

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBENL-WTW-P21090472A
FCC ID: RYK-WNFQ261ACNIBT
Product: 802.11ac/a/b/g/n 2T2R Industrial-graded Wi-Fi / Bluetooth 4.2 Combo M.2 2230 Module
Brand: Sparklan
Model No.: WNFQ-261ACNI(BT)
Received Date: 2023/6/30
Test Date: 2023/7/21 ~ 2023/10/4
Issued Date: 2023/11/6

Applicant: SparkLAN Communications, Inc.

Address: 5F, No. 199, Ruihu St., Neihu Dist., Taipei City 114067, 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

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____

May Chen / Manager

, Date: _____

2023/11/6

This test report consists of 93 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 : Vito Lung / 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	9
3.4 Test Mode Applicability and Tested Channel Detail	10
3.5 Duty Cycle of Test Signal	11
3.6 Test Program Used and Operation Descriptions	12
3.7 Connection Diagram of EUT and Peripheral Devices	12
3.8 Configuration of Peripheral Devices and Cable Connections	12
4 Test Instruments	13
4.1 RF Output Power	13
4.2 Unwanted Emissions below 1 GHz	13
4.3 Unwanted Emissions above 1 GHz	14
5 Limits of Test Items.....	15
5.1 RF Output Power	15
5.2 Unwanted Emissions below 1 GHz	15
5.3 Unwanted Emissions above 1 GHz	15
6 Test Arrangements	16
6.1 RF Output Power	16
6.1.1 Test Setup	16
6.1.2 Test Procedure	16
6.2 Unwanted Emissions below 1 GHz	17
6.2.1 Test Setup	17
6.2.2 Test Procedure	18
6.3 Unwanted Emissions above 1 GHz	19
6.3.1 Test Setup	19
6.3.2 Test Procedure	19
7 Test Results of Test Item	20
7.1 RF Output Power	20
7.2 Unwanted Emissions below 1 GHz	23
7.3 Unwanted Emissions above 1 GHz	25
8 Pictures of Test Arrangements	92
9 Information of the Testing Laboratories	93

Release Control Record

Issue No.	Description	Date Issued
RFBENL-WTW-P21090472A	Original release.	2023/11/6

1 Certificate

Product: 802.11ac/a/b/g/n 2T2R Industrial-graded Wi-Fi / Bluetooth 4.2 Combo M.2 2230 Module

Brand: Sparklan

Test Model: WNFQ-261ACNI(BT)

Sample Status: Engineering sample

Applicant: SparkLAN Communications, Inc.

Test Date: 2023/7/21 ~ 2023/10/4

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

KDB 662911 D01 Multiple Transmitter Output v02r01

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	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	NA	Refer to Note 1
15.247(a)(2)	6 dB Bandwidth	NA	Refer to Note 1
15.247(d)	Conducted Out of Band Emissions	NA	Refer to Note 1
15.207	AC Power Conducted Emissions	NA	Refer to Note 1
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.3 dB at 299.29 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.2 dB at 2390.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is IPEX, SMA RP Plug, IPEX4L MHF, RP-SMA(M), MHF4 not a standard connector.

Notes:

1. RF Output Power & Unwanted Emissions Measurement were performed for this addendum. The others testing data refer to original test report.
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) (±)
RF Output Power	-	1.1 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 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	802.11ac/a/b/g/n 2T2R Industrial-graded Wi-Fi / Bluetooth 4.2 Combo M.2 2230 Module
Brand	Sparklan
Test Model	WNFQ-261ACNI(BT)
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc form host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 300 Mbps VHT: up to 400 Mbps
Operating Frequency	2.412 GHz ~ 2.472 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20: 13 802.11n (HT40), VHT40: 9
Output Power	483.703 mW (26.85 dBm)

Note:

- This report is prepared for FCC Class II permissive change. The difference compared with the Report No.: RFBENL-WTW-P21051124 design is as the following information:
 - ◆ Added new antenna (Refer to Section 3.2).
- According to above condition, there are RF Output Power & Unwanted Emissions Measurement need to be performed. All data for meeting the requirement is verified.
- There are Bluetooth technology and WLAN technology used for the EUT.
- WLAN/BT coexistence mode:
 - ◆ 2x2 WLAN + BT:
 - 5GHz 802.11a/an (or 11ac) transmit concurrent with BT.
 - 2.4GHz: timely shared coexistence.
- The emission (conducted & radiated emission) of the simultaneous operation (WiFi <5GHz> & Bluetooth) have been evaluated and no non-compliance found. The detail combinations of transmitters / frequencies / modes as below table

Mode	Available Channel	Tested Channel	Modulation Technology
5 GHz (802.11ac (VHT20)) + Bluetooth (EDR)	36 to 165	48	OFDM
	0 to 78	78	8DPSK

- 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.

Original										
Ant. Set.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	2.4GHz Cable Loss (dBi)	5G Cable Loss (dBi)	Connector Type	Cable Length (mm)
1	Chain (0)	WNC	81-EBJ15.005	PIFA	3.00	Band 1&2: 2.56	1.15	Band 1&2: 1.70	IPEX	300
						Band 3: 4.76		Band 3: 1.74		
						Band 4: 4.76		Band 4: 1.79		
	Chain (1)	WNC	81-EBJ15.005	PIFA	3.62	Band 1&2: 3.08	1.15	Band 1&2: 1.70	IPEX	300
						Band 3: 3.31		Band 3: 1.74		
						Band 4: 2.42		Band 4: 1.79		
Ant. Set.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	2.4GHz Cable Loss (dBi)	5G Cable Loss (dBi)	Connector Type	Cable Length (mm)
2	Chain (0)	INPAQ	DAM-I6-H-DB-800-10-17	Dipole	1.13	Band 1&2: 1.33	NA	NA	SMA RP Plug	900
						Band 3: -0.63				
						Band 4: -0.97				
	Chain (1)	INPAQ	DAM-I6-H-DB-800-10-17	Dipole	1.29	Band 1&2: 1.94	NA	NA	SMA RP Plug	900
						Band 3: -0.49				
						Band 4: -0.93				
Ant. Set.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	Connector Type	Cable Length (mm)		
3	Chain (0) Chain (1)	Sparklan	AD-301N	Dipole	4.4	Band 1&2: 5.2 Band 3&4: 5.8	IPEX MHF 4 at modular side & RP-SMA (M) at antenna side	150		
4	Chain (0) Chain (1)	Sparklan	AD-103AG	Dipole	2.02	Band 1&2: 1.93 Band 3&4: 2.03		150		
5	Chain (0) Chain (1)	Sparklan	AD-305N	Dipole	5.0	5.0		150		
6	Chain (0) Chain (1)	Sparklan	AD-303N	Dipole	3.0	3.0		150		
7	Chain (0) Chain (1)	Sparklan	AD-302N	Dipole	3.0	2.0		150		
Ant. Set.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	Connector Type	Cable Length (mm)		
8	Chain (0) Chain (1)	SANAV	GEPH-023 401GEPH16-022G000000032-001	PCB	4.78	4.73	IPEX4L MHF	320		
Newly										
Ant. Set.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	Frequency range	Connector Type	Cable Length (mm)	
9	Chain (0) Chain (1)	Pulse	W3334BD0150B	FPC	4	5.5	2400~2500MHZ	MHF4	150	
							5150~5850MHZ			

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

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
VHT20	2TX	2RX
VHT40	2TX	2RX

Note:

1. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz) and VHT mode for 20 MHz (40 MHz), therefore the manufacturer will control the power for 802.11n mode is same as the VHT mode or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

13 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20:

Channel	Frequency	Channel	Frequency
1	2412 MHz	8	2447 MHz
2	2417 MHz	9	2452 MHz
3	2422 MHz	10	2457 MHz
4	2427 MHz	11	2462 MHz
5	2432 MHz	12	2467 MHz
6	2437 MHz	13	2472 MHz
7	2442 MHz		

9 channels are provided for 802.11n (HT40), VHT40:

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The antenna with 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. 2. 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).
Worst Case:	1. The antenna of X-axis/ Y-axis/ Z-axis Worst Condition: Z-axis

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

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11b	1, 6, 11, 12, 13	DBPSK	1Mb/s
	802.11g	1,2, 6, 10, 11, 12, 13	BPSK	6Mb/s
	VHT20	1, 2, 6, 10, 11, 12, 13	BPSK	MCS0
	VHT40	3, 4, 6, 8, 9, 10, 11	BPSK	MCS0
Unwanted Emissions below 1 GHz	VHT20	6	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11, 12, 13	DBPSK	1Mb/s
	802.11g	1,2, 6, 10, 11, 12, 13	BPSK	6Mb/s
	VHT20	1, 2, 6, 10, 11, 12, 13	BPSK	MCS0
	VHT40	3, 4, 6, 8, 9, 10, 11	BPSK	MCS0

3.5 Duty Cycle of Test Signal

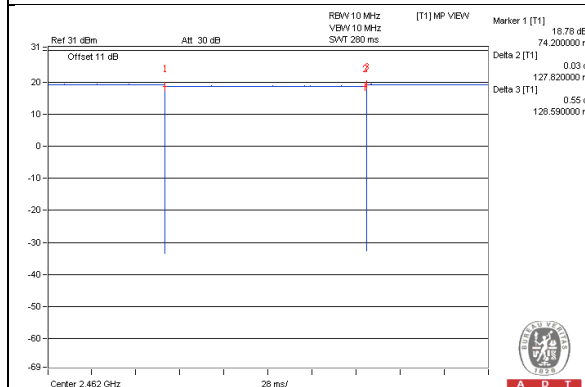
802.11b: Duty cycle = 127.82 ms / 128.59 ms = 0.994

802.11g: Duty cycle = 21.45 ms / 21.587 ms = 0.994

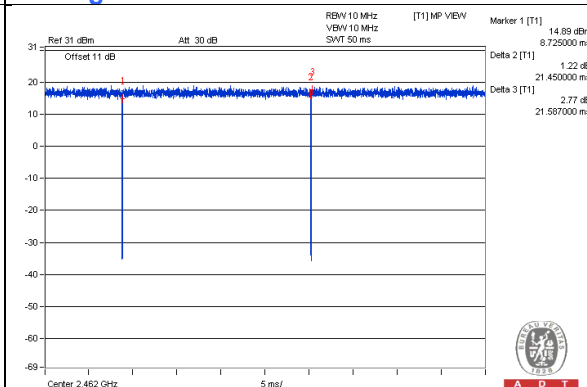
VHT20: Duty cycle = 19.787 ms / 20.012 ms = 0.989

VHT40: Duty cycle = 9.5. ms / 9.725 ms = 0.977, Duty factor = $10 * \log(1/0.977) = 0.1$

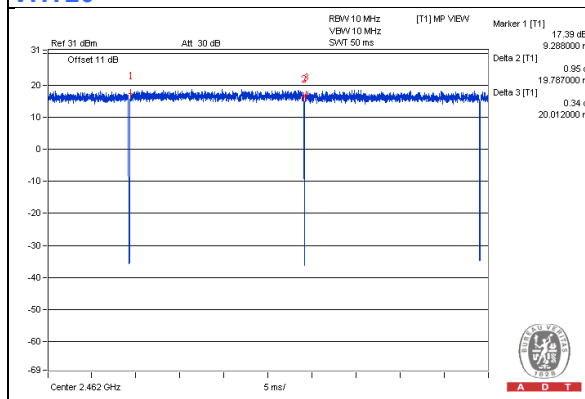
802.11b



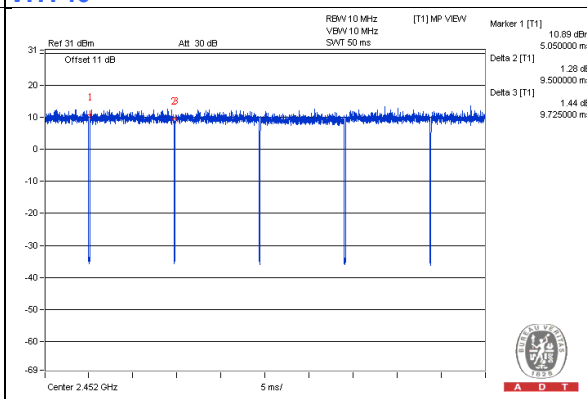
802.11g



VHT20



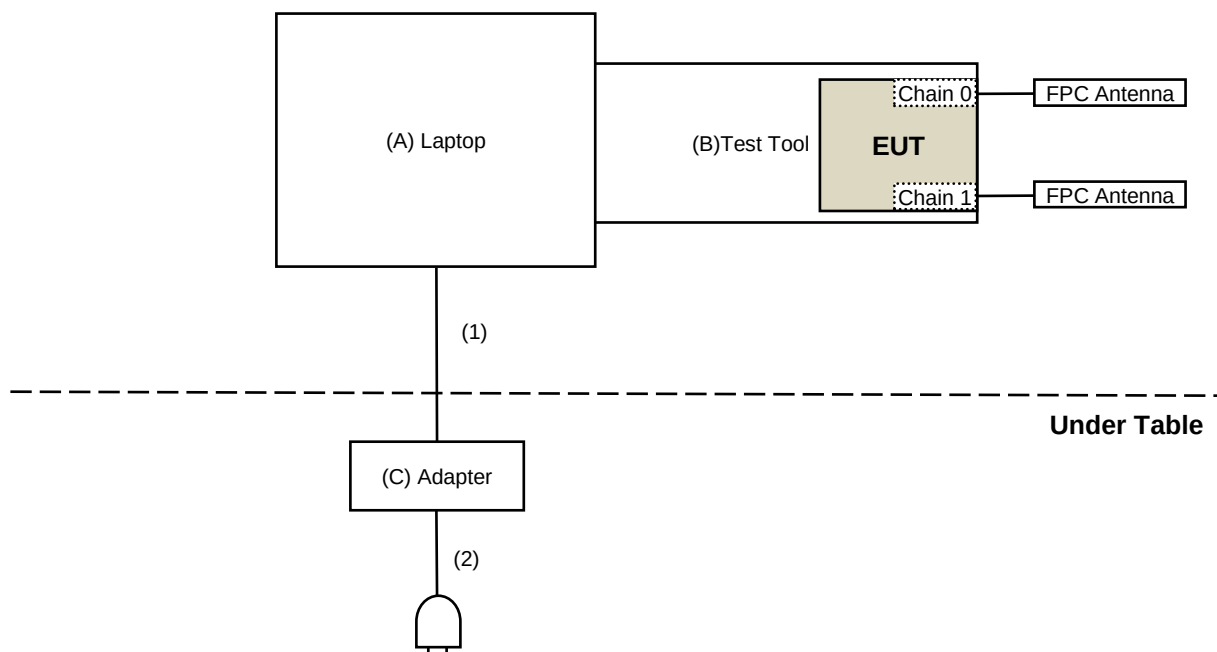
VHT40



3.6 Test Program Used and Operation Descriptions

Controlling software (WiFi: QDART 1.0.38) 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	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
B	Test Tool	Qualcomm Atheros	N/A	N/A	N/A	Supplied by applicant
C	Adapter	Dell	FA65NE0-00	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Provided by Lab
2	AC Cable	1	1	No	0	Provided by Lab

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 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Power Meter Anritsu	ML2495A	1529002	2023/6/17	2024/6/16
Pulse Power Sensor Anritsu	MA2411B	1726434	2023/6/19	2024/6/18

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/10/4

4.2 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0942	2022/10/20	2023/10/19
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2022/12/28	2023/12/27
Loop Antenna Electro-Metrics	EM-6879	264	2023/2/21	2024/2/20
MXA Signal Analyzer Keysight	N9020B	MY60112410	2023/3/6	2024/3/5
MXE EMI Receiver Keysight	N9038A	MY59050100	2023/6/13	2024/6/12
Preamplifier EMCI	EMC330N	980852	2023/2/20	2024/2/19
	EMC001340	980142	2023/5/8	2024/5/7
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2022/12/19	2023/12/18
		LOOPCAB-002	2022/12/19	2023/12/18
RF Coaxial Cable PEWC	8D	966-6-1	2023/4/6	2024/4/5
		966-6-2	2023/4/6	2024/4/5
		966-6-3	2023/4/6	2024/4/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2023/7/21

4.3 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-2035	2022/11/13	2023/11/12
	BBHA 9170	BBHA9170519	2022/11/13	2023/11/12
MXA Signal Analyzer Keysight	N9020B	MY60112410	2023/3/6	2024/3/5
MXE EMI Receiver Keysight	N9038A	MY59050100	2023/6/13	2024/6/12
Preamplifier EMCI	EMC12630SE	980385	2023/8/10	2024/8/9
	EMC184045SE	980387	2023/8/9	2024/8/8
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2023/2/20	2024/2/19
	EMC101G-KM-KM-10000	210708	2022/11/4	2023/11/3
	EMC102-KM-KM-1200	160924	2023/8/9	2024/8/8
	EMC104-SM-SM-1300	210205	2023/5/8	2024/5/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2023/9/25 ~ 2023/10/3

5 Limits of Test Items

5.1 RF Output Power

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

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

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

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

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

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

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 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

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 20 dB below the highest level of the desired power:

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

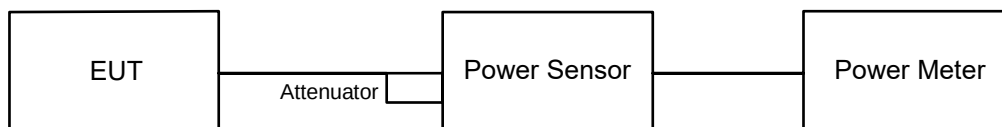
Notes:

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 RF Output Power

6.1.1 Test Setup



6.1.2 Test Procedure

Peak Power:

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

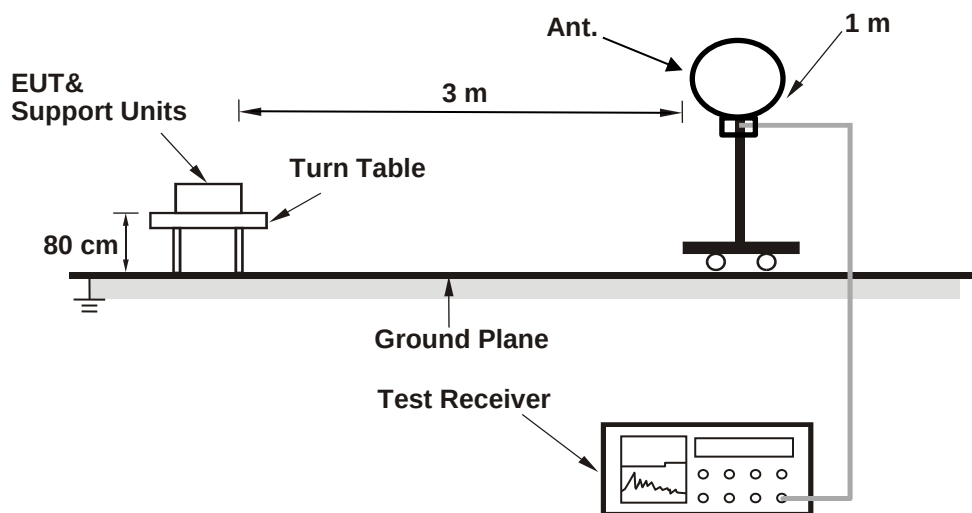
Average Power:

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

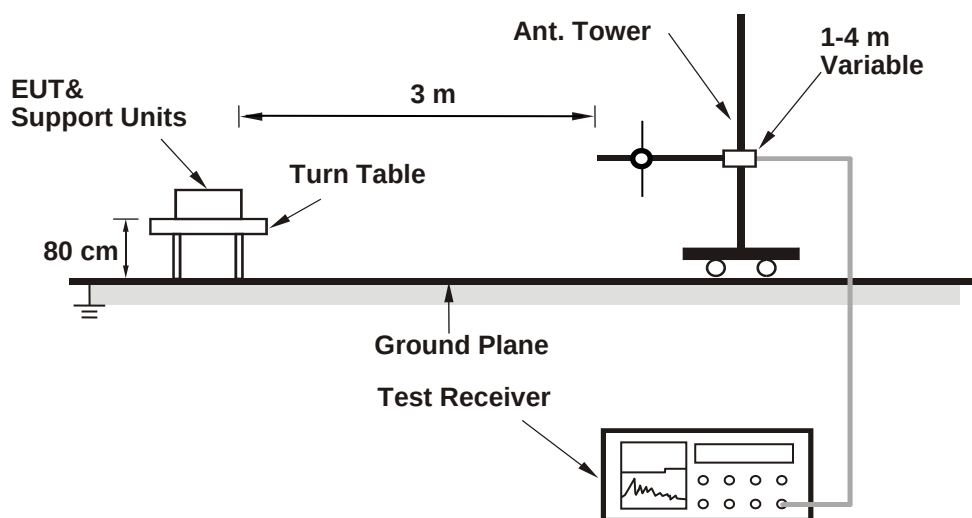
6.2 Unwanted Emissions below 1 GHz

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

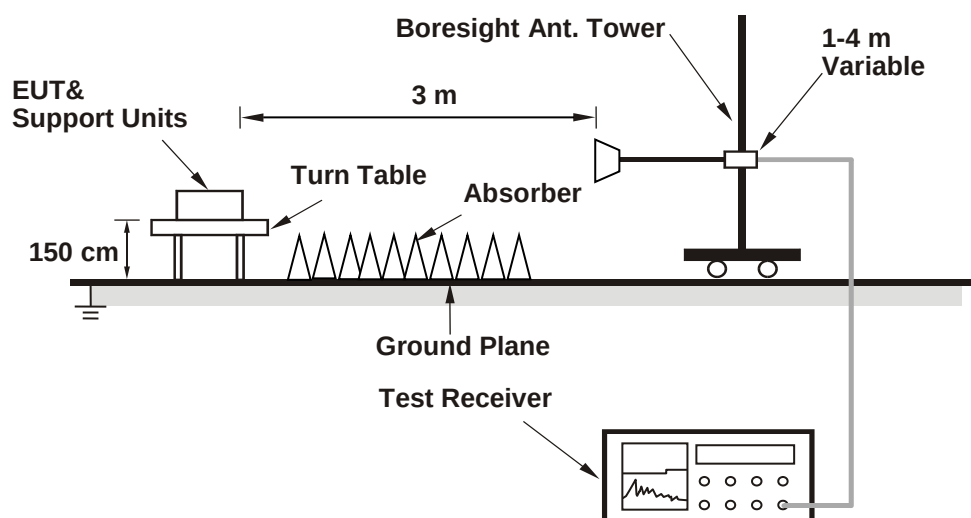
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Katina Lu
--------------	---------	---------------------------	--------------	------------	-----------

For Peak Power

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	20.49	20.55	225.445	23.53	30	Pass
6	2437	20.68	21.28	251.226	24.00	30	Pass
11	2462	20.73	21.12	247.724	23.94	30	Pass
12	2467	16.83	17.26	101.406	20.06	30	Pass
13	2472	12.21	13.15	37.288	15.72	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	19.06	19.42	168.036	22.25	30	Pass
2	2417	22.97	23.33	413.431	26.16	30	Pass
6	2437	22.94	23.38	414.56	26.18	30	Pass
10	2457	22.61	23.17	389.881	25.91	30	Pass
11	2462	17.52	17.80	116.75	20.67	30	Pass
12	2467	14.32	14.88	57.801	17.62	30	Pass
13	2472	7.94	8.52	13.335	11.25	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	18.04	18.25	130.514	21.16	30	Pass
2	2417	22.70	22.84	378.518	25.78	30	Pass
6	2437	23.77	23.90	483.703	26.85	30	Pass
10	2457	22.88	23.00	393.615	25.95	30	Pass
11	2462	17.37	17.79	114.693	20.60	30	Pass
12	2467	14.10	14.80	55.903	17.47	30	Pass
13	2472	7.22	7.82	11.326	10.54	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	14.50	14.69	57.628	17.61	30	Pass
4	2427	15.46	15.32	69.197	18.40	30	Pass
6	2437	18.25	18.29	134.287	21.28	30	Pass
8	2447	17.25	17.79	113.206	20.54	30	Pass
9	2452	16.51	16.69	91.437	19.61	30	Pass
10	2457	15.59	16.27	78.589	18.95	30	Pass
11	2462	7.56	8.37	12.572	10.99	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5 dBi < 6 dBi, so the output power limit shall not be reduced.

