

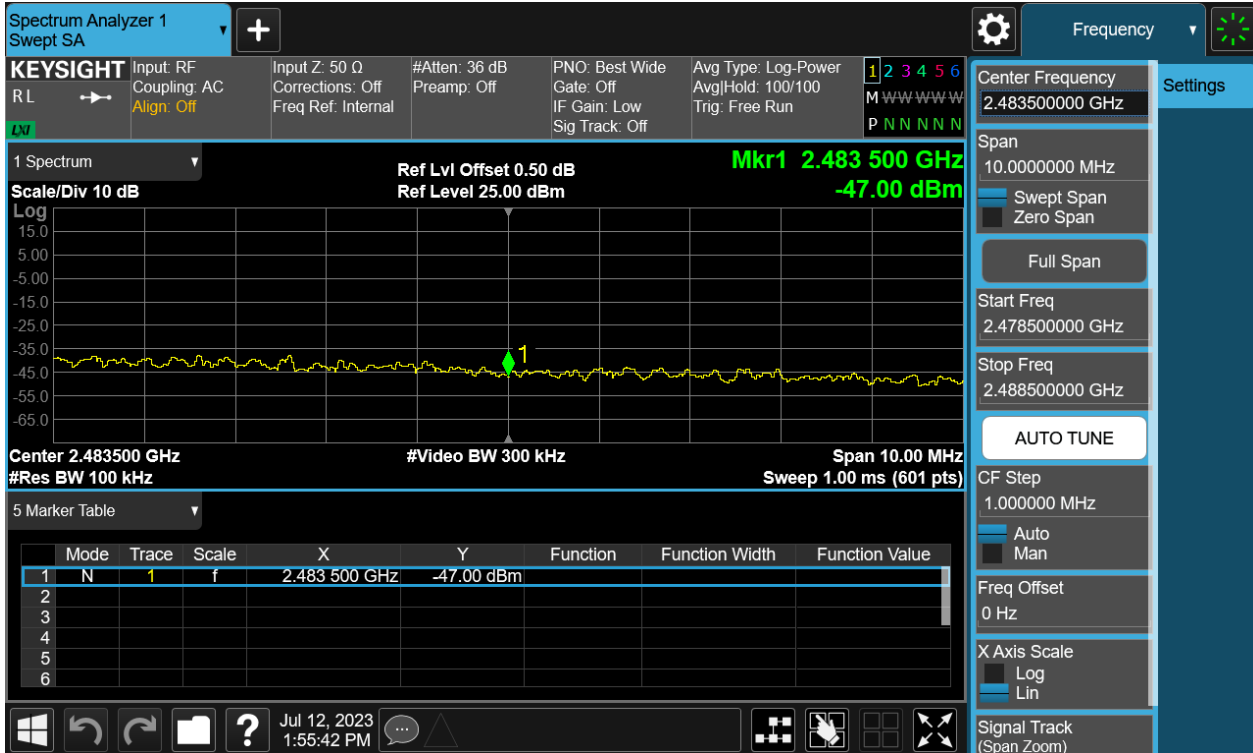
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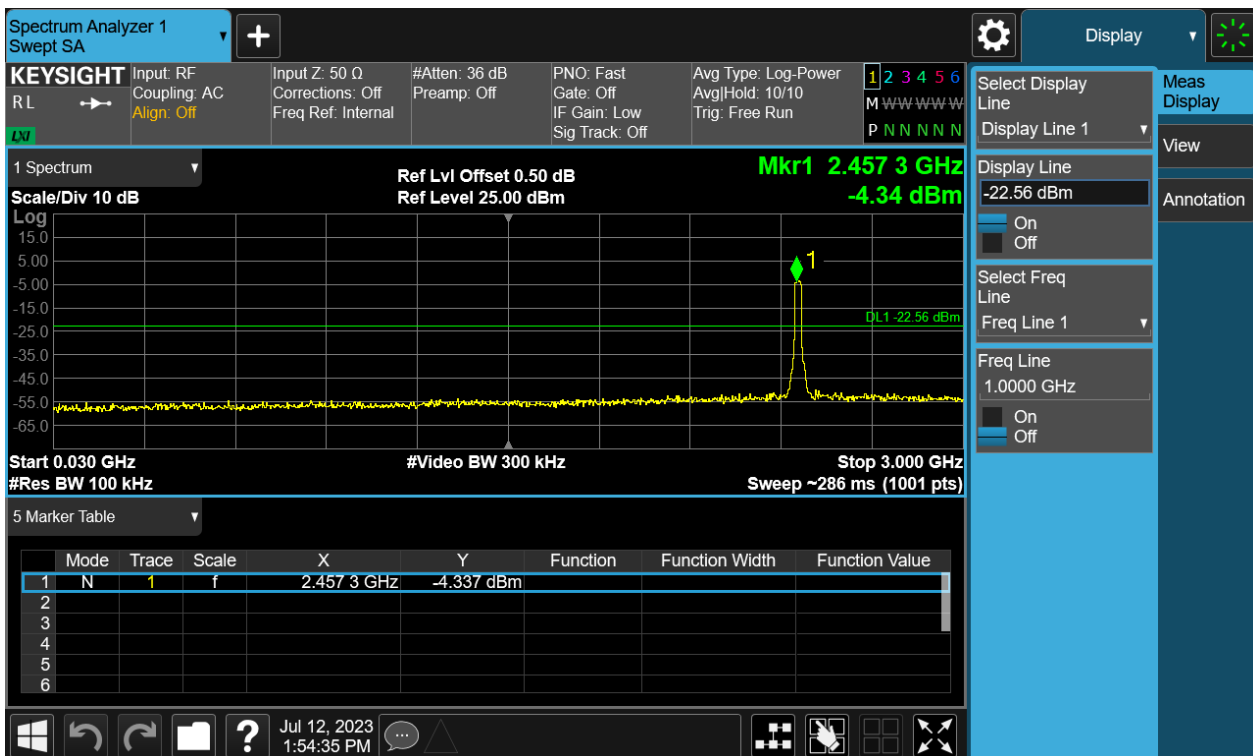
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Band Edge



