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4.1.5 Conducted Spurious Emission & Authorized-band band-edge

RESULT:

PASS

Test standard : FCC Part 15.247(d), 15.209

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.

Note:

The all chains were tested respectively, but only the worst configuration shown here.

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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2412MHz

Carrier Level



Band Edge



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Conducted spurious emissions 30MHz-25GHz



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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2412MHz

Carrier Level



Band Edge



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Carrier Level



Band Edge



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Conducted spurious emissions 30MHz-25GHz



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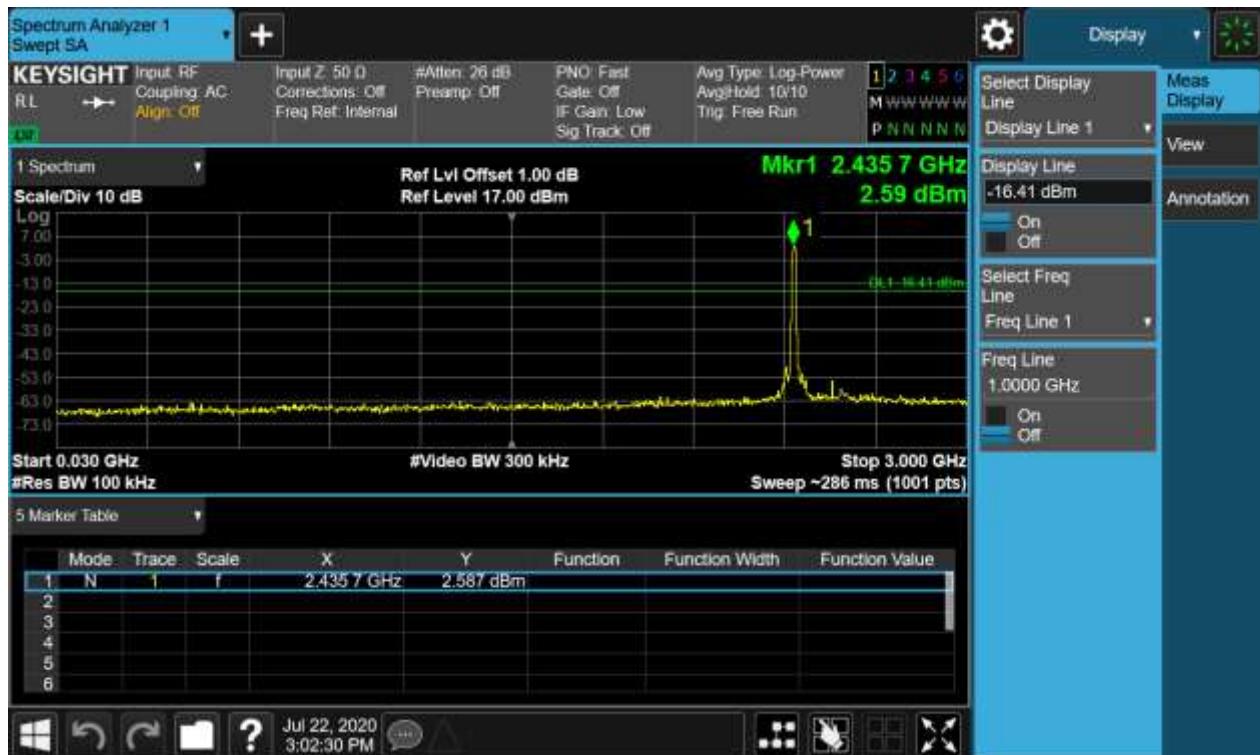
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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2437MHz Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2437MHz Carrier Level



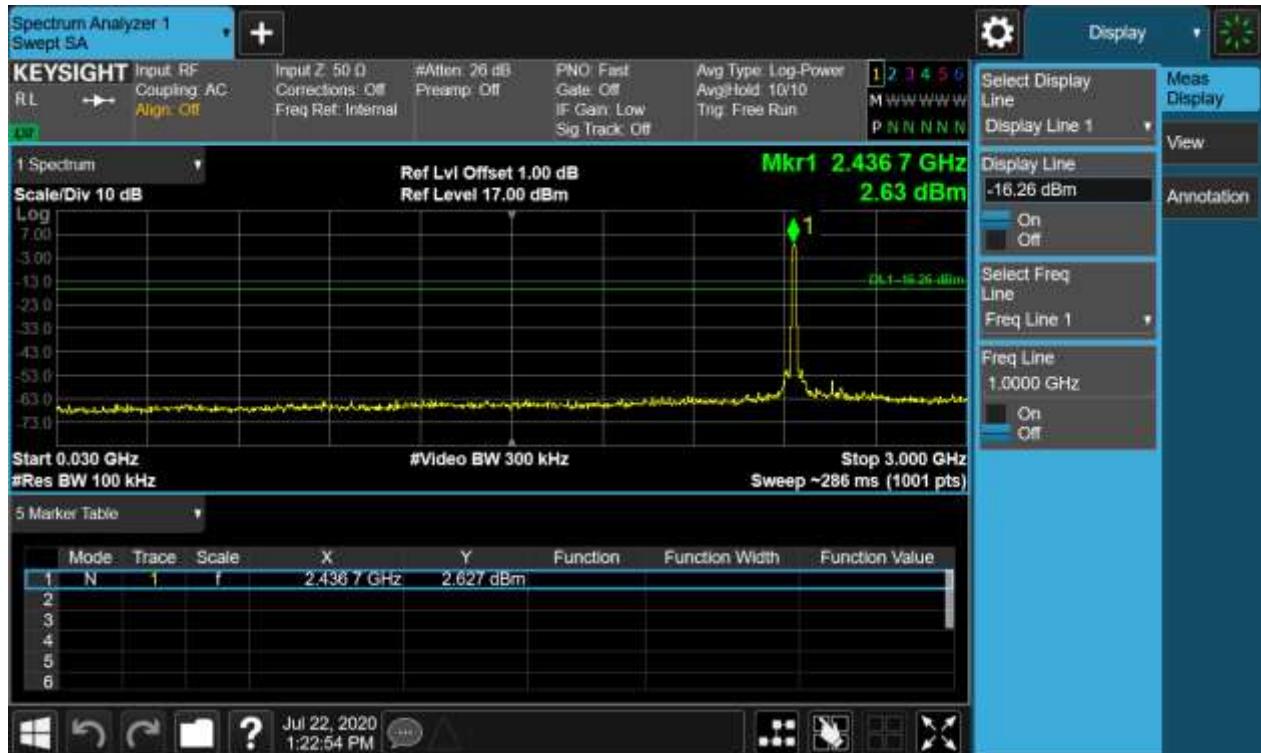
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Conducted spurious emissions 30MHz-25GHz



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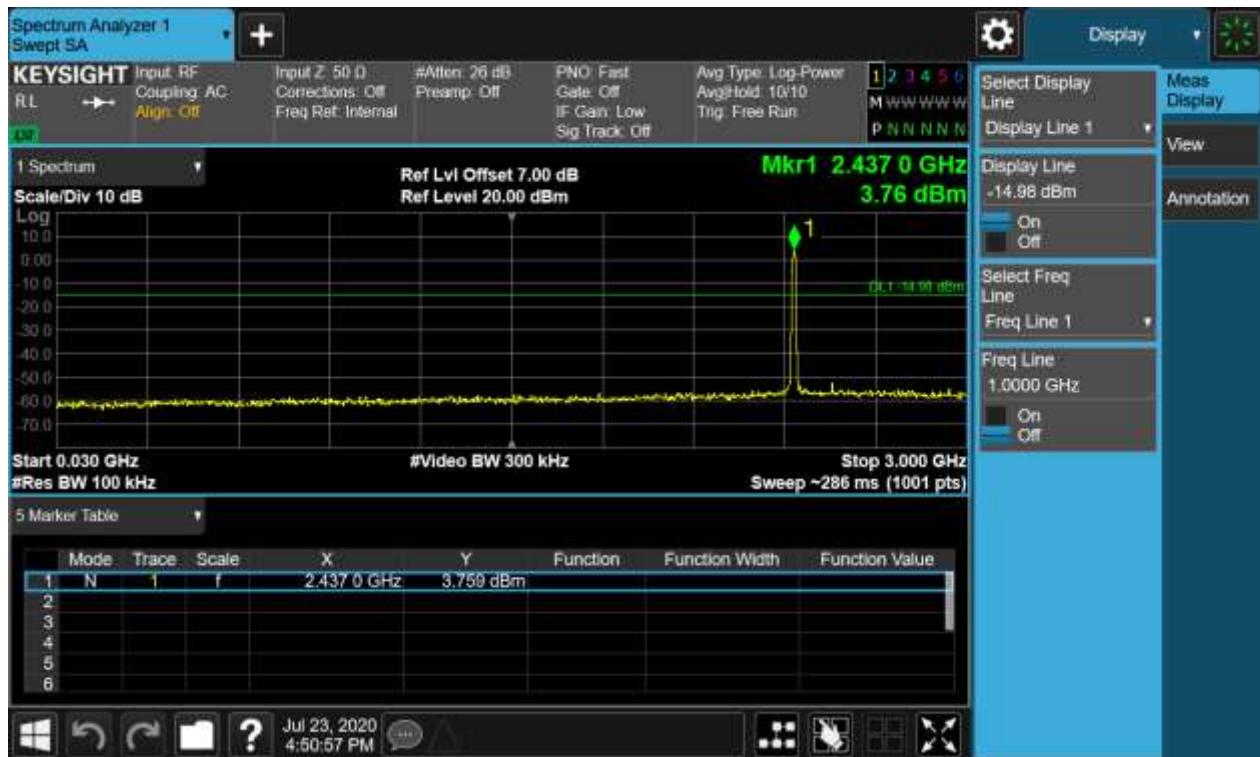
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Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11b, 2462MHz Carrier Level



