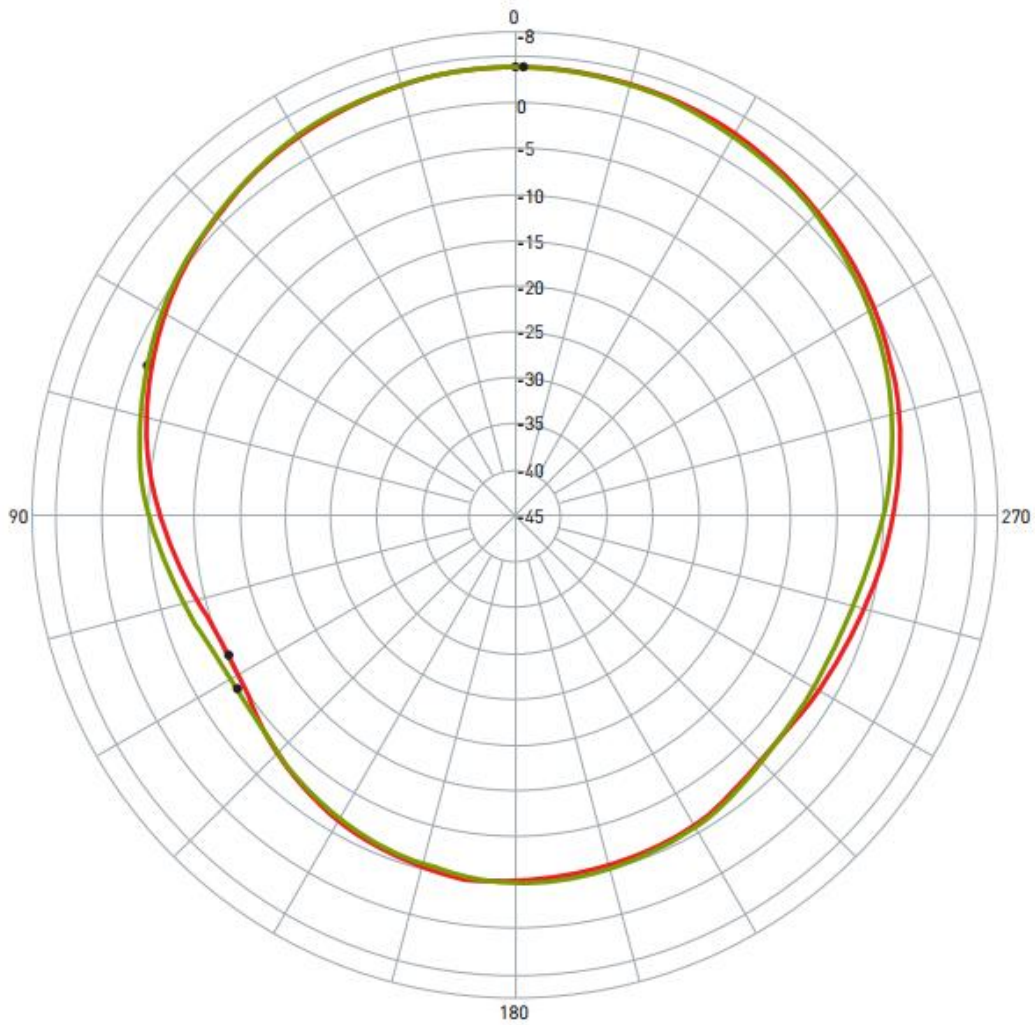
ELECTRICAL	
Frequency	BeiDou: 1561.098MHz ± 2.046MHz GPS/GALILEO: 1575.42 ± 1.023MHz GLONASS: 1602 ± 5MHz
Centre Frequency	1594MHz ± 6MHz
VSWR	2.5 : 1 max
Bandwidth	57MHz Return Loss @-10dB
Zenith Gain	BeiDou: +4.5dBi typ. GPS/GALILEO: +3.0dBi typ. GLONASS: +4.5dBi typ.
Impedance	50 Ω
MECHANICAL	
Dimensions	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 S11 Properties



