

Partial FCC Test Report

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FCC ID: QYL9260NG

Test Model: 9260NGW

Received Date: Mar. 19, 2020

Test Date: Mar. 26 ~ Apr. 17, 2020

Issued Date: Apr. 29, 2020

Applicant: Getac Technology Corporation

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Designation Number:** 427177 / TW0011



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Release Control Record

Issue No.	Description	Date Issued
RF200319C13-4	Original Release	Apr. 29, 2020

1 Certificate of Conformity

Product: WLAN and BT, 2x2 PCIe M.2 2230 adapter card

Brand: Getac

Test Model: 9260NGW

Sample Status: Mass product


Applicant: Getac Technology Corporation

Test Date: Mar. 26 ~ Apr. 17, 2020

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : , **Date:** Apr. 29, 2020
Gina Liu / Specialist

Approved by : , **Date:** Apr. 29, 2020
Dylan Chiou / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.1 dB at 0.16093 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -5.23 dB at 60.24 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only
15.407(a)(1/2/3)	Peak Power Spectral Density	N/A	Refer to Note
15.407(e)	6 dB Bandwidth	N/A	Refer to Note
15.407(g)	Frequency Stability	N/A	Refer to Note
15.203	Antenna Requirement	N/A	Refer to Note

Note:

- Only test item of Average Transmit Power, Radiated Emissions test and Conducted Emission tests were performed for this report. For other test data, please refer to Intel Report No.: 170524-01.TR01 \ 170524-01.TR02 \ 170524-01.TR03 \ 170524-01.TR09 for module (Brand: Intel, Model: 9260NGW).
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~ 1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	WLAN and BT, 2x2 PCIe M.2 2230 adapter card
Brand	Getac
Test Model	9260NGW
Status of EUT	Mass product
Power Supply Rating	19 Vdc (adapter) 7.4 Vdc (Li-ion battery)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 300.0 Mbps 802.11ac: up to 1733.3 Mbps
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5700 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5240 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5500 ~ 5700 MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 2 for 802.11ac (VHT80) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80)
Output Power (Measured Max. Average)	99.541 mW for 5180 ~ 5250 MHz 79.25 mW for 5250 ~ 5320 MHz 99.312 mW for 5500 ~ 5700 MHz 125.314 mW for 5745 ~ 5825 MHz
Antenna Type	Refer to Note as below
Antenna Connector	N/A
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below

Note:

1. The EUT is authorized for use in specific End-product. Please refer to below table for more details.

Product	Brand	Model
Tablet	Getac	T800

2. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

Modulation Mode	Tx Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT80)	2TX
802.11ac (VHT160)	2TX

3. The antenna information is listed.

Ant. Type	Manufacturer	Parts Number	Frequency (MHz)					
			2400	2402	2442	2450	2484	2500
PIFA	GETAC	WLAN Main Antenna: 421122100003	2.40 dBi	2.43 dBi	2.40 dBi	2.34 dBi	3.16 dBi	3.11 dBi
		WLAN Aux. Antenna: 421122100001	-0.97 dBi	-0.97 dBi	-0.04 dBi	-0.08 dBi	1.17 dBi	0.87 dBi

Ant. Type	Manufacturer	Parts Number	Frequency (MHz)							
			5150	5250	5350	5470	5600	5725	5785	5850
PIFA	GETAC	WLAN Main Antenna: 421122100003	3.01 dBi	1.82 dBi	3.05 dBi	2.92 dBi	3.33 dBi	3.84 dBi	3.73 dBi	3.60 dBi
		WLAN Aux. Antenna: 421122100001	2.98 dBi	2.00 dBi	3.71 dBi	3.56 dBi	4.27 dBi	4.27 dBi	4.37 dBi	4.36 dBi

4. The following accessories were for the End-product.

Product	Brand	Model	Description
Adapter	Chicony	A12-065N2A	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19 Vdc, 3.42 A, 65W
Battery	Getac	BP2S2P2100S	7.4 Vdc, 4200 mAh, 32 WAh
WLAN Module	Getac	9260NGW	--
LCD Panel	INNOLUX	HE080IA-06B	--
Photo Camera	FOXLINK	FO20FF-505H	--
Video Camera	FOXLINK	FO80AF-506H	--
CPU	Intel	Z8750	1.6GHz, burst up to 2.40 GHz - 2MB Cache
SSD	Sandisk	SDIN8CE4-128G	128G

5. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

For 5180 ~ 5240 MHz

4 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

For 5260 ~ 5320 MHz

4 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
56	5280	64	5320

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5700 MHz

11 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	140	5700
120	5600		

5 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	126	5630
110	5550	134	5670
118	5590		

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610

For 5745 ~ 5825 MHz:

5 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
155	5775

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE \geq 1G	RE $<$ 1G	PLC	Power	
-	√	√	√	√	-

Where **RE \geq 1G**: Radiated Emission above 1 GHz **RE $<$ 1G**: Radiated Emission below 1 GHz
PLC: Power Line Conducted Emission **Power**: Maximum Output Power Measurement

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.
2. "-" means no effect.

Radiated Emission Test (Above 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-		802.11n (HT20)	36 to 48	36, 40, 48	OFDM	BPSK	6.5
-		802.11n (HT40)	38 to 46	38, 46	OFDM	BPSK	13.5
-		802.11ac (VHT80)	42	42	OFDM	BPSK	29.3
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11n (HT20)	52 to 64	52, 60, 64	OFDM	BPSK	6.5
-		802.11n (HT40)	54 to 62	54, 62	OFDM	BPSK	13.5
-		802.11ac (VHT80)	58	58	OFDM	BPSK	29.3
-	5500-5700	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11n (HT20)	100 to 140	100, 116, 140	OFDM	BPSK	6.5
-		802.11n (HT40)	102 to 134	102, 110, 134	OFDM	BPSK	13.5
-		802.11ac (VHT80)	106 to 122	106, 122	OFDM	BPSK	29.3
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	6.5
-		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	13.5
-		802.11ac (VHT80)	155	155	OFDM	BPSK	29.3

Radiated Emission Test (Below 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5700	802.11ac (VHT80)	106 to 122	122	OFDM	BPSK	29.3

Power Line Conducted Emission Test:

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5700	802.11ac (VHT80)	106 to 122	122	OFDM	BPSK	29.3

Maximum Output Power Measurement:

This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-		802.11n (HT20)	36 to 48	36, 40, 48	OFDM	BPSK	6.5
-		802.11n (HT40)	38 to 46	38, 46	OFDM	BPSK	13.5
-		802.11ac (VHT80)	42	42	OFDM	BPSK	29.3
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11n (HT20)	52 to 64	52, 60, 64	OFDM	BPSK	6.5
-		802.11n (HT40)	54 to 62	54, 62	OFDM	BPSK	13.5
-		802.11ac (VHT80)	58	58	OFDM	BPSK	29.3
-	5500-5700	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11n (HT20)	100 to 140	100, 116, 140	OFDM	BPSK	6.5
-		802.11n (HT40)	102 to 134	102, 110, 134	OFDM	BPSK	13.5
-		802.11ac (VHT80)	106 to 122	106, 122	OFDM	BPSK	29.3
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	6.5
-		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	13.5
-		802.11ac (VHT80)	155	155	OFDM	BPSK	29.3

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE \geq 1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao, Karl Lee, Harry Hsueh
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Harry Hsueh
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang
APCM	25 deg. C, 65 % RH	7.4 Vdc	Gavin Wu

3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Tablet	Getac	T800	N/A	N/A	Provided by Client

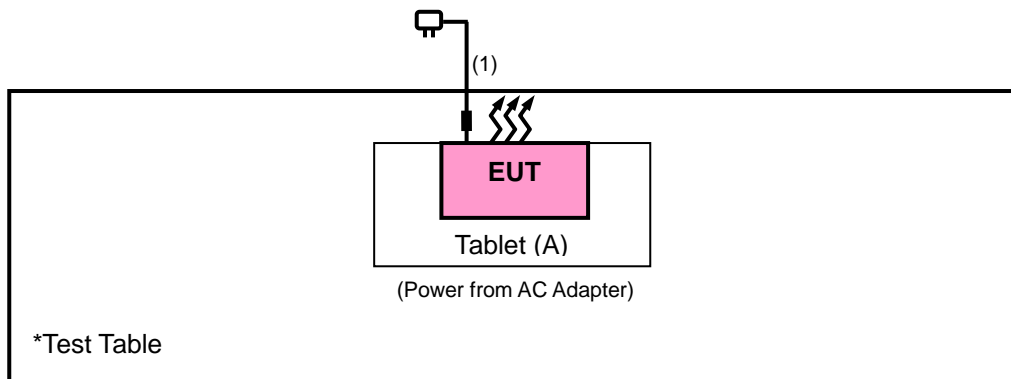
Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Adapter Cable	1	1.75	Y	1	Accessory of the EUT

Note: The core(s) is(are) originally attached to the cable(s).

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test Standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

Limits of Unwanted Emission Out of the Restricted Bands

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<input checked="" type="checkbox"/> 15.407(b)(4)(i)	PK:-27 (dBm/MHz) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2 (dBµV/m) ^{*1} PK:105.2 (dBµV/m) ^{*2} PK: 110.8 (dBµV/m) ^{*3} PK:122.2 (dBµV/m) ^{*4}
	<input type="checkbox"/> 15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

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

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

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

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

Note:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \quad \mu\text{V/m, where P is the eirp (Watts).}$$

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Spectrum Analyzer ROHDE & SCHWARZ	FSU-26	101645	Jul. 04, 2019	Jul. 03, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Apr. 15, 2019	Apr. 14, 2020
			Apr. 16, 2020	Apr. 15, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSW26	102023	Oct. 08, 2019	Oct. 07, 2020
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jul. 03, 2019	Jul. 02, 2020
Vector signal generator Agilent	E4438C	MY47271120	Nov. 11, 2019	Nov. 10, 2020
Signal Generator Agilent	N5182B	MY53050430	Nov. 25, 2019	Nov. 24, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-631	Nov. 12, 2019	Nov. 11, 2020
HORN Antenna Schwarzbeck	3117	00155510	Nov. 24, 2019	Nov. 23, 2020
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY5519 0004/MY55190007/MY 55210005	Jul. 15, 2019	Jul. 14, 2020
Preamplifier Agilent	310N	187246	Jun. 18, 2019	Jun. 17, 2020
Preamplifier Agilent	83017A	MY39501373	Jun. 18, 2019	Jun. 17, 2020
RF signal cable HUBER+SUHNER	5D-FB	Cable-RF1-01(RFC-S MS-100-SMS-120+MY 13379/4)	Jun. 18, 2019	Jun. 17, 2020
RF signal cable HUBER+SUHNER	8D-FB	Cable-RF1-02(RFC-S MS-100-NMS-120+ 8120_5140_2911)	Jun. 18, 2019	Jun. 17, 2020
Software ADT	8.130425b	NA	NA	NA
Antenna Tower ADT	7-TR/POL	NA	NA	NA
Turn Table	TT100.	NA	NA	NA
Controller ADT	SC100	NA	NA	NA
Temperature & Humidity Chamber GIANT FORCE	GTH-120-40-CP-A R	MAA1306-019	Sep. 10, 2019	Sep. 09, 2020

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HsinTien RF Chamber 1.
 3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.

