

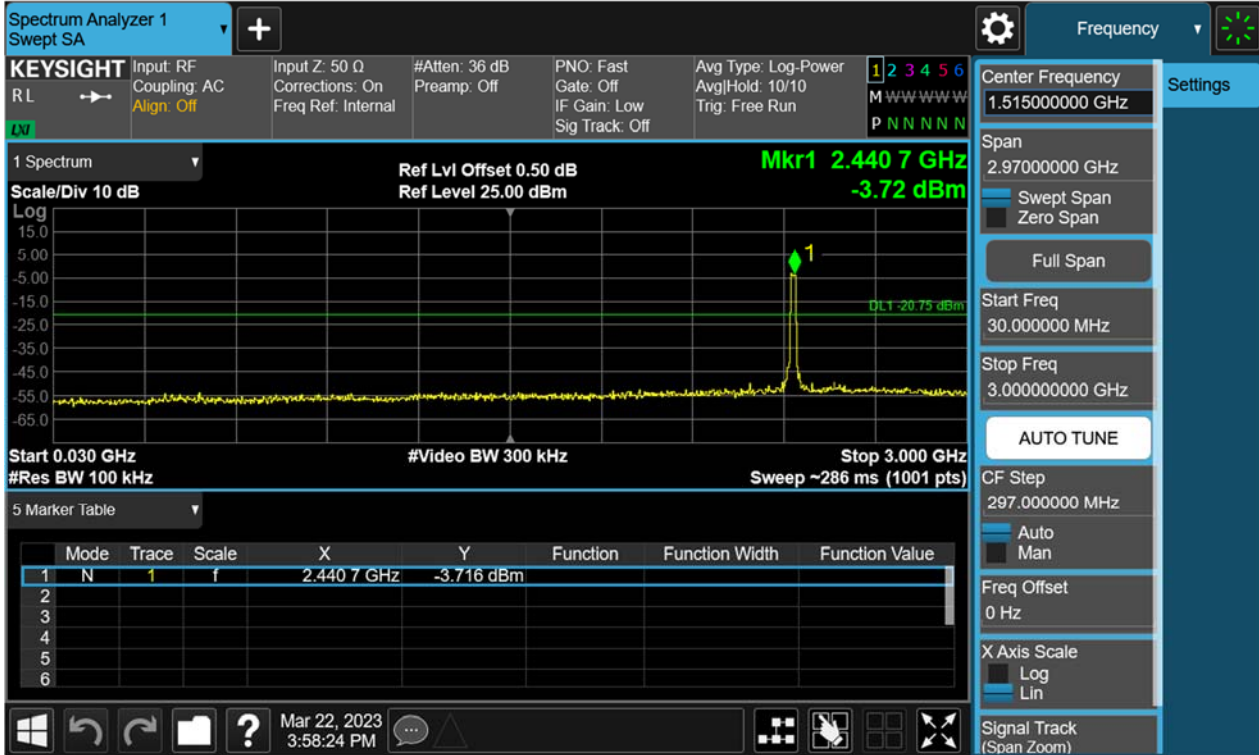
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Conducted spurious emissions 30MHz-25GHz



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Figure 30: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2462MHz Carrier Level



