

TEST REPORT

Report No.: SHE21120049-02AE

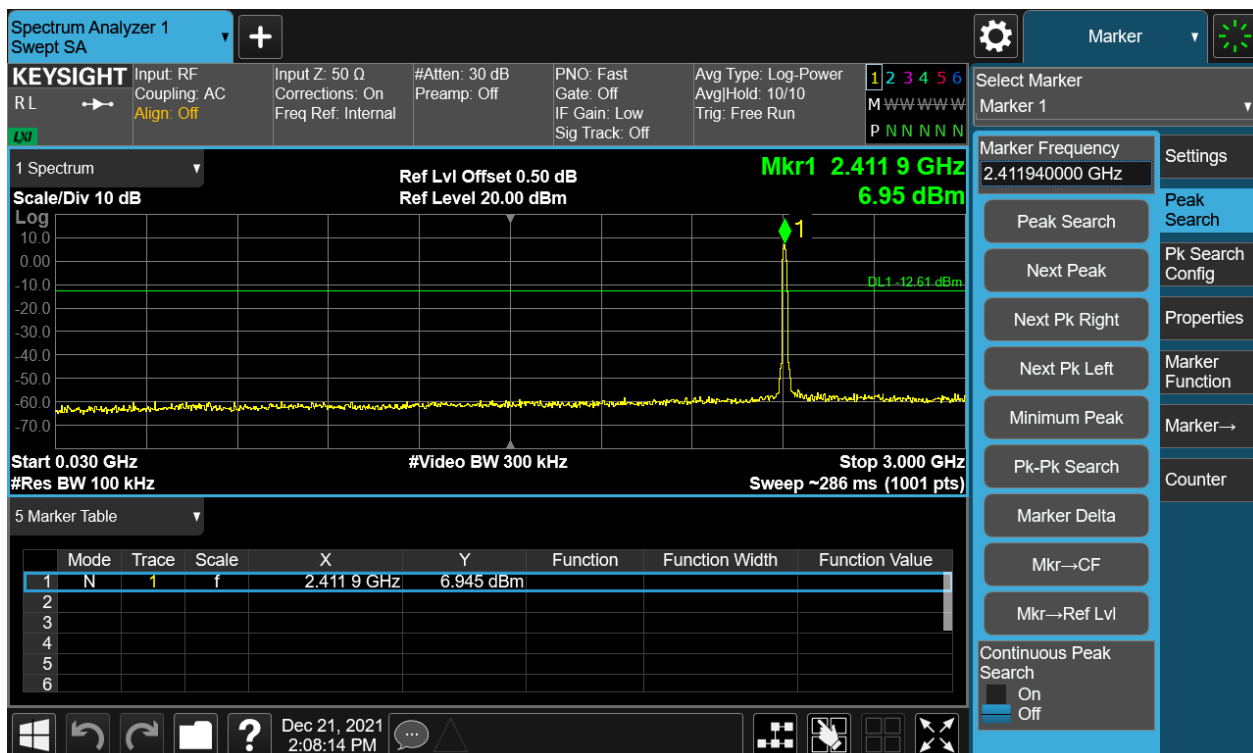
Date: 2022-01-13

Page 25 of 48

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

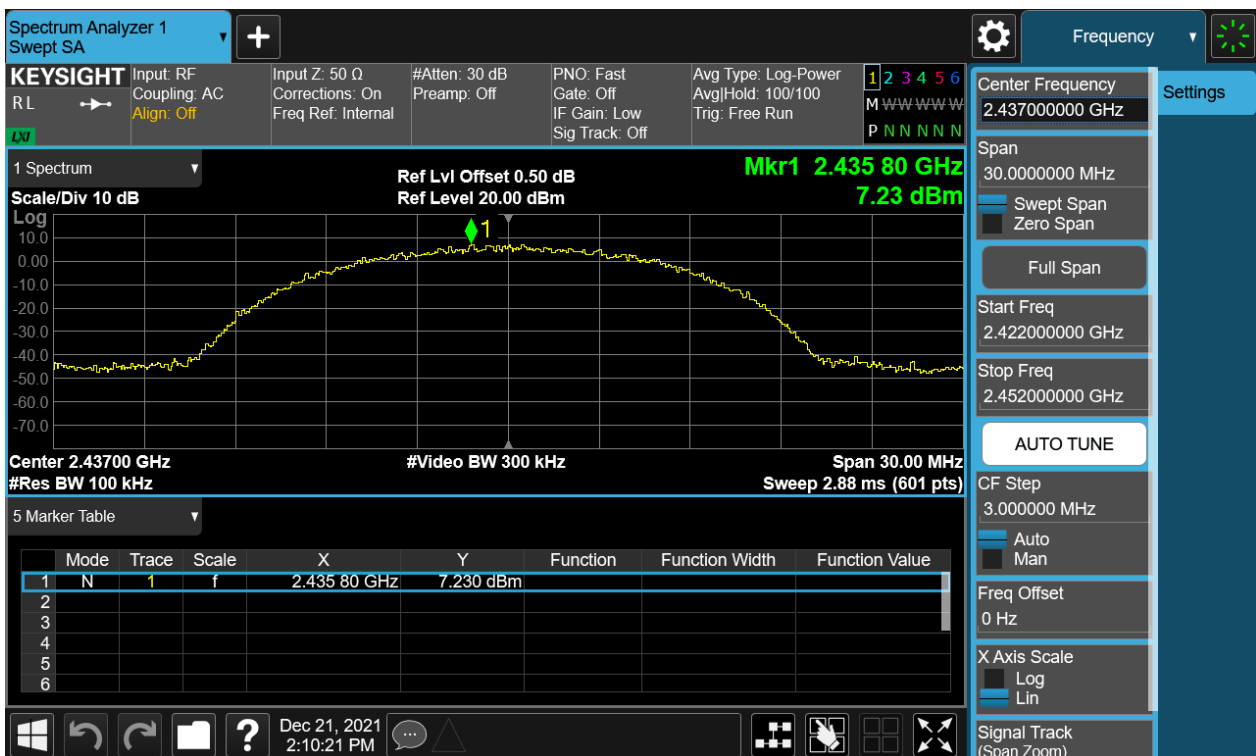
Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 26 of 48



Figure 20: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2437MHz Carrier Level



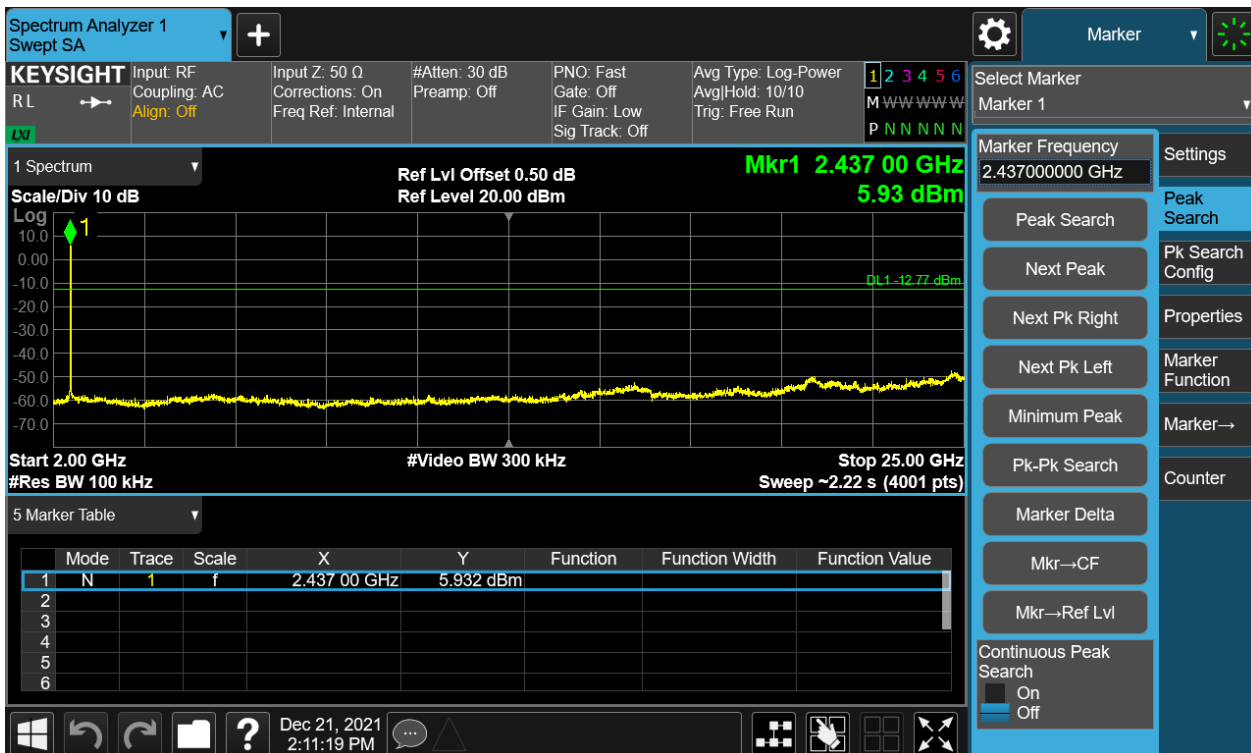
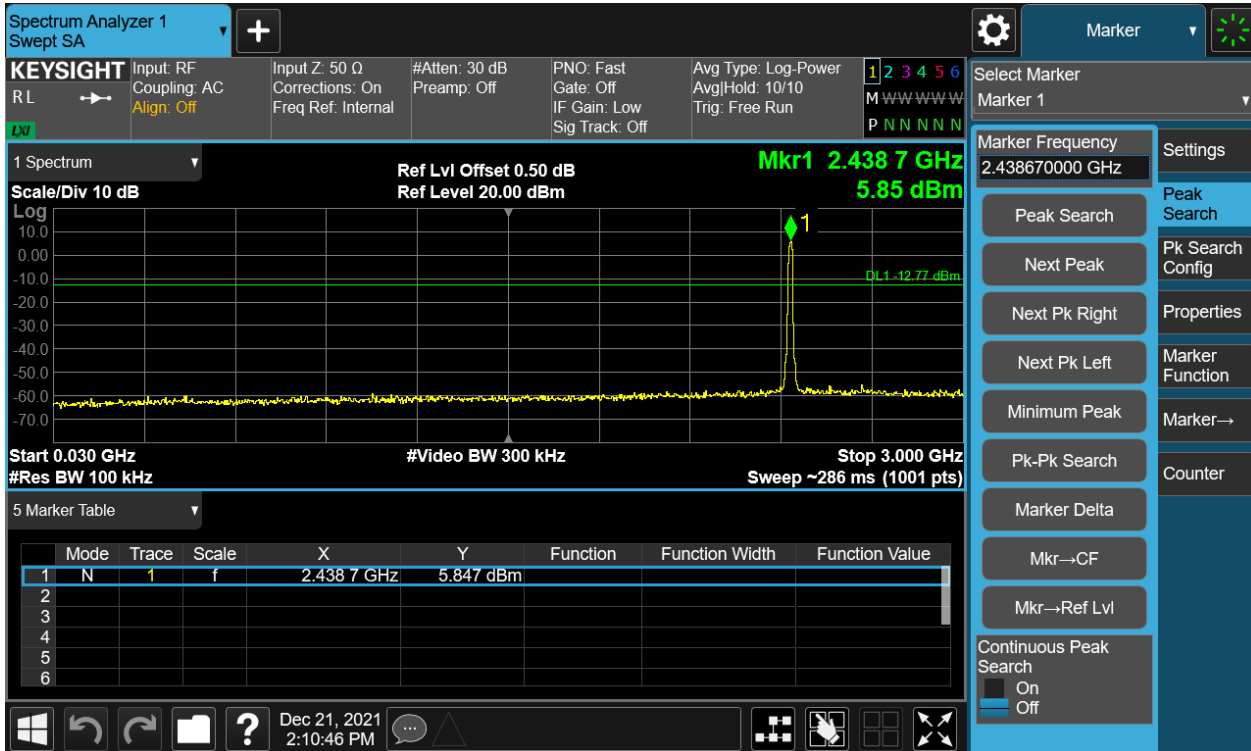
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 27 of 48

