

Datasheet

GPS Patch Antenna

Embedded

Features:

The patch antenna has much higher efficiency and small form factor, easy mounting with pin-connector, suitable for mounting inside device.

Applications:

- GPS enabled devices
- Portable Handsets
- Automotive Navigation
- Marine buoys
- Tracking and Positioning



25.1 X 25.1 X 4 mm

GPS Antenna



Electrical Specifications

Antenna Characteristics By Range Of Receiving Frequency

Frequency (MHz)	1575.42 \pm 1
Return Loss (dB)	< -10
Gain (dBic) @Zenith at 50mm x 50mm ground	3.5 typ.
Bandwidth (MHz)	10
Efficiency (%) @Center Frequency	85
Axial Ration (dB)	3 typ.
Polarization	RHCP
Impedance (Ω)	50

Mechanical Specifications

Environmental

Temperature Range (°C)

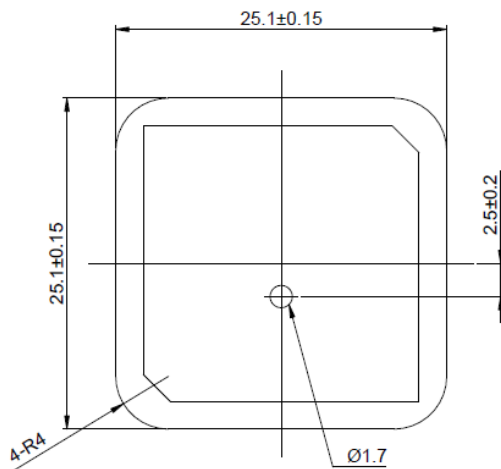
-40 to 105

RoHS Compliant

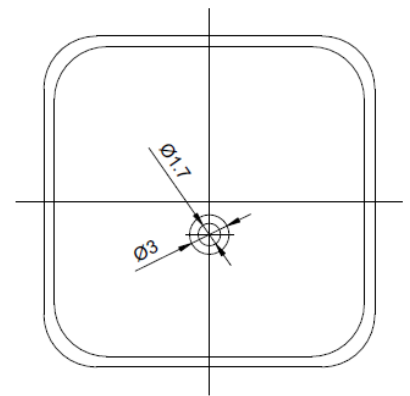
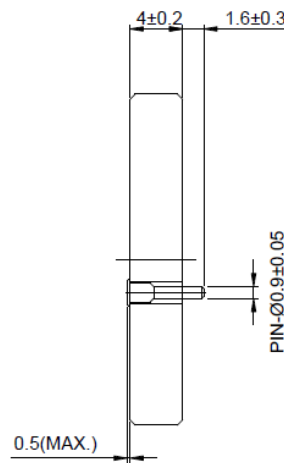
Part Number	Length (mm)	Width (mm)	Hight (mm)	Weight (g)
ST0543-00-N05-U	25.1	25.1	4.0	9.3

Mechanical Drawing

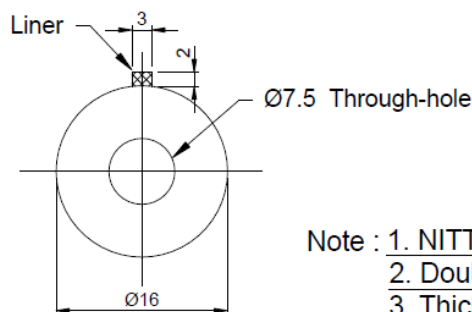
Unit : mm



Top Side



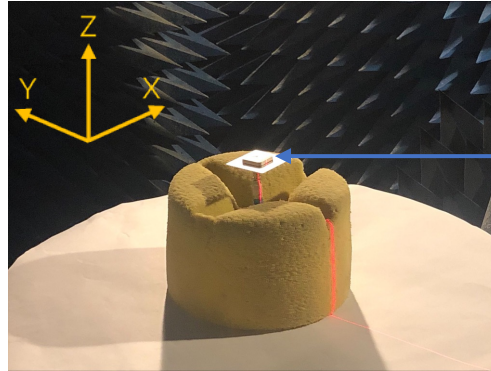
Bottom Side

Tape dimension
(Attached to bottom side)

- Note : 1. NITTO : NO.5015
 2. Double-coated adhesive tape for industrial use
 3. Thickness : 0.12mm
 4. The unmarked tolerance is ± 0.2