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
Requirement : ANSI C63.10-2013, Clause 11.12
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 : 24°C
Relative humidity : 57%

Notes

Test plots please refer to the annex document "SHE23060039-04CE 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
Requirement : ANSI C63.10-2013, Clause 11.13
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 : 22.4°C
Relative humidity : 55%

Notes:

1. Test plots please refer to the annex document "SHE23060039-04CE 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)
Requirement : ANSI C63.10-2013, Clause 6.2
Kind of test site : Shielded room

Test setup

Input Voltage : DC 5.9V supply by AC adapter (which received AC 120V, 60Hz)
Operation Mode : A.1.a
Earthing : Disconnected to GND
Ambient temperature : 21°C
Relative humidity : 50%

For details refer to following test plot.

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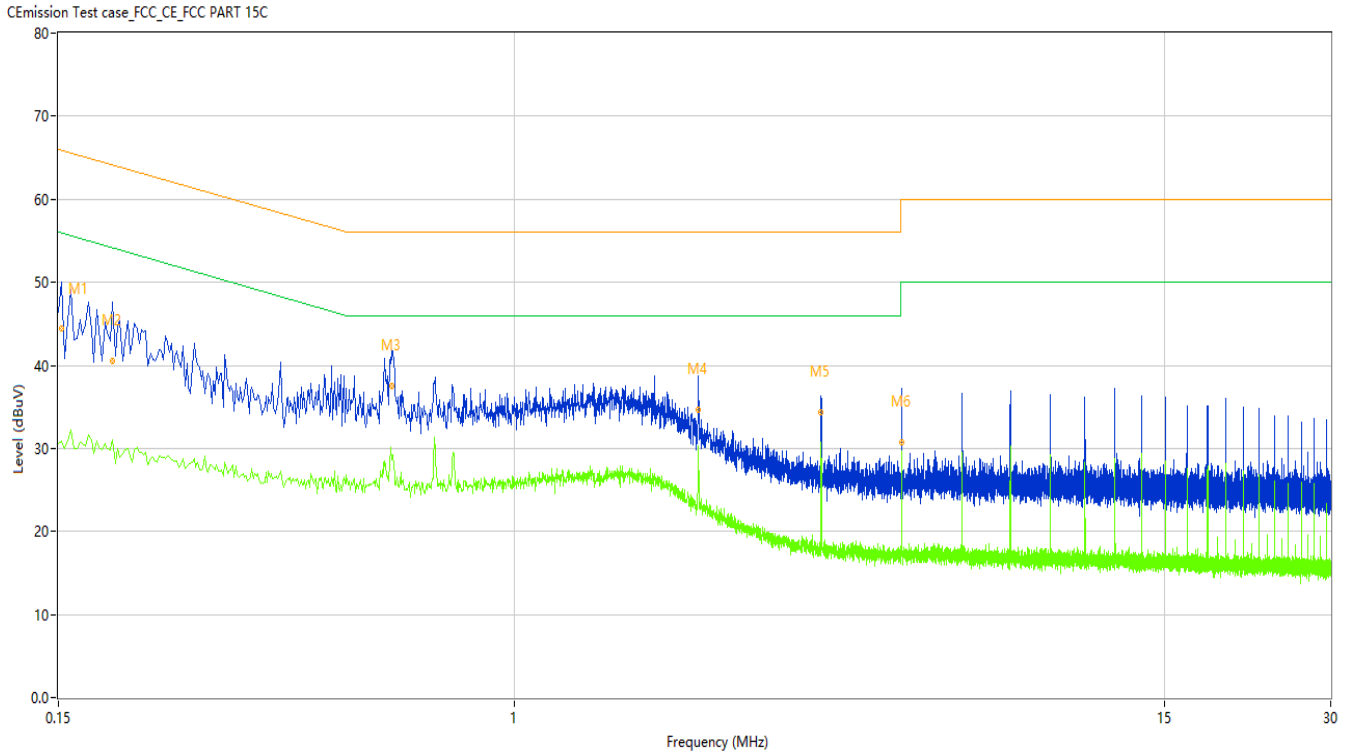
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Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.

