

# TEST REPORT

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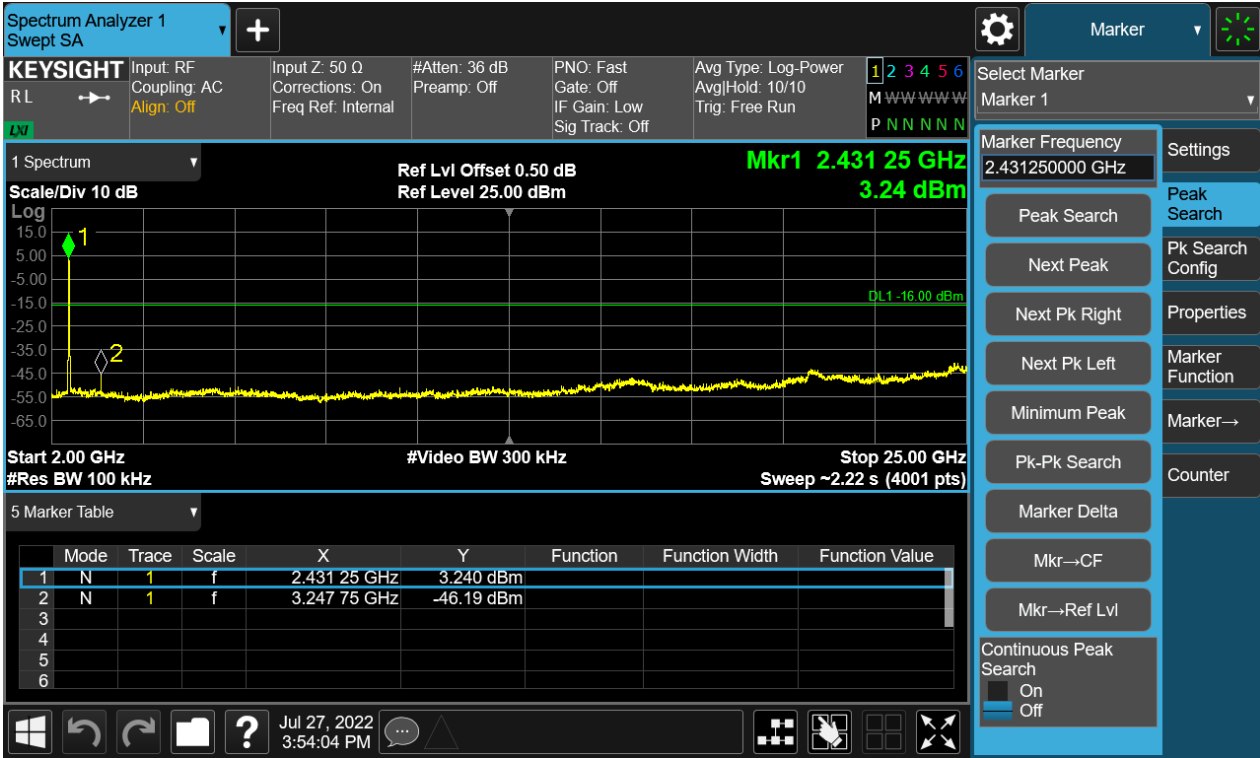
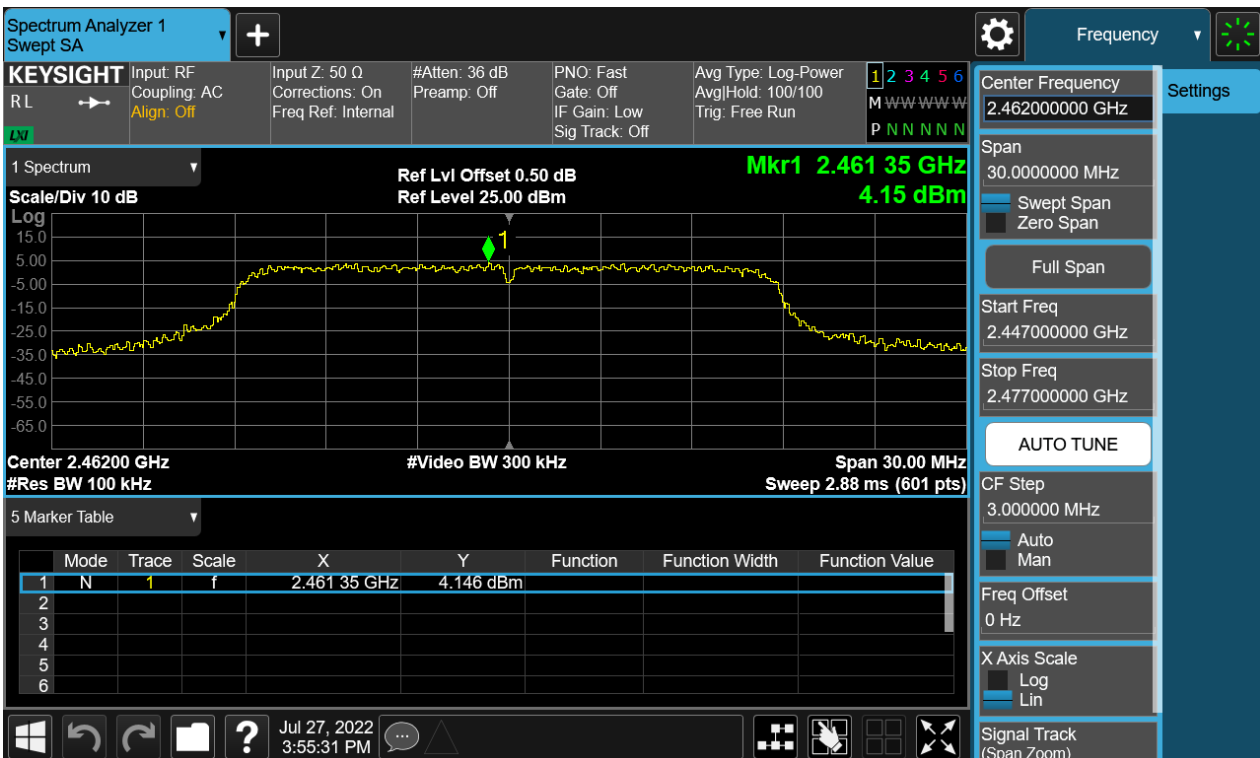


Figure 33: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2462MHz Carrier Level



