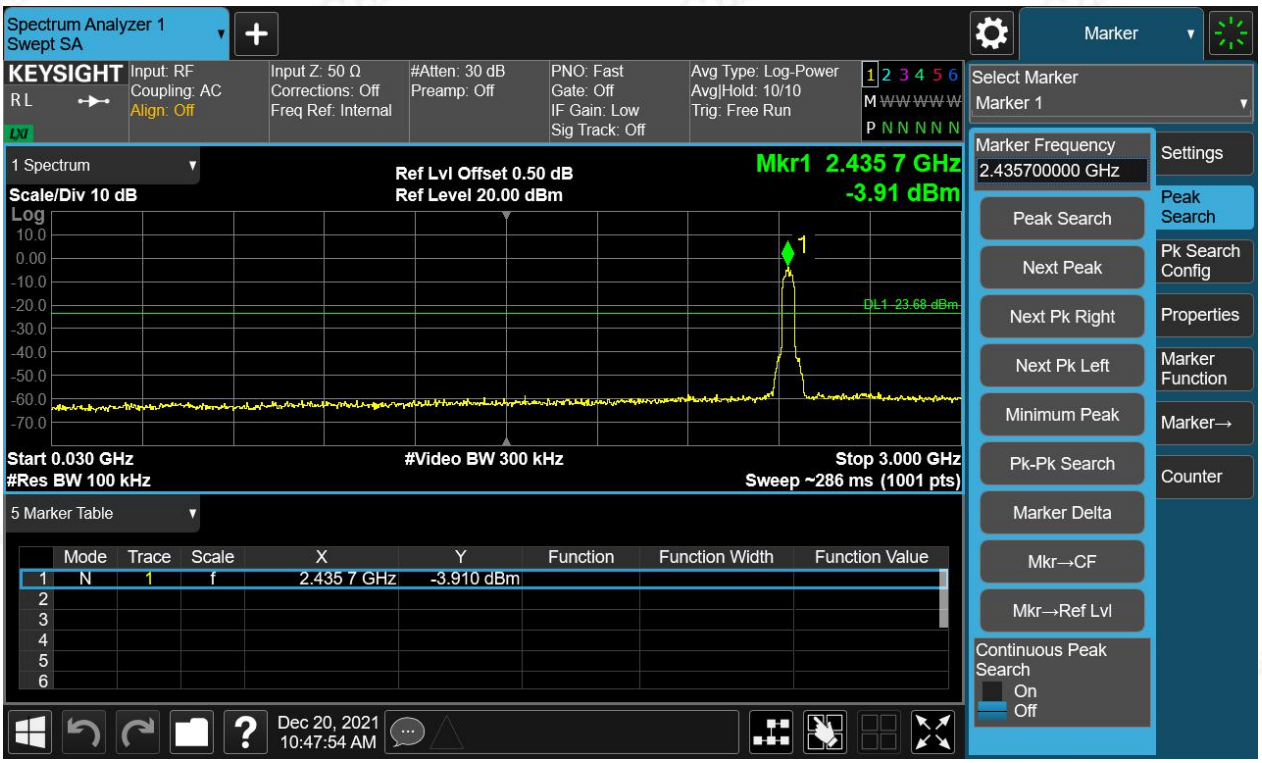
**Conducted spurious emissions 30MHz-25GHz**



