

AT12

Antenna Test Report

Feb. 4, 2026

Carl Hung / Arthur Huang

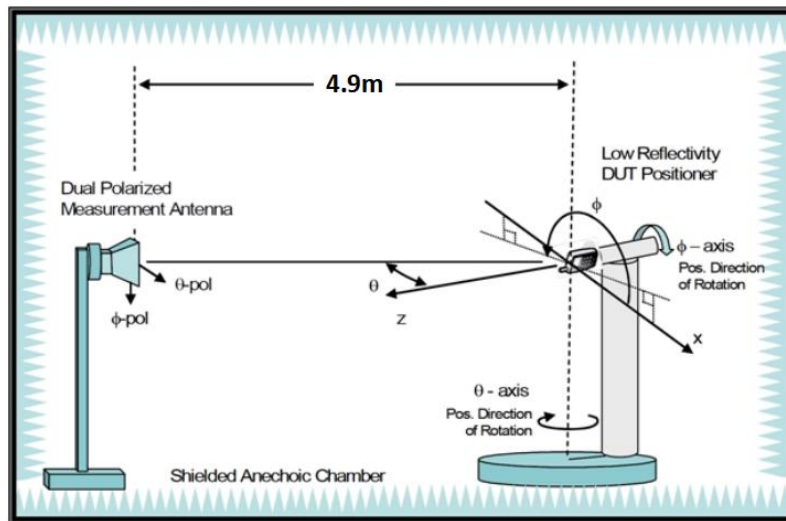
Antenna Design Department

Test Information

Item	Description
Brand Name	Sercomm
Equipment	AT12
Test Location	8F, No. 3-1, YuanQu St. Taipei, Taiwan 115 R.O.C.
Test Condition	Radiation
Test Engineer	Carl Hung, Sercomm
Temperature	24.50 C ~ 26.50 C
Humidity	45 % ~ 55 %
Test Environment	ETS-Lindgren AMS-8500 Antenna Measurement Chamber
Test Date	Dec. 1, 2025 ~ Jan. 29, 2026

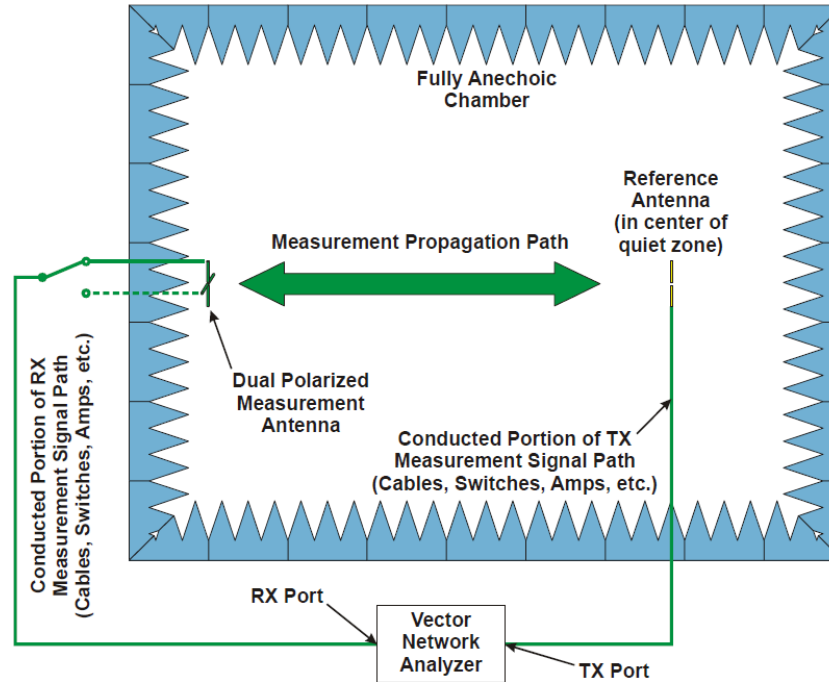
Test Configuration

ETS-Lindgren AMS-8500 antenna measurement system with a size of $7.32(L) \times 3.66(W) \times 3.66(H)$ m³ is used for antenna performance test, 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.



