

Datasheet

2.4-2.5GHz & 5.15-7.2GHz Internal Antenna



30 × 7 × 0.85mm

PCB Antenna

Features:

Wi-Fi 6E, also including Wi-Fi 6E new 6GHz band, Bluetooth, ZigBee
Adhesive backing on the PCB simplifies mounting within the device
Global frequency coverage

Applications:

Smart metering and utilities
Industrial IoT
Quick service restaurants
Medical devices



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	5.925~7.125	
Return Loss (dB)	< -7	< -6	< -6	
Peak Gain (dBi)	2.6	2.6	4.1	
Average Gain (dB)	-3.5	-1.8	-2.0	
Efficiency (%)	44	66	65	

Mechanical Specifications

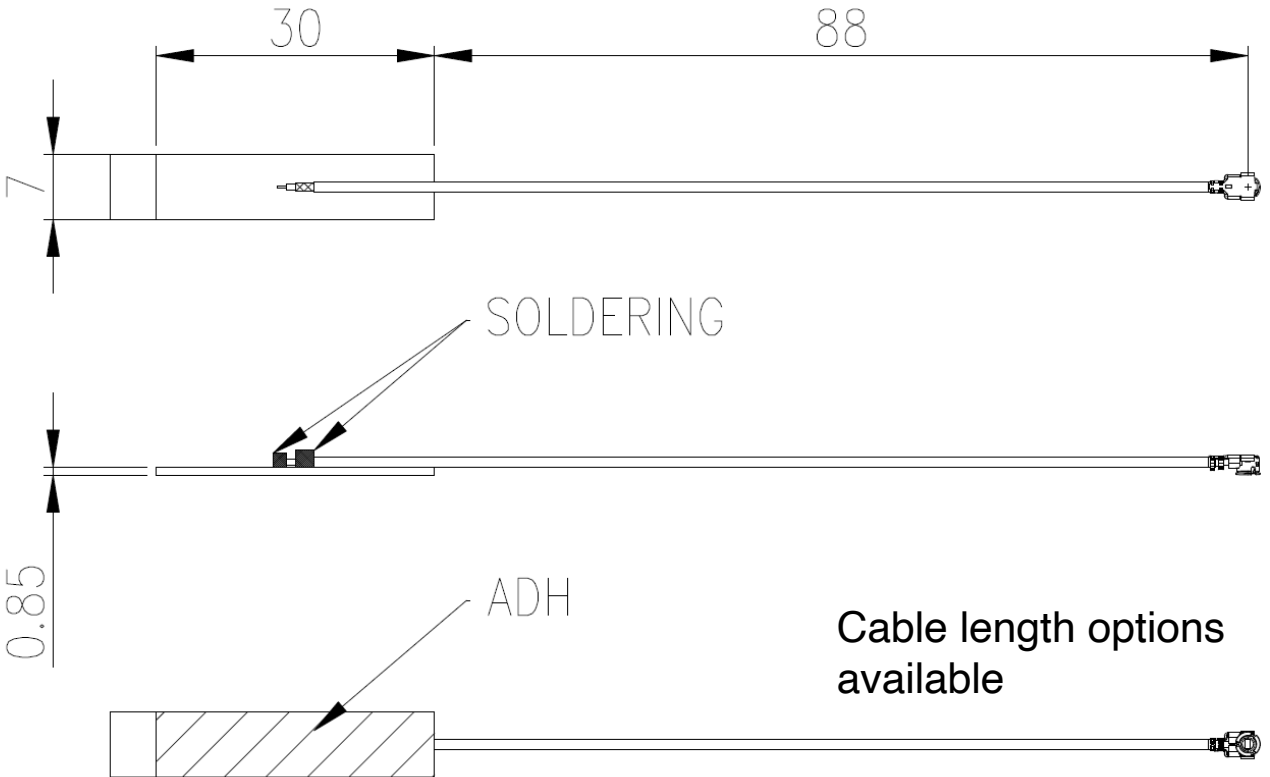
Environmental

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
ST1225-10-401-A	30 × 7 × 0.85	1.8	I-PEX MHF 1	Ø 1.37	FR-4	3M 467

