

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBHTZ-WTW-P22080640 R3
FCC ID.: PPQLILYW131
Model No.: LILY-W131
Received Date: 2022/8/18
Test Date: 2022/9/7 ~ 2022/9/23
Issued Date: 2023/1/17
Applicant: LITE-ON Technology Corp.
Address: Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City 23585, Taiwan (R.O.C.)
Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories
Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / 788550 / TW0003
Designation Number:

Approved by: Jeremy Lin, **Date:** 2023/1/17
Jeremy Lin / Project Engineer

This test report consists of 34 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.



Prepared by : Lena Wang / Specialist

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	3
1 Certificate.....	4
2 Summary of Test Results	5
2.1 Measurement Uncertainty	5
2.2 Supplementary Information	5
3 General Information	6
3.1 General Description.....	6
3.2 Antenna Description of EUT	7
3.3 Channel List.....	7
3.4 Test Mode Applicability and Tested Channel Detail.....	7
3.5 Duty Cycle of Test Signal.....	8
3.6 Test Program Used and Operation Descriptions	9
3.7 Connection Diagram of EUT and Peripheral Devices	9
3.8 Configuration of Peripheral Devices and Cable Connections	9
4 Test Instruments	10
4.1 AC Power Conducted Emissions	10
4.2 Unwanted Emissions below 1 GHz	10
4.3 Unwanted Emissions above 1 GHz.....	11
5 Limits of Test Items.....	12
5.1 AC Power Conducted Emissions	12
5.2 Unwanted Emissions below 1 GHz	12
5.3 Unwanted Emissions above 1 GHz.....	12
6 Test Arrangements.....	13
6.1 AC Power Conducted Emissions	13
6.1.1 Test Setup	13
6.1.2 Test Procedure.....	13
6.2 Unwanted Emissions below 1 GHz	14
6.2.1 Test Setup	14
6.2.2 Test Procedure.....	15
6.3 Unwanted Emissions above 1 GHz.....	16
6.3.1 Test Setup	16
6.3.2 Test Procedure.....	16
7 Test Results of Test Item	17
7.1 AC Power Conducted Emissions	17
7.2 Unwanted Emissions below 1 GHz	19
7.3 Unwanted Emissions above 1 GHz.....	21
8 Pictures of Test Arrangements	33
9 Information of the Testing Laboratories	34

Release Control Record

Issue No.	Description	Date Issued
RFBHTZ-WTW-P22080640	Original Release	2022/12/12
RFBHTZ-WTW-P22080640 R1	Adding section 3.1 note 1	2023/1/5
RFBHTZ-WTW-P22080640 R2	Revising antenna type	2023/1/13
RFBHTZ-WTW-P22080640 R3	Revising frequency and gain of antenna	2023/1/17

1 Certificate

Product: LILY-W1

Brand: LITEON

Test Model: LILY-W131

Sample Status: Engineering Sample

Applicant: LITE-ON Technology Corp.

Test Date: 2022/9/7 ~ 2022/9/23

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)

Measurement ANSI C63.10-2013

procedure: KDB 558074 D01 15.247 Meas Guidance v05r02

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.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	N/A	Refer to note
15.247(e)	Power Spectral Density	N/A	Refer to note
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to note
15.247(d)	Conducted Out of Band Emissions	N/A	Refer to note
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -13.80 dB at 13.49000 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -0.8 dB at 63.95 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.6 dB at 2390.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note:

1. This report is a partial report, only test item of AC Power Conducted Emissions and Unwanted Emissions tests were performed for this report. Other testing data please refer to PHOENIX report no.: F160785E3 for module (Brand: u-blox AG, Model: Lily-W1).
2. 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	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.99 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	2.44 dB
	30 MHz ~ 1 GHz	2.95 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description

Product	LILY-W1
Brand	LITEON
Test Model	LILY-W131
Status of EUT	Engineering Sample
Power Supply Rating	208- 240Vac
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 72.2 Mbps
Operating Frequency	2412 ~ 2462 MHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20)

Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report to PHOENIX report no.: F160785E3. The difference compared with original report are adding end-product and antenna. Therefore, only test item of AC Power Conducted Emissions and Unwanted Emissions tests were performed for this report. Other testing data please refer to original report.
2. The EUT is authorized for use in specific End-product. Please refer to below for more details. The model of 'EX-1193-M' was chosen for final test.

Brand	Model	LTE	RFID	WIFI	Bluetooth	Difference
LITEON	EX-1193-M	Provided	Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-M-48					
	EX-1193-E	Not Provided	Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-E-48					
	EX-1193-T	Not Provided	Not Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-T-48					

3. The End-product contains following accessory devices.

Product	Brand	Model	Description
holster	Liteon	N/A	-

4. 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 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	Gain (dBi)	Antenna Type	Connector Type
	2400~2500 MHz		
1	3.0	Dipole	I-pex

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT provides 1 completed transmitter and 1 receiver:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	1TX	1RX
802.11g	1TX	1RX
802.11n (HT20)	1TX	1RX

3.3 Channel List

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

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	The worst case was found when positioned on Z-axis.

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

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	802.11g	6	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11g	6	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 6, 11	BPSK	6Mb/s
	802.11n (HT20)	1, 6, 11	BPSK	6.5Mb/s

