

# UIC Antenna Report



Quanta  
Product Design Center

# Antenna Spec.

Antenna	Antenna Peak Gain (dBi)	Antenna Type	Supplier	Model Name
BT	2.99	Dipole	Advanced Wireless & Antenna INC.	ABF8P-100000A
WIFI 0	2.4GHz: 2.11 5GHz: 2.86	Dipole	Advanced Wireless & Antenna INC.	ABF8P-100001A
WIFI 1	2.4GHz: 2.57 5GHz: 2.41	Dipole	Advanced Wireless & Antenna INC.	ABF8P-100002A



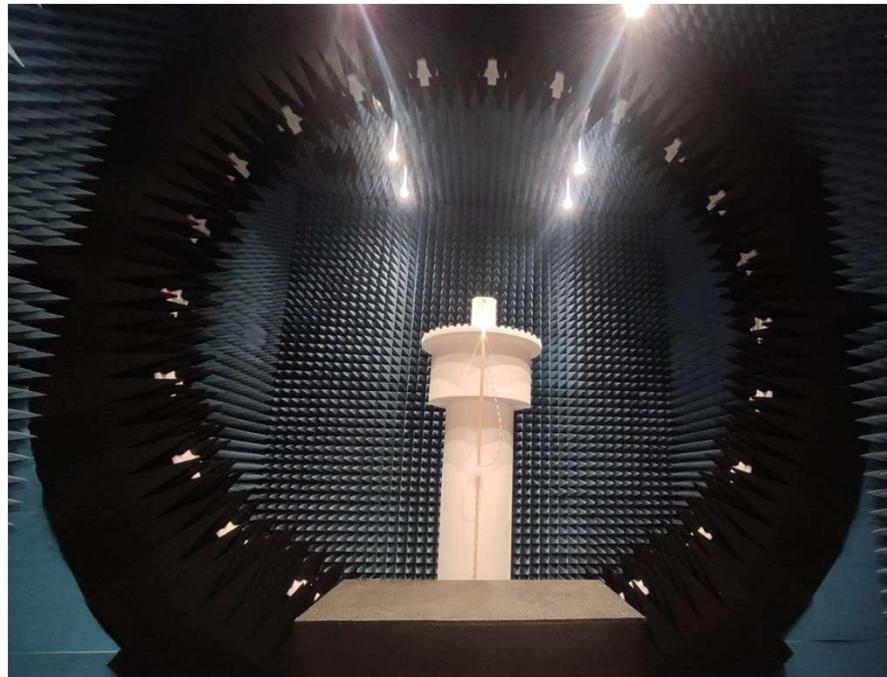
# Test Information

Item	Description
Model Name	B5438
Test condition	Radiation
Test Engineer	Roger Deng
Company	Quanta Computer Inc.
Company Address	NO.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C.)
Test Environment	ETS-Lindgren AMS-8923 Antenna Measurement System
Test Software	ETS-Lindgren EMQuest Data Acquisition and Analysis Software
Test Date	April 29 2025 ~ May 5 2025