4.1.3 Test Procedures

For Radiated Emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.

For Radiated Emission above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

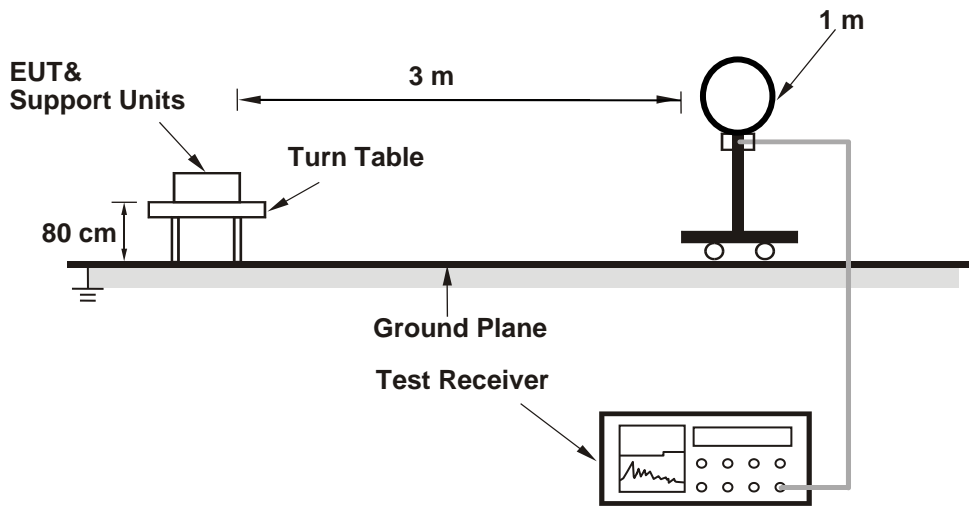
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
(11a: RBW = 1 MHz, VBW = 1 kHz ; 11n (HT20): RBW = 1 MHz, VBW = 1 kHz ;
11n (HT40): RBW = 1 MHz, VBW = 1 kHz ; 11ac (VHT80): RBW = 1 MHz, VBW = 1 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

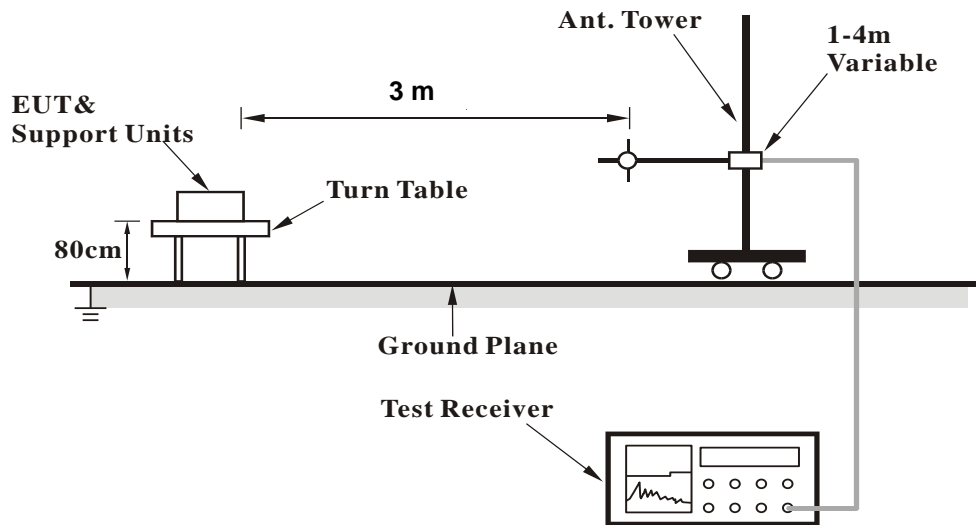
No deviation.

4.1.5 Test Setup

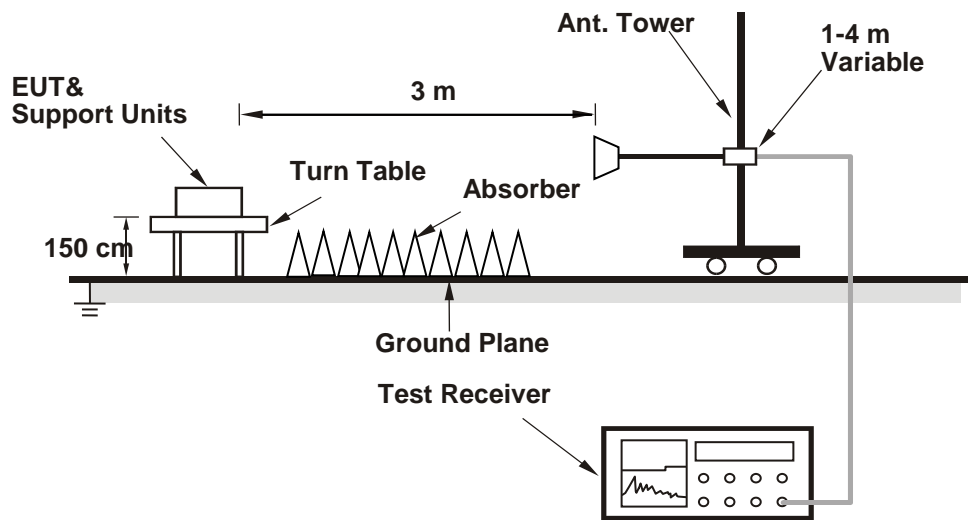
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



<Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

- a. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results
Above 1 GHz Data :
802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	44.51	34.46	10.05	54	-9.49	200	289	Average
5150	54.58	44.53	10.05	74	-19.42	200	289	Peak
5180	97.48	87.36	10.12			200	289	Average
5180	104.68	94.56	10.12			200	289	Peak
*10360	55.15	39.13	16.02	68.2	-13.05	153	265	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.88	31.83	10.05	54	-12.12	100	228	Average
5150	53.19	43.14	10.05	74	-20.81	100	228	Peak
5180	89.47	79.35	10.12			100	228	Average
5180	96.51	86.39	10.12			100	228	Peak
*10360	54.7	38.68	16.02	68.2	-13.5	111	241	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 40	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.46	32.41	10.05	54	-11.54	200	289	Average
5150	52.74	42.69	10.05	74	-21.26	200	289	Peak
5200	99.58	89.42	10.16			200	289	Average
5200	106.91	96.75	10.16			200	289	Peak
5350	42.66	32.43	10.23	54	-11.34	200	289	Average
5350	54.24	44.01	10.23	74	-19.76	200	289	Peak
*10400	54.4	38.22	16.18	68.2	-13.8	164	322	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.85	31.8	10.05	54	-12.15	100	228	Average
5150	52.38	42.33	10.05	74	-21.62	100	228	Peak
5200	91.47	81.31	10.16			100	228	Average
5200	98.78	88.62	10.16			100	228	Peak
5350	41.89	31.66	10.23	54	-12.11	100	228	Average
5350	52.14	41.91	10.23	74	-21.86	100	228	Peak
*10400	55.1	38.92	16.18	68.2	-13.1	197	288	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5200 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	99.78	89.64	10.14			200	289	Average
5240	106.87	96.73	10.14			200	289	Peak
5350	42.7	32.47	10.23	54	-11.3	200	289	Average
5350	53.76	43.53	10.23	74	-20.24	200	289	Peak
*10480	54.08	38.18	15.9	68.2	-14.12	136	195	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	91.67	81.53	10.14			100	228	Average
5240	98.56	88.42	10.14			100	228	Peak
5350	41.73	31.5	10.23	54	-12.27	100	228	Average
5350	52.29	42.06	10.23	74	-21.71	100	228	Peak
*10480	55.27	39.37	15.9	68.2	-12.93	117	174	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5260	98.47	88.35	10.12			200	289	Average
5260	106.11	95.99	10.12			200	289	Peak
5350	42.7	32.47	10.23	54	-11.3	200	289	Average
5350	53.17	42.94	10.23	74	-20.83	200	289	Peak
*10520	55	39.12	15.88	68.2	-13.2	144	165	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5260	90.47	80.35	10.12			100	228	Average
5260	98.79	88.67	10.12			100	228	Peak
5350	41.61	31.38	10.23	54	-12.39	100	228	Average
5350	51.67	41.44	10.23	74	-22.33	100	228	Peak
*10520	54.33	38.45	15.88	68.2	-13.87	165	190	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.74	31.69	10.05	54	-12.26	200	289	Average
5150	52.72	42.67	10.05	74	-21.28	200	289	Peak
5300	98.5	88.44	10.06			200	289	Average
5300	106.28	96.22	10.06			200	289	Peak
5350	45.81	35.58	10.23	54	-8.19	200	289	Average
5350	57.48	47.25	10.23	74	-16.52	200	289	Peak
10600	47	31.24	15.76	54	-7	144	201	Average
10600	53.48	37.72	15.76	74	-20.52	144	201	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.71	31.66	10.05	54	-12.29	100	228	Average
5150	52.04	41.99	10.05	74	-21.96	100	228	Peak
5300	90.46	80.4	10.06			100	228	Average
5300	98.74	88.68	10.06			100	228	Peak
5350	41.72	31.49	10.23	54	-12.28	100	228	Average
5350	52.34	42.11	10.23	74	-21.66	100	228	Peak
10600	47.01	31.25	15.76	54	-6.99	146	321	Average
10600	53.29	37.53	15.76	74	-20.71	146	321	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5300 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	98.49	88.4	10.09			217	301	Average
5320	104.16	94.07	10.09			217	301	Peak
5350	45.5	35.27	10.23	54	-8.5	217	301	Average
5350	54.85	44.62	10.23	74	-19.15	217	301	Peak
10640	47.24	31.25	15.99	54	-6.76	124	158	Average
10640	53.39	37.4	15.99	74	-20.61	124	158	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	89.54	79.45	10.09			110	351	Average
5320	96.3	86.21	10.09			110	351	Peak
5350	41.99	31.76	10.23	54	-12.01	110	351	Average
5350	52.13	41.9	10.23	74	-21.87	110	351	Peak
10640	47.24	31.25	15.99	54	-6.76	126	145	Average
10640	53.97	37.98	15.99	74	-20.03	126	145	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5320 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.44	32.93	10.51	54	-10.56	203	265	Average
5460	52.42	41.91	10.51	74	-21.58	203	265	Peak
*5470	53.35	42.82	10.53	68.2	-14.85	203	265	Peak
5500	97.27	86.67	10.6			203	265	Average
5500	104.53	93.93	10.6			203	265	Peak
11000	46.6	30.47	16.13	54	-7.4	195	247	Average
11000	56.38	40.25	16.13	74	-17.62	195	247	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.85	32.34	10.51	54	-11.15	255	0	Average
5460	53.05	42.54	10.51	74	-20.95	255	0	Peak
*5470	51.36	40.83	10.53	68.2	-16.84	255	0	Peak
5500	90.89	80.29	10.6			255	0	Average
5500	98.09	87.49	10.6			255	0	Peak
11000	46.45	30.32	16.13	54	-7.55	145	176	Average
11000	56.05	39.92	16.13	74	-17.95	145	176	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.55	33.04	10.51	54	-10.45	203	265	Average
5460	52.66	42.15	10.51	74	-21.34	203	265	Peak
*5470	51.7	41.17	10.53	68.2	-16.5	203	265	Peak
5580	100.77	90.06	10.71			203	265	Average
5580	107.92	97.21	10.71			203	265	Peak
*5725	51.78	40.86	10.92	68.2	-16.42	203	265	Peak
11160	46.85	30.49	16.36	54	-7.15	178	68	Average
11160	56.64	40.28	16.36	74	-17.36	178	68	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.86	32.35	10.51	54	-11.14	255	0	Average
5460	52.67	42.16	10.51	74	-21.33	255	0	Peak
*5470	50.45	39.92	10.53	68.2	-17.75	255	0	Peak
5580	94.14	83.43	10.71			255	0	Average
5580	101.69	90.98	10.71			255	0	Peak
*5725	51.48	40.56	10.92	68.2	-16.72	255	0	Peak
11160	48.15	31.79	16.36	54	-5.85	175	121	Average
11160	57.73	41.37	16.36	74	-16.27	175	121	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5580 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	98.78	87.83	10.95			203	265	Average
5700	105.75	94.8	10.95			203	265	Peak
*5725	56.43	45.51	10.92	68.2	-11.77	203	265	Peak
11400	46.28	30.09	16.19	54	-7.72	134	126	Average
11400	56.18	39.99	16.19	74	-17.82	134	126	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	92.06	81.11	10.95			255	0	Average
5700	99.1	88.15	10.95			255	0	Peak
*5725	51.97	41.05	10.92	68.2	-16.23	255	0	Peak
11400	46.94	30.75	16.19	54	-7.06	165	128	Average
11400	56.55	40.36	16.19	74	-17.45	165	128	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	100.98	90.1	10.88			203	265	Average
5745	108.27	97.39	10.88			203	265	Peak
11490	47.23	30.76	16.47	54	-6.77	126	34	Average
11490	56.78	40.31	16.47	74	-17.22	126	34	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	93.7	82.82	10.88			255	0	Average
5745	101.45	90.57	10.88			255	0	Peak
11490	47.14	30.67	16.47	54	-6.86	131	8	Average
11490	56.73	40.26	16.47	74	-17.27	131	8	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5615.5	53.39	42.6	10.79	68.2	-14.81	203	265	Peak
5653.3	51.82	40.95	10.87	70.64	-18.82	203	265	Peak
5923.675	52	40.89	11.11	69.18	-17.18	203	265	Peak
*6023.425	52.84	41.48	11.36	68.2	-15.36	203	265	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5626	52.28	41.49	10.79	68.2	-15.92	255	0	Peak
5653.3	50.98	40.11	10.87	70.64	-19.66	255	0	Peak
5916.325	51.52	40.43	11.09	74.62	-23.1	255	0	Peak
*5996.65	52.27	40.94	11.33	68.2	-15.93	255	0	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	100.79	89.98	10.81			203	265	Average
5785	108.3	97.49	10.81			203	265	Peak
11570	46.45	29.96	16.49	54	-7.55	151	76	Average
11570	56.2	39.71	16.49	74	-17.8	151	76	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	94.92	84.11	10.81			255	0	Average
5785	101.82	91.01	10.81			255	0	Peak
11570	46.92	30.43	16.49	54	-7.08	160	273	Average
11570	56.63	40.14	16.49	74	-17.37	160	273	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5623.375	52.61	41.82	10.79	68.2	-15.59	203	265	Peak
5653.3	50.93	40.06	10.87	70.64	-19.71	203	265	Peak
5921.575	51.87	40.76	11.11	70.73	-18.86	203	265	Peak
*6022.375	53.1	41.75	11.35	68.2	-15.1	203	265	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5640.7	52.39	41.56	10.83	68.2	-15.81	255	0	Peak
5652.25	50.72	39.85	10.87	69.86	-19.14	255	0	Peak
5922.625	52.16	41.05	11.11	69.96	-17.8	255	0	Peak
*5927.875	52.58	41.47	11.11	68.2	-15.62	255	0	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	101	90.12	10.88			203	265	Average
5825	108.12	97.24	10.88			203	265	Peak
11650	47.34	30.56	16.78	54	-6.66	156	129	Average
11650	57.03	40.25	16.78	74	-16.97	156	129	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	94.12	83.24	10.88			255	0	Average
5825	101.64	90.76	10.88			255	0	Peak
11650	47.54	30.76	16.78	54	-6.46	127	116	Average
11650	57.16	40.38	16.78	74	-16.84	127	116	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5631.775	52.99	42.18	10.81	68.2	-15.21	203	265	Peak
5654.35	51.43	40.56	10.87	71.42	-19.99	203	265	Peak
5918.95	51.52	40.43	11.09	72.68	-21.16	203	265	Peak
*5966.725	52.52	41.29	11.23	68.2	-15.68	203	265	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5526.25	52.96	42.33	10.63	68.2	-15.24	255	0	Peak
5655.4	51.7	40.83	10.87	72.2	-20.5	255	0	Peak
5912.65	52.72	41.65	11.07	77.34	-24.62	255	0	Peak
*5974.075	53.13	41.87	11.26	68.2	-15.07	255	0	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

802.11n (HT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	43.79	33.74	10.05	54	-10.21	226	230	Average
5150	55.69	45.64	10.05	74	-18.31	226	230	Peak
5180	97.48	87.36	10.12			226	230	Average
5180	104.75	94.63	10.12			226	230	Peak
*10360	54.38	38.36	16.02	68.2	-13.82	164	19	Peak