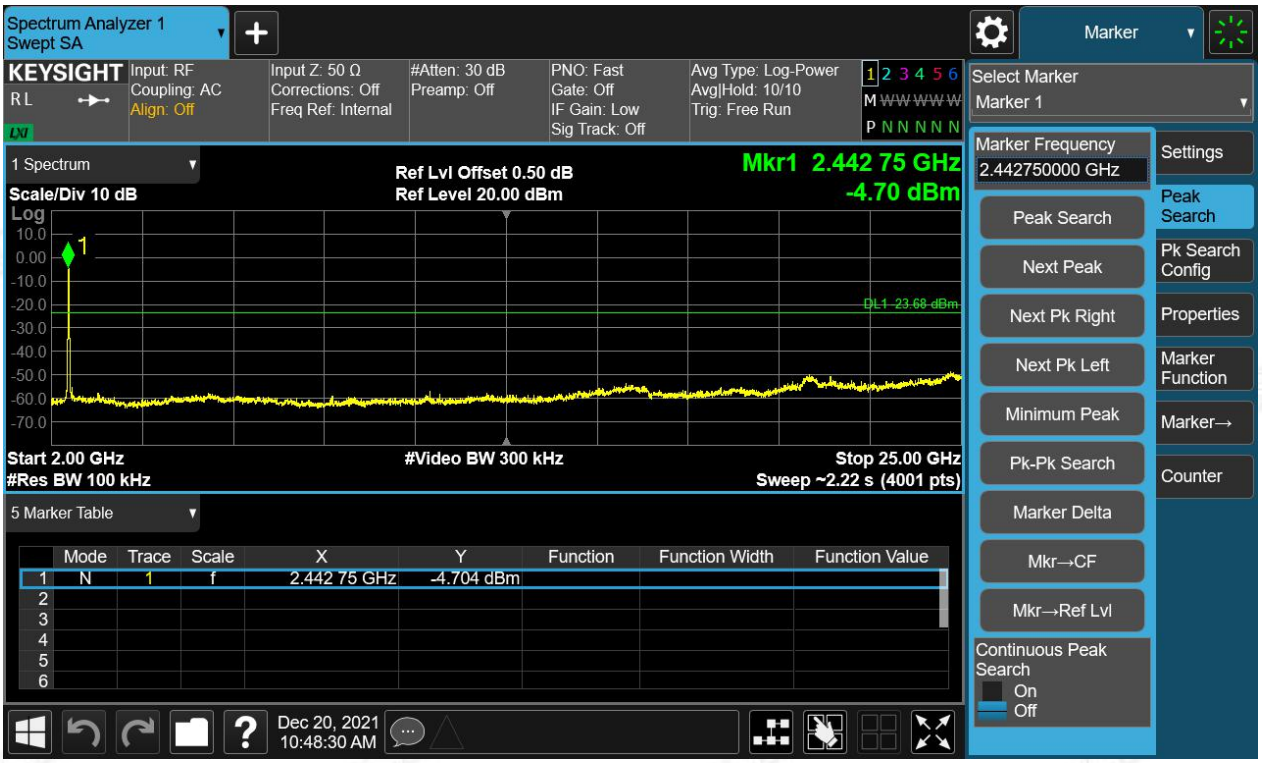
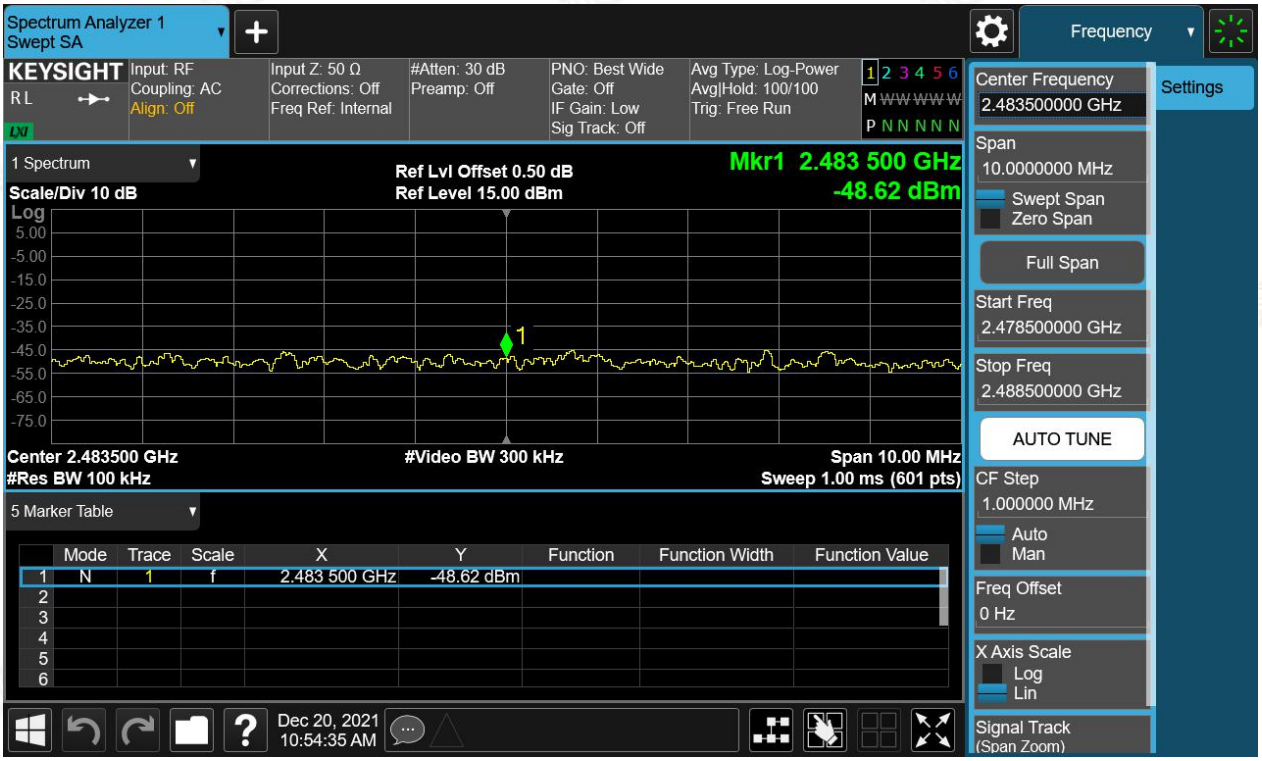



