



ANTENNA DATASHEET

AOT PN: ANT-F2425-JL01

REVISION HISTORY

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

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└ 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.

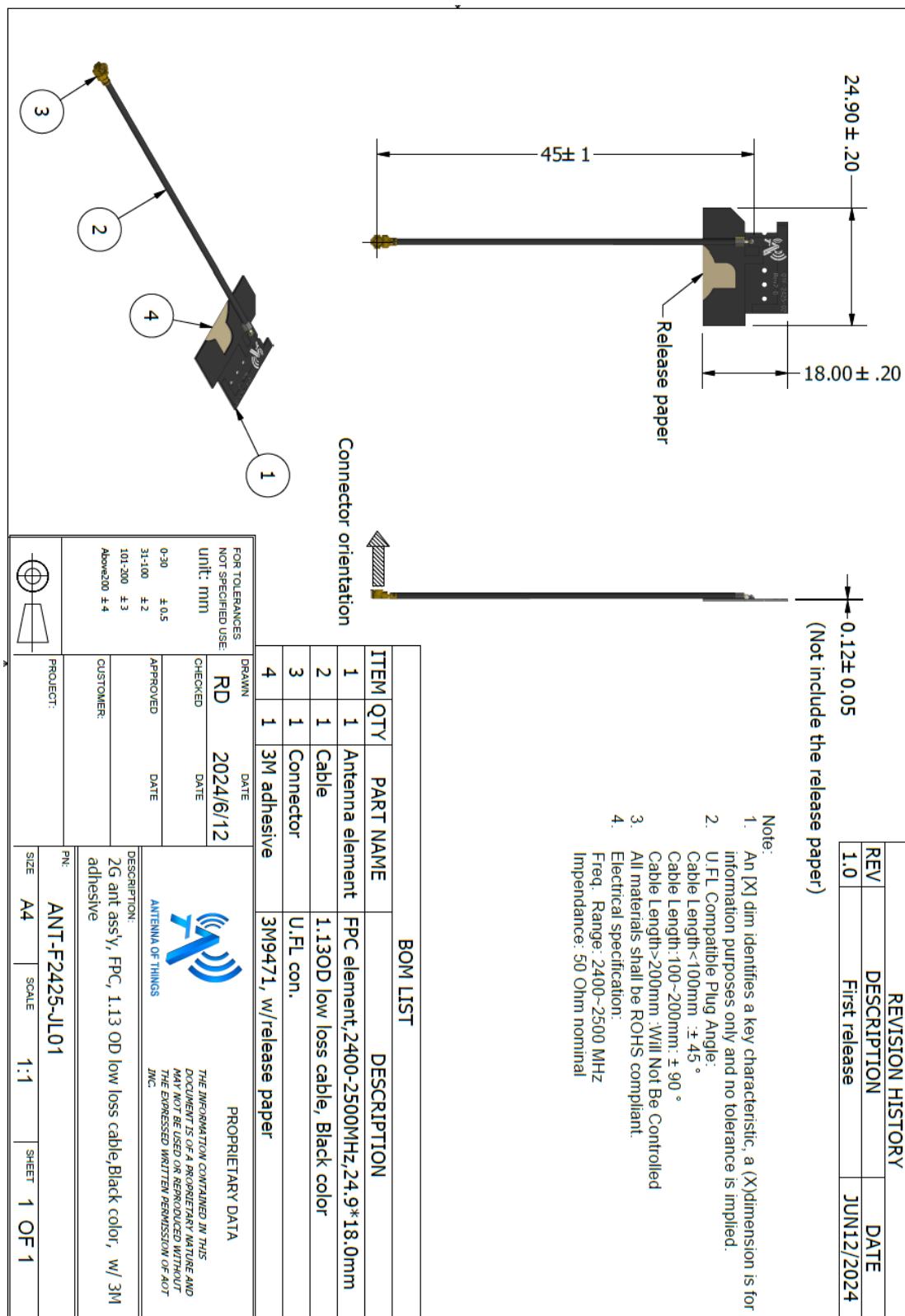
Features Overview

- 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

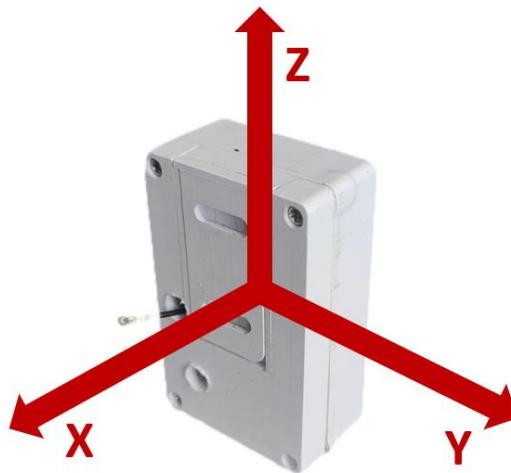
The “great circle” cut method, whereby the Measurement Antenna remains fixed and the EUT is rotated about two axes in sequential order. The radiated RF performance of the Equipment Under Test (EUT) is measured by sampling the radiated transmit power of the mobile at various locations surrounding the 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.

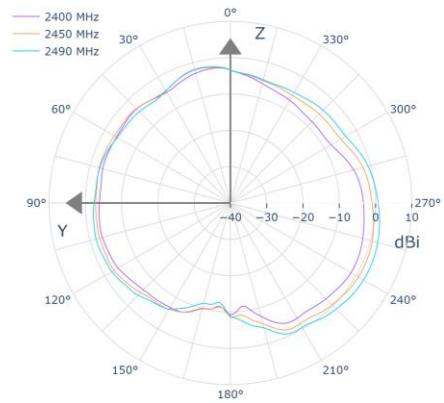
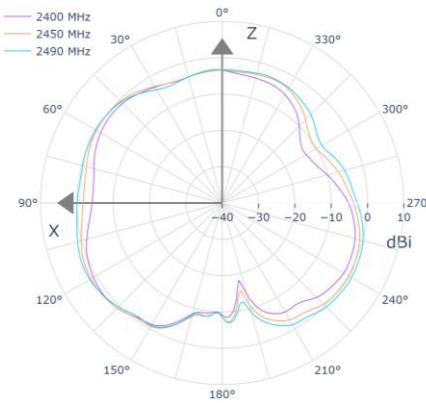
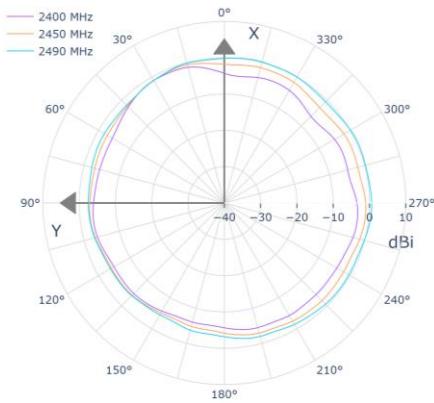
Test Condition	Test Environment (C %)
Radiated	20-24 / 45-60
Band (MHz)	Test Frequency (MHz)
2400-2500	2400/2450/2480
Test Location	
Company Name: AOT Wireless Technology Co., Limited Address: 289 Jinghua Road, Shipai, Bacheng Town, Kunshan City, Jiangsu Province, PRC	



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

Frequency (MHz)	2G4
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