

## FCC Test Report

**Report No.:** FD190606E05

**FCC ID:** NKR-LVSK-P1

**Test Model:** LVP1

**Received Date:** June 06, 2019

**Test Date:** July 05, 2019

**Issued Date:** July 31, 2019

**Applicant:** Wistron NeWeb Corp.

**Address:** 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**Test Location (1):** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**Test Location (2):** No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin  
Chu Hsien 307, Taiwan R.O.C.

**FCC Registration /  
Designation Number:** 810758 / TW1085 for Test Location (1)  
960022 / TW1058 for Test Location (2)



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### Release Control Record

Issue No.	Description	Date Issued
FD190606E05	Original release.	July 31, 2019

## 1 Certificate of Conformity

**Product:** Home Phone Base

**Brand:** WNC

**Test Model:** LVP1


**Sample Status:** ENGINEERING SAMPLE


**Applicant:** Wistron NeWeb Corp.

**Test Date:** July 05, 2019

**Standards:** 47 CFR FCC Part 15, Subpart B, Class B  
ICES-003:2016 Issue 6, updated Apr. 2019, Class B  
ANSI C63.4:2014

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 EMC characteristics under the conditions specified in this report.

**Prepared by :** , **Date:** July 31, 2019  
Claire Kuan / Specialist

**Approved by :** , **Date:** July 31, 2019  
Ken Lu / Manager

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart B / ICES-003:2016 Issue 6, updated Apr. 2019, Class B

ANSI C63.4:2014

FCC Clause	ICES-003 Clause	Test Item	Result/Remarks	Verdict
15.107	6.1	AC Power Line Conducted Emissions	Minimum passing Class B margin is -8.78 dB at 0.47031 MHz	Pass
15.109	6.2.1	Radiated Emissions up to 1 GHz	Minimum passing Class B margin is -4.59 dB at 191.00 MHz	Pass
	6.2.2	Radiated Emissions above 1 GHz	Minimum passing Class B margin is -8.37 dB at 7132.75 MHz	Pass

Note: 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:

Measurement	Frequency	Expanded Uncertainty (k=2) ( $\pm$ )
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.8 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	4.8 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 Description of EUT

Product	Home Phone Base
Brand	WNC
Test Model	LVP1
Sample Status	ENGINEERING SAMPLE
Operating Software	NA
Power Supply Rating	DC 5V from power adapter or DC 3.6V from battery
Accessory Device	NA
Data Cable Supplied	USB cable x 1 (Shielded, 1m)

Note:

1. The EUT needs to be supplied from power adapter or battery, the information is as below table:

Adapter		
Brand	Model No.	Spec.
Lucent Trans	1A52-US0502	Input: 100-240Vac, 0.4A, 50/60Hz Output: 5V, 2A
Battery		
Brand	Model No.	Spec.
WNC	BTY-LRV5000	DC 3.6V, 2330mAh

2. The antennas provided to the EUT, please refer to the following table:

Antenna NO.	RF Chain NO.	Brand	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	*Cable Length
LTE Main	Chain0	WNC	3.11	FDD 2: US(1850 -1910)	PIFA	i-pex(MHF)	No
LTE Main	Chain0	WNC	2	FDD 4: US (T-Mobile)(1710-1755MHz)	PIFA	i-pex(MHF)	No
LTE Main	Chain0	WNC	0.9	FDD 5: US(824-849)	PIFA	i-pex(MHF)	No
LTE Main	Chain0	WNC	1.25	FDD 13: US (Verizon)(777-787MHz)	PIFA	i-pex(MHF)	No
LTE Aux	Chain1	WNC	3.85	FDD 2: US(1850 -1910)	PIFA	NA	No
LTE Aux	Chain1	WNC	2.84	FDD 4: US (T-Mobile)(1710-1755MHz)	PIFA	NA	No
LTE Aux	Chain1	WNC	1.14	FDD 5: US(824-849)	PIFA	NA	No
LTE Aux	Chain1	WNC	1.16	FDD 13: US (Verizon)(777-787MHz)	PIFA	NA	No
GPS	Chain0	WNC	5.55	GPS(1575.42MHz)	PCB	i-pex(MHF)	80mm

#### 3.2 Features of EUT

The tests reported herein were performed according to the method specified by Wistron NeWeb Corp., for detailed feature description, please refer to the manufacturer's specifications or user's manual.

