TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: **47 CFR FCC Part 15, Subpart C (Section 15.247)**
Report No.: RFBARR-WTW-P22120081S-4
FCC ID: RAS-MT7922A22M
Product: 2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand: MediaTek
Model No.: MT7922A22M
Received Date: 2024/9/26
Test Date: 2024/10/21 ~ 2024/11/22
Issued Date: 2024/12/5

Applicant: MediaTek Inc.
Address: No. 1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu City, 30078 Taiwan
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 / Designation Number: 723255 / TW2022

Approved by: Wen Yu , **Date:** 2024/12/5
Wen Yu / Assistant Manager

This test report consists of 77 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 : Phoenix Huang / 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 10
3.4 Test Mode Applicability and Tested Channel Detail 11
3.5 Duty Cycle of Test Signal 12
3.6 Test Program Used and Operation Descriptions 14
3.7 Connection Diagram of EUT and Peripheral Devices 14
3.8 Configuration of Peripheral Devices and Cable Connections 14

4 Test Instruments **16**

4.1 RF Output Power 16
4.2 AC Power Conducted Emissions 16
4.3 Unwanted Emissions below 1 GHz 17
4.4 Unwanted Emissions above 1 GHz 17

5 Limits of Test Items **18**

5.1 RF Output Power 18
5.2 AC Power Conducted Emissions 18
5.3 Unwanted Emissions below 1 GHz 18
5.4 Unwanted Emissions above 1 GHz 19

6 Test Arrangements **20**

6.1 RF Output Power 20
6.1.1 Test Setup 20
6.1.2 Test Procedure 20
6.2 AC Power Conducted Emissions 20
6.2.1 Test Setup 20
6.2.2 Test Procedure 20
6.3 Unwanted Emissions below 1 GHz 21
6.3.1 Test Setup 21
6.3.2 Test Procedure 22
6.4 Unwanted Emissions above 1 GHz 23
6.4.1 Test Setup 23
6.4.2 Test Procedure 23

7 Test Results of Test Item **24**

7.1 RF Output Power 24
7.2 AC Power Conducted Emissions 25
7.3 Unwanted Emissions below 1 GHz 27
7.4 Unwanted Emissions above 1 GHz 29

8 Pictures of Test Arrangements **76**

9 Information of the Testing Laboratories **77**

Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P22120081S-4	Original release.	2024/12/5

1 Certificate

Product:	2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand:	MediaTek
Test Model:	MT7922A22M
Sample Status:	Engineering sample
Applicant:	MediaTek Inc.
Test Date:	2024/10/21 ~ 2024/11/22
Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
Measurement procedure:	ANSI C63.10-2013 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	N/A	Refer to Note 1 below
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note 1 below
15.247(d)	Conducted Out of Band Emissions	N/A	Refer to Note 1 below
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -16.33 dB at 0.15000 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.8 dB at 299.66 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF), RP SMA PLUG, R-SMA, IPEX-4L or IPEX not a standard connector.

Note:

1. RF Output Power of 802.11b mode CH6 and CH11, AC Power Conducted Emissions and Unwanted Emissions 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:

Parameter	Specification	Uncertainty (±)
RF Output Power	-	1.1 dB
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 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	2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7922A22M
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
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 802.11ax: up to 573.5 Mbps
Operating Frequency	2.412 GHz ~ 2.472 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20):13 802.11n (HT40), VHT40, 802.11ax (HE40):9
Resource Unit (RU)	Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone
Output Power	317.751 mW (25.02 dBm)

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RFBARR-WTW-P21030485Z as the following:
   - Add Monopole antennas (Refer to section 3.2).
   - Reduce 802.11b mode CH6 and CH11 Output Power.
2. According to above conditions and there is no increase in authorized power level, only RF Output Power of 802.11b mode CH6 and CH11, AC Power Conducted Emissions and Unwanted Emissions test need to be performed. And all data are verified to meet the requirements.
3. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 5.9 GHz & 6 GHz) technology used for the EUT.
4. The equipment support 2 types of M.2 form factor A-E Key and E Key.
5. Simultaneously transmission combination.

Combination.	Technology	
1	WLAN (5 GHz)	Bluetooth
2	WLAN (6 GHz)	Bluetooth
3	WLAN (5.9 GHz)	Bluetooth
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

6. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.
7. 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								
Antenna Set	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718EMLB302	3.18	2.4~2.4835	PIFA	ipex(MHF)	200
				4.92	5.15~5.895			
	Chain1	PSA	RFMTA340718EMLB302	3.18	2.4~2.4835			
				4.92	5.15~5.895			
2	Chain0	PSA	RFMTA311020EMMB301	1.71	2.4~2.4835	PIFA	ipex(MHF)	200
				4.82	5.15~5.895			
				4.76	5.925~6.425			
				4.29	6.425~6.525			
				4.61	6.525~6.875			
				4.09	6.875~7.125			
	Chain1	PSA	RFMTA311020EMMB301	1.71	2.4~2.4835			
				4.82	5.15~5.895			
				4.76	5.925~6.425			
				4.29	6.425~6.525			
				4.61	6.525~6.875			
				4.09	6.875~7.125			
3	Chain0	Cortec	AN2450-4902BRS	2.42	2.4~2.4835	Dipole	R-SMA	150
				3.87	5.15~5.895			
	Chain1	Cortec	AN2450-4902BRS	2.42	2.4~2.4835			
				3.87	5.15~5.895			
4	Chain0	VSO	JR2Q00340-1	1.62	2.4~2.4835	Dipole	RP SMA PLUG	40
				3.2	5.15~5.895			
				3.93	5.925~6.425			
				3.61	6.425~6.525			
				3.61	6.525~6.875			
				3.14	6.875~7.125			
	Chain1	VSO	JR2Q00340-1	1.62	2.4~2.4835			
				3.2	5.15~5.895			
				3.93	5.925~6.425			
				3.61	6.425~6.525			
				3.61	6.525~6.875			
				3.14	6.875~7.125			
5	Chain0	MSI	WA-P-LE-02-045 (Main)	2.24	2.4~2.4835	PIFA	IPEX-4L	190
				2.68	5.15~5.895			
				3.01	5.925~6.425			
				-1.23	6.425~6.525			
				-1.96	6.525~6.875			
				-3.68	6.875~7.125			
	Chain1	MSI	WA-P-LE-02-046 (Aux)	-2.96	2.4~2.4835	PIFA	IPEX-4L	325
				1.16	5.15~5.895			
				0.99	5.925~6.425			
				-2.31	6.425~6.525			
				-2.54	6.525~6.875			
				-7.44	6.875~7.125			

Antenna Set	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
6	Chain0	PSA	RFPCA460632IMMB701	-13.2	5.925~6.425	Dipole	IPEX	320
				-13.67	6.425~6.525			
				-13.67	6.525~6.875			
				-13.09	6.875~7.125			
	Chain1	PSA	RFPCA460632IMMB701	-13.2	5.925~6.425	Dipole	IPEX	
				-13.67	6.425~6.525			
				-13.67	6.525~6.875			
				-13.09	6.875~7.125			
7	Chain0	PSA	RFMTA421230IMMB701	-13.92	5.925~6.425	PIFA	IPEX	300
				-13.91	6.425~6.525			
				-13.91	6.525~6.875			
				-14.46	6.875~7.125			
	Chain1	PSA	RFMTA421230IMMB701	-13.92	5.925~6.425	PIFA	IPEX	
				-13.91	6.425~6.525			
				-13.91	6.525~6.875			
				-14.46	6.875~7.125			

Newly

Antenna Set	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
8	Chain0	HongBo	260-25105	3.1	2.4~2.4835	Monopole	ipex(MHF)	486
				3.33	5.15~5.895			
				4.23	5.925~6.425			
				4.22	6.425~6.525			
				4.01	6.525~6.875			
				3.07	6.875~7.125			
	Chain1	HongBo	260-25105	3.1	2.4~2.4835	Monopole	ipex(MHF)	486
				3.33	5.15~5.895			
				4.23	5.925~6.425			
				4.22	6.425~6.525			
				4.01	6.525~6.875			
				3.07	6.875~7.125			
9	Chain0	HongBo	260-25106	4.91	5.15~5.895	Monopole	ipex(MHF)	350
				4.73	5.925~6.425			
				4.29	6.425~6.525			
				4.58	6.525~6.875			
				4.09	6.875~7.125			
	Chain1	HongBo	260-25106	4.91	5.15~5.895	Monopole	ipex(MHF)	350
				4.73	5.925~6.425			
				4.29	6.425~6.525			
				4.58	6.525~6.875			
				4.09	6.875~7.125			

Note: Above Monopole antennas, Antenna Set. 8 was selected for the final test of WLAN (2.4 GHz).

* 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
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (RU26/52/106/242/484)	2TX	2RX
Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz) and 802.11ax mode for 20 MHz (40 MHz). Therefore the investigated worst case is the representative mode in test report.		

3.3 Channel List

13 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20):

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		

11 channels are provided for 802.11n (HT40), VHT40, 802.11ax (HE40):

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

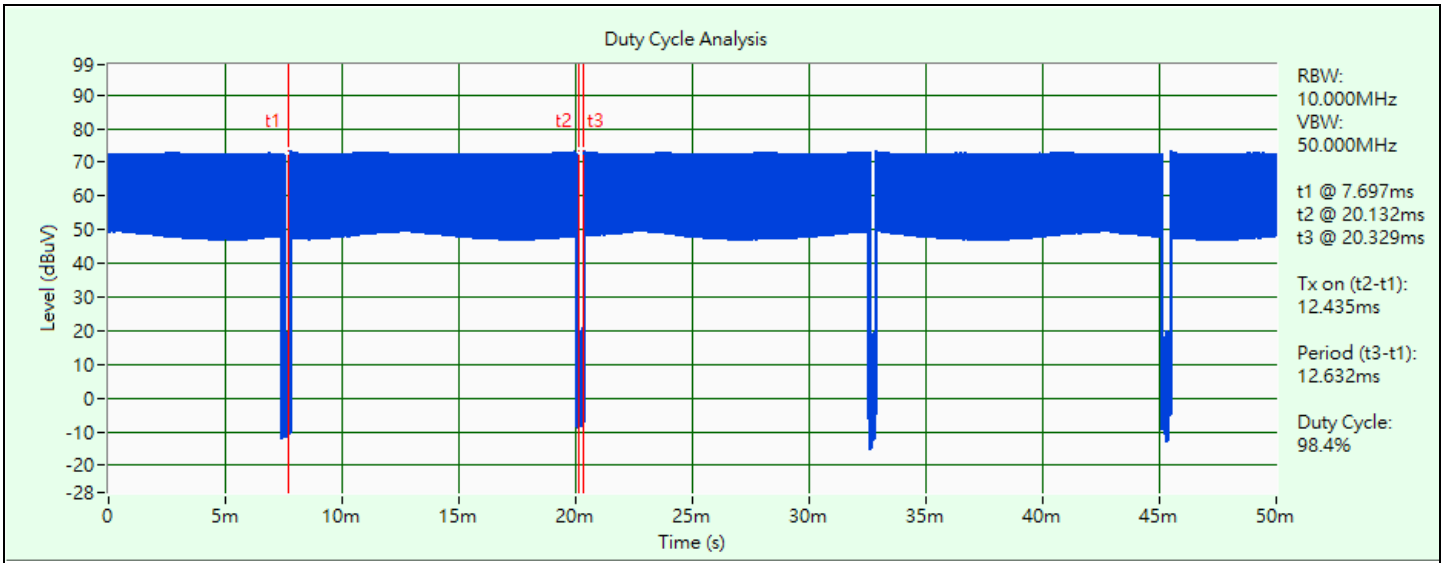
Pre-Scan:	1. EUT's Monopole antenna can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). 3. The worst-case Partial RU modes across all supported bandwidth modes has been determined via pre-scan.
Worst Case:	1. EUT's Monopole antenna worst condition: X-axis

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

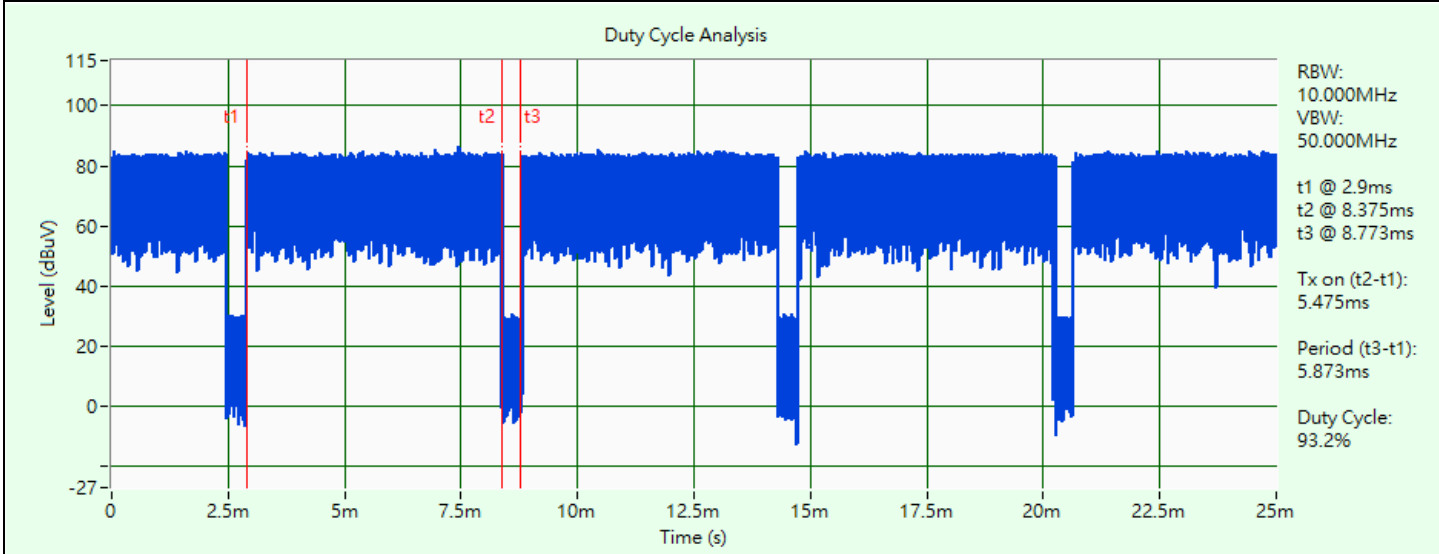
Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter	RU Index
RF Output Power	802.11b	6, 11	DBPSK	1Mb/s	NA
AC Power Conducted Emissions	802.11ax (HE20)	6	BPSK	MCS0	NA
Unwanted Emissions below 1 GHz	802.11ax (HE20)	6	BPSK	MCS0	NA
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11, 12, 13	DBPSK	1Mb/s	NA
	802.11g	1, 6, 11, 12, 13	BPSK	6Mb/s	NA
	802.11ax (HE20)	1, 6, 11, 12, 13	BPSK	MCS0	NA
	802.11ax (HE40)	3, 6, 9, 10, 11	BPSK	MCS0	NA
	802.11ax (HE20) 26-tone RU	1, 11, 12, 13	BPSK	MCS0	0, 8, 8, 8
	802.11ax (HE20) 52-tone RU	6	BPSK	MCS0	37
	802.11ax (HE20) 106-tone RU	1, 11, 12, 13	BPSK	MCS0	53, 54, 54, 54
Note: The worst types of M.2 form is A-E Key. This evaluation condition is determined by referring to the evaluation results of the original report.					

3.5 Duty Cycle of Test Signal

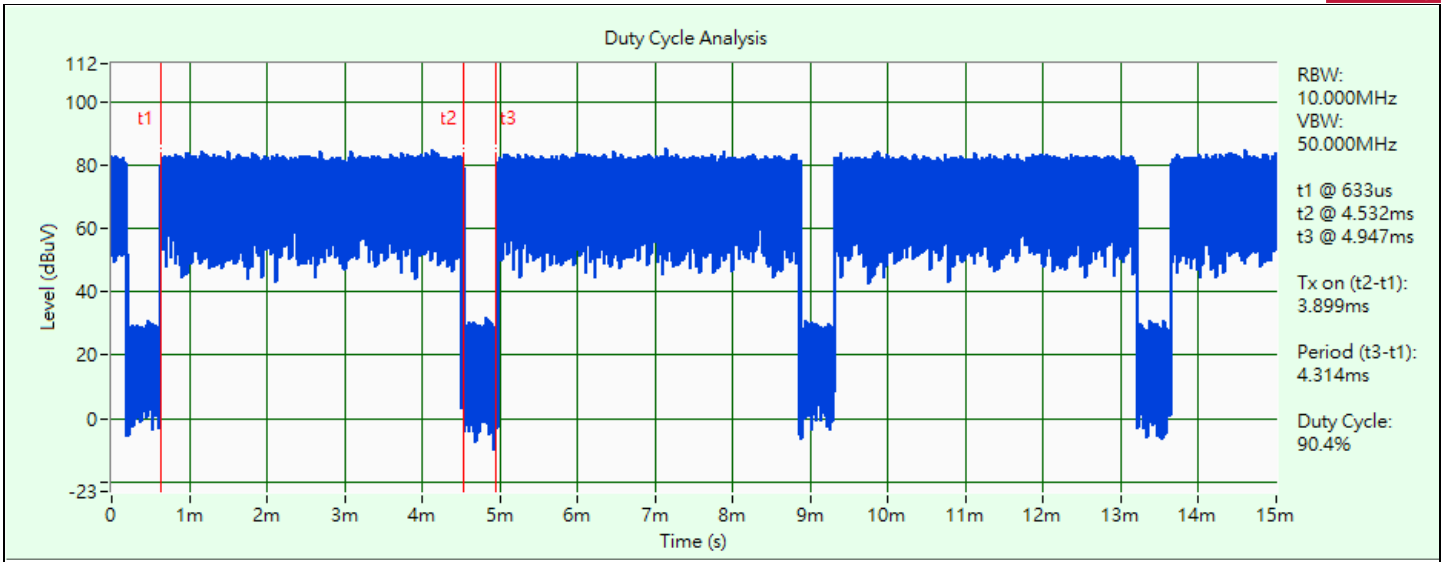
802.11b: Duty cycle = 12.435 ms / 12.632 ms x 100% = 98.4%
802.11g: Duty cycle = 5.475 ms / 5.873 ms x 100% = 93.2%, duty factor = 10 * log (1/Duty cycle) = 0.30 dB
802.11ax (HE20): Duty cycle = 3.899 ms / 4.314 ms x 100% = 90.4%, duty factor = 10 * log (1/Duty cycle) = 0.44 dB
802.11ax (HE40): Duty cycle = 3.78 ms / 4.34 ms x 100% = 87.1%, duty factor = 10 * log (1/Duty cycle) = 0.60 dB



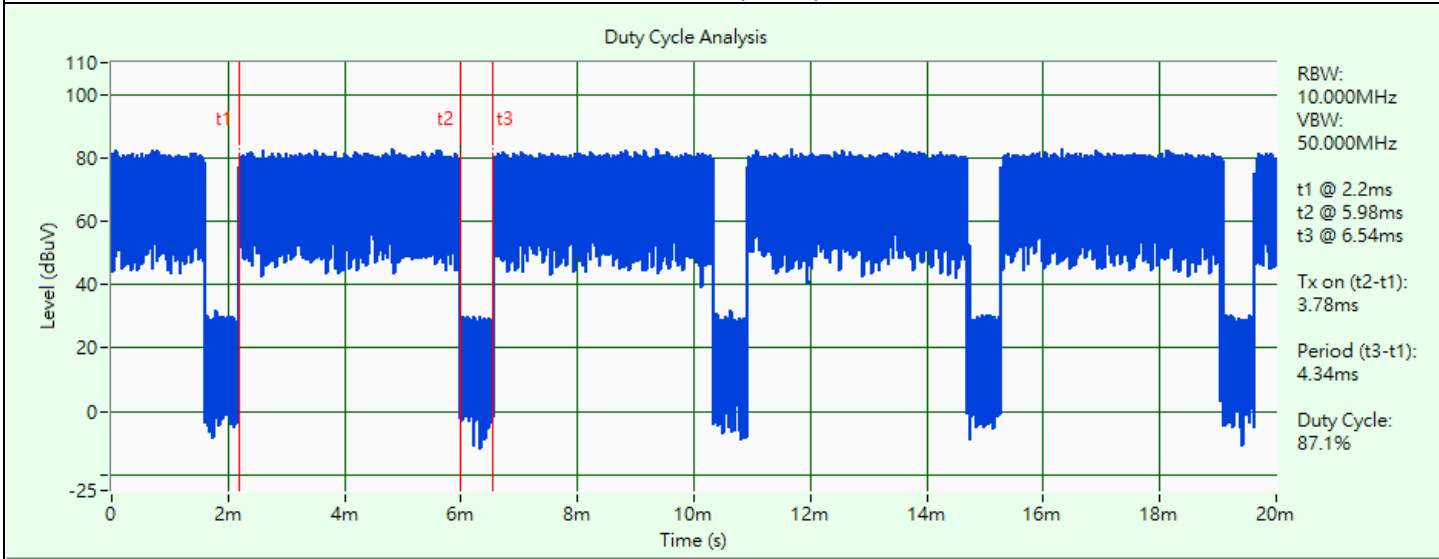
802.11b



802.11g



802.11ax (HE20)



