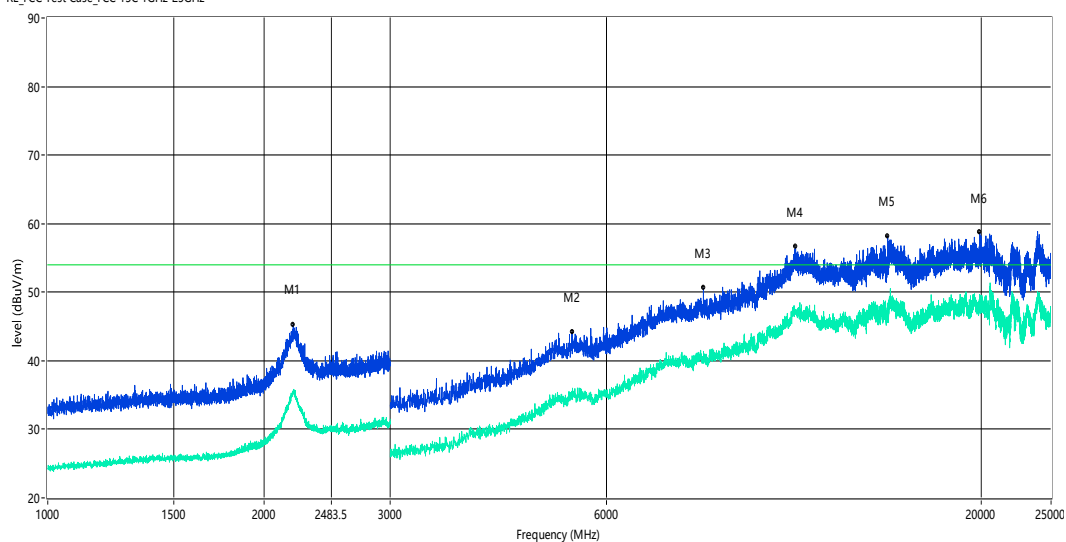




Horizontal

RE_FCC Test Case_FCC 15C 1GHz-25GHz



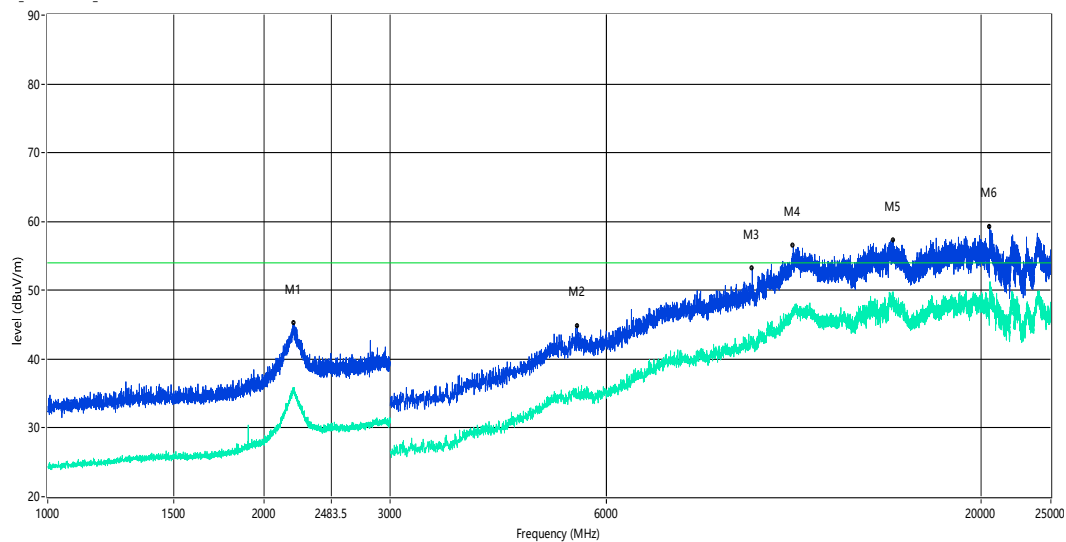
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2198.000	35.19	-7.32	54.0	-18.81	AV	H	Pass
1	2198.000	45.30	-7.32	74.0	-28.70	Peak	H	Pass
2**	5382.500	34.33	-1.47	54.0	-19.67	AV	H	Pass
2	5382.500	44.22	-1.47	74.0	-29.78	Peak	H	Pass
3**	8195.000	40.49	4.82	54.0	-13.51	AV	H	Pass
3	8195.000	50.61	4.82	74.0	-23.39	Peak	H	Pass
4**	11017.500	47.40	10.89	54.0	-6.60	AV	H	Pass
4	11017.500	56.60	10.89	74.0	-17.40	Peak	H	Pass
5**	14806.250	47.27	11.40	54.0	-6.73	AV	H	Pass
5	14806.250	58.20	11.40	74.0	-15.80	Peak	H	Pass
6**	19891.751	49.03	16.43	54.0	-4.97	AV	H	Pass
6	19891.751	58.70	16.43	74.0	-15.30	Peak	H	Pass



802.11 n(HT40) CH Low

Vertical

RE_FCC Test Case_FCC 15C 1GHz-25GHz

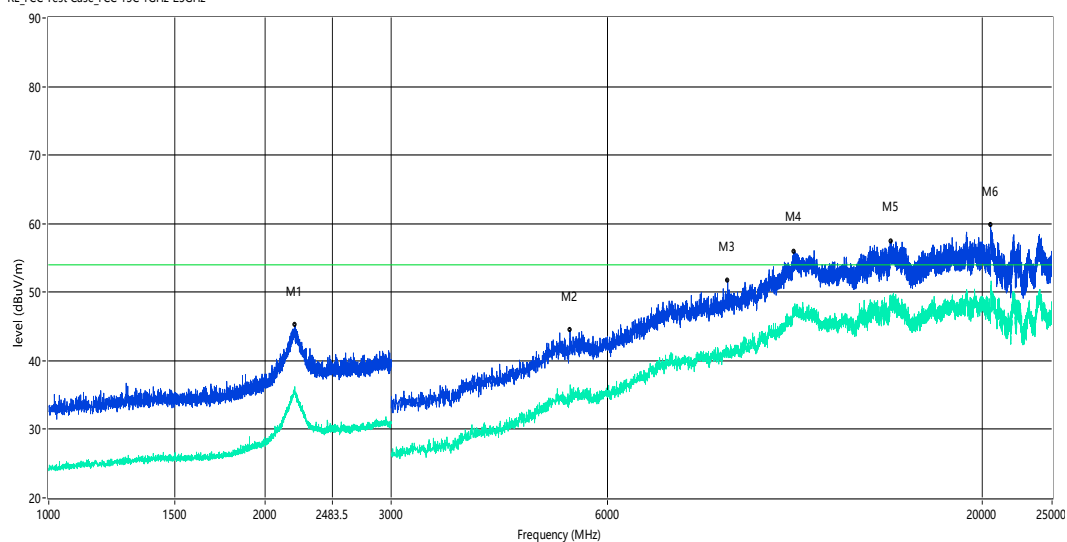


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2200.000	35.68	-7.21	54.0	-18.32	AV	V	Pass
1	2200.000	45.20	-7.21	74.0	-28.80	Peak	V	Pass
2**	5467.500	34.79	-1.49	54.0	-19.21	AV	V	Pass
2	5467.500	44.85	-1.49	74.0	-29.15	Peak	V	Pass
3**	9590.000	41.75	6.37	54.0	-12.25	AV	V	Pass
3	9590.000	53.19	6.37	74.0	-20.81	Peak	V	Pass
4**	10937.500	46.89	10.71	54.0	-7.11	AV	V	Pass
4	10937.500	56.43	10.71	74.0	-17.57	Peak	V	Pass
5**	15072.500	48.70	11.17	54.0	-5.30	AV	V	Pass
5	15072.500	57.18	11.17	74.0	-16.82	Peak	V	Pass
6**	20542.751	49.96	14.09	54.0	-4.04	AV	V	Pass
6	20542.751	59.27	14.09	74.0	-14.73	Peak	V	Pass



Horizontal

RE_FCC Test Case_FCC 15C 1GHz-25GHz



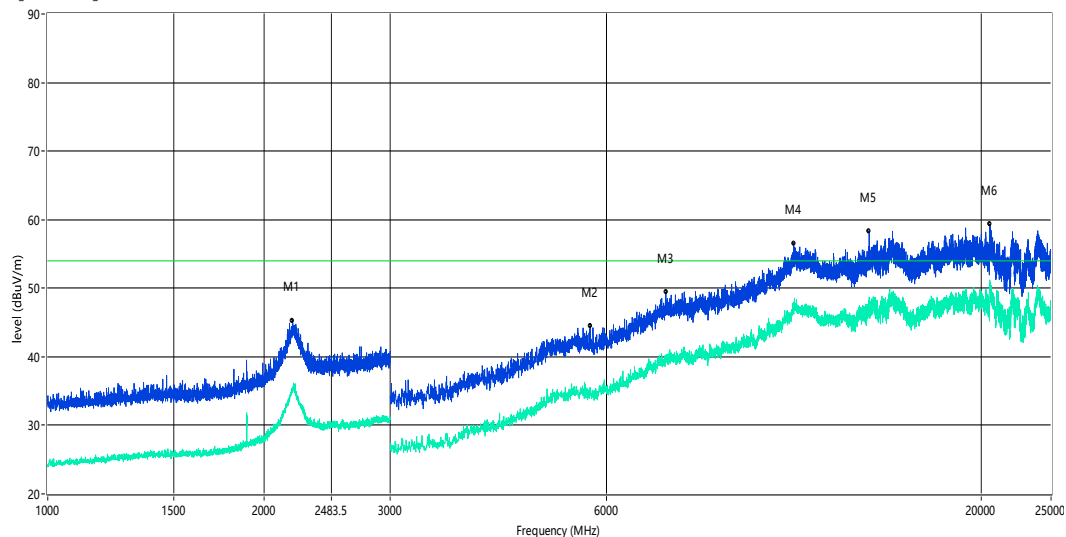
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2205.500	35.21	-7.48	54.0	-18.79	AV	H	Pass
1	2205.500	45.24	-7.48	74.0	-28.76	Peak	H	Pass
2**	5325.000	34.15	-1.94	54.0	-19.85	AV	H	Pass
2	5325.000	44.44	-1.94	74.0	-29.56	Peak	H	Pass
3**	8832.500	41.36	5.05	54.0	-12.64	AV	H	Pass
3	8832.500	51.67	5.05	74.0	-22.33	Peak	H	Pass
4**	10930.000	46.41	10.68	54.0	-7.59	AV	H	Pass
4	10930.000	55.96	10.68	74.0	-18.04	Peak	H	Pass
5**	14930.000	48.25	12.55	54.0	-5.75	AV	H	Pass
5	14930.000	57.45	12.55	74.0	-16.55	Peak	H	Pass
6**	20530.500	50.64	14.07	54.0	-3.36	AV	H	Pass
6	20530.500	59.84	14.07	74.0	-14.16	Peak	H	Pass