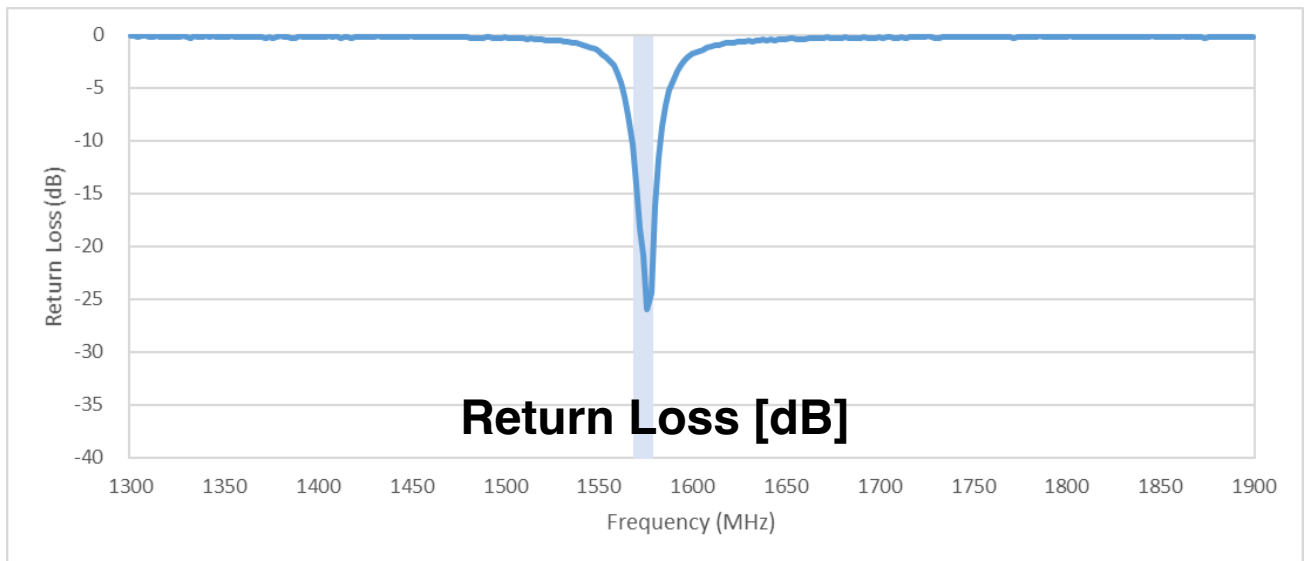
ST0543-00-N05-U

Charts In Free Space



ST0543-00-N05-U

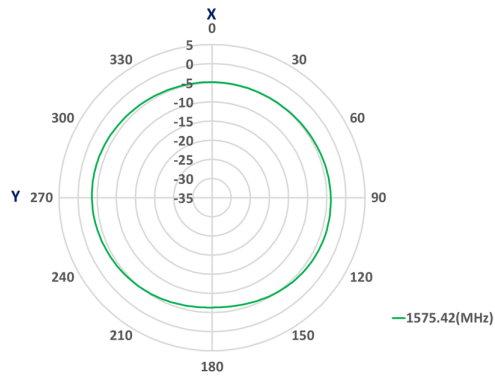
Test setup, measurement performed in 3D anechoic chamber.



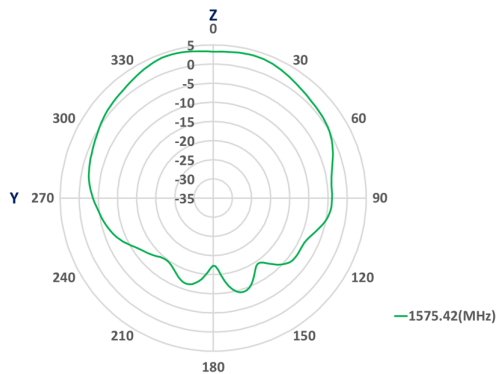
Blue background represents frequency response.

Radiation Pattern - Free Space

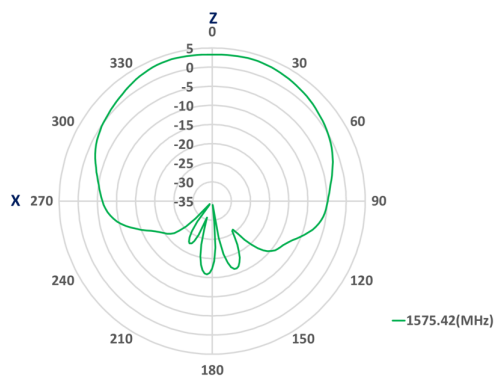
XY - Plane



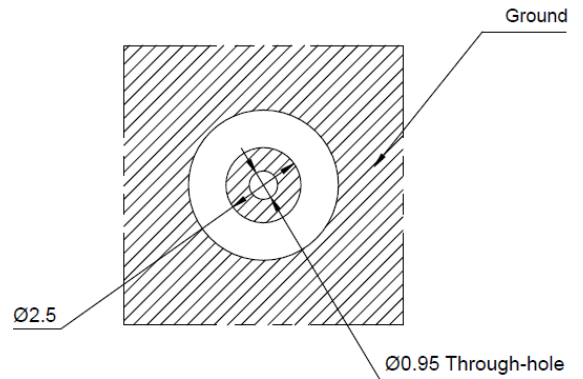
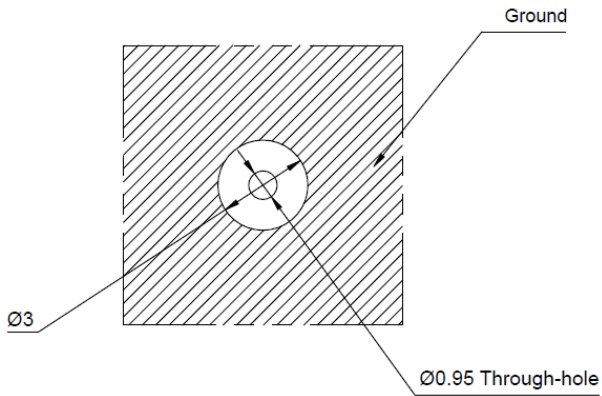
YZ - Plane



XZ - Plane



Layout Dimension

Tolerance: ± 0.2 Top SideBottom Side

Revisions				
Rev.	Description	Date	ECN	Approval
A	Initial Release	2022-12-23	ST0543-00-N05-U-RA00	ATC

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