

Antenna Tooling Sample Test Result

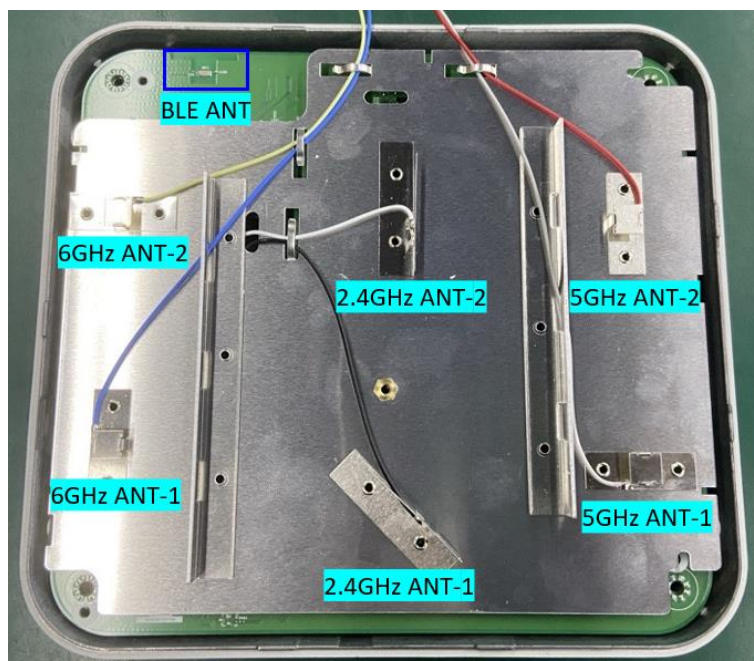


ACCTON

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Antenna Description



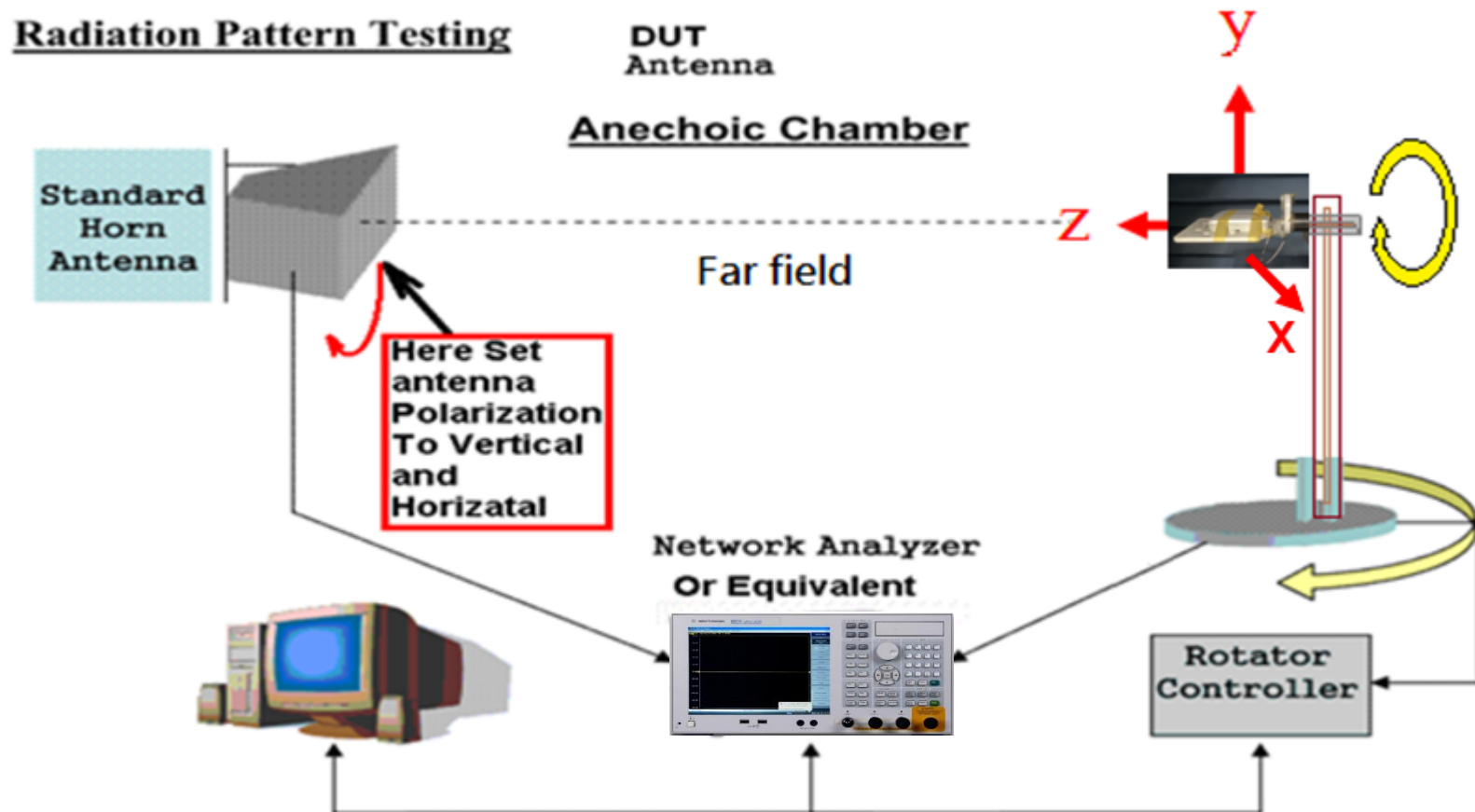
Company name	Address
ACCTON Technology Corporation	No.1, Creation Road3, Hsinchu Science Park, Hsinchu 30077,Taiwan, R.O.C