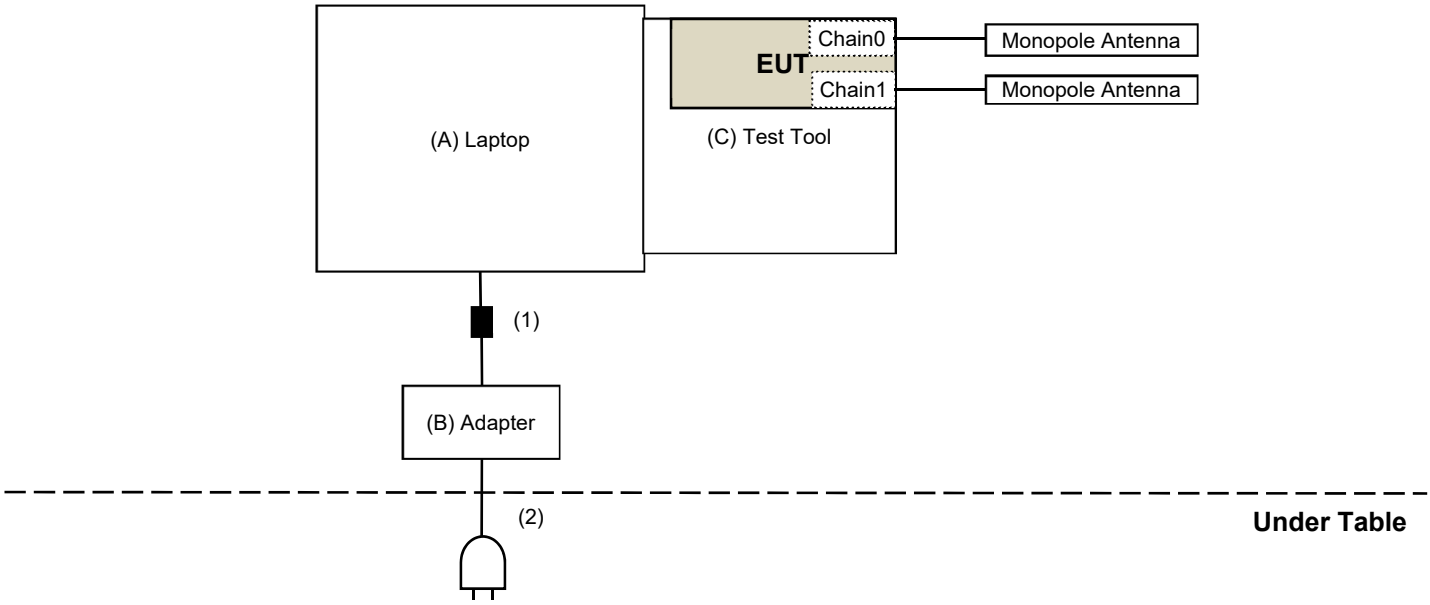
802.11ax (HE40)

3.6 Test Program Used and Operation Descriptions

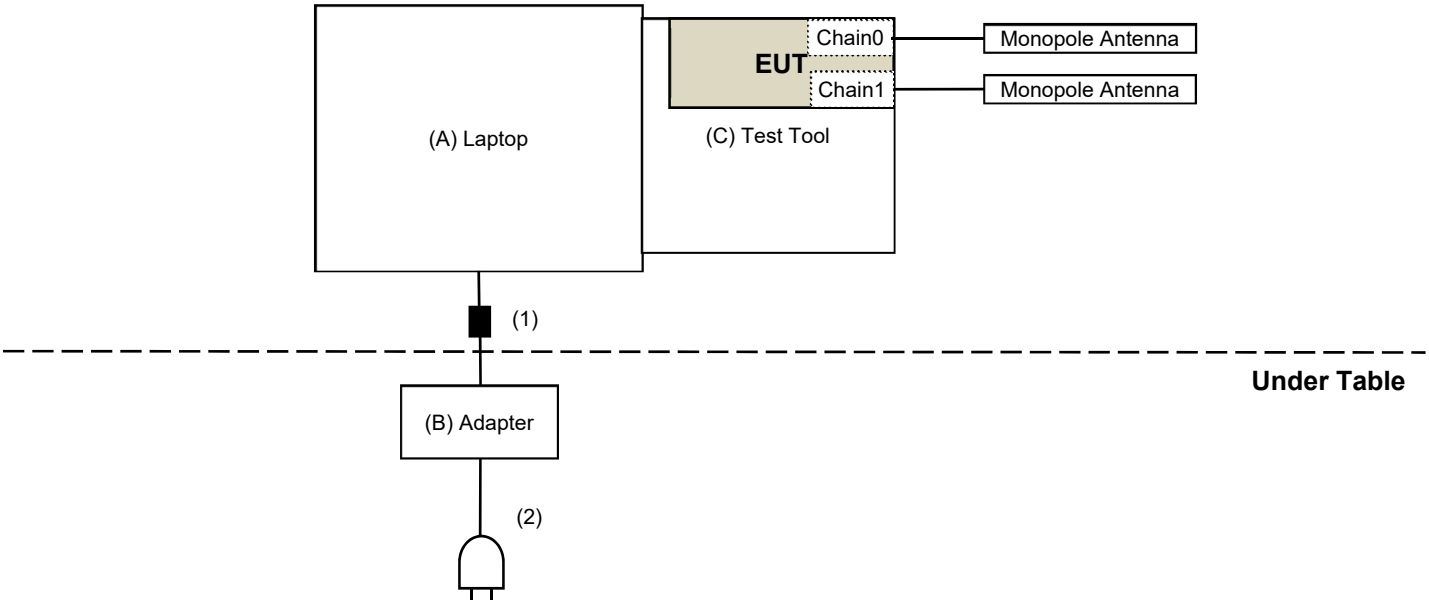
Controlling software (QATool_UIv2.55) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For AC Power Conducted Emission test



For Unwanted Emission test



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	L440	R907JXDG	N/A	Provided by Lab
B	Adapter	Lenovo	ADLX45NCC3A	N/A	N/A	Provided by Lab
C	Test Tool	MediaTek	MTK1849	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	1	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
Pulse Power Sensor Anritsu	MA2411B	1726434	2024/6/7	2025/6/6
RF Power Meter Anritsu	ML2495A	1529002	2024/6/7	2025/6/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/11/22

4.2 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2024/11/1	2025/10/31
EMI Test Receiver R&S	ESCS 30	100375	2024/5/20	2025/5/19
Fixed Attenuator STI	STI02-2200-10	005	2024/2/19	2025/2/18
LISN R&S	ESH3-Z5	835239/001	2024/4/3	2025/4/2
		848773/004	2024/10/7	2025/10/6
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2024/2/19	2025/2/18
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2024/11/7

4.3 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0942	2024/10/14	2025/10/13
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2024/5/16	2025/5/15
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
MXE EMI Receiver Keysight	N9038A	MY59050100	2024/6/19	2025/6/18
Preamplifier EMCI	EMC330N	980852	2024/2/17	2025/2/16
	EMC001340	980142	2024/2/19	2025/2/18
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2024/2/19	2025/2/18
		LOOPCAB-002	2024/2/19	2025/2/18
RF Coaxial Cable PEWC	8D	966-6-1	2024/5/16	2025/5/15
		966-6-2	2024/5/16	2025/5/15
		966-6-3	2024/5/16	2025/5/15
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: 2024/11/6

4.4 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	2023/11/12	2024/11/11
	BBHA 9170	BBHA9170519	2023/11/12	2024/11/11
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
MXE EMI Receiver Keysight	N9038A	MY59050100	2024/6/19	2025/6/18
Preamplifier EMCI	EMC12630SE	980385	2024/6/1	2025/5/31
	EMC184045SE	980387	2024/8/8	2025/8/7
RF Coaxial Cable EMCI	EMC104-SM-SM-1300	210205	2024/6/1	2025/5/31
	EMC104-SM-SM-2000	210203	2024/6/1	2025/5/31
	EMC104-SM-SM-8000	221015	2024/6/1	2025/5/31
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: 2024/10/21 ~ 2024/10/24

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 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

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

5.3 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).

5.4 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

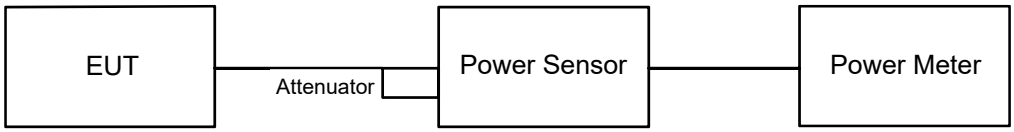
Notes:

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



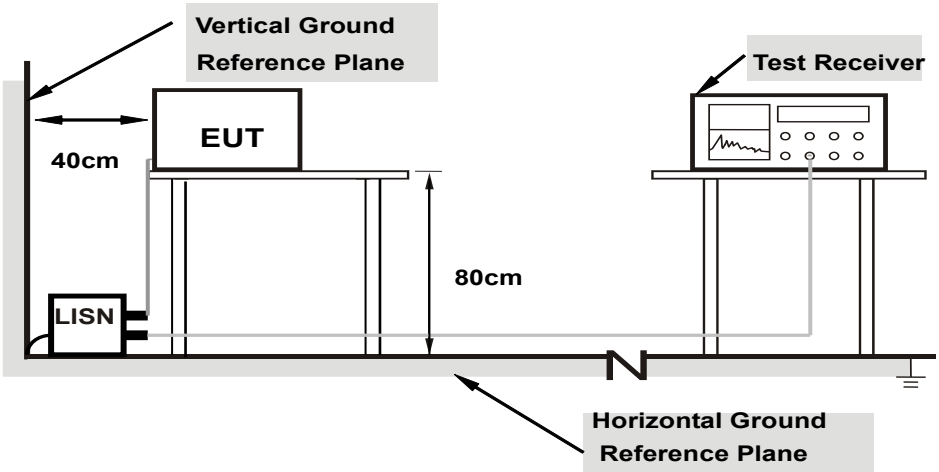
6.1.2 Test Procedure

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 AC Power Conducted Emissions

6.2.1 Test Setup



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

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

6.2.2 Test Procedure

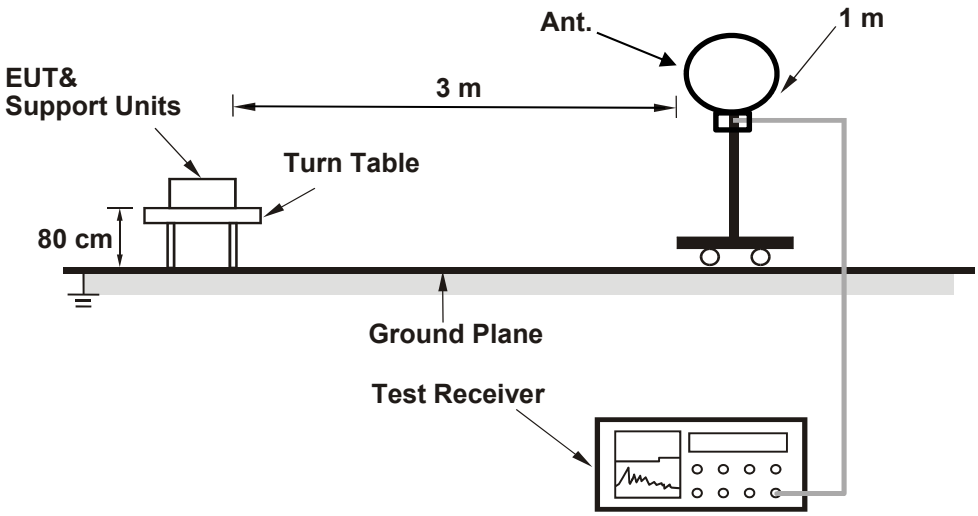
a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

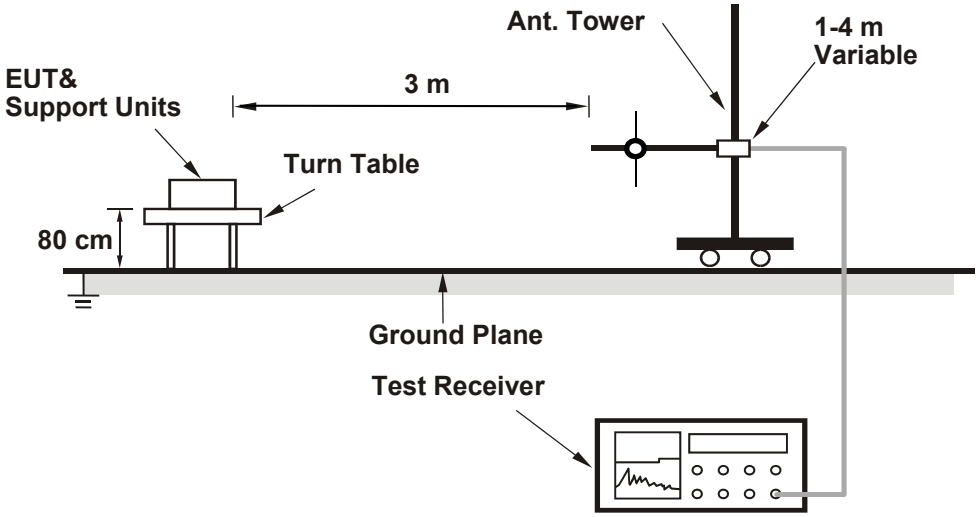
6.3 Unwanted Emissions below 1 GHz

6.3.1 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).

6.3.2 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

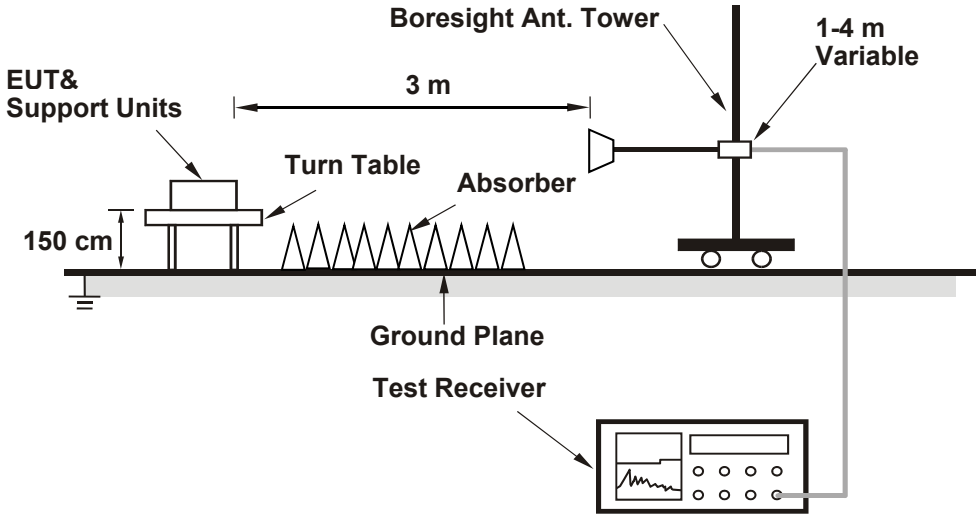
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top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

6.4 Unwanted Emissions above 1 GHz

6.4.1 Test Setup



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

6.4.2 Test Procedure

a. 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.

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 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:

1. 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.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. 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:	Matthew Yang

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				
6	2437	21.94	22.08	317.751	25.02	30	Pass
11	2462	21.69	21.76	297.539	24.74	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.18 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		
6	2437	19.37	19.41	173.794	22.40
11	2462	19.23	19.34	169.654	22.30

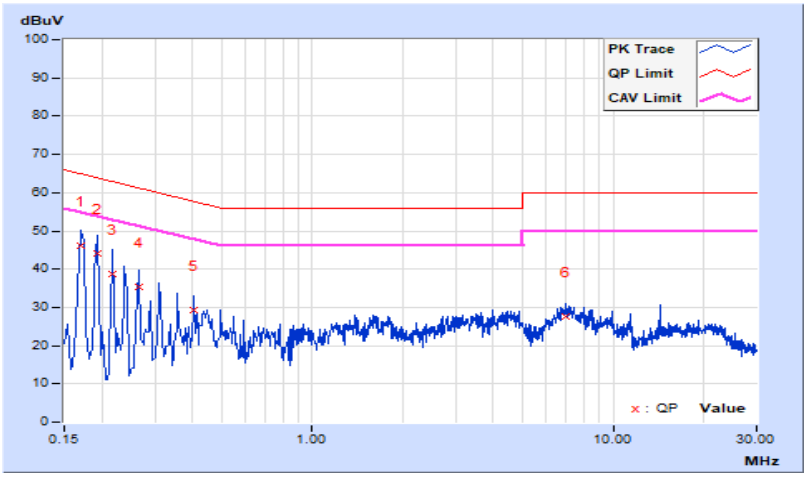
7.2 AC Power Conducted Emissions

RF Mode	802.11ax (HE20)	**Channel**	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 75 % RH
Tested By	Greg Lin		

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.16977	9.67	36.32	14.19	45.99	23.86	64.97	54.97	-18.98	-31.11
2	0.19400	9.66	34.57	15.55	44.23	25.21	63.86	53.86	-19.63	-28.65
3	0.21800	9.66	29.11	8.90	38.77	18.56	62.89	52.89	-24.12	-34.33
4	0.26600	9.67	25.78	8.20	35.45	17.87	61.24	51.24	-25.79	-33.37
5	0.40600	9.69	19.60	4.35	29.29	14.04	57.73	47.73	-28.44	-33.69
6	6.96200	9.82	17.87	7.24	27.69	17.06	60.00	50.00	-32.31	-32.94

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

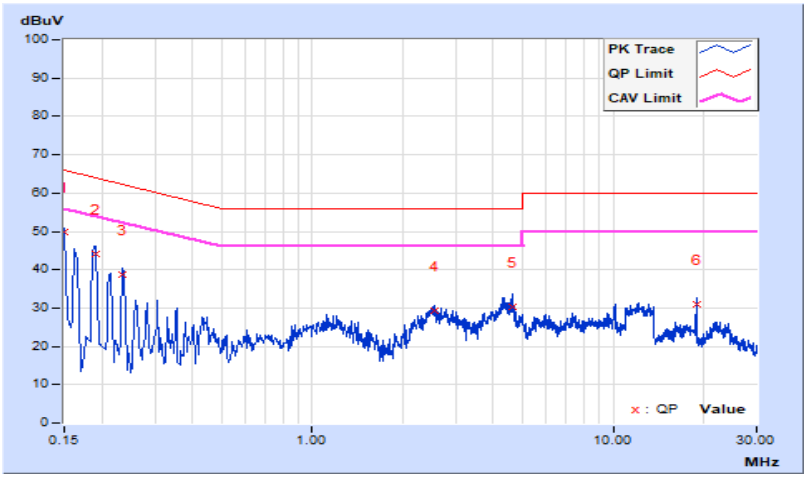


RF Mode	802.11ax (HE20)	**Channel**	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 75 % RH
Tested By	Greg Lin		

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	**0.15000**	**9.64**	**40.03**	**23.19**	**49.67**	**32.83**	**66.00**	**56.00**	**-16.33**	**-23.17**
2	0.19000	9.65	34.37	16.37	44.02	26.02	64.04	54.04	-20.02	-28.02
3	0.23400	9.66	28.94	10.65	38.60	20.31	62.31	52.31	-23.71	-32.00
4	2.56600	9.77	19.55	9.86	29.32	19.63	56.00	46.00	-26.68	-26.37
5	4.62200	9.80	20.42	13.48	30.22	23.28	56.00	46.00	-25.78	-22.72
6	18.92600	10.15	20.73	5.67	30.88	15.82	60.00	50.00	-29.12	-34.18

