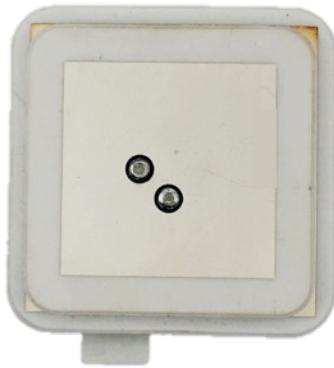


Datasheet

GNSS Patch Antenna

Embedded



47.7 x 47.7 x 8.0 mm

GNSS Antenna

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

Applications:

GNSS enabled devices
 Portable Handsets
 Automotive Navigation
 Marine buoys
 Tracking and Positioning



Electrical Specifications

Antenna Characteristics By Range Of Receiving Frequency

Frequency (MHz)	1176 ± 12	1561 ± 2	1575.42 ± 1	1602 ± 5
Return Loss (dB)			< -10	
Gain (dBi) @Zenith at 70mm x 70mm ground	3.3	-2.4	3.0	4.2
Efficiency (%) @Center Frequency	47	30	73	54
Axial Ration (dB) @Center Frequency			3 Typ.	
Polarization			RHCP	
Impedance (Ω)			50	

Mechanical Specifications

Mechanical

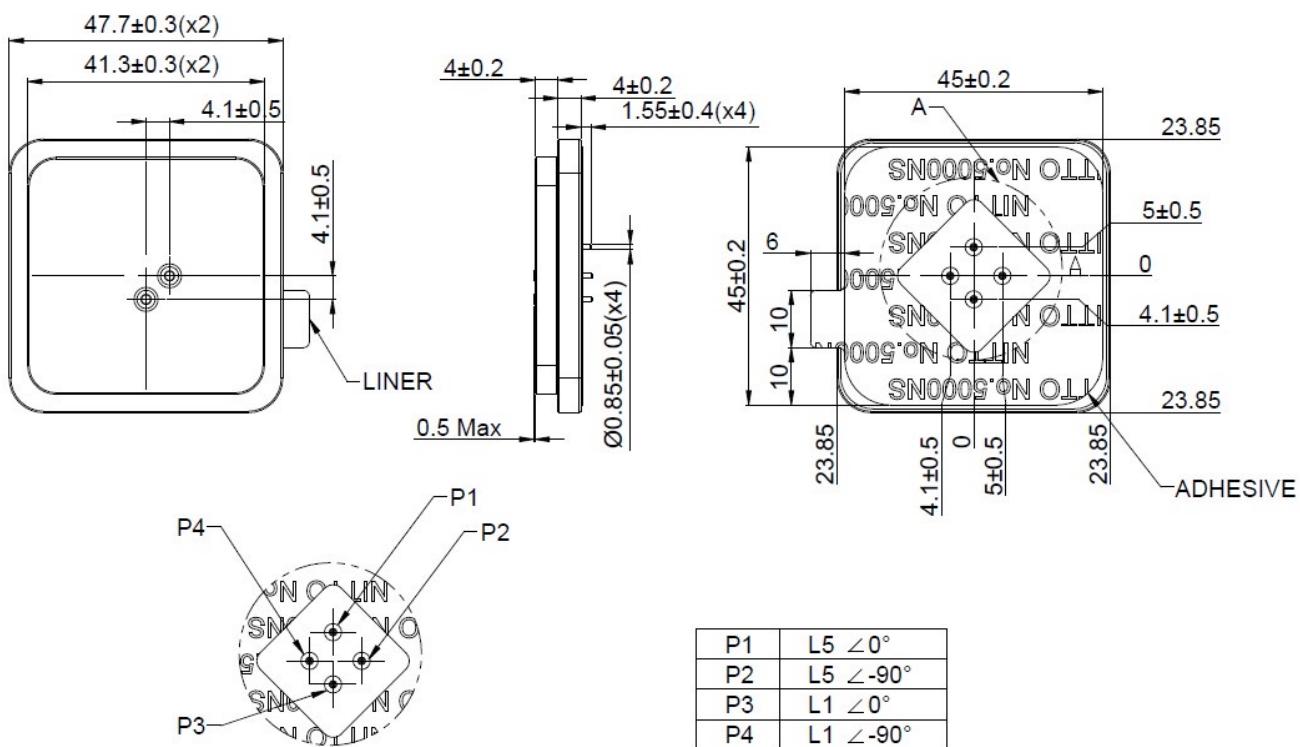
Dimension (mm)	47.7 x 47.7 x 8.0
Material	Ceramic
Weight (g)	57.0