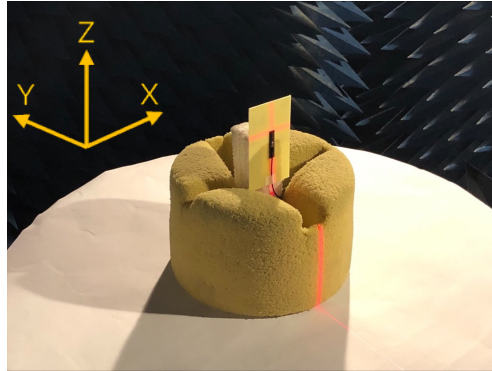
Mechanical Drawing

Unit : mm

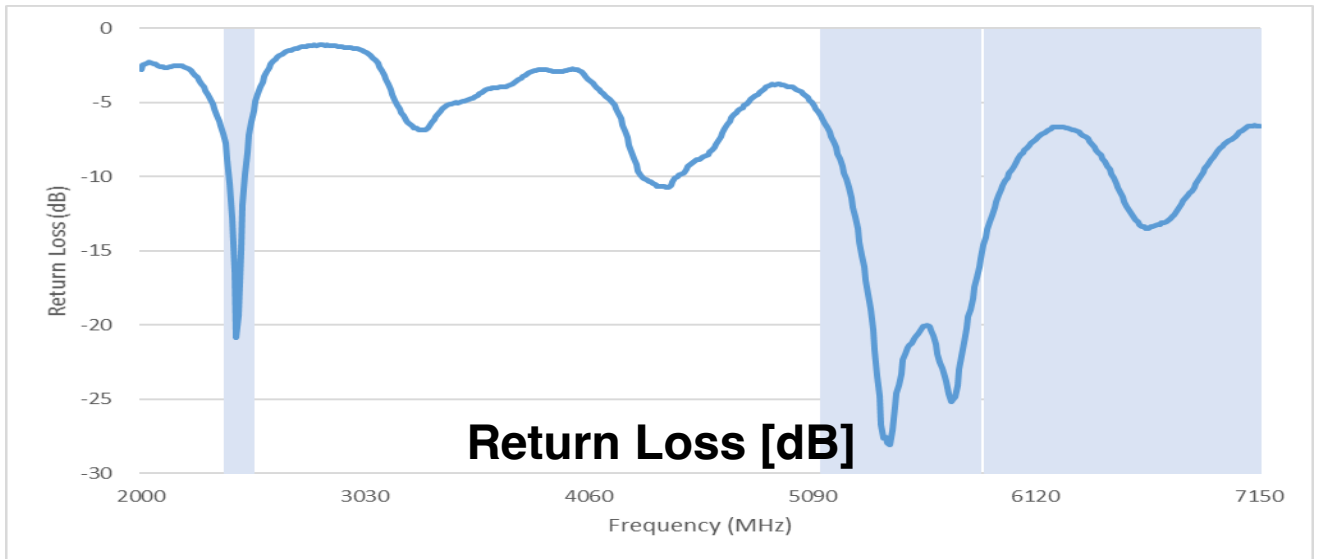


ST1225-10-401-A

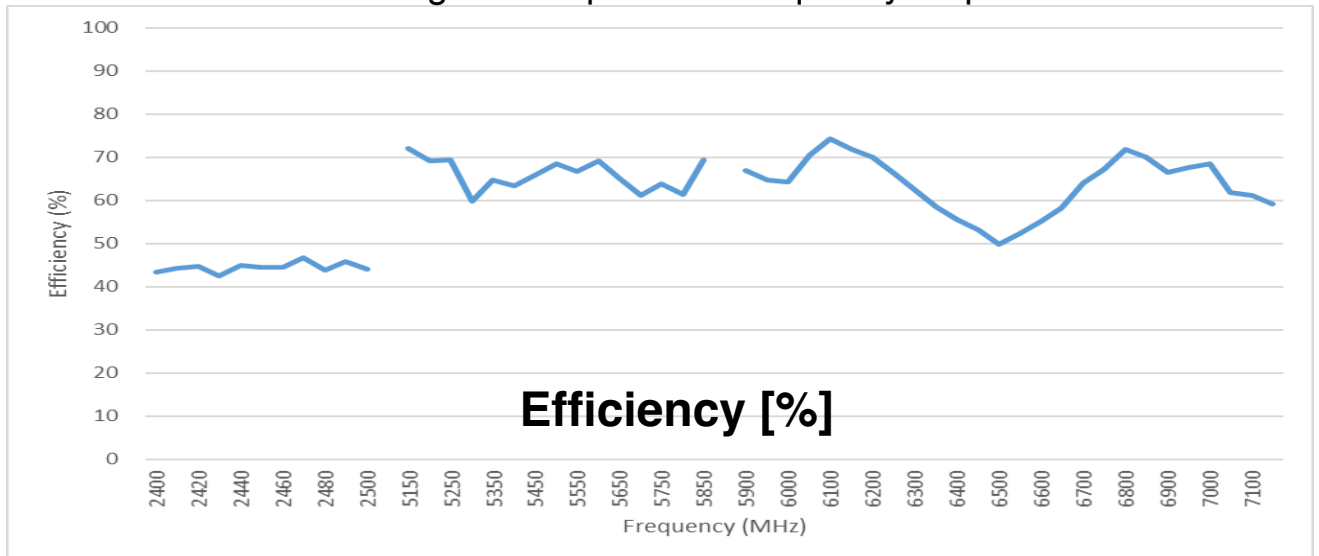
Charts In Free Space



Test setup, measurement performed in 3D anechoic chamber.

