

TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 34 of 66

Figure 23: Power Spectral Density, 802.11n(HT40), 2437MHz

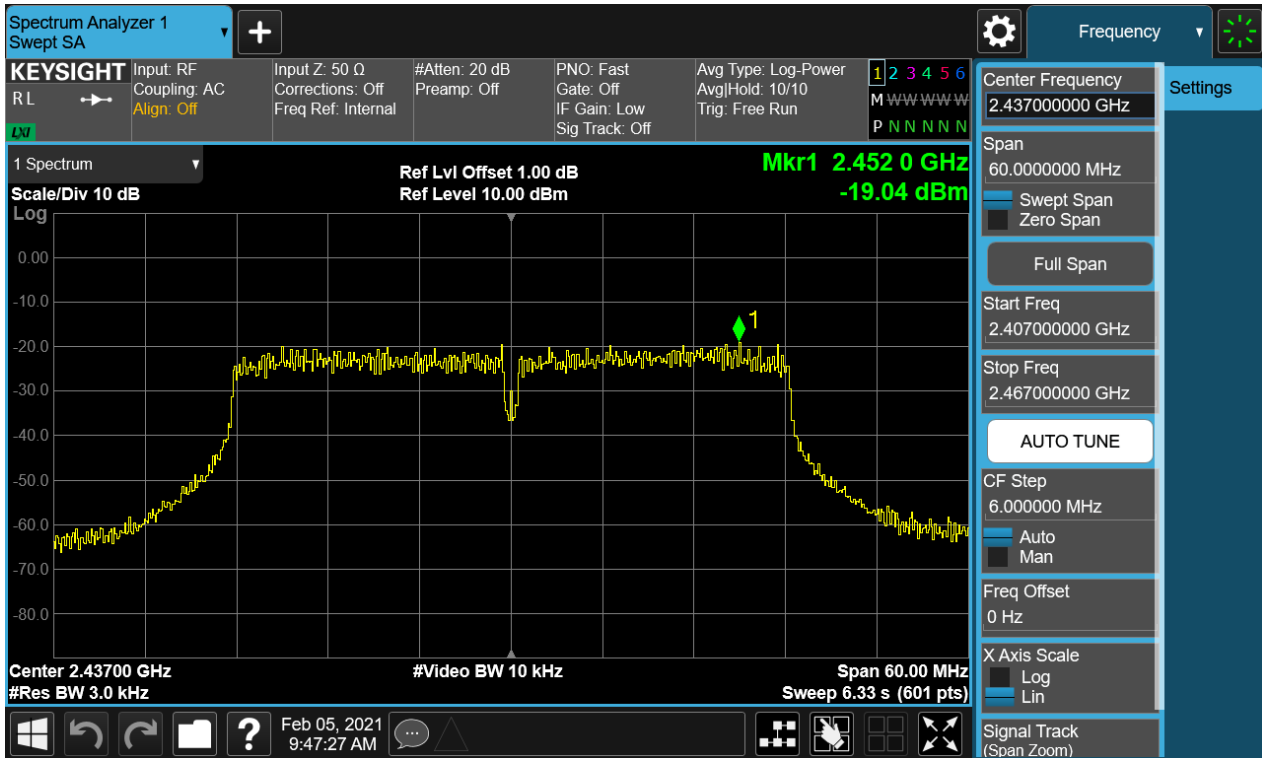
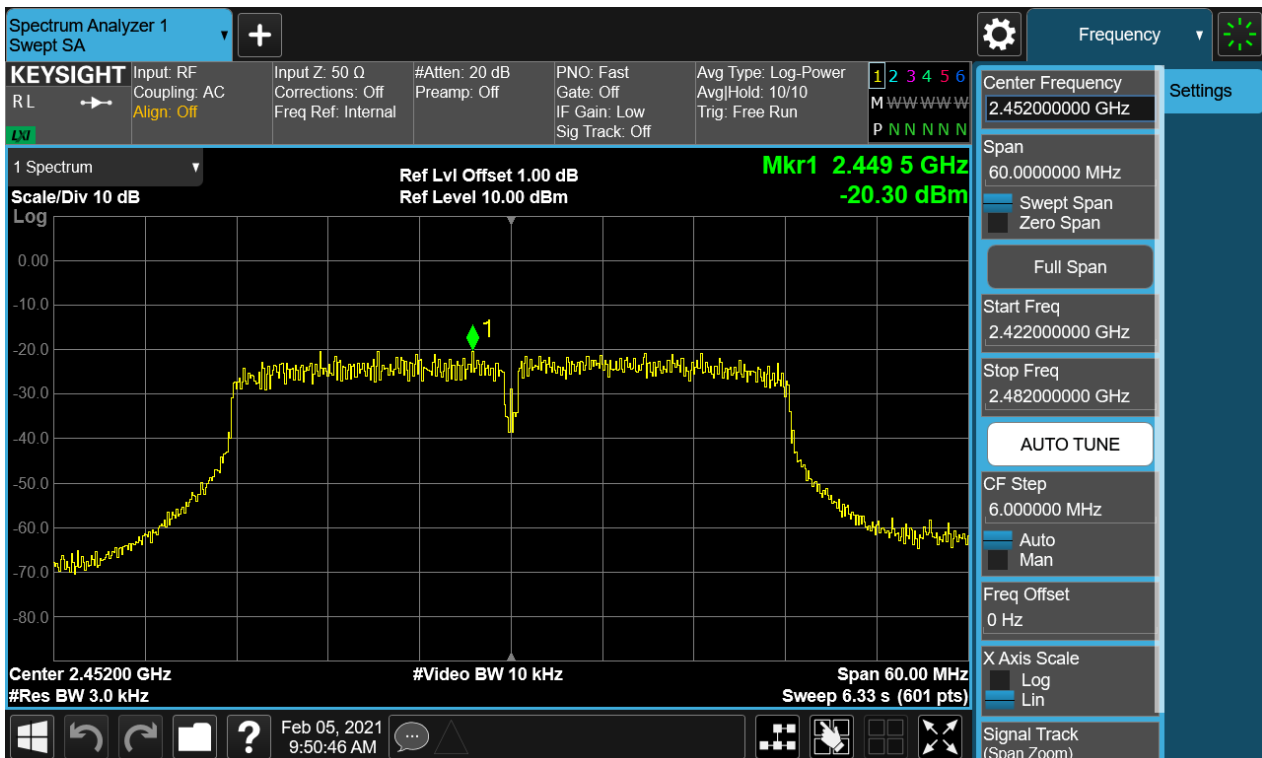


Figure 24: Power Spectral Density, 802.11n(HT40), 2452MHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 35 of 66

4.1.5 Conducted Spurious Emission & Authorized-band band-edge

RESULT:

PASS

Test standard : FCC Part 15.247(d), 15.209
RSS-247 5.5
RSS-Gen 8.9

Requirement : ANSI C63.10-2013, KDB 558074

Kind of test site : Shielded room

Test setup

Test Channel : Low/Middle/High for spurious, Low/High for Band Edge

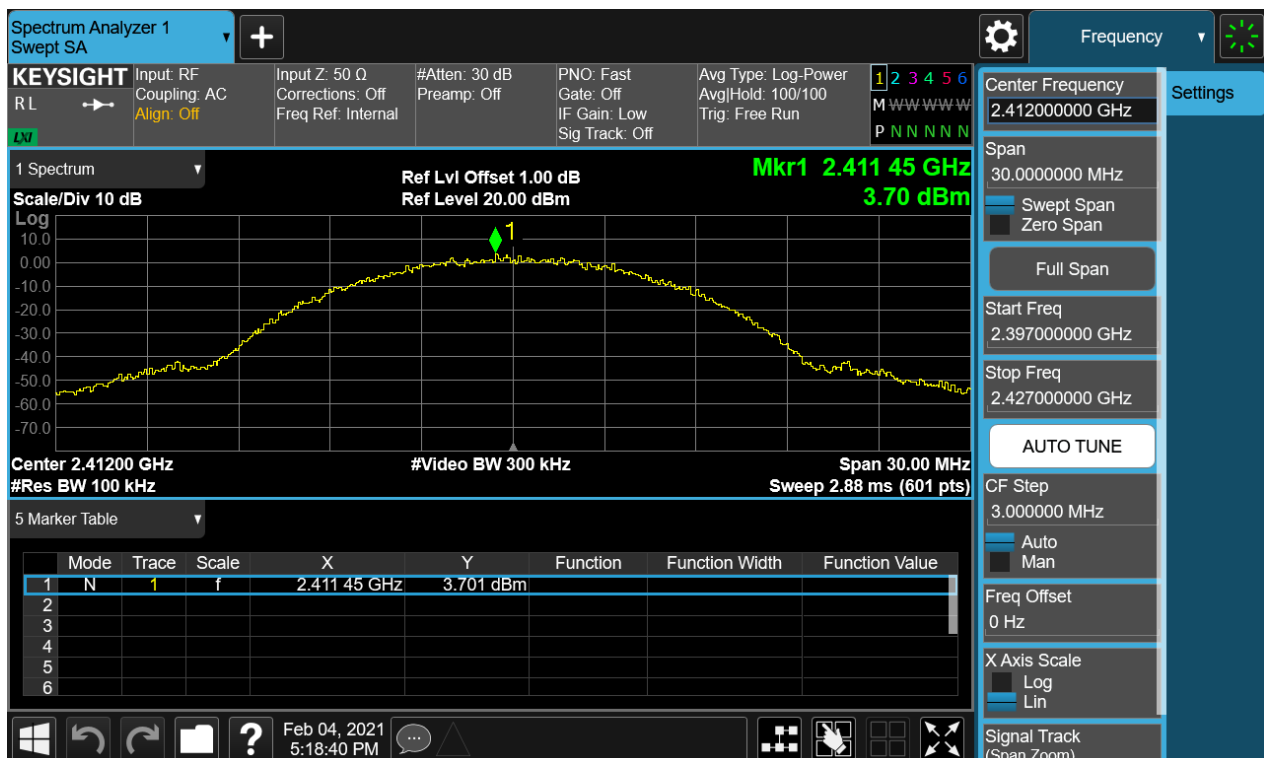
Operation Mode : A.1.a

Ambient temperature : 23°C

Relative humidity : 52%

For details refer to following test plot.

Figure 25: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2412MHz Carrier Level