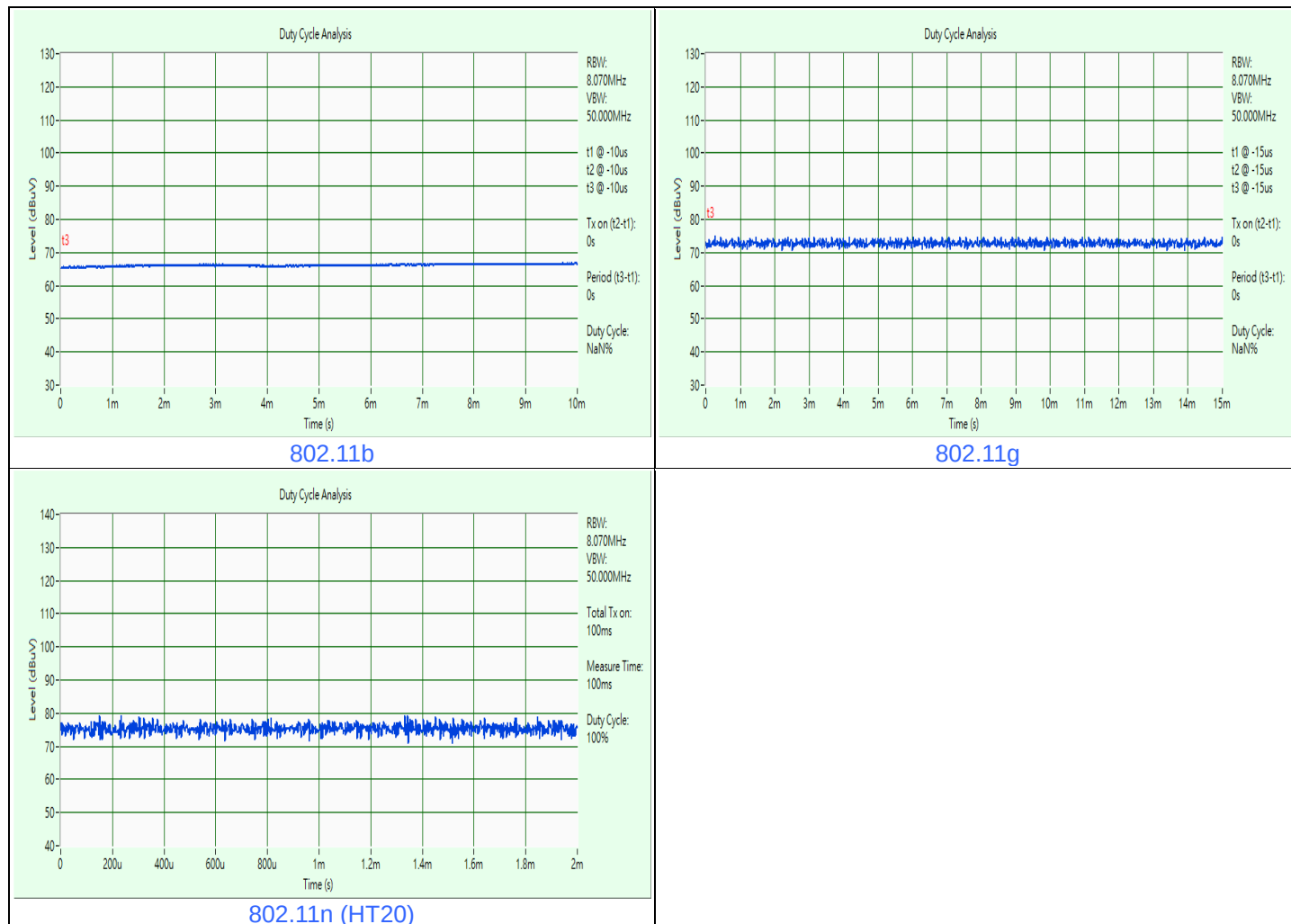
3.5 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %, duty factor is not required.

802.11b: Duty cycle = 1 ms / 1 ms x 100% = 100%

802.11g: Duty cycle = 1 ms / 1 ms x 100% = 100%

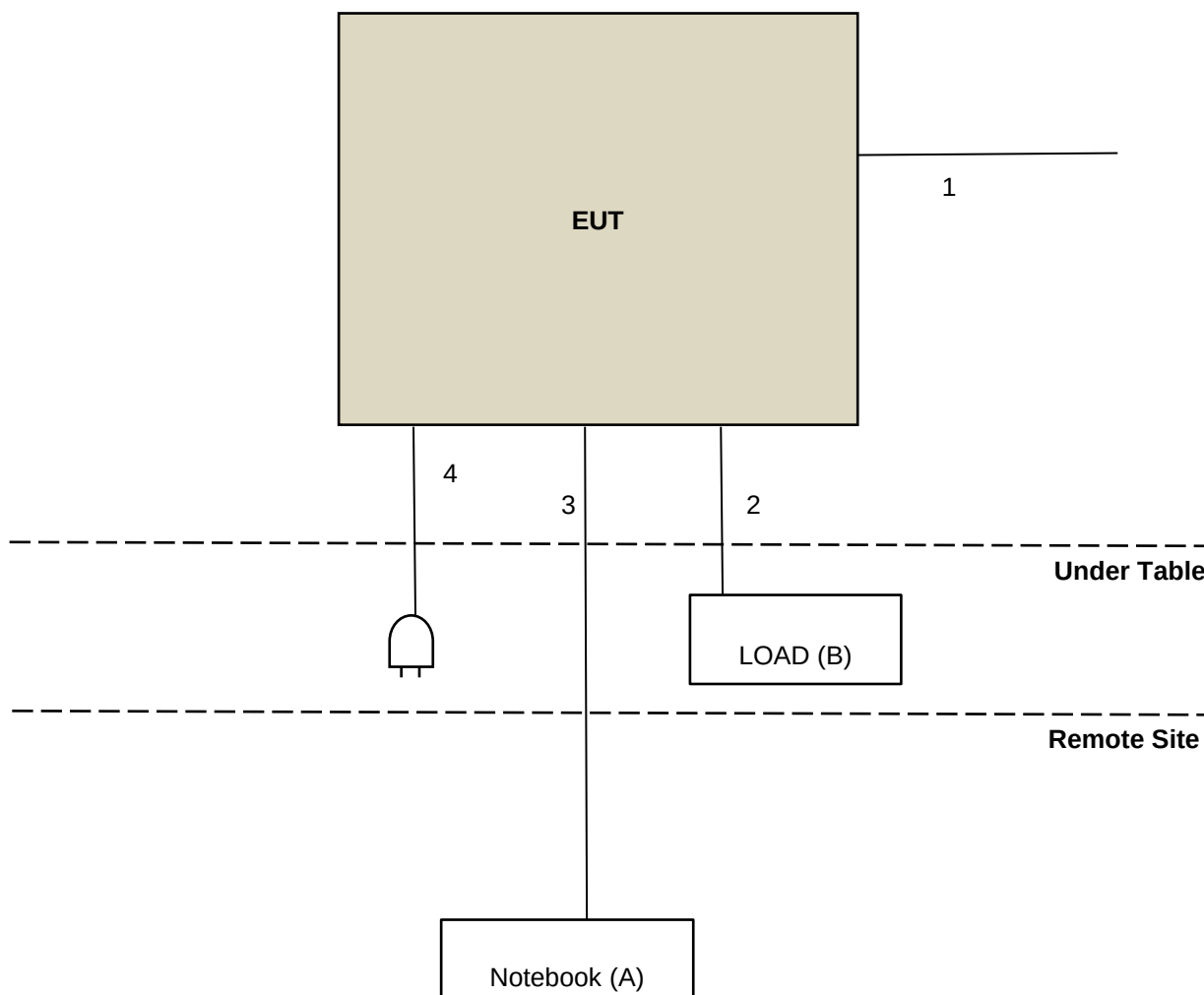
802.11n (HT20): Duty cycle = 1 ms / 1 ms x 100% = 100%



3.6 Test Program Used and Operation Descriptions

Controlling software Tera Term _4.98 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	DELL	E5420	33MJMQ1	N/A	Supplied by applicant
B	LOAD	N/A	N/A	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	POWER CABLE(DC out)	1	5	Y	0	Accessory of EUT
2	RJ-45 Cable	1	1.8	N	0	Provided by Lab
3	RJ-45 Cable	1	10	N	0	Provided by Lab
4	POWER CABLE(AC in)	1	1.8	Y	0	Accessory of EUT

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC-LISN SCHWARZBECK MESS- ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH3-Z5	100220	2021/11/25	2022/11/24
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2022/1/15	2023/1/14
Software BVADT	BVADT_Conf_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	2021/12/3	2022/12/2
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/9/13

