

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

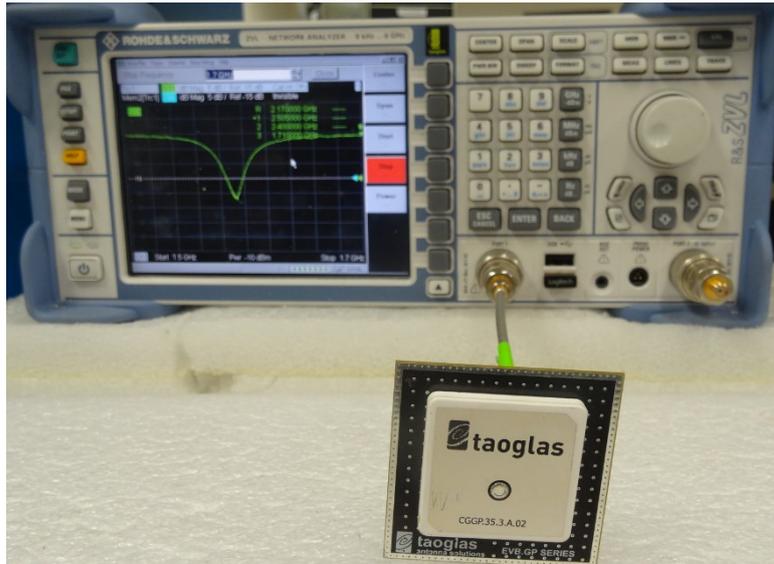


Figure 1. Return Loss measurement of the CGGP.35.3.A.02.

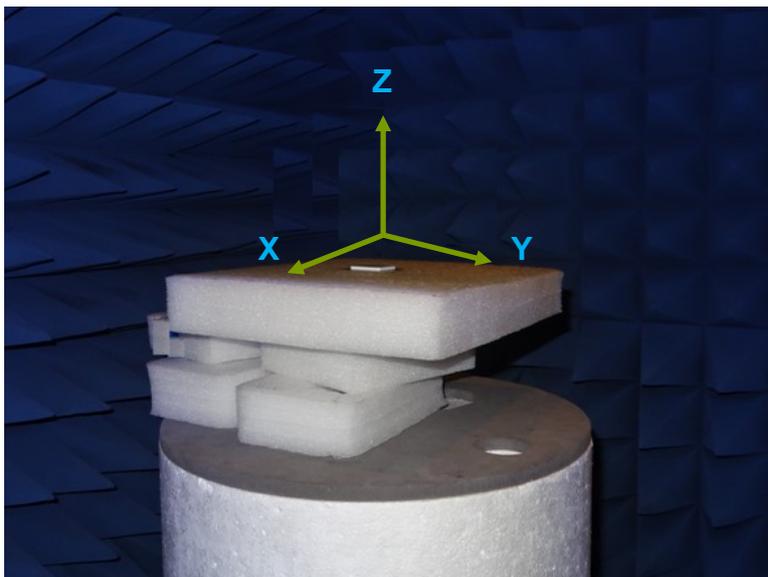


Figure 2. Peak gain, efficiency and radiation pattern measurements of the CGGP.35.3.A.02.