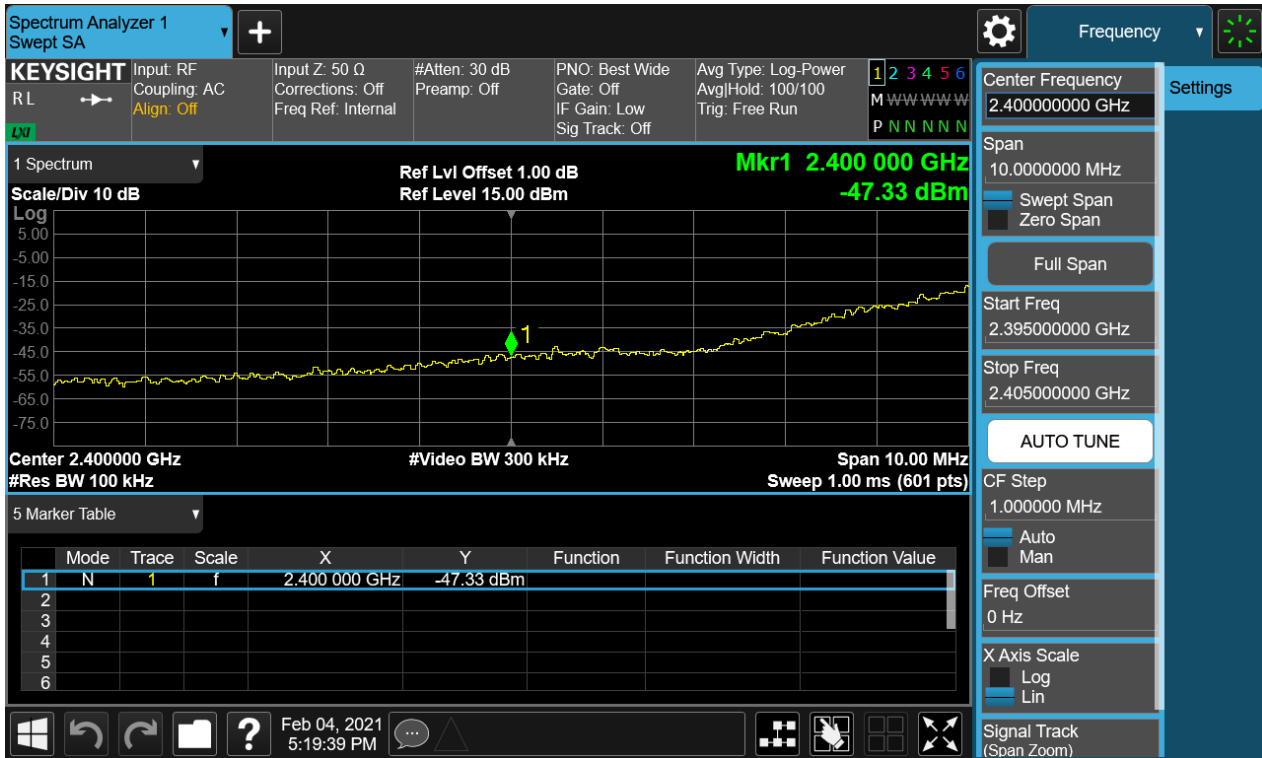
TEST REPORT

Report No.: SHE20100017-02GE

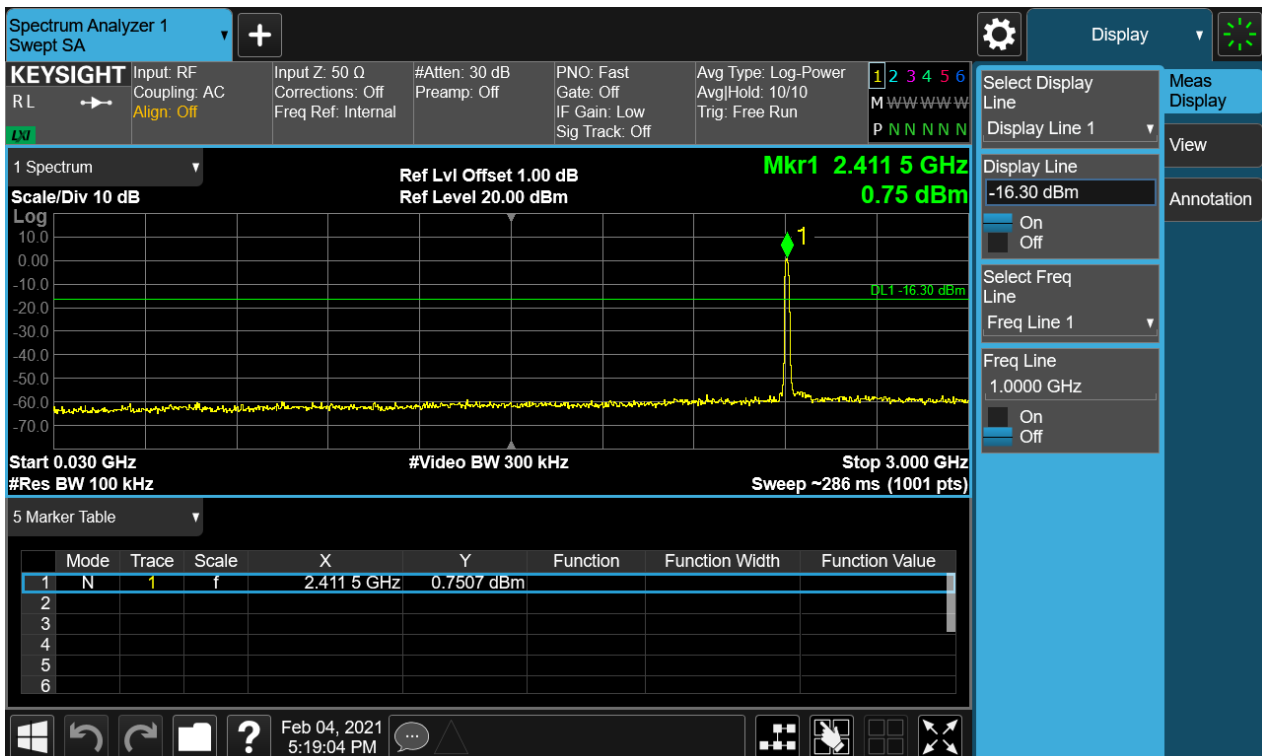
Date: 2021-03-15

Page 36 of 66

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 37 of 66

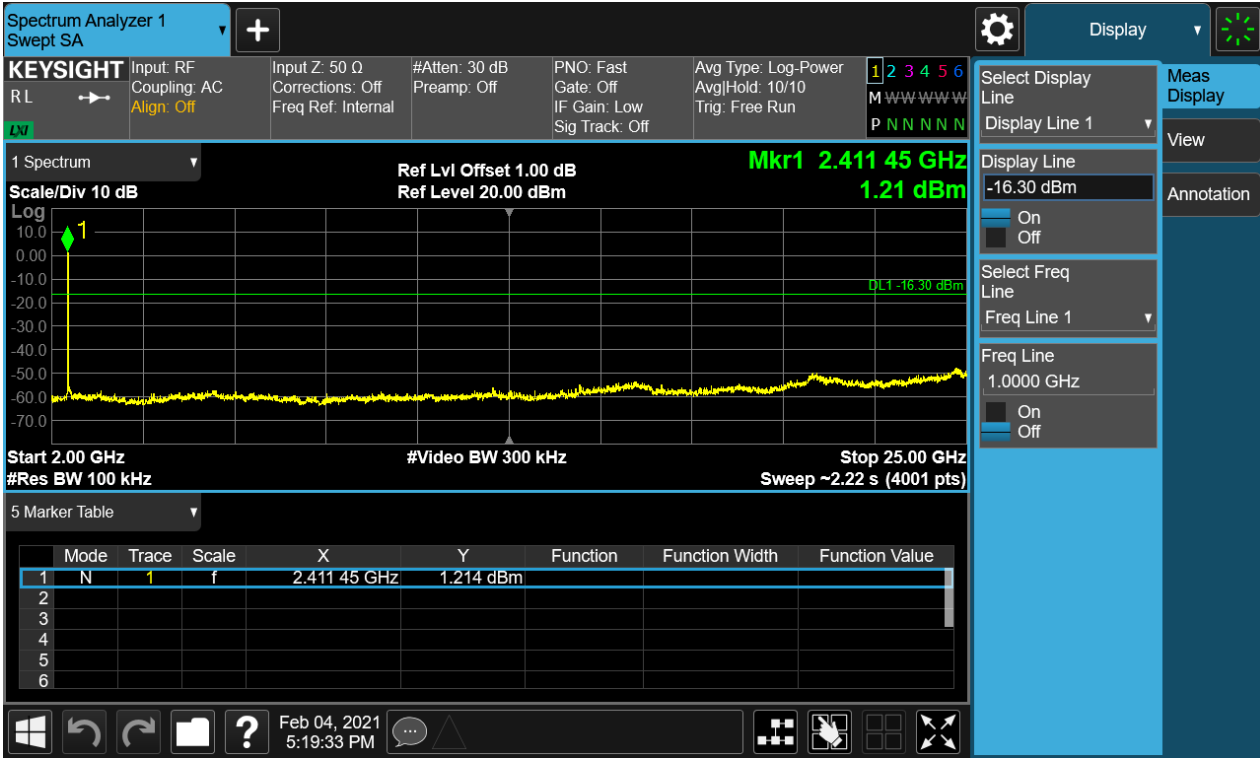
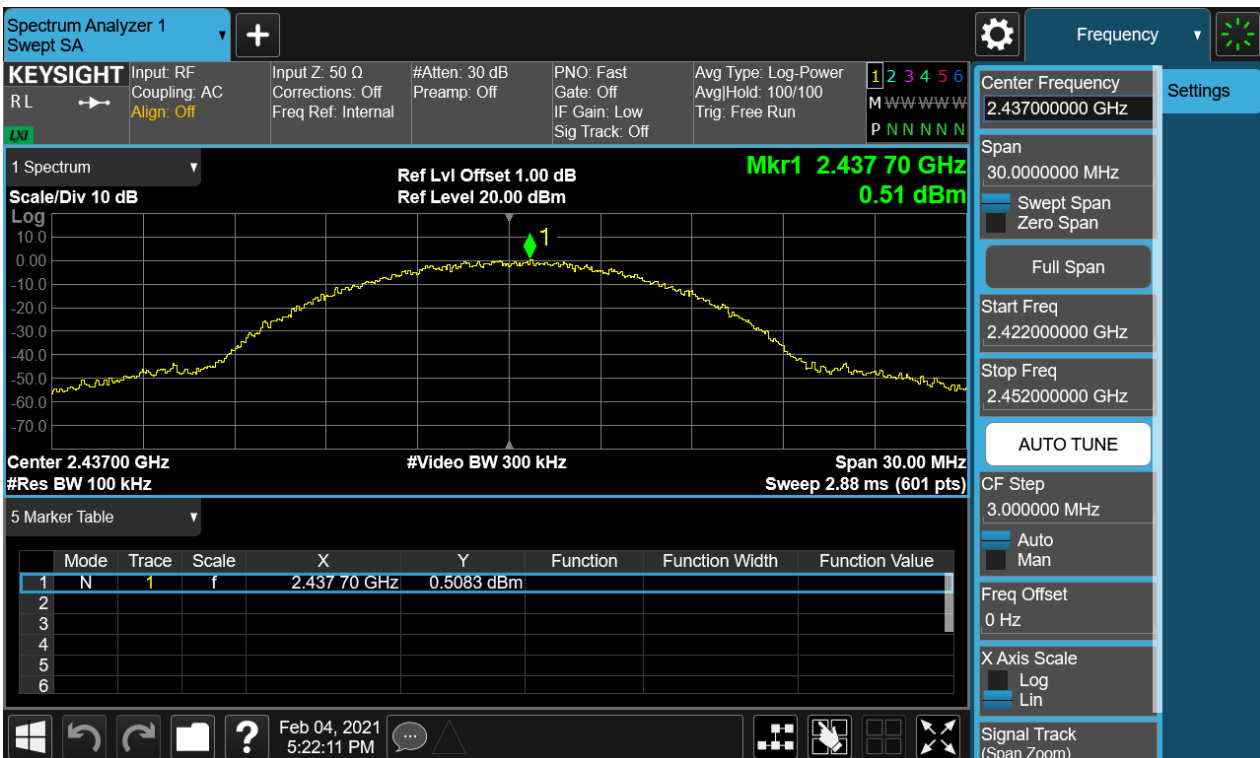


Figure 26: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2437MHz Carrier Level



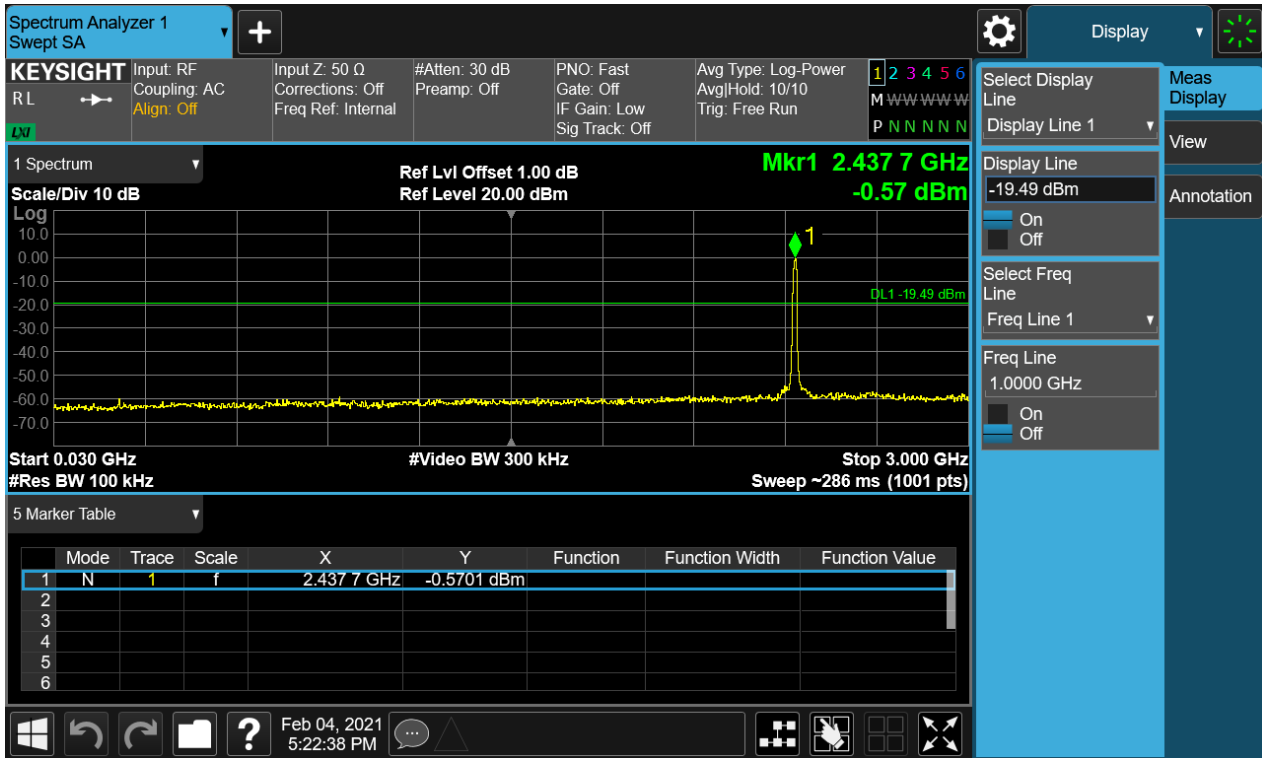
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 38 of 66

Conducted spurious emissions 30MHz-25GHz



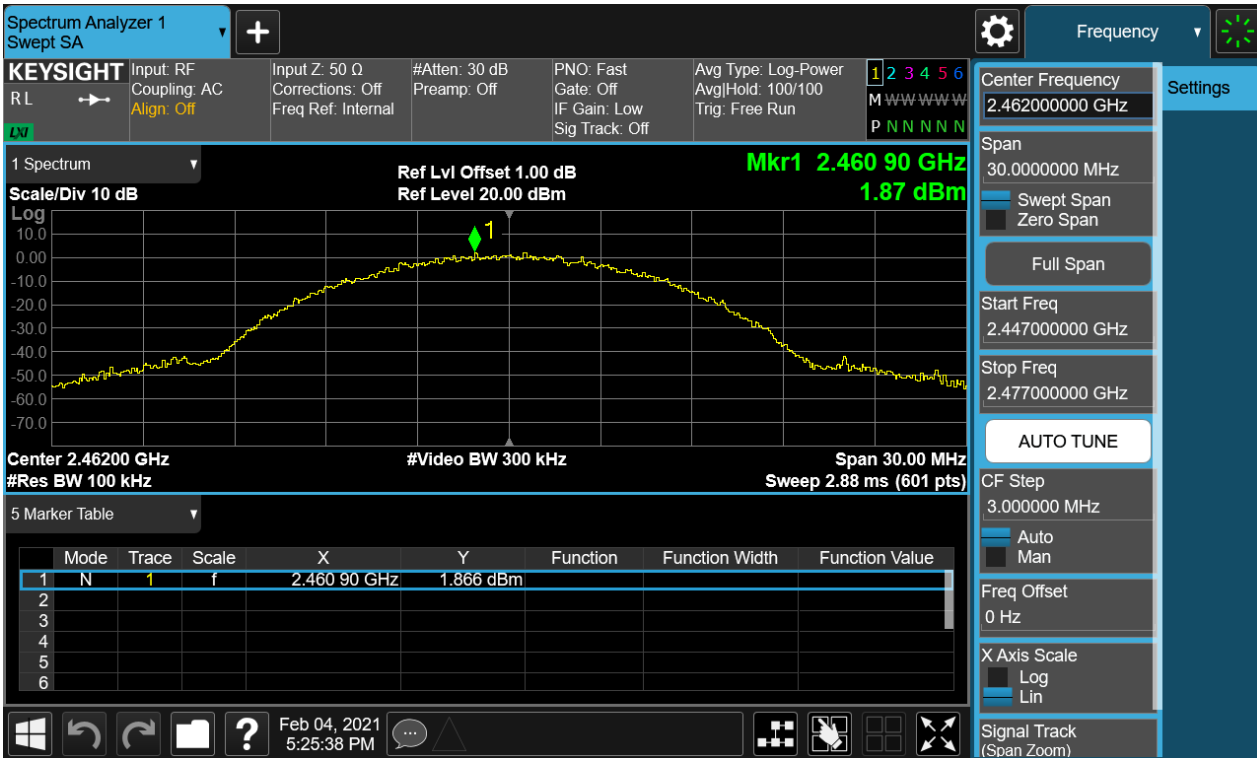
TEST REPORT

Report No.: SHE20100017-02GE

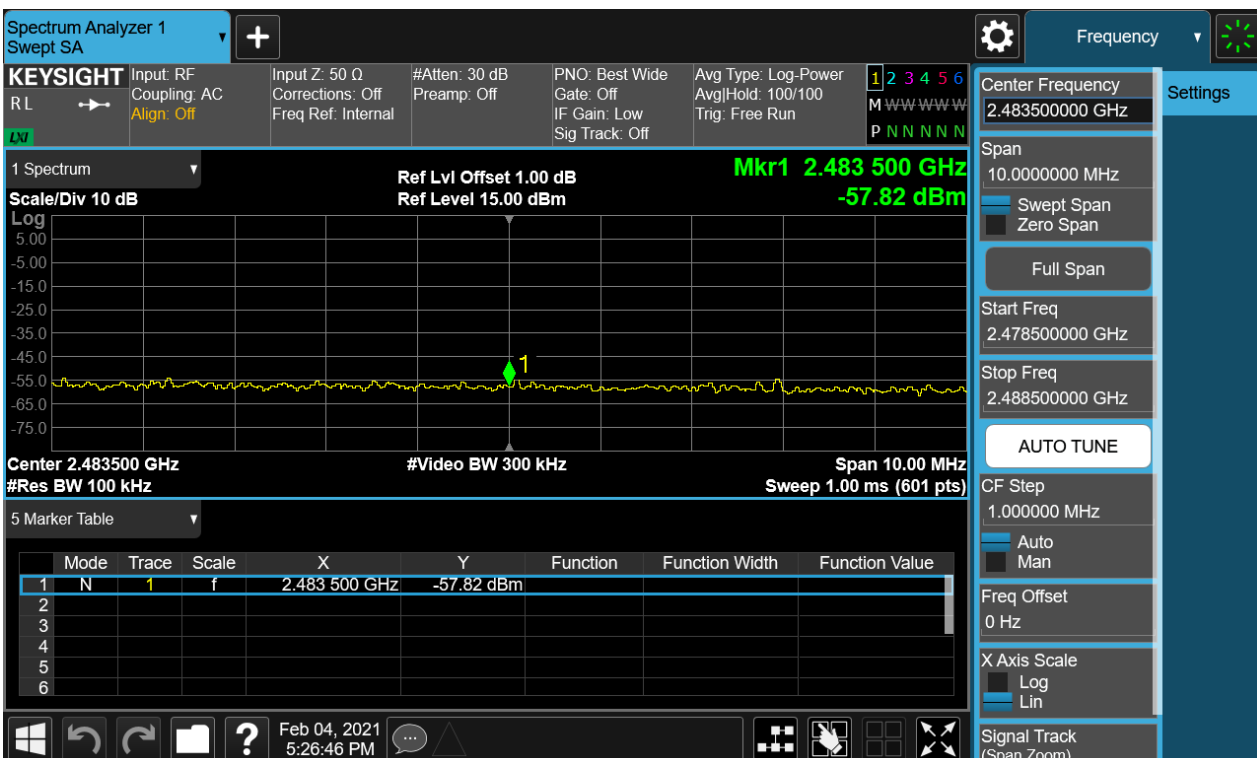
Date: 2021-03-15

Page 39 of 66

Figure 27: Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2462MHz Carrier Level



Band Edge



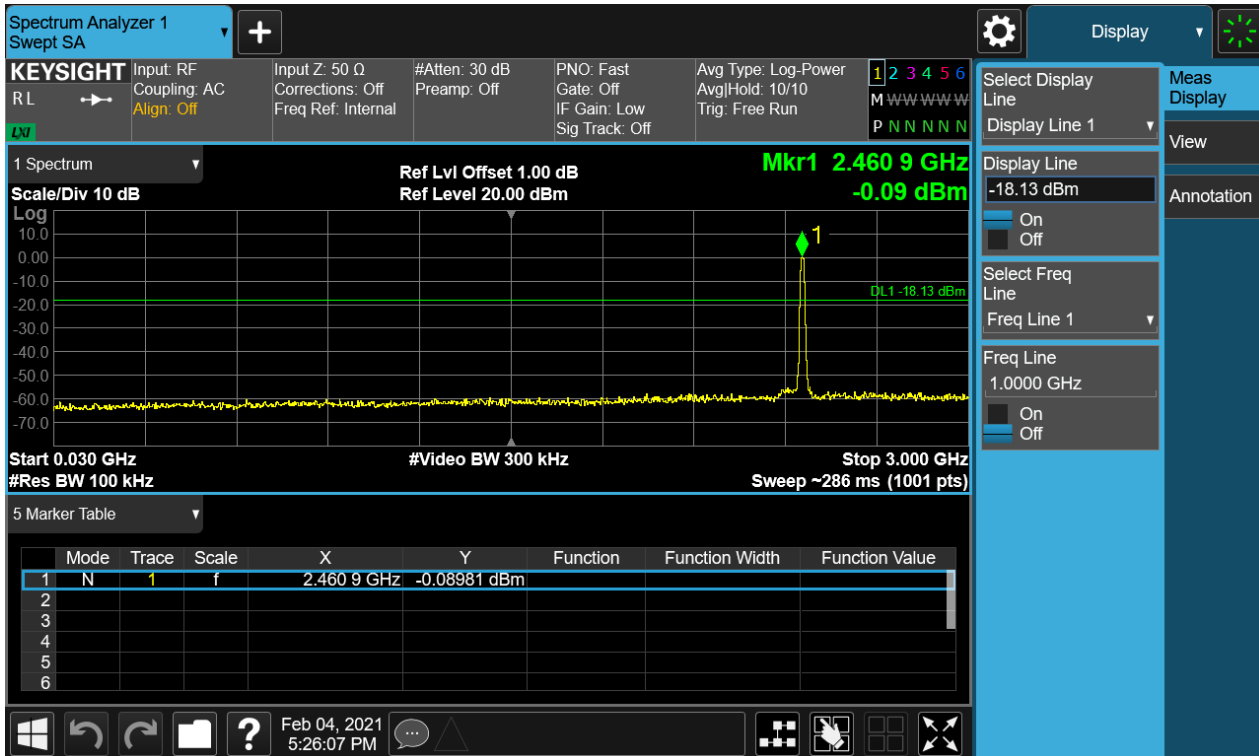
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 40 of 66

Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 41 of 66

Figure 28: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2412MHz Carrier Level



Band Edge



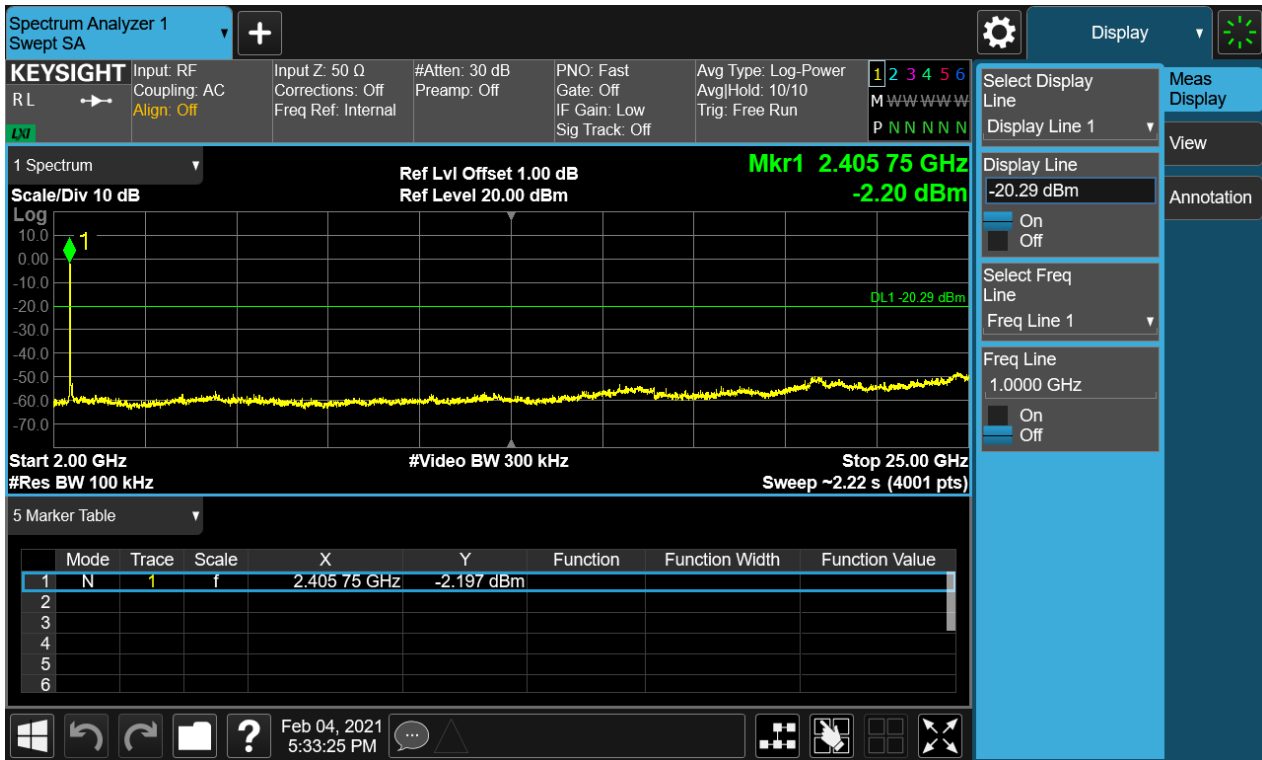
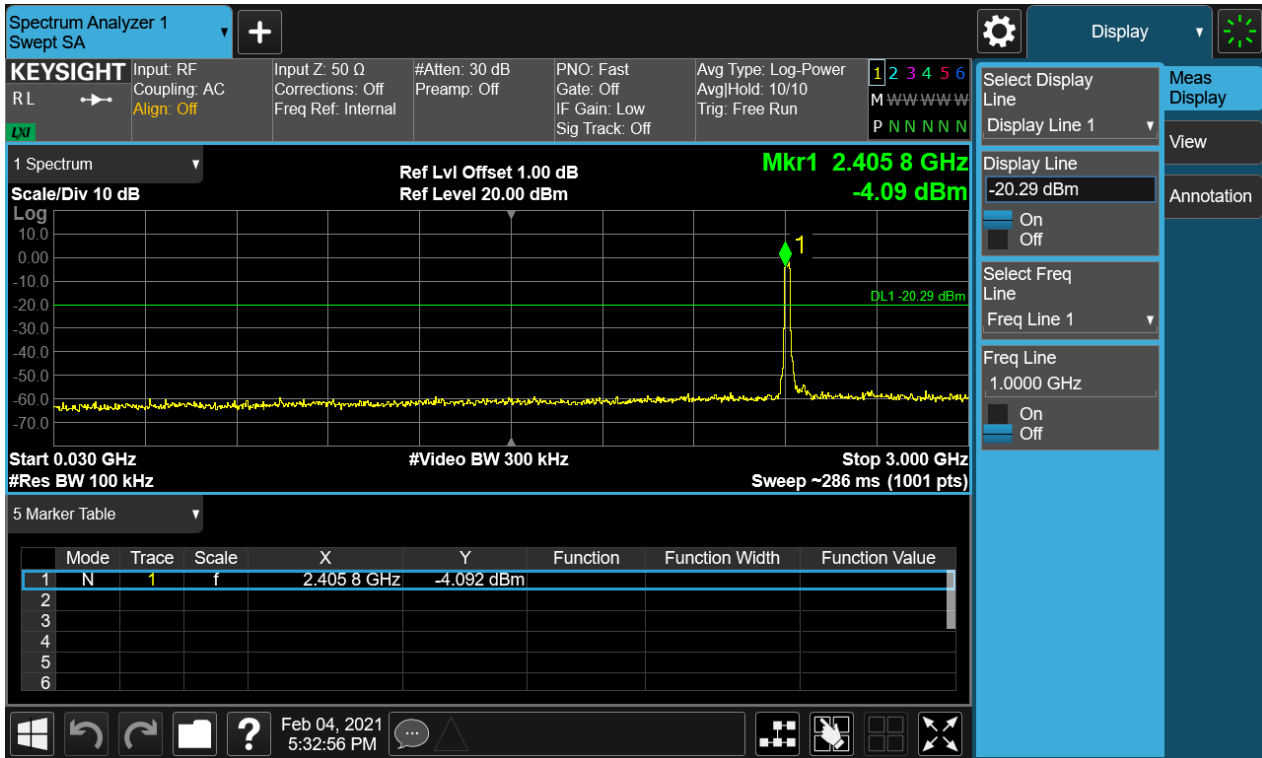
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 42 of 66

Conducted spurious emissions 30MHz-25GHz



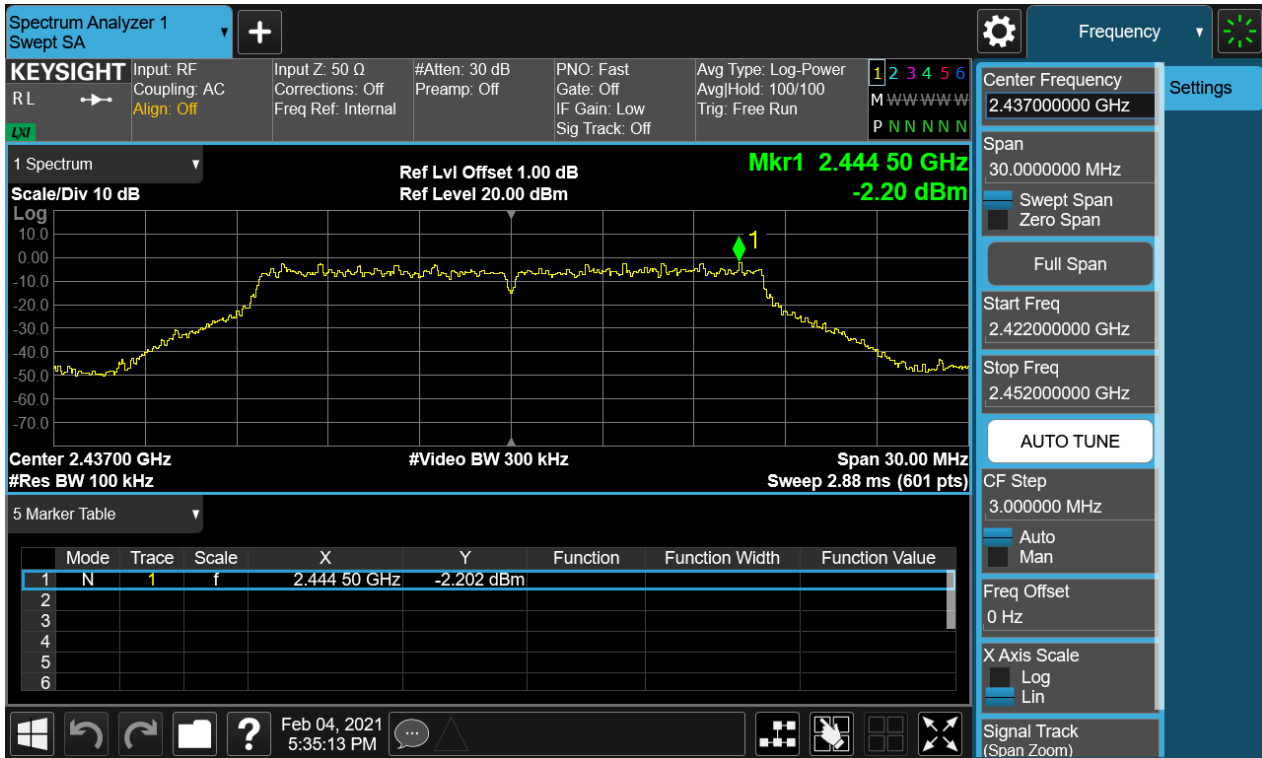
TEST REPORT

Report No.: SHE20100017-02GE

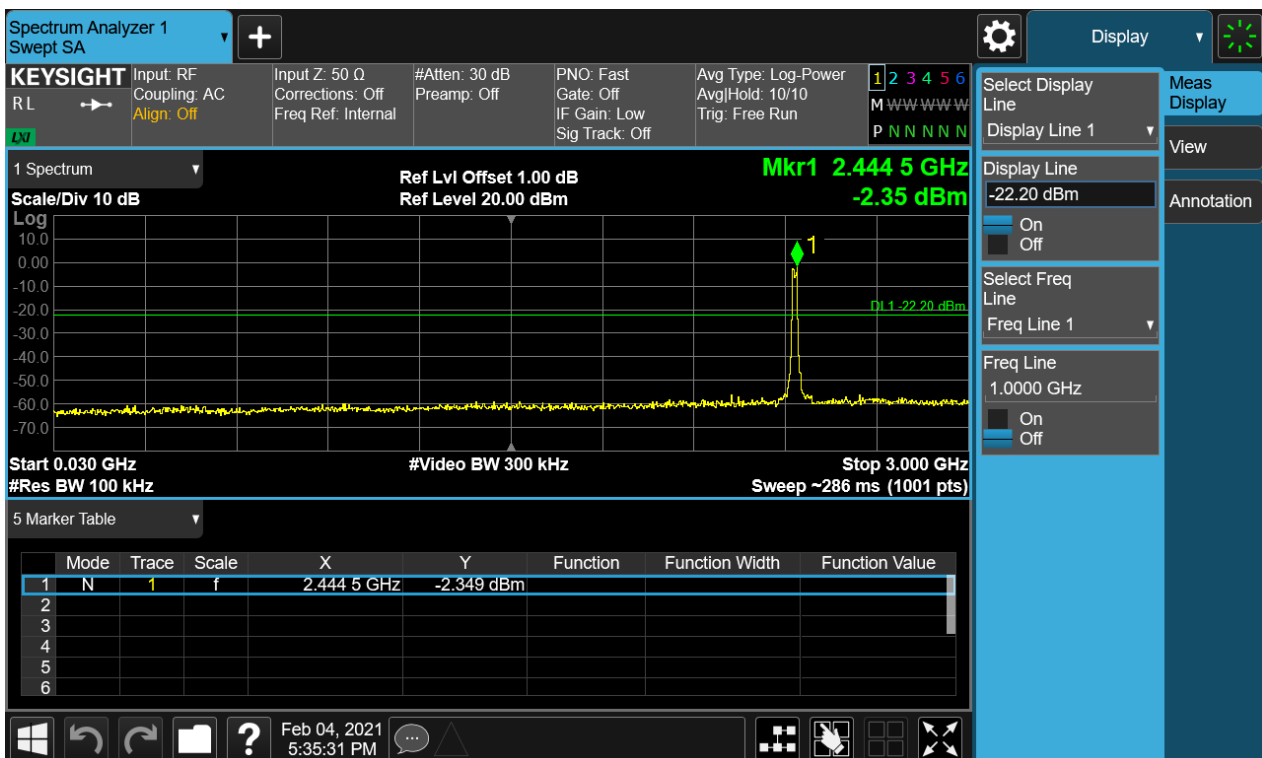
Date: 2021-03-15

Page 43 of 66

Figure 29: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2437MHz Carrier Level



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 44 of 66

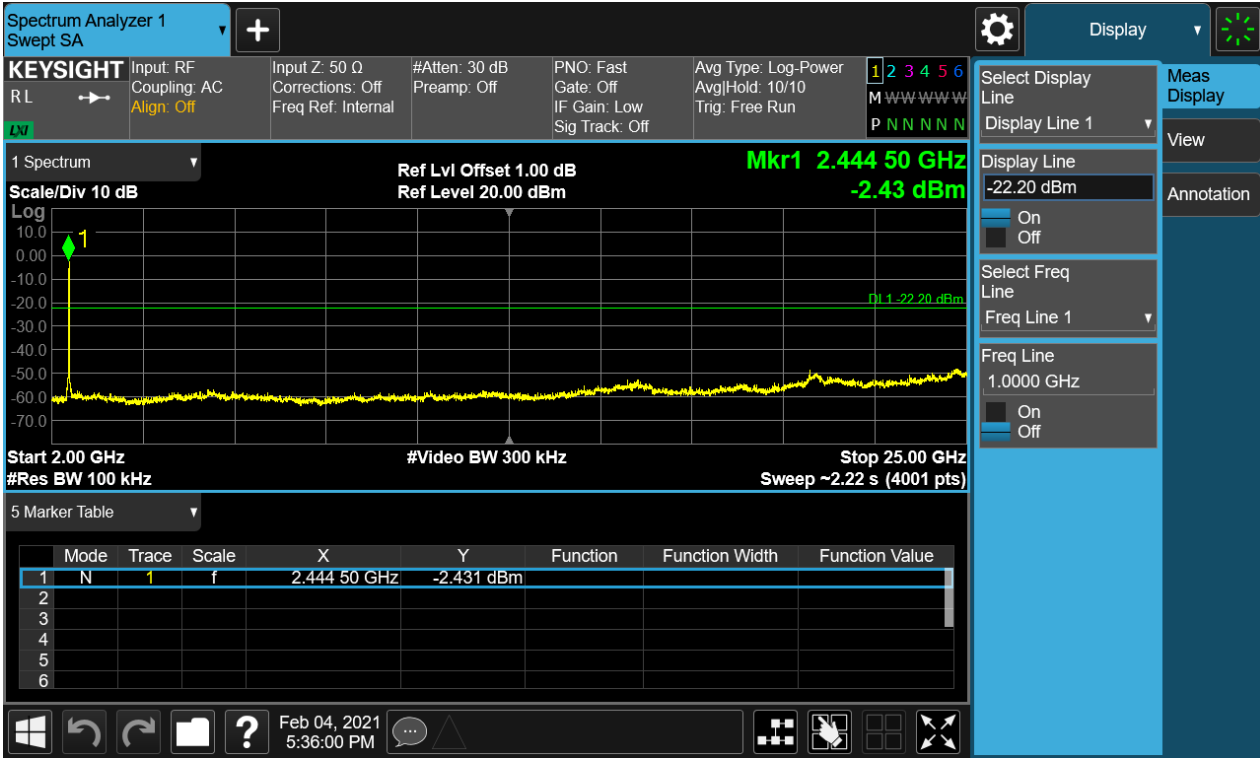
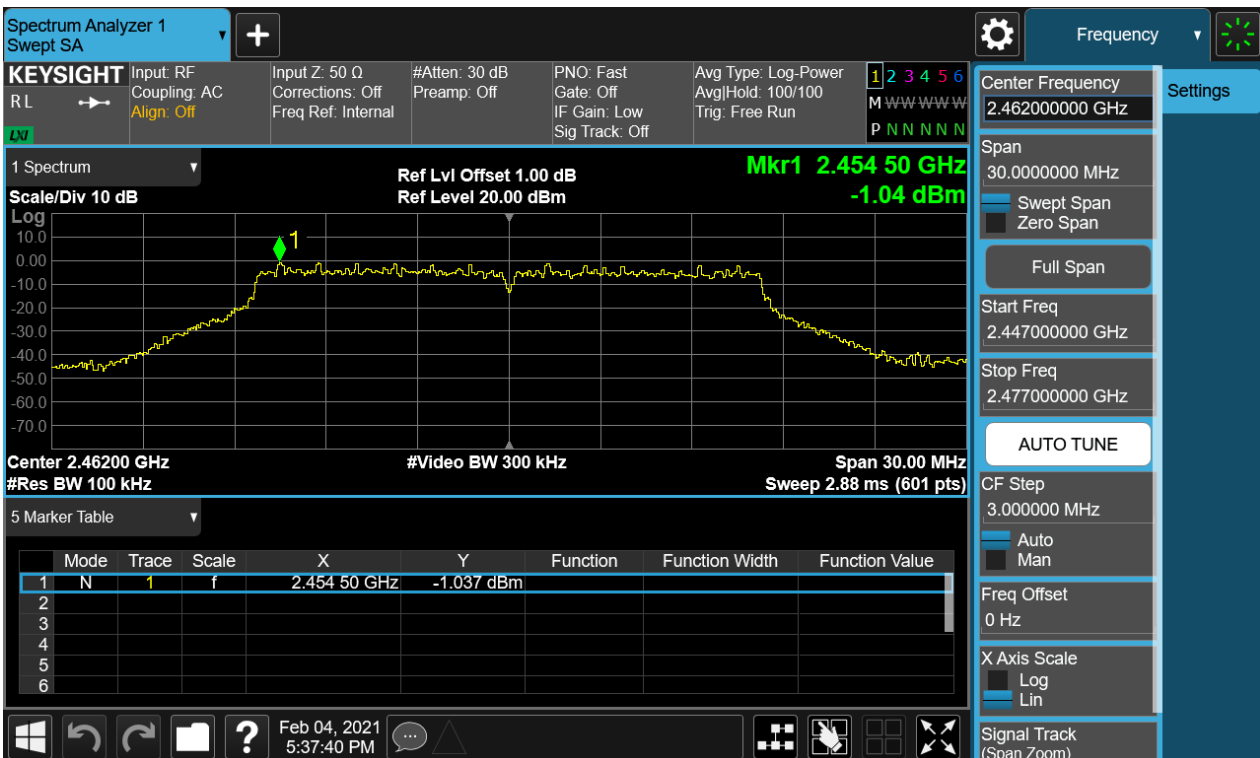


