

FCC CERTIFICATION TEST REPORT

FOR

Applicant	:	Yunke China Information Technology Limited
Address	:	Digital Technology Plaza, No.9 shangdi 9th street, Haidian District Beijing China
Equipment under Test	:	Wireless Access Point
Model No	:	WL8200-I2
FCC ID	:	2AM4IWL8200-I2
Trade Mark	:	DCN
Manufacturer	:	Yunke China Information Technology Limited
Address	:	Digital Technology Plaza, No.9 shangdi 9th street, Haidian District Beijing China

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

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REPORT

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TEST REPORT DECLARE

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Trade Mark	:	DCN
Manufacturer	:	Yunke China Information Technology Limited
Address	:	Digital Technology Plaza, No.9 shangdi 9th street, Haidian District Beijing China

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C.

Test procedure used: ANSI C63.10:2013, 789033 D02 General UNII Test Procedures New Rules v01.

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	DDT-R17Q0601-14E3		
Date of Receipt:	Jun. 26, 2017	Date of Test:	Jun. 26, 2017~Jun. 30, 2017

Prepared By:


Leo Liu/Engineer



Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

1. Summary of test results

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	Standard	Results
Emission Bandwidth	FCC Part 15: 15.407(e)	PASS
Peak Output Power	FCC Part 15: 15.407(a)	PASS
Power Spectral Density	FCC Part 15: 15.407(a)	PASS
Frequency Stability Measurement	FCC Part 15: 15.407(g)	PASS
Emissions in restricted frequency bands	FCC Part 15: 15.209 FCC Part 15: 15.407(a)	PASS
Band Edge Compliance	FCC Part 15: 15.209 FCC Part 15: 15.407(a)	PASS
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.4:2014	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. General test information

2.1. Description of EUT

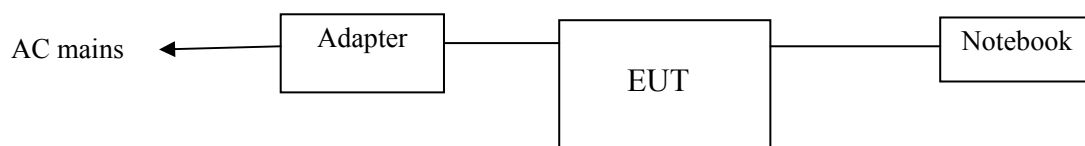
EUT* Name	: Wireless Access Point
Model Number	: WL8200-I2
EUT function description	: Please reference user manual of this device
Power supply	: DC 12V from external adapter
Radio Technology	: IEEE802.11n/a/ac
FCC Operation frequency	: IEEE 802.11n HT20: 5180MHz—5240MHz,5745MHz—5825MHz IEEE 802.11n HT40: 5190MHz—5230MHz,5755MHz—5795MHz IEEE 802.11a:5180MHz—5240MHz,5745MHz—5825MHz IEEE 802.11ac HT20:5180MHz—5240MHz,5745MHz—5825MHz IEEE 802.11ac HT40:5190MHz—5230MHz,5755MHz—5795MHz IEEE 802.11ac HT80:5210MHz, 5775MHz
Modulation	: IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK,BPSK)
Antenna Type	: 5G: Integrated Antenna, 3.0dBi Single Antenna gain, MIMO 2X2 Directional ANT gain=3.0+10*LOG(2)=6dBi
Sample Type	: Series production

Note: EUT is the ab.of equipment under test.

2.2. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN:
Notebook	DELL	Latitude D610	FCC DOC	00045-534-136-300
Adapter	Ruide	RD1201500-C55-1OG	FCC VOC	N/A
Router	TP-LINK	TL-WR842N	FCC DOC	1143171050837

2.3. Block diagram of EUT configuration for test



EUT was connected to control to provided by manufacturer which has a standard LAN port connector to connect to Notebook, and the Notebook will run a special test software “artgui” provided by manufacturer to control EUT work in Continuous TX mode (>98% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11n HT20	6.5	Low :CH36	5180
	6.5	Middle: CH40	5200
	6.5	High: CH48	5240
	6.5	Low :CH149	5745
	6.5	Middle: CH157	5785
	6.5	High: CH165	5825
IEEE 802.11n HT40	13.5	Low :CH38	5190
	13.5	High: CH46	5230
	13.5	Low :CH151	5755
	13.5	High: CH159	5795
IEEE 802.11a	6	Low :CH36	5180
	6	Middle: CH40	5200
	6	High: CH48	5240
	6	Low :CH149	5745
	6	Middle: CH157	5785
	6	High: CH165	5825
IEEE 802.11ac HT20	6.5	Low :CH36	5180
	6.5	Middle: CH40	5200
	6.5	High: CH48	5240
	6.5	Low :CH149	5745
	6.5	Middle: CH157	5785
	6.5	High: CH165	5825
IEEE 802.11ac HT40	13.5	Low :CH38	5190
	13.5	High: CH46	5230
	13.5	Low :CH151	5755
	13.5	High: CH159	5795
IEEE 802.11ac HT80	13.5	CH44	5210
	13.5	CH155	5775
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

2.4. Deviations of test standard

No Deviation.

2.5. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

2.6. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808 Tel: +86-0769-22891499 <http://www.dgddt.com>

FCC Registration Number: 270092 Industry Canada site registration number: 10288A-1

2.7. Measurement uncertainty

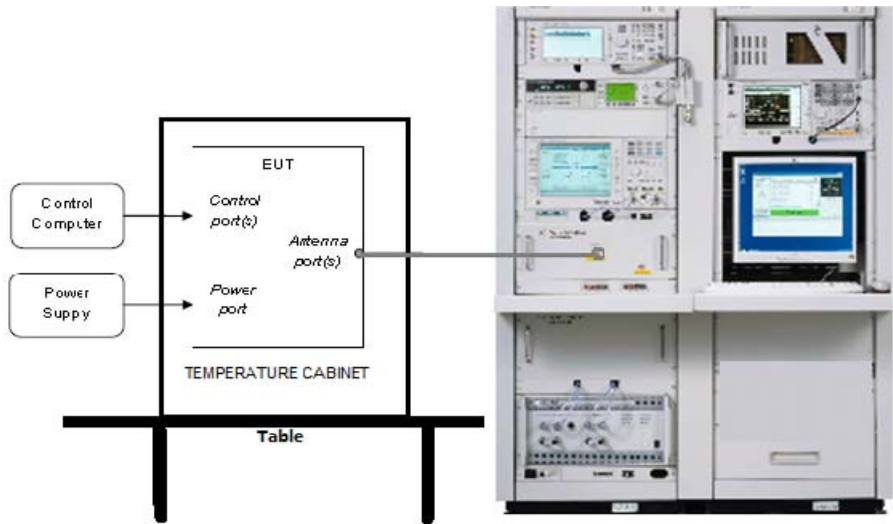
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power(Conducted)(Spectrum analyzer)	0.86dB(10 MHz $\leq$ f < 3.6GHz);
	1.38dB(3.6GHz $\leq$ f < 8GHz)
Peak Output Power(Conducted)(Power Sensor)	0.74dB
Power Spectral Density	0.74dB(10 MHz $\leq$ f < 3.6GHz);
	1.38dB(3.6GHz $\leq$ f < 8GHz)
Frequencies Stability	6.7 x 10 ⁻⁸ (Antenna couple method)
	5.5 x 10 ⁻⁸ (Conducted method)
Conducted spurious emissions	0.86dB(10 MHz $\leq$ f < 3.6GHz);
	1.40dB(3.6GHz $\leq$ f < 8GHz)
	1.66dB(8GHz $\leq$ f < 22GHz)
Uncertainty for radio frequency (RBW<20KHz)	3×10 ⁻⁸
Temperature	0.4℃
Humidity	2%
Uncertainty for Radiation Emission test (30MHz-1GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1GHz-26GHz)	4.10dB(1-6GHz)
	4.40dB (6GHz-18Gz)
	3.54dB (18GHz-26Gz)
Uncertainty for Power line conduction emission test	3.32dB (150KHz-30MHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment used during test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
RF Connected test					
Spectrum analyzer	R&S	FSU26	1166.1660.26	2016/10/16	1Year
Verter Signal Generator	Agilent	E8267D	MY52098743	2016/10/20	1Year
Vector Signal Generator	Agilent	N5182A	MY48180737	2016/07/05	1Year
Power Sensor	Agilent	U2021XA	MY55150010	2017/04/18	1Year
Power Sensor	Agilent	U2021XA	MY55150011	2017/04/19	1Year
DC Power Source	MATRIS	MPS-3005L-3	D813058W	2016/10/24	1Year
Attenuator	Mini-Circuits	BW-S10W2	101109	2016/08/18	1Year
RF Cable	Micable	C10-01-01-1	100309	2016/08/18	1Year
Temp&Humi Programmable Chamber	Dongguan Bell	BE-TH-150M3	201208153364	2016/09/23	1Year
Test Software	JS Tonscend	JS1120-2	Ver.2.5	N/A	N/A
USB Data acquisition	Agilent	U2531A	TW55043503	N/A	N/A
Auto control Unit	JS Tonscend	JS0806-2	158060010	N/A	N/A
RE/RF in chamber					
EMI Test Receiver	R&S	ESU8	100316	2016/10/16	1Year
Spectrum analyzer	R&S	FSU26	1166.1660.26	2016/10/16	1Year
Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2016/10/27	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	2016/10/27	1 Year
Double Ridged Horn Antenna	R&S	HF907	100276	2016/10/12	1 Year
Pre-amplifier	A.H.	PAM-0118	360	2016/10/16	1 Year
RF Cable	HUBSER	CP-X2	W11.03	2016/10/16	1Year
RF Cable	HUBSER	CP-X1	W12.02	2016/10/16	1 Year
MI Cable	HUBSER	C10-01-01-1M	1091629	2016/10/16	1 Year
Test software	Audix	E3	V 6.11111b	/	/
Conducted disturbance at mains terminals/Telecommunication port					
Test Receiver	R&S	ESU8	100316	2016/10/16	1 Year
LISN 1	R&S	ENV216	101109	2016/10/16	1 Year
LISN 2	R&S	ESH2-Z5	100309	2016/10/16	1 Year
8 Line ISN	R&S	ENY81	100063	2016/10/16	1Year
Pulse Limiter	R&S	ESH3-Z2	101242	2016/10/16	1 Year
CE Cable 1	HUBSER	ESU8/RF2	W10.01	2016/10/16	1 Year
Test software	Audix	E3	V 6.11111b	/	/

4. 26dB Bandwidth and 6dB Bandwidth

4.1. Block diagram of test setup



4.2. Test Procedure

- (1) Connect EUT’s antenna output to spectrum analyzer by RF cable.
- (2) Set the spectrum analyzer as follows:
 - RBW: 100KHz
 - VBW: 300KHz
 - Detector Mode: Peak
 - Sweep time: auto
 - Trace mode Max hold
- (3) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB and 6dB relative to the maximum level measured in the fundamental emission.

4.3. Test Result

5150-5250 MHz Band/ Mode	CH or Frequency	26dB bandwidth Result (MHz)	99% bandwidth Result (MHz)	Mode	CH or Frequency	26dB bandwidth Result (MHz)	99% bandwidth Result (MHz)
Channel 0							
11a	CH36	20.15	16.23	11ac HT 20	CH36	23.46	17.53
	CH40	20.14	16.31		CH40	23.34	17.52
	CH48	20.25	16.31		CH48	23.62	17.55
11n HT20	CH36	24.62	17.54	11ac HT 40	CH38	43.34	35.23
	CH40	24.34	17.58		CH46	44.62	35.88
	CH48	24.23	17.56				
11n HT 40	CH38	40.87	35.87	11ac HT 80	CH44	82.90	75.26

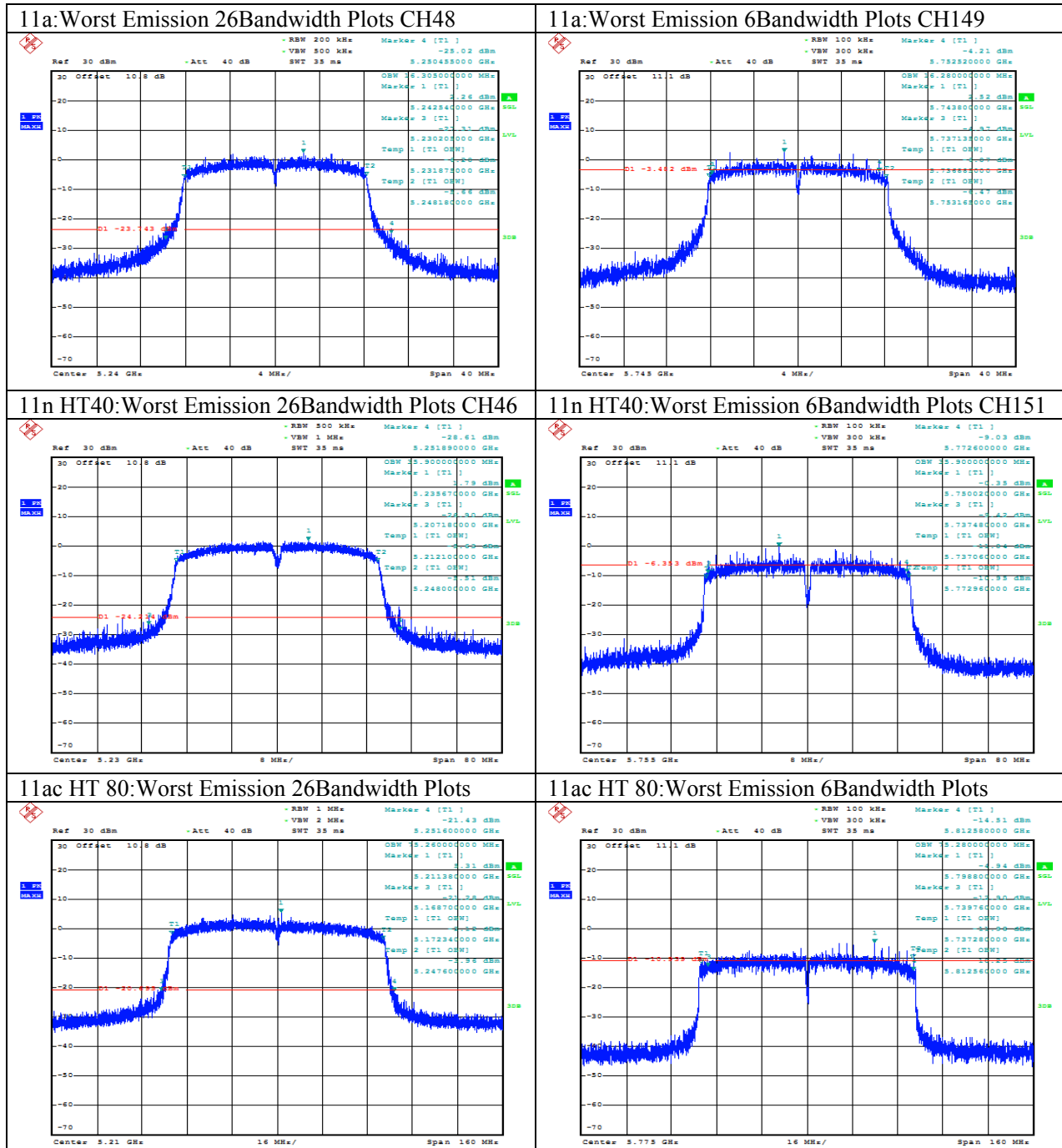
	CH46	44.71	35.90				
Limit: --				Conclusion: PASS			

5150-5250 MHz Band/ Mode	CH or Frequency	26dB bandwidth Result (MHz)	99% bandwidth Result (MHz)	Mode	CH or Frequency	26dB bandwidth Result (MHz)	99% bandwidth Result (MHz)
Channel 1							
11a	CH36	20.14	16.22	11ac HT 20	CH36	23.33	17.45
	CH40	20.15	16.12		CH40	23.23	17.12
	CH48	20.24	16.41		CH48	23.45	17.51
11n HT20	CH36	24.34	17.12	11ac HT 40	CH38	43.23	35.12
	CH40	24.23	17.51		CH46	44.62	35.51
	CH48	24.62	17.23				
11n HT 40	CH38	40.34	35.51	11ac HT 80	CH44	82.87	75.23
	CH46	44.63	35.87				
Limit: --				Conclusion: PASS			

5725-5850 MHz Band/Mod e	CH or Frequency	6dB bandwidth Result (MHz)	99% bandwidth Result (MHz)	Mode	CH or Frequency	6dB bandwidth Result (MHz)	99% bandwidth Result (MHz)
Channel 0							
11a	CH149	15.39	16.28	11ac HT 20	CH149	17.71	17.54
	CH157	15.26	15.47		CH157	17.71	17.54
	CH165	15.30	16.04		CH165	17.71	17.68
11n HT20	CH149	17.79	17.36	11ac HT 40	CH151	36.41	35.95
	CH157	17.79	17.54		CH159	36.54	35.78
	CH165	17.81	17.62		/	/	
11n HT 40	CH151	35.12	35.20	11ac HT 80	CH155	72.82	75.28
	CH159	35.01	35.12				
Limit: >500KHz				Conclusion: PASS			

5725-5850 MHz Band/Mod e	CH or Frequency	6dB bandwidth Result (MHz)	99% bandwidth Result (MHz)	Mode	CH or Frequency	6dB bandwidth Result (MHz)	99% bandwidth Result (MHz)
Channel 1							
11a	CH149	15.36	16.24	11ac HT 20	CH149	17.45	17.34
	CH157	15.23	15.43		CH157	17.34	17.52
	CH165	15.23	16.03		CH165	17.62	17.34
11n HT20	CH149	17.74	17.32	11ac HT 40	CH151	36.62	35.52
	CH157	17.56	17.53		CH159	36.34	35.23
	CH165	17.34	17.65		/	/	
11n HT 40	CH151	35.78	35.12	11ac HT 80	CH155	72.81	75.25
	CH159	35.12	35.18				
Limit: >500KHz				Conclusion: PASS			

4.4. The worst of the original test data



5. Maximum Output Power

5.1. Block diagram of test setup

Same as section 4.1

5.2. Limits

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

5.3. Test Procedure

- (1) Connect each EUT's antenna output to power sensor by RF cable and attenuator
- (2) Add each antenna port's results to get the total output power of EUT.

5.4. Test Result

5150-5250MHz Band				
Mode	CH	Channel0	Channel1	Result
		Level (dBm)	Level (dBm)	Total Power
11a	CH36	10.45	10.52	13.50
	CH40	10.32	10.34	13.34
	CH48	10.42	10.62	13.53
11n HT20	CH36	9.52	9.34	12.44
	CH40	9.34	9.62	12.49
	CH48	9.23	9.62	12.44
11n HT40	CH38	9.62	9.33	12.49
	CH46	9.34	9.62	12.49
11ac HT20	CH36	9.62	9.34	12.49
	CH40	9.34	9.62	12.49
	CH48	9.62	9.32	12.48
11ac HT40	CH38	9.34	9.62	12.49
	CH46	9.62	9.23	12.44
11ac HT80	CH45	9.23	9.96	12.62
Limit: 30dBm			Conclusion: PASS	

5725-5850MHz Band				
Mode	CH	Channel0	Channel1	Result
		Level (dBm)	Level (dBm)	Total Power
11a	CH149	18.42	19.42	21.96
	CH157	18.23	19.62	21.99
	CH165	18.62	19.32	21.99
11n HT20	CH149	18.34	19.62	22.04
	CH157	18.62	18.33	21.49
	CH165	18.34	18.62	21.49
11n HT40	CH151	20.62	20.23	23.44
	CH159	19.34	20.62	23.04
11ac HT20	CH149	18.62	19.23	21.95
	CH157	18.23	18.62	21.44
	CH165	18.62	18.23	21.44
11ac HT40	CH151	20.23	20.62	23.44
	CH159	19.62	20.23	22.95
11ac HT80	CH155	18.23	18.62	21.44
Limit: 30dBm			Conclusion: PASS	

6. Power Spectral Density

6.1. Block diagram of test setup

Same with 4.1

6.2. Limits

For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.825-5.85 GHz,, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission

6.3. Test Procedure

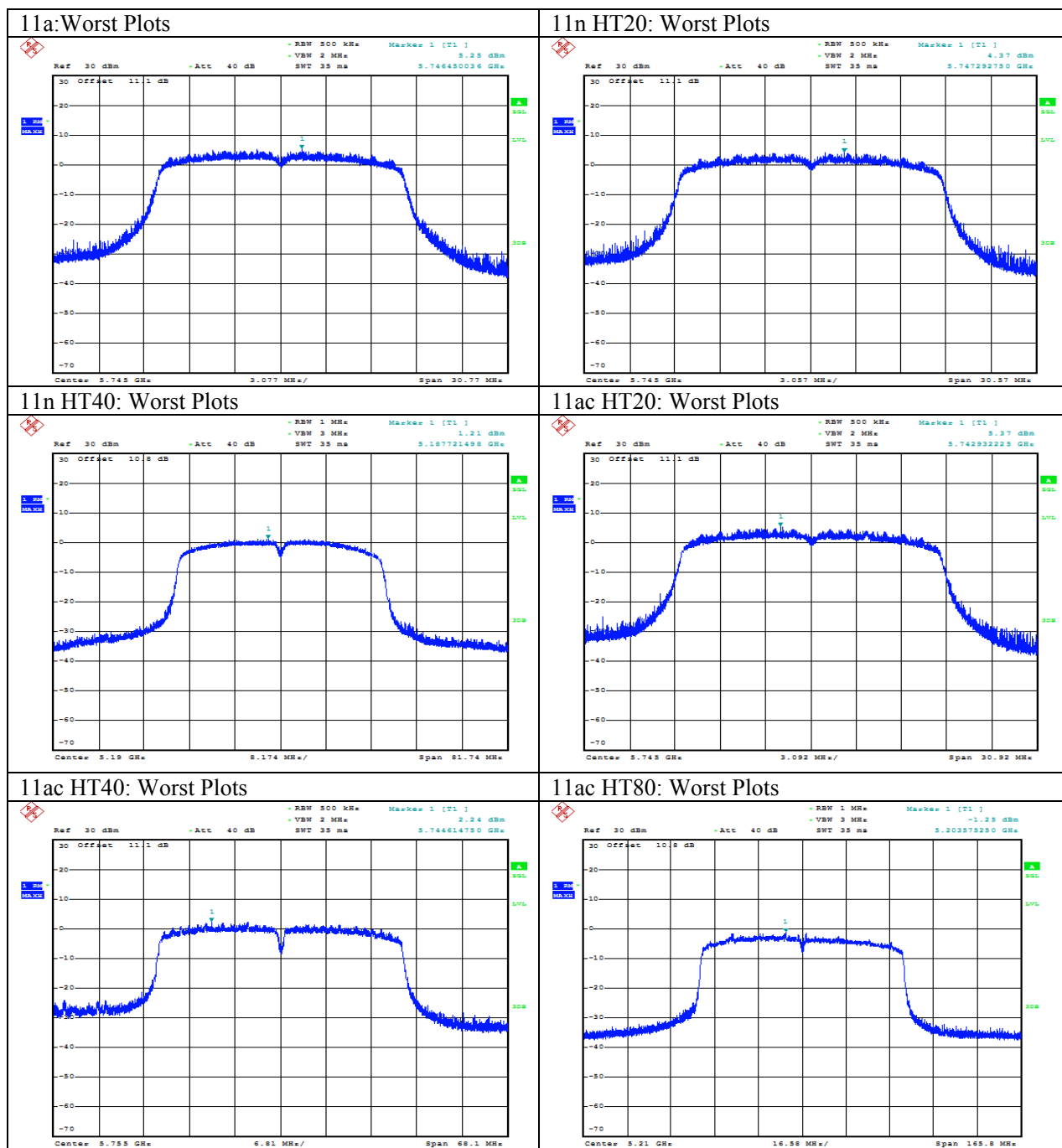
The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

