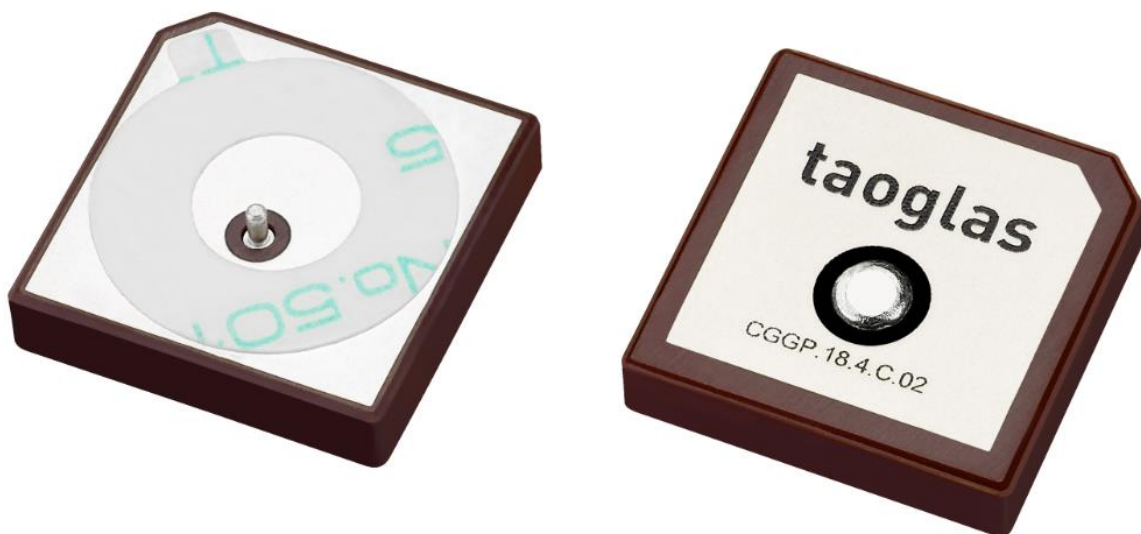


## SPECIFICATION

Part No. : **CGGP.18.4.C.02**

Product Name : 18mm Ceramic GPS/GLONASS/GALILEO  
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/GALILEO patch antenna, by means of a double resonance design, has unique wide-band operation over the whole operating bands of GPS, GLONASS and GALILEO systems from 1575MHz to 1610MHz. It is mounted via pin and double-sided adhesive.

This antenna has been tuned for a center 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 center 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

