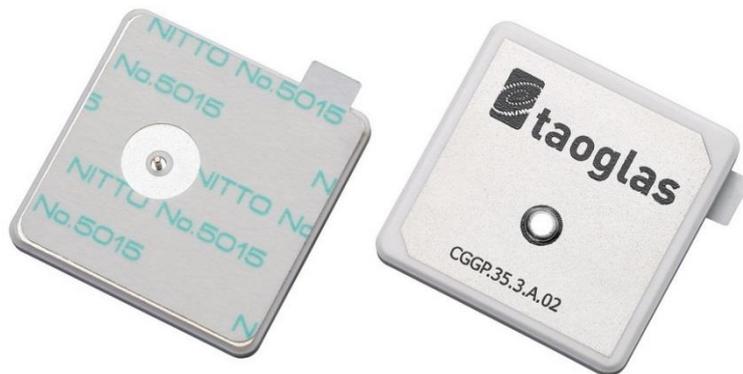


SPECIFICATION

- 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

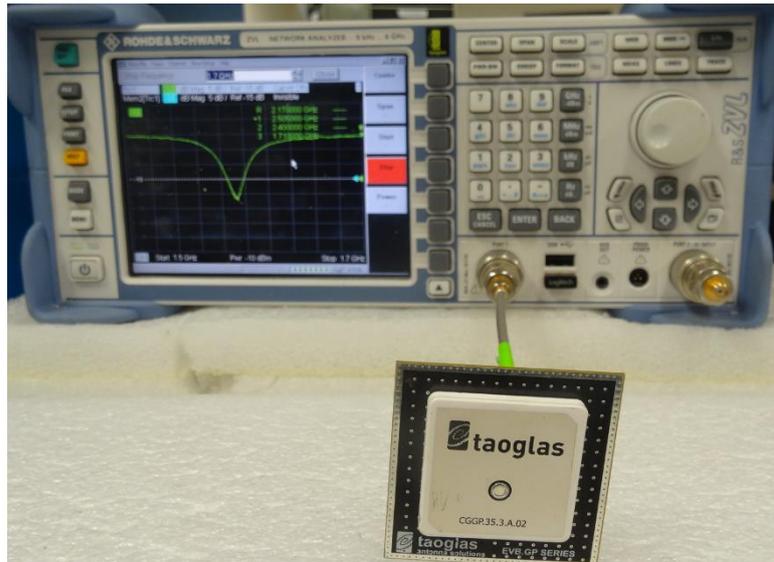


Figure 1. Return Loss measurement of the CGGP.35.3.A.02.

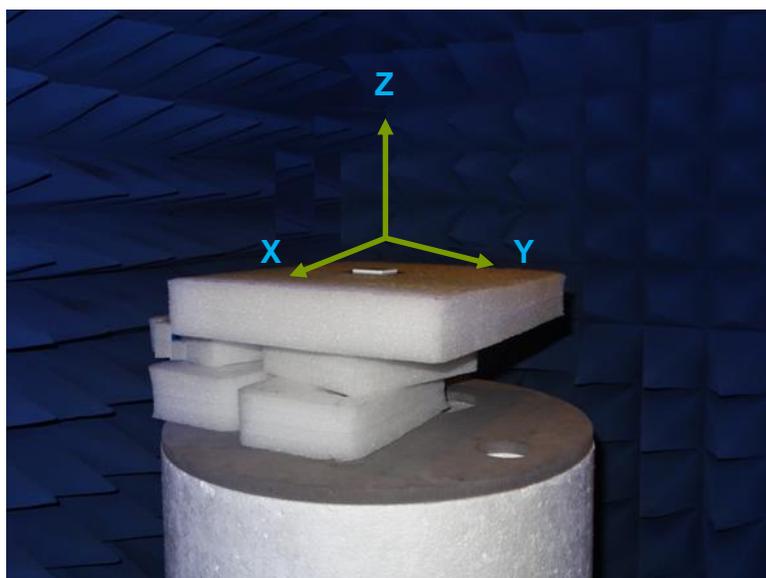


Figure 2. Peak gain, efficiency and radiation pattern measurements of the CGGP.35.3.A.02.

