

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBDAS-WTW-P21030436C
FCC ID: 2A3G3-WMX720X
Product: WiFi 6E 5.2 M.2 2230 Module, WiFi 6E BT 5.2 Mini PCIe Module
Brand: EmWicon Corporation
Model No.: WMX7205, WMX7203, WMX7203-F
Received Date: 2023/12/14
Test Date: 2024/4/1 ~ 2024/5/17
Issued Date: 2024/6/7
Applicant: EmWicon Corporation
Address: 7F.-5, No. 258, Liancheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories
Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / 788550 / TW0003
Designation Number:

Approved by: _____

Jeremy Lin

, Date: _____

2024/6/7

Jeremy Lin / Project Engineer

This test report consists of 66 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.



Prepared by : Lena Wang / Specialist

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

Table of Contents

Release Control Record	3
1 Certificate.....	4
2 Summary of Test Results	5
2.1 Measurement Uncertainty	5
2.2 Supplementary Information	5
3 General Information	6
3.1 General Description	6
3.2 Antenna Description of EUT	7
3.3 Channel List	9
3.4 Test Mode Applicability and Tested Channel Detail	10
3.5 Duty Cycle of Test Signal	11
3.6 Test Program Used and Operation Descriptions	13
3.7 Connection Diagram of EUT and Peripheral Devices	13
3.8 Configuration of Peripheral Devices and Cable Connections	13
4 Test Instruments	14
4.1 RF Output Power	14
4.2 AC Power Conducted Emissions	14
4.3 Unwanted Emissions below 1 GHz	15
4.4 Unwanted Emissions above 1 GHz	16
5 Limits of Test Items.....	17
5.1 RF Output Power	17
5.2 AC Power Conducted Emissions	17
5.3 Unwanted Emissions below 1 GHz	17
5.4 Unwanted Emissions above 1 GHz	18
6 Test Arrangements	19
6.1 RF Output Power	19
6.1.1 Test Setup	19
6.1.2 Test Procedure	19
6.2 AC Power Conducted Emissions	19
6.2.1 Test Setup	19
6.2.2 Test Procedure	19
6.3 Unwanted Emissions below 1 GHz	20
6.3.1 Test Setup	20
6.3.2 Test Procedure	21
6.4 Unwanted Emissions above 1 GHz	22
6.4.1 Test Setup	22
6.4.2 Test Procedure	22
7 Test Results of Test Item	23
7.1 RF Output Power	23
7.2 AC Power Conducted Emissions	29
7.3 Unwanted Emissions below 1 GHz	31
7.4 Unwanted Emissions above 1 GHz	33
8 Pictures of Test Arrangements	65
9 Information of the Testing Laboratories	66

Release Control Record

Issue No.	Description	Date Issued
RFBDAS-WTW-P21030436C	Original release.	2024/6/7

1 Certificate

Product: WiFi 6E 5.2 M.2 2230 Module, WiFi 6E BT 5.2 Mini PCIe Module

Brand: EmWicon Corporation

Test Model: WMX7205, WMX7203, WMX7203-F

Sample Status: Engineering Sample

Applicant: EmWicon Corporation

Test Date: 2024/4/1 ~ 2024/5/17

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
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note
15.247(d)	Conducted Out of Band Emissions	N/A	Refer to Note
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -3.50 dB at 0.48244 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -7.2 dB at 127.97 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.5 dB at 2387.20 MHz
15.203	Antenna Requirement	Pass	Antenna connector is R-SMA not a standard connector.

Note:

- Only test item of Unwanted Emissions, AC Power Conducted Emissions and RF Output Power were performed for this addendum. Other testing data please refer to BV CPS report no.: RFBVSW-WTW-P22080967.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.371 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.88 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.6 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 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	WiFi 6E 5.2 M.2 2230 Module, WiFi 6E BT 5.2 Mini PCIe Module
Brand	EmWicon Corporation
Test Model	WMX7205, WMX7203, WMX7203-F
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 1024QAM for OFDM in VHT mode 4096QAM 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 300.0 Mbps VHT20/40: up to 400Mbps 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
Output Power	655.022 mW (28.16 dBm)

Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report to module report No.: RFBVSW-WTW-P22080967 (Brand: EmWicon Corporation, Model: WMX7205, WMX7203, Series Model: WMX7203-F). The difference compared with original report are adding antenna and End-product. Therefore, Only Unwanted Emissions, AC Power Conducted Emissions and RF Output Power are re-tested and recorded in this report.
2. The EUT was installed in Internet Security Device (Brand: FORCEPOINT or Forcepoint, Model: N120WL, APP-120C1).
3. All models are listed as below.

Model	Product Name	PCB size	Interface	IPEX	Difference
WMX7205	WiFi 6E 5.2 M.2 2230 Module	Original size	M.2 E-Key M.2 AE-Key	i-pex (MHF 4L)	-
WMX7203	WiFi 6E BT 5.2 Mini	Bigger than original	mini PCIe	i-pex (MHF 1)	Market segment
WMX7203-F	PCIe Module	Bigger than original	mini PCIe		

Note: From the above models, model: WMX7203 was selected as representative model for the test and its data was recorded in the report.

4. The Internet Security Device contains following accessory devices.

Product	Brand	Model	Description
Adapter 1	FSP	FSP040-DHMN3	-
Adapter 2 (Optional)	EDAC	EA10681T-540	-
WLAN Module	Emwicon	WMX7203-F	For N120WL, APP-120C1
WWAN Module	Sierra	EM7690	For N120WL
Dipole Antenna (WLAN)	Aristotle	RFA-27-C2M2-U-M70	For N120WL, APP-120C1
Dipole Antenna (WWAN)	Aristotle	RFA-LTE-C55-U-B70-5	For N120WL

5. 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.
6. This device of WLAN (2.4GHz & 5GHz U-NII-1 Band) can support hotspot mode.
7. According to client's declaration, the EUT does not support partial RU (resource unit), beamforming mode, BT, BT LE and WLAN 5.9GHz.

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	Cable Loss (dB)	Antenna Type	Connector Type	Cable Length
1	Chain0/1	HONGBO	260-25094	3.53	2.4~2.4835 GHz	0.76	PIFA	ipex(MHF 4L) ipex(MHF 1)	300mm
				3.06	5.15~5.25 GHz	1.16			
				3.07	5.25~5.35 GHz	1.18			
				4.81	5.47~5.725 GHz	1.2			
				4.2	5.725~5.850 GHz	1.27			
2	Chain0/1	HONGBO	260-25083	5.09	5.850~5.895 GHz	1.29	PIFA	ipex(MHF 4L) ipex(MHF 1)	300mm
				5.14	5.925~6.425 GHz	1.32			
				5.09	6.425~6.525 GHz	1.35			
				5.16	6.525~6.875 GHz	1.4			
				5.12	6.875~7.125 GHz	1.45			
3	Chain0/1	HONGBO	260-25084	3.22	2.4~2.4835 GHz	0.5	Monopole	ipex(MHF 4L) ipex(MHF 1)	200mm
				3.35	5.150~5.250 GHz	0.76			
				3.42	5.250~5.350 GHz	0.78			
				4.77	5.470~5.725 GHz	0.81			
				4.72	5.725~5.850 GHz	0.85			
				4.71	5.850~5.895 GHz	0.86			
				4.75	5.925~6.425 GHz	0.87			
				4.29	6.425~6.525 GHz	0.91			
				4.81	6.525~6.875 GHz	0.96			
				4.74	6.875~7.125 GHz	0.98			
2 nd									
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range	Cable Loss (dB)	Antenna Type	Connector Type	Cable Length
4	Chain0/1	emwicon	ATD7351	2.51	2400 MHz	0.64	Monopole	RP-SMA	0.15m
				2.66	2450 MHz	0.64			
				2.07	2500 MHz	0.64			
				3.21	5150 MHz	1.27			
				3.64	5500 MHz	1.27			
				3.73	5850 MHz	1.27			
				3.13	6125 MHz	1.24			
				3.54	6750 MHz	1.24			
				3.06	7125 MHz	1.24			

Newly

* 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

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 manufacturer will control the power for 802.11n/VHT mode is same as the 802.11ax mode or lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

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

9 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 can be used in the following ways: X-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. X-axis/ Z-axis 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
RF Output Power	802.11b	1, 6, 11, 12, 13	DBPSK	1Mb/s
	802.11g	1, 2, 6, 10, 11, 12, 13	BPSK	6Mb/s
	802.11n (HT20)	1, 2, 6, 10, 11, 12, 13	BPSK	MCS0
	802.11n (HT40)	3, 4, 6, 8, 9, 10, 11	BPSK	MCS0
	VHT20	1, 2, 6, 10, 11, 12, 13	BPSK	MCS0
	VHT40	3, 4, 6, 8, 9, 10, 11	BPSK	MCS0
	802.11ax (HE20)	1, 2, 6, 10, 11, 12, 13	BPSK	MCS0
	802.11ax (HE40)	3, 4, 6, 8, 9, 10, 11	BPSK	MCS0
AC Power Conducted Emissions	802.11g	6	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11g	6	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11, 12, 13	DBPSK	1Mb/s
	802.11g	1, 6, 11, 12, 13	BPSK	6Mb/s
	802.11ax (HE20)	1, 6, 11, 12, 13	BPSK	MCS0
	802.11ax (HE40)	3, 6, 9, 10, 11	BPSK	MCS0

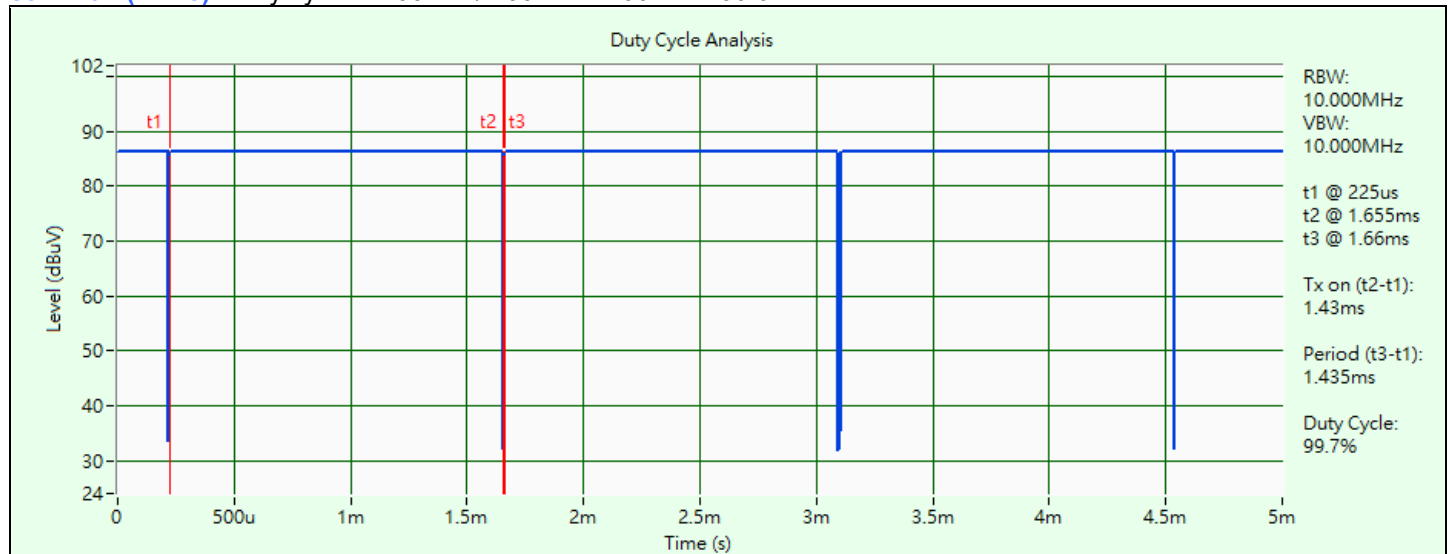
3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = $1.43 \text{ ms} / 1.435 \text{ ms} \times 100\% = 99.7\%$

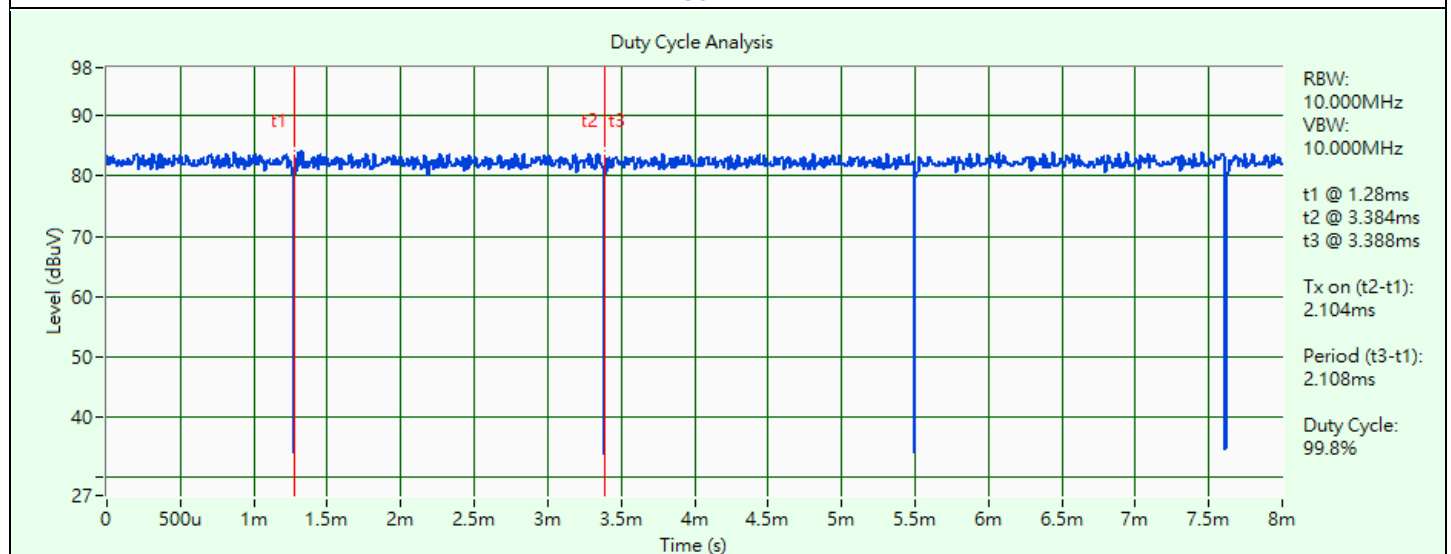
802.11g: Duty cycle = $2.104 \text{ ms} / 2.108 \text{ ms} \times 100\% = 99.8\%$

802.11ax (HE20): Duty cycle = $100 \text{ ms} / 100 \text{ ms} \times 100\% = 100.0\%$

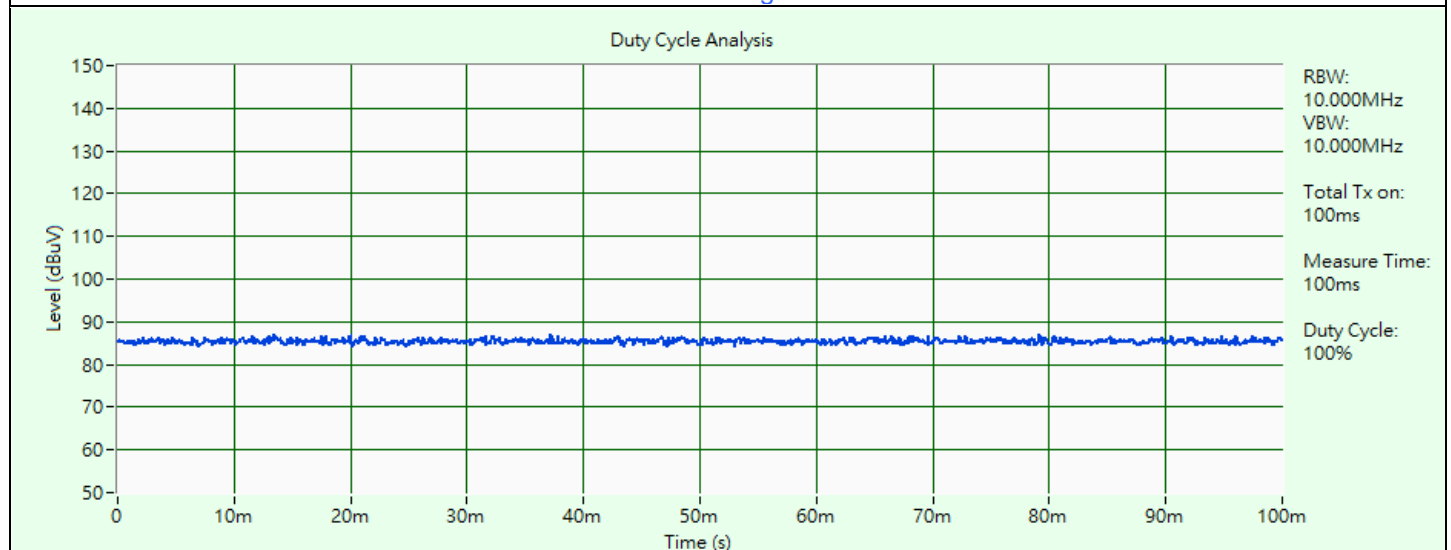
802.11ax (HE40): Duty cycle = $100 \text{ ms} / 100 \text{ ms} \times 100\% = 100.0\%$