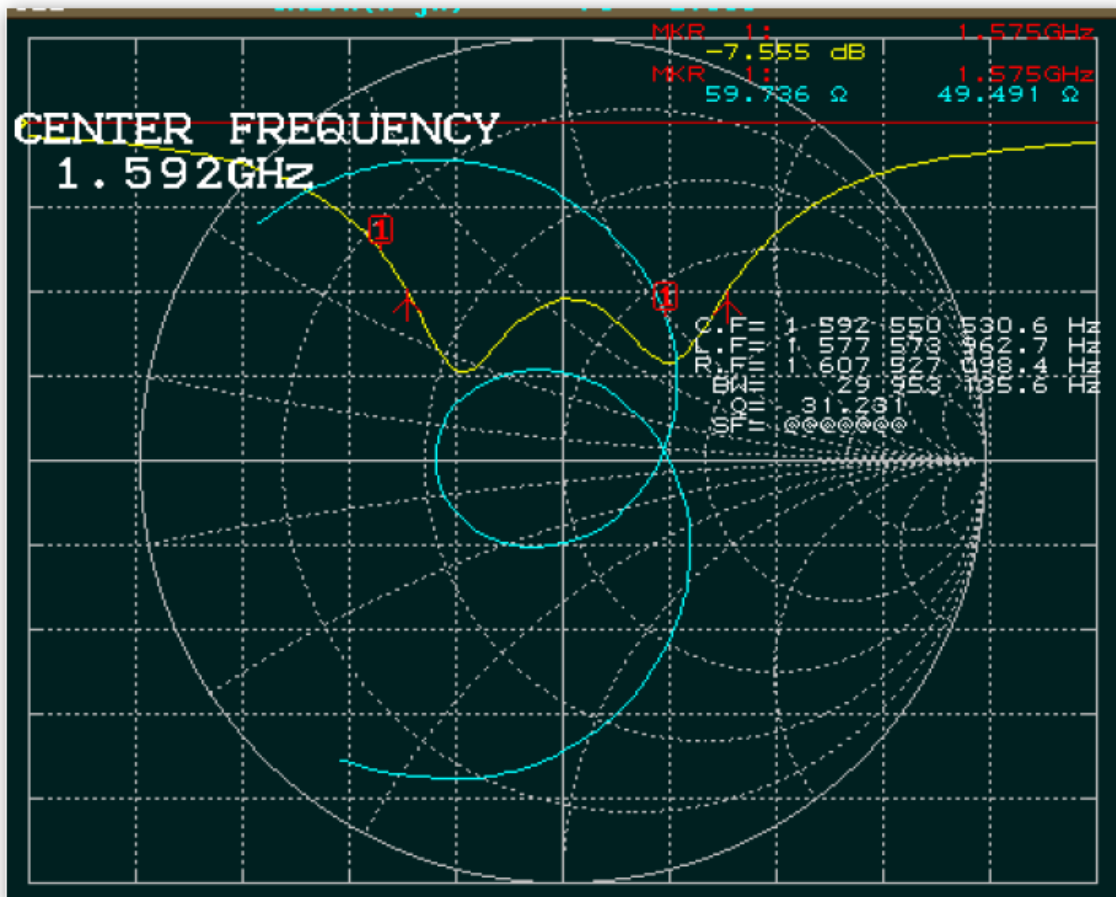
ELECTRICAL	
Range of Receiving Frequency	GPS/GALILEO: 1575.42±1.023MHz GLONASS: 1602±5MHz
Center Frequency	1592MHz ± 3MHz
VSWR	2.4 max
Gain at Zenith	+3.0 dBi typ.
Impedance	50 ohms
MECHANICAL	
Ceramic Dimension	18mm x 18mm x 4mm
Pin Diameter	0.9mm
Pin Length	1.8mm
ENVIRONMENTAL	
Operation Temperature	-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

