



TAOGLAS®



Datasheet

Part No:
CGGP.25.4.E.02

Description:
GPS/GLONASS/Galileo Dual-Band Patch Antenna 25*25*4mm

Features:

- Dual-band GNSS Operation
- 1575.42MHz and 1602MHz Resonance
- 25*25*4mm
- Pin type Ceramic Patch Antenna
- Automotive TS16949 Production and Quality Approved
- RoHS & REACH Compliant

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1. Introduction



The CGGP.25.4.E.02 is a 25*25*4 mm embedded ceramic GPS/GLONASS/Galileo Patch antenna. It features a double resonance design at GPS/Galileo and GLONASS bands, 1575.42 MHz and 1602MHz respectively. This antenna has been tuned for a center position on a 70mm *70mm ground plane. Return loss is -28dB at 1575.42MHz and -22dB at GLONASS. Overall the antenna has greater than 60% efficiency.

For further optimization to customer specific device environments where positioning is off center or a different ground-plane size, custom tuned patch antennas can be supplied. For more information please contact your regional Taoglas customer support team.

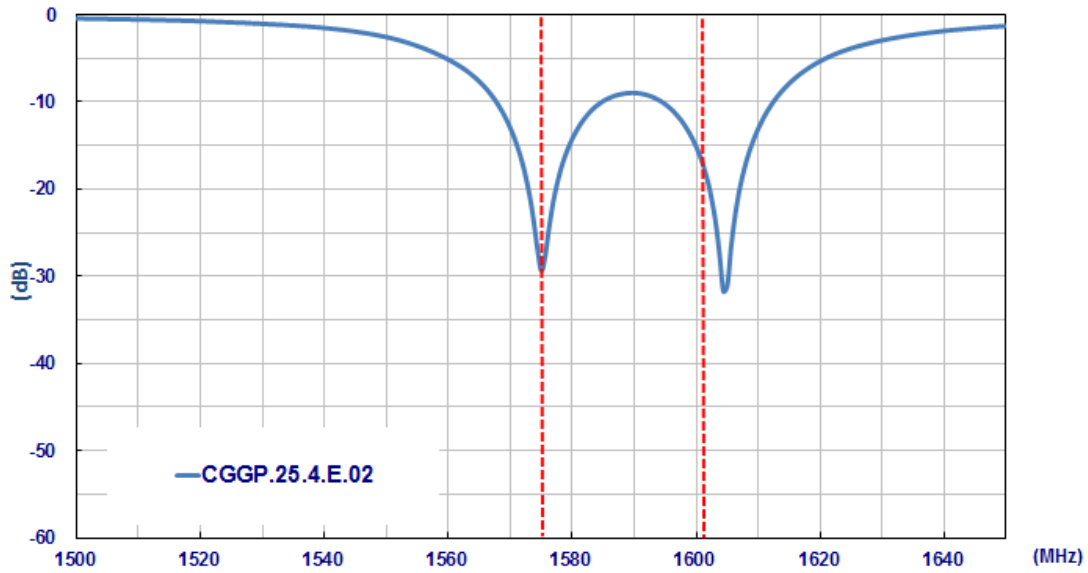
2. Specifications

Electrical		
Application Bands	GPS/GALILEO	GLONASS
Operation Frequency	1575.42 ±1.023MHz	1602±5MHz
VSWR	1.8 max	
Efficiency	88.02%	88.63%
Peak Gain	5.39dBi	5.46dBi
Axial Ratio	~10	~9
Polarization	Linear	
Impedance	50 ohms	
Mechanical		
Ceramic Dimension	25x25x4 mm	
Pin Diameter	Ø0.9 mm	
Pin Length	1.7mm	
Weight	9.5g	
Environmental		
Operation Temperature	-40°C to 105°C	
Moisture Sensitivity	Level 3	

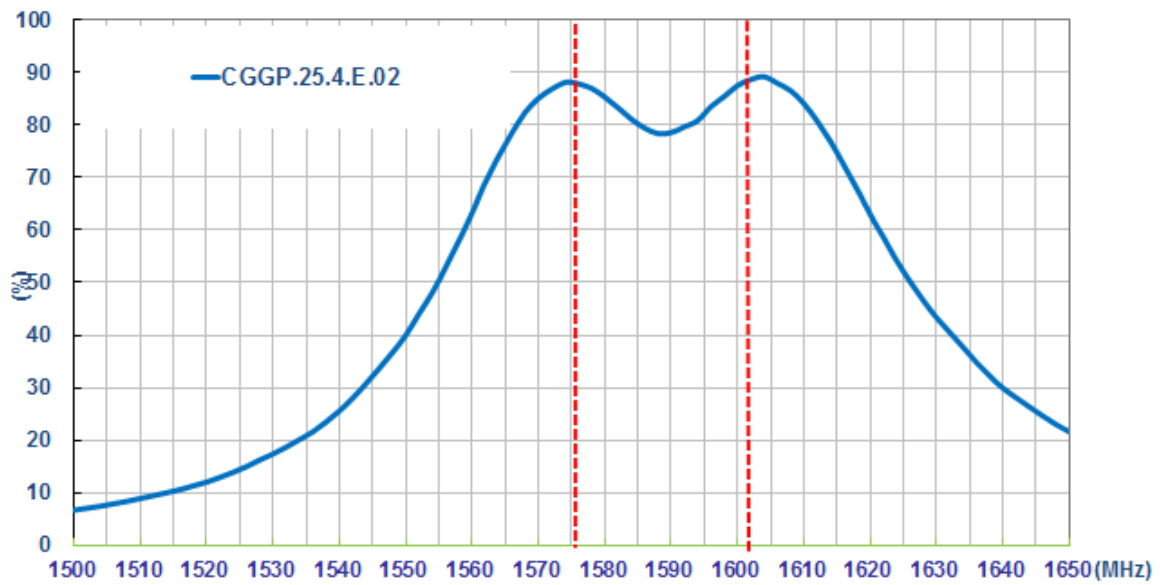
* Antenna properties were measured with the antenna mounted on 70*70mm Ground Plane