Conducted spurious emissions 30MHz-25GHz



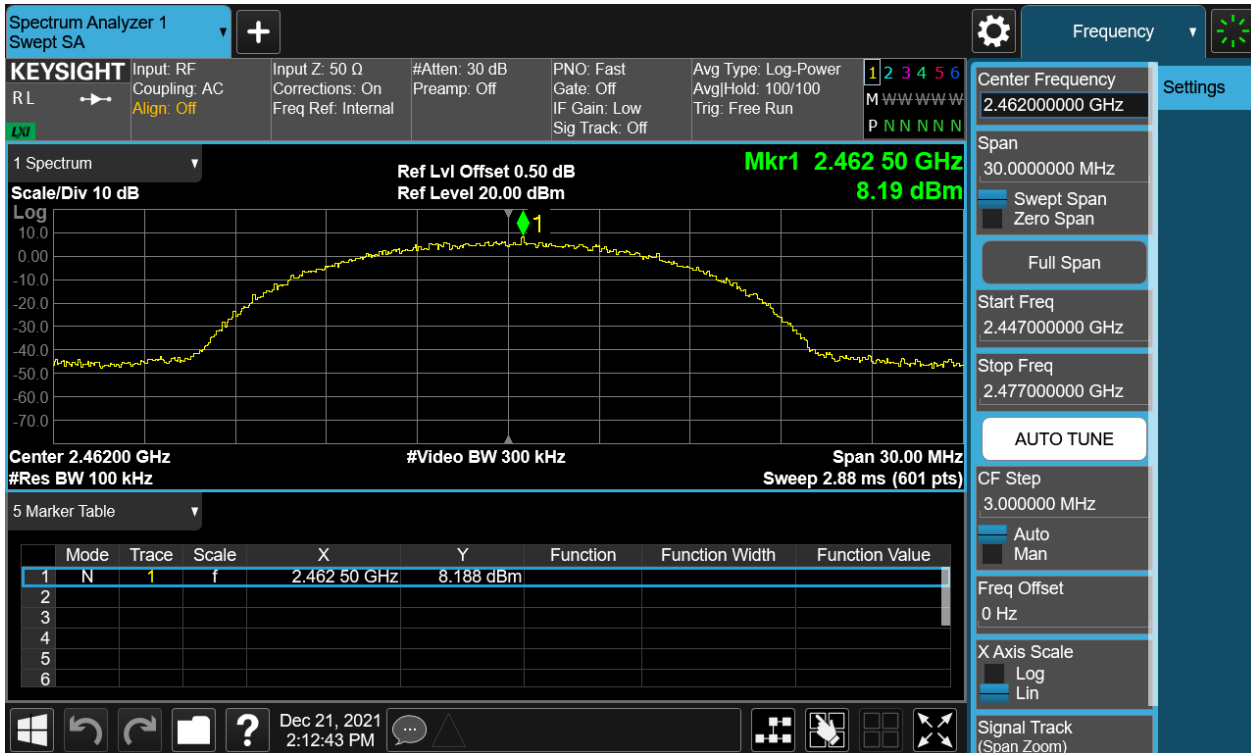
TEST REPORT

Report No.: SHE21120049-02AE

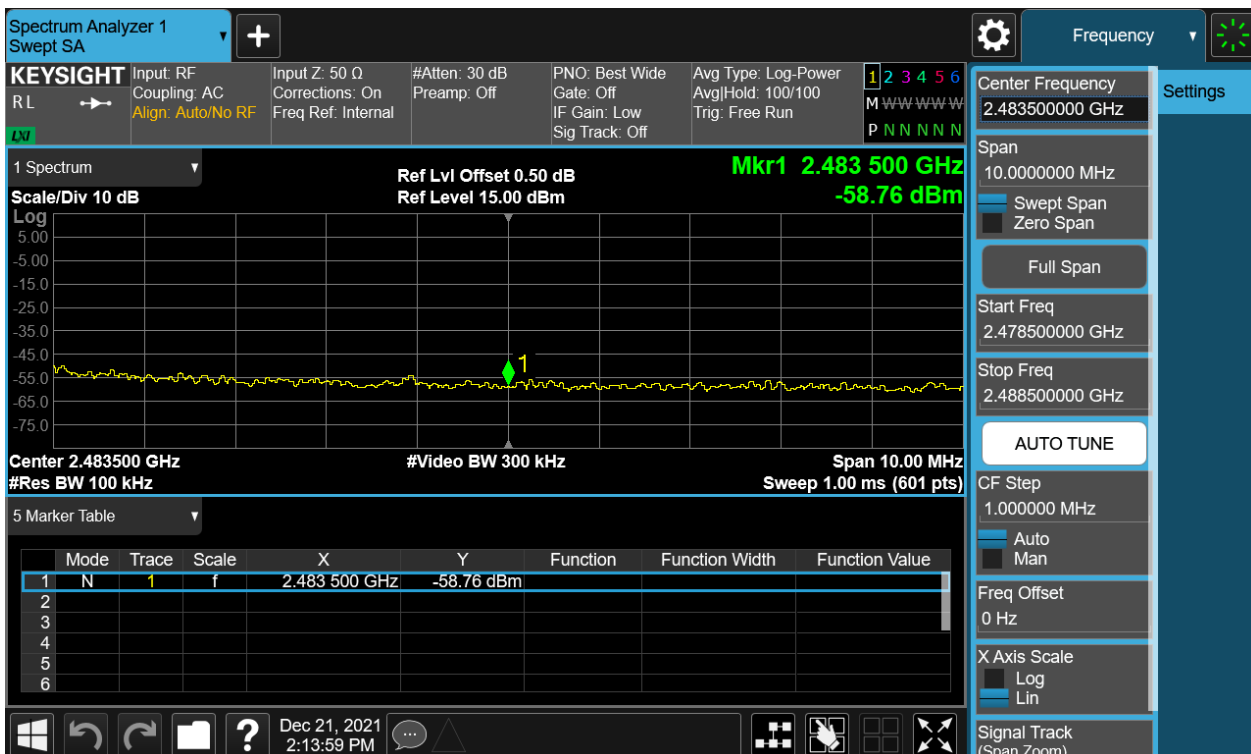
Date: 2022-01-13

Page 28 of 48

Figure 21: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2462MHz Carrier Level



Band Edge



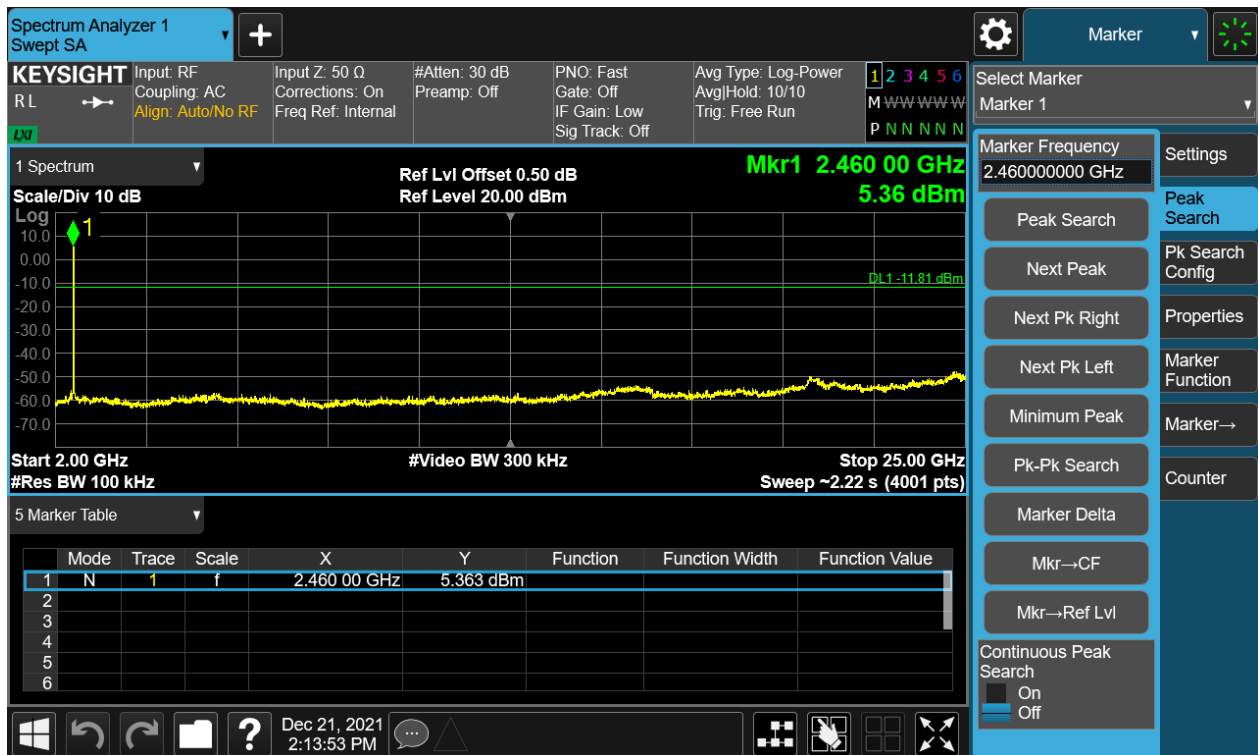
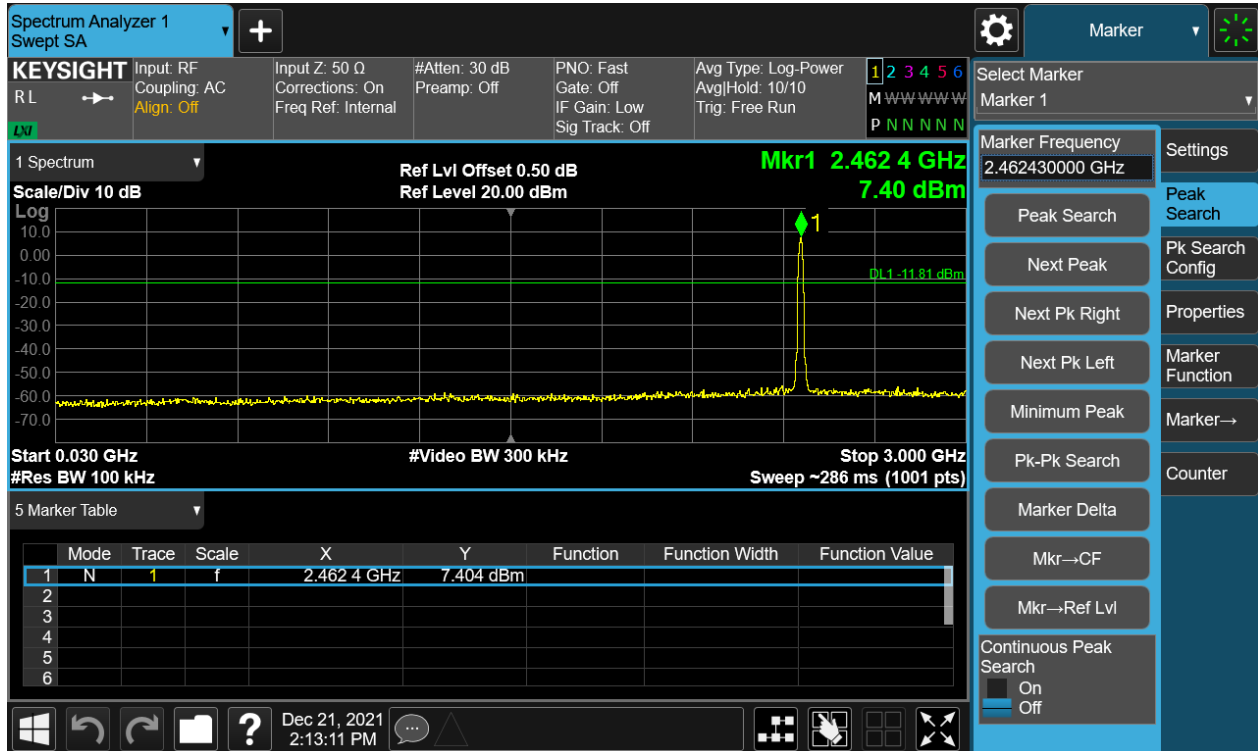
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