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Band Edge



Conducted spurious emissions 30MHz-25GHz



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Band Edge



Conducted spurious emissions 30MHz-25GHz



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Band Edge



Conducted spurious emissions 30MHz-25GHz



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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2412MHz Carrier Level



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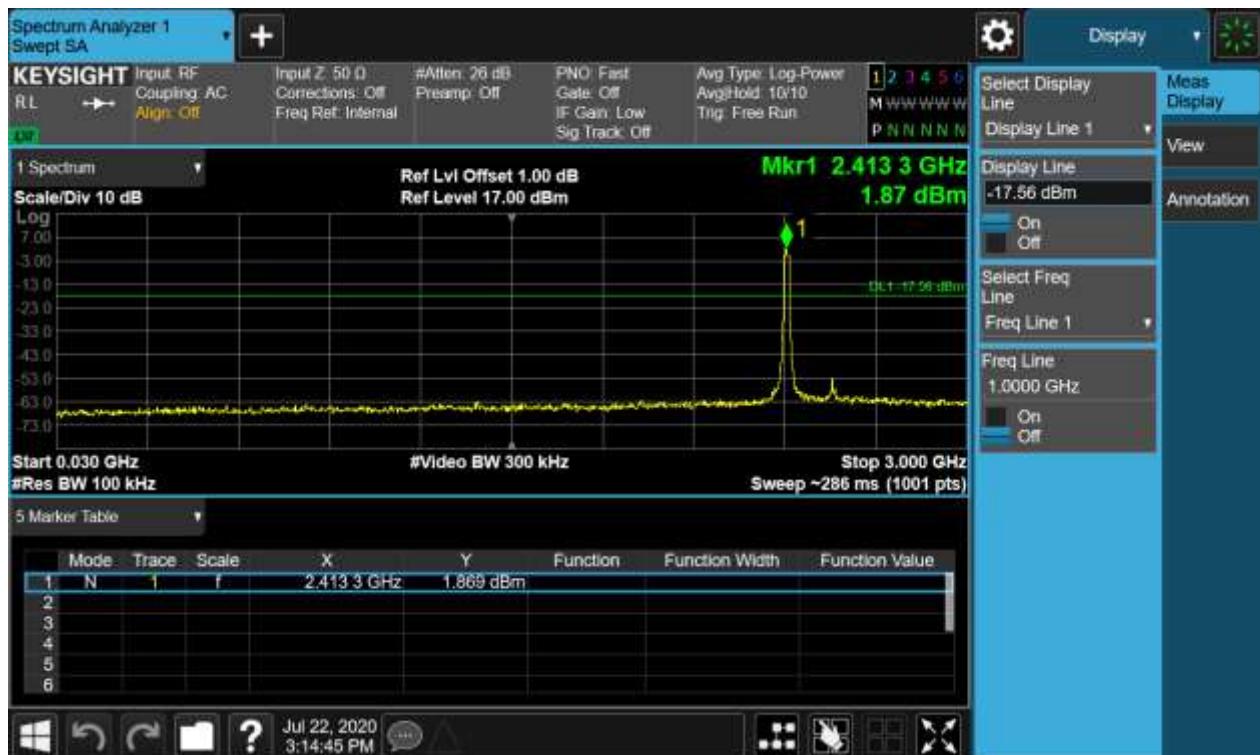
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Band Edge



Conducted spurious emissions 30MHz-25GHz



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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2412MHz
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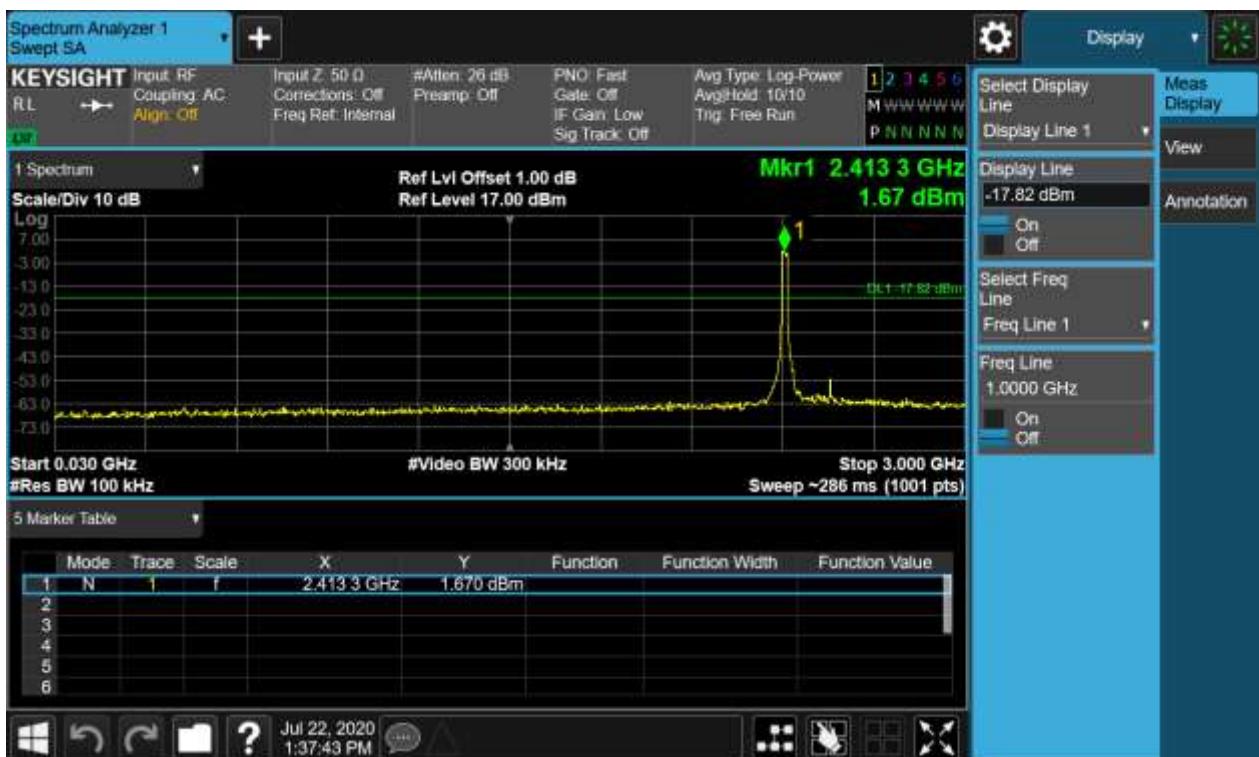
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Band Edge



Conducted spurious emissions 30MHz-25GHz



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MIMO Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2412MHz Carrier Level



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Band Edge



Conducted spurious emissions 30MHz-25GHz



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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2437MHz
Carrier Level



