

Datasheet

GNSS

GNSS active timing antenna

Features:

This antenna is designed to cover GPS/GLONASS/QZSS/BDS/Galileo frequency band. High performance with N-type connector, certified with IP67.

Applications:

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



GNSS Antenna



Electrical Specifications

Antenna Characteristics By Range Of Receiving Frequency

Frequency (MHz)	1561± 2	1575.42 ± 10	1602 ± 4
Return Loss (dB) @Center Frequency	< -13.9		
Gain (dBic) @Zenith	3 Typ.		
Efficiency (%) @Center Frequency	73	78	82
Axial Ration (dB) @Center Frequency	3 Typ.		
Polarization	RHCP		
Impedance (Ω)	50		

LNA Characteristics

Frequency (MHz)	1561± 2	1575.42 ± 10	1602 ± 4
Gain (dB)	32 Typ.		
Output Impedance (Ω)	50		
Output Return Loss (dB)	< -10		
Operation Voltage (V)	3.5 ~ 6		
Gain (dB)	32 ± 2		
Current Consumption (mA)	< 40		
Noise Figure (dB)	< 2		

Total Characteristics

Frequency (MHz)	1561± 2	1575.42 ± 10	1602 ± 4
Gain (dBi) @Zenith	35 ± 2	35 ± 2	35 ± 2
Return Loss (dB)	< -10		
Output Impedance (Ω)	50		
ESD (kV)	-		

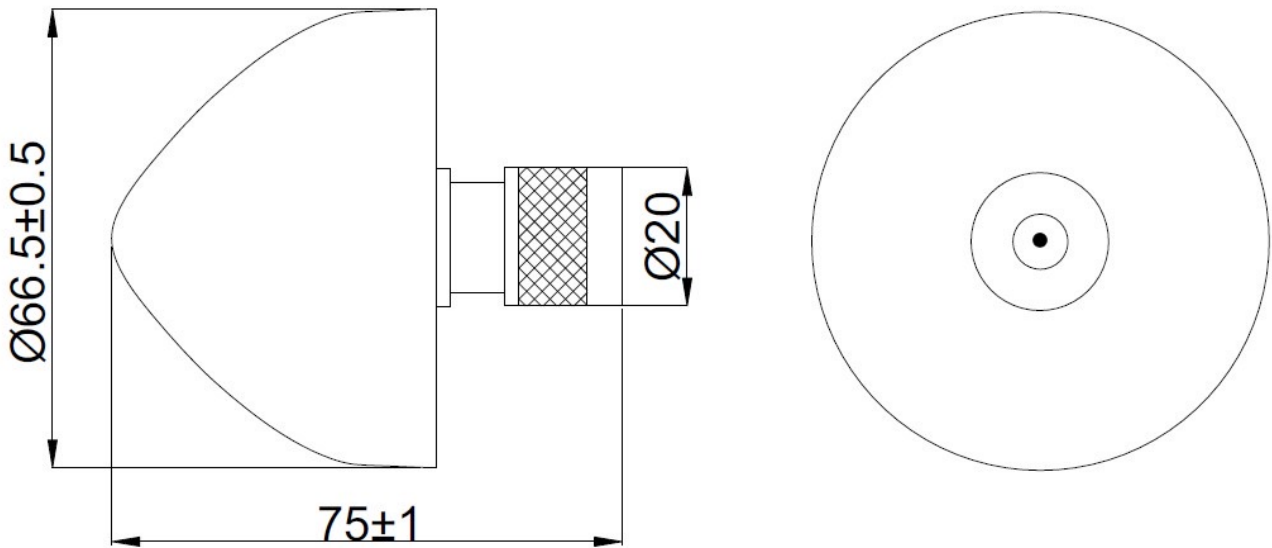
Mechanical Specifications

Mechanical	
Dimension (mm)	Ø66.5 × 75.0
Material	ABS+PC
Connector Type	N-type (Plug)
Weight (g)	139.0

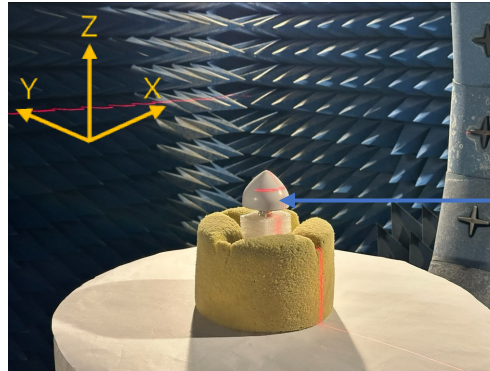
Environmental	
Temperature Range (°C)	-40 to 80
IP Rating	IP67
RoHS Compliant	

