



Liteon_Wi-Fi Antenna FCC Report

Date of Report: 2023/ 02 / 09

Department: WCB , Auden Techno Corp.

Tested by: Sean Li

auden 

Document/Report Information

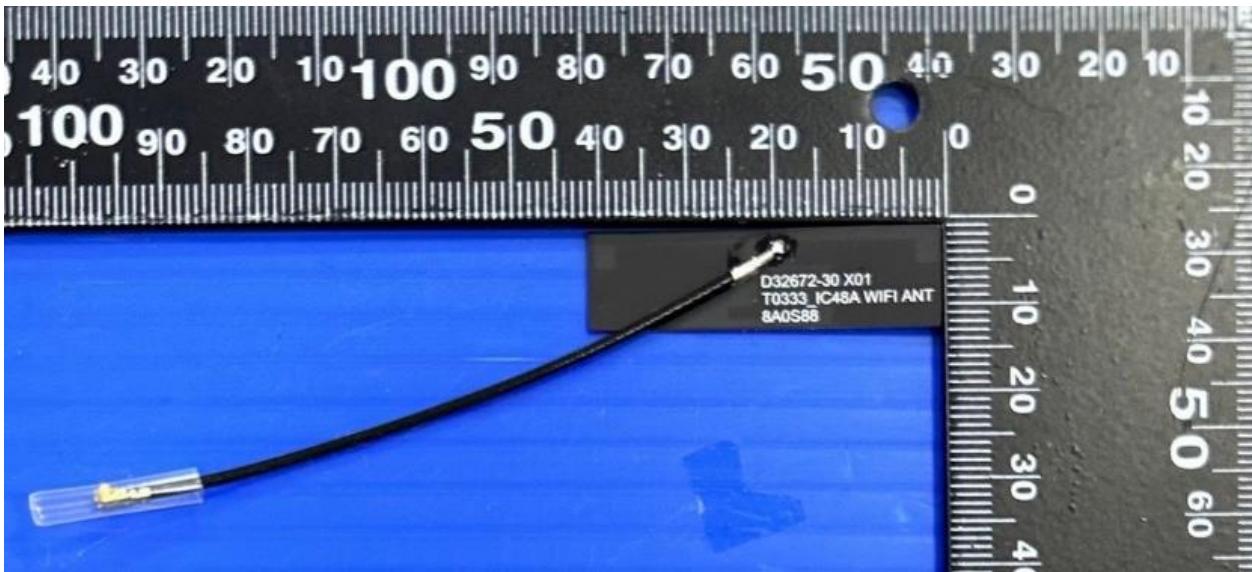
Antenna model Name	D32672-30
Topics	Wi-Fi Antenna FCC Report
Date of Report	2023/ 02 / 09
Report Revision	Rev00
Dept.	WCB, Auden Techno Corp.
Tested by	Sean Li
Revised by	Jessie Chien

Report History

Date	Report Rev.	Project Stage	Description
2023/02/09	Rev00	RFQ	Wi-Fi Antenna FCC Report

- Platform and Antenna Introduction
- Antenna Performance
- 3D Radiation Pattern
- Conclusions

Information of Wi-Fi Antenna



Date of Report: 2023-02-09

Antenna Model

Name : D32672-30

Department : WCB, Auden Techno Corp.