Figure 28: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	50.74	9.92	65.89	15.15	Peak	L	Pass
1*	0.152	44.45	9.92	65.89	21.44	QP	L	Pass
1**	0.152	30.88	9.92	55.89	25.01	AV	L	Pass
2	0.188	46.82	9.94	64.12	17.30	Peak	L	Pass
2*	0.188	40.45	9.94	64.12	23.67	QP	L	Pass
2**	0.188	31.00	9.94	54.12	23.12	AV	L	Pass
3	0.600	42.61	9.97	56.00	13.39	Peak	L	Pass
3*	0.600	37.56	9.97	56.00	18.44	QP	L	Pass
3**	0.600	28.59	9.97	46.00	17.41	AV	L	Pass
4	2.156	37.53	9.85	56.00	18.47	Peak	L	Pass
4*	2.156	34.72	9.85	56.00	21.28	QP	L	Pass
4**	2.156	30.30	9.85	46.00	15.70	AV	L	Pass
5	3.594	37.01	9.82	56.00	18.99	Peak	L	Pass
5*	3.594	34.42	9.82	56.00	21.58	QP	L	Pass
5**	3.594	30.74	9.82	46.00	15.26	AV	L	Pass
6	5.028	34.95	9.82	60.00	25.05	Peak	L	Pass
6*	5.028	30.67	9.82	60.00	29.33	QP	L	Pass
6**	5.028	29.58	9.82	50.00	20.42	AV	L	Pass

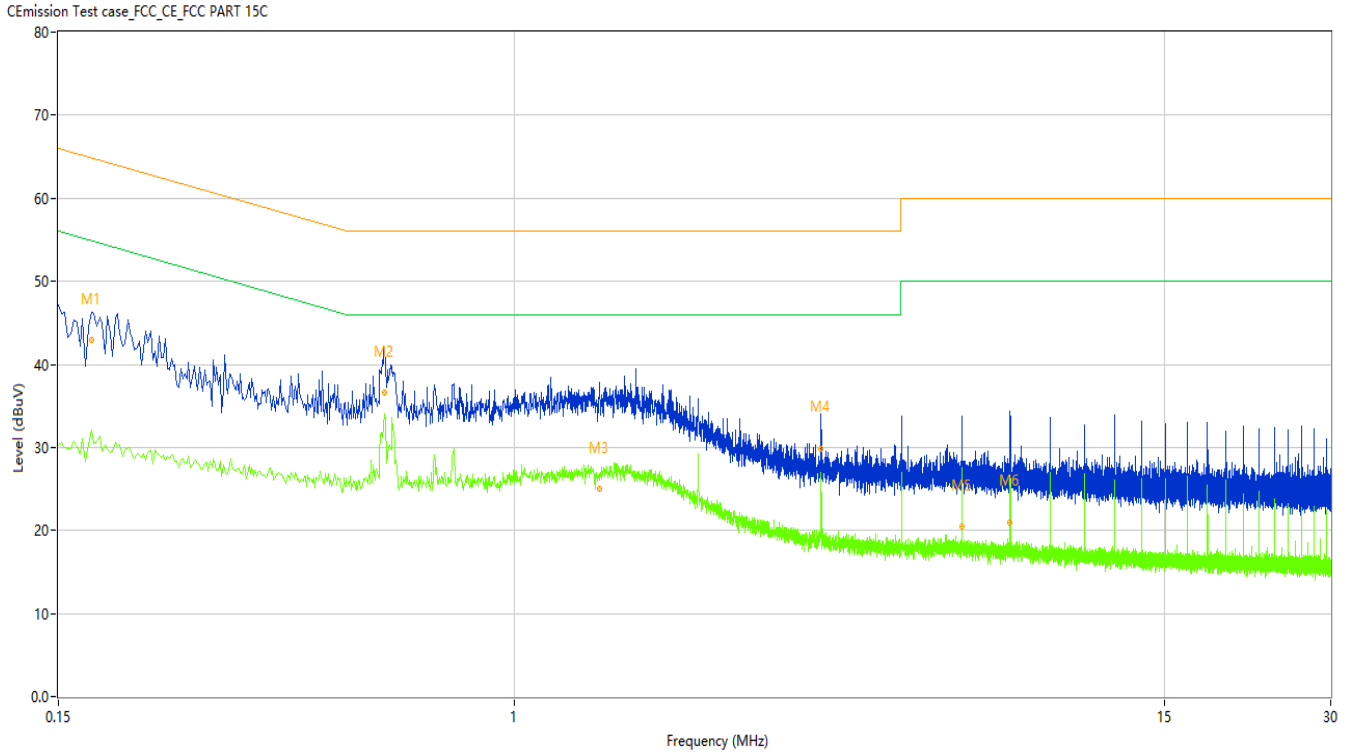
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Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	48.48	10.02	64.86	16.38	Peak	N	Pass
1*	0.172	42.93	10.02	64.86	21.93	QP	N	Pass
1**	0.172	32.09	10.02	54.86	22.77	AV	N	Pass
2	0.584	40.79	10.07	56.00	15.21	Peak	N	Pass
2*	0.584	36.65	10.07	56.00	19.35	QP	N	Pass
2**	0.584	34.04	10.07	46.00	11.96	AV	N	Pass
3	1.430	31.66	9.94	56.00	24.34	Peak	N	Pass
3*	1.430	25.07	9.94	56.00	30.93	QP	N	Pass
3**	1.430	26.09	9.94	46.00	19.91	AV	N	Pass
4	3.592	33.52	9.89	56.00	22.48	Peak	N	Pass
4*	3.592	29.86	9.89	56.00	26.14	QP	N	Pass
4**	3.592	26.18	9.89	46.00	19.82	AV	N	Pass
5	6.462	27.68	9.81	60.00	32.32	Peak	N	Pass
5*	6.462	20.54	9.81	60.00	39.46	QP	N	Pass
5**	6.462	26.69	9.81	50.00	23.31	AV	N	Pass
6	7.900	28.55	9.82	60.00	31.45	Peak	N	Pass
6*	7.900	20.90	9.82	60.00	39.10	QP	N	Pass
6**	7.900	26.64	9.82	50.00	23.36	AV	N	Pass

