

## Partial FCC Test Report

**Report No.:** RF200428C08-1

**FCC ID:** QYLAX200NG

**Test Model:** AX200NGW

**Received Date:** Apr. 28, 2020

**Test Date:** May 12 ~ May 29, 2020

**Issued Date:** Jun. 11, 2020

**Applicant:** Getac Technology Corporation

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

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**FCC Registration /  
Designation Number:** 788550 / TW0003



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### Release Control Record

Issue No.	Description	Date Issued
RF200428C08-1	Original Release	Jun. 11, 2020

## 1 Certificate of Conformity

**Product:** Wireless module

**Brand:** Getac

**Test Model:** AX200NGW

**Sample Status:** Identical Prototype

**Applicant:** Getac Technology Corporation

**Test Date:** May 12 ~ May 29, 2020

**Standards:** 47 CFR FCC Part 15, Subpart C (Section 15.247)  
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 :** Gina Liu, **Date:** Jun. 11, 2020  
Gina Liu / Specialist

**Approved by :** Dylan Chiou, **Date:** Jun. 11, 2020  
Dylan Chiou / Senior Project Engineer

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -3.22 dB at 0.54686 MHz.
15.205 & 209	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -5.41 dB at 77.53 MHz.
15.247(d)	Band Edge Measurement	N/A	Refer to Note
15.247(d)	Antenna Port Emission	N/A	Refer to Note
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note
---	Occupied Bandwidth Measurement	N/A	Refer to Note
15.247(b)	Conducted Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	N/A	Refer to Note
15.203	Antenna Requirement	N/A	Refer to Note

### Note:

- Only test item of Conducted Power, Radiated Emissions test and AC Power Conducted Emission tests were performed for this report. For other test data, please refer to Intel Report No.: 181210-03.TR04 for module (Brand: Intel, Model: AX200NGW).
- 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	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	Wireless module
<b>Brand</b>	Getac
<b>Test Model</b>	AX200NGW
<b>Status of EUT</b>	Identical Prototype
<b>Power Supply Rating</b>	19 Vdc (adapter) 11.1 Vdc (Li-ion battery)
<b>Modulation Type</b>	GFSK
<b>Transfer Rate</b>	LE 4.0: 1 Mbps LE 5.0: 2 Mbps
<b>Operating Frequency</b>	2402 ~ 2480 MHz
<b>Number of Channel</b>	40
<b>Output Power (Measured Max. Peak)</b>	LE 4.0: 6.516 mW LE 5.0: 6.531 mW
<b>Antenna Type</b>	Refer to Note as below
<b>Antenna Connector</b>	N/A
<b>Accessory Device</b>	Refer to Note as below
<b>Data Cable Supplied</b>	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
Notebook	Getac	V110 , V110G6

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

Product	Brand	Model	Description
Adapter	Getac	MTA190474W4	I/P: 100-240 Vac, 50-60 Hz, 1.6 A O/P: 19 Vdc, 4.74 A, 90W
Battery	Getac	BP3S1P2100-S	11.1 Vdc, 2100 mAh
WLAN Module	Getac	AX200NGW	--
LCD Panel 1	New IPS KD	KD116N11-30NP-A9	11.6"
LCD Panel 2	KingDisplay	KD Full HD Panel 800 nits	11.6"
Bottom Camera	Foxlink	FN80AF-443H	8M
RFID	NXP	PN-7462	13.56MHz
Digitizer	Microchip	PIC32MX270	250-290kHz
GPS	GlobalSat	MC1010	--
CPU 1	Intel	Kaby lake	i7-10510U
CPU 2	Intel	Comet lake	i7-10710U
DDR 1	Kingston	N/A	32GB (16GB+16GB)
DDR 2	Kingston	N/A	16GB
SSD 1	Lite-on	N/A	512GB
SSD 2	Sandisk	N/A	1TB
SD Card reader	N/A	N/A	N/A
Smart Card	N/A	N/A	N/A
USB 3.1 (Type C)	N/A	N/A	N/A

3. The antenna information is listed.

Ant. Type	Manufacturer	Parts Number	Frequency (MHz)				
			2400~2500	5150~5250	5250~5350	5470~5725	5725~5850
PIFA	GETAC	WLAN Main Antenna: 421129000002	2.06 dBi	2.40 dBi	3.51 dBi	3.19 dBi	2.26 dBi
		WLAN Aux. Antenna: 421129000003	-0.14 dBi	0.97 dBi	1.67 dBi	1.62 dBi	1.35 dBi

4. The configurations of all SKU are listed as below.

Part	Brand	Model	Specification	Configurations	
				SKU 1	SKU 2
CPU	Intel	Kaby lake	i7-10510U	V	
	Intel	Comet lake	i7-10710U		V
DDR	Kingston	N/A	32GB (16GB+16GB)	V	
	Kingston	N/A	16GB		V
SSD	Lite-on	N/A	512GB	V	
	Sandisk	N/A	1TB		V
LCD Panel	New IPS KD	KD116N11-30NP-A9	11.6"	V	V
	KingDisplay	KD Full HD Panel 800 nits	11.6"	V	
SD Card reader	N/A	N/A	N/A	V	
Smart Card	N/A	N/A	N/A	V	
USB 3.1 (Type C)	N/A	N/A	N/A		V
WLAN/ BT Module	Intel	Intel AX200NGW	--	V	V
GPS	GlobalSat	MC1010	--	V	
Adapter	Getac Technology Corp.	MTA190474W4	100-240V~1.6A 50-60Hz 19V / 4.74A(90.0W)	V	V
Battery	Getac Technology Corp.	BP3S1P2100-S	11.1Vdc, 2100mAh	V	V
Bottom Camera	Foxlink	FN80AF-443H	8M	V	
RFID	NXP	PN-7462	13.56MHz		V
Digitizer	Microchip	PIC32MX270	250-290kHz		V

