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Figure 25: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz Carrier Level



Band Edge



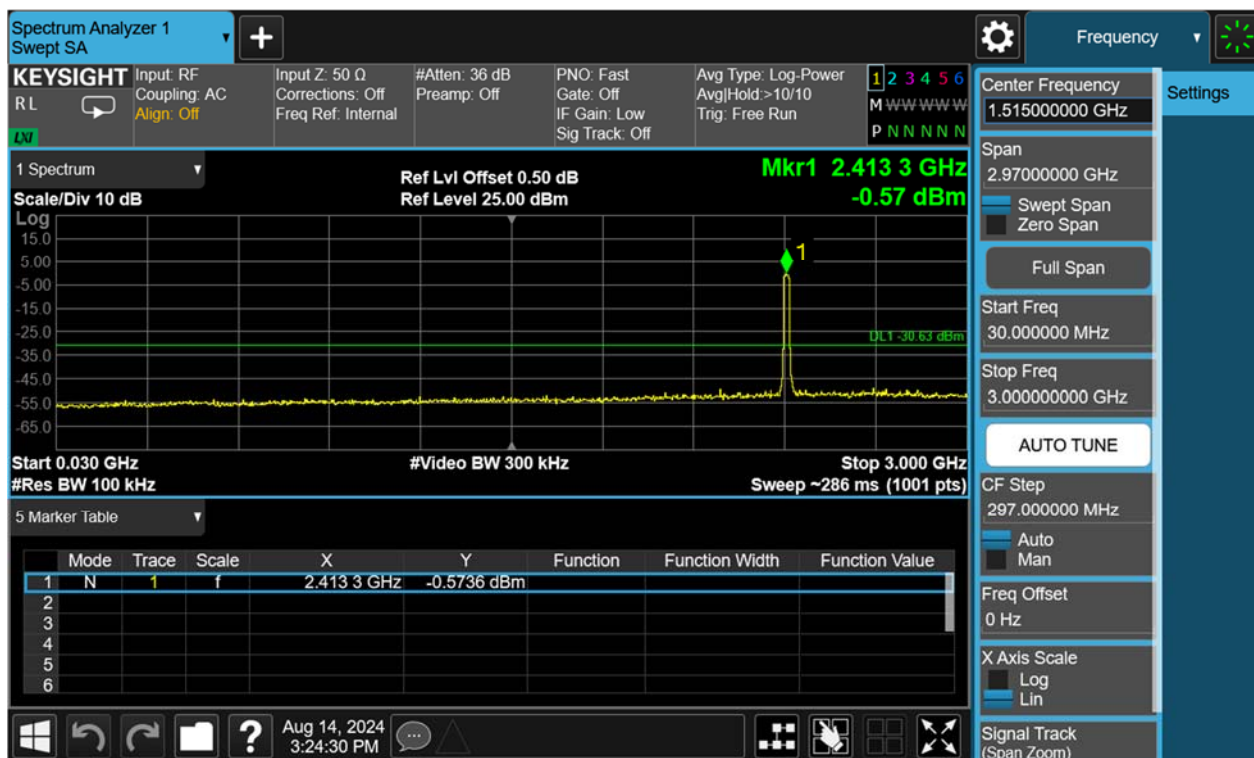
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Conducted spurious emissions 30MHz-25GHz



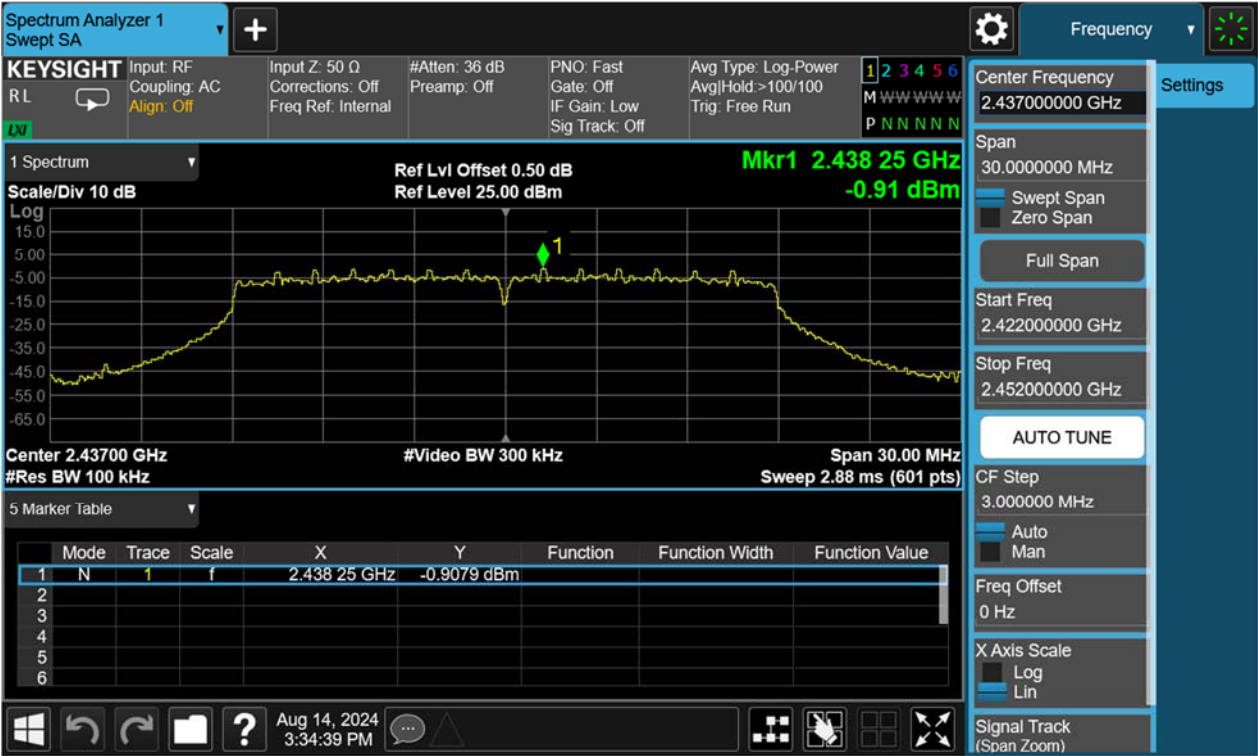
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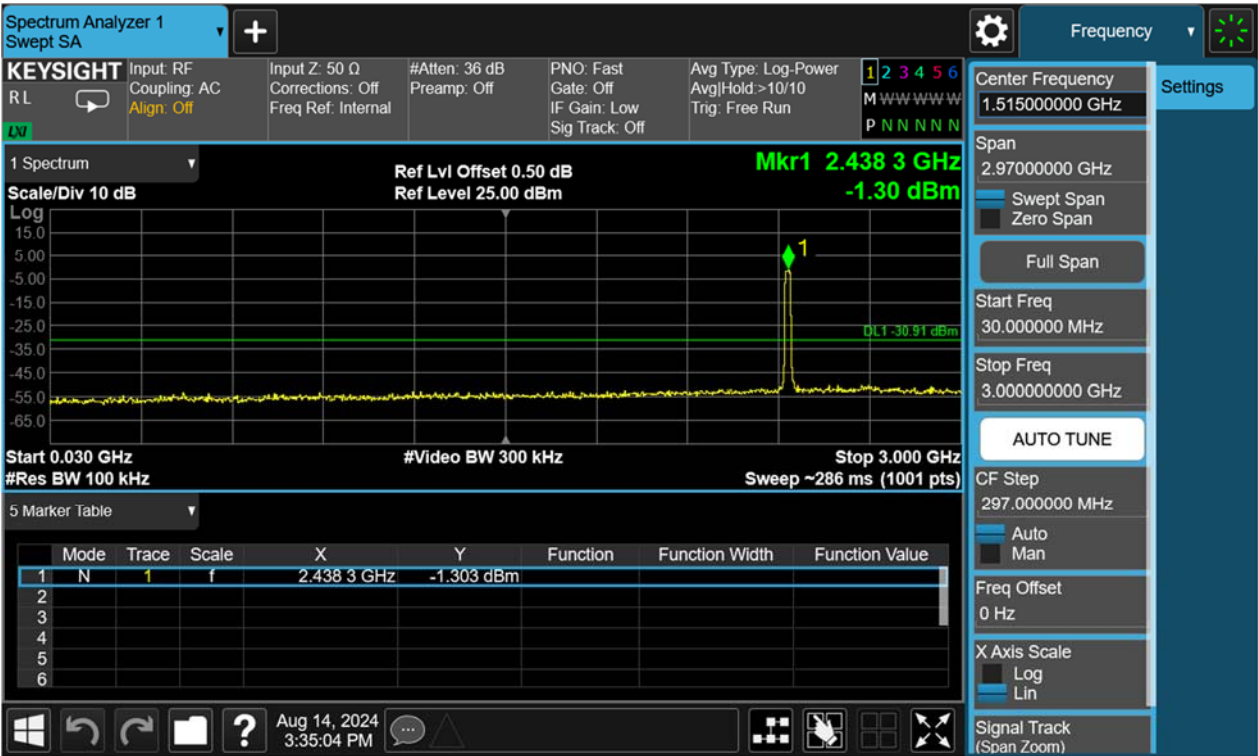
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Figure 26: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