Environmental

Temperature Range (°C)	-40 to 105
Humidity	Non-condensing 40°C 95% RH
	RoHS Compliant

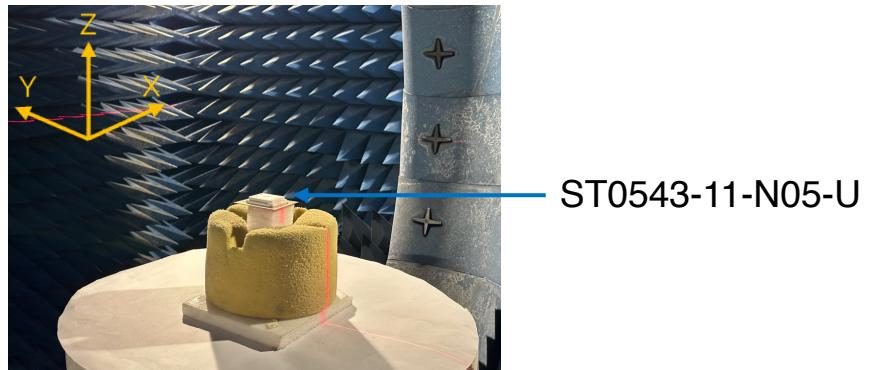
Mechanical Drawing

Unit : mm

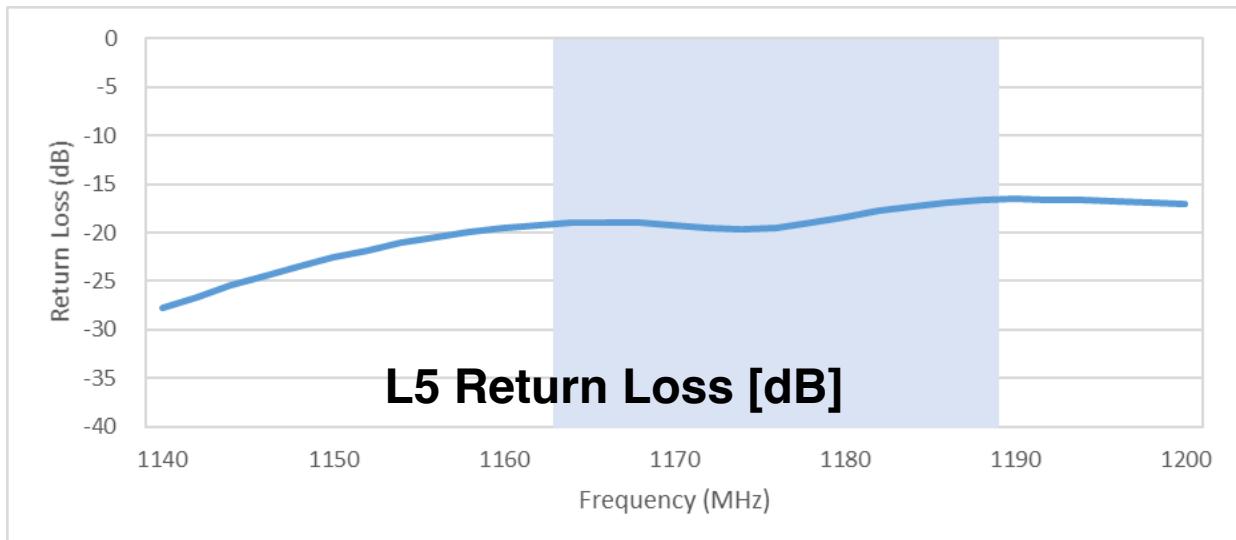


DETAIL "A"