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



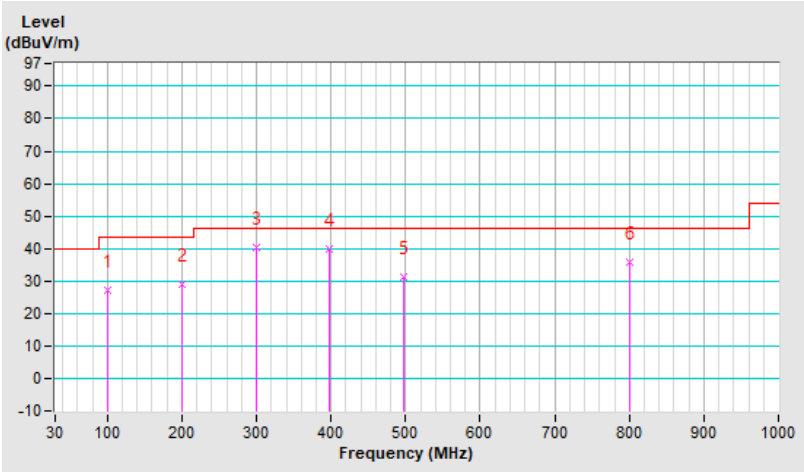
7.3 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE20)	**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**	21 °C, 67 % RH
Tested By	Greg Lin		

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	99.84	27.3 QP	43.5	-16.2	1.25 H	49	44.9	-17.6
2	199.75	28.8 QP	43.5	-14.7	1.50 H	158	45.2	-16.4
3	**299.66**	**40.2 QP**	**46.0**	**-5.8**	**1.00 H**	**63**	**52.6**	**-12.4**
4	398.60	39.9 QP	46.0	-6.1	1.25 H	262	49.7	-9.8
5	497.54	31.3 QP	46.0	-14.7	1.50 H	156	39.0	-7.7
6	801.15	35.8 QP	46.0	-10.2	1.00 H	183	37.8	-2.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

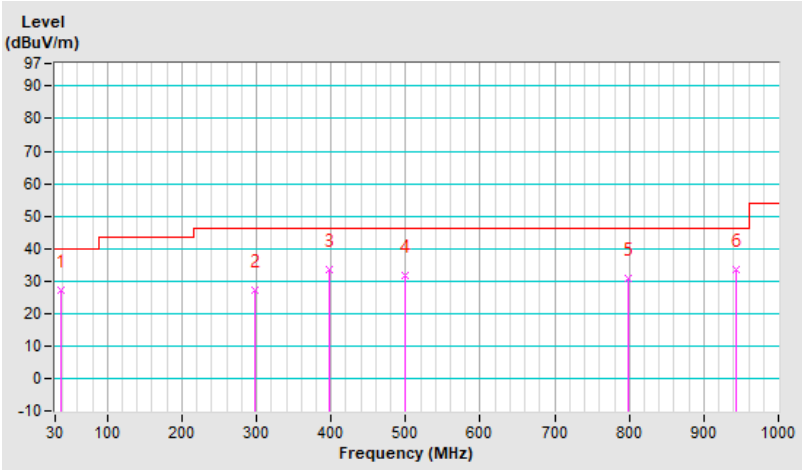


RF Mode	802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Greg Lin		

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	37.76	27.1 QP	40.0	-12.9	1.25 V	94	40.8	-13.7
2	298.69	27.0 QP	46.0	-19.0	1.00 V	132	39.4	-12.4
3	398.60	33.4 QP	46.0	-12.6	1.50 V	37	43.2	-9.8
4	498.51	31.5 QP	46.0	-14.5	1.00 V	254	39.2	-7.7
5	799.21	30.6 QP	46.0	-15.4	1.25 V	274	32.6	-2.0
6	943.74	33.7 QP	46.0	-12.3	1.00 V	105	33.6	0.1

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 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.



7.4 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	21 °C, 67 % RH
Tested By	Edison Lee		

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	62.4 PK	74.0	-11.6	1.00 H	33	30.1	32.3
2	2390.00	53.1 AV	54.0	-0.9	1.00 H	33	20.8	32.3
3	*2412.00	115.6 PK			1.00 H	33	83.2	32.4
4	*2412.00	113.5 AV			1.00 H	33	81.1	32.4
5	4824.00	54.0 PK	74.0	-20.0	1.50 H	44	50.7	3.3
6	4824.00	51.8 AV	54.0	-2.2	1.50 H	44	48.5	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.5 PK	74.0	-16.5	1.86 V	223	25.2	32.3
2	2390.00	47.8 AV	54.0	-6.2	1.86 V	223	15.5	32.3
3	*2412.00	103.3 PK			1.86 V	223	70.9	32.4
4	*2412.00	100.4 AV			1.86 V	223	68.0	32.4
5	4824.00	51.9 PK	74.0	-22.1	1.97 V	43	48.6	3.3
6	4824.00	49.1 AV	54.0	-4.9	1.97 V	43	45.8	3.3

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	21 °C, 67 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	112.6 PK			1.10 H	40	80.2	32.4
2	*2437.00	110.0 AV			1.10 H	40	77.6	32.4
3	4874.00	56.7 PK	74.0	-17.3	2.27 H	44	53.2	3.5
4	4874.00	53.7 AV	54.0	-0.3	2.27 H	44	50.2	3.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	100.3 PK			1.85 V	223	67.9	32.4
2	*2437.00	97.8 AV			1.85 V	223	65.4	32.4
3	4874.00	52.8 PK	74.0	-21.2	2.03 V	12	49.3	3.5
4	4874.00	49.9 AV	54.0	-4.1	2.03 V	12	46.4	3.5

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	21 °C, 67 % RH
Tested By	Edison Lee		

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	115.1 PK			1.00 H	2	82.6	32.5
2	*2462.00	112.8 AV			1.00 H	2	80.3	32.5
3	2483.50	60.1 PK	74.0	-13.9	1.00 H	2	27.5	32.6
4	2483.50	50.2 AV	54.0	-3.8	1.00 H	2	17.6	32.6
5	4924.00	55.3 PK	74.0	-18.7	3.99 H	40	51.8	3.5
6	4924.00	53.7 AV	54.0	-0.3	3.99 H	40	50.2	3.5
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	105.7 PK			2.00 V	194	73.2	32.5
2	*2462.00	103.4 AV			2.00 V	194	70.9	32.5
3	2483.50	58.1 PK	74.0	-15.9	2.00 V	194	25.5	32.6
4	2483.50	48.3 AV	54.0	-5.7	2.00 V	194	15.7	32.6
5	4924.00	54.0 PK	74.0	-20.0	3.61 V	98	50.5	3.5
6	4924.00	50.5 AV	54.0	-3.5	3.61 V	98	47.0	3.5

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**	21 °C, 67 % RH
Tested By	Edison Lee		

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	113.3 PK			1.00 H	4	80.8	32.5
2	*2467.00	110.4 AV			1.00 H	4	77.9	32.5
3	2483.50	61.4 PK	74.0	-12.6	1.00 H	4	28.8	32.6
4	2483.50	53.8 AV	54.0	-0.2	1.00 H	4	21.2	32.6
5	4934.00	53.7 PK	74.0	-20.3	4.00 H	38	50.2	3.5
6	4934.00	51.6 AV	54.0	-2.4	4.00 H	38	48.1	3.5
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	103.7 PK			1.99 V	198	71.2	32.5
2	*2467.00	101.2 AV			1.99 V	198	68.7	32.5
3	2483.50	58.4 PK	74.0	-15.6	1.99 V	198	25.8	32.6
4	2483.50	49.1 AV	54.0	-4.9	1.99 V	198	16.5	32.6
5	4934.00	51.8 PK	74.0	-22.2	3.70 V	102	48.3	3.5
6	4934.00	38.7 AV	54.0	-15.3	3.70 V	102	35.2	3.5

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 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	21 °C, 67 % RH
Tested By	Edison Lee		

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	105.8 PK			1.00 H	32	73.3	32.5
2	*2472.00	103.3 AV			1.00 H	32	70.8	32.5
3	2483.50	60.6 PK	74.0	-13.4	1.00 H	32	28.0	32.6
4	2483.50	53.6 AV	54.0	-0.4	1.00 H	32	21.0	32.6
5	4944.00	48.8 PK	74.0	-25.2	4.00 H	37	45.3	3.5
6	4944.00	44.0 AV	54.0	-10.0	4.00 H	37	40.5	3.5
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	95.7 PK			1.98 V	207	63.2	32.5
2	*2472.00	94.0 AV			1.98 V	207	61.5	32.5
3	2483.50	58.8 PK	74.0	-15.2	1.98 V	207	26.2	32.6
4	2483.50	49.8 AV	54.0	-4.2	1.98 V	207	17.2	32.6
5	4944.00	47.7 PK	74.0	-26.3	3.69 V	100	44.2	3.5
6	4944.00	42.3 AV	54.0	-11.7	3.69 V	100	38.8	3.5

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 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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Greg Lin		

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	64.4 PK	74.0	-9.6	1.00 H	26	32.1	32.3
2	2390.00	52.5 AV	54.0	-1.5	1.00 H	26	20.2	32.3
3	*2412.00	115.2 PK			1.00 H	26	82.8	32.4
4	*2412.00	107.5 AV			1.00 H	26	75.1	32.4
5	4824.00	51.8 PK	74.0	-22.2	2.23 H	58	48.5	3.3
6	4824.00	41.6 AV	54.0	-12.4	2.23 H	58	38.3	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.2 PK	74.0	-15.8	1.70 V	193	25.9	32.3
2	2390.00	48.0 AV	54.0	-6.0	1.70 V	193	15.7	32.3
3	*2412.00	106.5 PK			1.70 V	193	74.1	32.4
4	*2412.00	98.6 AV			1.70 V	193	66.2	32.4
5	4824.00	49.7 PK	74.0	-24.3	2.18 V	36	46.4	3.3
6	4824.00	39.7 AV	54.0	-14.3	2.18 V	36	36.4	3.3

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 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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*2437.00	118.2 PK			1.00 H	355	85.8	32.4
2	*2437.00	110.0 AV			1.00 H	355	77.6	32.4
3	4874.00	55.3 PK	74.0	-18.7	2.31 H	59	51.8	3.5
4	4874.00	45.2 AV	54.0	-8.8	2.31 H	59	41.7	3.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*2437.00	109.2 PK			1.76 V	196	76.8	32.4
2	*2437.00	101.0 AV			1.76 V	196	68.6	32.4
3	4874.00	52.4 PK	74.0	-21.6	2.13 V	31	48.9	3.5
4	4874.00	43.0 AV	54.0	-11.0	2.13 V	31	39.5	3.5

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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Greg Lin		

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	115.7 PK			1.00 H	1	83.2	32.5
2	*2462.00	107.9 AV			1.00 H	1	75.4	32.5
3	2483.50	68.3 PK	74.0	-5.7	1.00 H	1	35.7	32.6
4	2483.50	53.2 AV	54.0	-0.8	1.00 H	1	20.6	32.6
5	4924.00	52.4 PK	74.0	-21.6	2.28 H	54	48.9	3.5
6	4924.00	42.1 AV	54.0	-11.9	2.28 H	54	38.6	3.5
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	107.2 PK			1.72 V	206	74.7	32.5
2	*2462.00	99.3 AV			1.72 V	206	66.8	32.5
3	2483.50	60.8 PK	74.0	-13.2	1.72 V	206	28.2	32.6
4	2483.50	49.2 AV	54.0	-4.8	1.72 V	206	16.6	32.6
5	4924.00	50.3 PK	74.0	-23.7	2.18 V	33	46.8	3.5
6	4924.00	40.0 AV	54.0	-14.0	2.18 V	33	36.5	3.5

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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Greg Lin		

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	112.0 PK			1.00 H	359	79.5	32.5
2	*2467.00	104.2 AV			1.00 H	359	71.7	32.5
3	2483.50	66.6 PK	74.0	-7.4	1.00 H	359	34.0	32.6
4	2483.50	53.8 AV	54.0	-0.2	1.00 H	359	21.2	32.6
5	4934.00	50.7 PK	74.0	-23.3	2.24 H	49	47.2	3.5
6	4934.00	40.2 AV	54.0	-13.8	2.24 H	49	36.7	3.5
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	103.0 PK			1.71 V	203	70.5	32.5
2	*2467.00	95.2 AV			1.71 V	203	62.7	32.5
3	2483.50	59.9 PK	74.0	-14.1	1.71 V	203	27.3	32.6
4	2483.50	49.2 AV	54.0	-4.8	1.71 V	203	16.6	32.6
5	4934.00	50.2 PK	74.0	-23.8	2.08 V	32	46.7	3.5
6	4934.00	38.9 AV	54.0	-15.1	2.08 V	32	35.4	3.5

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 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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Greg Lin		

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	108.6 PK			1.16 H	2	76.1	32.5
2	*2472.00	100.6 AV			1.16 H	2	68.1	32.5
3	2483.50	64.4 PK	74.0	-9.6	1.16 H	2	31.8	32.6
4	2483.50	53.8 AV	54.0	-0.2	1.16 H	2	21.2	32.6
5	4944.00	50.8 PK	74.0	-23.2	2.29 H	54	47.3	3.5
6	4944.00	39.8 AV	54.0	-14.2	2.29 H	54	36.3	3.5
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	99.9 PK			1.79 V	195	67.4	32.5
2	*2472.00	91.8 AV			1.79 V	195	59.3	32.5
3	2483.50	60.5 PK	74.0	-13.5	1.79 V	195	27.9	32.6
4	2483.50	49.7 AV	54.0	-4.3	1.79 V	195	17.1	32.6
5	4944.00	49.9 PK	74.0	-24.1	2.07 V	27	46.4	3.5
6	4944.00	38.8 AV	54.0	-15.2	2.07 V	27	35.3	3.5

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	802.11ax (HE20)	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Edison Lee		

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	65.8 PK	74.0	-8.2	1.92 H	1	33.5	32.3
2	2390.00	53.7 AV	54.0	-0.3	1.92 H	1	21.4	32.3
3	*2412.00	115.3 PK			1.92 H	1	82.9	32.4
4	*2412.00	105.6 AV			1.92 H	1	73.2	32.4
5	4824.00	49.1 PK	74.0	-24.9	4.00 H	37	45.8	3.3
6	4824.00	40.0 AV	54.0	-14.0	4.00 H	37	36.7	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	2390.00	59.1 PK	74.0	-14.9	2.03 V	198	26.8	32.3
2	2390.00	48.8 AV	54.0	-5.2	2.03 V	198	16.5	32.3
3	*2412.00	106.3 PK			2.03 V	198	73.9	32.4
4	*2412.00	97.2 AV			2.03 V	198	64.8	32.4
5	4824.00	48.3 PK	74.0	-25.7	3.67 V	100	45.0	3.3
6	4824.00	38.8 AV	54.0	-15.2	3.67 V	100	35.5	3.3

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	802.11ax (HE20)	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	67.8 PK	74.0	-6.2	1.88 H	357	35.5	32.3
2	2390.00	53.4 AV	54.0	-0.6	1.88 H	357	21.1	32.3
3	*2437.00	118.9 PK			1.88 H	357	86.5	32.4
4	*2437.00	109.3 AV			1.88 H	357	76.9	32.4
5	4874.00	50.0 PK	74.0	-24.0	3.98 H	35	46.5	3.5
6	4874.00	40.7 AV	54.0	-13.3	3.98 H	35	37.2	3.5
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	58.7 PK	74.0	-15.3	1.85 V	198	26.4	32.3
2	2390.00	48.4 AV	54.0	-5.6	1.85 V	198	16.1	32.3
3	*2437.00	109.4 PK			1.85 V	198	77.0	32.4
4	*2437.00	99.8 AV			1.85 V	198	67.4	32.4
5	4874.00	48.8 PK	74.0	-25.2	3.70 V	95	45.3	3.5
6	4874.00	39.1 AV	54.0	-14.9	3.70 V	95	35.6	3.5

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	802.11ax (HE20)	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	115.4 PK			2.03 H	4	82.9	32.5
2	*2462.00	104.8 AV			2.03 H	4	72.3	32.5
3	2483.50	64.9 PK	74.0	-9.1	2.03 H	4	32.3	32.6
4	2483.50	53.3 AV	54.0	-0.7	2.03 H	4	20.7	32.6
5	4924.00	49.5 PK	74.0	-24.5	4.00 H	40	46.0	3.5
6	4924.00	40.1 AV	54.0	-13.9	4.00 H	40	36.6	3.5
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	106.5 PK			2.06 V	200	74.0	32.5
2	*2462.00	96.5 AV			2.06 V	200	64.0	32.5
3	2483.50	59.9 PK	74.0	-14.1	2.06 V	200	27.3	32.6
4	2483.50	49.4 AV	54.0	-4.6	2.06 V	200	16.8	32.6
5	4924.00	48.8 PK	74.0	-25.2	3.56 V	107	45.3	3.5
6	4924.00	39.2 AV	54.0	-14.8	3.56 V	107	35.7	3.5

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	802.11ax (HE20)	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Edison Lee		

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	112.8 PK			2.03 H	1	80.3	32.5
2	*2467.00	102.5 AV			2.03 H	1	70.0	32.5
3	2483.50	63.8 PK	74.0	-10.2	2.03 H	1	31.2	32.6
4	2483.50	53.6 AV	54.0	-0.4	2.03 H	1	21.0	32.6
5	4934.00	49.9 PK	74.0	-24.1	3.95 H	46	46.4	3.5
6	4934.00	39.5 AV	54.0	-14.5	3.95 H	46	36.0	3.5
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	103.7 PK			2.04 V	201	71.2	32.5
2	*2467.00	94.2 AV			2.04 V	201	61.7	32.5
3	2483.50	59.1 PK	74.0	-14.9	2.04 V	201	26.5	32.6
4	2483.50	49.3 AV	54.0	-4.7	2.04 V	201	16.7	32.6
5	4934.00	49.4 PK	74.0	-24.6	3.74 V	111	45.9	3.5
6	4934.00	39.1 AV	54.0	-14.9	3.74 V	111	35.6	3.5

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	802.11ax (HE20)	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Edison Lee		

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	106.6 PK			2.05 H	2	74.1	32.5
2	*2472.00	97.3 AV			2.05 H	2	64.8	32.5
3	2483.50	62.8 PK	74.0	-11.2	2.05 H	2	30.2	32.6
4	2483.50	53.7 AV	54.0	-0.3	2.05 H	2	21.1	32.6
5	4944.00	49.3 PK	74.0	-24.7	4.00 H	37	45.8	3.5
6	4944.00	39.4 AV	54.0	-14.6	4.00 H	37	35.9	3.5
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	96.7 PK			2.00 V	199	64.2	32.5
2	*2472.00	88.1 AV			2.00 V	199	55.6	32.5
3	2483.50	59.2 PK	74.0	-14.8	2.00 V	199	26.6	32.6
4	2483.50	49.1 AV	54.0	-4.9	2.00 V	199	16.5	32.6
5	4944.00	49.2 PK	74.0	-24.8	3.49 V	95	45.7	3.5
6	4944.00	39.1 AV	54.0	-14.9	3.49 V	95	35.6	3.5

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	802.11ax (HE40)	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	63.6 PK	74.0	-10.4	2.12 H	2	31.3	32.3
2	2390.00	53.3 AV	54.0	-0.7	2.12 H	2	21.0	32.3
3	*2422.00	112.8 PK			2.12 H	2	80.4	32.4
4	*2422.00	103.4 AV			2.12 H	2	71.0	32.4
5	4844.00	50.0 PK	74.0	-24.0	3.89 H	52	46.5	3.5
6	4844.00	39.7 AV	54.0	-14.3	3.89 H	52	36.2	3.5
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	57.8 PK	74.0	-16.2	2.05 V	200	25.5	32.3
2	2390.00	48.6 AV	54.0	-5.4	2.05 V	200	16.3	32.3
3	*2422.00	103.5 PK			2.05 V	200	71.1	32.4
4	*2422.00	93.9 AV			2.05 V	200	61.5	32.4
5	4844.00	49.5 PK	74.0	-24.5	3.72 V	109	46.0	3.5
6	4844.00	39.3 AV	54.0	-14.7	3.72 V	109	35.8	3.5

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	802.11ax (HE40)	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Edison Lee		

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	64.2 PK	74.0	-9.8	1.80 H	1	31.9	32.3
2	2390.00	52.4 AV	54.0	-1.6	1.80 H	1	20.1	32.3
3	*2437.00	114.2 PK			1.80 H	1	81.8	32.4
4	*2437.00	104.4 AV			1.80 H	1	72.0	32.4
5	2483.50	67.1 PK	74.0	-6.9	1.80 H	1	34.5	32.6
6	2483.50	53.6 AV	54.0	-0.4	1.80 H	1	21.0	32.6
7	4874.00	49.9 PK	74.0	-24.1	4.00 H	33	46.4	3.5
8	4874.00	39.8 AV	54.0	-14.2	4.00 H	33	36.3	3.5
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	60.5 PK	74.0	-13.5	2.25 V	193	28.2	32.3
2	2390.00	49.7 AV	54.0	-4.3	2.25 V	193	17.4	32.3
3	*2437.00	109.2 PK			2.25 V	193	76.8	32.4
4	*2437.00	99.4 AV			2.25 V	193	67.0	32.4
5	2483.50	62.6 PK	74.0	-11.4	2.25 V	193	30.0	32.6
6	2483.50	50.0 AV	54.0	-4.0	2.25 V	193	17.4	32.6
7	4874.00	49.4 PK	74.0	-24.6	3.61 V	97	45.9	3.5
8	4874.00	39.5 AV	54.0	-14.5	3.61 V	97	36.0	3.5

