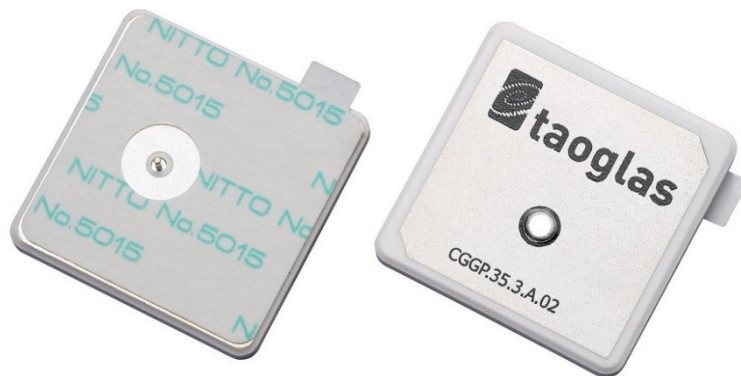


## SPECIFICATION

- Part No. : **CGGP.35.3.A.02**
- Product Name : 3.5mm thick GPS/Glonass Patch Antenna,  
1575/1610Mhz
- Features : Wide-band Operation  
35mm\*35mm\*3.5mm  
4dBi Peak Gain (on 50mm\*50mm ground-plane)  
85% Efficiency (on 50mm\*50mm ground-plane)  
Pin type  
Automotive TS16949 Production and Quality Approved  
**ROHS Compliant**

:



## 1. Introduction

This 35mm ceramic GPS/Glonass patch antenna, by means of a double resonance design, has unique wide-band operation over the whole operating bands of GPS and Glonass systems from 1575MHz to 1610MHz. It is mounted via pin and double-sided adhesive.

This antenna has been tuned for a centre position on a 50mm\*50mm ground-plane. It is manufactured and tested in a TS16949 first tier automotive approved facility. For further optimization to customer specific device environments where positioning is off centre or on different ground-plane sizes, custom tuned patch antennas can be supplied. For more details please Contact Us.

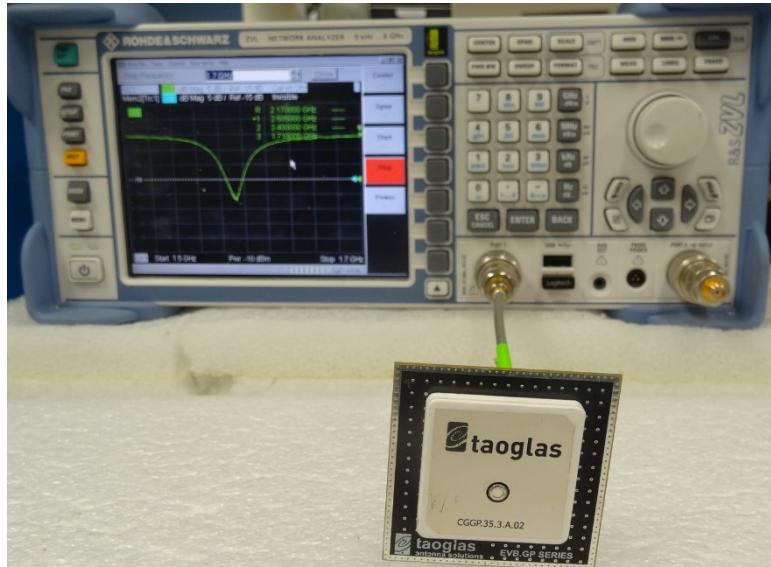
## 2. Key Antenna Performance Indicators

Original Patch Specification tested on 50\*50mm ground plane

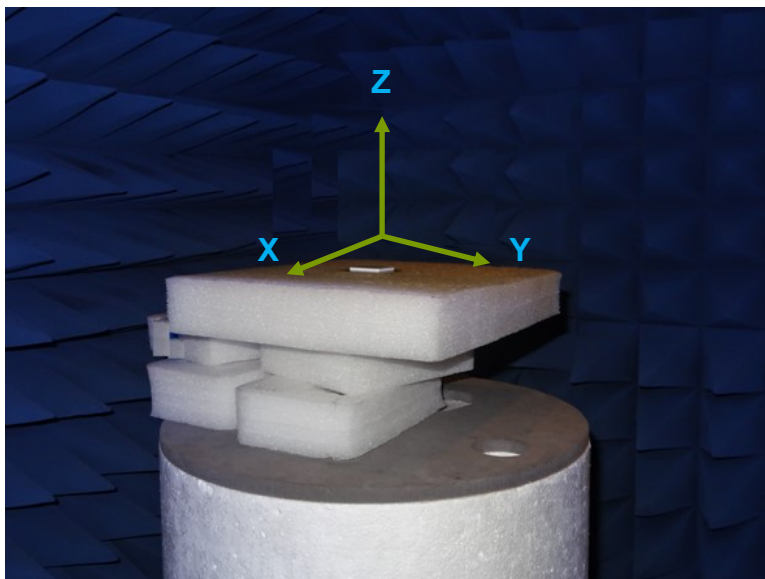
Taoglas Part # CGGPD.35.A

No	Parameter	Specification
1	Frequency	GPS : 1575.42 ±1.023 MHz GLONASS : 1602±5MHz
2	Bandwidth	22MHz min
3	VSWR	1.5
4	Gain at Zenith	4.0 dBi typ.
5	Gain at 10°elevation	1.5dBi typ.
6	Efficiency	85% typ.
7	Axial Ratio	3 dB max
8	Impedance	50 Ohms
9	Frequency Temperature Coefficient (τf)	0 ± 20ppm / oC
10	Operating Temperature	-40°C to +85°C