Mechanical Drawing

Unit : mm

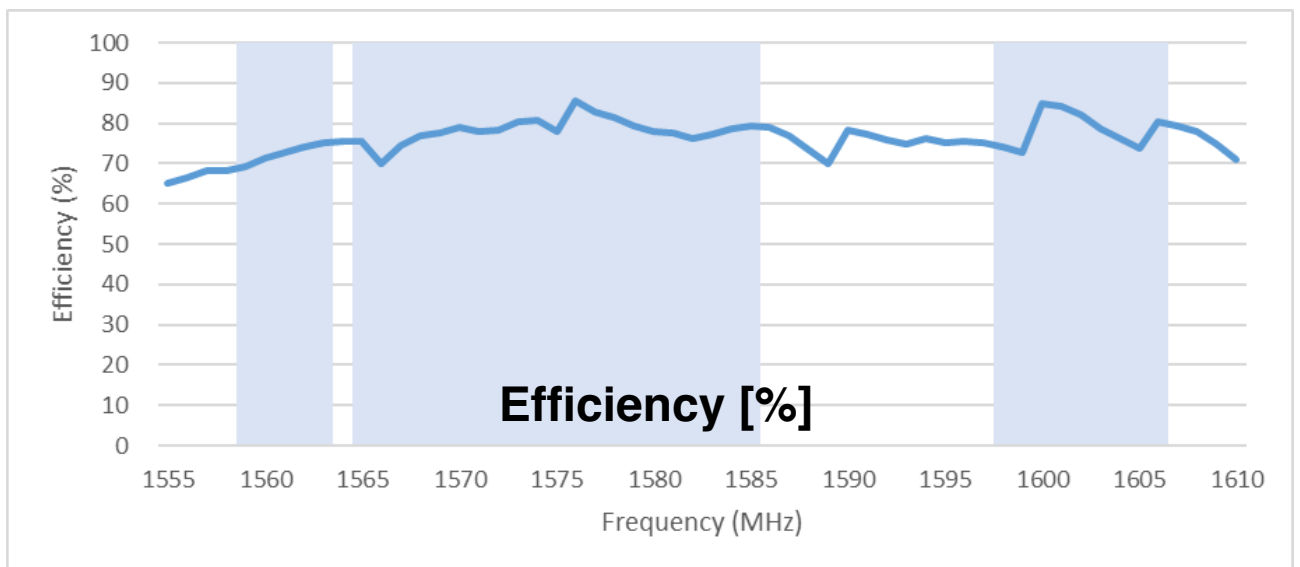
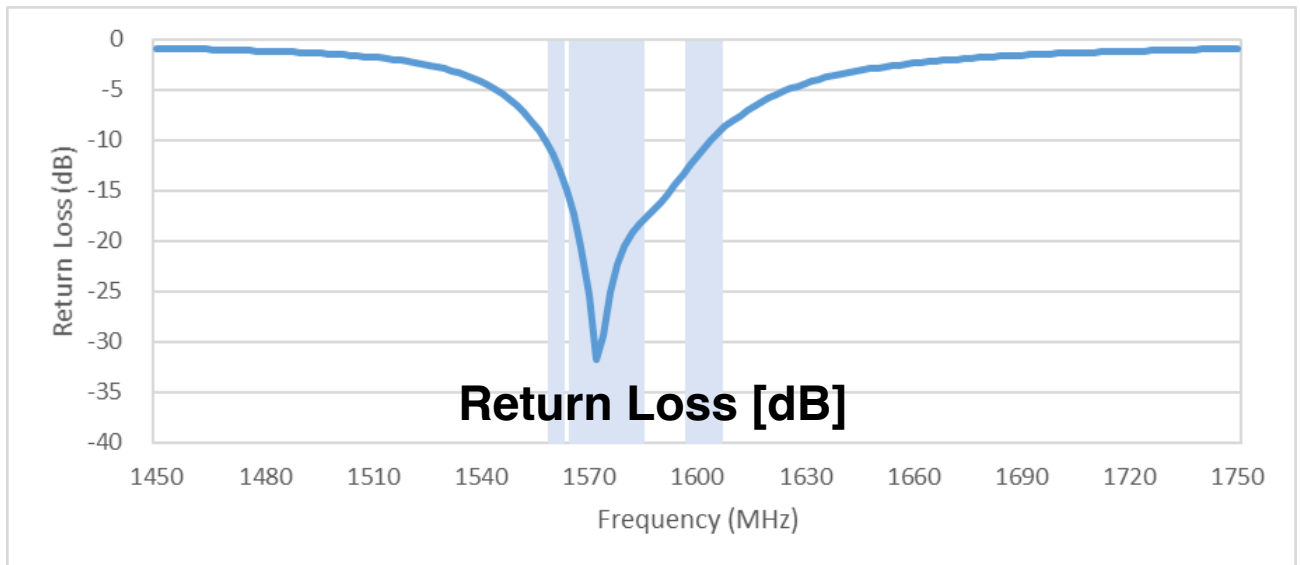