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5 Appendixes

5.1 Photographs of the Sample



All of the sample



Front of the sample

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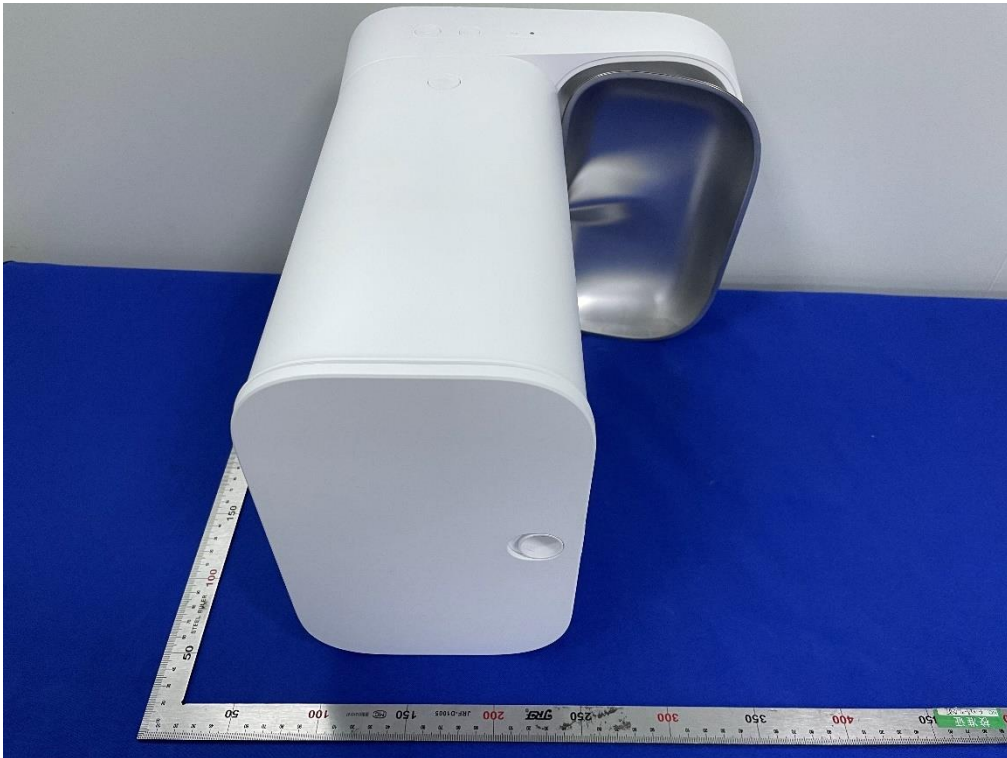
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Rear of the sample



