SPECIFICATION

Part No.   :   **GP.1575.25.2.A.02**

Product Name   :   2mm GPS/Galileo Patch Antenna

Features   :   25mm x 25mm x 2mm

                            RoHS Compliant

1. Introduction

This miniaturized ceramic GPS/GALILEO patch antenna is based on smart *XtremeGain*™ technology. It is mounted via pin and double-sided adhesive and has been selected as optimal solution for the customer device environment.
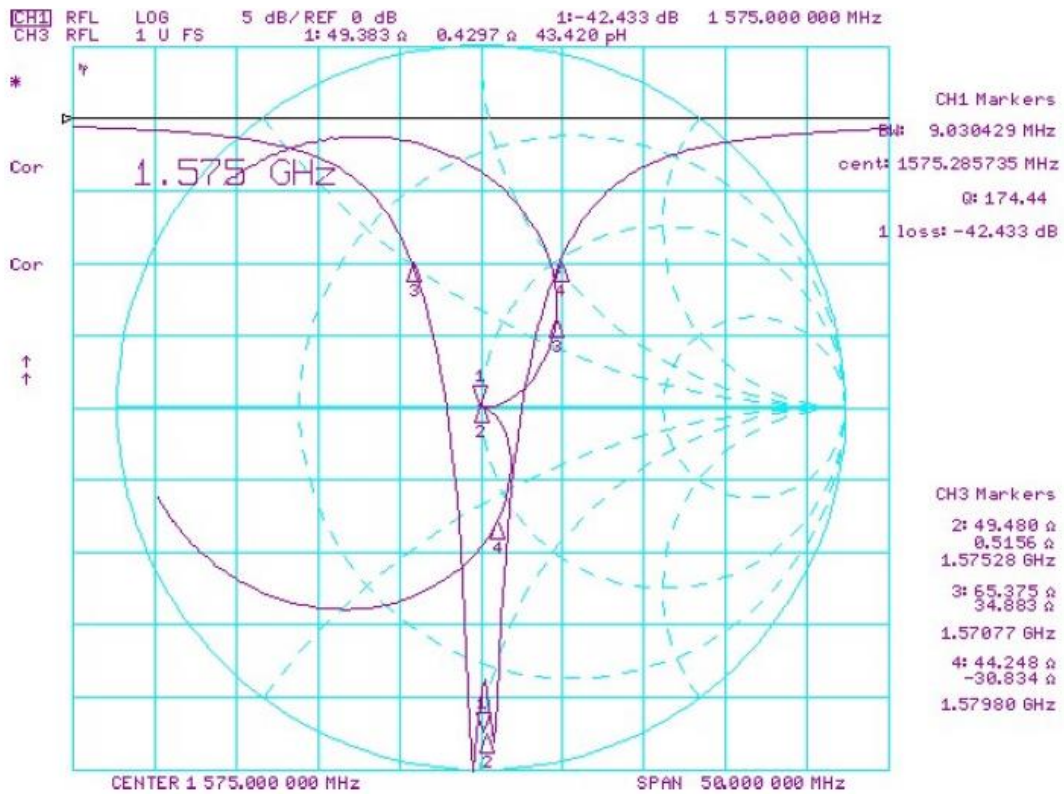
Precaution for Use

- The metal pattern on ceramic patch is silver electrode
- Please do not use corrosion gas (sulfur gas, chlorine gas) in the atmosphere.
- Please do not direct solder anything onto the silver electrode of the patch
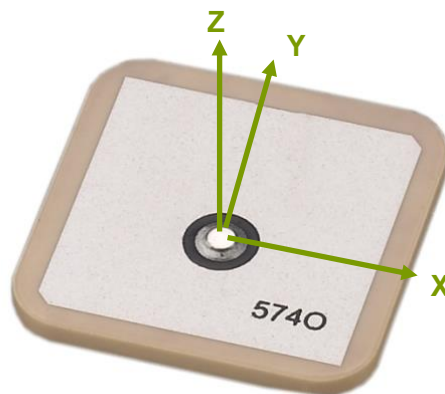
2. Specification

