

Datasheet

GNSS

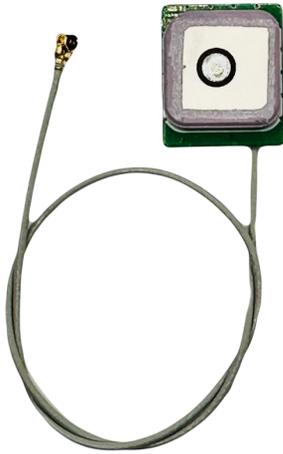
GNSS active antenna

Features:

This antenna is designed to cover GPS/GLONASS frequency band, features a low noise figure and high-linearity LNA.

Applications:

- GPS, GLONASS
- Military & security
- Asset tracking
- Navigation devices
- Location based services
- Fleet management
- Network synchronization and timing



19.0 X 16.0 X 6.4 mm

GNSS Antenna**Electrical Specifications****Antenna Characteristics By Range Of Receiving Frequency**

Frequency (MHz)	1575.42 ± 1	1602 ± 5
Return Loss (dB)	< -10	< -10
Gain (dBi) @Zenith at 20mm x 20mm ground	-5.5 Typ.	-2.0 Typ.
Bandwidth (MHz)	10	9
Efficiency (%) @Center Frequency	40	47
Impedance (Ω)	50	50

LNA Characteristics

Frequency (MHz)	1575.42 ± 1	1602 ± 5
Gain (dB)	18 Typ.	
Noise Figure (dB) @3.0V	1.5 Typ.	
Current Consumption (mA) @3.0V	2~5	
Operation Voltage (V)	3.0 ± 0.3	
Output Return Loss (dB)	< -10	
Output Impedance (Ω)	50	

Total Characteristics

Frequency (MHz)	1575.42 ± 1	1602 ± 5
Gain (dBi) @Zenith	12	15
Return Loss (dB)	< -10	
Output Impedance (Ω)	50	
ESD (kV)	-----	

Mechanical Specifications

Mechanical

Ceramic Dimension	15.0 × 15.0 × 4.0 mm
Total Dimension	19.0 × 16.0 × 6.4 mm
Connector Type	I-PEX MHF 1
Cable Type	Coaxial Cable Ø 1.13 mm
Weight	6.3 g

Environmental

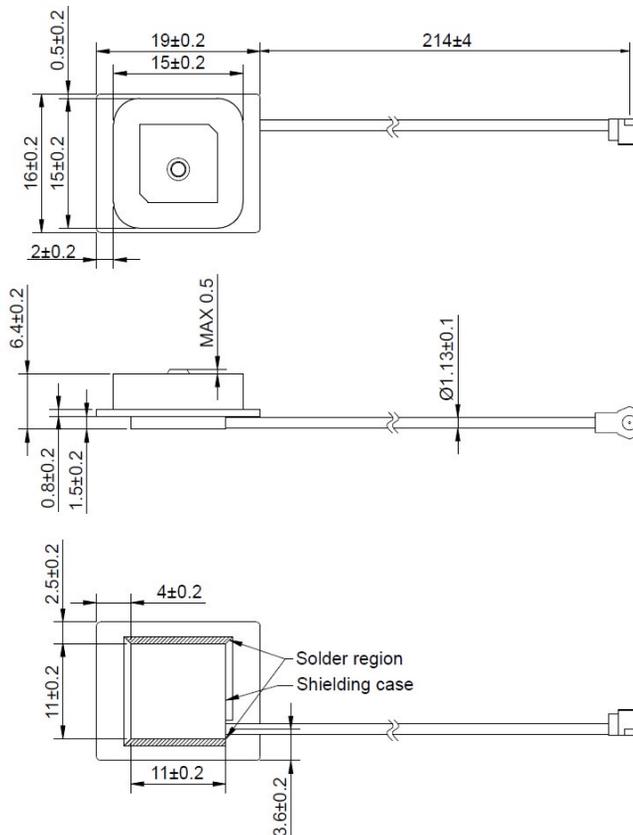
Temperature Range (°C)	-20 to 85
Humidity	Non-condensing 65°C 95% RH