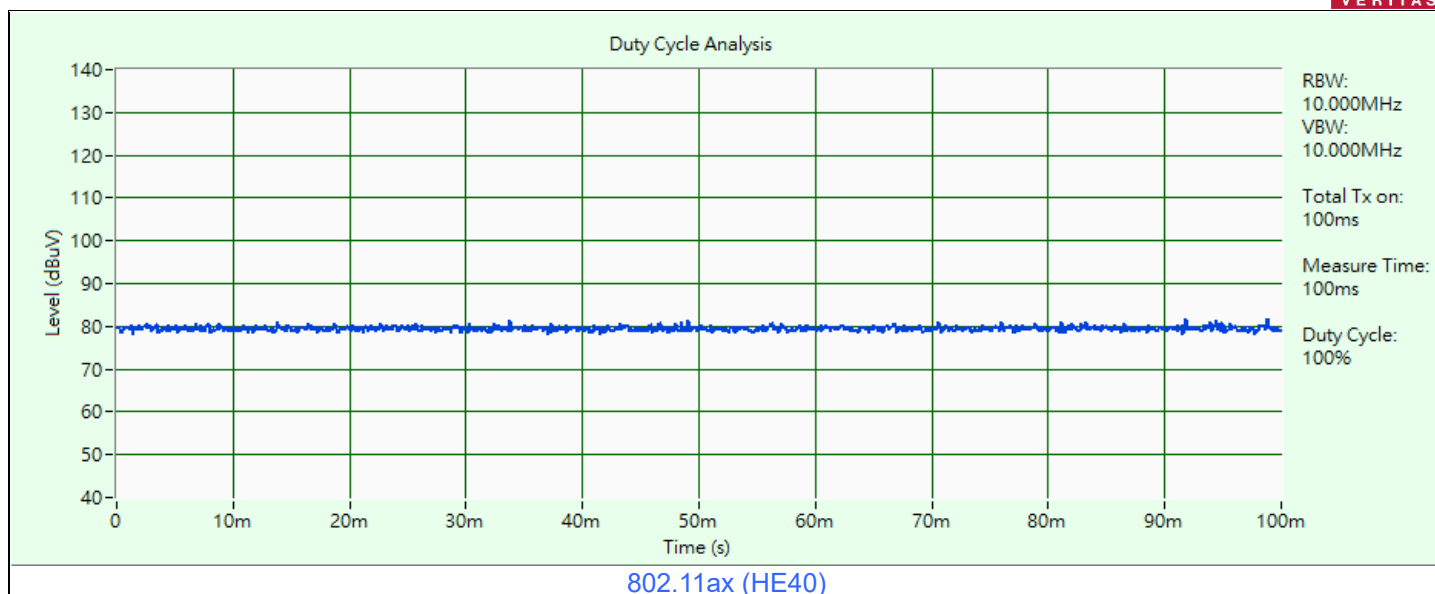
802.11b



802.11g



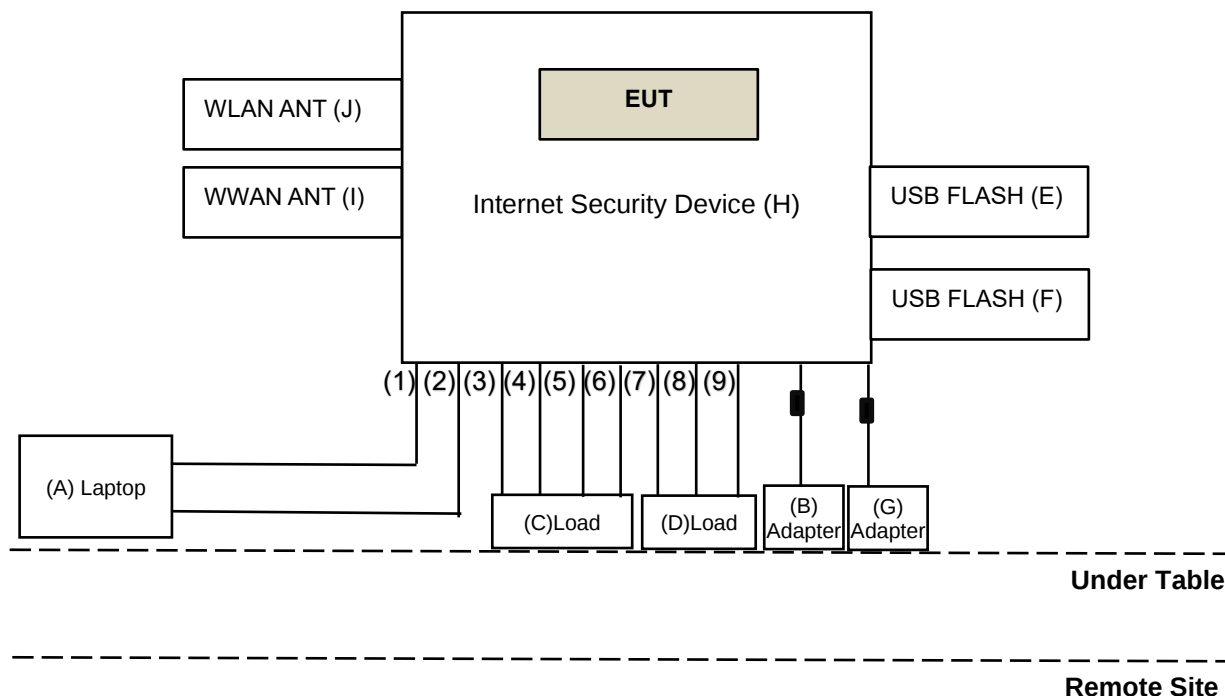
802.11ax (HE20)



3.6 Test Program Used and Operation Descriptions

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

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	X260 4G	PC0ECUAT	NA	Provided by Lab
B	Adapter	FSP	FSP040-DHMN3	NA	NA	Supplied by applicant
C	Load	NA	NA	NA	NA	Provided by Lab
D	Load	NA	NA	NA	NA	Provided by Lab
E	FLASH	Transcend	NA	NA	NA	Supplied by applicant
F	FLASH	Transcend	NA	NA	NA	Supplied by applicant
G	Adapter	EDAC	EA10681T-540	NA	NA	Supplied by applicant
H	Internet Security Device	FORCEPOINT	N120WL	NA	NA	Supplied by applicant
I	WWAN ANT	Aristotle	RFA-27-C2M2-U-M70	NA	NA	Supplied by applicant
J	WLAN ANT	WANSIH	S51WFI0001A	NA	NA	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	1.5	N	N	Provided by Lab
2	Console Cable	1	1.8	N	N	Supplied by applicant
3	RJ-45 Cable	1	1.5	N	N	Provided by Lab
4	RJ-45 Cable	1	1.5	N	N	Provided by Lab
5	RJ-45 Cable	1	1.5	N	N	Provided by Lab
6	RJ-45 Cable	1	1.5	N	N	Provided by Lab
7	RJ-45 Cable	1	1.5	N	N	Provided by Lab
8	RJ-45 Cable	1	1.5	N	N	Provided by Lab
9	RJ-45 Cable	1	1.5	N	N	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
Peak Power Analyzer Keysight	8990B	MY51000485	2024/1/21	2025/1/20
Wideband Power Sensor Keysight	N1923A	MY58020002	2024/1/18	2025/1/17
		MY58140009	2024/1/18	2025/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/5/17

4.2 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2023/11/22	2024/11/21
50 ohm terminal resistance	E1-011279	04	2023/11/22	2024/11/21
	E1-011280	05	2023/11/22	2024/11/21
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2023/11/7	2024/11/6
EMI Test Receiver R&S	ESCI	100412	2023/8/23	2024/8/22
Fixed Attenuator SGH	BNC10W10dB	PAD-COND2-01	2023/9/2	2024/9/1
LISN R&S	ESH2-Z5	100100	2024/3/6	2025/3/5
	ESH3-Z5	100312	2023/9/12	2024/9/11
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2023/9/2	2024/9/1
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2023/8/31	2024/8/30

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2024/4/11 ~ 2024/4/12

4.3 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-160	2023/10/17	2024/10/16
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
Loop Antenna TESEQ	HLA 6121	45745	2023/8/8	2024/8/7
MXE EMI Receiver Keysight	N9038A	MY55420137	2023/5/3	2024/5/2
Preamplifier Agilent	8447D	2944A10638	2023/5/7	2024/5/6
Preamplifier EMCI	EMC001340	980201	2023/9/27	2024/9/26
RF Coaxial Cable Woken	8D-FB	Cable-CH9-01	2023/5/7	2024/5/6
Signal & Spectrum Analyzer R&S	FSW43	101867	2023/12/29	2024/12/28
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2024/4/11

4.4 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1169	2023/11/12	2024/11/11
	BBHA 9170	9170-480	2023/11/12	2024/11/11
		BBHA9170243	2023/11/12	2024/11/11
MXE EMI Receiver Keysight	N9038B	MY60180018	2024/3/13	2025/3/12
Preamplifier Agilent	8449B	3008A02367	2024/1/6	2025/1/5
Preamplifier EMCI	EMC 184045	980116	2023/9/27	2024/9/26
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2023/7/8	2024/7/7
	EMC102-KM-KM-3000	150929	2023/7/8	2024/7/7
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2024/1/6	2025/1/5
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2024/1/6	2025/1/5
Signal & Spectrum Analyzer R&S	FSW43	101867	2023/12/29	2024/12/28
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2024/4/1 ~ 2024/5/16

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	$2400/F(\text{kHz})$	300
0.490 ~ 1.705	$24000/F(\text{kHz})$	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

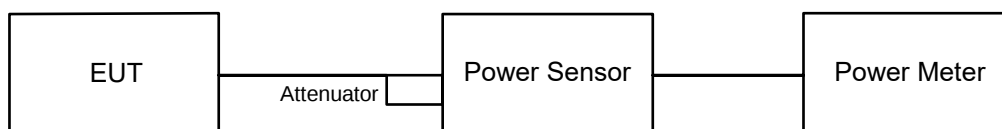
Notes:

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:

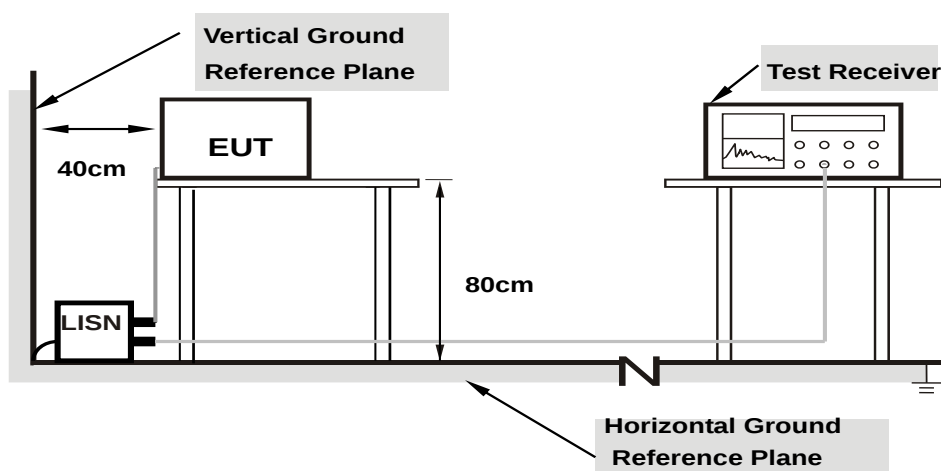
A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

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

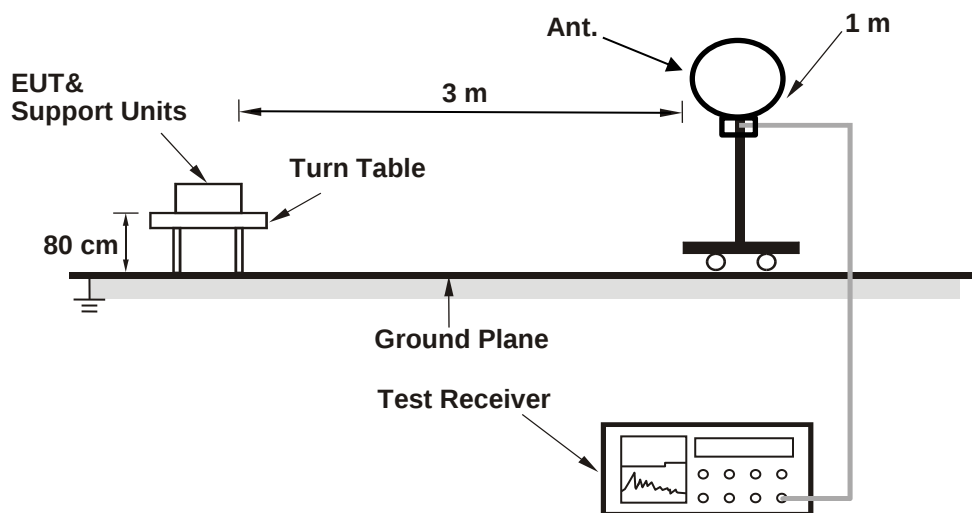
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

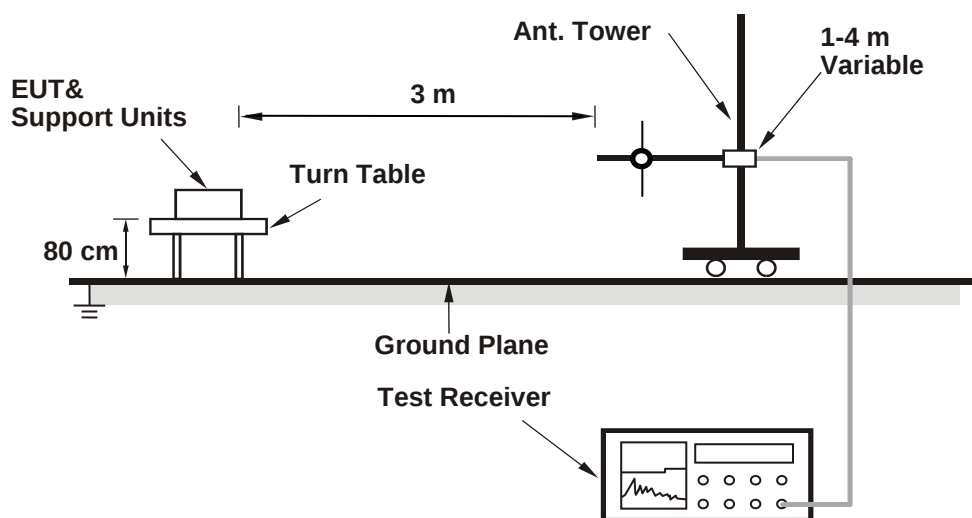
6.3 Unwanted Emissions below 1 GHz

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

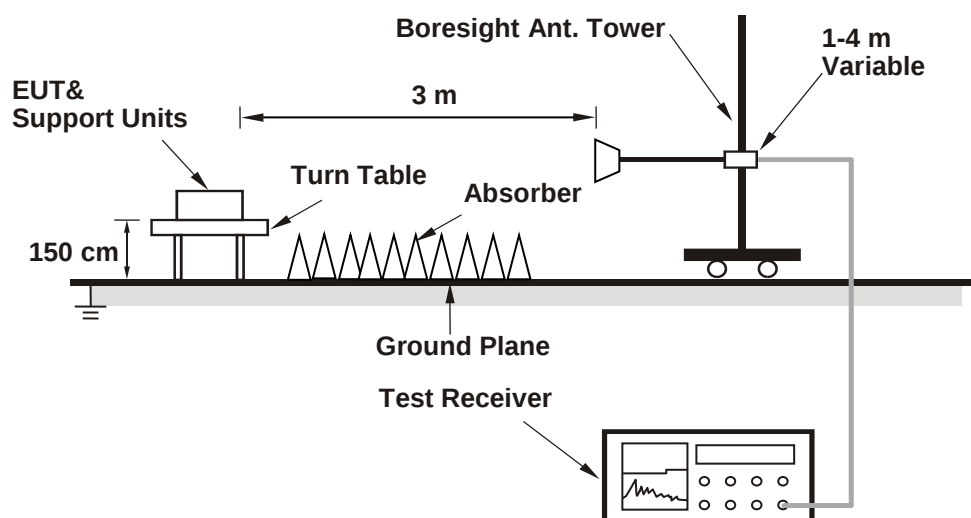
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Charles Hsiao
--------------	----------------	---------------------------	--------------	------------	---------------