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	802.11ax (HE40)	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	112.2 PK			2.31 H	1	79.7	32.5
2	*2452.00	102.5 AV			2.31 H	1	70.0	32.5
3	2483.50	63.8 PK	74.0	-10.2	2.31 H	1	31.2	32.6
4	2483.50	53.3 AV	54.0	-0.7	2.31 H	1	20.7	32.6
5	4904.00	49.9 PK	74.0	-24.1	3.93 H	43	46.4	3.5
6	4904.00	39.8 AV	54.0	-14.2	3.93 H	43	36.3	3.5
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	102.2 PK			2.32 V	209	69.7	32.5
2	*2452.00	93.5 AV			2.32 V	209	61.0	32.5
3	2483.50	59.5 PK	74.0	-14.5	2.32 V	209	26.9	32.6
4	2483.50	48.8 AV	54.0	-5.2	2.32 V	209	16.2	32.6
5	4904.00	49.5 PK	74.0	-24.5	3.71 V	113	46.0	3.5
6	4904.00	39.5 AV	54.0	-14.5	3.71 V	113	36.0	3.5

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	802.11ax (HE40)	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	21 °C, 67 % RH
Tested By	Edison Lee		

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	110.0 PK			2.34 H	2	77.5	32.5
2	*2457.00	99.9 AV			2.34 H	2	67.4	32.5
3	2483.50	63.0 PK	74.0	-11.0	2.34 H	2	30.4	32.6
4	2483.50	53.6 AV	54.0	-0.4	2.34 H	2	21.0	32.6
5	4914.00	49.8 PK	74.0	-24.2	4.00 H	56	46.3	3.5
6	4914.00	39.6 AV	54.0	-14.4	4.00 H	56	36.1	3.5
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	101.1 PK			2.20 V	206	68.6	32.5
2	*2457.00	91.0 AV			2.20 V	206	58.5	32.5
3	2483.50	60.3 PK	74.0	-13.7	2.20 V	206	27.7	32.6
4	2483.50	48.9 AV	54.0	-5.1	2.20 V	206	16.3	32.6
5	4914.00	49.5 PK	74.0	-24.5	3.58 V	89	46.0	3.5
6	4914.00	39.4 AV	54.0	-14.6	3.58 V	89	35.9	3.5

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	802.11ax (HE40)	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	103.1 PK			1.00 H	5	70.6	32.5
2	*2462.00	93.5 AV			1.00 H	5	61.0	32.5
3	2483.50	62.3 PK	74.0	-11.7	1.00 H	5	29.7	32.6
4	2483.50	53.8 AV	54.0	-0.2	1.00 H	5	21.2	32.6
5	4924.00	49.3 PK	74.0	-24.7	3.98 H	65	45.8	3.5
6	4924.00	39.3 AV	54.0	-14.7	3.98 H	65	35.8	3.5
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	94.5 PK			1.98 V	196	62.0	32.5
2	*2462.00	84.7 AV			1.98 V	196	52.2	32.5
3	2483.50	58.8 PK	74.0	-15.2	1.98 V	196	26.2	32.6
4	2483.50	48.8 AV	54.0	-5.2	1.98 V	196	16.2	32.6
5	4924.00	49.1 PK	74.0	-24.9	3.52 V	113	45.6	3.5
6	4924.00	39.1 AV	54.0	-14.9	3.52 V	113	35.6	3.5

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	802.11ax (HE20) 26-tone RU	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25 °C, 70 % RH
Tested By	Edison Lee		

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	64.2 PK	74.0	-9.8	1.87 H	345	31.9	32.3
2	2390.00	51.3 AV	54.0	-2.7	1.87 H	345	19.0	32.3
3	*2412.00	123.9 PK			1.87 H	345	91.5	32.4
4	*2412.00	114.1 AV			1.87 H	345	81.7	32.4
5	4824.00	49.8 PK	74.0	-24.2	4.00 H	38	46.5	3.3
6	4824.00	40.3 AV	54.0	-13.7	4.00 H	38	37.0	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.0 PK	74.0	-14.0	1.71 V	202	27.7	32.3
2	2390.00	47.8 AV	54.0	-6.2	1.71 V	202	15.5	32.3
3	*2412.00	112.7 PK			1.71 V	202	80.3	32.4
4	*2412.00	103.1 AV			1.71 V	202	70.7	32.4
5	4824.00	49.3 PK	74.0	-24.7	3.67 V	105	46.0	3.3
6	4824.00	39.7 AV	54.0	-14.3	3.67 V	105	36.4	3.3

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	802.11ax (HE20) 26-tone RU	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25 °C, 70 % RH
Tested By	Edison Lee		

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	122.2 PK			2.53 H	359	89.7	32.5
2	*2462.00	113.8 AV			2.53 H	359	81.3	32.5
3	2483.50	65.0 PK	74.0	-9.0	2.53 H	359	32.4	32.6
4	2483.50	51.5 AV	54.0	-2.5	2.53 H	359	18.9	32.6
5	4924.00	50.2 PK	74.0	-23.8	3.99 H	49	46.7	3.5
6	4924.00	40.7 AV	54.0	-13.3	3.99 H	49	37.2	3.5
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	113.8 PK			2.33 V	210	81.3	32.5
2	*2462.00	105.1 AV			2.33 V	210	72.6	32.5
3	2483.50	58.7 PK	74.0	-15.3	2.33 V	210	26.1	32.6
4	2483.50	48.1 AV	54.0	-5.9	2.33 V	210	15.5	32.6
5	4925.00	49.7 PK	74.0	-24.3	3.77 V	103	46.2	3.5
6	4925.00	39.8 AV	54.0	-14.2	3.77 V	103	36.3	3.5

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	802.11ax (HE20) 26-tone RU	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25 °C, 70 % RH
Tested By	Edison Lee		

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	119.7 PK			2.53 H	23	87.2	32.5
2	*2467.00	109.8 AV			2.53 H	23	77.3	32.5
3	2483.50	62.3 PK	74.0	-11.7	2.53 H	23	29.7	32.6
4	2483.50	50.1 AV	54.0	-3.9	2.53 H	23	17.5	32.6
5	4934.00	50.1 PK	74.0	-23.9	3.95 H	47	46.6	3.5
6	4934.00	40.0 AV	54.0	-14.0	3.95 H	47	36.5	3.5
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	109.4 PK			2.40 V	206	76.9	32.5
2	*2467.00	101.3 AV			2.40 V	206	68.8	32.5
3	2483.50	58.7 PK	74.0	-15.3	2.40 V	206	26.1	32.6
4	2483.50	48.9 AV	54.0	-5.1	2.40 V	206	16.3	32.6
5	4934.00	49.8 PK	74.0	-24.2	3.78 V	107	46.3	3.5
6	4934.00	39.6 AV	54.0	-14.4	3.78 V	107	36.1	3.5

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	802.11ax (HE20) 26-tone RU	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 70 % RH
Tested By	Edison Lee		

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	105.2 PK			2.53 H	22	72.7	32.5
2	*2472.00	97.0 AV			2.53 H	22	64.5	32.5
3	2483.50	69.3 PK	74.0	-4.7	2.53 H	22	36.7	32.6
4	2483.50	53.8 AV	54.0	-0.2	2.53 H	22	21.2	32.6
5	4944.00	49.5 PK	74.0	-24.5	4.00 H	43	46.0	3.5
6	4944.00	39.4 AV	54.0	-14.6	4.00 H	43	35.9	3.5
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	99.3 PK			2.50 V	209	66.8	32.5
2	*2472.00	88.7 AV			2.50 V	209	56.2	32.5
3	2483.50	63.1 PK	74.0	-10.9	2.50 V	209	30.5	32.6
4	2483.50	50.2 AV	54.0	-3.8	2.50 V	209	17.6	32.6
5	4944.00	49.0 PK	74.0	-25.0	3.76 V	103	45.5	3.5
6	4944.00	39.1 AV	54.0	-14.9	3.76 V	103	35.6	3.5

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	802.11ax (HE20) 52-tone RU	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 70 % RH
Tested By	Edison Lee		

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	62.3 PK	74.0	-11.7	2.30 H	358	30.0	32.3
2	2390.00	50.3 AV	54.0	-3.7	2.30 H	358	18.0	32.3
3	*2437.00	124.1 PK			2.30 H	358	91.7	32.4
4	*2437.00	115.3 AV			2.30 H	358	82.9	32.4
5	4874.00	50.3 PK	74.0	-23.7	3.80 H	64	46.8	3.5
6	4874.00	40.3 AV	54.0	-13.7	3.80 H	64	36.8	3.5
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	58.8 PK	74.0	-15.2	2.42 V	208	26.5	32.3
2	2390.00	47.6 AV	54.0	-6.4	2.42 V	208	15.3	32.3
3	*2437.00	115.9 PK			2.42 V	208	83.5	32.4
4	*2437.00	106.4 AV			2.42 V	208	74.0	32.4
5	4874.00	50.0 PK	74.0	-24.0	3.70 V	110	46.5	3.5
6	4874.00	39.7 AV	54.0	-14.3	3.70 V	110	36.2	3.5

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	802.11ax (HE20) 106-tone RU	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 70 % RH
Tested By	Edison Lee		

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	69.8 PK	74.0	-4.2	2.37 H	358	37.5	32.3
2	2390.00	53.8 AV	54.0	-0.2	2.37 H	358	21.5	32.3
3	*2412.00	117.4 PK			2.37 H	358	85.0	32.4
4	*2412.00	107.3 AV			2.37 H	358	74.9	32.4
5	4824.00	50.0 PK	74.0	-24.0	3.95 H	59	46.7	3.3
6	4824.00	40.1 AV	54.0	-13.9	3.95 H	59	36.8	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	2390.00	60.1 PK	74.0	-13.9	2.33 V	205	27.8	32.3
2	2390.00	48.5 AV	54.0	-5.5	2.33 V	205	16.2	32.3
3	*2412.00	107.6 PK			2.33 V	205	75.2	32.4
4	*2412.00	98.2 AV			2.33 V	205	65.8	32.4
5	4824.00	49.4 PK	74.0	-24.6	3.49 V	109	46.1	3.3
6	4824.00	39.6 AV	54.0	-14.4	3.49 V	109	36.3	3.3

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	802.11ax (HE20) 106-tone RU	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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25 °C, 70 % RH
Tested By	Edison Lee		

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	116.7 PK			2.32 H	1	84.2	32.5
2	*2462.00	107.5 AV			2.32 H	1	75.0	32.5
3	2483.50	67.8 PK	74.0	-6.2	2.32 H	1	35.2	32.6
4	**2483.50**	**53.9 AV**	**54.0**	**-0.1**	**2.32 H**	**1**	**21.3**	**32.6**
5	4924.00	50.1 PK	74.0	-23.9	4.00 H	47	46.6	3.5
6	4924.00	40.0 AV	54.0	-14.0	4.00 H	47	36.5	3.5
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	109.3 PK			2.31 V	206	76.8	32.5
2	*2462.00	98.8 AV			2.31 V	206	66.3	32.5
3	2483.50	60.6 PK	74.0	-13.4	2.31 V	206	28.0	32.6
4	2483.50	48.8 AV	54.0	-5.2	2.31 V	206	16.2	32.6
5	4924.00	49.6 PK	74.0	-24.4	3.65 V	101	46.1	3.5
6	4924.00	39.6 AV	54.0	-14.4	3.65 V	101	36.1	3.5

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	802.11ax (HE20) 106-tone RU	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 70 % RH
Tested By	Edison Lee		

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	115.4 PK			2.23 H	357	82.9	32.5
2	*2467.00	104.7 AV			2.23 H	357	72.2	32.5
3	2483.50	73.1 PK	74.0	-0.9	2.23 H	357	40.5	32.6
4	**2483.50**	**53.9 AV**	**54.0**	**-0.1**	**2.23 H**	**357**	**21.3**	**32.6**
5	4934.00	50.0 PK	74.0	-24.0	4.00 H	56	46.5	3.5
6	4934.00	40.0 AV	54.0	-14.0	4.00 H	56	36.5	3.5
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	106.0 PK			2.26 V	202	73.5	32.5
2	*2467.00	96.0 AV			2.26 V	202	63.5	32.5
3	2483.50	63.7 PK	74.0	-10.3	2.26 V	202	31.1	32.6
4	2483.50	50.6 AV	54.0	-3.4	2.26 V	202	18.0	32.6
5	4934.00	49.8 PK	74.0	-24.2	3.70 V	95	46.3	3.5
6	4934.00	39.7 AV	54.0	-14.3	3.70 V	95	36.2	3.5

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	802.11ax (HE20) 106-tone RU	**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=1 kHz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 70 % RH
Tested By	Edison Lee		

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	102.7 PK			2.08 H	2	70.2	32.5
2	*2472.00	92.8 AV			2.08 H	2	60.3	32.5
3	2483.50	66.0 PK	74.0	-8.0	2.08 H	2	33.4	32.6
4	2483.50	53.7 AV	54.0	-0.3	2.08 H	2	21.1	32.6
5	4944.00	49.9 PK	74.0	-24.1	3.96 H	51	46.4	3.5
6	4944.00	39.7 AV	54.0	-14.3	3.96 H	51	36.2	3.5
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	93.0 PK			2.08 V	199	60.5	32.5
2	*2472.00	83.2 AV			2.08 V	199	50.7	32.5
3	2483.50	60.6 PK	74.0	-13.4	2.08 V	199	28.0	32.6
4	2483.50	48.6 AV	54.0	-5.4	2.08 V	199	16.0	32.6
5	4944.00	49.4 PK	74.0	-24.6	3.62 V	112	45.9	3.5
6	4944.00	39.3 AV	54.0	-14.7	3.62 V	112	35.8	3.5

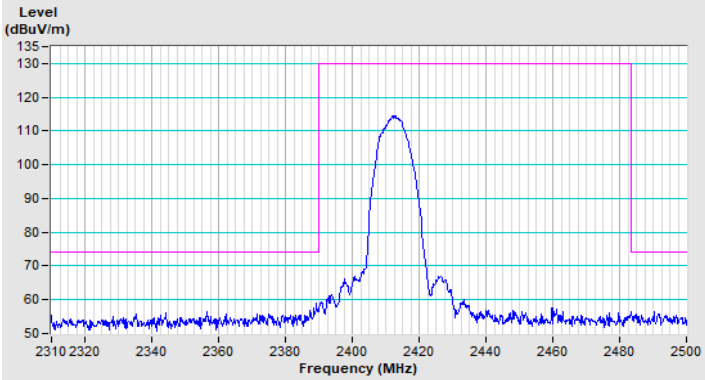
Remarks:

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.

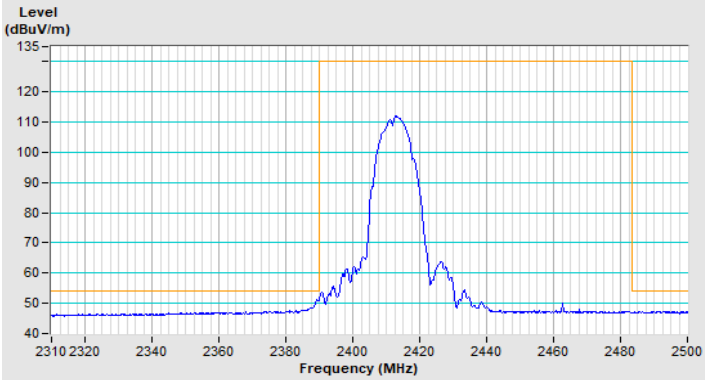
Plot of Band Edge

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

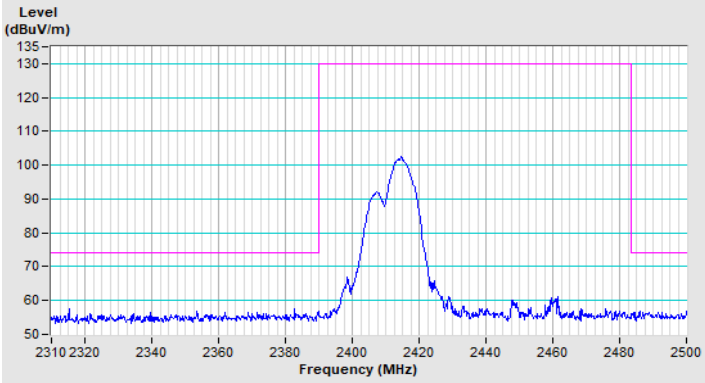
802.11b Channel 1



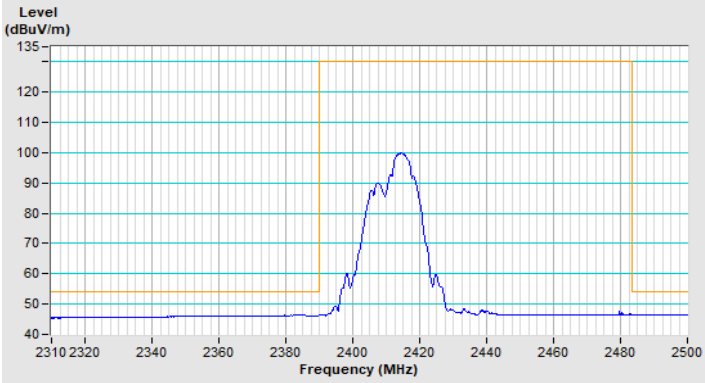
Horizontal (Peak)



Horizontal (Average)

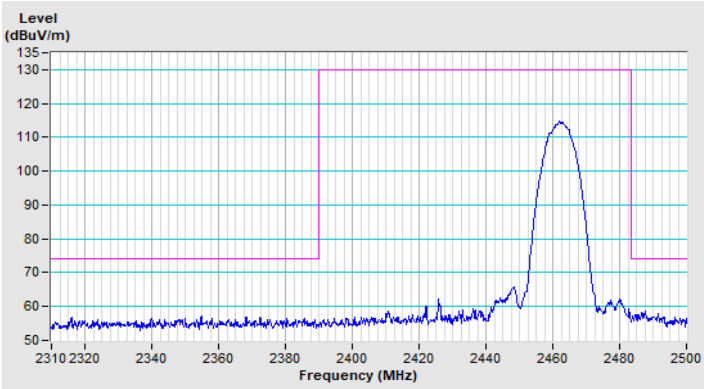


Vertical (Peak)

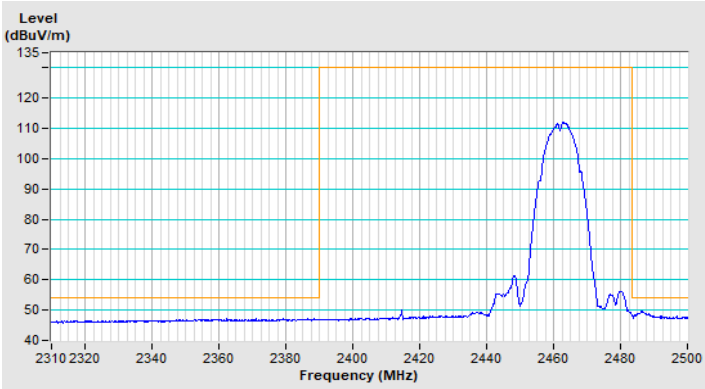


Vertical (Average)

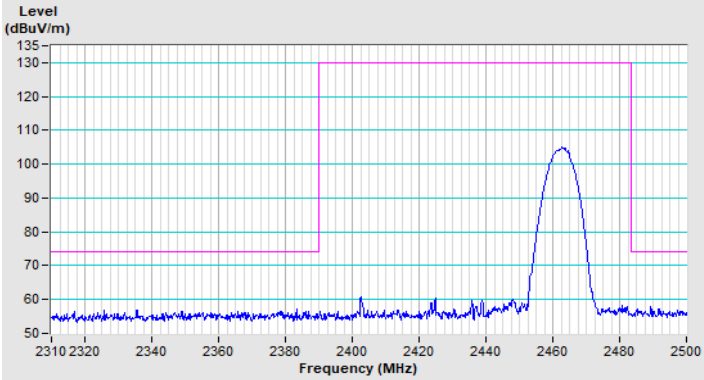
802.11b Channel 11



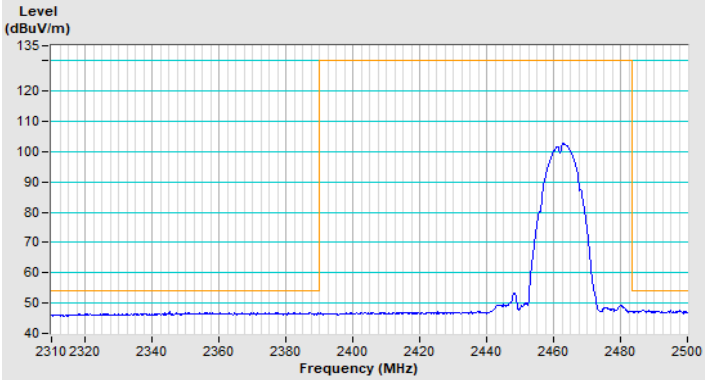
Horizontal (Peak)