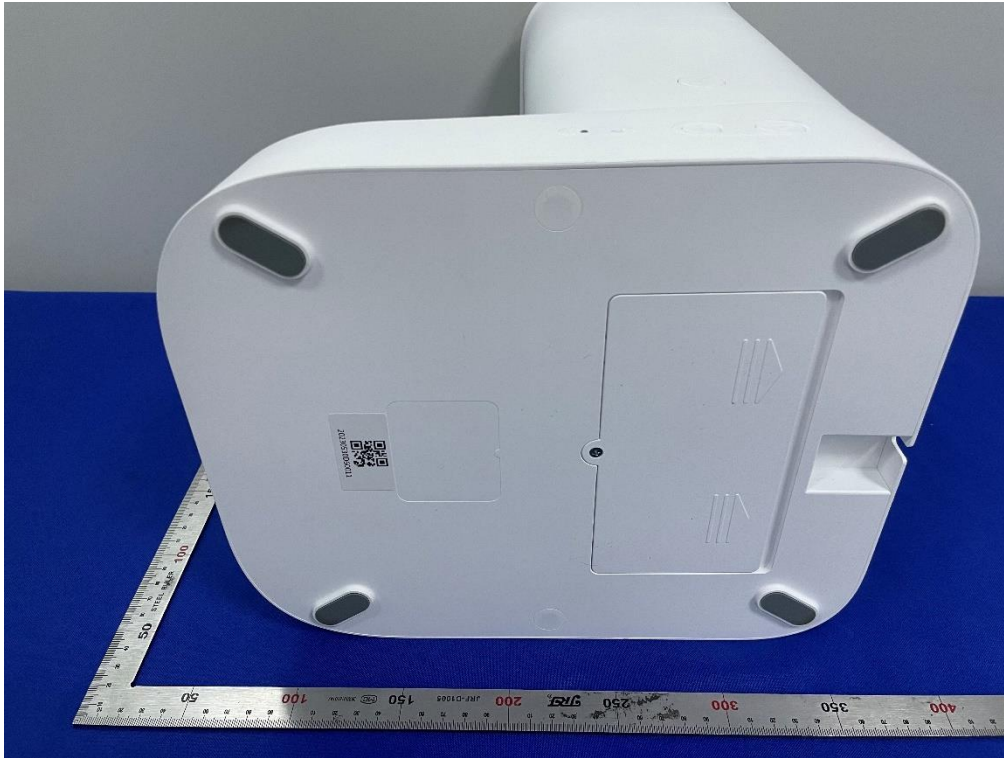
Top of the sample

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Bottom of the sample



Left of the sample

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Right of the sample



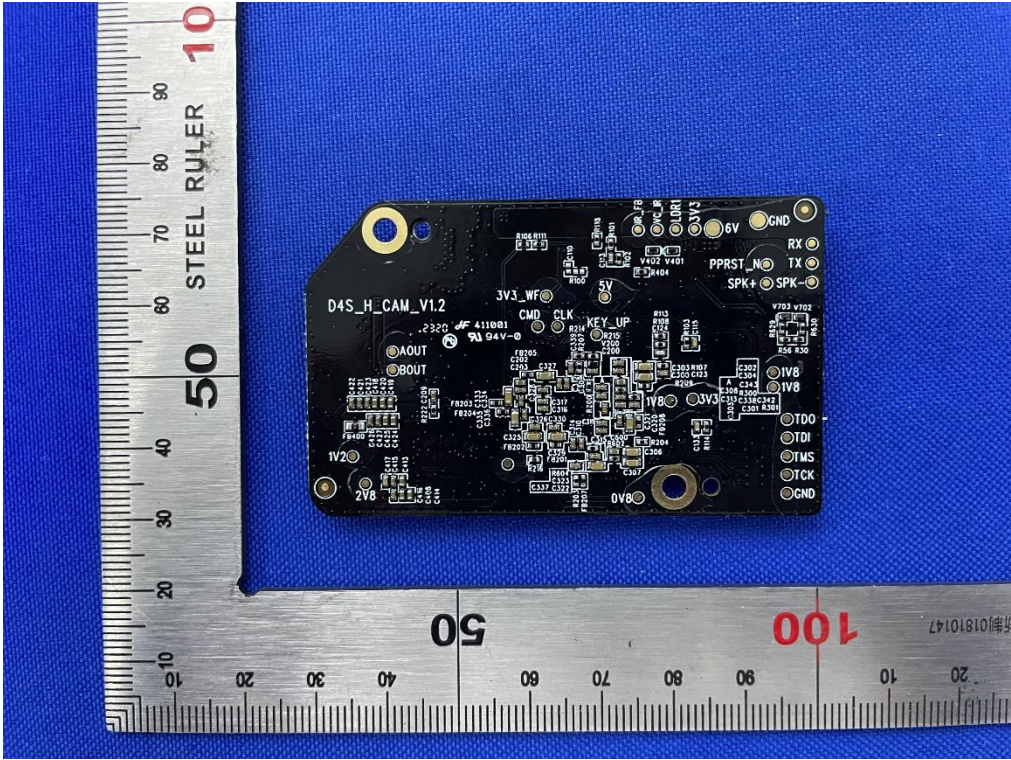
Open of the sample

TEST REPORT

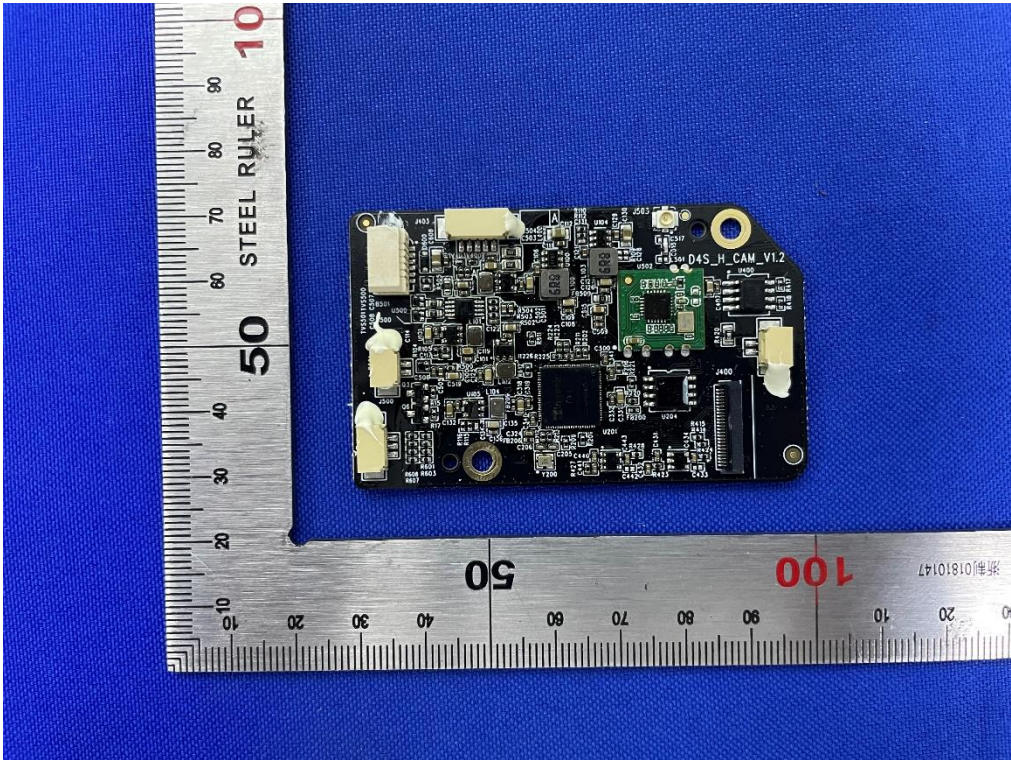
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Internal-1 of the sample