Tested by : Sean Li

Antenna Type : Dipole

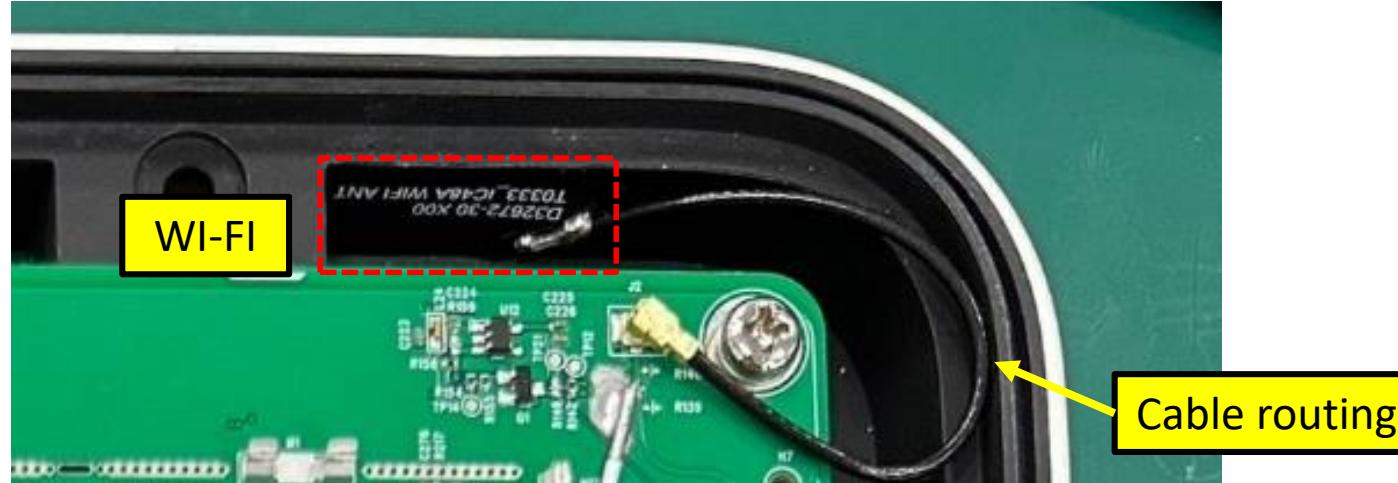
Assembly : FPCB + Coaxial Cable (1.37Ø low loss) 83mm

PCB Size : 40.5mm x 10mm x t=0.25mm



Frequency range	2400~2500MHz
Gain	3.0 dBi
Connector	IPEX I
Impedance	50 Ohm

Antenna Position and Cable Routing



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Measurement software



GTS MaxSign

File Window Tools Help

Test Setup

Settings

Operator: GTS	Temperature: 20 °C	Humidity: 50 %
Test Polar: Both	Pole Test Manner: Single	Test Position: FS
Instrument Preset: Once	Ring Off End: True	Manual Page Max: 10

Equipment

Product Series: RayZone			
Instrument: R8S_ZNB8			
Instrument Add: TCP1PO::ZN88-42-102677::inst0::INSTR	Refresh	Identify	<input type="radio"/> GPIB <input checked="" type="radio"/> LAN
Controller: COM4	Refresh	ON	
Amplifier: COM5	Refresh	<input type="checkbox"/> Bypass	Reading amplifier serial port successfully.
Working Port: Port1			
Link Port: NULL			

Manual Operation

Command: <input type="text"/>	<input type="button" value="Execute"/>
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Testing Information

Template: Zebra_SRV_Ant6.xml
DUT Code: Luke
Instrument Type: R8S_ZNB8
Test System: Passive
Test Mode:
DUT Memo:

Controller

Theta: 0 Phi: 0 Polar: -

Logging

```
13:14:57 >> Start
13:14:57 >> Target chamber type is RayZone2800G.
13:14:57 >> Authorization will be expired in 748 days.
13:14:57 >> DUT[Luke] load success
13:14:57 >> Pathloss load success
13:14:59 >> Instrument Address scanning done.
13:15:00 >> Reading serial port[COM4] successfully.
13:15:02 >> PC - Extra Controller START....
13:15:02 >> Power Limit, downlink: -25dBm; upLink -10dBm
13:15:02 >> GTSAMP, -25, -10, 288
13:15:02 >> Extra controller connected.
13:15:02 >> Reading amplifier serial port[COM5] successfully.
```

Display Logging Line Count Limit: 5000

Test Status: Idle Estimated Left Time: Beep

Test Lab Environment Conditions

Temperature	20° C to 28° C
Humidity	30% to 70%

Test Equipment List

Type of Equipment	Model Number	Calibration Due Date
Antenna Chamber	GTS2800	14 May 2023
Vector Network Analyzer	Agilent Technologies E5071B	14 May 2023