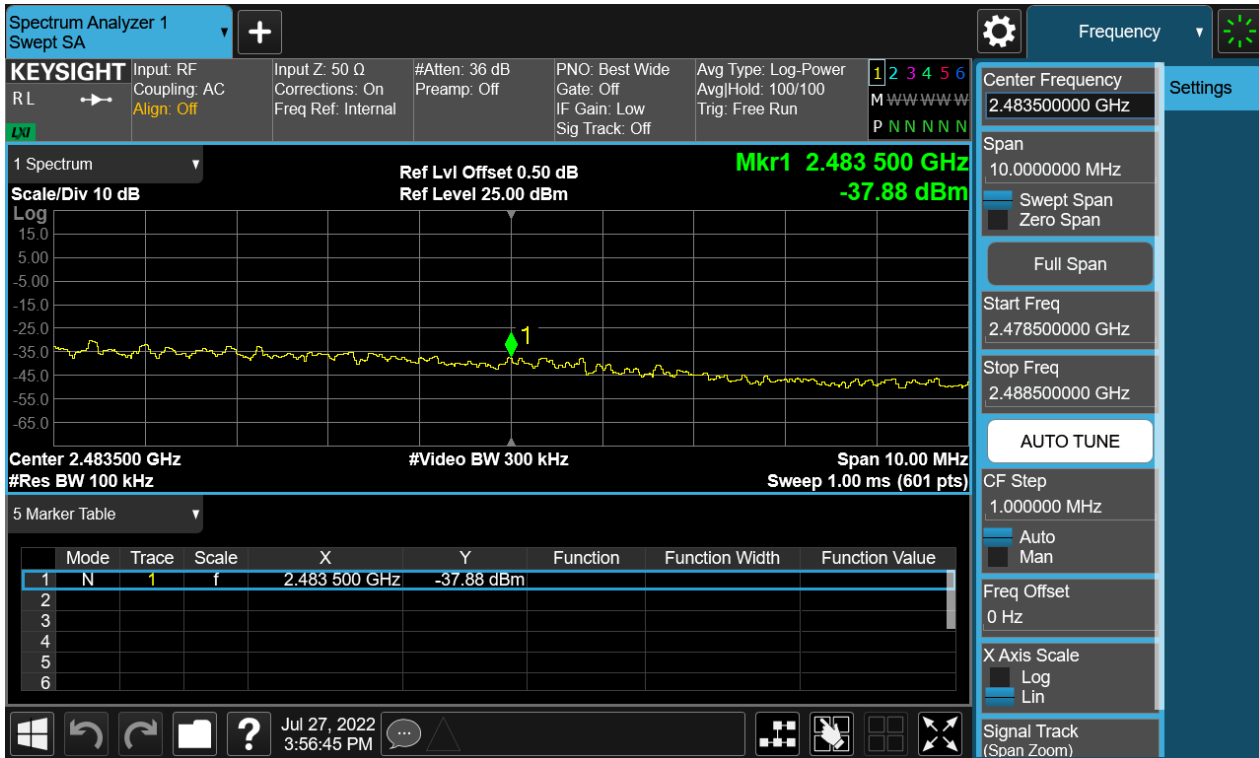
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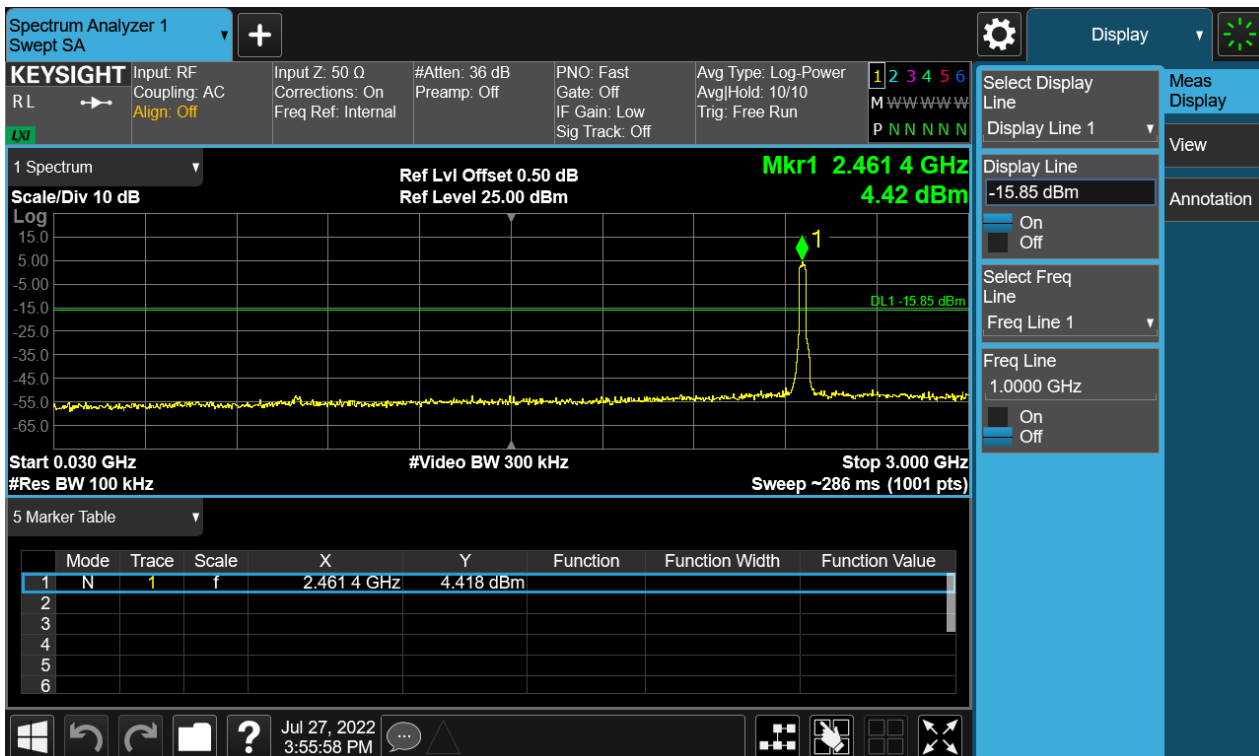
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## Band Edge