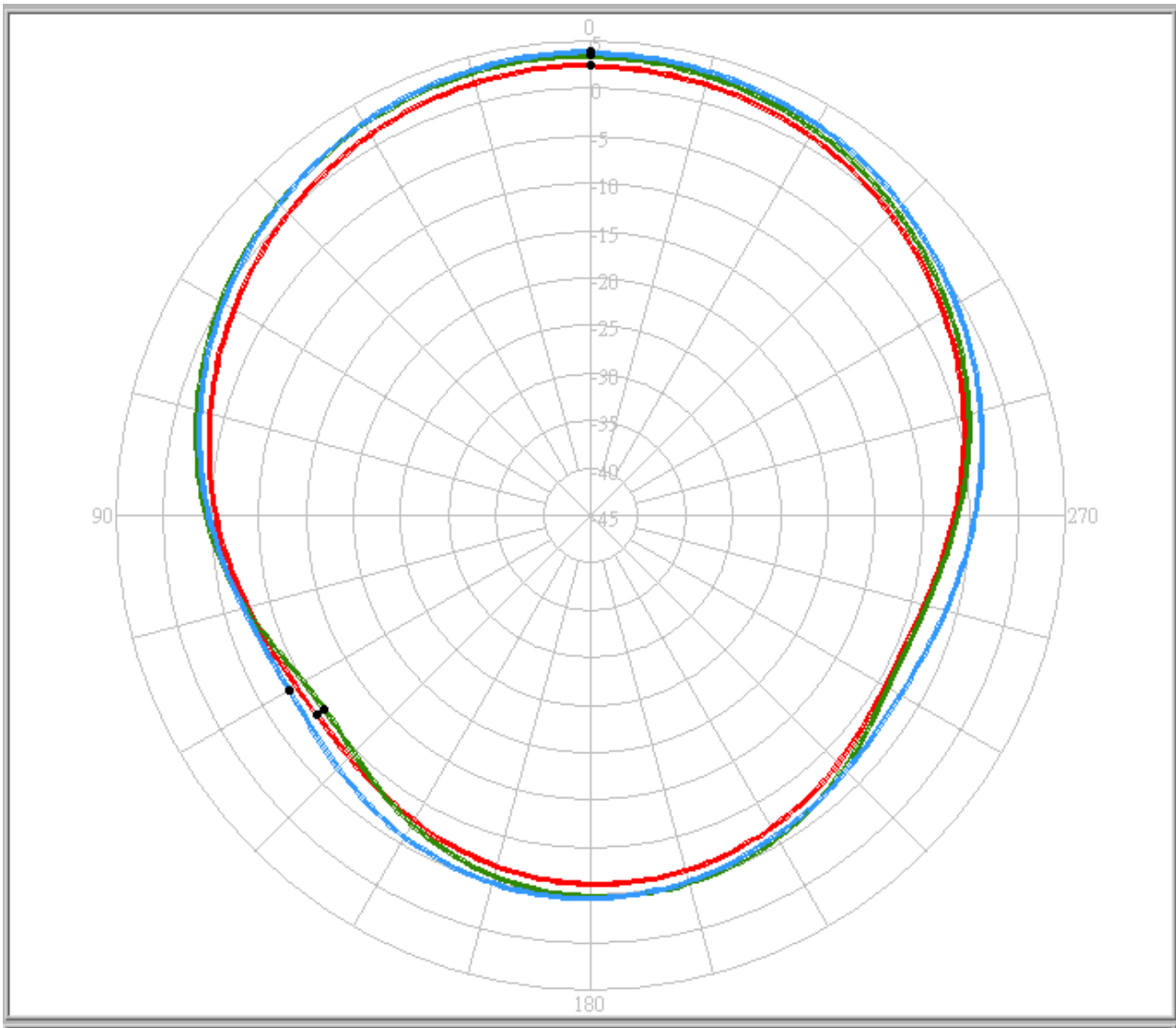
### 3. Antenna S11 Properties

1592 MHz Typical Return Loss, SWR, Impedance, measured on the test fixture



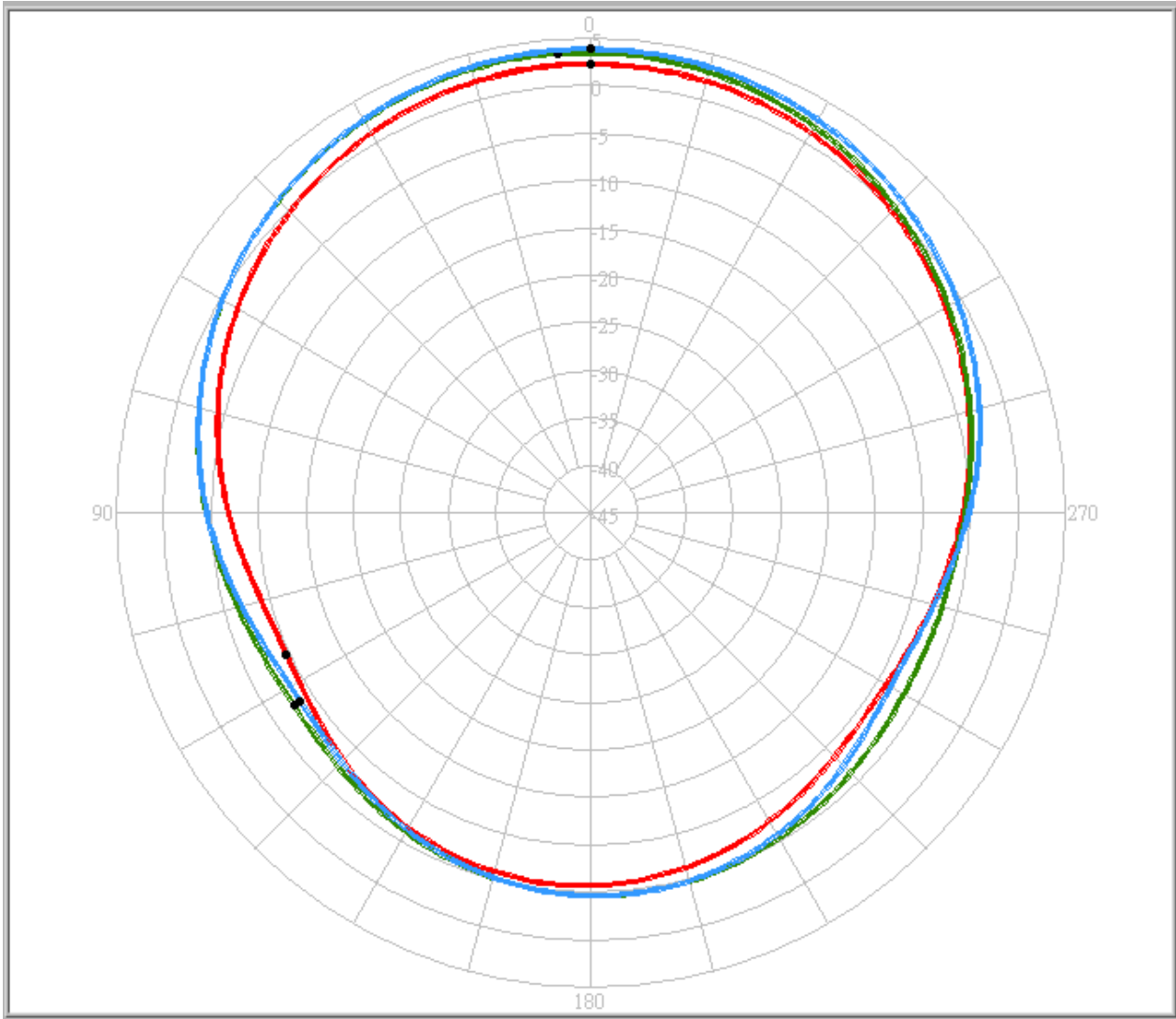
## 4. Antenna Radiation Properties

### 4.1. XZ Plane Radiation



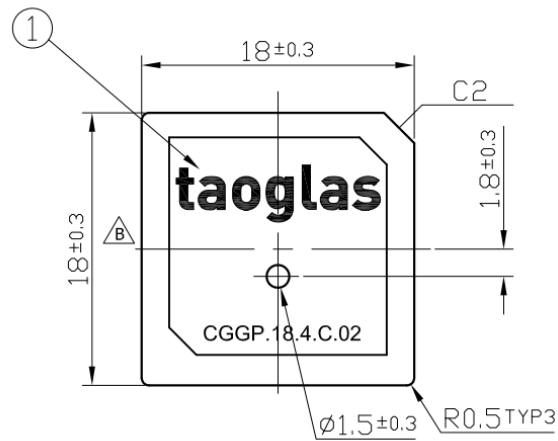
Item	XZ Plane
1575 MHz	2.49 dBi
1592 MHz	3.47 dBi
1608 MHz	3.85 dBi

