

### Datasheet

## 0.69-0.96GHz & 1.7-5GHz

### Internal Antenna



90 × 15 × 0.85mm

### PCB Antenna

### Features:

High performing full 4G LTE / 5G NR band antenna with coaxial cable OD1.37mm for indoor applications.

### Applications:

- CPE - Router, Set-top boxes & Gateway
- IoT devices
- 4G LTE & 5G NR Mesh
- Smart Metering
- Robotics



## Electrical Specifications

### Antenna Characteristics

Antenna Type	Radiation Pattern	Polarization	Max. Input Power	Impedance
PCB Antenna	Omni	Linear	1W	50Ω
<b>Frequency (GHz)</b>	<b>0.698~0.96</b>	<b>1.71~2.17</b>	<b>2.3~2.69</b>	<b>3.3~5</b>
Return Loss (dB)	< -6	< -6	< -6	< -6
Peak Gain (dBi)	4.2	2.1	3.3	4.2
Average Gain (dB)	-3.0	-3.1	-2.6	-3.0
Average Efficiency (%)	50	49	55	51

**Mechanical Specifications**

**Environmental**

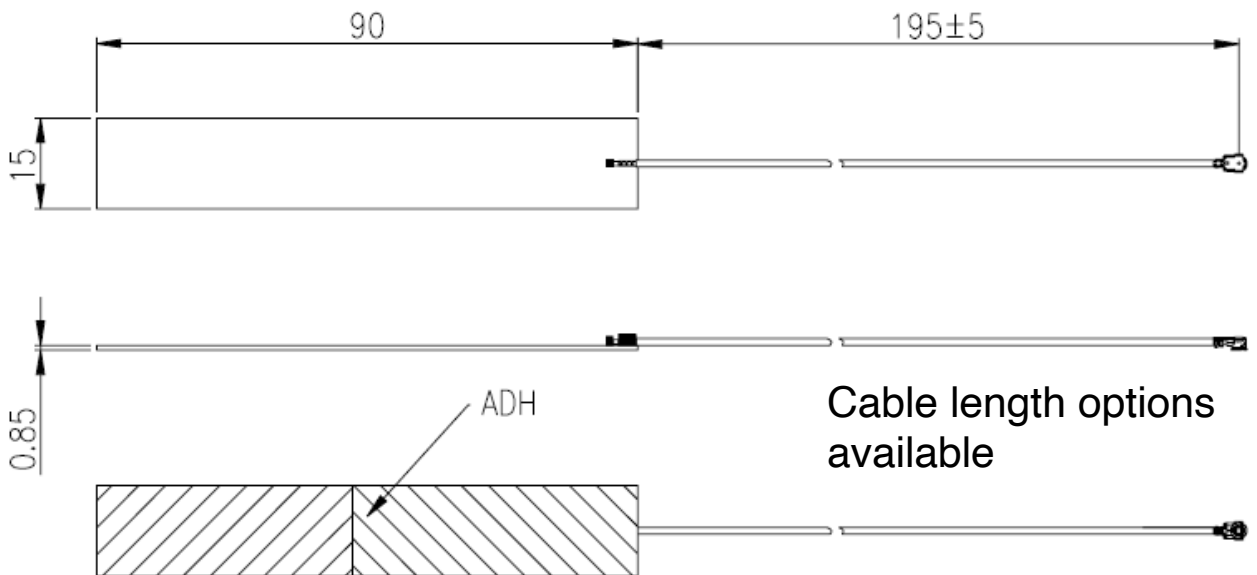
Temperature Range (°C)	-40 to 85
Humidity	Non-condensing 65°C 95% RH

RoHS Compliant

Part Number	Dim. (mm)	Weight (g)	Conn. Type	Cable Type	Material	Adhesive
ST0425-20-401-A	90 × 15 × 0.85	3.6	I-PEX MHF 1	Ø 1.37	FR-4	3M 467