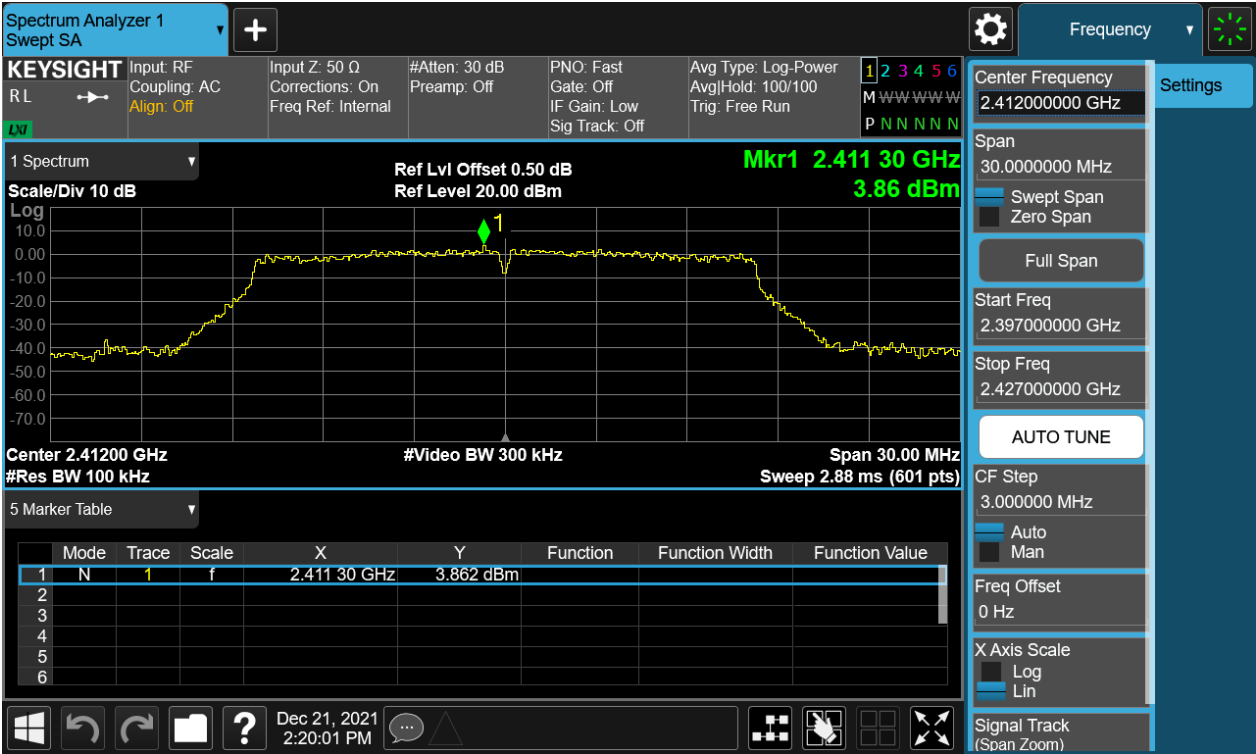
Page 29 of 48

Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Figure 22: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2412MHz Carrier Level



Band Edge



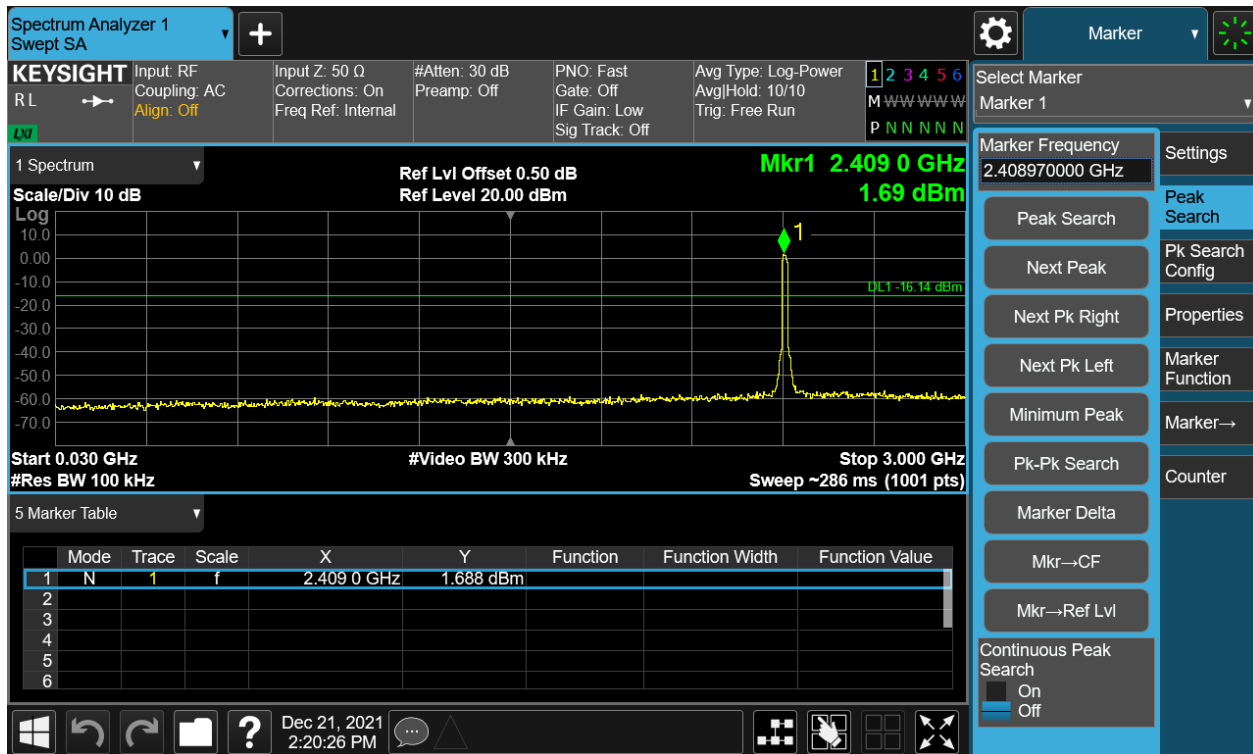
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 31 of 48