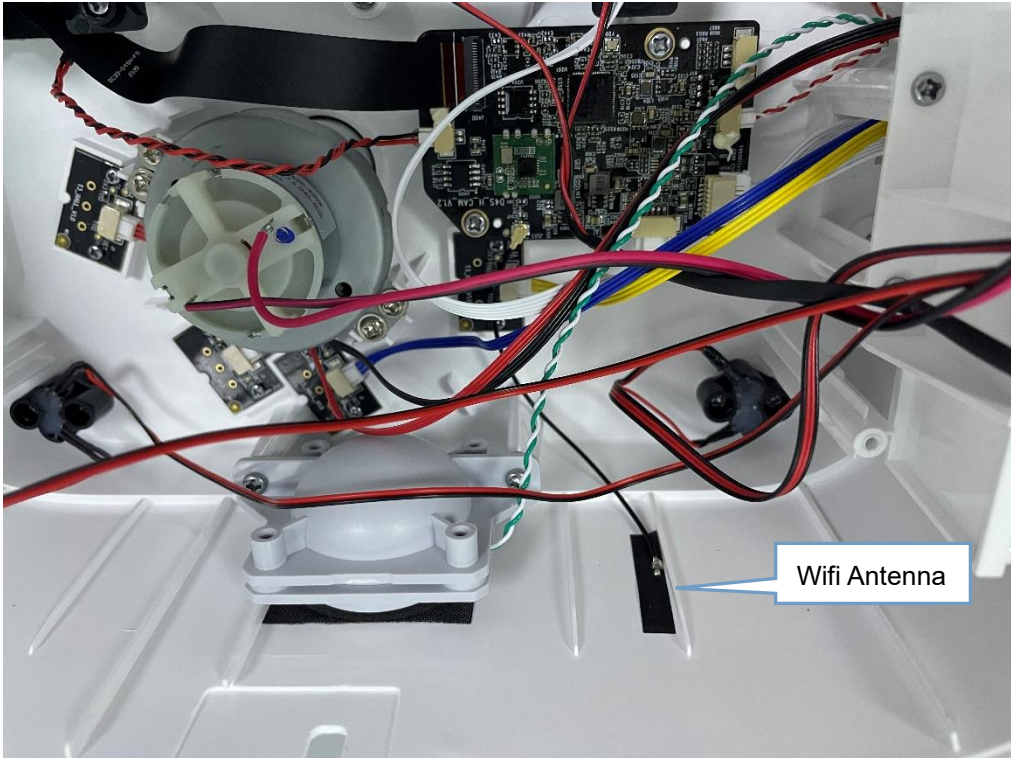
Internal-2 of the sample

TEST REPORT

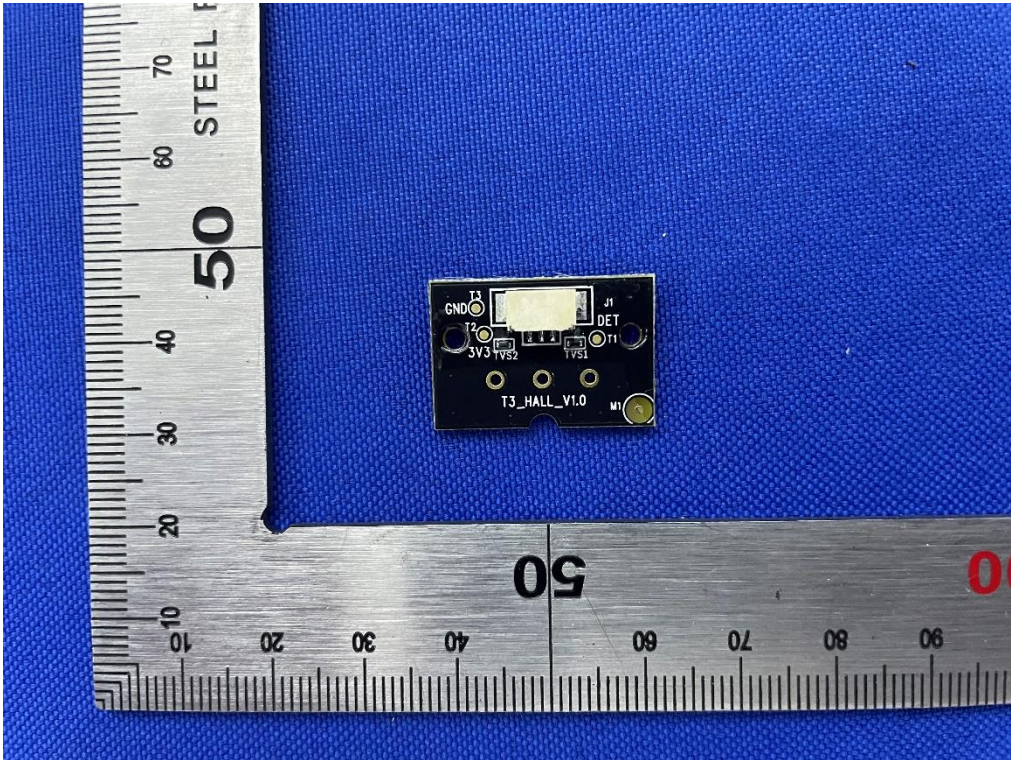
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WIFI Antenna position