4. ANTENNA PARAMETERS

4.1. Return Loss

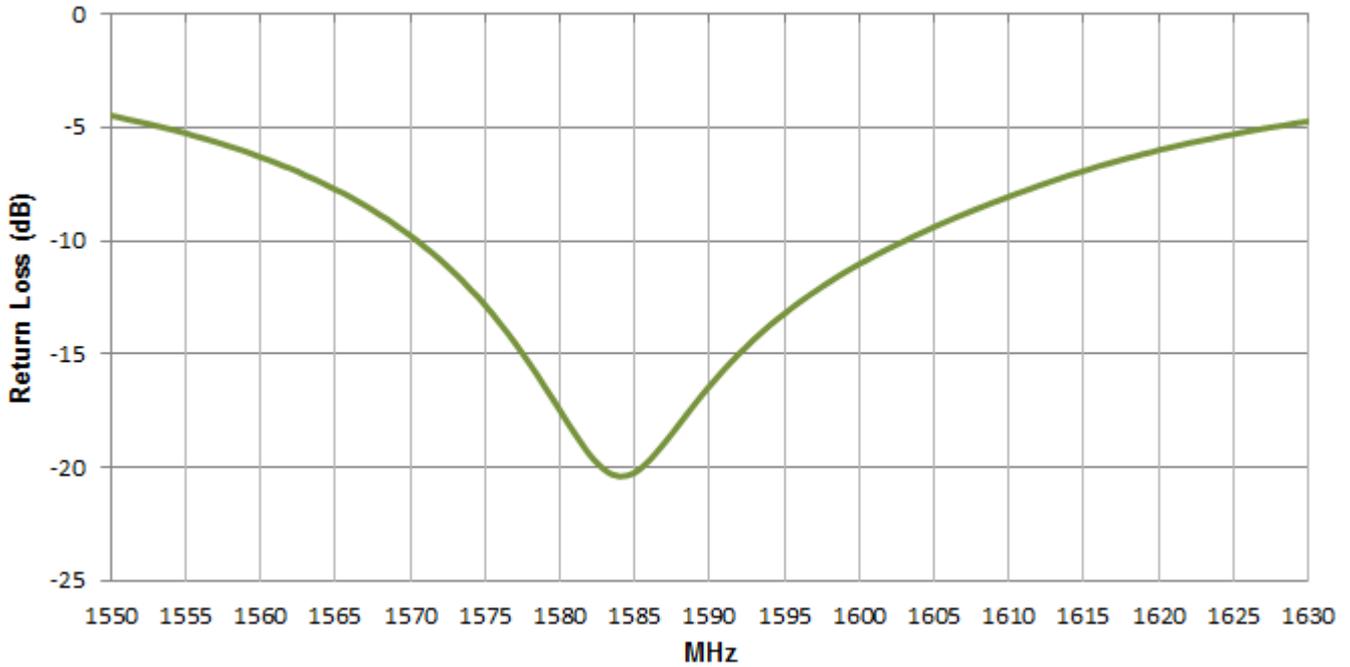


Figure 3. Return Loss of the CGGP.35.3.A.02.

4.2. VSWR

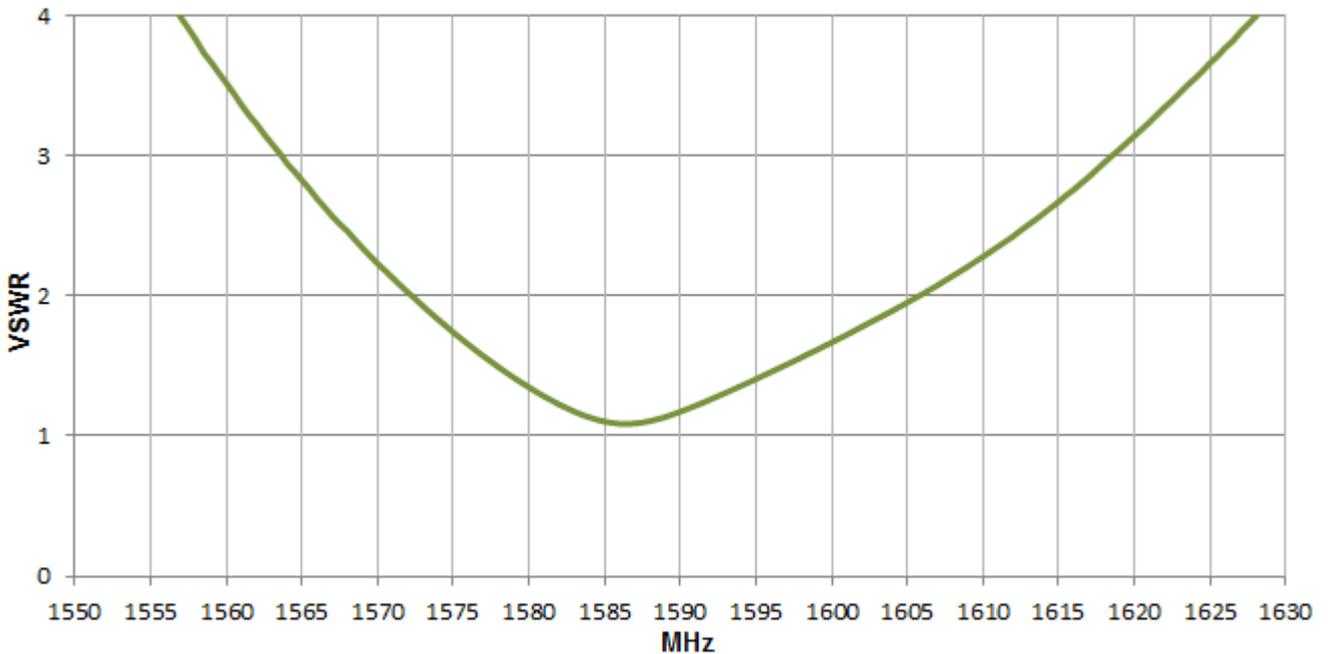


Figure 4. VSWR of the CGGP.35.3.A.02.