802.11 n(HT40) CH Middle

Vertical

RE_FCC Test Case_FCC 15C 1GHz-25GHz

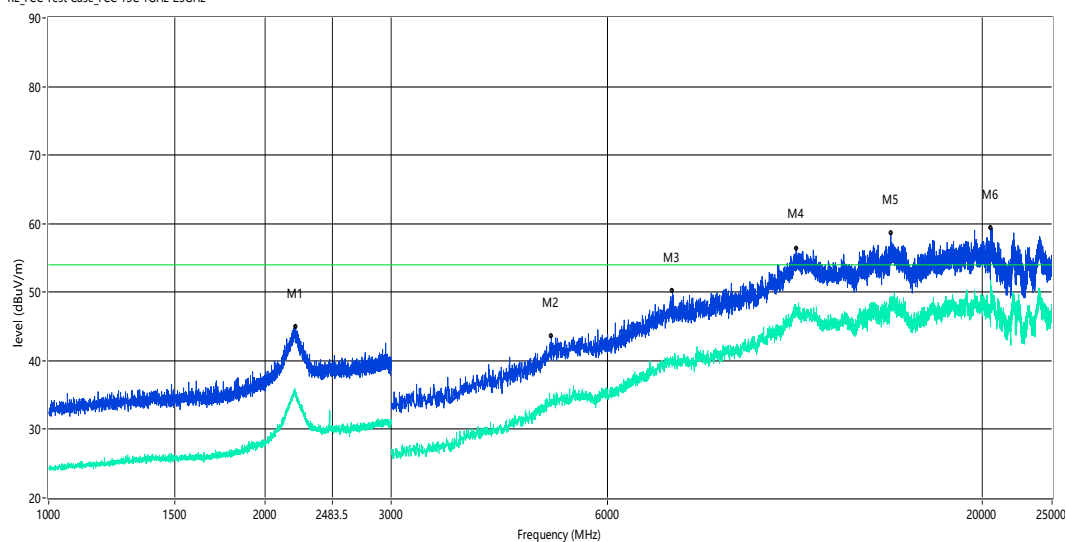


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2193.500	35.39	-7.55	54.0	-18.61	AV	V	Pass
1	2193.500	45.27	-7.55	74.0	-28.73	Peak	V	Pass
2**	5705.000	34.41	-1.48	54.0	-19.59	AV	V	Pass
2	5705.000	44.42	-1.48	74.0	-29.58	Peak	V	Pass
3**	7265.000	39.31	4.20	54.0	-14.69	AV	V	Pass
3	7265.000	49.45	4.20	74.0	-24.55	Peak	V	Pass
4**	10945.000	47.58	10.74	54.0	-6.42	AV	V	Pass
4	10945.000	56.52	10.74	74.0	-17.48	Peak	V	Pass
5**	13947.500	48.48	11.18	54.0	-5.52	AV	V	Pass
5	13947.500	58.24	11.18	74.0	-15.76	Peak	V	Pass
6**	20530.500	51.08	14.07	54.0	-2.92	AV	V	Pass
6	20530.500	59.29	14.07	74.0	-14.71	Peak	V	Pass



Horizontal

RE_FCC Test Case_FCC 15C 1GHz-25GHz



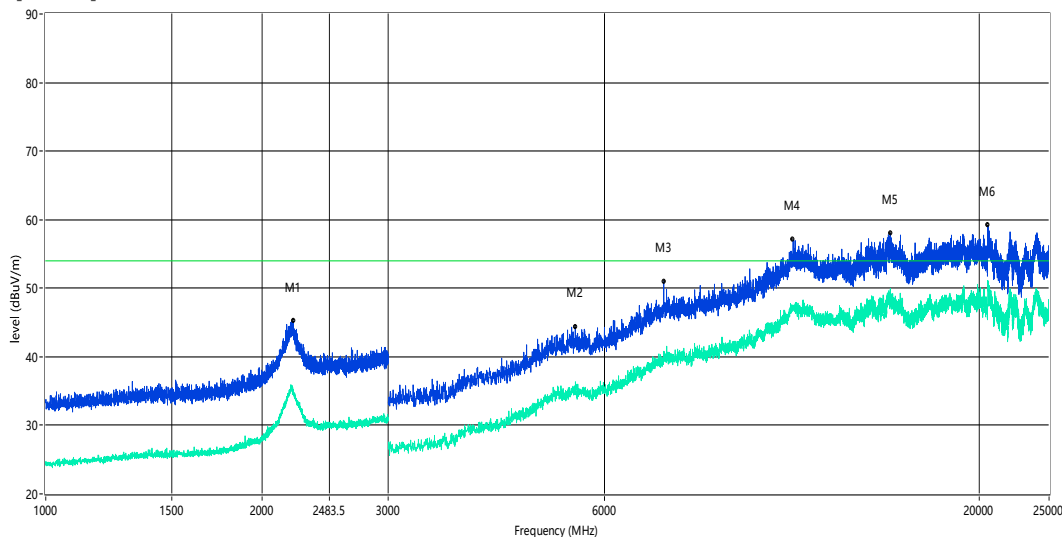
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2208.500	34.88	-7.62	54.0	-19.12	AV	H	Pass
1	2208.500	44.96	-7.62	74.0	-29.04	Peak	H	Pass
2**	5015.000	33.50	-2.43	54.0	-20.50	AV	H	Pass
2	5015.000	43.51	-2.43	74.0	-30.49	Peak	H	Pass
3**	7400.000	40.07	4.40	54.0	-13.93	AV	H	Pass
3	7400.000	50.12	4.40	74.0	-23.88	Peak	H	Pass
4**	11000.001	47.59	10.97	54.0	-6.41	AV	H	Pass
4	11000.001	56.39	10.97	74.0	-17.61	Peak	H	Pass
5**	14905.000	47.79	12.62	54.0	-6.21	AV	H	Pass
5	14905.000	58.57	12.62	74.0	-15.43	Peak	H	Pass
6**	20541.000	49.57	14.09	54.0	-4.43	AV	H	Pass
6	20541.000	59.37	14.09	74.0	-14.63	Peak	H	Pass



802.11 n(HT40) CH High

Vertical

RE_FCC Test Case_FCC 15C 1GHz-25GHz

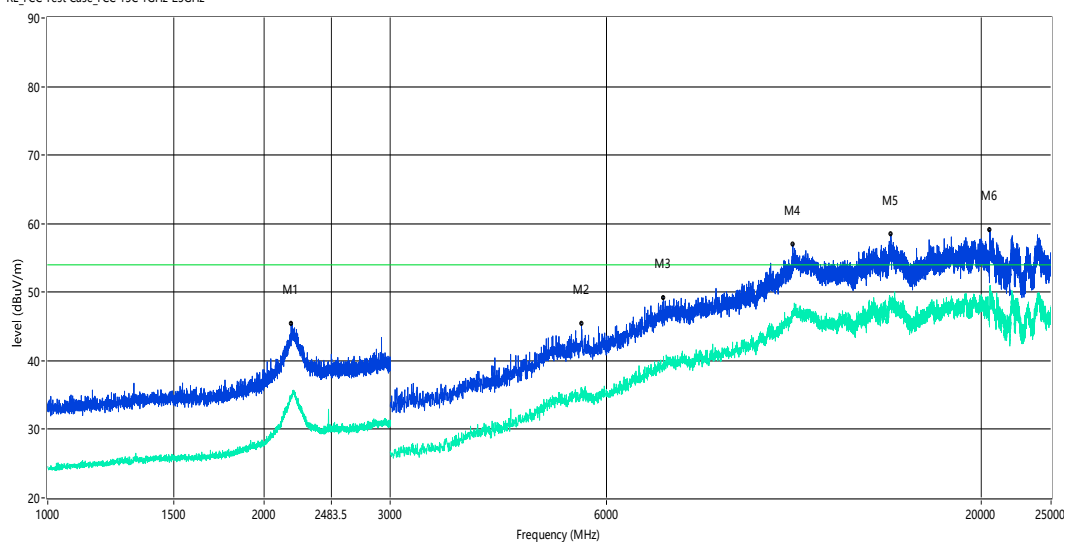


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2212.000	34.77	-7.79	54.0	-19.23	AV	V	Pass
1	2212.000	45.22	-7.79	74.0	-28.78	Peak	V	Pass
2**	5467.500	34.45	-1.49	54.0	-19.55	AV	V	Pass
2	5467.500	44.40	-1.49	74.0	-29.60	Peak	V	Pass
3**	7262.500	39.27	4.18	54.0	-14.73	AV	V	Pass
3	7262.500	50.97	4.18	74.0	-23.03	Peak	V	Pass
4**	10997.500	47.07	10.96	54.0	-6.93	AV	V	Pass
4	10997.500	57.05	10.96	74.0	-16.95	Peak	V	Pass
5**	15036.250	48.82	11.76	54.0	-5.18	AV	V	Pass
5	15036.250	58.02	11.76	74.0	-15.98	Peak	V	Pass
6**	20553.251	50.00	14.10	54.0	-4.00	AV	V	Pass
6	20553.251	59.18	14.10	74.0	-14.82	Peak	V	Pass



