

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.

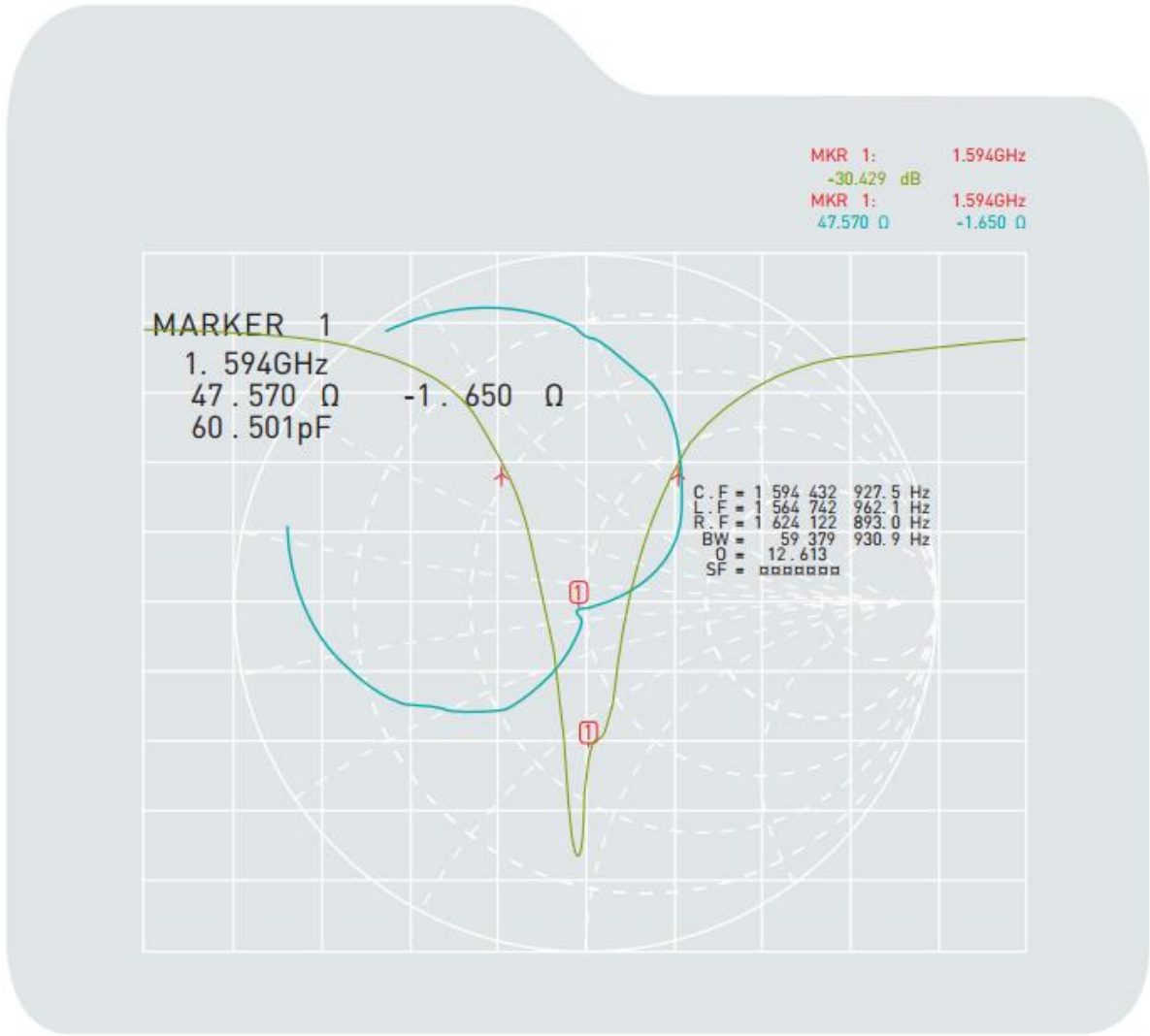
Compared to using a smaller antenna, this will translate into the GNSS system having much higher location accuracy, improved reliability of lock in urban areas, better signal reception, with more satellites acquired and a quicker time to first fix.