Horizontal (Average)

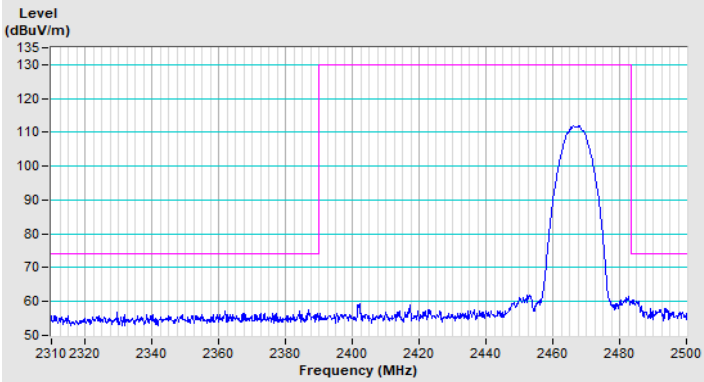


Vertical (Peak)

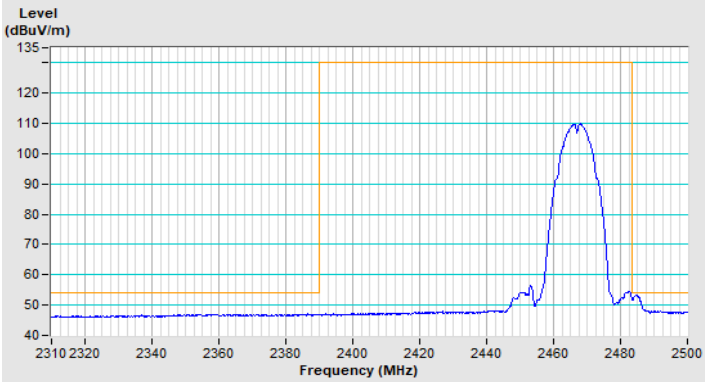


Vertical (Average)

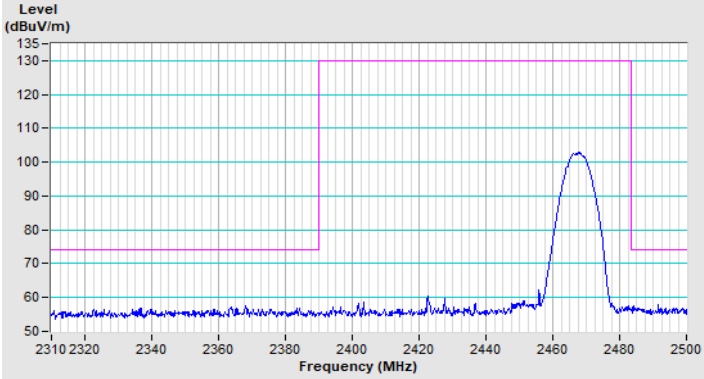
802.11b Channel 12



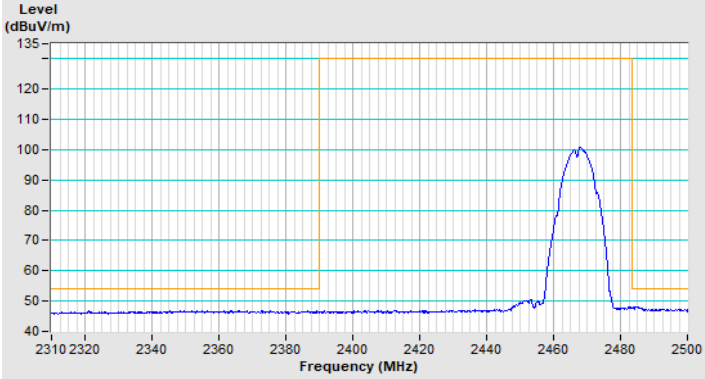
Horizontal (Peak)



Horizontal (Average)

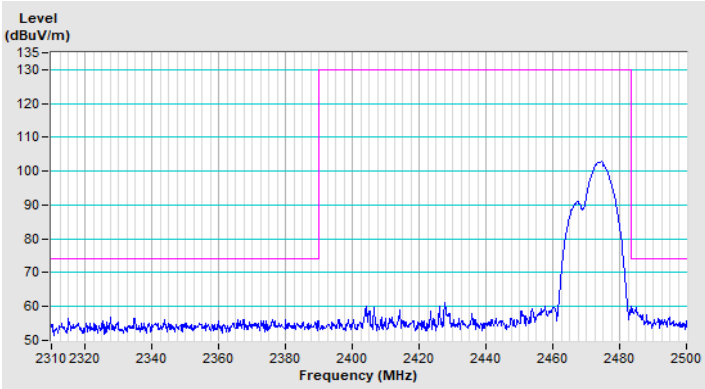


Vertical (Peak)

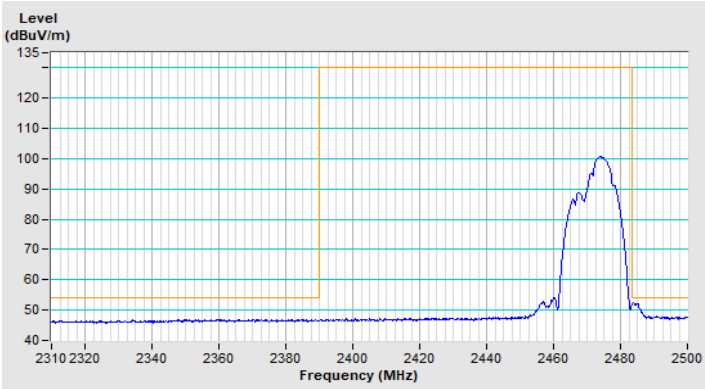


Vertical (Average)

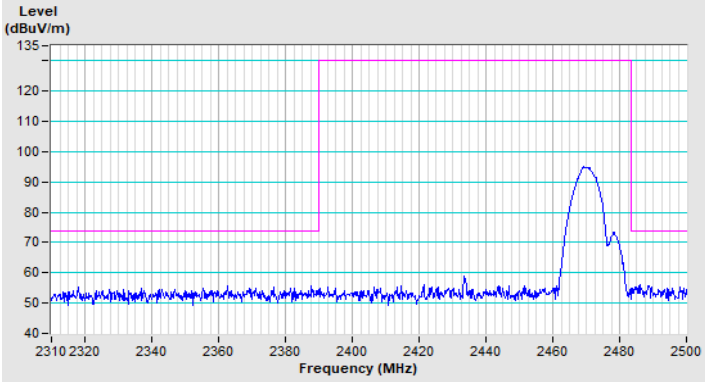
802.11b Channel 13



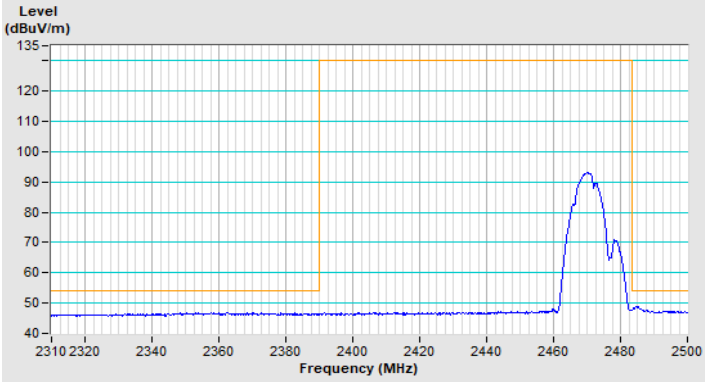
Horizontal (Peak)



Horizontal (Average)



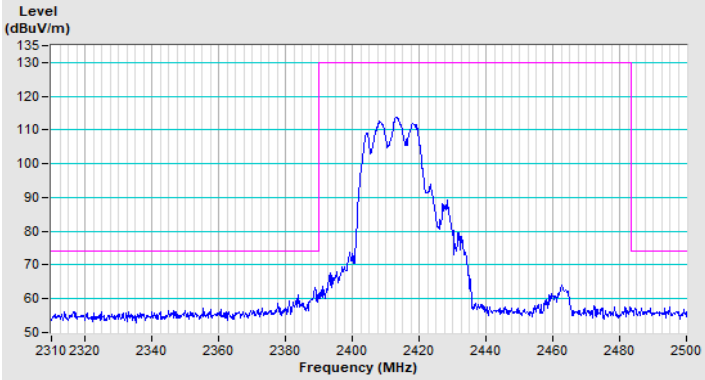
Vertical (Peak)



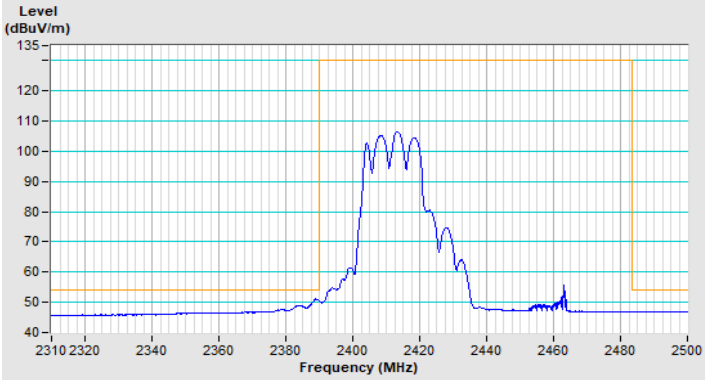
Vertical (Average)

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=1 kHz, DET=Peak

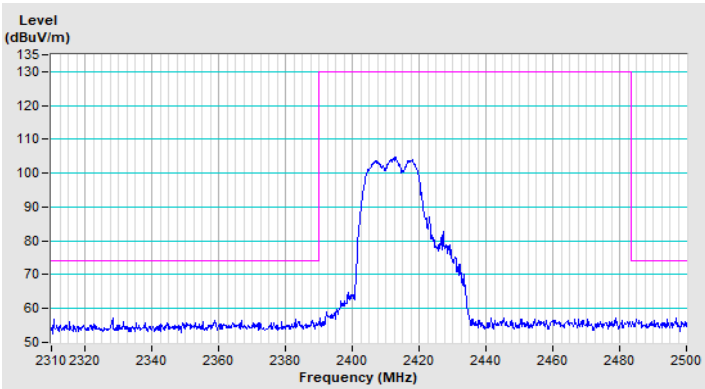
802.11g Channel 1



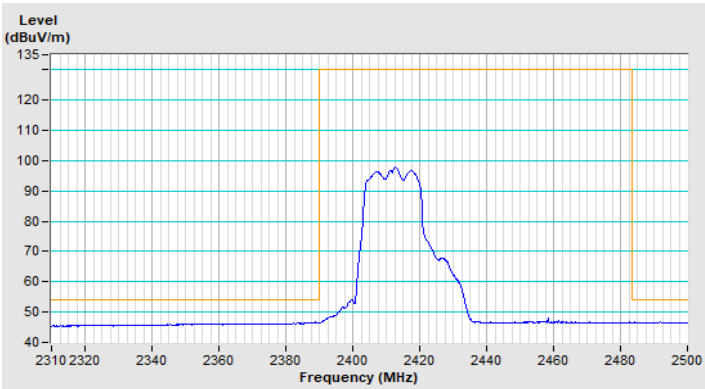
Horizontal (Peak)



Horizontal (Average)

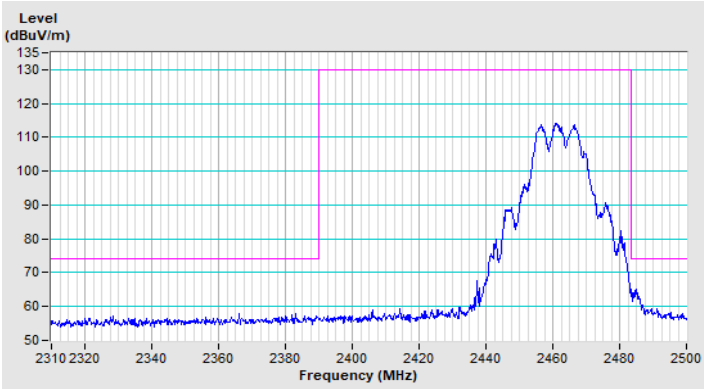


Vertical (Peak)

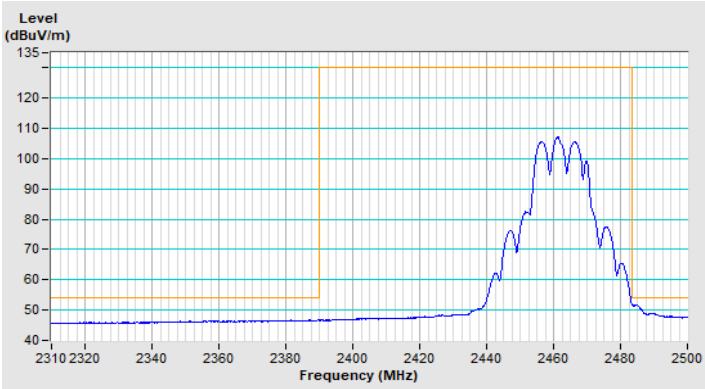


Vertical (Average)

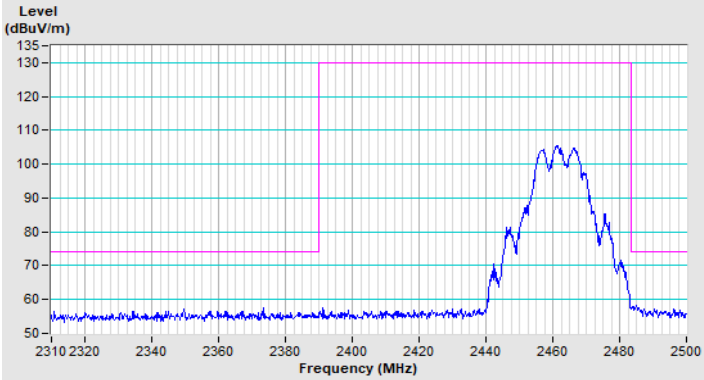
802.11g Channel 11



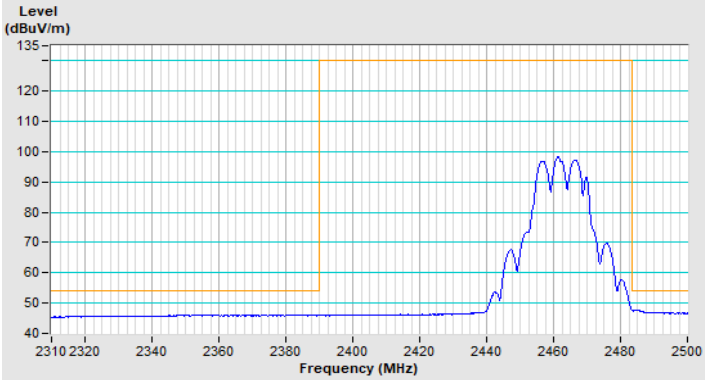
Horizontal (Peak)



Horizontal (Average)

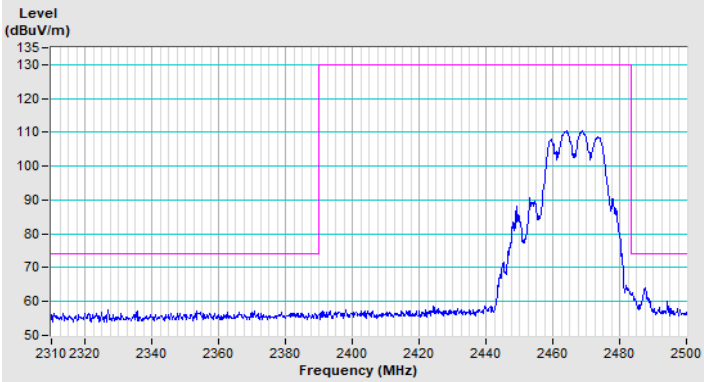


Vertical (Peak)

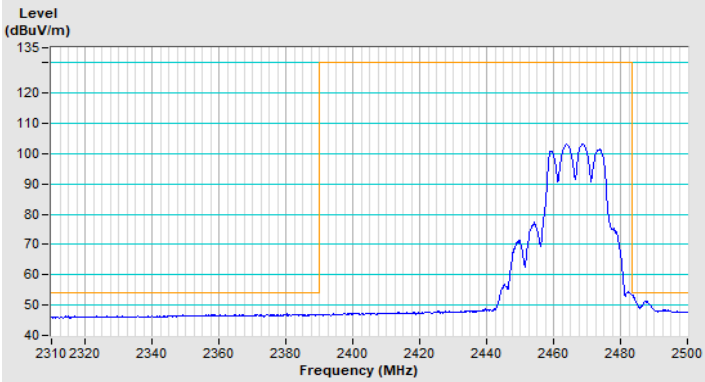


Vertical (Average)

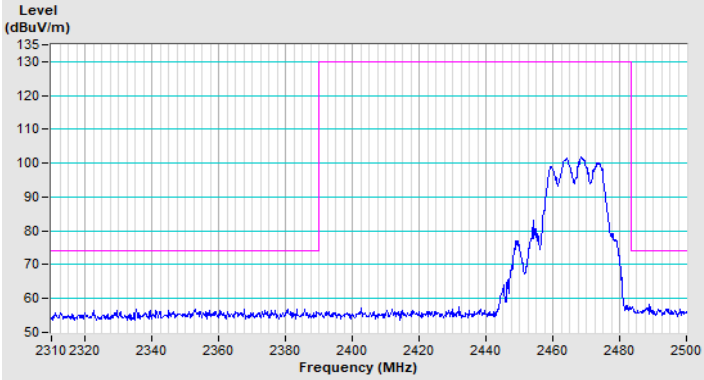
802.11g Channel 12



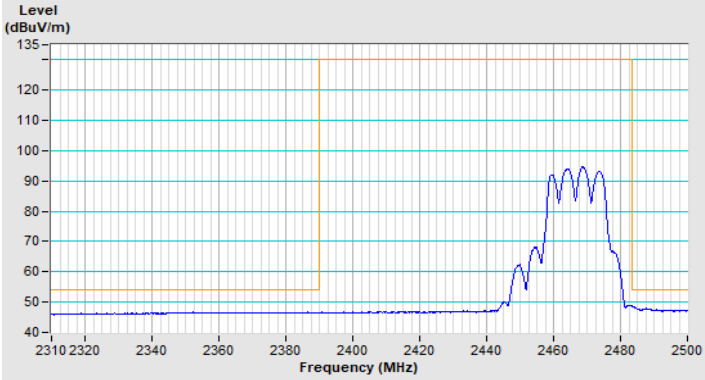
Horizontal (Peak)



Horizontal (Average)

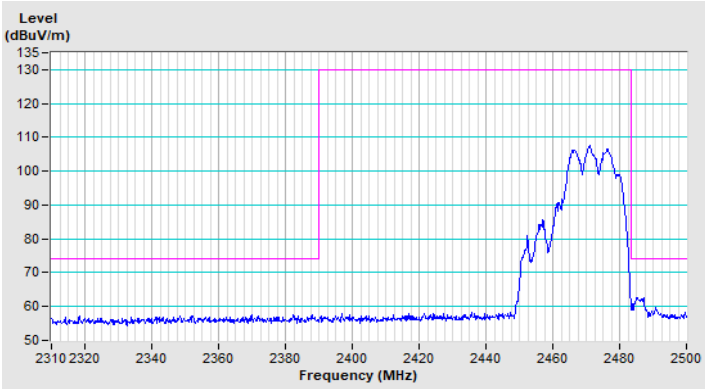


Vertical (Peak)

