

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBBQZ-WTW-P22031009
FCC ID: PY322100556
Model No.: RBR860, RBS860
Received Date: 2022/4/14
Test Date: 2022/5/13 ~ 2022/6/6
Issued Date: 2022/6/22

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
Hsin Chu Laboratory
Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____, **Date:** 2022/6/22
May Chen / Manager

This test report consists of 85 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 : Vivian Huang / Specialist



This report is 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. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, 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. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

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	16
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	18
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	30
7.4	Conducted Out of Band Emissions	32
7.5	AC Power Conducted Emissions	48
7.6	Unwanted Emissions below 1 GHz	52
7.7	Unwanted Emissions above 1 GHz	56
8	Pictures of Test Arrangements	84
9	Information of the Testing Laboratories	85

Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22031009	Original release.	2022/6/22

1 Certificate

Product: Orbi Router, Orbi Satellite

Brand: NETGEAR

Test Model: RBR860, RBS860

Sample Status: Engineering sample

Applicant: NETGEAR, Inc.

Test Date: 2022/5/13 ~ 2022/6/6

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

Measurement ANSI C63.10-2013

procedure: KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.00 dB at 0.34011 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.8 dB at 107.76 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 2390.00, 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.5 dB
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.5 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	Orbi Router, Orbi Satellite
Brand	NETGEAR
Test Model	RBR860, RBS860
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT20/40 mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 600 Mbps VHT: up to 800 Mbps 802.11ax: up to 1147.1 Mbps
Operating Frequency	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 956.856 mW (29.81 dBm) Beamforming Mode 921.853 mW (29.65 dBm)

Note:

1. The EUT has below model names which are identical to each other in all aspects except for the following table:

Product Name	Model Name	Description
Orbi Router	RBR860	Has master function only With WAN port
Orbi Satellite	RBS860	Has master and client function

2. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3
WLAN 2.4GHz	WLAN 5GHz_LB	WLAN 5GHz_HB

3. Simultaneously transmission condition.

Condition	Technology
1	WLAN 2.4GHz + WLAN 5GHz_LB + WLAN 5GHz_HB

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

4. The EUT uses following accessories.

AC Adapter 1			
Brand	Model	Part Number	Specification
NETGEAR	AD2150F10	332-11093-02	AC Input : 100-120V~ 50/60Hz 1.0A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 2			
Brand	Model	Part Number	Specification
NETGEAR	2ABN042F	332-10888-02	AC Input : 100-120V~ 50/60Hz 1.3A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 3			
Brand	Model	Part Number	Specification
NETGEAR	AD2150F10	332-11494-02	AC Input : 100-120V~ 50/60Hz 1.0A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 4			
Brand	Model	Part Number	Specification
NETGEAR	ADS-45FI-12 12042EPCU-L ADS-45FI-12 12042EPC-L	332-11526-02	AC Input : 100-120V~ 50/60Hz 1.3A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
Ethernet Cable			
Specification			
Signal Line : 2 m, Unshielded			
Note: FCC Adapter 1 is identical to Adapter 3 (The only different is the housing color).			

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

3.2 Antenna Description of EUT

1. The directional antenna gain, please refer to the following table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	6.1	Dipole	ipex(MHF)
5.15 ~ 5.25	6.29		
5.725 ~ 5.85	6.41		

Note: More detailed information, please refer to antenna specification.

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
VHT20	4TX	4RX
VHT40	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX

Note:

1. All of modulation mode support beamforming function except 802.11b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), VHT mode for 20MHz (40MHz) and 802.11ax mode for 20MHz (40MHz), therefore the manufacturer will control the power for 802.11n / VHT mode is the same as the 802.11ax mode 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:	1. The AC Adapter has the following models: AD2150F10 / 2ABN042F / ADS-45FI-12 12042EPCU-L ADS-45FI-12 12042EPC-L Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. EUT can be used in the following ways: Standing. Pre-scan in these ways and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter Worst Condition: 2ABN042F for AC Power Conducted Emissions, AD2150F10 for Unwanted Emissions Below 1GHz. 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
AC Power Conducted Emissions	A,B	802.11ax (HE20)	CDD	1	BPSK	MCS0
Unwanted Emissions below 1 GHz	A,B	802.11ax (HE20)	CDD	1	BPSK	MCS0
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
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
6 dB Bandwidth / Power Spectral Density / 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
EUT Configure Mode:	A	RBR860				
	B	RBS860				

3.5 Duty Cycle of Test Signal

Mode A

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 = $1.362 \text{ ms} / 2.107 \text{ ms} \times 100\% = 64.6\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 1.89 \text{ dB}$

802.11g: Duty cycle = $1.975 \text{ ms} / 2.107 \text{ ms} \times 100\% = 93.7\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 0.28 \text{ dB}$

802.11ax (HE20): Duty cycle = $5.444 \text{ ms} / 5.705 \text{ ms} \times 100\% = 95.4\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 0.20 \text{ dB}$

802.11ax (HE40): Duty cycle = $5.452 \text{ ms} / 5.692 \text{ ms} \times 100\% = 95.8\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 0.19 \text{ dB}$

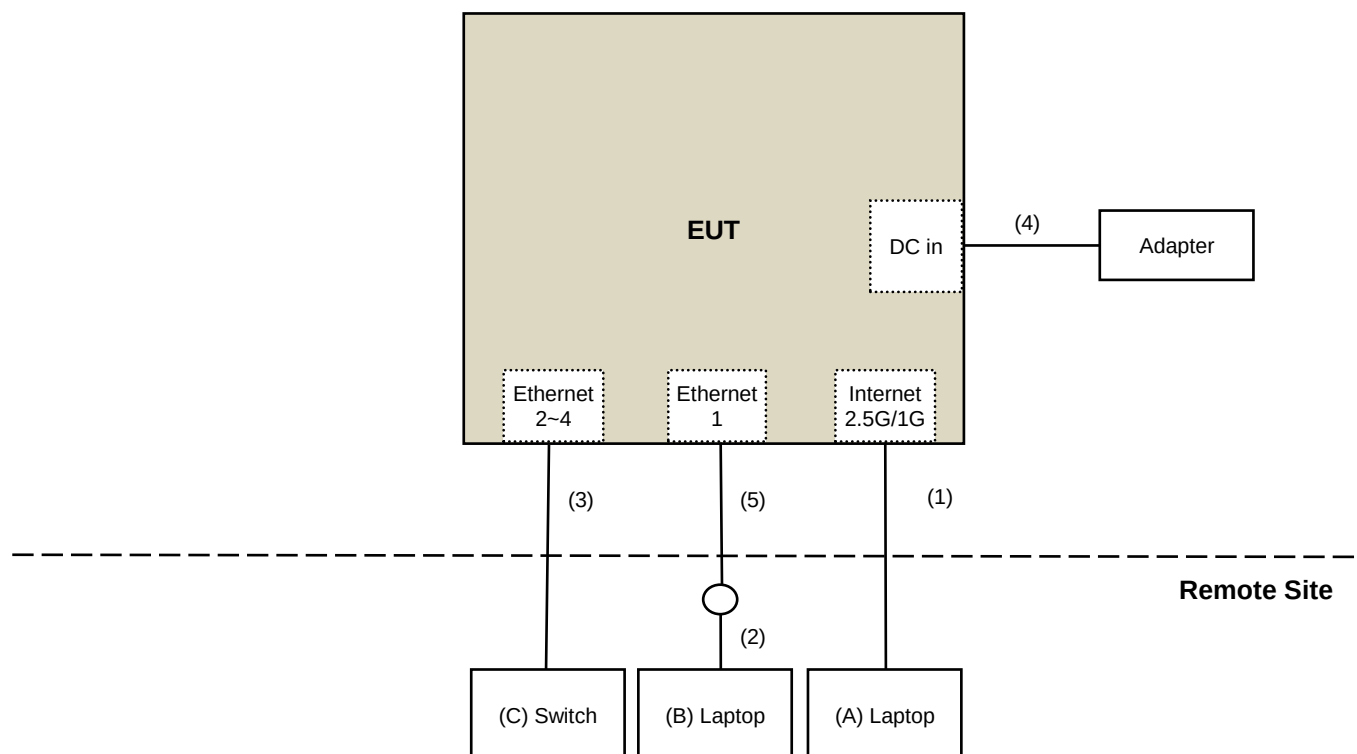


3.6 Test Program Used and Operation Descriptions

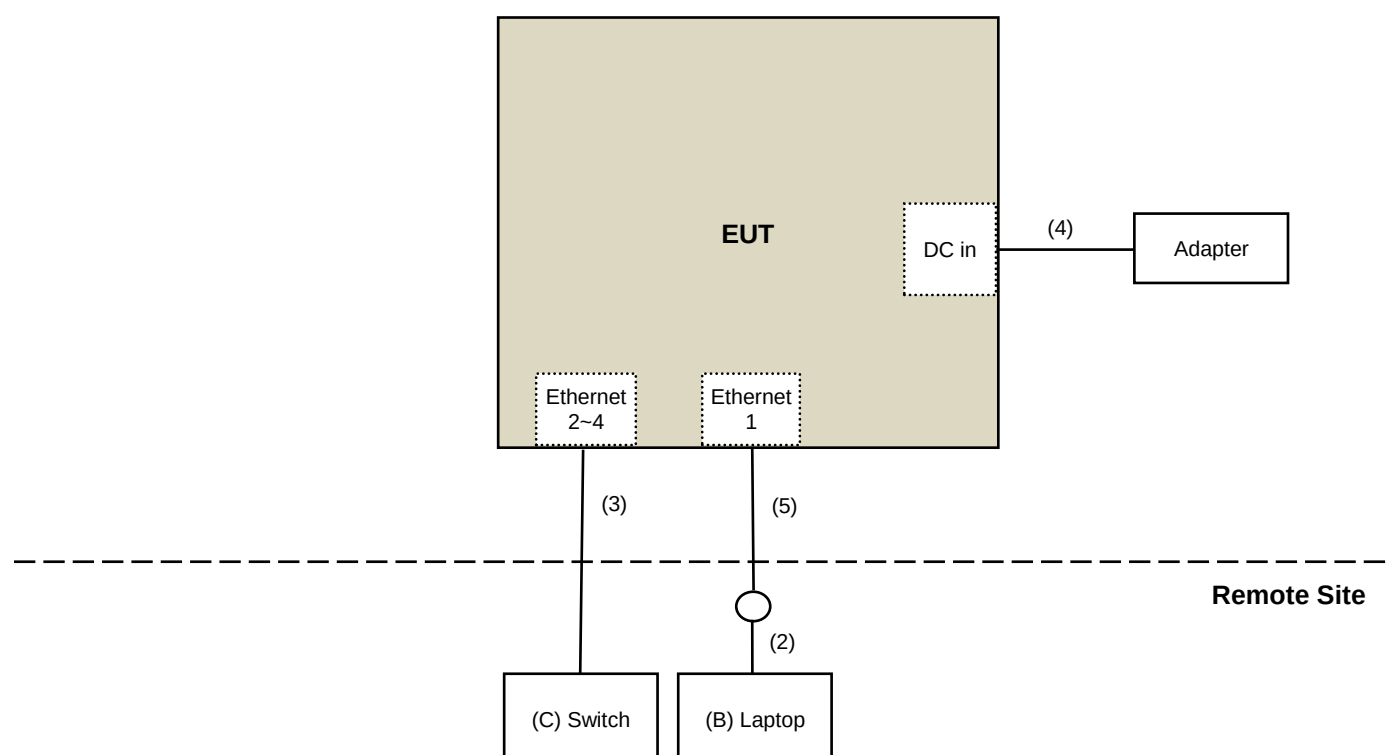
Controlling software (qdart_conn.win.1.0_installer_00056.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For RBR860



For RBS860



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	DELL	E5430	4YV4VY1	DoC	Provided by Lab
B	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
C	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

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

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
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Power Meter Anritsu	ML2495A	1529002	2021/6/21	2022/6/20
Pulse Power Sensor Anritsu	MA2411B	1726434	2021/6/21	2022/6/20
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/6/1

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/6/1

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
50 ohms Terminator	50	3	2021/10/27	2022/10/26
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2021/9/25	2022/9/24
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A
TEST RECEIVER R&S	ESCS 30	847124/029	2021/10/13	2022/10/12

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2022/5/19 ~ 2022/5/31

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2022/1/10	2023/1/9
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
Pre_Amplifier Agilent	8447D	2944A10636	2022/3/19	2023/3/18
Pre_Amplifier EMCI	EMC330N	980701	2022/3/8	2023/3/7
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
		LOOPCAB-002	2022/1/6	2023/1/5
RF Coaxial Cable COMMATE/PEWC	8D	966-4-1	2022/3/8	2023/3/7
		966-4-2	2022/3/8	2023/3/7
		966-4-3	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-406	2021/10/27	2022/10/26

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2022/5/19 ~ 2022/5/31

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2021/11/14	2022/11/13
	BBHA 9170	9170-739	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC 12630 SE	980638	2022/4/5	2023/4/4
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable-Frequency Range : 1- 26.5GHz EMCI	EMC104-SM-SM-1200	160922	2021/12/24	2022/12/23
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC104-SM-SM-2000	180502	2022/4/25	2023/4/24
	EMC104-SM-SM-6000	210704	2021/11/9	2022/11/8
	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2022/5/13 ~ 2022/6/6