Figure 30: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2462MHz Carrier Level



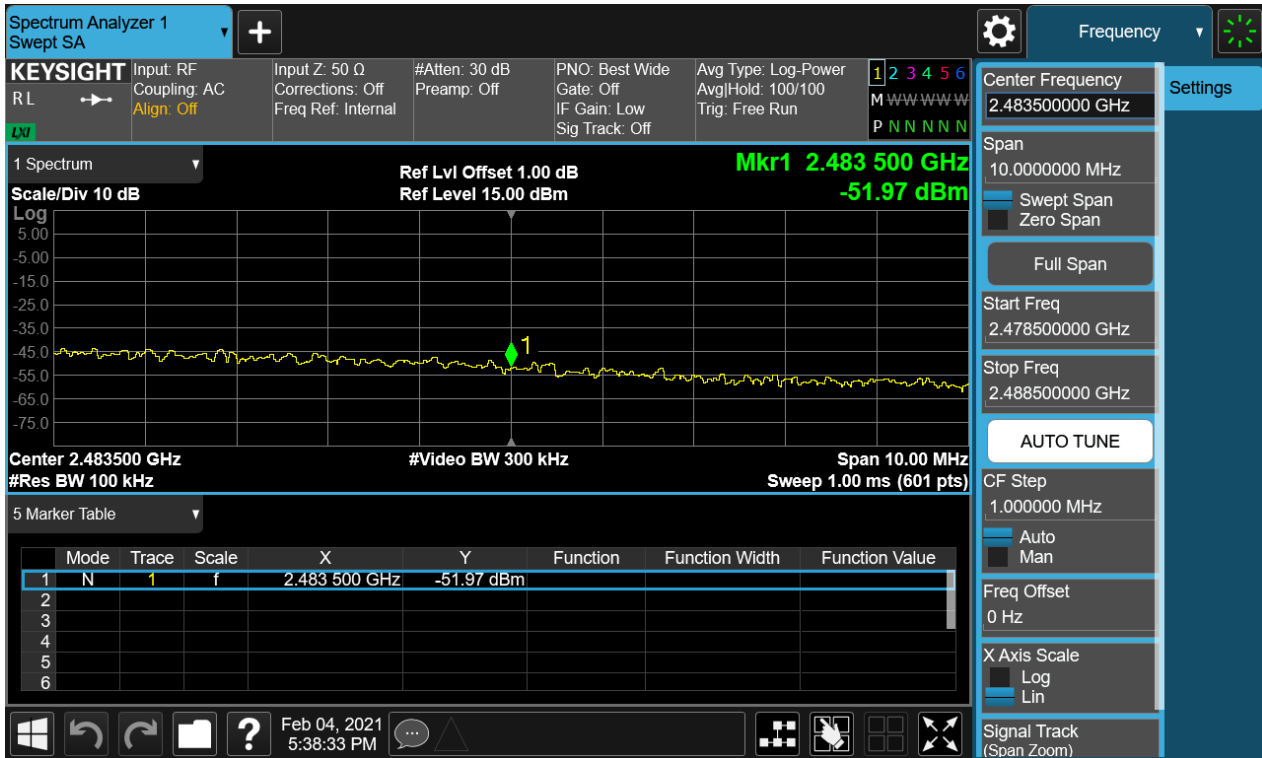
TEST REPORT

Report No.: SHE20100017-02GE

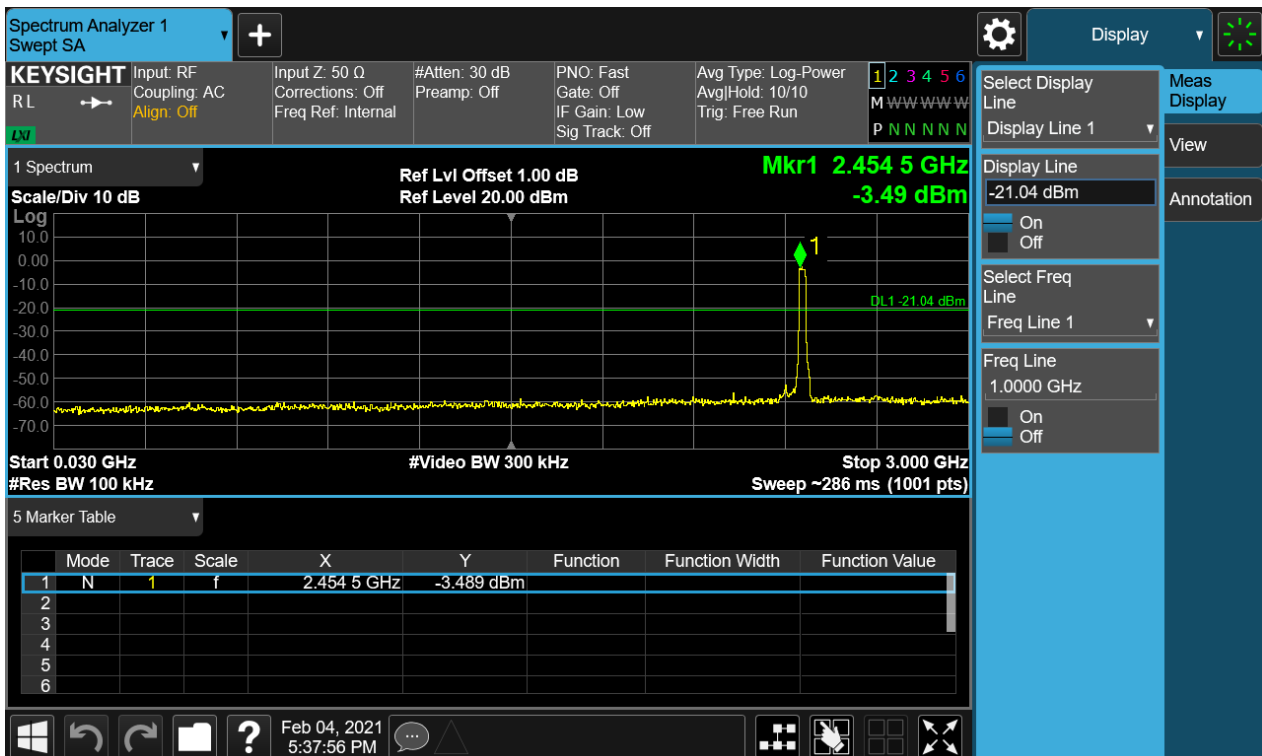
Date: 2021-03-15

Page 45 of 66

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 46 of 66

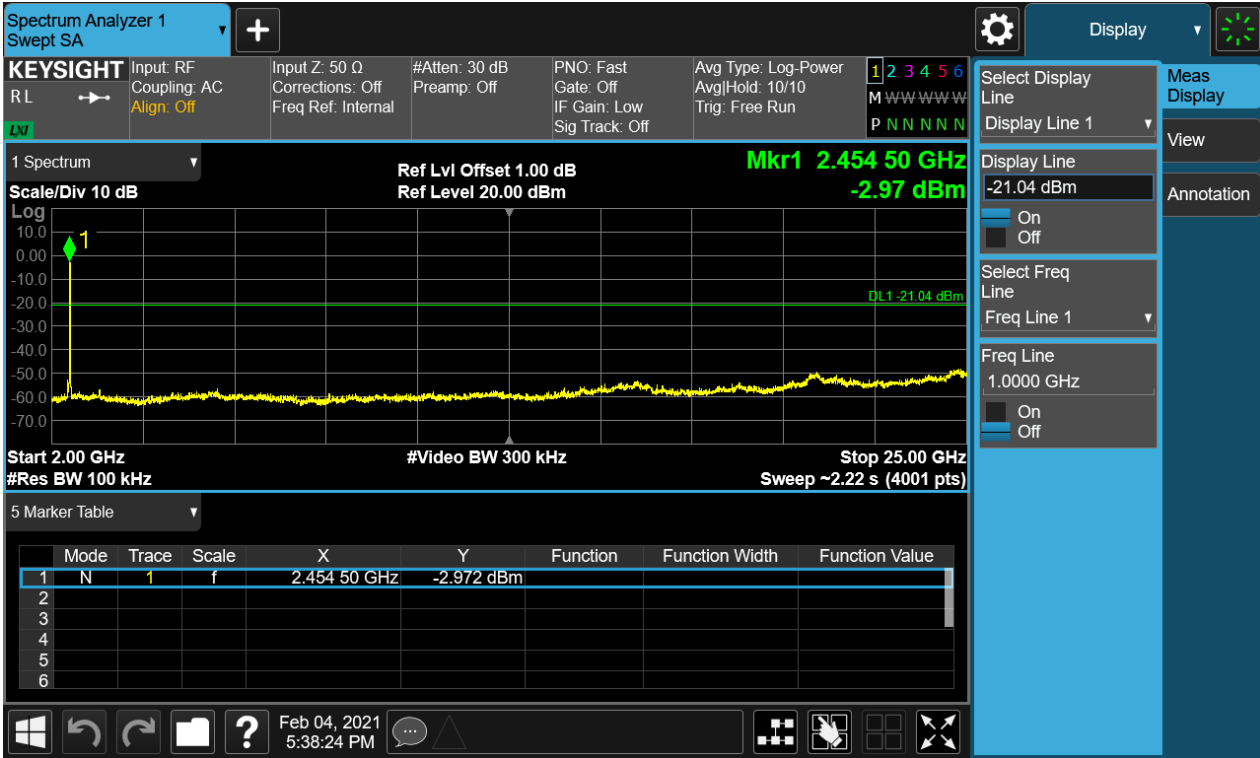
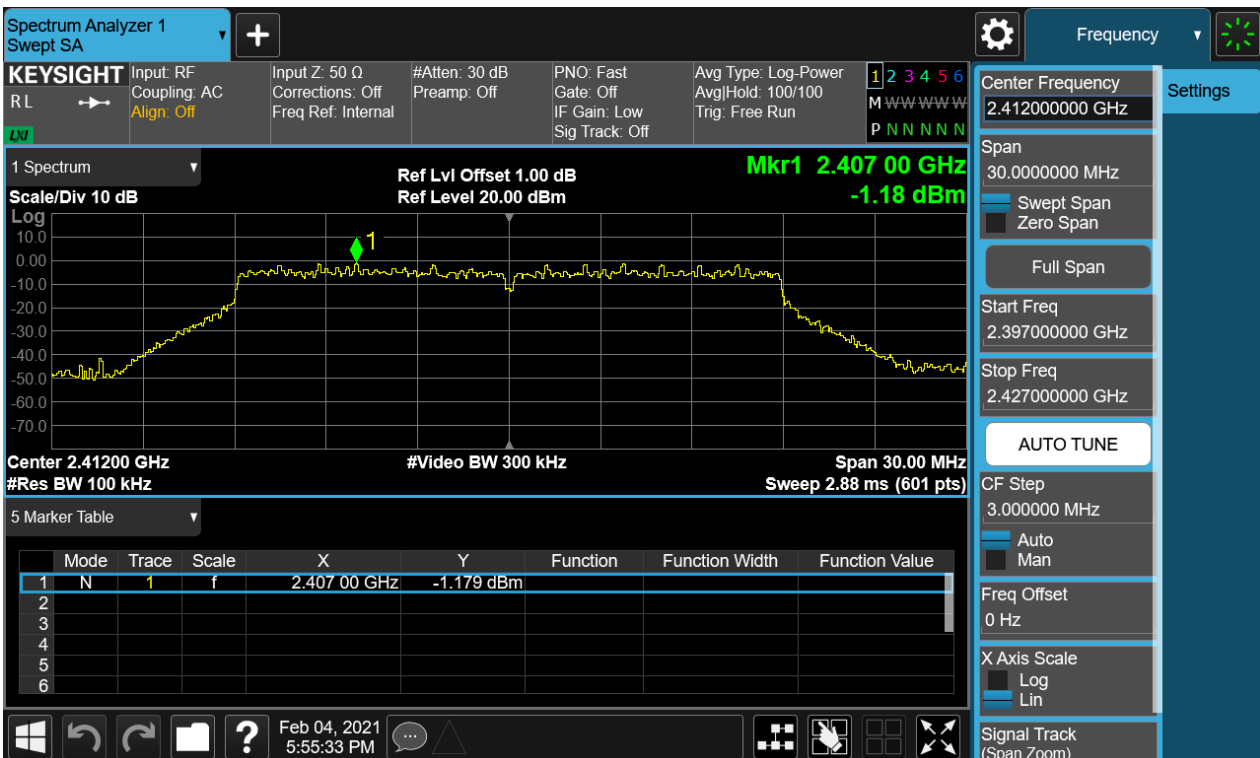