Conducted spurious emissions 30MHz-25GHz



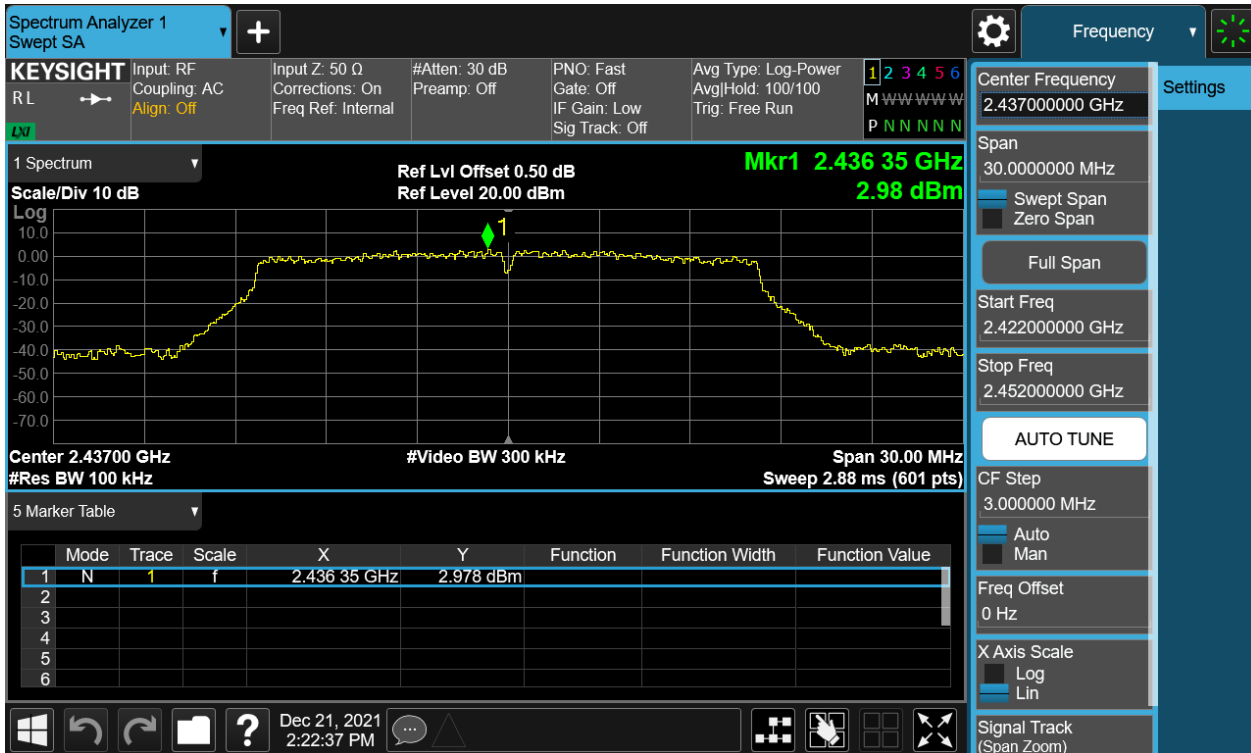
TEST REPORT

Report No.: SHE21120049-02AE

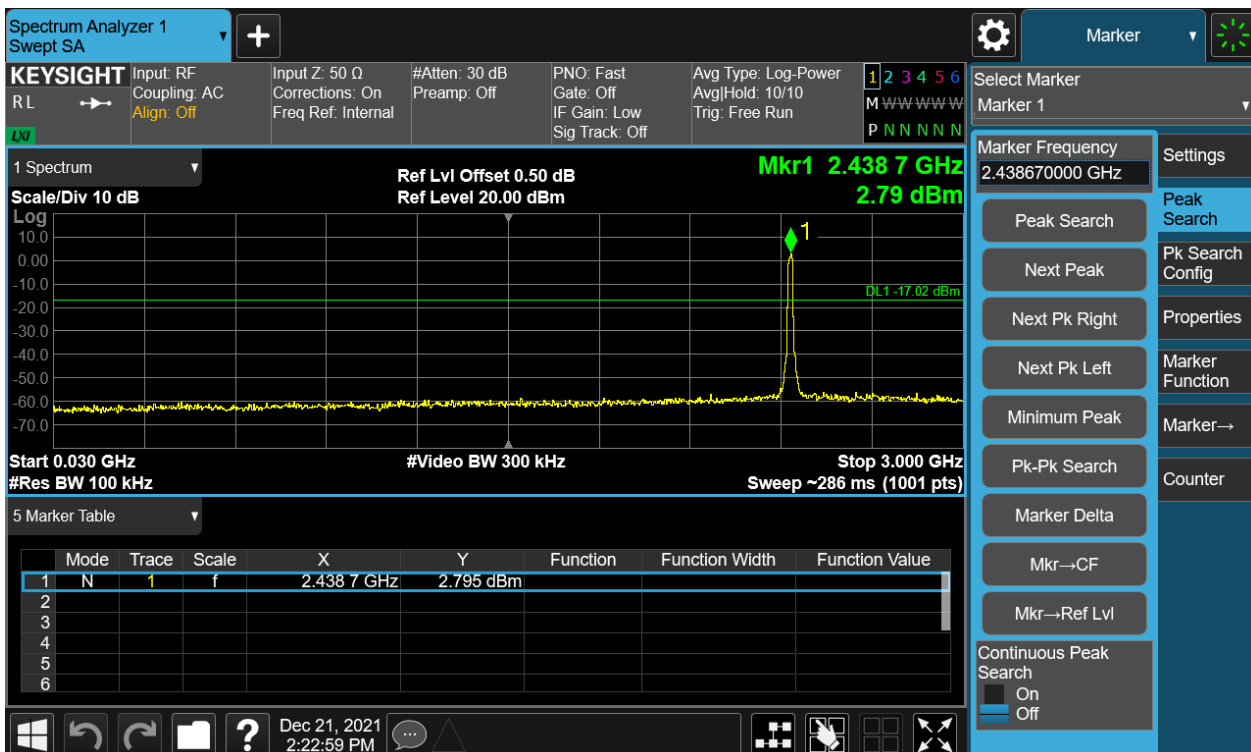
Date: 2022-01-13

Page 32 of 48

Figure 23: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2437MHz Carrier Level



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 33 of 48

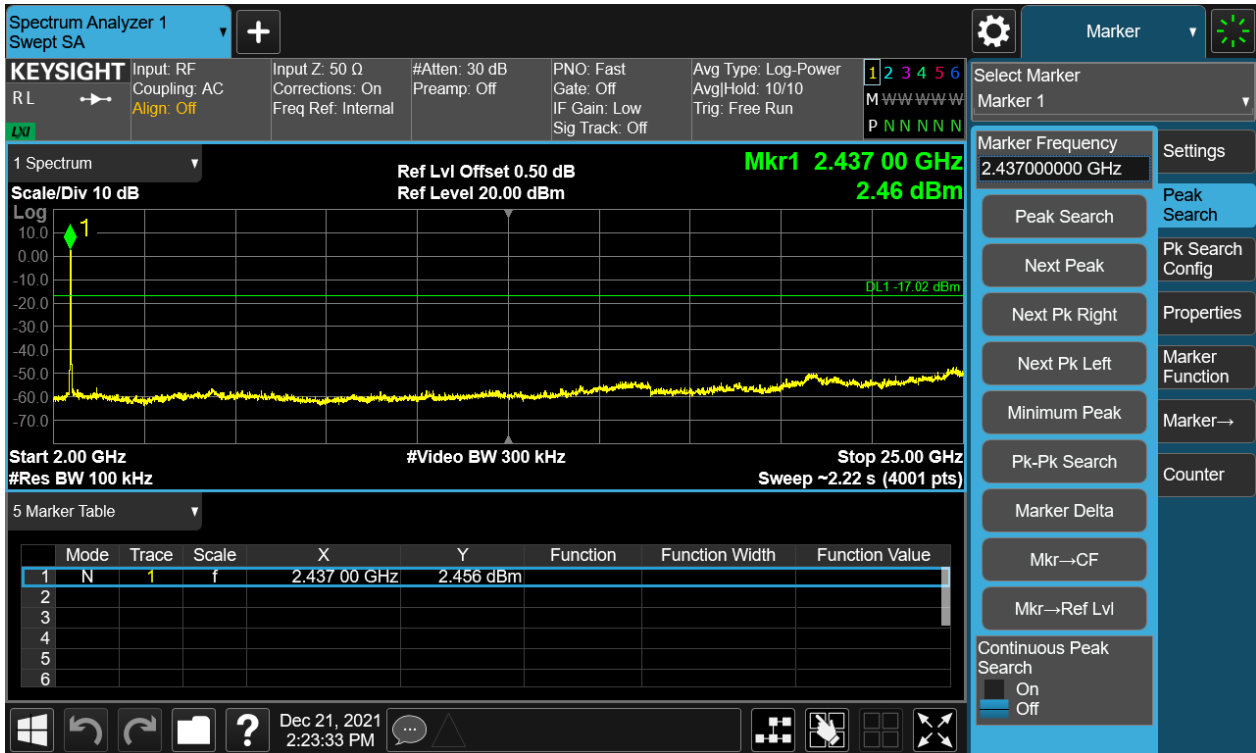
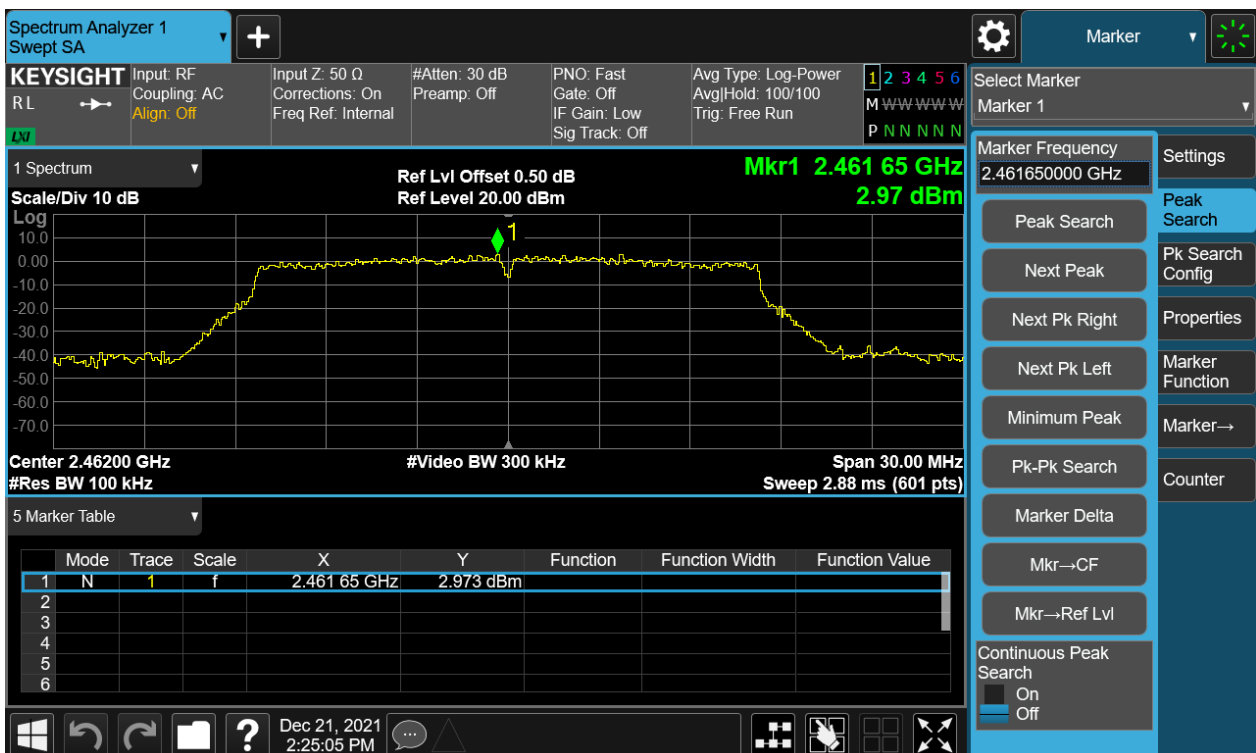


Figure 24: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2462MHz Carrier Level