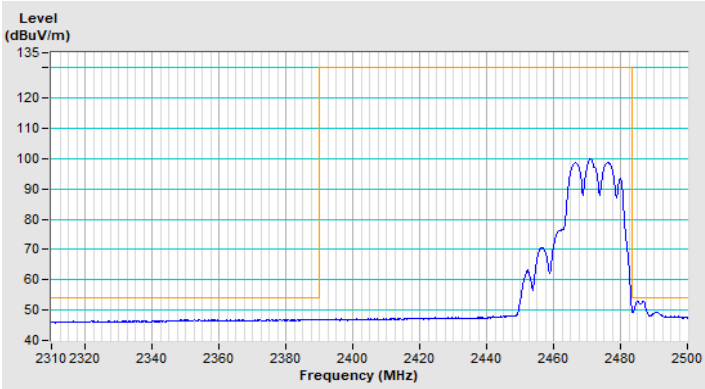


Vertical (Average)

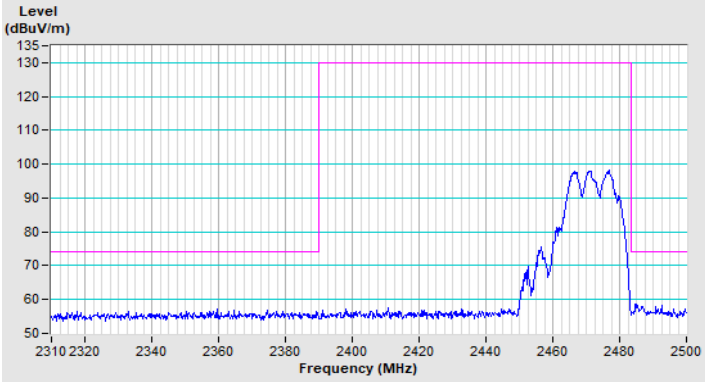
802.11g Channel 13



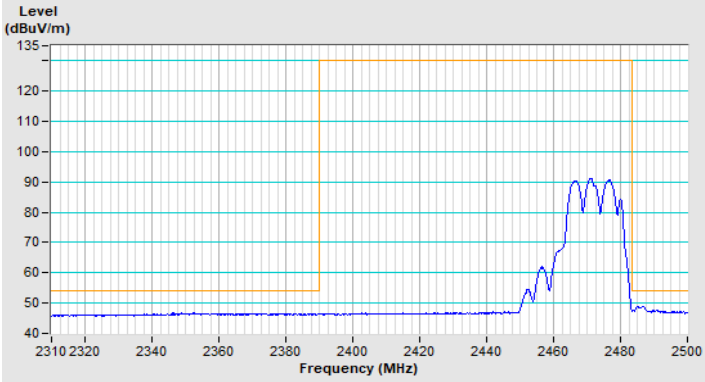
Horizontal (Peak)



Horizontal (Average)



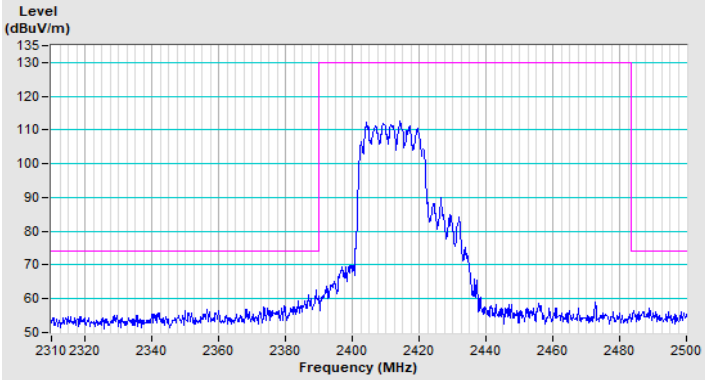
Vertical (Peak)



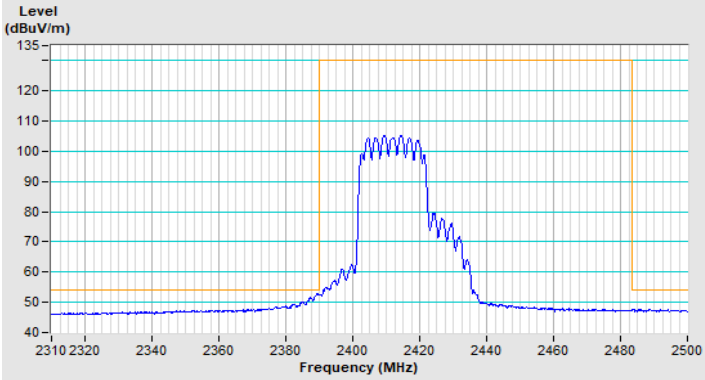
Vertical (Average)

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=1 kHz, DET=Peak

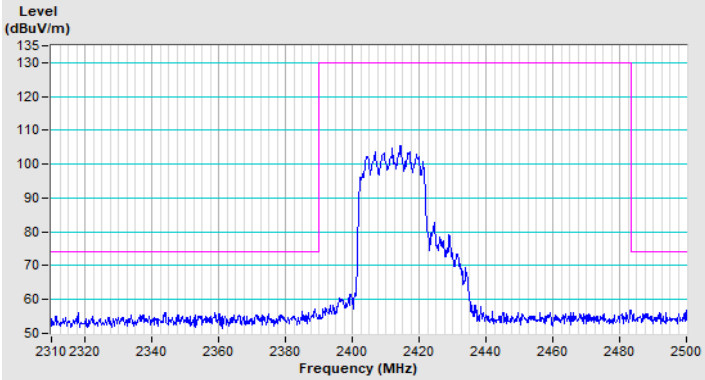
802.11ax (HE20) Channel 1



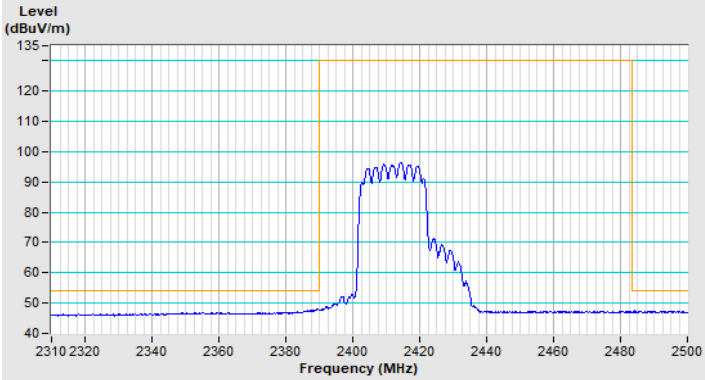
Horizontal (Peak)



Horizontal (Average)

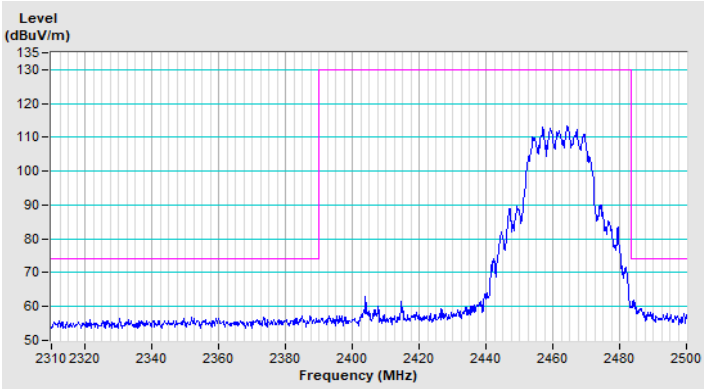


Vertical (Peak)

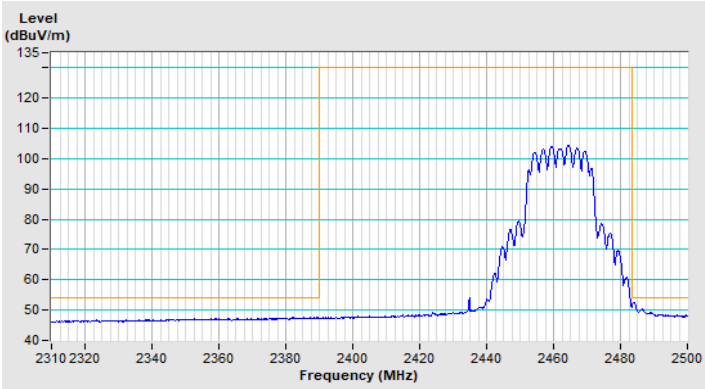


Vertical (Average)

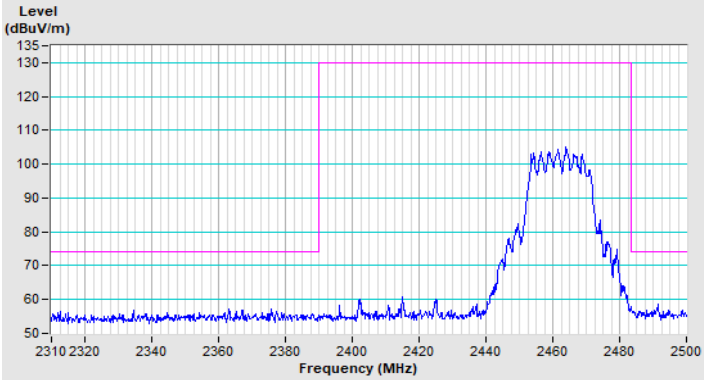
802.11ax (HE20) Channel 11



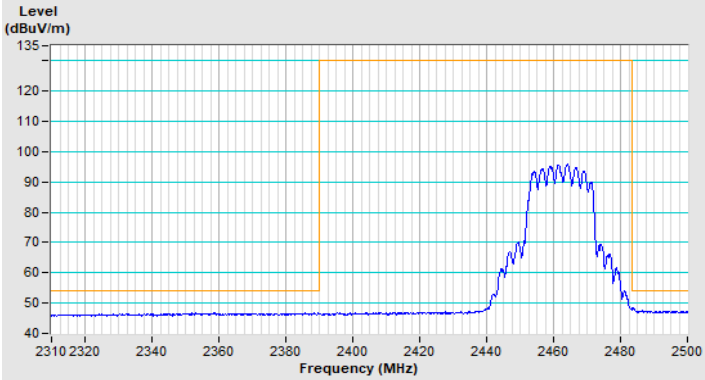
Horizontal (Peak)



Horizontal (Average)

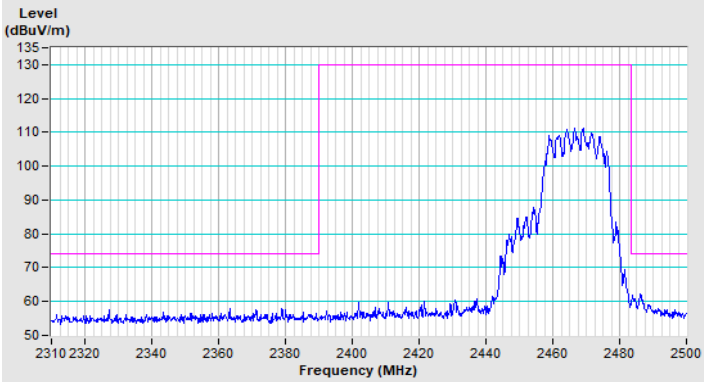


Vertical (Peak)

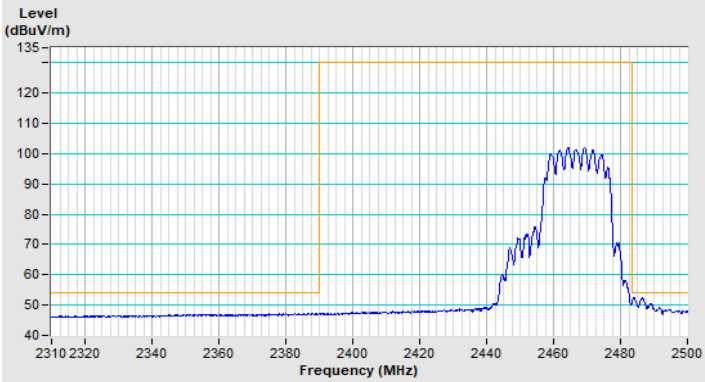


Vertical (Average)

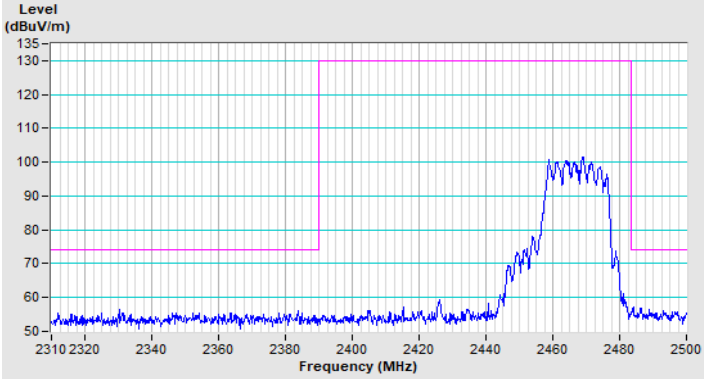
802.11ax (HE20) Channel 12



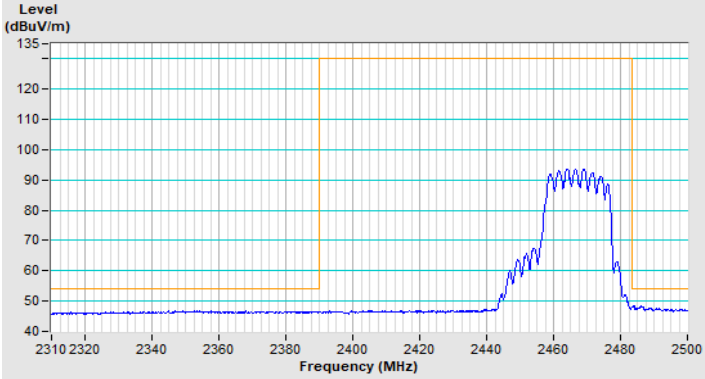
Horizontal (Peak)



Horizontal (Average)

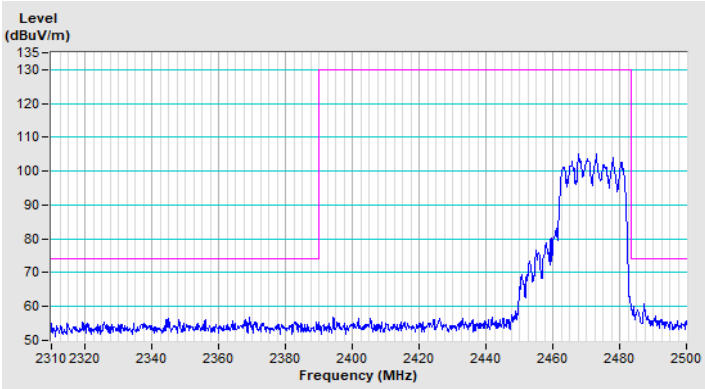


Vertical (Peak)

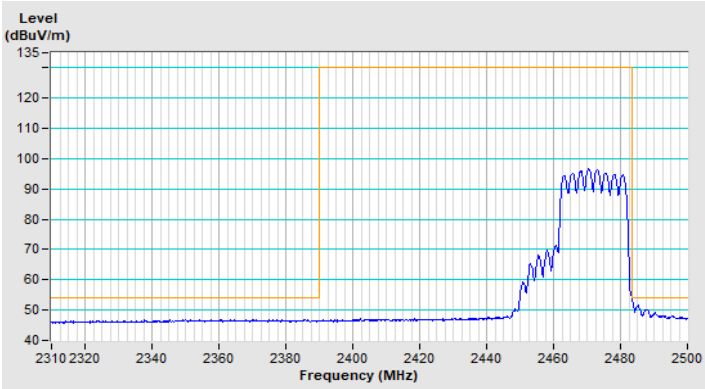


Vertical (Average)

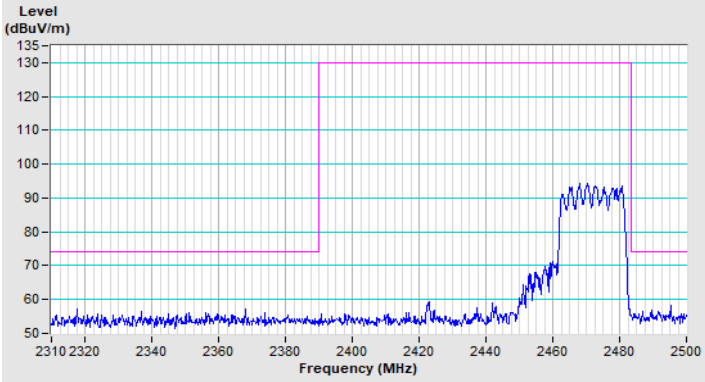
802.11ax (HE20) Channel 13



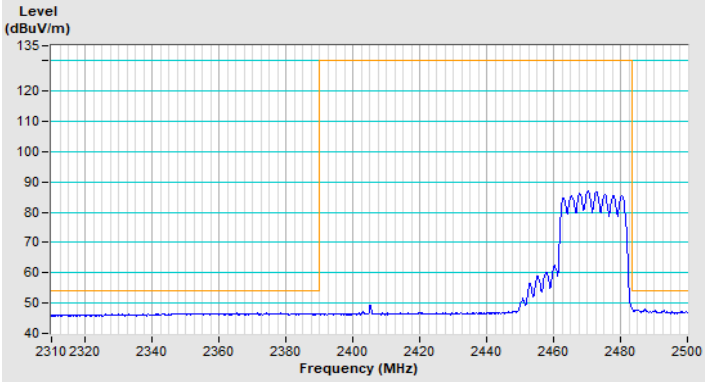
Horizontal (Peak)



Horizontal (Average)



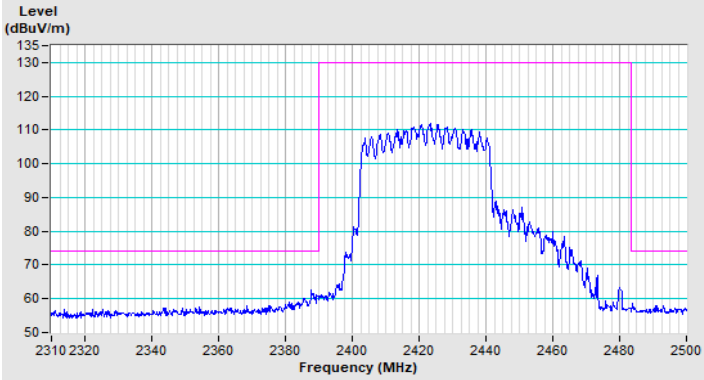
Vertical (Peak)



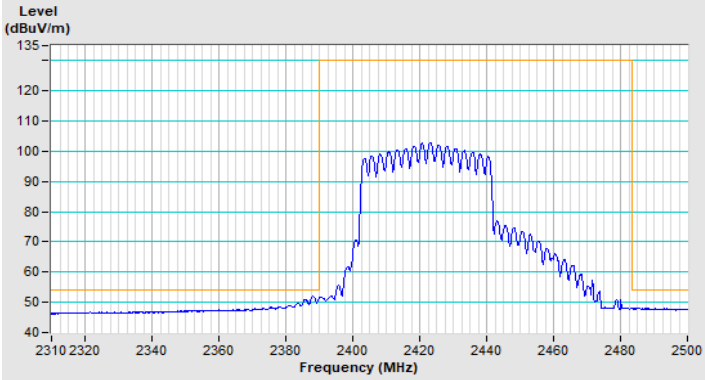
Vertical (Average)

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=1 kHz, DET=Peak

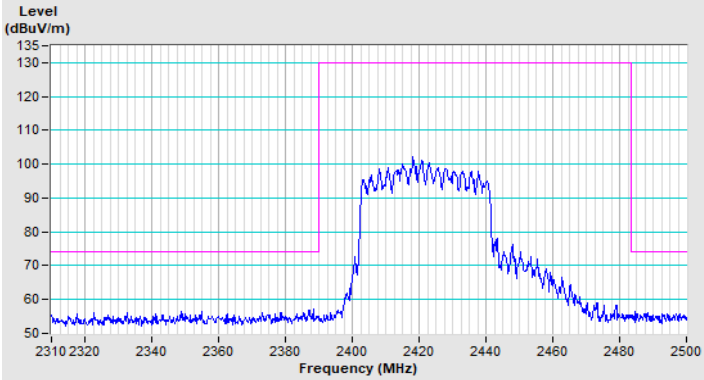
802.11ax (HE40) Channel 3



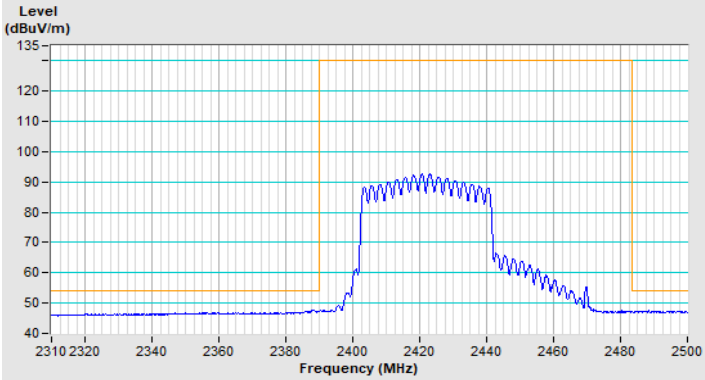
Horizontal (Peak)



