

Datasheet

RFID Patch Antenna

868MHz

Features:

The patch antenna can operate at 868 MHz, reaching a high efficiency-65% while takes tiny space on board, making it perfect choice for RFID applications.

Applications:

- Remote instrument
- LPWAN system
- Logistic item tracking
- Payment remote tool
- Vehicle access control system



49.5 × 49.5 × 7.5 mm

RFID Antenna



Electrical Specifications

Antenna Characteristics By Range Of Receiving Frequency

Frequency (MHz)	868 ± 3
Return Loss (dB) @Center Frequency	< -10.9
Gain (dBic) @Zenith	-0.8 Typ.
Average Gain (dB) @Center Frequency	-1.9
Efficiency (%) @Center Frequency	65
Axial Ration (dB) @Zenith	3 Typ.
Polarization	RHCP
Impedance (Ω)	50

Mechanical Specifications

Mechanical

Ceramic Dimension (mm)	47.5 × 47.5 × 6.5
Total Dimension w/o Cable (mm)	49.5 × 49.5 × 7.5
Connector Type	I-PEX MHF 1
Cable Type	Coaxial Cable Ø 1.13
Weight (g)	49.1

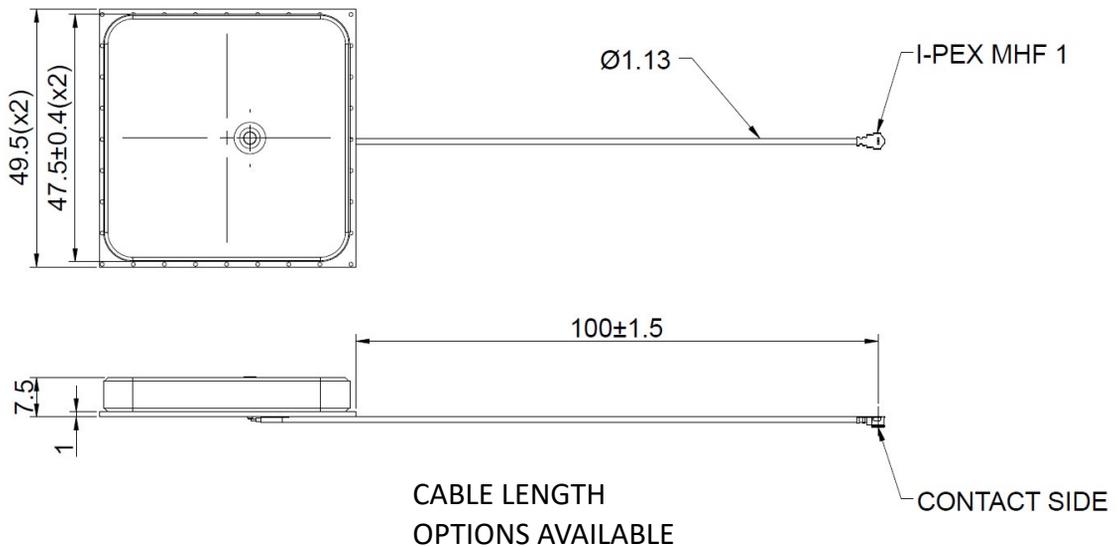
Environmental

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

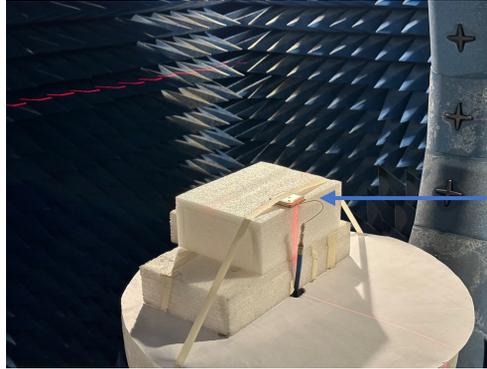
RoHS Compliant

Mechanical Drawing

Unit : mm

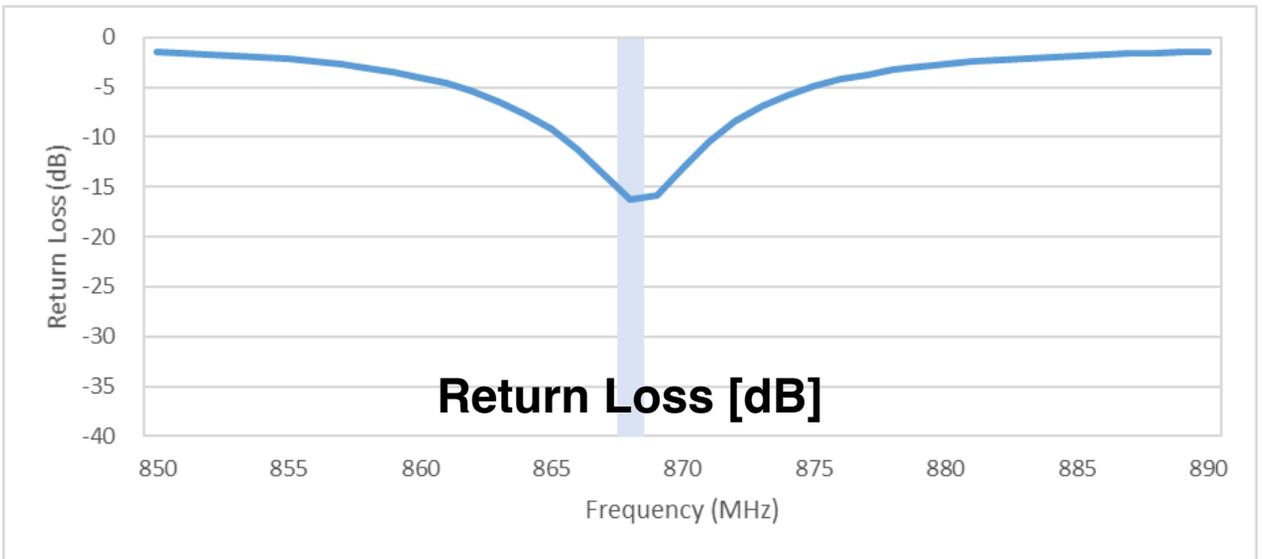


Charts In Free Space

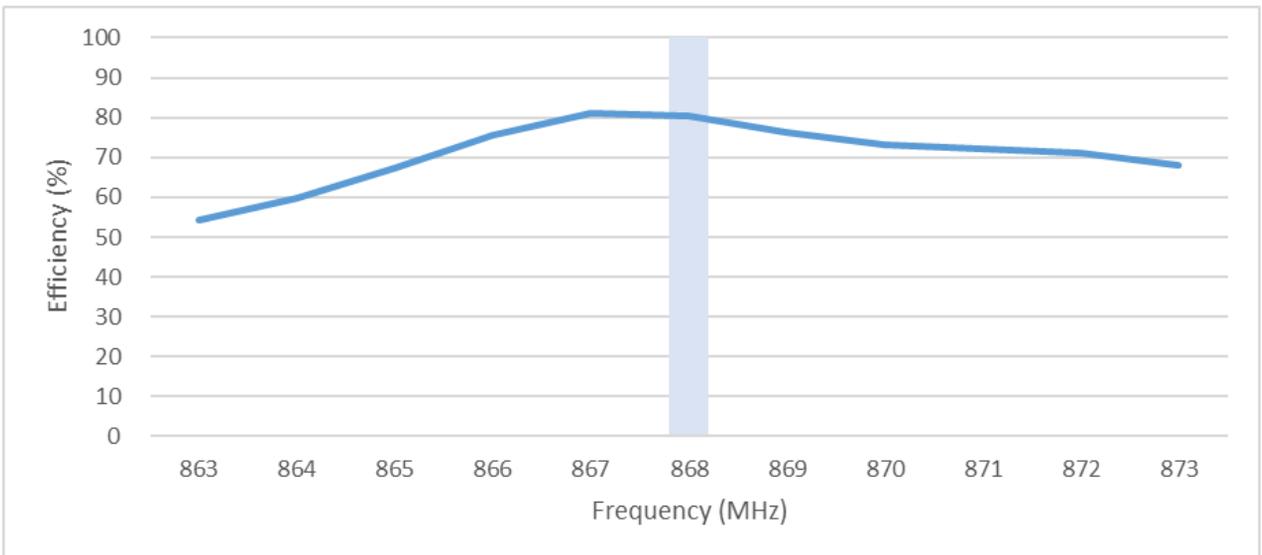


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Test setup, measurement performed in 3D anechoic chamber.

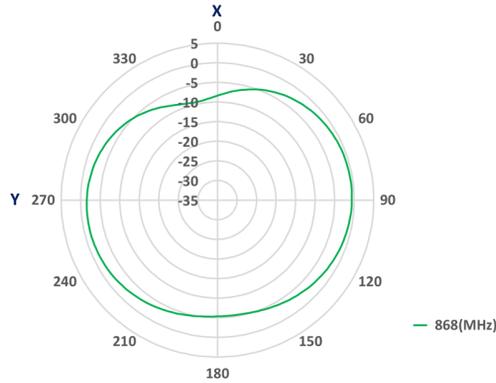


Blue background represents frequency response.

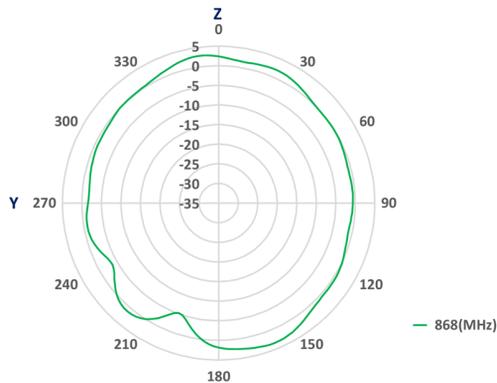


Radiation Pattern - Free Space

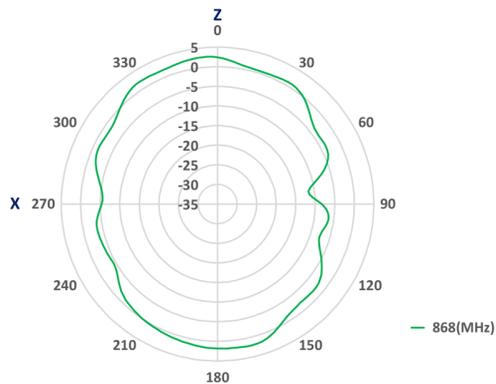
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev.	Description	Date	ECN	Approval
A	Initial Release	2023-05-18	ST0684-11-401-U-RA00	ATC

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