



TAOGLAS®



Datasheet

Iridium Certified Antenna

Part No:
IAA.01.121111

Description:
External magnetic mount Iridium antenna

Features:
1616 – 1626.5 MHz
Designed to work in conjunction with a 30*30cm Ground plane
Connector: SMA(M) ST
Cable: 1.2m RG-174
Custom cables and connectors available
Iridium has certified the IAA.01.121111 antenna for commercial use in connection with the Iridium Communications System
RoHS & REACH Compliant

| | |
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1. Introduction



The IAA.01 is a high-performance magnetic mount antenna which is designed specific to communicate efficiently with the Iridium[®] Satellite Communication system. The IAA.01 has been specifically designed to work on a 30*30cm ground plane.

The IAA.01 utilises the Taoglas expertise in ceramics by incorporating a ceramic patch tuned specifically for the antenna environment, giving greater stability. The antenna housing is strong, corrosive proof and waterproof to IP67. The magnetic mount allows for easy installation and removal between vehicles or assets, it is easily converted to an adhesive type for greater flexibility.

Iridium[®] has certified the IAA.01.121111 Antenna for commercial use in connection with the Iridium Communications System. Iridium Satellite LLC is the owner of “Iridium” and all other Iridium trademarks, service marks and logos contained herein.

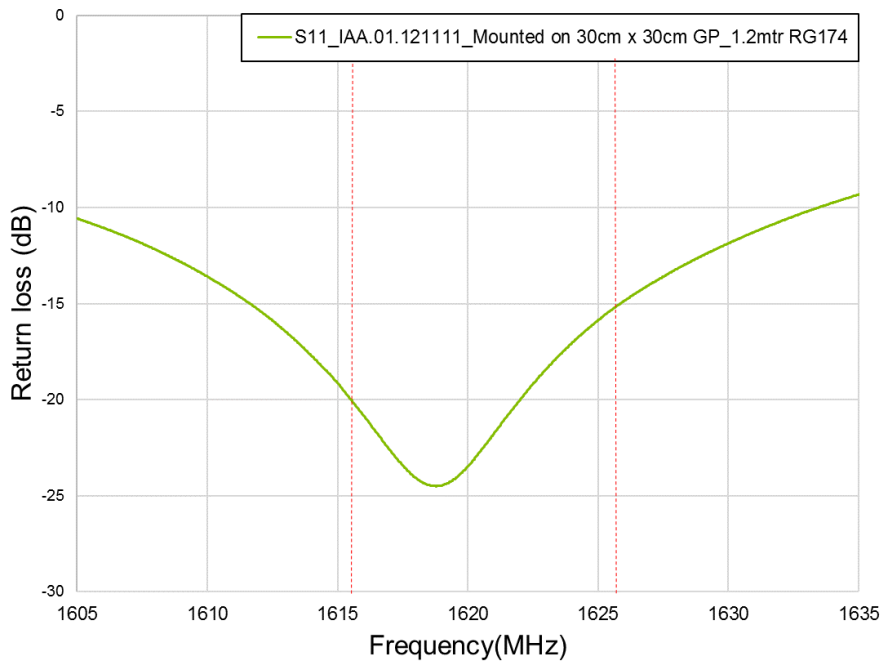
The cable and connector are fully customizable, for more information contact your regional Taoglas Customer Support Team.