3. Antenna Characteristics

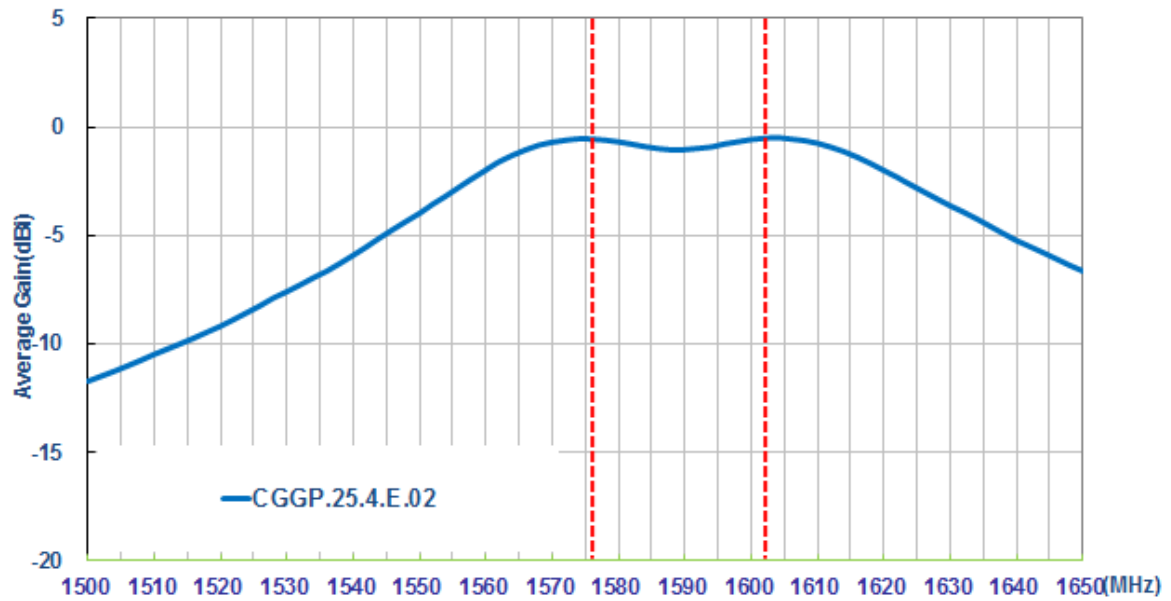
3.1 Return Loss



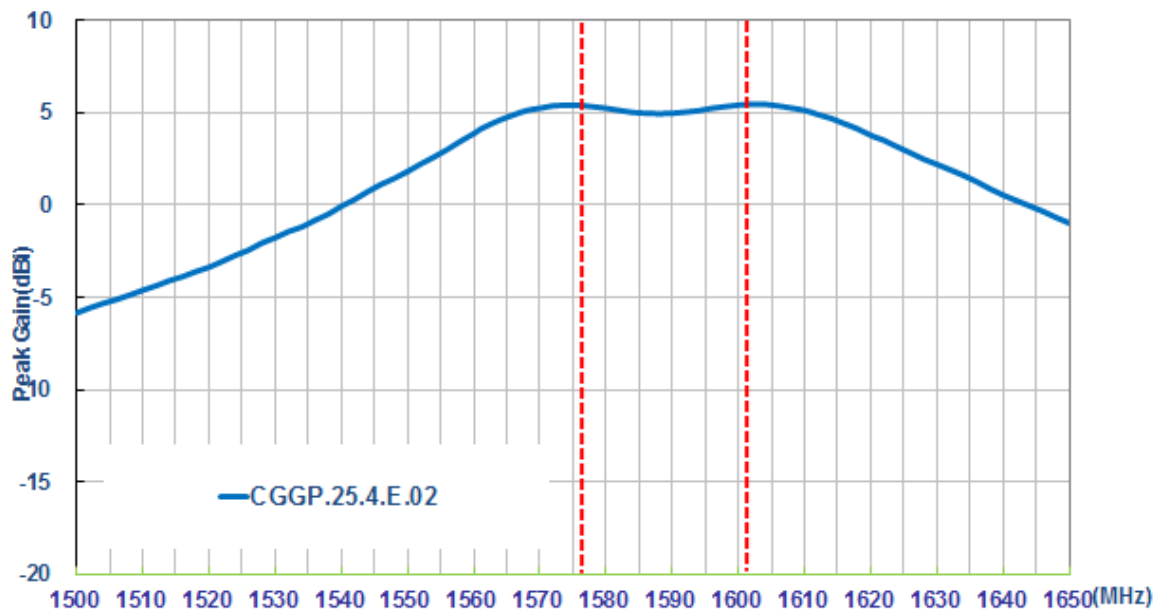
3.2 Efficiency



3.3 Average Gain



3.4 Peak Gain



