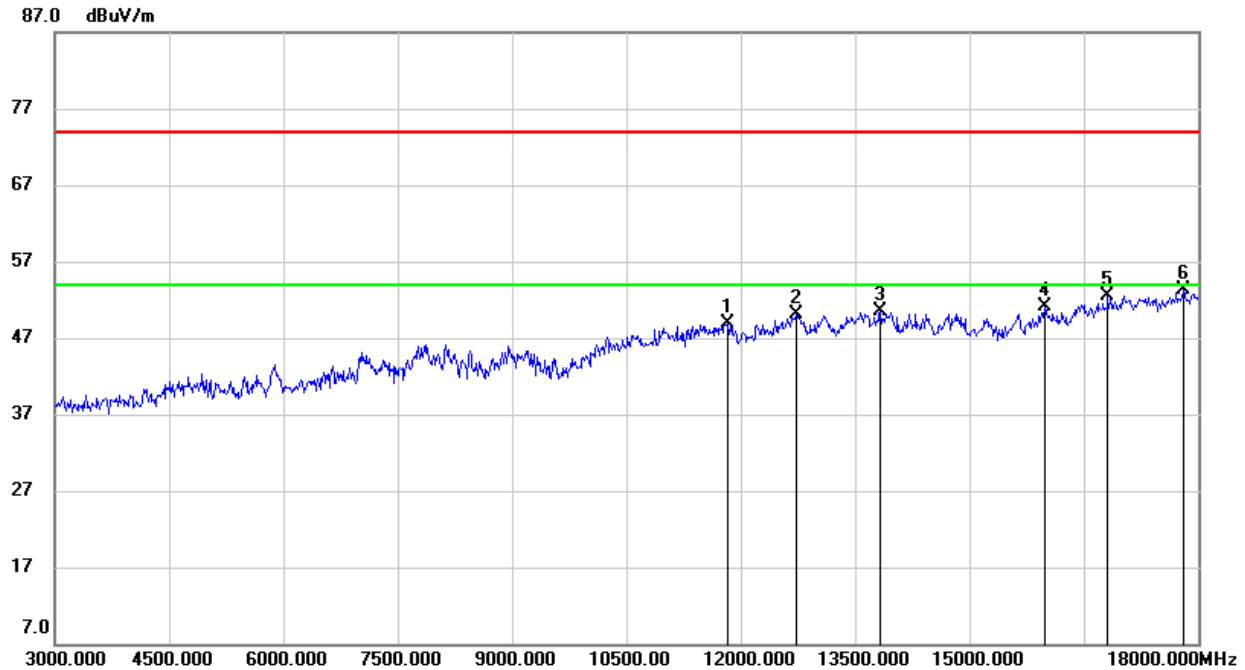
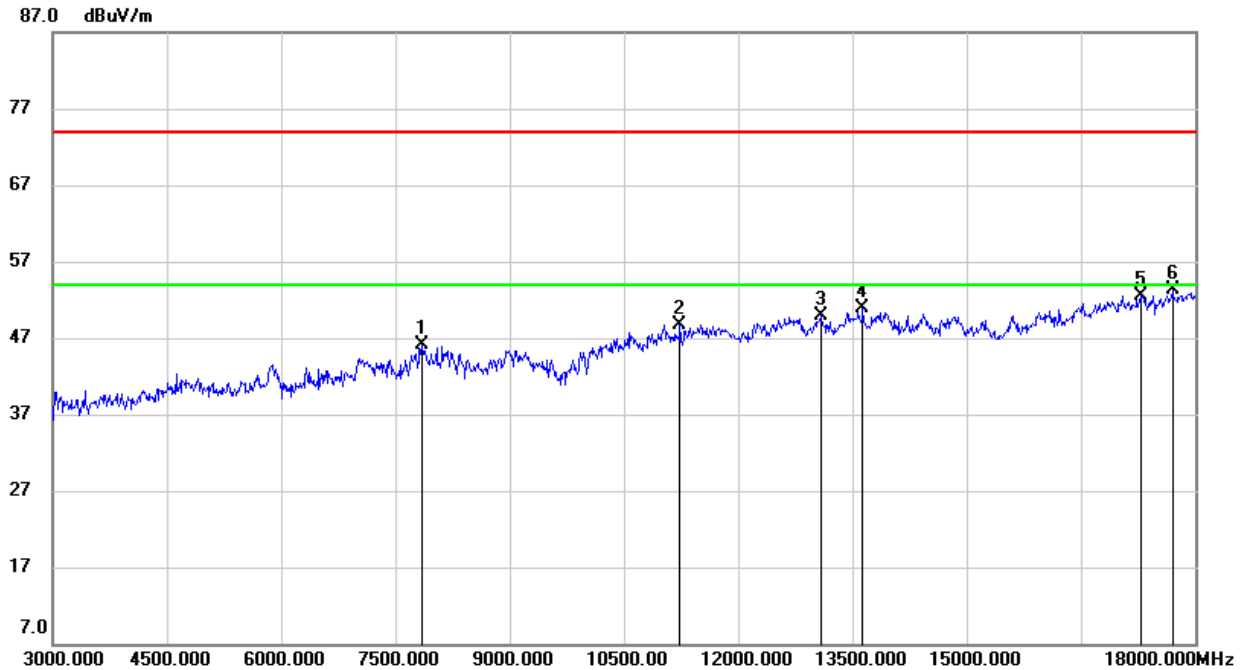


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



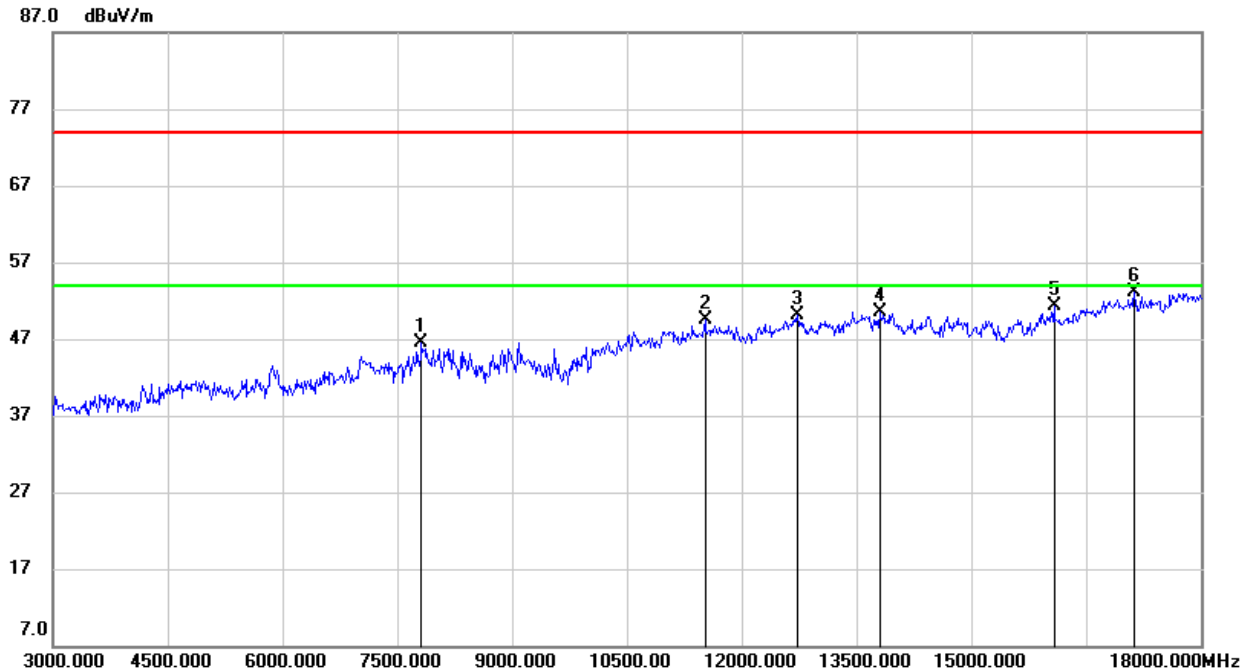
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	11835.000	35.76	13.21	48.97	74.00	-25.03	peak
2	12735.000	35.39	14.77	50.16	74.00	-23.84	peak
3	13830.000	33.67	16.84	50.51	74.00	-23.49	peak
4	15990.000	33.44	17.68	51.12	74.00	-22.88	peak
5	16815.000	32.61	19.96	52.57	74.00	-21.43	peak
6	17805.000	29.93	23.31	53.24	74.00	-20.76	peak

Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)**

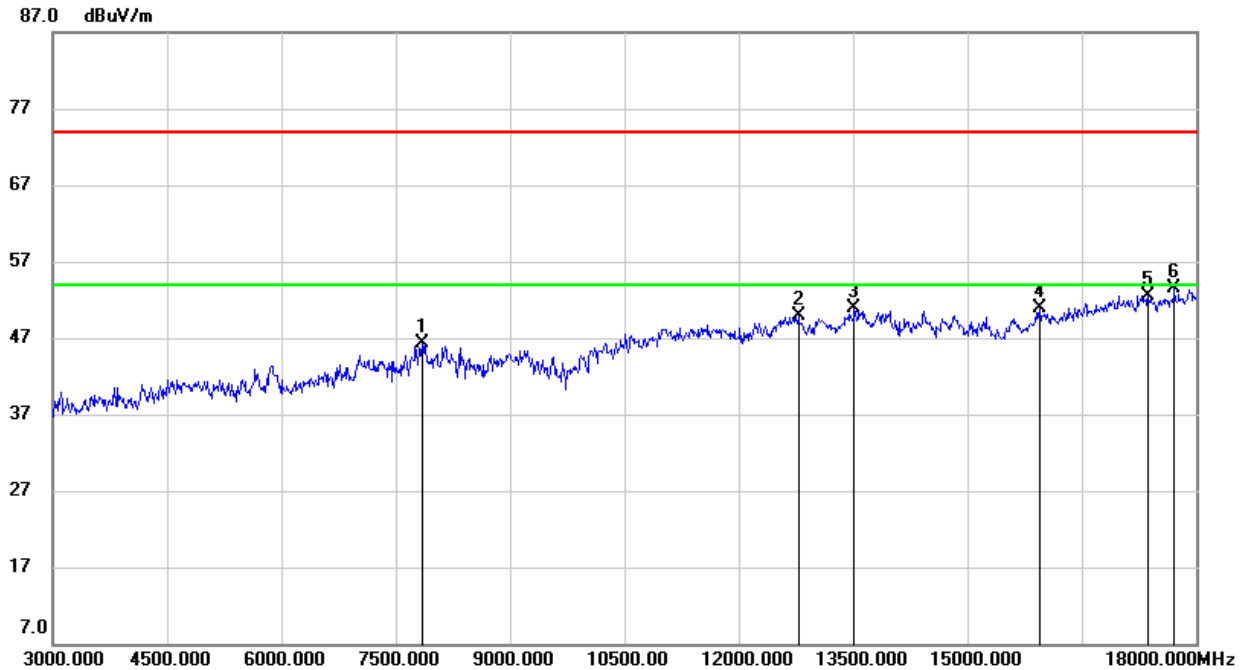
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7845.000	38.41	7.62	46.03	74.00	-27.97	peak
2	11235.000	36.31	12.46	48.77	74.00	-25.23	peak
3	13095.000	34.71	15.20	49.91	74.00	-24.09	peak
4	13635.000	34.89	15.97	50.86	74.00	-23.14	peak
5	17295.000	30.73	21.71	52.44	74.00	-21.56	peak
6	17700.000	30.92	22.43	53.35	74.00	-20.65	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (2457 MHz CHANNEL, HORIZONTAL)**

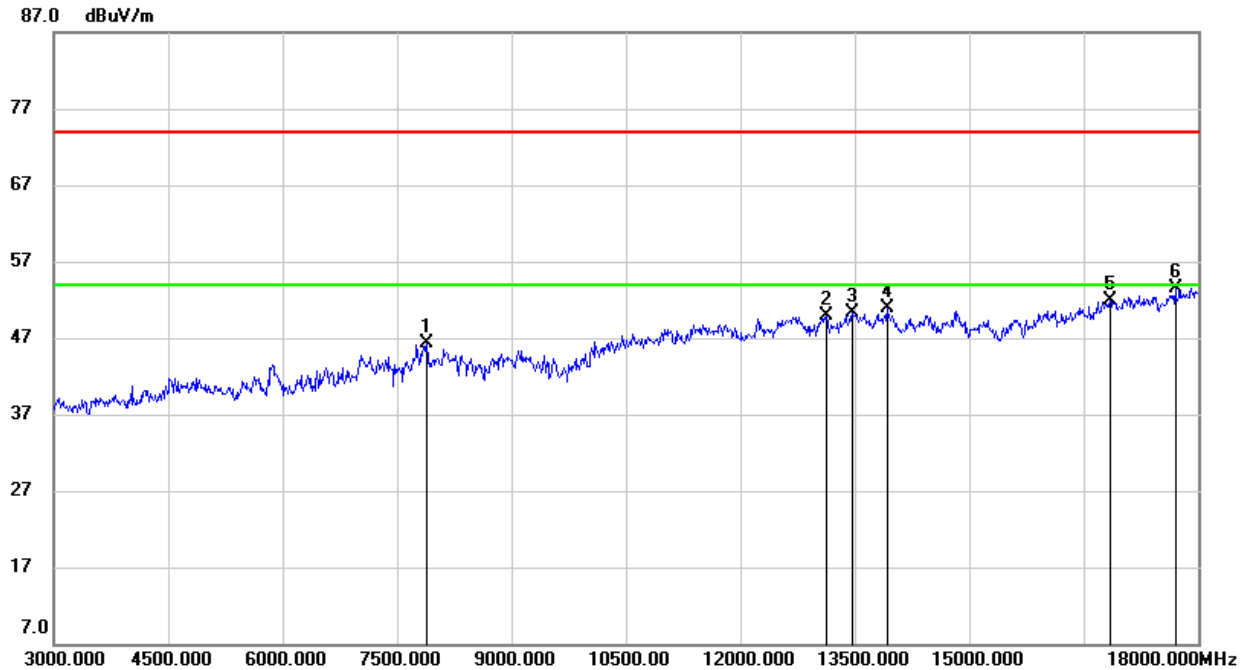
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7815.000	38.70	7.83	46.53	74.00	-27.47	peak
2	11520.000	36.19	13.38	49.57	74.00	-24.43	peak
3	12720.000	35.62	14.57	50.19	74.00	-23.81	peak
4	13800.000	33.45	17.10	50.55	74.00	-23.45	peak
5	16080.000	33.25	18.04	51.29	74.00	-22.71	peak
6	17130.000	32.29	20.72	53.01	74.00	-20.99	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (2457 MHz CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7845.000	38.75	7.62	46.37	74.00	-27.63	peak
2	12780.000	34.44	15.38	49.82	74.00	-24.18	peak
3	13515.000	35.15	15.81	50.96	74.00	-23.04	peak
4	15945.000	33.38	17.61	50.99	74.00	-23.01	peak
5	17370.000	31.01	21.52	52.53	74.00	-21.47	peak
6	17715.000	30.91	22.56	53.47	74.00	-20.53	peak