4. ANTENNA PARAMETERS

4.1. Return Loss

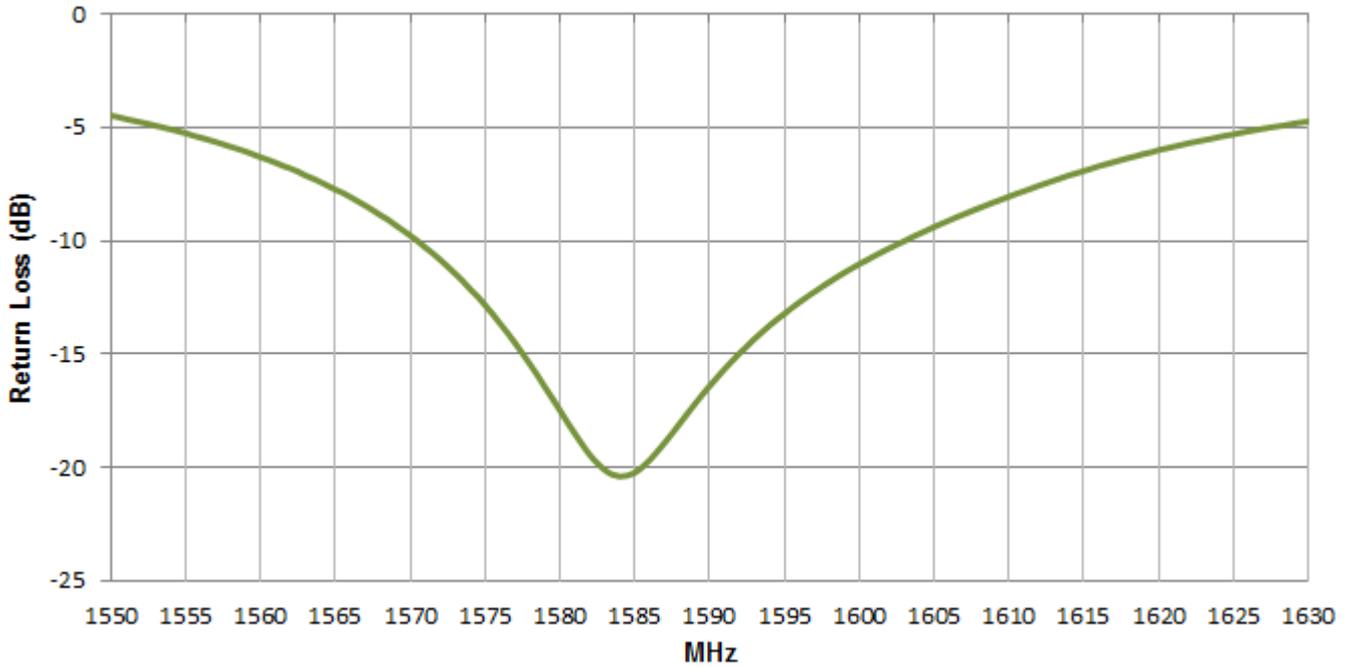


Figure 3. Return Loss of the CGGP.35.3.A.02.

4.2. VSWR

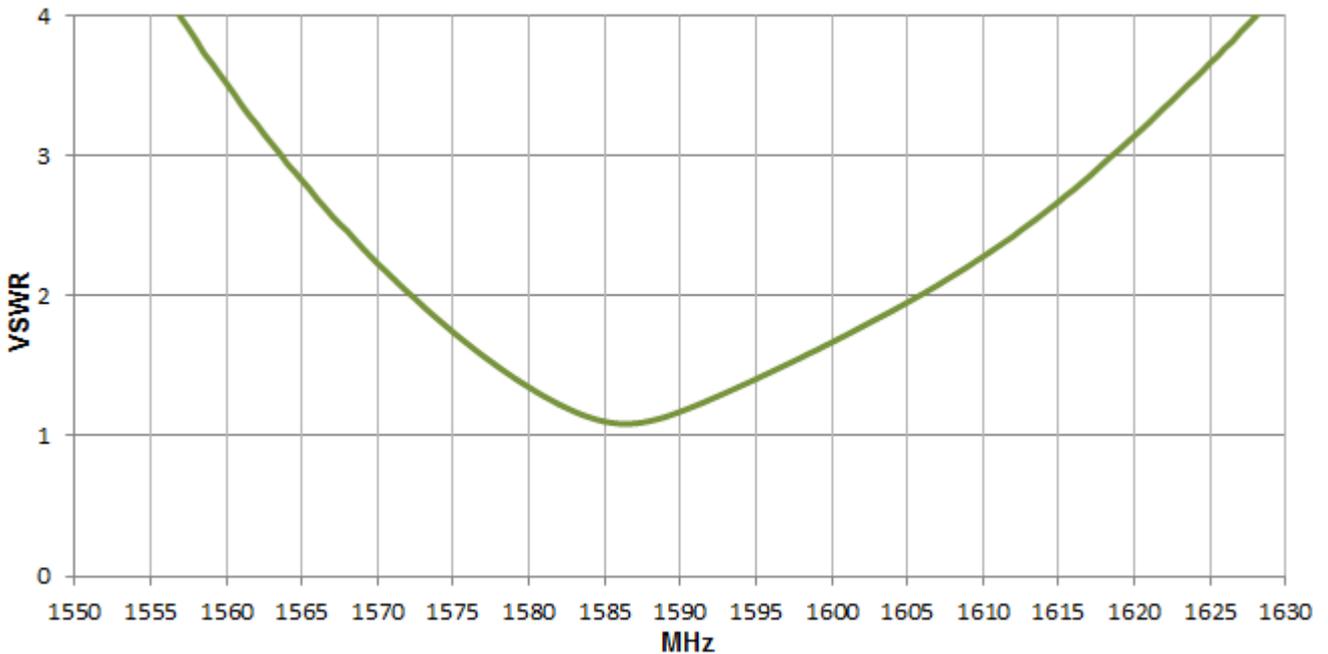


Figure 4. VSWR of the CGGP.35.3.A.02.