For Average Power

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	18.19	18.27	133.06	21.24
6	2437	18.33	19.05	148.43	21.72
11	2462	18.44	18.85	146.559	21.66
12	2467	14.54	14.87	59.135	17.72
13	2472	9.80	10.45	20.642	13.15

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	12.97	13.44	41.895	16.22
2	2417	17.63	18.42	127.445	21.05
6	2437	17.58	18.44	127.103	21.04
10	2457	17.33	17.91	115.877	20.64
11	2462	10.94	11.53	26.64	14.26
12	2467	7.98	8.48	13.328	11.25
13	2472	1.22	2.14	2.961	4.71

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	11.69	12.09	30.938	14.90
2	2417	16.79	17.41	102.834	20.12
6	2437	18.50	18.92	148.778	21.73
10	2457	17.21	17.51	108.965	20.37
11	2462	10.77	11.04	24.646	13.92
12	2467	7.71	8.21	12.524	10.98
13	2472	0.97	1.35	2.615	4.17

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
3	2422	7.87	8.13	12.625	11.01
4	2427	8.63	8.81	14.898	11.73
6	2437	11.72	11.92	30.419	14.83
8	2447	10.61	10.95	23.953	13.79
9	2452	9.78	9.99	19.483	12.90
10	2457	8.84	9.07	15.728	11.97
11	2462	1.32	1.62	2.807	4.48

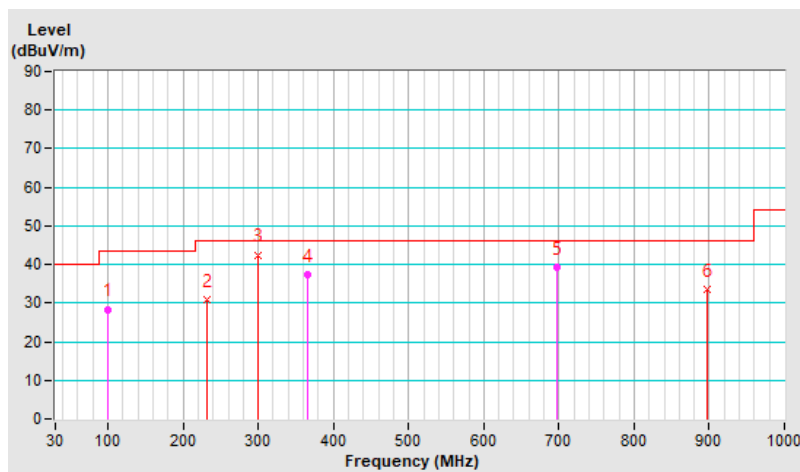
7.2 Unwanted Emissions below 1 GHz

RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	24°C, 68% RH
Tested By	Sampson Chen		

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	99.55	28.4 QP	43.5	-15.1	2.00 H	192	45.6	-17.2
2	232.35	31.0 QP	46.0	-15.0	3.00 H	320	45.9	-14.9
3	299.29	42.5 QP	46.0	-3.5	3.00 H	40	54.7	-12.2
4	365.83	37.5 QP	46.0	-8.5	1.00 H	360	48.1	-10.6
5	697.05	39.2 QP	46.0	-6.8	1.00 H	150	42.7	-3.5
6	898.00	33.4 QP	46.0	-12.6	3.00 H	150	34.3	-0.9

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

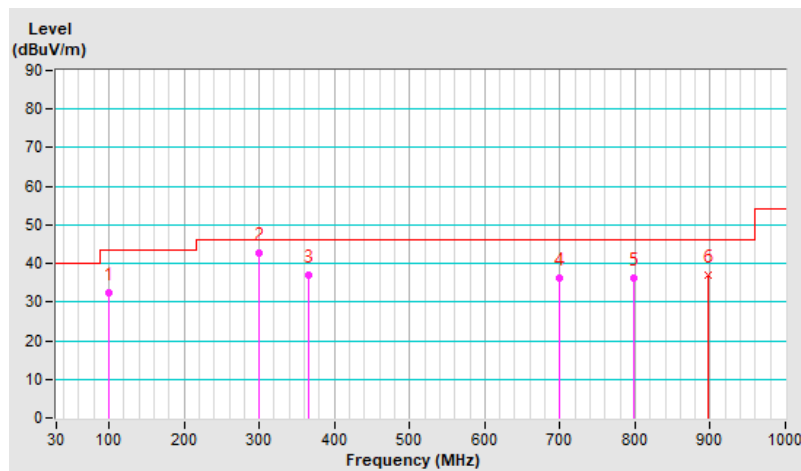


RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	24°C, 68% RH
Tested By	Sampson Chen		

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	99.75	32.5 QP	43.5	-11.0	1.00 V	342	49.7	-17.2
2	299.29	42.7 QP	46.0	-3.3	1.50 V	78	54.9	-12.2
3	365.15	36.9 QP	46.0	-9.1	1.50 V	82	47.6	-10.7
4	698.41	36.3 QP	46.0	-9.7	2.00 V	95	39.8	-3.5
5	798.23	36.1 QP	46.0	-9.9	1.50 V	199	38.2	-2.1
6	898.00	37.0 QP	46.0	-9.0	3.00 V	130	37.9	-0.9

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



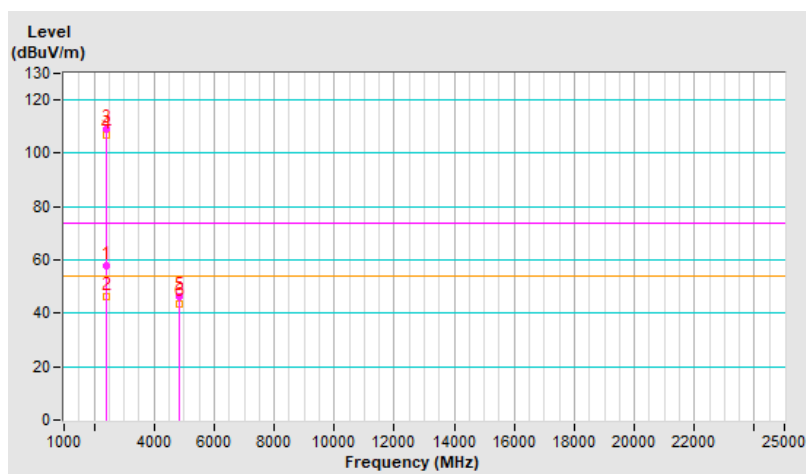
7.3 Unwanted Emissions above 1 GHz

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	57.8 PK	74.0	-16.2	2.94 H	337	58.2	-0.4
2	2390.00	46.4 AV	54.0	-7.6	2.94 H	337	46.8	-0.4
3	*2412.00	108.9 PK			2.94 H	337	109.3	-0.4
4	*2412.00	106.7 AV			2.94 H	337	107.1	-0.4
5	4824.00	46.1 PK	74.0	-27.9	1.03 H	261	41.8	4.3
6	4824.00	43.8 AV	54.0	-10.2	1.03 H	261	39.5	4.3

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.

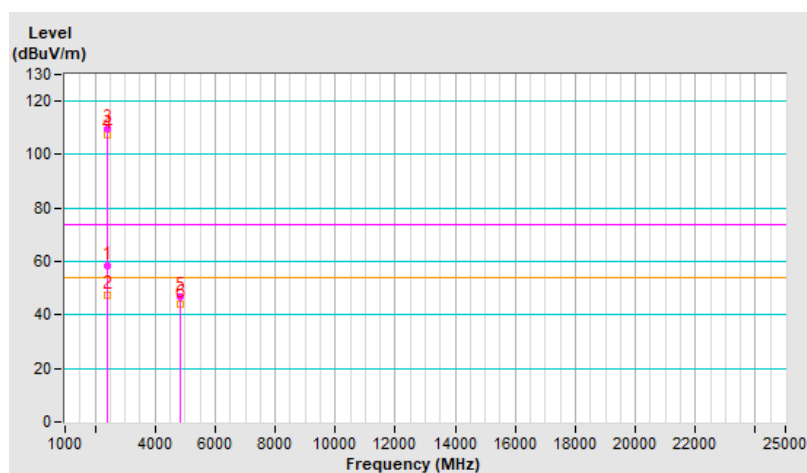


RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	58.6 PK	74.0	-15.4	2.48 V	45	59.0	-0.4
2	2390.00	47.4 AV	54.0	-6.6	2.48 V	45	47.8	-0.4
3	*2412.00	109.8 PK			2.48 V	45	110.2	-0.4
4	*2412.00	107.2 AV			2.48 V	45	107.6	-0.4
5	4824.00	46.9 PK	74.0	-27.1	3.64 V	175	42.6	4.3
6	4824.00	44.0 AV	54.0	-10.0	3.64 V	175	39.7	4.3

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.

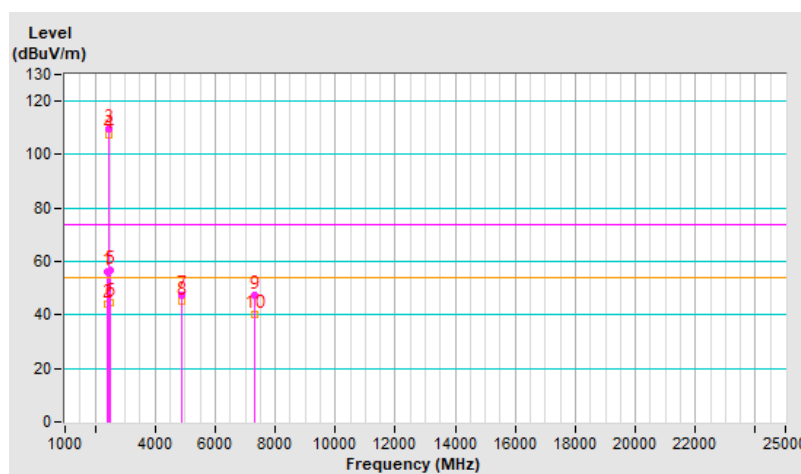


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.0 PK	74.0	-18.0	2.14 H	12	56.4	-0.4
2	2390.00	44.3 AV	54.0	-9.7	2.14 H	12	44.7	-0.4
3	*2437.00	109.7 PK			2.14 H	12	110.0	-0.3
4	*2437.00	107.3 AV			2.14 H	12	107.6	-0.3
5	2483.50	56.6 PK	74.0	-17.4	2.14 H	12	57.0	-0.4
6	2483.50	44.5 AV	54.0	-9.5	2.14 H	12	44.9	-0.4
7	4874.00	47.3 PK	74.0	-26.7	1.15 H	261	42.9	4.4
8	4874.00	45.0 AV	54.0	-9.0	1.15 H	261	40.6	4.4
9	7311.00	47.4 PK	74.0	-26.6	2.71 H	207	36.0	11.4
10	7311.00	40.4 AV	54.0	-13.6	2.71 H	207	29.0	11.4

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.

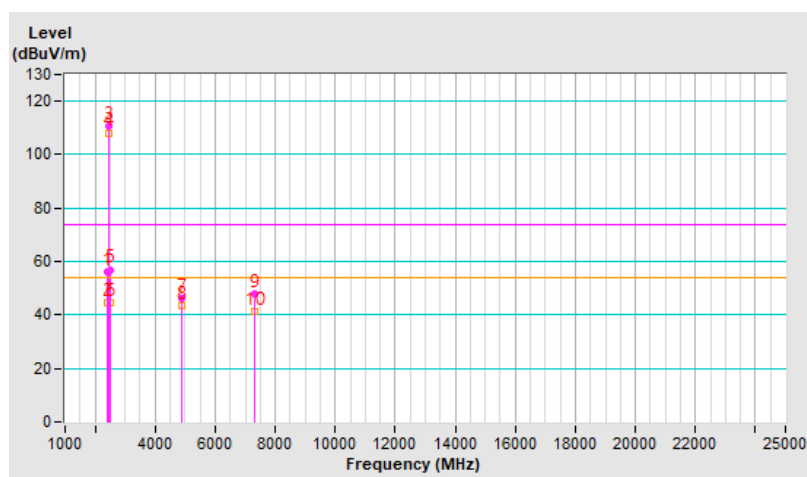


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.4 PK	74.0	-17.6	2.53 V	52	56.8	-0.4
2	2390.00	44.7 AV	54.0	-9.3	2.53 V	52	45.1	-0.4
3	*2437.00	110.9 PK			2.53 V	52	111.2	-0.3
4	*2437.00	108.2 AV			2.53 V	52	108.5	-0.3
5	2483.50	57.0 PK	74.0	-17.0	2.53 V	52	57.4	-0.4
6	2483.50	44.8 AV	54.0	-9.2	2.53 V	52	45.2	-0.4
7	4874.00	46.2 PK	74.0	-27.8	3.70 V	160	41.8	4.4
8	4874.00	43.6 AV	54.0	-10.4	3.70 V	160	39.2	4.4
9	7311.00	47.9 PK	74.0	-26.1	3.68 V	218	36.5	11.4
10	7311.00	41.1 AV	54.0	-12.9	3.68 V	218	29.7	11.4

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.

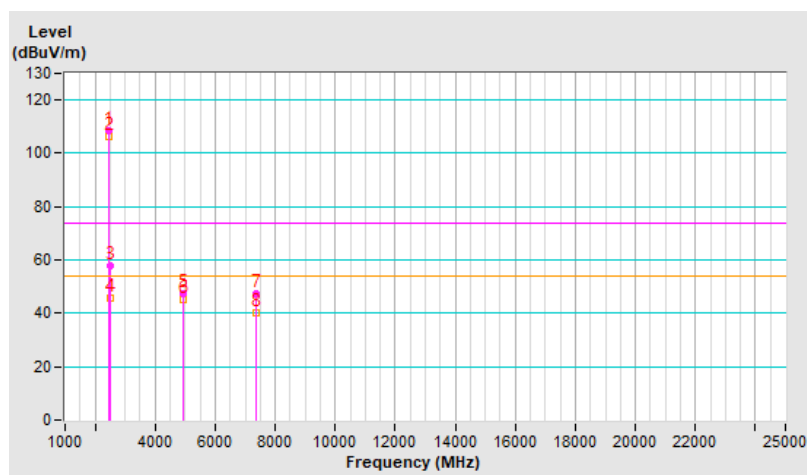


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	108.5 PK			2.68 H	132	108.9	-0.4
2	*2462.00	106.3 AV			2.68 H	132	106.7	-0.4
3	2483.50	57.9 PK	74.0	-16.1	2.68 H	132	58.3	-0.4
4	2483.50	45.7 AV	54.0	-8.3	2.68 H	132	46.1	-0.4
5	4924.00	47.5 PK	74.0	-26.5	1.13 H	270	43.0	4.5
6	4924.00	45.3 AV	54.0	-8.7	1.13 H	270	40.8	4.5
7	7386.00	47.1 PK	74.0	-26.9	2.67 H	210	35.6	11.5
8	7386.00	40.1 AV	54.0	-13.9	2.67 H	210	28.6	11.5

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.

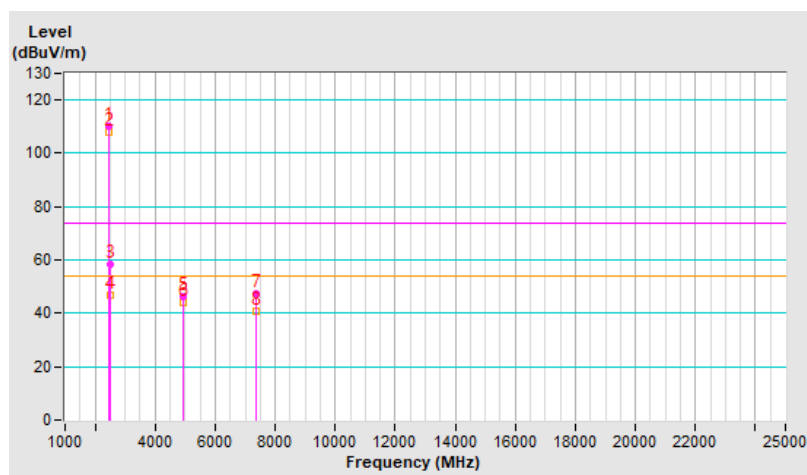


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	110.0 PK			2.52 V	45	110.4	-0.4
2	*2462.00	107.8 AV			2.52 V	45	108.2	-0.4
3	2495.00	58.5 PK	74.0	-15.5	2.52 V	45	58.9	-0.4
4	2495.00	46.9 AV	54.0	-7.1	2.52 V	45	47.3	-0.4
5	4924.00	46.4 PK	74.0	-27.6	3.65 V	156	41.9	4.5
6	4924.00	44.0 AV	54.0	-10.0	3.65 V	156	39.5	4.5
7	7386.00	47.5 PK	74.0	-26.5	3.69 V	227	36.0	11.5
8	7386.00	40.9 AV	54.0	-13.1	3.69 V	227	29.4	11.5

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.

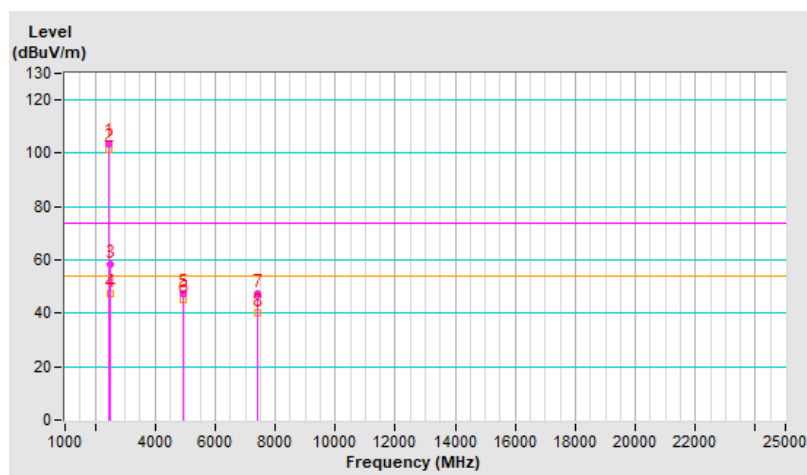


RF Mode	802.11b	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	103.8 PK			2.82 H	159	104.2	-0.4
2	*2467.00	101.6 AV			2.82 H	159	102.0	-0.4
3	2483.50	58.4 PK	74.0	-15.6	2.82 H	159	58.8	-0.4
4	2483.50	47.2 AV	54.0	-6.8	2.82 H	159	47.6	-0.4
5	4934.00	47.2 PK	74.0	-26.8	1.19 H	262	42.7	4.5
6	4934.00	44.9 AV	54.0	-9.1	1.19 H	262	40.4	4.5
7	7401.00	47.1 PK	74.0	-26.9	2.70 H	218	35.5	11.6
8	7401.00	40.2 AV	54.0	-13.8	2.70 H	218	28.6	11.6

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.

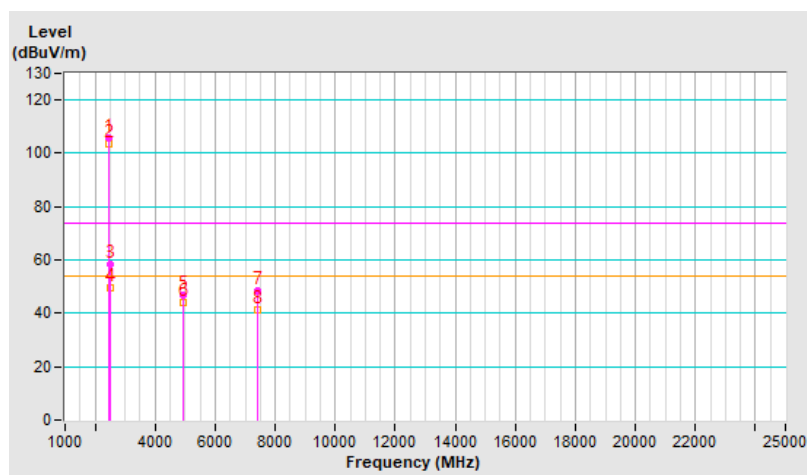


RF Mode	802.11b	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	105.9 PK			2.50 V	53	106.3	-0.4
2	*2467.00	103.5 AV			2.50 V	53	103.9	-0.4
3	2489.00	58.5 PK	74.0	-15.5	2.50 V	53	58.9	-0.4
4	2489.00	49.4 AV	54.0	-4.6	2.50 V	53	49.8	-0.4
5	4934.00	46.7 PK	74.0	-27.3	3.65 V	160	42.2	4.5
6	4934.00	43.9 AV	54.0	-10.1	3.65 V	160	39.4	4.5
7	7401.00	48.2 PK	74.0	-25.8	3.72 V	216	36.6	11.6
8	7401.00	41.5 AV	54.0	-12.5	3.72 V	216	29.9	11.6

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.

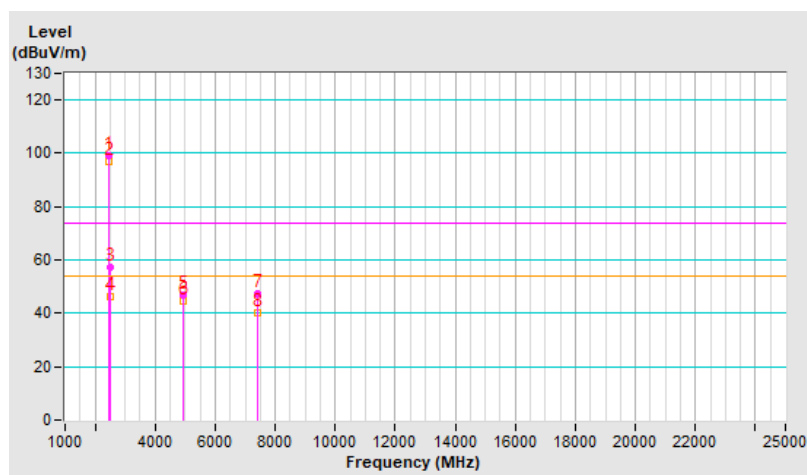


RF Mode	802.11b	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	99.1 PK			2.68 H	152	99.6	-0.5
2	*2472.00	96.9 AV			2.68 H	152	97.4	-0.5
3	2483.50	57.4 PK	74.0	-16.6	2.68 H	152	57.8	-0.4
4	2483.50	46.0 AV	54.0	-8.0	2.68 H	152	46.4	-0.4
5	4944.00	46.9 PK	74.0	-27.1	1.13 H	251	42.3	4.6
6	4944.00	44.7 AV	54.0	-9.3	1.13 H	251	40.1	4.6
7	7416.00	47.3 PK	74.0	-26.7	2.74 H	203	35.7	11.6
8	7416.00	40.2 AV	54.0	-13.8	2.74 H	203	28.6	11.6

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.

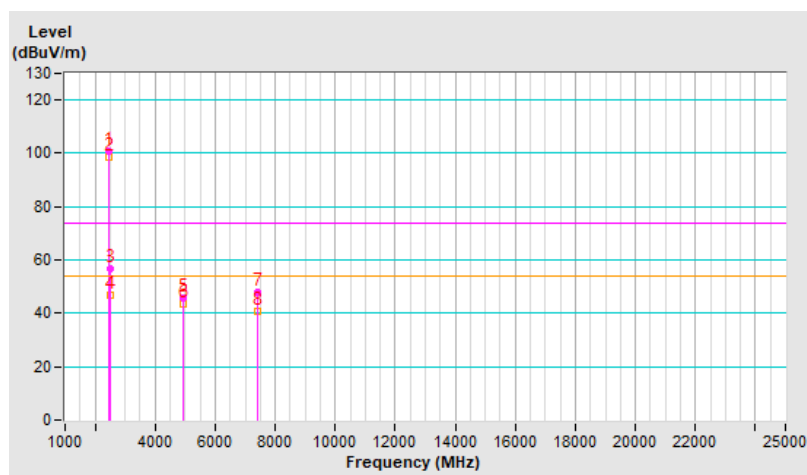


RF Mode	802.11b	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	101.0 PK			2.43 V	37	101.5	-0.5
2	*2472.00	98.6 AV			2.43 V	37	99.1	-0.5
3	2483.50	56.8 PK	74.0	-17.2	2.43 V	37	57.2	-0.4
4	2483.50	46.7 AV	54.0	-7.3	2.43 V	37	47.1	-0.4
5	4944.00	45.8 PK	74.0	-28.2	3.66 V	160	41.2	4.6
6	4944.00	43.5 AV	54.0	-10.5	3.66 V	160	38.9	4.6
7	7416.00	47.8 PK	74.0	-26.2	3.62 V	221	36.2	11.6
8	7416.00	40.7 AV	54.0	-13.3	3.62 V	221	29.1	11.6

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.

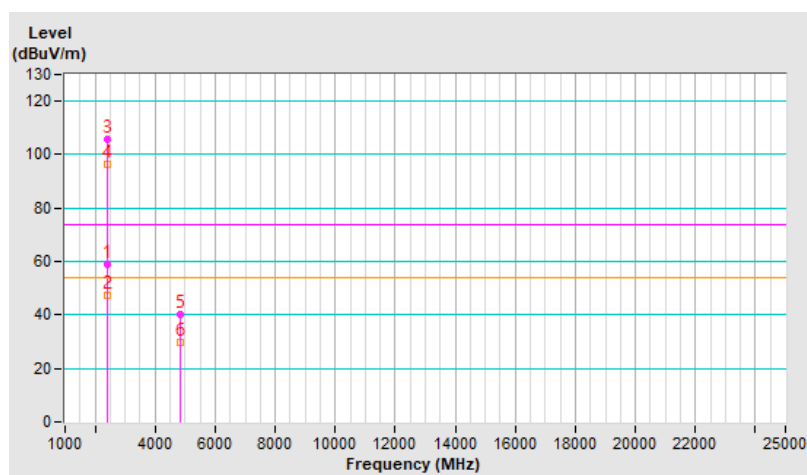


RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	58.9 PK	74.0	-15.1	1.26 H	157	59.3	-0.4
2	2390.00	47.2 AV	54.0	-6.8	1.26 H	157	47.6	-0.4
3	*2412.00	105.5 PK			1.26 H	157	105.9	-0.4
4	*2412.00	96.4 AV			1.26 H	157	96.8	-0.4
5	4824.00	40.1 PK	74.0	-33.9	2.86 H	325	35.8	4.3
6	4824.00	29.6 AV	54.0	-24.4	2.86 H	325	25.3	4.3

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.

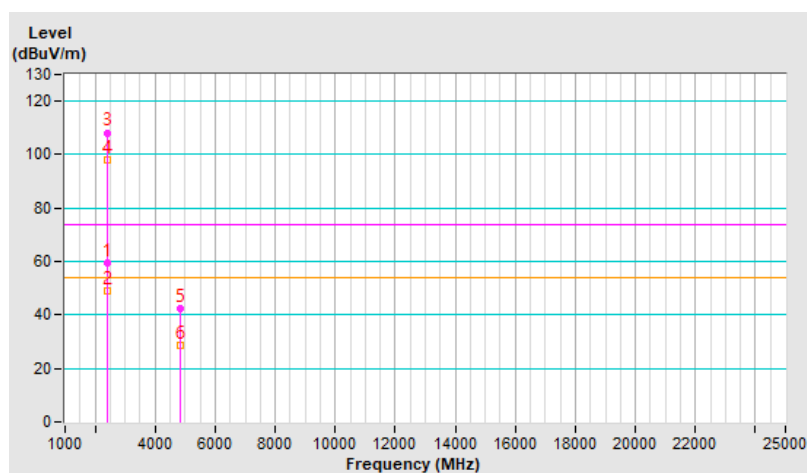


RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	59.7 PK	74.0	-14.3	2.48 V	48	60.1	-0.4
2	2390.00	48.8 AV	54.0	-5.2	2.48 V	48	49.2	-0.4
3	*2412.00	108.2 PK			2.48 V	48	108.6	-0.4
4	*2412.00	97.8 AV			2.48 V	48	98.2	-0.4
5	4824.00	42.4 PK	74.0	-31.6	2.89 V	207	38.1	4.3
6	4824.00	28.8 AV	54.0	-25.2	2.89 V	207	24.5	4.3

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.