4.2 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower &Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB9168	9168-472	2021/10/28	2022/10/27
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
Pre-Amplifier EMCI	EMC 330H	980112	2021/10/5	2022/10/4
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
RF Coaxial Cable WORKEN	8D-FB	Cable-Ch10-01	2021/10/5	2022/10/4
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 5.
2. Tested Date: 2022/9/23

4.3 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	7	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-969	2021/11/14	2022/11/13
	BBHA 9170	148	2021/11/14	2022/11/13
Pre-Amplifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Pre-Amplifier EMCI	EMC 012645	980115	2021/10/5	2022/10/4
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2022/7/9	2023/7/8
	EMC102-KM-KM-3000	150929	2022/7/9	2023/7/8
	EMC104-SM-SM- 8000+3000	171005	2021/10/5	2022/10/4
RF Coaxial Cable HUBER SUHNER	SUCOFLEX 104	EMC104-SM-SM- 1000(140807)	2021/10/5	2022/10/4
RF FLITER MICRO-TRONICS	BRM17690	004	2022/1/10	2023/1/9
	BRM50716	060	2022/1/10	2023/1/9
Signal Analyzer Agilent	N9010A	MY52220314	2021/12/3	2022/12/2
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 5.
2. Tested Date: 2022/9/7 ~ 2022/9/8

5 Limits of Test Items

5.1 AC Power Conducted Emissions

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

Notes:

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.

5.2 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.3 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

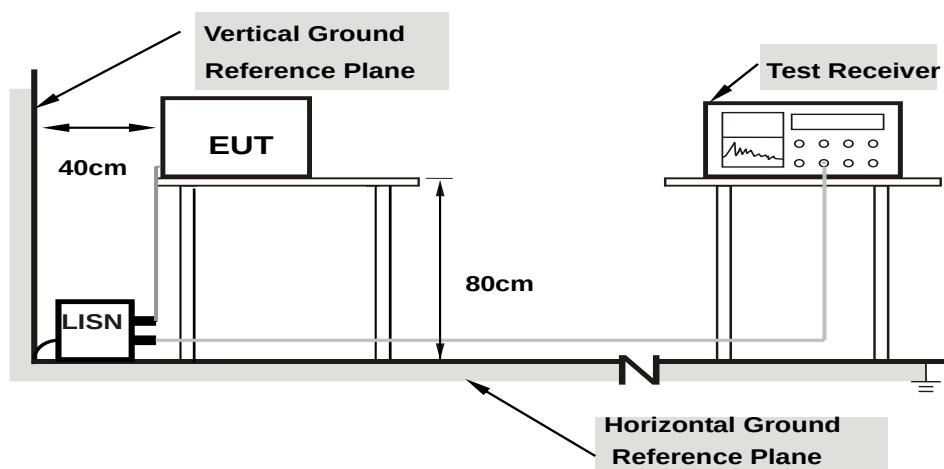
Notes:

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.

6 Test Arrangements

6.1 AC Power Conducted Emissions

6.1.1 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).

6.1.2 Test Procedure

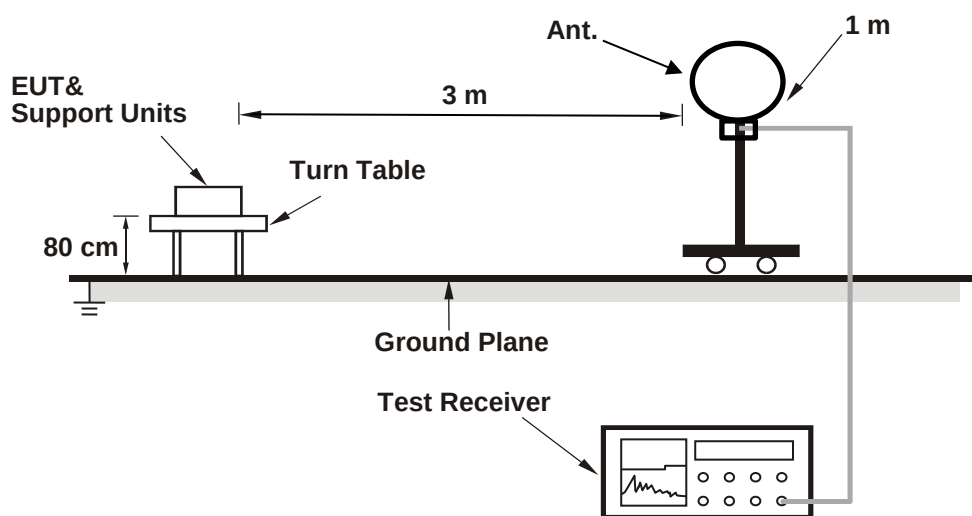
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The 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.

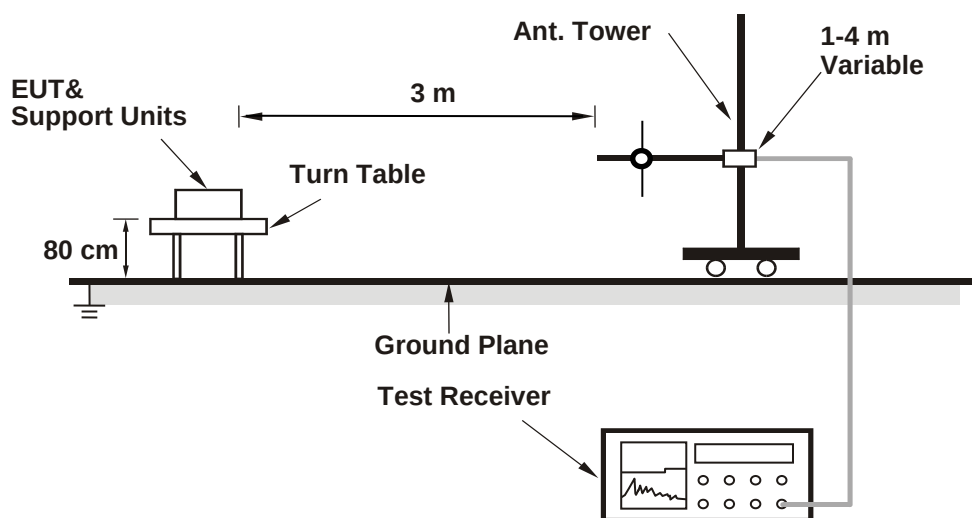
6.2 Unwanted Emissions below 1 GHz

6.2.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.2.2 Test Procedure

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 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. 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, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