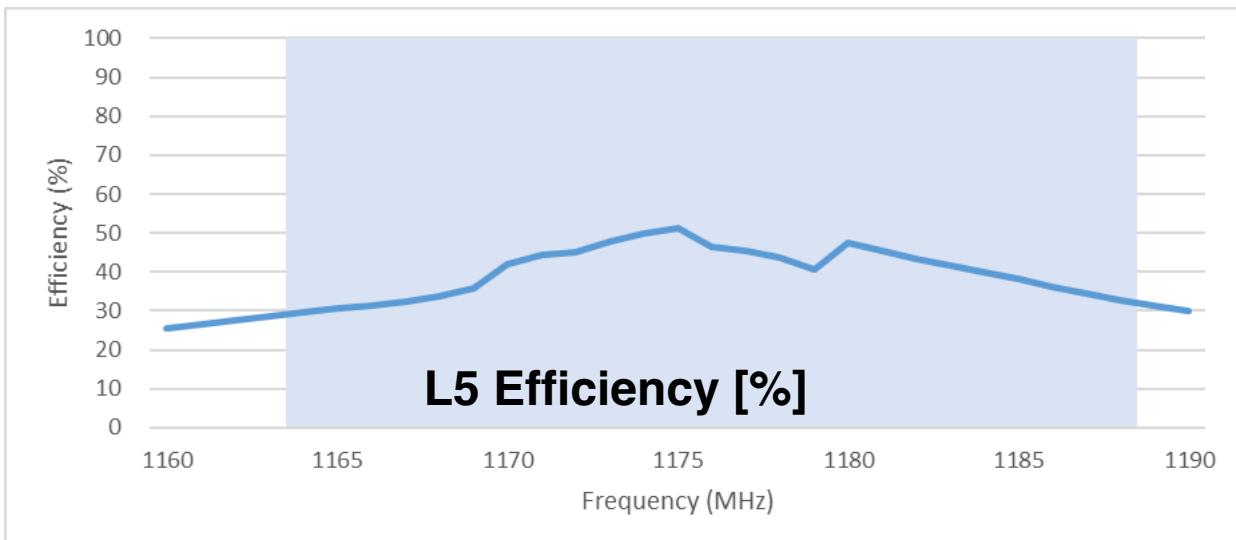
Antenna Testing Includes Evaluation Board



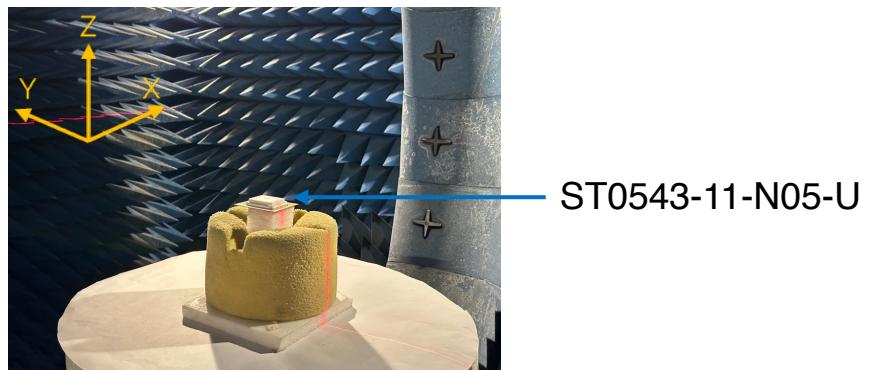
Test setup, measurement performed in 3D anechoic chamber.