TEST REPORT

Report No.: SHE21120049-02AE

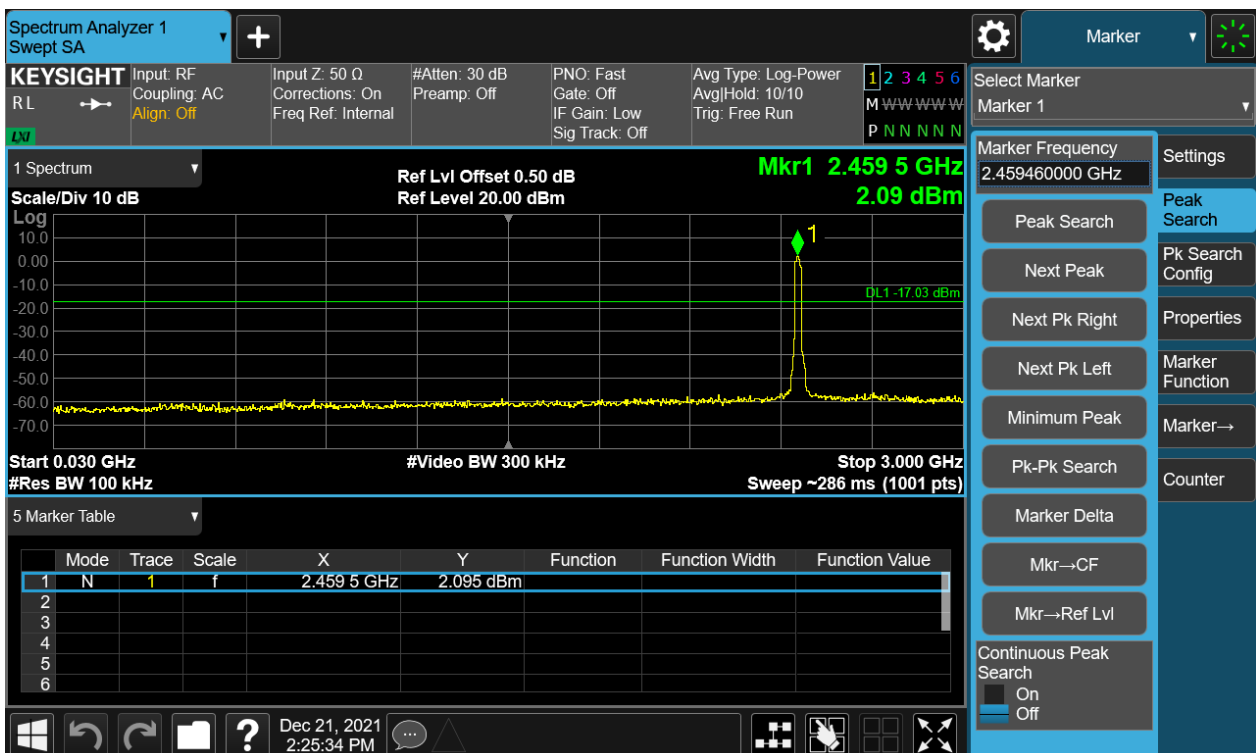
Date: 2022-01-13

Page 34 of 48

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

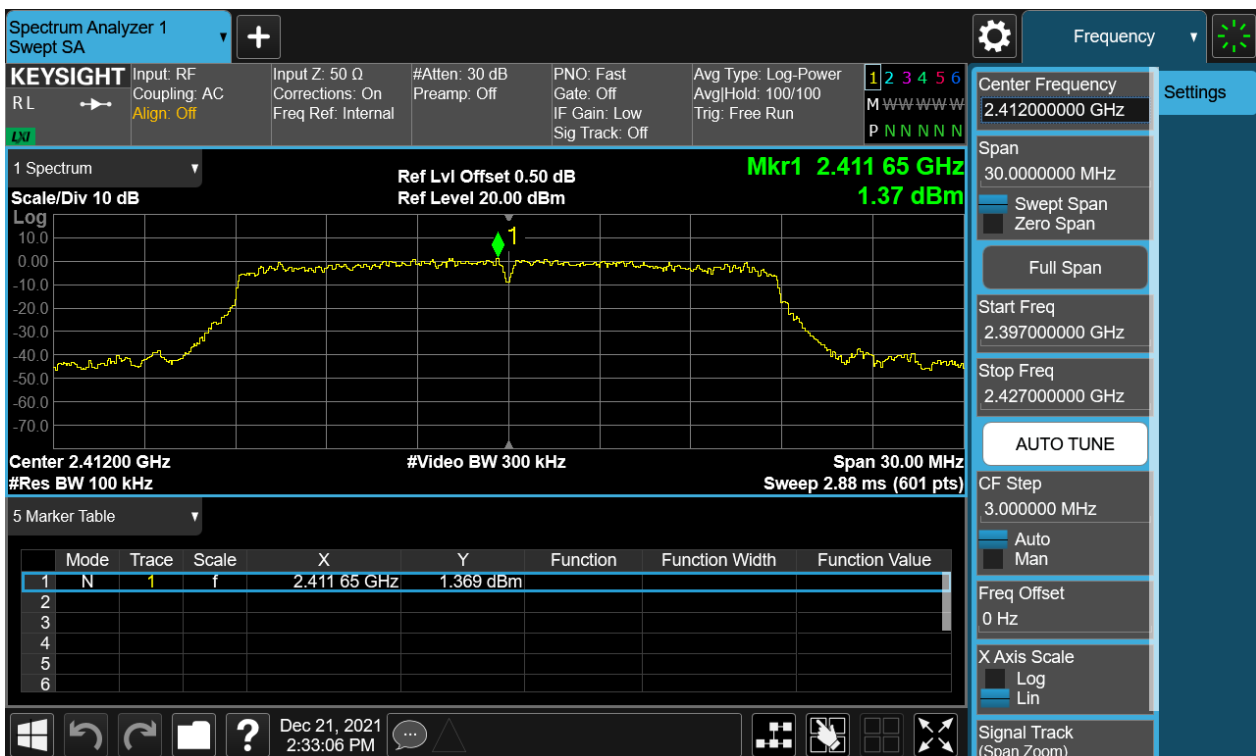
Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 35 of 48



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



TEST REPORT

Report No.: SHE21120049-02AE

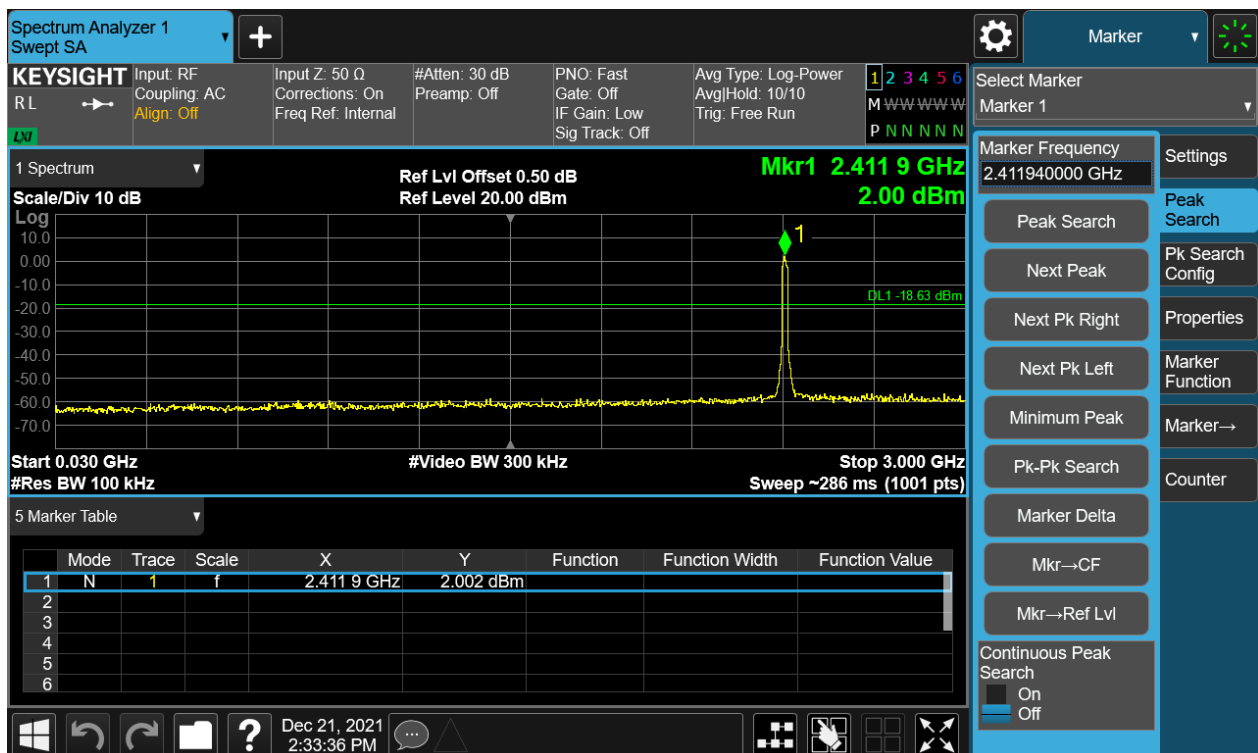
Date: 2022-01-13

Page 36 of 48

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 37 of 48

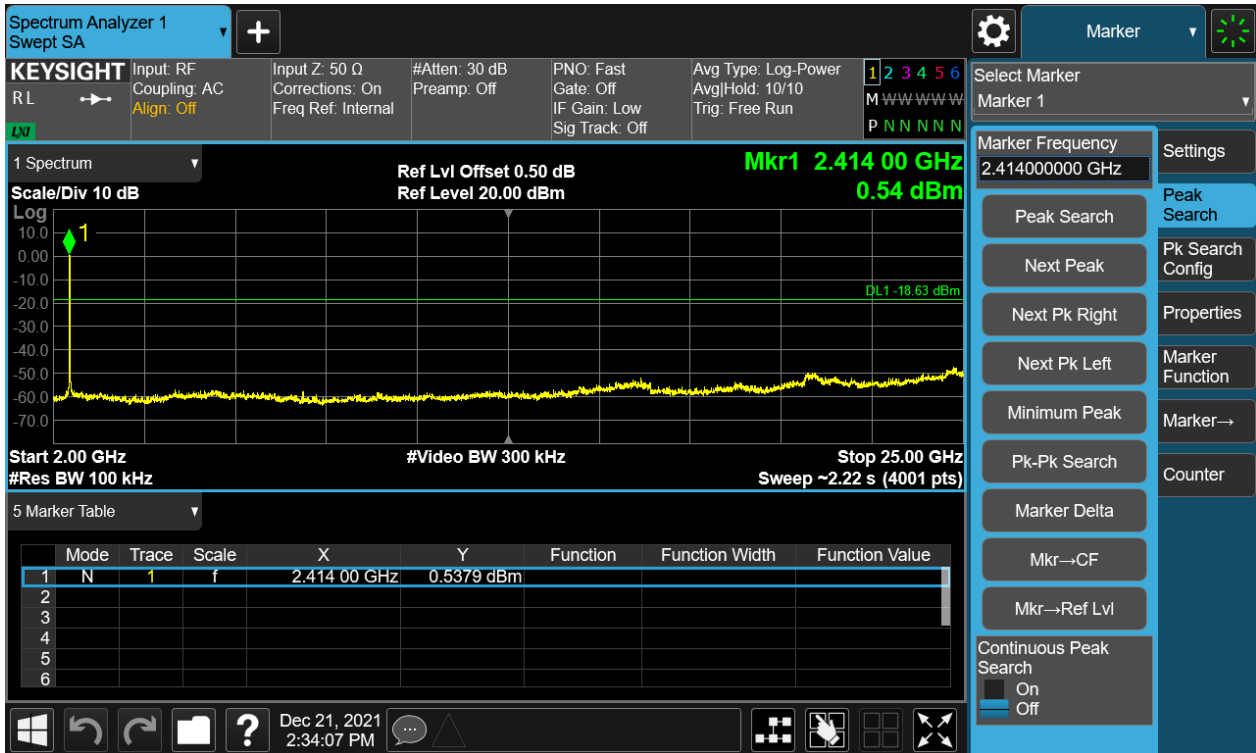
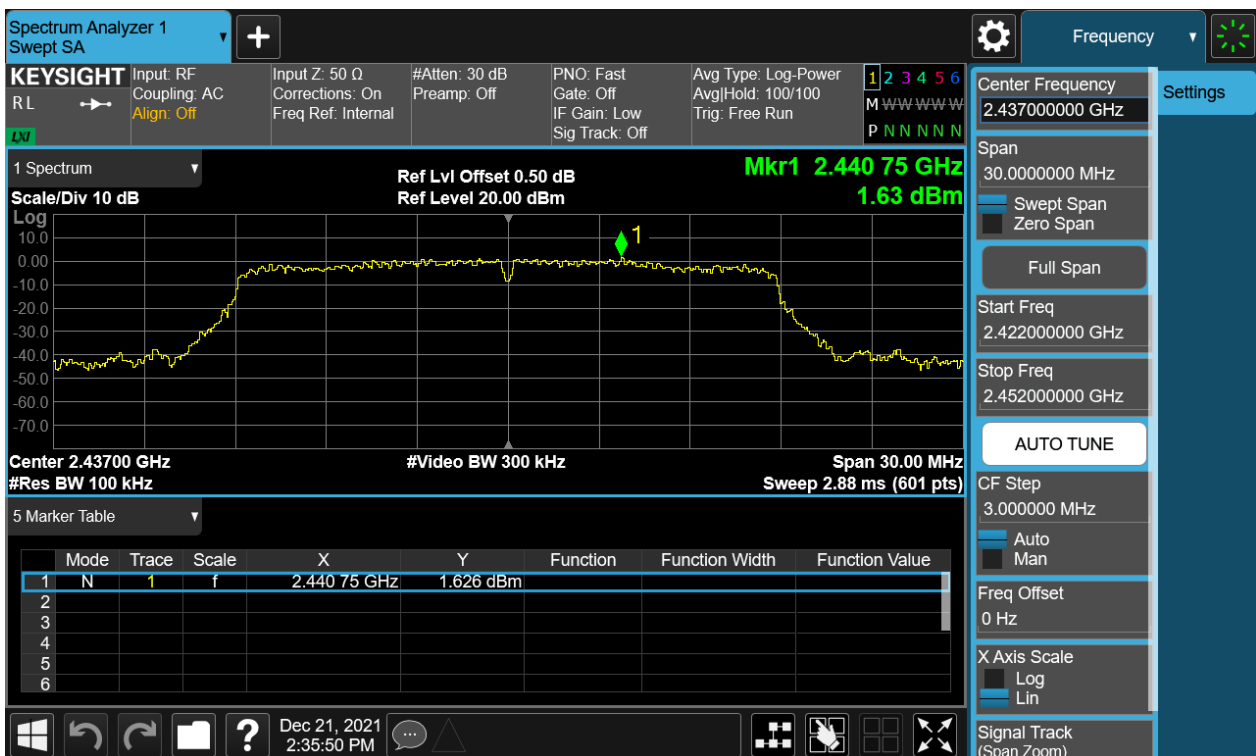