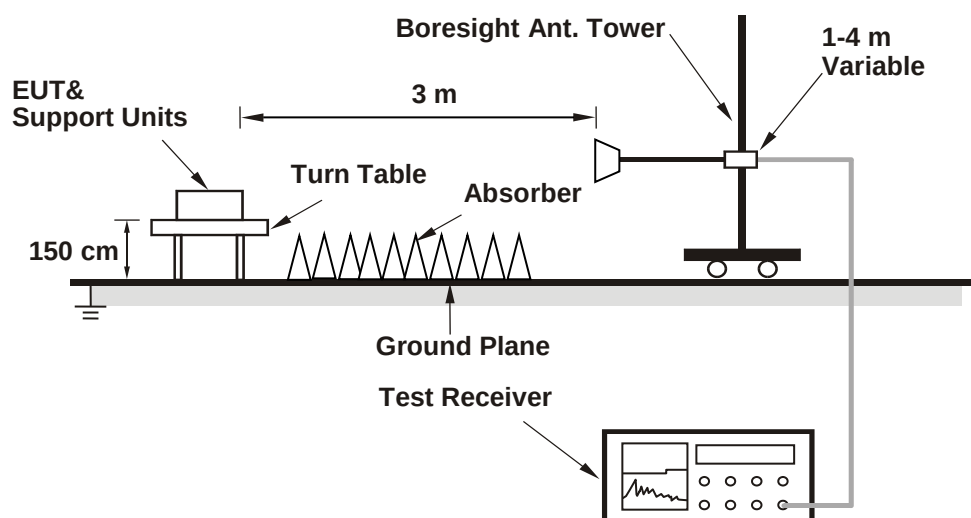
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.3 Unwanted Emissions above 1 GHz

6.3.1 Test Setup



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

6.3.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. 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 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 peak and average detects 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.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, 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.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

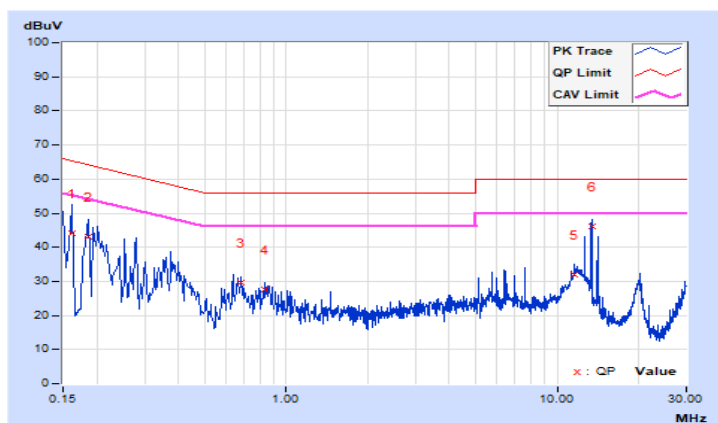
7.1 AC Power Conducted Emissions

RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.1°C, 69.7% RH
Tested By	Thomas Cheng		

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	0.16190	9.62	34.46	19.72	44.08	29.34	65.37	55.37	-21.29	-26.03
2	0.18600	9.63	33.56	25.52	43.19	35.15	64.21	54.21	-21.02	-19.06
3	0.67800	9.69	20.06	14.58	29.75	24.27	56.00	46.00	-26.25	-21.73
4	0.83000	9.70	17.81	9.53	27.51	19.23	56.00	46.00	-28.49	-26.77
5	11.55800	9.79	22.03	15.98	31.82	25.77	60.00	50.00	-28.18	-24.23
6	13.49000	9.78	36.42	11.18	46.20	20.96	60.00	50.00	-13.80	-29.04

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

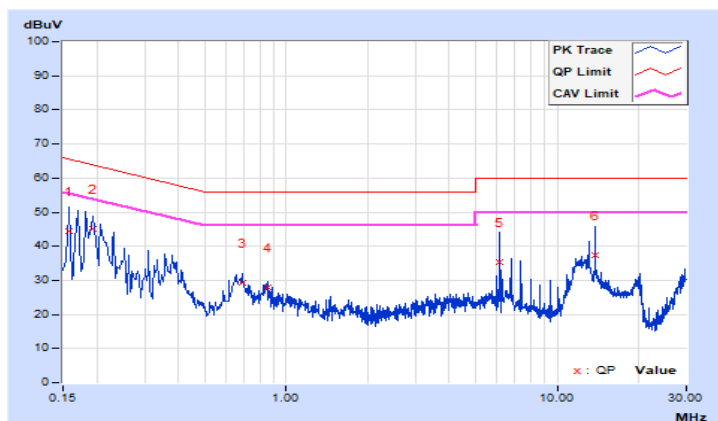


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.1°C, 69.7% RH
Tested By	Thomas Cheng		

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	0.15800	9.62	34.83	20.12	44.45	29.74	65.57	55.57	-21.12	-25.83
2	0.19400	9.63	35.32	22.46	44.95	32.09	63.86	53.86	-18.91	-21.77
3	0.68595	9.69	19.66	12.26	29.35	21.95	56.00	46.00	-26.65	-24.05
4	0.85000	9.70	18.09	9.58	27.79	19.28	56.00	46.00	-28.21	-26.72
5	6.14600	9.76	25.72	5.70	35.48	15.46	60.00	50.00	-24.52	-34.54
6	13.80600	9.82	27.69	14.75	37.51	24.57	60.00	50.00	-22.49	-25.43

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



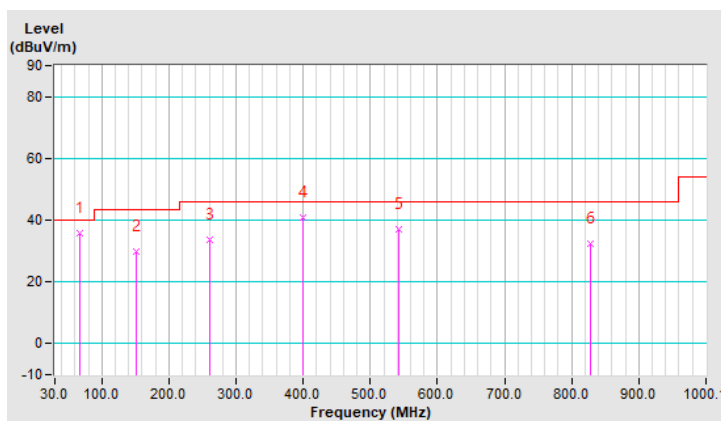
7.2 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 72% RH
Tested By	Thomas Cheng		

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	67.83	35.7 QP	40.0	-4.3	2.00 H	194	50.3	-14.6
2	151.26	29.8 QP	43.5	-13.7	1.50 H	2	42.0	-12.2
3	259.91	33.5 QP	46.0	-12.5	1.00 H	7	47.8	-14.3
4	399.61	40.8 QP	46.0	-5.2	1.50 H	355	50.2	-9.4
5	542.21	37.0 QP	46.0	-9.0	1.00 H	330	42.4	-5.4
6	828.39	32.5 QP	46.0	-13.5	2.00 H	358	31.5	1.0