### 3. TEST SET UP



**Figure 1.** Return Loss measurement of the CGGP.35.3.A.02.



**Figure 2.** Peak gain, efficiency and radiation pattern measurements of the CGGP.35.3.A.02.

## 4. ANTENNA PARAMETERS

### 4.1. Return Loss

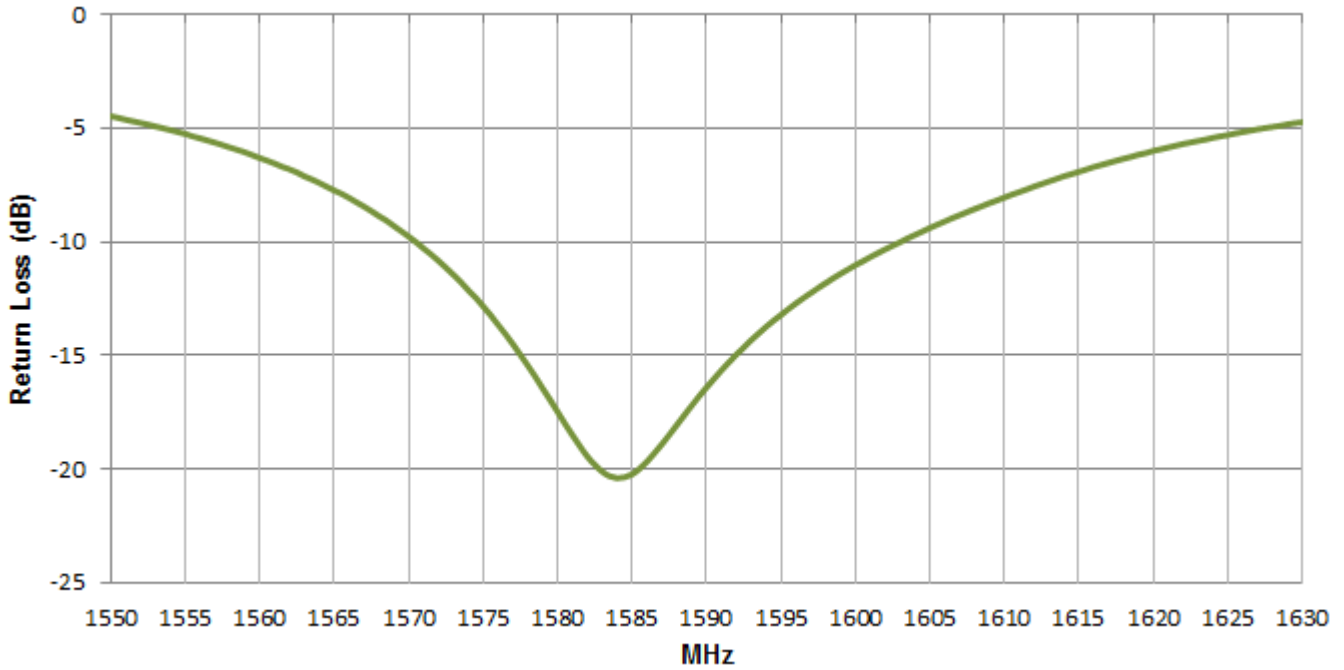


Figure 3. Return Loss of the CGGP.35.3.A.02.

