

SPECIFICATION

Part No.	:	CGGBP.35.3.A.02
Product Name	:	35mm*35mm*3mm 4dBi+ GPS/GLONASS/BEIDOU Ceramic Patch Antenna
Features	:	Stable gain on all three GNSS applications Excellent radiation pattern coverage Dielectric Ceramic Pin (Through hole) Mount RoHS Compliant





1. Introduction

This CGGBP.35 35mm*35mm embedded ceramic GPS/GLONASS/BEIDOU patch antenna has a wide band of operation, leading 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. While the antenna will work very well in most device environments (Note cannot be covered with metal enclosure), tuning and further optimization of this antenna to different ground-planes and enclosures can be done if required, also including a pin length change. These changes would be subject to possible NRE and a minimum order quantity.

[Contact](#) your local Taoglas sales office for more details.



2. Specification

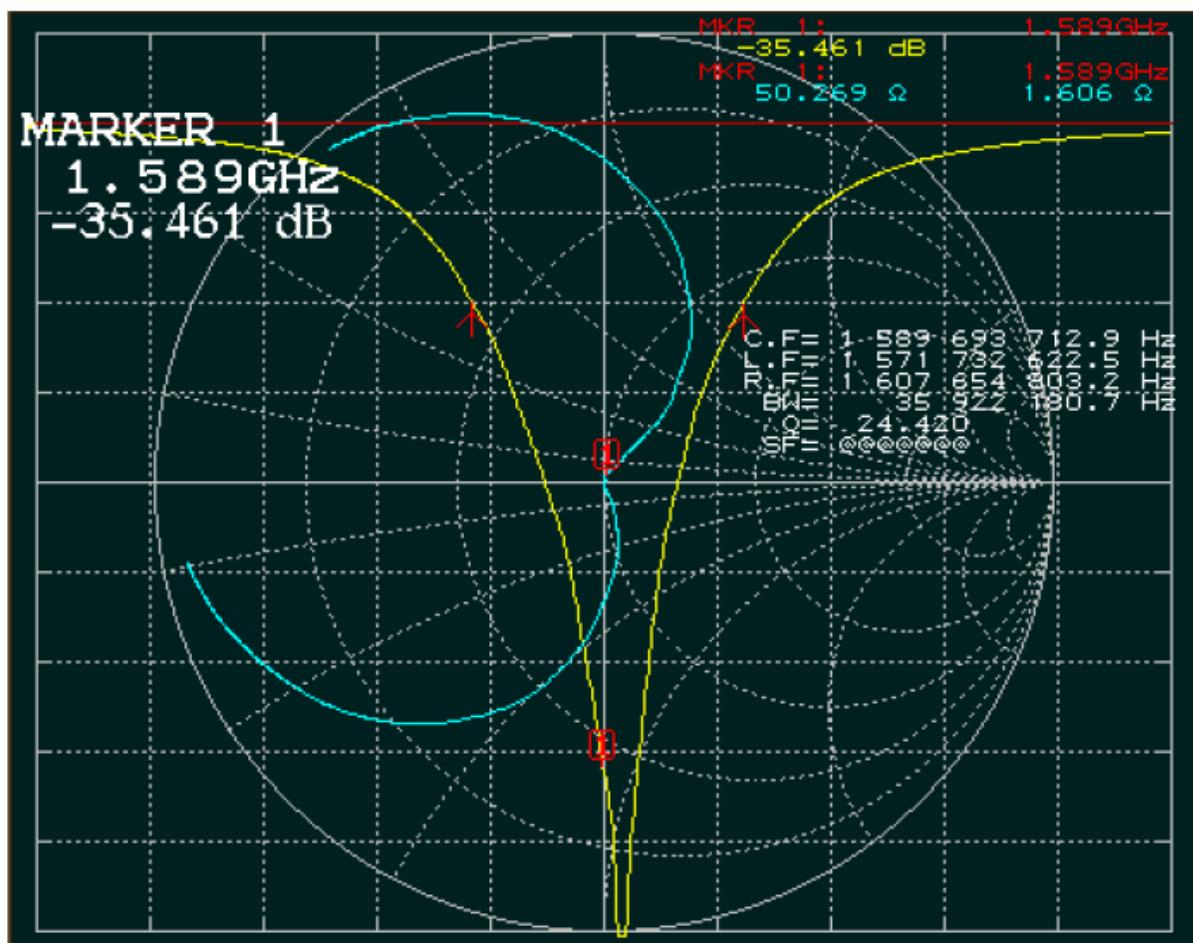
ELECTRICAL	
Frequency	BEIDOU: 1561.098MHz ± 2.046MHz GPS: 1575.42 ± 1.023MHz GLONASS: 1602 ± 5MHz
Centre Frequency	1589MHz ± 6MHz
VSWR	GPS and BEIDOU 2.5 : 1 max GLONASS 1.8 : 1 max
Bandwidth	34MHz Return Loss @-10dB
Zenith Gain	BeiDou: +4.0dBi typ. GPS: +3.0dBi typ. GLONASS: +4.5dBi typ.
Impedance	50 Ω
MECHANICAL	
Dimensions	35 x 35 x 3mm
Material	Ceramic
Pin Diameter	0.9mm
Pin Length	2.15mm
Weight	13.5g

ENVIRONMENTAL	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 105°C
Humidity	Non-condensing 65°C 95% RH

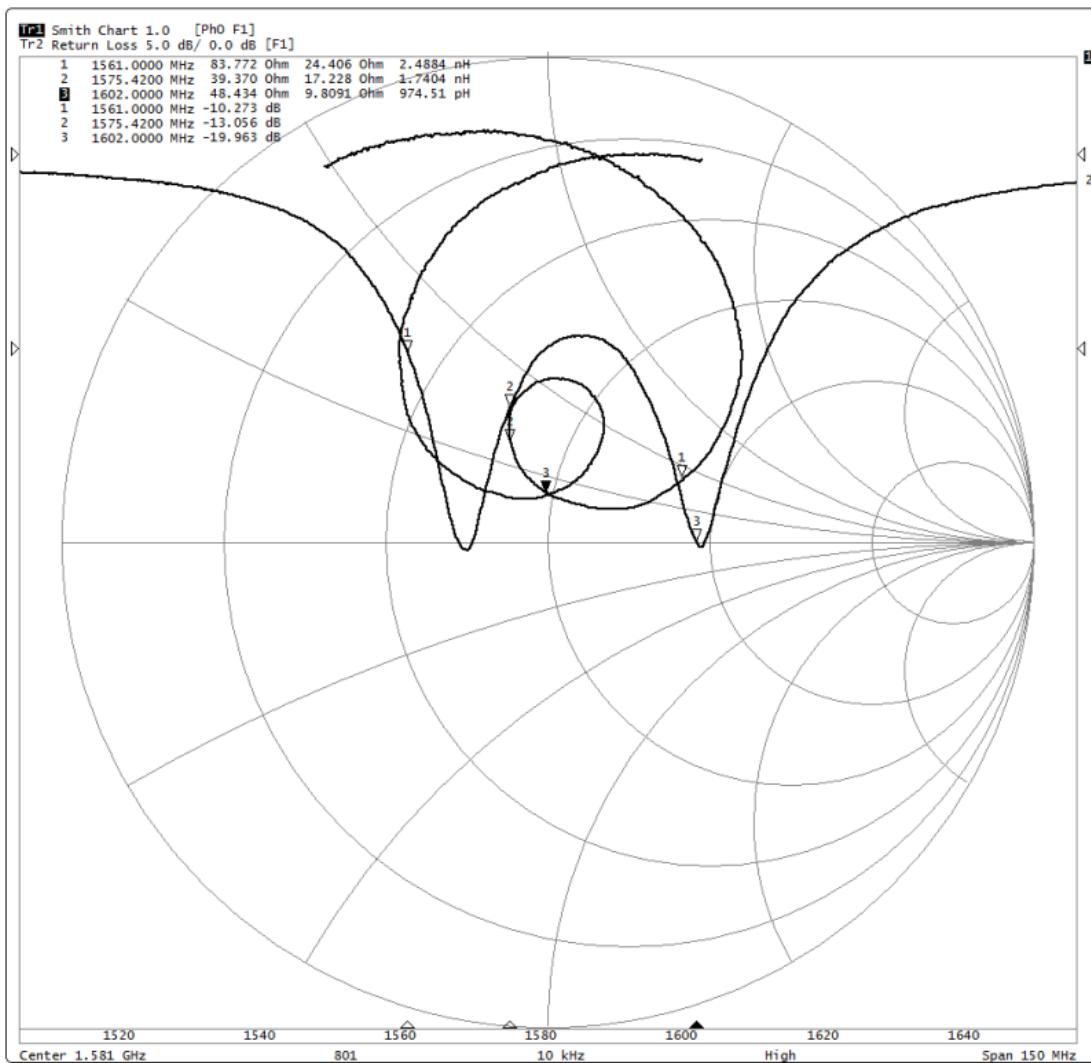
Original Patch Specification tested on 70*70mm ground plane

Taoglas Part # CGGPBD.35.B

3. Antenna S11 Properties

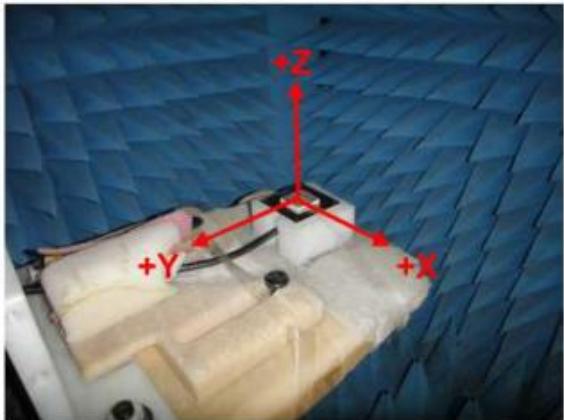


4. Antenna Return Loss

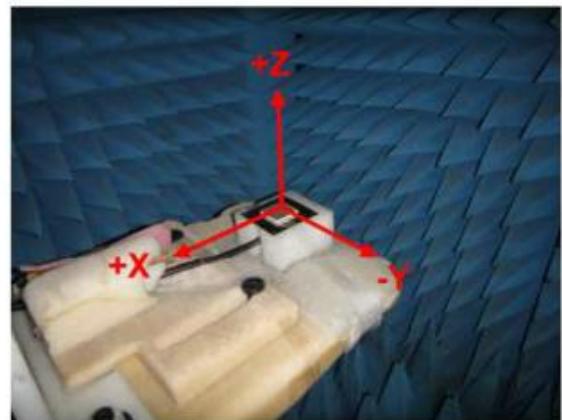


5. 2D Antenna Radiation

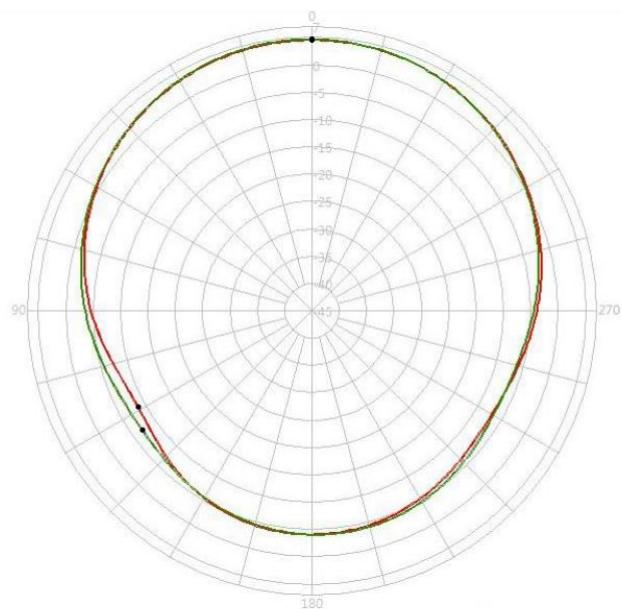
XZ-Plane



YZ-Plane

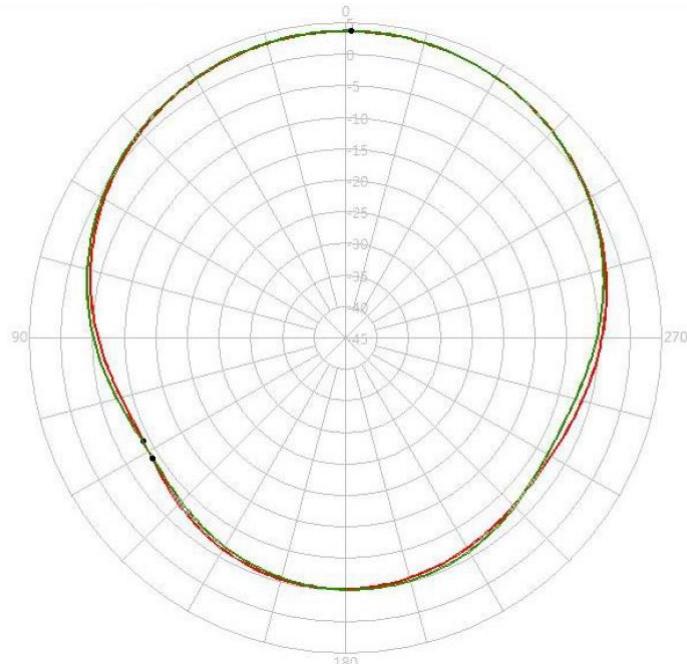


5.1 1561MHz Free Space



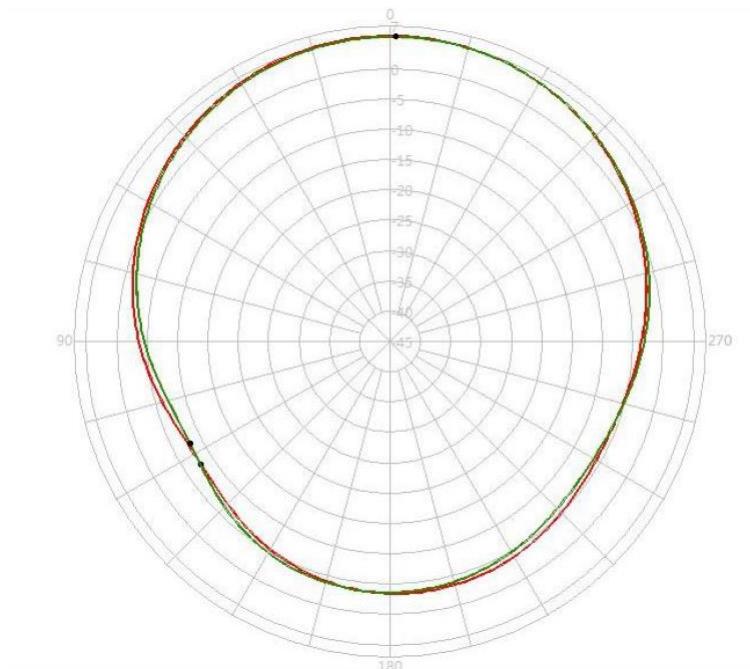
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	4.56	-0.19
YZ Plane	4.66	-0.08

5.2 1575.42MHz Free Space



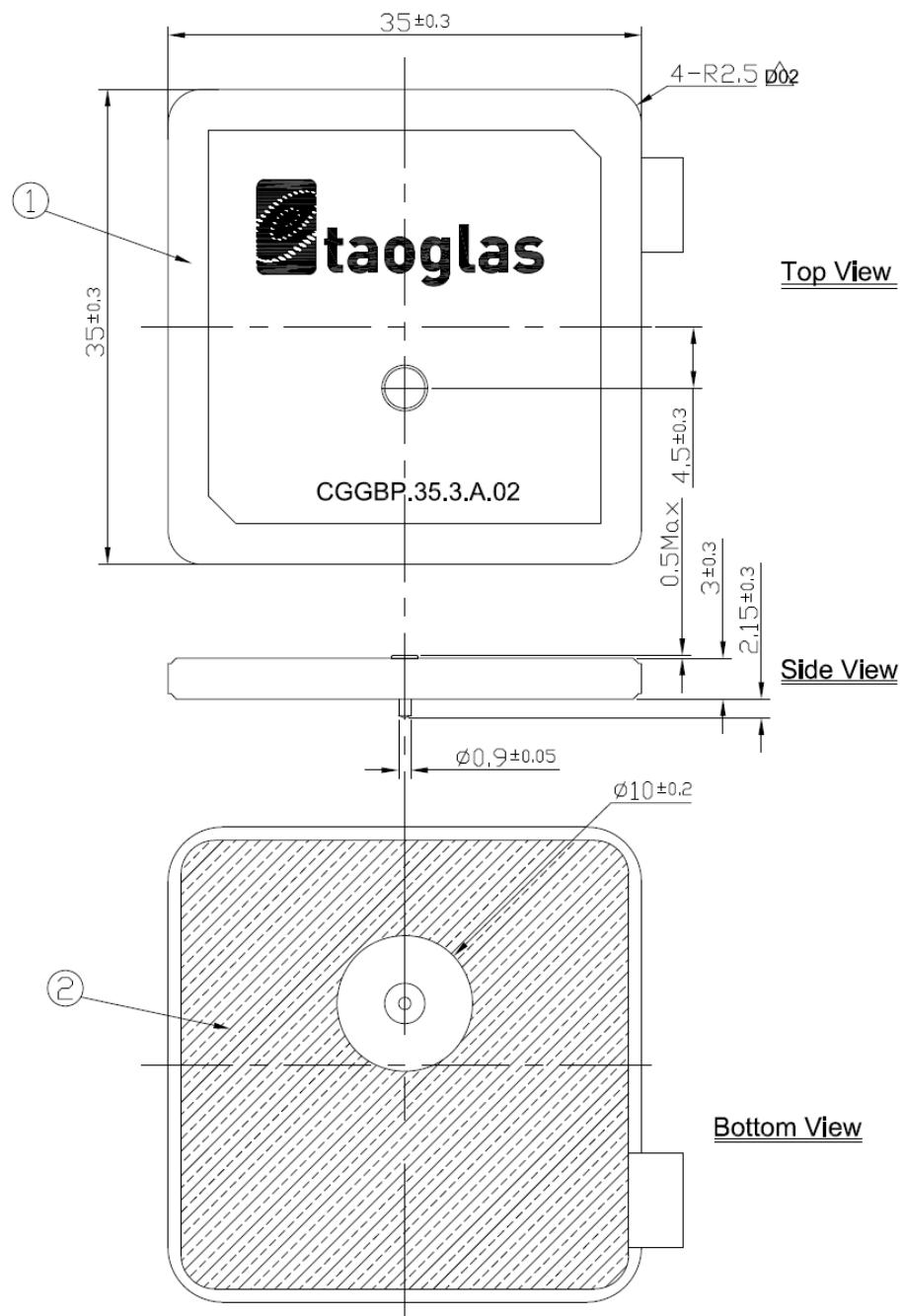
	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	3.66	-1.13
YZ Plane	3.72	-1.07