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

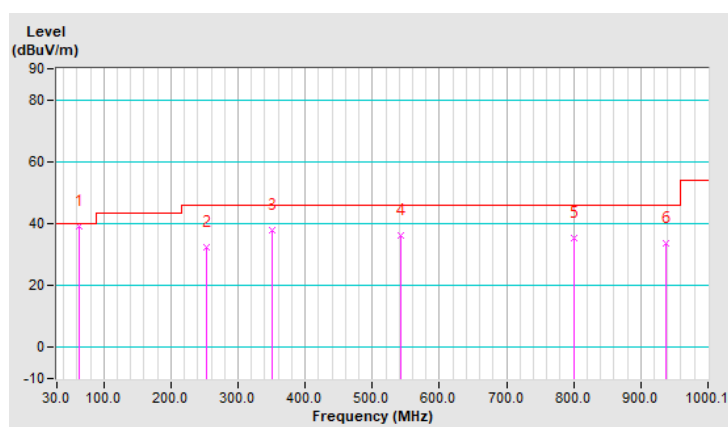


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 72% RH
Tested By	Thomas Cheng		

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	63.95	39.2 QP	40.0	-0.8	1.00 V	168	52.9	-13.7
2	253.12	32.3 QP	46.0	-13.7	1.50 V	178	46.7	-14.4
3	350.13	37.7 QP	46.0	-8.3	2.00 V	289	48.0	-10.3
4	542.21	36.2 QP	46.0	-9.8	1.50 V	38	41.6	-5.4
5	800.26	35.4 QP	46.0	-10.6	1.00 V	4	35.0	0.4
6	937.04	33.5 QP	46.0	-12.5	2.00 V	131	31.2	2.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



7.3 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	2390.00	59.0 PK	74.0	-15.0	1.69 H	163	26.9	32.1
2	2390.00	47.4 AV	54.0	-6.6	1.69 H	163	15.3	32.1
3	*2412.00	101.6 PK			1.69 H	163	69.6	32.0
4	*2412.00	99.2 AV			1.69 H	163	67.2	32.0
5	4824.00	47.5 PK	74.0	-26.5	1.46 H	185	58.2	-10.7
6	4824.00	39.2 AV	54.0	-14.8	1.46 H	185	49.9	-10.7
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	2390.00	58.4 PK	74.0	-15.6	2.26 V	97	26.3	32.1
2	2390.00	47.2 AV	54.0	-6.8	2.26 V	97	15.1	32.1
3	*2412.00	98.1 PK			2.26 V	97	66.1	32.0
4	*2412.00	95.4 AV			2.26 V	97	63.4	32.0
5	4824.00	47.0 PK	74.0	-27.0	2.96 V	198	57.7	-10.7
6	4824.00	39.1 AV	54.0	-14.9	2.96 V	198	49.8	-10.7

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	*2437.00	100.5 PK			1.53 H	165	68.5	32.0
2	*2437.00	98.1 AV			1.53 H	165	66.1	32.0
3	4874.00	42.3 PK	74.0	-31.7	2.12 H	271	58.2	-15.9
4	4874.00	33.4 AV	54.0	-20.6	2.12 H	271	49.3	-15.9
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	*2437.00	96.4 PK			2.59 V	77	64.4	32.0
2	*2437.00	94.3 AV			2.59 V	77	62.3	32.0
3	4874.00	47.3 PK	74.0	-26.7	3.64 V	329	57.7	-10.4
4	4874.00	38.4 AV	54.0	-15.6	3.64 V	329	48.8	-10.4

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	*2462.00	100.4 PK			1.70 H	150	68.4	32.0
2	*2462.00	98.4 AV			1.70 H	150	66.4	32.0
3	2483.50	58.1 PK	74.0	-15.9	1.70 H	150	26.1	32.0
4	2483.50	47.8 AV	54.0	-6.2	1.70 H	150	15.8	32.0
5	4924.00	42.8 PK	74.0	-31.2	3.23 H	309	58.7	-15.9
6	4924.00	34.7 AV	54.0	-19.3	3.23 H	309	50.6	-15.9
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	*2462.00	96.9 PK			2.40 V	80	64.9	32.0
2	*2462.00	94.4 AV			2.40 V	80	62.4	32.0
3	2483.50	57.9 PK	74.0	-16.1	2.40 V	80	25.9	32.0
4	2483.50	47.5 AV	54.0	-6.5	2.40 V	80	15.5	32.0
5	4924.00	47.8 PK	74.0	-26.2	2.08 V	261	58.1	-10.3
6	4924.00	38.8 AV	54.0	-15.2	2.08 V	261	49.1	-10.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	2390.00	66.0 PK	74.0	-8.0	1.80 H	161	33.9	32.1
2	2390.00	52.9 AV	54.0	-1.1	1.80 H	161	20.8	32.1
3	*2412.00	101.6 PK			1.80 H	161	69.6	32.0
4	*2412.00	94.8 AV			1.80 H	161	62.8	32.0
5	4824.00	41.4 PK	74.0	-32.6	2.50 H	290	57.4	-16.0
6	4824.00	31.0 AV	54.0	-23.0	2.50 H	290	47.0	-16.0
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	2390.00	64.9 PK	74.0	-9.1	2.61 V	90	32.8	32.1
2	2390.00	50.4 AV	54.0	-3.6	2.61 V	90	18.3	32.1
3	*2412.00	97.7 PK			2.61 V	90	65.7	32.0
4	*2412.00	90.8 AV			2.61 V	90	58.8	32.0
5	4824.00	46.4 PK	74.0	-27.6	1.36 V	188	57.1	-10.7
6	4824.00	35.9 AV	54.0	-18.1	1.36 V	188	46.6	-10.7

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	*2437.00	102.0 PK			1.59 H	160	70.0	32.0
2	*2437.00	95.1 AV			1.59 H	160	63.1	32.0
3	4874.00	47.1 PK	74.0	-26.9	1.98 H	274	57.5	-10.4
4	4874.00	35.9 AV	54.0	-18.1	1.98 H	274	46.3	-10.4
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	*2437.00	98.4 PK			2.61 V	87	66.4	32.0
2	*2437.00	91.4 AV			2.61 V	87	59.4	32.0
3	4874.00	46.9 PK	74.0	-27.1	2.90 V	325	57.3	-10.4
4	4874.00	35.8 AV	54.0	-18.2	2.90 V	325	46.2	-10.4

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	*2462.00	100.3 PK			1.60 H	143	68.3	32.0
2	*2462.00	93.1 AV			1.60 H	143	61.1	32.0
3	2483.50	66.2 PK	74.0	-7.8	1.60 H	143	34.2	32.0
4	2483.50	51.1 AV	54.0	-2.9	1.60 H	143	19.1	32.0
5	4924.00	47.5 PK	74.0	-26.5	1.26 H	218	57.8	-10.3
6	4924.00	36.8 AV	54.0	-17.2	1.26 H	218	47.1	-10.3
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	*2462.00	96.8 PK			2.58 V	79	64.8	32.0
2	*2462.00	90.6 AV			2.58 V	79	58.6	32.0
3	2483.50	64.1 PK	74.0	-9.9	2.58 V	79	32.1	32.0
4	2483.50	49.8 AV	54.0	-4.2	2.58 V	79	17.8	32.0
5	4924.00	46.9 PK	74.0	-27.1	1.43 V	339	57.2	-10.3
6	4924.00	36.5 AV	54.0	-17.5	1.43 V	339	46.8	-10.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11n (HT20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	2390.00	70.0 PK	74.0	-4.0	2.04 H	343	37.9	32.1
2	2390.00	53.4 AV	54.0	-0.6	2.04 H	343	21.3	32.1
3	*2412.00	101.4 PK			2.04 H	343	69.4	32.0
4	*2412.00	93.6 AV			2.04 H	343	61.6	32.0
5	4824.00	47.6 PK	74.0	-26.4	3.42 H	156	58.3	-10.7
6	4824.00	37.8 AV	54.0	-16.2	3.42 H	156	48.5	-10.7
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	2390.00	66.2 PK	74.0	-7.8	3.46 V	285	34.1	32.1
2	2390.00	50.8 AV	54.0	-3.2	3.46 V	285	18.7	32.1
3	*2412.00	97.1 PK			3.46 V	286	65.1	32.0
4	*2412.00	89.1 AV			3.46 V	286	57.1	32.0
5	4824.00	46.9 PK	74.0	-27.1	2.32 V	162	57.6	-10.7
6	4824.00	36.6 AV	54.0	-17.4	2.32 V	162	47.3	-10.7