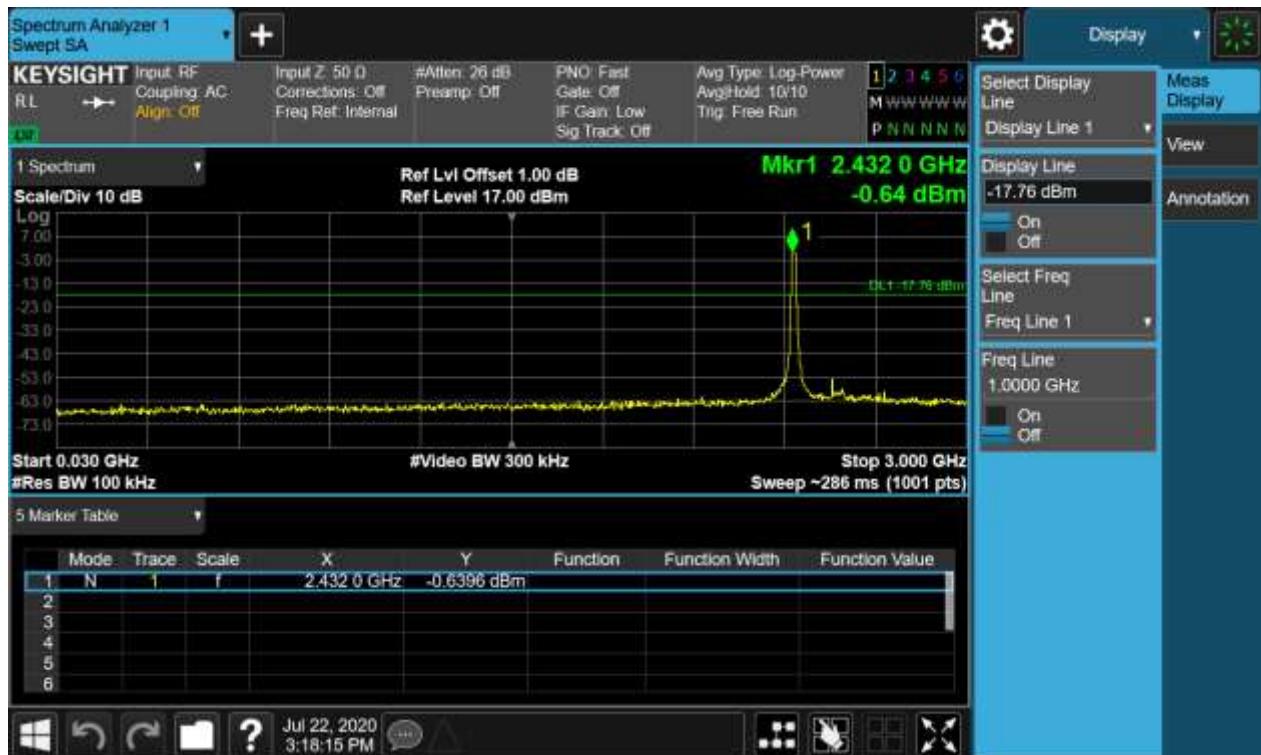
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Conducted spurious emissions 30MHz-25GHz



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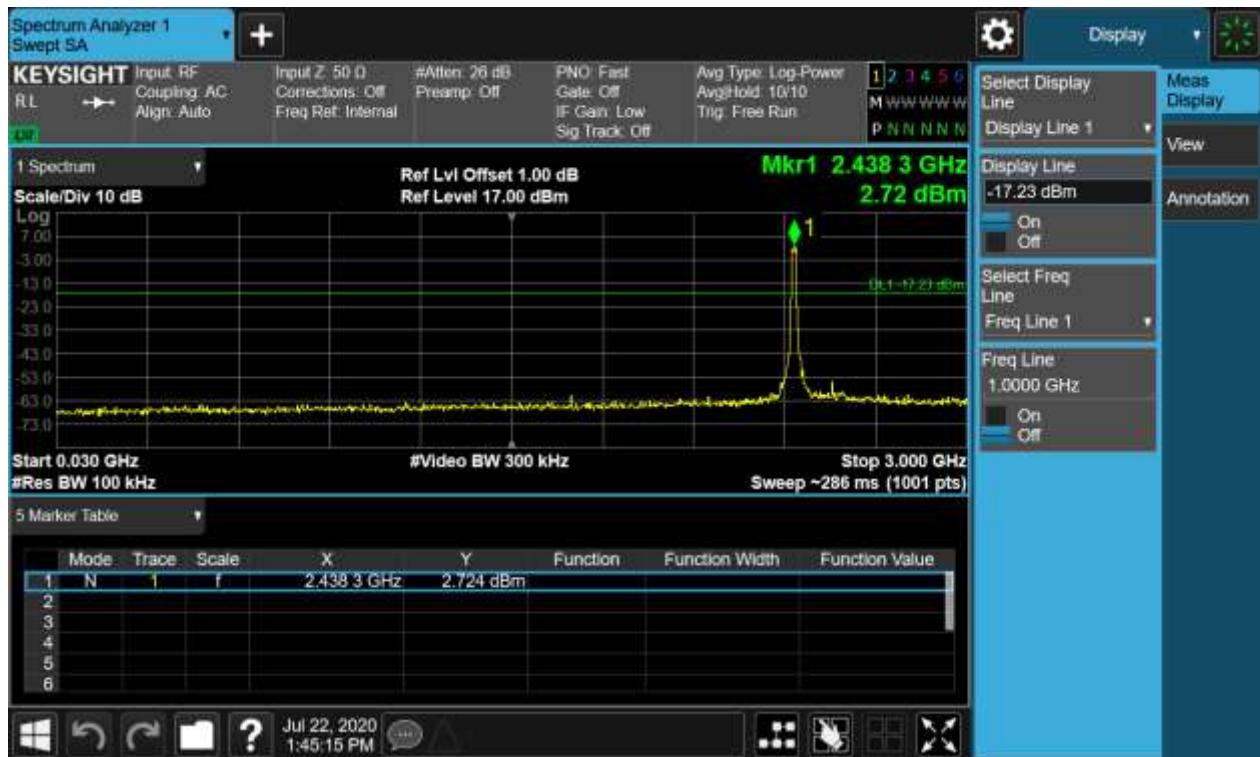
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Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Carrier Level



Band Edge



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Carrier Level



Band Edge



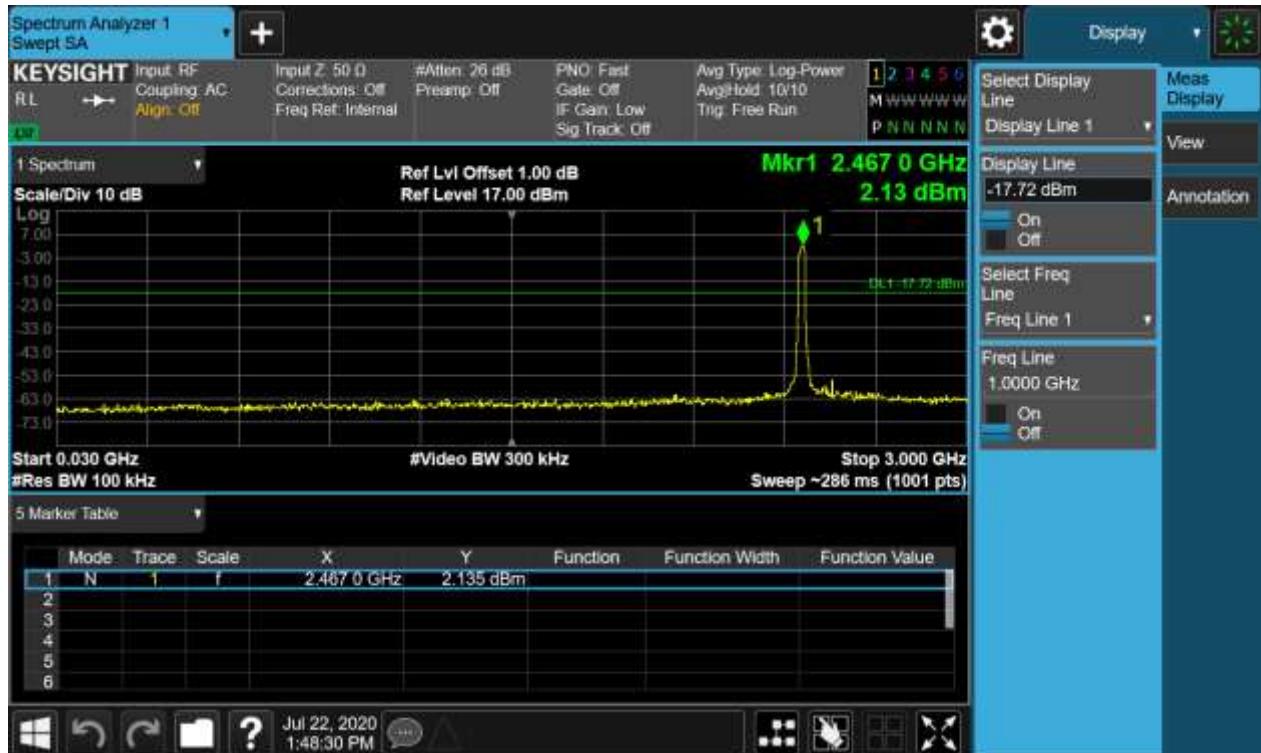
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MIMO Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2462MHz

Carrier Level



Band Edge



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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz

Carrier Level



Band Edge



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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz

Carrier Level



Band Edge



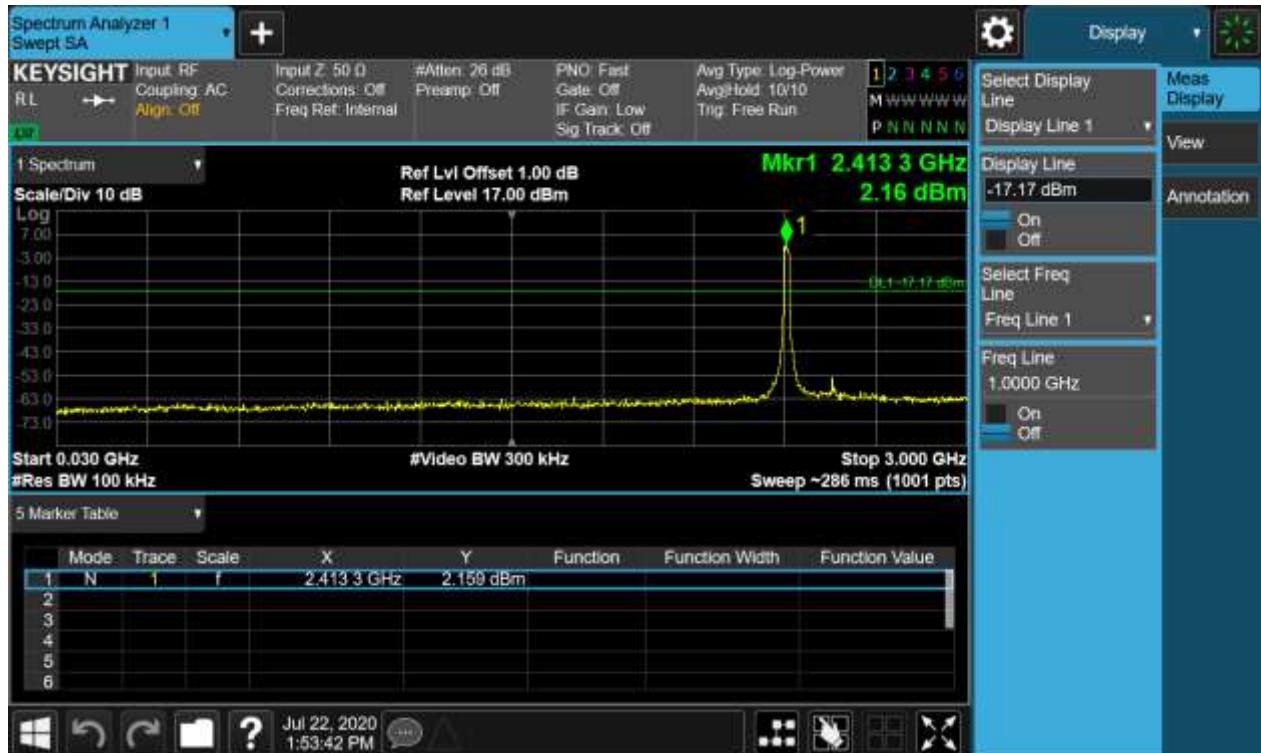
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Band Edge



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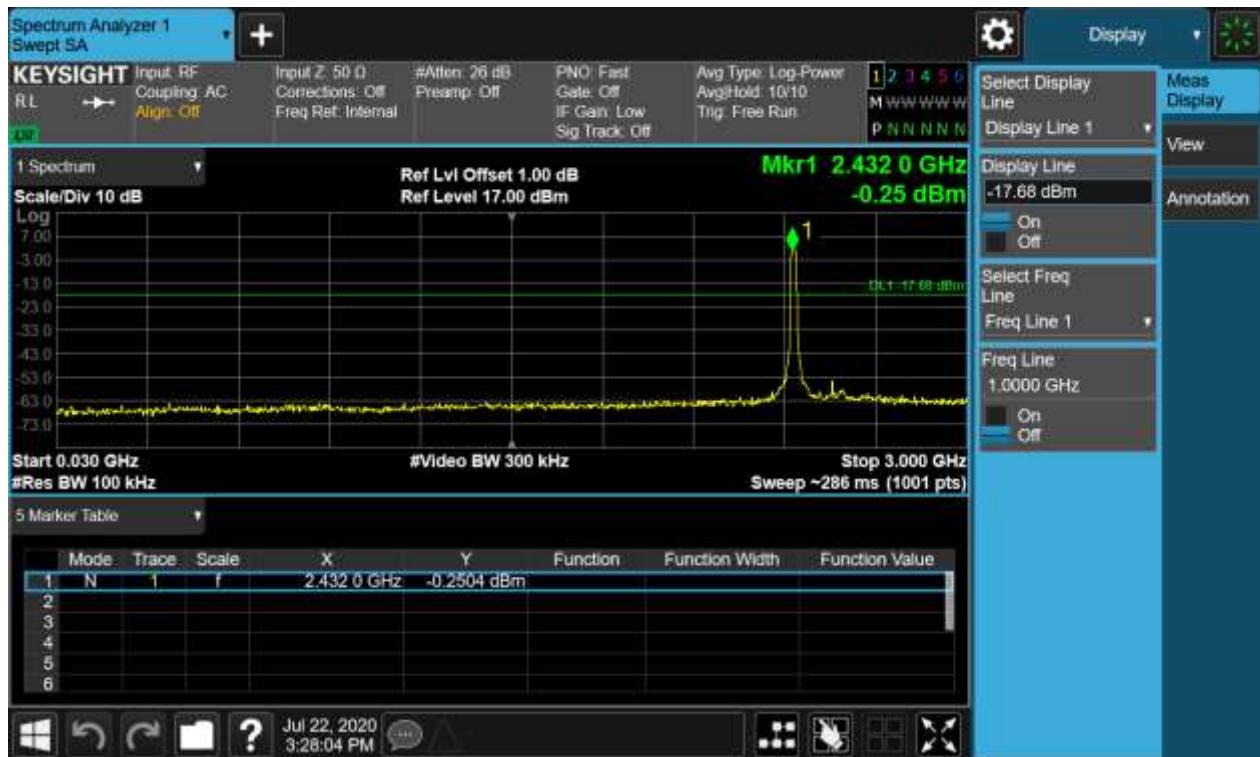
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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz

Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



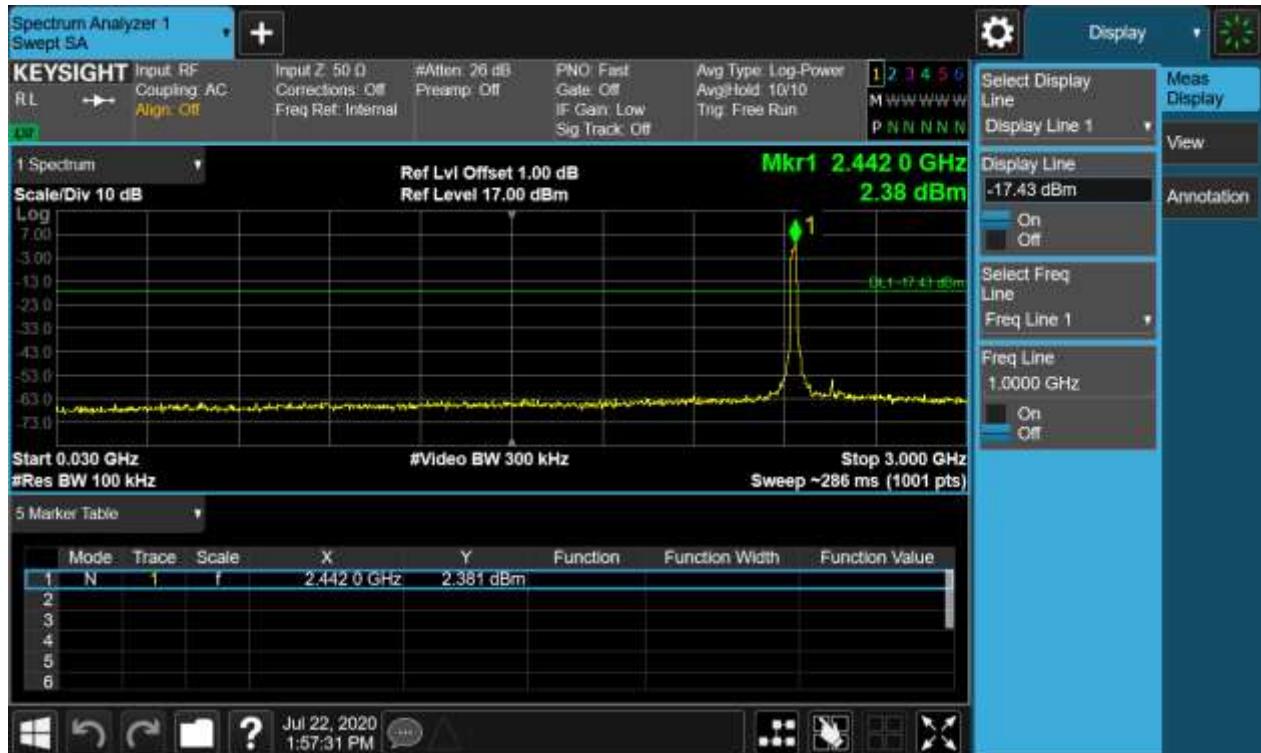
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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level