## Conducted spurious emissions 30MHz-25GHz



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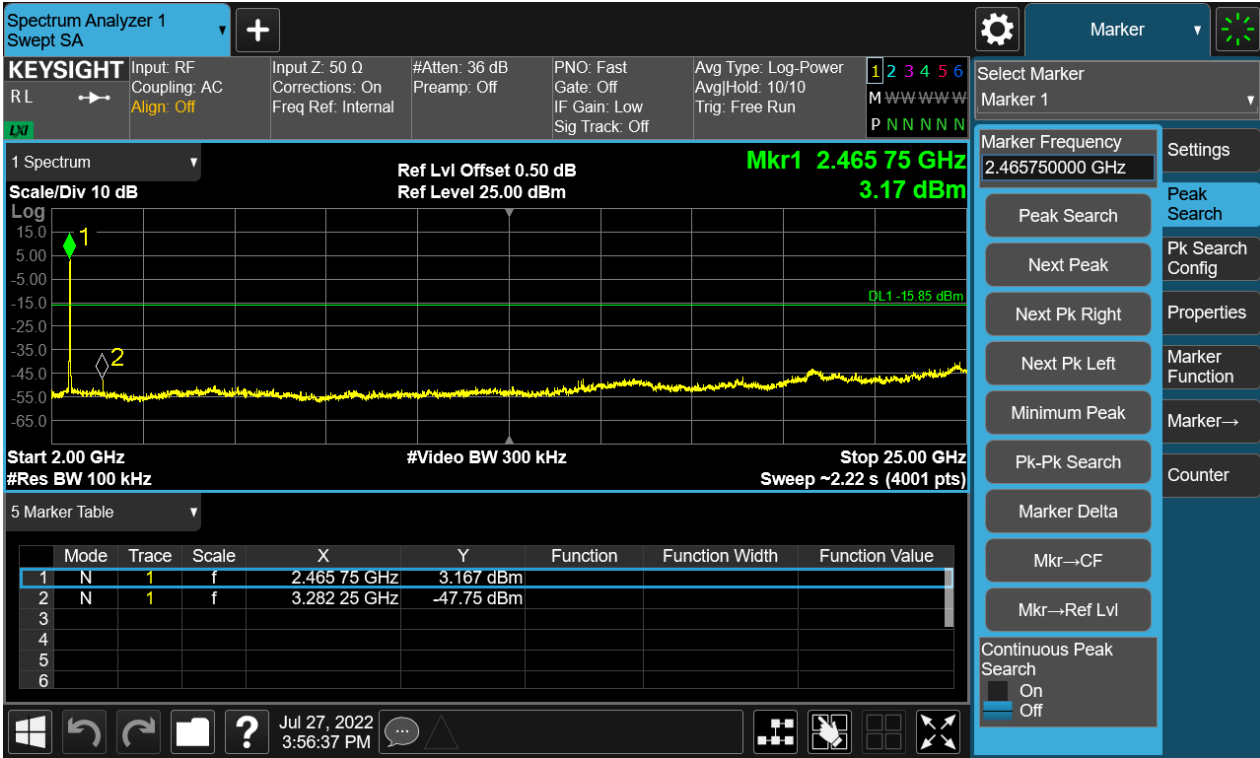
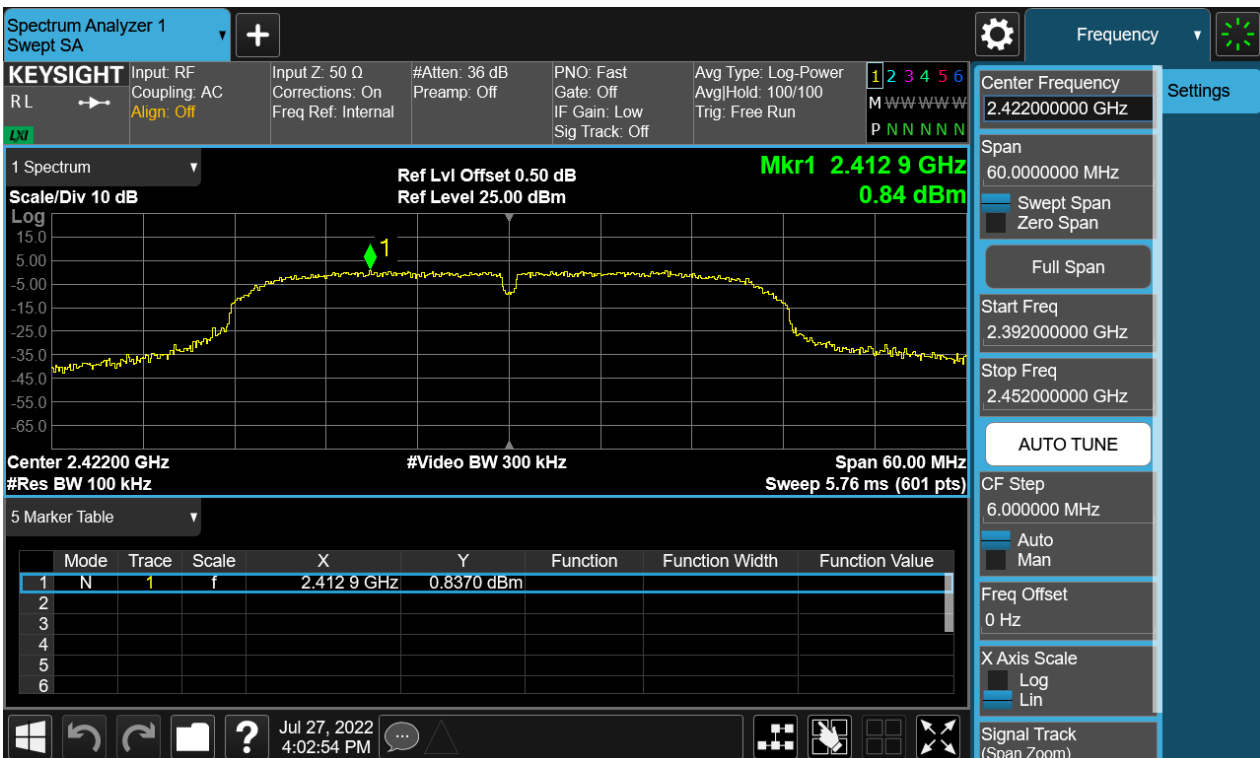


Figure 34: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level



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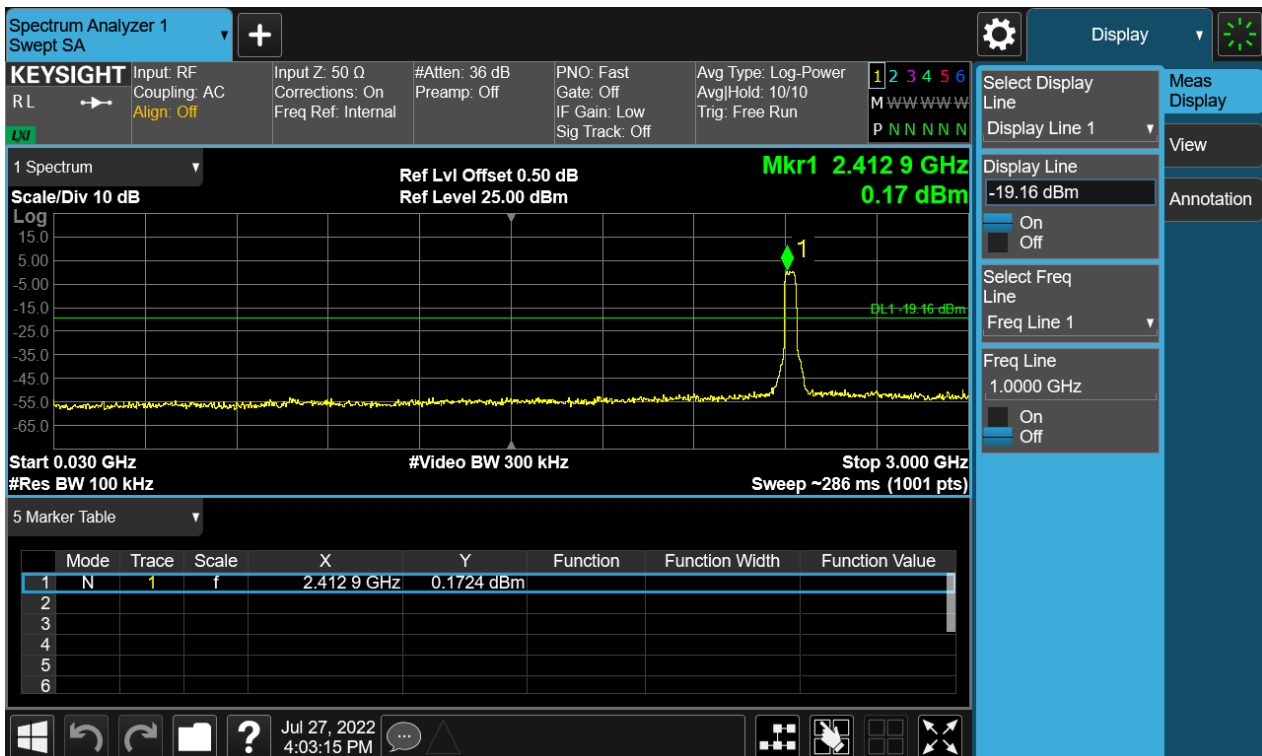
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## Band Edge