For Peak Power

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	20.51	19.03	192.444	22.84	30	Pass
6	2437	23.71	22.41	409.144	26.12	30	Pass
11	2462	22.20	20.68	282.909	24.52	30	Pass
12	2467	15.56	15.26	69.549	18.42	30	Pass
13	2472	13.21	12.45	38.52	15.86	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	19.52	19.11	171.007	22.33	30	Pass
2	2417	20.27	20.00	206.414	23.15	30	Pass
6	2437	25.29	25.01	655.022	28.16	30	Pass
10	2457	21.15	20.98	255.631	24.08	30	Pass
11	2462	19.27	19.82	180.468	22.56	30	Pass
12	2467	15.84	15.35	72.648	18.61	30	Pass
13	2472	8.55	7.33	12.569	10.99	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	18.71	18.36	142.851	21.55	30	Pass
2	2417	19.40	19.23	170.849	22.33	30	Pass
6	2437	24.57	24.40	561.841	27.50	30	Pass
10	2457	22.08	21.94	317.751	25.02	30	Pass
11	2462	17.95	17.58	119.653	20.78	30	Pass
12	2467	15.80	15.65	74.747	18.74	30	Pass
13	2472	9.14	7.78	14.201	11.52	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.54	14.55	64.32	18.08	30	Pass
4	2427	15.50	14.49	63.6	18.03	30	Pass
6	2437	18.05	17.46	119.545	20.78	30	Pass
8	2447	17.95	17.30	116.077	20.65	30	Pass
9	2452	16.05	15.88	78.997	18.98	30	Pass
10	2457	15.55	15.04	67.808	18.31	30	Pass
11	2462	10.22	8.90	18.282	12.62	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	18.75	18.40	144.173	21.59	30	Pass
2	2417	19.44	19.27	172.43	22.37	30	Pass
6	2437	24.62	24.44	567.706	27.54	30	Pass
10	2457	22.17	21.99	322.941	25.09	30	Pass
11	2462	17.98	17.62	120.615	20.81	30	Pass
12	2467	15.89	15.77	76.572	18.84	30	Pass
13	2472	9.26	7.89	14.585	11.64	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.55	14.57	64.534	18.10	30	Pass
4	2427	15.51	14.55	64.073	18.07	30	Pass
6	2437	18.07	17.49	120.226	20.80	30	Pass
8	2447	18.00	17.44	118.558	20.74	30	Pass
9	2452	16.08	15.91	79.545	19.01	30	Pass
10	2457	15.60	15.19	69.345	18.41	30	Pass
11	2462	10.29	9.01	18.652	12.71	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	18.77	18.43	144.998	21.61	30	Pass
2	2417	19.65	19.40	179.354	22.54	30	Pass
6	2437	24.83	24.62	593.823	27.74	30	Pass
10	2457	22.27	22.09	330.463	25.19	30	Pass
11	2462	18.01	17.66	121.586	20.85	30	Pass
12	2467	16.03	15.85	78.546	18.95	30	Pass
13	2472	9.30	8.00	14.821	11.71	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.57	14.59	64.832	18.12	30	Pass
4	2427	15.55	14.55	64.402	18.09	30	Pass
6	2437	18.09	17.52	120.911	20.82	30	Pass
8	2447	18.04	17.49	119.784	20.78	30	Pass
9	2452	16.11	15.93	80.006	19.03	30	Pass
10	2457	15.77	15.32	71.798	18.56	30	Pass
11	2462	10.44	9.14	19.27	12.85	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.5 dBi < 6 dBi, so the output power limit shall not be reduced.

For Average Power

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	18.16	16.52	110.338	20.43
6	2437	21.02	19.54	216.423	23.35
11	2462	19.52	18.63	162.482	22.11
12	2467	13.11	12.62	38.745	15.88
13	2472	10.60	9.84	21.12	13.25

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	14.33	12.54	45.049	16.54
2	2417	15.03	13.66	55.069	17.41
6	2437	20.83	20.53	234.039	23.69
10	2457	16.88	15.74	86.25	19.36
11	2462	13.45	13.57	44.882	16.52
12	2467	9.05	8.70	15.448	11.89
13	2472	2.60	1.22	3.144	4.97

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	12.36	10.90	29.521	14.70
2	2417	13.21	11.65	35.563	15.51
6	2437	16.26	18.31	110.031	20.42
10	2457	16.14	14.60	69.955	18.45
11	2462	11.40	10.56	25.18	14.01
12	2467	8.85	8.51	14.769	11.69
13	2472	2.07	1.10	2.899	4.62

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
3	2422	9.81	8.35	16.411	12.15
4	2427	9.77	8.28	16.214	12.10
6	2437	12.05	10.77	27.972	14.47
8	2447	12.00	10.61	27.357	14.37
9	2452	10.45	9.31	19.623	12.93
10	2457	8.49	8.35	13.902	11.43
11	2462	4.08	2.94	4.526	6.56

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	12.39	10.93	29.726	14.73
2	2417	13.25	11.69	35.892	15.55
6	2437	16.31	18.37	111.463	20.47
10	2457	16.20	14.66	70.928	18.51
11	2462	11.43	10.61	25.408	14.05
12	2467	9.01	8.60	15.206	11.82
13	2472	2.20	1.19	2.975	4.73

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
3	2422	9.83	8.37	16.487	12.17
4	2427	9.81	8.35	16.411	12.15
6	2437	12.08	10.81	28.194	14.50
8	2447	12.05	10.70	27.781	14.44
9	2452	10.49	9.35	19.804	12.97
10	2457	8.55	8.45	14.16	11.51
11	2462	4.15	3.02	4.605	6.63

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	12.42	10.96	29.932	14.76
2	2417	13.37	11.88	37.144	15.70
6	2437	19.40	18.49	157.728	21.98
10	2457	16.29	14.74	72.345	18.59
11	2462	11.47	10.64	25.616	14.09
12	2467	9.11	8.68	15.526	11.91
13	2472	2.31	1.28	3.045	4.84

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
3	2422	9.86	8.39	16.585	12.20
4	2427	9.85	8.37	16.531	12.18
6	2437	12.11	10.84	28.389	14.53
8	2447	12.08	10.77	28.083	14.48
9	2452	10.51	9.37	19.896	12.99
10	2457	8.71	8.56	14.608	11.65
11	2462	4.25	3.10	4.702	6.72

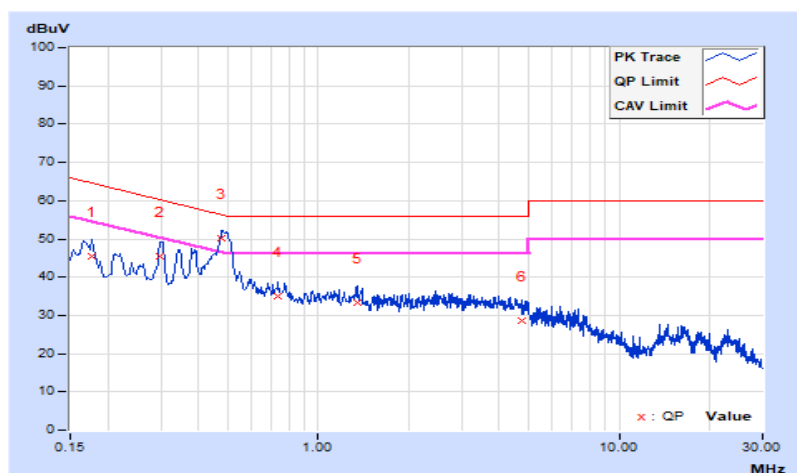
7.2 AC Power Conducted Emissions

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	0.17738	10.40	35.19	26.72	45.59	37.12	64.61	54.61	-19.02	-17.49
2	0.29862	10.46	34.85	30.87	45.31	41.33	60.28	50.28	-14.97	-8.95
3	0.47916	10.52	39.60	32.32	50.12	42.84	56.35	46.35	-6.23	-3.51
4	0.73857	10.54	24.55	18.30	35.09	28.84	56.00	46.00	-20.91	-17.16
5	1.34869	10.56	22.73	16.77	33.29	27.33	56.00	46.00	-22.71	-18.67
6	4.72388	10.68	17.87	12.52	28.55	23.20	56.00	46.00	-27.45	-22.80

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

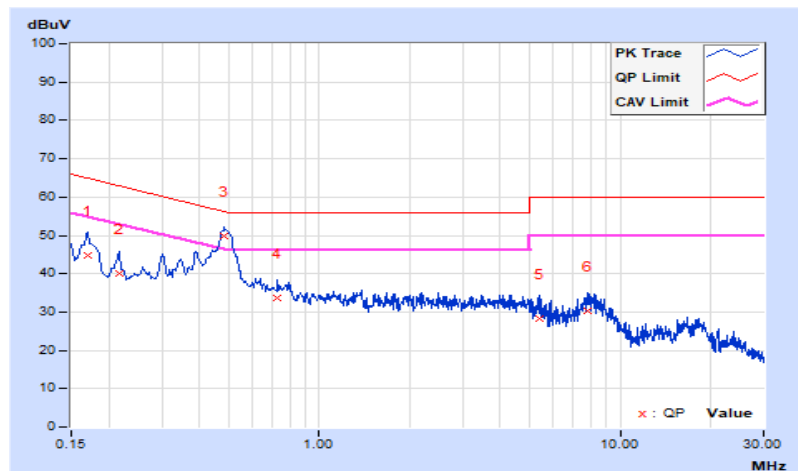


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	0.16956	10.45	34.42	25.91	44.87	36.36	64.98	54.98	-20.11	-18.62
2	0.21622	10.48	29.74	23.57	40.22	34.05	62.96	52.96	-22.74	-18.91
3	0.48244	10.56	39.32	32.24	49.88	42.80	56.30	46.30	-6.42	-3.50
4	0.72684	10.58	23.11	15.44	33.69	26.02	56.00	46.00	-22.31	-19.98
5	5.41848	10.77	17.61	10.65	28.38	21.42	60.00	50.00	-31.62	-28.58
6	7.82765	10.81	19.39	12.04	30.20	22.85	60.00	50.00	-29.80	-27.15

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



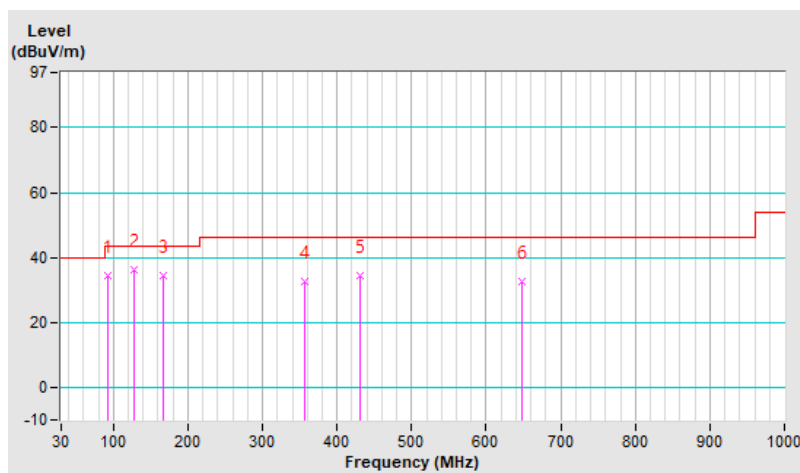
7.3 Unwanted Emissions below 1 GHz

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	92.08	34.5 QP	43.5	-9.0	1.99 H	18	49.3	-14.8
2	127.97	36.3 QP	43.5	-7.2	1.50 H	174	46.9	-10.6
3	166.77	34.4 QP	43.5	-9.1	1.50 H	151	43.6	-9.2
4	356.89	32.7 QP	46.0	-13.3	1.00 H	284	39.6	-6.9
5	431.58	34.3 QP	46.0	-11.7	1.99 H	259	39.6	-5.3
6	647.89	32.6 QP	46.0	-13.4	1.00 H	254	33.4	-0.8

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.

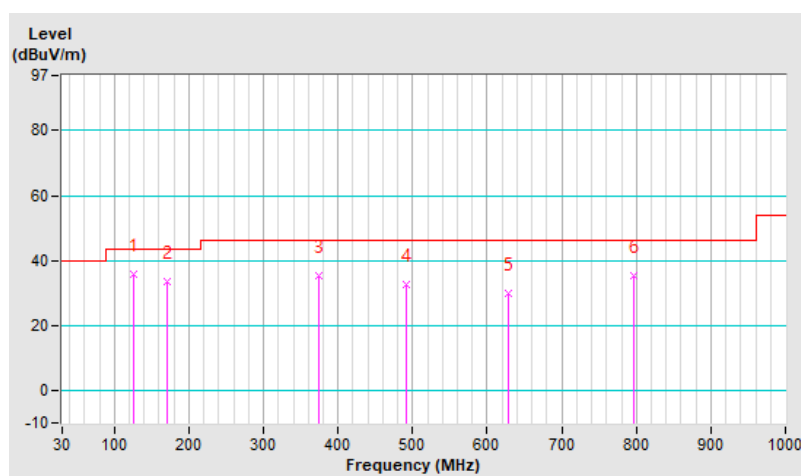


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	125.06	36.0 QP	43.5	-7.5	1.00 V	195	46.9	-10.9
2	170.65	33.3 QP	43.5	-10.2	1.00 V	266	42.7	-9.4
3	373.38	35.4 QP	46.0	-10.6	1.50 V	4	41.8	-6.4
4	490.75	32.8 QP	46.0	-13.2	1.00 V	53	37.0	-4.2
5	627.52	29.7 QP	46.0	-16.3	1.99 V	260	30.8	-1.1
6	796.30	35.3 QP	46.0	-10.7	1.99 V	17	33.1	2.2

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit 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	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	2385.20	61.8 PK	74.0	-12.2	3.39 H	62	28.4	33.4
2	2385.20	51.2 AV	54.0	-2.8	3.39 H	62	17.8	33.4
3	*2412.00	108.0 PK			3.39 H	62	74.5	33.5
4	*2412.00	105.4 AV			3.39 H	62	71.9	33.5
5	4824.00	49.9 PK	74.0	-24.1	1.54 H	39	40.1	9.8
6	4824.00	37.0 AV	54.0	-17.0	1.54 H	39	27.2	9.8
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	2385.20	65.1 PK	74.0	-8.9	1.85 V	197	31.7	33.4
2	2385.20	53.0 AV	54.0	-1.0	1.85 V	197	19.6	33.4
3	*2412.00	115.5 PK			1.85 V	197	82.0	33.5
4	*2412.00	113.0 AV			1.85 V	197	79.5	33.5
5	4824.00	50.2 PK	74.0	-23.8	2.04 V	12	40.4	9.8
6	4824.00	38.4 AV	54.0	-15.6	2.04 V	12	28.6	9.8