6.4. Test Result

5150-5250MHz Band				
Mode	CH	Channel0 (dBm/1MHz)	Channel1 (dBm/1MHz)	Result (dBm/1MHz)
11a	CH36	4.40	4.42	7.42
	CH40	4.32	4.23	7.29
	CH48	3.89	3.74	6.83
11n HT20	CH36	4.00	3.57	6.80
	CH40	4.33	4.32	7.34
	CH48	3.23	3.21	6.23
11n HT40	CH38	1.21	1.01	4.12
	CH46	-0.45	-0.14	2.72
11ac HT20	CH36	3.45	3.23	6.35
	CH40	3.23	3.22	6.24
	CH48	2.62	2.34	5.49
11ac HT40	CH38	2.14	2.04	5.10
	CH46	0.23	0.34	3.30
11ac HT80	CH45	-1.25	-1.35	1.71
Limit: 17dBm/1MHz			Conclusion: PASS	
5725-5850MHz Band				
Mode	CH	Channel0 (dBm/500KHz)	Channel1 (dBm/500KHz)	Result (dBm/500KHz)
11a	CH149	5.25	4.55	7.92
	CH157	3.45	3.40	6.44
	CH165	3.35	3.24	6.31
11n HT20	CH149	4.37	4.35	7.37
	CH157	3.42	3.43	6.44
	CH165	3.23	3.22	6.24
11n HT40	CH151	0.45	0.43	3.45
	CH159	0.23	0.22	3.24
11ac HT20	CH149	5.37	4.35	7.90
	CH157	3.54	3.52	6.54
	CH165	3.54	3.53	6.55
11ac HT40	CH151	2.24	2.22	5.24

	CH159	1.45	1.35	4.41
11ac HT80	CH155	-2.96	-2.90	0.08
Limit: 30dBm			Conclusion: PASS	

6.5. The worst of the original test data



7. Frequency Stability Measurement

7.1. Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

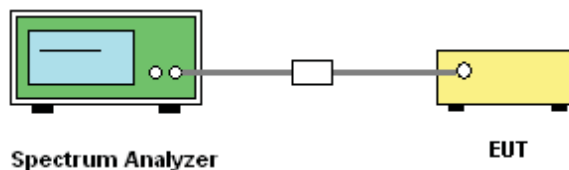
7.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

7.3. Test Procedures

- (1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
- (2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
- (3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

7.4. Test Setup



7.5. Test Result of Frequency Stability

Mod.	Data Rate	Channel	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (C-)	Voltage (V)
11a	6Mbps	36	5180	5180.019	0.019	3.67	25	10.2
11a	6Mbps	36	5180	5180.024	0.024	4.63	25	13.8
11a	6Mbps	36	5180	5180.025	0.025	4.83	55	12
11a	6Mbps	36	5180	5180.031	0.031	5.98	45	12
11a	6Mbps	36	5180	5180.029	0.029	5.6	35	12
11a	6Mbps	36	5180	5180.041	0.041	7.92	25	12
11a	6Mbps	36	5180	5180.044	0.044	8.49	10	12
11a	6Mbps	36	5180	5180.054	0.054	1.04	0	12
11a	6Mbps	36	5180	5180.032	0.032	6.18	-10	12

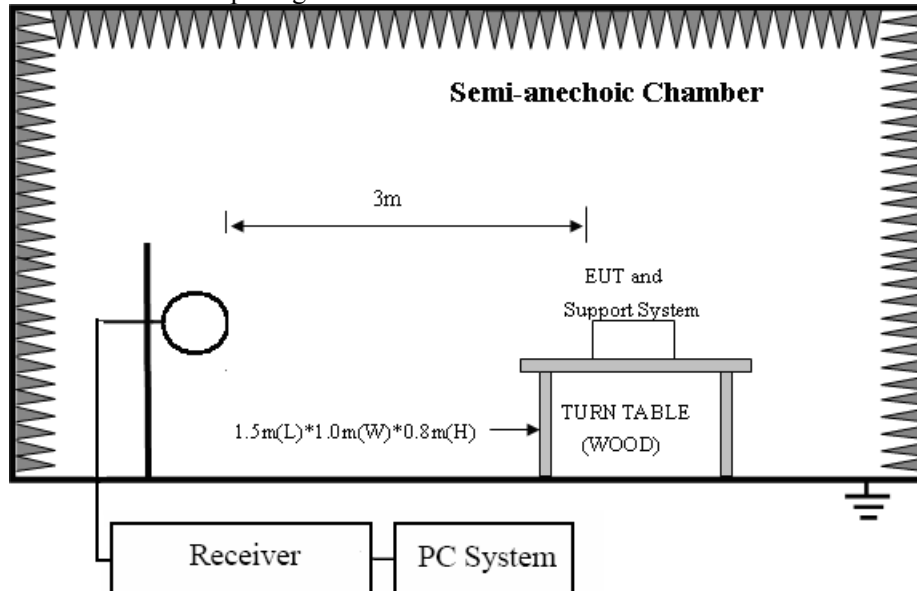
Note1: Center Frequency = (Low Frequency + High Frequency) / 2.

Note2: The frequency band 5180-5240MHz which was verified by testing against other standard is less than 20 ppm which is sufficient to maintain the signal within the 5150-5250MHz band.

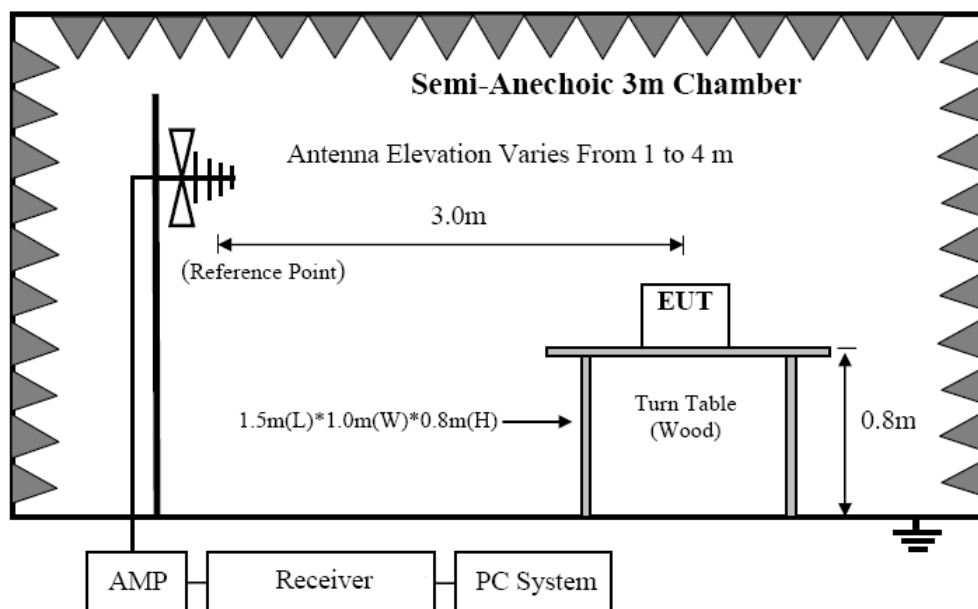
8. Emissions in restricted frequency bands

8.1. Block diagram of test setup

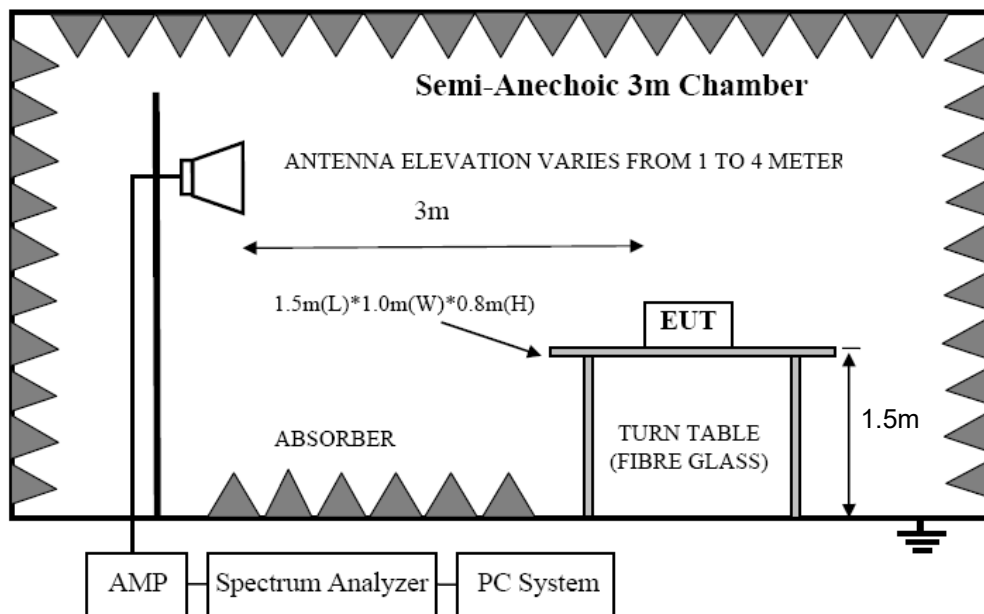
In 3m Anechoic Chamber Test Setup Diagram for 9KHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for 30MHz-1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

8.2. Limit

8.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

8.3.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(KHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(KHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$\text{Limit}_{3\text{m}}(\text{dBuV/m}) = \text{Limit}_{30\text{m}}(\text{dBuV/m}) + 40\text{Log}(30\text{m}/3\text{m})$$

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

8.3. Test Procedure

- (1) EUT height should be 0.8m for below 1GHz at a semi - anechoic chamber while EUT height should be 1.5m for above 1GHz at full chamber or semi - anechoic chamber ground with absorbers
- (2) Setup EUT and assistant system according clause 2.3 and 8.2
- (3) Test antenna was located 3m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used
9KHz-30MHz	Active Loop antenna
30MHz-1GHz	Trilog Broadband Antenna
1GHz-18GHz	Double Ridged Horn Antenna(1GHz-18GHz)
18GHz-40GHz	Horn Antenna(18GHz-40GHz)

According ANSI C63.10:2013 clause 6.4.4.2 and 6.5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. for measurement above 30MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of

Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

- (4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9KHz to 25GHz:

- (a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1m to 4m(Except loop antenna, it's fixed 1m above ground.)
- (b) Change work frequency or channel of device if practicable.
- (c) Change modulation type of device if practicable.
- (d) Change power supply range from 85% to 115% of the rated supply voltage
- (e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 25GHz, so below final test was

performed with frequency range from 30MHz to 18GHz.

- (5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on Radiated Emission test.
- (6) The emissions from 9KHz to 1GHz were measured based on CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz, for emissions from 9KHz-90KHz, 110KHz-490KHz and above 1GHz were measured based on average detector, for emissions above 1GHz, peak emissions also be measured and need comply with Peak limit.
- (7) The emissions from 9KHz to 1GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9KHz-150KHz	200Hz
150KHz-30MHz	9KHz
30MHz-1GHz	120KHz

- (8) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz, Peak detector for Peak measure, RMS detector for AV value

8.4. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9KHz to 40GHz were comply with 15.209 limit.

Note1: According exploratory test no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 40GHz, so the final test was performed with frequency range from 30MHz to 18GHz and recorded in below.

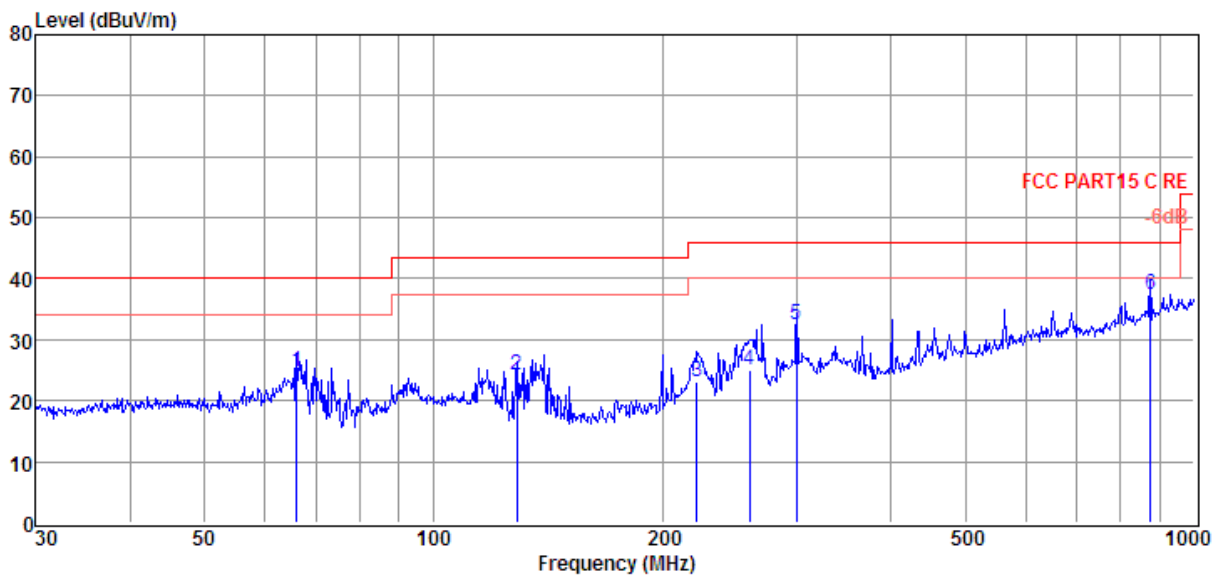
Note2: For emissions below 1GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1GHz, the final test was only performed with EUT working in 11a mode.

Note3: For below test data, when the limit tabular marked “/” means this frequency point is the fundamental emission and no need comply with this limit.

Radiated Emission test (below 1GHz)**TR-4-E-009 Radiated Emission Test Result**

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-14\RE.EM6**
Test Date : 2017-06-28 **Tested By** : Xian
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : AC 120V/60Hz **Test Mode** : 5G wifi Mode
Condition : Temp:24.5'C,Humi:55%,
Press:100.1kPa **Antenna/Distance** : 2016 VULB9163 1#/3m/HORIZONTAL
Memo :

Data: 7



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	66.03	11.57	9.07	4.03	24.67	40.00	-15.33	QP	HORIZONTAL
2	128.56	11.81	7.99	4.47	24.27	43.50	-19.23	QP	HORIZONTAL
3	222.17	6.68	11.39	5.01	23.08	46.00	-22.92	QP	HORIZONTAL
4	260.14	7.46	12.41	5.19	25.06	46.00	-20.94	QP	HORIZONTAL
5	300.37	13.58	13.41	5.38	32.37	46.00	-13.63	QP	HORIZONTAL
6	875.25	8.07	22.05	7.35	37.47	46.00	-8.53	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

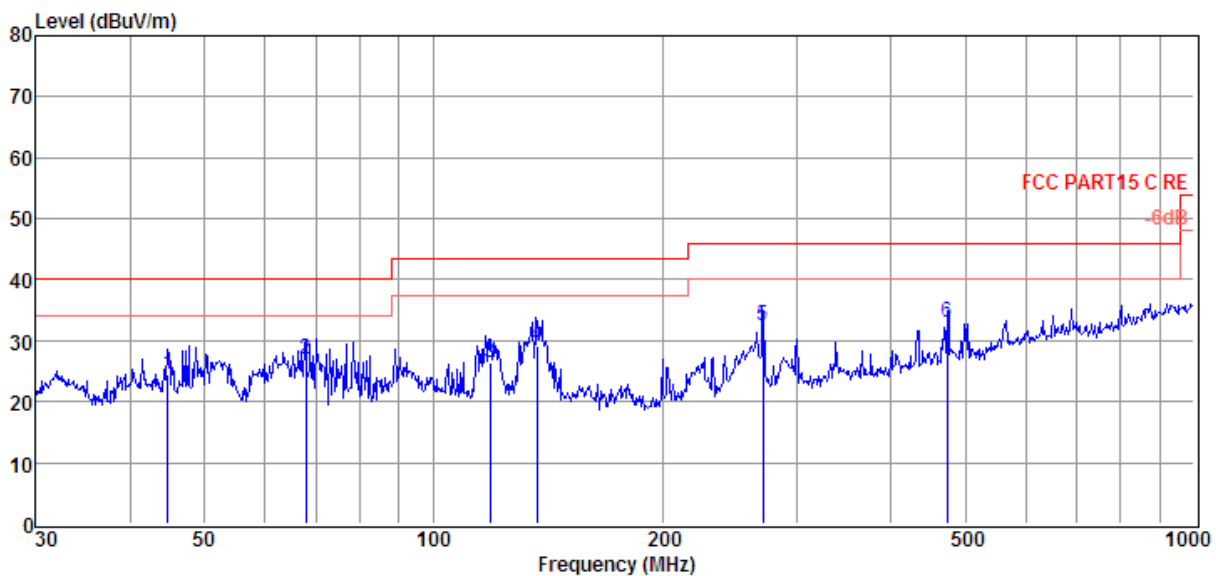
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

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

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-14\RE.EM6**
Test Date : 2017-06-28 **Tested By** : Xian
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : AC 120V/60Hz **Test Mode** : 5G wifi Mode
Condition : Temp:24.5'C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 VULB9163 1#/3m/VERTICAL
Memo :

Data: 8



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	44.74	8.36	12.32	3.84	24.52	40.00	-15.48	QP	VERTICAL
2	67.91	14.62	8.32	4.04	26.98	40.00	-13.02	QP	VERTICAL
3	118.60	12.36	9.60	4.41	26.37	43.50	-17.13	QP	VERTICAL
4	136.94	17.01	7.58	4.52	29.11	43.50	-14.39	QP	VERTICAL
5	271.33	14.44	12.79	5.24	32.47	46.00	-13.53	QP	VERTICAL
6	473.84	10.19	16.79	6.07	33.05	46.00	-12.95	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

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.

Radiated Emission test (above 1GHz)

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμ V/m)	Margin (dB)	Detector type	Polarization
11a CH36									
6967.00	29.17	36.17	30.37	10.40	45.37	74.00	-28.63	Peak	VERTICAL
9279.00	27.26	36.88	32.47	12.10	43.77	74.00	-30.23	Peak	VERTICAL
12730.00	26.02	38.53	35.52	14.65	43.68	74.00	-30.32	Peak	VERTICAL
14192.00	25.07	40.19	34.92	15.29	45.63	74.00	-28.37	Peak	VERTICAL
16232.00	22.13	44.27	35.70	17.27	47.97	74.00	-26.03	Peak	VERTICAL
16963.00	21.80	43.96	36.63	18.33	47.46	74.00	-26.54	Peak	VERTICAL
6933.00	28.29	36.15	30.34	10.37	44.47	74.00	-29.53	Peak	HORIZONTAL
8565.00	29.22	35.59	31.87	11.66	44.60	74.00	-29.40	Peak	HORIZONTAL
10367.00	35.19	36.53	33.17	12.63	51.18	74.00	-22.82	Peak	HORIZONTAL
14515.00	24.77	40.82	35.31	15.80	46.08	74.00	-27.92	Peak	HORIZONTAL
14889.00	25.24	41.35	35.78	16.27	47.08	74.00	-26.92	Peak	HORIZONTAL
16453.00	21.53	44.63	35.99	17.46	47.63	74.00	-26.37	Peak	HORIZONTAL
11a CH40									
1323.00	39.16	24.70	29.37	4.49	38.98	74.00	-35.02	Peak	VERTICAL
4944.00	29.74	33.71	29.34	8.63	42.74	74.00	-31.26	Peak	VERTICAL
6950.00	29.16	36.16	30.34	10.39	45.37	74.00	-28.63	Peak	VERTICAL
10384.00	28.15	36.51	33.17	12.65	44.14	74.00	-29.86	Peak	VERTICAL
14838.00	24.94	41.28	35.74	16.20	46.68	74.00	-27.32	Peak	VERTICAL
17099.00	23.07	43.72	36.71	18.48	48.56	74.00	-25.44	Peak	VERTICAL
6899.00	28.79	36.12	30.31	10.33	44.93	74.00	-29.07	Peak	HORIZONTAL
10401.00	30.81	36.50	33.20	12.65	46.76	74.00	-27.24	Peak	HORIZONTAL
12764.00	25.95	38.57	35.55	14.66	43.63	74.00	-30.37	Peak	HORIZONTAL
14940.00	23.28	41.42	35.82	16.33	45.21	74.00	-28.79	Peak	HORIZONTAL
16351.00	22.27	44.46	35.86	17.38	48.25	74.00	-25.75	Peak	HORIZONTAL
16895.00	20.96	44.07	36.54	18.20	46.69	74.00	-27.31	Peak	HORIZONTAL
11a CH48									
7273.00	27.89	36.42	30.54	10.66	44.43	74.00	-29.57	Peak	VERTICAL
8004.00	27.33	36.69	31.13	11.13	44.02	74.00	-29.98	Peak	VERTICAL
10486.00	27.34	36.41	33.25	12.70	43.20	74.00	-30.80	Peak	VERTICAL
13665.00	24.90	39.47	35.03	14.86	44.20	74.00	-29.80	Peak	VERTICAL
15008.00	25.06	41.52	35.89	16.40	47.09	74.00	-26.91	Peak	VERTICAL
16895.00	22.85	44.07	36.54	18.20	48.58	74.00	-25.42	Peak	VERTICAL
6950.00	28.68	36.16	30.34	10.39	44.89	74.00	-29.11	Peak	HORIZONTAL
7749.00	27.64	36.65	31.00	10.99	44.28	74.00	-29.72	Peak	HORIZONTAL
10486.00	36.43	36.41	33.25	12.70	52.29	74.00	-21.71	Peak	HORIZONTAL
13580.00	26.28	39.38	35.12	14.83	45.37	74.00	-28.63	Peak	HORIZONTAL
15246.00	24.02	42.24	35.82	16.45	46.89	74.00	-27.11	Peak	HORIZONTAL
16283.00	22.38	44.36	35.80	17.32	48.26	74.00	-25.74	Peak	HORIZONTAL
Conclusion: Pass									
Note: -27 dBm/MHz Limit=95.2+EIRP[dBm]=95.2-27=68.2 dBμV/m For transmitters operating in the 5.15-5.25 GHz and 5.725-5.85G band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.									