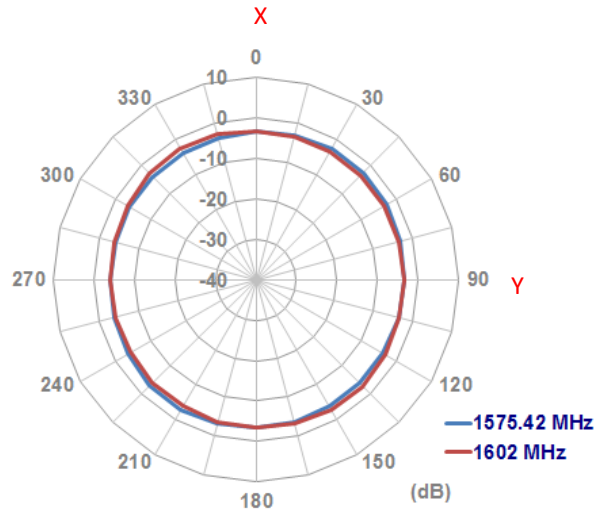
4. Antenna Radiation Pattern

4.1 Measurement Setup

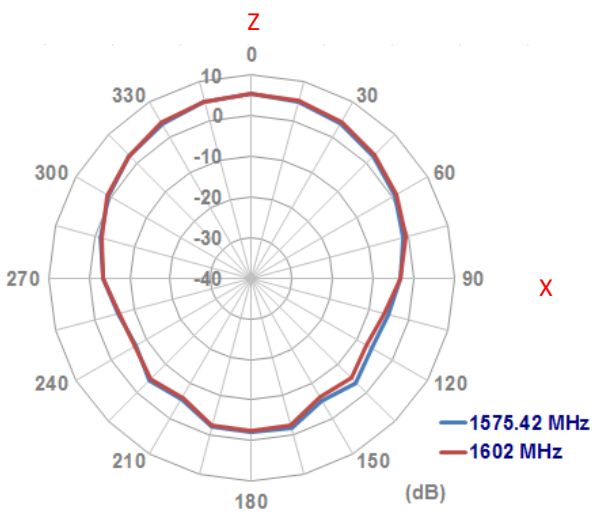


4.2 2D Radiation Pattern

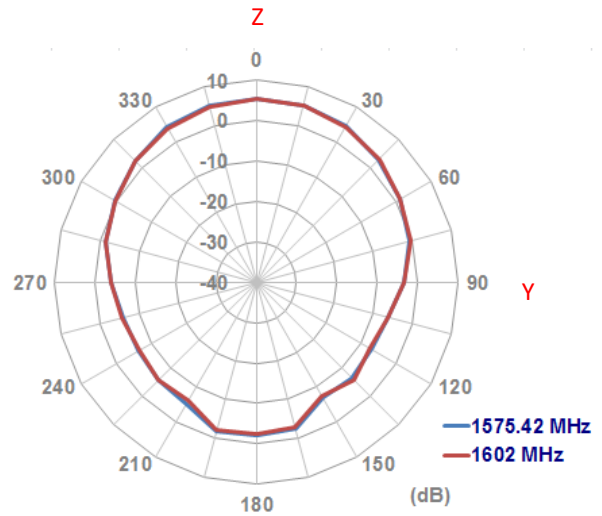