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	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	108.4 PK			3.40 H	60	74.8	33.6
2	*2437.00	105.8 AV			3.40 H	60	72.2	33.6
3	4874.00	49.9 PK	74.0	-24.1	1.57 H	41	40.2	9.7
4	4874.00	37.4 AV	54.0	-16.6	1.57 H	41	27.7	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	115.8 PK			1.84 V	194	82.2	33.6
2	*2437.00	113.3 AV			1.84 V	194	79.7	33.6
3	4874.00	50.1 PK	74.0	-23.9	1.97 V	13	40.4	9.7
4	4874.00	38.7 AV	54.0	-15.3	1.97 V	13	29.0	9.7

Remarks:

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

RF Mode	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	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	109.3 PK			3.66 H	66	75.7	33.6
2	*2462.00	106.9 AV			3.66 H	66	73.3	33.6
3	2483.50	61.0 PK	74.0	-13.0	3.66 H	66	27.4	33.6
4	2483.50	49.2 AV	54.0	-4.8	3.66 H	66	15.6	33.6
5	4924.00	50.4 PK	74.0	-23.6	1.55 H	37	40.6	9.8
6	4924.00	38.8 AV	54.0	-15.2	1.55 H	37	29.0	9.8
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	114.9 PK			2.34 V	195	81.3	33.6
2	*2462.00	112.3 AV			2.34 V	195	78.7	33.6
3	2483.50	61.1 PK	74.0	-12.9	2.34 V	195	27.5	33.6
4	2483.50	49.4 AV	54.0	-4.6	2.34 V	195	15.8	33.6
5	4924.00	50.7 PK	74.0	-23.3	1.95 V	13	40.9	9.8
6	4924.00	40.2 AV	54.0	-13.8	1.95 V	13	30.4	9.8

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	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	102.6 PK			1.50 H	56	70.2	32.4
2	*2467.00	100.1 AV			1.50 H	56	67.7	32.4
3	2483.50	59.3 PK	74.0	-14.7	1.50 H	56	26.8	32.5
4	2483.50	49.1 AV	54.0	-4.9	1.50 H	56	16.6	32.5
5	4934.00	50.1 PK	74.0	-23.9	1.60 H	44	46.5	3.6
6	4934.00	39.2 AV	54.0	-14.8	1.60 H	44	35.6	3.6
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	107.9 PK			1.46 V	159	75.5	32.4
2	*2467.00	105.6 AV			1.46 V	159	73.2	32.4
3	2483.50	61.2 PK	74.0	-12.8	1.46 V	159	28.7	32.5
4	2483.50	53.1 AV	54.0	-0.9	1.46 V	159	20.6	32.5
5	4944.00	50.4 PK	74.0	-23.6	1.69 V	99	46.8	3.6
6	4944.00	40.0 AV	54.0	-14.0	1.69 V	99	36.4	3.6

Remarks:

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

RF Mode	802.11b	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2472.00	99.8 PK			1.50 H	56	67.4	32.4
2	*2472.00	97.7 AV			1.50 H	56	65.3	32.4
3	2483.50	63.0 PK	74.0	-11.0	1.50 H	56	30.5	32.5
4	2483.50	49.4 AV	54.0	-4.6	1.50 H	56	16.9	32.5
5	4944.00	50.0 PK	74.0	-24.0	1.17 H	154	46.4	3.6
6	4944.00	39.4 AV	54.0	-14.6	1.17 H	154	35.8	3.6
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	104.8 PK			1.46 V	159	72.4	32.4
2	*2472.00	102.6 AV			1.46 V	159	70.2	32.4
3	2483.50	67.9 PK	74.0	-6.1	1.46 V	159	35.4	32.5
4	2483.50	53.1 AV	54.0	-0.9	1.46 V	159	20.6	32.5
5	4944.00	50.3 PK	74.0	-23.7	1.56 V	1	46.7	3.6
6	4944.00	39.6 AV	54.0	-14.4	1.56 V	1	36.0	3.6

Remarks:

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

RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	2387.20	65.6 PK	74.0	-8.4	3.36 H	70	32.2	33.4
2	2387.20	51.4 AV	54.0	-2.6	3.36 H	70	18.0	33.4
3	*2412.00	107.9 PK			3.36 H	70	74.4	33.5
4	*2412.00	98.2 AV			3.36 H	70	64.7	33.5
5	4824.00	49.8 PK	74.0	-24.2	1.61 H	45	40.0	9.8
6	4824.00	36.2 AV	54.0	-17.8	1.61 H	45	26.4	9.8
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	2387.20	66.9 PK	74.0	-7.1	2.17 V	166	33.5	33.4
2	2387.20	53.5 AV	54.0	-0.5	2.17 V	166	20.1	33.4
3	*2412.00	114.3 PK			2.17 V	166	80.8	33.5
4	*2412.00	103.8 AV			2.17 V	166	70.3	33.5
5	4824.00	49.9 PK	74.0	-24.1	2.03 V	25	40.1	9.8
6	4824.00	36.4 AV	54.0	-17.6	2.03 V	25	26.6	9.8

Remarks:

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

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	112.5 PK			3.39 H	67	78.9	33.6
2	*2437.00	104.2 AV			3.39 H	67	70.6	33.6
3	4874.00	49.9 PK	74.0	-24.1	1.57 H	40	40.2	9.7
4	4874.00	36.3 AV	54.0	-17.7	1.57 H	40	26.6	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	119.1 PK			2.11 V	165	85.5	33.6
2	*2437.00	109.7 AV			2.11 V	165	76.1	33.6
3	4874.00	50.1 PK	74.0	-23.9	1.98 V	20	40.4	9.7
4	4874.00	36.5 AV	54.0	-17.5	1.98 V	20	26.8	9.7

Remarks:

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

RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	107.7 PK			3.33 H	67	74.1	33.6
2	*2462.00	97.8 AV			3.33 H	67	64.2	33.6
3	2483.50	64.1 PK	74.0	-9.9	3.33 H	67	30.5	33.6
4	2483.50	49.8 AV	54.0	-4.2	3.33 H	67	16.2	33.6
5	4924.00	50.0 PK	74.0	-24.0	1.57 H	42	40.2	9.8
6	4924.00	36.2 AV	54.0	-17.8	1.57 H	42	26.4	9.8
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	114.2 PK			2.06 V	169	80.6	33.6
2	*2462.00	103.4 AV			2.06 V	169	69.8	33.6
3	2483.50	67.6 PK	74.0	-6.4	2.06 V	169	34.0	33.6
4	2483.50	53.2 AV	54.0	-0.8	2.06 V	169	19.6	33.6
5	4924.00	50.2 PK	74.0	-23.8	2.09 V	19	40.4	9.8
6	4924.00	36.3 AV	54.0	-17.7	2.09 V	19	26.5	9.8

Remarks:

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

RF Mode	802.11g	Channel	CH 12 : 2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	102.7 PK			1.50 H	56	70.3	32.4
2	*2467.00	94.2 AV			1.50 H	56	61.8	32.4
3	2483.50	60.0 PK	74.0	-14.0	1.50 H	56	27.5	32.5
4	2483.50	49.3 AV	54.0	-4.7	1.50 H	56	16.8	32.5
5	4934.00	49.7 PK	74.0	-24.3	1.05 H	100	46.1	3.6
6	4934.00	37.1 AV	54.0	-16.9	1.05 H	100	33.5	3.6
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	107.9 PK			1.46 V	159	75.5	32.4
2	*2467.00	99.3 AV			1.46 V	159	66.9	32.4
3	2483.50	64.8 PK	74.0	-9.2	1.46 V	159	32.3	32.5
4	2483.50	53.0 AV	54.0	-1.0	1.46 V	159	20.5	32.5
5	4934.00	50.1 PK	74.0	-23.9	1.59 V	99	46.5	3.6
6	4934.00	37.5 AV	54.0	-16.5	1.59 V	99	33.9	3.6

Remarks:

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

RF Mode	802.11g	Channel	CH 13 : 2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	95.8 PK			1.50 H	56	63.4	32.4
2	*2472.00	87.3 AV			1.50 H	56	54.9	32.4
3	2483.50	61.0 PK	74.0	-13.0	1.50 H	56	28.5	32.5
4	2483.50	49.6 AV	54.0	-4.4	1.50 H	56	17.1	32.5
5	4944.00	49.5 PK	74.0	-24.5	1.47 H	7	45.9	3.6
6	4944.00	37.0 AV	54.0	-17.0	1.47 H	7	33.4	3.6
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	100.3 PK			1.46 V	159	67.9	32.4
2	*2472.00	92.4 AV			1.46 V	159	60.0	32.4
3	2483.50	65.0 PK	74.0	-9.0	1.46 V	159	32.5	32.5
4	2483.50	50.5 AV	54.0	-3.5	1.46 V	159	18.0	32.5
5	4944.00	49.8 PK	74.0	-24.2	1.05 V	244	46.2	3.6
6	4944.00	37.3 AV	54.0	-16.7	1.05 V	244	33.7	3.6

Remarks:

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

RF Mode	802.11ax (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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	3.40 H	71	32.4	33.4
2	2390.00	52.2 AV	54.0	-1.8	3.40 H	71	18.8	33.4
3	*2412.00	109.0 PK			3.40 H	71	75.5	33.5
4	*2412.00	96.1 AV			3.40 H	71	62.6	33.5
5	4824.00	50.1 PK	74.0	-23.9	1.52 H	38	40.3	9.8
6	4824.00	36.3 AV	54.0	-17.7	1.52 H	38	26.5	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.6 PK	74.0	-7.4	2.20 V	167	33.2	33.4
2	2390.00	53.1 AV	54.0	-0.9	2.20 V	167	19.7	33.4
3	*2412.00	115.2 PK			2.20 V	167	81.7	33.5
4	*2412.00	102.1 AV			2.20 V	167	68.6	33.5
5	4824.00	50.2 PK	74.0	-23.8	1.95 V	22	40.4	9.8
6	4824.00	36.5 AV	54.0	-17.5	1.95 V	22	26.7	9.8

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	115.2 PK			3.37 H	69	81.6	33.6
2	*2437.00	103.4 AV			3.37 H	69	69.8	33.6
3	4874.00	50.1 PK	74.0	-23.9	1.58 H	40	40.4	9.7
4	4874.00	36.1 AV	54.0	-17.9	1.58 H	40	26.4	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.8 PK			2.11 V	166	88.2	33.6
2	*2437.00	109.1 AV			2.11 V	166	75.5	33.6
3	4874.00	50.2 PK	74.0	-23.8	1.94 V	17	40.5	9.7
4	4874.00	36.2 AV	54.0	-17.8	1.94 V	17	26.5	9.7

Remarks:

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

RF Mode	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	108.8 PK			3.40 H	67	75.2	33.6
2	*2462.00	95.4 AV			3.40 H	67	61.8	33.6
3	2483.50	63.6 PK	74.0	-10.4	3.40 H	67	30.0	33.6
4	2483.50	49.6 AV	54.0	-4.4	3.40 H	67	16.0	33.6
5	4924.00	50.0 PK	74.0	-24.0	1.64 H	38	40.2	9.8
6	4924.00	36.1 AV	54.0	-17.9	1.64 H	38	26.3	9.8
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	113.7 PK			2.09 V	167	80.1	33.6
2	*2462.00	101.0 AV			2.09 V	167	67.4	33.6
3	2483.50	67.8 PK	74.0	-6.2	2.09 V	167	34.2	33.6
4	2483.50	53.3 AV	54.0	-0.7	2.09 V	167	19.7	33.6
5	4924.00	50.1 PK	74.0	-23.9	2.00 V	23	40.3	9.8
6	4924.00	36.2 AV	54.0	-17.8	2.00 V	23	26.4	9.8

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	106.0 PK			1.50 H	56	73.6	32.4
2	*2467.00	95.1 AV			1.50 H	56	62.7	32.4
3	2483.50	60.0 PK	74.0	-14.0	1.50 H	56	27.5	32.5
4	2483.50	48.6 AV	54.0	-5.4	1.50 H	56	16.1	32.5
5	4934.00	49.6 PK	74.0	-24.4	1.18 H	8	46.0	3.6
6	4934.00	37.0 AV	54.0	-17.0	1.18 H	8	33.4	3.6
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	111.2 PK			1.46 V	159	78.8	32.4
2	*2467.00	100.4 AV			1.46 V	159	68.0	32.4
3	2483.50	64.5 PK	74.0	-9.5	1.46 V	159	32.0	32.5
4	2483.50	53.2 AV	54.0	-0.8	1.46 V	159	20.7	32.5
5	4934.00	50.0 PK	74.0	-24.0	1.59 V	319	46.4	3.6
6	4934.00	37.3 AV	54.0	-16.7	1.59 V	319	33.7	3.6

Remarks:

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

RF Mode	802.11ax (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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	98.8 PK			1.50 H	56	66.4	32.4
2	*2472.00	87.3 AV			1.50 H	56	54.9	32.4
3	2483.50	66.0 PK	74.0	-8.0	1.50 H	56	33.5	32.5
4	2483.50	50.3 AV	54.0	-3.7	1.50 H	56	17.8	32.5
5	4944.00	49.5 PK	74.0	-24.5	1.67 H	188	45.9	3.6
6	4944.00	37.0 AV	54.0	-17.0	1.67 H	188	33.4	3.6
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	103.1 PK			1.46 V	159	70.7	32.4
2	*2472.00	92.2 AV			1.46 V	159	59.8	32.4
3	2483.50	72.0 PK	74.0	-2.0	1.46 V	159	39.5	32.5
4	2483.50	52.2 AV	54.0	-1.8	1.46 V	159	19.7	32.5
5	4944.00	49.9 PK	74.0	-24.1	1.59 V	319	46.3	3.6
6	4944.00	37.6 AV	54.0	-16.4	1.59 V	319	34.0	3.6

Remarks:

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

RF Mode	802.11ax (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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	2384.00	62.7 PK	74.0	-11.3	3.40 H	72	29.3	33.4
2	2384.00	50.0 AV	54.0	-4.0	3.40 H	72	16.6	33.4
3	*2422.00	103.3 PK			3.40 H	72	69.8	33.5
4	*2422.00	90.6 AV			3.40 H	72	57.1	33.5
5	4844.00	49.7 PK	74.0	-24.3	1.57 H	41	39.9	9.8
6	4844.00	36.2 AV	54.0	-17.8	1.57 H	41	26.4	9.8
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	2384.00	67.4 PK	74.0	-6.6	2.10 V	166	34.0	33.4
2	2384.00	53.2 AV	54.0	-0.8	2.10 V	166	19.8	33.4
3	*2422.00	109.9 PK			2.10 V	166	76.4	33.5
4	*2422.00	96.3 AV			2.10 V	166	62.8	33.5
5	4844.00	49.8 PK	74.0	-24.2	1.95 V	20	40.0	9.8
6	4844.00	36.3 AV	54.0	-17.7	1.95 V	20	26.5	9.8

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	65.9 PK	74.0	-8.1	3.30 H	65	32.5	33.4
2	2390.00	51.9 AV	54.0	-2.1	3.30 H	65	18.5	33.4
3	*2437.00	106.7 PK			3.30 H	65	73.1	33.6
4	*2437.00	94.0 AV			3.30 H	65	60.4	33.6
5	2483.50	63.5 PK	74.0	-10.5	3.30 H	65	29.9	33.6
6	2483.50	49.6 AV	54.0	-4.4	3.30 H	65	16.0	33.6
7	4874.00	49.7 PK	74.0	-24.3	1.55 H	37	40.0	9.7
8	4874.00	36.1 AV	54.0	-17.9	1.55 H	37	26.4	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.4 PK	74.0	-5.6	2.14 V	165	35.0	33.4
2	2390.00	53.0 AV	54.0	-1.0	2.14 V	165	19.6	33.4
3	*2437.00	112.1 PK			2.14 V	165	78.5	33.6
4	*2437.00	99.5 AV			2.14 V	165	65.9	33.6
5	2483.50	64.7 PK	74.0	-9.3	2.14 V	165	31.1	33.6
6	2483.50	49.9 AV	54.0	-4.1	2.14 V	165	16.3	33.6
7	4874.00	49.9 PK	74.0	-24.1	2.04 V	26	40.2	9.7
8	4874.00	36.3 AV	54.0	-17.7	2.04 V	26	26.6	9.7

