



ANTENNA DATASHEET

AOT PN: ANT-F2425-JL01

| REVISION HISTORY | | |
|------------------|---------------|--------------|
| REV. | Description | Date |
| 1.0 | First release | June.13/2024 |

| REV. | Description | Date |
|------|---------------|--------------|
| 1.0 | First release | June.13/2024 |

Want to see the latest information? Please contact us via sales@aot-corp.com

└ AOT Wireless Technology Co., Limited ┐



ANT-F2425-JL01 Antenna

Based on AOT's patented technology, the Model ANT-F2425-JL01 Antenna features provides a high performance, external antenna solution. It was designed for supporting 2400-2500MHz band applications including WIFI, BT, Zigbee etc.

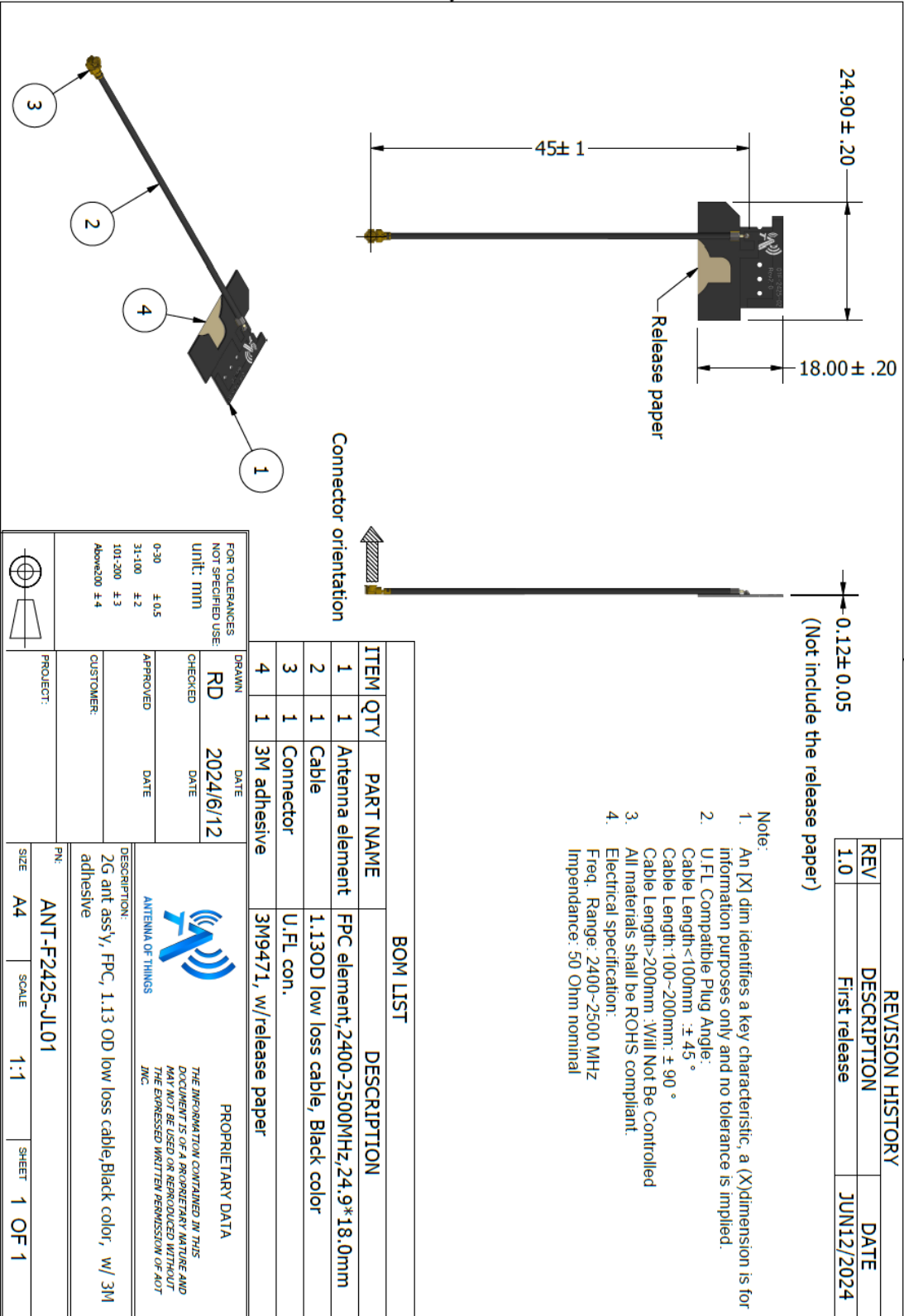
Features Overview

- Covering 2400-2500MHz frequency
- Off-board, Cable-fed,
- Low Cost, High performance
- RoHS compliant.





