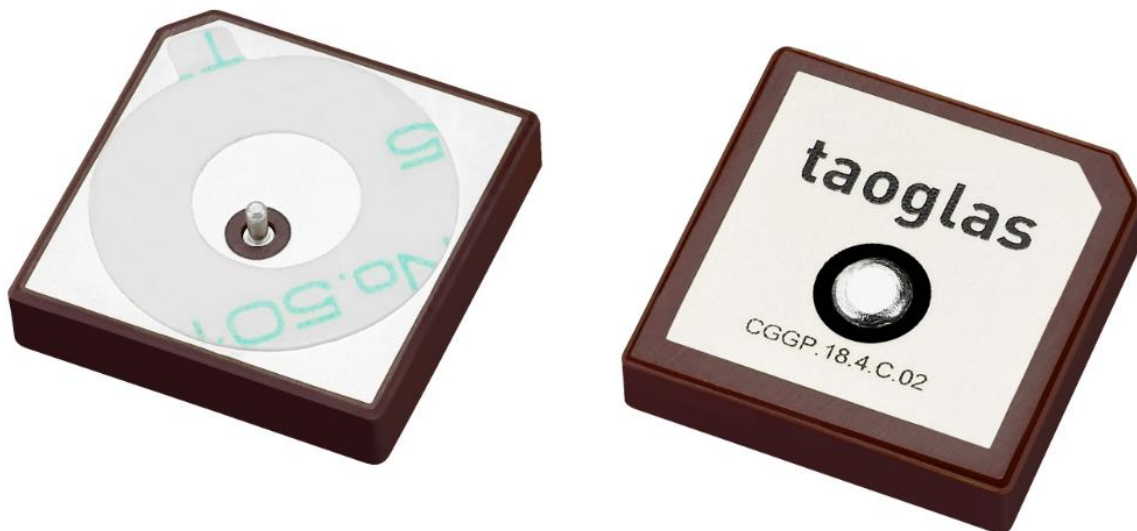


## Specification

Part No.	: <b>CGGP.18.4.C.02</b>
Product Name	: 18mm Ceramic GPS/GLONASS Patch Antenna, 1575-1610MHz
Features	: Wide-band Operation 18mm*18mm*4mm 3dBi Peak Gain (on 70mm*70mm ground-plane) Pin type Automotive TS16949 Production and Quality Approved RoHS compliant



## 1. Introduction

This 18mm 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 70mm\*70mm 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 email [sales@taoglas.com](mailto:sales@taoglas.com)

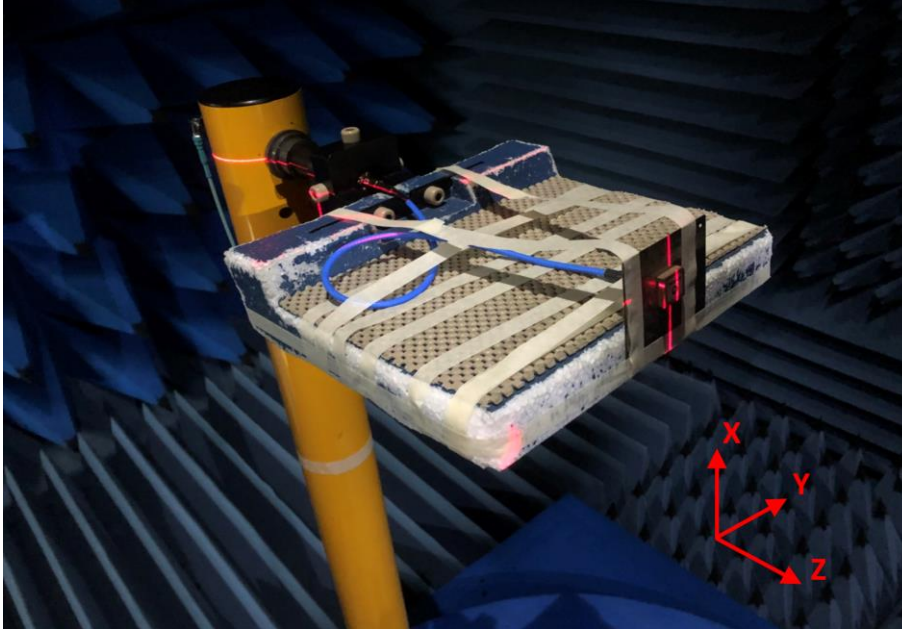
## 2. Specification

Electrical	
Range of Receiving Frequency	GPS: 1575.42±1.023MHz GLONASS: 1602±5MHz
Center Frequency	1592MHz ± 3MHz
Return Loss	<-4
Gain at Zenith	+3.0 dBi typ.
Impedance	50 ohms
Mechanical	
Ceramic Dimension	18mm x 18mm x 4mm
Pin Diameter	0.9mm
Pin Length	1.8mm
Environmental	
Operation Temperature	-40°C to 85°C
Humidity	Non-condensing 65°C 95% RH