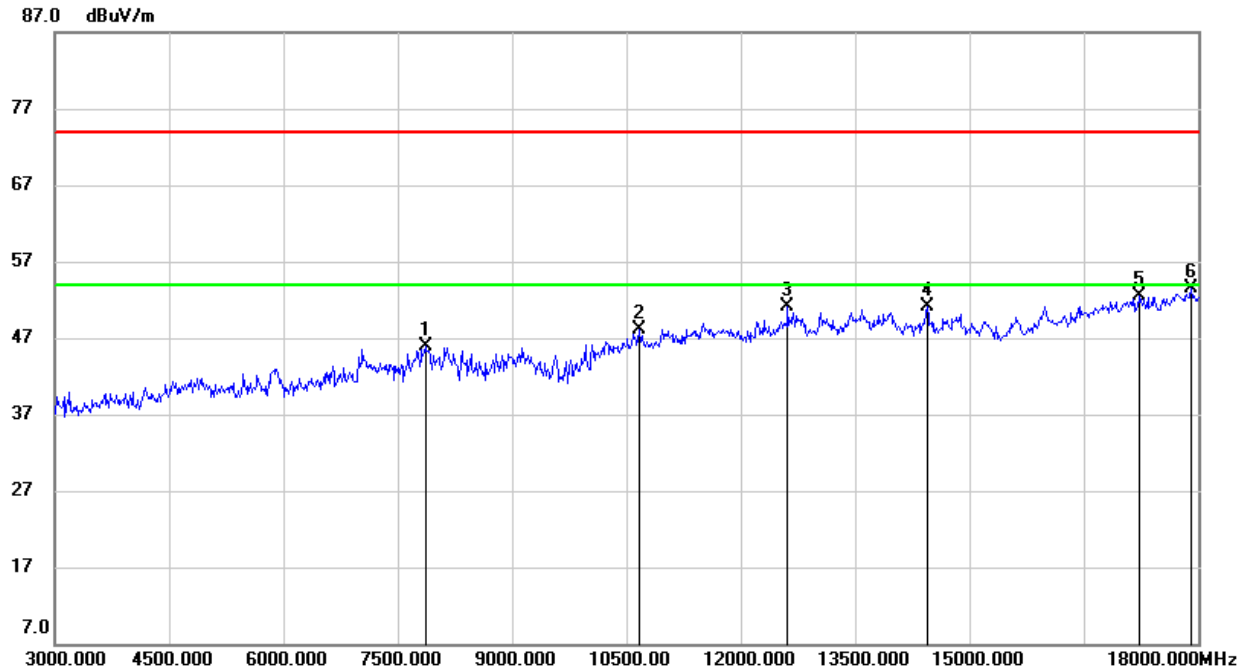
- Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (2462 MHz CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7890.000	38.96	7.30	46.26	74.00	-27.74	peak
2	13125.000	34.64	15.17	49.81	74.00	-24.19	peak
3	13470.000	34.37	15.87	50.24	74.00	-23.76	peak
4	13920.000	34.66	16.17	50.83	74.00	-23.17	peak
5	16845.000	32.01	19.96	51.97	74.00	-22.03	peak
6	17700.000	31.17	22.43	53.60	74.00	-20.40	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (2462 MHz CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7860.000	38.45	7.51	45.96	74.00	-28.04	peak
2	10665.000	36.39	11.75	48.14	74.00	-25.86	peak
3	12615.000	37.06	14.03	51.09	74.00	-22.91	peak
4	14445.000	34.71	16.36	51.07	74.00	-22.93	peak
5	17220.000	31.35	21.08	52.43	74.00	-21.57	peak
6	17910.000	30.07	23.35	53.42	74.00	-20.58	peak

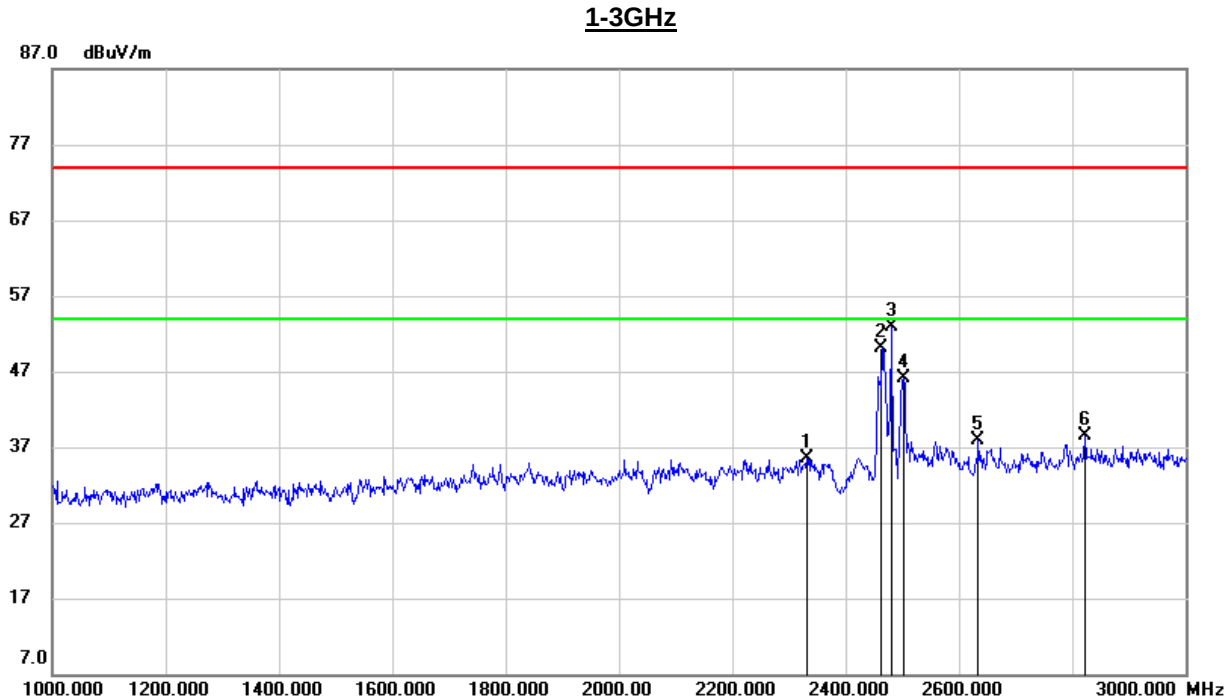
- Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

8.4. SPURIOUS EMISSIONS FOR SIMULTANEOUS TRANSMISSION

8.4.1. BT GFSK MODE AND 802.11b SISO MODE

ANTENNA 2 TEST RESULTS (WORST CASE)

SPURIOUS EMISSIONS (BT GFSK HIGH CHANNEL, 802.11b 2.4G HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2332.000	43.55	-8.08	35.47	74.00	-38.53	peak
2	2462.000	57.54	-7.43	50.11	/	/	fundamental
3	2480.000	60.18	-7.31	52.87	/	/	fundamental
4	2502.000	53.32	-7.17	46.15	74.00	-27.85	peak
5	2634.000	45.47	-7.51	37.96	74.00	-36.04	peak
6	2822.000	44.34	-5.93	38.41	74.00	-35.59	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

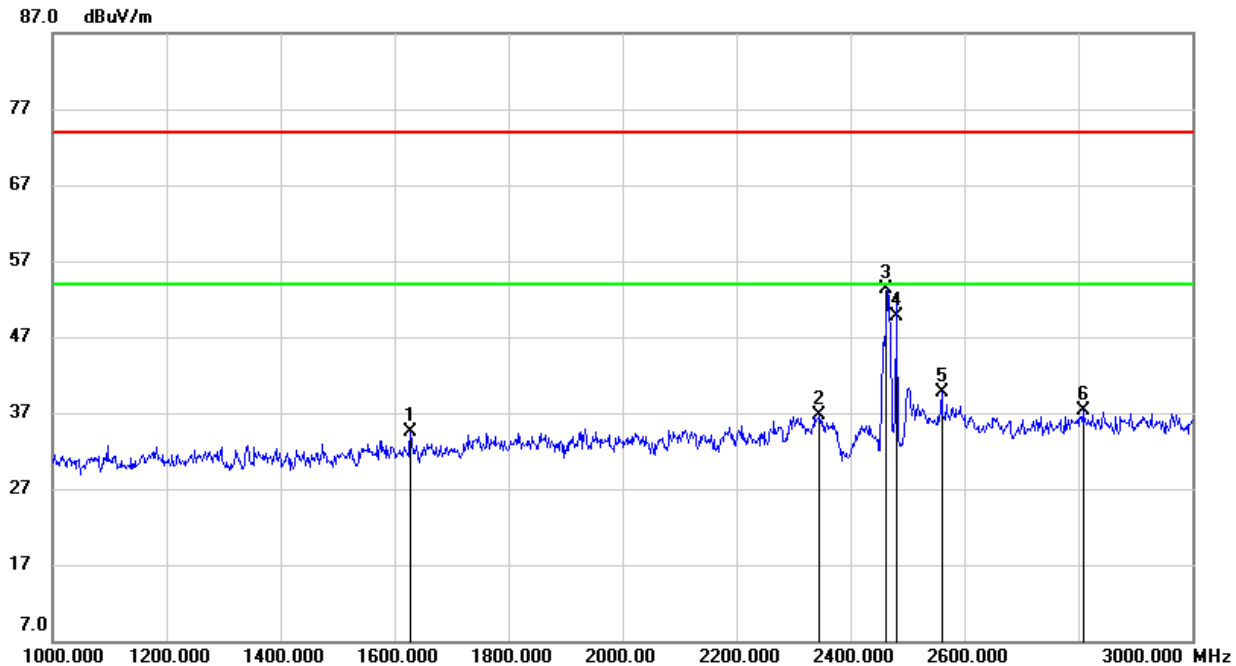
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



SPURIOUS EMISSIONS (BT GFSK HIGH CHANNEL, 802.11b 2.4G HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

1-3GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1628.000	45.80	-11.25	34.55	74.00	-39.45	peak
2	2346.000	44.65	-8.04	36.61	74.00	-37.39	peak
3	2462.000	60.75	-7.43	53.32	/	/	fundamental
4	2480.000	57.00	-7.31	49.69	/	/	fundamental
5	2560.000	47.11	-7.48	39.63	74.00	-34.37	peak
6	2808.000	43.39	-6.01	37.38	74.00	-36.62	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.

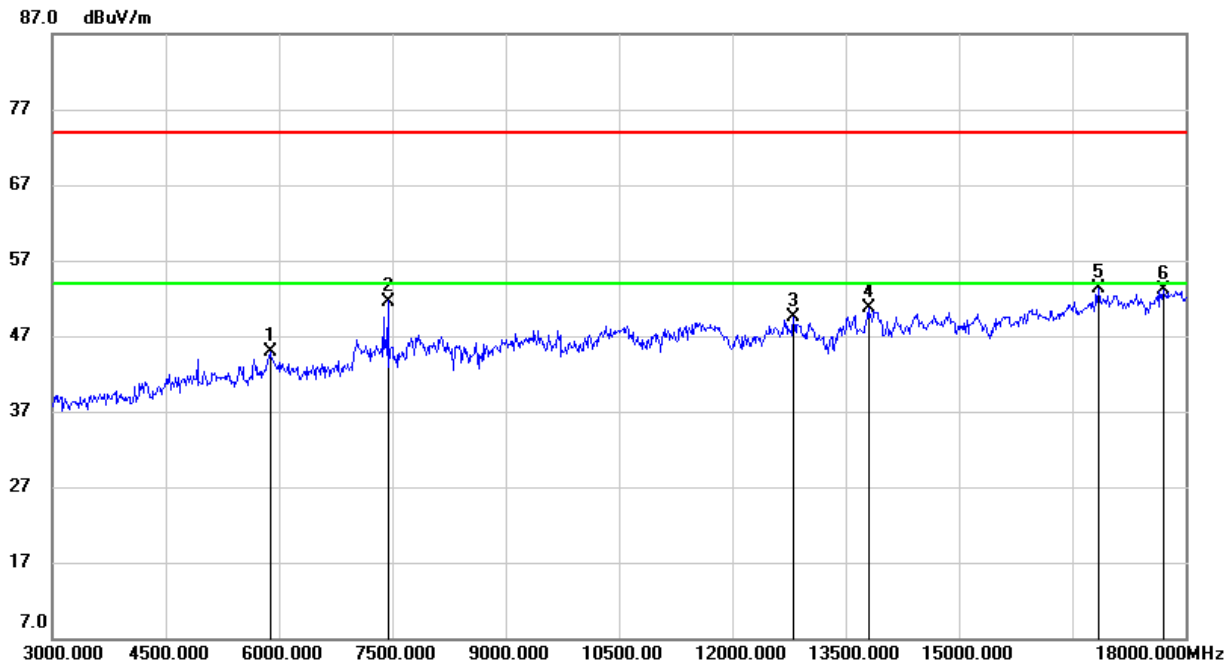
5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

SPURIOUS EMISSIONS (BT GFSK HIGH CHANNEL, 802.11b HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

3-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5880.000	40.37	4.59	44.96	74.00	-29.04	peak
2	7440.000	45.28	6.32	51.60	74.00	-22.40	peak
3	12810.000	33.98	15.59	49.57	74.00	-24.43	peak
4	13800.000	33.70	17.10	50.80	74.00	-23.20	peak
5	16845.000	33.28	19.96	53.24	74.00	-20.76	peak
6	17700.000	30.60	22.43	53.03	74.00	-20.97	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