Horizontal

RE_FCC Test Case_FCC 15C 1GHz-25GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	ANT	Verdict
1**	2183.000	34.80	-8.11	54.0	-19.20	AV	H	Pass
1	2183.000	45.37	-8.11	74.0	-28.63	Peak	H	Pass
2**	5542.500	35.28	-1.37	54.0	-18.72	AV	H	Pass
2	5542.500	45.37	-1.37	74.0	-28.63	Peak	H	Pass
3**	7207.500	38.90	3.73	54.0	-15.10	AV	H	Pass
3	7207.500	49.21	3.73	74.0	-24.79	Peak	H	Pass
4**	10919.999	46.96	10.64	54.0	-7.04	AV	H	Pass
4	10919.999	56.94	10.64	74.0	-17.06	Peak	H	Pass
5**	14958.750	48.98	12.47	54.0	-5.02	AV	H	Pass
5	14958.750	58.46	12.47	74.0	-15.54	Peak	H	Pass
6**	20539.251	49.80	14.09	54.0	-4.20	AV	H	Pass
6	20539.251	59.11	14.09	74.0	-14.89	Peak	H	Pass

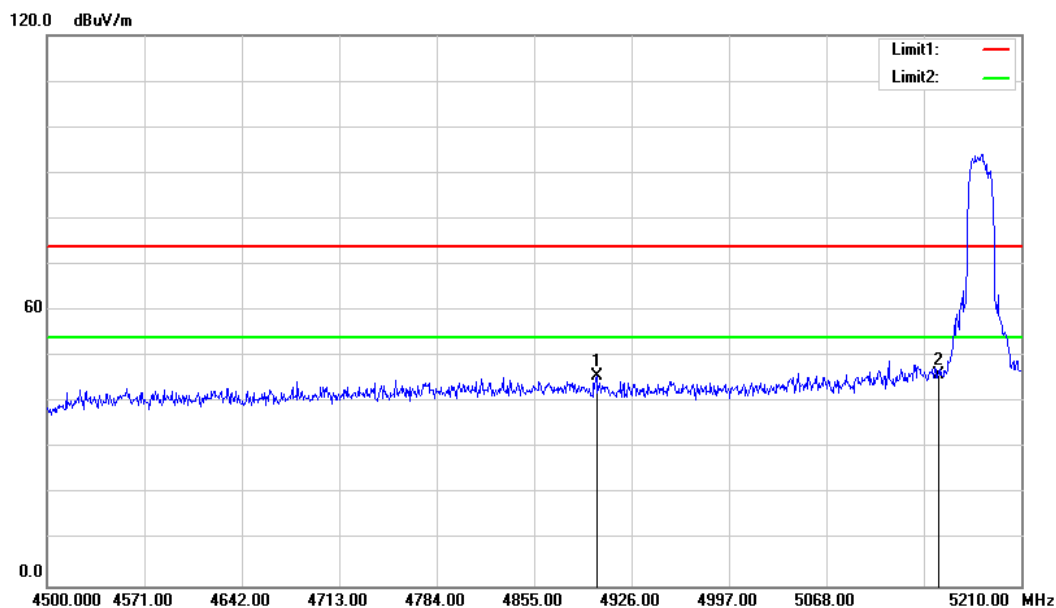


3.2.9 Band Edge

U-NII-1 (5.15-5.25)GHz

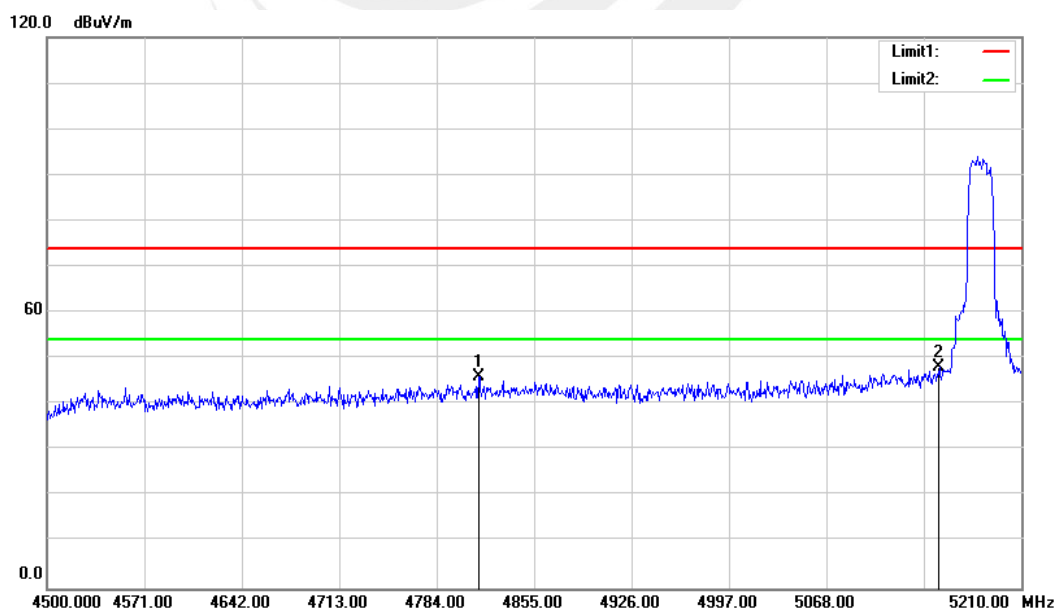
802.11 a CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4900.440	51.41	-5.54	45.87	74.00	-28.13	peak
2	5150.000	46.85	-0.87	45.98	74.00	-28.02	peak

Vertical

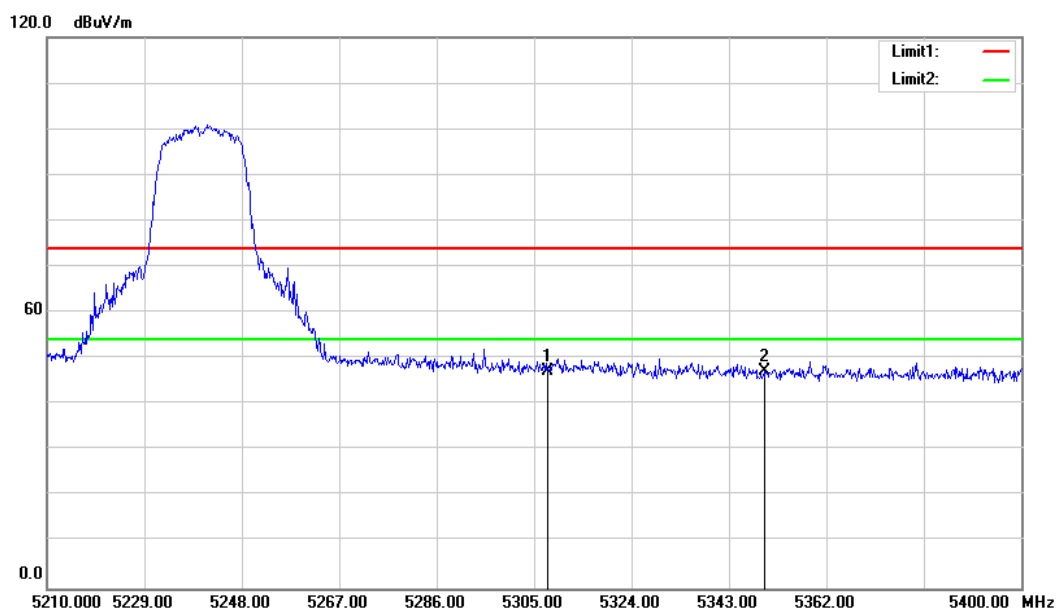


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4814.885	52.07	-6.02	46.05	74.00	-27.95	peak
2	5150.000	49.00	-0.87	48.13	74.00	-25.87	peak



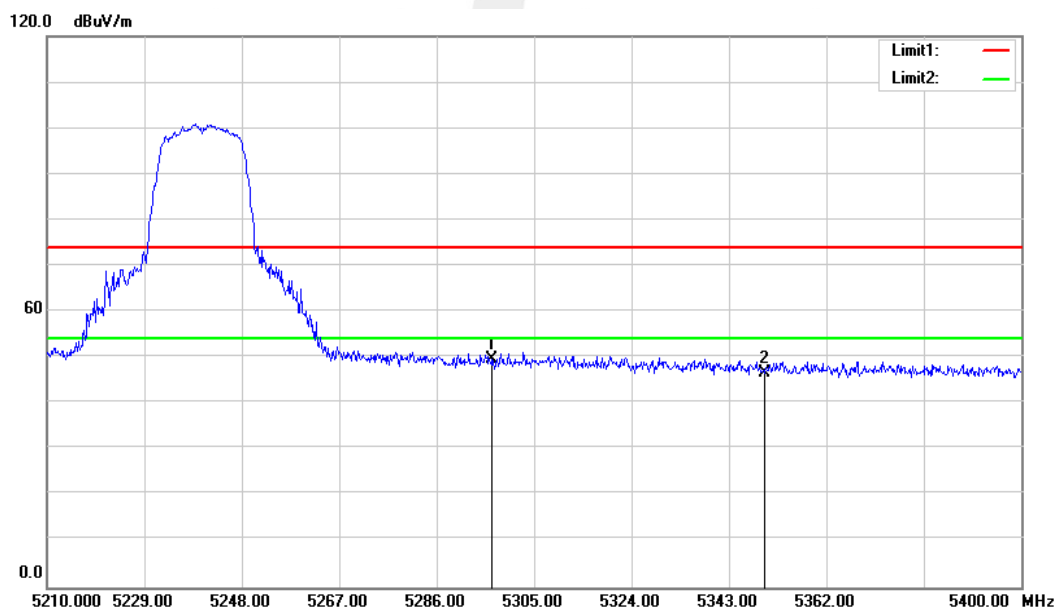
802.11 a CH High

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5307.660	48.16	-1.04	47.12	74.00	-26.88	peak
2	5350.000	48.85	-1.61	47.24	74.00	-26.76	peak