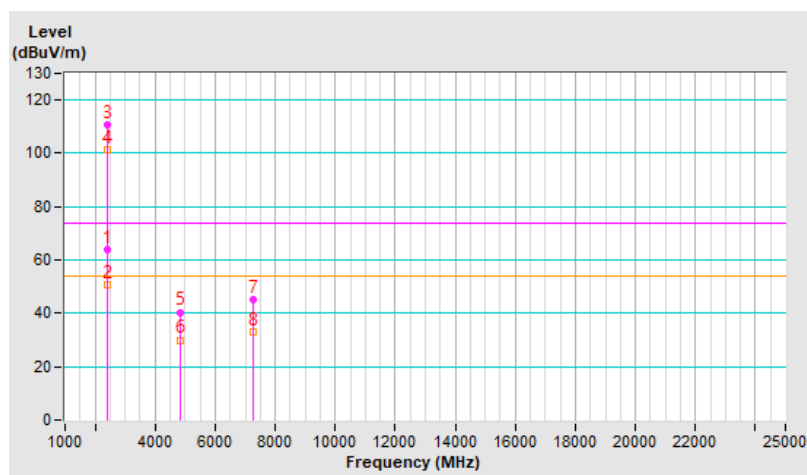


RF Mode	802.11g	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	63.7 PK	74.0	-10.3	1.28 H	152	64.1	-0.4
2	2390.00	50.5 AV	54.0	-3.5	1.28 H	152	50.9	-0.4
3	*2417.00	110.5 PK			1.28 H	152	110.9	-0.4
4	*2417.00	101.4 AV			1.28 H	152	101.8	-0.4
5	4834.00	40.5 PK	74.0	-33.5	2.85 H	328	36.2	4.3
6	4834.00	30.0 AV	54.0	-24.0	2.85 H	328	25.7	4.3
7	7251.00	45.4 PK	74.0	-28.6	2.95 H	219	34.3	11.1
8	7251.00	33.0 AV	54.0	-21.0	2.95 H	219	21.9	11.1

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.

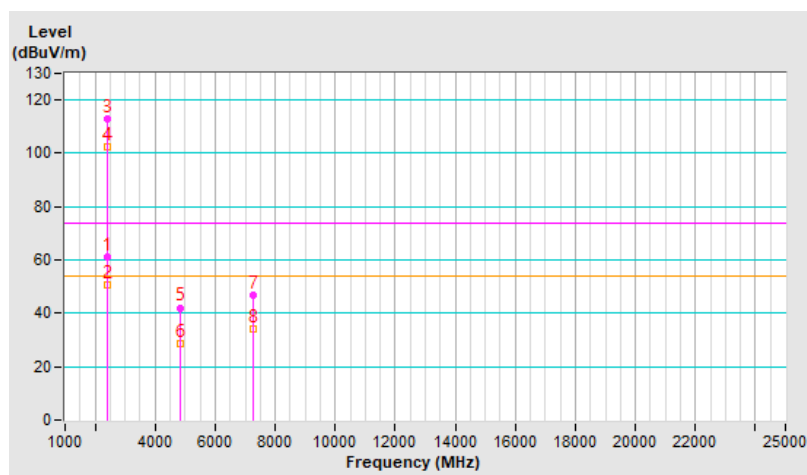


RF Mode	802.11g	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	61.3 PK	74.0	-12.7	2.45 V	37	61.7	-0.4
2	2390.00	50.8 AV	54.0	-3.2	2.45 V	37	51.2	-0.4
3	*2417.00	113.0 PK			2.45 V	37	113.4	-0.4
4	*2417.00	102.4 AV			2.45 V	37	102.8	-0.4
5	4834.00	42.1 PK	74.0	-31.9	2.90 V	210	37.8	4.3
6	4834.00	28.6 AV	54.0	-25.4	2.90 V	210	24.3	4.3
7	7251.00	46.6 PK	74.0	-27.4	3.15 V	210	35.5	11.1
8	7251.00	34.3 AV	54.0	-19.7	3.15 V	210	23.2	11.1

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.

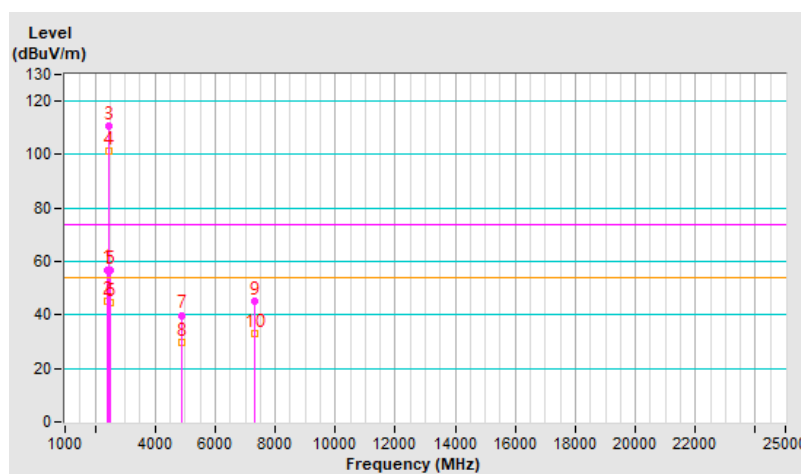


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	57.0 PK	74.0	-17.0	1.29 H	165	57.4	-0.4
2	2390.00	45.1 AV	54.0	-8.9	1.29 H	165	45.5	-0.4
3	*2437.00	110.6 PK			1.29 H	165	110.9	-0.3
4	*2437.00	101.5 AV			1.29 H	165	101.8	-0.3
5	2483.50	56.5 PK	74.0	-17.5	1.29 H	165	56.9	-0.4
6	2483.50	44.4 AV	54.0	-9.6	1.29 H	165	44.8	-0.4
7	4874.00	39.9 PK	74.0	-34.1	2.82 H	329	35.5	4.4
8	4874.00	29.6 AV	54.0	-24.4	2.82 H	329	25.2	4.4
9	7311.00	45.4 PK	74.0	-28.6	2.97 H	219	34.0	11.4
10	7311.00	33.0 AV	54.0	-21.0	2.97 H	219	21.6	11.4

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.

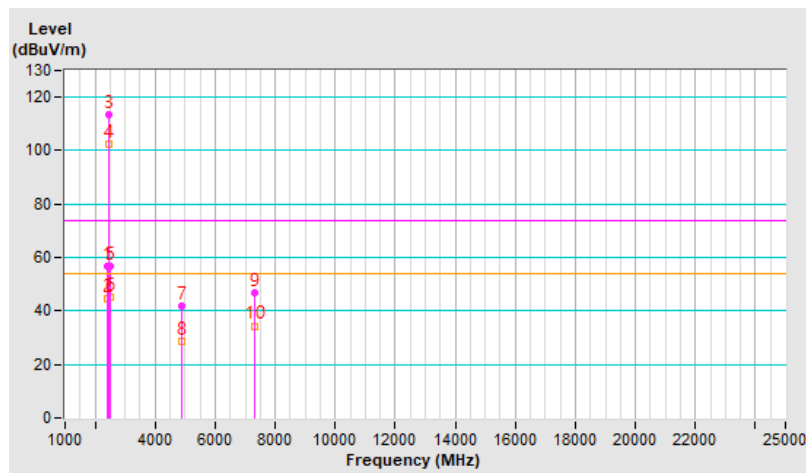


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.6 PK	74.0	-17.4	2.49 V	56	57.0	-0.4
2	2390.00	44.7 AV	54.0	-9.3	2.49 V	56	45.1	-0.4
3	*2437.00	113.5 PK			2.49 V	56	113.8	-0.3
4	*2437.00	102.6 AV			2.49 V	56	102.9	-0.3
5	2483.50	56.9 PK	74.0	-17.1	2.49 V	56	57.3	-0.4
6	2483.50	45.0 AV	54.0	-9.0	2.49 V	56	45.4	-0.4
7	4874.00	41.7 PK	74.0	-32.3	2.94 V	204	37.3	4.4
8	4874.00	28.4 AV	54.0	-25.6	2.94 V	204	24.0	4.4
9	7311.00	46.9 PK	74.0	-27.1	3.17 V	221	35.5	11.4
10	7311.00	34.4 AV	54.0	-19.6	3.17 V	221	23.0	11.4

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.

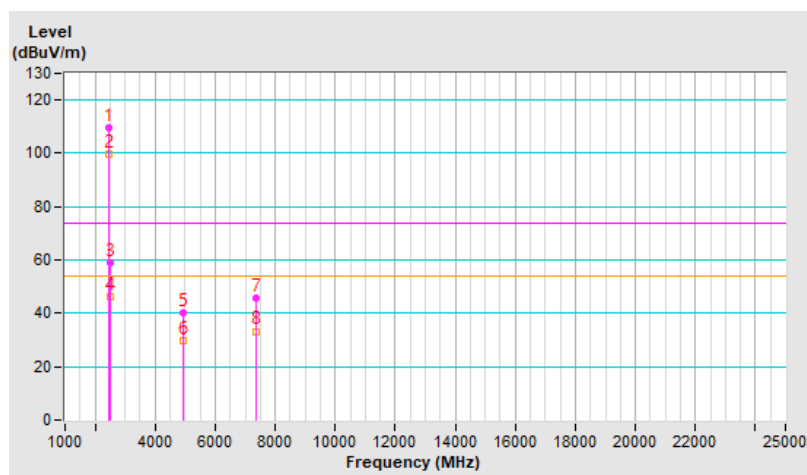


RF Mode	802.11g	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	109.4 PK			1.23 H	163	109.8	-0.4
2	*2457.00	99.8 AV			1.23 H	163	100.2	-0.4
3	2483.50	59.0 PK	74.0	-15.0	1.23 H	163	59.4	-0.4
4	2483.50	46.4 AV	54.0	-7.6	1.23 H	163	46.8	-0.4
5	4914.00	40.3 PK	74.0	-33.7	2.89 H	324	35.8	4.5
6	4914.00	29.7 AV	54.0	-24.3	2.89 H	324	25.2	4.5
7	7371.00	45.8 PK	74.0	-28.2	2.93 H	209	34.2	11.6
8	7371.00	33.3 AV	54.0	-20.7	2.93 H	209	21.7	11.6

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.

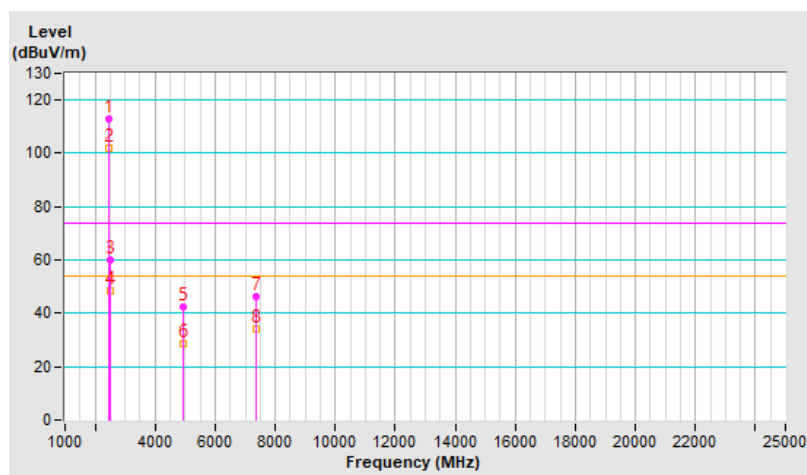


RF Mode	802.11g	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	112.9 PK			2.50 V	60	113.3	-0.4
2	*2457.00	102.1 AV			2.50 V	60	102.5	-0.4
3	2483.50	60.0 PK	74.0	-14.0	2.50 V	60	60.4	-0.4
4	2483.50	48.2 AV	54.0	-5.8	2.50 V	60	48.6	-0.4
5	4914.00	42.3 PK	74.0	-31.7	2.91 V	225	37.8	4.5
6	4914.00	28.8 AV	54.0	-25.2	2.91 V	225	24.3	4.5
7	7371.00	46.4 PK	74.0	-27.6	3.12 V	220	34.8	11.6
8	7371.00	34.0 AV	54.0	-20.0	3.12 V	220	22.4	11.6

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.

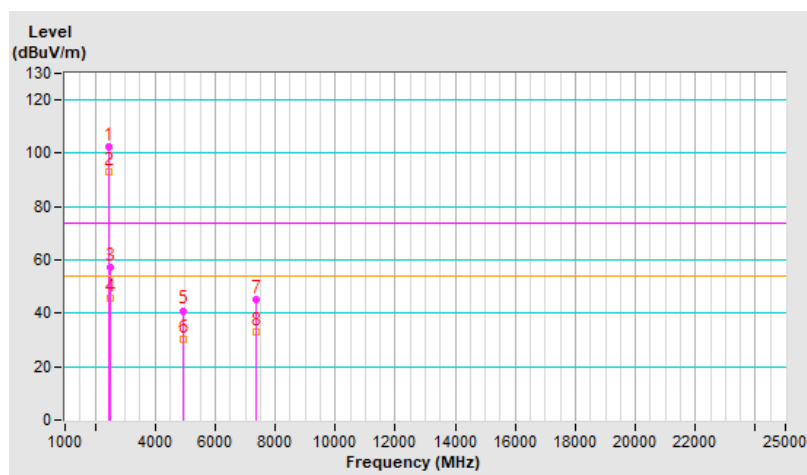


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	102.5 PK			1.30 H	168	102.9	-0.4
2	*2462.00	93.2 AV			1.30 H	168	93.6	-0.4
3	2483.50	57.4 PK	74.0	-16.6	1.30 H	168	57.8	-0.4
4	2483.50	45.8 AV	54.0	-8.2	1.30 H	168	46.2	-0.4
5	4924.00	41.0 PK	74.0	-33.0	2.91 H	319	36.5	4.5
6	4924.00	30.4 AV	54.0	-23.6	2.91 H	319	25.9	4.5
7	7386.00	45.2 PK	74.0	-28.8	2.96 H	210	33.7	11.5
8	7386.00	33.0 AV	54.0	-21.0	2.96 H	210	21.5	11.5

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.

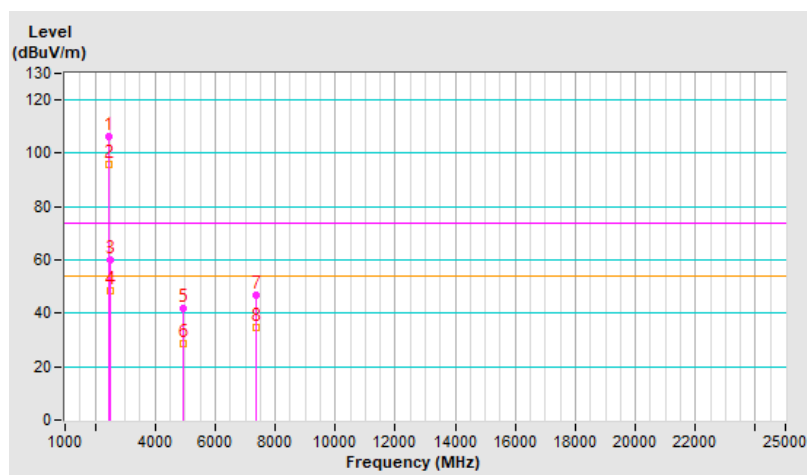


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	106.4 PK			2.50 V	38	106.8	-0.4
2	*2462.00	95.7 AV			2.50 V	38	96.1	-0.4
3	2483.50	59.8 PK	74.0	-14.2	2.50 V	38	60.2	-0.4
4	2483.50	48.3 AV	54.0	-5.7	2.50 V	38	48.7	-0.4
5	4924.00	42.0 PK	74.0	-32.0	2.87 V	220	37.5	4.5
6	4924.00	28.5 AV	54.0	-25.5	2.87 V	220	24.0	4.5
7	7386.00	47.0 PK	74.0	-27.0	3.14 V	207	35.5	11.5
8	7386.00	34.8 AV	54.0	-19.2	3.14 V	207	23.3	11.5

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.

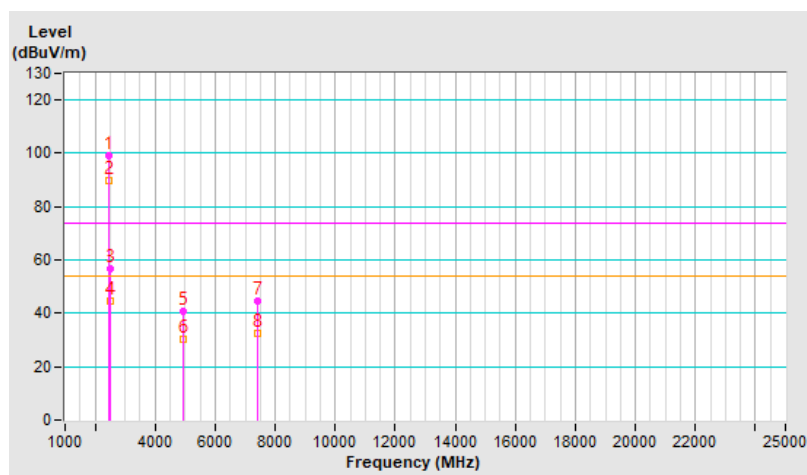


RF Mode	802.11g	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	99.3 PK			1.26 H	143	99.7	-0.4
2	*2467.00	89.8 AV			1.26 H	143	90.2	-0.4
3	2483.50	56.5 PK	74.0	-17.5	1.26 H	143	56.9	-0.4
4	2483.50	44.5 AV	54.0	-9.5	1.26 H	143	44.9	-0.4
5	4934.00	40.5 PK	74.0	-33.5	2.79 H	325	36.0	4.5
6	4934.00	30.2 AV	54.0	-23.8	2.79 H	325	25.7	4.5
7	7401.00	44.8 PK	74.0	-29.2	2.94 H	216	33.2	11.6
8	7401.00	32.7 AV	54.0	-21.3	2.94 H	216	21.1	11.6

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.

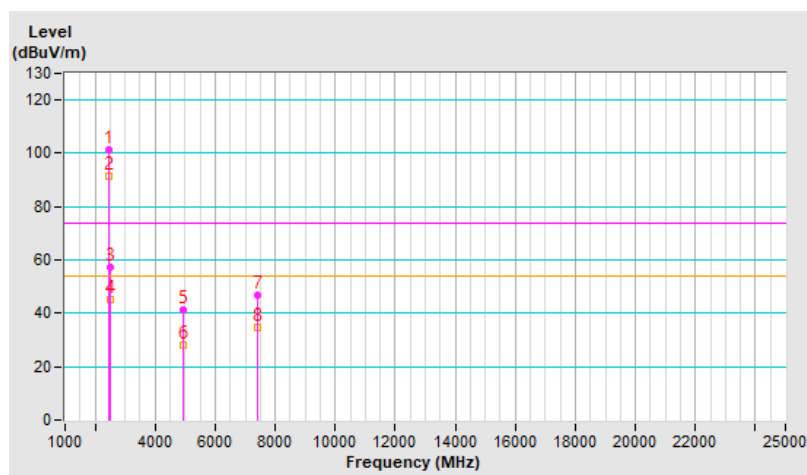


RF Mode	802.11g	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	101.4 PK			2.82 V	44	101.8	-0.4
2	*2467.00	91.6 AV			2.82 V	44	92.0	-0.4
3	2483.50	57.2 PK	74.0	-16.8	2.82 V	44	57.6	-0.4
4	2483.50	45.1 AV	54.0	-8.9	2.82 V	44	45.5	-0.4
5	4934.00	41.5 PK	74.0	-32.5	2.93 V	196	37.0	4.5
6	4934.00	28.1 AV	54.0	-25.9	2.93 V	196	23.6	4.5
7	7401.00	46.6 PK	74.0	-27.4	3.18 V	202	35.0	11.6
8	7401.00	34.6 AV	54.0	-19.4	3.18 V	202	23.0	11.6

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.

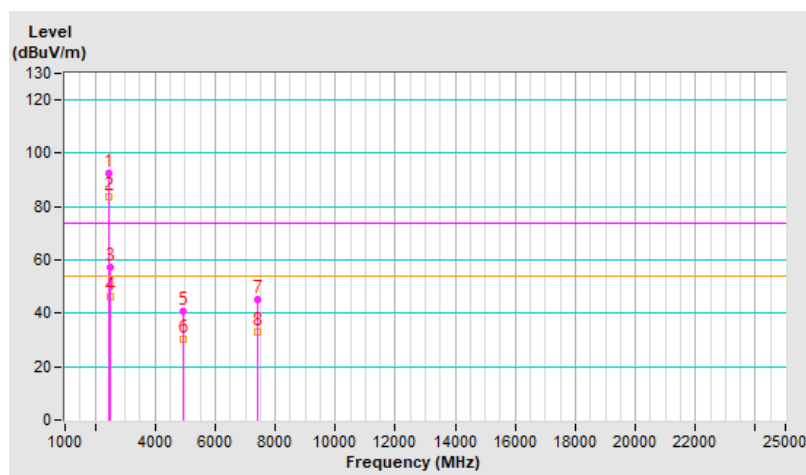


RF Mode	802.11g	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	92.7 PK			1.23 H	149	93.2	-0.5
2	*2472.00	83.5 AV			1.23 H	149	84.0	-0.5
3	2483.50	57.3 PK	74.0	-16.7	1.23 H	149	57.7	-0.4
4	2483.50	46.4 AV	54.0	-7.6	1.23 H	149	46.8	-0.4
5	4944.00	40.7 PK	74.0	-33.3	2.88 H	330	36.1	4.6
6	4944.00	30.3 AV	54.0	-23.7	2.88 H	330	25.7	4.6
7	7416.00	45.3 PK	74.0	-28.7	3.01 H	219	33.7	11.6
8	7416.00	33.0 AV	54.0	-21.0	3.01 H	219	21.4	11.6

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.

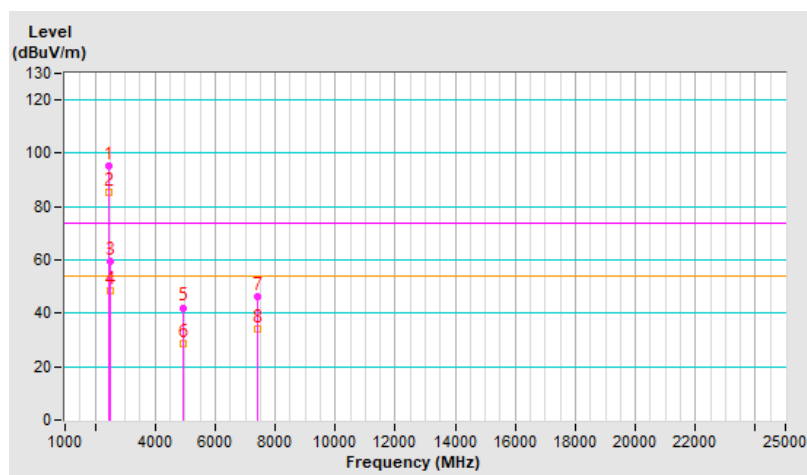


RF Mode	802.11g	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	95.5 PK			3.03 V	53	96.0	-0.5
2	*2472.00	85.5 AV			3.03 V	53	86.0	-0.5
3	2483.50	59.3 PK	74.0	-14.7	3.03 V	53	59.7	-0.4
4	2483.50	48.6 AV	54.0	-5.4	3.03 V	53	49.0	-0.4
5	4944.00	42.1 PK	74.0	-31.9	2.96 V	198	37.5	4.6
6	4944.00	28.4 AV	54.0	-25.6	2.96 V	198	23.8	4.6
7	7416.00	46.3 PK	74.0	-27.7	3.16 V	200	34.7	11.6
8	7416.00	34.2 AV	54.0	-19.8	3.16 V	200	22.6	11.6

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.

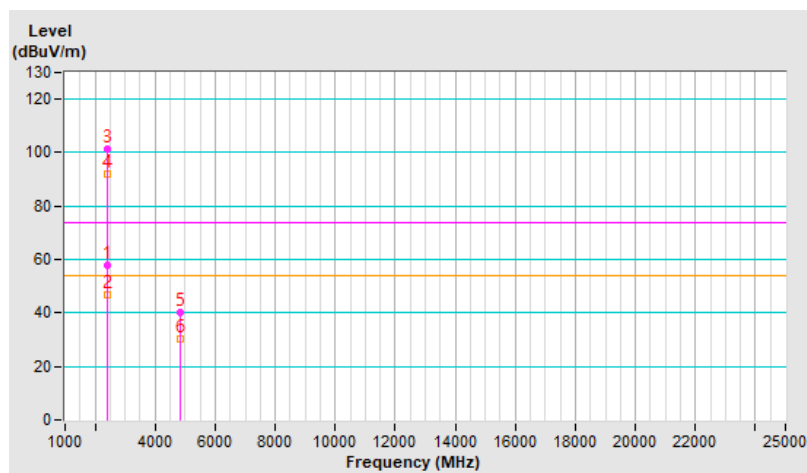


RF Mode	VHT20	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	57.7 PK	74.0	-16.3	1.32 H	159	58.1	-0.4
2	2390.00	46.8 AV	54.0	-7.2	1.32 H	159	47.2	-0.4
3	*2412.00	101.5 PK			1.32 H	159	101.9	-0.4
4	*2412.00	92.2 AV			1.32 H	159	92.6	-0.4
5	4824.00	40.4 PK	74.0	-33.6	2.88 H	317	36.1	4.3
6	4824.00	30.2 AV	54.0	-23.8	2.88 H	317	25.9	4.3

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.

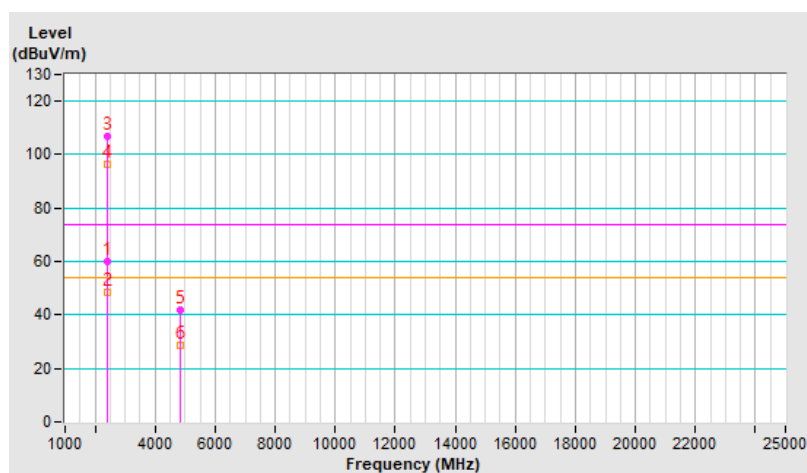


RF Mode	VHT20	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	60.0 PK	74.0	-14.0	2.52 V	39	60.4	-0.4
2	2390.00	48.2 AV	54.0	-5.8	2.52 V	39	48.6	-0.4
3	*2412.00	106.8 PK			2.52 V	39	107.2	-0.4
4	*2412.00	96.4 AV			2.52 V	39	96.8	-0.4
5	4824.00	42.0 PK	74.0	-32.0	2.90 V	201	37.7	4.3
6	4824.00	28.6 AV	54.0	-25.4	2.90 V	201	24.3	4.3

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.

