

Datasheet

2.4-2.5GHz & 5.15-5.85GHz

External / In-building

Features:

High performing Wi-Fi dual-band antenna with SMA/RP-SMA connector for indoor applications

Applications:

- CPE – Router, Set-top boxes, Gateway
- IoT devices
- Wi-Fi Mesh
- Smart Metering
- Robotics



Stick Antenna



Electrical Specifications

Antenna Characteristics

| Antenna Type | Radiation Pattern | Polarization | Max. Input Power | Impedance |
|---------------|-------------------|--------------|------------------|-----------|
| Stick Antenna | Omni | Linear | 2W | 50Ω |

| Frequency (GHz) | 2.4 – 2.5 | 5.15 – 5.85 |
|---------------------------|------------|-------------|
| Return Loss (dB) | < -10 | < -10 |
| Gain, Peak / Average (dB) | 3.0 / -0.5 | 4.4 / -0.6 |
| Efficiency / Average (%) | 89 | 87 |

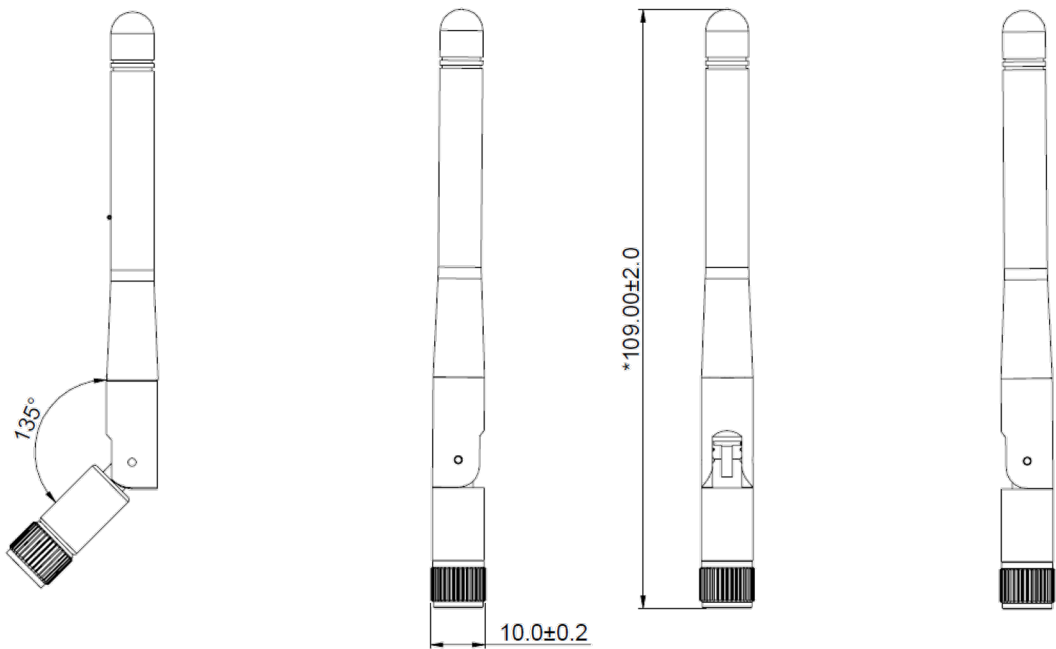
Mechanical Specifications

Environmental

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

| Part Number | Length (mm) | Weight (g) | Connector Type | Radome |
|-----------------|-------------|------------|----------------|----------|
| ST0228-30-002-A | 109 | 7.35 | SMA Plug | TPEE/ABS |
| ST0228-30-502-A | 109 | 7.35 | RP-SMA Plug | TPEE/ABS |

Mechanical Drawing



SMA Plug

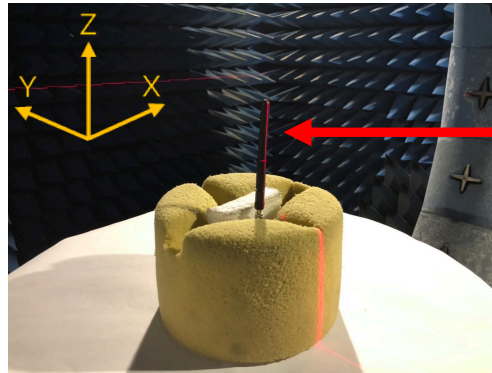
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RP-SMA Plug