Vertical

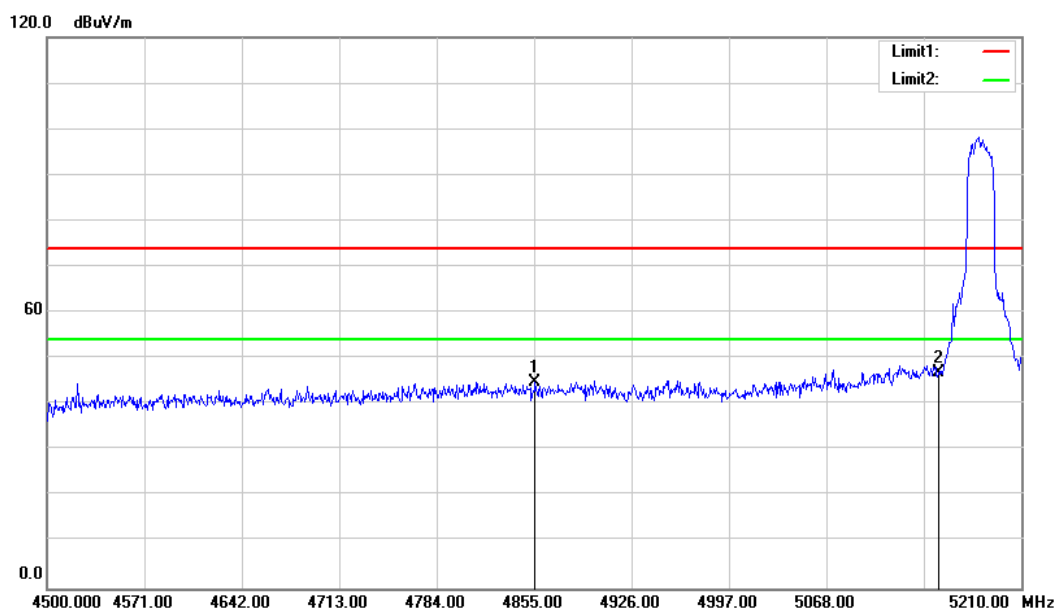


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5296.925	50.56	-0.90	49.66	74.00	-24.34	peak
2	5350.000	48.14	-1.61	46.53	74.00	-27.47	peak



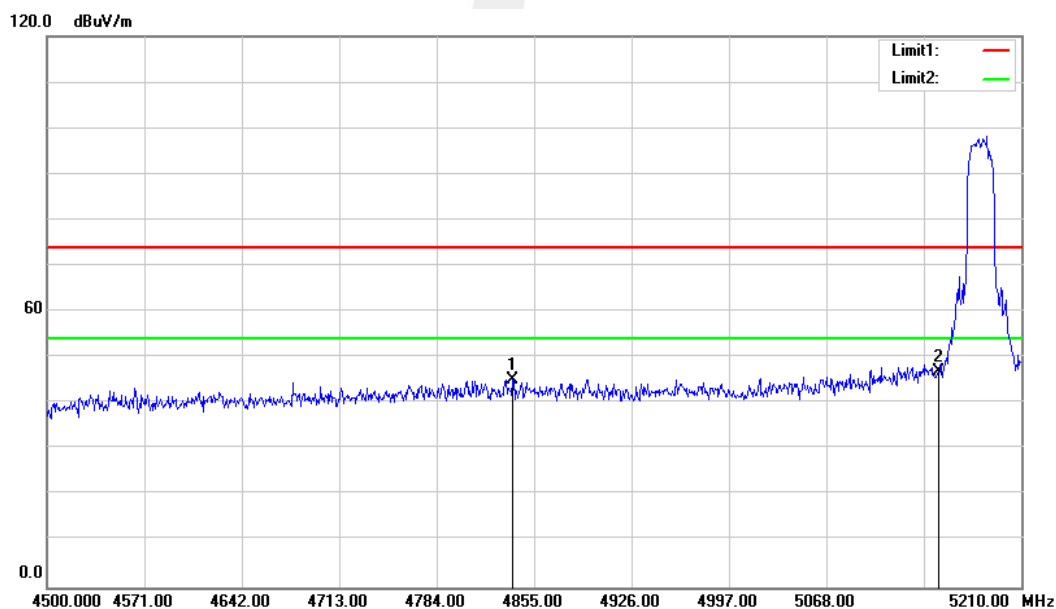
802.11 n(HT20) CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4856.065	50.77	-5.79	44.98	74.00	-29.02	peak
2	5150.000	47.72	-0.87	46.85	74.00	-27.15	peak

Vertical

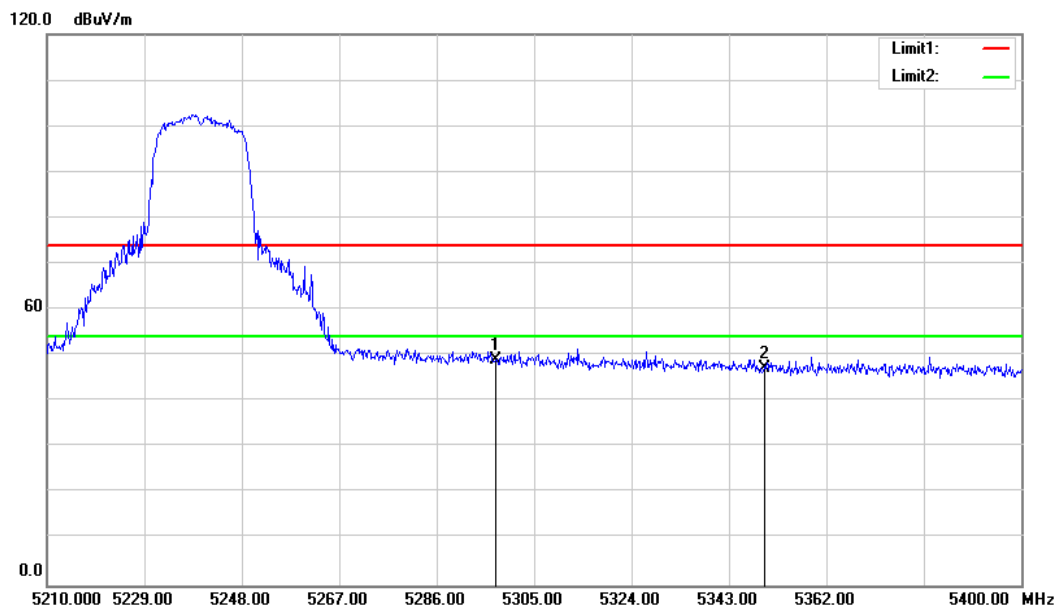


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4839.735	51.02	-5.88	45.14	74.00	-28.86	peak
2	5150.000	47.83	-0.87	46.96	74.00	-27.04	peak



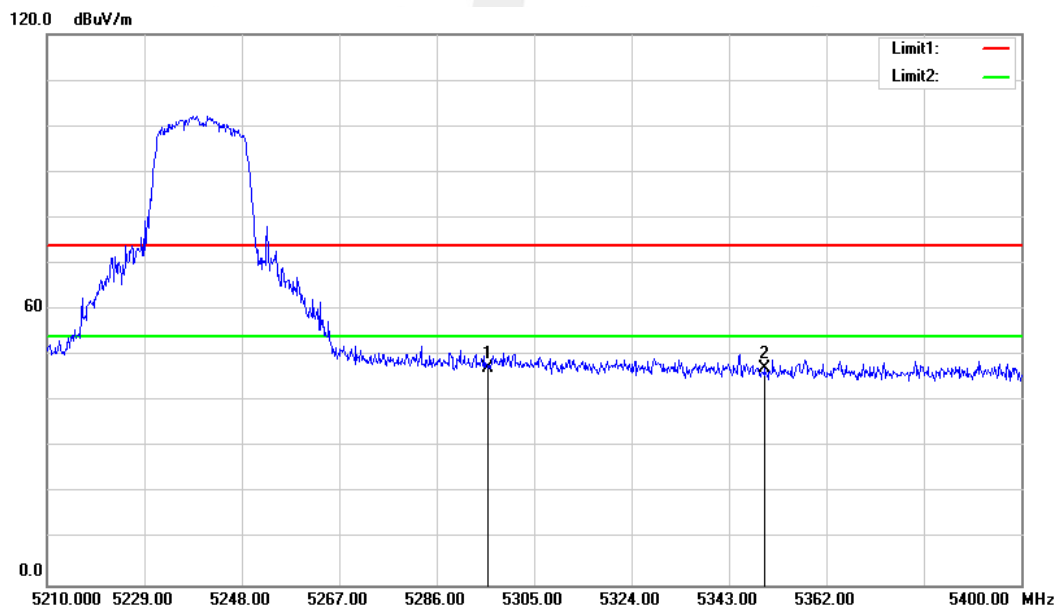
802.11 n(HT20) CH High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5297.685	49.88	-0.91	48.97	74.00	-25.03	peak
2	5350.000	48.98	-1.61	47.37	74.00	-26.63	peak

Vertical

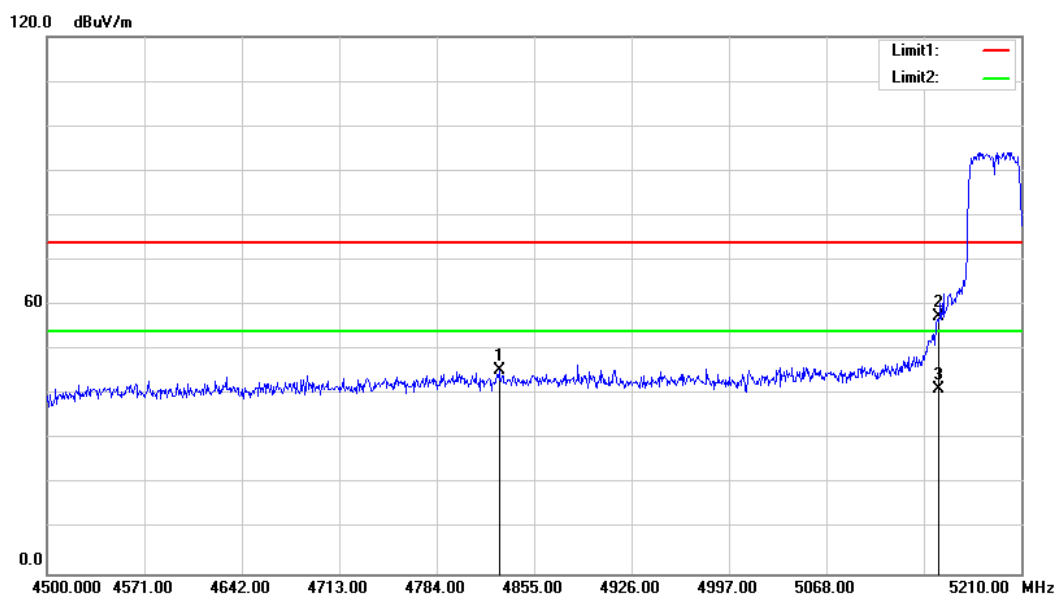


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5296.070	48.05	-0.89	47.16	74.00	-26.84	peak
2	5350.000	48.98	-1.61	47.37	74.00	-26.63	peak