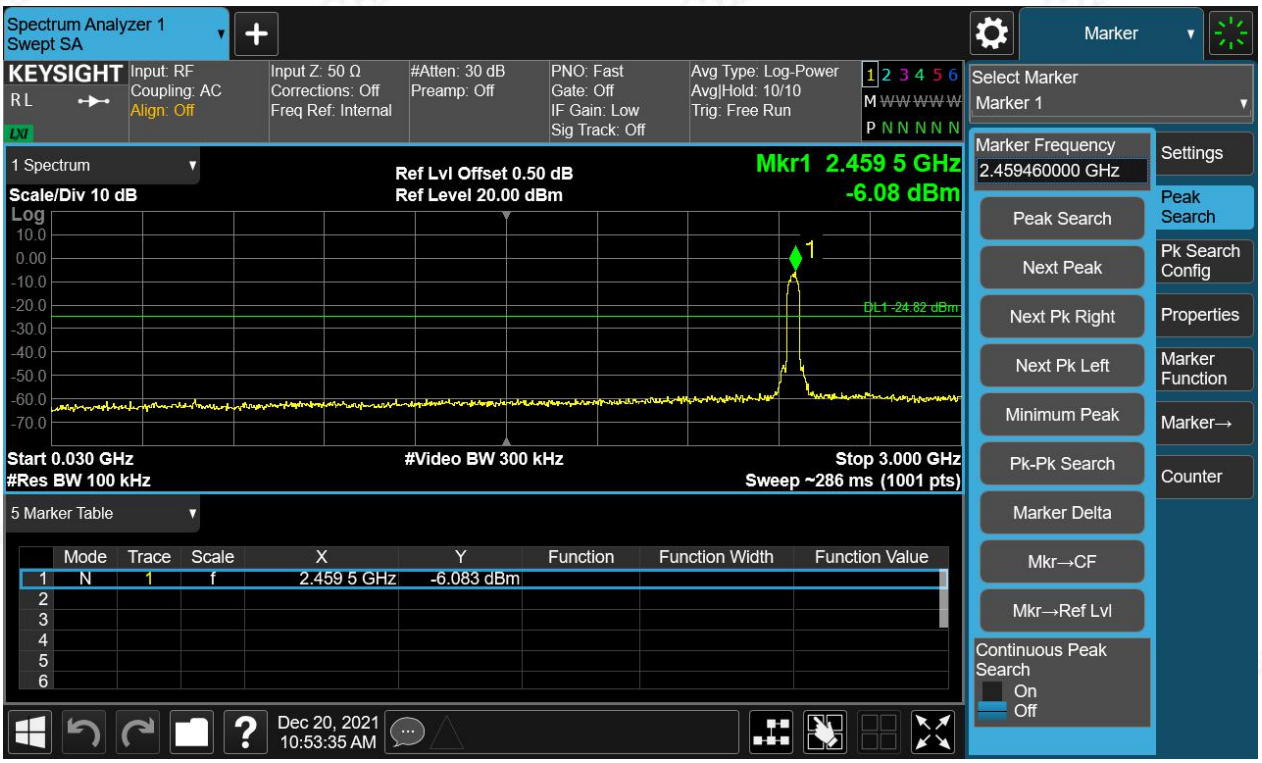
**Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz**

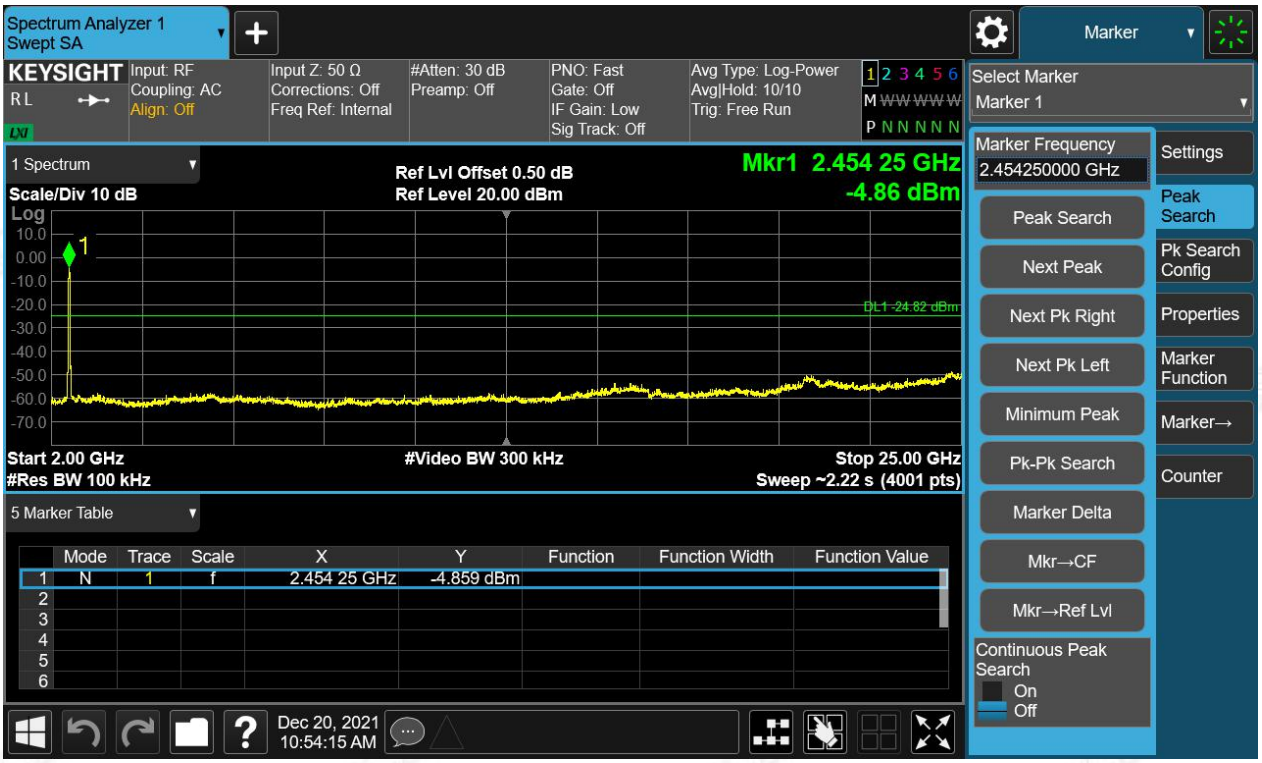
**Carrier Level**


**Band Edge**



**Conducted spurious emissions 30MHz-25GHz**



### 4.1.6 Radiated Spurious Emission

**RESULT:** **PASS**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d), 15.205, 15.209 |
| Requirement | : | ANSI C63.10-2013, Clause 11.12<br>KDB 558074 D01 v05r02, Clause 8.6 |
| Kind of test site | : | 3m Semi-Anechoic Chamber |

