

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBBQZ-WTW-P22060184

FCC ID: PY322300569

Model No.: WAX214v2

Received Date: 2022/6/8

Test Date: 2022/8/26 ~ 2022/9/22

Issued Date: 2022/10/3

Applicant and Manufacturer: NETGEAR, INC.

Address: 350 East Plumeria Drive San Jose CA 95134

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan

FCC Registration / 788550 / TW0003

Designation Number:

Approved by: Jeremy Lin, **Date:** 2022/10/3
Jeremy Lin / Project Engineer

This test report consists of 77 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.

Prepared by : Celine Chou / Senior Specialist



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

Table of Contents

Release Control Record	4
1 Certificate	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description	7
3.2 Antenna Description of EUT	9
3.3 Channel List	10
3.4 Test Mode Applicability and Tested Channel Detail	11
3.5 Duty Cycle of Test Signal	12
3.6 Test Program Used and Operation Descriptions	13
3.7 Connection Diagram of EUT and Peripheral Devices	13
3.8 Configuration of Peripheral Devices and Cable Connections	14
4 Test Instruments	15
4.1 RF Output Power	15
4.2 Power Spectral Density	15
4.3 6 dB Bandwidth	15
4.4 Conducted Out of Band Emissions	15
4.5 AC Power Conducted Emissions	16
4.6 Unwanted Emissions below 1 GHz	16
4.7 Unwanted Emissions above 1 GHz	17
5 Limits of Test Items	18
5.1 RF Output Power	18
5.2 Power Spectral Density	18
5.3 6 dB Bandwidth	18
5.4 Conducted Out of Band Emissions	18
5.5 AC Power Conducted Emissions	18
5.6 Unwanted Emissions below 1 GHz	19
5.7 Unwanted Emissions above 1 GHz	19
6 Test Arrangements	20
6.1 RF Output Power	20
6.1.1 Test Setup	20
6.1.2 Test Procedure	20
6.2 Power Spectral Density	20
6.2.1 Test Setup	20
6.2.2 Test Procedure	20
6.3 6 dB Bandwidth	21
6.3.1 Test Setup	21
6.3.2 Test Procedure	21
6.4 Conducted Out of Band Emissions	21
6.4.1 Test Setup	21
6.4.2 Test Procedure	21
6.5 AC Power Conducted Emissions	22
6.5.1 Test Setup	22
6.5.2 Test Procedure	22
6.6 Unwanted Emissions below 1 GHz	23
6.6.1 Test Setup	23
6.6.2 Test Procedure	24
6.7 Unwanted Emissions above 1 GHz	25
6.7.1 Test Setup	25
6.7.2 Test Procedure	25
7 Test Results of Test Item	26



7.1	RF Output Power.....	26
7.2	Power Spectral Density.....	28
7.3	6 dB Bandwidth.....	31
7.4	Conducted Out of Band Emissions.....	33
7.5	AC Power Conducted Emissions.....	41
7.6	Unwanted Emissions below 1 GHz.....	49
7.7	Unwanted Emissions above 1 GHz.....	57
8	Pictures of Test Arrangements.....	76
9	Information of the Testing Laboratories.....	77



Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22060184	Original release.	2022/10/3

1 Certificate

Product: WiFi 6 AX1800 Dual Band Access Point

Brand: NETGEAR

Test Model: WAX214v2

Sample Status: Engineering sample

Applicant and Manufacturer: NETGEAR, INC.

Test Date: 2022/8/26 ~ 2022/9/22

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

Measurement procedure: ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	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 -14.11 dB at 0.15400 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.5 dB at 72.68, 74.62 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is IPEX 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:

Parameter	Specification	Uncertainty (±)
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.99 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.60 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	WiFi 6 AX1800 Dual Band Access Point
Brand	NETGEAR
Test Model	WAX214v2
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc (adapter) 55.5 Vdc (POE)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 300 Mbps VHT: up to 400 Mbps 802.11ax: up to 574 Mbps
Operating Frequency	2412 ~ 2462 MHz
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: 422.810 mW (26.26 dBm) Beamforming Mode: 391.325 mW (25.93 dBm)

Note:

1. The EUT uses following accessories.

Adapter 1	
Brand	NETGEAR
Model	AD2076F10
Part Number	332-10993-02
Input Power	100-120 Vac, 50/60 Hz, 0.56 A
Output Power	12 Vdc, 1.5 A
DC cable	1.8m DC cable without core

Adapter 2	
Brand	NETGEAR
Model	ADS-18FQ-12 12018EPCU-L ADS-18FQ-12 12018EPC-L
Part Number	332-11523-02
Input Power	100-120 Vac, 60 Hz, Max. 0.7 A
Output Power	12 Vdc, 1.5 A
DC cable	1.8m DC cable without core

Adapter 3	
Brand	NETGEAR
Model	2AAJ018F 1
Part Number	332-11572-01
Input Power	100-120 Vac, 50/60 Hz, 0.6 A
Output Power	12.0 Vdc, 1.5 A
DC cable	1.83m DC cable without core

POE (for support unit only)	
Brand	BUFFALO
Model	BIJ-POE-1P2GH
Input Power	100-240 Vac, 1.1 A, 50/60 Hz
Output Power	55.5 Vdc, 0.54 A

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Type	PIFA
Connector Type	IPEX
Antenna Gain	Directional Gain (dBi)
2400~2483.5MHz	6.29
5150~5250MHz	6.03
5250~5350MHz	6.07
5470~5725MHz	6.04
5725~5850MHz	6.27

* The detailed antenna information, please refer to the Test report-Antenna Spec.pdf.

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	Tx & Rx Configuration	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
VHT20	2TX	2RX
VHT40	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX

Note:

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 and VHT mode for 20 MHz / 40 MHz, therefore the manufacturer will control the power for 802.11n/VHT mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20 and 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 and 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:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition: Y-axis 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).

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

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	A	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
		802.11g	CDD	1, 6, 11	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
Power Spectral Density	A	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
		802.11g	CDD	1, 6, 11	BPSK	6Mb/s
		802.11ax (HE20)	CDD	1, 6, 11	BPSK	MCS0
		802.11ax (HE40)	CDD	3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	A	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
		802.11g	CDD	1, 6, 11	BPSK	6Mb/s
		802.11ax (HE20)	CDD	1, 6, 11	BPSK	MCS0
		802.11ax (HE40)	CDD	3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	A, B, C ,D	802.11b	CDD	6	DBPSK	1Mb/s
Unwanted Emissions below 1 GHz	A, B, C ,D	802.11b	CDD	6	DBPSK	1Mb/s
Unwanted Emissions above 1 GHz	A	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
		802.11g	CDD	1, 6, 11	BPSK	6Mb/s
		802.11ax (HE20)	CDD	1, 6, 11	BPSK	MCS0
		802.11ax (HE40)	CDD	3, 6, 9	BPSK	MCS0
EUT Configure Mode:	A	Powered by adapter 1				
	B	Powered by adapter 2				
	C	Powered by adapter 3				
	D	Powered by POE				

3.5 Duty Cycle of Test Signal

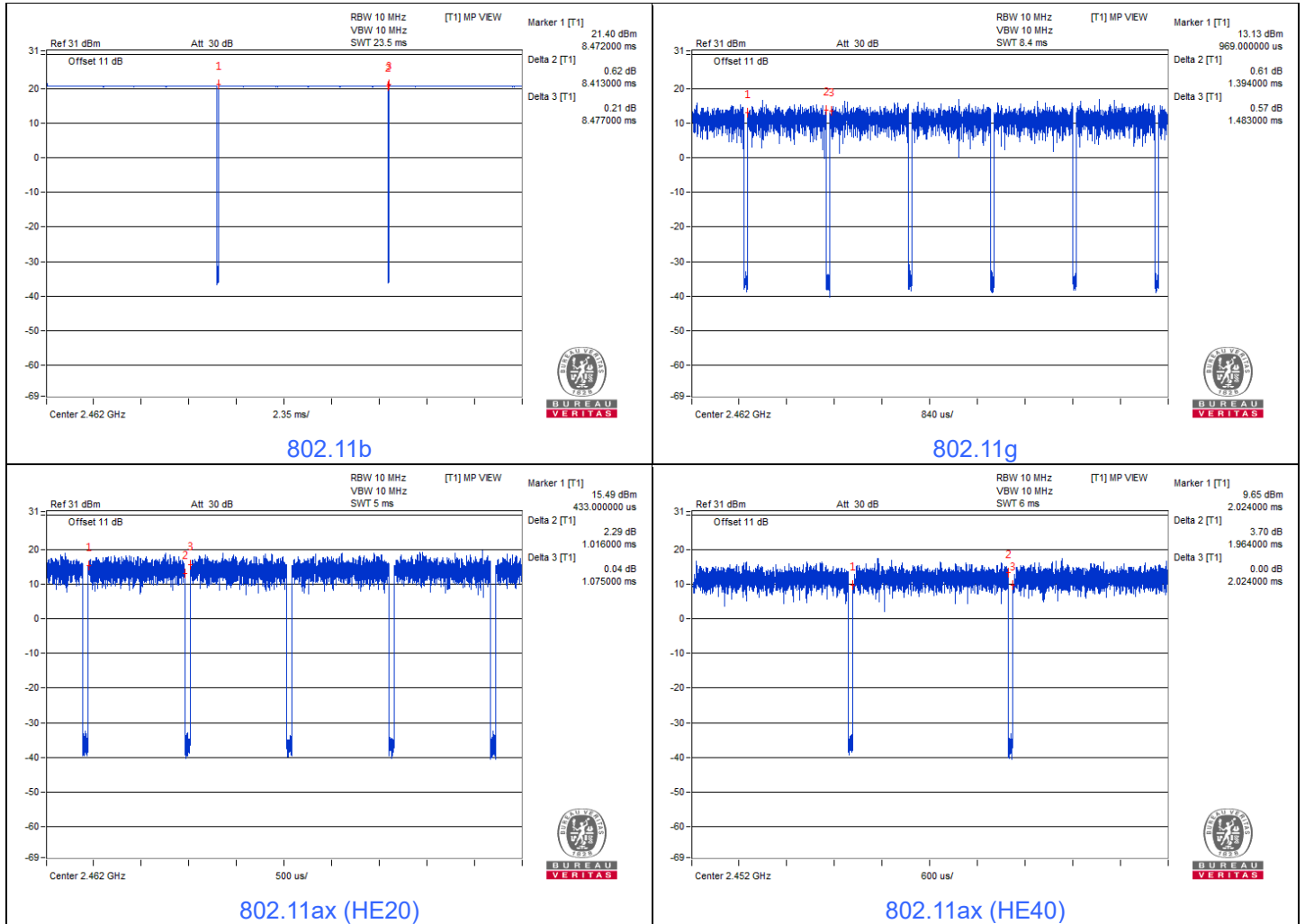
Duty cycle of test signal is $\geq 98\%$, duty factor is not required.
 Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11b: Duty cycle = $8.413 \text{ ms} / 8.477 \text{ ms} \times 100\% = 99.2\%$

802.11g: Duty cycle = $1.394 \text{ ms} / 1.483 \text{ ms} \times 100\% = 94.0\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.27 \text{ dB}$

802.11ax (HE20): Duty cycle = $1.016 \text{ ms} / 1.075 \text{ ms} \times 100\% = 94.5\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.25 \text{ dB}$

802.11ax (HE40): Duty cycle = $1.964 \text{ ms} / 2.024 \text{ ms} \times 100\% = 97.0\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.13 \text{ dB}$

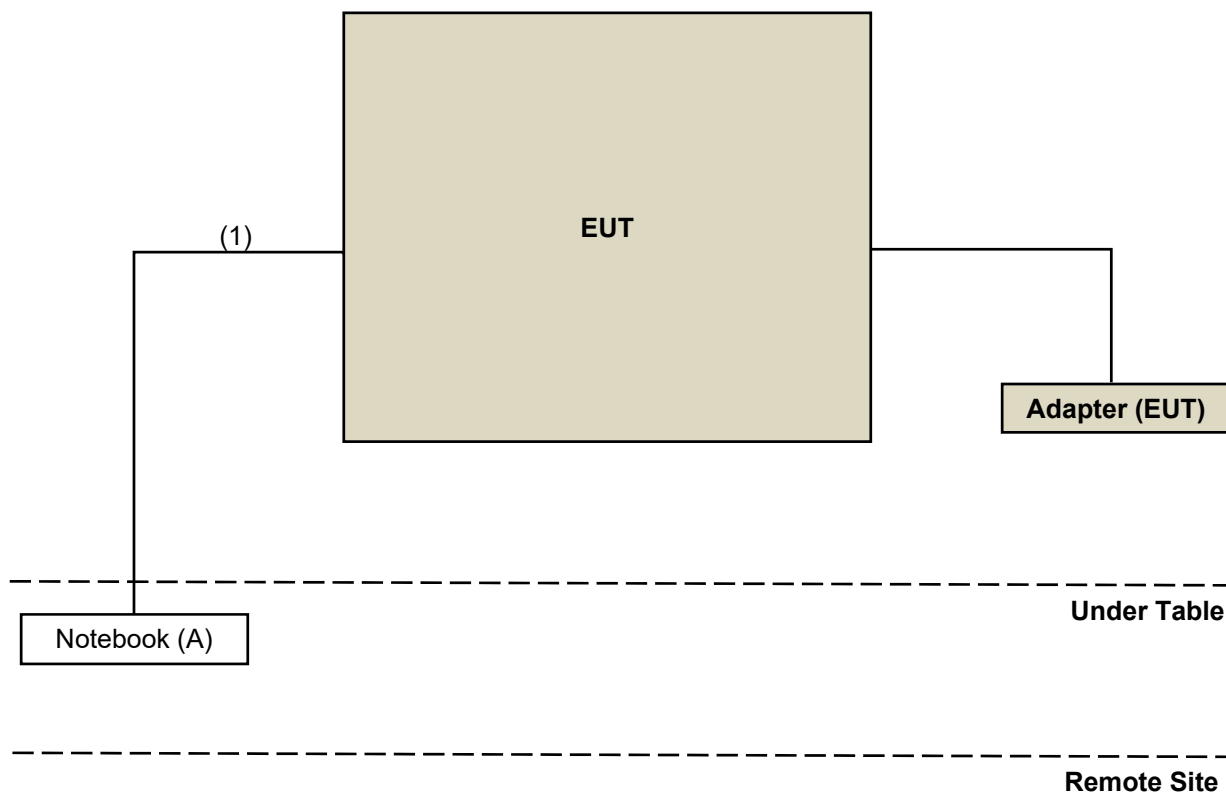


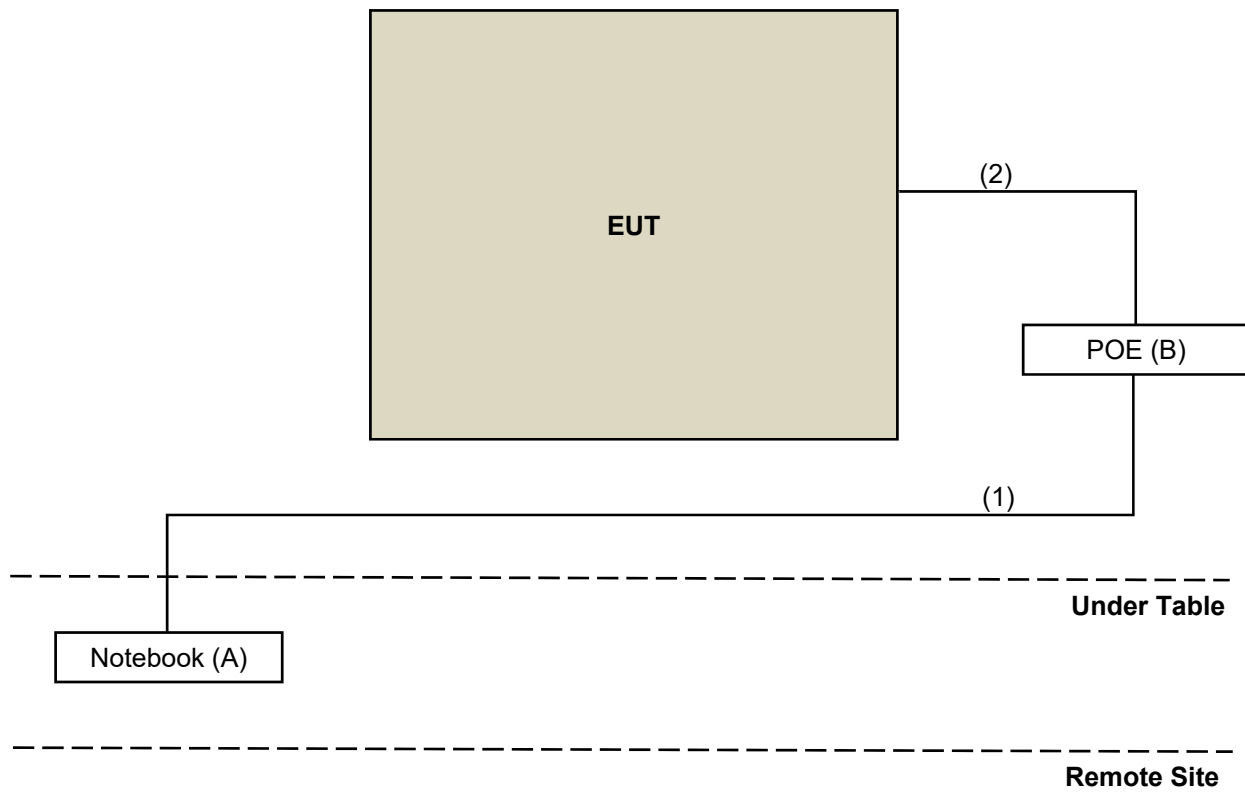
3.6 Test Program Used and Operation Descriptions

Controlling software QA UI (MT915) Version : 0.0.2.15 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

Test Mode A, B, C





3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	DELL	E5430	2RL3YW1	N/A	Provided by Lab
B	POE	Buffalo	BIJ-POE-1P2GH	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	10	N/A	N/A	N/A
2	RJ-45 Cable	1	1.5	N/A	N/A	N/A

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	1/18/2022	1/17/2023
Power sensor Keysight	U2021XA	MY55380009	3/23/2022	3/22/2023
Wideband Power Sensor(N1923A) KEYSIGHT	N1923A	MY58020002	1/17/2022	1/16/2023

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/22

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	3/25/2022	3/24/2023

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/26

4.3 6 dB Bandwidth

Refer to section 4.2 to get information of the instruments.

4.4 Conducted Out of Band Emissions

Refer to section 4.2 to get information of the instruments.