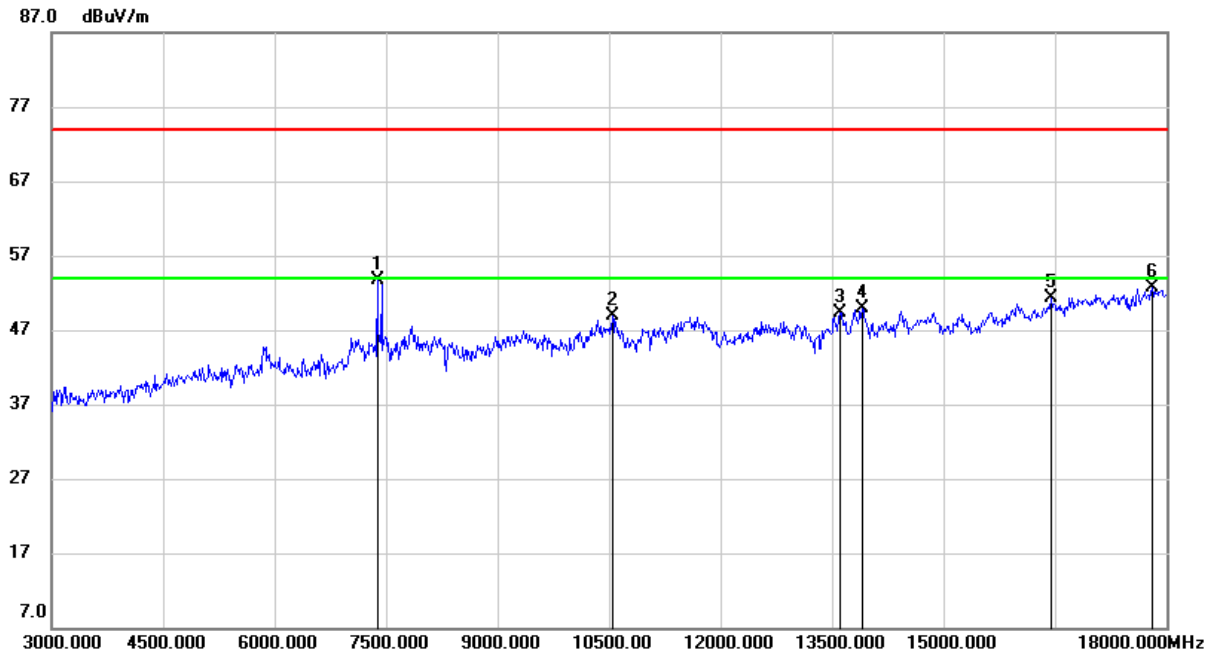
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



SPURIOUS EMISSIONS (BT GFSK HIGH CHANNEL, 802.11b HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

3-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7380.000	47.32	6.41	53.73	74.00	-20.27	peak
2	10545.000	37.17	11.64	48.81	74.00	-25.19	peak
3	13605.000	33.33	16.02	49.35	74.00	-24.65	peak
4	13905.000	33.65	16.20	49.85	74.00	-24.15	peak
5	16440.000	32.33	18.94	51.27	74.00	-22.73	peak
6	17805.000	29.38	23.31	52.69	74.00	-21.31	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

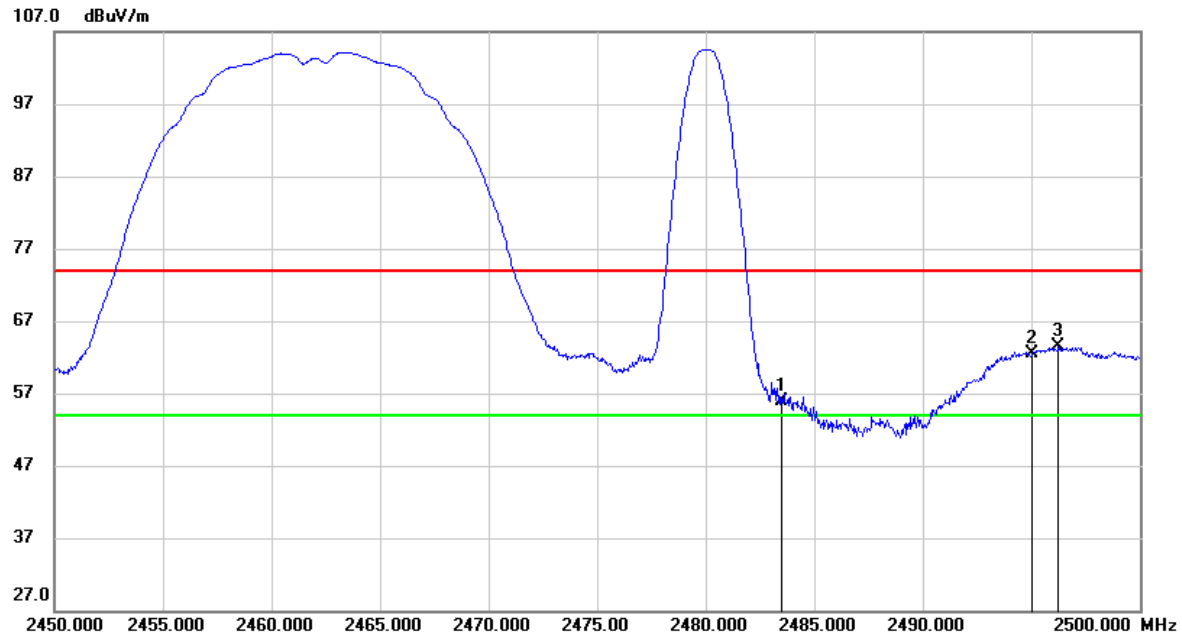
3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

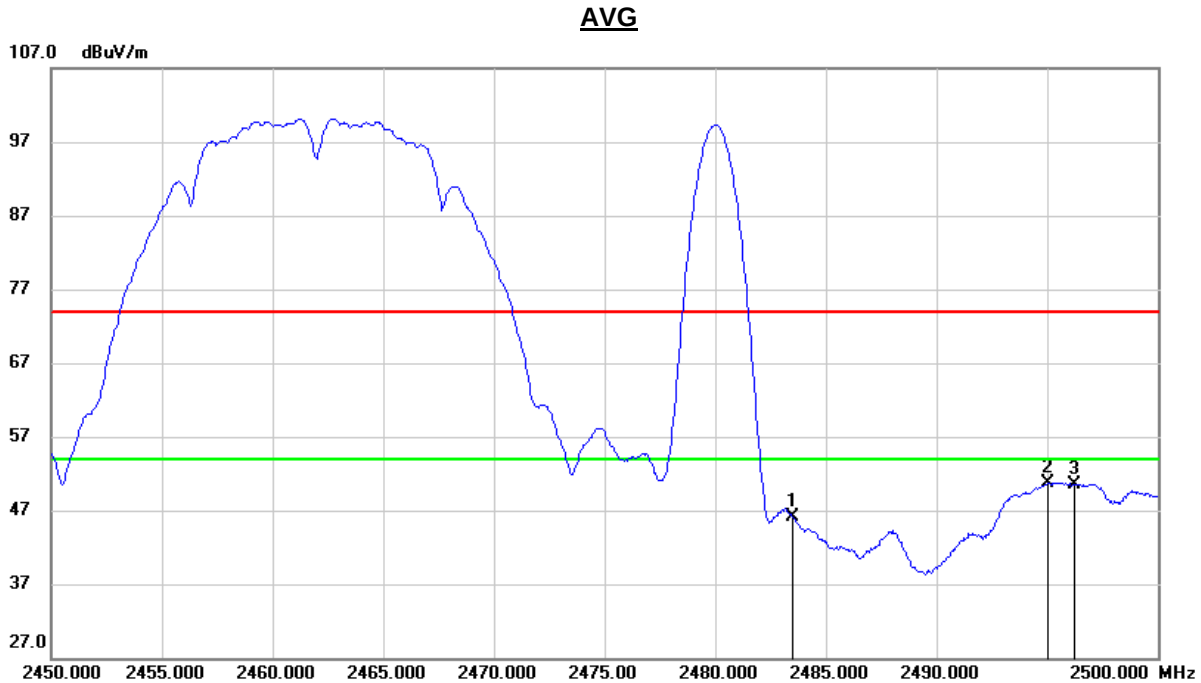
RESTRICTED BANDEDGE (BT GFSK HIGH CHANNEL, 802.11b 2.4G HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	22.42	33.58	56.00	74.00	-18.00	peak
2	2495.050	28.87	33.66	62.53	74.00	-11.47	peak
3	2496.250	29.74	33.67	63.41	74.00	-10.59	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

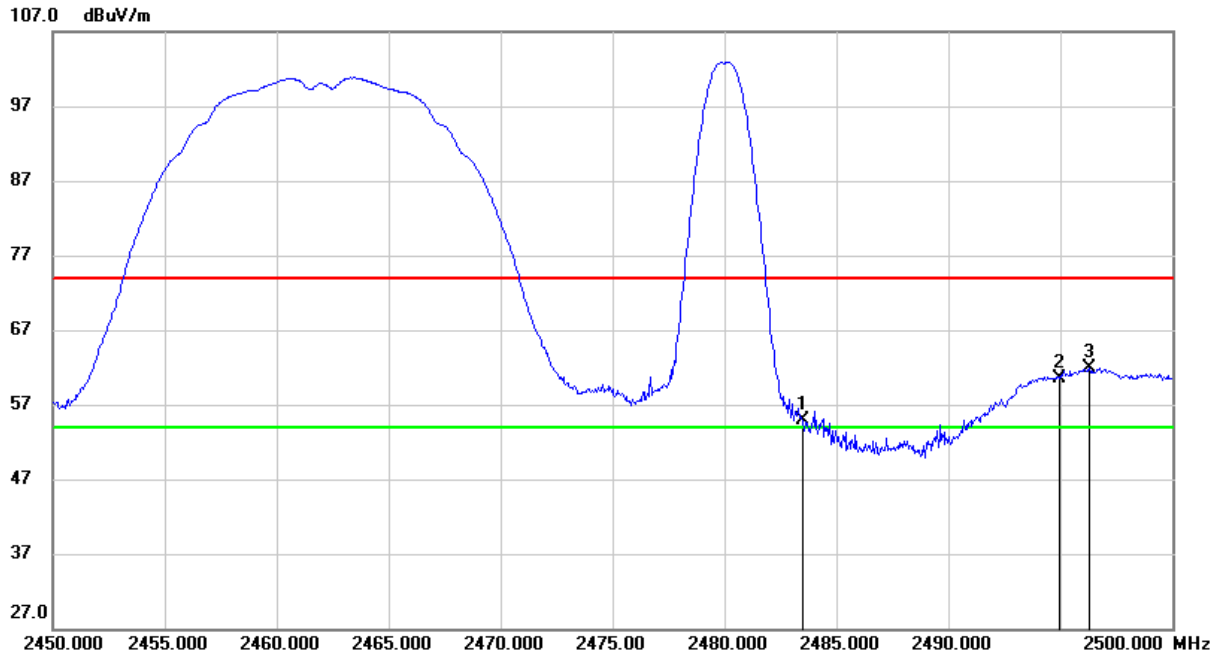


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	12.51	33.58	46.09	54.00	-7.91	AVG
2	2495.050	17.03	33.66	50.69	54.00	-3.31	AVG
3	2496.250	16.75	33.67	50.42	54.00	-3.58	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: $VBW=1/T_{on}$, where: T_{on} is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

RESTRICTED BANDEDGE (BT GFSK HIGH CHANNEL, 802.11b 2.4G HIGH CHANNEL, VERTICAL)

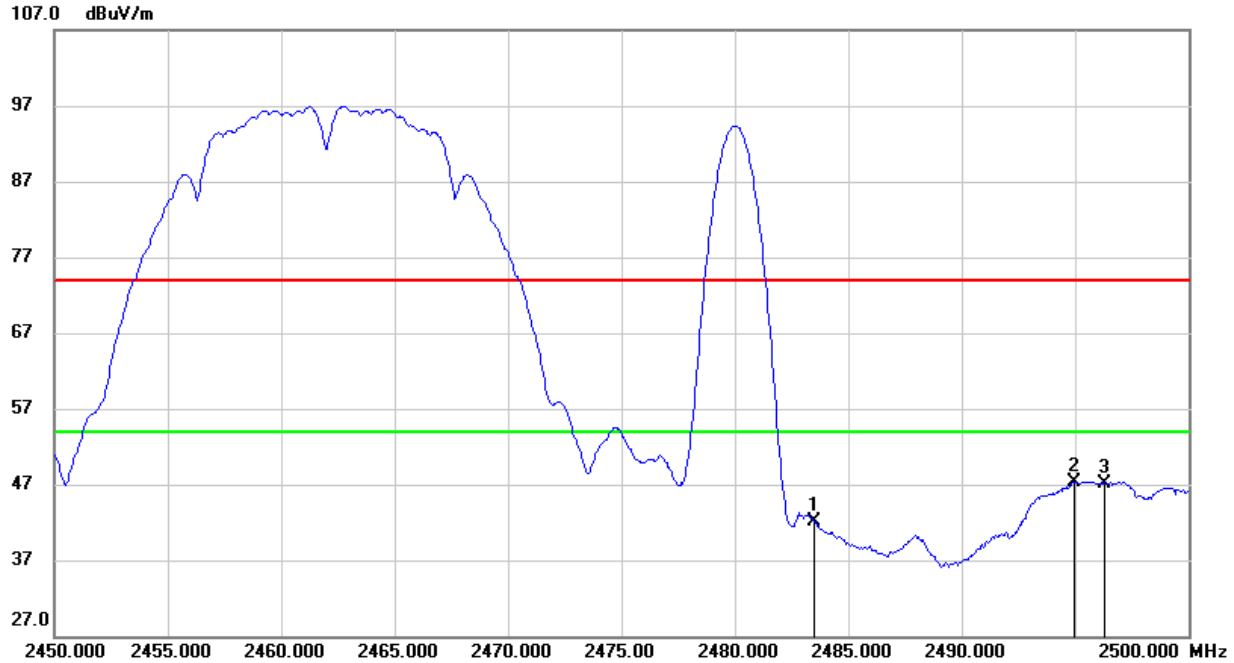
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	21.37	33.58	54.95	74.00	-19.05	peak
2	2494.950	26.91	33.66	60.57	74.00	-13.43	peak
3	2496.300	28.20	33.67	61.87	74.00	-12.13	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	8.61	33.58	42.19	54.00	-11.81	AVG
2	2494.950	13.70	33.66	47.36	54.00	-6.64	AVG
3	2496.300	13.51	33.67	47.18	54.00	-6.82	AVG

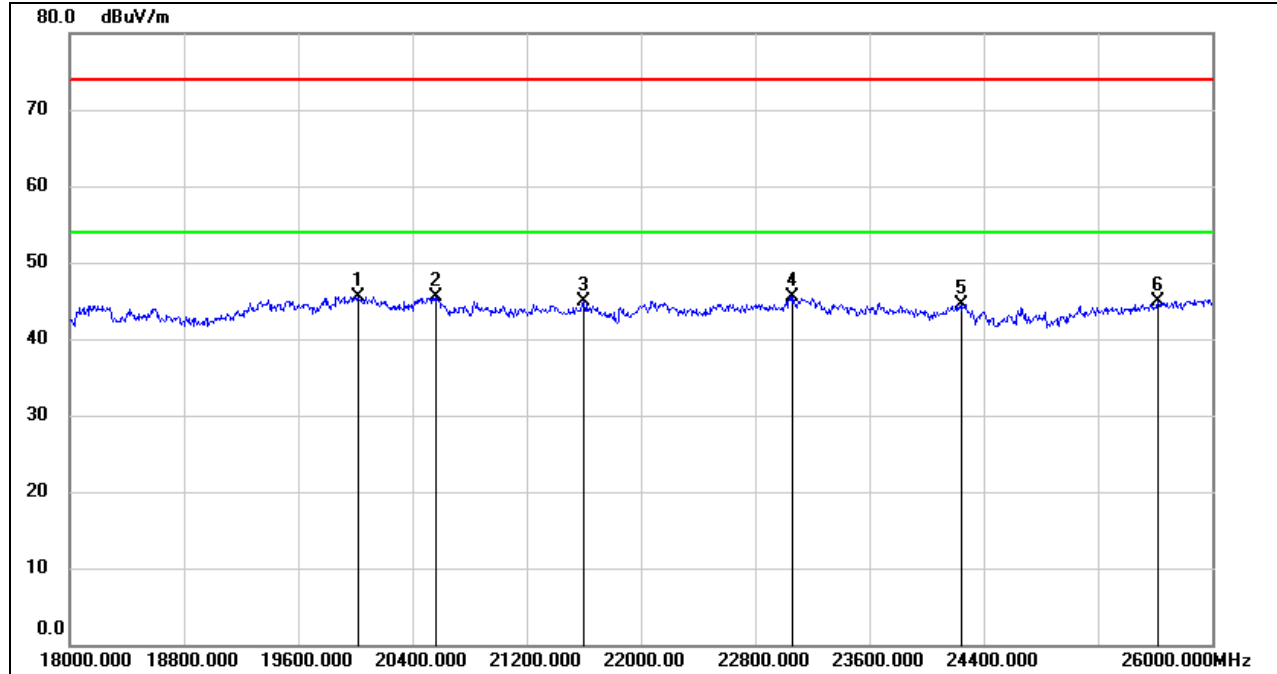
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the modes had been tested, but only the worst data was recorded in the report.