\* After pre-tested all the configurations and found SKU 2 was the worst. Therefore only SKU 2 was for the final test and presented in the test

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

40 channels are provided to this EUT:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480



### 3.2.1 Test Mode Applicability and Tested Channel Detail

<LE 4.0>

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	Power	
-	√	√	√	√	-

Where **RE≥1G**: Radiated Emission above 1 GHz

**RE<1G**: Radiated Emission below 1 GHz

**PLC**: Power Line Conducted Emission

**Power**: Maximum Output Power Measurement

Note: "-" 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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	0, 19, 39	GFSK	1

#### 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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	1

#### 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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	1

#### 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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	0, 19, 39	GFSK	1

# <LE 5.0>

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**: "-" 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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	0, 19, 39	GFSK	2

## **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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	19	GFSK	2

## **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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	19	GFSK	2

## **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	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	0, 19, 39	GFSK	2

## **Test Condition:**

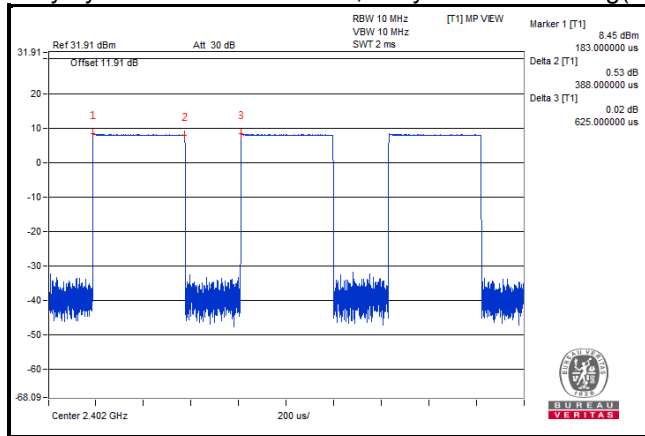
Applicable To	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Tim Chen
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang
APCM	25 deg. C, 65 % RH	11.1 Vdc	Wayne Lin

### 3.3 Duty Cycle of Test Signal

#### <LE 4.0>

Duty cycle of test signal is < 98 %, duty factor shall be considered.

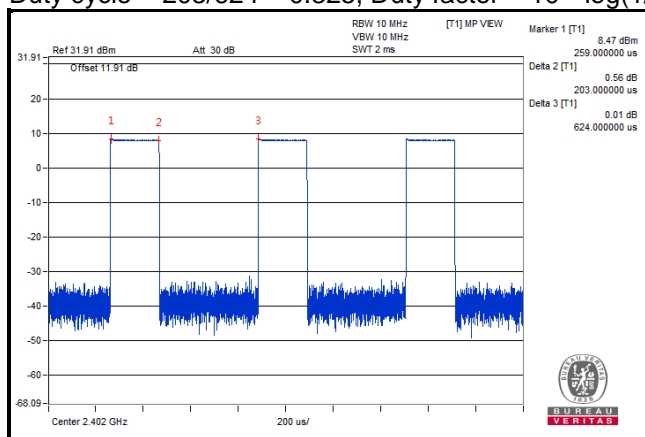
Duty cycle =  $388/625 = 0.621$ , Duty factor =  $10 * \log(1/0.621) = 2.07$



#### <LE 5.0>

Duty cycle of test signal is < 98 %, duty factor shall be considered.

Duty cycle =  $203/624 = 0.325$ , Duty factor =  $10 * \log(1/0.325) = 4.88$



### 3.4 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.	Notebook	Getac	V110 , V110G6	N/A	N/A	Provided by Client
B.	Bluetooth Tester	R&S	CBT	100980	N/A	Provided by Lab
C.	Microphone	Labtec	LVA7313	N/A	N/A	Provided by Lab
D.	HDD*2	TOSHIBA	DTB305	45TGCN0IT3ZB 45U6CMSPT3ZB	N/A	Provided by Lab
E.	MODEM	ACEEX	1414V/3	0401008243	IFAXDM1414	Provided by Lab
F.	MONITOR	DELL	U2410	CN-0J257M-7287 2-0A6-08JL	Doc	Provided by Lab
G.	USB MOUSE	DELL	MS111-P	CN-011D3V-7158 1-1CJ-0936	FCC DoC Approved	Provided by Lab
H.	SD Card	Transcend	16GB	N/A	N/A	Provided by Lab
I.	Terminal	N/A	N/A	N/A	N/A	Provided by Lab

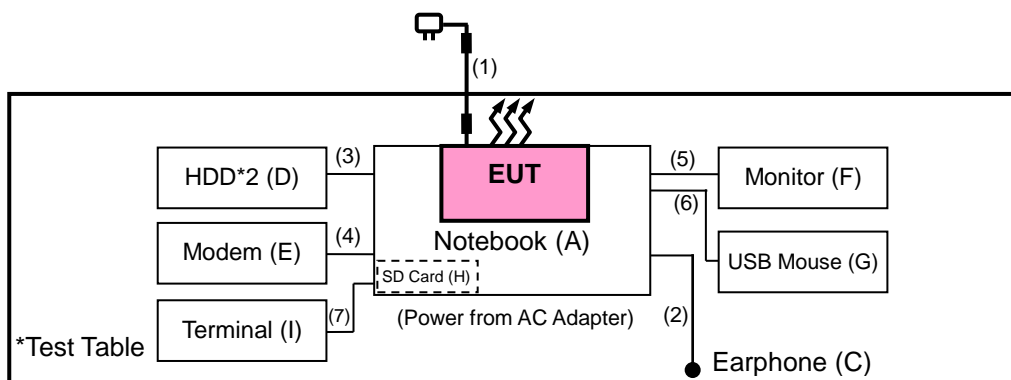
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item B acted as communication partner to transfer data.