4.3. Efficiency

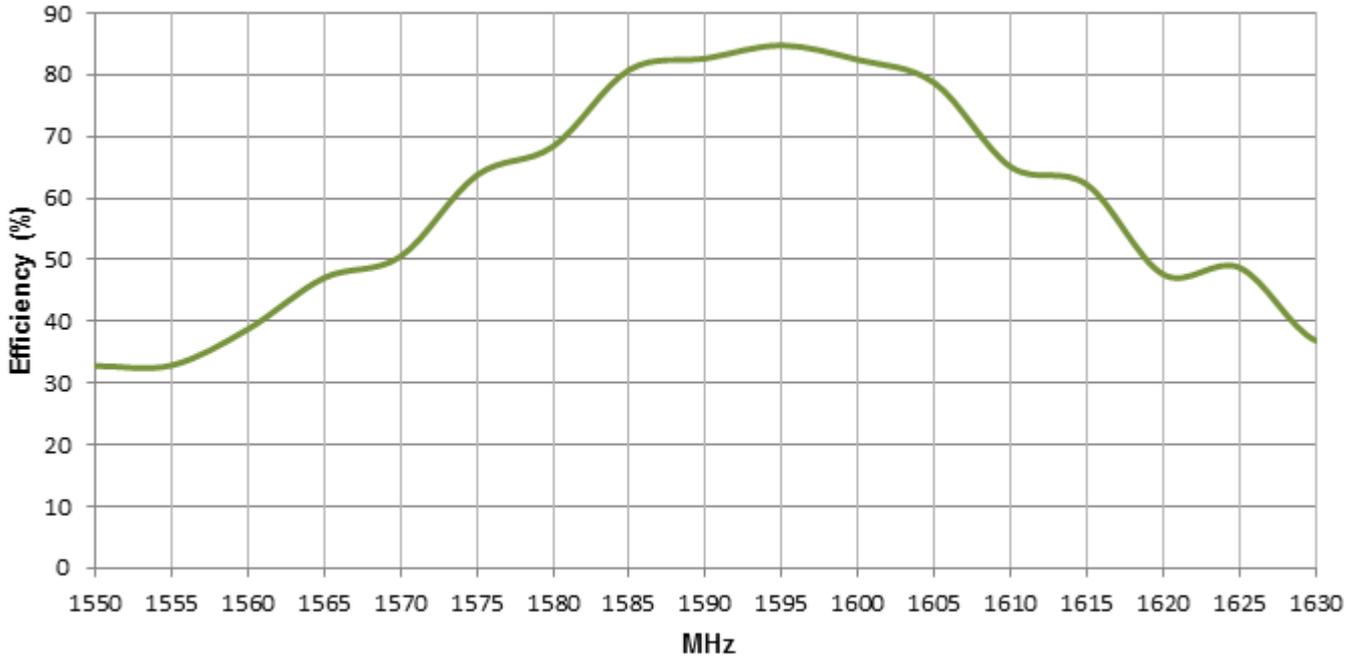


Figure 5. Efficiency of the CGGP.35.3.A.02.