Figure 26: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



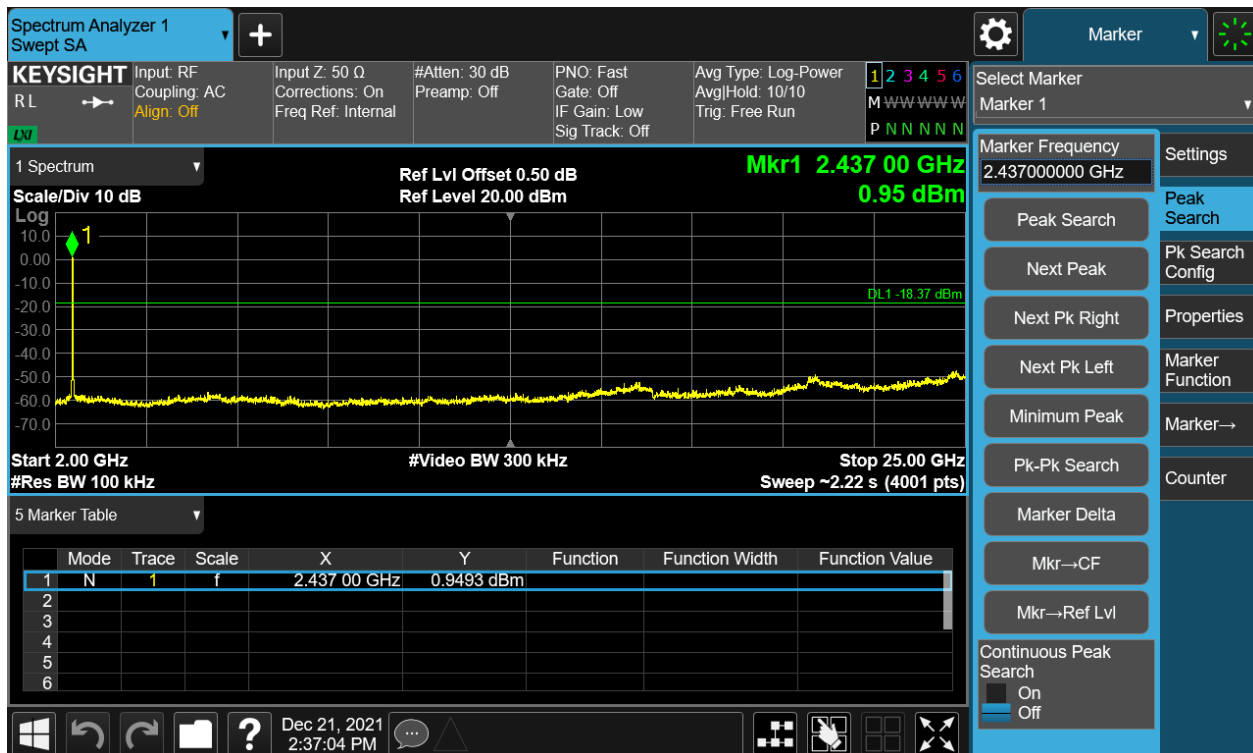
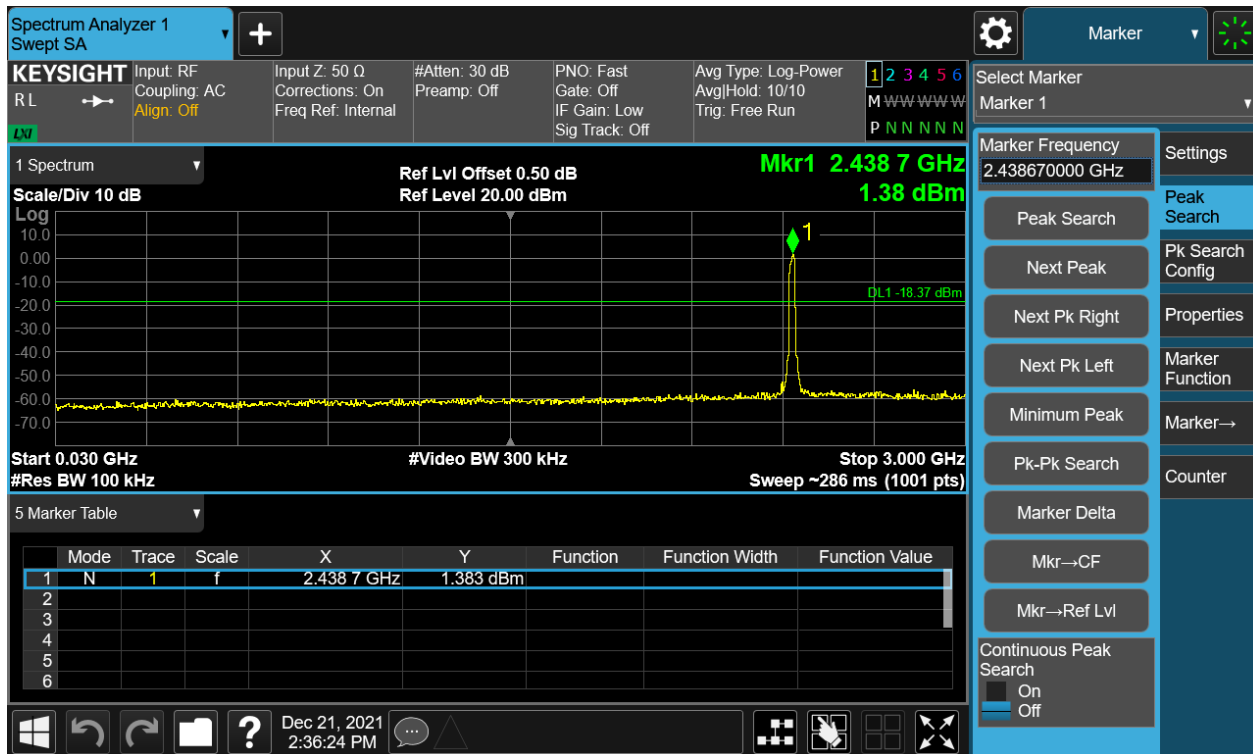
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 38 of 48