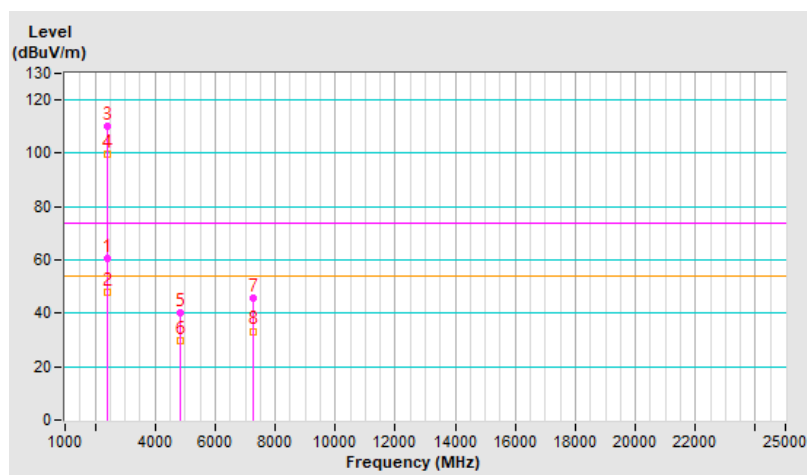


RF Mode	VHT20	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	60.4 PK	74.0	-13.6	1.29 H	166	60.8	-0.4
2	2390.00	47.9 AV	54.0	-6.1	1.29 H	166	48.3	-0.4
3	*2417.00	109.9 PK			1.29 H	166	110.3	-0.4
4	*2417.00	99.7 AV			1.29 H	166	100.1	-0.4
5	4834.00	40.4 PK	74.0	-33.6	2.91 H	325	36.1	4.3
6	4834.00	29.9 AV	54.0	-24.1	2.91 H	325	25.6	4.3
7	7251.00	45.9 PK	74.0	-28.1	2.99 H	211	34.8	11.1
8	7251.00	33.3 AV	54.0	-20.7	2.99 H	211	22.2	11.1

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.

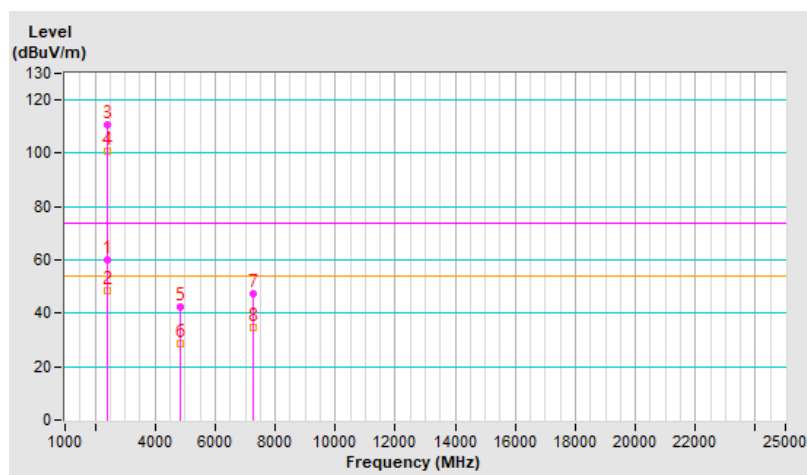


RF Mode	VHT20	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	60.0 PK	74.0	-14.0	2.50 V	60	60.4	-0.4
2	2390.00	48.3 AV	54.0	-5.7	2.50 V	60	48.7	-0.4
3	*2417.00	110.6 PK			2.50 V	60	111.0	-0.4
4	*2417.00	100.6 AV			2.50 V	60	101.0	-0.4
5	4834.00	42.2 PK	74.0	-31.8	2.96 V	222	37.9	4.3
6	4834.00	28.6 AV	54.0	-25.4	2.96 V	222	24.3	4.3
7	7251.00	47.1 PK	74.0	-26.9	3.19 V	200	36.0	11.1
8	7251.00	34.7 AV	54.0	-19.3	3.19 V	200	23.6	11.1

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.

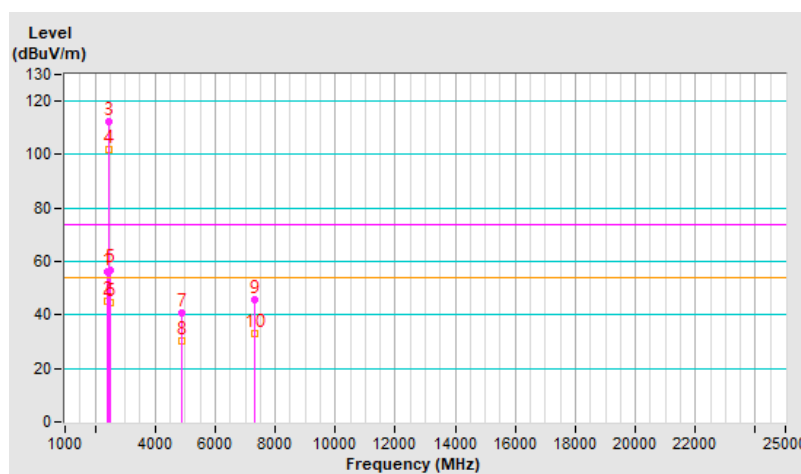


RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.4 PK	74.0	-17.6	1.28 H	153	56.8	-0.4
2	2390.00	45.0 AV	54.0	-9.0	1.28 H	153	45.4	-0.4
3	*2437.00	112.2 PK			1.28 H	153	112.5	-0.3
4	*2437.00	101.9 AV			1.28 H	153	102.2	-0.3
5	2483.50	57.0 PK	74.0	-17.0	1.28 H	153	57.4	-0.4
6	2483.50	44.7 AV	54.0	-9.3	1.28 H	153	45.1	-0.4
7	4874.00	40.8 PK	74.0	-33.2	2.89 H	319	36.4	4.4
8	4874.00	30.4 AV	54.0	-23.6	2.89 H	319	26.0	4.4
9	7311.00	45.6 PK	74.0	-28.4	2.97 H	214	34.2	11.4
10	7311.00	33.0 AV	54.0	-21.0	2.97 H	214	21.6	11.4

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.

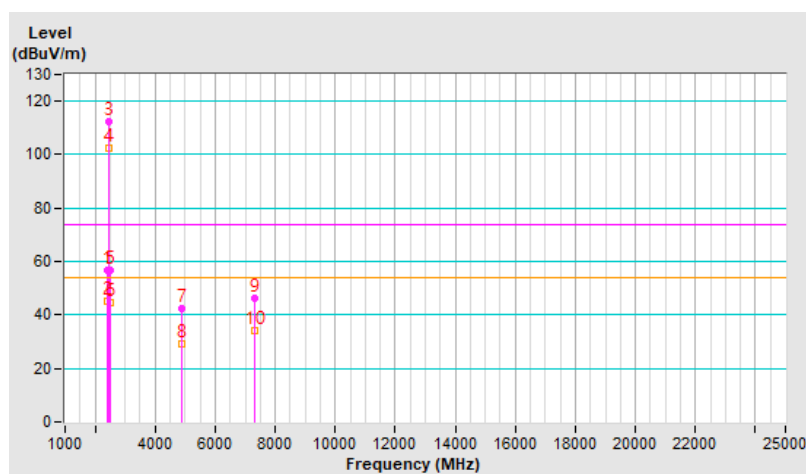


RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.6 PK	74.0	-17.4	2.49 V	51	57.0	-0.4
2	2390.00	44.9 AV	54.0	-9.1	2.49 V	51	45.3	-0.4
3	*2437.00	112.6 PK			2.49 V	51	112.9	-0.3
4	*2437.00	102.6 AV			2.49 V	51	102.9	-0.3
5	2483.50	56.6 PK	74.0	-17.4	2.49 V	51	57.0	-0.4
6	2483.50	44.6 AV	54.0	-9.4	2.49 V	51	45.0	-0.4
7	4874.00	42.5 PK	74.0	-31.5	2.86 V	207	38.1	4.4
8	4874.00	29.0 AV	54.0	-25.0	2.86 V	207	24.6	4.4
9	7311.00	46.2 PK	74.0	-27.8	3.18 V	202	34.8	11.4
10	7311.00	33.9 AV	54.0	-20.1	3.18 V	202	22.5	11.4

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.

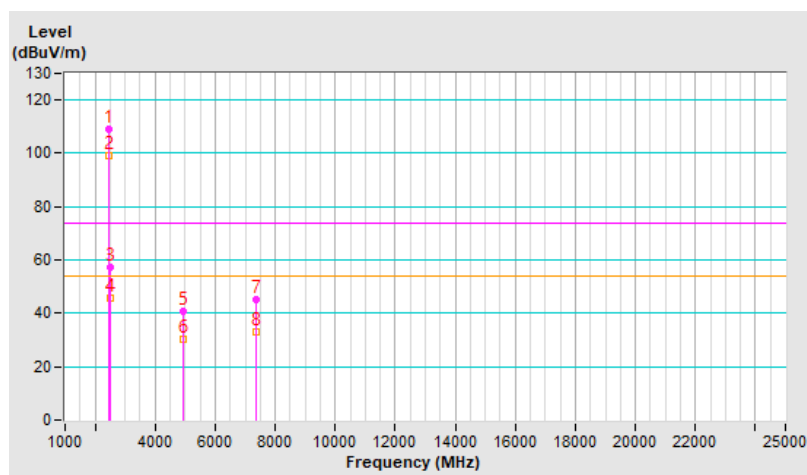


RF Mode	VHT20	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	109.2 PK			1.30 H	152	109.6	-0.4
2	*2457.00	98.9 AV			1.30 H	152	99.3	-0.4
3	2483.50	57.3 PK	74.0	-16.7	1.30 H	152	57.7	-0.4
4	2483.50	45.8 AV	54.0	-8.2	1.30 H	152	46.2	-0.4
5	4914.00	40.8 PK	74.0	-33.2	2.87 H	322	36.3	4.5
6	4914.00	30.3 AV	54.0	-23.7	2.87 H	322	25.8	4.5
7	7371.00	45.4 PK	74.0	-28.6	2.98 H	212	33.8	11.6
8	7371.00	33.1 AV	54.0	-20.9	2.98 H	212	21.5	11.6

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.

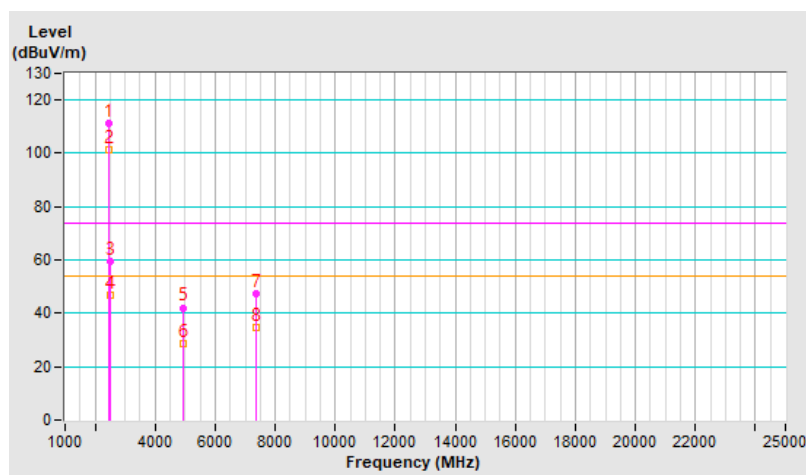


RF Mode	VHT20	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	111.2 PK			2.47 V	32	111.6	-0.4
2	*2457.00	101.1 AV			2.47 V	32	101.5	-0.4
3	2483.50	59.5 PK	74.0	-14.5	2.47 V	32	59.9	-0.4
4	2483.50	47.0 AV	54.0	-7.0	2.47 V	32	47.4	-0.4
5	4914.00	42.1 PK	74.0	-31.9	2.96 V	199	37.6	4.5
6	4914.00	28.6 AV	54.0	-25.4	2.96 V	199	24.1	4.5
7	7371.00	47.3 PK	74.0	-26.7	3.11 V	226	35.7	11.6
8	7371.00	34.8 AV	54.0	-19.2	3.11 V	226	23.2	11.6

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.

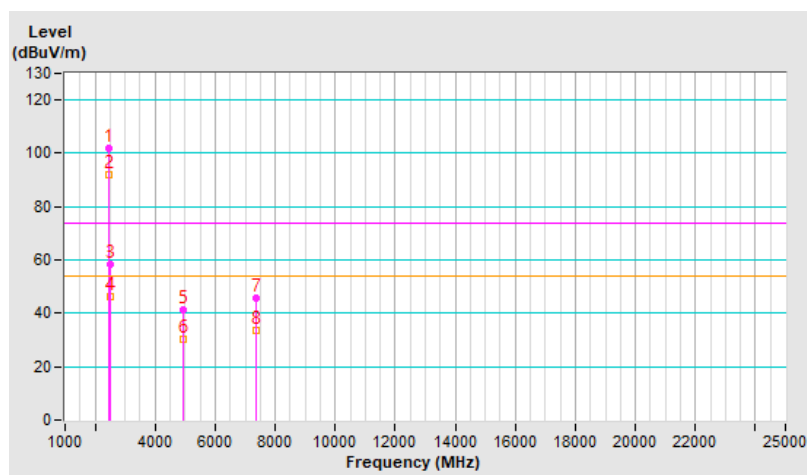


RF Mode	VHT20	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	102.1 PK			1.28 H	172	102.5	-0.4
2	*2462.00	92.0 AV			1.28 H	172	92.4	-0.4
3	2483.50	58.3 PK	74.0	-15.7	1.28 H	172	58.7	-0.4
4	2483.50	46.0 AV	54.0	-8.0	1.28 H	172	46.4	-0.4
5	4924.00	41.1 PK	74.0	-32.9	2.88 H	336	36.6	4.5
6	4924.00	30.4 AV	54.0	-23.6	2.88 H	336	25.9	4.5
7	7386.00	45.8 PK	74.0	-28.2	2.97 H	217	34.3	11.5
8	7386.00	33.4 AV	54.0	-20.6	2.97 H	217	21.9	11.5

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.

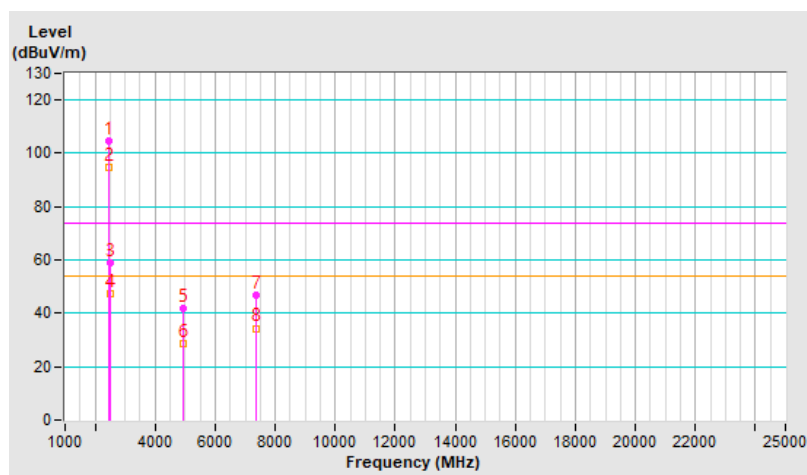


RF Mode	VHT20	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	104.8 PK			2.43 V	41	105.2	-0.4
2	*2462.00	94.6 AV			2.43 V	41	95.0	-0.4
3	2483.50	58.9 PK	74.0	-15.1	2.43 V	41	59.3	-0.4
4	2483.50	47.2 AV	54.0	-6.8	2.43 V	41	47.6	-0.4
5	4924.00	42.0 PK	74.0	-32.0	2.94 V	212	37.5	4.5
6	4924.00	28.8 AV	54.0	-25.2	2.94 V	212	24.3	4.5
7	7386.00	46.7 PK	74.0	-27.3	3.21 V	225	35.2	11.5
8	7386.00	34.4 AV	54.0	-19.6	3.21 V	225	22.9	11.5

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.

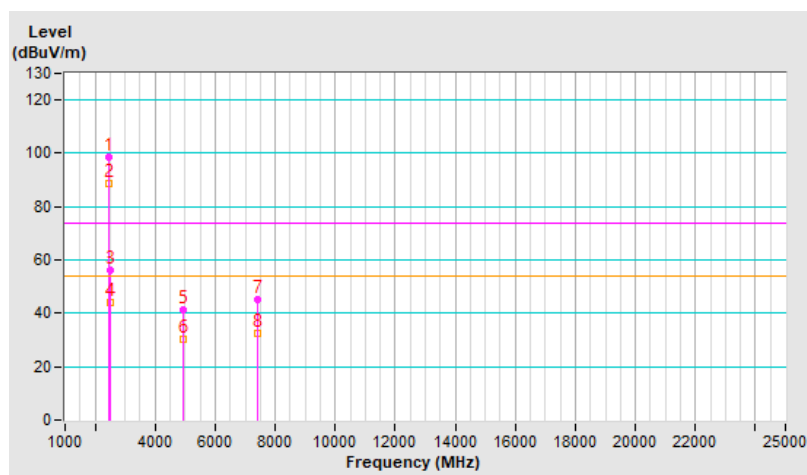


RF Mode	VHT20	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	98.4 PK			1.14 H	167	98.8	-0.4
2	*2467.00	88.6 AV			1.14 H	167	89.0	-0.4
3	2483.50	56.1 PK	74.0	-17.9	1.14 H	167	56.5	-0.4
4	2483.50	44.1 AV	54.0	-9.9	1.14 H	167	44.5	-0.4
5	4934.00	41.1 PK	74.0	-32.9	2.80 H	333	36.6	4.5
6	4934.00	30.4 AV	54.0	-23.6	2.80 H	333	25.9	4.5
7	7401.00	45.2 PK	74.0	-28.8	2.95 H	233	33.6	11.6
8	7401.00	32.6 AV	54.0	-21.4	2.95 H	233	21.0	11.6

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.

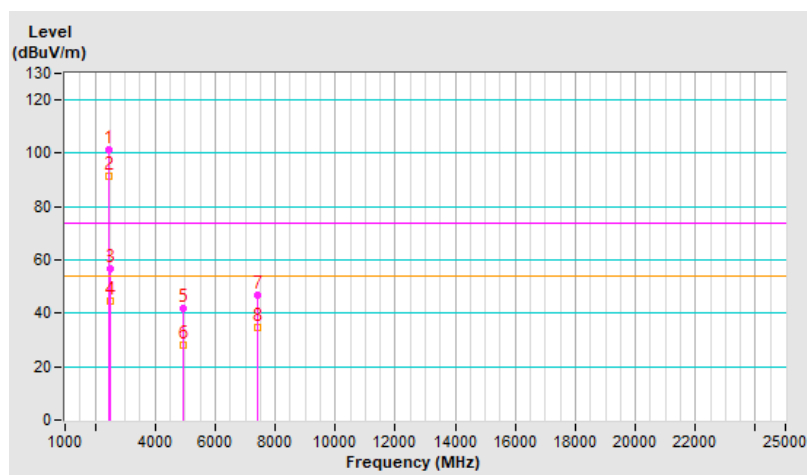


RF Mode	VHT20	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2467.00	101.2 PK			2.46 V	54	101.6	-0.4
2	*2467.00	91.2 AV			2.46 V	54	91.6	-0.4
3	2483.50	56.6 PK	74.0	-17.4	2.46 V	54	57.0	-0.4
4	2483.50	44.4 AV	54.0	-9.6	2.46 V	54	44.8	-0.4
5	4934.00	42.0 PK	74.0	-32.0	2.90 V	200	37.5	4.5
6	4934.00	28.3 AV	54.0	-25.7	2.90 V	200	23.8	4.5
7	7401.00	46.7 PK	74.0	-27.3	3.14 V	207	35.1	11.6
8	7401.00	34.5 AV	54.0	-19.5	3.14 V	207	22.9	11.6

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.

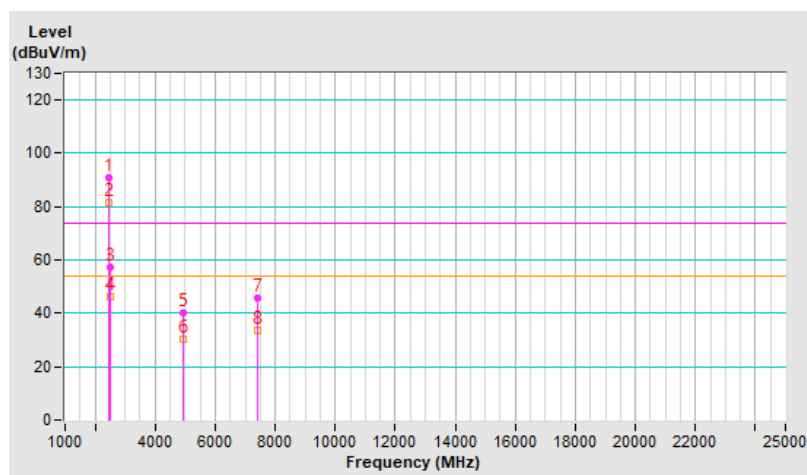


RF Mode	VHT20	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	90.7 PK			1.38 H	165	91.2	-0.5
2	*2472.00	81.3 AV			1.38 H	165	81.8	-0.5
3	2483.50	57.3 PK	74.0	-16.7	1.38 H	165	57.7	-0.4
4	2483.50	46.5 AV	54.0	-7.5	1.38 H	165	46.9	-0.4
5	4944.00	40.4 PK	74.0	-33.6	2.85 H	341	35.8	4.6
6	4944.00	30.2 AV	54.0	-23.8	2.85 H	341	25.6	4.6
7	7416.00	45.8 PK	74.0	-28.2	2.94 H	204	34.2	11.6
8	7416.00	33.5 AV	54.0	-20.5	2.94 H	204	21.9	11.6

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.

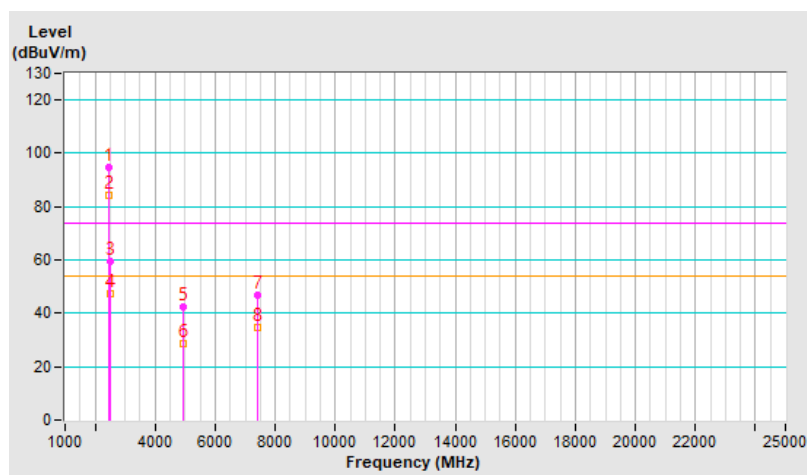


RF Mode	VHT20	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2472.00	94.6 PK			2.51 V	29	95.1	-0.5
2	*2472.00	84.4 AV			2.51 V	29	84.9	-0.5
3	2483.50	59.3 PK	74.0	-14.7	2.51 V	29	59.7	-0.4
4	2483.50	47.3 AV	54.0	-6.7	2.51 V	29	47.7	-0.4
5	4944.00	42.3 PK	74.0	-31.7	2.94 V	209	37.7	4.6
6	4944.00	28.8 AV	54.0	-25.2	2.94 V	209	24.2	4.6
7	7416.00	47.0 PK	74.0	-27.0	3.11 V	198	35.4	11.6
8	7416.00	34.8 AV	54.0	-19.2	3.11 V	198	23.2	11.6

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.

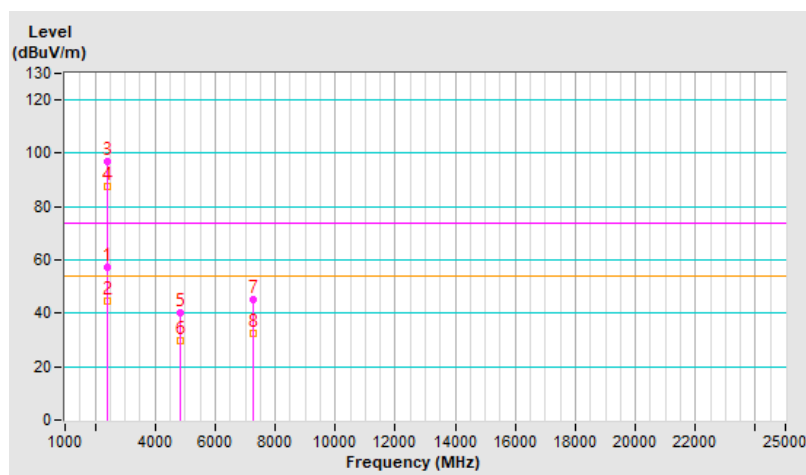


RF Mode	VHT40	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	57.3 PK	74.0	-16.7	1.29 H	156	57.7	-0.4
2	2390.00	44.5 AV	54.0	-9.5	1.29 H	156	44.9	-0.4
3	*2422.00	96.7 PK			1.29 H	156	97.0	-0.3
4	*2422.00	87.4 AV			1.29 H	156	87.7	-0.3
5	4844.00	40.1 PK	74.0	-33.9	2.89 H	316	35.8	4.3
6	4844.00	29.7 AV	54.0	-24.3	2.89 H	316	25.4	4.3
7	7266.00	44.9 PK	74.0	-29.1	2.94 H	226	33.7	11.2
8	7266.00	32.7 AV	54.0	-21.3	2.94 H	226	21.5	11.2

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.

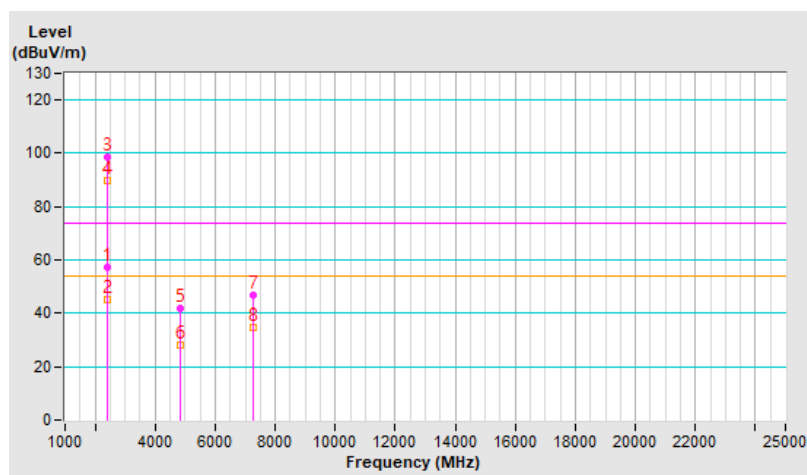


RF Mode	VHT40	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	57.1 PK	74.0	-16.9	2.51 V	59	57.5	-0.4
2	2390.00	45.2 AV	54.0	-8.8	2.51 V	59	45.6	-0.4
3	*2422.00	98.7 PK			2.51 V	59	99.0	-0.3
4	*2422.00	89.6 AV			2.51 V	59	89.9	-0.3
5	4844.00	41.9 PK	74.0	-32.1	2.85 V	219	37.6	4.3
6	4844.00	28.3 AV	54.0	-25.7	2.85 V	219	24.0	4.3
7	7266.00	46.9 PK	74.0	-27.1	3.14 V	209	35.7	11.2
8	7266.00	34.6 AV	54.0	-19.4	3.14 V	209	23.4	11.2

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.