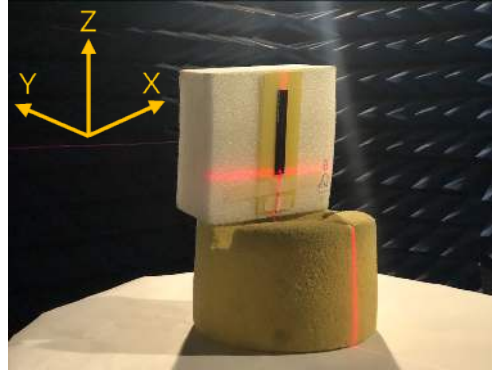
**Mechanical Drawing**

Unit : mm

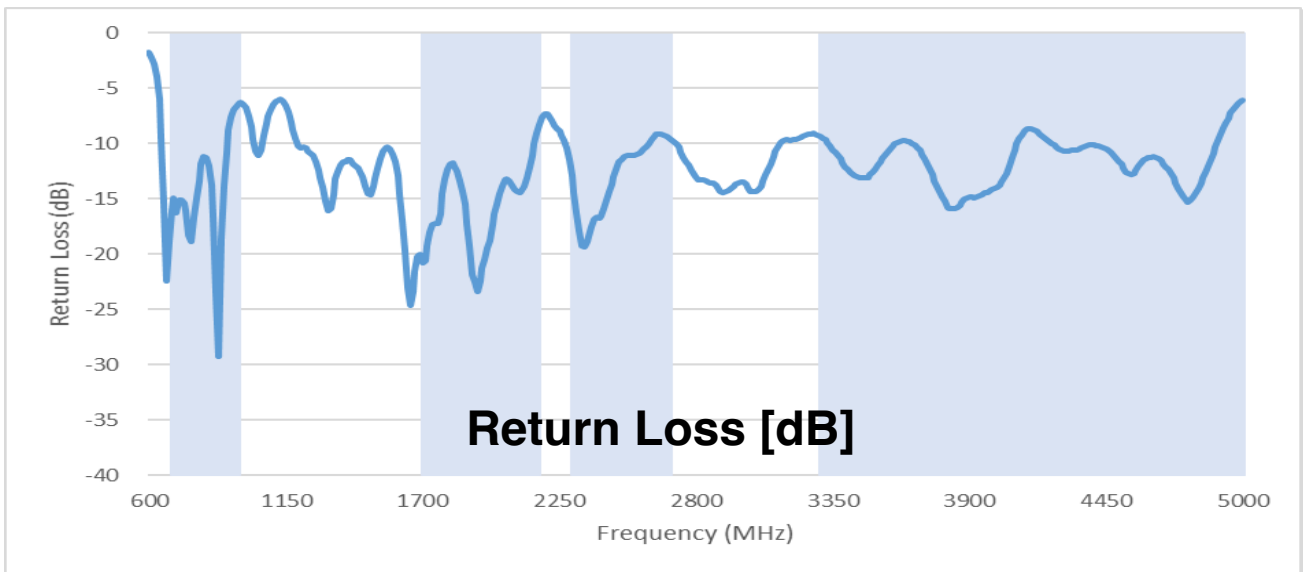


**ST0425-20-401-A**

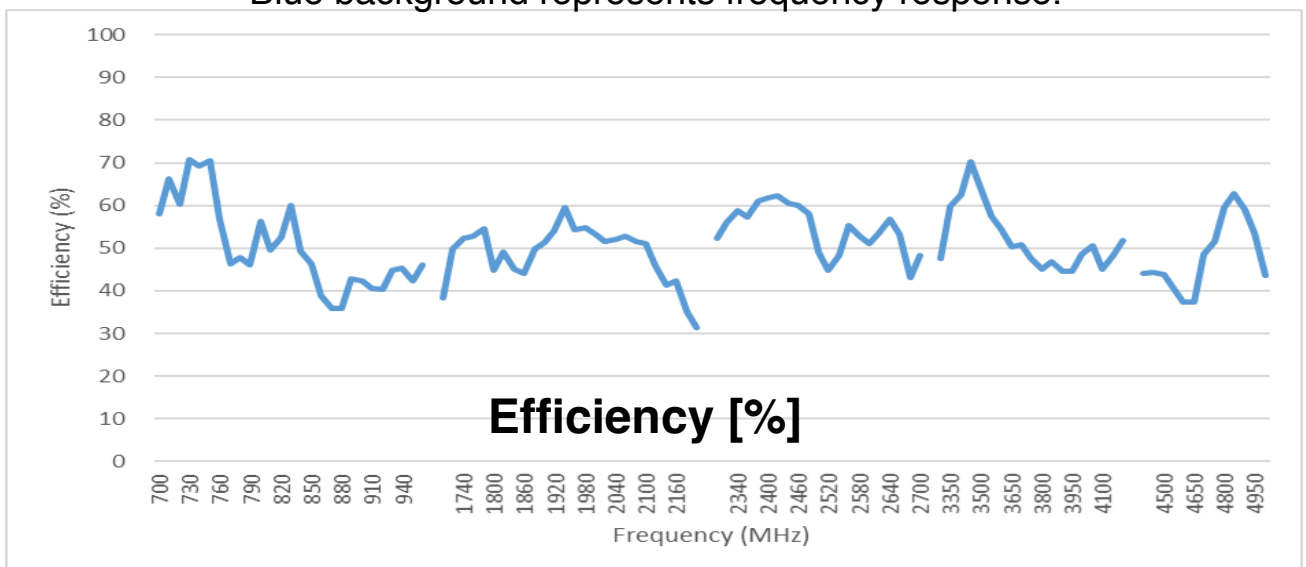
## Charts In Free Space



Test setup, measurement performed in 3D anechoic chamber.