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

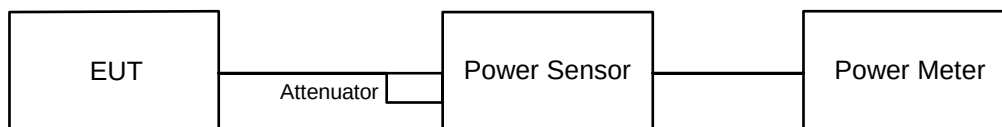
Notes:

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

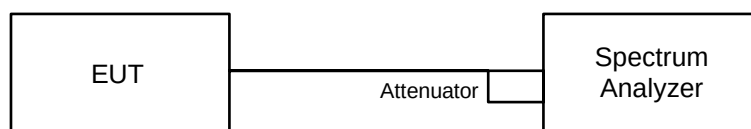


6.1.2 Test Procedure

Average power 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



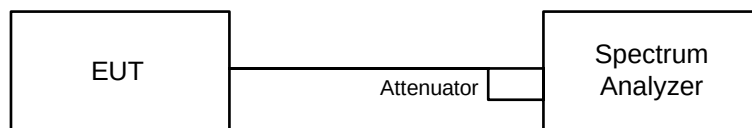
6.2.2 Test Procedure

- 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

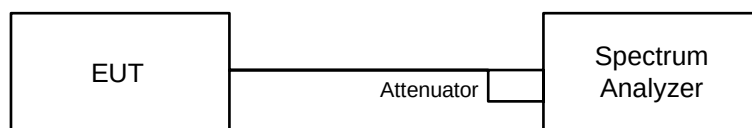


6.3.2 Test Procedure

- 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

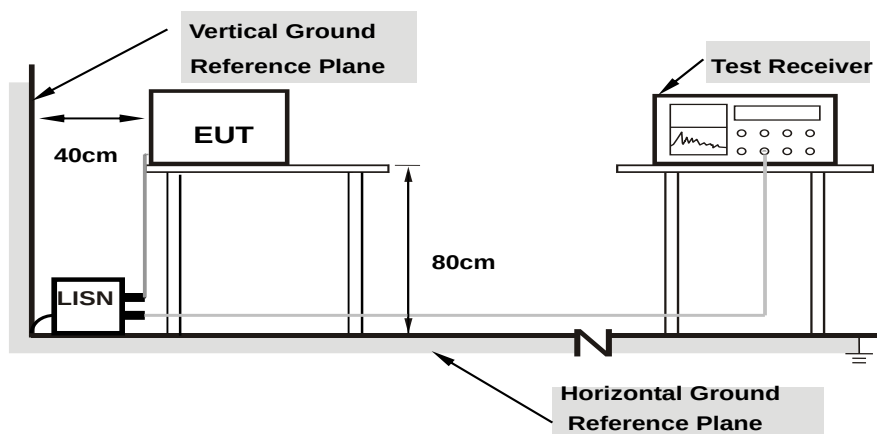
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

- 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 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.

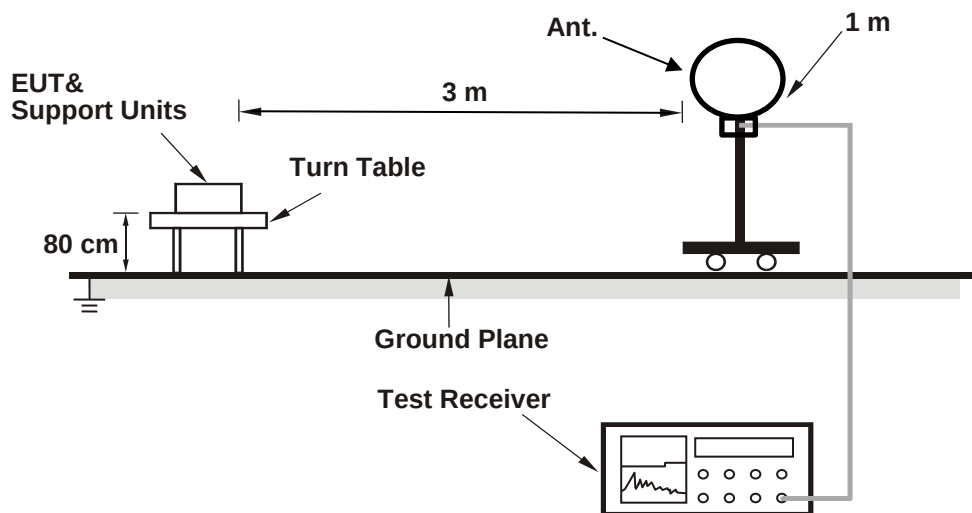
Note:

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.

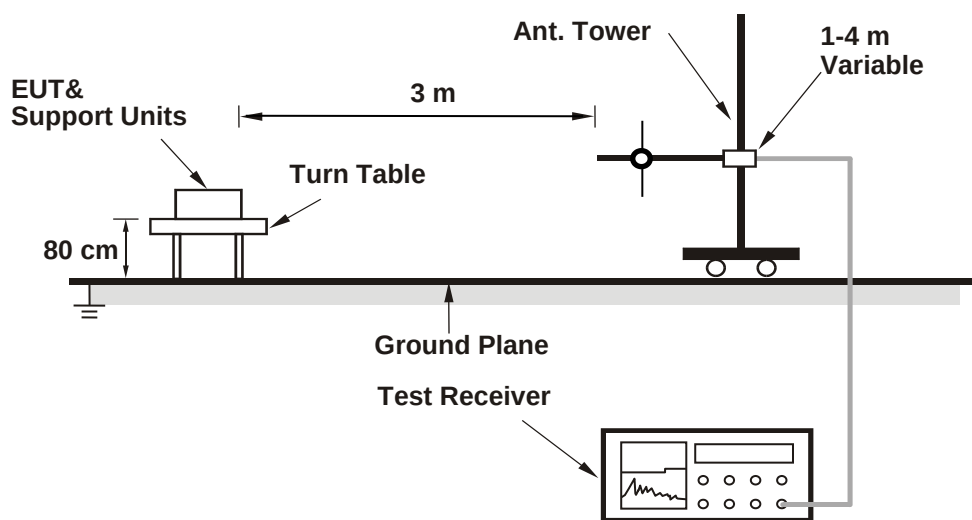
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. 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.

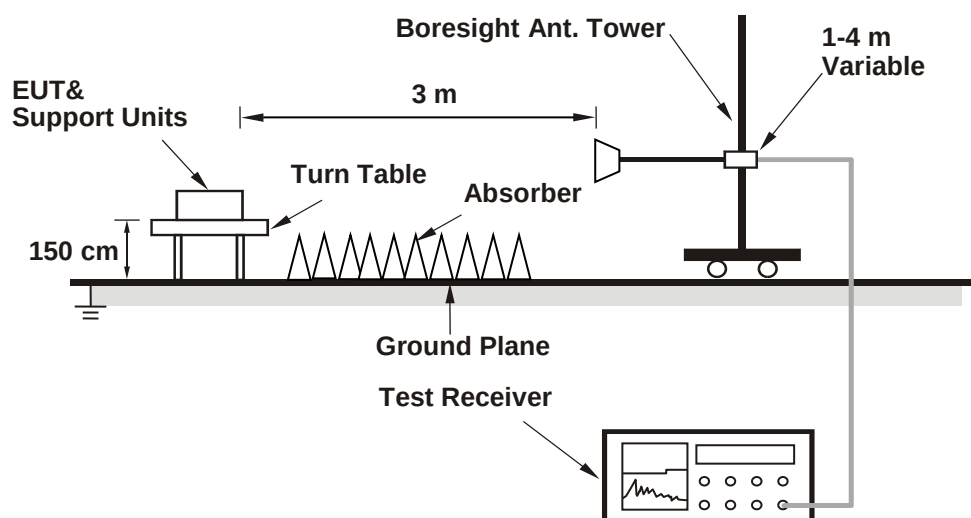
Notes:

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 Radiated emission above 1 GHz



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

Mode A

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

802.11b CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.70	23.85	23.82	23.78	956.856	29.81	30	Pass
6	2437	23.74	23.79	23.84	23.72	953.531	29.79	30	Pass
11	2462	21.77	22.09	21.79	21.76	613.099	27.88	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.99 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.52	23.74	23.49	23.68	918.2	29.63	30	Pass
6	2437	23.59	23.72	23.64	23.73	931.319	29.69	30	Pass
11	2462	18.29	18.76	18.52	18.63	286.682	24.57	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.99 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.48	23.62	23.66	23.74	921.853	29.65	30	Pass
6	2437	23.76	23.58	23.41	23.56	911.985	29.60	30	Pass
11	2462	21.81	21.85	21.72	21.68	600.639	27.79	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.99 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	21.69	21.93	21.91	21.76	608.733	27.84	30	Pass
6	2437	21.57	21.55	21.23	21.37	556.266	27.45	30	Pass
9	2452	15.49	15.41	15.07	14.93	133.407	21.25	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.99 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.48	23.62	23.66	23.74	921.853	29.65	29.9	Pass
6	2437	23.76	23.58	23.41	23.56	911.985	29.60	29.9	Pass
11	2462	21.81	21.85	21.72	21.68	600.639	27.79	29.9	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 6.1 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.1 - 6) = 29.9$ 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	Chain 2	Chain 3				
3	2422	21.69	21.93	21.91	21.76	608.733	27.84	29.9	Pass
6	2437	21.57	21.55	21.23	21.37	556.266	27.45	29.9	Pass
9	2452	15.49	15.41	15.07	14.93	133.407	21.25	29.9	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 6.1 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.1 - 6) = 29.9$ dBm.

7.2 Power Spectral Density

Mode A

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

802.11b

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	Chain 2	Chain 3				
1	2412	-5.56	-4.27	-5.95	-5.84	1.89	2.56	7.90	Pass
6	2437	-5.86	-4.68	-5.76	-3.38	1.89	3.12	7.90	Pass
11	2462	-7.81	-7.03	-9.07	-7.55	1.89	0.11	7.90	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 6.1 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.1 - 6) = 7.9$ 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	Chain 2	Chain 3				
1	2412	-7.68	-8.35	-8.78	-8.88	0.28	-2.09	7.90	Pass
6	2437	-9.03	-8.47	-8.53	-9.22	0.28	-2.50	7.90	Pass
11	2462	-13.71	-13.77	-15.02	-13.85	0.28	-7.75	7.90	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 6.1 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.1 - 6) = 7.9$ 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	Chain 2	Chain 3				
1	2412	-9.38	-10.05	-9.03	-10.17	0.20	-3.41	7.90	Pass
6	2437	-9.57	-9.09	-9.73	-9.59	0.20	-3.26	7.90	Pass
11	2462	-11.81	-11.86	-11.09	-11.98	0.20	-5.45	7.90	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 6.1 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.1 - 6) = 7.9$ dBm/3kHz.

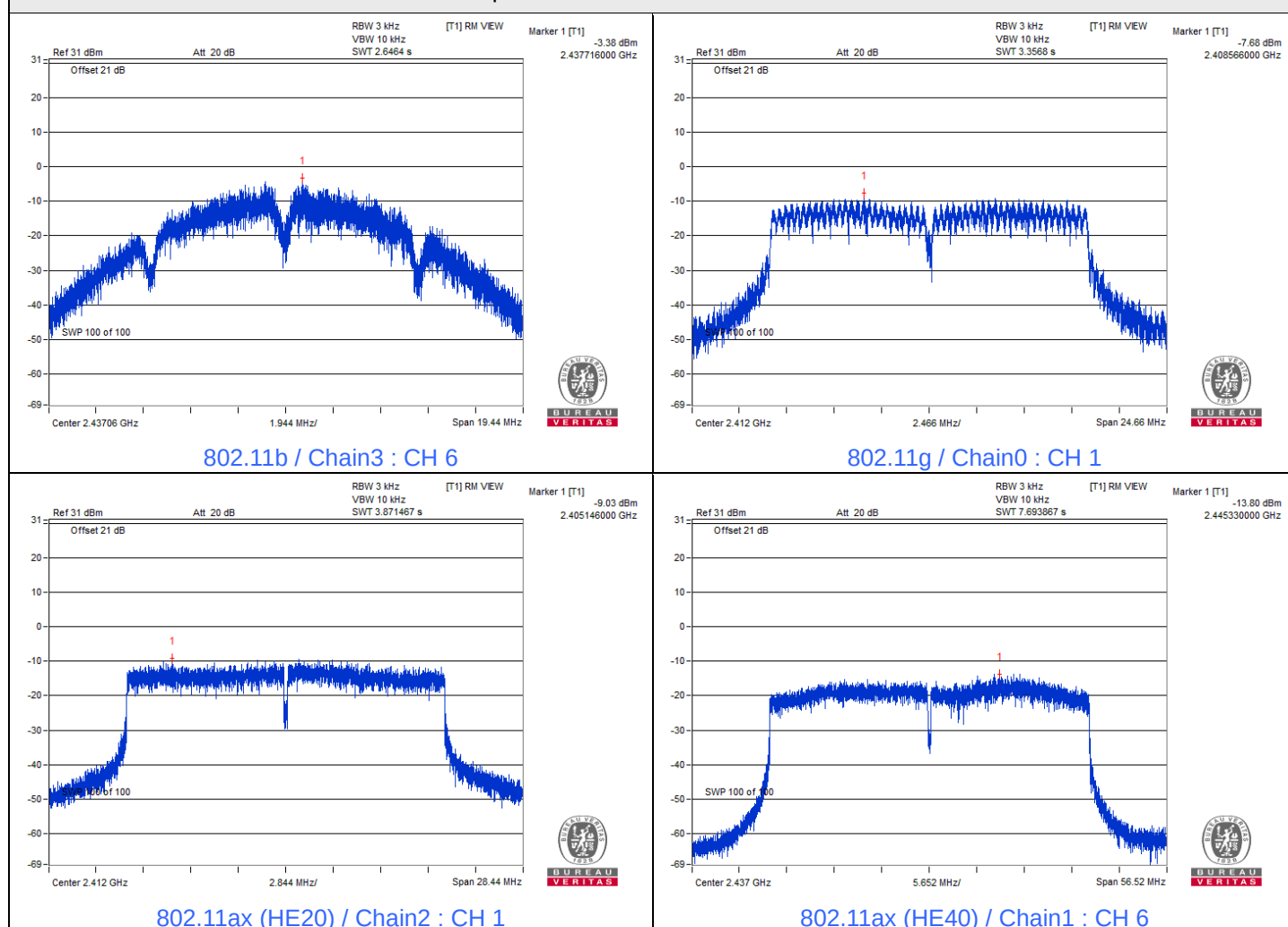
802.11ax (HE40)

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	Chain 2	Chain 3				
3	2422	-14.47	-15.03	-14.58	-14.95	0.19	-8.54	7.90	Pass
6	2437	-14.42	-13.80	-14.00	-14.82	0.19	-8.03	7.90	Pass
9	2452	-21.60	-20.88	-21.21	-21.68	0.19	-15.12	7.90	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- The directional gain is 6.1 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.1 - 6) = 7.9$ dBm/3kHz.

Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

Mode A

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

802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	8.07	8.06	7.54	7.59	0.5	Pass
6	2437	8.05	8.07	7.55	7.60	0.5	Pass
11	2462	8.07	8.05	8.06	7.59	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.28	16.04	15.73	15.94	0.5	Pass
6	2437	15.81	15.81	15.48	16.34	0.5	Pass
11	2462	15.91	16.32	16.35	16.07	0.5	Pass

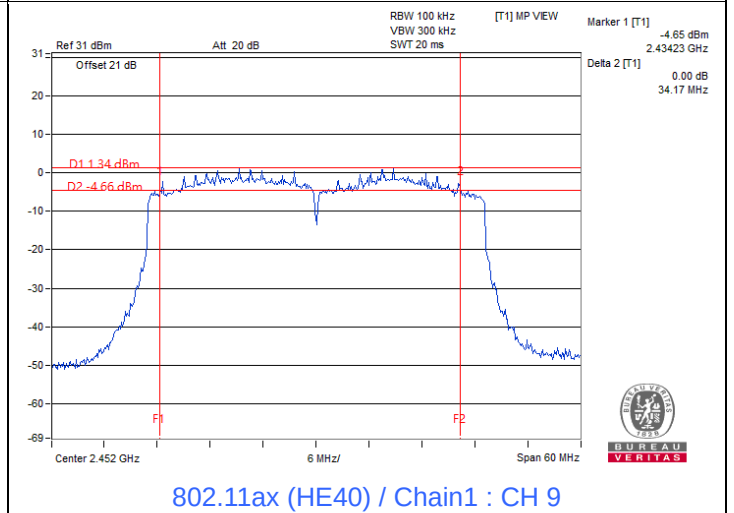
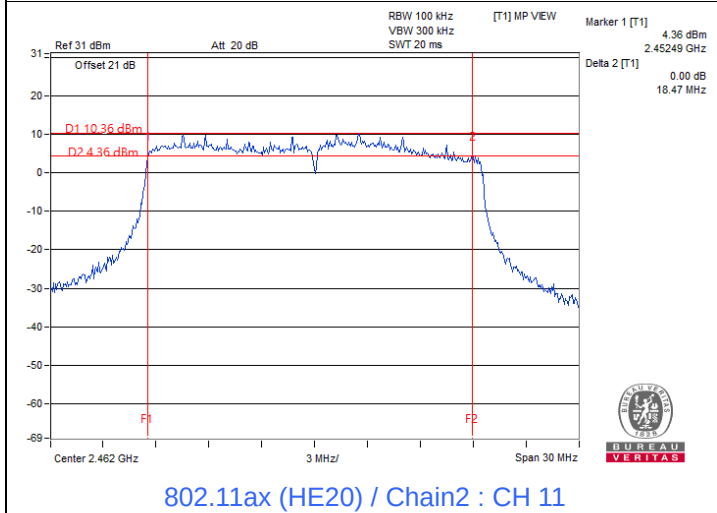
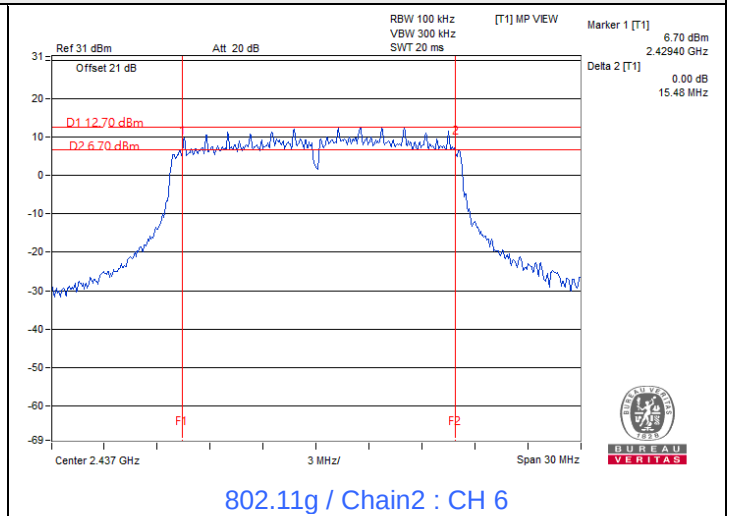
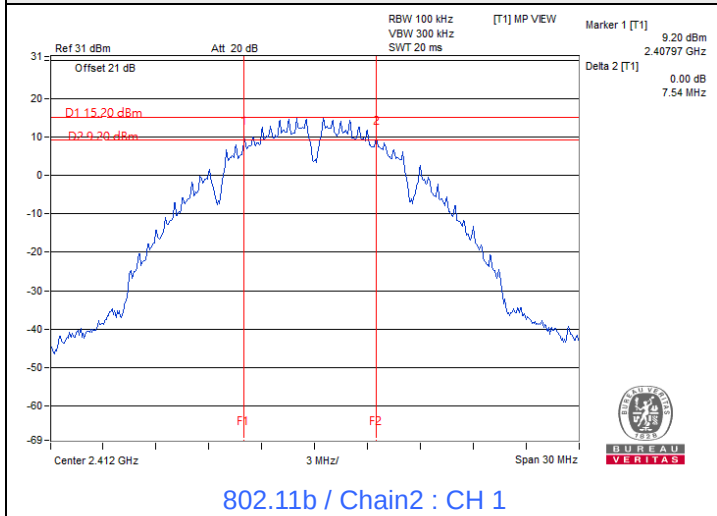
802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.87	18.94	18.67	18.63	0.5	Pass
6	2437	18.96	19.02	18.48	18.87	0.5	Pass
11	2462	18.96	19.02	18.47	18.72	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	37.39	36.41	38.06	37.34	0.5	Pass
6	2437	35.80	36.28	36.68	37.83	0.5	Pass
9	2452	37.09	34.17	36.59	37.66	0.5	Pass

