

SPECIFICATION

Part No.	: CGIP.25.4.A.02
Product Name	: 25mm Iridium® / GPS Ceramic Patch Antenna 1575 – 1626MHz Single Feed
Feature	: Wide Operation Band High Gain 25mm*25mm*4mm Single feed ceramic patch for combined Iridium/GPS applications Iridium® has certified the CGIP.25.4.A.02 Antenna for commercial use in connection with the Iridium Communications System RoHS Compliant



1. Introduction

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

This ceramic patch offers a typical peak gain of 5dBi for GPS and Iridium.

These patches are mounted via pin and double-sided adhesive.

While the antenna is certified, some antenna detuning or device or layout issues* may prevent a device from passing Iridium certification. Taoglas offers performance testing and verification, as well as a custom tuning service for the patch for a specific customer device and ground-plane mounting. Taoglas can also pre-test the whole device for Iridium certification. Please Contact Us for any assistance required.

*Actual GPS/Iridium system performance on a device is a function of the overall system 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.

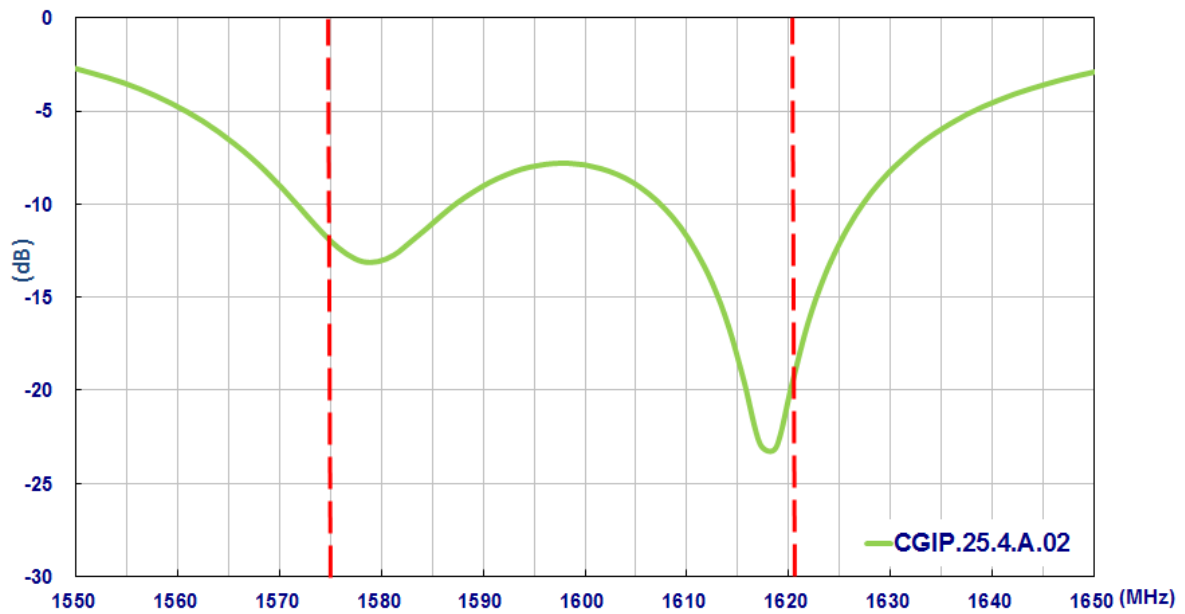
2. Specification

GPS/Iridium ANTENNA		
Operating Bands	GPS	Iridium
Frequency (MHz)	1575.42	1621
VSWR	< 2:1	<1.5:1
Efficiency (%)	75 typ.	75 typ.
Gain @ Zenith (dBi)	5 typ.	5 typ.
Average Gain (dBi)	>-2	>-2
Impedance	50Ω	
MECHANICAL		
Patch Dimensions (mm)	25x 25 x 4	
Pin Dimension (mm)	ϕ0.9 x 1.65	
Weight (g)	5	
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.	

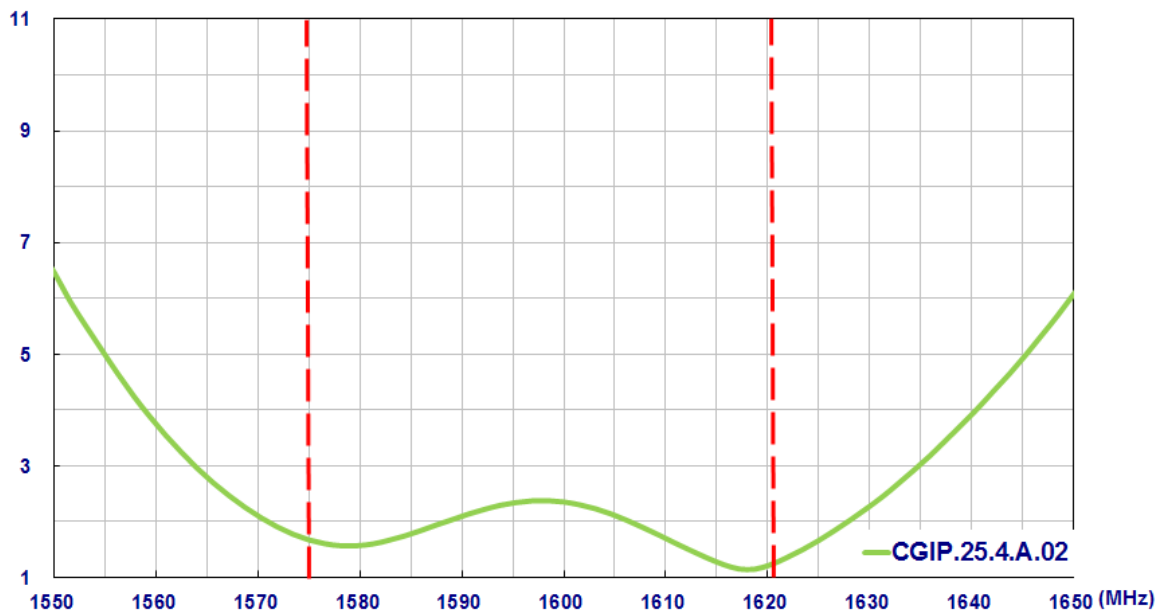
* All electrical properties are tested with the patch on 70 x 70mm ground.