Remarks:

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

RF Mode	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	104.8 PK			3.45 H	71	71.2	33.6
2	*2452.00	92.0 AV			3.45 H	71	58.4	33.6
3	2483.50	63.9 PK	74.0	-10.1	3.45 H	71	30.3	33.6
4	2483.50	50.7 AV	54.0	-3.3	3.45 H	71	17.1	33.6
5	4904.00	49.5 PK	74.0	-24.5	1.57 H	43	39.8	9.7
6	4904.00	35.9 AV	54.0	-18.1	1.57 H	43	26.2	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	110.5 PK			2.61 V	162	76.9	33.6
2	*2452.00	97.5 AV			2.61 V	162	63.9	33.6
3	2483.50	66.4 PK	74.0	-7.6	2.61 V	162	32.8	33.6
4	2483.50	53.2 AV	54.0	-0.8	2.61 V	162	19.6	33.6
5	4904.00	49.6 PK	74.0	-24.4	1.97 V	22	39.9	9.7
6	4904.00	36.1 AV	54.0	-17.9	1.97 V	22	26.4	9.7

Remarks:

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

RF Mode	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	101.5 PK			1.50 H	56	69.1	32.4
2	*2457.00	90.2 AV			1.50 H	56	57.8	32.4
3	2488.87	59.9 PK	74.0	-14.1	1.50 H	56	27.4	32.5
4	2488.87	50.0 AV	54.0	-4.0	1.50 H	56	17.5	32.5
5	4914.00	49.5 PK	74.0	-24.5	1.57 H	117	45.9	3.6
6	4914.00	36.8 AV	54.0	-17.2	1.57 H	117	33.2	3.6
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	106.6 PK			1.46 V	159	74.2	32.4
2	*2457.00	95.1 AV			1.46 V	159	62.7	32.4
3	2488.87	64.0 PK	74.0	-10.0	1.46 V	159	31.5	32.5
4	2488.87	53.3 AV	54.0	-0.7	1.46 V	159	20.8	32.5
5	4914.00	49.6 PK	74.0	-24.4	1.05 V	200	46.0	3.6
6	4914.00	37.0 AV	54.0	-17.0	1.05 V	200	33.4	3.6

Remarks:

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

RF Mode	802.11ax (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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Adair Peng		

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	96.3 PK			1.50 H	56	63.9	32.4
2	*2462.00	85.5 AV			1.50 H	56	53.1	32.4
3	2483.50	62.4 PK	74.0	-11.6	1.50 H	56	29.9	32.5
4	2483.50	49.8 AV	54.0	-4.2	1.50 H	56	17.3	32.5
5	4924.00	49.4 PK	74.0	-24.6	1.05 H	280	45.9	3.5
6	4924.00	36.5 AV	54.0	-17.5	1.05 H	280	33.0	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	*2462.00	101.2 PK			1.46 V	159	68.8	32.4
2	*2462.00	90.4 AV			1.46 V	159	58.0	32.4
3	2483.50	66.3 PK	74.0	-7.7	1.46 V	159	33.8	32.5
4	2483.50	51.6 AV	54.0	-2.4	1.46 V	159	19.1	32.5
5	4924.00	49.5 PK	74.0	-24.5	1.36 V	296	46.0	3.5
6	4924.00	36.7 AV	54.0	-17.3	1.36 V	296	33.2	3.5

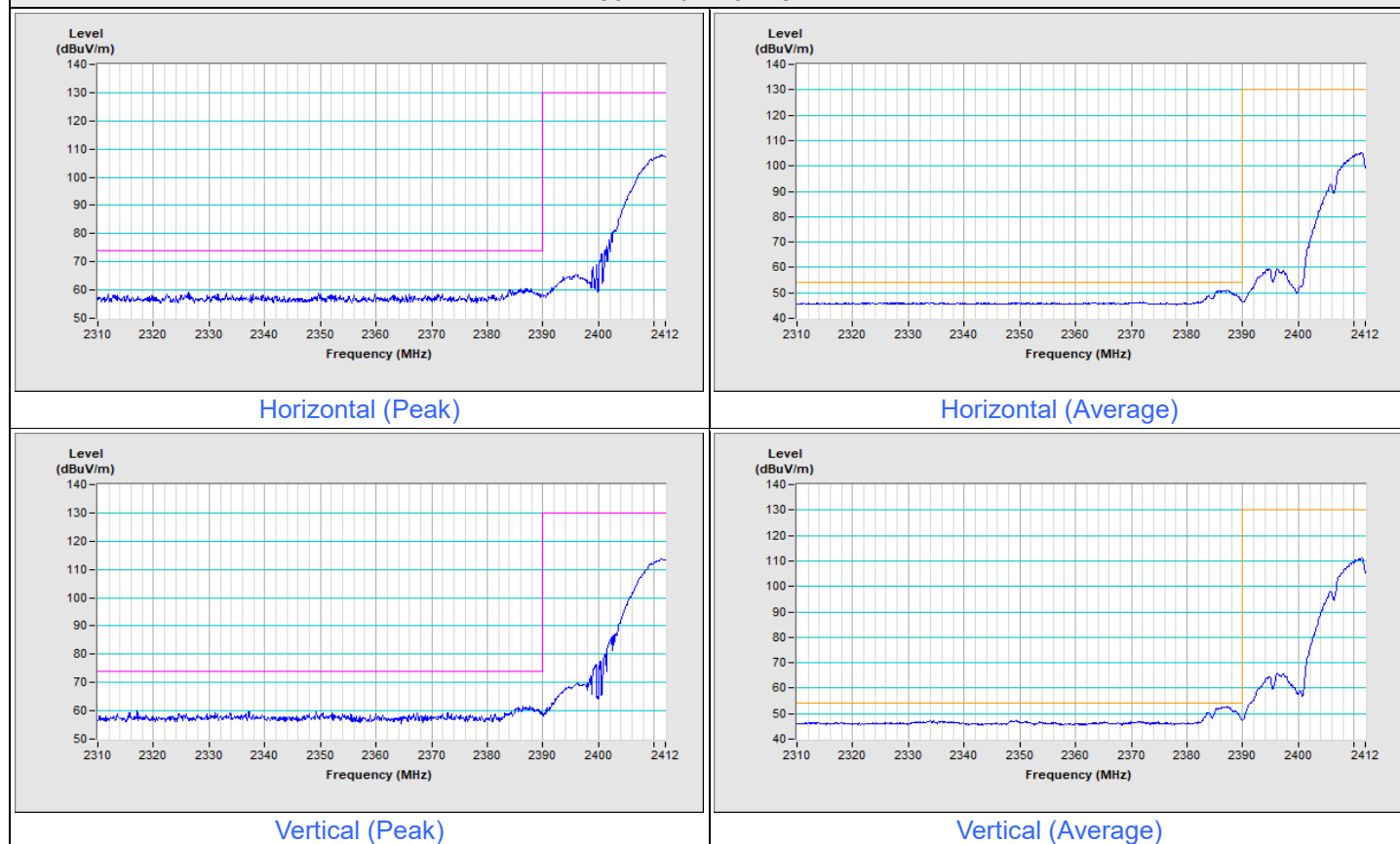
Remarks:

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.

Plot of Band Edge

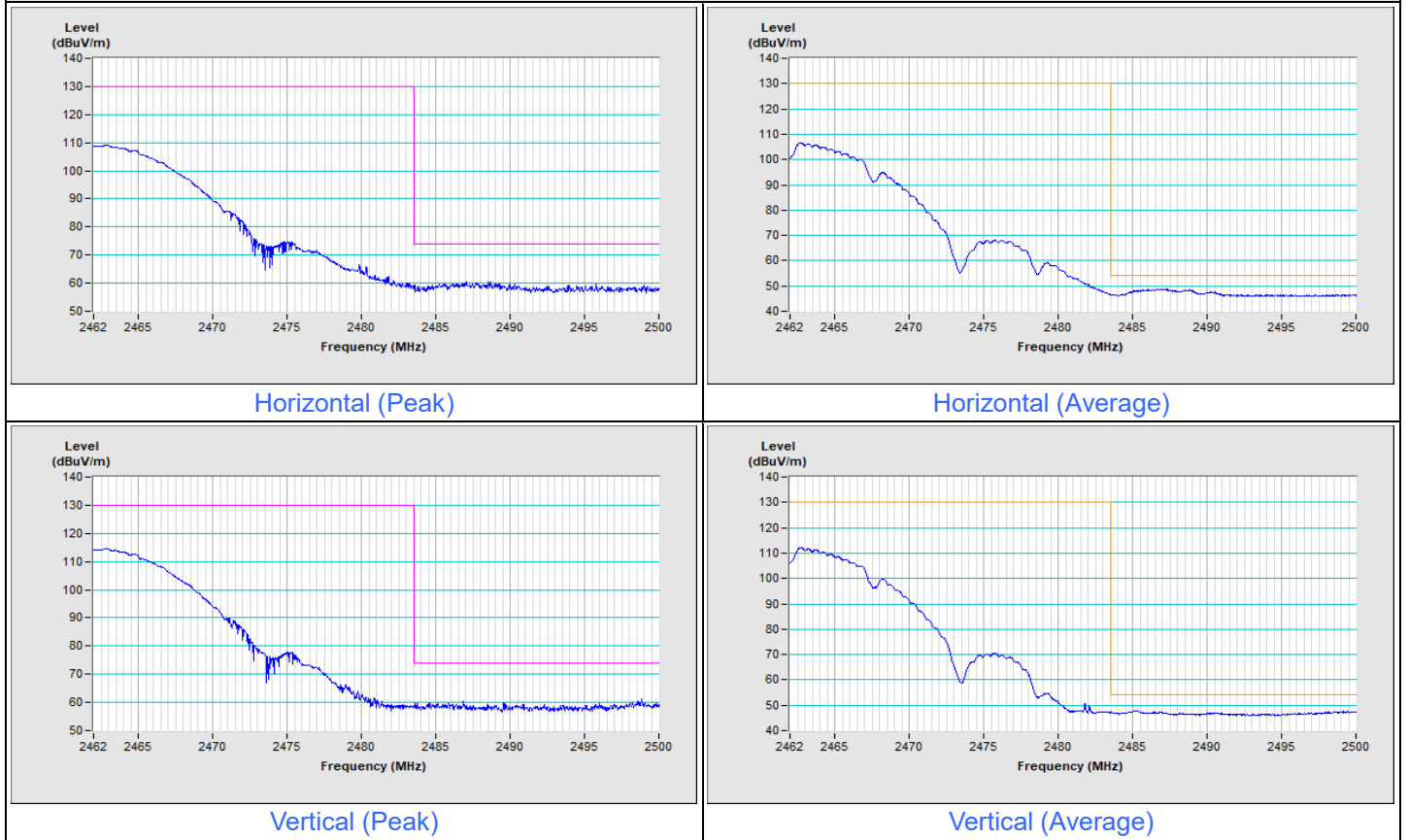
Frequency Range	2.31 GHz ~ 2.412 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	----------------------	-------------------------------	--

802.11b Channel 1

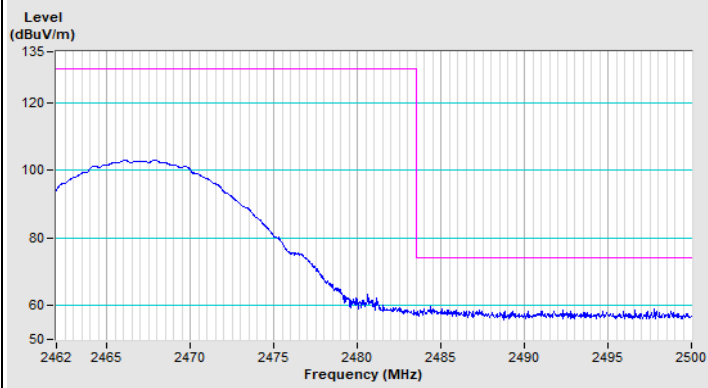


Frequency Range	2.462 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	---------------------	-------------------------------	--

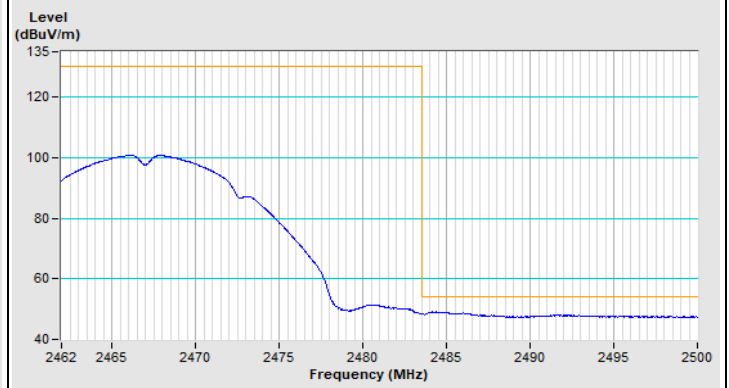
802.11b Channel 11



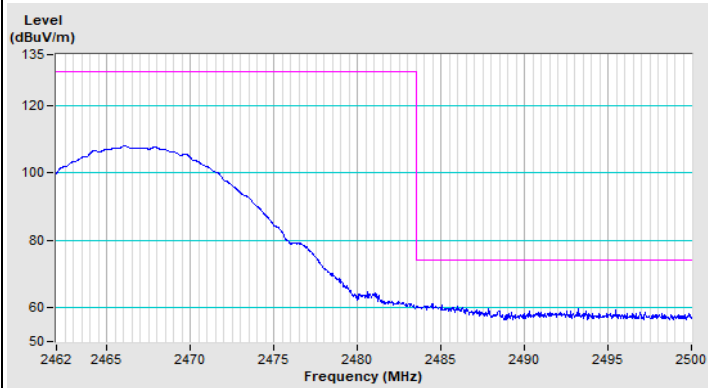
802.11b Channel 12



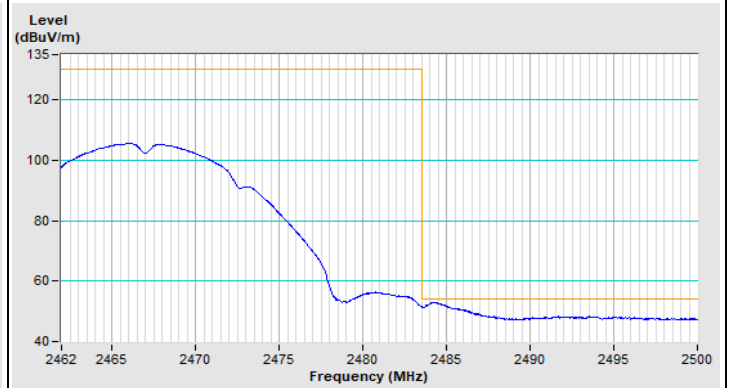
Horizontal (Peak)



Horizontal (Average)

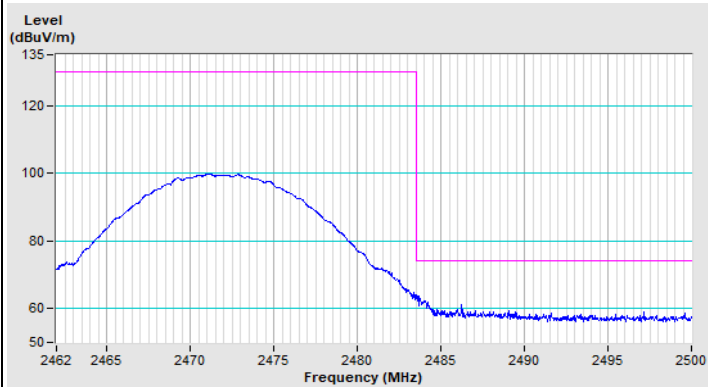


Vertical (Peak)