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

2. Specification

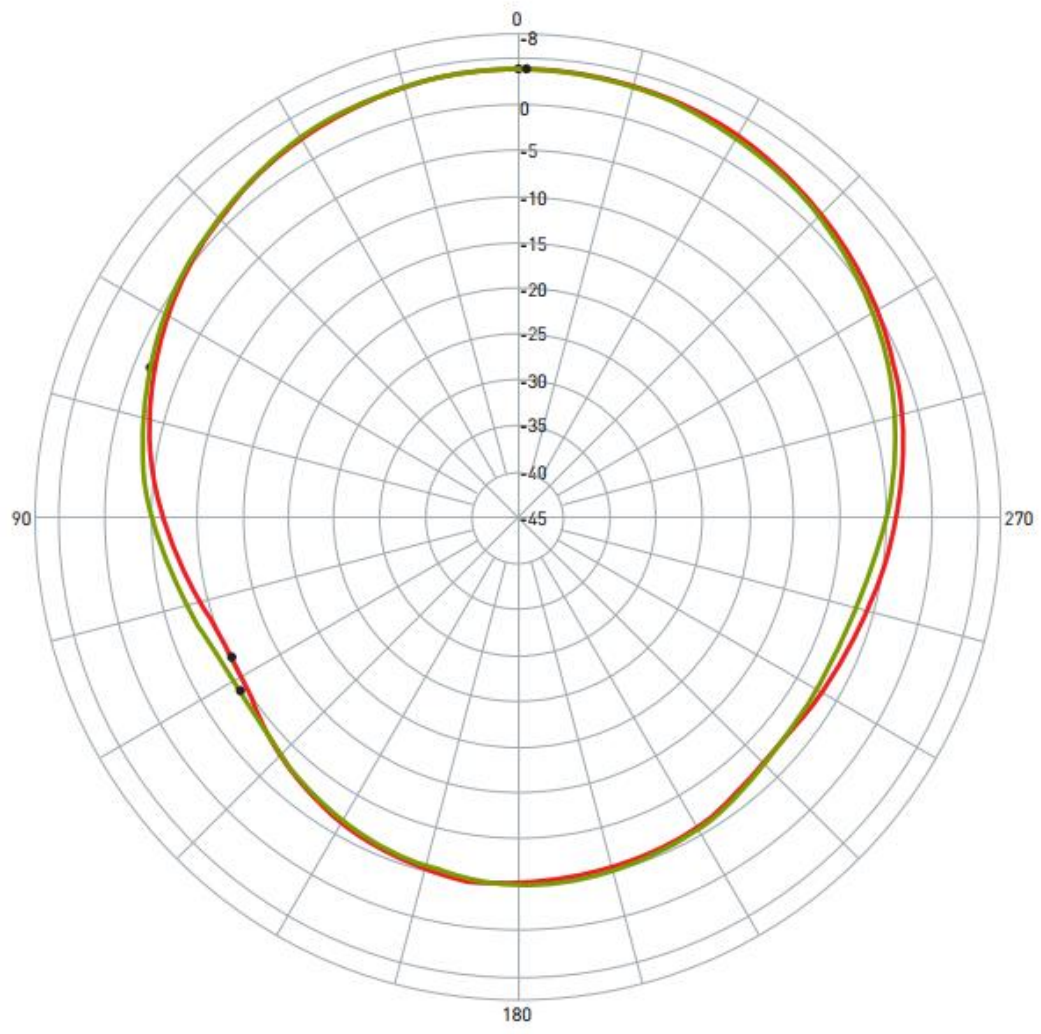
ELECTRICAL	
Frequency	BeiDou: 1561.098MHz \pm 2.046MHz GPS/GALILEO: 1575.42 \pm 1.023MHz GLONASS: 1602 \pm 5MHz
Centre Frequency	1594MHz \pm 6MHz
VSWR	2.5 : 1 max
Bandwidth	57MHz Return Loss @-10dB
Zenith Gain	BeiDou: +4.5dBi typ. GPS/GALILEO: +3.0dBi typ. GLONASS: +4.5dBi typ.
Impedance	50 Ω
MECHANICAL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