3. Antenna Properties

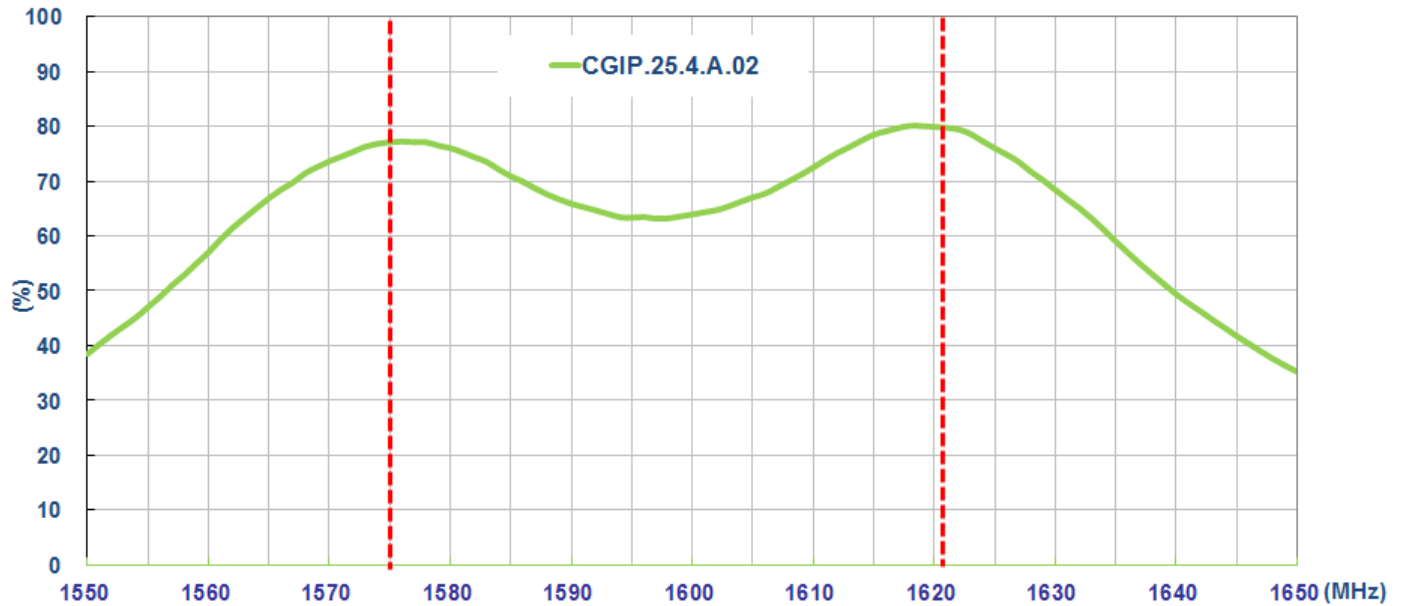
3.1 Return Loss



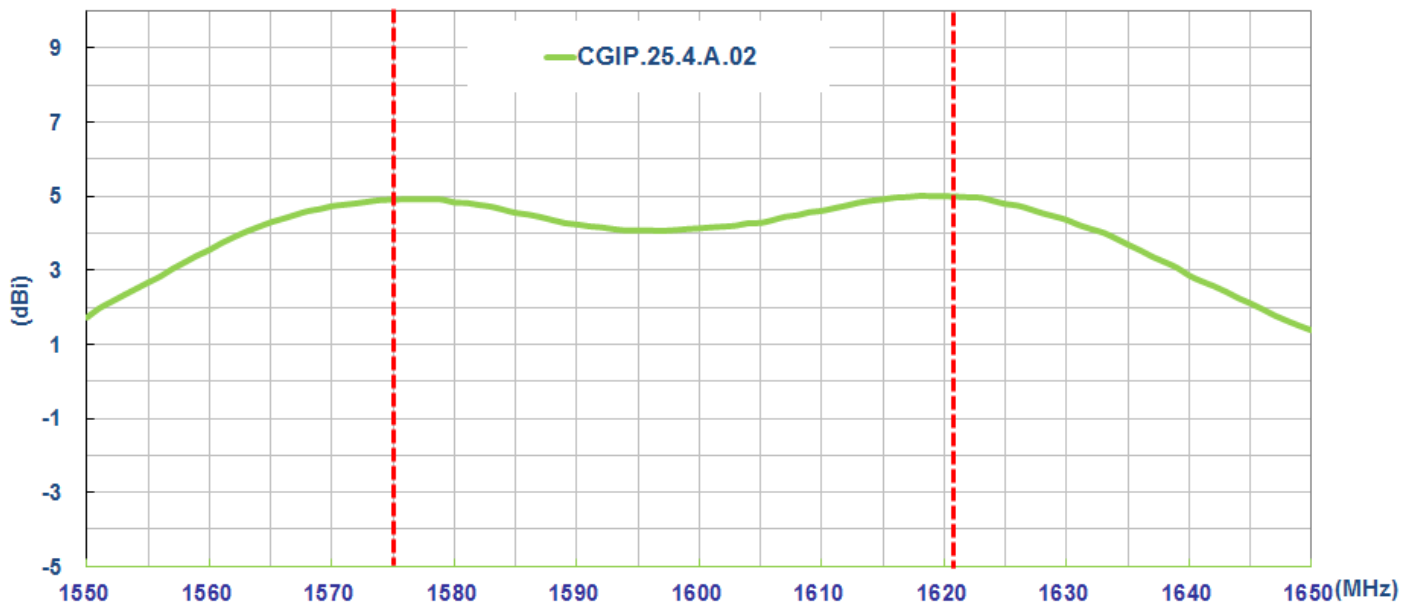
3.2 VSWR



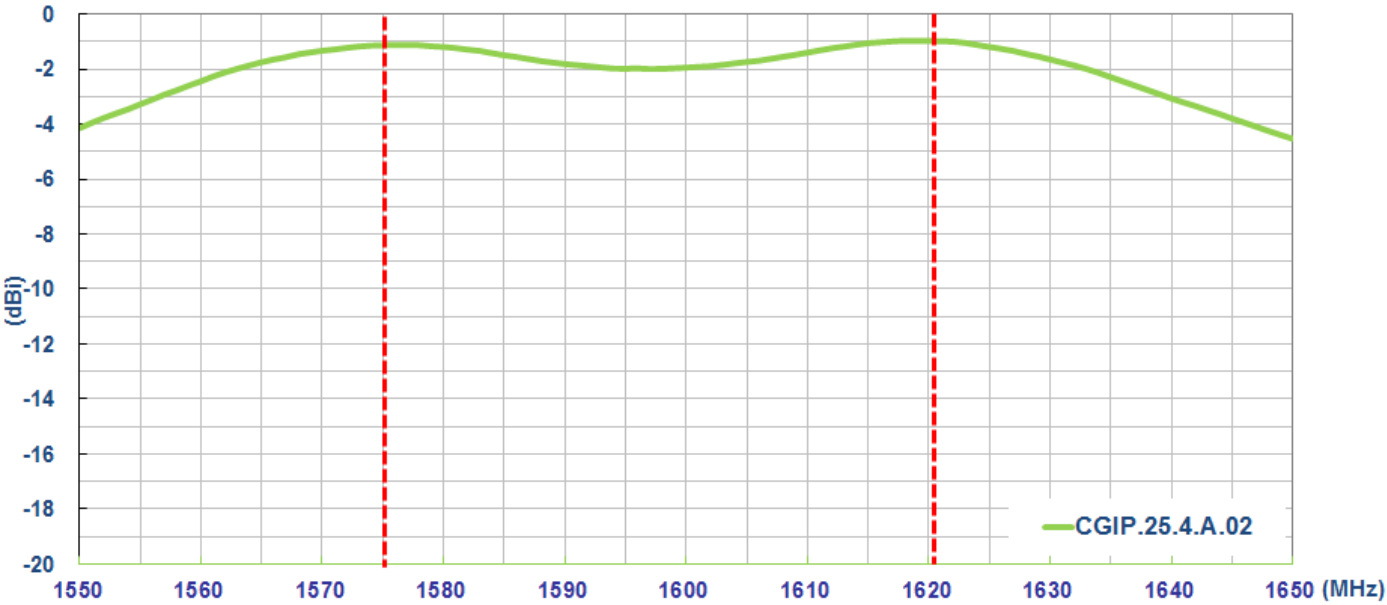
3.3 Radiation Efficiency



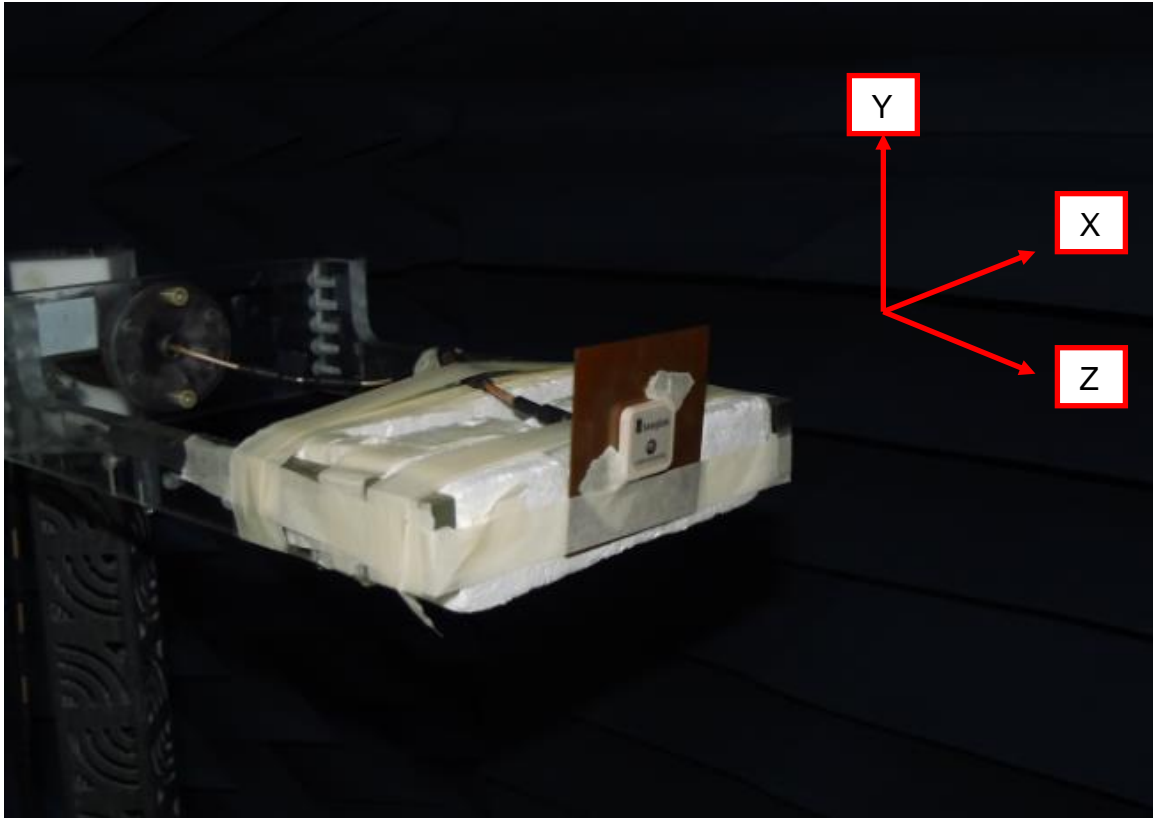
3.4 Peak Gain



3.5 Average Gain

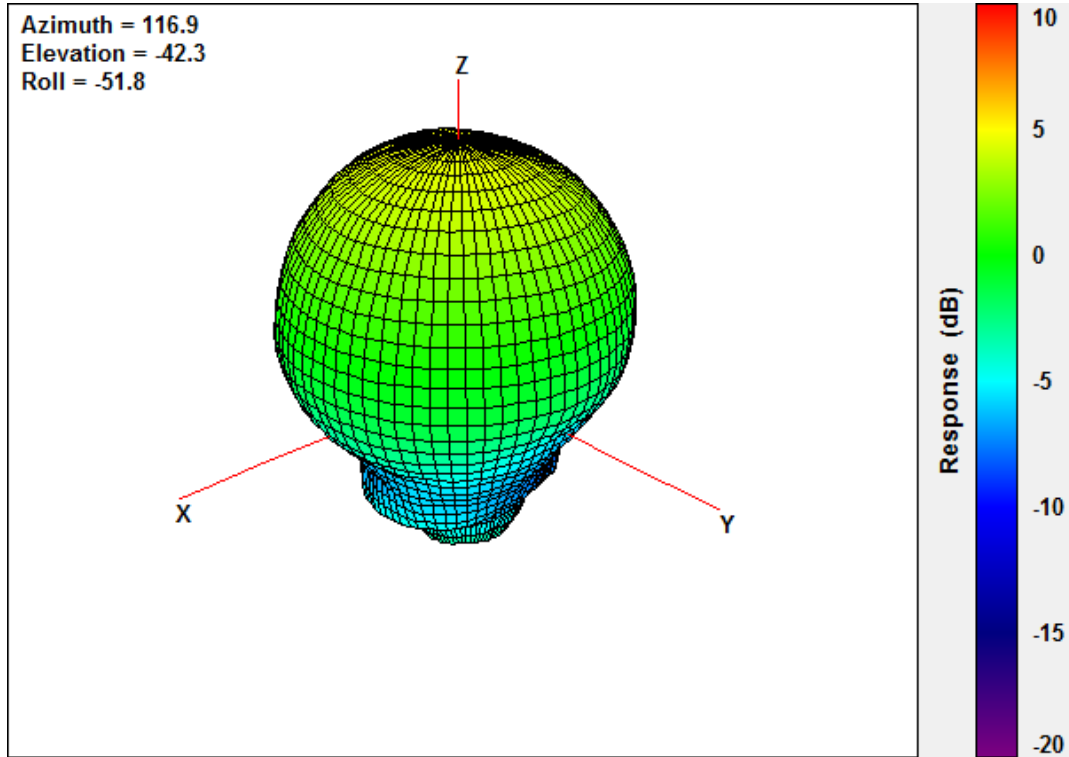


4. Antenna Radiation

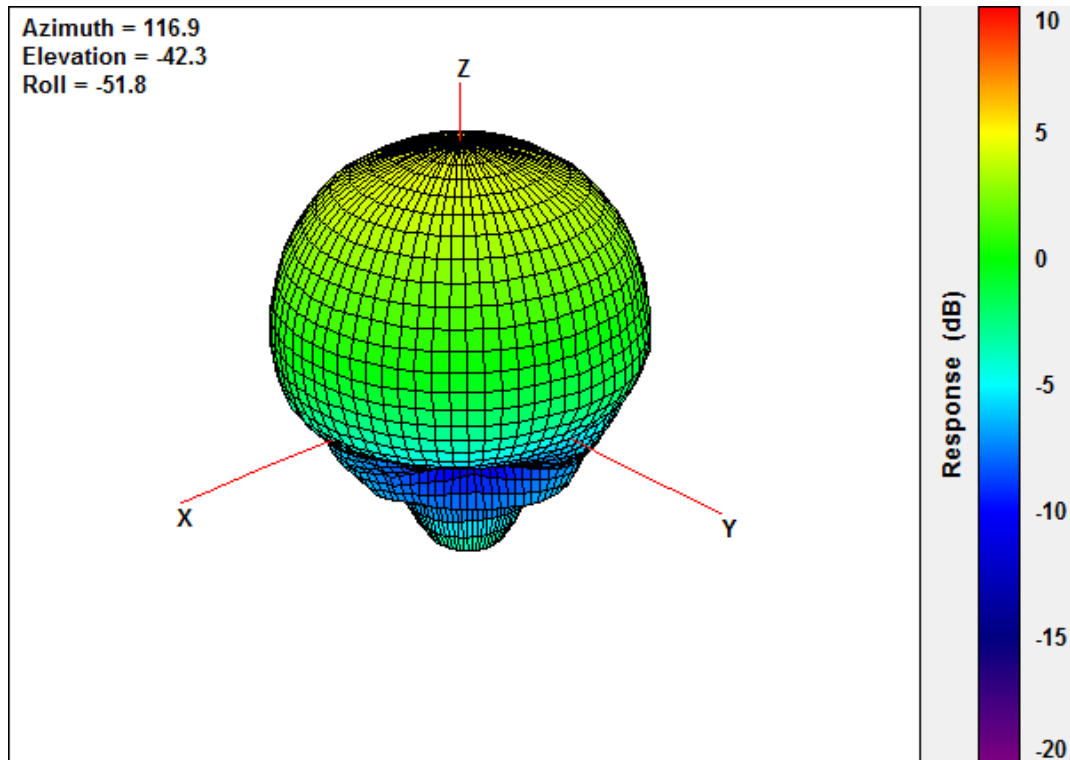


The antenna is measured in a CTIA certified anechoic chamber. The CGIP.25 antenna is put on a 70mmX70mm ground plane.

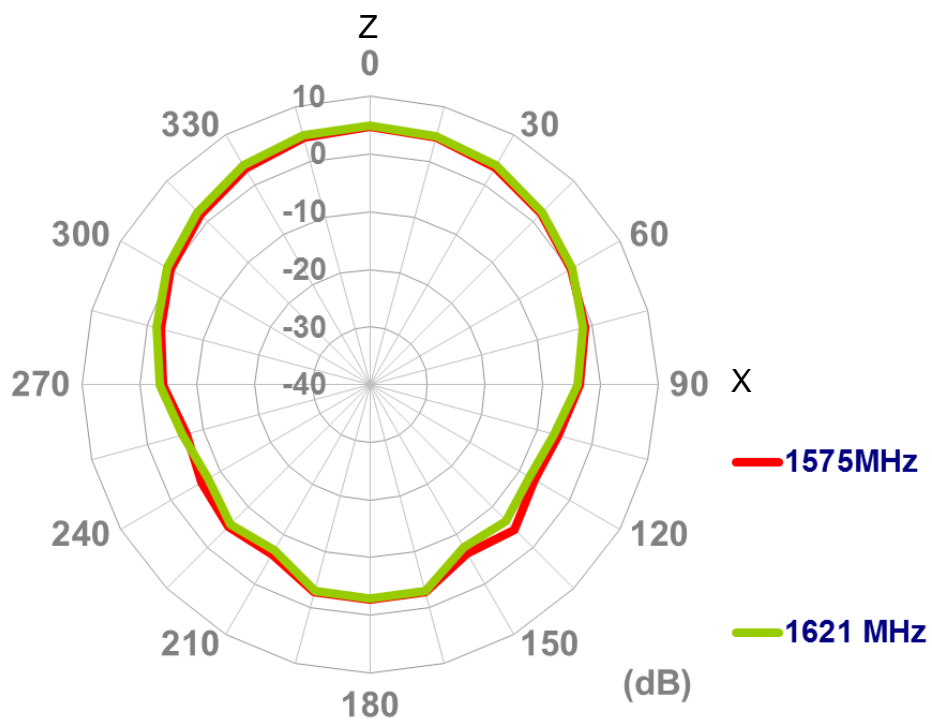
4.1 3D Radiation Pattern @ 1575.42MHz



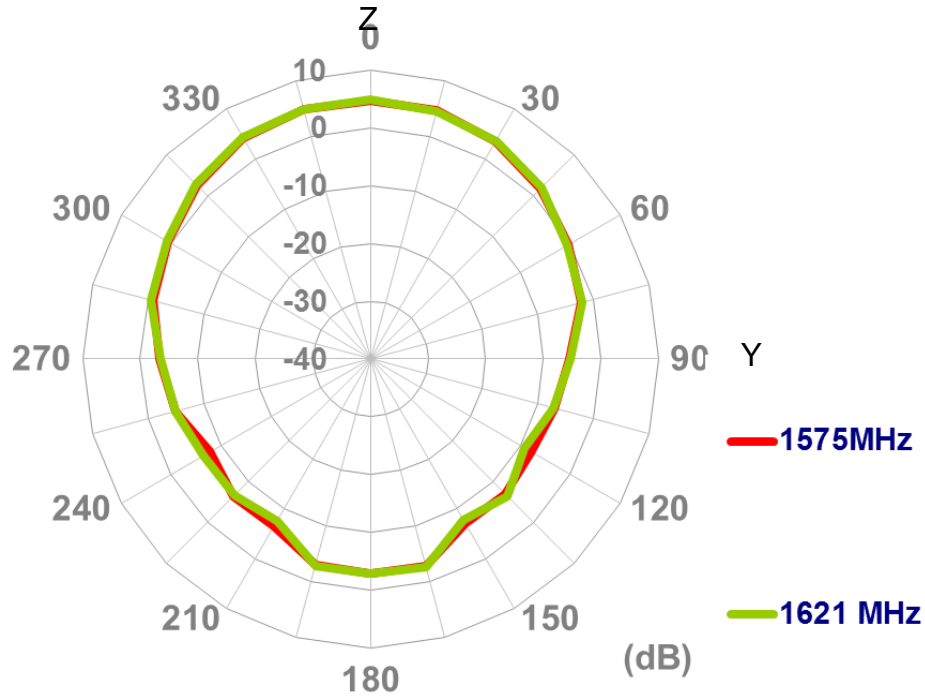
4.2 3D Radiation Pattern @ 1621MHz



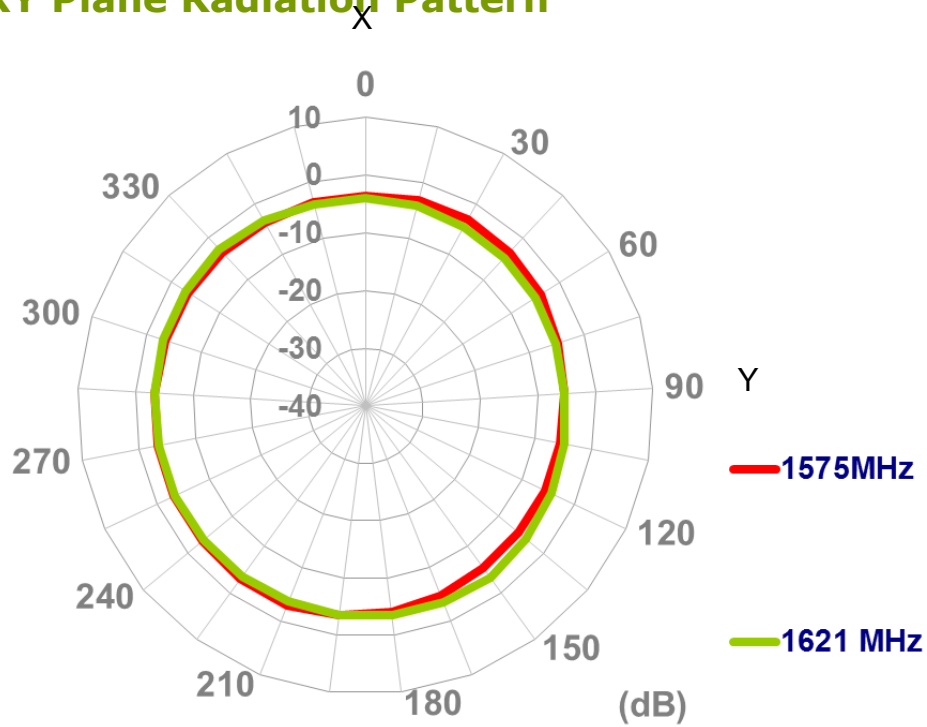