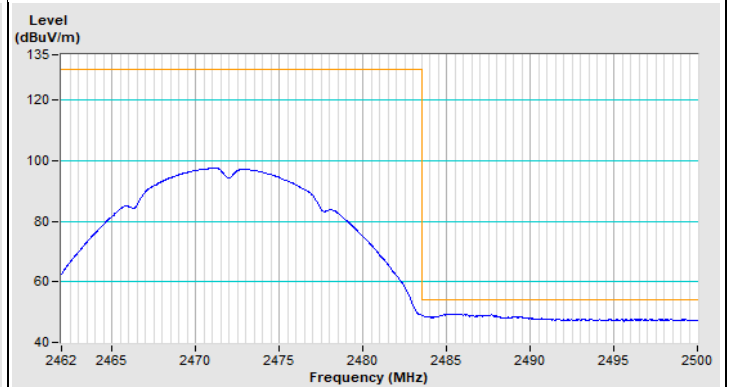


Vertical (Average)

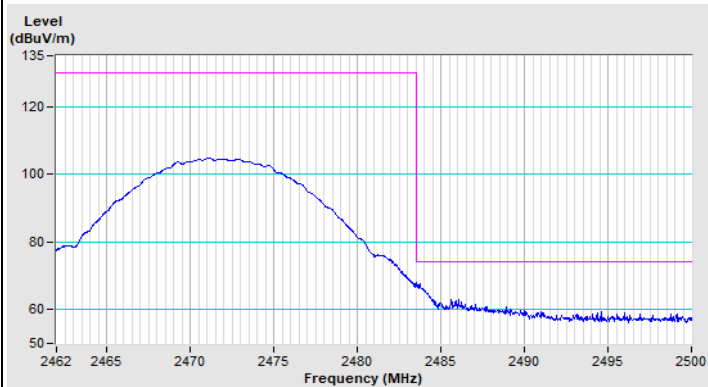
802.11b Channel 13



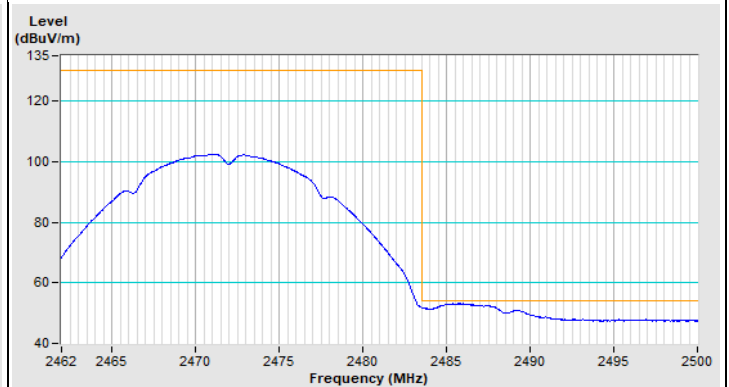
Horizontal (Peak)



Horizontal (Average)



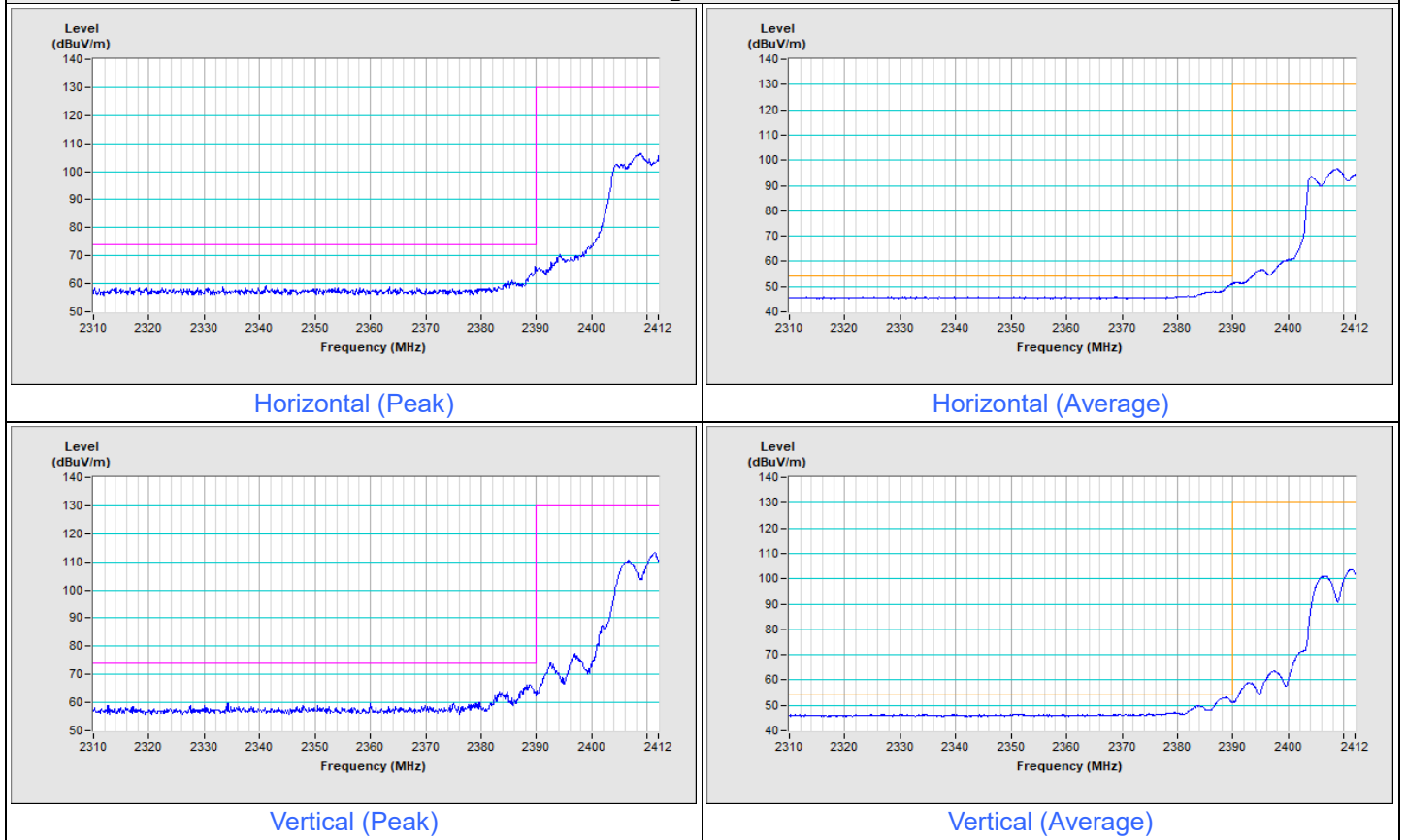
Vertical (Peak)



Vertical (Average)

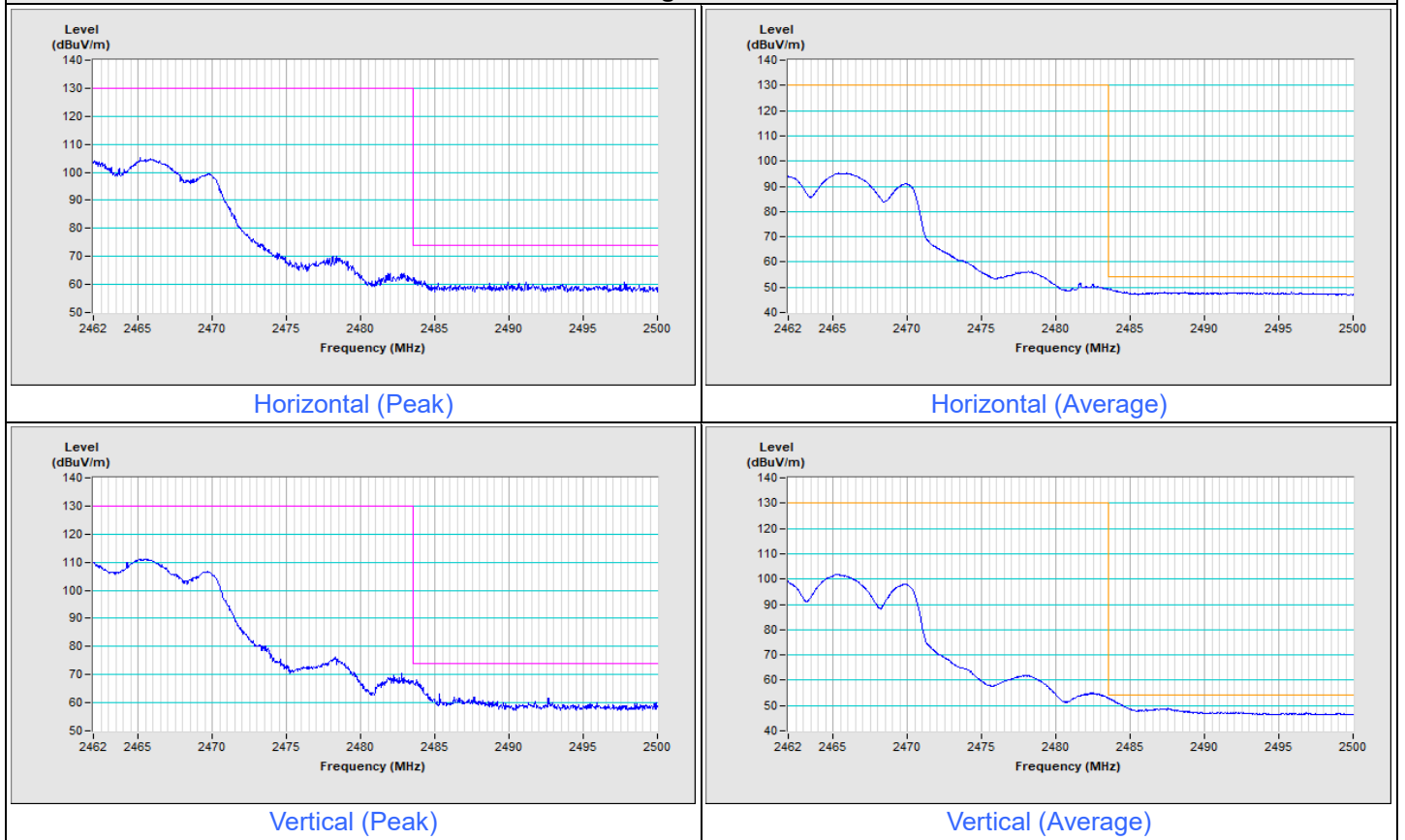
Frequency Range	2.31 GHz ~ 2.412 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	----------------------	-------------------------------	--

802.11g Channel 1

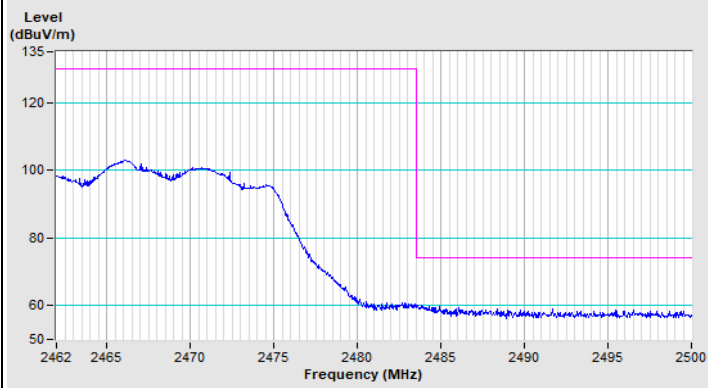


Frequency Range	2.462 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	---------------------	-------------------------------	--

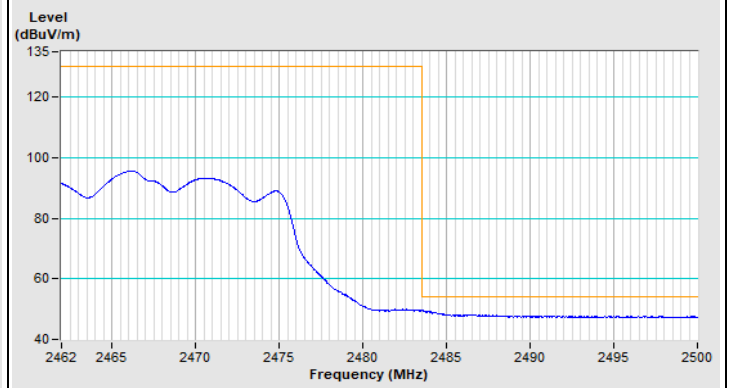
802.11g Channel 11



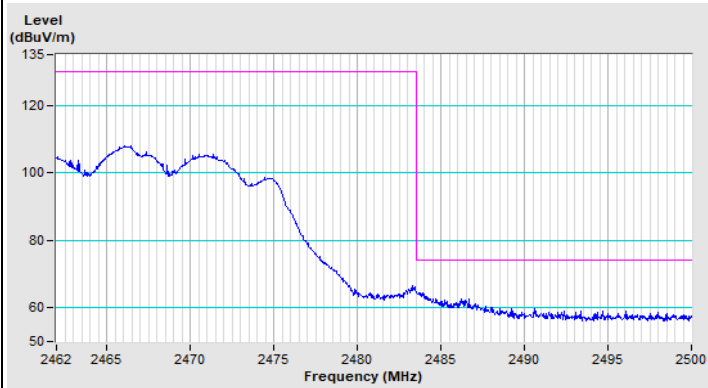
802.11g Channel 12



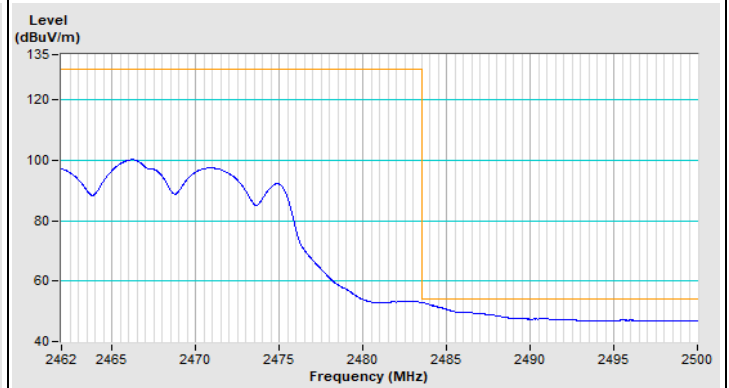
Horizontal (Peak)



Horizontal (Average)

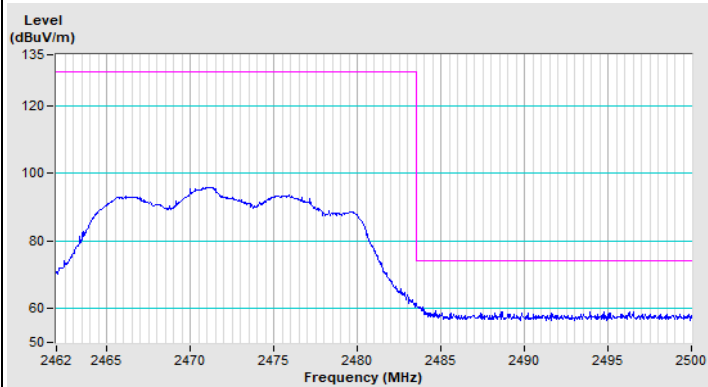


Vertical (Peak)

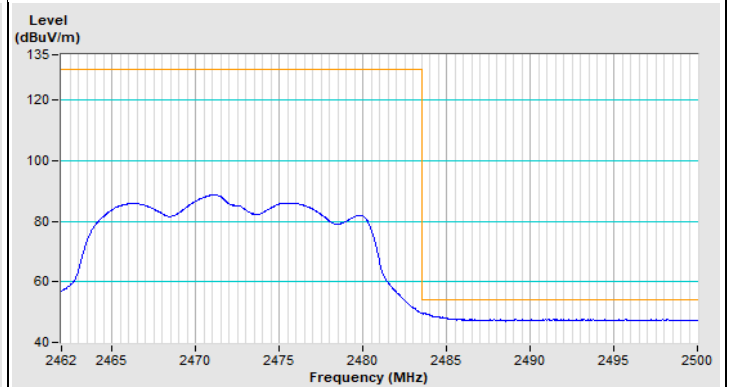


Vertical (Average)

