



CGGBP.35.6.A.02  
Front



CGGBP.35.6.A.02  
Back

## CGGBP.35.6.A.02

### Specification

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

## 1. Introduction

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

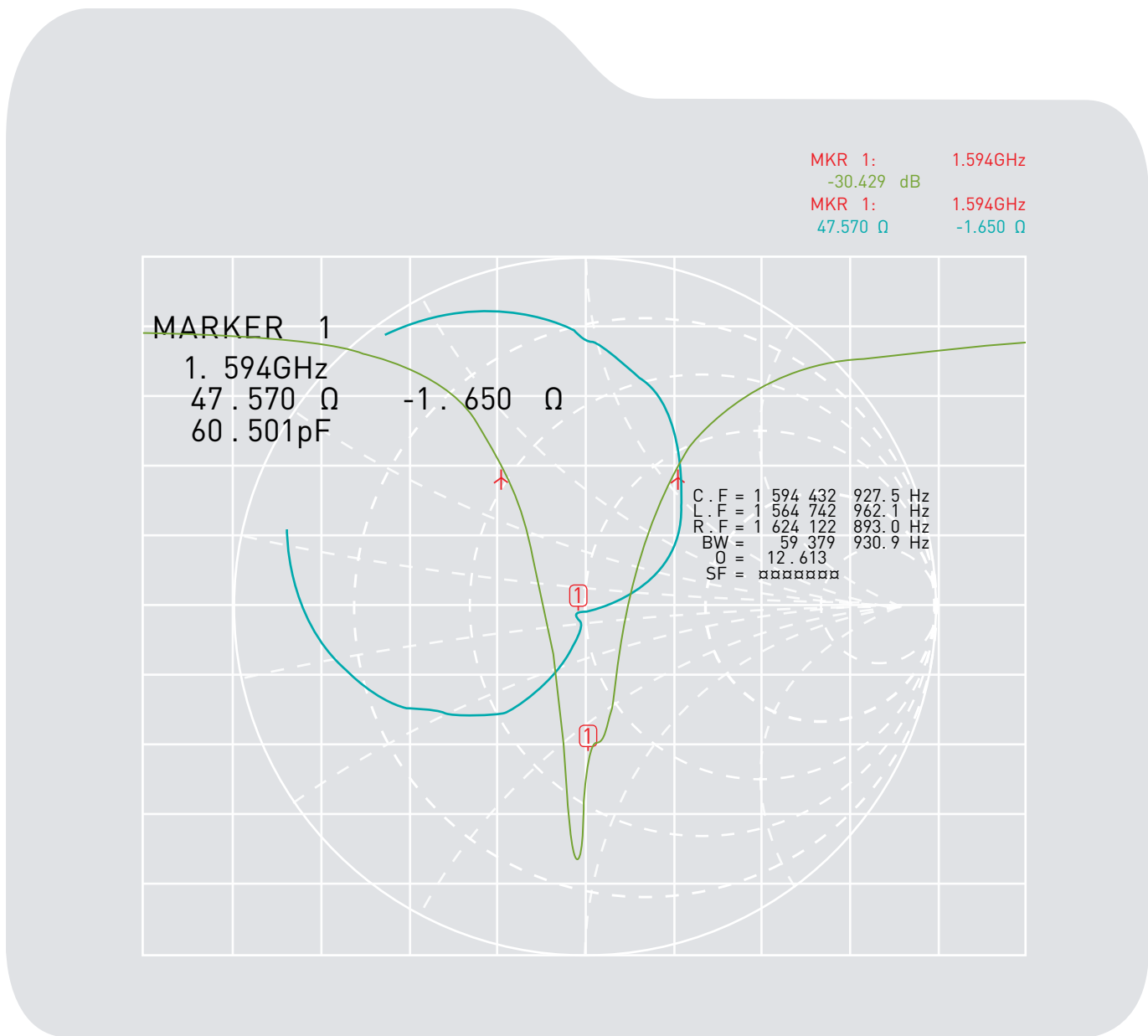
Compared to using a smaller antenna, this will translate into the GNSS system having much higher location accuracy, improved reliability of lock in urban areas, better signal reception, with more satellites acquired and a quicker time to first fix.