4.3 2D XZ Plane Radiation Pattern



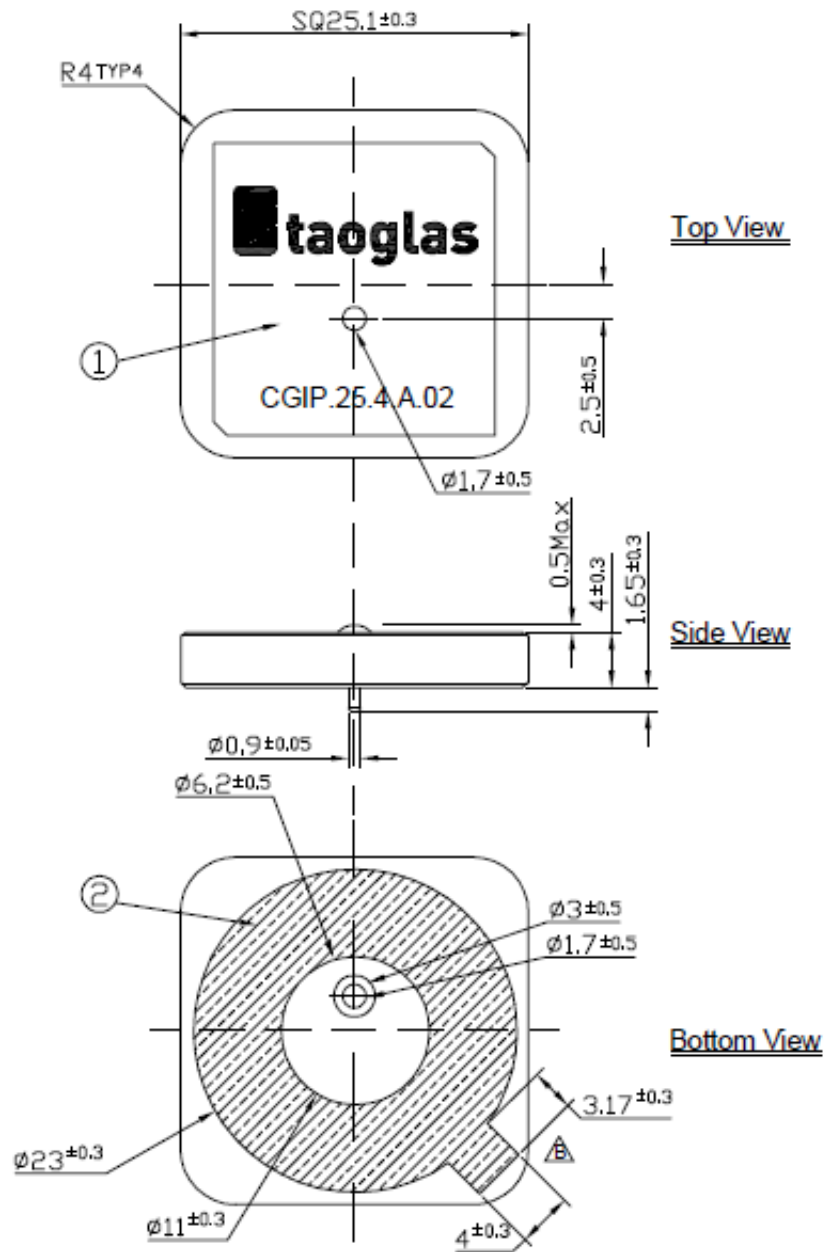
4.4 2D YZ Plane Radiation Pattern




4.5 2D XY Plane Radiation Pattern




5. Mechanical Drawing



NOTES:

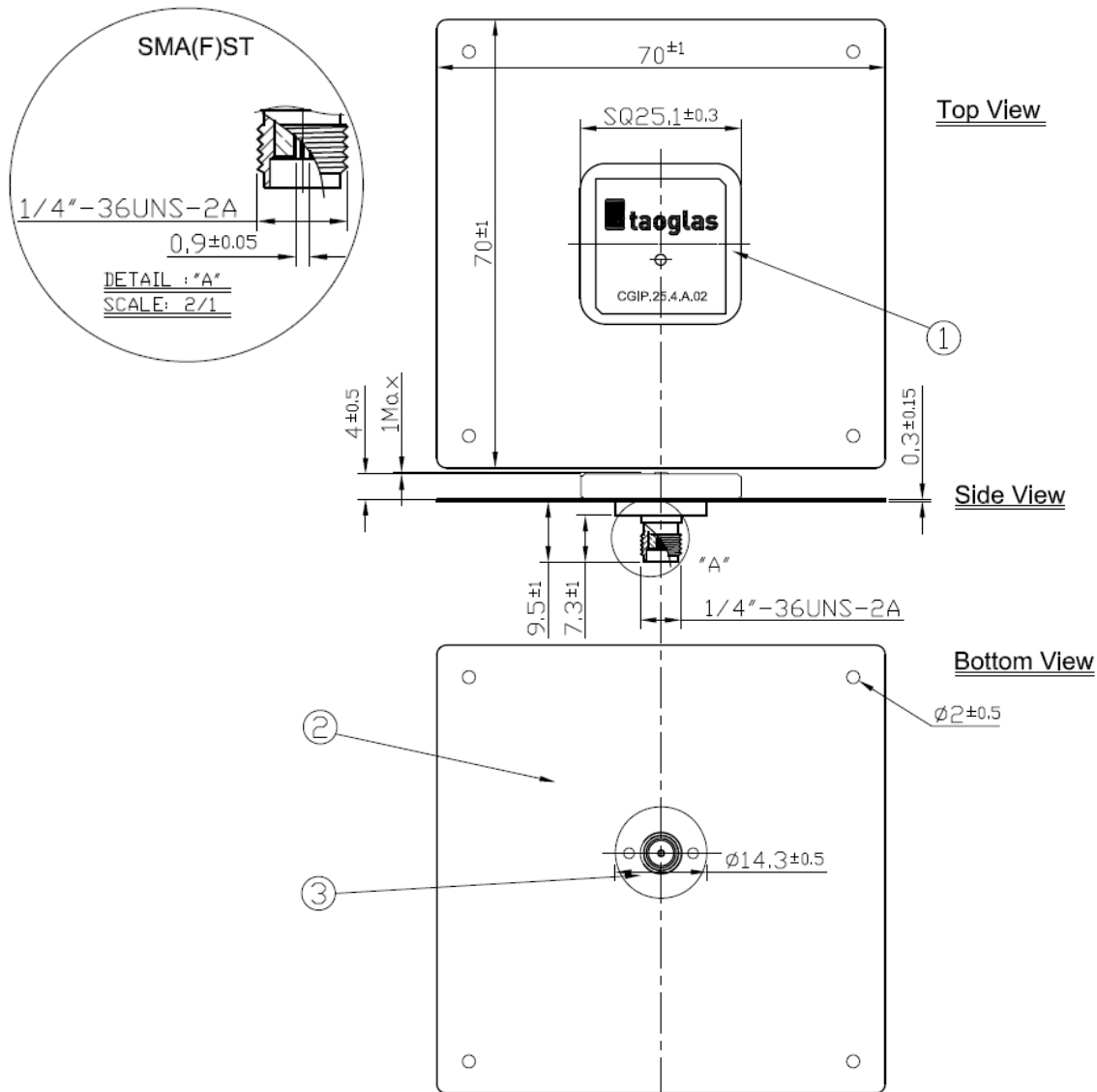
1. Double sided adhesive area 

	Name	Material	Finish	QTY
1	Patch 25x25x4mm	Ceramic	Clear	1
2	Double sided Adhesive	NITTO 5015 	White Liner	1

Unit : mm

6.CGIP.25.4.A.02 on Evaluation Board

The CGIP.25.4.A.02 is designed with 70mm*70mm square metal plane, put the antenna at the center of the metal ground, and then the antenna will have excellent performance. The recommendation setup is shown as follows.



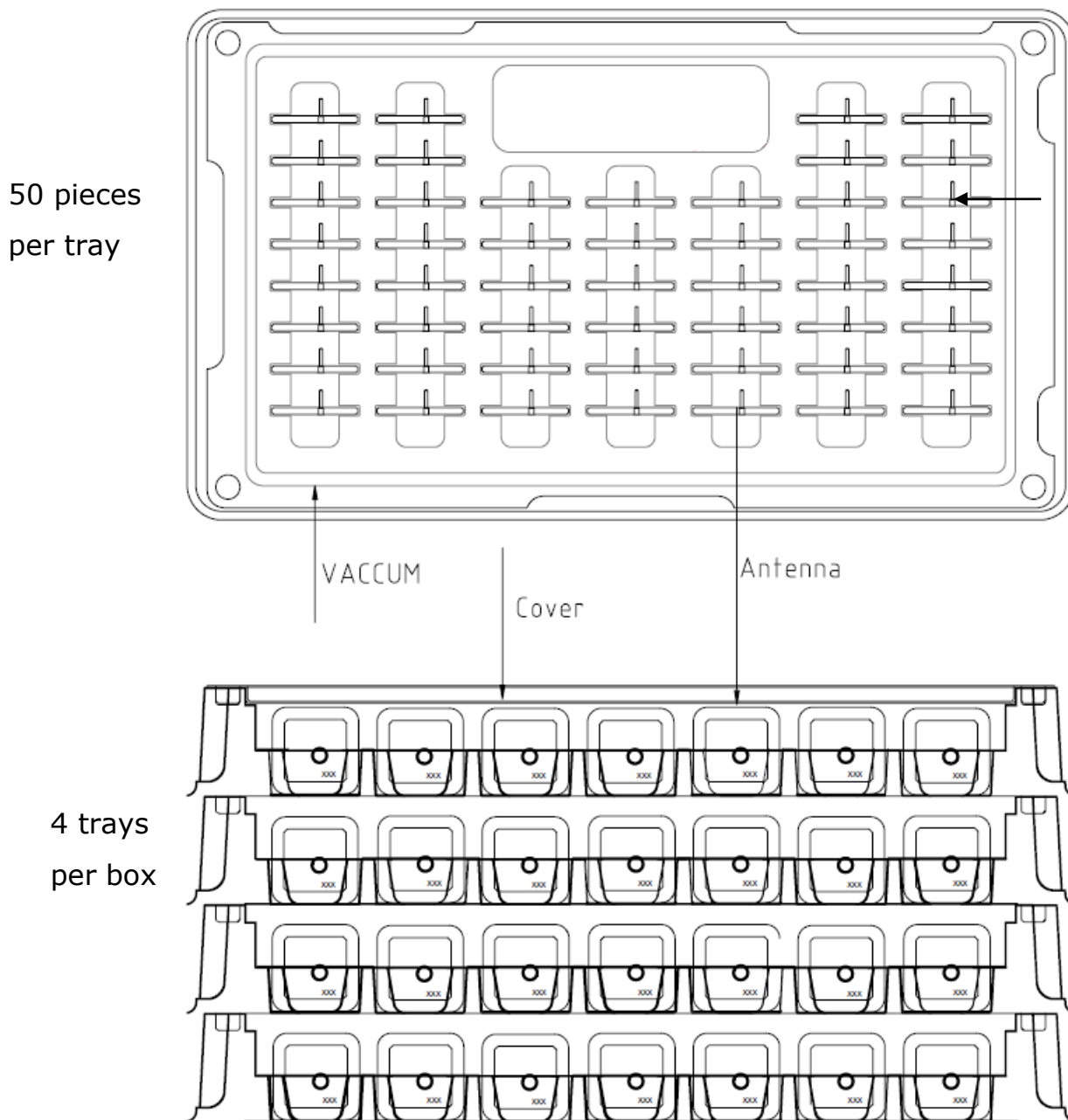
	Name	Material	Finish	QTY
1	Patch 25x25x4	Ceramic	Clear	1
2	Ground	Brass	Clear	1
3	SMA(F)ST	Brass	Gold	1