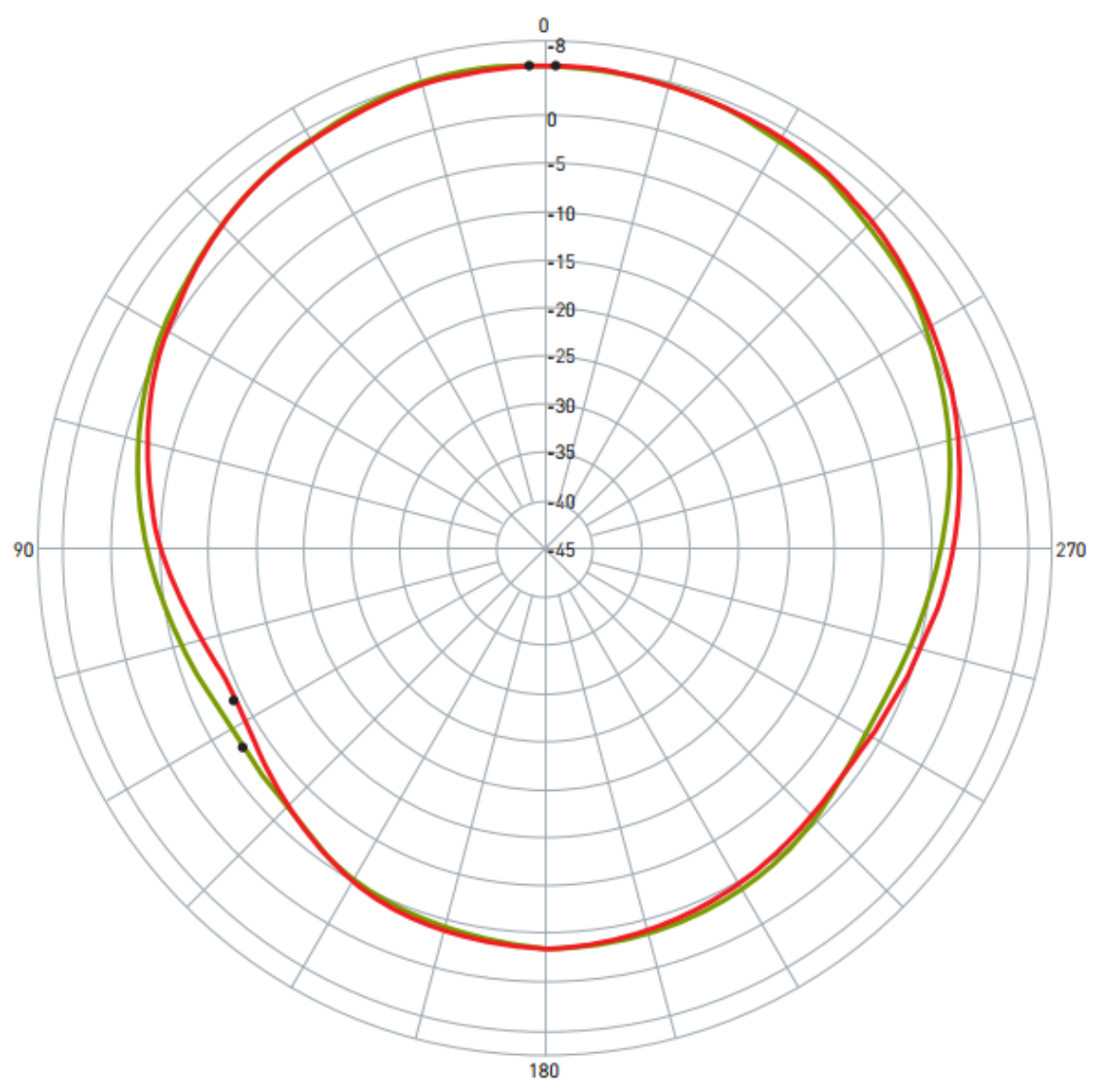
4. 2D Antenna Radiation

4.1 1575.42MHz Free Space



