REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

7. RADIATED TEST RESULTS

LIMITS

Please refer to FCC §15.205, §15.209 and §15.407(b) (4)

Please refer to RSS-GEN Clause 8.9 (Transmitter)

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1GHz)							
		Field Strength Limit					
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	(dBuV/m) at 3 m					
(***: 12)	(47,11) 41 5 111	Quasi-Peak					
30 - 88	100	40					
88 - 216	150	43.5					
216 - 960	200	46					
Above 960	500	54					
Above 1000	500	Peak	Average				
Above 1000	300	74	54				

Limits of unwanted emission out of the restricted bands

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz)								
Frequency Range		Field Strength Limit						
(MHz)	EIRP Limit	(dBuV/m) at 3 m						
30 - 88		(ubu v/III) at 3 III						
5150~5250 MHz		PK:68.2(dBµV/m)						
5250~5350 MHz	PK:-27 (dBm/MHz)							
5470~5725 MHz								
	PK:-27 (dBm/MHz) *1	PK: 68.2(dBµV/m) *1						
5725~5850 MHz	PK:10 (dBm/MHz) *2	PK:105.2 (dBµV/m) *2						
3723~3630 MHZ	PK:15.6 (dBm/MHz) *3	PK: 110.8(dBµV/m) *3						
	PK:27 (dBm/MHz) *4	PK:122.2 (dBµV/m) *4						

Note:

^{*1} beyond 75 MHz or more above of the band edge.

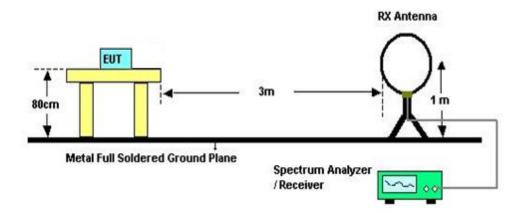
^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

TEST SETUP AND PROCEDURE

Below 30MHz



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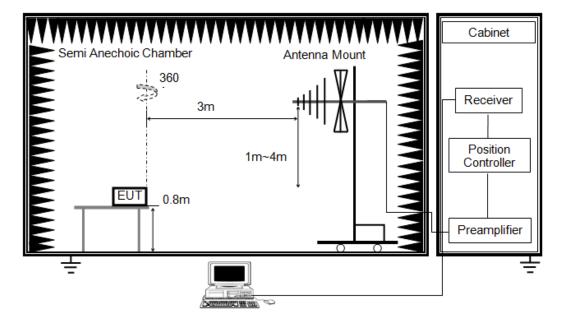
The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 0.8 meter above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- 6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

Below 1G

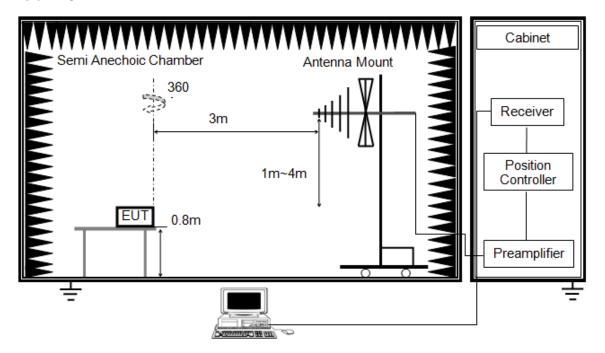
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The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 0.8 meter above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- 6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

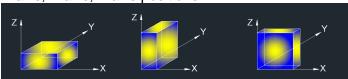


The setting of the spectrum analyser

RBW	1M
11/81///	PEAK: 3M AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 1.5m above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
- 6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.
- 7. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)

X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

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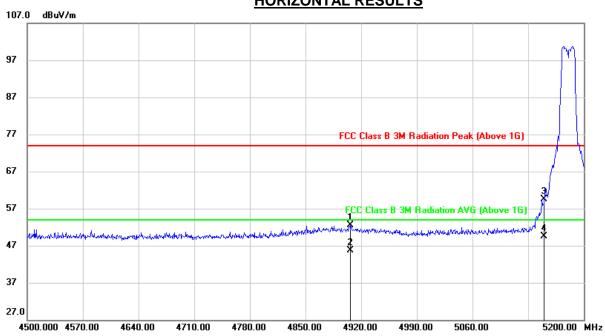
802.11a SISO MODE 7.1.

7.1.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4906.000	12.41	40.11	52.52	74.00	-21.48	peak
2	4906.000	5.65	40.11	45.76	54.00	-8.24	AVG
3	5150.000	19.05	40.40	59.45	74.00	-14.55	peak
4	5150.000	9.15	40.40	49.55	54.00	-4.45	AVG

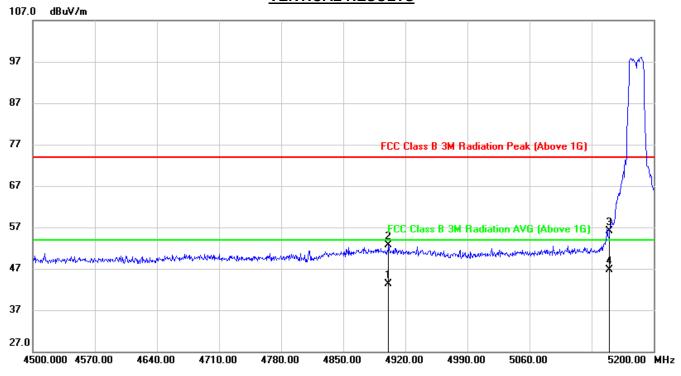
Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

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VERTICAL RESULTS

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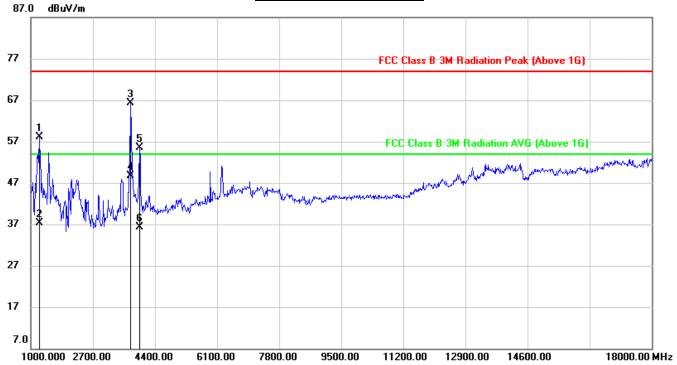
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4901.000	3.20	40.03	43.23	54.00	-10.77	AVG
2	4901.100	12.72	40.03	52.75	74.00	-21.25	peak
3	5150.000	15.56	40.60	56.16	74.00	-17.84	peak
4	5150.000	6.08	40.60	46.68	54.00	-7.32	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

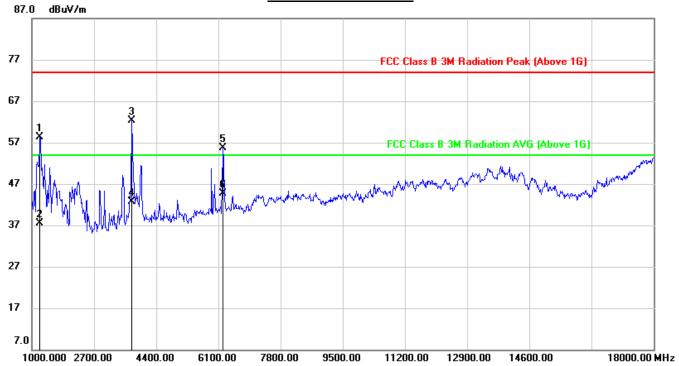
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	71.33	-13.27	58.06	74.00	-15.94	peak
2	1238.000	50.57	-13.27	37.30	54.00	-16.70	AVG
3	3737.000	71.05	-4.83	66.22	74.00	-7.78	peak
4	3737.000	53.47	-4.83	48.64	54.00	-5.36	AVG
5	3975.000	59.91	-4.42	55.49	74.00	-18.51	peak
6	3975.000	40.68	-4.42	36.26	54.00	-17.74	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



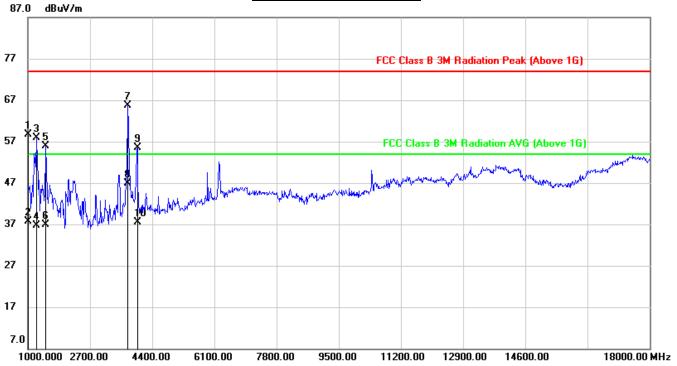
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.59	-13.38	58.21	74.00	-15.79	peak
2	1221.000	50.98	-13.38	37.60	54.00	-16.40	AVG
3	3737.000	67.17	-4.81	62.36	74.00	-11.64	peak
4	3748.309	47.58	-4.79	42.79	54.00	-11.21	AVG
5	6219.000	52.93	2.83	55.76	74.00	-18.24	peak
6	6219.000	41.84	2.83	44.67	54.00	-9.33	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

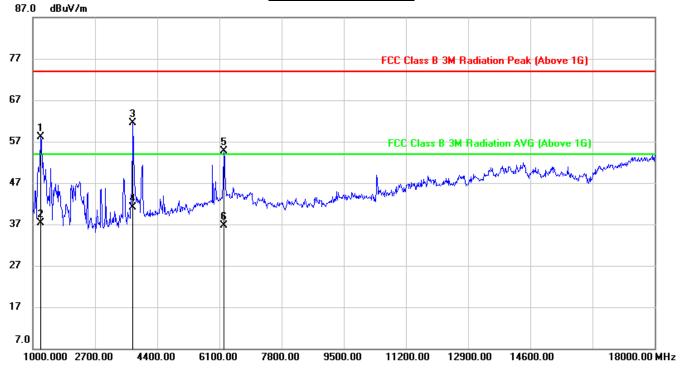
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1000.0000	73.50	-14.76	58.74	74.00	-15.26	peak
2	1000.0000	52.45	-14.76	37.69	54.00	-16.31	AVG
3	1238.000	71.21	-13.27	57.94	74.00	-16.06	peak
4	1238.000	49.89	-13.27	36.62	54.00	-17.38	AVG
5	1493.000	68.51	-12.68	55.83	74.00	-18.17	peak
6	1493.000	49.66	-12.68	36.98	54.00	-17.02	AVG
7	3737.000	70.44	-4.83	65.61	74.00	-8.39	peak
8	3737.000	51.74	-4.83	46.91	54.00	-7.09	AVG
9	3992.000	59.83	-4.42	55.41	74.00	-18.59	peak
10	3992.000	42.00	-4.42	37.58	54.00	-16.42	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



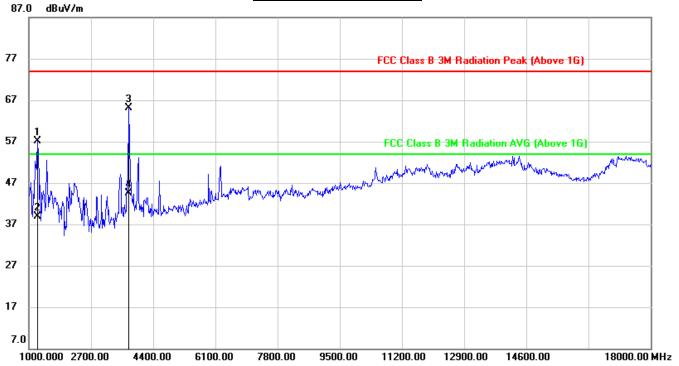
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.56	-13.38	58.18	74.00	-15.82	peak
2	1221.000	50.67	-13.38	37.29	54.00	-16.71	AVG
3	3737.000	66.40	-4.81	61.59	74.00	-12.41	peak
4	3737.000	45.88	-4.81	41.07	54.00	-12.93	AVG
5	6219.000	51.91	2.83	54.74	74.00	-19.26	peak
6	6219.000	33.87	2.83	36.70	54.00	-17.30	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

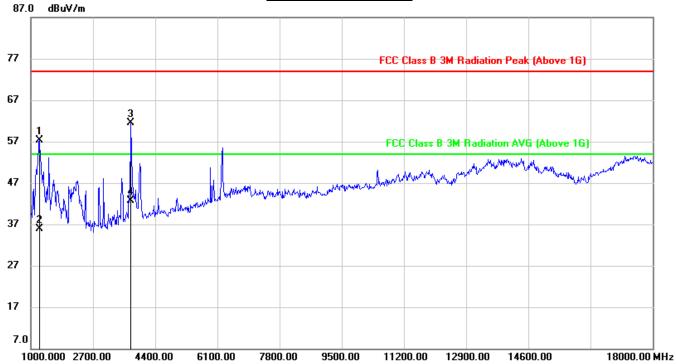
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.39	-13.27	57.12	74.00	-16.88	peak
2	1238.000	52.22	-13.27	38.95	54.00	-15.05	AVG
3	3737.000	69.88	-4.83	65.05	74.00	-8.95	peak
4	3737.000	49.33	-4.83	44.50	54.00	-9.50	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.55	-13.22	57.33	74.00	-16.67	peak
2	1238.000	49.22	-13.22	36.00	54.00	-18.00	AVG
3	3737.000	66.28	-4.81	61.47	74.00	-12.53	peak
4	3737.000	47.58	-4.81	42.77	54.00	-11.23	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

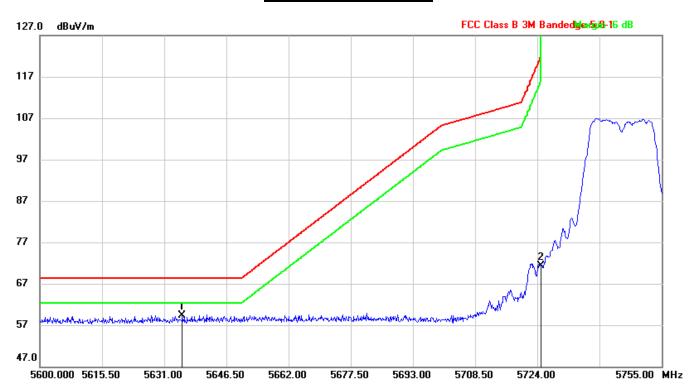
REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

7.1.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

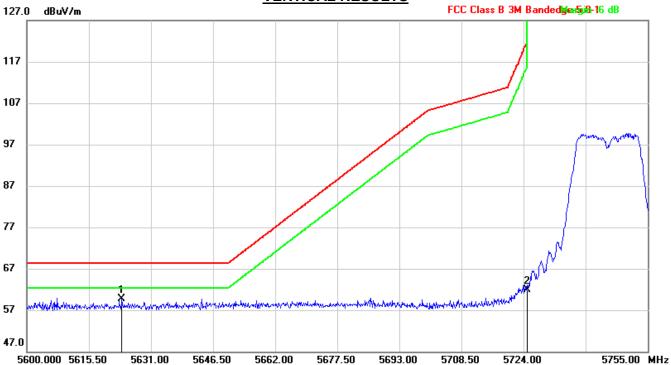


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5635.495	18.13	41.17	59.30	68.20	-8.90	peak
2	5725.000	29.86	41.39	71.25	122.20	-50.95	peak

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

.

VERTICAL RESULTS



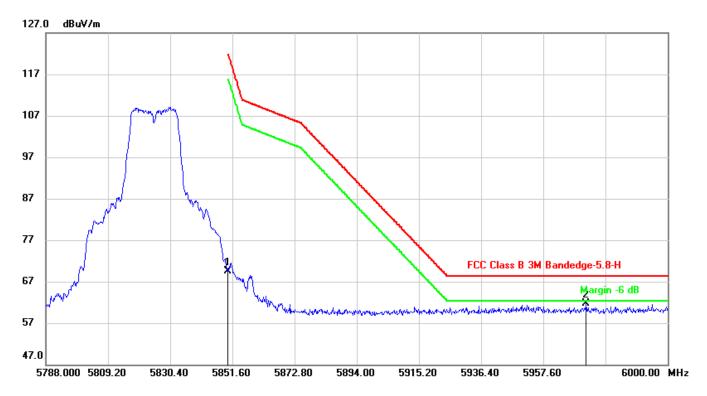
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5623.715	18.56	41.21	59.77	68.20	-8.43	peak
2	5725.000	20.51	41.49	62.00	122.20	-60.20	peak

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

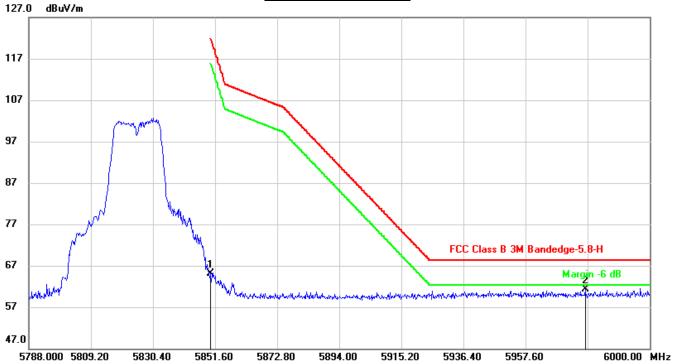


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	27.68	41.77	69.45	122.20	-52.75	peak
2	5972.228	19.59	42.13	61.72	68.20	-6.48	peak

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

.