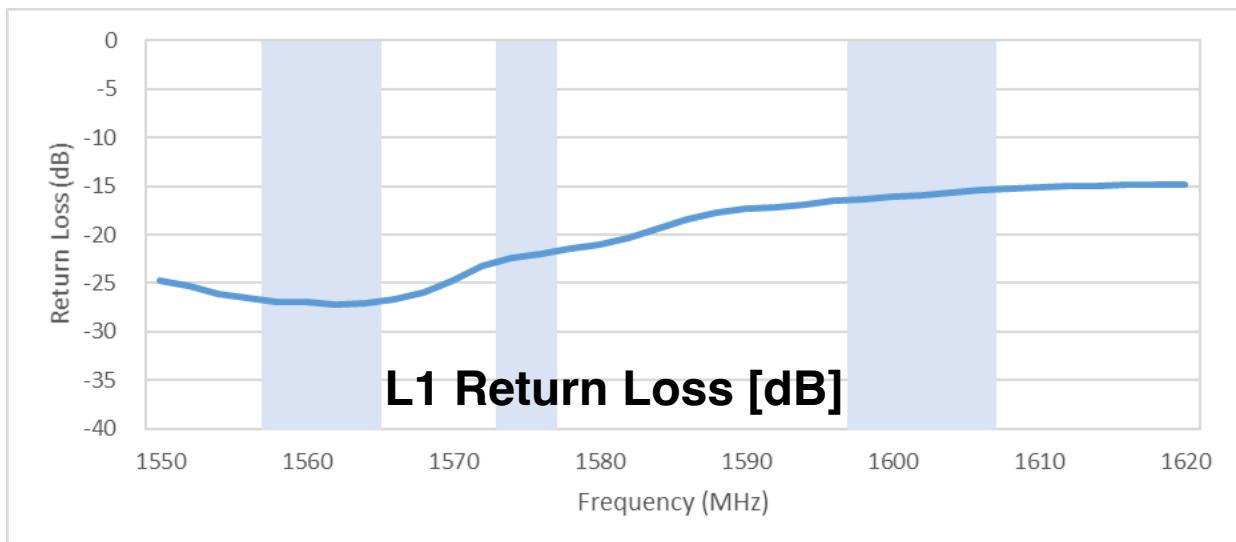
Blue background represents frequency response.



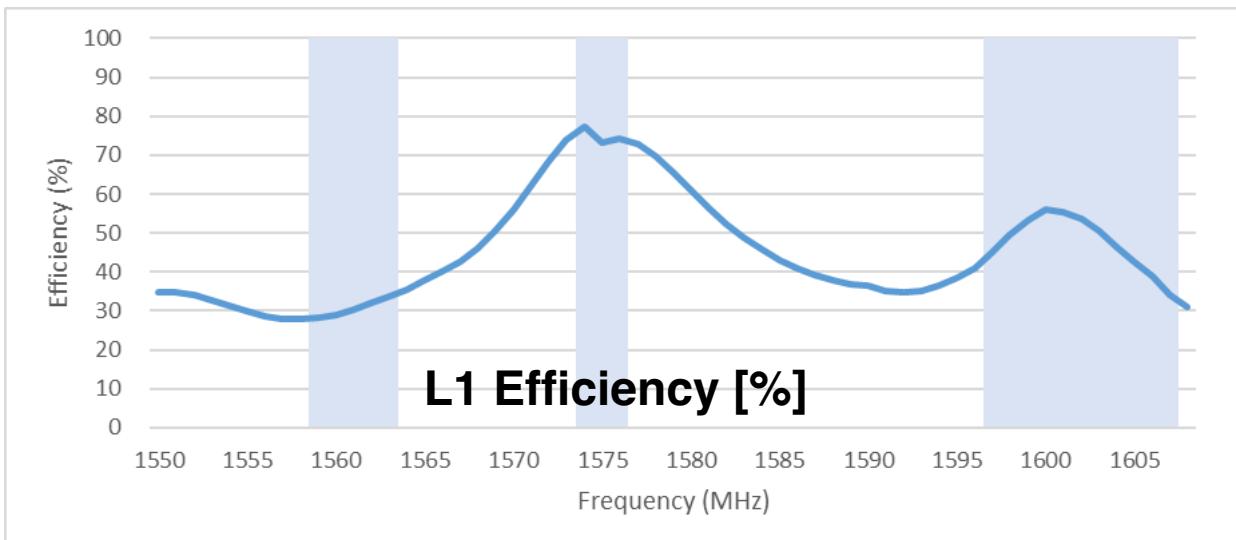
Antenna Testing Includes Evaluation Board



Test setup, measurement performed in 3D anechoic chamber.

