

Partial FCC Test Report

Report No.: RF170711C04

FCC ID: QYL8265NG

Test Model: X500

Received Date: Jul. 11, 2017

Test Date: Aug. 01, 2017 ~ Aug. 07, 2017

Issued Date: Aug. 31, 2017

Applicant: Getac Technology Corporation.

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

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Release Control Record

Issue No.	Description	Date Issued
RF170711C04	Original Release	Aug. 31, 2017

1 Certificate of Conformity

Product: Notebook computer

Brand: Getac

Test Model: X500

Sample Status: Identical Prototype

Applicant: Getac Technology Corporation.

Test Date: Aug. 01, 2017 ~ Aug. 07, 2017

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 EMC characteristics under the conditions specified in this report.

Prepared by : Rona Chen , **Date:** Aug. 31, 2017
Rona Chen / Specialist

Approved by : David Huang , **Date:** Aug. 31, 2017
David Huang / 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 -7.44 dB at 0.59943 MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -1.09 dB at 2483.52 MHz.
	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
15.247(b)	Conducted power	N/A	Refer to Note
15.247(e)	Power Spectral Density	N/A	Refer to Note
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note:

Test item for AC Power Conducted Emission and Radiated Emissions were performed for this report. For other test data, please refer to Intel Report No.: 160321-01.TR02 for module (Brand: Intel, Model: 8265NGW).

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	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	Notebook computer
Brand	Getac
Test Model	X500
Status of EUT	Identical Prototype
Power Supply Rating	19.0 Vdc (Adapter) 10.8Vdc (Li-ion Battery)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to MCS7
Operating Frequency	2412 ~ 2462 MHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Antenna Type	PIFA antenna with 0.34dBi gain
Antenna Connector	N/A
Accessory Device	N/A
Data Cable Supplied	N/A

Note:

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

Modulation Mode	TX Function
802.11b	1TX
802.11g	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX

- The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	FSP	FSP150-ABBN3	I/P: 100-240 Vac, 50-60 Hz, 2.0 A O/P: 19 Vdc, 7.89 A
Battery	N/A	BP-LP2900/3301PI	10.8Vdc, 8700mAh, 94wh
BT/WLAN Module	Intel	8265NGW	--
WWAN Module	Sierra	EM7355	--

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

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

7 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To			Description
	RE $\geq$ 1G	RE<1G	PLC	
A	√	√	√	1TX
B	√	-	-	2TX

Where **RE $\geq$ 1G**: Radiated Emission above 1 GHz

RE<1G: Radiated Emission below 1 GHz

PLC: Power Line Conducted Emission

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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
B	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11g	1 to 11	11	OFDM	BPSK	6.0

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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11g	1 to 11	11	OFDM	BPSK	6.0

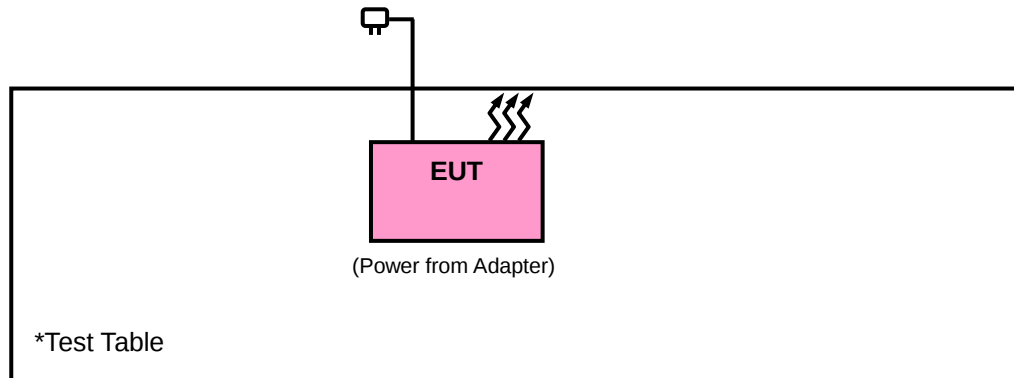
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	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.

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.247)

558074 D01 DTS Meas Guidance v04

662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC).
The test report has been issued separately.