Conducted spurious emissions 30MHz-25GHz



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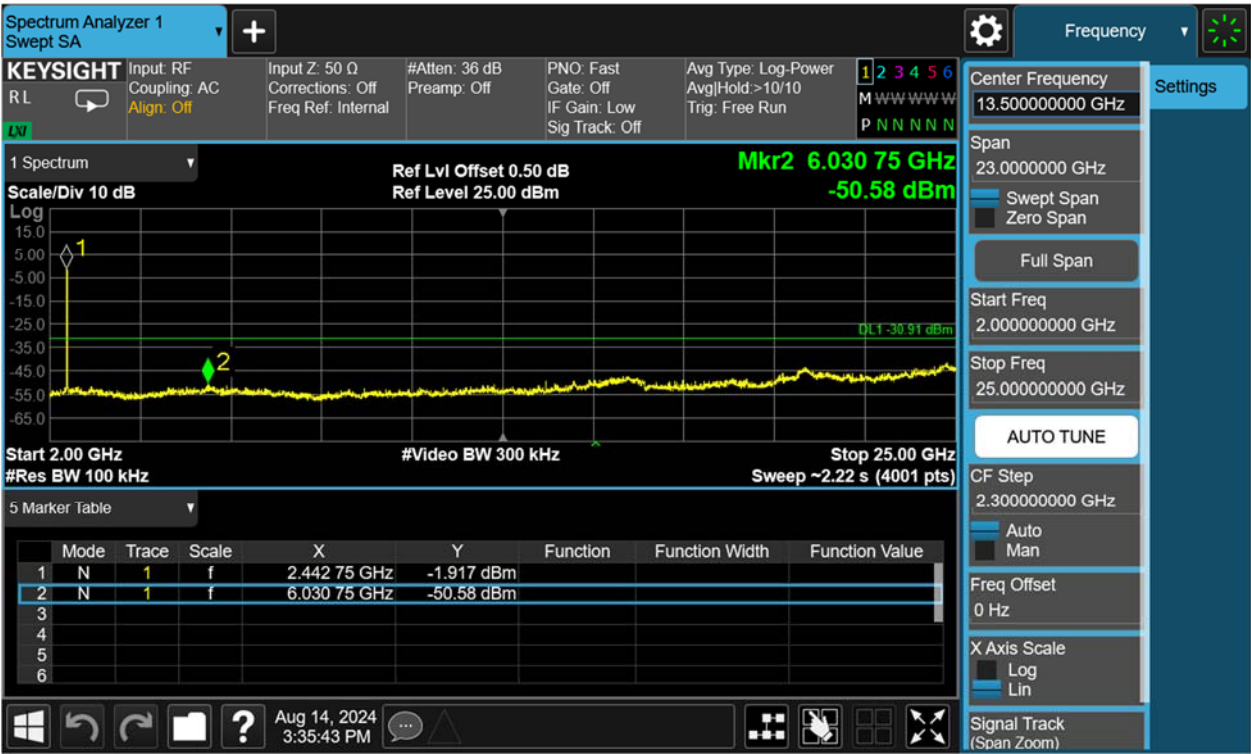


Figure 27: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2462MHz Carrier Level



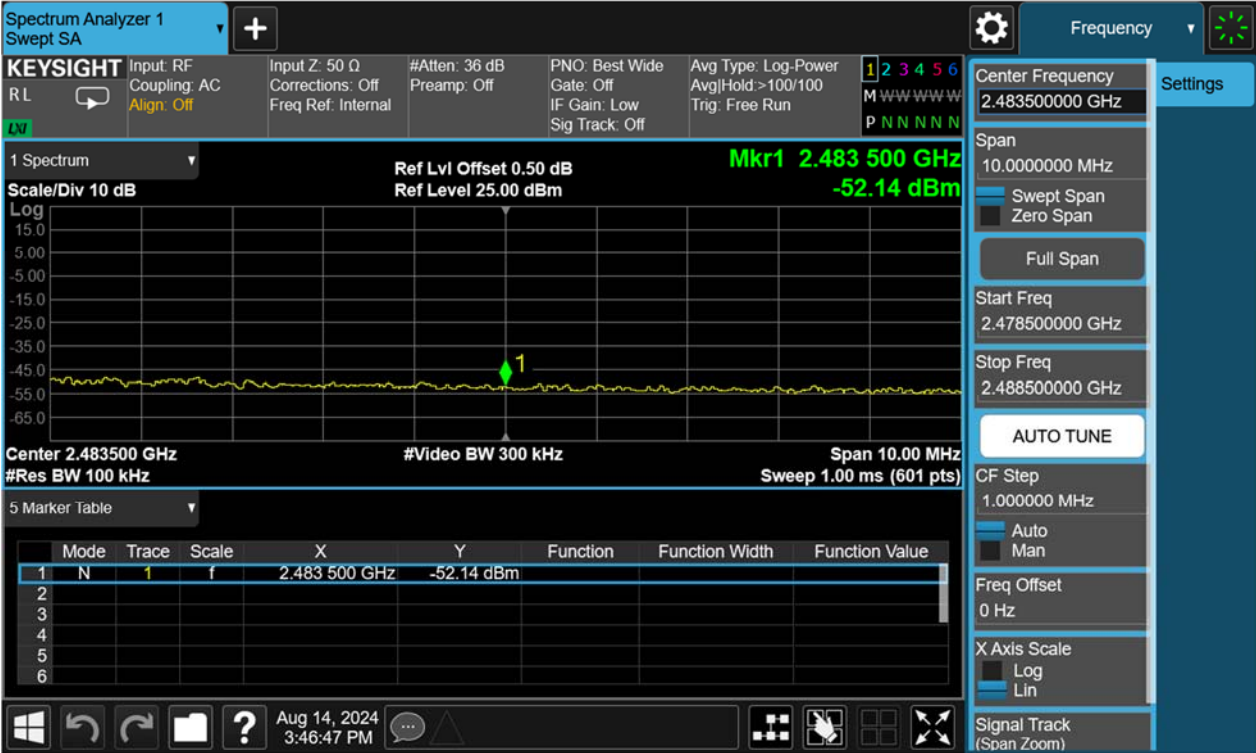
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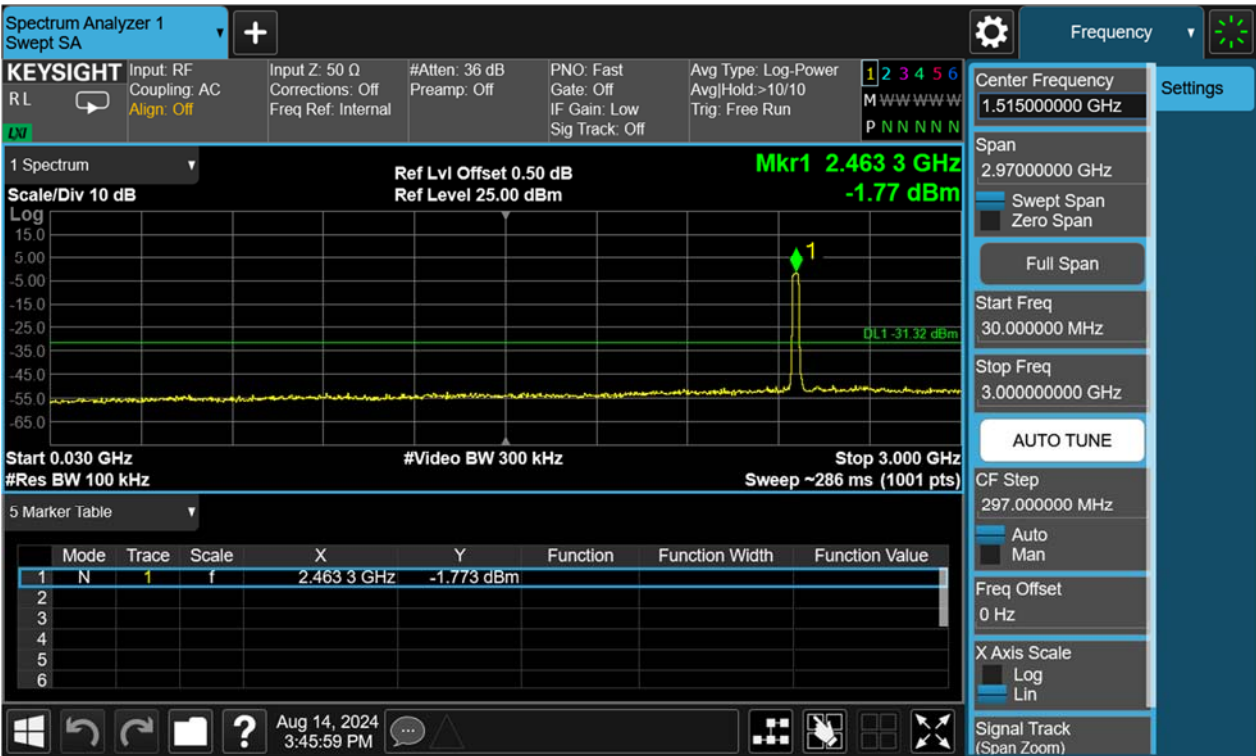
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Band Edge



Conducted spurious emissions 30MHz-25GHz

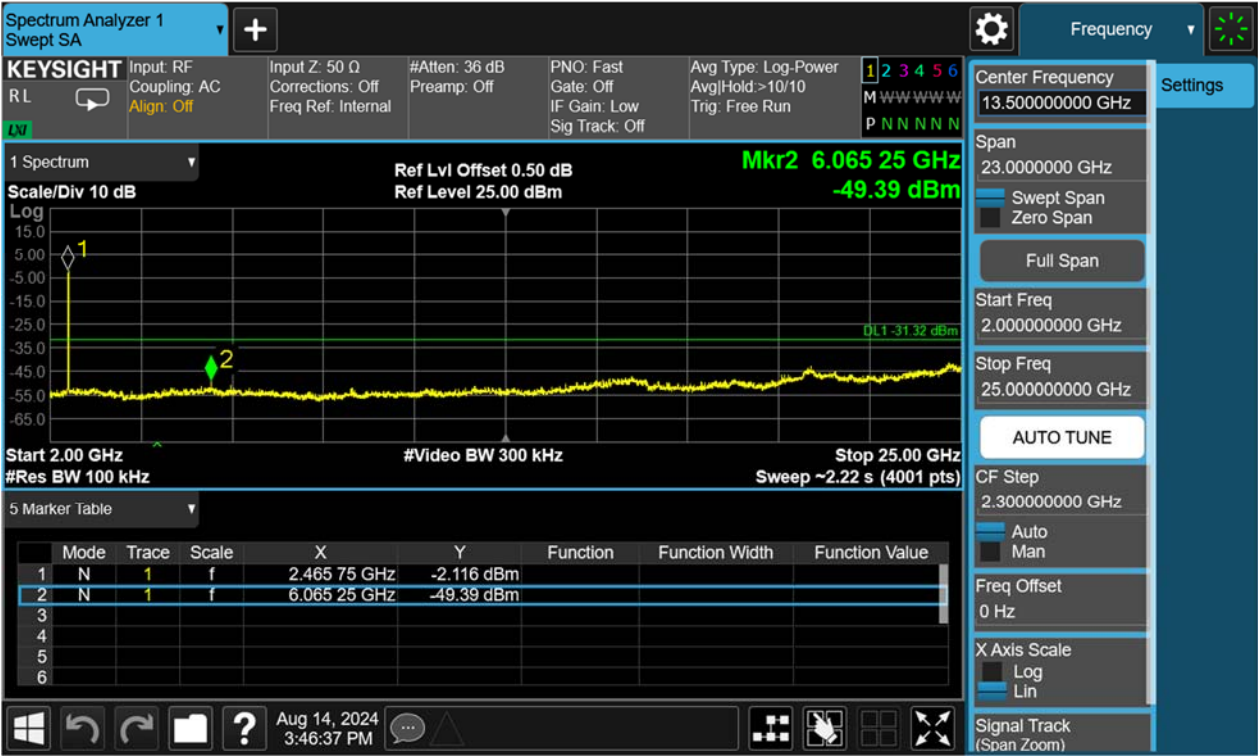


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4.1.6 Radiated Emission

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 : 24.1°C
Relative humidity : 53%