VERTICAL RESULTS



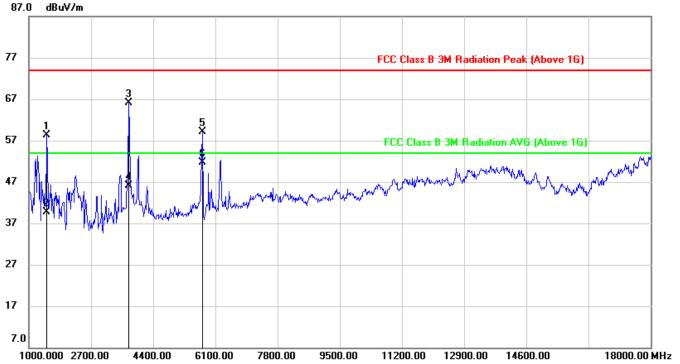
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	23.18	41.87	65.05	122.20	-57.15	peak
2	5977.952	19.04	42.26	61.30	68.20	-6.90	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

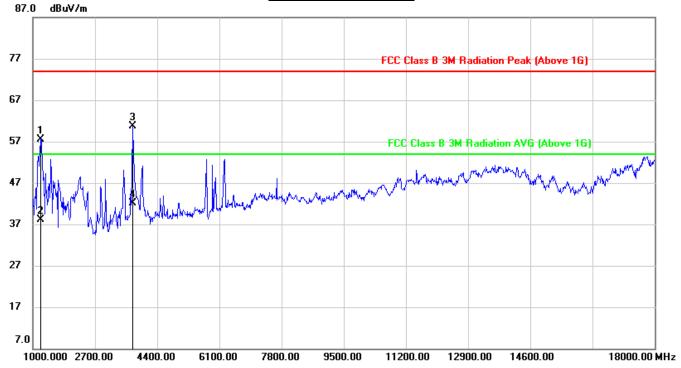
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1493.000	71.07	-12.68	58.39	74.00	-15.61	peak
2	1493.000	52.47	-12.68	39.79	54.00	-14.21	AVG
3	3737.000	70.84	-4.83	66.01	74.00	-7.99	peak
4	3737.000	51.03	-4.83	46.20	54.00	-7.80	AVG
5	5743.000	58.00	1.05	59.05	74.00	-14.95	peak
6	5743.000	50.74	1.05	51.79	54.00	-2.21	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



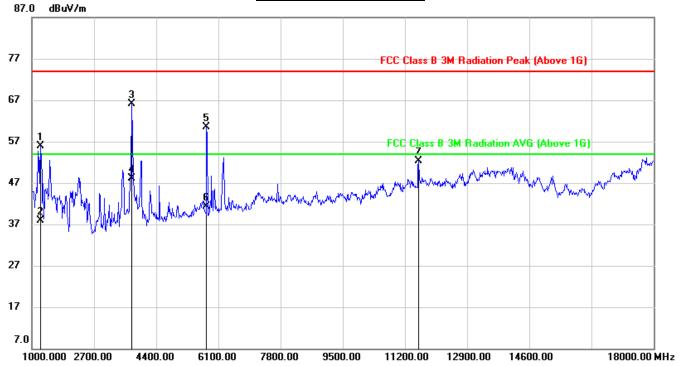
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.98	-13.38	57.60	74.00	-16.40	peak
2	1221.000	51.41	-13.38	38.03	54.00	-15.97	AVG
3	3720.000	65.59	-4.83	60.76	74.00	-13.24	peak
4	3720.000	47.01	-4.83	42.18	54.00	-11.82	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

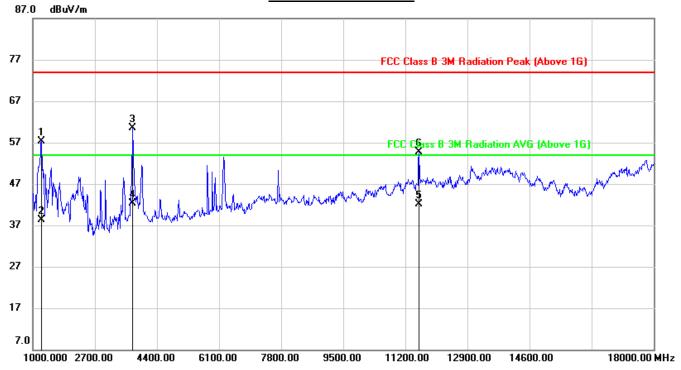
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	69.22	-13.27	55.95	74.00	-18.05	peak
2	1238.000	51.08	-13.27	37.81	54.00	-16.19	AVG
3	3737.000	70.92	-4.83	66.09	74.00	-7.91	peak
4	3737.000	52.87	-4.83	48.04	54.00	-5.96	AVG
5	5777.000	59.23	1.22	60.45	74.00	-13.55	peak
6	5777.000	40.08	1.22	41.30	54.00	-12.70	AVG
7	11574.000	37.95	14.43	52.38	74.00	-21.62	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



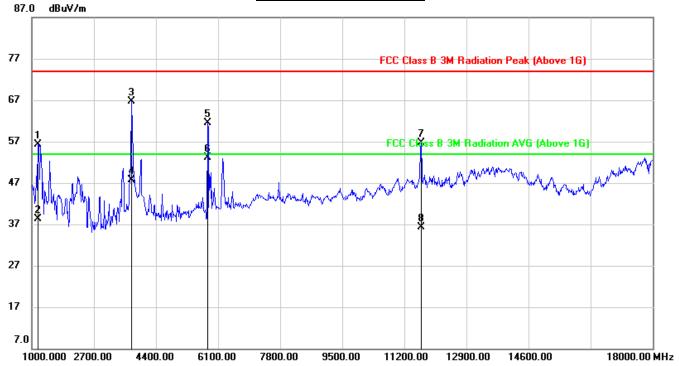
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.62	-13.22	57.40	74.00	-16.60	peak
2	1238.000	51.47	-13.22	38.25	54.00	-15.75	AVG
3	3737.000	65.35	-4.81	60.54	74.00	-13.46	peak
4	3737.000	47.04	-4.81	42.23	54.00	-11.77	AVG
5	11570.084	27.62	14.42	42.04	74.00	-31.96	peak
6	11574.000	40.27	14.40	54.67	74.00	-19.33	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

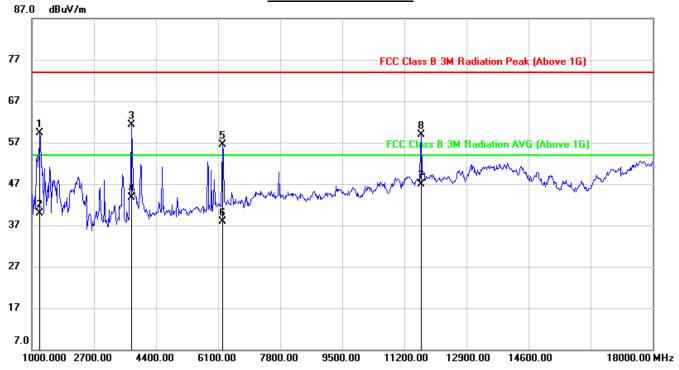
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1170.000	70.06	-13.66	56.40	74.00	-17.60	peak
2	1170.000	52.04	-13.66	38.38	54.00	-15.62	AVG
3	3737.000	71.52	-4.83	66.69	74.00	-7.31	peak
4	3737.000	52.44	-4.83	47.61	54.00	-6.39	AVG
5	5811.000	60.18	1.35	61.53	74.00	-12.47	peak
6	5811.000	51.68	1.35	53.03	54.00	-0.97	AVG
7	11659.000	42.45	14.27	56.72	74.00	-17.28	peak
8	11659.000	22.01	14.27	36.28	54.00	-17.72	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	72.62	-13.38	59.24	74.00	-14.76	peak
2	1221.000	53.26	-13.38	39.88	54.00	-14.12	AVG
3	3737.000	66.06	-4.81	61.25	74.00	-12.75	peak
4	3737.000	48.57	-4.81	43.76	54.00	-10.24	AVG
5	6219.000	53.75	2.83	56.58	74.00	-17.42	peak
6	6219.000	35.07	2.83	37.90	54.00	-16.10	AVG
7	11650.110	32.20	14.75	46.95	54.00	-7.05	AVG
8	11659.000	44.11	14.82	58.93	74.00	-15.07	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

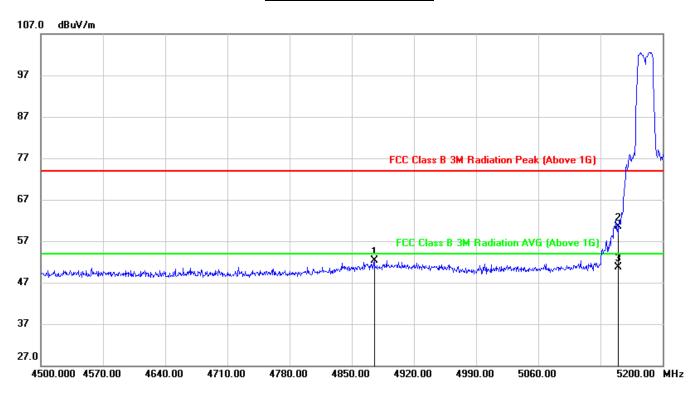
7.1. 802.11n HT20 CDD MODE

7.1.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

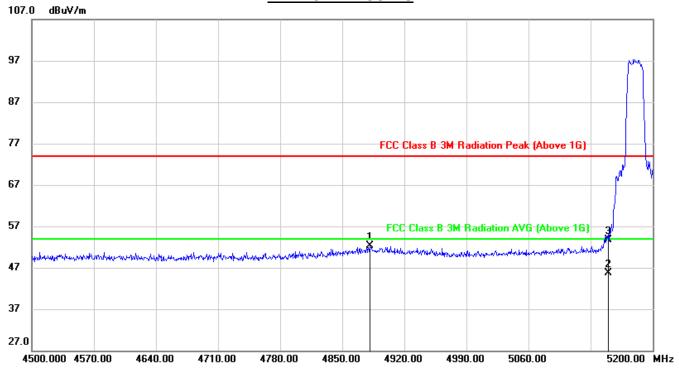


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.200	12.38	39.86	52.24	74.00	-21.76	peak
2	5150.000	20.05	40.40	60.45	74.00	-13.55	peak
3	5150.000	10.25	40.40	50.65	54.00	-3.35	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

VERTICAL RESULTS

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



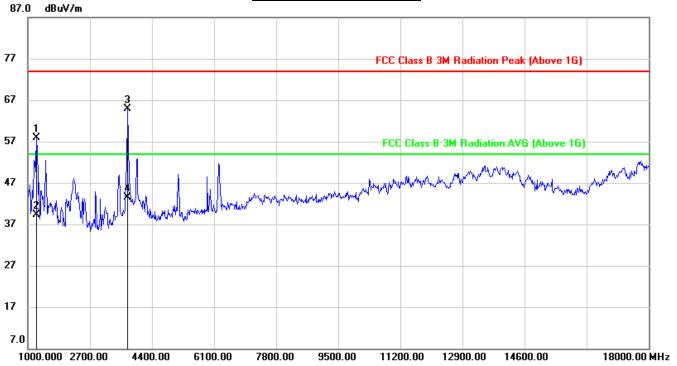
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4880.800	12.53	39.86	52.39	74.00	-21.61	peak
2	5150.000	5.12	40.60	45.72	74.00	-28.28	peak
3	5150.000	13.03	40.60	53.63	74.00	-20.37	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

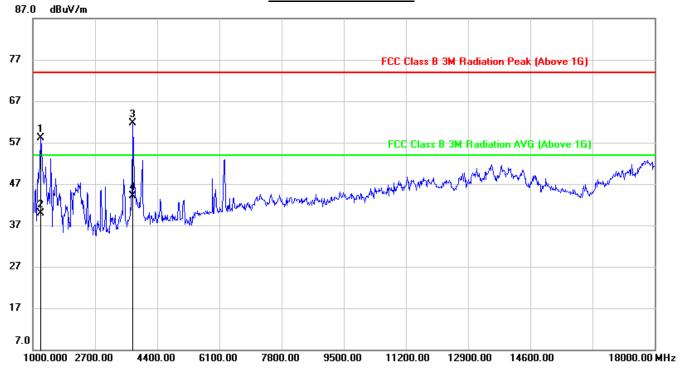
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	71.27	-13.27	58.00	74.00	-16.00	peak
2	1238.000	52.54	-13.27	39.27	54.00	-14.73	AVG
3	3737.000	69.65	-4.83	64.82	74.00	-9.18	peak
4	3737.000	48.33	-4.83	43.50	54.00	-10.50	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



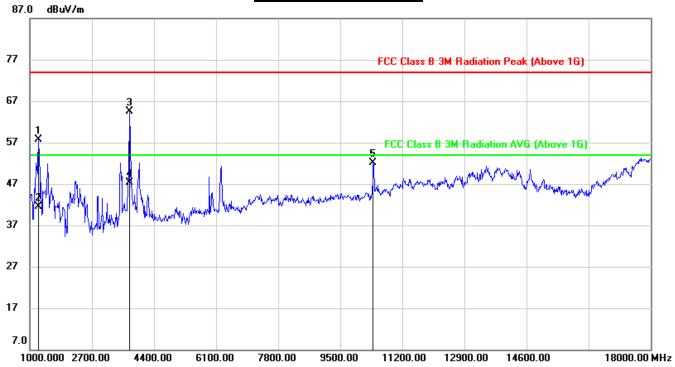
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1204.000	71.60	-13.54	58.06	74.00	-15.94	peak
2	1204.000	53.47	-13.54	39.93	54.00	-14.07	AVG
3	3737.000	66.50	-4.81	61.69	74.00	-12.31	peak
4	3737.000	48.97	-4.81	44.16	54.00	-9.84	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

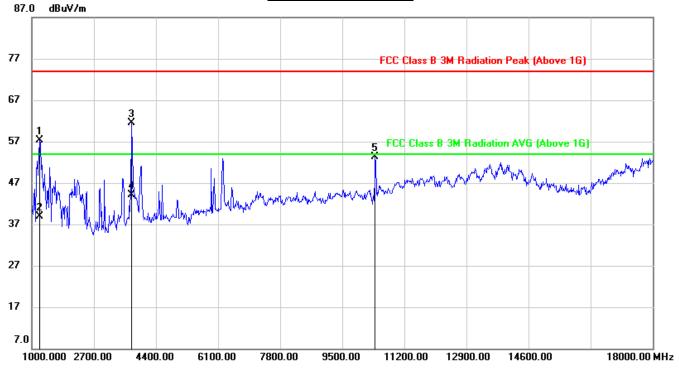
HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	71.00	-13.27	57.73	74.00	-16.27	peak
2	1238.000	54.78	-13.27	41.51	54.00	-12.49	AVG
3	3737.000	69.41	-4.83	64.58	74.00	-9.42	peak
4	3737.000	52.07	-4.83	47.24	54.00	-6.76	AVG
5	10401.000	41.16	11.04	52.20	74.00	-21.80	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS



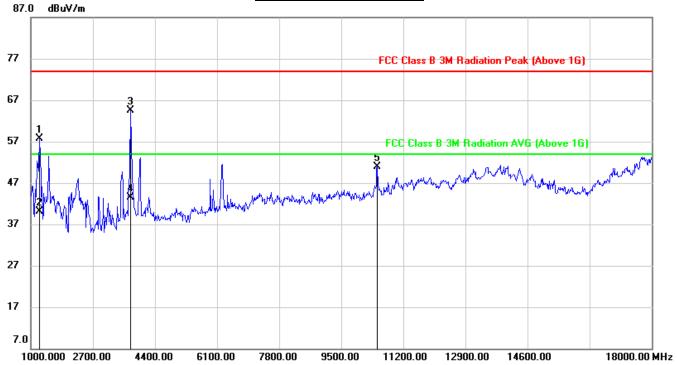
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.75	-13.38	57.37	74.00	-16.63	peak
2	1221.000	52.22	-13.38	38.84	54.00	-15.16	AVG
3	3737.000	66.40	-4.81	61.59	74.00	-12.41	peak
4	3737.000	48.87	-4.81	44.06	54.00	-9.94	AVG
5	10401.000	42.16	11.14	53.30	74.00	-20.70	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

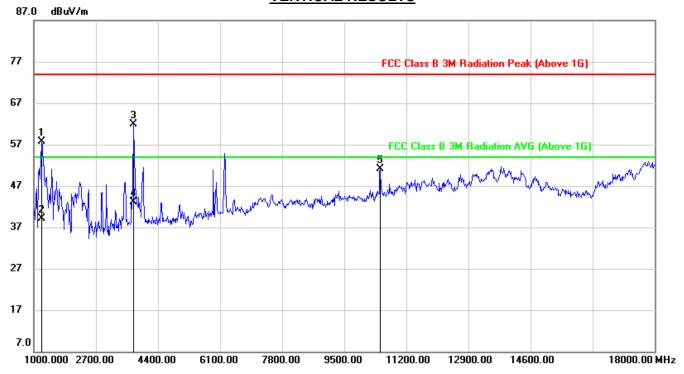


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.94	-13.27	57.67	74.00	-16.33	peak
2	1238.000	53.28	-13.27	40.01	54.00	-13.99	AVG
3	3737.000	69.36	-4.83	64.53	74.00	-9.47	peak
4	3737.000	48.28	-4.83	43.45	54.00	-10.55	AVG
5	10486.000	39.37	11.56	50.93	74.00	-23.07	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