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 Technologies	N9038A	MY52260177	Jul. 05, 2017	Jul. 04, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 13, 2016	Dec. 12, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 16, 2016	Dec. 15, 2017
HORN Antenna ETS-Lindgren	3117	00143293	Dec. 29, 2016	Dec. 28, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 14, 2016	Dec. 13, 2017
Attenuator Woken	MDCS18N-10	MDCS18N-10-01	Apr. 17, 2017	Apr. 16, 2018
Bluetooth Tester	CBT	100980	Jun. 28, 2017	Jun. 27, 2018
Loop Antenna	EM-6879	269	Aug. 11, 2016	Aug. 10, 2017
Preamplifier Agilent	310N	187226	Jun. 23, 2017	Jun. 22, 2018
Preamplifier Agilent	83017A	MY39501357	Jun. 23, 2017	Jun. 22, 2018
Power Meter Anritsu	ML2495A	1232002	Sep. 08, 2016	Sep. 07, 2017
Power Sensor Anritsu	MA2411B	1207325	Sep. 08, 2016	Sep. 07, 2017
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(R FC-SMS-100-SM S-120+RFC-SMS -100-SMS-400)	Jun. 23, 2017	Jun. 22, 2018
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(R FC-SMS-100-SM S-24)	Jun. 23, 2017	Jun. 22, 2018
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	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 HsinTien 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. The IC Site Registration No. is IC7450I-1.

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 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:

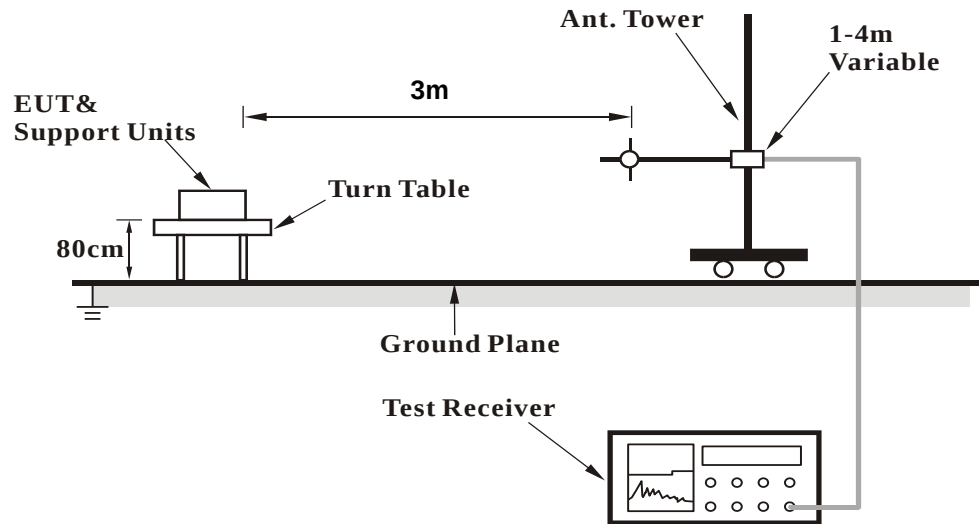
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 KHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for Average (Duty cycle < 98 %) detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

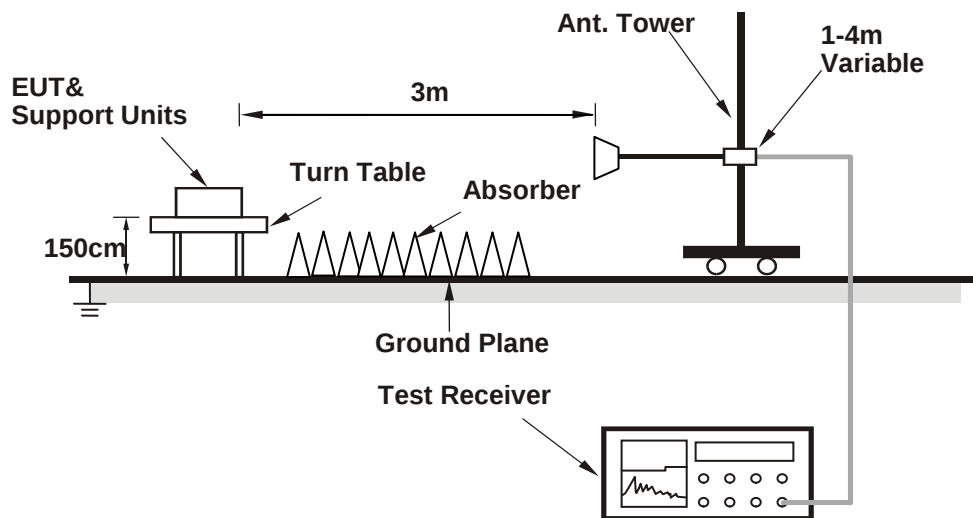
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1 GHz>