**Test setup**

| | | |
|---|---|---|
| Test Channel | : | Low/Middle/High |
| Operation Mode | : | A.1.a |
| Ambient temperature | : | 23°C |
| Relative humidity | : | 51% |

Notes

*Test plots please refer to the annex document "SHE21120035-02AE DATA WIFI 2.4GHz-TX EXHIBIT A".*

*1. For 9 kHz ~ 30 MHz, the amplitude of spurious emissions that are attenuated by more than 20dB below the permissible. The value has no need to be reported.*

*2. The spurious above 18GHz is noise only and 20dB below the limit. The value has no need to be reported.*

*3. All test modes had been pre-tested, but only the 802.11b at low channel of below 1 GHz is the worst case and recorded in the report.*

*4. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.*

### 4.1.7 Band Edge (Restricted-band band-edge)

**RESULT:** **PASS**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d), 15.205, 15.209 |
| Requirement | : | ANSI C63.10-2013, Clause 11.13<br>KDB 558074 D01 v05r02, Clause 8.7 |
| Kind of test site | : | 3m Semi-Anechoic Chamber |

**Test setup**

| | | |
|---|---|---|
| Test Channel | : | Low/Middle/High |
| Operation Mode | : | A.1.a |
| Ambient temperature | : | 23°C |
| Relative humidity | : | 51% |

*Notes:*

*1. Test plots please refer to the annex document "SHE21120035-02AE DATA WIFI 2.4GHz-TX EXHIBIT A".*

*2. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.*

## 4.2 Mains Emissions

### 4.2.1 Conducted Emission on AC Mains

**RESULT:** **PASS**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.207(a) |
| Requirement | : | ANSI C63.10-2013, Clause 6.2 |
| Kind of test site | : | Shielded room |

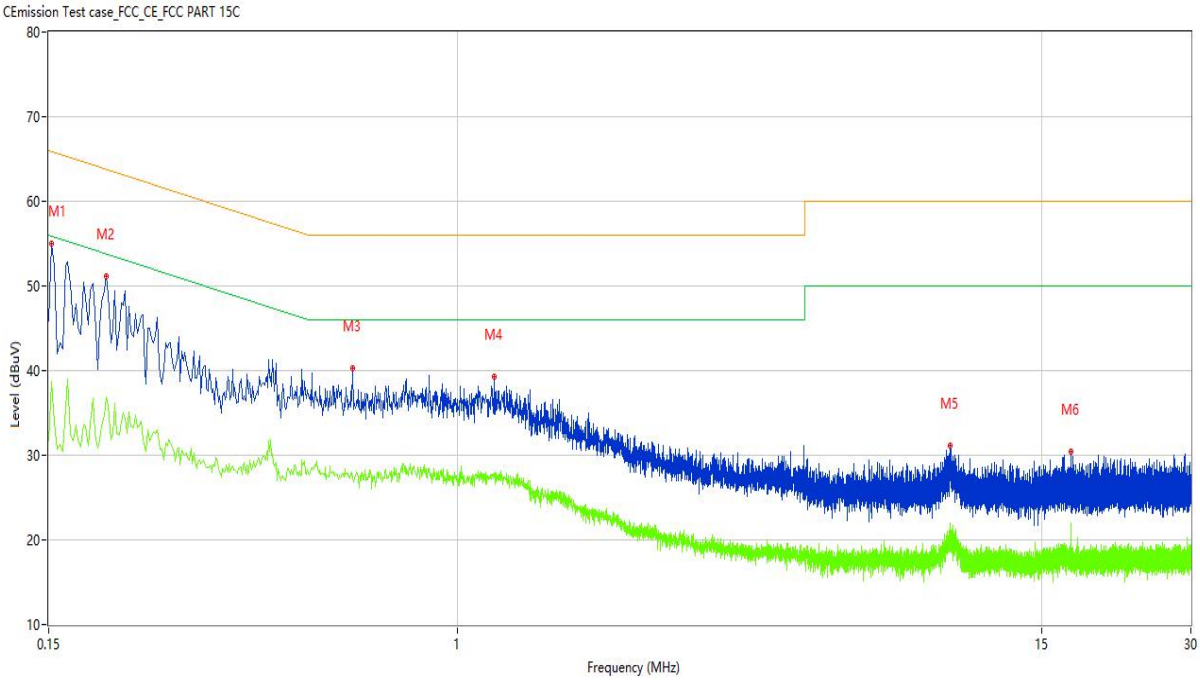
**Test setup**

| | | |
|---|---|---|
| Input Voltage | : | DC 12V by power adapter (which received AC 120V, 60Hz power) |
| Operation Mode | : | A.1.a |
| Earthing | : | Connected to GND |
| Ambient temperature | : | 23°C |
| Relative humidity | : | 51% |

For details refer to following test plot.