### 3.3 Operating Modes of EUT and Determination of Worst Case Operating Mode

For radiated emission test, the EUT has been pre-tested under following test modes, and test mode A was the worst case for final test.

Mode	Test condition		
	Radiated emission test		
	Power Input	Power Source	Mode
<b>A</b>	<b>AC 120V/60Hz</b>	<b>1A52-US0502</b>	<b>GPS+LTE</b>
B	DC 3.6V	Battery	GPS+LTE

NOTE: The test configurations are defined by the applicant requirement.

Test mode is presented in the report as below.

Mode	Test Condition		
	Power Input	Power Source	Mode
1	AC 120V/60Hz	1A52-US0502	GPS+LTE

### 3.4 Test Program Used and Operation Descriptions

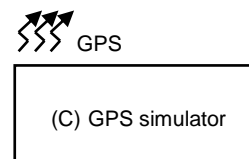
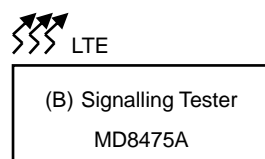
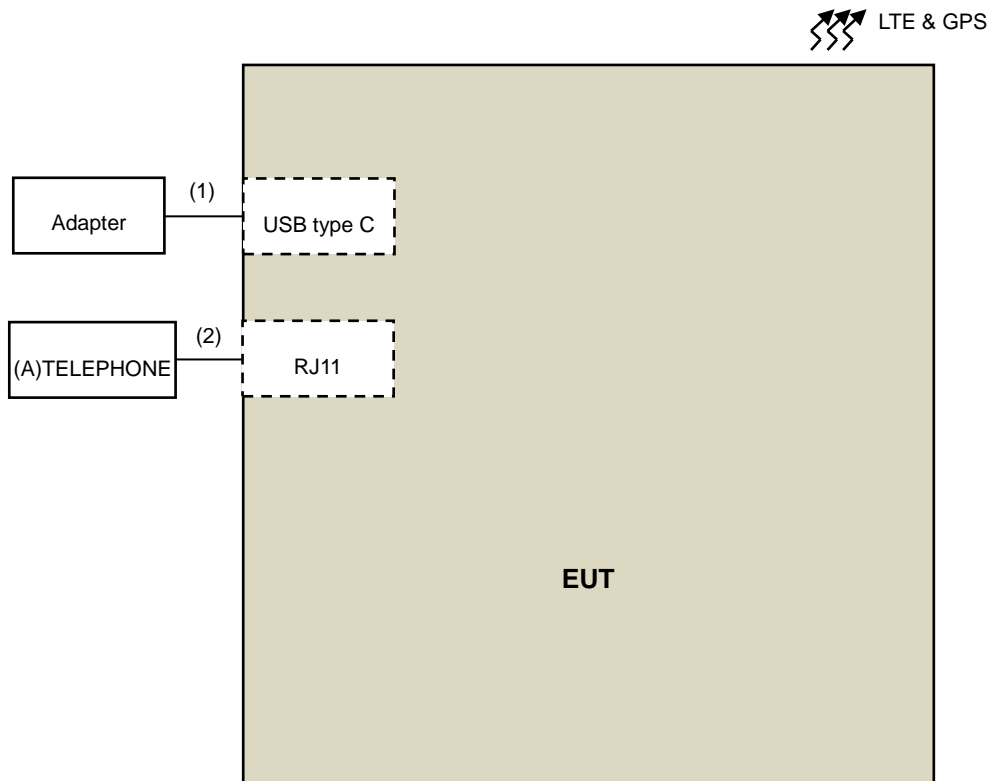
- 1 Turn on the power of all equipment.
- 2 Support units B (Signalling Tester MD8475A) link with EUT via LTE.
- 3 Support units C (GPS simulator) link with EUT via GPS.

### 3.5 Primary Clock Frequencies of Internal Source

The EUT is provided by Wistron NeWeb Corp., for detailed internal source, please refer to the manufacturer's specifications.

