

## SPECIFICATION

Part No.	: <b>CGIP.25.4.A.02</b>
Product Name	: 25mm Iridium / GPS Ceramic Patch Antenna 1575 – 1626MHz Single Feed
Feature	: Wide Operation Band High Gain - Right Hand Circular Polarization (RHCP) 25mm*25mm*4mm Single feed patch for Iridium's combined Iridium/GPS module RoHS Compliant



## I. Introduction

The Taoglas GPS/Iridium CGIP.25 ceramic patch antenna is a low profile (4mm) small footprint single feed antenna (25\*25mm) designed for the Iridium combined Iridium/GPS module. It has been specifically designed to provide excellent coverage in the 1575.420 to 1626.5 MHz range.

This ceramic patch offers typical gain of 3.5dBi Gain for GPS and 4.0dBi Gain for Iridium at Zenith, the CGIP.25 patch antenna is right hand circularly polarized thus matching the characteristics of the actual signal itself, allowing for improved gain and also rejection of multi-path interference.

These patches are mounted via pin and double-sided adhesive. Taoglas offers a custom tuning service for the patch for a specific customer device and ground-plane mounting.

\*Actual GPS/Iridium system performance on a device is a function of the overall system and design of the device, and environment where the device is used, use of even a tuned patch or any antenna on a compromised device design or application will not guarantee good GPS/Iridium performance.

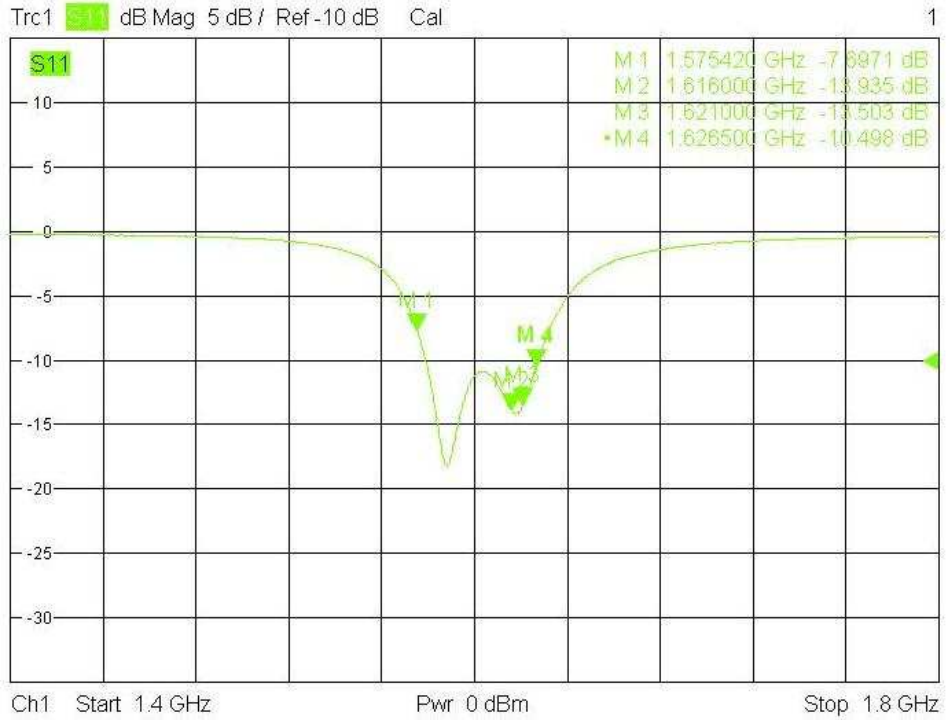
## II. Specification

GPS ANTENNA	
Operating Frequency	1575.42MHz ~ 1626.5MHz
Bandwidth (-10dB return loss)	43MHz min.
VSWR	≤ 2.5 : 1
GPS Gain @ Zenith	3.5dBi typ.
Iridium Gain @ Zenith	4.0dBi typ.
Polarization	Right Hand Circular
Impedance	50Ω
MECHANICAL	
Patch Dimensions	25x 25 x 4 mm
Pin Dimension	∅ 0.9 x 1.65mm
ENVIRONMENTAL	
Operation Temperature	-40 °C to 85 °C
Storage Temperature	-40 °C to 105 °C
Humidity	Non-condensing 40 °C 95% RH
Soldering Temperature	290 °C for 3 seconds max.