Parameter	Specification
Range of Receiving Frequency	1575.42MHz ± 2MHz
Bandwidth	5 MHz (10dB Return Loss)
VSWR	1.5 max
Gain at Zenith	+2.0 dBic typ.
Gain at 10° elevation	-4.0 dBic typ.
Axial Ratio	3.0 dB max
Polarization	Right Hand Circular Polarization
Operating Temperature	-40ºC to +85ºC
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*All electrical properties were tested with the antenna mounted on 35 x 35mm ground plane
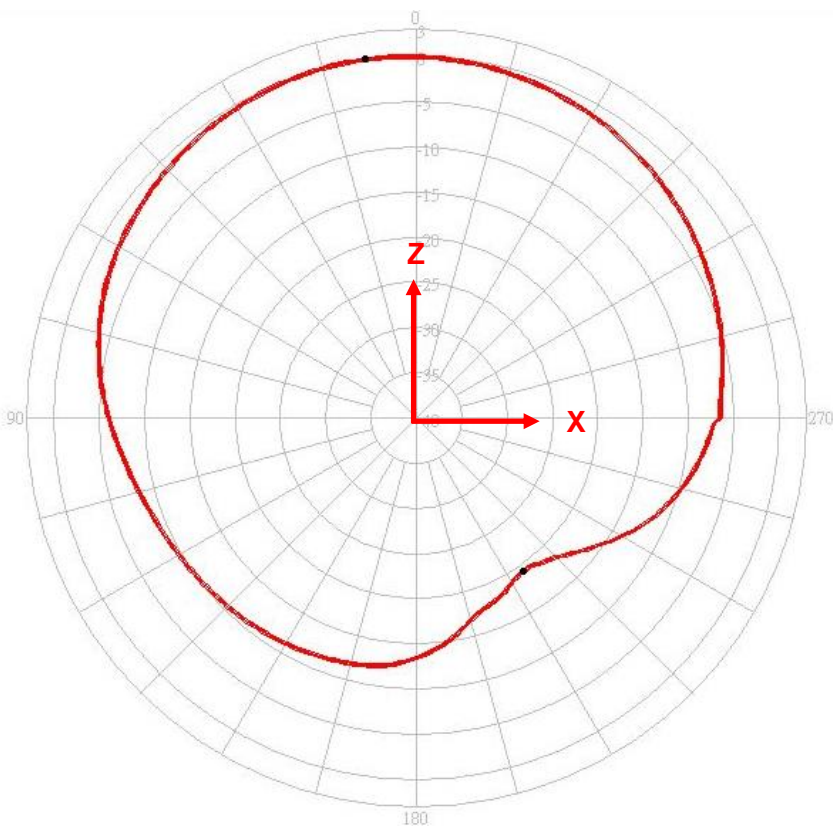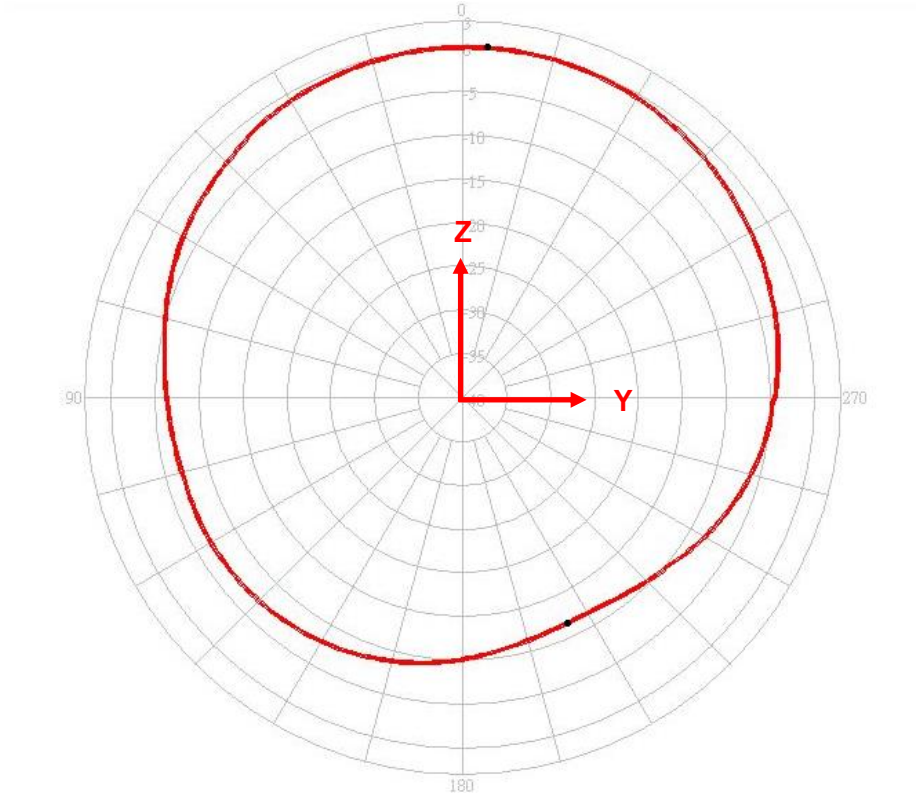
3. S11 Electrical Property