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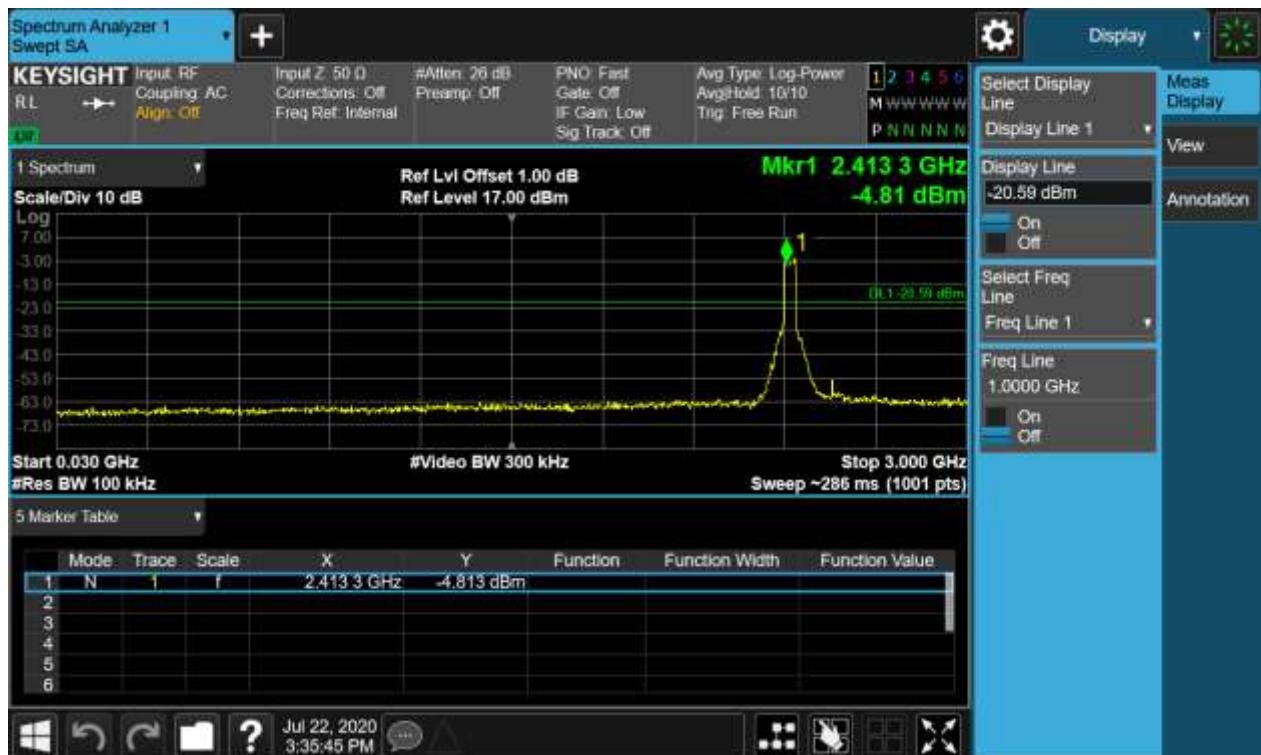
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Chain 2 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level



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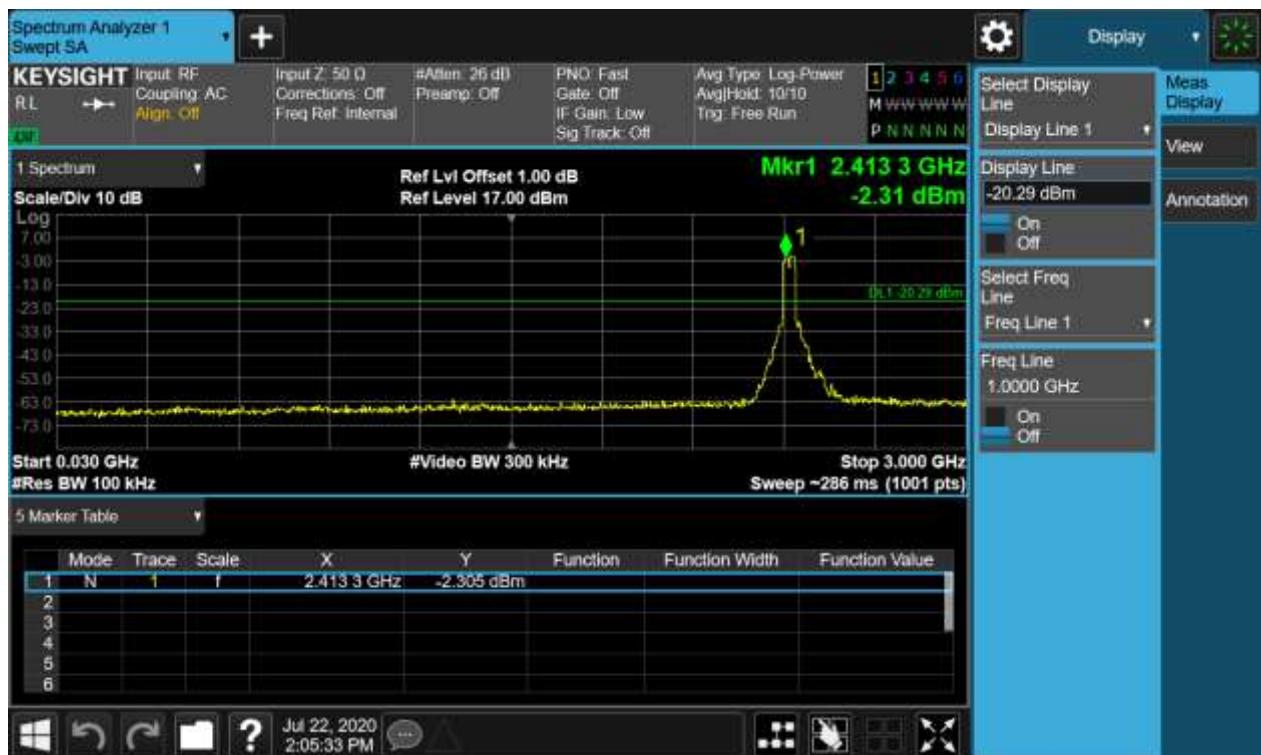
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MIMO Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level