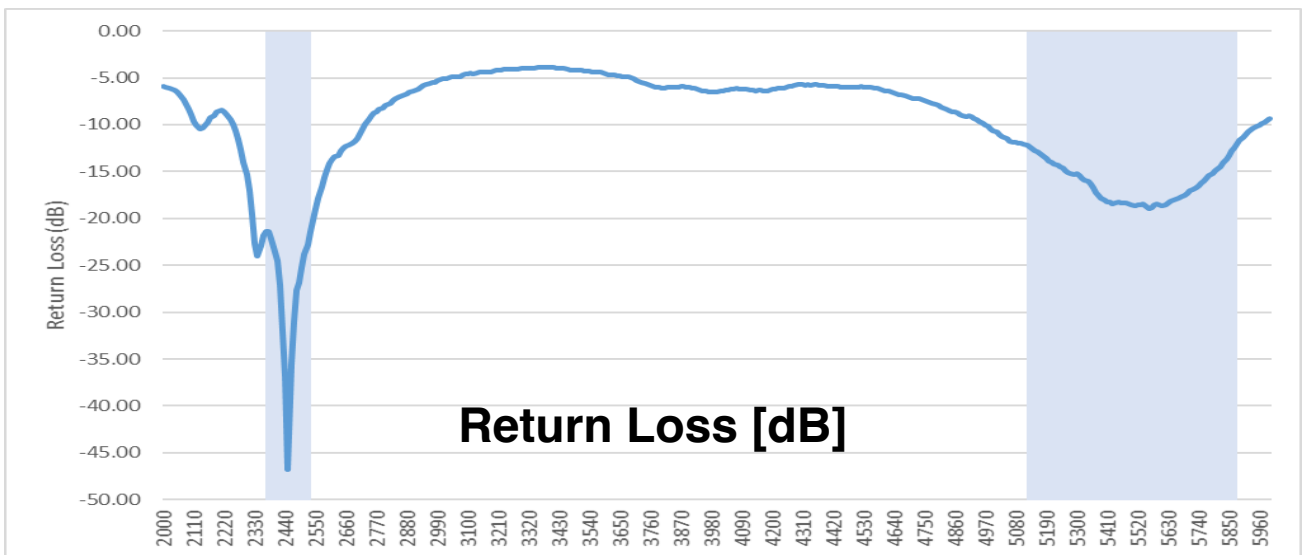
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Charts in Free Space

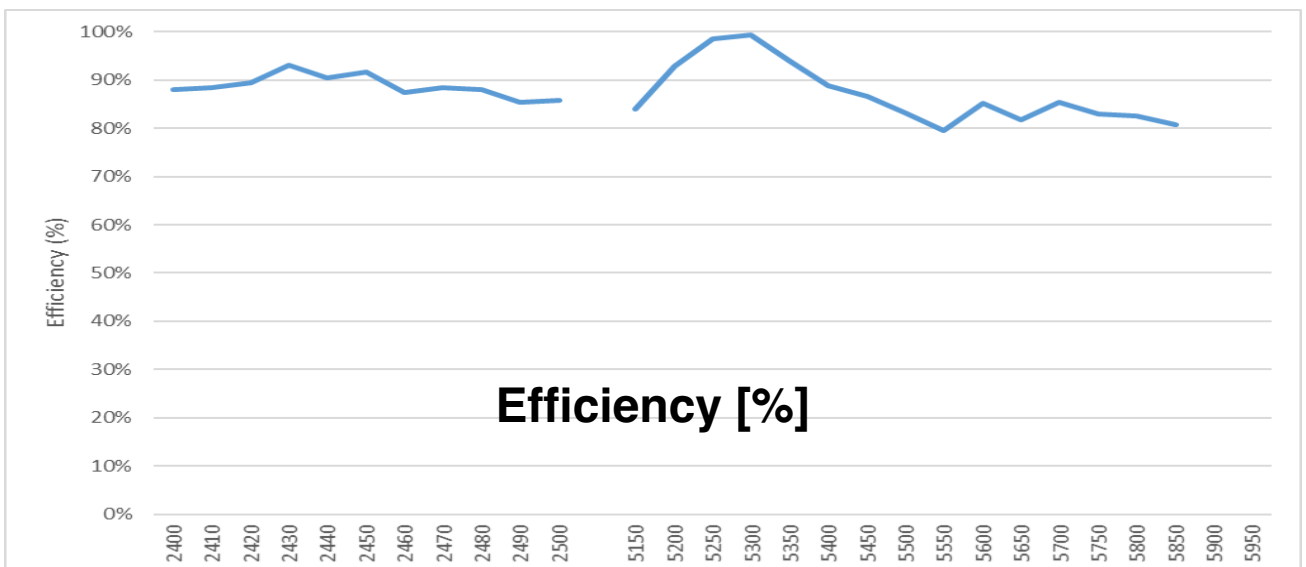


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Test setup, measurement performed in 3D Anechoic Chamber