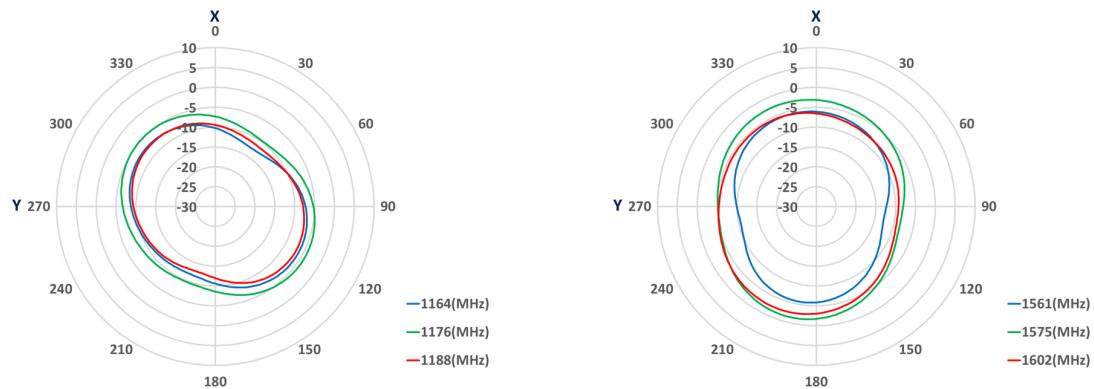


Blue background represents frequency response.

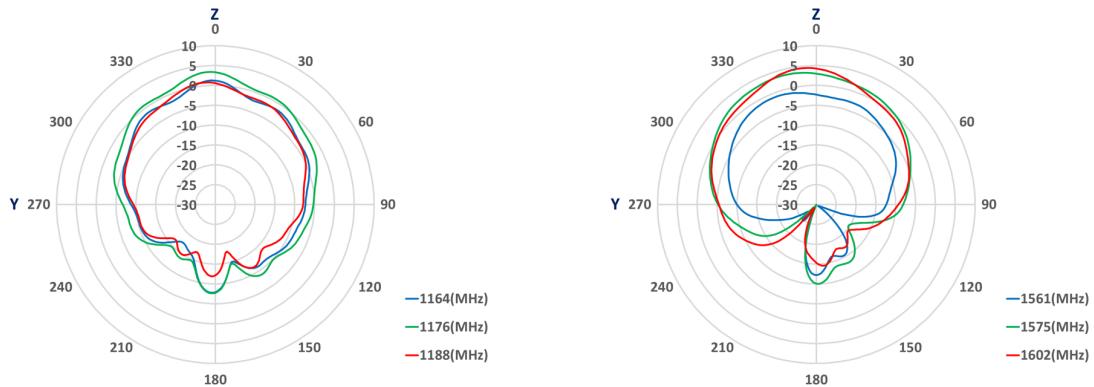


Radiation Pattern - Free Space

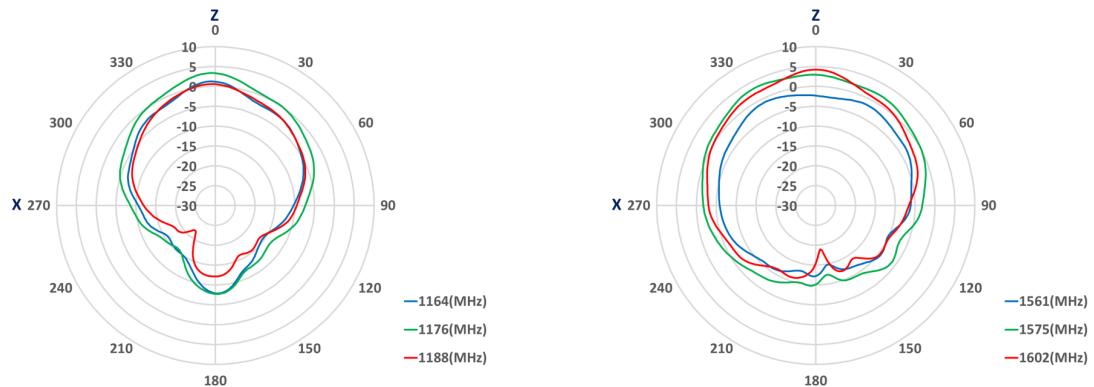
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev.	Description	Date	ECN	Approval
A	Initial Release	2023-09-12	ST0543-11-N05-U-RA00	ATC

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