<Frequency Range 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 a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1 GHz Data :

Mode A

802.11b

EUT Test Condition		Measurement Detail	
Channel	Channel 1	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2385.87	48.23	46.52	54	-5.77	31.8	5.4	35.49	143	67	Average
2385.87	53.41	51.7	74	-20.59	31.8	5.4	35.49	143	67	Peak
2412	101.63	99.86			31.81	5.43	35.47	143	67	Average
2412	104.54	102.77			31.81	5.43	35.47	143	67	Peak
4824	38.43	30.3	54	-15.57	33.97	8.26	34.1	159	227	Average
4824	47.93	39.8	74	-26.07	33.97	8.26	34.1	159	227	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2385.42	46.45	44.76	54	-7.55	31.78	5.4	35.49	200	232	Average
2385.42	54.94	53.25	74	-19.06	31.78	5.4	35.49	200	232	Peak
2412	100.77	99			31.81	5.43	35.47	200	232	Average
2412	103.65	101.88			31.81	5.43	35.47	200	232	Peak
4824	38.74	30.61	54	-15.26	33.97	8.26	34.1	167	115	Average
4824	47.99	39.86	74	-26.01	33.97	8.26	34.1	167	115	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2412 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 6	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2382.45	43.1	41.41	54	-10.9	31.78	5.4	35.49	118	225	Average
2382.45	52.02	50.33	74	-21.98	31.78	5.4	35.49	118	225	Peak
2437	102.85	101			31.85	5.46	35.46	118	225	Average
2437	106.34	104.49			31.85	5.46	35.46	118	225	Peak
2491.24	46.9	44.89	54	-7.1	31.9	5.53	35.42	118	225	Average
2491.24	54.52	52.51	74	-19.48	31.9	5.53	35.42	118	225	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2386.86	41.11	39.4	54	-12.89	31.8	5.4	35.49	102	159	Average
2386.86	51.88	50.17	74	-22.12	31.8	5.4	35.49	102	159	Peak
2437	101.76	99.91			31.85	5.46	35.46	102	159	Average
2437	104.85	103			31.85	5.46	35.46	102	159	Peak
2493.6	43.25	41.23	54	-10.75	31.9	5.53	35.41	102	159	Average
2493.6	53.57	51.55	74	-20.43	31.9	5.53	35.41	102	159	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2437 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 11	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	101.63	99.7			31.87	5.5	35.44	118	225	Average
2462	105.96	104.03			31.87	5.5	35.44	118	225	Peak
2488.2	48.99	46.98	54	-5.01	31.9	5.53	35.42	118	225	Average
2488.2	55.53	53.52	74	-18.47	31.9	5.53	35.42	118	225	Peak
4924	39.13	30.88	54	-14.87	33.99	8.28	34.02	176	145	Average
4924	48.37	40.12	74	-25.63	33.99	8.28	34.02	176	145	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	100.3	98.37			31.87	5.5	35.44	115	159	Average
2462	104.19	102.26			31.87	5.5	35.44	115	159	Peak
2483.52	46.25	44.29	54	-7.75	31.88	5.5	35.42	115	159	Average
2483.52	54.31	52.35	74	-19.69	31.88	5.5	35.42	115	159	Peak
4924	39.43	31.18	54	-14.57	33.99	8.28	34.02	137	155	Average
4924	48.83	40.58	74	-25.17	33.99	8.28	34.02	137	155	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2462 MHz: Fundamental frequency.