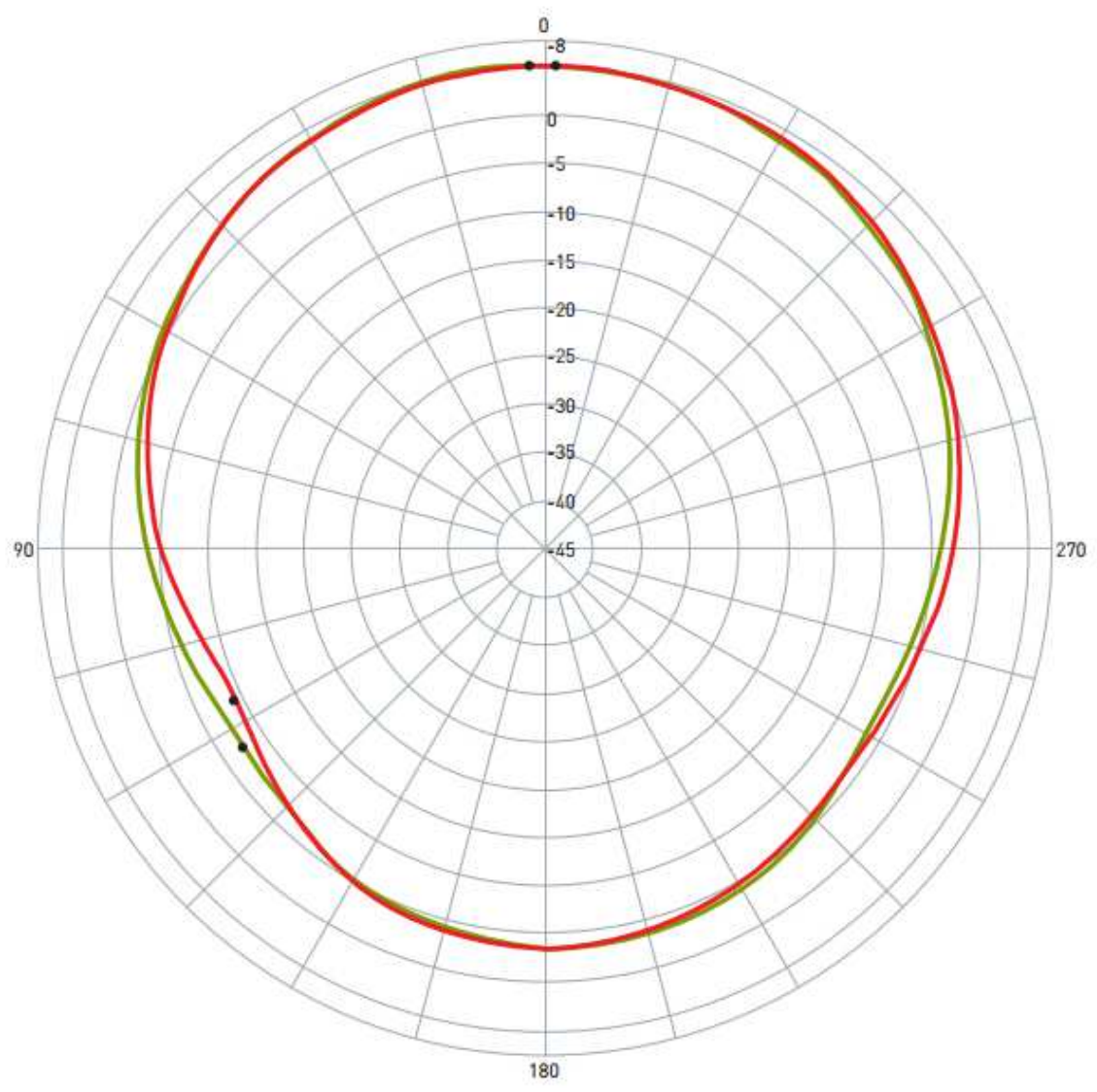
## 4. 2D Antenna Radiation

### 4.1 1575.42MHz Free Space



