Amphenol

Datasheet

GNSS

GNSS Active Timing Antenna

GNSS Antenna

Features

This antenna is designed with high gain, Low Noise Amplifier (LNA) offers precision timing reference, with an industrial grade compact size weather-proof housing, certified with IP67.

Applications

- Beiduo,GPS, Galileo,Glonass,GPS,GLBNA
- Military & security
- Asset tracking
- Navigation devices
- Location based services
- Fleet management
- Network synchronization and timing

RoHS

Electrical Specifications

Antenna Characteristics By Range Of Receiving Frequency

Frequency (MHz)	1176 ± 10	1561 ± 2	1575.42 ± 1	1602 ± 8
Return Loss (dB) @1176M / 1575M	< -10			
Gain (dBic) @Zenith at 70mm × 70mm ground	0 Typ.	1 Typ.	2 Typ.	3.5 Typ.
Efficiency (%) @Center Frequency	59	27	68	69
Axial Ration (dB) @1176M / 1575M	3 Typ.			
Polarization	RHCP			
Impedance (Ω)	50			

LNA Characteristics				
Frequency (MHz)	1176 ± 10	1561 ± 2	1575 ± 1	1602 ± 8
Gain (dB) (+ 25 °C± 5°C)	27 ± 3	28 ± 3	28 ± 3	27 ± 3
Output Impedance (Ω)	50			
Output Return Loss (dB)	< -9.5			
Operation Voltage (V)	2.7~5 ; 3.3 Typ.			
Current Consumption (mA)@3.3v	Max:15 ; 10 Typ.			
Noise Figure (dB) (+ 25 °C± 5°C)	1 Typ.			

Total Characteristics				
Frequency (MHz)	1176 ± 10	1561 ± 2	1575 ± 1	1602 ± 8
Gain (dBic) @Zenith	27 ± 3	29 ± 3	30 ± 3	30.5 ± 3
Return Loss (dB)	< -9.5			
Output Impedance (Ω)	50			

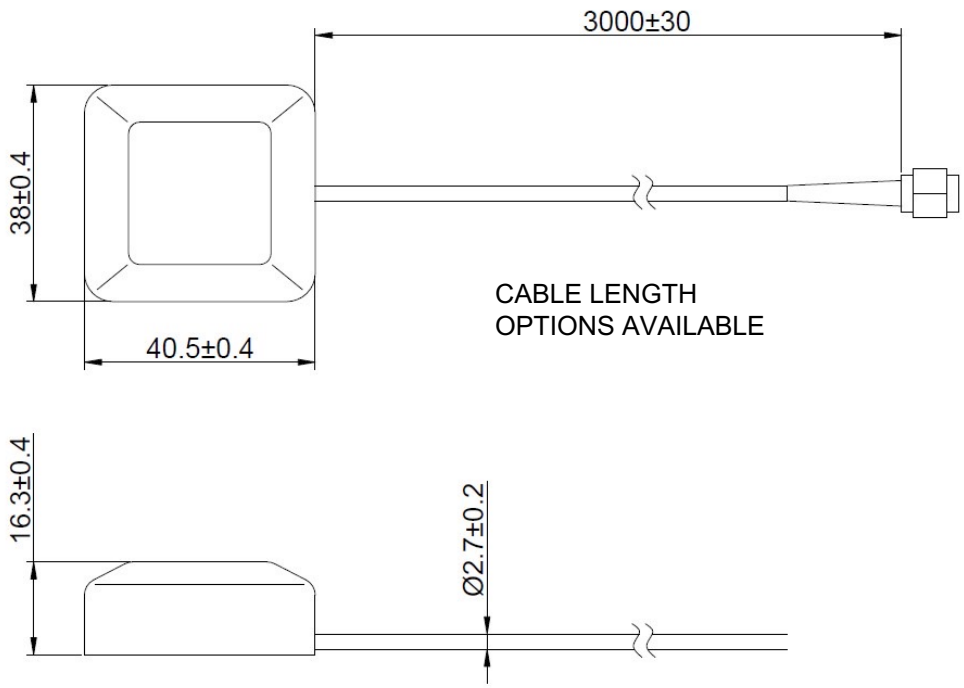
Mechanical Specifications

Mechanical	
Dimension (mm)	40.5 × 38.0 × 16.3
Material	PC+ABS
Connector Type	SMA (Plug)
Cable Type	RG-174
Mounting Type	Magnetic mount
Antenna Weight (g)	72.7

