

TEST 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	: 21°C
Relative humidity	: 50%

Notes:

1. Test plots please refer to the annex document “SHE24030088-01CE 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	: which received AC 120V, 60Hz Power
Operation Mode	: A.1.a
Earthing	: Disconnected to GND
Ambient temperature	: 22.2°C
Relative humidity	: 50%

For details refer to following test plot.

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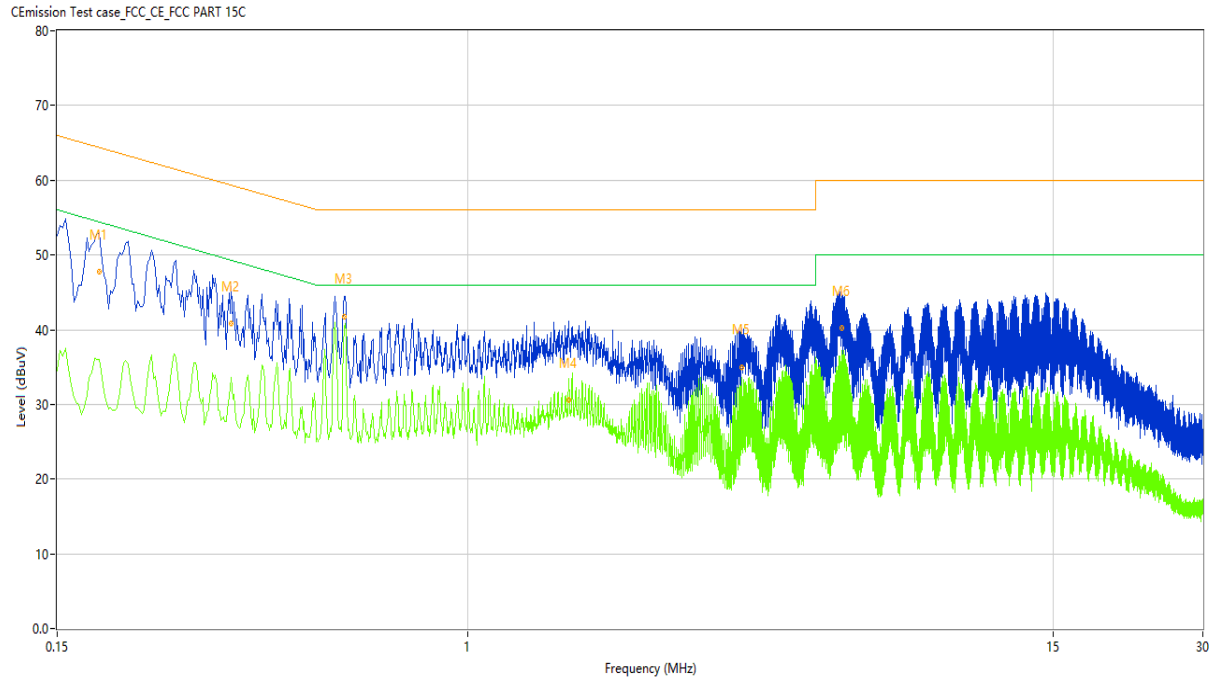
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Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.

USB Input:

Figure 37: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.182	50.23	9.93	64.39	14.16	Peak	L	Pass
1*	0.182	47.79	9.93	64.39	16.60	QP	L	Pass
1**	0.182	35.95	9.93	54.39	18.44	AV	L	Pass
2	0.336	44.41	9.97	59.30	14.89	Peak	L	Pass
2*	0.336	40.85	9.97	59.30	18.45	QP	L	Pass
2**	0.336	33.59	9.97	49.30	15.71	AV	L	Pass
3	0.566	43.79	9.96	56.00	12.21	Peak	L	Pass
3*	0.566	41.74	9.96	56.00	14.26	QP	L	Pass
3**	0.566	40.22	9.96	46.00	5.78	AV	L	Pass
4	1.598	36.81	9.85	56.00	19.19	Peak	L	Pass
4*	1.598	30.59	9.85	56.00	25.41	QP	L	Pass
4**	1.598	33.51	9.85	46.00	12.49	AV	L	Pass
5	3.558	39.73	9.82	56.00	16.27	Peak	L	Pass
5*	3.558	34.94	9.82	56.00	21.06	QP	L	Pass
5**	3.558	33.62	9.82	46.00	12.38	AV	L	Pass
6	5.646	44.17	9.81	60.00	15.83	Peak	L	Pass
6*	5.646	40.17	9.81	60.00	19.83	QP	L	Pass
6**	5.646	37.21	9.81	50.00	12.79	AV	L	Pass