## Conducted spurious emissions 30MHz-25GHz



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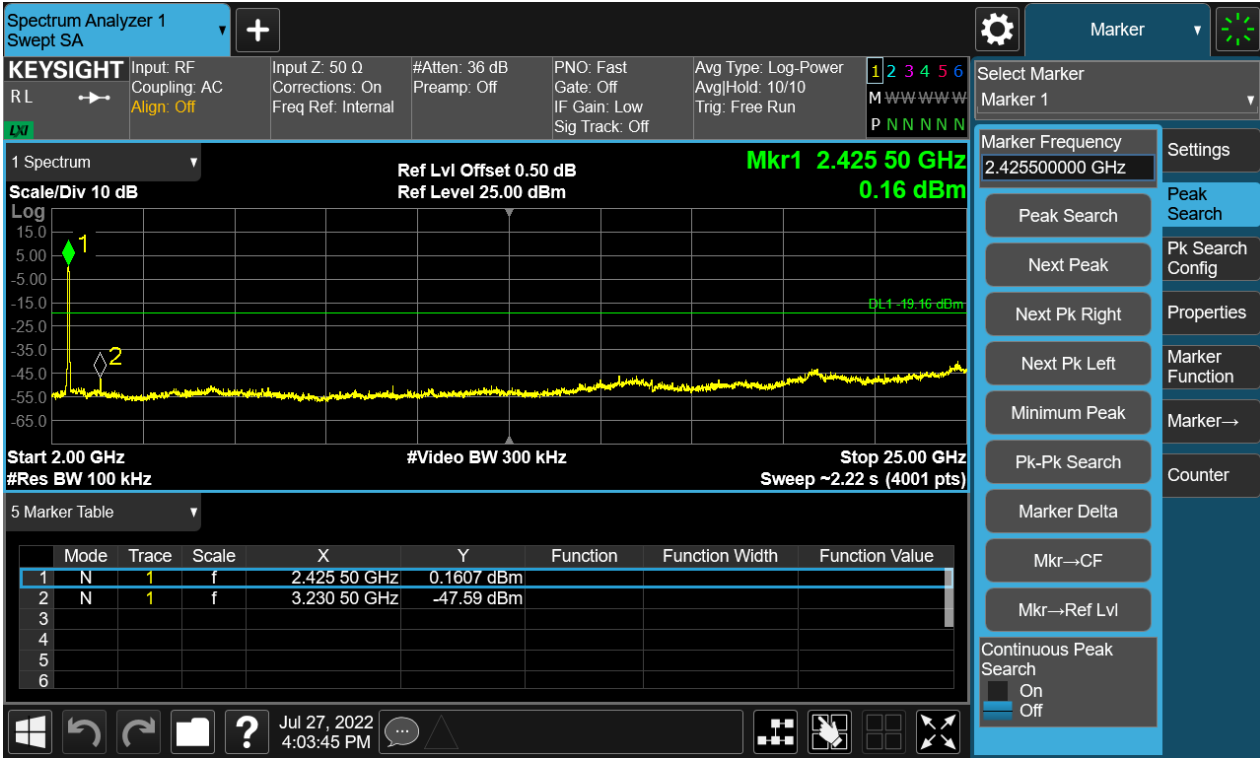
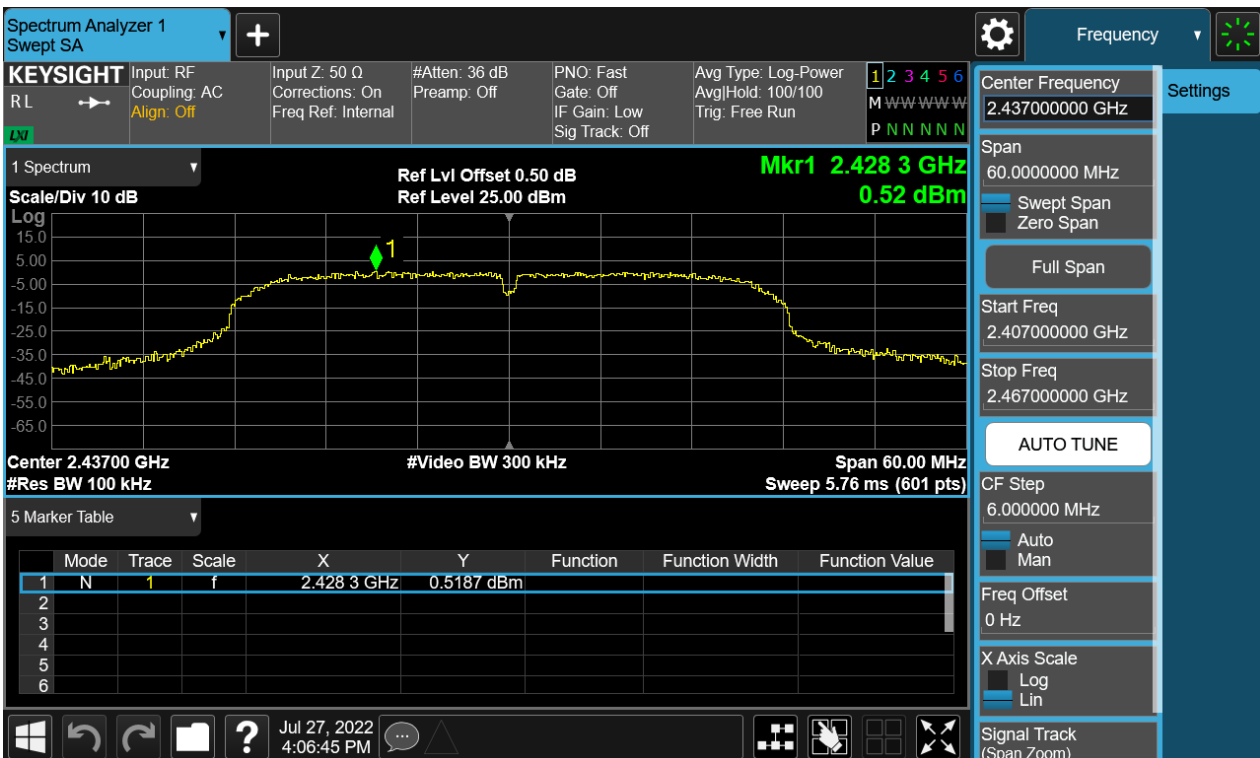


Figure 35: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2437MHz Carrier Level