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

## 2. Specification

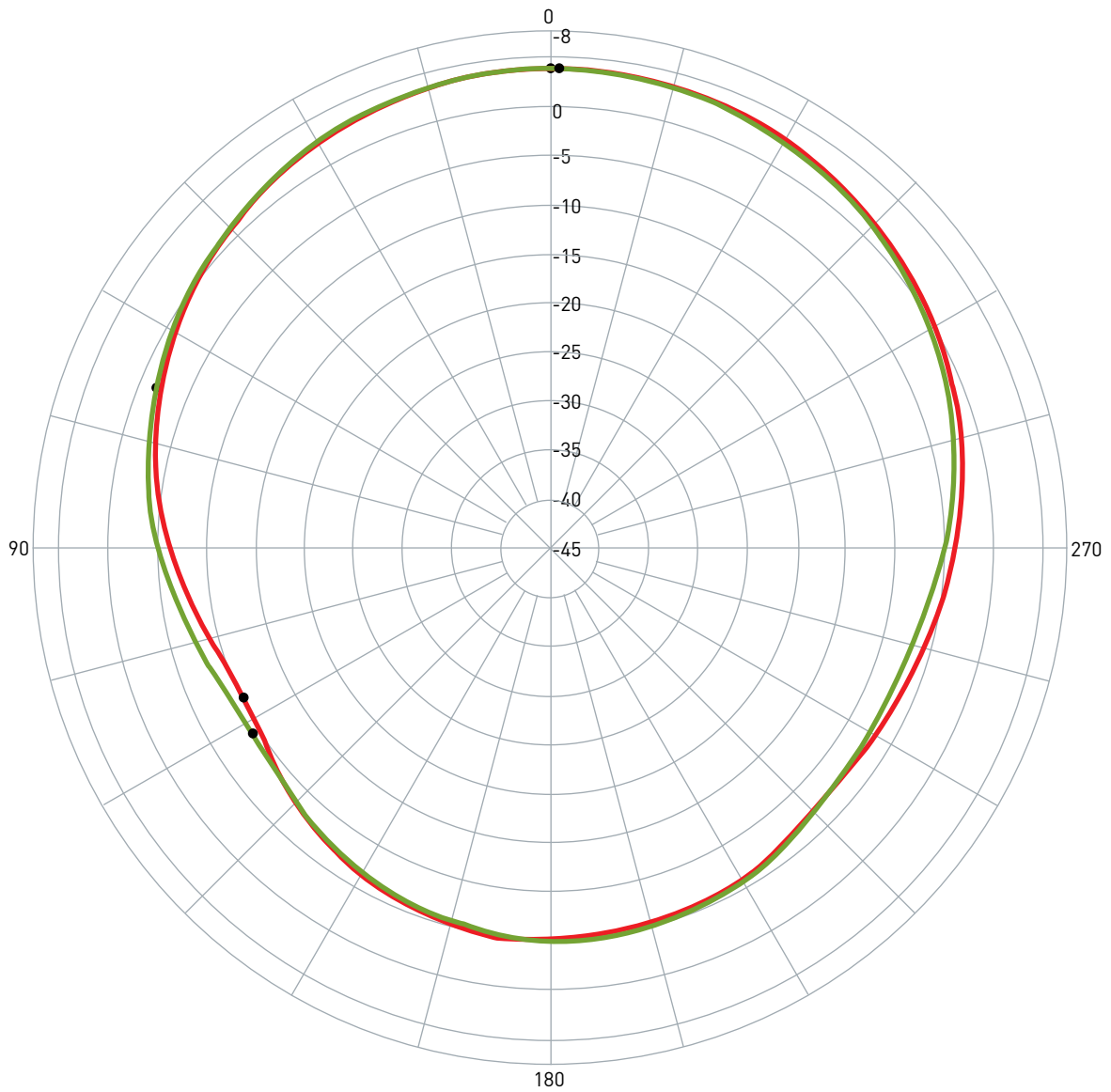
ELECTRICAL	
<b>Frequency</b>	BeiDou: 1561.098MHz ± 2.046MHz   GPS: 1575.42 ± 1.023MHz   GLONASS: 1602 ± 5MHz
<b>Centre Frequency</b>	1594MHz ± 6MHz
<b>VSWR</b>	2.5 : 1 max
<b>Bandwidth</b>	57MHz Return Loss @-10dB
<b>Zenith Gain</b>	BeiDou: +4.5dBi typ.   GPS: +3.0dBi typ.   GLONASS: +4.5dBi typ.
<b>Impedance</b>	50 Ω
MECHANICAL	
<b>Dimensions</b>	35 x 35 x 6.5mm
<b>Material</b>	Ceramic
<b>Pin Diameter</b>	0.9mm
<b>Pin Length</b>	4.0mm
ENVIRONMENTAL RATINGS	
<b>Operation Temperature</b>	-40°C to 85°C
<b>Storage Temperature</b>	-40°C to 105°C
<b>Humidity</b>	Non-condensing 65°C 95% RH