Notes

Test plots please refer to the annex document “SHE24060074-02CE 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	: 23.4°C
Relative humidity	: 41%

Notes:

1. Test plots please refer to the annex document “SHE24060074-02CE 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 12V 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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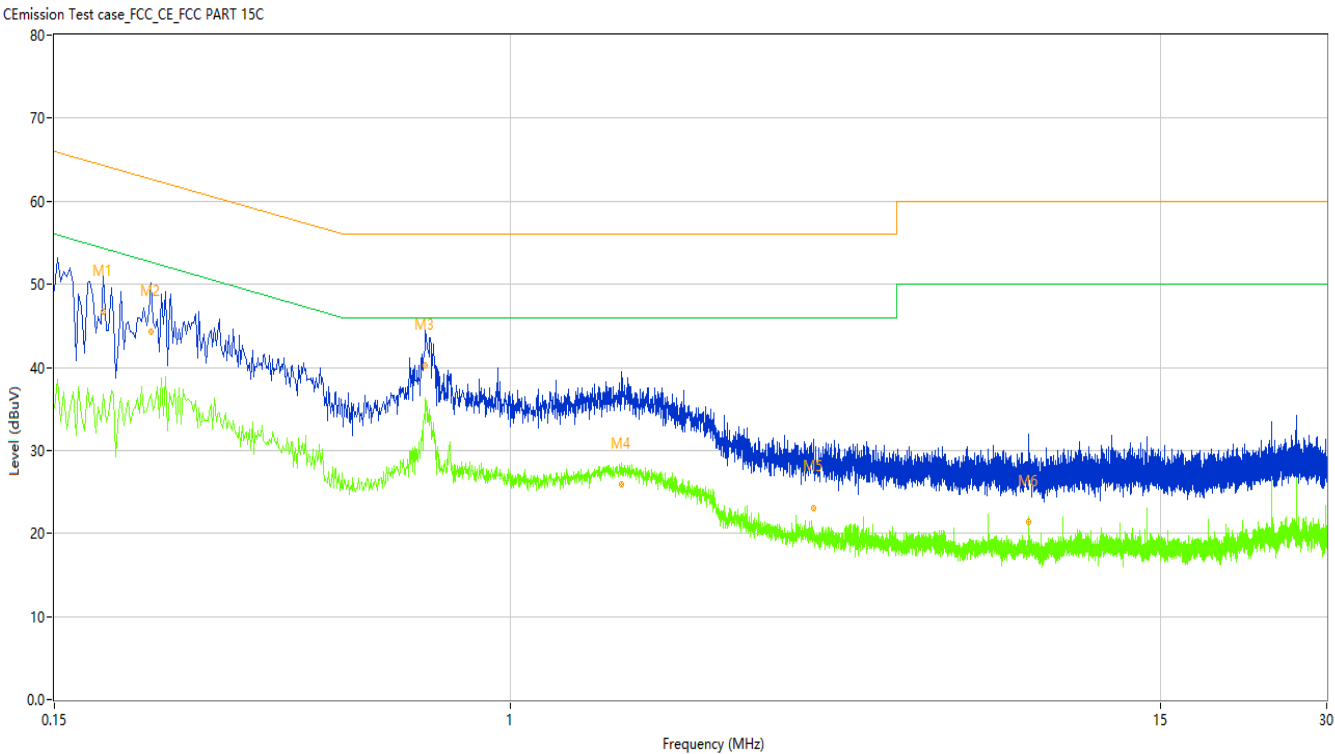
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Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.

Figure 28: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.184	54.79	9.84	64.30	9.51	Peak	L	Pass
1*	0.184	46.65	9.84	64.30	17.65	QP	L	Pass
1**	0.184	36.71	9.84	54.30	17.59	AV	L	Pass
2	0.224	52.14	9.90	62.67	10.53	Peak	L	Pass
2*	0.224	44.23	9.90	62.67	18.44	QP	L	Pass
2**	0.224	36.77	9.90	52.67	15.90	AV	L	Pass
3	0.704	44.24	9.88	56.00	11.76	Peak	L	Pass
3*	0.704	40.24	9.88	56.00	15.76	QP	L	Pass
3**	0.704	36.34	9.88	46.00	9.66	AV	L	Pass
4	1.590	32.87	9.76	56.00	23.13	Peak	L	Pass
4*	1.590	25.87	9.76	56.00	30.13	QP	L	Pass
4**	1.590	28.43	9.76	46.00	17.57	AV	L	Pass
5	3.546	28.25	9.79	56.00	27.75	Peak	L	Pass
5*	3.546	22.98	9.79	56.00	33.02	QP	L	Pass
5**	3.546	20.27	9.79	46.00	25.73	AV	L	Pass
6	8.668	28.95	9.68	60.00	31.05	Peak	L	Pass
6*	8.668	21.36	9.68	60.00	38.64	QP	L	Pass
6**	8.668	21.67	9.68	50.00	28.33	AV	L	Pass

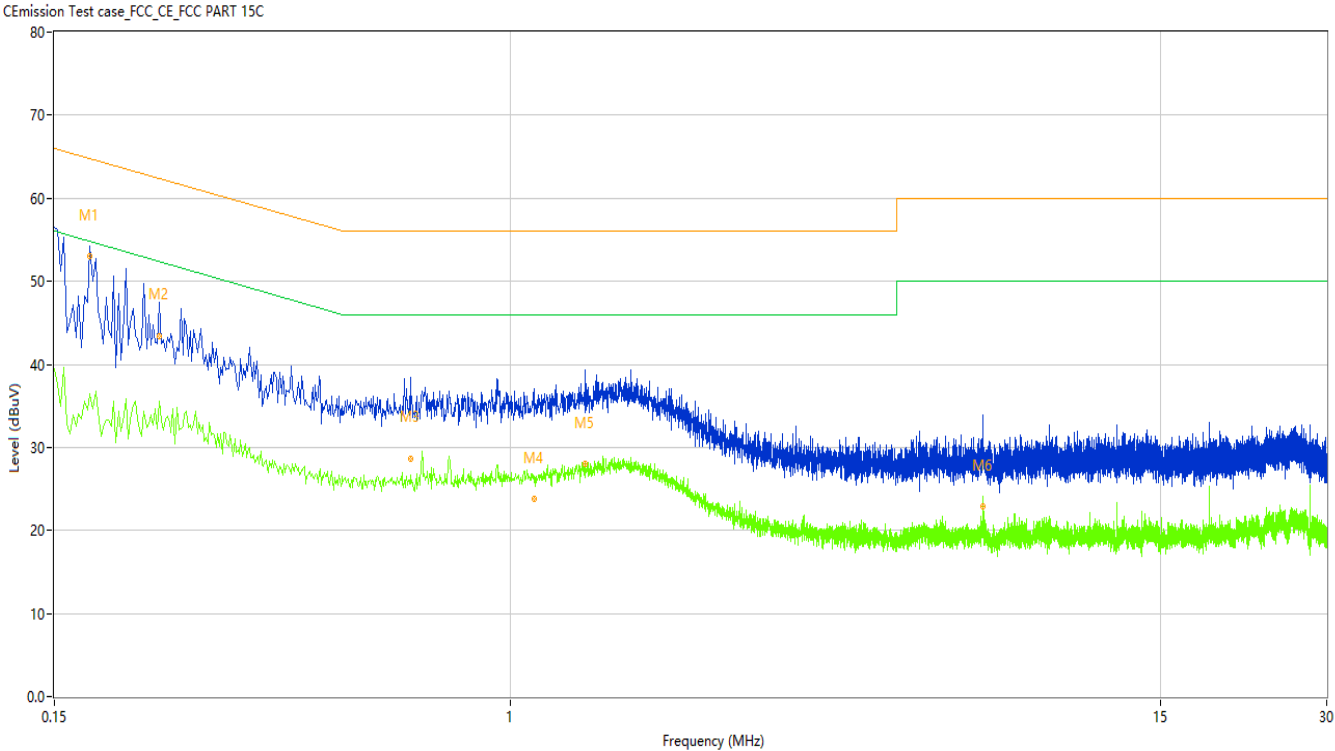
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Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.174	60.26	9.96	64.77	4.51	Peak	N	Pass
1*	0.174	52.98	9.96	64.77	11.79	QP	N	Pass
1**	0.174	36.47	9.96	54.77	18.30	AV	N	Pass
2	0.232	53.79	9.98	62.38	8.59	Peak	N	Pass
2*	0.232	43.35	9.98	62.38	19.03	QP	N	Pass
2**	0.232	35.53	9.98	52.38	16.85	AV	N	Pass
3	0.660	35.38	9.98	56.00	20.62	Peak	N	Pass
3*	0.660	28.60	9.98	56.00	27.40	QP	N	Pass
3**	0.660	26.73	9.98	46.00	19.27	AV	N	Pass
4	1.106	31.08	9.90	56.00	24.92	Peak	N	Pass
4*	1.106	23.86	9.90	56.00	32.14	QP	N	Pass
4**	1.106	26.45	9.90	46.00	19.55	AV	N	Pass
5	1.370	33.89	9.91	56.00	22.11	Peak	N	Pass
5*	1.370	27.99	9.91	56.00	28.01	QP	N	Pass
5**	1.370	28.03	9.91	46.00	17.97	AV	N	Pass
6	7.164	31.30	9.80	60.00	28.70	Peak	N	Pass
6*	7.164	22.93	9.80	60.00	37.07	QP	N	Pass
6**	7.164	23.33	9.80	50.00	26.67	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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Rear of the sample



