TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBCMA-WTW-P24120364-1

FCC ID: RAXWE7224443B

Product: Verizon Wi-Fi Extender

Brand: Verizon

Model No.: CE1000A

Received Date: 2024/9/10

Test Date: 2024/9/14 ~ 2024/11/2

Issued Date: 2024/12/19

Applicant: Arcadyan Technology Corporation

Address: No.8, Sec.2, Guangfu Rd., Hsinchu City 30071, Taiwan, R.O.C.

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

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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: _____ , **Date:** **2024/12/19**

May Chen / Manager

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Prepared by: Vito Lung / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P24120364-1	Original release.	2024/12/19

1 Certificate

Product:	Verizon Wi-Fi Extender
Brand:	Verizon
Test Model:	CE1000A
Sample Status:	Engineering sample
Applicant:	Arcadyan Technology Corporation
Test Date:	2024/9/14 ~ 2024/11/2
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	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.28 dB at 0.50156 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -10.9 dB at 377.96 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.3 dB at 2390.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	1050.00 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.6 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	5.1 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	Verizon Wi-Fi Extender
Brand	Verizon
Test Model	CE1000A
Status of EUT	Engineering sample
Power Supply Rating	100 ~ 120 Vac
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 600 Mbps VHT: up to 800 Mbps 802.11ax: up to 1147.1 Mbps
Operating Frequency	2.412 GHz ~ 2.462 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7
Output Power	**CDD Mode:** 990.444 mW (29.96 dBm) **Beamforming Mode:** 959.006 mW (29.82 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	DELTA	ADH-60BW B	AC Input: 120V ,1.2A, 60Hz DC Output: 12V ,5A ,60W DC Output Cable: 1.8 M, non-shielded cable, W/O ferrite core Plug: US
AC Adapter 2	Lucent Trans	1A98-1250-02	AC Input: 100~120V ,1.2A, 50/60Hz DC Output: 12V ,5A ,60W DC Output Cable: 1.8 M, non-shielded cable, W/O ferrite core Plug: US
RJ45 Cable	-	-	Signal Line: 3 M, non-shielded cable

2. The EUT has below radios as following table:

Radios 1	Radios 2	Radios 3	Radios 4
WLAN 2.4GHz	WLAN 5GHz_Low + WLAN 5GHz_Full	WLAN (5 GHz)_High + WLAN (6 GHz)	WLAN 5GHz Sensor (RX)

3. Simultaneously transmission combination.

Combination	Technology		
1	WLAN (2.4 GHz)	WLAN (5 GHz)_Full	---
2	WLAN (2.4 GHz)	WLAN (5 GHz)_Low	WLAN (5 GHz)_High
3	WLAN (2.4 GHz)	WLAN (5 GHz)_Full	WLAN (6 GHz)
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.			

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

RF Radio	Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
Radio 1	ANT 1	0	PSA	WE7224443B-VR	2.71	2.4 ~ 2.4835	Dipole	ipex(MHF)	150
	ANT 4	1	PSA	WE7224443B-VR	2.59	2.4 ~ 2.4835	Dipole	ipex(MHF)	130
	ANT 8	2	PSA	WE7224443B-VR	2.99	2.4 ~ 2.4835	Dipole	ipex(MHF)	110
	ANT 10	3	PSA	WE7224443B-VR	4.12	2.4 ~ 2.4835	Dipole	ipex(MHF)	150
Radio 2	ANT 2	0	PSA	WE7224443B-VR	4.61	5.15 ~ 5.25	Dipole	ipex(MHF)	100
					4.02	5.25 ~ 5.35			
					4.09	5.47 ~ 5.725			
					4.27	5.725 ~ 5.85			
	ANT 5	1	PSA	WE7224443B-VR	2.66	5.15 ~ 5.25	Dipole	ipex(MHF)	150
					3.12	5.25 ~ 5.35			
					4.65	5.47 ~ 5.725			
					3.73	5.725 ~ 5.85			
	ANT 9	2	PSA	WE7224443B-VR	3.71	5.15 ~ 5.25	Dipole	ipex(MHF)	150
					3.92	5.25 ~ 5.35			
					3.83	5.47 ~ 5.725			
					3.36	5.725 ~ 5.85			
	ANT 11	3	PSA	WE7224443B-VR	3.27	5.15 ~ 5.25	Dipole	ipex(MHF)	85
					3.49	5.25 ~ 5.35			
					2.96	5.47 ~ 5.725			
					2.93	5.725 ~ 5.85			
Radio 3	ANT 3	0	PSA	WE7224443B-VR	2.77	5.47 ~ 5.725	Dipole	ipex(MHF)	150
					4.04	5.725 ~ 5.85			
					3.43	5.925 ~ 6.425			
					3.81	6.425 ~ 6.525			
					3.39	6.525 ~ 6.875			
					3.05	6.875 ~ 7.125			
	ANT 6	1	PSA	WE7224443B-VR	2.65	5.47 ~ 5.725	Dipole	ipex(MHF)	150
					2.23	5.725 ~ 5.85			
					2.79	5.925 ~ 6.425			
					2.07	6.425 ~ 6.525			
					2.9	6.525 ~ 6.875			
					2.59	6.875 ~ 7.125			
	ANT 7	2	PSA	WE7224443B-VR	3.35	5.47 ~ 5.725	Dipole	ipex(MHF)	120
					3.54	5.725 ~ 5.85			
					2.48	5.925 ~ 6.425			
					3.44	6.425 ~ 6.525			
					2.81	6.525 ~ 6.875			
					4.15	6.525 ~ 6.875			
	ANT 12	3	PSA	WE7224443B-VR	2.79	5.47 ~ 5.725	Dipole	ipex(MHF)	150
					3.09	5.725 ~ 5.85			
					0.95	5.925 ~ 6.425			
					1.8	6.425 ~ 6.525			
					3.7	6.525 ~ 6.875			
					3.14	6.525~ 6.875			
Radio 4	DFS ANT 13	0	PSA	WE7224443B-VR	4.8	5.15 ~ 5.85	Dipole	ipex(MHF)	150

* 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	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
VHT20	4TX	4RX
VHT40	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX

Note:
1. All of modulation mode support beamforming function except 802.11b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), 802.11ax mode for 20 MHz (40 MHz). Therefore the investigated worst case is the representative mode in test report.

3.3 Channel List

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

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

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

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

3.4 Test Mode Applicability and Tested Channel Detail

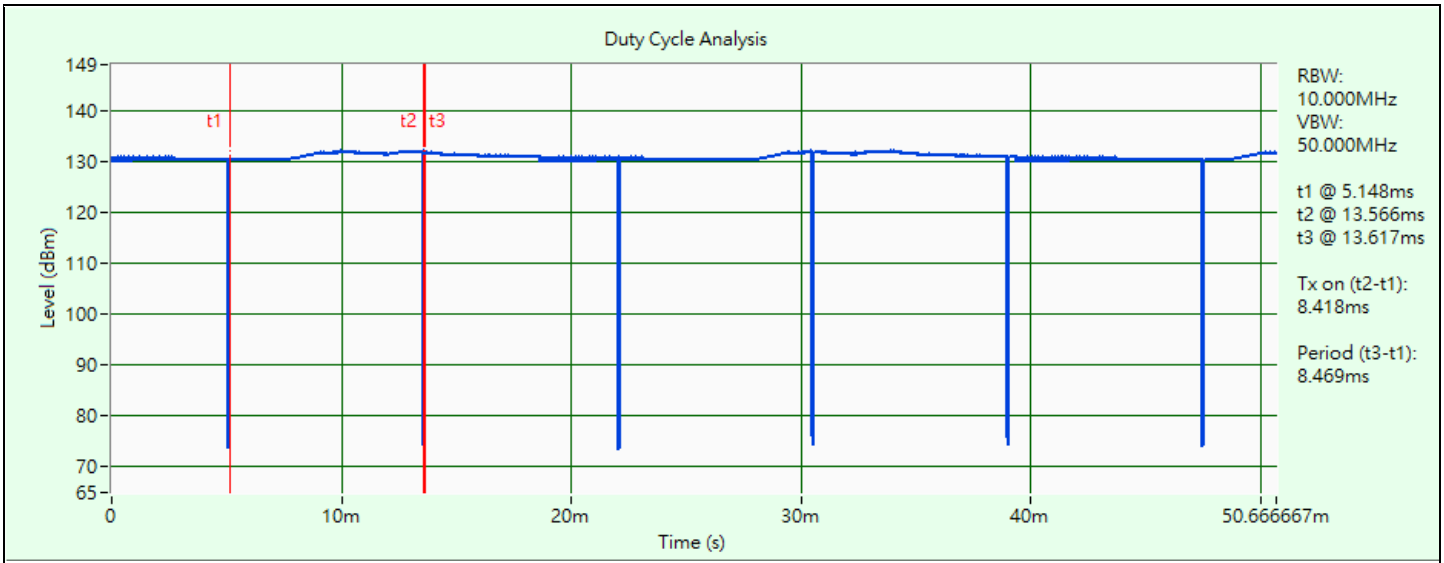
Pre-Scan:	1. The AC Adapter has the following models: DELTA: ADH-60BW B / Lucent Trans: 1A98-1250-02. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. AC adapter worst condition: Lucent Trans:1A98-1250-02

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

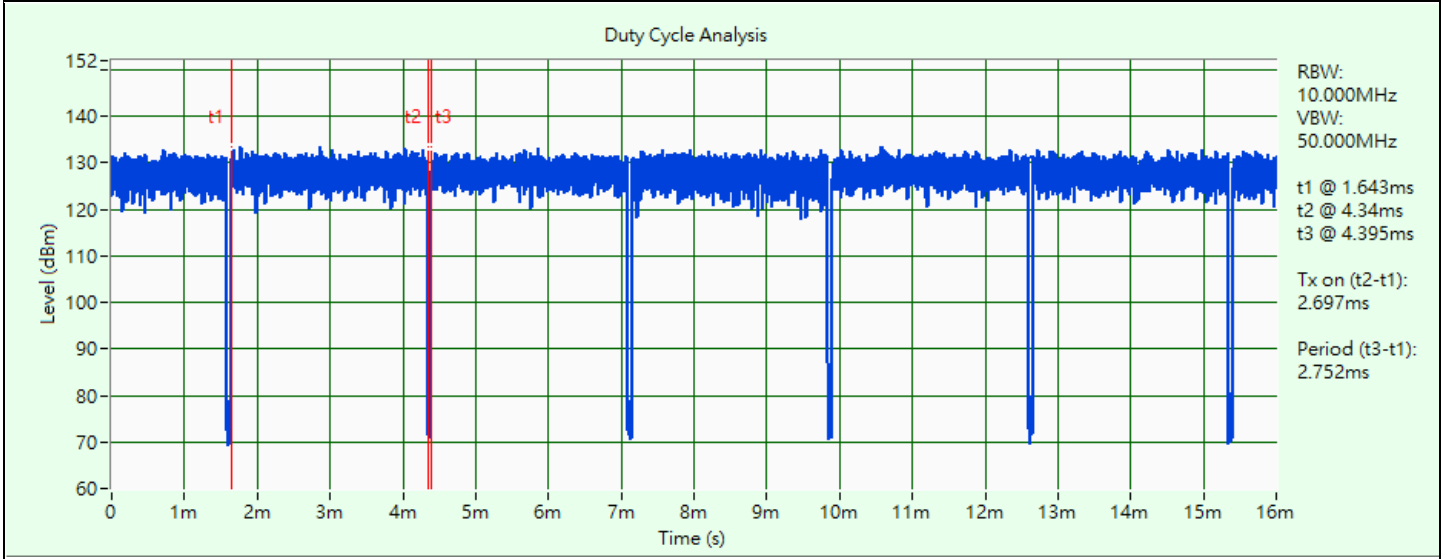
Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	VHT20	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	VHT40		3, 6, 9	BPSK	MCS0
	802.11ax (HE20)		1, 6, 11	BPSK	MCS0
	802.11ax (HE40)		3, 6, 9	BPSK	MCS0
Power Spectral Density	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	802.11ax (HE20)		1, 6, 11	BPSK	MCS0
	802.11ax (HE40)		3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	802.11ax (HE20)		1, 6, 11	BPSK	MCS0
	802.11ax (HE40)		3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11ax (HE20)	CDD	11	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE20)	CDD	11	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	802.11ax (HE20)		1, 6, 11	BPSK	MCS0
	802.11ax (HE40)		3, 6, 9	BPSK	MCS0
Note: Partial RU (resource unit) mechanism is not supported.					

3.5 Duty Cycle of Test Signal

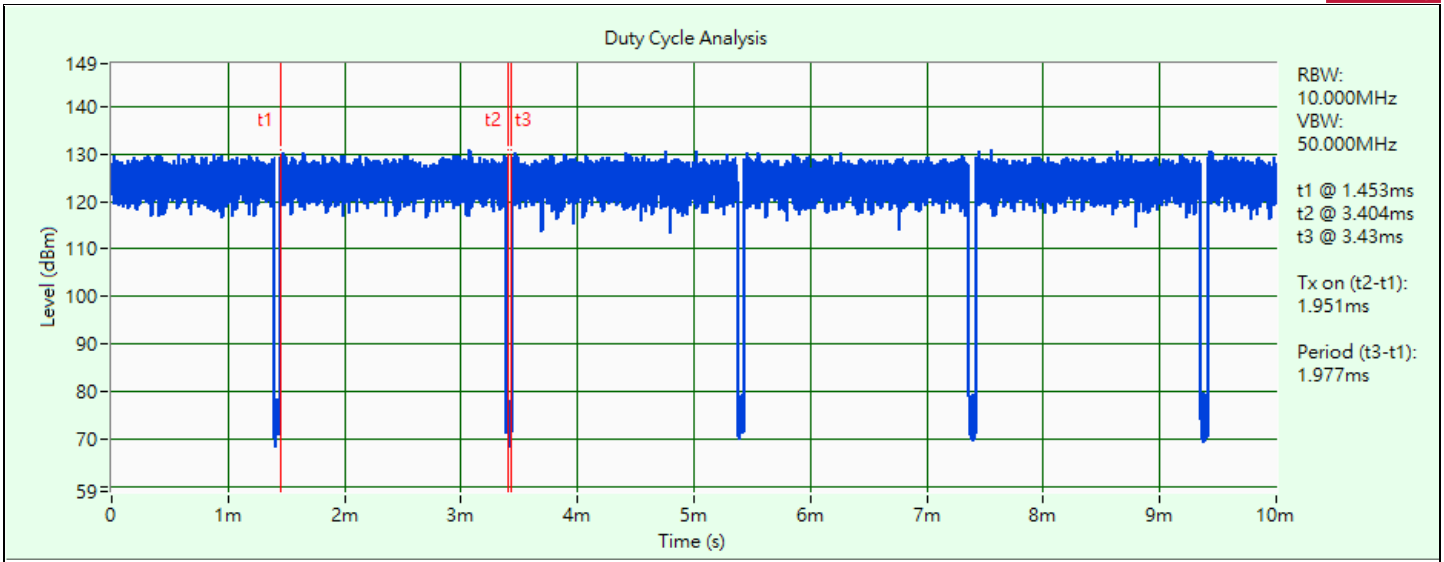
802.11b: Duty cycle = 8.418 ms / 8.469 ms x 100% = 99.4%
802.11g: Duty cycle = 2.697 ms / 2.752 ms x 100% = 98.0%
802.11ax (HE20): Duty cycle = 1.951 ms / 1.977 ms x 100% = 98.7%
802.11ax (HE40): Duty cycle = 2.398 ms / 2.439 ms x 100% = 98.3%



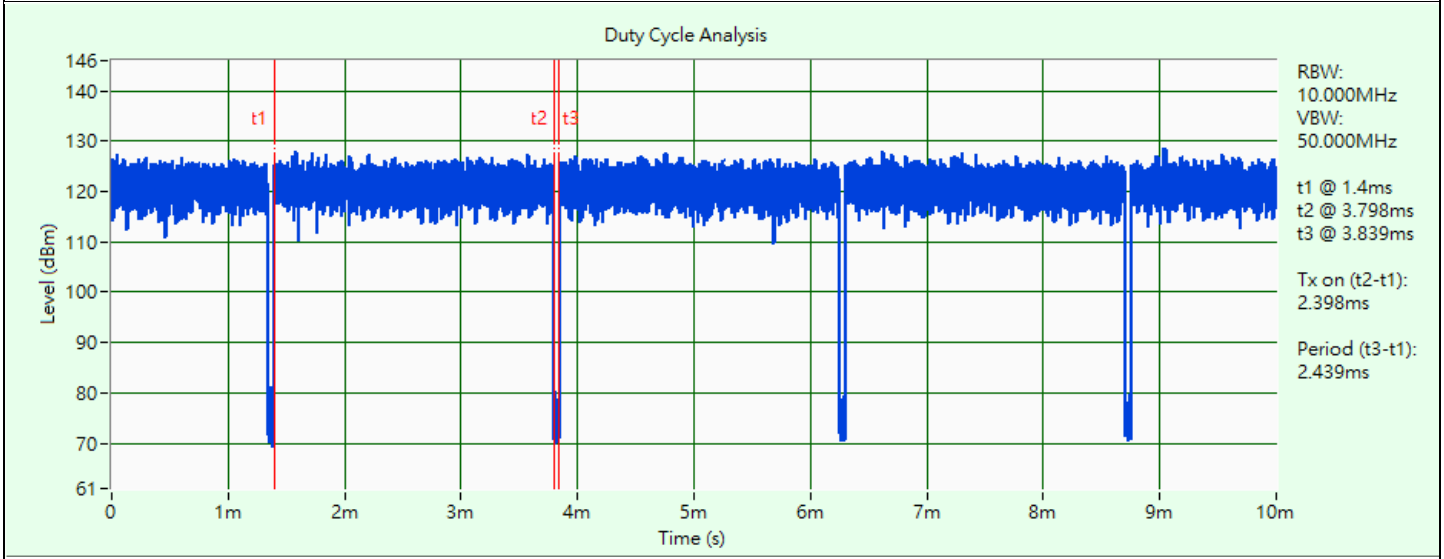
802.11b



802.11g



802.11ax (HE20)

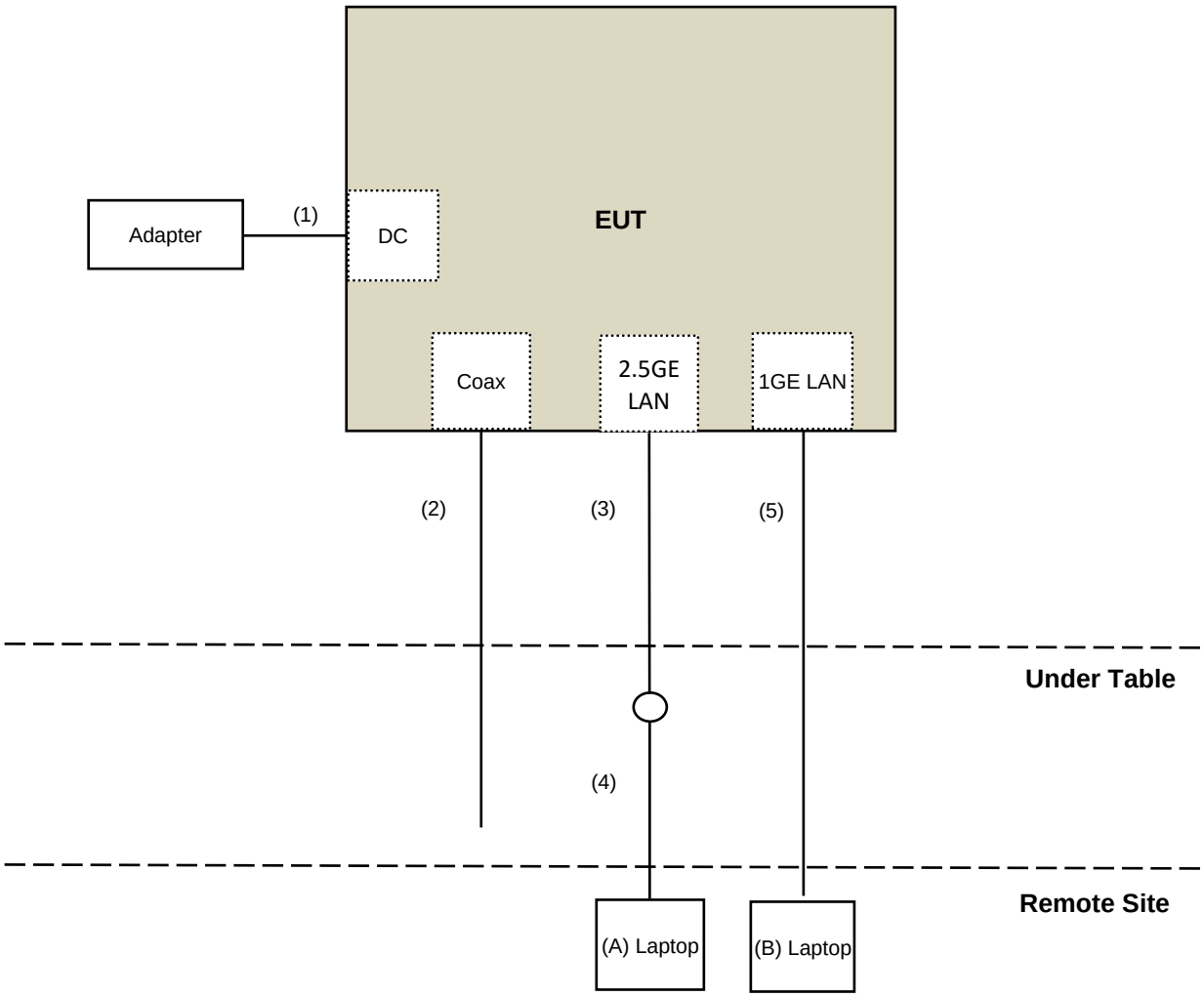


802.11ax (HE40)

3.6 Test Program Used and Operation Descriptions

Controlling software (QATool_UIv2.88_DLLv6.93_ap_2022.01.04(V14)c) 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	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab
B	Laptop	DELL	E6420	H62T3R1	DoC	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Supplied by applicant
2	Coaxial Cable	1	10	Yes	0	Provided by Lab
3	RJ-45 Cable	1	3	No	0	Supplied by applicant
4	RJ-45 Cable	1	10	No	0	Provided by Lab
5	RJ-45 Cable	1	10	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: 2024/11/2

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112408	2024/3/7	2025/3/6
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

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

4.3 6 dB Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.4 Conducted Out of Band Emissions

Refer to section 4.2 to get the tested date and information of the instruments.

4.5 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2023/10/20	2024/10/19
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: 2024/10/11

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0842	2023/10/12	2024/10/11
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
EMI Test Receiver R&S	ESR7	102026	2024/3/25	2025/3/24
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2024/3/30	2025/3/29
Loop Antenna TESEQ	HLA 6121	63620	2023/10/13	2024/10/12
Preamplifier EMCI	EMC330N	980538	2024/3/30	2025/3/29
	EMC001340	980142	2024/2/19	2025/2/18
PXA Signal Analyzer Keysight	N9030B	MY57141948	2024/5/20	2025/5/19
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	966-5-1	2024/3/30	2025/3/29
		966-5-2	2024/3/30	2025/3/29
		966-5-3	2024/3/30	2025/3/29
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2024/10/5

4.7 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
EMI Test Receiver R&S	ESR7	102026	2024/3/25	2025/3/24
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1819	2023/11/12	2024/11/11
	BBHA 9170	9170-739	2023/11/12	2024/11/11
Preamplifier EMCI	EMC12630SE	980509	2024/1/29	2025/1/28
	EMC184045SE	980387	2024/8/8	2025/8/7
PXA Signal Analyzer Keysight	N9030B	MY57141948	2024/5/20	2025/5/19
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2024/1/29	2025/1/28
	EMC102-KM-KM-4000	200214	2024/1/29	2025/1/28
	EMC104-SM-SM-1500	180503	2024/3/16	2025/3/15
	EMC104-SM-SM-2000	180501	2024/3/16	2025/3/15
	EMC104-SM-SM-6000	180506	2024/3/16	2025/3/15
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2024/9/14 ~ 2024/9/24

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 Power Spectral Density

The Maximum of Power Spectral Density Measurement is 8 dBm in any 3 kHz.

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

5.5 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.

5.6 Unwanted Emissions below 1 GHz

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

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

5.7 Unwanted Emissions above 1 GHz

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

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

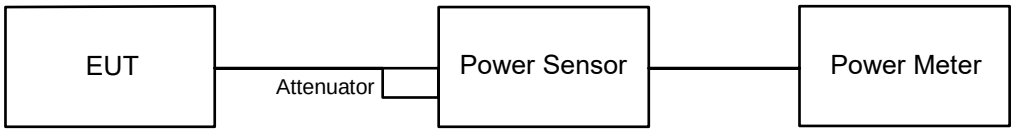
Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

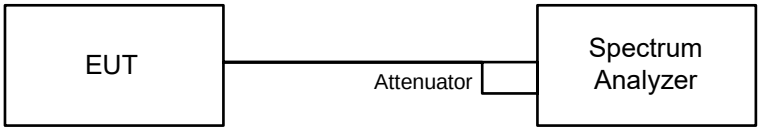


6.1.2 Test Procedure

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 Power Spectral Density

6.2.1 Test Setup



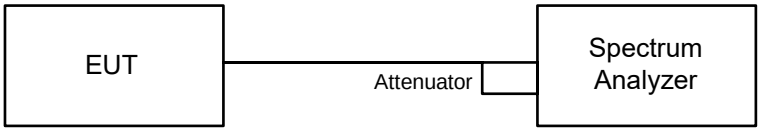
6.2.2 Test Procedure

a. Measure the duty cycle (x).
b. Set instrument center frequency to DTS channel center frequency.
c. Set span to at least 1.5 times the OBW.
d. Set RBW to: 3 kHz.
e. Set VBW ≥3 x RBW.
f. Detector = power averaging (RMS) or sample detector (when RMS not available).
g. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h. Sweep time = auto couple.
i. Do not use sweep triggering. Allow sweep to “free run”.
j. Employ trace averaging (RMS) mode over a minimum of 100 traces.
k. Use the peak marker function to determine the maximum amplitude level.

Note: If Duty cycle < 98%, Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

6.3 6 dB Bandwidth

6.3.1 Test Setup

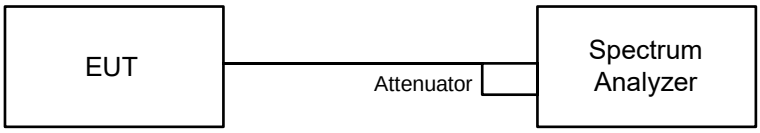


6.3.2 Test Procedure

a. Set resolution bandwidth (RBW) = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

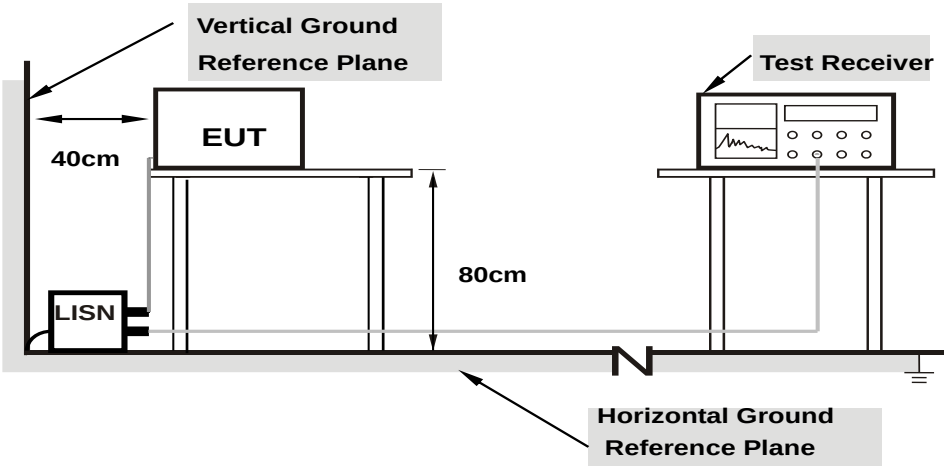
a. Set the RBW = 100 kHz.
b. Set the VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep time = auto couple.
e. Trace mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

a. Set RBW = 100 kHz.
b. Set VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep = auto couple.
e. Trace Mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum amplitude level.

6.5 AC Power Conducted Emissions

6.5.1 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).

6.5.2 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.

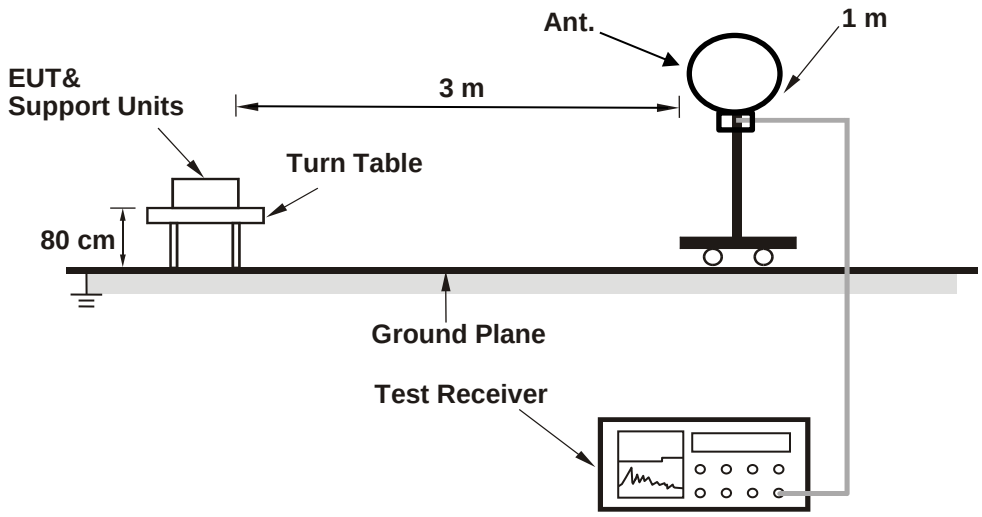
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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.

