

# TEST REPORT

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Figure 34: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level



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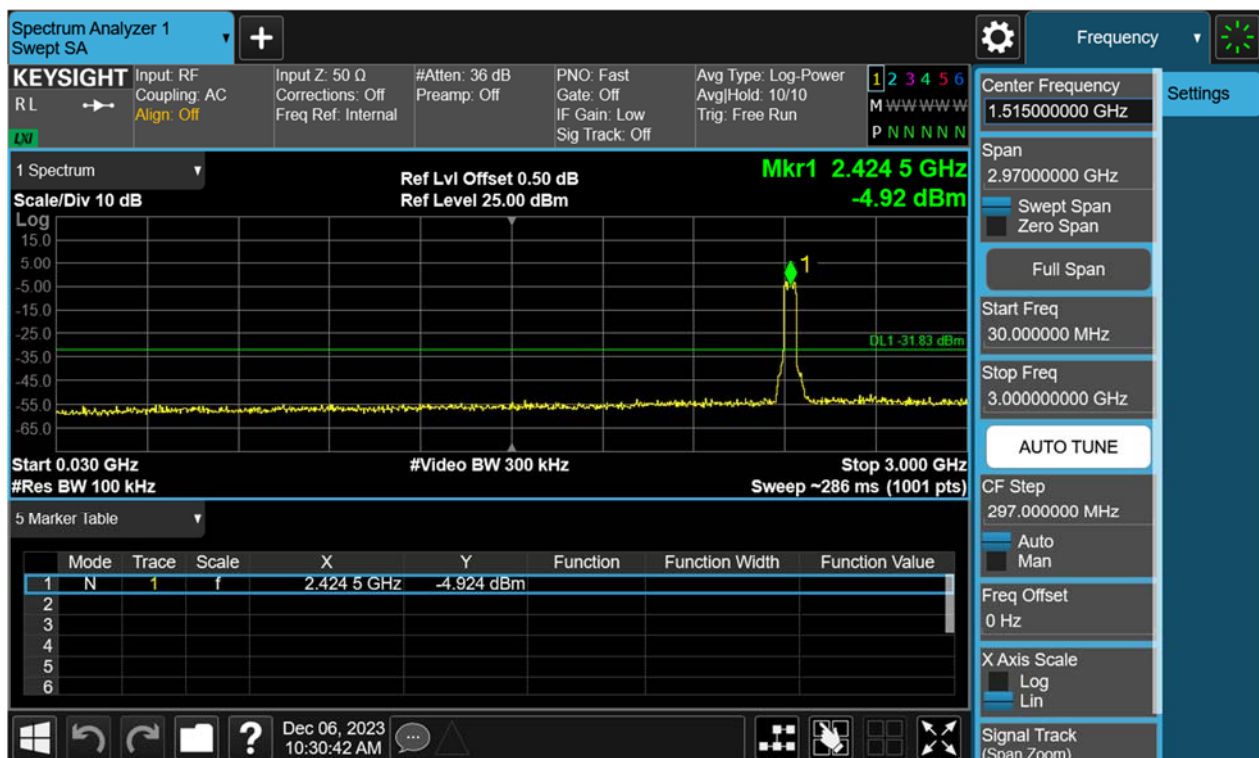
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## Band Edge



## Conducted spurious emissions 30MHz-25GHz



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Figure 35: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2437MHz Carrier Level



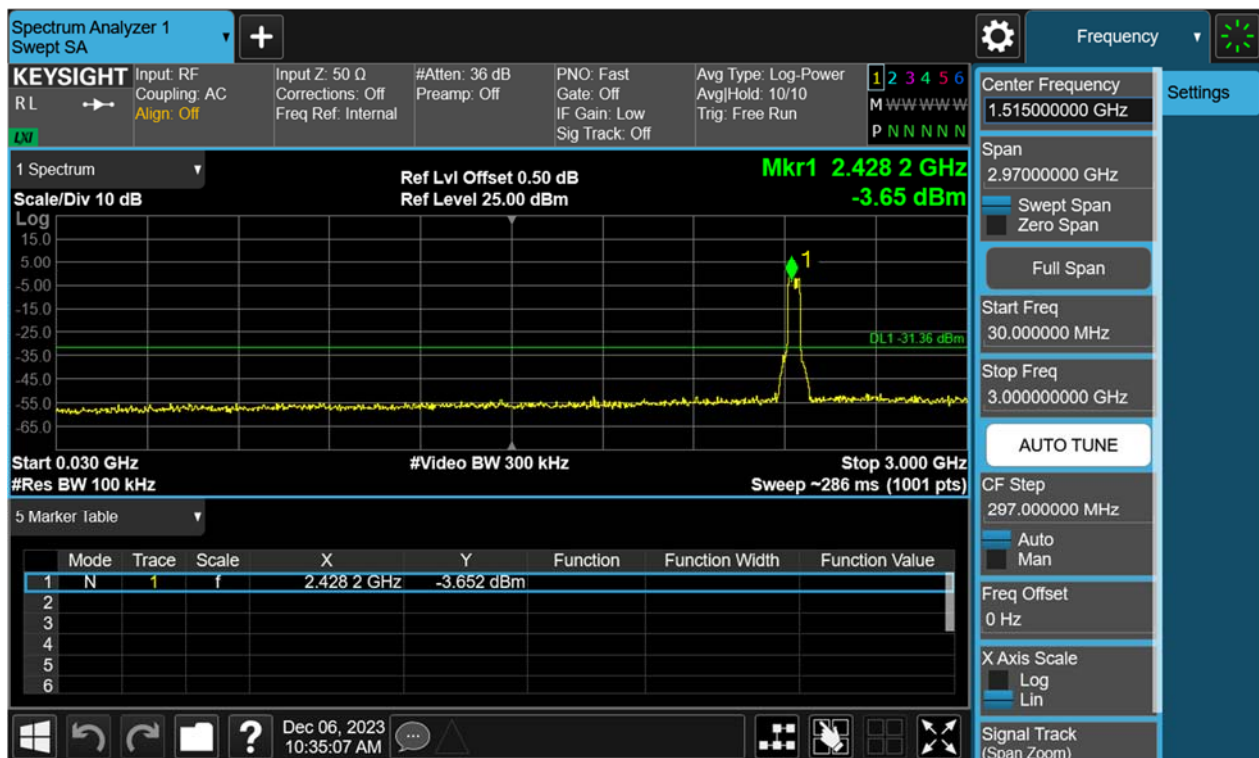
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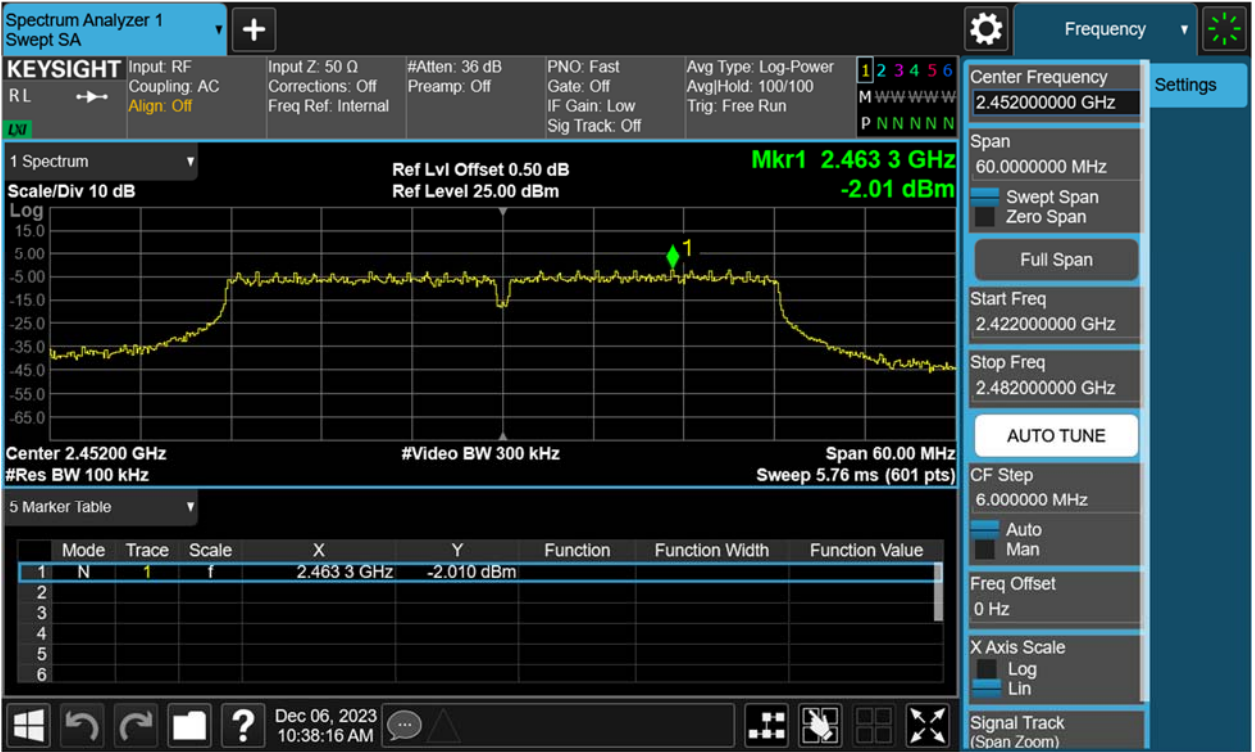
## Conducted spurious emissions 30MHz-25GHz



