

Specification

Part No. : **SP.1615.25.4.A.02**

Product Name : Globalstar 25mm 1615Mhz
Embedded Ceramic Patch Antenna

Features : 25mm*25mm*4mm
Globalstar Approved
Pin Mount
LHCP
RoHS Compliant



1. Introduction

This miniaturized 25mm square ceramic patch antenna is mounted via pin and double-sided adhesive and is the optimal embedded antenna solution for mobile Globalstar applications.

The antenna is tuned to a reference 60mm square ground-plane. With an efficiency of nearly 80% at 1615 MHz, the antenna exhibits excellent upper hemisphere radiation pattern stability. Axial ratio is less than 3 on antenna operational angles, with a minimum axial ratio of 0.54 at zenith. The SP.1615.25.4.A.02 gain and directivity characteristics have been analyzed and approved by Globalstar.

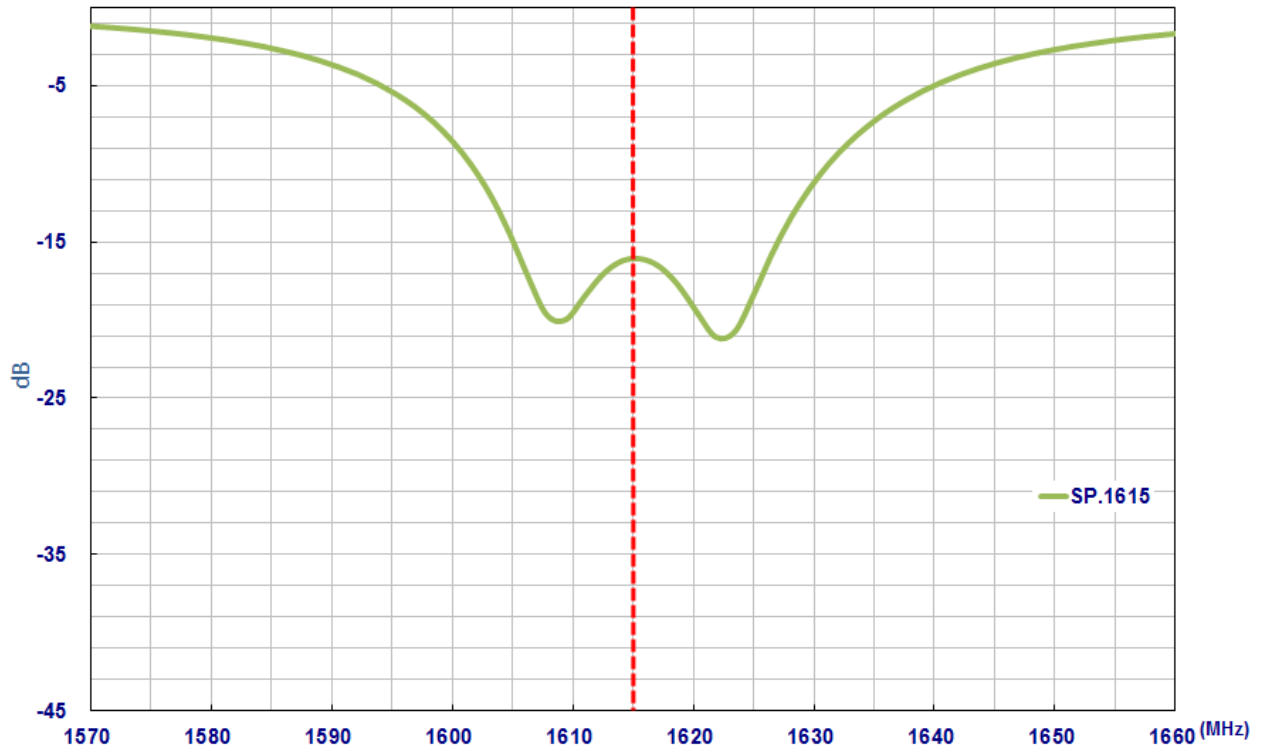
Different device ground-planes and housing environments may require a custom tuned antenna. Taoglas provides testing and support services to characterize this antenna in your device and determine whether a custom tuned solution is necessary. There is a minimum order quantity and possible NRE for a custom solution. Contact your regional Taoglas office for support.