2. Specifications

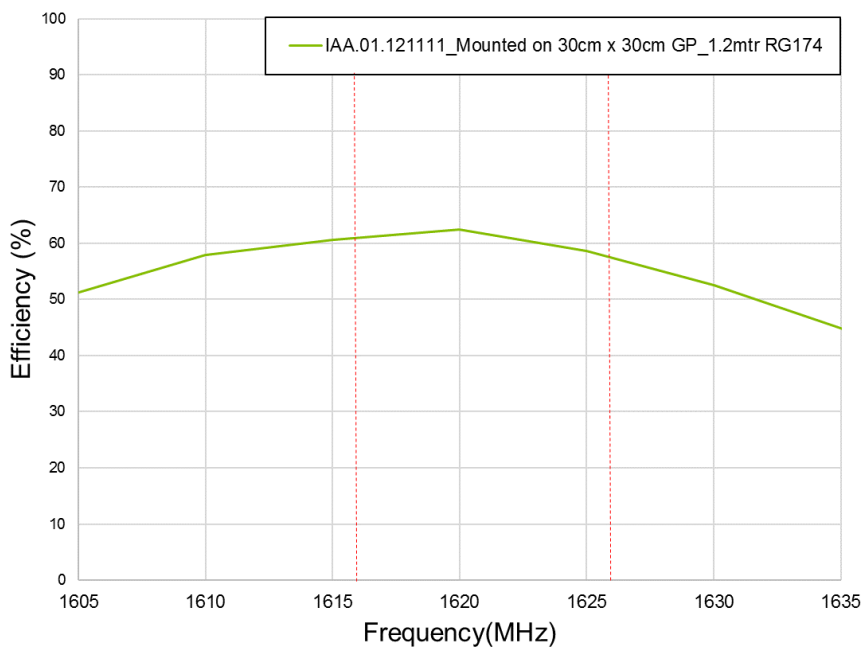
| Electrical | |
|----------------------------|---------------------------------------|
| Frequency Range (MHz) | 1616-1626.5MHz |
| Centre Frequency | 1621MHz |
| Peak Gain (dBi) | |
| With Ground plane(30x30cm) | 3.7 |
| Average Gain (dB) | |
| With Ground plane(30x30cm) | -2.1 |
| Efficiency (%) | |
| With Ground plane(30x30cm) | 62 |
| Impedance | 50Ω |
| VSWR | 1.2 |
| Polarization | RHCP |
| Bandwidth | 31.5kHz |
| Mechanical | |
| Dimensions | 40.5 x 38 x 12.3mm |
| Cable | 1.2m of RG-174 |
| Casing | ABS |
| Connector | SMA Male Straight |
| Ground Plane Size | 30 x 30cm |
| Environmental | |
| Operation Temperature | -40°C to 85°C |
| Storage Temperature | -40°C to 85°C |
| Relative Humidity | 40% to 95% RH |
| Termination | Ag (Environmentally Friendly PB Free) |

3. Antenna Characteristics

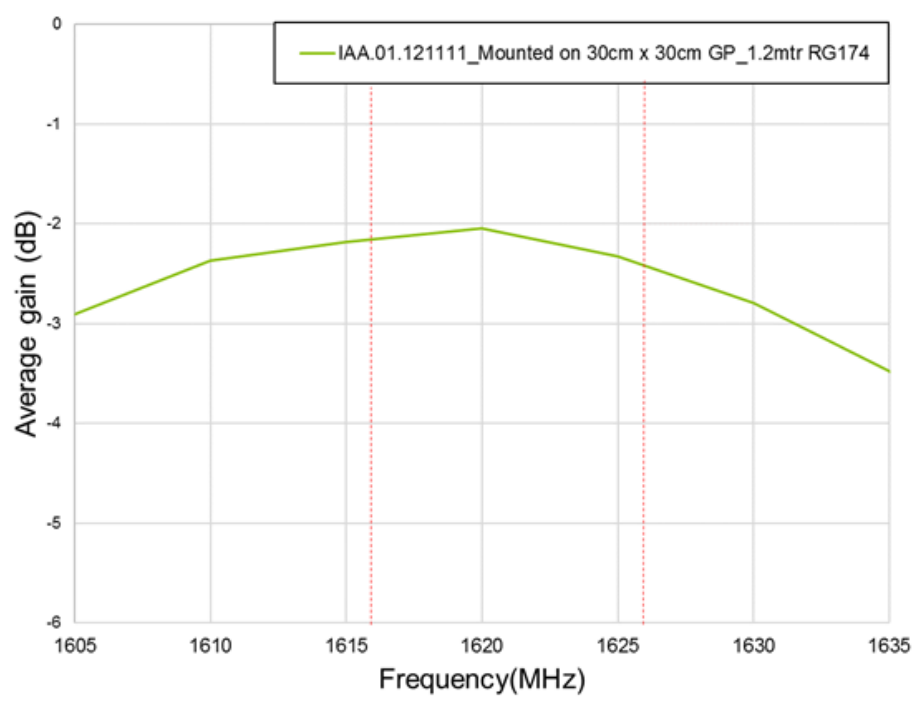
3.1 Return Loss



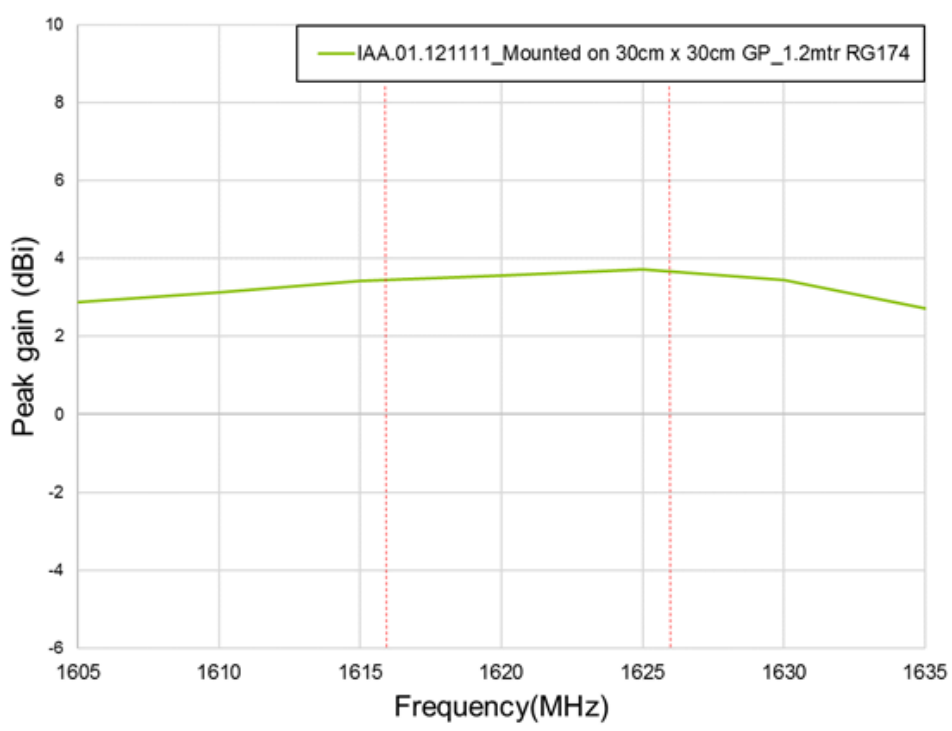
3.2 Efficiency



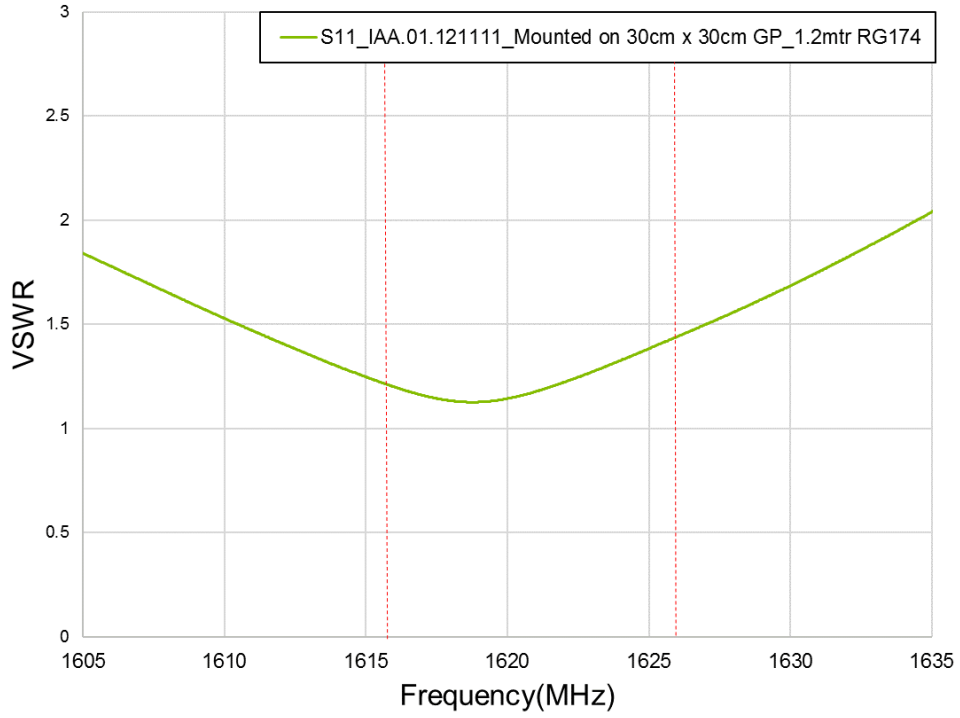
3.3 Average Gain



3.4 Peak Gain

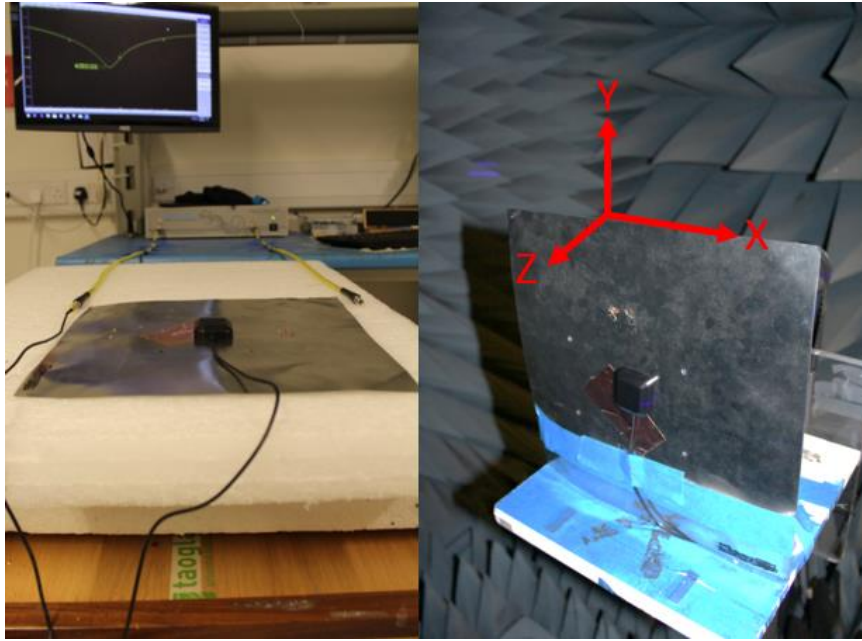


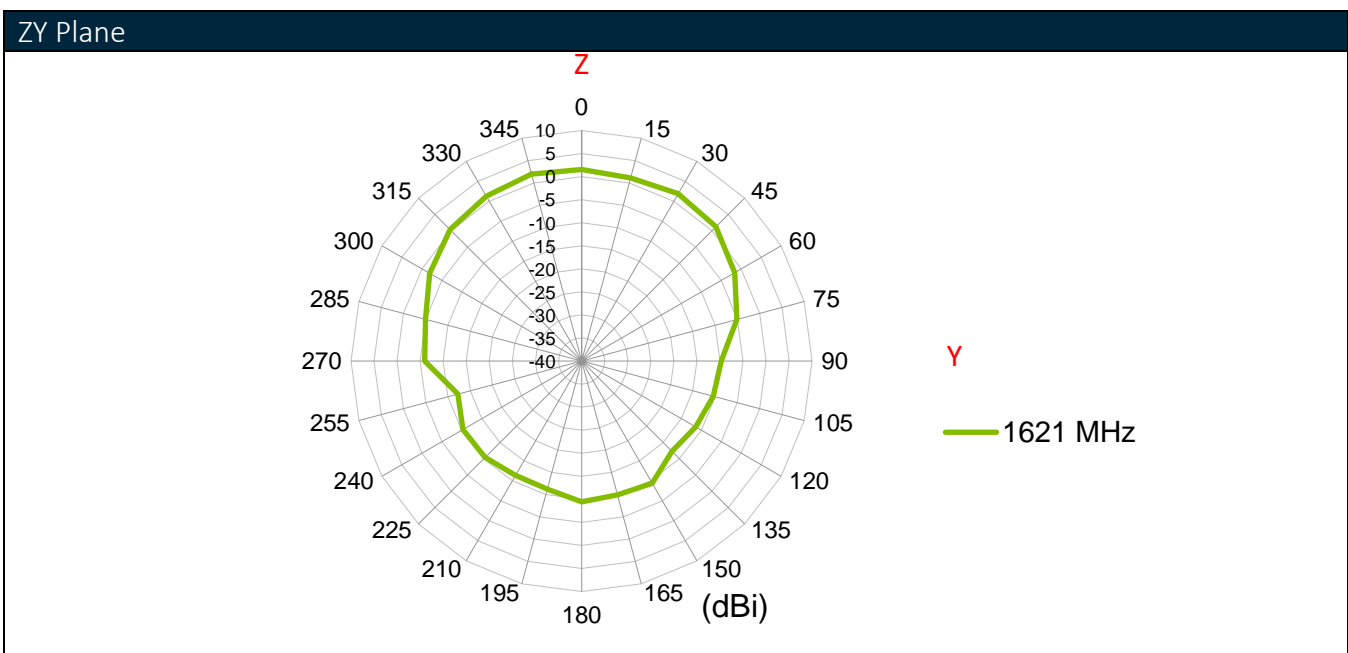
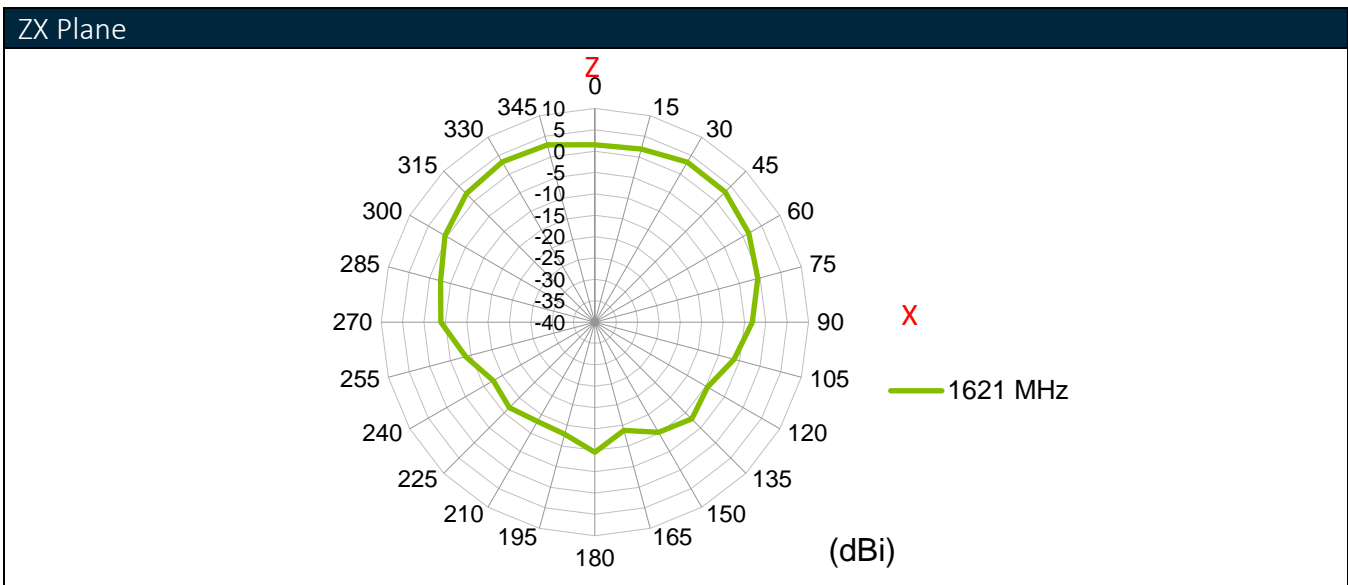
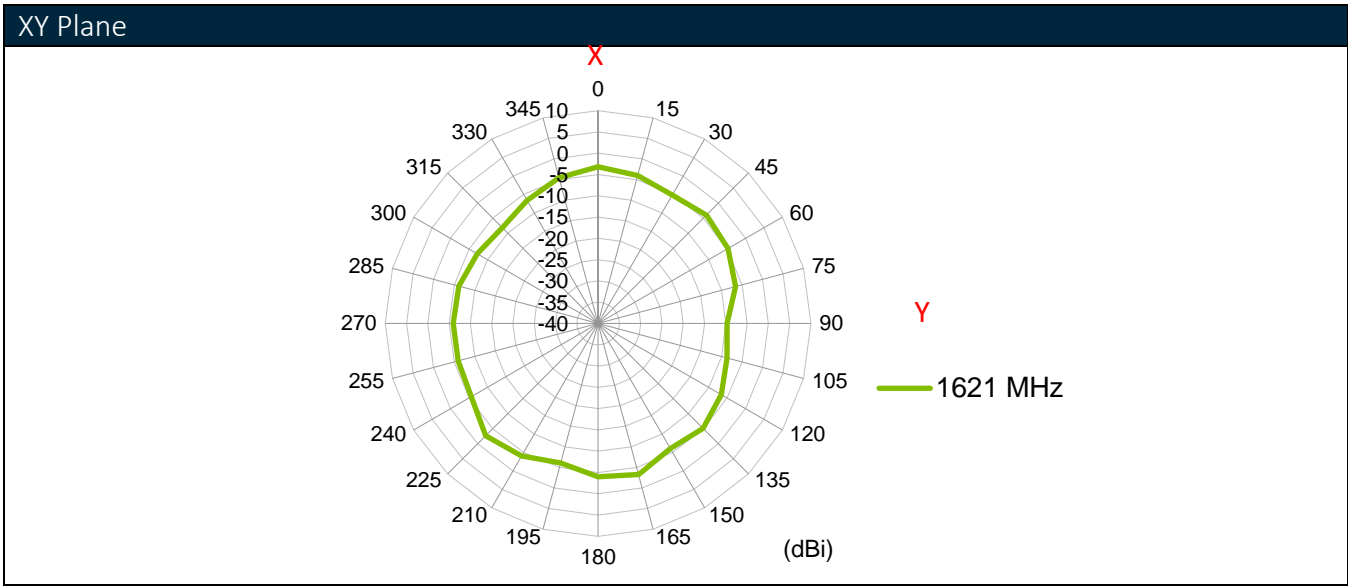
3.5 VSWR



4. 2D Radiation Patterns

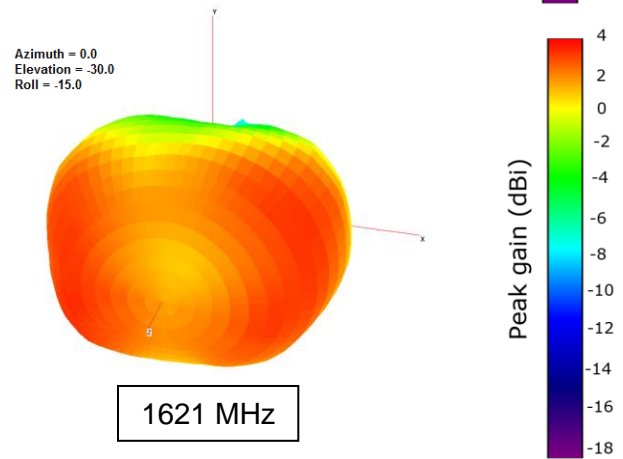
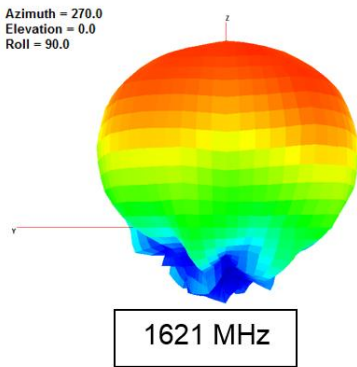
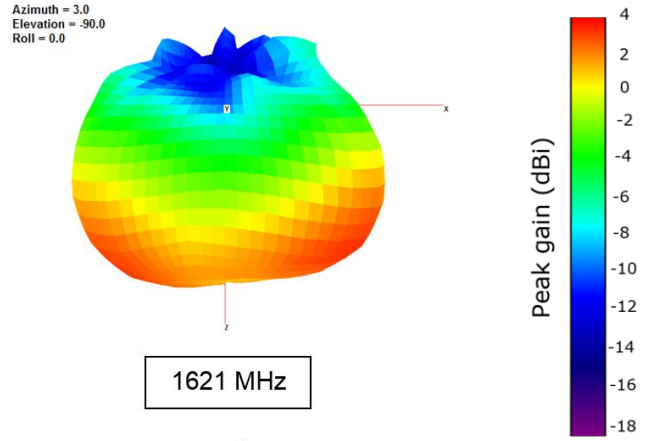
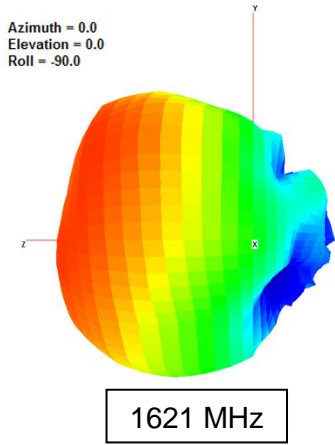
4.1 Test Setup on a 30*30 Ground Plane