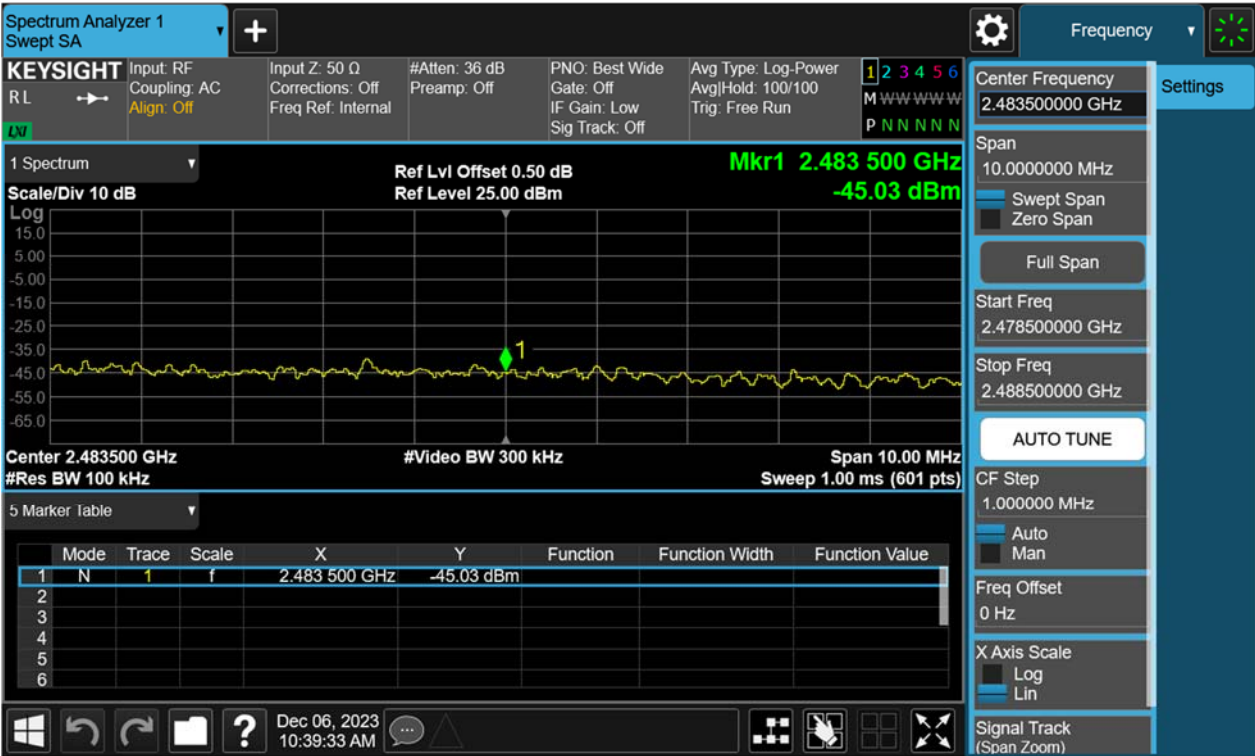
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Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz Carrier Level



## Band Edge



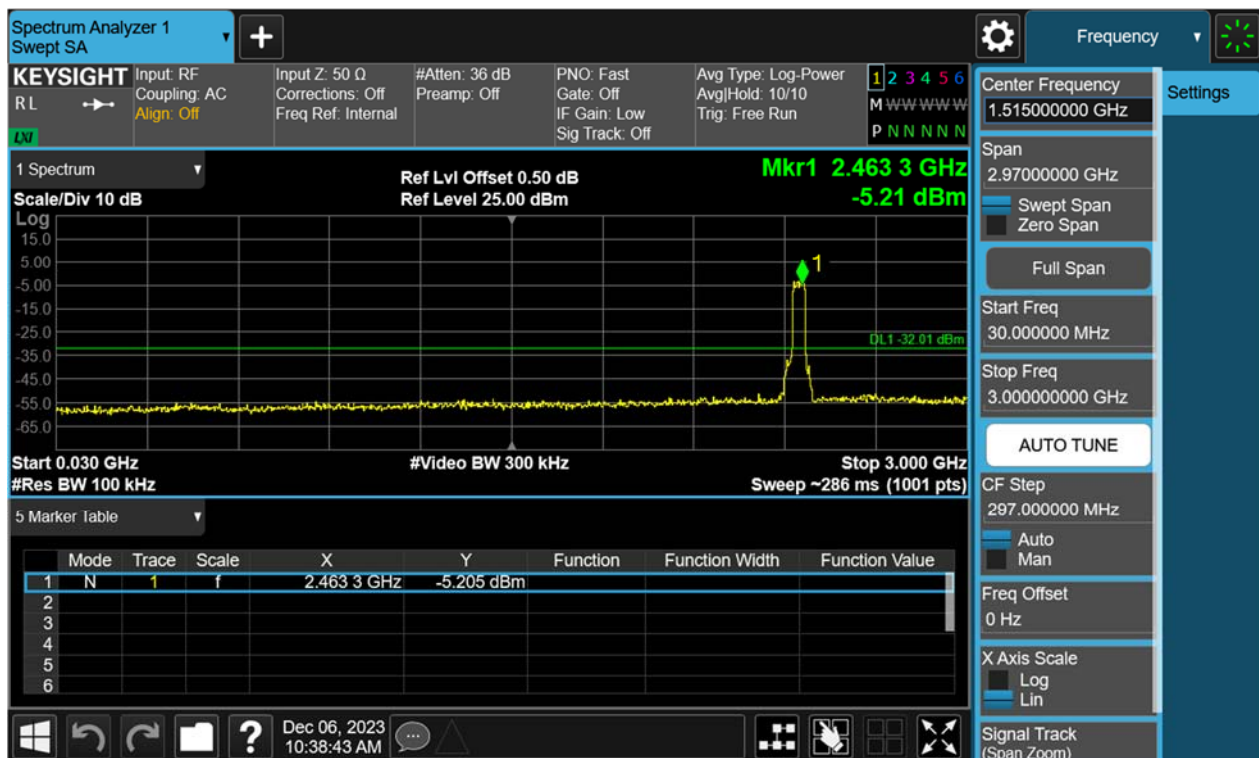
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## Conducted spurious emissions 30MHz-25GHz