#### 4 Configuration and Connections with EUT

##### 4.1 Connection Diagram of EUT and Peripheral Devices





#### 4.2 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	TELEPHONE	WONDER	WD-303	8C17DA02763	NA	Provided by Lab
B.	Signalling Tester MD8475A	Anritsu	MD8475A	6201344422	NA	Provided by Lab
C.	GPS simulator	T&E Communication	GSG-5	201062	NA	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Yes	0	Supplied by client
2.	RJ11 cable	1	1	No	0	Provided by Lab

## 5 Conducted Emissions at Mains Ports

### 5.1 Limits

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

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

### 5.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100287	Apr. 16, 2019	Apr. 15, 2020
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-523	Oct. 19, 2018	Oct. 18, 2019
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100071	Nov. 05, 2018	Nov. 04, 2019
RF Cable	5D-FB	COACAB-001	Mar. 14, 2019	Mar. 13, 2020
10 dB PAD EMEC	STI02-2200-10	002	Mar. 14, 2019	Mar. 13, 2020
50 ohms Terminator	N/A	EMC-04	Nov. 14, 2018	Nov. 13, 2019
50 ohms Terminator	N/A	EMC-01	Oct. 04, 2018	Oct. 03, 2019
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

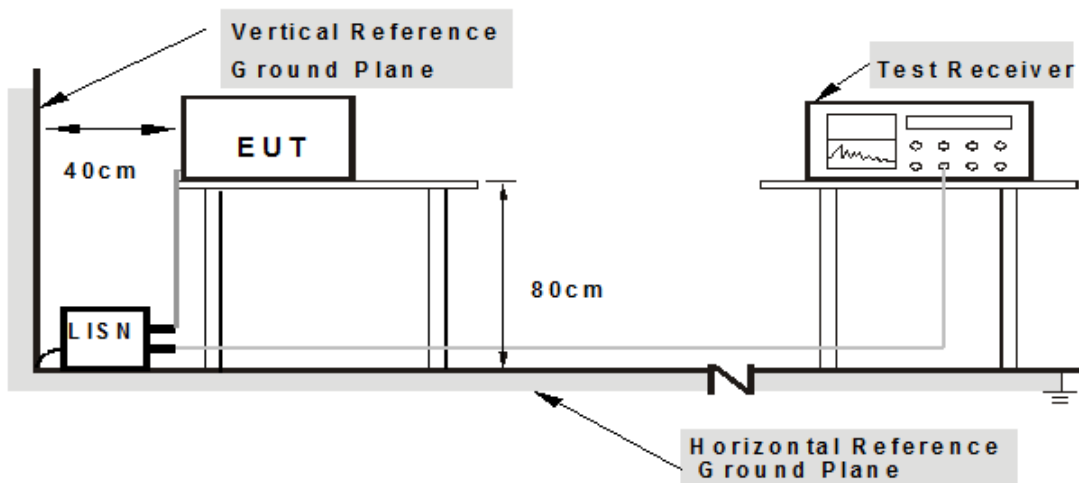
**Note:**

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conducted Room D
3. The VCCI Con D Registration No. is C-20005.
4. Tested Date: July 05, 2019

### 5.3 Test Arrangement

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak (mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.

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



Note: 1. Support units were connected to second LISN.

For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

### 5.4 Supplementary Information

There is not any deviation from the test standards for the test method.

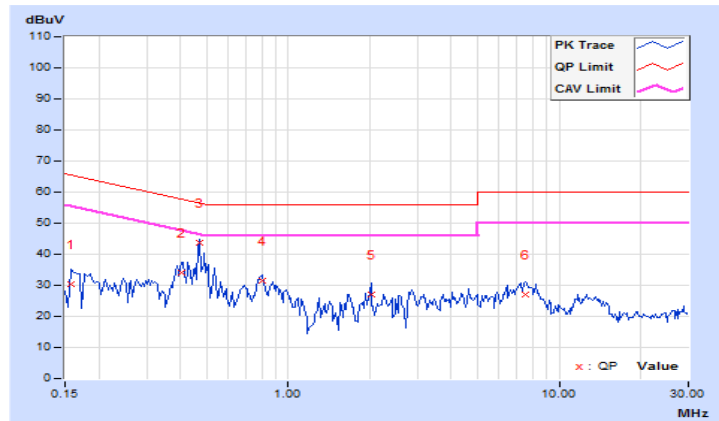
## 5.5 Test Results

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz
<b>Input Power</b>	120Vac, 60Hz	<b>Environmental Conditions</b>	25°C, 75%RH
<b>Tested by</b>	Kevin Ko		
<b>Test Mode</b>	Mode 1		