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Adapter Cable	1	1.55	Y	2	Accessory of the EUT
2.	Microphone Cable	1	1.0	Y	0	Provided by Lab
3.	USB Cable	1	0.5	N	0	Provided by Lab
4.	RS-232 Cable	1	1.2	Y	0	Provided by Lab
5.	HDMI Cable	1	2.0	Y	0	Provided by Lab HDMI 2.0 (Amber / HDMI-AA120)
6.	USB Cable	1	1.8	Y	0	Provided by Lab
7.	RJ45 Cable	1	1.5	N	0	Provided by Lab

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

#### 3.4.1 Configuration of System under Test



### 3.5 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 C (15.247)**

ANSI C63.10-2013

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

#### References Test Guidance:

##### **KDB 558074 D01 15.247 Meas Guidance v05r02**

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. Other emissions shall be at least 20 dB below the highest level of the desired power:

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.

#### 4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Mar. 18, 2020	Mar. 17, 2021
Spectrum Analyzer Agilent	N9010A	MY52220314	Dec. 12, 2019	Dec. 11, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Apr. 16, 2020	Apr. 15, 2021
Broadband Horn Antenna SCHWARZBECK	BBHA 9170	148	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-969	Nov. 24, 2019	Nov. 23, 2020
BILOG Antenna SCHWARZBECK	VULB 9168	9168-472	Nov. 08, 2019	Nov. 07, 2020
Fixed Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
Loop Antenna	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier EMCI	EMC001340	980201	Oct. 14, 2019	Oct. 13, 2020
Preamplifier EMCI	EMC 012645	980115	Oct. 08, 2019	Oct. 07, 2020
Preamplifier EMCI	EMC 184045	980116	Oct. 08, 2019	Oct. 07, 2020
Preamplifier EMCI	EMC 330H	980112	Oct. 08, 2019	Oct. 07, 2020
Power Meter Anritsu	ML2495A	1012010	Sep. 04, 2019	Sep. 03, 2020
Power Sensor Anritsu	MA2411B	1315050	Sep. 04, 2019	Sep. 03, 2020
RF Coaxial Cable HUBER+SUHNNER	EMC104-SM-SM-8 000&3000	140811+170717	Oct. 08, 2019	Oct. 07, 2020
RF Coaxial Cable HUBER+SUHNNER	SUCOFLEX 104	EMC104-SM-SM-1 000(140807)	Oct. 08, 2019	Oct. 07, 2020
RF Coaxial Cable WOKEN	8D-FB	Cable-Ch10-01	Oct. 08, 2019	Oct. 07, 2020
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	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 Chamber 10.

#### 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  $\geq 98\%$ ) for Average detection (AV) at frequency above 1 GHz. (LE 4.0: RBW = 1 MHz, VBW = 3 kHz ; LE 5.0: RBW = 1 MHz, VBW = 5.1 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

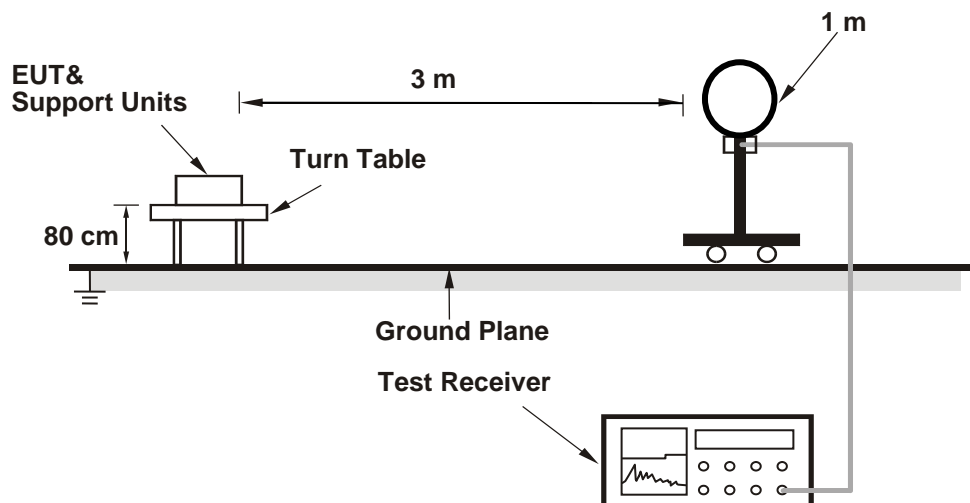
#### 4.1.4 Deviation from Test Standard

No deviation.