XY Plane



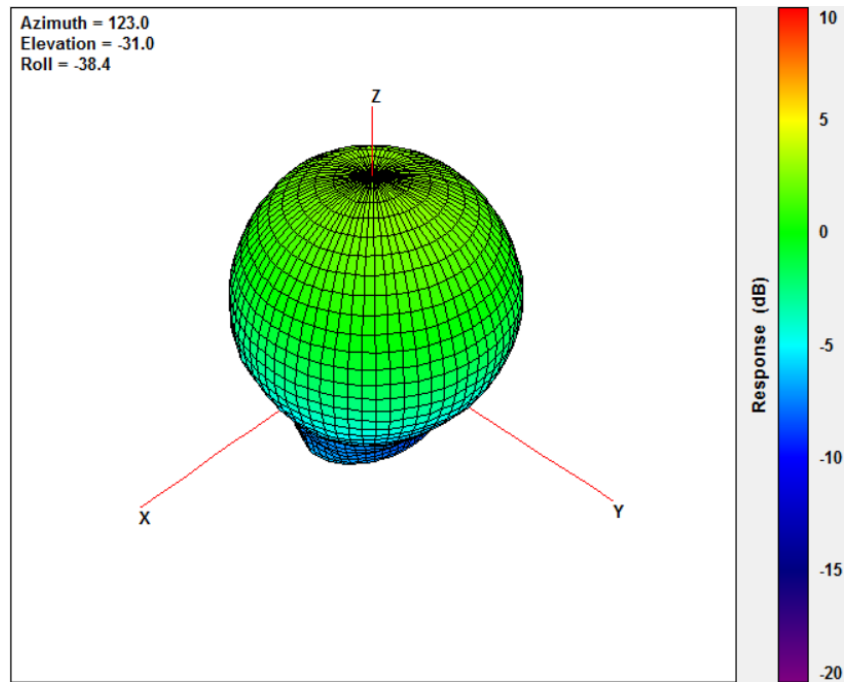
XZ Plane



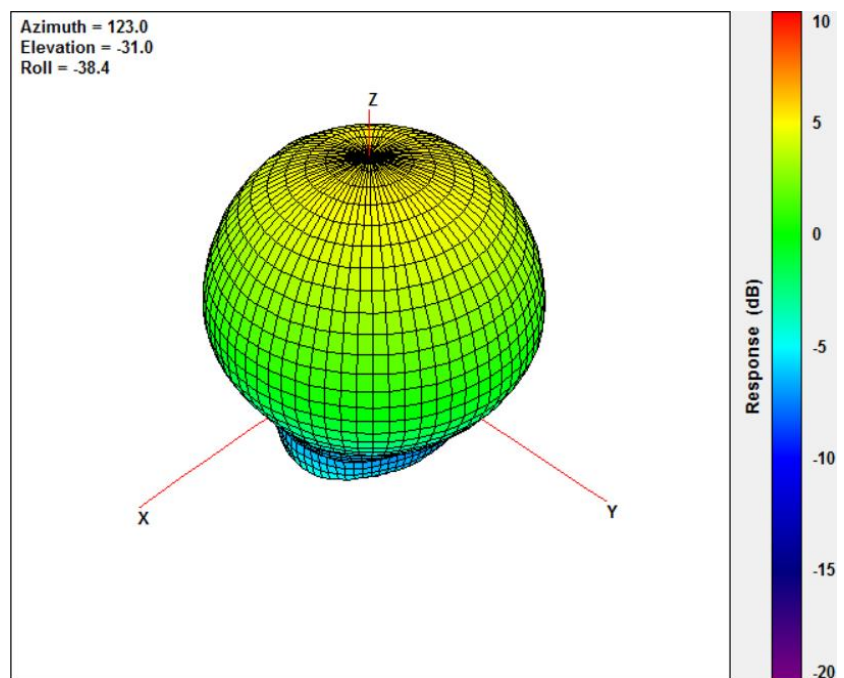
YZ Plane



4.3 3D Radiation Pattern

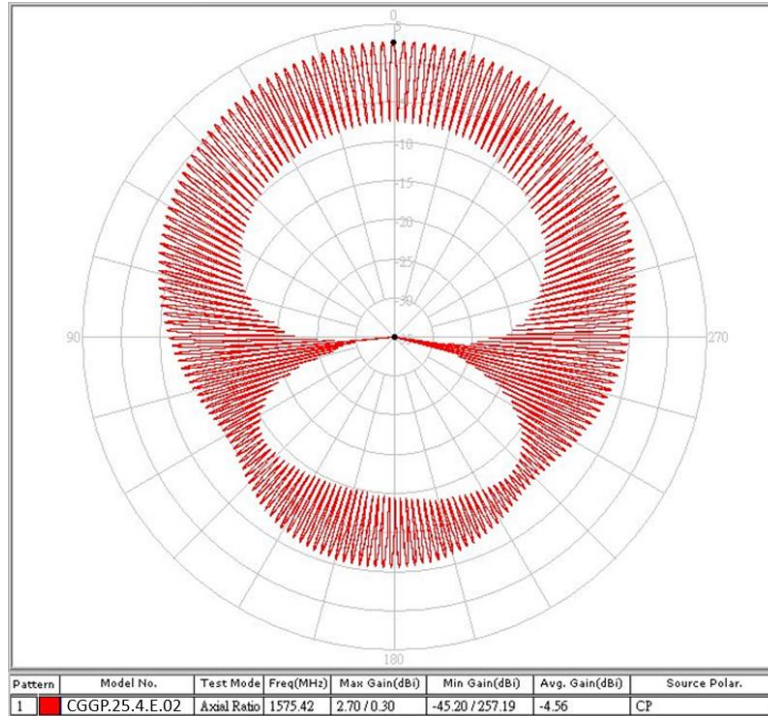