4.3. Efficiency

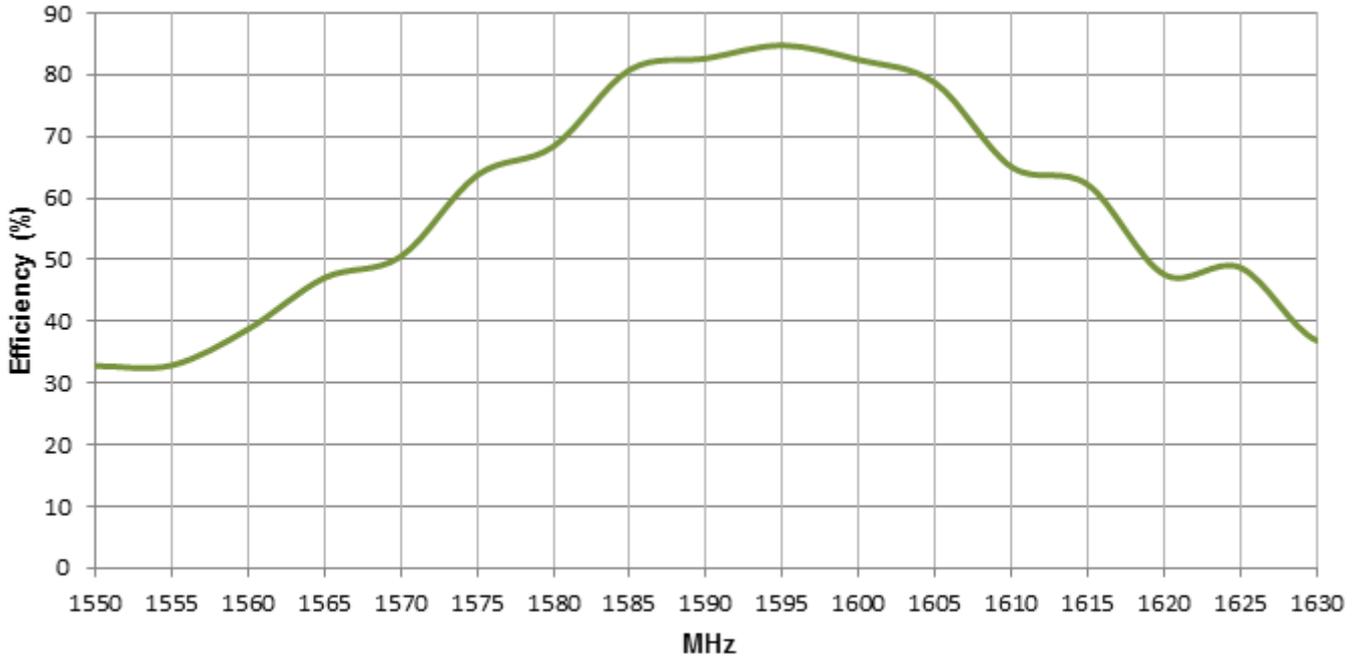


Figure 5. Efficiency of the CGGP.35.3.A.02.

4.4. Peak Gain

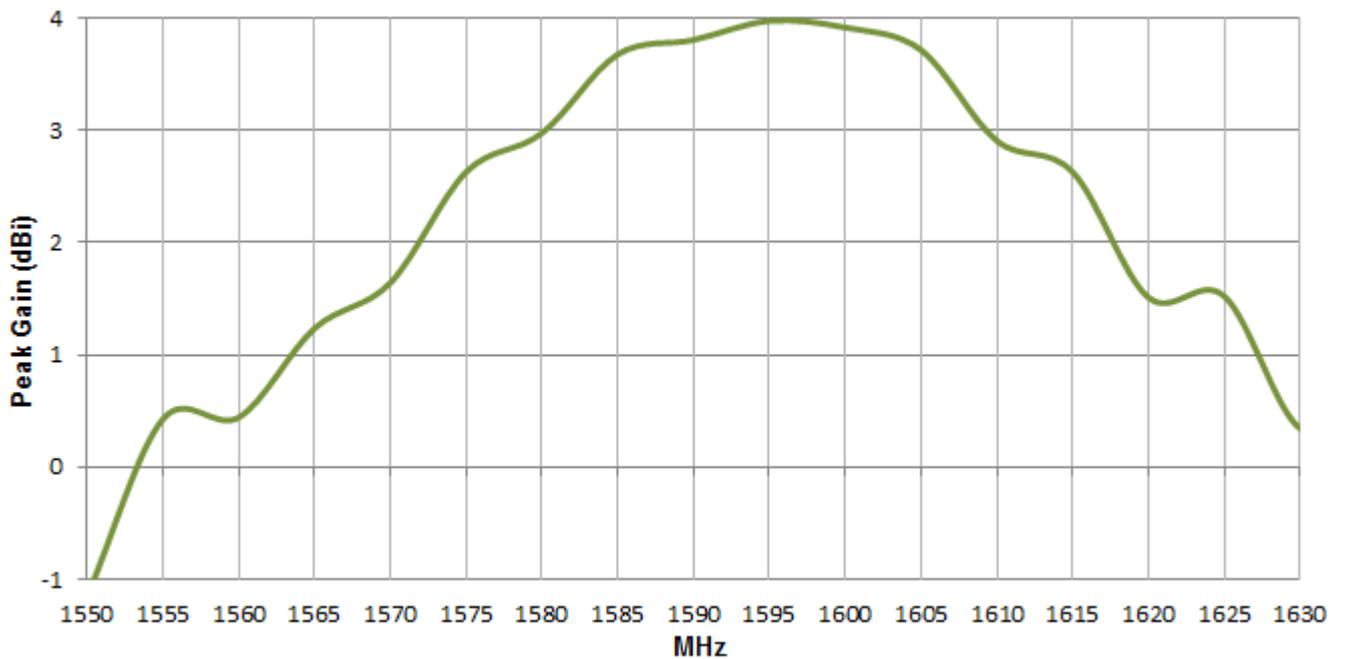


Figure 6. Peak Gain of the CGGP.35.3.A.02.