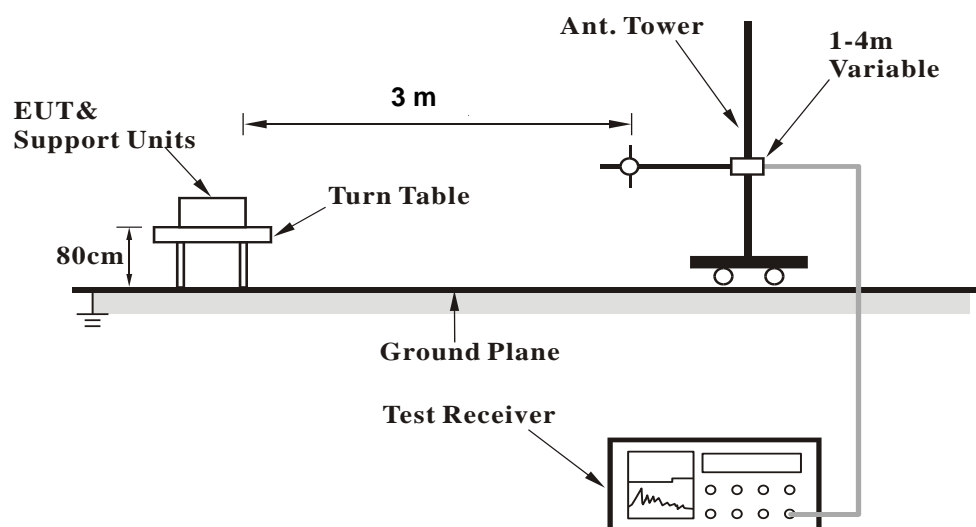


#### 4.1.5 Test Set Up

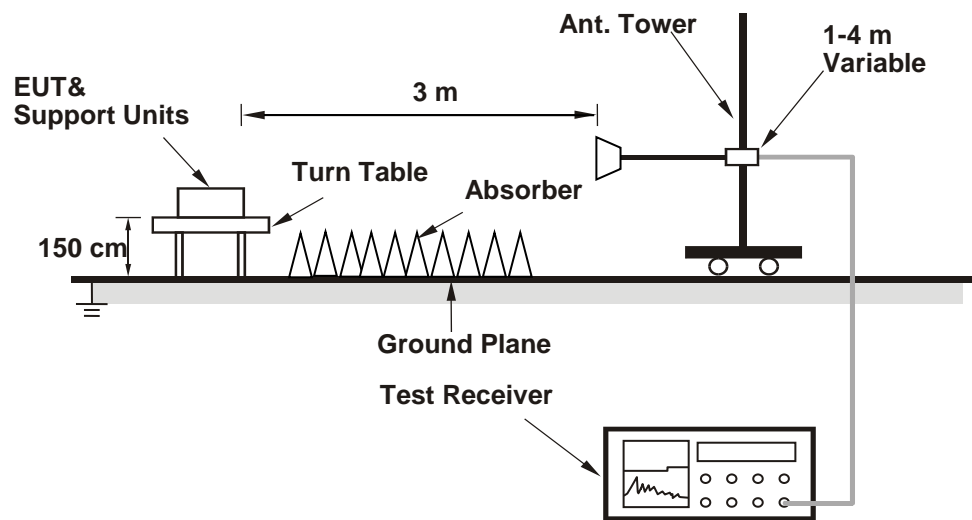
##### <Radiated Emission below 30 MHz>



##### <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

- Placed the EUT on the testing table.
- Set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results

##### Above 1 GHz Data:

<LE 4.0>

EUT Test Condition		Measurement Detail	
Channel	Channel 0	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2390	36.61	42.53	-5.92	54	-17.39	118	237	Average
2390	45.69	51.61	-5.92	74	-28.31	118	237	Peak
2402	99.54	105.48	-5.94	-----	-----	118	237	Average
2402	100.35	106.29	-5.94	-----	-----	118	237	Peak
4804	36.85	52.49	-15.64	54	-17.15	168	299	Average
4804	43.64	59.28	-15.64	74	-30.36	168	299	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
2390	36.55	42.47	-5.92	54	-17.45	307	77	Average
2390	45.35	51.27	-5.92	74	-28.65	307	77	Peak
2402	98.36	104.3	-5.94	-----	-----	307	77	Average
2402	99.14	105.08	-5.94	-----	-----	307	77	Peak
4804	37.63	53.27	-15.64	54	-16.37	132	121	Average
4804	43.58	59.22	-15.64	74	-30.42	132	121	Peak

#### Remarks:

- Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
- 2402 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 19	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2380.11	39.63	45.51	-5.88	54	-14.37	134	236	Average
2380.11	46.86	52.74	-5.88	74	-27.14	134	236	Peak
2440	100.51	106.39	-5.88	-----	-----	134	236	Average
2440	101.35	107.23	-5.88	-----	-----	134	236	Peak
2499.81	38.25	43.85	-5.6	54	-15.75	134	236	Average
2499.81	46.41	52.01	-5.6	74	-27.59	134	236	Peak
4880	36.08	51.64	-15.56	54	-17.92	187	306	Average
4880	42.83	58.39	-15.56	74	-31.17	187	306	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
2379.92	38.62	44.5	-5.88	54	-15.38	272	79	Average
2379.92	46.5	52.38	-5.88	74	-27.5	272	79	Peak
2440	101.24	107.12	-5.88	-----	-----	272	79	Average
2440	102.04	107.92	-5.88	-----	-----	272	79	Peak
2500	38.29	43.89	-5.6	54	-15.71	272	79	Average
2500	46.23	51.83	-5.6	74	-27.77	272	79	Peak
4880	35.08	50.64	-15.56	54	-18.92	115	27	Average
4880	42.68	58.24	-15.56	74	-31.32	115	27	Peak

Remarks:

1. Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
2. 2440 MHz: Fundamental frequency.
3. The emission levels of other frequencies were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 39	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2480	99.96	105.66	-5.7	-----	-----	113	238	Average
2480	100.79	106.49	-5.7	-----	-----	113	238	Peak
2487.422	41.98	47.68	-5.7	54	-12.02	113	238	Average
2487.422	50.27	55.97	-5.7	74	-23.73	113	238	Peak
4960	36.19	51.64	-15.45	54	-17.81	172	209	Average
4960	43.04	58.49	-15.45	74	-30.96	172	209	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
2480	99.65	105.35	-5.7	-----	-----	369	33	Average
2480	100.49	106.19	-5.7	-----	-----	369	33	Peak
2487.46	42.4	48.1	-5.7	54	-11.6	369	33	Average
2487.46	50.81	56.51	-5.7	74	-23.19	369	33	Peak
4960	35.93	51.38	-15.45	54	-18.07	113	52	Average
4960	43.48	58.93	-15.45	74	-30.52	113	52	Peak

Remarks:

- Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
- 2480 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.