## 4.2. YZ Plane Radiation

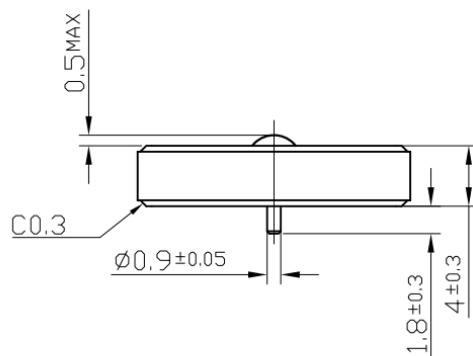


Item	YZ Plane
1575 MHz	2.33 dBi
1592 MHz	3.49 dBi
1608 MHz	3.88 dBi

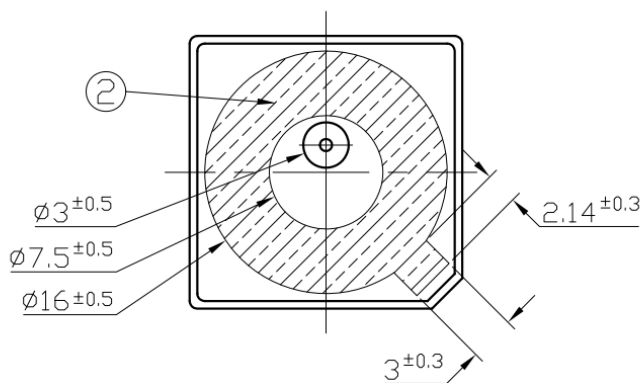
## 5. Mechanical Drawing




Top View



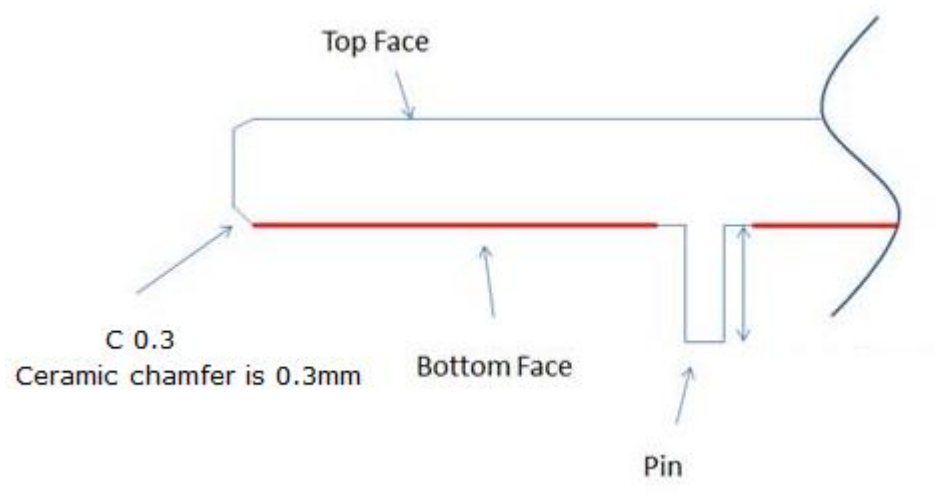
Side View



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	

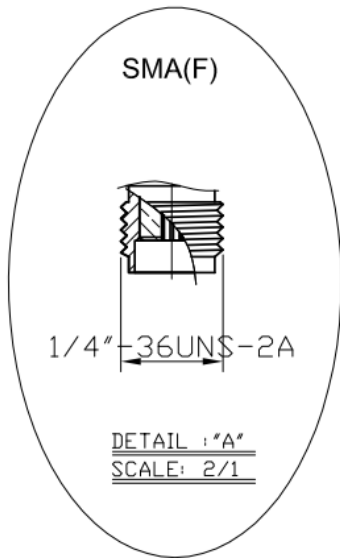
### 5.1. Adhesive Thickness



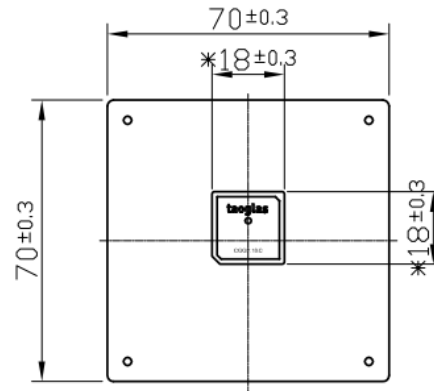
Red Line shows the adhesive without Liner – thickness 0.08~0.1mm



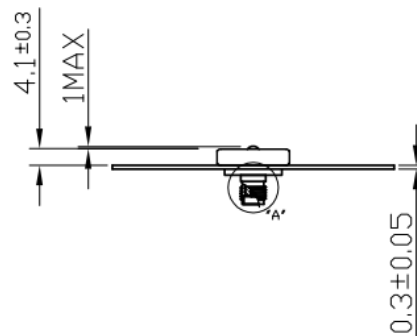
## 6. Evaluation Board (CGGPD.18.C)