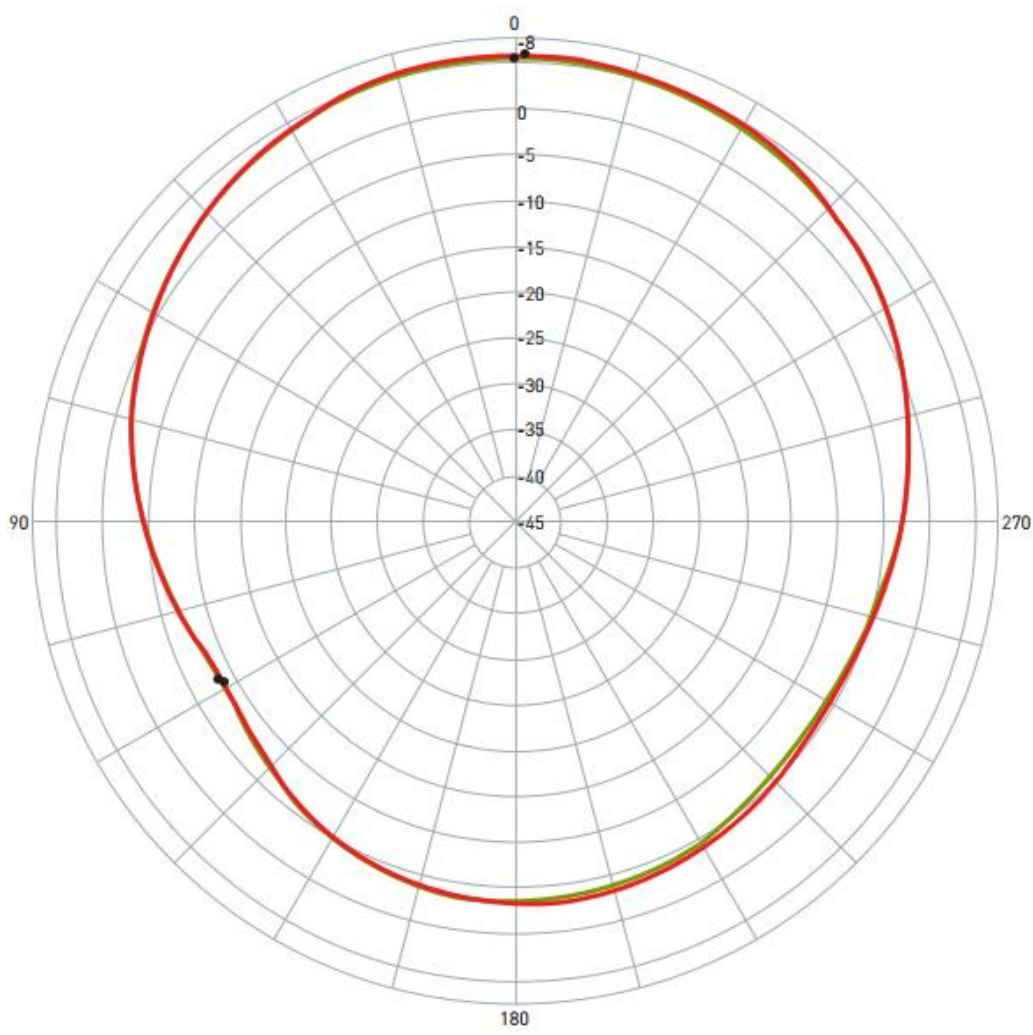
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	3.85	-0.97
YZ Plane	3.78	-1.04