<LE 5.0>

EUT Test Condition		Measurement Detail	
Channel	Channel 0	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2390	37.44	43.36	-5.92	54	-16.56	120	235	Average
2390	45.8	51.72	-5.92	74	-28.2	120	235	Peak
2402	98.41	104.35	-5.94	-----	-----	120	235	Average
2402	100.19	106.13	-5.94	-----	-----	120	235	Peak
4804	37	52.64	-15.64	54	-17	164	172	Average
4804	44.54	60.18	-15.64	74	-29.46	164	172	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
2390	37.42	43.34	-5.92	54	-16.58	309	80	Average
2390	45.34	51.26	-5.92	74	-28.66	309	80	Peak
2402	96.82	102.76	-5.94	-----	-----	309	80	Average
2402	98.66	104.6	-5.94	-----	-----	309	80	Peak
4804	35.1	50.74	-15.64	54	-18.9	136	257	Average
4804	43.45	59.09	-15.64	74	-30.55	136	257	Peak

Remarks:

- Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
- 2402 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 19	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2341.16	44.7	50.48	-5.78	54	-9.3	135	238	Average
2341.16	49.59	55.37	-5.78	74	-24.41	135	238	Peak
2440	99.04	104.92	-5.88	-----	-----	135	238	Average
2440	100.95	106.83	-5.88	-----	-----	135	238	Peak
2500	38.69	44.29	-5.6	54	-15.31	135	238	Average
2500	45.86	51.46	-5.6	74	-28.14	135	238	Peak
4880	35.38	50.94	-15.56	54	-18.62	163	305	Average
4880	42.89	58.45	-15.56	74	-31.11	163	305	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
2380.11	38.84	44.72	-5.88	54	-15.16	300	102	Average
2380.11	46.54	52.42	-5.88	74	-27.46	300	102	Peak
2440	98.87	104.75	-5.88	-----	-----	300	102	Average
2440	100.72	106.6	-5.88	-----	-----	300	102	Peak
2499.62	38.02	43.62	-5.6	54	-15.98	300	102	Average
2499.62	45.94	51.54	-5.6	74	-28.06	300	102	Peak
4880	35.77	51.33	-15.56	54	-18.23	115	303	Average
4880	44.22	59.78	-15.56	74	-29.78	115	303	Peak

Remarks:

- Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
- 2440 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 39	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Tim Chen

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
2480	98.66	104.36	-5.7	-----	-----	115	238	Average
2480	100.5	106.2	-5.7	-----	-----	115	238	Peak
2483.5	43.52	49.22	-5.7	54	-10.48	115	238	Average
2483.5	51.2	56.9	-5.7	74	-22.8	115	238	Peak
4960	34.54	49.99	-15.45	54	-19.46	202	282	Average
4960	41.82	57.27	-15.45	74	-32.18	202	282	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
2480	98.6	104.3	-5.7	-----	-----	266	120	Average
2480	100.41	106.11	-5.7	-----	-----	266	120	Peak
2487.498	44.45	50.15	-5.7	54	-9.55	266	120	Average
2487.498	53.08	58.78	-5.7	74	-20.92	266	120	Peak
4960	34.24	49.69	-15.45	54	-19.76	214	262	Average
4960	40.59	56.04	-15.45	74	-33.41	214	262	Peak

Remarks:

- Emission Level = Read Level + Factor  
Margin value = Emission level – Limit value
- 2480 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.



### 9 kHz ~ 30 MHz Data:

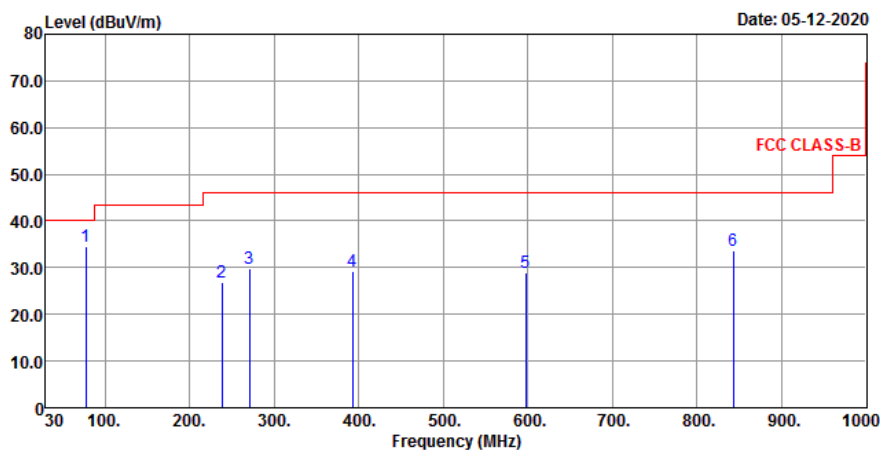
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