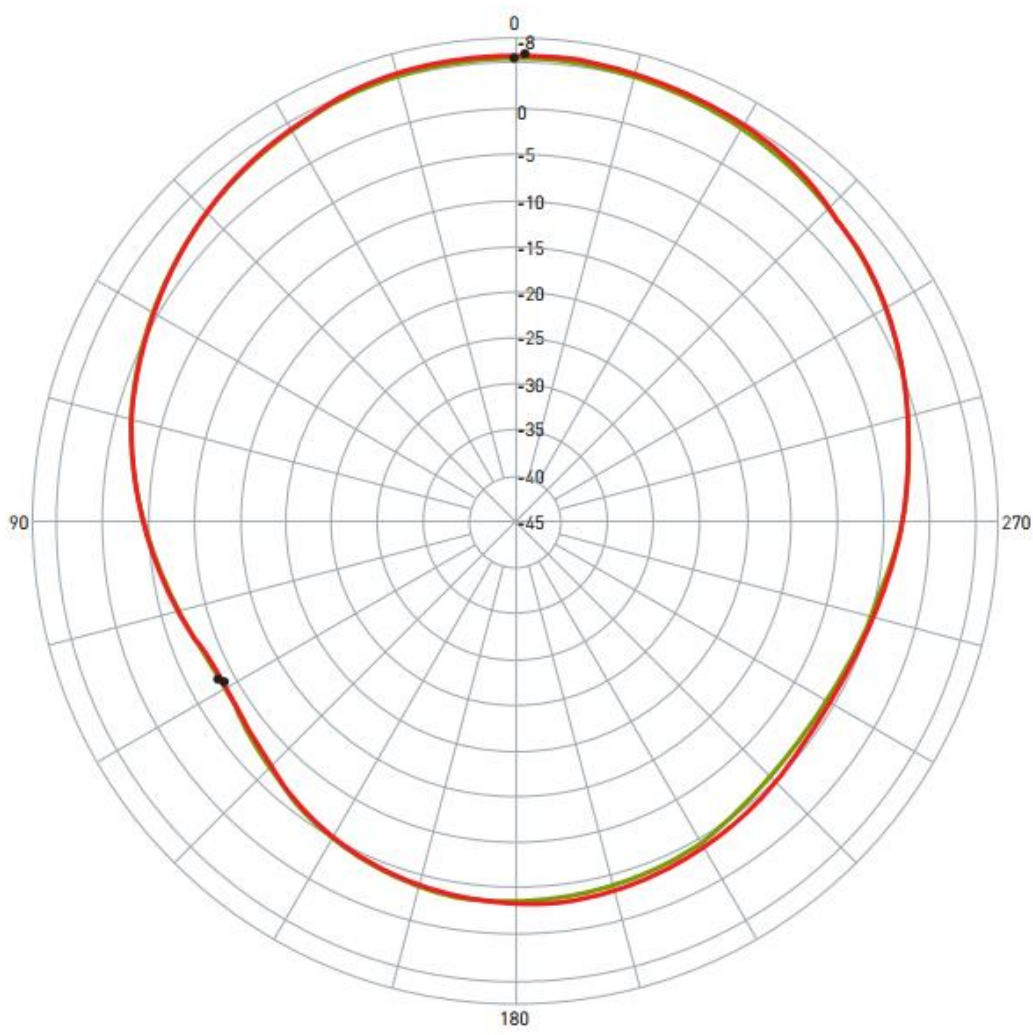
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	3.85	-0.97
YZ Plane	3.78	-1.04