Spectrum Plot of Minimum Value

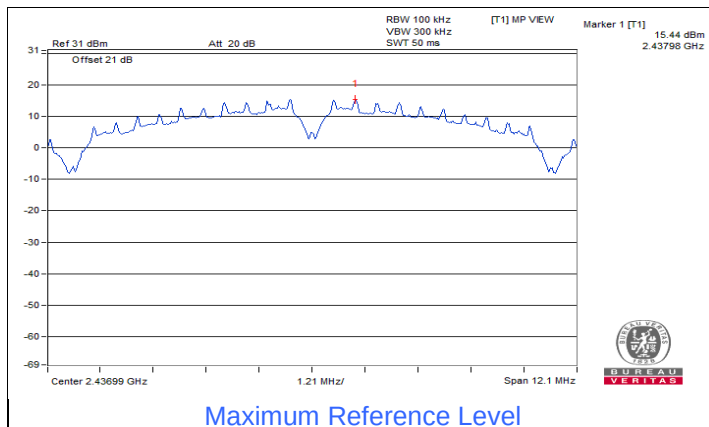


7.4 Conducted Out of Band Emissions

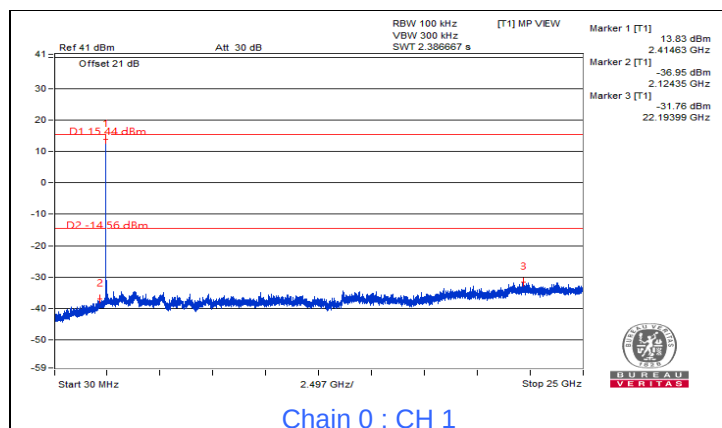
Mode A

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

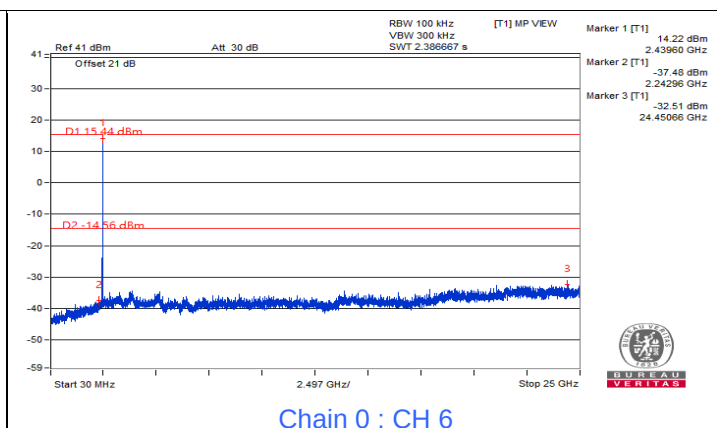
802.11b



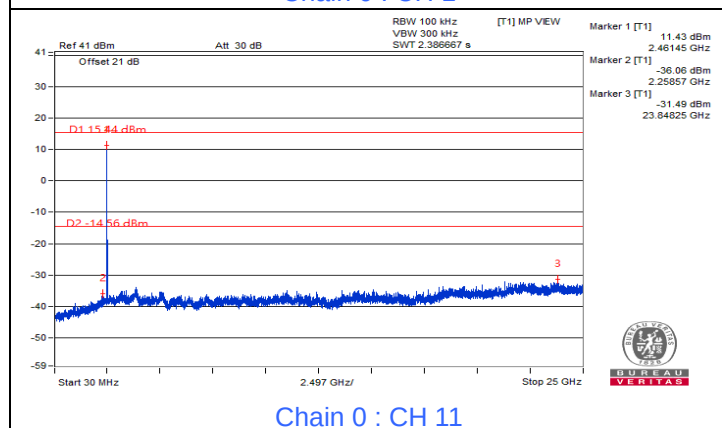
Maximum Reference Level



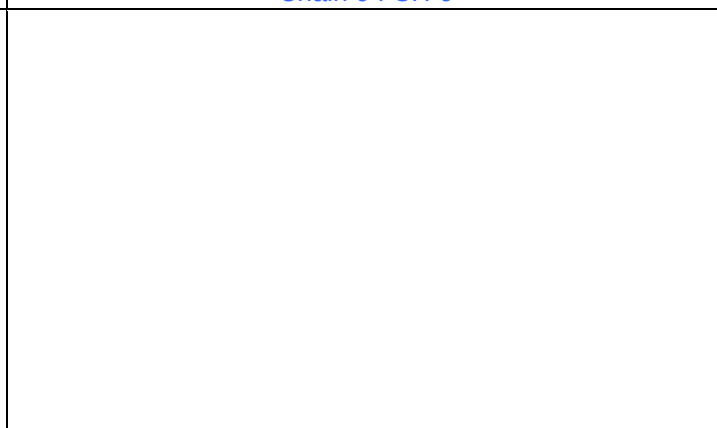
Chain 0 : CH 1



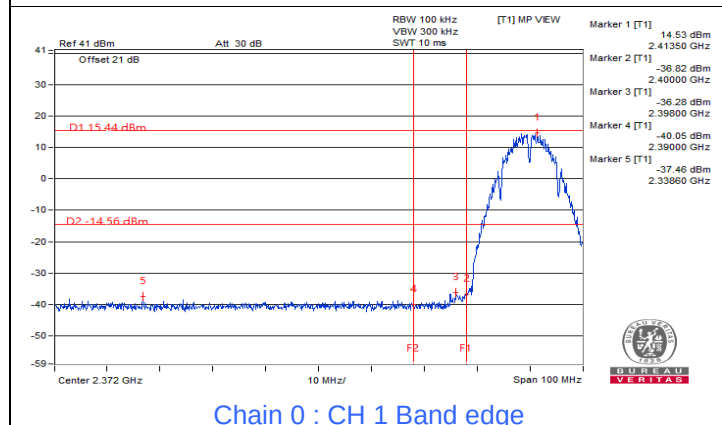
Chain 0 : CH 6



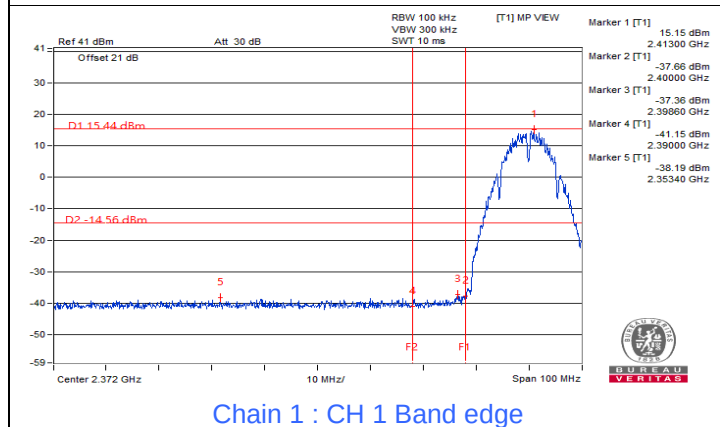
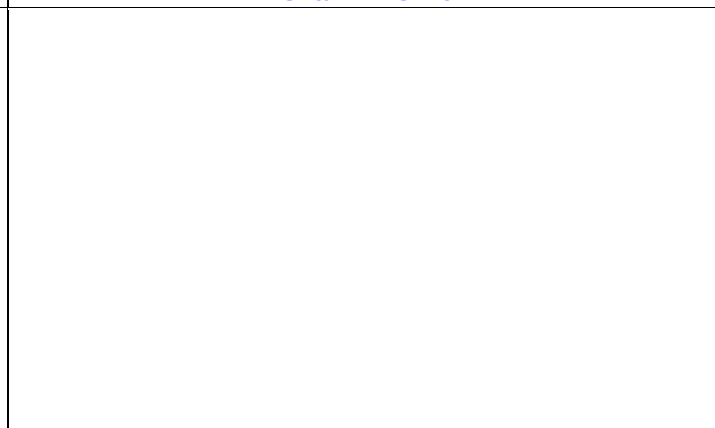
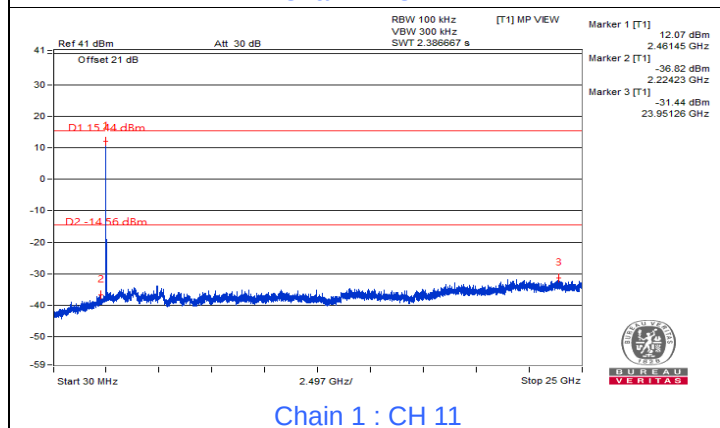
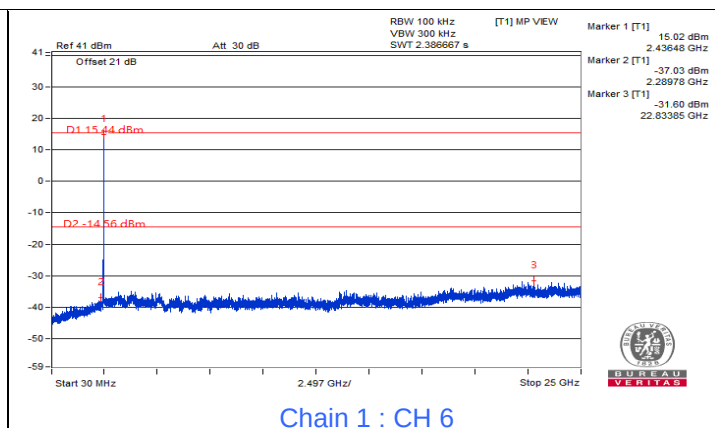
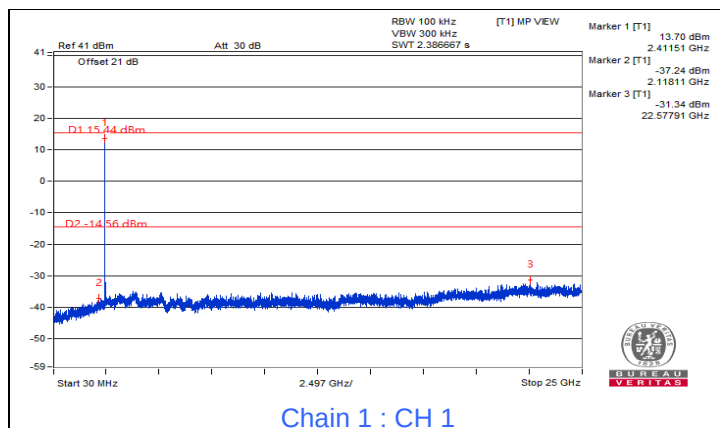
Chain 0 : CH 11

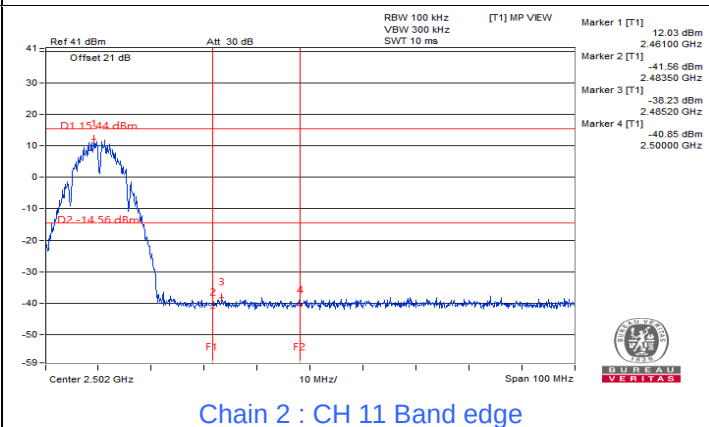
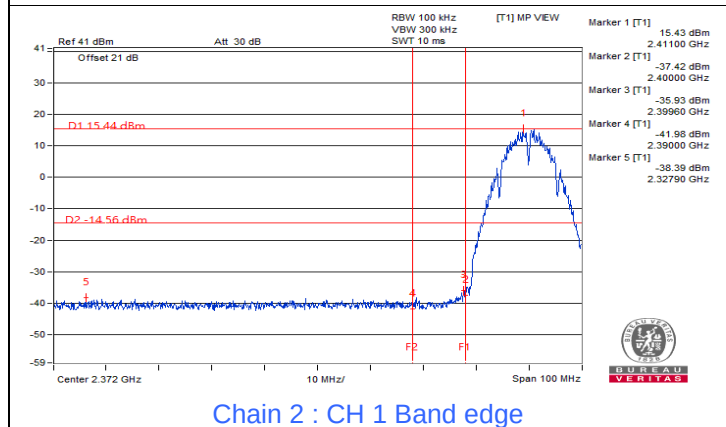
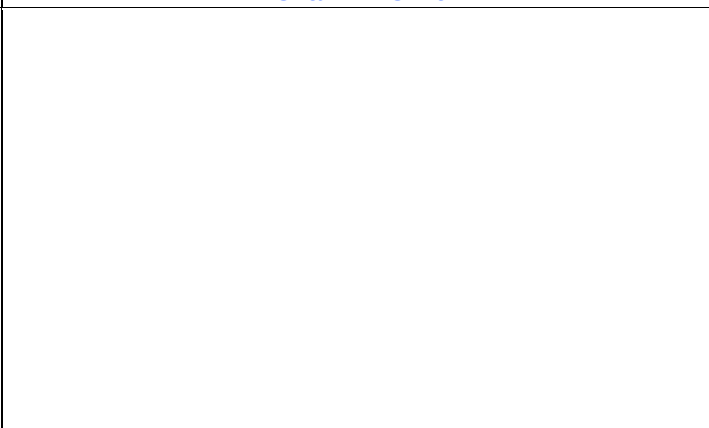
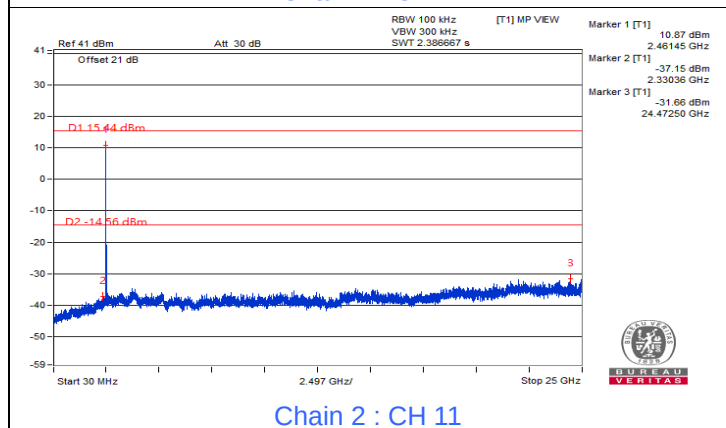
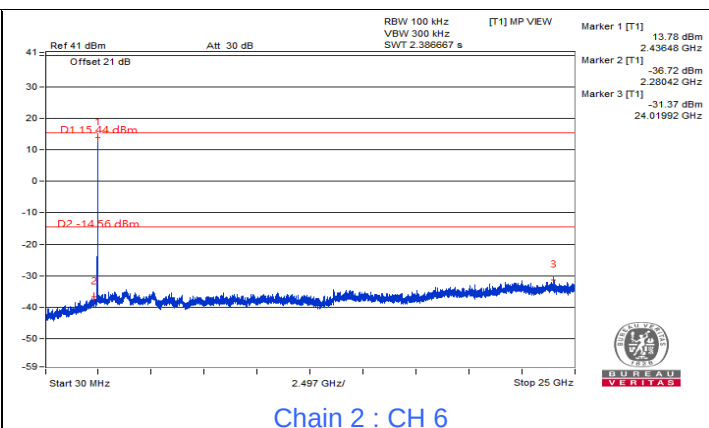
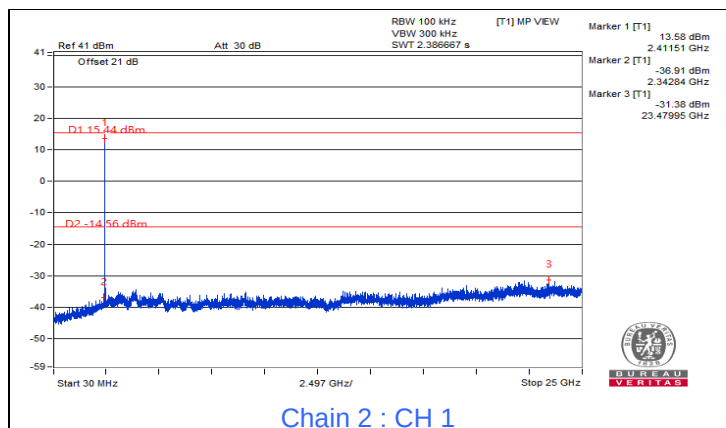