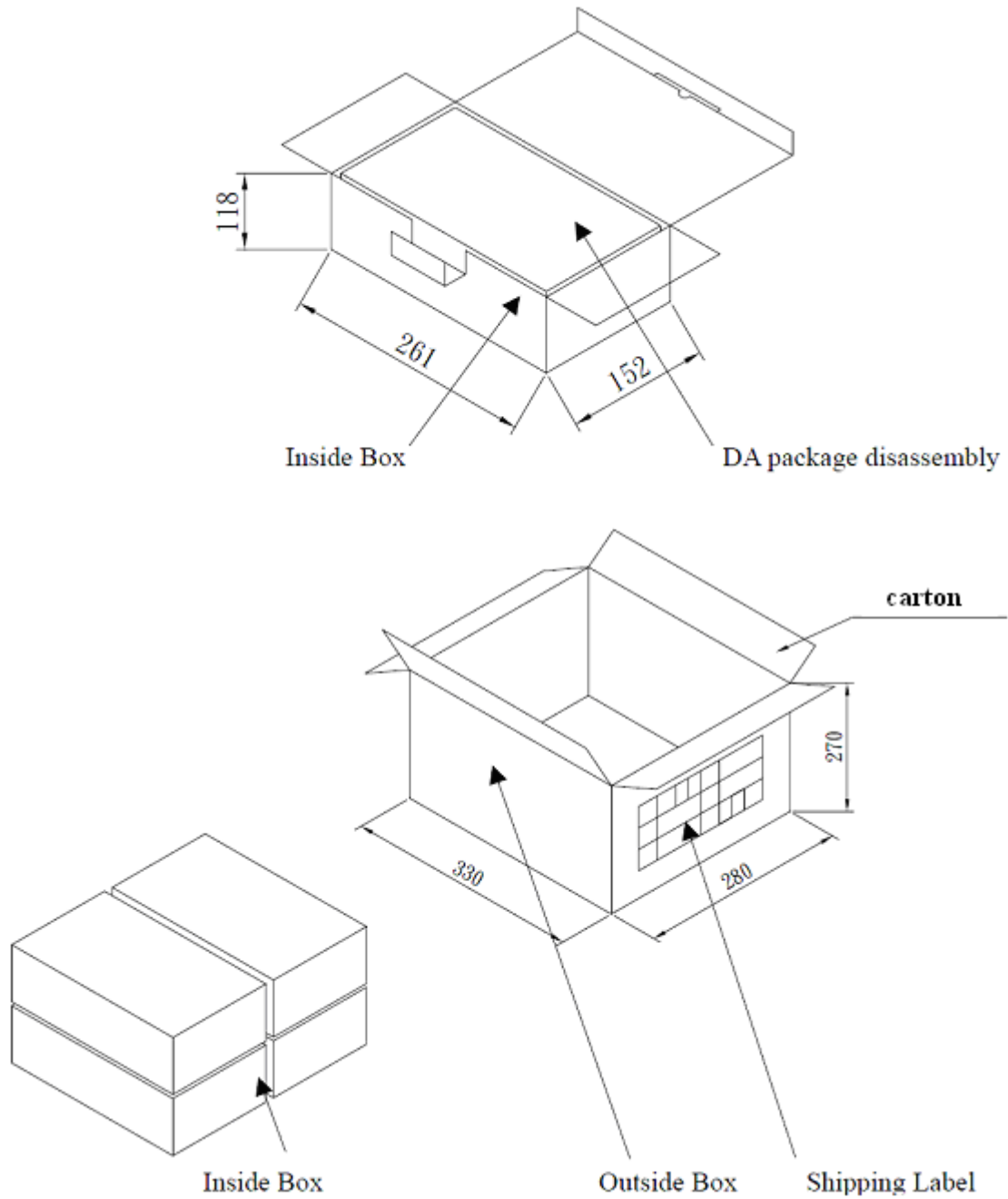
7. Packaging

50 pieces per tray

4 trays per box = 200 pieces per box

4 boxes per carton = 800 piece per carton





Unit : mm

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com