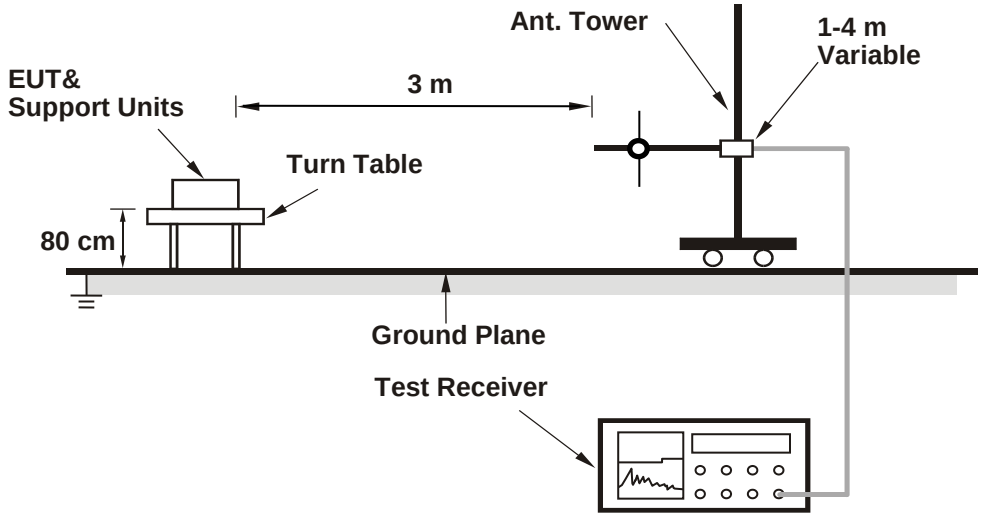
6.6 Unwanted Emissions below 1 GHz

6.6.1 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).

6.6.2 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.

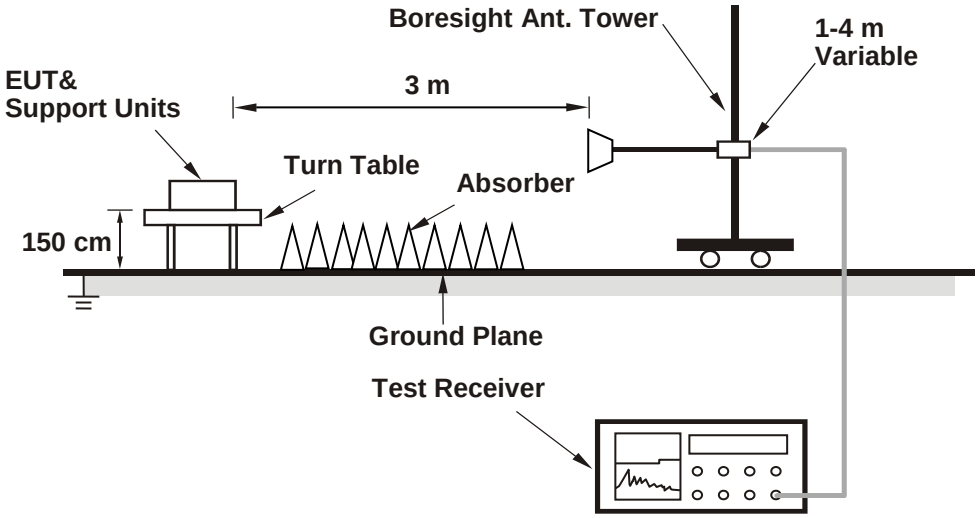
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

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.

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 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:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Willy Lin

802.11b CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.85	23.84	23.89	23.94	977.412	29.90	30	Pass
6	2437	23.65	23.89	23.90	23.95	970.43	29.87	30	Pass
11	2462	23.68	23.85	23.95	23.81	964.756	29.84	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.75	23.85	23.89	23.95	973.018	29.88	30	Pass
6	2437	23.80	23.89	23.87	23.96	977.456	29.90	30	Pass
11	2462	23.81	23.91	23.85	23.97	978.594	29.91	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.58	23.72	23.66	23.69	929.697	29.68	30	Pass
6	2437	23.58	23.69	23.74	23.69	932.394	29.70	30	Pass
11	2462	23.59	23.75	23.73	23.74	938.337	29.72	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.18	23.23	23.27	23.37	847.942	29.28	30	Pass
6	2437	23.62	23.69	23.65	23.72	931.272	29.69	30	Pass
9	2452	23.62	23.55	23.72	23.67	924.923	29.66	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.85	23.95	23.90	23.91	982.482	29.92	30	Pass
6	2437	23.86	23.91	23.95	23.96	986.456	29.94	30	Pass
11	2462	23.87	23.96	23.94	23.98	990.444	29.96	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.45	23.51	23.49	23.64	900.261	29.54	30	Pass
6	2437	23.87	23.94	23.91	23.95	985.873	29.94	30	Pass
9	2452	23.86	23.85	23.94	23.94	981.366	29.92	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.12 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.44	23.54	23.52	23.52	896.555	29.53	30	Pass
6	2437	23.42	23.54	23.61	23.58	903.379	29.56	30	Pass
11	2462	23.47	23.65	23.54	23.62	910.158	29.59	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 4.91 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.08	23.08	23.14	23.23	822.912	29.15	30	Pass
6	2437	23.48	23.51	23.48	23.60	899.162	29.54	30	Pass
9	2452	23.47	23.44	23.62	23.51	897.664	29.53	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 4.91 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.70	23.83	23.78	23.80	954.633	29.80	30	Pass
6	2437	23.75	23.74	23.78	23.86	955.731	29.80	30	Pass
11	2462	23.77	23.78	23.79	23.85	959.006	29.82	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 4.91 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.34	23.39	23.31	23.45	869.646	29.39	30	Pass
6	2437	23.76	23.82	23.76	23.76	954.043	29.80	30	Pass
9	2452	23.75	23.69	23.79	23.80	950.236	29.78	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 4.91 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Willy Lin

802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-6.82	-7.07	-6.85	-7.22	-0.97	8	Pass
6	2437	-7.00	-7.30	-7.59	-7.18	-1.24	8	Pass
11	2462	-7.90	-8.09	-8.18	-7.91	-2.00	8	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 4.91 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-9.28	-9.20	-9.58	-9.66	-3.40	8	Pass
6	2437	-9.64	-8.84	-9.52	-9.69	-3.39	8	Pass
11	2462	-9.77	-10.03	-10.14	-10.09	-3.98	8	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 4.91 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-10.79	-10.51	-10.38	-10.45	-4.51	8	Pass
6	2437	-10.42	-11.00	-11.16	-10.93	-4.85	8	Pass
11	2462	-11.62	-11.80	-11.69	-11.49	-5.63	8	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 4.91 dBi < 6 dBi, so the power density limit shall not be reduced.

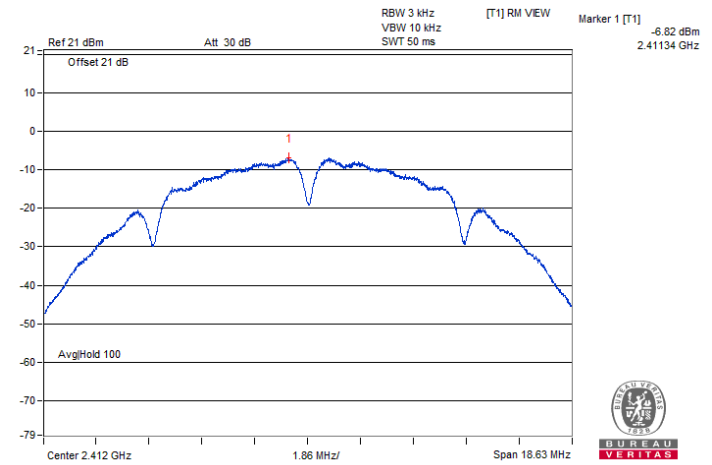
802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
3	2422	-14.20	-14.36	-14.25	-13.87	-8.15	8	Pass
6	2437	-14.11	-15.11	-14.18	-14.00	-8.31	8	Pass
9	2452	-14.46	-13.81	-14.43	-14.10	-8.17	8	Pass

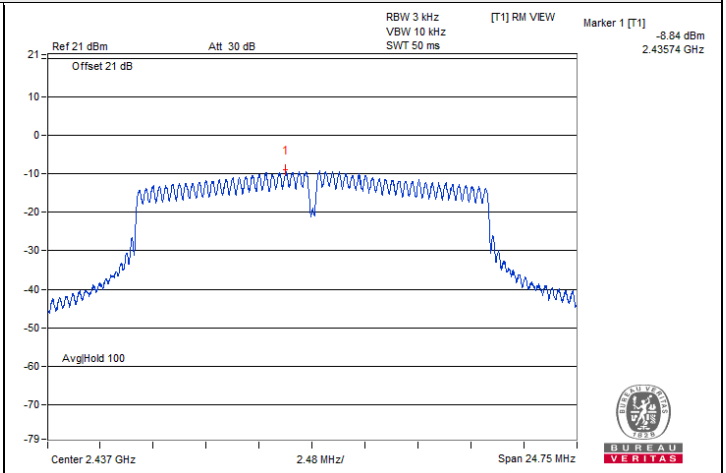
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 4.91 dBi < 6 dBi, so the power density limit shall not be reduced.

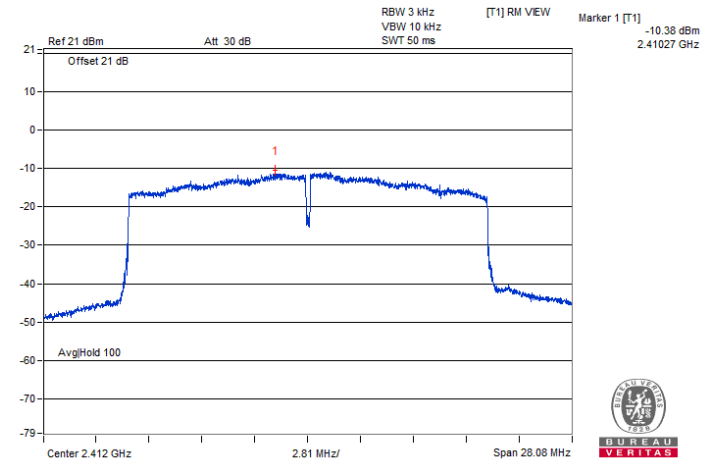
Spectrum Plot of Maximum Value



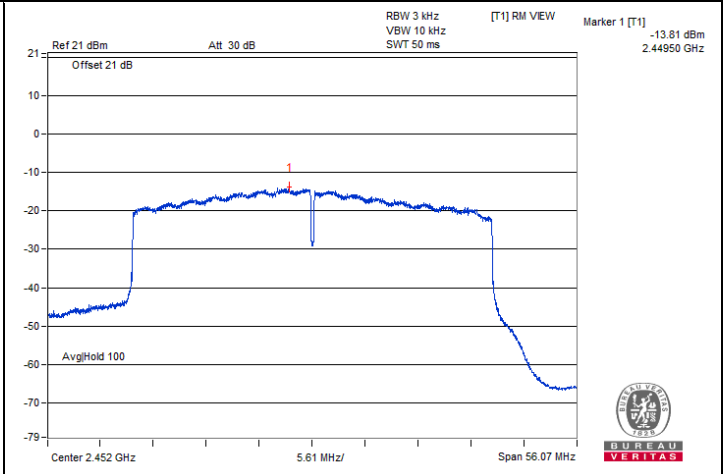
802.11b / Chain 0 : CH 1



802.11g / Chain 1 : CH 6



802.11ax (HE20) / Chain 2 : CH 1



802.11ax (HE40) / Chain 1 : CH 9

7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Willy Lin

802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	8.05	7.58	8.06	8.03	0.5	Pass
6	2437	8.06	7.59	8.04	8.05	0.5	Pass
11	2462	8.07	8.05	8.51	8.07	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.15	15.12	15.15	15.15	0.5	Pass
6	2437	15.52	15.14	15.15	15.70	0.5	Pass
11	2462	15.35	15.32	15.70	15.73	0.5	Pass

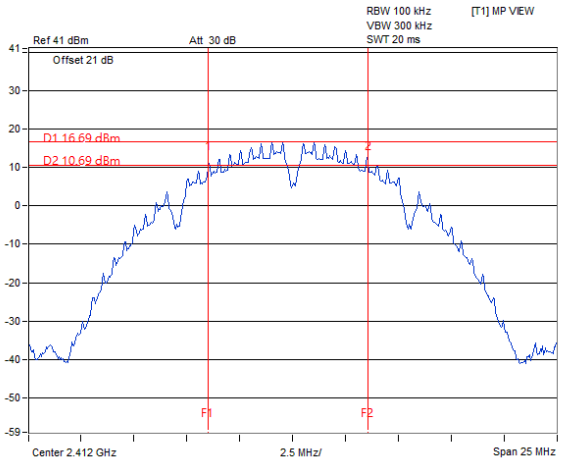
802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.20	15.16	16.01	18.03	0.5	Pass
6	2437	17.67	15.14	15.80	16.31	0.5	Pass
11	2462	16.54	15.69	16.86	16.60	0.5	Pass

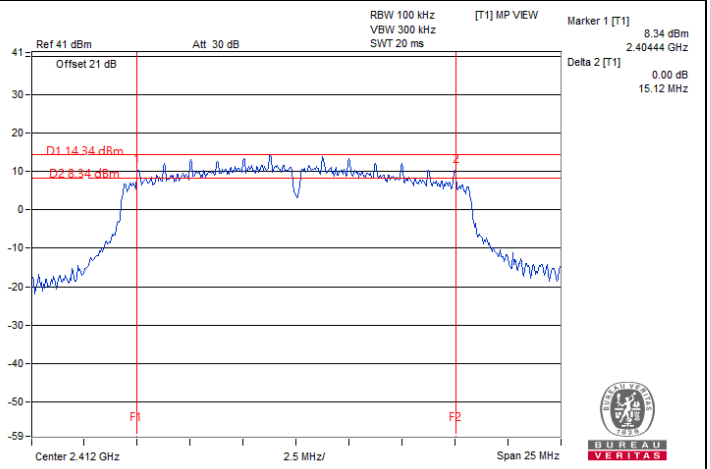
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	36.04	33.91	36.11	35.87	0.5	Pass
6	2437	35.11	35.12	35.08	35.10	0.5	Pass
9	2452	35.84	33.72	35.04	31.42	0.5	Pass

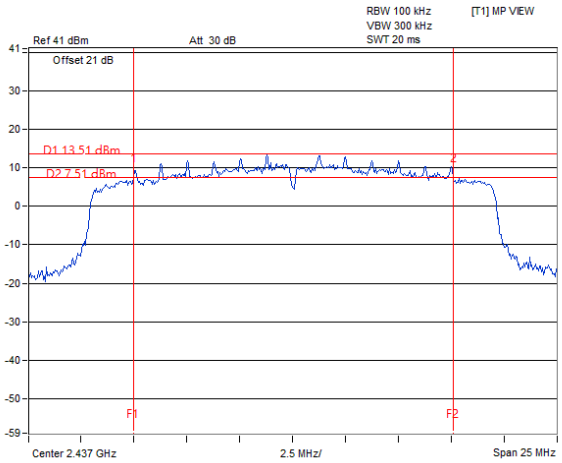
Spectrum Plot of Minimum Value



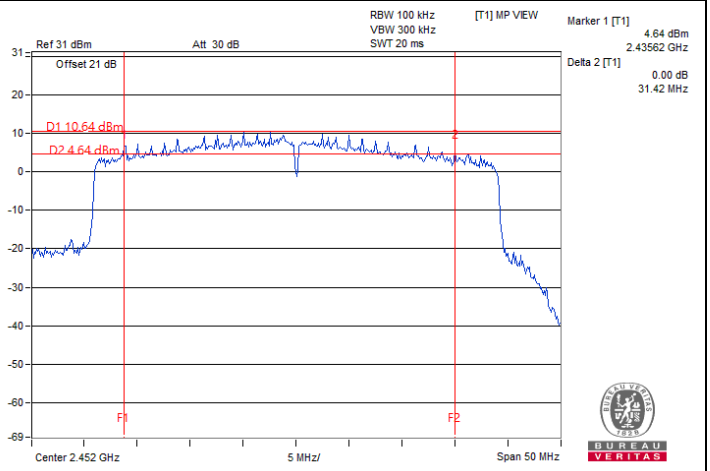
802.11b / Chain 1 : CH 1



802.11g / Chain 1 : CH 1



802.11ax (HE20) / Chain 1 : CH 6

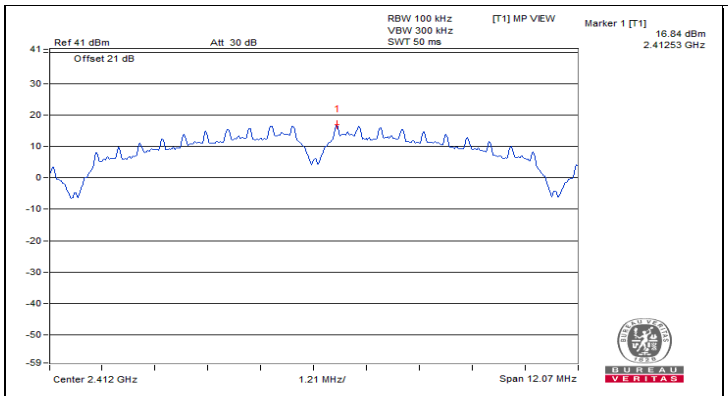


802.11ax (HE40) / Chain 3 : CH 9

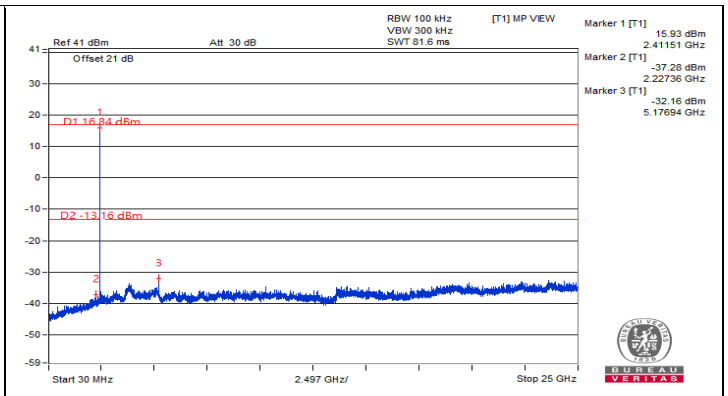
7.4 Conducted Out of Band Emissions

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Willy Lin

802.11b



Chain 0 : CH 1



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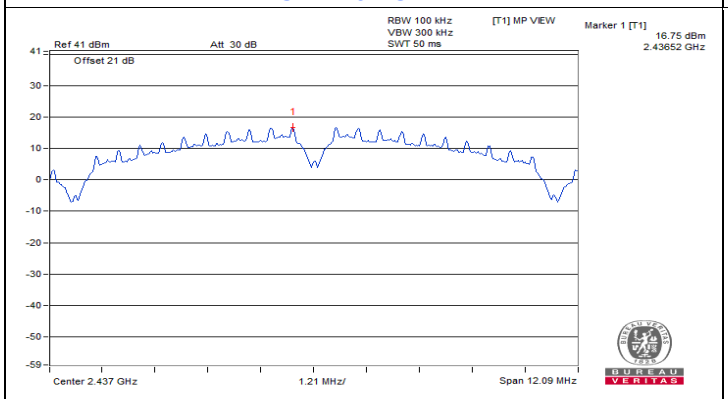
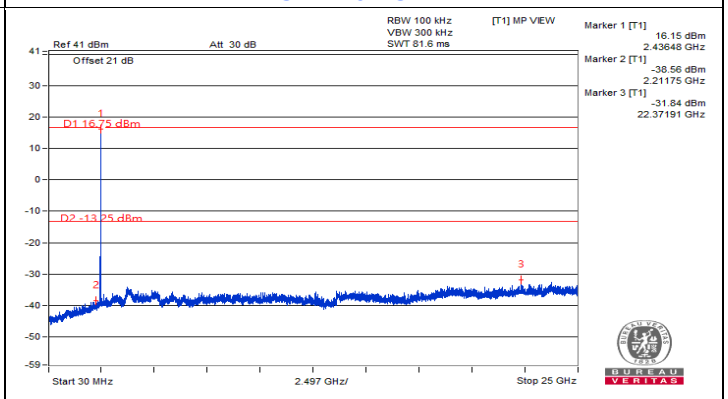


Chain 0 : CH 6



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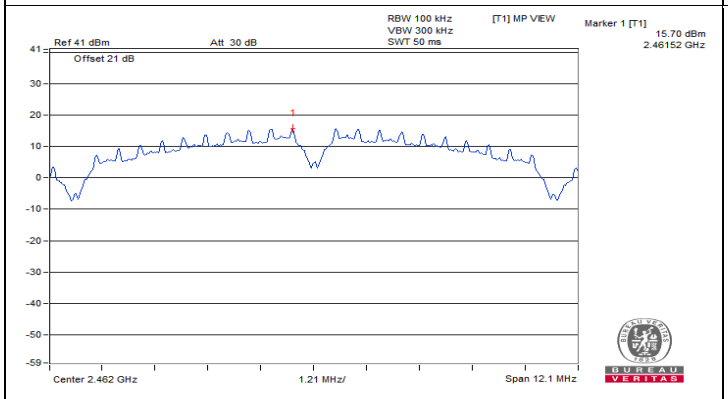
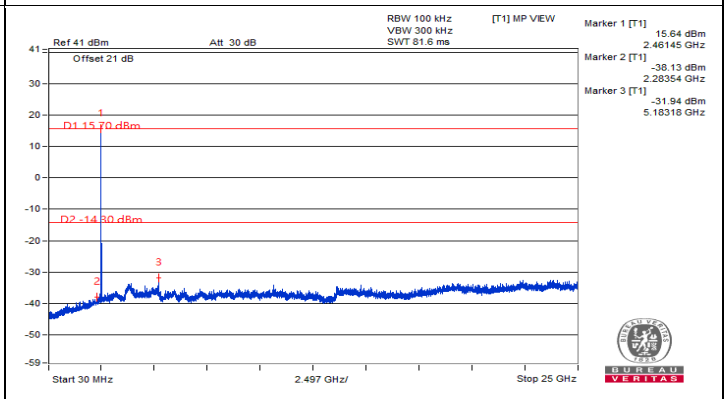
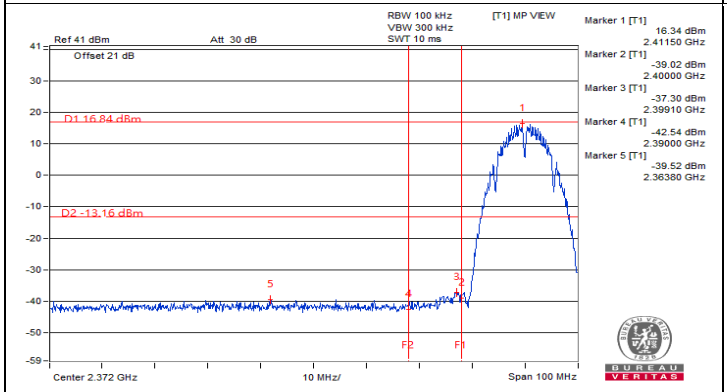