VERTICAL RESULTS

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.18	-13.38	57.80	74.00	-16.20	peak
2	1221.000	52.58	-13.38	39.20	54.00	-14.80	AVG
3	3720.000	66.64	-4.83	61.81	74.00	-12.19	peak
4	3720.000	47.87	-4.83	43.04	54.00	-10.96	AVG
5	10486.000	39.52	11.66	51.18	74.00	-22.82	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

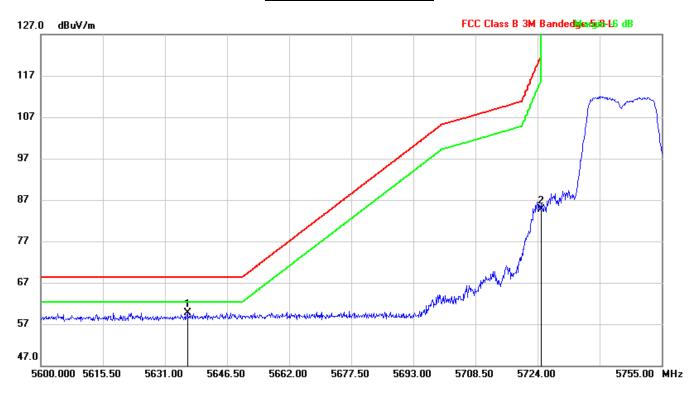
REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

7.1.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

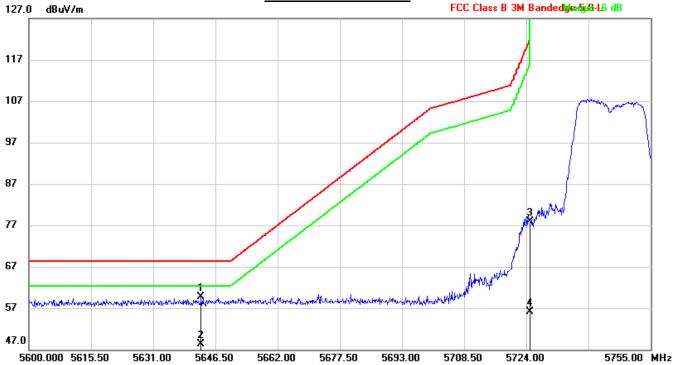


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5636.580	18.55	41.17	59.72	68.20	-8.48	peak
2	5725.000	43.23	41.39	84.62	122.20	-37.58	peak

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

.

VERTICAL RESULTS



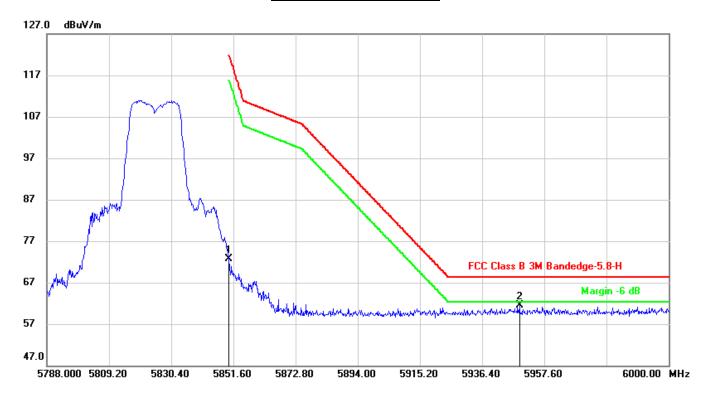
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5642.935	18.40	41.26	59.66	68.20	-8.54	peak
2	5642.935	6.98	41.26	48.24	68.20	-19.96	AVG
3	5725.000	36.34	41.49	77.83	122.20	-44.37	peak
4	5725.000	14.62	41.49	56.11	122.20	-66.09	AVG

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

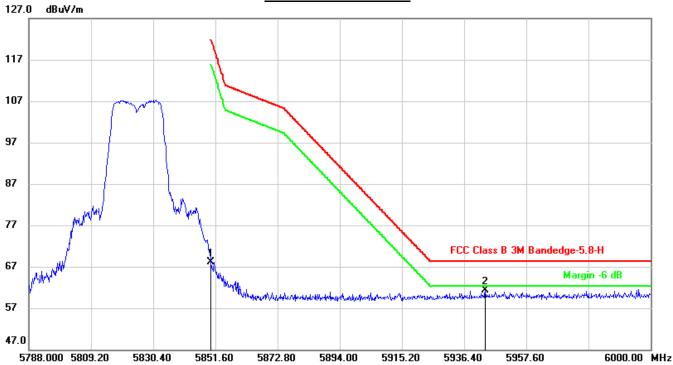


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	31.01	41.77	72.78	122.20	-49.42	peak
2	5949.120	19.51	42.00	61.51	68.20	-6.69	peak

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

.

VERTICAL RESULTS



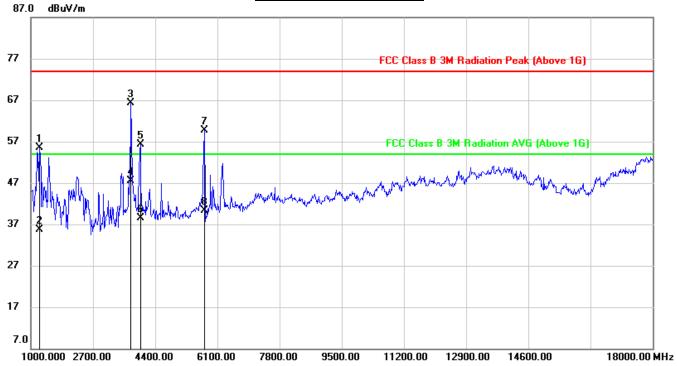
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	26.22	41.87	68.09	122.20	-54.11	peak
2	5943.608	19.24	42.07	61.31	68.20	-6.89	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

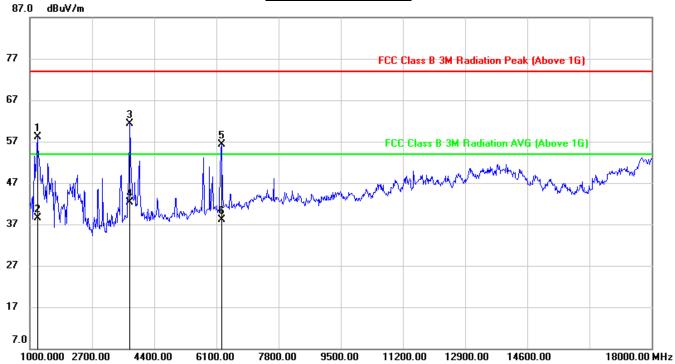


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.80	-13.27	55.53	74.00	-18.47	peak
2	1238.000	48.99	-13.27	35.72	54.00	-18.28	AVG
3	3737.000	71.16	-4.83	66.33	74.00	-7.67	peak
4	3737.000	52.38	-4.83	47.55	54.00	-6.45	AVG
5	3992.000	60.70	-4.42	56.28	74.00	-17.72	peak
6	3992.000	43.02	-4.42	38.60	54.00	-15.40	AVG
7	5743.000	58.75	1.05	59.80	74.00	-14.20	peak
8	5743.000	39.25	1.05	40.30	54.00	-13.70	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

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VERTICAL RESULTS



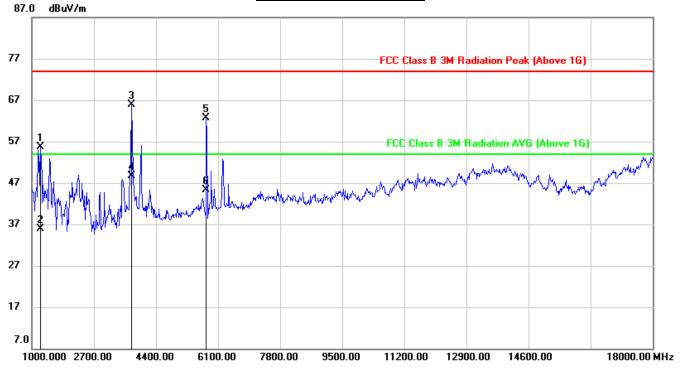
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1204.000	71.67	-13.54	58.13	74.00	-15.87	peak
2	1204.000	52.03	-13.54	38.49	54.00	-15.51	AVG
3	3737.000	66.16	-4.81	61.35	74.00	-12.65	peak
4	3737.000	47.02	-4.81	42.21	54.00	-11.79	AVG
5	6236.000	53.47	2.89	56.36	74.00	-17.64	peak
6	6236.000	35.14	2.89	38.03	54.00	-15.97	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



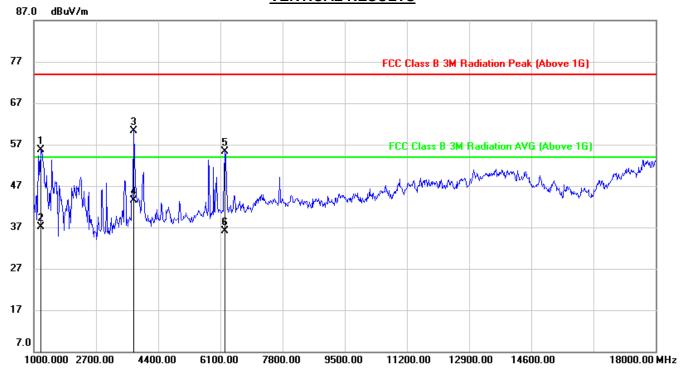
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.90	-13.27	55.63	74.00	-18.37	peak
2	1238.000	49.22	-13.27	35.95	54.00	-18.05	AVG
3	3737.000	70.66	-4.83	65.83	74.00	-8.17	peak
4	3737.000	53.54	-4.83	48.71	54.00	-5.29	AVG
5	5777.000	61.51	1.22	62.73	74.00	-11.27	peak
6	5777.000	44.02	1.22	45.24	54.00	-8.76	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



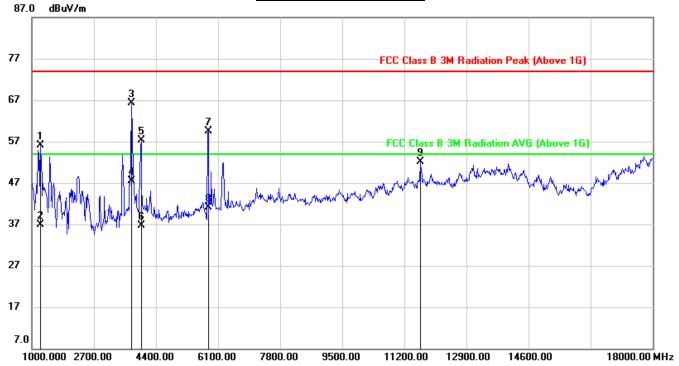
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1187.000	69.38	-13.68	55.70	74.00	-18.30	peak
2	1187.000	50.88	-13.68	37.20	54.00	-16.80	AVG
3	3737.000	65.04	-4.81	60.23	74.00	-13.77	peak
4	3737.000	48.33	-4.81	43.52	54.00	-10.48	AVG
5	6219.000	52.46	2.83	55.29	74.00	-18.71	peak
6	6219.000	33.20	2.83	36.03	54.00	-17.97	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



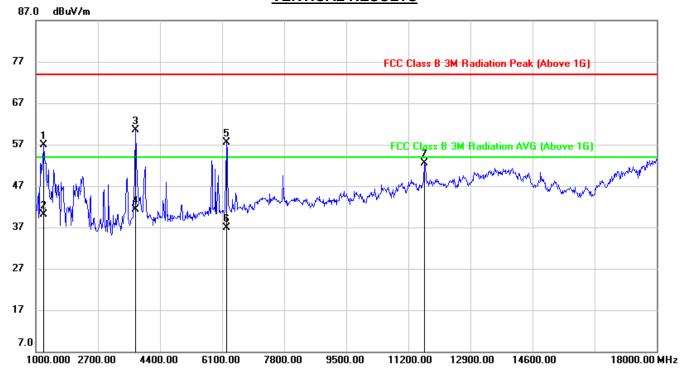
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	69.36	-13.27	56.09	74.00	-17.91	peak
2	1238.000	50.25	-13.27	36.98	54.00	-17.02	AVG
3	3737.000	71.23	-4.83	66.40	74.00	-7.60	peak
4	3737.000	52.31	-4.83	47.48	54.00	-6.52	AVG
5	3992.000	61.70	-4.42	57.28	74.00	-16.72	peak
6	3992.000	41.04	-4.42	36.62	54.00	-17.38	AVG
7	5828.000	58.10	1.38	59.48	74.00	-14.52	peak
8	5828.000	39.66	1.38	41.04	54.00	-12.96	AVG
9	11642.000	37.73	14.33	52.06	74.00	-21.94	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.33	-13.38	56.95	74.00	-17.05	peak
2	1221.000	53.57	-13.38	40.19	54.00	-13.81	AVG
3	3737.000	65.33	-4.81	60.52	74.00	-13.48	peak
4	3737.000	46.02	-4.81	41.21	54.00	-12.79	AVG
5	6219.000	54.61	2.83	57.44	74.00	-16.56	peak
6	6219.000	34.11	2.83	36.94	54.00	-17.06	AVG
7	11642.000	37.79	14.67	52.46	74.00	-21.54	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

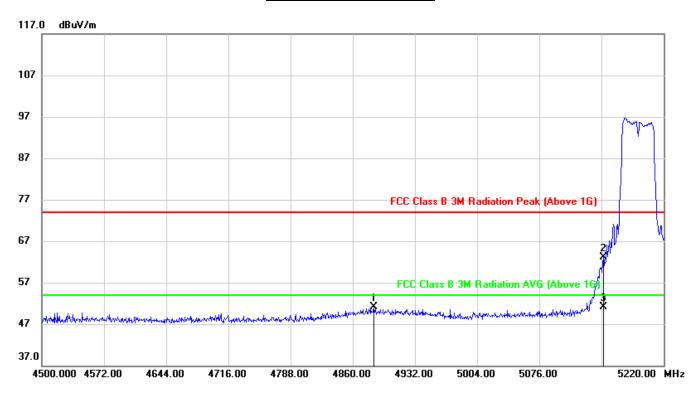
7.2. 802.11n HT40 CDD MODE

7.2.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



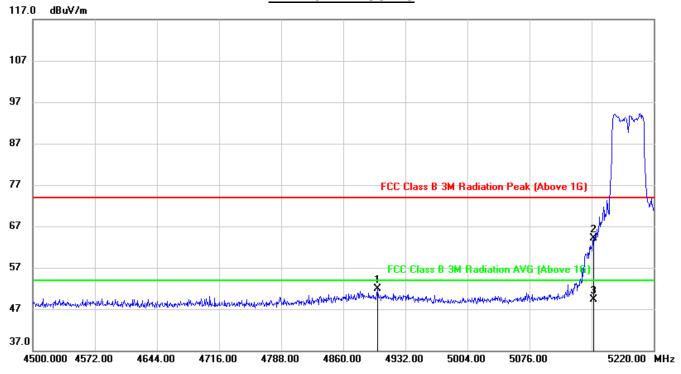
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4884.480	11.06	39.96	51.02	74.00	-22.98	peak
2	5150.000	22.63	40.40	63.03	74.00	-10.97	peak
3	5150.000	10.71	40.40	51.11	54.00	-2.89	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



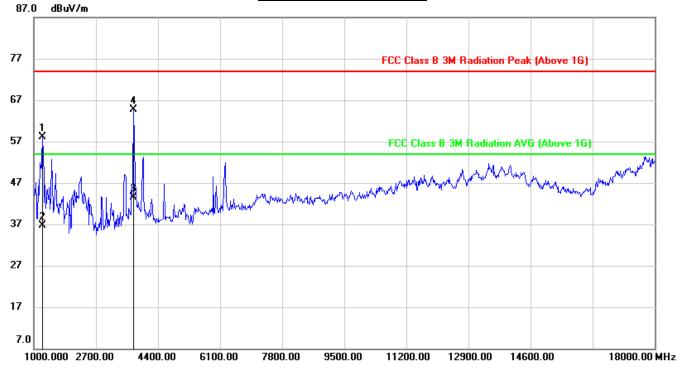
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4899.600	11.94	40.03	51.97	74.00	-22.03	peak
2	5150.000	23.56	40.60	64.16	74.00	-9.84	peak
3	5150.000	8.78	40.60	49.38	54.00	-4.62	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

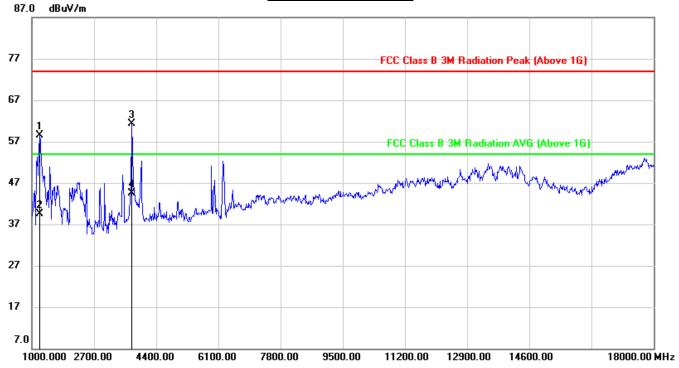


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	71.33	-13.27	58.06	74.00	-15.94	peak
2	1238.000	50.05	-13.27	36.78	54.00	-17.22	AVG
3	3733.853	48.27	-4.84	43.43	54.00	-10.57	AVG
4	3737.000	69.53	-4.83	64.70	74.00	-9.30	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