4.5 AC Power Conducted Emissions

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

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/9/15 ~ 2022/9/16

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Bi_Log Antenna Schwarbeck	VULB9168	9168-155	11/1/2021	10/31/2022
Loop Antenna TESEQ	HLA 6121	45745	7/27/2022	7/26/2023
Pre_Amplifier Agilent	8447D	2944A10631	5/14/2022	5/13/2023
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	1/15/2022	1/14/2023
	EMC102-KM-KM-600	150928	7/9/2022	7/8/2023
	EMC102-KM-KM-3000	150929	7/9/2022	7/8/2023
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	4/13/2022	4/12/2023
Test Receiver R&S	ESCI	100424	12/30/2021	12/29/2022
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/9/16

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170241	10/26/2021	10/25/2022
Pre-Amplifier EMCI	EMC 184045	980116	10/5/2021	10/4/2022
Pre_Amplifier KEYSIGHT	83017A	MY53270295	5/14/2022	5/13/2023
RF cable HUBER+SUHNER	Sucoflex 104	MY 13380+295012/04	5/14/2022	5/13/2023
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03(250724)	5/14/2022	5/13/2023
		CABLE-CH9-(250795/4)	1/15/2022	1/14/2023
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	1/15/2022	1/14/2023
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	4/13/2022	4/12/2023
Test Receiver R&S	ESCI	100424	12/30/2021	12/29/2022
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/9/1 ~ 2022/9/6

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

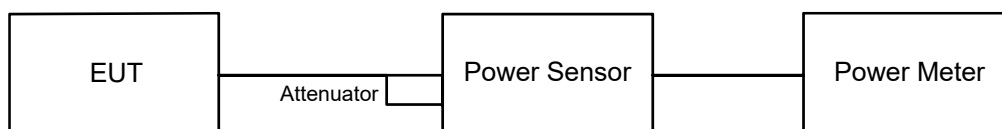
Notes:

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



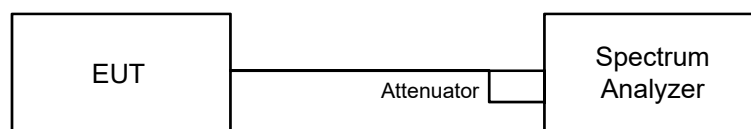
6.1.2 Test Procedure

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



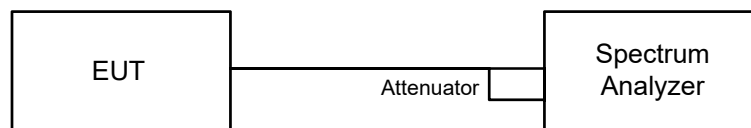
6.2.2 Test Procedure

- 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 $\geq 3 \times$ RBW.
- f. Detector = power averaging (RMS) or sample detector (when RMS not available).
- g. Ensure that the number of measurement points in the sweep $\geq 2 \times$ 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

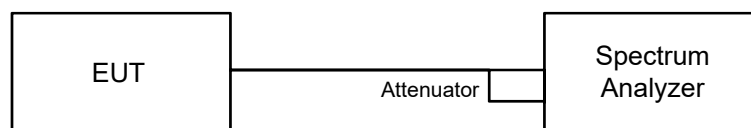


6.3.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

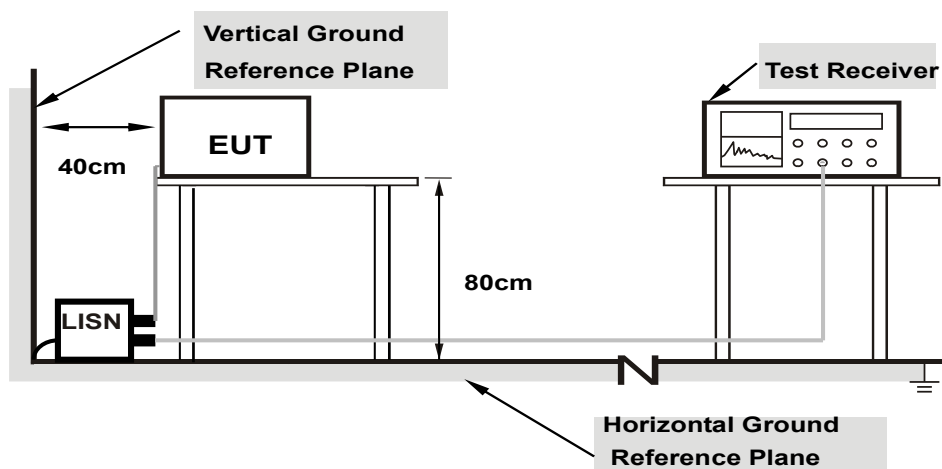
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- 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

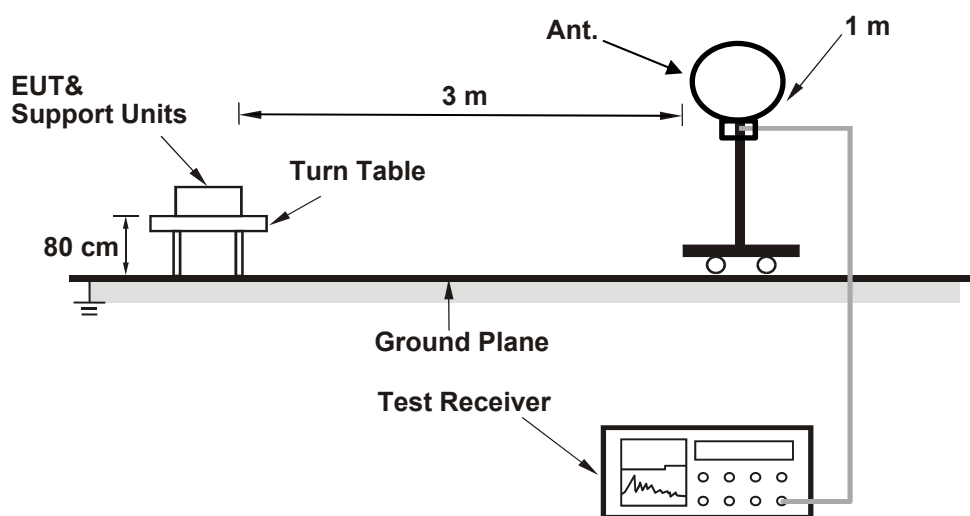
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

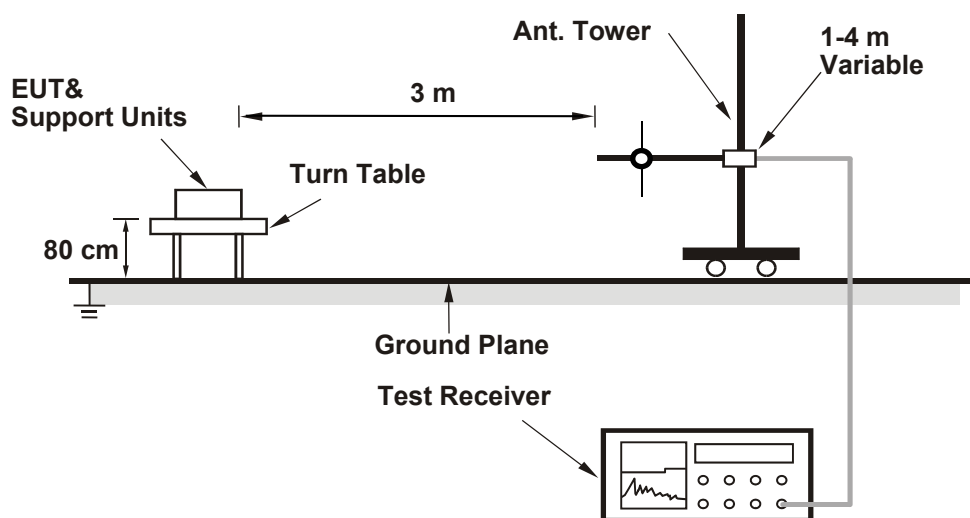
6.6 Unwanted Emissions below 1 GHz

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

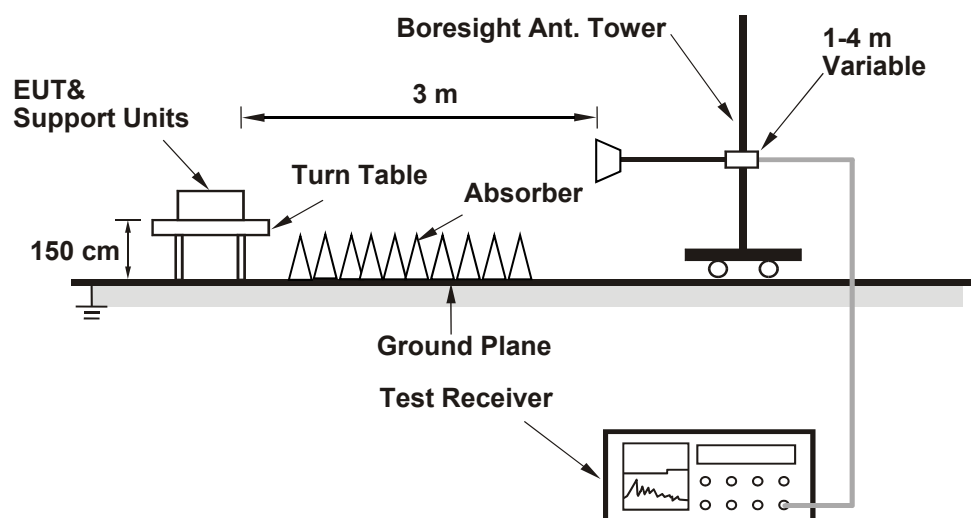
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

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

Notes:

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

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris 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				
1	2412	21.89	22.25	322.406	25.08	30	Pass
6	2437	23.15	23.35	422.810	26.26	30	Pass
11	2462	18.95	19.29	163.442	22.13	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.

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				
1	2412	22.42	22.02	333.803	25.23	30	Pass
6	2437	22.86	22.93	389.533	25.91	30	Pass
11	2462	17.15	17.22	104.603	20.20	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.

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				
1	2412	20.46	20.22	216.369	23.35	30	Pass
6	2437	22.89	22.94	391.325	25.93	30	Pass
11	2462	15.01	15.22	64.962	18.13	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.

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				
3	2422	19.88	19.76	191.898	22.83	30	Pass
6	2437	18.22	18.36	134.923	21.30	30	Pass
9	2452	15.43	15.57	70.972	18.51	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.

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				
1	2412	20.46	20.22	216.369	23.35	29.71	Pass
6	2437	22.89	22.94	391.325	25.93	29.71	Pass
11	2462	15.01	15.22	64.962	18.13	29.71	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 6.29 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.29 - 6) = 29.71$ dBm.

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				
3	2422	19.88	19.76	191.898	22.83	29.71	Pass
6	2437	18.22	18.36	134.923	21.30	29.71	Pass
9	2452	15.43	15.57	70.972	18.51	29.71	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 6.29 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.29 - 6) = 29.71$ dBm.

7.2 Power Spectral Density

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

802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-9.92	-9.43	-6.66	7.71	Pass
6	2437	-8.25	-8.51	-5.37	7.71	Pass
11	2462	-12.47	-11.62	-9.01	7.71	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 6.29 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.29 - 6) = 7.71$ dBm/3kHz.

802.11g

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1				
1	2412	-10.05	-11.02	0.27	-7.23	7.71	Pass
6	2437	-11.67	-10.89	0.27	-7.98	7.71	Pass
11	2462	-16.27	-16.30	0.27	-13.01	7.71	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 6.29 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.29 - 6) = 7.71$ dBm/3kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1				
1	2412	-14.53	-14.10	0.25	-11.05	7.71	Pass
6	2437	-11.98	-12.53	0.25	-8.99	7.71	Pass
11	2462	-19.15	-20.21	0.25	-16.39	7.71	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 6.29 dBi > 6 dBi, so the power density limit shall be reduced to $8-(6.29-6) = 7.71$ dBm/3kHz.

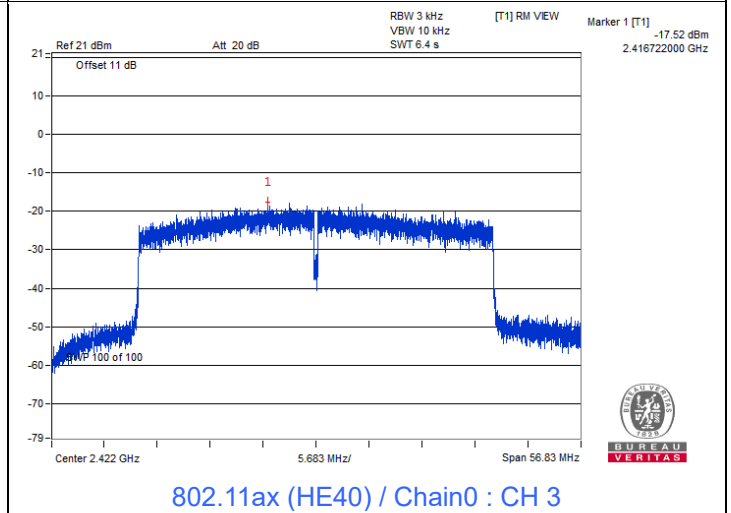
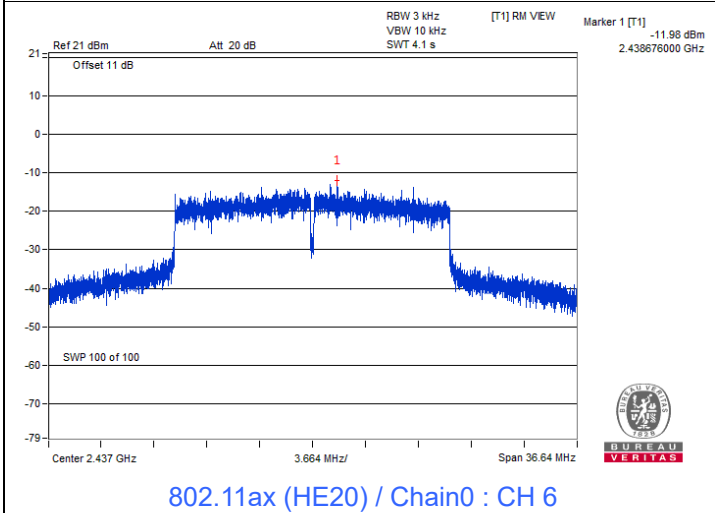
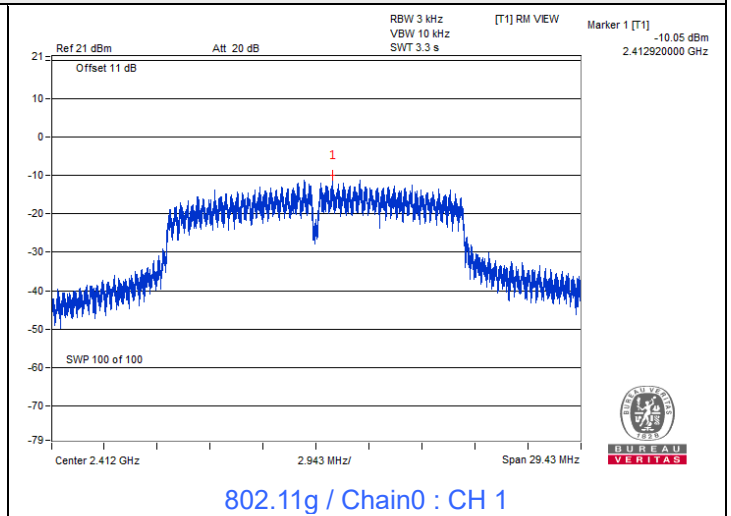
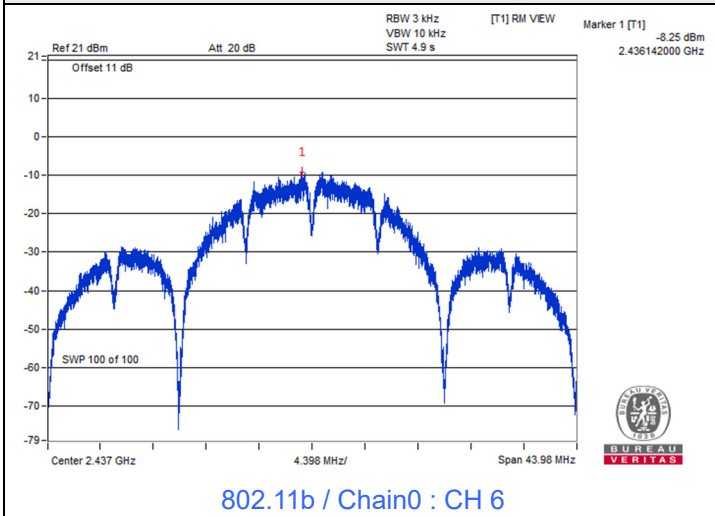
802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1				
3	2422	-17.52	-17.92	0.13	-14.57	7.71	Pass
6	2437	-18.50	-19.91	0.13	-16.01	7.71	Pass
9	2452	-21.71	-22.81	0.13	-19.08	7.71	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 6.29 dBi > 6 dBi, so the power density limit shall be reduced to $8-(6.29-6) = 7.71$ dBm/3kHz.

Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

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

802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	8.62	9.06	0.5	Pass
6	2437	10.13	11.13	0.5	Pass
11	2462	7.62	8.08	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	15.19	15.34	0.5	Pass
6	2437	15.76	15.36	0.5	Pass
11	2462	15.20	15.53	0.5	Pass

802.11ax (HE20)

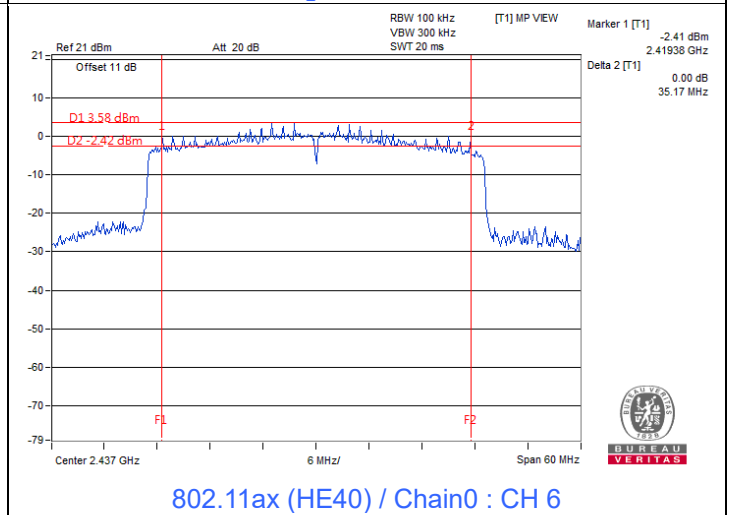
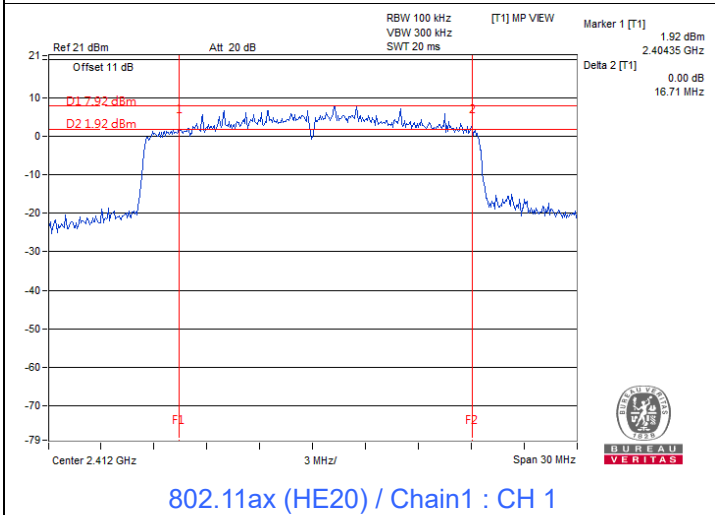
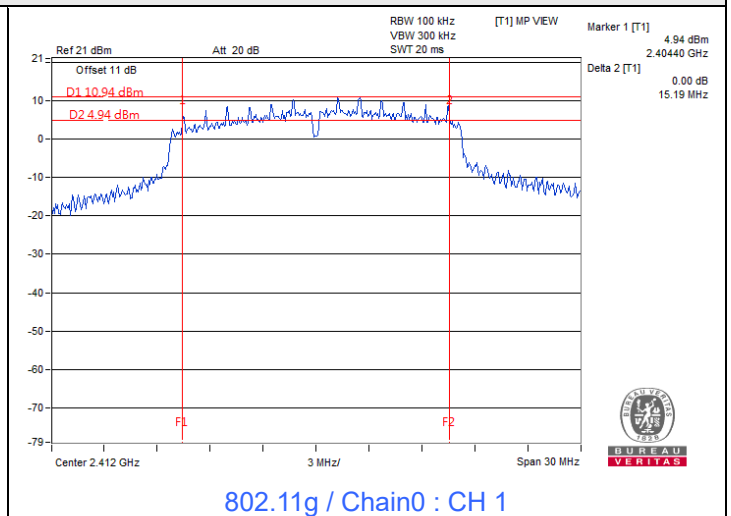
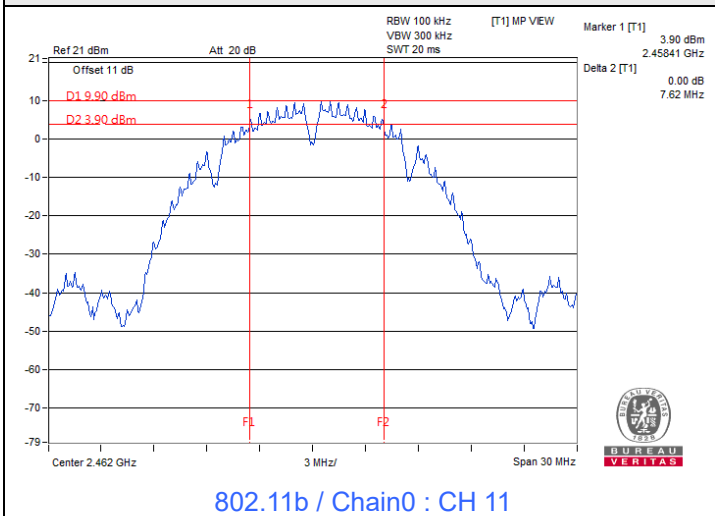
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	16.94	16.71	0.5	Pass
6	2437	18.62	18.45	0.5	Pass
11	2462	18.78	18.50	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	2422	35.73	36.05	0.5	Pass
6	2437	35.17	37.94	0.5	Pass
9	2452	36.99	37.51	0.5	Pass