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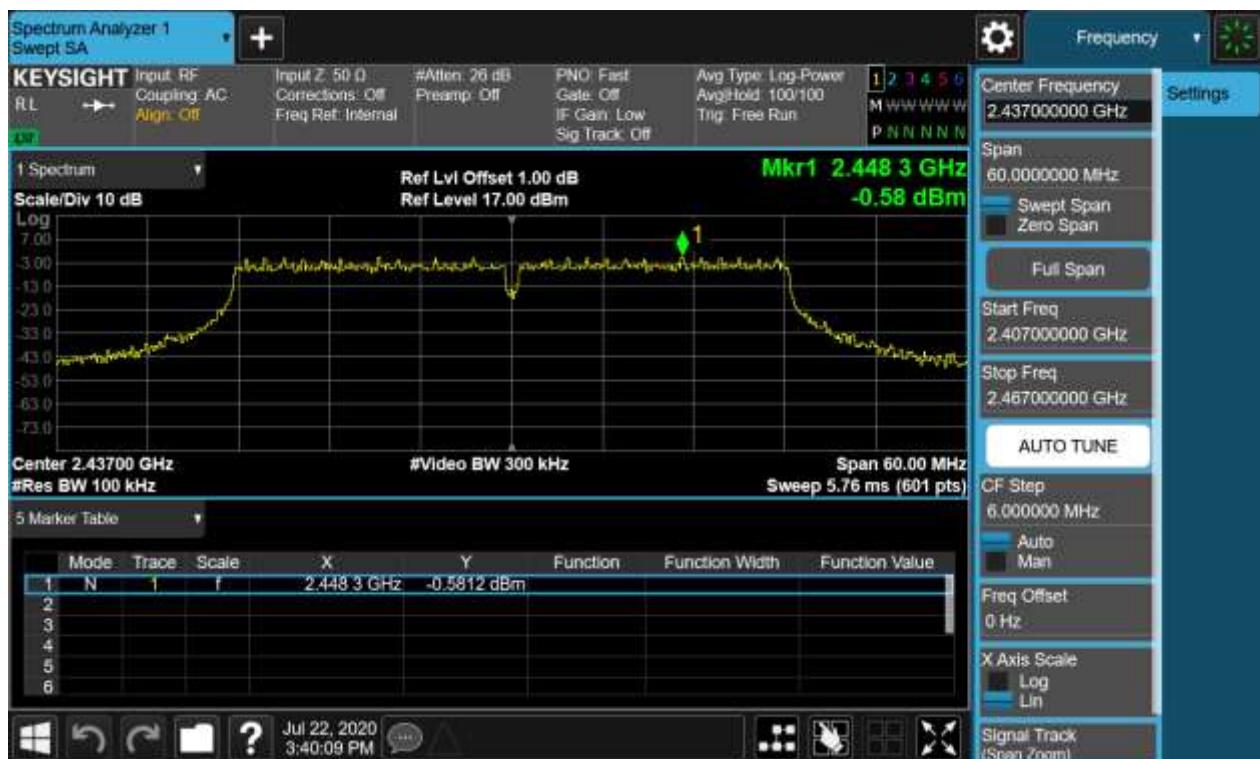
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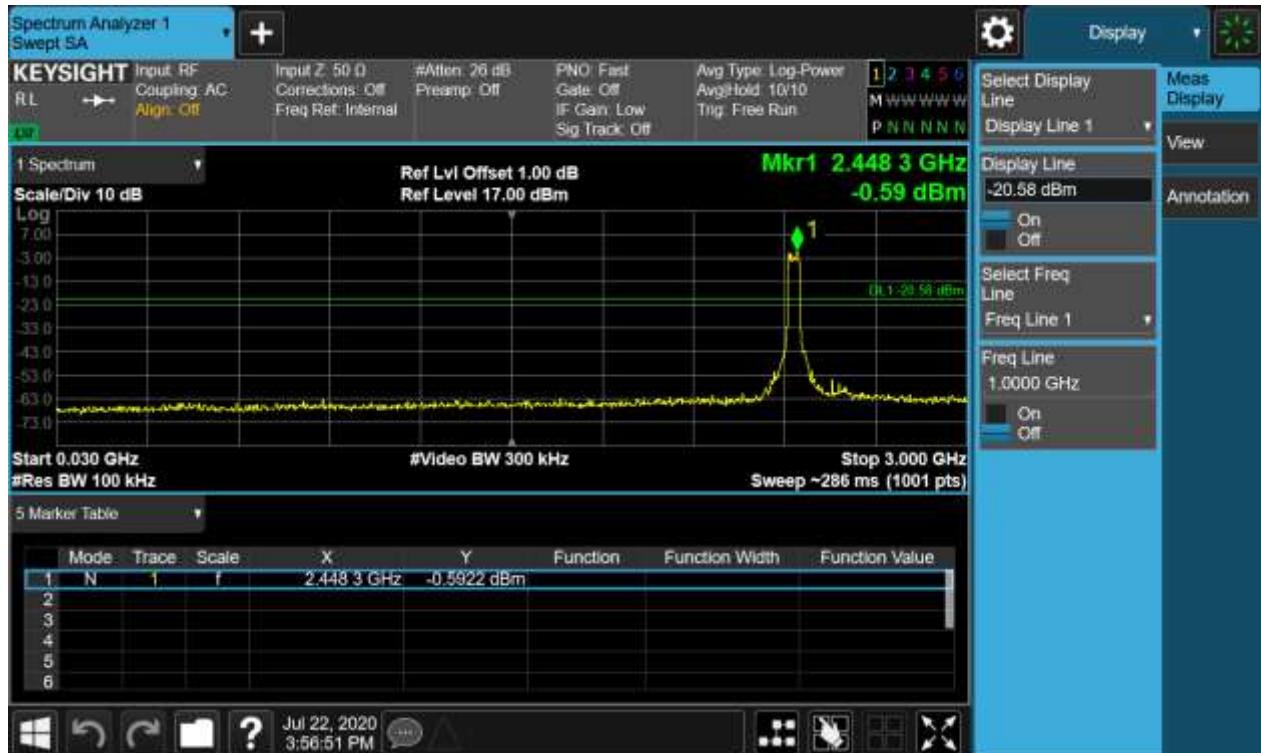
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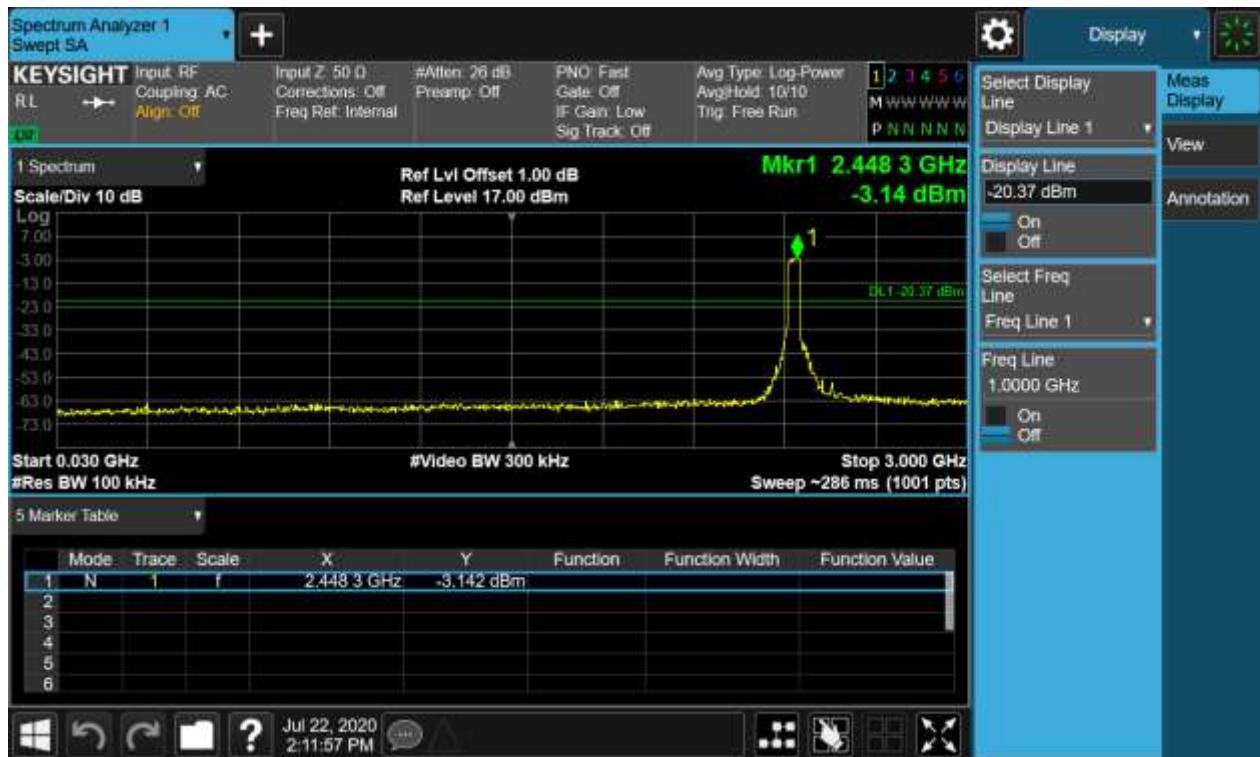
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Carrier Level



Conducted spurious emissions 30MHz-25GHz



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Chain 1 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz

Carrier Level



Band Edge



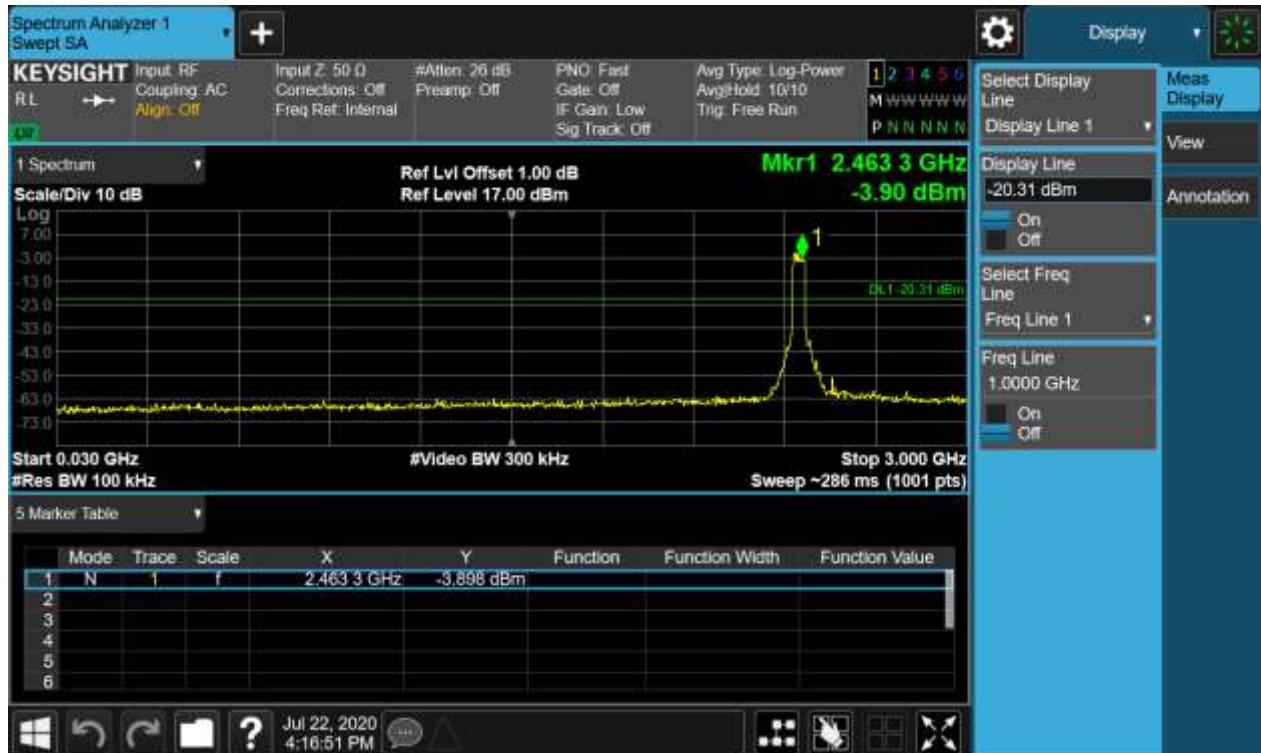
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Chain2 Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz

Carrier Level



Band Edge



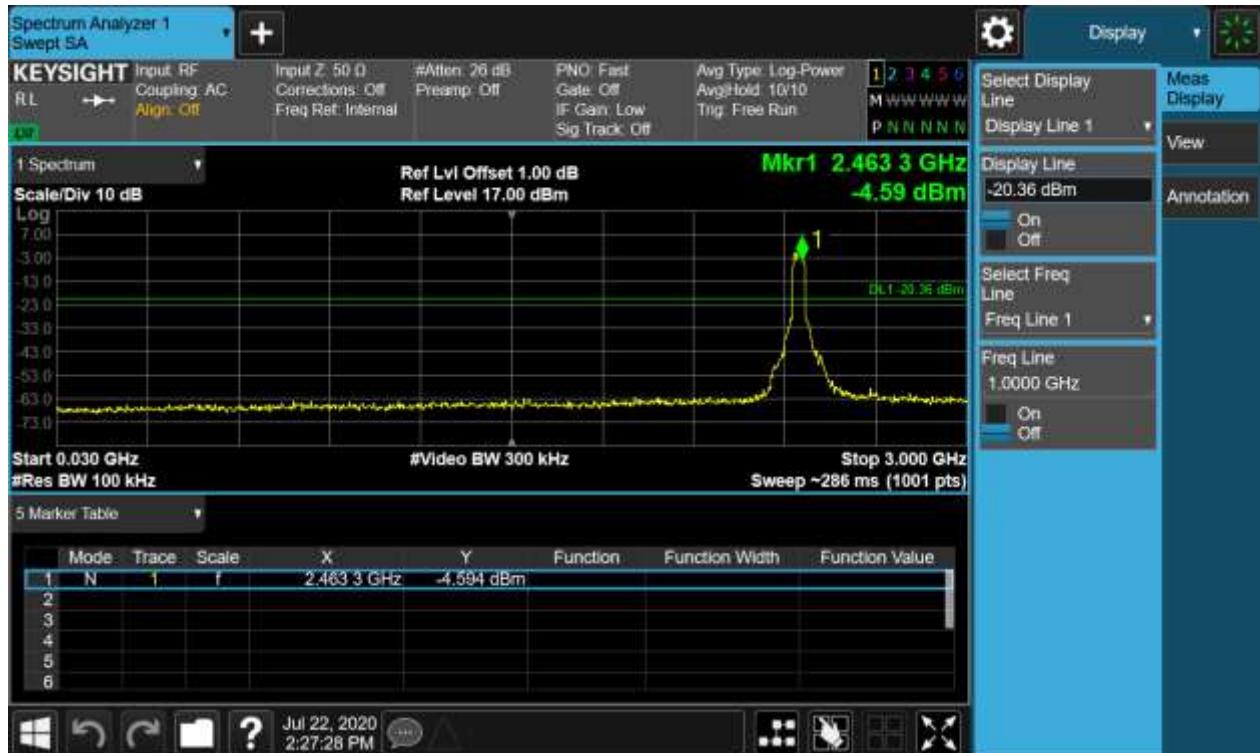
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MIMO Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz

Carrier Level



Band Edge



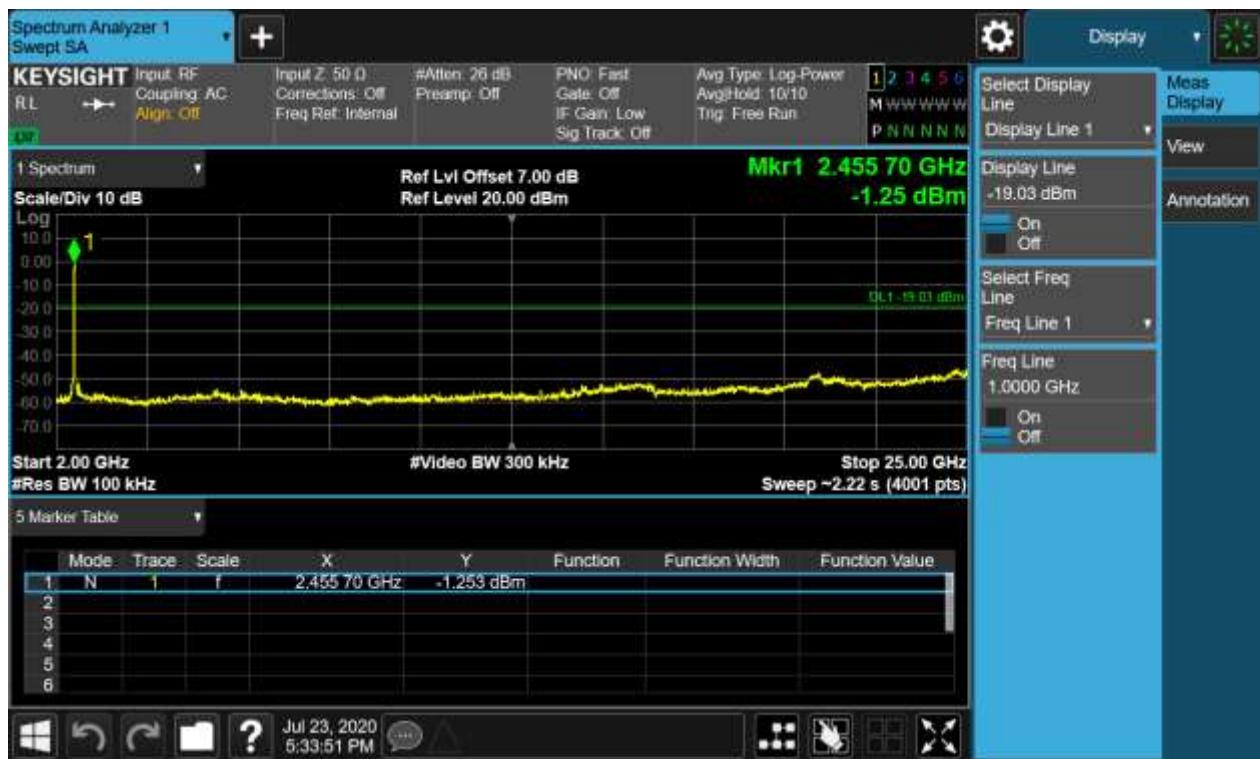
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4.1.6 Spurious Emission

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 : 23°C

Relative humidity : 52%

Notes:

1. Test plots please refer to the annex document

“WIFI2.4G-TX EXHIBIT A of SHE20070010-02CE FCC mimo”.

2. 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.
3. The spurious above 18GHz is noise only and 20dB below the limit. The value has no need to be reported.
4. The EUT is working in the Normal link mode below 1 GHz.
5. The all chains were tested respectively, but only the worst configuration shown here.

