



# Liteon WiFi Antenna FCC Report

Date of Report: 2022 / 08 / 12  
Department: WCB , Auden Techno Corp.  
Tested by: Emma Huang

auden<sup>o</sup>

# Document/Report Information

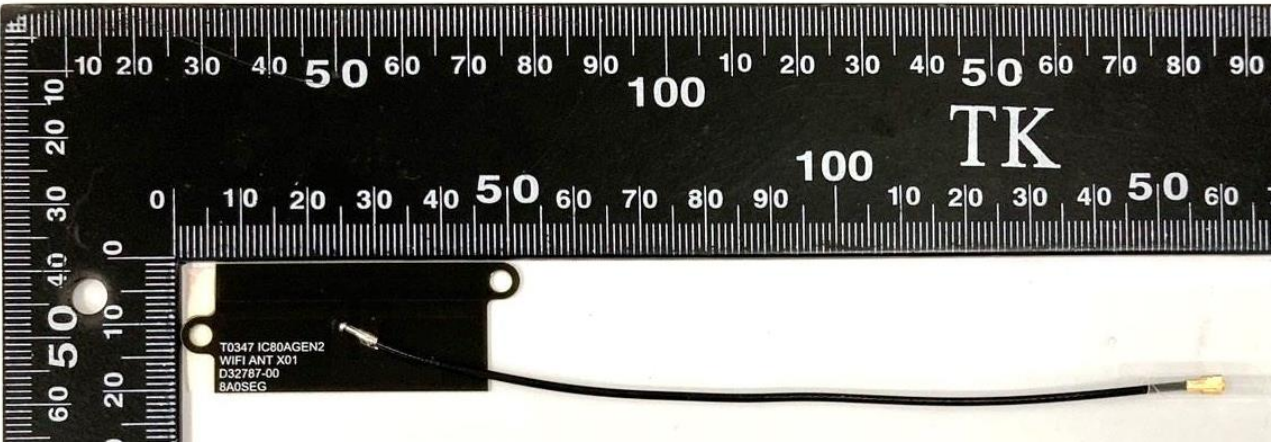
Antenna Model Name	D32787-00
Topics	WiFi Antenna FCC Report
Date of Report	2022 / 08 / 12
Report Revision	Rev03
Dept.	WCB, Auden Techno Corp.
Tested by	Emma Huang
Revised by	Jessie Chien

# Report History

Date	Report Rev.	Project Stage	Description
2022/05/24	Rev00	NPI	Antenna Evaluation Report
2022/06/28	Rev01	NPI	Fine-tuned LTE Antenna at Position2
2022/08/12	Rev02	NPI	Change LTE cable length to 115 mm
2022/08/12	Rev03	NPI	WiFi Antenna FCC Report

- Platform and Antenna Introduction
- Antenna Performance (Position 1)
- 3D Radiation Pattern (Position 1)
- Conclusions

# Information of WiFi Antenna



**Date of Report:** 2022-08-12  
**Antenna Model Name:** D32787-00  
**Department** : WCB, Auden Techno Corp.  
**Tested by** : Emma Huang  
**Antenna Type** : Dipole  
**Assembly** : PCB + Coaxial Cable (1.37Ø low loss ) 136mm  
**PCB** : FR4  
**PCB Size** : 51mm x 20mm x t=0.4mm



Frequency range	2400~2500MHz
S.W.R.	$\leq 3$
Gain	3.0 dBi
Connector	IPEX I
Impedance	50 Ohm

- Platform and Antenna Introduction
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## 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:** 2022/08/12