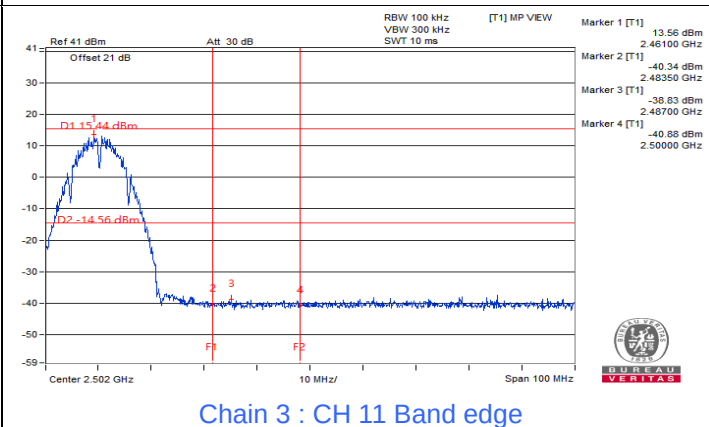
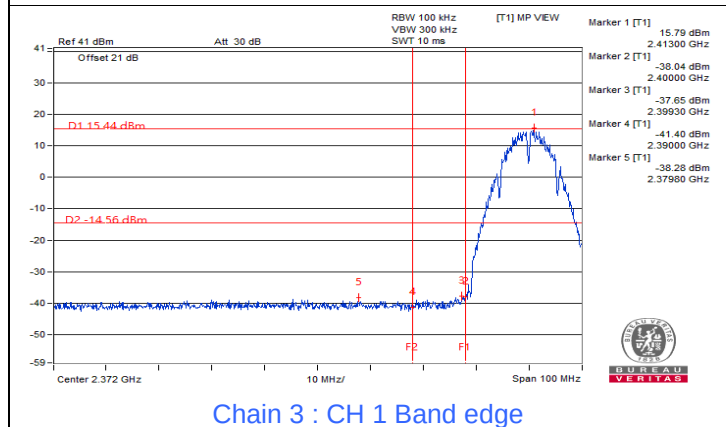
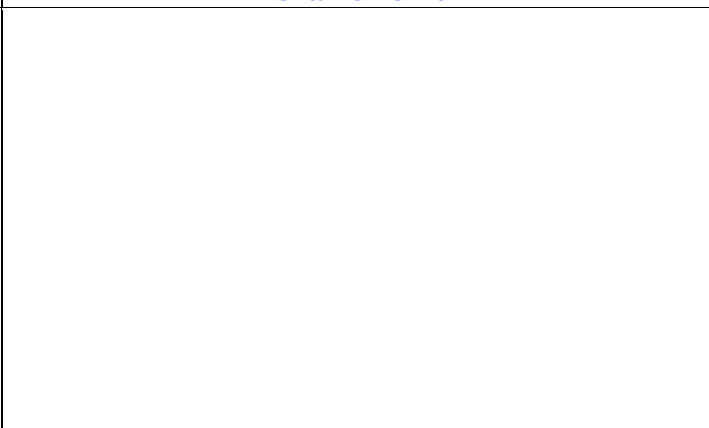
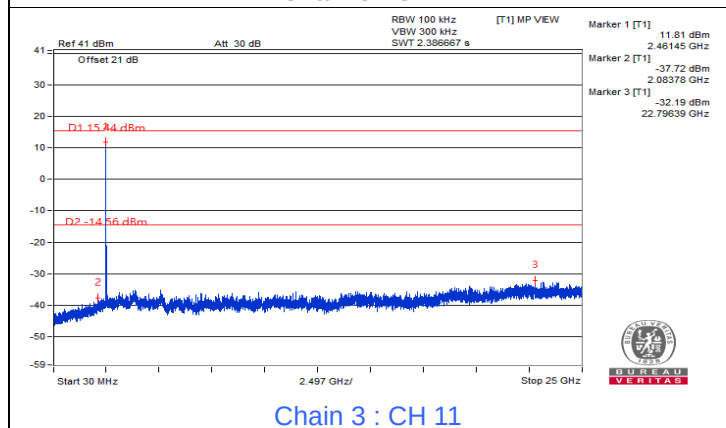
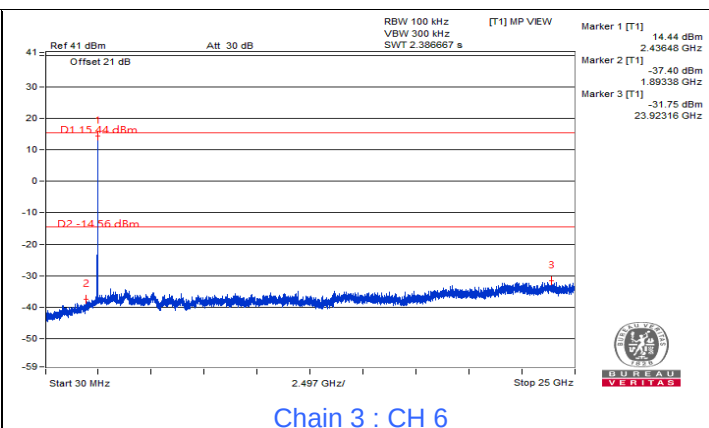
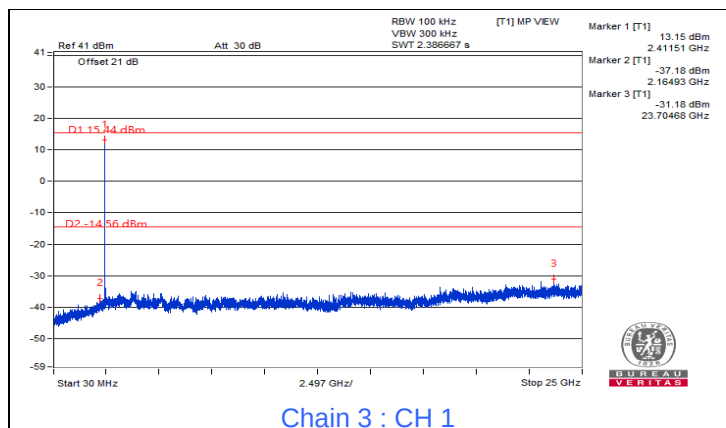
Chain 0 : CH 11 Band edge



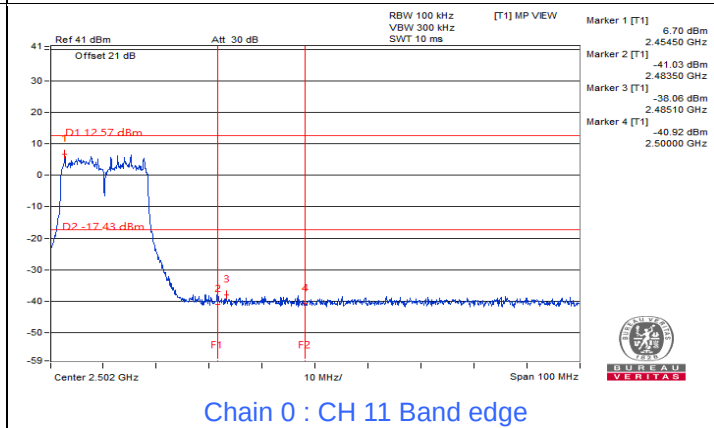
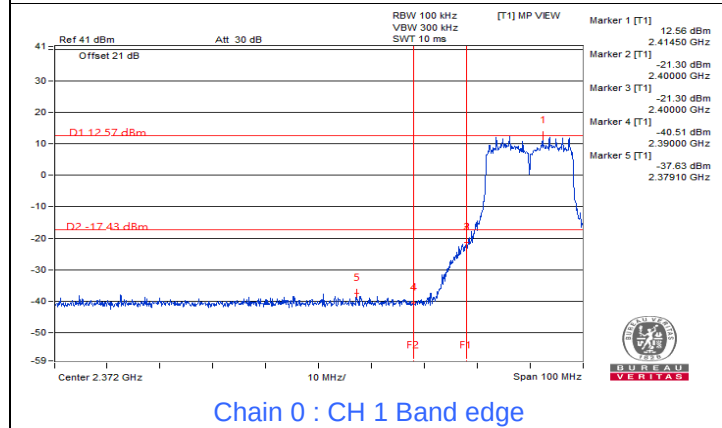
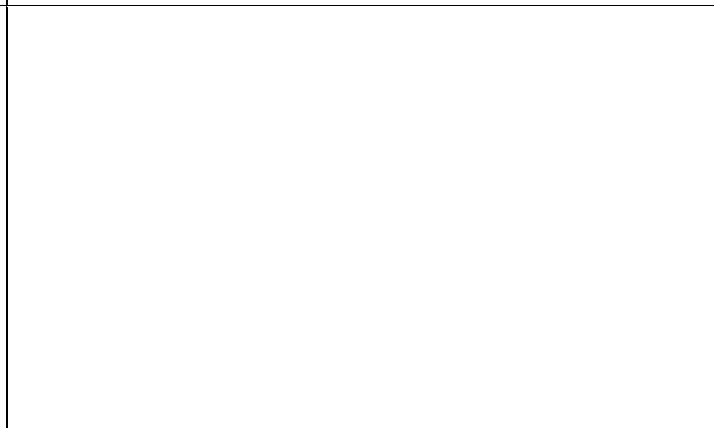
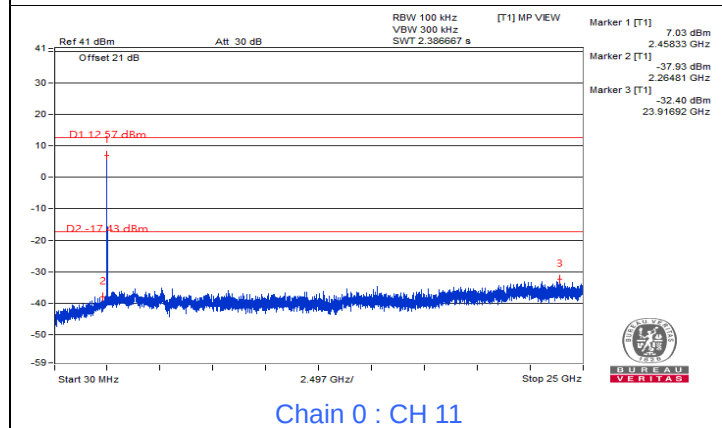
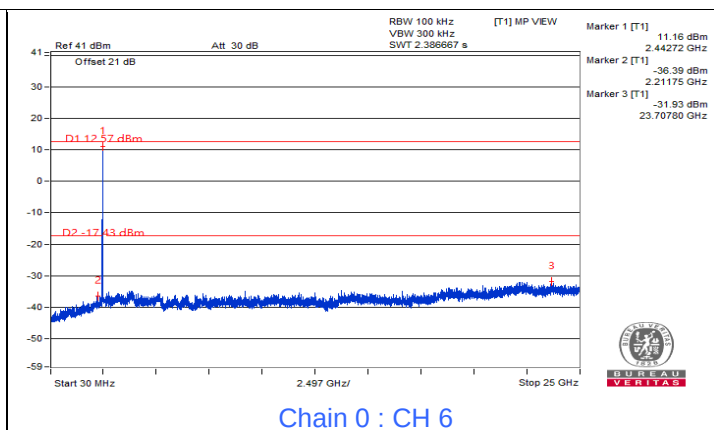
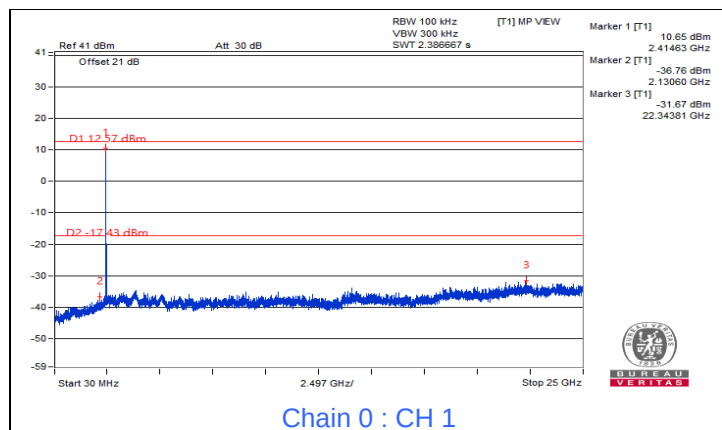
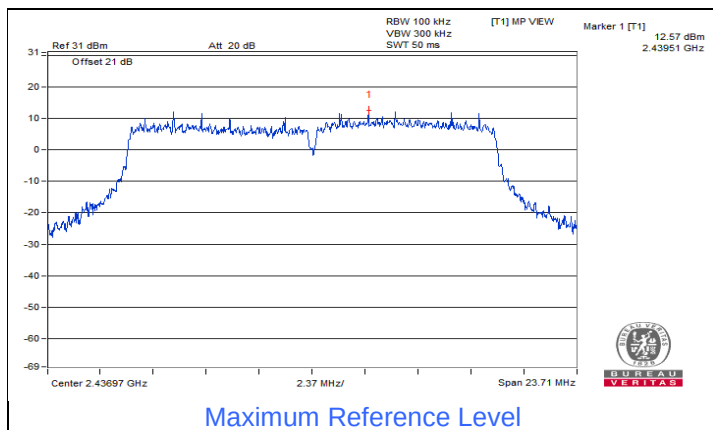
Chain 0 : CH 1 Band edge