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## 4.1.6 Radiated Emission

RESULT:

**PASS**

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d), 15.205, 15.209, RSS-GEN 8.9                     |
| 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 | : 25.1°C          |
| Relative humidity   | : 52%             |

### Notes

Test plots please refer to the annex document "SHE23060106-02BE 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.

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

RESULT:

**PASS**

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d), 15.205, 15.209, RSS-GEN 8.10                    |
| 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 | : 25.1°C          |
| Relative humidity   | : 52%             |

### Notes:

1. Test plots please refer to the annex document "SHE23060106-02BE 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.

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## 4.2 Mains Emissions

### 4.2.1 Conducted Emission on AC Mains

RESULT:

PASS

|                   |                                   |
|-------------------|-----------------------------------|
| Test standard     | : FCC Part 15.207(a), RSS-Gen 8.8 |
| Requirement       | : ANSI C63.10-2013, Clause 6.2    |
| Kind of test site | : Shielded room                   |

#### Test setup

|                     |                                      |
|---------------------|--------------------------------------|
| Input Voltage       | : which received AC 120V, 60Hz Power |
| Operation Mode      | : A.1.a                              |
| Earthing            | : Disconnected to GND                |
| Ambient temperature | : 26°C                               |
| Relative humidity   | : 49%                                |

For details refer to following test plot.

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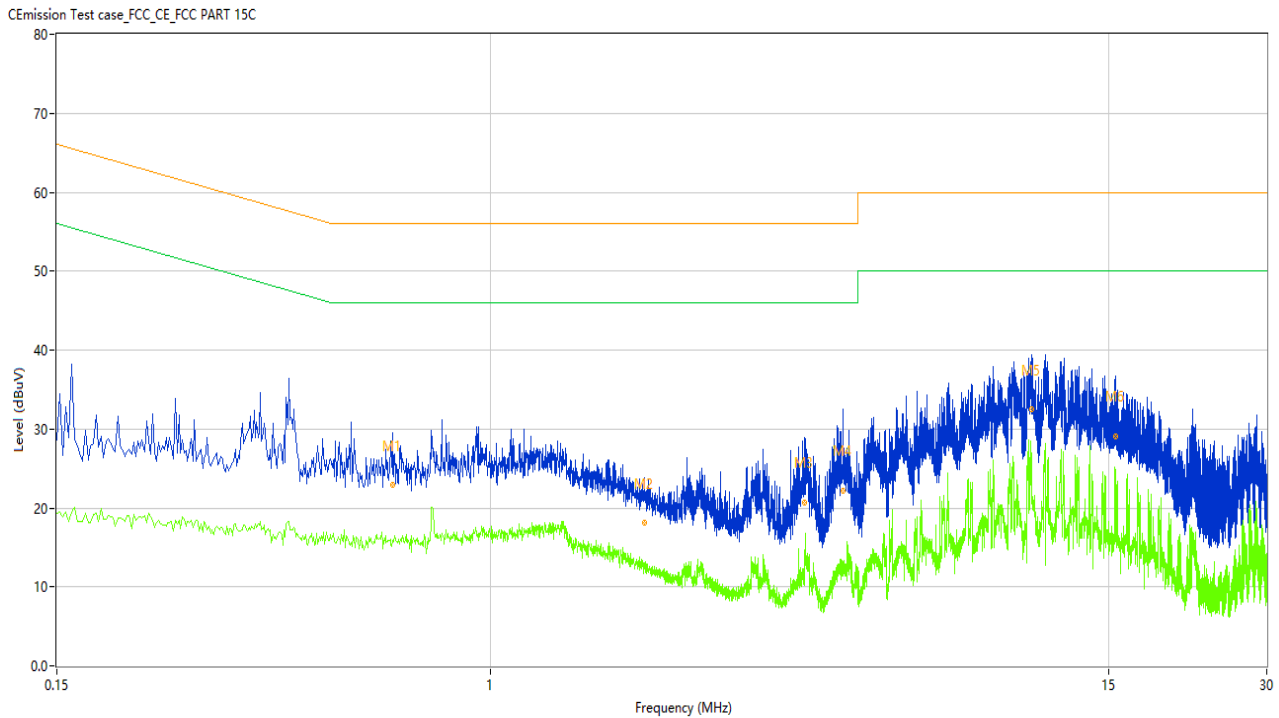
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*Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.*

**Figure 37: Conducted Emission on AC Mains, L Phase**



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.654           | 32.70          | 9.97        | 56.00        | 23.30       | Peak     | L    | Pass    |
| 1*  | 0.654           | 22.86          | 9.97        | 56.00        | 33.14       | QP       | L    | Pass    |
| 1** | 0.654           | 15.57          | 9.97        | 46.00        | 30.43       | AV       | L    | Pass    |
| 2   | 1.968           | 26.98          | 9.85        | 56.00        | 29.02       | Peak     | L    | Pass    |
| 2*  | 1.968           | 18.12          | 9.85        | 56.00        | 37.88       | QP       | L    | Pass    |
| 2** | 1.968           | 12.58          | 9.85        | 46.00        | 33.42       | AV       | L    | Pass    |
| 3   | 3.966           | 29.95          | 9.82        | 56.00        | 26.05       | Peak     | L    | Pass    |
| 3*  | 3.966           | 20.64          | 9.82        | 56.00        | 35.36       | QP       | L    | Pass    |
| 3** | 3.966           | 14.69          | 9.82        | 46.00        | 31.31       | AV       | L    | Pass    |
| 4   | 4.692           | 32.09          | 9.82        | 56.00        | 23.91       | Peak     | L    | Pass    |
| 4*  | 4.692           | 22.11          | 9.82        | 56.00        | 33.89       | QP       | L    | Pass    |
| 4** | 4.692           | 12.78          | 9.82        | 46.00        | 33.22       | AV       | L    | Pass    |
| 5   | 10.714          | 40.72          | 9.67        | 60.00        | 19.28       | Peak     | L    | Pass    |
| 5*  | 10.714          | 32.56          | 9.67        | 60.00        | 27.44       | QP       | L    | Pass    |
| 5** | 10.714          | 27.03          | 9.67        | 50.00        | 22.97       | AV       | L    | Pass    |
| 6   | 15.452          | 36.87          | 9.51        | 60.00        | 23.13       | Peak     | L    | Pass    |
| 6*  | 15.452          | 29.10          | 9.51        | 60.00        | 30.90       | QP       | L    | Pass    |
| 6** | 15.452          | 21.50          | 9.51        | 50.00        | 28.50       | AV       | L    | Pass    |