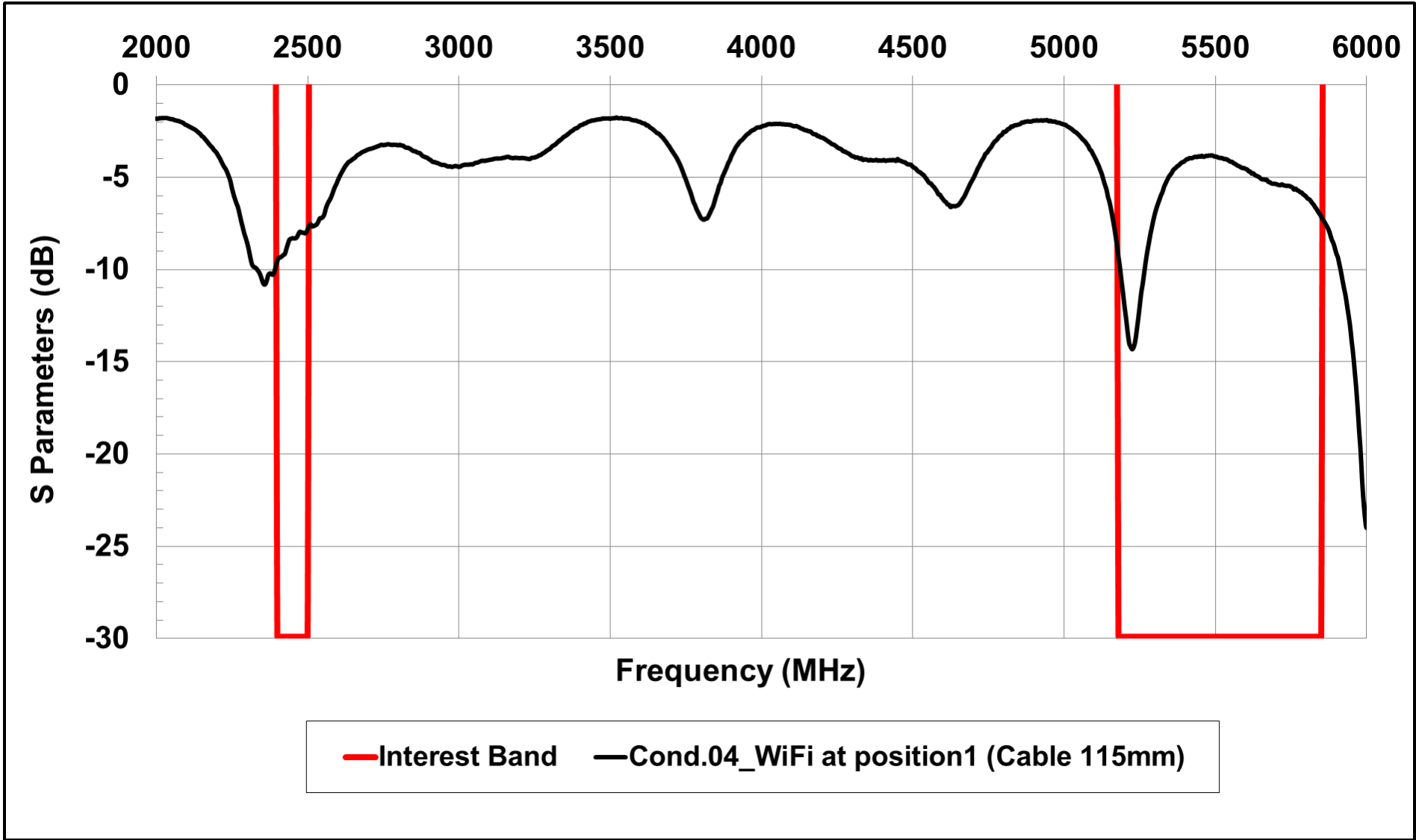
**ISSUED:** 2022/08/12

**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.



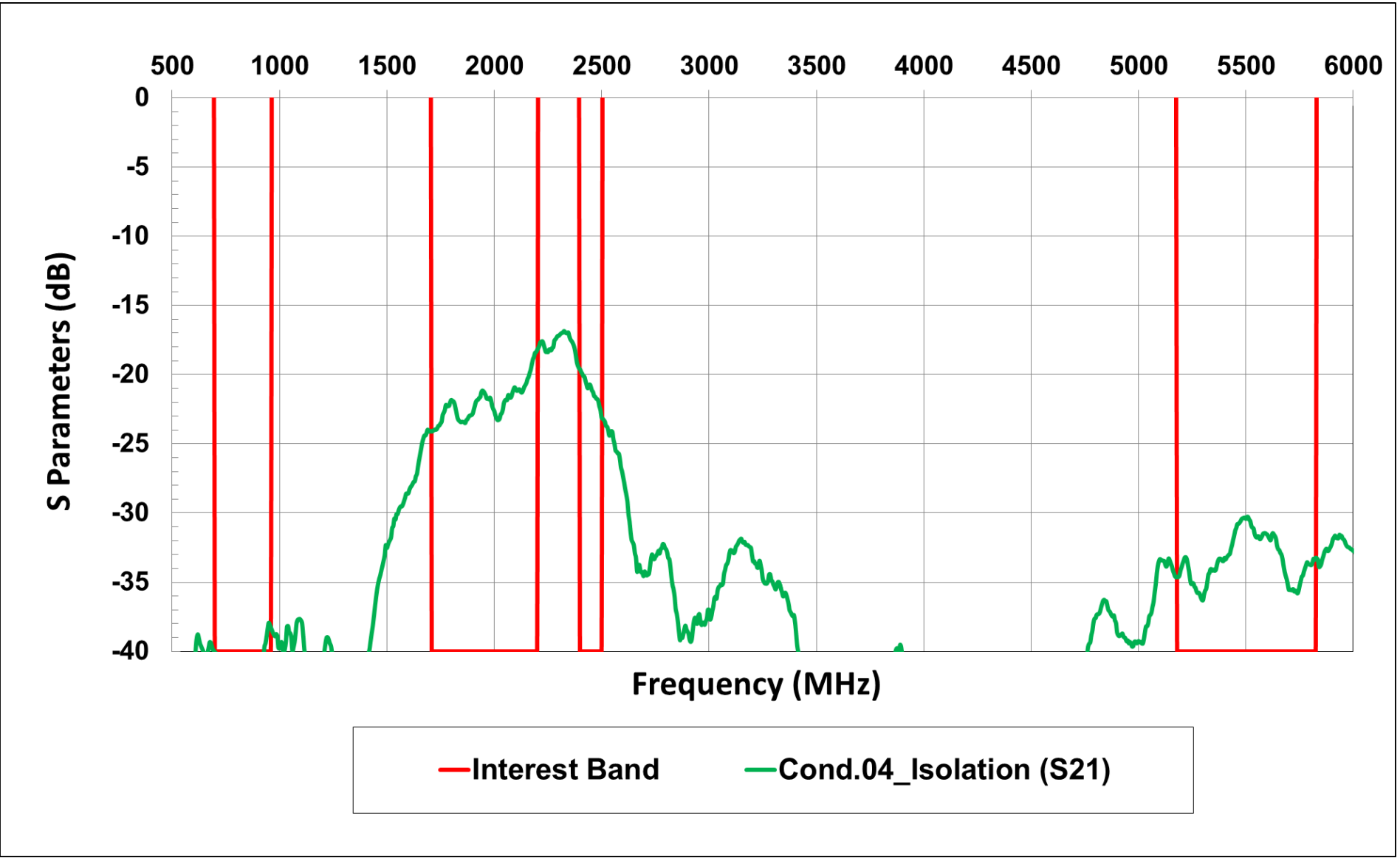
# WLAN Antenna\_S11 (Position 1)