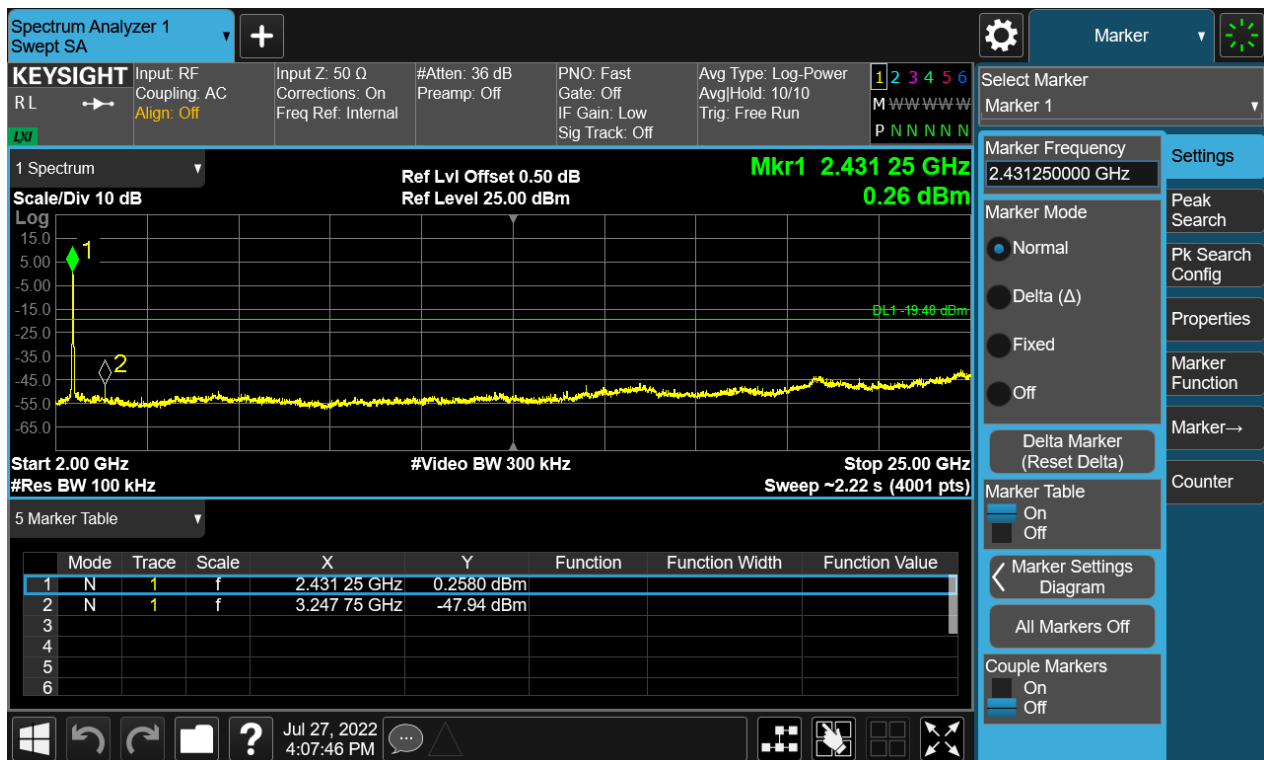
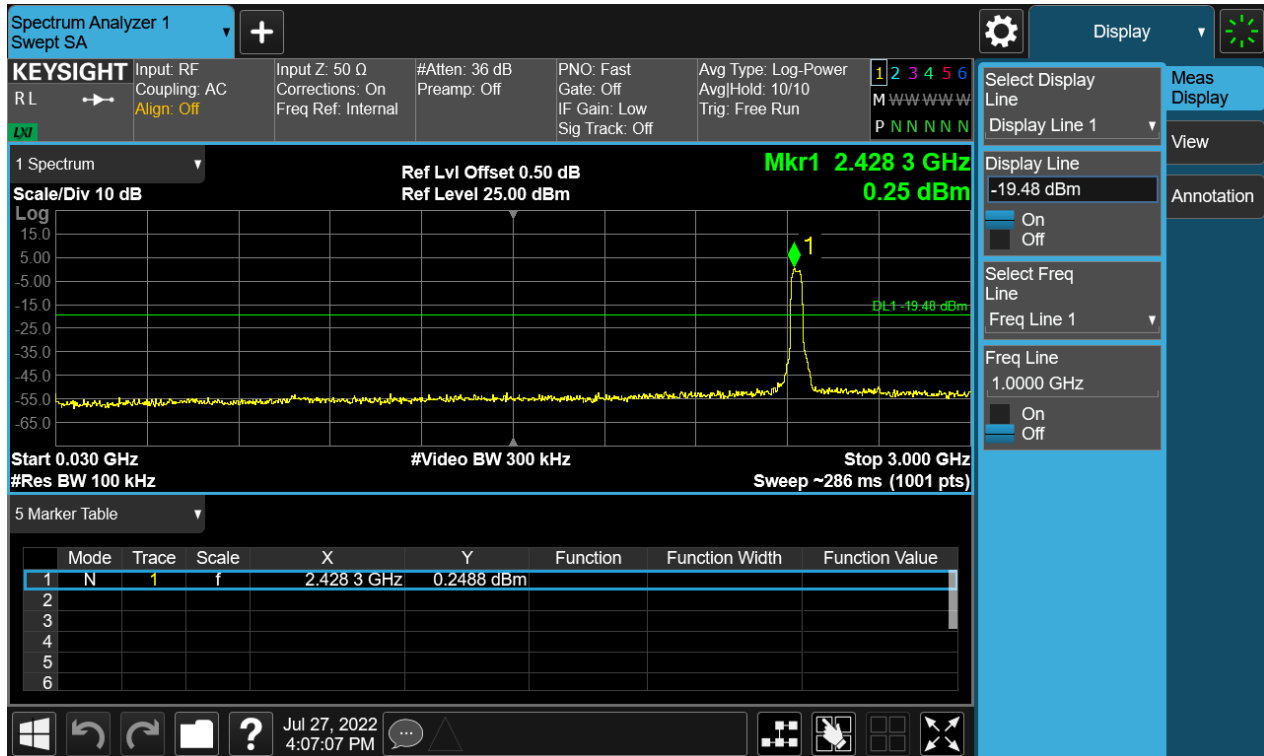
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## Conducted spurious emissions 30MHz-25GHz



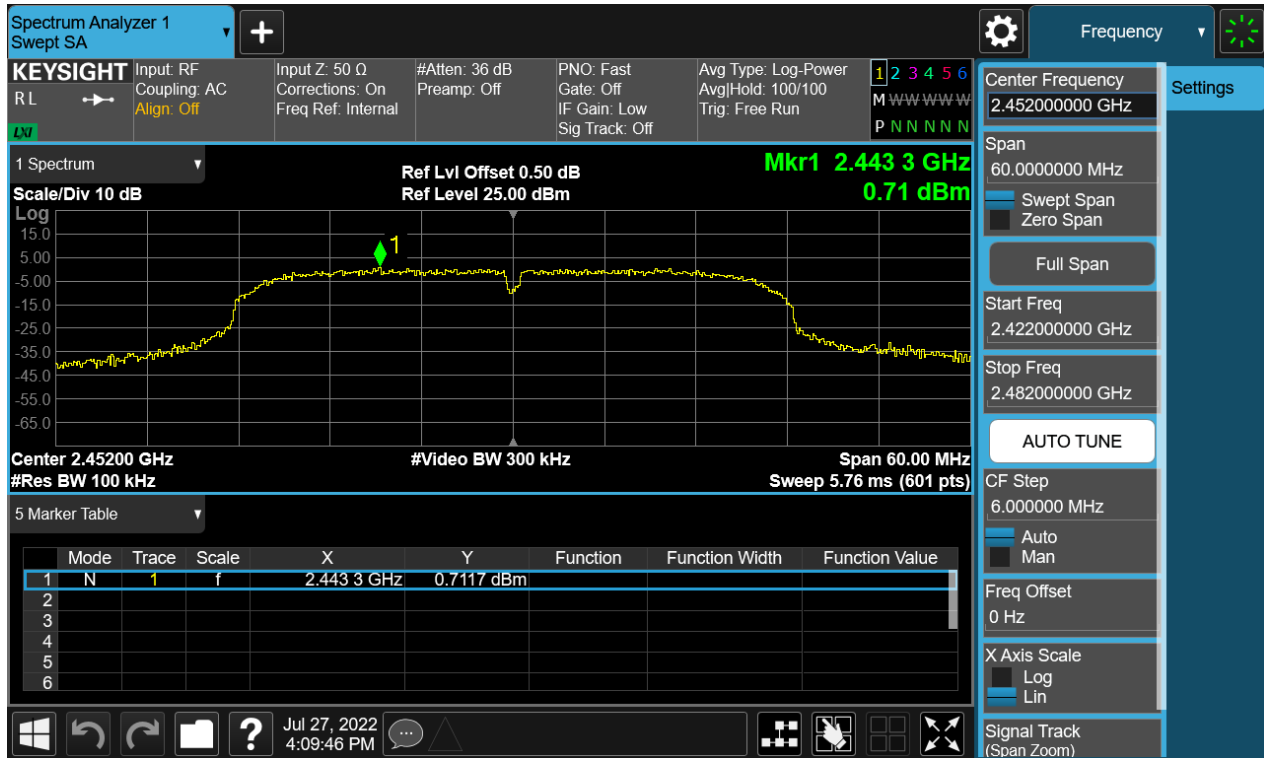
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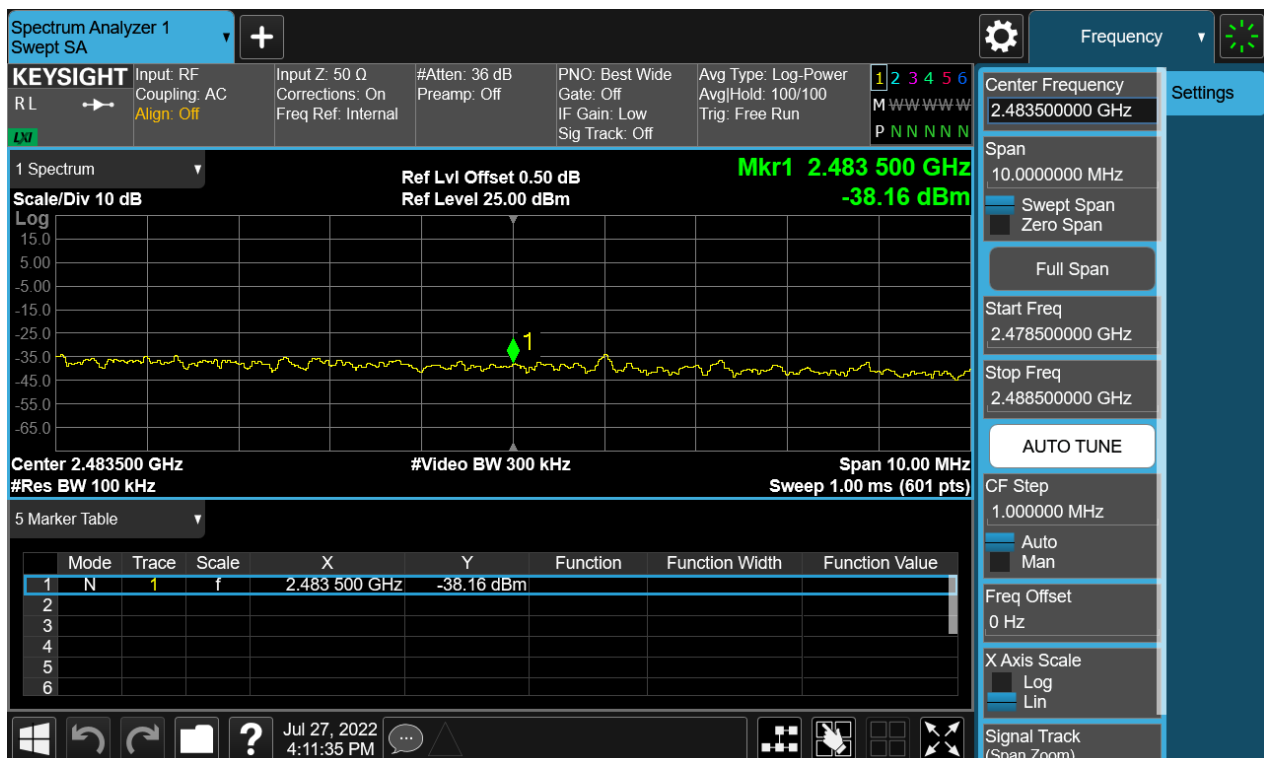
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Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz Carrier Level