1575.42MHz

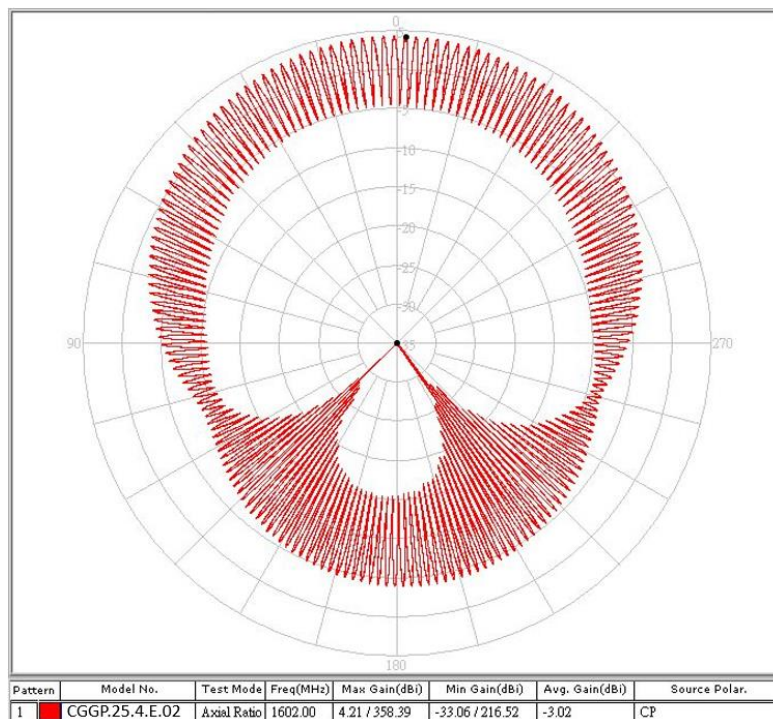


1602MHz

5. Axial Ratio

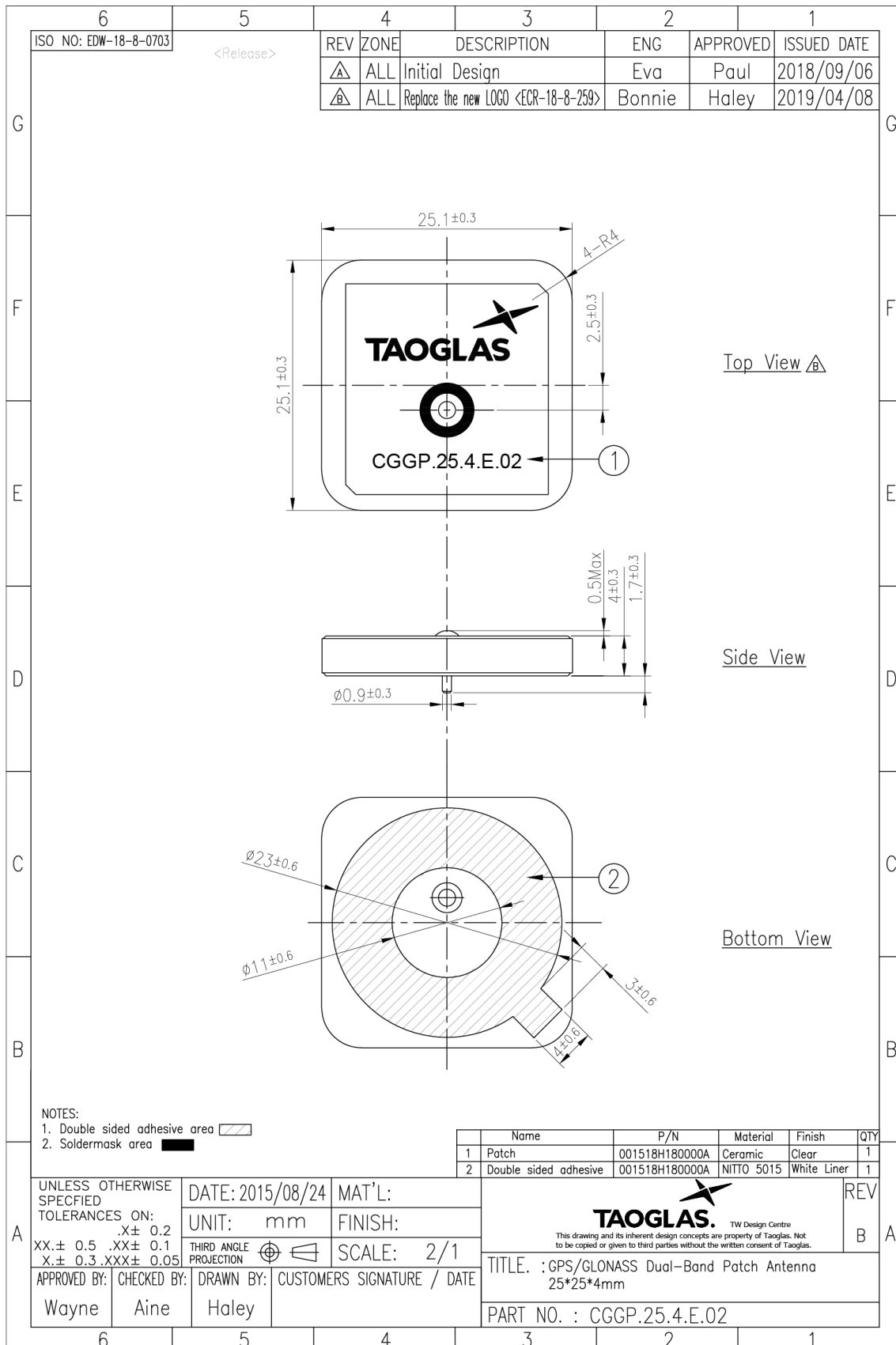


1575.42 MHz

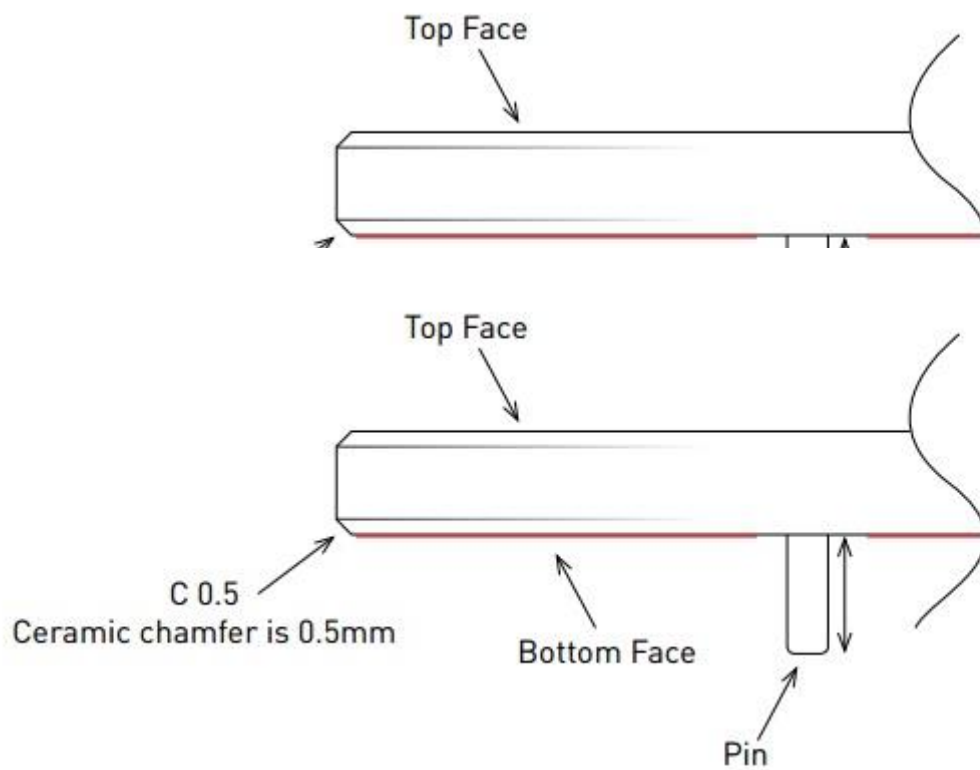