Band Edge



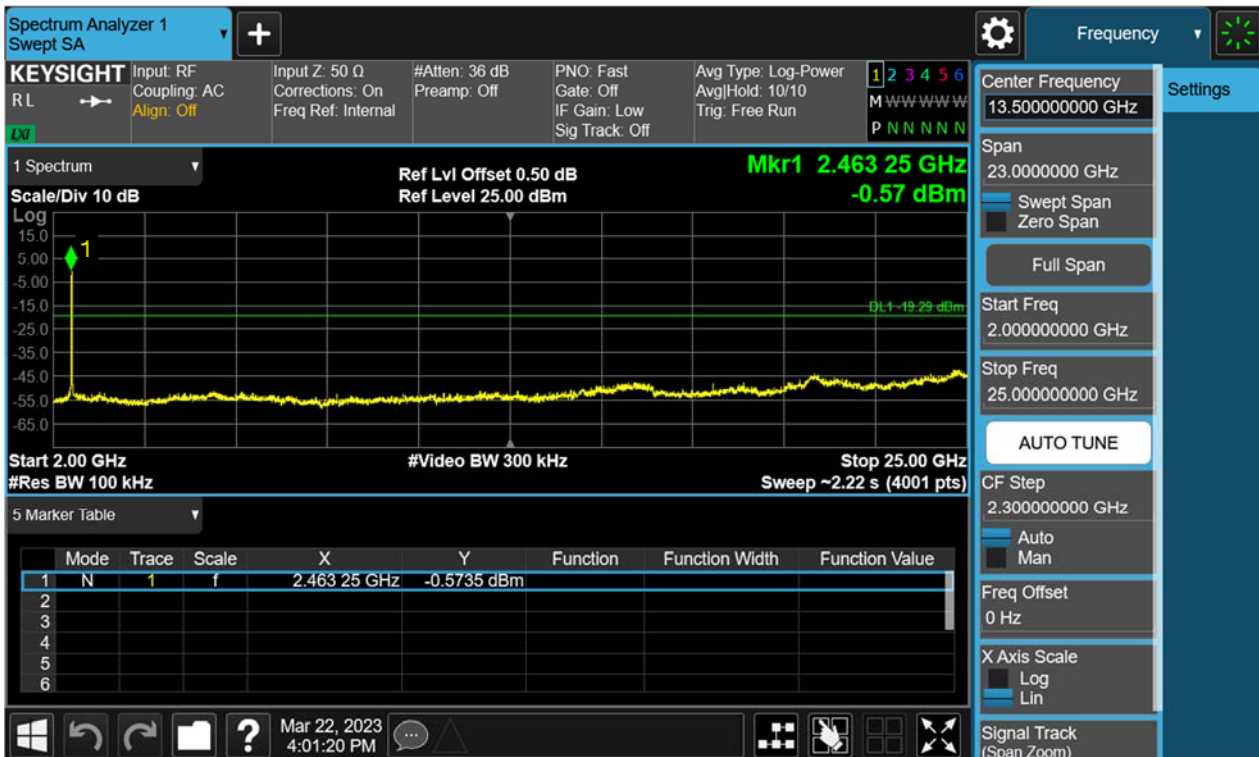
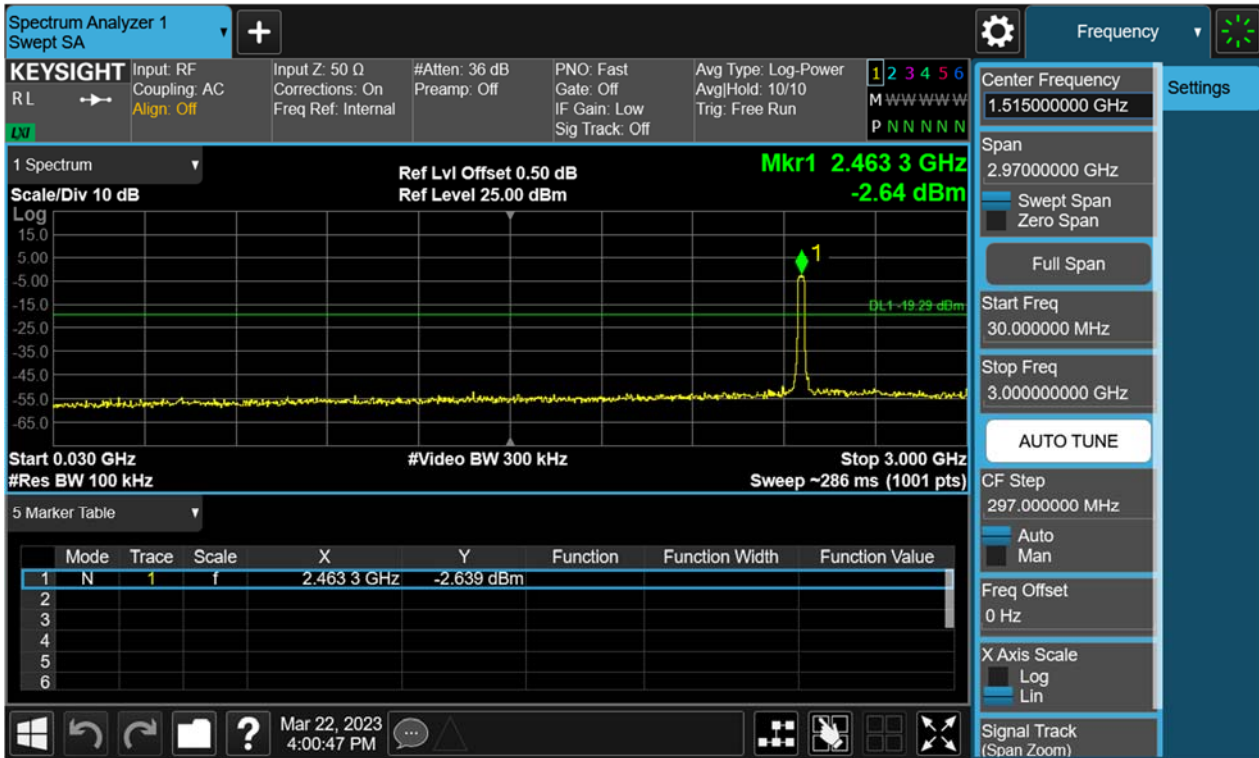
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Figure 31: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz Carrier Level



Band Edge



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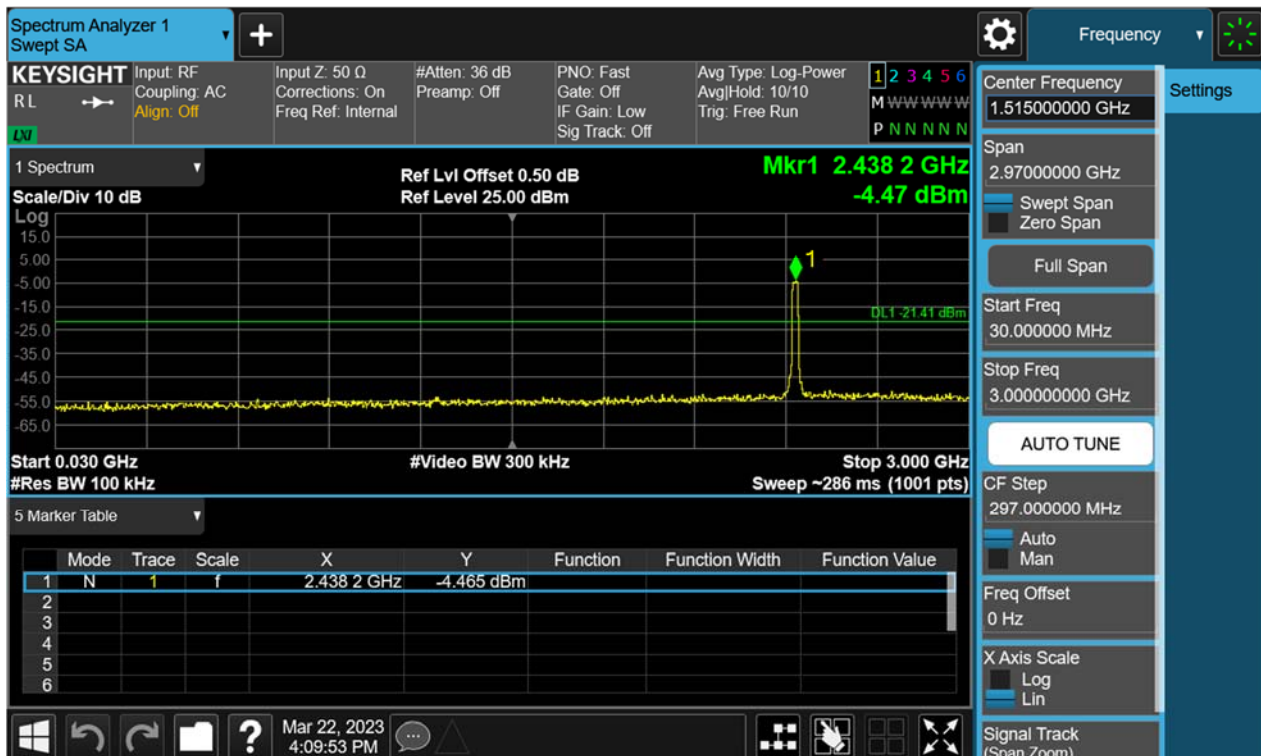
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Figure 32: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Figure 33: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2462MHz Carrier Level