Charts In Free Space

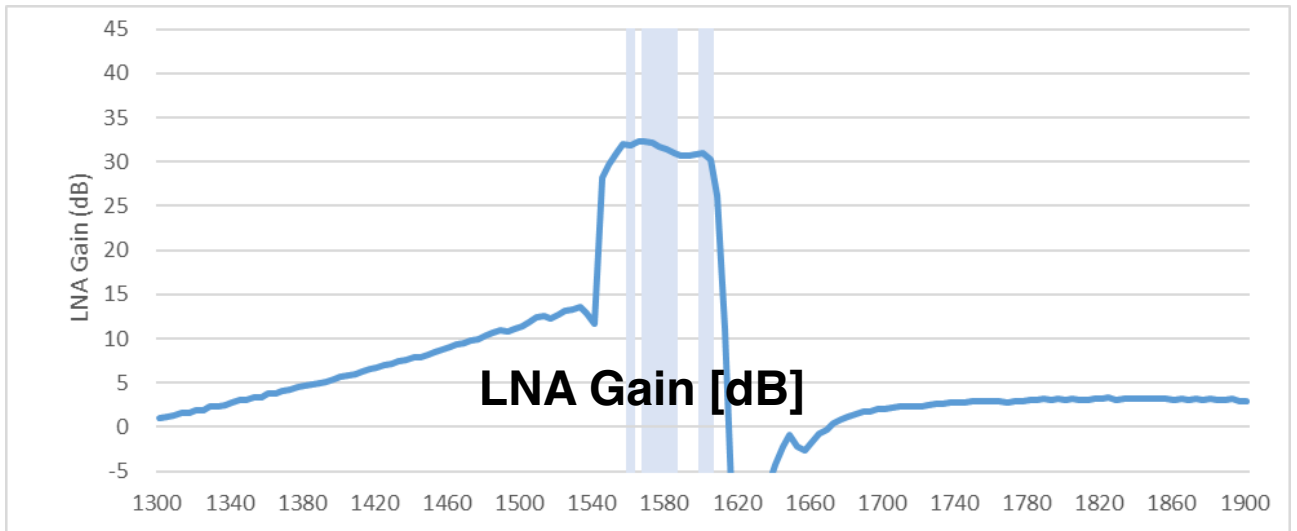


ST0549-22-301-B

Test setup, measurement performed in 3D anechoic chamber.



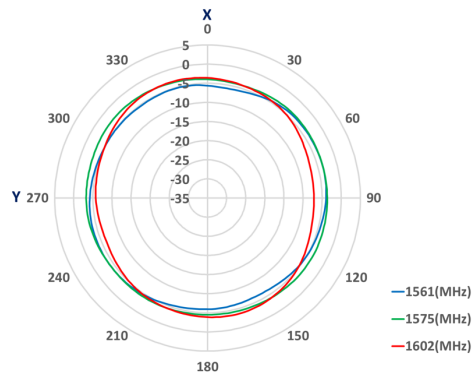
Blue background represents frequency response.



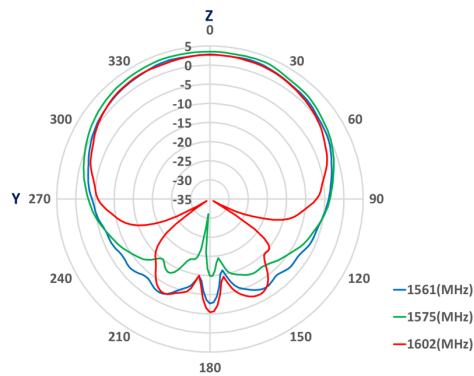
Blue background represents frequency response.

Radiation Pattern - Free Space

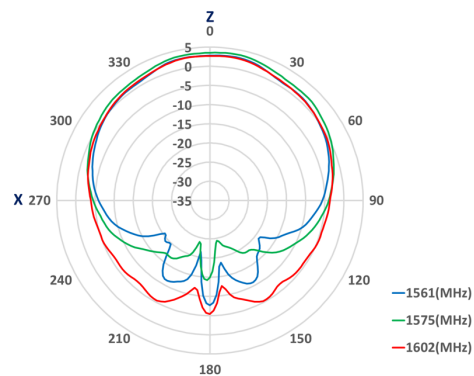
XY - Plane



YZ - Plane



XZ - Plane



Revisions				
Rev.	Description	Date	ECN	Approval
A	Initial Release	2023-10-26	ST0549-22-301-B-RA00	ATC

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