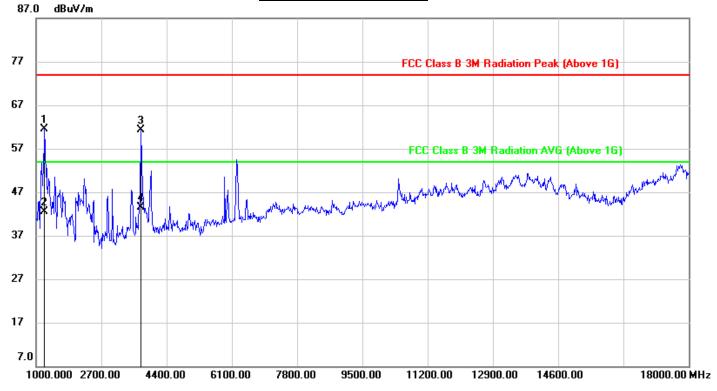
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.81	-13.38	58.43	74.00	-15.57	peak
2	1221.000	52.87	-13.38	39.49	54.00	-14.51	AVG
3	3737.000	66.12	-4.81	61.31	74.00	-12.69	peak
4	3737.000	49.28	-4.81	44.47	54.00	-9.53	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

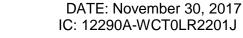


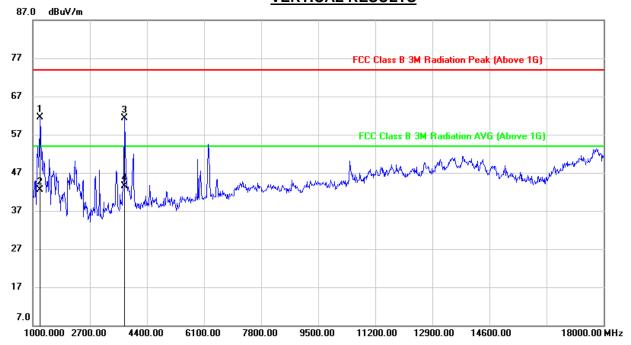
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	71.31	-13.27	58.04	74.00	-15.96	peak
2	1238.000	53.64	-13.27	40.37	54.00	-13.63	AVG
3	3737.000	69.85	-4.83	65.02	74.00	-8.98	peak
4	3737.000	50.74	-4.83	45.91	54.00	-8.09	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	74.80	-13.38	61.42	74.00	-12.58	peak
2	1221.000	55.98	-13.38	42.60	54.00	-11.40	AVG
3	3737.000	66.12	-4.81	61.31	74.00	-12.69	peak
4	3737.000	48.25	-4.81	43.44	54.00	-10.56	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

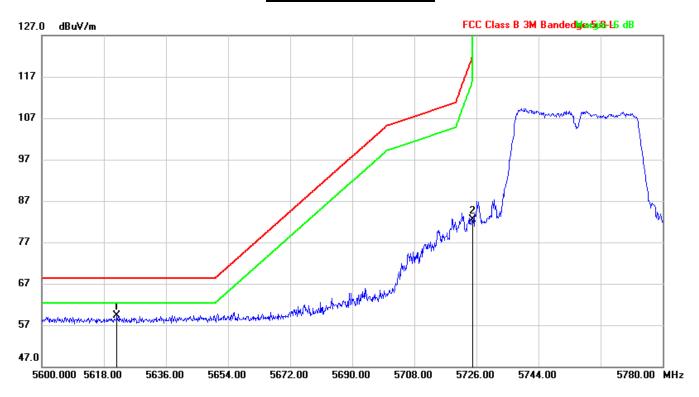
REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

7.2.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



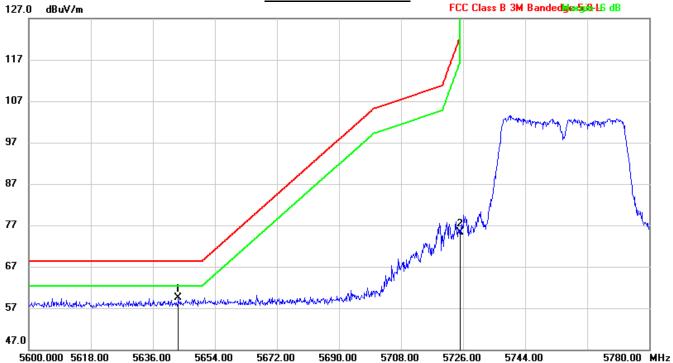
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5621.780	18.24	41.16	59.40	68.20	-8.80	peak
2	5725.000	41.11	41.39	82.50	122.20	-39.70	peak

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

.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



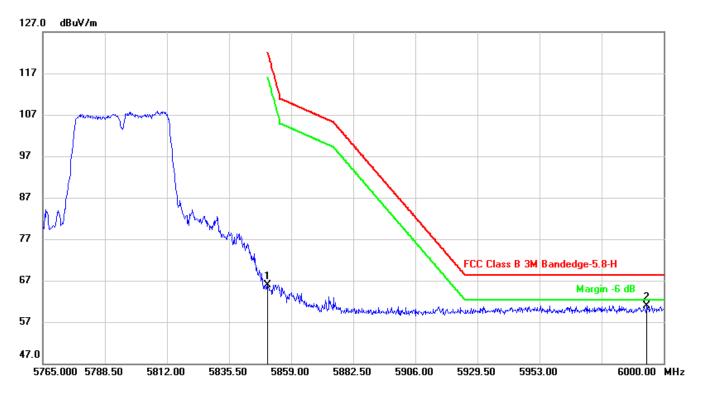
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5643.380	18.23	41.26	59.49	68.20	-8.71	peak
2	5725.000	33.72	41.49	75.21	122.20	-46.99	peak

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



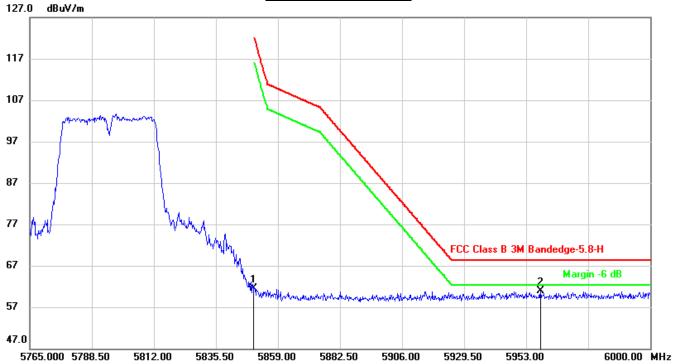
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	24.22	41.77	65.99	122.20	-56.21	peak
2	5993.655	18.75	42.25	61.00	68.20	-7.20	peak

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

.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



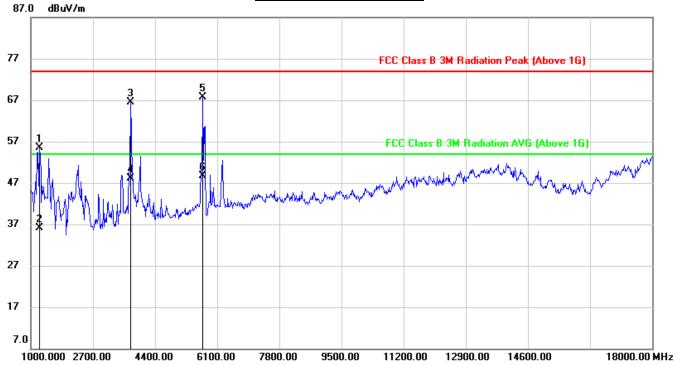
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	19.60	41.87	61.47	122.20	-60.73	peak
2	5958.405	18.75	42.15	60.90	68.20	-7.30	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

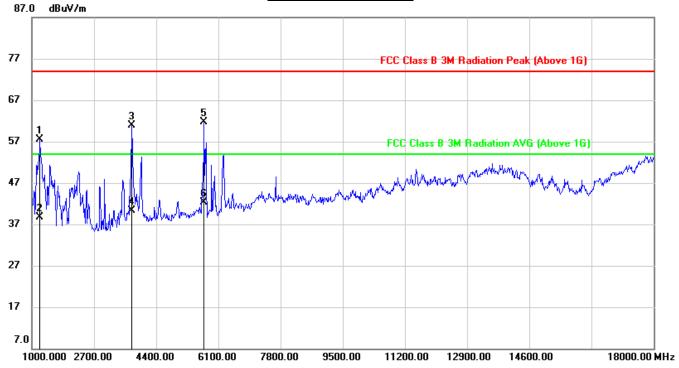


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.80	-13.27	55.53	74.00	-18.47	peak
2	1238.000	49.35	-13.27	36.08	54.00	-17.92	AVG
3	3737.000	71.27	-4.83	66.44	74.00	-7.56	peak
4	3737.000	52.87	-4.83	48.04	54.00	-5.96	AVG
5	5709.000	67.60	0.95	67.55	74.00	-5.45	peak
6	5709.000	47.85	0.95	48.80	54.00	-5.20	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



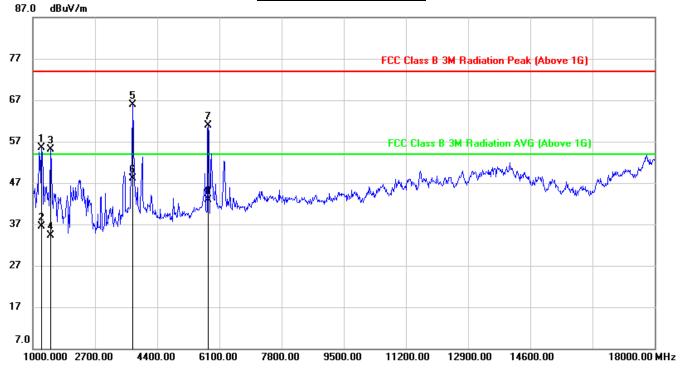
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.85	-13.38	57.47	74.00	-16.53	peak
2	1221.000	52.01	-13.38	38.63	54.00	-15.37	AVG
3	3737.000	65.70	-4.81	60.89	74.00	-13.11	peak
4	3737.000	45.20	-4.81	40.39	54.00	-13.61	AVG
5	5709.000	60.58	1.05	61.63	74.00	-12.37	peak
6	5709.000	41.20	1.05	42.25	54.00	-11.75	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

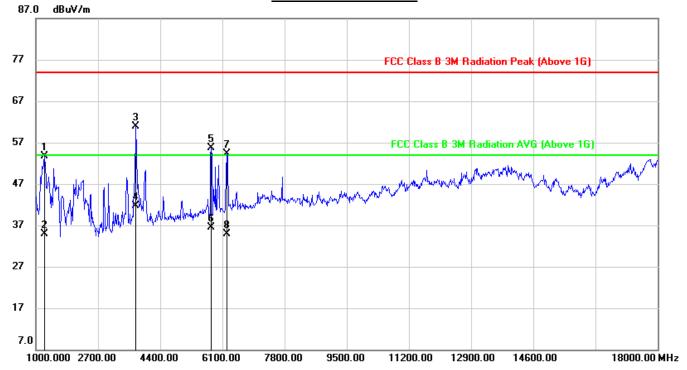


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.69	-13.27	55.42	74.00	-18.58	peak
2	1238.000	49.78	-13.27	36.51	54.00	-17.49	AVG
3	1476.000	67.91	-12.71	55.20	74.00	-18.80	peak
4	1476.000	47.02	-12.71	34.31	54.00	-19.69	AVG
5	3737.000	70.64	-4.83	65.81	74.00	-8.19	peak
6	3737.000	52.87	-4.83	48.04	54.00	-5.96	AVG
7	5794.000	59.56	1.32	60.88	74.00	-13.12	peak
8	5794.000	41.68	1.32	43.00	54.00	-11.00	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	67.02	-13.22	53.80	74.00	-20.20	peak
2	1238.000	48.09	-13.22	34.87	54.00	-19.13	AVG
3	3737.000	65.73	-4.81	60.92	74.00	-13.08	peak
4	3737.000	46.58	-4.81	41.77	54.00	-12.23	AVG
5	5794.000	54.36	1.42	55.78	74.00	-18.22	peak
6	5794.000	35.01	1.42	36.43	54.00	-17.57	AVG
7	6219.000	51.39	2.83	54.22	74.00	-19.78	peak
8	6219.000	32.08	2.83	34.91	54.00	-19.09	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

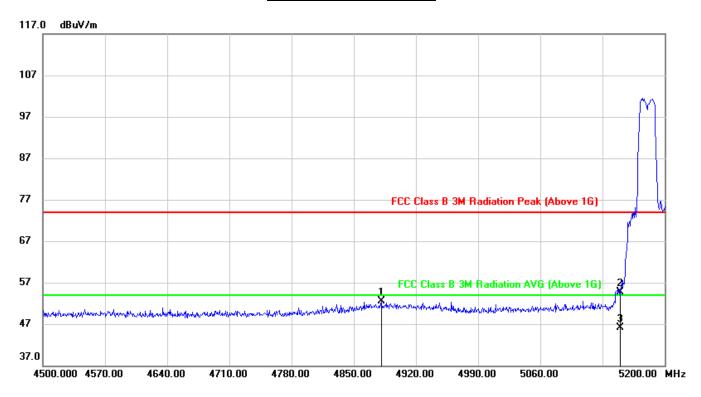
7.3. 802.11ac HT20 CDD MODE

7.3.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

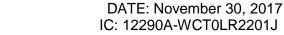


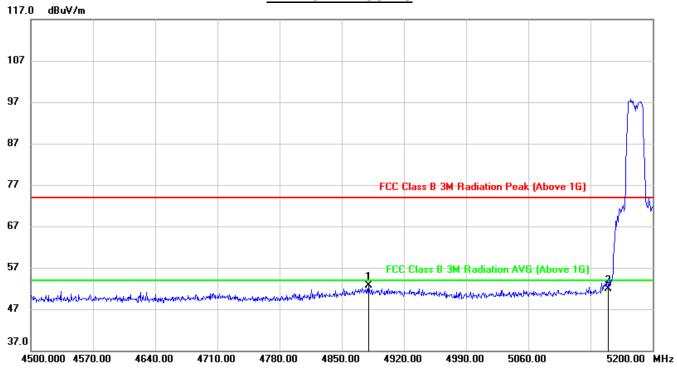
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4880.800	12.60	39.92	52.52	74.00	-21.48	peak
2	5150.000	14.38	40.40	54.78	74.00	-19.22	peak
3	5150.000	5.65	40.40	46.05	54.00	-7.95	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS





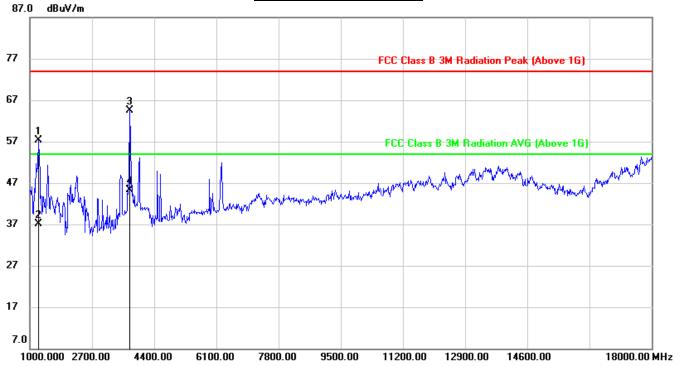
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4880.100	12.76	39.85	52.61	74.00	-21.39	peak
2	5150.000	11.28	40.60	51.88	74.00	-22.12	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

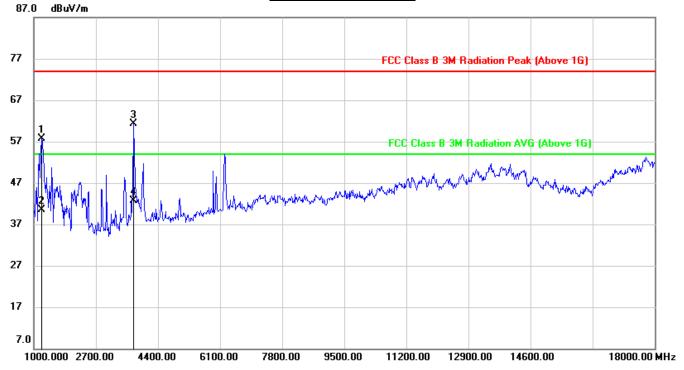


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.54	-13.27	57.27	74.00	-16.73	peak
2	1238.000	50.28	-13.27	37.01	54.00	-16.99	AVG
3	3737.000	69.37	-4.83	64.54	74.00	-9.46	peak
4	3737.000	50.14	-4.83	45.31	54.00	-8.69	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