Spectrum Plot of Minimum Value



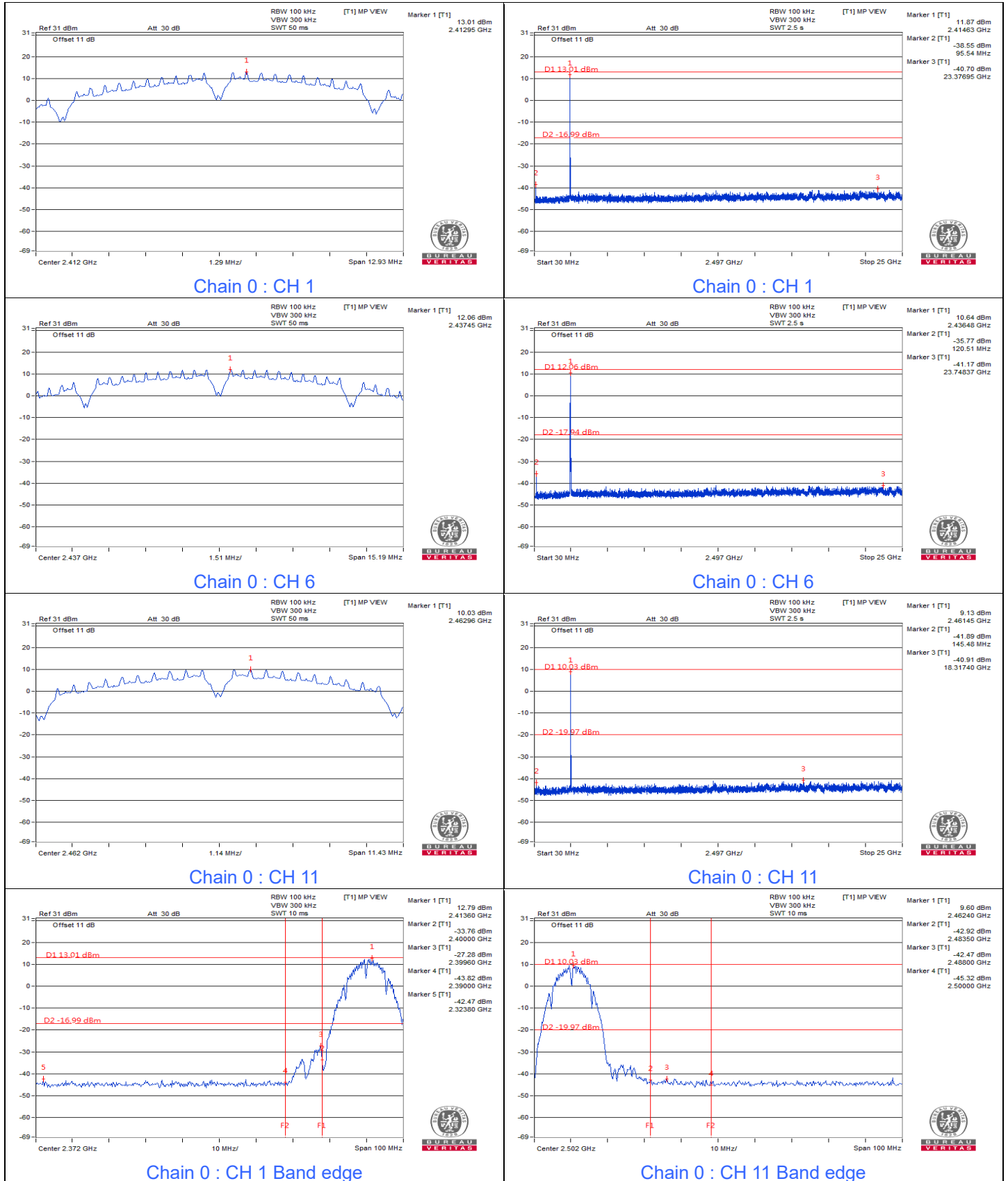


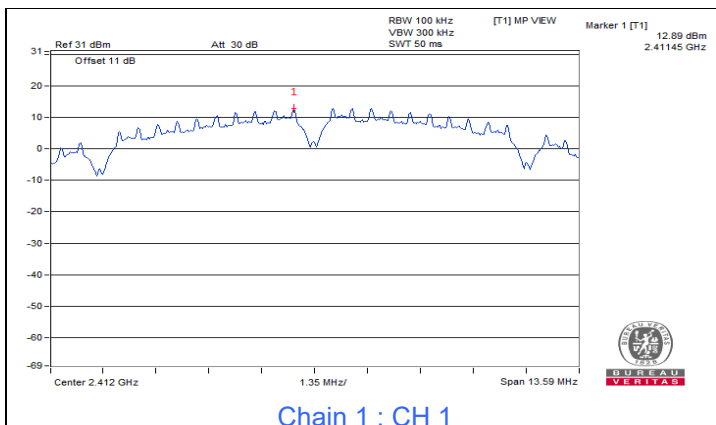
BUREAU VERITAS

7.4 Conducted Out of Band Emissions

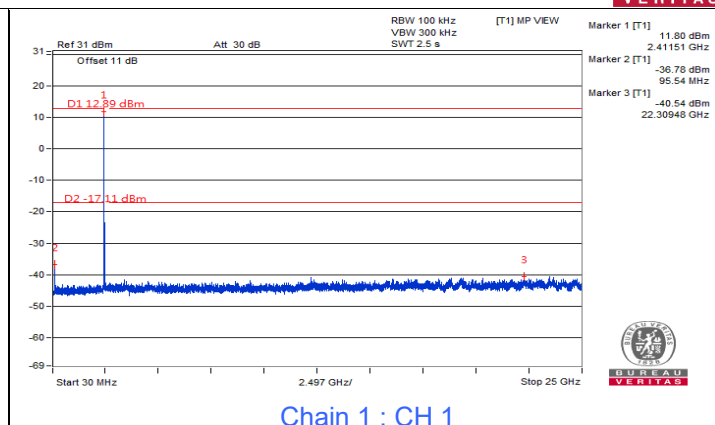
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
--------------	----------------	---------------------------	--------------	------------	-----------