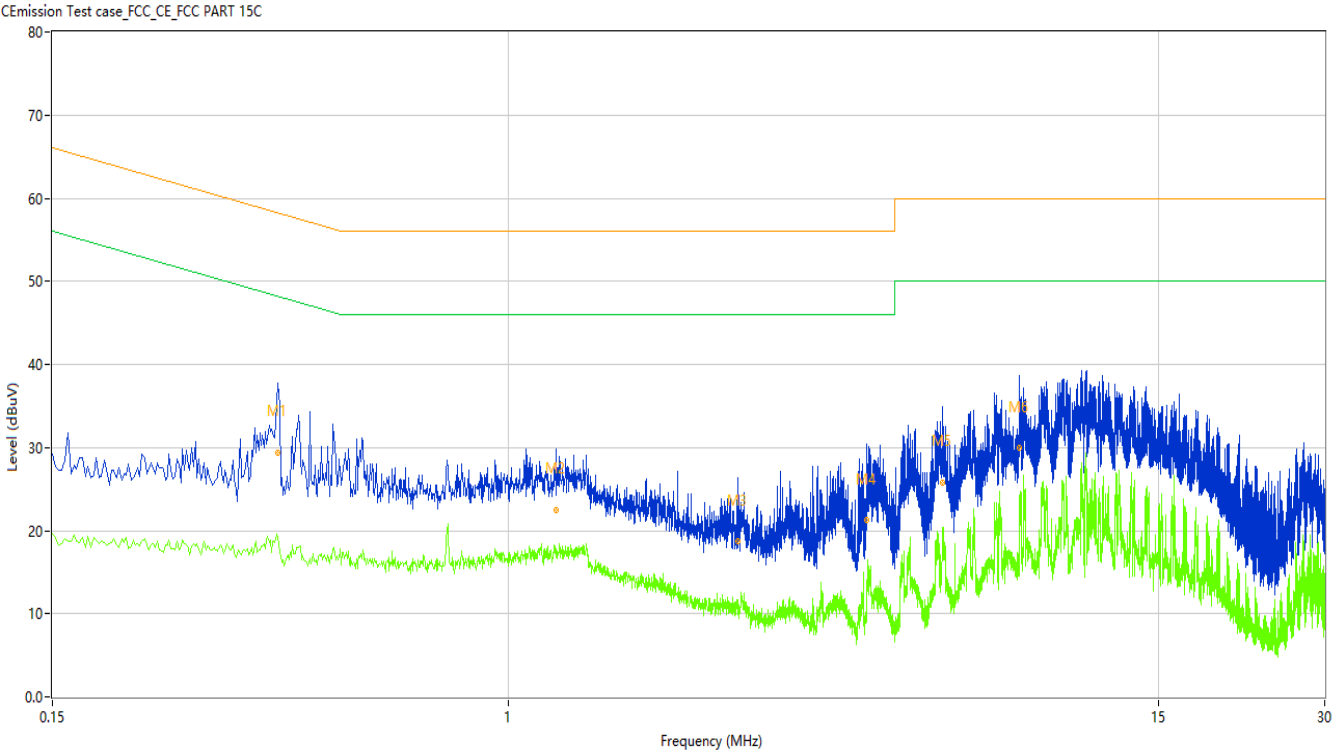
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Figure 38: Conducted Emission on AC Mains, N Phase



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.384           | 40.69          | 10.06       | 58.19        | 17.50       | Peak     | N    | Pass    |
| 1*  | 0.384           | 29.29          | 10.06       | 58.19        | 28.90       | QP       | N    | Pass    |
| 1** | 0.384           | 19.32          | 10.06       | 48.19        | 28.87       | AV       | N    | Pass    |
| 2   | 1.224           | 31.24          | 9.95        | 56.00        | 24.76       | Peak     | N    | Pass    |
| 2*  | 1.224           | 22.52          | 9.95        | 56.00        | 33.48       | QP       | N    | Pass    |
| 2** | 1.224           | 17.78          | 9.95        | 46.00        | 28.22       | AV       | N    | Pass    |
| 3   | 2.602           | 27.10          | 9.92        | 56.00        | 28.90       | Peak     | N    | Pass    |
| 3*  | 2.602           | 18.71          | 9.92        | 56.00        | 37.29       | QP       | N    | Pass    |
| 3** | 2.602           | 11.68          | 9.92        | 46.00        | 34.32       | AV       | N    | Pass    |
| 4   | 4.456           | 31.97          | 9.81        | 56.00        | 24.03       | Peak     | N    | Pass    |
| 4*  | 4.456           | 21.32          | 9.81        | 56.00        | 34.68       | QP       | N    | Pass    |
| 4** | 4.456           | 13.86          | 9.81        | 46.00        | 32.14       | AV       | N    | Pass    |
| 5   | 6.112           | 35.22          | 9.79        | 60.00        | 24.78       | Peak     | N    | Pass    |
| 5*  | 6.112           | 25.73          | 9.79        | 60.00        | 34.27       | QP       | N    | Pass    |
| 5** | 6.112           | 20.40          | 9.79        | 50.00        | 29.60       | AV       | N    | Pass    |
| 6   | 8.404           | 38.44          | 9.80        | 60.00        | 21.56       | Peak     | N    | Pass    |
| 6*  | 8.404           | 30.00          | 9.80        | 60.00        | 30.00       | QP       | N    | Pass    |
| 6** | 8.404           | 24.24          | 9.80        | 50.00        | 25.76       | AV       | N    | Pass    |