Note: 1.30MHz~18GHz: (Scan with 11a, 11n HT20, 11n HT40 and 11ac, the worst case is 11a Mode)

2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor (dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμ V/m)	Margin (dB)	Detector type	Polarization
11a CH149									
4808.00	30.19	33.74	29.32	8.46	43.07	74.00	-30.93	Peak	VERTICAL
6967.00	29.38	36.17	30.37	10.40	45.58	74.00	-28.42	Peak	VERTICAL
8310.00	28.38	35.82	31.45	11.45	44.20	74.00	-29.80	Peak	VERTICAL
13461.00	25.56	39.26	35.22	14.79	44.39	74.00	-29.61	Peak	VERTICAL
14787.00	25.30	41.20	35.70	16.13	46.93	74.00	-27.07	Peak	VERTICAL
16164.00	23.13	44.17	35.65	17.20	48.85	74.00	-25.15	Peak	VERTICAL
7409.00	28.47	36.53	30.67	10.78	45.11	74.00	-28.89	Peak	HORIZONTAL
8548.00	28.69	35.52	31.87	11.66	44.00	74.00	-30.00	Peak	HORIZONTAL
11489.00	35.85	36.72	34.49	13.58	51.66	74.00	-22.34	Peak	HORIZONTAL
14362.00	25.87	40.53	35.12	15.58	46.86	74.00	-27.14	Peak	HORIZONTAL
16453.00	22.37	44.63	35.99	17.46	48.47	74.00	-25.53	Peak	HORIZONTAL
17813.00	20.99	44.07	37.58	19.34	46.82	74.00	-27.18	Peak	HORIZONTAL
11a CH157									
7307.00	28.62	36.45	30.57	10.68	45.18	74.00	-28.82	Peak	VERTICAL
8429.00	29.07	35.49	31.59	11.57	44.54	74.00	-29.46	Peak	VERTICAL
12118.00	27.18	37.77	34.87	14.33	44.41	74.00	-29.59	Peak	VERTICAL
14991.00	24.05	41.49	35.89	16.38	46.03	74.00	-27.97	Peak	VERTICAL
16470.00	21.98	44.65	35.99	17.46	48.10	74.00	-25.90	Peak	VERTICAL
17983.00	20.05	44.64	37.71	19.69	46.67	74.00	-27.33	Peak	VERTICAL
7052.00	29.22	36.24	30.41	10.47	45.52	74.00	-28.48	Peak	HORIZONTAL
8973.00	26.57	37.38	32.32	11.80	43.43	74.00	-30.57	Peak	HORIZONTAL
11574.00	35.44	36.84	34.56	13.67	51.39	74.00	-22.61	Peak	HORIZONTAL
14634.00	24.49	40.99	35.56	15.96	45.88	74.00	-28.12	Peak	HORIZONTAL
16317.00	22.29	44.41	35.80	17.33	48.23	74.00	-25.77	Peak	HORIZONTAL
17983.00	20.86	44.64	37.71	19.69	47.48	74.00	-26.52	Peak	HORIZONTAL
11a CH165									
7171.00	28.19	36.34	30.48	10.57	44.62	74.00	-29.38	Peak	VERTICAL
11591.00	28.72	36.87	34.56	13.70	44.73	74.00	-29.27	Peak	VERTICAL
14974.00	24.01	41.46	35.89	16.36	45.94	74.00	-28.06	Peak	VERTICAL
15824.00	22.58	43.59	35.55	16.88	47.50	74.00	-26.50	Peak	VERTICAL
16283.00	22.42	44.36	35.80	17.32	48.30	74.00	-25.70	Peak	VERTICAL
16793.00	21.82	44.23	36.45	18.00	47.60	74.00	-26.40	Peak	VERTICAL
6848.00	28.82	36.08	30.28	10.28	44.90	74.00	-29.10	Peak	HORIZONTAL
9109.00	27.88	37.26	32.36	11.95	44.73	74.00	-29.27	Peak	HORIZONTAL
11642.00	36.07	36.96	34.62	13.77	52.18	74.00	-21.82	Peak	HORIZONTAL
15127.00	24.75	41.89	35.85	16.43	47.22	74.00	-26.78	Peak	HORIZONTAL
16555.00	22.09	44.61	36.14	17.61	48.17	74.00	-25.83	Peak	HORIZONTAL
17949.00	19.96	44.53	37.67	19.65	46.47	74.00	-27.53	Peak	HORIZONTAL
Conclusion: Pass									
Note: -27 dBm/MHz Limit= $95.2 + \text{EIRP}[\text{dBm}] = 95.2 - 27 = 68.2 \text{ dB}\mu\text{V/m}$ For transmitters operating in the 5.15-5.25 GHz and 5.725-5.85G band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz .									

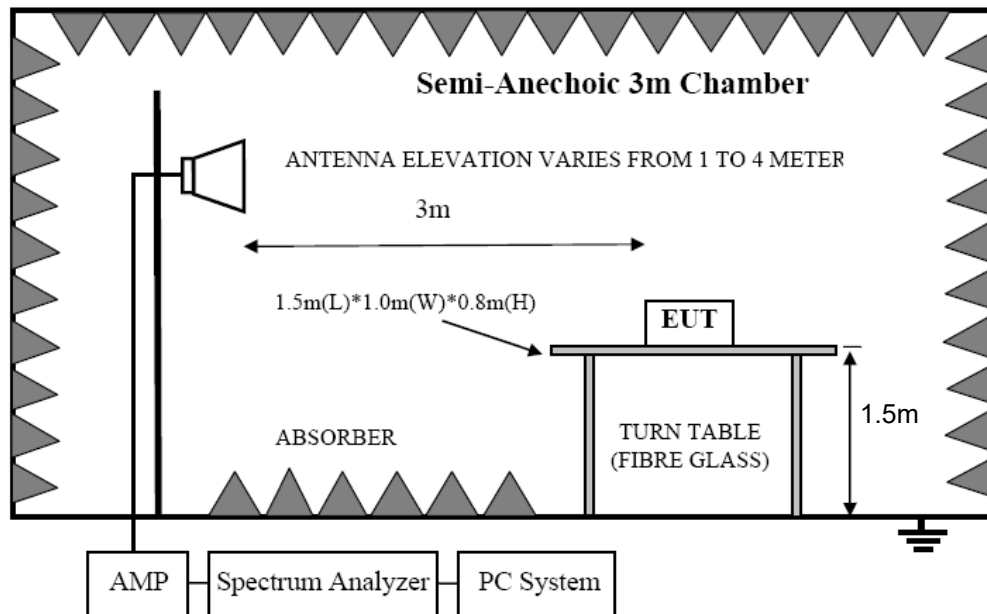
Note: 1.30MHz~18GHz: (Scan with 11a, 11n HT20, 11n HT40 and 11ac, the worst case is 11a Mode)

2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

9. Band Edge Compliance

9.1. Block diagram of test setup



9.2. Limit

For transmitters operating in the 5.15-5.25 GHz and 5.725-5.85G band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

$$-27 \text{ dBm/MHz Limit} = 95.2 + \text{EIRP}[\text{dBm}] = 95.2 - 27 = 68.2 \text{ dB}\mu\text{V/m}$$

9.3. Test Procedure

Same with clause 8.3 except change investigated frequency range from 5.15-5.25 GHz, 5.725-5.85G.

Remark: All restriction band have been tested, and only the worse case is shown in report.

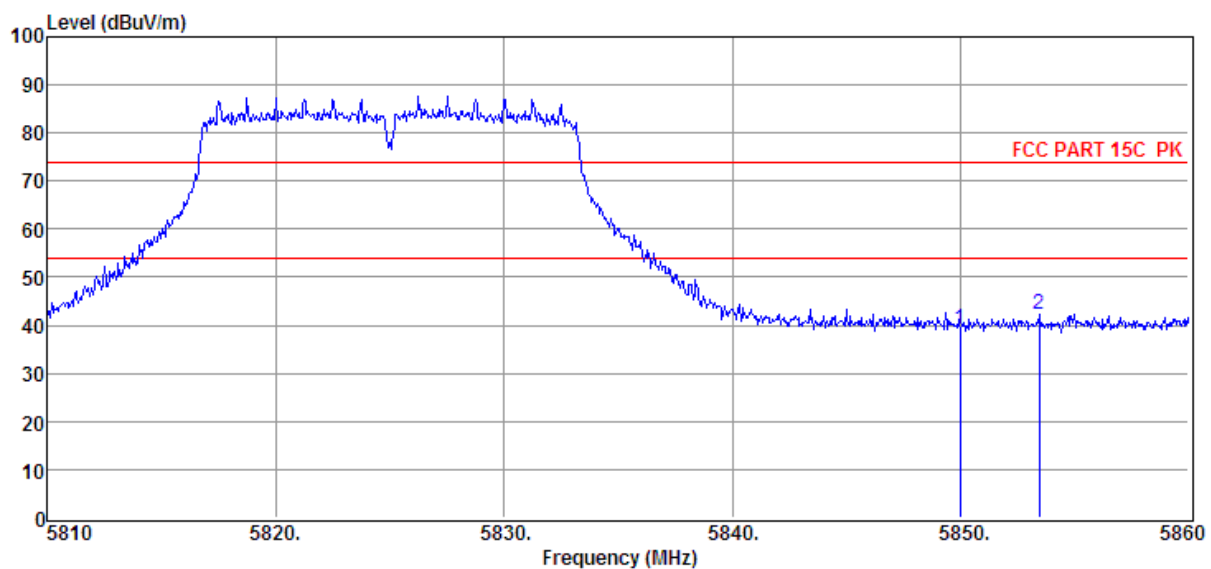
9.4. Test result

PASS. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 1



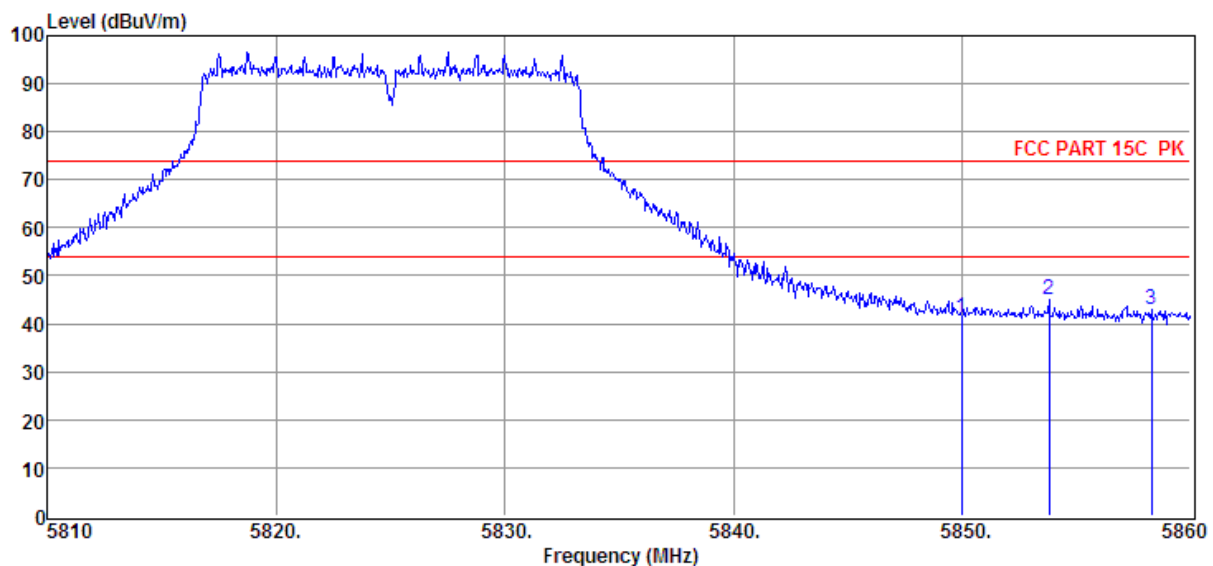
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	23.95	34.91	29.20	9.54	39.20	74.00	-34.80	Peak	VERTICAL
2	5853.45	27.08	34.91	29.20	9.54	42.33	74.00	-31.67	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 2



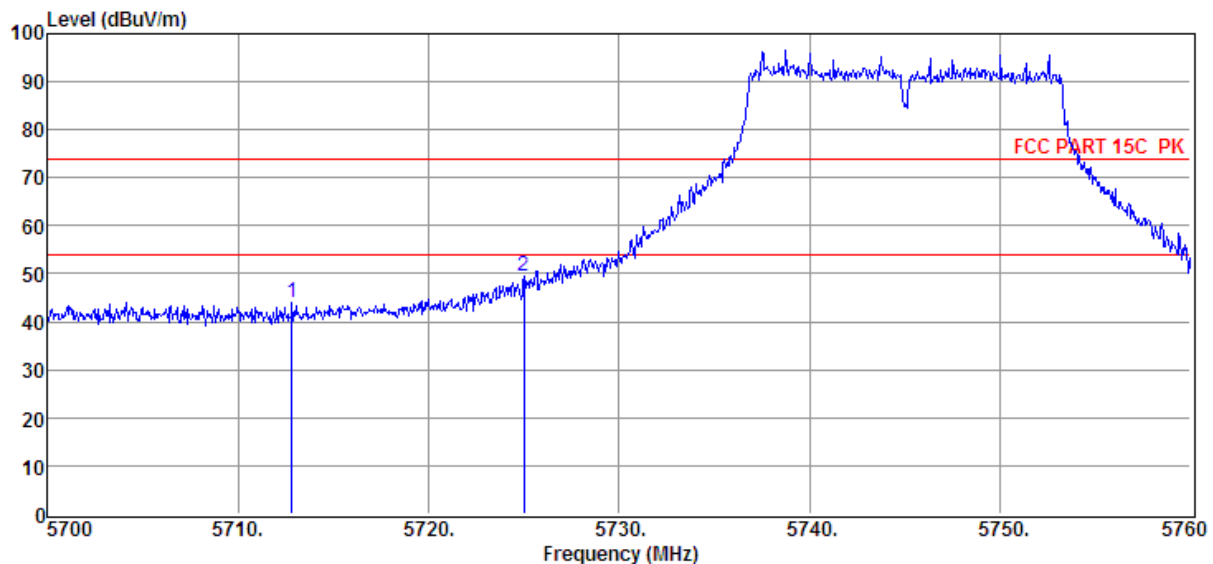
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	26.04	34.91	29.20	9.54	41.29	74.00	-32.71	Peak	HORIZONTAL
2	5853.80	29.74	34.91	29.20	9.54	44.99	74.00	-29.01	Peak	HORIZONTAL
3	5858.30	27.76	34.92	29.20	9.54	43.02	74.00	-30.98	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 3



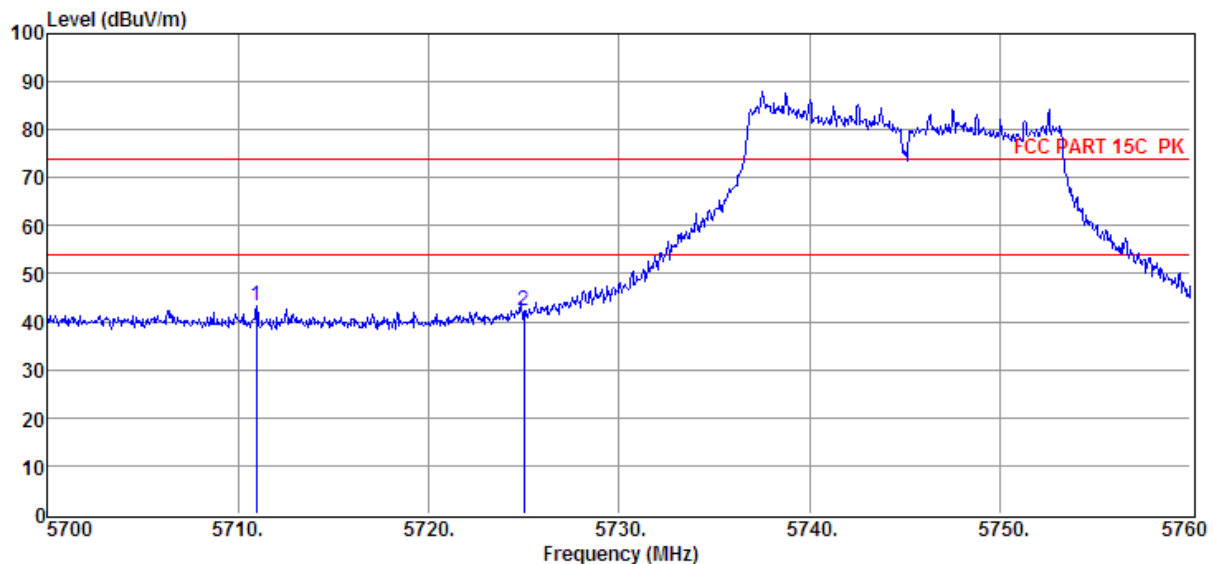
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5712.84	28.96	34.83	29.22	9.41	43.98	74.00	-30.02	Peak	HORIZONTAL
2	5725.00	34.29	34.84	29.22	9.41	49.32	74.00	-24.68	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 4



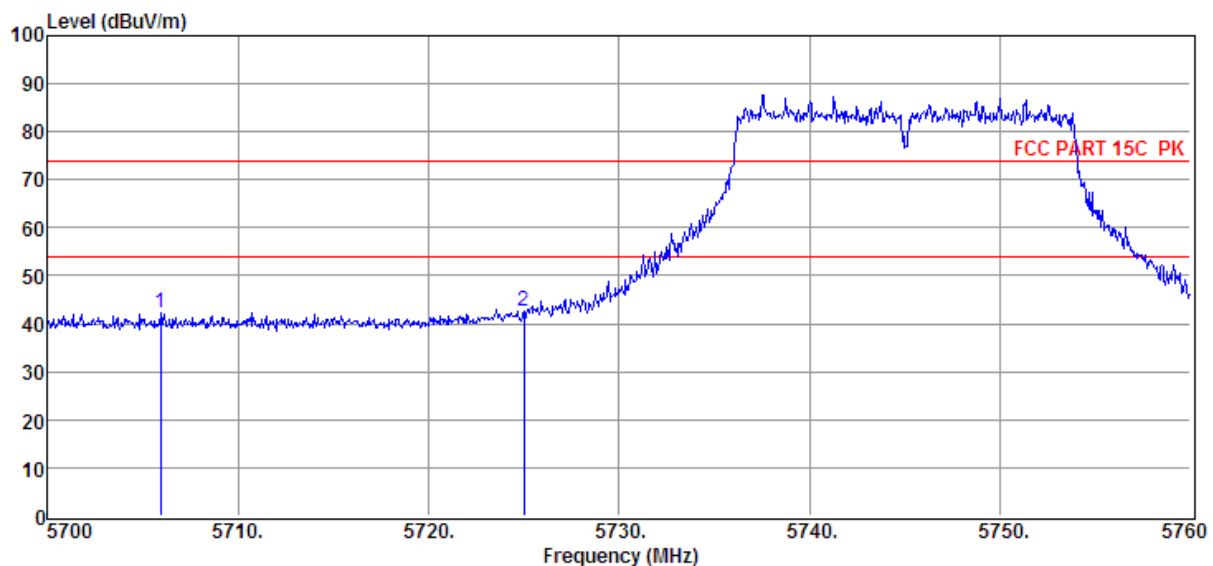
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5710.98	28.15	34.83	29.22	9.41	43.17	74.00	-30.83	Peak	VERTICAL
2	5725.00	27.37	34.84	29.22	9.41	42.40	74.00	-31.60	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 13