4.4. Peak Gain

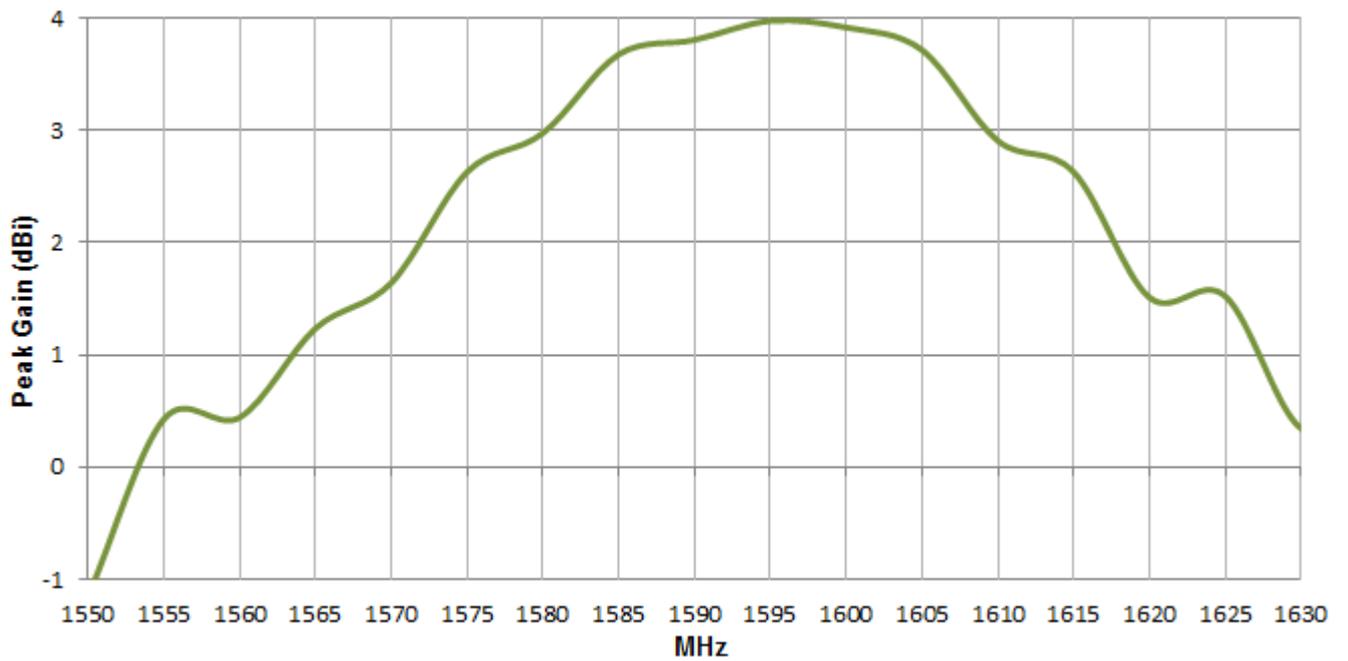


Figure 6. Peak Gain of the CGGP.35.3.A.02.

4.5 Radiation Pattern

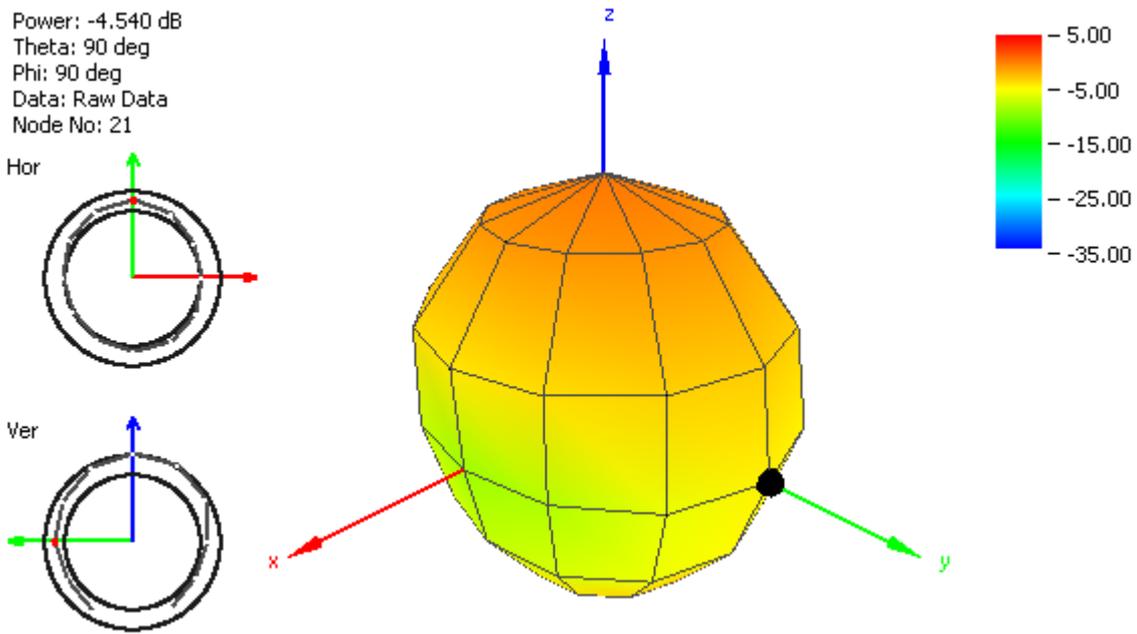


Figure 7. Radiation Pattern of the CGGP.35.3.A.02 at 1560Mhz.