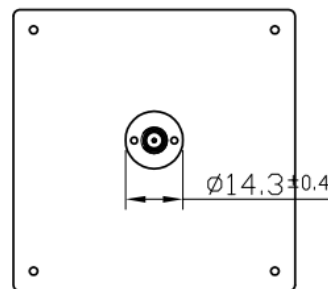
Top View



Side View

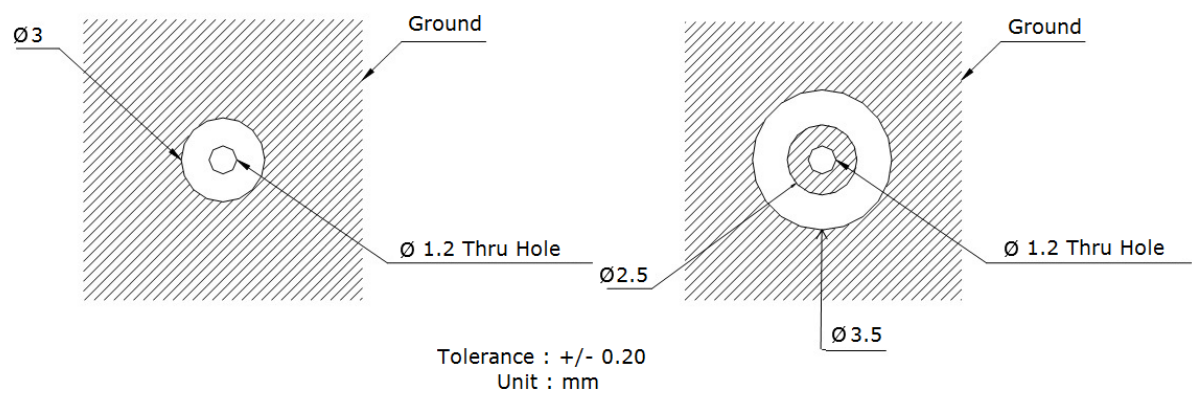


Bottom View



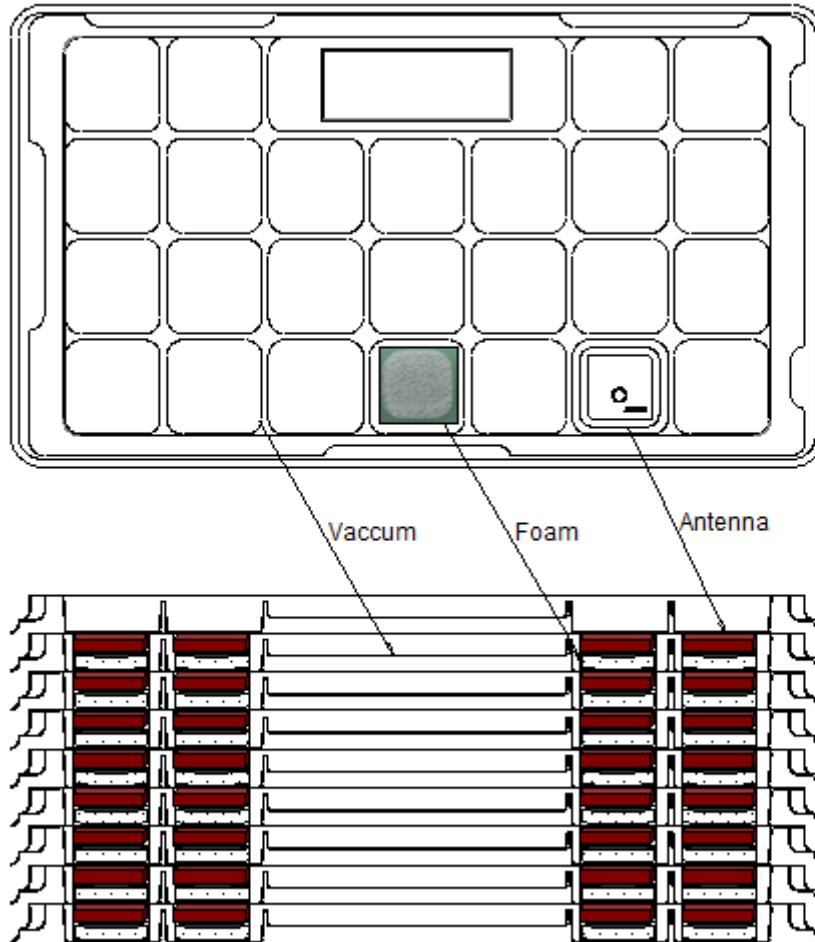
	Name	Material	Finish	QTY
1	Patch(18x18x4mm)	Ceramic	Clear	1
2	Ground-Plane(70x70x0.3mm)	Brass	Silver	1
3	SMA(F) ST	Brass	Gold	1