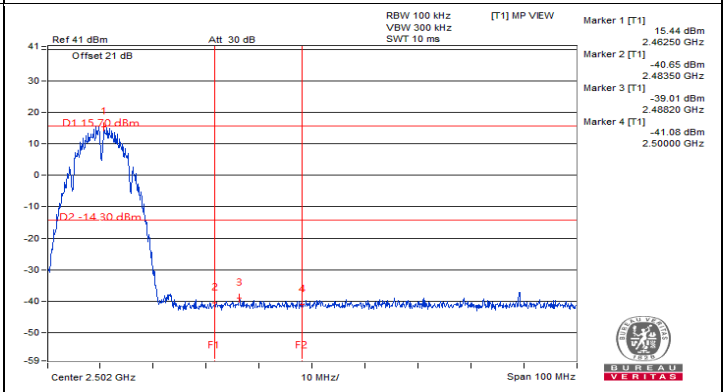
Chain 0 : CH 11



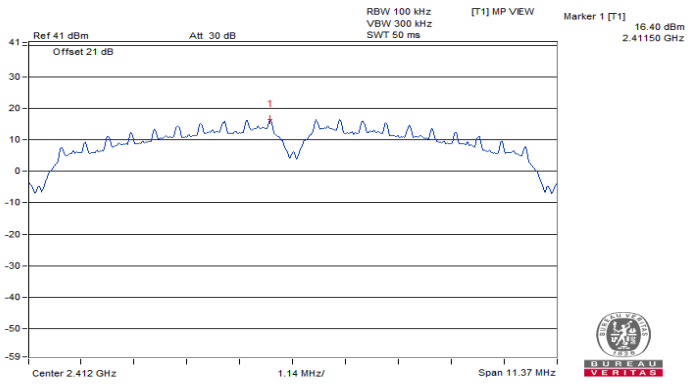
Chain 0 : CH 11



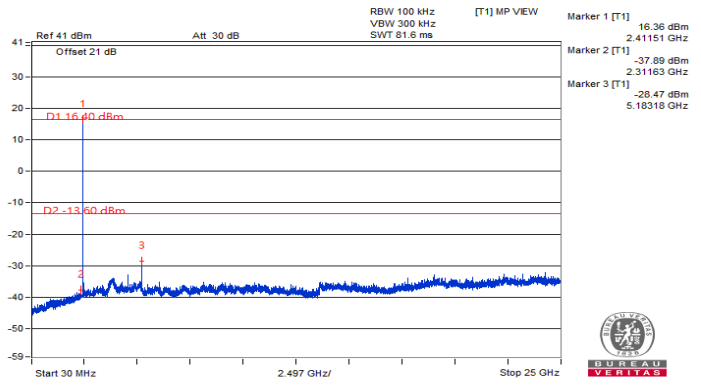
Chain 0 : CH 1 Band edge



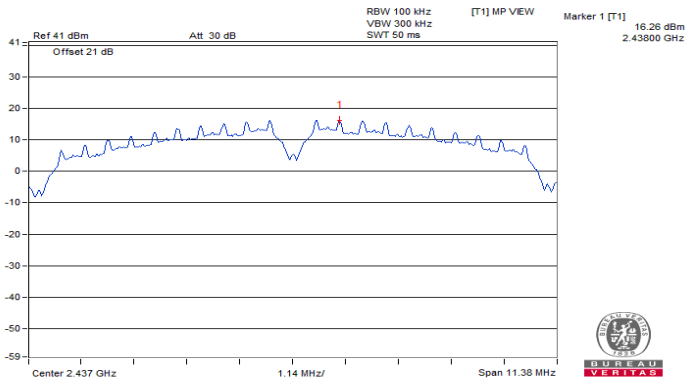
Chain 0 : CH 11 Band edge



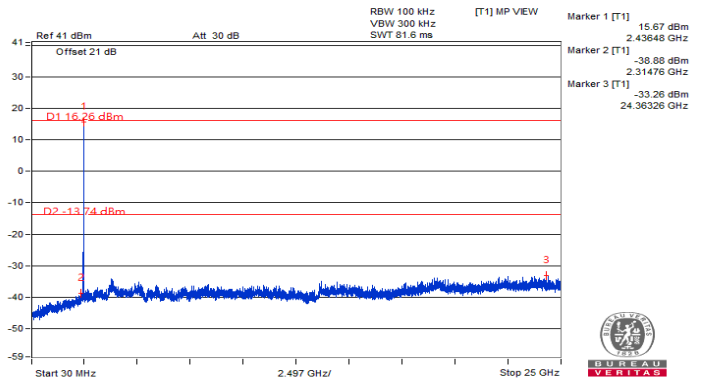
Chain 1 : CH 1



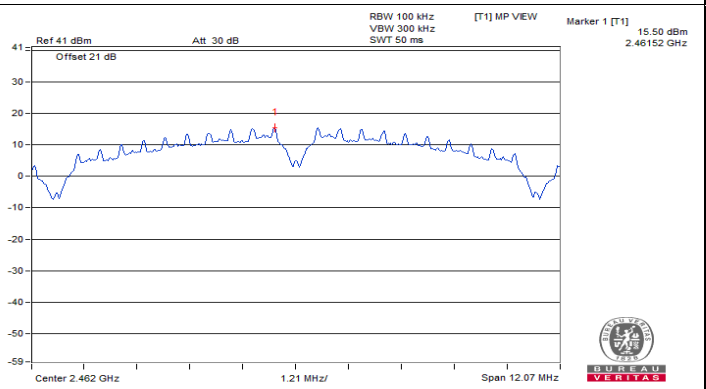
Chain 1 : CH 1



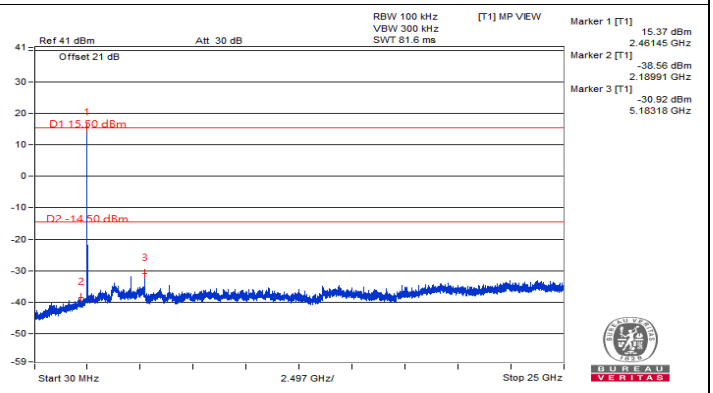
Chain 1 : CH 6



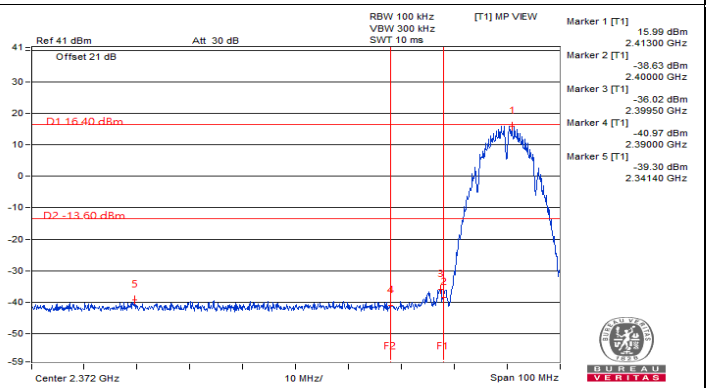
Chain 1 : CH 6



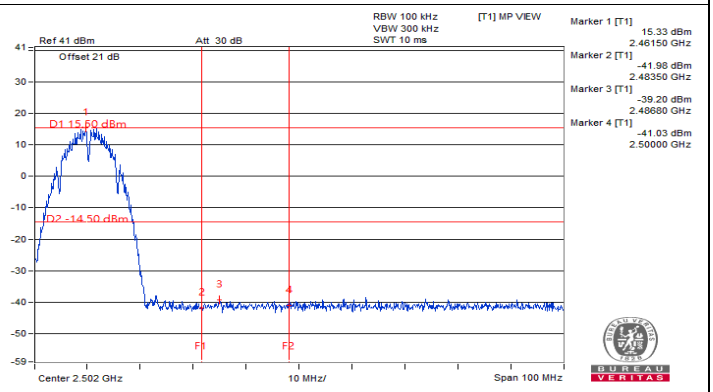
Chain 1 : CH 11



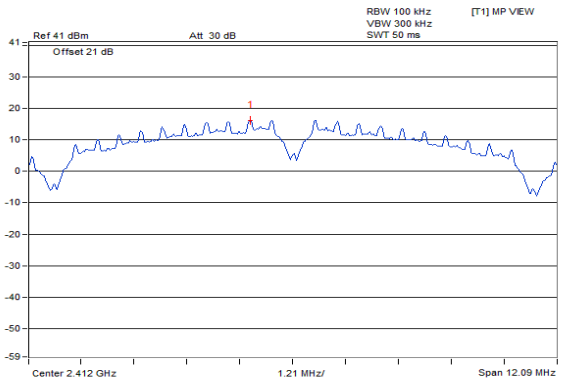
Chain 1 : CH 11



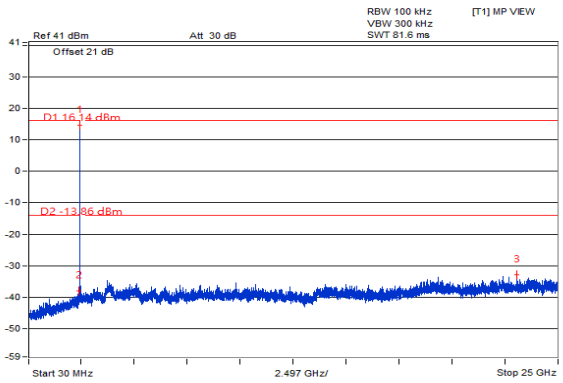
Chain 1 : CH 1 Band edge



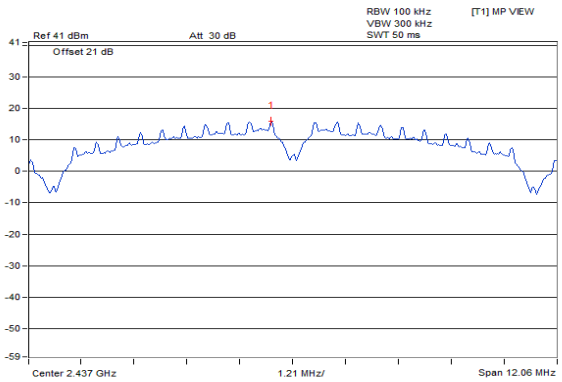
Chain 1 : CH 11 Band edge



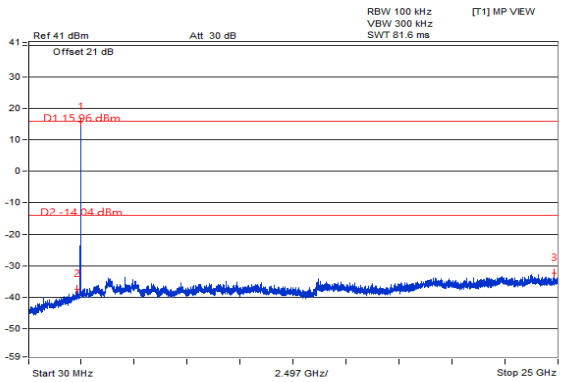
Chain 2 : CH 1



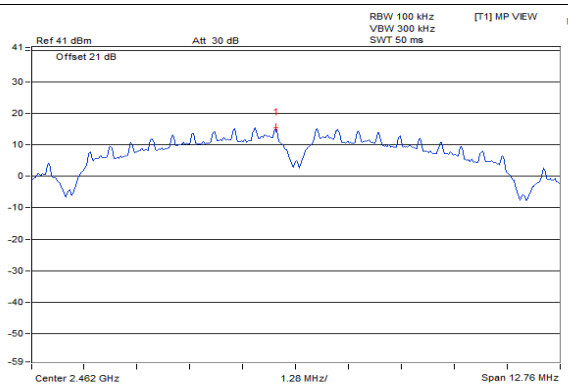
Chain 2 : CH 1



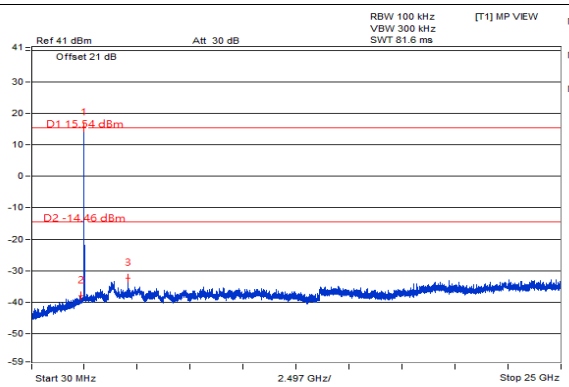
Chain 2 : CH 6



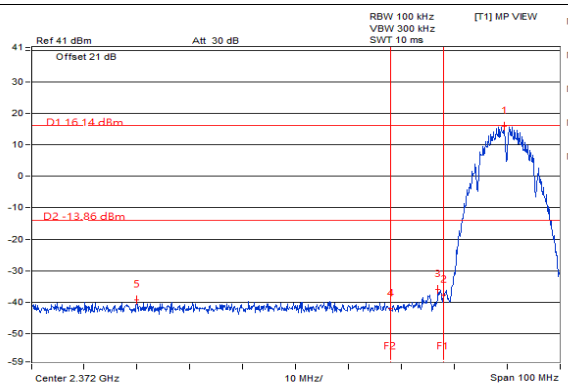
Chain 2 : CH 6



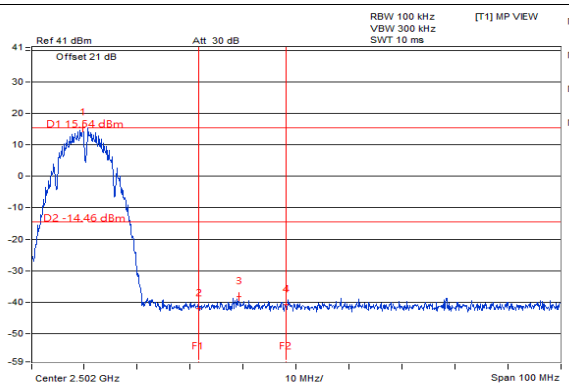
Chain 2 : CH 11



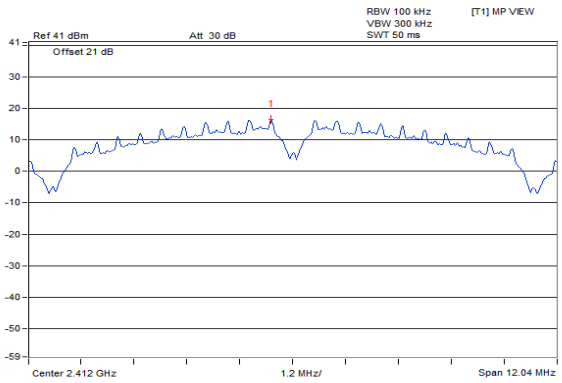
Chain 2 : CH 11



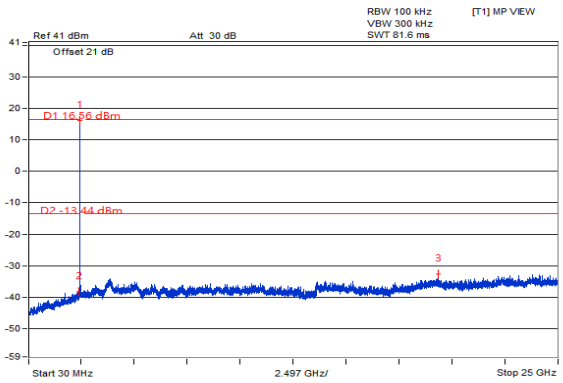
Chain 2 : CH 1 Band edge



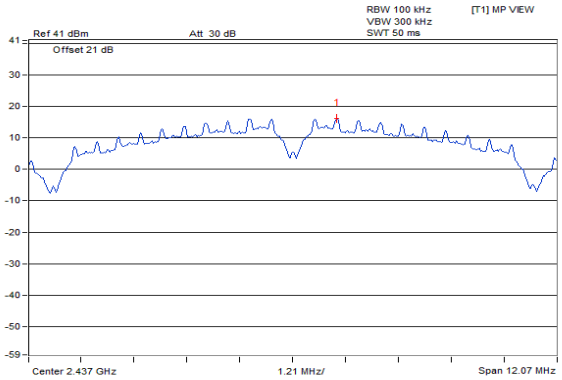
Chain 2 : CH 11 Band edge



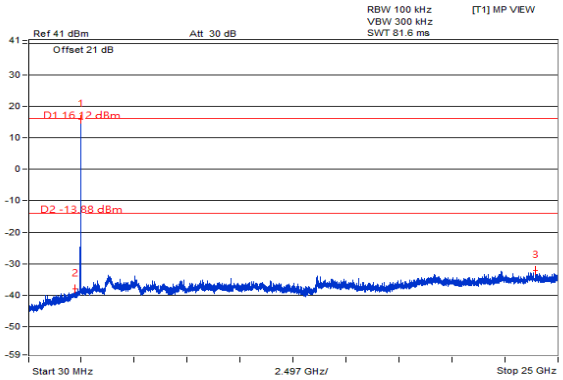
Chain 3 : CH 1



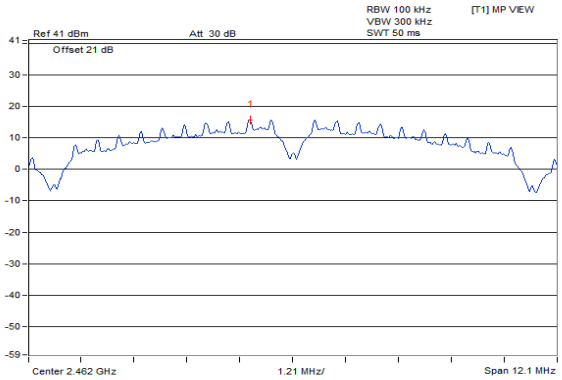
Chain 3 : CH 1



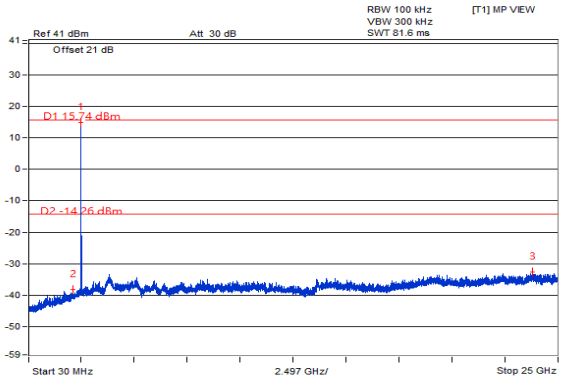
Chain 3 : CH 6



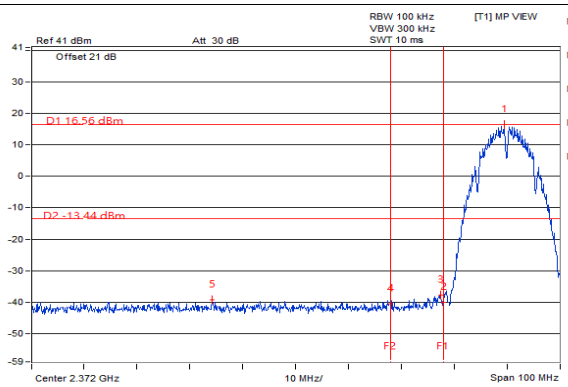
Chain 3 : CH 6



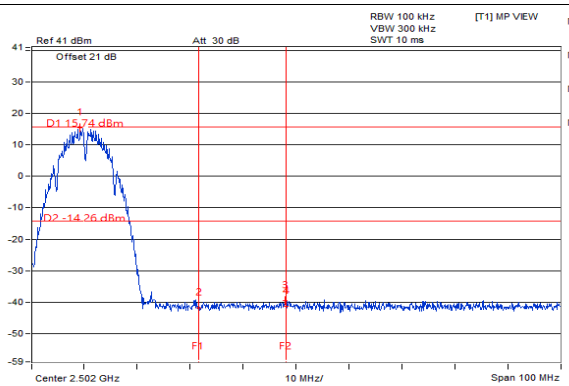
Chain 3 : CH 11



Chain 3 : CH 11

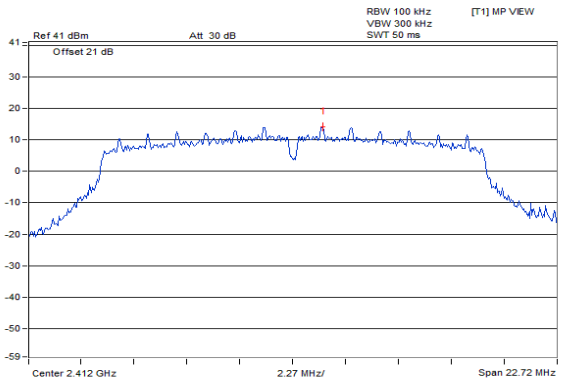


Chain 3 : CH 1 Band edge

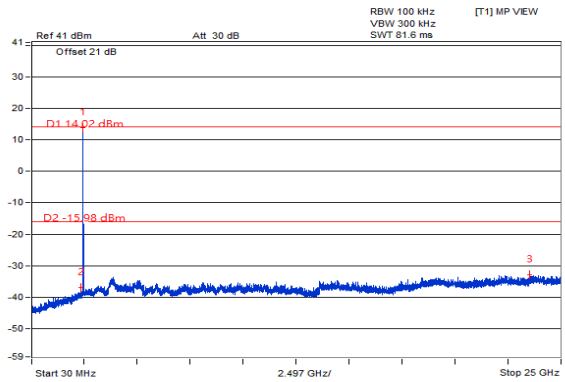


Chain 3 : CH 11 Band edge

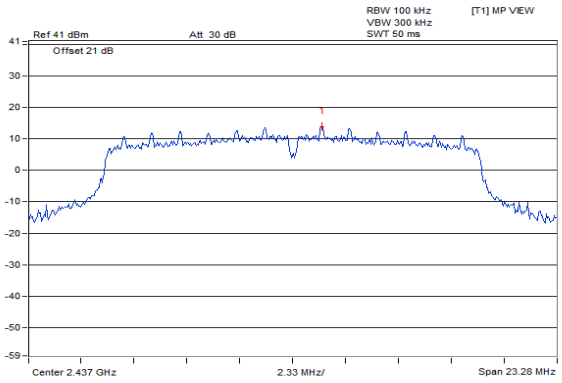
802.11g



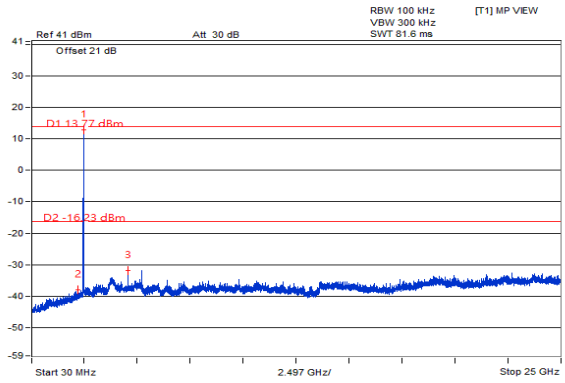
Chain 0 : CH 1



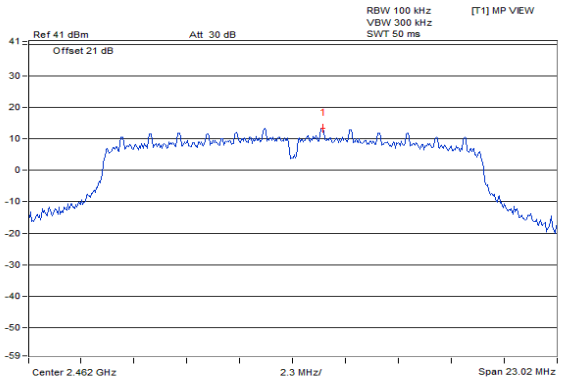
Chain 0 : CH 1



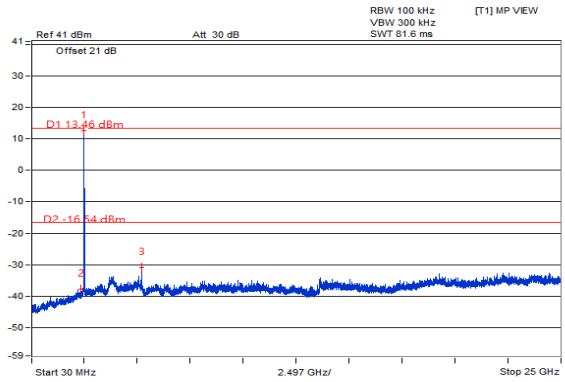
Chain 0 : CH 6



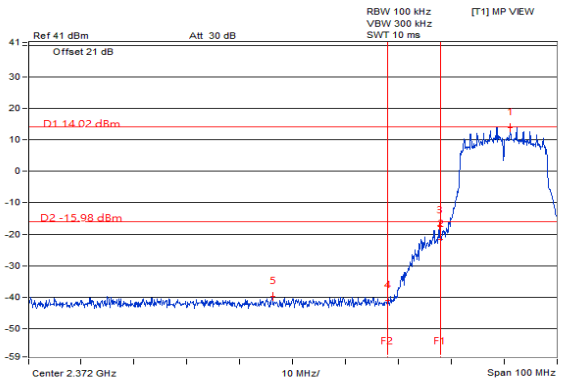
Chain 0 : CH 6



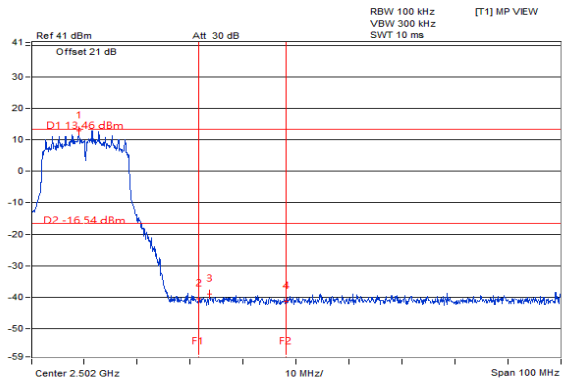
Chain 0 : CH 11



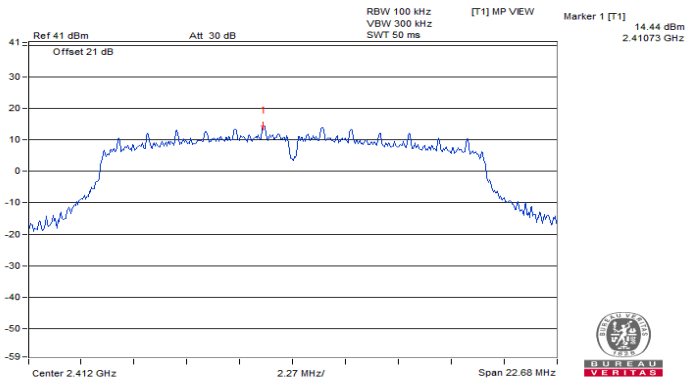
Chain 0 : CH 11



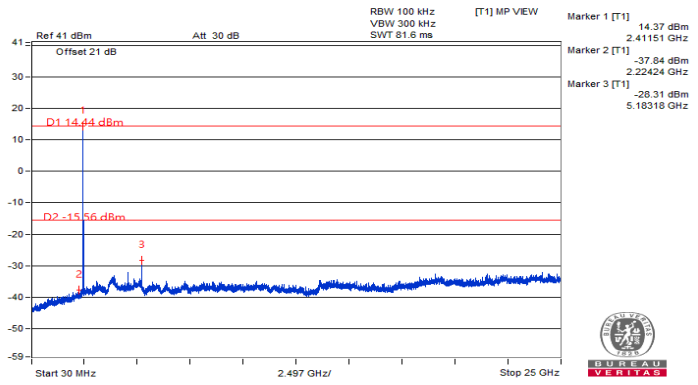
Chain 0 : CH 1 Band edge



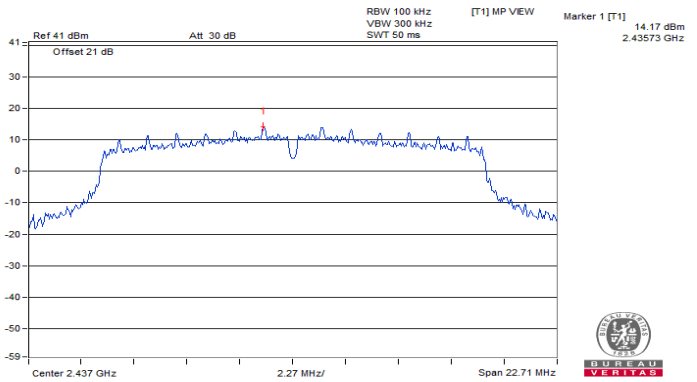
Chain 0 : CH 11 Band edge



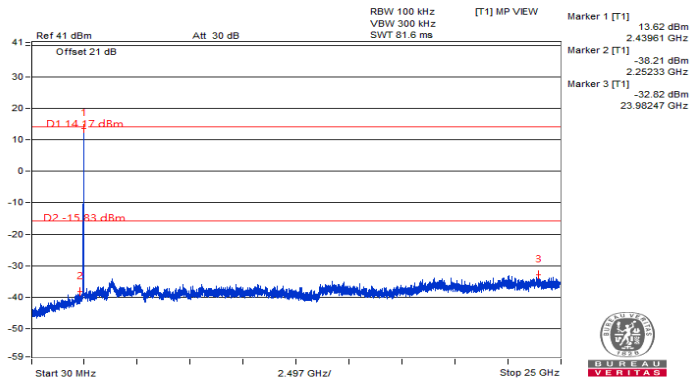
Chain 1 : CH 1



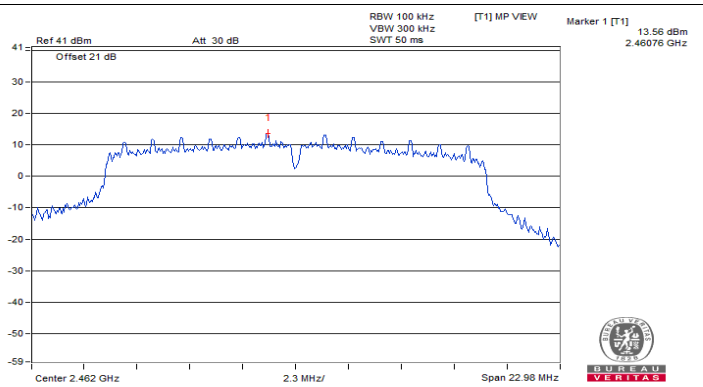
Chain 1 : CH 1



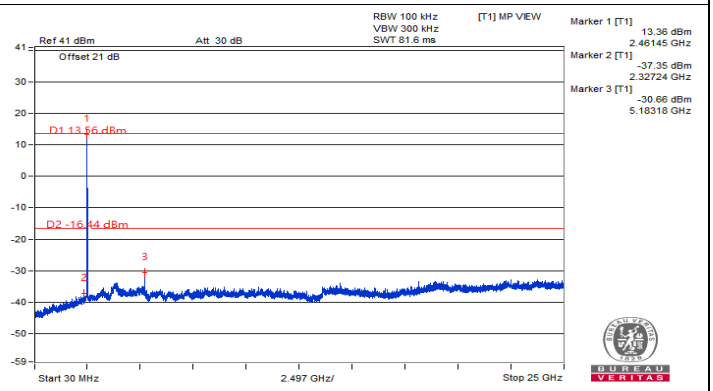
Chain 1 : CH 6