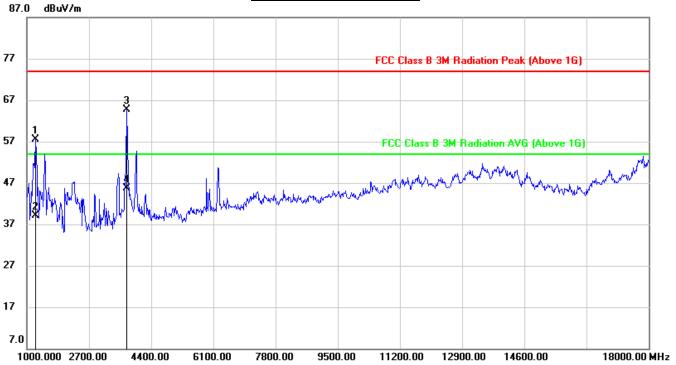
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.05	-13.38	57.67	74.00	-16.33	peak
2	1221.000	53.89	-13.38	40.51	54.00	-13.49	AVG
3	3737.000	66.13	-4.81	61.32	74.00	-12.68	peak
4	3737.000	47.43	-4.81	42.62	54.00	-11.38	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

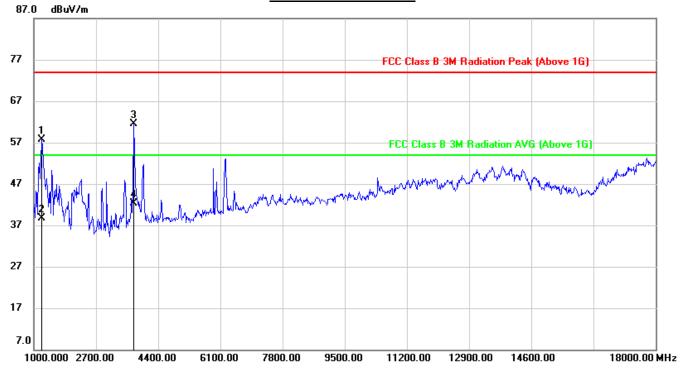


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.83	-13.27	57.56	74.00	-16.44	peak
2	1238.000	52.28	-13.27	39.01	54.00	-14.99	AVG
3	3737.000	69.50	-4.83	64.67	74.00	-9.33	peak
4	3737.000	50.47	-4.83	45.64	54.00	-8.36	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



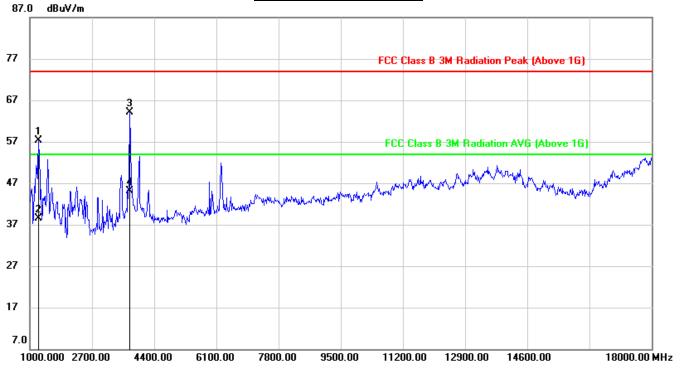
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.13	-13.38	57.75	74.00	-16.25	peak
2	1221.000	52.09	-13.38	38.71	54.00	-15.29	AVG
3	3720.000	66.34	-4.83	61.51	74.00	-12.49	peak
4	3720.000	47.18	-4.83	42.35	54.00	-11.65	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

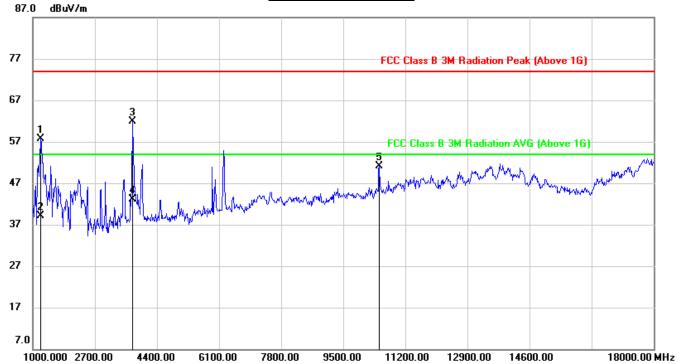


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	70.55	-13.27	57.28	74.00	-16.72	peak
2	1238.000	51.87	-13.27	38.60	54.00	-15.40	AVG
3	3720.000	69.06	-4.89	64.17	74.00	-9.83	peak
4	3720.000	50.09	-4.89	45.20	54.00	-8.80	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.91	-13.38	57.53	74.00	-16.47	peak
2	1221.000	53.84	-13.38	40.46	54.00	-13.54	AVG
3	3737.000	66.23	-4.81	61.42	74.00	-12.58	peak
4	3737.000	48.98	-4.81	44.17	54.00	-9.83	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

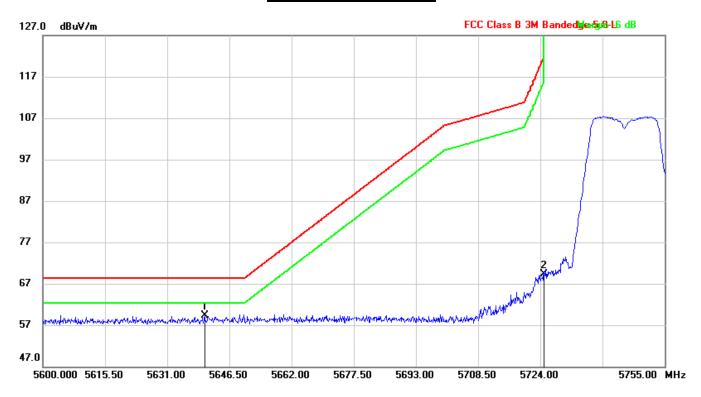
REPORT NO: 4788196596.1-4 DATE: November 30, 2017 FCC ID: 2AC23-WCT0LR2201J IC: 12290A-WCT0LR2201J

7.3.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



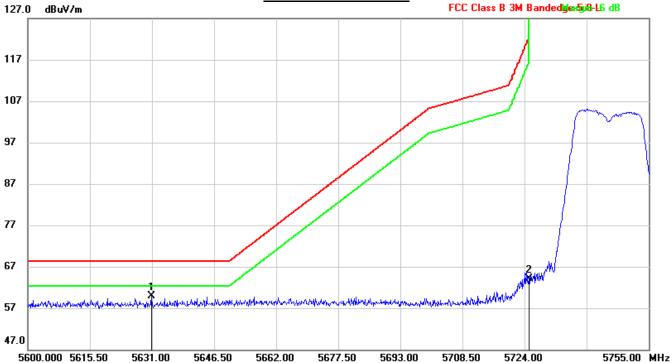
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5640.300	18.21	41.17	59.38	68.20	-8.82	peak
2	5725.000	27.96	41.39	69.35	122.20	-52.85	peak

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

.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



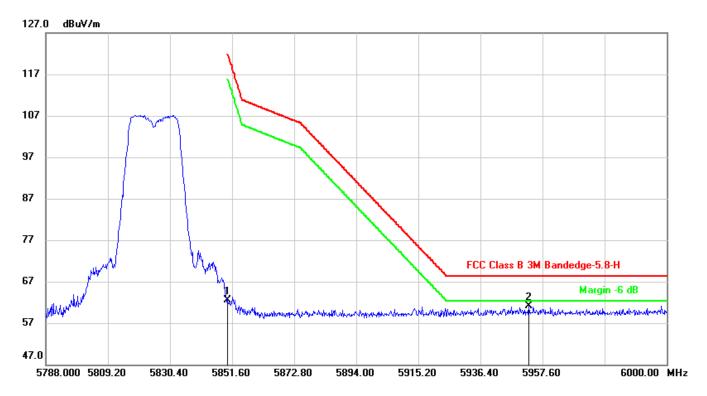
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5630.845	18.75	41.23	59.98	68.20	-8.22	peak
2	5725.000	22.68	41.49	64.17	122.20	-58.03	peak

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



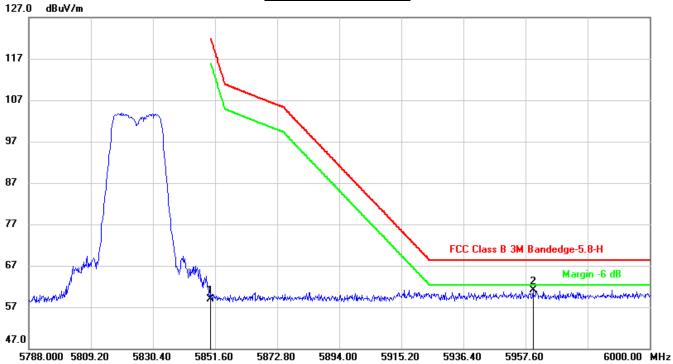
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	20.65	41.77	62.42	122.20	-59.78	peak
2	5952.936	19.00	42.02	61.02	68.20	-7.18	peak

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

.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



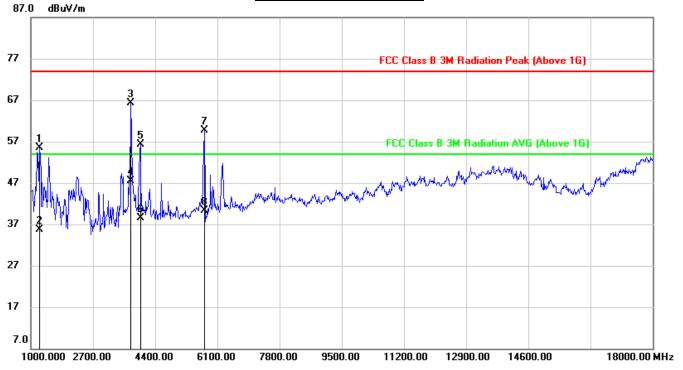
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	17.12	41.87	58.99	122.20	-63.21	peak
2	5960.144	18.99	42.16	61.15	68.20	-7.05	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

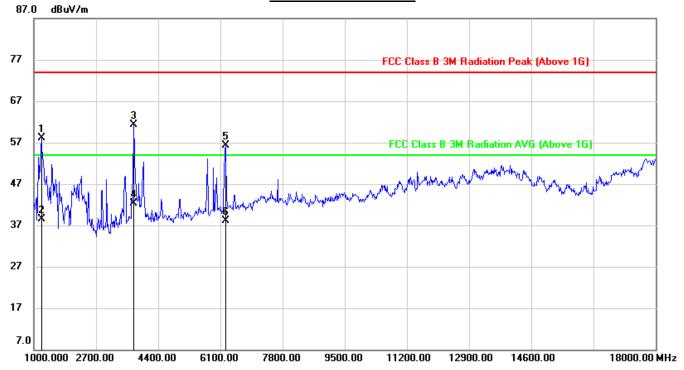


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.80	-13.27	55.53	74.00	-18.47	peak
2	1238.000	48.99	-13.27	35.72	54.00	-18.28	AVG
3	3737.000	71.16	-4.83	66.33	74.00	-7.67	peak
4	3737.000	52.38	-4.83	47.55	54.00	-6.45	AVG
5	3992.000	60.70	-4.42	56.28	74.00	-17.72	peak
6	3992.000	43.02	-4.42	38.60	54.00	-15.40	AVG
7	5743.000	58.75	1.05	59.80	74.00	-14.20	peak
8	5743.000	39.25	1.05	40.30	54.00	-13.70	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



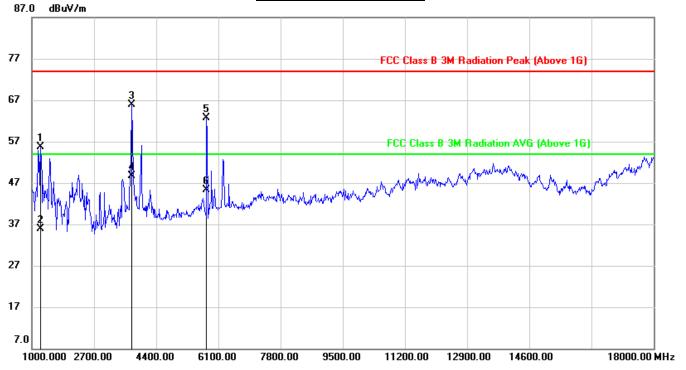
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1204.000	71.67	-13.54	58.13	74.00	-15.87	peak
2	1204.000	52.03	-13.54	38.49	54.00	-15.51	AVG
3	3737.000	66.16	-4.81	61.35	74.00	-12.65	peak
4	3737.000	47.02	-4.81	42.21	54.00	-11.79	AVG
5	6236.000	53.47	2.89	56.36	74.00	-17.64	peak
6	6236.000	35.14	2.89	38.03	54.00	-15.97	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



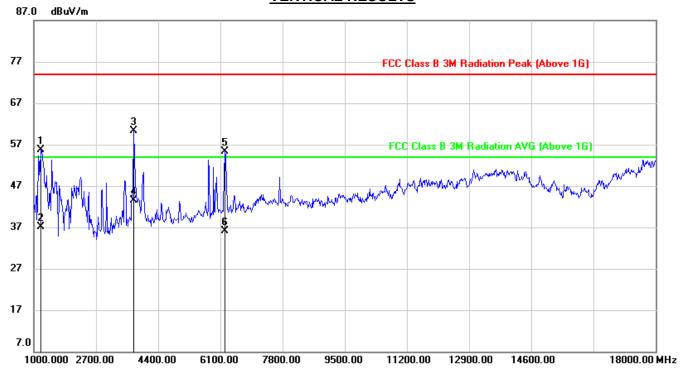
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.90	-13.27	55.63	74.00	-18.37	peak
2	1238.000	49.22	-13.27	35.95	54.00	-18.05	AVG
3	3737.000	70.66	-4.83	65.83	74.00	-8.17	peak
4	3737.000	53.54	-4.83	48.71	54.00	-5.29	AVG
5	5777.000	61.51	1.22	62.73	74.00	-11.27	peak
6	5777.000	44.02	1.22	45.24	54.00	-8.76	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



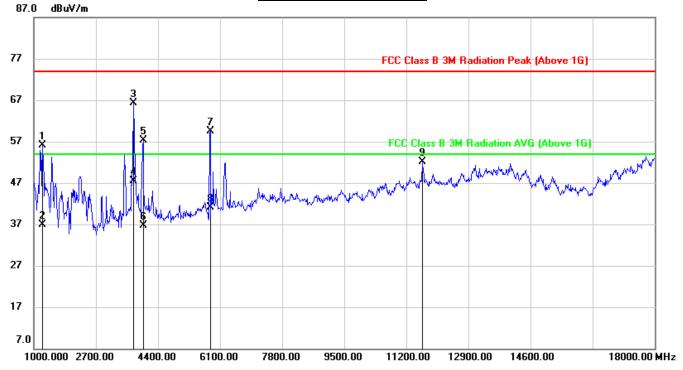
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1187.000	69.38	-13.68	55.70	74.00	-18.30	peak
2	1187.000	50.88	-13.68	37.20	54.00	-16.80	AVG
3	3737.000	65.04	-4.81	60.23	74.00	-13.77	peak
4	3737.000	48.33	-4.81	43.52	54.00	-10.48	AVG
5	6219.000	52.46	2.83	55.29	74.00	-18.71	peak
6	6219.000	33.20	2.83	36.03	54.00	-17.97	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

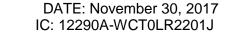


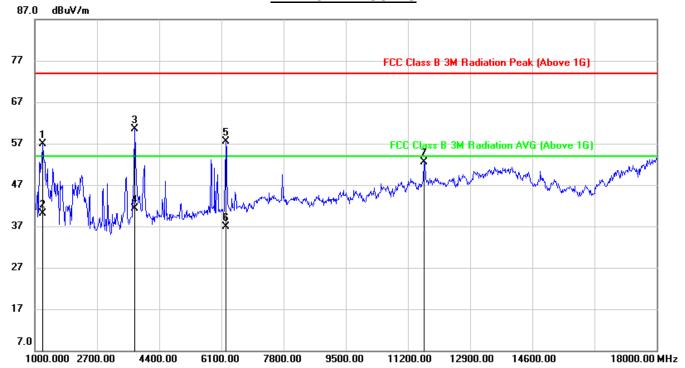
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	69.36	-13.27	56.09	74.00	-17.91	peak
2	1238.000	50.25	-13.27	36.98	54.00	-17.02	AVG
3	3737.000	71.23	-4.83	66.40	74.00	-7.60	peak
4	3737.000	52.31	-4.83	47.48	54.00	-6.52	AVG
5	3992.000	61.70	-4.42	57.28	74.00	-16.72	peak
6	3992.000	41.04	-4.42	36.62	54.00	-17.38	AVG
7	5828.000	58.10	1.38	59.48	74.00	-14.52	peak
8	5828.000	39.66	1.38	41.04	54.00	-12.96	AVG
9	11642.000	37.73	14.33	52.06	74.00	-21.94	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.33	-13.38	56.95	74.00	-17.05	peak
2	1221.000	53.57	-13.38	40.19	54.00	-13.81	AVG
3	3737.000	65.33	-4.81	60.52	74.00	-13.48	peak
4	3737.000	46.02	-4.81	41.21	54.00	-12.79	AVG
5	6219.000	54.61	2.83	57.44	74.00	-16.56	peak
6	6219.000	34.11	2.83	36.94	54.00	-17.06	AVG
7	11642.000	37.79	14.67	52.46	74.00	-21.54	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