Antenna Polarity & Test Distance: Vertical at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.58	32.53	10.05	54	-11.42	100	105	Average
5150	52.77	42.72	10.05	74	-21.23	100	105	Peak
5180	92.55	82.43	10.12			100	105	Average
5180	99.38	89.26	10.12			100	105	Peak
*10360	54.01	37.99	16.02	68.2	-14.19	197	285	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 40	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.32	32.27	10.05	54	-11.68	226	230	Average
5150	52.82	42.77	10.05	74	-21.18	226	230	Peak
5200	98.55	88.39	10.16			226	230	Average
5200	105.32	95.16	10.16			226	230	Peak
5350	43.01	32.78	10.23	54	-10.99	226	230	Average
5350	53.3	43.07	10.23	74	-20.7	226	230	Peak
*10400	54.73	38.55	16.18	68.2	-13.47	164	1	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.89	31.84	10.05	54	-12.11	100	105	Average
5150	52.38	42.33	10.05	74	-21.62	100	105	Peak
5200	93.66	83.5	10.16			100	105	Average
5200	100.45	90.29	10.16			100	105	Peak
5350	41.73	31.5	10.23	54	-12.27	100	105	Average
5350	52.99	42.76	10.23	74	-21.01	100	105	Peak
*10400	54.05	37.87	16.18	68.2	-14.15	154	1	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5200 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	99.58	89.44	10.14			226	230	Average
5240	106.72	96.58	10.14			226	230	Peak
5350	42.78	32.55	10.23	54	-11.22	226	230	Average
5350	53.51	43.28	10.23	74	-20.49	226	230	Peak
*10480	54.18	38.28	15.9	68.2	-14.02	187	19	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	94.48	84.34	10.14			100	105	Average
5240	101.41	91.27	10.14			100	105	Peak
5350	41.77	31.54	10.23	54	-12.23	100	105	Average
5350	52.93	42.7	10.23	74	-21.07	100	105	Peak
*10480	56	40.1	15.9	68.2	-12.2	164	119	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5260	98.47	88.35	10.12			226	230	Average
5260	106.73	96.61	10.12			226	230	Peak
5350	42.54	32.31	10.23	54	-11.46	226	230	Average
5350	52.58	42.35	10.23	74	-21.42	226	230	Peak
*10520	52.98	37.1	15.88	68.2	-15.22	114	126	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5260	93.13	83.01	10.12			100	105	Average
5260	101.71	91.59	10.12			100	105	Peak
5350	41.59	31.36	10.23	54	-12.41	100	105	Average
5350	52.18	41.95	10.23	74	-21.82	100	105	Peak
*10520	54.04	38.16	15.88	68.2	-14.16	176	195	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.75	31.7	10.05	54	-12.25	226	230	Average
5150	52.22	42.17	10.05	74	-21.78	226	230	Peak
5300	98.5	88.44	10.06			226	230	Average
5300	106.94	96.88	10.06			226	230	Peak
5350	42.46	32.23	10.23	54	-11.54	226	230	Average
5350	53.83	43.6	10.23	74	-20.17	226	230	Peak
10600	47	31.24	15.76	54	-7	136	124	Average
10600	53.19	37.43	15.76	74	-20.81	136	124	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.53	31.48	10.05	54	-12.47	100	105	Average
5150	51.81	41.76	10.05	74	-22.19	100	105	Peak
5300	94.18	84.12	10.06			100	105	Average
5300	101.42	91.36	10.06			100	105	Peak
5350	41.67	31.44	10.23	54	-12.33	100	105	Average
5350	52.43	42.2	10.23	74	-21.57	100	105	Peak
10600	46.86	31.1	15.76	54	-7.14	169	157	Average
10600	52.26	36.5	15.76	74	-21.74	169	157	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5300 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	97.54	87.45	10.09			226	230	Average
5320	104	93.91	10.09			226	230	Peak
5350	43.01	32.78	10.23	54	-10.99	226	230	Average
5350	53.31	43.08	10.23	74	-20.69	226	230	Peak
10640	46.11	30.12	15.99	54	-7.89	211	205	Average
10640	51.82	35.83	15.99	74	-22.18	211	205	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	90.54	80.45	10.09			249	105	Average
5320	98.86	88.77	10.09			249	105	Peak
5350	41.94	31.71	10.23	54	-12.06	249	105	Average
5350	52.5	42.27	10.23	74	-21.5	249	105	Peak
10640	46.23	30.24	15.99	54	-7.77	169	157	Average
10640	51.55	35.56	15.99	74	-22.45	169	157	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5320 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.85	32.34	10.51	54	-11.15	156	254	Average
5460	53.01	42.5	10.51	74	-20.99	156	254	Peak
*5470	51.58	41.05	10.53	68.2	-16.62	156	254	Peak
5500	97.55	86.95	10.6			156	254	Average
5500	104.59	93.99	10.6			156	254	Peak
11000	43.16	27.03	16.13	54	-10.84	129	280	Average
11000	52.47	36.34	16.13	74	-21.53	129	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.8	32.29	10.51	54	-11.2	111	9	Average
5460	52.19	41.68	10.51	74	-21.81	111	9	Peak
*5470	50.23	39.7	10.53	68.2	-17.97	111	9	Peak
5500	93.24	82.64	10.6			111	9	Average
5500	100.71	90.11	10.6			111	9	Peak
11000	44.72	28.59	16.13	54	-9.28	157	234	Average
11000	54.38	38.25	16.13	74	-19.62	157	234	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.03	32.52	10.51	54	-10.97	156	254	Average
5460	52.49	41.98	10.51	74	-21.51	156	254	Peak
*5470	51.65	41.12	10.53	68.2	-16.55	156	254	Peak
5580	100.52	89.81	10.71			156	254	Average
5580	107.85	97.14	10.71			156	254	Peak
*5725	52	41.08	10.92	68.2	-16.2	156	254	Peak
11160	45.97	29.61	16.36	54	-8.03	189	248	Average
11160	55.48	39.12	16.36	74	-18.52	189	248	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.82	32.31	10.51	54	-11.18	111	9	Average
5460	52.27	41.76	10.51	74	-21.73	111	9	Peak
*5470	50.53	40	10.53	68.2	-17.67	111	9	Peak
5580	96.85	86.14	10.71			111	9	Average
5580	104.06	93.35	10.71			111	9	Peak
*5725	51.33	40.41	10.92	68.2	-16.87	111	9	Peak
11160	46.14	29.78	16.36	54	-7.86	175	138	Average
11160	55.77	39.41	16.36	74	-18.23	175	138	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5580 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	96.7	85.75	10.95			190	229	Average
5700	104.44	93.49	10.95			190	229	Peak
*5725	54.96	44.04	10.92	68.2	-13.24	190	229	Peak
11400	45.43	29.24	16.19	54	-8.57	129	37	Average
11400	55.05	38.86	16.19	74	-18.95	129	37	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	89.76	78.81	10.95			111	9	Average
5700	97.61	86.66	10.95			111	9	Peak
*5725	51.72	40.8	10.92	68.2	-16.48	111	9	Peak
11400	45.02	28.83	16.19	54	-8.98	146	125	Average
11400	55.55	39.36	16.19	74	-18.45	146	125	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	99.29	88.41	10.88			214	255	Average
5745	106.79	95.91	10.88			214	255	Peak
11490	45.86	29.39	16.47	54	-8.14	120	81	Average
11490	55.46	38.99	16.47	74	-18.54	120	81	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	93.99	83.11	10.88			101	3	Average
5745	101.65	90.77	10.88			101	3	Peak
11490	47.56	31.09	16.47	54	-6.44	162	184	Average
11490	57.1	40.63	16.47	74	-16.9	162	184	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5589.25	52.74	42.01	10.73	68.2	-15.46	214	255	Peak
5652.25	50.14	39.27	10.87	69.86	-19.72	214	255	Peak
5920.525	49.54	38.45	11.09	71.51	-21.97	214	255	Peak
*5979.325	52.94	41.68	11.26	68.2	-15.26	214	255	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5611.3	52.51	41.74	10.77	68.2	-15.69	101	3	Peak
5651.725	51.76	40.89	10.87	69.48	-17.72	101	3	Peak
5921.05	52.38	41.29	11.09	71.12	-18.74	101	3	Peak
*5930.5	52.7	41.59	11.11	68.2	-15.5	101	3	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	99.37	88.56	10.81			215	255	Average
5785	106.11	95.3	10.81			215	255	Peak
11570	47.1	30.61	16.49	54	-6.9	160	181	Average
11570	55.69	39.2	16.49	74	-18.31	160	181	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	94.02	83.21	10.81			101	3	Average
5785	101.49	90.68	10.81			101	3	Peak
11570	46.32	29.83	16.49	54	-7.68	145	127	Average
11570	56.14	39.65	16.49	74	-17.86	145	127	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5641.75	53.35	42.52	10.83	68.2	-14.85	215	255	Peak
5652.25	49.66	38.79	10.87	69.86	-20.2	215	255	Peak
5922.1	50.12	39.01	11.11	70.35	-20.23	215	255	Peak
*5987.725	52.98	41.67	11.31	68.2	-15.22	215	255	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5628.625	52.52	41.71	10.81	68.2	-15.68	101	3	Peak
5652.25	49.9	39.03	10.87	69.86	-19.96	101	3	Peak
5923.675	50.98	39.87	11.11	69.18	-18.2	101	3	Peak
*5958.325	52.44	41.23	11.21	68.2	-15.76	101	3	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	99.44	88.56	10.88			215	255	Average
5825	106.04	95.16	10.88			215	255	Peak
11650	47.26	30.48	16.78	54	-6.74	104	136	Average
11650	56.9	40.12	16.78	74	-17.1	104	136	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	94.1	83.22	10.88			101	3	Average
5825	101.94	91.06	10.88			101	3	Peak
11650	45.89	29.11	16.78	54	-8.11	184	121	Average
11650	55.49	38.71	16.78	74	-18.51	184	121	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5650.15	52.36	41.49	10.87	68.31	-15.95	215	255	Peak
5653.3	50.74	39.87	10.87	70.64	-19.9	215	255	Peak
5923.675	49.58	38.47	11.11	69.18	-19.6	215	255	Peak
*5969.875	52.61	41.36	11.25	68.2	-15.59	215	255	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5597.65	52.65	41.9	10.75	68.2	-15.55	101	3	Peak
5654.35	50.9	40.03	10.87	71.42	-20.52	101	3	Peak
5923.15	50.04	38.93	11.11	69.57	-19.53	101	3	Peak
*5971.975	53.72	42.47	11.25	68.2	-14.48	101	3	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