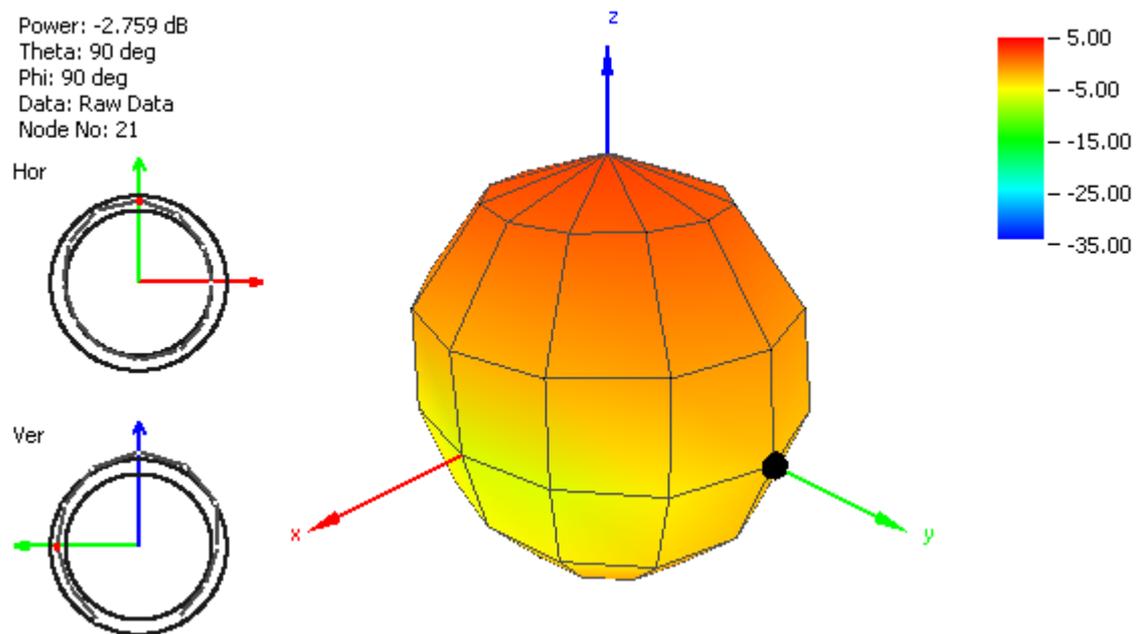


Figure 8. Radiation Pattern of the CGGP.35.3.A.02 at 1575Mhz.

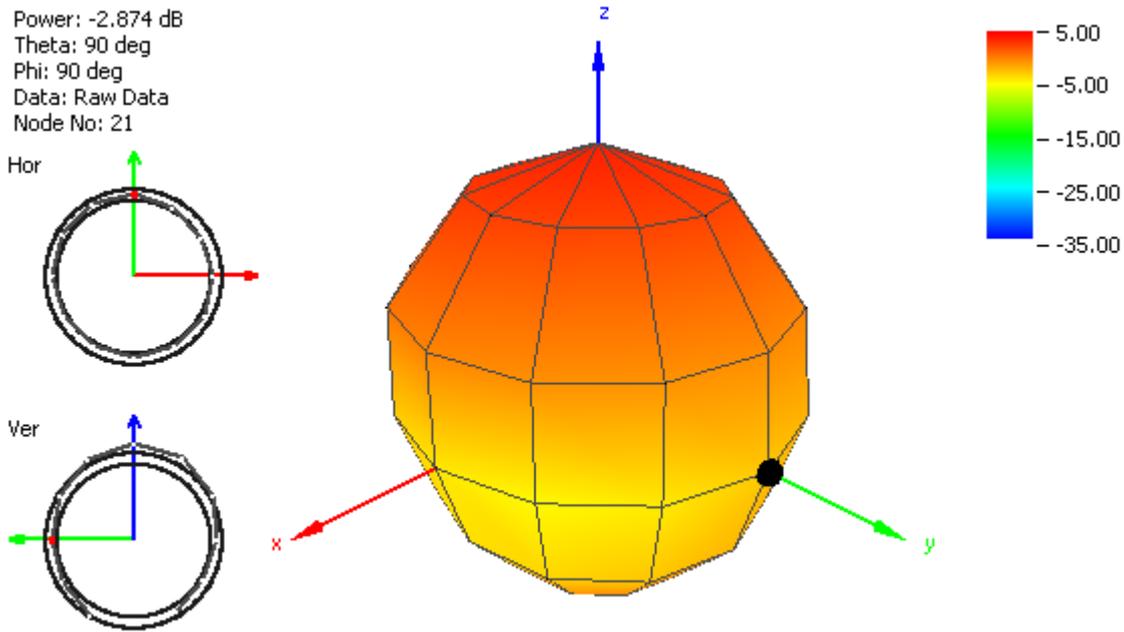


Figure 9. Radiation Pattern of the CGGP.35.3.A.02 at 1590Mhz.