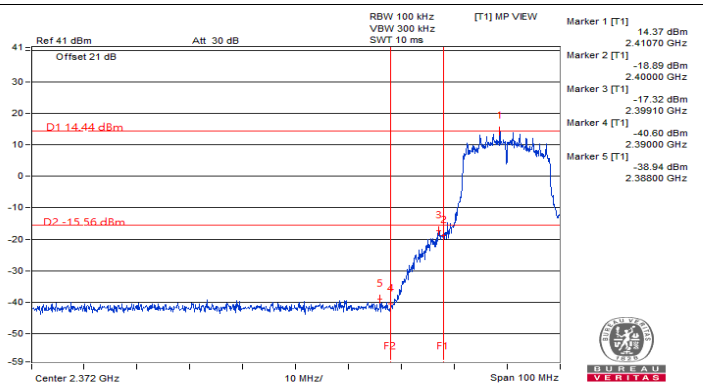
Chain 1 : CH 6



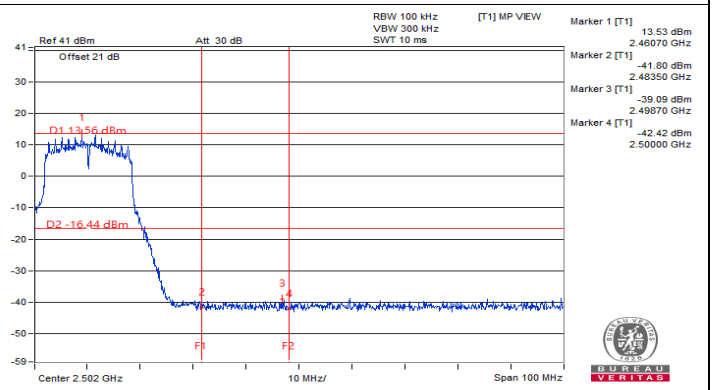
Chain 1 : CH 11



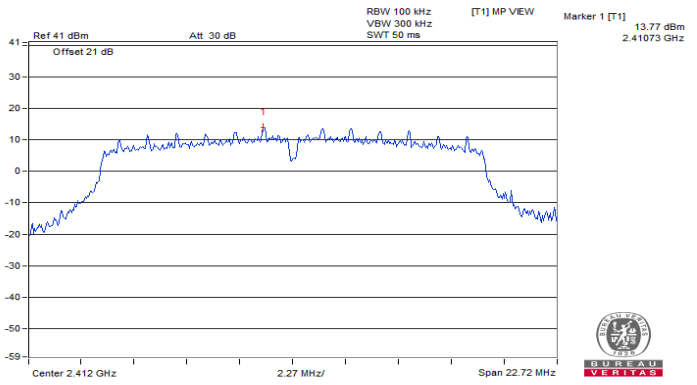
Chain 1 : CH 11



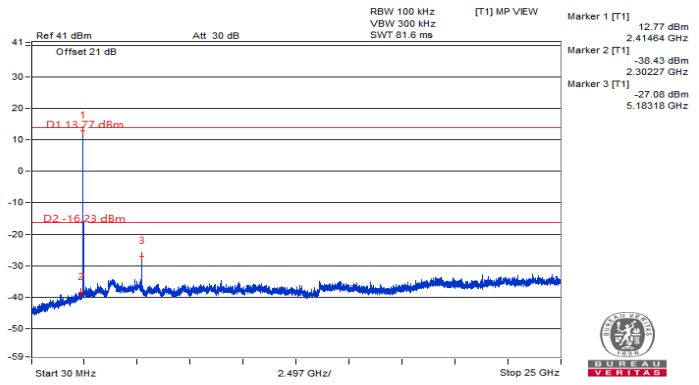
Chain 1 : CH 1 Band edge



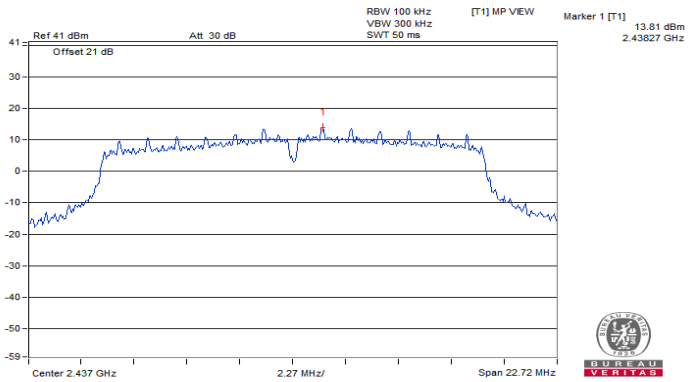
Chain 1 : CH 11 Band edge



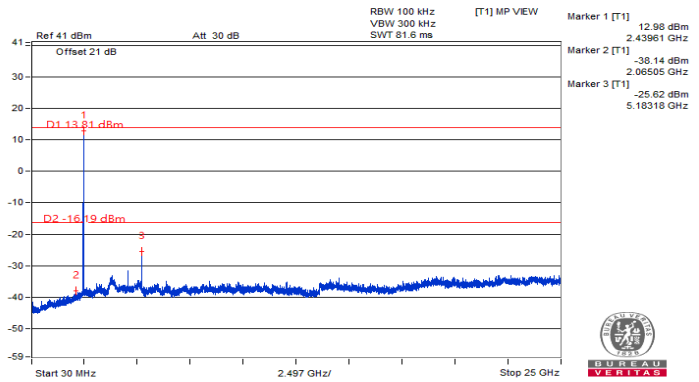
Chain 2 : CH 1



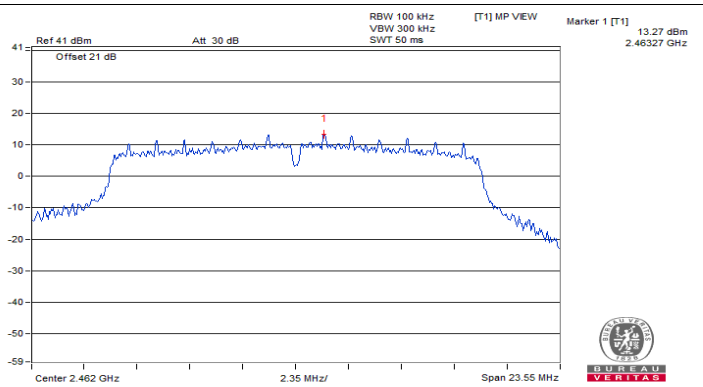
Chain 2 : CH 1



Chain 2 : CH 6



Chain 2 : CH 6



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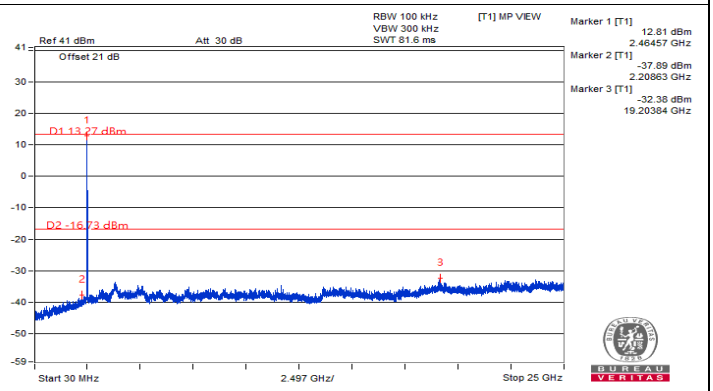
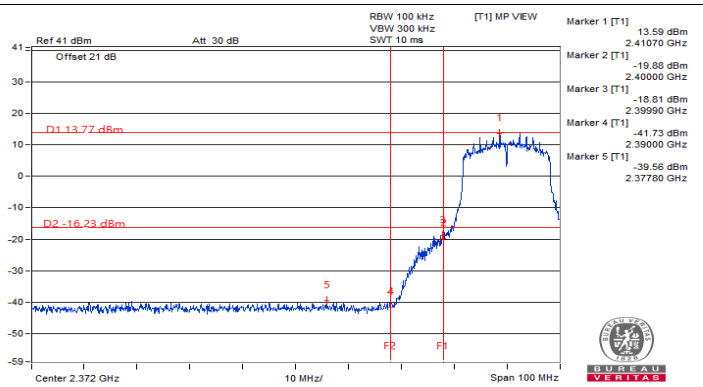
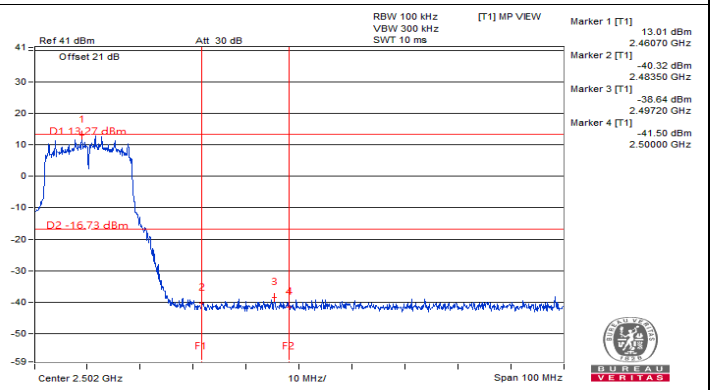


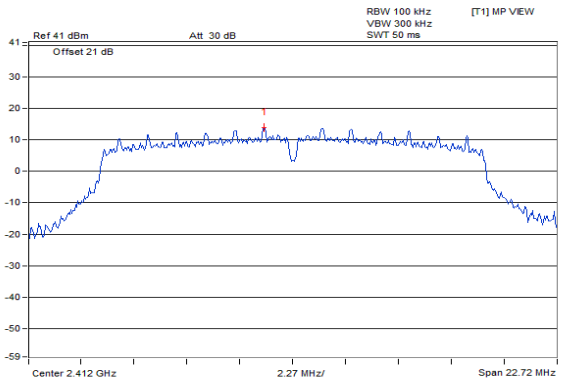
Chain 2 : CH 11



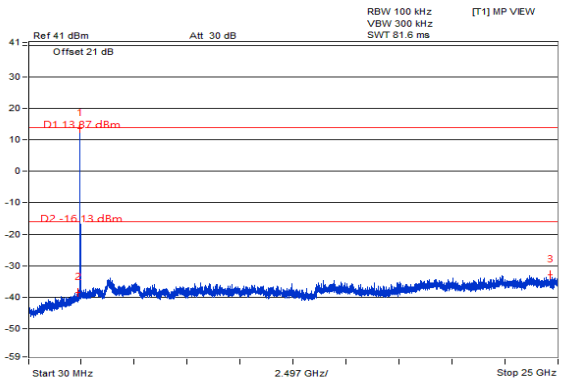
Chain 2 : CH 1 Band edge



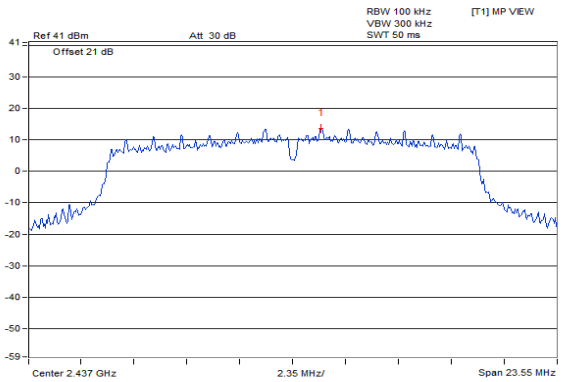
Chain 2 : CH 11 Band edge



Chain 3 : CH 1



Chain 3 : CH 1



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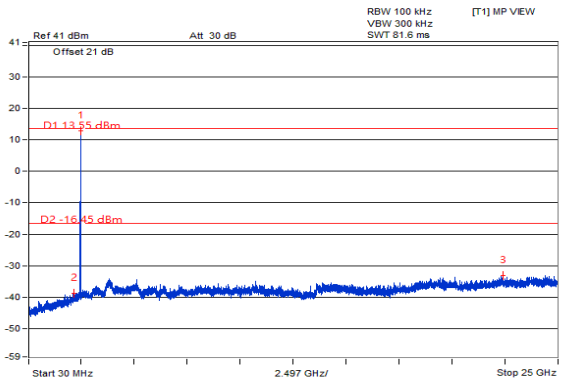

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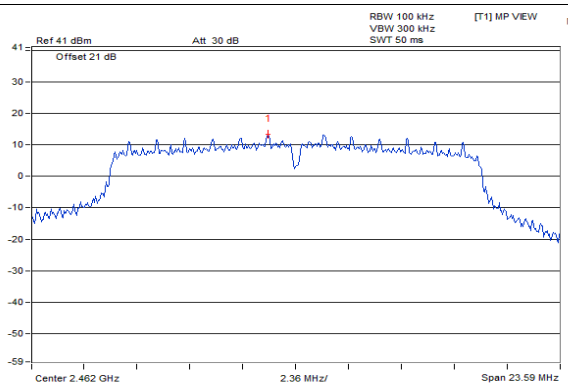

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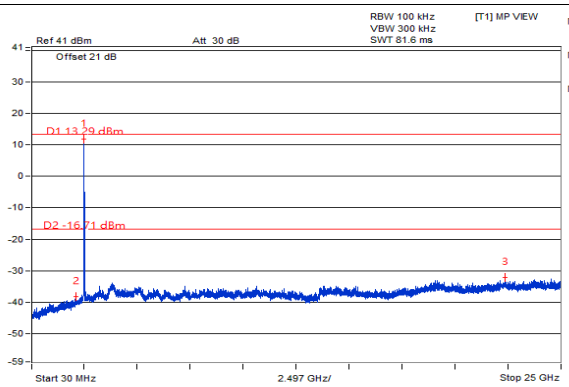

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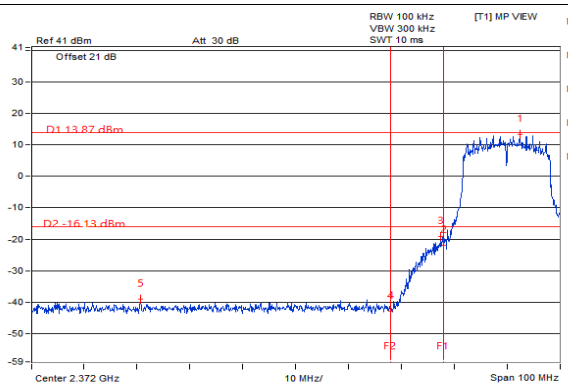
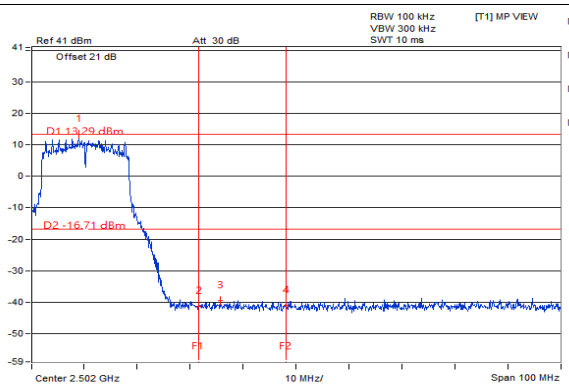
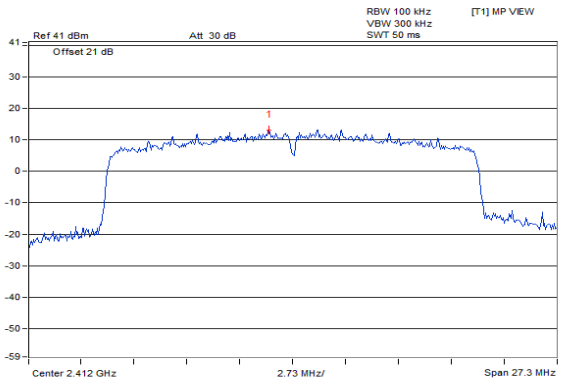


Chain 3 : CH 1 Band edge



Chain 3 : CH 11 Band edge

802.11ax (HE20)



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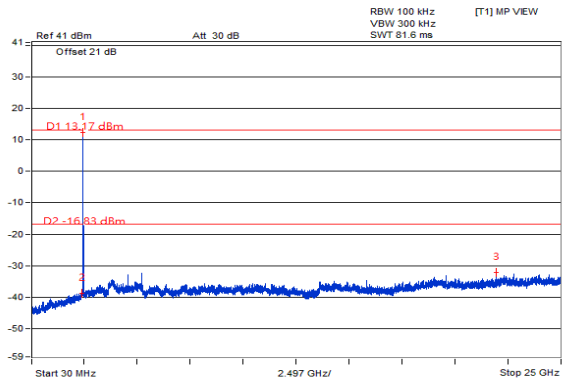

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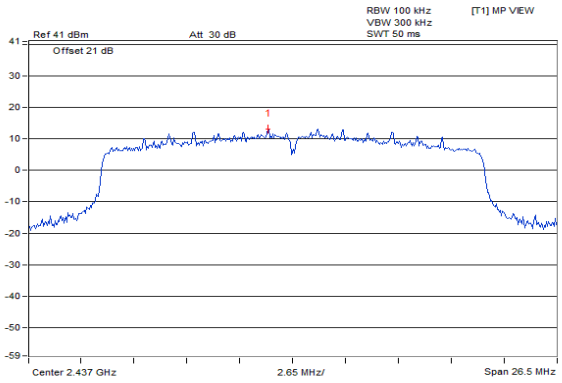
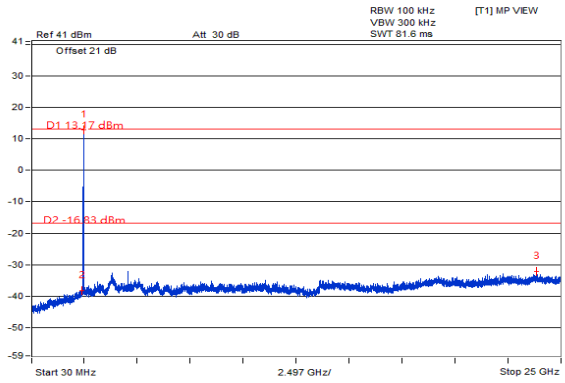


Chain 0 : CH 6



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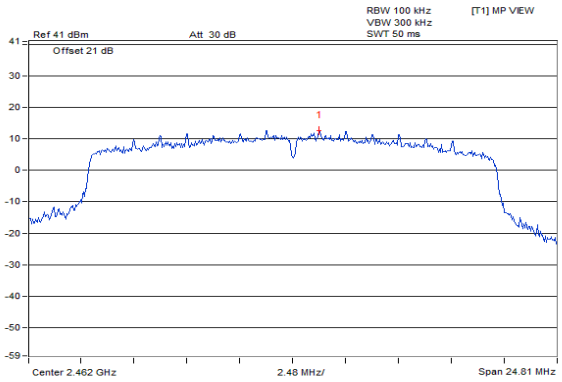

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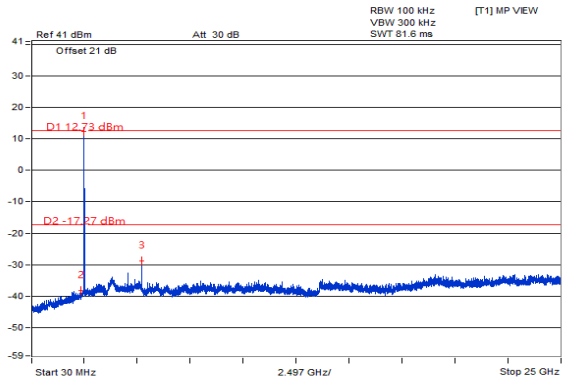

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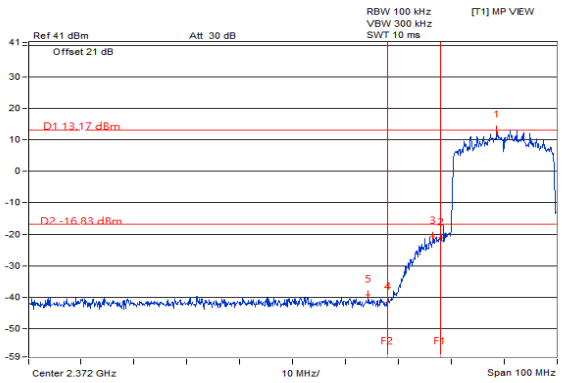
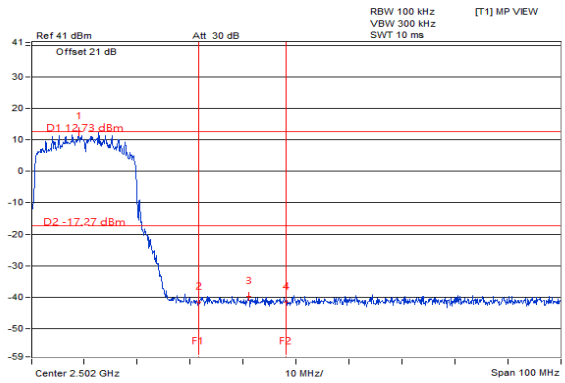


Chain 0 : CH 1 Band edge



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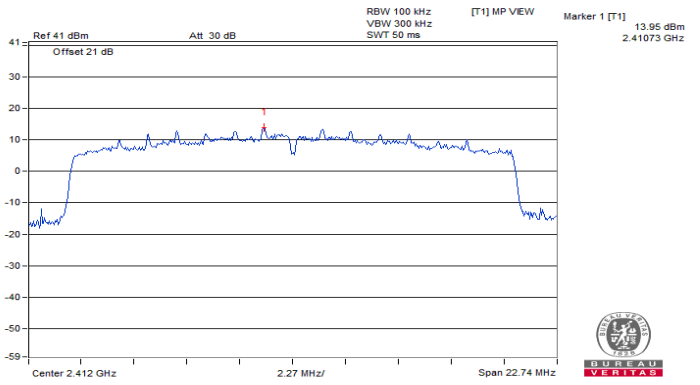
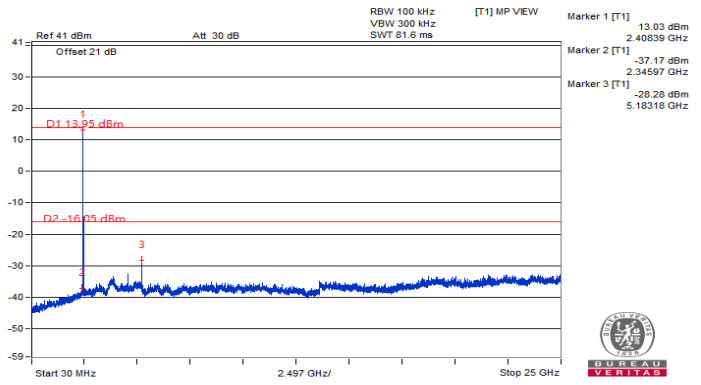
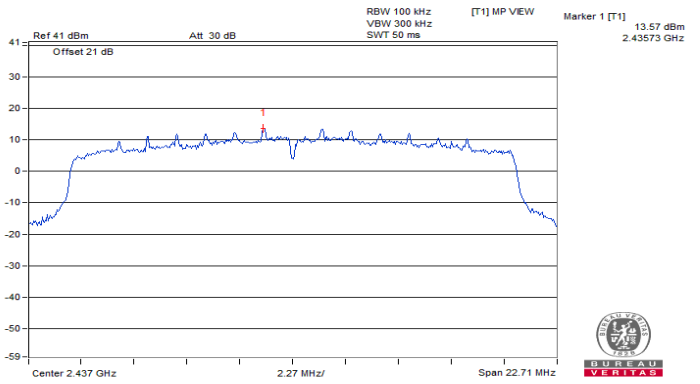


Chain 1 : CH 1



Chain 1 : CH 1



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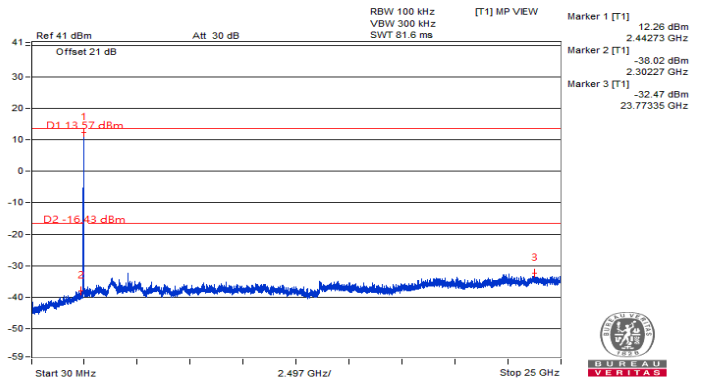
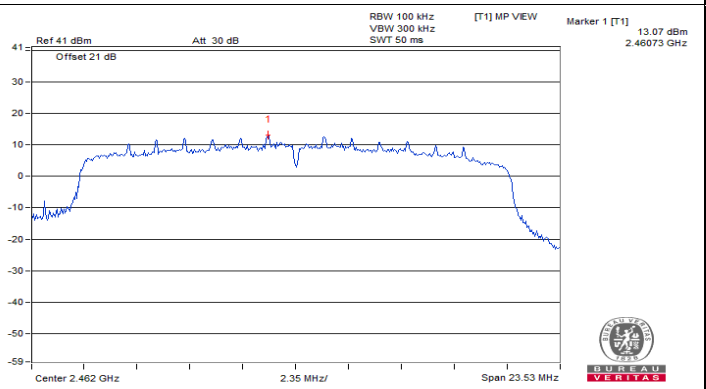
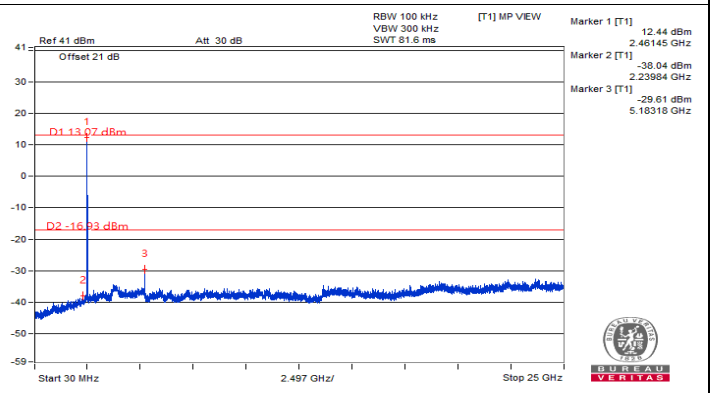