1602MHz

6. Mechanical Drawing (Unit: mm)

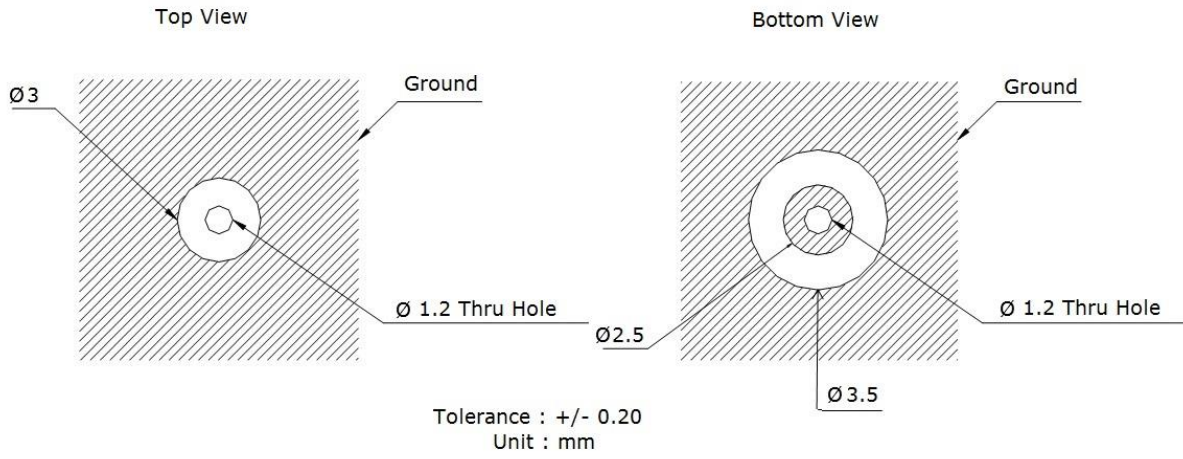


Adhesive Thickness

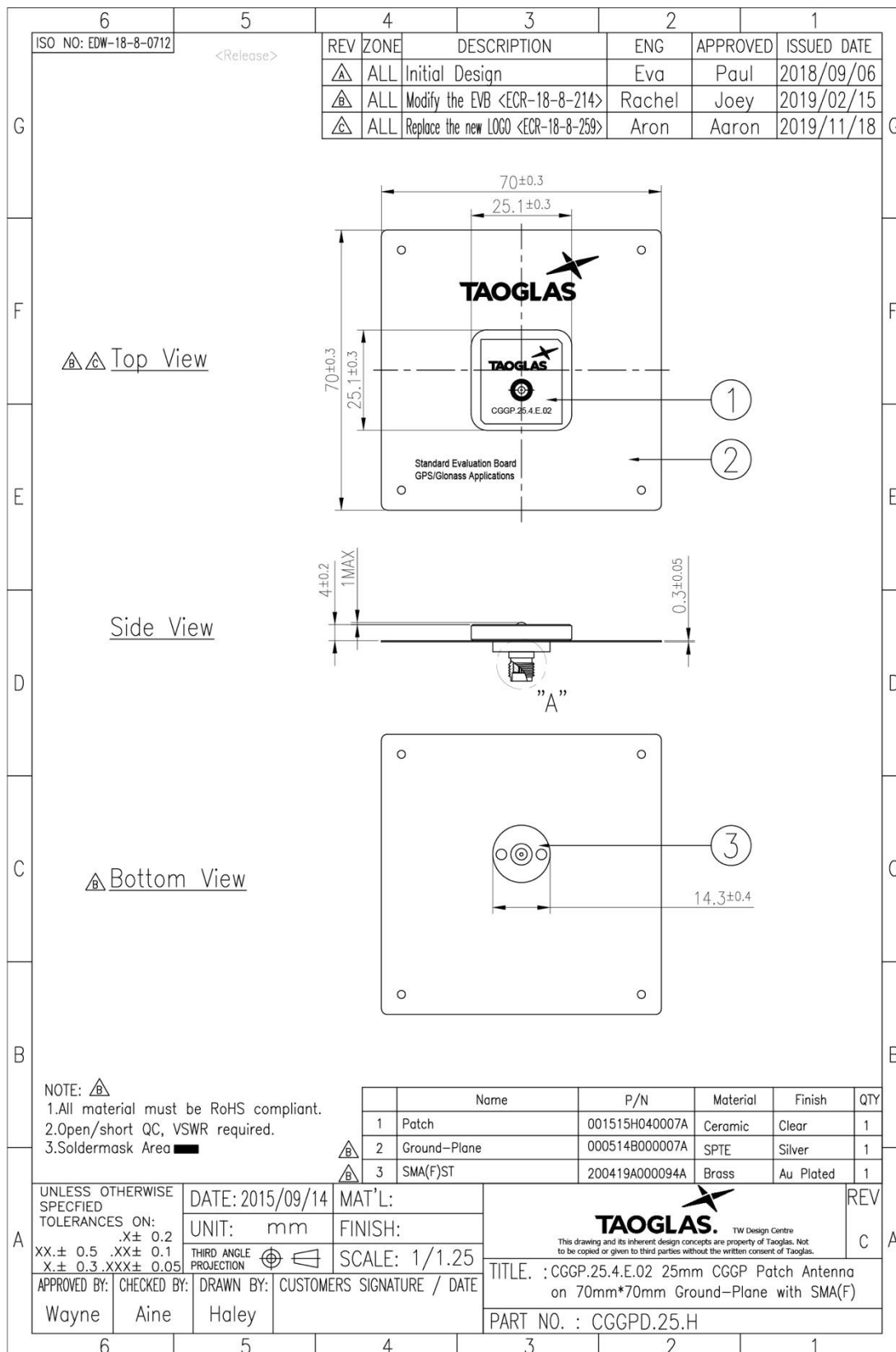


Red Line shows the adhesive without