## Band Edge



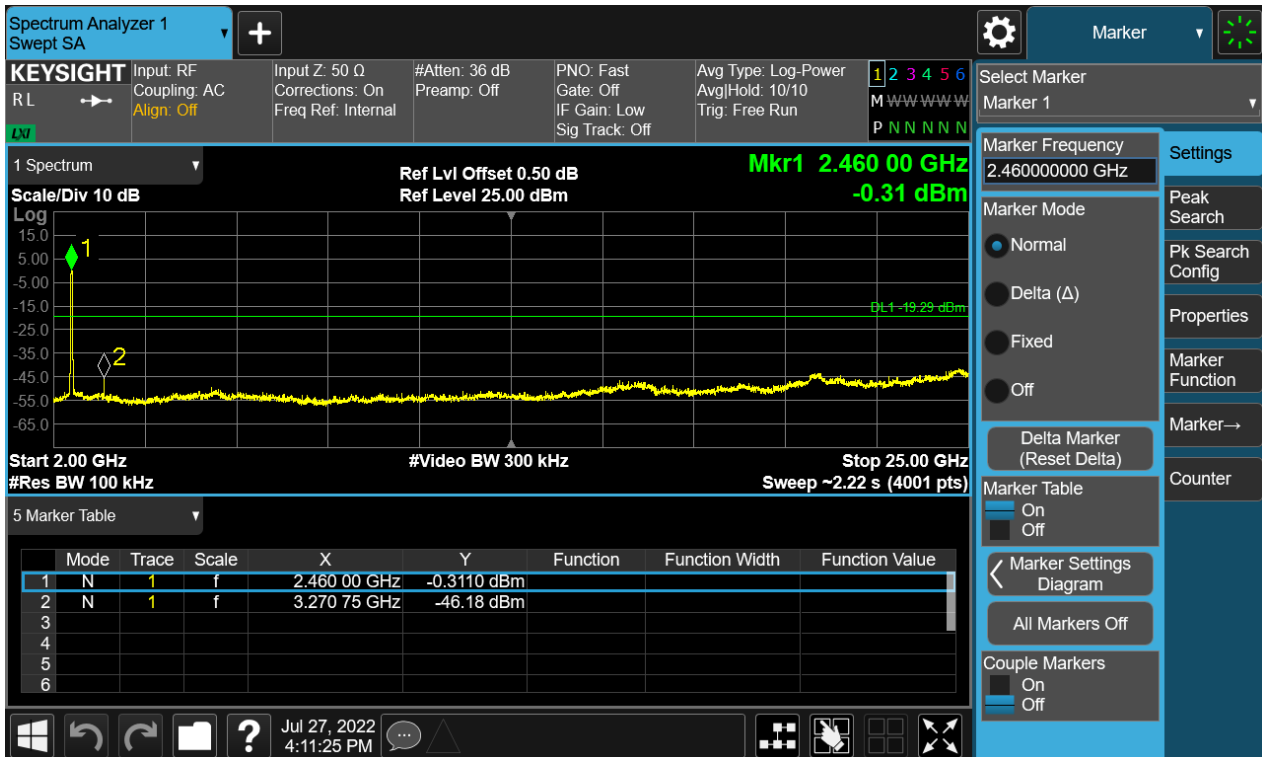
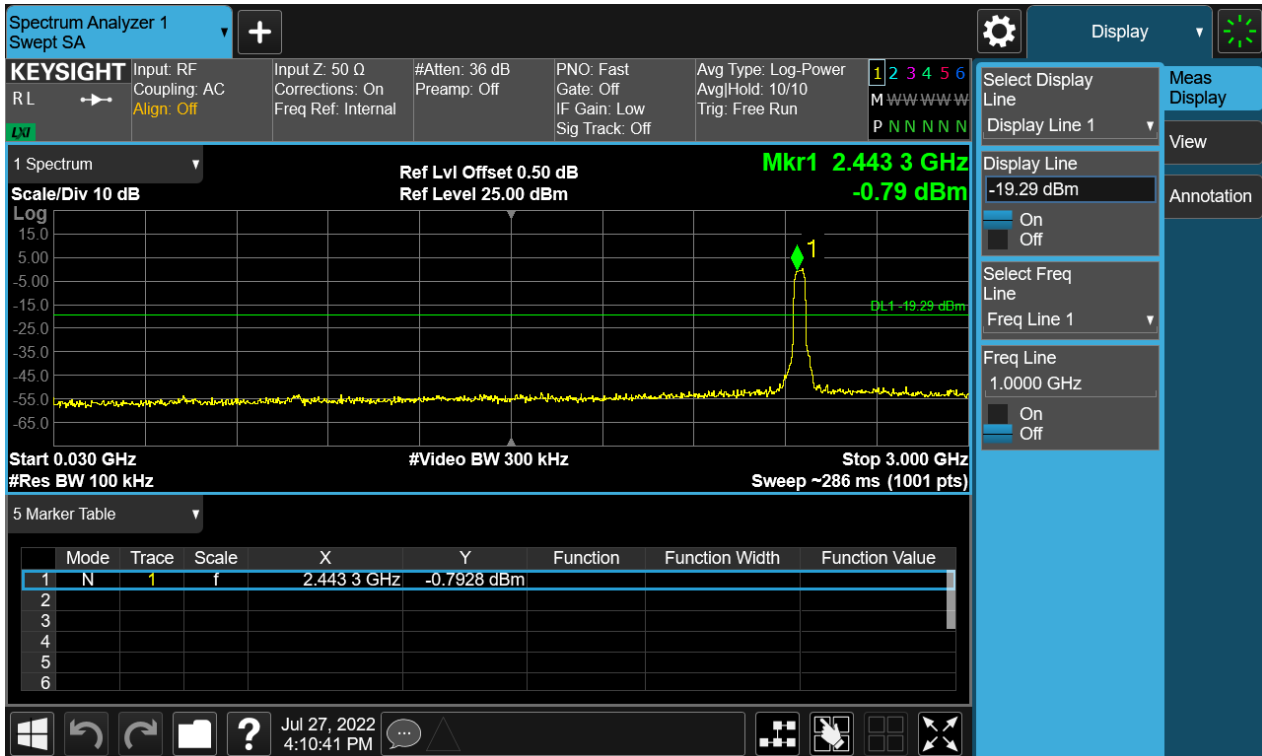
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## Conducted spurious emissions 30MHz-25GHz