802.11g

EUT Test Condition		Measurement Detail	
Channel	Channel 1	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2389.56	45.28	43.57	54	-8.72	31.8	5.4	35.49	143	67	Average
2389.56	56.71	55	74	-17.29	31.8	5.4	35.49	143	67	Peak
2412	97.07	95.3			31.81	5.43	35.47	143	67	Average
2412	105.11	103.34			31.81	5.43	35.47	143	67	Peak
4824	38.76	30.63	54	-15.24	33.97	8.26	34.1	196	347	Average
4824	47.93	39.8	74	-26.07	33.97	8.26	34.1	196	347	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2386.86	44.5	42.79	54	-9.5	31.8	5.4	35.49	200	232	Average
2386.86	55.69	53.98	74	-18.31	31.8	5.4	35.49	200	232	Peak
2412	95.55	93.78			31.81	5.43	35.47	200	232	Average
2412	103.65	101.88			31.81	5.43	35.47	200	232	Peak
4824	38.37	30.24	54	-15.63	33.97	8.26	34.1	139	208	Average
4824	47.99	39.86	74	-26.01	33.97	8.26	34.1	139	208	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2412 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 6	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2388.39	42.86	41.15	54	-11.14	31.8	5.4	35.49	106	226	Average
2388.39	53.73	52.02	74	-20.27	31.8	5.4	35.49	106	226	Peak
2437	101.49	99.64			31.85	5.46	35.46	106	226	Average
2437	109.72	107.87			31.85	5.46	35.46	106	226	Peak
2486.76	45.45	43.46	54	-8.55	31.88	5.53	35.42	106	226	Average
2486.76	57.52	55.53	74	-16.48	31.88	5.53	35.42	106	226	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2384.79	41.67	39.98	54	-12.33	31.78	5.4	35.49	102	159	Average
2384.79	52.76	51.07	74	-21.24	31.78	5.4	35.49	102	159	Peak
2437	97.7	95.85			31.85	5.46	35.46	102	159	Average
2437	105.31	103.46			31.85	5.46	35.46	102	159	Peak
2483.64	42.89	40.93	54	-11.11	31.88	5.5	35.42	102	159	Average
2483.64	53.92	51.96	74	-20.08	31.88	5.5	35.42	102	159	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2437 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 11	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	97.18	95.25			31.87	5.5	35.44	115	159	Average
2462	105.21	103.28			31.87	5.5	35.44	115	159	Peak
2483.96	49.78	47.82	54	-4.22	31.88	5.5	35.42	115	159	Average
2483.96	68.12	66.16	74	-5.88	31.88	5.5	35.42	115	159	Peak
4924	39.64	31.39	54	-14.36	33.99	8.28	34.02	161	128	Average
4924	48.83	40.58	74	-25.17	33.99	8.28	34.02	161	128	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	100.68	98.75			31.87	5.5	35.44	118	225	Average
2462	108.18	106.25			31.87	5.5	35.44	118	225	Peak
2483.52	52.91	50.95	54	-1.09	31.88	5.5	35.42	118	225	Average
2483.52	70.19	68.23	74	-3.81	31.88	5.5	35.42	118	225	Peak
4924	39.13	30.88	54	-14.87	33.99	8.28	34.02	182	147	Average
4924	48.37	40.12	74	-25.63	33.99	8.28	34.02	182	147	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2462 MHz: Fundamental frequency.