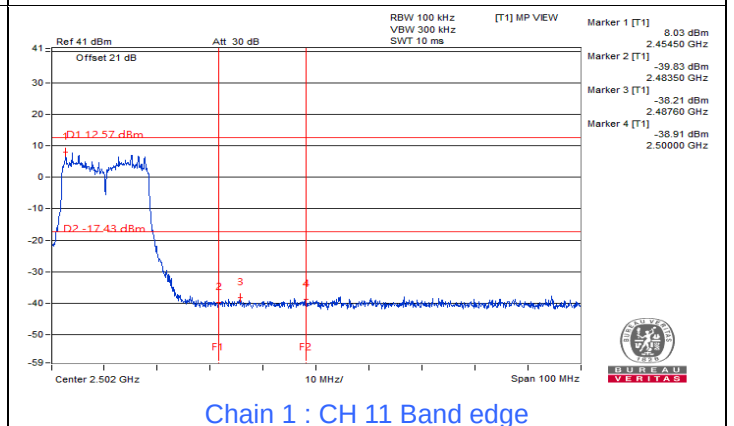
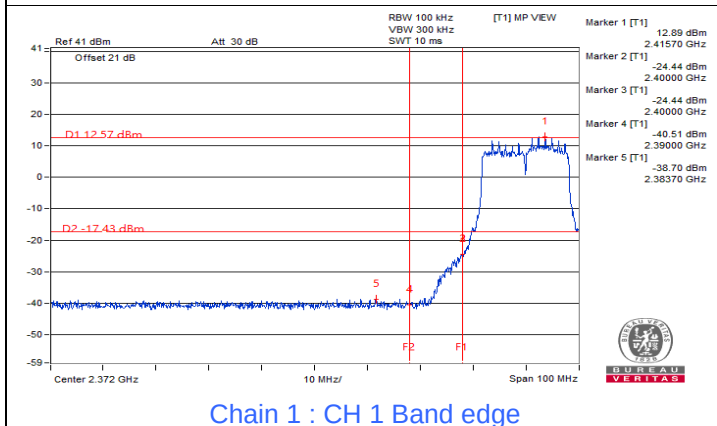
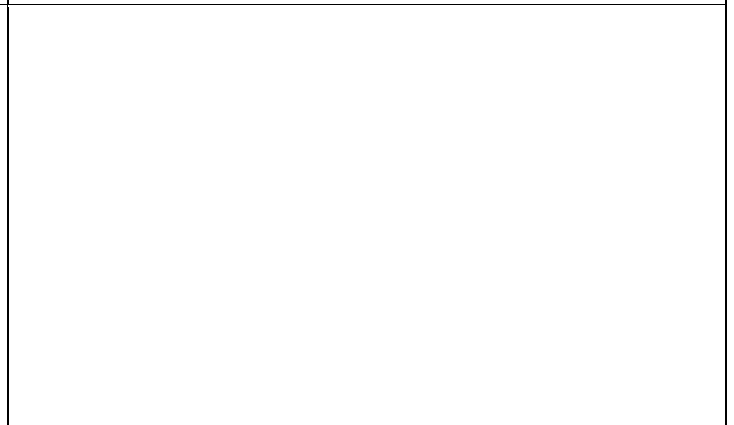
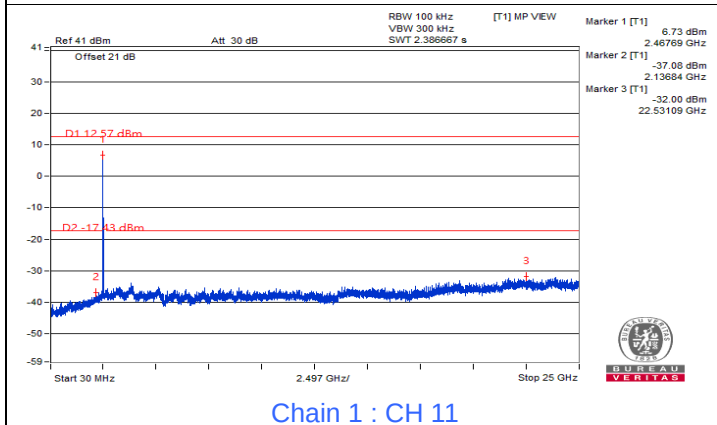
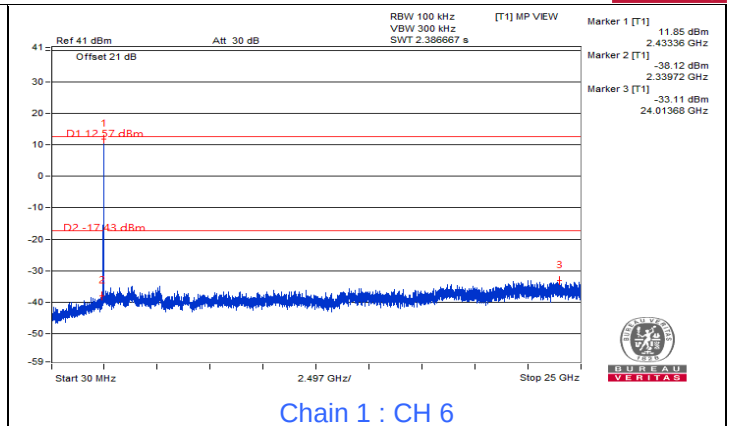
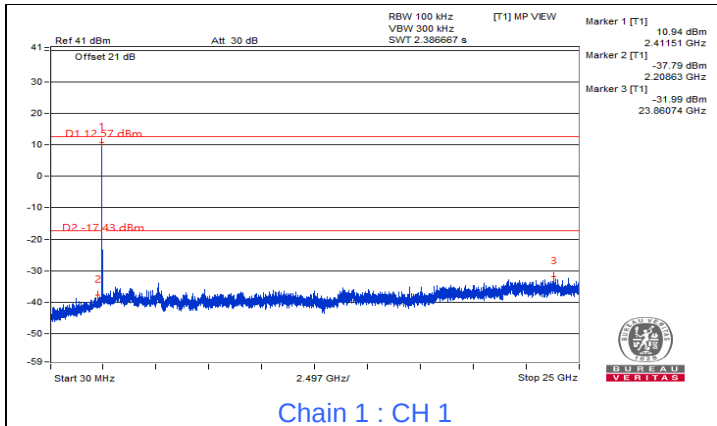


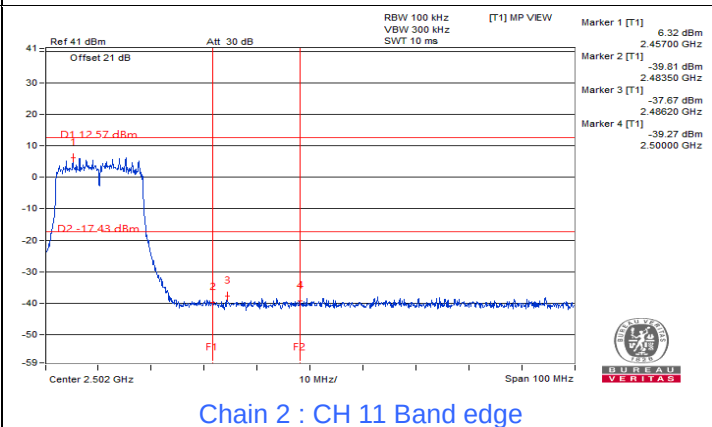
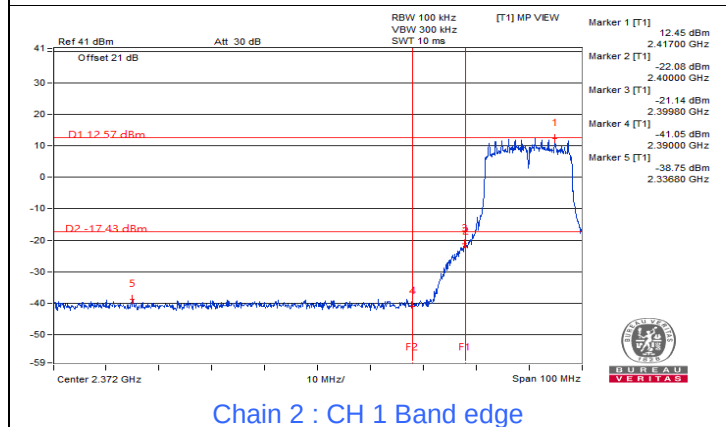
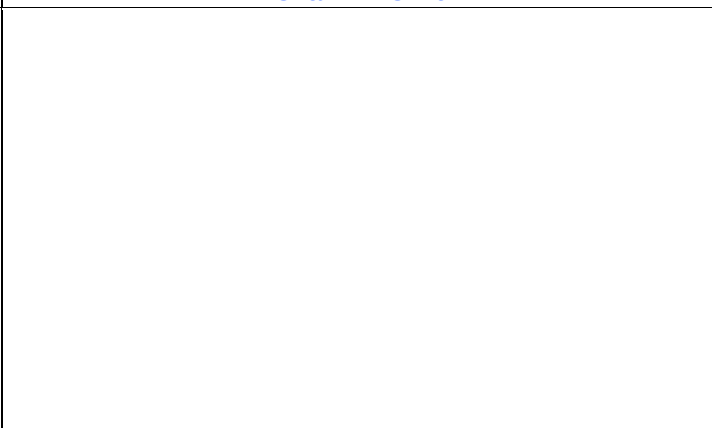
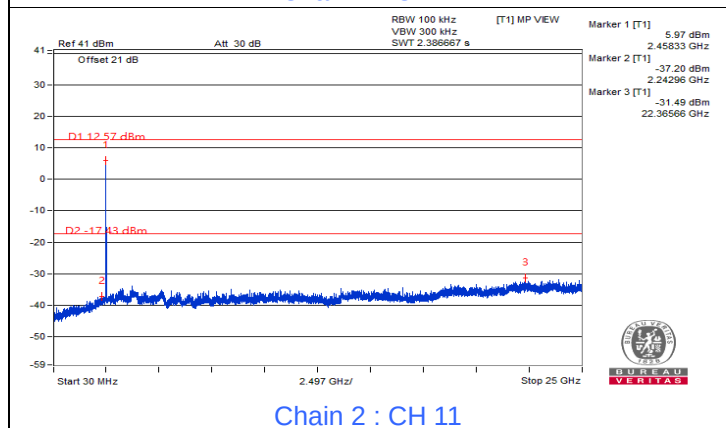
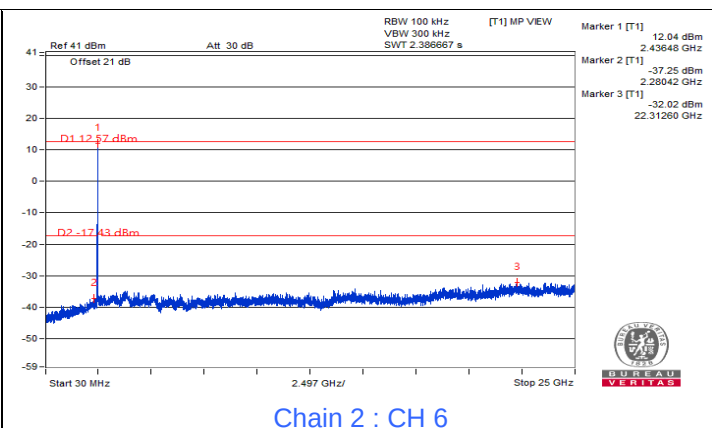
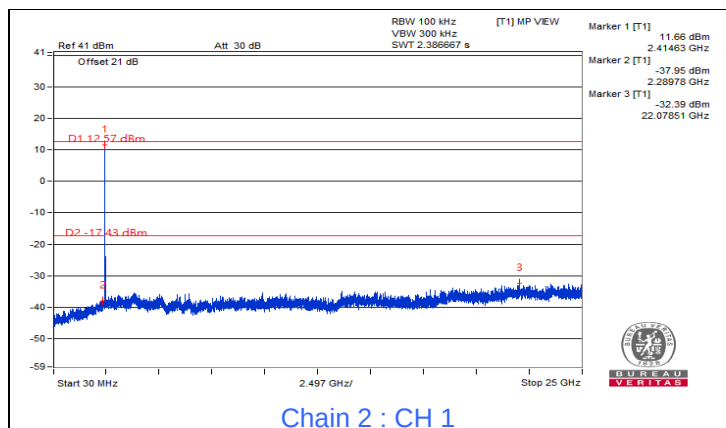