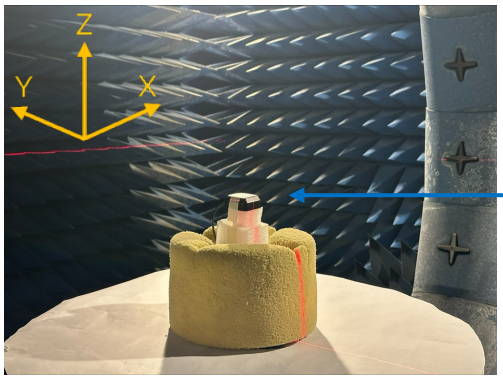
Environmental	
Temperature Range (˚C)	-40 to 85
IP Rating	IP67
RoHS Compliant	

Mechanical Drawing

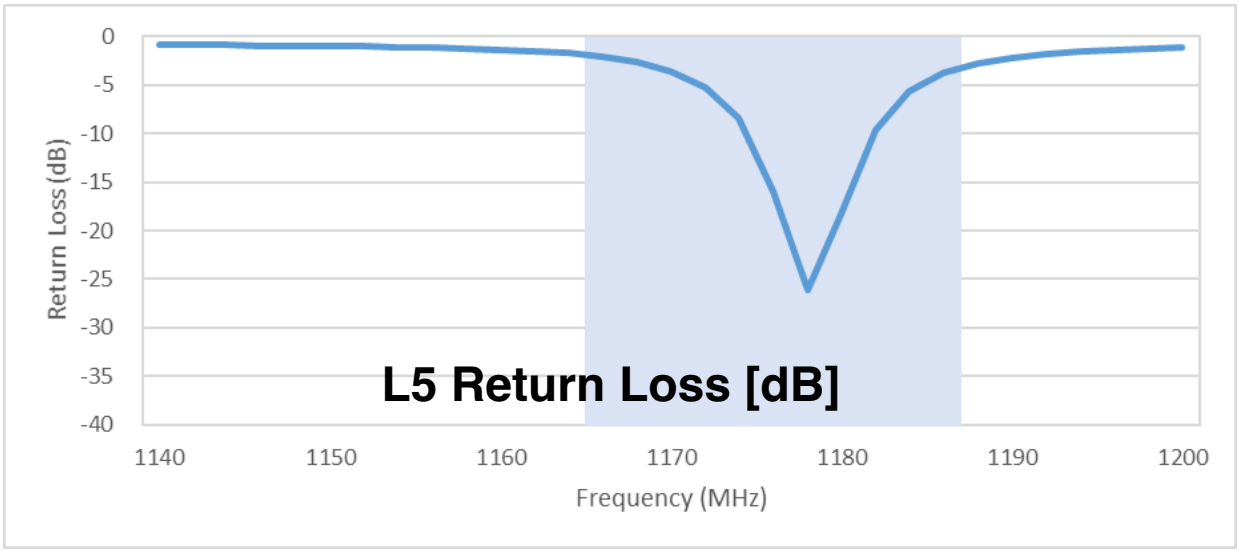
Unit : mm



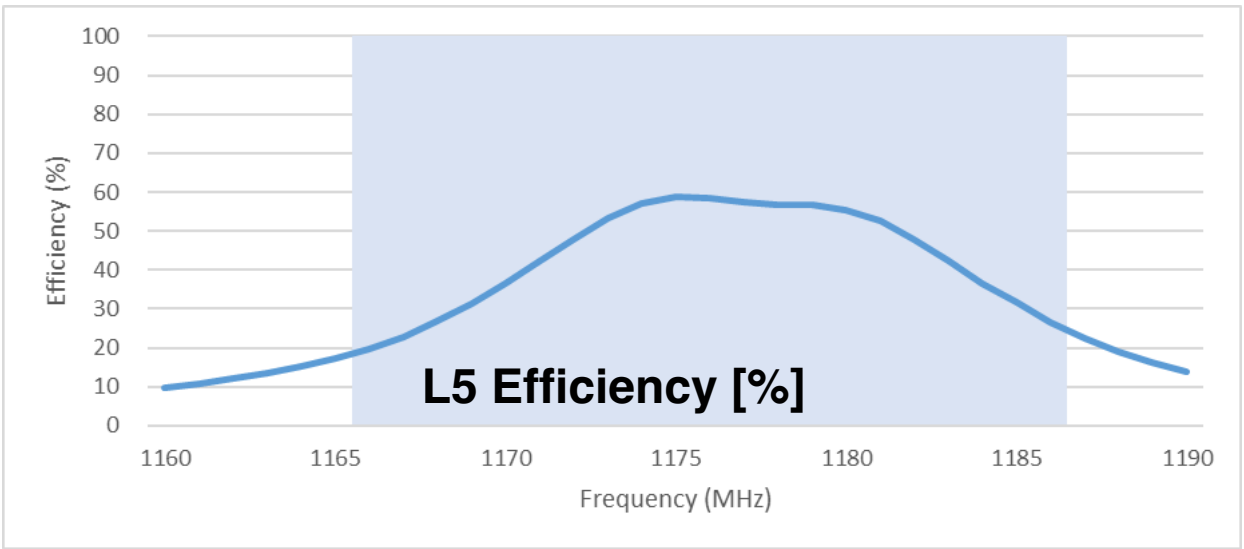
Charts In Free Space