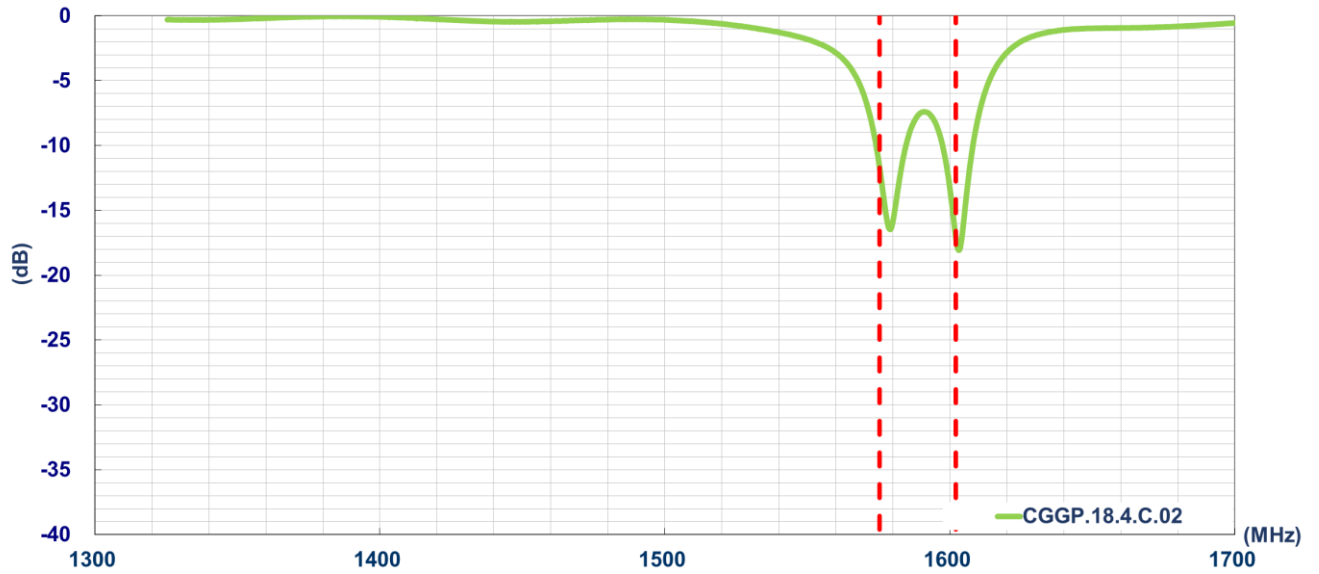
\* Antenna properties were measurement with the antenna mounted on 70\*70mm Ground Plane  
Taoglas Part # CGGPD.18.C