Mode B

802.11n (HT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 1	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2389.83	44.69	42.96	54	-9.31	31.8	5.4	35.47	127	143	Average
2389.83	57.27	55.54	74	-16.73	31.8	5.4	35.47	127	143	Peak
2412	98.28	96.51			31.81	5.43	35.47	110	202	Average
2412	106.95	105.18			31.81	5.43	35.47	110	202	Peak
4824	40.13	32	54	-13.87	33.97	8.26	34.1	116	208	Average
4824	47.83	39.7	74	-26.17	33.97	8.26	34.1	116	208	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2386.41	45.95	44.24	54	-8.05	31.8	5.4	35.49	155	89	Average
2386.41	58.82	57.11	74	-15.18	31.8	5.4	35.49	155	89	Peak
2412	99.99	98.22			31.81	5.43	35.47	266	89	Average
2412	108.32	106.55			31.81	5.43	35.47	266	89	Peak
4824	40.08	31.95	54	-13.92	33.97	8.26	34.1	164	221	Average
4824	47.97	39.84	74	-26.03	33.97	8.26	34.1	164	221	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2412 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 6	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2388.39	43.31	41.6	54	-10.69	31.8	5.4	35.49	110	202	Average
2388.39	55.69	53.98	74	-18.31	31.8	5.4	35.49	110	202	Peak
2437	101.47	99.62			31.85	5.46	35.46	110	202	Average
2437	109.2	107.35			31.85	5.46	35.46	110	202	Peak
2483.96	42.62	40.66	54	-11.38	31.88	5.5	35.42	110	202	Average
2483.96	53.15	51.19	74	-20.85	31.88	5.5	35.42	110	202	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2389.92	41.98	40.25	54	-12.02	31.8	5.4	35.47	266	89	Average
2389.92	54.83	53.1	74	-19.17	31.8	5.4	35.47	266	89	Peak
2437	103.44	101.59			31.85	5.46	35.46	266	89	Average
2437	111	109.15			31.85	5.46	35.46	266	89	Peak
2486.12	43	41.01	54	-11	31.88	5.53	35.42	266	89	Average
2486.12	54.95	52.96	74	-19.05	31.88	5.53	35.42	266	89	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2437 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 11	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	97.74	95.81			31.87	5.5	35.44	110	202	Average
2462	105.67	103.74			31.87	5.5	35.44	110	202	Peak
2494.44	42.17	40.15	54	-11.83	31.9	5.53	35.41	110	202	Average
2494.44	54.08	52.06	74	-19.92	31.9	5.53	35.41	110	202	Peak
4924	40.09	31.84	54	-13.91	33.99	8.28	34.02	154	104	Average
4924	48.4	40.15	74	-25.6	33.99	8.28	34.02	154	104	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2462	99.65	97.72			31.87	5.5	35.44	292	62	Average
2462	107.18	105.25			31.87	5.5	35.44	292	62	Peak
2483.56	43.71	41.75	54	-10.29	31.88	5.5	35.42	292	62	Average
2483.56	54.75	52.79	74	-19.25	31.88	5.5	35.42	292	62	Peak
4924	40.29	32.04	54	-13.71	33.99	8.28	34.02	113	334	Average
4924	48.38	40.13	74	-25.62	33.99	8.28	34.02	113	334	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2462 MHz: Fundamental frequency.

802.11n (HT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 3	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2384.34	42.2	40.51	54	-11.8	31.78	5.4	35.49	148	181	Average
2384.34	52.48	50.79	74	-21.52	31.78	5.4	35.49	148	181	Peak
2422	92.29	90.49			31.83	5.43	35.46	162	222	Average
2422	100.22	98.42			31.83	5.43	35.46	162	222	Peak
2497.64	41.81	39.79	54	-12.19	31.9	5.53	35.41	148	181	Average
2497.64	52.49	50.47	74	-21.51	31.9	5.53	35.41	148	181	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2384.07	43.49	41.8	54	-10.51	31.78	5.4	35.49	114	174	Average
2384.07	54.74	53.05	74	-19.26	31.78	5.4	35.49	114	174	Peak
2422	93.92	92.12			31.83	5.43	35.46	102	200	Average
2422	102.44	100.64			31.83	5.43	35.46	102	200	Peak
2486.04	41.87	39.88	54	-12.13	31.88	5.53	35.42	114	174	Average
2486.04	52.72	50.73	74	-21.28	31.88	5.53	35.42	114	174	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2422 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 6	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2389.74	42.79	41.08	54	-11.21	31.8	5.4	35.49	266	89	Average
2389.74	53.2	51.49	74	-20.8	31.8	5.4	35.49	266	89	Peak
2437	97.24	95.39			31.85	5.46	35.46	266	89	Average
2437	104.33	102.48			31.85	5.46	35.46	266	89	Peak
2483.64	43.5	41.54	54	-10.5	31.88	5.5	35.42	266	89	Average
2483.64	53.98	52.02	74	-20.02	31.88	5.5	35.42	266	89	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2389.92	44.56	42.83	54	-9.44	31.8	5.4	35.47	110	202	Average
2389.92	54.88	53.15	74	-19.12	31.8	5.4	35.47	110	202	Peak
2437	95.73	93.88			31.85	5.46	35.46	110	202	Average
2437	102.93	101.08			31.85	5.46	35.46	110	202	Peak
2483.6	43.12	41.16	54	-10.88	31.88	5.5	35.42	110	202	Average
2483.6	52.94	50.98	74	-21.06	31.88	5.5	35.42	110	202	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2437 MHz: Fundamental frequency.