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Band Edge



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



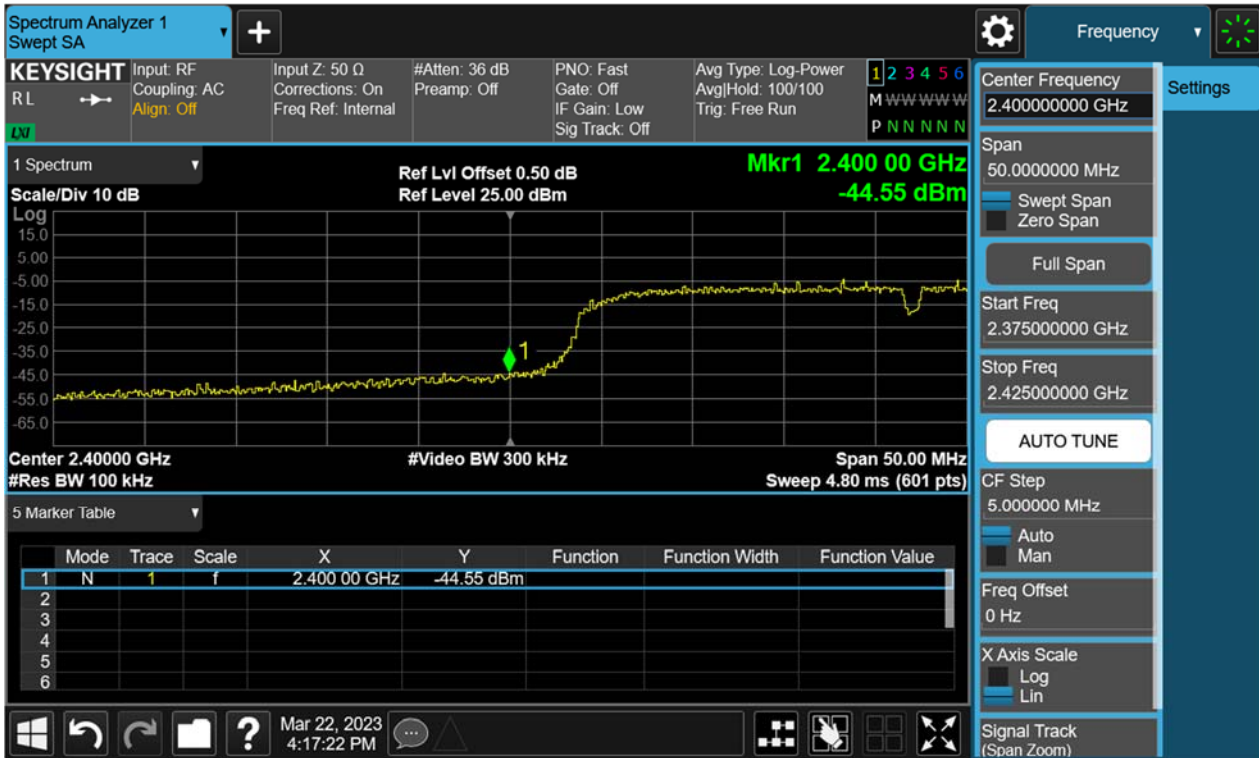
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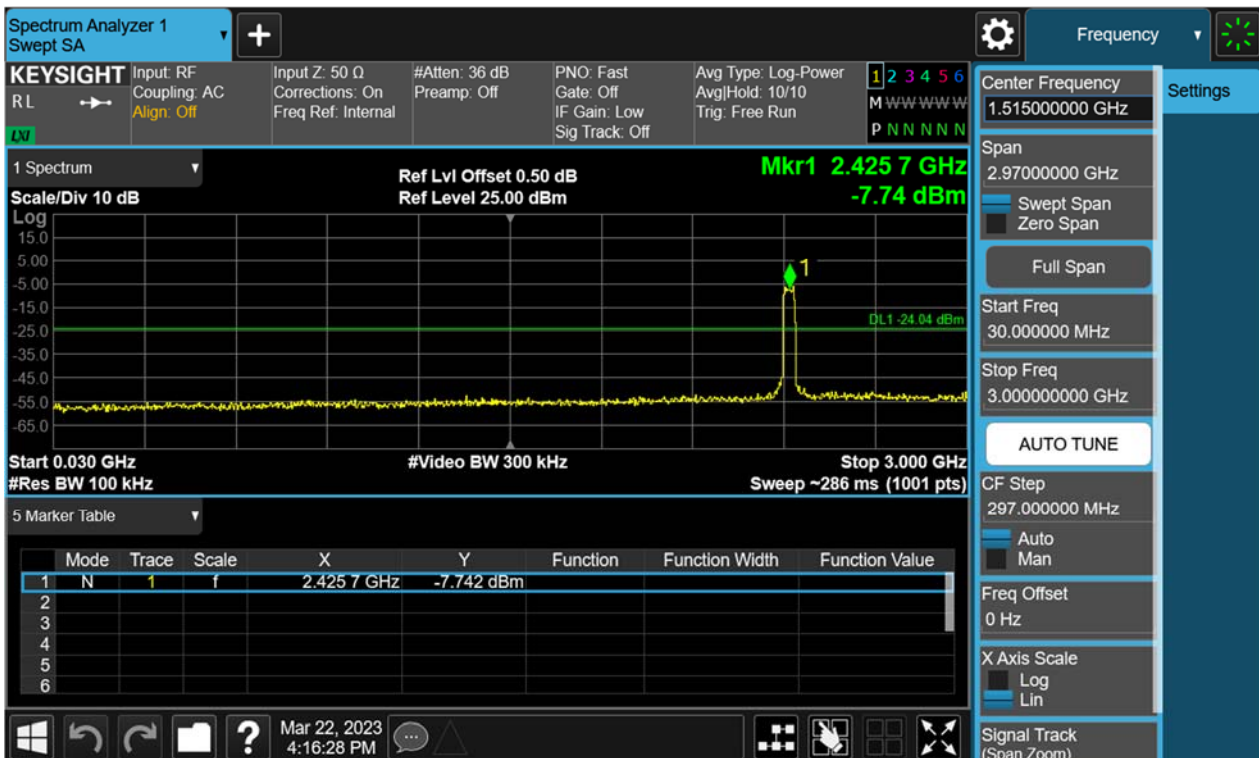
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Band Edge