8.5. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.5.1. 802.11n HT20 CDD MIMO MODE

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20016.000	51.06	-5.47	45.59	74.00	-28.41	peak
2	20560.000	50.73	-5.30	45.43	74.00	-28.57	peak
3	21600.000	49.52	-4.54	44.98	74.00	-29.02	peak
4	23064.000	48.99	-3.42	45.57	74.00	-28.43	peak
5	24248.000	47.32	-2.83	44.49	74.00	-29.51	peak
6	25616.000	46.18	-1.24	44.94	74.00	-29.06	peak

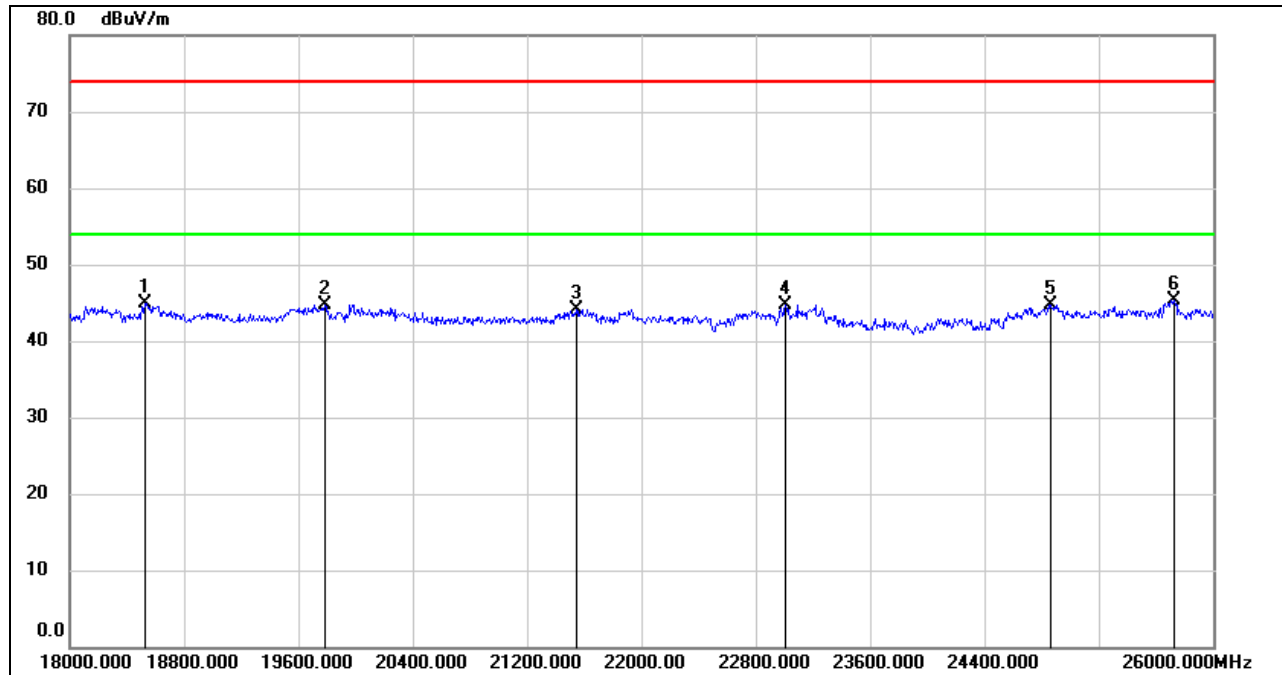
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The preamplifier only effect to the above 18GHz signal and no filter added to the measurement chain.

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18528.000	50.11	-5.26	44.85	74.00	-29.15	peak
2	19784.000	50.07	-5.28	44.79	74.00	-29.21	peak
3	21544.000	48.76	-4.63	44.13	74.00	-29.87	peak
4	23008.000	48.10	-3.44	44.66	74.00	-29.34	peak
5	24864.000	47.03	-2.23	44.80	74.00	-29.20	peak
6	25728.000	46.11	-0.72	45.39	74.00	-28.61	peak

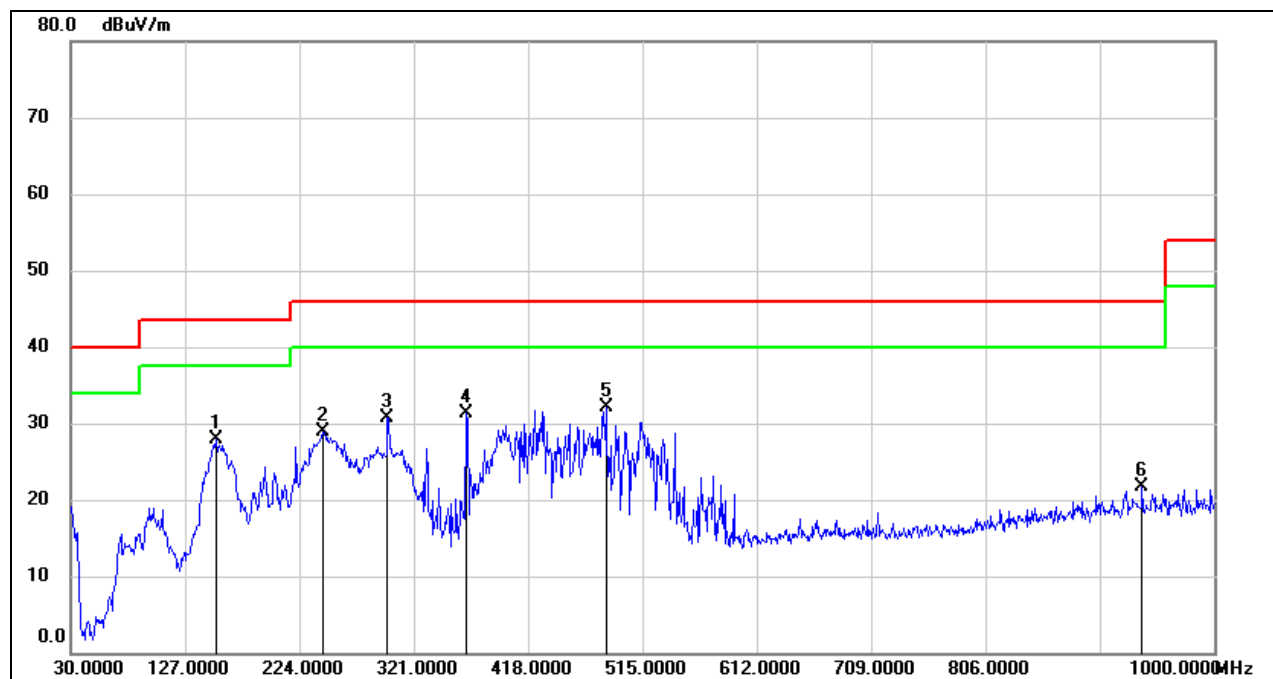
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. The preamplifier only effect to the above 18GHz signal and no filter added to the measurement chain.

Note: All the modes had been tested, but only the worst data was recorded in the report.

8.6. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.6.1. 802.11n HT20 CDD MIMO MODE

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



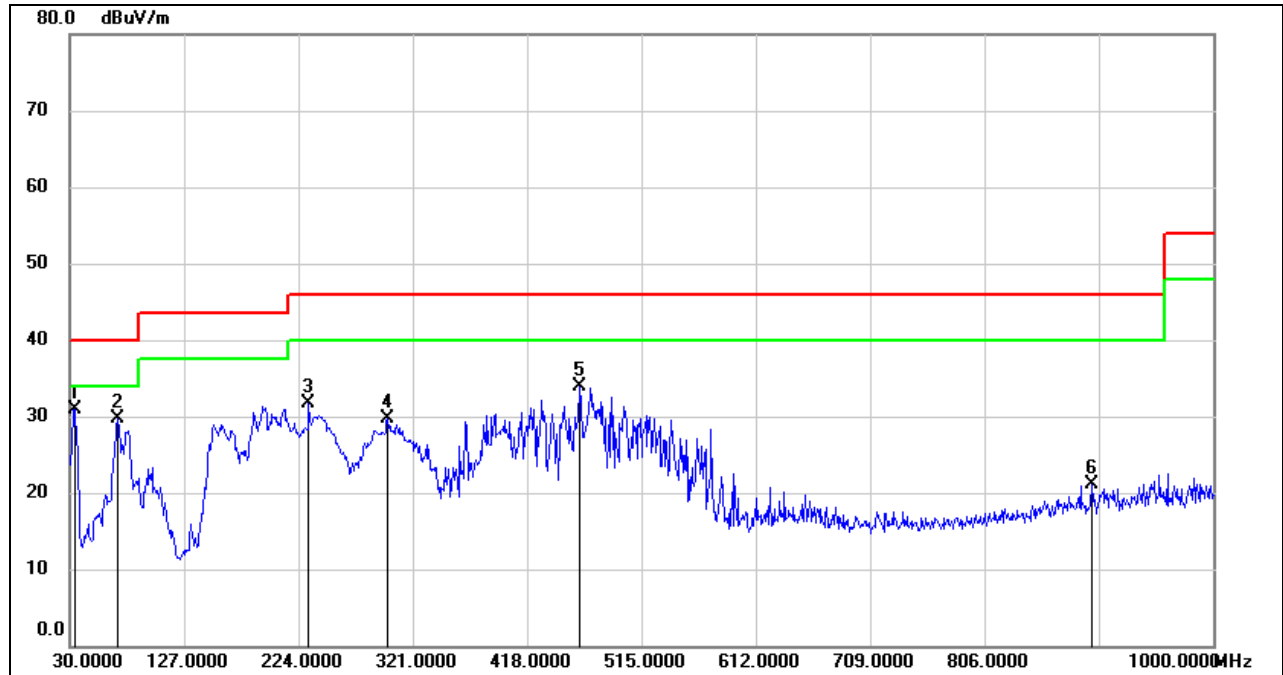
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	153.1900	46.15	-18.32	27.83	43.50	-15.67	QP
2	244.3700	48.27	-19.39	28.88	46.00	-17.12	QP
3	298.6900	46.44	-15.67	30.77	46.00	-15.23	QP
4	365.6200	45.39	-14.17	31.22	46.00	-14.78	QP
5	483.9600	43.95	-11.86	32.09	46.00	-13.91	QP
6	938.8900	27.02	-5.33	21.69	46.00	-24.31	QP

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.8800	50.29	-19.38	30.91	40.00	-9.09	QP
2	70.7400	50.44	-20.69	29.75	40.00	-10.25	QP
3	232.7300	50.75	-19.06	31.69	46.00	-14.31	QP
4	299.6600	45.31	-15.60	29.71	46.00	-16.29	QP
5	462.6200	46.13	-12.30	33.83	46.00	-12.17	QP
6	897.1800	26.83	-5.73	21.10	46.00	-24.90	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

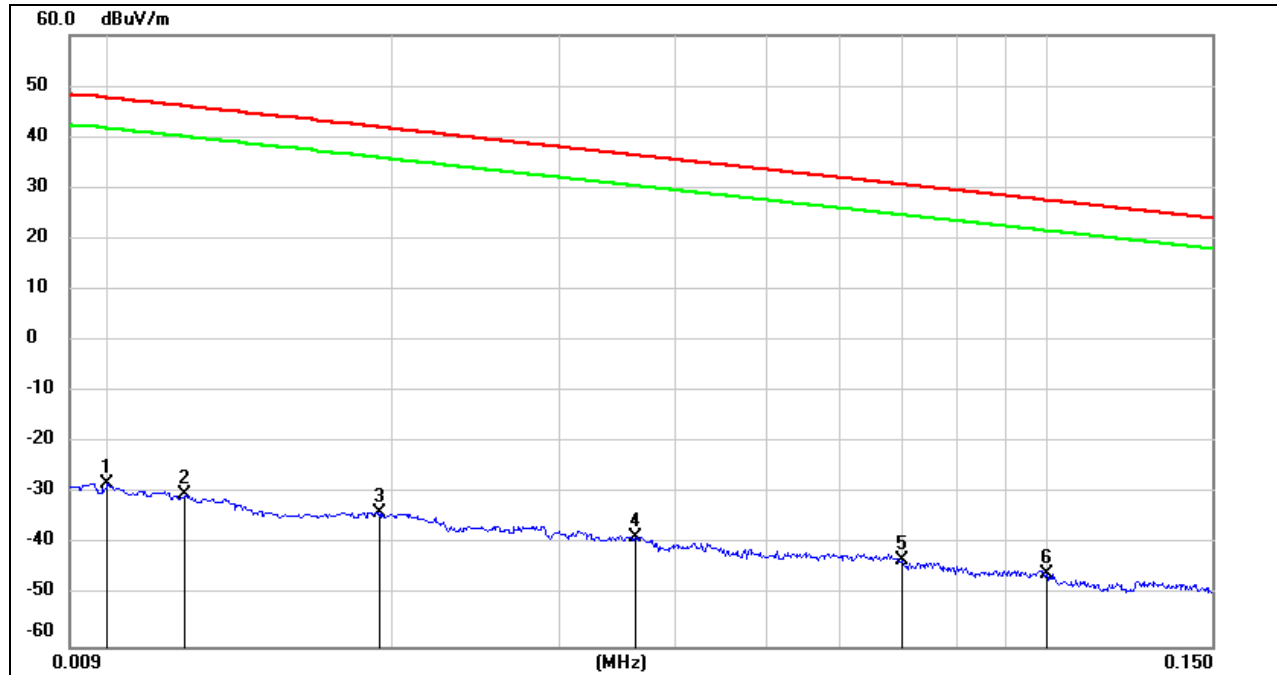
Note: All the modes had been tested, but only the worst data was recorded in the report.