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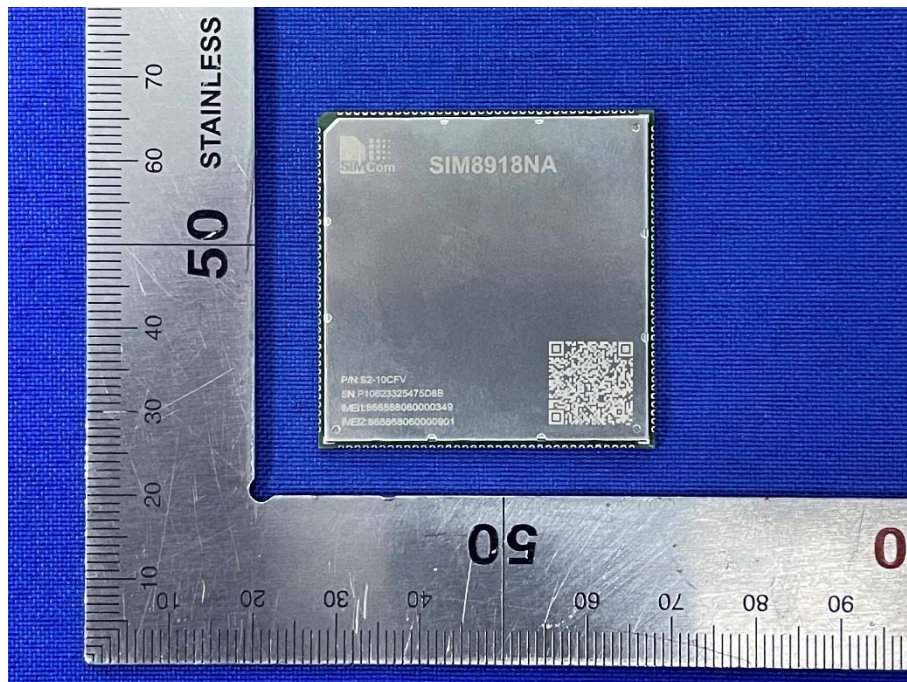
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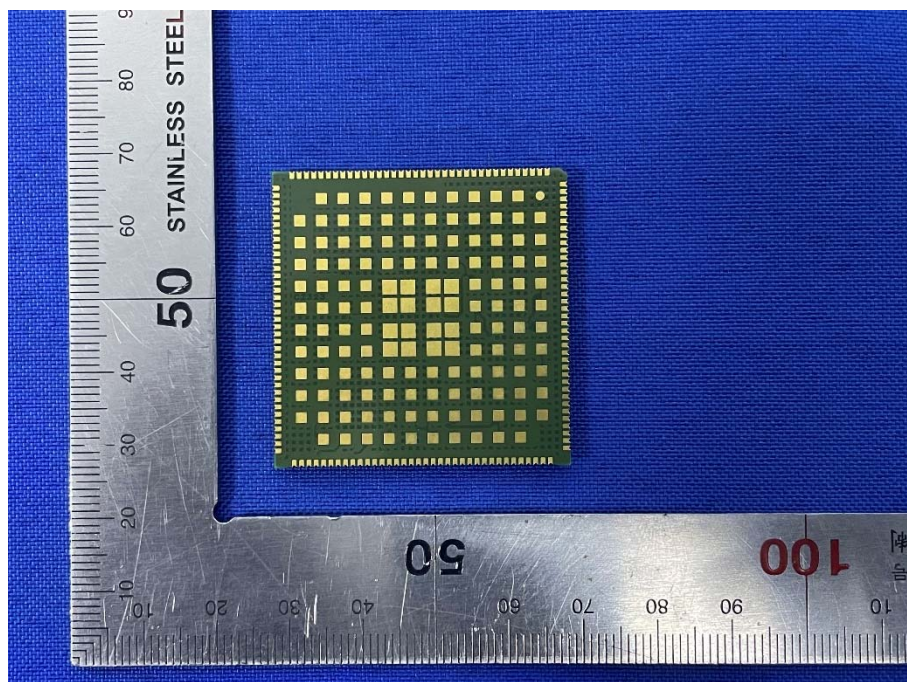
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## 5 Appendixes

## 5.1 Photographs of the Sample



**Front of the sample**



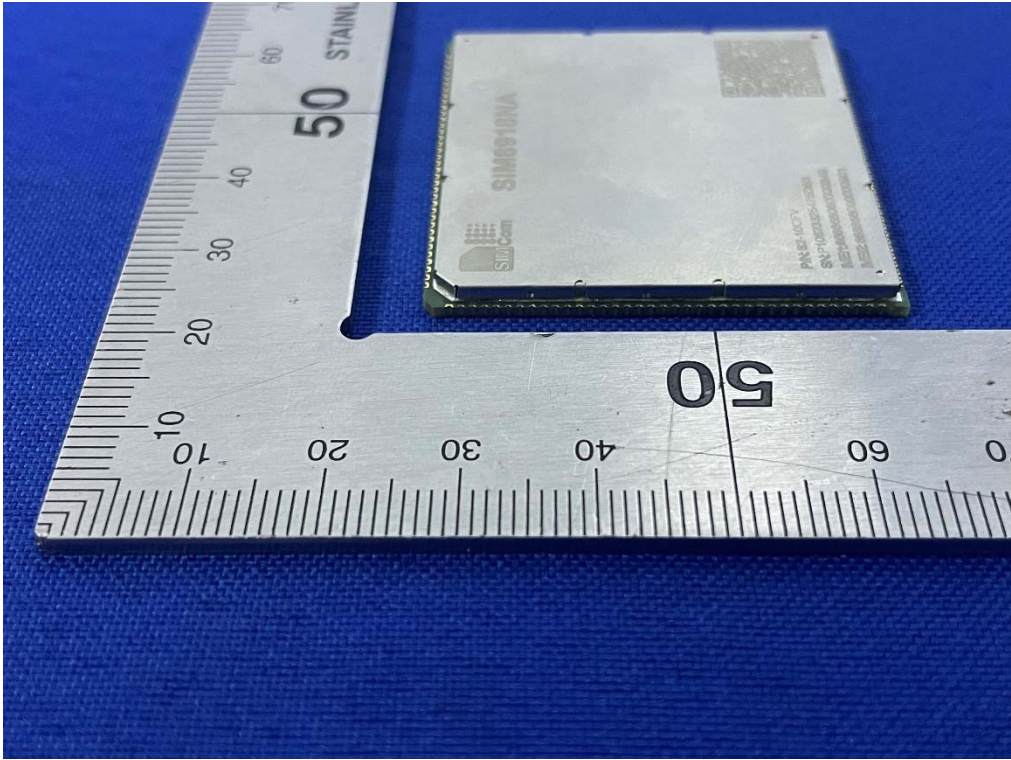
### Rear of the sample

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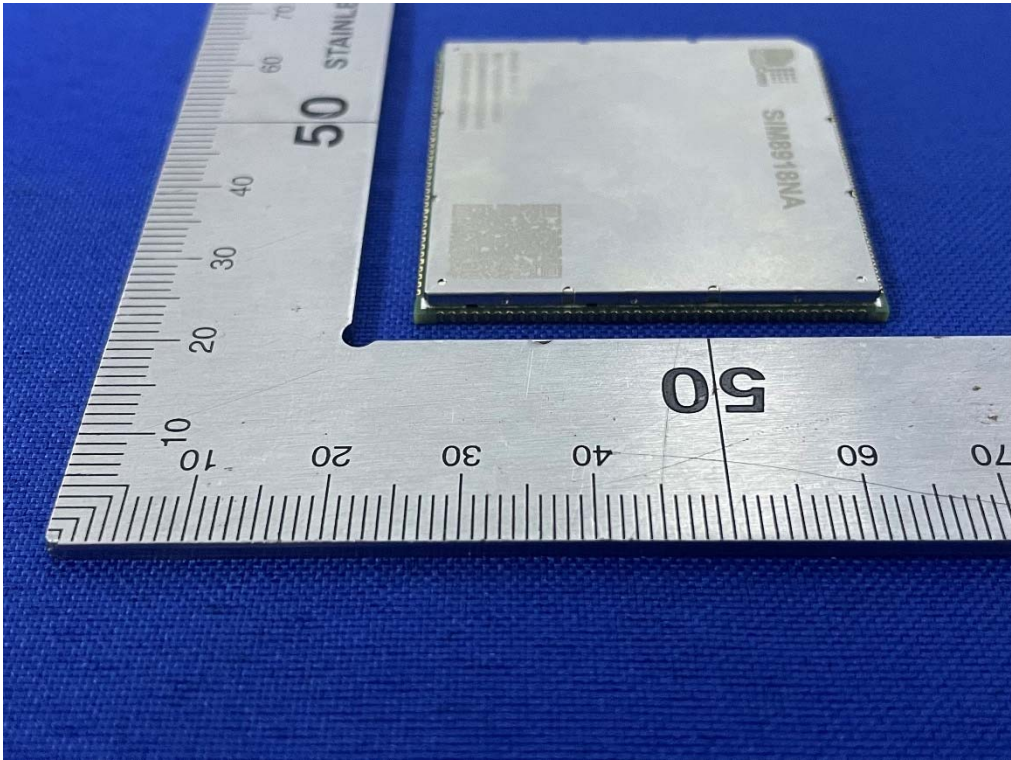
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Left of the sample