Conducted spurious emissions 30MHz-25GHz



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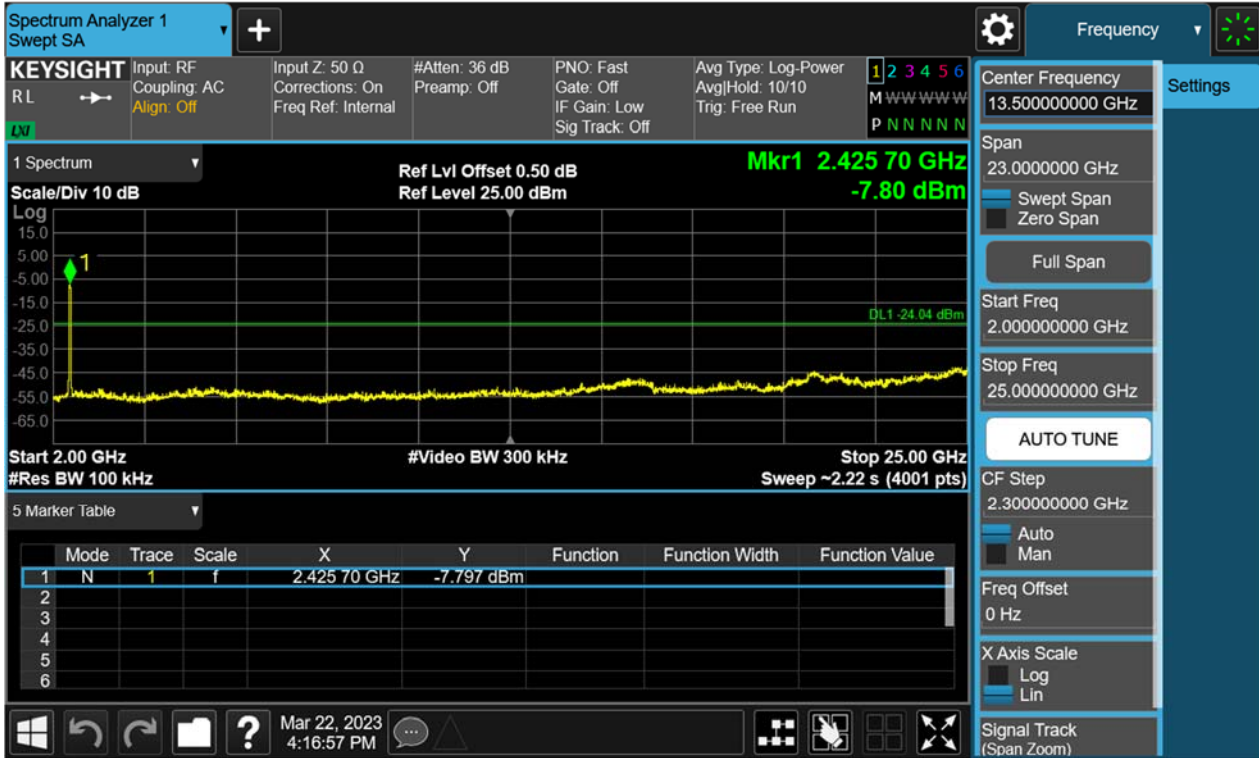


Figure 35: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2437MHz Carrier Level



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Conducted spurious emissions 30MHz-25GHz



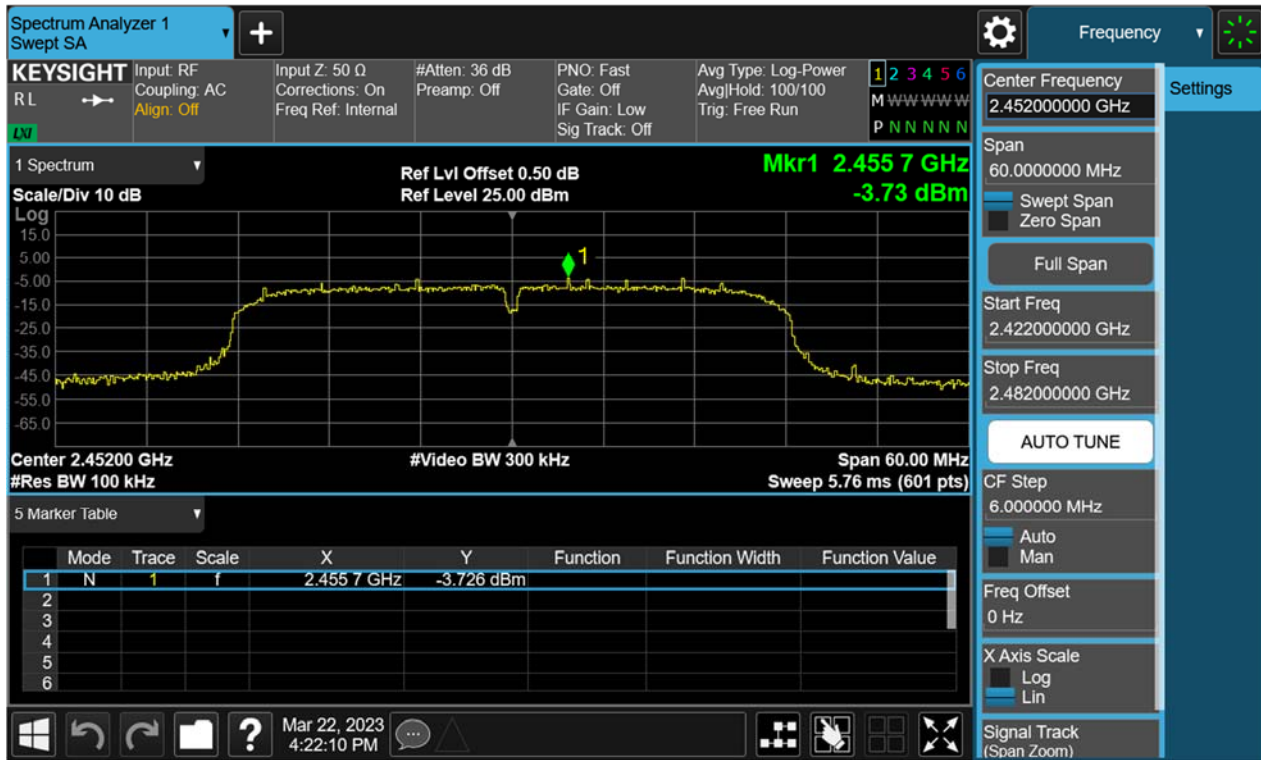
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Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz Carrier Level