CH1 RFL   LOG   5 dB/REF 0 dB   1:-42.433 dB   1 575.000 000 MHz
CH3 RFL   1 U FS   1: 49.383 Ω   0.4297 Ω   43.420 pH

1.575 GHz

CENTER 1 575.000 000 MHz   SPAN 50.000 000 MHz

CH1 Markers
BW: 9.030429 MHz
cent: 1575.285735 MHz
Q: 174.44
1 loss: -42.433 dB

CH3 Markers
2: 49.480 Ω
0.5156 Ω
1.57528 GHz
3: 65.375 Ω
34.883 Ω
1.57077 GHz
4: 44.248 Ω
-30.834 Ω
1.57980 GHz

4. Radiation Pattern

Test Plane	Frequency	Peak Gain	Min. Gain	Average Gain
XZ	1575.42MHz	0.0dBi @ 356°	-11.7dBi @ 205	-3.8dBi
YZ	1575.42MHz	0.0dBi @ 8°	-19.4dBi @ 215	-4.4dBi

4.1. XZ Radiation Pattern

4.2. YZ Radiation pattern

5. Mechanical Drawing

Top View

Side View

Bottom View

25.1±0.3

R4 TYP4

①

25.1±0.3

TAOGLAS

GP.1575.25.2.A.02

2.5±0.5

Ø1.7±0.5

0.5Max

Ø0.9±0.2

2.4±0.3

2±0.3

Ø11±0.5

Ø23±0.5

Ø3±0.5

Ø1.7±0.5

②

3±0.5

4±0.3
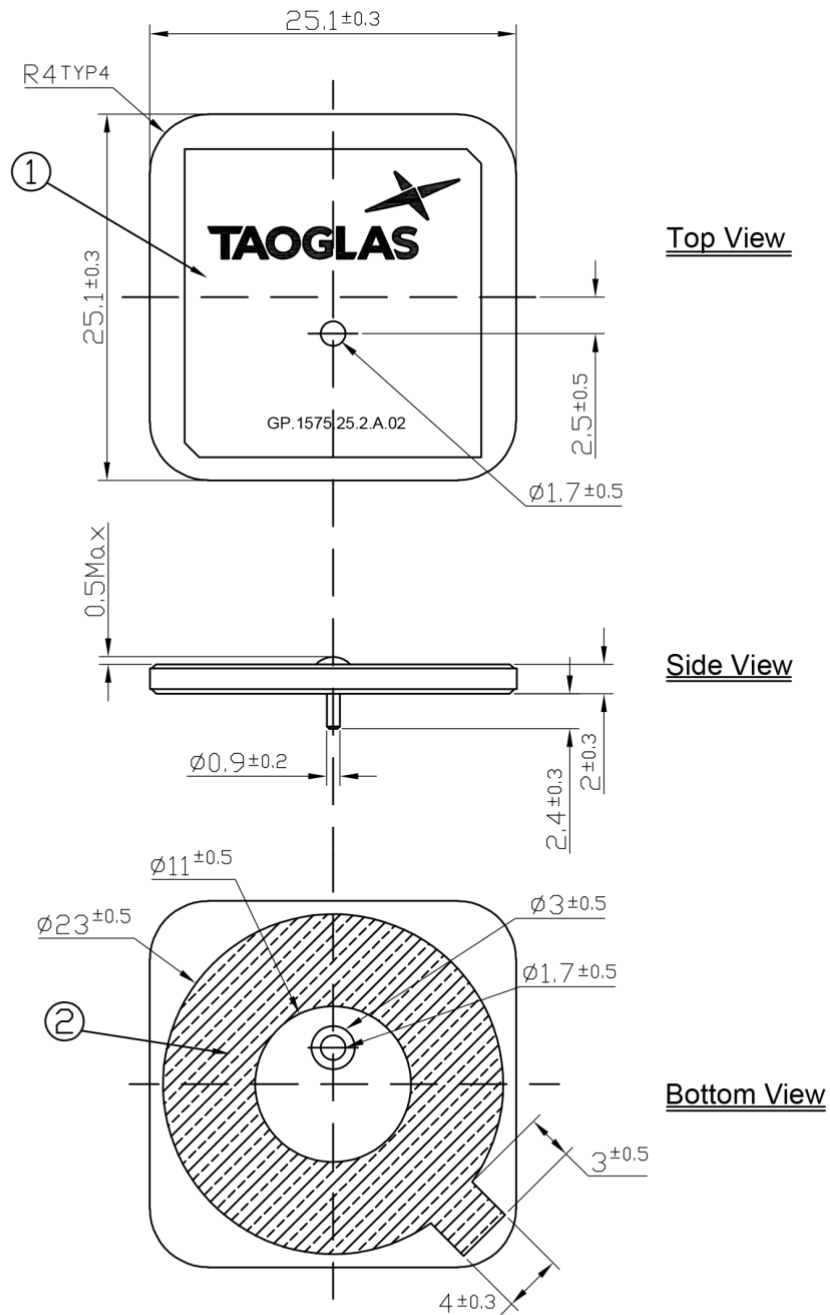
NOTES: 1. Double sided adhesive area

	Name	P/N	Material	Finish	QTY
1	Patch 25x25x2	001013C070007A	Ceramic	Clear	1
2	Double sided Adhesive	001012L060007A	NITTO 5015	White Linter	1

6. PCB Footprint Recommendation
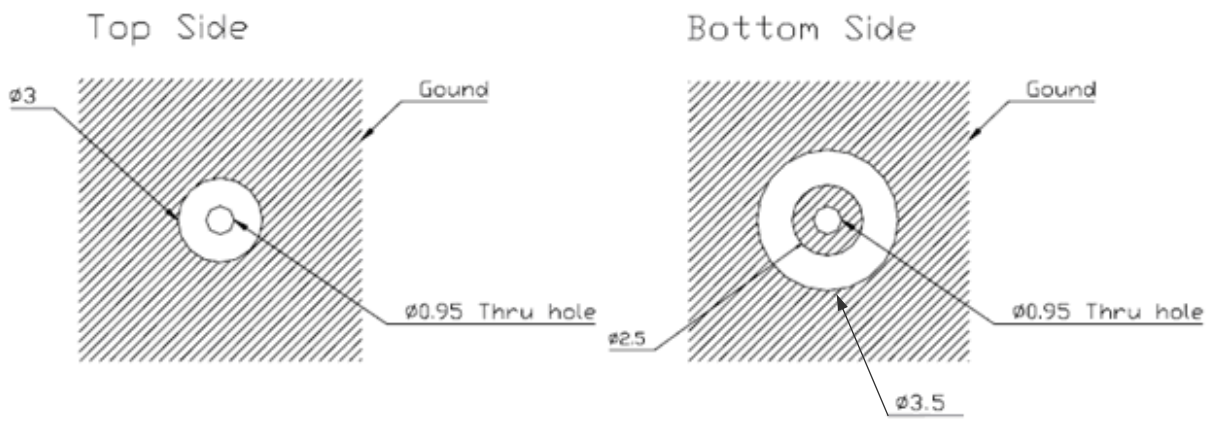
7. Packaging

50 pieces per tray.

4 trays per box = 200 pieces per box

4 box per carton = 800 piece per carton

50 pieces
per tray

VACCUM

Cover

Antenna

4 trays
per box