Test Equipment & Calibration

Instrument	Brand	Characteristics	Model No.	Serial No.	Calibration Due Date
Precision Sleeve Dipole	ETS-Lindgren	700 MHz ~ 900 MHz	3126-700	00169715	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	900 MHz ~ 1000 MHz	3126-900	00169592	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	1400 MHz ~ 1700 MHz	3126-1550	00164599	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	1700 MHz ~ 2000 MHz	3126-1850	00169588	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	2000 MHz ~ 2300 MHz	3126-2150	00169593	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	2300 MHz ~ 2700 MHz	3126-2500	00169597	Mar. 3, 2026
Precision Sleeve Dipole	ETS-Lindgren	5000 MHz ~ 6000 MHz	3126-5500	00169728	Mar. 3, 2026
Horn Antenna	SCHWARZBECK	1 GHz ~ 18 GHz	BBHA 9120D	BBHA 9120D-1294	Feb. 25, 2026
EMQuest Antenna Measurement Software	ETS-Lindgren	Control chamber system	EMQ-100	1437	Non-Calibration Required

Antenna Information

Ant No.	Operating Band	Type	Material	Feeding	Polarization
BLE (Ant 0)	2400 MHz ~ 2500 MHz	PIFA	PCB	Transmission line	Linear
UWB (Ant 1)	6239 MHz ~ 6739 MHz 7737 MHz ~ 8237 MHz	PIFA	PCB	Transmission line	Linear

Outline

BLE Antenna Test Results

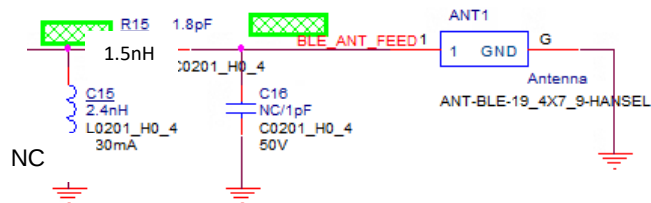
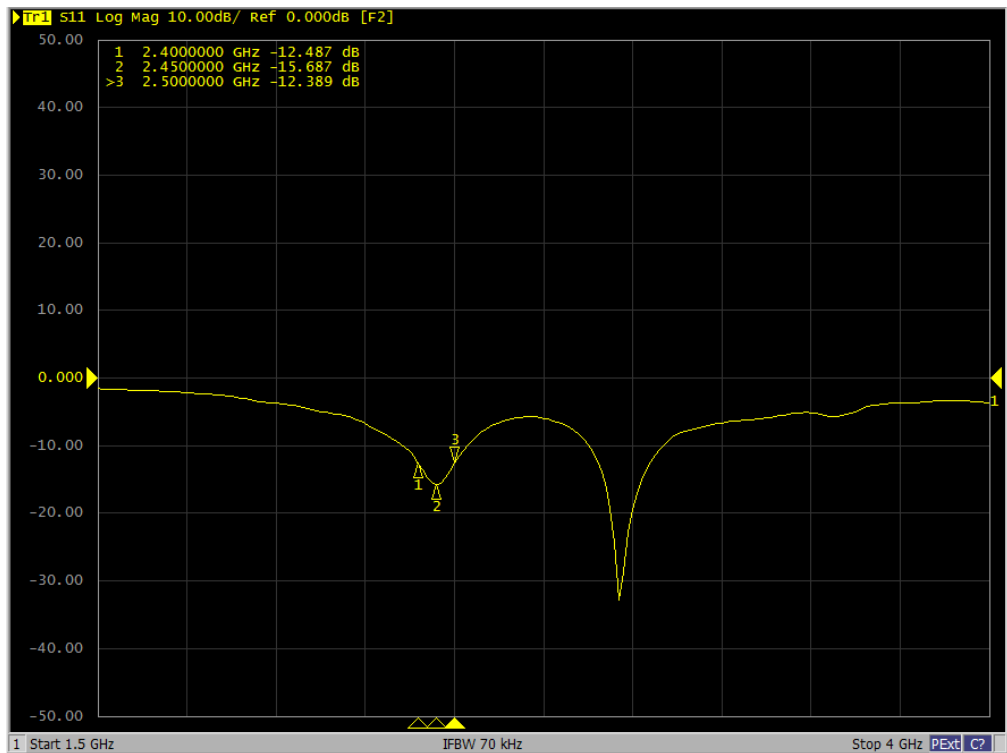
- Return Loss
- Efficiency
- Peak Gain
- Radiation Pattern