Horizontal (Average)

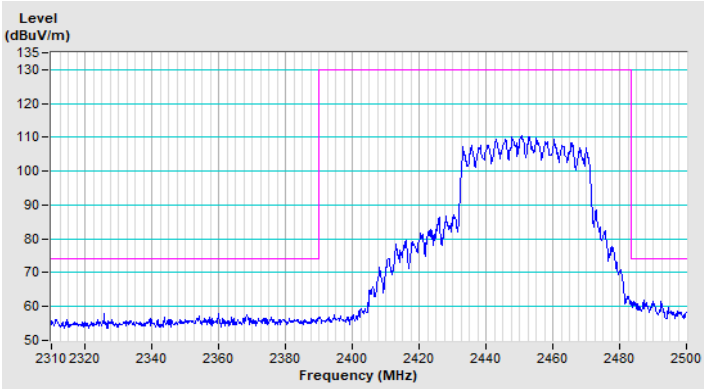


Vertical (Peak)

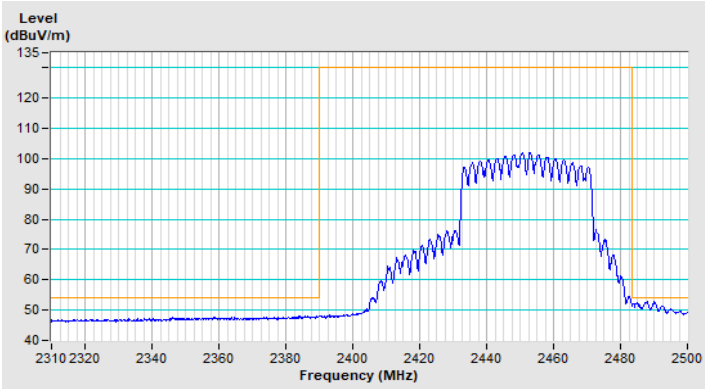


Vertical (Average)

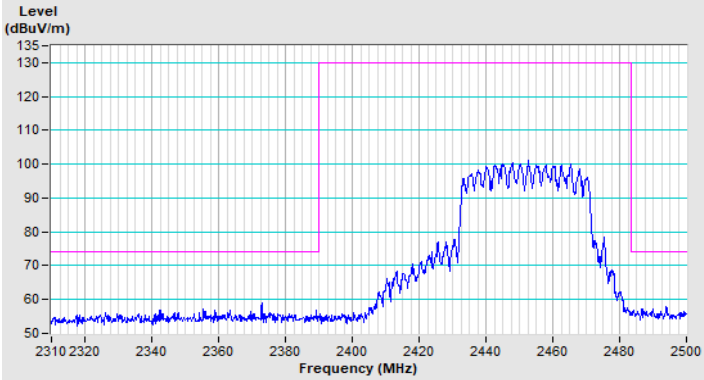
802.11ax (HE40) Channel 9



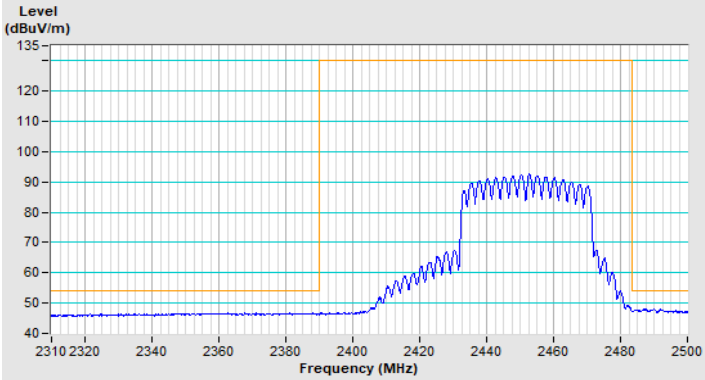
Horizontal (Peak)



Horizontal (Average)

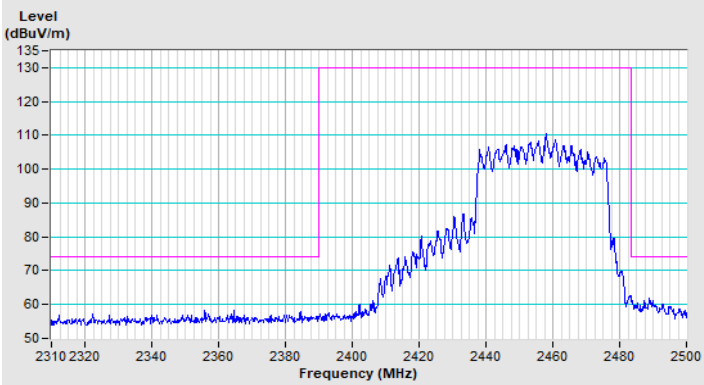


Vertical (Peak)

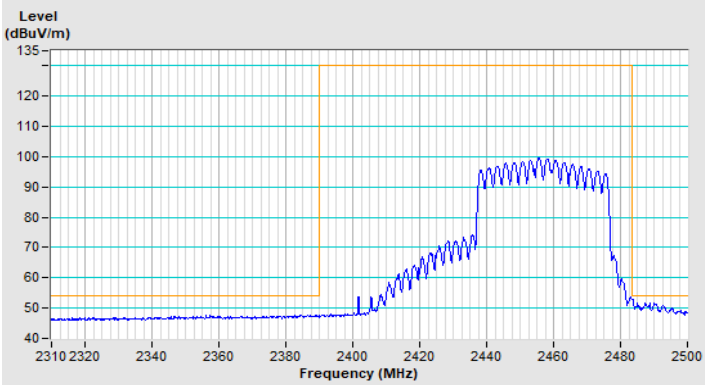


Vertical (Average)

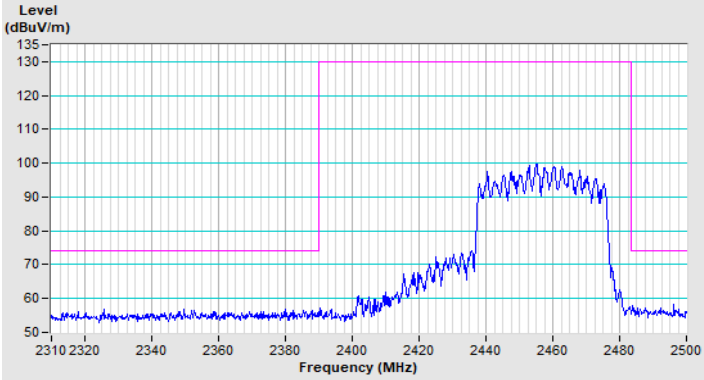
802.11ax (HE40) Channel 10



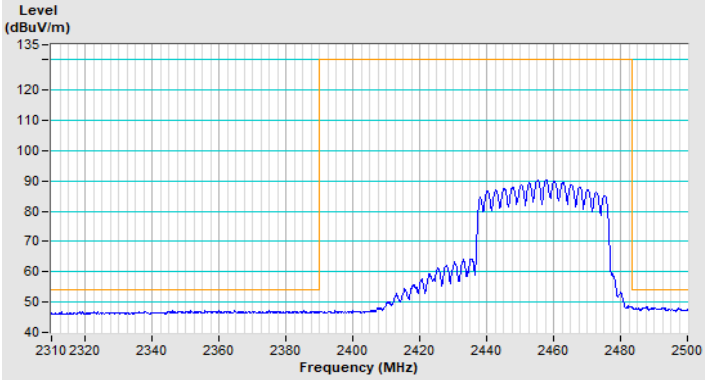
Horizontal (Peak)



Horizontal (Average)

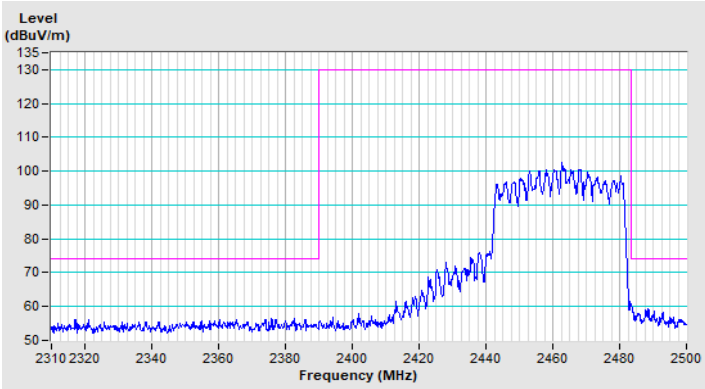


Vertical (Peak)

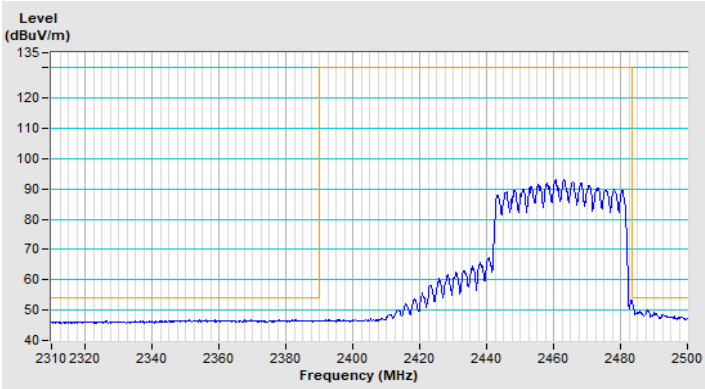


Vertical (Average)

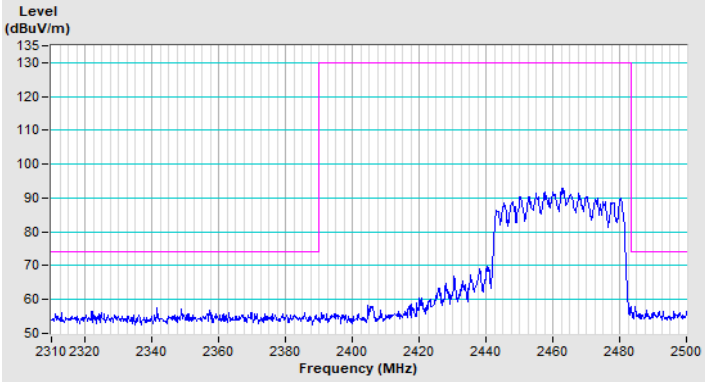
802.11ax (HE40) Channel 11



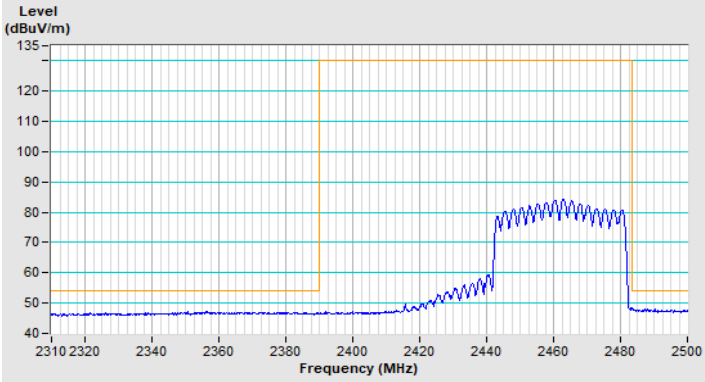
Horizontal (Peak)



Horizontal (Average)



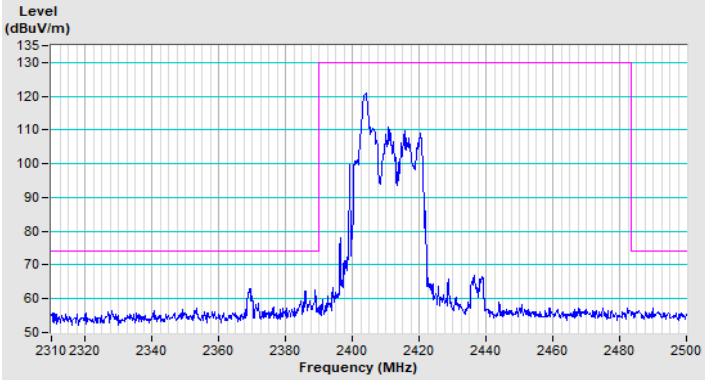
Vertical (Peak)



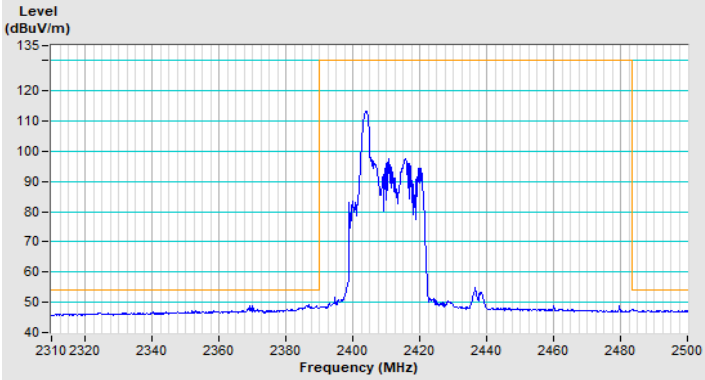
Vertical (Average)

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=1 kHz, DET=Peak

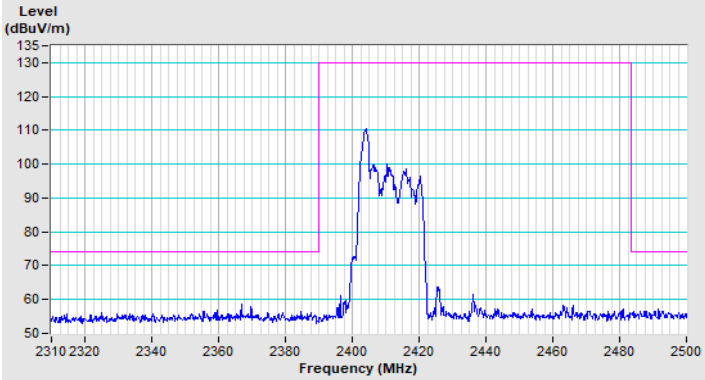
802.11ax (HE20) 26-tone RU Channel 1



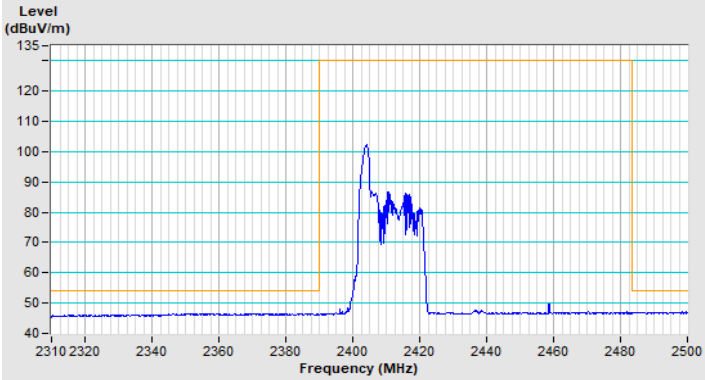
Horizontal (Peak)



Horizontal (Average)

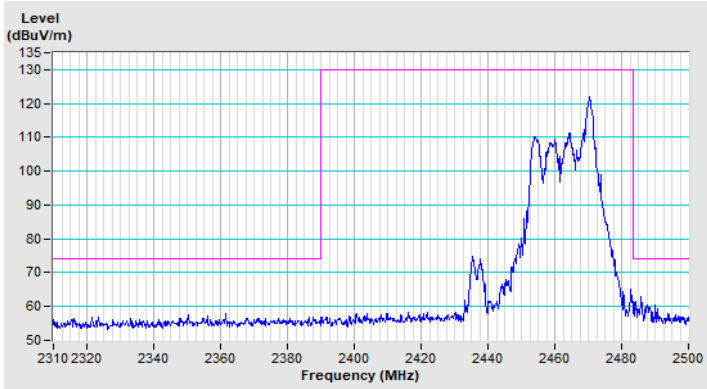


Vertical (Peak)

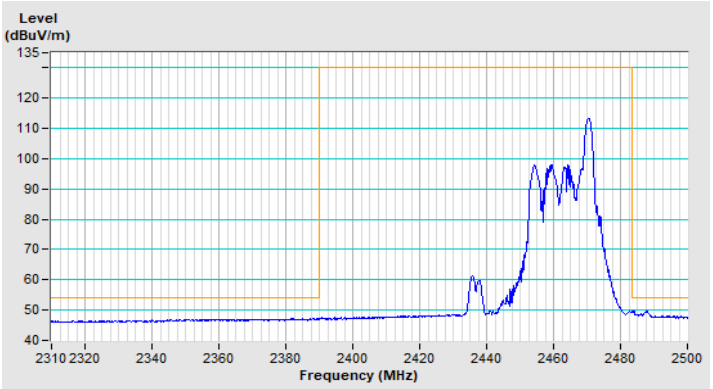


Vertical (Average)

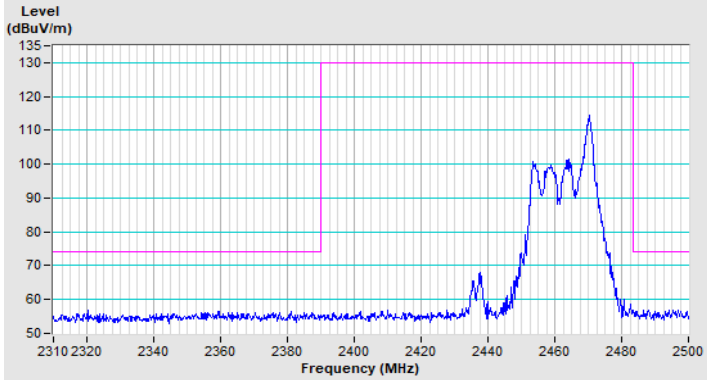
802.11ax (HE20) 26-tone RU Channel 11



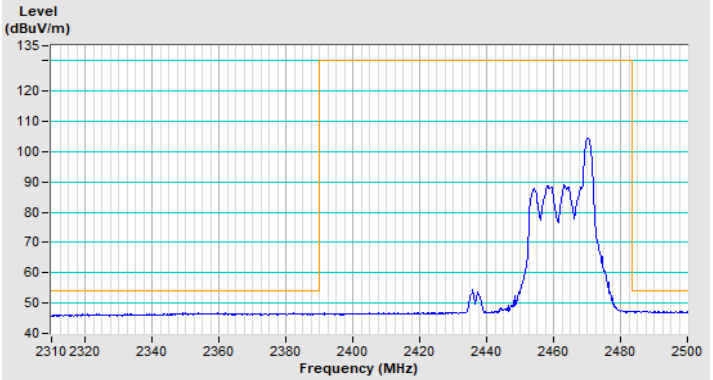
Horizontal (Peak)



Horizontal (Average)

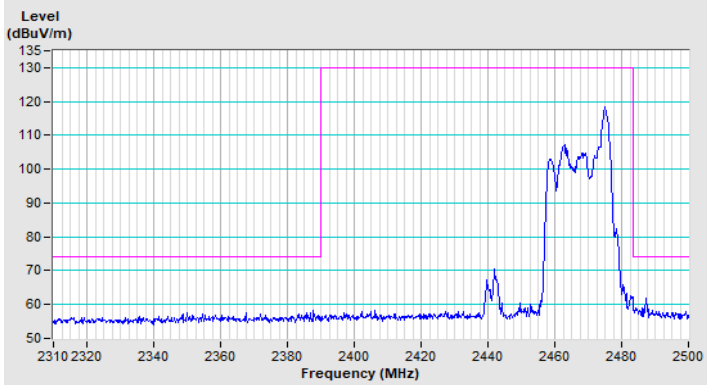


Vertical (Peak)

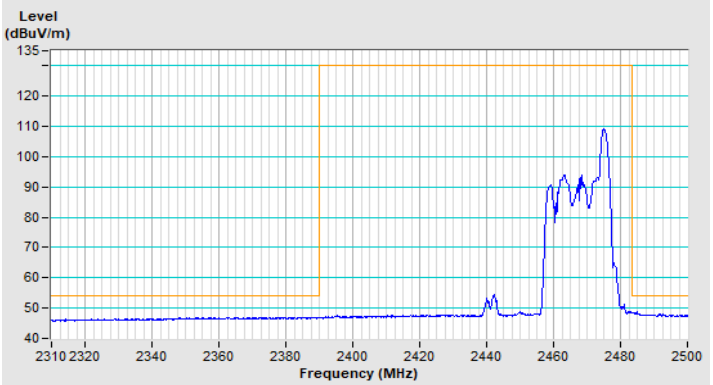


Vertical (Average)