802.11b

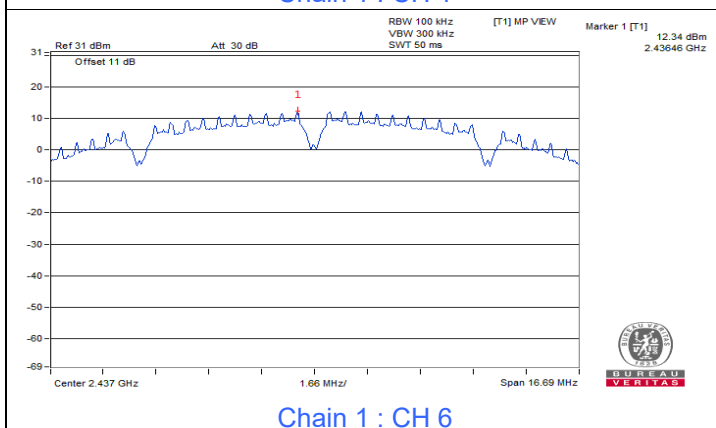




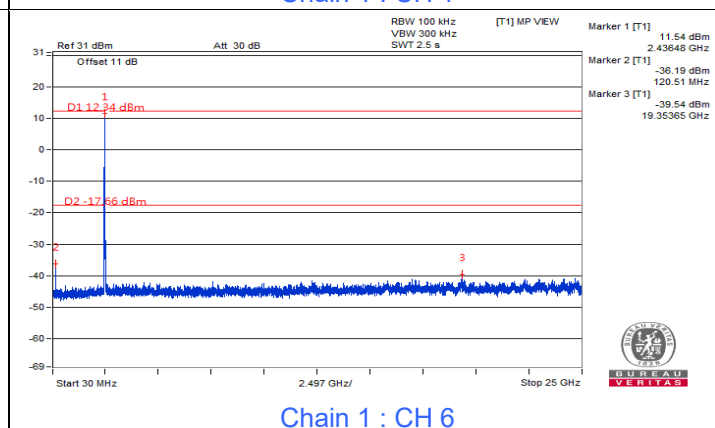
Chain 1 : CH 1



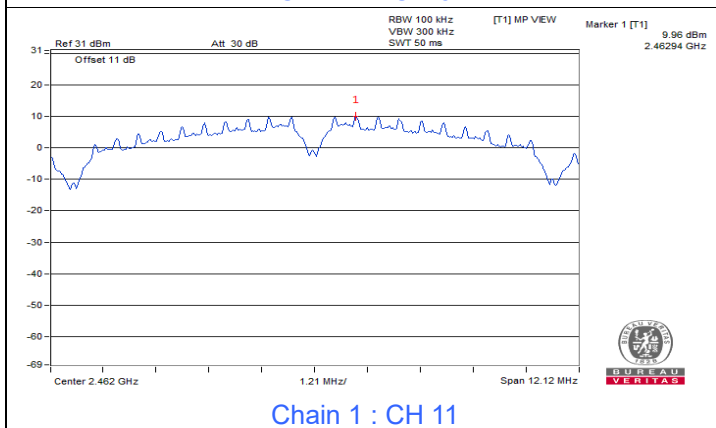
Chain 1 : CH 1



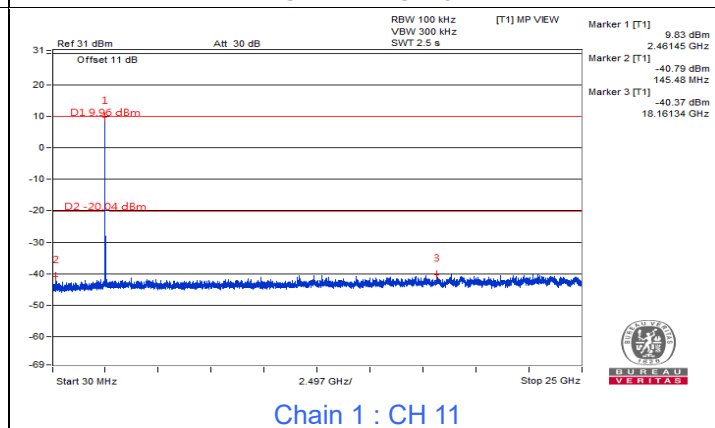
Chain 1 : CH 6



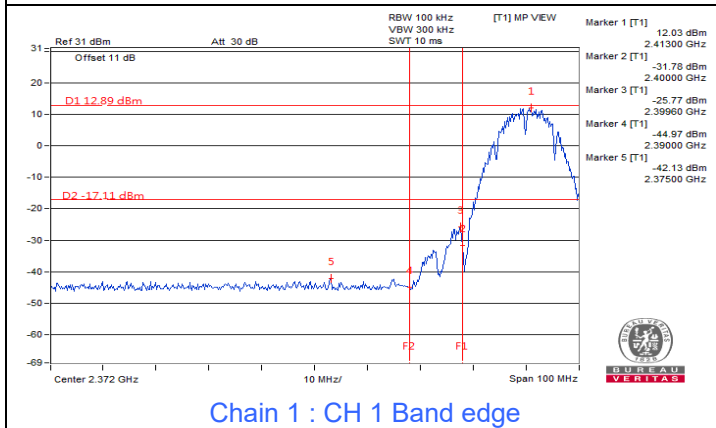
Chain 1 : CH 6



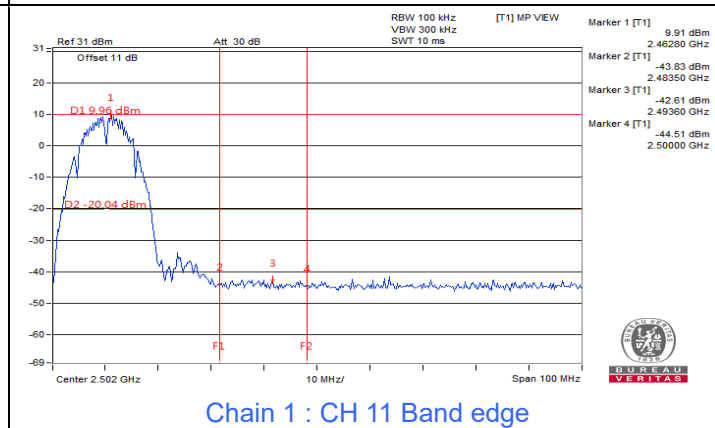
Chain 1 : CH 11



Chain 1 : CH 11

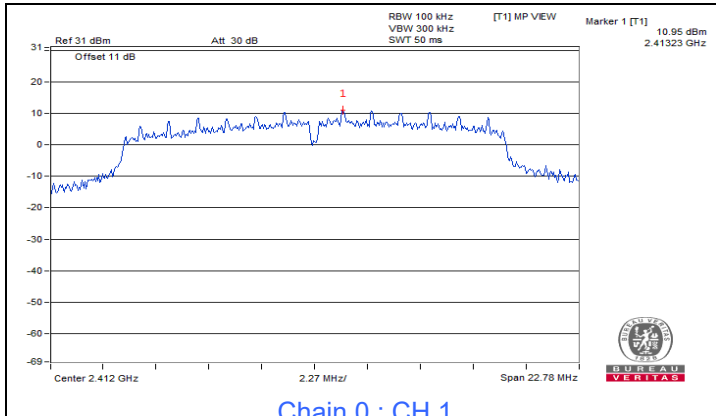


Chain 1 : CH 1 Band edge

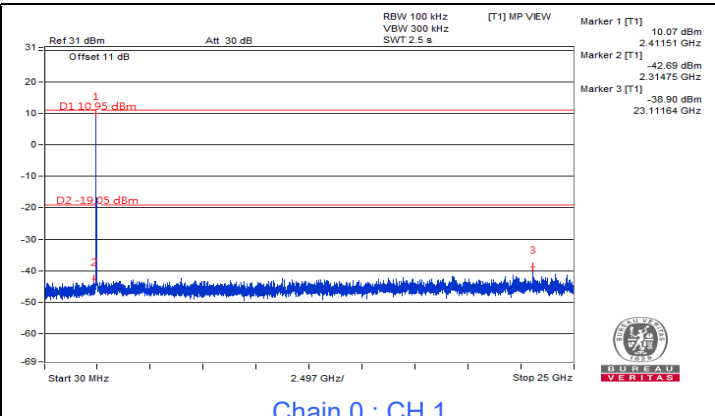


Chain 1 : CH 11 Band edge

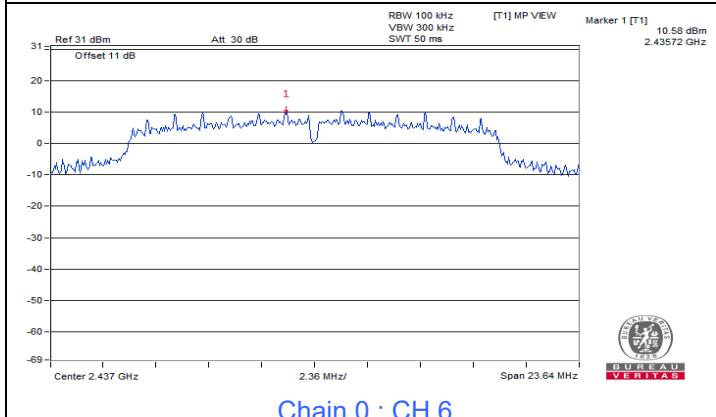
802.11g



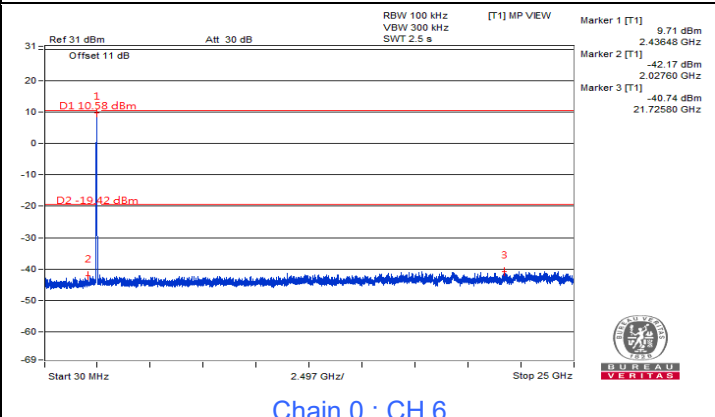
Chain 0 : CH 1



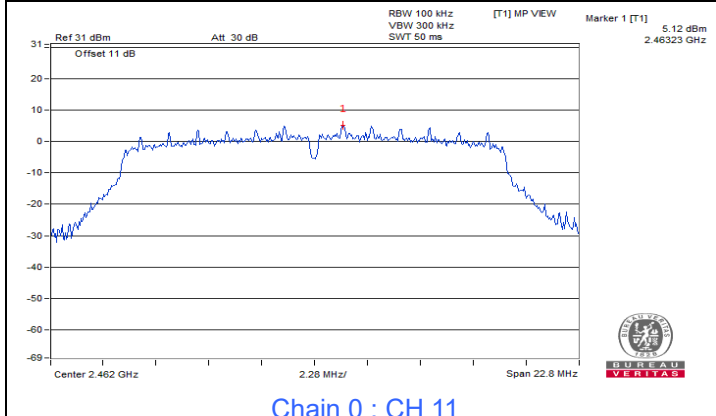
Chain 0 : CH 1



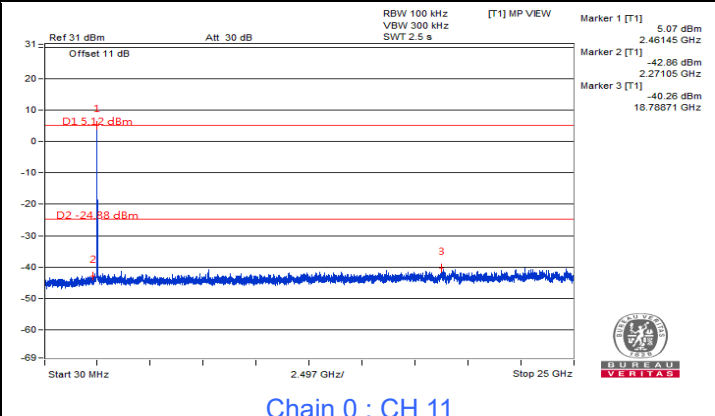
Chain 0 : CH 6



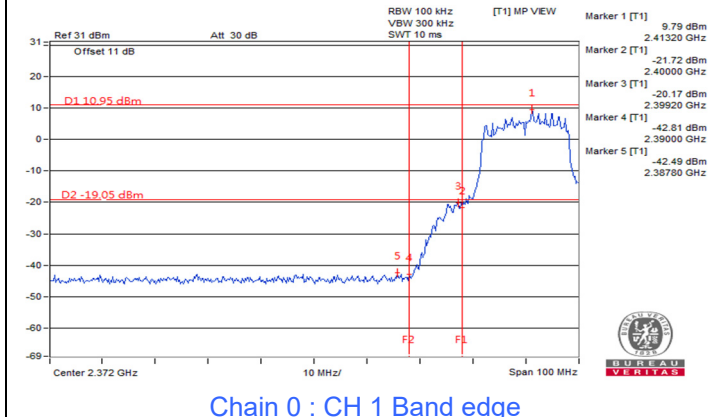
Chain 0 : CH 6



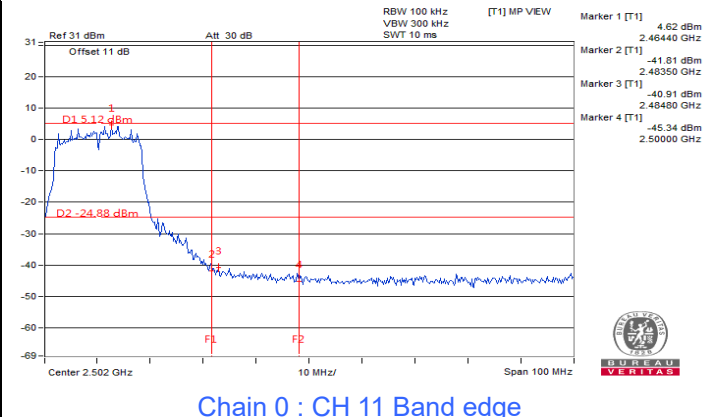
Chain 0 : CH 11



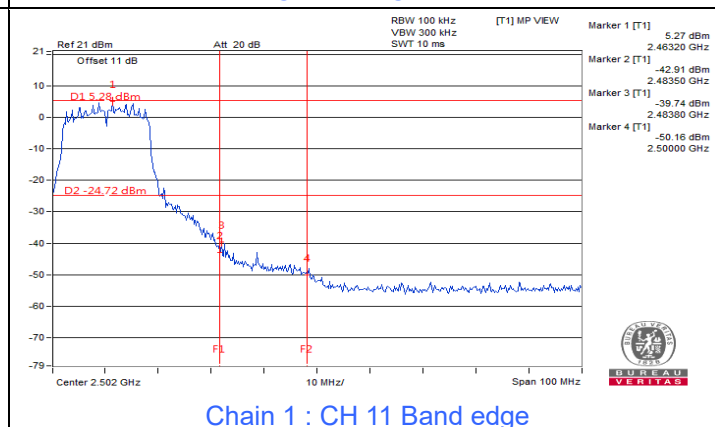
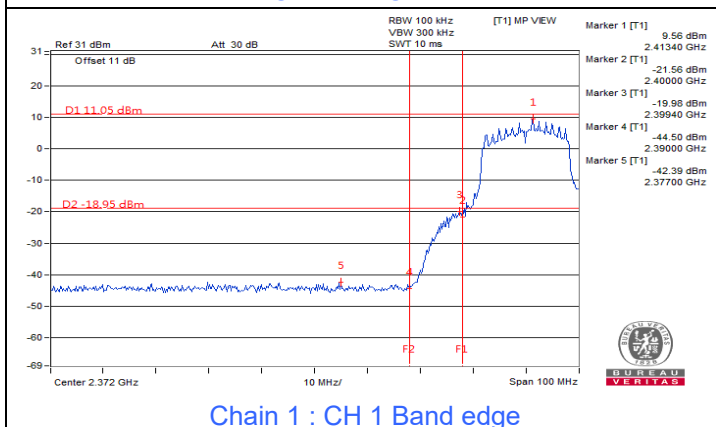
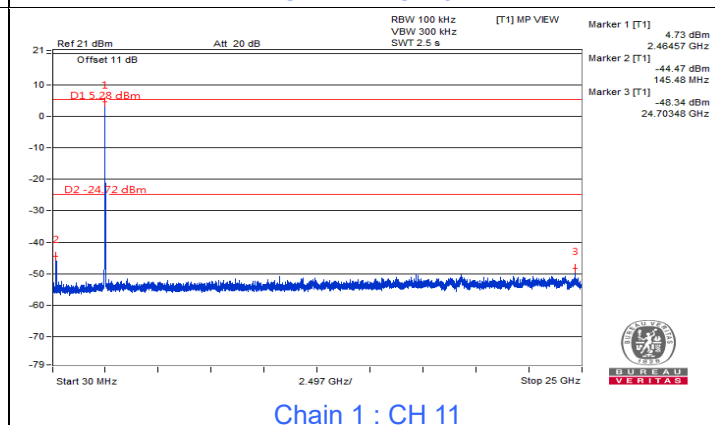
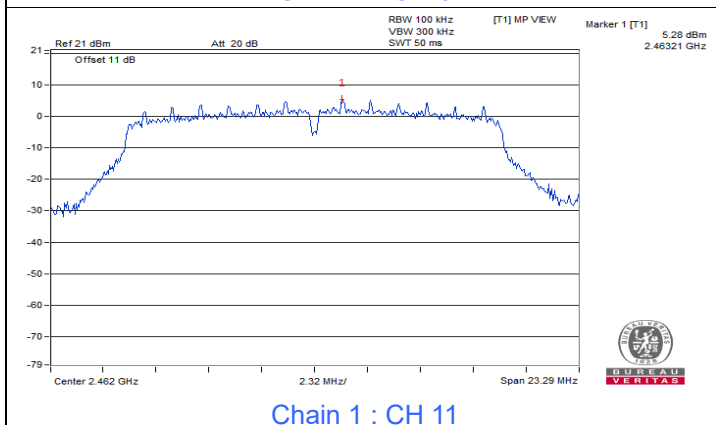
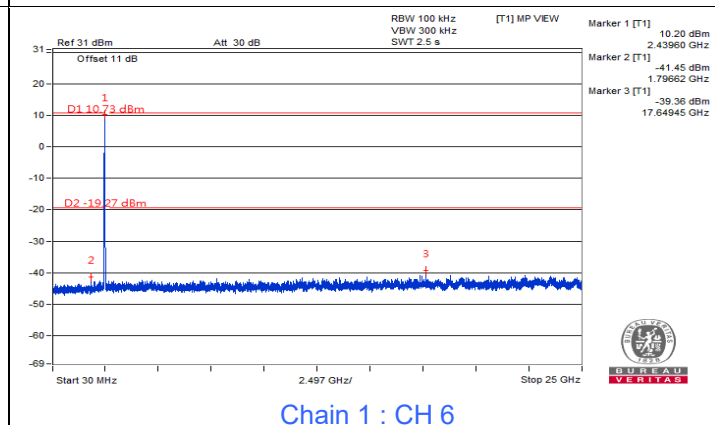
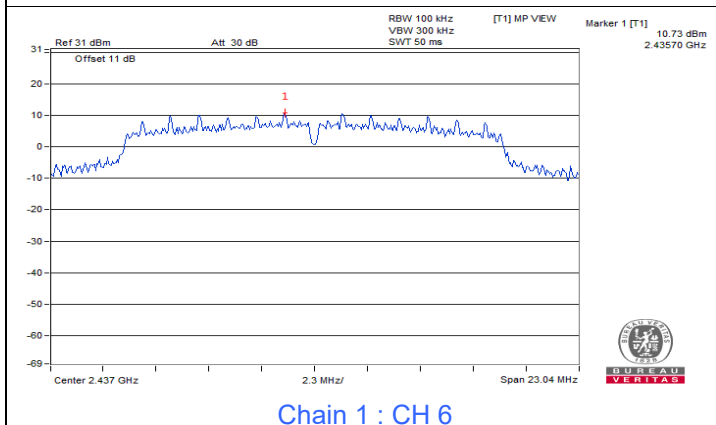
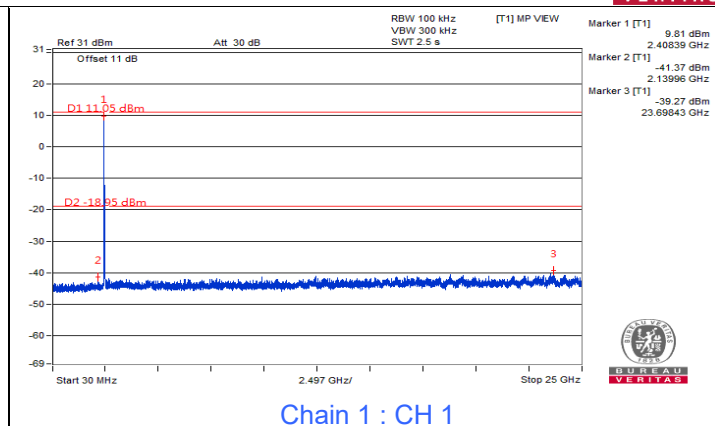
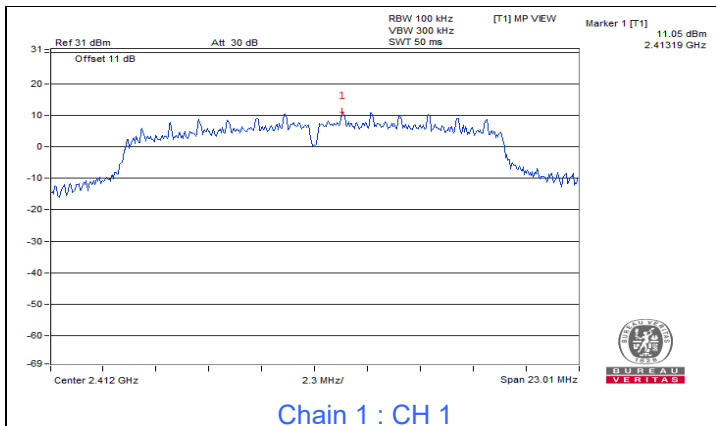
Chain 0 : CH 11



Chain 0 : CH 1 Band edge

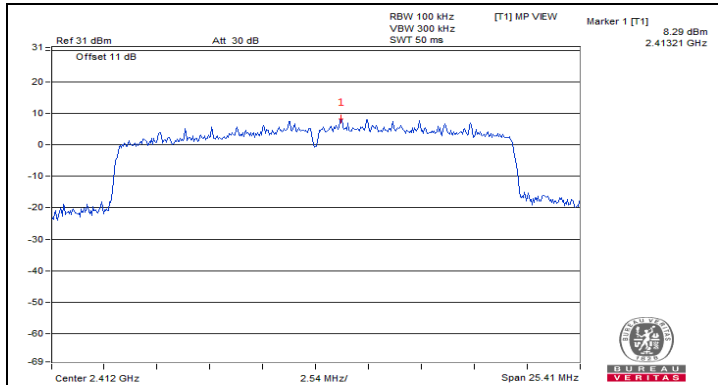


Chain 0 : CH 11 Band edge

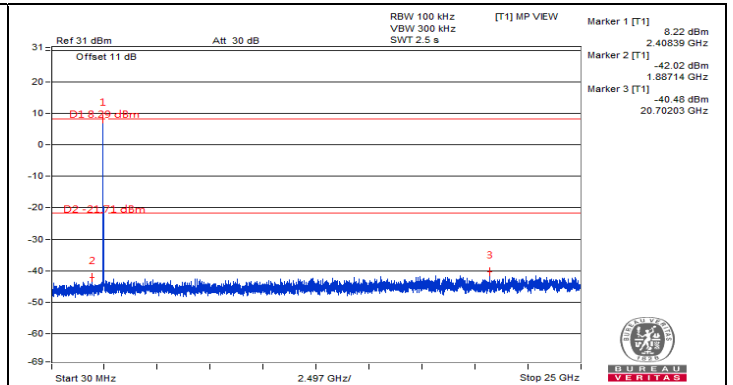




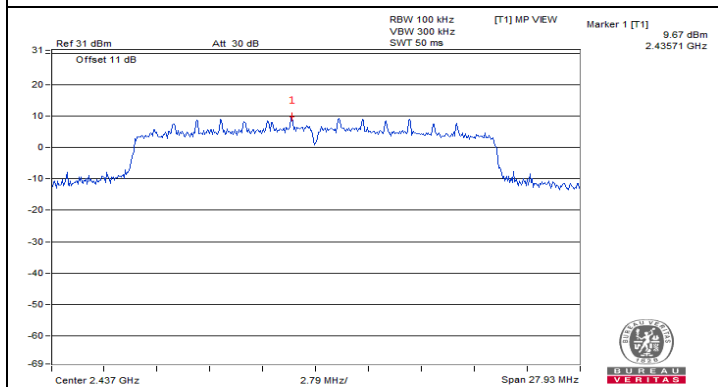
802.11ax (HE20)