Left of the sample

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Right of the sample



Top of the sample

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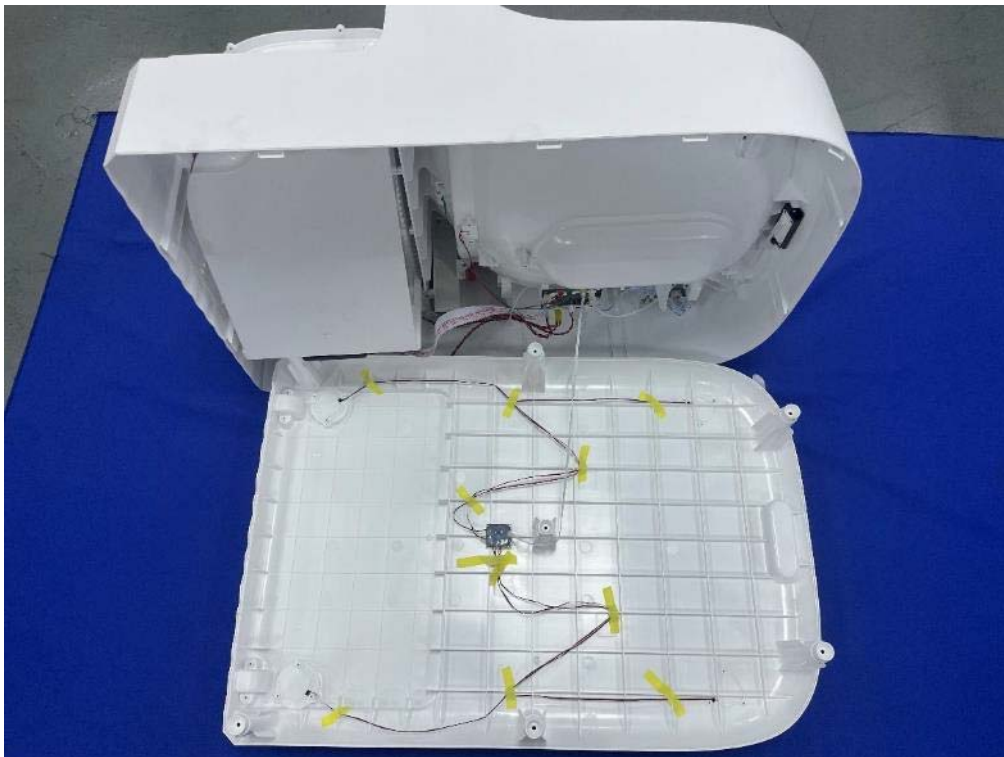
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Bottom of the sample



Open-1 of the sample

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Open-2 of the sample



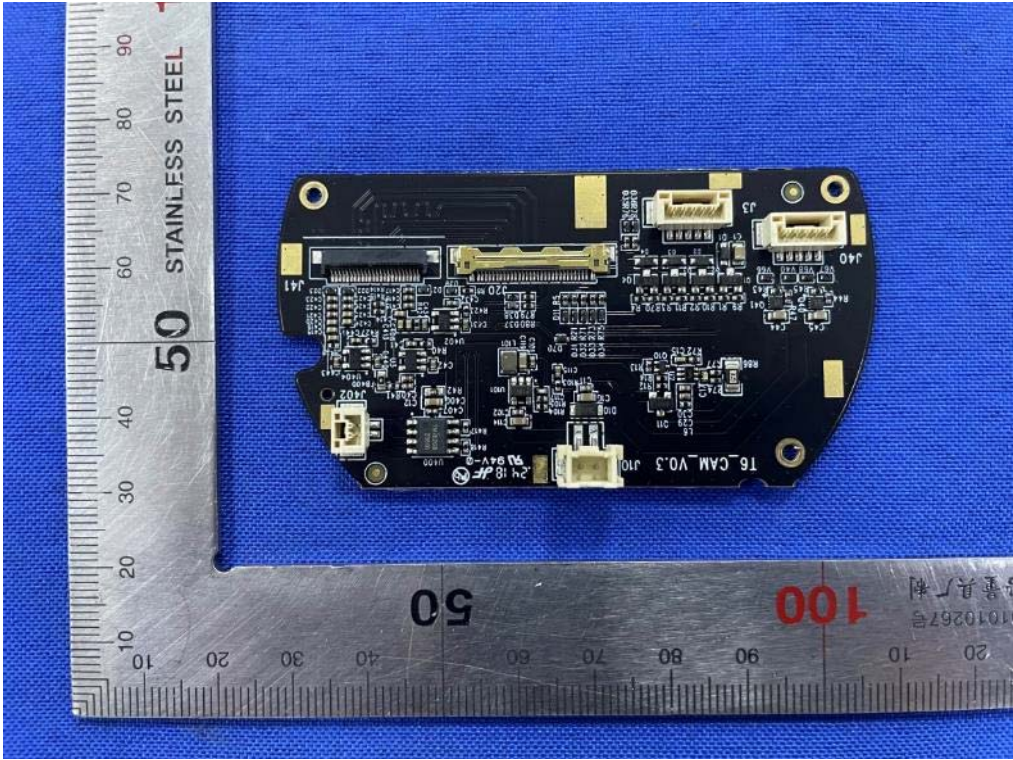
Open-3 of the sample

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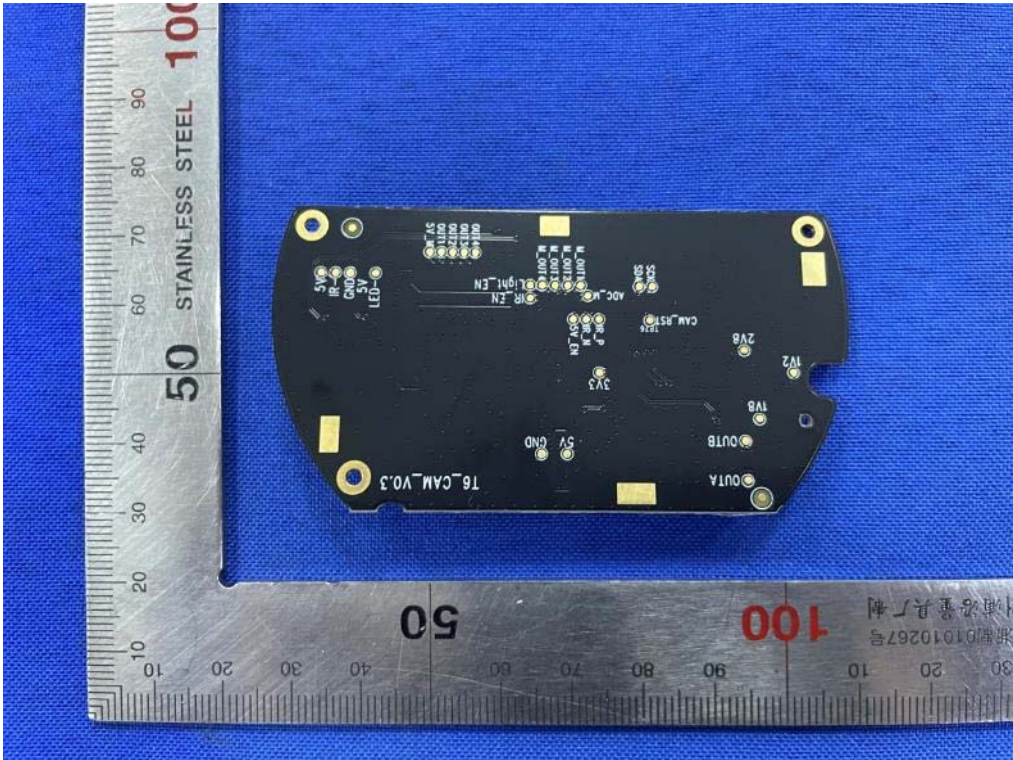
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Internal-1 of the sample



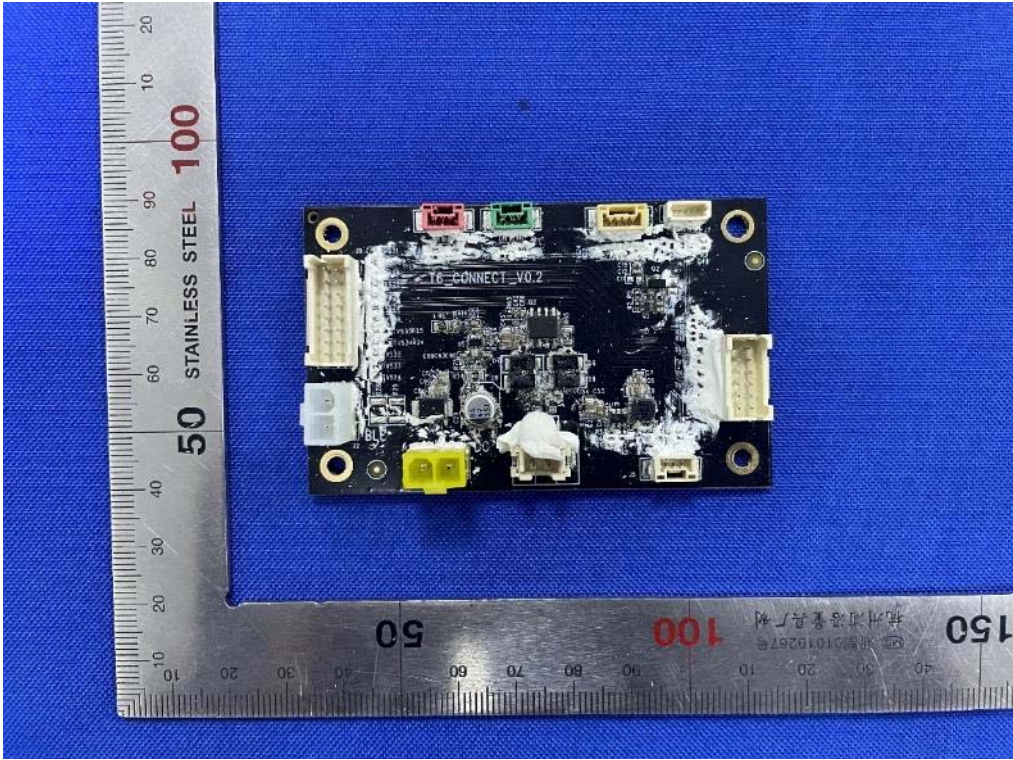
Internal-2 of the sample

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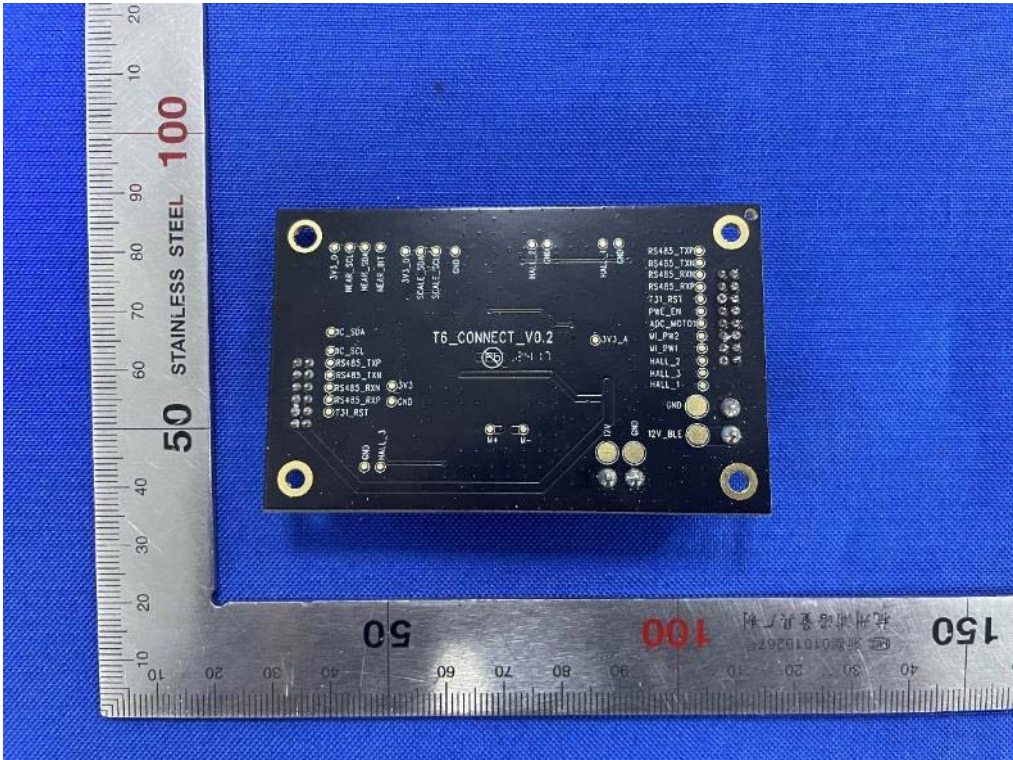
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Internal-3 of the sample