UWB Antenna Test Results

- Return Loss
- Efficiency
- Peak Gain
- Radiation Pattern

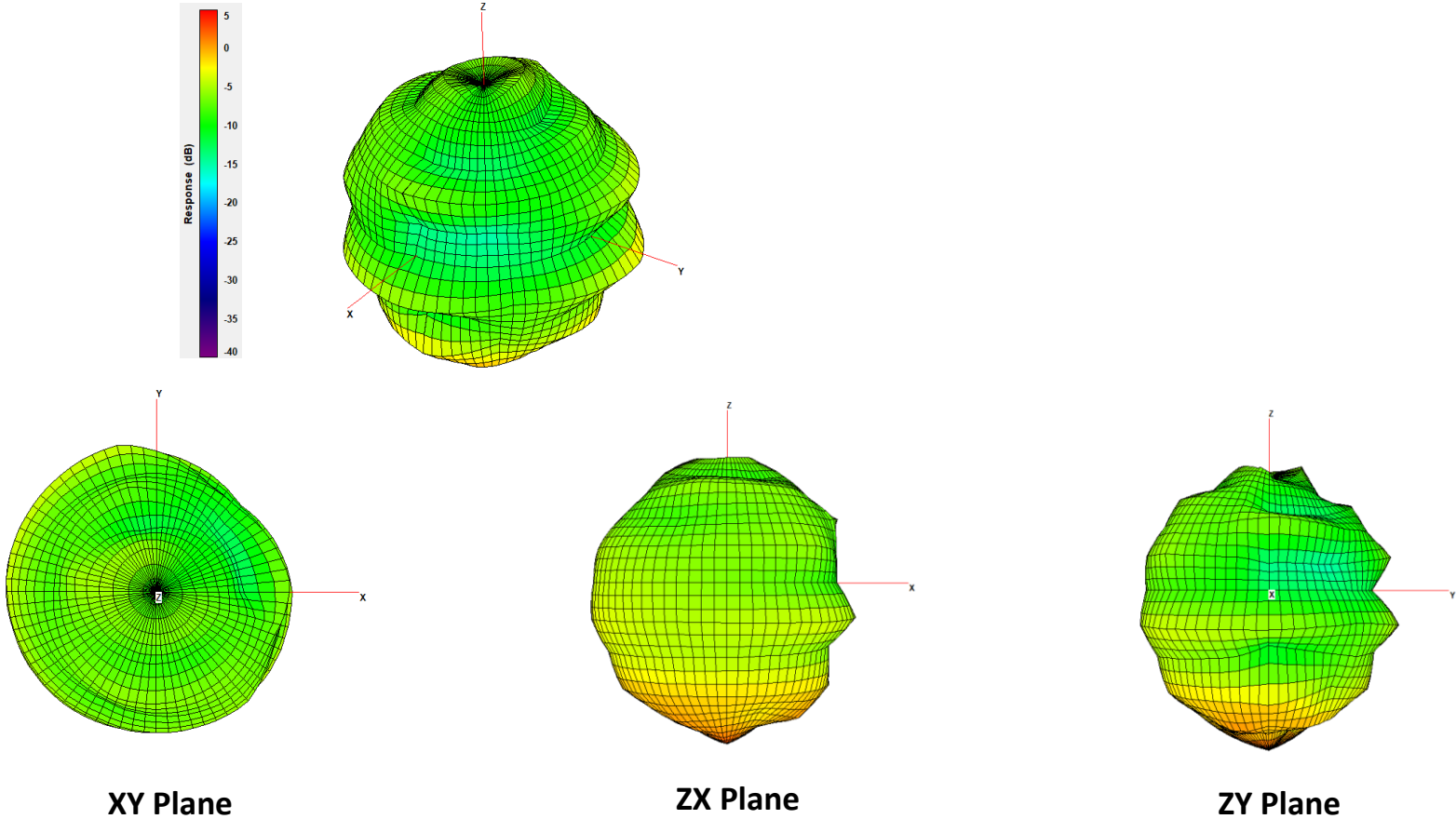


BLE Antenna Test Results