## 3. Antenna Radiation Properties

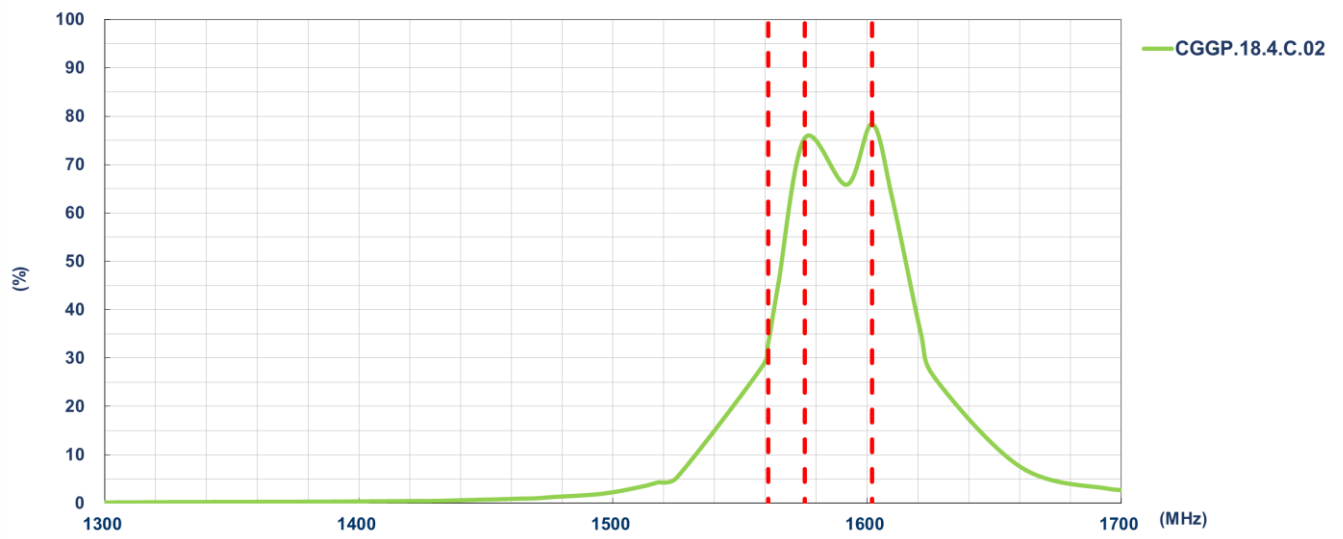
### 3.1. Chamber Test Setup



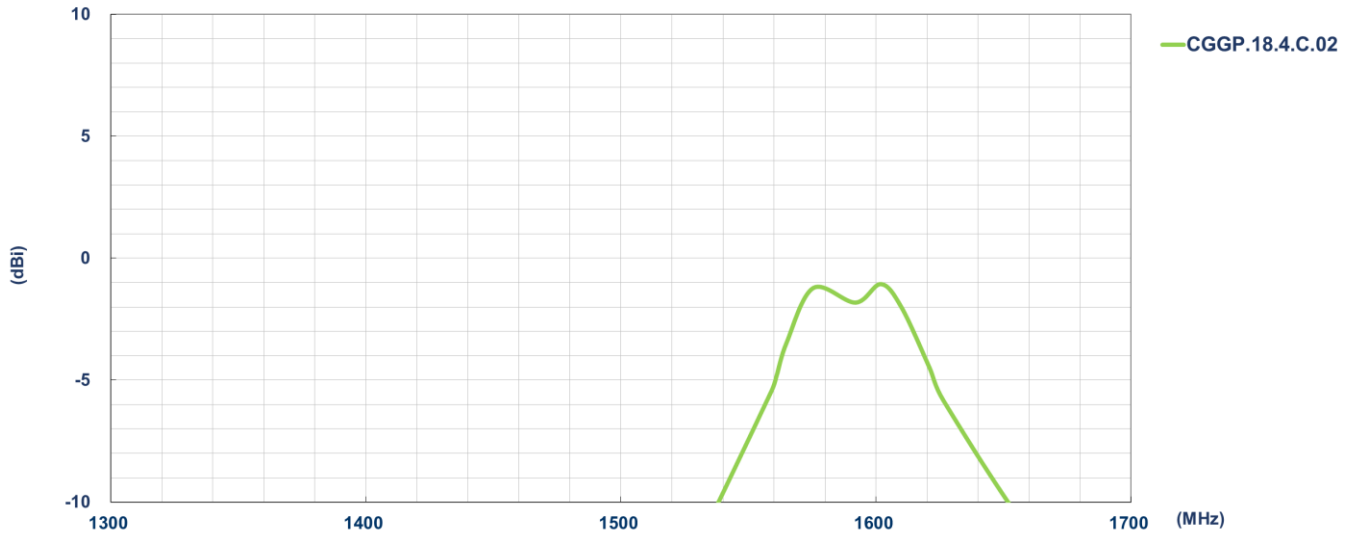
### 3.2. Return Loss



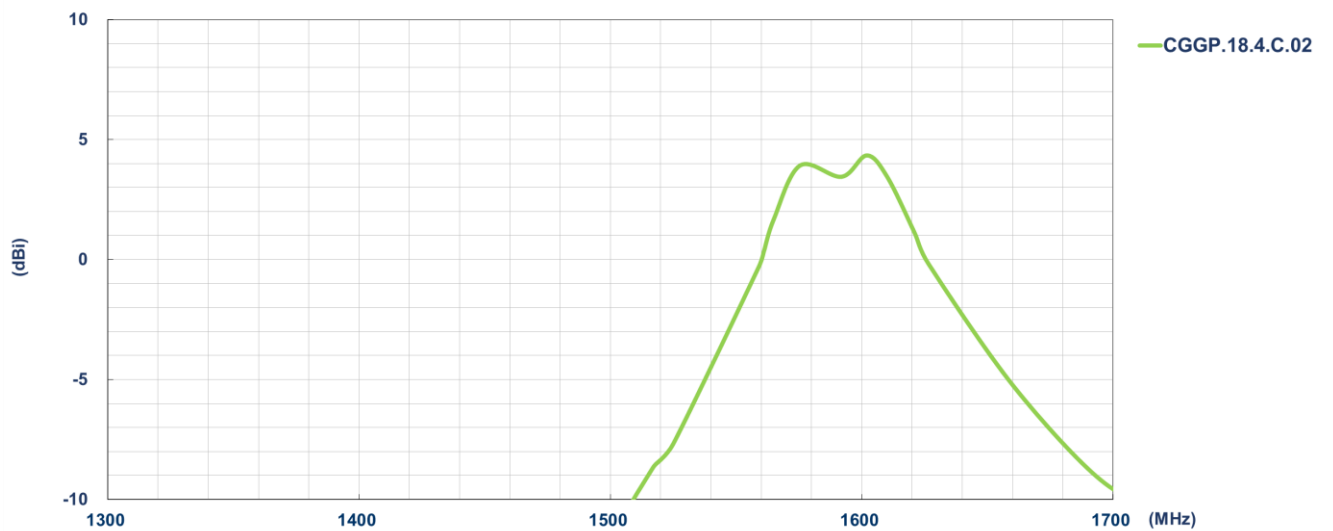
### 3.3. Efficiency



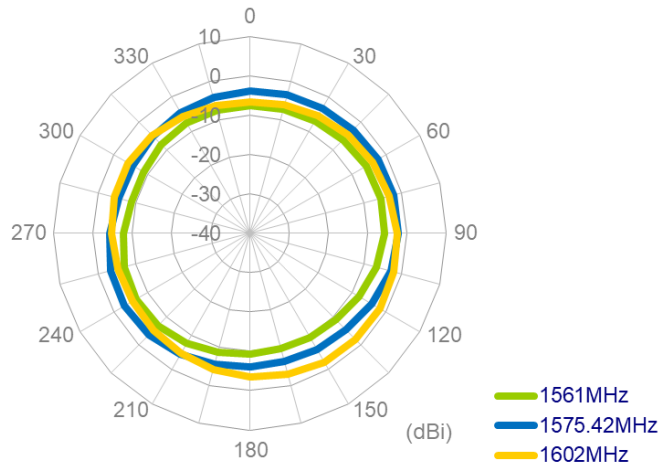