2. Specification Table

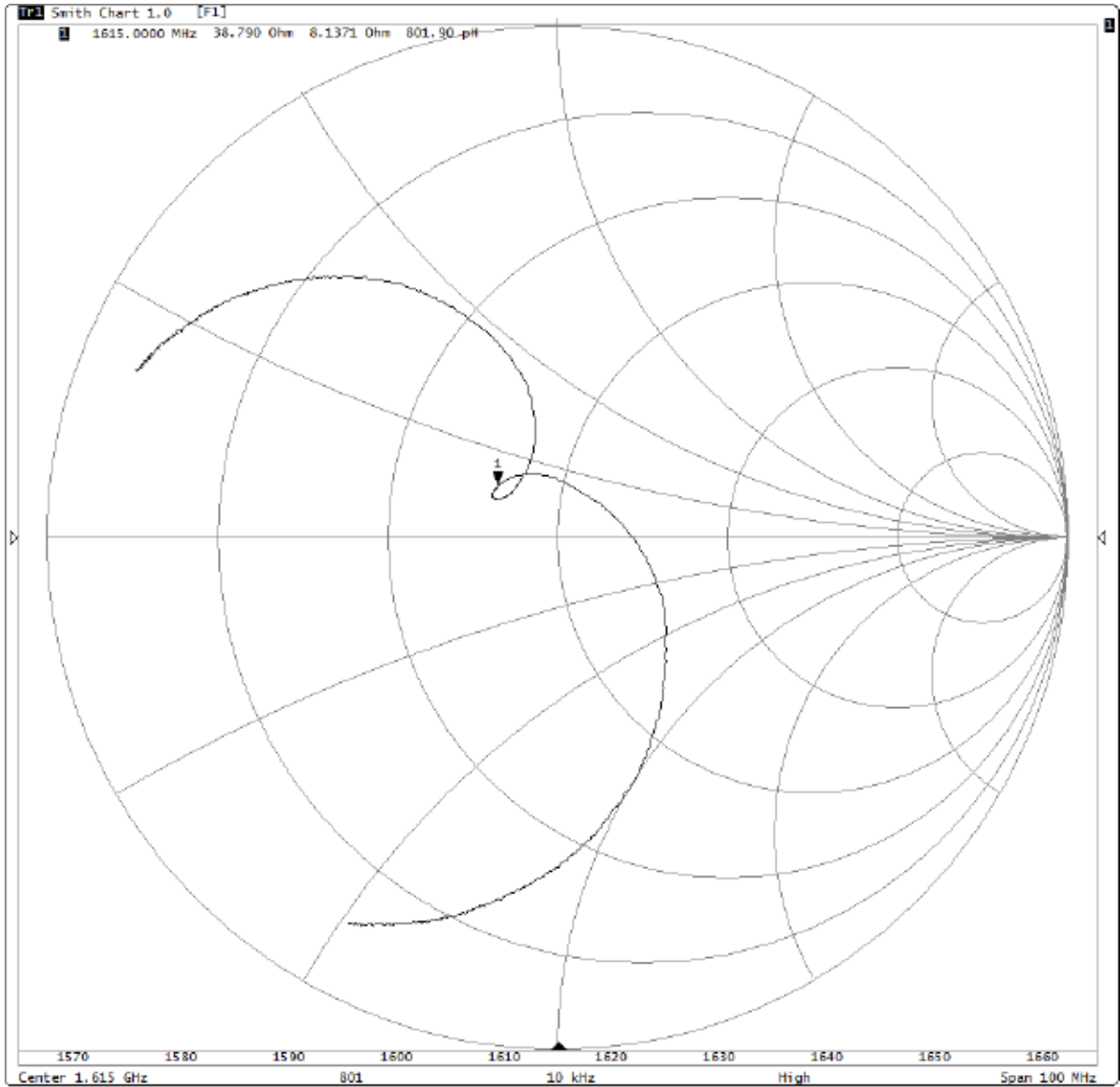
Parameter	Specification	Notes
Range Of Receiving Frequency	1615.68 ± 4.1 MHz	
Center Frequency	1615 MHz ± 3 MHz	With 60×60mm GND Plane
Bandwidth	26 MHz min	Return Loss@-10 dB
VSWR	1.5 max	Center Frequency
Peak Gain	5 dBi	
Polarization	LHCP	Left Hand Circular Polarization
Axial Ratio	3 Max. @ Zenith	
Impedance	50 Ohm	
Weight	5g	
Frequency Temperature Coefficient (τ_f)	-40°C to +105°C	0± 20ppm / °C
Operating Temperature	-40°C to +105°C	