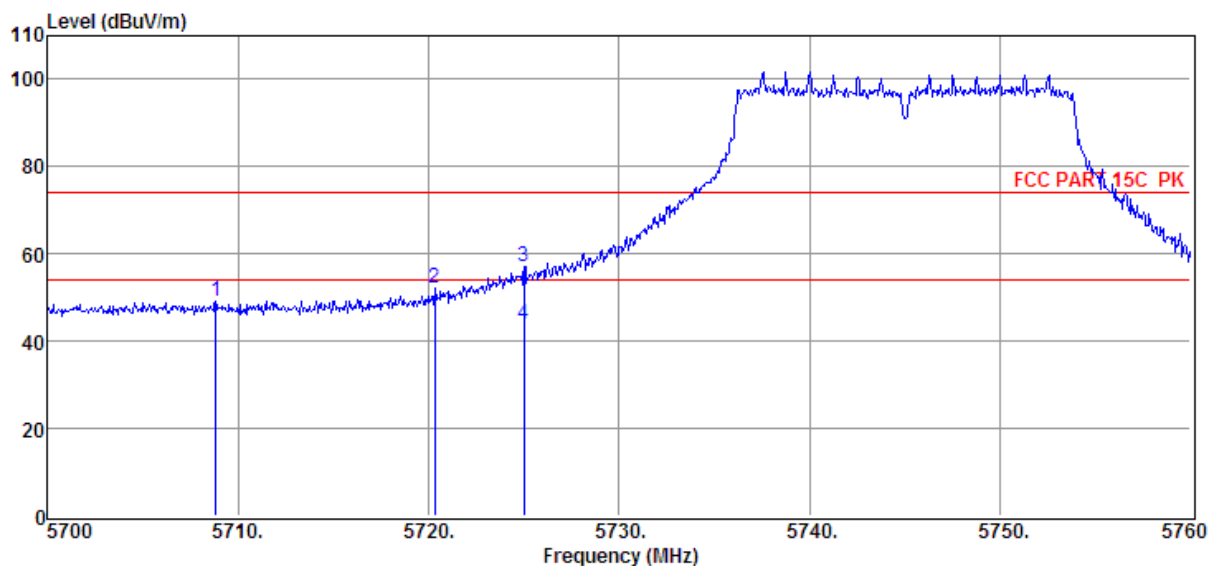
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5705.94	27.35	34.83	29.22	9.39	42.35	74.00	-31.65	Peak	VERTICAL
2	5725.00	27.61	34.84	29.22	9.41	42.64	74.00	-31.36	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 14



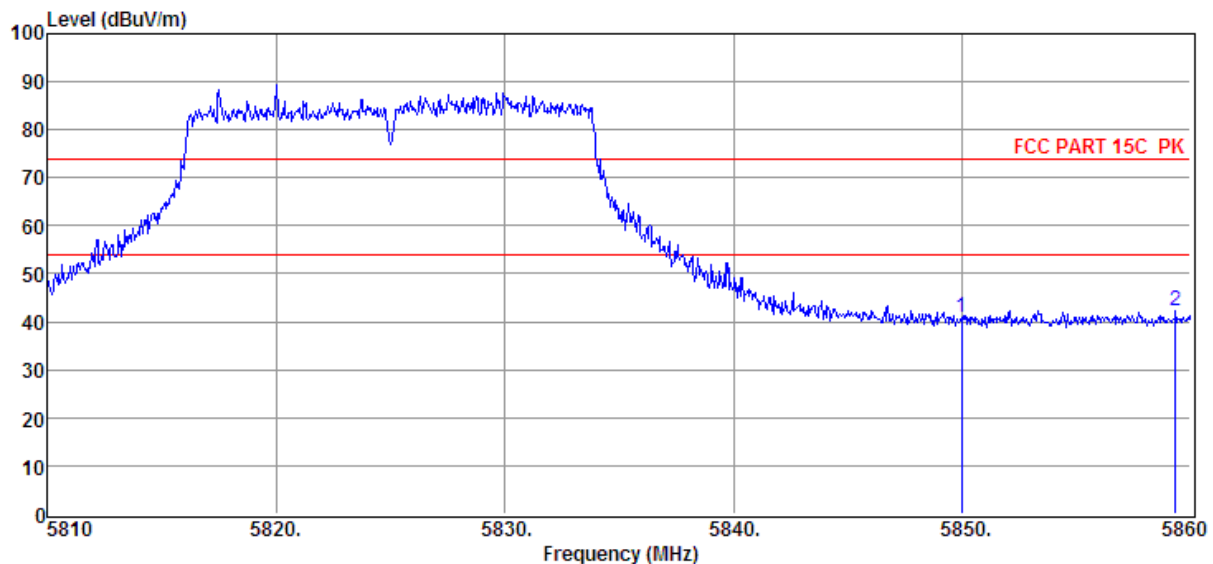
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5708.82	34.31	34.83	29.22	9.38	49.30	74.00	-24.70	Peak	HORIZONTAL
2	5720.34	37.22	34.84	29.22	9.41	52.25	74.00	-21.75	Peak	HORIZONTAL
3	5725.00	42.19	34.84	29.22	9.41	57.22	74.00	-16.78	Peak	HORIZONTAL
4	5725.03	28.69	34.84	29.22	9.41	43.72	54.00	-10.28	Average	HORIZONTAL

- Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 15



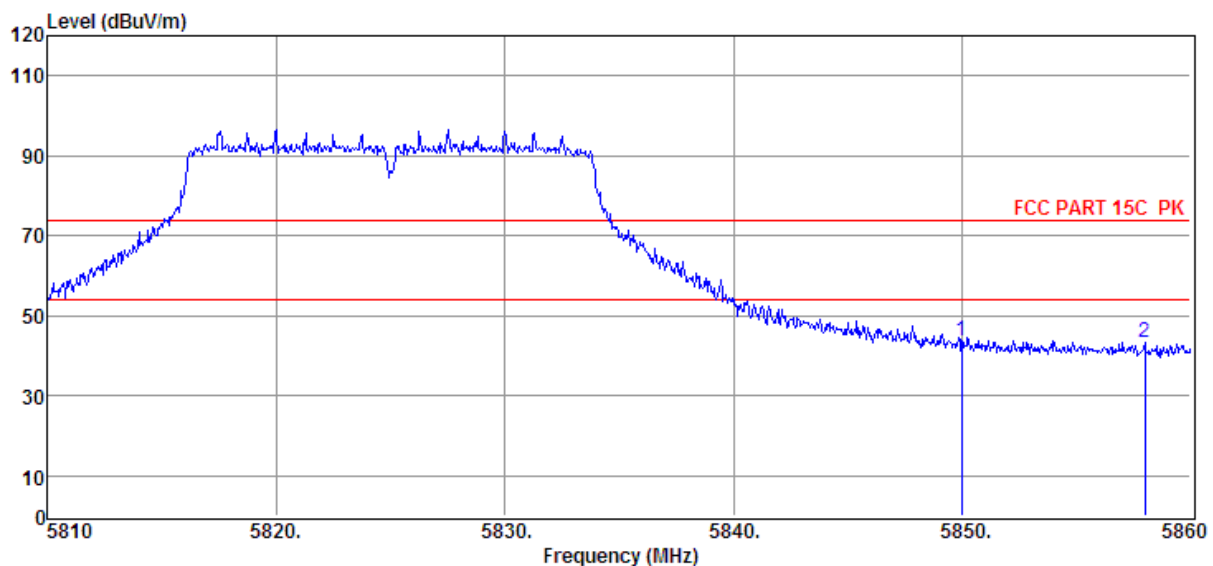
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	25.75	34.91	29.20	9.54	41.00	74.00	-33.00	Peak	VERTICAL
2	5859.35	27.00	34.92	29.20	9.54	42.26	74.00	-31.74	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 16



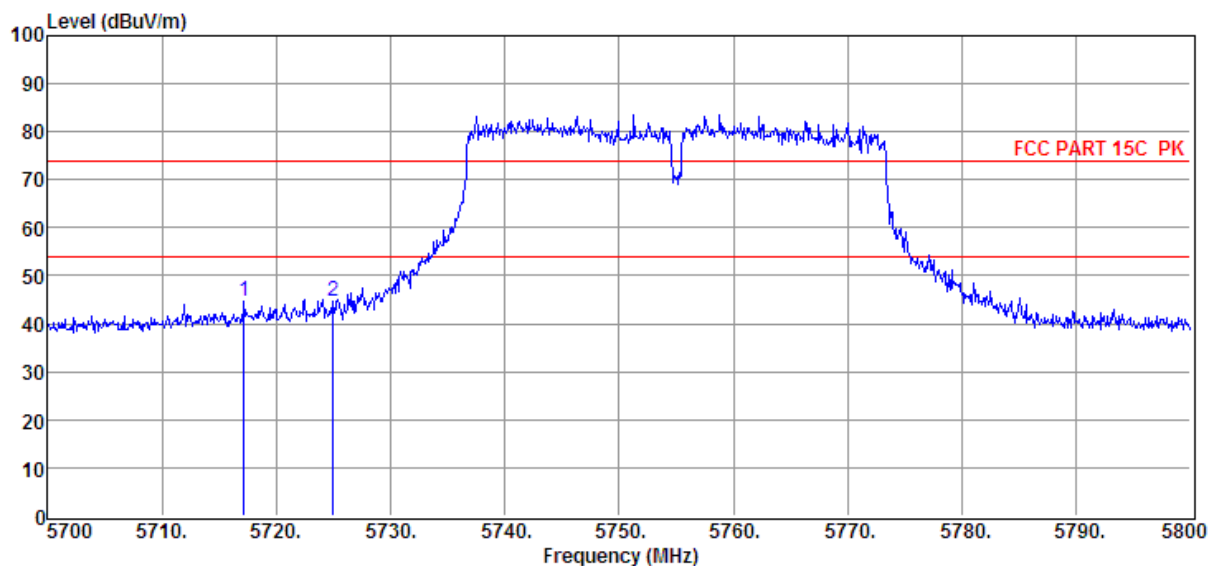
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	28.31	34.91	29.20	9.54	43.56	74.00	-30.44	Peak	HORIZONTAL
2	5858.00	28.21	34.92	29.20	9.54	43.47	74.00	-30.53	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5755MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 23



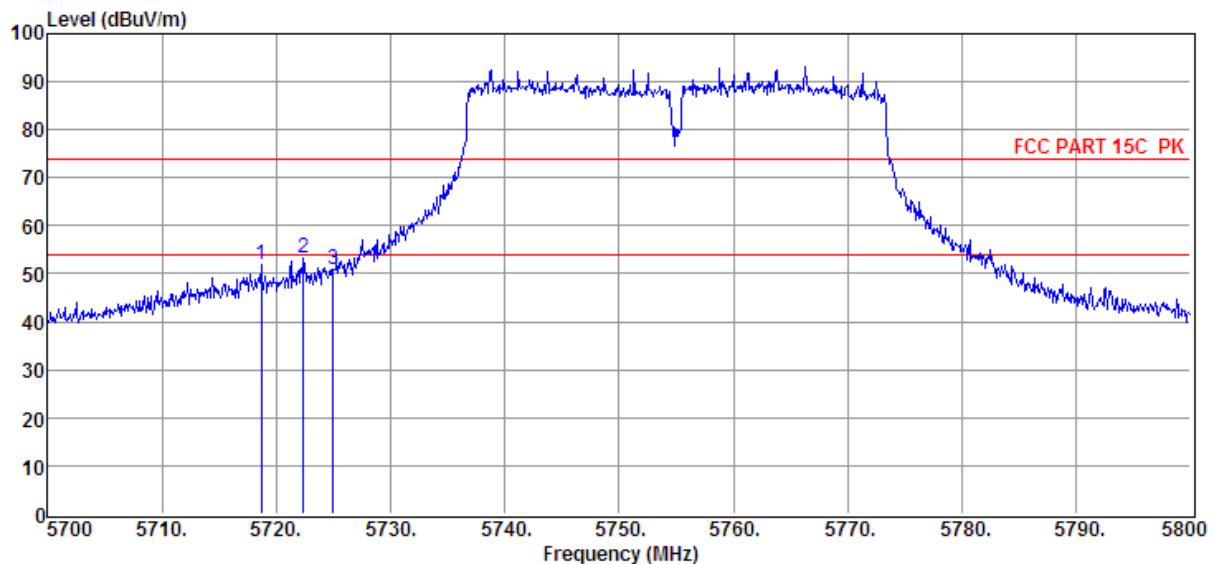
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5717.20	29.50	34.83	29.22	9.41	44.52	74.00	-29.48	Peak	VERTICAL
2	5725.00	29.59	34.84	29.22	9.41	44.62	74.00	-29.38	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5755MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 24



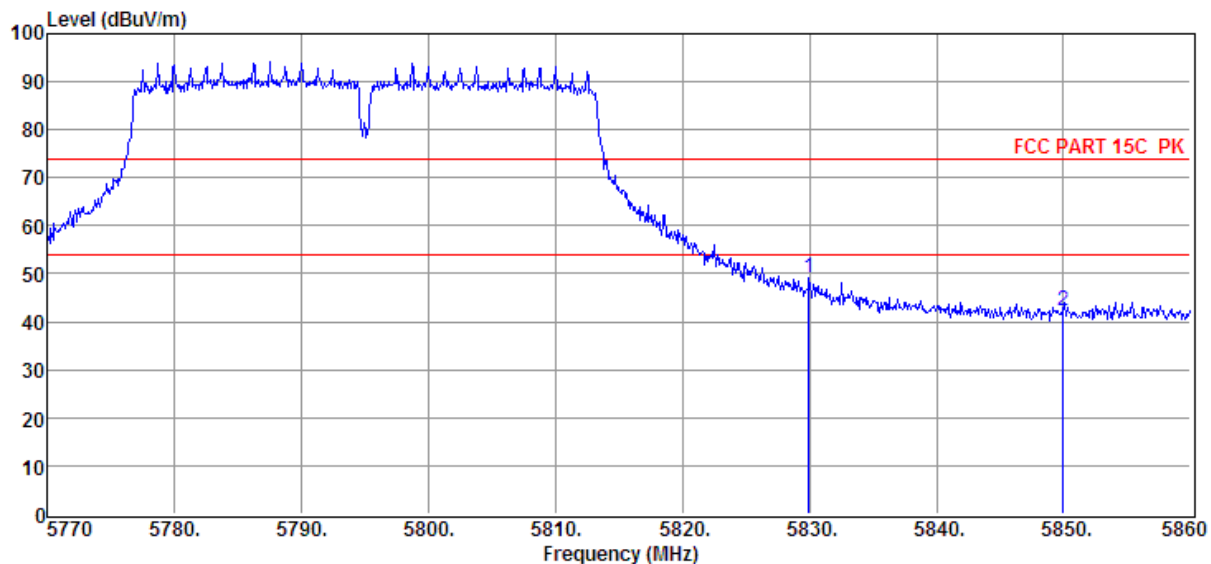
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5718.70	36.88	34.83	29.22	9.41	51.90	74.00	-22.10	Peak	HORIZONTAL
2	5722.40	38.10	34.84	29.22	9.41	53.13	74.00	-20.87	Peak	HORIZONTAL
3	5725.00	35.79	34.84	29.22	9.41	50.82	74.00	-23.18	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5795MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 25



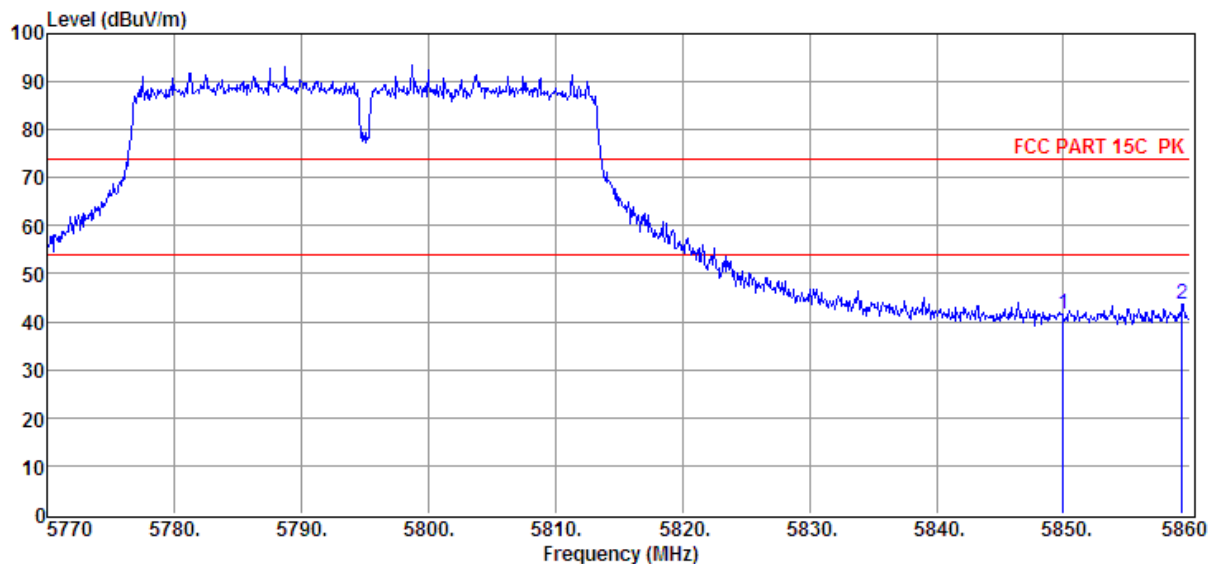
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5829.94	33.80	34.90	29.21	9.52	49.01	74.00	-24.99	Peak	HORIZONTAL
2	5850.01	26.93	34.91	29.20	9.54	42.18	74.00	-31.82	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5795MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 26



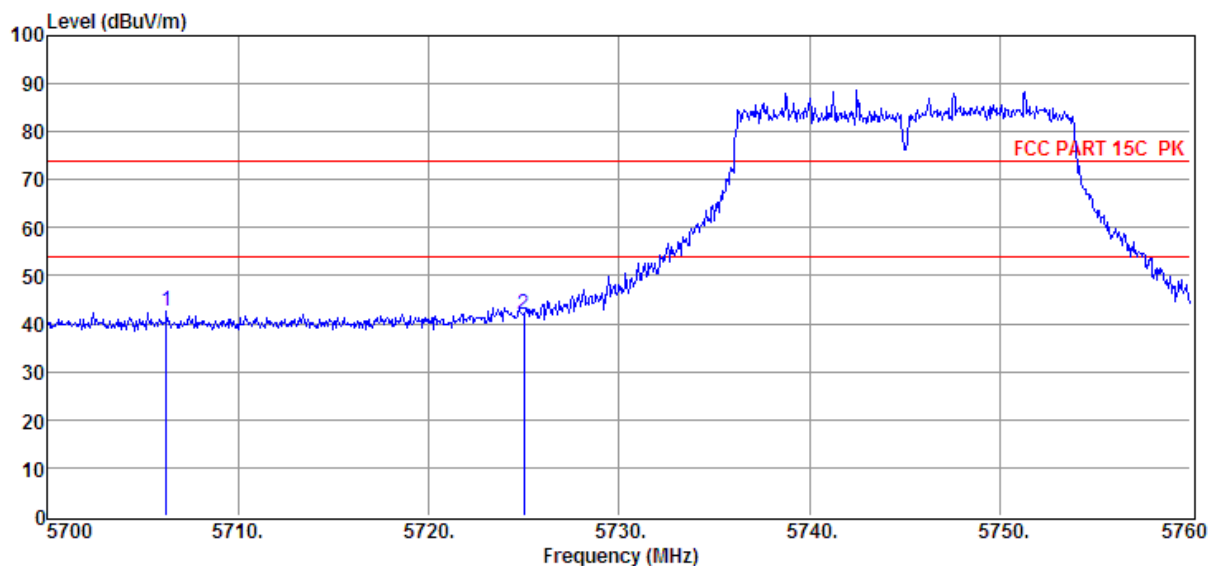
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.01	26.46	34.91	29.20	9.54	41.71	74.00	-32.29	Peak	VERTICAL
2	5859.37	28.38	34.92	29.20	9.54	43.64	74.00	-30.36	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 31



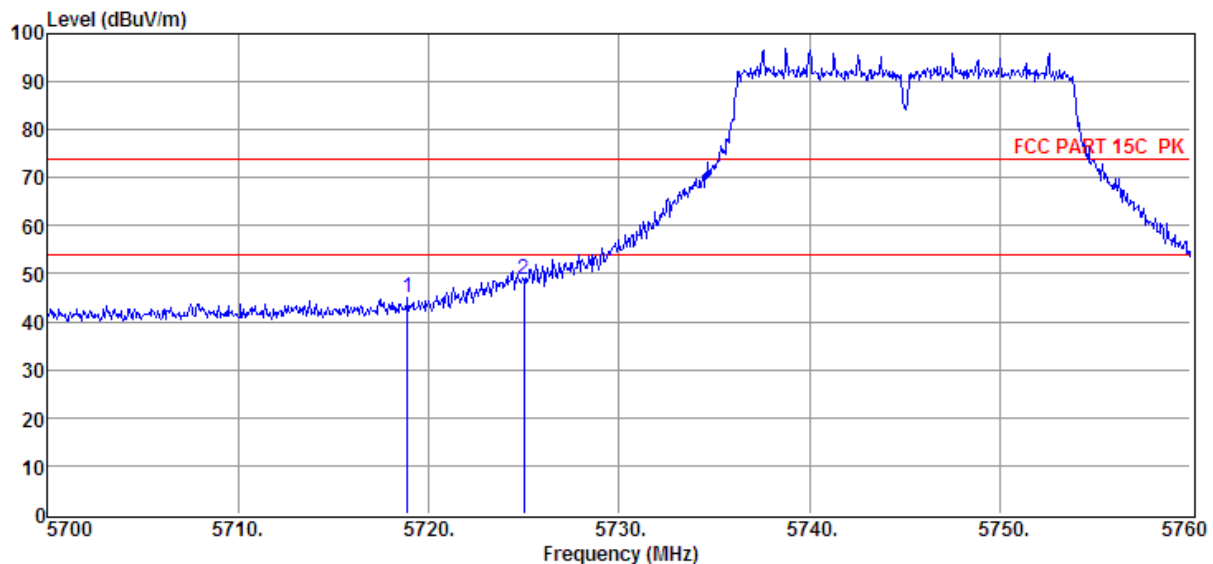
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5706.24	27.79	34.83	29.22	9.38	42.78	74.00	-31.22	Peak	VERTICAL
2	5725.00	27.01	34.84	29.22	9.41	42.04	74.00	-31.96	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5745MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 32