### 3.4. Average Gain



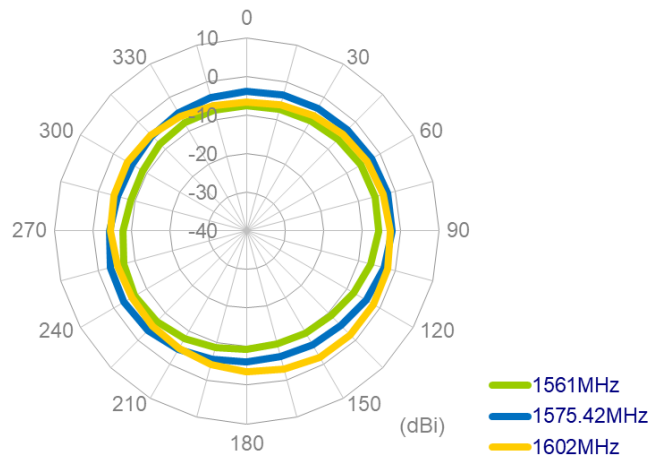
### 3.5. Peak Gain



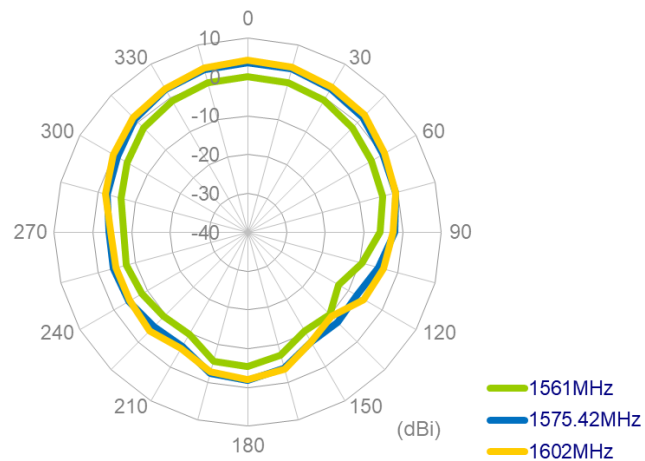
### 3.6. XY – Plane Radiation Pattern



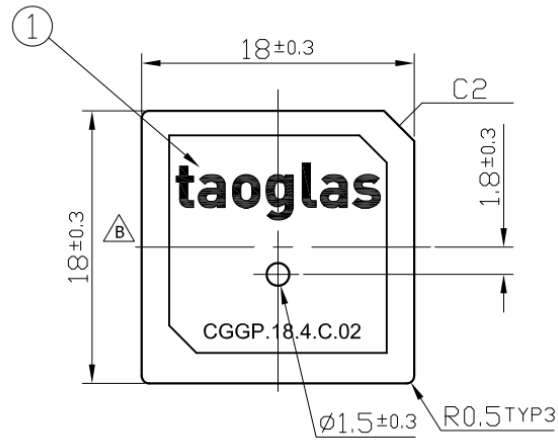
### 3.7. XZ – Plane Radiation Pattern



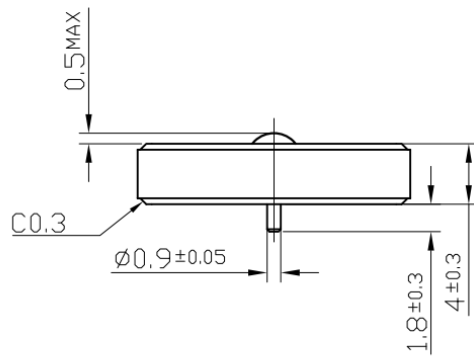