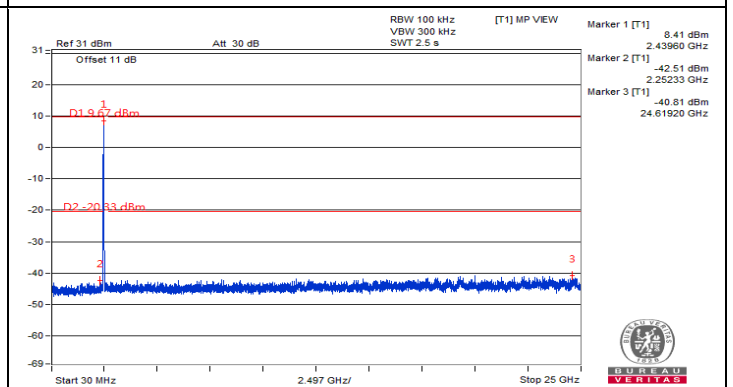
Chain 0 : CH 1



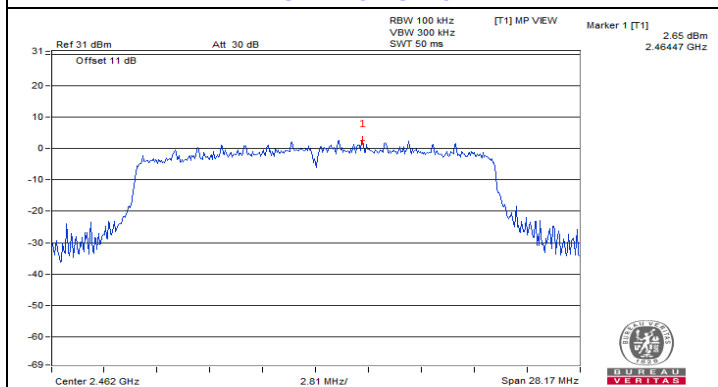
Chain 0 : CH 1



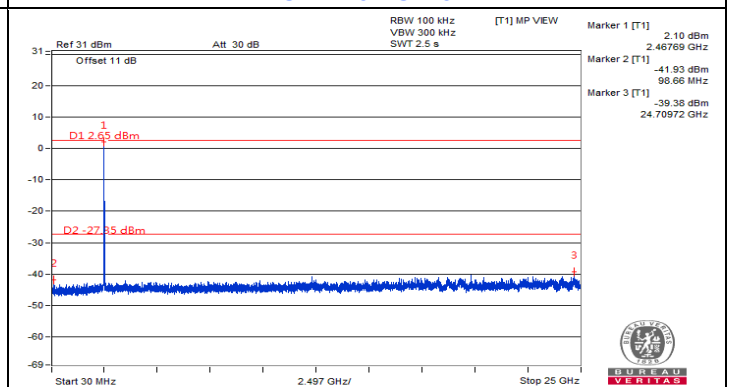
Chain 0 : CH 6



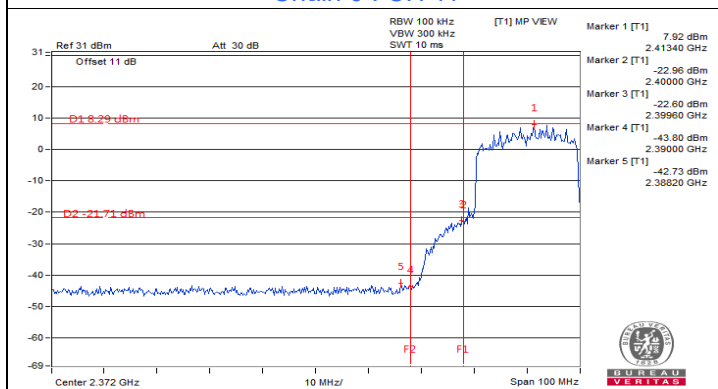
Chain 0 : CH 6



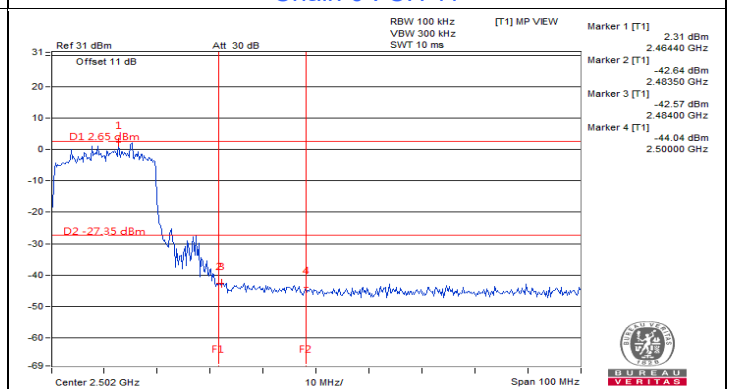
Chain 0 : CH 11



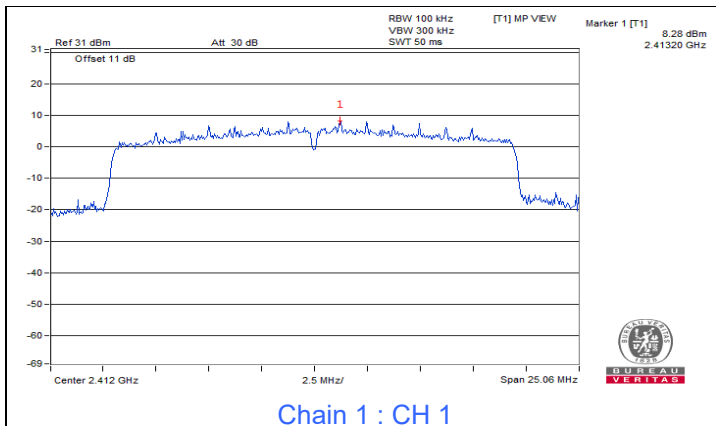
Chain 0 : CH 11



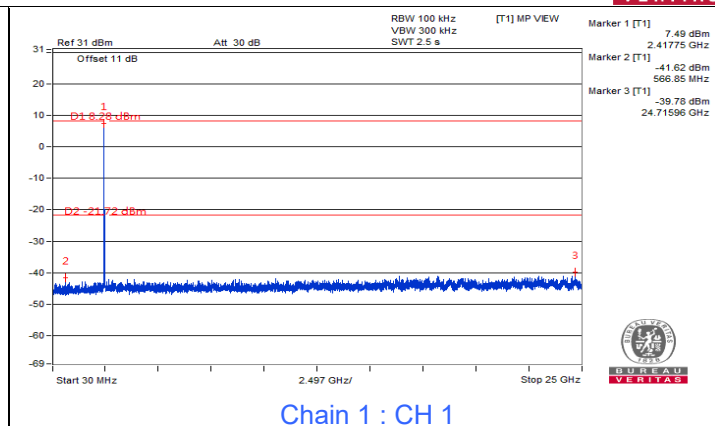
Chain 0 : CH 1 Band edge



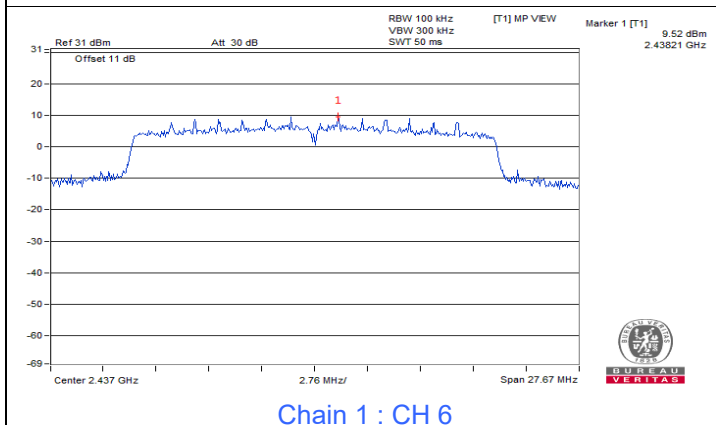
Chain 0 : CH 11 Band edge



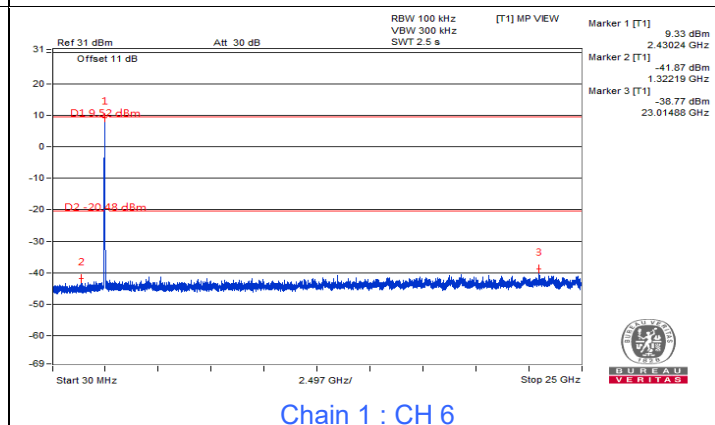
Chain 1 : CH 1



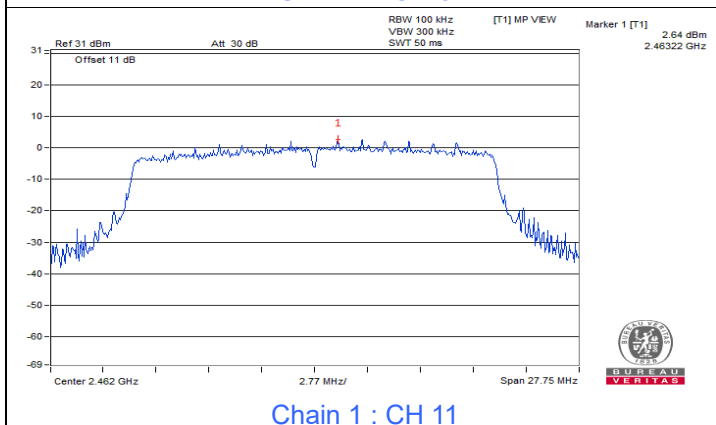
Chain 1 : CH 1



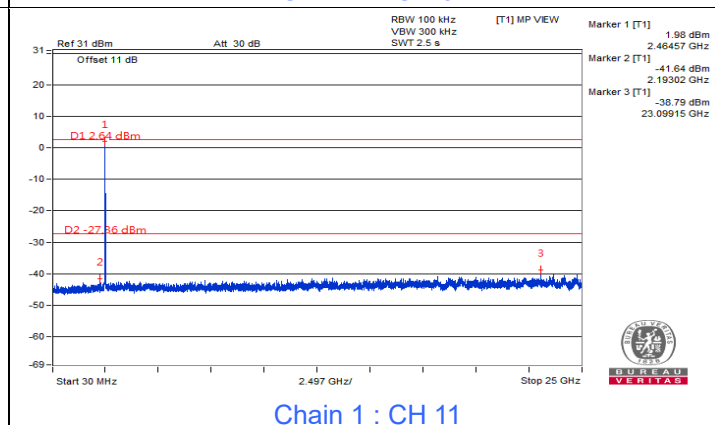
Chain 1 : CH 6



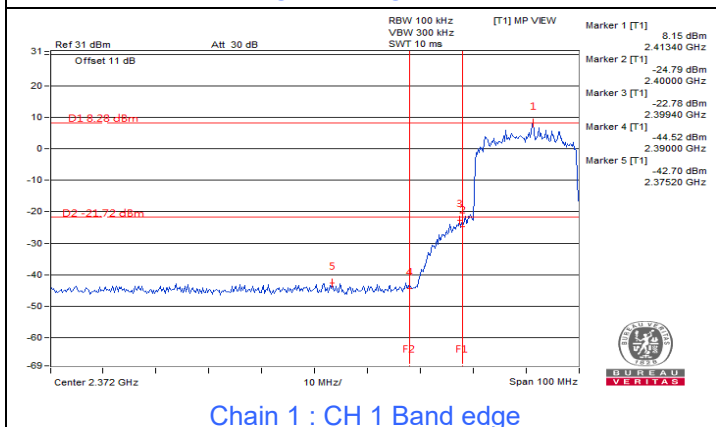
Chain 1 : CH 6



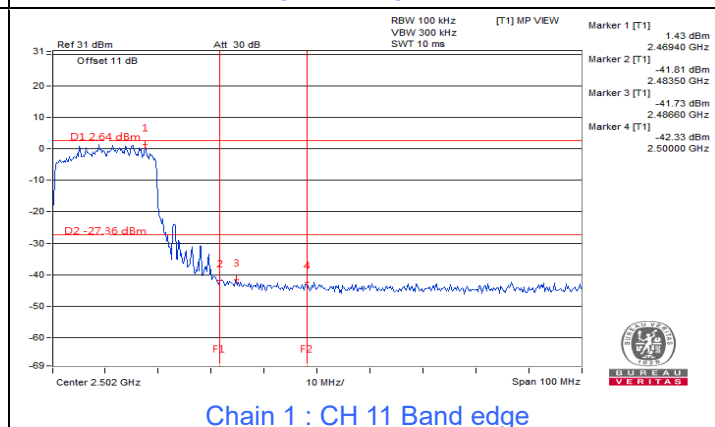
Chain 1 : CH 11



Chain 1 : CH 11



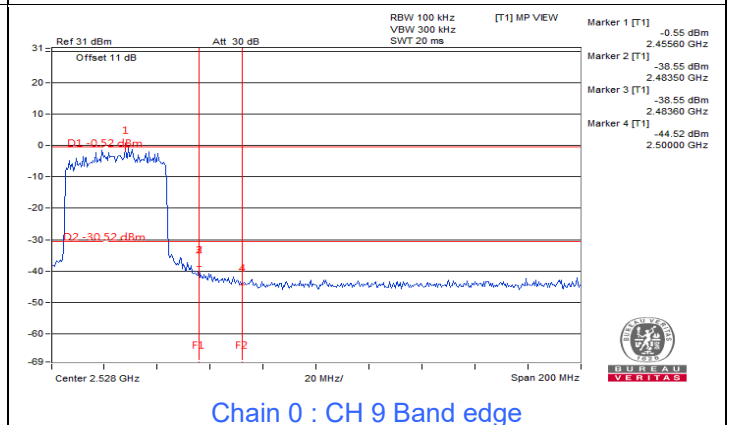
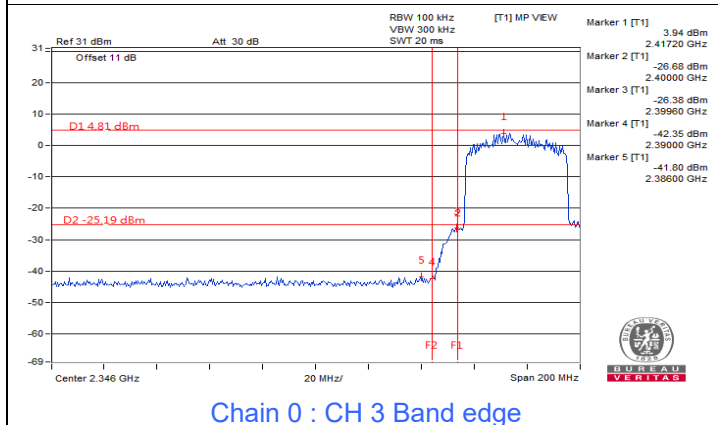
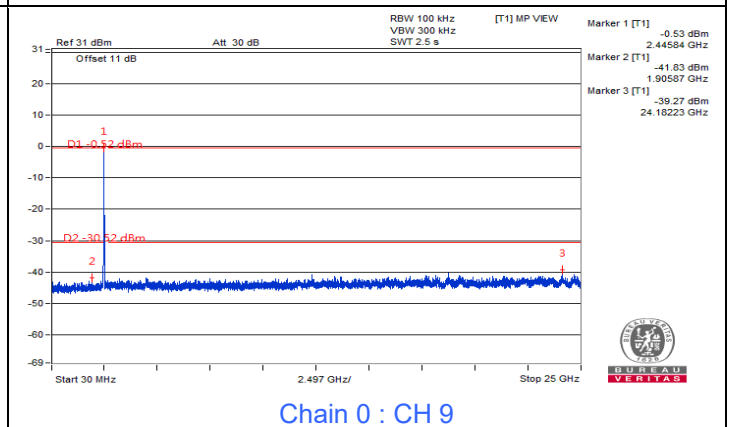
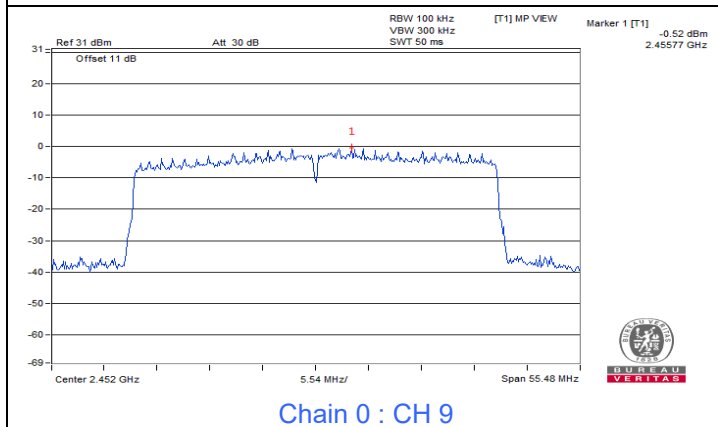
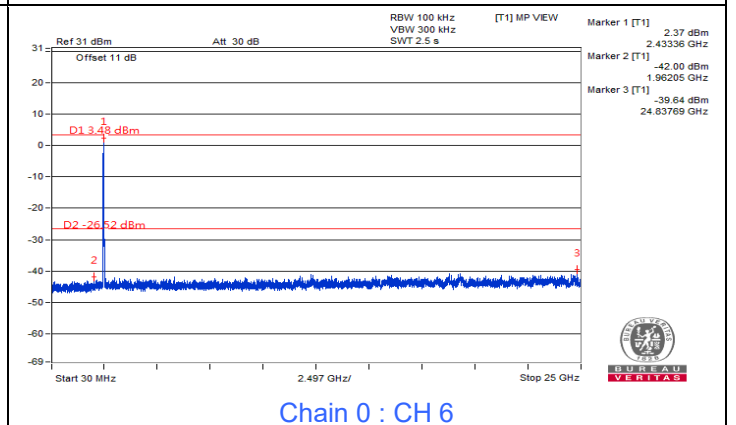
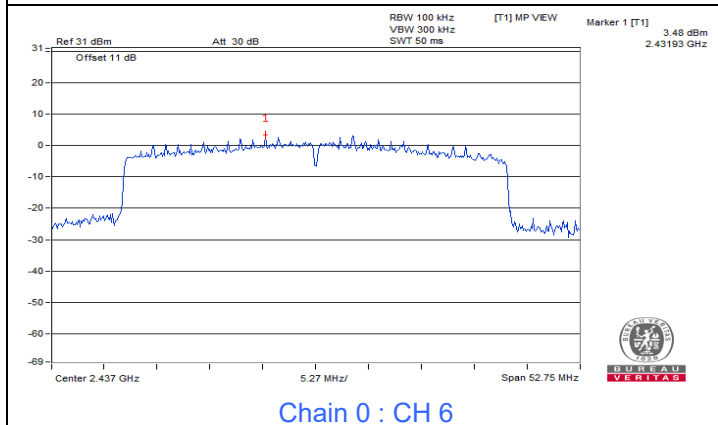
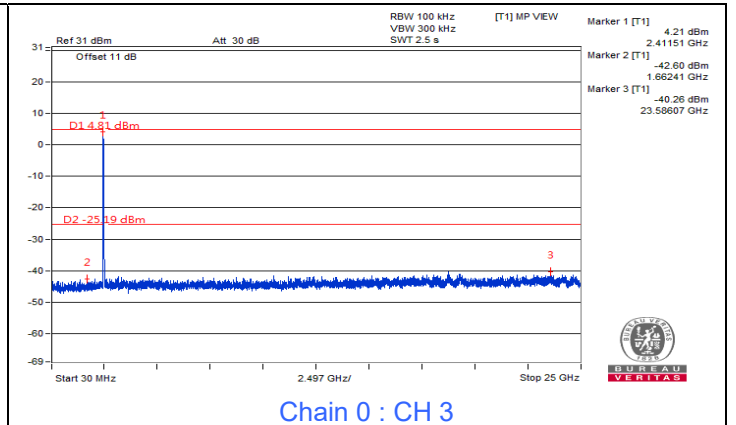
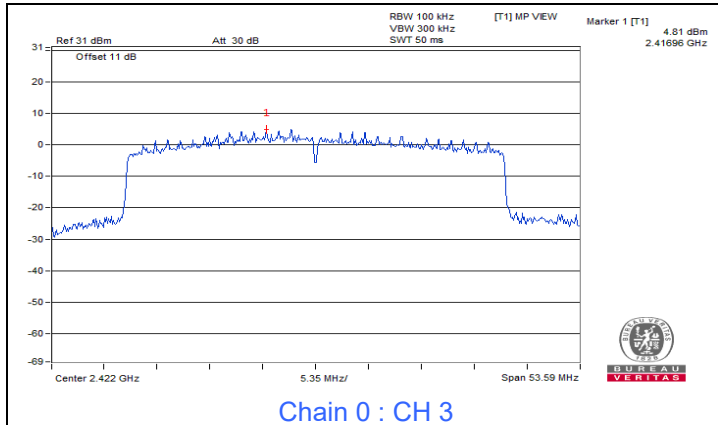
Chain 1 : CH 1 Band edge

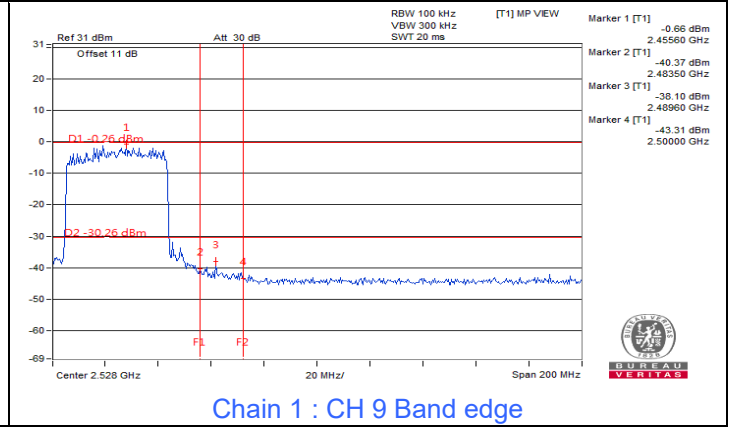
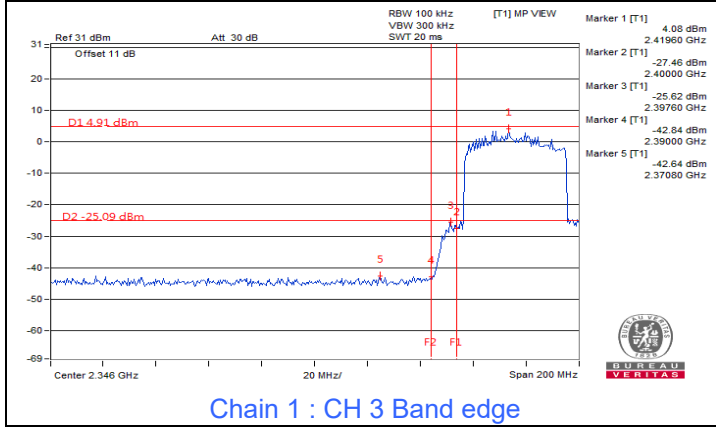
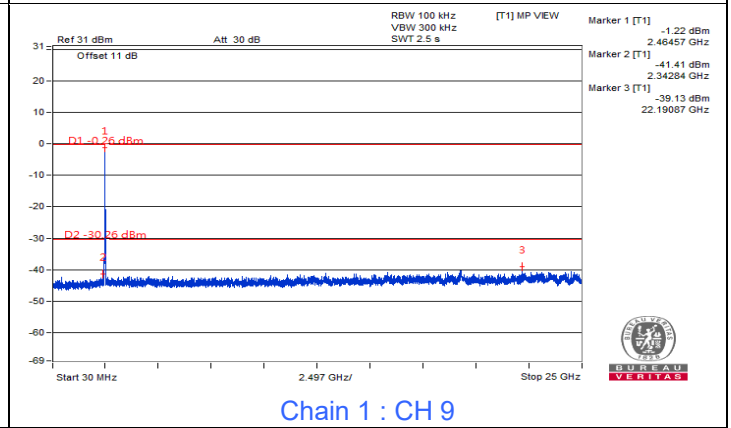
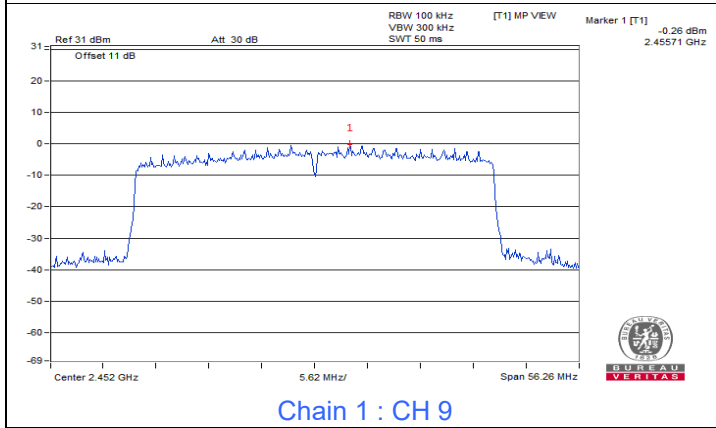
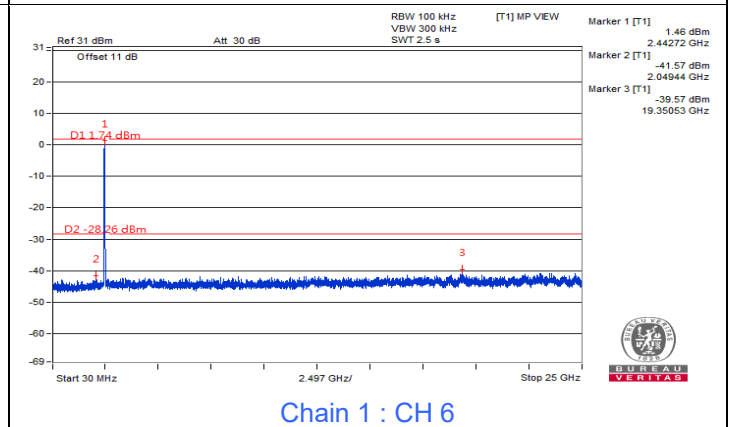
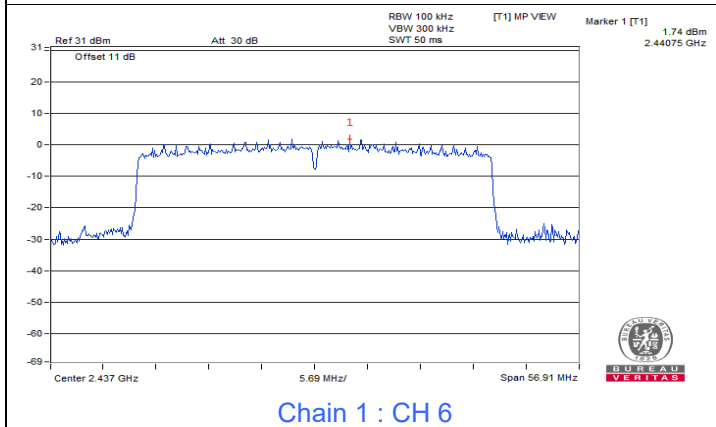
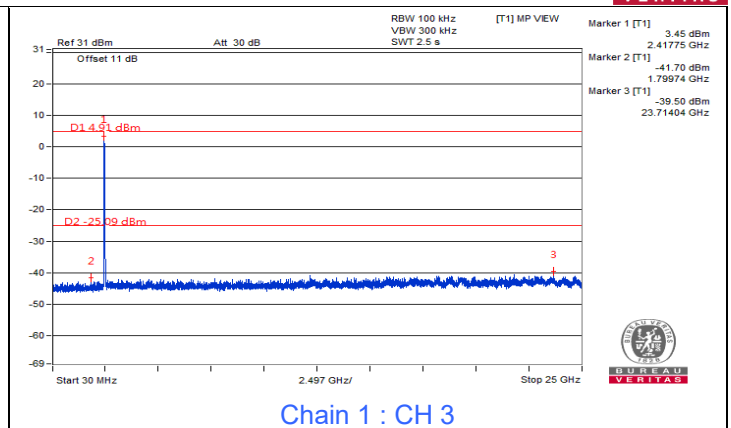
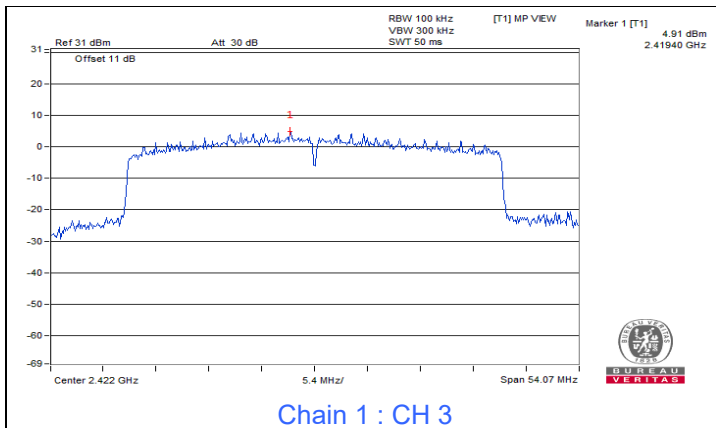