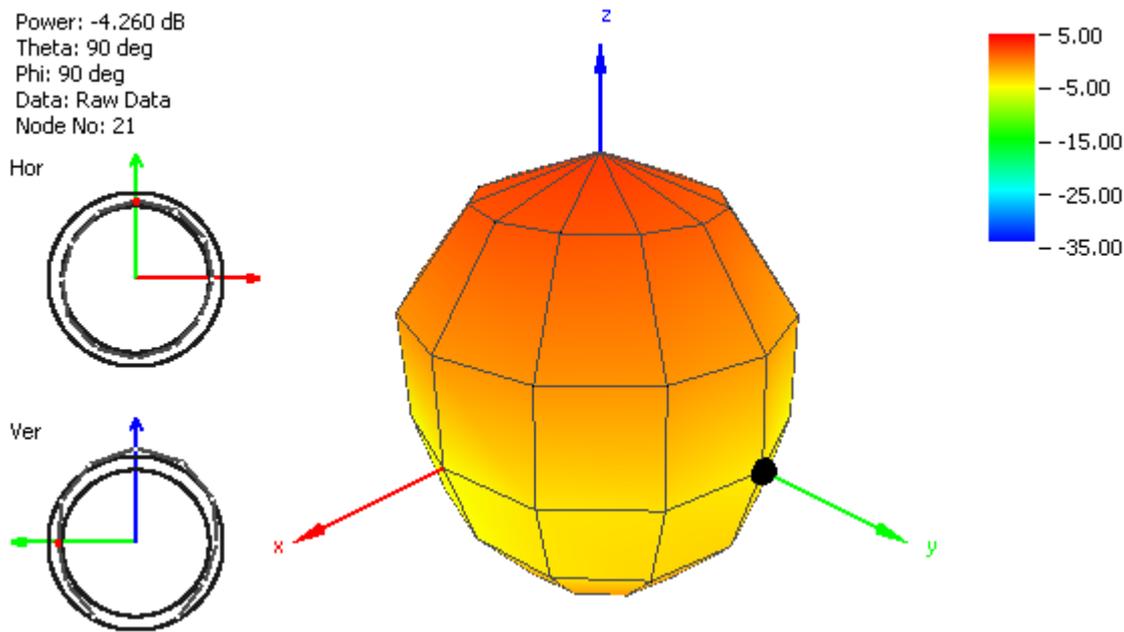
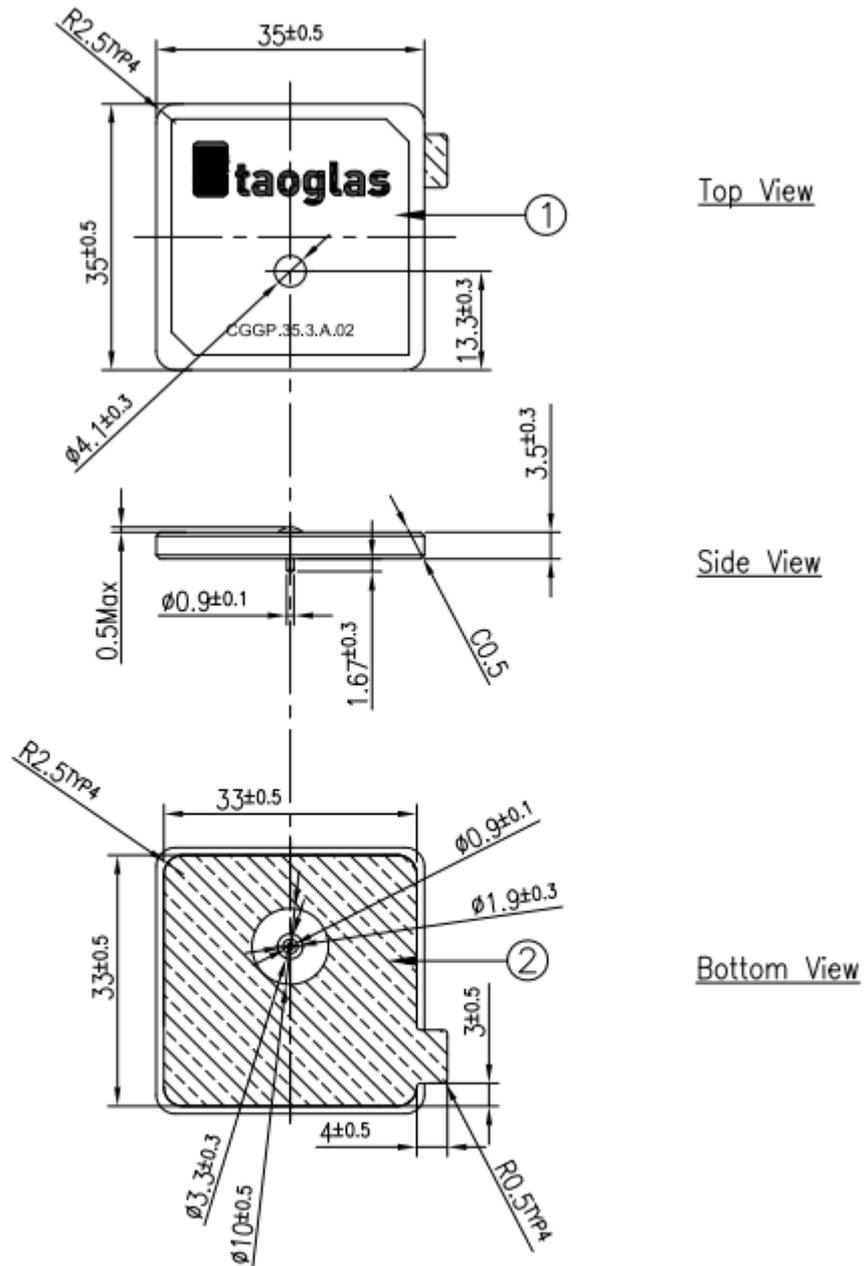