Band Edge



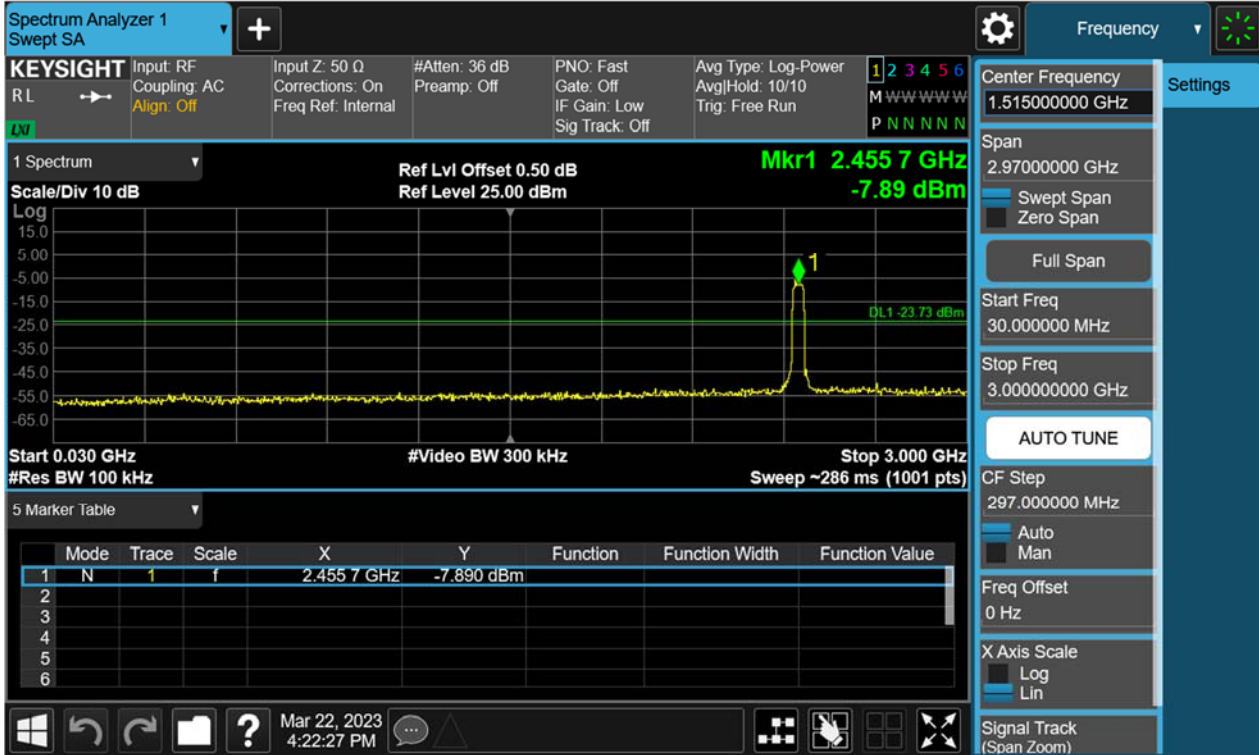
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4.1.6 Radiated Emission

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 "SHE23030025-02AE 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.*

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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 "SHE23030025-02AE 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.

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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 : AC 120V, 60Hz power
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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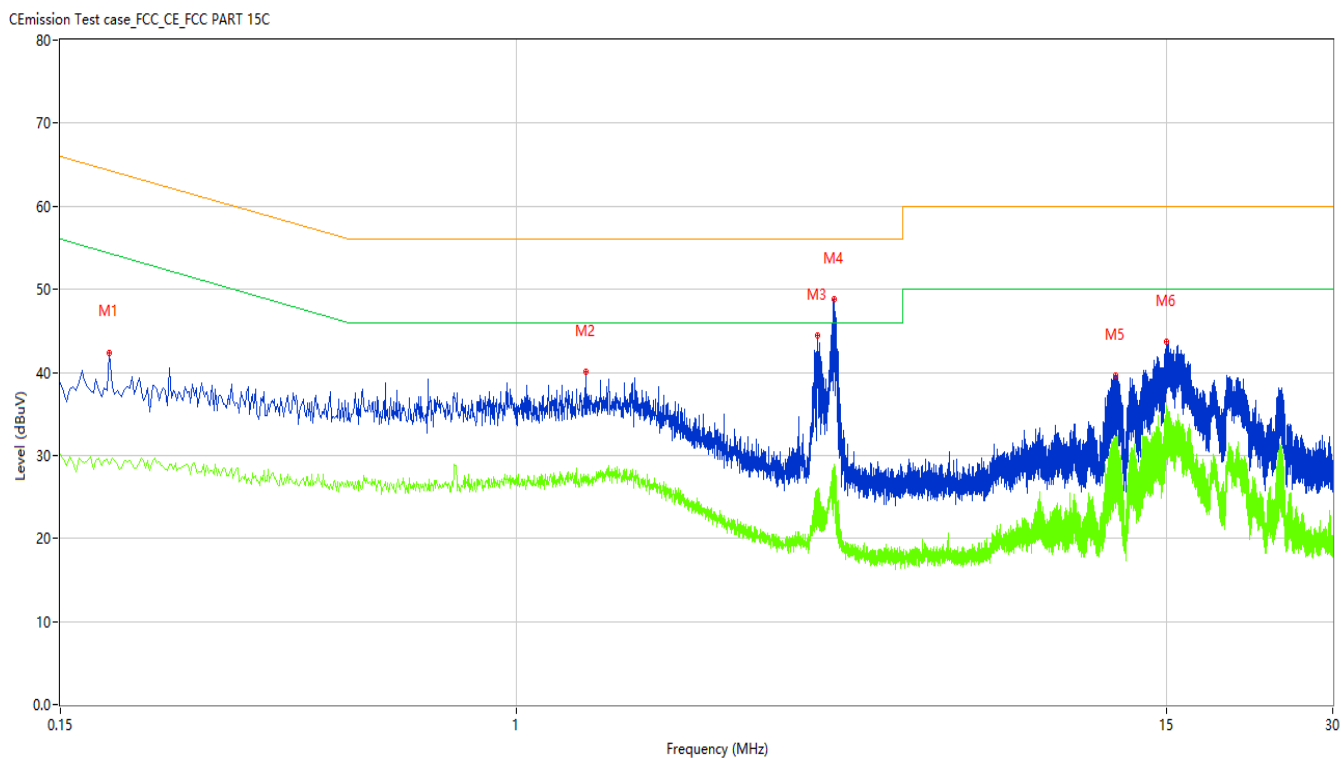
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Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.