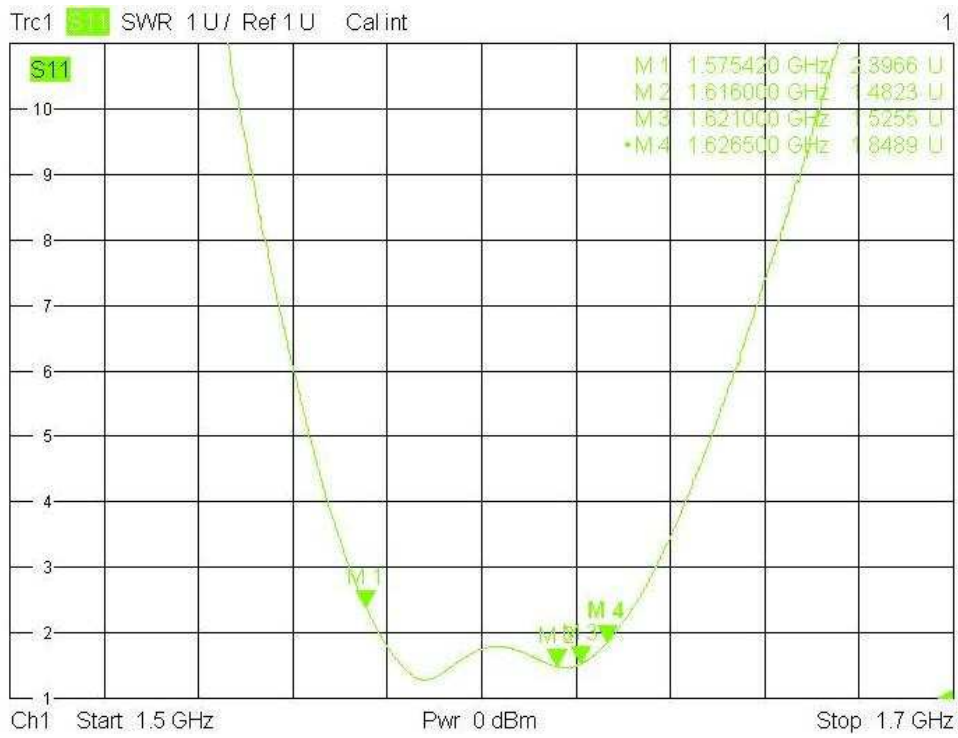
\* All electrical properties are tested with the patch on 70 x 70mm ground.

