

Datasheet

2.4-2.5GHz & 5.15-5.85GHz
Internal Antenna

Features:

- Adhesive backing on the PCB simplifies mounting within the device
- Global frequency coverage
- PCB antenna assembly

Applications:

- Smart metering and utilities
- Industrial IoT
- Quick service restaurants
- Medical devices



25 × 7 × 0.85mm

PCB Antenna



Electrical Specifications

Antenna Characteristics

Antenna Type	Radiation Pattern	Polarization	Max. Input Power	Impedance
PCB Antenna	Omni	Linear	1W	50Ω

Frequency (GHz)	2.4~2.5	5.15~5.825
Return Loss (dB)	< -10	< -10
Peak Gain (dBi)	2.6	2.6
Average Gain (dB)	-3.8	-1.6
Efficiency (%)	42	69

Mechanical Specifications

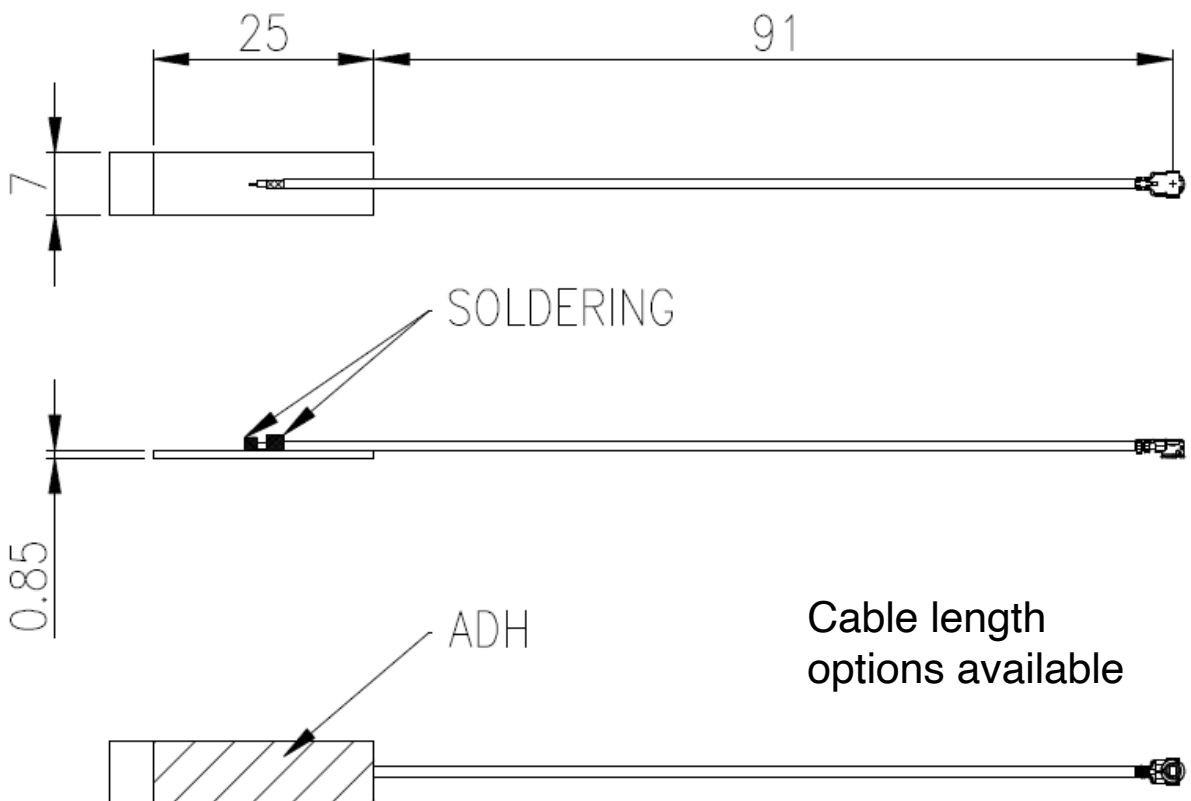
Environmental

Temperature Range (°C)	-40 to 85
Humidity	Non-condensing 65°C 95% RH
RoHS Compliant	

Part Number	Dim. (mm)	Weight (g)	Conn. Type	Cable Type	Material	Adhesive
ST0225-10-401-A	25 × 7 × 0.85	1.8	I-PEX MHF 1	Ø 1.37	FR-4	3M 467