Figure 10. Radiation Pattern of the CGGP.35.3.A.02 at 1610Mhz.

5. Drawing

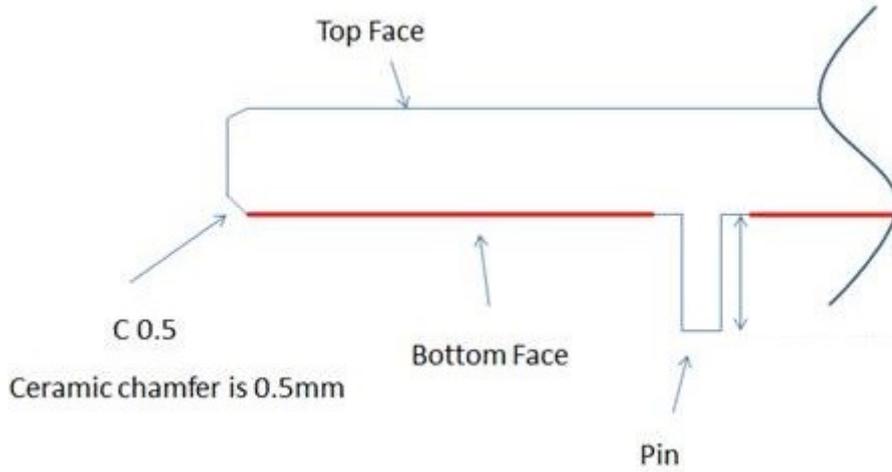


NOTES:

1. Double sided adhesive area. 

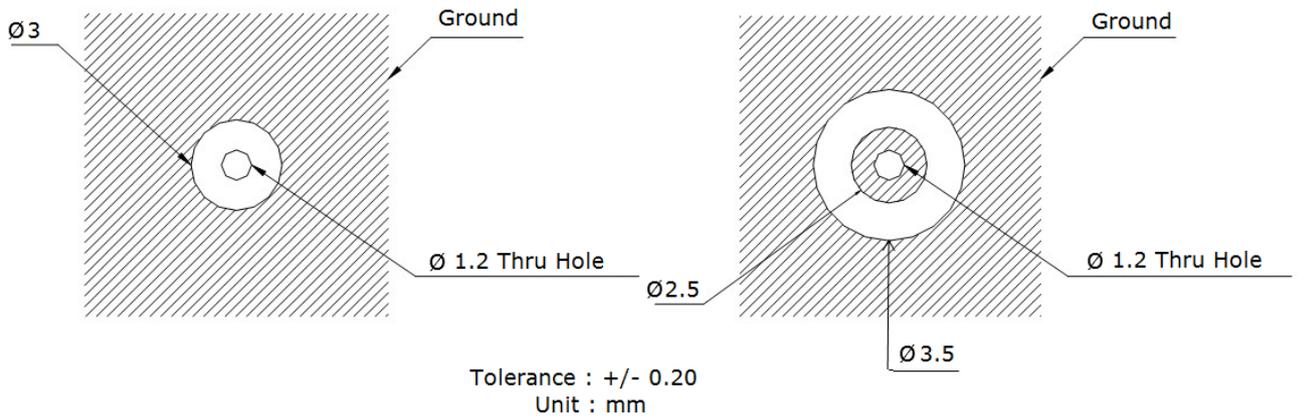
	Name	P/N	Material	Finish	QTY
1	CGGP.35 Patch 35x35x3.5	001513C080007A	Ceramic	Clear	1
2	Double sided Adhesive	001013C020007A	NITTO 5015	White Liner	1