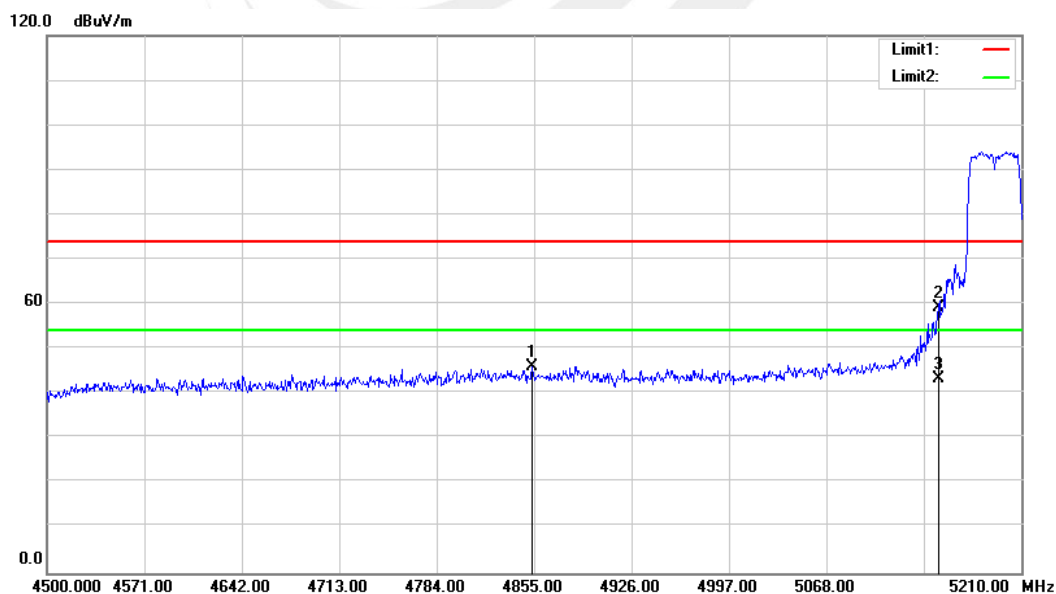
802.11 n(HT40) CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4829.440	51.47	-5.94	45.53	74.00	-28.47	peak
2	5150.000	58.41	-0.87	57.54	74.00	-16.46	peak
3	5150.000	42.21	-0.87	41.34	54.00	-12.66	AVG

Vertical

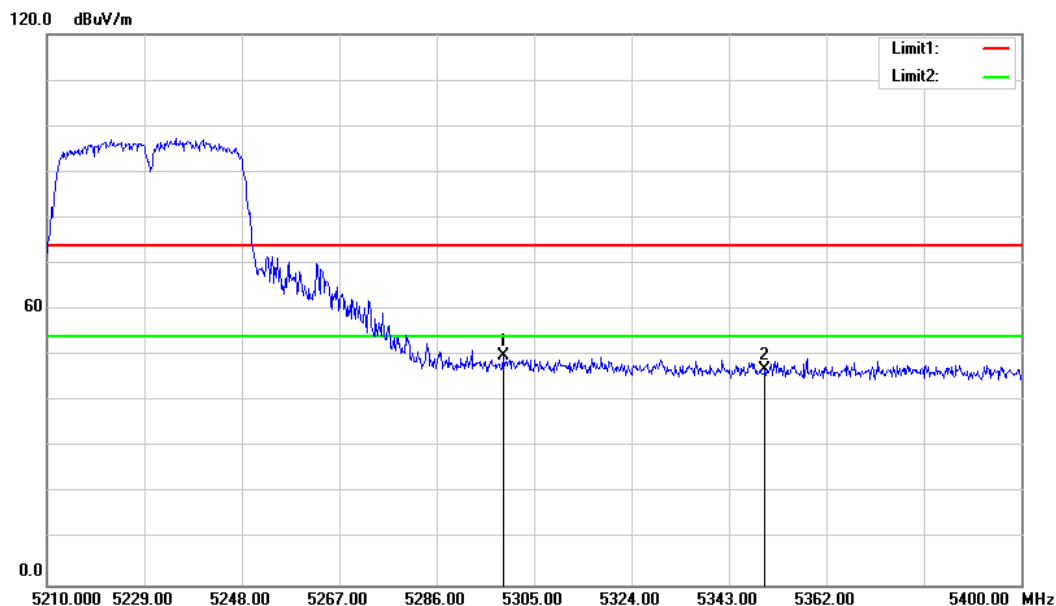


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4853.935	51.98	-5.80	46.18	74.00	-27.82	peak
2	5150.000	60.27	-0.87	59.40	74.00	-14.60	peak
3	5150.000	44.08	-0.87	43.21	54.00	-10.79	AVG



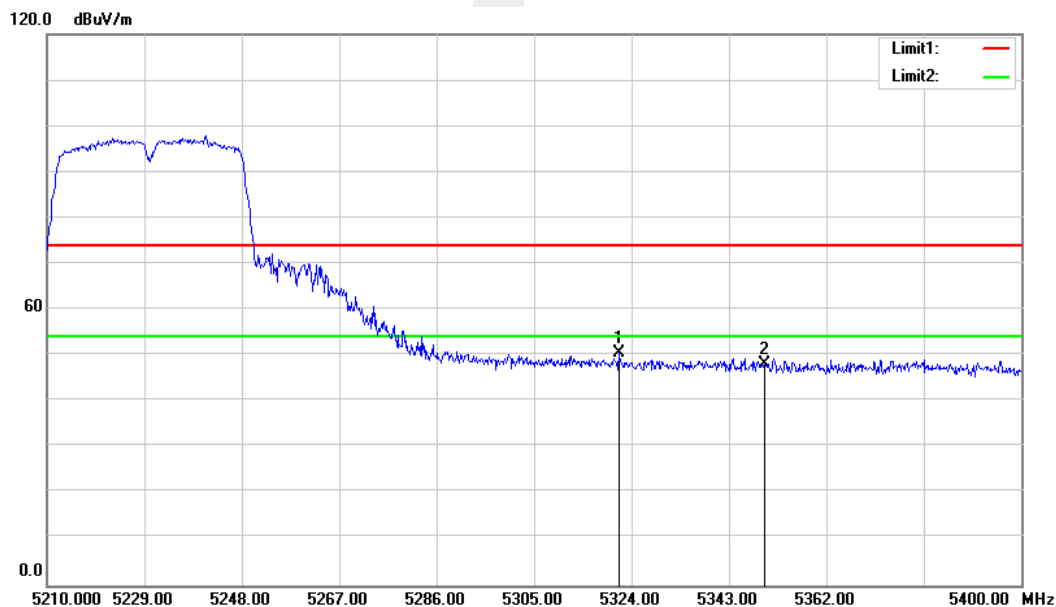
802.11 n(HT40) CH High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5299.015	50.97	-0.93	50.04	74.00	-23.96	peak
2	5350.000	48.49	-1.61	46.88	74.00	-27.12	peak

Vertical



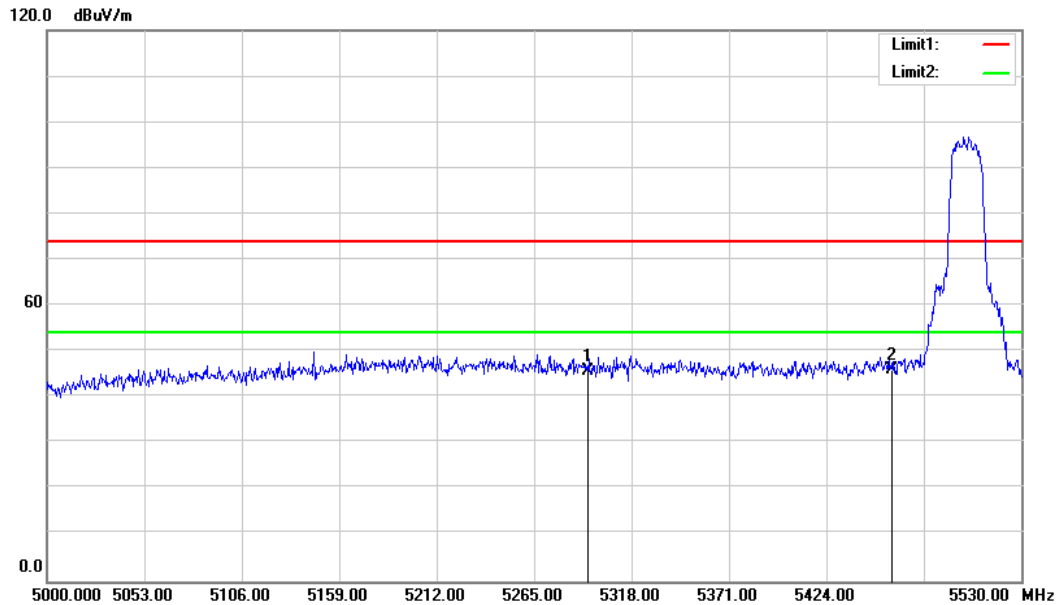
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5321.625	51.78	-1.23	50.55	74.00	-23.45	peak
2	5350.000	49.69	-1.61	48.08	74.00	-25.92	peak