Figure 31: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz Carrier Level



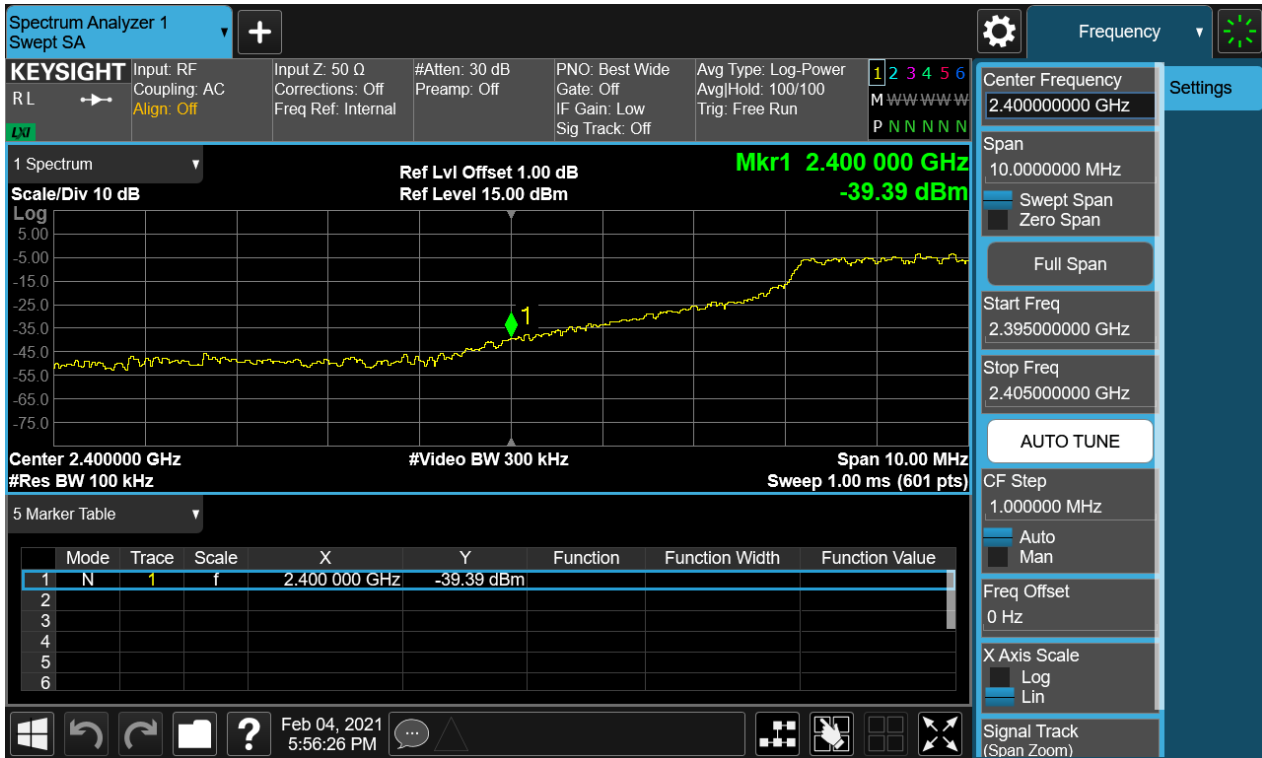
TEST REPORT

Report No.: SHE20100017-02GE

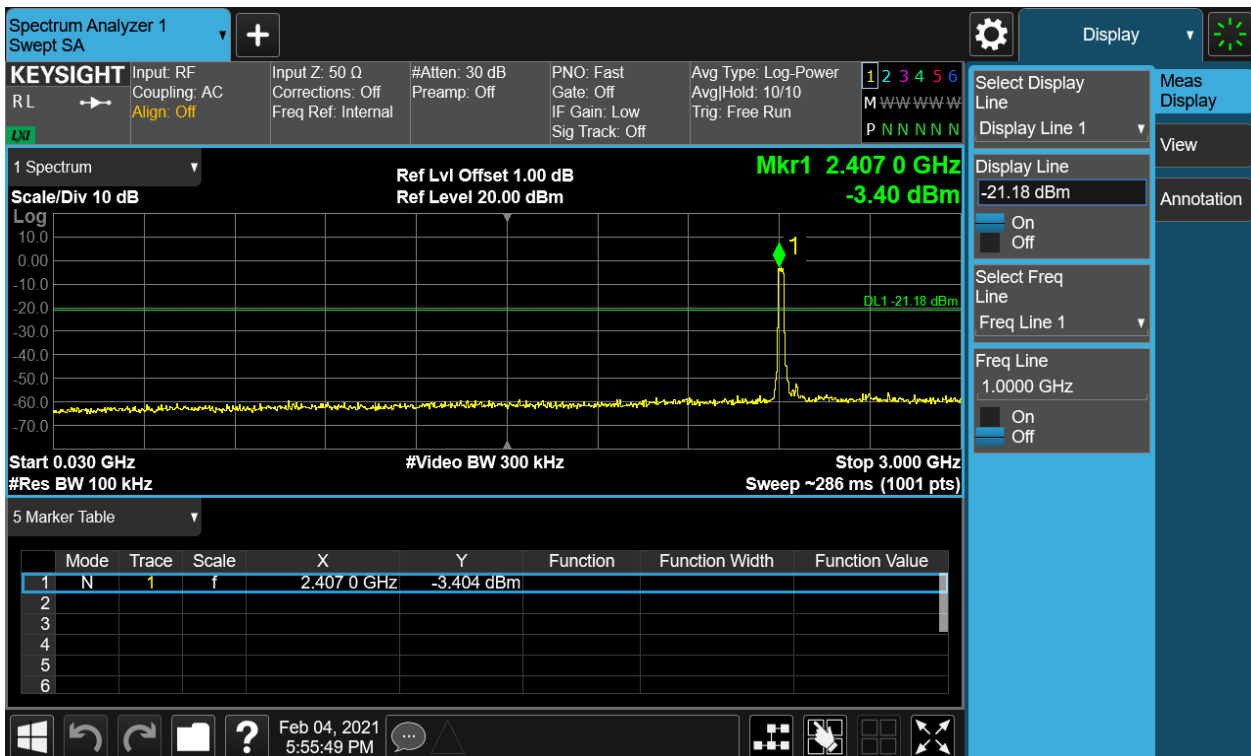
Date: 2021-03-15

Page 47 of 66

Band Edge



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 48 of 66

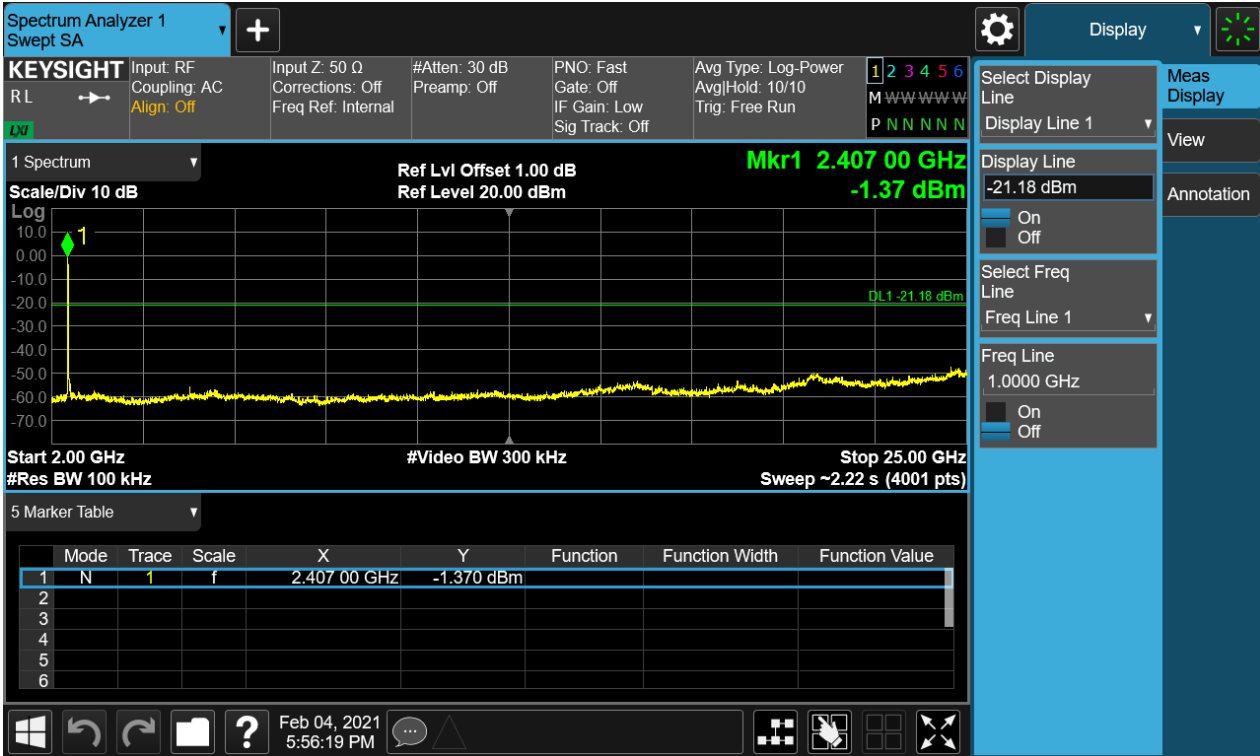
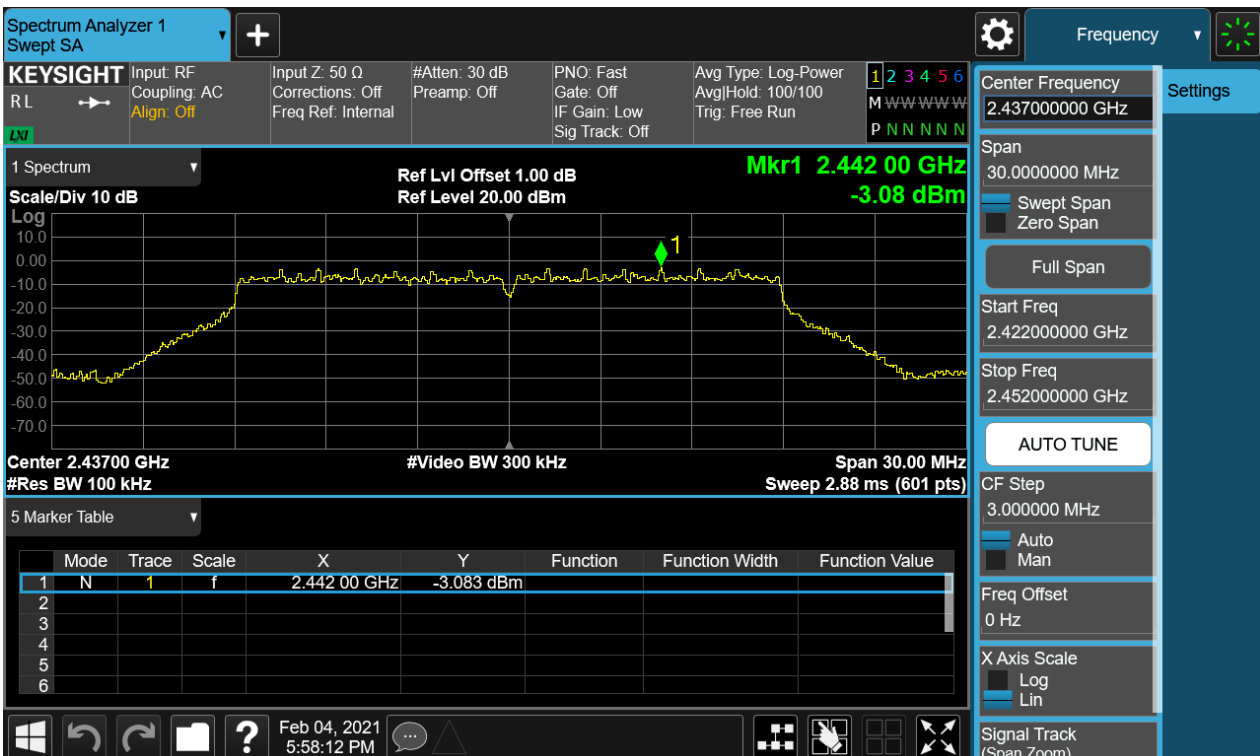


Figure 32: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



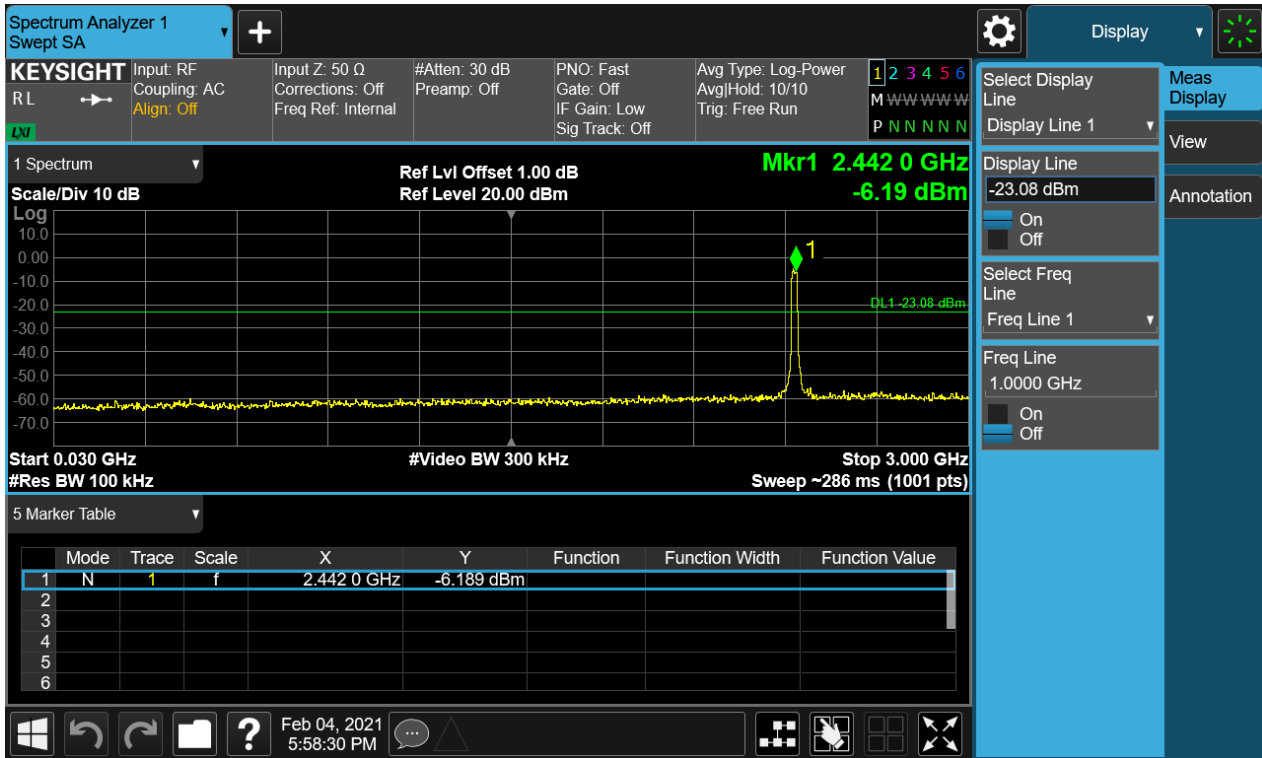
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 49 of 66