Assembly Drawing





Specifications and Interface

| Wireless Standard | IEEE 802.11 b/g/n/ax, BT, Zigbee |
|---------------------|--|
| Frequency Bands | 2400 -2500MHz |
| Peak Realized Gain | 2.7dBi@2.4GHz |
| Realized Efficiency | >50%@2.4GHz |
| VSWR | <1.9@2.4GHz |
| Polarization | Linear Polarization |
| Radiation Pattern | Omni-directional |
| Feed Impedance | 50Ω |
| Power Handling | 30dBm |
| Antenna Structure | FPC Antenna |
| Feeding Description | Cable Feeding |
| Antenna Dimensions | 24.9 x 18.0 x 0.12(mm) |
| Weight | 0.3 g |
| Temperature Range | Operating temperature: -40° C to +85° C (-40° F to +185° F) Storage temperature: -40° C to +85° C (-40° F to +185° F) |



Radiation Patterns

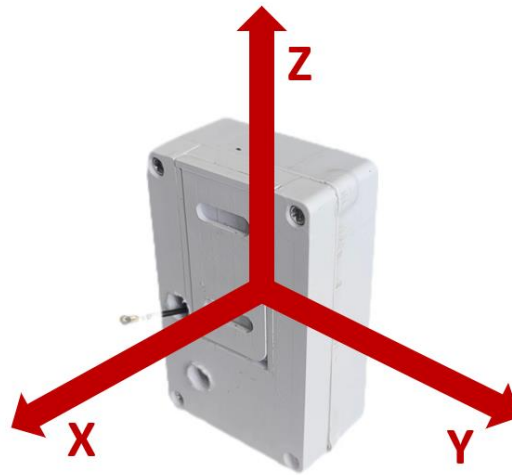
The “great circle” cut method, whereby the Measurement Antenna remains fixed and the EUT is rotated about two axes in sequential order. The radiated RF performance of the Equipment Under Test (EUT) is measured by sampling the radiated transmit power of the mobile at various locations surrounding the device. A three-dimensional characterization of the 'transmit' performance of the EUT is pieced together by analyzing the data from the spatially distributed measurements.

Data points taken every 2 degrees in the theta and in the phi axes are deemed sufficient to fully characterize the EUT's Far-Field radiation pattern and total radiated power All of the measured power values will be integrated.

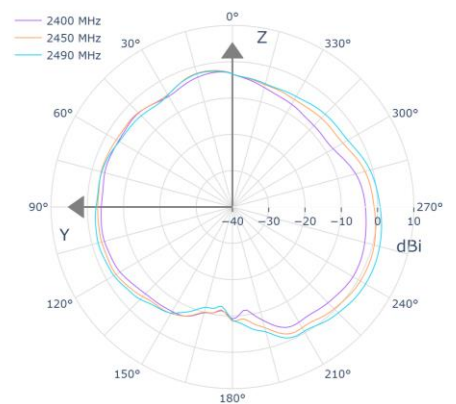
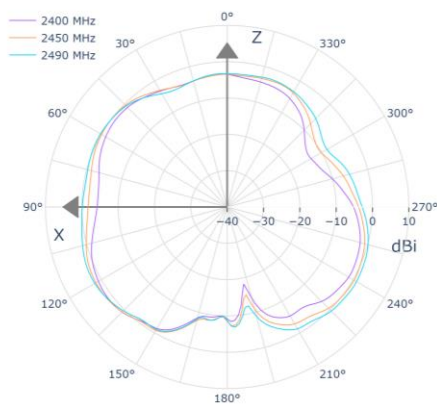
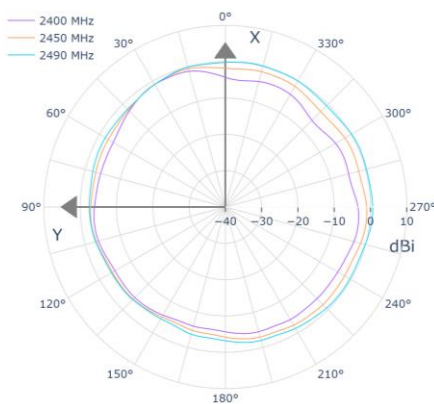
| Test Condition | Test Environment (C %) |
|---|------------------------|
| Radiated | 20-24 / 45-60 |
| Band (MHz) | Test Frequency (MHz) |
| 2400-2500 | 2400/2450/2480 |
| Test Location | |
| Company Name: AOT Wireless Technology Co., Limited Address: 289 Jinghua Road,Shipai, Bacheng Town, Kunshan City, Jiangsu Province, PRC | |



Radiation patterns were taken with the antenna in testing Chamber



Antenna integrated in customer's housing for radiation pattern



Model ANT-F2425-JL01 Antenna Radiation Patterns at 2G



Realized Efficiency & Peak Realized Gain

| Frequency | 2G4 |
|-----------|-----|
| (MHz) | (%) |
| 2400 | 50 |
| 2410 | 51 |
| 2420 | 51 |
| 2430 | 52 |
| 2440 | 55 |
| 2450 | 60 |
| 2460 | 63 |
| 2470 | 65 |
| 2480 | 66 |
| 2490 | 68 |

| Frequency | 2G4 |
|-----------|-------|
| (MHz) | (dBi) |
| 2400 | 1.6 |
| 2410 | 1.7 |
| 2420 | 1.8 |
| 2430 | 1.8 |
| 2440 | 1.9 |
| 2450 | 2.1 |
| 2460 | 2.2 |
| 2470 | 2.5 |
| 2480 | 2.7 |
| 2490 | 2.7 |