802.11n (HT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	43.53	33.48	10.05	54	-10.47	226	230	Average
5150	53.87	43.82	10.05	74	-20.13	226	230	Peak
5190	93.65	83.53	10.12			226	230	Average
5190	100.28	90.16	10.12			226	230	Peak
5350	42.38	32.15	10.23	54	-11.62	226	230	Average
5350	53.26	43.03	10.23	74	-20.74	226	230	Peak
*10380	54.88	38.78	16.1	68.2	-13.32	108	117	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.29	32.24	10.05	54	-11.71	100	105	Average
5150	53.03	42.98	10.05	74	-20.97	100	105	Peak
5190	88.54	78.42	10.12			100	105	Average
5190	95.36	85.24	10.12			100	105	Peak
5350	42.18	31.95	10.23	54	-11.82	100	105	Average
5350	52.66	42.43	10.23	74	-21.34	100	105	Peak
*10380	54.94	38.84	16.1	68.2	-13.26	134	4	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5190 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 46	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	44.82	34.77	10.05	54	-9.18	226	230	Average
5150	54.24	44.19	10.05	74	-19.76	226	230	Peak
5230	96.56	86.42	10.14			226	230	Average
5230	103.14	93	10.14			226	230	Peak
5350	42.9	32.67	10.23	54	-11.1	226	230	Average
5350	53.56	43.33	10.23	74	-20.44	226	230	Peak
*10460	54.83	38.83	16	68.2	-13.37	118	2	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.66	32.61	10.05	54	-11.34	100	105	Average
5150	52.73	42.68	10.05	74	-21.27	100	105	Peak
5230	91.84	81.7	10.14			100	105	Average
5230	98.47	88.33	10.14			100	105	Peak
5350	42.13	31.9	10.23	54	-11.87	100	105	Average
5350	52.82	42.59	10.23	74	-21.18	100	105	Peak
*10460	54.1	38.1	16	68.2	-14.1	154	118	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5230 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 54	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.8	31.75	10.05	54	-12.2	226	230	Average
5150	52.02	41.97	10.05	74	-21.98	226	230	Peak
5270	95.23	85.11	10.12			226	230	Average
5270	103.38	93.26	10.12			226	230	Peak
5350	43.57	33.34	10.23	54	-10.43	226	230	Average
5350	54.12	43.89	10.23	74	-19.88	226	230	Peak
*10540	52.33	36.5	15.83	68.2	-15.87	163	124	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.58	31.53	10.05	54	-12.42	100	105	Average
5150	52.23	42.18	10.05	74	-21.77	100	105	Peak
5270	89.47	79.35	10.12			100	105	Average
5270	97.48	87.36	10.12			100	105	Peak
5350	41.73	31.5	10.23	54	-12.27	100	105	Average
5350	53.07	42.84	10.23	74	-20.93	100	105	Peak
*10540	52.11	36.28	15.83	68.2	-16.09	105	199	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5270 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 62	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.75	31.7	10.05	54	-12.25	226	230	Average
5150	52.12	42.07	10.05	74	-21.88	226	230	Peak
5310	93.2	83.11	10.09			226	230	Average
5310	101.52	91.43	10.09			226	230	Peak
5350	43.12	32.89	10.23	54	-10.88	226	230	Average
5350	53.29	43.06	10.23	74	-20.71	226	230	Peak
10620	46.98	31.1	15.88	54	-7.02	194	175	Average
10620	53.21	37.33	15.88	74	-20.79	194	175	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.61	31.56	10.05	54	-12.39	255	114	Average
5150	52.61	42.56	10.05	74	-21.39	255	114	Peak
5310	88.54	78.45	10.09			255	114	Average
5310	96.23	86.14	10.09			255	114	Peak
5350	41.85	31.62	10.23	54	-12.15	255	114	Average
5350	53.18	42.95	10.23	74	-20.82	255	114	Peak
10620	46.11	30.23	15.88	54	-7.89	148	199	Average
10620	52.61	36.73	15.88	74	-21.39	148	199	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5310 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 102	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.4	31.89	10.51	54	-11.6	156	254	Average
5460	52.55	42.04	10.51	74	-21.45	156	254	Peak
*5470	53.97	43.44	10.53	68.2	-14.23	156	254	Peak
5510	94.62	52.33	42.29			156	254	Average
5510	101.5	59.21	42.29			156	254	Peak
*5725	50.75	39.83	10.92	68.2	-17.45	156	254	Peak
11020	42.85	26.69	16.16	54	-11.15	136	78	Average
11020	52.51	36.35	16.16	74	-21.49	136	78	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.04	32.53	10.51	54	-10.96	111	9	Average
5460	52.35	41.84	10.51	74	-21.65	111	9	Peak
*5470	51.12	40.59	10.53	68.2	-17.08	111	9	Peak
5510	89.87	79.27	10.6			111	9	Average
5510	96.47	85.87	10.6			111	9	Peak
*5725	54.25	43.33	10.92	68.2	-13.95	111	9	Peak
11020	42.98	26.82	16.16	54	-11.02	154	113	Average
11020	52.71	36.55	16.16	74	-21.29	154	113	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5510 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 110	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	44.22	33.71	10.51	54	-9.78	156	254	Average
5460	52.88	42.37	10.51	74	-21.12	156	254	Peak
*5470	55.38	44.85	10.53	68.2	-12.82	156	254	Peak
5550	97.45	86.77	10.68			156	254	Average
5550	104.84	94.16	10.68			156	254	Peak
*5725	51.16	40.24	10.92	68.2	-17.04	156	254	Peak
11100	43.02	26.75	16.27	54	-10.98	167	112	Average
11100	52.5	36.23	16.27	74	-21.5	167	112	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.57	32.06	10.51	54	-11.43	111	9	Average
5460	53.01	42.5	10.51	74	-20.99	111	9	Peak
*5470	52.57	42.04	10.53	68.2	-15.63	111	9	Peak
5550	92.04	81.36	10.68			111	9	Average
5550	99.53	88.85	10.68			111	9	Peak
*5725	51.65	40.73	10.92	68.2	-16.55	111	9	Peak
11100	43.46	27.19	16.27	54	-10.54	164	127	Average
11100	53.04	36.77	16.27	74	-20.96	164	127	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5550 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 134	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.71	32.2	10.51	54	-11.29	190	229	Average
5460	52.69	42.18	10.51	74	-21.31	190	229	Peak
*5470	50.93	40.4	10.53	68.2	-17.27	190	229	Peak
5670	94.08	83.18	10.9			190	229	Average
5670	101.39	90.49	10.9			190	229	Peak
*5725	53.7	42.78	10.92	68.2	-14.5	190	229	Peak
11340	46.18	29.76	16.42	54	-7.82	106	273	Average
11340	55.89	39.47	16.42	74	-18.11	106	273	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	42.76	32.25	10.51	54	-11.24	111	9	Average
5460	52.81	42.3	10.51	74	-21.19	111	9	Peak
*5470	49.79	39.26	10.53	68.2	-18.41	111	9	Peak
5670	89.09	78.19	10.9			111	9	Average
5670	96.66	85.76	10.9			111	9	Peak
*5725	51.46	40.54	10.92	68.2	-16.74	111	9	Peak
11340	45.61	29.19	16.42	54	-8.39	127	14	Average
11340	55.19	38.77	16.42	74	-18.81	127	14	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5670 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 151	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	95.02	84.12	10.9			215	255	Average
5755	102.85	91.95	10.9			215	255	Peak
11510	46.73	30.22	16.51	54	-7.27	132	58	Average
11510	56.12	39.61	16.51	74	-17.88	132	58	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	91.36	80.46	10.9			101	3	Average
5755	98.89	87.99	10.9			101	3	Peak
11510	46.72	30.21	16.51	54	-7.28	151	128	Average
11510	56.31	39.8	16.51	74	-17.69	151	128	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5587.675	52.56	41.83	10.73	68.2	-15.64	215	255	Peak
5656.45	52.2	41.33	10.87	72.97	-20.77	215	255	Peak
5922.625	53.41	42.3	11.11	69.96	-16.55	215	255	Peak
*5980.375	53.76	42.5	11.26	68.2	-14.44	215	255	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5603.425	54.3	43.55	10.75	68.2	-13.9	101	3	Peak
5652.25	51.25	40.38	10.87	69.86	-18.61	101	3	Peak
5923.675	49.46	38.35	11.11	69.18	-19.72	101	3	Peak
*6016.075	52.43	41.08	11.35	68.2	-15.77	101	3	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5755 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 159	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	95.06	84.24	10.82			218	309	Average
5795	103.05	92.23	10.82			218	309	Peak
11590	45.57	29.06	16.51	54	-8.43	195	236	Average
11590	55.22	38.71	16.51	74	-18.78	195	236	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	90.39	79.57	10.82			101	3	Average
5795	98.8	87.98	10.82			101	3	Peak
11590	45.6	29.09	16.51	54	-8.4	173	105	Average
11590	55.16	38.65	16.51	74	-18.84	173	105	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5585.05	53.06	42.33	10.73	68.2	-15.14	218	309	Peak
5653.3	49.42	38.55	10.87	70.64	-21.22	218	309	Peak
5923.15	51.47	40.36	11.11	69.57	-18.1	218	309	Peak
*6002.95	53.76	42.43	11.33	68.2	-14.44	218	309	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5573.5	52.7	42	10.7	68.2	-15.5	101	3	Peak
5653.3	50.15	39.28	10.87	70.64	-20.49	101	3	Peak
5922.625	52.44	41.33	11.11	69.96	-17.52	101	3	Peak
*5951.5	52.49	41.3	11.19	68.2	-15.71	101	3	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5795 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	43.16	33.11	10.05	54	-10.84	226	230	Average
5150	53.68	43.63	10.05	74	-20.32	226	230	Peak
5210	90.55	80.38	10.17			226	230	Average
5210	97.09	86.92	10.17			226	230	Peak
5350	42.08	31.85	10.23	54	-11.92	226	230	Average
5350	52.61	42.38	10.23	74	-21.39	226	230	Peak
*10420	55.05	38.89	16.16	68.2	-13.15	142	314	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	42.17	32.12	10.05	54	-11.83	100	105	Average
5150	52.72	42.67	10.05	74	-21.28	100	105	Peak
5210	85.54	75.37	10.17			100	105	Average
5210	92.57	82.4	10.17			100	105	Peak
5350	41.81	31.58	10.23	54	-12.19	100	105	Average
5350	52.94	42.71	10.23	74	-21.06	100	105	Peak
*10420	54.92	38.76	16.16	68.2	-13.28	119	287	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5210 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 58	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.83	31.78	10.05	54	-12.17	226	230	Average
5150	52.69	42.64	10.05	74	-21.31	226	230	Peak
5290	89.5	79.4	10.1			226	230	Average
5290	97.82	87.72	10.1			226	230	Peak
5350	43.37	33.14	10.23	54	-10.63	226	230	Average
5350	53.5	43.27	10.23	74	-20.5	226	230	Peak
*10580	51.76	36.05	15.71	68.2	-16.44	166	198	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	41.57	31.52	10.05	54	-12.43	249	105	Average
5150	52.88	42.83	10.05	74	-21.12	249	105	Peak
5290	84.24	74.14	10.1			249	105	Average
5290	92.06	81.96	10.1			249	105	Peak
5350	42	31.77	10.23	54	-12	249	105	Average
5350	52.52	42.29	10.23	74	-21.48	249	105	Peak
*10580	52.41	36.7	15.71	68.2	-15.79	252	142	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5290 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 106	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	44.6	34.09	10.51	54	-9.4	187	254	Average
5460	53.64	43.13	10.51	74	-20.36	187	254	Peak
*5470	52.59	42.06	10.53	68.2	-15.61	187	254	Peak
5530	90.95	80.32	10.63			187	254	Average
5530	98.69	88.06	10.63			187	254	Peak
*5725	51.07	40.15	10.92	68.2	-17.13	187	254	Peak
11060	43.04	26.81	16.23	54	-10.96	180	326	Average
11060	51.97	35.74	16.23	74	-22.03	180	326	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.39	32.88	10.51	54	-10.61	111	9	Average
5460	52.78	42.27	10.51	74	-21.22	111	9	Peak
*5470	50.71	40.18	10.53	68.2	-17.49	111	9	Peak
5530	86.37	75.74	10.63			111	9	Average
5530	93.51	82.88	10.63			111	9	Peak
*5725	51.45	40.53	10.92	68.2	-16.75	111	9	Peak
11060	43.61	27.38	16.23	54	-10.39	145	286	Average
11060	53.12	36.89	16.23	74	-20.88	145	286	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5530 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 122	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.94	33.43	10.51	54	-10.06	156	254	Average
5460	52.93	42.42	10.51	74	-21.07	156	254	Peak
*5470	51.41	40.88	10.53	68.2	-16.79	156	254	Peak
5610	96.78	86.01	10.77			156	254	Average
5610	103.77	93	10.77			156	254	Peak
*5725	54.01	43.09	10.92	68.2	-14.19	156	254	Peak
11220	46.73	30.31	16.42	54	-7.27	105	114	Average
11220	56.48	40.06	16.42	74	-17.52	105	114	Peak

Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.71	33.2	10.51	54	-10.29	111	9	Average
5460	53.71	43.2	10.51	74	-20.29	111	9	Peak
*5470	52.22	41.69	10.53	68.2	-15.98	111	9	Peak
5610	89.81	79.04	10.77			111	9	Average
5610	97.31	86.54	10.77			111	9	Peak
*5725	52.62	41.7	10.92	68.2	-15.58	111	9	Peak
11220	47.8	31.38	16.42	54	-6.2	142	82	Average
11220	57.45	41.03	16.42	74	-16.55	142	82	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5610 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 155	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	93.04	82.17	10.87			215	255	Average
5775	101.58	90.71	10.87			215	255	Peak
11550	46.47	29.97	16.5	54	-7.53	130	126	Average
11550	56.13	39.63	16.5	74	-17.87	130	126	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	89.37	78.5	10.87			100	351	Average
5775	96.03	85.16	10.87			100	351	Peak
11550	46.85	30.35	16.5	54	-7.15	145	172	Average
11550	56.4	39.9	16.5	74	-17.6	145	172	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5645.425	52.76	41.93	10.83	68.2	-15.44	215	255	Peak
5651.725	53.46	42.59	10.87	69.48	-16.02	215	255	Peak
5922.625	51.3	40.19	11.11	69.96	-18.66	215	255	Peak
*6019.225	52.94	41.59	11.35	68.2	-15.26	215	255	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5574.025	52.42	41.69	10.73	68.2	-15.78	100	351	Peak
5652.25	48.95	38.08	10.87	69.86	-20.91	100	351	Peak
5921.05	51.21	40.12	11.09	71.12	-19.91	100	351	Peak
*5994.025	54.48	43.15	11.33	68.2	-13.72	100	351	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- 5775 MHz: Fundamental Frequency
- *: Out of Restricted Band
- The emission levels of other frequencies were very low against the limit

9 kHz ~ 30 MHz Data:

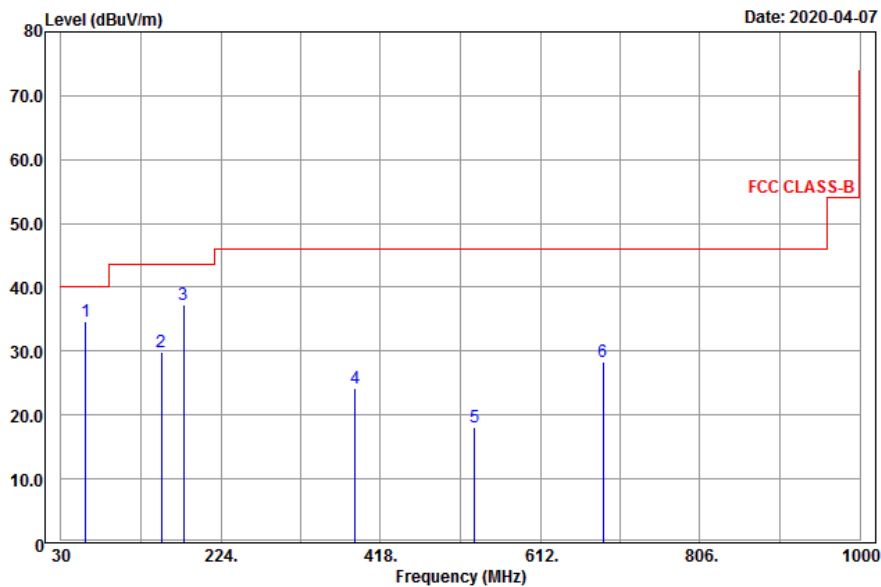
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz Worst-Case Data:

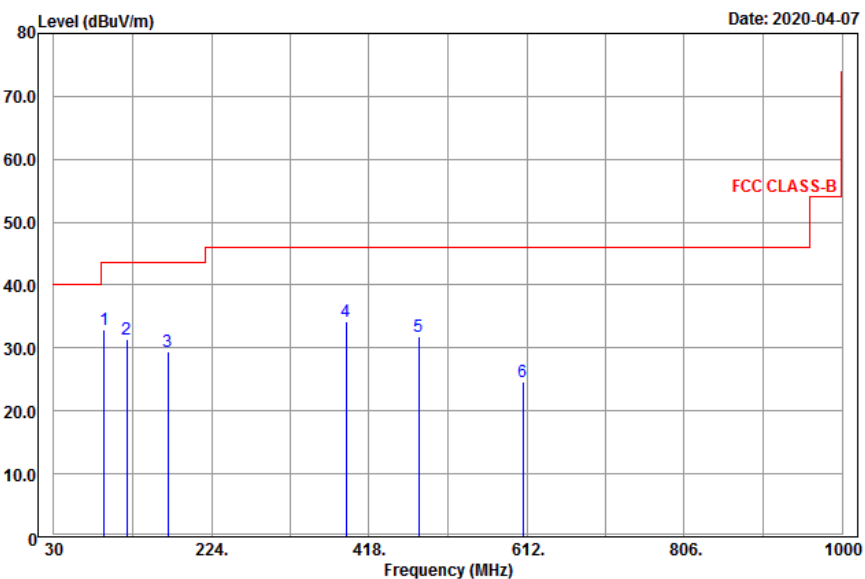
802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 122	Frequency Range	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Harry Hsueh

Horizontal



Vertical



Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
60.24	34.77	50.91	-16.14	40	-5.23	132	162	Peak
151.77	29.8	50.7	-20.9	43.5	-13.7	105	154	Peak
178.77	37.27	57.04	-19.77	43.5	-6.23	144	184	Peak
386.8	24.16	38.3	-14.14	46	-21.84	102	165	Peak
532.4	18.02	29.87	-11.85	46	-27.98	142	157	Peak
688.5	28.25	37.58	-9.33	46	-17.75	144	185	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
92.37	33.01	51.58	-18.57	43.5	-10.49	142	132	Peak
119.91	31.48	50.92	-19.44	43.5	-12.02	166	195	Peak
170.13	29.33	49.67	-20.34	43.5	-14.17	187	164	Peak
389.6	34.32	48.42	-14.1	46	-11.68	101	121	Peak
479.2	31.89	44.61	-12.72	46	-14.11	145	162	Peak
607.3	24.66	35.15	-10.49	46	-21.34	195	167	Peak

Remarks:

- Emission Level = Read Level + Factor
Margin value = Emission level – Limit value
- The emission levels of other frequencies were very low against the limit

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

- Note: 1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Feb. 17, 2020	Feb. 16, 2021
RF signal cable Woken	5D-FB	Cable-cond2-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 20, 2020	Jan. 19, 2021
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 13, 2019	Aug. 12, 2020
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 2.
 3. The VCCI Site Registration No. is C-12047.

4.2.3 Test Procedures

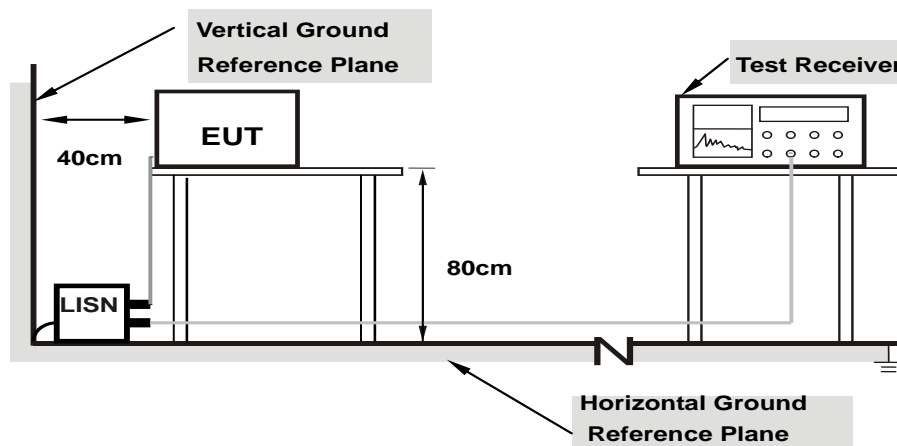
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit -20 dB) was not recorded.

Note: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



- Note:**
1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

- a. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

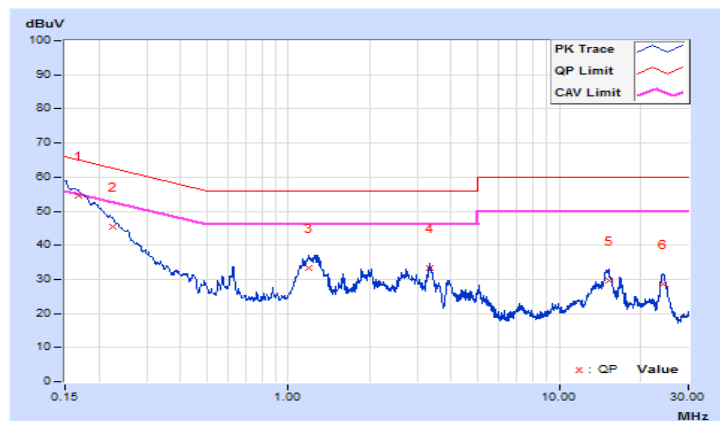
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Jisyong Wang	Test Date	2020/3/26

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16800	10.16	44.42	35.54	54.58	45.70	65.06	55.06	-10.48	-9.36
2	0.22564	10.17	35.14	30.44	45.31	40.61	62.61	52.61	-17.30	-12.00
3	1.19390	10.27	23.06	15.99	33.33	26.26	56.00	46.00	-22.67	-19.74
4	3.34500	10.36	22.99	17.25	33.35	27.61	56.00	46.00	-22.65	-18.39
5	15.25866	10.53	18.94	13.74	29.47	24.27	60.00	50.00	-30.53	-25.73
6	24.16200	10.50	18.23	15.17	28.73	25.67	60.00	50.00	-31.27	-24.33