4.5 Radiation Pattern

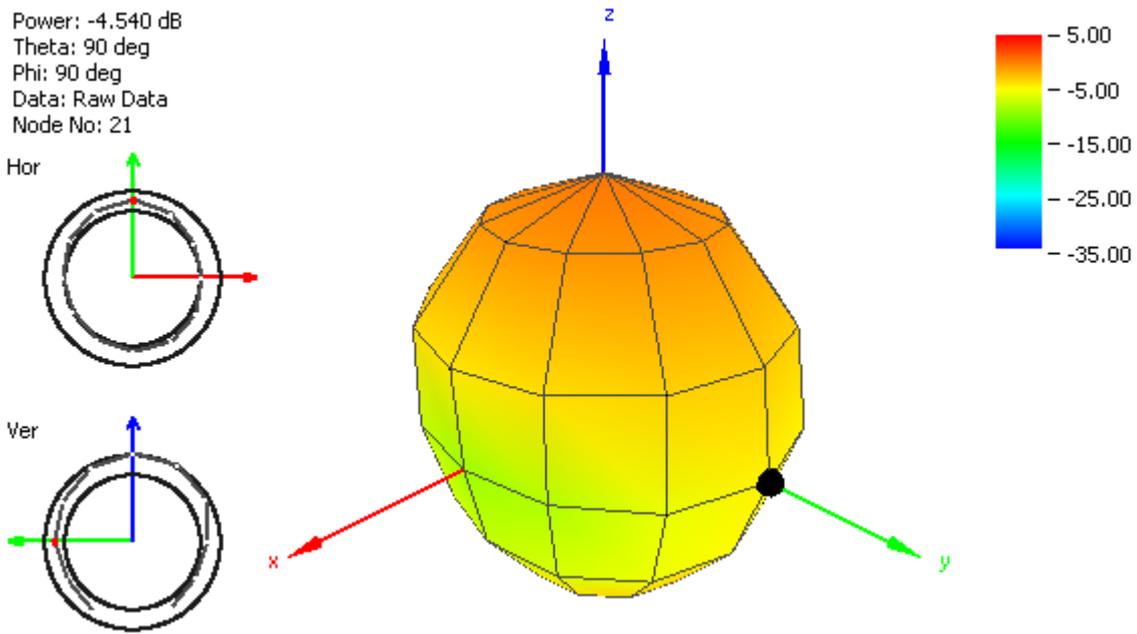


Figure 7. Radiation Pattern of the CGGP.35.3.A.02 at 1560Mhz.

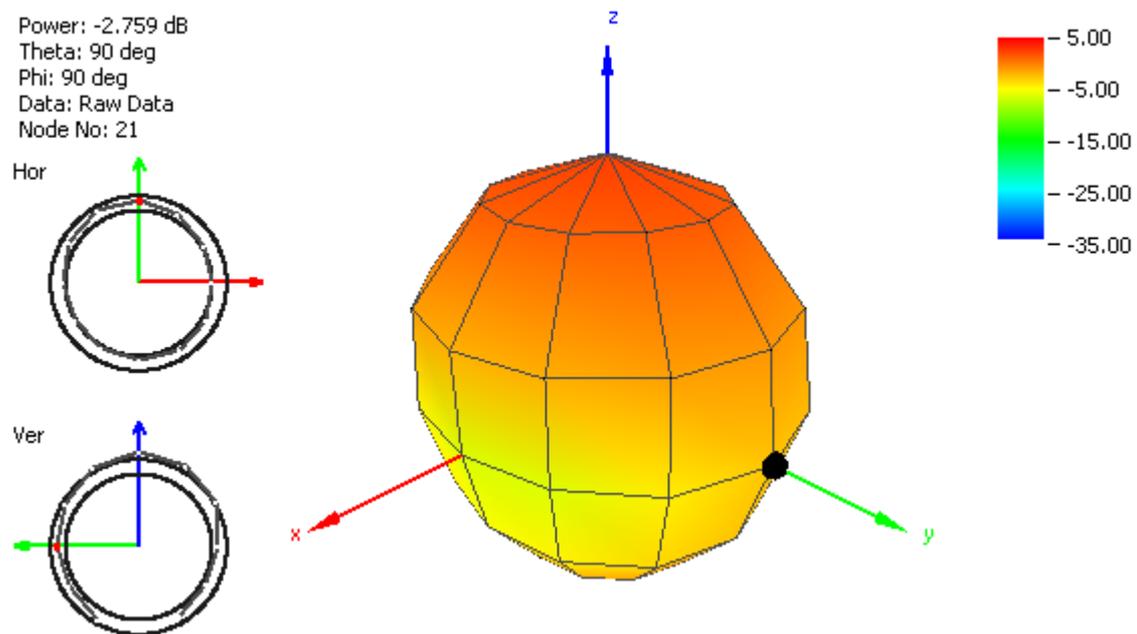


Figure 8. Radiation Pattern of the CGGP.35.3.A.02 at 1575Mhz.