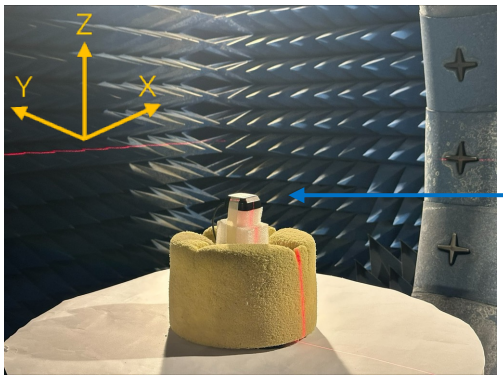
Test setup, measurement performed in 3D anechoic chamber.



Blue background represents frequency response.



Charts In Free Space



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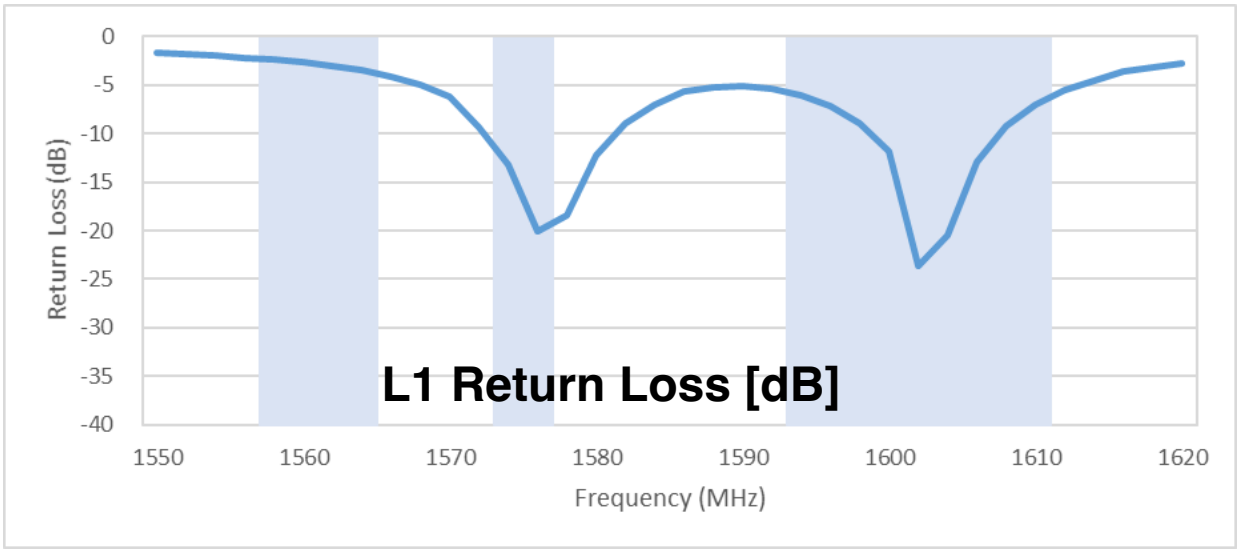