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

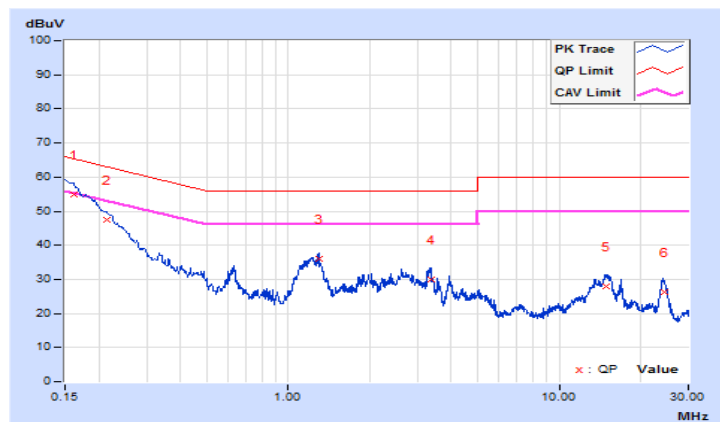


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Jisyong Wang	Test Date	2020/3/26

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16093	10.12	44.60	41.20	54.72	51.32	65.42	55.42	-10.70	-4.10
2	0.21300	10.13	37.28	31.36	47.41	41.49	63.09	53.09	-15.68	-11.60
3	1.29300	10.25	25.88	20.07	36.13	30.32	56.00	46.00	-19.87	-15.68
4	3.37875	10.36	19.51	16.53	29.87	26.89	56.00	46.00	-26.13	-19.11
5	14.85150	10.67	17.15	13.16	27.82	23.83	60.00	50.00	-32.18	-26.17
6	24.34650	10.68	15.70	13.71	26.38	24.39	60.00	50.00	-33.62	-25.61

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125 mW (21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	√ Mobile and Portable client device	250 mW (24 dBm)
U-NII-2A	√	250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-2C	√	250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-3	√	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

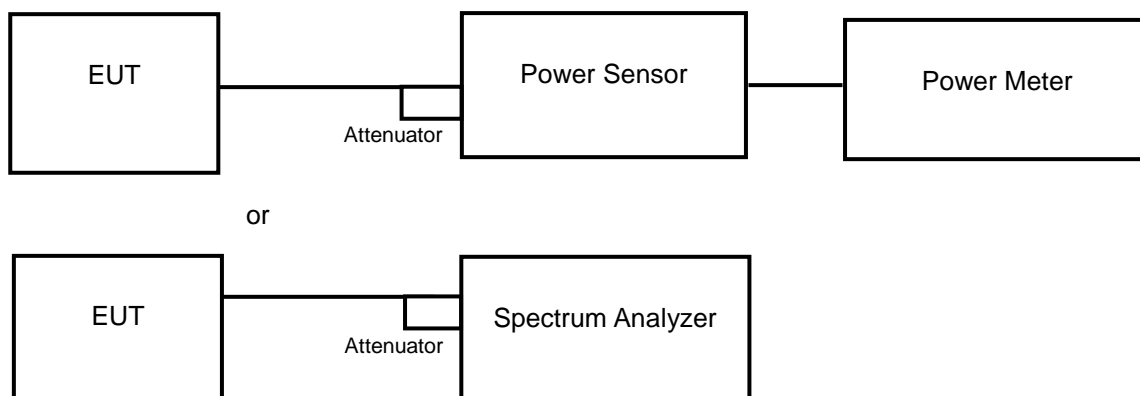
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20 MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

<Power Output Measurement>



4.3.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.3.4 Test Procedure

Average Power Measurement

<802.11a, 802.11n (HT20), 802.11n (HT40)>

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

<802.11ac (VHT80)>

- a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99 % occupied bandwidth) of the signal.
- b. Set sweep trigger to “free run”.
- c. Set RBW = 1 MHz.
- d. Set VBW \geq 3 MHz
- e. Number of points in sweep \geq 2 Span / RBW.
- f. Sweep time \leq (number of points in sweep) * T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS.
- i. Trace mode = max hold.
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	22.284	13.48	24	Pass
40	5200	39.628	15.98	24	Pass
48	5240	39.719	15.99	24	Pass
52	5260	44.463	16.48	24	Pass
60	5300	49.888	16.98	24	Pass
64	5320	44.463	16.48	24	Pass
100	5500	19.815	12.97	24	Pass
116	5580	31.189	14.94	24	Pass
140	5700	70.146	18.46	24	Pass
149	5745	69.823	18.44	30	Pass
157	5785	70.469	18.48	30	Pass
165	5825	70.146	18.46	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	12.97	12.99	39.719	15.99	24	Pass
40	5200	14.48	14.49	56.234	17.50	24	Pass
48	5240	14.47	14.48	56.105	17.49	24	Pass
52	5260	14.96	14.99	62.951	17.99	24	Pass
60	5300	15.96	15.99	79.250	18.99	24	Pass
64	5320	14.99	14.96	62.951	17.99	24	Pass
100	5500	11.97	11.96	31.477	14.98	24	Pass
116	5580	13.98	13.84	49.204	16.92	24	Pass
140	5700	16.61	17.26	99.083	19.96	24	Pass
149	5745	17.95	17.98	125.314	20.98	30	Pass
157	5785	17.90	17.93	123.880	20.93	30	Pass
165	5825	17.40	17.48	110.917	20.45	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	13.35	13.52	44.157	16.45	24	Pass
46	5230	16.91	17.02	99.541	19.98	24	Pass
54	5270	12.26	12.65	35.237	15.47	24	Pass
62	5310	9.93	10.01	19.861	12.98	24	Pass
102	5510	13.48	13.46	44.463	16.48	24	Pass
110	5550	16.96	16.95	99.312	19.97	24	Pass
134	5670	13.46	13.48	44.463	16.48	24	Pass
151	5755	14.71	15.16	62.373	17.95	30	Pass
159	5795	15.54	16.37	79.250	18.99	30	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	12.55	13.34	39.537	15.97	24	Pass
58	5290	8.71	9.19	15.740	11.97	24	Pass
106	5530	11.75	12.15	31.333	14.96	24	Pass
122	5610	16.39	16.49	88.105	19.45	24	Pass
155	5775	14.18	14.75	55.976	17.48	30	Pass

802.11ac (VHT80)

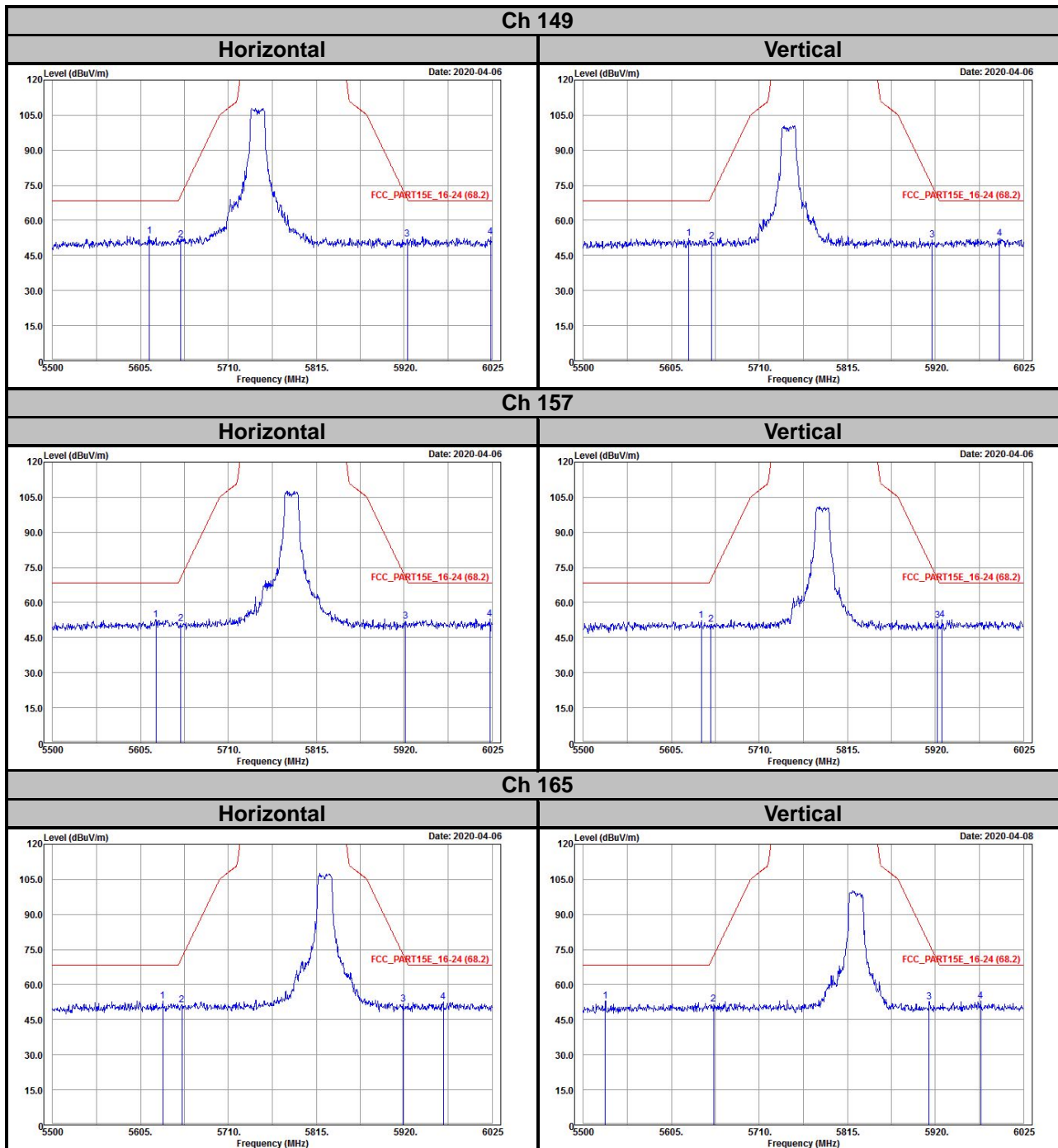
Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
50	5250	4.02	5.68	6.223	7.94	24	Pass
114	5570	9.28	9.65	17.701	12.48	24	Pass