## 4.2 1561MHz Free Space



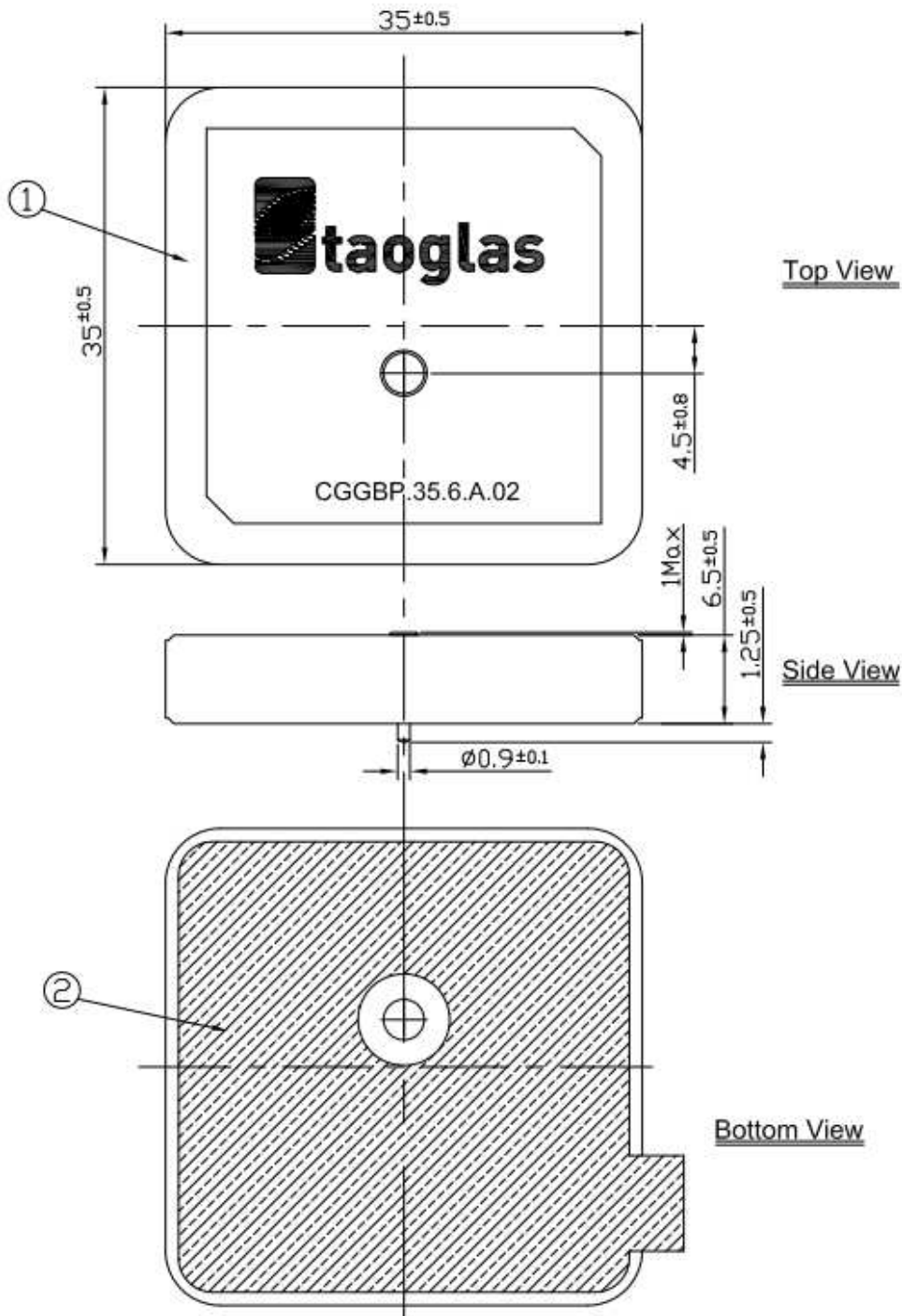
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	5.01	0.22
YZ Plane	5.02	0.21


### 4.3 1602MHz Free Space



	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	5.51	0.65
YZ Plane	5.23	0.39