4.2 1561MHz Free Space



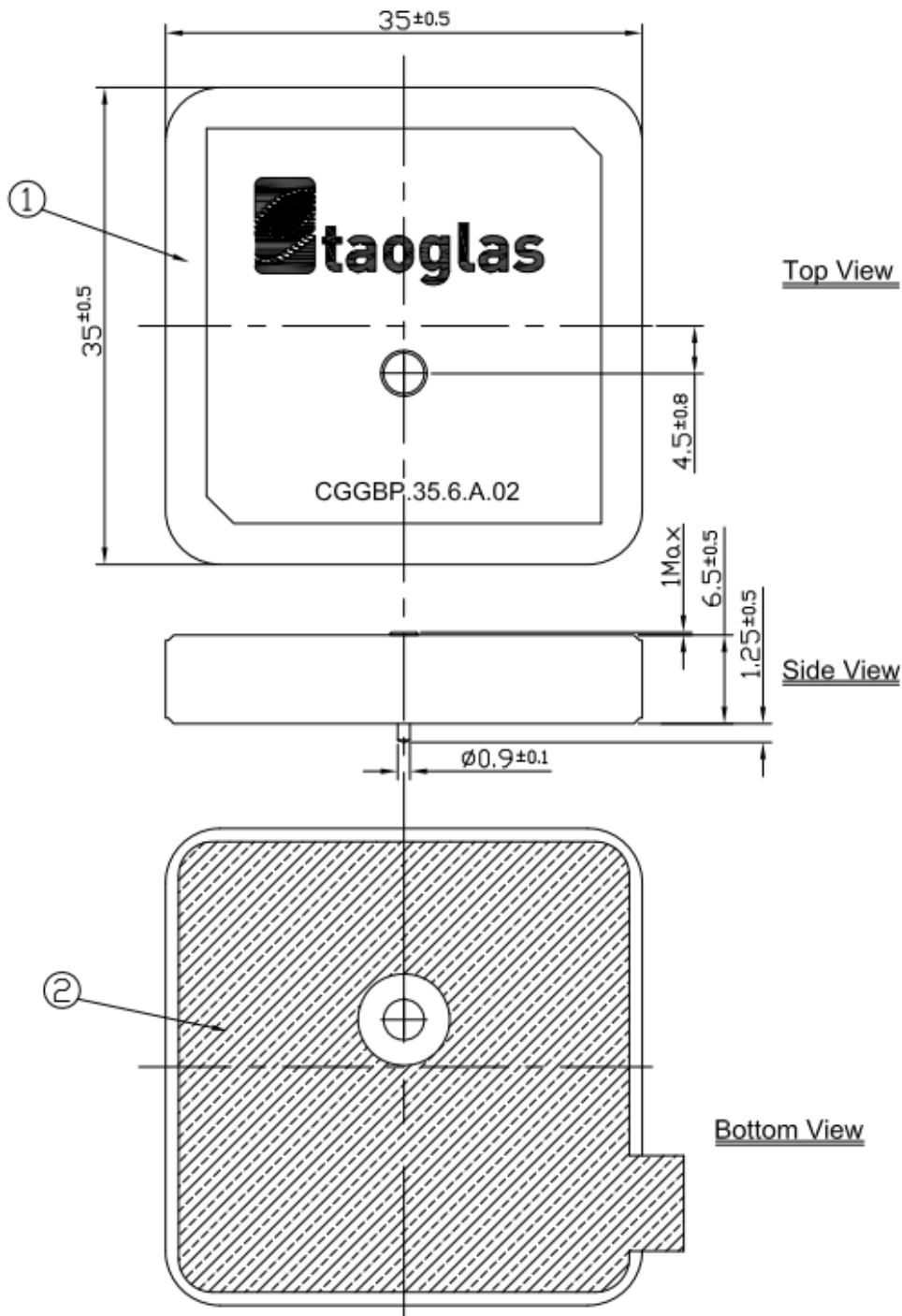
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	5.01	0.22
YZ Plane	5.02	0.21

4.3 1602MHz Free Space



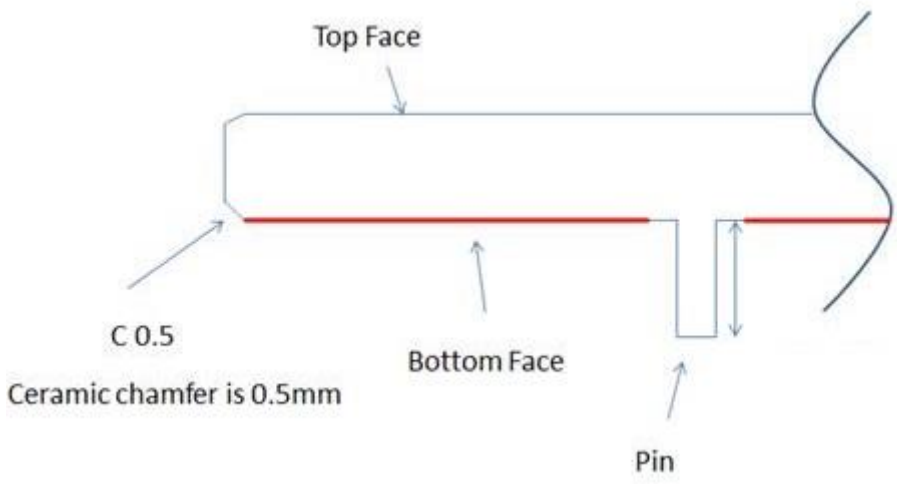
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	5.51	0.65
YZ Plane	5.23	0.39