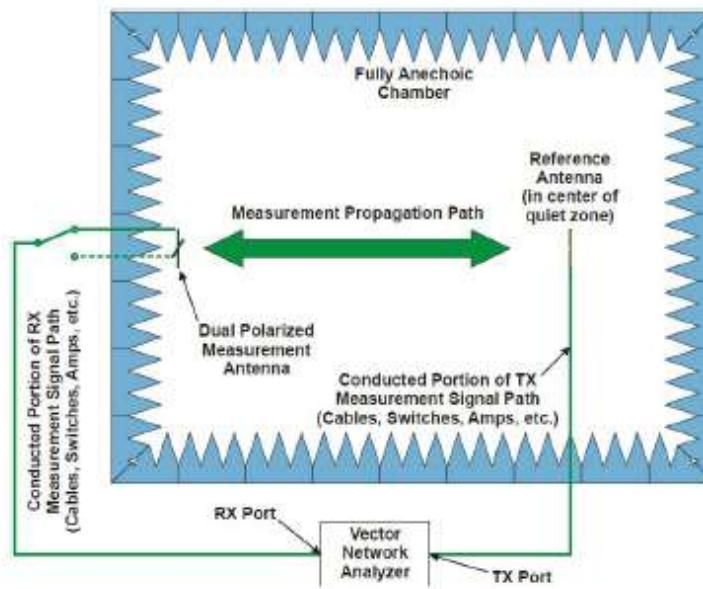
# Test Configuration

ETS-Lindgren's Model AMS-8923 Antenna Measurement System with a size of 5 x 5 x 5 M is a high speed, multi-antenna array test system. which is based on the great-circle test method defined by CTIA. The multi-axis positioning system (MAPS) rotates the DUT around two orthogonal axes for full spherical coverage.