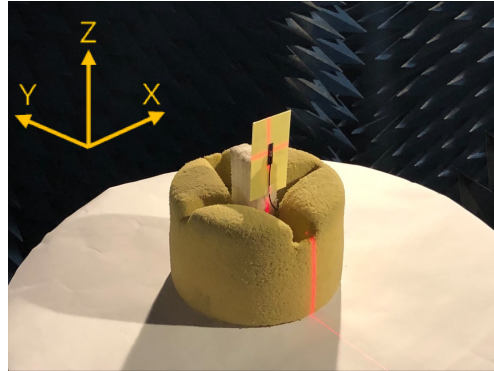
Mechanical Drawing

Unit : mm

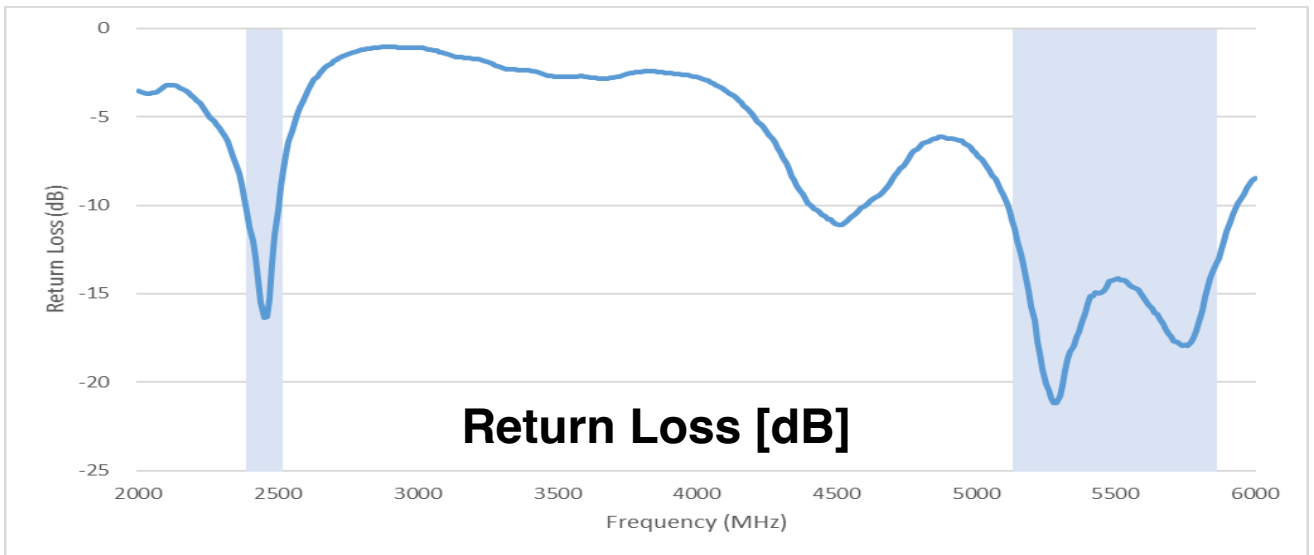


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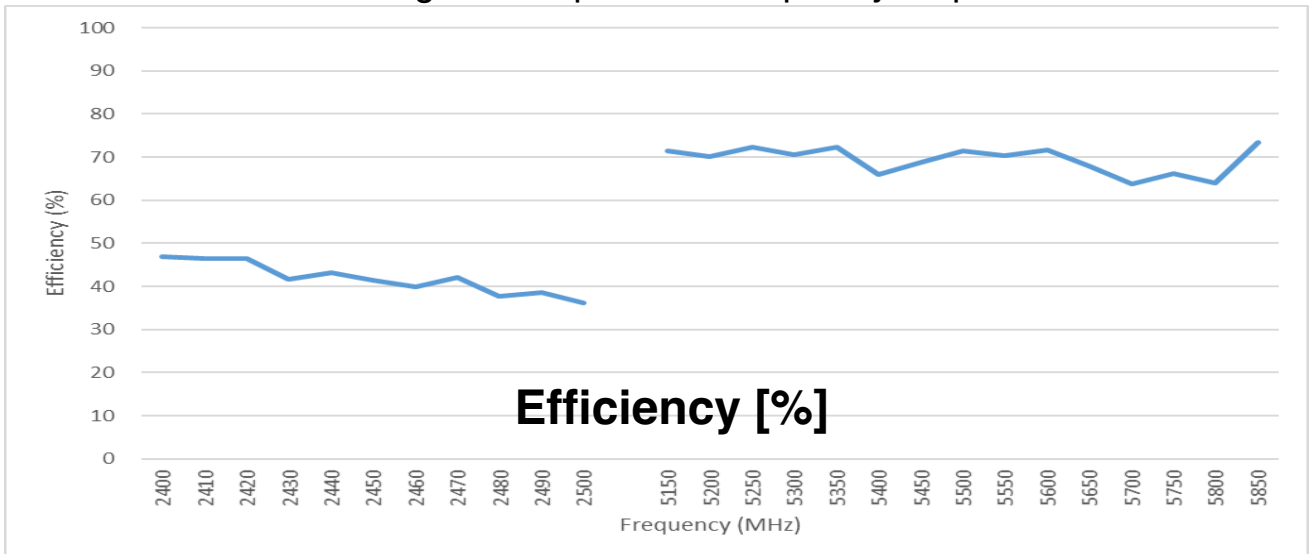
Charts In Free Space



Test setup, measurement performed in 3D anechoic chamber.