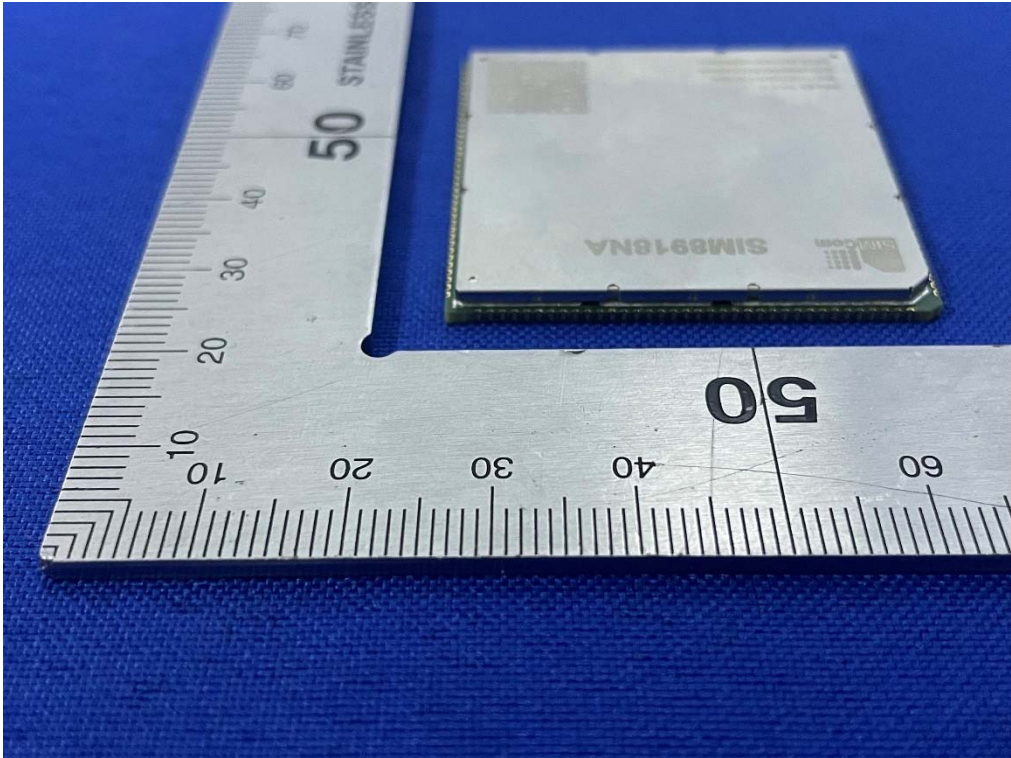
Right of the sample

# TEST REPORT

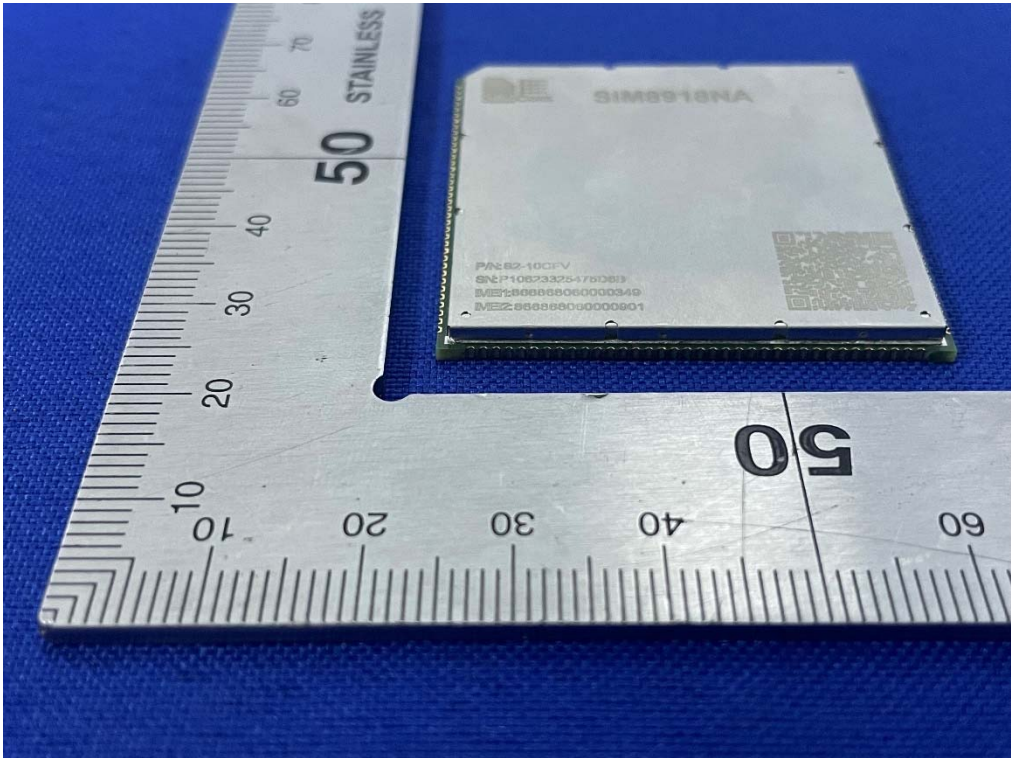
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Top of the sample