U-NII-2C 5470-5725MHz

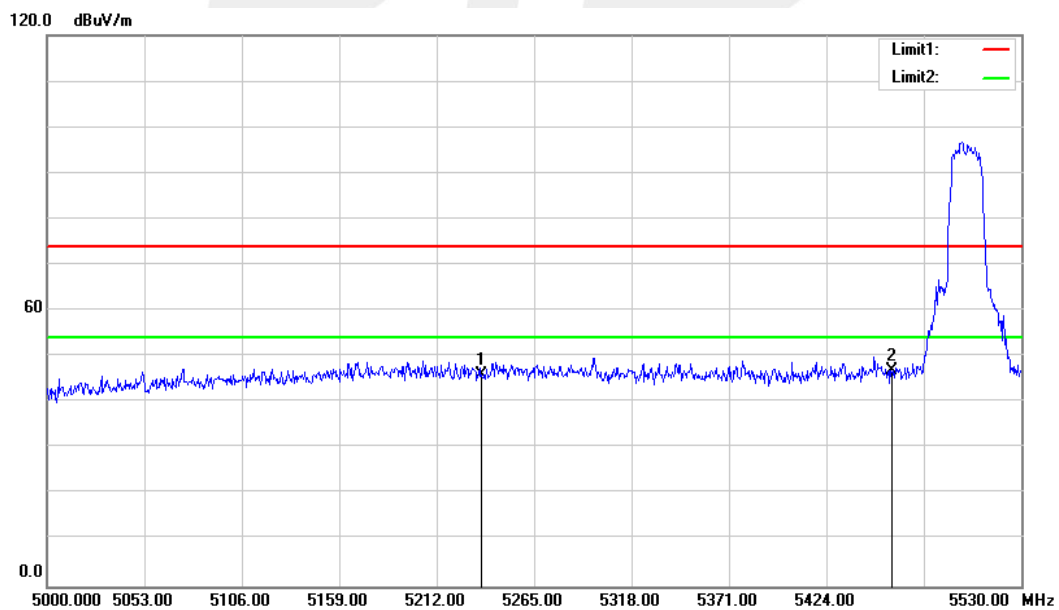
802.11 a CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5294.415	46.76	-0.88	45.88	74.00	-28.12	peak
2	5460.000	48.98	-2.91	46.07	74.00	-27.93	peak

Vertical

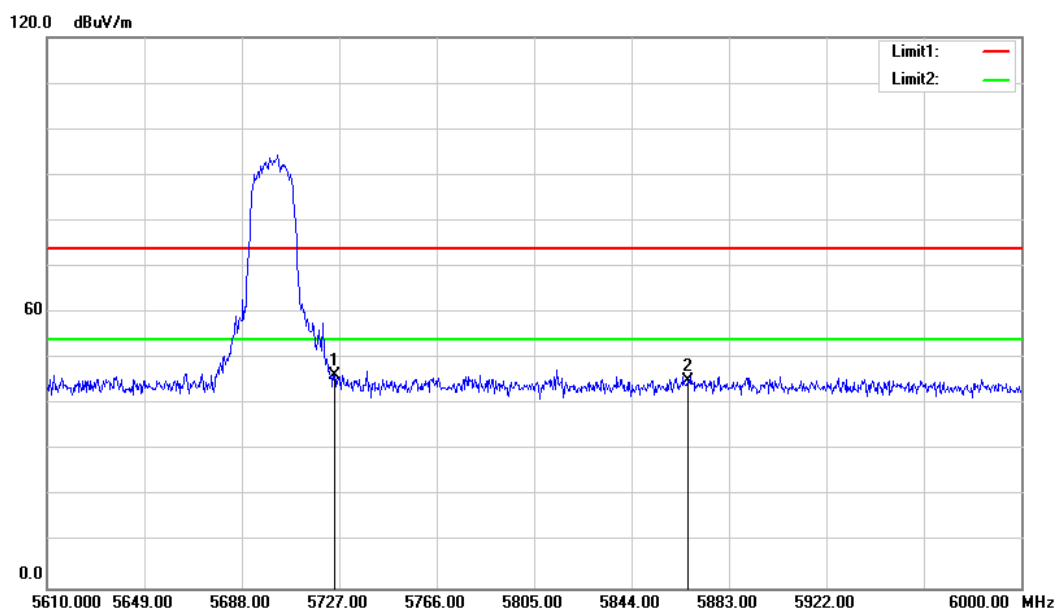


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5236.645	46.22	-0.26	45.96	74.00	-28.04	peak
2	5460.000	49.74	-2.91	46.83	74.00	-27.17	peak



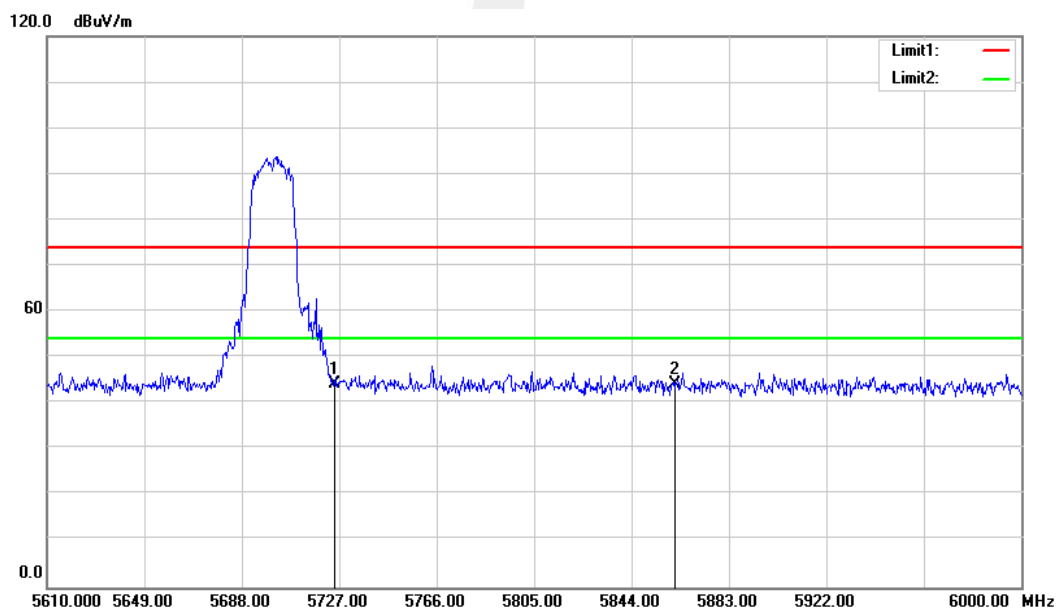
802.11 a CH High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	50.01	-3.61	46.40	74.00	-27.60	peak
2	5866.815	48.25	-3.24	45.01	74.00	-28.99	peak

Vertical

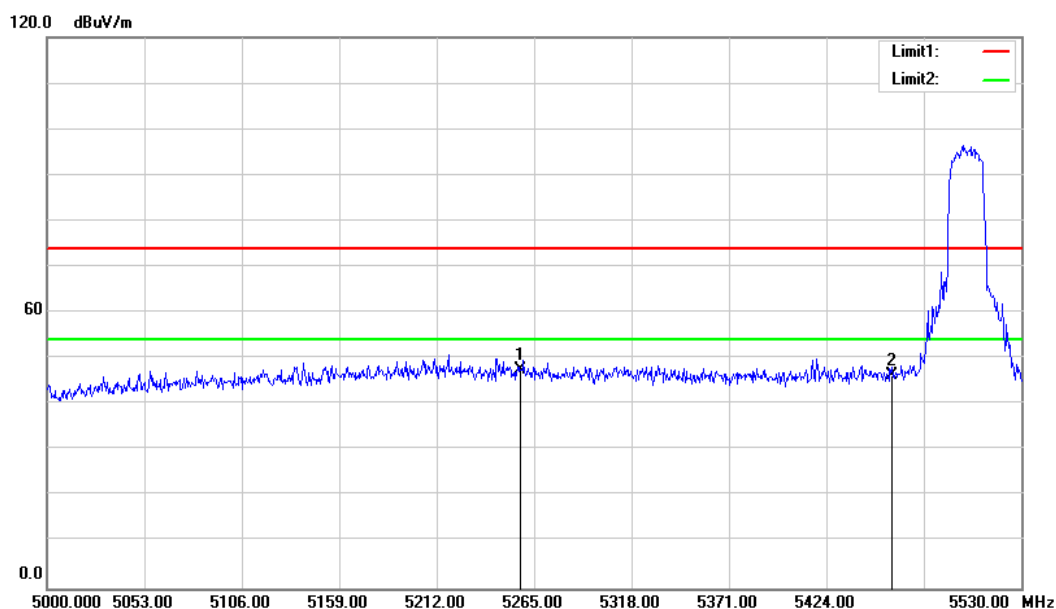


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	47.91	-3.61	44.30	74.00	-29.70	peak
2	5861.550	47.41	-3.25	44.16	74.00	-29.84	peak



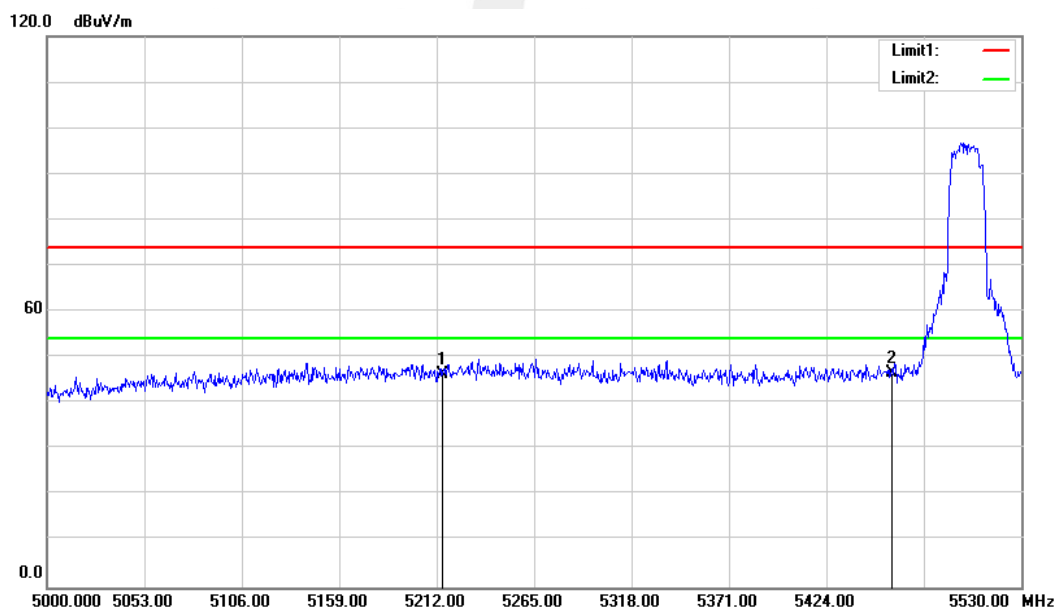
802.11 n(HT20) CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5257.845	47.89	-0.48	47.41	74.00	-26.59	peak
2	5460.000	49.28	-2.91	46.37	74.00	-27.63	peak