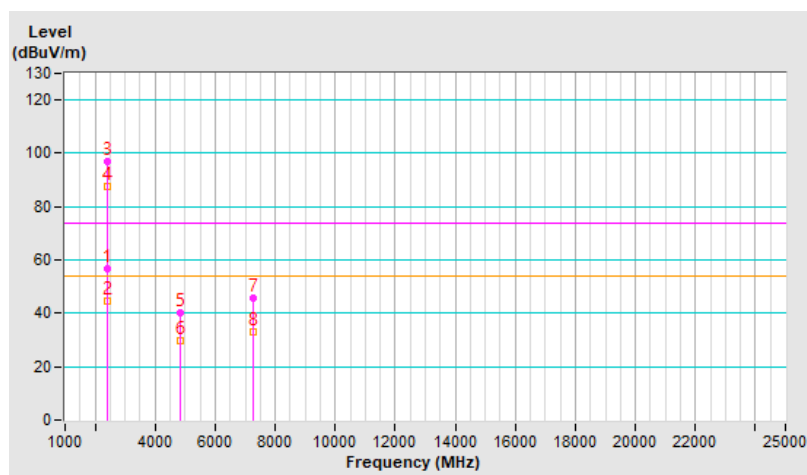


RF Mode	VHT40	Channel	CH 4 : 2427 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.7 PK	74.0	-17.3	1.30 H	172	57.1	-0.4
2	2390.00	44.6 AV	54.0	-9.4	1.30 H	172	45.0	-0.4
3	*2427.00	97.0 PK			1.30 H	172	97.3	-0.3
4	*2427.00	87.7 AV			1.30 H	172	88.0	-0.3
5	4854.00	40.0 PK	74.0	-34.0	2.84 H	318	35.7	4.3
6	4854.00	29.8 AV	54.0	-24.2	2.84 H	318	25.5	4.3
7	7281.00	45.7 PK	74.0	-28.3	2.92 H	221	34.5	11.2
8	7281.00	33.1 AV	54.0	-20.9	2.92 H	221	21.9	11.2

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.

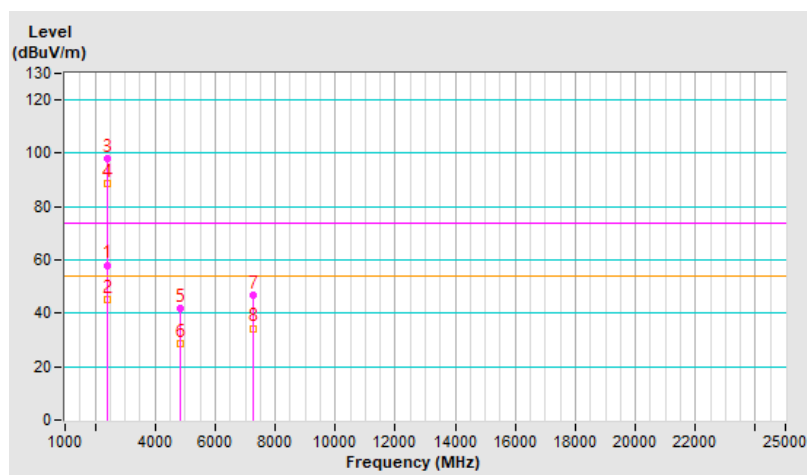


RF Mode	VHT40	Channel	CH 4 : 2427 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	58.1 PK	74.0	-15.9	2.47 V	44	58.5	-0.4
2	2390.00	44.9 AV	54.0	-9.1	2.47 V	44	45.3	-0.4
3	*2427.00	98.2 PK			2.47 V	44	98.5	-0.3
4	*2427.00	88.9 AV			2.47 V	44	89.2	-0.3
5	4854.00	41.9 PK	74.0	-32.1	2.94 V	211	37.6	4.3
6	4854.00	28.7 AV	54.0	-25.3	2.94 V	211	24.4	4.3
7	7281.00	46.6 PK	74.0	-27.4	3.15 V	199	35.4	11.2
8	7281.00	34.4 AV	54.0	-19.6	3.15 V	199	23.2	11.2

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.

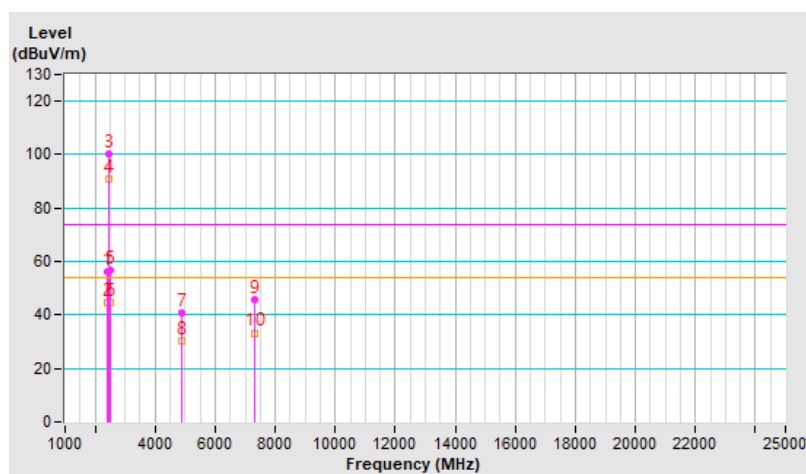


RF Mode	VHT40	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.2 PK	74.0	-17.8	1.18 H	166	56.6	-0.4
2	2390.00	44.6 AV	54.0	-9.4	1.18 H	166	45.0	-0.4
3	*2437.00	100.2 PK			1.18 H	166	100.5	-0.3
4	*2437.00	90.9 AV			1.18 H	166	91.2	-0.3
5	2483.50	56.7 PK	74.0	-17.3	1.18 H	166	57.1	-0.4
6	2483.50	44.6 AV	54.0	-9.4	1.18 H	166	45.0	-0.4
7	4874.00	40.8 PK	74.0	-33.2	2.87 H	342	36.4	4.4
8	4874.00	30.2 AV	54.0	-23.8	2.87 H	342	25.8	4.4
9	7311.00	45.7 PK	74.0	-28.3	2.97 H	210	34.3	11.4
10	7311.00	33.3 AV	54.0	-20.7	2.97 H	210	21.9	11.4

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.

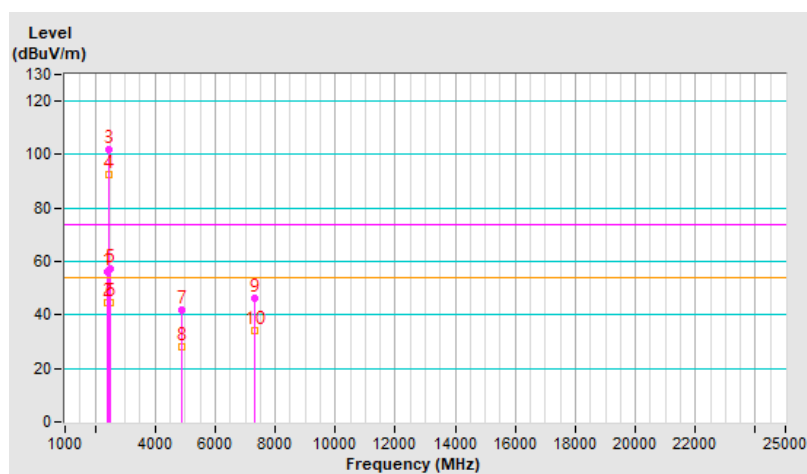


RF Mode	VHT40	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	56.1 PK	74.0	-17.9	2.44 V	57	56.5	-0.4
2	2390.00	44.4 AV	54.0	-9.6	2.44 V	57	44.8	-0.4
3	*2437.00	101.9 PK			2.44 V	57	102.2	-0.3
4	*2437.00	92.3 AV			2.44 V	57	92.6	-0.3
5	2483.50	57.1 PK	74.0	-16.9	2.44 V	57	57.5	-0.4
6	2483.50	44.7 AV	54.0	-9.3	2.44 V	57	45.1	-0.4
7	4874.00	41.9 PK	74.0	-32.1	2.94 V	226	37.5	4.4
8	4874.00	28.3 AV	54.0	-25.7	2.94 V	226	23.9	4.4
9	7311.00	46.4 PK	74.0	-27.6	3.12 V	210	35.0	11.4
10	7311.00	34.1 AV	54.0	-19.9	3.12 V	210	22.7	11.4

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.

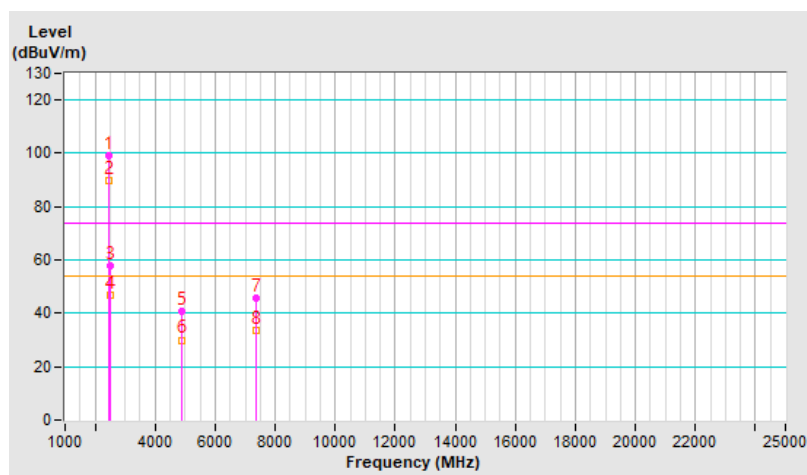


RF Mode	VHT40	Channel	CH 8 : 2447 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2447.00	99.3 PK			1.26 H	162	99.6	-0.3
2	*2447.00	89.9 AV			1.26 H	162	90.2	-0.3
3	2494.97	58.0 PK	74.0	-16.0	1.26 H	162	58.4	-0.4
4	2494.97	46.7 AV	54.0	-7.3	1.26 H	162	47.1	-0.4
5	4894.00	40.6 PK	74.0	-33.4	2.84 H	316	36.2	4.4
6	4894.00	30.0 AV	54.0	-24.0	2.84 H	316	25.6	4.4
7	7341.00	45.6 PK	74.0	-28.4	2.89 H	221	34.0	11.6
8	7341.00	33.5 AV	54.0	-20.5	2.89 H	221	21.9	11.6

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.

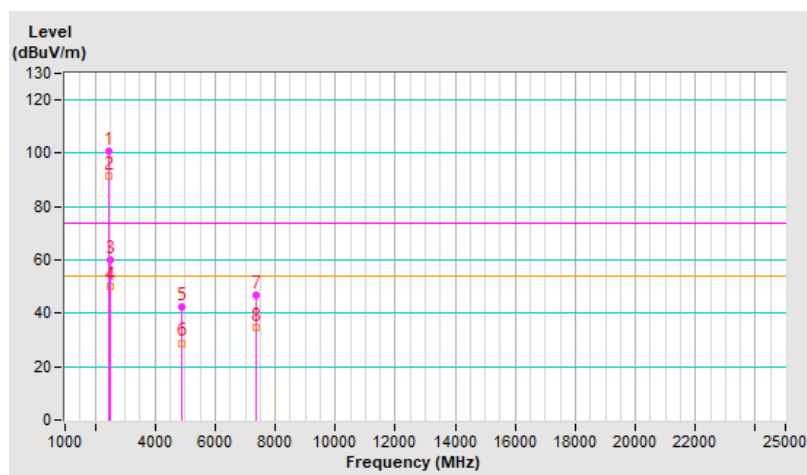


RF Mode	VHT40	Channel	CH 8 : 2447 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2447.00	100.7 PK			2.53 V	45	101.0	-0.3
2	*2447.00	91.3 AV			2.53 V	45	91.6	-0.3
3	2494.97	60.2 PK	74.0	-13.8	2.53 V	45	60.6	-0.4
4	2494.97	50.2 AV	54.0	-3.8	2.53 V	45	50.6	-0.4
5	4894.00	42.6 PK	74.0	-31.4	2.90 V	220	38.2	4.4
6	4894.00	28.9 AV	54.0	-25.1	2.90 V	220	24.5	4.4
7	7341.00	46.9 PK	74.0	-27.1	3.15 V	217	35.3	11.6
8	7341.00	34.6 AV	54.0	-19.4	3.15 V	217	23.0	11.6

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.

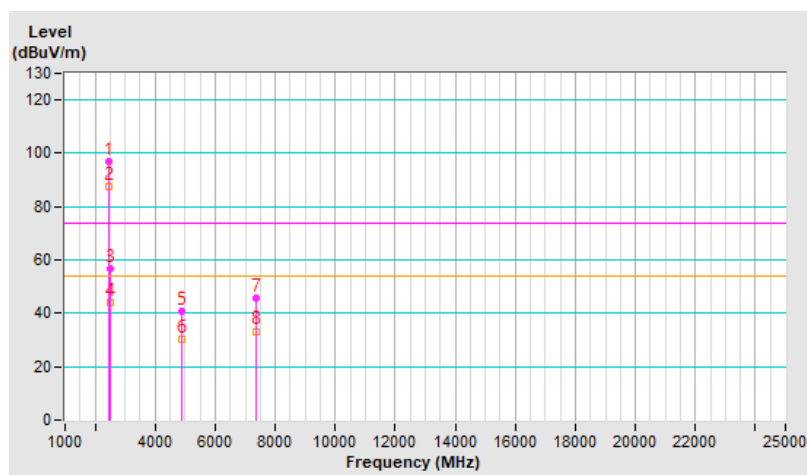


RF Mode	VHT40	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2452.00	97.0 PK			1.20 H	149	97.4	-0.4
2	*2452.00	87.7 AV			1.20 H	149	88.1	-0.4
3	2483.50	56.9 PK	74.0	-17.1	1.20 H	149	57.3	-0.4
4	2483.50	44.3 AV	54.0	-9.7	1.20 H	149	44.7	-0.4
5	4904.00	40.8 PK	74.0	-33.2	2.83 H	336	36.4	4.4
6	4904.00	30.4 AV	54.0	-23.6	2.83 H	336	26.0	4.4
7	7356.00	45.6 PK	74.0	-28.4	2.89 H	225	34.0	11.6
8	7356.00	33.3 AV	54.0	-20.7	2.89 H	225	21.7	11.6

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.

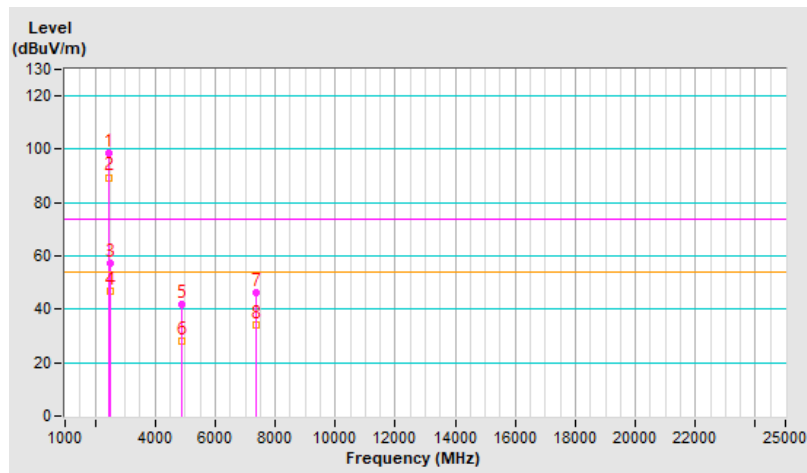


RF Mode	VHT40	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2452.00	98.5 PK			2.47 V	59	98.9	-0.4
2	*2452.00	89.5 AV			2.47 V	59	89.9	-0.4
3	2500.00	57.5 PK	74.0	-16.5	2.47 V	59	58.0	-0.5
4	2500.00	46.9 AV	54.0	-7.1	2.47 V	59	47.4	-0.5
5	4904.00	41.8 PK	74.0	-32.2	2.94 V	195	37.4	4.4
6	4904.00	28.3 AV	54.0	-25.7	2.94 V	195	23.9	4.4
7	7356.00	46.4 PK	74.0	-27.6	3.14 V	218	34.8	11.6
8	7356.00	34.2 AV	54.0	-19.8	3.14 V	218	22.6	11.6

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.

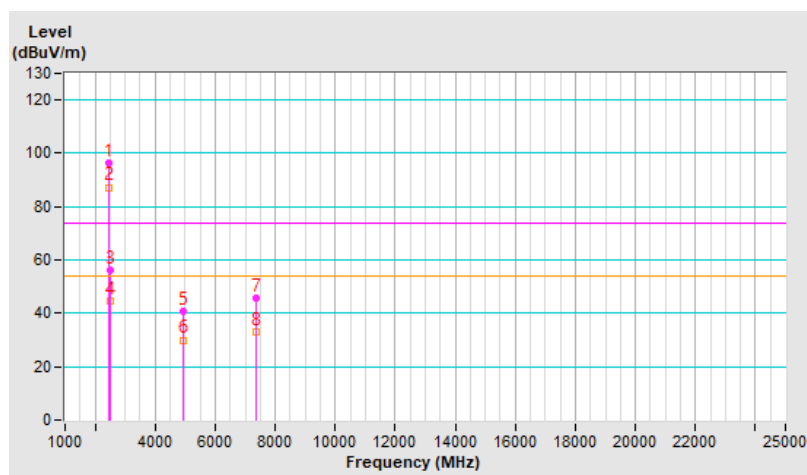


RF Mode	VHT40	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	96.4 PK			1.30 H	163	96.8	-0.4
2	*2457.00	87.3 AV			1.30 H	163	87.7	-0.4
3	2483.50	56.4 PK	74.0	-17.6	1.30 H	163	56.8	-0.4
4	2483.50	44.8 AV	54.0	-9.2	1.30 H	163	45.2	-0.4
5	4914.00	40.6 PK	74.0	-33.4	2.82 H	315	36.1	4.5
6	4914.00	30.0 AV	54.0	-24.0	2.82 H	315	25.5	4.5
7	7371.00	45.6 PK	74.0	-28.4	2.97 H	209	34.0	11.6
8	7371.00	33.0 AV	54.0	-21.0	2.97 H	209	21.4	11.6

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.

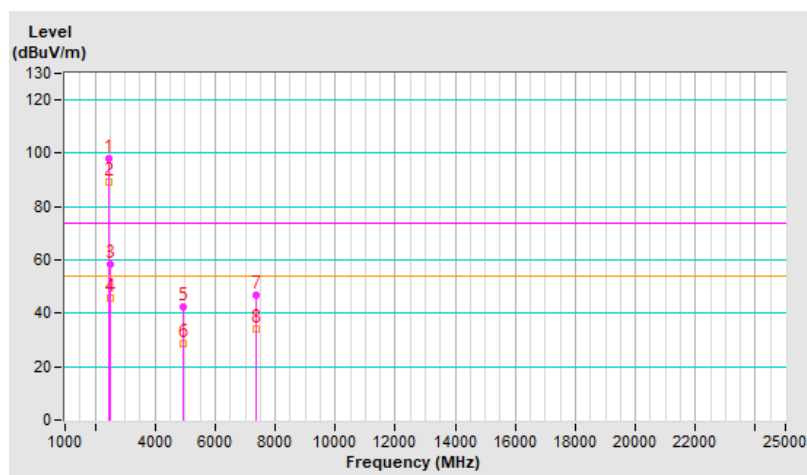


RF Mode	VHT40	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	*2457.00	98.2 PK			2.47 V	39	98.6	-0.4
2	*2457.00	89.3 AV			2.47 V	39	89.7	-0.4
3	2483.50	58.3 PK	74.0	-15.7	2.47 V	39	58.7	-0.4
4	2483.50	45.7 AV	54.0	-8.3	2.47 V	39	46.1	-0.4
5	4914.00	42.5 PK	74.0	-31.5	2.89 V	205	38.0	4.5
6	4914.00	28.7 AV	54.0	-25.3	2.89 V	205	24.2	4.5
7	7371.00	46.6 PK	74.0	-27.4	3.09 V	223	35.0	11.6
8	7371.00	34.3 AV	54.0	-19.7	3.09 V	223	22.7	11.6

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.

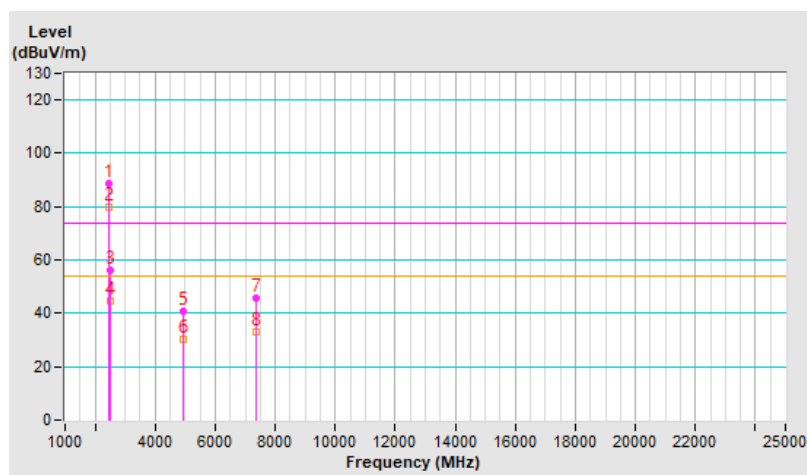


RF Mode	VHT40	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	88.8 PK			1.25 H	170	89.2	-0.4
2	*2462.00	80.0 AV			1.25 H	170	80.4	-0.4
3	2483.50	56.2 PK	74.0	-17.8	1.25 H	170	56.6	-0.4
4	2483.50	44.7 AV	54.0	-9.3	1.25 H	170	45.1	-0.4
5	4924.00	40.7 PK	74.0	-33.3	2.82 H	327	36.2	4.5
6	4924.00	30.3 AV	54.0	-23.7	2.82 H	327	25.8	4.5
7	7386.00	45.6 PK	74.0	-28.4	2.98 H	210	34.1	11.5
8	7386.00	33.0 AV	54.0	-21.0	2.98 H	210	21.5	11.5

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.

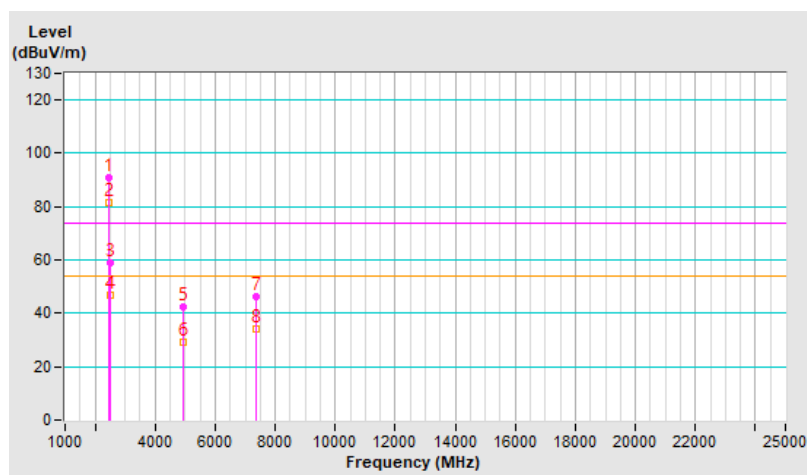


RF Mode	VHT40	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22°C, 64% RH
Tested By	Sampson Chen		

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	90.9 PK			2.44 V	30	91.3	-0.4
2	*2462.00	81.3 AV			2.44 V	30	81.7	-0.4
3	2483.50	59.1 PK	74.0	-14.9	2.44 V	30	59.5	-0.4
4	2483.50	46.7 AV	54.0	-7.3	2.44 V	30	47.1	-0.4
5	4924.00	42.4 PK	74.0	-31.6	2.95 V	212	37.9	4.5
6	4924.00	29.1 AV	54.0	-24.9	2.95 V	212	24.6	4.5
7	7386.00	46.4 PK	74.0	-27.6	3.17 V	202	34.9	11.5
8	7386.00	34.1 AV	54.0	-19.9	3.17 V	202	22.6	11.5

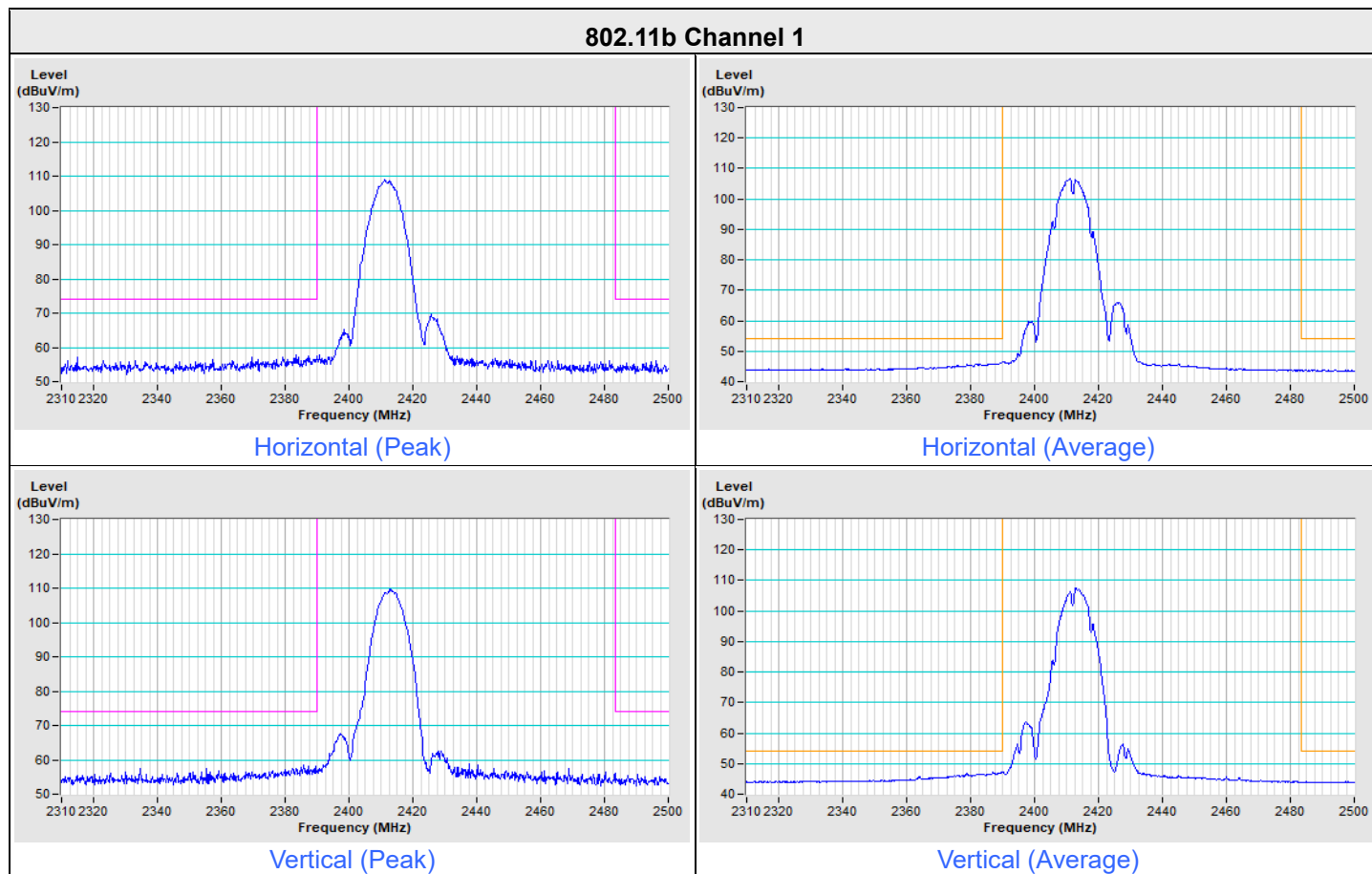
Remarks:

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.