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

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	*2437.00	101.8 PK			1.99 H	346	69.8	32.0
2	*2437.00	93.8 AV			1.99 H	346	61.8	32.0
3	4874.00	48.3 PK	74.0	-25.7	2.04 H	201	58.7	-10.4
4	4874.00	38.2 AV	54.0	-15.8	2.04 H	201	48.6	-10.4
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	*2437.00	97.5 PK			2.96 V	260	65.5	32.0
2	*2437.00	89.8 AV			2.96 V	260	57.8	32.0
3	4874.00	47.0 PK	74.0	-27.0	3.21 V	169	57.4	-10.4
4	4874.00	37.2 AV	54.0	-16.8	3.21 V	169	47.6	-10.4

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11n (HT20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23.7°C, 72.3% RH
Tested By	Thomas Cheng		

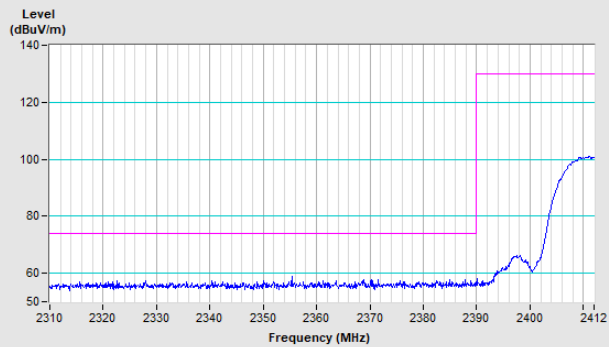
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	101.2 PK			1.78 H	349	69.2	32.0
2	*2462.00	93.1 AV			1.78 H	349	61.1	32.0
3	2483.50	63.8 PK	74.0	-10.2	1.78 H	349	31.8	32.0
4	2483.50	50.6 AV	54.0	-3.4	1.78 H	349	18.6	32.0
5	4924.00	48.3 PK	74.0	-25.7	3.22 H	298	58.6	-10.3
6	4924.00	38.2 AV	54.0	-15.8	3.22 H	298	48.5	-10.3
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	*2462.00	95.1 PK			2.76 V	277	63.1	32.0
2	*2462.00	87.0 AV			2.76 V	277	55.0	32.0
3	2483.50	59.5 PK	74.0	-14.5	2.76 V	277	27.5	32.0
4	2483.50	48.4 AV	54.0	-5.6	2.76 V	277	16.4	32.0
5	4924.00	47.3 PK	74.0	-26.7	3.41 V	225	57.6	-10.3
6	4924.00	36.9 AV	54.0	-17.1	3.41 V	225	47.2	-10.3

Remarks:

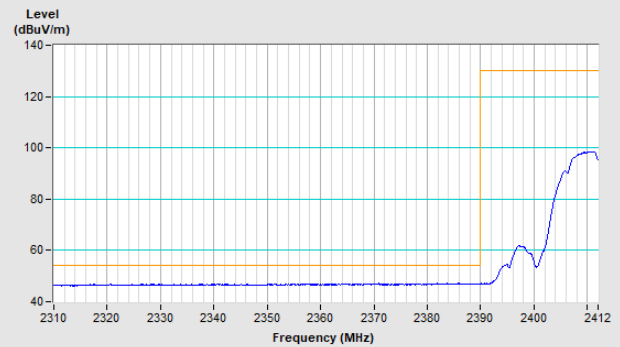
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

802.11b Channel 1

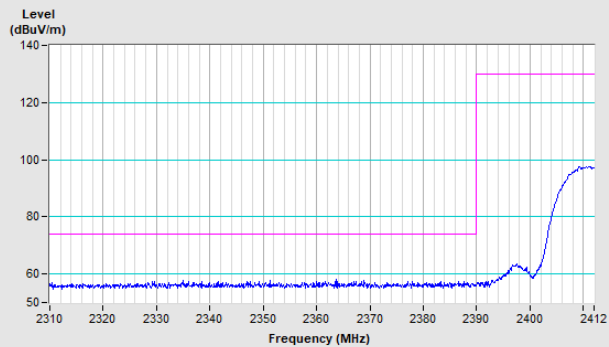
Horizontal (Peak)



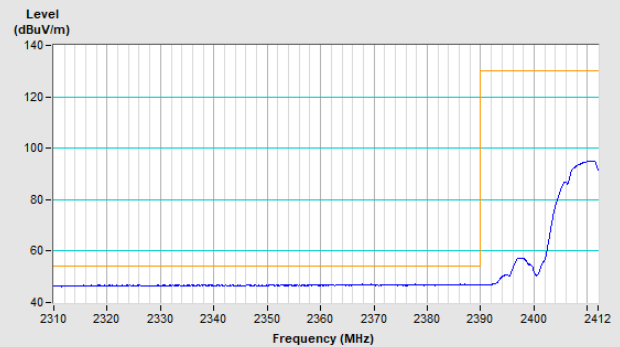
Horizontal (Average)



Vertical (Peak)

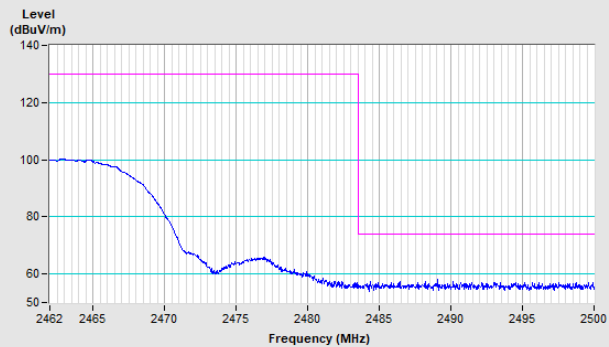


Vertical (Average)