Vertical

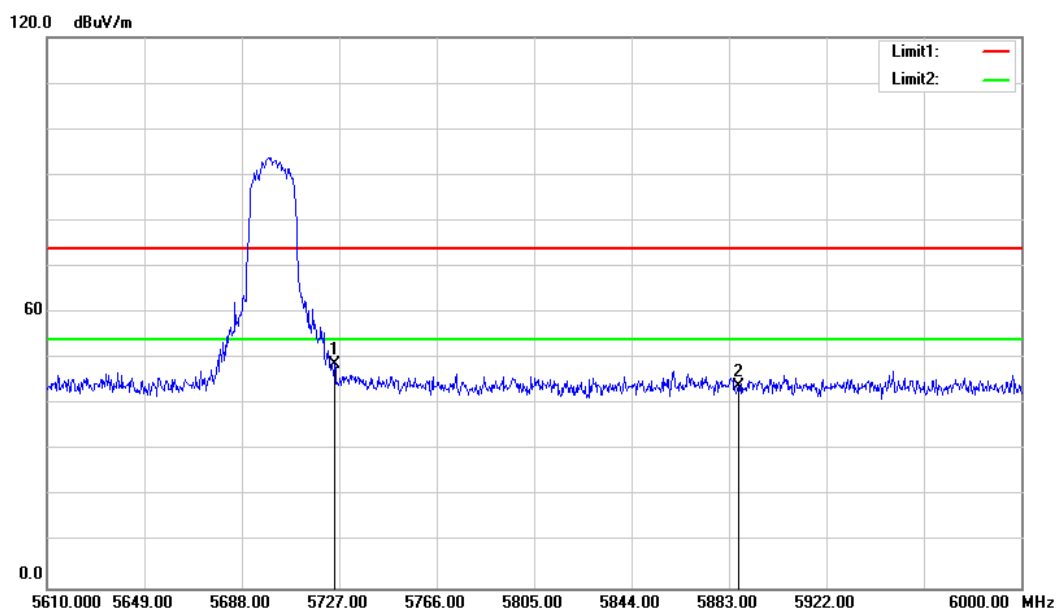


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5215.445	46.45	-0.03	46.42	74.00	-27.58	peak
2	5460.000	49.43	-2.91	46.52	74.00	-27.48	peak



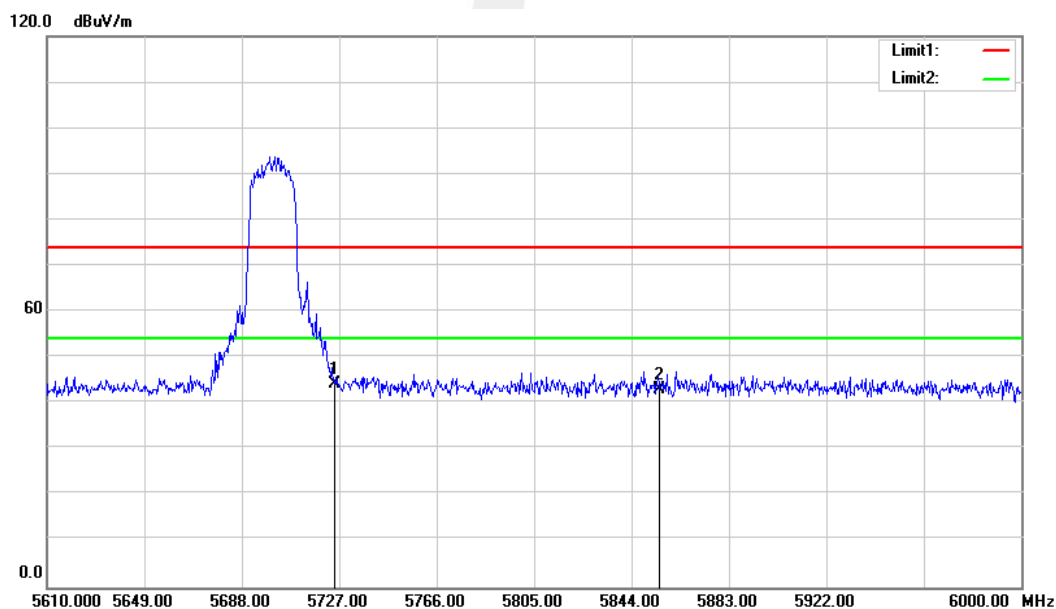
802.11 n(HT20) CH High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	52.30	-3.61	48.69	74.00	-25.31	peak
2	5887.095	47.06	-3.19	43.87	74.00	-30.13	peak

Vertical

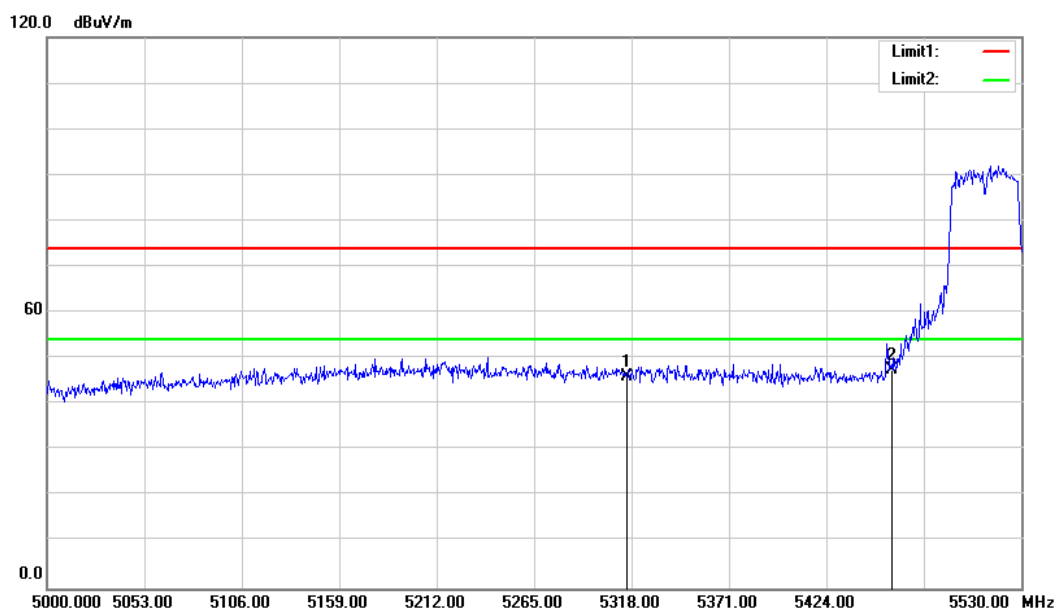


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	47.83	-3.61	44.22	74.00	-29.78	peak
2	5855.505	46.35	-3.27	43.08	74.00	-30.92	peak



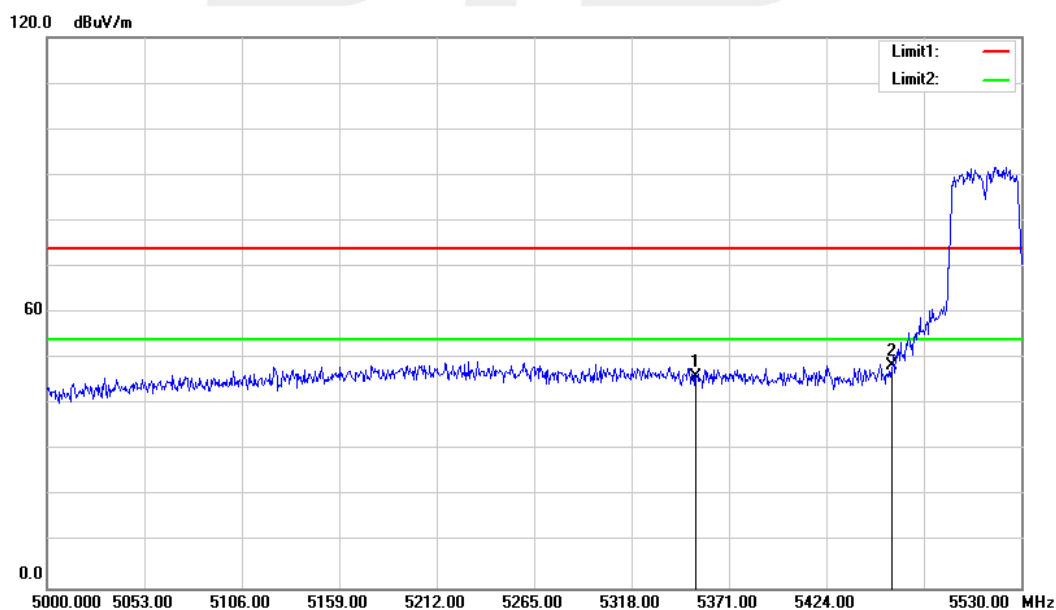
802.11 n(HT40) CH Low

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5315.615	47.24	-1.15	46.09	74.00	-27.91	peak
2	5460.000	50.42	-2.91	47.51	74.00	-26.49	peak