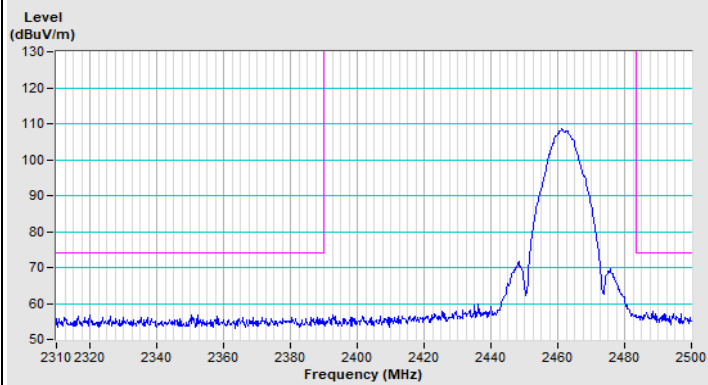


Plot of Band Edge

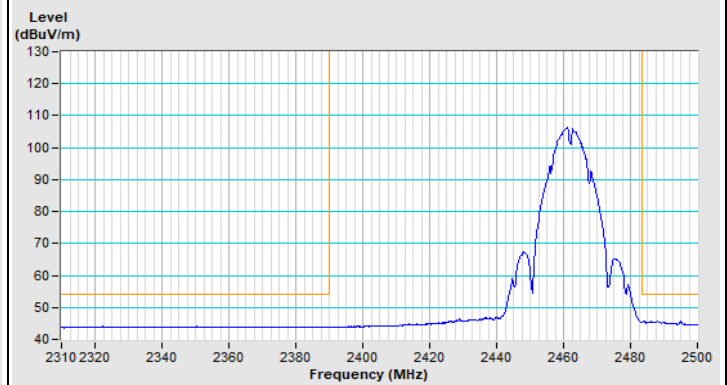
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--



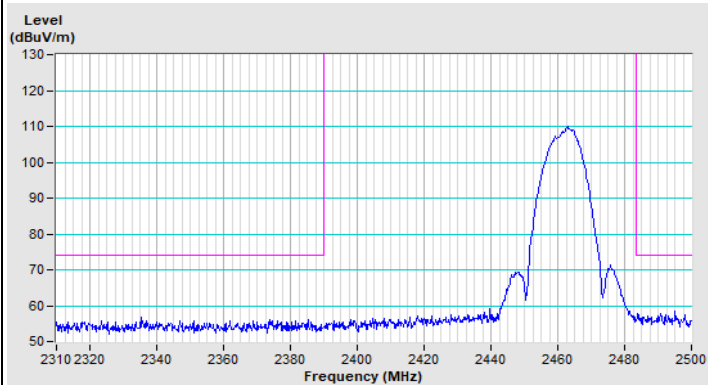
802.11b Channel 11



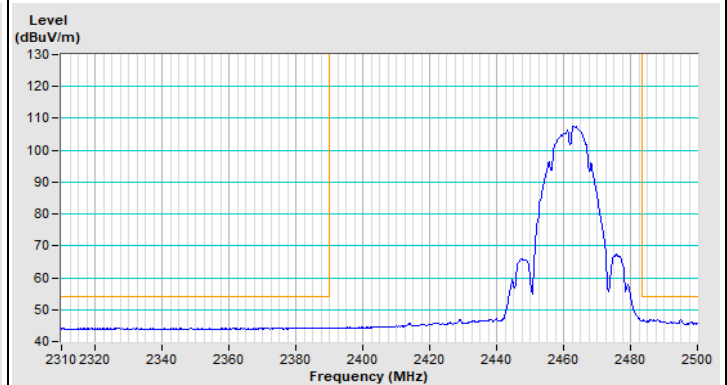
Horizontal (Peak)



Horizontal (Average)

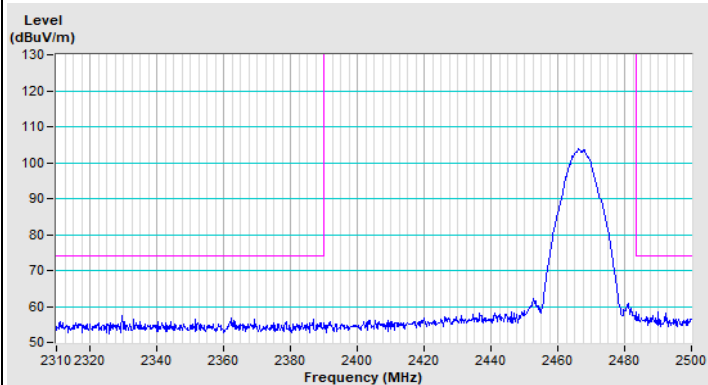


Vertical (Peak)

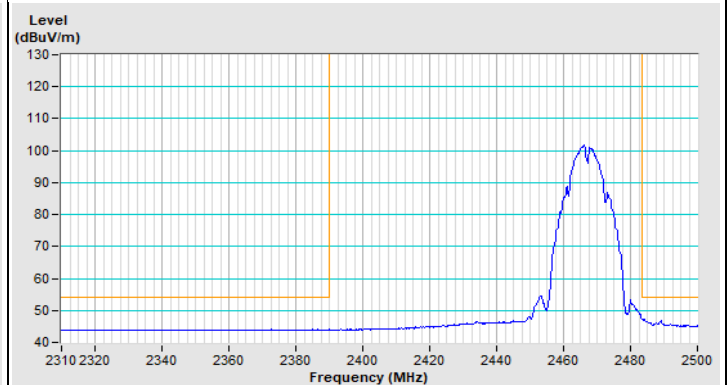


Vertical (Average)

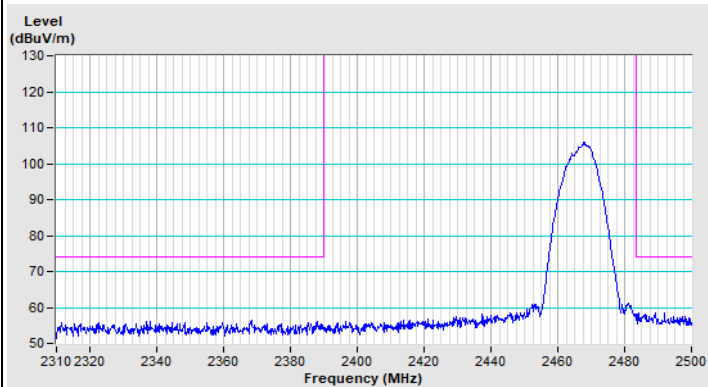
802.11b Channel 12



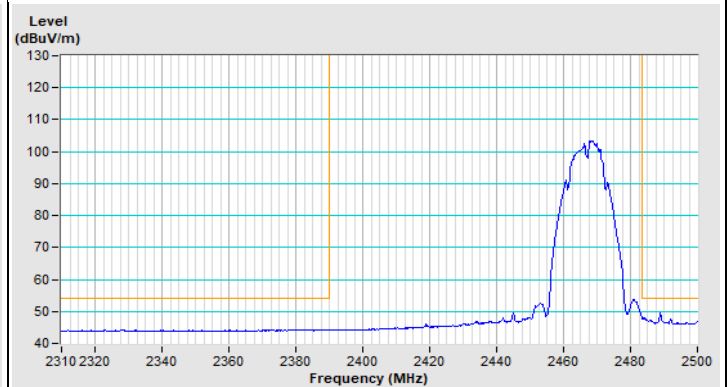
Horizontal (Peak)



Horizontal (Average)

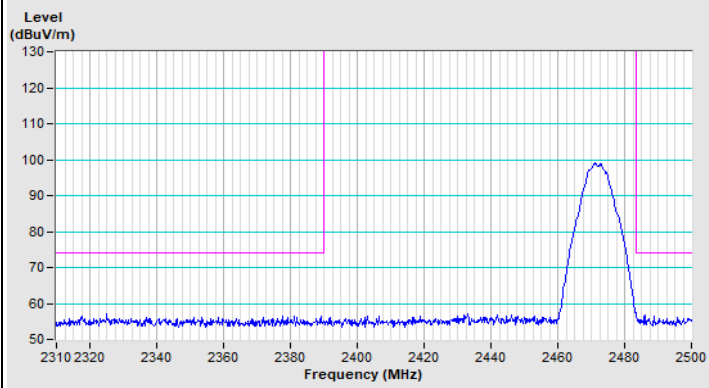


Vertical (Peak)

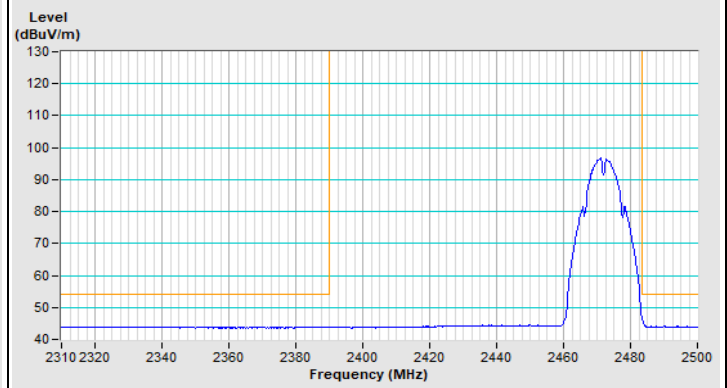


Vertical (Average)

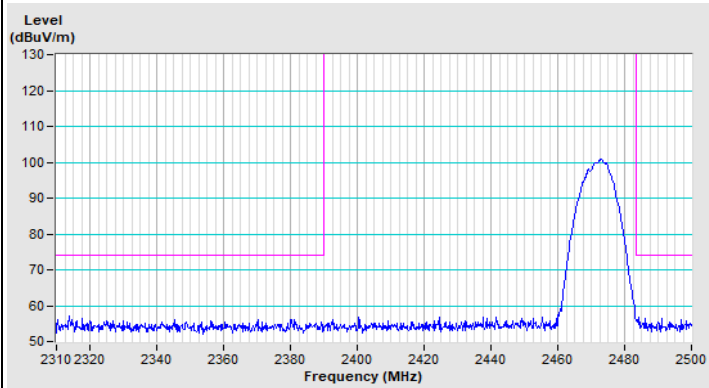
802.11b Channel 13



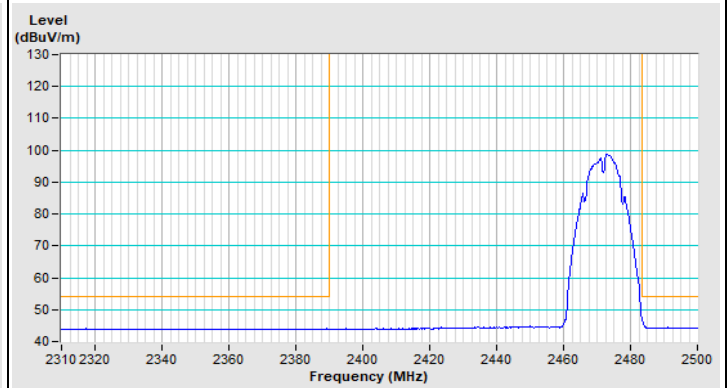
Horizontal (Peak)



Horizontal (Average)



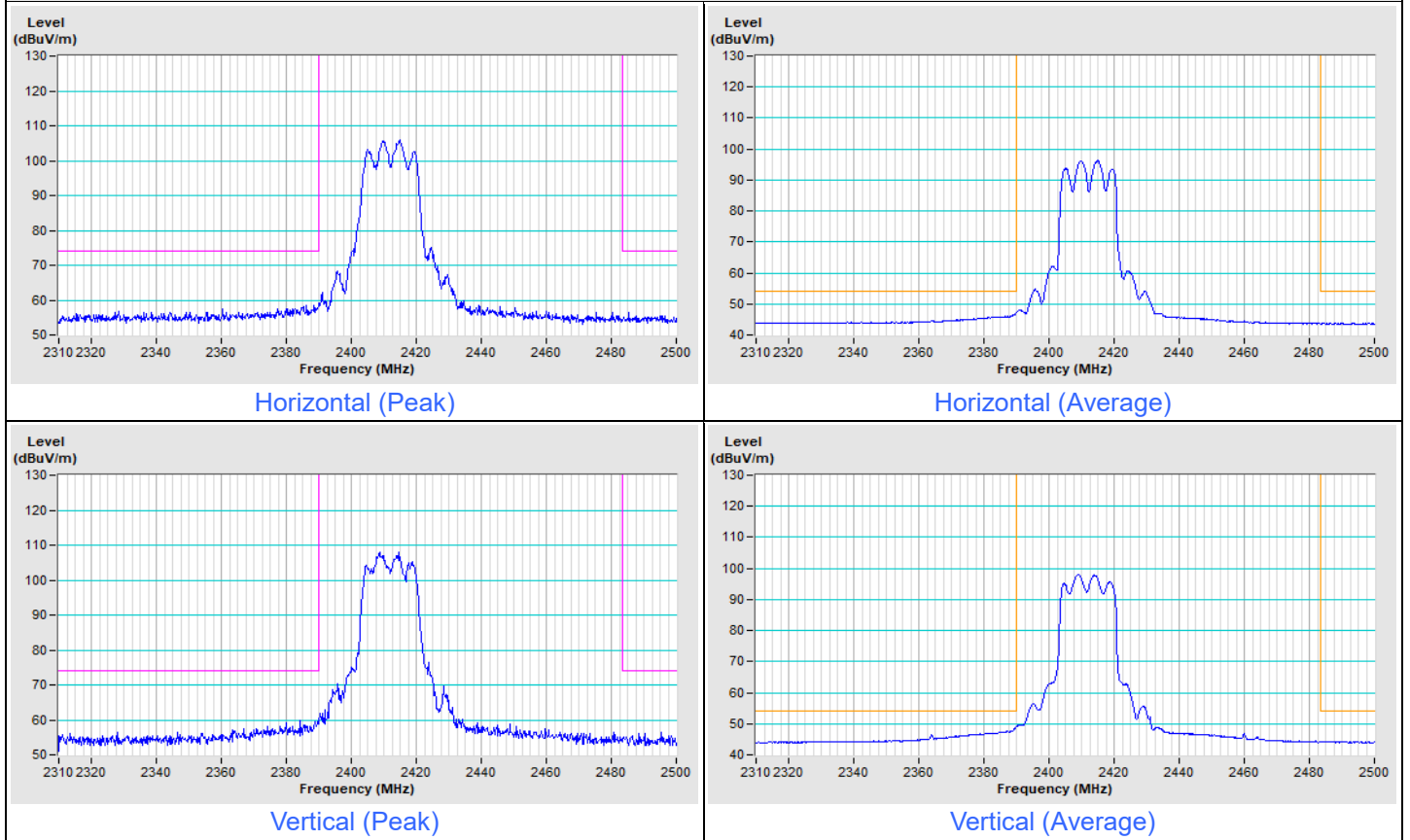
Vertical (Peak)



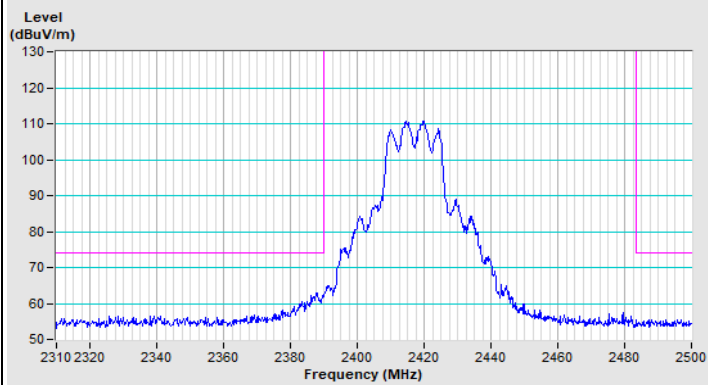
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--

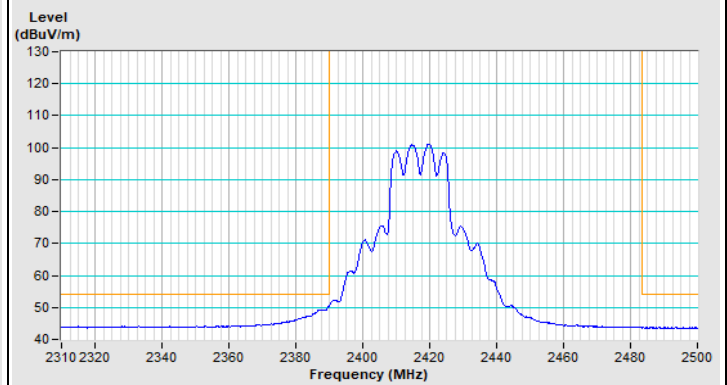
802.11g Channel 1



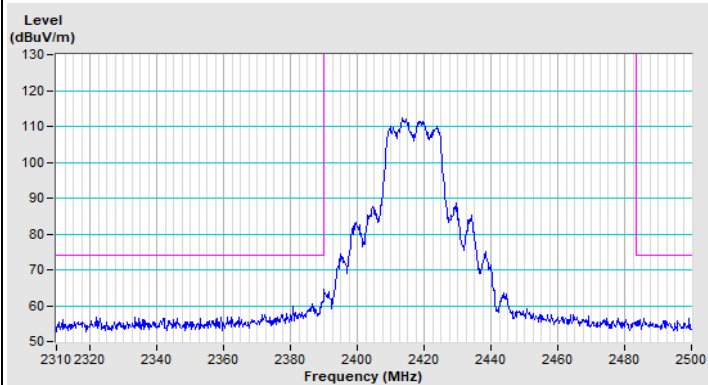
802.11g Channel 2



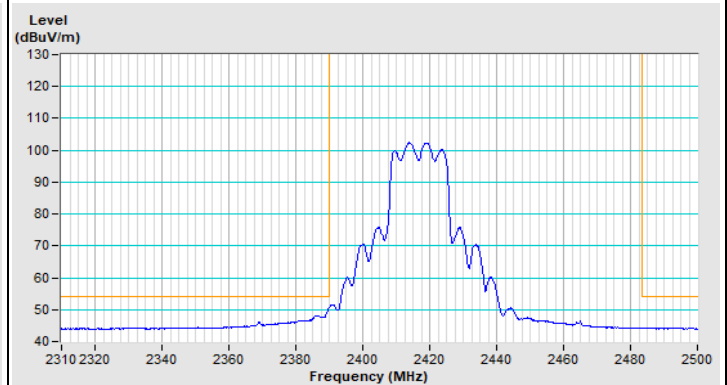
Horizontal (Peak)



Horizontal (Average)

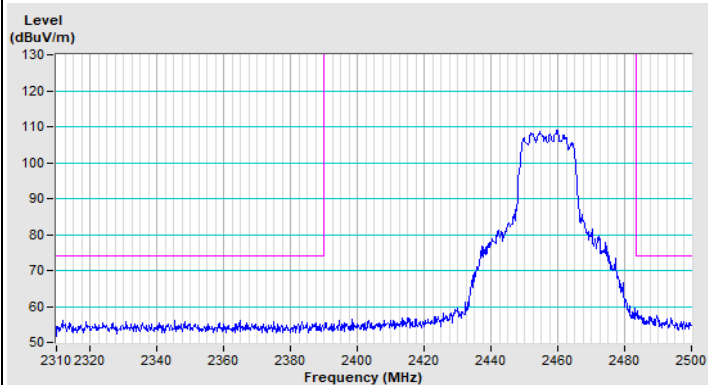


Vertical (Peak)

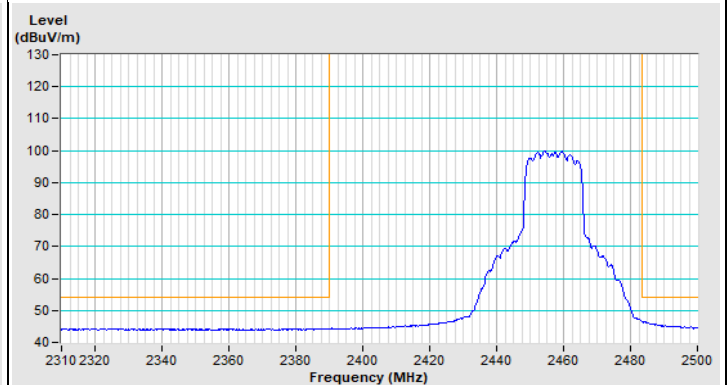


Vertical (Average)

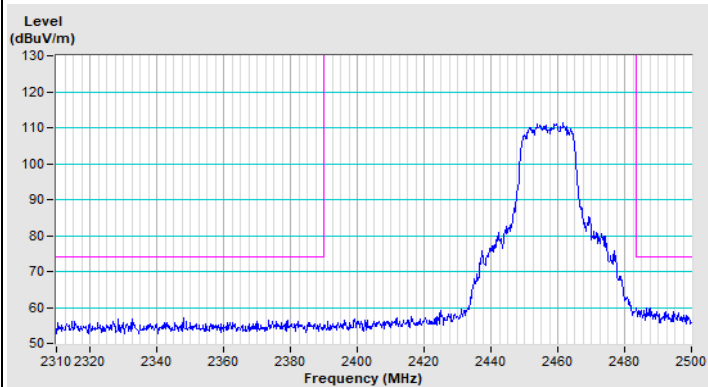
802.11g Channel 10



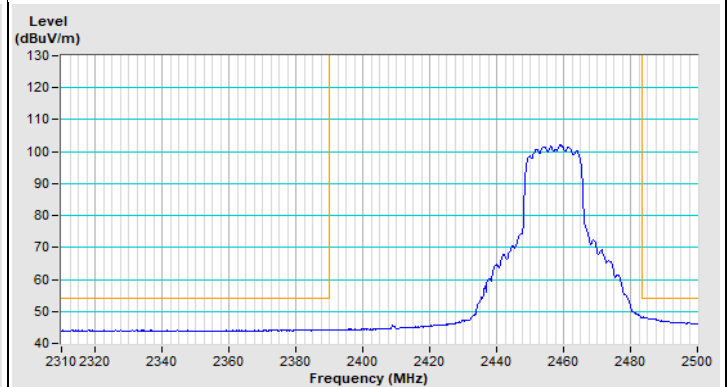
Horizontal (Peak)



Horizontal (Average)

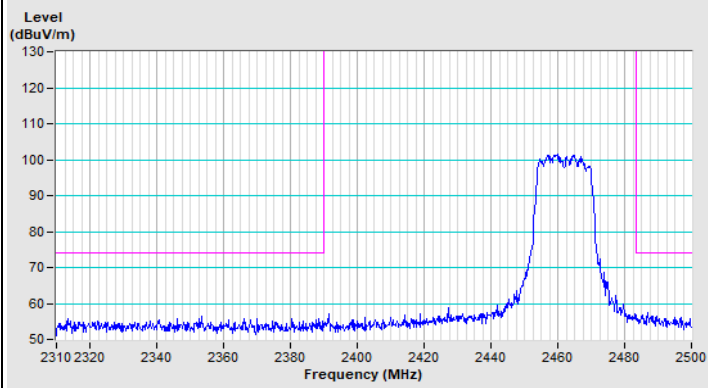


Vertical (Peak)

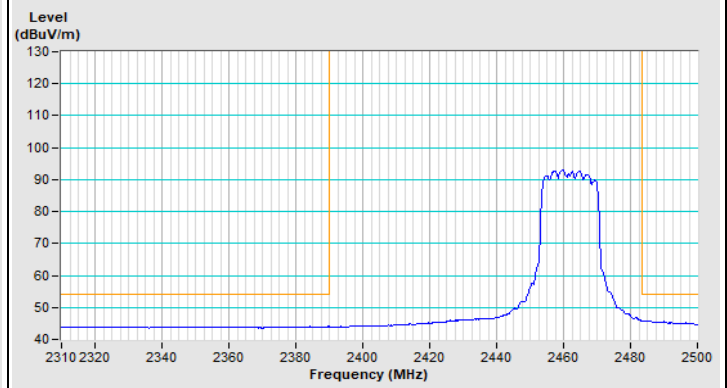


Vertical (Average)