### III. Antenna S11 Property

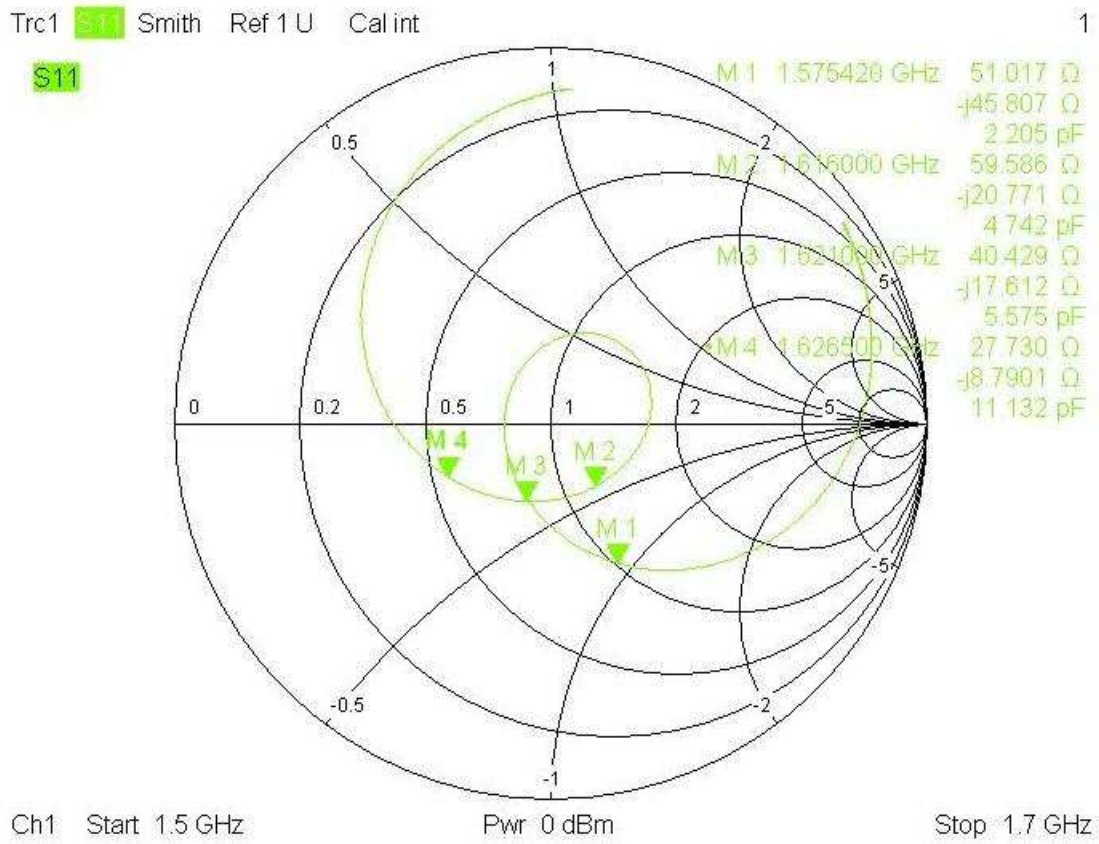
#### III.1. Return Loss



### III.2. VSWR

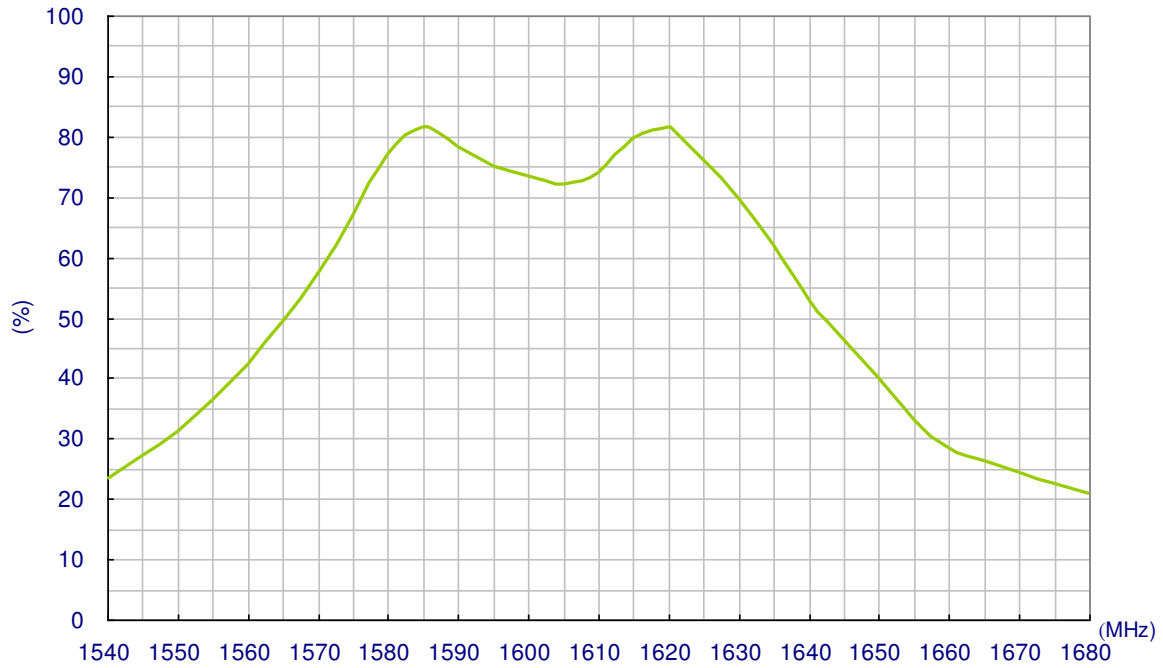


### III.3. Impedance

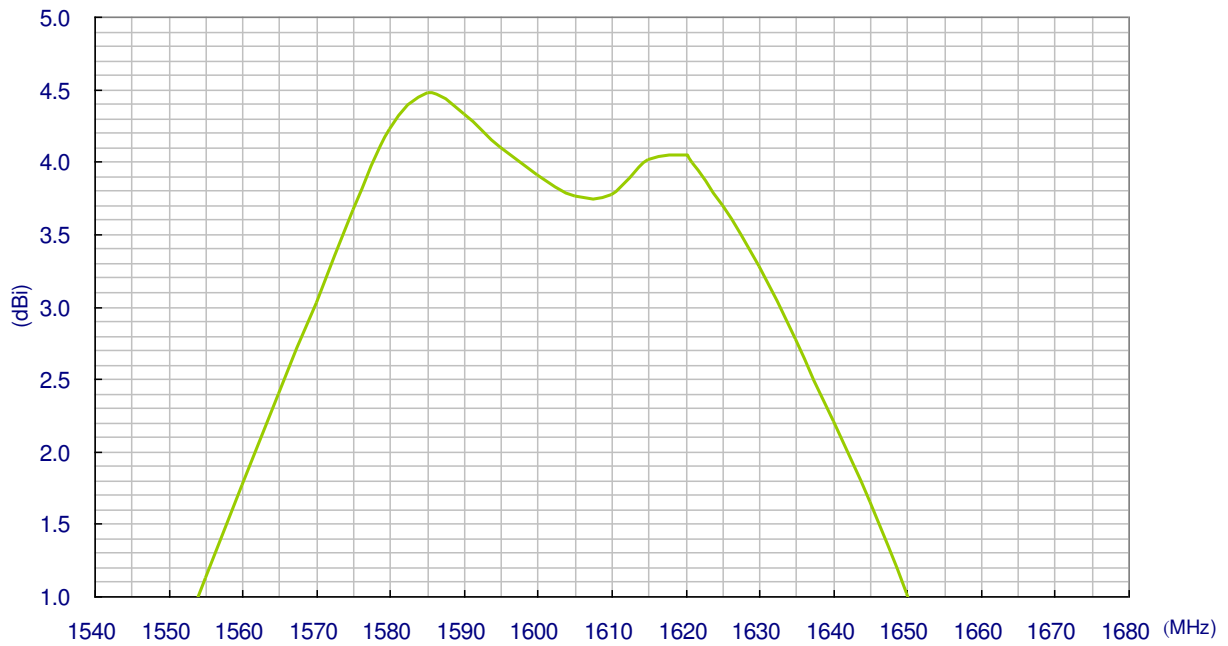


## IV. Antenna Radiation

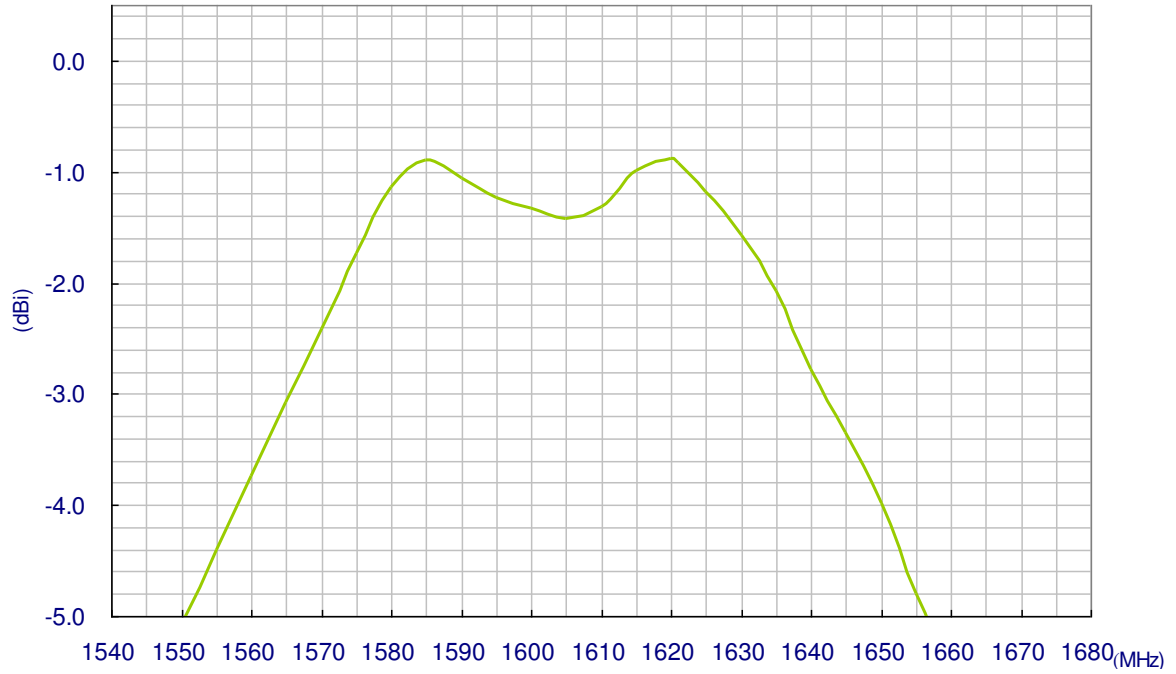
### Radiation Efficiency



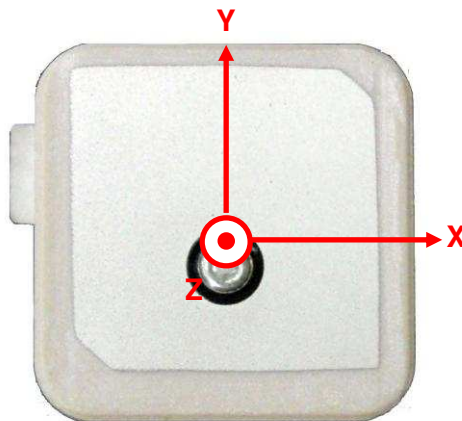
### Peak Gain



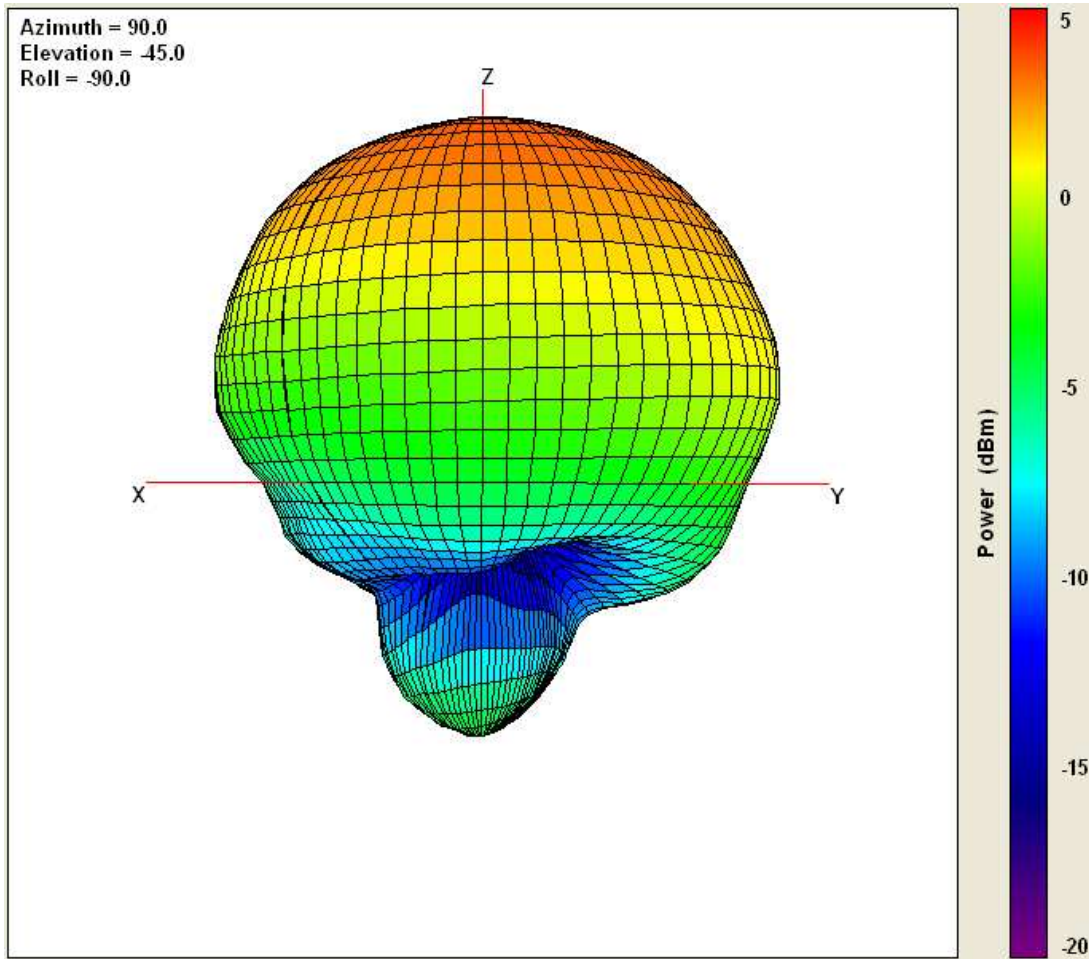
## Average Gain



## V. Antenna Radiation

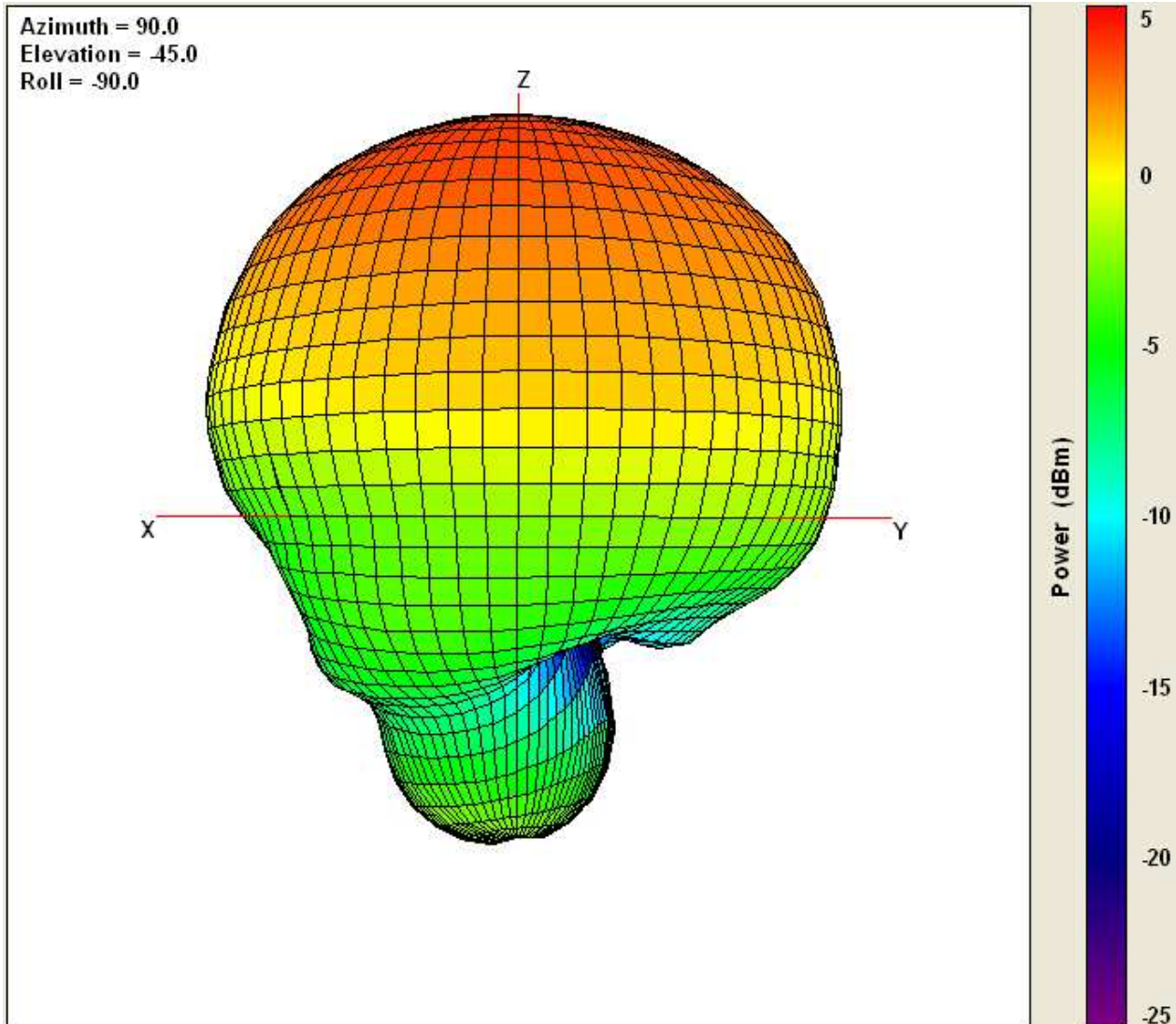


### 3D Radiation Pattern @ 1575.42MHz

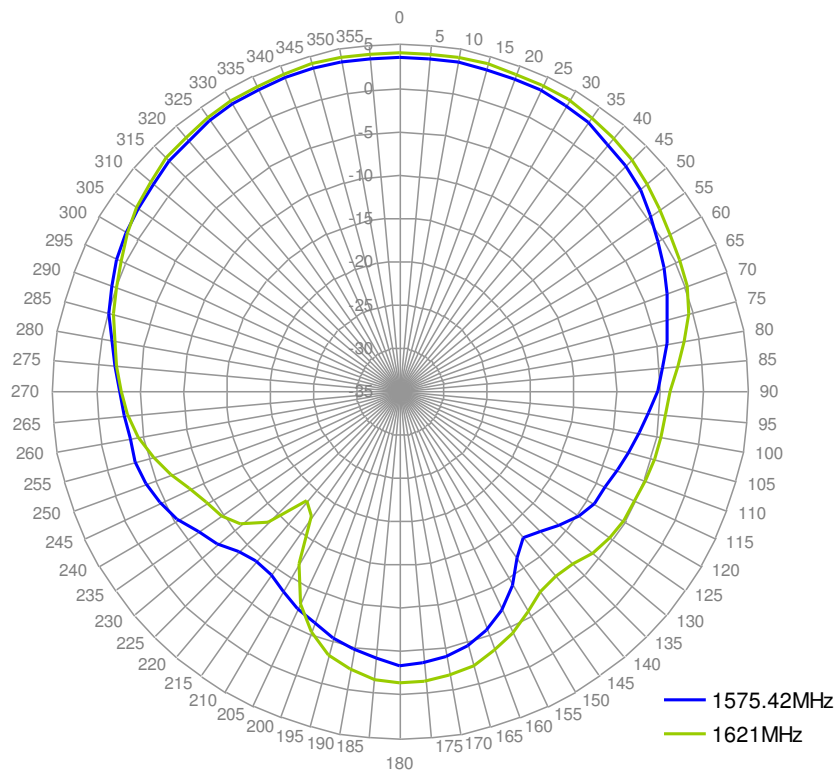




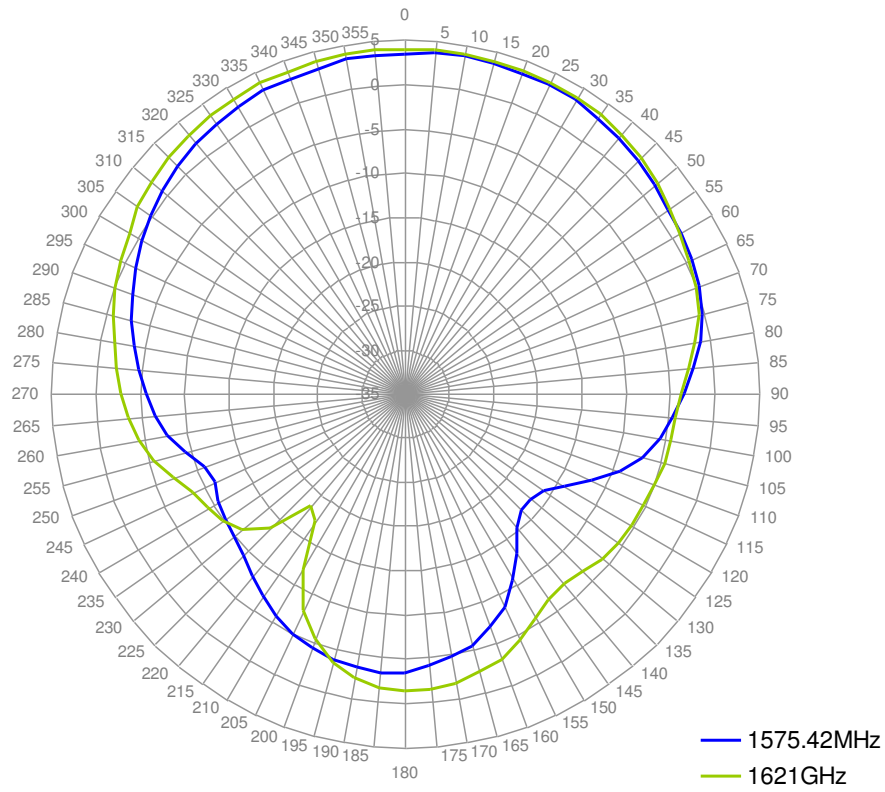
### 3D Radiation Pattern @ 1621MHz



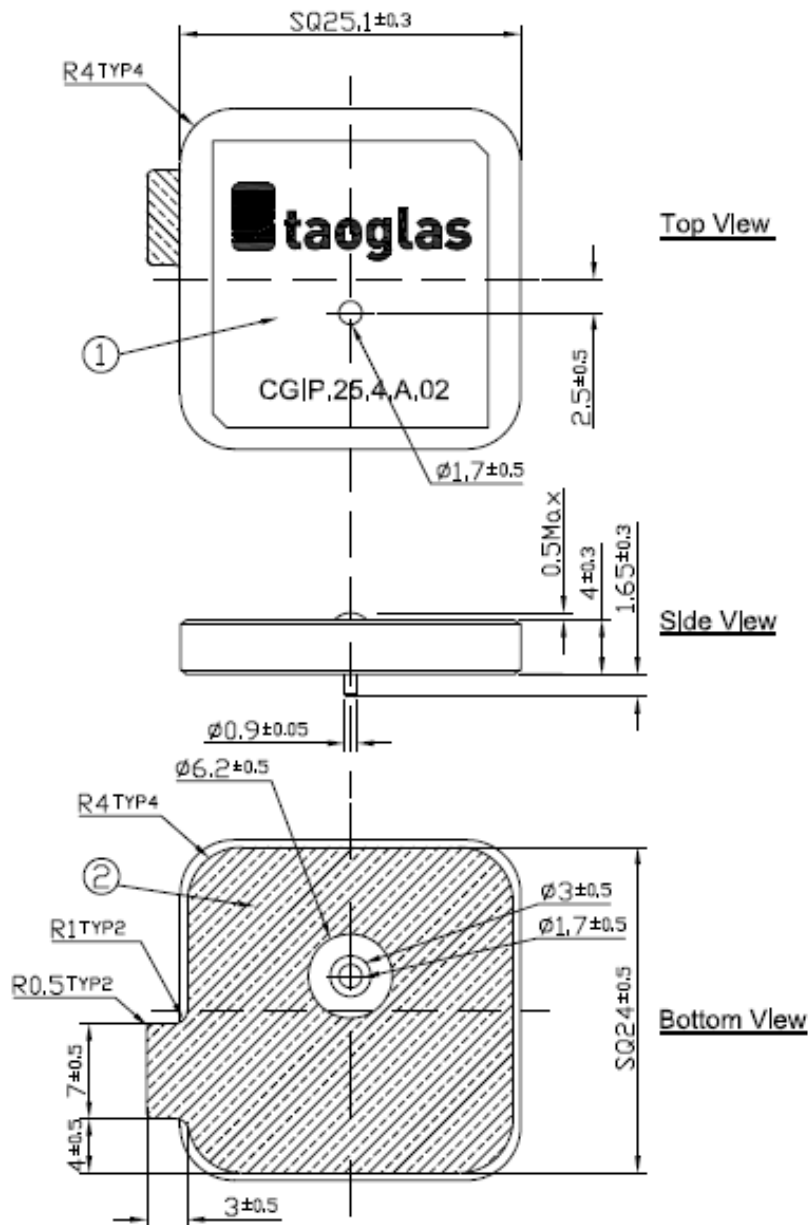
## V.1. XZ Plane Radiation



## V.2. YZ Plane Radiation



## VI. Mechanical Drawing



	Name	Material	Finish	QTY
1	Patch 25x25x4	Ceramic	Clear	1
2	Double sided Adhesive	NITTO 5000	White Liner	1

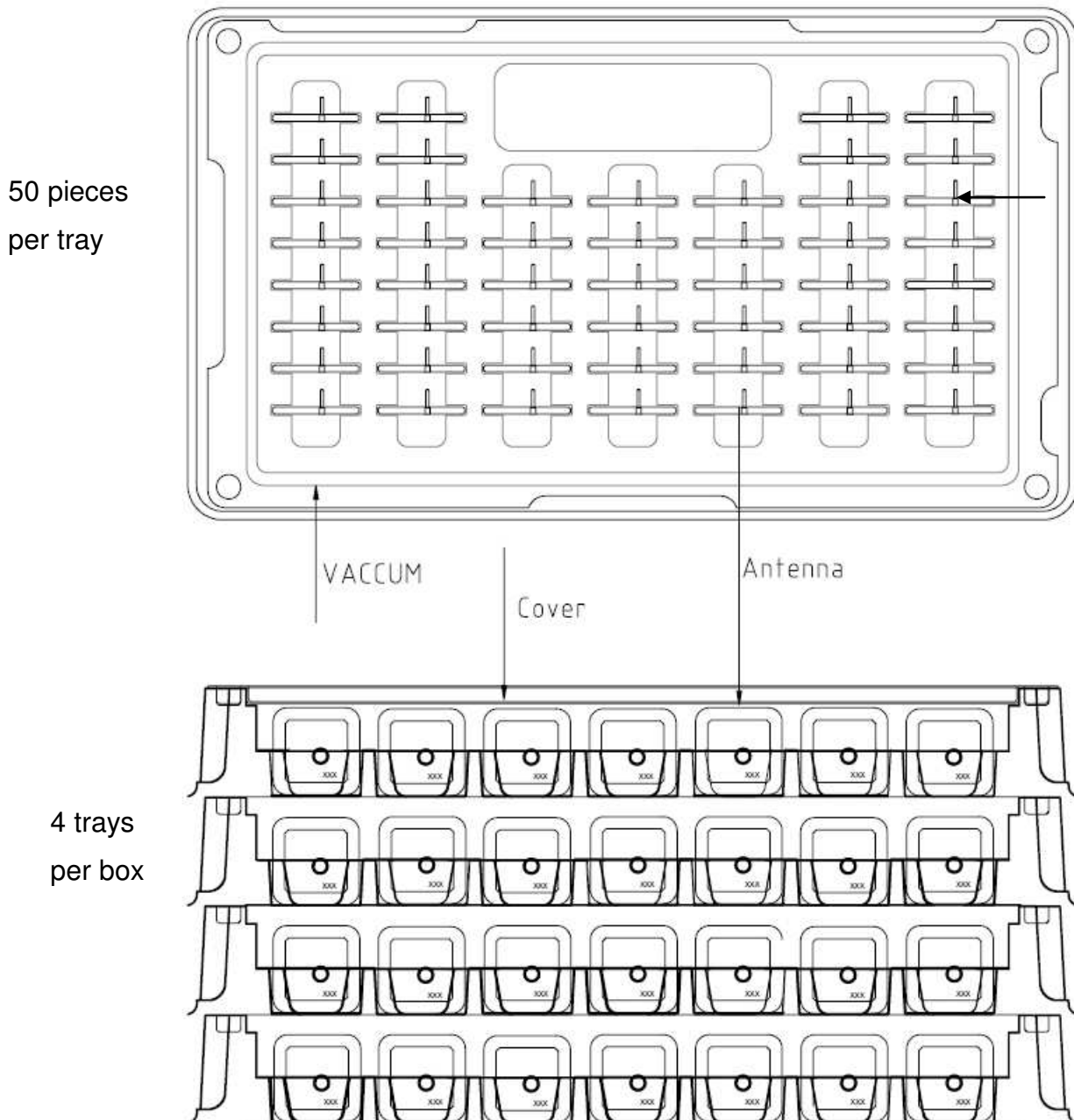
Unit : mm

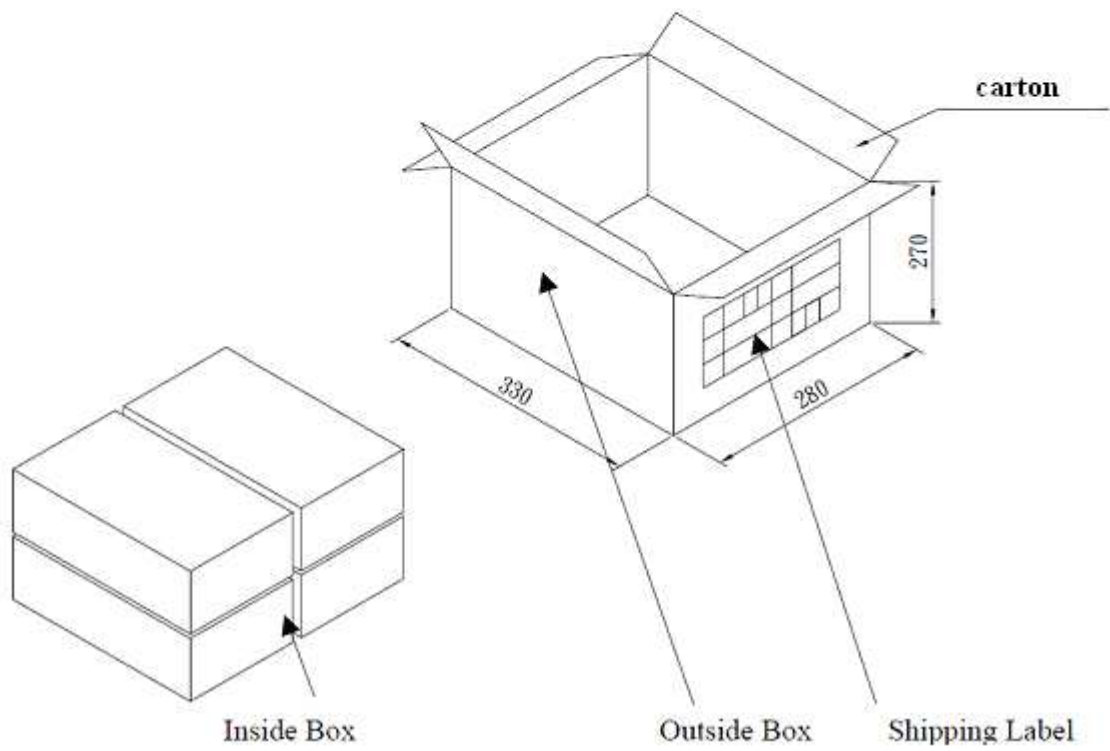
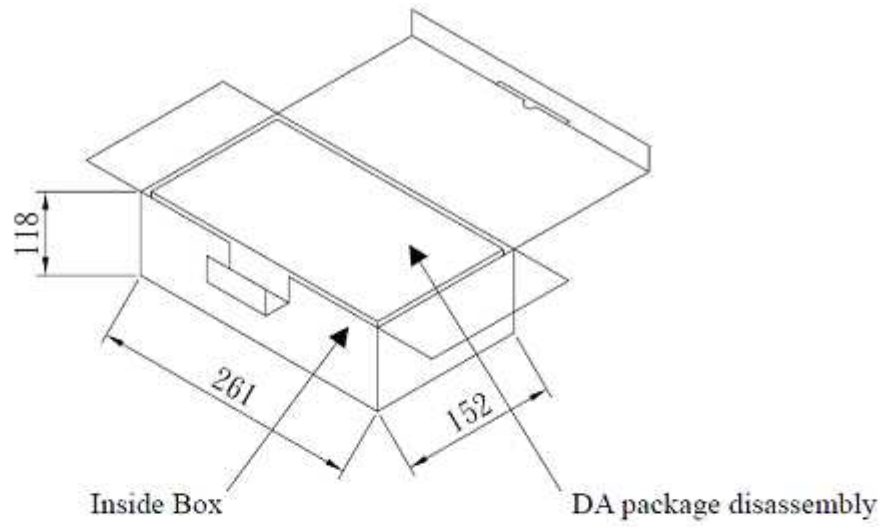
## VII. Packaging

50 pieces per tray.

4 trays per box = 200 pieces per box

4 box per carton = 800 piece per carton





Unit : mm