5. Mechanical Drawing



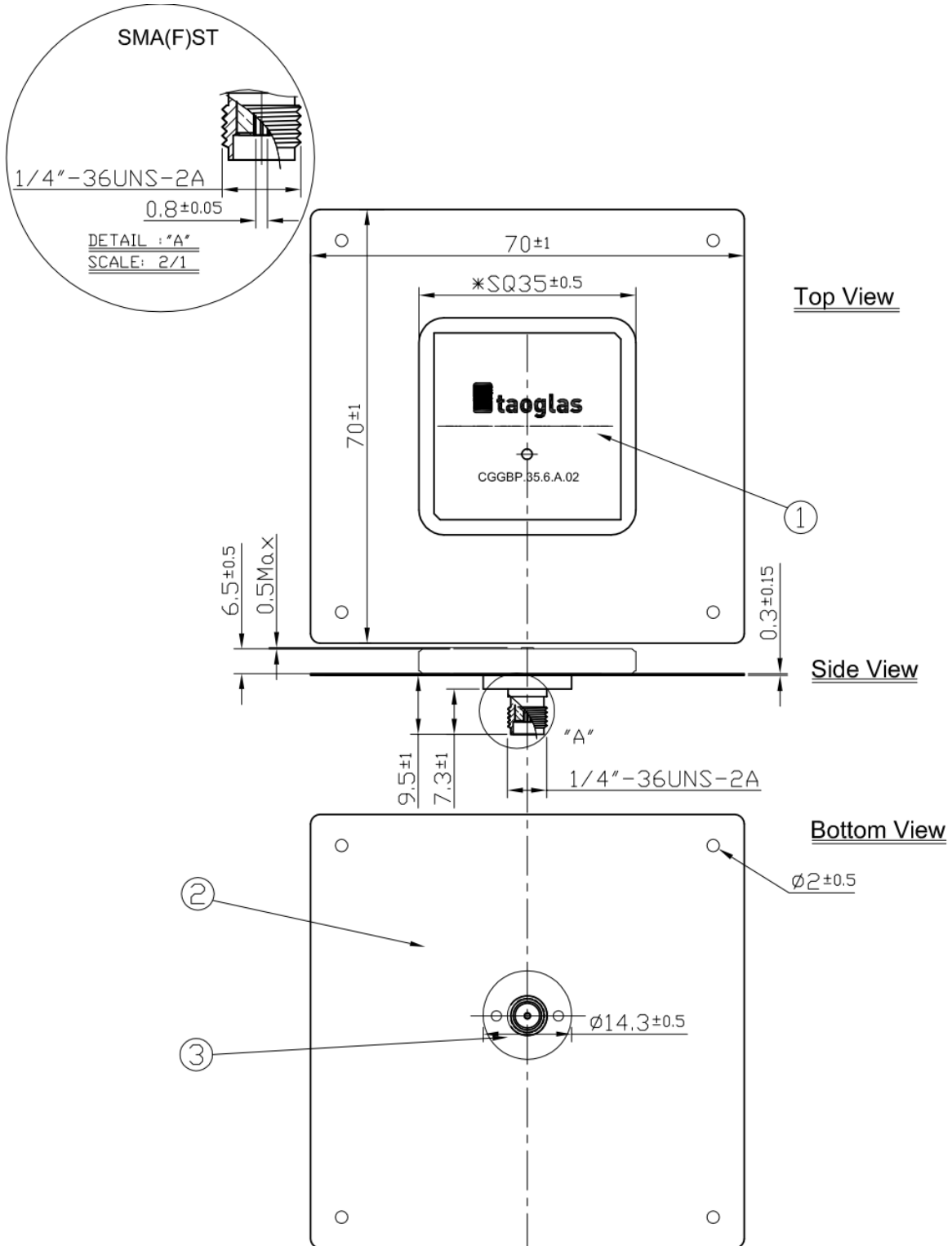
NOTES:
 1. Double sided adhesive area 

5.1 Adhesive Thickness



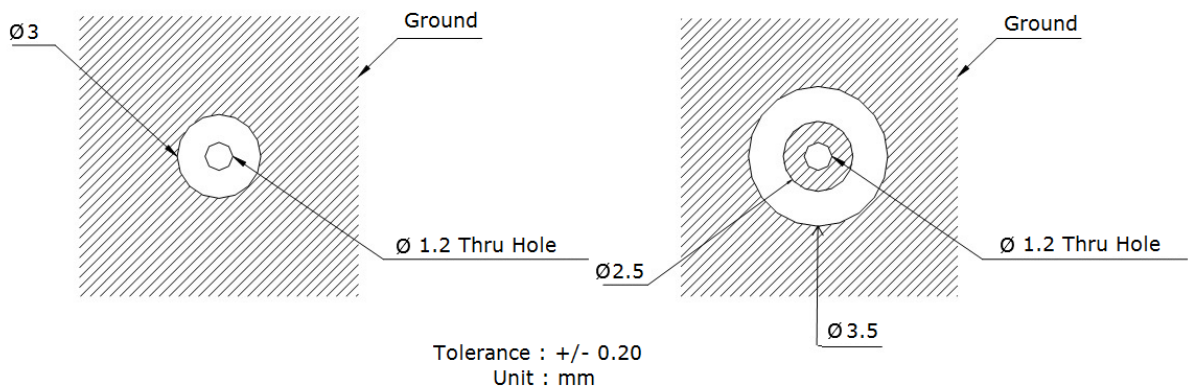
Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