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	0.15781	10.06	20.25	5.48	30.31	15.54	65.58	55.58	-35.27	-40.04
2	0.40391	10.09	23.93	15.11	34.02	25.20	57.77	47.77	-23.75	-22.57
<b>3</b>	<b>0.47031</b>	<b>10.10</b>	<b>33.70</b>	<b>27.63</b>	<b>43.80</b>	<b>37.73</b>	<b>56.51</b>	<b>46.51</b>	<b>-12.71</b>	<b>-8.78</b>
4	0.79844	10.12	21.32	11.61	31.44	21.73	56.00	46.00	-24.56	-24.27
5	2.02344	10.21	16.67	8.57	26.88	18.78	56.00	46.00	-29.12	-27.22
6	7.55078	10.51	16.65	7.52	27.16	18.03	60.00	50.00	-32.84	-31.97

### 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

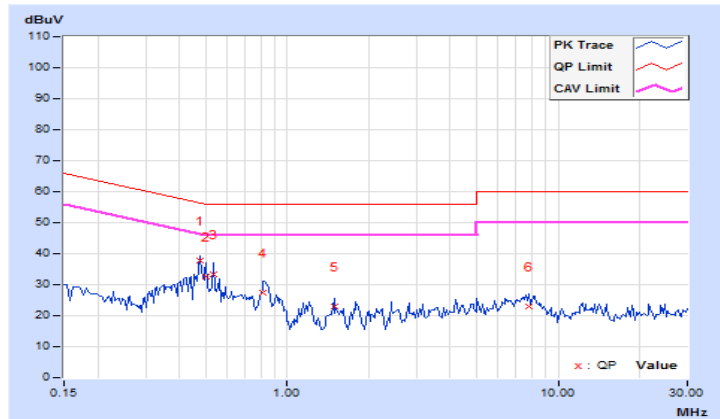


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9kHz
<b>Input Power</b>	120Vac, 60Hz	<b>Environmental Conditions</b>	25°C, 75%RH
<b>Tested by</b>	Kevin Ko		
<b>Test Mode</b>	Mode 1		

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	0.47422	10.14	27.50	21.99	37.64	32.13	56.44	46.44	-18.80	-14.31
2	0.50156	10.15	22.52	6.06	32.67	16.21	56.00	46.00	-23.33	-29.79
3	0.53281	10.15	23.25	11.90	33.40	22.05	56.00	46.00	-22.60	-23.95
4	0.81797	10.17	17.32	9.27	27.49	19.44	56.00	46.00	-28.51	-26.56
5	1.48828	10.23	12.81	6.68	23.04	16.91	56.00	46.00	-32.96	-29.09
6	7.77344	10.62	12.21	4.16	22.83	14.78	60.00	50.00	-37.17	-35.22

**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



## 6 Radiated Emissions up to 1 GHz

### 6.1 Limits

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 10 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	39	29.5	40	30
88-216	43.5	33.1		
216-230	46.4	35.6		
230-960				
960-1000	49.5	43.5	47	37

Radiated Emissions Limits at 3 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	49.5	40	50.5	40.5
88-216	54	43.5		
216-230	56.9	46		
230-960				
960-1000	60	54	57.5	47.5

- Notes:
1. The lower limit shall apply at the transition frequencies.
  2. Emission level (dB $\mu$ V/m) = 20 log Emission level (uV/m).
  3. QP detector shall be applied if not specified.