Conducted spurious emissions 30MHz-25GHz



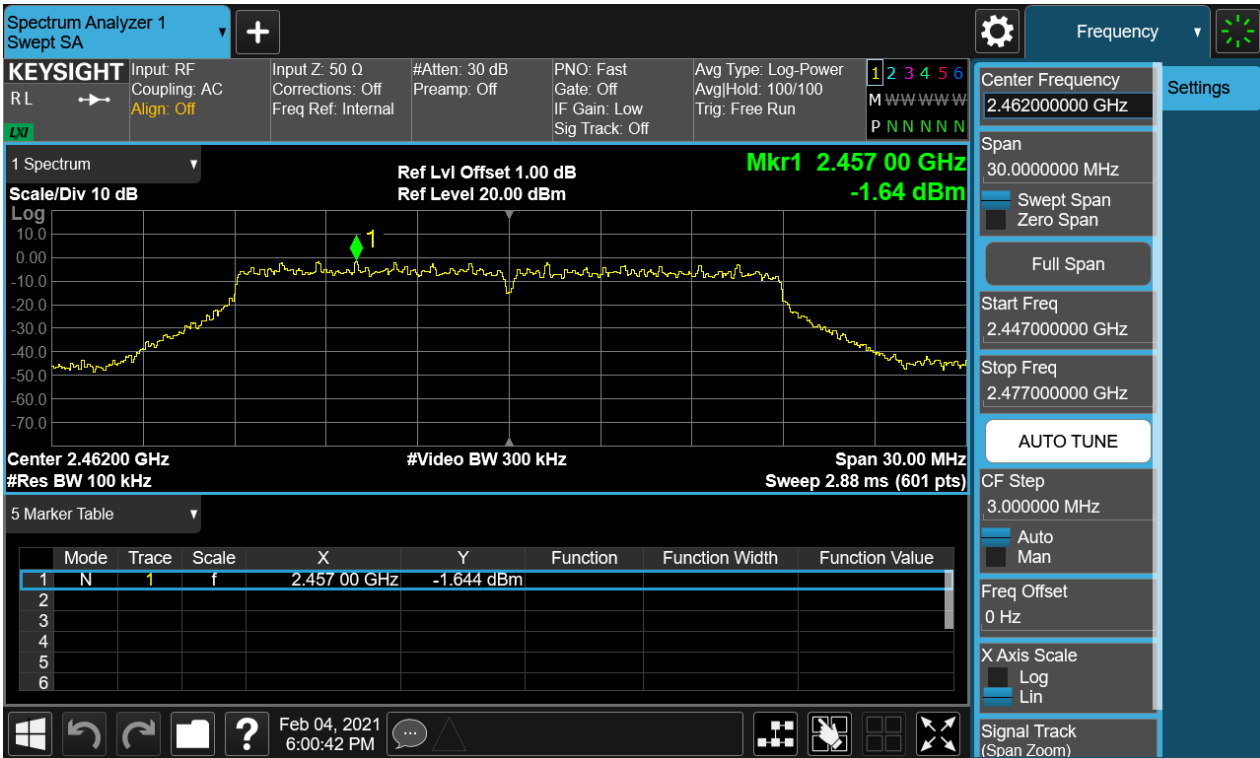
TEST REPORT

Report No.: SHE20100017-02GE

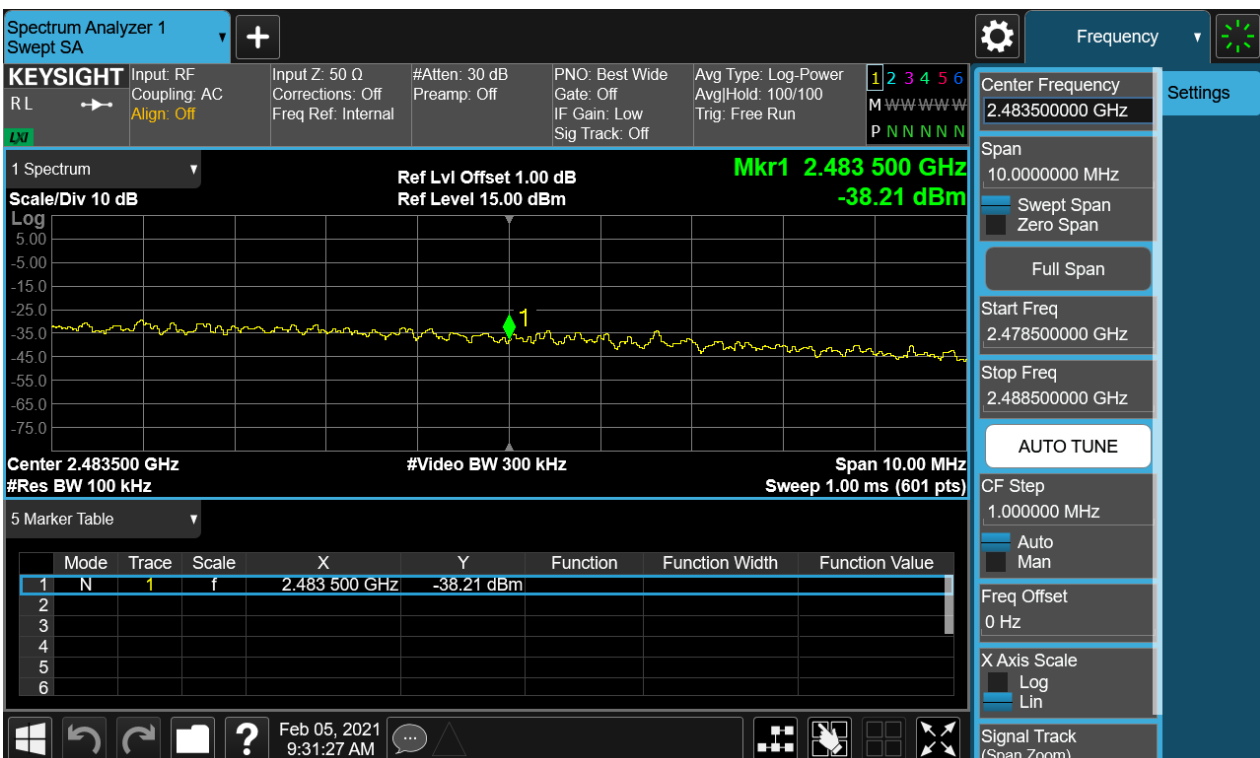
Date: 2021-03-15

Page 50 of 66

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



Band Edge



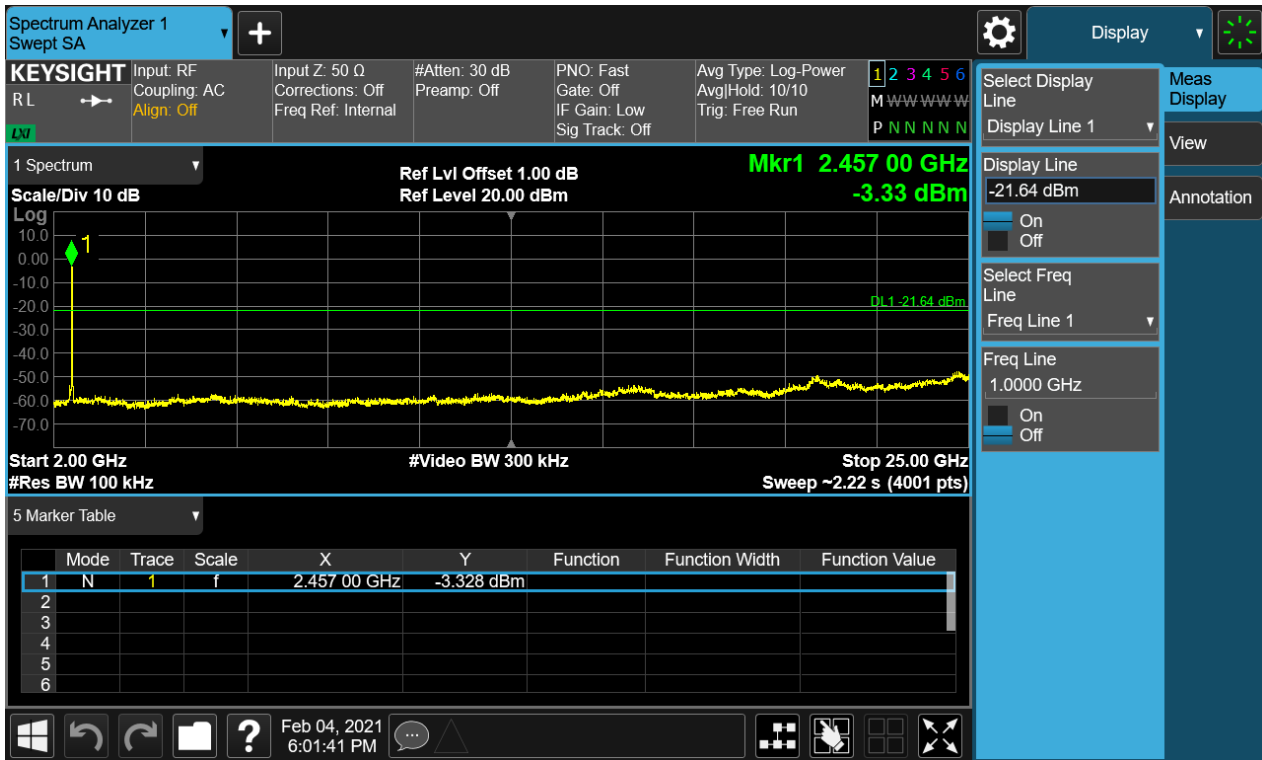
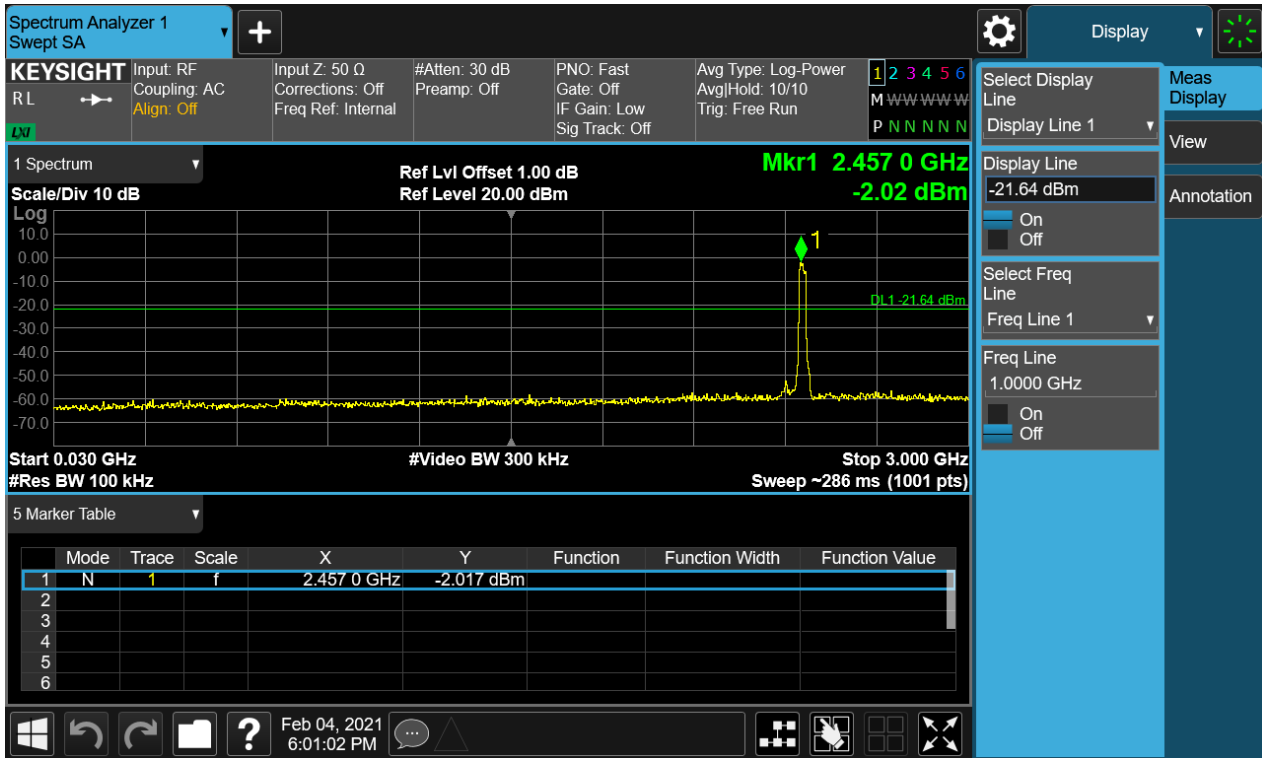
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 51 of 66

Conducted spurious emissions 30MHz-25GHz



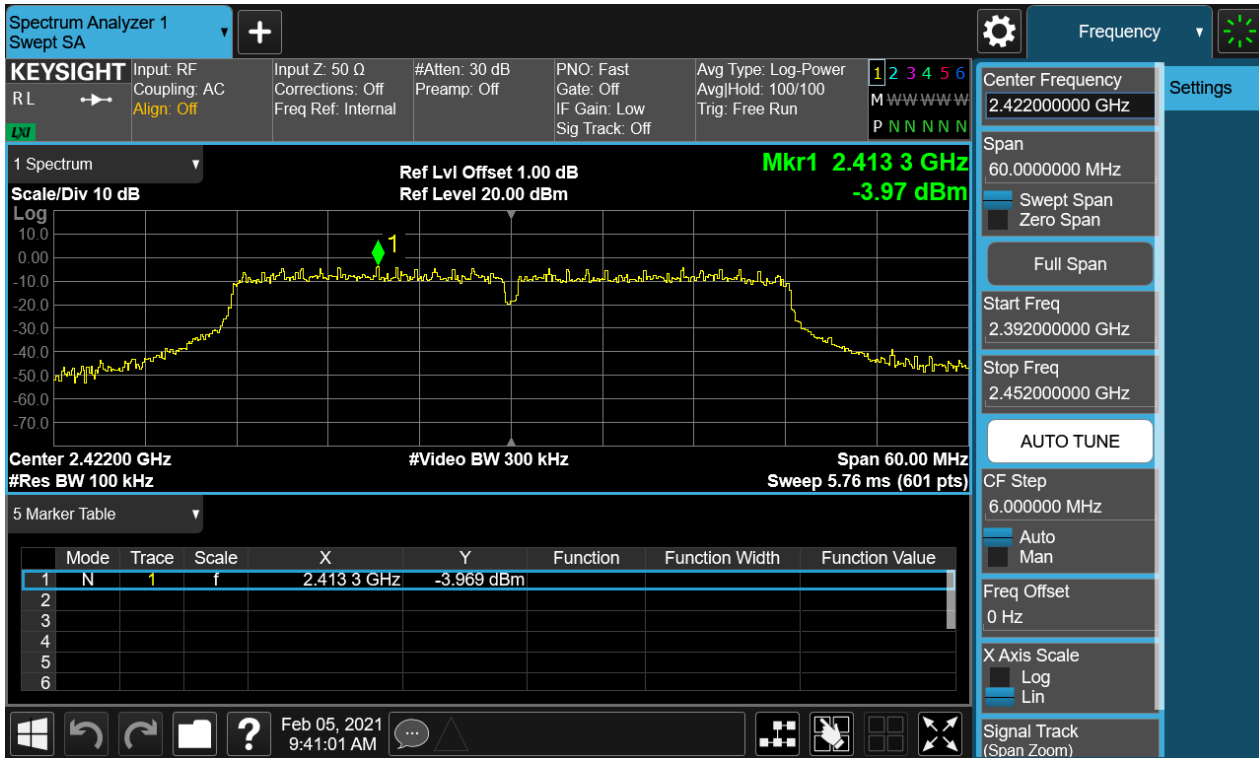
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 52 of 66

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



Band Edge



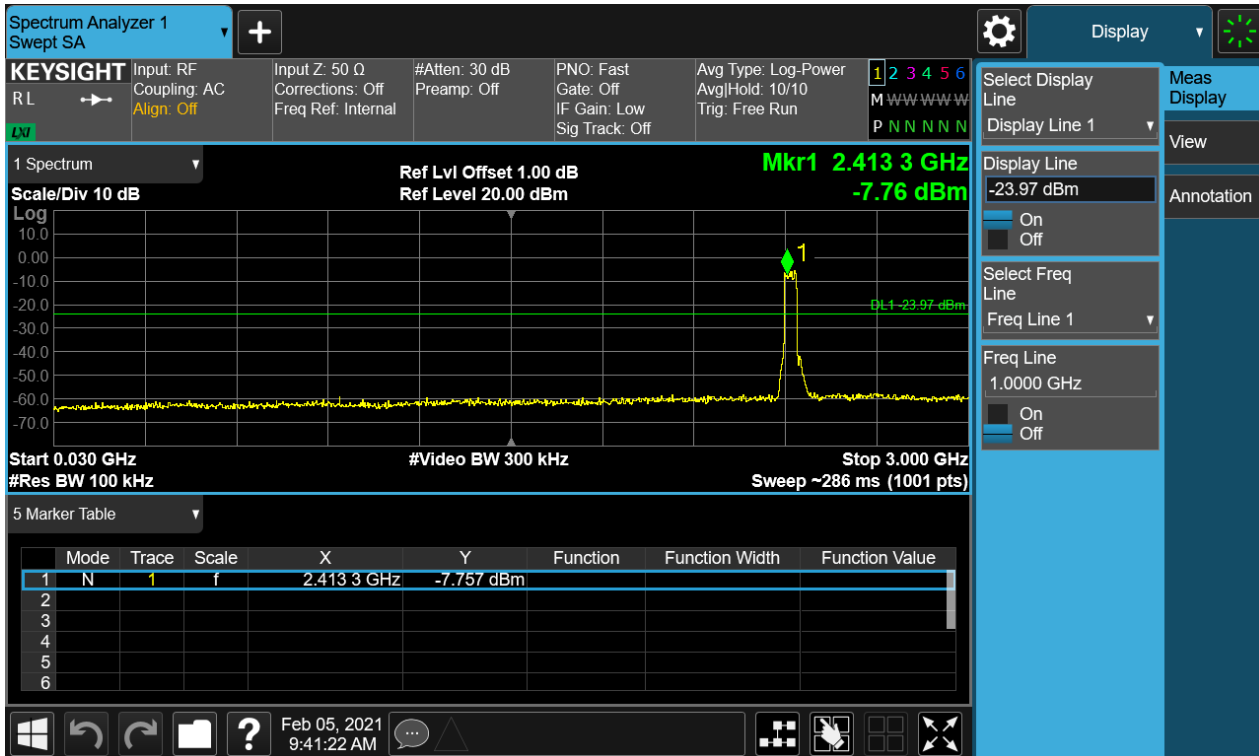
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 53 of 66