8.7. SPURIOUS EMISSIONS BELOW 30 MHz

8.7.1. 802.11n HT20 CDD MIMO MODE

SPURIOUS EMISSIONS (MID CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9kHz~ 150kHz



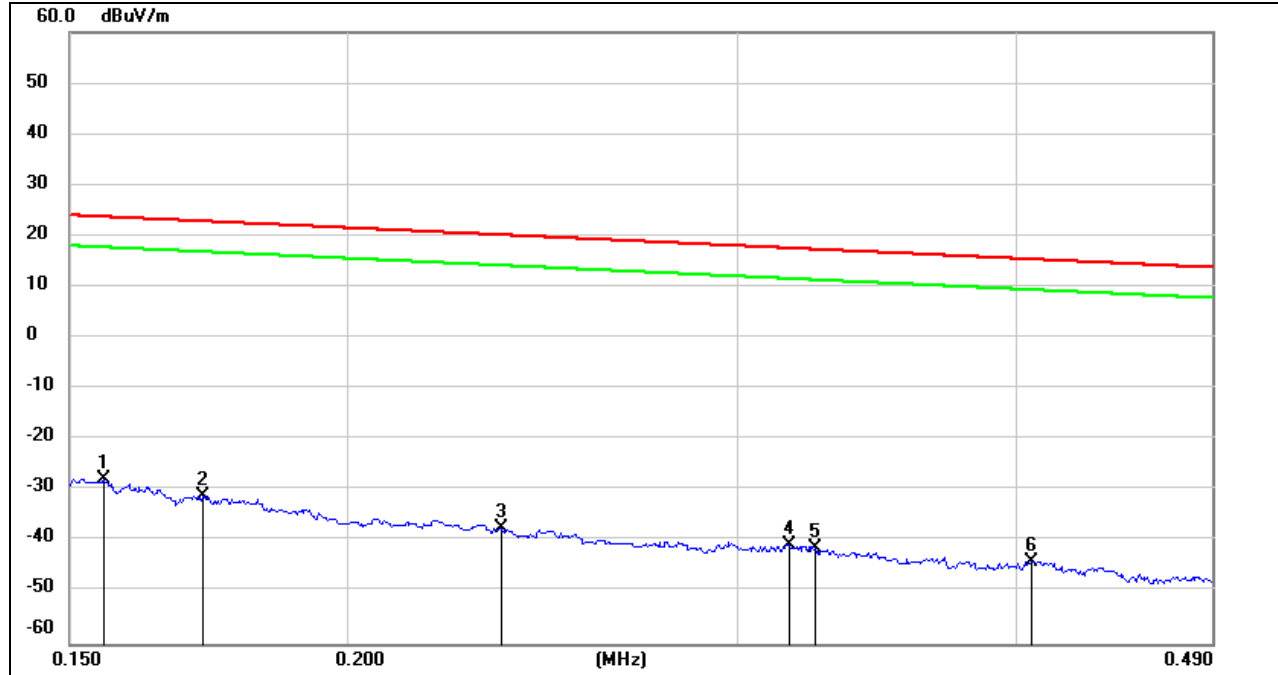
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0100	73.22	-101.40	-28.18	47.60	-79.68	-3.90	-75.78	peak
2	0.0120	71.16	-101.39	-30.23	46.02	-81.73	-5.48	-76.25	peak
3	0.0193	67.65	-101.35	-33.70	41.89	-85.20	-9.61	-75.59	peak
4	0.0362	63.01	-101.42	-38.41	36.43	-89.91	-15.07	-74.84	peak
5	0.0700	58.41	-101.57	-43.16	30.70	-94.66	-20.80	-73.86	peak
6	0.1000	56.17	-101.80	-45.63	27.60	-97.13	-23.90	-73.23	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

150kHz ~ 490kHz



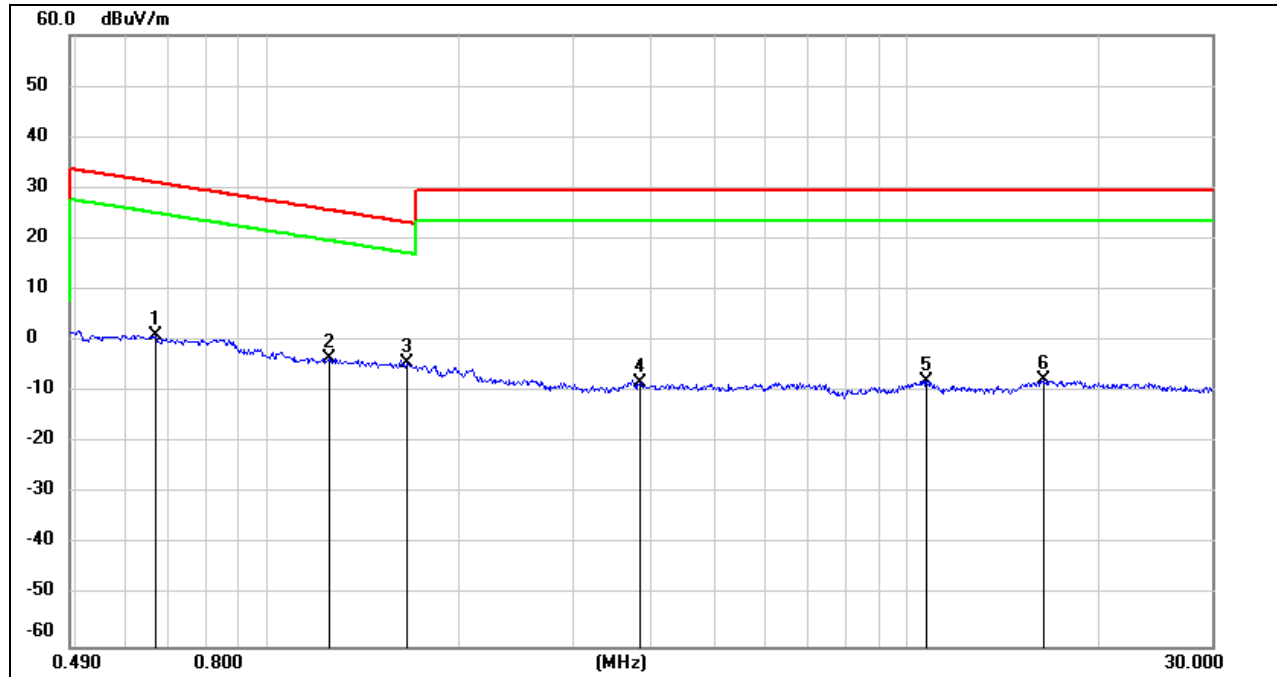
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.1554	73.77	-101.65	-27.88	23.77	-79.38	-27.73	-51.65	peak
2	0.1720	70.69	-101.67	-30.98	22.90	-82.48	-28.60	-53.88	peak
3	0.2346	64.35	-101.77	-37.42	20.19	-88.92	-31.31	-57.61	peak
4	0.3163	61.20	-101.87	-40.67	17.60	-92.17	-33.90	-58.27	peak
5	0.3251	60.71	-101.88	-41.17	17.36	-92.67	-34.14	-58.53	peak
6	0.4062	58.14	-101.96	-43.82	15.43	-95.32	-36.07	-59.25	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

490kHz ~ 30MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.6671	63.25	-62.10	1.15	31.12	-50.35	-20.38	-29.97	peak
2	1.2460	58.75	-62.16	-3.41	25.70	-54.91	-25.80	-29.11	peak
3	1.6491	57.55	-61.98	-4.43	23.26	-55.93	-28.24	-27.69	peak
4	3.8246	53.20	-61.38	-8.18	29.54	-59.68	-21.96	-37.72	peak
5	10.7299	52.98	-60.83	-7.85	29.54	-59.35	-21.96	-37.39	peak
6	16.3959	53.17	-60.96	-7.79	29.54	-59.29	-21.96	-37.33	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Note: All the modes had been tested, but only the worst data was recorded in the report.

9. AC POWER LINE CONDUCTED EMISSIONS

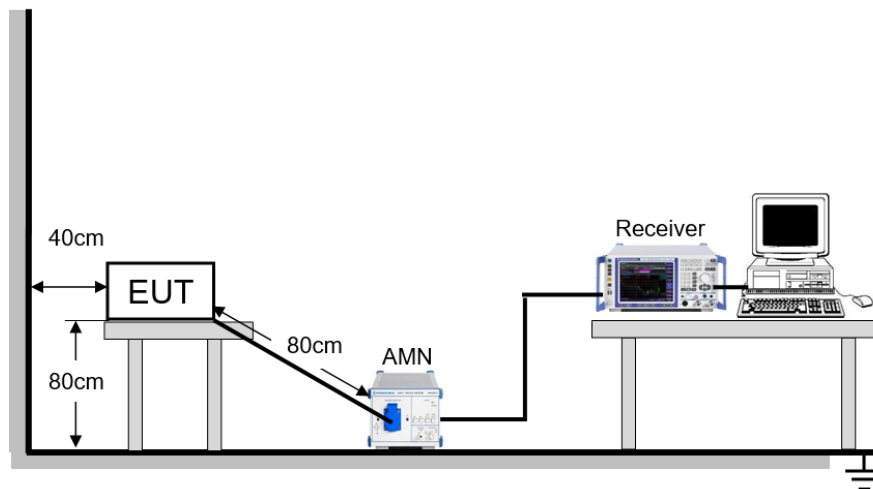
LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

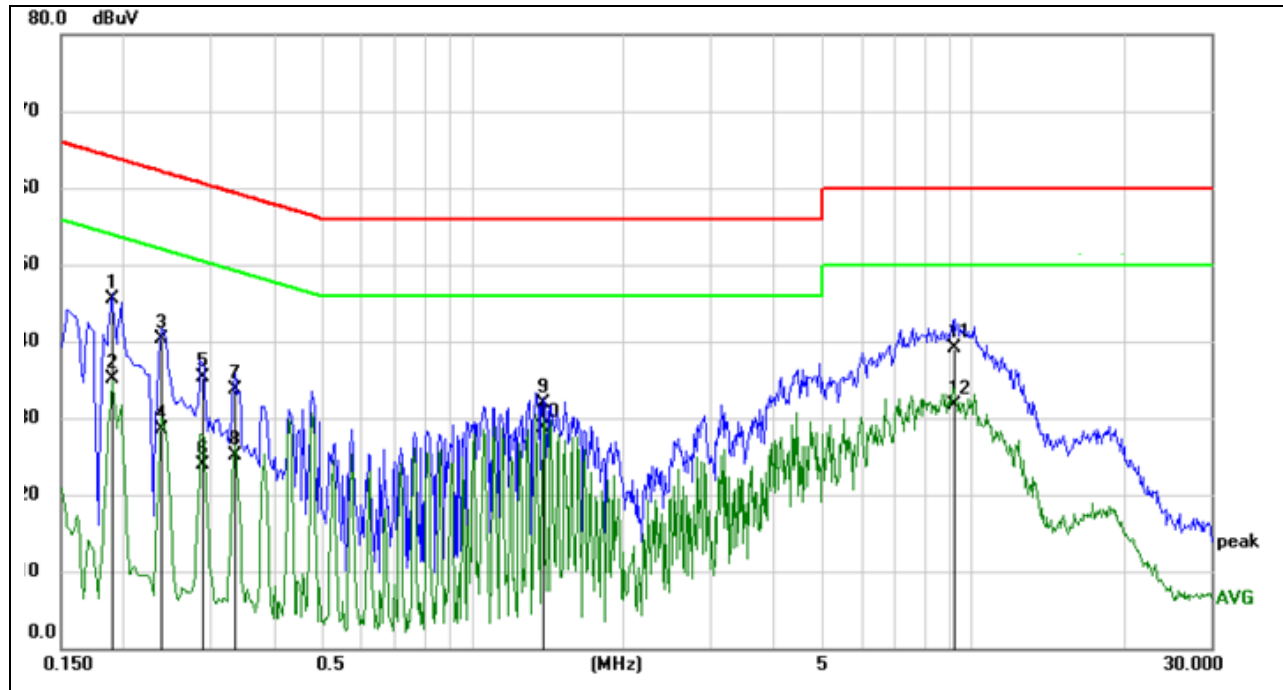
TEST ENVIRONMENT

Temperature	25 °C	Relative Humidity	72.1 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 11.55 V

RESULTS

9.1. 802.11n HT20 CDD MIMO MODE

LINE N RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1911	35.85	9.60	45.45	63.99	-18.54	QP
2	0.1911	25.51	9.60	35.11	53.99	-18.88	AVG
3	0.2385	30.77	9.60	40.37	62.15	-21.78	QP
4	0.2385	18.86	9.60	28.46	52.15	-23.69	AVG
5	0.2893	25.79	9.60	35.39	60.54	-25.15	QP
6	0.2893	14.21	9.60	23.81	50.54	-26.73	AVG
7	0.3349	24.18	9.60	33.78	59.33	-25.55	QP
8	0.3349	15.44	9.60	25.04	49.33	-24.29	AVG
9	1.3783	22.37	9.61	31.98	56.00	-24.02	QP
10	1.3783	19.15	9.61	28.76	46.00	-17.24	AVG
11	9.2061	29.26	9.75	39.01	60.00	-20.99	QP
12	9.2061	22.01	9.75	31.76	50.00	-18.24	AVG