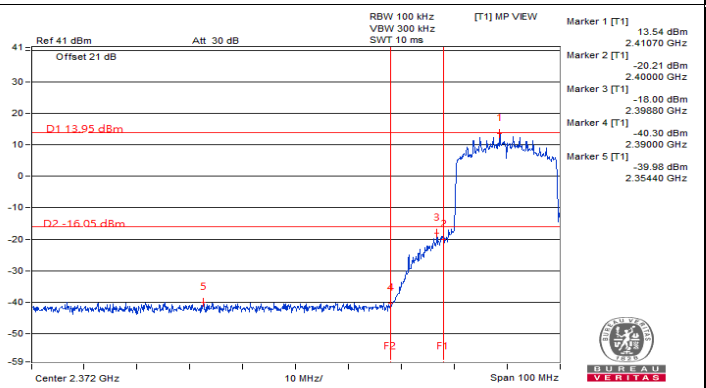
Chain 1 : CH 6



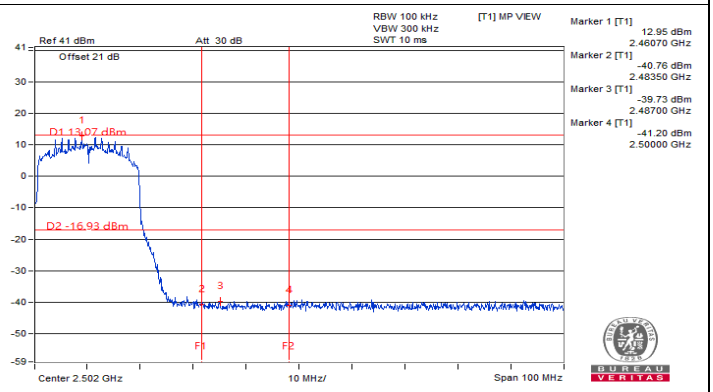
Chain 1 : CH 11



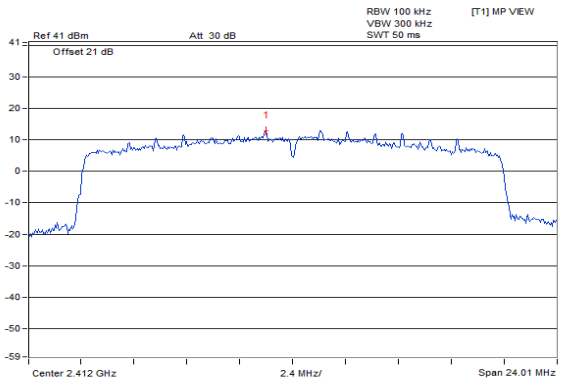
Chain 1 : CH 11



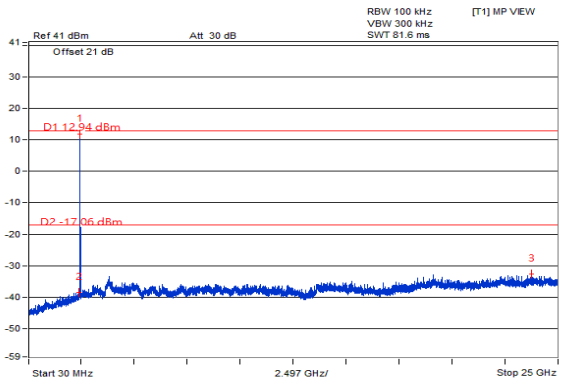
Chain 1 : CH 1 Band edge



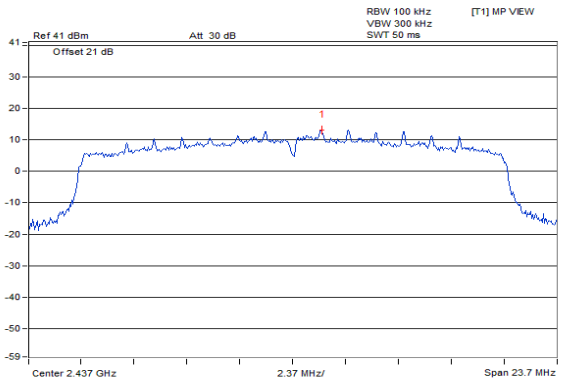
Chain 1 : CH 11 Band edge



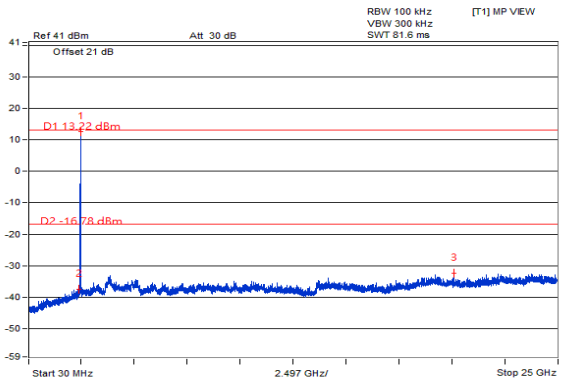
Chain 2 : CH 1



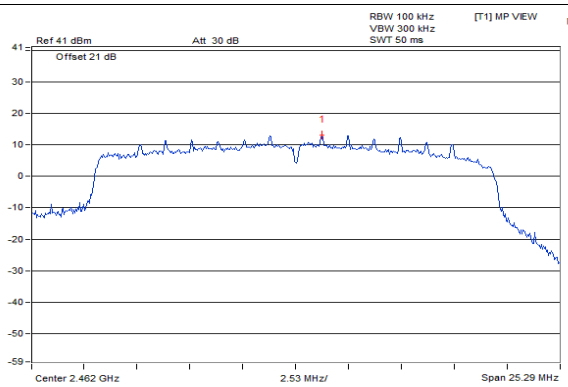
Chain 2 : CH 1



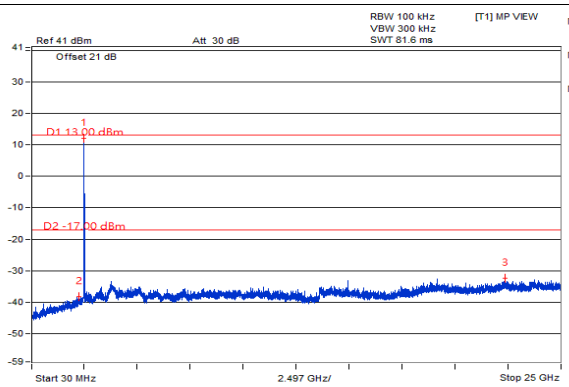
Chain 2 : CH 6



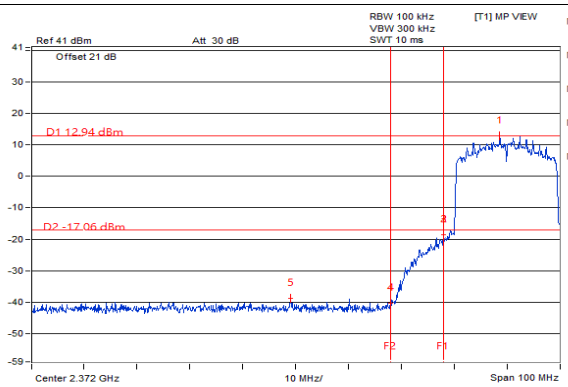
Chain 2 : CH 6



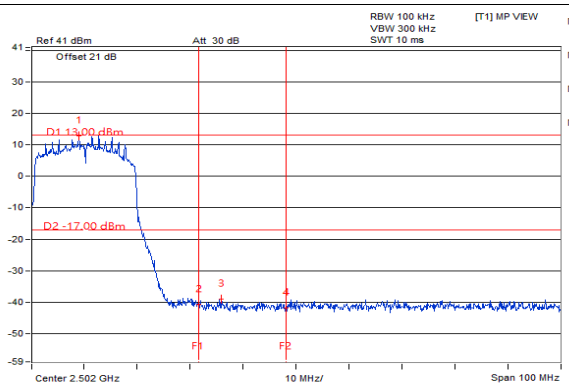
Chain 2 : CH 11



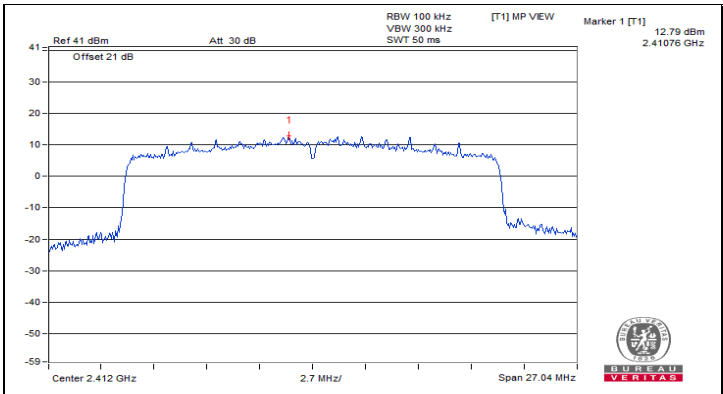
Chain 2 : CH 11



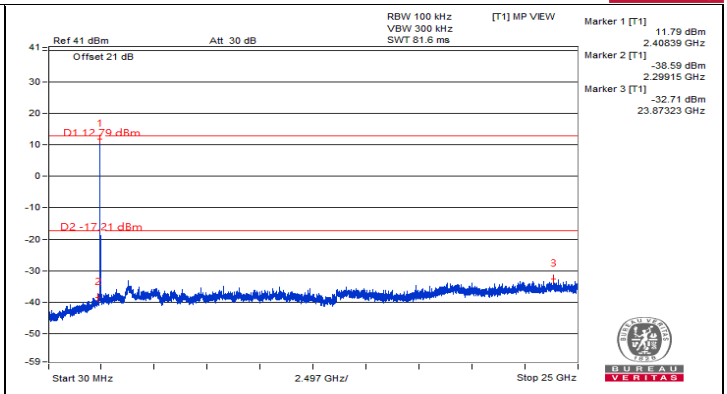
Chain 2 : CH 1 Band edge



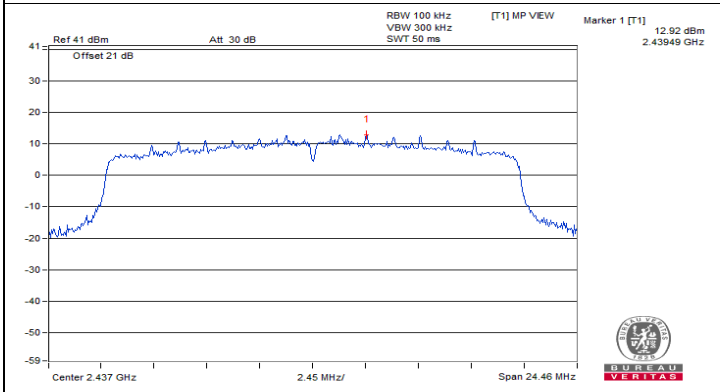
Chain 2 : CH 11 Band edge



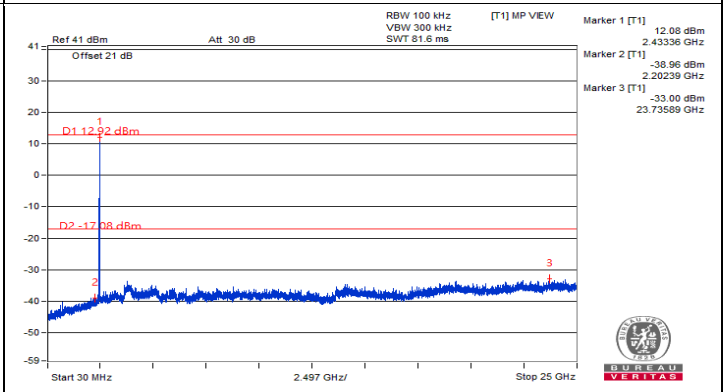
Chain 3 : CH 1



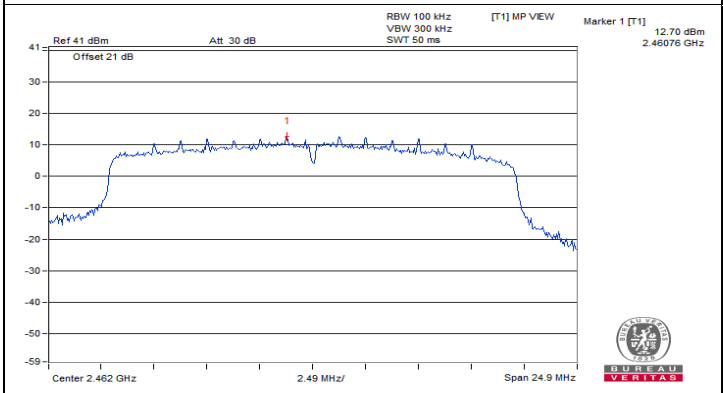
Chain 3 : CH 1



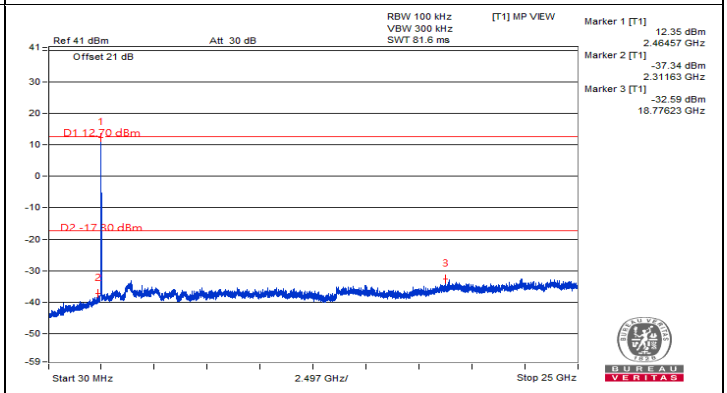
Chain 3 : CH 6



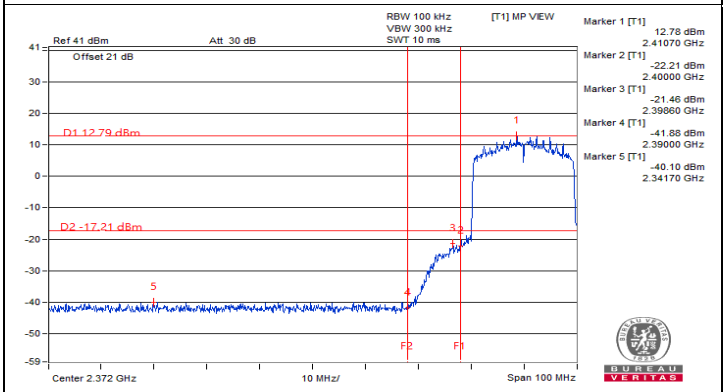
Chain 3 : CH 6



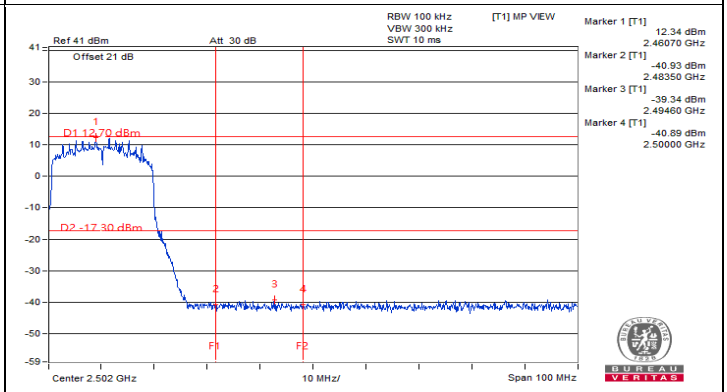
Chain 3 : CH 11



Chain 3 : CH 11



Chain 3 : CH 1 Band edge



Chain 3 : CH 11 Band edge

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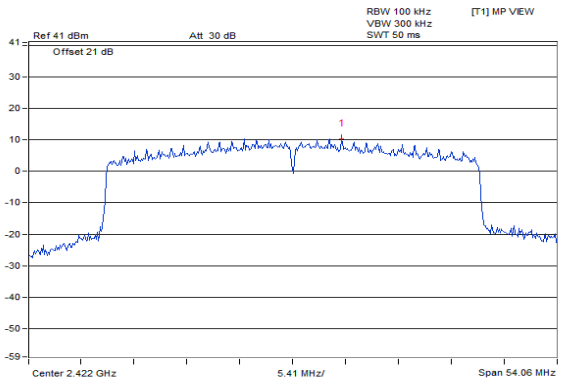
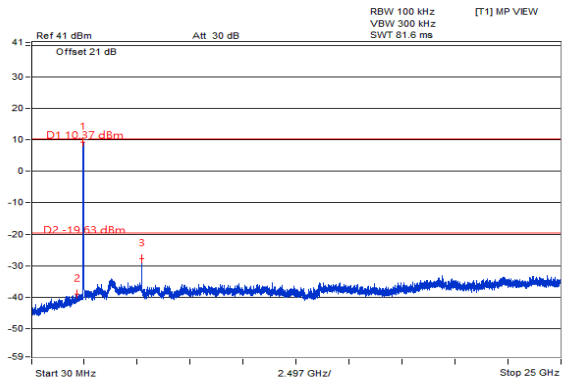
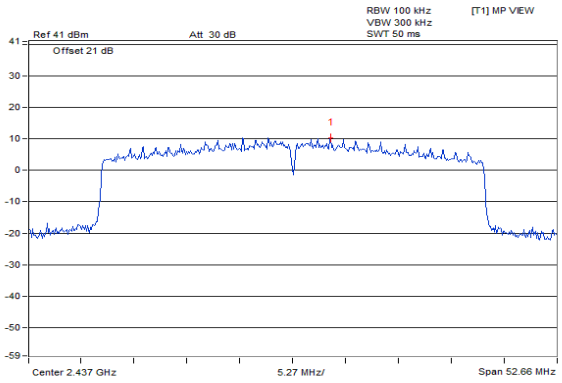