### 30 MHz ~ 1 GHz Worst-Case Data:

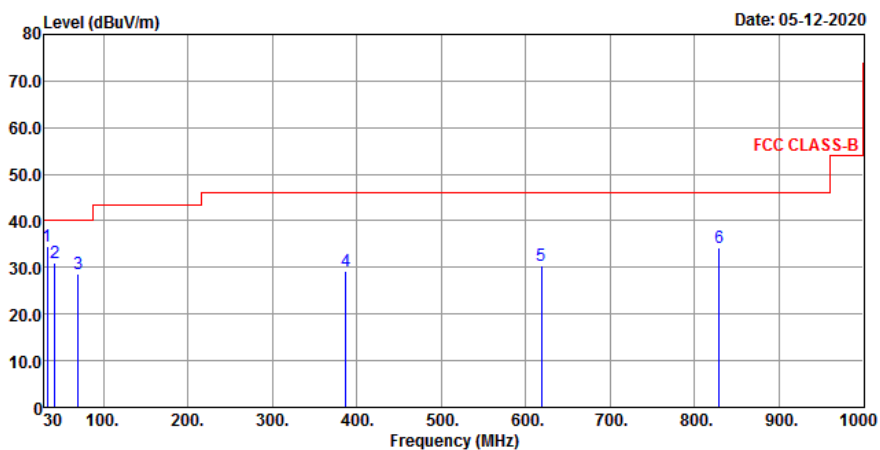
<LE 4.0>

EUT Test Condition		Measurement Detail	
Channel	Channel 39	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	Jisyong Wang

### 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
77.53	34.59	50.46	-15.87	40	-5.41	152	132	Peak
238.55	26.93	40.41	-13.48	46	-19.07	111	162	Peak
270.56	29.69	41.78	-12.09	46	-16.31	147	152	Peak
392.78	29.13	37.65	-8.52	46	-16.87	102	162	Peak
597.45	28.85	31.65	-2.8	46	-17.15	148	152	Peak
842.86	33.62	31.22	2.4	46	-12.38	102	132	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
33.88	34.58	47.45	-12.87	40	-5.42	165	132	Peak
42.61	30.92	42.9	-11.98	40	-9.08	174	158	Peak
69.77	28.66	42.51	-13.85	40	-11.34	132	162	Peak
386.96	29.18	37.79	-8.61	46	-16.82	111	192	Peak
618.79	30.42	32.52	-2.1	46	-15.58	162	132	Peak
829.28	34.1	31.88	2.22	46	-11.9	111	125	Peak

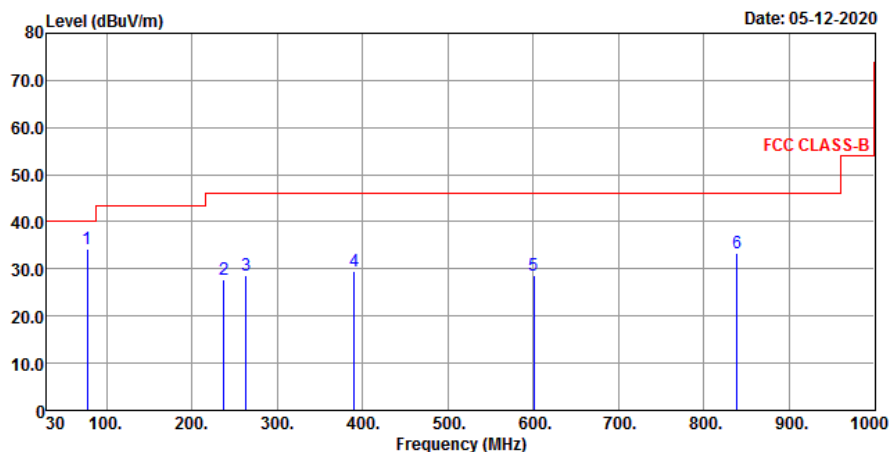
Remarks:

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

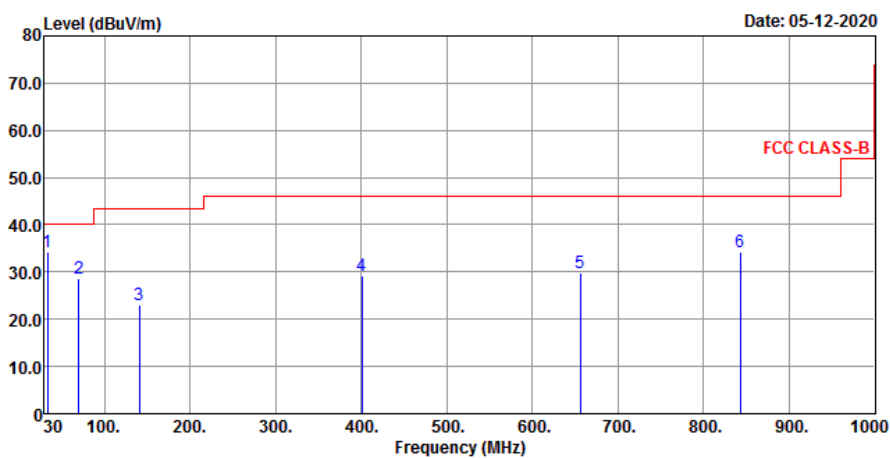
# <LE 5.0>

EUT Test Condition		Measurement Detail	
Channel	Channel 19	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	Tim Chen