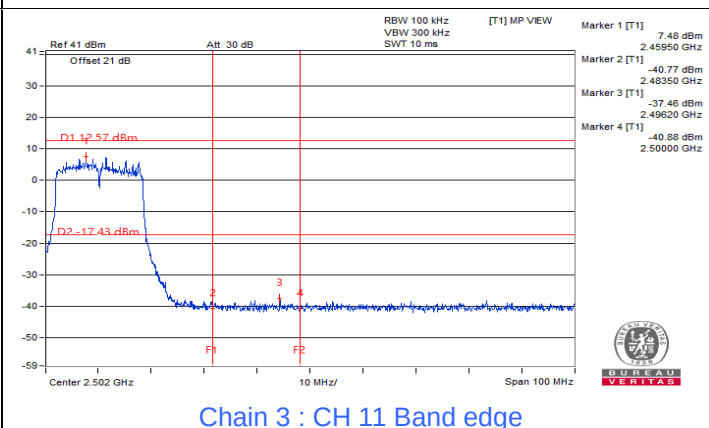
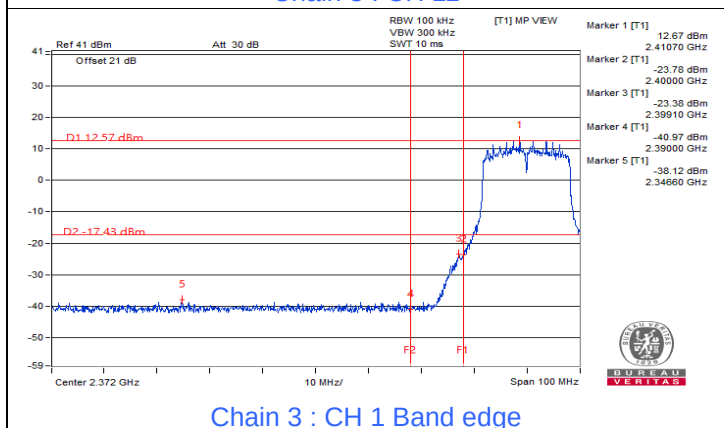
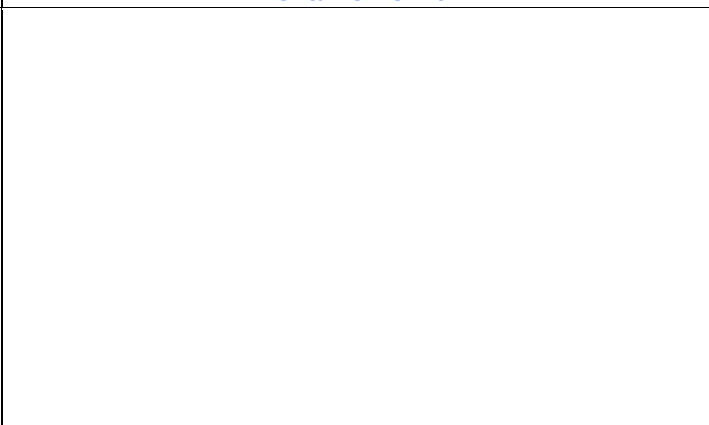
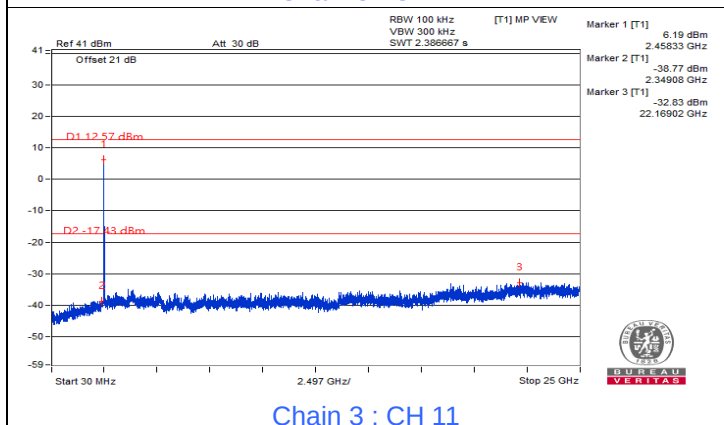
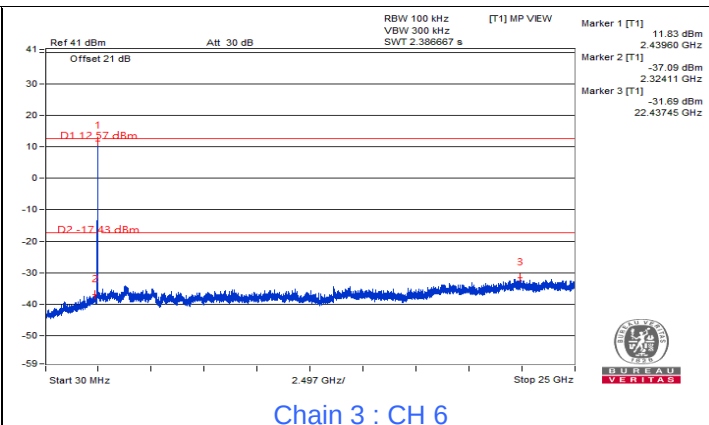
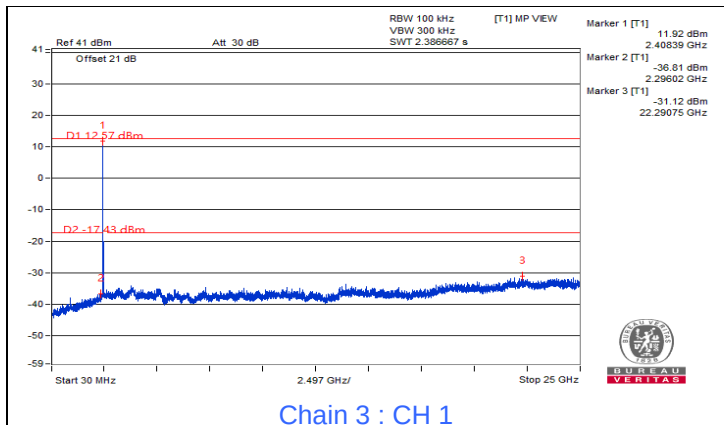


802.11g

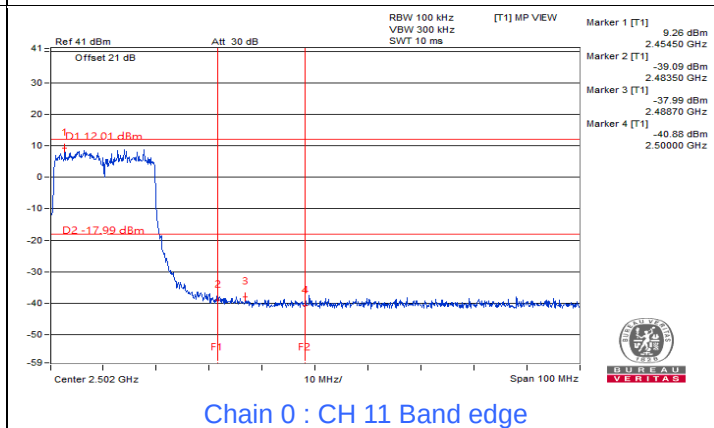
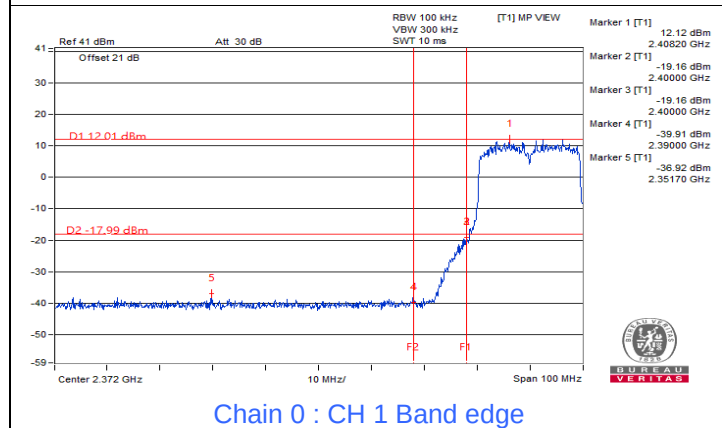
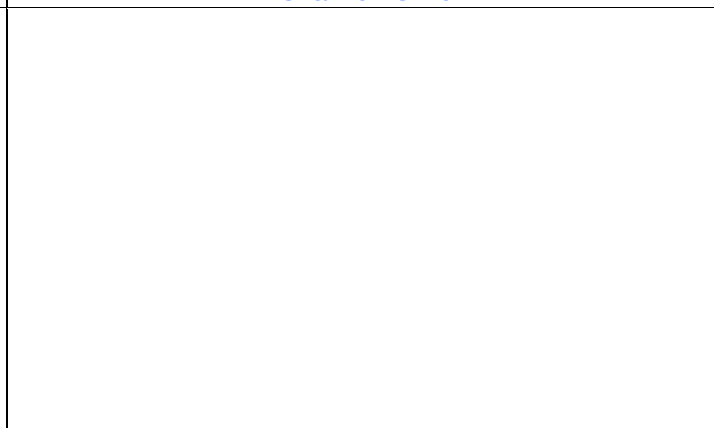
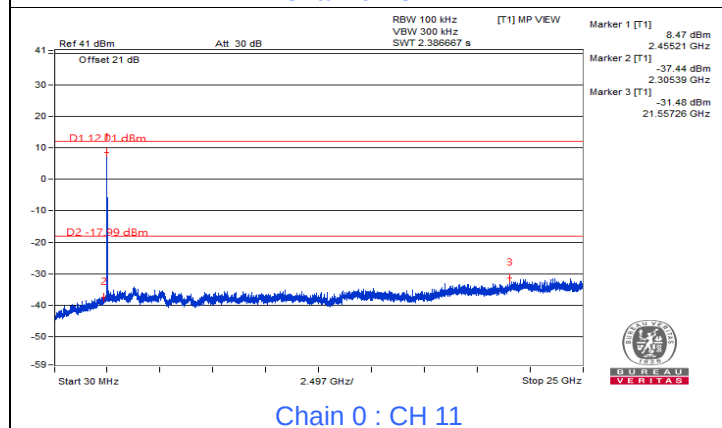
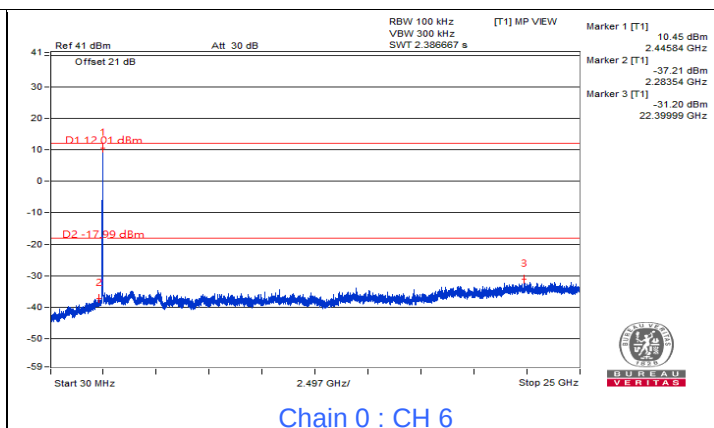
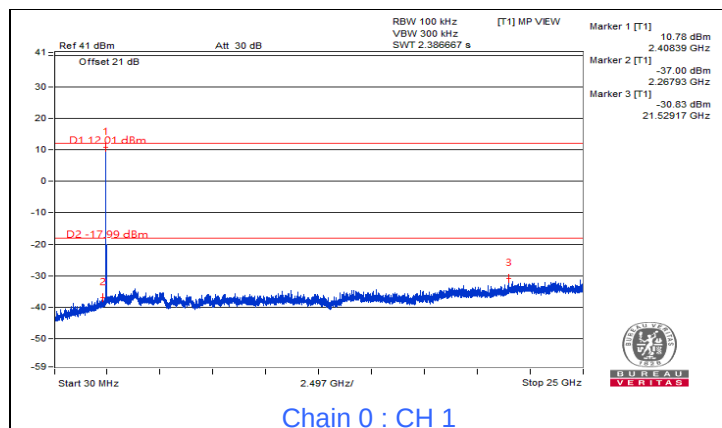
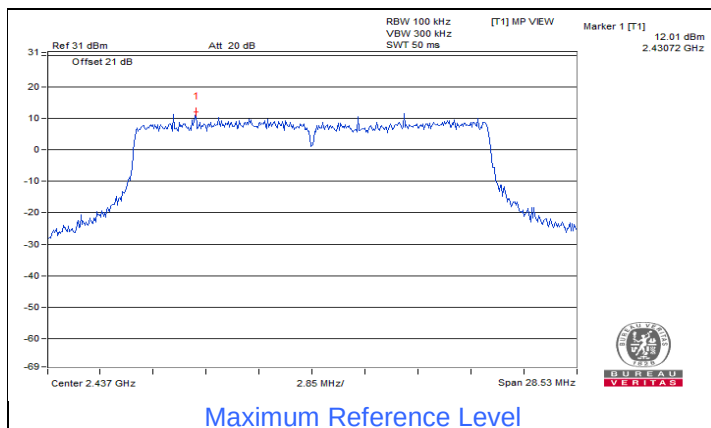