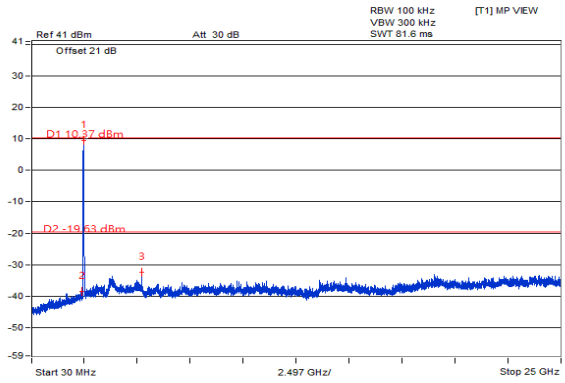
Chain 0 : CH 3



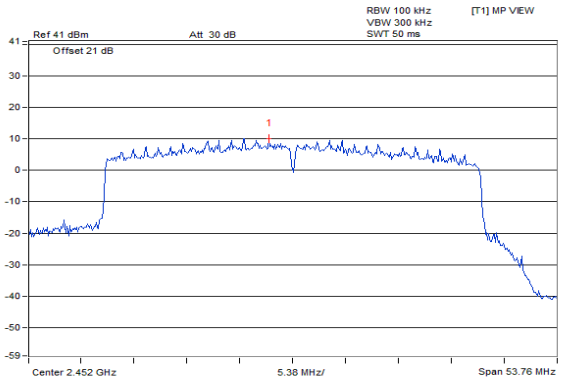
Chain 0 : CH 3



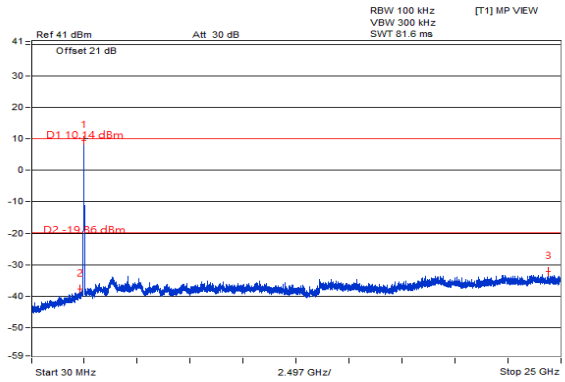
Chain 0 : CH 6



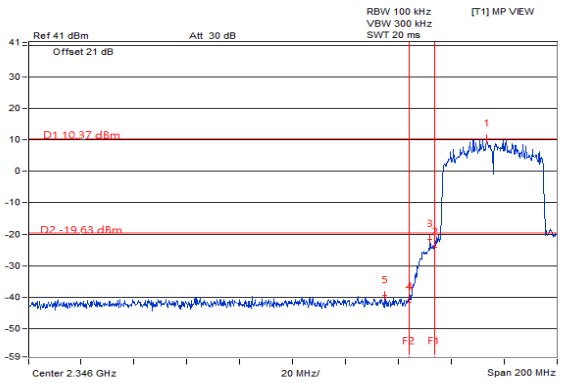
Chain 0 : CH 6



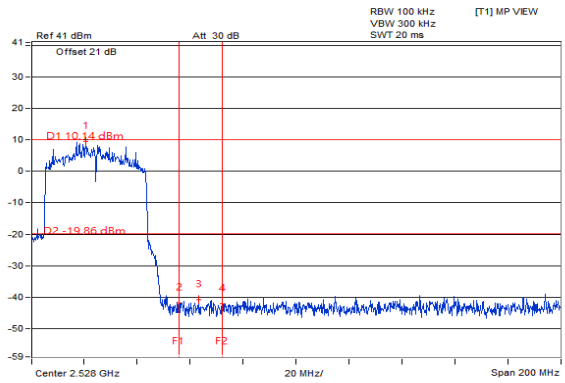
Chain 0 : CH 9



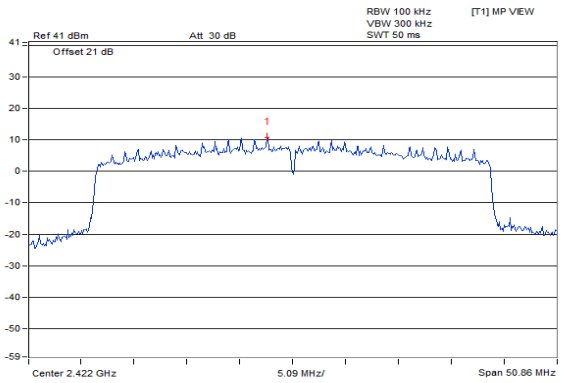
Chain 0 : CH 9



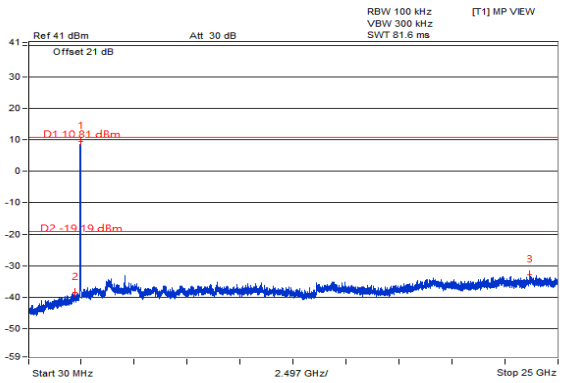
Chain 0 : CH 3 Band edge



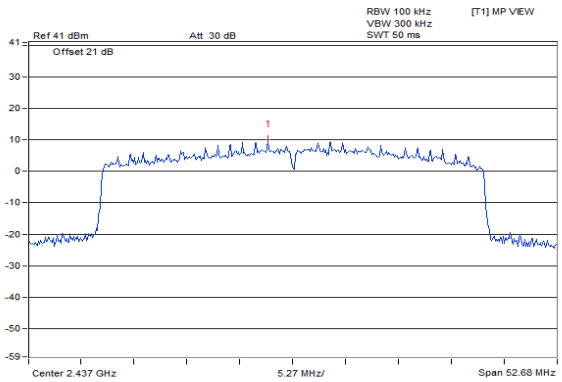
Chain 0 : CH 9 Band edge



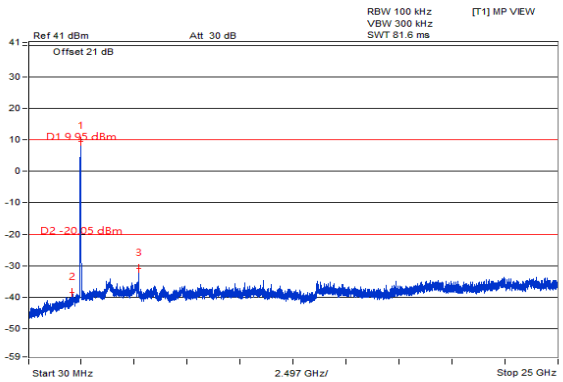
Chain 1 : CH 3



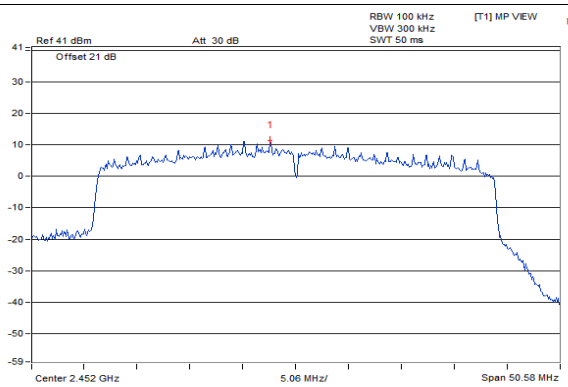
Chain 1 : CH 3



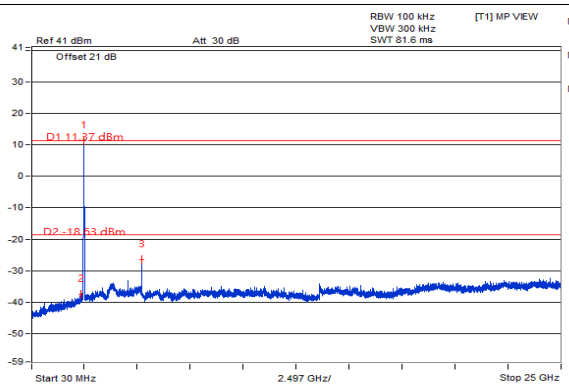
Chain 1 : CH 6



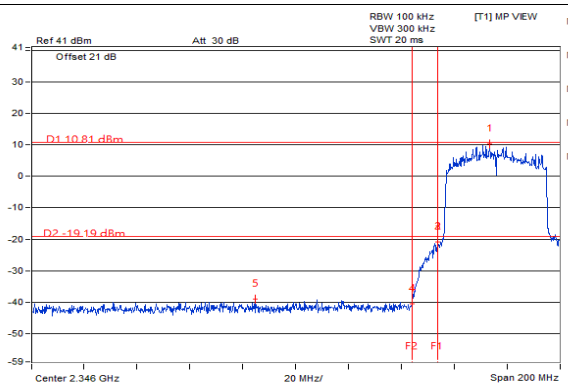
Chain 1 : CH 6



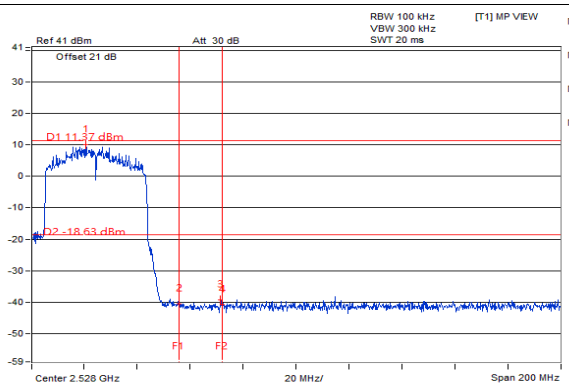
Chain 1 : CH 9



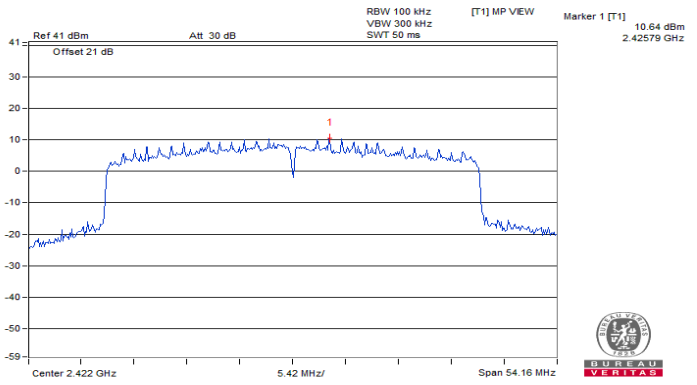
Chain 1 : CH 9



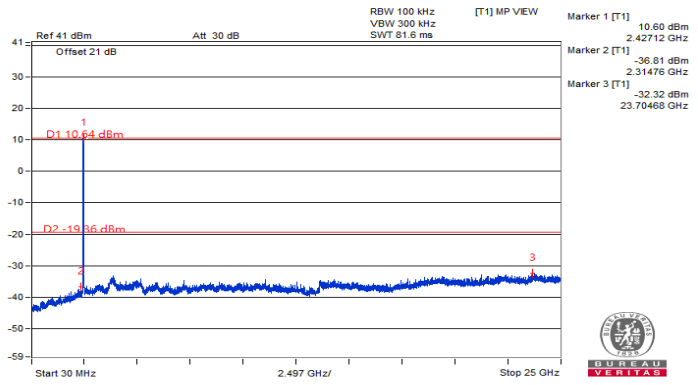
Chain 1 : CH 3 Band edge



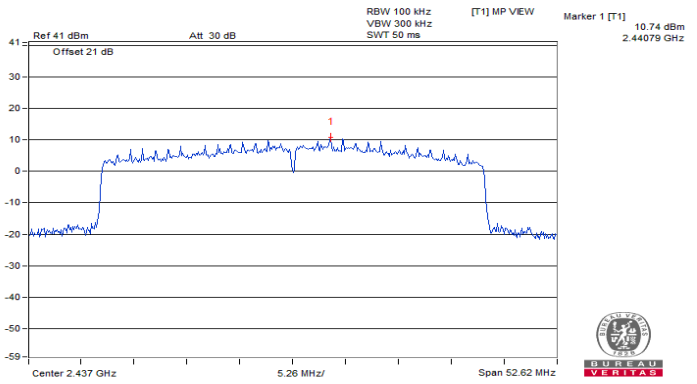
Chain 1 : CH 9 Band edge



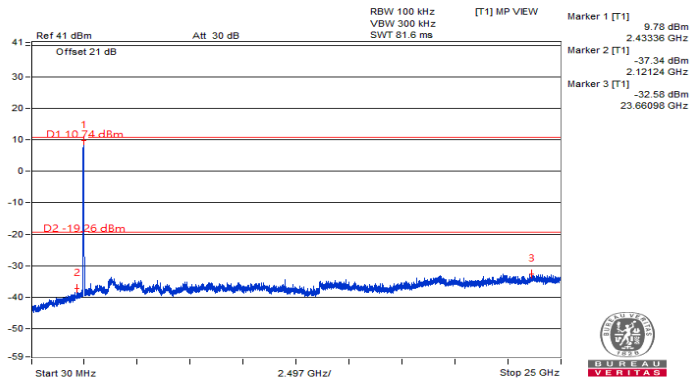
Chain 2 : CH 3



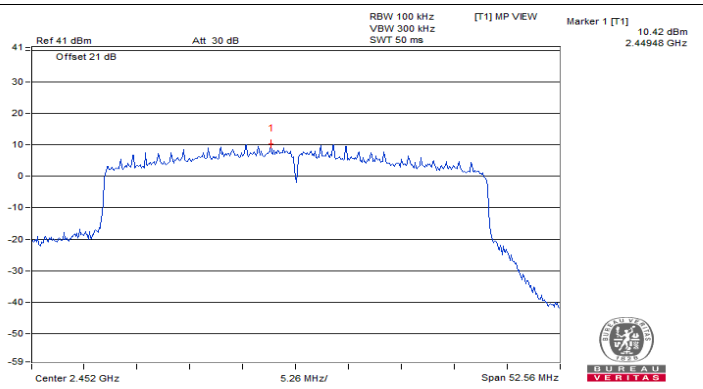
Chain 2 : CH 3



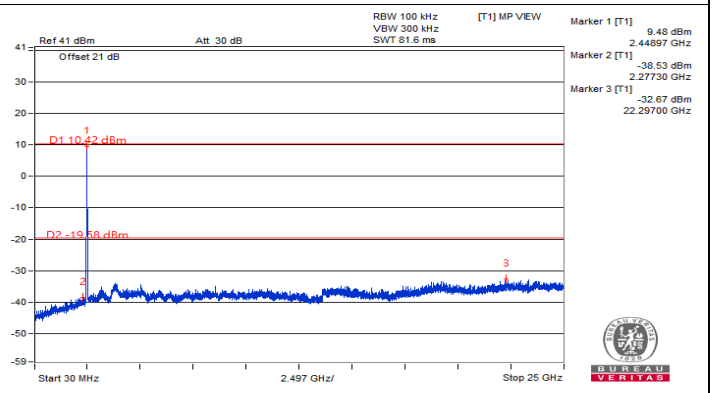
Chain 2 : CH 6



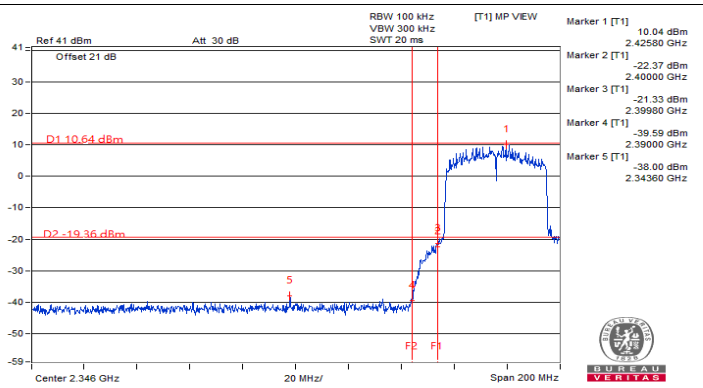
Chain 2 : CH 6



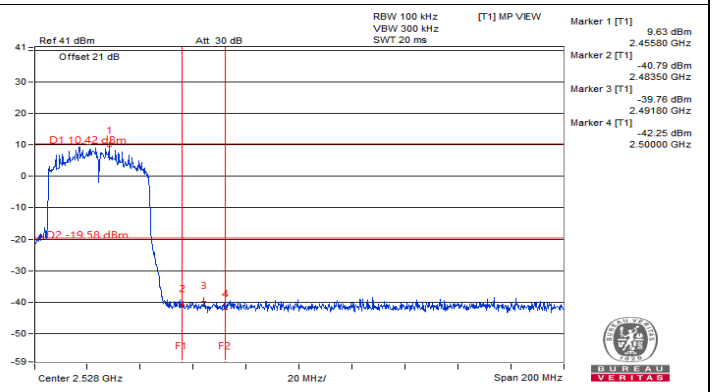
Chain 2 : CH 9



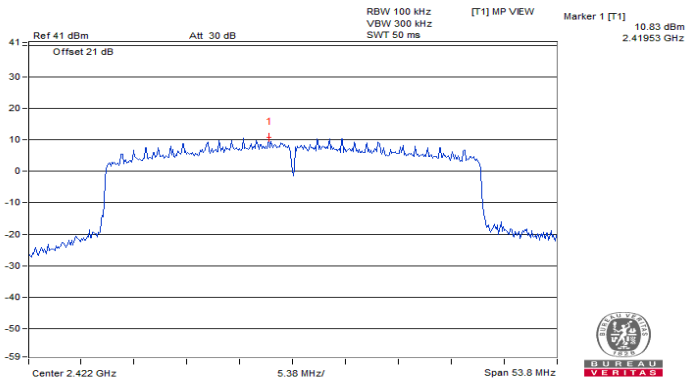
Chain 2 : CH 9



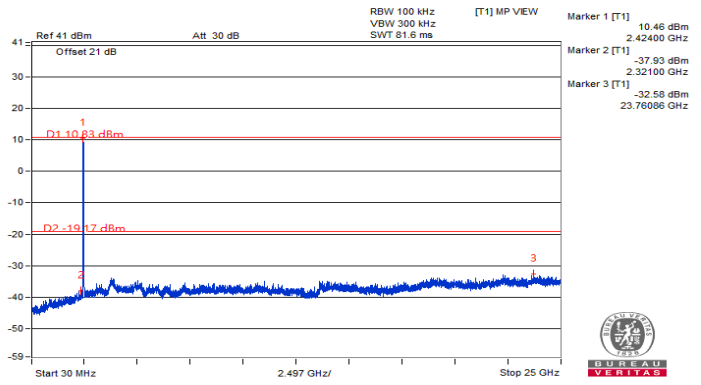
Chain 2 : CH 3 Band edge



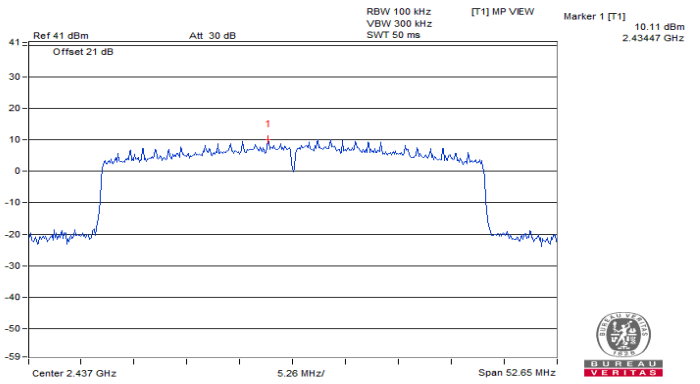
Chain 2 : CH 9 Band edge



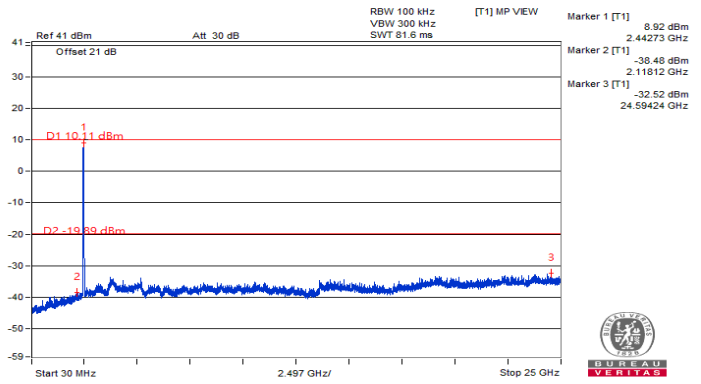
Chain 3 : CH 3



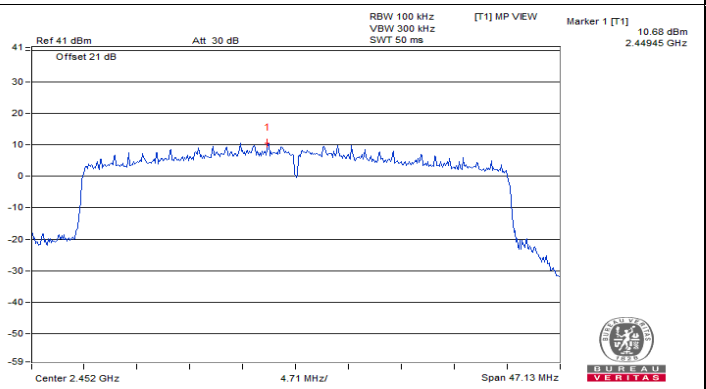
Chain 3 : CH 3



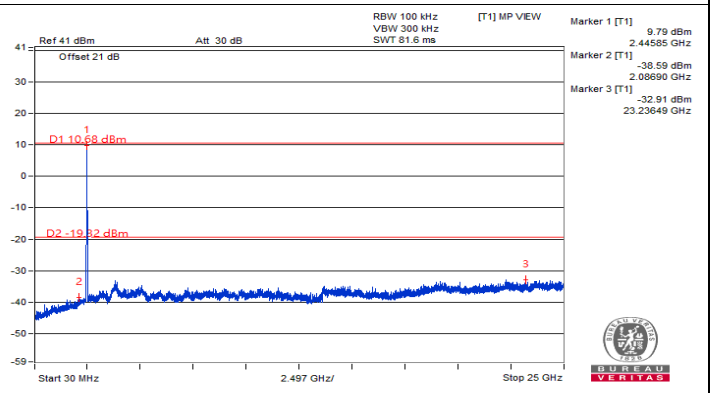
Chain 3 : CH 6



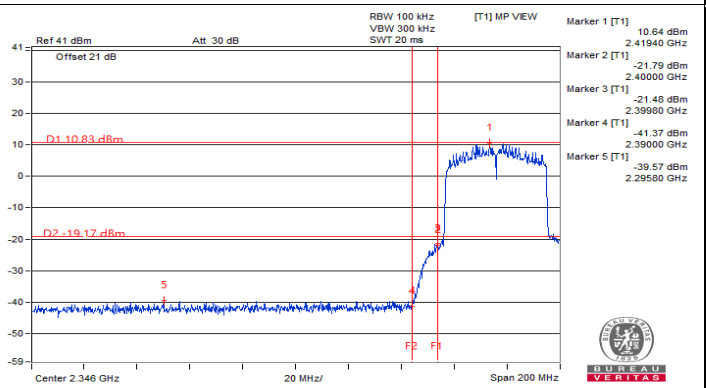
Chain 3 : CH 6



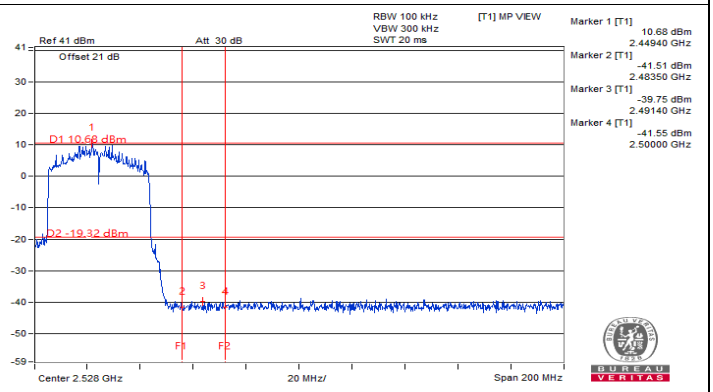
Chain 3 : CH 9



Chain 3 : CH 9



Chain 3 : CH 3 Band edge



Chain 3 : CH 9 Band edge

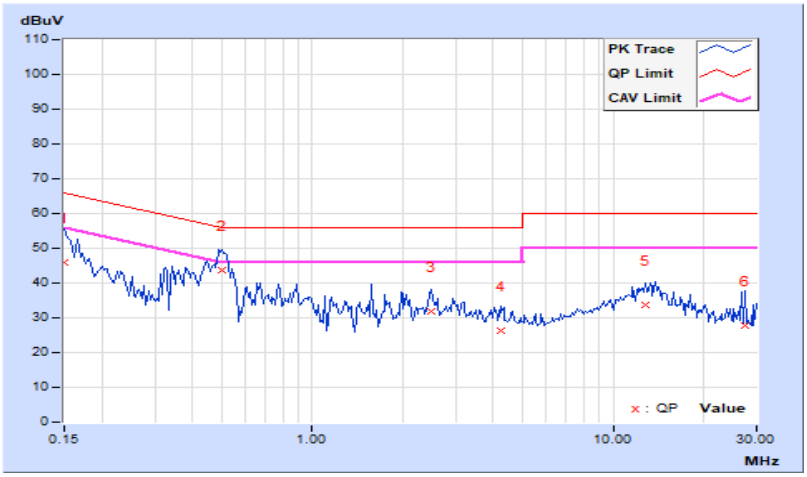
7.5 AC Power Conducted Emissions

RF Mode	802.11ax (HE20)	**Channel**	CH 11：2462 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**	21 °C, 58 % RH
Tested By	Willy 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	0.15000	9.92	36.04	23.09	45.96	33.01	66.00	56.00	-20.04	-22.99
2	**0.50156**	**9.95**	**33.77**	**21.89**	**43.72**	**31.84**	**56.00**	**46.00**	**-12.28**	**-14.16**
3	2.49609	10.04	21.84	14.32	31.88	24.36	56.00	46.00	-24.12	-21.64
4	4.21484	10.13	16.03	10.27	26.16	20.40	56.00	46.00	-29.84	-25.60
5	12.82031	10.67	22.94	17.33	33.61	28.00	60.00	50.00	-26.39	-22.00
6	27.48047	11.42	16.29	6.65	27.71	18.07	60.00	50.00	-32.29	-31.93

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

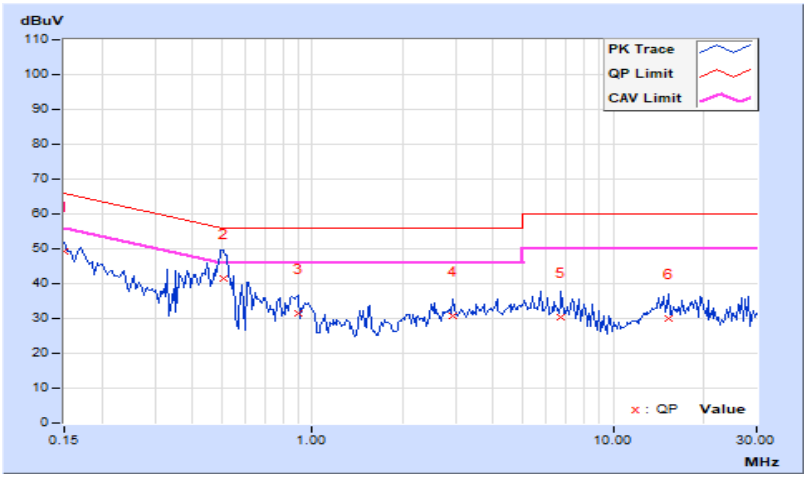


RF Mode	802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 58 % RH
Tested By	Willy Lin		

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	9.98	39.10	23.37	49.08	33.35	66.00	56.00	-16.92	-22.65
2	0.50938	10.01	31.62	21.42	41.63	31.43	56.00	46.00	-14.37	-14.57
3	0.89609	10.02	21.46	12.09	31.48	22.11	56.00	46.00	-24.52	-23.89
4	2.93359	10.11	20.52	13.51	30.63	23.62	56.00	46.00	-25.37	-22.38
5	6.73438	10.28	20.09	14.29	30.37	24.57	60.00	50.00	-29.63	-25.43
6	15.31641	10.68	19.30	14.27	29.98	24.95	60.00	50.00	-30.02	-25.05

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



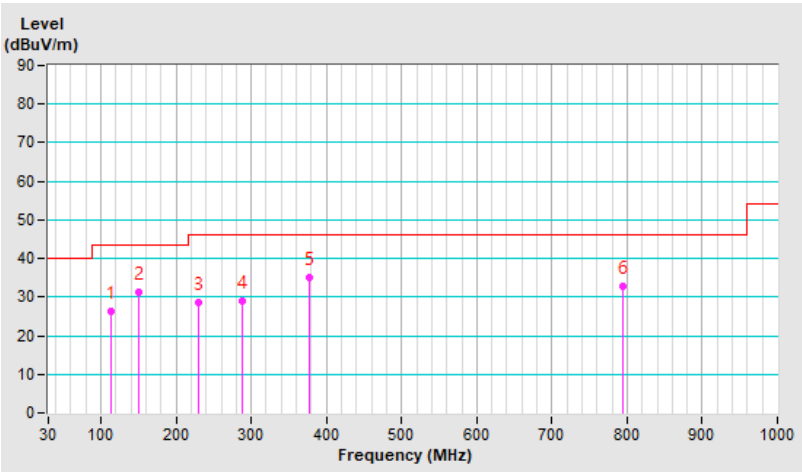
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE20)	**Channel**	CH 11：2462 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	19 °C, 62 % RH
Tested By	Willy 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	113.01	26.1 QP	43.5	-17.4	3.00 H	100	41.5	-15.4
2	150.01	31.2 QP	43.5	-12.3	3.00 H	95	43.3	-12.1
3	230.01	28.4 QP	46.0	-17.6	1.00 H	110	43.6	-15.2
4	288.41	28.9 QP	46.0	-17.1	1.00 H	135	40.9	-12.0
5	**377.96**	**35.1 QP**	**46.0**	**-10.9**	**1.00 H**	**133**	**44.8**	**-9.7**
6	794.87	32.8 QP	46.0	-13.2	1.00 H	144	34.2	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit 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.

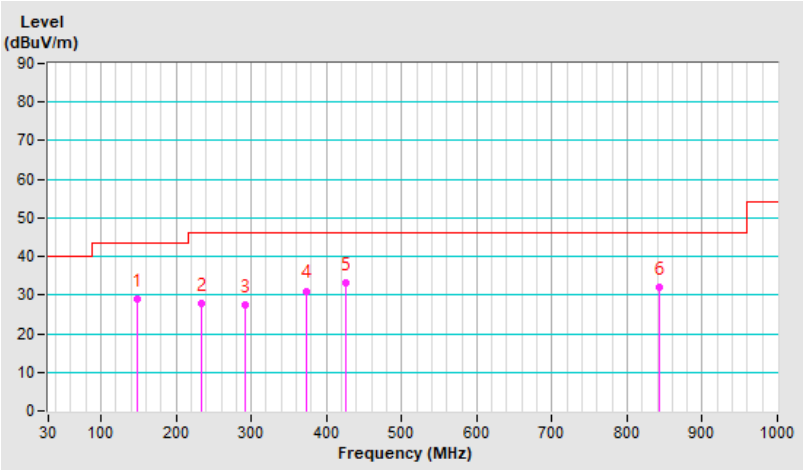


RF Mode	802.11ax (HE20)	**Channel**	CH 11：2462 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	19 °C, 62 % RH
Tested By	Willy Lin		

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	149.19	29.1 QP	43.5	-14.4	1.00 V	223	41.3	-12.2
2	233.87	27.9 QP	46.0	-18.1	1.00 V	176	42.6	-14.7
3	292.12	27.3 QP	46.0	-18.7	2.00 V	180	39.3	-12.0
4	374.30	31.1 QP	46.0	-14.9	2.00 V	99	40.9	-9.8
5	425.74	33.1 QP	46.0	-12.9	1.00 V	188	41.6	-8.5
6	843.81	31.9 QP	46.0	-14.1	1.00 V	360	32.9	-1.0

Remarks:

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



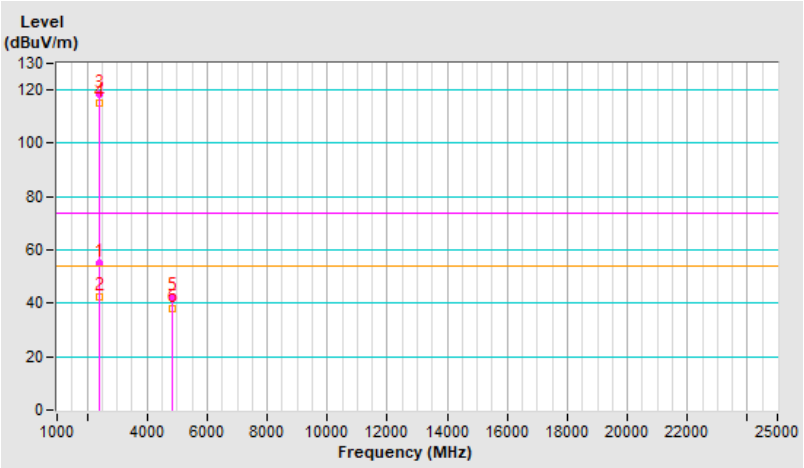
7.7 Unwanted Emissions above 1 GHz

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**	22 °C, 65 % RH
Tested By	Willy 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	55.0 PK	74.0	-19.0	1.58 H	146	58.6	-3.6
2	2390.00	42.4 AV	54.0	-11.6	1.58 H	146	46.0	-3.6
3	*2412.00	118.6 PK			1.58 H	146	122.1	-3.5
4	*2412.00	115.3 AV			1.58 H	146	118.8	-3.5
5	4824.00	42.6 PK	74.0	-31.4	1.67 H	17	40.9	1.7
6	4824.00	37.9 AV	54.0	-16.1	1.67 H	17	36.2	1.7

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.

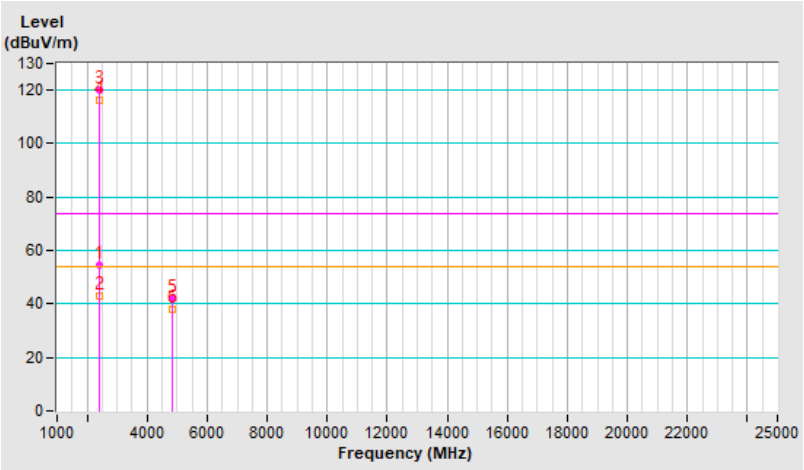


RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	54.5 PK	74.0	-19.5	2.43 V	327	58.1	-3.6
2	2390.00	43.0 AV	54.0	-11.0	2.43 V	327	46.6	-3.6
3	*2412.00	120.3 PK			2.43 V	327	123.8	-3.5
4	*2412.00	116.3 AV			2.43 V	327	119.8	-3.5
5	4824.00	41.7 PK	74.0	-32.3	3.79 V	306	40.0	1.7
6	4824.00	38.1 AV	54.0	-15.9	3.79 V	306	36.4	1.7

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.

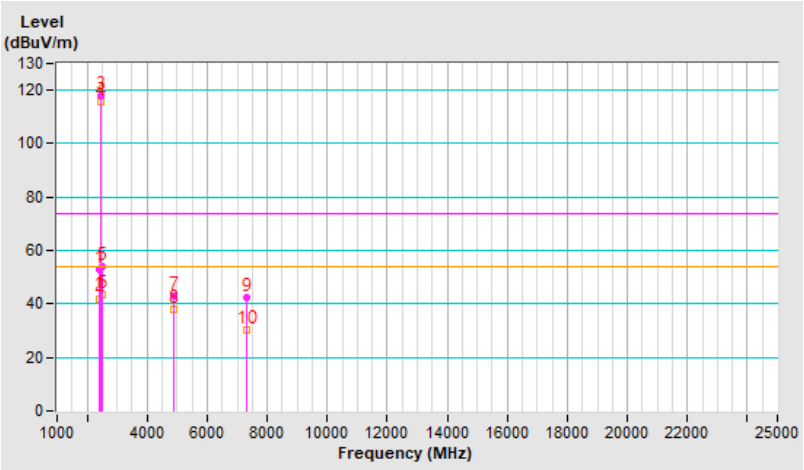


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	53.0 PK	74.0	-21.0	1.51 H	135	56.6	-3.6
2	2390.00	42.1 AV	54.0	-11.9	1.51 H	135	45.7	-3.6
3	*2437.00	118.1 PK			1.51 H	135	121.6	-3.5
4	*2437.00	115.6 AV			1.51 H	135	119.1	-3.5
5	2483.50	54.0 PK	74.0	-20.0	1.51 H	135	57.4	-3.4
6	2483.50	43.5 AV	54.0	-10.5	1.51 H	135	46.9	-3.4
7	4874.00	42.9 PK	74.0	-31.1	1.67 H	25	41.4	1.5
8	4874.00	38.2 AV	54.0	-15.8	1.67 H	25	36.7	1.5
9	7311.00	42.5 PK	74.0	-31.5	1.51 H	26	34.9	7.6
10	7311.00	30.3 AV	54.0	-23.7	1.51 H	26	22.7	7.6

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.

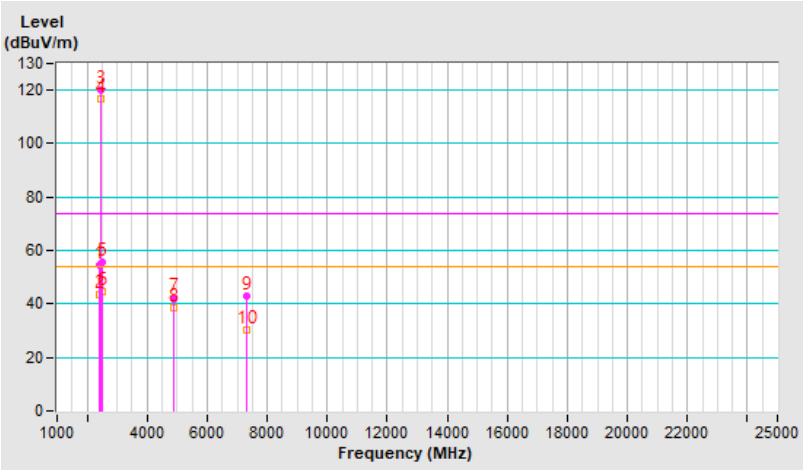


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	54.3 PK	74.0	-19.7	2.68 V	334	57.9	-3.6
2	2390.00	43.5 AV	54.0	-10.5	2.68 V	334	47.1	-3.6
3	*2437.00	120.1 PK			2.68 V	334	123.6	-3.5
4	*2437.00	116.9 AV			2.68 V	334	120.4	-3.5
5	2483.50	55.6 PK	74.0	-18.4	2.68 V	334	59.0	-3.4
6	2483.50	44.5 AV	54.0	-9.5	2.68 V	334	47.9	-3.4
7	4874.00	42.1 PK	74.0	-31.9	3.75 V	316	40.6	1.5
8	4874.00	38.4 AV	54.0	-15.6	3.75 V	316	36.9	1.5
9	7311.00	42.7 PK	74.0	-31.3	1.50 V	315	35.1	7.6
10	7311.00	30.4 AV	54.0	-23.6	1.50 V	315	22.8	7.6

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.

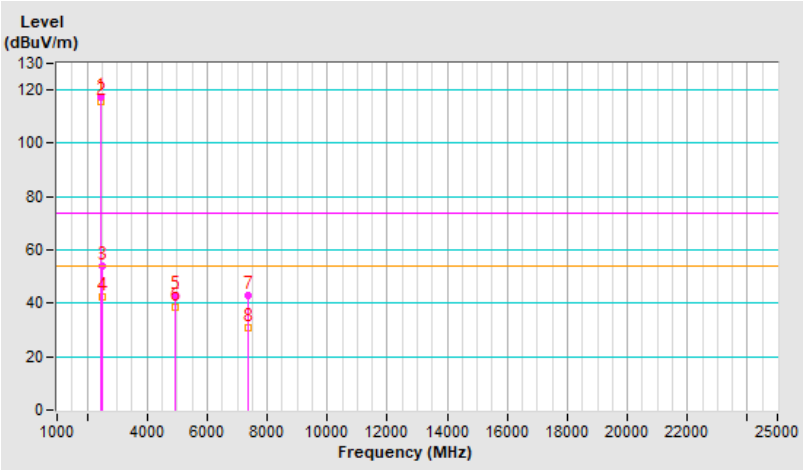


RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	117.1 PK			1.57 H	102	120.6	-3.5
2	*2462.00	115.5 AV			1.57 H	102	119.0	-3.5
3	2483.50	54.0 PK	74.0	-20.0	1.57 H	102	57.4	-3.4
4	2483.50	42.6 AV	54.0	-11.4	1.57 H	102	46.0	-3.4
5	4924.00	42.8 PK	74.0	-31.2	1.66 H	11	41.2	1.6
6	4924.00	38.3 AV	54.0	-15.7	1.66 H	11	36.7	1.6
7	7386.00	42.8 PK	74.0	-31.2	1.54 H	29	34.9	7.9
8	7386.00	30.7 AV	54.0	-23.3	1.54 H	29	22.8	7.9

Remarks:

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

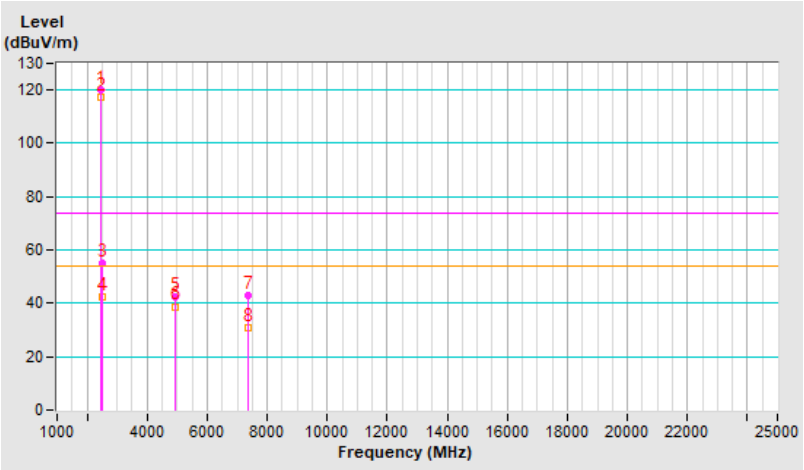


RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	*2462.00	120.1 PK			2.92 V	344	123.6	-3.5
2	*2462.00	117.1 AV			2.92 V	344	120.6	-3.5
3	2483.50	55.1 PK	74.0	-18.9	2.92 V	344	58.5	-3.4
4	2483.50	42.5 AV	54.0	-11.5	2.92 V	344	45.9	-3.4
5	4924.00	42.5 PK	74.0	-31.5	3.80 V	326	40.9	1.6
6	4924.00	38.8 AV	54.0	-15.2	3.80 V	326	37.2	1.6
7	7386.00	43.0 PK	74.0	-31.0	1.55 V	312	35.1	7.9
8	7386.00	30.7 AV	54.0	-23.3	1.55 V	312	22.8	7.9

Remarks:

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

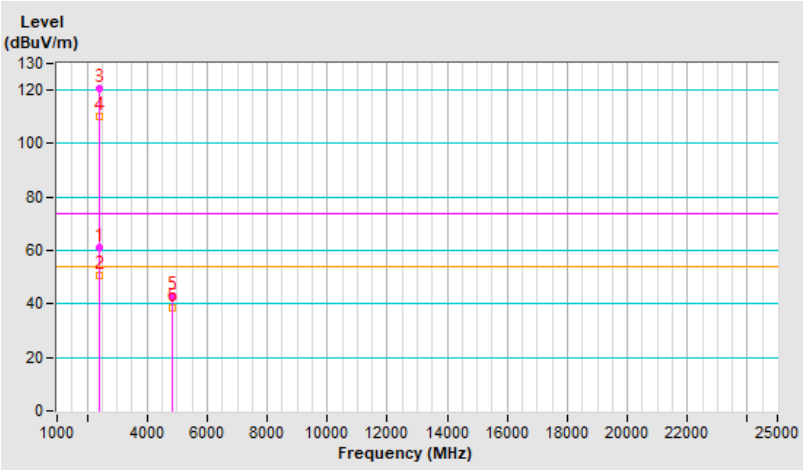


RF Mode	802.11g	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	61.1 PK	74.0	-12.9	1.55 H	106	64.7	-3.6
2	2390.00	50.6 AV	54.0	-3.4	1.55 H	106	54.2	-3.6
3	*2412.00	120.4 PK			1.55 H	106	123.9	-3.5
4	*2412.00	110.3 AV			1.55 H	106	113.8	-3.5
5	4824.00	43.0 PK	74.0	-31.0	1.68 H	23	41.3	1.7
6	4824.00	38.3 AV	54.0	-15.7	1.68 H	23	36.6	1.7

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.

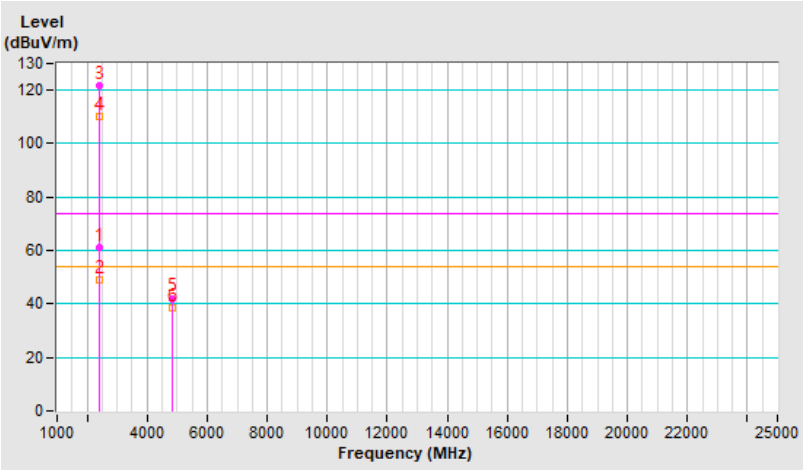


RF Mode	802.11g	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	60.9 PK	74.0	-13.1	2.40 V	324	64.5	-3.6
2	2390.00	48.9 AV	54.0	-5.1	2.40 V	324	52.5	-3.6
3	*2412.00	121.5 PK			2.40 V	324	125.0	-3.5
4	*2412.00	110.1 AV			2.40 V	324	113.6	-3.5
5	4824.00	42.1 PK	74.0	-31.9	3.74 V	305	40.4	1.7
6	4824.00	38.7 AV	54.0	-15.3	3.74 V	305	37.0	1.7

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.

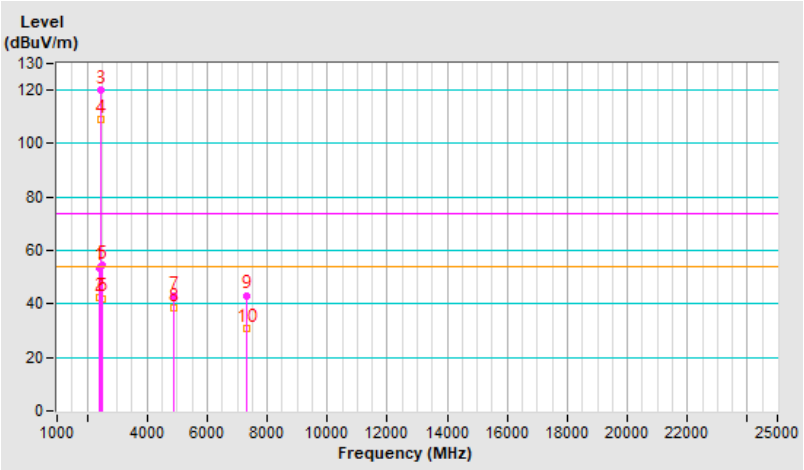


RF Mode	802.11g	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	53.7 PK	74.0	-20.3	1.54 H	110	57.3	-3.6
2	2390.00	42.3 AV	54.0	-11.7	1.54 H	110	45.9	-3.6
3	*2437.00	120.1 PK			1.54 H	110	123.6	-3.5
4	*2437.00	109.2 AV			1.54 H	110	112.7	-3.5
5	2483.50	54.5 PK	74.0	-19.5	1.54 H	110	57.9	-3.4
6	2483.50	42.1 AV	54.0	-11.9	1.54 H	110	45.5	-3.4
7	4874.00	42.8 PK	74.0	-31.2	1.68 H	28	41.3	1.5
8	4874.00	38.3 AV	54.0	-15.7	1.68 H	28	36.8	1.5
9	7311.00	43.2 PK	74.0	-30.8	1.46 H	41	35.6	7.6
10	7311.00	30.7 AV	54.0	-23.3	1.46 H	41	23.1	7.6

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.

