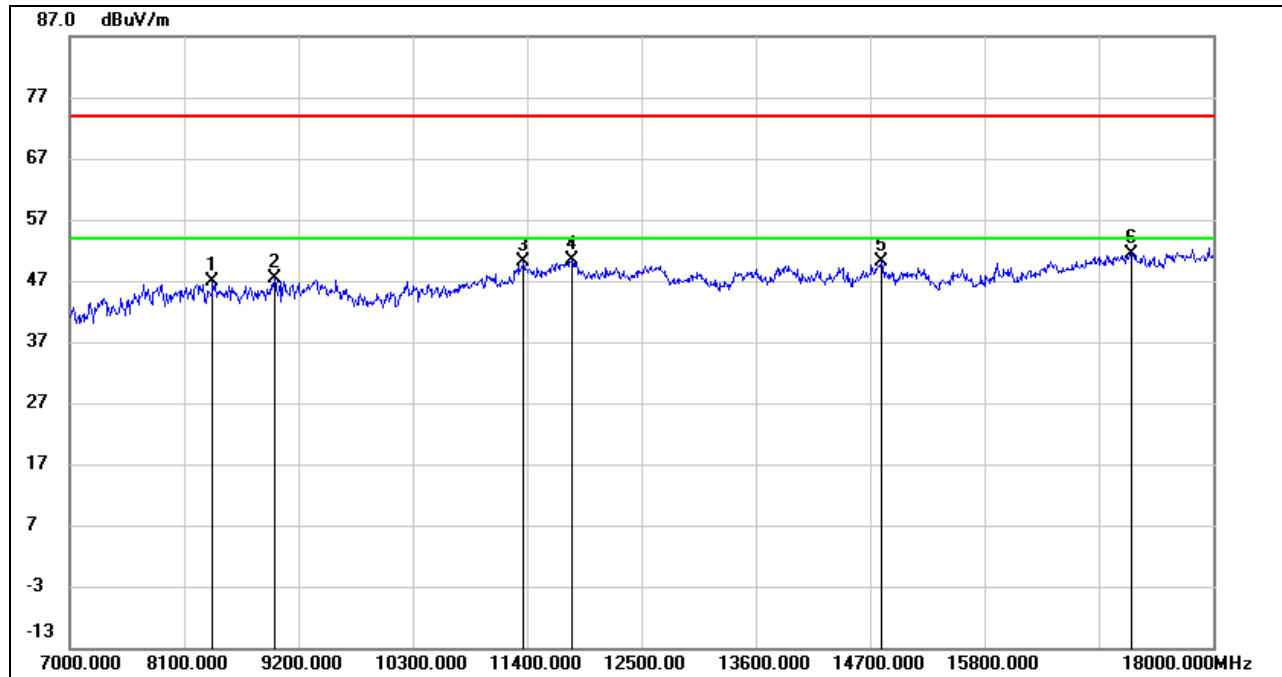


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8379.400	38.14	8.67	46.81	74.00	-27.19	peak
2	8969.000	37.14	10.31	47.45	74.00	-26.55	peak
3	11368.100	35.90	14.12	50.02	74.00	-23.98	peak
4	11831.200	34.88	15.56	50.44	74.00	-23.56	peak
5	14812.200	33.31	16.81	50.12	74.00	-23.88	peak
6	17221.200	30.47	21.01	51.48	74.00	-22.52	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.

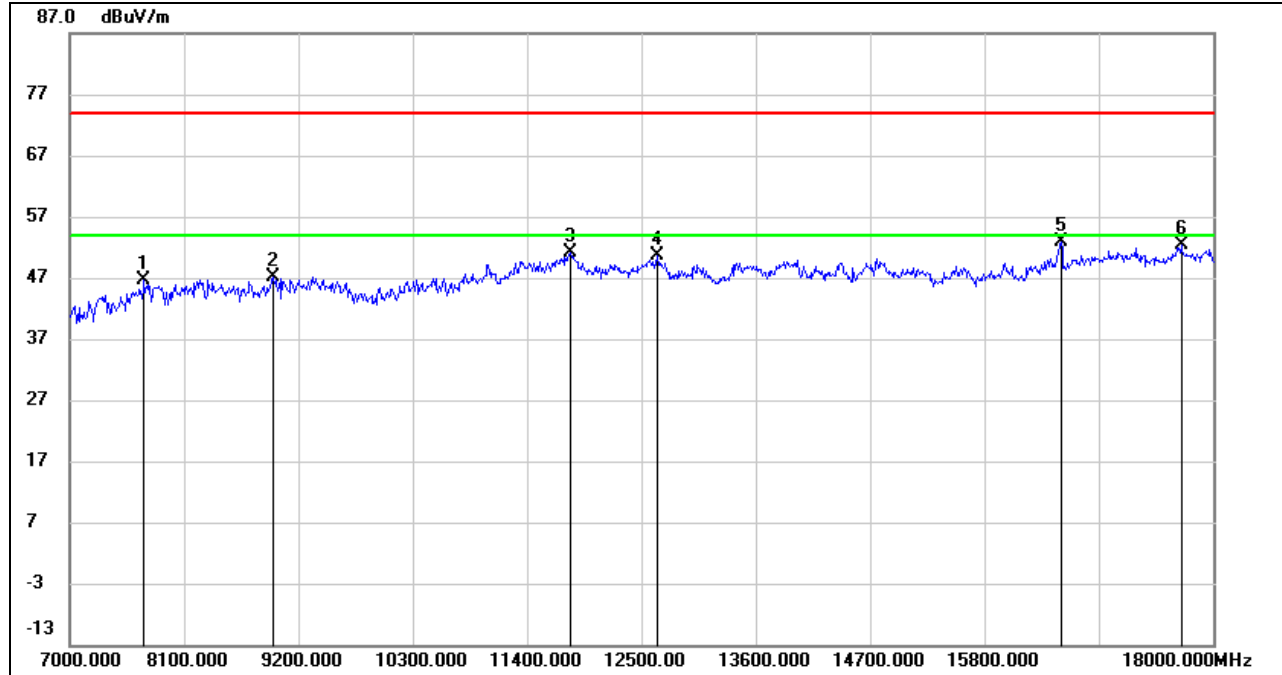
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

UNII-2C BAND

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7720.500	38.70	7.95	46.65	74.00	-27.35	peak
2	8965.700	36.81	10.27	47.08	74.00	-26.92	peak
3	11820.200	35.48	15.59	51.07	74.00	-22.93	peak
4	12658.400	35.24	15.40	50.64	74.00	-23.36	peak
5	16544.700	33.69	19.31	53.00	74.00	-21.00	peak
6	17692.000	30.46	21.87	52.33	74.00	-21.67	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.

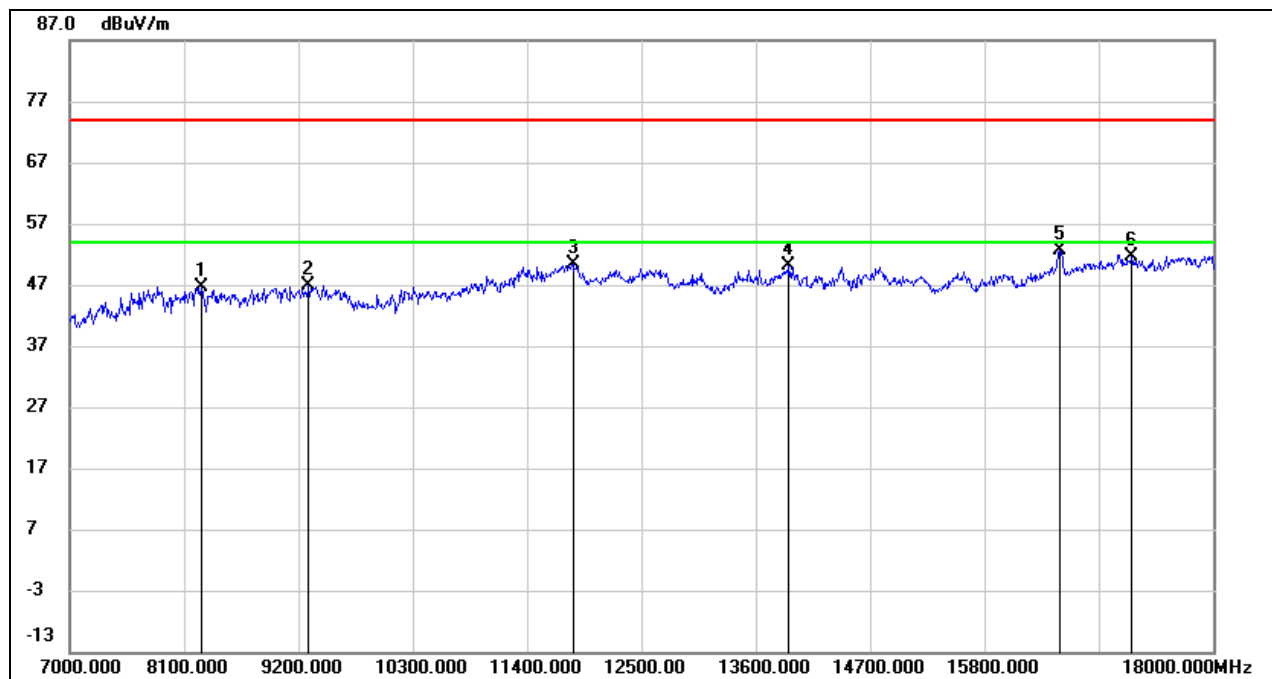
3. Peak: Peak detector.

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

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

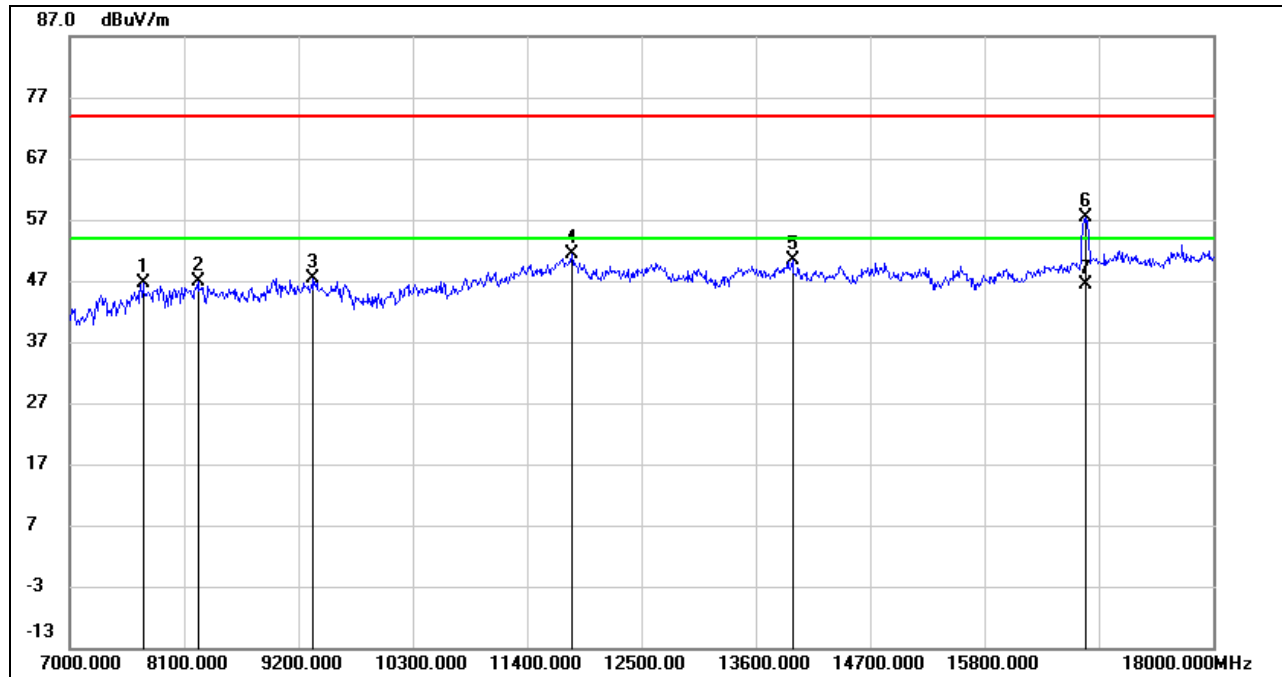
6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8274.900	37.61	9.07	46.68	74.00	-27.32	peak
2	9303.400	37.18	9.81	46.99	74.00	-27.01	peak
3	11841.100	34.93	15.55	50.48	74.00	-23.52	peak
4	13921.200	33.18	16.89	50.07	74.00	-23.93	peak
5	16533.700	33.35	19.26	52.61	74.00	-21.39	peak
6	17222.300	30.59	21.01	51.60	74.00	-22.40	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7709.500	38.84	7.90	46.74	74.00	-27.26	peak
2	8234.200	37.69	9.23	46.92	74.00	-27.08	peak
3	9351.800	37.32	10.06	47.38	74.00	-26.62	peak
4	11834.500	35.75	15.55	51.30	74.00	-22.70	peak
5	13953.100	33.58	16.88	50.46	74.00	-23.54	peak
6	16777.900	37.62	19.72	57.34	74.00	-16.66	peak
7	16777.900	26.54	19.72	46.26	54.00	-7.74	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.

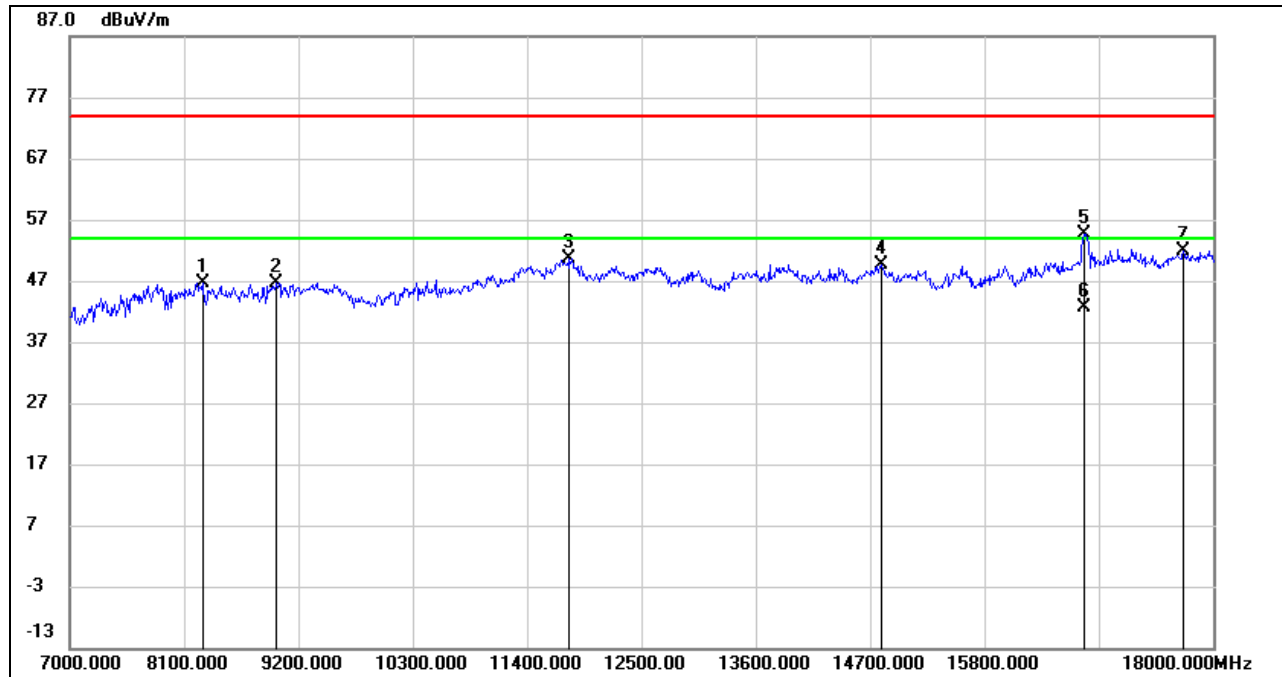
3. Peak: Peak detector.

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.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8278.200	37.53	9.05	46.58	74.00	-27.42	peak
2	8997.600	36.07	10.61	46.68	74.00	-27.32	peak
3	11808.100	35.06	15.60	50.66	74.00	-23.34	peak
4	14814.400	32.80	16.81	49.61	74.00	-24.39	peak
5	16761.400	35.04	19.70	54.74	74.00	-19.26	peak
6	16761.400	22.83	19.70	42.53	54.00	-11.47	AVG
7	17714.000	29.82	22.04	51.86	74.00	-22.14	peak

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

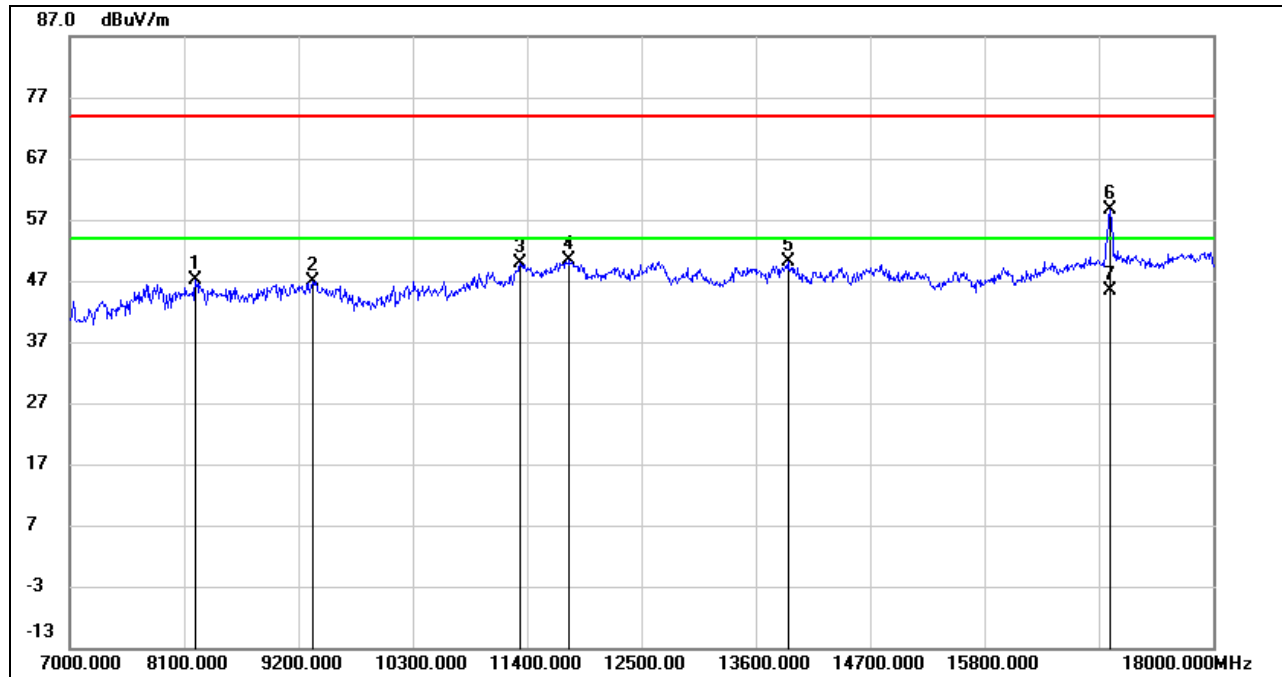
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**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	8217.700	37.87	9.30	47.17	74.00	-26.83	peak
2	9346.300	36.76	10.04	46.80	74.00	-27.20	peak
3	11338.400	35.75	14.04	49.79	74.00	-24.21	peak
4	11812.500	34.89	15.59	50.48	74.00	-23.52	peak
5	13912.400	33.17	16.90	50.07	74.00	-23.93	peak
6	17012.200	38.35	20.28	58.63	74.00	-15.37	peak
7	17012.200	25.08	20.28	45.36	54.00	-8.64	AVG

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

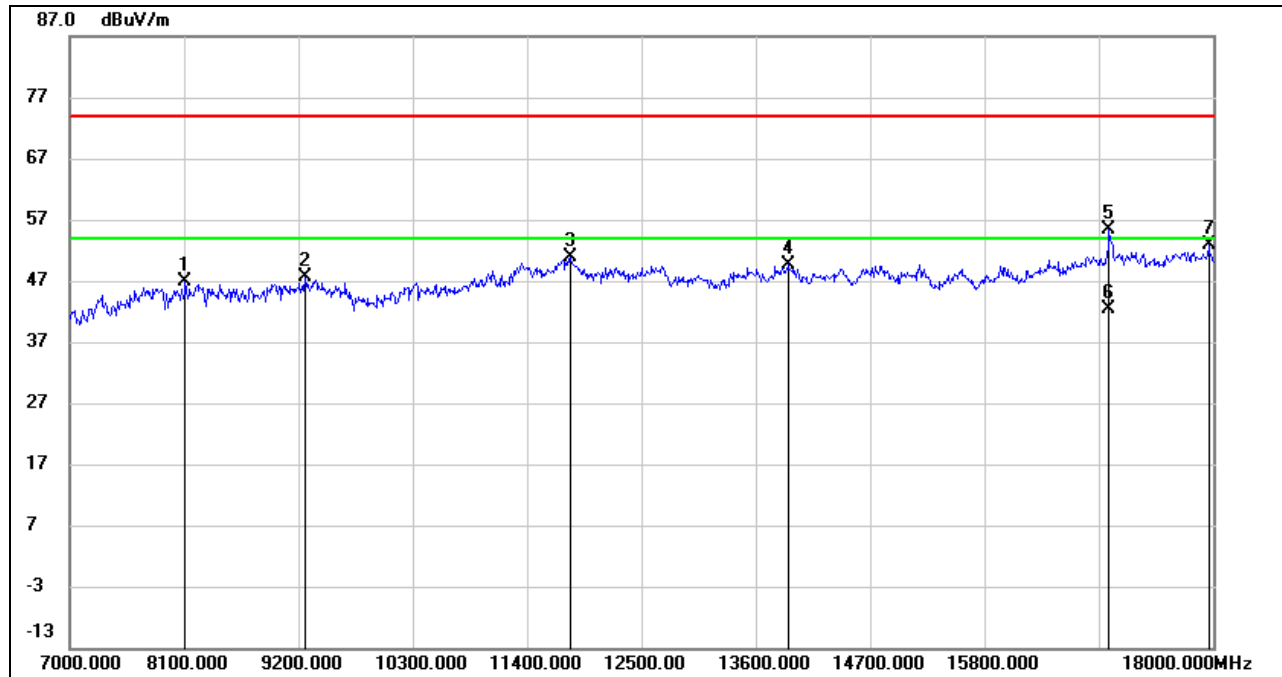
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. 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.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

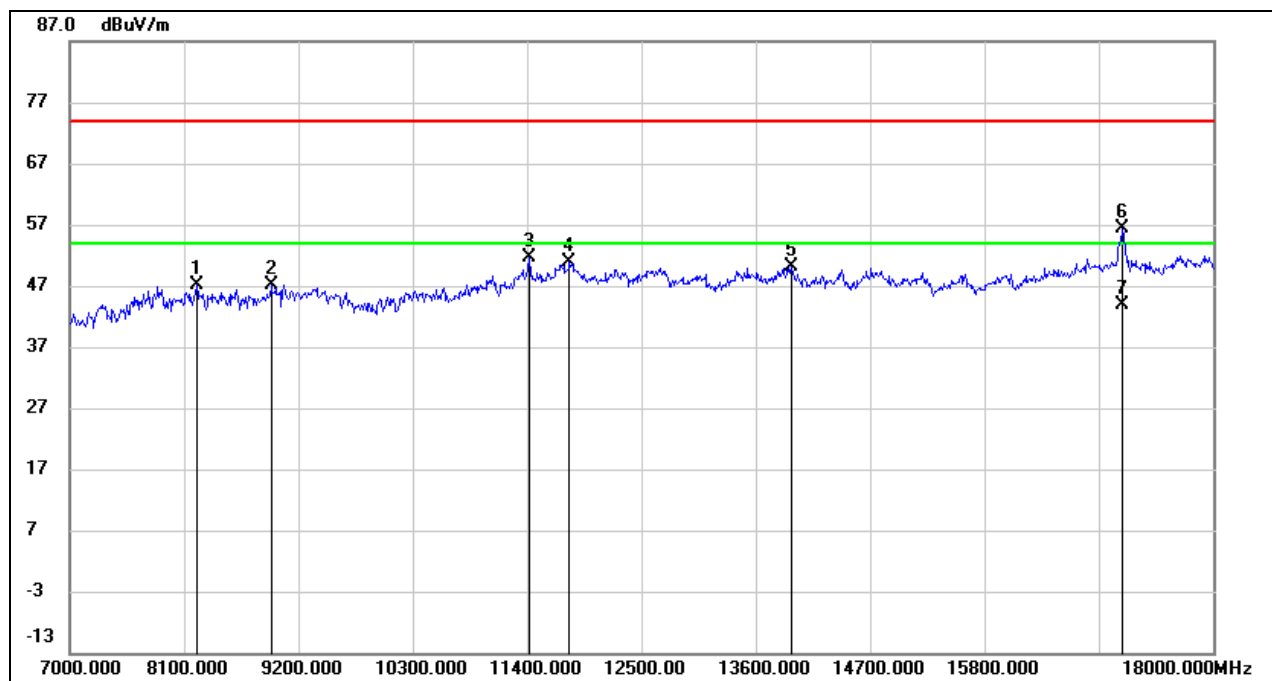
**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8117.600	38.15	8.66	46.81	74.00	-27.19	peak
2	9274.800	37.84	9.67	47.51	74.00	-26.49	peak
3	11823.500	35.32	15.58	50.90	74.00	-23.10	peak
4	13915.700	32.72	16.89	49.61	74.00	-24.39	peak
5	17002.300	35.07	20.24	55.31	74.00	-18.69	peak
6	17002.300	22.02	20.24	42.26	54.00	-11.74	AVG
7	17961.500	30.12	22.68	52.80	74.00	-21.20	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

STRADDLE CHANNEL 142

HARMONICS AND SPURIOUS EMISSIONS (HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8222.100	37.82	9.28	47.10	74.00	-26.90	peak
2	8941.500	37.05	10.01	47.06	74.00	-26.94	peak
3	11423.100	37.33	14.25	51.58	74.00	-22.42	peak
4	11812.500	35.24	15.59	50.83	74.00	-23.17	peak
5	13945.400	33.21	16.88	50.09	74.00	-23.91	peak
6	17132.100	35.70	20.77	56.47	74.00	-17.53	peak
7	17132.100	22.99	20.77	43.76	54.00	-10.24	AVG

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

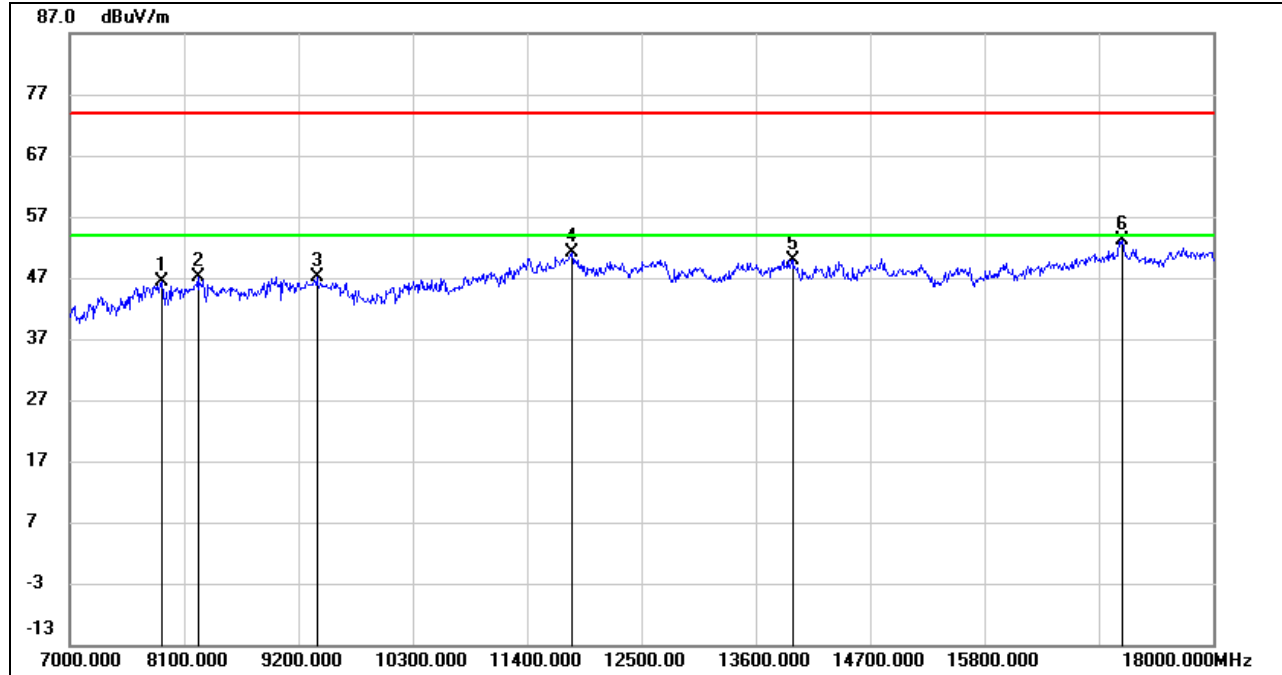
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. 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.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**HARMONICS AND SPURIOUS EMISSIONS (VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7888.800	38.30	7.99	46.29	74.00	-27.71	peak
2	8235.300	37.89	9.22	47.11	74.00	-26.89	peak
3	9376.000	36.91	10.19	47.10	74.00	-26.90	peak
4	11833.400	35.50	15.56	51.06	74.00	-22.94	peak
5	13958.600	32.97	16.87	49.84	74.00	-24.16	peak
6	17121.100	32.44	20.72	53.16	74.00	-20.84	peak

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

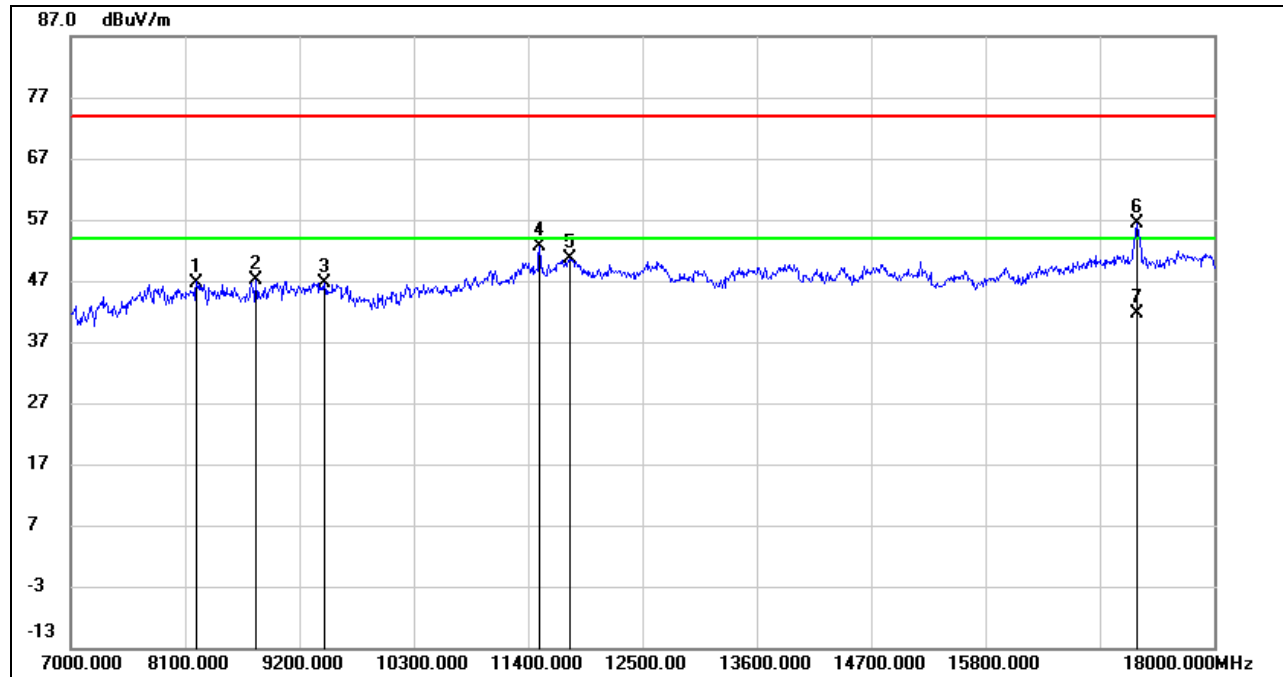
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**UNII-3 BAND****HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8219.900	37.46	9.29	46.75	74.00	-27.25	peak
2	8785.300	38.64	8.52	47.16	74.00	-26.84	peak
3	9446.400	36.30	10.38	46.68	74.00	-27.32	peak
4	11512.200	38.14	14.37	52.51	74.00	-21.49	peak
5	11810.300	34.95	15.60	50.55	74.00	-23.45	peak
6	17256.400	35.45	20.96	56.41	74.00	-17.59	peak
7	17256.400	20.69	20.96	41.65	54.00	-12.35	AVG

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

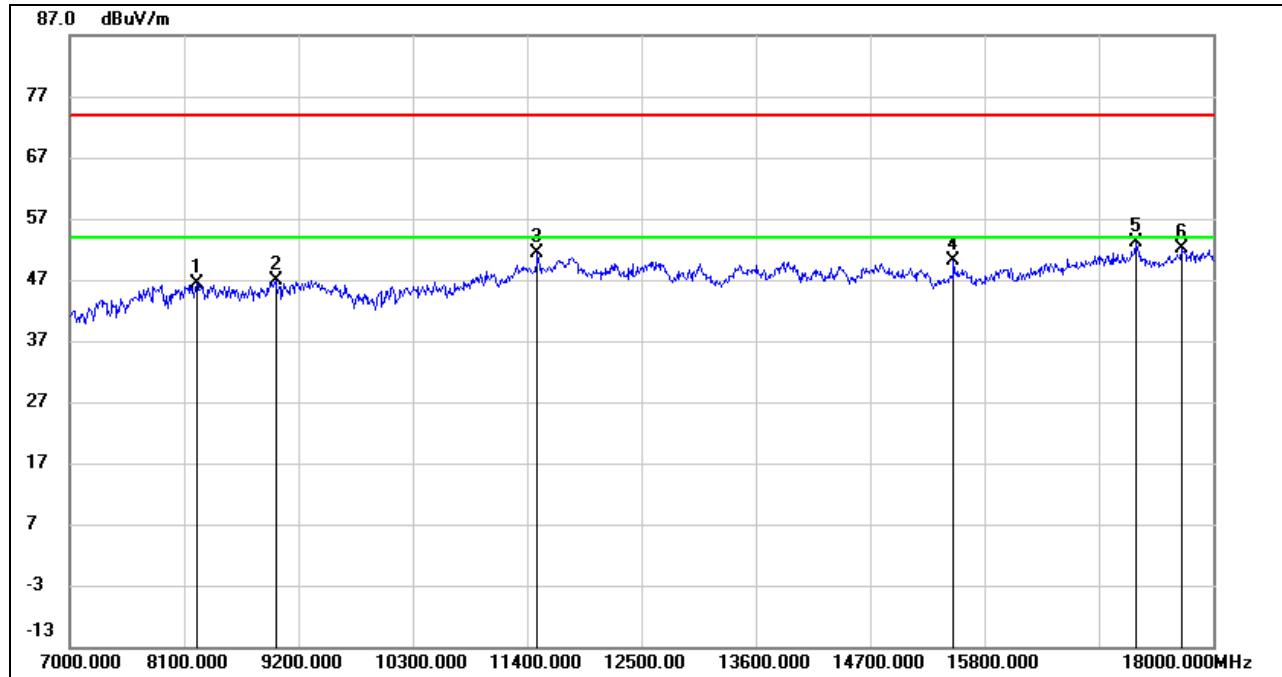
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. 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.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8226.500	37.14	9.25	46.39	74.00	-27.61	peak
2	8988.800	36.33	10.51	46.84	74.00	-27.16	peak
3	11499.000	36.98	14.36	51.34	74.00	-22.66	peak
4	15512.900	33.56	16.49	50.05	74.00	-23.95	peak
5	17261.900	32.16	20.95	53.11	74.00	-20.89	peak
6	17704.100	30.05	21.97	52.02	74.00	-21.98	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.

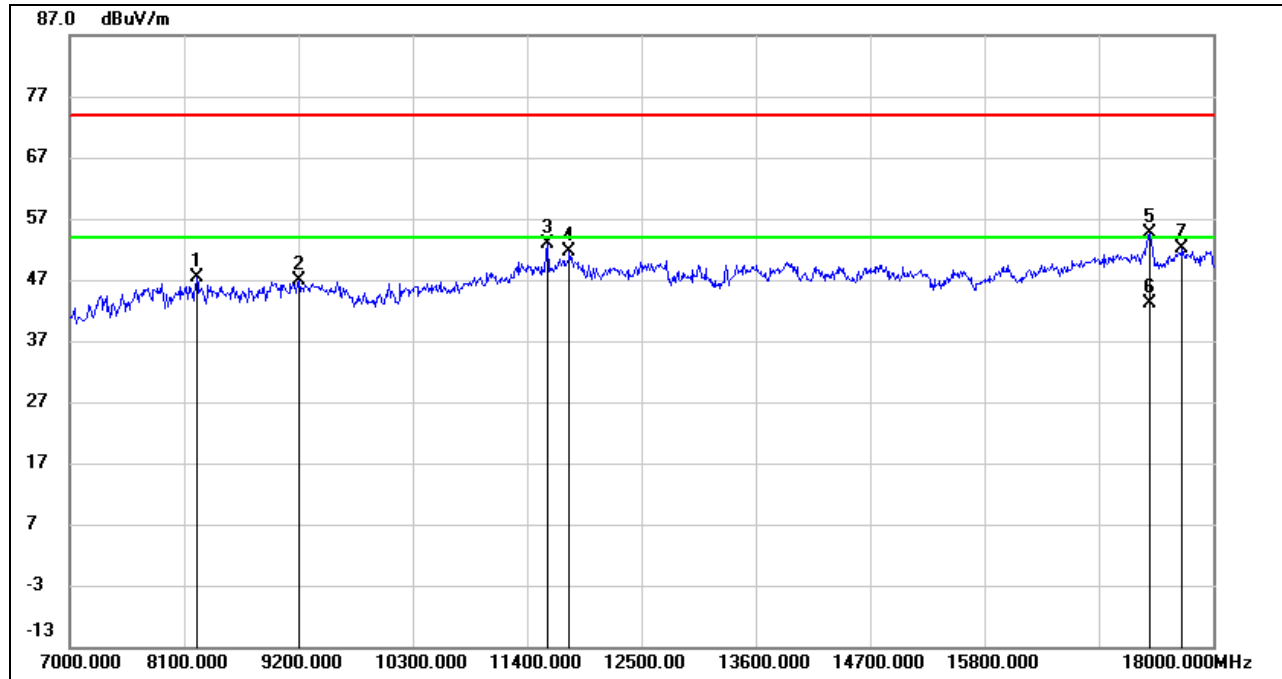
3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

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	8226.500	38.13	9.25	47.38	74.00	-26.62	peak
2	9216.500	37.42	9.37	46.79	74.00	-27.21	peak
3	11598.000	38.43	14.51	52.94	74.00	-21.06	peak
4	11813.600	35.94	15.59	51.53	74.00	-22.47	peak
5	17391.700	33.85	20.74	54.59	74.00	-19.41	peak
6	17391.700	22.49	20.74	43.23	54.00	-10.77	AVG
7	17706.300	30.07	21.99	52.06	74.00	-21.94	peak

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

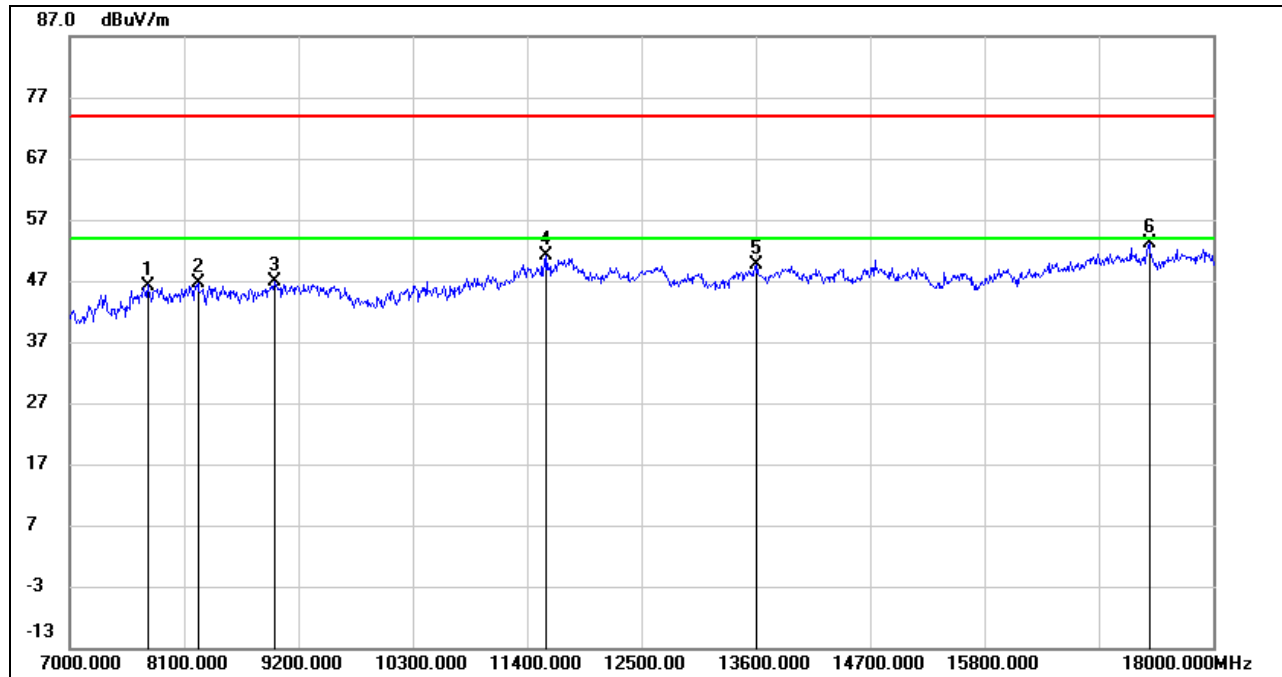
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**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	7752.400	38.19	8.06	46.25	74.00	-27.75	peak
2	8239.700	37.32	9.21	46.53	74.00	-27.47	peak
3	8969.000	36.46	10.31	46.77	74.00	-27.23	peak
4	11594.700	36.57	14.50	51.07	74.00	-22.93	peak
5	13619.800	33.13	16.47	49.60	74.00	-24.40	peak
6	17393.900	32.34	20.74	53.08	74.00	-20.92	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. 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.

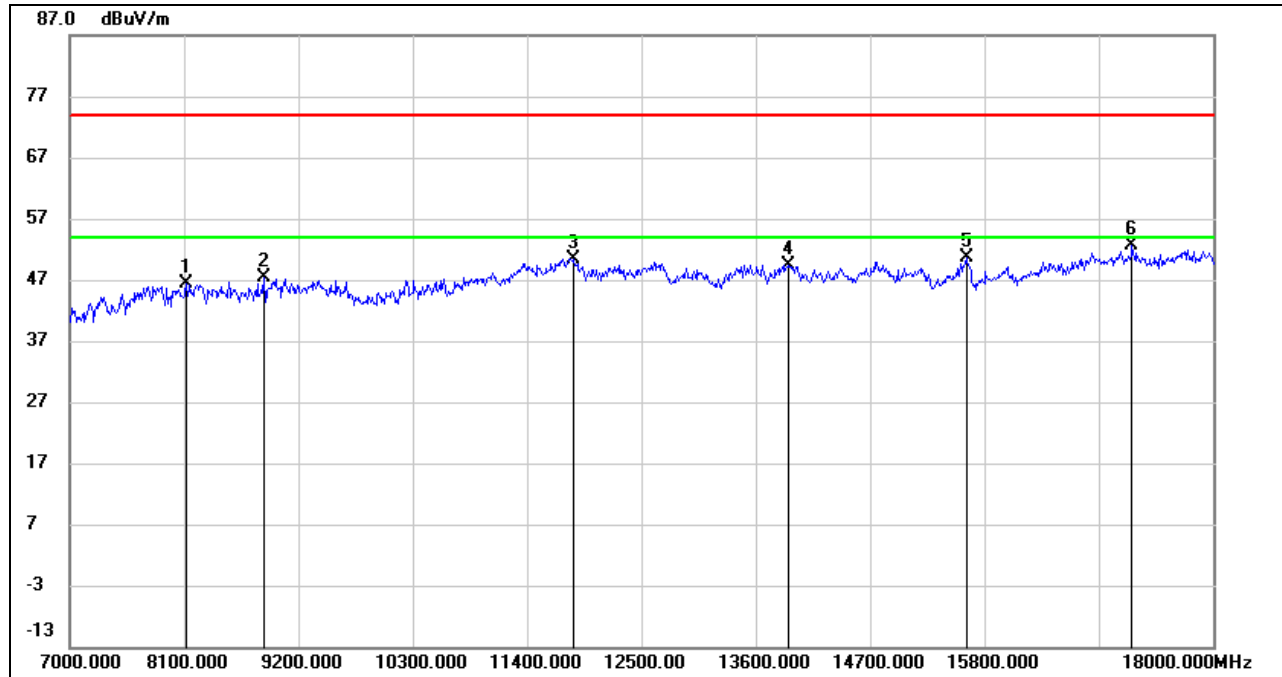
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

8.3.4. 802.11ac VHT80 MIMO MODE

UNII-1 BAND

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8125.300	37.56	8.72	46.28	74.00	-27.72	peak
2	8871.100	38.21	9.27	47.48	74.00	-26.52	peak
3	11851.000	34.88	15.53	50.41	74.00	-23.59	peak
4	13927.800	32.50	16.89	49.39	74.00	-24.61	peak
5	15625.100	33.86	16.72	50.58	74.00	-23.42	peak
6	17222.300	31.61	21.01	52.62	74.00	-21.38	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.

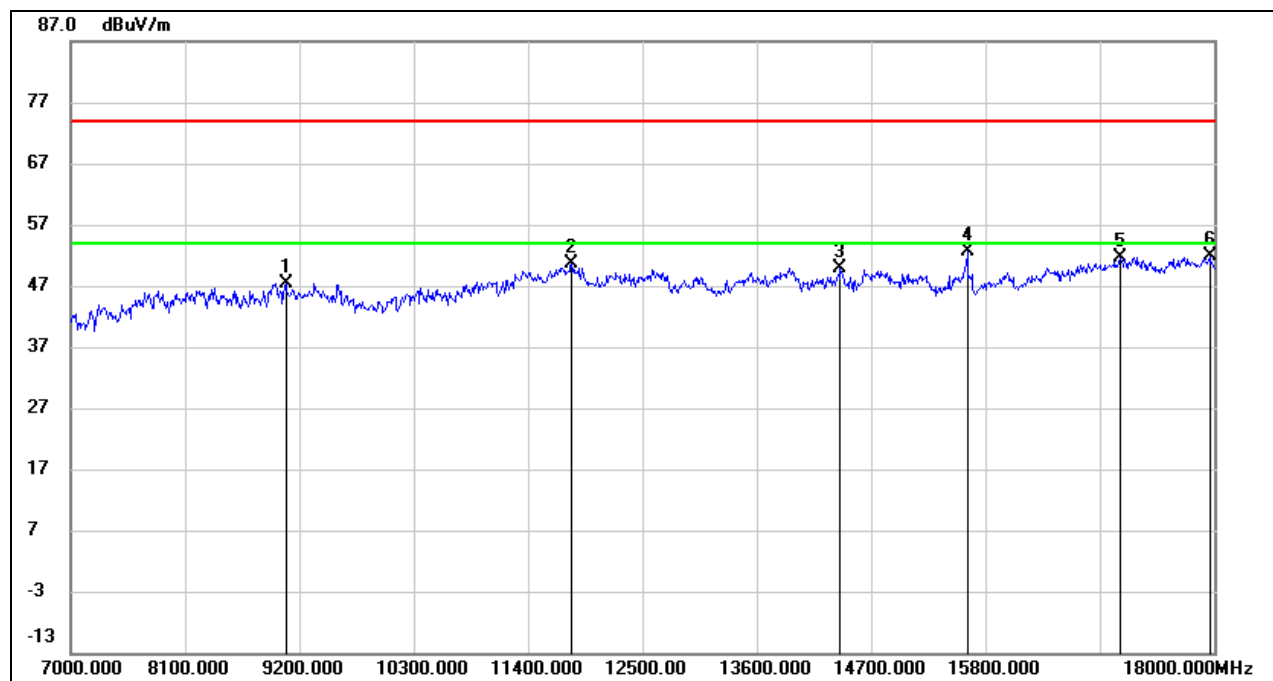
3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9069.100	37.16	10.17	47.33	74.00	-26.67	peak
2	11818.000	35.15	15.58	50.73	74.00	-23.27	peak
3	14405.200	33.10	16.84	49.94	74.00	-24.06	peak
4	15631.700	35.80	16.71	52.51	74.00	-21.49	peak
5	17105.700	31.05	20.65	51.70	74.00	-22.30	peak
6	17958.200	29.17	22.68	51.85	74.00	-22.15	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.

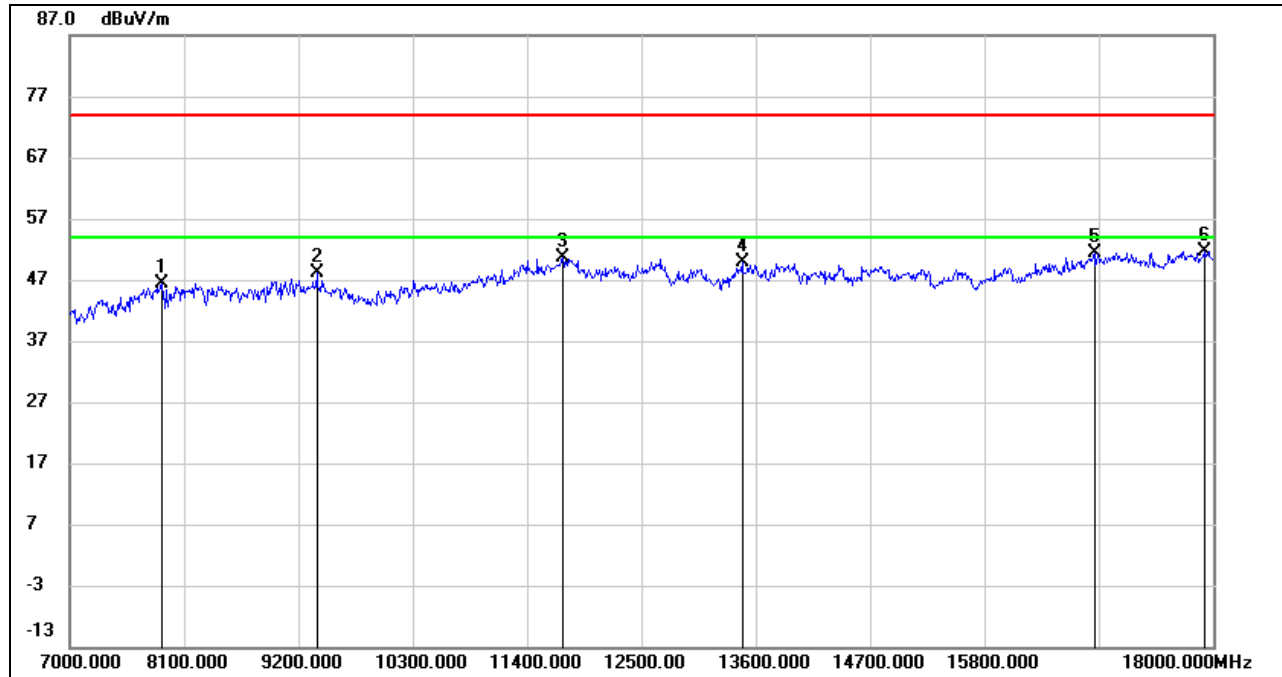
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

UNII-2A BAND

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7882.200	38.27	8.01	46.28	74.00	-27.72	peak
2	9377.100	37.89	10.20	48.09	74.00	-25.91	peak
3	11747.600	35.23	15.33	50.56	74.00	-23.44	peak
4	13474.600	33.52	16.38	49.90	74.00	-24.10	peak
5	16859.300	31.40	19.88	51.28	74.00	-22.72	peak
6	17917.500	29.05	22.69	51.74	74.00	-22.26	peak

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

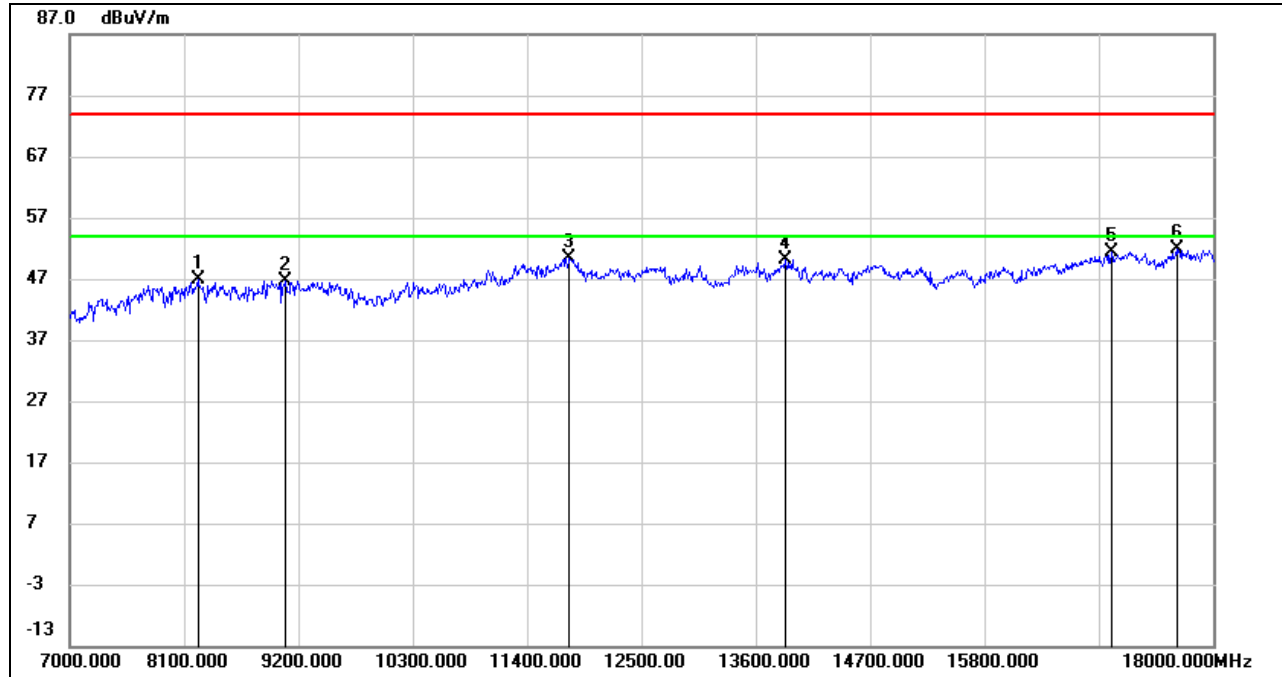
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8240.800	37.78	9.20	46.98	74.00	-27.02	peak
2	9084.500	36.68	10.06	46.74	74.00	-27.26	peak
3	11814.700	34.81	15.58	50.39	74.00	-23.61	peak
4	13892.600	33.30	16.91	50.21	74.00	-23.79	peak
5	17022.100	31.04	20.32	51.36	74.00	-22.64	peak
6	17653.500	30.30	21.58	51.88	74.00	-22.12	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.

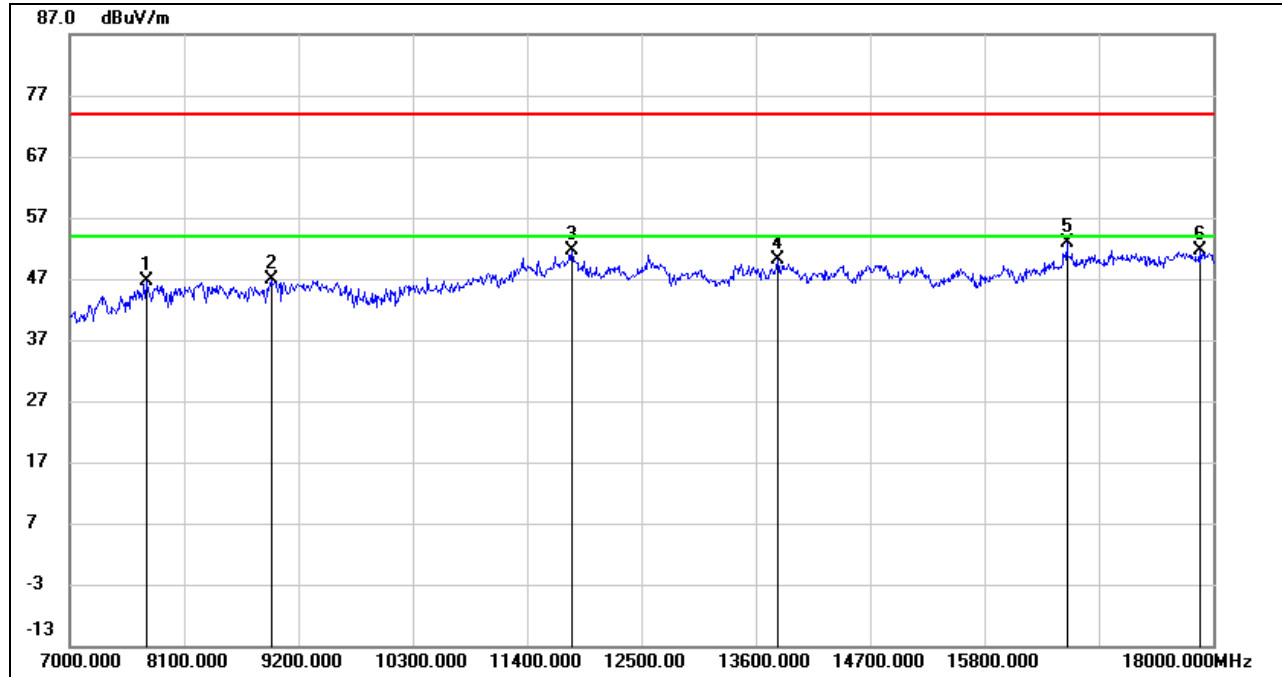
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

UNII-2C BAND

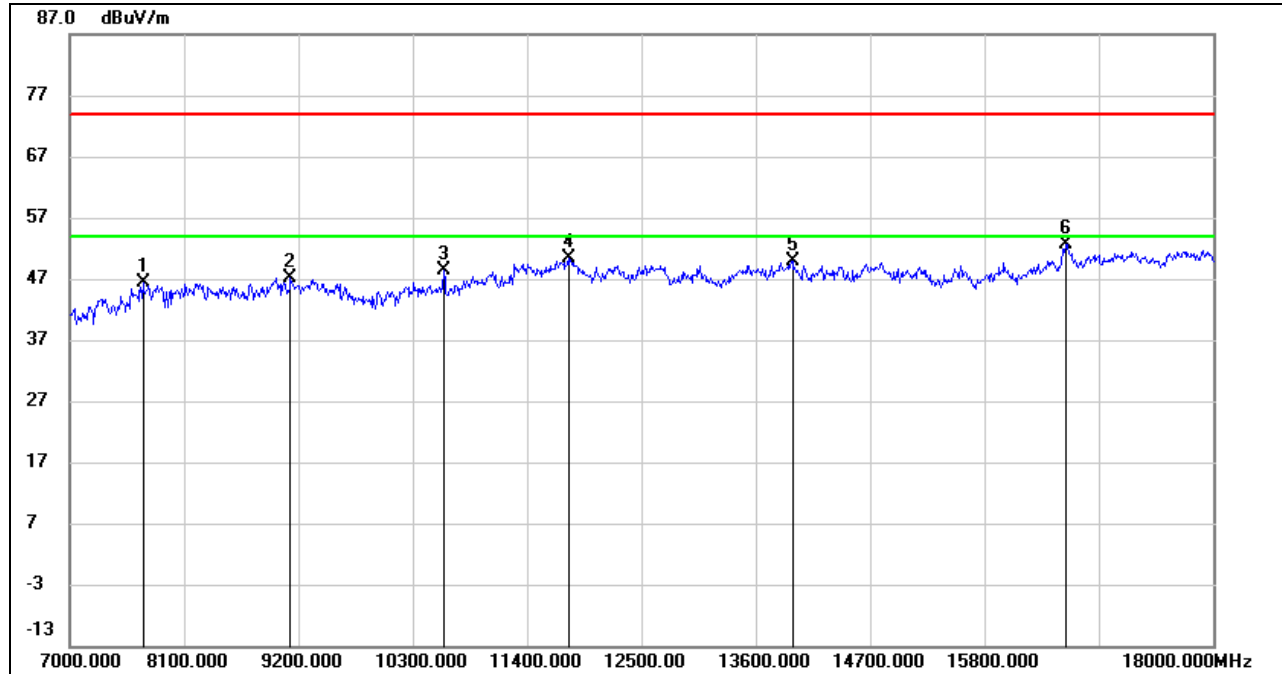
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7744.700	38.54	8.04	46.58	74.00	-27.42	peak
2	8936.000	36.96	9.96	46.92	74.00	-27.08	peak
3	11834.500	36.17	15.55	51.72	74.00	-22.28	peak
4	13817.800	33.16	16.94	50.10	74.00	-23.90	peak
5	16600.800	33.30	19.53	52.83	74.00	-21.17	peak
6	17868.000	29.02	22.71	51.73	74.00	-22.27	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7710.600	38.44	7.90	46.34	74.00	-27.66	peak
2	9130.700	37.45	9.74	47.19	74.00	-26.81	peak
3	10603.600	35.92	12.36	48.28	74.00	-25.72	peak
4	11802.600	34.68	15.60	50.28	74.00	-23.72	peak
5	13958.600	32.97	16.87	49.84	74.00	-24.16	peak
6	16590.900	33.24	19.49	52.73	74.00	-21.27	peak

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

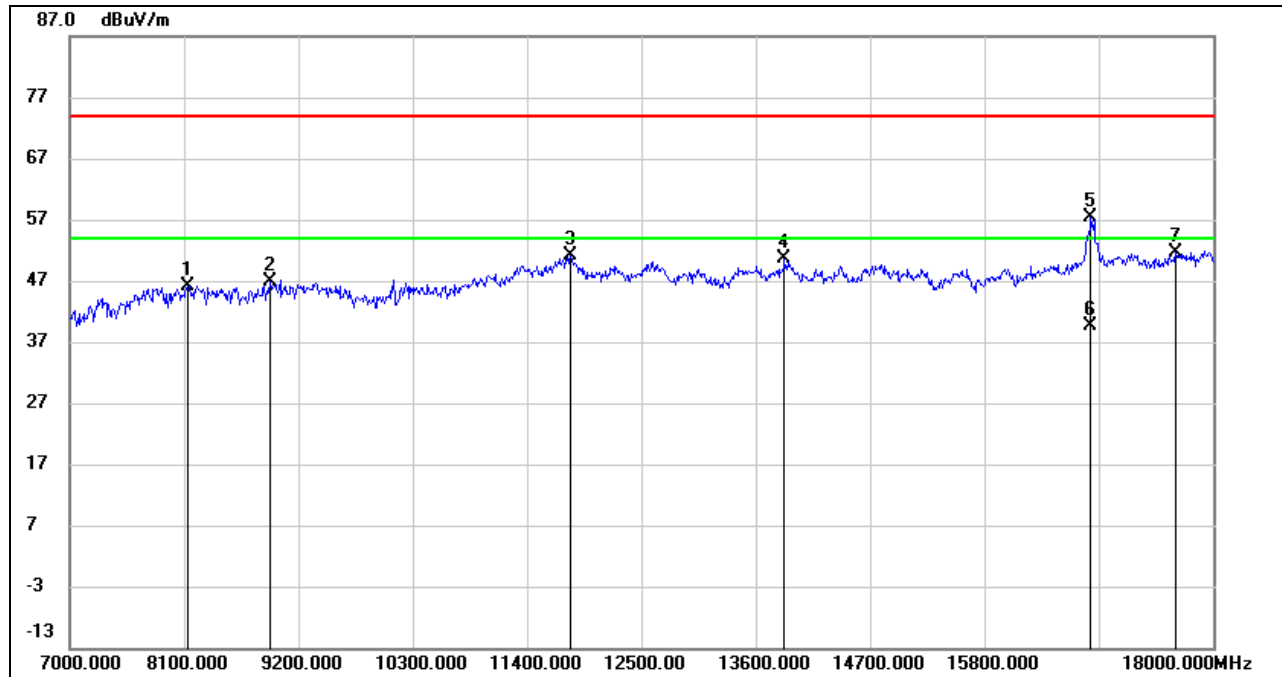
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**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	8142.900	37.35	8.87	46.22	74.00	-27.78	peak
2	8934.900	36.88	9.95	46.83	74.00	-27.17	peak
3	11820.200	35.45	15.59	51.04	74.00	-22.96	peak
4	13879.400	33.63	16.92	50.55	74.00	-23.45	peak
5	16829.600	37.69	19.81	57.50	74.00	-16.50	peak
6	16829.600	19.84	19.81	39.65	54.00	-14.35	AVG
7	17642.500	30.17	21.50	51.67	74.00	-22.33	peak

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

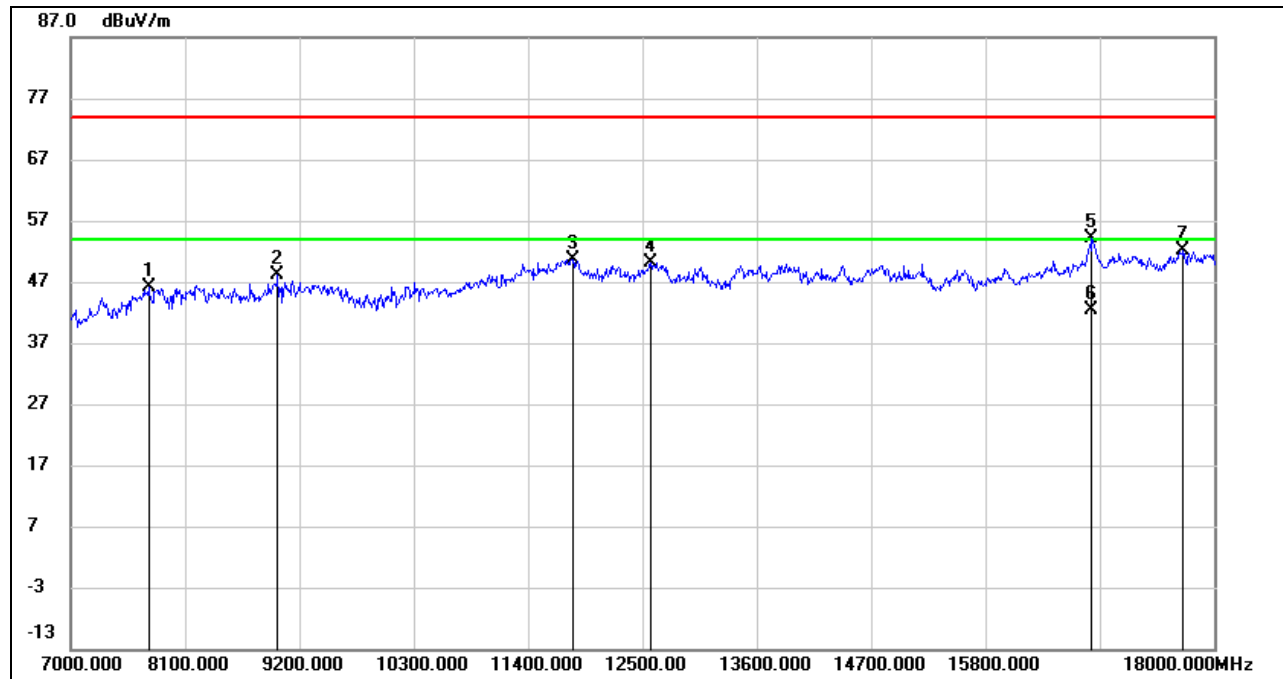
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**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	7752.400	37.97	8.06	46.03	74.00	-27.97	peak
2	8995.400	37.47	10.59	48.06	74.00	-25.94	peak
3	11832.300	35.13	15.56	50.69	74.00	-23.31	peak
4	12583.600	34.75	15.31	50.06	74.00	-23.94	peak
5	16829.600	34.24	19.81	54.05	74.00	-19.95	peak
6	16829.600	22.47	19.81	42.28	54.00	-11.72	AVG
7	17711.800	30.10	22.03	52.13	74.00	-21.87	peak

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

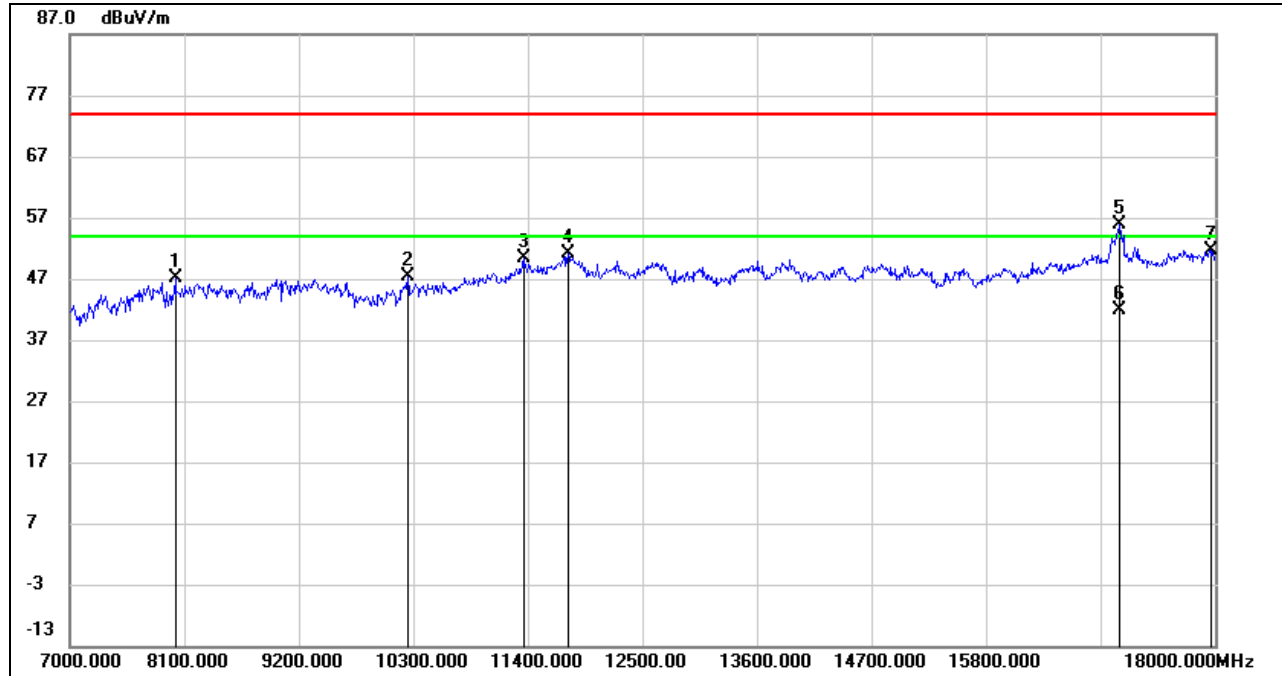
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**STRADDLE CHANNEL 138****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	8016.400	39.31	7.80	47.11	74.00	-26.89	peak
2	10251.600	36.34	10.92	47.26	74.00	-26.74	peak
3	11365.900	36.32	14.11	50.43	74.00	-23.57	peak
4	11792.700	35.62	15.57	51.19	74.00	-22.81	peak
5	17090.300	35.25	20.59	55.84	74.00	-18.16	peak
6	17090.300	21.36	20.59	41.95	54.00	-12.05	AVG
7	17975.800	29.03	22.67	51.70	74.00	-22.30	peak

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

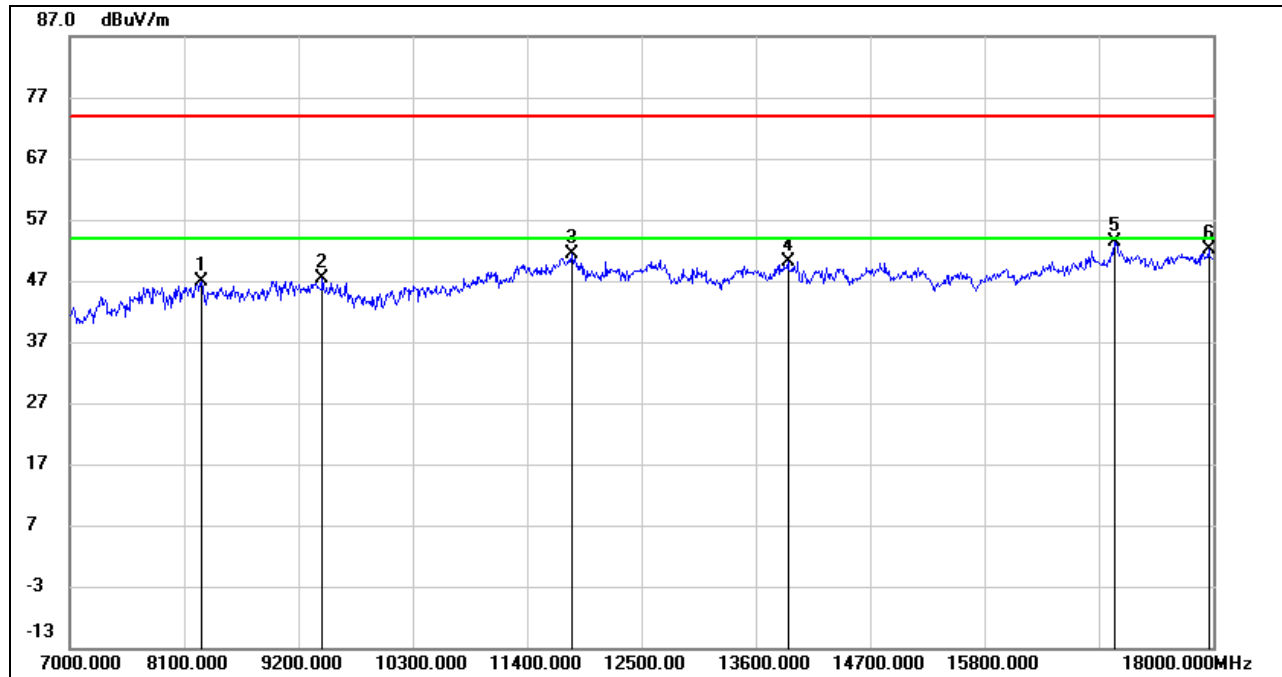
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

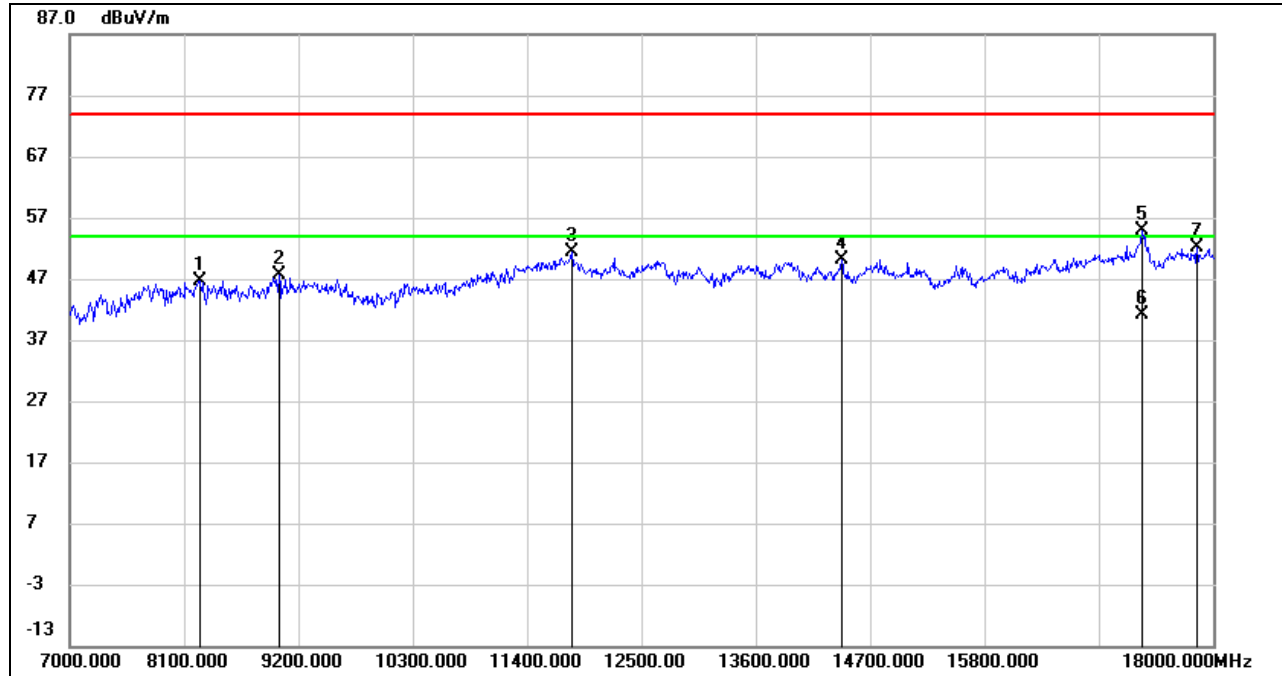
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**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	8268.300	37.77	9.10	46.87	74.00	-27.13	peak
2	9431.000	36.95	10.35	47.30	74.00	-26.70	peak
3	11835.600	35.83	15.56	51.39	74.00	-22.61	peak
4	13911.300	33.27	16.90	50.17	74.00	-23.83	peak
5	17063.900	32.99	20.49	53.48	74.00	-20.52	peak
6	17961.500	29.40	22.68	52.08	74.00	-21.92	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

**UNII-3 BAND****HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8262.800	37.61	9.12	46.73	74.00	-27.27	peak
2	9022.900	37.09	10.47	47.56	74.00	-26.44	peak
3	11834.500	35.79	15.55	51.34	74.00	-22.66	peak
4	14429.400	33.22	16.80	50.02	74.00	-23.98	peak
5	17322.400	34.14	20.86	55.00	74.00	-19.00	peak
6	17322.400	20.27	20.86	41.13	54.00	-12.87	AVG
7	17846.000	29.44	22.71	52.15	74.00	-21.85	peak

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

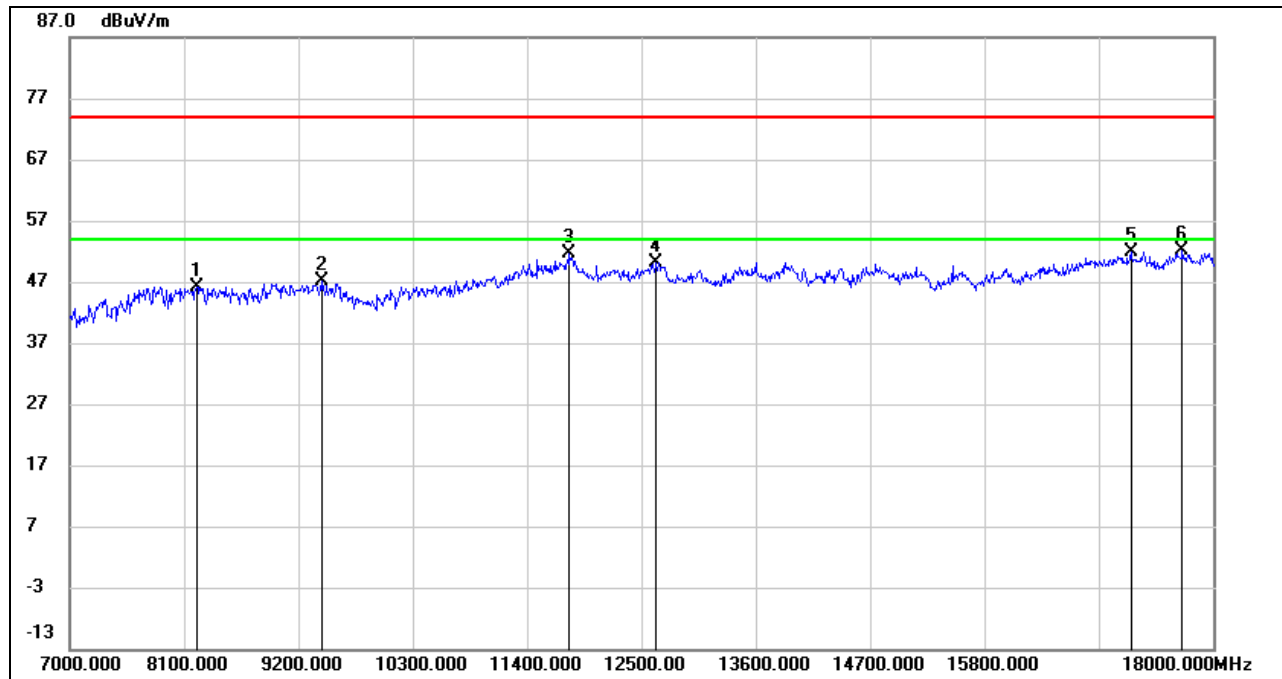
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

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

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8222.100	36.86	9.28	46.14	74.00	-27.86	peak
2	9428.800	36.76	10.35	47.11	74.00	-26.89	peak
3	11810.300	35.97	15.60	51.57	74.00	-22.43	peak
4	12649.600	34.80	15.37	50.17	74.00	-23.83	peak
5	17217.900	30.94	21.01	51.95	74.00	-22.05	peak
6	17711.800	29.98	22.03	52.01	74.00	-21.99	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 High Pass Filter losses.

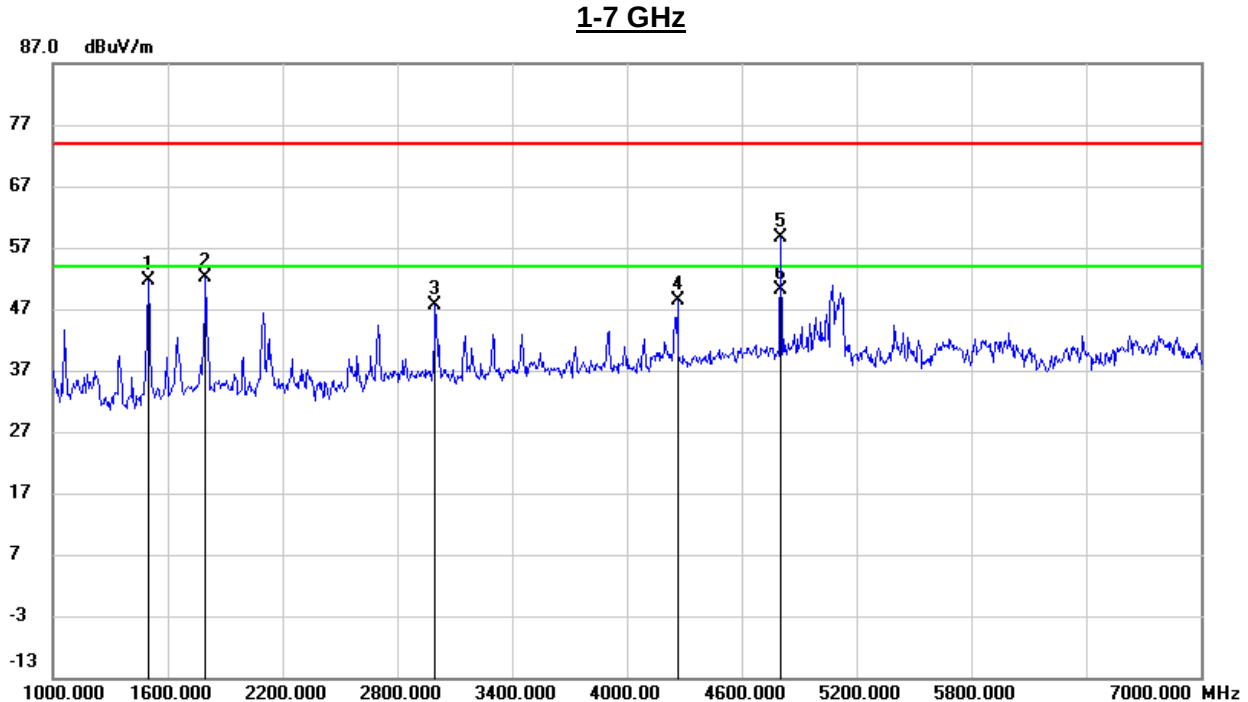
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

8.1. SPURIOUS EMISSIONS FOR CO-LOCATION

8.1.1. BT 8DPSK MODE AND 802.11ac HT80 MIMO MODE

SPURIOUS EMISSIONS (BT 8DPSK LOW CHANNEL, UNII-1 BAND LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1498.000	63.87	-12.23	51.64	74.00	-22.36	peak
2	1798.000	62.19	-10.07	52.12	74.00	-21.88	peak
3	2998.000	53.23	-5.60	47.63	74.00	-26.37	peak
4	4264.000	50.13	-1.73	48.40	74.00	-25.60	peak
5	4804.000	58.10	0.59	58.69	74.00	-15.31	peak
6	4804.000	49.49	0.59	50.08	54.00	-3.92	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. Peak: Peak detector.

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

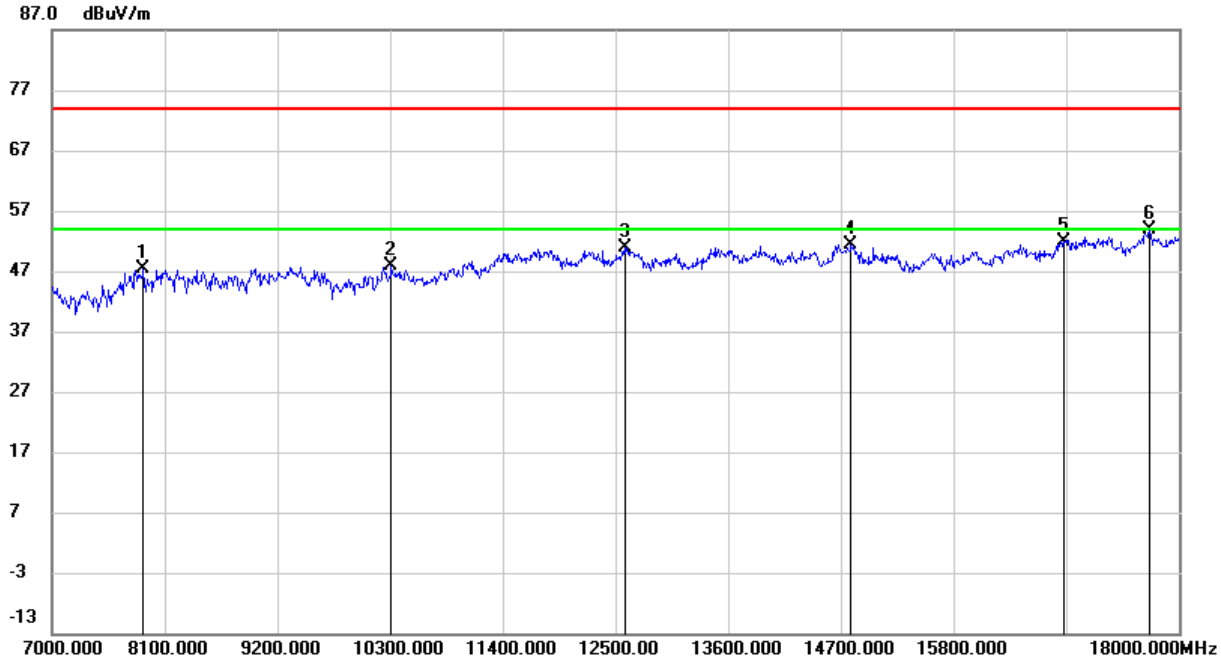
5. For the transmitting duration, please refer to clause 7.1.

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

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

8. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point was deemed to comply with the limits list in the standard.

7-18 GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7891.000	38.40	8.90	47.30	74.00	-26.70	peak
2	10311.000	36.03	11.86	47.89	74.00	-26.11	peak
3	12588.000	35.24	15.76	51.00	74.00	-23.00	peak
4	14799.000	33.29	18.04	51.33	74.00	-22.67	peak
5	16878.000	30.45	21.38	51.83	74.00	-22.17	peak
6	17714.000	30.24	23.55	53.79	74.00	-20.21	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. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.

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

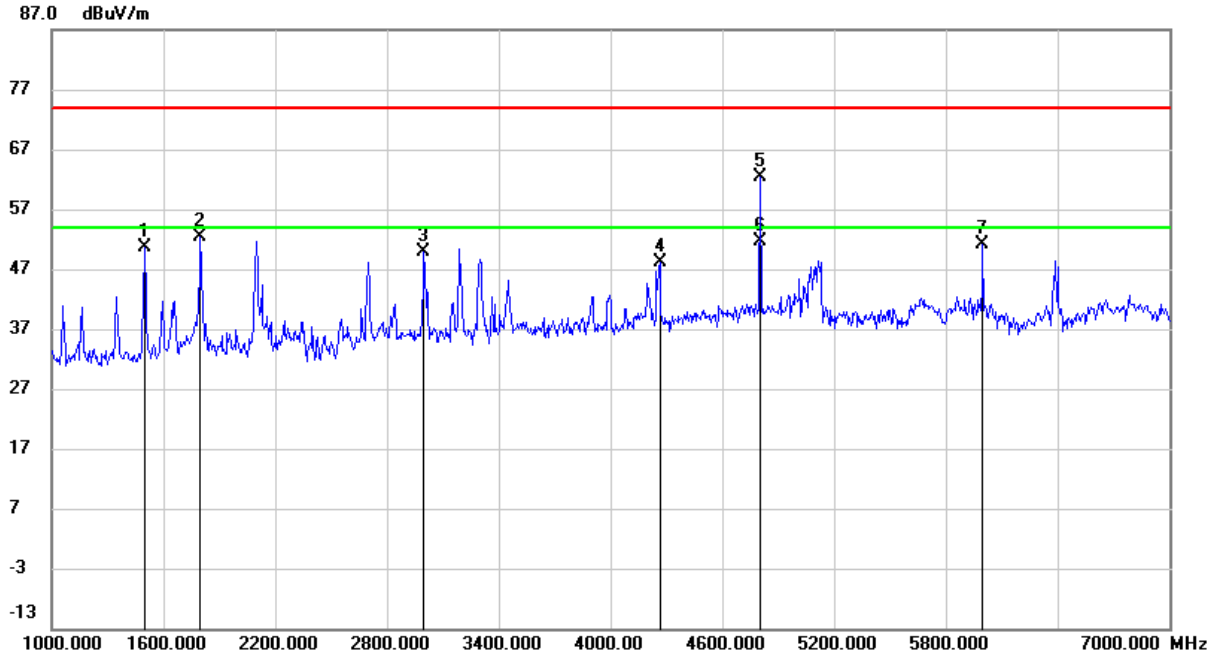
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

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

8. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point was deemed to comply with the limits list in the standard.

**SPURIOUS EMISSIONS (BT 8DPSK MID CHANNEL, 5G UNII-1 BAND MID CHANNEL,
WORST-CASE CONFIGURATION, VERTICAL)**

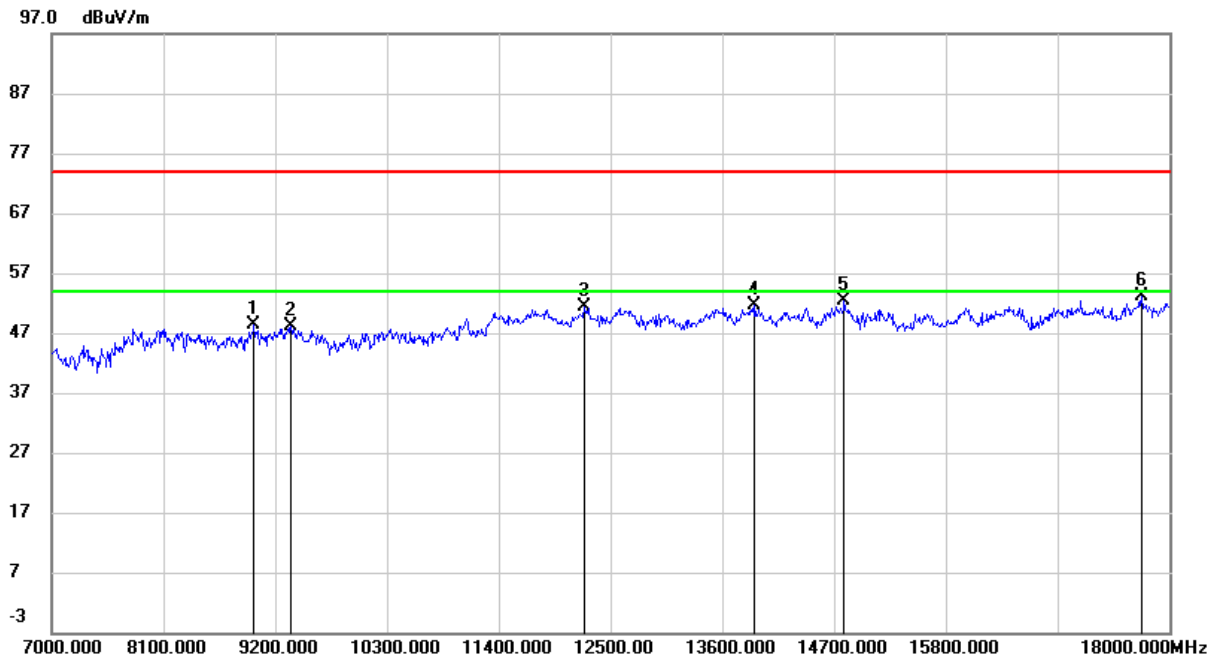
1-7 GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1498.000	62.83	-12.23	50.60	74.00	-23.40	peak
2	1798.000	62.56	-10.07	52.49	74.00	-21.51	peak
3	2998.000	55.56	-5.60	49.96	74.00	-24.04	peak
4	4264.000	49.77	-1.73	48.04	74.00	-25.96	peak
5	4804.000	61.91	0.59	62.50	74.00	-11.50	peak
6	4804.000	51.04	0.59	51.63	54.00	-2.37	AVG
7	5998.000	47.79	3.29	51.08	74.00	-22.92	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. 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 Band reject filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point was deemed to comply with the limits list in the standard.

7-18 GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8991.000	37.16	11.10	48.26	74.00	-25.74	peak
2	9354.000	37.43	10.70	48.13	74.00	-25.87	peak
3	12247.000	35.24	16.02	51.26	74.00	-22.74	peak
4	13919.000	34.02	17.55	51.57	74.00	-22.43	peak
5	14799.000	34.26	18.04	52.30	74.00	-21.70	peak
6	17725.000	29.56	23.61	53.17	74.00	-20.83	peak

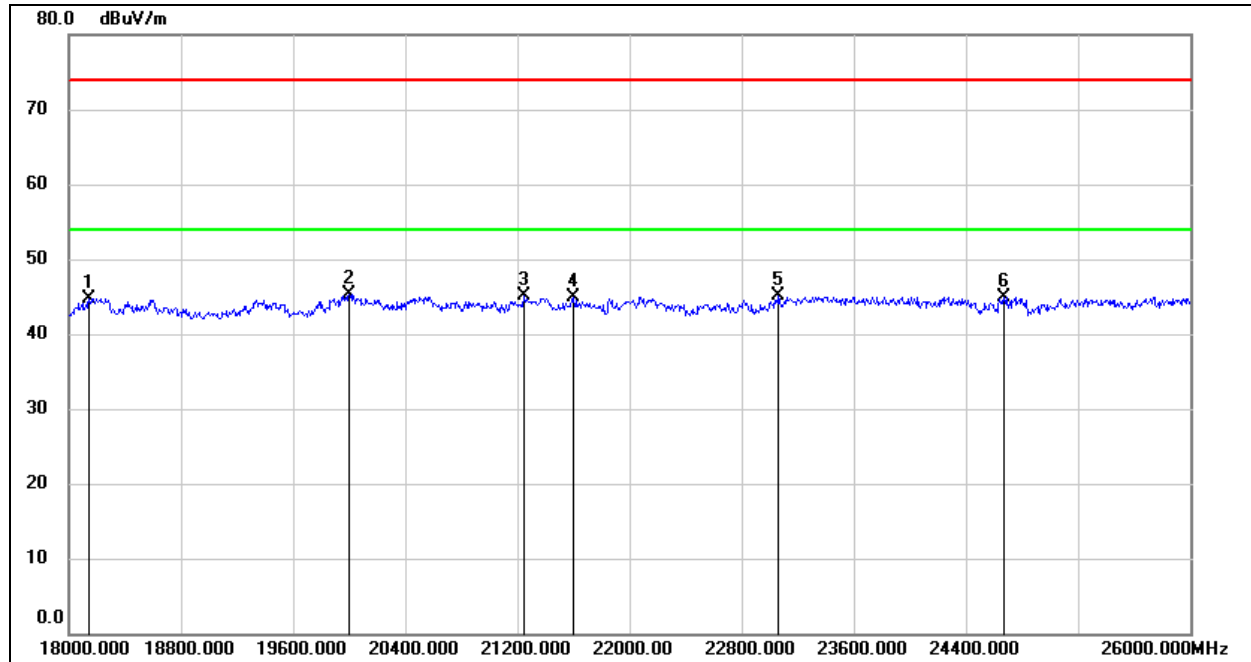
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: $VBW=1/T_{on}$, where: T_{on} is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.1.
6. Filter 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.
8. Owing to the highest peak level of unwanted emission out of the restricted bands complies with the lowest limit(54dBuV/m), so all the test point was deemed to comply with the limits list in the standard.

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

8.2. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.2.1. 802.11ac VHT80 MODE

SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, HORIZONTAL, WORST-CASE CONFIGURATION)

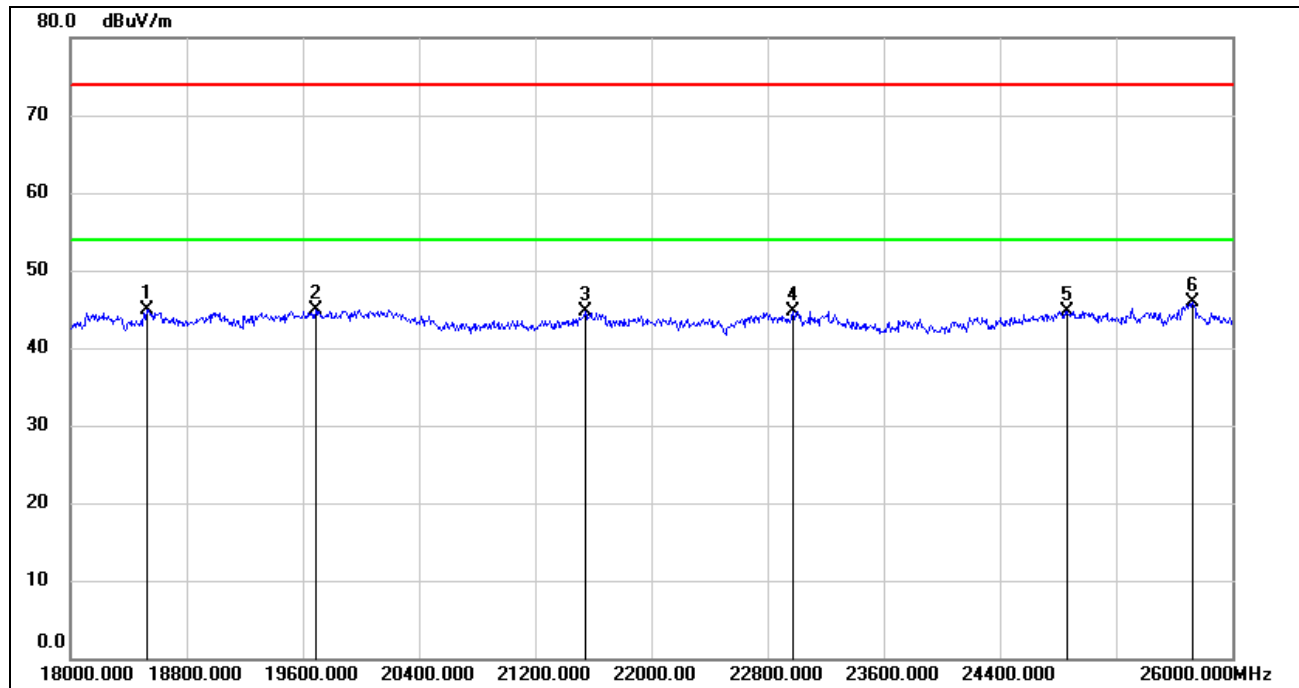


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18144.000	50.27	-5.48	44.79	74.00	-29.21	peak
2	20000.000	50.81	-5.45	45.36	74.00	-28.64	peak
3	21248.000	49.79	-4.77	45.02	74.00	-28.98	peak
4	21600.000	49.52	-4.54	44.98	74.00	-29.02	peak
5	23064.000	48.49	-3.42	45.07	74.00	-28.93	peak
6	24672.000	47.22	-2.33	44.89	74.00	-29.11	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.



SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



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	19688.000	50.19	-5.33	44.86	74.00	-29.14	peak
3	21544.000	49.26	-4.63	44.63	74.00	-29.37	peak
4	22976.000	48.26	-3.46	44.80	74.00	-29.20	peak
5	24864.000	47.03	-2.23	44.80	74.00	-29.20	peak
6	25728.000	46.61	-0.72	45.89	74.00	-28.11	peak

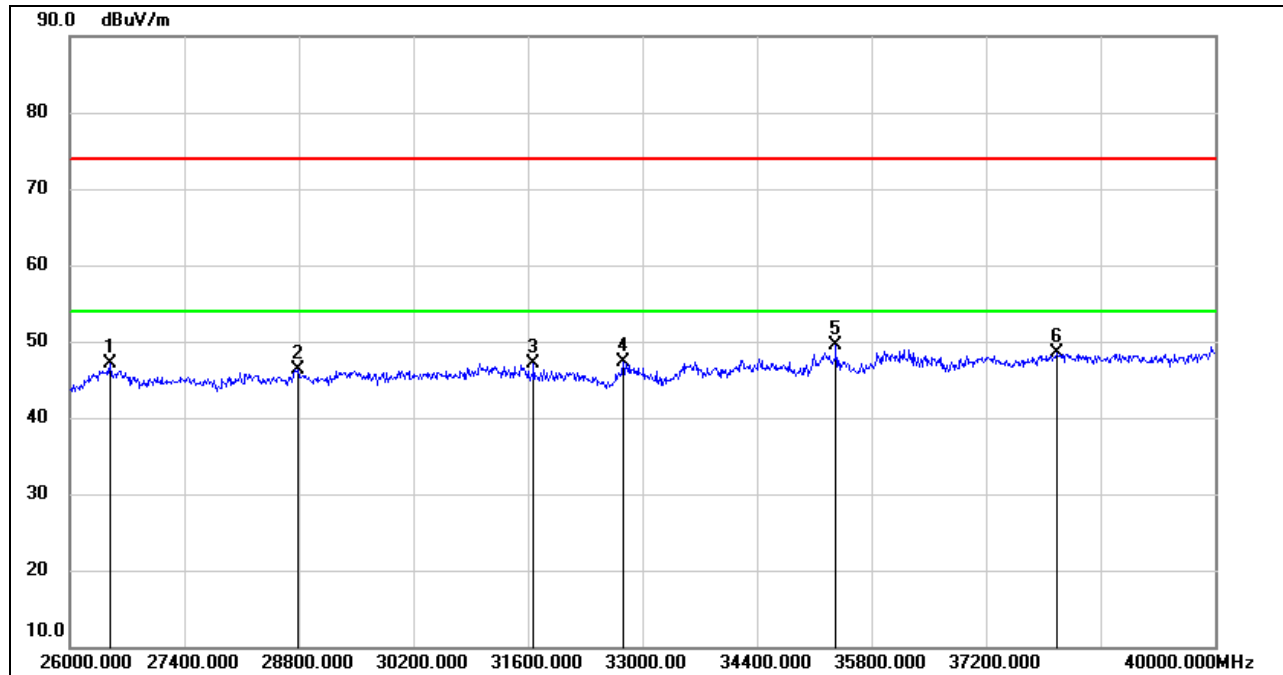
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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

8.3. SPURIOUS EMISSIONS (26 GHz ~ 40 GHz)

8.3.1. 802.11ac VHT80 MODE

SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, HORIZONTAL, WORST-CASE CONFIGURATION)

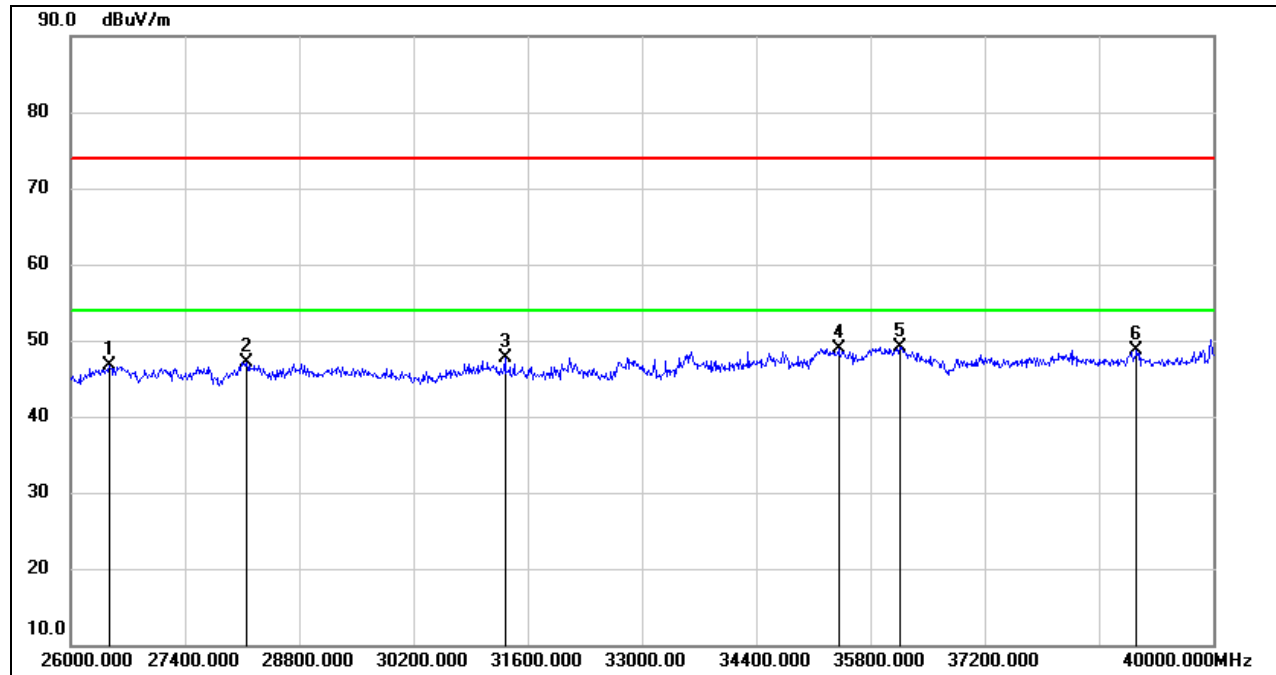


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26490.000	51.79	-4.74	47.05	74.00	-26.95	peak
2	28786.000	46.99	-0.64	46.35	74.00	-27.65	peak
3	31670.000	48.36	-1.21	47.15	74.00	-26.85	peak
4	32762.000	48.45	-1.21	47.24	74.00	-26.76	peak
5	35366.000	46.90	2.59	49.49	74.00	-24.51	peak
6	38068.000	45.06	3.42	48.48	74.00	-25.52	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.



SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26476.000	51.53	-4.78	46.75	74.00	-27.25	peak
2	28156.000	50.11	-3.02	47.09	74.00	-26.91	peak
3	31320.000	48.61	-0.93	47.68	74.00	-26.32	peak
4	35408.000	46.35	2.57	48.92	74.00	-25.08	peak
5	36164.000	45.56	3.52	49.08	74.00	-24.92	peak
6	39062.000	44.48	4.30	48.78	74.00	-25.22	peak

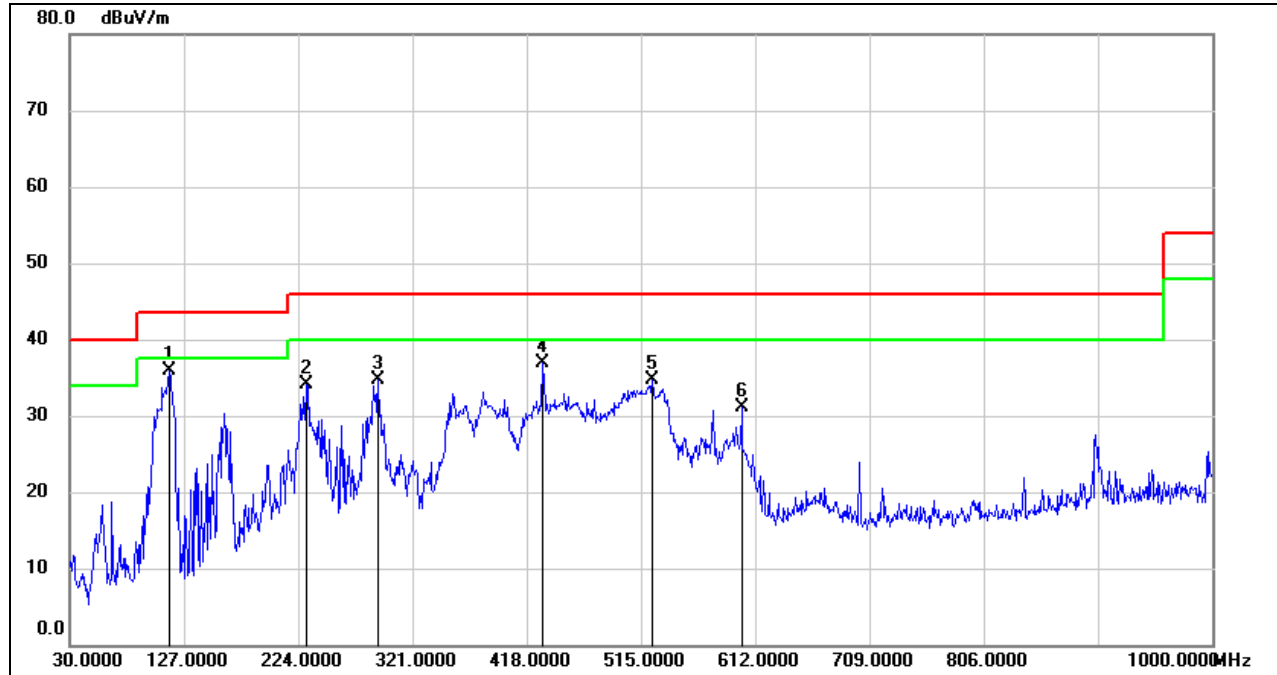
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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

8.4. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.4.1. 802.11ac VHT80 MODE

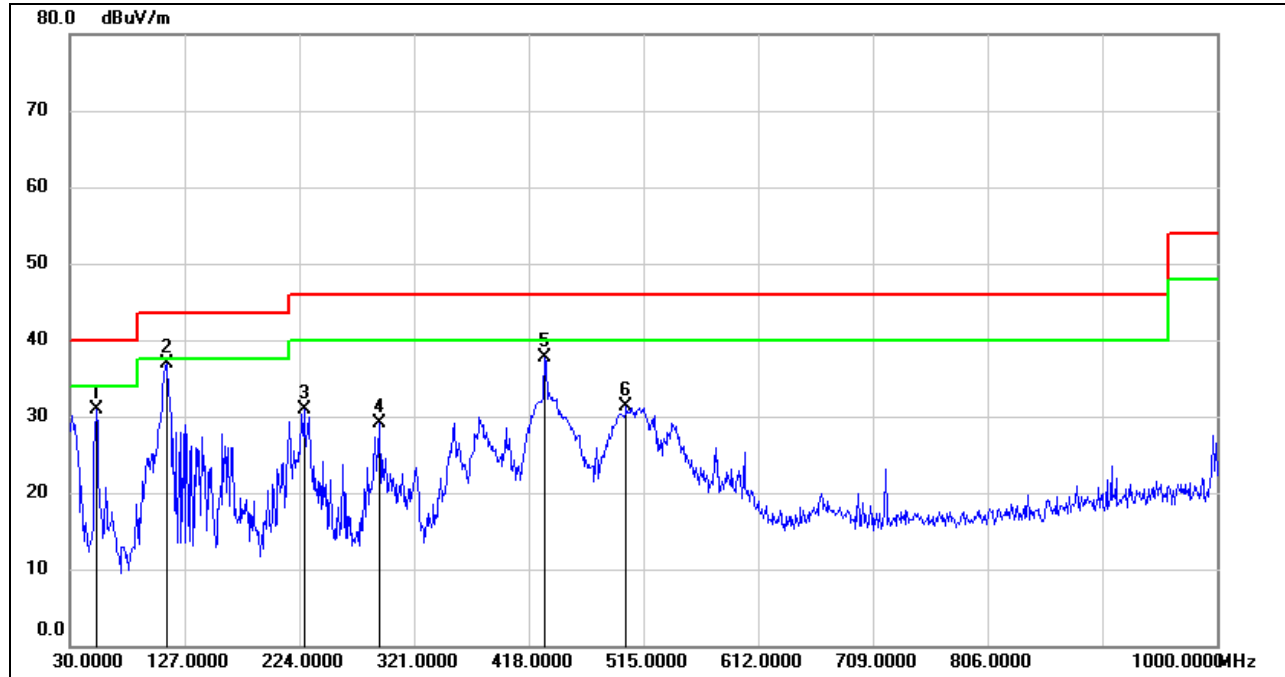
SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, HORIZONTAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	114.3900	56.14	-20.20	35.94	43.50	-7.56	QP
2	230.7900	52.90	-18.71	34.19	46.00	-11.81	QP
3	291.9000	50.53	-15.80	34.73	46.00	-11.27	QP
4	431.5800	49.58	-12.70	36.88	46.00	-9.12	QP
5	524.7000	45.74	-10.96	34.78	46.00	-11.22	QP
6	600.3600	40.72	-9.54	31.18	46.00	-14.82	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 (UNII-1 BAND LOW CHANNEL, VERTICAL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.3100	51.63	-20.71	30.92	40.00	-9.08	QP
2	111.4800	57.24	-20.37	36.87	43.50	-6.63	QP
3	227.8800	49.53	-18.55	30.98	46.00	-15.02	QP
4	291.9000	44.85	-15.80	29.05	46.00	-16.95	QP
5	431.5800	50.31	-12.70	37.61	46.00	-8.39	QP
6	500.4500	42.70	-11.46	31.24	46.00	-14.76	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

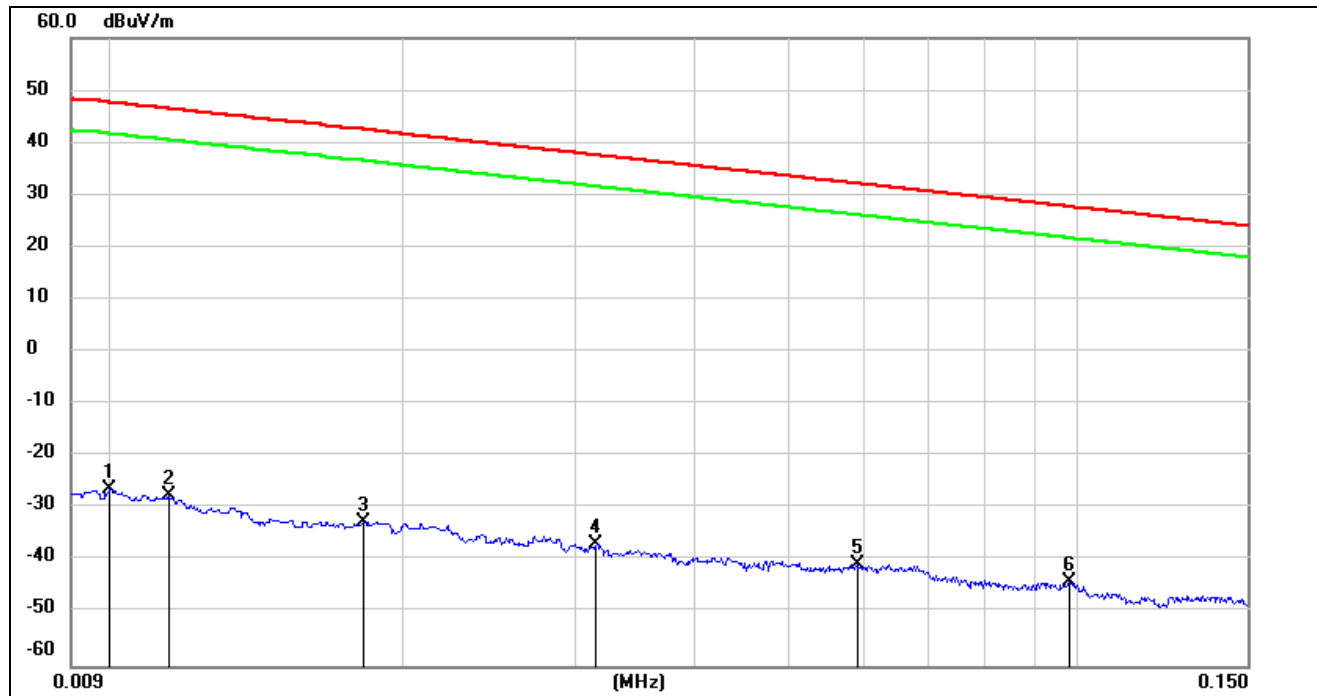
Note: All the modes and antennas had been tested, but only the worst data was recorded in the report.

8.5. SPURIOUS EMISSIONS BELOW 30 MHz

8.5.1. 802.11ac VHT80 MODE

SPURIOUS EMISSIONS (UNII-1 BAND LOW CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9 kHz ~ 150 kHz



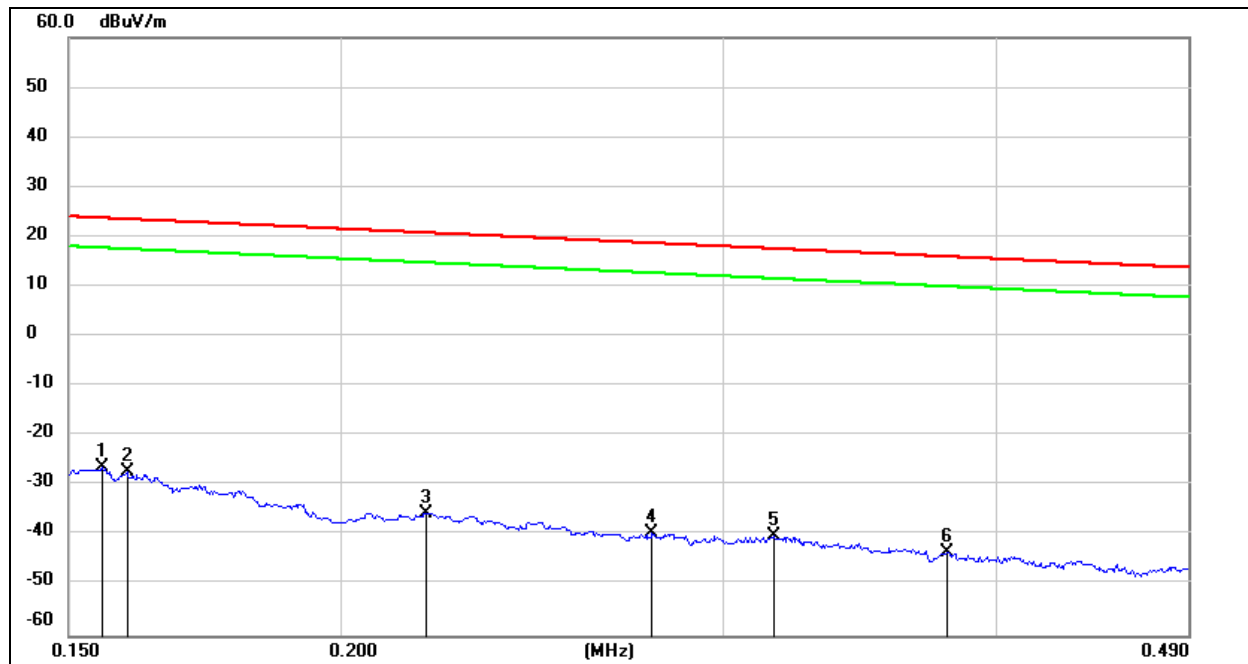
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.0100	75.22	-101.40	-26.18	47.6	-77.68	-3.90	-73.78	peak
2	0.0114	73.88	-101.40	-27.52	46.46	-79.02	-5.04	-73.98	peak
3	0.0181	68.85	-101.36	-32.51	42.45	-84.01	-9.05	-74.96	peak
4	0.0316	64.74	-101.40	-36.66	37.61	-88.16	-13.89	-74.27	peak
5	0.0589	60.81	-101.52	-40.71	32.2	-92.21	-19.30	-72.91	peak
6	0.0981	57.77	-101.78	-44.01	27.77	-95.51	-23.73	-71.78	peak

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

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.

4. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}(120\pi) = \text{dBuV/m} - 51.5$.

**150 kHz ~ 490 kHz**

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	0.1554	75.27	-101.65	-26.38	23.77	-77.88	-27.73	-50.15	peak
2	0.1595	74.36	-101.65	-27.29	23.55	-78.79	-27.95	-50.84	peak
3	0.2190	66.27	-101.75	-35.48	20.79	-86.98	-30.71	-56.27	peak
4	0.2782	62.29	-101.83	-39.54	18.71	-91.04	-32.79	-58.25	peak
5	0.3163	61.70	-101.87	-40.17	17.6	-91.67	-33.90	-57.77	peak
6	0.3800	58.52	-101.94	-43.42	16.01	-94.92	-35.49	-59.43	peak

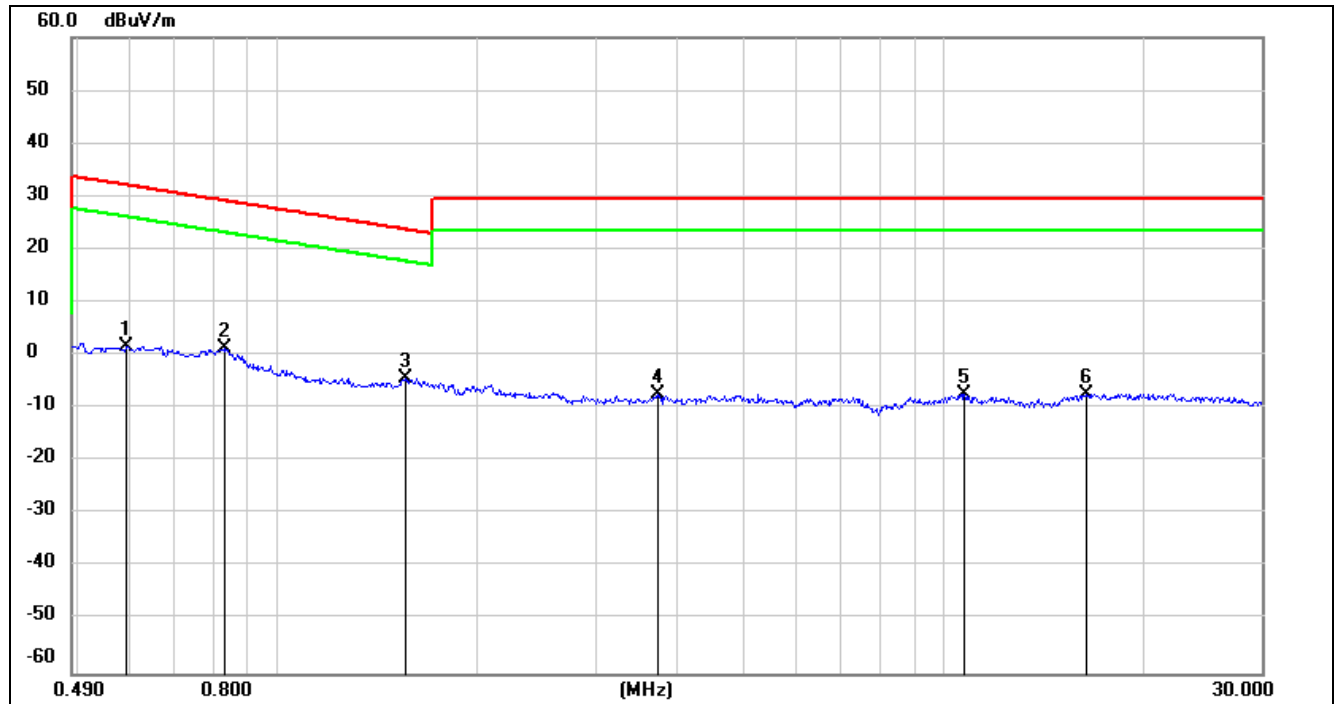
Note: 1. Measurement = Reading Level + Correct Factor.

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.

4. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}(120\pi) = \text{dBuV/m} - 51.5$.

490 kHz ~ 30 MHz



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	0.5917	63.74	-62.08	1.66	32.16	-49.84	-19.34	-30.50	peak
2	0.8296	63.44	-62.17	1.27	29.23	-50.23	-22.27	-27.96	peak
3	1.5564	57.68	-62.02	-4.34	23.76	-55.84	-27.74	-28.10	peak
4	3.7100	54.20	-61.41	-7.21	29.54	-58.71	-21.96	-36.75	peak
5	10.7299	53.48	-60.83	-7.35	29.54	-58.85	-21.96	-36.89	peak
6	16.3959	53.67	-60.96	-7.29	29.54	-58.79	-21.96	-36.83	peak

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

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.

4. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}(120\pi) = \text{dBuV/m} - 51.5$.

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

9. AC POWER LINE CONDUCTED EMISSIONS

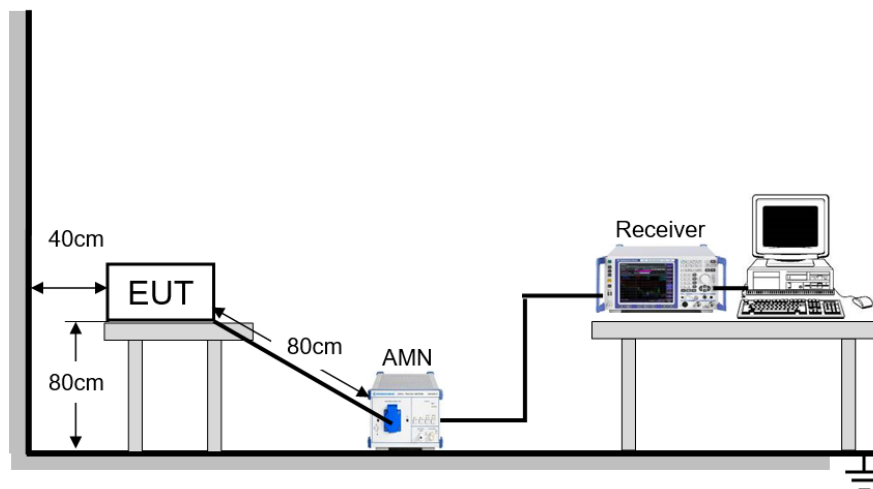
LIMITS

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 80 cm high. The vertical conducting wall of shielding is located 40 cm 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 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

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

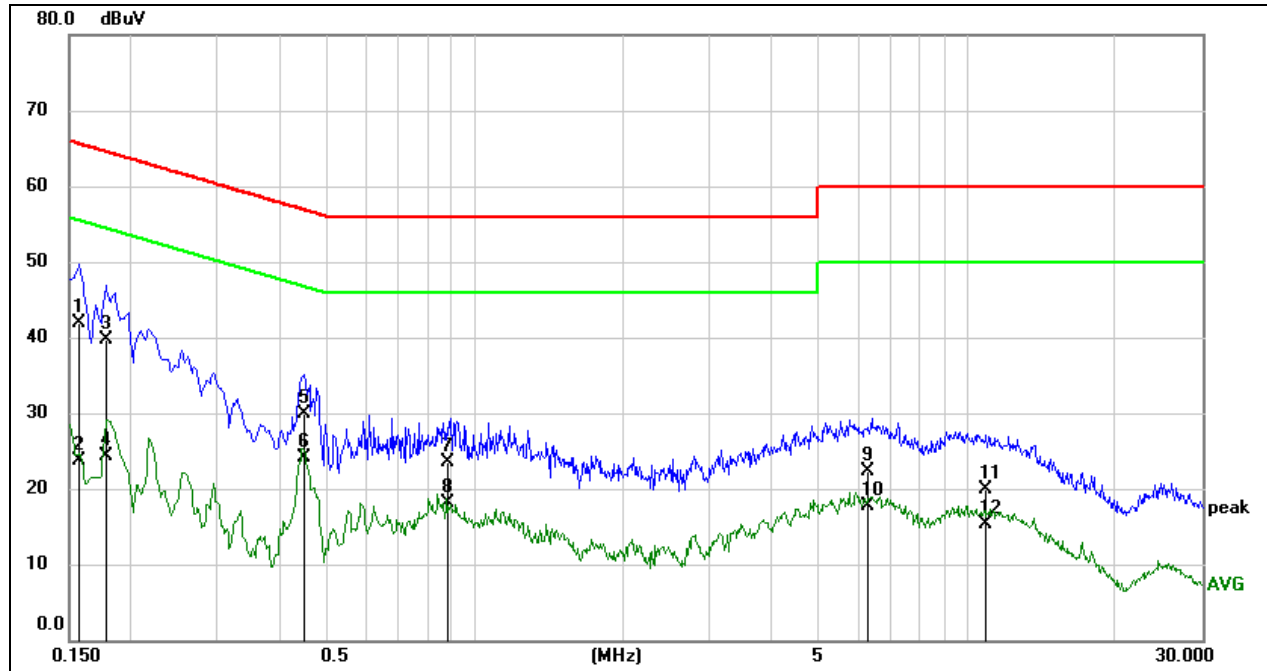
Temperature	25 °C	Relative Humidity	50 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V/60 Hz



RESULTS

9.1.1. 802.11ac VHT80 MODE

LINE N RESULTS (UNII-1 BAND LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1561	32.32	9.59	41.91	65.67	-23.76	QP
2	0.1561	14.07	9.59	23.66	55.67	-32.01	AVG
3	0.1770	30.16	9.59	39.75	64.63	-24.88	QP
4	0.1770	14.70	9.59	24.29	54.63	-30.34	AVG
5	0.4513	20.37	9.60	29.97	56.85	-26.88	QP
6	0.4513	14.42	9.60	24.02	46.85	-22.83	AVG
7	0.8783	13.95	9.60	23.55	56.00	-32.45	QP
8	0.8783	8.46	9.60	18.06	46.00	-27.94	AVG
9	6.3425	12.74	9.64	22.38	60.00	-37.62	QP
10	6.3425	8.13	9.64	17.77	50.00	-32.23	AVG
11	10.9326	10.20	9.64	19.84	60.00	-40.16	QP
12	10.9326	5.75	9.64	15.39	50.00	-34.61	AVG

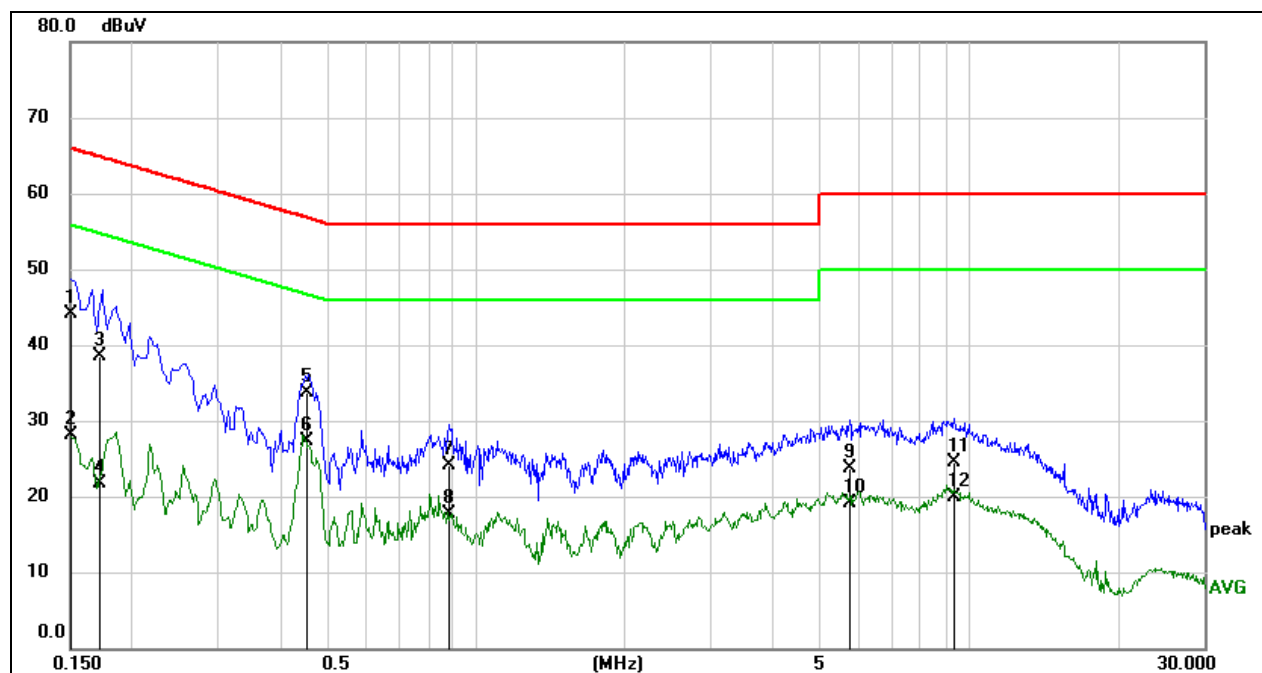
Note: 1. Result = Reading + Correct Factor.