# Test equipment & Calibration

Network analyzer and reference antennas are used for calibration. Path loss and cable loss for different frequency bands can be checked and calculated.



Equipment Description	Manufacture	Model No.	Calibrated Date	Calibrated Until
Network Analyzer	Agilent	E5080B	2024/10/17	2025/10/17
Field Monitor	ETS-Lindgren	EMCenter	N/A	N/A

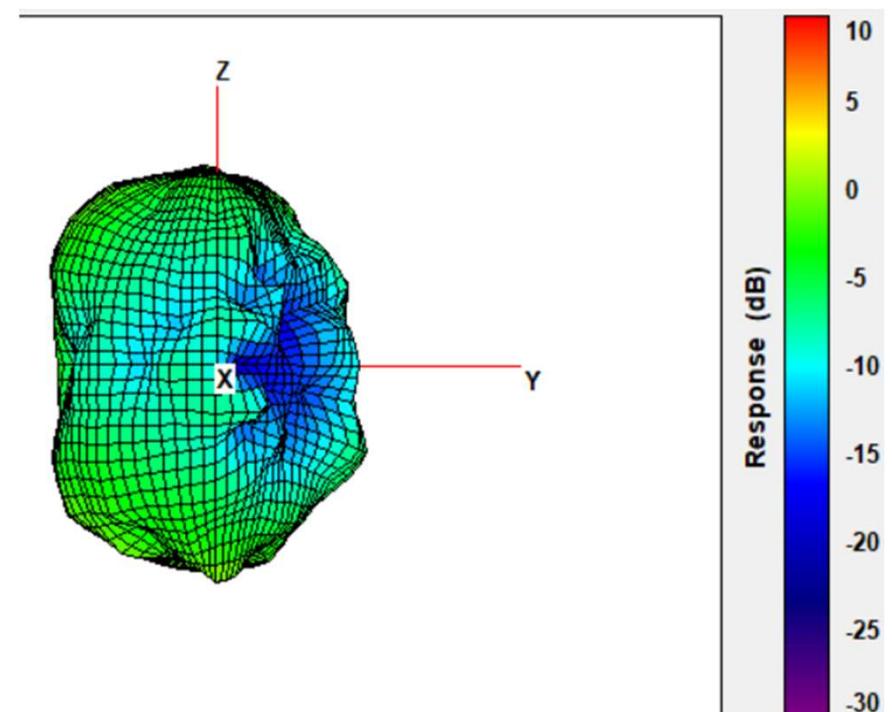
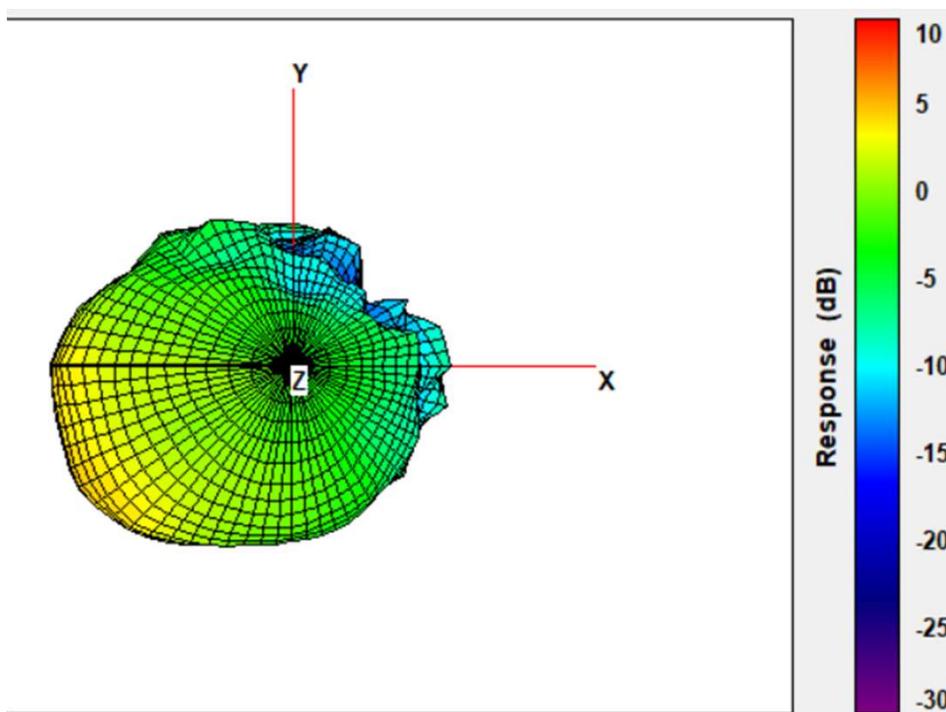
# Test setup and Produce