## 7. PCB Footprint Recommendation



## 8. Packaging

### 8.1. Inner Tray

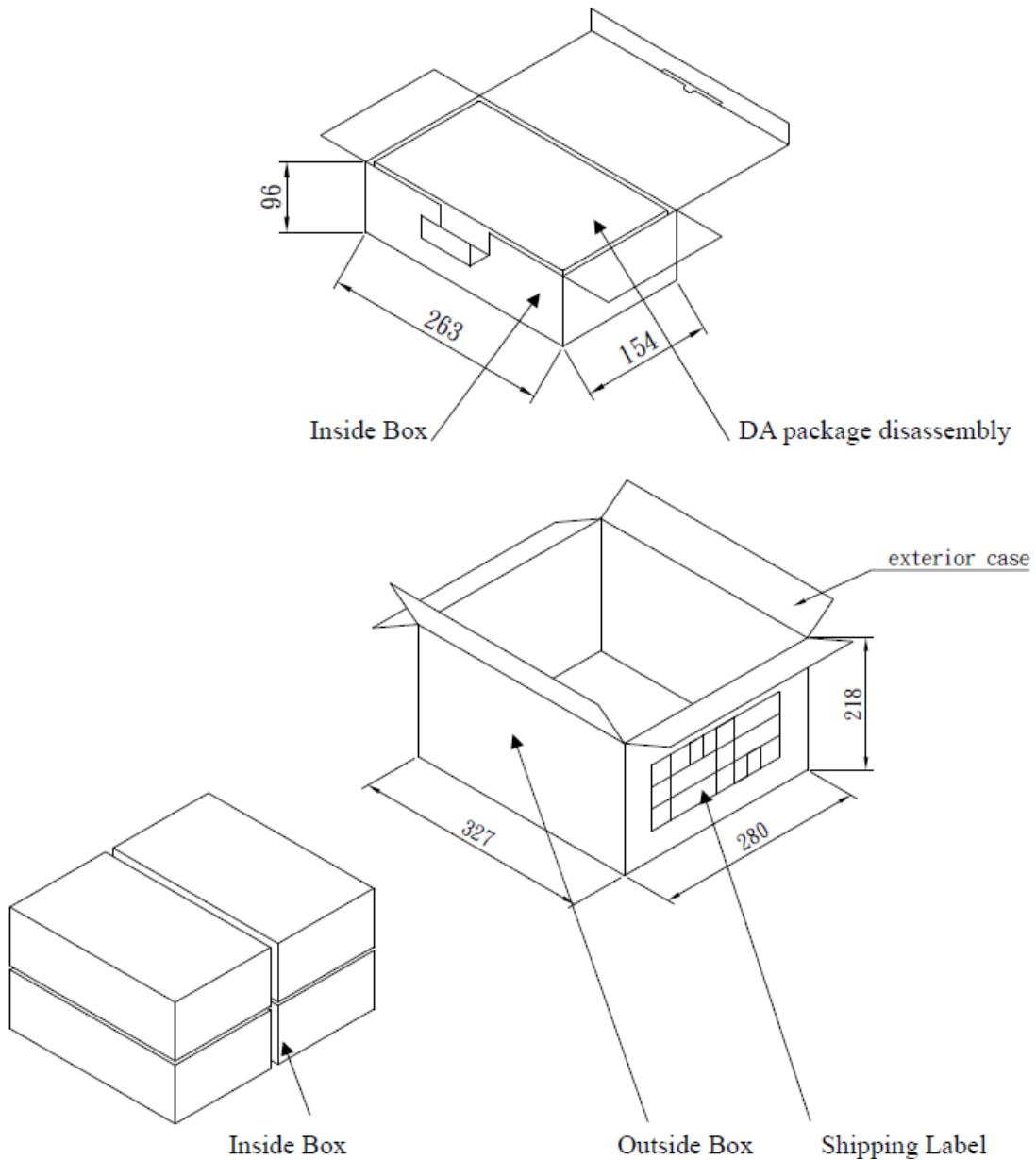


25 pieces per tray

200 pieces per inner carton

800 pieces per outer carton

## 8.2. Carton



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