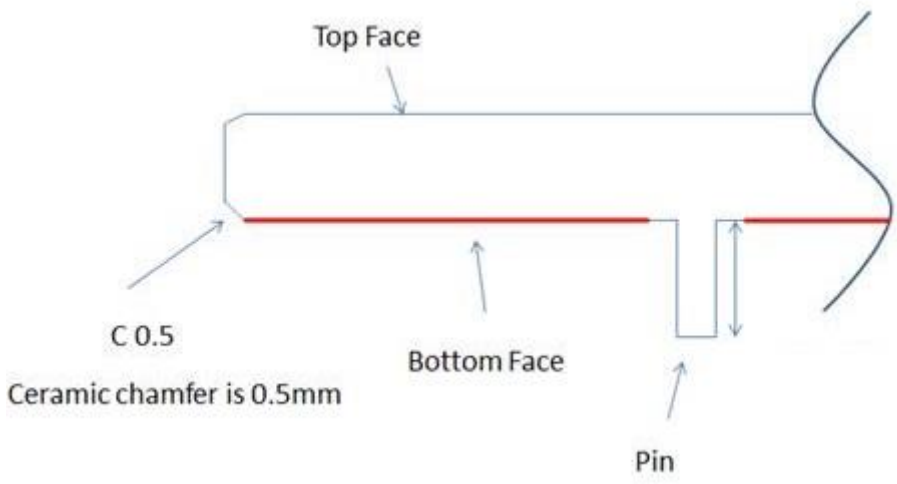
## 5. Mechanical Drawing



NOTES:  
 1. Double sided adhesive area 

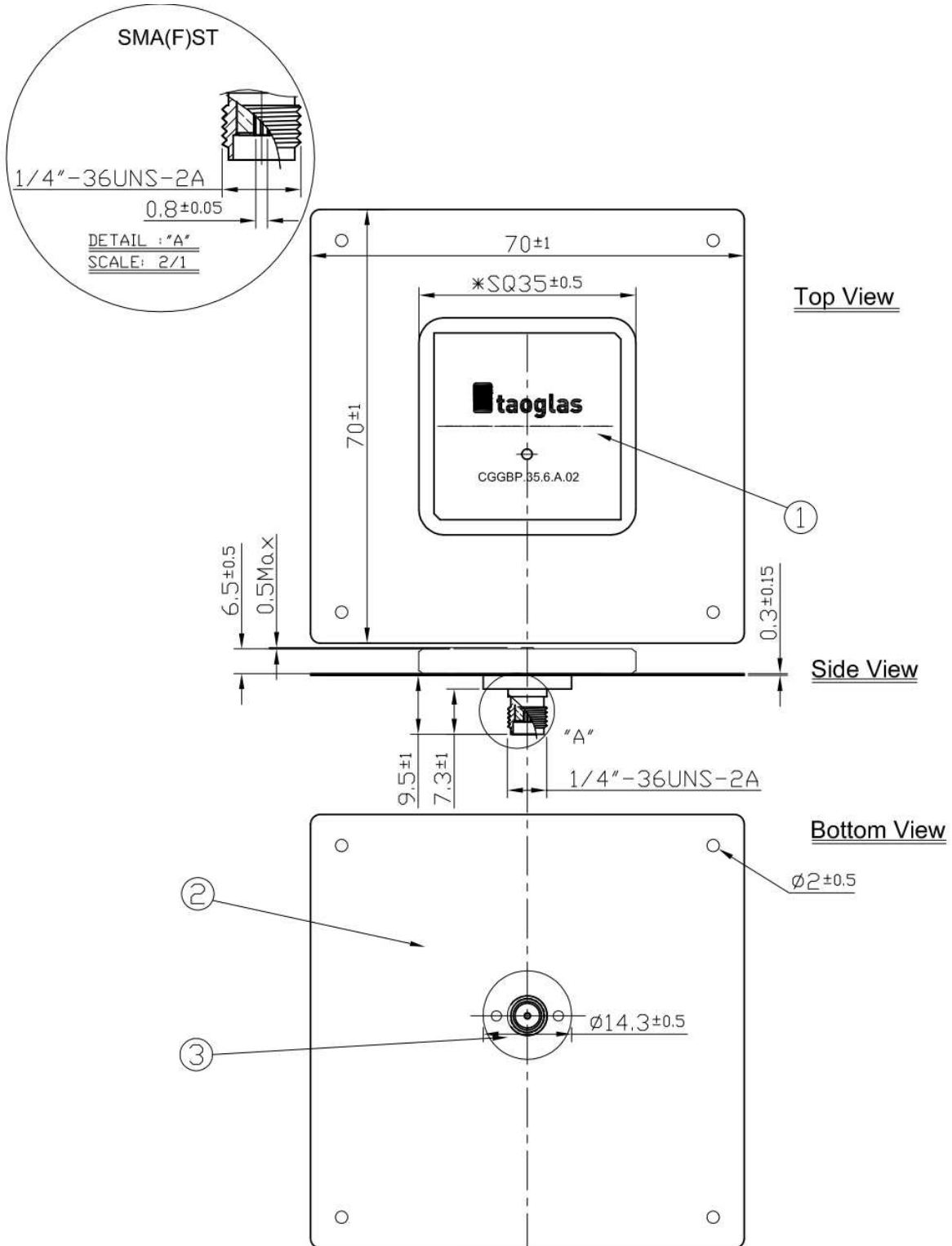


### 5.1 Adhesive Thickness



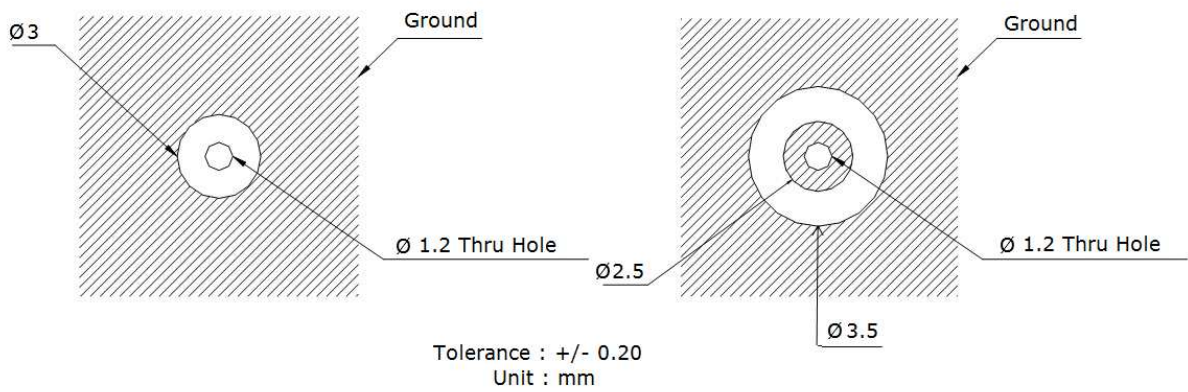
Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