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	42.38	10.18	64.30	21.92	Peak	L	Pass
1**	0.184	28.93	10.18	54.30	25.37	AV	L	Pass
2	1.336	40.10	10.14	56.00	15.90	Peak	L	Pass
2**	1.336	27.64	10.14	46.00	18.36	AV	L	Pass
3	3.518	44.43	10.25	56.00	11.57	Peak	L	Pass
3**	3.518	25.93	10.25	46.00	20.07	AV	L	Pass
4	3.756	48.85	10.26	56.00	7.15	Peak	L	Pass
4**	3.756	28.89	10.26	46.00	17.11	AV	L	Pass
5	12.158	39.63	10.60	60.00	20.37	Peak	L	Pass
5**	12.158	32.18	10.60	50.00	17.82	AV	L	Pass
6	14.998	43.65	10.71	60.00	16.35	Peak	L	Pass
6**	14.998	35.51	10.71	50.00	14.49	AV	L	Pass

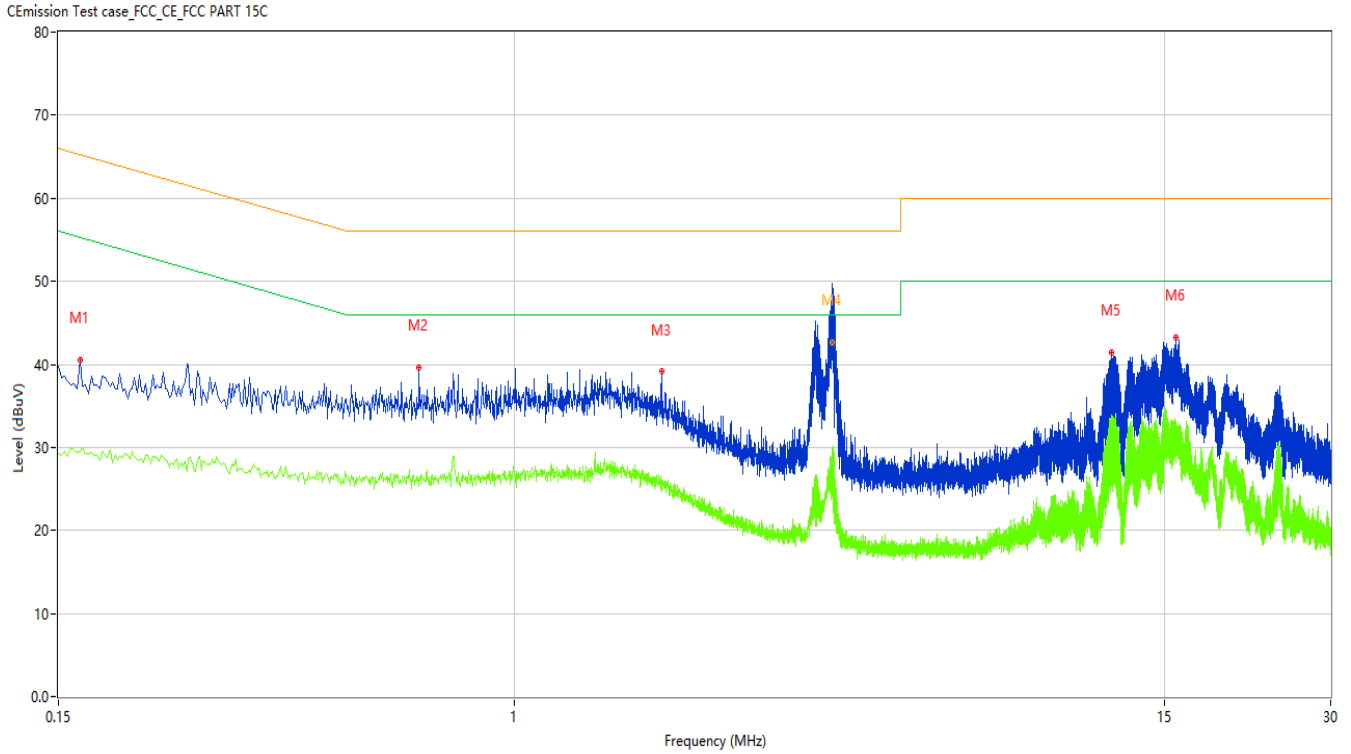
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Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.164	40.60	10.29	65.26	24.66	Peak	N	Pass
1**	0.164	29.54	10.29	55.26	25.72	AV	N	Pass
2	0.674	39.70	10.35	56.00	16.30	Peak	N	Pass
2**	0.674	25.89	10.35	46.00	20.11	AV	N	Pass
3	1.852	39.16	10.19	56.00	16.84	Peak	N	Pass
3**	1.852	25.45	10.19	46.00	20.55	AV	N	Pass
4	3.770	51.15	10.21	56.00	4.85	Peak	N	Pass
4*	3.770	42.63	10.21	56.00	13.37	QP	N	Pass
4**	3.770	29.53	10.21	46.00	16.47	AV	N	Pass
5	12.038	41.48	10.44	60.00	18.52	Peak	N	Pass
5**	12.038	33.85	10.44	50.00	16.15	AV	N	Pass
6	15.752	43.31	10.56	60.00	16.69	Peak	N	Pass
6**	15.752	32.37	10.56	50.00	17.63	AV	N	Pass