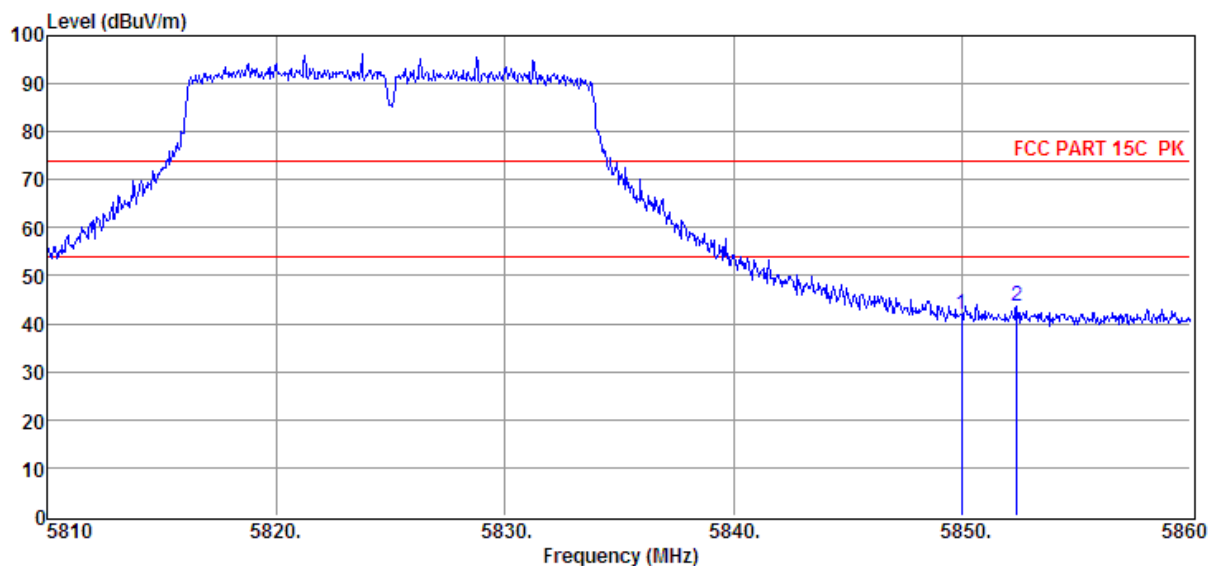
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5718.90	29.95	34.83	29.22	9.41	44.97	74.00	-29.03	Peak	HORIZONTAL
2	5725.00	33.84	34.84	29.22	9.41	48.87	74.00	-25.13	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 37



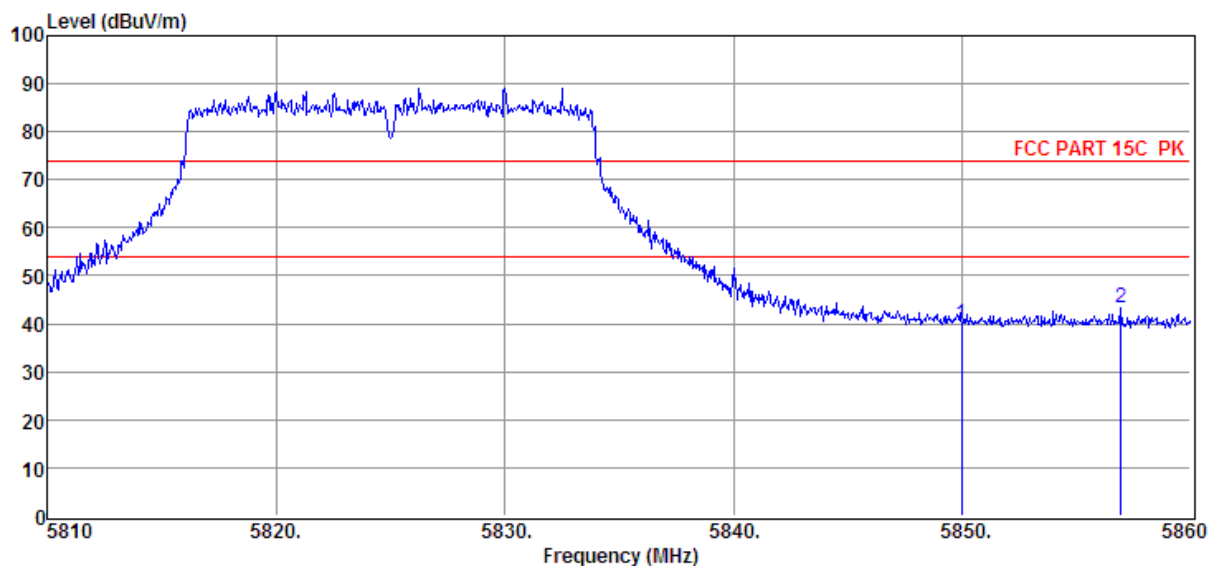
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	26.63	34.91	29.20	9.54	41.88	74.00	-32.12	Peak	HORIZONTAL
2	5852.40	28.32	34.91	29.20	9.54	43.57	74.00	-30.43	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5825MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 38



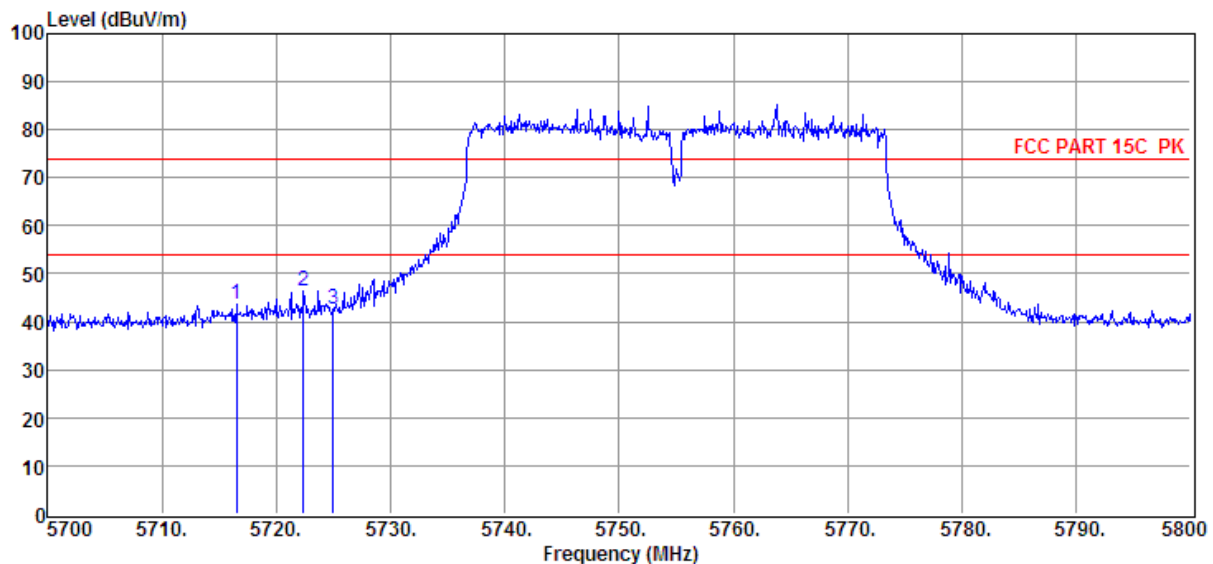
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	24.65	34.91	29.20	9.54	39.90	74.00	-34.10	Peak	VERTICAL
2	5856.95	28.10	34.92	29.20	9.54	43.36	74.00	-30.64	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5755MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 39



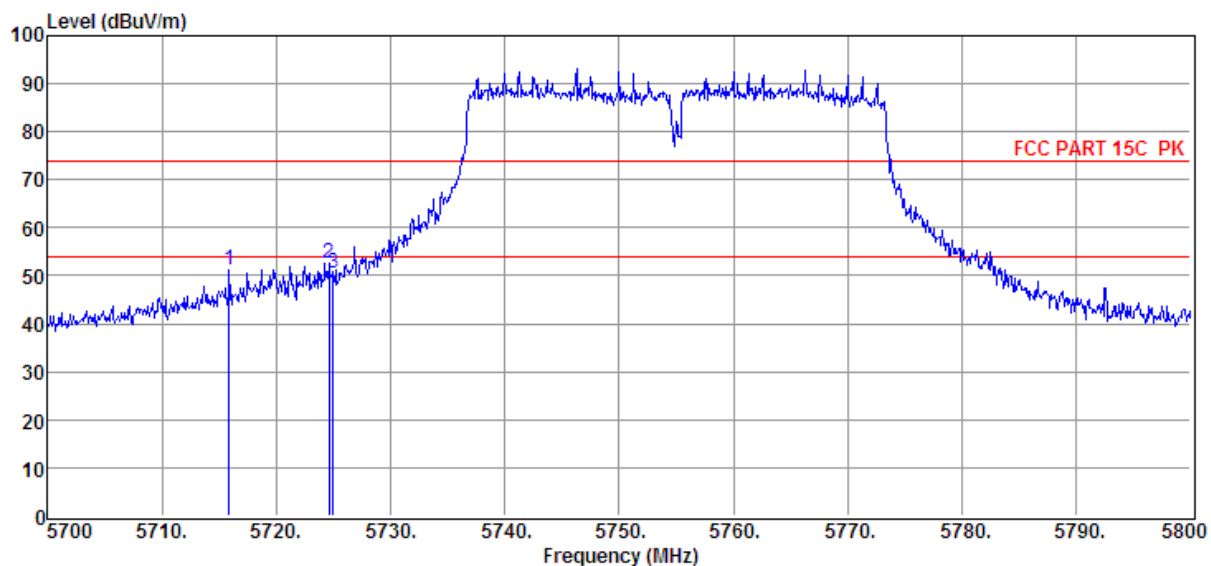
Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5716.50	28.79	34.83	29.22	9.41	43.81	74.00	-30.19	Peak	VERTICAL
2	5722.40	31.51	34.84	29.22	9.41	46.54	74.00	-27.46	Peak	VERTICAL
3	5725.00	27.50	34.84	29.22	9.41	42.53	74.00	-31.47	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5755MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 40



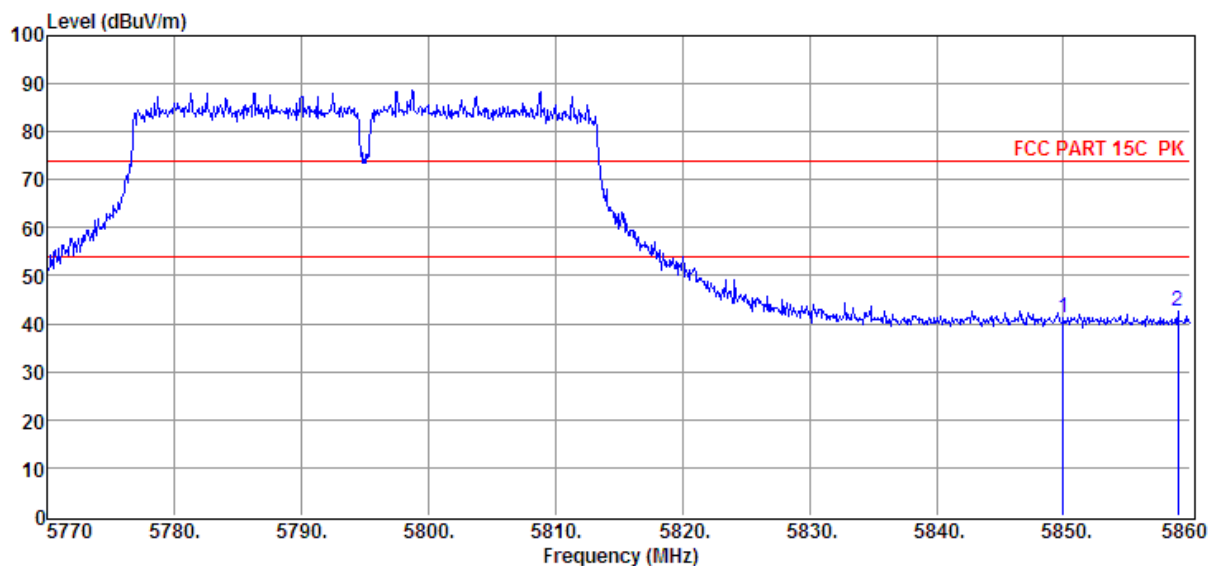
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5715.90	36.11	34.83	29.22	9.41	51.13	74.00	-22.87	Peak	HORIZONTAL
2	5724.60	37.57	34.84	29.22	9.41	52.60	74.00	-21.40	Peak	HORIZONTAL
3	5725.00	35.51	34.84	29.22	9.41	50.54	74.00	-23.46	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5795MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 45



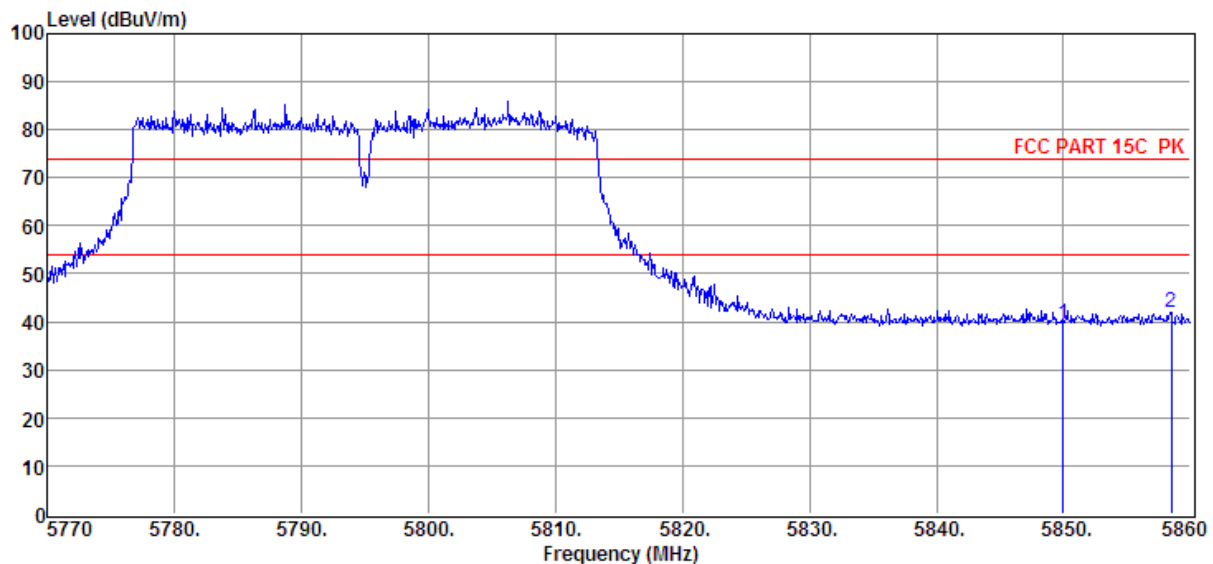
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	25.86	34.91	29.20	9.54	41.11	74.00	-32.89	Peak	HORIZONTAL
2	5859.01	27.36	34.92	29.20	9.54	42.62	74.00	-31.38	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5795MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 46



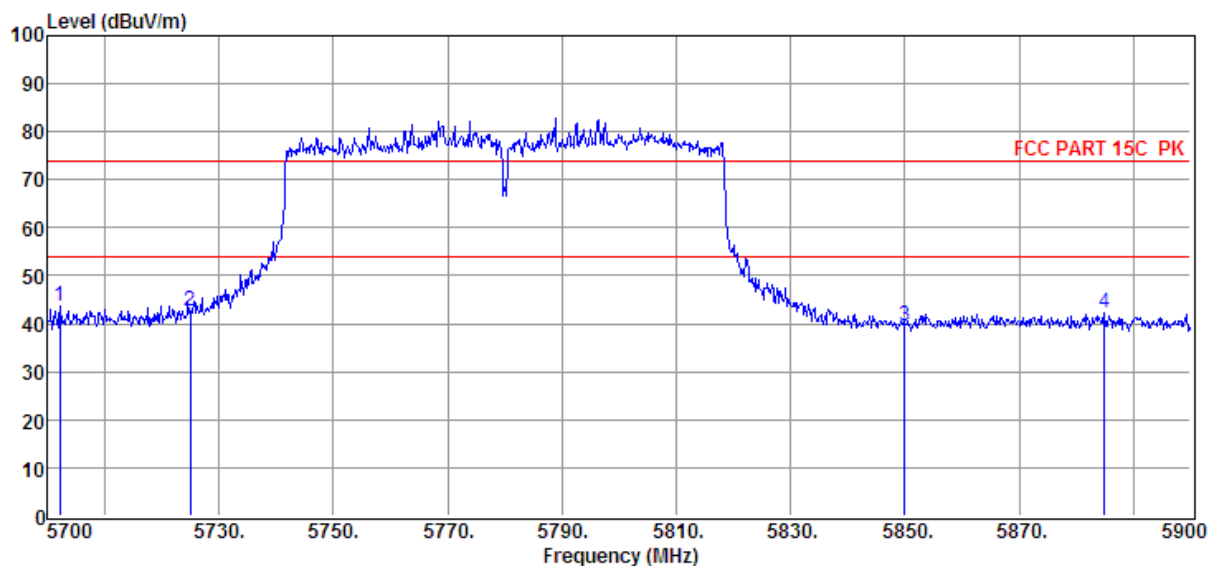
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5850.00	24.13	34.91	29.20	9.54	39.38	74.00	-34.62	Peak	VERTICAL
2	5858.47	26.80	34.92	29.20	9.54	42.06	74.00	-31.94	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT80 Tx mode 5775MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 47



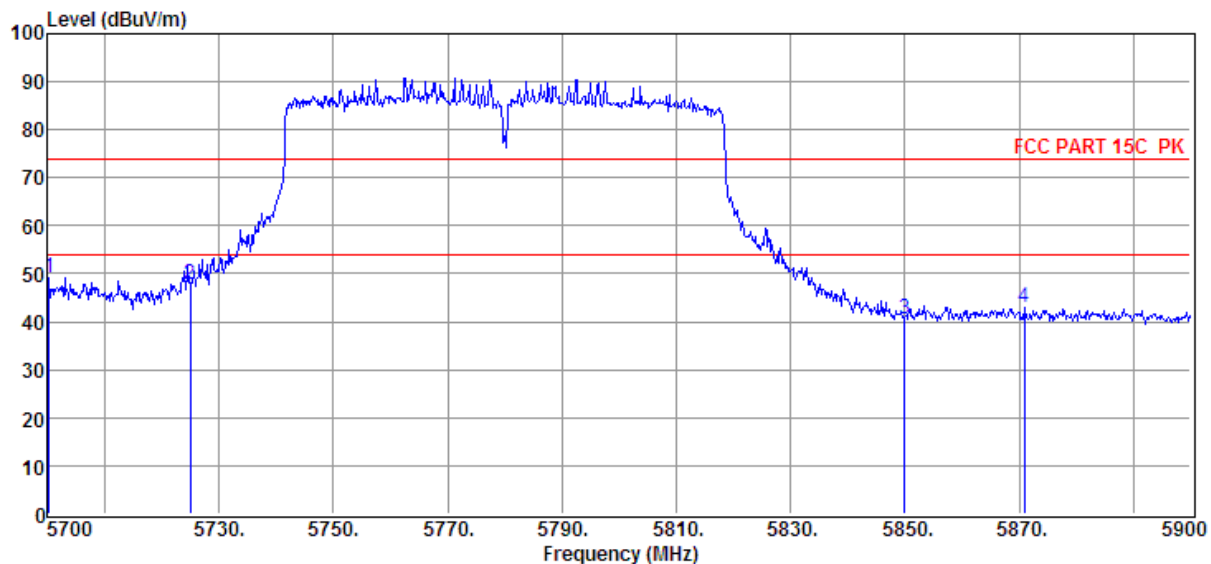
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5702.20	28.62	34.82	29.22	9.38	43.60	74.00	-30.40	Peak	VERTICAL
2	5725.00	27.69	34.84	29.22	9.41	42.72	74.00	-31.28	Peak	VERTICAL
3	5850.00	24.34	34.91	29.20	9.54	39.59	74.00	-34.41	Peak	VERTICAL
4	5885.00	27.12	34.93	29.20	9.56	42.41	74.00	-31.59	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT80 Tx mode 5775MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 48



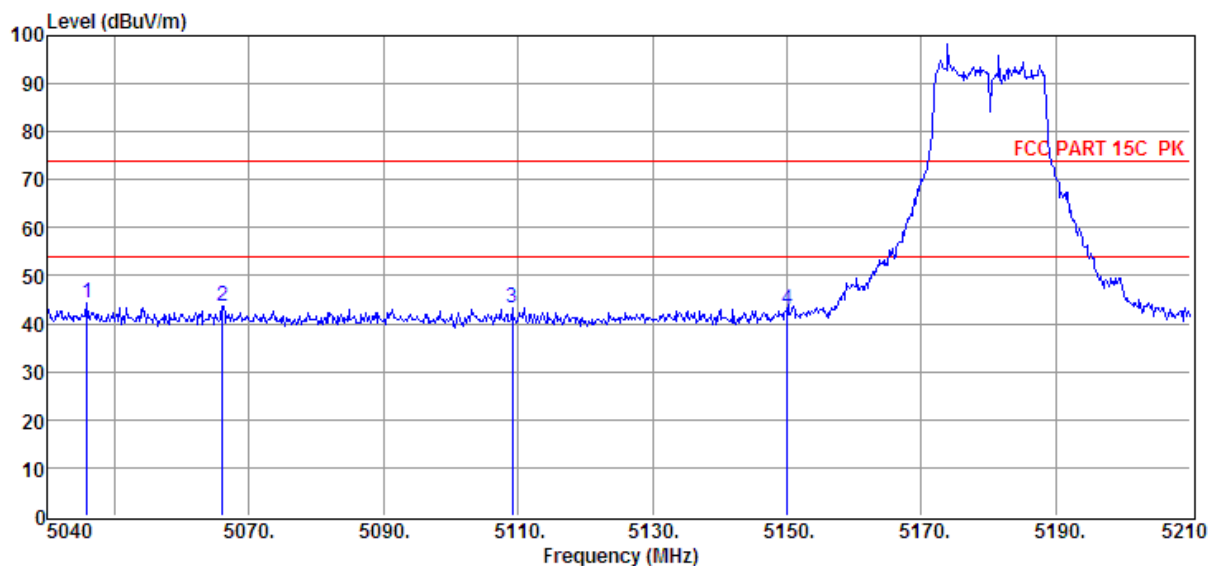
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5700.20	34.13	34.82	29.22	9.38	49.11	74.00	-24.89	Peak	HORIZONTAL
2	5725.00	32.79	34.84	29.22	9.41	47.82	74.00	-26.18	Peak	HORIZONTAL
3	5850.00	25.38	34.91	29.20	9.54	40.63	74.00	-33.37	Peak	HORIZONTAL
4	5871.00	27.80	34.93	29.20	9.56	43.09	74.00	-30.91	Peak	HORIZONTAL

- Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 53



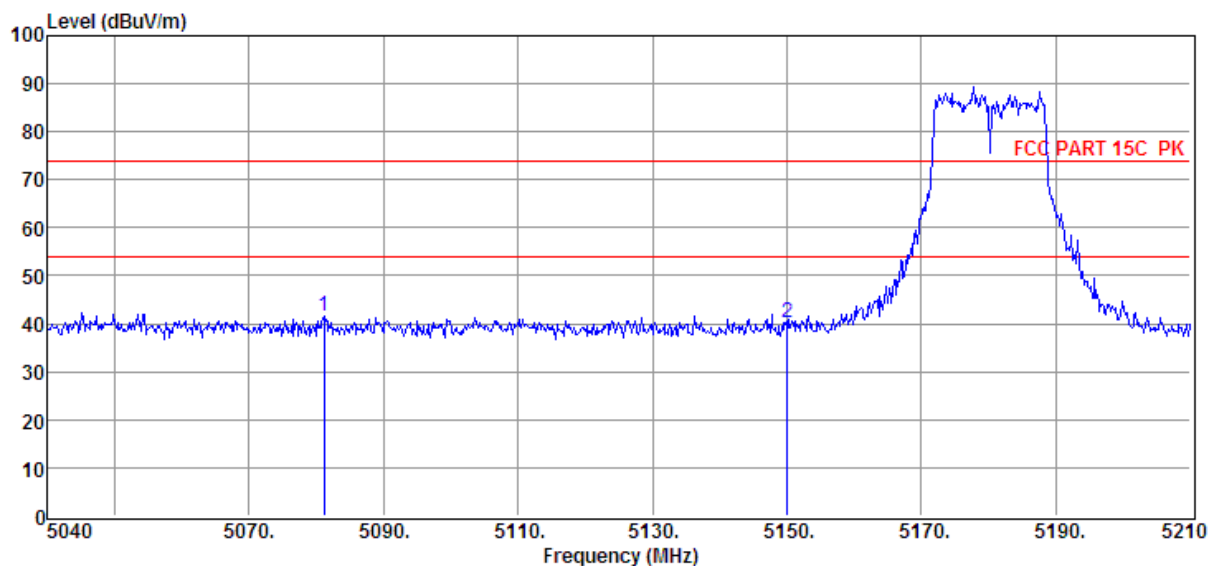
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5045.84	31.01	33.80	29.35	8.73	44.19	74.00	-29.81	Peak	HORIZONTAL
2	5065.98	30.44	33.84	29.34	8.76	43.70	74.00	-30.30	Peak	HORIZONTAL
3	5109.11	30.01	33.93	29.34	8.78	43.38	74.00	-30.62	Peak	HORIZONTAL
4	5150.00	29.47	34.01	29.33	8.84	42.99	74.00	-31.01	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 54



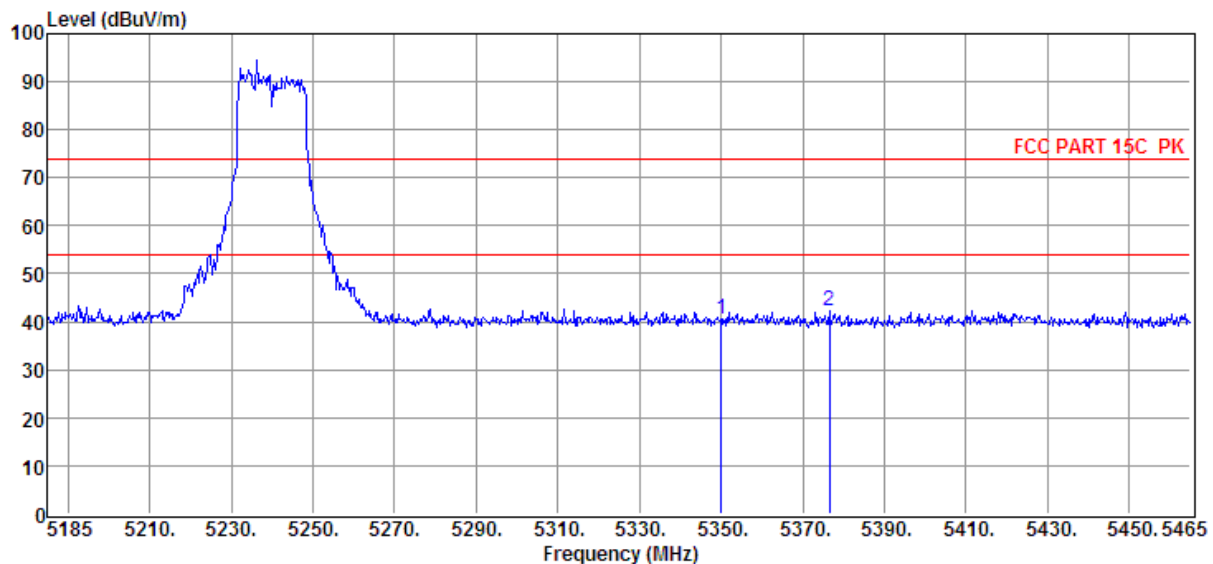
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5081.18	28.40	33.87	29.34	8.76	41.69	74.00	-32.31	Peak	VERTICAL
2	5150.00	26.56	34.01	29.33	8.84	40.08	74.00	-33.92	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 59



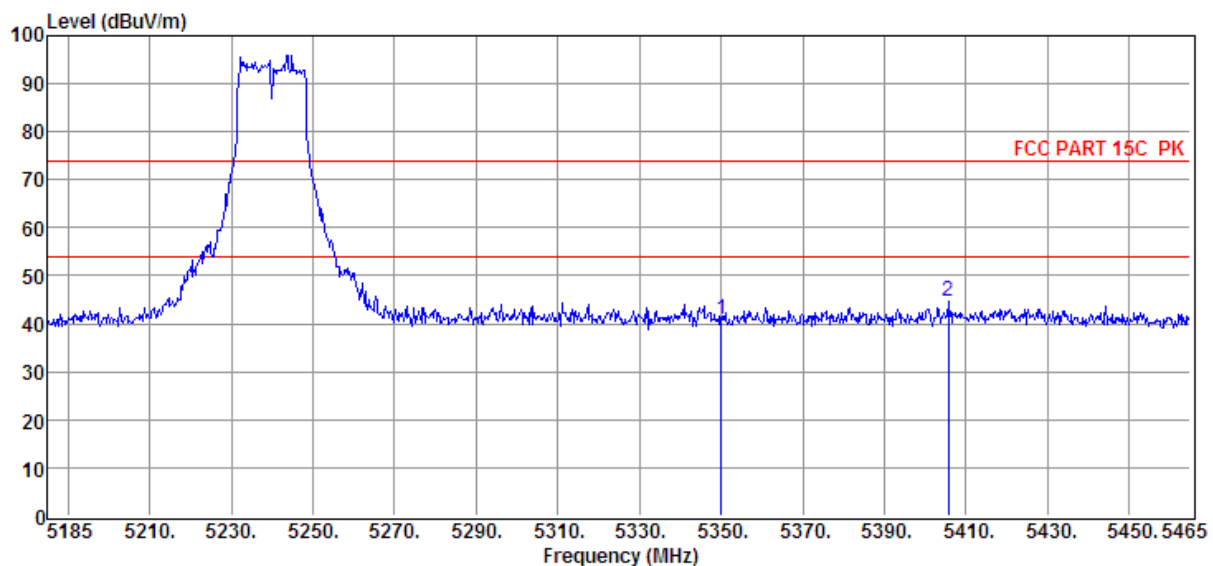
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	26.52	34.41	29.30	9.03	40.66	74.00	-33.34	Peak	VERTICAL
2	5376.52	28.20	34.46	29.30	9.05	42.41	74.00	-31.59	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11a Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 60



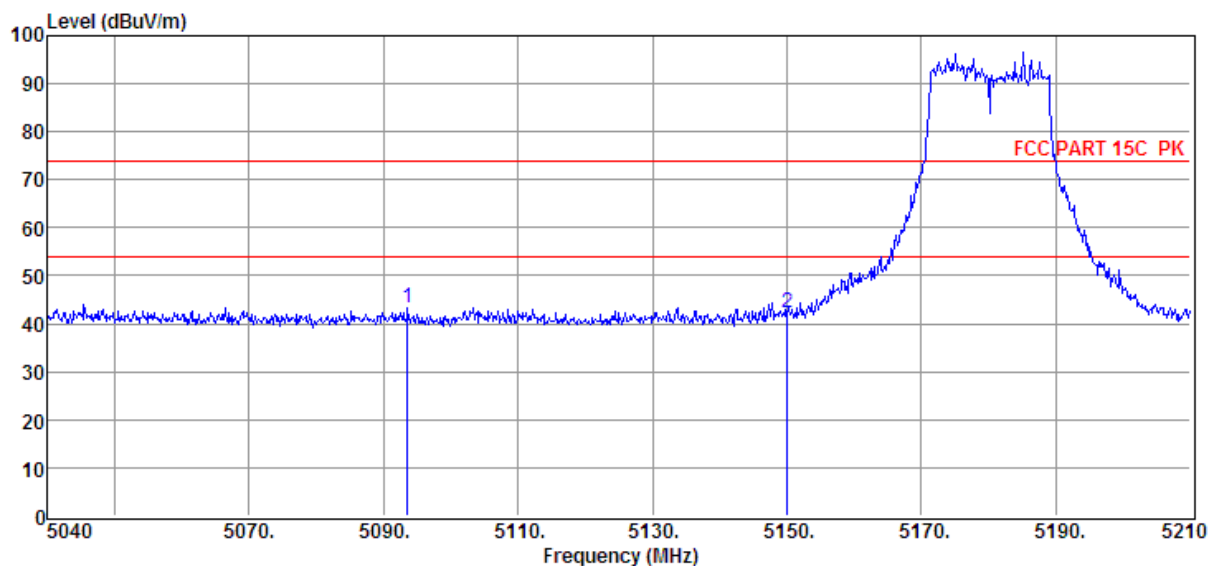
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	26.85	34.41	29.30	9.03	40.99	74.00	-33.01	Peak	HORIZONTAL
2	5405.64	30.47	34.52	29.29	9.09	44.79	74.00	-29.21	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 61



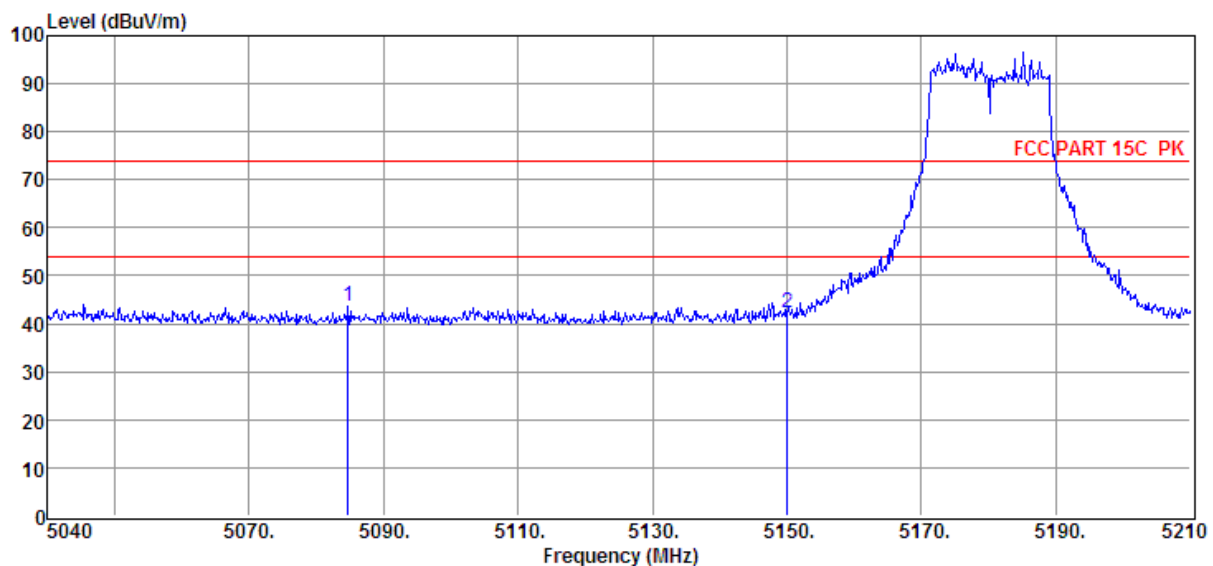
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5093.55	29.92	33.89	29.34	8.78	43.25	74.00	-30.75	Peak	HORIZONTAL
2	5150.00	28.60	34.01	29.33	8.84	42.12	74.00	-31.88	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 62



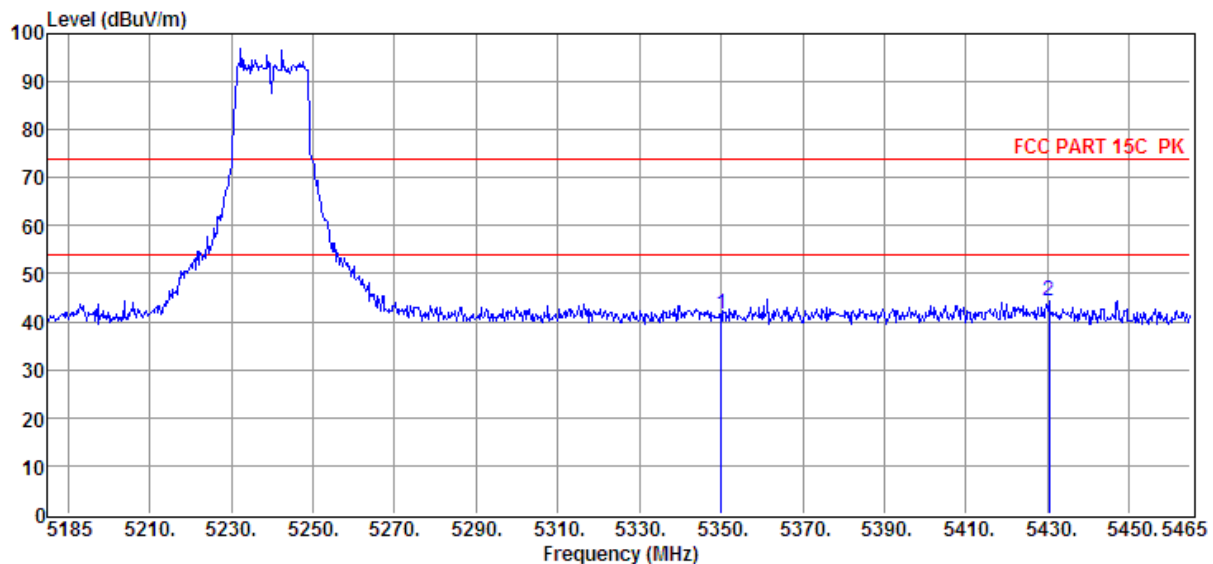
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5084.71	30.37	33.88	29.34	8.76	43.67	74.00	-30.33	Peak	VERTICAL
2	5150.00	28.60	34.01	29.33	8.84	42.12	74.00	-31.88	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 69



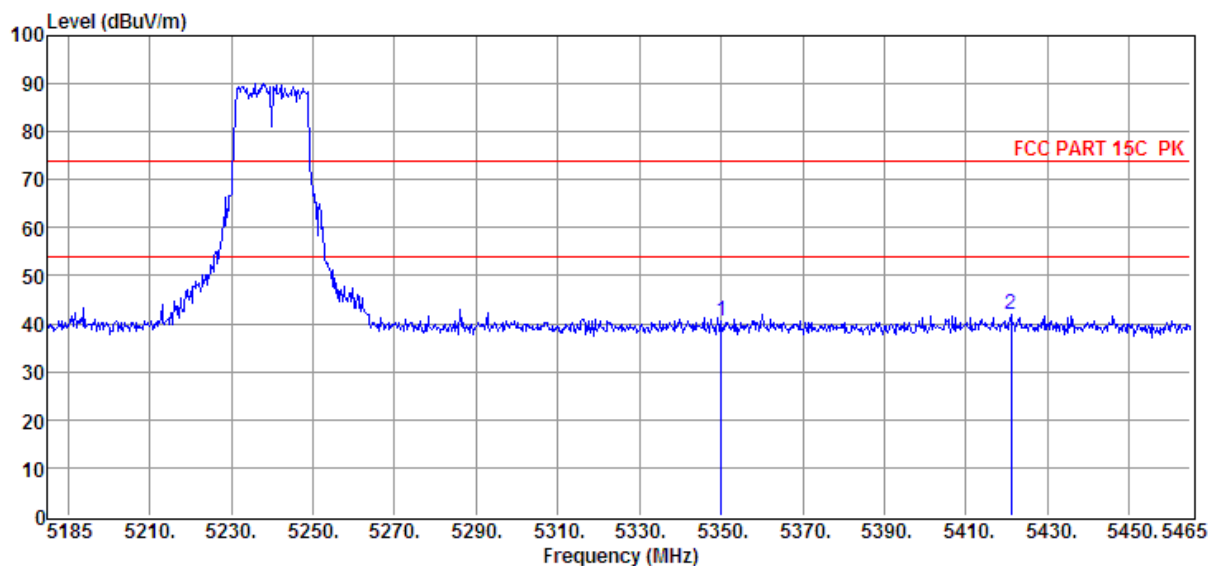
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	27.41	34.41	29.30	9.03	41.55	74.00	-32.45	Peak	HORIZONTAL
2	5430.28	29.83	34.57	29.28	9.11	44.23	74.00	-29.77	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT20 Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 70



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	26.30	34.41	29.30	9.03	40.44	74.00	-33.56	Peak	VERTICAL
2	5421.04	27.49	34.55	29.28	9.11	41.87	74.00	-32.13	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**

Test Date : 2017-06-27 **Tested By** : Leo

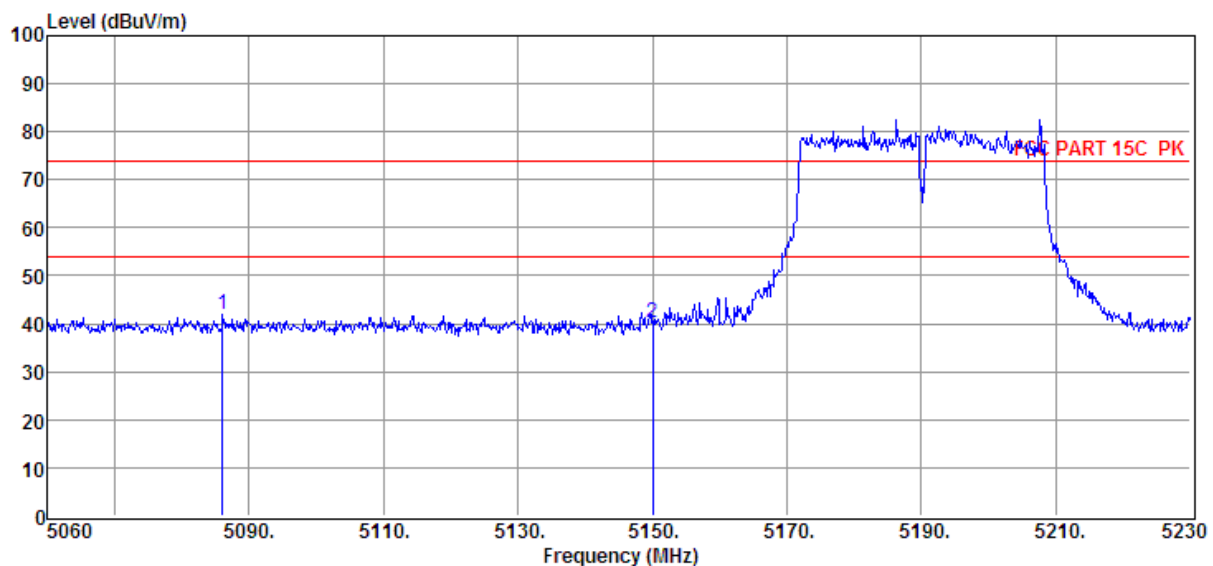
EUT : Wireless Access Point **Model Number** : WL8200-I2

Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5190MHz

Condition : Temp:24.5°C,Humi:55%,
Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL

Memo :

Data: 73



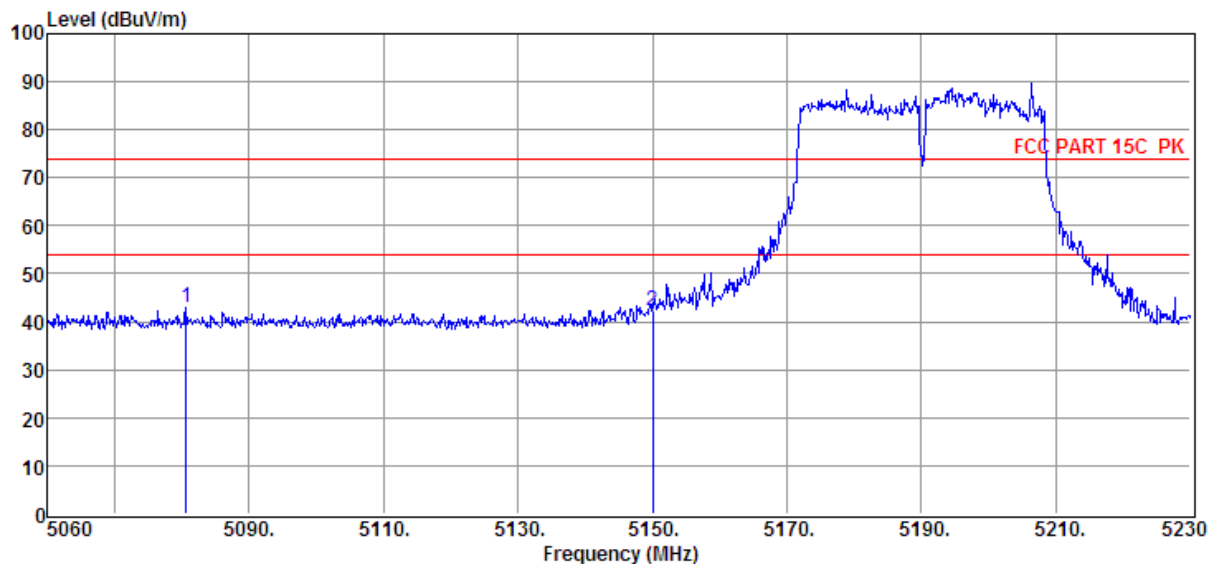
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5086.01	28.48	33.88	29.34	8.76	41.78	74.00	-32.22	Peak	HORIZONTAL
2	5150.00	26.70	34.01	29.33	8.84	40.22	74.00	-33.78	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5190MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 74