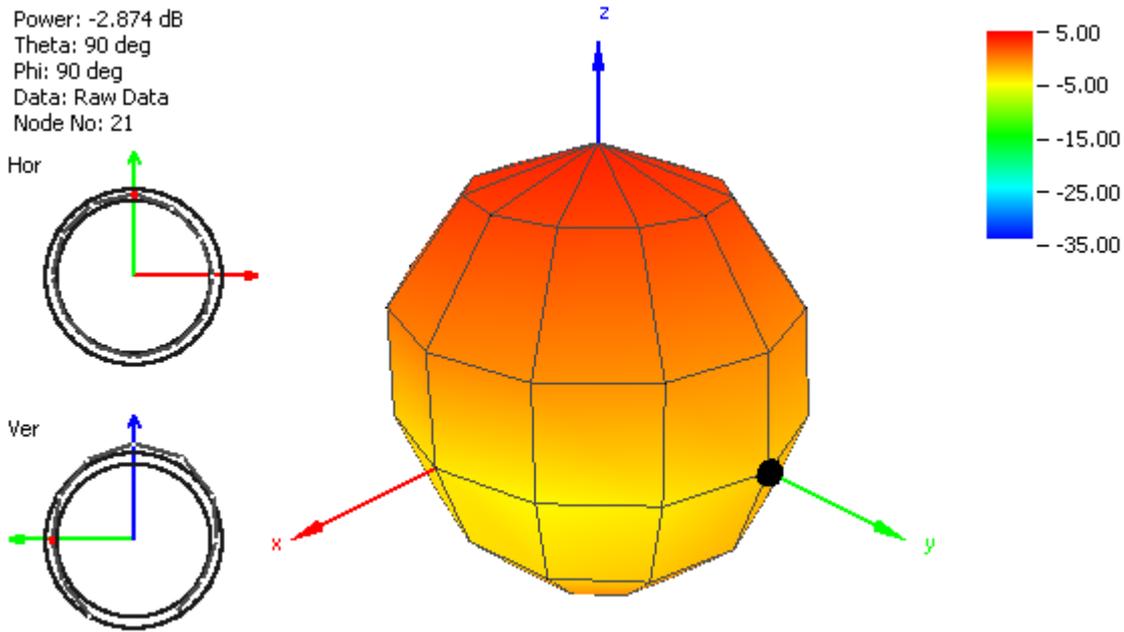


Figure 9. Radiation Pattern of the CGGP.35.3.A.02 at 1590Mhz.

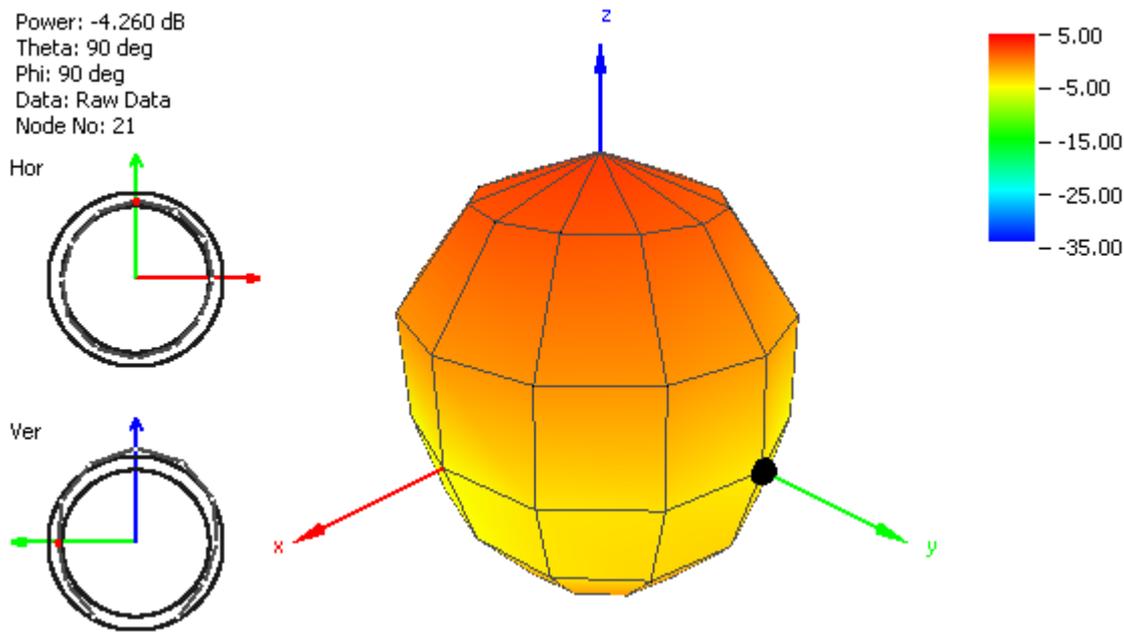
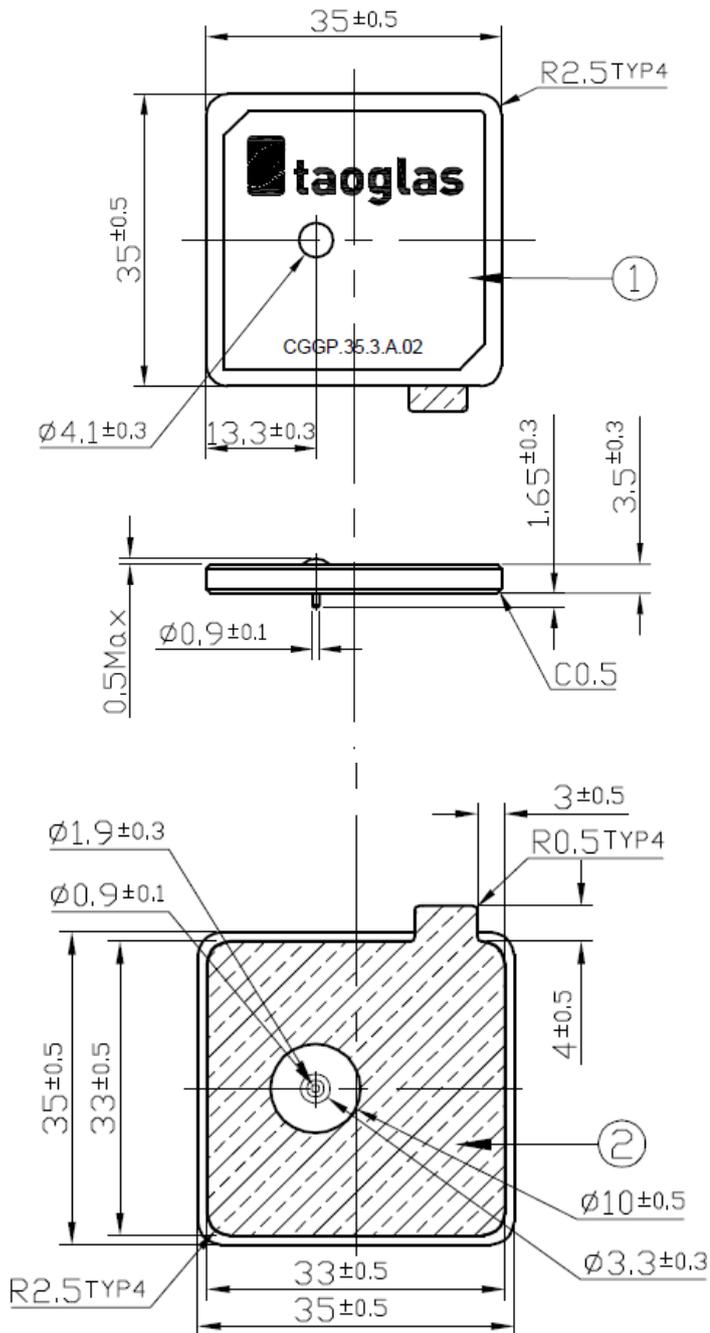