### 3. Antenna S11 Properties



## 4. 2D Antenna Radiation

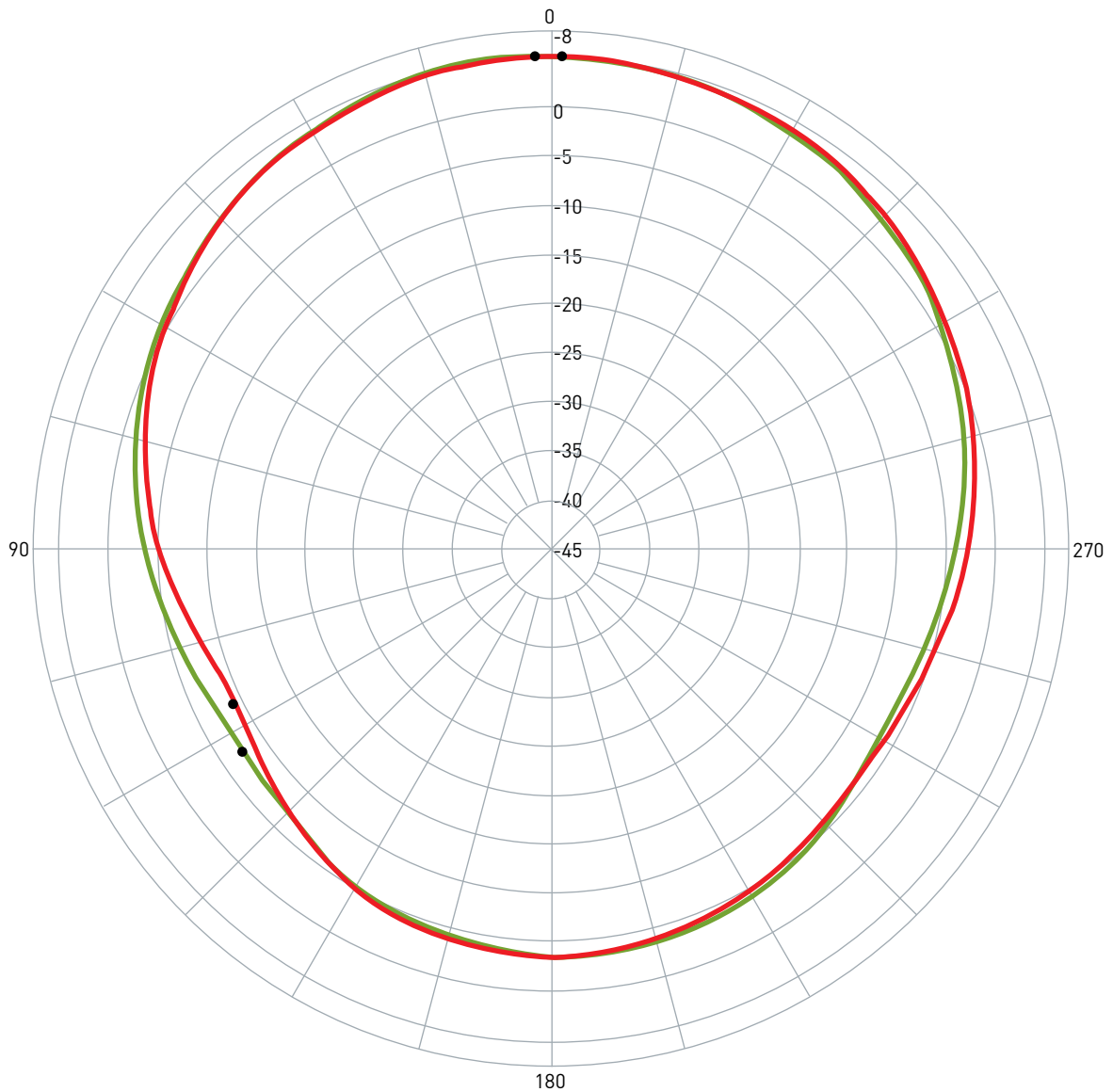
### 4.1 1575.42MHz Free Space



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