RoHS Compliant

Mechanical Drawing

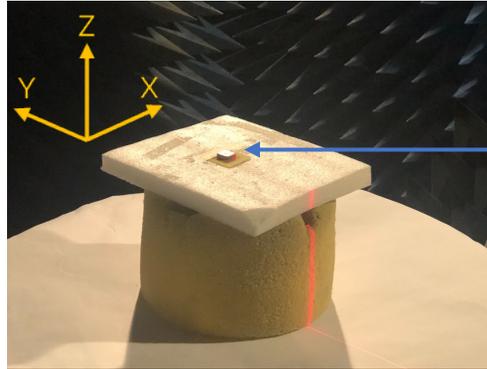
Unit : mm

CABLE LENGTH
OPTIONS AVAILABLE



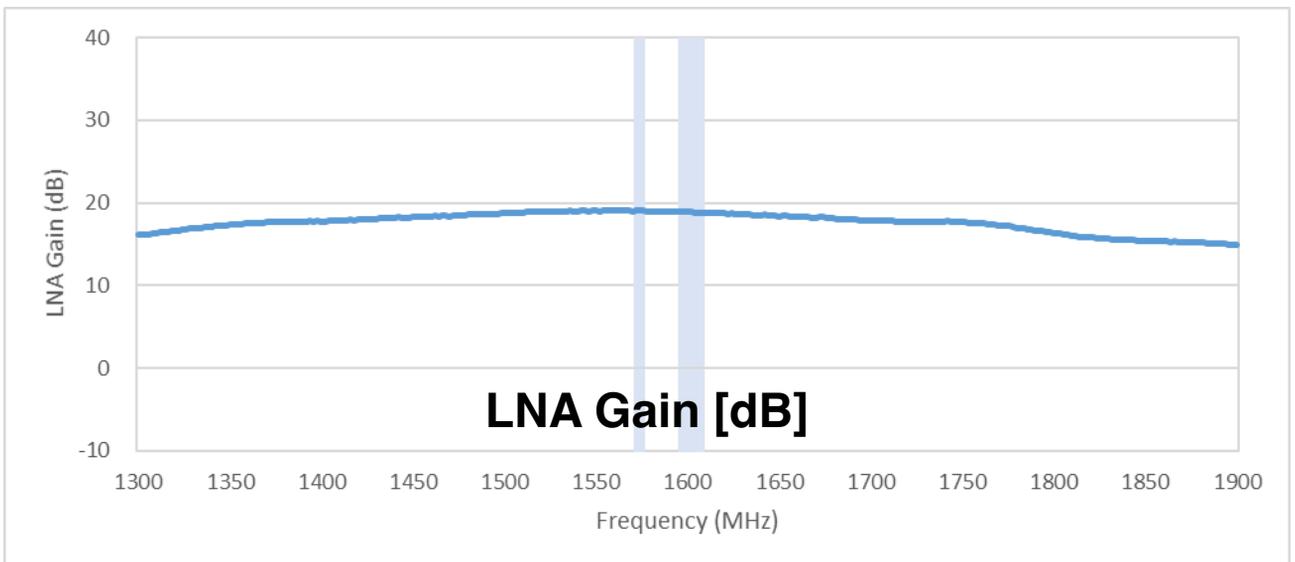
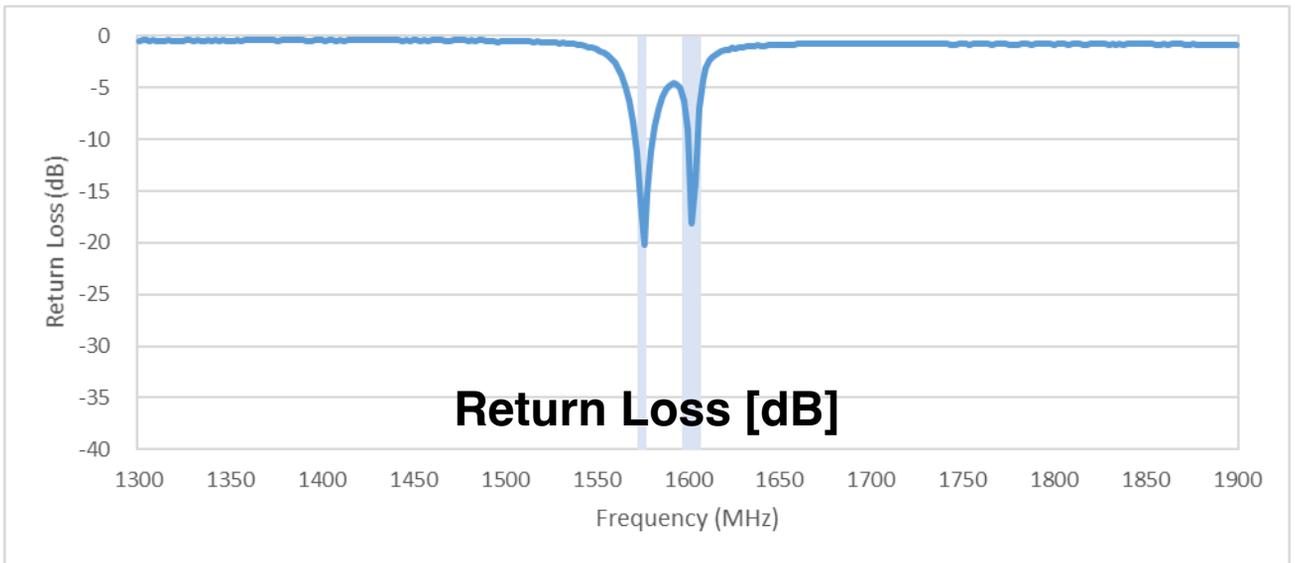
ST0543-00-406-U