Conducted spurious emissions 30MHz-25GHz



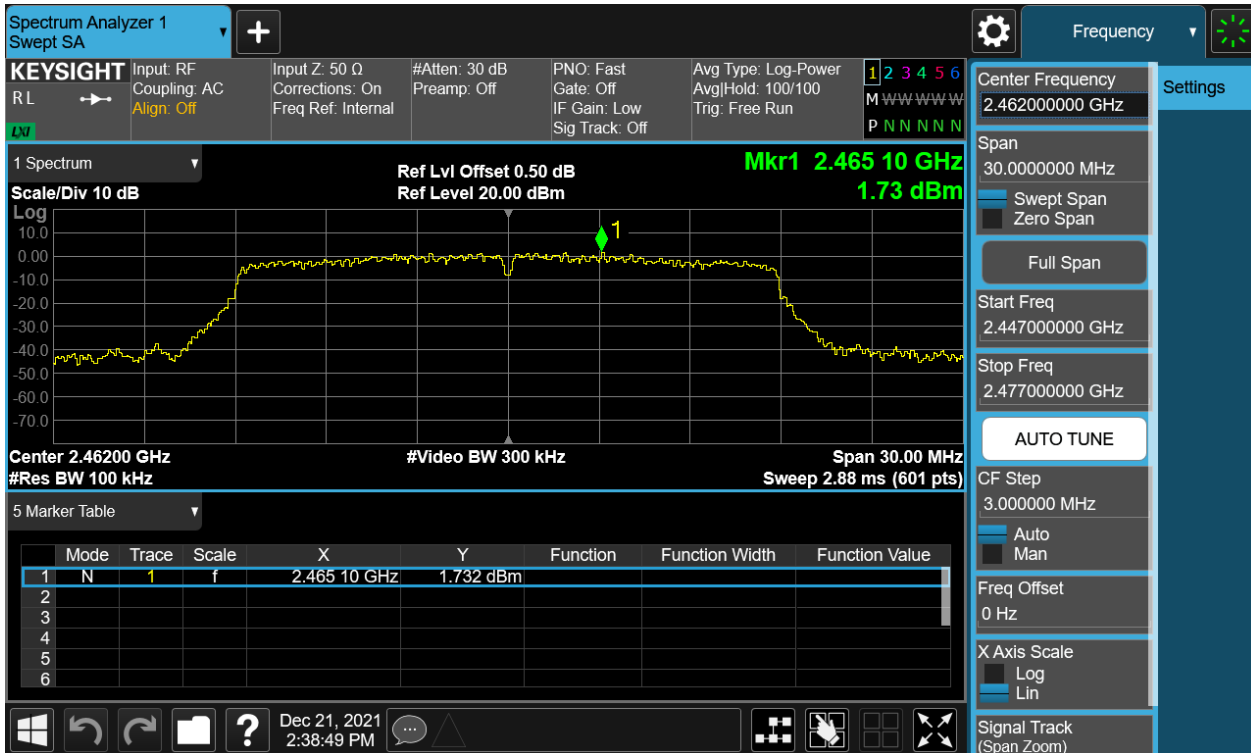
TEST REPORT

Report No.: SHE21120049-02AE

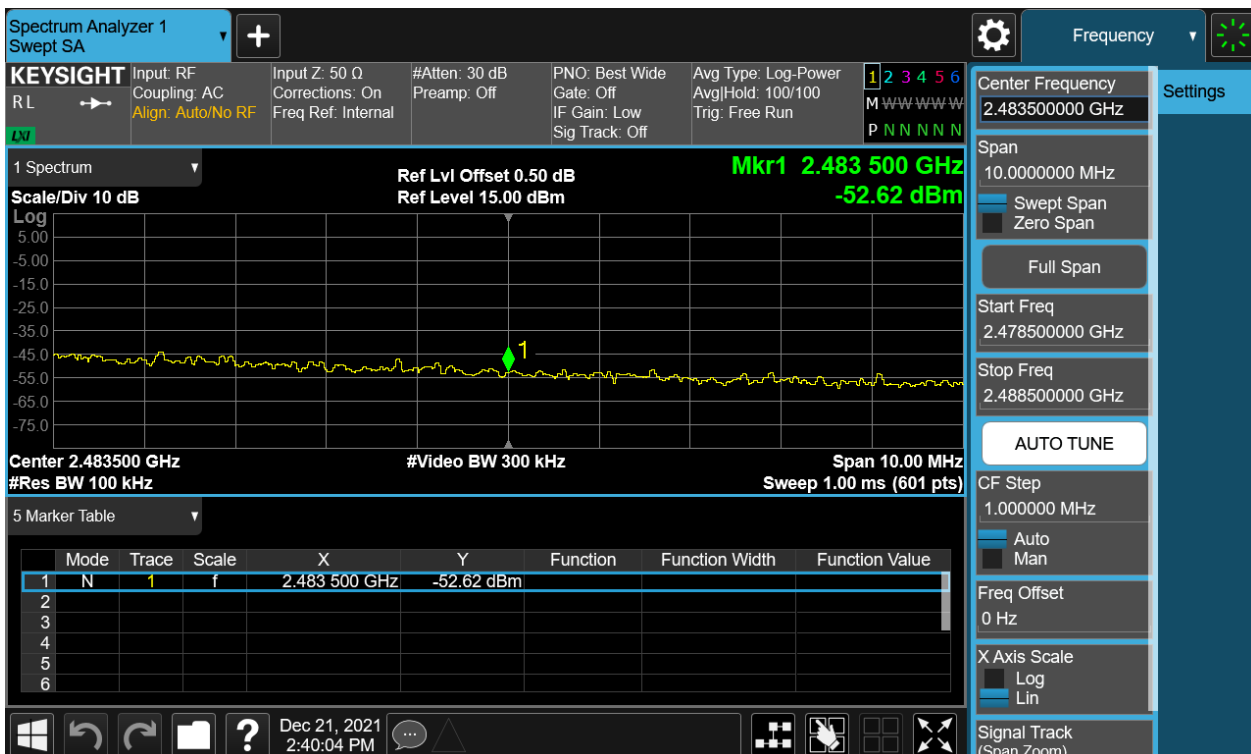
Date: 2022-01-13

Page 39 of 48

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



Band Edge



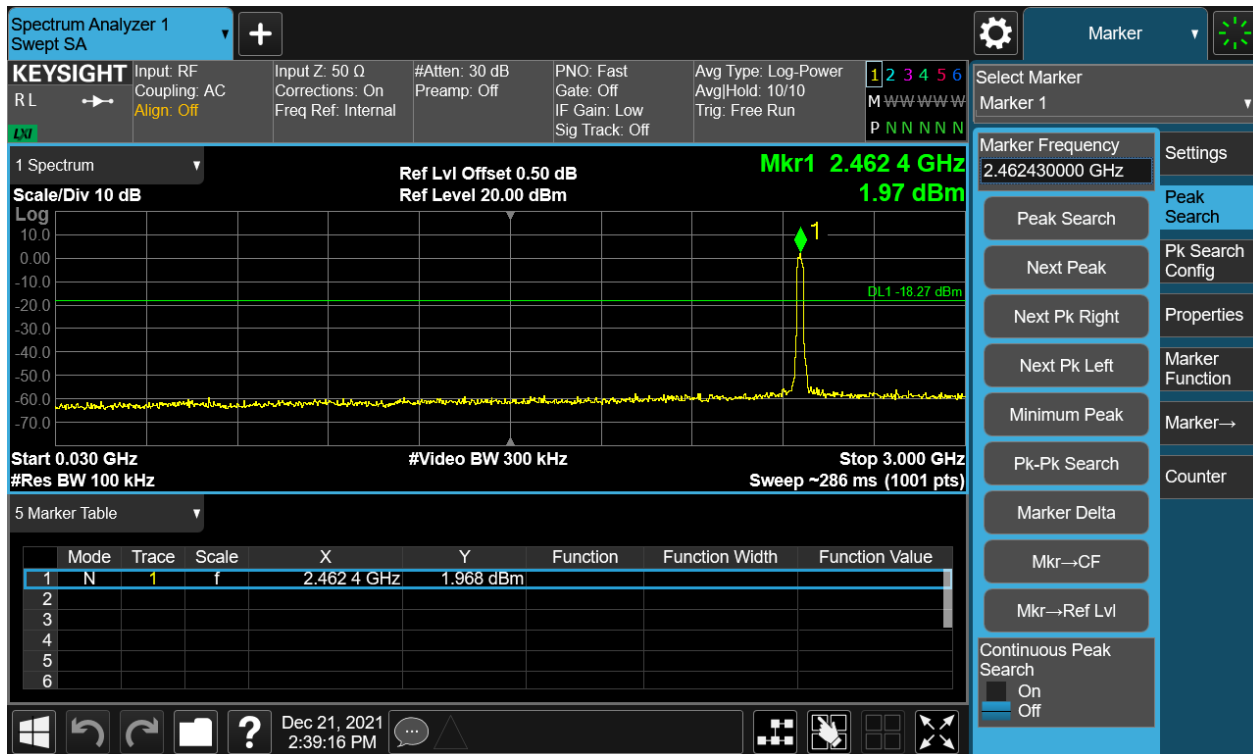
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 40 of 48

Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 41 of 48

4.1.6 Radiated Spurious Emission

RESULT:

PASS

Test standard	: FCC Part 15.247(d), 15.205, 15.209
Requirement	: ANSI C63.10-2013, KDB 558074
Kind of test site	: 3m Semi-Anechoic Chamber

Test setup

Test Channel	: Low/Middle/High
Operation Mode	: A
Ambient temperature	: 16.8°C
Relative humidity	: 42%

Notes

Test plots please refer to the annex document "SHE21120049-02AE 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. The EUT is working in the Normal link mode below 1 GHz.
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.

TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 42 of 48

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, KDB 558074
Kind of test site	: 3m Semi-Anechoic Chamber

Test setup

Test Channel	: Low/Middle/High
Operation Mode	: A.1
Ambient temperature	: 16.3°C
Relative humidity	: 49%

Notes:

1. Test plots please refer to the annex document "SHE21120049-02AE 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.

TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 43 of 48

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
Kind of test site	: Shielded room

Test setup

Input Voltage	: DC 5V by pc (which received AC 120V, 60Hz power)
Operation Mode	: A
Earthing	: Not Connected
Ambient temperature	: 25°C
Relative humidity	: 52%

For details refer to following test plot.

TEST REPORT

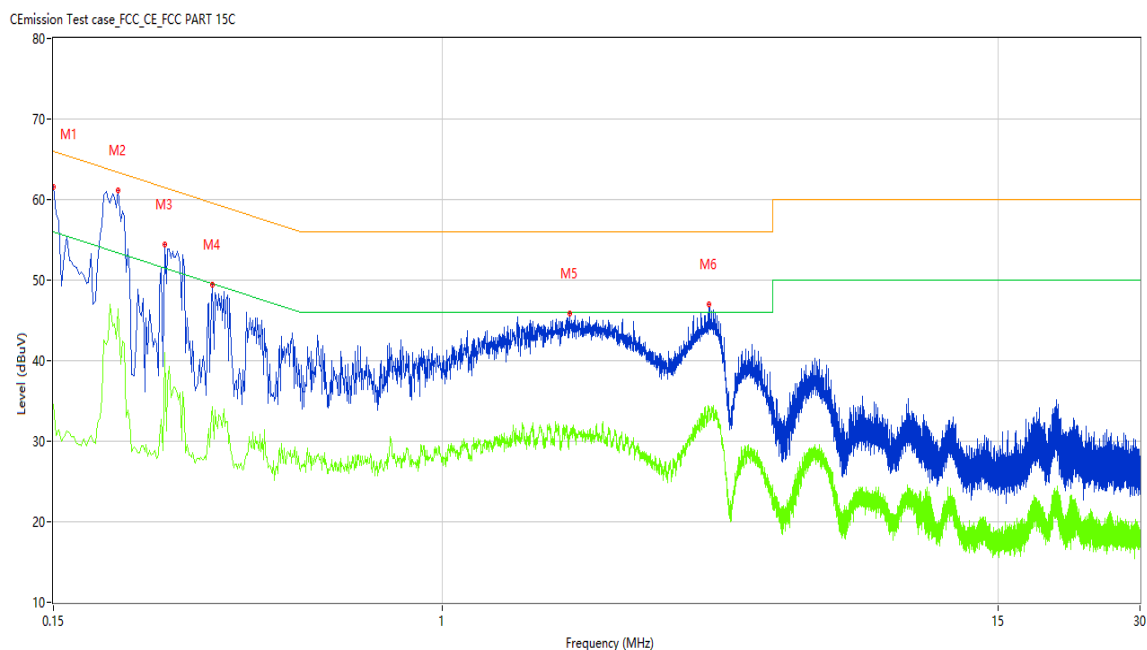
Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 44 of 48

Note: The all configurations were tested respectively, but only the worst configuration shown here.