### 3.8. YZ- Plane Radiation Pattern



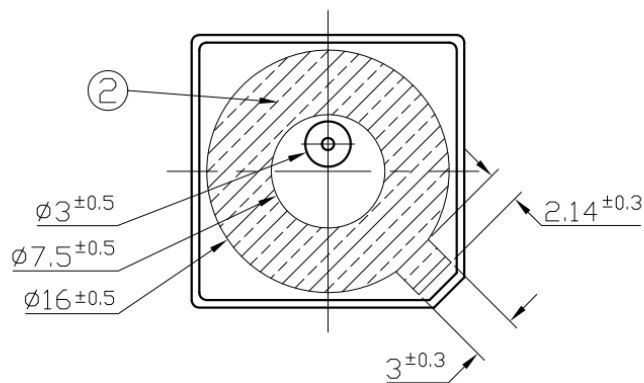
# 4. Mechanical Drawing




Top View



Side View

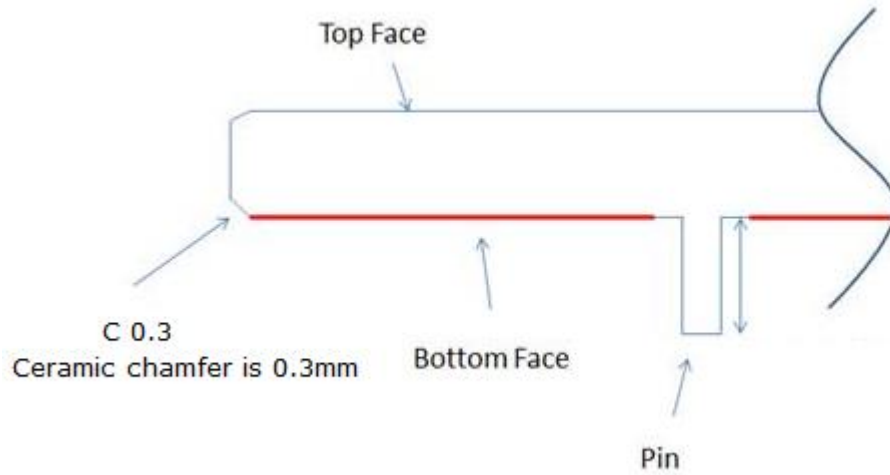


Bottom View

	Name	Material	Finish	QTY	NOTES:
1	CGGP.18 Patch 18x18x4	Ceramic	Clear	1	1. Double sided adhesive area. 
2	Double sided Adhesive	NITTO 5015	White Liner	1	