Figure 10. Radiation Pattern of the CGGP.35.3.A.02 at 1610Mhz.

5. Drawing

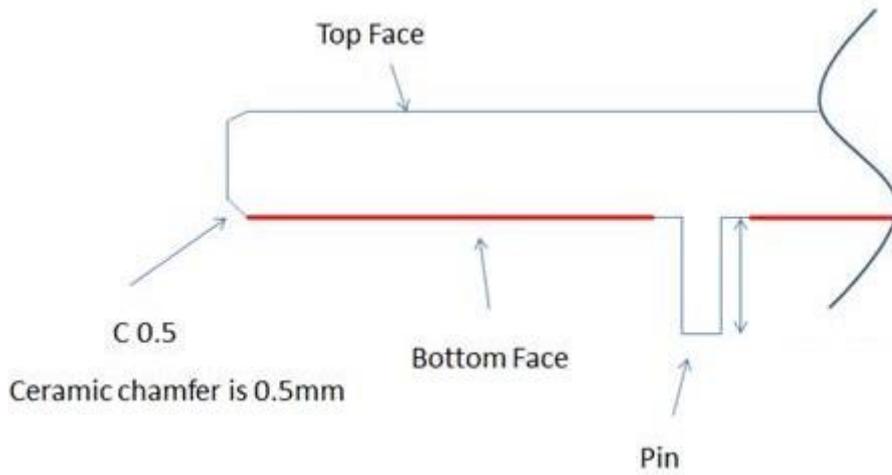


Top View

Side View

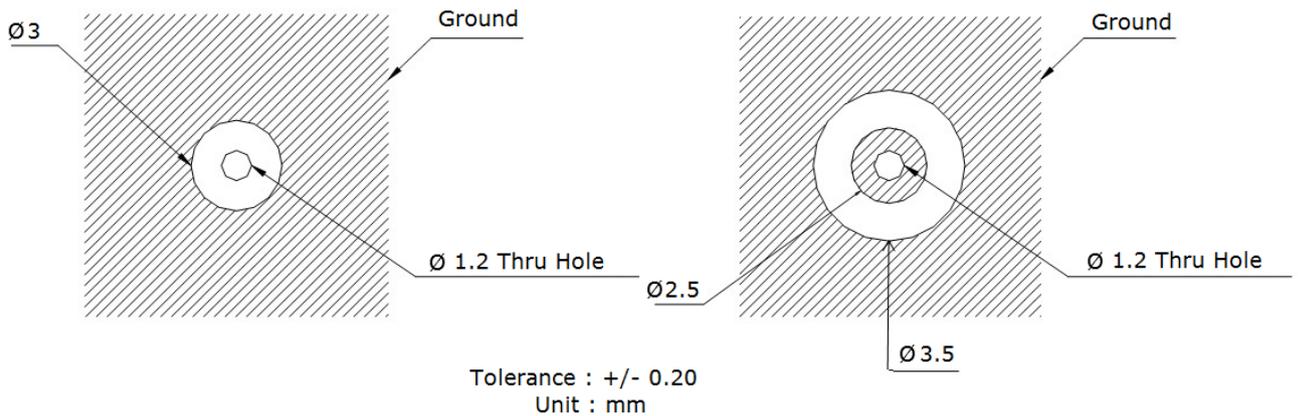
Bottom View

5.1 Adhesive Thickness