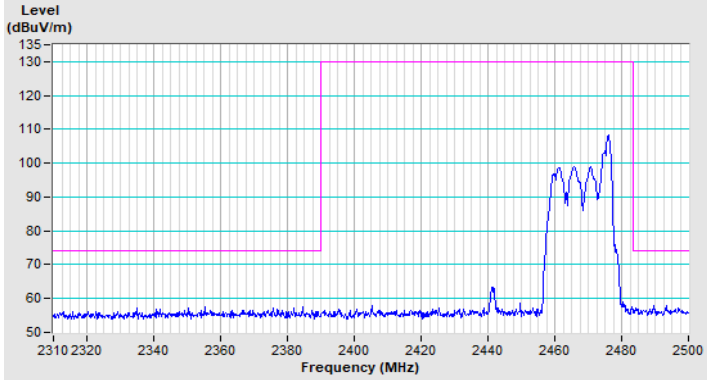
802.11ax (HE20) 26-tone RU Channel 12



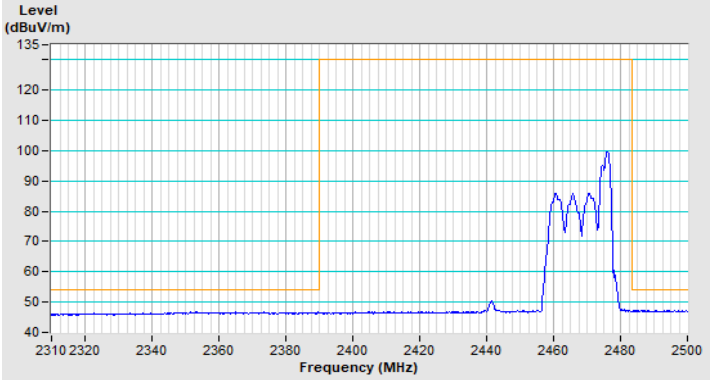
Horizontal (Peak)



Horizontal (Average)

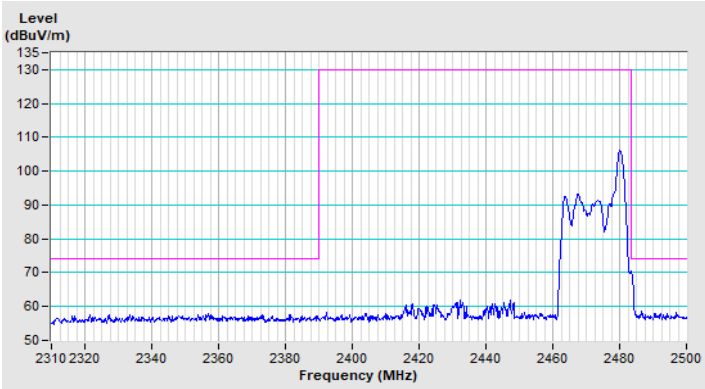


Vertical (Peak)

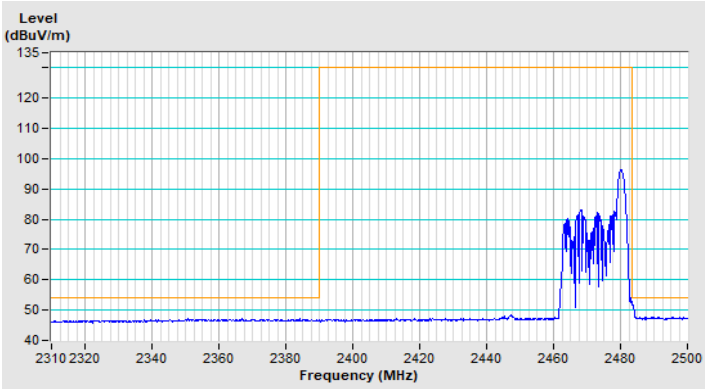


Vertical (Average)

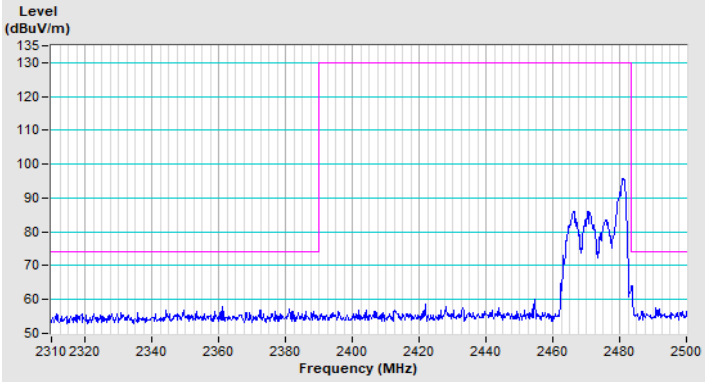
802.11ax (HE20) 26-tone RU Channel 13



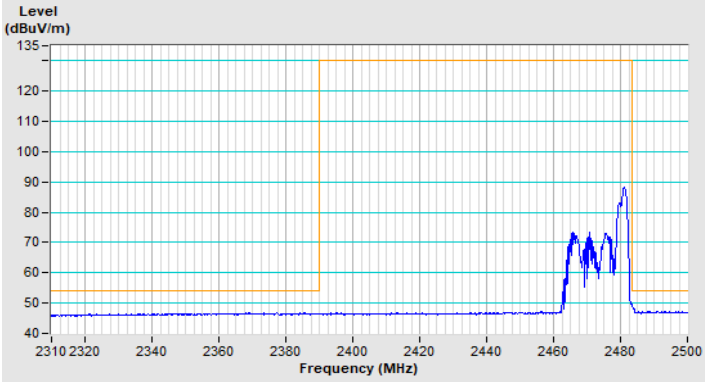
Horizontal (Peak)



Horizontal (Average)



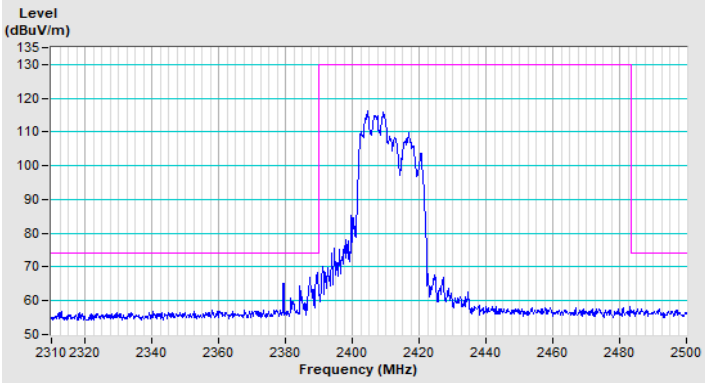
Vertical (Peak)



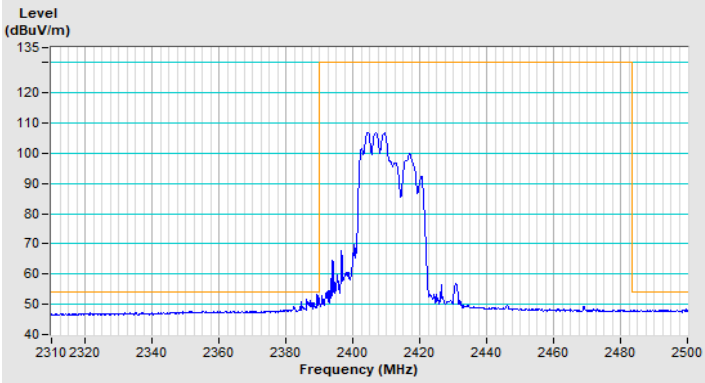
Vertical (Average)

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=1 kHz, DET=Peak

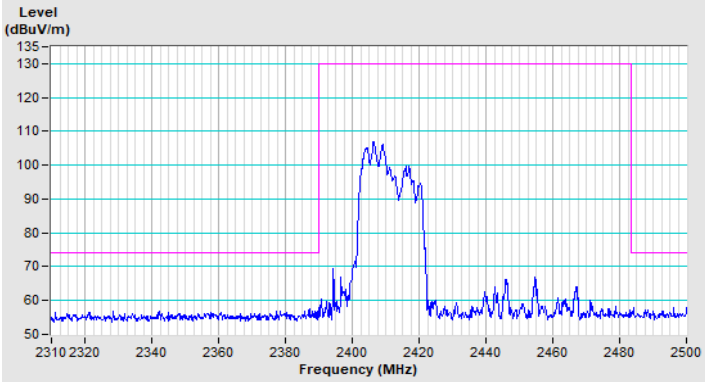
802.11ax (HE20) 106-tone RU Channel 1



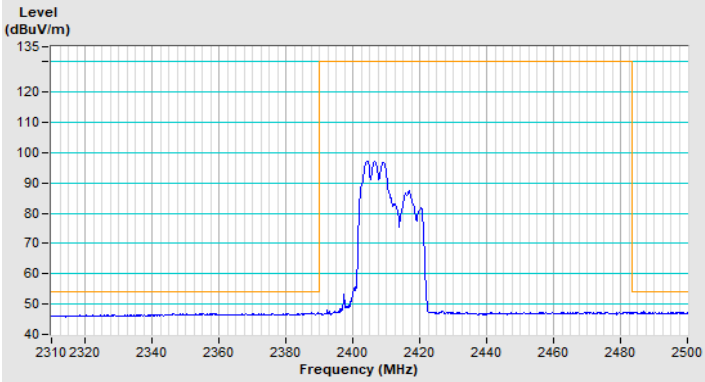
Horizontal (Peak)



Horizontal (Average)

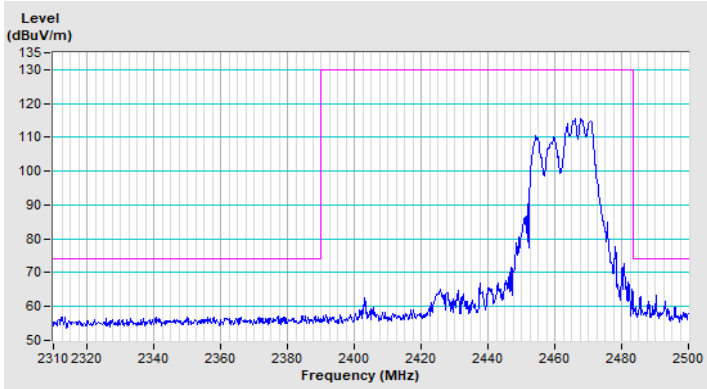


Vertical (Peak)

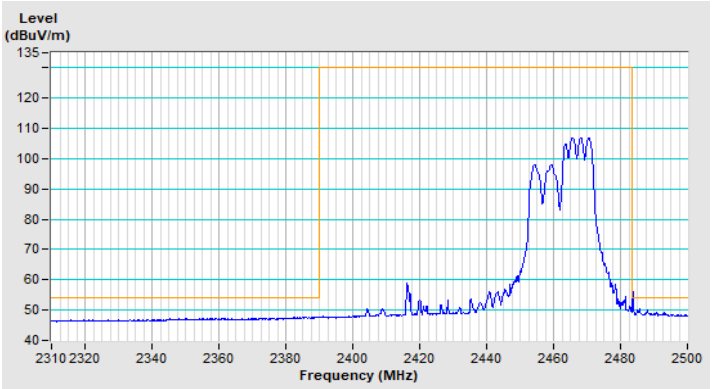


Vertical (Average)

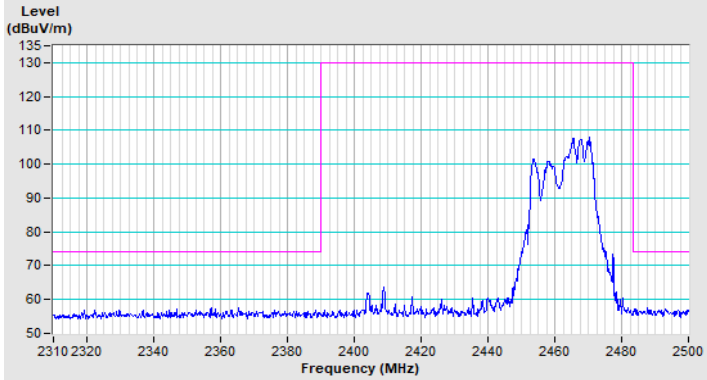
802.11ax (HE20) 106-tone RU Channel 11



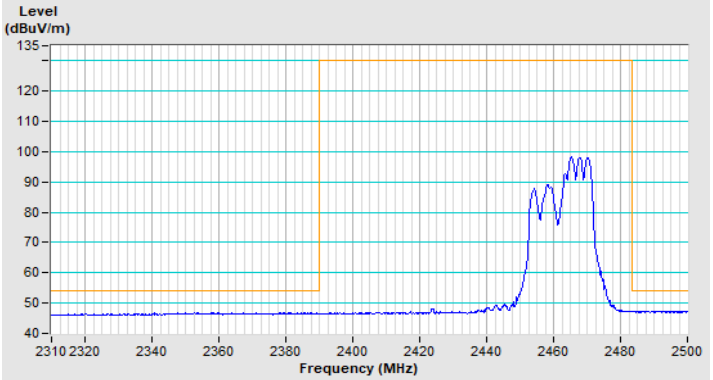
Horizontal (Peak)



Horizontal (Average)

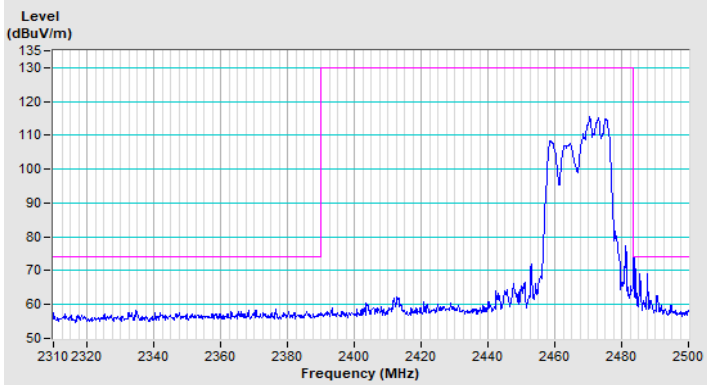


Vertical (Peak)

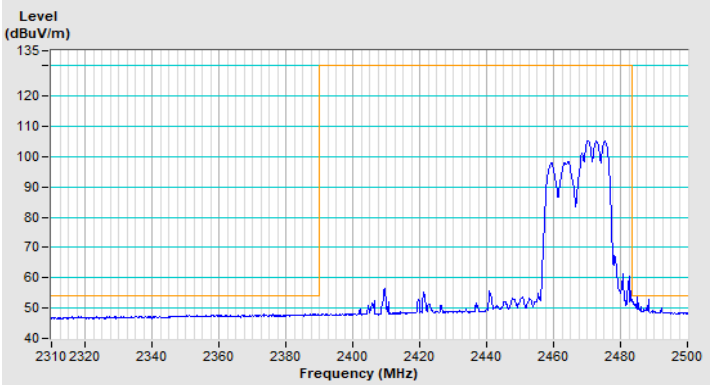


Vertical (Average)

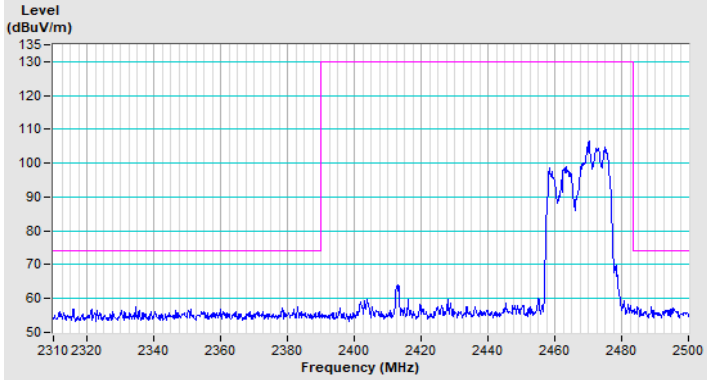
802.11ax (HE20) 106-tone RU Channel 12



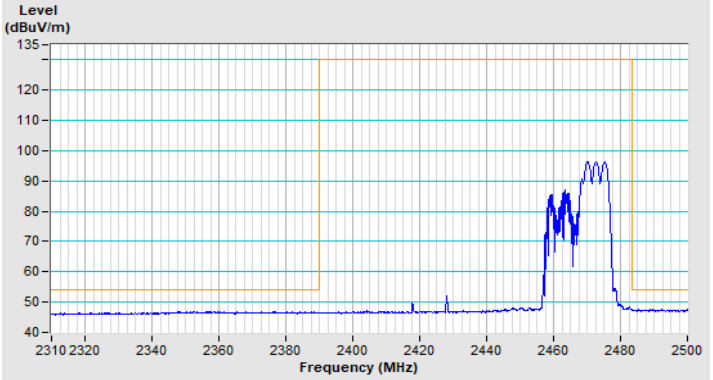
Horizontal (Peak)



Horizontal (Average)

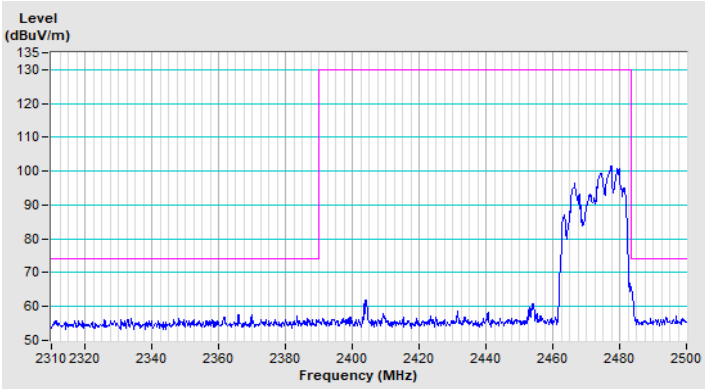


Vertical (Peak)

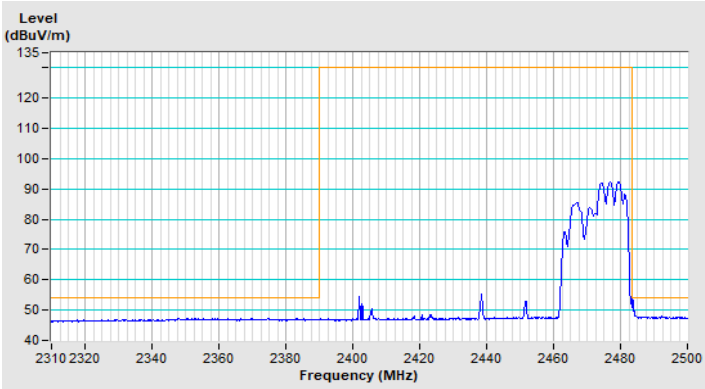


Vertical (Average)

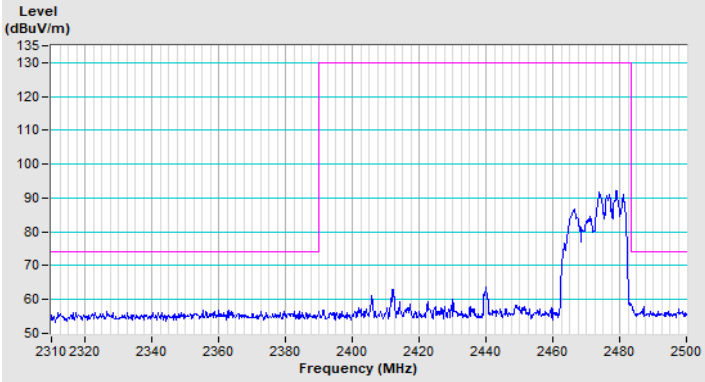
802.11ax (HE20) 106-tone RU Channel 13



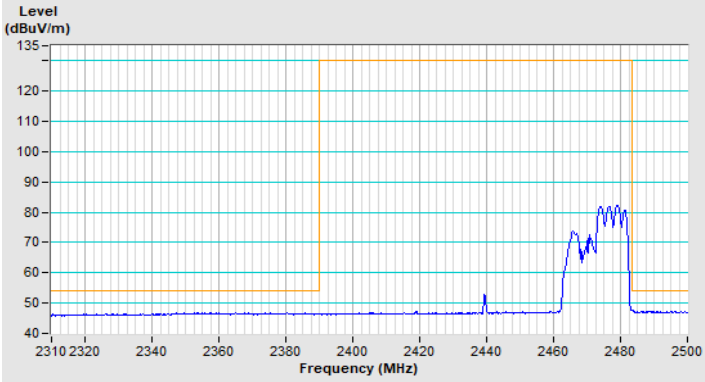
Horizontal (Peak)



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 ---