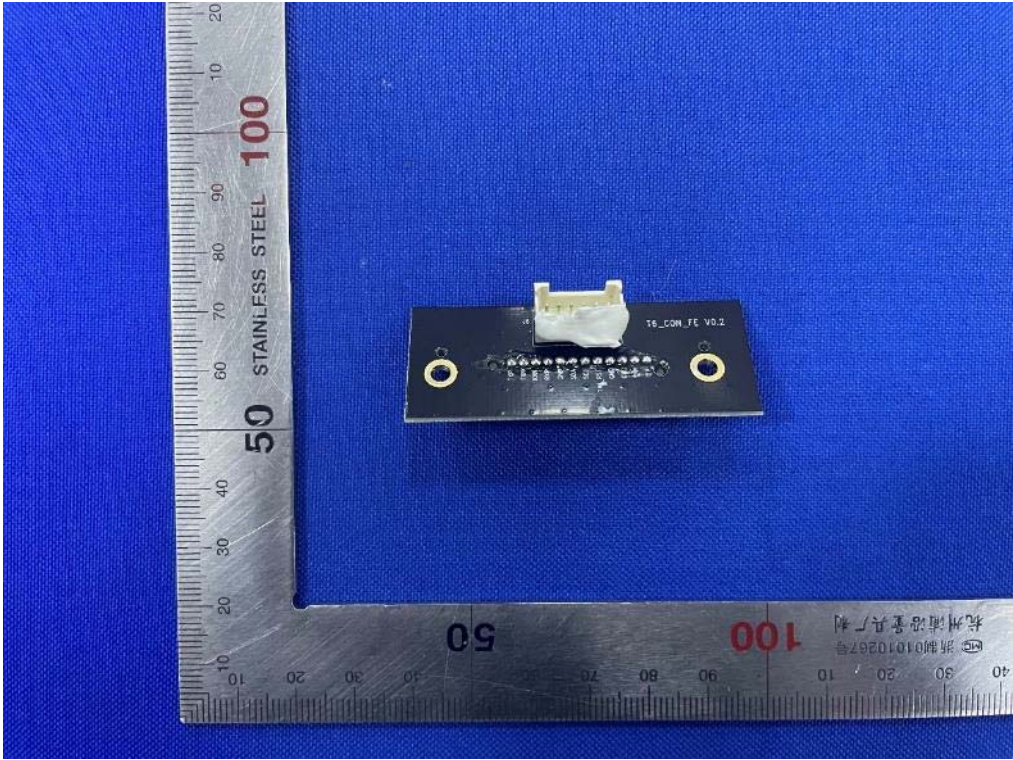
Internal-4 of the sample

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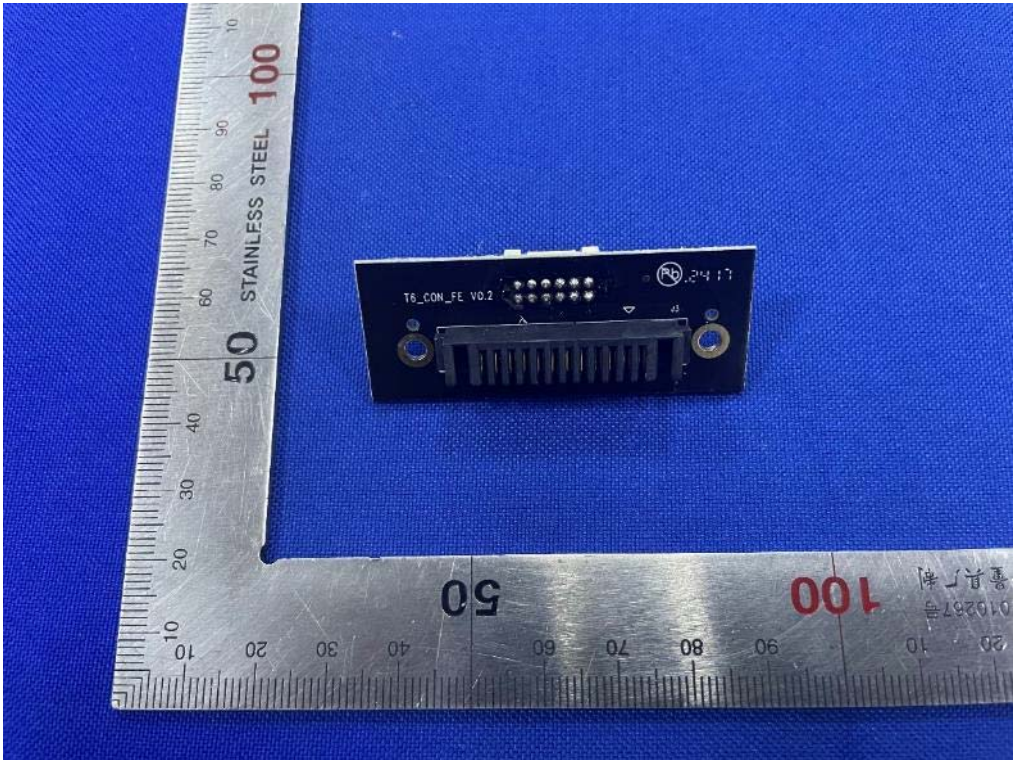
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Internal-5 of the sample



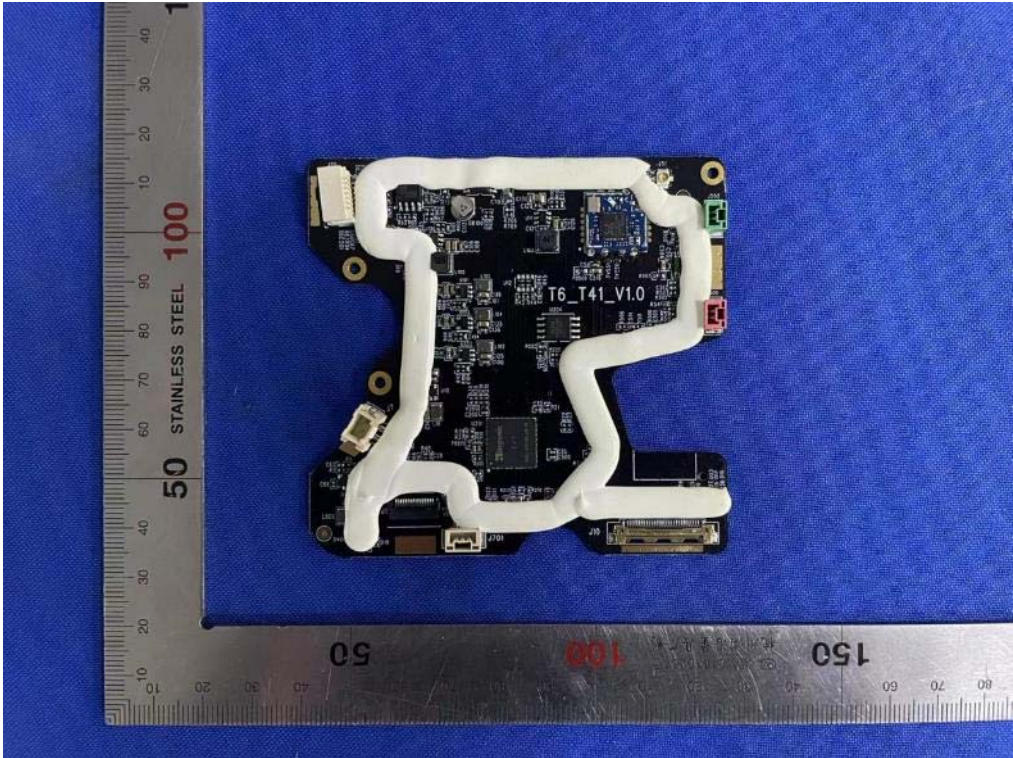
Internal-6 of the sample

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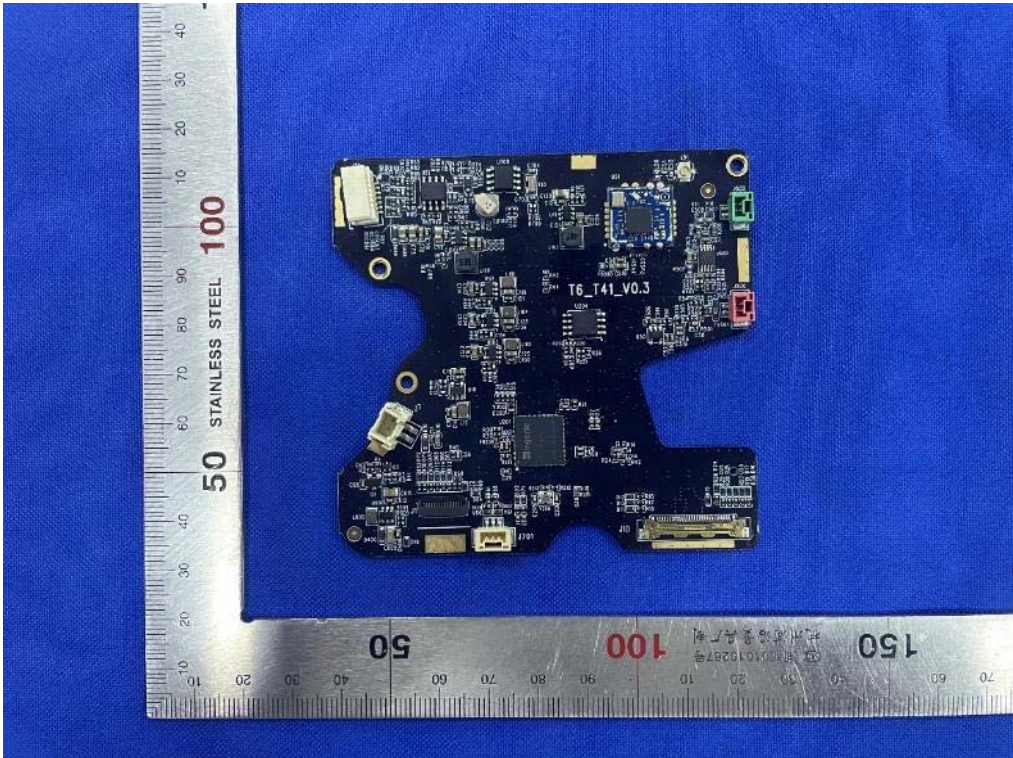
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Internal-7 of the sample