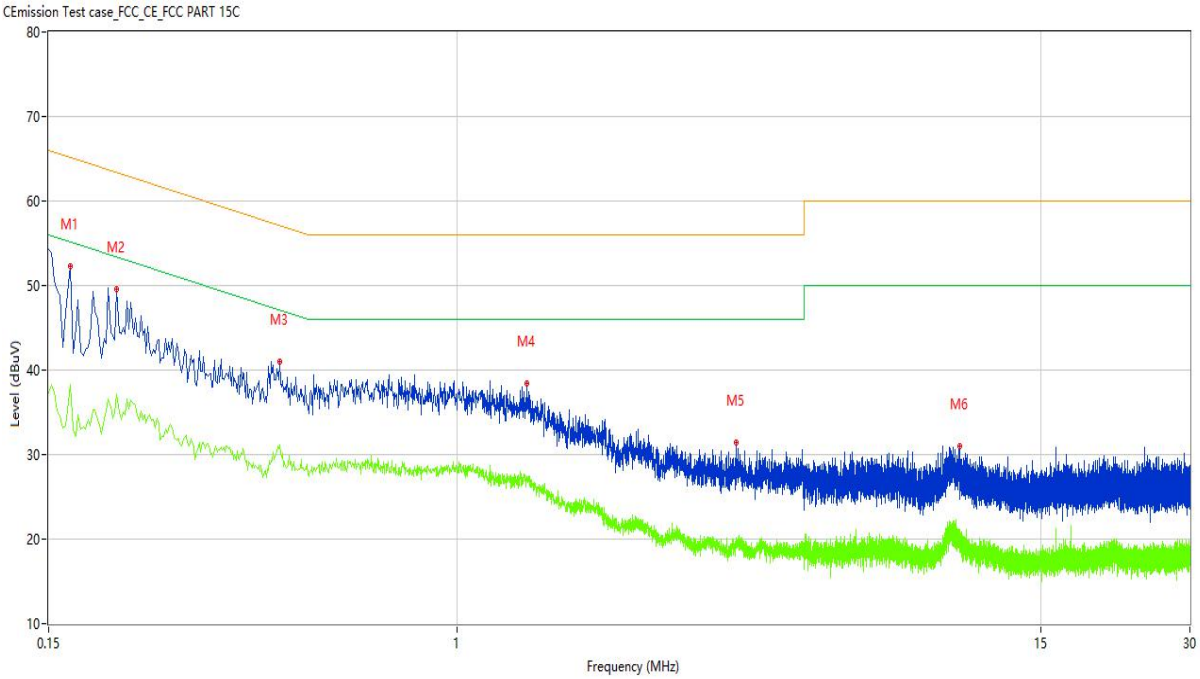
*Note：All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.*

**Figure 28: Conducted Emission on AC Mains, L Phase**




| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Over Limit (dB) | Detector | Line | Verdict |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.150 | 55.81 | 10.26 | 66.00 | -10.19 | Peak | L | Pass |
| 1* | 0.150 | 51.19 | 10.26 | 66.00 | -14.81 | QP | L | Pass |
| 1** | 0.150 | 31.70 | 10.26 | 56.00 | -24.30 | AV | L | Pass |
| 2 | 0.196 | 49.98 | 10.23 | 63.78 | -13.80 | Peak | L | Pass |
| 2* | 0.196 | 46.60 | 10.23 | 63.78 | -17.18 | QP | L | Pass |
| 2** | 0.196 | 36.85 | 10.23 | 53.78 | -16.93 | AV | L | Pass |
| 3 | 0.614 | 32.38 | 10.31 | 56.00 | -23.62 | Peak | L | Pass |
| 3* | 0.614 | 26.66 | 10.31 | 56.00 | -29.34 | QP | L | Pass |
| 3** | 0.614 | 27.36 | 10.31 | 46.00 | -18.64 | AV | L | Pass |
| 4 | 1.186 | 33.68 | 10.19 | 56.00 | -22.32 | Peak | L | Pass |
| 4* | 1.186 | 28.48 | 10.19 | 56.00 | -27.52 | QP | L | Pass |
| 4** | 1.186 | 27.87 | 10.19 | 46.00 | -18.13 | AV | L | Pass |
| 5 | 9.830 | 27.76 | 10.36 | 60.00 | -32.24 | Peak | L | Pass |
| 5* | 9.830 | 22.60 | 10.36 | 60.00 | -37.40 | QP | L | Pass |
| 5** | 9.830 | 20.38 | 10.36 | 50.00 | -29.62 | AV | L | Pass |
| 6 | 17.214 | 21.44 | 10.67 | 60.00 | -38.56 | Peak | L | Pass |
| 6* | 17.214 | 14.55 | 10.67 | 60.00 | -45.45 | QP | L | Pass |
| 6** | 17.214 | 21.65 | 10.67 | 50.00 | -28.35 | AV | L | Pass |

**Figure 29: Conducted Emission on AC Mains, N Phase**




| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Over Limit (dB) | Detector | Line | Verdict |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.166 | 52.55 | 10.26 | 65.16 | -12.61 | Peak | N | Pass |
| 1* | 0.166 | 48.11 | 10.26 | 65.16 | -17.05 | QP | N | Pass |
| 1** | 0.166 | 38.24 | 10.26 | 55.16 | -16.92 | AV | N | Pass |
| 2 | 0.206 | 48.70 | 10.23 | 63.37 | -14.67 | Peak | N | Pass |
| 2* | 0.206 | 44.15 | 10.23 | 63.37 | -19.22 | QP | N | Pass |
| 2** | 0.206 | 37.08 | 10.23 | 53.37 | -16.29 | AV | N | Pass |
| 3 | 0.438 | 38.53 | 10.26 | 57.10 | -18.57 | Peak | N | Pass |
| 3* | 0.438 | 34.38 | 10.26 | 57.10 | -22.72 | QP | N | Pass |
| 3** | 0.438 | 31.20 | 10.26 | 47.10 | -15.90 | AV | N | Pass |
| 4 | 1.380 | 32.34 | 10.18 | 56.00 | -23.66 | Peak | N | Pass |
| 4* | 1.380 | 27.59 | 10.18 | 56.00 | -28.41 | QP | N | Pass |
| 4** | 1.380 | 27.50 | 10.18 | 46.00 | -18.50 | AV | N | Pass |
| 5 | 3.652 | 25.16 | 10.19 | 56.00 | -30.84 | Peak | N | Pass |
| 5* | 3.652 | 19.14 | 10.19 | 56.00 | -36.86 | QP | N | Pass |
| 5** | 3.652 | 20.09 | 10.19 | 46.00 | -25.91 | AV | N | Pass |
| 6 | 10.306 | 26.63 | 10.37 | 60.00 | -33.37 | Peak | N | Pass |
| 6* | 10.306 | 21.61 | 10.37 | 60.00 | -38.39 | QP | N | Pass |
| 6** | 10.306 | 20.73 | 10.37 | 50.00 | -29.27 | AV | N | Pass |