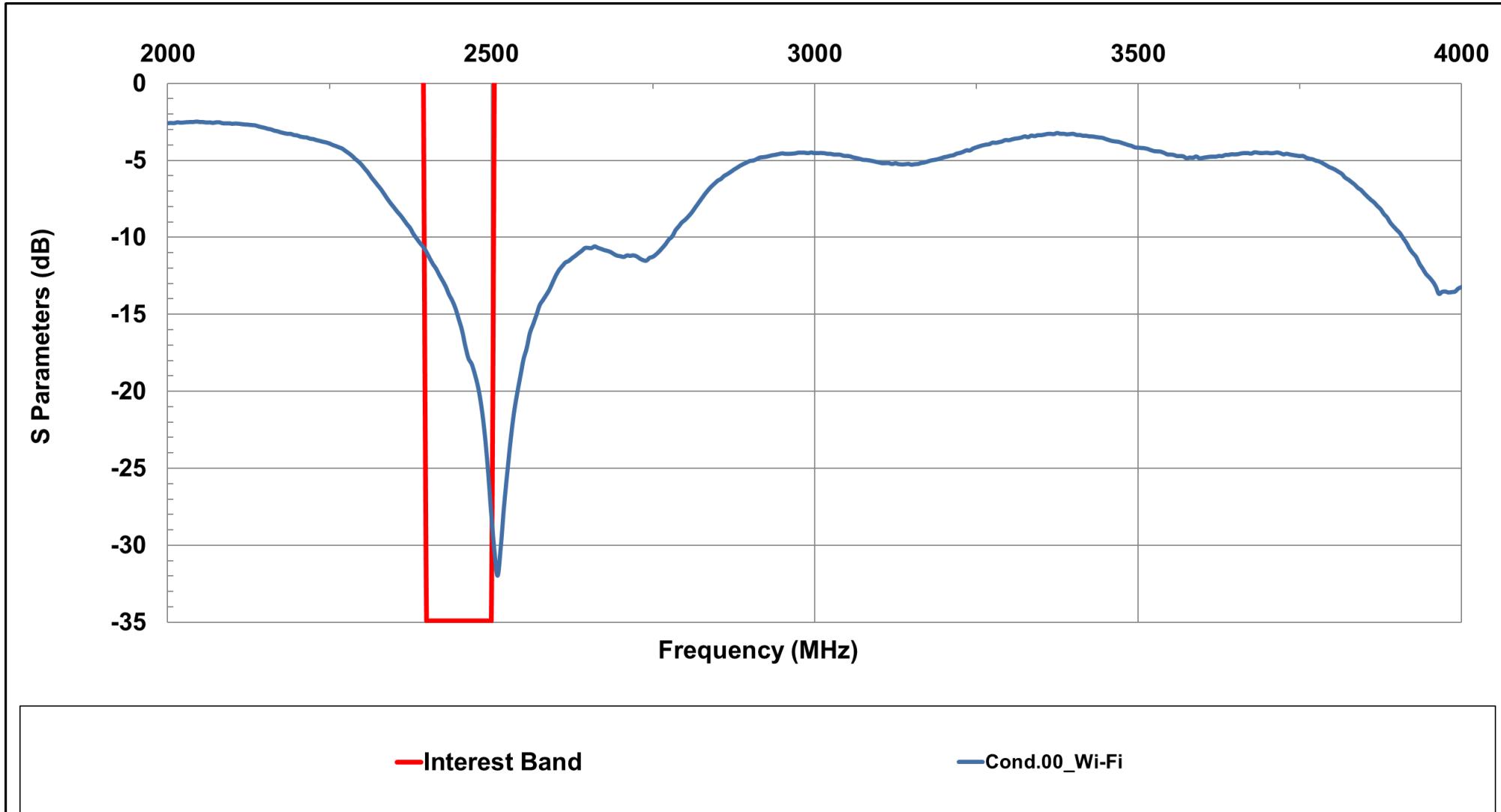
Test Date: 2023/02/09

ISSUED: 2023/02/09

Test Location: No. 19, Lane 772, Heping Road, Bade District, Taoyuan City, 334

Device Under Test mounted on Antenna Chamber turntable as shown in Appendix A. Measurements, including conducted power, TRP, and Peak EIRP and obtained by the TS8991 test system across low, mid and hi portions of the frequency band and across a 360 degree sphere. Peak antenna gain is determined from the maximum EIRP measured across the sphere with respect to the conducted power.