Charts In Free Space



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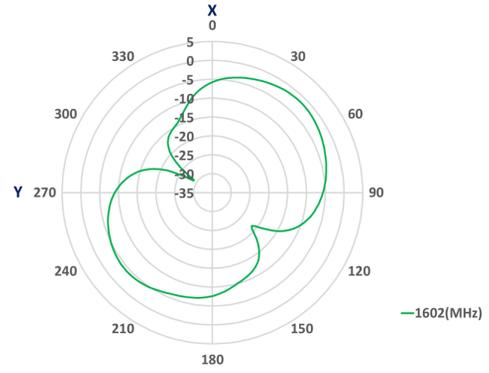
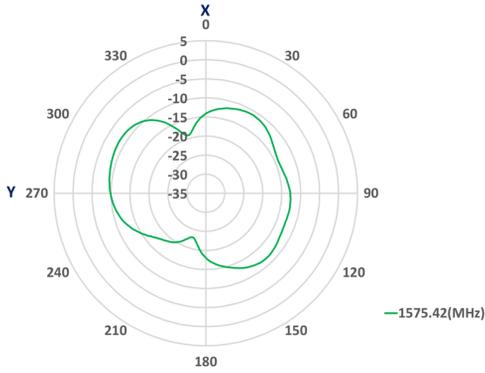
Test setup, measurement performed in 3D anechoic chamber.



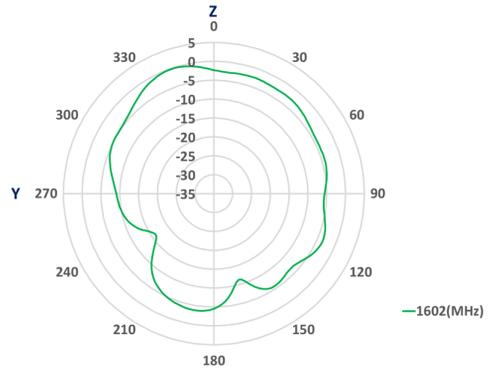
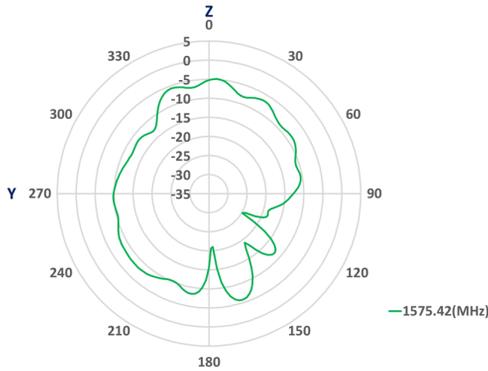
Blue background represents frequency response.

Radiation Pattern - Free Space

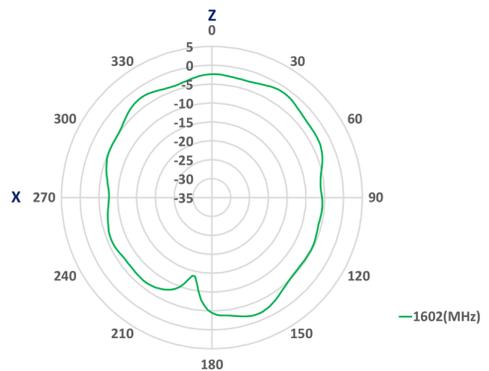
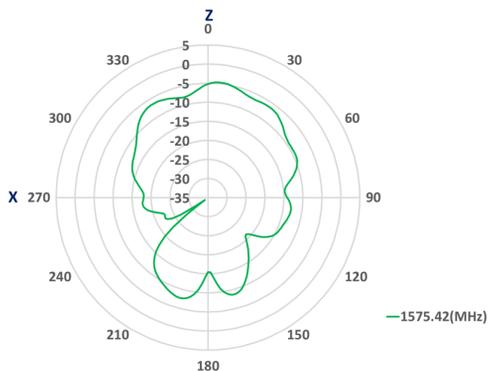
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev.	Description	Date	ECN	Approval
A	Initial Release	2022-12-26	ST0543-00-406-U-RA00	ATC

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