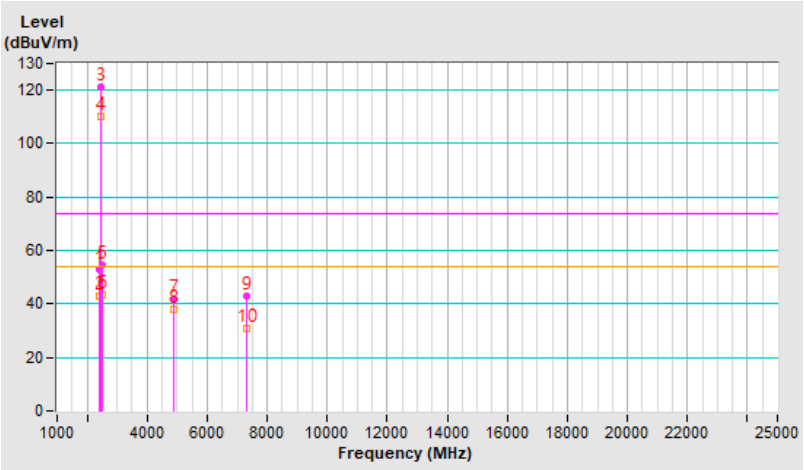


RF Mode	802.11g	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	53.1 PK	74.0	-20.9	2.47 V	334	56.7	-3.6
2	2390.00	42.9 AV	54.0	-11.1	2.47 V	334	46.5	-3.6
3	*2437.00	121.3 PK			2.47 V	334	124.8	-3.5
4	*2437.00	110.1 AV			2.47 V	334	113.6	-3.5
5	2483.50	54.6 PK	74.0	-19.4	2.47 V	334	58.0	-3.4
6	2483.50	43.5 AV	54.0	-10.5	2.47 V	334	46.9	-3.4
7	4874.00	41.9 PK	74.0	-32.1	3.77 V	309	40.4	1.5
8	4874.00	38.1 AV	54.0	-15.9	3.77 V	309	36.6	1.5
9	7311.00	42.8 PK	74.0	-31.2	1.45 V	310	35.2	7.6
10	7311.00	30.7 AV	54.0	-23.3	1.45 V	310	23.1	7.6

Remarks:

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

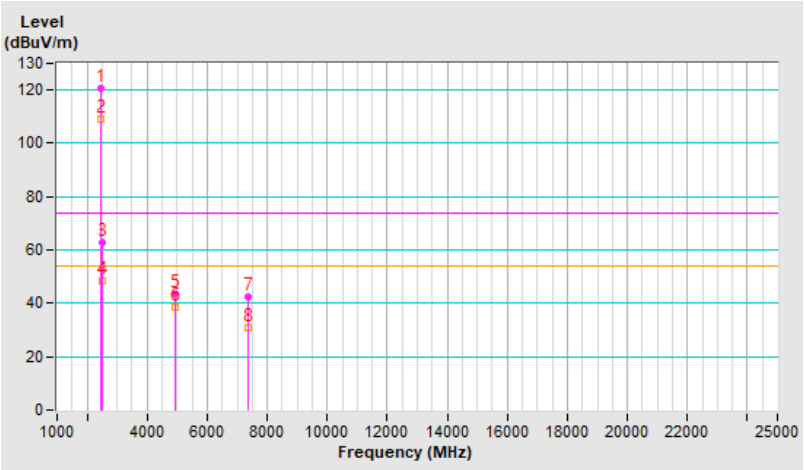


RF Mode	802.11g	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	120.5 PK			1.54 H	110	124.0	-3.5
2	*2462.00	109.1 AV			1.54 H	110	112.6	-3.5
3	2483.50	62.9 PK	74.0	-11.1	1.54 H	110	66.3	-3.4
4	2483.50	48.5 AV	54.0	-5.5	1.54 H	110	51.9	-3.4
5	4924.00	43.5 PK	74.0	-30.5	1.67 H	34	41.9	1.6
6	4924.00	38.6 AV	54.0	-15.4	1.67 H	34	37.0	1.6
7	7386.00	42.6 PK	74.0	-31.4	1.52 H	40	34.7	7.9
8	7386.00	30.7 AV	54.0	-23.3	1.52 H	40	22.8	7.9

Remarks:

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

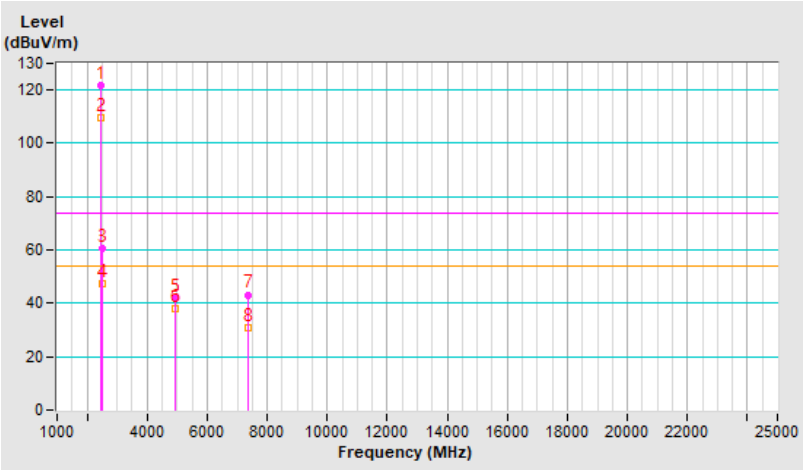


RF Mode	802.11g	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	*2462.00	121.6 PK			2.98 V	330	125.1	-3.5
2	*2462.00	109.5 AV			2.98 V	330	113.0	-3.5
3	2483.50	60.5 PK	74.0	-13.5	2.98 V	330	63.9	-3.4
4	2483.50	47.5 AV	54.0	-6.5	2.98 V	330	50.9	-3.4
5	4924.00	41.6 PK	74.0	-32.4	3.70 V	317	40.0	1.6
6	4924.00	38.1 AV	54.0	-15.9	3.70 V	317	36.5	1.6
7	7386.00	43.2 PK	74.0	-30.8	1.44 V	299	35.3	7.9
8	7386.00	30.8 AV	54.0	-23.2	1.44 V	299	22.9	7.9

Remarks:

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

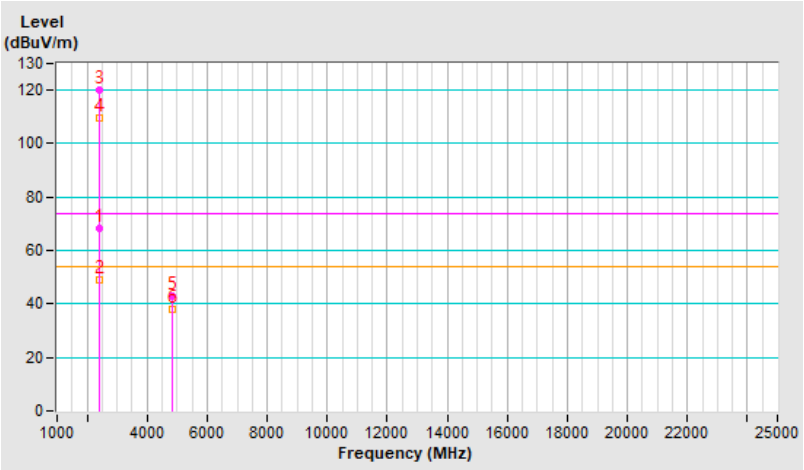


RF Mode	802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	68.1 PK	74.0	-5.9	1.55 H	107	71.7	-3.6
2	2390.00	49.1 AV	54.0	-4.9	1.55 H	107	52.7	-3.6
3	*2412.00	120.3 PK			1.55 H	107	123.8	-3.5
4	*2412.00	109.5 AV			1.55 H	107	113.0	-3.5
5	4824.00	43.1 PK	74.0	-30.9	1.65 H	27	41.4	1.7
6	4824.00	38.2 AV	54.0	-15.8	1.65 H	27	36.5	1.7

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.

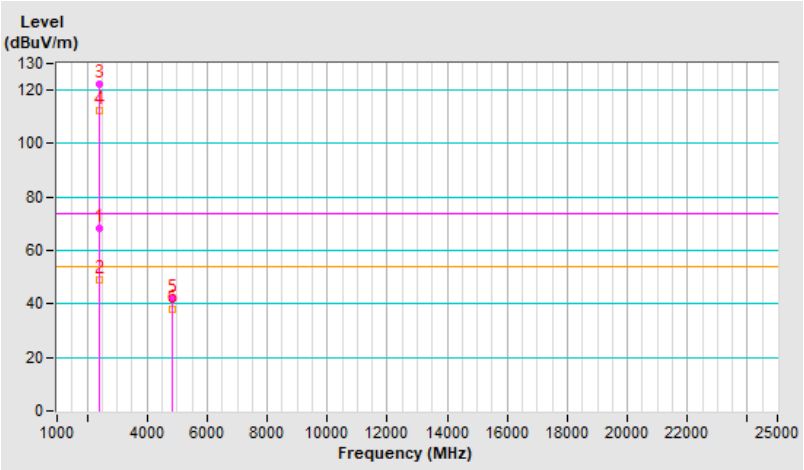


RF Mode	802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	68.5 PK	74.0	-5.5	2.28 V	273	72.1	-3.6
2	2390.00	49.1 AV	54.0	-4.9	2.28 V	273	52.7	-3.6
3	*2412.00	122.1 PK			2.28 V	273	125.6	-3.5
4	*2412.00	112.5 AV			2.28 V	273	116.0	-3.5
5	4824.00	41.7 PK	74.0	-32.3	3.73 V	331	40.0	1.7
6	4824.00	38.0 AV	54.0	-16.0	3.73 V	331	36.3	1.7

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.

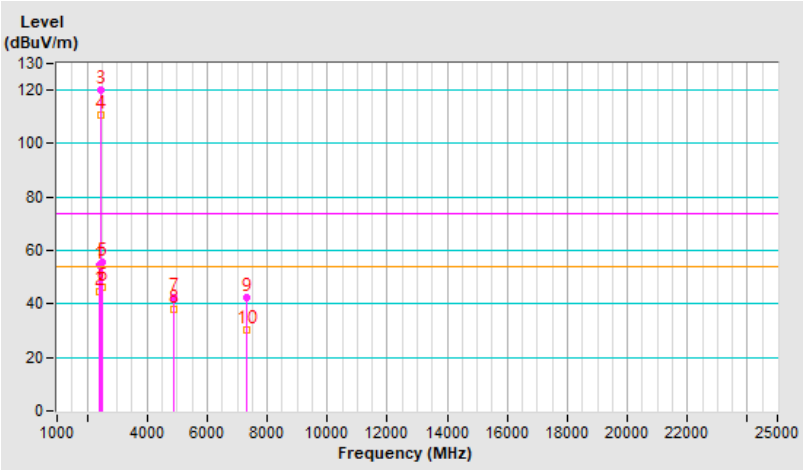


RF Mode	802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	54.6 PK	74.0	-19.4	1.61 H	94	58.2	-3.6
2	2390.00	44.5 AV	54.0	-9.5	1.61 H	94	48.1	-3.6
3	*2437.00	120.2 PK			1.61 H	94	123.7	-3.5
4	*2437.00	110.6 AV			1.61 H	94	114.1	-3.5
5	2483.50	55.8 PK	74.0	-18.2	1.61 H	94	59.2	-3.4
6	2483.50	46.2 AV	54.0	-7.8	1.61 H	94	49.6	-3.4
7	4874.00	42.3 PK	74.0	-31.7	1.62 H	36	40.8	1.5
8	4874.00	37.9 AV	54.0	-16.1	1.62 H	36	36.4	1.5
9	7311.00	42.2 PK	74.0	-31.8	1.50 H	31	34.6	7.6
10	7311.00	30.2 AV	54.0	-23.8	1.50 H	31	22.6	7.6

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.

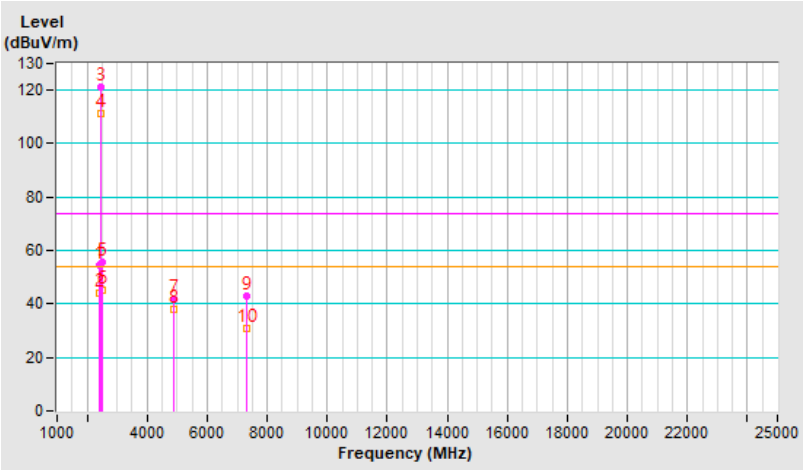


RF Mode	802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	54.5 PK	74.0	-19.5	2.25 V	256	58.1	-3.6
2	2390.00	44.3 AV	54.0	-9.7	2.25 V	256	47.9	-3.6
3	*2437.00	121.3 PK			2.25 V	256	124.8	-3.5
4	*2437.00	111.5 AV			2.25 V	256	115.0	-3.5
5	2483.50	55.5 PK	74.0	-18.5	2.25 V	256	58.9	-3.4
6	2483.50	45.1 AV	54.0	-8.9	2.25 V	256	48.5	-3.4
7	4874.00	41.9 PK	74.0	-32.1	3.79 V	320	40.4	1.5
8	4874.00	38.2 AV	54.0	-15.8	3.79 V	320	36.7	1.5
9	7311.00	43.1 PK	74.0	-30.9	1.45 V	316	35.5	7.6
10	7311.00	30.7 AV	54.0	-23.3	1.45 V	316	23.1	7.6

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.

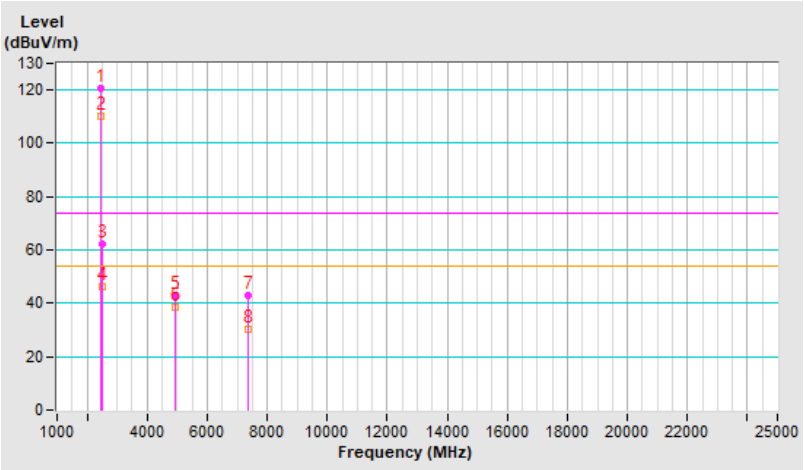


RF Mode	802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	120.5 PK			1.53 H	99	124.0	-3.5
2	*2462.00	110.3 AV			1.53 H	99	113.8	-3.5
3	2483.50	62.1 PK	74.0	-11.9	1.53 H	99	65.5	-3.4
4	2483.50	46.5 AV	54.0	-7.5	1.53 H	99	49.9	-3.4
5	4924.00	43.1 PK	74.0	-30.9	1.69 H	24	41.5	1.6
6	4924.00	38.4 AV	54.0	-15.6	1.69 H	24	36.8	1.6
7	7386.00	42.8 PK	74.0	-31.2	1.46 H	23	34.9	7.9
8	7386.00	30.3 AV	54.0	-23.7	1.46 H	23	22.4	7.9

Remarks:

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

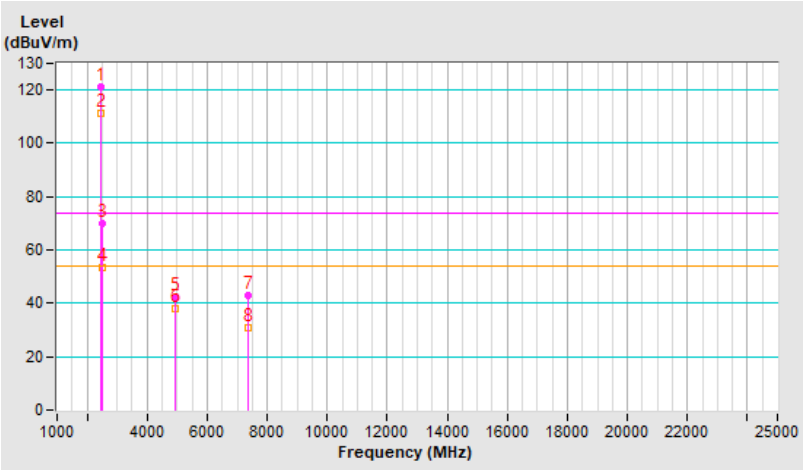


RF Mode	802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	*2462.00	121.3 PK			2.30 V	280	124.8	-3.5
2	*2462.00	111.5 AV			2.30 V	280	115.0	-3.5
3	2483.50	70.1 PK	74.0	-3.9	2.30 V	280	73.5	-3.4
4	2483.50	53.5 AV	54.0	-0.5	2.30 V	280	56.9	-3.4
5	4924.00	42.1 PK	74.0	-31.9	3.76 V	305	40.5	1.6
6	4924.00	38.1 AV	54.0	-15.9	3.76 V	305	36.5	1.6
7	7386.00	43.0 PK	74.0	-31.0	1.47 V	321	35.1	7.9
8	7386.00	30.6 AV	54.0	-23.4	1.47 V	321	22.7	7.9

Remarks:

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

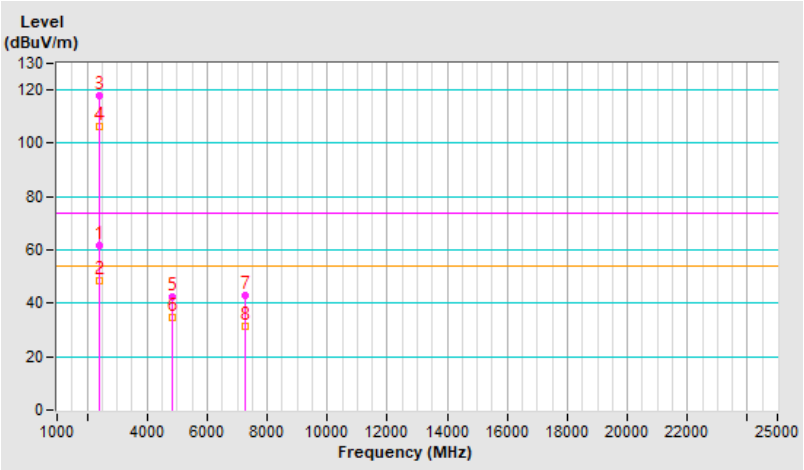


RF Mode	802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	61.5 PK	74.0	-12.5	1.60 H	88	65.1	-3.6
2	2390.00	48.6 AV	54.0	-5.4	1.60 H	88	52.2	-3.6
3	*2422.00	118.0 PK			1.60 H	88	121.5	-3.5
4	*2422.00	106.5 AV			1.60 H	88	110.0	-3.5
5	4844.00	42.2 PK	74.0	-31.8	1.65 H	35	40.6	1.6
6	4844.00	34.8 AV	54.0	-19.2	1.65 H	35	33.2	1.6
7	7266.00	43.1 PK	74.0	-30.9	1.50 H	29	35.8	7.3
8	7266.00	31.6 AV	54.0	-22.4	1.50 H	29	24.3	7.3

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.

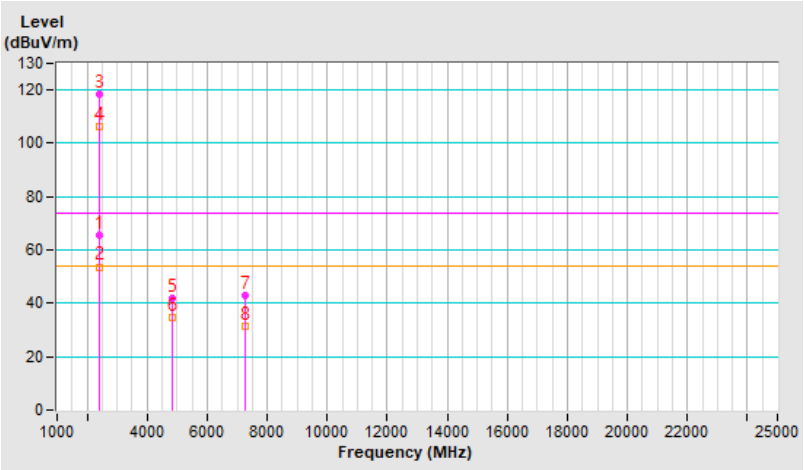


RF Mode	802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	65.3 PK	74.0	-8.7	2.29 V	265	68.9	-3.6
2	**2390.00**	**53.7 AV**	**54.0**	**-0.3**	**2.29 V**	**265**	**57.3**	**-3.6**
3	*2422.00	118.5 PK			2.29 V	265	122.0	-3.5
4	*2422.00	106.5 AV			2.29 V	265	110.0	-3.5
5	4844.00	41.8 PK	74.0	-32.2	3.76 V	305	40.2	1.6
6	4844.00	34.6 AV	54.0	-19.4	3.76 V	305	33.0	1.6
7	7266.00	42.9 PK	74.0	-31.1	1.55 V	314	35.6	7.3
8	7266.00	31.6 AV	54.0	-22.4	1.55 V	314	24.3	7.3

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.

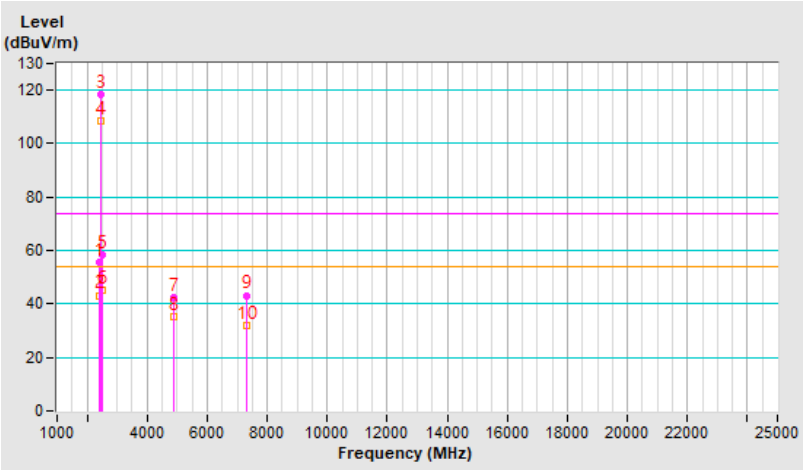


RF Mode	802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	55.6 PK	74.0	-18.4	1.52 H	99	59.2	-3.6
2	2390.00	43.2 AV	54.0	-10.8	1.52 H	99	46.8	-3.6
3	*2437.00	118.5 PK			1.52 H	99	122.0	-3.5
4	*2437.00	108.5 AV			1.52 H	99	112.0	-3.5
5	2483.50	58.3 PK	74.0	-15.7	1.52 H	99	61.7	-3.4
6	2483.50	45.3 AV	54.0	-8.7	1.52 H	99	48.7	-3.4
7	4874.00	42.6 PK	74.0	-31.4	1.63 H	28	41.1	1.5
8	4874.00	35.2 AV	54.0	-18.8	1.63 H	28	33.7	1.5
9	7311.00	43.2 PK	74.0	-30.8	1.56 H	24	35.6	7.6
10	7311.00	31.9 AV	54.0	-22.1	1.56 H	24	24.3	7.6

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.

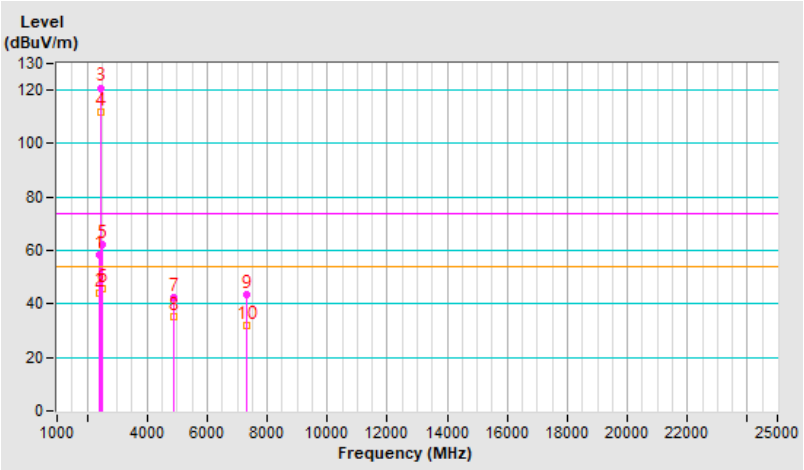


RF Mode	802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	2390.00	58.5 PK	74.0	-15.5	2.24 V	254	62.1	-3.6
2	2390.00	44.3 AV	54.0	-9.7	2.24 V	254	47.9	-3.6
3	*2437.00	120.9 PK			2.24 V	254	124.4	-3.5
4	*2437.00	111.6 AV			2.24 V	254	115.1	-3.5
5	2483.50	62.1 PK	74.0	-11.9	2.24 V	254	65.5	-3.4
6	2483.50	45.9 AV	54.0	-8.1	2.24 V	254	49.3	-3.4
7	4874.00	42.6 PK	74.0	-31.4	3.75 V	312	41.1	1.5
8	4874.00	35.3 AV	54.0	-18.7	3.75 V	312	33.8	1.5
9	7311.00	43.4 PK	74.0	-30.6	1.53 V	323	35.8	7.6
10	7311.00	31.9 AV	54.0	-22.1	1.53 V	323	24.3	7.6

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.