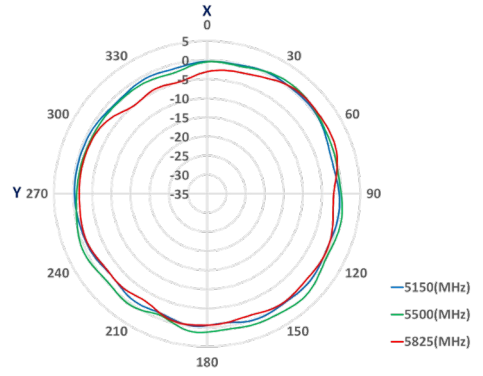
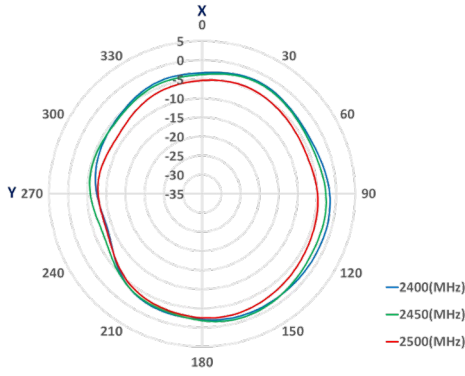


Blue background represents frequency response.

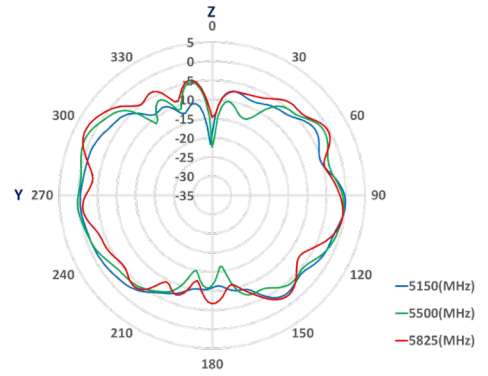
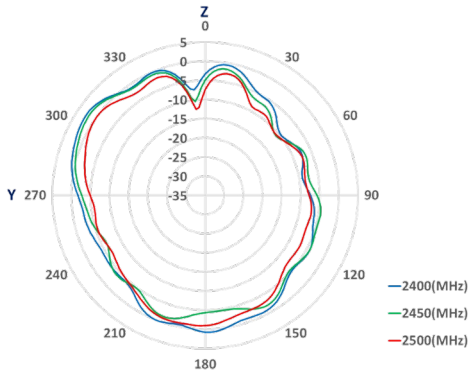


Radiation Pattern - Free Space

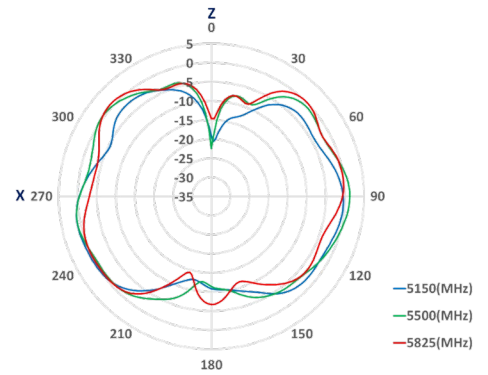
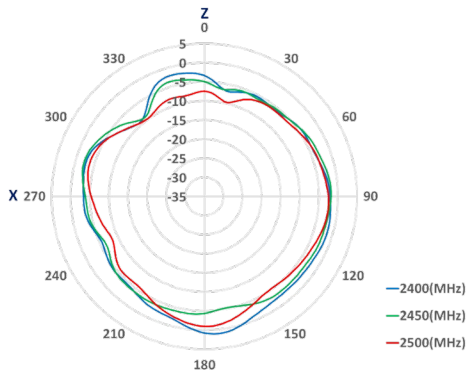
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev	Description	Date	ECN	Approval
A	Initial Release	2022-10-25	ST0225-10-401-A-RA00	ATC
B	Additional info added. RF Performance update.	2023-01-02	ST0225-10-401-A-RB00	ATC

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