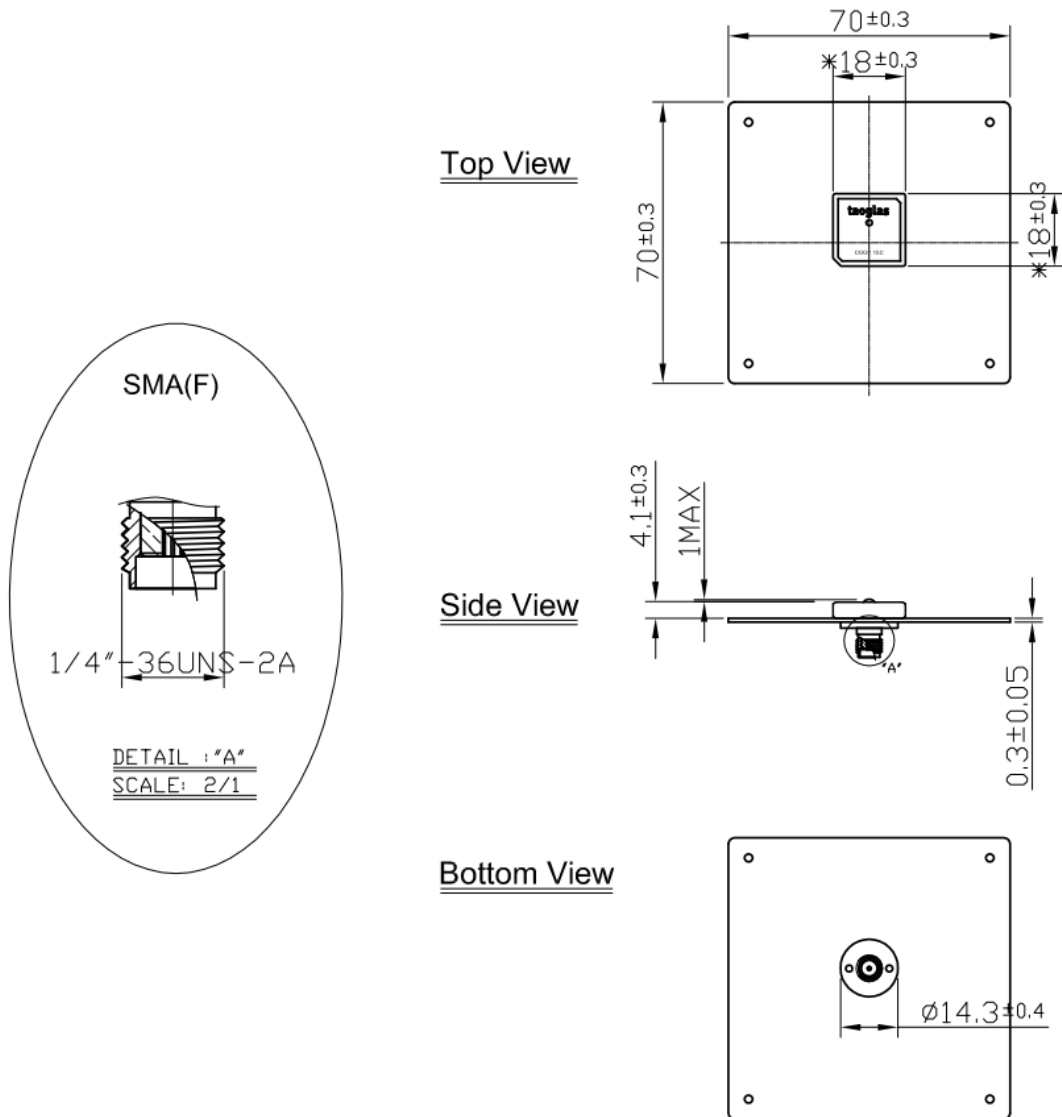


## 5.1 Adhesive Thickness



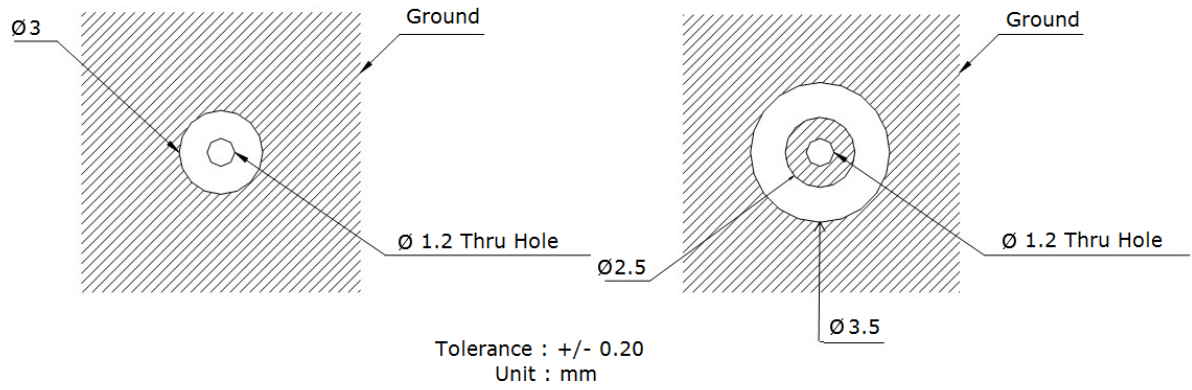
**Red Line** shows the adhesive without Liner – thickness 0.08~0.1mm

## 5. Evaluation