# WLAN Antenna\_Efficiency (Position 1)

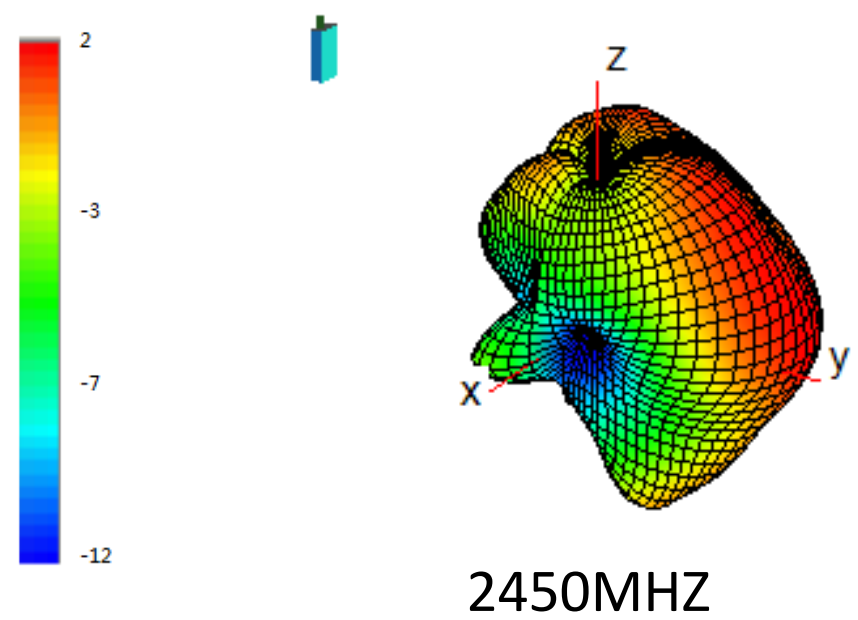
Conditions			Cond.04			
Date			2022/8/12			
Report Rev.			Rev. 00			
Antenna (Rev.)			WIFI			
Detail			<div><div>*Position 1</div><div>*New device</div><div>*Factory samples, cable 115 mm</div></div>			
Chamber			Auden GTS 2800			
MHz	Efficiency Spec	Peak Gain Spec	MHz	Avg. (dB)	Eff. (%)	Peak Gain (dBi)
2400	-4.5	3	2400	-3.0	49.6	2.9
2450	-4.5	3	2450	-3.0	49.5	2.7
2500	-4.5	3	2500	-2.8	52.0	3.0

# Isolation (Position 1)



- Platform and Antenna Introduction
- Antenna Performance (Position 1)
- **3D Radiation Pattern (Position 1)**
- Conclusions

# WLAN Antenna 3D Radiation Pattern (Position 1)



- Platform and Antenna Introduction
- Antenna Performance (Position 1)
- 3D Radiation Pattern (Position 1)
- **Conclusions**

## Position1:

- WLAN (WiFi):
  1. 低頻部分，效率約為-2.8~-3.0dB，最大Peak Gain = 3.0dBi (spec.=3 dBi)