Liner – thickness 0.08-0.1mm

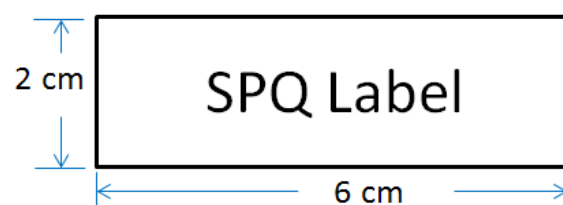
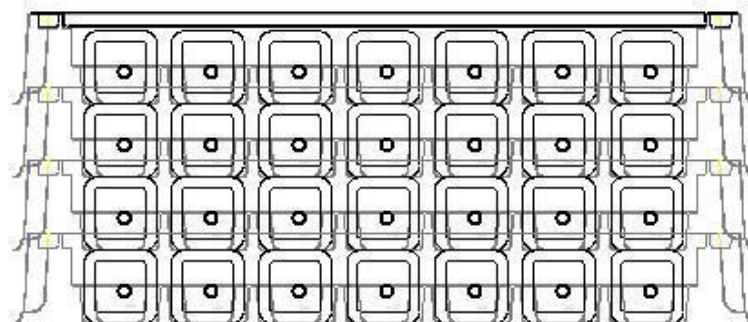
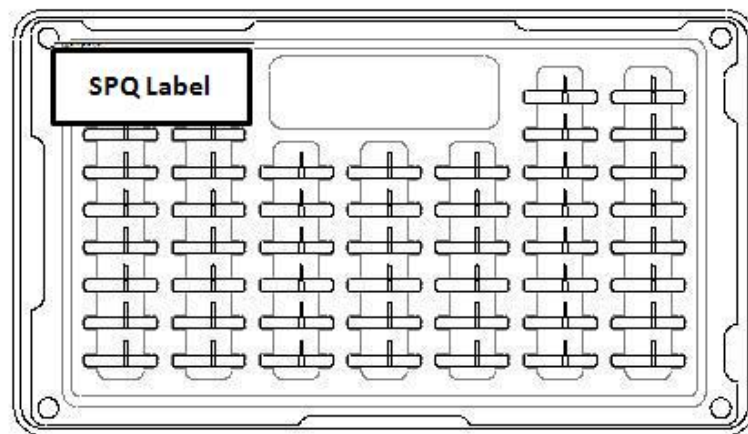
7. PCB Footprint Recommendation