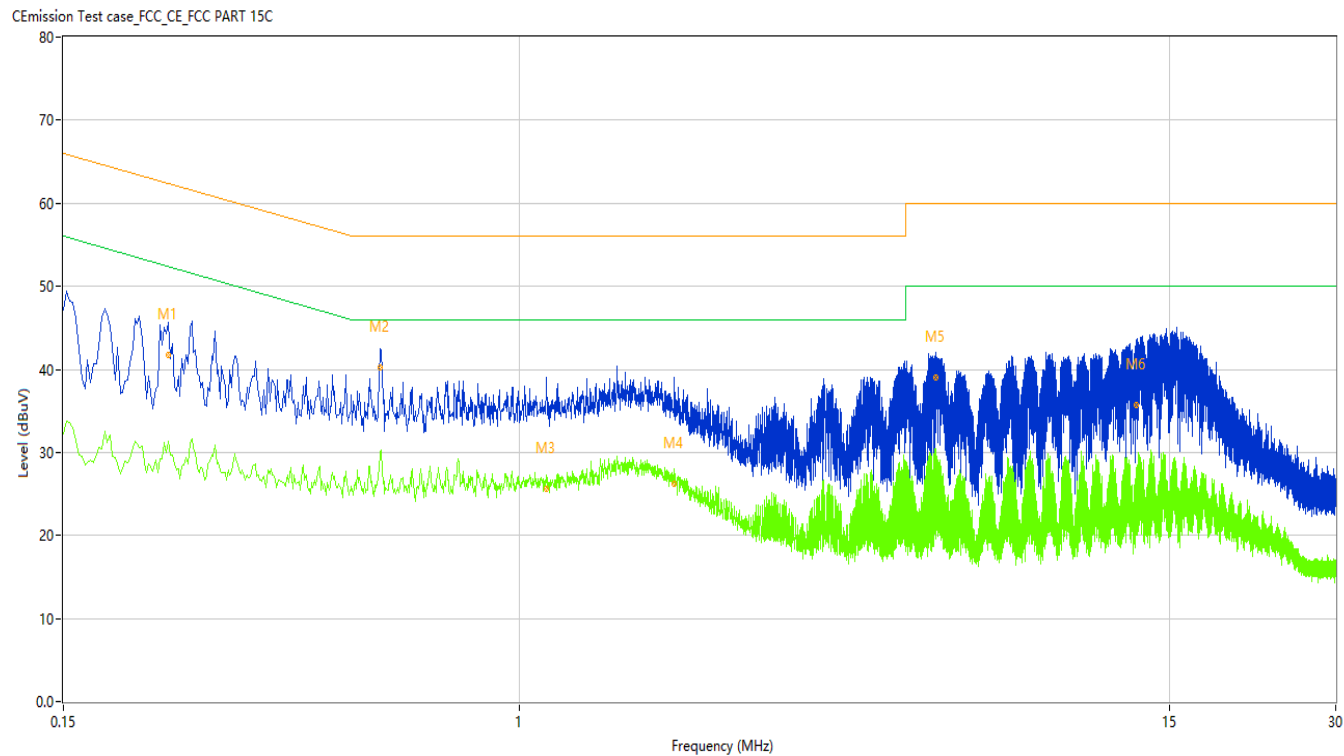
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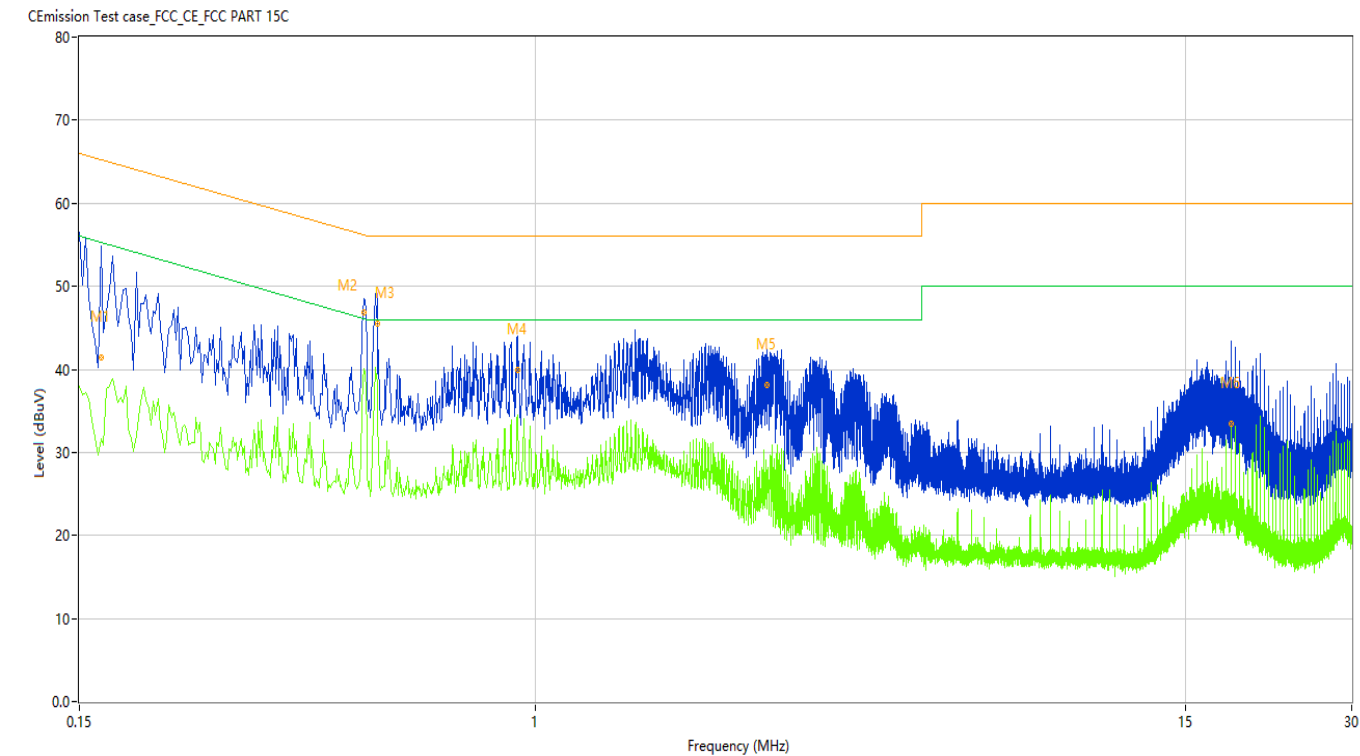
Figure 38: Conducted Emission on AC Mains, N Phase



POE Input:

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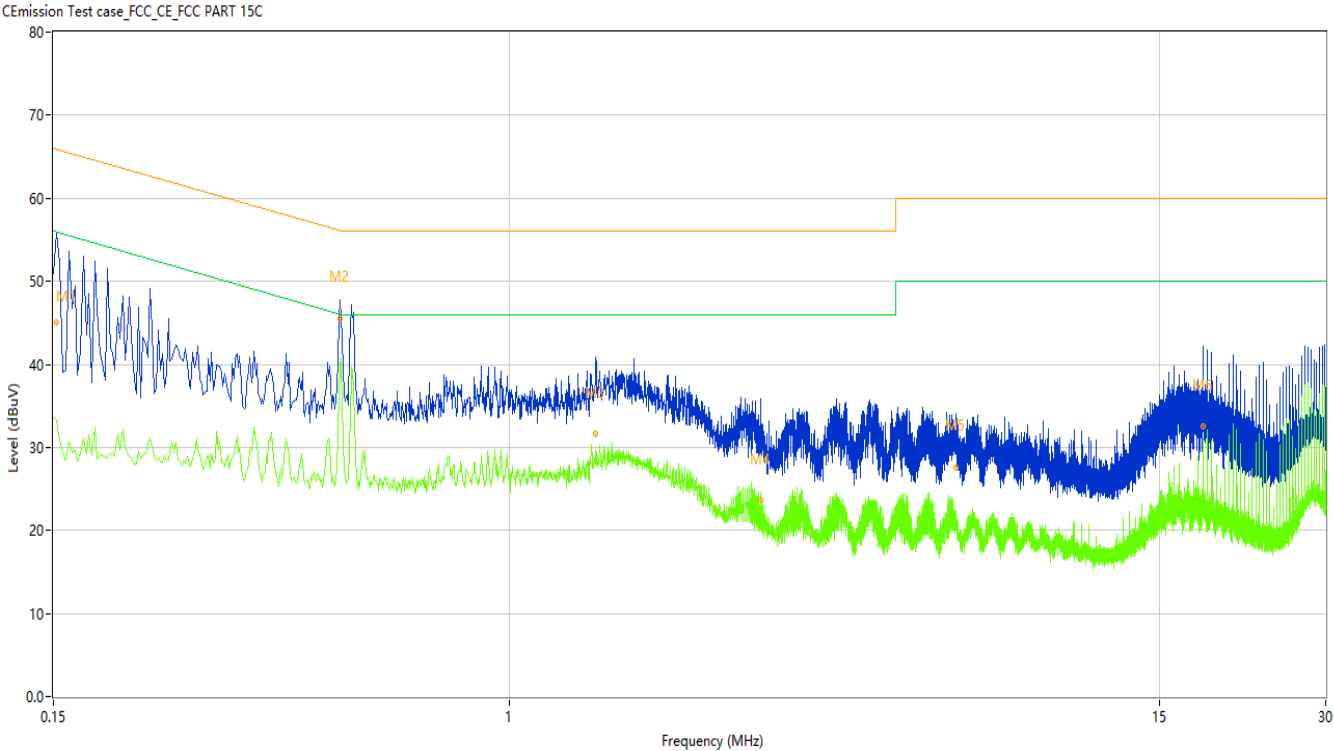
Figure 39: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.164	56.08	9.94	65.26	9.18	Peak	L	Pass
1*	0.164	41.47	9.94	65.26	23.79	QP	L	Pass
1**	0.164	31.66	9.94	55.26	23.60	AV	L	Pass
2	0.490	48.96	9.96	56.17	7.21	Peak	L	Pass
2*	0.490	46.81	9.96	56.17	9.36	QP	L	Pass
2**	0.490	40.04	9.96	46.17	6.13	AV	L	Pass
3	0.518	48.54	9.96	56.00	7.46	Peak	L	Pass
3*	0.518	45.48	9.96	56.00	10.52	QP	L	Pass
3**	0.518	38.69	9.96	46.00	7.31	AV	L	Pass
4	0.932	43.25	9.94	56.00	12.75	Peak	L	Pass
4*	0.932	39.91	9.94	56.00	16.09	QP	L	Pass
4**	0.932	34.51	9.94	46.00	11.49	AV	L	Pass
5	2.630	41.39	9.84	56.00	14.61	Peak	L	Pass
5*	2.630	38.10	9.84	56.00	17.90	QP	L	Pass
5**	2.630	27.80	9.84	46.00	18.20	AV	L	Pass
6	18.136	40.90	9.42	60.00	19.10	Peak	L	Pass
6*	18.136	33.46	9.42	60.00	26.54	QP	L	Pass
6**	18.136	33.14	9.42	50.00	16.86	AV	L	Pass

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Figure 40: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	58.99	10.02	65.89	6.90	Peak	N	Pass
1*	0.152	45.08	10.02	65.89	20.81	QP	N	Pass
1**	0.152	33.23	10.02	55.89	22.66	AV	N	Pass
2	0.494	48.06	10.07	56.10	8.04	Peak	N	Pass
2*	0.494	45.45	10.07	56.10	10.65	QP	N	Pass
2**	0.494	39.82	10.07	46.10	6.28	AV	N	Pass
3	1.436	36.69	9.94	56.00	19.31	Peak	N	Pass
3*	1.436	31.63	9.94	56.00	24.37	QP	N	Pass
3**	1.436	29.62	9.94	46.00	16.38	AV	N	Pass
4	2.850	31.23	9.91	56.00	24.77	Peak	N	Pass
4*	2.850	23.62	9.91	56.00	32.38	QP	N	Pass
4**	2.850	24.56	9.91	46.00	21.44	AV	N	Pass
5	6.430	33.52	9.81	60.00	26.48	Peak	N	Pass
5*	6.430	27.62	9.81	60.00	32.38	QP	N	Pass
5**	6.430	21.06	9.81	50.00	28.94	AV	N	Pass
6	17.994	36.79	9.51	60.00	23.21	Peak	N	Pass
6*	17.994	32.57	9.51	60.00	27.43	QP	N	Pass
6**	17.994	29.90	9.51	50.00	20.10	AV	N	Pass

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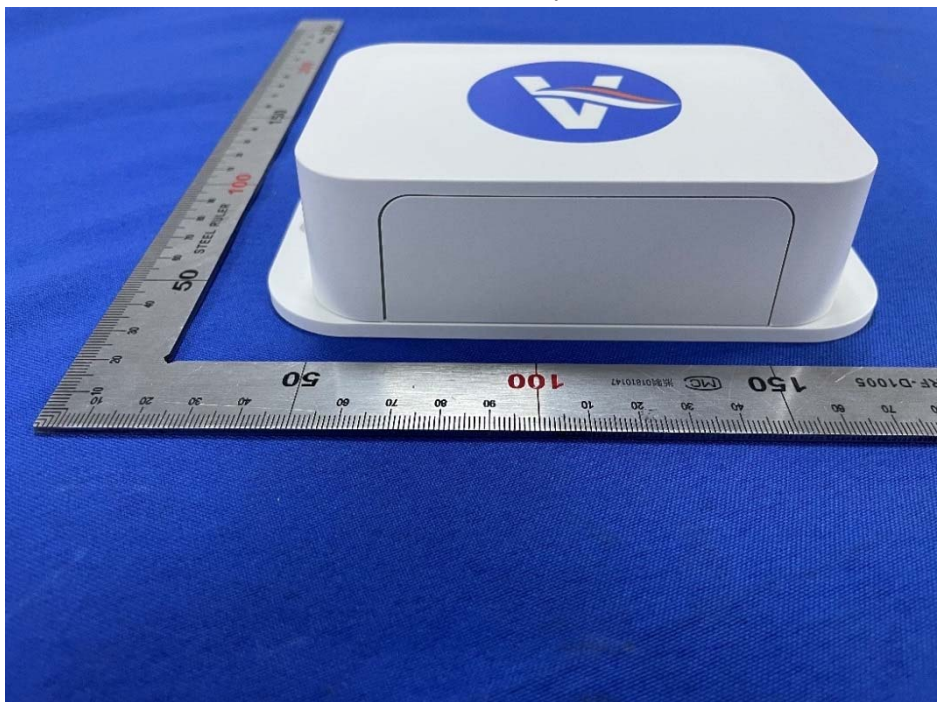
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5 Appendixes

5.1 Photographs of the Sample



Front of the sample



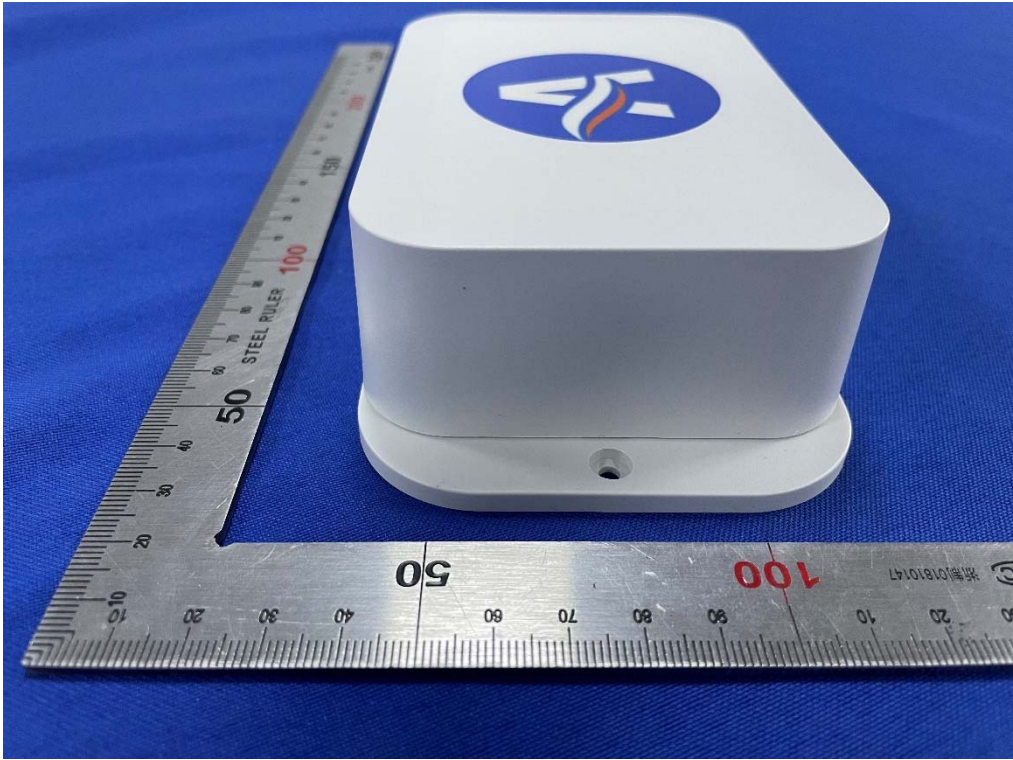
Rear of the sample

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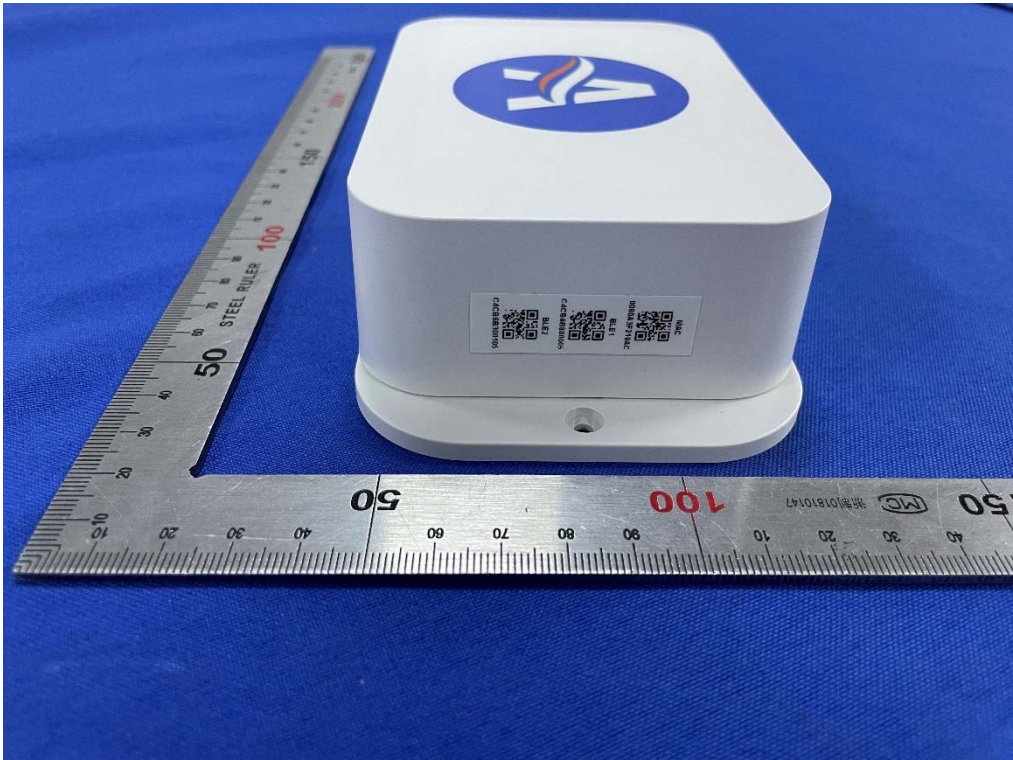
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Left of the sample



Right of the sample

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Top of the sample



Bottom of the sample

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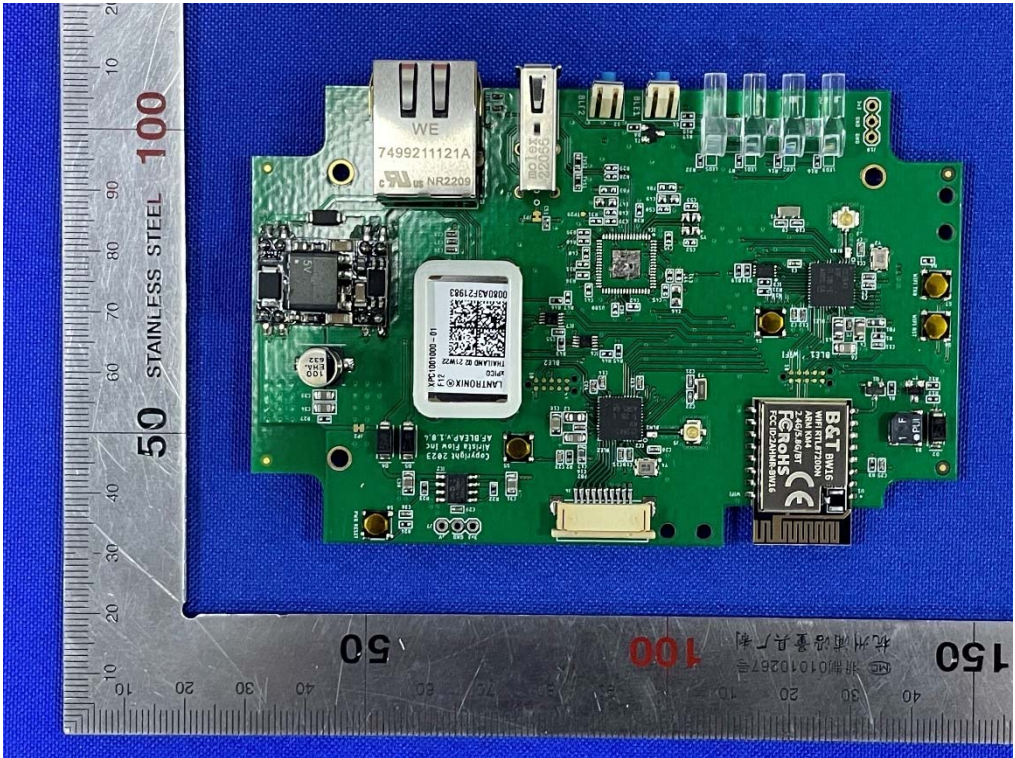
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Open of the sample



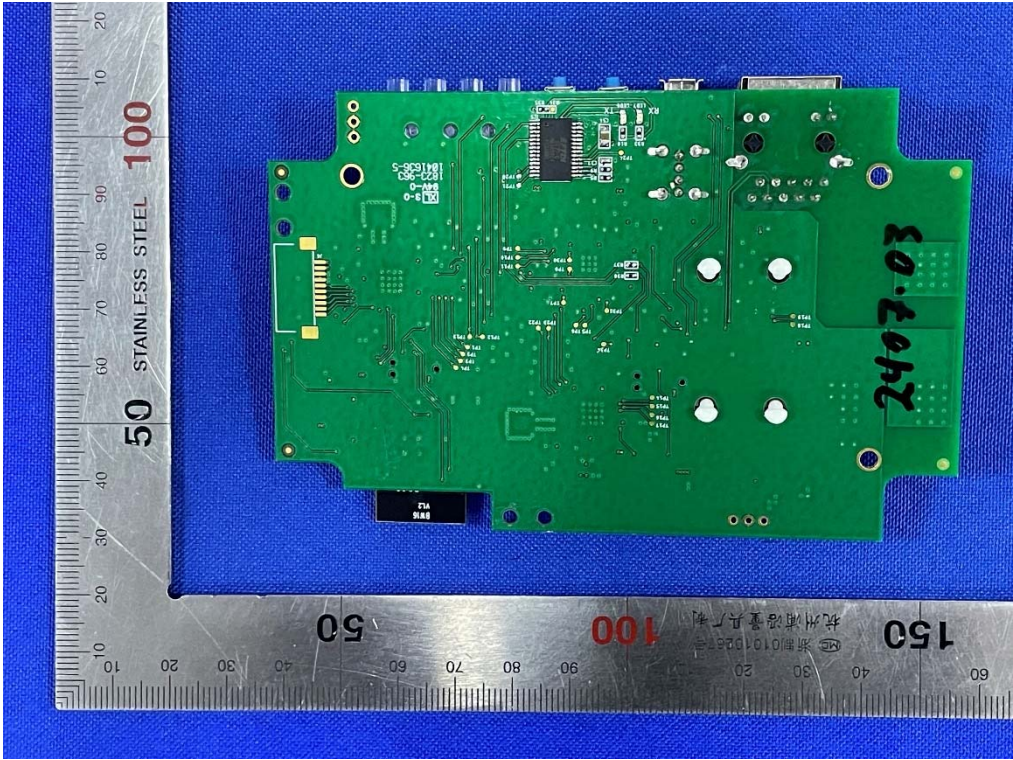
Internal-1 of the sample

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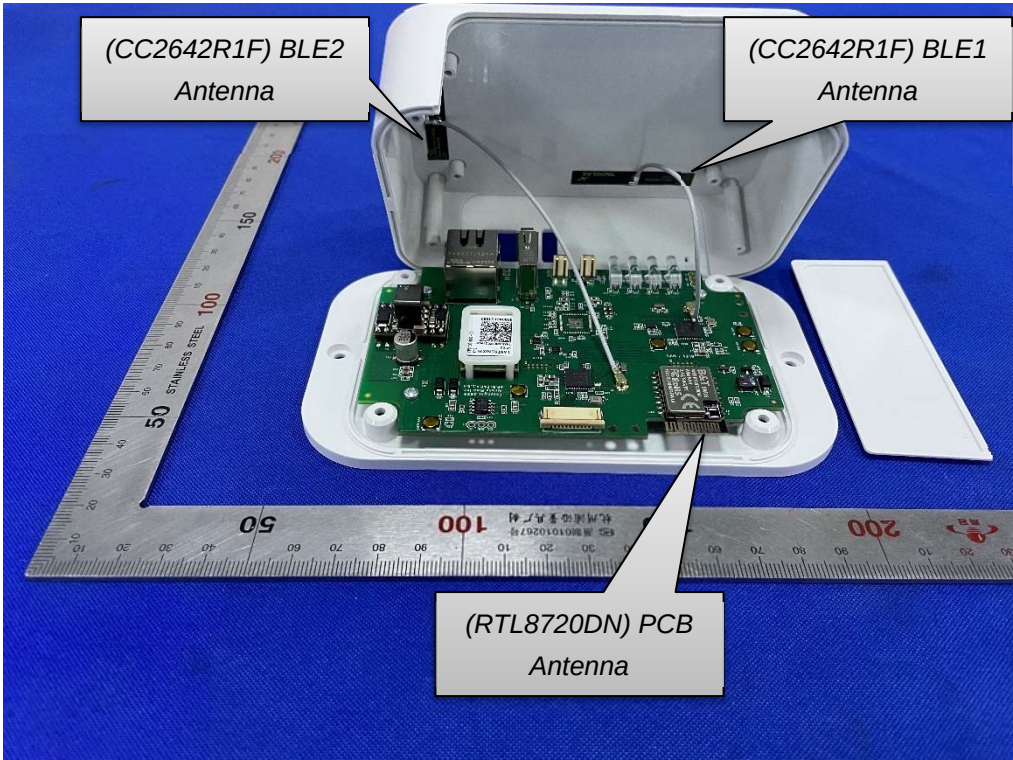
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Internal-2 of the sample



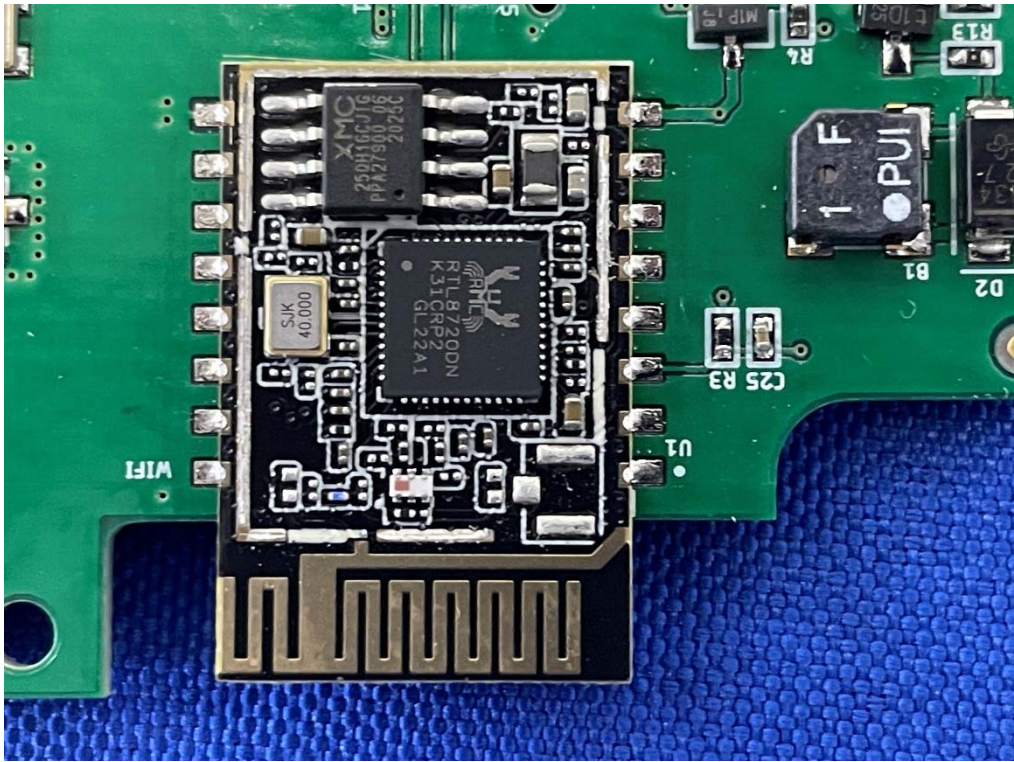
Antenna Position

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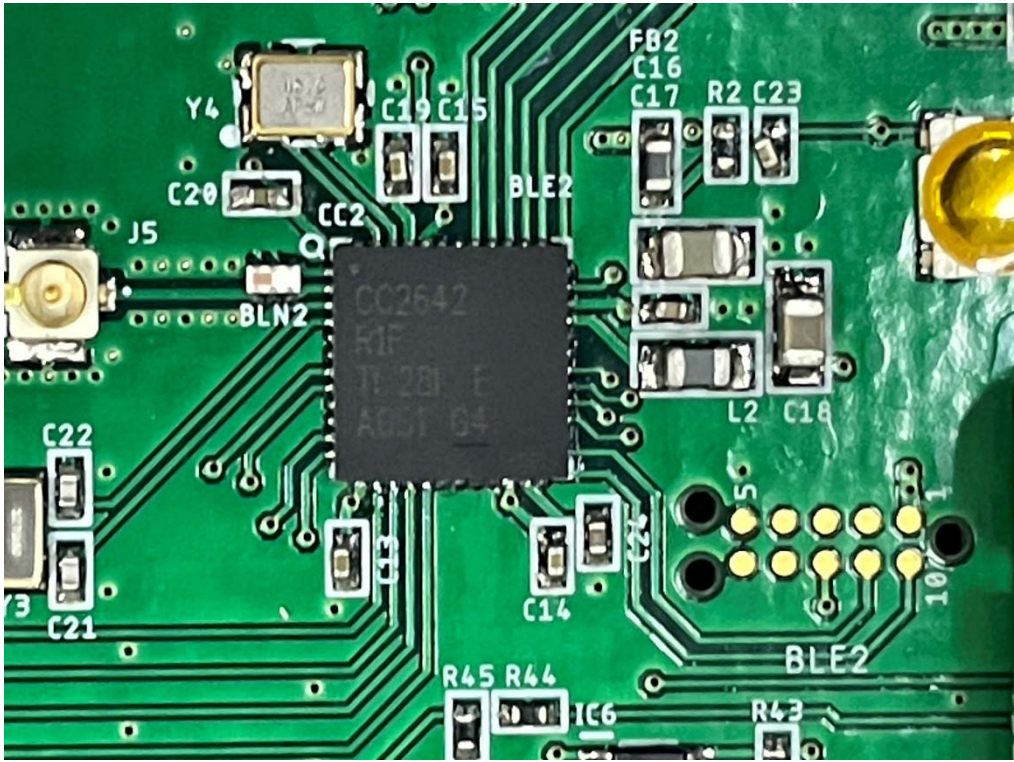
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Chip-1



Chip-2

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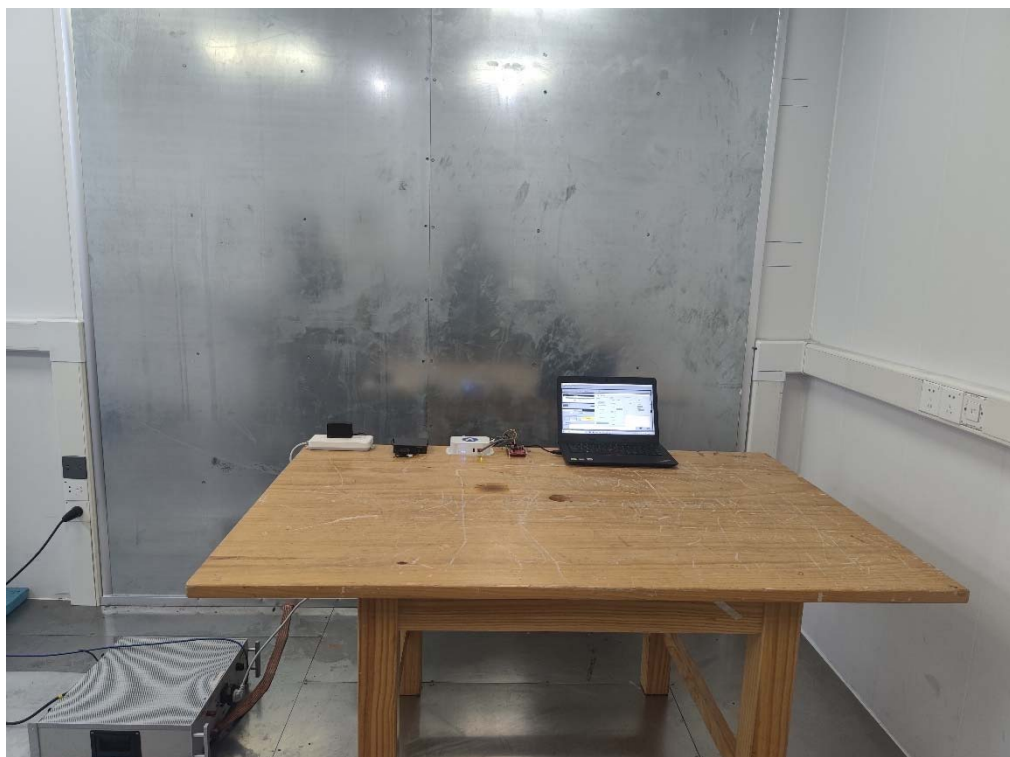
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5.2 Set-up for Conducted Emissions



USB Input



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5.3 Set-up for Conducted RF test at Antenna Port



5.4 Set-up for Spurious Emissions below 1GHz



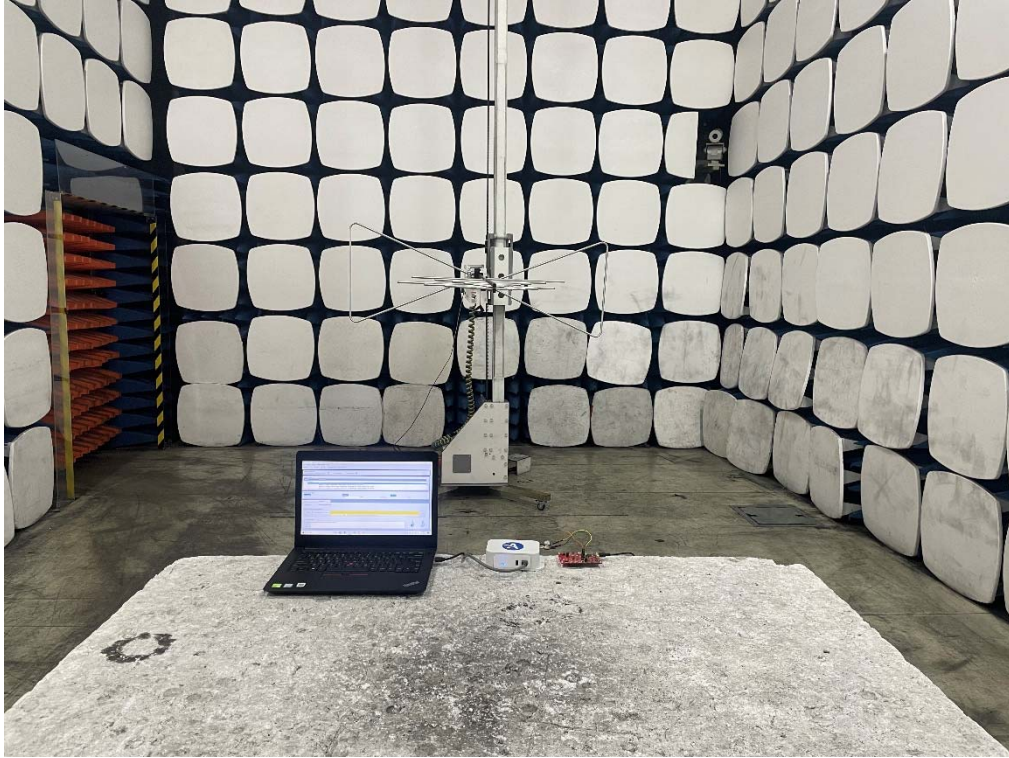
USB Input

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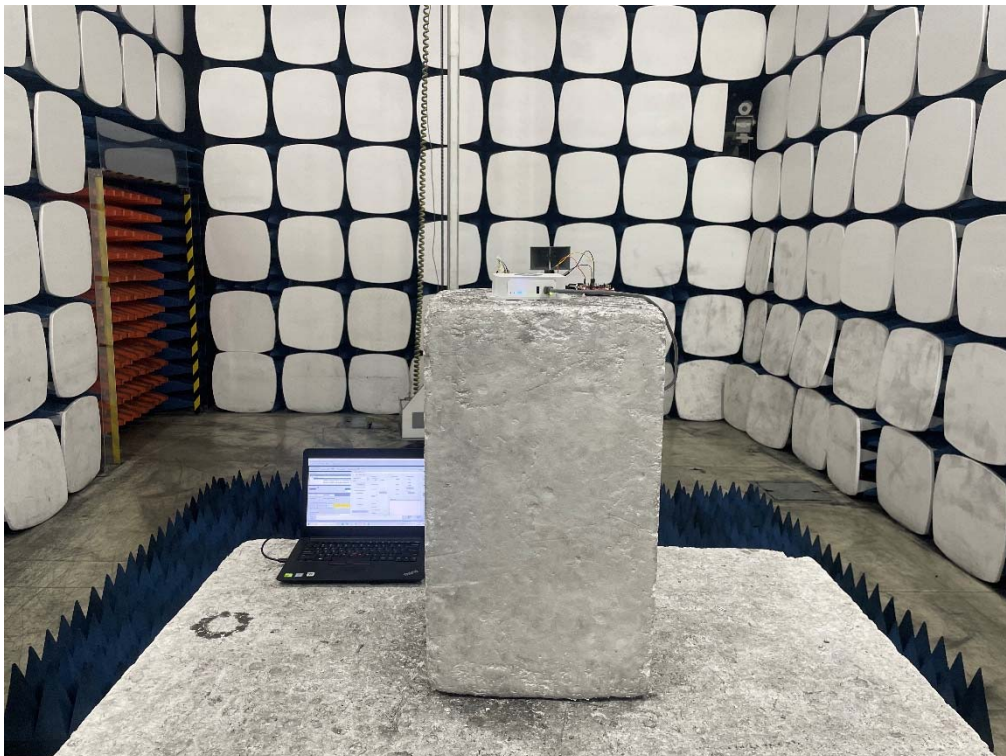
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POE Input

5.5 Set-up for Spurious Emissions above 1GHz



End of the report