## 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
77.53	34.33	50.2	-15.87	40	-5.67	152	132	Peak
237.58	27.76	41.3	-13.54	46	-18.24	111	162	Peak
263.77	28.75	41.23	-12.48	46	-17.25	174	152	Peak
389.87	29.43	38.01	-8.58	46	-16.57	102	132	Peak
600.36	28.52	31.23	-2.71	46	-17.48	111	162	Peak
838.98	33.33	30.97	2.36	46	-12.67	195	285	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
33.88	34.24	47.11	-12.87	40	-5.76	145	152	Peak
69.77	28.56	42.41	-13.85	40	-11.44	111	132	Peak
140.58	23.07	35.19	-12.12	43.5	-20.43	102	251	Peak
400.54	29.3	37.65	-8.35	46	-16.7	111	132	Peak
655.65	29.82	31.34	-1.52	46	-16.18	195	285	Peak
842.86	34.23	31.83	2.4	46	-11.77	132	265	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

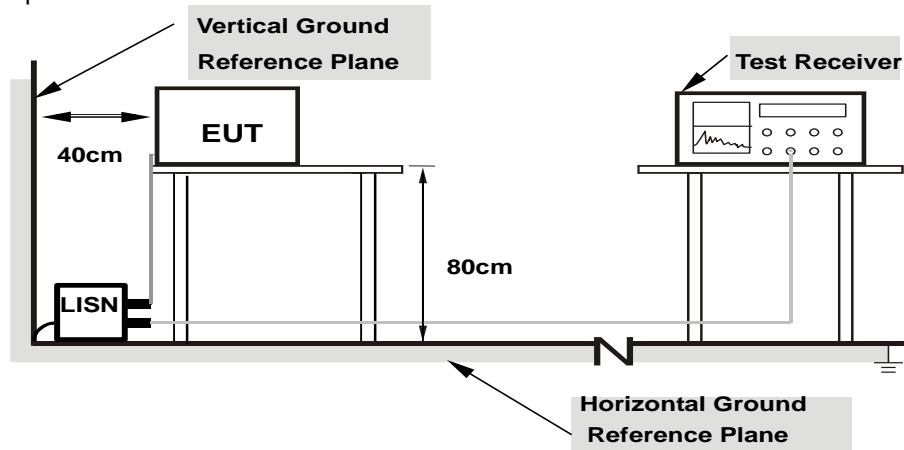
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance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

**Note:** The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz - 30 MHz.

#### 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

#### 4.2.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Set the EUT under transmission condition continuously at specific channel frequency.

#### 4.2.7 Test Results

#### CONDUCTED WORST-CASE DATA

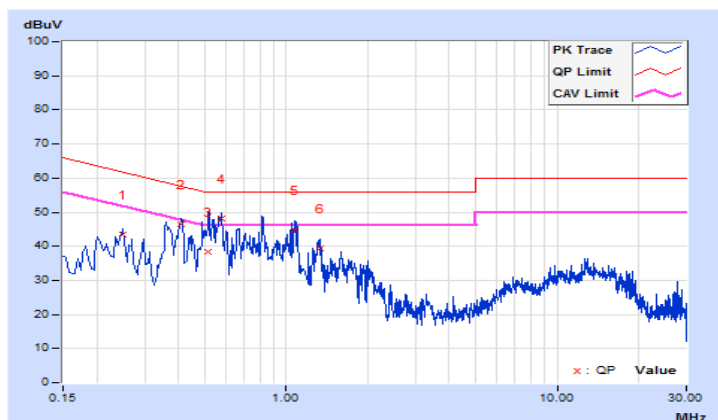
<LE 4.0>

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	2020/5/14

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	0.25000	10.18	33.27	24.68	43.45	34.86	61.76	51.76	-18.31	-16.90
2	0.41000	10.20	36.33	31.18	46.53	41.38	57.65	47.65	-11.12	-6.27
3	0.51742	10.21	28.26	20.63	38.47	30.84	56.00	46.00	-17.53	-15.16
4	0.57400	10.22	37.89	28.03	48.11	38.25	56.00	46.00	-7.89	-7.75
5	1.07400	10.26	34.37	25.24	44.63	35.50	56.00	46.00	-11.37	-10.50
6	1.32600	10.27	29.05	21.44	39.32	31.71	56.00	46.00	-16.68	-14.29

#### 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

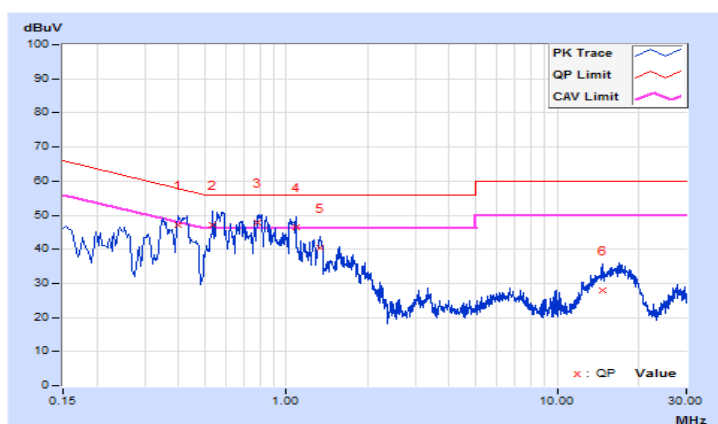


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Jisyong Wang	Test Date	2020/5/14

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	0.39800	10.18	36.80	29.82	46.98	40.00	57.90	47.90	-10.92	-7.90
2	0.53400	10.19	37.06	29.71	47.25	39.90	56.00	46.00	-8.75	-6.10
3	0.78663	10.22	37.69	31.84	47.91	42.06	56.00	46.00	-8.09	-3.94
4	1.08198	10.24	36.33	29.20	46.57	39.44	56.00	46.00	-9.43	-6.56
5	1.33800	10.25	30.08	25.89	40.33	36.14	56.00	46.00	-15.67	-9.86
6	14.73400	10.66	17.20	11.89	27.86	22.55	60.00	50.00	-32.14	-27.45