## 6.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210105	June 19, 2019	June 18, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-03	Oct. 30, 2018	Oct. 29, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Nov. 20, 2018	Nov. 19, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-CHG-01	Sep. 27, 2018	Sep. 26, 2019
RF Cable	8D-FB	CHFCAB-003-2	May 02, 2019	May 01, 2020
	8D-FB	CHGCAB-001-2	Sep. 27, 2018	Sep. 26, 2019
	RF-141	CHGCAB-004	Sep. 27, 2018	Sep. 26, 2019
Software BVADT	ADT_Radiated _V8.7.08	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

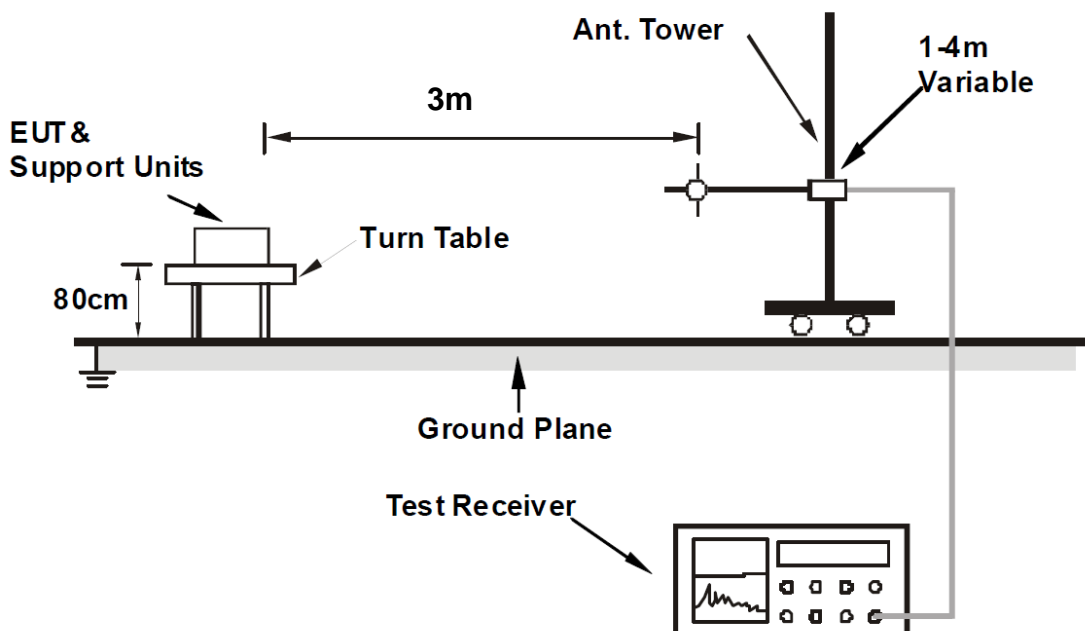
**Note:**

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Chamber G room
3. The VCCI Site Registration No. is R-20009.
4. Tested Date: July 05, 2019

### 6.3 Test Arrangement

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna is a broadband antenna, and its height 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.
- 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.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is up to 1 GHz.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency up to 1GHz.



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

### 6.4 Supplementary Information

There is not any deviation from the test standards for the test method.



## 6.5 Test Results

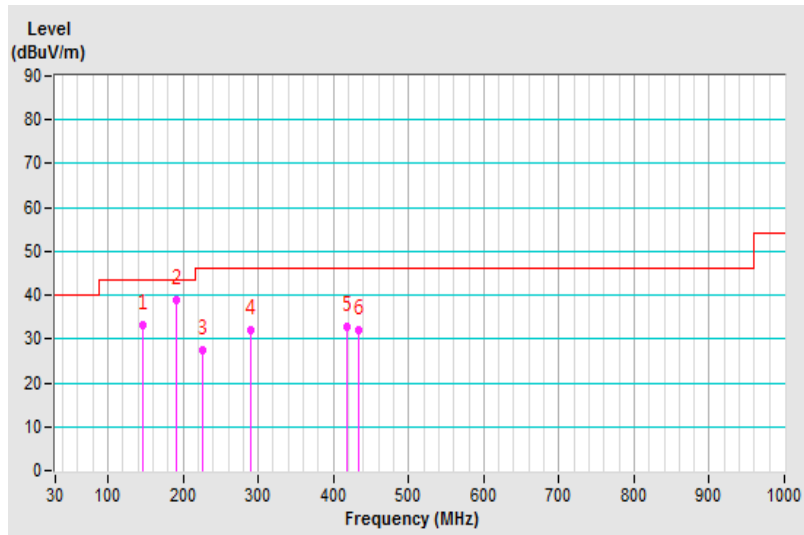
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz
Input Power	120Vac, 60Hz	Environmental Conditions	19°C, 65%RH
Tested by	Kevin Ko		
Test Mode	Mode 1		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	146.88	33.22 QP	43.50	-10.28	2.00 H	0	41.31	-8.09
<b>2</b>	<b>191.00</b>	<b>38.91 QP</b>	<b>43.50</b>	<b>-4.59</b>	<b>2.00 H</b>	<b>0</b>	<b>49.52</b>	<b>-10.61</b>
3	226.74	27.49 QP	46.00	-18.51	2.00 H	0	37.53	-10.04
4	290.59	32.04 QP	46.00	-13.96	3.00 H	205	39.15	-7.11
5	418.19	32.85 QP	46.00	-13.15	4.00 H	271	36.89	-4.04
6	433.86	31.85 QP	46.00	-14.15	2.00 H	246	35.15	-3.30

### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



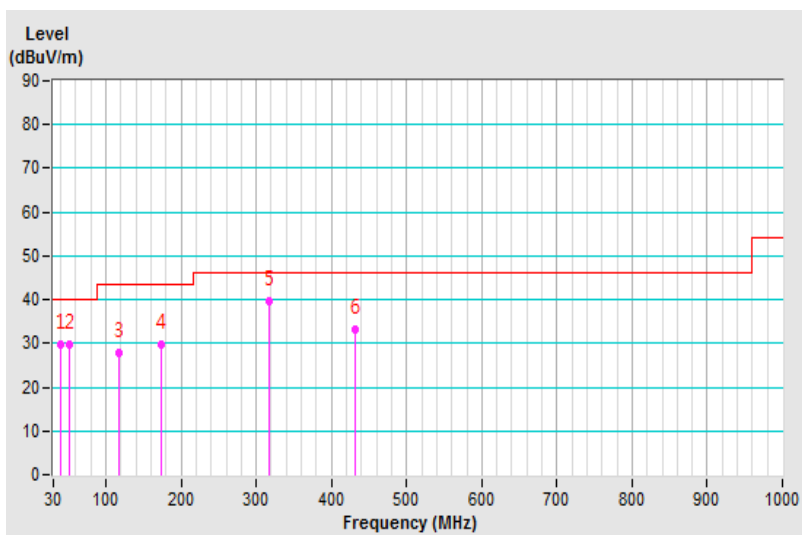
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz
Input Power	120Vac, 60Hz	Environmental Conditions	19°C, 65%RH
Tested by	Kevin Ko		
Test Mode	Mode 1		

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.95	29.60 QP	40.00	-10.40	1.00 V	124	38.61	-9.01
2	51.22	29.72 QP	40.00	-10.28	1.00 V	164	38.36	-8.64
3	117.71	27.89 QP	43.50	-15.61	2.00 V	259	38.33	-10.44
4	172.76	29.74 QP	43.50	-13.76	1.00 V	251	38.69	-8.95
5	316.22	39.63 QP	46.00	-6.37	1.05 V	327	45.93	-6.30
6	432.23	33.21 QP	46.00	-12.79	1.00 V	62	36.59	-3.38

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)  
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



## 7 Radiated Emissions above 1 GHz

### 7.1 Limits

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 10 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
1000-3000	Avg: 49.5 Peak: 69.5	Avg: 43.5 Peak: 63.5	Not defined	Not defined
Above 3000			Not defined	Not defined

Radiated Emissions Limits at 3 meters (dB $\mu$ V/m)				
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B
1000-3000	Avg: 60 Peak: 80	Avg: 54 Peak: 74	Avg: 56 Peak: 76	Avg: 50 Peak: 70
Above 3000			Avg: 60 Peak: 80	Avg: 54 Peak: 74

- Notes:
1. The lower limit shall apply at the transition frequencies.
  2. Emission level (dB $\mu$ V/m) = 20 log Emission level (uV/m).
  3. As shown in 15.35(b), for frequencies above 1000MHz, 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 20dB under any condition of modulation.