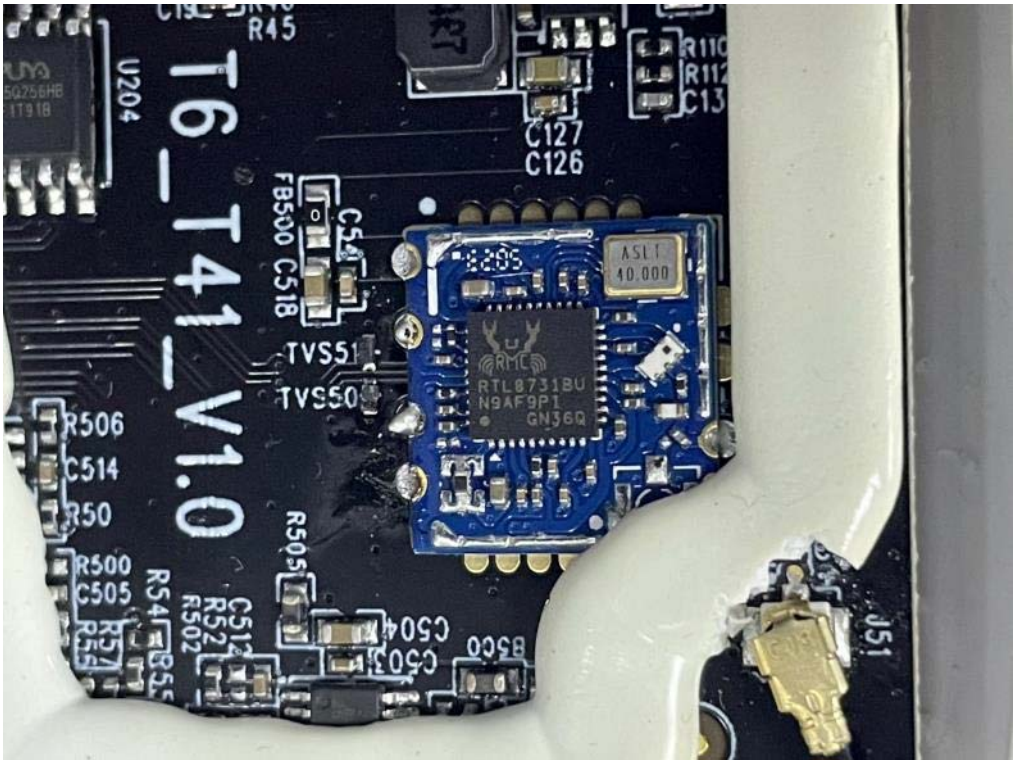
Internal-8 of the sample

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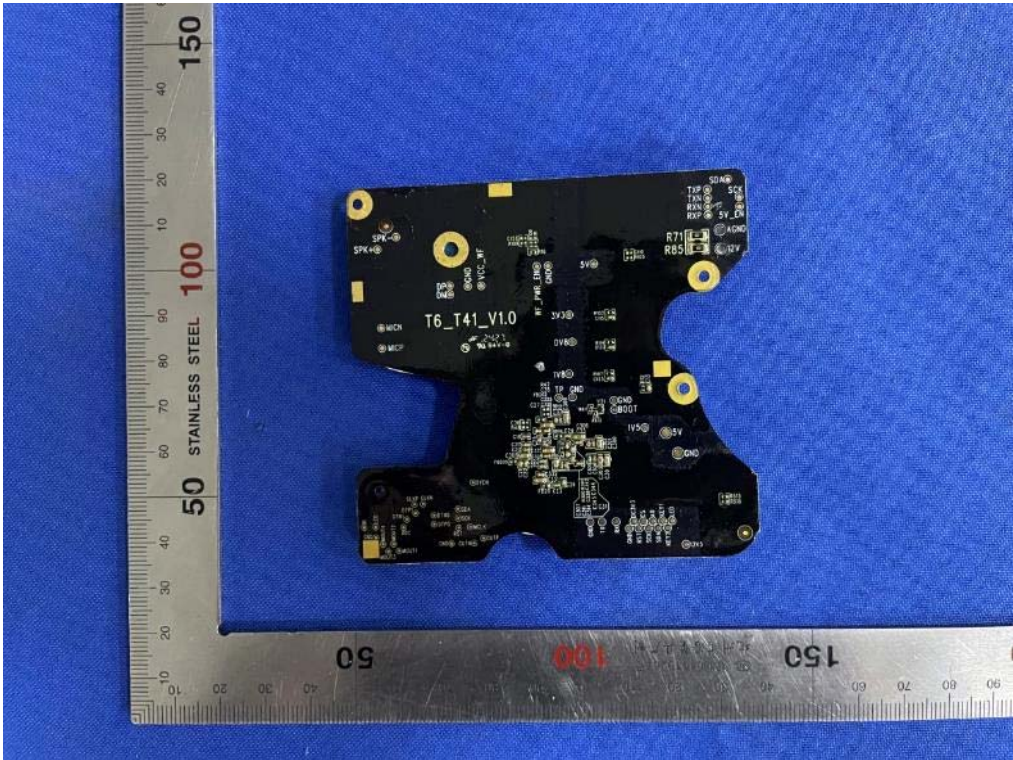
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Internal-9 of the sample



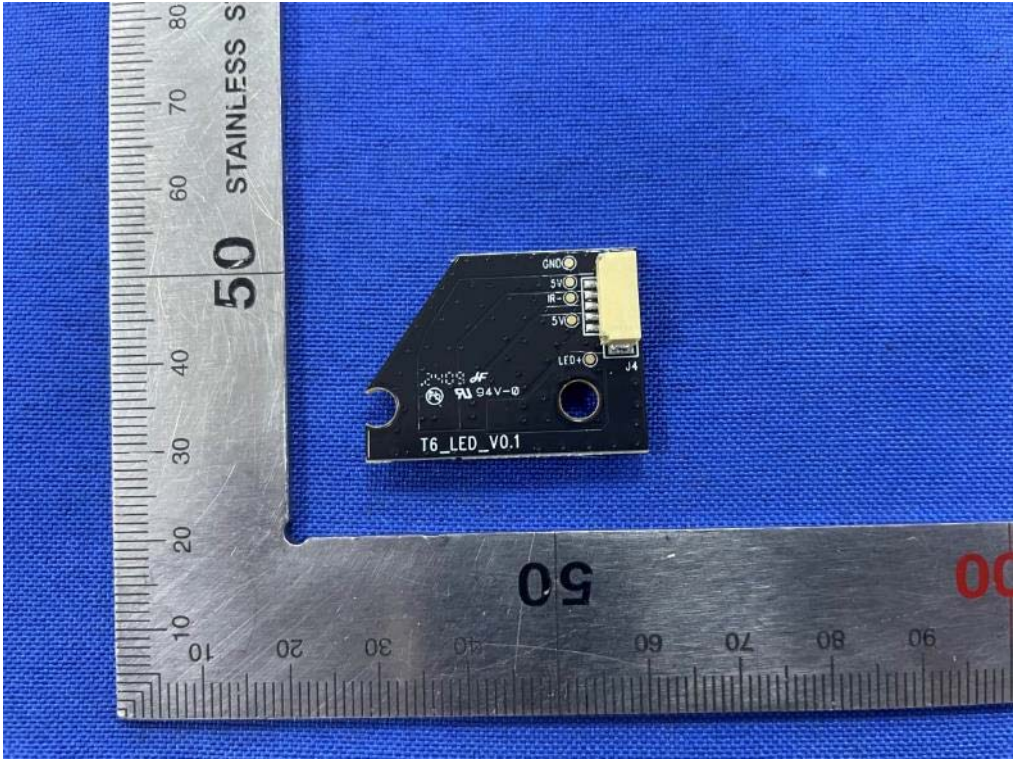
Internal-10 of the sample

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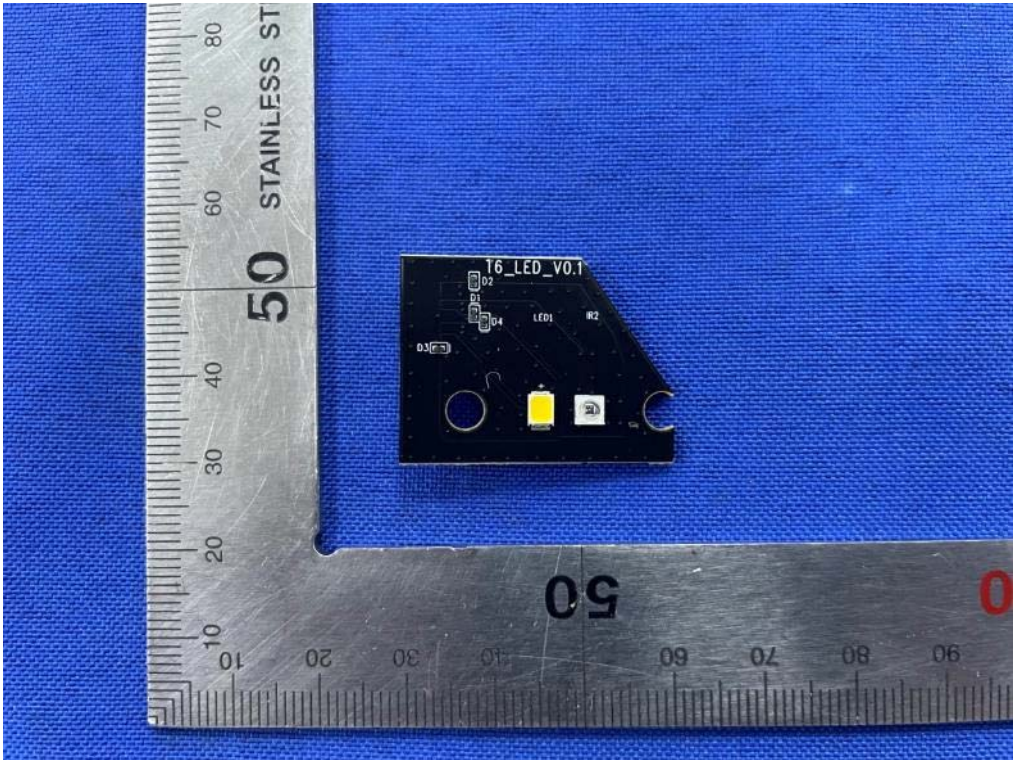
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Internal-11 of the sample