EUT Test Condition		Measurement Detail	
Channel	Channel 9	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2375.7	40.81	39.15	54	-13.19	31.78	5.37	35.49	110	202	Average
2375.7	52.32	50.66	74	-21.68	31.78	5.37	35.49	110	202	Peak
2452	93.14	91.27			31.85	5.46	35.44	110	202	Average
2452	100.17	98.3			31.85	5.46	35.44	110	202	Peak
2490.48	42.42	40.41	54	-11.58	31.9	5.53	35.42	110	202	Average
2490.48	54.28	52.27	74	-19.72	31.9	5.53	35.42	110	202	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2376.33	40.71	39.05	54	-13.29	31.78	5.37	35.49	292	89	Average
2376.33	52.28	50.62	74	-21.72	31.78	5.37	35.49	292	89	Peak
2452	95.29	93.42			31.85	5.46	35.44	292	89	Average
2452	102.45	100.58			31.85	5.46	35.44	292	89	Peak
2483.56	44.84	42.88	54	-9.16	31.88	5.5	35.42	118	277	Average
2483.56	55.8	53.84	74	-18.2	31.88	5.5	35.42	118	277	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 2452 MHz: Fundamental frequency.

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:

Mode A

802.11g

EUT Test Condition		Measurement Detail	
Channel	Channel 11	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	Charles Hsiao

Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
69.15	18.93	42.03	40	-21.07	8.01	1.11	32.22	102	154	Peak
144.48	19.62	40.84	43.5	-23.88	9.67	1.38	32.27	113	162	Peak
165	22.56	42.94	43.5	-20.94	10.36	1.52	32.26	105	184	Peak
407.8	27.19	39.04	46	-18.81	17.95	2.41	32.21	166	195	Peak
627.6	31.91	39.05	46	-14.09	22.1	2.93	32.17	101	214	Peak
736.1	32.14	37.78	46	-13.86	23.33	3.16	32.13	113	214	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
70.23	31.13	54.13	40	-8.87	8.11	1.11	32.22	116	195	Peak
140.97	25.35	46.82	43.5	-18.15	9.42	1.38	32.27	158	175	Peak
225.75	23.59	42.03	46	-22.41	11.9	1.85	32.19	136	126	Peak
461.7	30.64	41.76	46	-15.36	18.45	2.56	32.13	115	195	Peak
627.6	34.48	41.62	46	-11.52	22.1	2.93	32.17	108	172	Peak
736.8	34.45	40.12	46	-11.55	23.3	3.16	32.13	102	302	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

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	ESCI	100613	Nov. 21, 2016	Nov. 20, 2017
RF signal cable Woken	5D-FB	Cable-cond1-01	Dec. 22, 2016	Dec. 21, 2017
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN ROHDE & SCHWARZ (Peripheral)	ENV216	101196	Apr. 20, 2017	Apr. 19, 2018
Software ADT	BV ADT_Cond_ V7.3.7.3	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 1.

3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

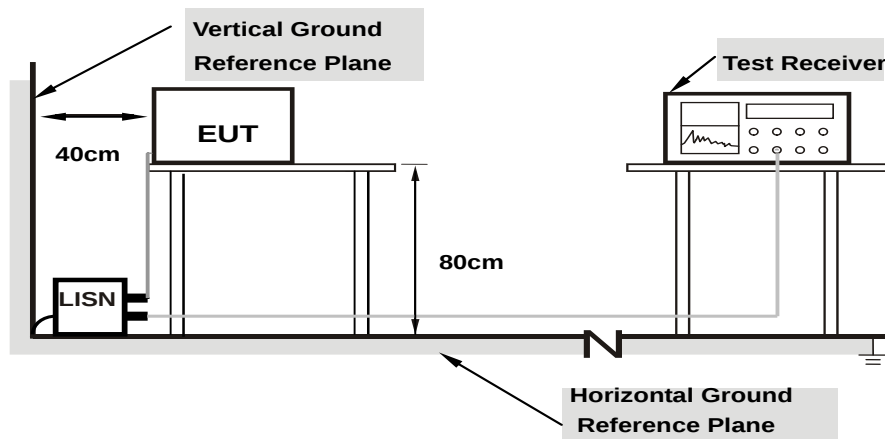
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance 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: 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.