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



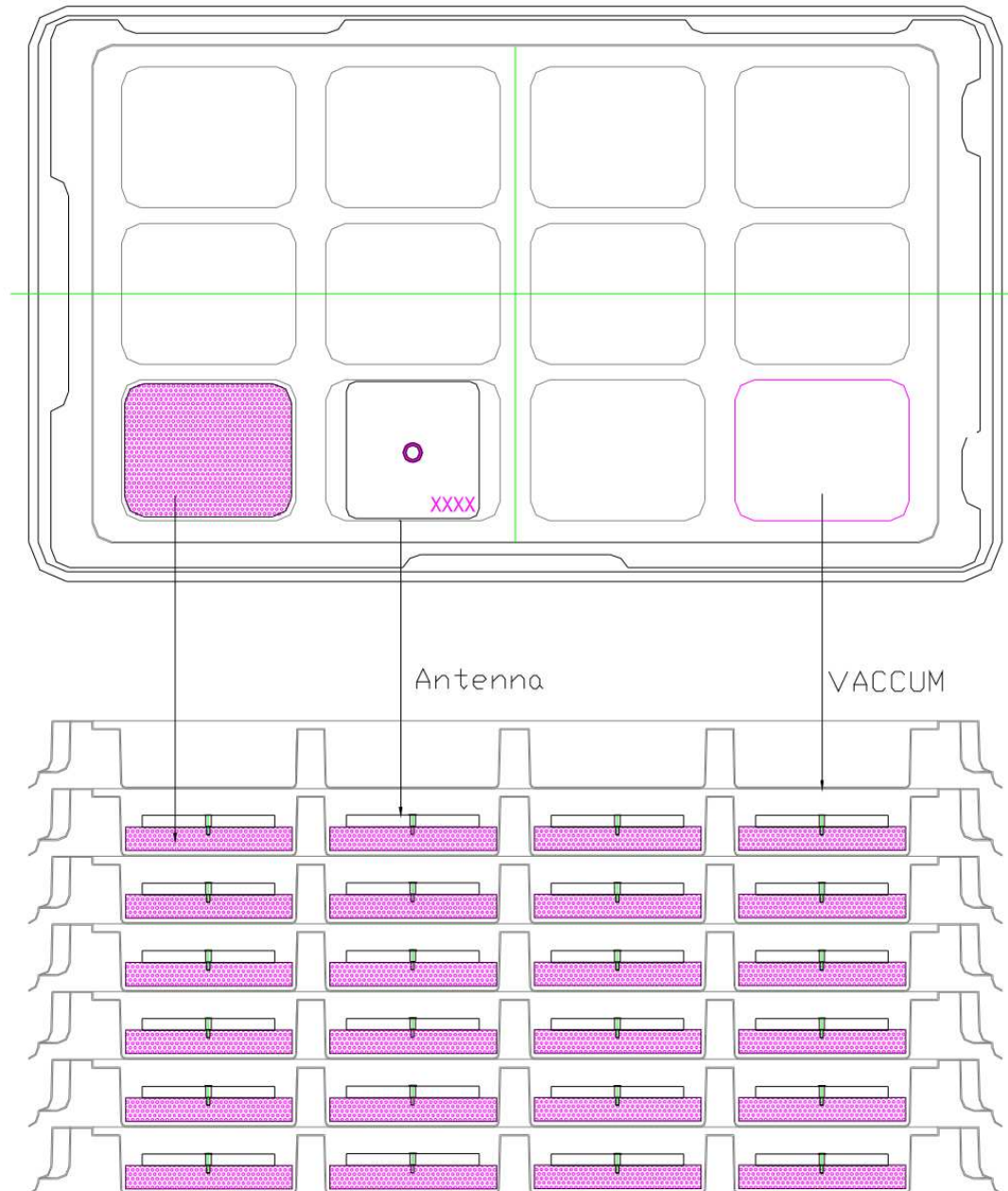


## 7. PCB Footprint Recommendation



## 8. Packaging

### 8.1 Inner Tray

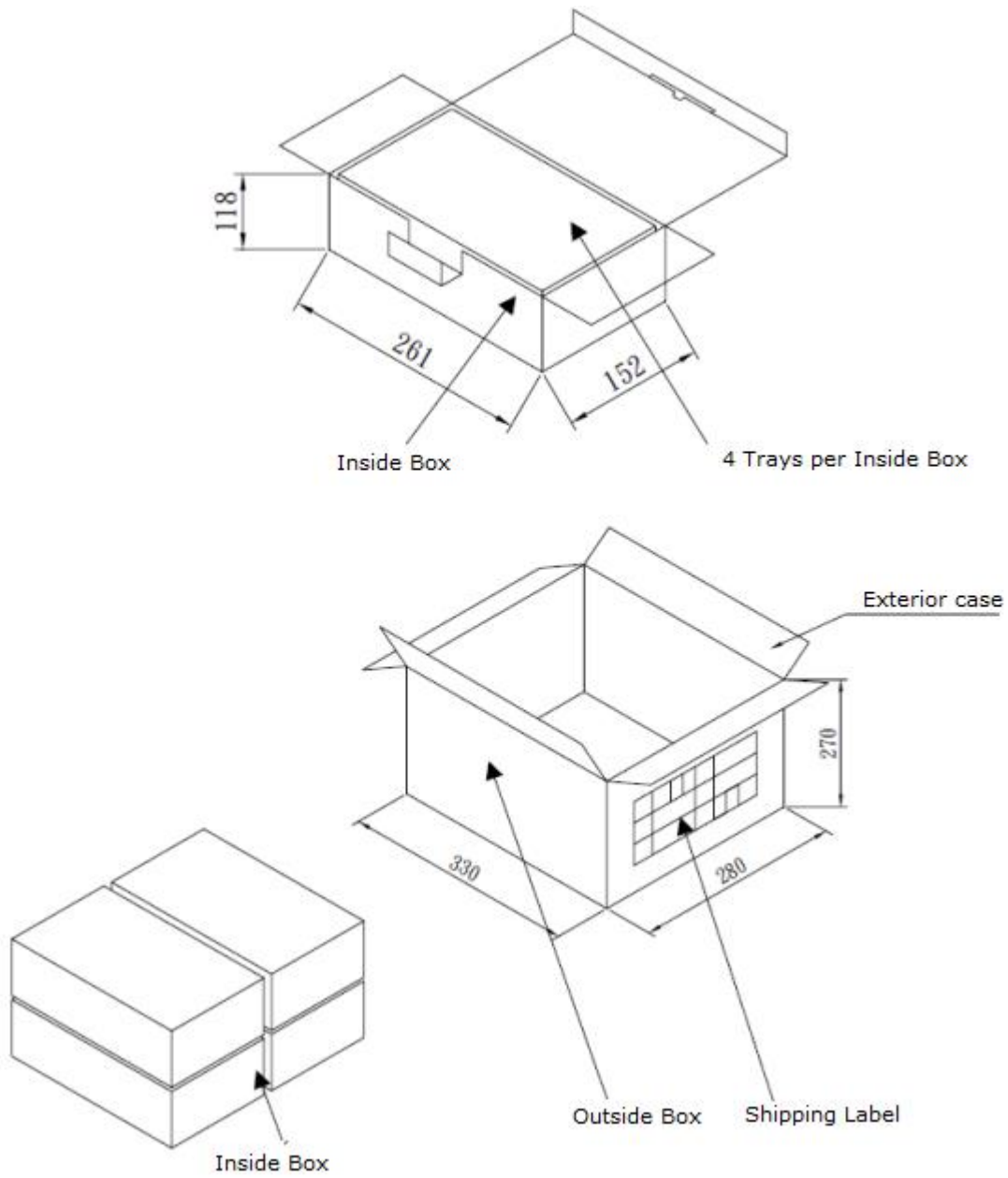


12 pieces per tray

6 Trays per Inside Box = 72

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

## 8.2 Carton



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