## 4. 2D Antenna Radiation

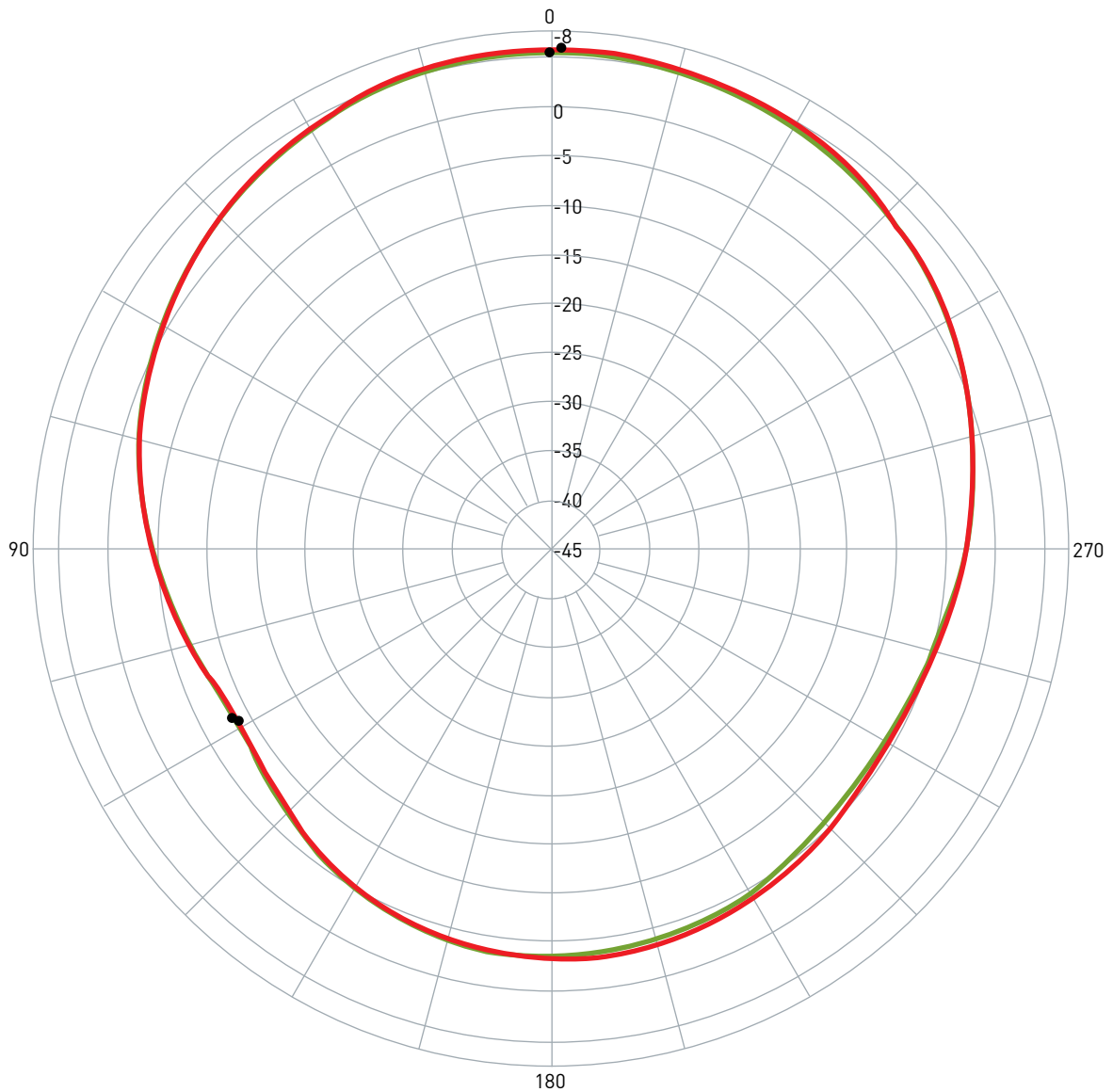
### 4.2 1561MHz Free Space



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

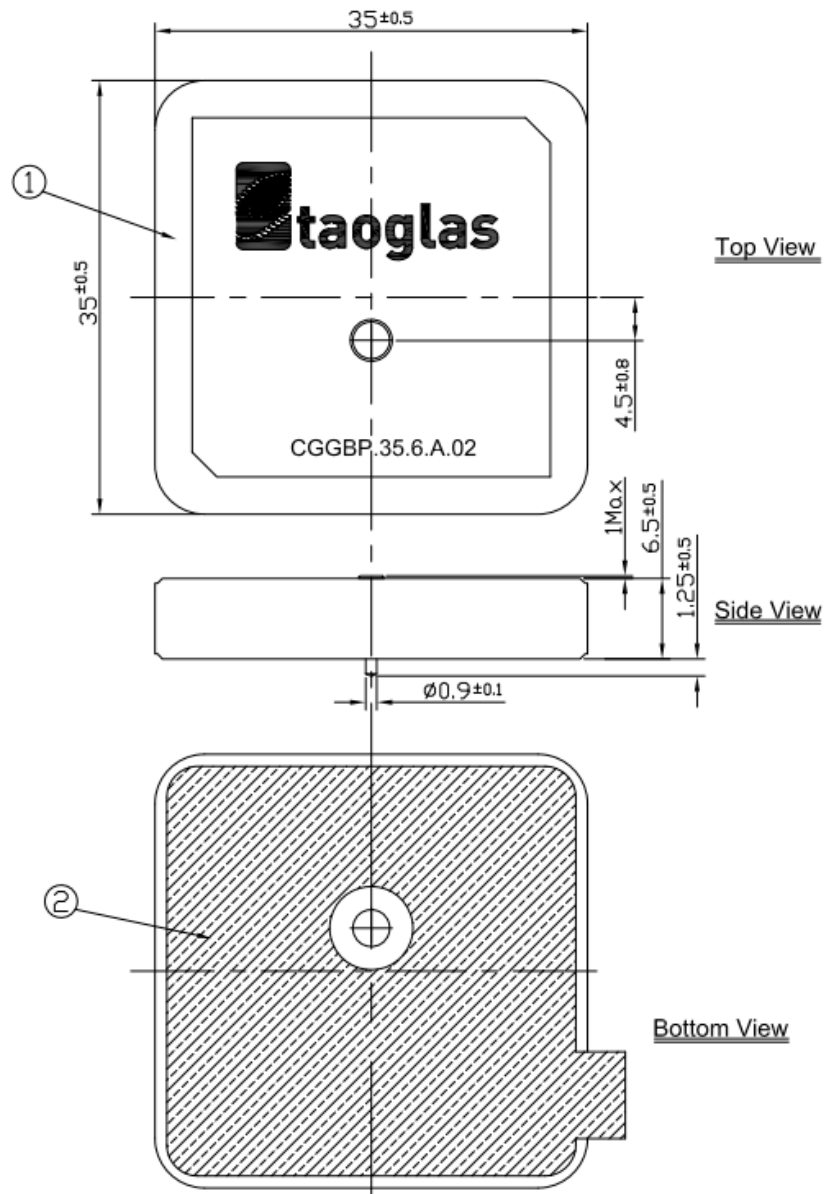
## 4. 2D Antenna Radiation

### 