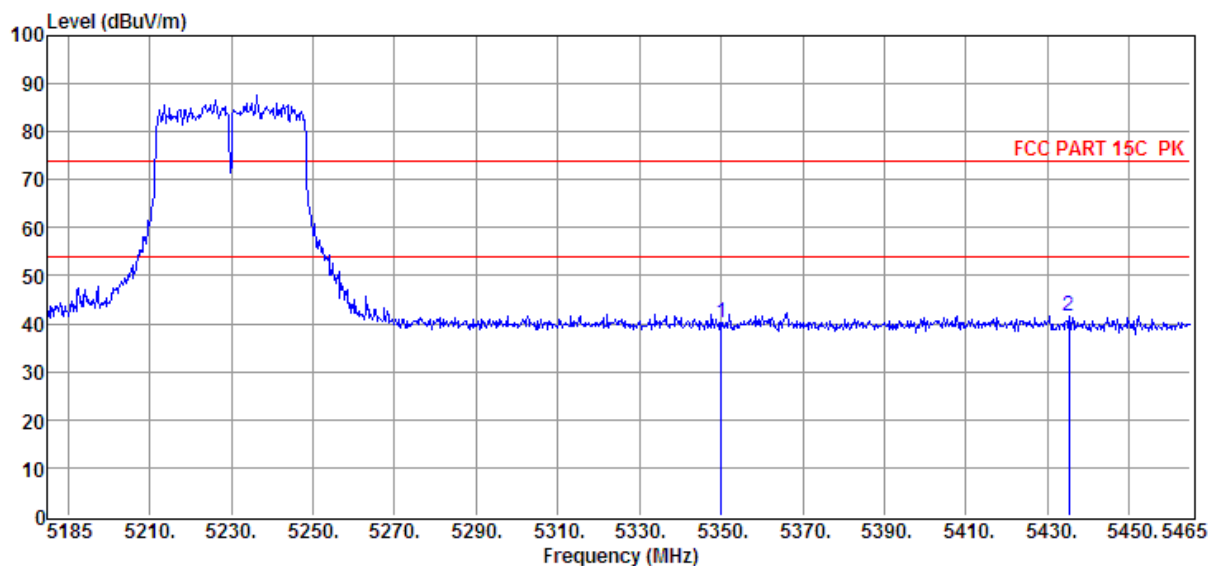
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5080.57	29.81	33.87	29.34	8.76	43.10	74.00	-30.90	Peak	VERTICAL
2	5150.00	28.63	34.01	29.33	8.84	42.15	74.00	-31.85	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5230MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 75



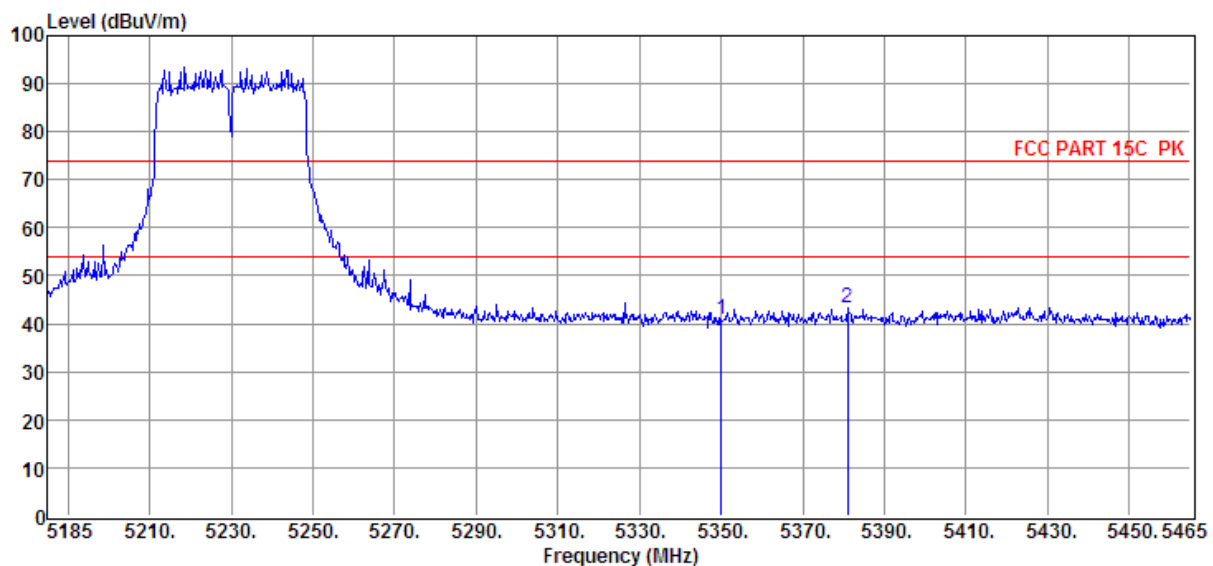
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	26.17	34.41	29.30	9.03	40.31	74.00	-33.69	Peak	VERTICAL
2	5435.32	27.12	34.58	29.28	9.11	41.53	74.00	-32.47	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11n HT40 Tx mode 5230MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 76



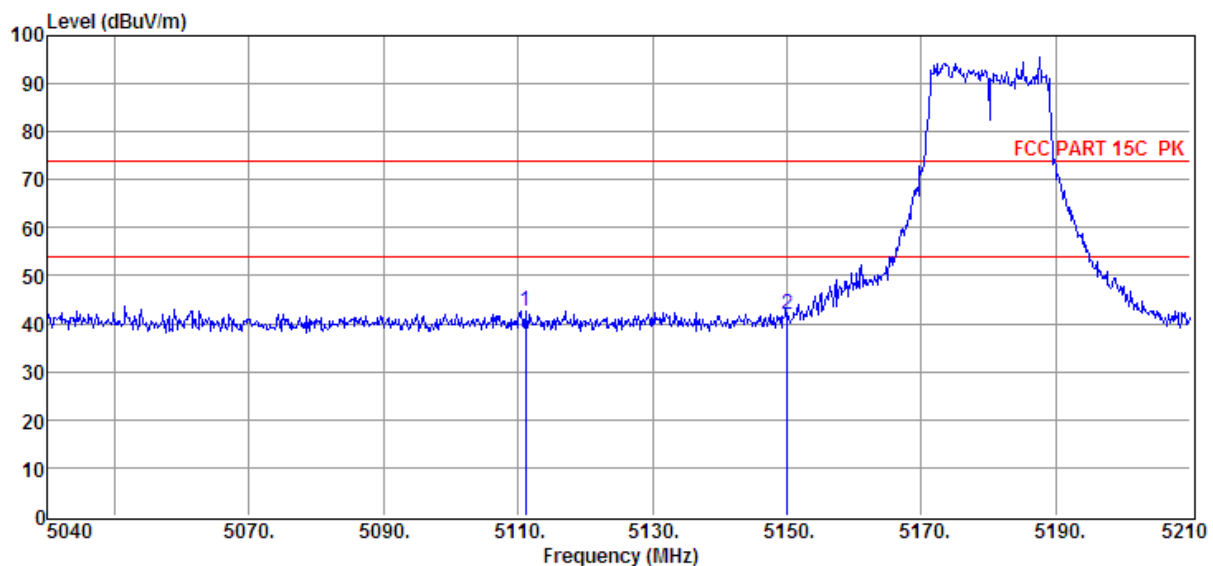
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	26.73	34.41	29.30	9.03	40.87	74.00	-33.13	Peak	HORIZONTAL
2	5381.00	29.13	34.47	29.30	9.05	43.35	74.00	-30.65	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 81



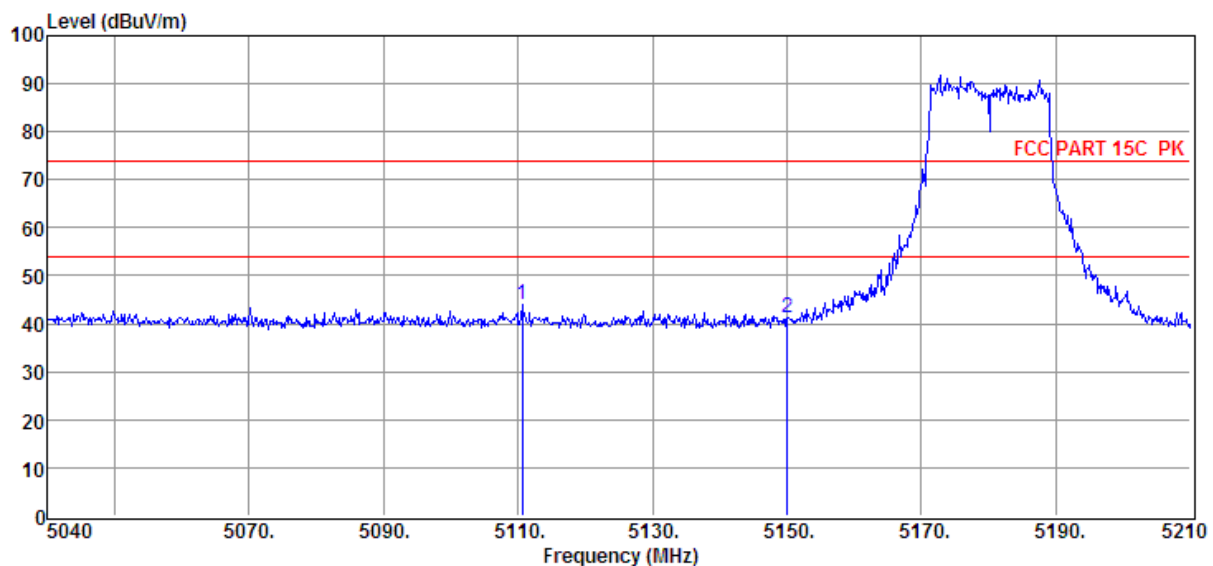
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5111.06	29.32	33.93	29.34	8.78	42.69	74.00	-31.31	Peak	HORIZONTAL
2	5150.00	28.55	34.01	29.33	8.84	42.07	74.00	-31.93	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5180MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 82



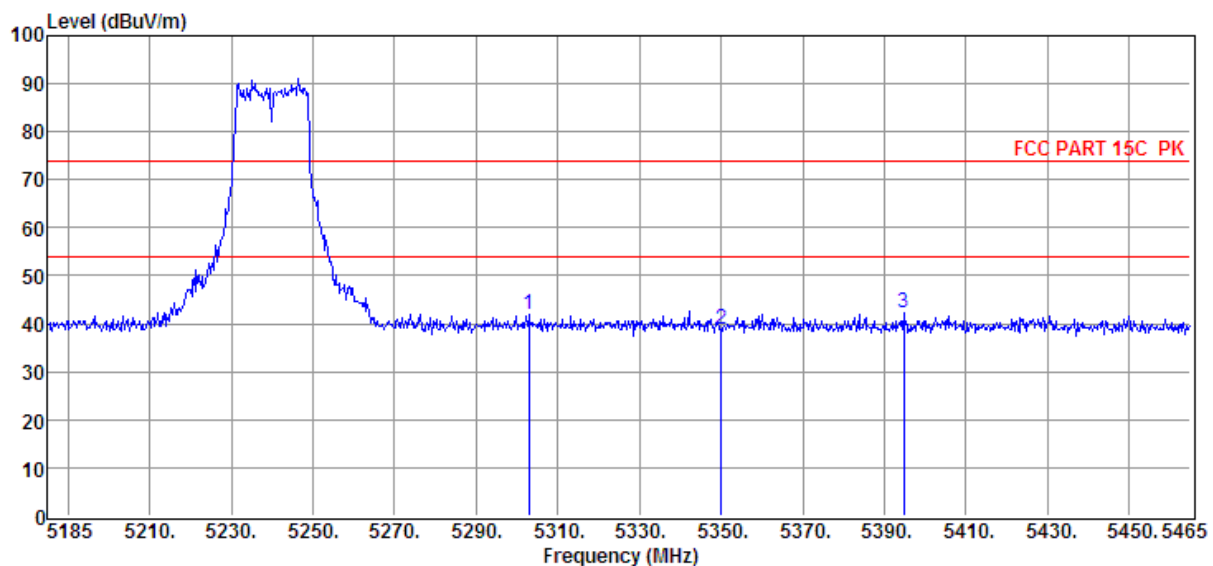
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5110.55	30.56	33.93	29.34	8.78	43.93	74.00	-30.07	Peak	VERTICAL
2	5150.00	27.73	34.01	29.33	8.84	41.25	74.00	-32.75	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 87



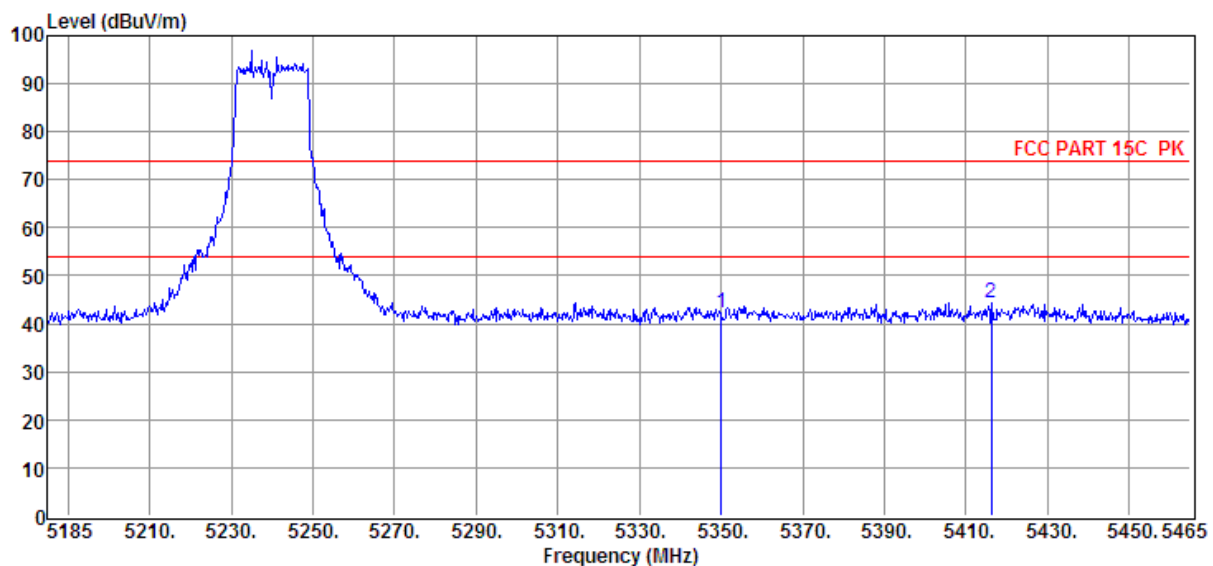
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5302.88	27.90	34.32	29.31	8.98	41.89	74.00	-32.11	Peak	VERTICAL
2	5350.00	24.68	34.41	29.30	9.03	38.82	74.00	-35.18	Peak	VERTICAL
3	5394.72	27.80	34.50	29.29	9.09	42.10	74.00	-31.90	Peak	VERTICAL

- Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT20 Tx mode 5240MHz
Condition : Temp:24.5°C,Humi:55%,
Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 88



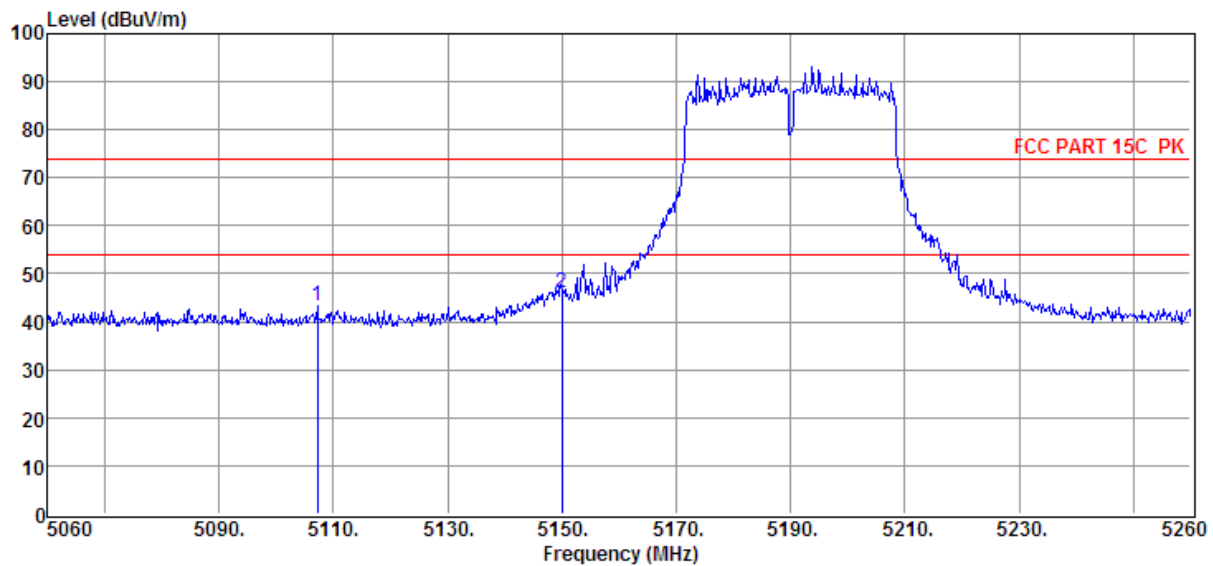
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	27.96	34.41	29.30	9.03	42.10	74.00	-31.90	Peak	HORIZONTAL
2	5416.28	29.82	34.54	29.28	9.11	44.19	74.00	-29.81	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5190MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 89



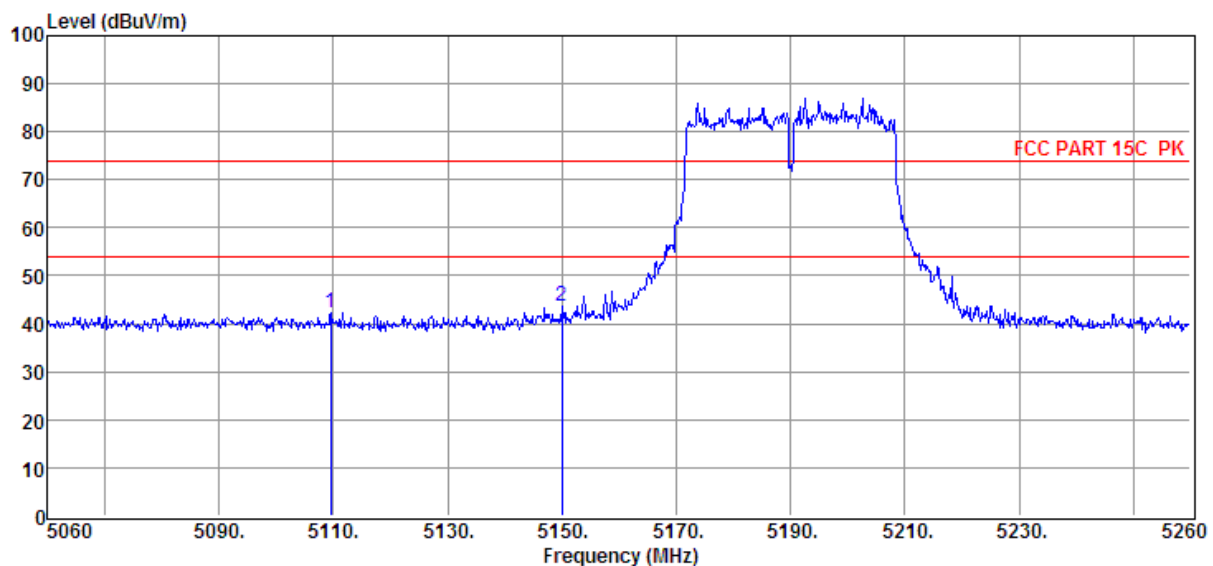
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5107.20	29.89	33.92	29.34	8.78	43.25	74.00	-30.75	Peak	HORIZONTAL
2	5150.00	32.49	34.01	29.33	8.84	46.01	74.00	-27.99	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5190MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 90



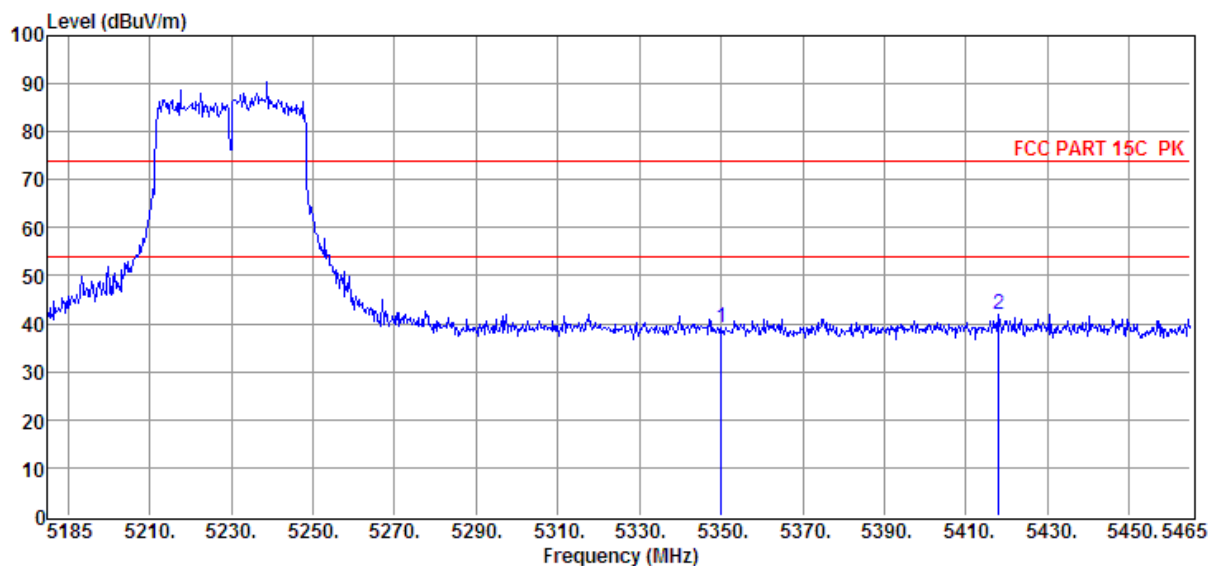
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5109.60	29.02	33.93	29.34	8.78	42.39	74.00	-31.61	Peak	VERTICAL
2	5150.00	30.29	34.01	29.33	8.84	43.81	74.00	-30.19	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5230MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 95