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

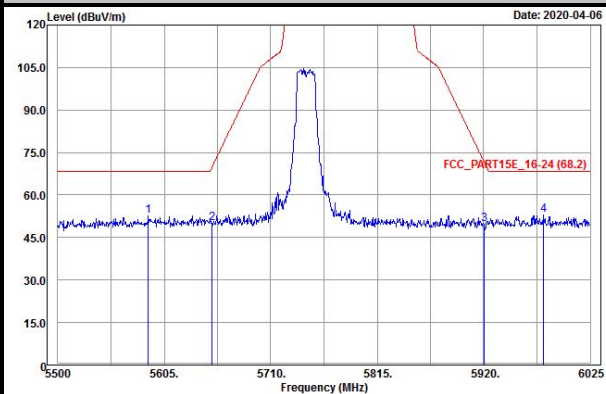
802.11a



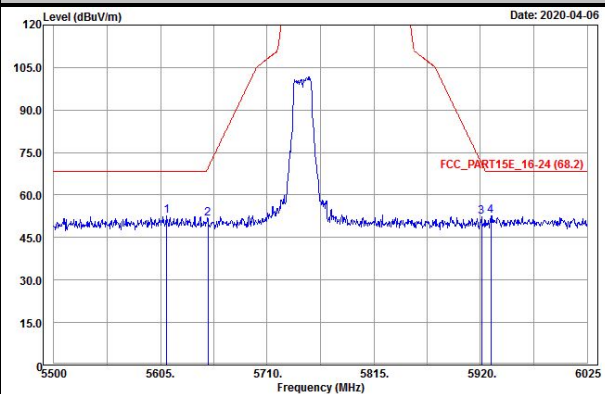
802.11n (HT20)

Ch 149

Horizontal

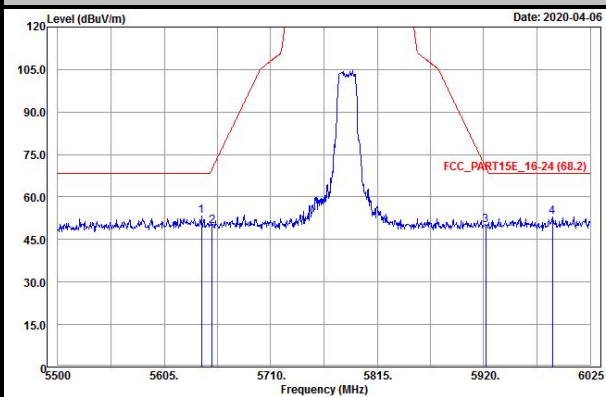


Vertical

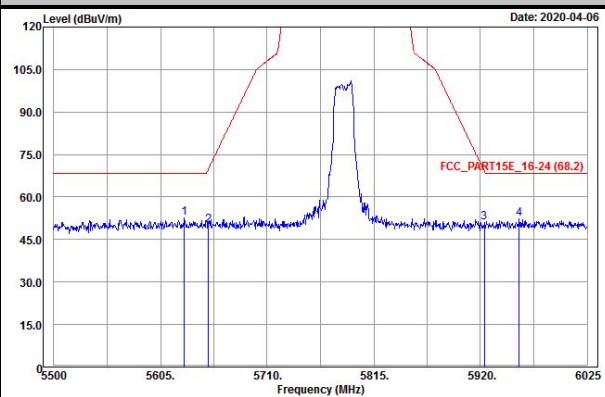


Ch 157

Horizontal

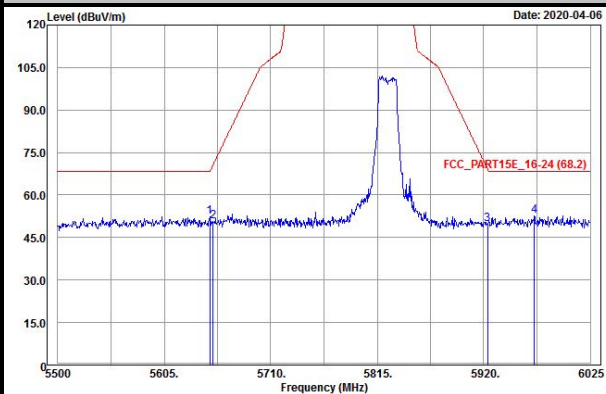


Vertical

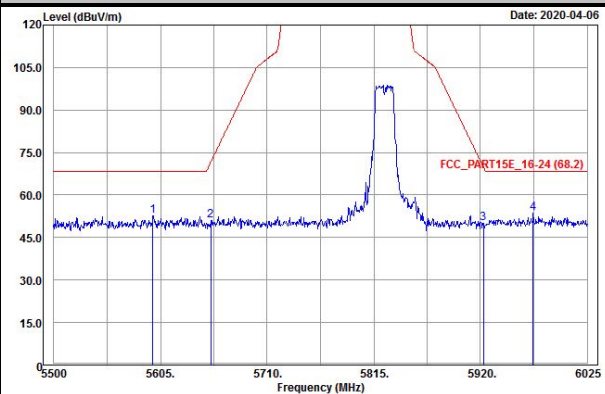


Ch 165

Horizontal

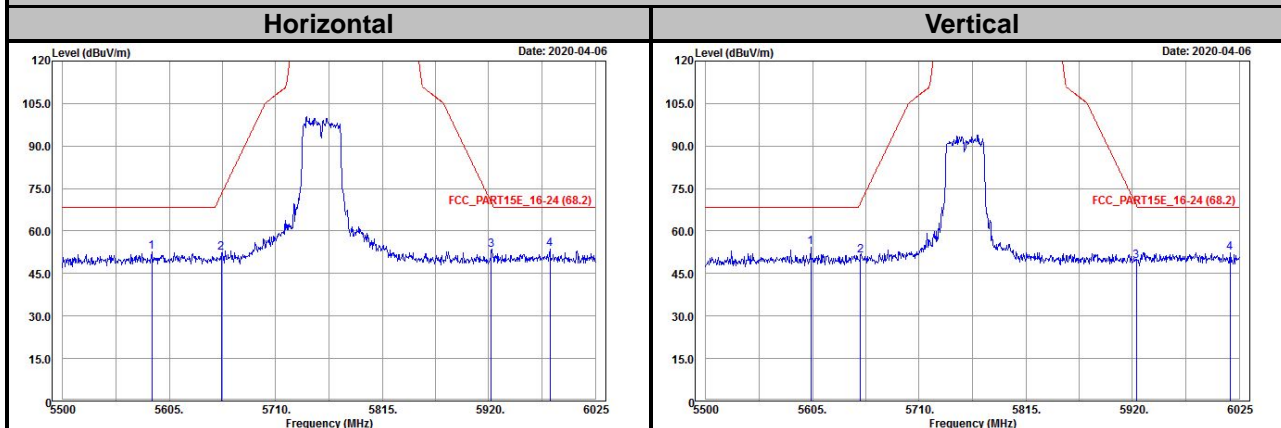


Vertical

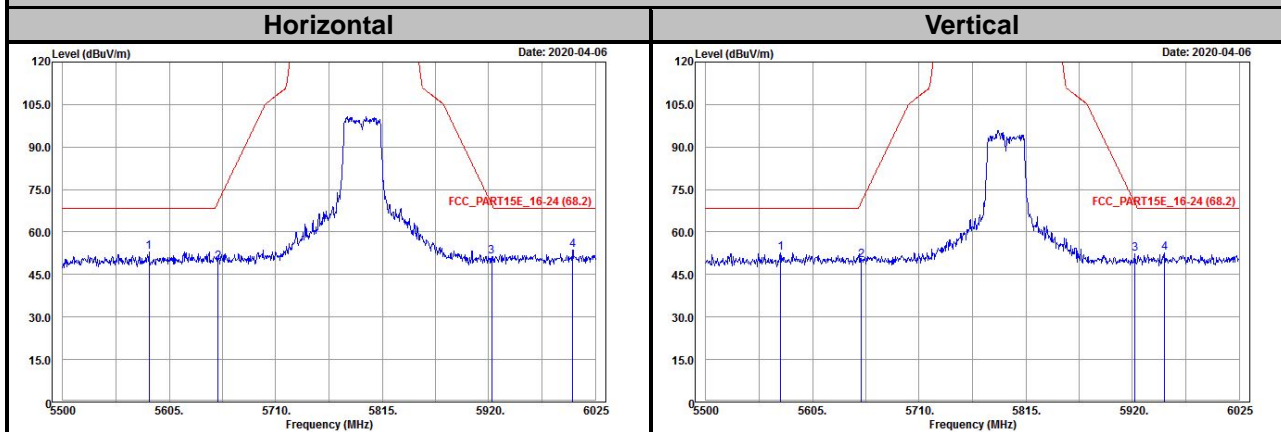


802.11n (HT40)

Ch 151

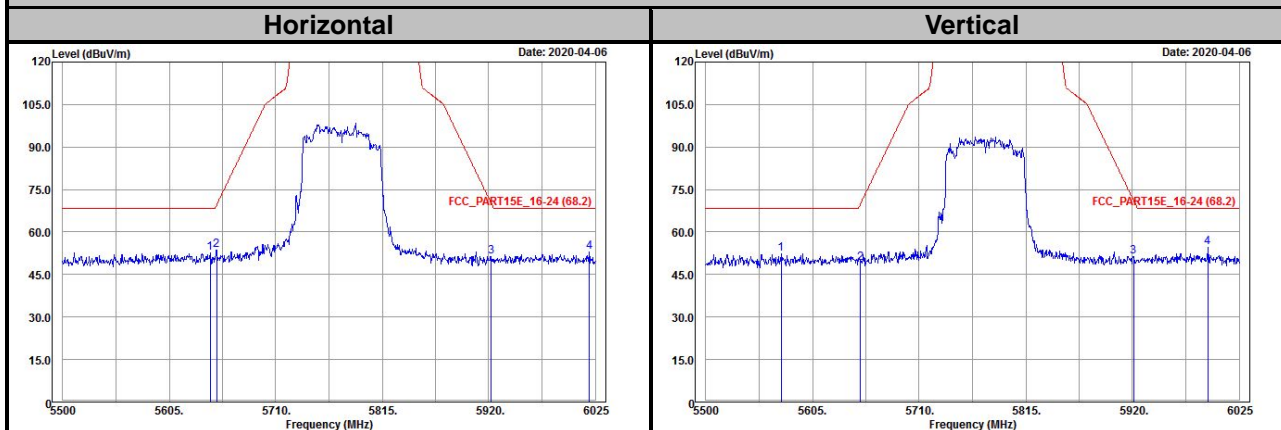


Ch 159



802.11ac (VHT80)

Ch 155



Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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