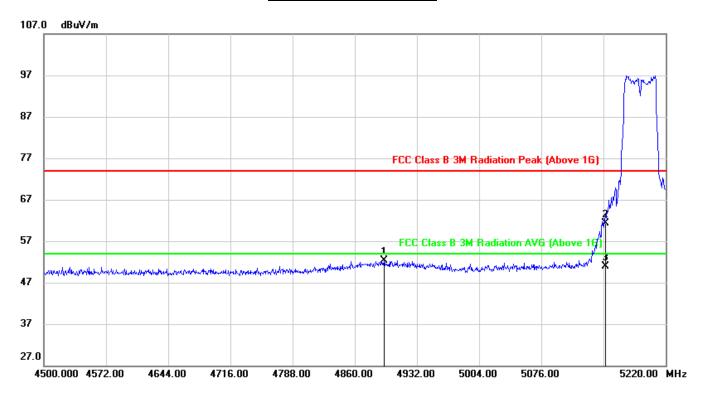
7.4. 802.11ac HT40 CDD MODE

7.4.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

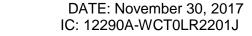


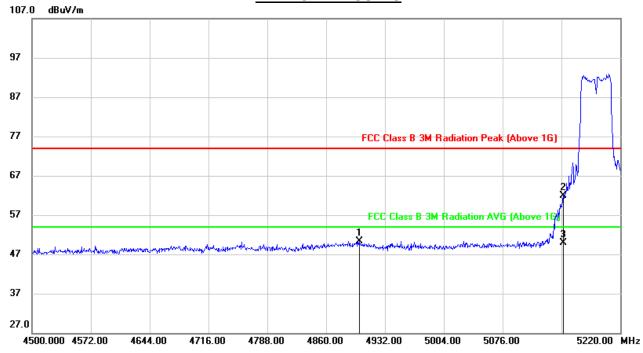
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4893.840	12.32	40.07	52.39	74.00	-21.61	peak
2	5150.000	20.87	40.40	61.27	74.00	-12.73	peak
3	5150.000	10.54	40.40	50.94	54.00	-3.06	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

VERTICAL RESULTS





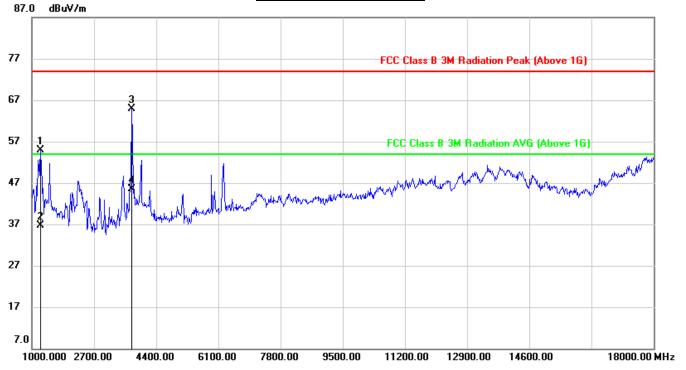
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4900.320	10.32	40.03	50.35	74.00	-23.65	peak
2	5150.000	21.39	40.60	61.99	74.00	-12.01	peak
3	5150.000	9.34	40.60	49.94	54.00	-4.06	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

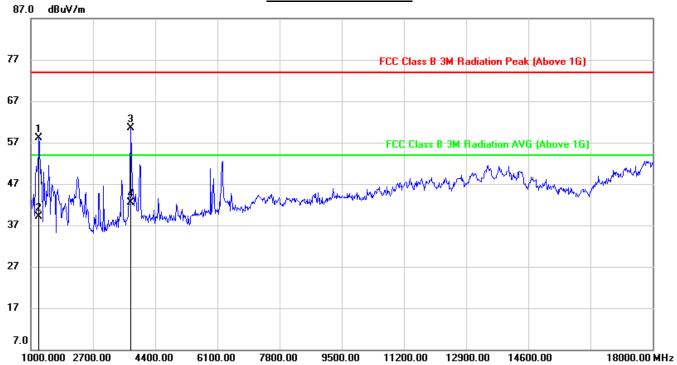


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.24	-13.27	54.97	74.00	-19.03	peak
2	1238.000	49.97	-13.27	36.70	54.00	-17.30	AVG
3	3737.000	69.72	-4.83	64.89	74.00	-9.11	peak
4	3737.000	50.24	-4.83	45.41	54.00	-8.59	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

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VERTICAL RESULTS



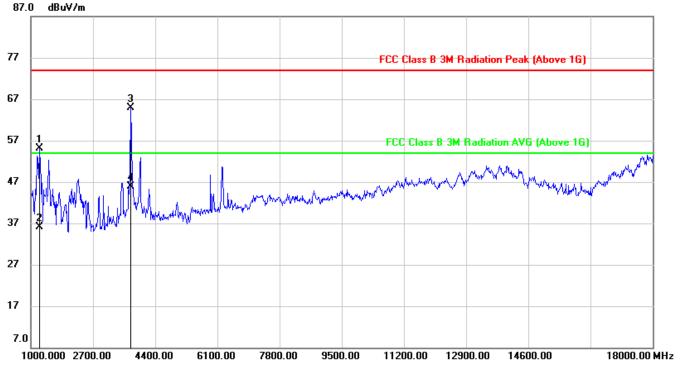
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.58	-13.38	58.20	74.00	-15.80	peak
2	1221.000	52.47	-13.38	39.09	54.00	-14.91	AVG
3	3737.000	65.27	-4.81	60.46	74.00	-13.54	peak
4	3737.000	47.32	-4.81	42.51	54.00	-11.49	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.45	-13.27	55.18	74.00	-18.82	peak
2	1238.000	49.28	-13.27	36.01	54.00	-17.99	AVG
3	3737.000	69.69	-4.83	64.86	74.00	-9.14	peak
4	3737.000	50.74	-4.83	45.91	54.00	-8.09	AVG

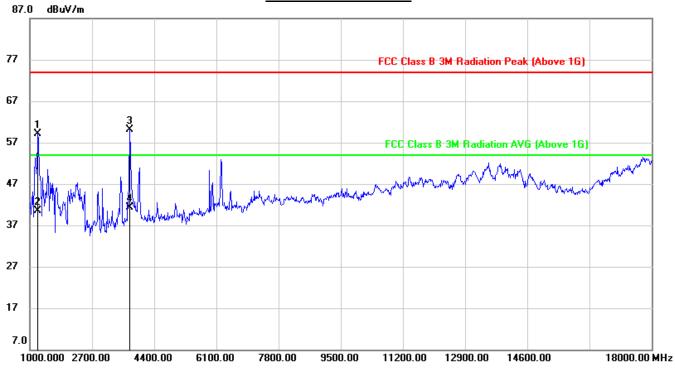
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J

IC: 12290A-WCT0LR2201J

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VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	72.43	-13.38	59.05	74.00	-14.95	peak
2	1221.000	53.89	-13.38	40.51	54.00	-13.49	AVG
3	3737.000	64.91	-4.81	60.10	74.00	-13.90	peak
4	3737.000	46.09	-4.81	41.28	54.00	-12.72	AVG

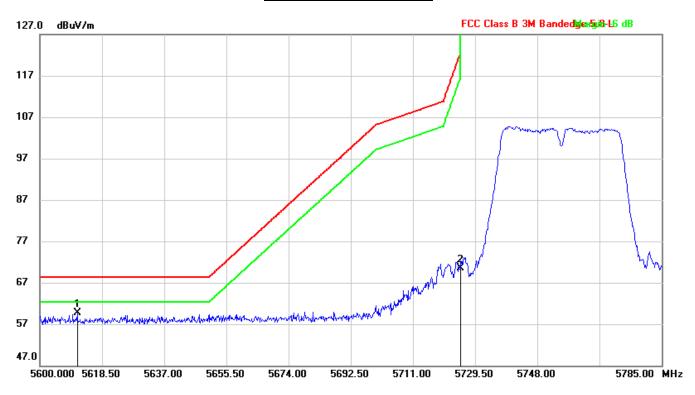
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

7.4.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



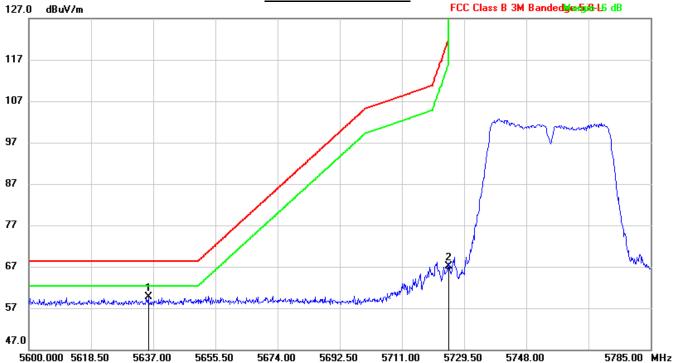
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5611.100	18.48	41.15	59.63	68.20	-8.57	peak
2	5725.000	29.20	41.39	70.59	122.20	-51.61	peak

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

•

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



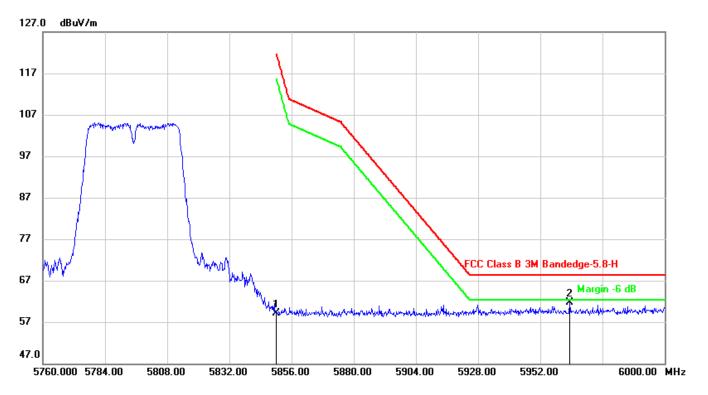
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5635.520	18.37	41.24	59.61	68.20	-8.59	peak
2	5725.000	25.57	41.49	67.06	122.20	-55.14	peak

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



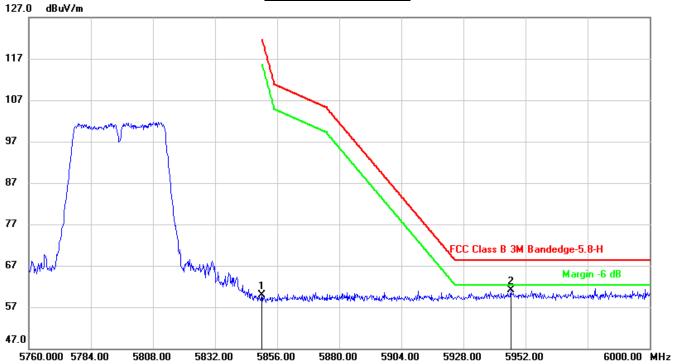
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	17.29	41.77	59.06	122.20	-63.14	peak
2	5963.280	19.62	42.08	61.70	68.20	-6.50	peak

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

.

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VERTICAL RESULTS



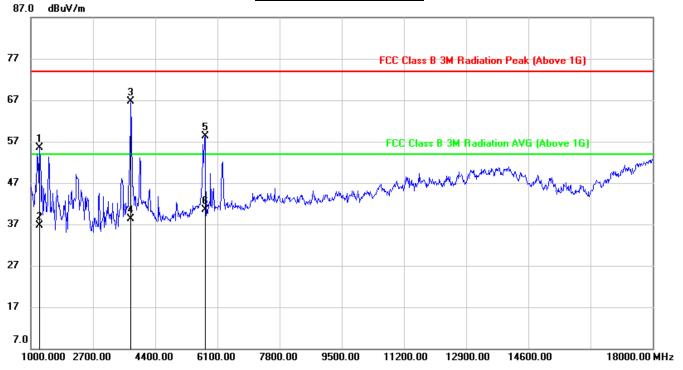
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	17.99	41.87	59.86	122.20	-62.34	peak
2	5946.240	18.95	42.08	61.03	68.20	-7.17	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

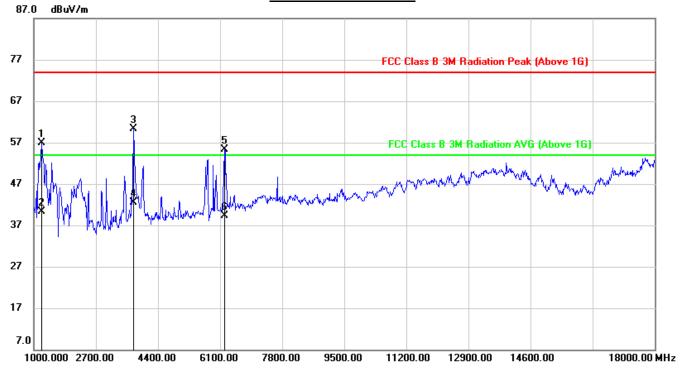


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.85	-13.27	55.58	74.00	-18.42	peak
2	1238.000	49.88	-13.27	36.61	54.00	-17.39	AVG
3	3737.000	71.47	-4.83	66.64	74.00	-7.36	peak
4	3737.000	43.22	-4.83	38.39	54.00	-15.61	AVG
5	5760.000	57.19	1.13	58.32	74.00	-15.68	peak
6	5760.000	39.33	1.13	40.46	54.00	-13.54	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

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VERTICAL RESULTS



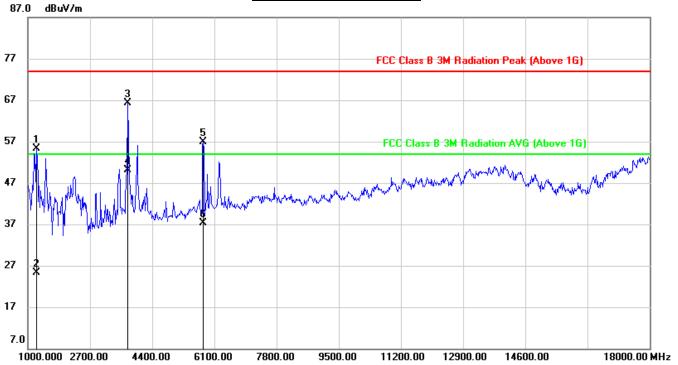
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1204.000	70.39	-13.54	56.85	74.00	-17.15	peak
2	1204.000	53.81	-13.54	40.27	54.00	-13.73	AVG
3	3737.000	65.16	-4.81	60.35	74.00	-13.65	peak
4	3737.000	47.33	-4.81	42.52	54.00	-11.48	AVG
5	6219.000	52.39	2.83	55.22	74.00	-18.78	peak
6	6219.000	36.55	2.83	39.38	54.00	-14.62	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

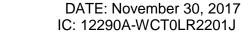


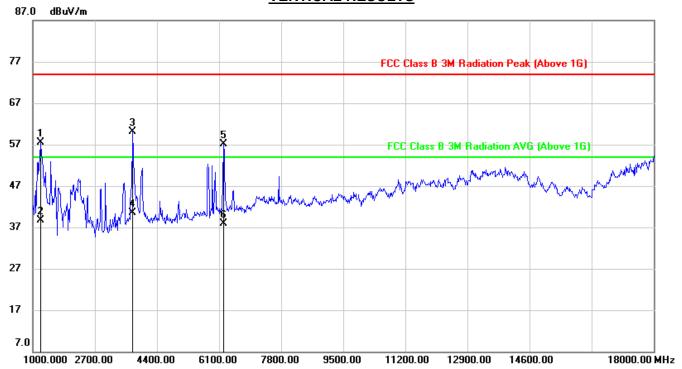
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.62	-13.27	55.35	74.00	-18.65	peak
2	1238.000	38.55	-13.27	25.28	54.00	-28.72	AVG
3	3737.000	71.12	-4.83	66.29	74.00	-7.71	peak
4	3737.000	54.98	-4.83	50.15	54.00	-3.85	AVG
5	5794.000	55.57	1.32	56.89	74.00	-17.11	peak
6	5794.000	36.02	1.32	37.34	54.00	-16.66	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

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VERTICAL RESULTS





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	70.89	-13.38	57.51	74.00	-16.49	peak
2	1221.000	52.11	-13.38	38.73	54.00	-15.27	AVG
3	3737.000	64.94	-4.81	60.13	74.00	-13.87	peak
4	3737.000	45.25	-4.81	40.44	54.00	-13.56	AVG
5	6219.000	54.22	2.83	57.05	74.00	-16.95	peak
6	6219.000	35.02	2.83	37.85	54.00	-16.15	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

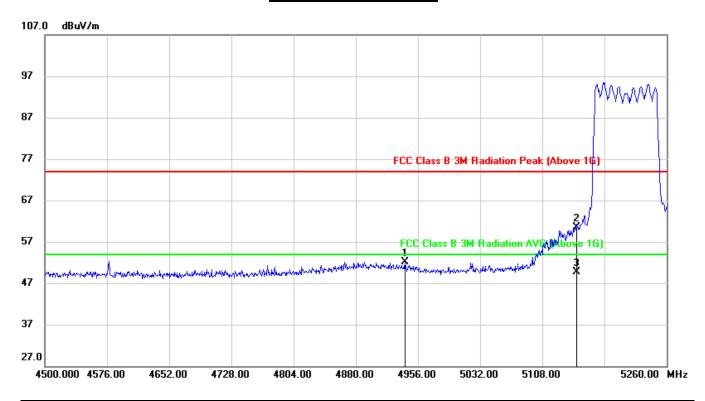
7.5. 802.11ac HT80 CDD MODE

7.5.1. UNII-1 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS

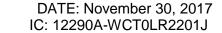


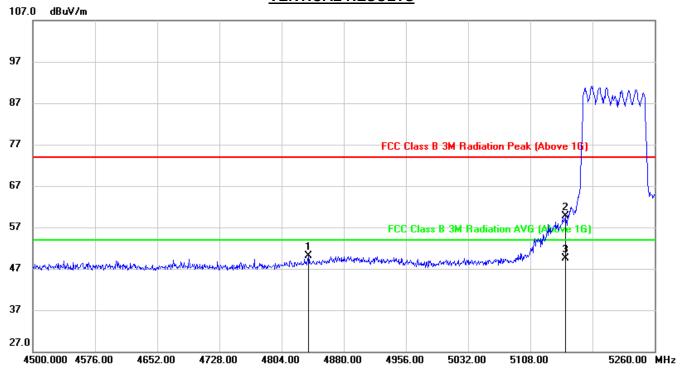
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4940.040	12.16	40.01	52.17	74.00	-21.83	peak
2	5150.000	20.05	40.40	60.45	74.00	-13.55	peak
3	5150.000	9.31	40.40	49.71	54.00	-4.29	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

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VERTICAL RESULTS





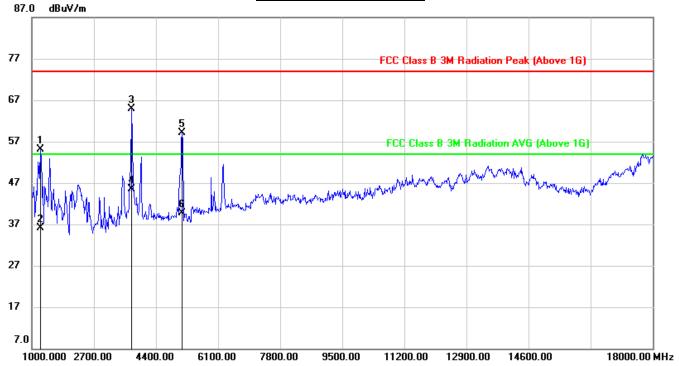
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	4836.680	10.62	39.47	50.09	74.00	-23.91	peak
2	5150.000	19.12	40.60	59.72	74.00	-14.28	peak
3	5150.000	8.98	40.60	49.58	54.00	-4.42	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For duty cycle, please refer to clause 7.1.