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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, 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%

Note:

1. Test plots please refer to the annex document

“WIFI2.4G-TX EXHIBIT A of SHE20070010-02CE FCC mimo”.

2. The all chains were tested respectively, but only the worst configuration shown here.

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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

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.

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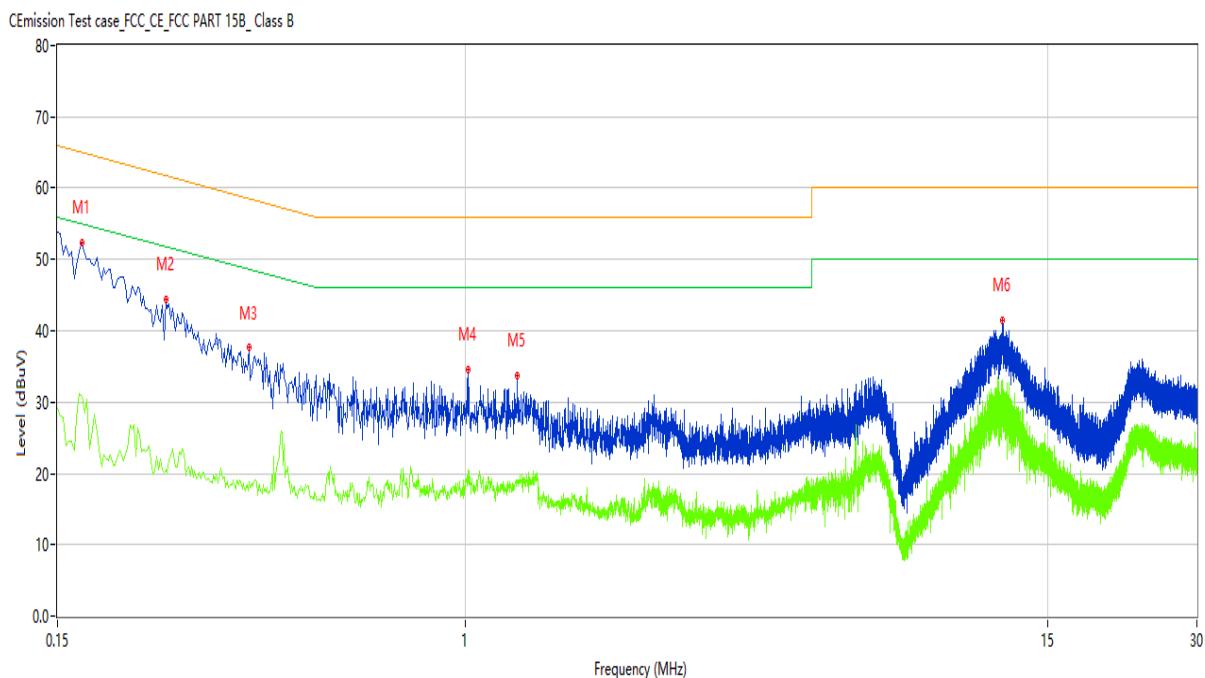
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Note:

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

Figure 1: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.168	54.30	10.15	65.06	-10.76	Peak	L	Pass
1*	0.168	45.60	10.15	65.06	-19.46	QP	L	Pass
1**	0.168	30.76	10.15	55.06	-24.30	AV	L	Pass
2	0.248	45.12	10.14	61.82	-16.70	Peak	L	Pass
2*	0.248	36.27	10.14	61.82	-25.55	QP	L	Pass
2**	0.248	20.52	10.14	51.82	-31.30	AV	L	Pass
3	0.366	38.99	10.14	58.59	-19.60	Peak	L	Pass
3*	0.366	29.48	10.14	58.59	-29.11	QP	L	Pass
3**	0.366	18.75	10.14	48.59	-29.84	AV	L	Pass
4	1.014	34.20	10.15	56.00	-21.80	Peak	L	Pass
4*	1.014	25.56	10.15	56.00	-30.44	QP	L	Pass
4**	1.014	20.62	10.15	46.00	-25.38	AV	L	Pass
5	1.272	34.02	10.16	56.00	-21.98	Peak	L	Pass
5*	1.272	24.72	10.16	56.00	-31.28	QP	L	Pass
5**	1.272	18.64	10.16	46.00	-27.36	AV	L	Pass
6	12.126	42.73	10.46	60.00	-17.27	Peak	L	Pass
6*	12.126	35.95	10.46	60.00	-24.05	QP	L	Pass
6**	12.126	33.16	10.46	50.00	-16.84	AV	L	Pass

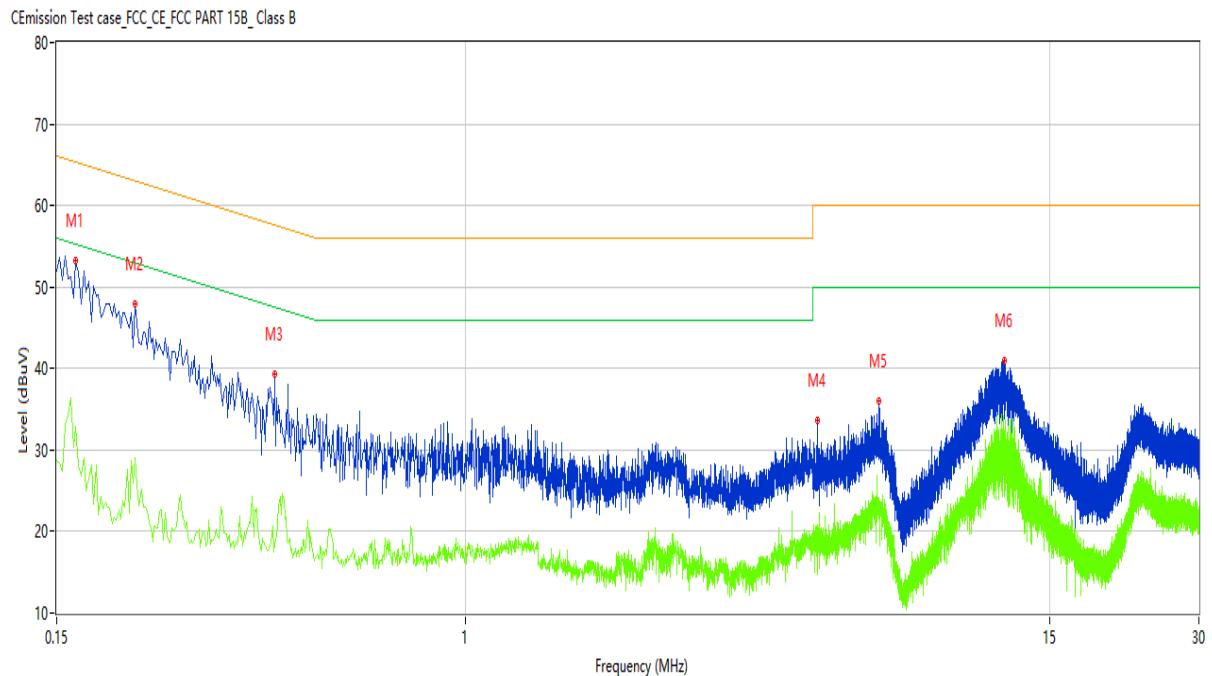
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Figure 2: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.164	54.97	10.15	65.26	-10.29	Peak	N	Pass
1*	0.164	47.96	10.15	65.26	-17.30	QP	N	Pass
1**	0.164	32.91	10.15	55.26	-22.35	AV	N	Pass
2	0.216	49.01	10.14	62.97	-13.96	Peak	N	Pass
2*	0.216	41.18	10.14	62.97	-21.79	QP	N	Pass
2**	0.216	29.10	10.14	52.97	-23.87	AV	N	Pass
3	0.412	39.39	10.15	57.61	-18.22	Peak	N	Pass
3*	0.412	28.98	10.15	57.61	-28.63	QP	N	Pass
3**	0.412	18.33	10.15	47.61	-29.28	AV	N	Pass
4	5.122	32.26	10.25	60.00	-27.74	Peak	N	Pass
4*	5.122	25.96	10.25	60.00	-34.04	QP	N	Pass
4**	5.122	20.33	10.25	50.00	-29.67	AV	N	Pass
5	6.812	35.64	10.30	60.00	-24.36	Peak	N	Pass
5*	6.812	29.18	10.30	60.00	-30.82	QP	N	Pass
5**	6.812	23.77	10.30	50.00	-26.23	AV	N	Pass
6	12.186	41.98	10.46	60.00	-18.02	Peak	N	Pass
6*	12.186	36.01	10.46	60.00	-23.99	QP	N	Pass
6**	12.186	27.86	10.46	50.00	-22.14	AV	N	Pass

End of the report