# 5 Appendixes

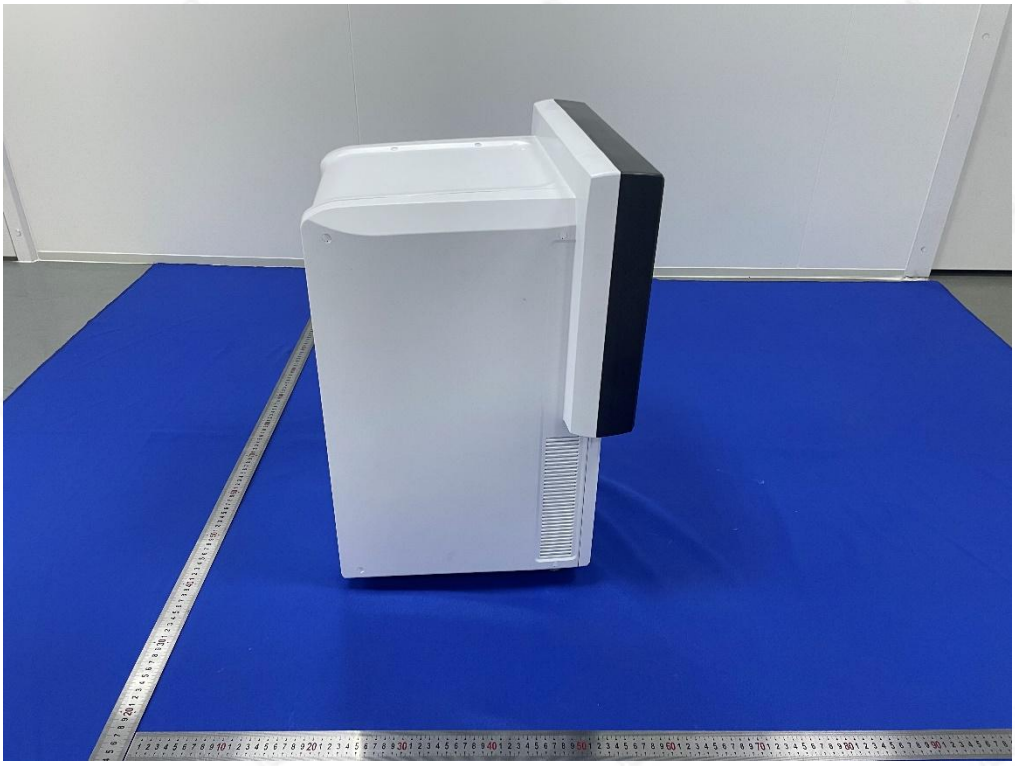
## 5.1 Photographs of the Sample

All of the sample

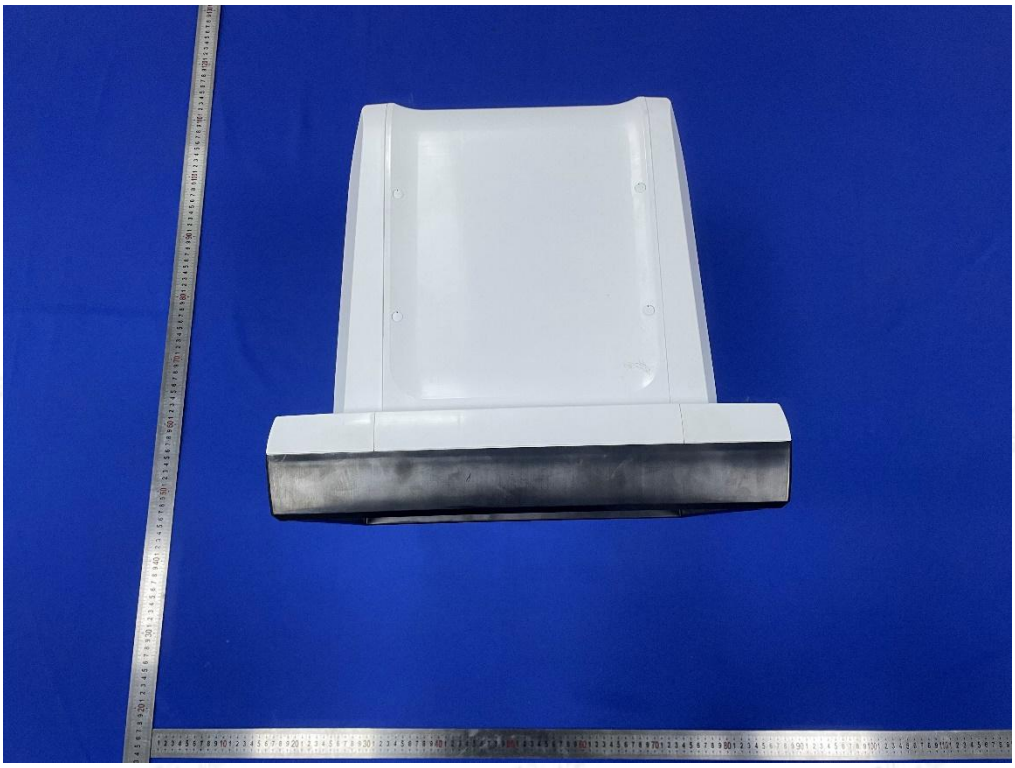
Front of the sample

Rear of the sample

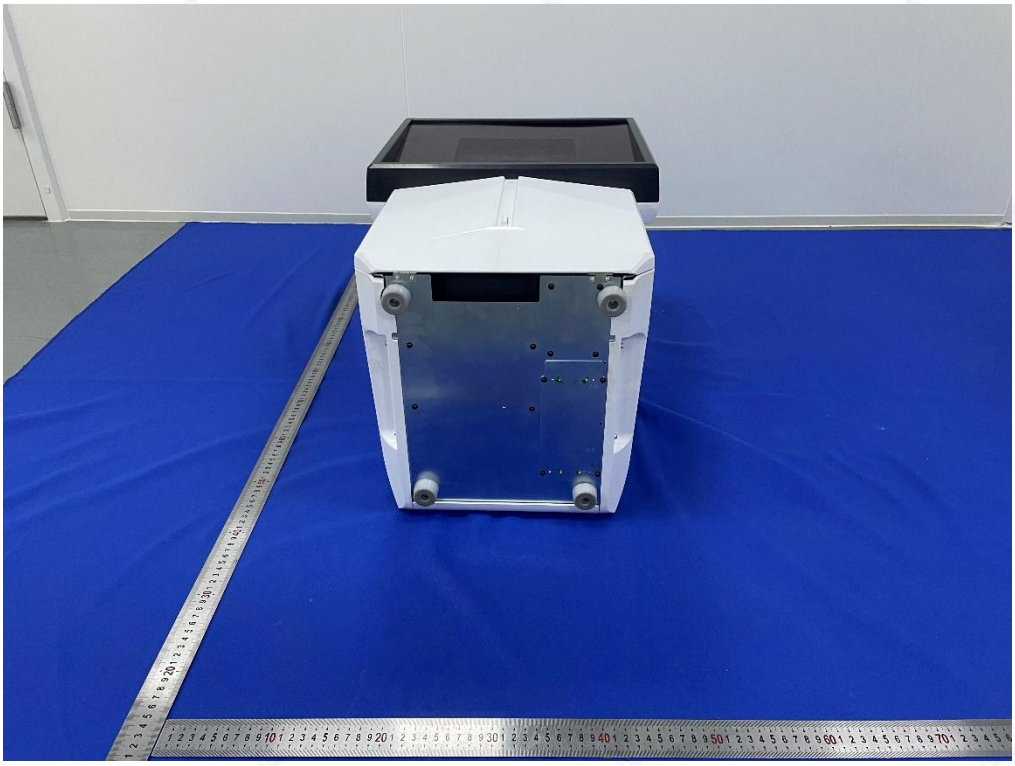
Left of the sample