Figure 28: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	61.32	10.26	66.00	-4.68	Peak	L	Pass
1*	0.150	49.84	10.26	66.00	-16.16	QP	L	Pass
1**	0.150	34.62	10.26	56.00	-21.38	AV	L	Pass
2	0.206	59.47	10.23	63.37	-3.90	Peak	L	Pass
2*	0.206	56.27	10.23	63.37	-7.10	QP	L	Pass
2**	0.206	46.44	10.23	53.37	-6.93	AV	L	Pass
3	0.258	53.40	10.24	61.50	-8.10	Peak	L	Pass
3*	0.258	50.89	10.24	61.50	-10.61	QP	L	Pass
3**	0.258	40.97	10.24	51.50	-10.53	AV	L	Pass
4	0.326	48.80	10.23	59.55	-10.75	Peak	L	Pass
4*	0.326	44.59	10.23	59.55	-14.96	QP	L	Pass
4**	0.326	34.34	10.23	49.55	-15.21	AV	L	Pass
5	1.860	44.52	10.17	56.00	-11.48	Peak	L	Pass
5*	1.860	41.45	10.17	56.00	-14.55	QP	L	Pass
5**	1.860	30.66	10.17	46.00	-15.34	AV	L	Pass
6	3.674	46.89	10.19	56.00	-9.11	Peak	L	Pass
6*	3.674	42.35	10.19	56.00	-13.65	QP	L	Pass
6**	3.674	34.26	10.19	46.00	-11.74	AV	L	Pass

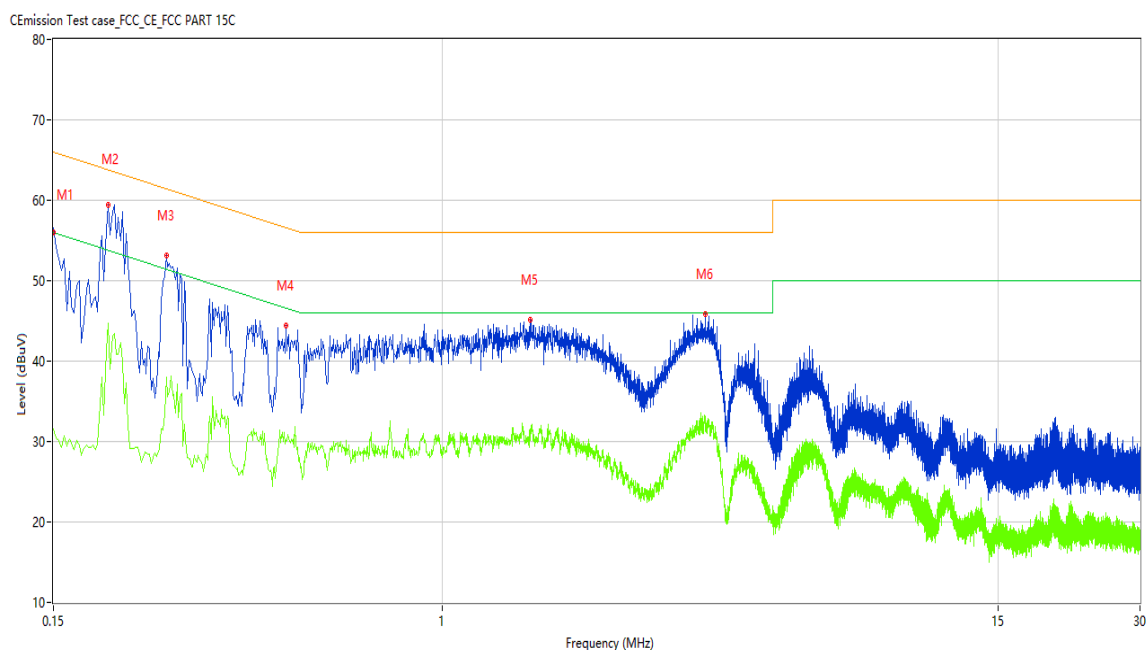
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 45 of 48

Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	58.96	10.26	66.00	-7.04	Peak	N	Pass
1*	0.150	47.61	10.26	66.00	-18.39	QP	N	Pass
1**	0.150	31.52	10.26	56.00	-24.48	AV	N	Pass
2	0.196	59.15	10.23	63.78	-4.63	Peak	N	Pass
2*	0.196	55.89	10.23	63.78	-7.89	QP	N	Pass
2**	0.196	44.74	10.23	53.78	-9.04	AV	N	Pass
3	0.260	51.99	10.24	61.43	-9.44	Peak	N	Pass
3*	0.260	49.18	10.24	61.43	-12.25	QP	N	Pass
3**	0.260	38.01	10.24	51.43	-13.42	AV	N	Pass
4	0.466	42.93	10.27	56.58	-13.65	Peak	N	Pass
4*	0.466	39.08	10.27	56.58	-17.50	QP	N	Pass
4**	0.466	30.21	10.27	46.58	-16.37	AV	N	Pass
5	1.534	43.97	10.18	56.00	-12.03	Peak	N	Pass
5*	1.534	39.48	10.18	56.00	-16.52	QP	N	Pass
5**	1.534	31.52	10.18	46.00	-14.48	AV	N	Pass
6	3.602	46.59	10.18	56.00	-9.41	Peak	N	Pass
6*	3.602	41.20	10.18	56.00	-14.80	QP	N	Pass
6**	3.602	32.90	10.18	46.00	-13.10	AV	N	Pass

TEST REPORT

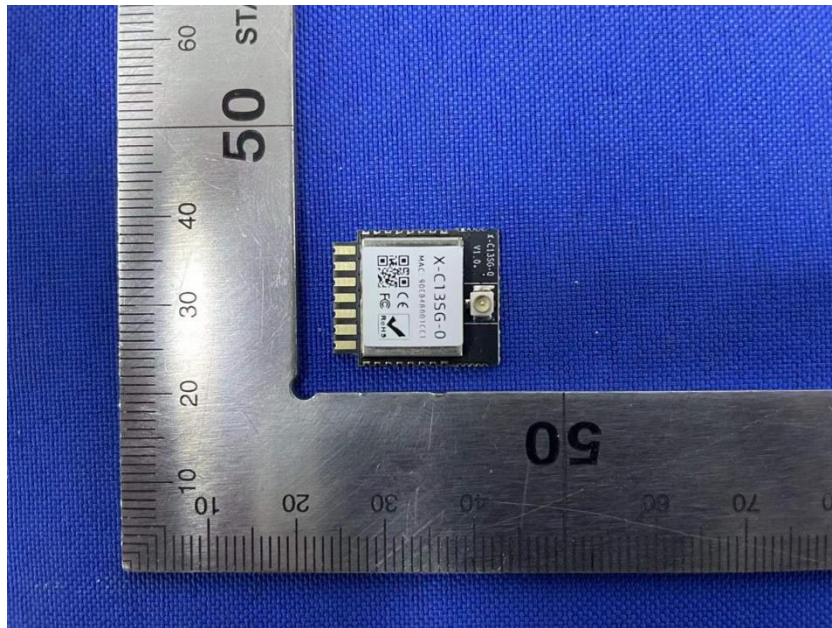
Report No.: SHE21120049-02AE

Date: 2022-01-13

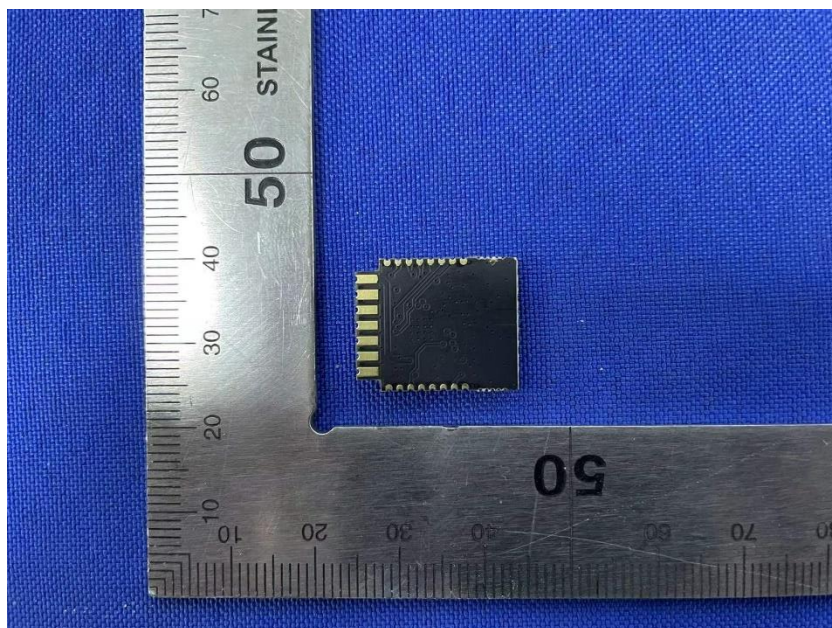
Page 46 of 48

5 Appendixes

5.1 Photographs of the Sample



Front of the sample



Back of the sample

TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 47 of 48

5.2 Set-up for Conducted Emissions



5.3 Set-up for Conducted RF test at Antenna Port



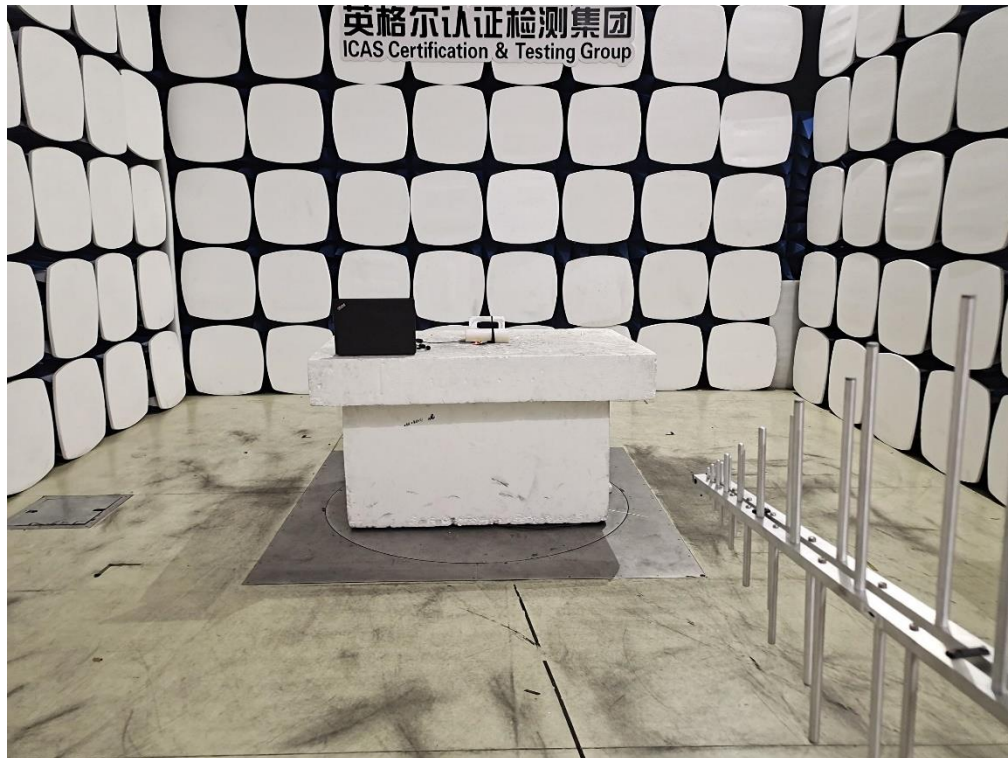
TEST REPORT

Report No.: SHE21120049-02AE

Date: 2022-01-13

Page 48 of 48

5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



End of the report