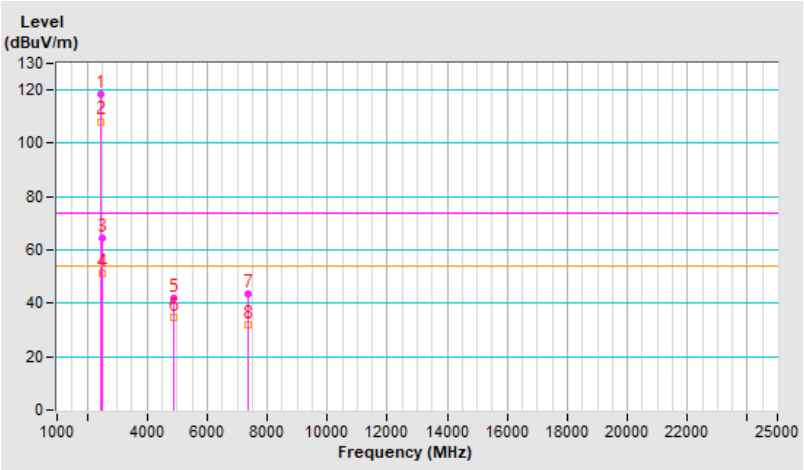


RF Mode	802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	*2452.00	118.5 PK			1.53 H	90	121.9	-3.4
2	*2452.00	108.2 AV			1.53 H	90	111.6	-3.4
3	2483.50	64.3 PK	74.0	-9.7	1.53 H	90	67.7	-3.4
4	2483.50	51.2 AV	54.0	-2.8	1.53 H	90	54.6	-3.4
5	4904.00	41.9 PK	74.0	-32.1	1.64 H	26	40.4	1.5
6	4904.00	34.7 AV	54.0	-19.3	1.64 H	26	33.2	1.5
7	7356.00	43.4 PK	74.0	-30.6	1.52 H	13	35.5	7.9
8	7356.00	31.7 AV	54.0	-22.3	1.52 H	13	23.8	7.9

Remarks:

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

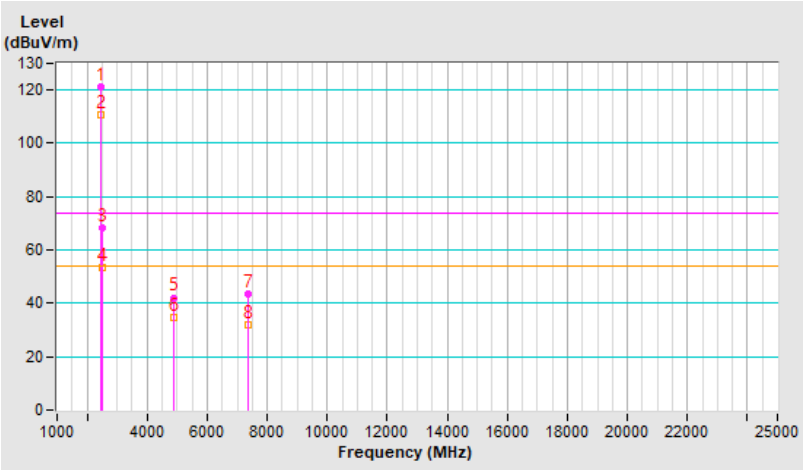


RF Mode	802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

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	*2452.00	121.1 PK			2.33 V	257	124.5	-3.4
2	*2452.00	110.5 AV			2.33 V	257	113.9	-3.4
3	2483.50	68.2 PK	74.0	-5.8	2.33 V	257	71.6	-3.4
4	2483.50	53.6 AV	54.0	-0.4	2.33 V	257	57.0	-3.4
5	4904.00	42.1 PK	74.0	-31.9	3.72 V	303	40.6	1.5
6	4904.00	34.8 AV	54.0	-19.2	3.72 V	303	33.3	1.5
7	7356.00	43.3 PK	74.0	-30.7	1.53 V	315	35.4	7.9
8	7356.00	31.8 AV	54.0	-22.2	1.53 V	315	23.9	7.9

Remarks:

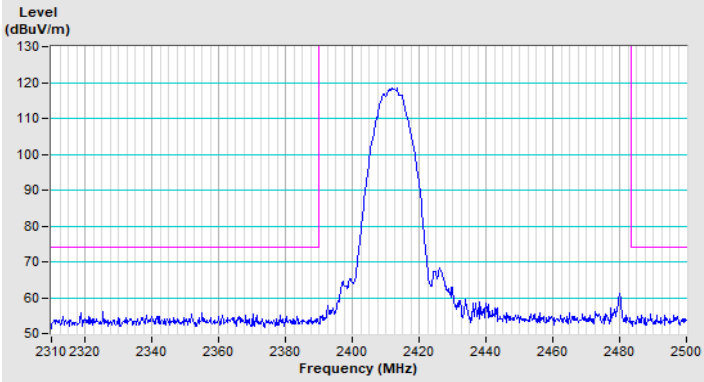
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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



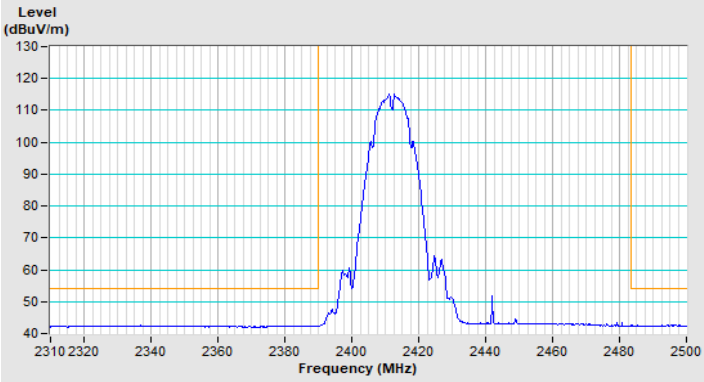
Plot of Band Edge

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

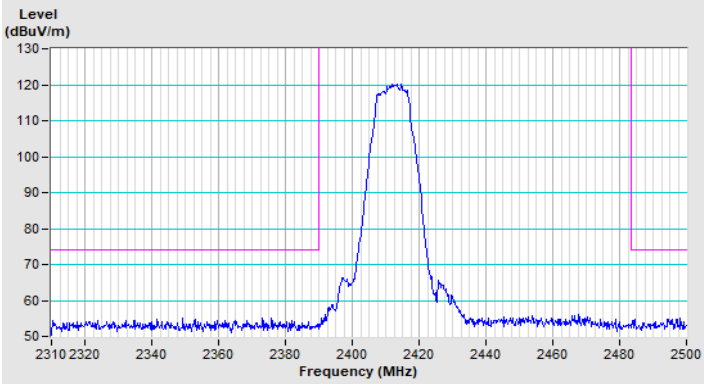
802.11b Channel 1



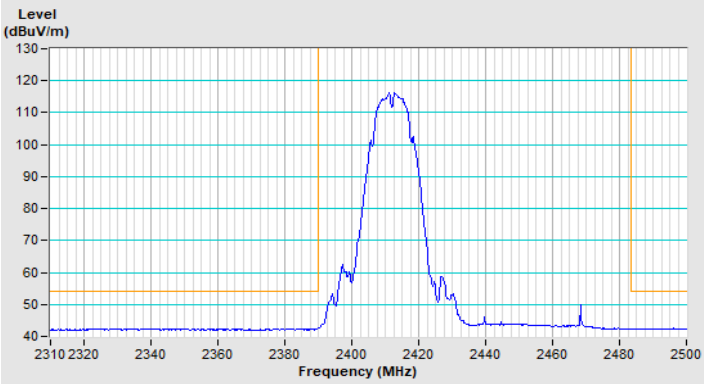
Horizontal (Peak)



Horizontal (Average)

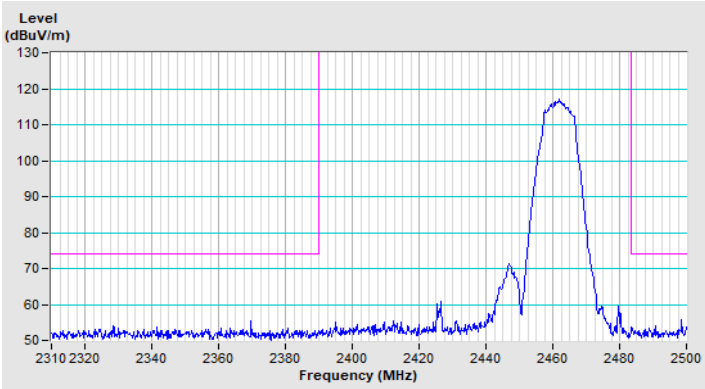


Vertical (Peak)

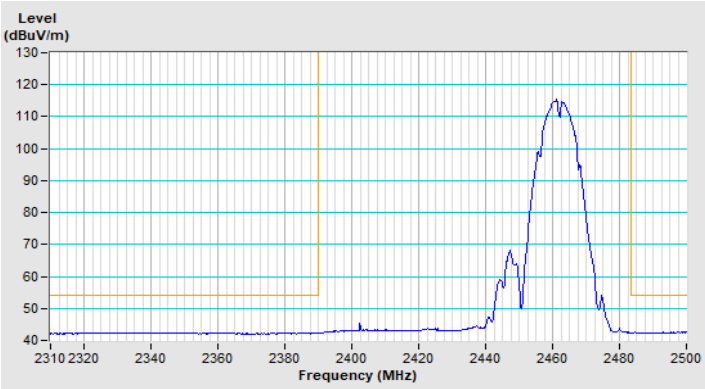


Vertical (Average)

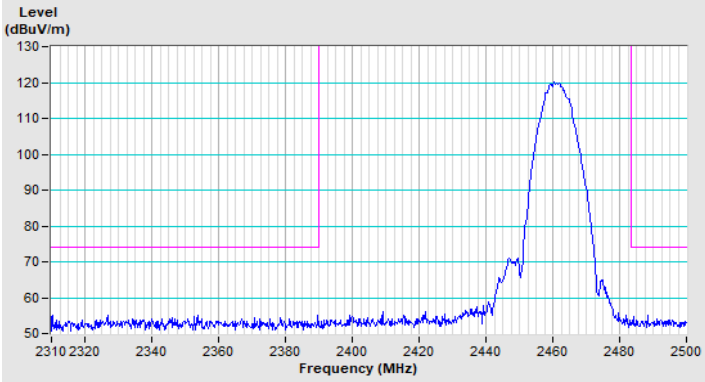
802.11b Channel 11



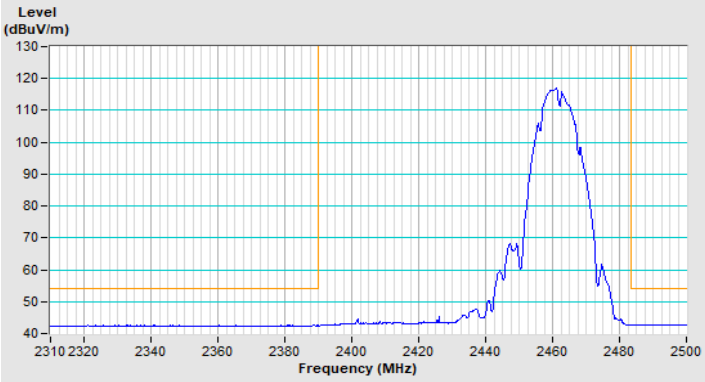
Horizontal (Peak)



Horizontal (Average)



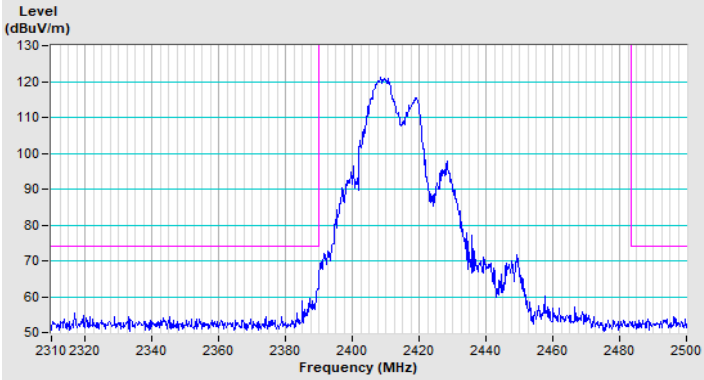
Vertical (Peak)



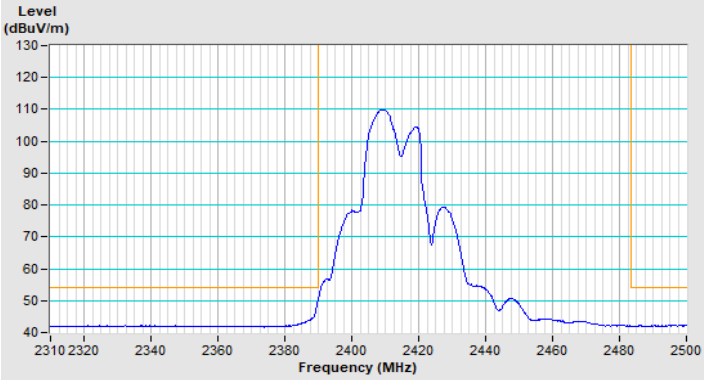
Vertical (Average)

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

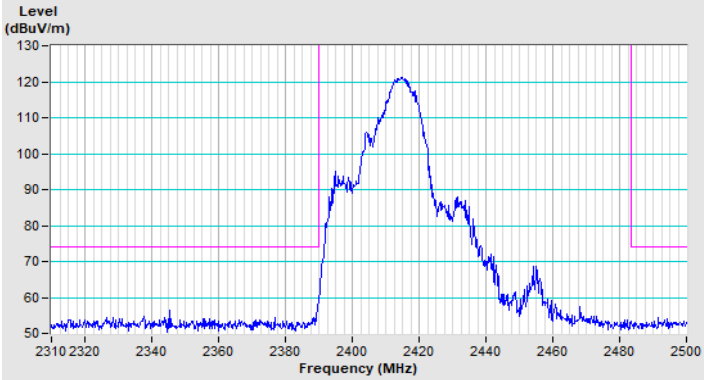
802.11g Channel 1



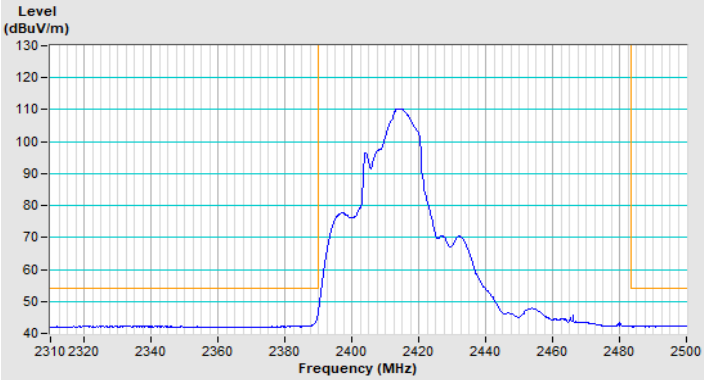
Horizontal (Peak)



Horizontal (Average)

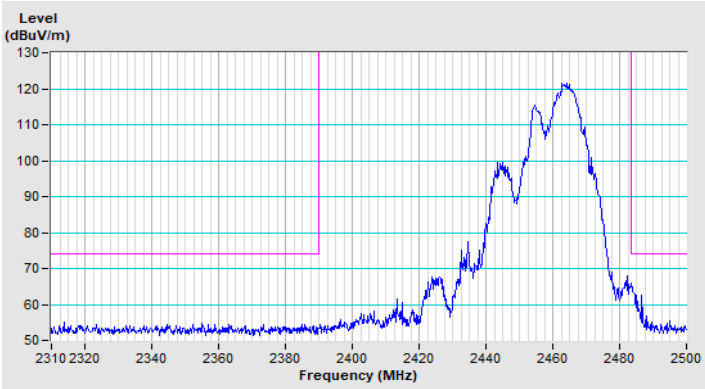


Vertical (Peak)

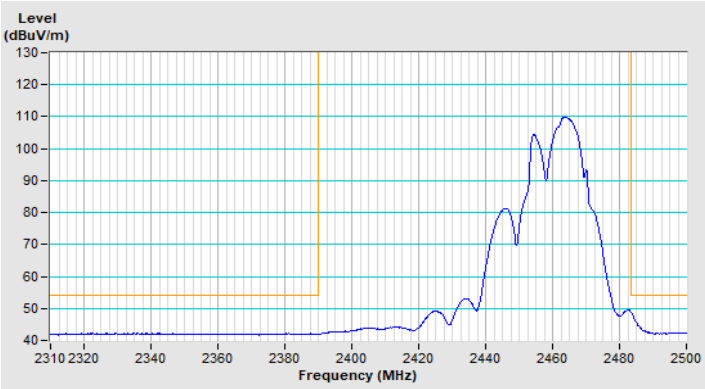


Vertical (Average)

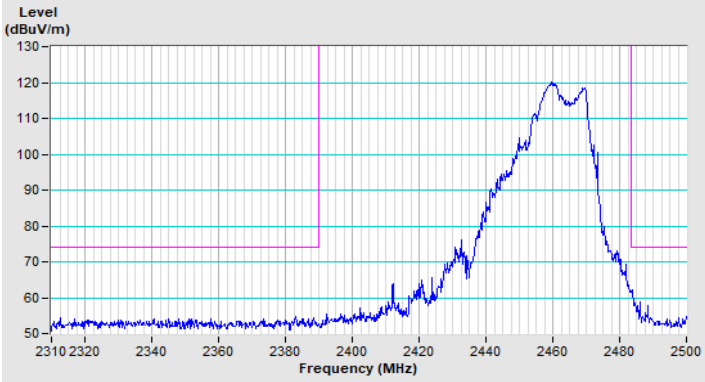
802.11g Channel 11



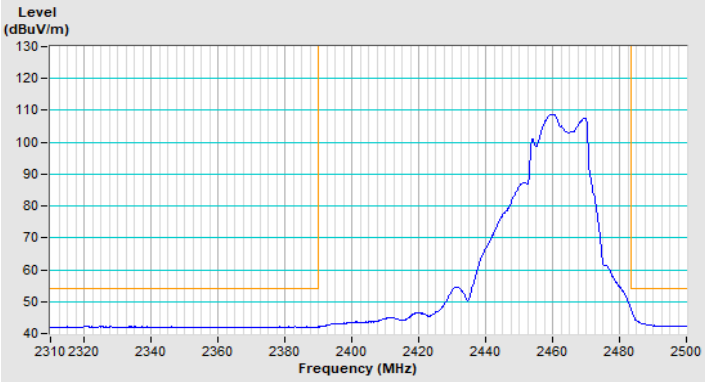
Horizontal (Peak)



Horizontal (Average)



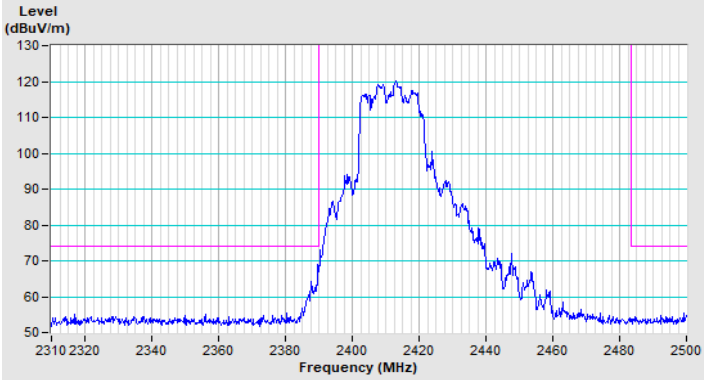
Vertical (Peak)



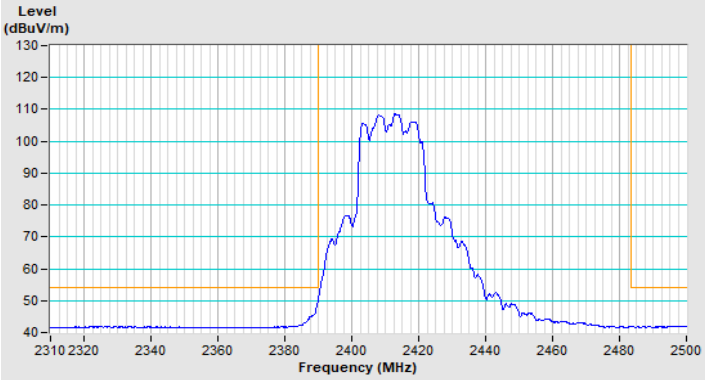
Vertical (Average)

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=10 Hz, DET=Peak

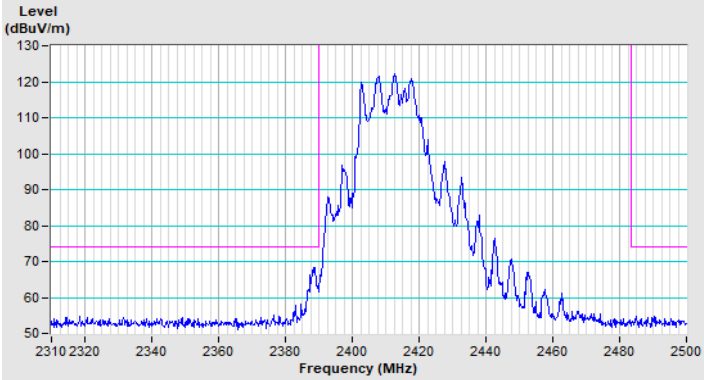
802.11ax (HE20) Channel 1



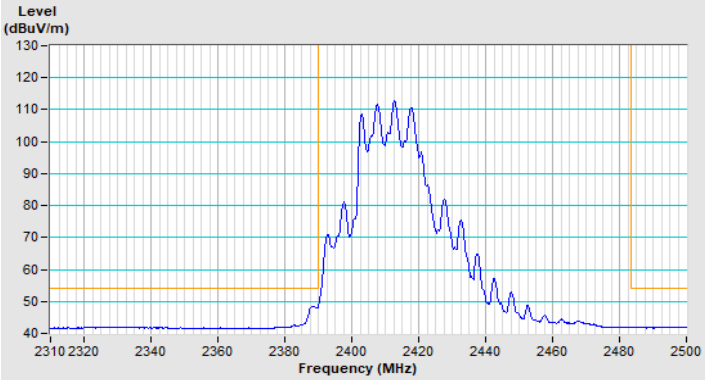
Horizontal (Peak)



Horizontal (Average)

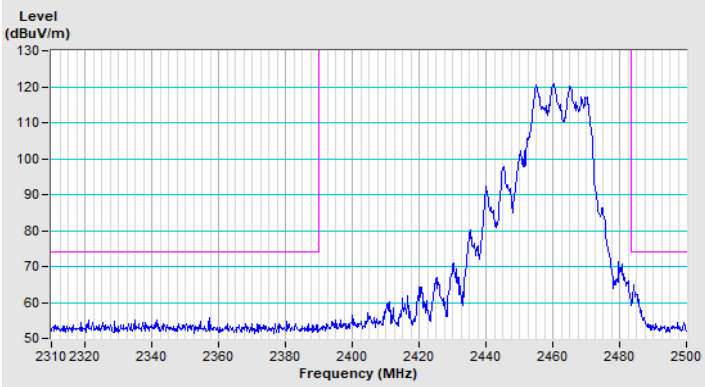


Vertical (Peak)

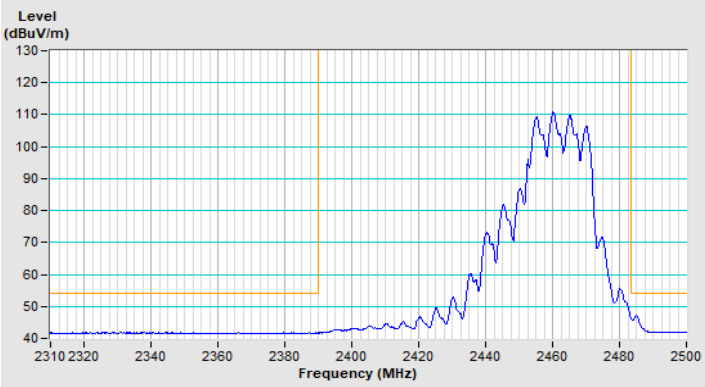


Vertical (Average)

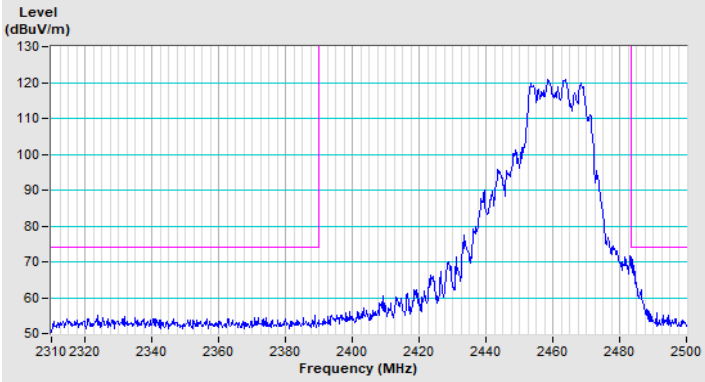
802.11ax (HE20) Channel 11



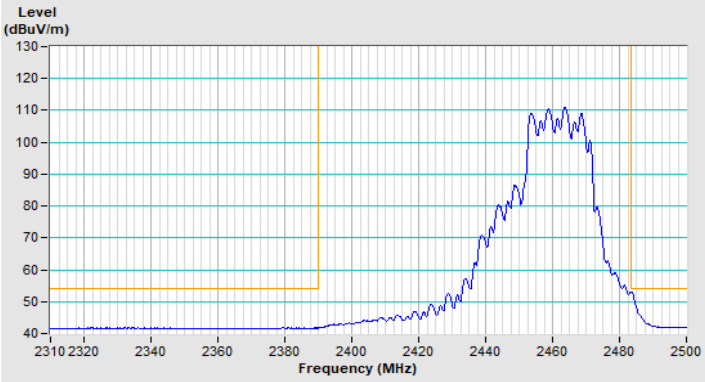
Horizontal (Peak)



Horizontal (Average)



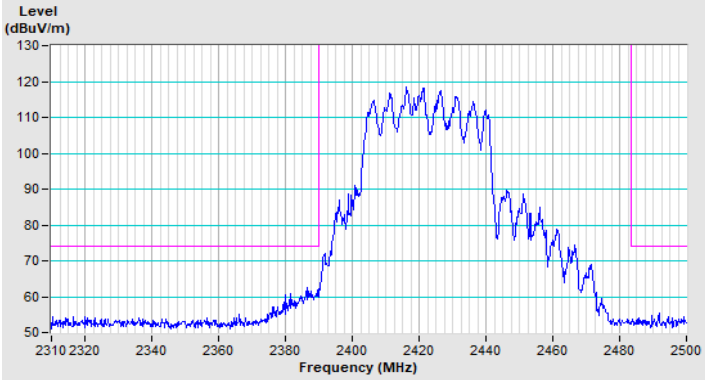
Vertical (Peak)



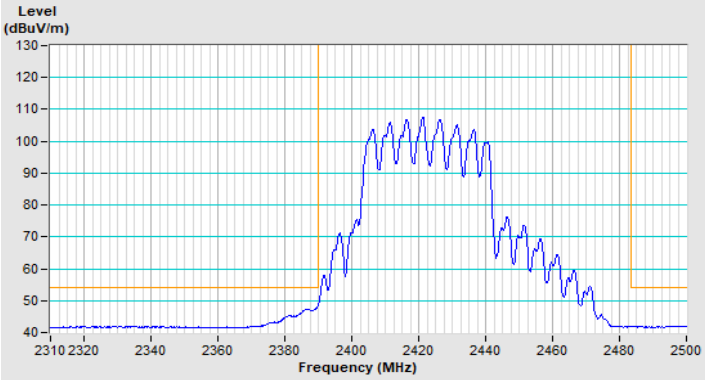
Vertical (Average)

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

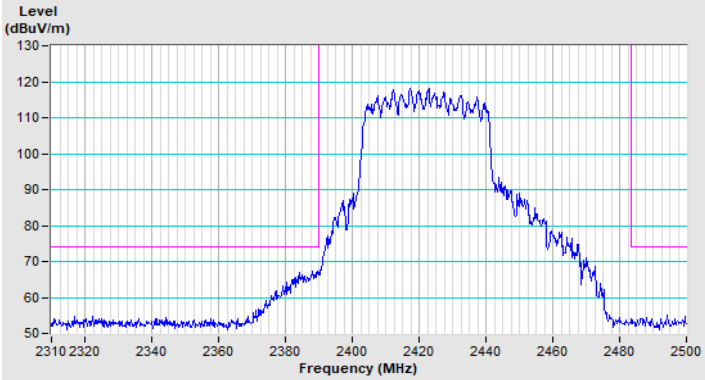
802.11ax (HE40) Channel 3



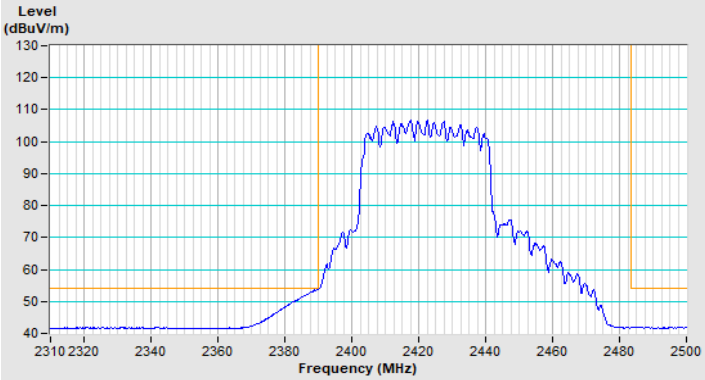
Horizontal (Peak)



Horizontal (Average)

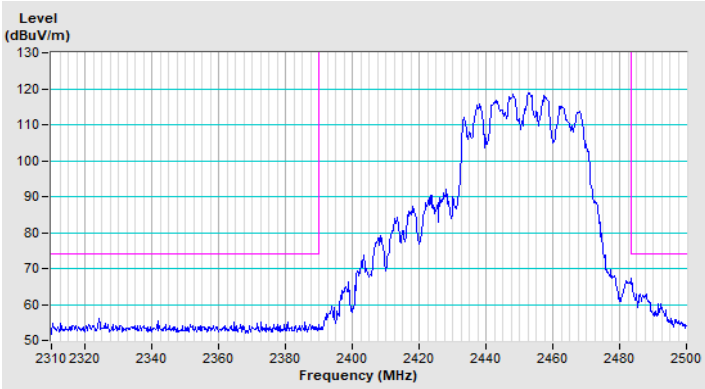


Vertical (Peak)

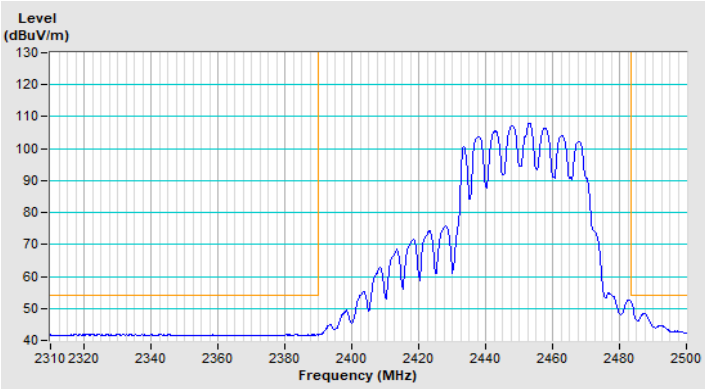


Vertical (Average)

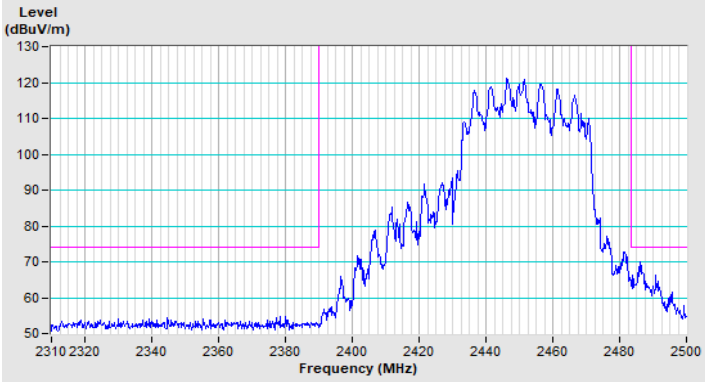
802.11ax (HE40) Channel 9



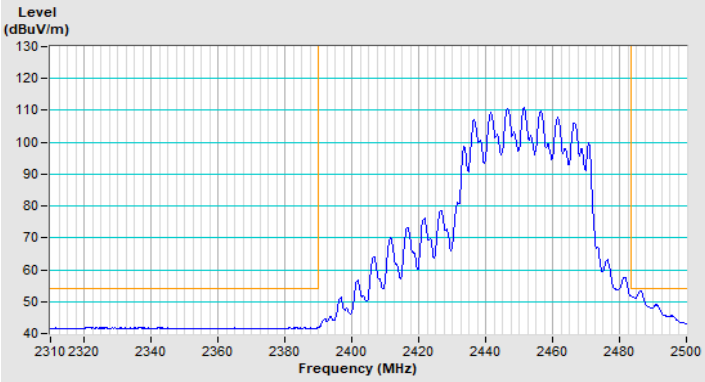
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

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:

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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.

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