Right of the sample



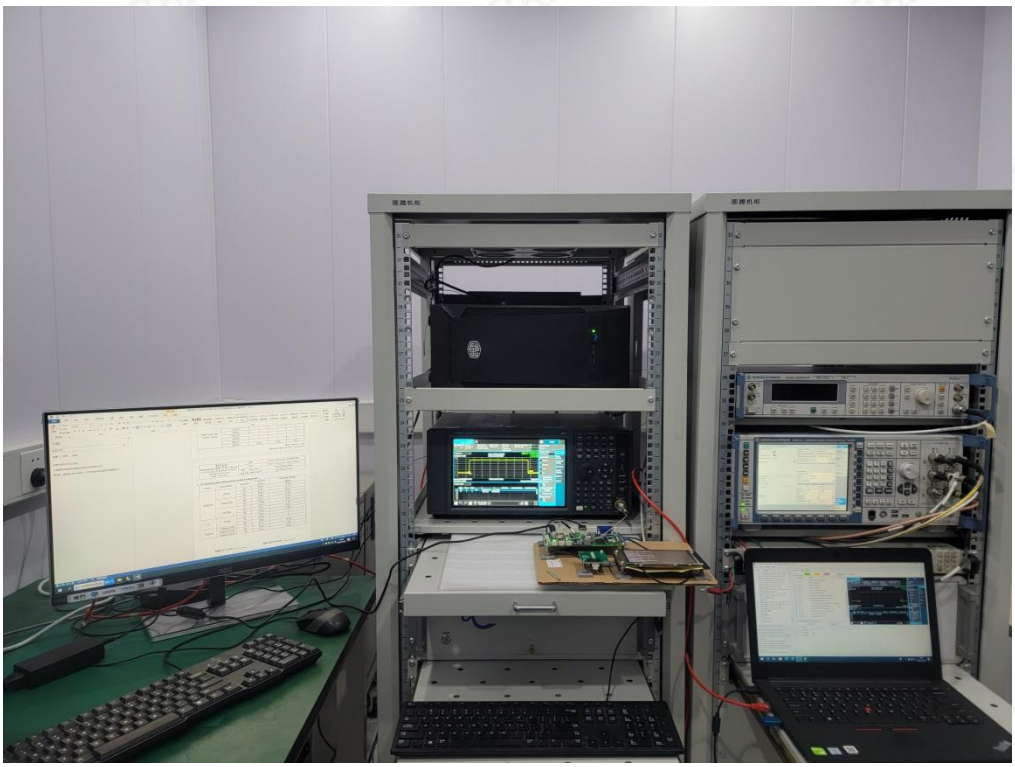
Top of the sample



Bottom of the sample

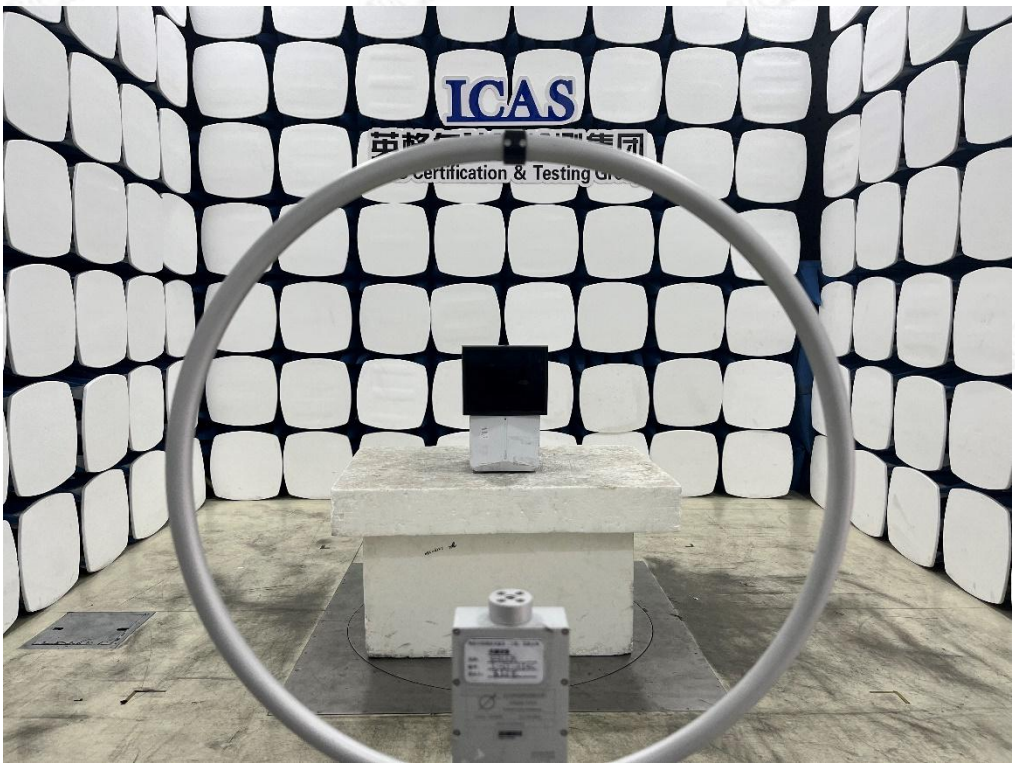
## 5.2 Set-up for Conducted Emissions

## 5.3 Set-up for Conducted RF test at Antenna Port



## 5.4 Set-up for