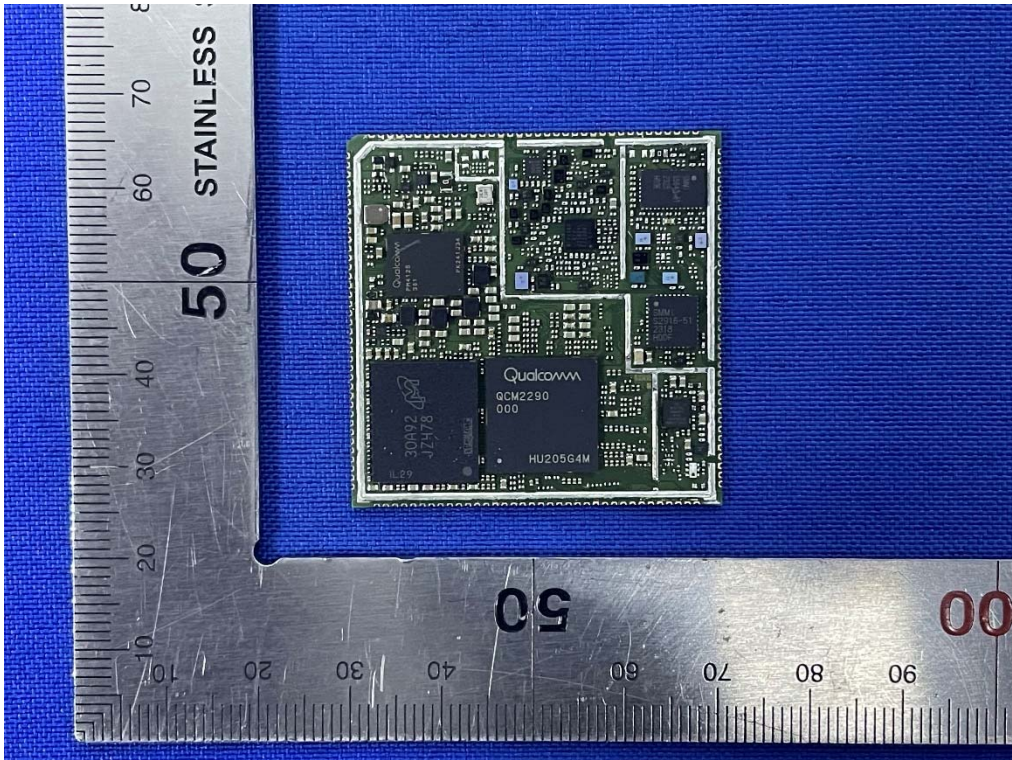
Bottom of the sample

# TEST REPORT

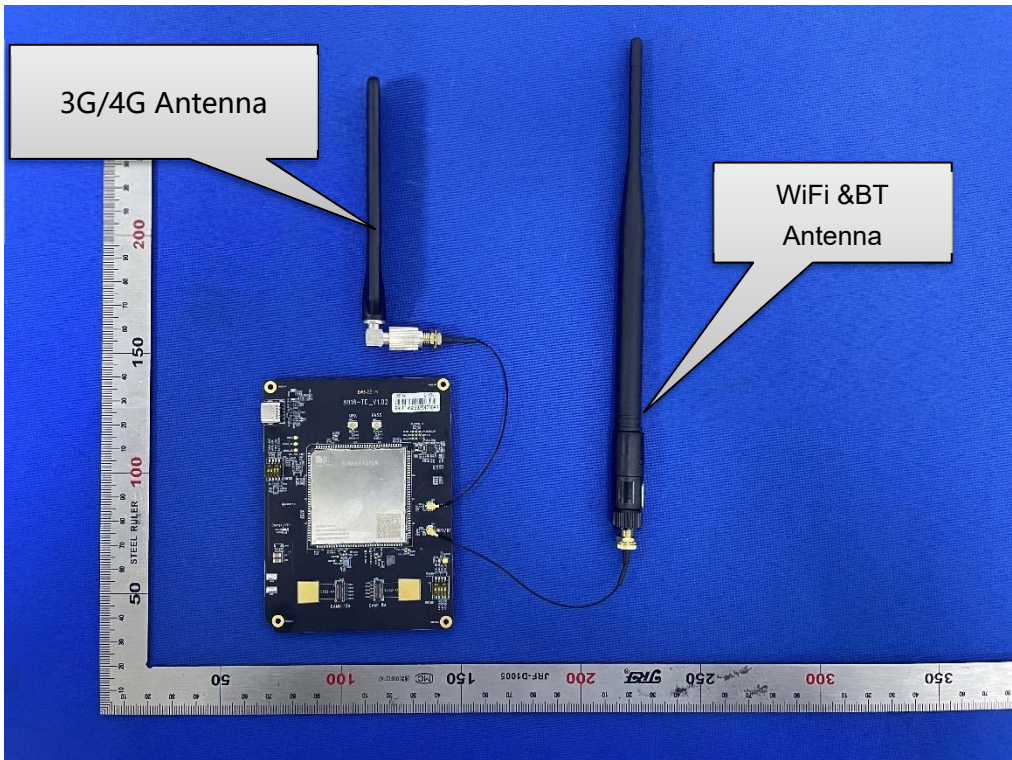
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Internal-1 of the sample



Antenna Photo

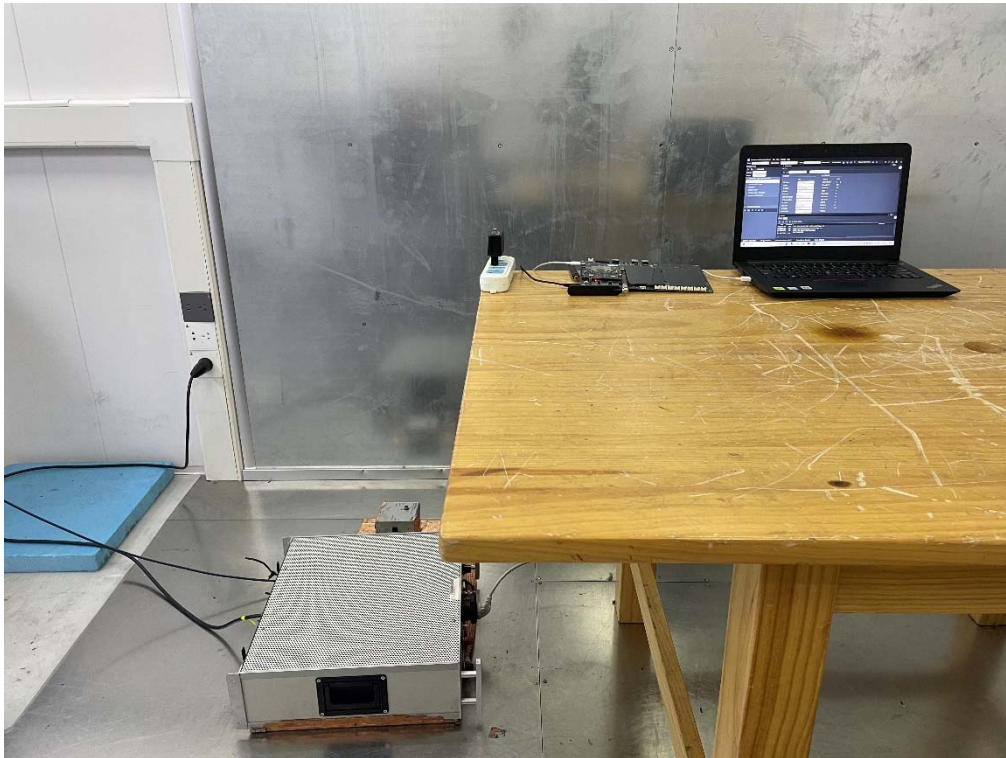
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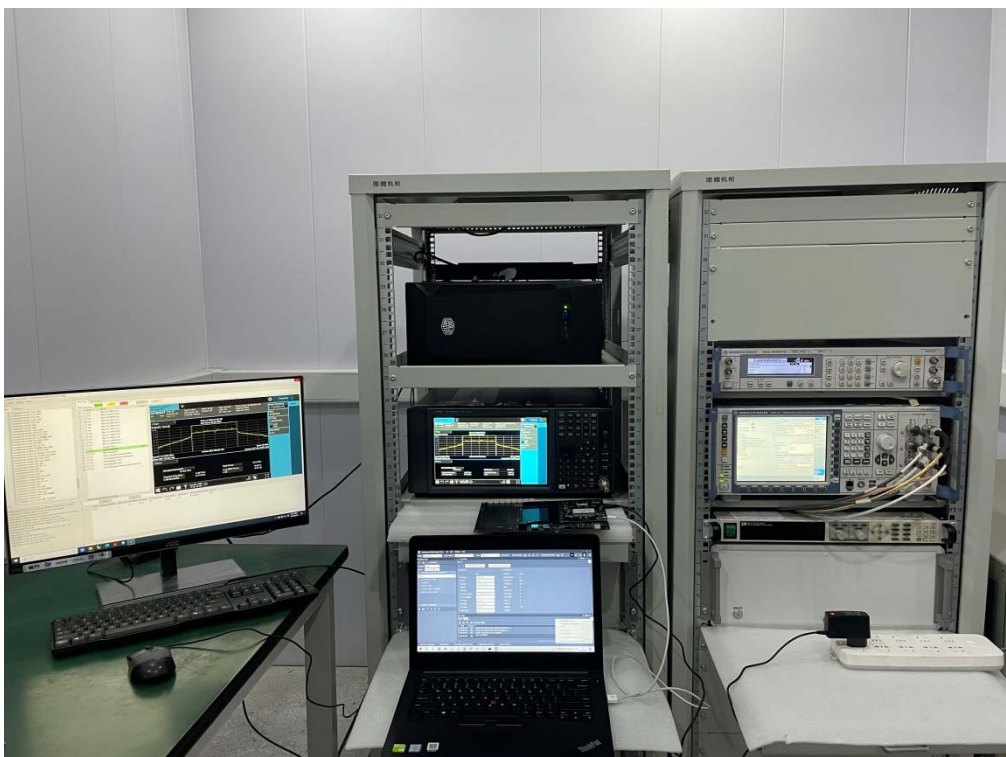
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## 5.2 Set-up for Conducted Emissions