1. Fix the DUT on the dielectric support structure and connect the feeding cable to the antenna used for test.
2. Set measurement paraments such as frequency range and sample angle.
3. Perform test and then get far-field data. (radiation pattern, gain, efficiency)
4. Repeat test procedure for other antenna.



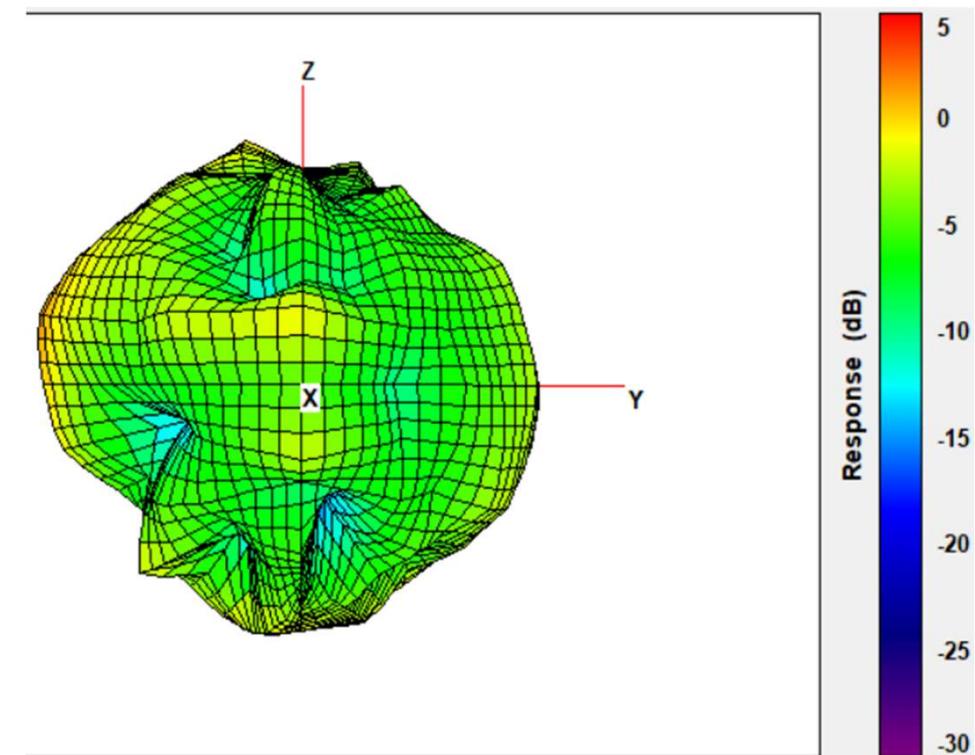
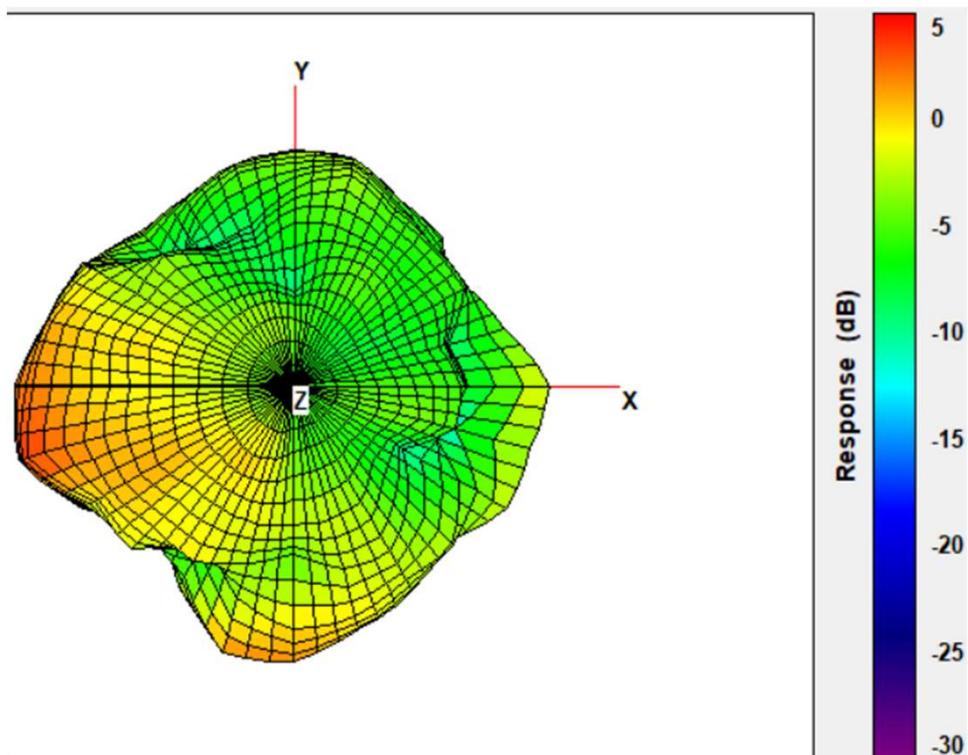
# BT Antenna Radiation Pattern