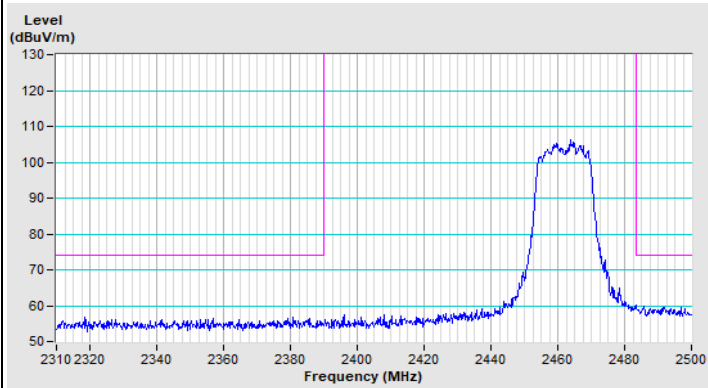
802.11g Channel 11



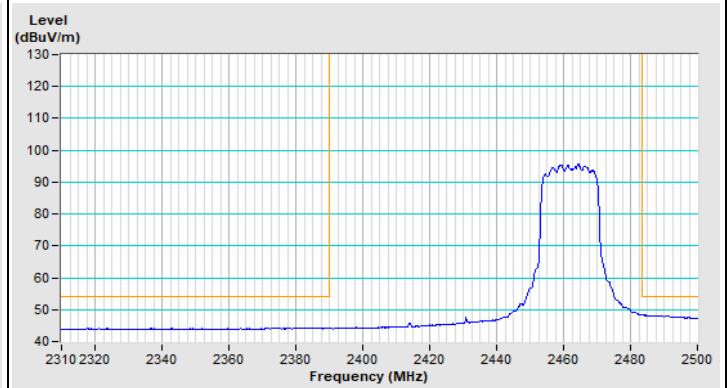
Horizontal (Peak)



Horizontal (Average)

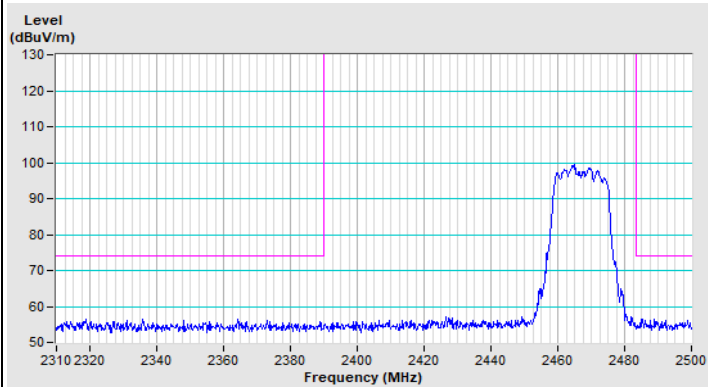


Vertical (Peak)

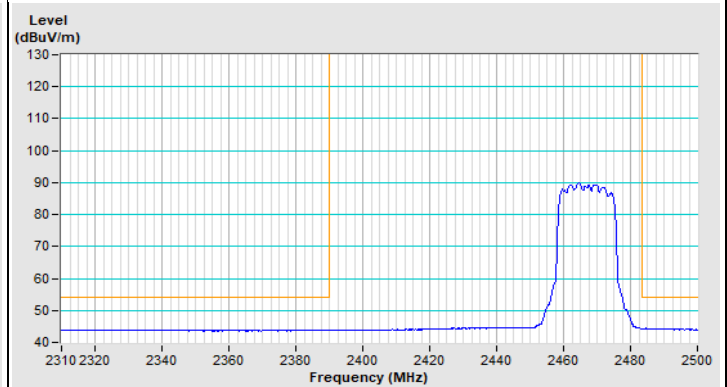


Vertical (Average)

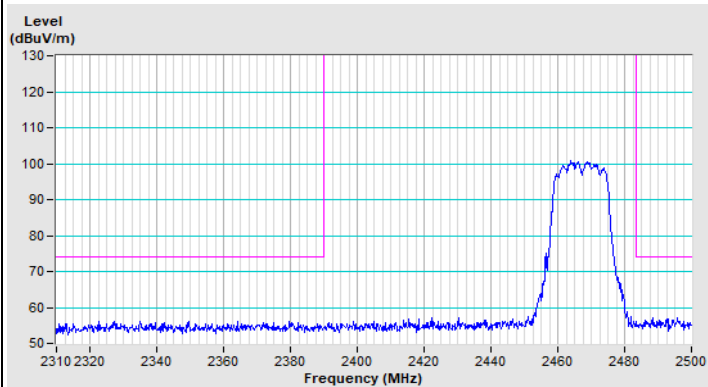
802.11g Channel 12



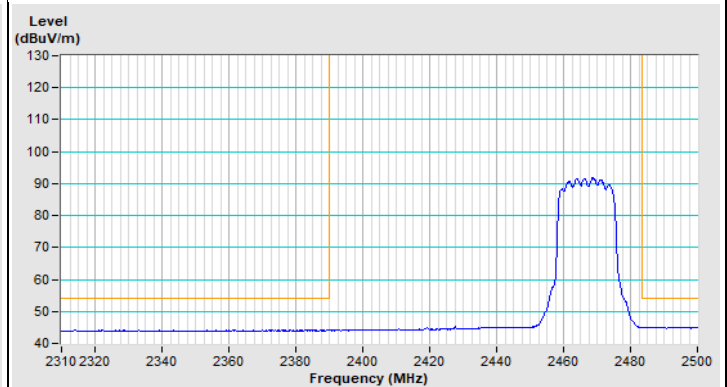
Horizontal (Peak)



Horizontal (Average)

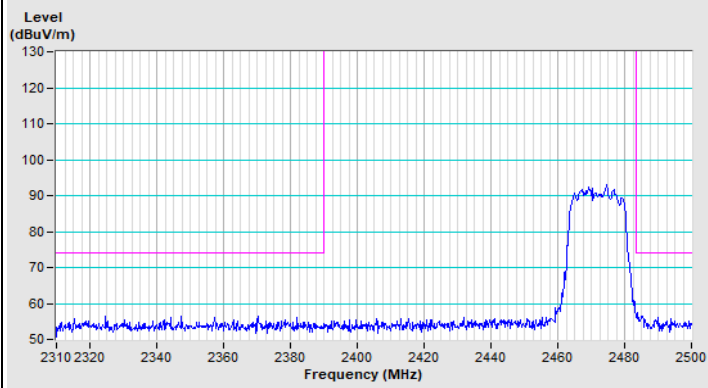


Vertical (Peak)

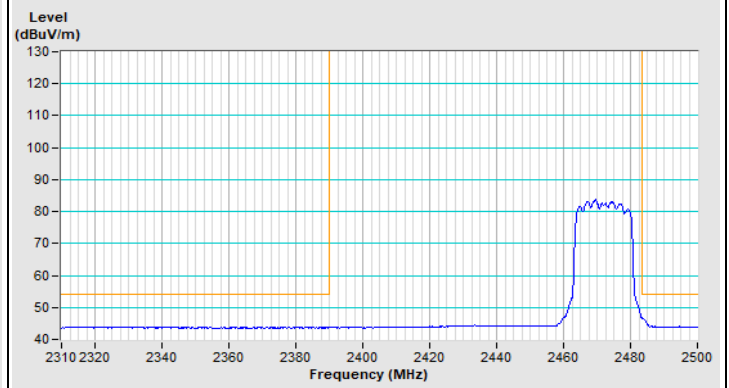


Vertical (Average)

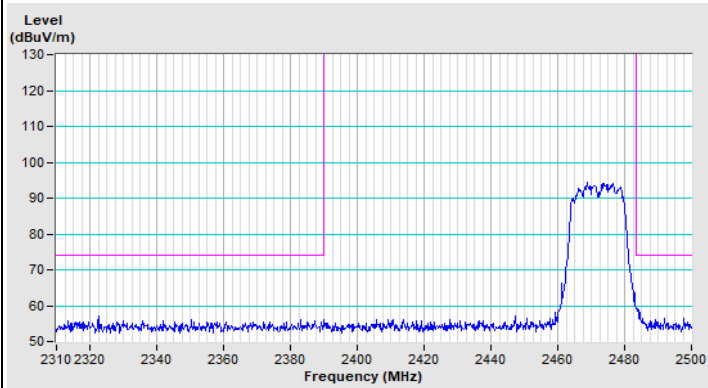
802.11g Channel 13



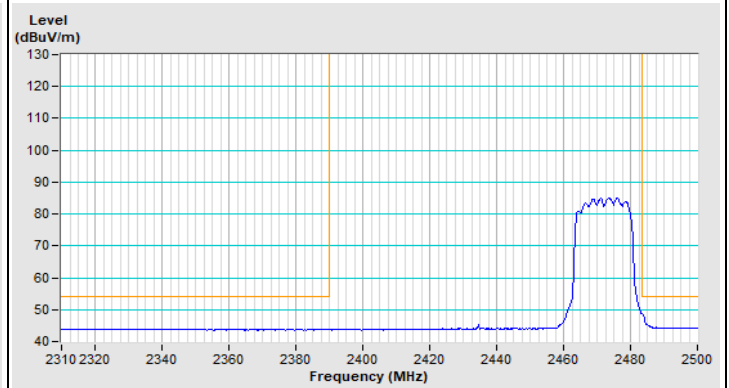
Horizontal (Peak)



Horizontal (Average)



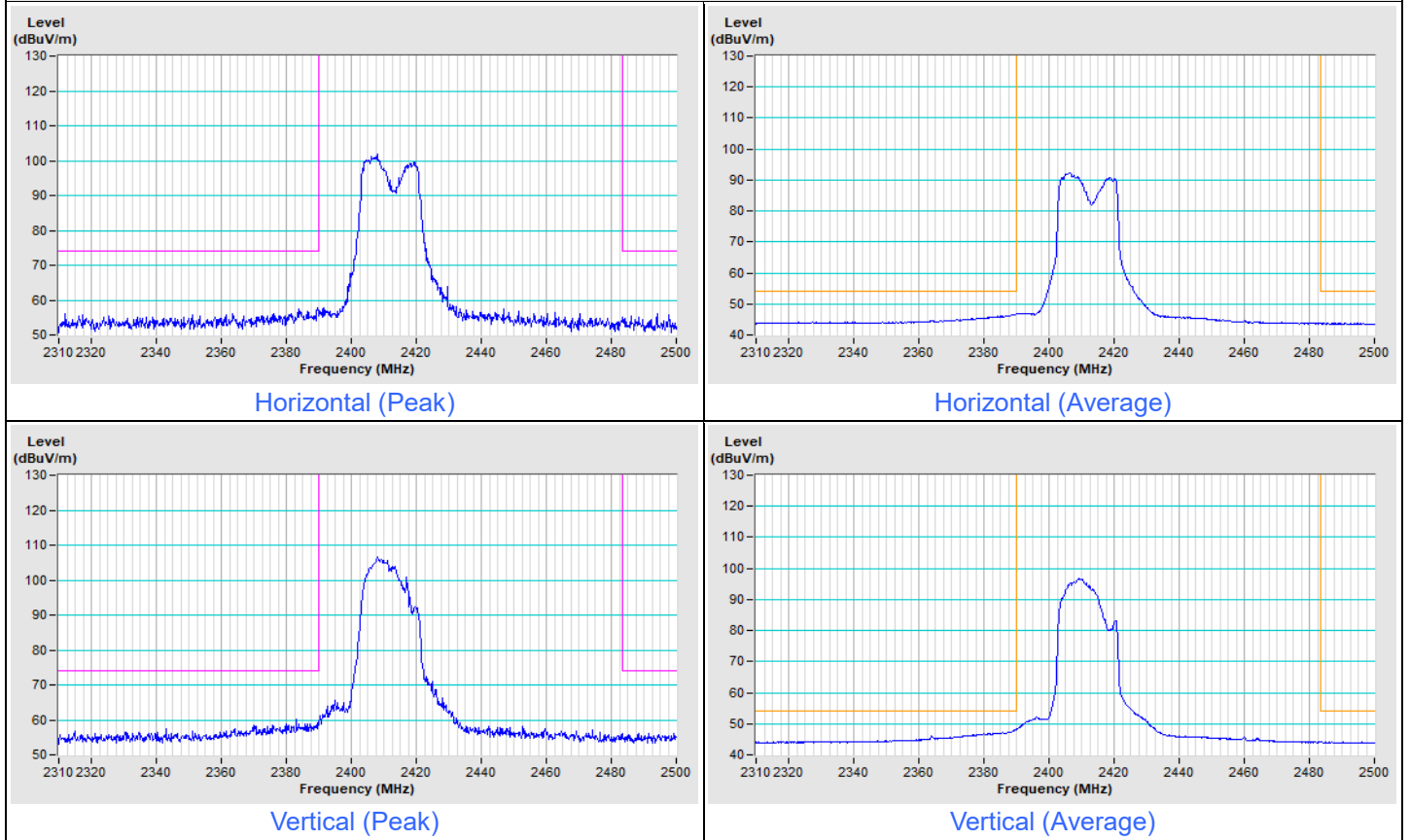
Vertical (Peak)



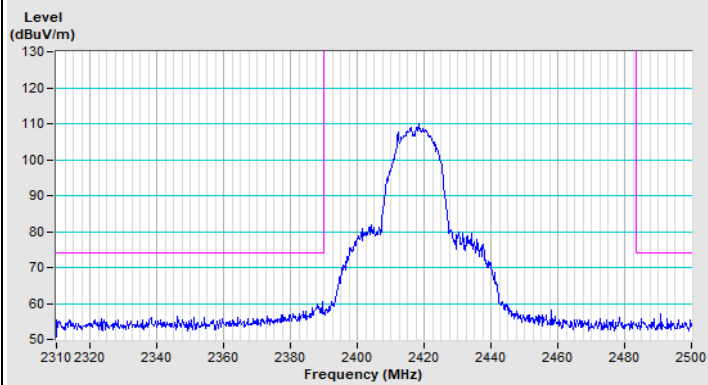
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--

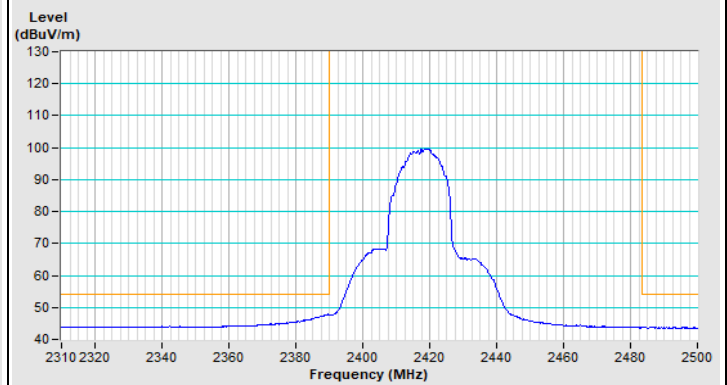
VHT20 Channel 1



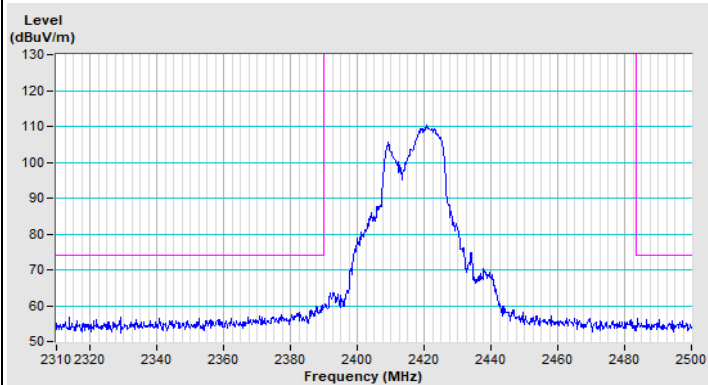
VHT20 Channel 2



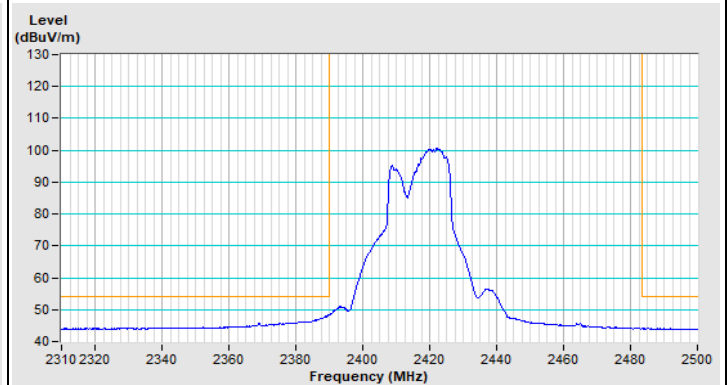
Horizontal (Peak)



Horizontal (Average)

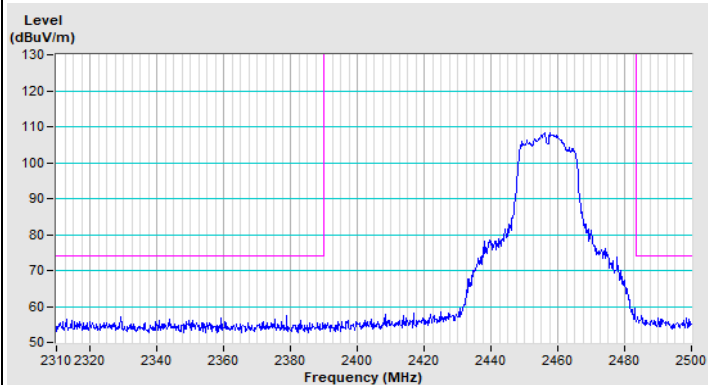


Vertical (Peak)

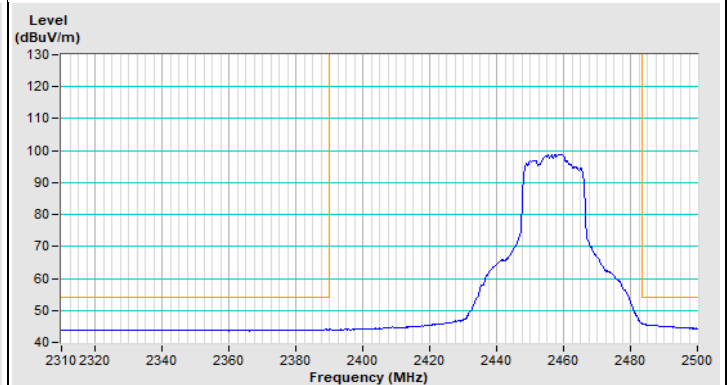


Vertical (Average)

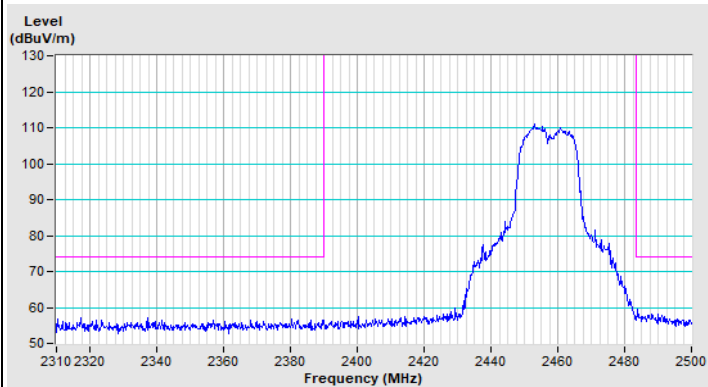
VHT20 Channel 10



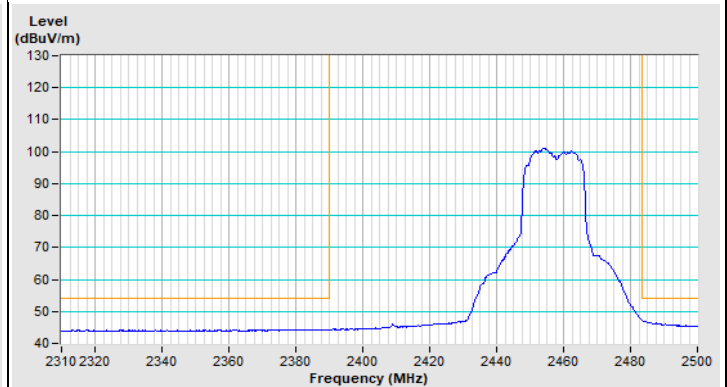
Horizontal (Peak)



Horizontal (Average)

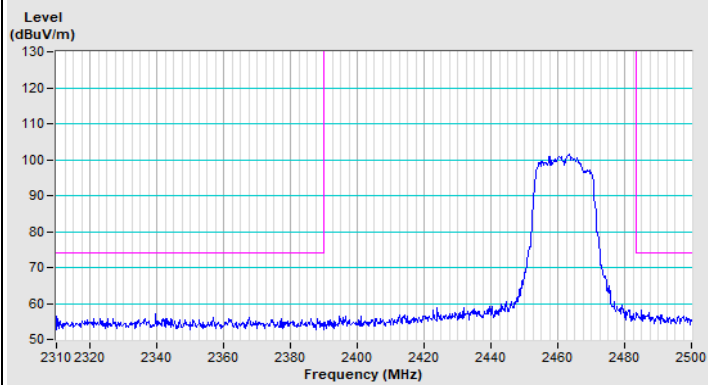


Vertical (Peak)

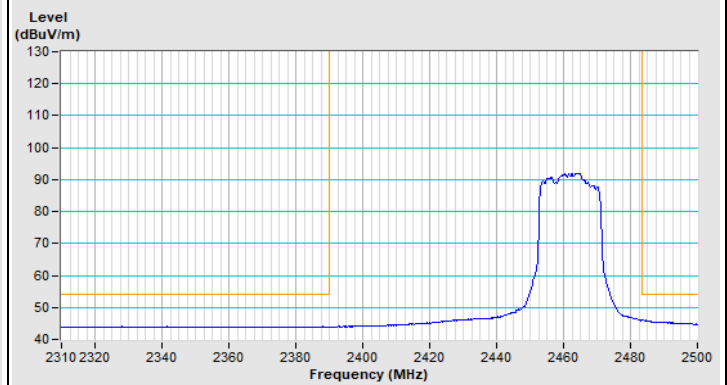


Vertical (Average)

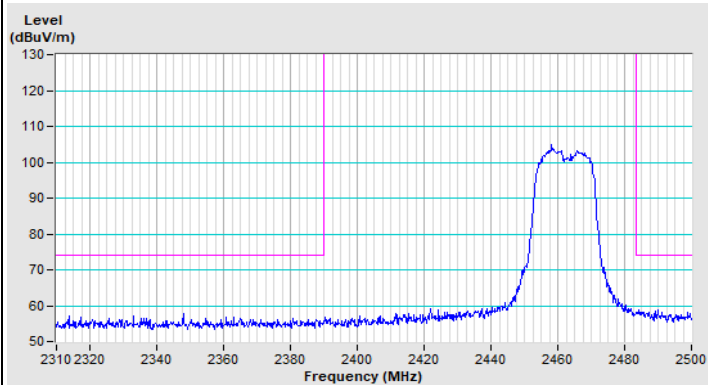
VHT20 Channel 11



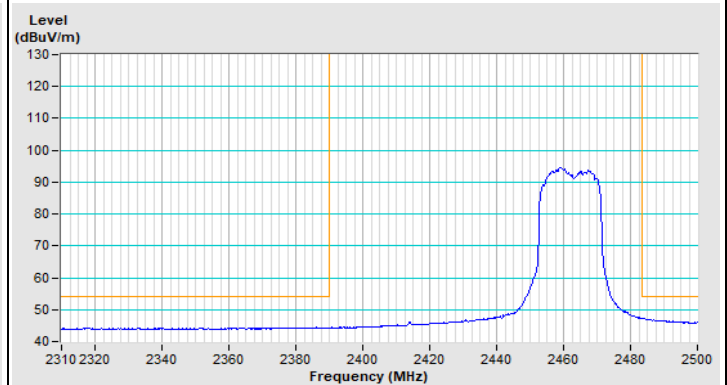
Horizontal (Peak)



Horizontal (Average)

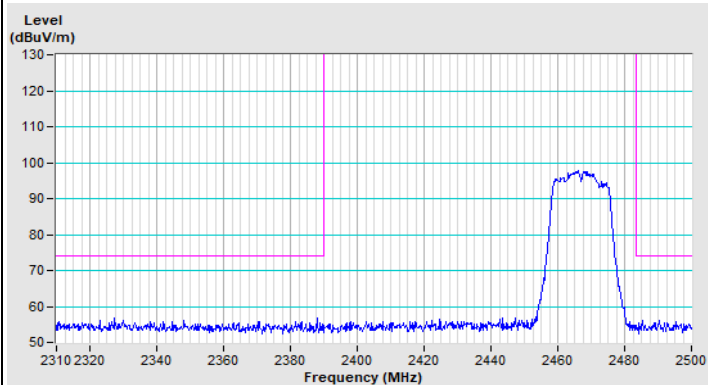


Vertical (Peak)

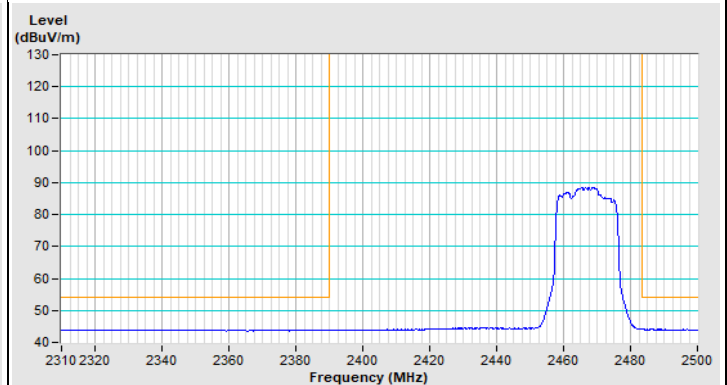


Vertical (Average)

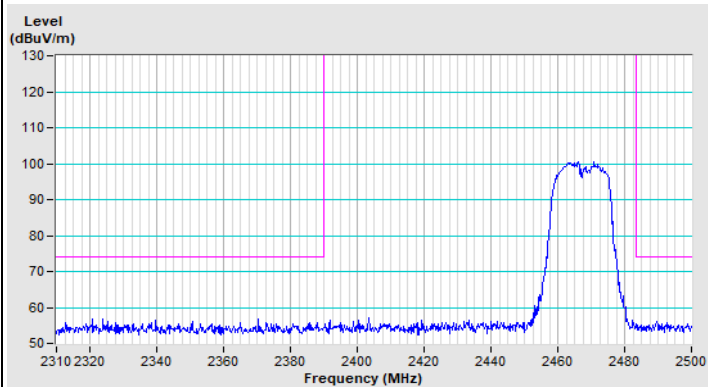
VHT20 Channel 12



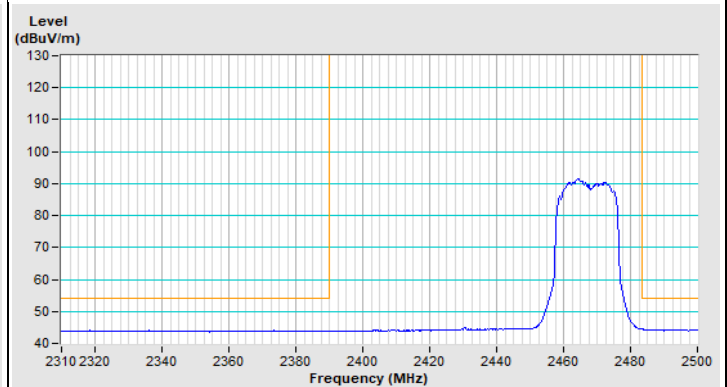
Horizontal (Peak)