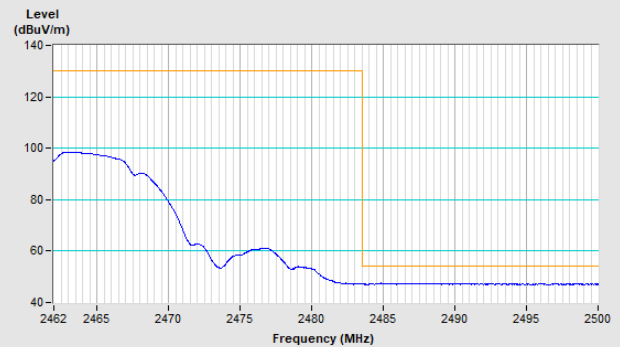


802.11b Channel 11

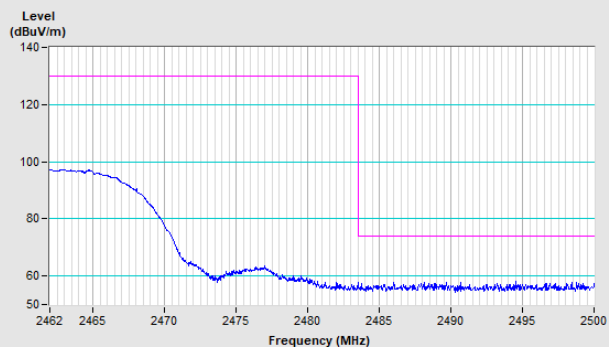
Horizontal (Peak)



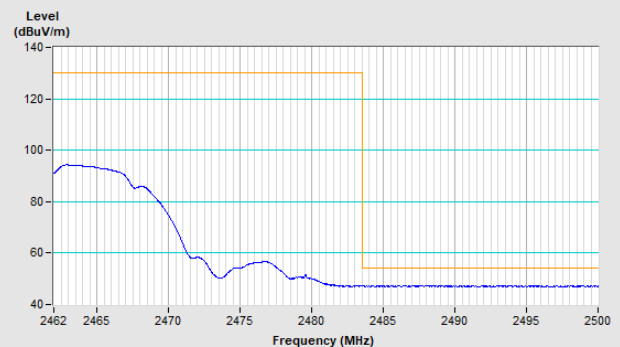
Horizontal (Average)



Vertical (Peak)

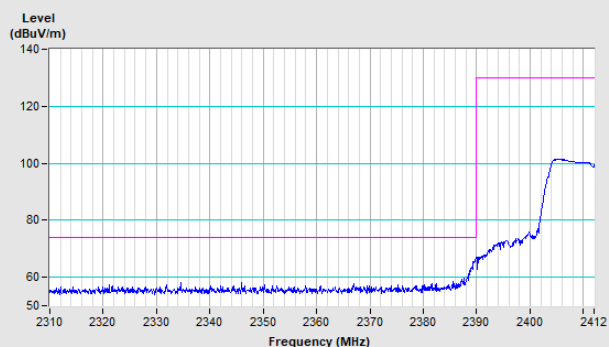


Vertical (Average)

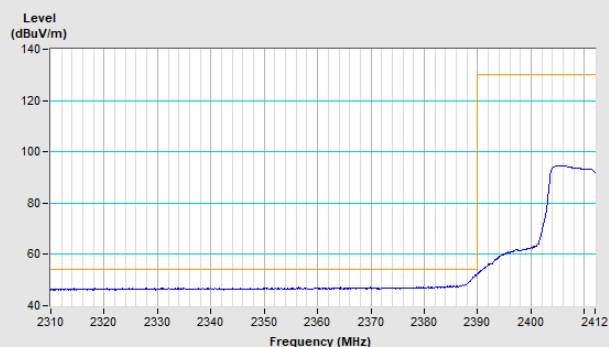


802.11g Channel 1

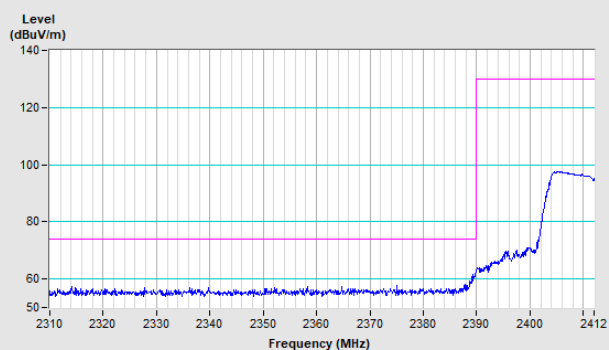
Horizontal (Peak)



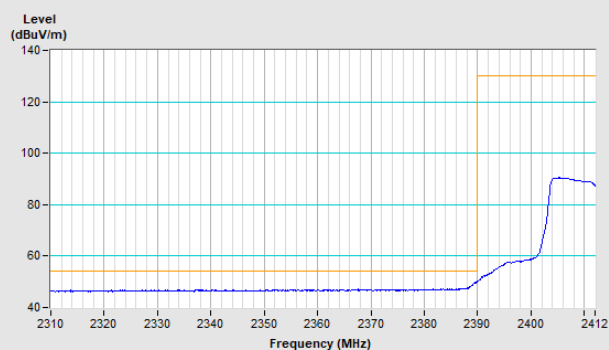
Horizontal (Average)



Vertical (Peak)

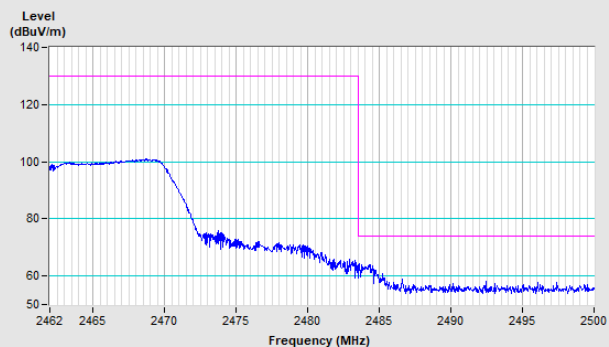


Vertical (Average)

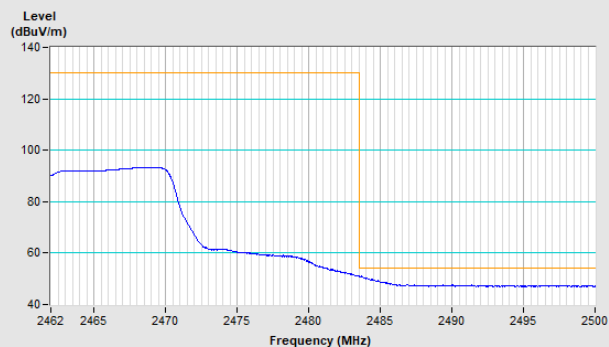


802.11g Channel 11

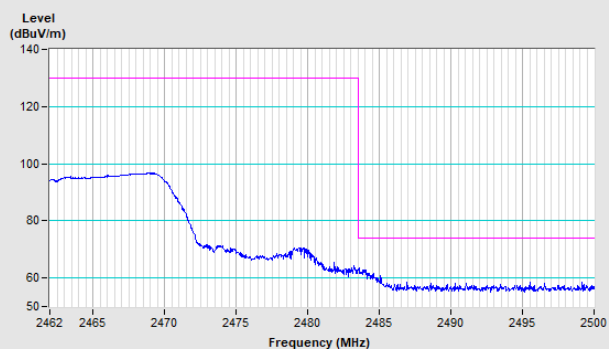
Horizontal (Peak)