3. Electrical Specifications

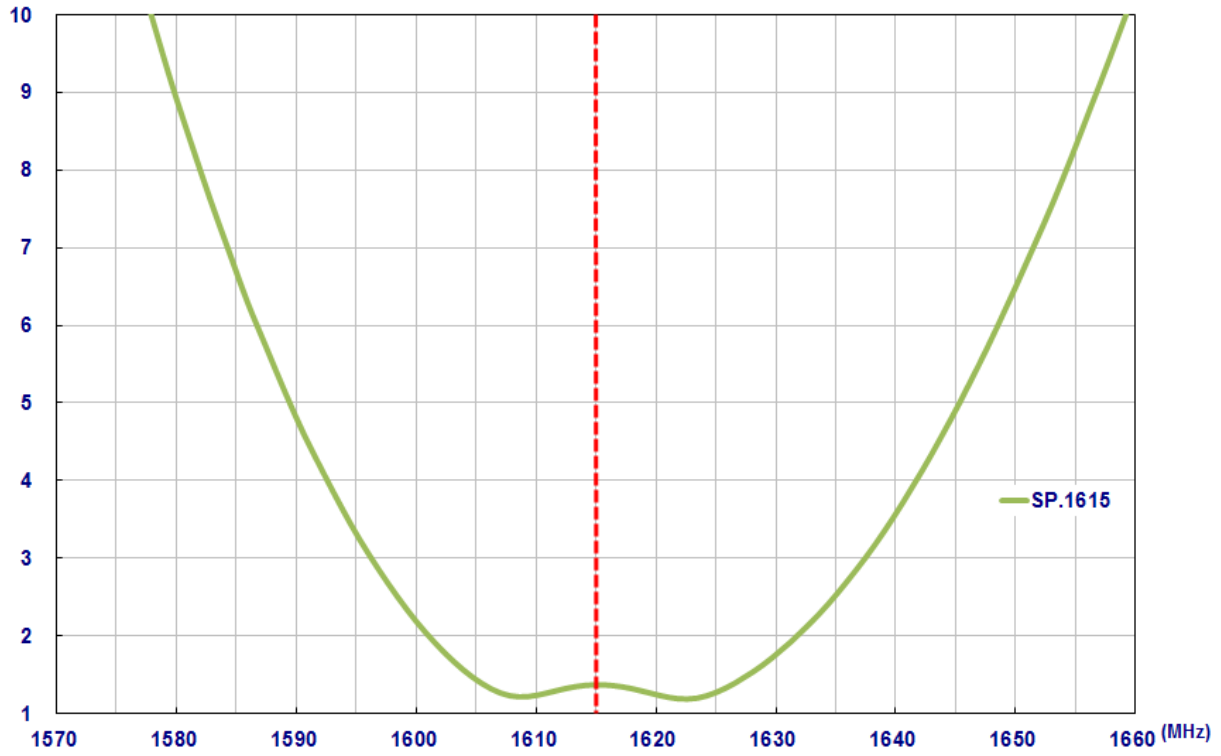
3.1 Return Loss



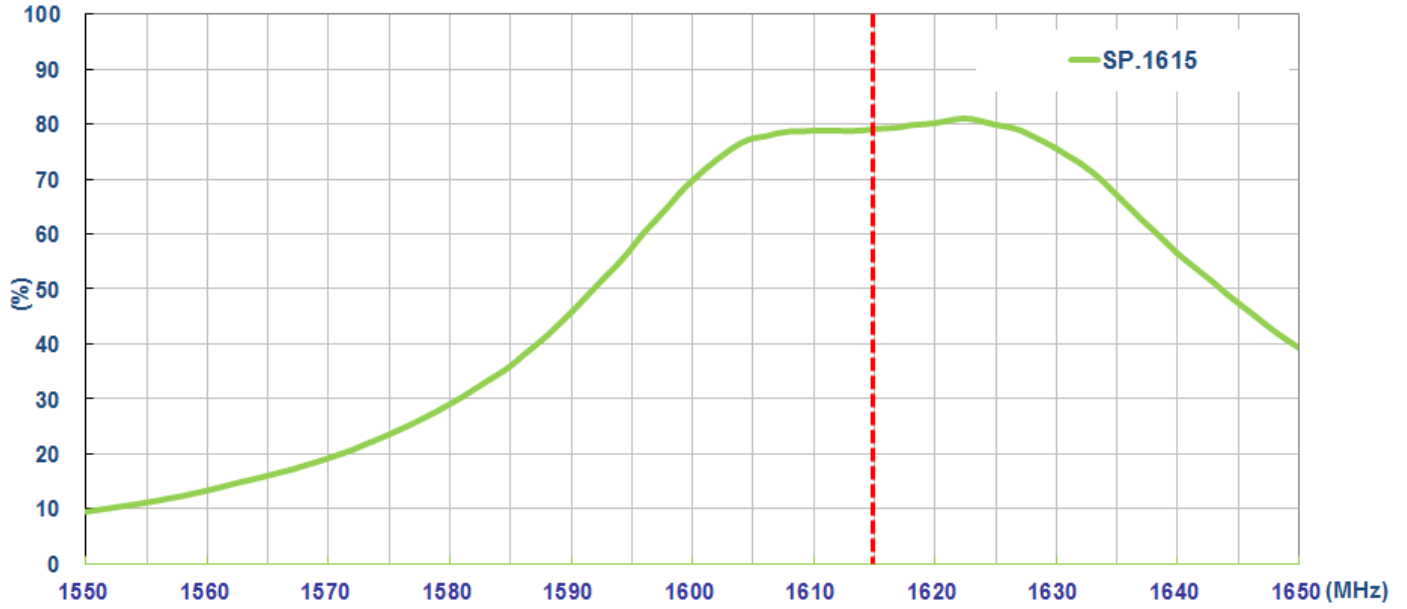
3.2 Smith Chart



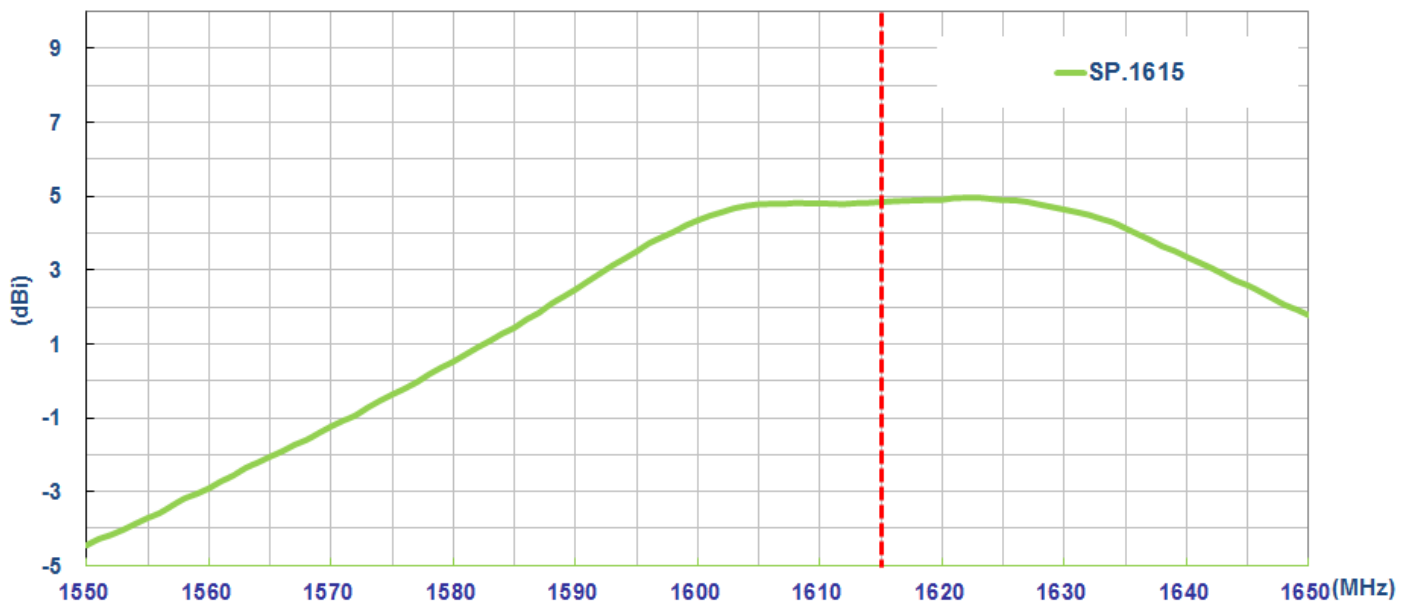
3.3 VSWR



3.4 Efficiency