Conducted spurious emissions 30MHz-25GHz



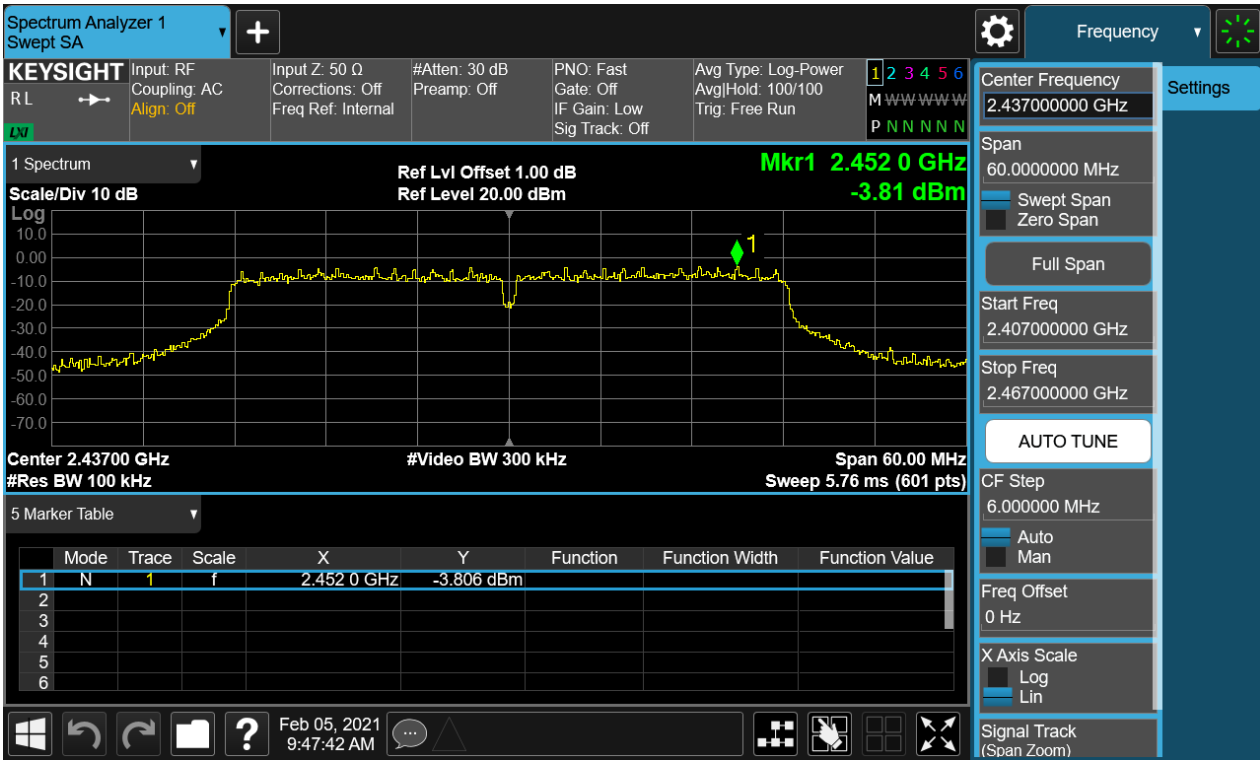
TEST REPORT

Report No.: SHE20100017-02GE

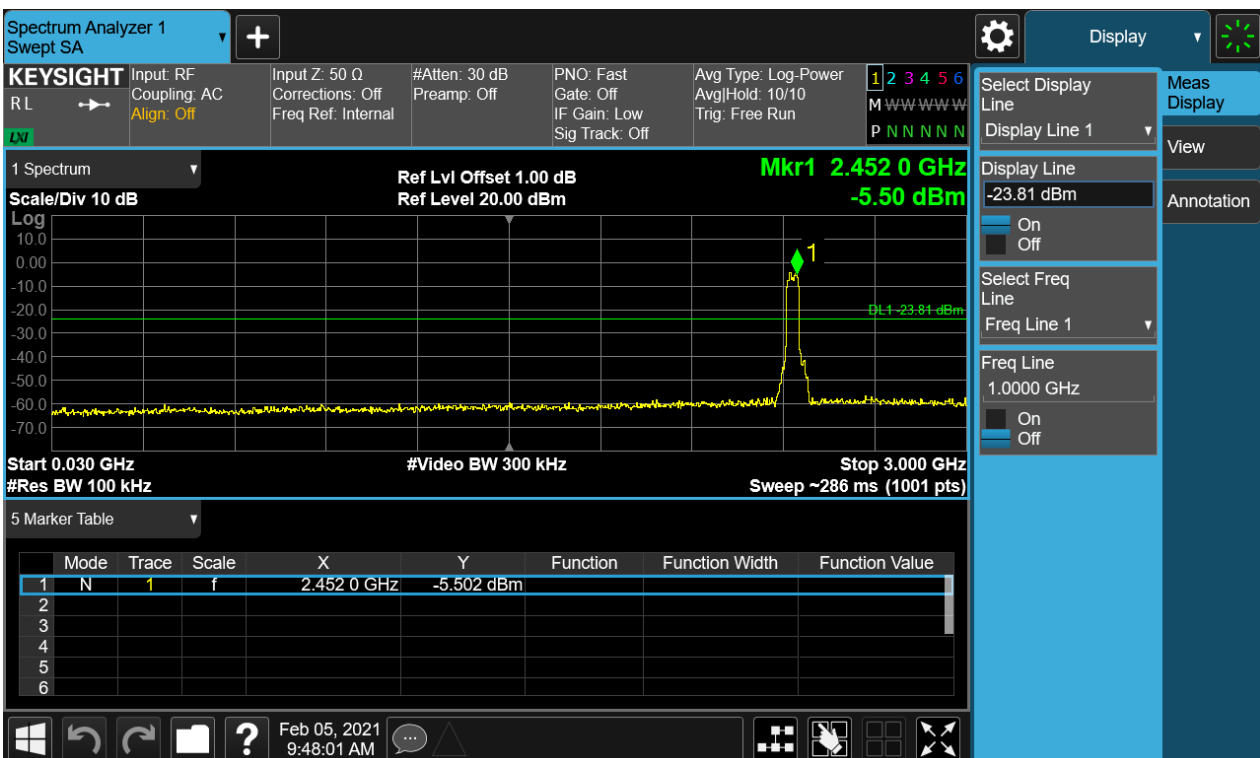
Date: 2021-03-15

Page 54 of 66

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



Conducted spurious emissions 30MHz-25GHz



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 55 of 66

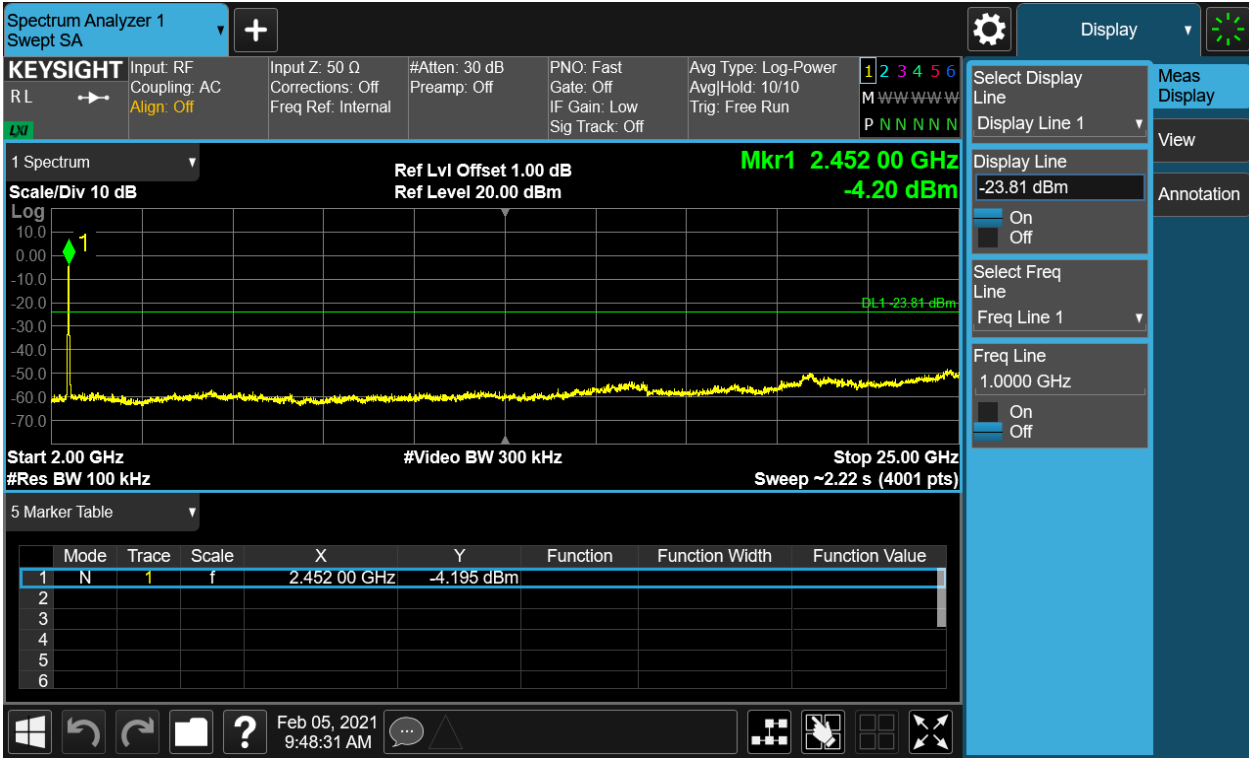
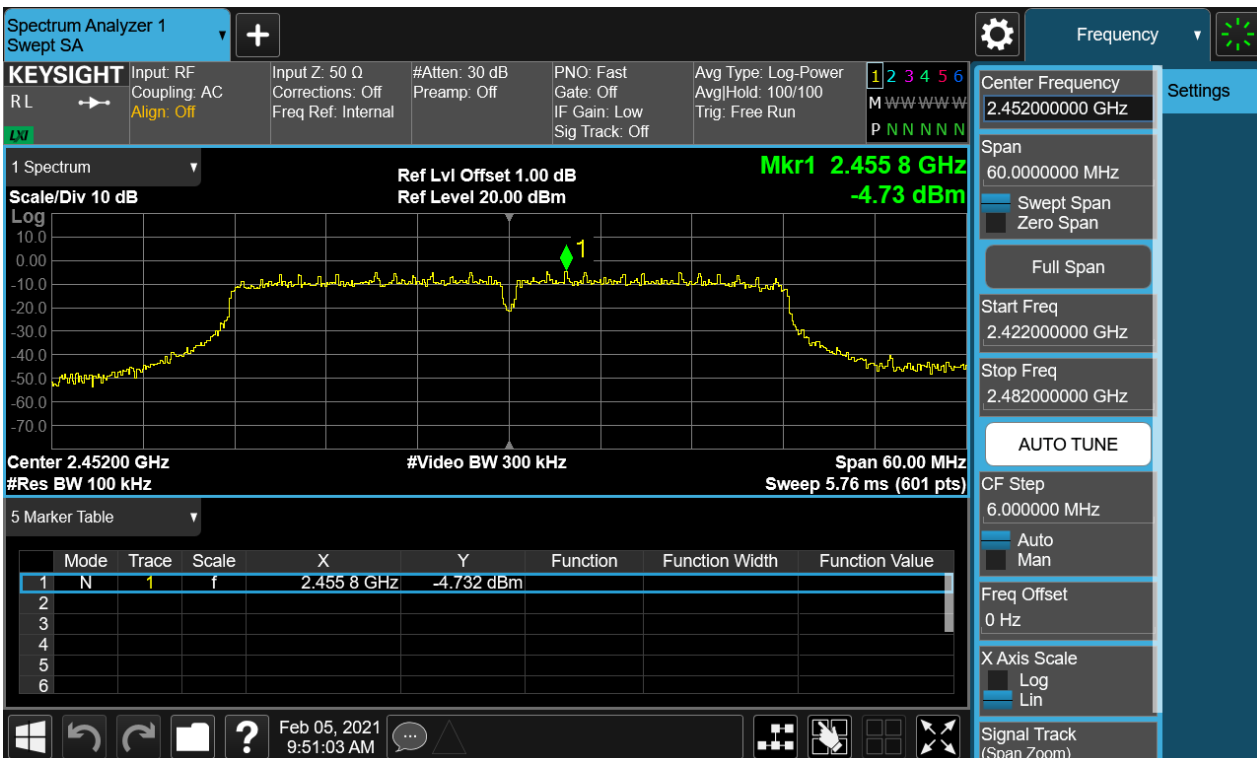


Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz Carrier Level



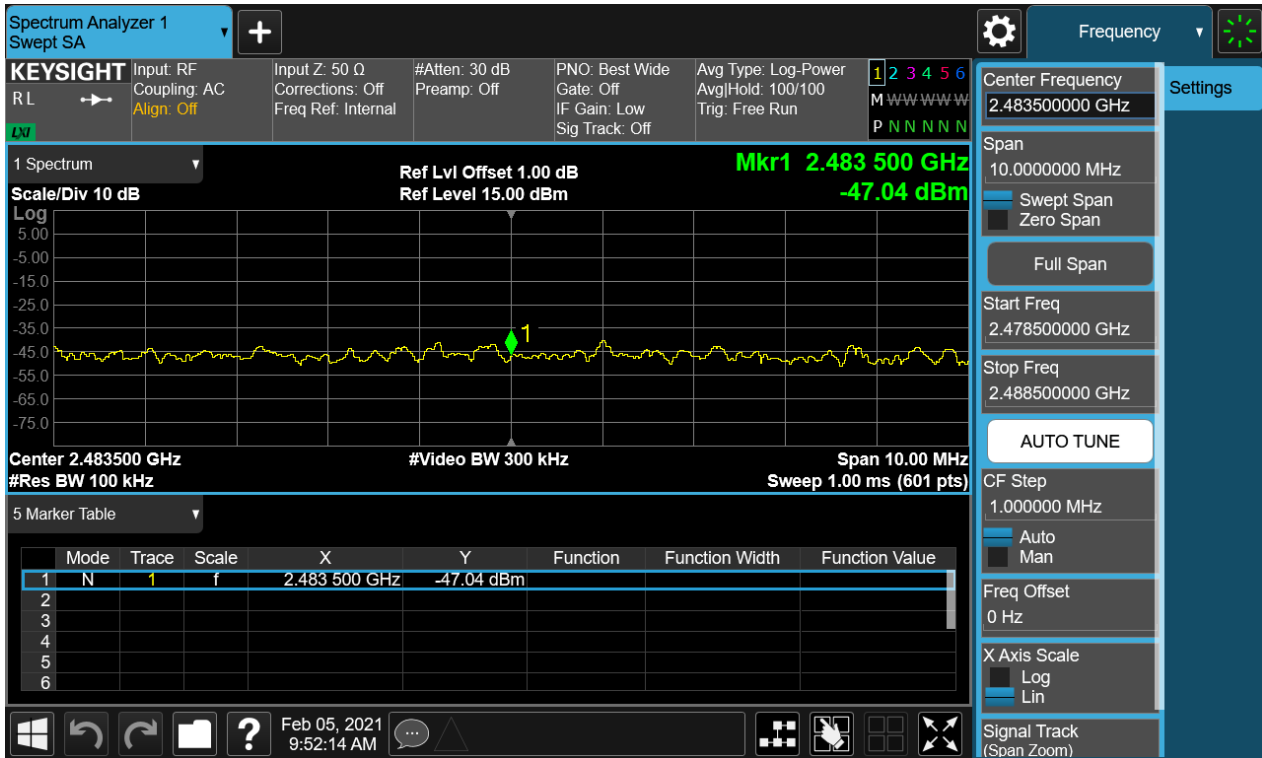
TEST REPORT

Report No.: SHE20100017-02GE

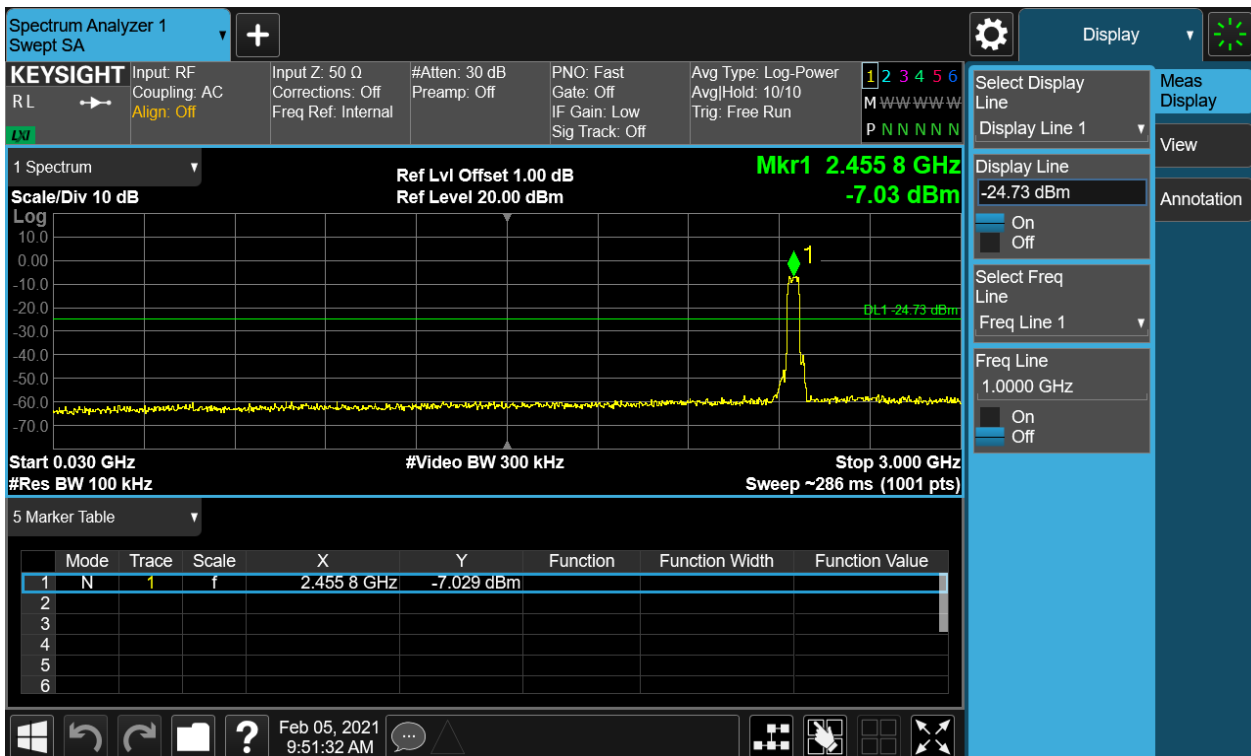
Date: 2021-03-15

Page 56 of 66

Band Edge



Conducted spurious emissions 30MHz-25GHz

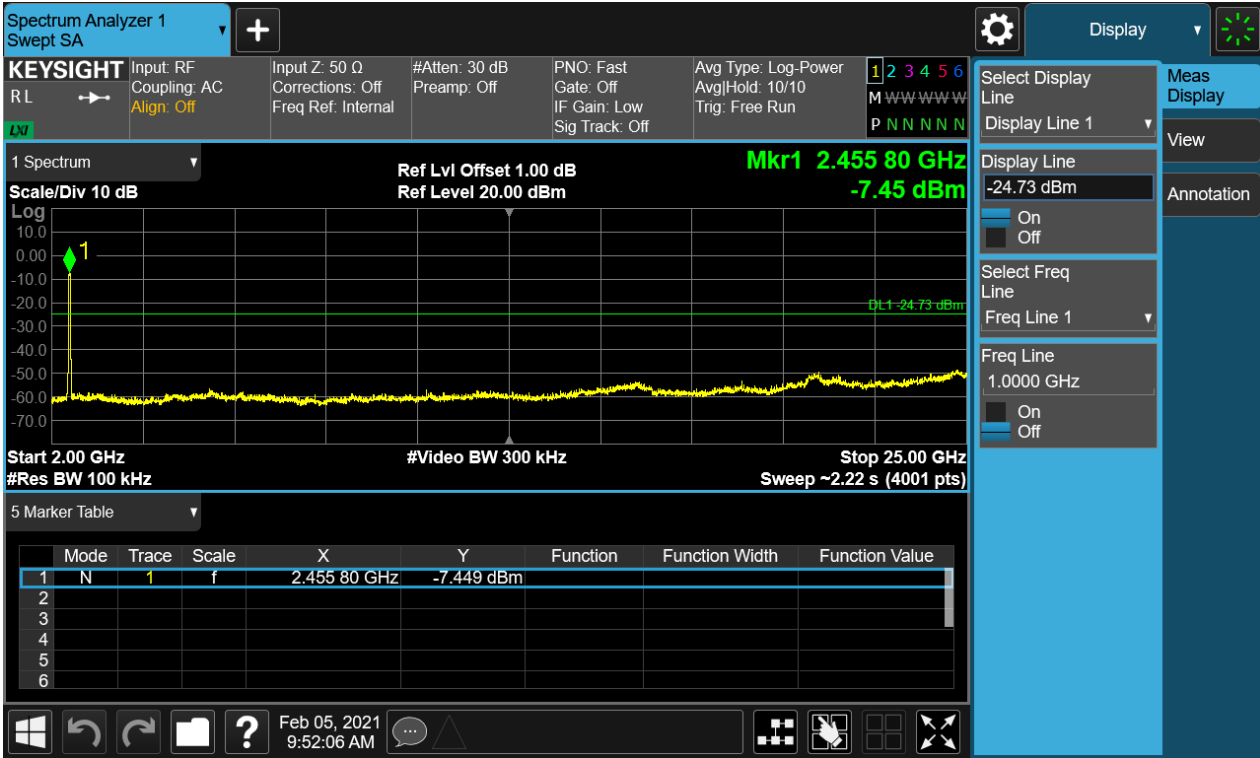


TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 57 of 66



TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 58 of 66

4.1.6 Spurious Emission

RESULT:

PASS

Test standard : FCC Part 15.247(d), 15.205, 15.209
RSS-247 5.5
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 : 23°C
Relative humidity : 52%

Notes

Test plots please refer to the annex document "SHE20100017-02GE 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.

TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 59 of 66

4.1.7 Band Edge (Restricted-band band-edge)

RESULT:

PASS

Test standard : FCC Part 15.247(d), 15.205, 15.209
RSS-247 5.5
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 : 23°C
Relative humidity : 52%

Notes:

Test plots please refer to the annex document "SHE20100017-02GE DATA WIFI 2.4GHz-TX EXHIBIT A".

TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 60 of 66

4.2 Mains Emissions

4.2.1 Conducted Emission on AC Mains

RESULT:

PASS

Test standard : FCC Part 15.207(a)
RSS-Gen 8.8
Requirement : ANSI C63.10-2013
Kind of test site : Shielded room

Test setup

Input Voltage : AC 120V, 60Hz; AC 240V, 50Hz
Operation Mode : A
Earthing : Not Connected
Ambient temperature : 23°C
Relative humidity : 52%

For details refer to following test plot.

TEST REPORT

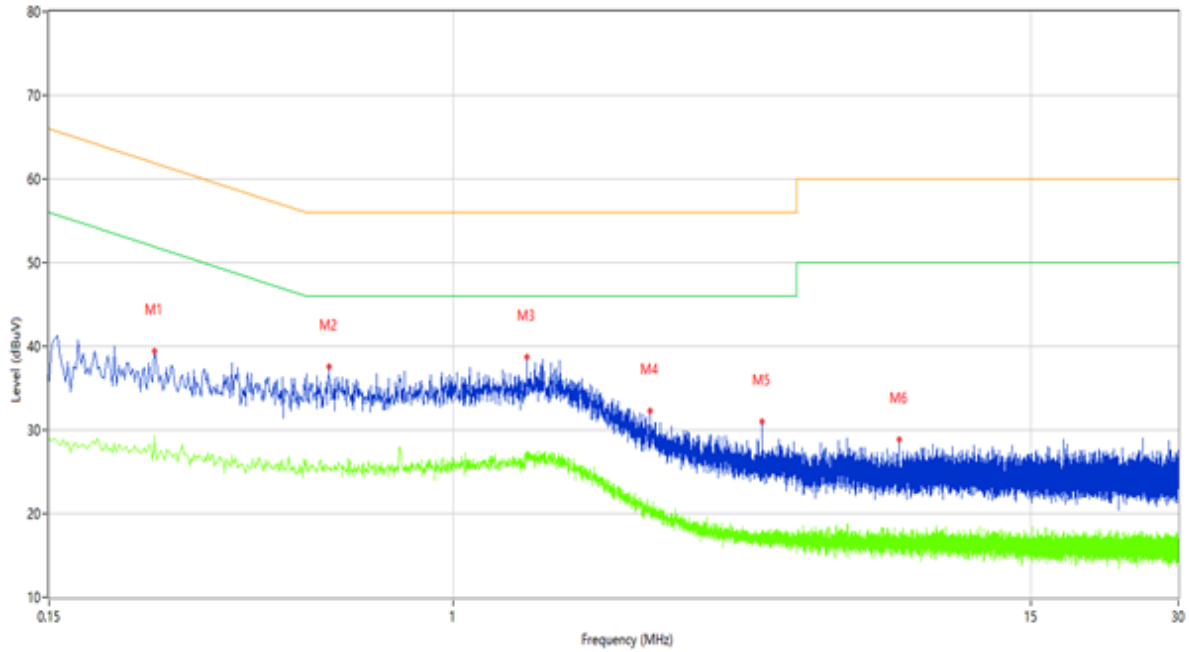
Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 61 of 66

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

Figure 37: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.246	43.01	9.69	61.89	-18.88	Peak	L	Pass
1*	0.246	31.29	9.69	61.89	-30.60	QP	L	Pass
1**	0.246	29.26	9.69	51.89	-22.63	AV	L	Pass
2	0.558	34.43	9.75	56.00	-21.57	Peak	L	Pass
2*	0.558	23.44	9.75	56.00	-32.56	QP	L	Pass
2**	0.558	25.42	9.75	46.00	-20.58	AV	L	Pass
3	1.412	29.65	9.67	56.00	-26.35	Peak	L	Pass
3*	1.412	22.44	9.67	56.00	-33.56	QP	L	Pass
3**	1.412	26.53	9.67	46.00	-19.47	AV	L	Pass
4	2.512	25.29	9.68	56.00	-30.71	Peak	L	Pass
4*	2.512	17.75	9.68	56.00	-38.25	QP	L	Pass
4**	2.512	20.51	9.68	46.00	-25.49	AV	L	Pass
5	4.262	26.17	9.69	56.00	-29.83	Peak	L	Pass
5*	4.262	15.04	9.69	56.00	-40.96	QP	L	Pass
5**	4.262	17.22	9.69	46.00	-28.78	AV	L	Pass
6	8.086	23.14	9.67	60.00	-36.86	Peak	L	Pass
6*	8.086	14.32	9.67	60.00	-45.68	QP	L	Pass
6**	8.086	17.19	9.67	50.00	-32.81	AV	L	Pass

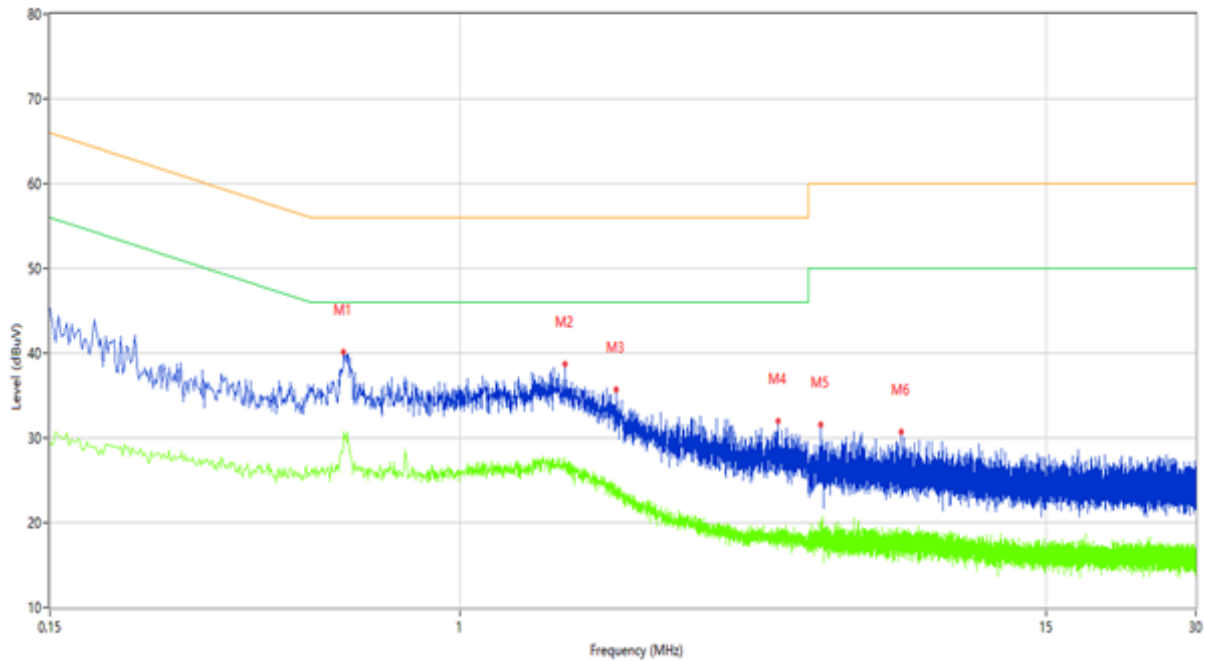
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 62 of 66

Figure 38: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.584	39.51	9.76	56.00	-16.49	Peak	N	Pass
1*	0.584	30.14	9.76	56.00	-25.86	QP	N	Pass
1**	0.584	30.70	9.76	46.00	-15.30	AV	N	Pass
2	1.626	29.53	9.67	56.00	-26.47	Peak	N	Pass
2*	1.626	21.92	9.67	56.00	-34.08	QP	N	Pass
2**	1.626	27.77	9.67	46.00	-18.23	AV	N	Pass
3	2.058	27.67	9.68	56.00	-28.33	Peak	N	Pass
3*	2.058	20.47	9.68	56.00	-35.53	QP	N	Pass
3**	2.058	24.01	9.68	46.00	-21.99	AV	N	Pass
4	4.358	29.93	9.69	56.00	-26.07	Peak	N	Pass
4*	4.358	18.60	9.69	56.00	-37.40	QP	N	Pass
4**	4.358	19.50	9.69	46.00	-26.50	AV	N	Pass
5	5.288	28.58	9.70	60.00	-31.42	Peak	N	Pass
5*	5.288	19.19	9.70	60.00	-40.81	QP	N	Pass
5**	5.288	19.80	9.70	50.00	-30.20	AV	N	Pass
6	7.690	27.04	9.67	60.00	-32.96	Peak	N	Pass
6*	7.690	17.49	9.67	60.00	-42.51	QP	N	Pass
6**	7.690	18.48	9.67	50.00	-31.52	AV	N	Pass

TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 63 of 66

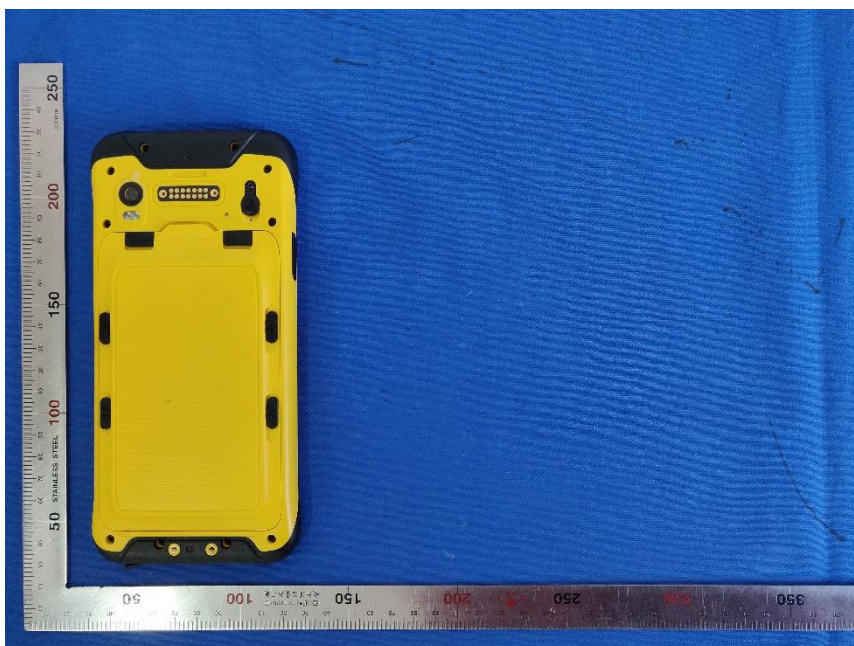
5 Appendixes

5.1 Photographs of the Sample

TDC600_2 Model



Front of the sample



Rear of the sample

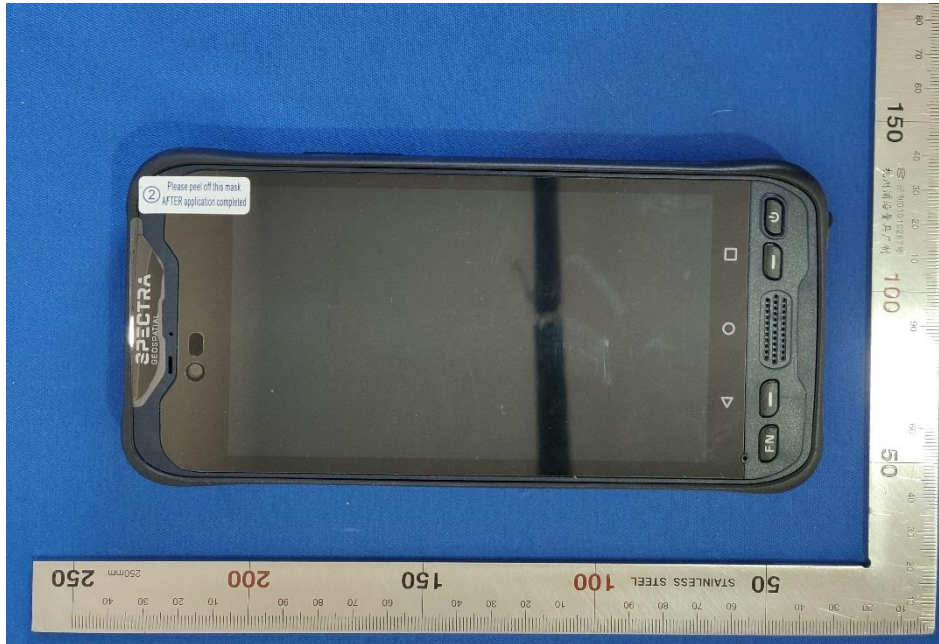
TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 64 of 66

MobileMapper60_2 Model



Front of the sample



Rear of the sample

TEST REPORT

Report No.: SHE20100017-02GE

Date: 2021-03-15

Page 65 of 66

5.2 Set-up for Conducted Emissions



5.3 Set-up for Conducted RF test at Antenna Port



TEST REPORT

Report No.: SHE20100017-02GE

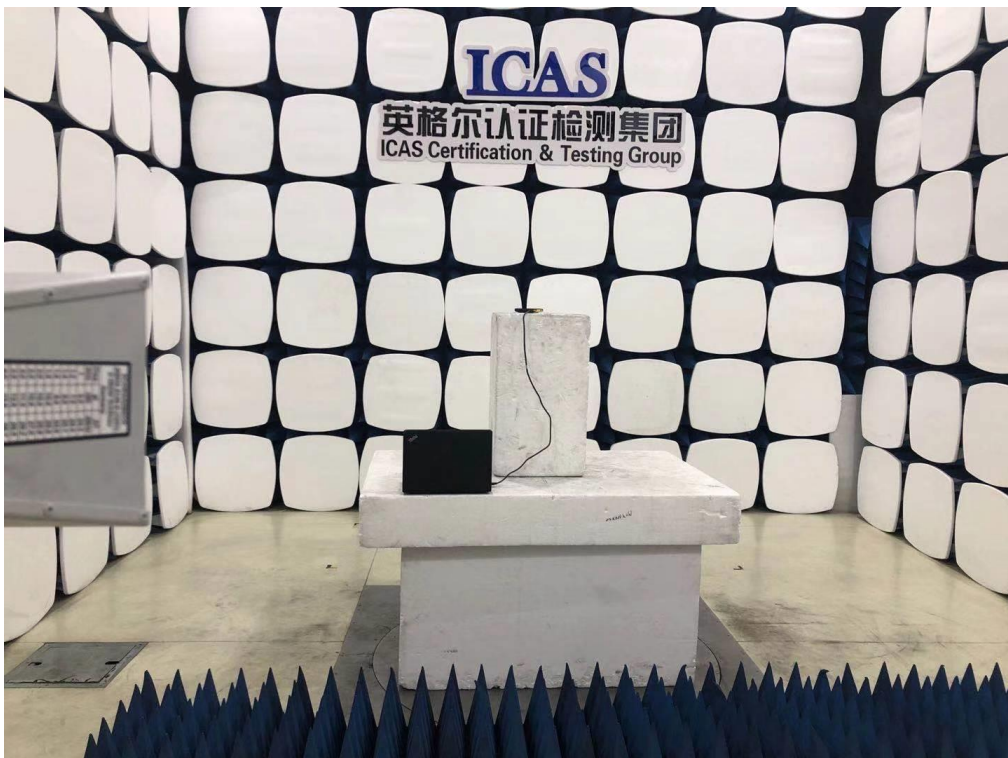
Date: 2021-03-15

Page 66 of 66

5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



End of the report