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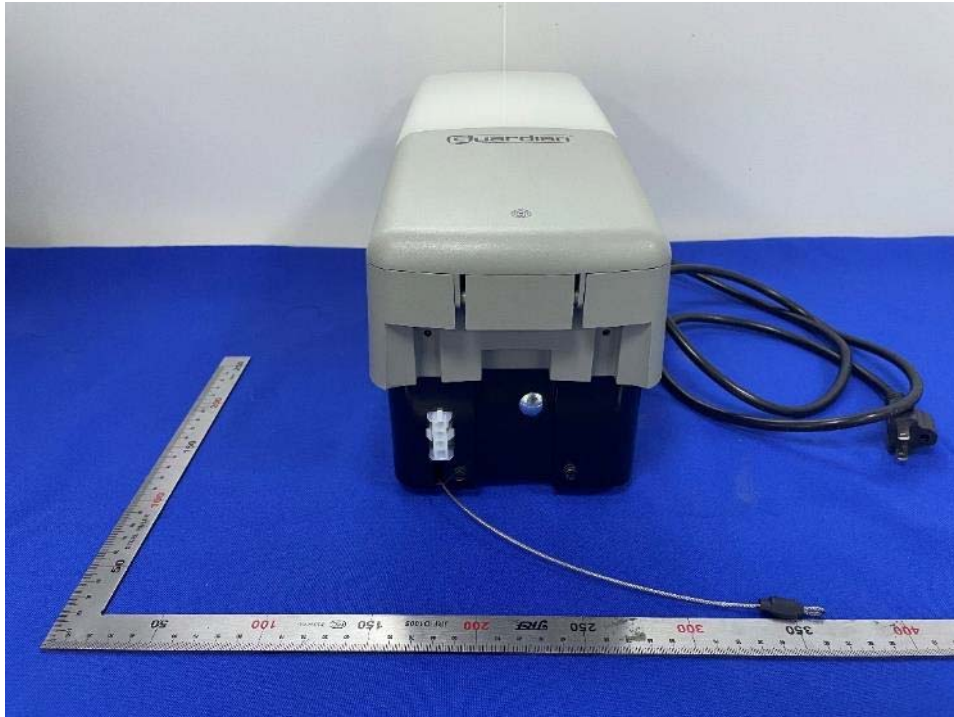
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5 Appendixes

5.1 Photographs of the Sample



Front of the sample



Rear of the sample

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Left of the sample



Right of the sample

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Top of the sample



Bottom of the sample

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Open photo-1 of the sample



Open photo-2 of the sample

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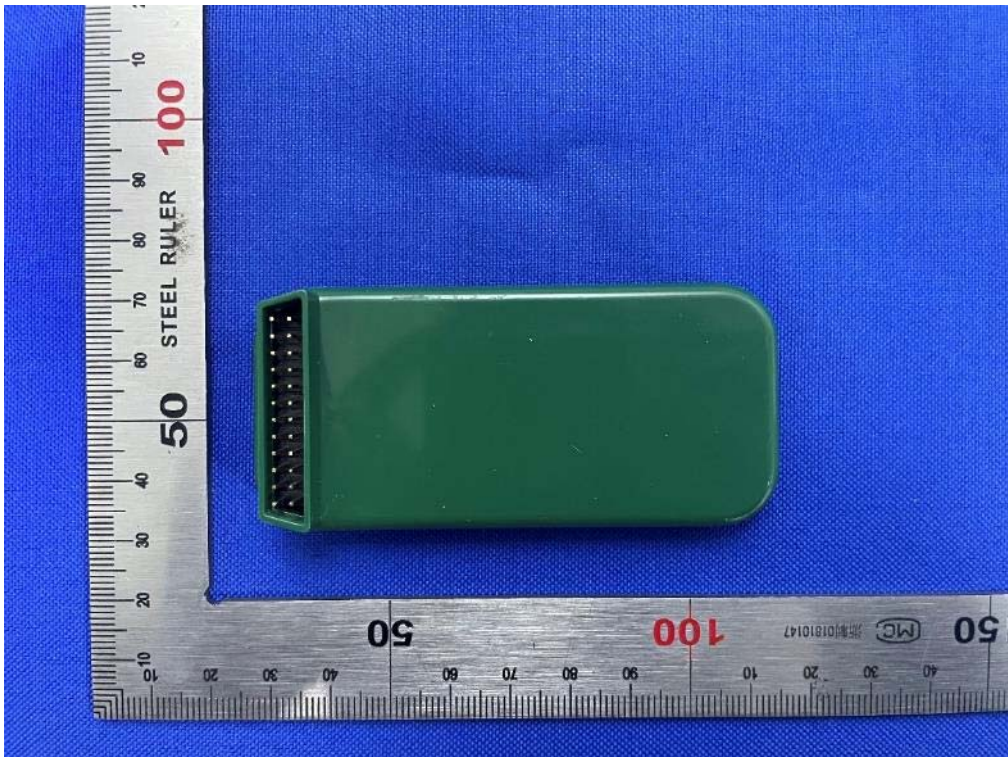
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Open photo-3 of the sample