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



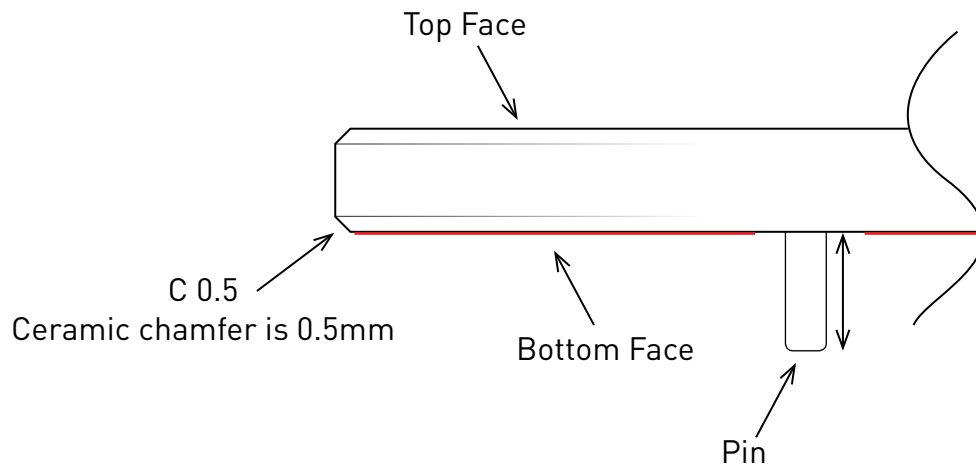
**NOTES:**

1. Double sided adhesive area 

	Name	Material	Finish	QTY
1	Patch 35x35x6.5	Ceramic	Clear	1
1	Double sided Adhesive	NITTO5015	White Liner	1

## 5. Mechanical Drawing

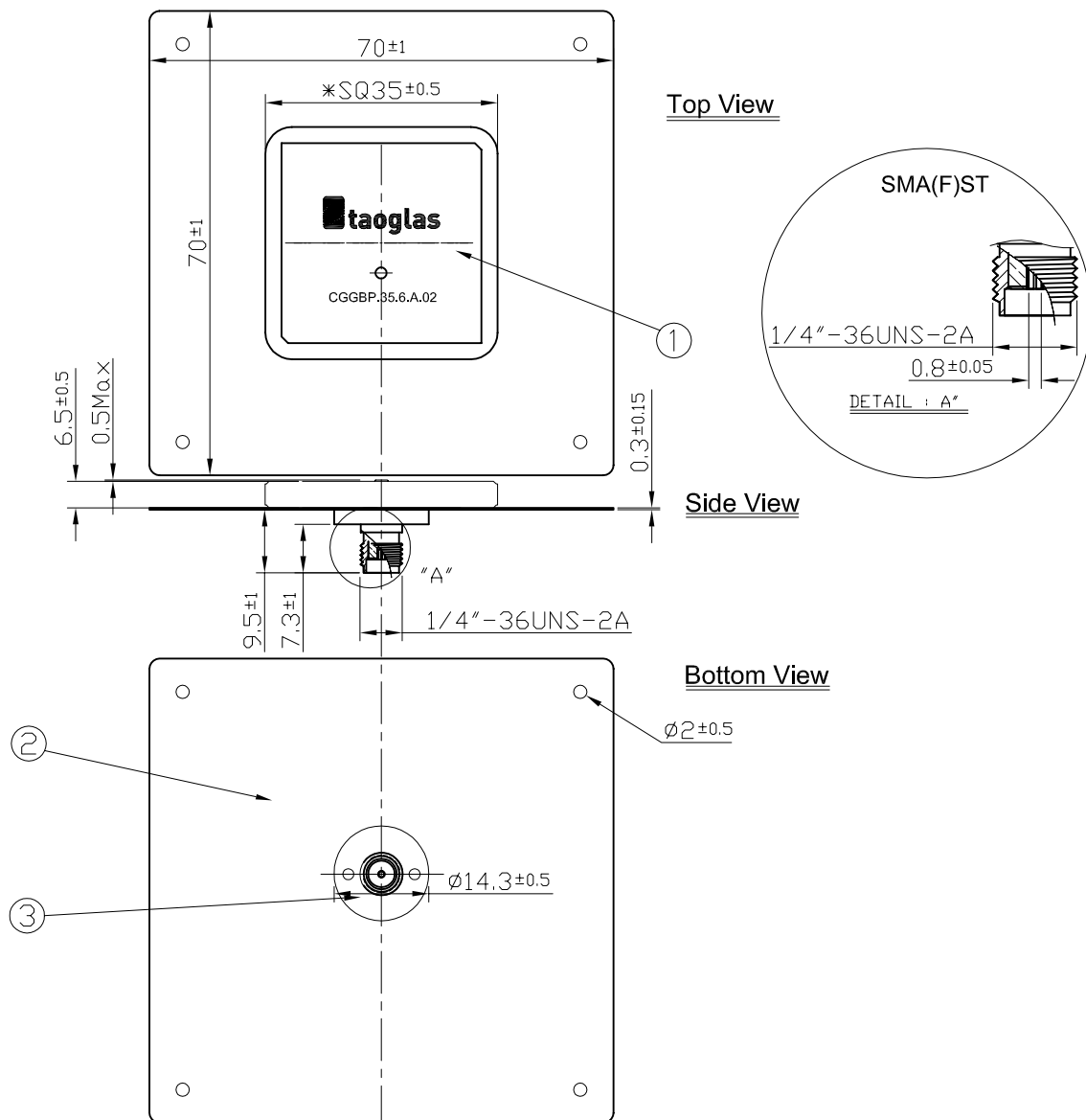
### 5.1 Adhesive Thickness



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



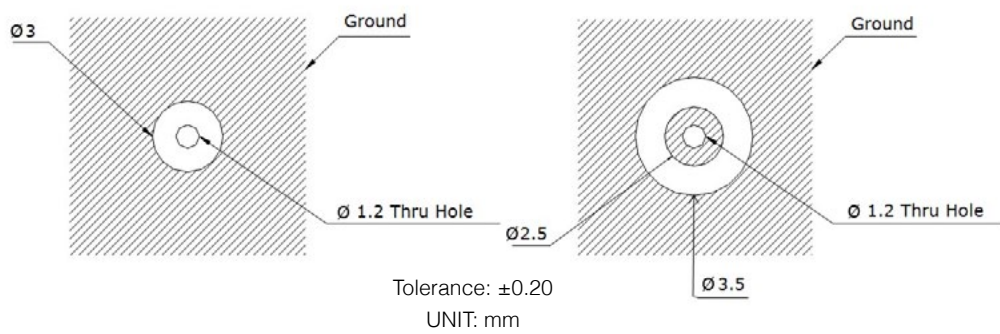
## 6. CGGBP.D.35.A EVB



	Name	Material	Finish	QTY
1	Patch 35x35x6.5	Ceramic	Clear	1
2	Ground-Plane(70x70x0.3mm)	Brass	Silver	1
3	SMA(F) ST	Brass	Gold	1

