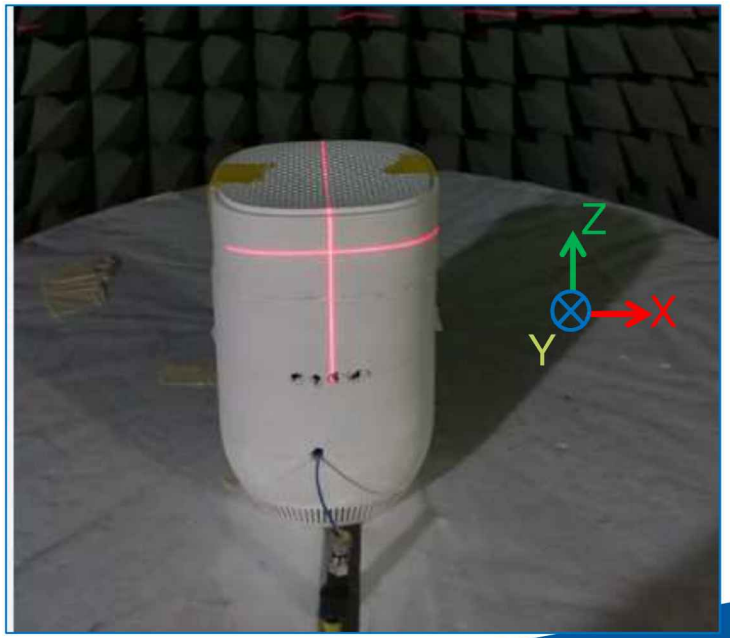
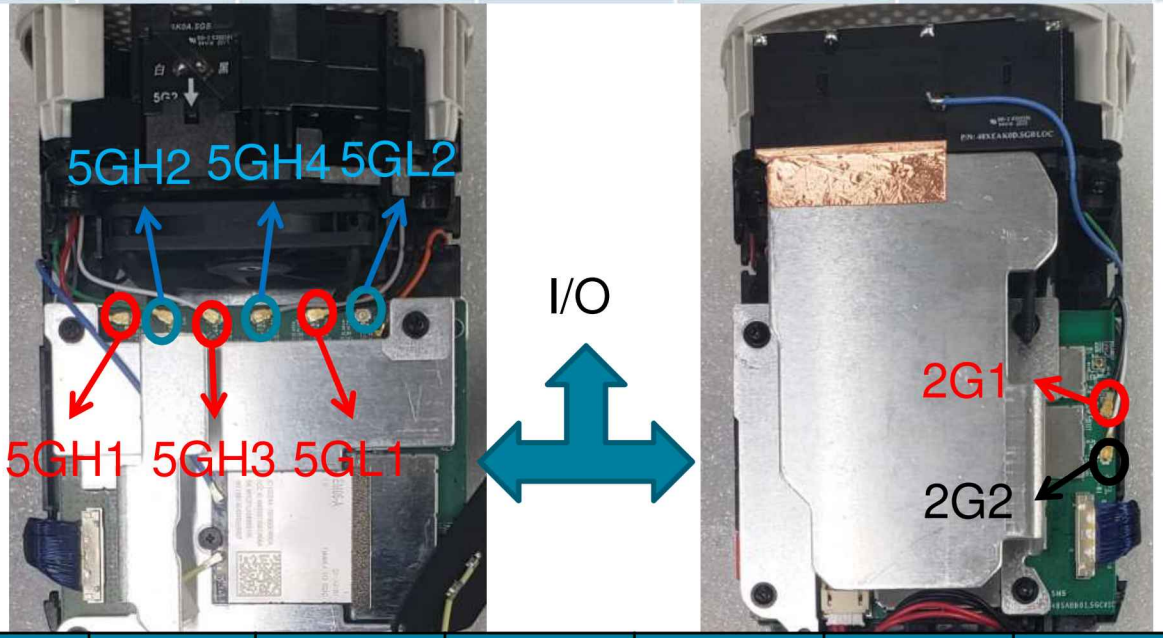
Test Setup and Procedure

- Place the device at the center of the chamber.
- Connect the antenna cable to RF cable of the chamber
- Run Satimo test SW (**NPAC Spherical Measurement, v1.5.4 (GIT-E6965664))**
- Get 3D data in 2.8125 degree step from phi 0°~360°and theta -90°~ +90°, including efficiency, peak gain, 2D & 3D radiation pattern.
- This is far field test for XLE Wi-Fi antenna verification.
- This is passive measurement, which means the device is off and not in any operating mode.