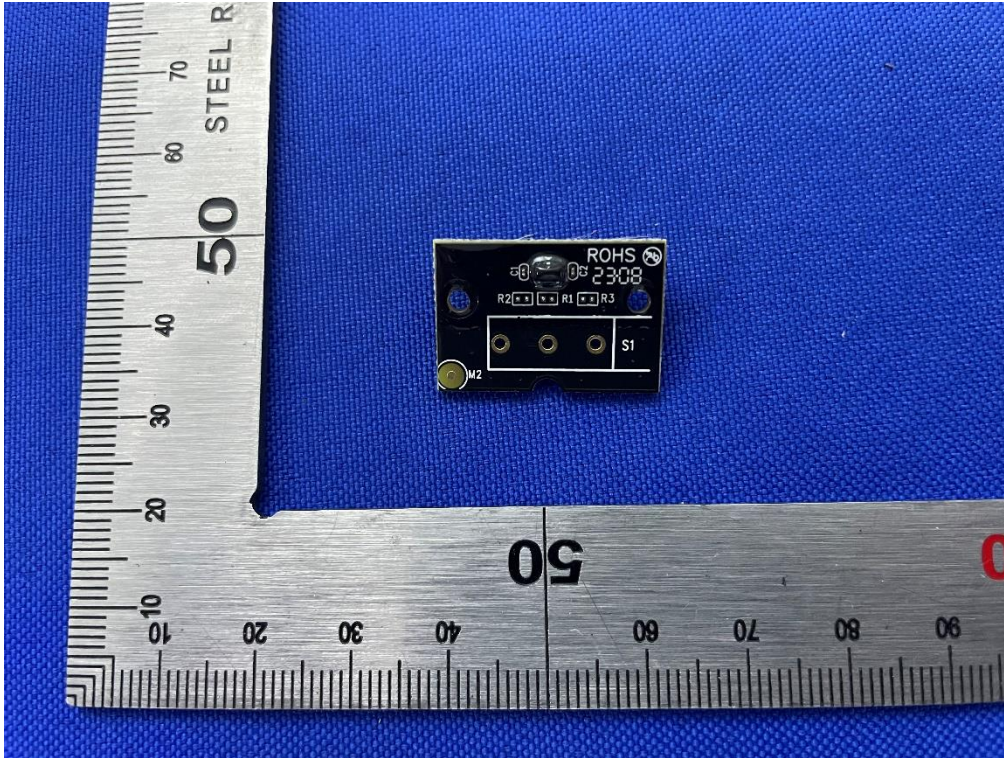
Internal-3 of the sample

TEST REPORT

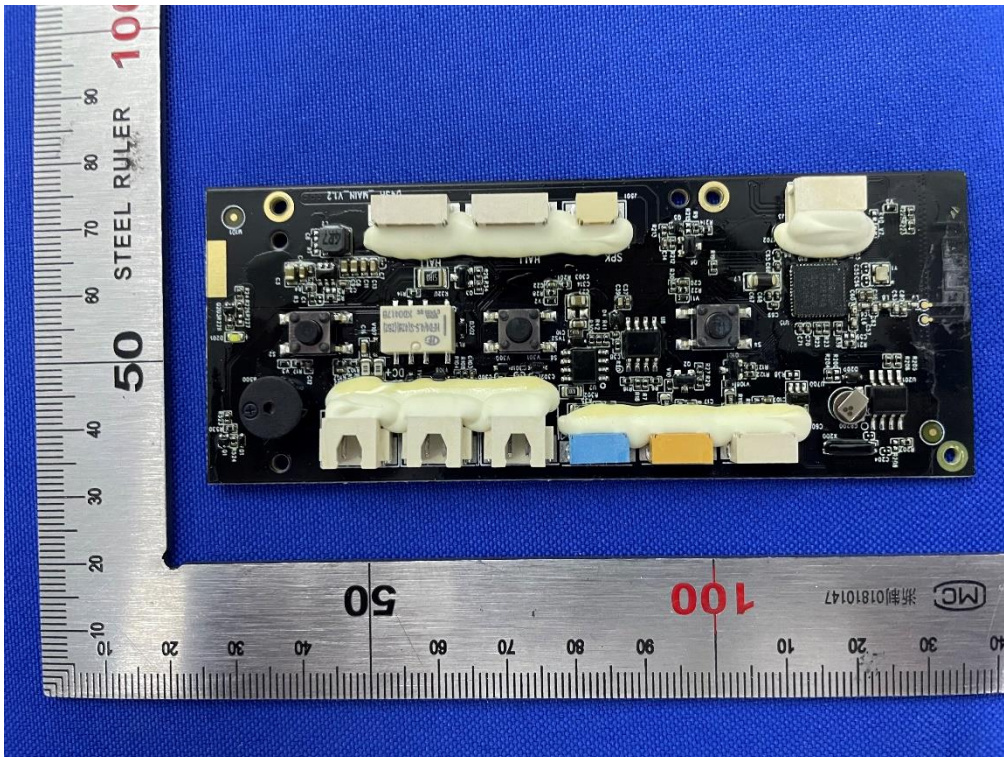
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Internal-4 of the sample