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

4.2.6 EUT Operating Conditions

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

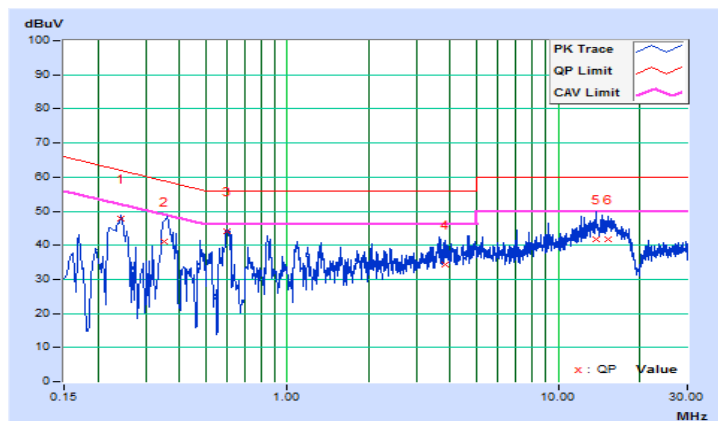
4.2.7 Test Results

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	Gavin Wu	Test Date	2017/8/2

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	0.24407	10.38	37.57	32.39	47.95	42.77	61.96	51.96	-14.01	-9.19
2	0.34926	10.39	30.67	18.39	41.06	28.78	58.98	48.98	-17.92	-20.20
3	0.59943	10.40	33.73	28.16	44.13	38.56	56.00	46.00	-11.87	-7.44
4	3.80585	10.56	23.86	14.26	34.42	24.82	56.00	46.00	-21.58	-21.18
5	13.84282	11.03	30.70	20.16	41.73	31.19	60.00	50.00	-18.27	-18.81
6	15.37163	11.11	30.55	21.12	41.66	32.23	60.00	50.00	-18.34	-17.77

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

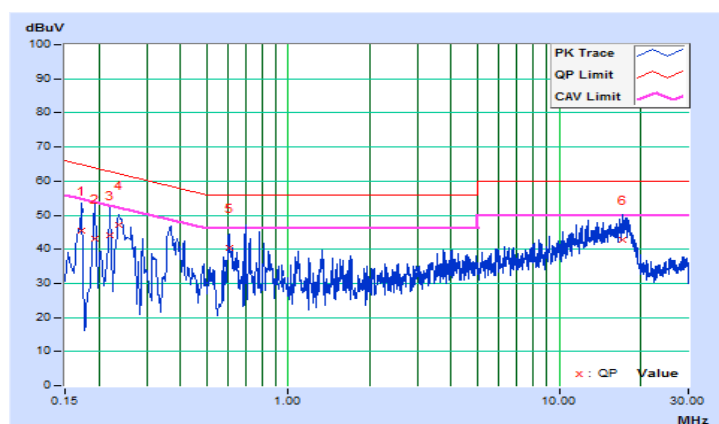


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Gavin Wu	Test Date	2017/8/2

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	0.17346	10.12	35.27	13.83	45.39	23.95	64.79	54.79	-19.40	-30.84
2	0.19301	10.14	32.87	10.95	43.01	21.09	63.91	53.91	-20.90	-32.82
3	0.22038	10.14	33.88	17.21	44.02	27.35	62.80	52.80	-18.78	-25.45
4	0.23648	10.14	37.09	29.24	47.23	39.38	62.22	52.22	-14.99	-12.84
5	0.60356	10.16	30.09	22.29	40.25	32.45	56.00	46.00	-15.75	-13.55
6	17.11158	10.84	31.76	21.55	42.60	32.39	60.00	50.00	-17.40	-17.61

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



5 Pictures of Test Arrangements

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

Appendix – Information on 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 accredited and approved according to ISO/IEC 17025.

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

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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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