### 4.2. VSWR

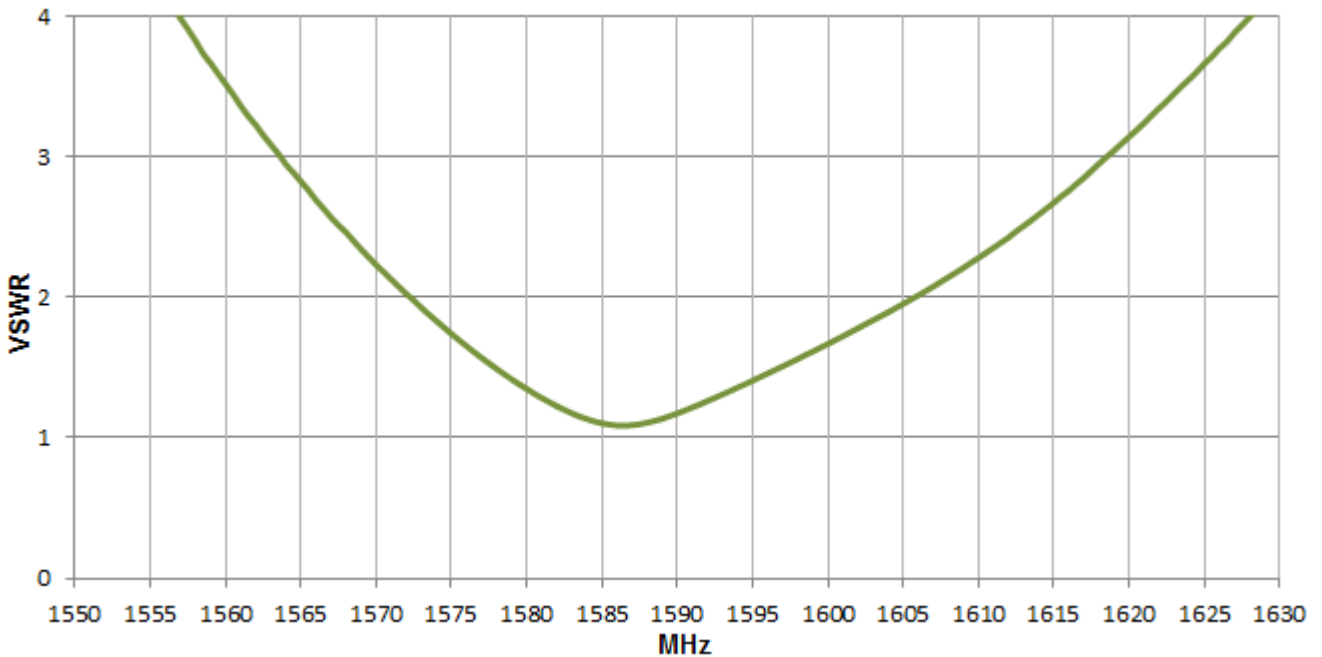


Figure 4. VSWR of the CGGP.35.3.A.02.

### 4.3. Efficiency

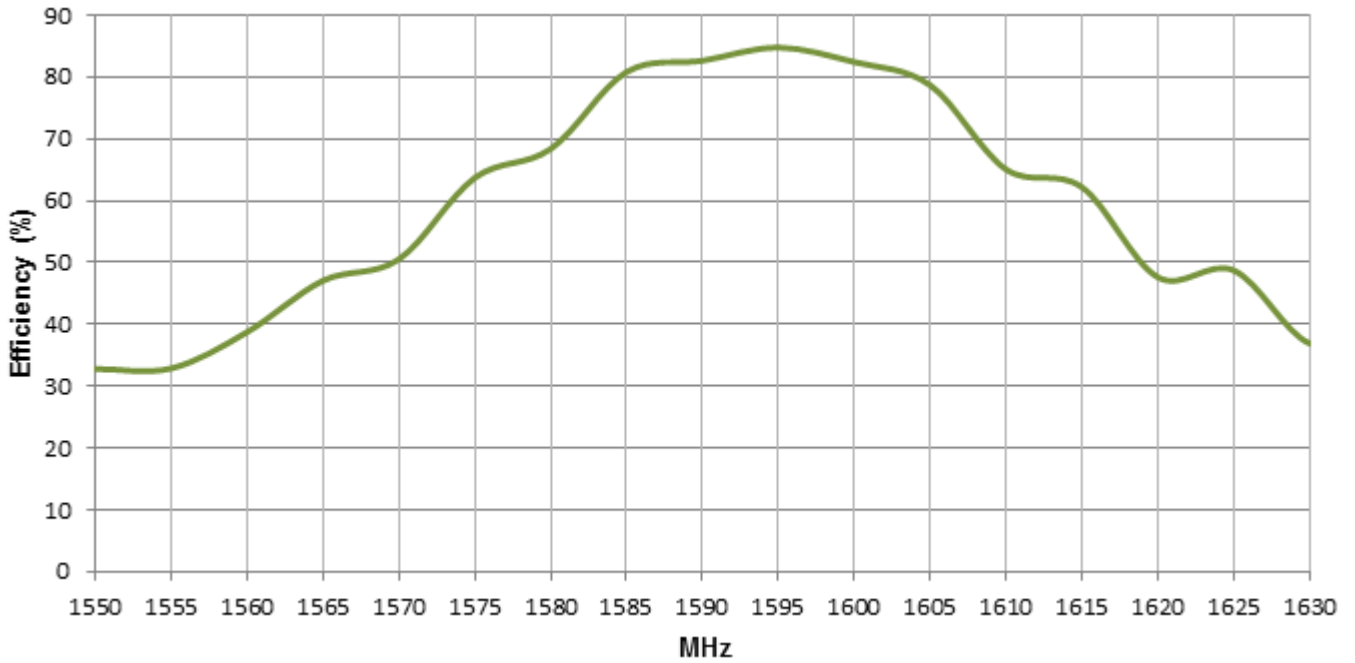


Figure 5. Efficiency of the CGGP.35.3.A.02.