Board (CGGPD.18.C)



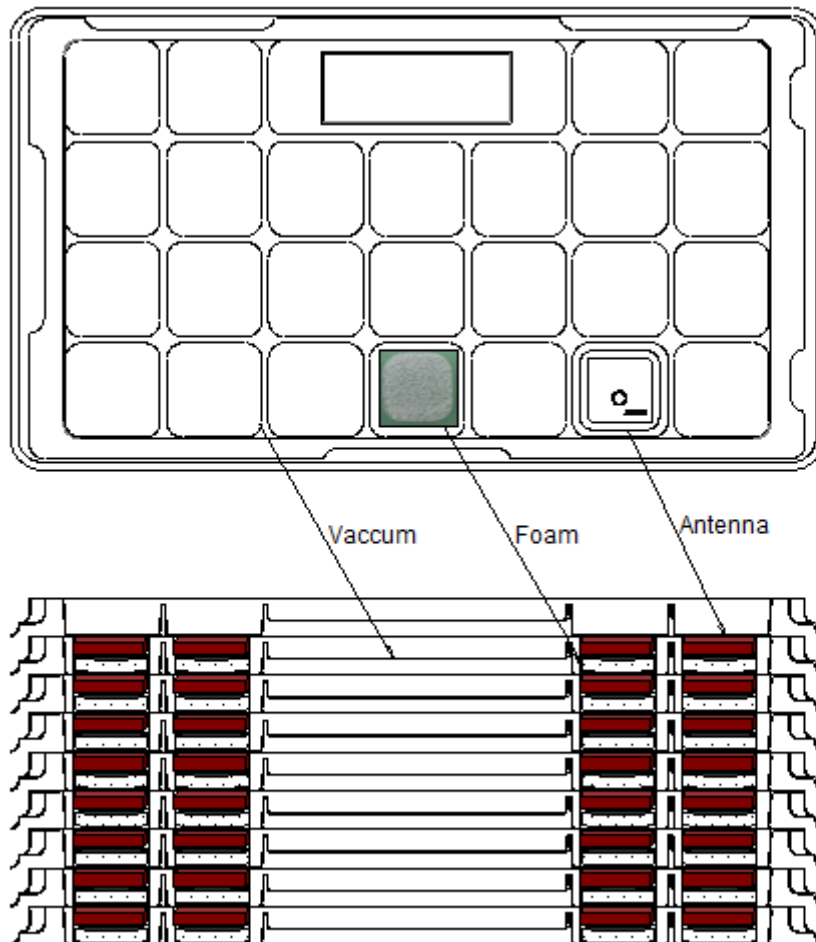
	Name	Material	Finish	QTY
1	Patch(18x18x4mm)	Ceramic	Clear	1
2	Ground-Plane(70x70x0.3mm)	Brass	Silver	1
3	SMA(F) ST	Brass	Gold	1