WLAN Antenna_S11

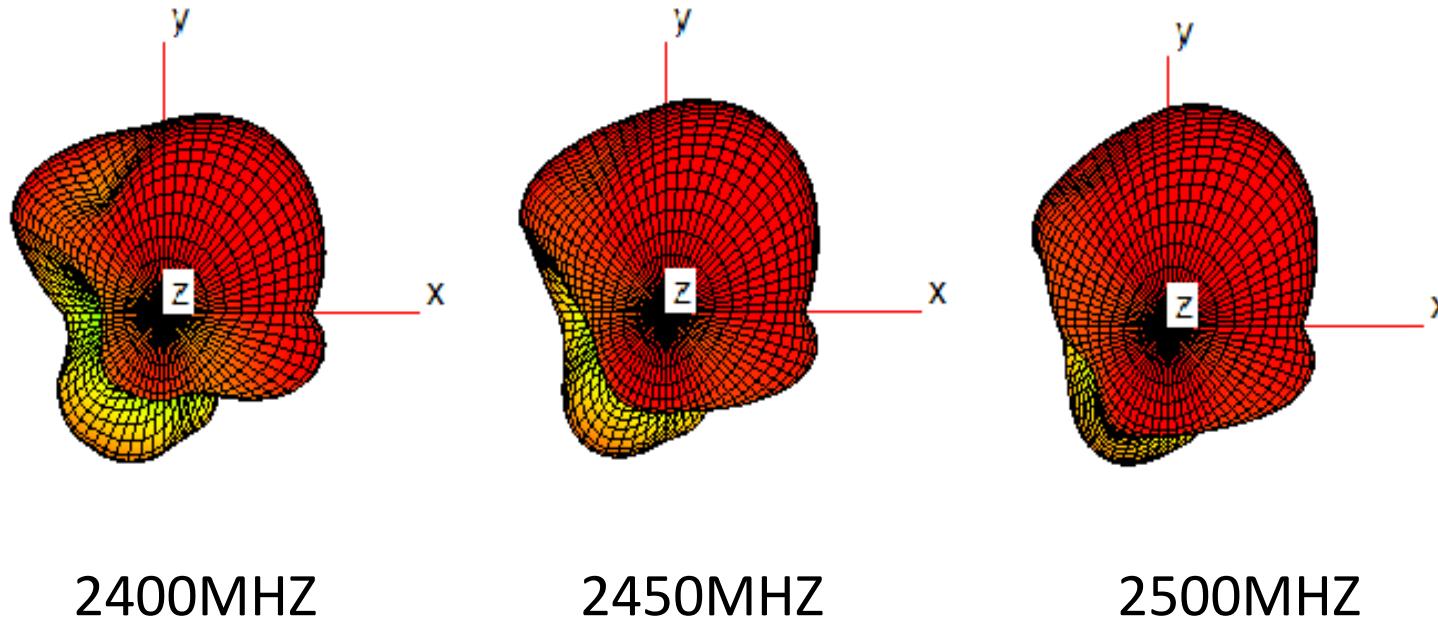
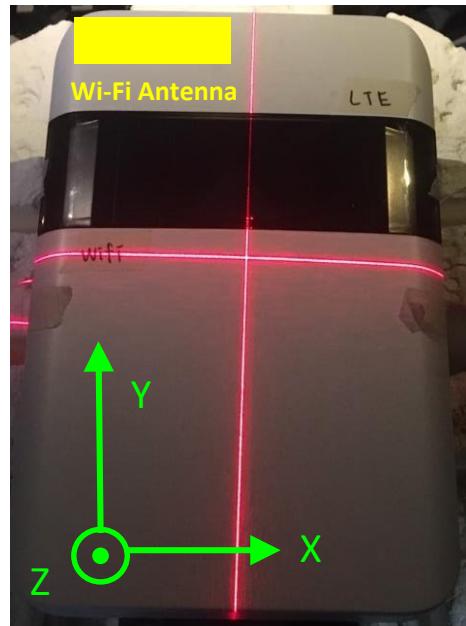


WLAN Antenna_Efficiency

Conditions		Cond.01			
Date		2023/2/9			
Report Rev.		Rev 01			
Antenna (Rev.)		WIFI			
Detail		*Dipole antenna type(IC-48A)			
Chamber		Auden GTS 2800			
MHz	Spec	MHz	Avg. (dB)	Peak Gain(dBi)	Eff. (%)
2400	-5.0	2400	-3.8	2.2	41.7
2450	-5.0	2450	-3.3	2.6	47.2
2500	-5.0	2500	-3.1	3.0	49.2

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WLAN Antenna 3D Radiation Pattern



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Conclusions

- WLAN (Wi-Fi):
 1. **2.4G部分**，效率約為-3.1~-3.8dB，最大Peak Gain = 3.0dBi