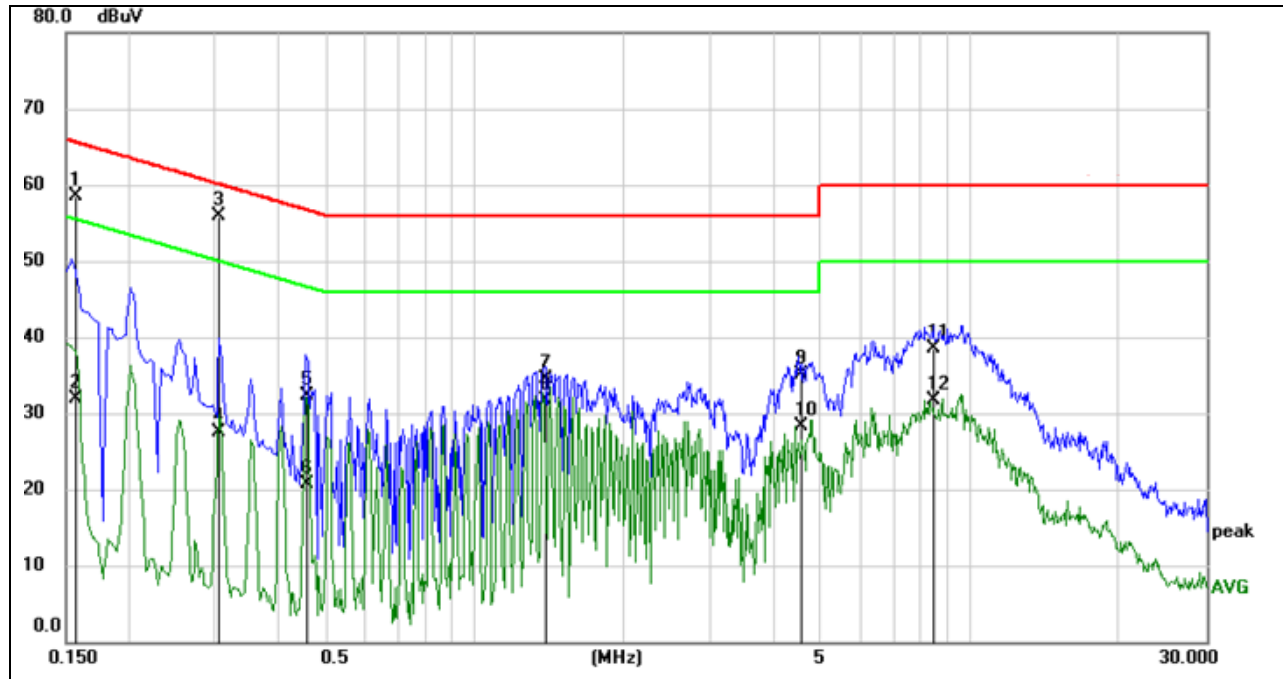
Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

4. Step size: 80Hz (0.009 MHz-0.15 MHz), 4 kHz (0.15 MHz-30 MHz), Scan time: auto.

LINE L RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1581	48.96	9.61	58.57	65.56	-6.99	QP
2	0.1581	22.38	9.61	31.99	55.56	-23.57	AVG
3	0.3042	46.27	9.60	55.87	60.13	-4.26	QP
4	0.3042	17.95	9.60	27.55	50.13	-22.58	AVG
5	0.4592	22.65	9.60	32.25	56.71	-24.46	QP
6	0.4592	11.19	9.60	20.79	46.71	-25.92	AVG
7	1.4081	24.99	9.61	34.60	56.00	-21.40	QP
8	1.4081	22.07	9.61	31.68	46.00	-14.32	AVG
9	4.5731	25.45	9.67	35.12	56.00	-20.88	QP
10	4.5731	18.60	9.67	28.27	46.00	-17.73	AVG
11	8.3880	28.69	9.72	38.41	60.00	-21.59	QP
12	8.3880	21.91	9.72	31.63	50.00	-18.37	AVG

Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

4. Step size: 80Hz (0.009 MHz-0.15 MHz), 4 kHz (0.15 MHz-30 MHz), Scan time: auto.

Note: All the modes had been tested, but only the worst data was recorded in the report.



10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

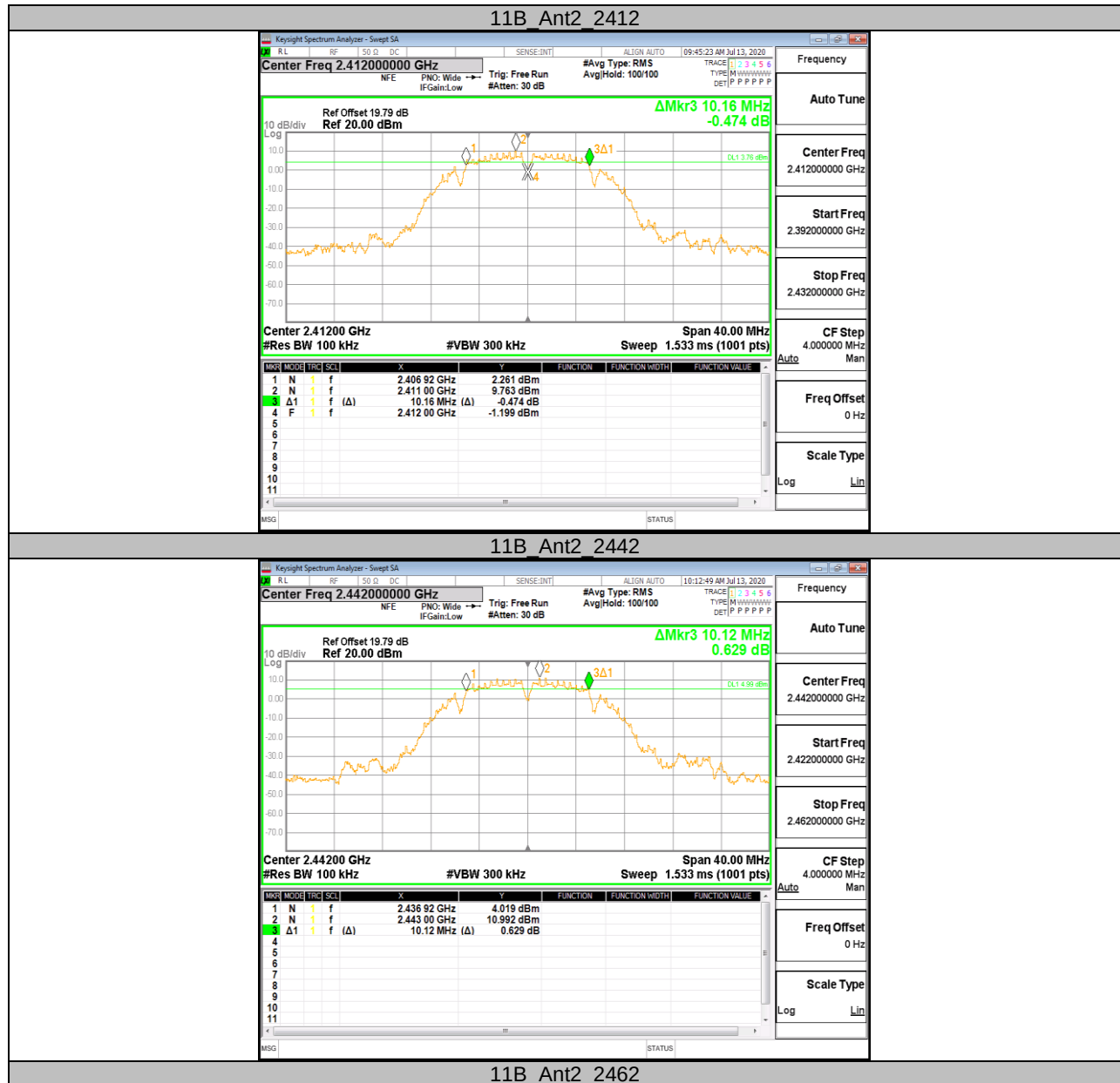
Complies

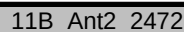
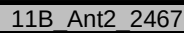
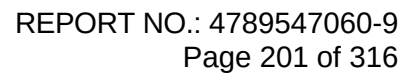
**Appendix A: 6dB DTS Bandwidth****Test Result**

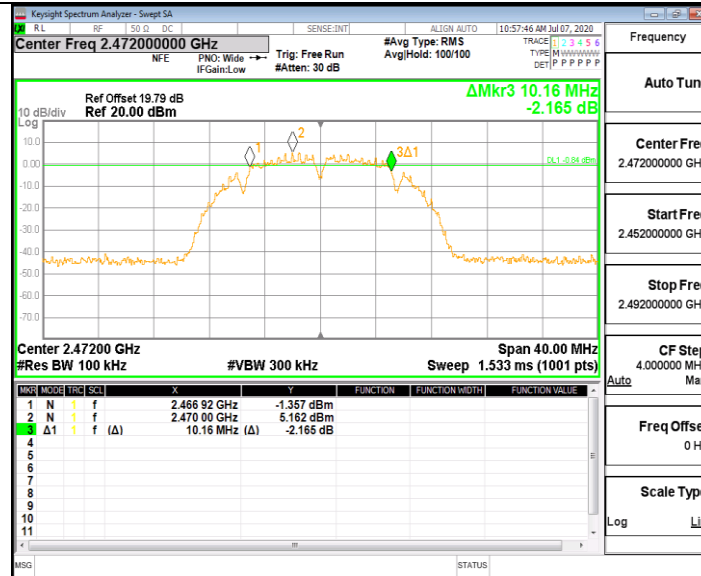
Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	10.160	2406.920	2417.080	0.5	PASS
		2442	10.120	2436.920	2447.040	0.5	PASS
		2462	10.160	2456.920	2467.080	0.5	PASS
		2467	10.160	2461.920	2472.080	0.5	PASS
		2472	10.160	2466.920	2477.080	0.5	PASS
11G	Ant2	2412	16.400	2403.800	2420.200	0.5	PASS
		2442	16.400	2433.800	2450.200	0.5	PASS
		2462	16.440	2453.760	2470.200	0.5	PASS
		2467	16.400	2458.800	2475.200	0.5	PASS
		2472	16.440	2463.760	2480.200	0.5	PASS
11N20MIMO	Ant1	2412	17.640	2403.200	2420.840	0.5	PASS
	Ant2	2412	17.640	2403.200	2420.840	0.5	PASS
	Ant1	2442	17.680	2433.160	2450.840	0.5	PASS
	Ant2	2442	17.600	2433.200	2450.800	0.5	PASS
	Ant1	2462	17.640	2453.200	2470.840	0.5	PASS
	Ant2	2462	17.640	2453.200	2470.840	0.5	PASS
	Ant1	2467	17.640	2458.200	2475.840	0.5	PASS
	Ant2	2467	17.640	2458.200	2475.840	0.5	PASS
	Ant1	2472	17.640	2463.200	2480.840	0.5	PASS
11N40MIMO	Ant2	2472	17.640	2463.200	2480.840	0.5	PASS
	Ant1	2422	36.480	2403.760	2440.240	0.5	PASS
	Ant2	2422	36.400	2403.840	2440.240	0.5	PASS
	Ant1	2442	36.480	2423.760	2460.240	0.5	PASS
	Ant2	2442	36.240	2424.000	2460.240	0.5	PASS
	Ant1	2452	36.400	2433.840	2470.240	0.5	PASS
	Ant2	2452	36.160	2434.080	2470.240	0.5	PASS
	Ant1	2457	36.480	2438.760	2475.240	0.5	PASS
	Ant2	2457	36.480	2438.760	2475.240	0.5	PASS
	Ant1	2462	36.480	2443.760	2480.240	0.5	PASS
	Ant2	2462	36.080	2444.160	2480.240	0.5	PASS