2.4 GHz



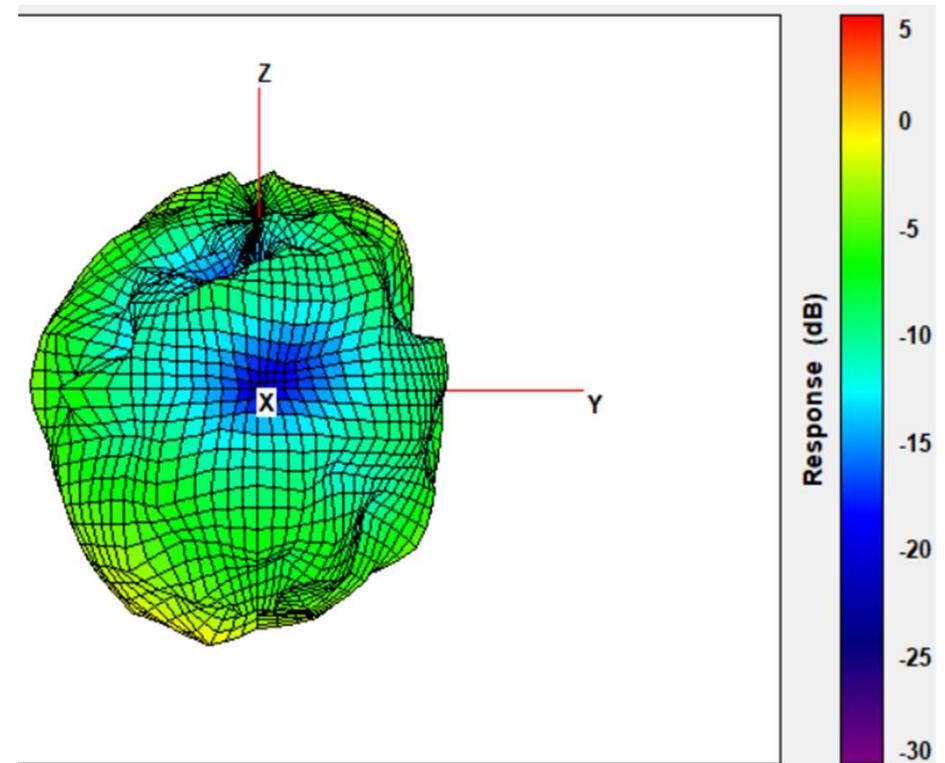
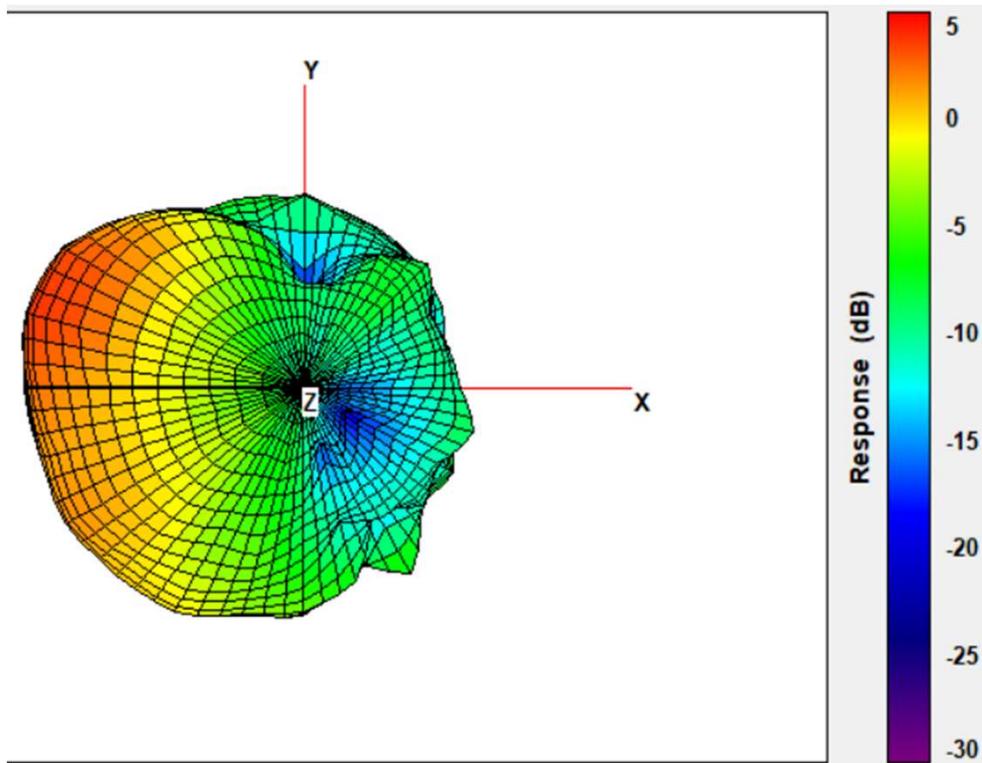
# WIFI 0 Antenna Radiation Pattern

2.4 GHz



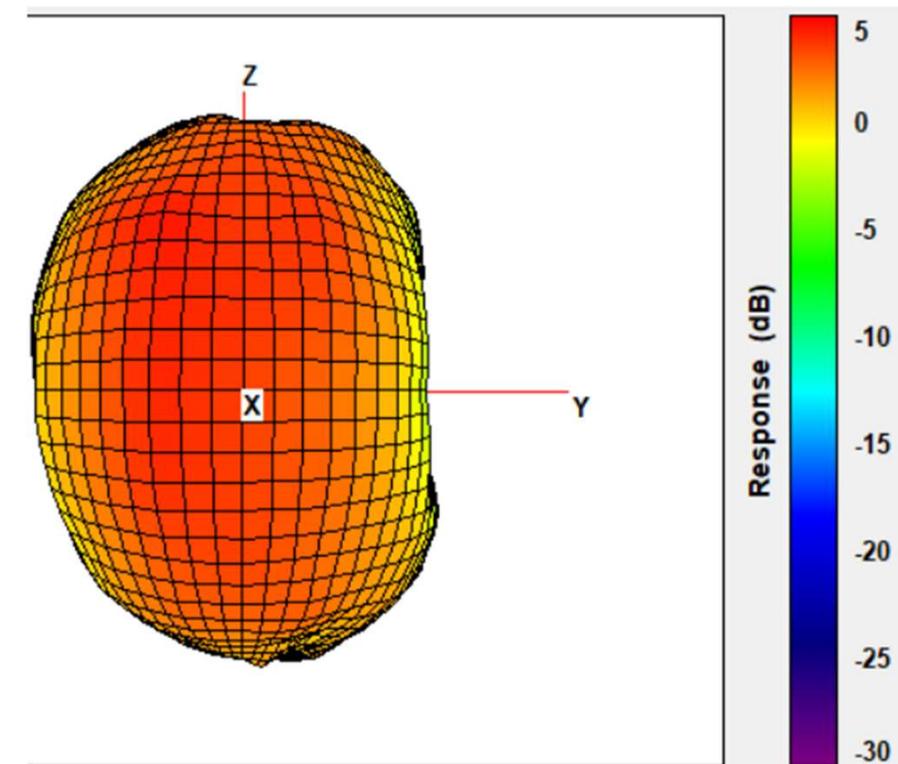
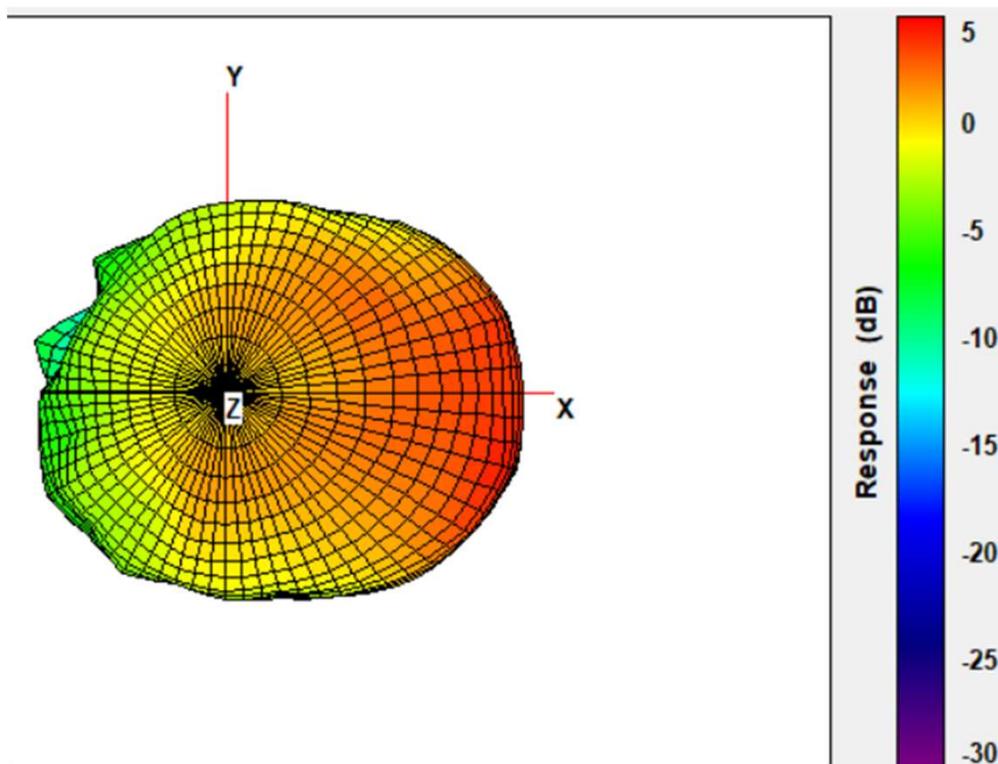
# WIFI 0 Antenna Radiation Pattern

5 GHz



# WIFI 1 Antenna Radiation Pattern

2.4 GHz



# WIFI 1 Antenna Radiation Pattern

5 GHz