Spurious Emissions below 1GHz

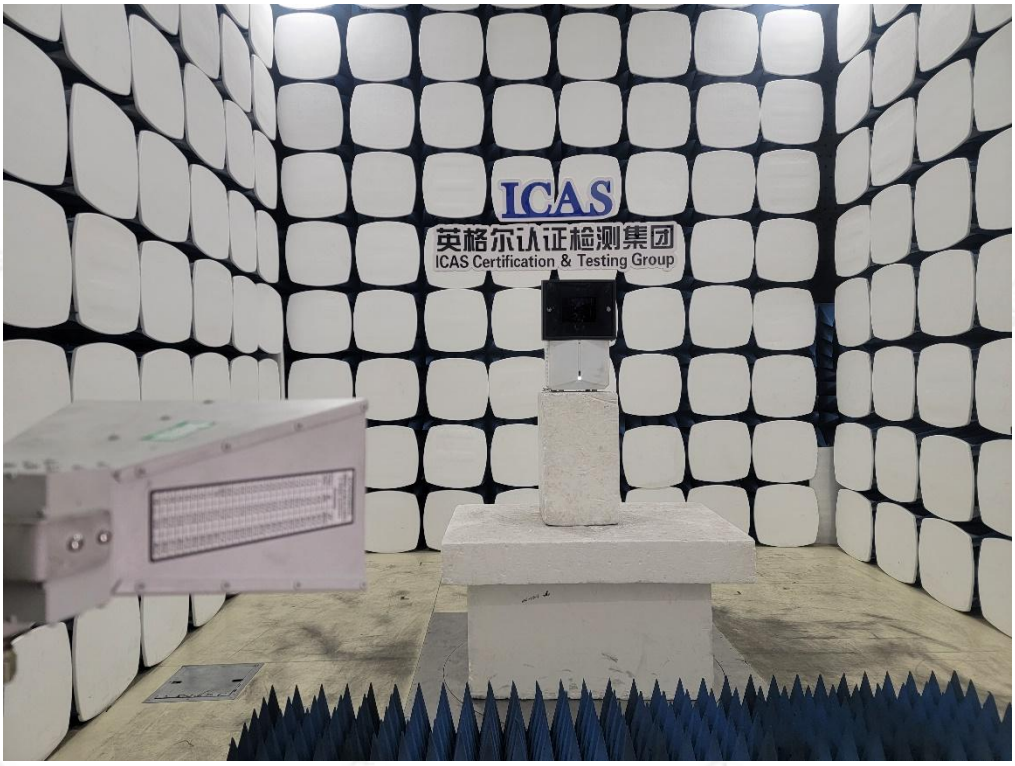
Below 30MHz



30MHz-1GHz


## 5.5 Set-up for Spurious Emissions above 1GHz

1GHz-18GHz



18GHz-25GHz


***End of the report***

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