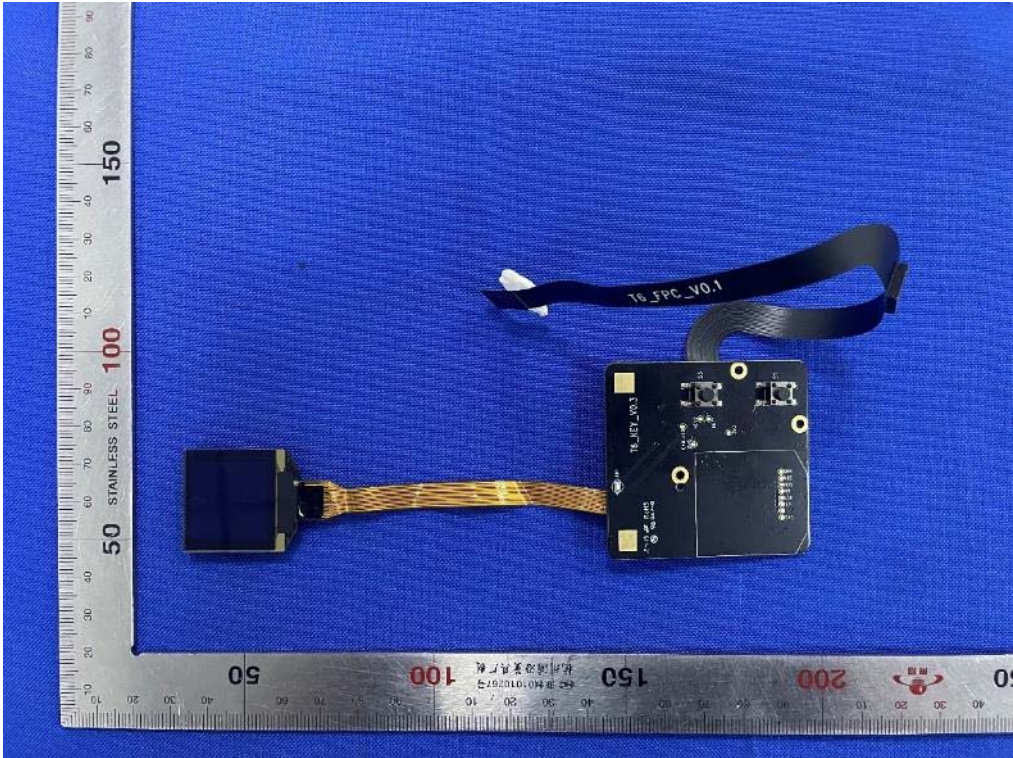
Internal-12 of the sample

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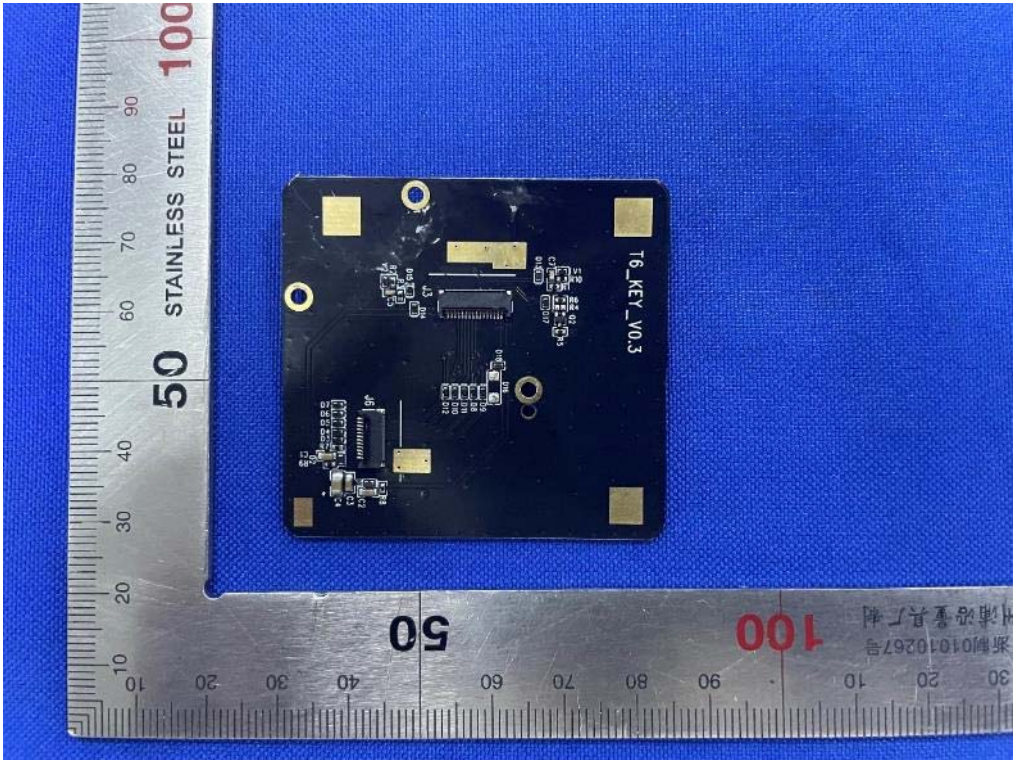
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Internal-13 of the sample



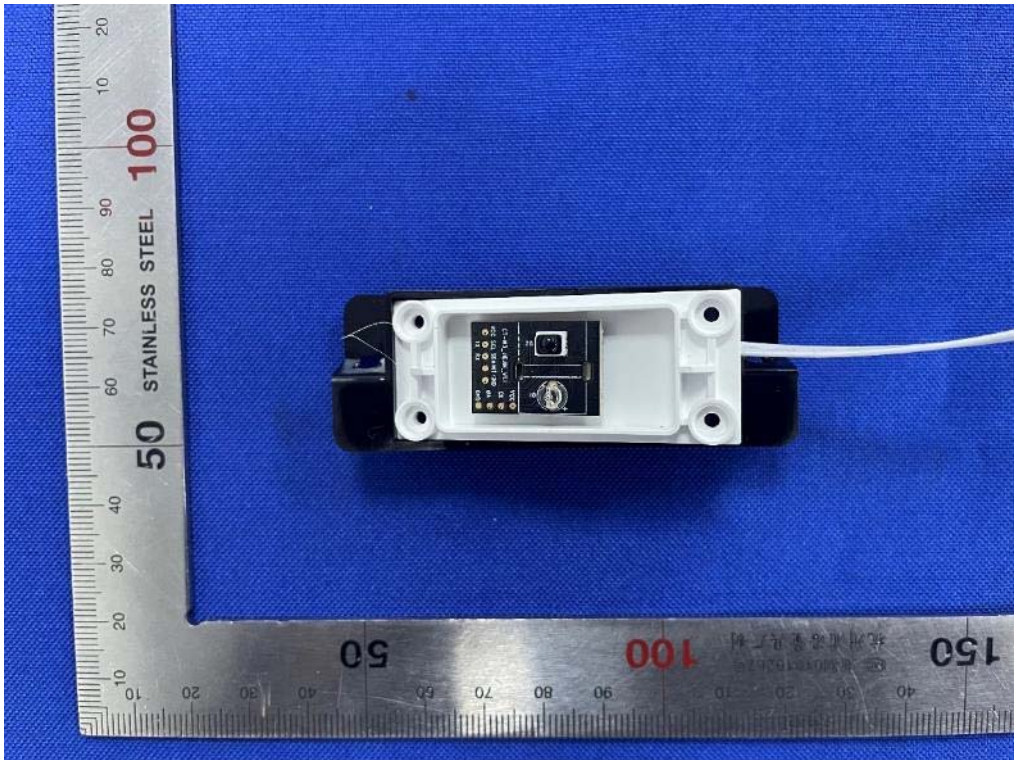
Internal-14 of the sample

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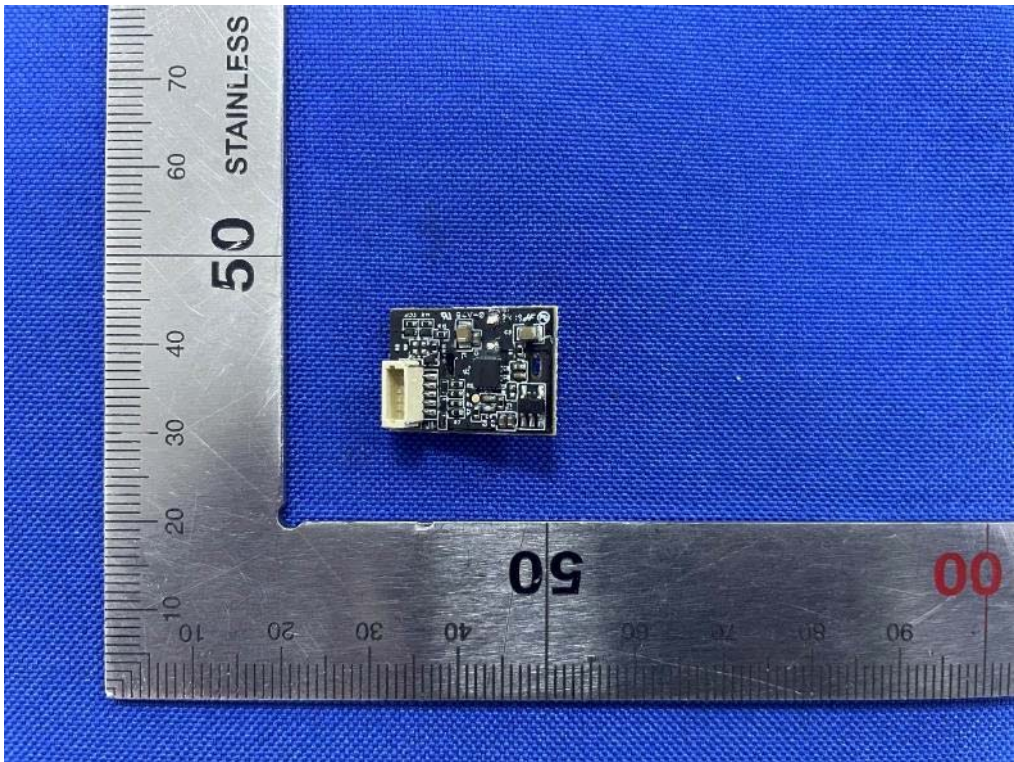
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Internal-15 of the sample