Chain 1 : CH 11 Band edge



802.11ax (HE40)





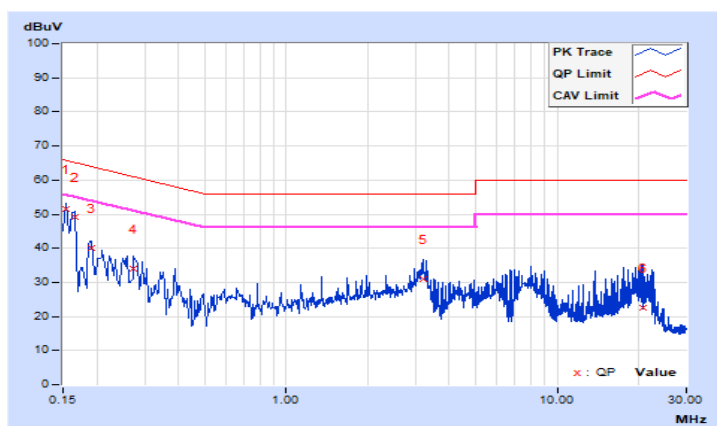
7.5 AC Power Conducted Emissions

RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	0.15400	9.68	41.99	23.08	51.67	32.76	65.78	55.78	-14.11	-23.02
2	0.16579	9.69	39.63	21.97	49.32	31.66	65.17	55.17	-15.85	-23.51
3	0.19000	9.71	30.25	18.69	39.96	28.40	64.04	54.04	-24.08	-25.64
4	0.27400	9.75	24.32	13.26	34.07	23.01	61.00	51.00	-26.93	-27.99
5	3.19400	9.93	21.09	14.17	31.02	24.10	56.00	46.00	-24.98	-21.90
6	20.88600	10.16	12.49	4.22	22.65	14.38	60.00	50.00	-37.35	-35.62

Remarks:

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

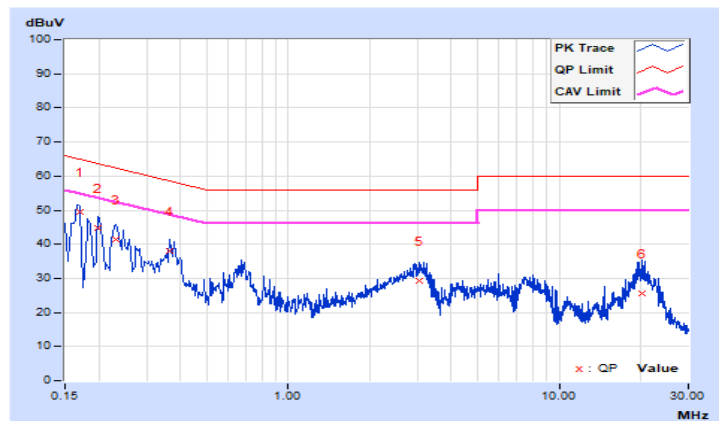


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	0.17000	9.70	39.94	23.54	49.64	33.24	64.96	54.96	-15.32	-21.72
2	0.19800	9.72	34.98	20.00	44.70	29.72	63.69	53.69	-18.99	-23.97
3	0.22985	9.73	31.69	17.33	41.42	27.06	62.46	52.46	-21.04	-25.40
4	0.36600	9.79	28.22	19.17	38.01	28.96	58.59	48.59	-20.58	-19.63
5	3.04200	9.95	19.28	12.52	29.23	22.47	56.00	46.00	-26.77	-23.53
6	20.11000	10.20	15.50	7.50	25.70	17.70	60.00	50.00	-34.30	-32.30

Remarks:

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



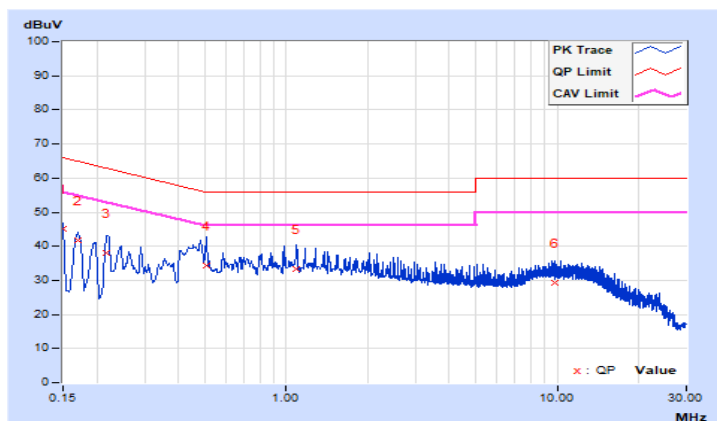
RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	9.68	35.29	23.10	44.97	32.78	66.00	56.00	-21.03	-23.22
2	0.16977	9.70	31.99	20.78	41.69	30.48	64.97	54.97	-23.28	-24.49
3	0.21800	9.73	28.15	19.01	37.88	28.74	62.89	52.89	-25.01	-24.15
4	0.50600	9.81	24.52	20.87	34.33	30.68	56.00	46.00	-21.67	-15.32
5	1.09400	9.85	23.53	19.90	33.38	29.75	56.00	46.00	-22.62	-16.25
6	9.82600	10.06	19.17	15.01	29.23	25.07	60.00	50.00	-30.77	-24.93

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

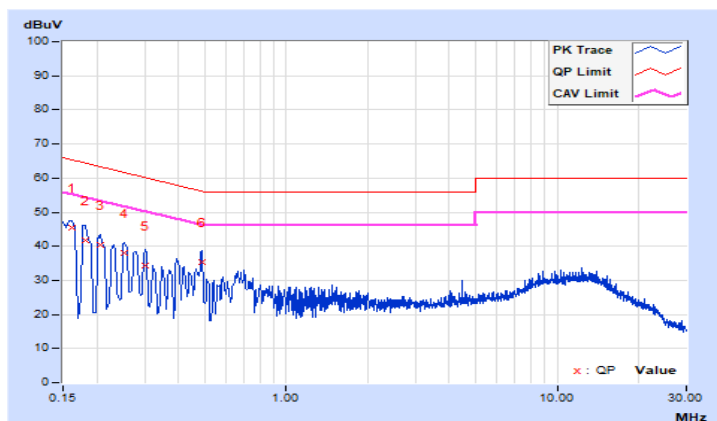


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	0.16105	9.69	35.60	20.66	45.29	30.35	65.41	55.41	-20.12	-25.06
2	0.18037	9.70	32.08	17.98	41.78	27.68	64.47	54.47	-22.69	-26.79
3	0.20577	9.72	30.66	15.96	40.38	25.68	63.37	53.37	-22.99	-27.69
4	0.25205	9.74	28.36	16.23	38.10	25.97	61.69	51.69	-23.59	-25.72
5	0.30151	9.77	24.69	11.60	34.46	21.37	60.20	50.20	-25.74	-28.83
6	0.48600	9.82	25.53	17.40	35.35	27.22	56.24	46.24	-20.89	-19.02

Remarks:

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

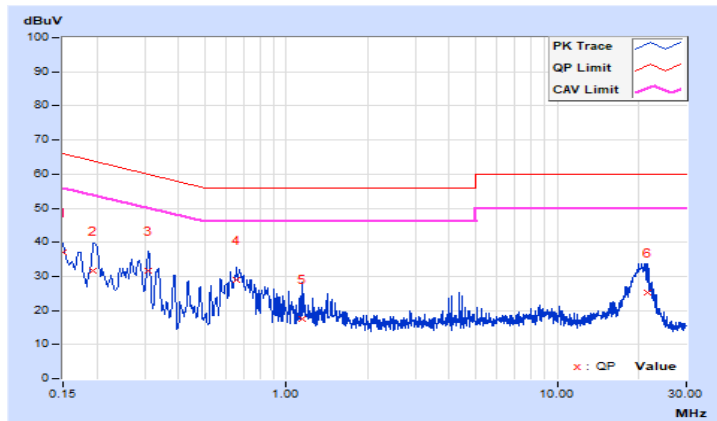


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	9.68	27.45	16.32	37.13	26.00	66.00	56.00	-28.87	-30.00
2	0.19400	9.72	21.98	9.67	31.70	19.39	63.86	53.86	-32.16	-34.47
3	0.31000	9.76	21.95	12.52	31.71	22.28	59.97	49.97	-28.26	-27.69
4	0.65400	9.82	19.13	13.07	28.95	22.89	56.00	46.00	-27.05	-23.11
5	1.14200	9.85	7.63	2.01	17.48	11.86	56.00	46.00	-38.52	-34.14
6	21.43000	10.16	14.93	7.38	25.09	17.54	60.00	50.00	-34.91	-32.46

Remarks:

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

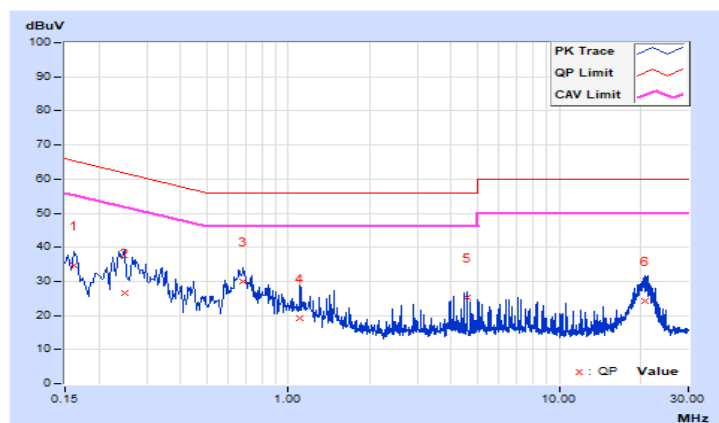


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	0.16190	9.69	25.12	10.92	34.81	20.61	65.37	55.37	-30.56	-34.76
2	0.24941	9.74	16.79	8.94	26.53	18.68	61.78	51.78	-35.25	-33.10
3	0.68200	9.83	19.98	12.65	29.81	22.48	56.00	46.00	-26.19	-23.52
4	1.10200	9.87	9.25	0.95	19.12	10.82	56.00	46.00	-36.88	-35.18
5	4.57400	9.98	15.26	1.25	25.24	11.23	56.00	46.00	-30.76	-34.77
6	20.86200	10.20	13.88	7.41	24.08	17.61	60.00	50.00	-35.92	-32.39

Remarks:

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

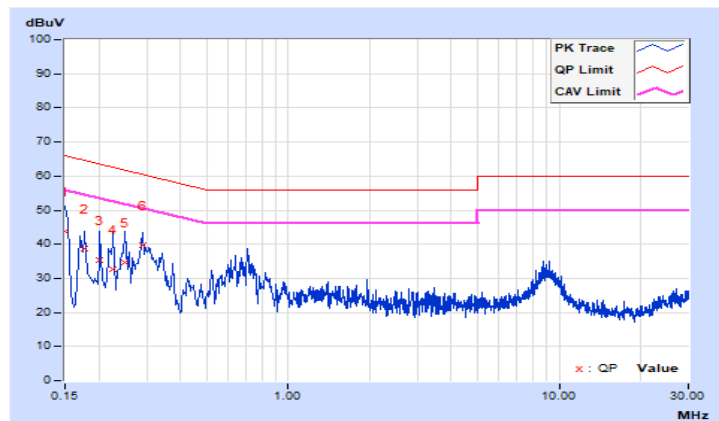


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	9.68	34.04	18.33	43.72	28.01	66.00	56.00	-22.28	-27.99
2	0.17800	9.70	29.05	14.77	38.75	24.47	64.58	54.58	-25.83	-30.11
3	0.20200	9.72	25.55	12.01	35.27	21.73	63.53	53.53	-28.26	-31.80
4	0.22600	9.73	22.82	12.32	32.55	22.05	62.60	52.60	-30.05	-30.55
5	0.25000	9.74	25.02	13.94	34.76	23.68	61.76	51.76	-27.00	-28.08
6	0.29000	9.76	29.90	20.99	39.66	30.75	60.52	50.52	-20.86	-19.77

Remarks:

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

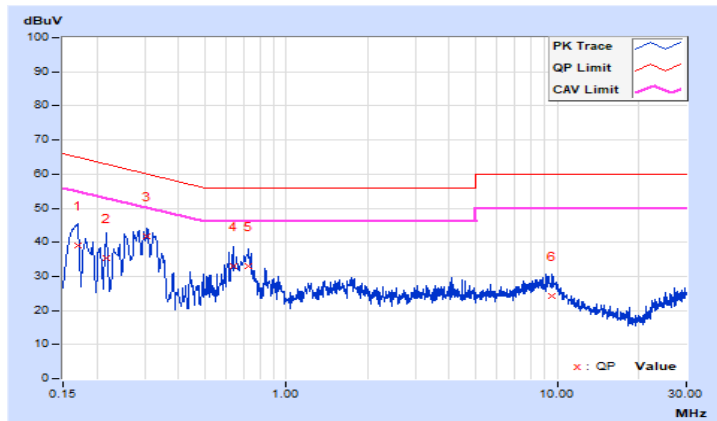


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	0.16932	9.70	29.48	13.29	39.18	22.99	64.99	54.99	-25.81	-32.00
2	0.21800	9.73	25.56	9.76	35.29	19.49	62.89	52.89	-27.60	-33.40
3	0.30600	9.77	31.96	20.48	41.73	30.25	60.08	50.08	-18.35	-19.83
4	0.63800	9.83	23.00	12.19	32.83	22.02	56.00	46.00	-23.17	-23.98
5	0.72600	9.84	23.09	13.36	32.93	23.20	56.00	46.00	-23.07	-22.80
6	9.58600	10.05	14.36	8.61	24.41	18.66	60.00	50.00	-35.59	-31.34

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



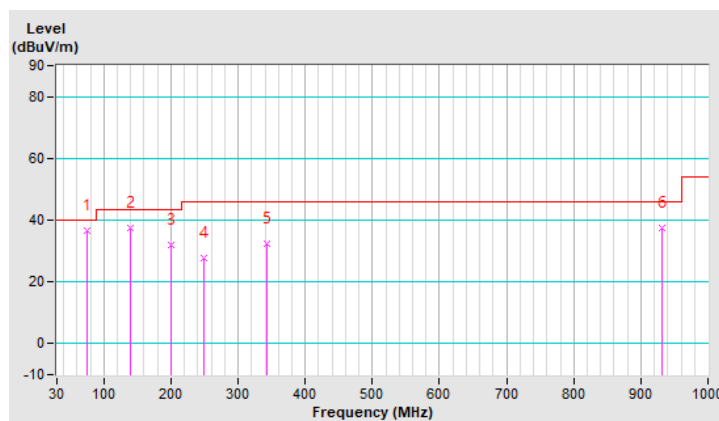
7.6 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	74.62	36.4 QP	40.0	-3.6	1.00 H	217	47.9	-11.5
2	138.64	37.3 QP	43.5	-6.2	1.00 H	152	46.5	-9.2
3	200.72	31.9 QP	43.5	-11.6	1.00 H	149	43.3	-11.4
4	249.22	27.9 QP	46.0	-18.1	1.00 H	148	37.0	-9.1
5	342.34	32.3 QP	46.0	-13.7	1.00 H	148	39.0	-6.7
6	932.10	37.3 QP	46.0	-8.7	1.00 H	102	31.6	5.7

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

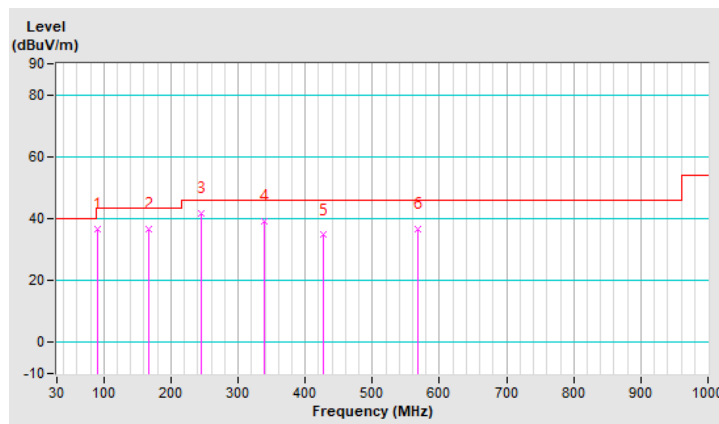


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

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	90.14	36.8 QP	43.5	-6.7	1.49 V	155	51.1	-14.3
2	167.74	36.7 QP	43.5	-6.8	1.49 V	161	45.5	-8.8
3	245.34	41.9 QP	46.0	-4.1	1.49 V	161	51.2	-9.3
4	338.46	39.0 QP	46.0	-7.0	1.00 V	64	45.7	-6.7
5	427.70	34.7 QP	46.0	-11.3	1.49 V	135	39.9	-5.2
6	567.38	36.4 QP	46.0	-9.6	1.49 V	162	39.4	-3.0

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

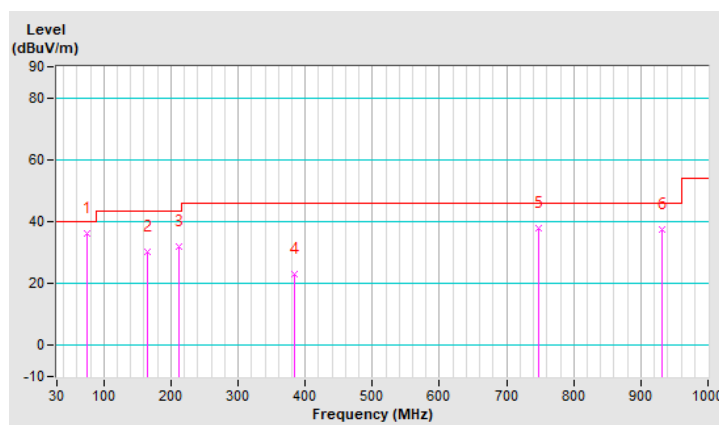


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	74.62	36.3 QP	40.0	-3.7	1.01 H	182	47.8	-11.5
2	165.80	30.1 QP	43.5	-13.4	1.50 H	191	38.8	-8.7
3	212.36	31.9 QP	43.5	-11.6	1.50 H	89	43.1	-11.2
4	383.08	23.0 QP	46.0	-23.0	1.01 H	20	29.1	-6.1
5	747.80	37.7 QP	46.0	-8.3	1.50 H	337	36.0	1.7
6	932.10	37.5 QP	46.0	-8.5	1.50 H	168	31.8	5.7

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

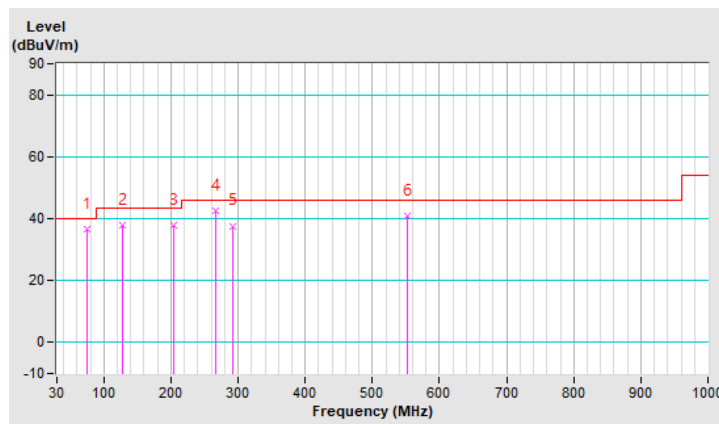


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

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	74.62	36.5 QP	40.0	-3.5	1.99 V	85	48.0	-11.5
2	127.00	37.9 QP	43.5	-5.6	1.49 V	144	48.2	-10.3
3	204.60	37.7 QP	43.5	-5.8	1.49 V	38	49.1	-11.4
4	266.68	42.4 QP	46.0	-3.6	1.49 V	143	50.9	-8.5
5	291.90	37.7 QP	46.0	-8.3	1.49 V	165	45.4	-7.7
6	551.86	40.7 QP	46.0	-5.3	1.49 V	140	44.1	-3.4

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 emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