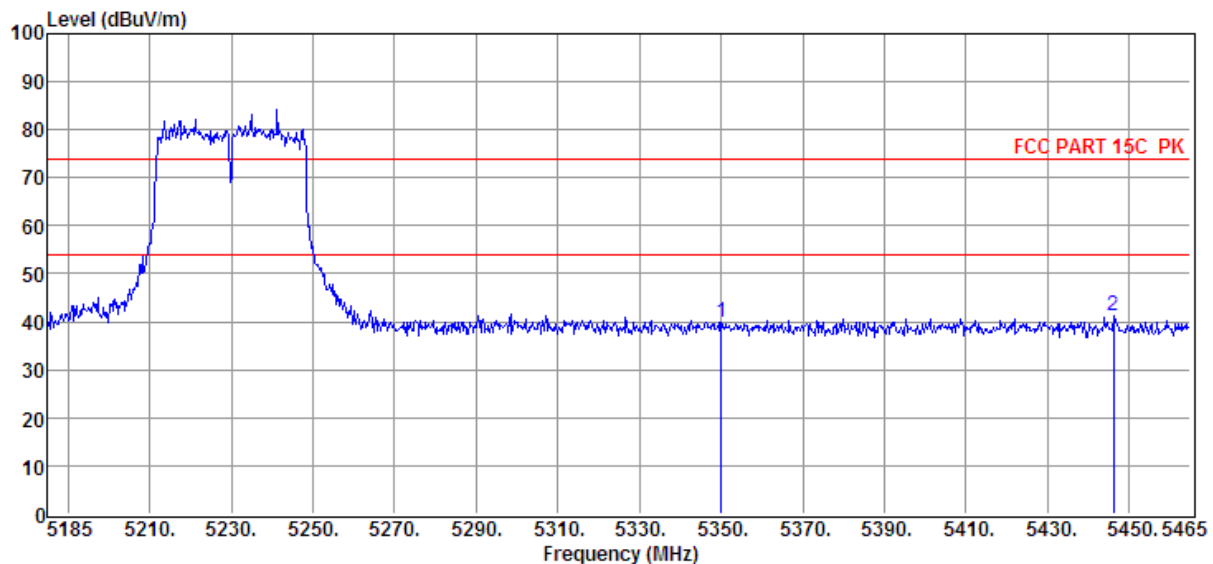
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	25.03	34.41	29.30	9.03	39.17	74.00	-34.83	Peak	VERTICAL
2	5417.96	27.55	34.54	29.28	9.11	41.92	74.00	-32.08	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT40 Tx mode 5230MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 96



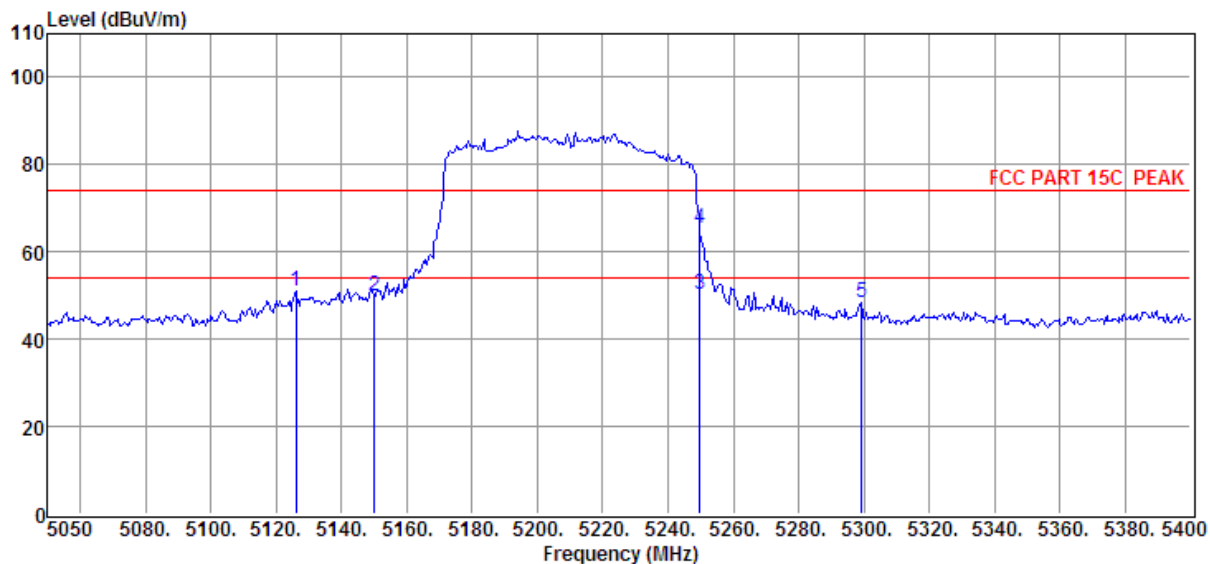
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	25.65	34.41	29.30	9.03	39.79	74.00	-34.21	Peak	HORIZONTAL
2	5446.24	26.67	34.60	29.28	9.13	41.12	74.00	-32.88	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT80 Tx mode 5210MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/VERTICAL
Memo :

Data: 99



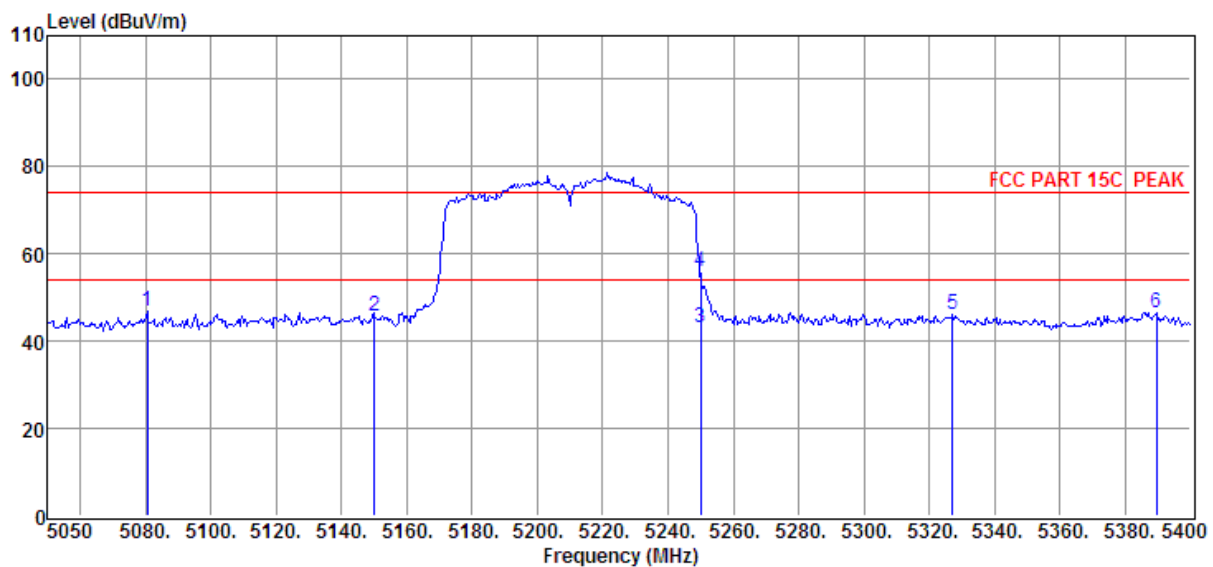
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)		Detector	Polarization
1	5125.95	37.76	33.96	29.34	8.80	51.18	74.00		Peak	VERTICAL
2	5150.10	36.55	34.01	29.33	8.84	50.07	74.00		Peak	VERTICAL
3	5249.85	36.41	34.21	29.32	8.93	50.23	54.00		Average	VERTICAL
4	5249.85	51.63	34.21	29.32	8.93	65.45	74.00		Peak	VERTICAL
5	5299.20	34.40	34.31	29.31	8.98	48.38	74.00		Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1# **D:\2017 RE1# Report Data\17Q0601-13\RF 5G.EM6**
Test Date : 2017-06-27 **Tested By** : Leo
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : DC 12V from adapter **Test Mode** : 11ac HT80 Tx mode 5210MHz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa **Antenna/Distance** : 2016 HF907/3m/HORIZONTAL
Memo :

Data: 100

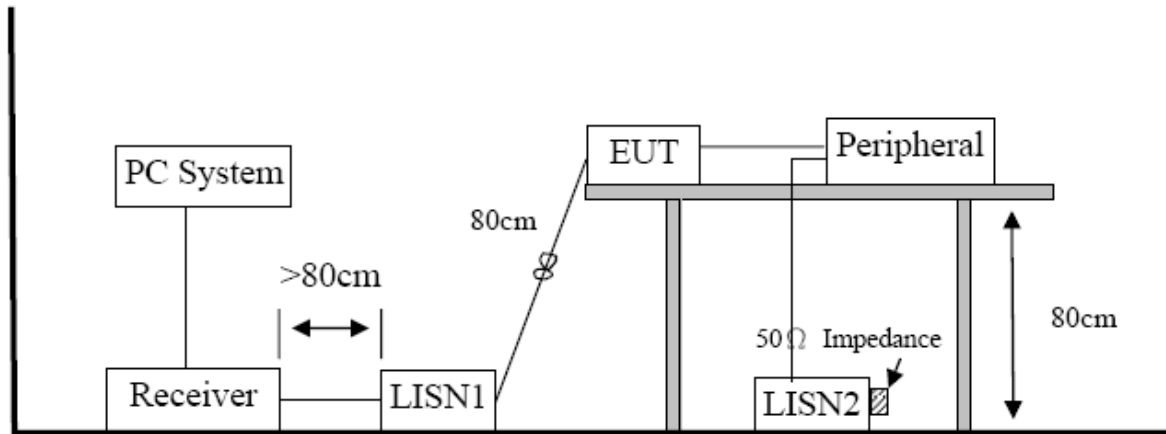


Item (Mark)	Freq. (MHz)	Read Level (dB μ V)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)		Detector	Polarization
1	5080.45	33.63	33.87	29.34	8.76	46.92	74.00		Peak	HORIZONTAL
2	5150.10	32.33	34.01	29.33	8.84	45.85	74.00		Peak	HORIZONTAL
3	5250.00	29.34	34.21	29.32	8.93	43.16	54.00		Average	HORIZONTAL
4	5250.00	41.95	34.21	29.32	8.93	55.77	74.00		Peak	HORIZONTAL
5	5327.20	32.20	34.37	29.31	9.02	46.28	74.00		Peak	HORIZONTAL
6	5389.50	32.31	34.49	29.30	9.09	46.59	74.00		Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

10. Power Line Conducted Emission

10.1. Block diagram of test setup



10.2. Power Line Conducted Emission Limits(Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.3 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for

reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

10.4. Test Result

PASS. (See below detailed test result)

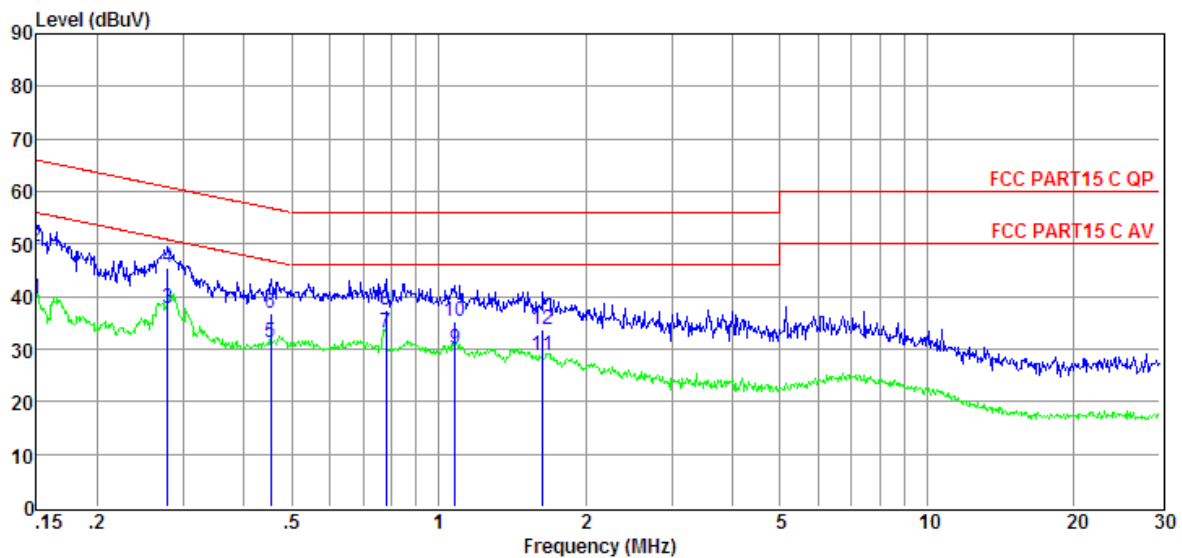
Note1: All emissions not reported below are too low against the prescribed limits.

Note2: “----” means peak detection; “-----” mans average detection

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room **E:\2017 CE report data\17Q0601-14\CE.EM6**
Test Date : 2017-06-28 **Tested By** : Aaron
EUT : Wireless Access Point **Model Number** : WL8200-I2
Power Supply : AC 120V/60Hz **Test Mode** : TX Mode
Condition : Temp:24.5°C,Humi:55%,
Press:100.1kPa **LISN** : 2016 ENV216/LINE
Memo :

Data: 22



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.15	20.15	9.61	0.02	9.86	39.64	56.00	-16.36	Average	LINE
2	0.15	29.86	9.61	0.02	9.86	49.35	66.00	-16.65	QP	LINE
3	0.28	18.34	9.61	0.02	9.86	37.83	50.85	-13.02	Average	LINE
4	0.28	25.96	9.61	0.02	9.86	45.45	60.85	-15.40	QP	LINE
5	0.45	11.88	9.61	0.02	9.86	31.37	46.80	-15.43	Average	LINE
6	0.45	17.22	9.61	0.02	9.86	36.71	56.80	-20.09	QP	LINE
7	0.78	13.49	9.61	0.03	9.86	32.99	46.00	-13.01	Average	LINE
8	0.78	17.97	9.61	0.03	9.86	37.47	56.00	-18.53	QP	LINE
9	1.08	10.53	9.61	0.03	9.86	30.03	46.00	-15.97	Average	LINE
10	1.08	15.81	9.61	0.03	9.86	35.31	56.00	-20.69	QP	LINE
11	1.64	9.09	9.62	0.04	9.86	28.61	46.00	-17.39	Average	LINE
12	1.64	14.31	9.62	0.04	9.86	33.83	56.00	-22.17	QP	LINE

Note: 1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.

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).

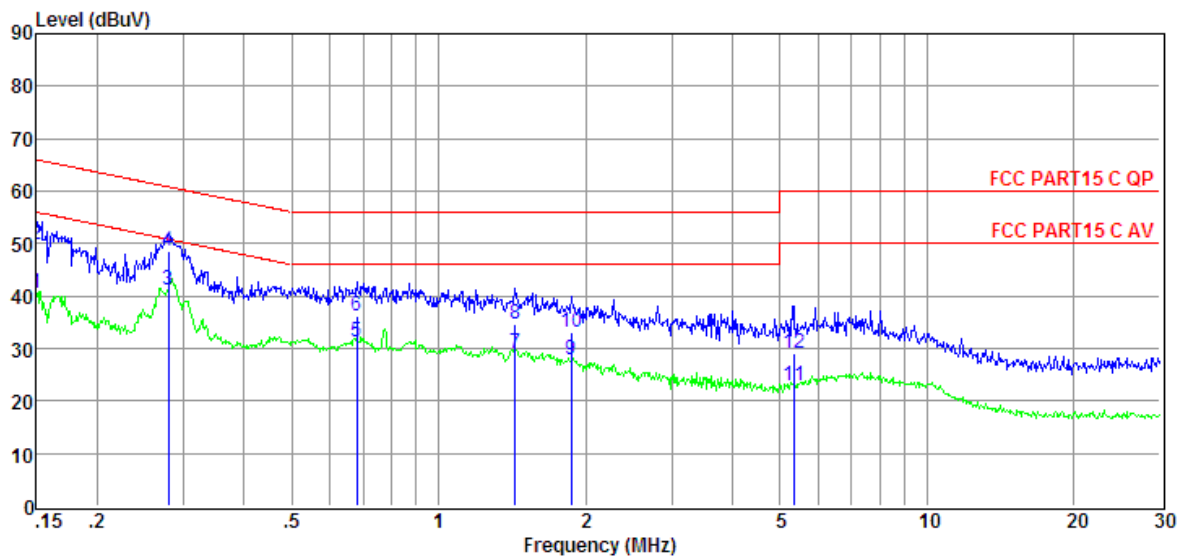
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room
Test Date : 2017-06-28
EUT : Wireless Access Point
Power Supply : AC 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,
 Press:100.1kPa
Memo :

E:\2017 CE report data\17Q0601-14\CE.EM6
Tested By : Aaron
Model Number : WL8200-I2
Test Mode : TX Mode
LISN : 2016 ENV216/NEUTRAL

Data: 24



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBμV)	Limit Line (dBμV)	Over Limit (dB)	Detector	Phase
1	0.15	20.92	9.61	0.02	9.86	40.41	56.00	-15.59	Average	NEUTRAL
2	0.15	30.39	9.61	0.02	9.86	49.88	66.00	-16.12	QP	NEUTRAL
3	0.28	21.60	9.61	0.02	9.86	41.09	50.81	-9.72	Average	NEUTRAL
4	0.28	29.08	9.61	0.02	9.86	48.57	60.81	-12.24	QP	NEUTRAL
5	0.68	11.62	9.61	0.03	9.86	31.12	46.00	-14.88	Average	NEUTRAL
6	0.68	16.81	9.61	0.03	9.86	36.31	56.00	-19.69	QP	NEUTRAL
7	1.43	9.42	9.62	0.03	9.86	28.93	46.00	-17.07	Average	NEUTRAL
8	1.43	15.24	9.62	0.03	9.86	34.75	56.00	-21.25	QP	NEUTRAL
9	1.87	8.30	9.62	0.04	9.87	27.83	46.00	-18.17	Average	NEUTRAL
10	1.87	13.61	9.62	0.04	9.87	33.14	56.00	-22.86	QP	NEUTRAL
11	5.33	3.12	9.67	0.07	9.88	22.74	50.00	-27.26	Average	NEUTRAL
12	5.33	9.55	9.67	0.07	9.88	29.17	60.00	-30.83	QP	NEUTRAL

Note: 1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.

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.

11. Antenna Requirements

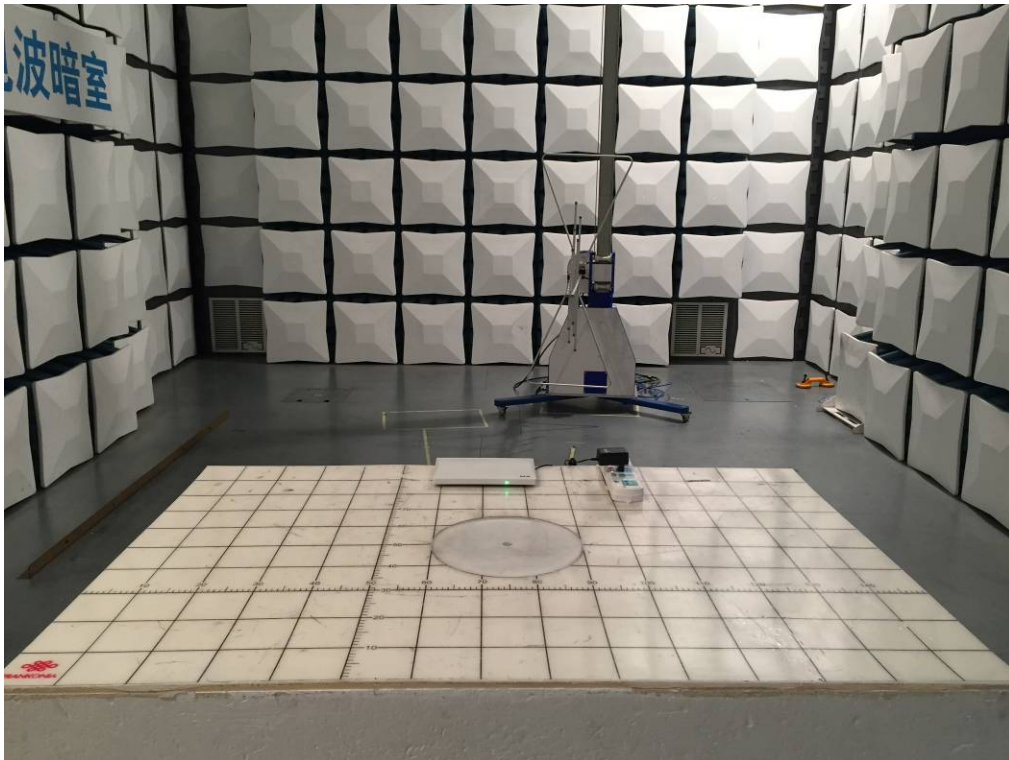
11.1. Limit

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Result

The antennas used for this product are integrated antenna and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 6dBi.

12. Test setup photograph





13. Photos of the EUT

Refer to section 7-Photos of the EUT for report “DDT-R17Q0601-14E1”.

END OF REPORT