5.3 1602MHz Free Space



	Peak Gain (dBi)	Average Gain (dBi)
XZ Plane	5.37	0.54
YZ Plane	5.24	0.41

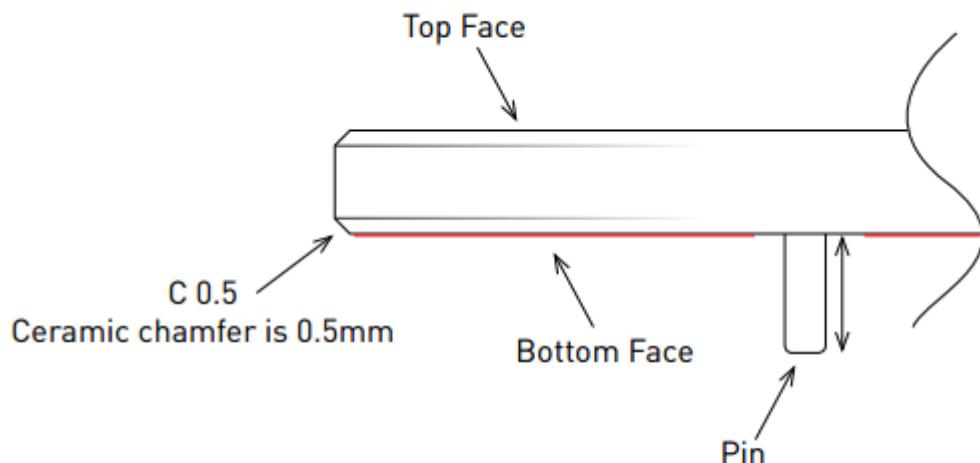
6. Mechanical Drawing (unit: mm)



NOTES:

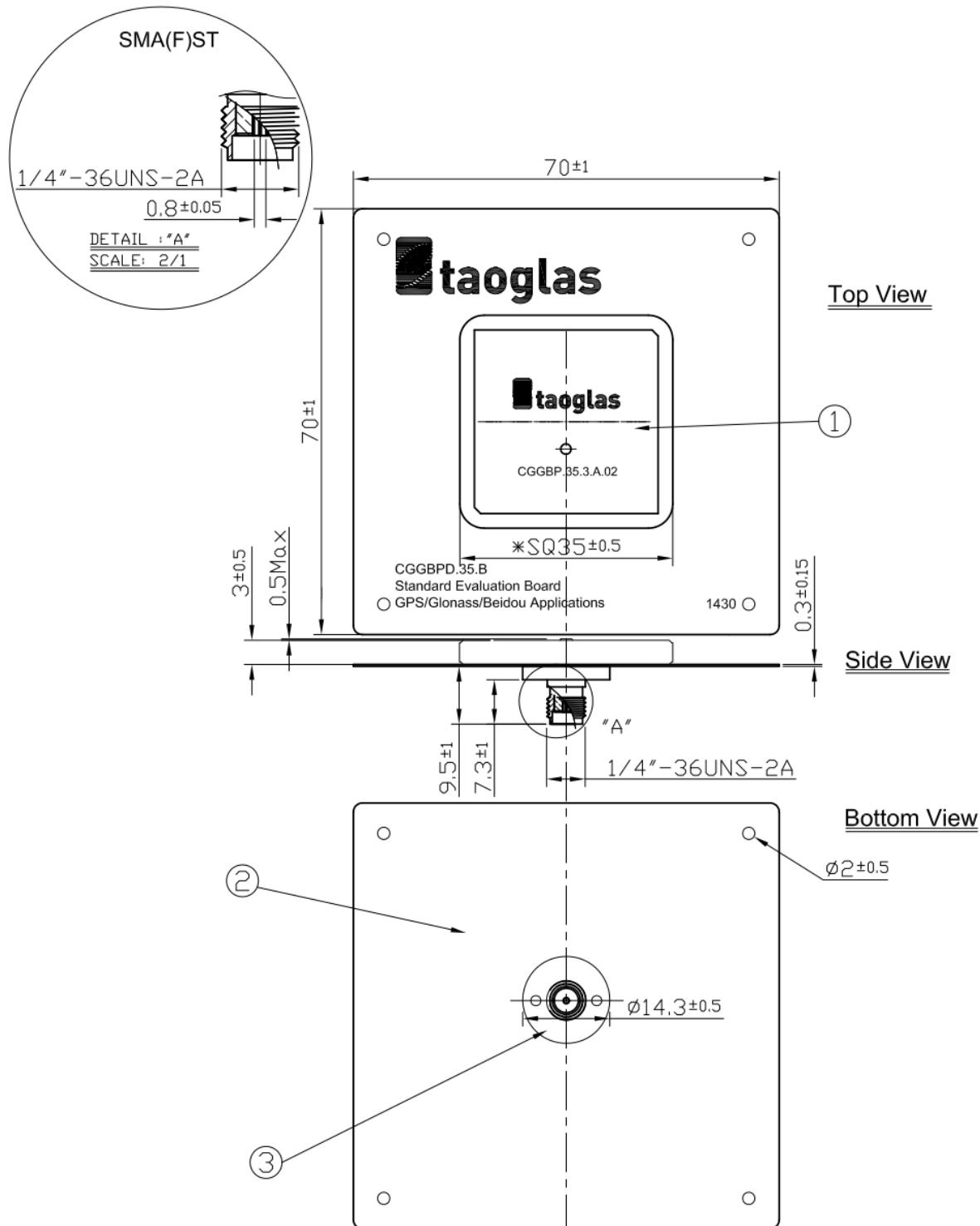
1. Double sided adhesive area 

6.1 Adhesive Thickness

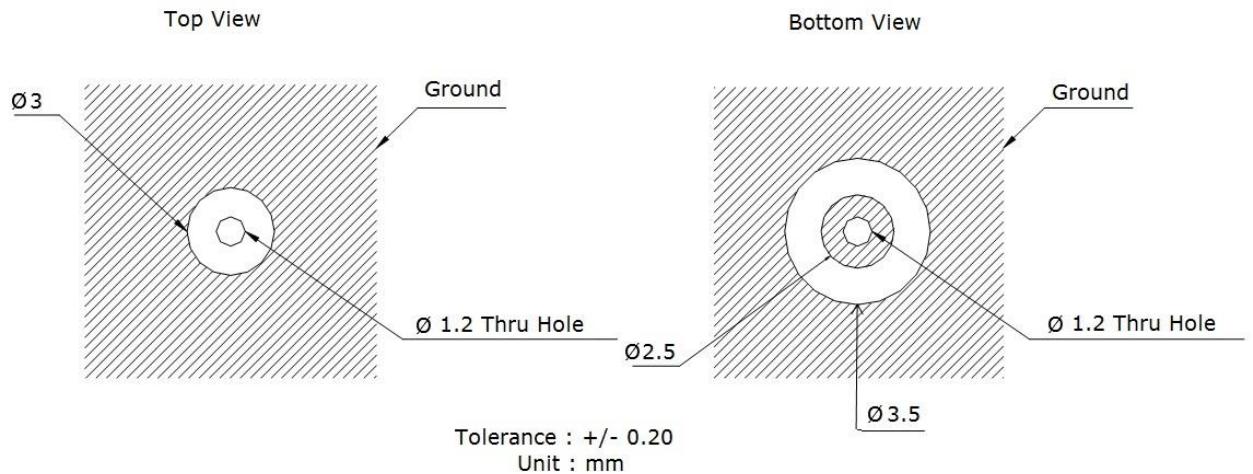


Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

7. CGGBPD.35.B Evaluation Board(unit:mm)

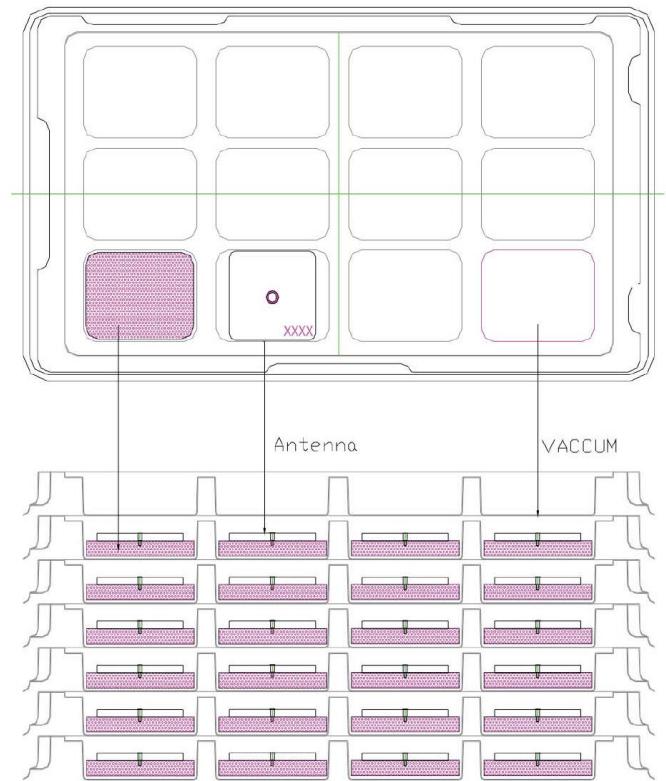


8. PCB Footprint Recommendation

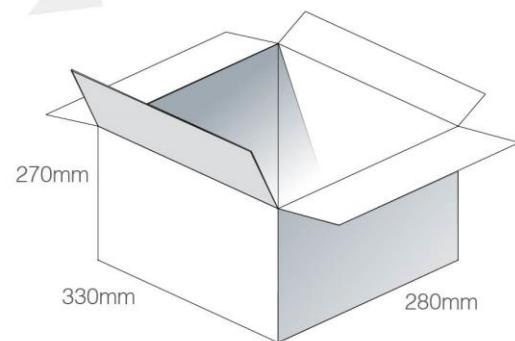
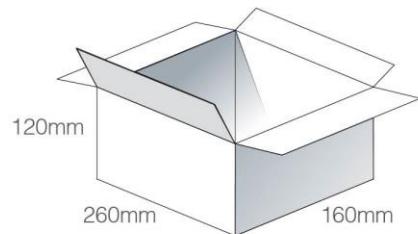


9. Packaging

12 Pieces CGGBP.35 per tray