6. CGGBP.D.35.A EVB



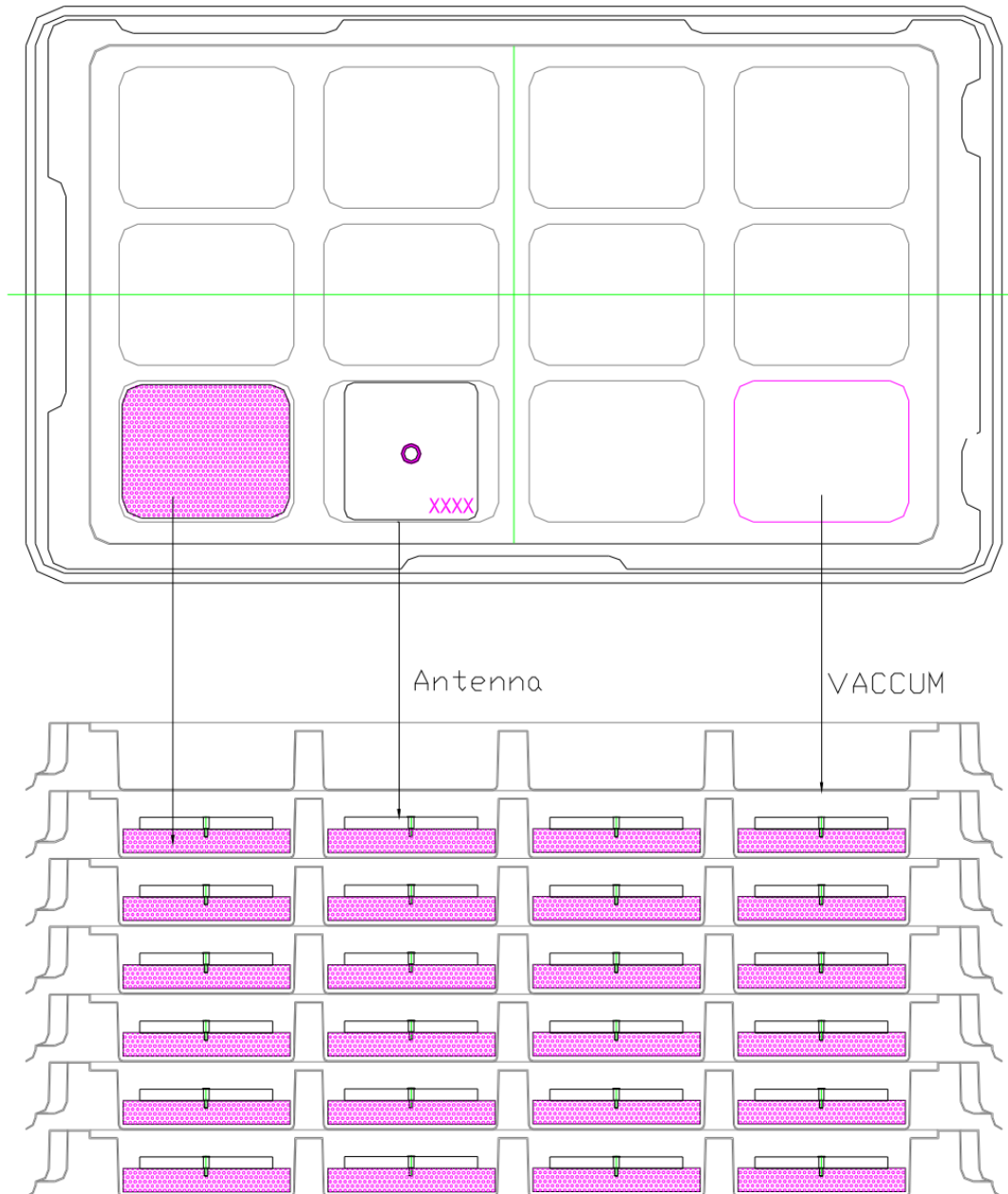


7. PCB Footprint Recommendation



8. Packaging

8.1 Inner Tray

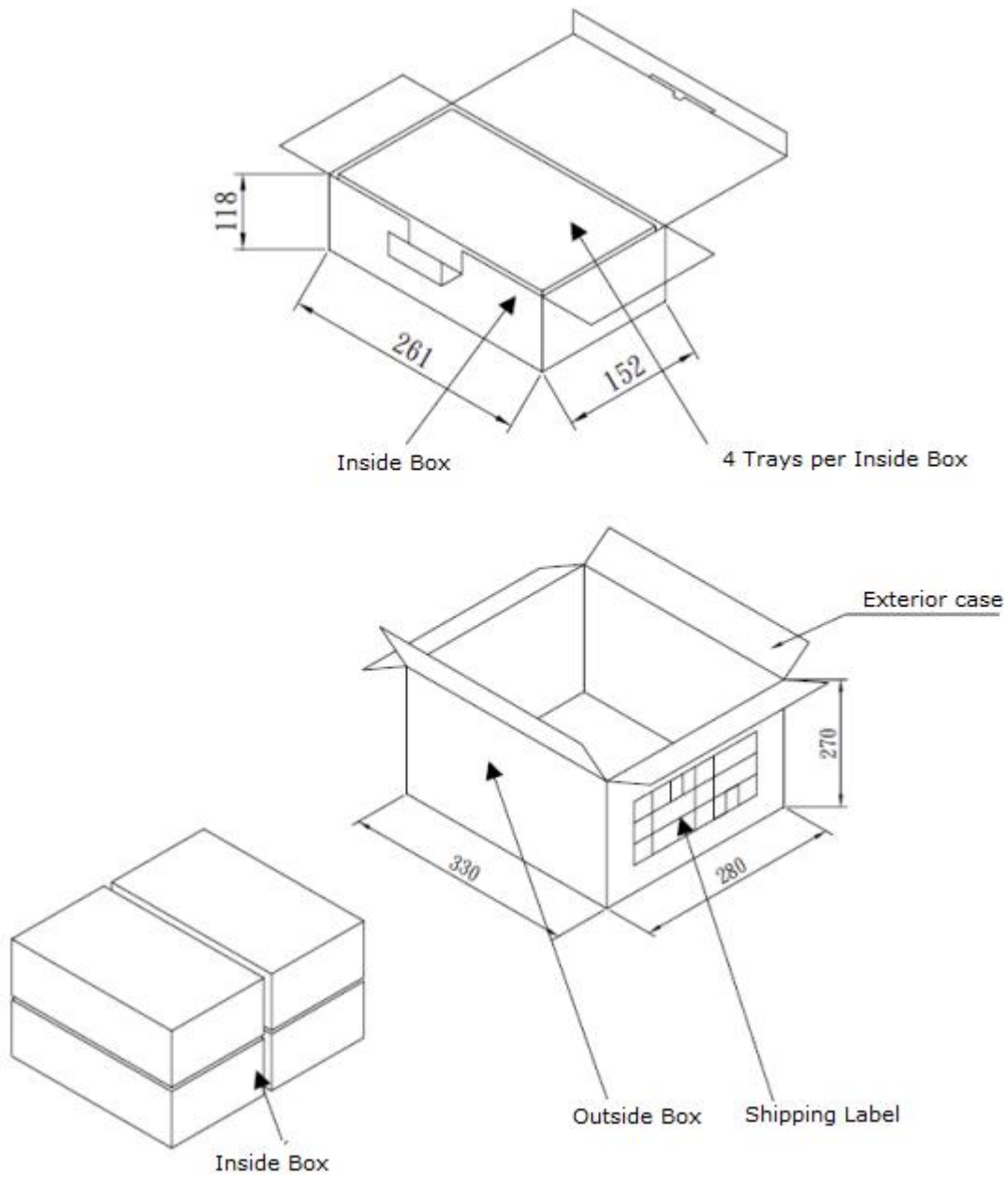


12 pieces per tray

6 Trays per Inside Box = 72

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

8.2 Carton



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