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## 4.1.6 Radiated Spurious 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 : 23.1°C  
Relative humidity : 52%

### Notes

*Test plots please refer to the annex document "SHE22060090-02AE 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 high 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 : 23.1°C  
Relative humidity : 52%

### Notes:

1. Test plots please refer to the annex document "SHE22060090-02AE 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  
Operation Mode : A.1.a  
Earthing : Connected to GND  
Ambient temperature : 23.6°C  
Relative humidity : 57%

For details refer to following test plot.

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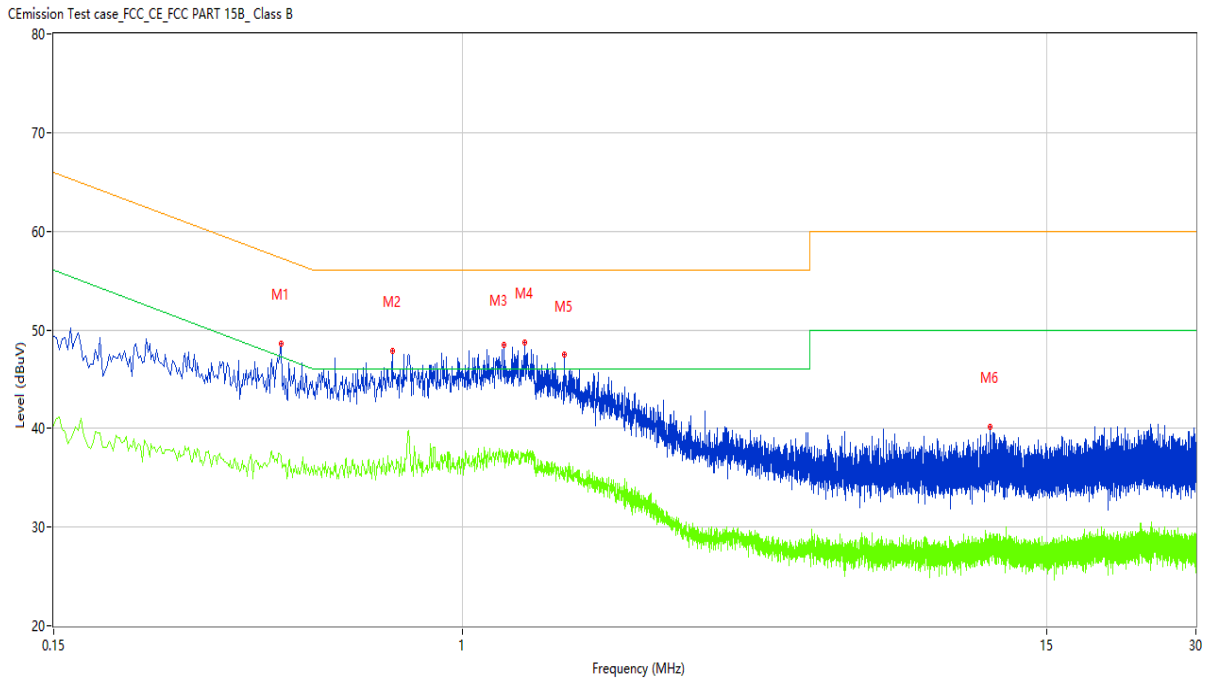
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Note: All test modes had been pre-tested, but only the 802.11b at high channel is the worst case and recorded in the report.

Figure 28: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.430	44.84	10.26	57.25	-12.41	Peak	L	Pass
1*	0.430	41.60	10.26	57.25	-15.65	QP	L	Pass
1**	0.430	37.18	10.26	47.25	-10.07	AV	L	Pass
2	0.722	41.68	10.31	56.00	-14.32	Peak	L	Pass
2*	0.722	34.18	10.31	56.00	-21.82	QP	L	Pass
2**	0.722	36.67	10.31	46.00	-9.33	AV	L	Pass
3	1.212	38.50	10.19	56.00	-17.50	Peak	L	Pass
3*	1.212	31.29	10.19	56.00	-24.71	QP	L	Pass
3**	1.212	37.49	10.19	46.00	-8.51	AV	L	Pass
4	1.336	38.40	10.19	56.00	-17.60	Peak	L	Pass
4*	1.336	29.03	10.19	56.00	-26.97	QP	L	Pass
4**	1.336	36.61	10.19	46.00	-9.39	AV	L	Pass
5	1.604	36.83	10.18	56.00	-19.17	Peak	L	Pass
5*	1.604	25.88	10.18	56.00	-30.12	QP	L	Pass
5**	1.604	34.96	10.18	46.00	-11.04	AV	L	Pass
6	11.540	33.70	10.40	60.00	-26.30	Peak	L	Pass
6*	11.540	27.95	10.40	60.00	-32.05	QP	L	Pass
6**	11.540	28.44	10.40	50.00	-21.56	AV	L	Pass