### 4.4. Peak Gain

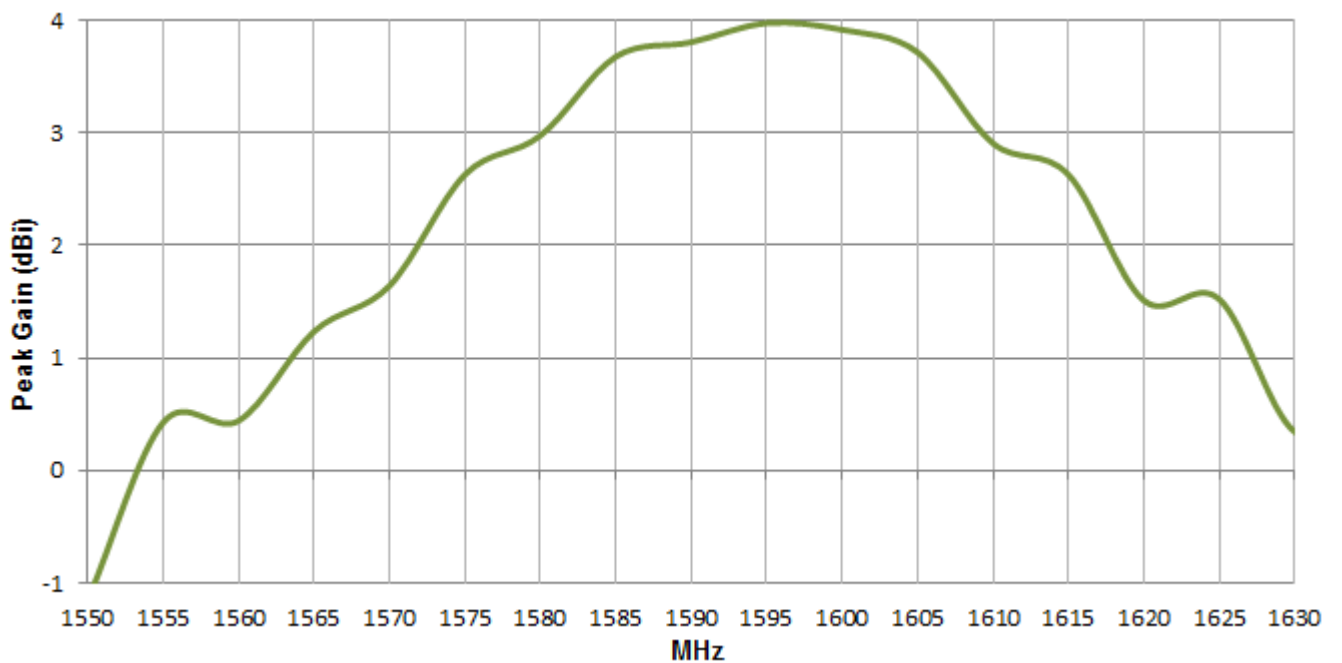