Test Graphs



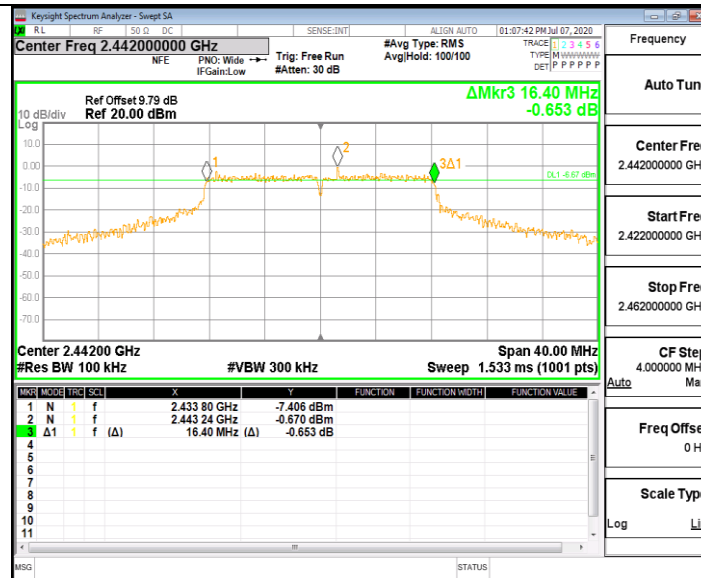




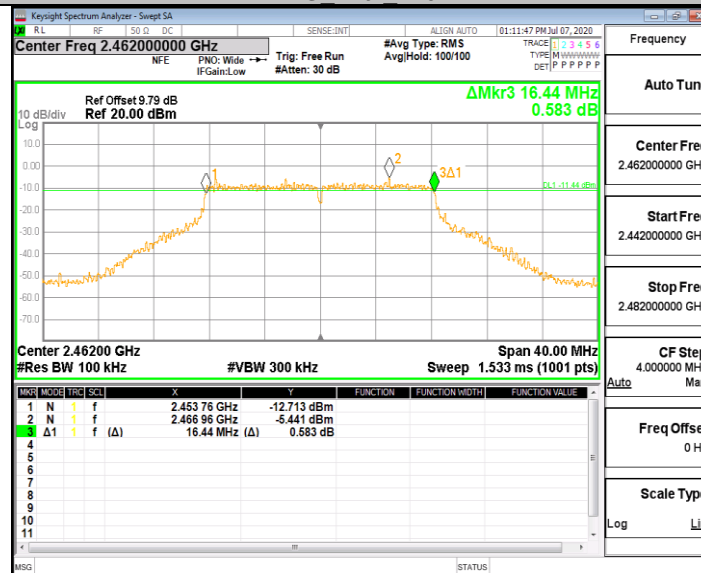
11G_Ant2_2412



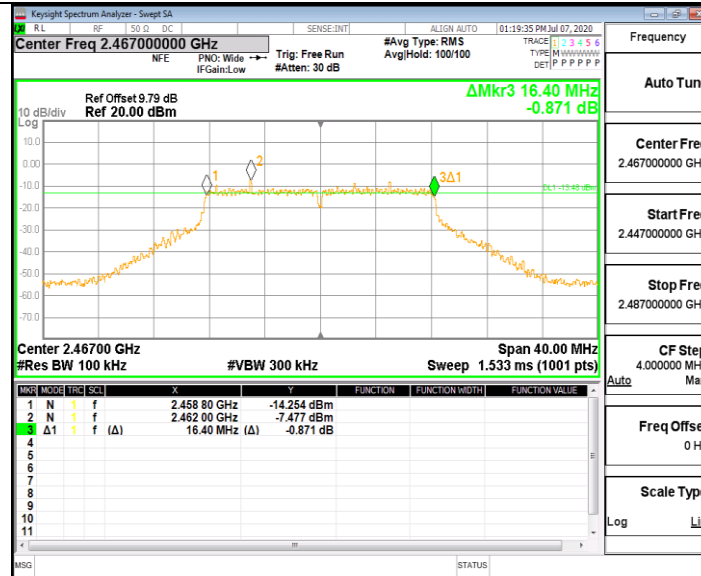
11G_Ant2_2442



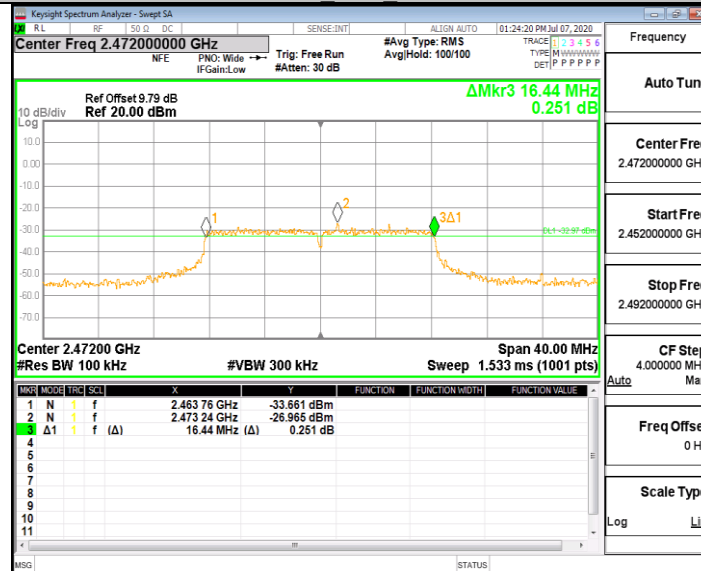
11G_Ant2_2462



11G_Ant2_2467

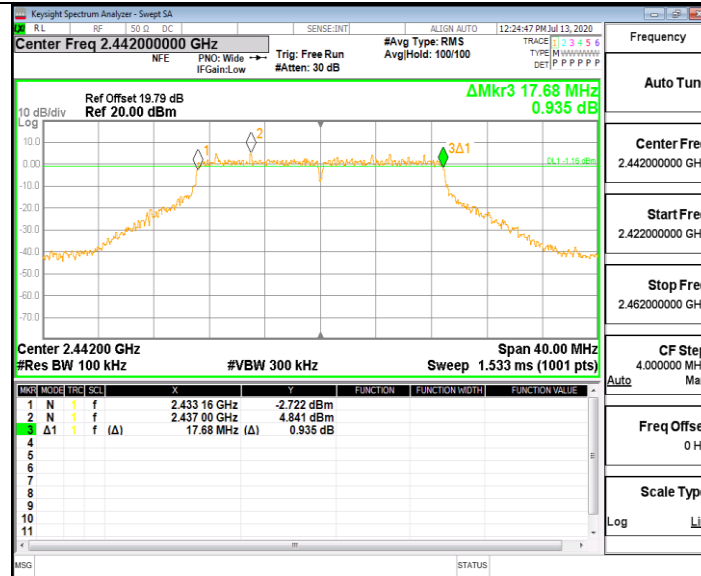


11G Ant2 2472

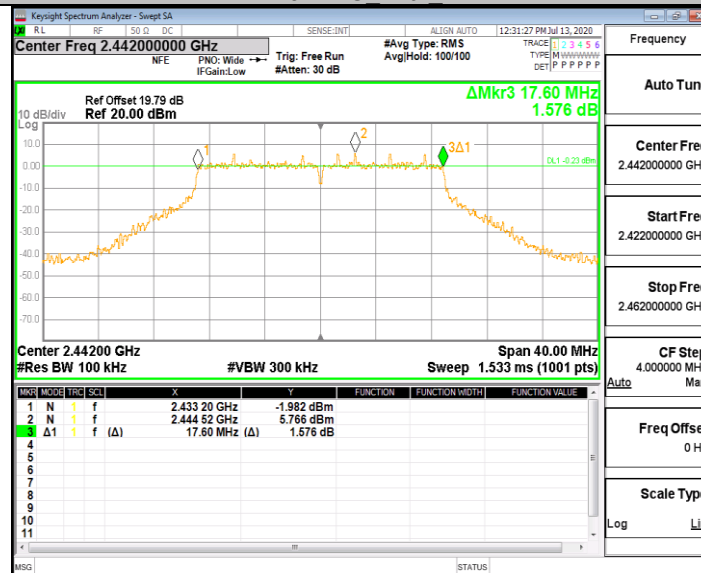


11N20MIMO Ant1 2412

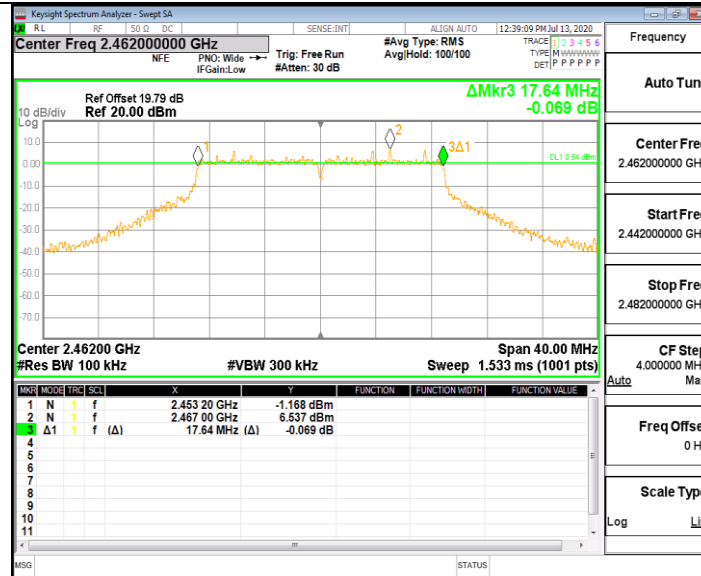




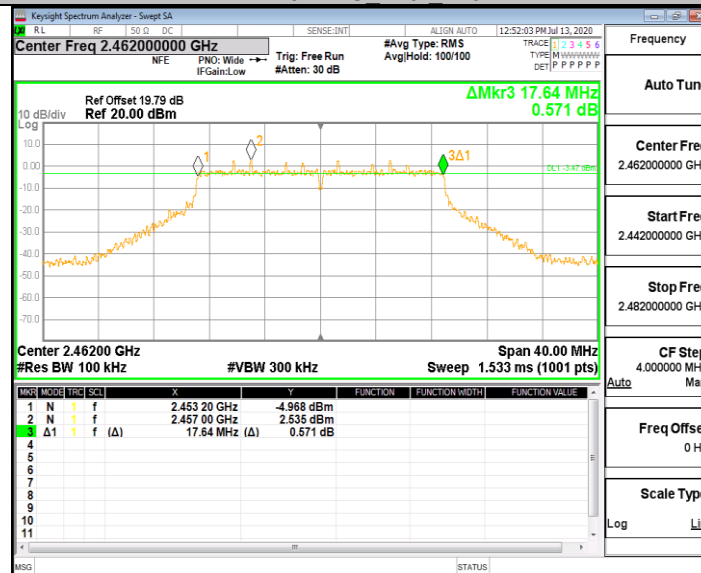
11N20MIMO Ant2 2442



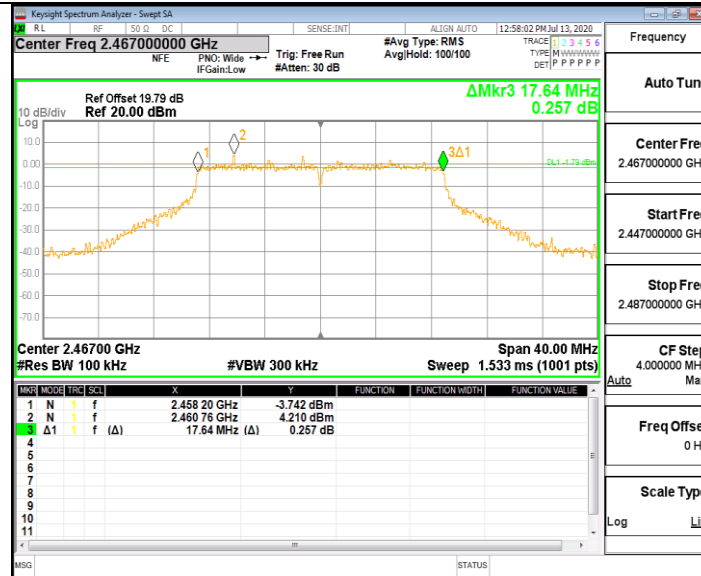
11N20MIMO Ant1 2462



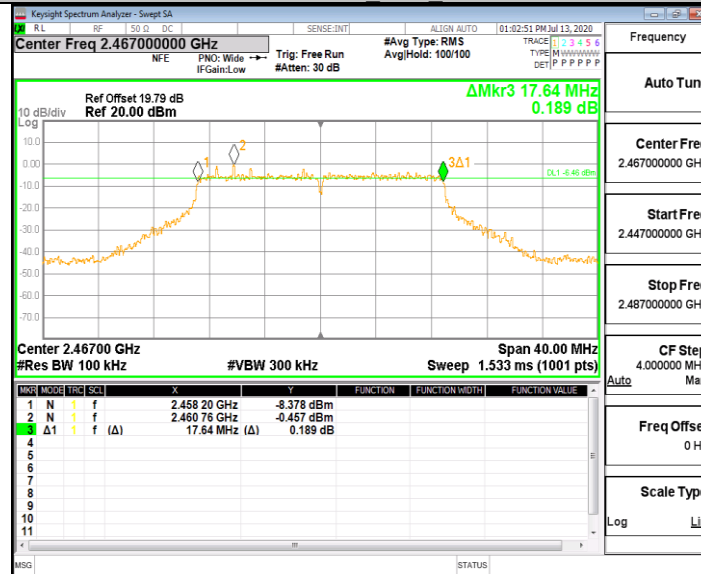
11N20MIMO Ant2 2462



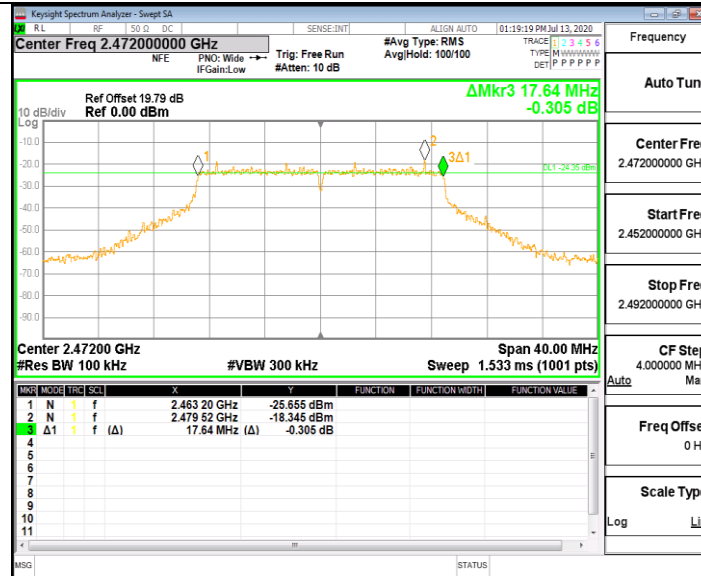
11N20MIMO Ant1 2467



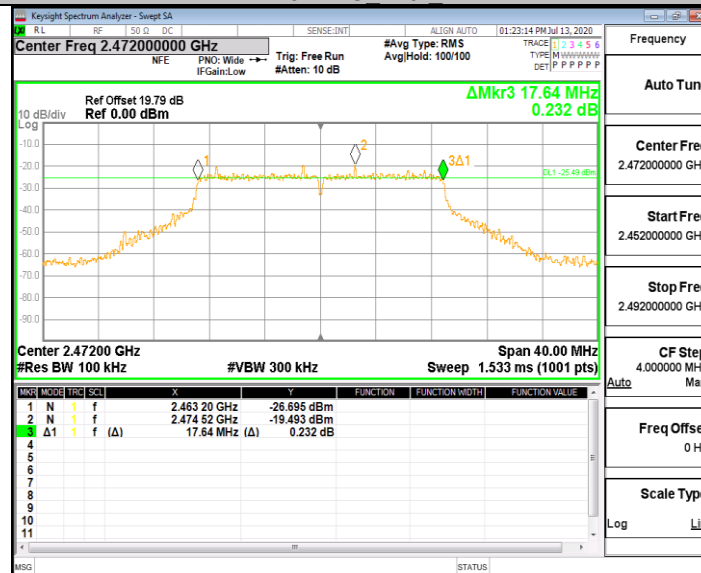
11N20MIMO Ant2 2467



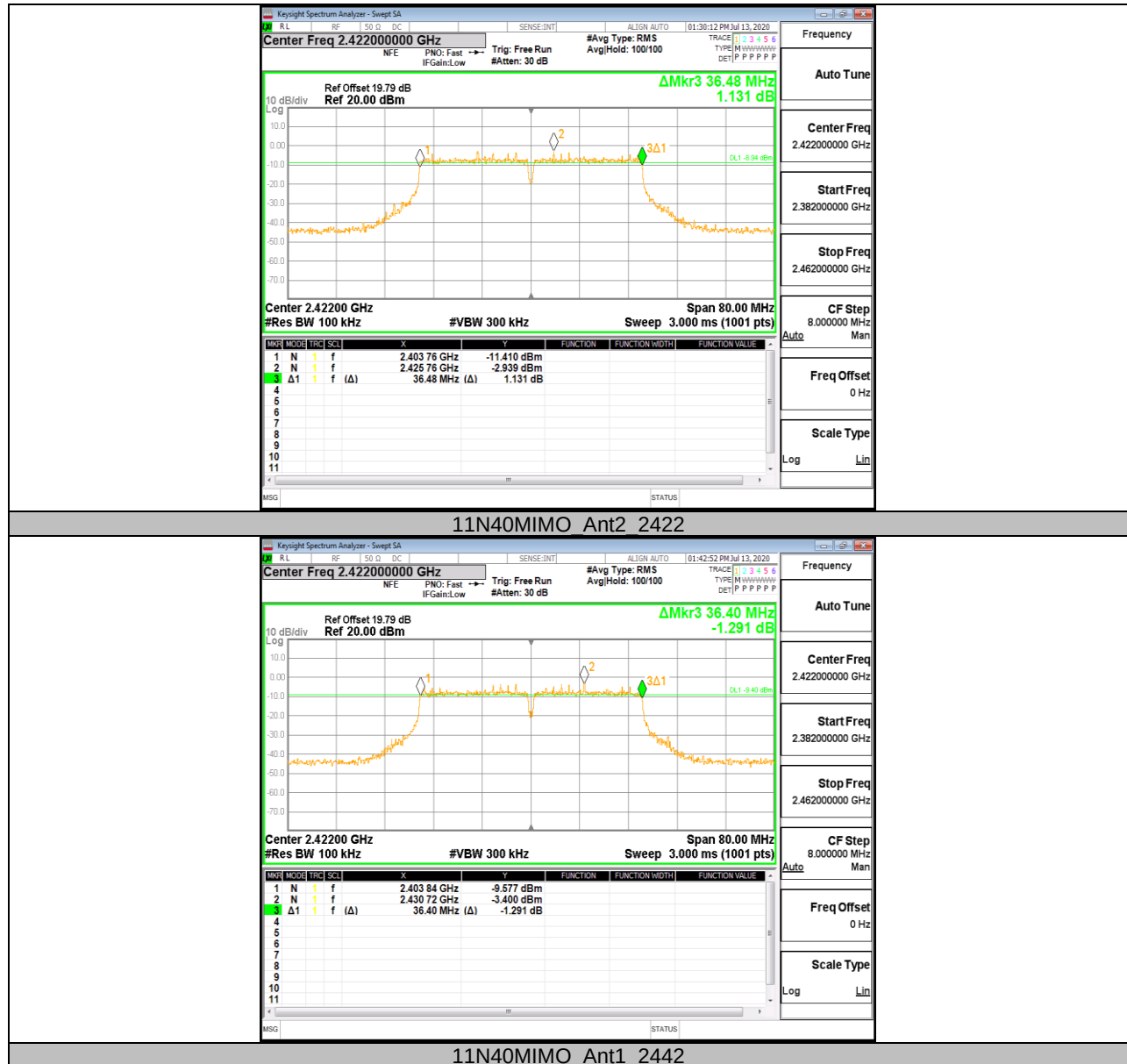
11N20MIMO Ant1 2472

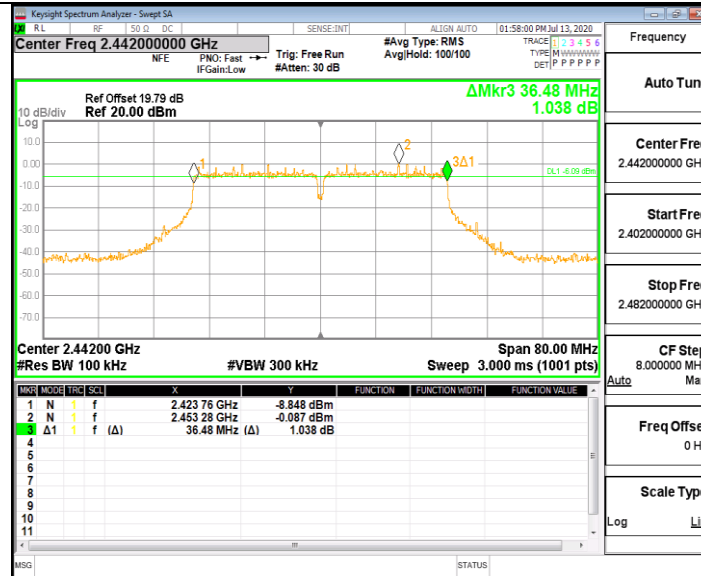


11N20MIMO Ant2 2472

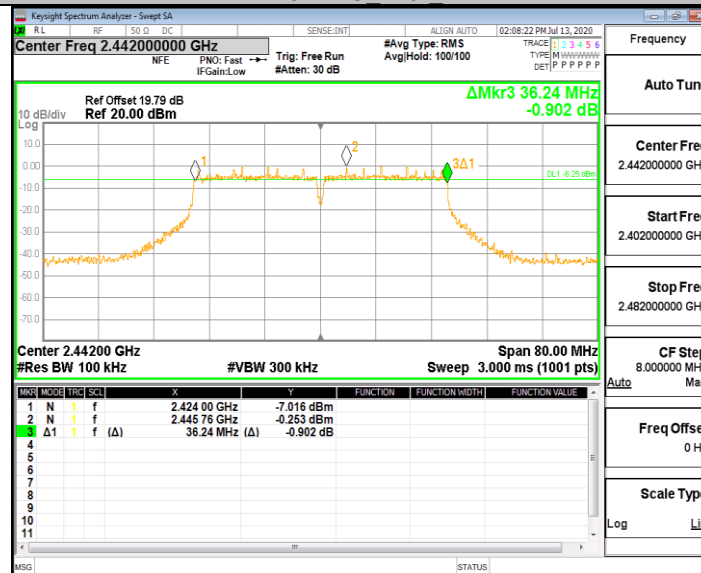


11N40MIMO Ant1 2422

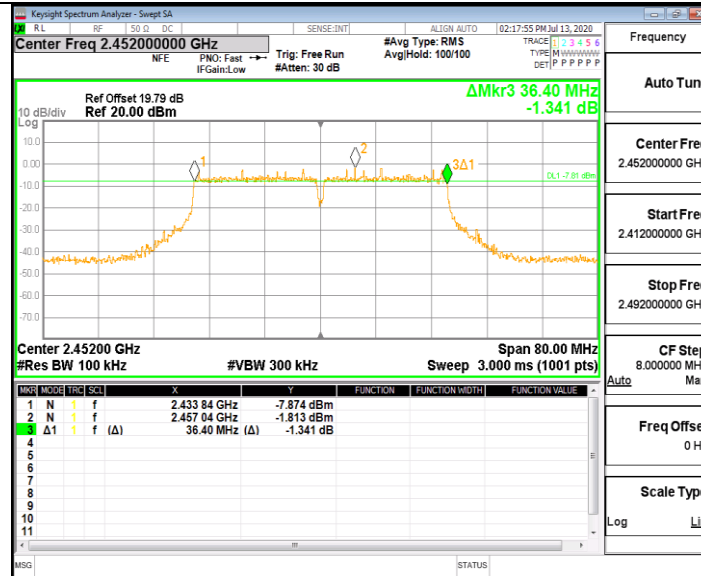




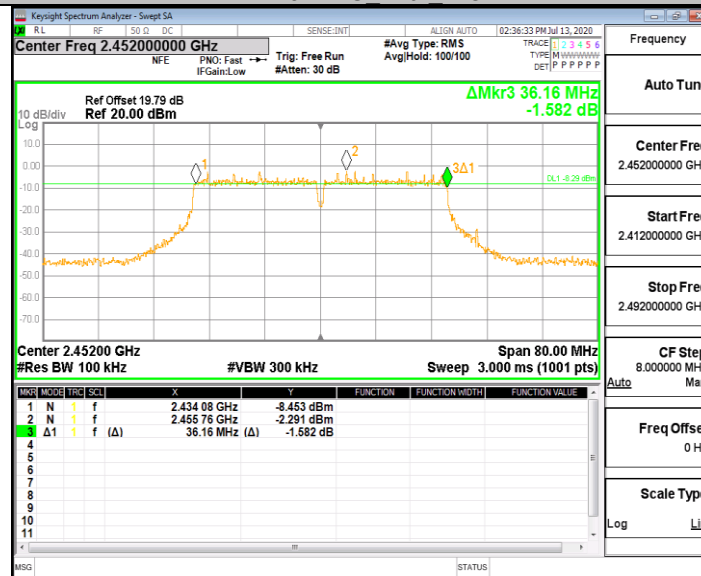
11N40MIMO Ant2 2442



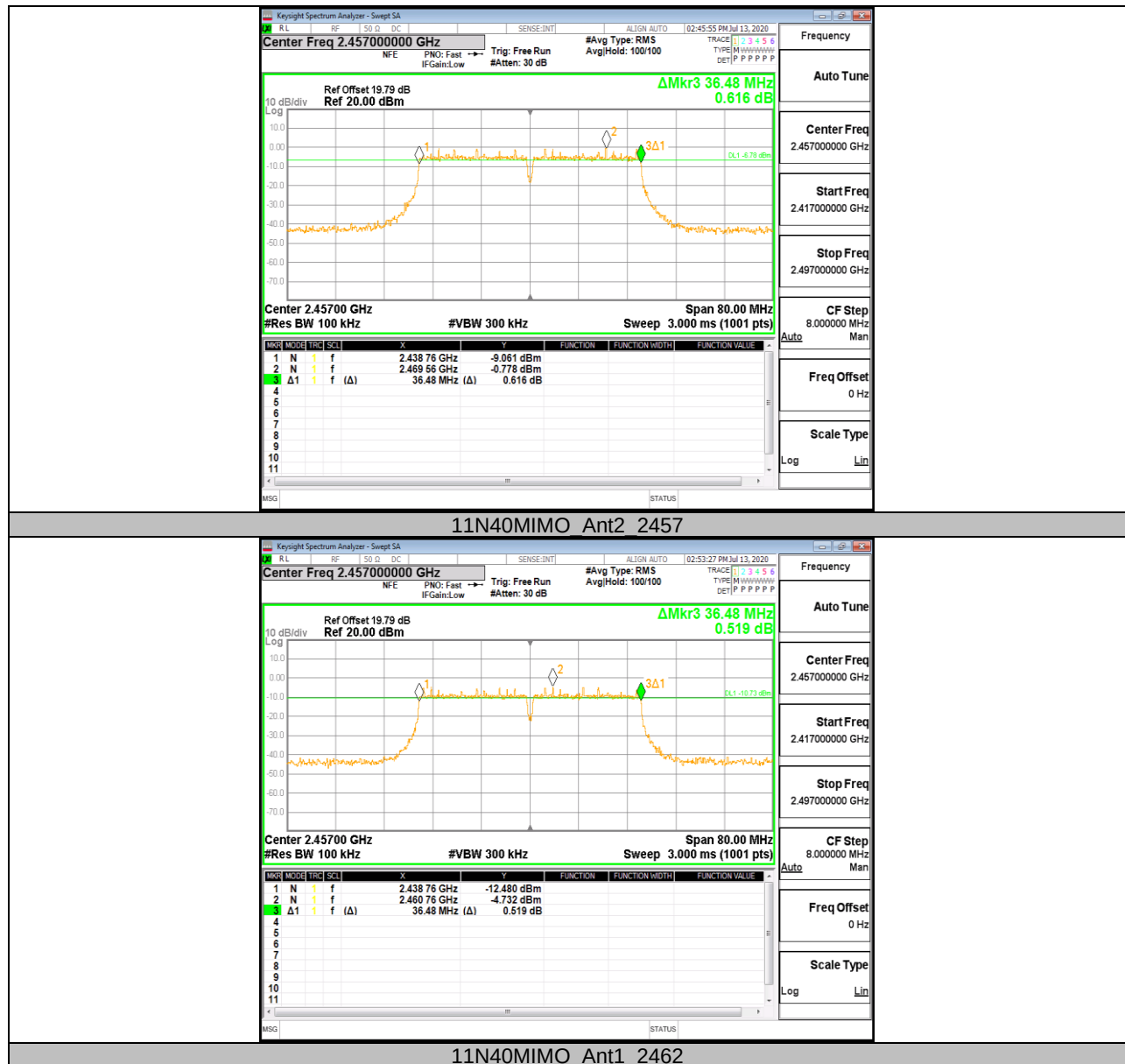
11N40MIMO Ant1 2452



11N40MIMO Ant2 2452



11N40MIMO Ant1 2457





**Appendix B: Occupied Channel Bandwidth****Test Result**

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.862	2405.080	2418.942	---	PASS
	Ant2	2412	13.782	2405.122	2418.904	---	PASS
	Ant1	2442	14.213	2434.904	2449.117	---	PASS
	Ant2	2442	13.835	2435.066	2448.901	---	PASS
	Ant1	2462	13.914	2455.003	2468.917	---	PASS
	Ant2	2462	13.750	2455.123	2468.873	---	PASS
	Ant1	2467	13.851	2460.040	2473.891	---	PASS