NO.	Manufacturer	Model No.	Type	Gain (dBi)	Function
1	ACCTON Technology Corporation	KG738-125B13U1S	PIFA	5.31dBi	WiFi 2.4GHz
2	ACCTON Technology Corporation	KG738-80W13U1S	PIFA	5.25dBi	WiFi 2.4GHz
3	ACCTON Technology Corporation	KG739-165G13U1S	PIFA	6.42dBi	WiFi 5GHz
4	ACCTON Technology Corporation	KG739-100H13U1S	PIFA	6.76dBi	WiFi 5GHz
5	ACCTON Technology Corporation	KG737-165A13U1S	PIFA	6.88dBi	WiFi 6GHz
6	ACCTON Technology Corporation	KG737-115Y13U1S	PIFA	6.83dBi	WiFi 6GHz
7	ACCTON Technology Corporation	GT128V007S-001	CHIP	3.71dBi	Bluetooth

Experimental Setup & Coordinate System

Chamber name: ETS AMS-8500 Rectangular CTIA-Compliant Test Lab

Describe	Manufacturer	Model Number	Serial Number	Cal.Date	Cal. Due Date
Network Analyzer	Agilent	E5071B	MY42402996	Dec.-2022	Dec.-2024



Gain

2.4GHz ANT-1			
Frequency (MHz)	2400	2447	2484
Peak Gain (dBi)	5.31	4.99	4.55
Peak Gain at Polarization	(Φ)120°(Θ)80°	(Φ)120°(Θ)70°	(Φ)120°(Θ)70°

2.4GHz ANT-2			
Frequency (MHz)	2400	2447	2484
Peak Gain (dBi)	5.25	4.94	4.77
Peak Gain at Polarization	(Φ)30°(Θ)90°	(Φ)30°(Θ)100°	(Φ)30°(Θ)100°

5GHz ANT-1			
Frequency (MHz)	5150	5500	5850
Peak Gain (dBi)	6.42	6.04	6.41
Peak Gain at Polarization	(Φ)40°(Θ)70°	(Φ)50°(Θ)80°	(Φ)50°(Θ)100°

5GHz ANT-2			
Frequency (MHz)	5150	5500	5850
Peak Gain (dBi)	5.37	6.36	6.76
Peak Gain at Polarization	(Φ)40°(Θ)90°	(Φ)50°(Θ)120°	(Φ)50°(Θ)100°

6GHz ANT-1			
Frequency (MHz)	5925	6475	7125
Peak Gain (dBi)	6.88	5.50	6.61
Peak Gain at Polarization	(Φ)150°(Θ)150°	(Φ)120°(Θ)110°	(Φ)110°(Θ)160°

6GHz ANT-2			
Frequency (MHz)	5925	6475	7125
Peak Gain (dBi)	5.64	6.83	5.87
Peak Gain at Polarization	(Φ)100°(Θ)150°	(Φ)100°(Θ)50°	(Φ)110°(Θ)140°

BLE ANT			
Frequency (MHz)	2400	2447	2484
Peak Gain (dBi)	2.26	3.71	3.32
Peak Gain at Polarization	(Φ)40°(Θ)130°	(Φ)40°(Θ)140°	(Φ)40°(Θ)140°

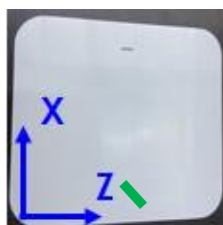
Test date: 2024/09/05

Φ(Phi) ; Θ(Theta)

※Peak Gain (G) and directivity (D) are linked by the formula $G = k \times D$, where the antenna effective factor k ($0 \leq k \leq 1$) corresponds to the overall losses of the antenna. Accordingly, antenna gain can be calculated by the following formula, where represents antenna losses comprising of all ohm and dielectric losses between the input connector and the outer surface of the radome and the loss due to the impedance mismatch.

2D Radiation Pattern

2.4GHz ANT 1



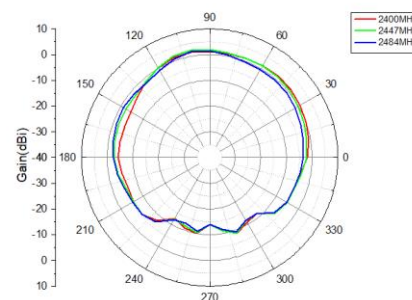
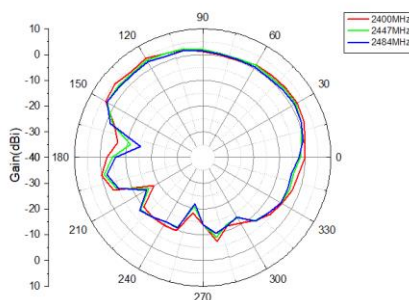
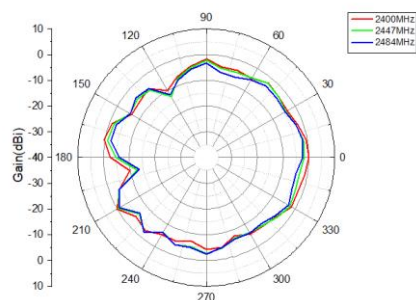
ZX-Plane



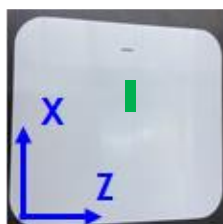
ZY-Plane



XY-Plane



2.4GHz ANT 2



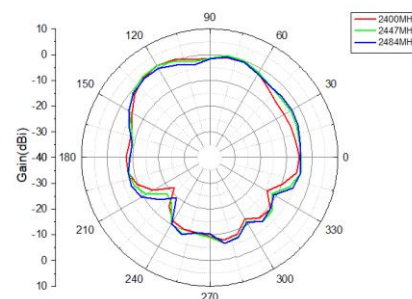
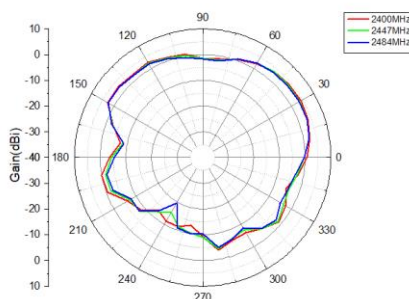
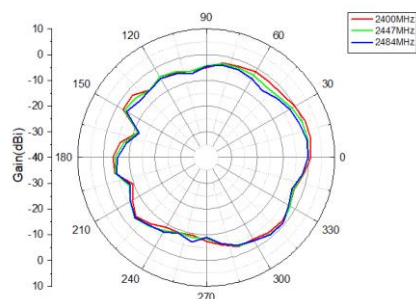
ZX-Plane



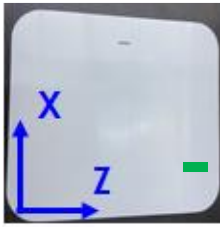
ZY-Plane



XY-Plane



5GHz ANT 1



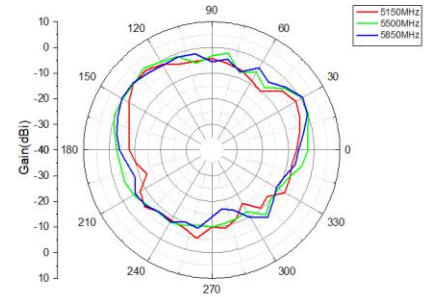
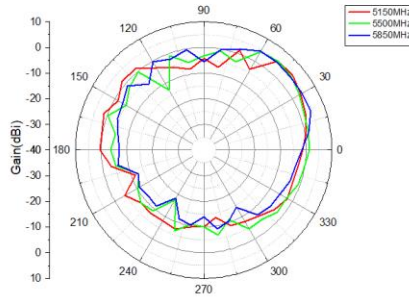
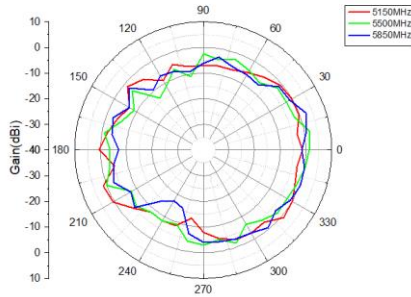
ZX-Plane



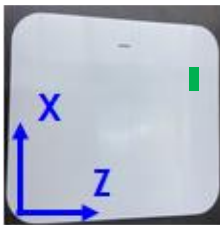
ZY-Plane



XY-Plane



5GHz ANT 2



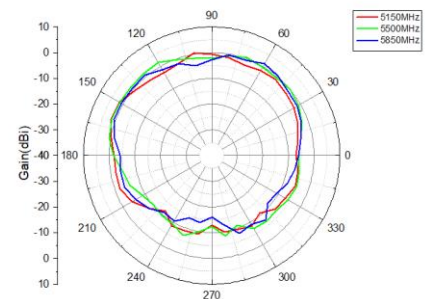
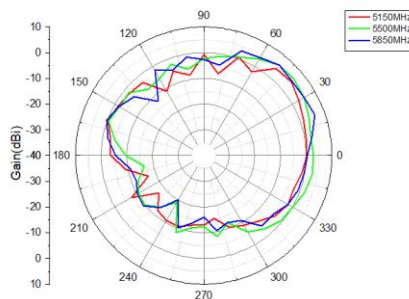
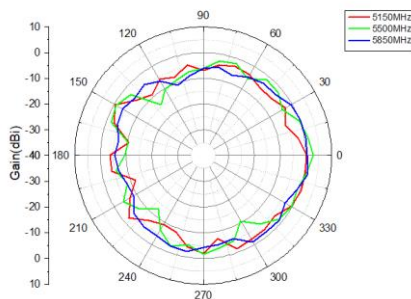
ZX-Plane



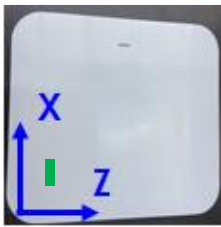
ZY-Plane



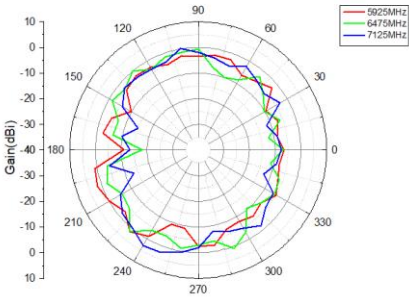
XY-Plane



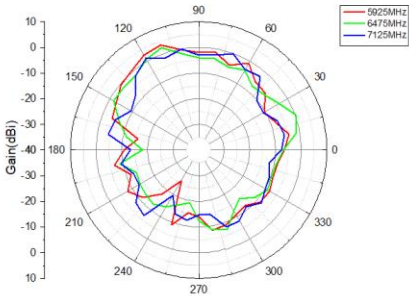
6GHz ANT 1



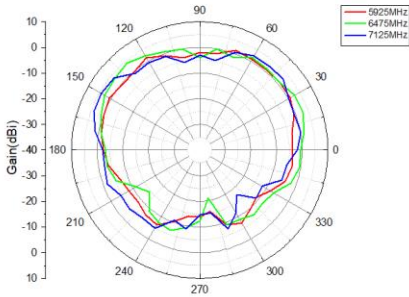
ZX-Plane



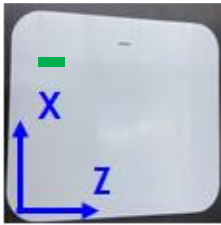
ZY-Plane



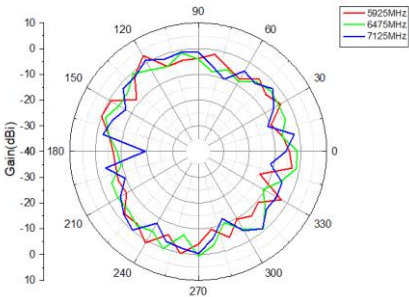
XY-Plane



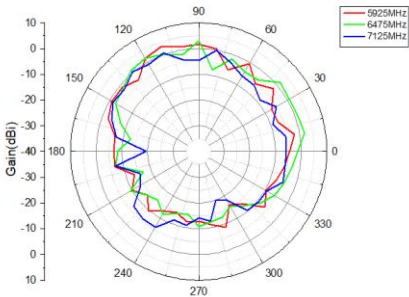
6GHz ANT 2



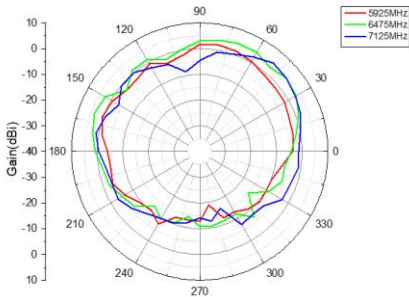
ZX-Plane



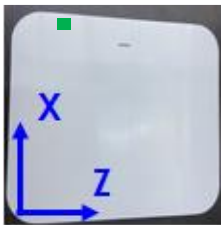
ZY-Plane



XY-Plane



BLE ANT



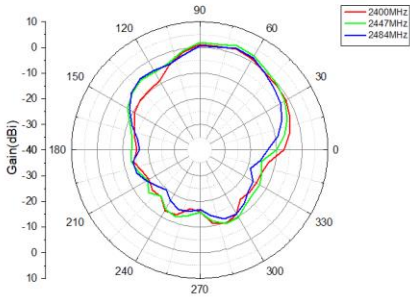
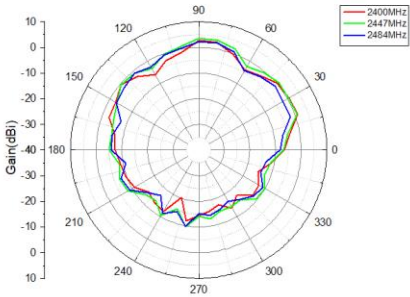
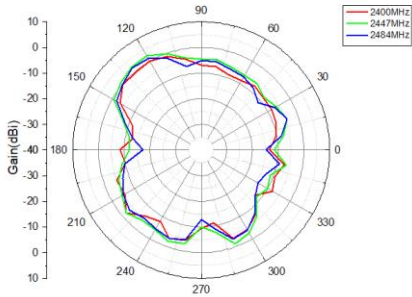
ZX-Plane



ZY-Plane



XY-Plane



Test date: 2024/09/05