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





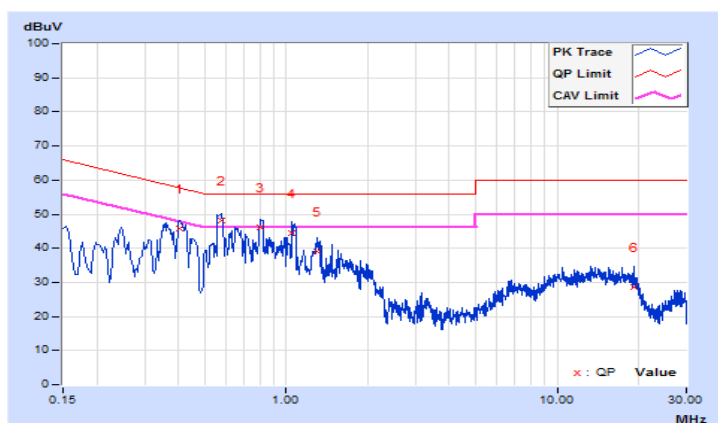
# <LE 5.0>

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	2020/5/14

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	0.40179	10.20	35.62	28.99	45.82	39.19	57.82	47.82	-12.00	-8.63
2	0.57342	10.22	37.94	28.29	48.16	38.51	56.00	46.00	-7.84	-7.49
3	0.80600	10.24	35.97	28.09	46.21	38.33	56.00	46.00	-9.79	-7.67
4	1.05000	10.26	34.07	28.76	44.33	39.02	56.00	46.00	-11.67	-6.98
5	1.29800	10.27	28.94	20.42	39.21	30.69	56.00	46.00	-16.79	-15.31
6	19.13800	10.60	17.88	9.56	28.48	20.16	60.00	50.00	-31.52	-29.84

## 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

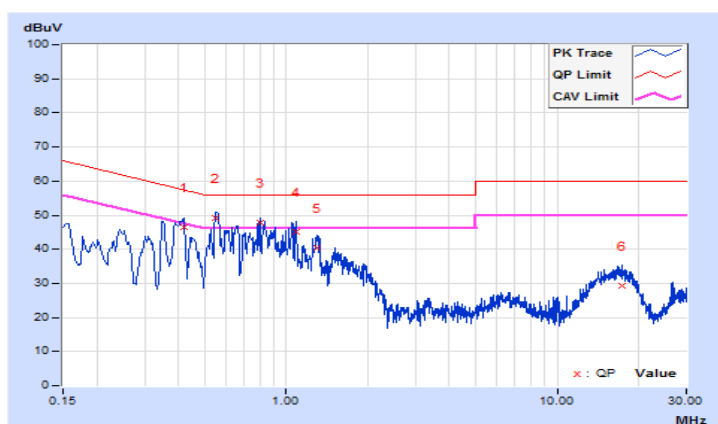


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Jisyong Wang	Test Date	2020/5/14

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	0.41799	10.18	36.42	29.15	46.60	39.33	57.49	47.49	-10.89	-8.16
2	<b>0.54686</b>	<b>10.19</b>	<b>39.04</b>	<b>32.59</b>	<b>49.23</b>	<b>42.78</b>	<b>56.00</b>	<b>46.00</b>	<b>-6.77</b>	<b>-3.22</b>
3	0.79800	10.22	37.66	28.26	47.88	38.48	56.00	46.00	-8.12	-7.52
4	1.09400	10.24	34.79	27.37	45.03	37.61	56.00	46.00	-10.97	-8.39
5	1.29400	10.25	30.17	21.41	40.42	31.66	56.00	46.00	-15.58	-14.34
6	17.30200	10.74	18.42	12.73	29.16	23.47	60.00	50.00	-30.84	-26.53

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

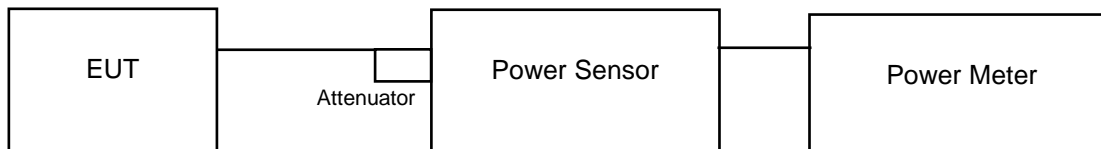


### 4.3 Conducted Output Power Measurement

#### 4.3.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30 dBm)

#### 4.3.2 Test Setup



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

Average power sensor was 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.

#### 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

##### <LE 4.0>

Channel	Freq. (MHz)	Peak Power		Average Power		Power Limit (dBm)	Pass / Fail
		(mW)	(dBm)	(mW)	(dBm)		
0	2402	6.081	7.84	5.741	7.59	30	Pass
19	2440	6.471	8.11	6.124	7.87	30	Pass
39	2480	6.516	8.14	6.223	7.94	30	Pass

##### <LE 5.0>

Channel	Freq. (MHz)	Peak Power		Average Power		Power Limit (dBm)	Pass / Fail
		(mW)	(dBm)	(mW)	(dBm)		
0	2402	5.998	7.78	5.754	7.60	30	Pass
19	2440	6.397	8.06	6.138	7.88	30	Pass
39	2480	6.531	8.15	6.237	7.95	30	Pass

## 5 Pictures of Test Arrangements

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

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

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