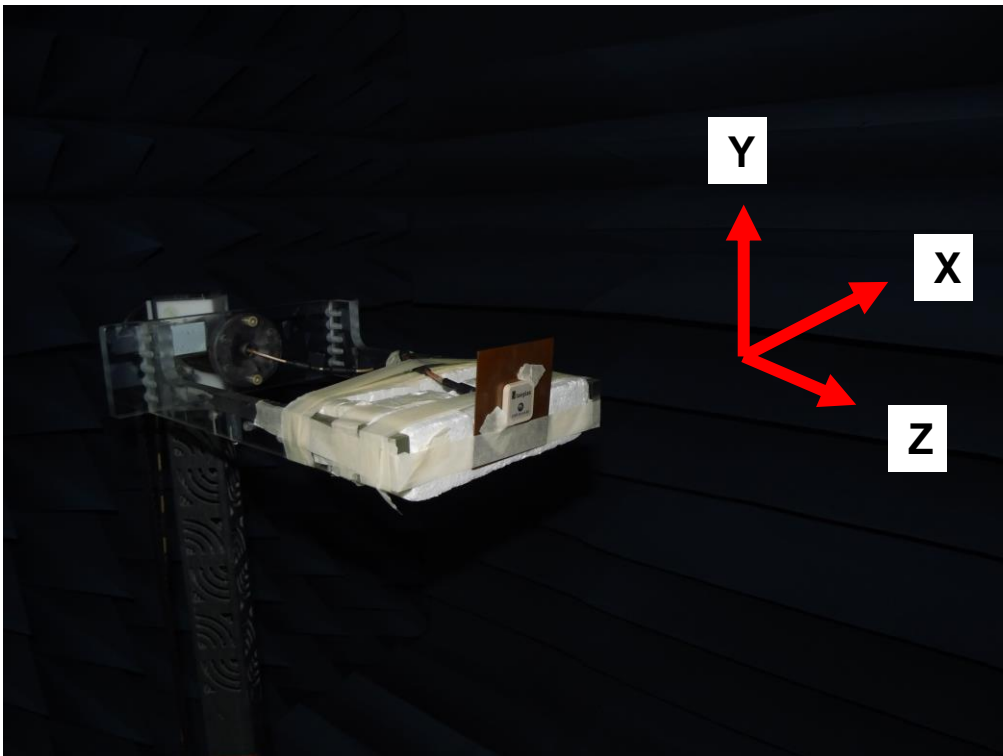


3.5 Peak Gain

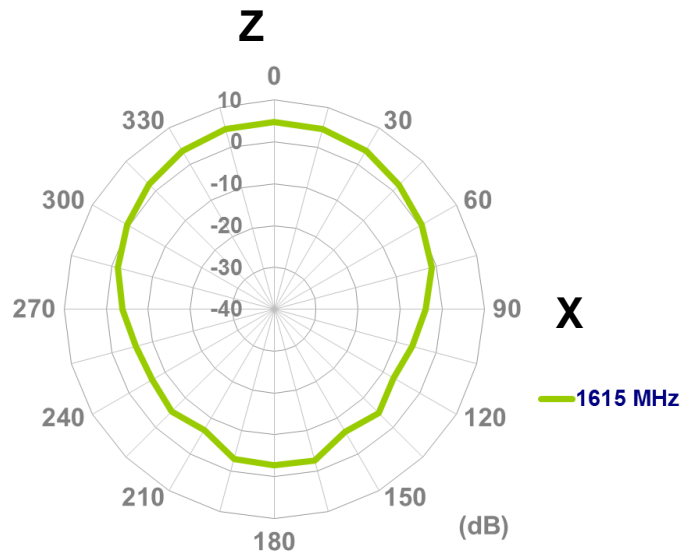


3.6 Radiation Pattern

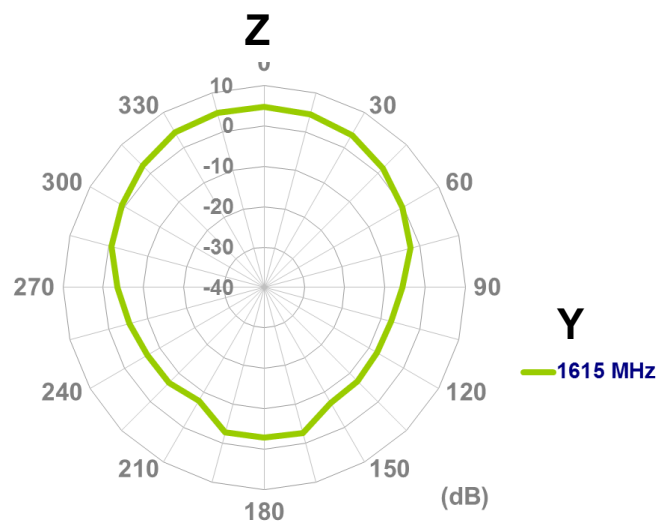
The antenna was test in a certified ETS Anchoic Chamber, the setup is as below,