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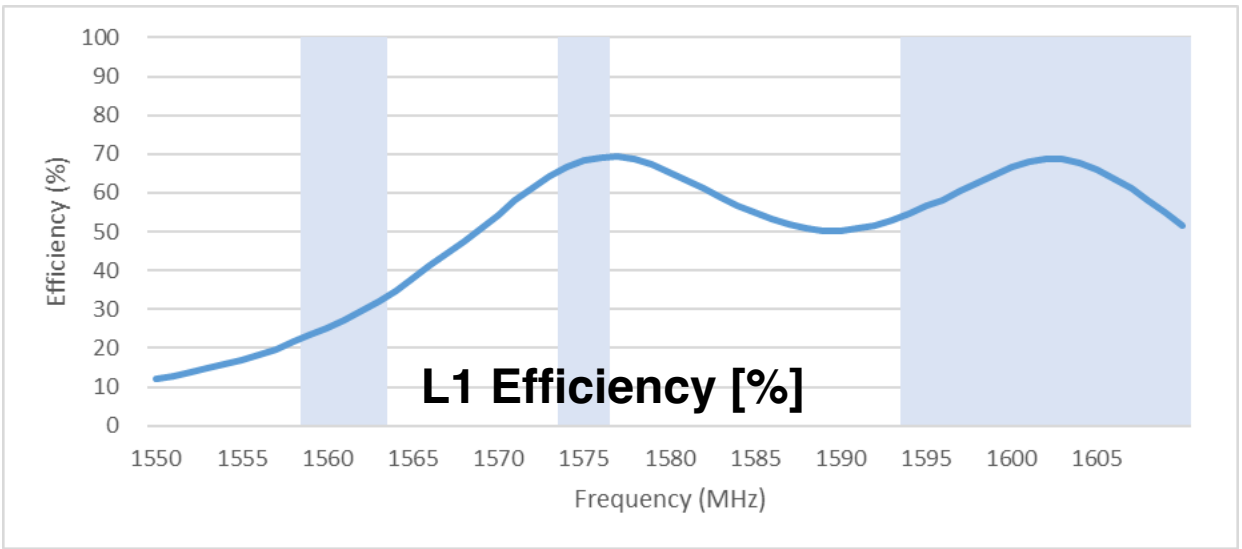
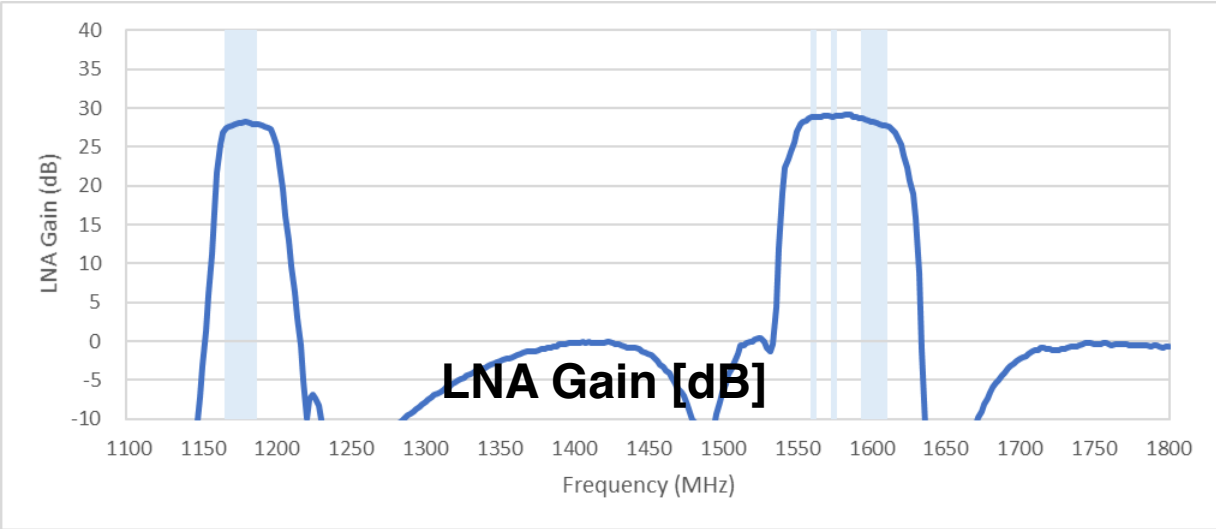
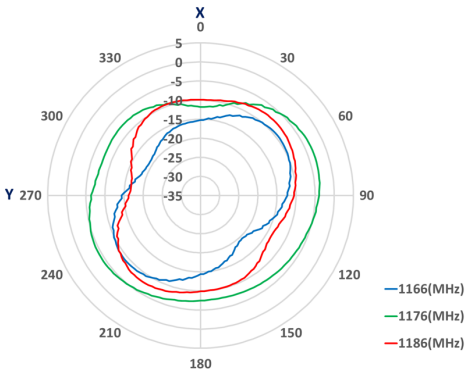


