

# **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.



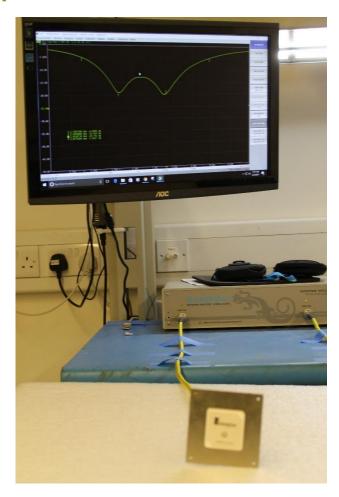
# 2. Specification

ELECTRICAL	
	BeiDou:1561.098MHz ± 2.046MHz
Frequency	GPS/GALILEO: 1575.42 ± 1.023MHz
	GLONASS: 1602 ± 5MHz
Centre Frequency	1594MHz ± 6MHz
VSWR	1.8: 1 max
Bandwidth	80MHz Return Loss @-10dB
	BeiDou: +6.0dBi typ.
Peak Gain	GPS/GALILEO: +6.0dBi typ.
	GLONASS: +6.1dBi 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



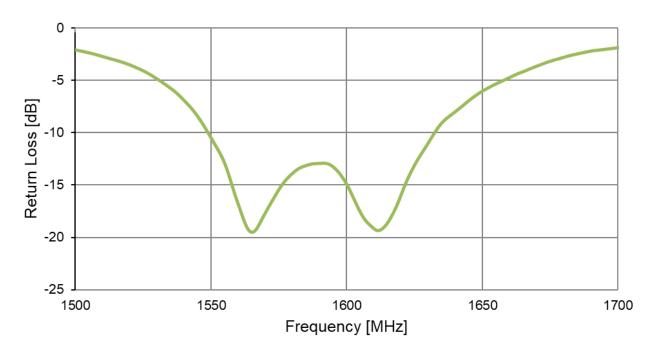
# 3. Antenna Characteristics

### 3.1. Test Setup

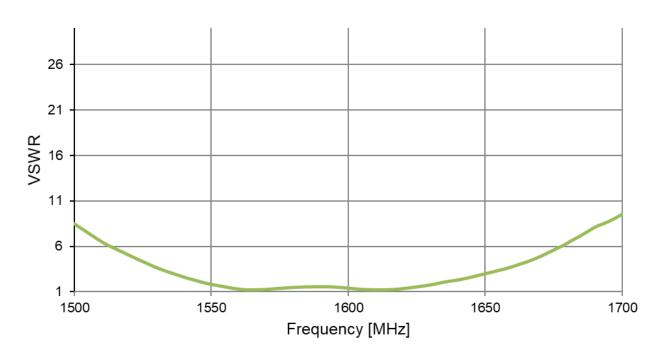




#### 3.2. Return Loss

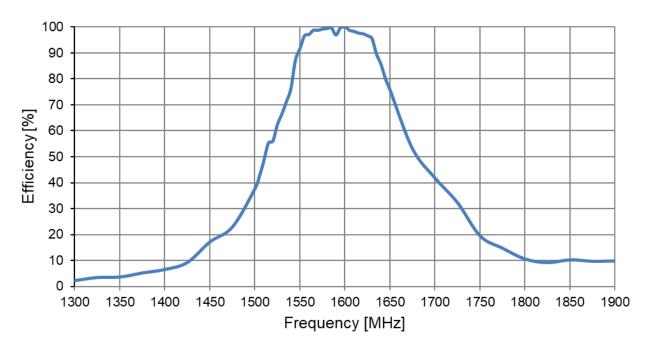


#### **3.3. VSWR**

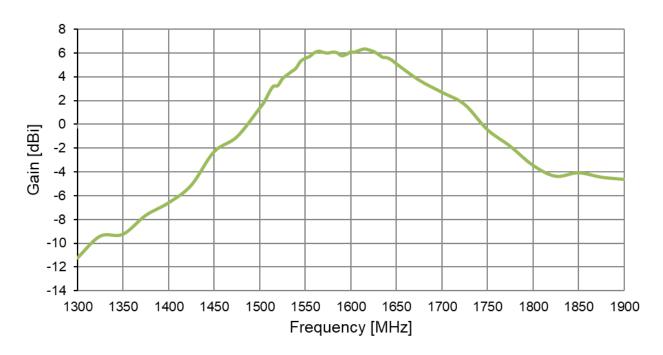




### 3.4. Efficiency

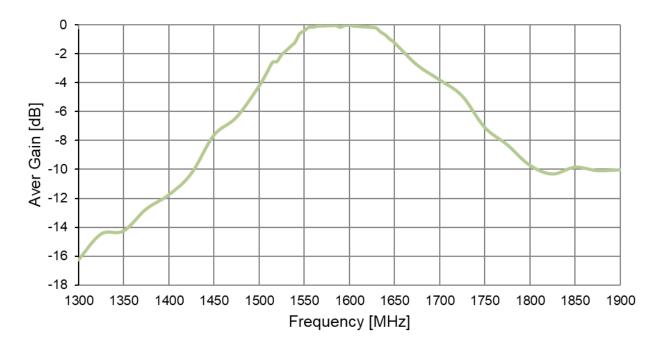


#### 3.5. Peak Gain

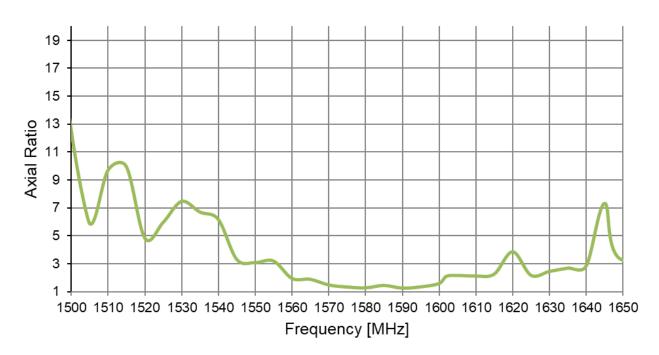




### 3.6. Average Gain

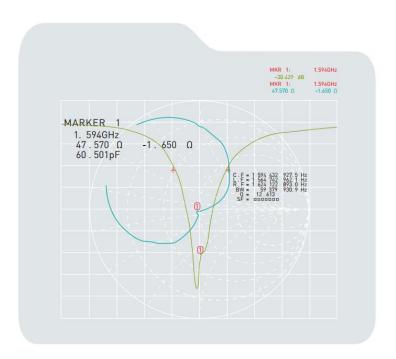


#### 3.7. Axial Ratio



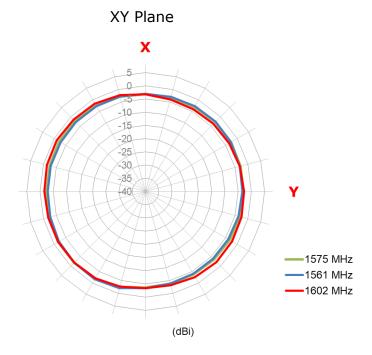


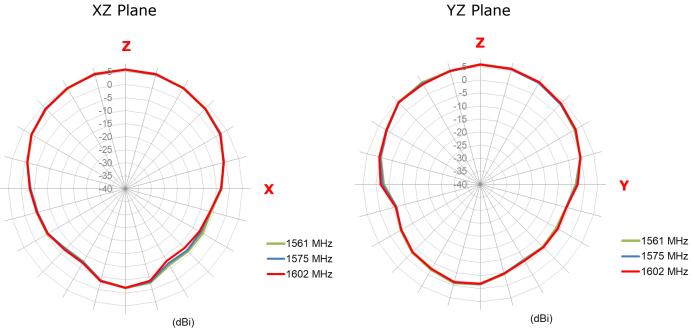
### 3.8. S11 Properties





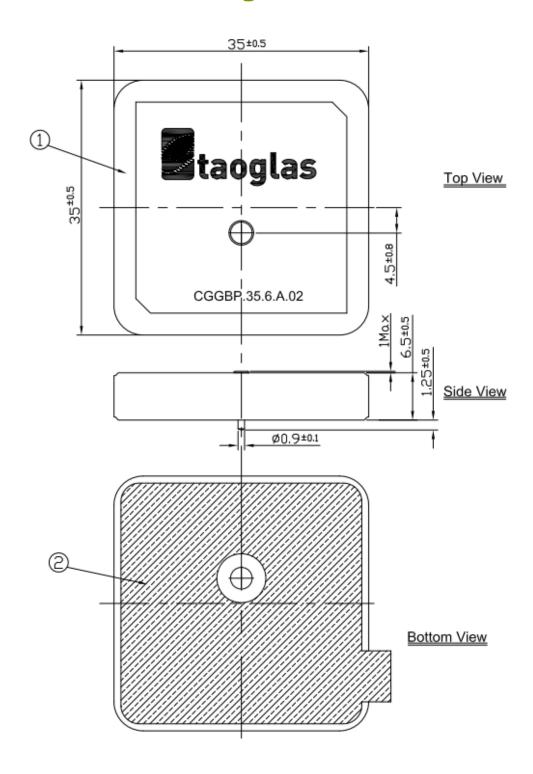
### 4. 2D Antenna Radiation





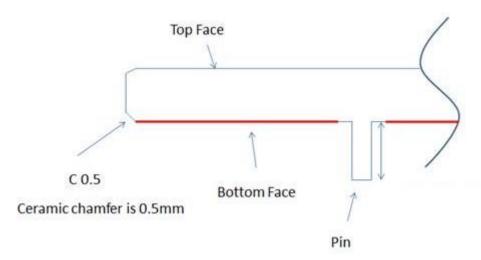


# 5. Mechanical Drawing





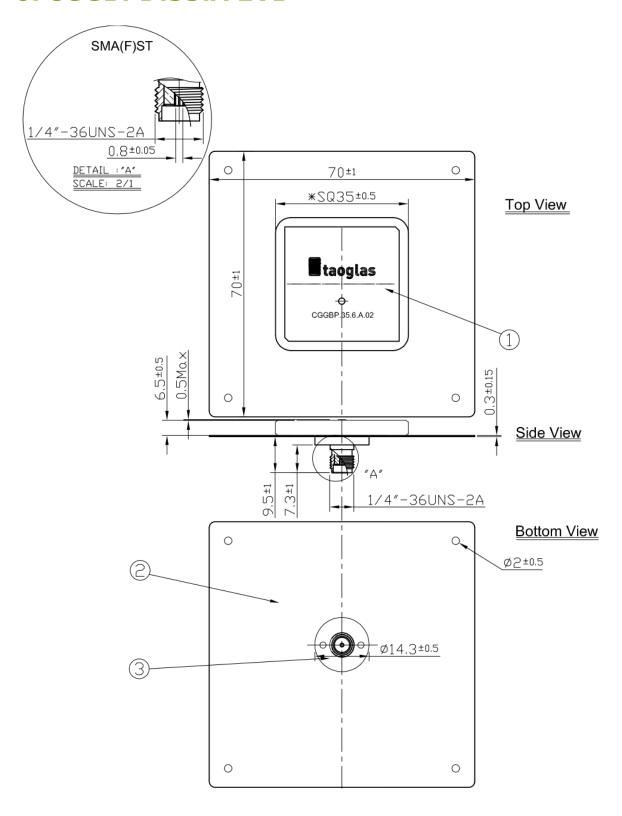
#### **5.1. Adhesive Thickness**



Red Line shows the adhesive without Liner – thickness  $0.08 \sim 0.1 \text{mm}$ 



### 6. CGGBPD.35.A EVB

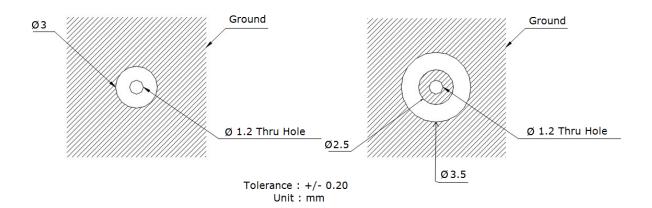








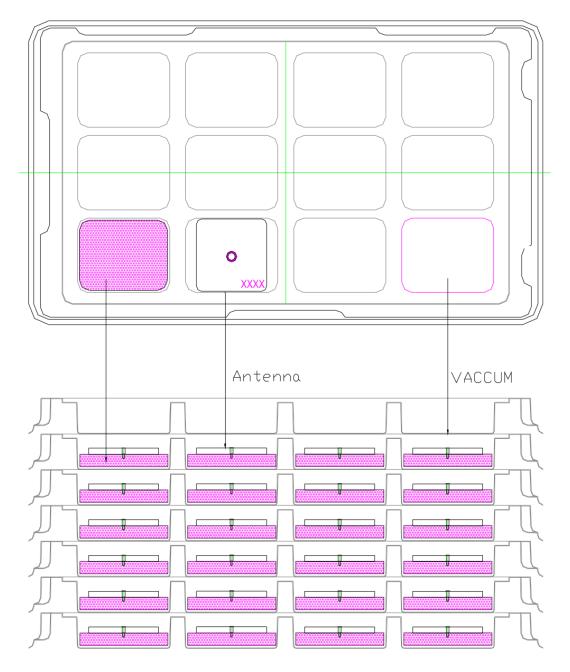
### **6.1. PCB Footprint Recommendation**





# 7. Packaging

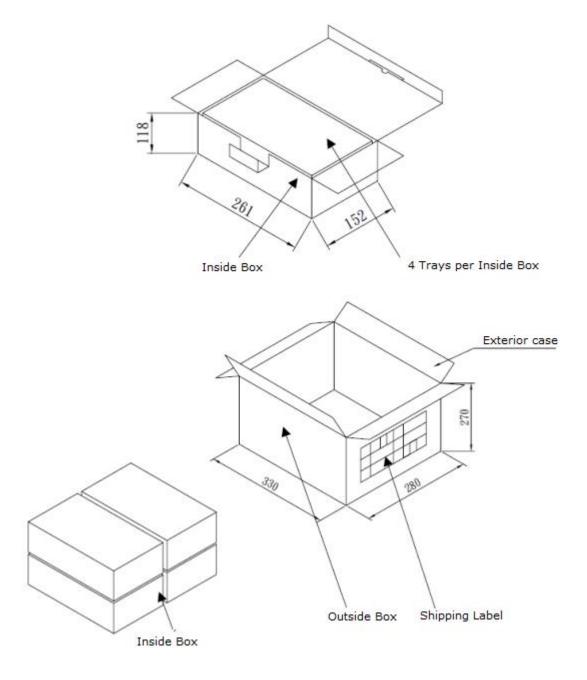
### 7.1. Inner Tray



- 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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