Frequency Range (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40GHz, whichever is lower

## 7.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210105	June 19, 2019	June 18, 2020
Horn Antenna FT-RF	HA-07M18G-NF	0000320091110	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier Agilent	8449B	3008A02578	June 12, 2019	June 11, 2020
RF Cable	104 RF cable	150406 131212 131205	Jan. 10, 2019	Jan. 09, 2020
Software BVADT	ADT_Radiated_ V8.7.08	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA
Test Receiver Agilent	N9038A	MY51210105	June 19, 2019	June 18, 2020
Horn Antenna FT-RF	HA-07M18G-NF	0000320091110	Nov. 25, 2018	Nov. 24, 2019
Fix tool for Boresight antenna tower	BAF-01	5	NA	NA

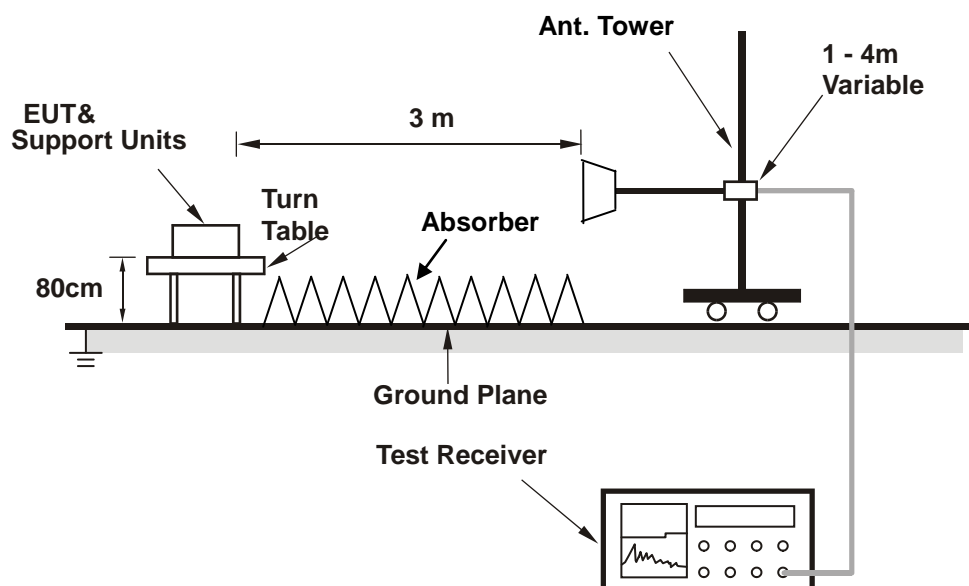
**Note:**

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Chamber G room
3. Tested Date: July 05, 2019

### 7.3 Test Arrangement

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The spectrum analyzer system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

Note: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection (PK) at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.



The test arrangement is in accordance with ANSI 63.4:2014. For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

### 7.4 Supplementary Information

There is not any deviation from the test standards for the test method.

## 7.5 Test Results

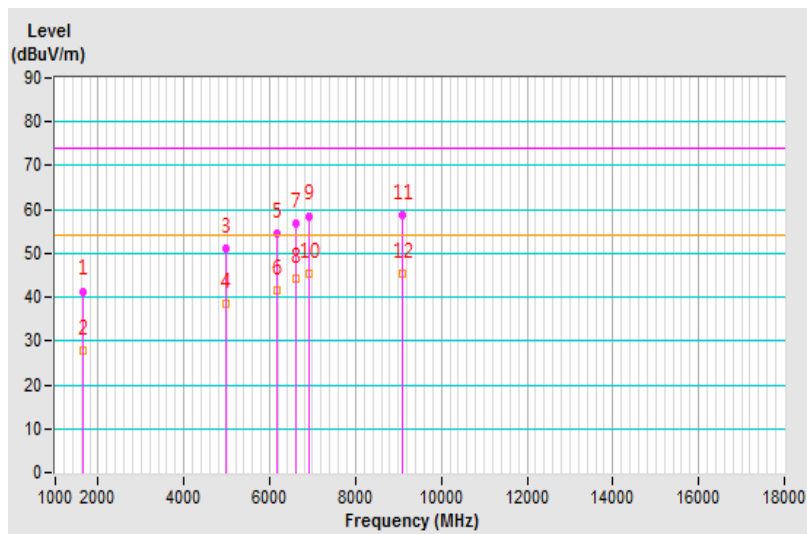
Frequency Range	1GHz ~ 10.7GHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 1MHz
Input Power	120Vac, 60Hz	Environmental Conditions	21°C, 65%RH
Tested by	Kevin Ko		
Test Mode	Mode 1		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1658.75	41.34 PK	74.00	-32.66	1.00 H	164	45.13	-3.79
2	1658.75	27.79 AV	54.00	-26.21	1.00 H	360	31.58	-3.79
3	4964.40	51.14 PK	74.00	-22.86	1.00 H	114	41.59	9.55
4	4964.40	38.52 AV	54.00	-15.48	1.00 H	0	28.97	9.55
5	6156.95	54.47 PK	74.00	-19.53	1.00 H	85	41.28	13.19
6	6156.95	41.70 AV	54.00	-12.30	1.00 H	75	28.51	13.19
7	6612.55	56.66 PK	74.00	-17.34	1.00 H	225	41.08	15.58
8	6612.55	44.23 AV	54.00	-9.77	1.00 H	214	28.65	15.58
9	6927.90	58.52 PK	74.00	-15.48	1.00 H	103	41.85	16.67
10	6927.90	45.37 AV	54.00	-8.63	1.00 H	360	28.70	16.67
11	9098.80	58.64 PK	74.00	-15.36	1.00 H	333	43.70	14.94
12	9098.80	45.25 AV	54.00	-8.75	1.00 H	0	30.31	14.94

### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)  
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

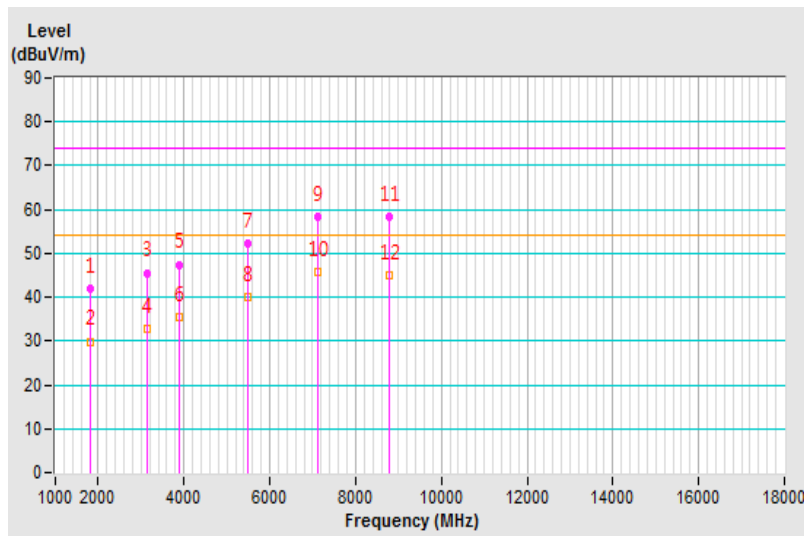


Frequency Range	1GHz ~ 10.7GHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 1MHz
Input Power	120Vac, 60Hz	Environmental Conditions	21 °C, 65%RH
Tested by	Kevin Ko		
Test Mode	Mode 1		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1809.20	42.05 PK	74.00	-31.95	1.00 V	313	44.94	-2.89
2	1809.20	29.92 AV	54.00	-24.08	1.00 V	360	32.81	-2.89
3	3133.50	45.53 PK	74.00	-28.47	1.00 V	330	42.98	2.55
4	3133.50	32.73 AV	54.00	-21.27	1.00 V	360	30.18	2.55
5	3894.25	47.45 PK	74.00	-26.55	1.00 V	76	40.97	6.48
6	3894.25	35.33 AV	54.00	-18.67	1.00 V	330	28.85	6.48
7	5478.65	52.36 PK	74.00	-21.64	1.00 V	193	40.84	11.52
8	5478.65	40.07 AV	54.00	-13.93	1.00 V	332	28.55	11.52
9	7132.75	58.33 PK	74.00	-15.67	1.00 V	344	42.05	16.28
<b>10</b>	<b>7132.75</b>	<b>45.63 AV</b>	<b>54.00</b>	<b>-8.37</b>	<b>1.00 V</b>	<b>246</b>	<b>29.35</b>	<b>16.28</b>
11	8791.10	58.43 PK	74.00	-15.57	1.00 V	29	42.93	15.50
12	8791.10	44.81 AV	54.00	-9.19	1.00 V	254	29.31	15.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



## 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.

If you have any comments, please feel free to contact us at the following:

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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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