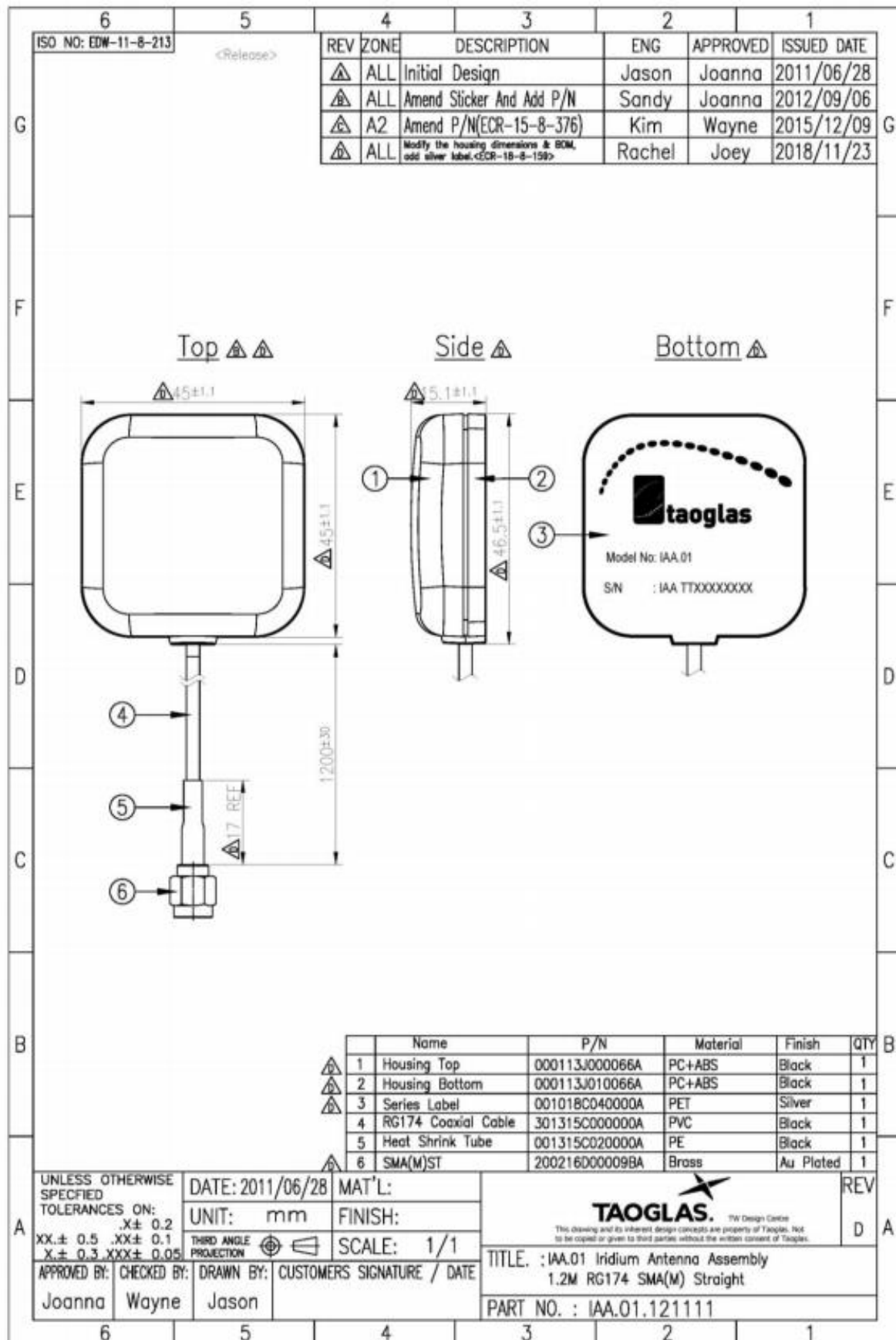


5. 3D Radiation Patterns

5.1 Mounted on 30cm x 30cm metal ground plane

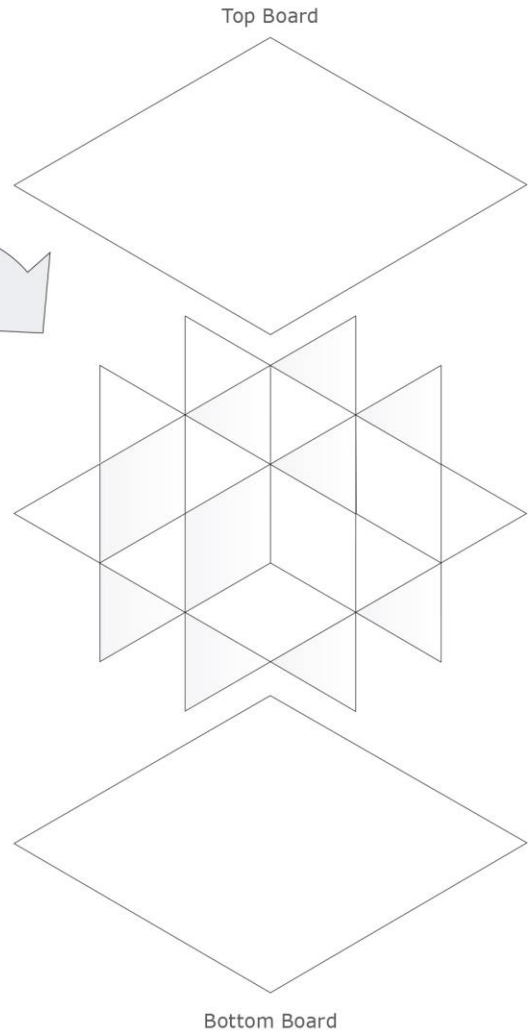
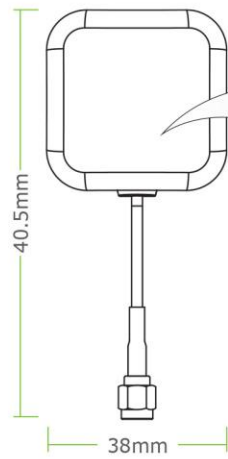


6. Mechanical Drawing (Units: mm)

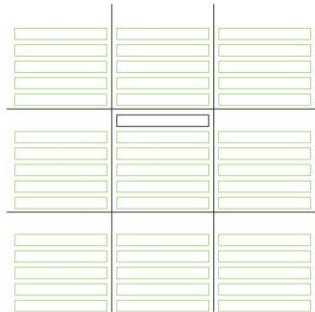


7. Packaging

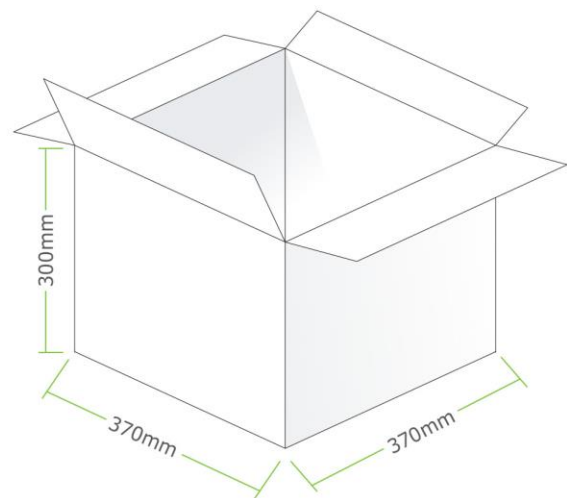
100pcs IAA.01.121111 per Carton
 Dimensions - 370*370*300mm
 Weight - 105g



Upper Layer: 46 Pieces



Lower Layer: 54 Pieces



Changelog for the datasheet

SPE-13-8-009 – IAA.01.12111

Revision: E (current version)

| | |
|------------------|---------------|
| Date: | 2020-02-07 |
| Changes: | New Test Data |
| Changes Made by: | Jack Conroy |

Previous Revisions

Revision: D

| | |
|------------------|---------------|
| Date: | 2019-05-02 |
| Changes: | New Test Data |
| Changes Made by: | Jack Conroy |

Revision: C

| | |
|------------------|---------------------|
| Date: | 2019-02-19 |
| Changes: | Updated the drawing |
| Changes Made by: | Jack Conroy |

Revision: B

| | |
|------------------|-----------------------|
| Date: | 2014-02-27 |
| Changes: | Iridium Certification |
| Changes Made by: | Aine Doyle |

Revision: A (Original Release)

| | |
|------------------|------------|
| Date: | 2013-01-25 |
| Changes: | |
| Changes Made by: | Aine Doyle |



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