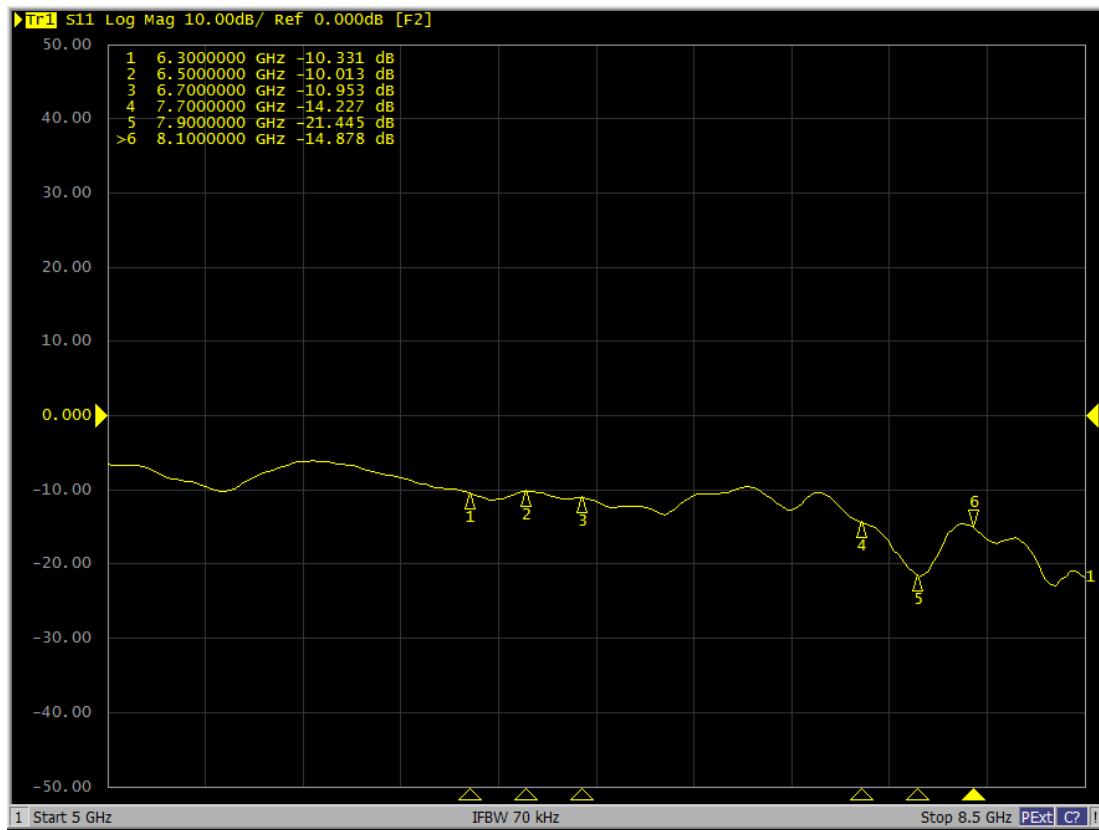


Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	2.3	40%
2450	2.45	40%
2500	2.12	36%

Radiation Pattern – BLE @ 2.45 GHz

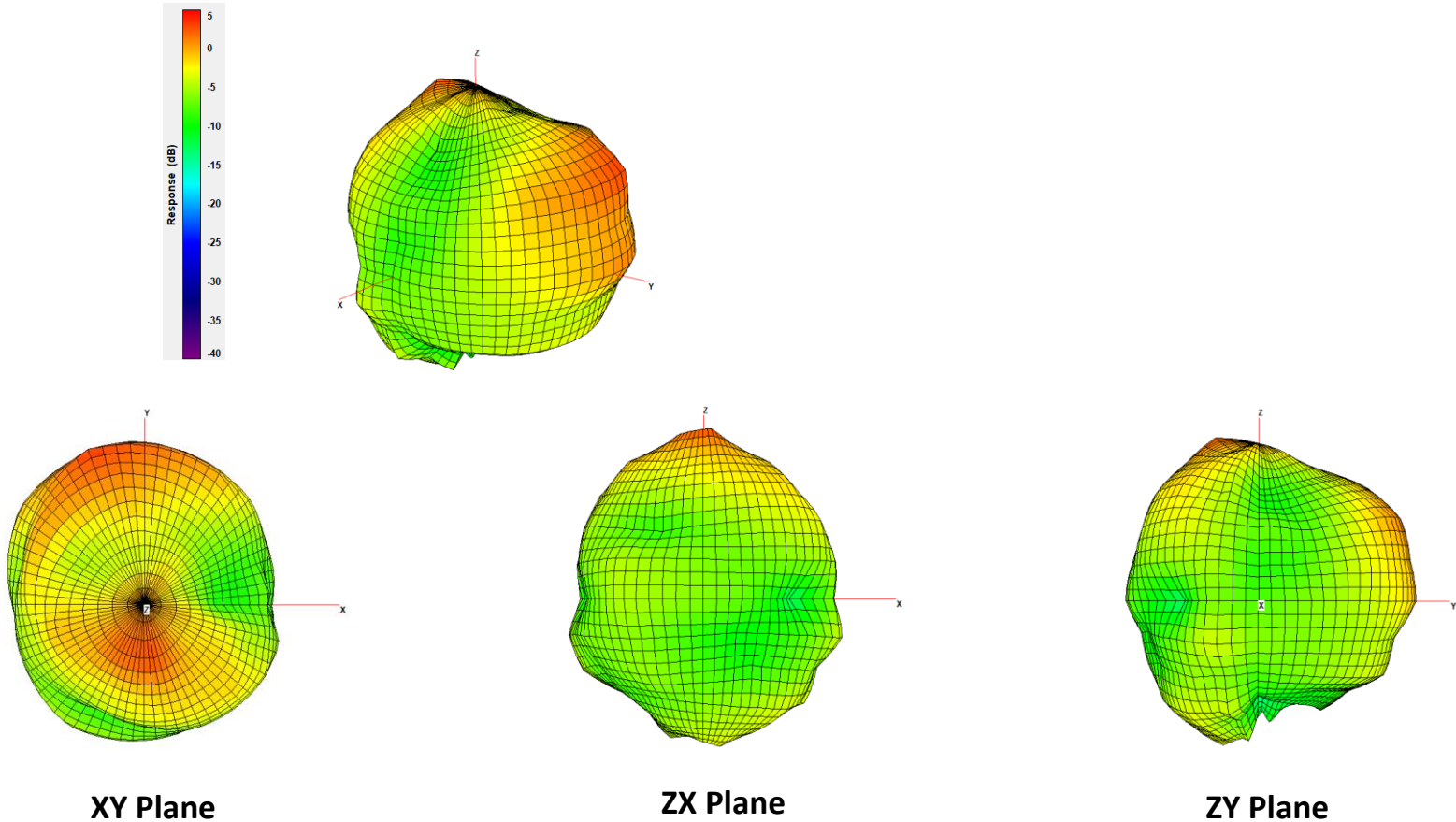


UWB Antenna Test Results

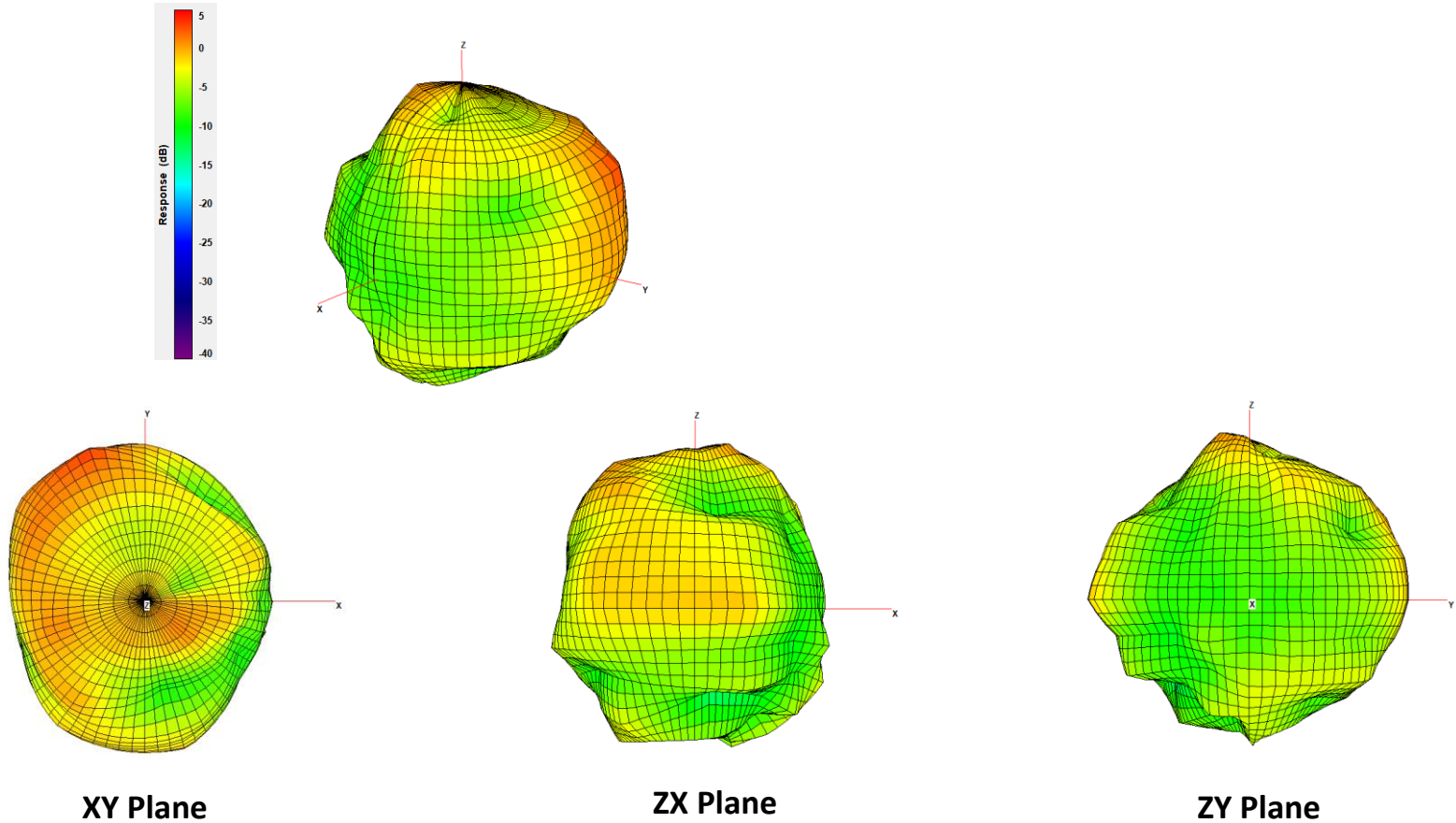


Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
6239	2.97	49%
6489	3.80	53%
6739	3.21	50%
7737	2.67	48%
7987	2.87	51%
8237	2.75	50%

Radiation Pattern – UWB @ 6.5 GHz



Radiation Pattern – UWB @ 8 GHz



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