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

LINE L RESULTS (UNII-1 BAND LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1508	34.55	9.59	44.14	65.96	-21.82	QP
2	0.1508	18.49	9.59	28.08	55.96	-27.88	AVG
3	0.1720	28.89	9.59	38.48	64.86	-26.38	QP
4	0.1720	12.17	9.59	21.76	54.86	-33.10	AVG
5	0.4538	24.07	9.60	33.67	56.81	-23.14	QP
6	0.4538	17.76	9.60	27.36	46.81	-19.45	AVG
7	0.8816	14.60	9.60	24.20	56.00	-31.80	QP
8	0.8816	8.07	9.60	17.67	46.00	-28.33	AVG
9	5.7356	14.16	9.63	23.79	60.00	-36.21	QP
10	5.7356	9.41	9.63	19.04	50.00	-30.96	AVG
11	9.3334	14.94	9.62	24.56	60.00	-35.44	QP
12	9.3334	10.31	9.62	19.93	50.00	-30.07	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: 80 Hz (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. FREQUENCY STABILITY

LIMITS

The frequency of the carrier signal shall be maintained within band of operation.

TEST PROCEDURE

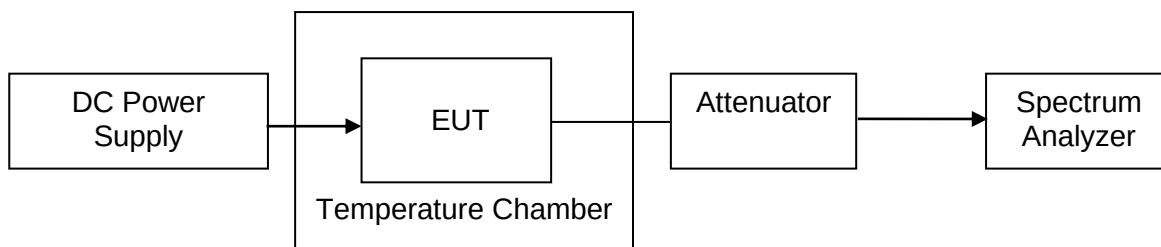
1. The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -10 °C ~ 50 °C (declared by customer).
2. The temperature was incremented by 10 °C intervals and the unit allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.
3. The primary supply voltage is varied from 85 % to 115 % of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	10 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

4. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.
5. Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

TEST SETUP





TEST ENVIRONMENT

	Normal Test Conditions	Extreme Test Conditions
Relative Humidity	20 % ~ 75 %	/
Atmospheric Pressure	100 kPa ~ 102 kPa	/
Temperature	TN (Normal Temperature): 26.4 °C	TL (Low Temperature): -10 °C
		TH (High Temperature): 50 °C
Supply Voltage	VN (Normal Voltage): AC 120 V	VL (Low Voltage): DC 102 V
		VH (High Voltage): DC 138 V

RESULTS

Please refer to Appendix E.

11. DYNAMIC FREQUENCY SELECTION

APPLICABILITY OF DFS REQUIREMENTS

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands.

Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐ Master	☒ Client Without Radar Detection	☐ Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐ Master Device or Client with Radar Detection	☒ Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐ Master Device or Client with Radar Detection	☒ Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

LIMITS

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP $<$ 200 milliwatt and power spectral density $<$ 10 dBm/MHz	-62 dBm
EIRP $<$ 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

PARAMETERS OF RADAR TEST WAVEFORMS

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

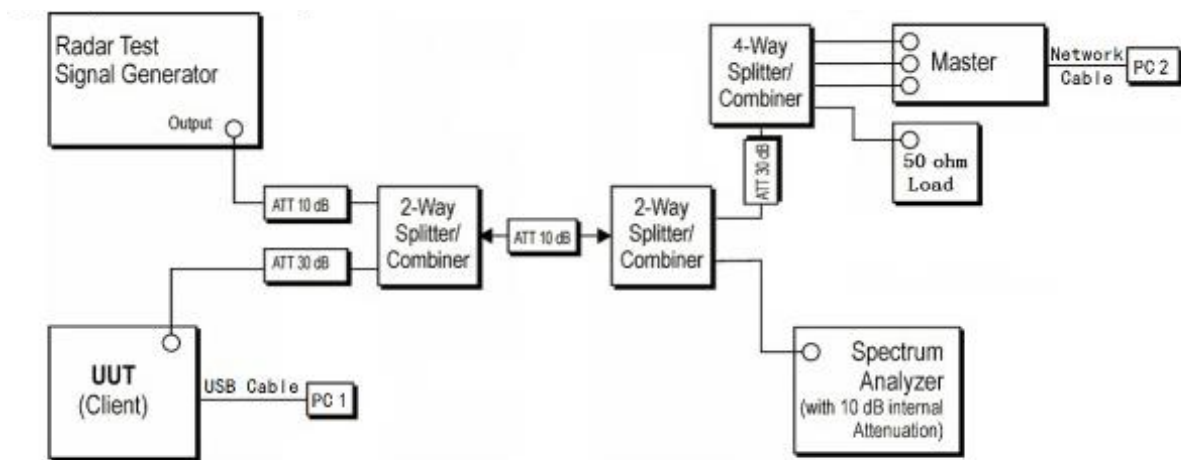
Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4.

TEST SETUP

Setup for Client with injection at the Master



TEST ENVIRONMENT

Temperature	26.0 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V/60 Hz

RESULTS

Please refer to Appendix F.

12. 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

**12.1. Appendix A1: Emission Bandwidth****12.1.1. Test Result**

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
11A-CDD	Ant1	5180	18.440	5171.000	5189.440	PASS
	Ant2	5180	18.760	5170.760	5189.520	PASS
	Ant1	5200	18.440	5190.840	5209.280	PASS
	Ant2	5200	18.640	5190.760	5209.400	PASS
	Ant1	5240	17.920	5231.200	5249.120	PASS
	Ant2	5240	18.880	5230.680	5249.560	PASS
	Ant1	5260	18.480	5250.800	5269.280	PASS
	Ant2	5260	18.160	5251.080	5269.240	PASS
	Ant1	5280	18.280	5270.920	5289.200	PASS
	Ant2	5280	19.240	5270.160	5289.400	PASS
	Ant1	5320	18.520	5310.680	5329.200	PASS
	Ant2	5320	17.880	5311.000	5328.880	PASS
	Ant1	5500	18.120	5491.040	5509.160	PASS
	Ant2	5500	18.000	5491.000	5509.000	PASS
	Ant1	5580	18.720	5570.520	5589.240	PASS
	Ant2	5580	18.720	5570.600	5589.320	PASS
	Ant1	5700	18.680	5690.760	5709.440	PASS
	Ant2	5700	19.640	5690.480	5710.120	PASS
	Ant1	5720	18.080	5711.080	5729.160	PASS
	Ant2	5720	17.960	5711.200	5729.160	PASS
	Ant1	5720 UNII-2C	13.92	5711.080	5725	PASS
	Ant2	5720 UNII-2C	13.8	5711.200	5725	PASS
	Ant1	5720 UNII-3	4.16	5725	5729.160	PASS
	Ant2	5720 UNII-3	4.16	5725	5729.160	PASS
	Ant1	5745	17.960	5736.080	5754.040	PASS
	Ant2	5745	18.440	5735.840	5754.280	PASS
	Ant1	5785	18.640	5775.520	5794.160	PASS
	Ant2	5785	18.200	5776.160	5794.360	PASS
	Ant1	5825	18.640	5815.800	5834.440	PASS
	Ant2	5825	18.440	5815.920	5834.360	PASS
11N20MIMO	Ant1	5180	19.760	5170.400	5190.160	PASS
	Ant2	5180	19.960	5169.920	5189.880	PASS
	Ant1	5200	19.160	5190.200	5209.360	PASS
	Ant2	5200	19.320	5190.240	5209.560	PASS
	Ant1	5240	19.320	5230.400	5249.720	PASS
	Ant2	5240	19.680	5230.120	5249.800	PASS
	Ant1	5260	19.720	5250.280	5270.000	PASS
	Ant2	5260	19.360	5250.400	5269.760	PASS
	Ant1	5280	19.920	5269.920	5289.840	PASS
	Ant2	5280	19.440	5270.560	5290.000	PASS
	Ant1	5320	19.680	5310.240	5329.920	PASS
	Ant2	5320	19.440	5310.320	5329.760	PASS
	Ant1	5500	19.240	5490.360	5509.600	PASS
	Ant2	5500	19.560	5490.320	5509.880	PASS
	Ant1	5580	19.360	5570.480	5589.840	PASS
	Ant2	5580	19.880	5570.160	5590.040	PASS
	Ant1	5700	19.680	5689.960	5709.640	PASS
	Ant2	5700	19.560	5690.280	5709.840	PASS
	Ant1	5720	19.360	5710.360	5729.720	PASS
	Ant2	5720	19.480	5710.360	5729.840	PASS
	Ant1	5720 UNII-2C	14.64	5710.360	5725	PASS
	Ant2	5720 UNII-2C	14.64	5710.360	5725	PASS
	Ant1	5720 UNII-3	4.72	5725	5729.720	PASS
	Ant2	5720 UNII-3	4.84	5725	5729.840	PASS



	Ant1	5745	19.880	5735.120	5755.000	PASS
	Ant2	5745	19.320	5735.400	5754.720	PASS
	Ant1	5785	20.120	5774.760	5794.880	PASS
	Ant2	5785	19.640	5775.320	5794.960	PASS
	Ant1	5825	19.160	5815.400	5834.560	PASS
	Ant2	5825	19.520	5815.440	5834.960	PASS
11N40MIMO	Ant1	5190	39.600	5169.920	5209.520	PASS
	Ant2	5190	39.280	5170.240	5209.520	PASS
	Ant1	5230	39.600	5209.920	5249.520	PASS
	Ant2	5230	43.040	5208.560	5251.600	PASS
	Ant1	5270	40.080	5250.080	5290.160	PASS
	Ant2	5270	39.200	5250.320	5289.520	PASS
	Ant1	5310	39.440	5290.160	5329.600	PASS
	Ant2	5310	39.200	5290.320	5329.520	PASS
	Ant1	5510	39.840	5490.400	5530.240	PASS
	Ant2	5510	39.360	5490.560	5529.920	PASS
	Ant1	5550	39.680	5530.080	5569.760	PASS
	Ant2	5550	40.320	5529.280	5569.600	PASS
	Ant1	5670	39.600	5650.160	5689.760	PASS
	Ant2	5670	40.000	5650.080	5690.080	PASS
	Ant1	5710	39.280	5690.560	5729.840	PASS
	Ant2	5710	39.200	5690.640	5729.840	PASS
	Ant1	5710 UNII-2C	34.44	5690.560	5725	PASS
	Ant2	5710 UNII-2C	34.36	5690.640	5725	PASS
	Ant1	5710 UNII-3	4.84	5725	5729.840	PASS
	Ant2	5710 UNII-3	4.84	5725	5729.840	PASS
	Ant1	5755	40.320	5734.920	5775.240	PASS
	Ant2	5755	39.120	5735.480	5774.600	PASS
	Ant1	5795	39.840	5775.240	5815.080	PASS
	Ant2	5795	39.520	5775.800	5815.320	PASS
11AC20MIMO	Ant1	5180	19.560	5170.080	5189.640	PASS
	Ant2	5180	19.520	5170.200	5189.720	PASS
	Ant1	5200	19.080	5190.560	5209.640	PASS
	Ant2	5200	19.120	5190.400	5209.520	PASS
	Ant1	5240	19.960	5229.760	5249.720	PASS
	Ant2	5240	19.360	5230.160	5249.520	PASS
	Ant1	5260	19.280	5250.160	5269.440	PASS
	Ant2	5260	19.640	5250.160	5269.800	PASS
	Ant1	5280	19.680	5270.240	5289.920	PASS
	Ant2	5280	18.960	5270.400	5289.360	PASS
	Ant1	5320	19.360	5310.400	5329.760	PASS
	Ant2	5320	19.640	5310.280	5329.920	PASS
	Ant1	5500	19.280	5490.520	5509.800	PASS
	Ant2	5500	19.400	5490.240	5509.640	PASS
	Ant1	5580	19.520	5570.320	5589.840	PASS
	Ant2	5580	20.400	5569.360	5589.760	PASS
	Ant1	5700	19.320	5690.400	5709.720	PASS
	Ant2	5700	19.280	5690.440	5709.720	PASS
	Ant1	5720	19.040	5710.480	5729.520	PASS
	Ant2	5720	19.320	5710.560	5729.880	PASS
	Ant1	5720 UNII-2C	14.52	5710.480	5725	PASS
	Ant2	5720 UNII-2C	14.44	5710.560	5725	PASS
	Ant1	5720 UNII-3	4.52	5725	5729.520	PASS
	Ant2	5720 UNII-3	4.88	5725	5729.880	PASS
	Ant1	5745	19.440	5735.360	5754.800	PASS
	Ant2	5745	19.720	5734.800	5754.520	PASS
	Ant1	5785	19.680	5775.320	5795.000	PASS
	Ant2	5785	19.040	5775.520	5794.560	PASS
	Ant1	5825	19.480	5815.320	5834.800	PASS
	Ant2	5825	19.880	5815.080	5834.960	PASS
11AC40MIMO	Ant1	5190	38.960	5170.320	5209.280	PASS



	Ant2	5190	38.960	5170.320	5209.280	PASS
	Ant1	5230	39.360	5210.800	5250.160	PASS
	Ant2	5230	39.680	5210.080	5249.760	PASS
	Ant1	5270	40.240	5249.520	5289.760	PASS
	Ant2	5270	39.120	5250.400	5289.520	PASS
	Ant1	5310	39.120	5290.320	5329.440	PASS
	Ant2	5310	40.000	5290.080	5330.080	PASS
	Ant1	5510	39.280	5490.560	5529.840	PASS
	Ant2	5510	38.960	5490.720	5529.680	PASS
	Ant1	5550	39.600	5529.760	5569.360	PASS
	Ant2	5550	39.600	5530.000	5569.600	PASS
	Ant1	5670	39.680	5650.240	5689.920	PASS
	Ant2	5670	40.000	5650.320	5690.320	PASS
	Ant1	5710	39.200	5690.160	5729.360	PASS
	Ant2	5710	39.840	5690.480	5730.320	PASS
	Ant1	5710 UNII-2C	34.84	5690.160	5725	PASS
	Ant2	5710 UNII-2C	34.52	5690.480	5725	PASS
	Ant1	5710 UNII-3	4.36	5725	5729.360	PASS
	Ant2	5710 UNII-3	5.32	5725	5730.320	PASS
	Ant1	5755	39.360	5735.480	5774.840	PASS
	Ant2	5755	40.480	5734.600	5775.080	PASS
	Ant1	5795	38.880	5775.720	5814.600	PASS
	Ant2	5795	39.920	5775.240	5815.160	PASS
11AC80MIMO	Ant1	5210	80.000	5170.000	5250.000	PASS
	Ant2	5210	79.840	5169.840	5249.680	PASS
	Ant1	5290	81.600	5248.080	5329.680	PASS
	Ant2	5290	81.280	5249.360	5330.640	PASS
	Ant1	5530	79.200	5490.480	5569.680	PASS
	Ant2	5530	79.680	5490.000	5569.680	PASS
	Ant1	5610	81.280	5569.360	5650.640	PASS
	Ant2	5610	79.200	5570.480	5649.680	PASS
	Ant1	5690	80.480	5649.360	5729.840	PASS
	Ant2	5690	82.080	5649.520	5731.600	PASS
	Ant1	5690 UNII-2C	75.64	5649.360	5725	PASS
	Ant2	5690 UNII-2C	75.48	5649.520	5725	PASS
	Ant1	5690 UNII-3	4.84	5725	5729.840	PASS
	Ant2	5690 UNII-3	6.6	5725	5731.600	PASS
	Ant1	5775	79.680	5734.840	5814.520	PASS
	Ant2	5775	83.680	5733.080	5816.760	PASS



12.1.2. Test Graphs





11A-CDD Ant2 5200



11A-CDD Ant1 5240



11A-CDD Ant2 5240





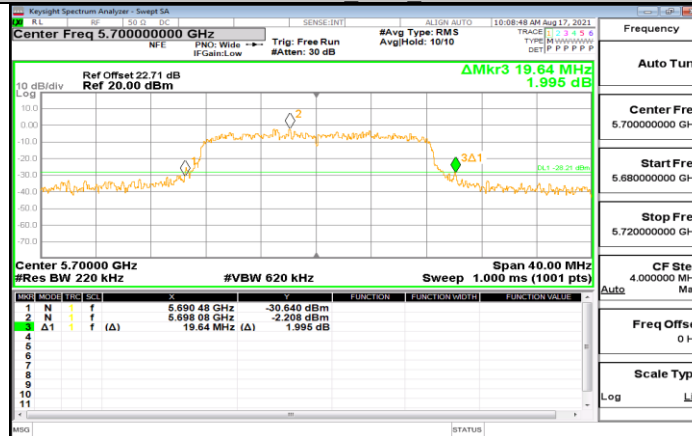




11A-CDD Ant2 5580



11A-CDD Ant1 5700



11A-CDD Ant2 5700