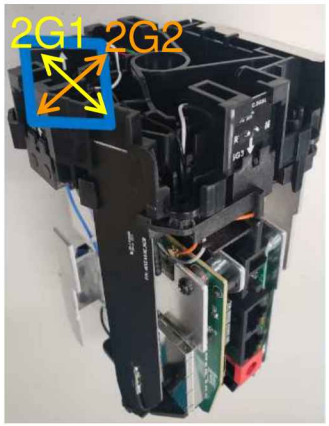
Summary

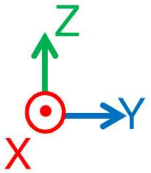
Frequency combination		Return Loss	Efficiency	Peak Gain (dBi)	Composite Gain (Correlated)	Isolation (within radio)	Isolation (among radio)
2G ANT	2.4~2.5GHz	> 10dB	58%	< 4.0	<5.1dBi	> 18dB	***WiFi5GL to WiFi5GH:*** *>25dB @ 5.15-5.85GHz*
5GL ANT	5.15~5.35GHz	> 10dB	63%	< 4.7	<5.3dBi	> 28dB	
5GH ANT	5.47~5.85GHZ	> 10dB	64%	< 5.0	<7.2dBi	> 25dB	
BLE ANT	2.4~2.5GHz	>8dB	51%	<4.1	-	-	

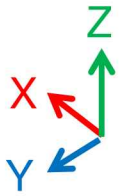


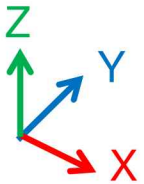
Antenna	2G1	2G2	5GH1	5GH2	5GH3	5GH4	5GL1	5GL2	BLE
Peak Gain (dBi)	3.2	4.0	4.8	5.0	4.5	4.9	4.7	4.6	4.1
Chain	2G Ch.1	2G Ch.0	5GH Ch.3	5GH Ch.2	5GH Ch.1	5GH Ch.0	5GL Ch.1	5GL Ch.0	

Wi-Fi 2G

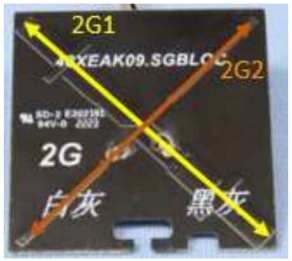






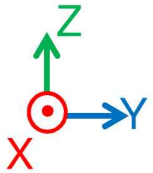


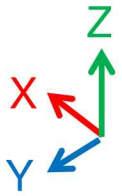
- **Return Loss**
  - above 10dB on 2.4GHz
- **Isolation**
  - above 18dB on 2.4GHz
- **Average Efficiency**
  - ~58% on 2.4GHz
- **Peak Gain**
  - 4.0dBi on 2.4GHz

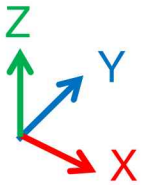


Note
The polarization of 2G1 ANT and 2G2 ANT is orthogonal to each other.

Wi-Fi 5GL

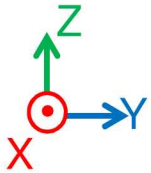


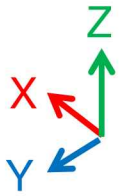


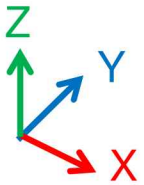


- **Return Loss**
  - above 10dB on 5GHz
- **Isolation**
  - above 28dB on 5GHz
- **Average Efficiency**
  - ~63% on 5GHz
- **Peak Gain**
  - 4.7dBi on 5GHz

Wi-Fi 5GH



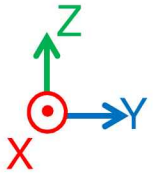


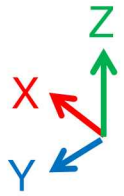


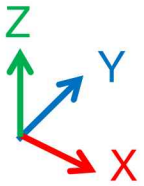
- **Return Loss**
  - above 10dB on 5GHz
- **Isolation**
  - above 25dB on 5GHz
- **Average Efficiency**
  - ~64% on 5GHz
- **Peak Gain**
  - 5.0dBi on 5GHz

Note
The polarization of 5GH1 ANT and 2GH2 ANT is orthogonal to each other.

BLE ANT

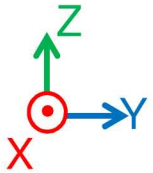


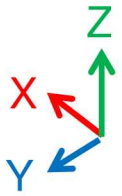


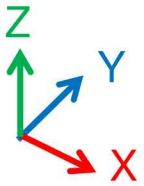


- **Return Loss**
  - above 8dB on 2.4GHz
- **Average Efficiency**
  - ~51% on 2.4GHz
- **Peak Gain**
  - 4.1dBi on 2.4GHz

Isolation among Radios







- **Wi-Fi 5GL to Wi-Fi 5GH**
  - above 25dB on 5GHz

WNC

Wistron NeWeb Corp.