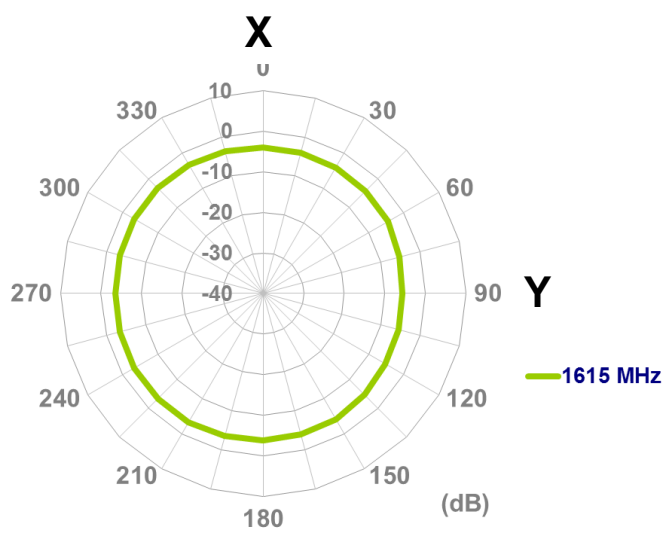
3.4.1 XZ-Plane



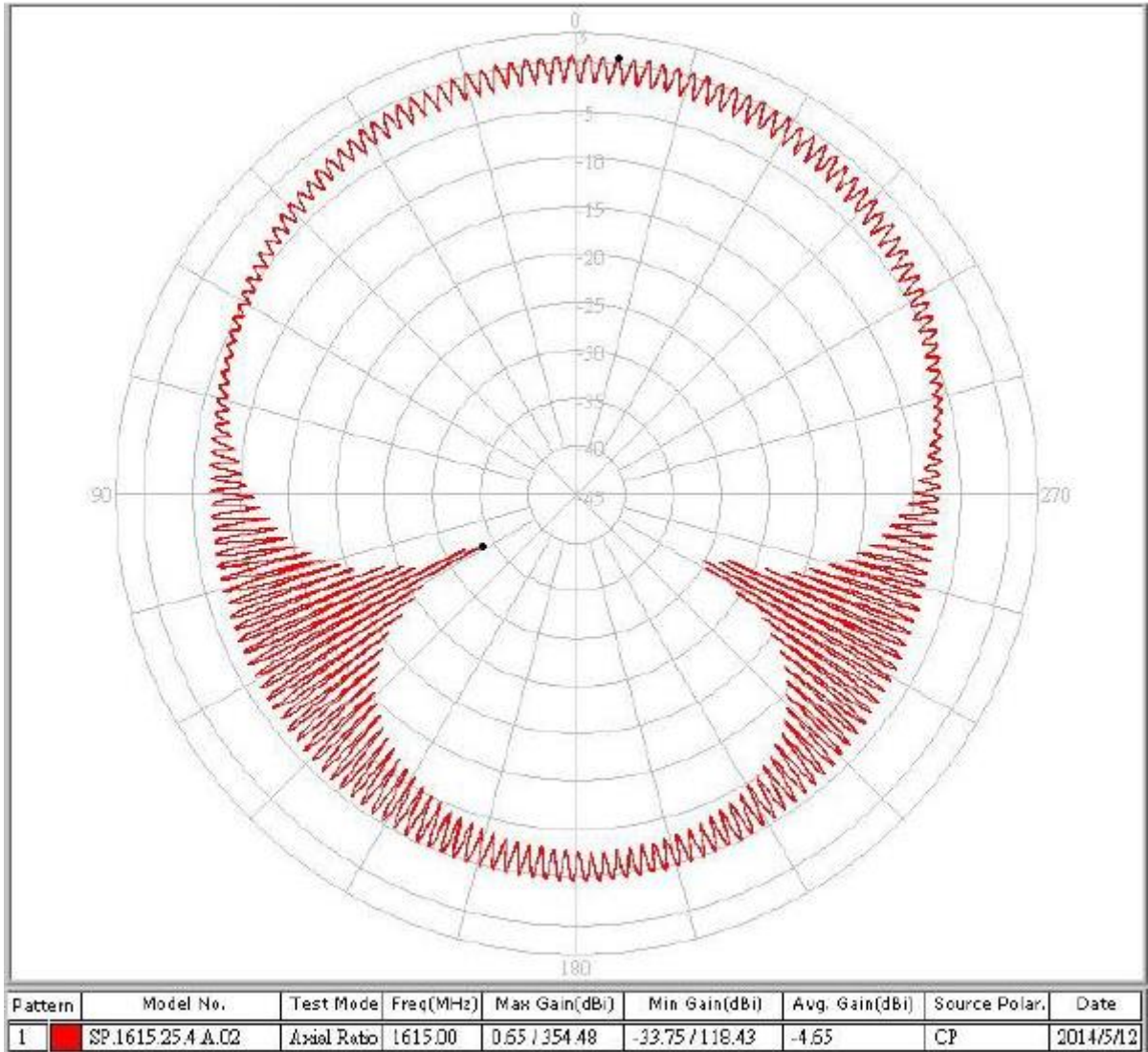
3.4.2 YZ-Plane



3.4.3 XY-Plane

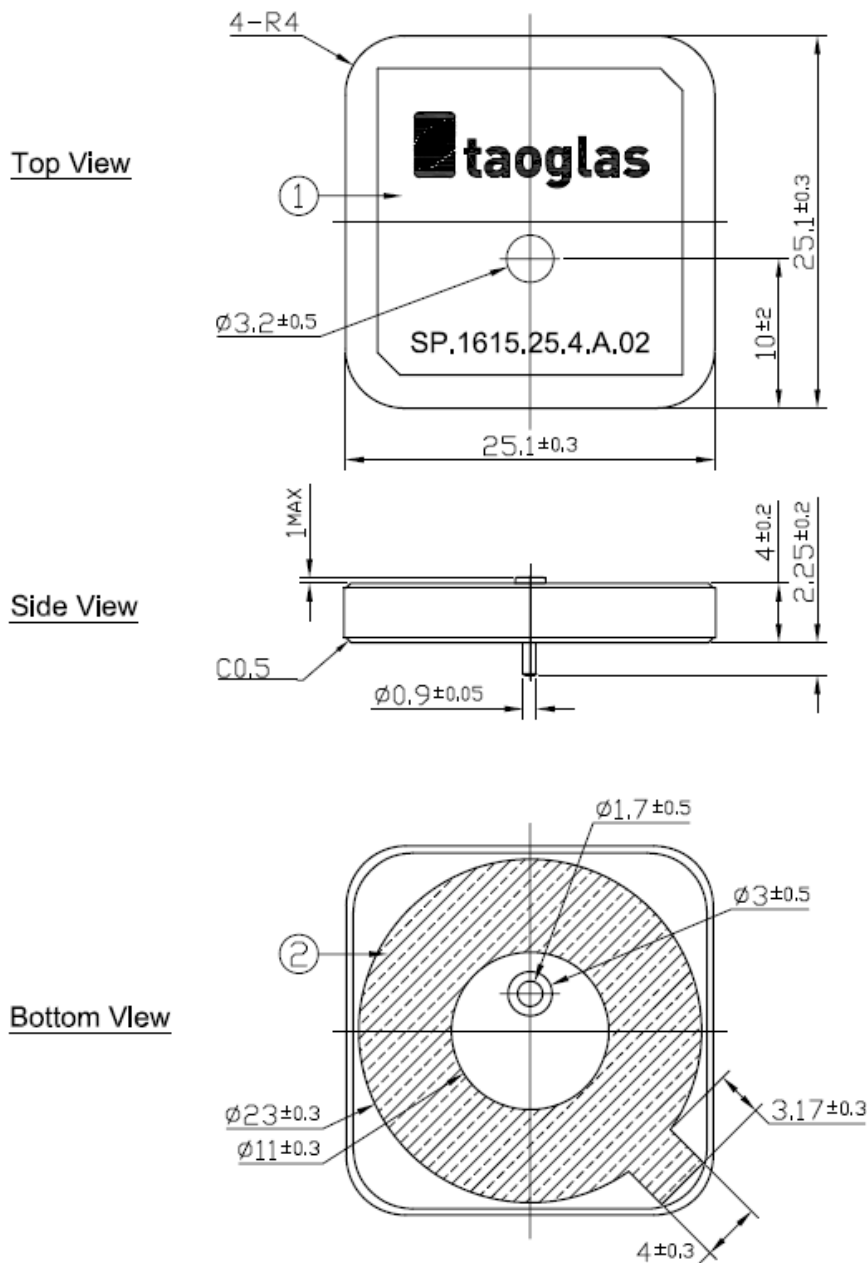


3.5 Axial Ratio