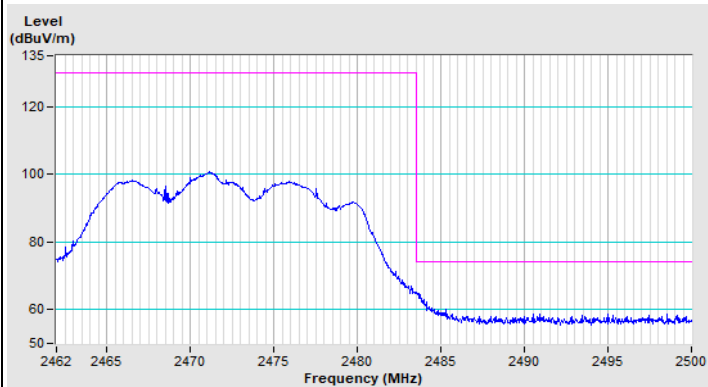
802.11g Channel 13



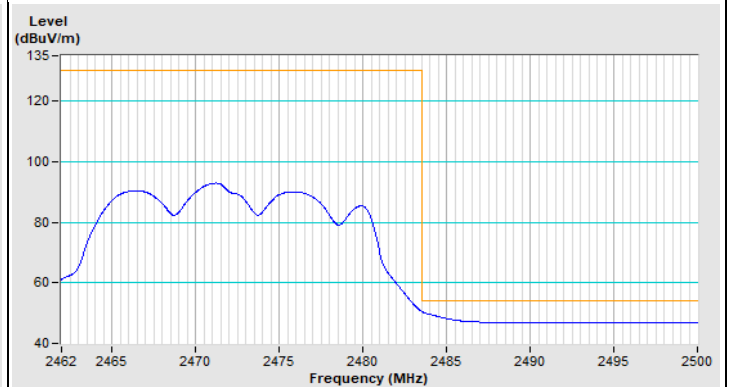
Horizontal (Peak)



Horizontal (Average)



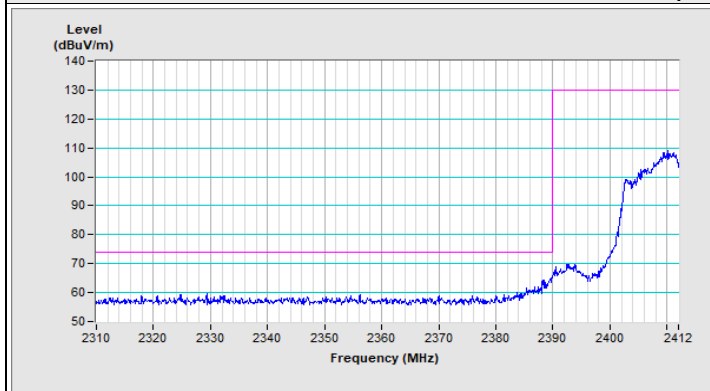
Vertical (Peak)



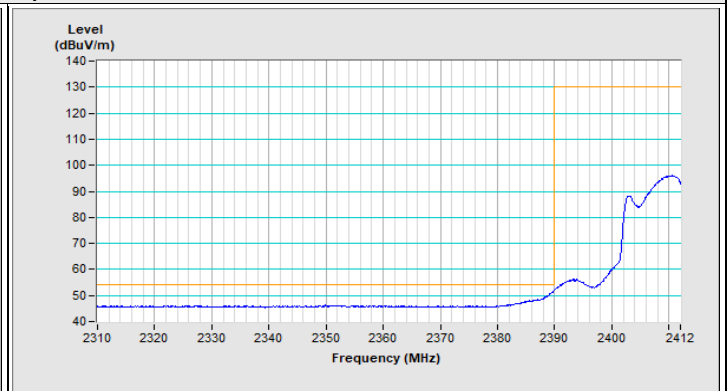
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.412 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	----------------------	-------------------------------	--

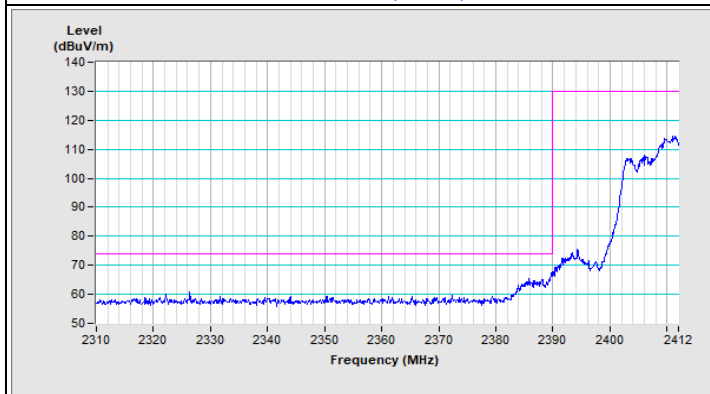
802.11ax (HE20) Channel 1



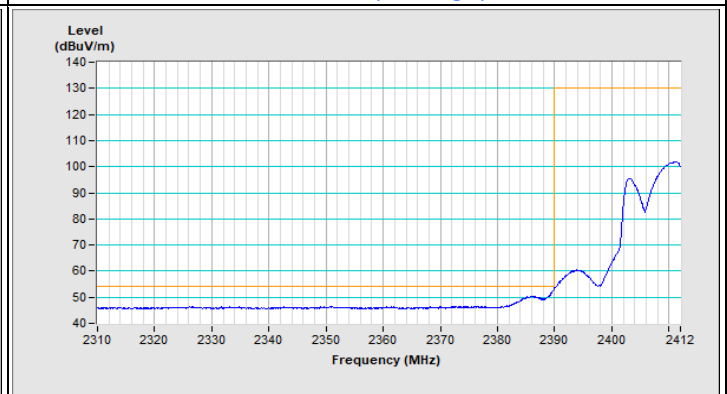
Horizontal (Peak)



Horizontal (Average)



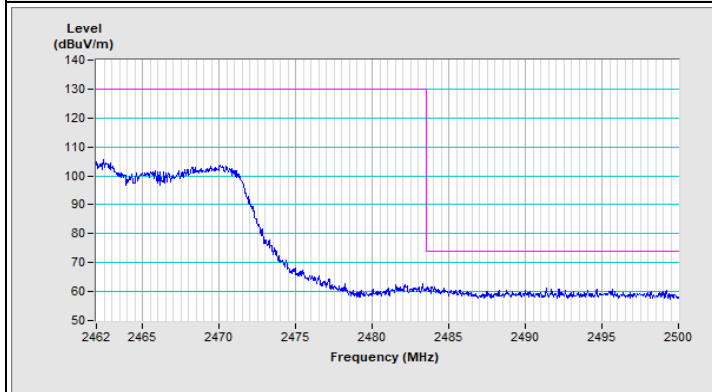
Vertical (Peak)



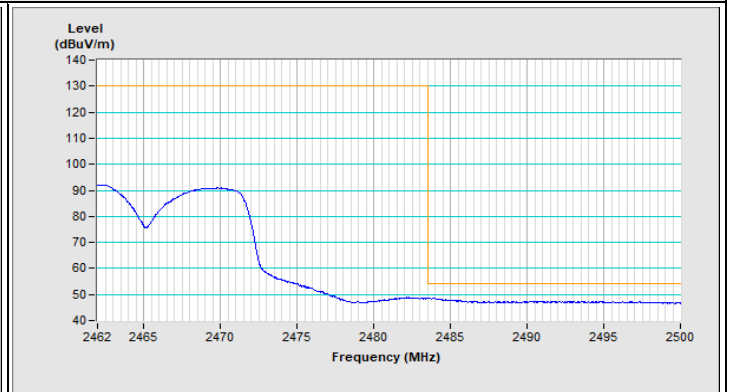
Vertical (Average)

Frequency Range	2.462 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
-----------------	---------------------	-------------------------------	--

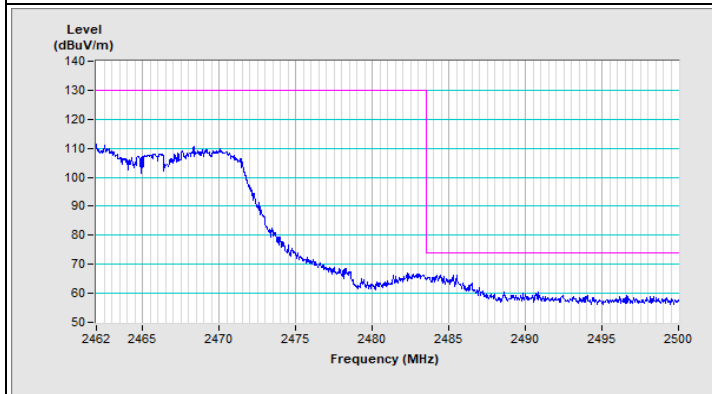
802.11ax (HE20) Channel 11



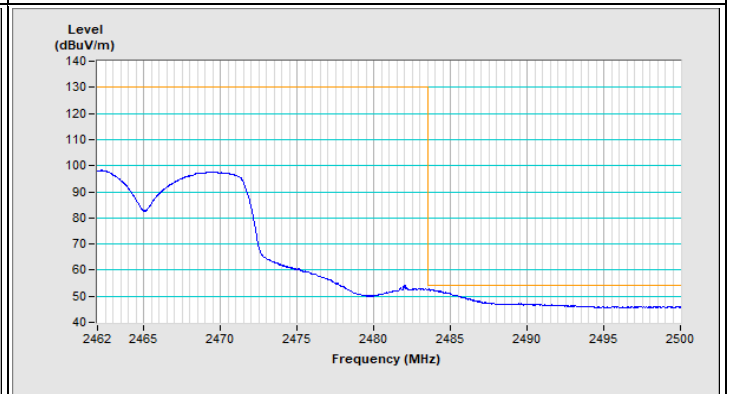
Horizontal (Peak)



Horizontal (Average)

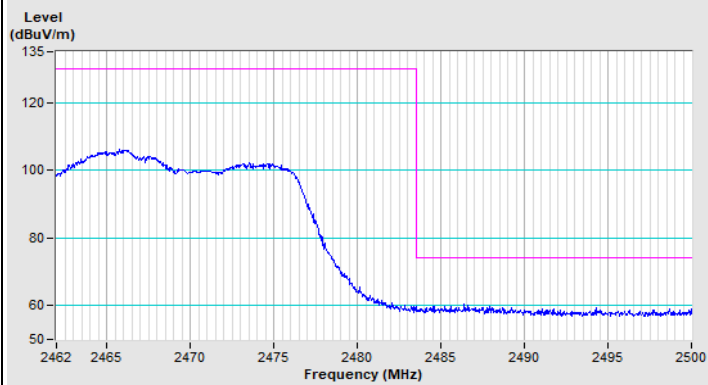


Vertical (Peak)

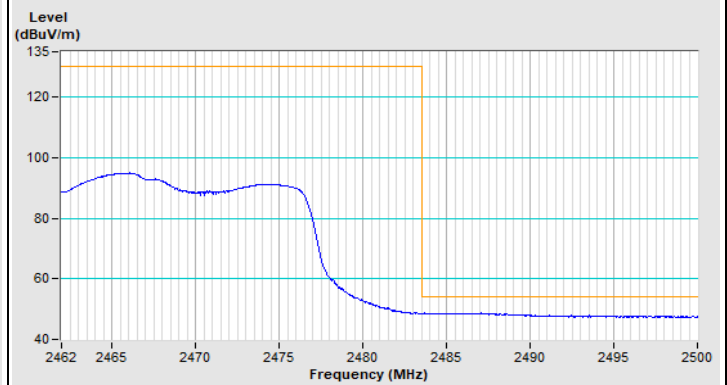


Vertical (Average)

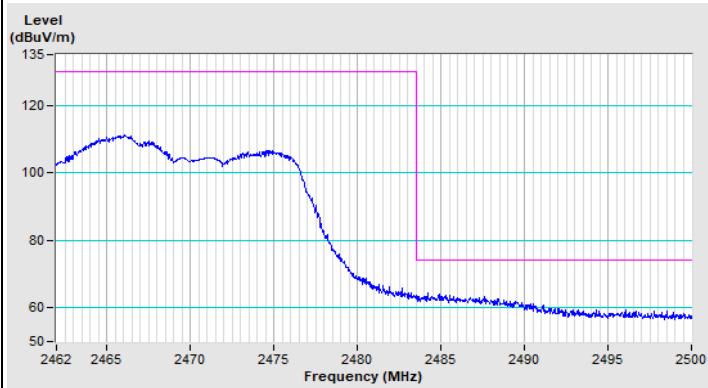
802.11ax (HE20) Channel 12



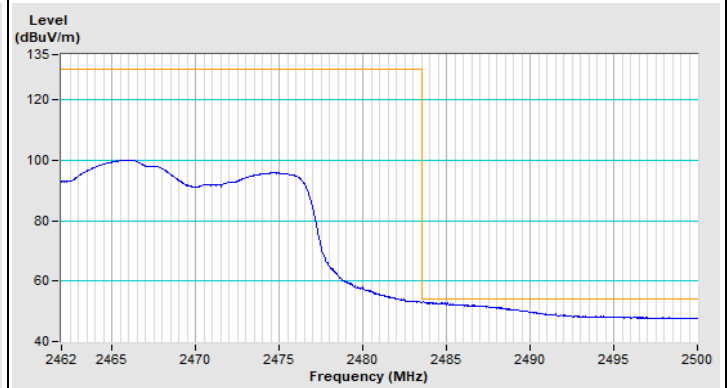
Horizontal (Peak)



Horizontal (Average)

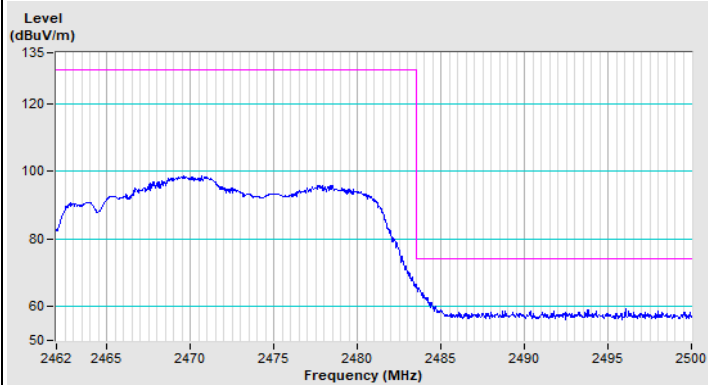


Vertical (Peak)

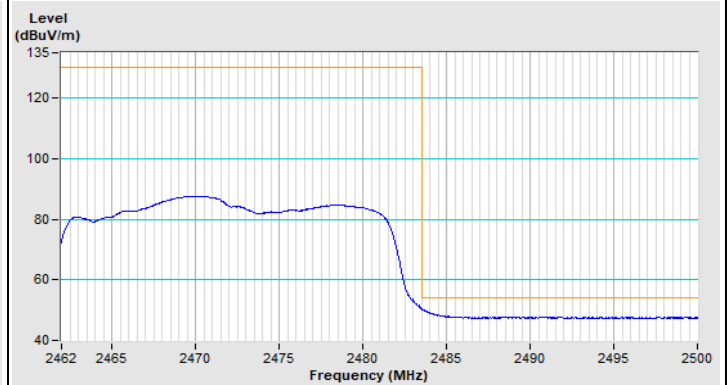


Vertical (Average)

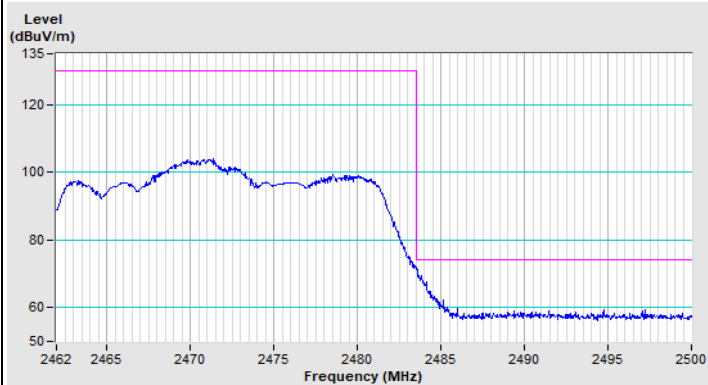
802.11ax (HE20) Channel 13



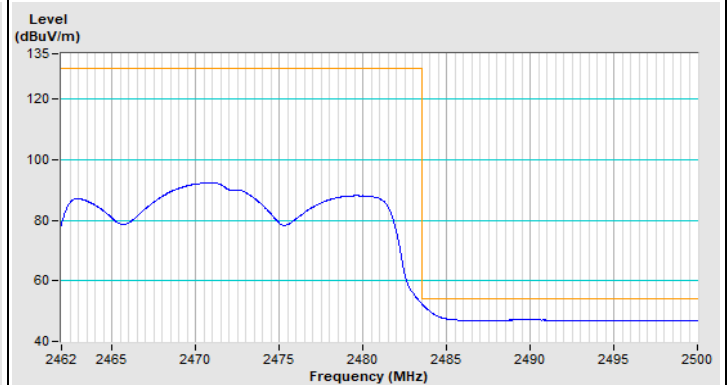
Horizontal (Peak)