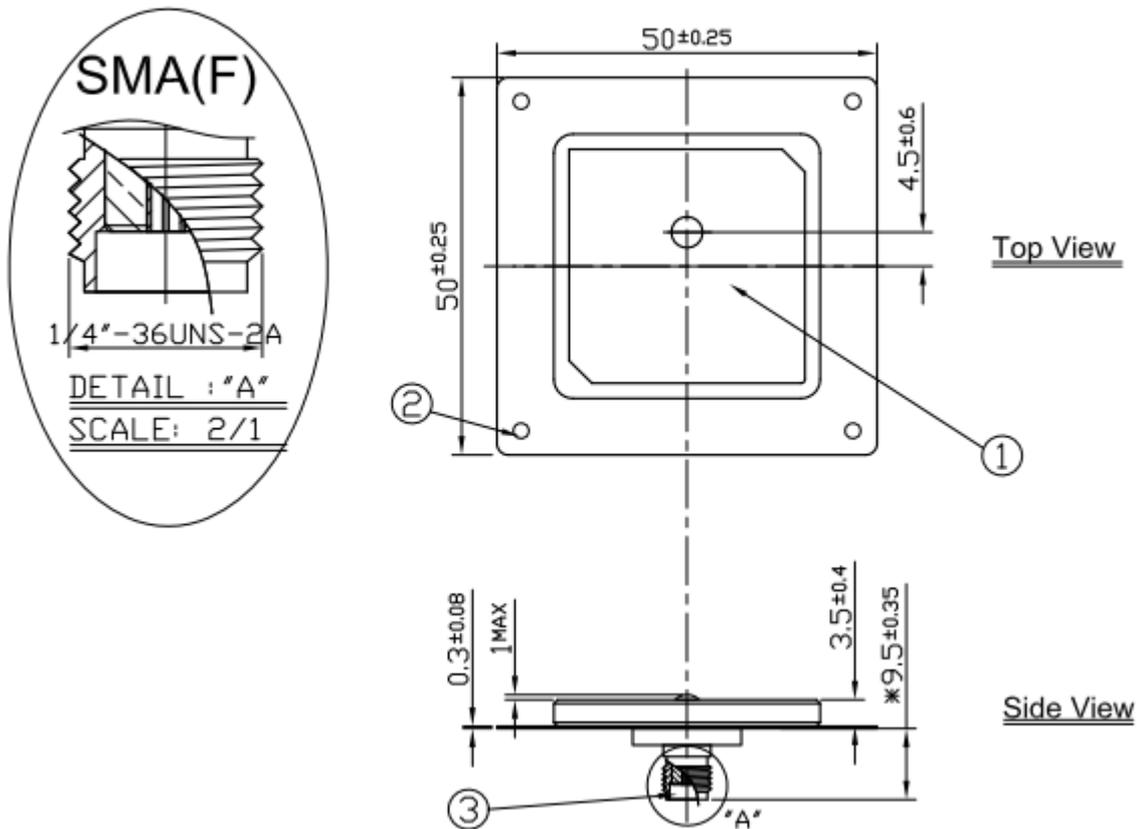


Red Line shows the adhesive without Liner – thickness 0.08~0.1mm

6. PCB Footprint Recommendation



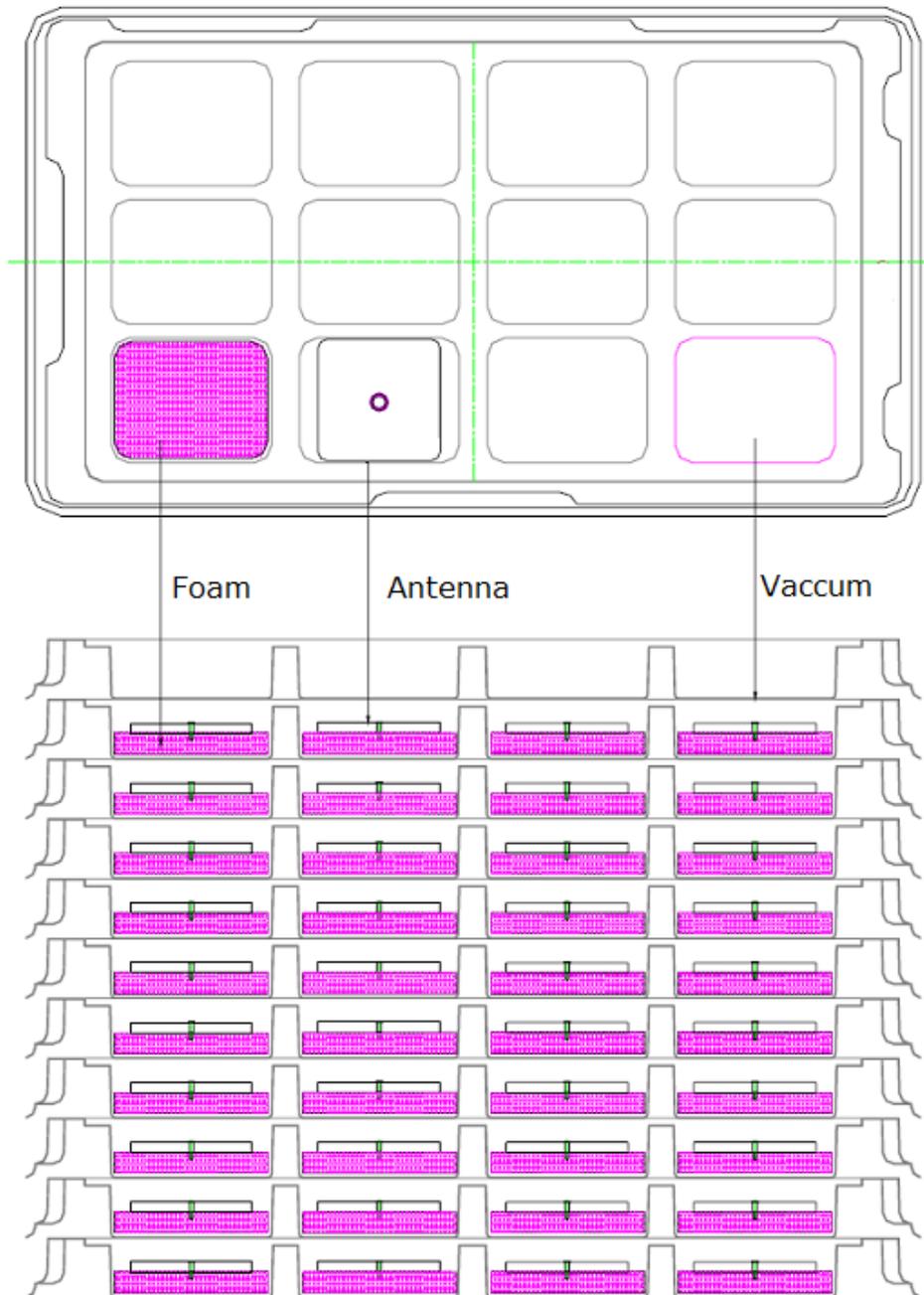
7. Evaluation Board (CGGP.D.35.A)