Vertical

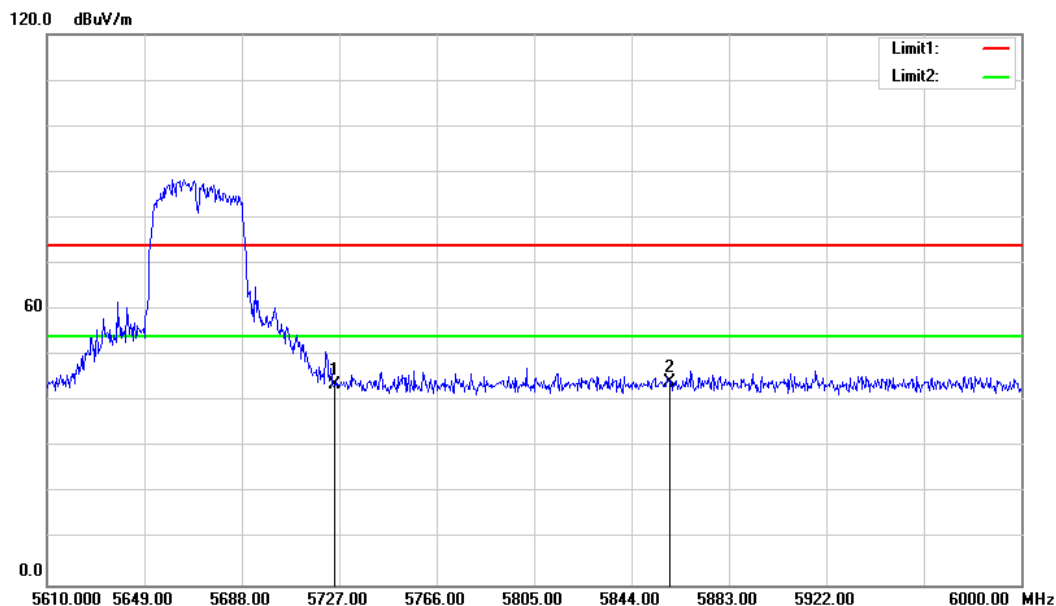


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5353.245	47.79	-1.66	46.13	74.00	-27.87	peak
2	5460.000	51.33	-2.91	48.42	74.00	-25.58	peak



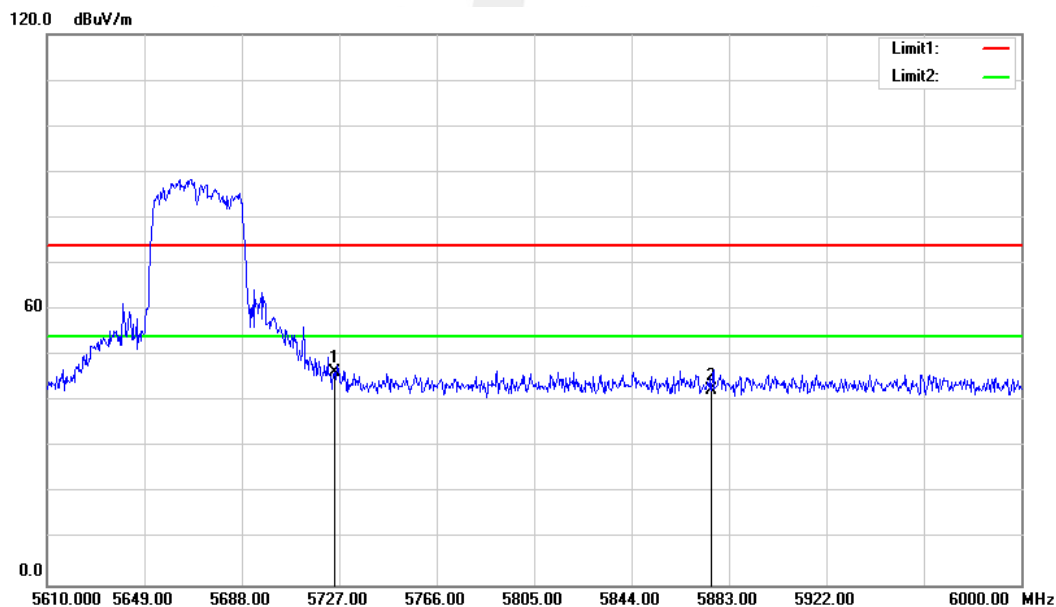
802.11 n(HT40) CH High

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	47.34	-3.61	43.73	74.00	-30.27	peak
2	5859.210	47.40	-3.27	44.13	74.00	-29.87	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5725.000	50.02	-3.61	46.41	74.00	-27.59	peak
2	5875.980	45.53	-3.22	42.31	74.00	-31.69	peak



4. POWER SPECTRAL DENSITY TEST

4.1 LIMIT

1. For mobile and portable client devices in the 5.15-5.25 GHz band, , the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2 TEST PROCEDURE

1. The setting follows Method SA-1 of FCC KDB D02 General UNII Test Procedures New Rules v01r03.

For devices operating in the band, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (*i.e.*, 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3$ RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ KHz}$ is available on nearly all spectrum analyzers.

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS

Data see Attachment A1



5. BANDWIDTH MEASUREMENT

5.1 EMISSION BANDWIDTH (EBW) 26 BANDWID PROCEDURES / LIMIT

See list of measuring instruments of this test report.

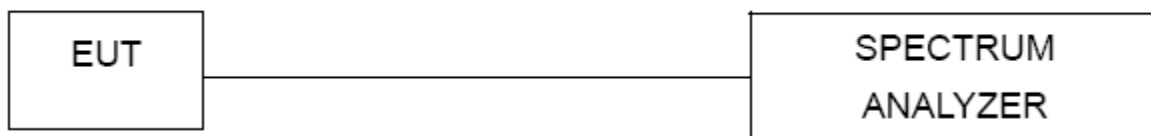
5.1.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW $\geq$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

Data see Attachment B1

5.2 OCCUPIED BANDWIDTH (99%) TEST APPLIED PROCEDURES / LIMIT

The following procedure shall be used for measuring (99 %) power bandwidth:

5.2.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

5.2.2 DEVIATION FROM STANDARD

No deviation.

5.2.3 TEST SETUP



5.2.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.2.5 TEST RESULTS

Data See Attachment B1

5.3 MINIMUM EMISSION BANDWIDTH(6 DB) PROCEDURES / LIMIT

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

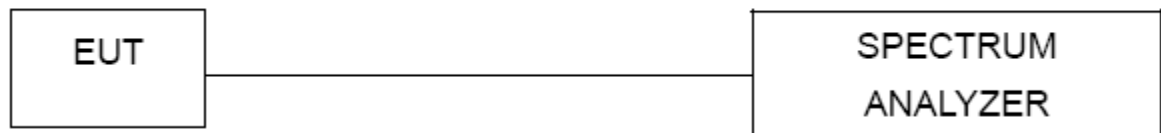
5.3.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.
 - a) Set RBW = 100 kHz.
 - b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3.2 DEVIATION FROM STANDARD

No deviation.

6.3.3 TEST SETUP



5.3.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.3.5 TEST RESULTS

Note: The EUT is not support band 5.725-5.85 GHz, so is not applicable.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 LIMIT

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz, if transmitting antennas of directional gain greater than 6 dBi are used.

FCC Part15 (15.407) , Subpart E				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.407(a) (1) (iv)	Peak Output Power	0.25 watt	5150-5250	PASS
		The lesser of 250 mW or 11 dBm + 10 log (26 dB emission bandwidth)	5250-5350 5470-5725	

6.2 TEST PROCEDURE

The EUT was directly connected to the Power Sensor&PC

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 5 Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULTS

U-NII-1 (5.15-5.25GHz)

U-NII-1 (5.15-5.25GHz)			
Test Channel	Frequency (MHz)	AV Power (dBm)	LIMIT (dBm)
802.11a			
Low	5180	12.07	23.98
Middle	5200	11.37	23.98
High	5240	11.65	23.98
802.11n(HT20)			
Low	5180	11.55	23.98
Middle	5200	11.43	23.98
High	5240	11.63	23.98
802.11n(HT40)			
Low	5190	11.47	23.98
High	5230	11.22	23.98

Note:

1. For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 0.25 W.



U-NII-2C (5.47-5.725GHz)

U-NII-2C (5.47-5.725GHz)			
Test Channel	Frequency (MHz)	AV Power (dBm)	LIMIT (dBm)
802.11a			
Low	5500	11.77	23.98
Middle	5580	12.19	23.98
High	5700	12.16	23.98
802.11n(HT20)			
Low	5500	11.98	23.98
Middle	5580	12.05	23.98
High	5700	12.12	23.98
802.11n(HT40)			
Low	5510	11.79	23.98
Middle	5550	12.02	23.98
High	5670	12.07	23.98

Note:

1. For mobile and portable client devices in the 5.47-5.725 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 0.25 W.



7. AUTOMATICALLY DISCONTINUE TRANSMISSION

7.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

7.2 TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission





8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

8.2 EUT ANTENNA

The EUT antenna is PCB Antenna. It comply with the standard requirement.





9.FREQUENCY STABILITY

9.1 LIMITS

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.02\%$ of the operating frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees.

9.2 TEST PROCEDURE

- 1.The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- 2.Turn the EUT on and couple its output to spectrum analyzer.
- 3.Turn the EUT off and set the chamber to the highest temperature specified.
- 4.Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2,5, and 10 minutes.
- 5.Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- 6.The test chamber was allowed to stabilize at $+20$ degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

9.3 TEST RESULT

Channel 40 (5200MHz)

Voltage vs. Frequency Stability

Voltage vs. Frequency Stability Voltage(V)	Measurement Frequency(MHz)
5.75	5200.0038
5	5200.0029
4.25	5200.0033
Max.Deviation(MHz)	0.0038
Max.Deviation(ppm)	0.73

Rated working voltage:DC 5V

Temperature vs. Frequency Stability

Temperature($^{\circ}$ C)	Measurement Frequency(MHz)
-30	5200.0041
-20	5200.0032
-10	5200.0031
0	5200.0034
10	5200.0040
20	5200.0034
30	5200.0039
40	5200.0036
50	5200.0032
Max.Deviation(MHz)	0.0041
Max.Deviation(ppm)	0.79