Horizontal (Average)



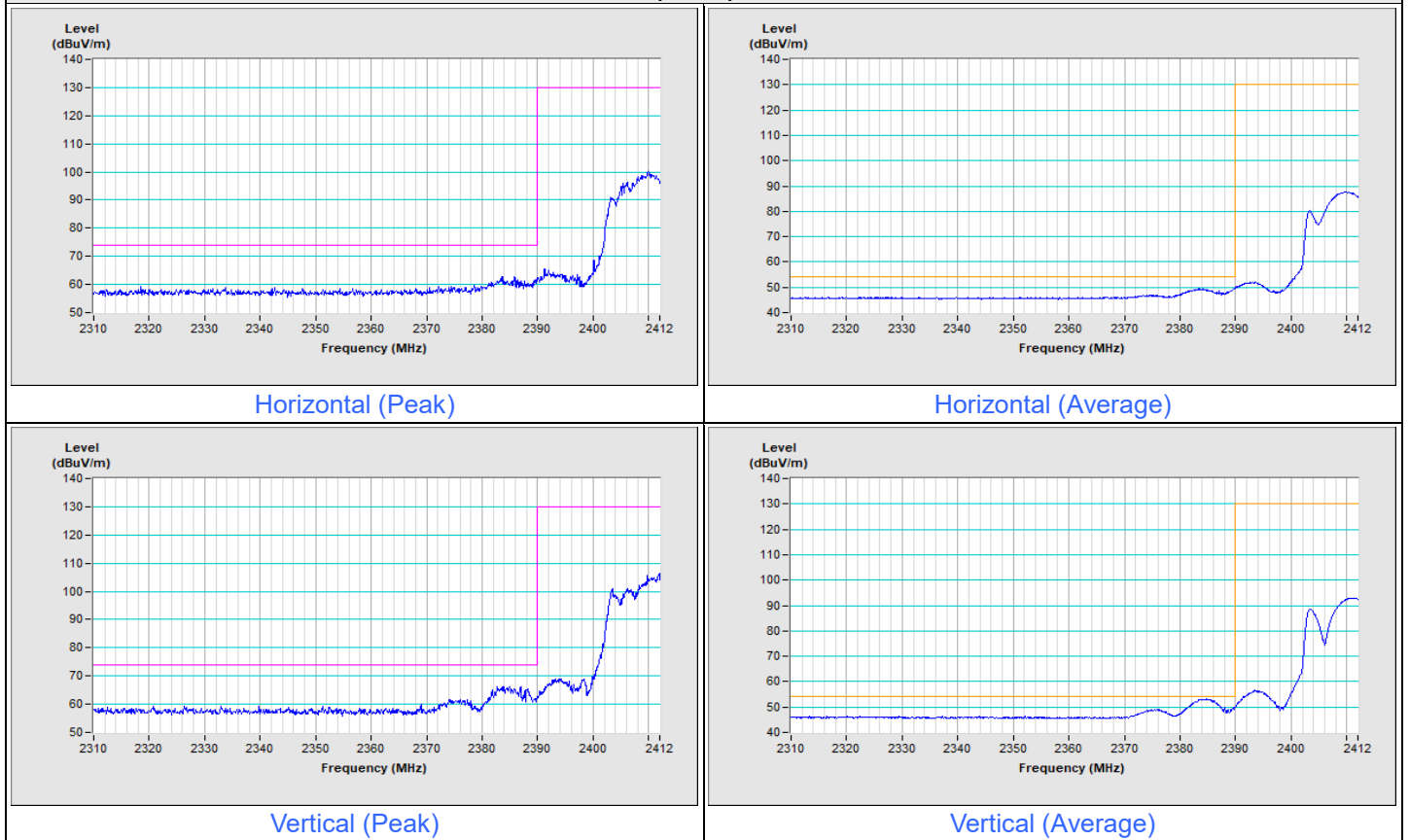
Vertical (Peak)



Vertical (Average)

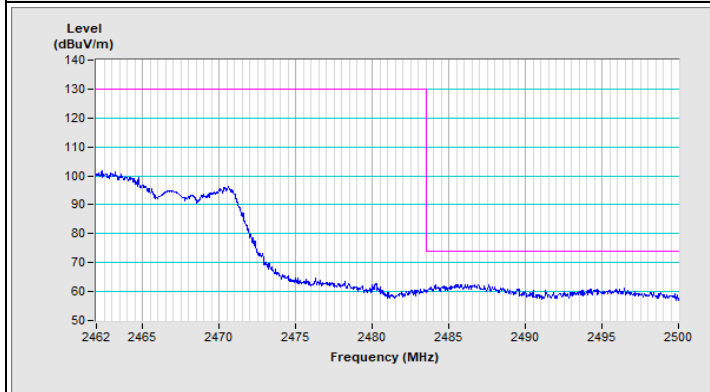
Frequency Range	2.31 GHz ~ 2.412 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	----------------------	-------------------------------	--

802.11ax (HE40) Channel 3

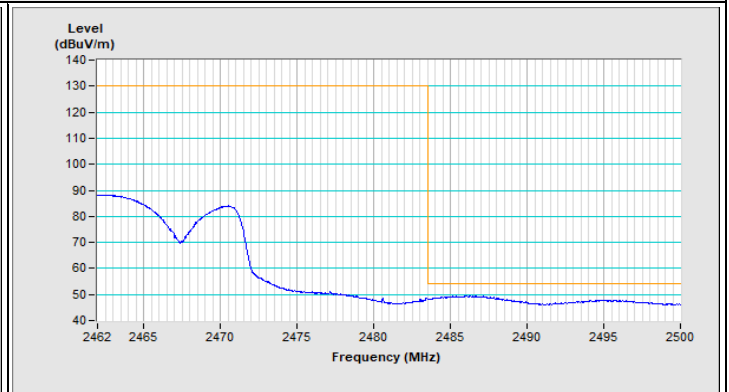


Frequency Range	2.462 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	---------------------	-------------------------------	--

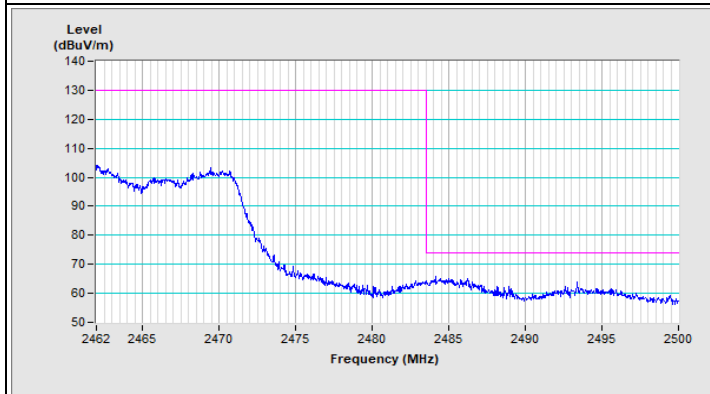
802.11ax (HE40) Channel 9



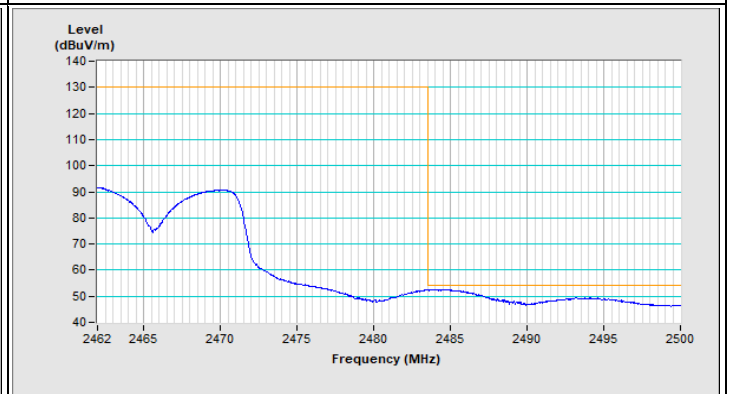
Horizontal (Peak)



Horizontal (Average)

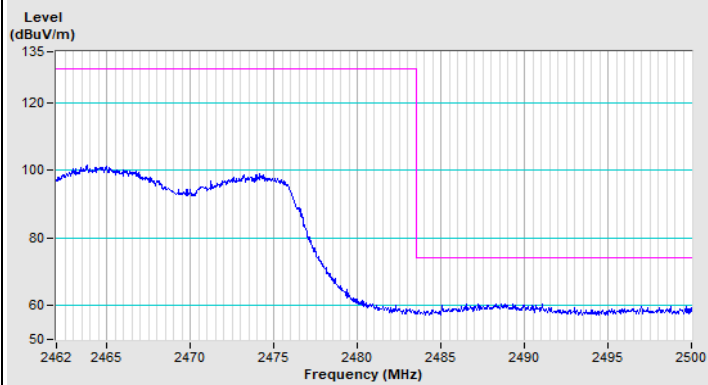


Vertical (Peak)

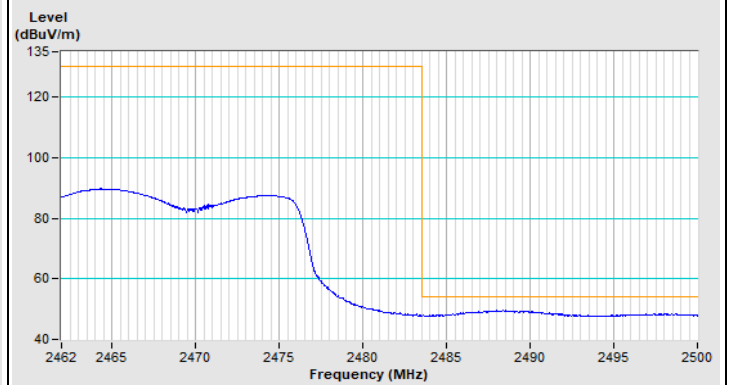


Vertical (Average)

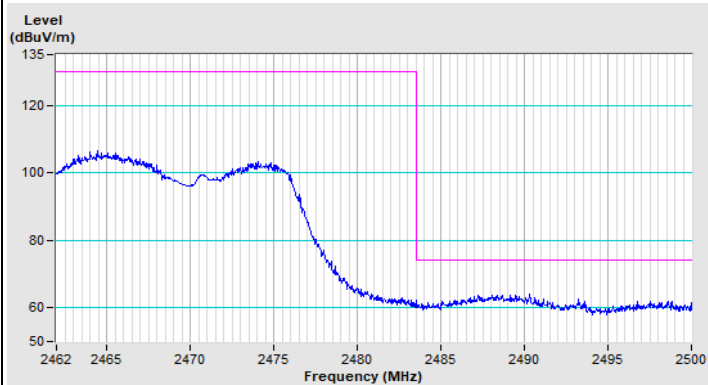
802.11ax (HE40) Channel 10



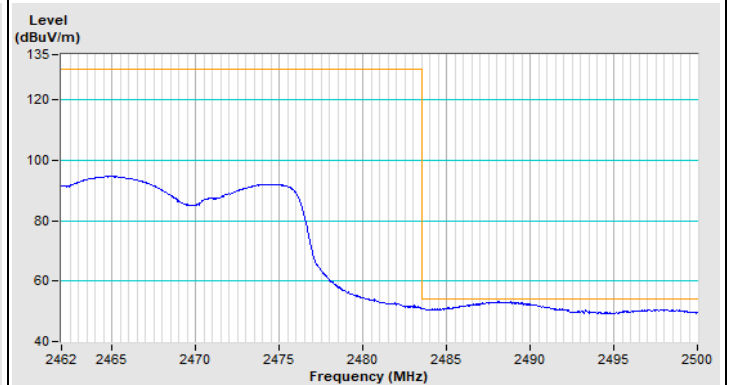
Horizontal (Peak)



Horizontal (Average)

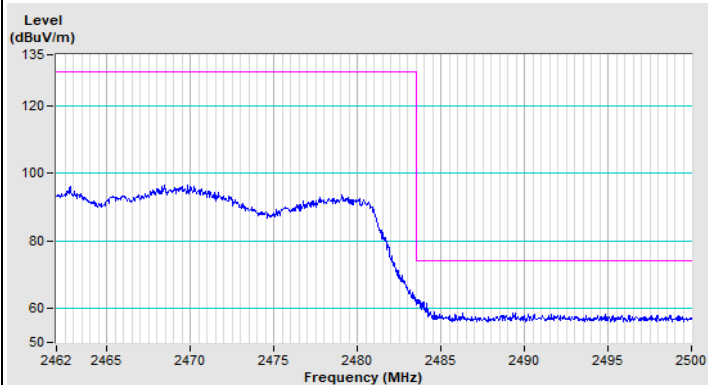


Vertical (Peak)

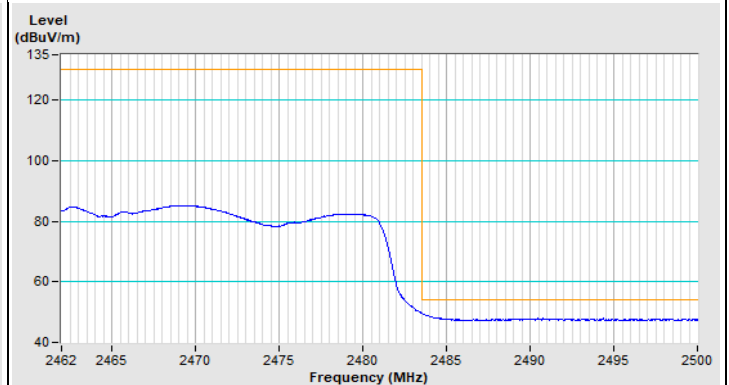


Vertical (Average)

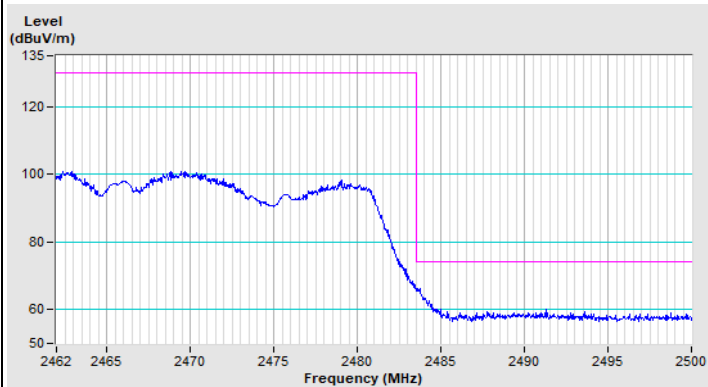
802.11ax (HE40) Channel 11



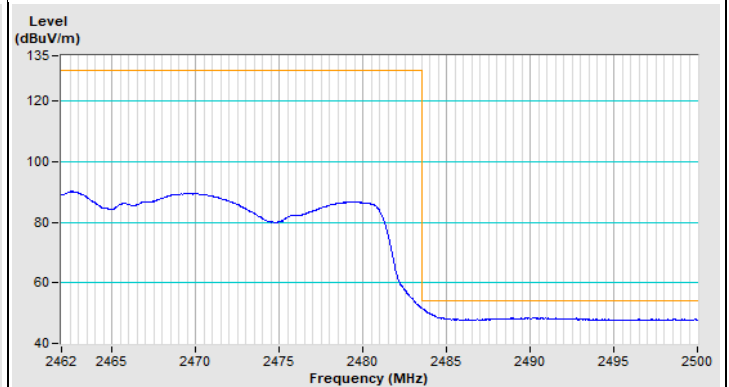
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

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 ---