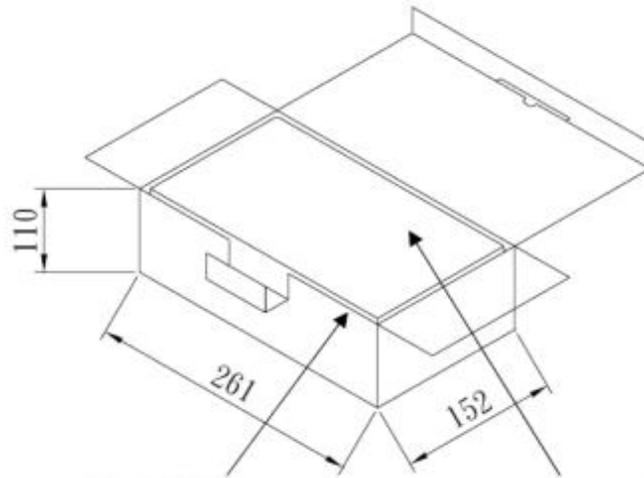


	Name	Material	Finish	QTY
1	CGGP.35 Patch 35x35	Ceramic	Clear	1
2	Ground-Plane(50x50x0.3mm)	Brass	Silver	1
3	SMA(F) ST	Brass	Gold	1

8. Packaging

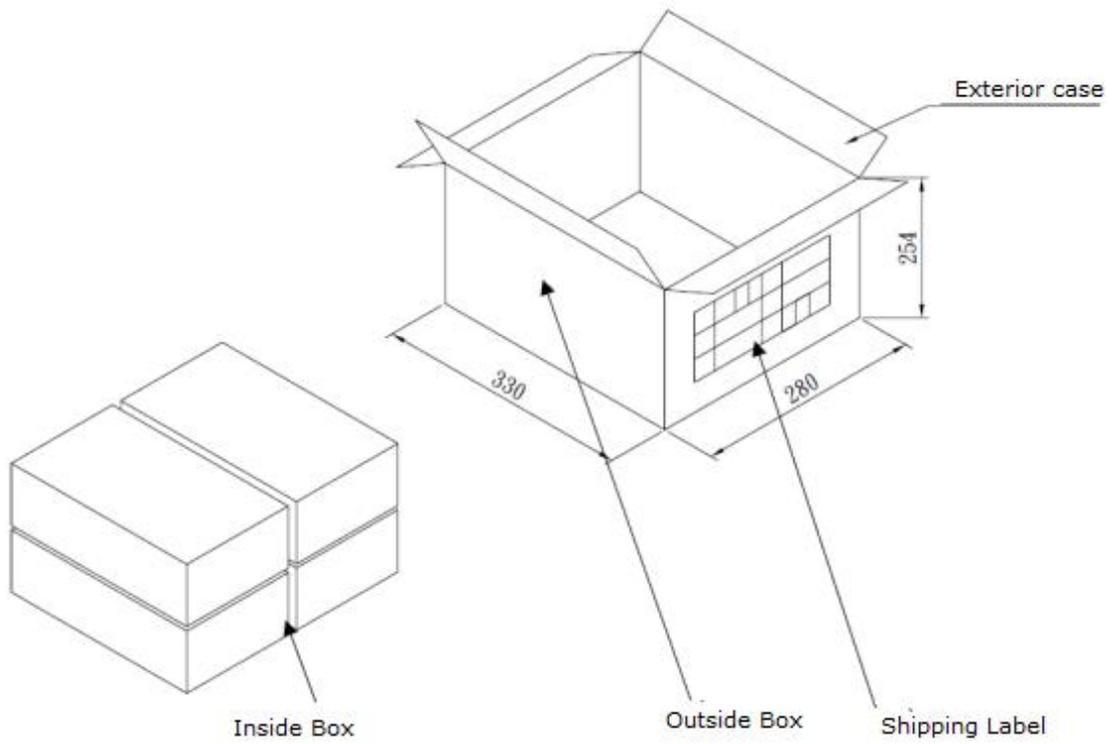
- 12 Antennas per tray
- 10 Trays per Inside Box – 120pcs
- 4 Trays per Outside box – 480pcs





Inside Box

4 Trays per Inside Box



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