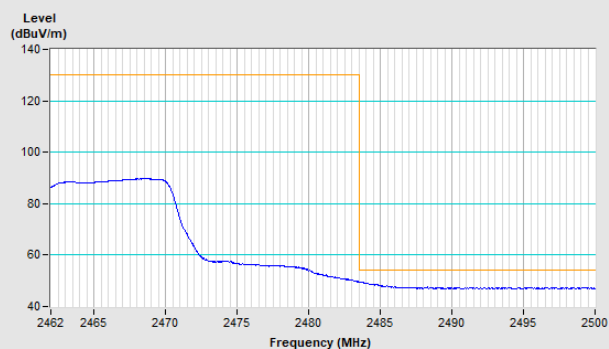
Horizontal (Average)



Vertical (Peak)

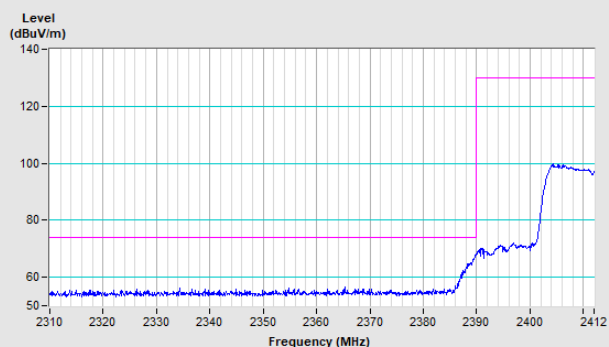


Vertical (Average)

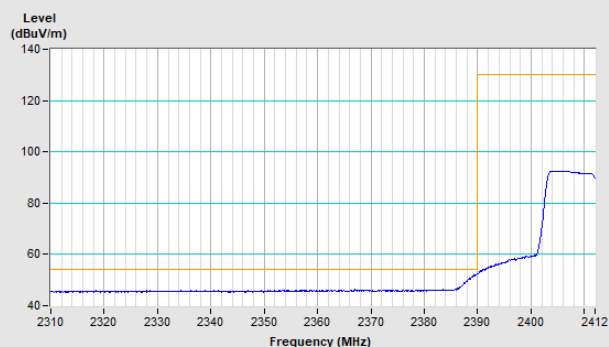


802.11n (HT20) Channel 1

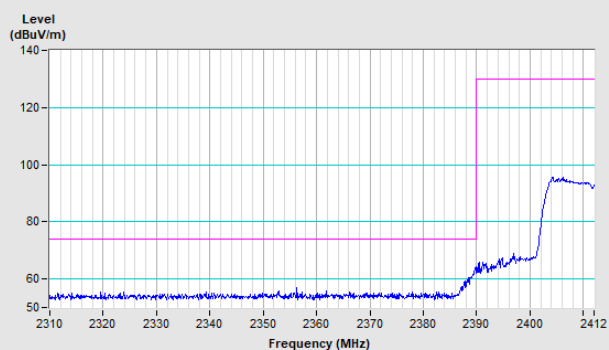
Horizontal (Peak)



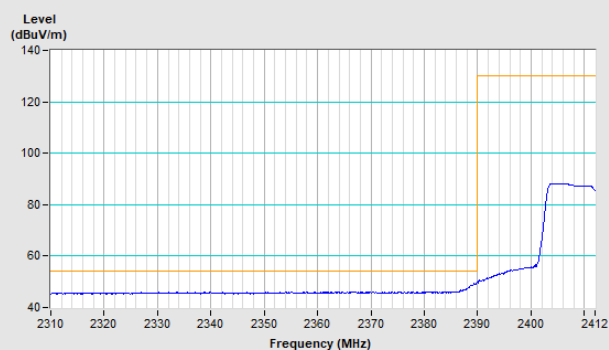
Horizontal (Average)



Vertical (Peak)

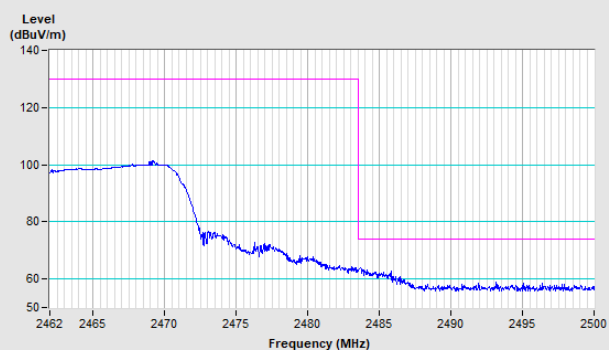


Vertical (Average)

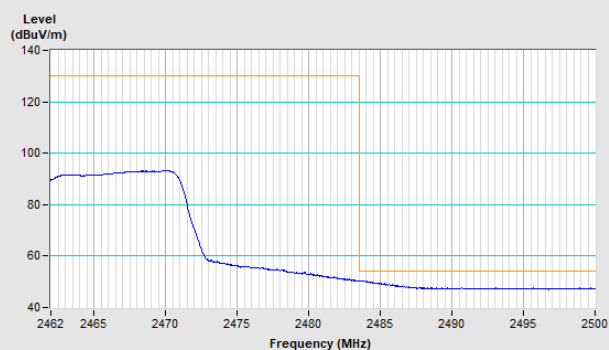


802.11n (HT20) Channel 11

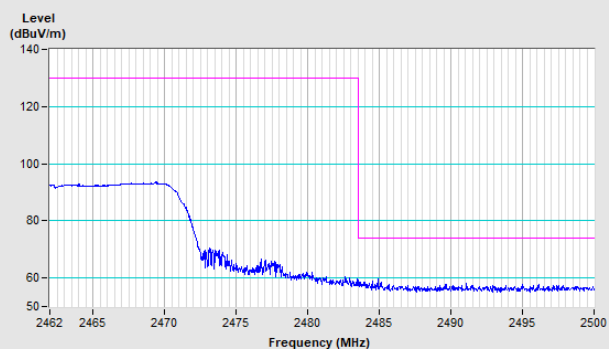
Horizontal (Peak)



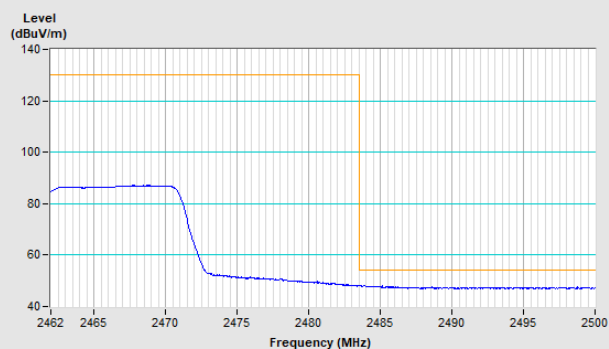
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 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:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

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

--- END ---