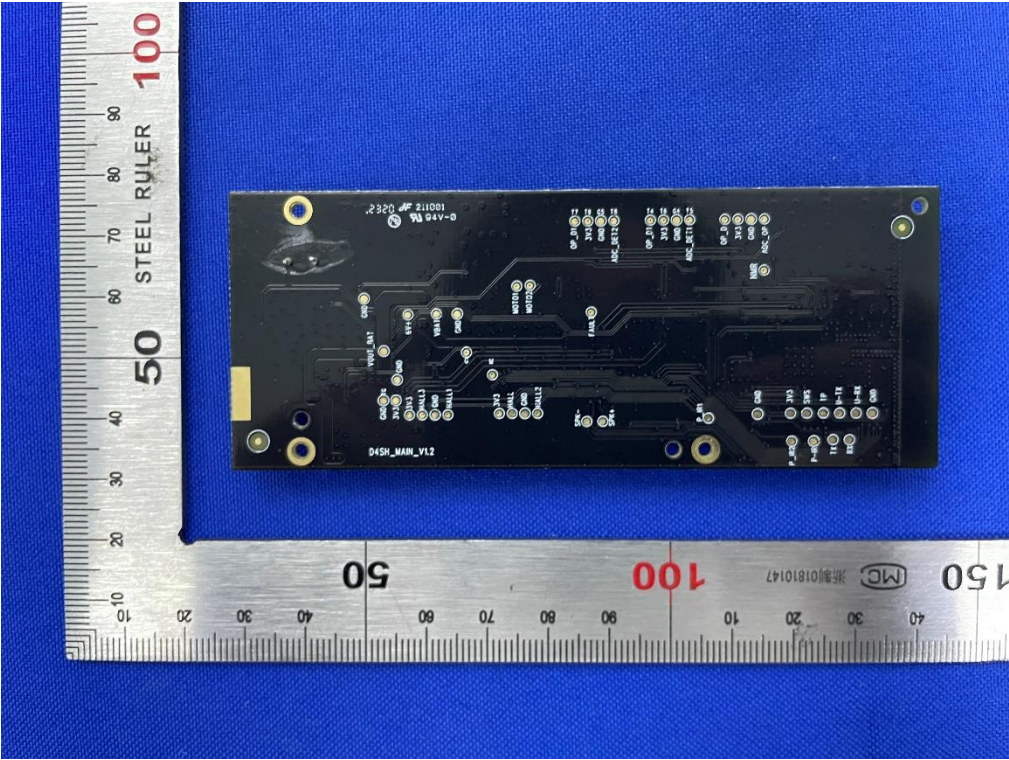
Internal-5 of the sample

TEST REPORT

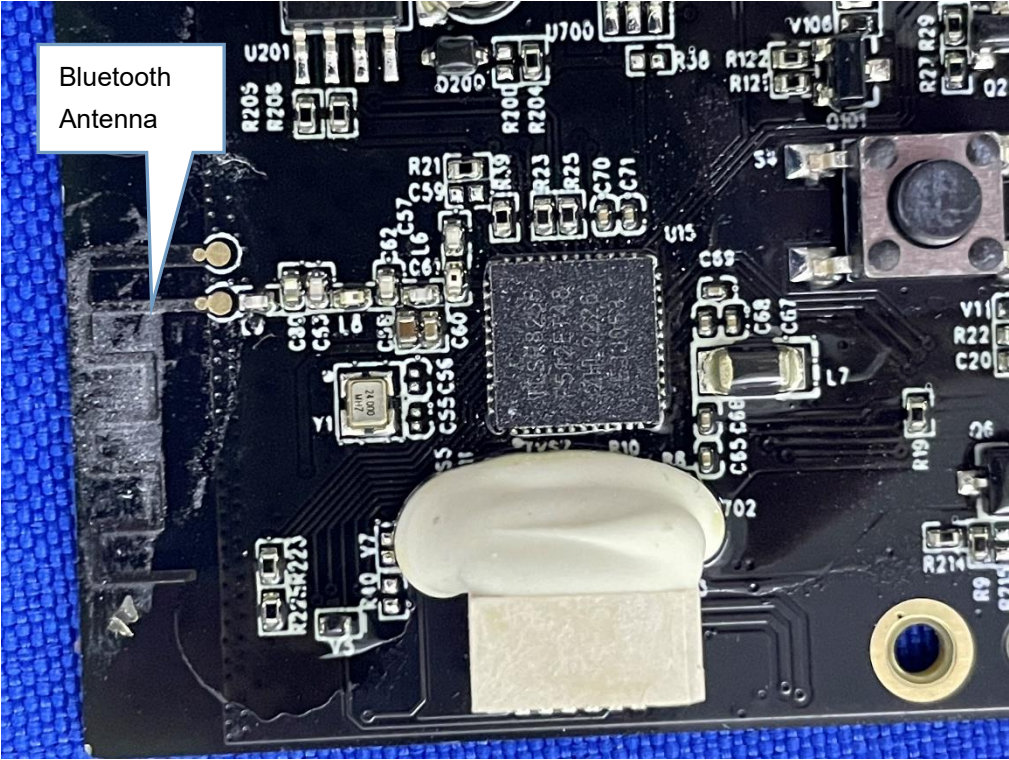
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Internal-6 of the sample



Bluetooth Antenna position

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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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5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



End of the report