5.1 Adhesive Thickness

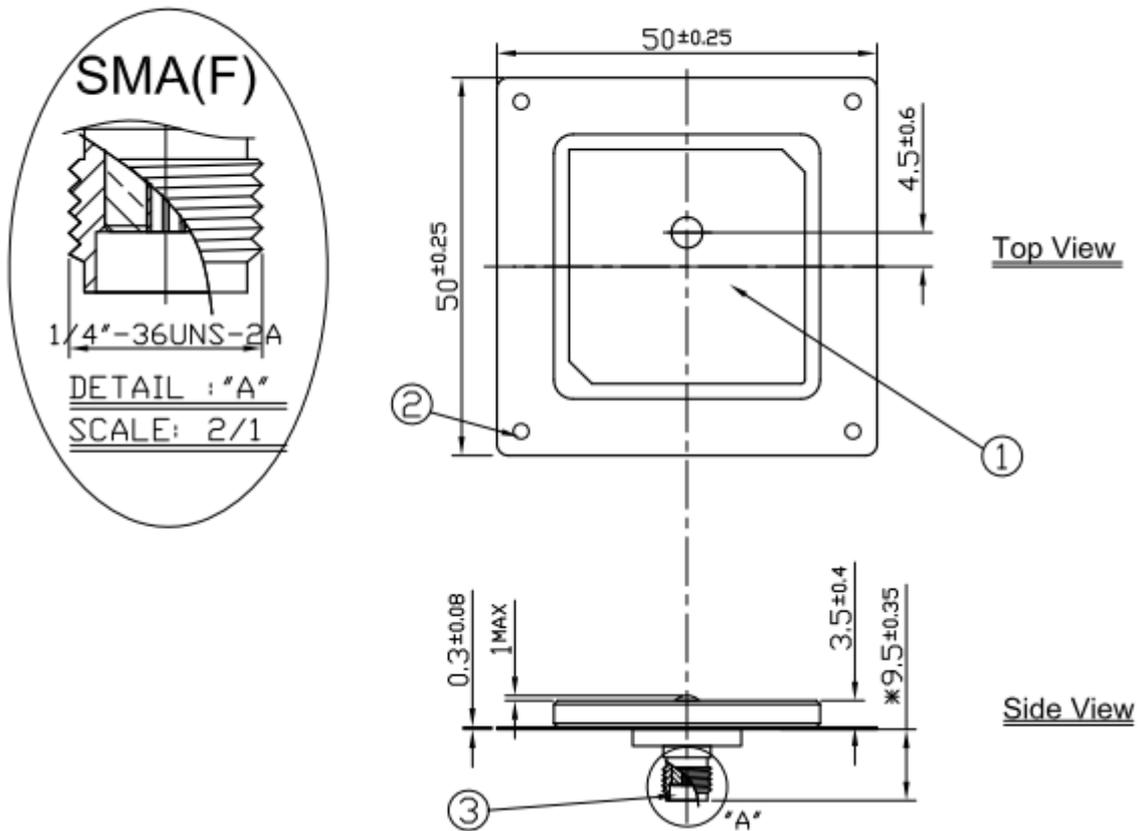


Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

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

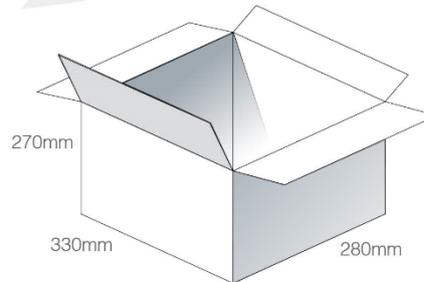
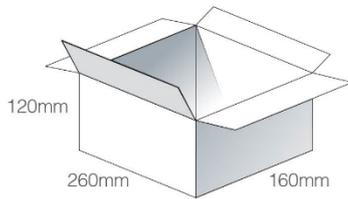
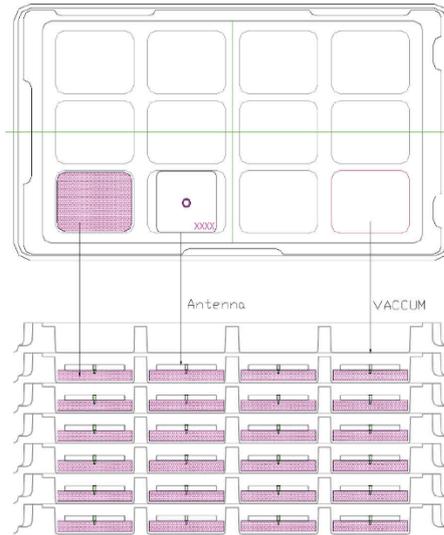
8. Packaging

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