Open photo-4 of the sample

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Open photo-5 of the sample



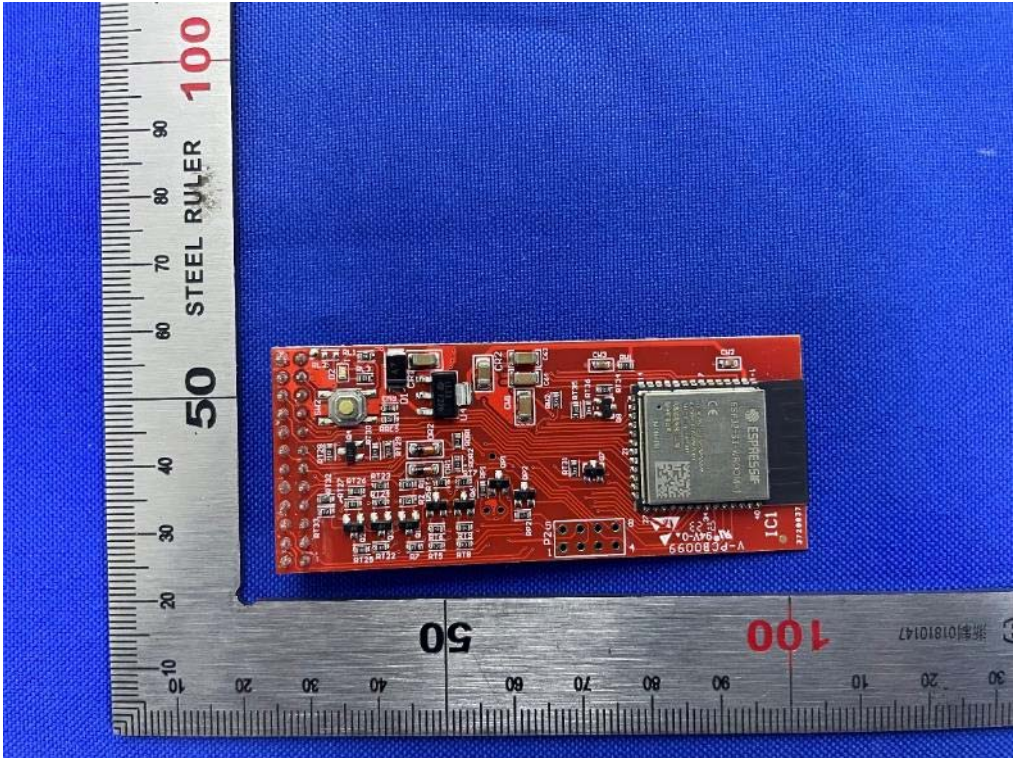
Internal photo-1 of the sample

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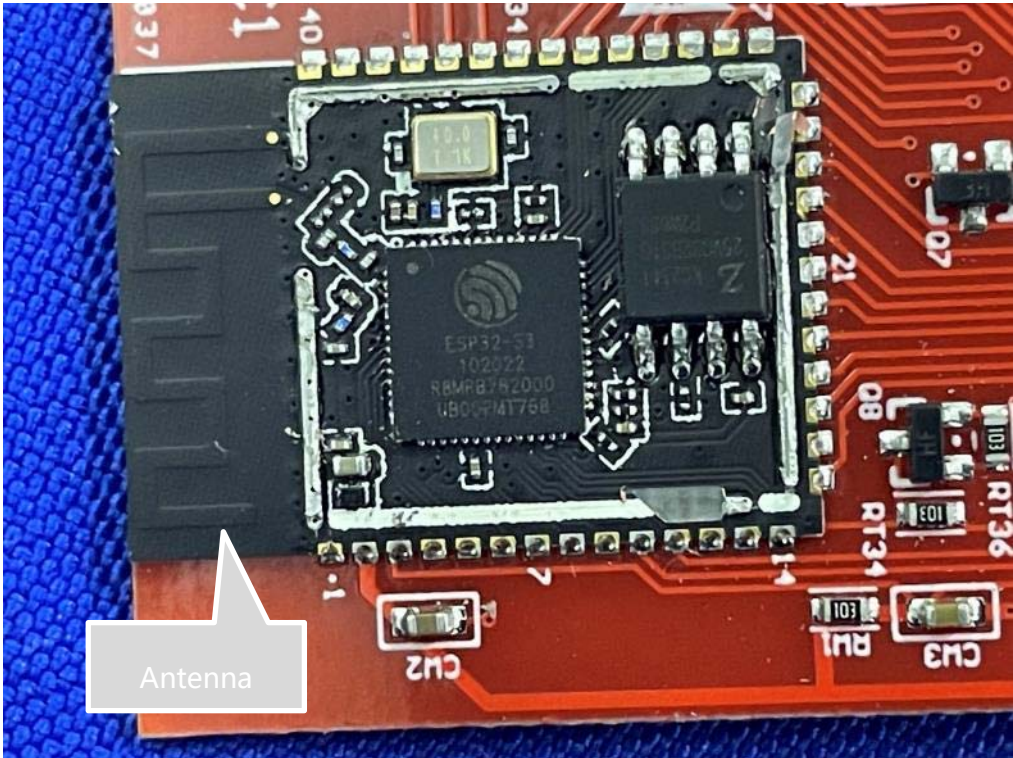
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Internal photo-2 of the sample



Remove Cover of the sample

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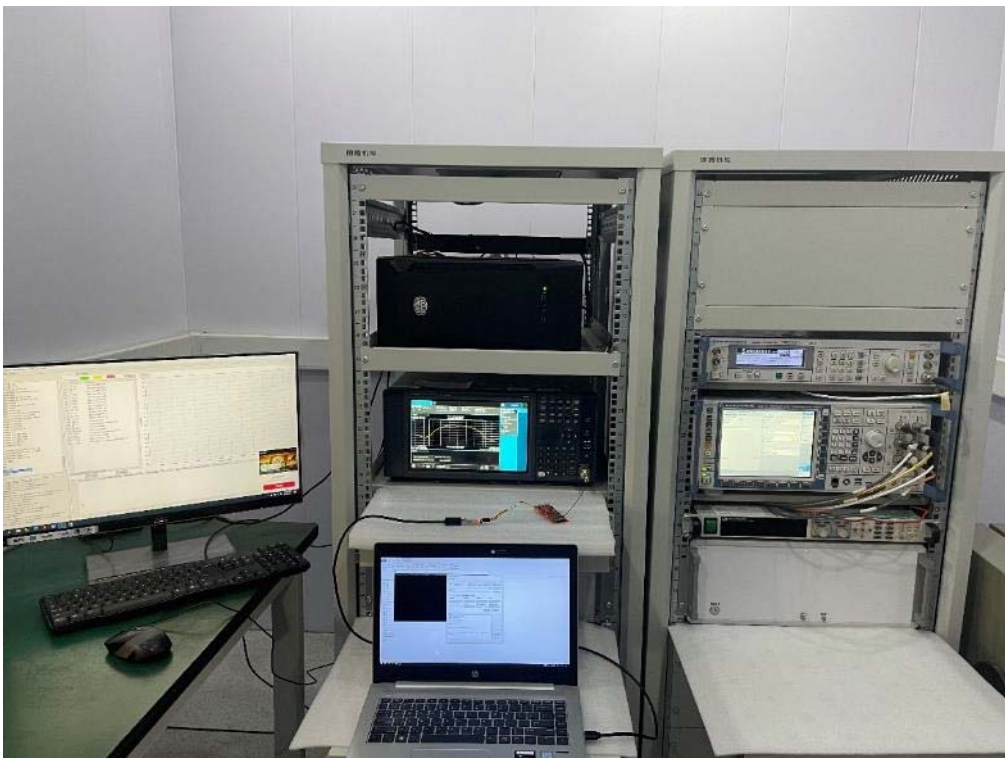
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5.2 Set-up for Conducted Emissions



5.3 Set-up for Conducted RF test at Antenna Port



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5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



End of the report