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

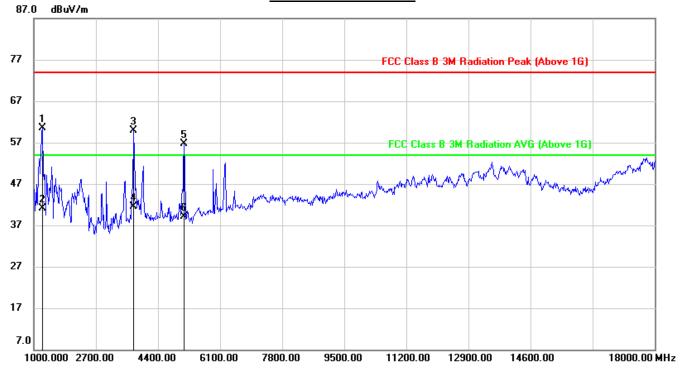


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	68.35	-13.27	55.08	74.00	-18.92	peak
2	1238.000	49.28	-13.27	36.01	54.00	-17.99	AVG
3	3737.000	69.82	-4.83	64.99	74.00	-9.01	peak
4	3737.000	50.28	-4.83	45.45	54.00	-8.55	AVG
5	5114.000	59.52	-0.40	59.12	74.00	-14.88	peak
6	5114.000	40.08	-0.40	39.68	54.00	-14.32	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	73.67	-13.22	60.45	74.00	-13.55	peak
2	1238.000	54.28	-13.22	41.06	54.00	-12.94	AVG
3	3737.000	64.69	-4.81	59.88	74.00	-14.12	peak
4	3737.000	46.39	-4.81	41.58	54.00	-12.42	AVG
5	5114.000	56.90	-0.20	56.70	74.00	-17.30	peak
6	5114.000	39.28	-0.20	39.08	54.00	-14.92	AVG

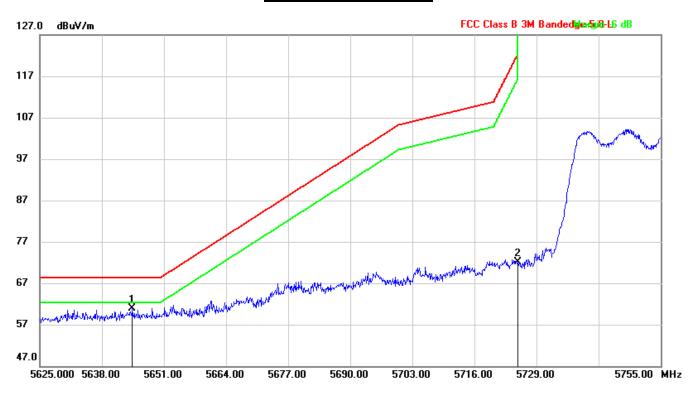
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

7.5.2. UNII-3 BAND

ANTENNA1 (WORST-CASE CONFIGURATION)

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



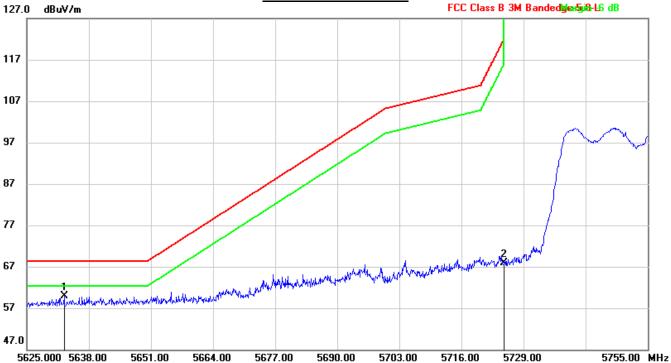
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5644.370	19.82	41.17	60.99	68.20	-7.21	peak
2	5725.000	30.69	41.39	72.08	122.20	-50.12	peak

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

.

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VERTICAL RESULTS



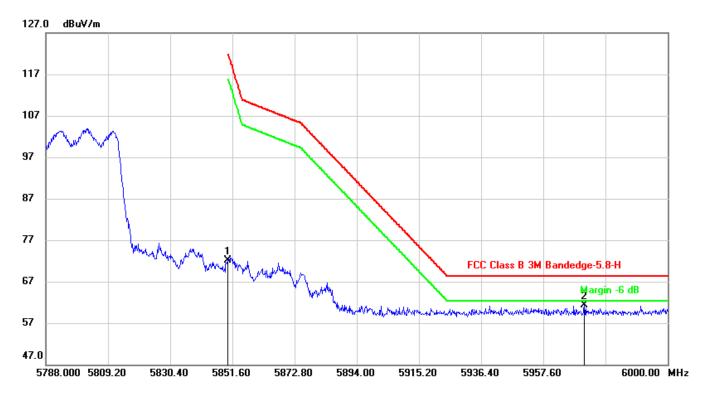
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5632.800	18.73	41.23	59.96	68.20	-8.24	peak
2	5725.000	26.43	41.49	67.92	122.20	-54.28	peak

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

RESTRICTED BANDEDGE HIGH CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	30.29	41.77	72.06	122.20	-50.14	peak
2	5971.592	19.19	42.12	61.31	68.20	-6.89	peak

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

.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



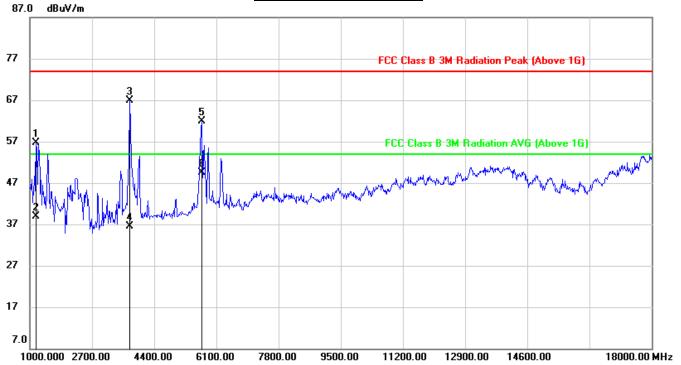
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	5850.000	26.10	41.87	67.97	122.20	-54.23	peak
2	5966.292	18.76	42.19	60.95	68.20	-7.25	peak

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

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

HORIZONTAL RESULTS

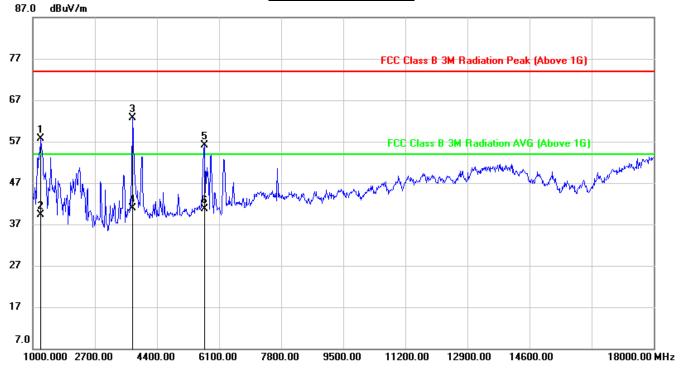


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1170.000	70.43	-13.66	56.77	74.00	-17.23	peak
2	1170.000	52.47	-13.66	38.81	54.00	-15.19	AVG
3	3737.000	71.64	-4.83	66.81	74.00	-7.19	peak
4	3737.000	41.28	-4.83	36.45	54.00	-17.55	AVG
5	5692.000	61.04	0.89	61.93	74.00	-12.07	peak
6	5702.590	48.54	0.93	49.47	54.00	-4.53	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

VERTICAL RESULTS



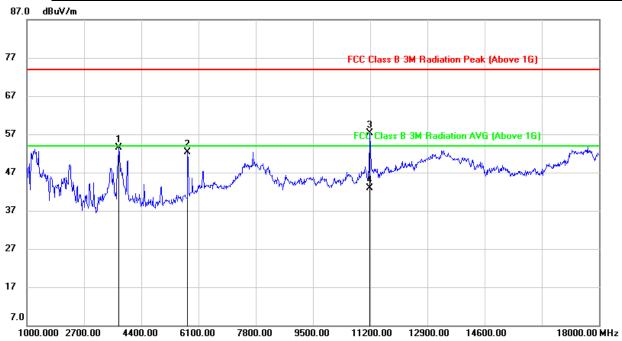
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	1221.000	71.13	-13.38	57.75	74.00	-16.25	peak
2	1221.000	52.67	-13.38	39.29	54.00	-14.71	AVG
3	3737.000	67.55	-4.81	62.74	74.00	-11.26	peak
4	3737.000	45.64	-4.81	40.83	54.00	-13.17	AVG
5	5692.000	55.11	0.99	56.10	74.00	-17.90	peak
6	5692.000	39.62	0.99	40.61	54.00	-13.39	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 4. Peak: Peak detector.
- 5. AVG: VBW=10Hz.
- 6. For duty cycle, please refer to clause 7.1.
- 7. Owing to the highest peak level complies with the lowest limit of unwanted emission out of the restricted bands (Please refer to page 67), so all the test point were deemed to comply with the limits list in the standard.

7.6. WORST-CASE CO-LOCATION

7.6.1. BT GFSK AND 802.11n HT20 CDD MODE

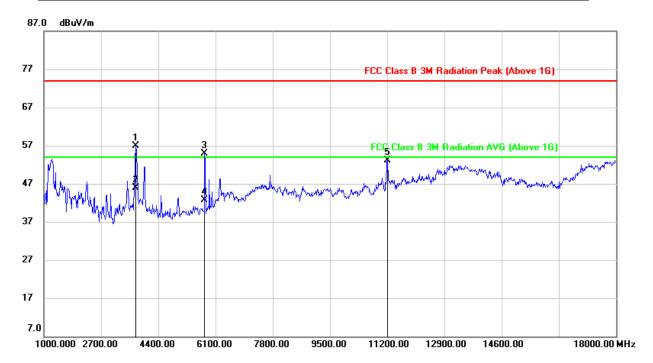
SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	3720.000	58.27	-4.83	53.44	74.00	-20.56	peak
2	5777.000	51.08	1.32	52.40	74.00	-21.60	peak
3	11183.000	43.62	13.60	57.22	74.00	-16.78	peak
4	11183.000	29.29	13.60	42.89	54.00	-11.11	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.

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



С	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	3720.000	61.77	-4.83	56.94	74.00	-17.06	peak
2	3720.000	50.70	-4.83	45.87	54.00	-8.13	AVG
3	5777.000	53.58	1.32	54.90	74.00	-19.10	peak
4	5777.000	41.37	1.32	42.69	54.00	-11.31	AVG
5	11217.000	39.39	13.76	53.15	74.00	-20.85	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. AVG: VBW=10Hz.
- 5. For transmit duration, please refer to clause 7.1.

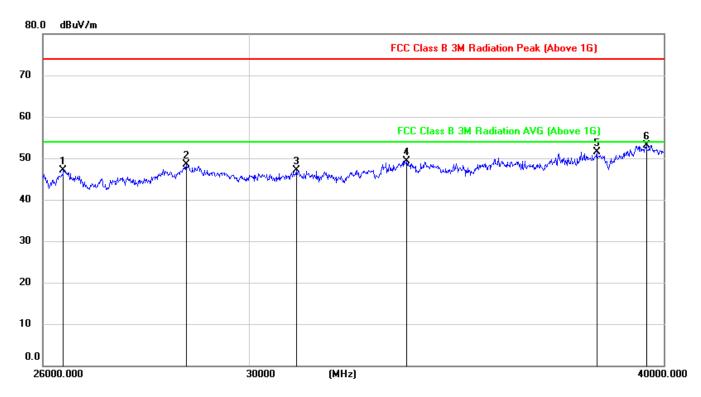
Note: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.7. SPURIOUS EMISSIONS 26~40GHz

7.7.1. 802.11n HT20 CDD MODE

ANTENNA1 (WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



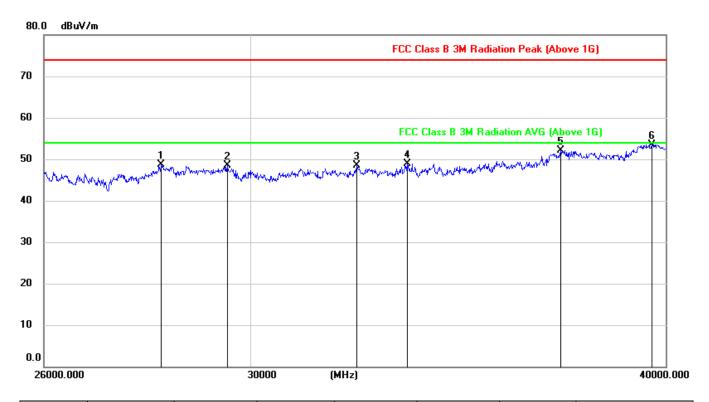
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	26372.251	52.13	-4.98	47.15	74.00	-26.85	peak
2	28720.392	47.00	1.41	48.41	74.00	-25.59	peak
3	30995.932	48.32	-1.15	47.17	74.00	-26.83	peak
4	33466.178	46.69	2.59	49.28	74.00	-24.72	peak
5	38181.645	46.83	4.74	51.57	74.00	-22.43	peak
6	39520.421	46.61	6.57	53.18	74.00	-20.82	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 (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	28205.430	49.52	-0.85	48.67	74.00	-25.33	peak
2	29523.232	47.91	0.58	48.49	74.00	-25.51	peak
3	32290.735	49.69	-1.22	48.47	74.00	-25.53	peak
4	33437.357	46.50	2.39	48.89	74.00	-25.11	peak
5	37191.385	48.26	3.90	52.16	74.00	-21.84	peak
6	39622.702	47.02	6.56	53.58	74.00	-20.42	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.

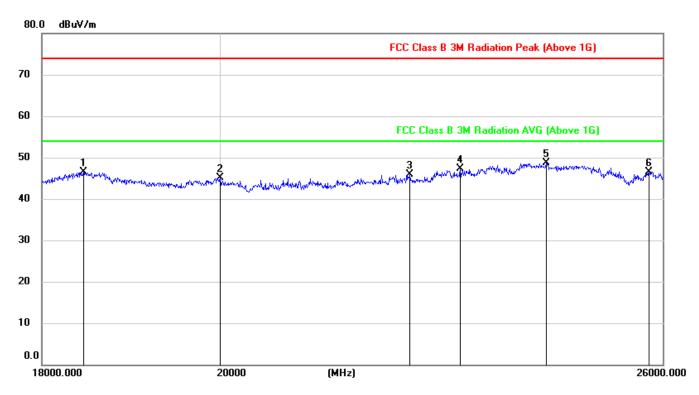
Note: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.8. SPURIOUS EMISSIONS 18~26GHz

7.8.1. 802.11n HT20 CDD MODE

ANTENNA1 (WORST-CASE CONFIGURATION)

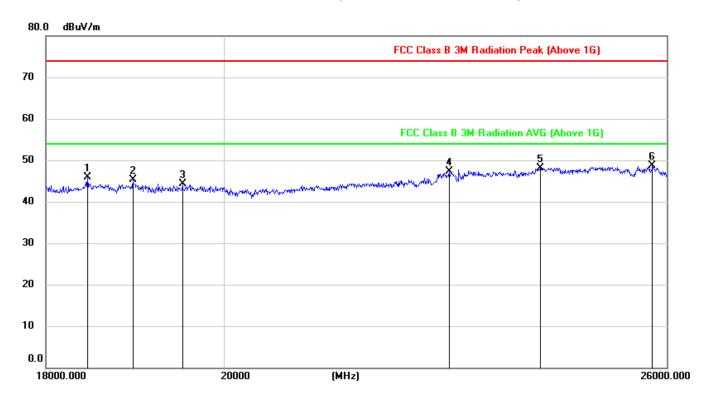
SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	18448.984	51.78	-5.32	46.46	74.00	-27.54	peak
2	20003.530	50.58	-5.45	45.13	74.00	-28.87	peak
3	22385.928	50.01	-4.03	45.98	74.00	-28.02	peak
4	23062.738	50.70	-3.43	47.27	74.00	-26.73	peak
5	24263.284	51.61	-2.81	48.80	74.00	-25.20	peak
6	25790.510	47.21	-0.68	46.53	74.00	-27.47	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.

SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	18448.984	51.27	-5.32	45.95	74.00	-28.05	peak
2	18950.934	50.49	-5.26	45.23	74.00	-28.77	peak
3	19516.714	49.91	-5.53	44.38	74.00	-29.62	peak
4	22860.096	50.90	-3.58	47.32	74.00	-26.68	peak
5	24129.820	50.96	-2.79	48.17	74.00	-25.83	peak
6	25781.028	49.35	-0.66	48.69	74.00	-25.31	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.

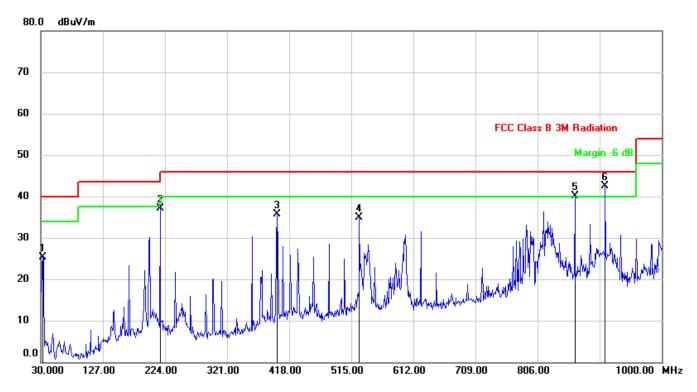
Note: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.9. SPURIOUS EMISSIONS 30M ~ 1 GHz

7.9.1. 802.11n HT20 CDD MODE

ANTENNA1 (WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (LOW CHANNELHORIZONTAL)

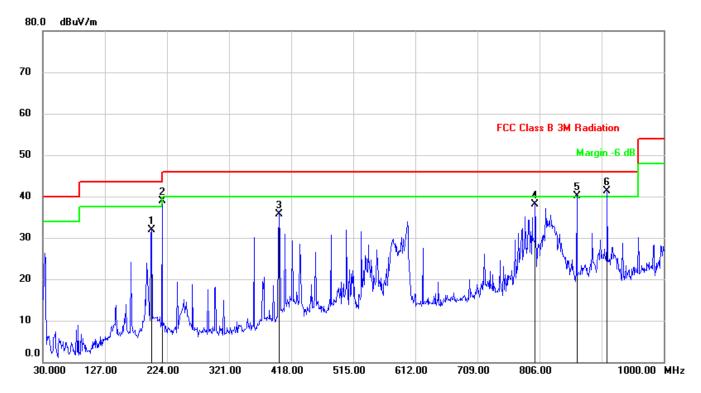


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	32.9100	54.40	-29.05	25.35	40.00	-14.65	QP
2	216.2400	65.57	-28.45	37.12	46.00	-8.88	QP
3	398.6000	60.77	-25.15	35.62	46.00	-10.38	QP
4	527.6100	56.36	-21.55	34.81	46.00	-11.19	QP
5	864.2000	57.28	-17.13	40.15	46.00	-5.85	QP
6	911.7300	58.73	-16.20	42.53	46.00	-3.47	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 (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	199.7500	59.97	-28.12	31.85	43.50	-11.65	QP
2	216.0000	67.40	-28.44	38.96	43.50	-4.54	QP
3	399.5700	60.81	-25.15	35.66	46.00	-10.34	QP
4	799.2100	57.66	-19.60	38.06	46.00	-7.94	QP
5	864.2000	57.28	-17.13	40.15	46.00	-5.85	QP
6	911.7300	57.53	-16.20	41.33	46.00	-4.67	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

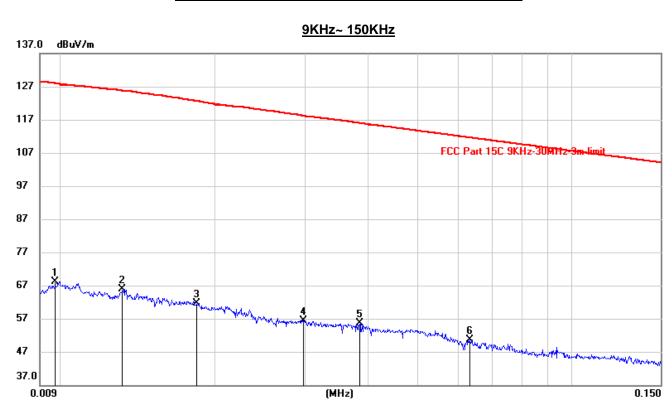
Note: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.10. SPURIOUS EMISSIONS BELOW 30M

7.10.1. 802.11n HT20 CDD MODE

ANTENNA1 (WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (LOW CHANNELHORIZONTAL)



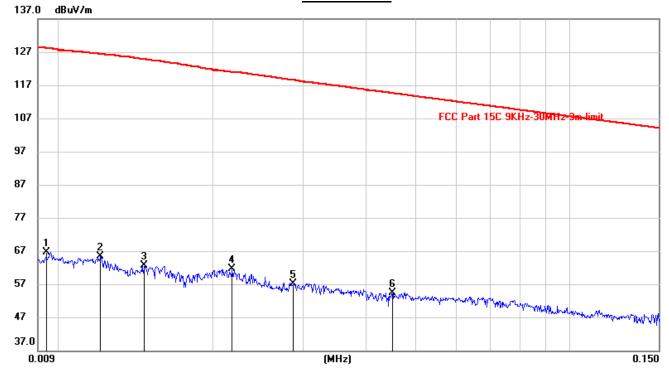
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0097	47.90	20.23	68.13	127.83	-59.70	peak
2	0.0131	45.52	20.24	65.76	125.73	-59.97	peak
3	0.0183	41.38	20.29	61.67	122.60	-60.93	peak
4	0.0298	36.19	20.31	56.50	118.13	-61.63	peak
5	0.0383	35.25	20.31	55.56	115.98	-60.42	peak
6	0.0631	30.38	20.31	50.69	111.62	-60.93	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.

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150KHz ~ 30M



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(KHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0094	46.40	20.26	66.66	128.06	-61.40	peak
2	0.0120	45.08	20.23	65.31	126.40	-61.09	peak
3	0.0146	42.34	20.26	62.60	124.83	-62.23	peak
4	0.0217	41.21	20.31	61.52	120.98	-59.46	peak
5	0.0286	36.92	20.31	57.23	118.55	-61.32	peak
6	0.0449	34.18	20.31	54.49	114.61	-60.12	peak

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

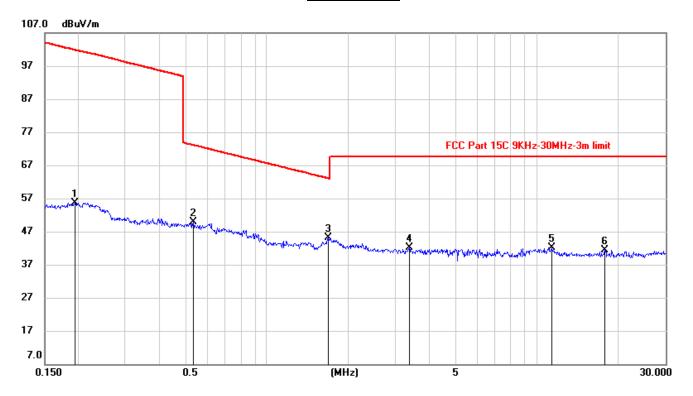
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

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9KHz~ 150KHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1952	35.37	20.37	55.74	101.80	-46.06	peak
2	0.5349	29.75	20.25	50.00	73.08	-23.08	peak
3	1.6800	24.57	20.61	45.18	63.10	-17.92	peak
4	3.3635	21.28	20.96	42.24	69.54	-27.30	peak
5	11.3771	21.15	21.02	42.17	69.54	-27.37	peak
6	17.9435	20.49	20.99	41.48	69.54	-28.06	peak

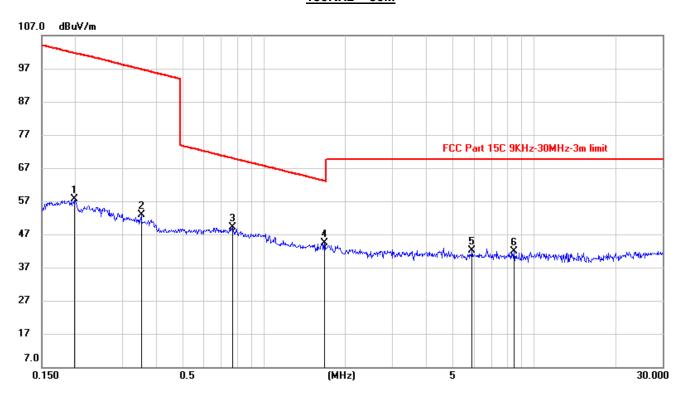
Note: 1. Measurement = Reading Level + Correct Factor.

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

150KHz ~ 30M

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No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1995	37.35	20.37	57.72	101.60	-43.88	peak
2	0.3502	32.48	20.29	52.77	96.81	-44.04	peak
3	0.7630	28.66	20.36	49.02	69.97	-20.95	peak
4	1.6713	23.73	20.61	44.34	63.15	-18.81	peak
5	5.8978	21.18	20.87	42.05	69.54	-27.49	peak
6	8.4115	20.81	20.99	41.80	69.54	-27.74	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.

Note: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

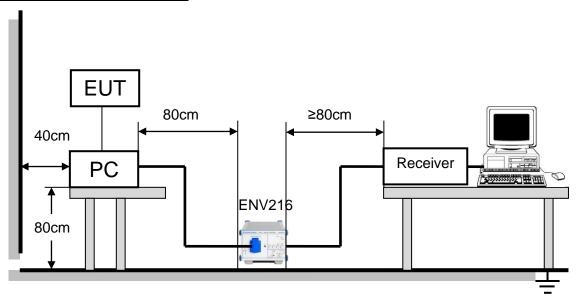
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

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

FREQUENCY (MHz)	Class A	(dBuV)	Class B (dBuV)		
TREQUENCT (WITZ)	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	
0.50 -5.0	73.00	60.00	56.00	46.00	
5.0 -30.0	73.00	60.00	60.00	50.00	

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

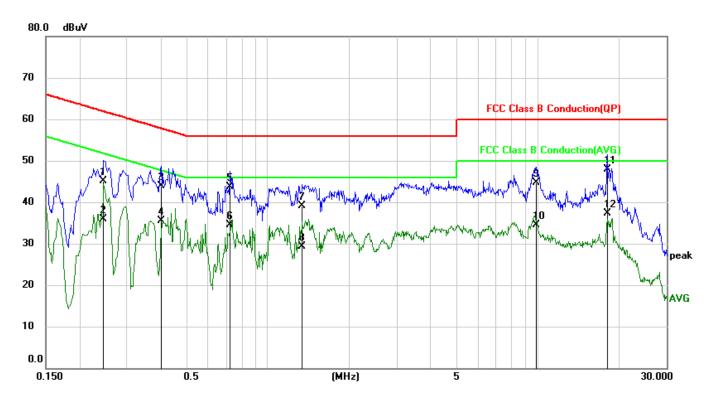
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST RESULT

8.1. 802.11n20 CDD MODE

ANTENNA1 (WORST-CASE CONFIGURATION)

LINE N RESULTS (LOW CHANNEL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	
1	0.2459	35.56	9.64	45.20	61.89	-16.69	QP
2	0.2459	26.31	9.64	35.95	51.89	-15.94	AVG
3	0.4020	34.28	9.65	43.93	57.81	-13.88	QP
4	0.4020	25.78	9.65	35.43	47.81	-12.38	AVG
5	0.7258	34.05	9.66	43.71	56.00	-12.29	QP
6	0.7258	24.87	9.66	34.53	46.00	-11.47	AVG
7	1.3380	29.45	9.67	39.12	56.00	-16.88	QP
8	1.3380	19.54	9.67	29.21	46.00	-16.79	AVG
9	9.8856	34.87	9.79	44.66	60.00	-15.34	QP
10	9.8856	24.67	9.79	34.46	50.00	-15.54	AVG
11	18.0900	37.96	9.87	47.83	60.00	-12.17	QP
12	18.0900	27.38	9.87	37.25	50.00	-12.75	AVG

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

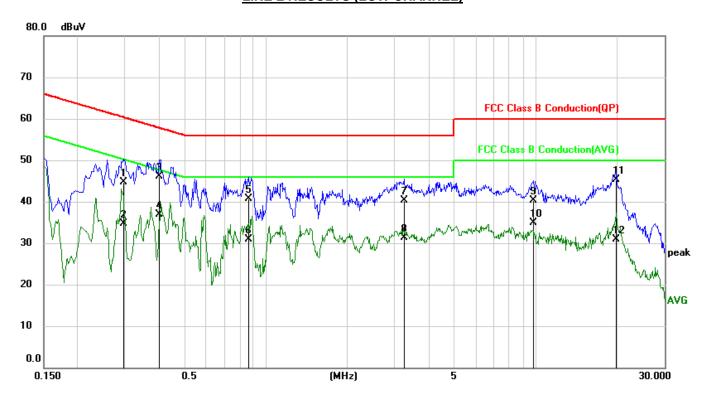
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LINE L RESULTS (LOW CHANNEL)

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No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	
1	0.2953	35.14	9.65	44.79	60.37	-15.58	QP
2	0.2953	25.08	9.65	34.73	50.37	-15.64	AVG
3	0.4020	36.51	9.65	46.16	57.81	-11.65	QP
4	0.4020	27.31	9.65	36.96	47.81	-10.85	AVG
5	0.8659	31.05	9.67	40.72	56.00	-15.28	QP
6	0.8659	21.31	9.67	30.98	46.00	-15.02	AVG
7	3.2580	30.64	9.70	40.34	56.00	-15.66	QP
8	3.2580	21.58	9.70	31.28	46.00	-14.72	AVG
9	9.8139	30.58	9.79	40.37	60.00	-19.63	QP
10	9.8139	25.14	9.79	34.93	50.00	-15.07	AVG
11	19.8736	35.35	9.89	45.24	60.00	-14.76	QP
12	19.8736	21.03	9.89	30.92	50.00	-19.08	AVG

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

9. FREQUENCY STABILITY

LIMITS

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

TEST SETUP AND PROCEDURE

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

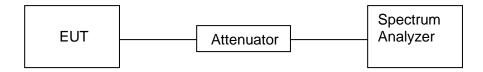
Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	10KHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

User manual temperature is 0°C~60°C.

TEST SETUP



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TEST RESULTS (WORST-CASE CONFIGURATION)

Tost Mode.	EUT:	Camera	Test Mode:	802.11a MODE	
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DATE: November 30, 2017

IC: 12290A-WCT0LR2201J

Frequency Error vs. Voltage:

Test Mode	Antenna	Channel	Temp.	Volt.	Freq.Error(MHz)	Freq.vs.rated(ppm)	Verdict
			TN	VL	5180.0110	2.12	PASS
11A	Ant1	5180	TN	VN	5180.0120	2.32	PASS
			TN	VH	5180.0140	2.70	PASS
			TN	VL	5825.0140	2.40	PASS
11A	Ant1	5825	TN	VN	5825.0120	2.06	PASS
			TN	VH	5825.0170	2.92	PASS

Frequency Error vs. Temperature:

Test Mode	Antenna	Channel	Temp.	Volt.	Freq.Error(MHz)	Freq.vs.rated(ppm)	Verdict
			60	VN	5180.0130	2.51	PASS
			50	VN	5180.0110	2.12	PASS
			40	VN	5180.0120	2.32	PASS
11A	Ant1	5180	30	VN	5180.0110	2.12	PASS
			20	VN	5180.0130	2.51	PASS
			10	VN	5180.0120	2.32	PASS
			0	VN	5180.0100	1.93	PASS
			60	VN	5825.0140	2.40	PASS
			50	VN	5825.0120	2.06	PASS
		5825	40	VN	5825.0130	2.23	PASS
11A	Ant1		30	VN	5825.0120	2.06	PASS
			20	VN	5825.0110	1.89	PASS
			10	VN	5825.0150	2.58	PASS
			0	VN	5825.0140	2.40	PASS

Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

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

Please refer to FCC §15.247(b)(4)

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

ANTENNA CONNECTOR

EUT has an external antenna with antenna connector, it will be installed in a specific environment and users cannot change the antenna.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT