

Test Lab:

Chamber: ETS-LINDGREN AMS-8500

Test Equipment used:

VNA: Agilent Technologies E5071C

Test Equipment calibration information:

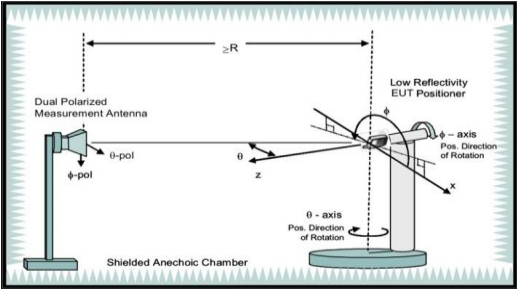
Cal Date: 2021.05.07-Loss Calibration

Test Location:

No.385, Yangguang St., NeiHu District, Taipei City 114, Taiwan (R.O.C.)

Test Engineer: WenRen Lee

Chamber Axis:



Antenna Peak Gain

1st antenna(Main)

PIFA type

Frequency(MHz)	2400	2412	2420	2430	2437	2450	2462	2472	2480
Peak Gain(dBi)	0.6	0.5	0.8	1.2	1.3	1.2	1	0.8	0.9

Frequency(MHz)	5150	5180	5240	5320	5350	5400	5450	5500	5550	5600	5650	5720
Peak Gain(dBi)	2.5	2	2.1	2.4	2.6	2.6	2.4	2.3	2	1.5	1.3	1.2

Frequency(MHz)	5745	5825	5850
Peak Gain(dBi)	0.9	0.5	-0.3

2nd antenna(AUX)

PIFA type

Frequency(MHz)	2400	2412	2420	2430	2437	2450	2462	2472	2480
Peak Gain(dBi)	0.4	0.4	0.7	1.1	1.5	1.7	1.3	1.1	1

Frequency(MHz)	5150	5180	5240	5320	5350	5400	5450	5500	5550	5600	5650	5720	
Peak Gain(dBi)		0.2	0.2	0.6	0.8	1.1	1.1	0.9	0.6	0.5	1	1	-0.3

Frequency(MHz)	5745	5825	5850
Peak Gain(dBi)	-0.2	-0.3	-1.5

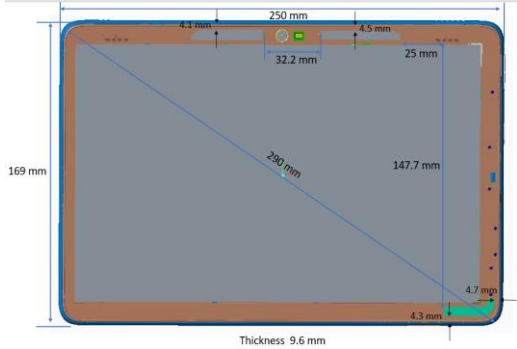
GPS antenna

PIFA type

Frequency(MHz)	1555	1560	1565	1570	1575.42	1580	1585	1590	1595	1600
Peak Gain(dBi)		1.9	2.0	2.0	2.1	2.2	2.3	2.3	2.3	2.4

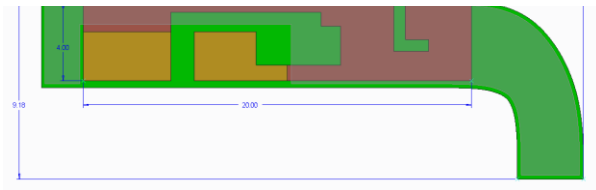
Antenna location

Top view

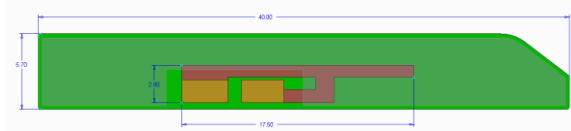


1st Antenna size:

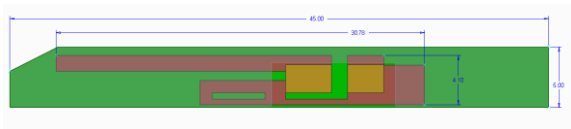




2nd Antenna size

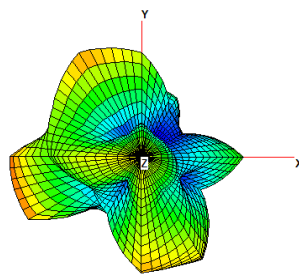
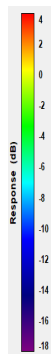
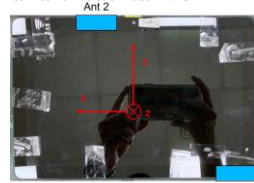


GPS Antenna Size

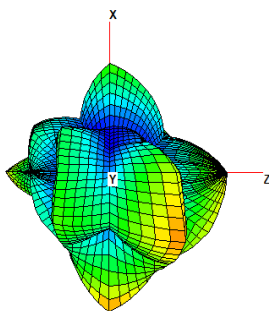


Antenna Radiation Pattern

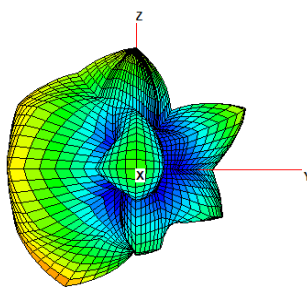
1st Antenna Radiation Pattern-2.4GHz



XY Plane at 2.45 GHz

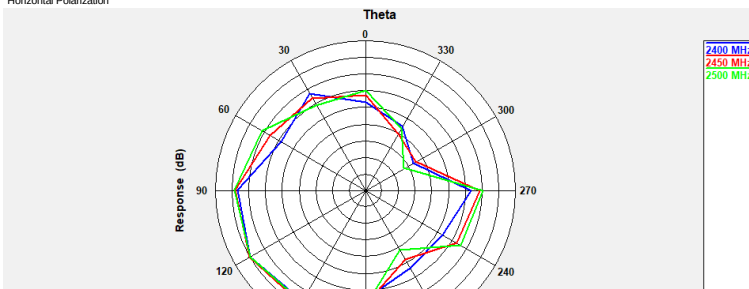


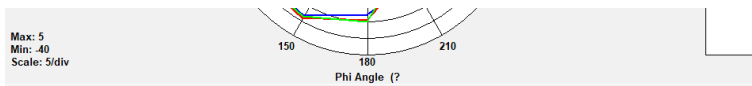
XZ Plane at 2.45 GHz



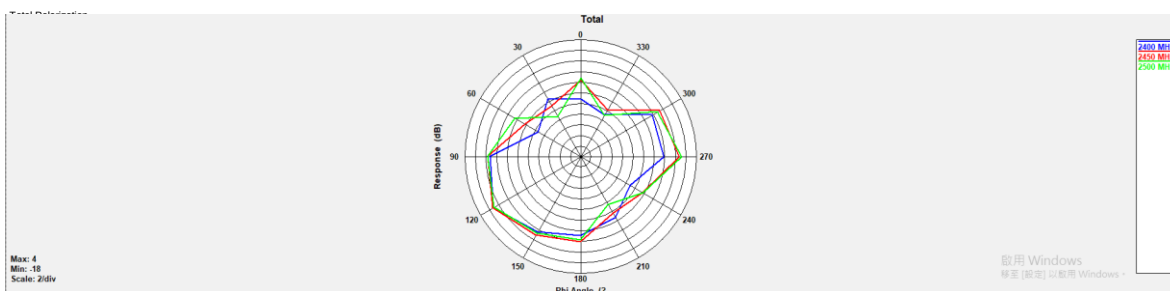
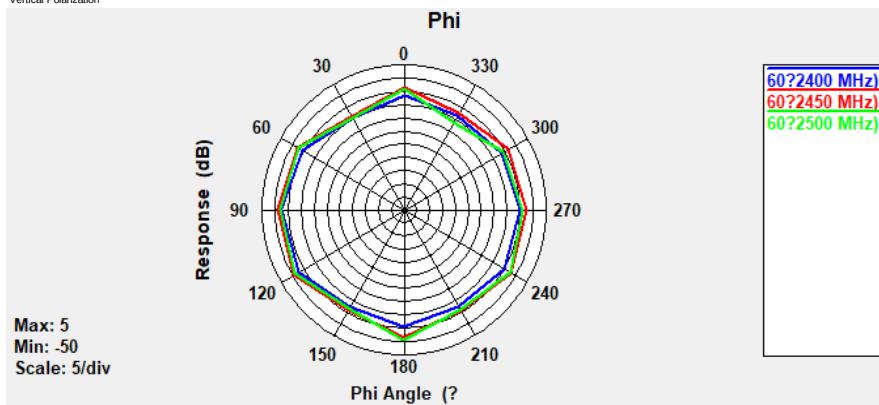
YZ Plane at 2.45 GHz

Horizontal Polarization

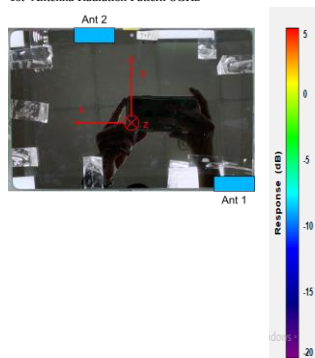




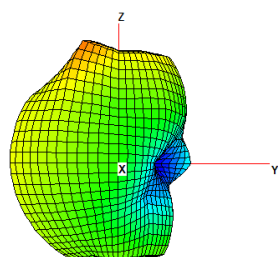
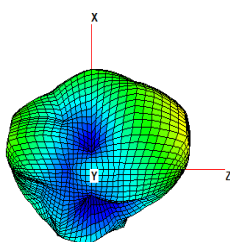
Vertical Polarization



1st Antenna Radiation Pattern-5GHz

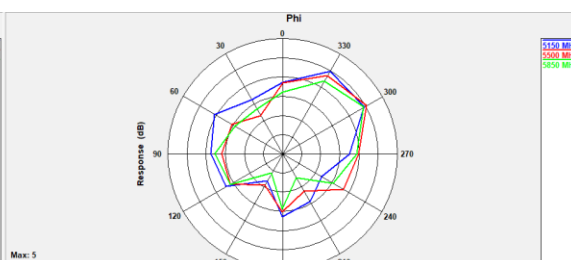
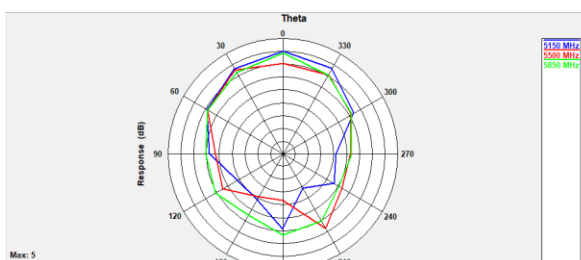


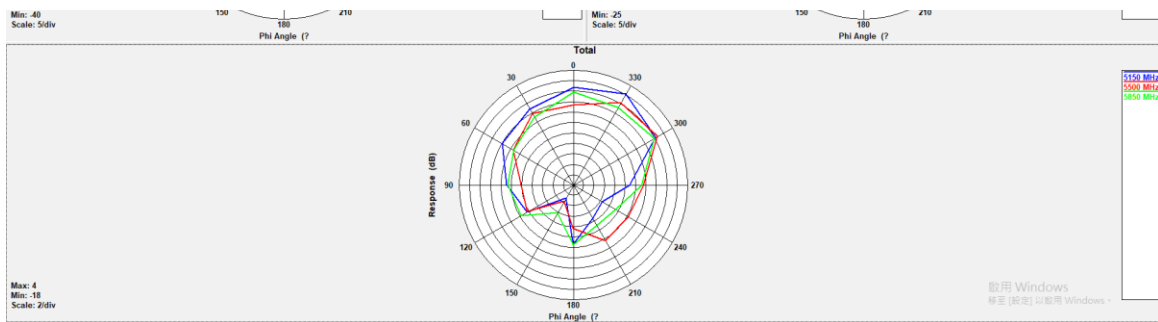
XY Plane at 5.5 GHz



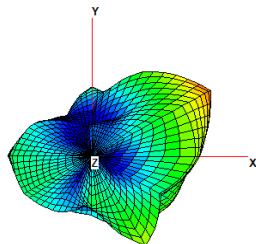
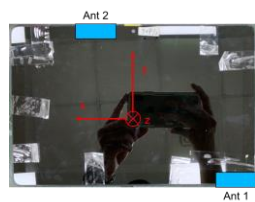
XZ Plane at 5.5 GHz

YZ Plane at 5.5 GHz

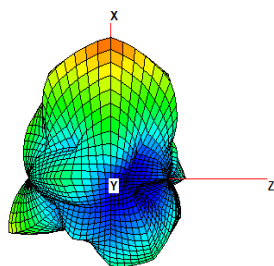




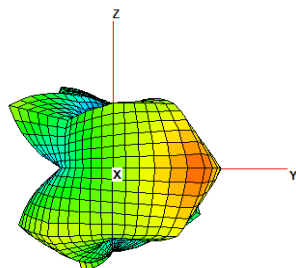
2nd Antenna Radiation Pattern-2.4GHz



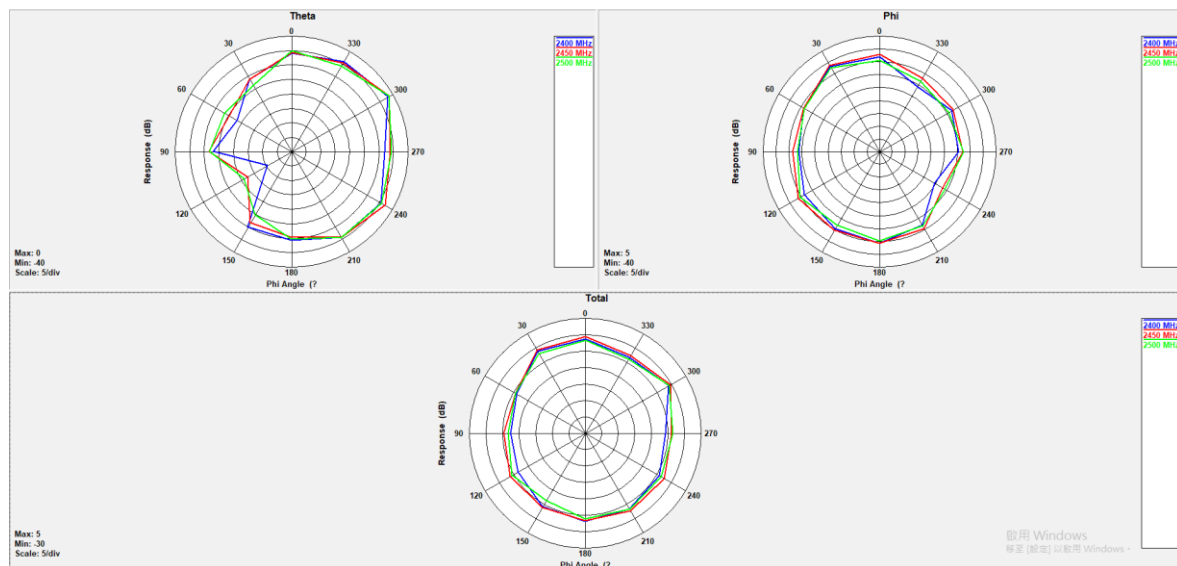
XY Plane at 2.45 GHz



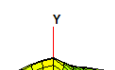
XZ Plane at 2.45 GHz



YZ Plane at 2.45 GHz

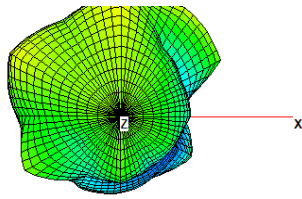
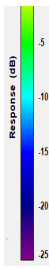


2nd Antenna Radiation Pattern-5 GHz

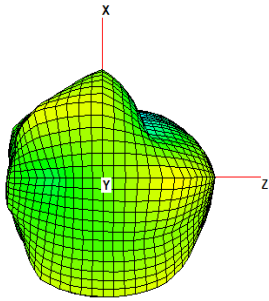




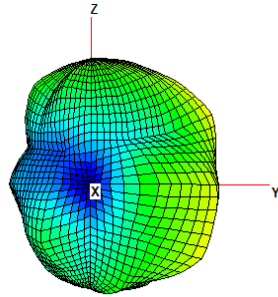
Ant 1



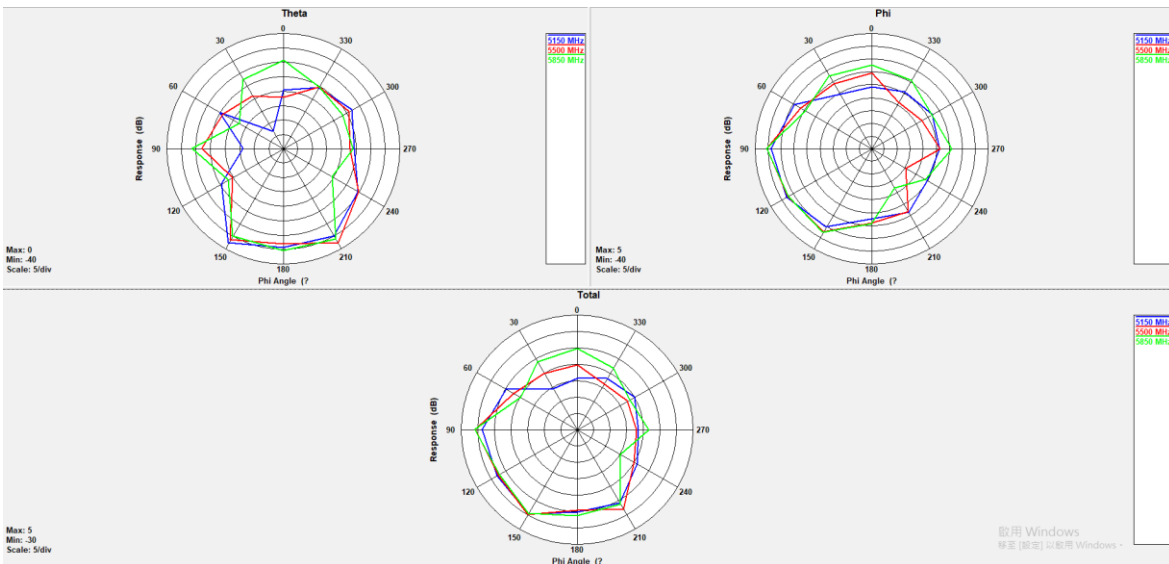
XY Plane at 5.5 GHz



XZ Plane at 5.5 GHz

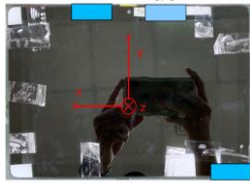


YZ Plane at 5.5 GHz

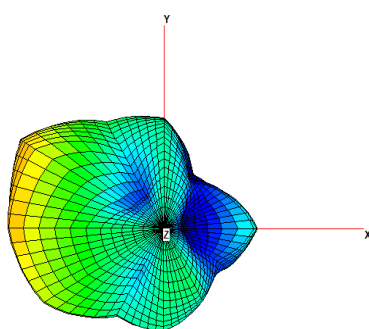
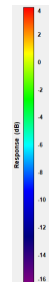


GPS Antenna Radiation Pattern-1.575 GHz

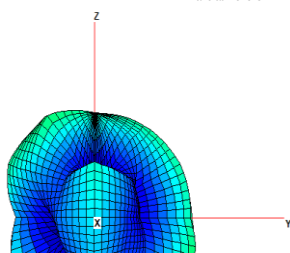
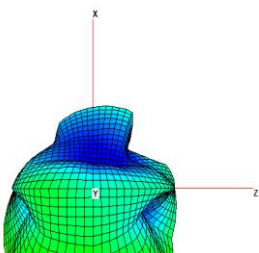
Ant 2 GPS

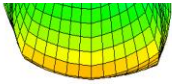


Ant 1

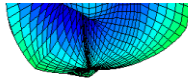


XY Plane at 1.575 GHz





XZ Plane at 1.575 GHz



YZ Plane at 1.575 GHz