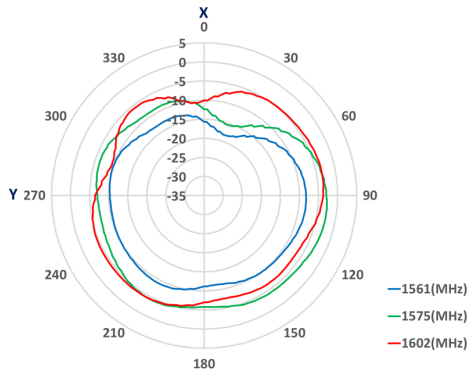


Blue background represents frequency response.

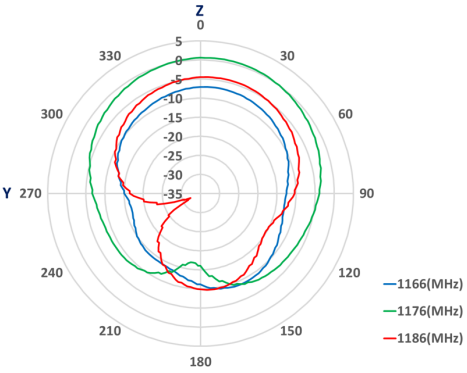
Radiation Pattern - Free Space

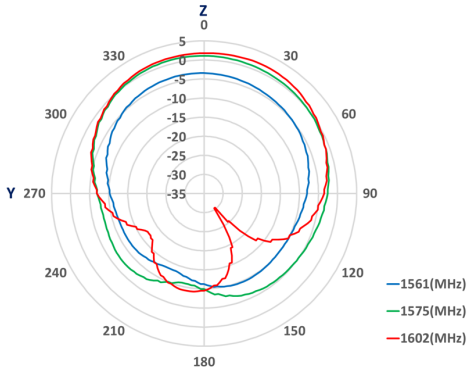
XY - Plane



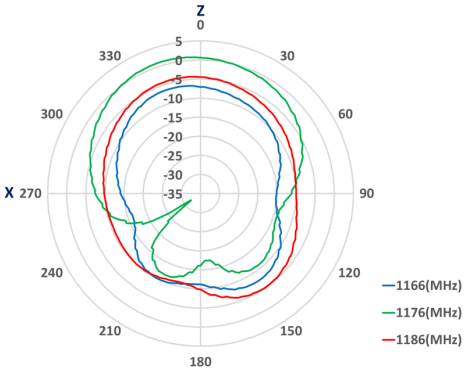


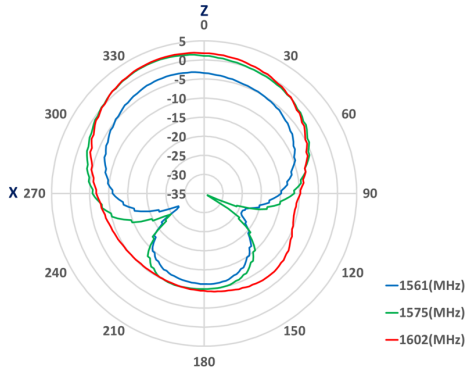
YZ - Plane





XZ - Plane





Revisions				
Rev.	Description	Date	ECN	Approval
A	Initial Release	2023-12-20	ST0530-11-001-A-RA00	ATC