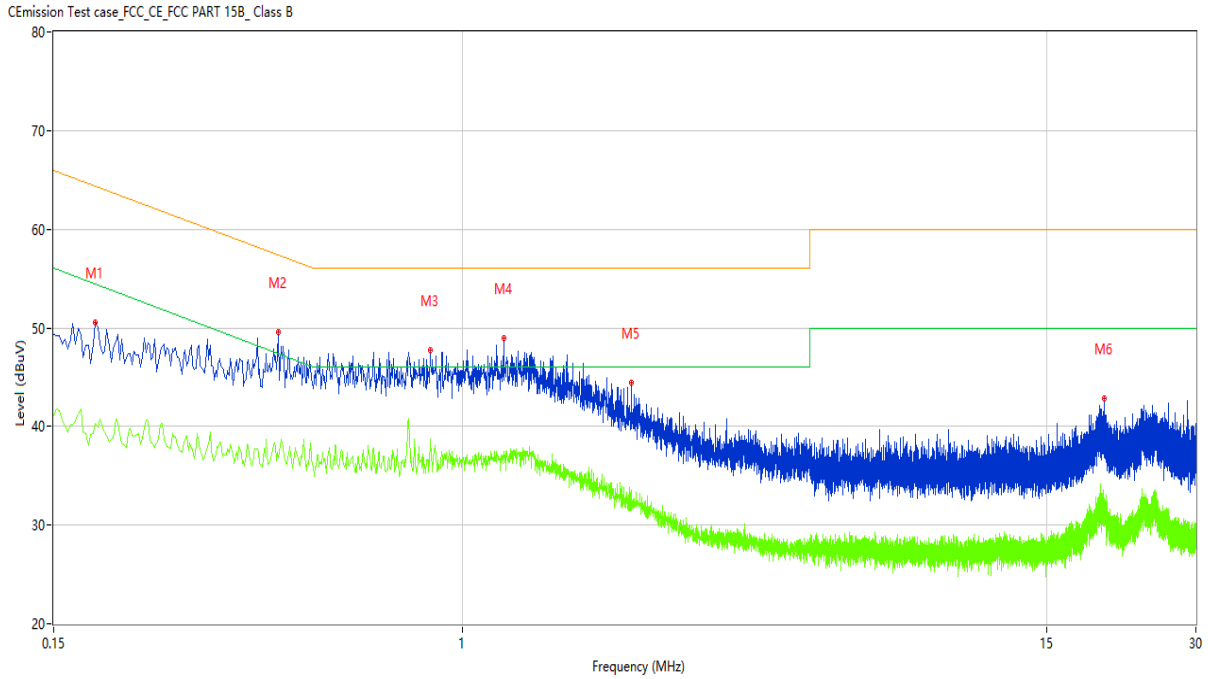
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Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.182	44.22	10.24	64.39	-20.17	Peak	N	Pass
1*	0.182	37.96	10.24	64.39	-26.43	QP	N	Pass
1**	0.182	40.33	10.24	54.39	-14.06	AV	N	Pass
2	0.426	45.54	10.25	57.33	-11.79	Peak	N	Pass
2*	0.426	41.68	10.25	57.33	-15.65	QP	N	Pass
2**	0.426	36.87	10.25	47.33	-10.46	AV	N	Pass
3	0.860	39.77	10.30	56.00	-16.23	Peak	N	Pass
3*	0.860	35.74	10.30	56.00	-20.26	QP	N	Pass
3**	0.860	38.06	10.30	46.00	-7.94	AV	N	Pass
4	1.210	35.05	10.19	56.00	-20.95	Peak	N	Pass
4*	1.210	25.04	10.19	56.00	-30.96	QP	N	Pass
4**	1.210	37.50	10.19	46.00	-8.50	AV	N	Pass
5	2.186	33.39	10.16	56.00	-22.61	Peak	N	Pass
5*	2.186	28.97	10.16	56.00	-27.03	QP	N	Pass
5**	2.186	33.61	10.16	46.00	-12.39	AV	N	Pass
6	19.612	37.11	10.90	60.00	-22.89	Peak	N	Pass
6*	19.612	33.74	10.90	60.00	-26.26	QP	N	Pass
6**	19.612	32.57	10.90	50.00	-17.43	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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Bottom of the sample

## 5.2 Set-up for Conducted Emission on AC Mains



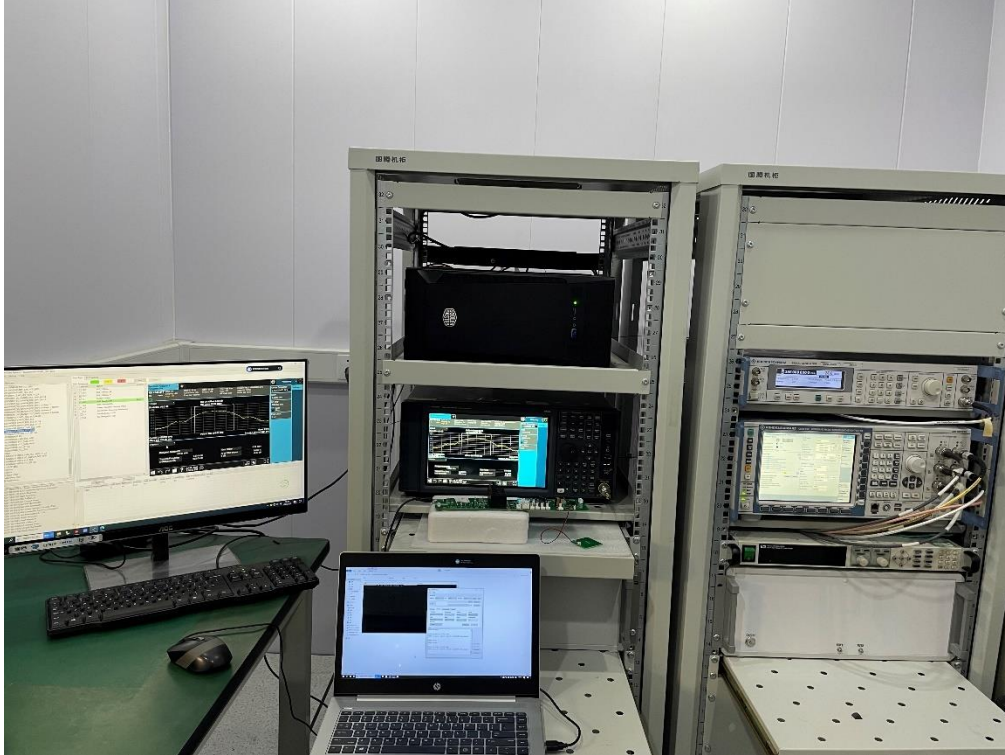
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## 5.3 Set-up for Conducted RF test at Antenna Port



## 5.4 Set-up for Radiated Spurious Emission below 1GHz 30MHz-1GHz



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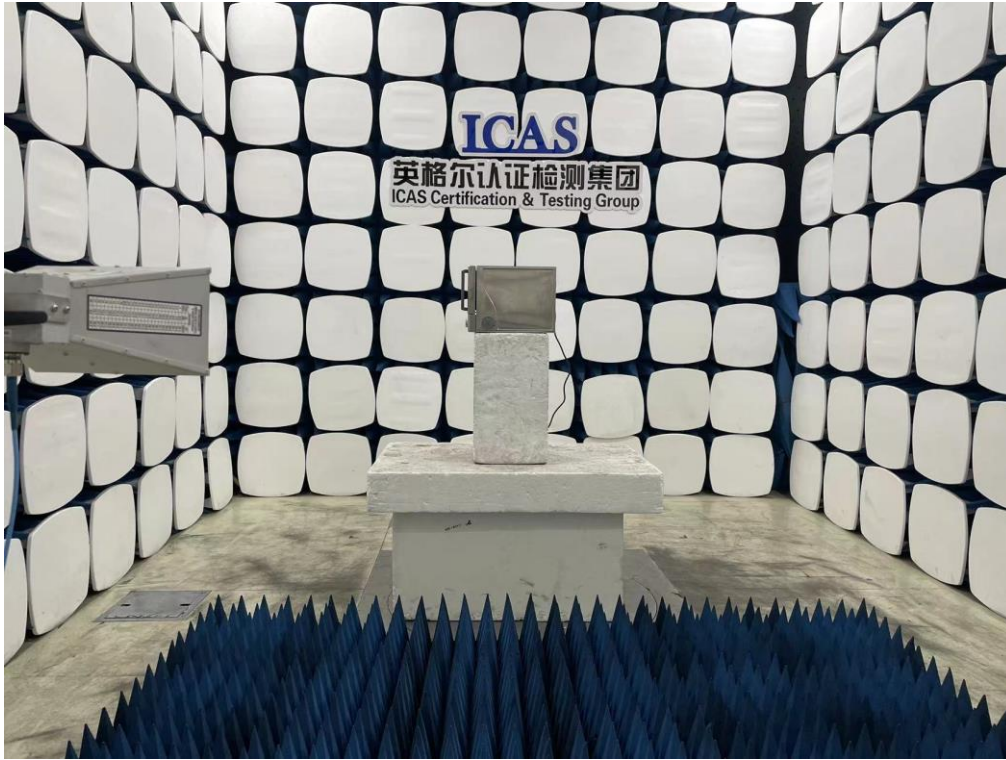
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## 5.5 Set-up for Radiated Spurious Emission above 1GHz

1GHz-18GHz



\*\*\*End of the report\*\*\*