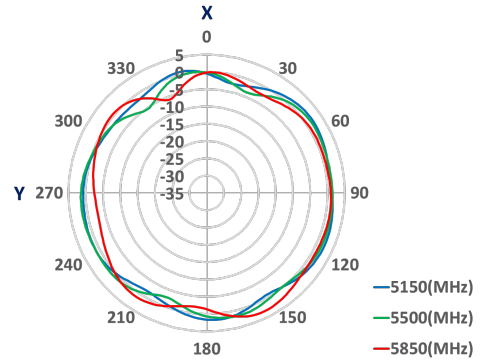
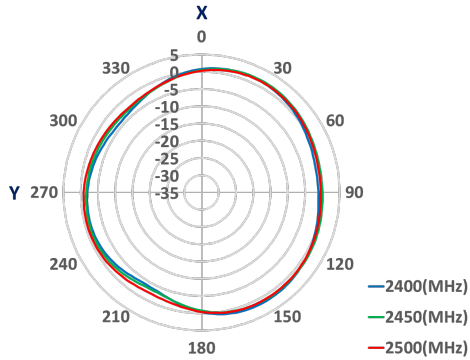


Blue background represents frequency response.

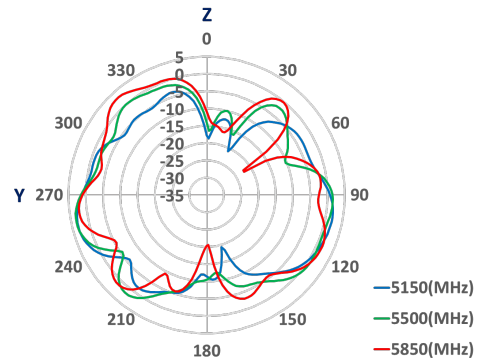
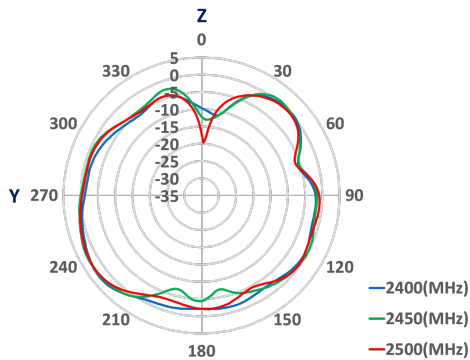


Radiation Pattern - Free Space

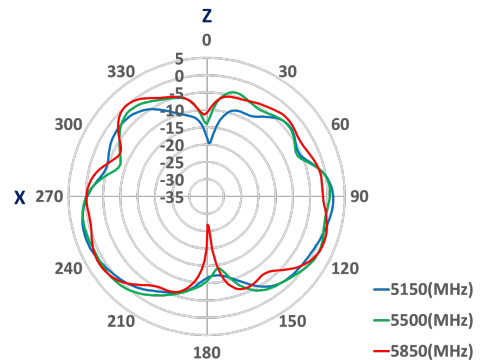
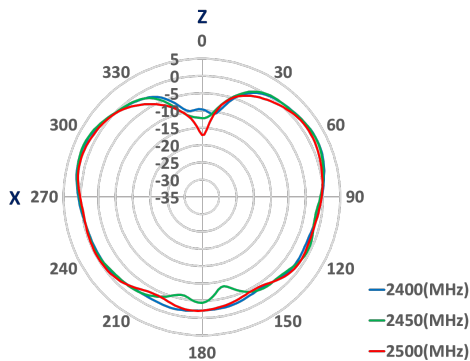
XY - Plane



YZ - Plane



XZ - Plane



| Revisions | | | | |
|-----------|-----------------------|------------|----------------------|----------|
| Rev | Description | Date | ECN | Approval |
| A | Initial Release | 2022-10-25 | ST0228-30-X02-A-RA00 | ATC |
| B | RF Performance update | 2023-01-02 | ST0228-30-X02-A-RB00 | ATC |

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