4. Mechanical Drawing

4.1 Antenna

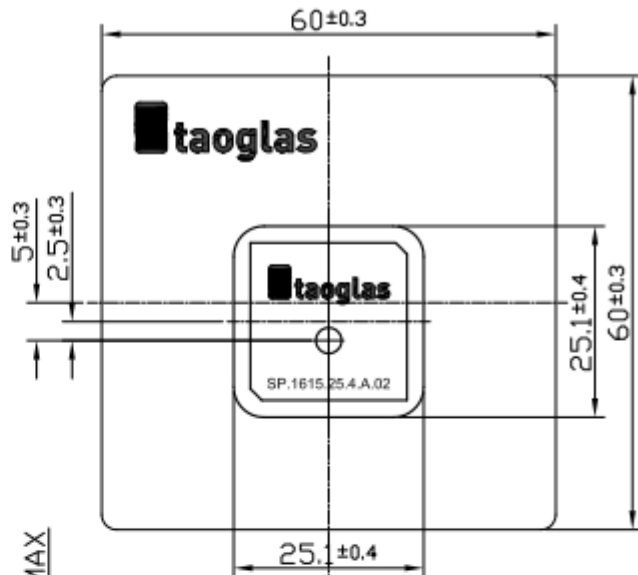


	Name	Material	Finish	QTY
1	SP.1615.25 Patch 25x25x4	Ceramic	Clear	1
2	Double sided Adhesive	NITTO 5015	White Liner	1

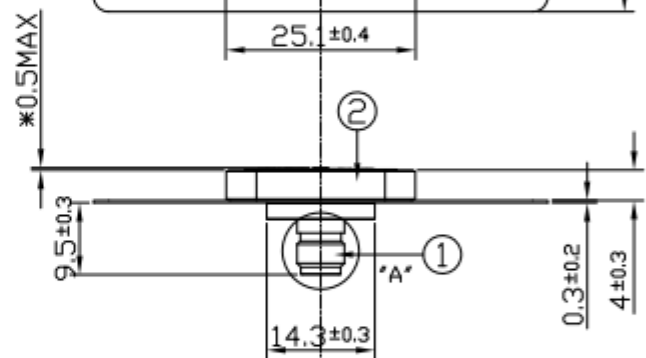
4.2 SPD.25A Evaluation Board



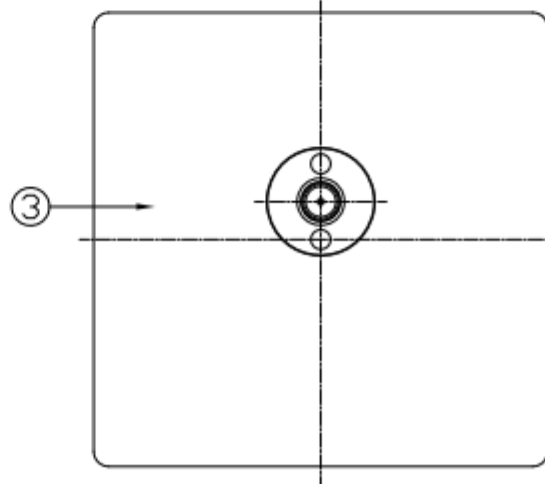
Top View



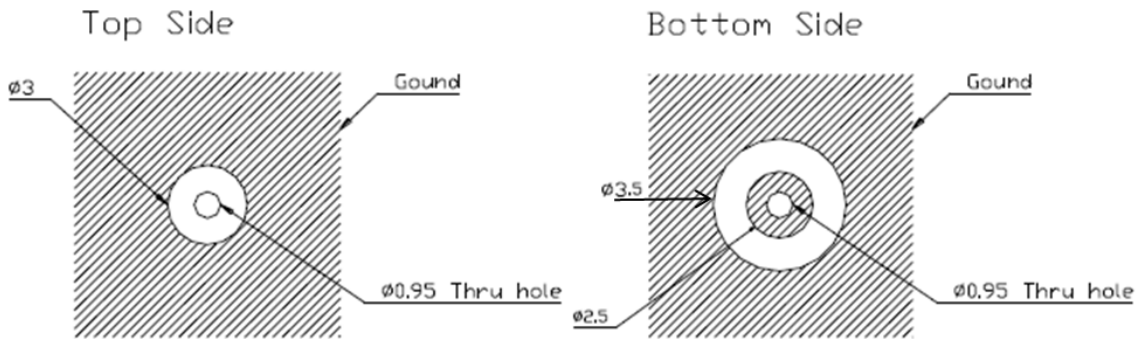
Side View



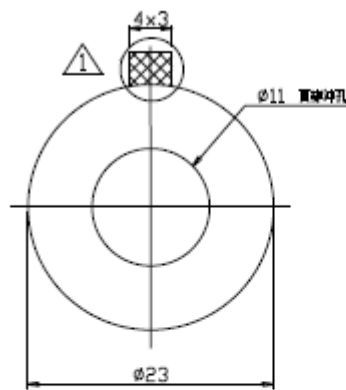
bottom View



4.3 PCB Footprint Recommendation

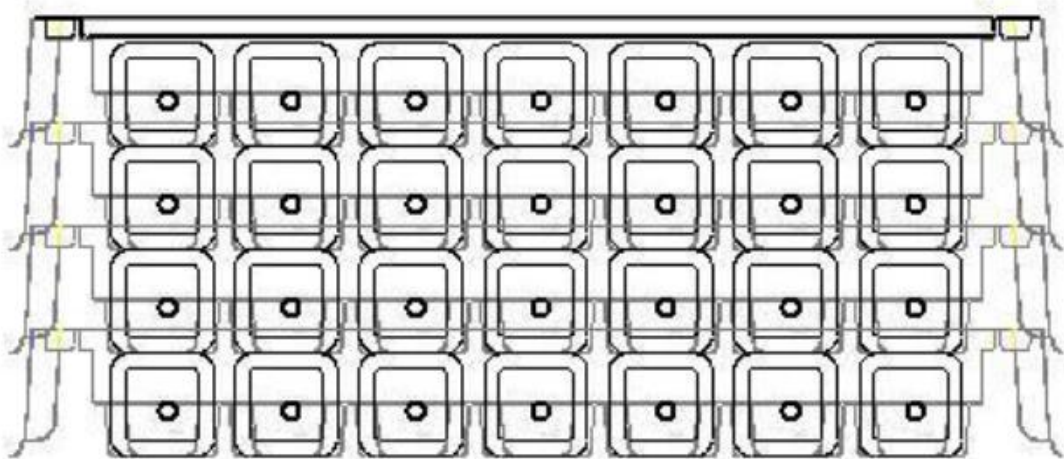
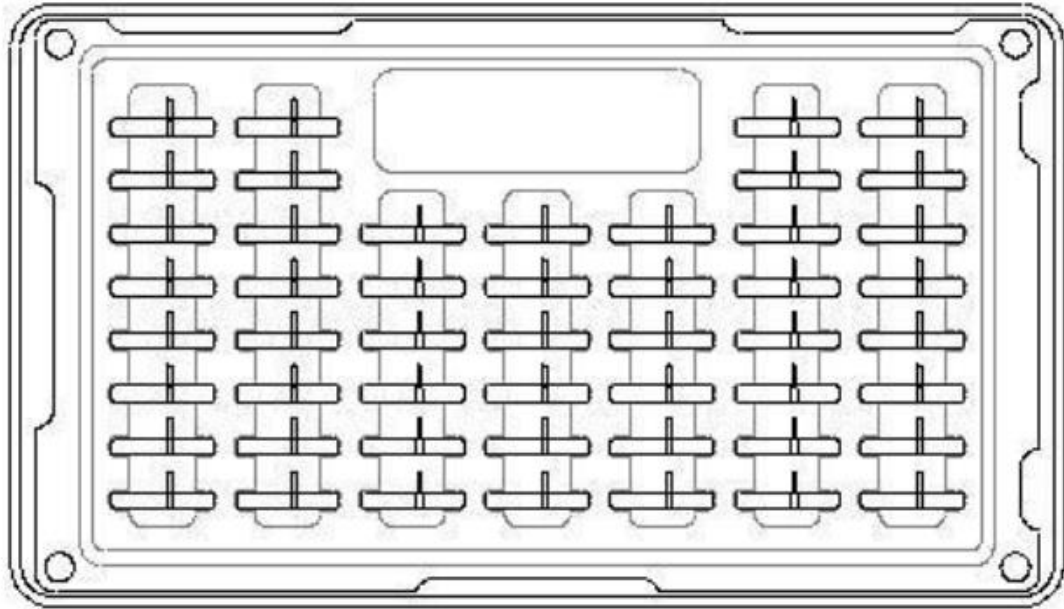


TOL: ± 0.20
 UNIT: mm



- 1. NITTO : NO.5015
- 2. Double-coated adhesive tape for industrial use
- 3. Thickness : 0.12mm

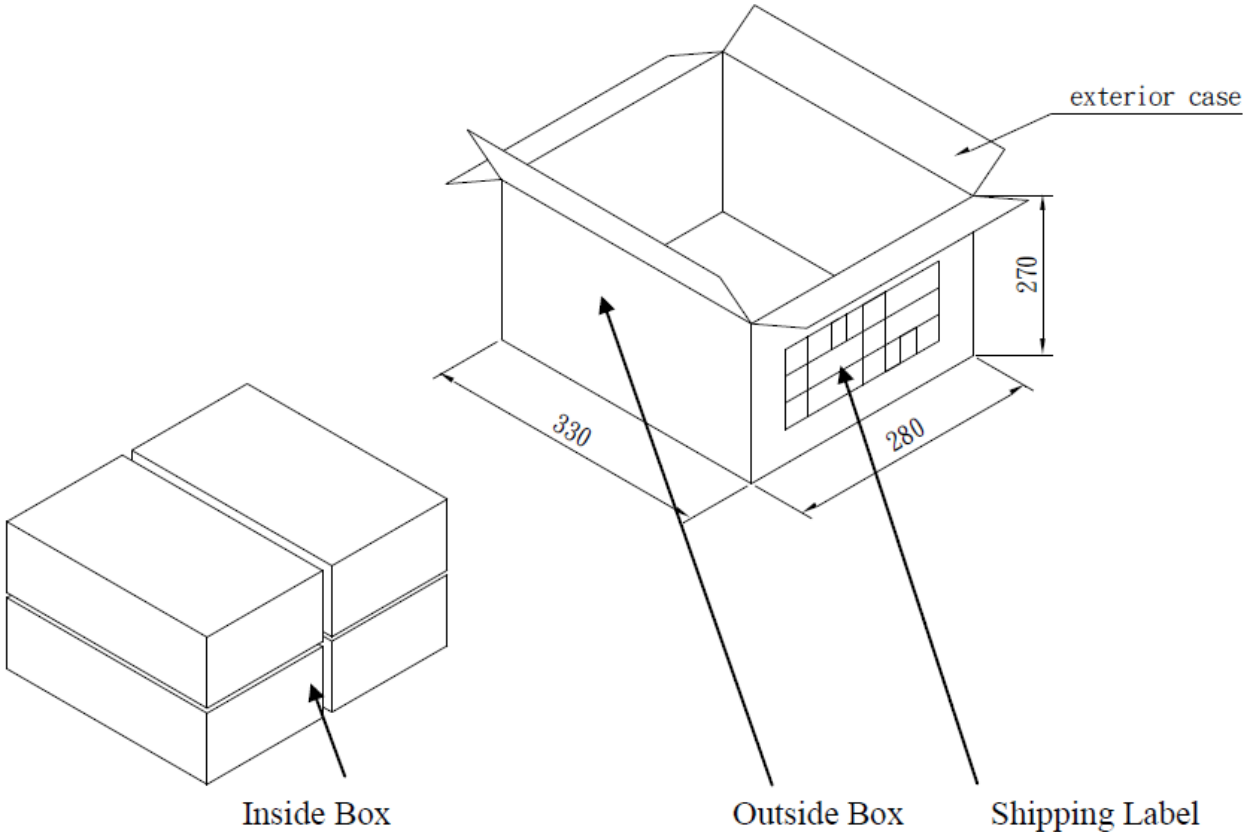
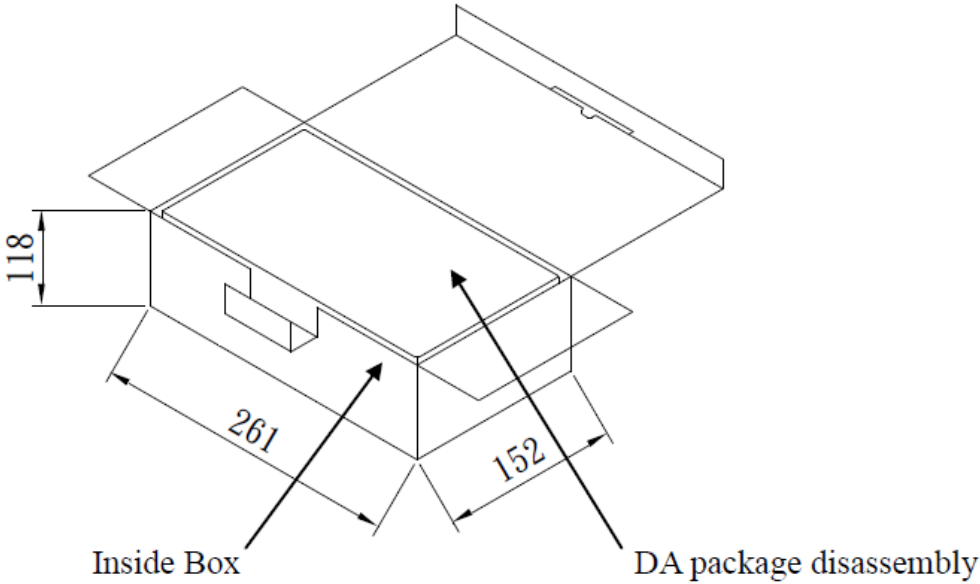
5. Packaging



50 pieces per tray

200 pieces per inner carton

800 pieces per outer carton



Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein.

Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

Copyright © Taoglas Ltd.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Antennas](#) category:

Click to view products by [Taoglas](#) manufacturer:

Other Similar products are found below :

[GAN30084EU](#) [930-033-R](#) [GW17.07.0250E](#) [1513563-1](#) [EXE902SM](#) [APAMPG-117](#) [MAF94383](#) [W3908B0100](#) [W6102B0100](#) [YE572113-30RSMM](#) [108-00014-50](#) [66089-2406](#) [SPDA17RP918](#) [A09-F8NF-M](#) [A09-F5NF-M](#) [RGFRA1903041A1T](#) [W3593B0100](#) [W3921B0100](#) [SIMNA-868](#) [SIMNA-915](#) [SIMNA-433](#) [W1044](#) [W1049B090](#) [A75-001](#) [WTL2449CQ1-FRSMM](#) [CPL9C](#) [EXB148BN](#) [0600-00060](#) [TRA9020S3PBN-001](#) [GD5W-28P-NF](#) [MA9-7N](#) [GD53-25](#) [GD5W-21P-NF](#) [C37](#) [MAF94051](#) [MA9-5N](#) [EXD420PL](#) [B1322NR](#) [QWFTB120](#) [MAF94271](#) [MAF94300](#) [GPSMB301](#) [FG4403](#) [AO-AGSM-OM54](#) [5200232](#) [MIKROE-2349](#) [WCM.01.0111](#) [MIKROE-2393](#) [MIKROE-2352](#) [MIKROE-2350](#)