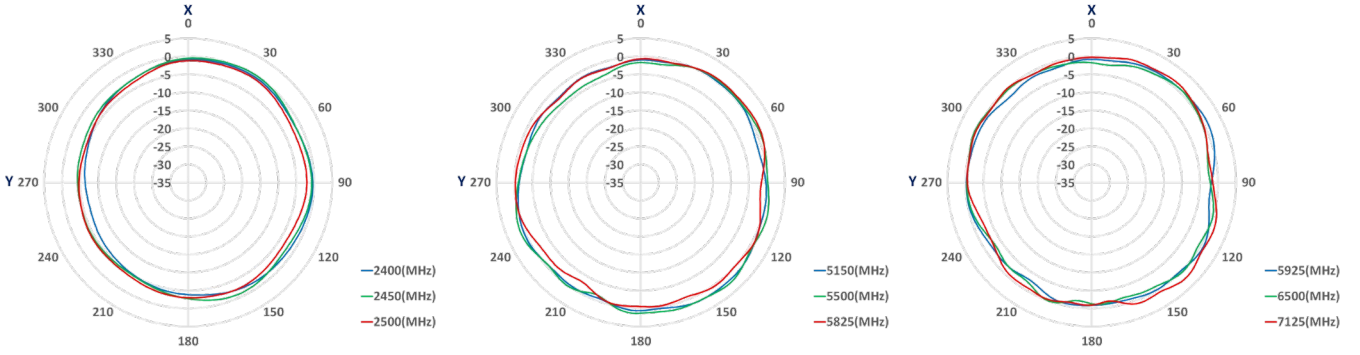


Blue background represents frequency response.

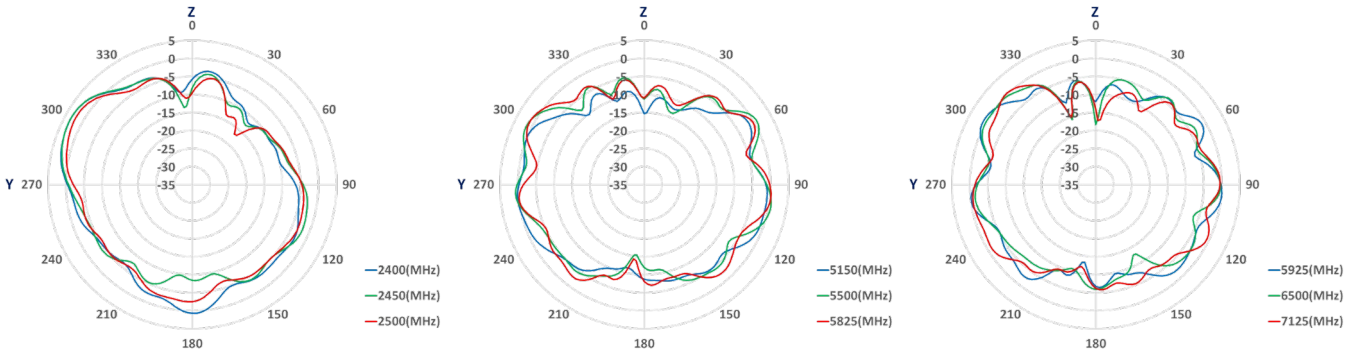


Radiation Pattern - Free Space

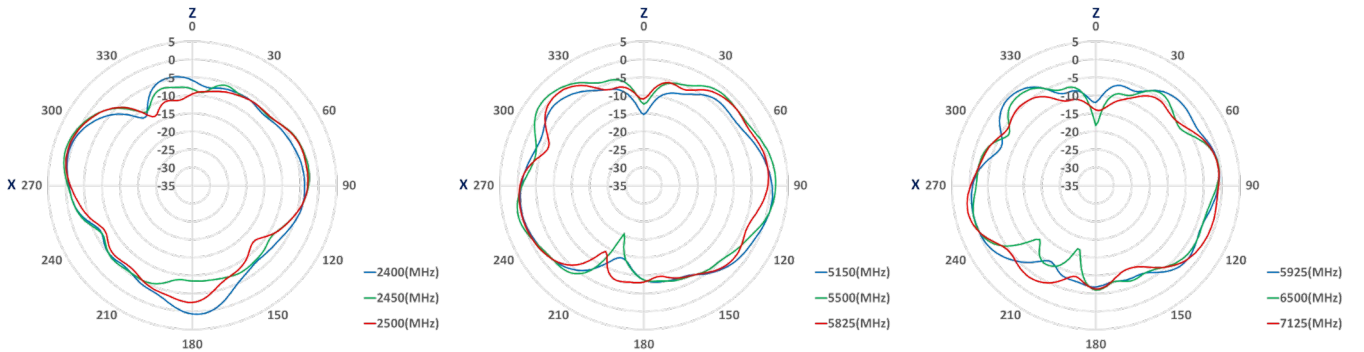
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev	Description	Date	ECN	Approval
A	Initial Release	2022-10-25	ST1225-10-401-A-RA00	ATC
B	Additional info added. RF Performance update.	2023-01-02	ST1225-10-401-A-RB00	ATC

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