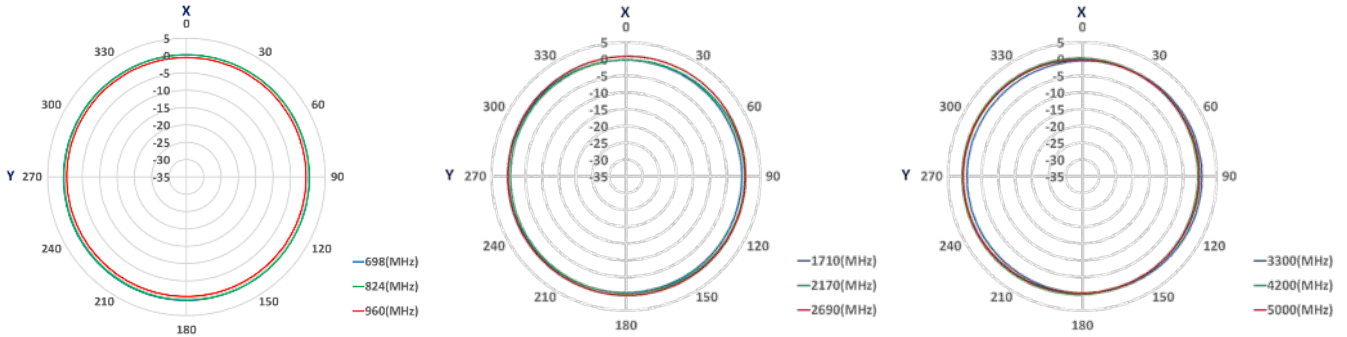


Blue background represents frequency response.

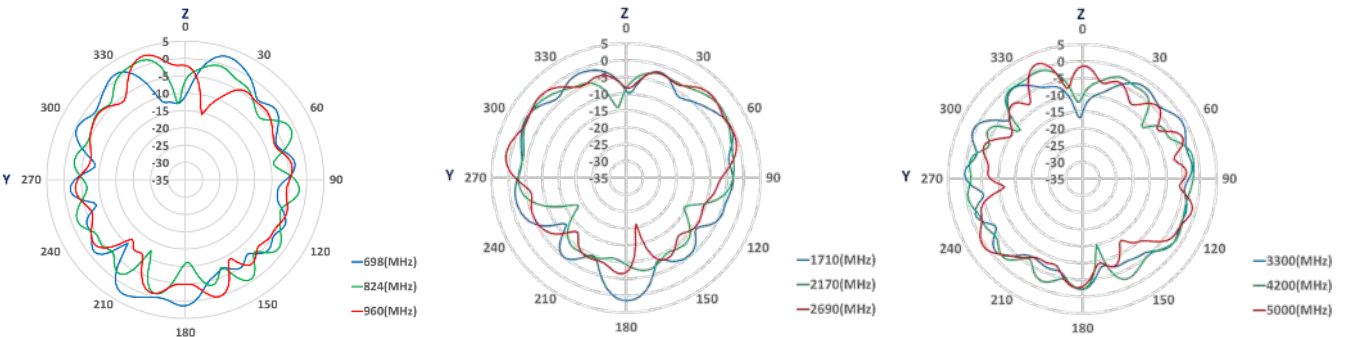


## Radiation Pattern - Free Space

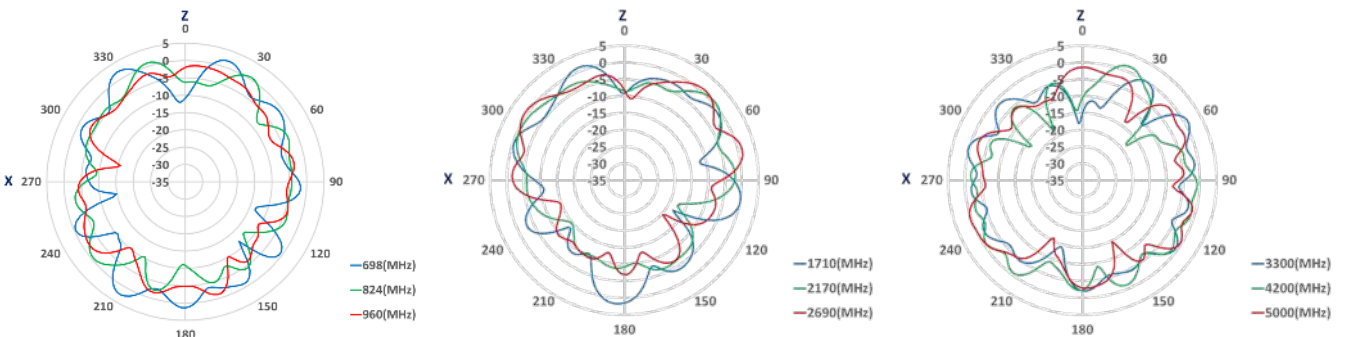
### XY - Plane



### YZ - Plane



### XZ - Plane



### Revisions

Rev	Description	Date	ECN	Approval
A	Initial Release	2022-10-25	ST0425-20-401-A-RA00	ATC
B	Additional info added. RF Performance update.	2023-01-02	ST0425-20-401-A-RB00	ATC

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