	Ant2	2467	13.718	2460.137	2473.855	---	PASS
	Ant1	2472	13.508	2465.215	2478.723	---	PASS
	Ant2	2472	13.493	2465.259	2478.752	---	PASS
11G	Ant1	2412	17.293	2403.336	2420.629	---	PASS
	Ant2	2412	17.147	2403.411	2420.558	---	PASS
	Ant1	2442	18.163	2432.864	2451.027	---	PASS
	Ant2	2442	17.225	2433.345	2450.570	---	PASS
	Ant1	2462	17.296	2453.321	2470.617	---	PASS
	Ant2	2462	17.244	2453.363	2470.607	---	PASS
	Ant1	2467	17.199	2458.355	2475.554	---	PASS
	Ant2	2467	17.190	2458.398	2475.588	---	PASS
	Ant1	2472	18.500	2462.771	2481.271	---	PASS
	Ant2	2472	18.528	2462.892	2481.420	---	PASS
11N20MIMO	Ant1	2412	18.259	2402.902	2421.161	---	PASS
	Ant2	2412	18.251	2402.922	2421.173	---	PASS
	Ant1	2442	18.209	2432.925	2451.134	---	PASS
	Ant2	2442	18.286	2432.886	2451.172	---	PASS
	Ant1	2462	18.319	2452.874	2471.193	---	PASS
	Ant2	2462	18.242	2452.927	2471.169	---	PASS
	Ant1	2467	18.222	2457.904	2476.126	---	PASS
	Ant2	2467	18.235	2457.945	2476.180	---	PASS
	Ant1	2472	18.295	2462.899	2481.194	---	PASS
	Ant2	2472	18.352	2462.888	2481.240	---	PASS
11N40MIMO	Ant1	2422	36.627	2403.779	2440.406	---	PASS
	Ant2	2422	36.623	2403.740	2440.363	---	PASS
	Ant1	2442	36.580	2423.792	2460.372	---	PASS
	Ant2	2442	36.592	2423.833	2460.425	---	PASS
	Ant1	2452	36.567	2433.804	2470.371	---	PASS
	Ant2	2452	36.534	2433.815	2470.349	---	PASS
	Ant1	2457	36.589	2438.795	2475.384	---	PASS
	Ant2	2457	36.670	2438.730	2475.400	---	PASS
	Ant1	2462	36.606	2443.784	2480.390	---	PASS
	Ant2	2462	36.868	2443.686	2480.554	---	PASS



Test Graphs