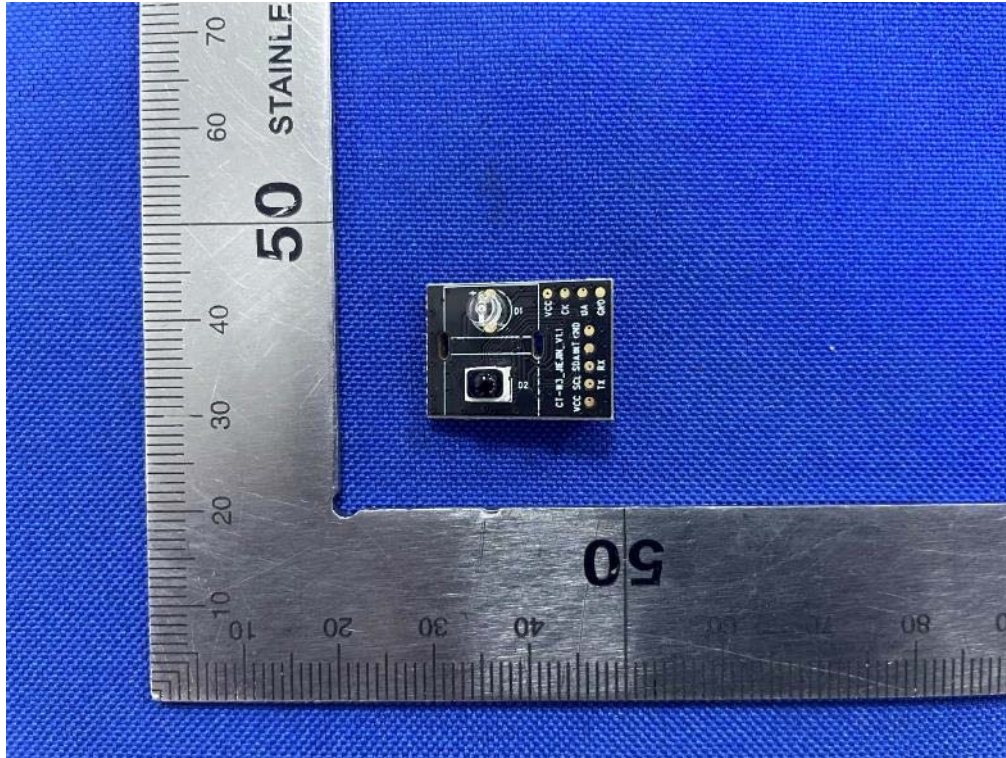
Internal-16 of the sample

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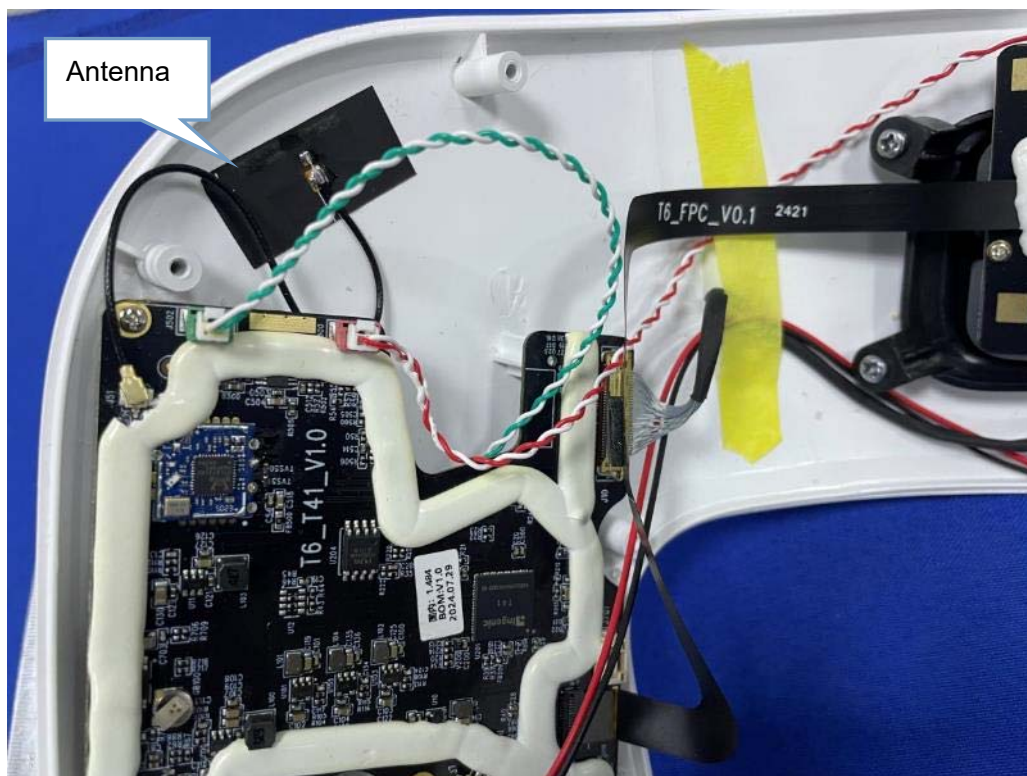
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Internal-17 of the sample



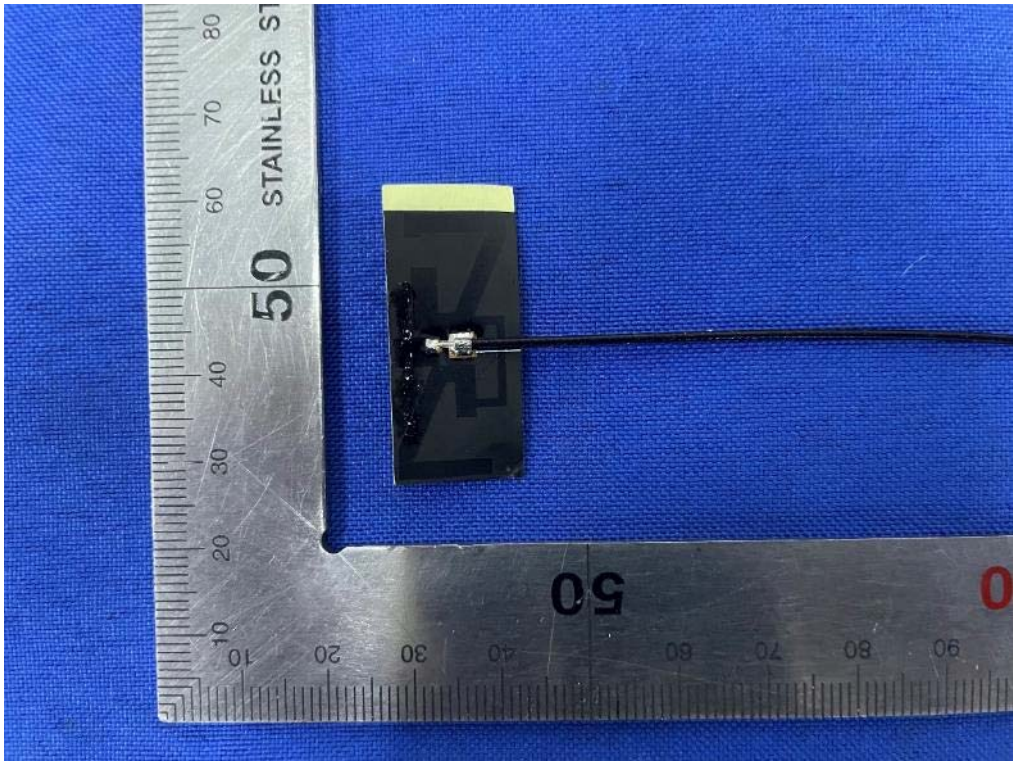
Antenna position

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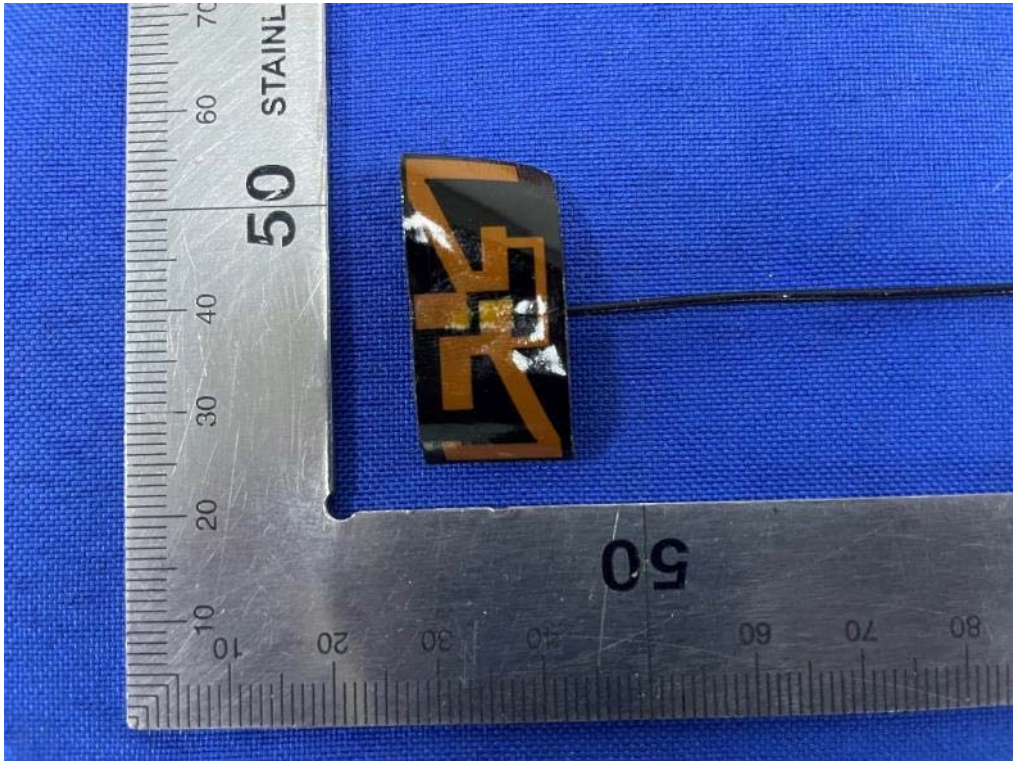
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Antenna Photo-1



Antenna Photo-2

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Adapter-1



Adapter-2

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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