Dimensions - Diameter 250*150*20mm
Weight - 220g

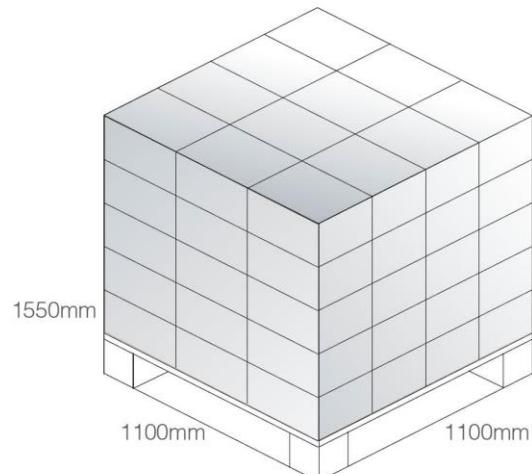


6 Trays per Small Carton
72 Pieces CGGBP.35 Carton
Dimensions - 260*160*120
Weight - 1.37Kg



4 Small Cartons per 1 Large Carton
288 Pieces CGGBP.35 per Large Carton
Carton Dimensions - 330*280*270
Weight - 6Kg

Pallet Dimensions 1100*1100*1550mm
60 Cartons per Pallet
12 Cartons per layer
5 Layers



Mouser Electronics

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