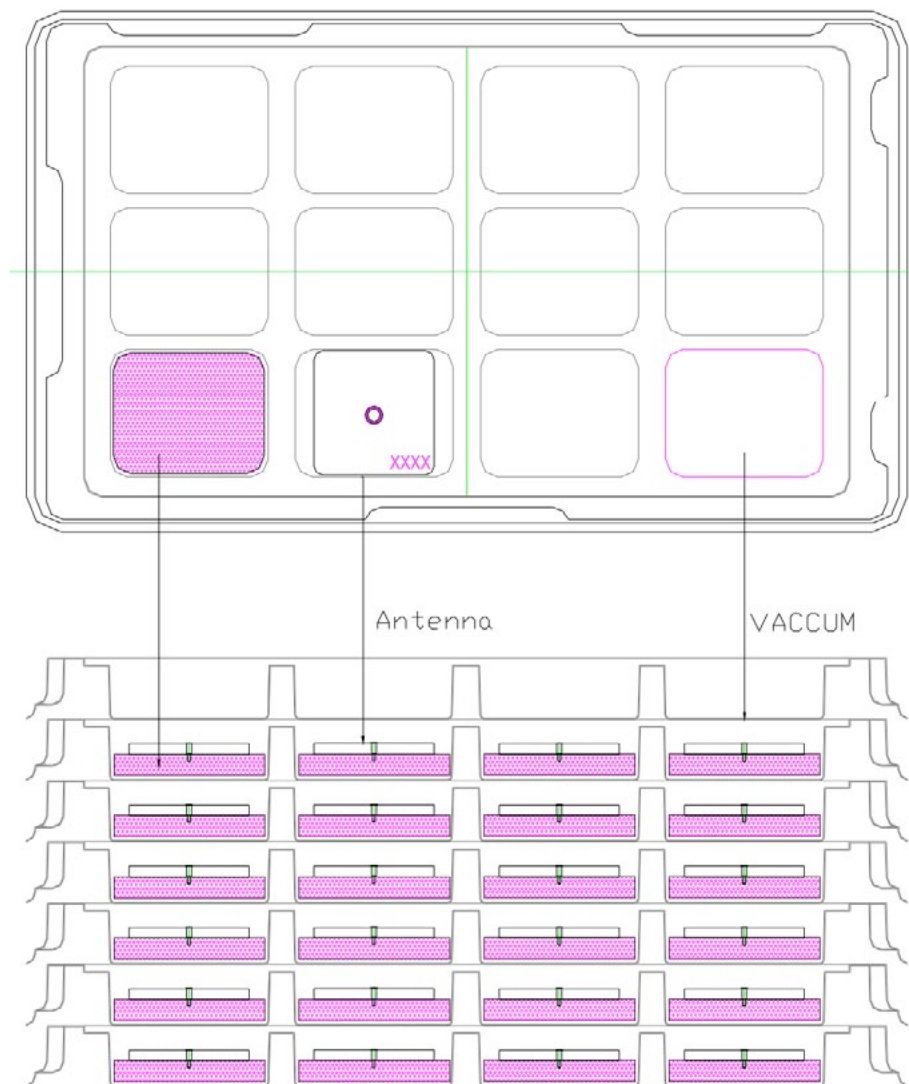


## 7. PCB Footprint Recommendation



## 8. Packaging

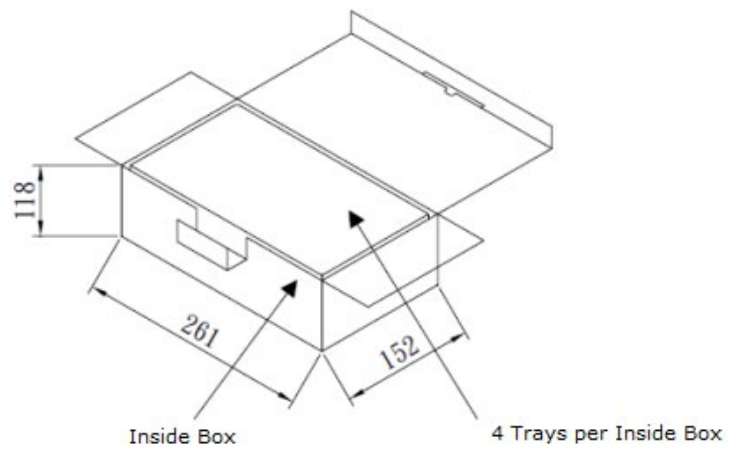
### 8.1 Inner Tray



12pcs per tray  
6 trays per inner box = 72pcs  
Inner box dimensions - 261\*152\*118