## 6. PCB Footprint Recommendation



## 7. Packaging

### 7.1. Inner Tray

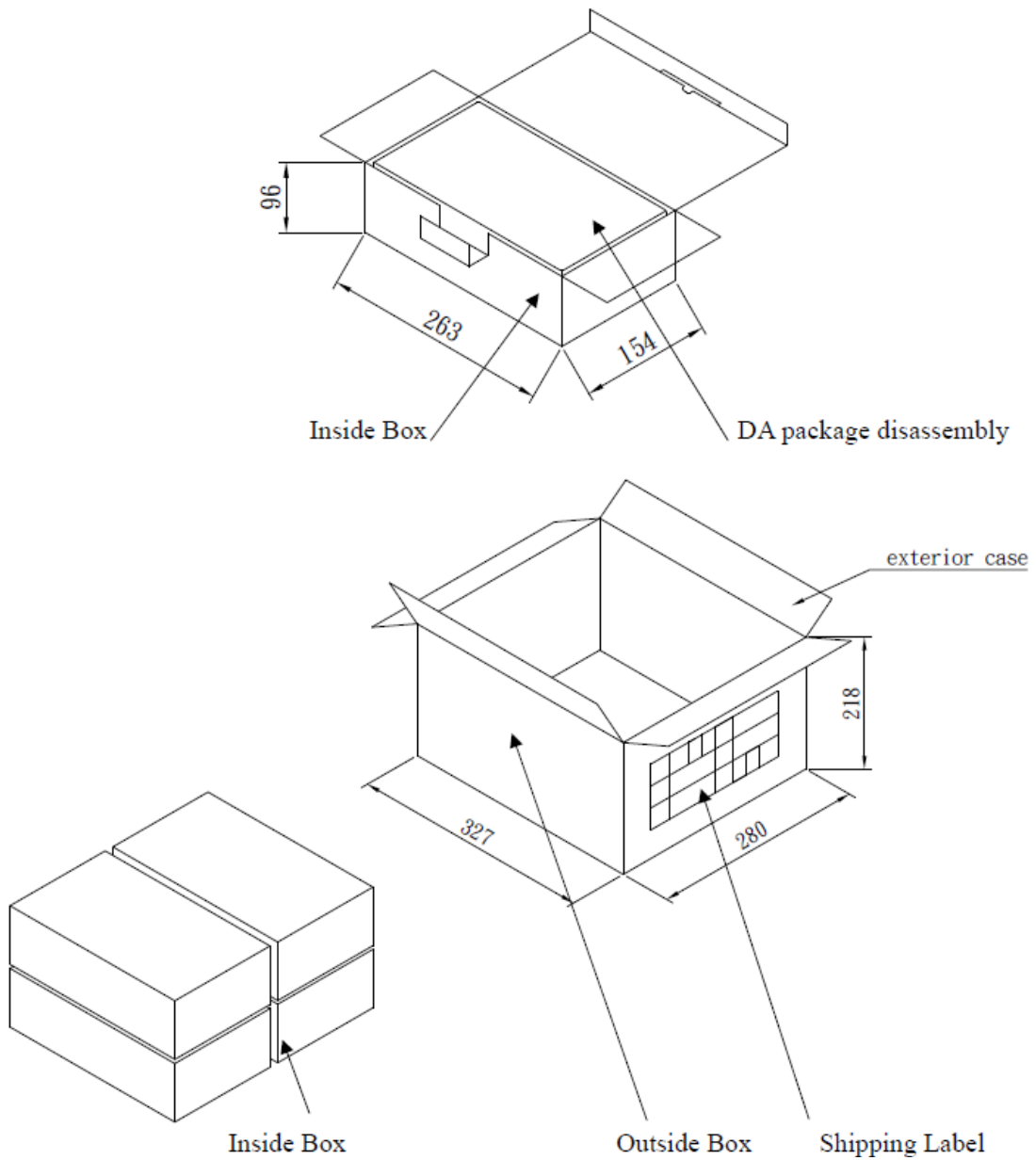


25 pieces per tray

200 pieces per inner carton

800 pieces per outer carton

## 7.2. Carton



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