Horizontal (Average)

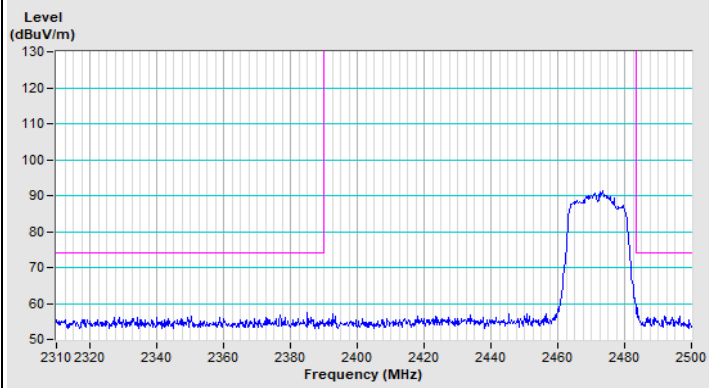


Vertical (Peak)

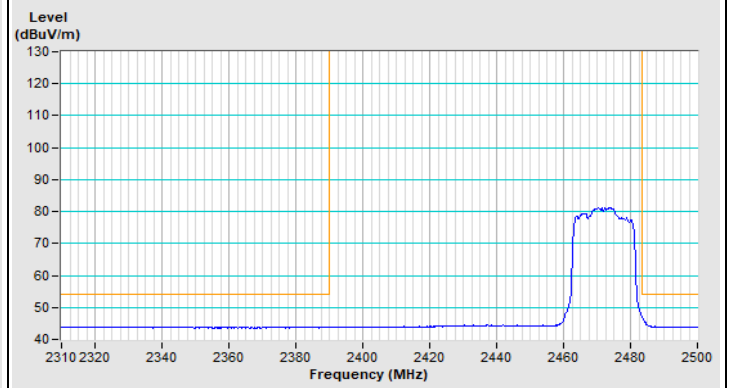


Vertical (Average)

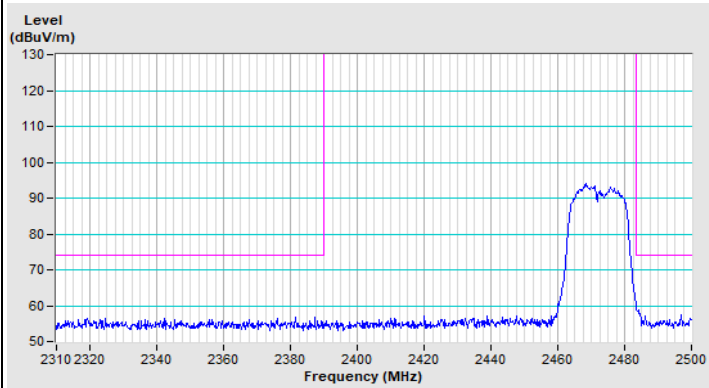
VHT20 Channel 13



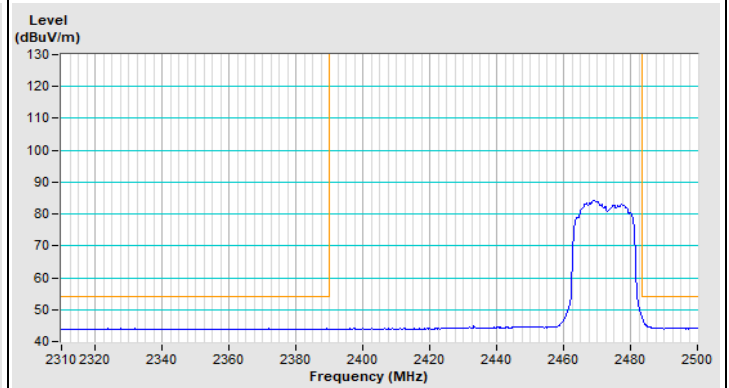
Horizontal (Peak)



Horizontal (Average)



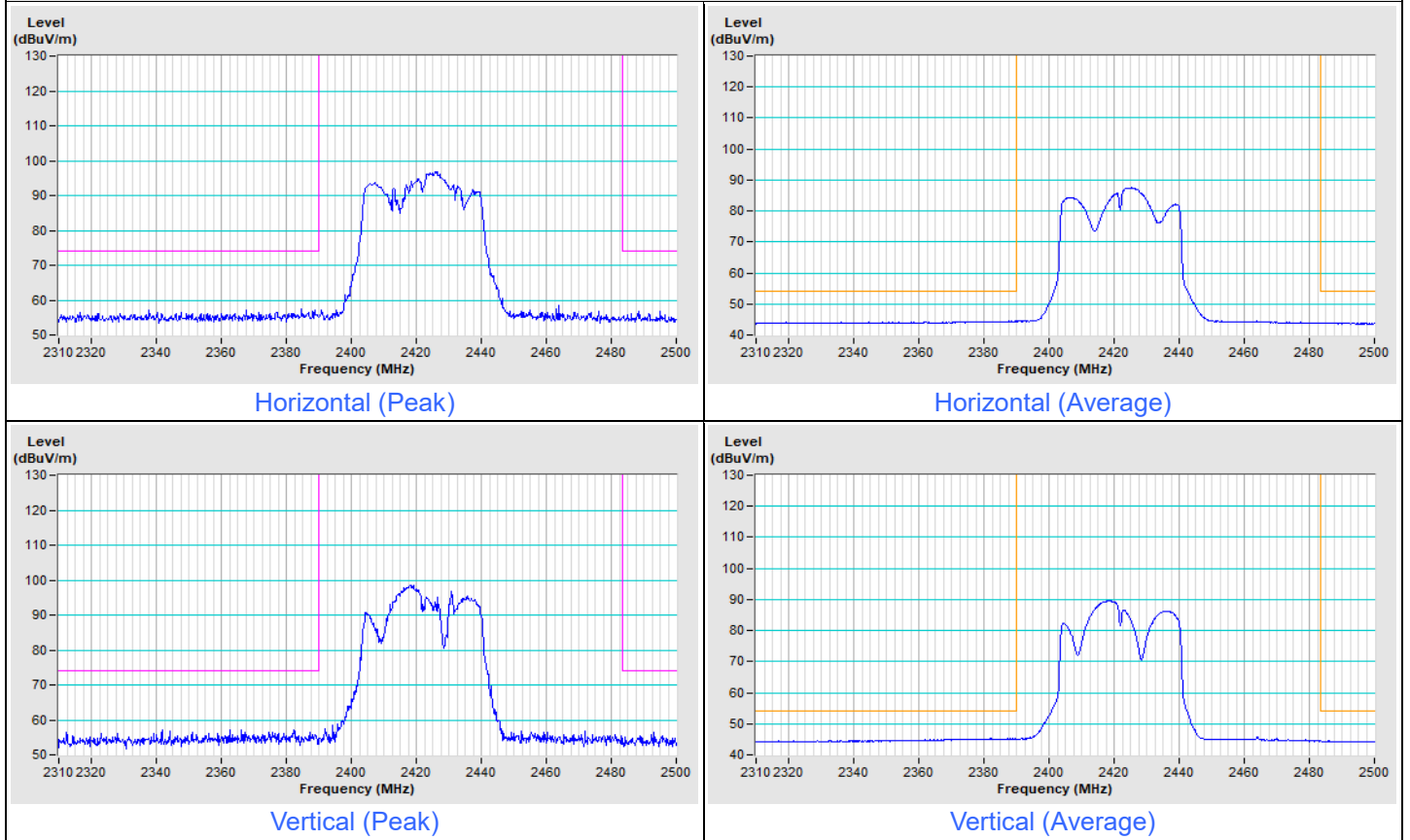
Vertical (Peak)



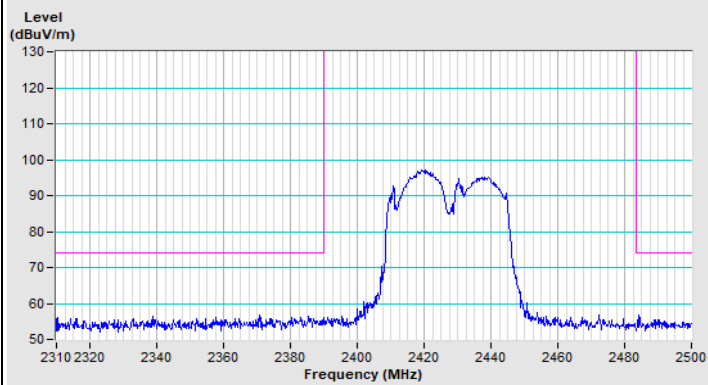
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=200 Hz, DET=Peak
-----------------	--------------------	-------------------------------	---

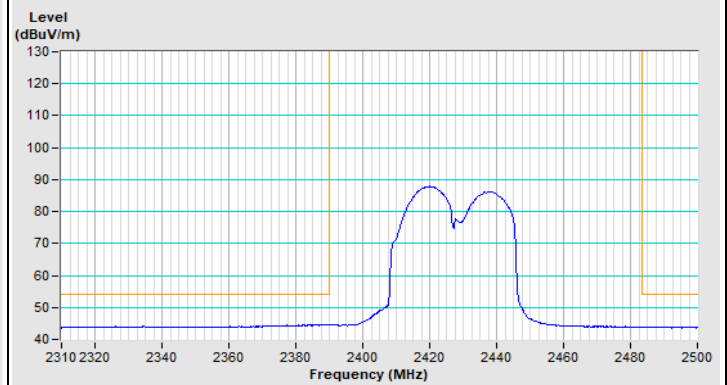
VHT40 Channel 3



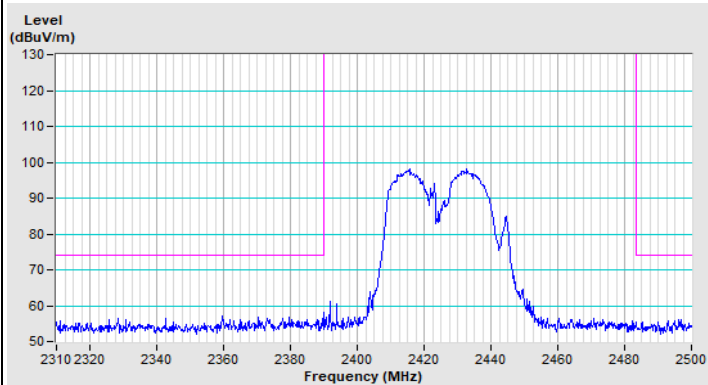
VHT40 Channel 4



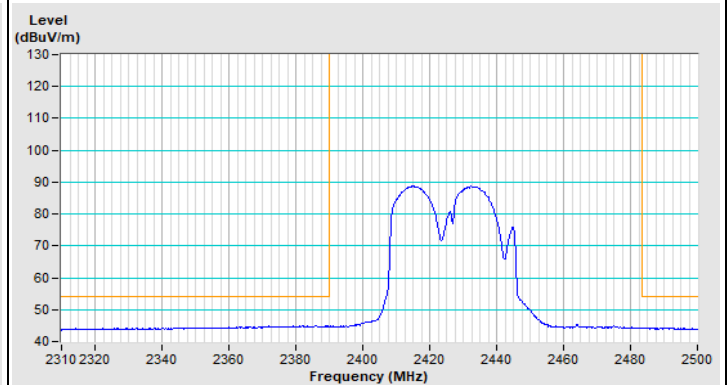
Horizontal (Peak)



Horizontal (Average)

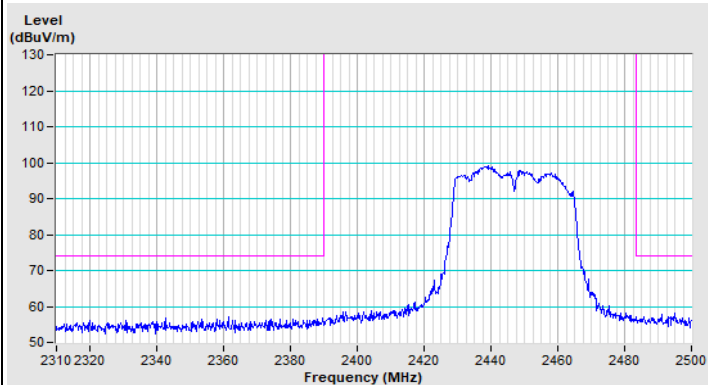


Vertical (Peak)

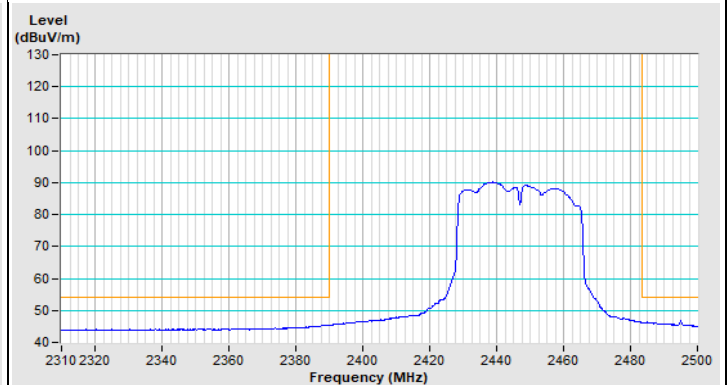


Vertical (Average)

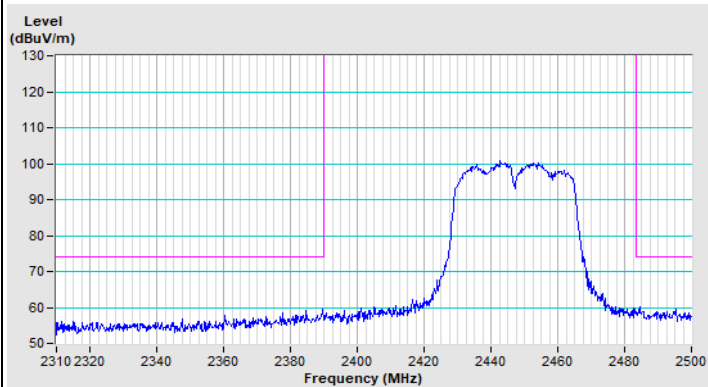
VHT40 Channel 8



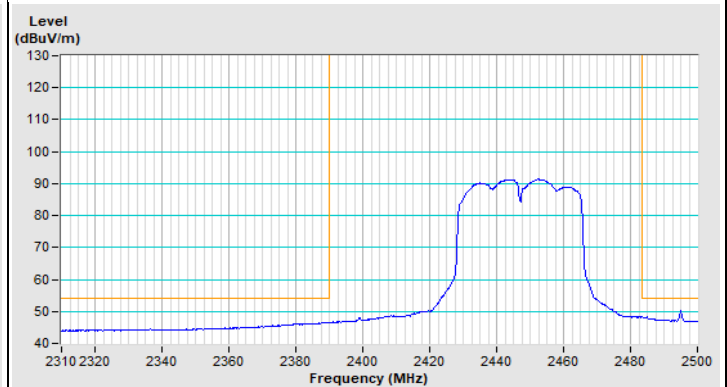
Horizontal (Peak)



Horizontal (Average)

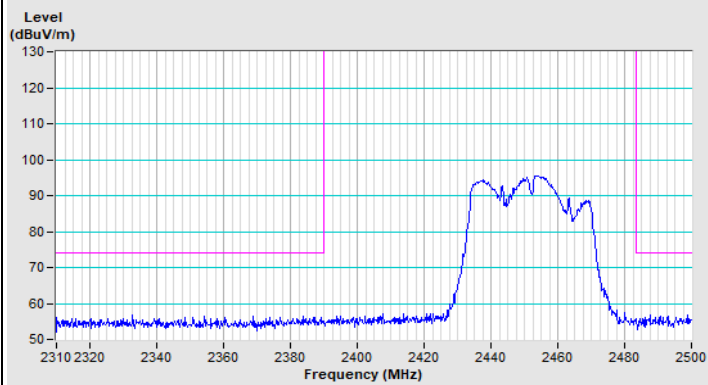


Vertical (Peak)

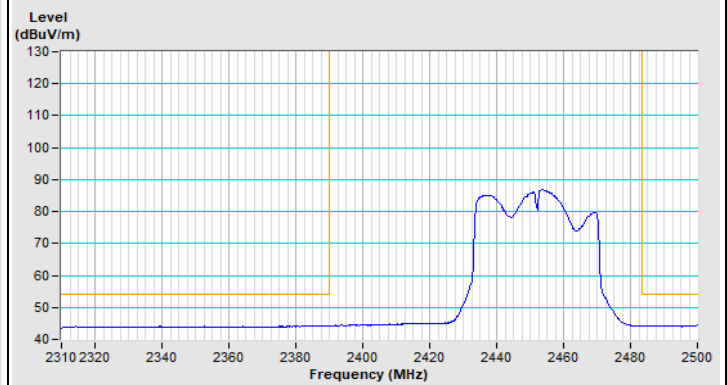


Vertical (Average)

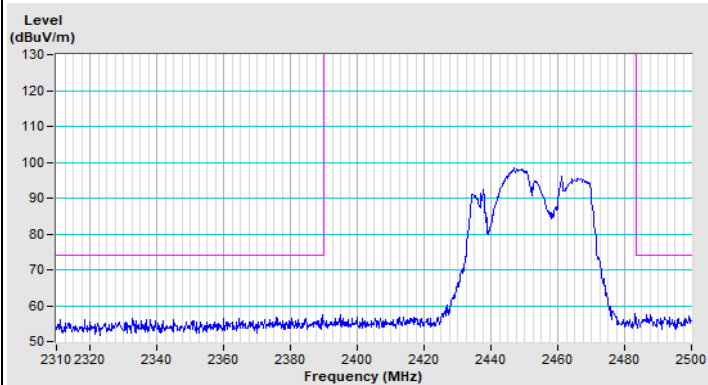
VHT40 Channel 9



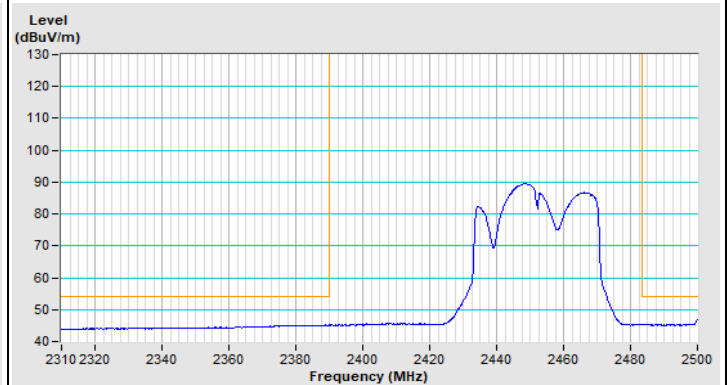
Horizontal (Peak)



Horizontal (Average)

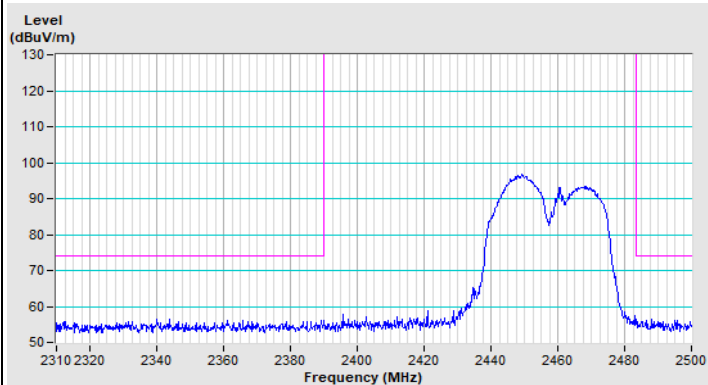


Vertical (Peak)

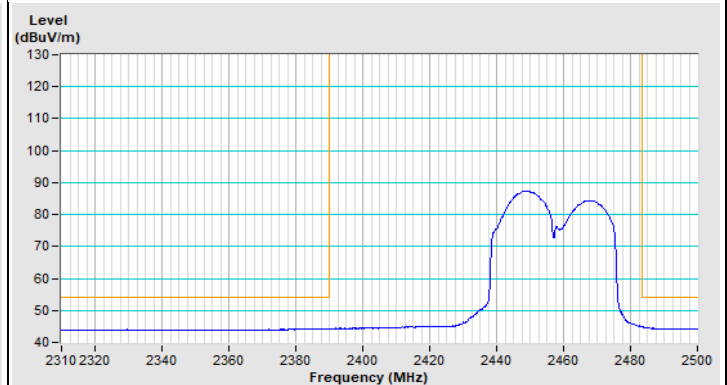


Vertical (Average)

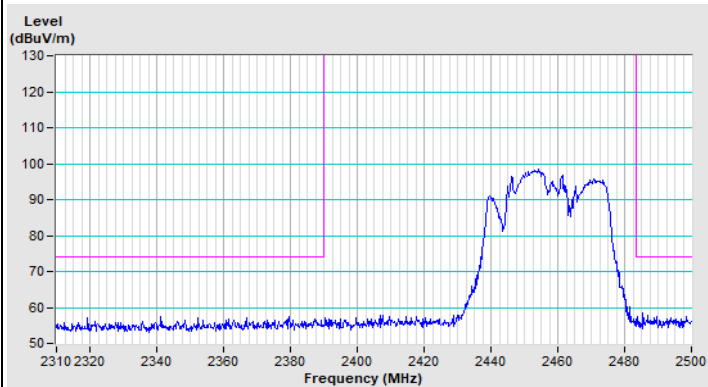
VHT40 Channel 10



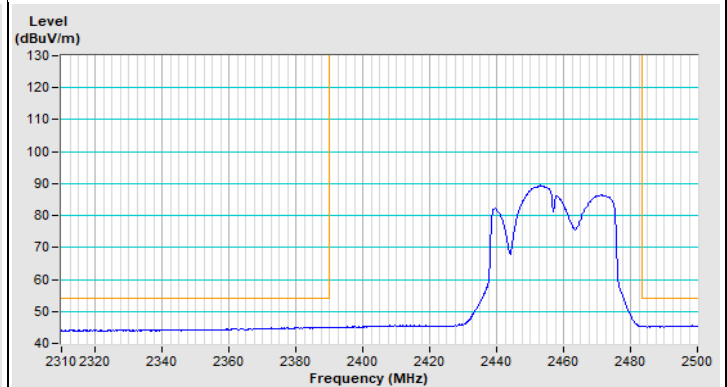
Horizontal (Peak)



Horizontal (Average)

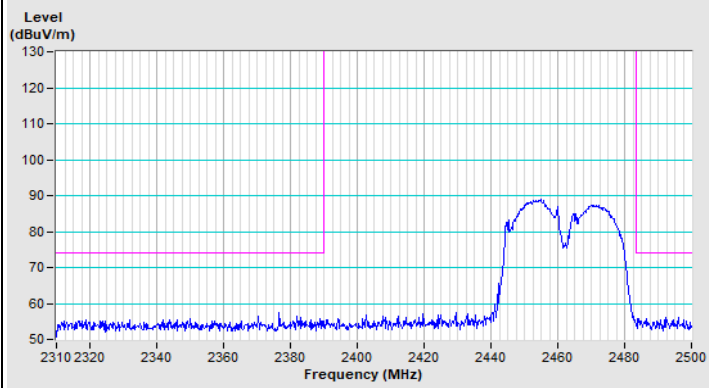


Vertical (Peak)

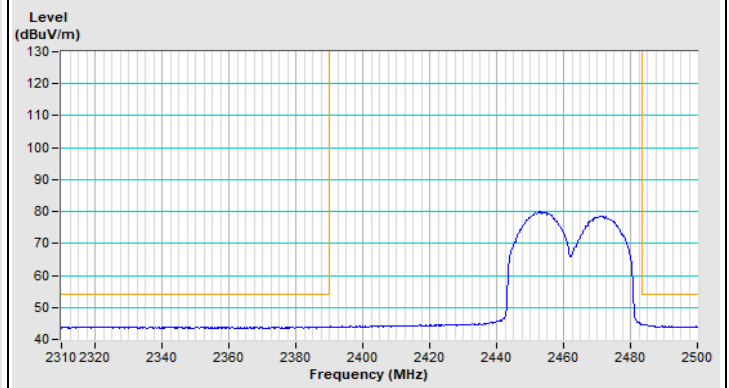


Vertical (Average)

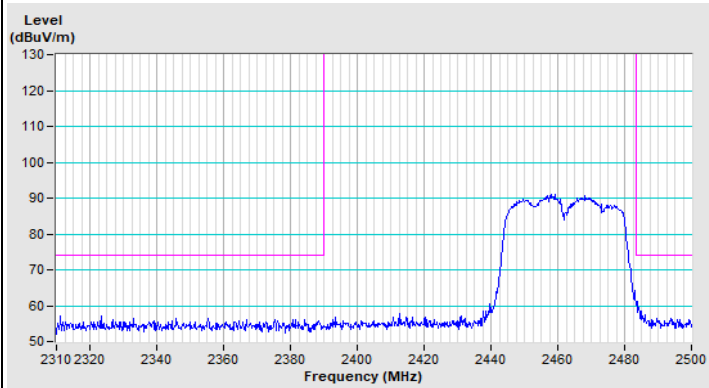
VHT40 Channel 11



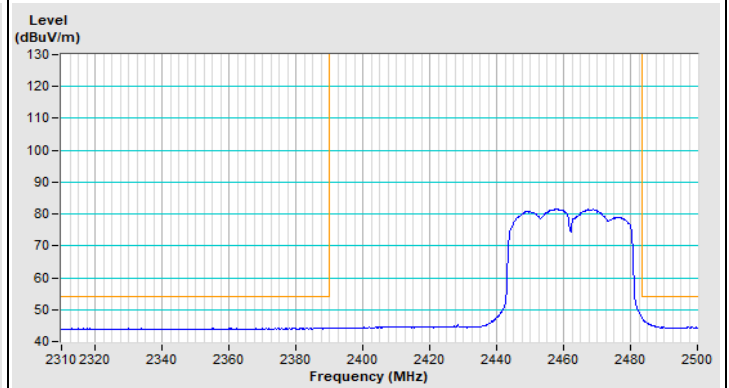
Horizontal (Peak)



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 ---