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



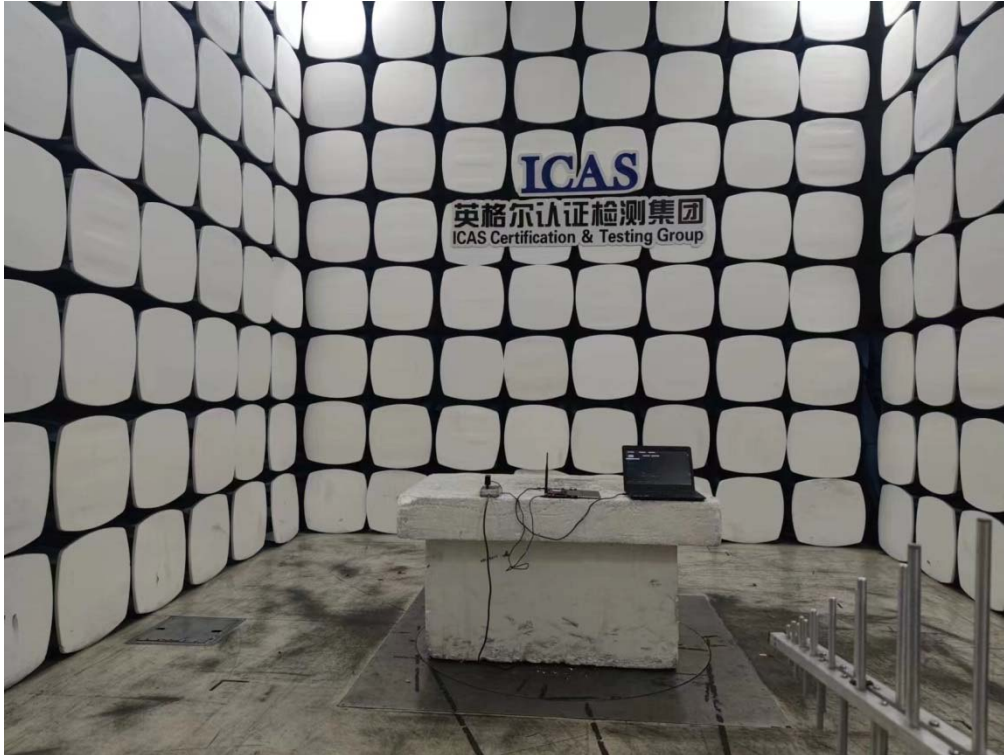
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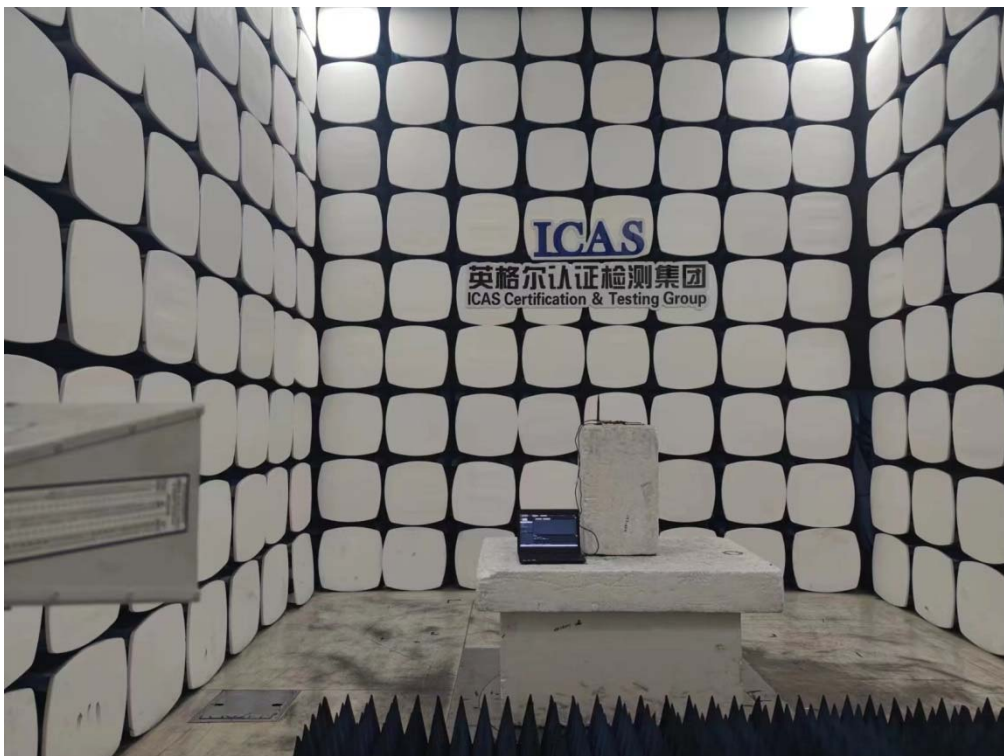
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## 5.4 Set-up for Spurious Emissions below 1GHz



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



\*\*\*End of the report\*\*\*