## 8. Packaging

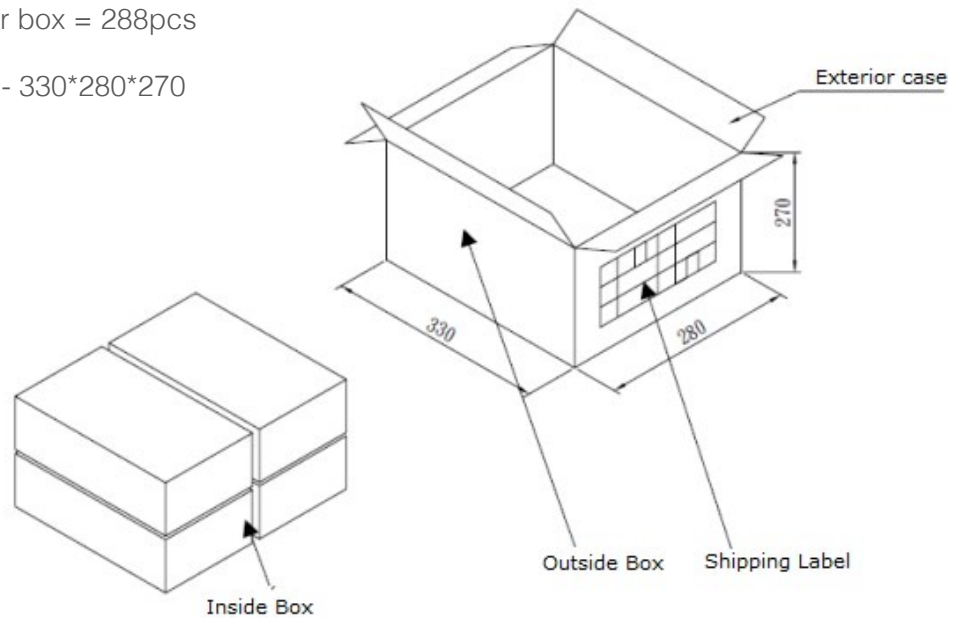
### 8.2 Carton



Inner box dimensions - 261\*152\*118

4 inner boxes per outer box = 288pcs

Outer box dimensions - 330\*280\*270



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