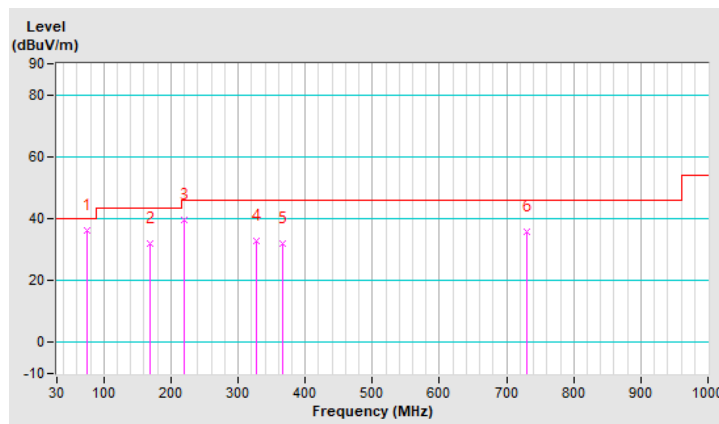


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	74.62	36.1 QP	40.0	-3.9	1.01 H	325	47.6	-11.5
2	169.68	32.1 QP	43.5	-11.4	1.01 H	132	41.1	-9.0
3	220.12	39.7 QP	46.0	-6.3	1.01 H	90	50.8	-11.1
4	326.82	33.0 QP	46.0	-13.0	1.01 H	100	39.8	-6.8
5	365.62	31.8 QP	46.0	-14.2	1.01 H	140	38.1	-6.3
6	730.34	35.9 QP	46.0	-10.1	1.01 H	16	34.9	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 emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

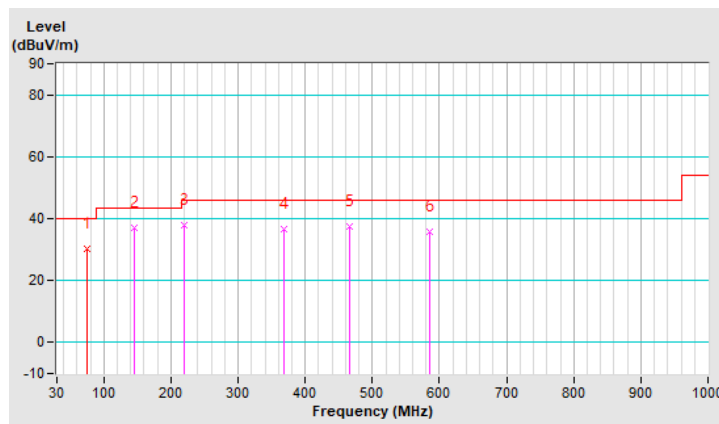


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	C

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	74.48	30.3 QP	40.0	-9.7	2.00 V	150	41.7	-11.4
2	144.46	37.1 QP	43.5	-6.4	1.49 V	206	45.9	-8.8
3	220.12	38.0 QP	46.0	-8.0	1.49 V	91	49.1	-11.1
4	367.56	36.5 QP	46.0	-9.5	1.49 V	31	42.8	-6.3
5	466.50	37.3 QP	46.0	-8.7	1.99 V	160	41.8	-4.5
6	584.84	35.9 QP	46.0	-10.1	1.00 V	116	38.2	-2.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



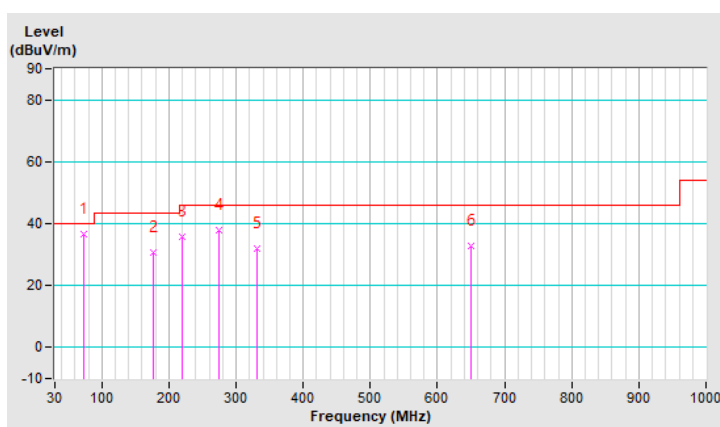
RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	72.68	36.5 QP	40.0	-3.5	1.00 H	170	47.7	-11.2
2	177.44	30.5 QP	43.5	-13.0	1.00 H	154	40.1	-9.6
3	220.12	35.8 QP	46.0	-10.2	1.00 H	192	46.9	-11.1
4	274.44	37.9 QP	46.0	-8.1	1.00 H	129	45.9	-8.0
5	330.70	31.9 QP	46.0	-14.1	1.00 H	129	38.5	-6.6
6	650.80	32.9 QP	46.0	-13.1	1.00 H	196	33.7	-0.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

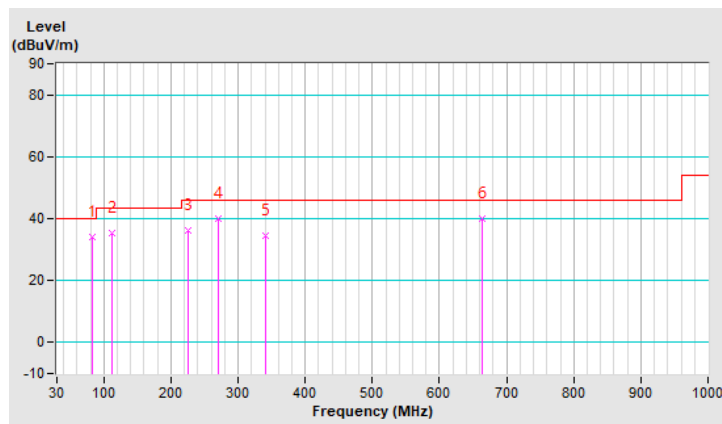


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	55.5 Vdc	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	D

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	82.38	33.9 QP	40.0	-6.1	1.01 V	70	47.4	-13.5
2	111.48	35.2 QP	43.5	-8.3	1.01 V	80	46.8	-11.6
3	225.94	36.0 QP	46.0	-10.0	1.01 V	82	47.2	-11.2
4	270.56	39.9 QP	46.0	-6.1	1.01 V	144	48.2	-8.3
5	340.40	34.3 QP	46.0	-11.7	1.50 V	6	41.0	-6.7
6	664.38	39.9 QP	46.0	-6.1	1.01 V	59	40.5	-0.6

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



7.7 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2382.70	59.3 PK	74.0	-14.7	2.78 H	42	24.3	35.0
2	2382.70	48.4 AV	54.0	-5.6	2.78 H	42	13.4	35.0
3	*2412.00	113.1 PK			2.78 H	42	78.2	34.9
4	*2412.00	110.6 AV			2.78 H	42	75.7	34.9
5	2484.16	61.9 PK	74.0	-12.1	2.78 H	42	27.1	34.8
6	2484.16	53.8 AV	54.0	-0.2	2.78 H	42	19.0	34.8
7	4824.00	51.9 PK	74.0	-22.1	1.39 H	4	38.3	13.6
8	4824.00	38.8 AV	54.0	-15.2	1.39 H	4	25.2	13.6

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.2 PK	74.0	-15.8	2.08 V	10	23.3	34.9
2	2390.00	46.1 AV	54.0	-7.9	2.08 V	10	11.2	34.9
3	*2412.00	109.6 PK			2.08 V	10	74.7	34.9
4	*2412.00	107.0 AV			2.08 V	10	72.1	34.9
5	4824.00	52.4 PK	74.0	-21.6	1.34 V	197	38.8	13.6
6	4824.00	45.3 AV	54.0	-8.7	1.34 V	197	31.7	13.6

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	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	114.1 PK			2.84 H	43	79.2	34.9
2	*2437.00	111.7 AV			2.84 H	43	76.8	34.9
3	4874.00	52.1 PK	74.0	-21.9	1.37 H	2	38.6	13.5
4	4874.00	39.2 AV	54.0	-14.8	1.37 H	2	25.7	13.5

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	113.2 PK			1.95 V	8	78.3	34.9
2	*2437.00	110.5 AV			1.95 V	8	75.6	34.9
3	4874.00	51.9 PK	74.0	-22.1	1.33 V	199	38.4	13.5
4	4874.00	39.1 AV	54.0	-14.9	1.33 V	199	25.6	13.5

Remarks:

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



RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	110.5 PK			2.83 H	27	75.6	34.9
2	*2462.00	108.2 AV			2.83 H	27	73.3	34.9
3	2483.50	61.5 PK	74.0	-12.5	2.83 H	27	26.7	34.8
4	2483.50	53.9 AV	54.0	-0.1	2.83 H	27	19.1	34.8
5	4924.00	54.1 PK	74.0	-19.9	1.19 H	1	40.9	13.2
6	4924.00	48.2 AV	54.0	-5.8	1.19 H	1	35.0	13.2

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.4 PK			1.95 V	10	74.5	34.9
2	*2462.00	107.0 AV			1.95 V	10	72.1	34.9
3	2488.70	60.9 PK	74.0	-13.1	1.95 V	10	26.1	34.8
4	2488.70	51.7 AV	54.0	-2.3	1.95 V	10	16.9	34.8
5	4924.00	51.8 PK	74.0	-22.2	1.44 V	203	38.6	13.2
6	4924.00	44.3 AV	54.0	-9.7	1.44 V	203	31.1	13.2

Remarks:

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



RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	71.0 PK	74.0	-3.0	2.76 H	37	36.1	34.9
2	2390.00	53.8 AV	54.0	-0.2	2.76 H	37	18.9	34.9
3	*2412.00	118.2 PK			2.76 H	37	83.3	34.9
4	*2412.00	108.8 AV			2.76 H	37	73.9	34.9
5	4824.00	60.5 PK	74.0	-13.5	1.19 H	3	46.9	13.6
6	4824.00	47.2 AV	54.0	-6.8	1.19 H	3	33.6	13.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.0 PK	74.0	-6.0	1.95 V	10	33.1	34.9
2	2390.00	52.7 AV	54.0	-1.3	1.95 V	10	17.8	34.9
3	*2412.00	116.8 PK			1.95 V	10	81.9	34.9
4	*2412.00	107.4 AV			1.95 V	10	72.5	34.9
5	4824.00	58.1 PK	74.0	-15.9	1.45 V	199	44.5	13.6
6	4824.00	44.8 AV	54.0	-9.2	1.45 V	199	31.2	13.6

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	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	117.8 PK			2.72 H	42	82.9	34.9
2	*2437.00	108.2 AV			2.72 H	42	73.3	34.9
3	2483.50	70.2 PK	74.0	-3.8	2.72 H	42	35.4	34.8
4	2483.50	53.8 AV	54.0	-0.2	2.72 H	42	19.0	34.8
5	4874.00	51.1 PK	74.0	-22.9	1.55 H	11	37.6	13.5
6	4874.00	38.7 AV	54.0	-15.3	1.55 H	11	25.2	13.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	116.6 PK			1.84 V	6	81.7	34.9
2	*2437.00	107.5 AV			1.84 V	6	72.6	34.9
3	2483.50	68.1 PK	74.0	-5.9	1.84 V	6	33.3	34.8
4	2483.50	51.9 AV	54.0	-2.1	1.84 V	6	17.1	34.8
5	4874.00	50.9 PK	74.0	-23.1	1.46 V	199	37.4	13.5
6	4874.00	38.5 AV	54.0	-15.5	1.46 V	199	25.0	13.5

Remarks:

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



RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.7 PK			2.82 H	29	76.8	34.9
2	*2462.00	102.0 AV			2.82 H	29	67.1	34.9
3	2483.50	72.1 PK	74.0	-1.9	2.82 H	29	37.3	34.8
4	2483.50	53.7 AV	54.0	-0.3	2.82 H	29	18.9	34.8
5	4924.00	50.5 PK	74.0	-23.5	1.26 H	4	37.3	13.2
6	4924.00	38.2 AV	54.0	-15.8	1.26 H	4	25.0	13.2

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	110.3 PK			1.98 V	6	75.4	34.9
2	*2462.00	100.7 AV			1.98 V	6	65.8	34.9
3	2483.50	67.1 PK	74.0	-6.9	1.98 V	6	32.3	34.8
4	2483.50	51.4 AV	54.0	-2.6	1.98 V	6	16.6	34.8
5	4924.00	50.3 PK	74.0	-23.7	1.30 V	194	37.1	13.2
6	4924.00	38.2 AV	54.0	-15.8	1.30 V	194	25.0	13.2

Remarks:

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



RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	70.7 PK	74.0	-3.3	2.97 H	32	35.8	34.9
2	2390.00	53.8 AV	54.0	-0.2	2.97 H	32	18.9	34.9
3	*2412.00	118.0 PK			2.97 H	32	83.1	34.9
4	*2412.00	106.3 AV			2.97 H	32	71.4	34.9
5	4824.00	59.1 PK	74.0	-14.9	1.21 H	4	45.5	13.6
6	4824.00	45.7 AV	54.0	-8.3	1.21 H	4	32.1	13.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.7 PK	74.0	-10.3	1.98 V	14	28.8	34.9
2	2390.00	49.0 AV	54.0	-5.0	1.98 V	14	14.1	34.9
3	*2412.00	117.0 PK			1.98 V	14	82.1	34.9
4	*2412.00	104.7 AV			1.98 V	14	69.8	34.9
5	4824.00	51.4 PK	74.0	-22.6	1.48 V	192	37.8	13.6
6	4824.00	38.7 AV	54.0	-15.3	1.48 V	192	25.1	13.6

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	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	118.7 PK			2.86 H	42	83.8	34.9
2	*2437.00	106.6 AV			2.86 H	42	71.7	34.9
3	2483.50	70.5 PK	74.0	-3.5	2.86 H	42	35.7	34.8
4	2483.50	53.8 AV	54.0	-0.2	2.86 H	42	19.0	34.8
5	4874.00	51.4 PK	74.0	-22.6	1.55 H	3	37.9	13.5
6	4874.00	38.8 AV	54.0	-15.2	1.55 H	3	25.3	13.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	117.5 PK			1.83 V	9	82.6	34.9
2	*2437.00	105.7 AV			1.83 V	9	70.8	34.9
3	2483.50	65.8 PK	74.0	-8.2	1.83 V	9	31.0	34.8
4	2483.50	50.8 AV	54.0	-3.2	1.83 V	9	16.0	34.8
5	4874.00	51.0 PK	74.0	-23.0	1.31 V	189	37.5	13.5
6	4874.00	38.6 AV	54.0	-15.4	1.31 V	189	25.1	13.5

Remarks:

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



RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.7 PK			3.39 H	38	74.8	34.9
2	*2462.00	97.7 AV			3.39 H	38	62.8	34.9
3	2483.50	73.1 PK	74.0	-0.9	3.39 H	38	38.3	34.8
4	2483.50	53.9 AV	54.0	-0.1	3.39 H	38	19.1	34.8
5	4924.00	49.9 PK	74.0	-24.1	1.28 H	5	36.7	13.2
6	4924.00	37.9 AV	54.0	-16.1	1.28 H	5	24.7	13.2

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.0 PK			1.91 V	14	74.1	34.9
2	*2462.00	97.3 AV			1.91 V	14	62.4	34.9
3	2483.50	66.5 PK	74.0	-7.5	1.91 V	14	31.7	34.8
4	2483.50	51.5 AV	54.0	-2.5	1.91 V	14	16.7	34.8
5	4924.00	49.4 PK	74.0	-24.6	1.38 V	189	36.2	13.2
6	4924.00	37.7 AV	54.0	-16.3	1.38 V	189	24.5	13.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.5 PK	74.0	-8.5	3.39 H	33	30.6	34.9
2	2390.00	50.8 AV	54.0	-3.2	3.39 H	33	15.9	34.9
3	*2422.00	115.3 PK			3.39 H	33	80.4	34.9
4	*2422.00	102.4 AV			3.39 H	33	67.5	34.9
5	2483.50	70.1 PK	74.0	-3.9	3.39 H	33	35.3	34.8
6	2483.50	53.8 AV	54.0	-0.2	3.39 H	33	19.0	34.8
7	4844.00	56.7 PK	74.0	-17.3	1.20 H	1	43.1	13.6
8	4844.00	42.6 AV	54.0	-11.4	1.20 H	1	29.0	13.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2389.40	63.0 PK	74.0	-11.0	1.91 V	14	28.1	34.9
2	2389.40	48.8 AV	54.0	-5.2	1.91 V	14	13.9	34.9
3	*2422.00	113.6 PK			1.91 V	14	78.7	34.9
4	*2422.00	101.7 AV			1.91 V	14	66.8	34.9
5	2483.50	66.6 PK	74.0	-7.4	1.91 V	14	31.8	34.8
6	2483.50	53.0 AV	54.0	-1.0	1.91 V	14	18.2	34.8
7	4844.00	52.7 PK	74.0	-21.3	1.45 V	199	39.1	13.6
8	4844.00	40.1 AV	54.0	-13.9	1.45 V	199	26.5	13.6

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	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	113.4 PK			3.03 H	43	78.5	34.9
2	*2437.00	100.3 AV			3.03 H	43	65.4	34.9
3	2483.50	71.3 PK	74.0	-2.7	3.03 H	43	36.5	34.8
4	2483.50	53.9 AV	54.0	-0.1	3.03 H	43	19.1	34.8
5	4874.00	54.4 PK	74.0	-19.6	1.18 H	1	40.9	13.5
6	4874.00	40.9 AV	54.0	-13.1	1.18 H	1	27.4	13.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	111.4 PK			1.89 V	9	76.5	34.9
2	*2437.00	99.2 AV			1.89 V	9	64.3	34.9
3	2483.50	65.4 PK	74.0	-8.6	1.89 V	9	30.6	34.8
4	2483.50	50.6 AV	54.0	-3.4	1.89 V	9	15.8	34.8
5	4874.00	52.4 PK	74.0	-21.6	1.48 V	205	38.9	13.5
6	4874.00	40.7 AV	54.0	-13.3	1.48 V	205	27.2	13.5

Remarks:

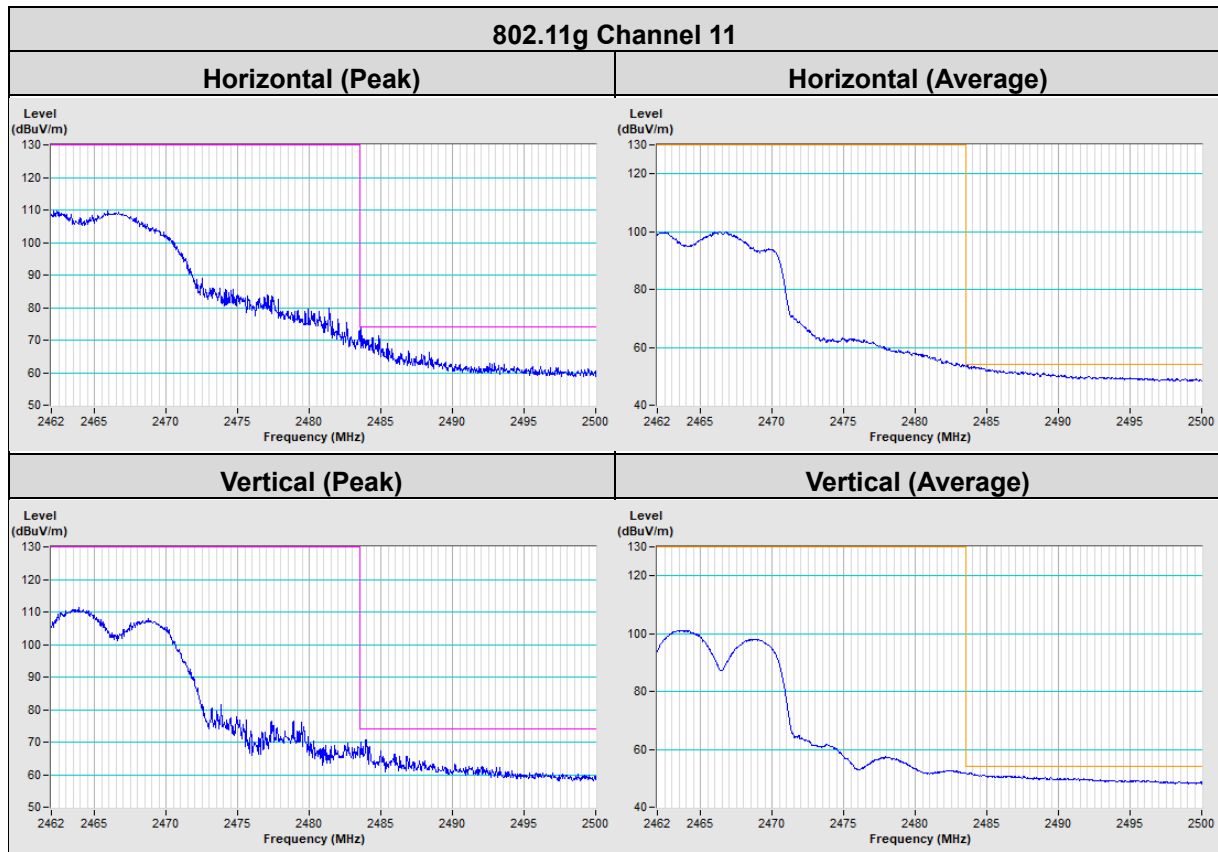
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 70% RH
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	108.8 PK			3.35 H	30	73.9	34.9
2	*2452.00	96.9 AV			3.35 H	30	62.0	34.9
3	2483.50	72.3 PK	74.0	-1.7	3.35 H	30	37.5	34.8
4	2483.50	53.8 AV	54.0	-0.2	3.35 H	30	19.0	34.8
5	4904.00	49.8 PK	74.0	-24.2	1.33 H	3	36.4	13.4
6	4904.00	38.0 AV	54.0	-16.0	1.33 H	3	24.6	13.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	107.7 PK			1.90 V	9	72.8	34.9
2	*2452.00	95.9 AV			1.90 V	9	61.0	34.9
3	2483.50	65.2 PK	74.0	-8.8	1.90 V	9	30.4	34.8
4	2483.50	52.1 AV	54.0	-1.9	1.90 V	9	17.3	34.8
5	4904.00	48.7 PK	74.0	-25.3	1.30 V	196	35.3	13.4
6	4904.00	37.7 AV	54.0	-16.3	1.30 V	196	24.3	13.4

Remarks:

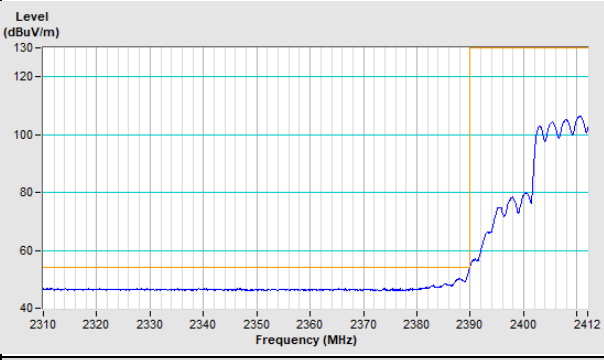
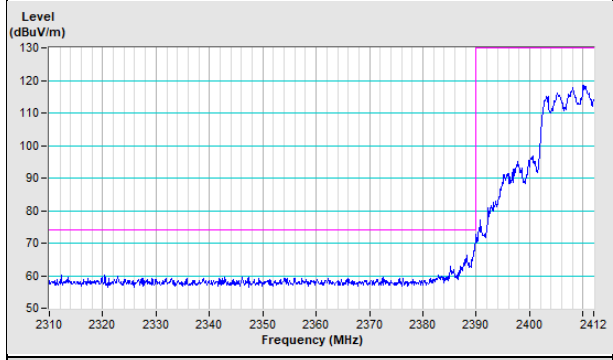
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency,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





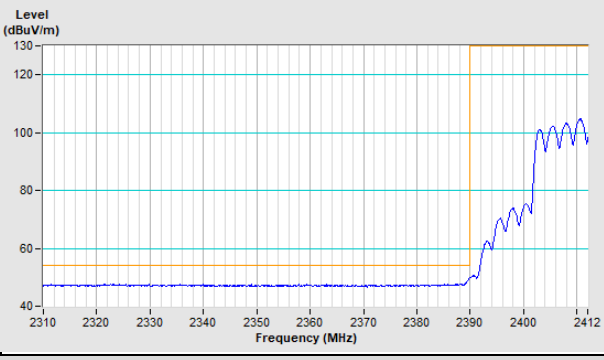
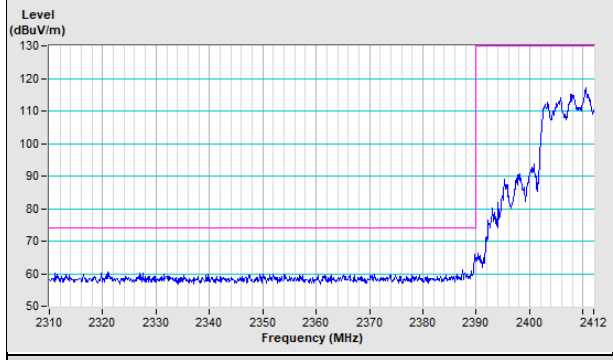
802.11ax (HE20) Channel 1

Horizontal (Peak) **Horizontal (Average)**



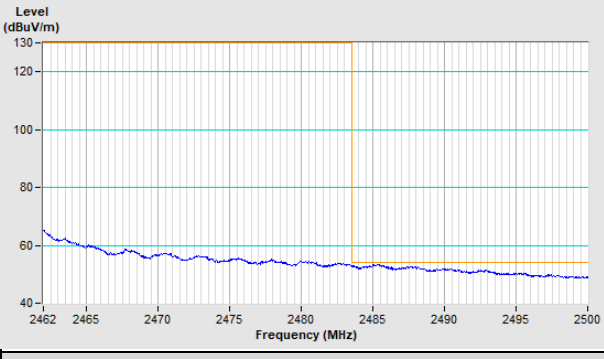
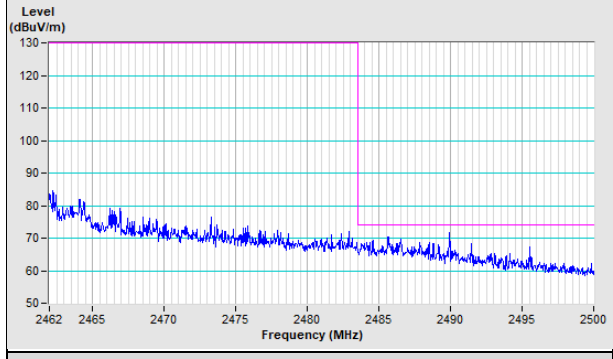
Vertical (Peak)

Vertical (Average)



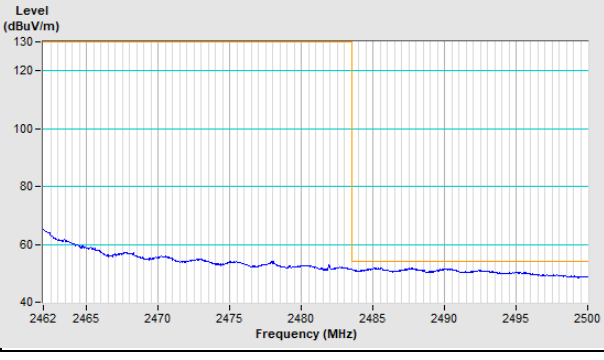
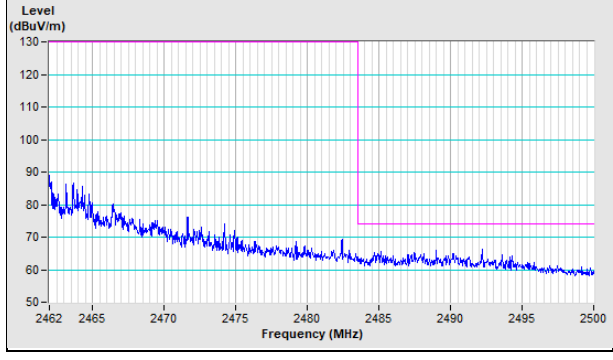
802.11ax (HE20) Channel 6

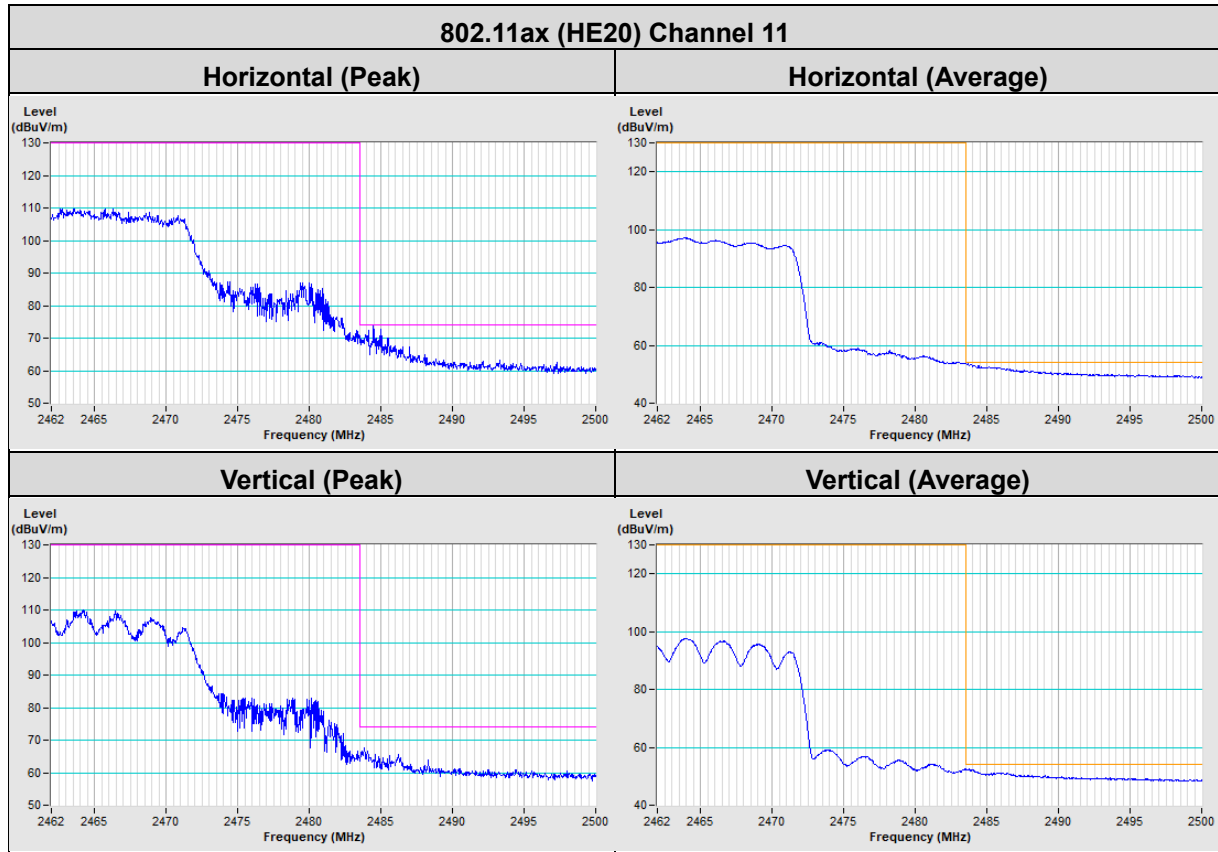
Horizontal (Peak) **Horizontal (Average)**



Vertical (Peak)

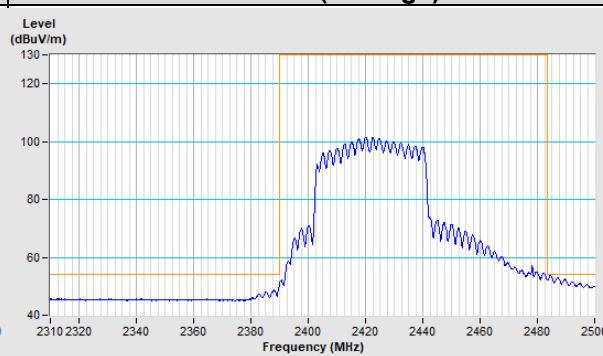
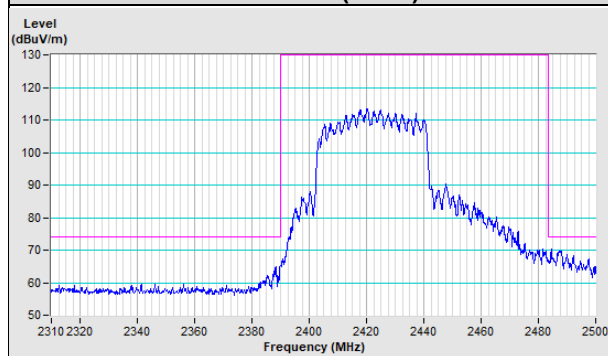
Vertical (Average)





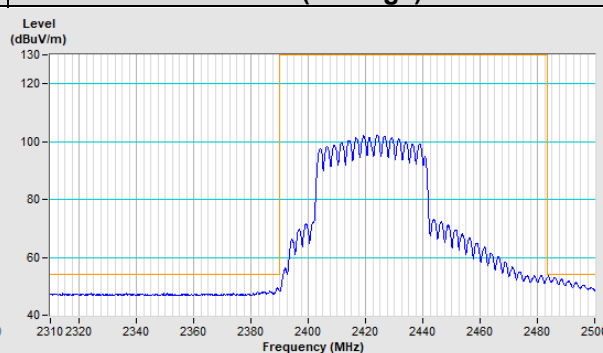
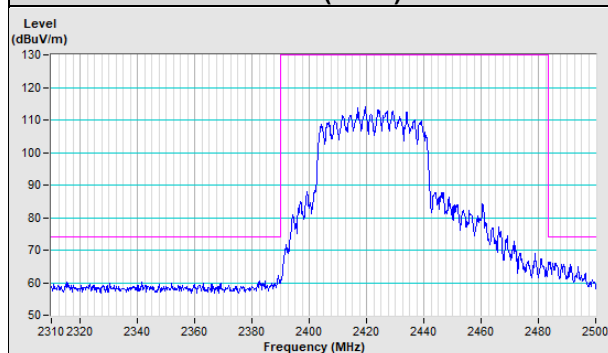
802.11ax (HE40) Channel 3

Horizontal (Peak) **Horizontal (Average)**



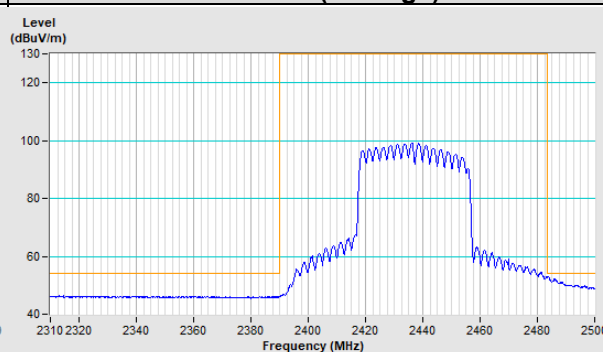
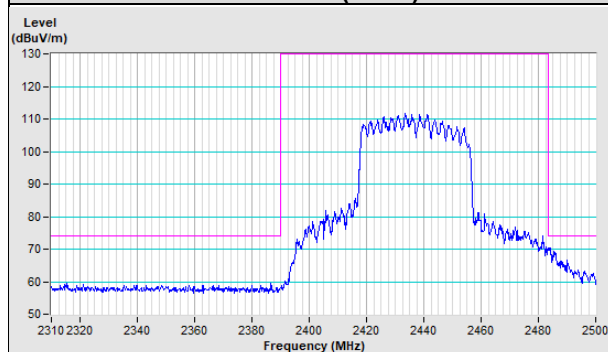
Vertical (Peak)

Vertical (Average)



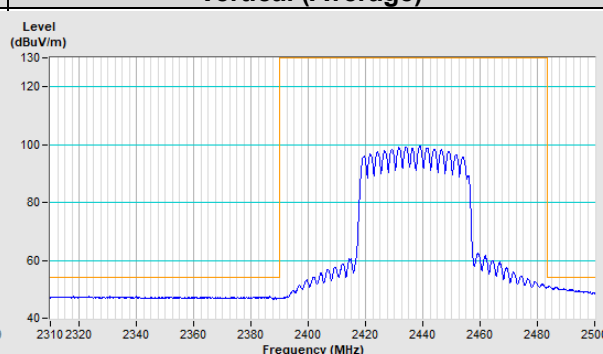
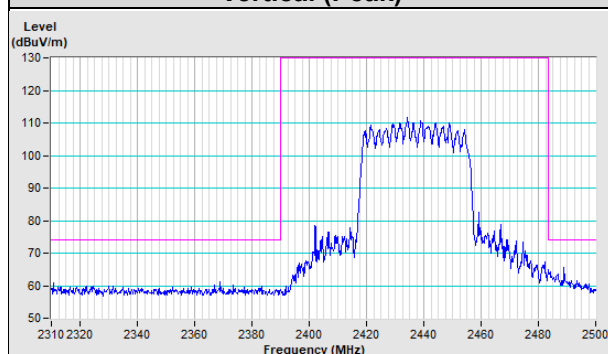
802.11ax (HE40) Channel 6

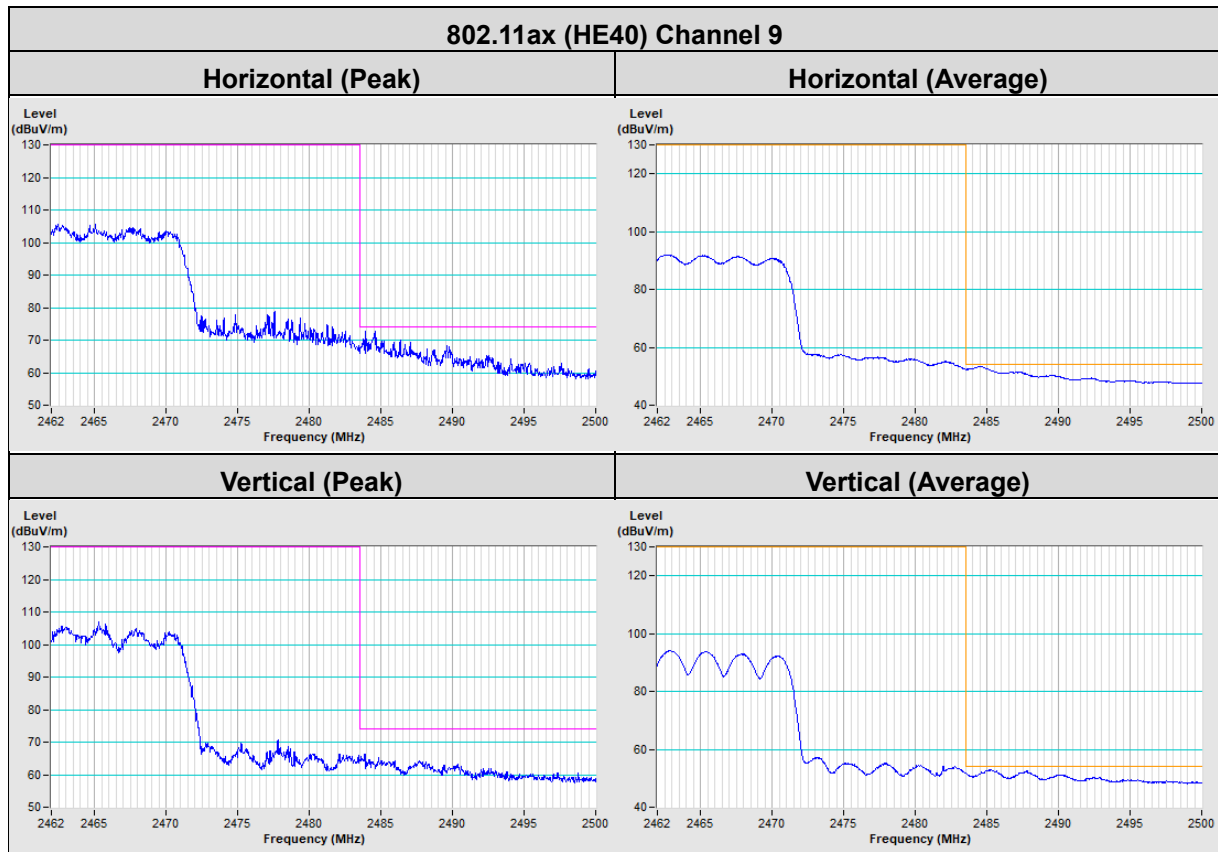
Horizontal (Peak) **Horizontal (Average)**



Vertical (Peak)

Vertical (Average)





8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)



9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@bureauveritas.com

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

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

--- END ---