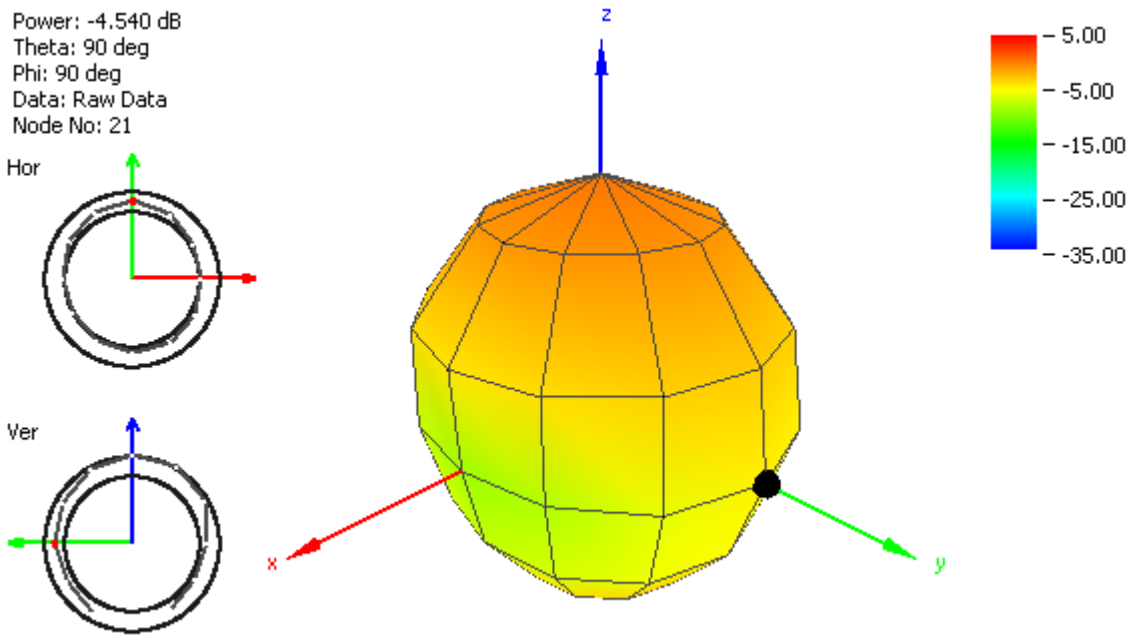
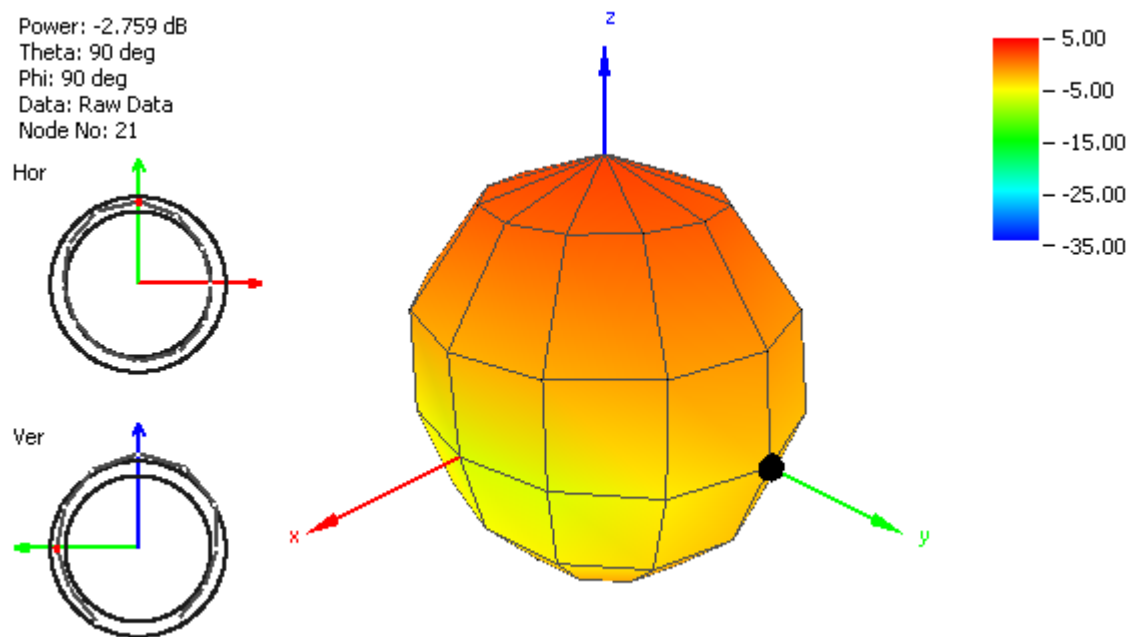


Figure 6. Peak Gain of the CGGP.35.3.A.02.

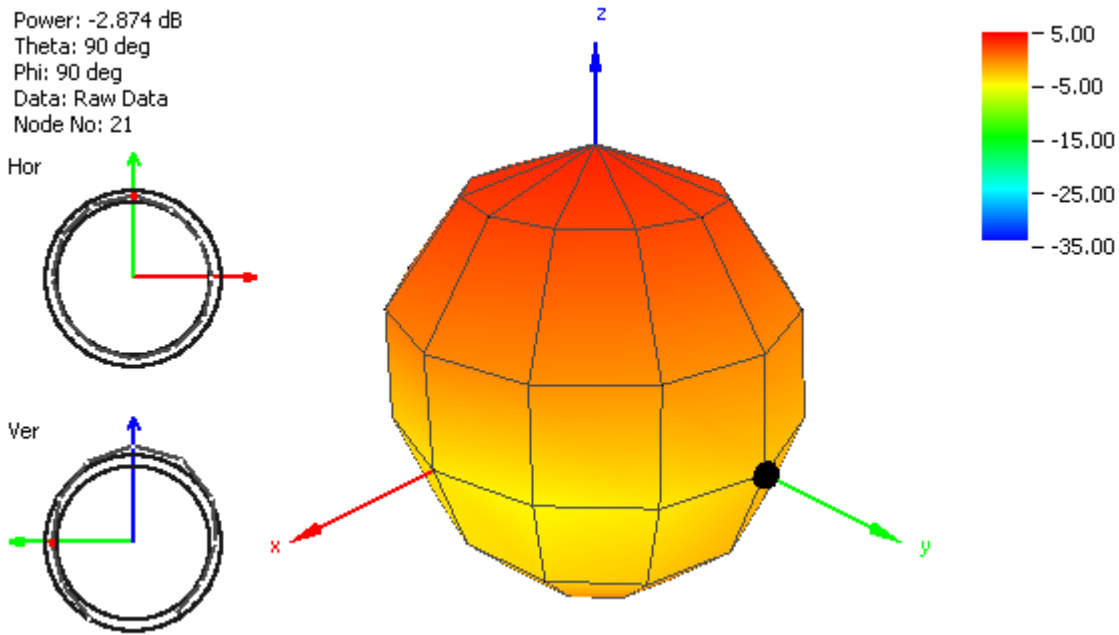
### 4.5 Radiation Pattern



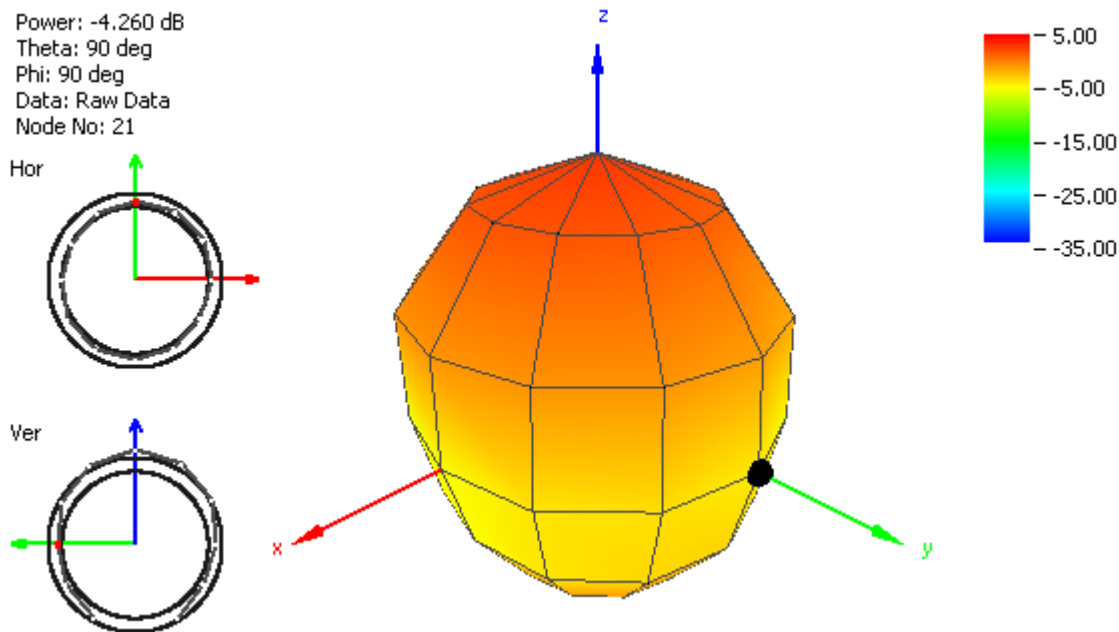
**Figure 7.** Radiation Pattern of the CGGP.35.3.A.02 at 1560Mhz.



**Figure 8.** Radiation Pattern of the CGGP.35.3.A.02 at 1575Mhz.

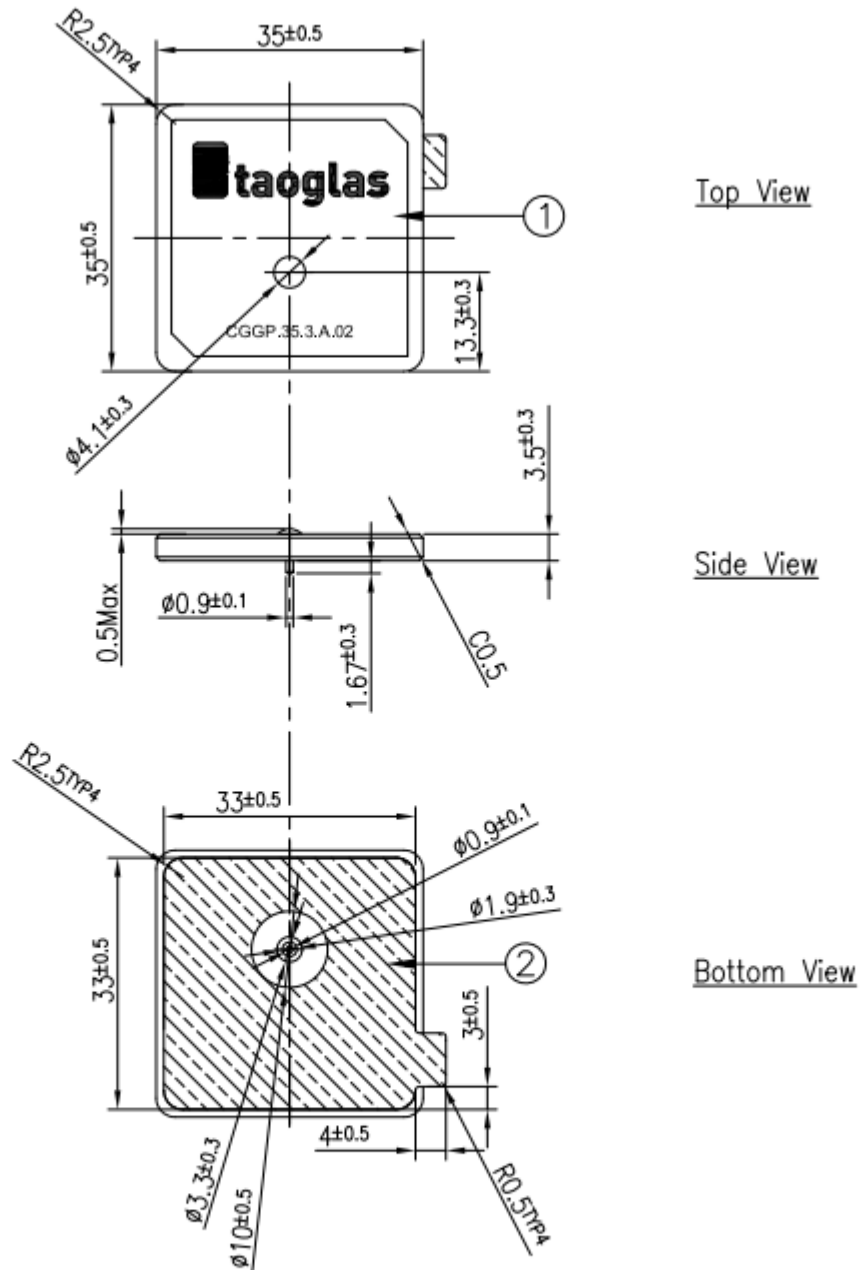


**Figure 9.** Radiation Pattern of the CGGP.35.3.A.02 at 1590Mhz.



**Figure 10.** Radiation Pattern of the CGGP.35.3.A.02 at 1610Mhz.

## 5. Drawing



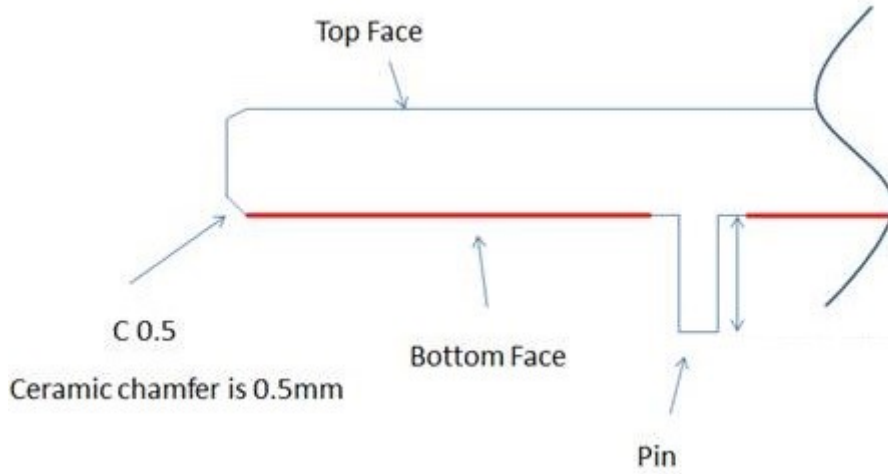
**NOTES:**

1. Double sided adhesive area. 

	Name	P/N	Material	Finish	QTY
1	CGGP.35 Patch 35x35x3.5	001513C080007A	Ceramic	Clear	1
2	Double sided Adhesive	001013C020007A	NITTO 5015	White Liner	1