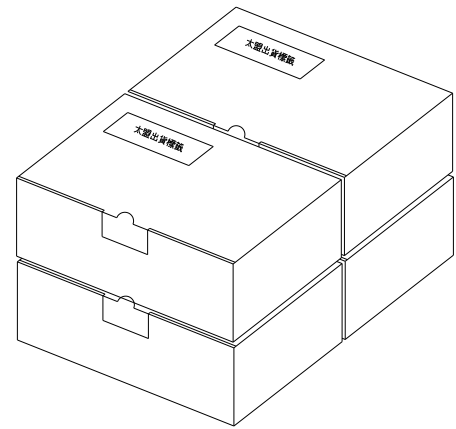
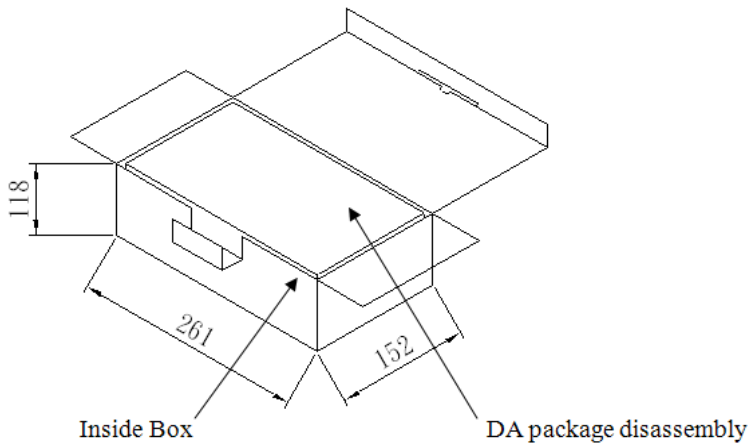
8. Evaluation Board (CGGPD.25.H)



9. Packaging

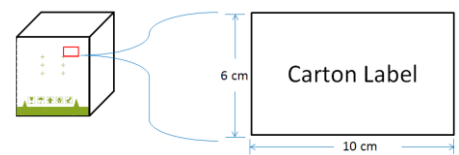
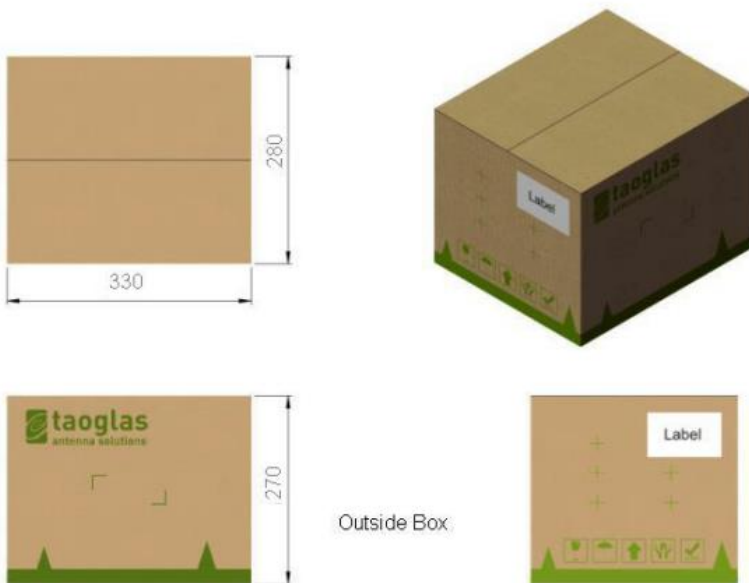


200 Units / Inside Carton (261x152x118mm)



800 Units / Outside Carton (330*280*270mm)

Total Weight :9.3 kg



Changelog for the datasheet

SPE-16-8-018 – CGGP.25.E.02

Revision: C (Current Version)

Date:	2020-11-19
Changes:	Updated to new format Added Moisture Sensitivity Level 3 to Environmental Specifications
Changes Made by:	Dan Cantwell

Previous Revisions

Revision: B

Date:	2019-11-15
Changes:	Updated Images Reference ECR-18-8-259
Changes Made by:	Russell Meyler

Revision: A (Original First Release)

Date:	2016-09-03
Notes:	
Author:	Technical Writer



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