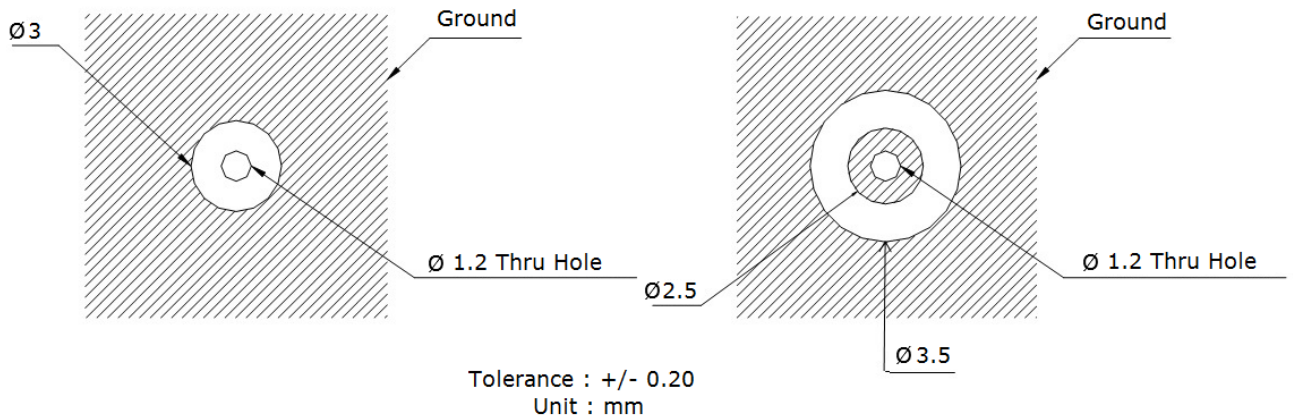


## 5.1 Adhesive Thickness

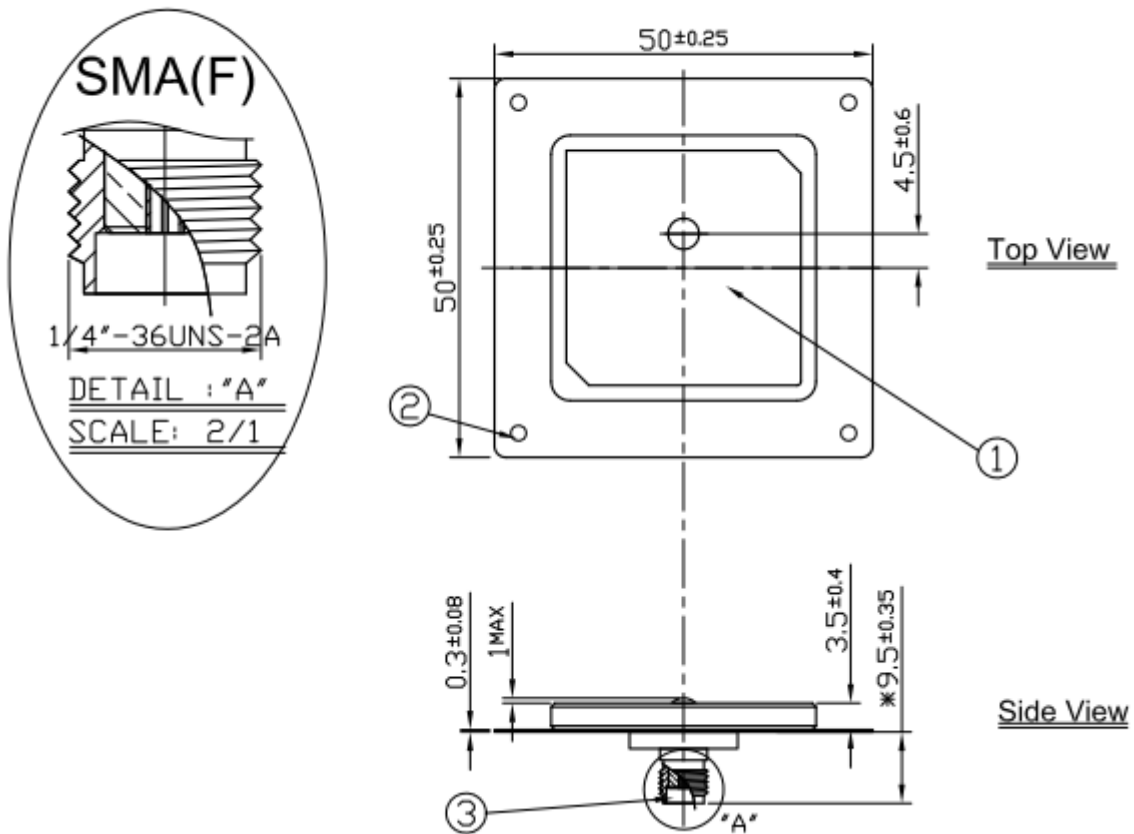


Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

## 6. PCB Footprint Recommendation



## 7. Evaluation Board (CGGP.D.35.A)



	Name	Material	Finish	QTY
1	CGGP.35 Patch 35x35	Ceramic	Clear	1
2	Ground-Plane(50x50x0.3mm)	Brass	Silver	1
3	SMA(F) ST	Brass	Gold	1

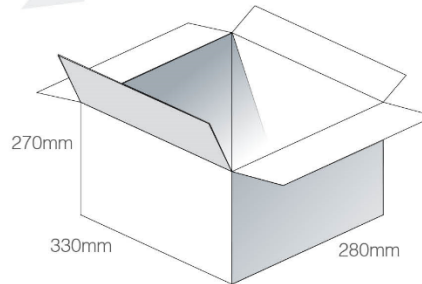
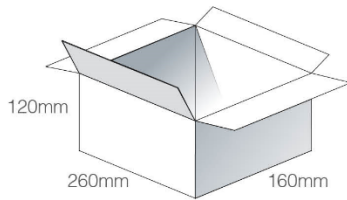
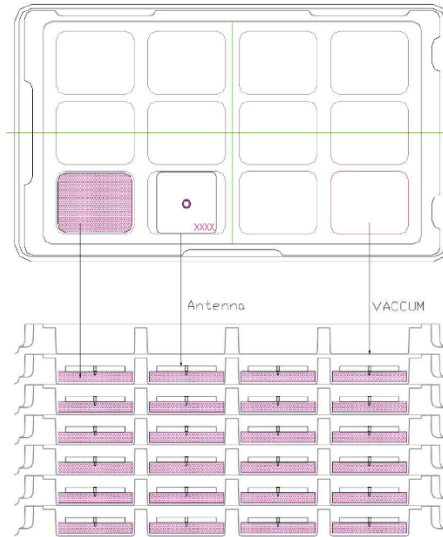
# 8. Packaging

## CGGP.35.3.A.02

### Packaging Specifications

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

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



4 Small Cartons per 1 Large Carton  
 288 Pieces CGGP.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