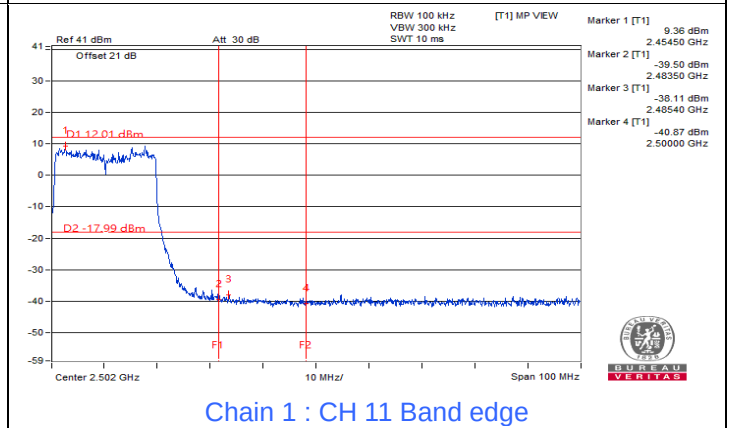
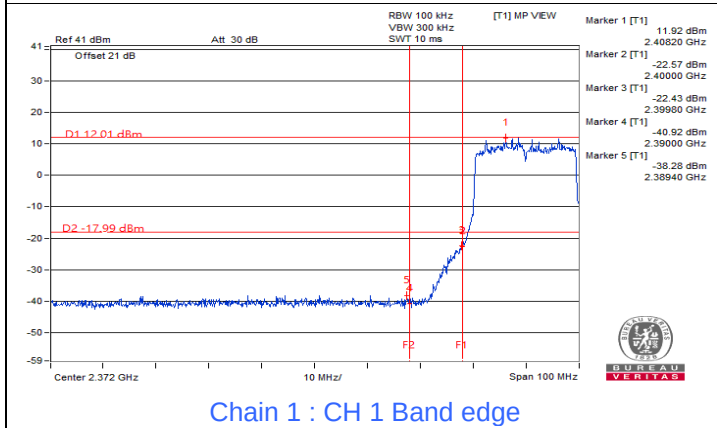
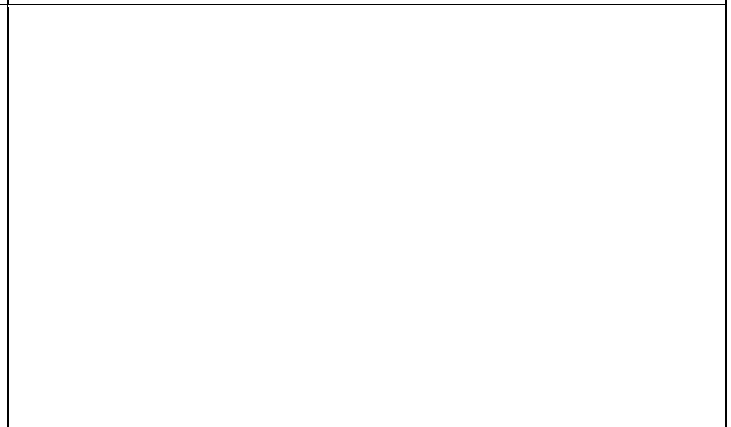
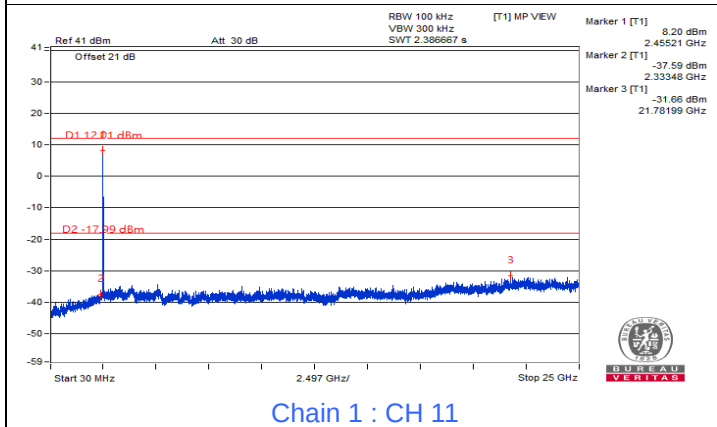
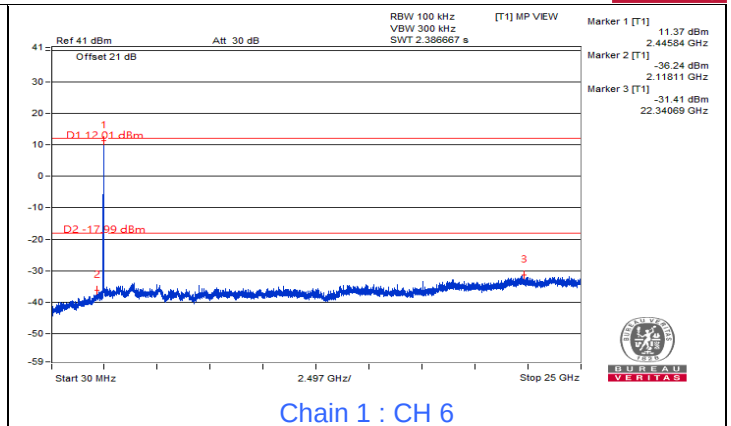
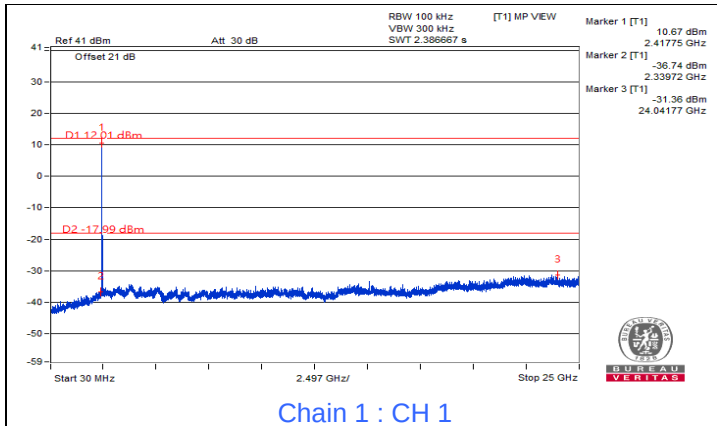


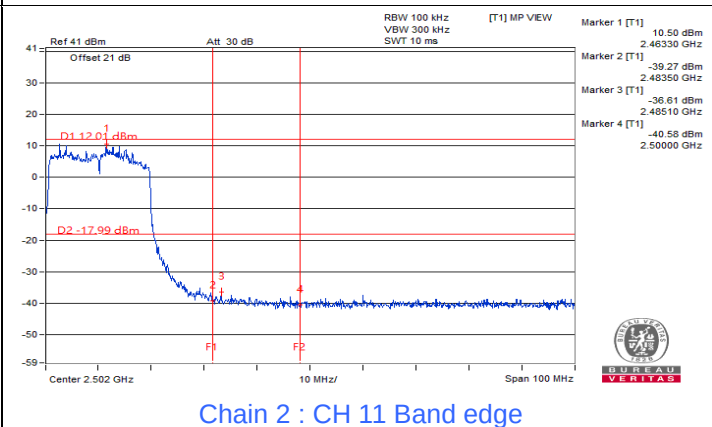
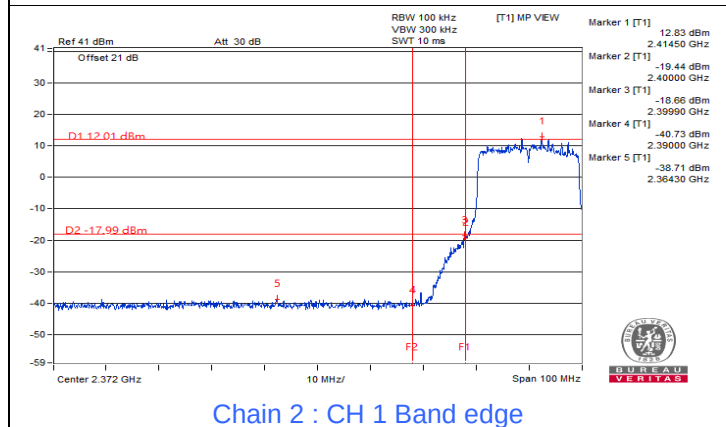
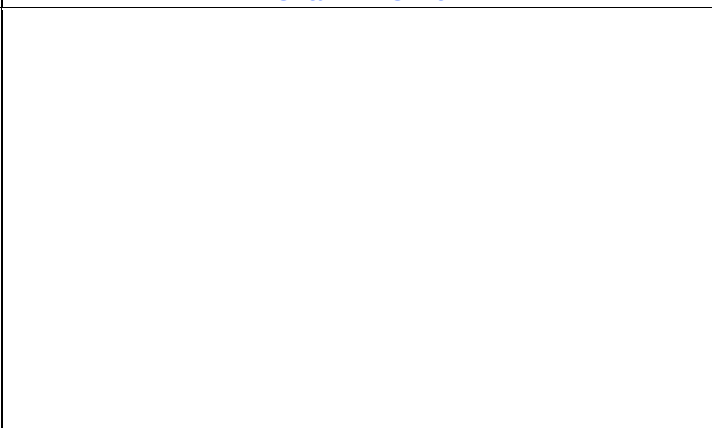
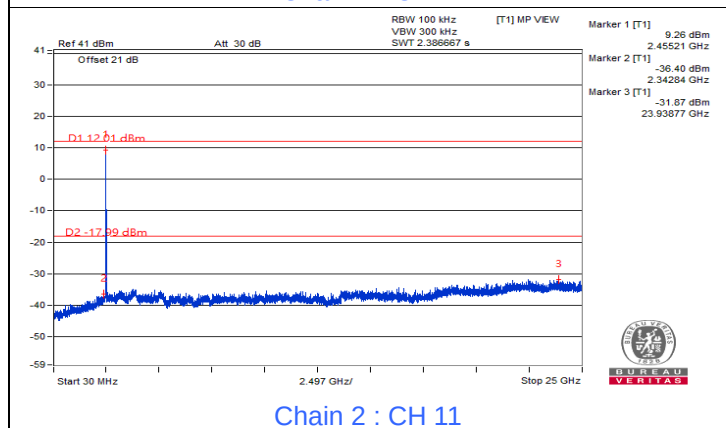
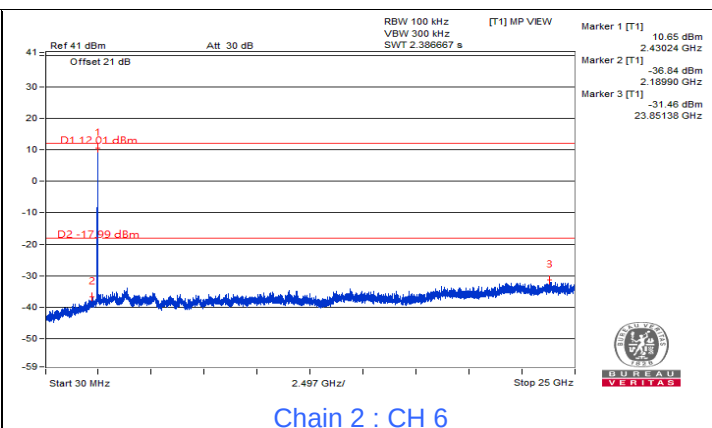
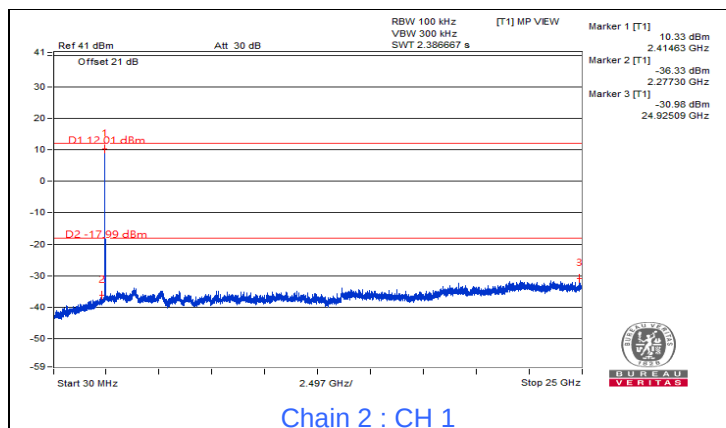


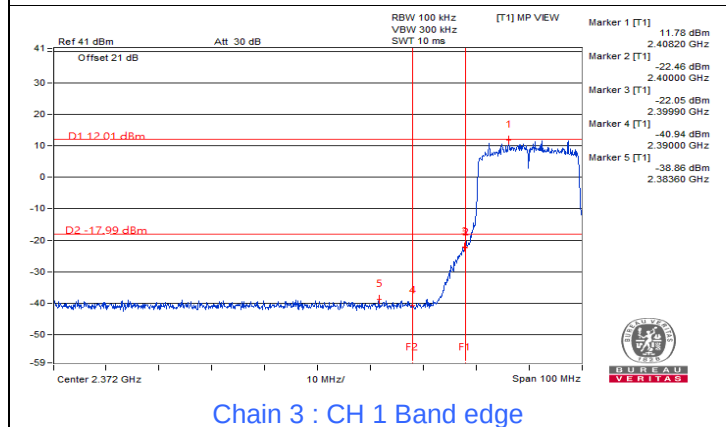
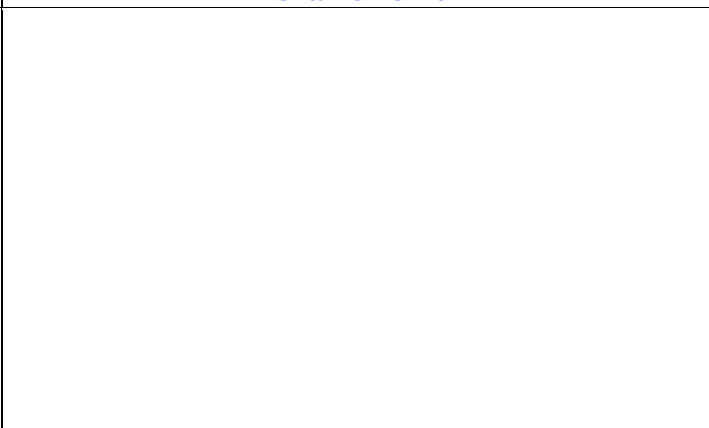
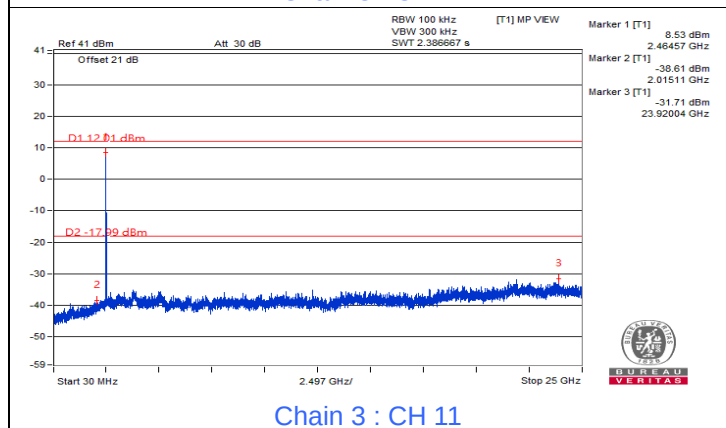
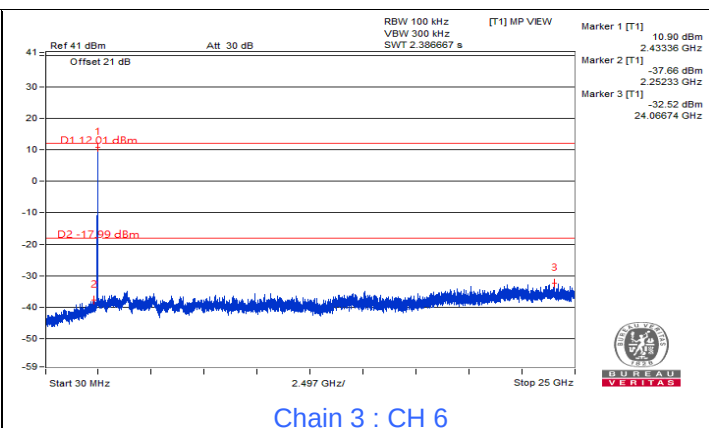
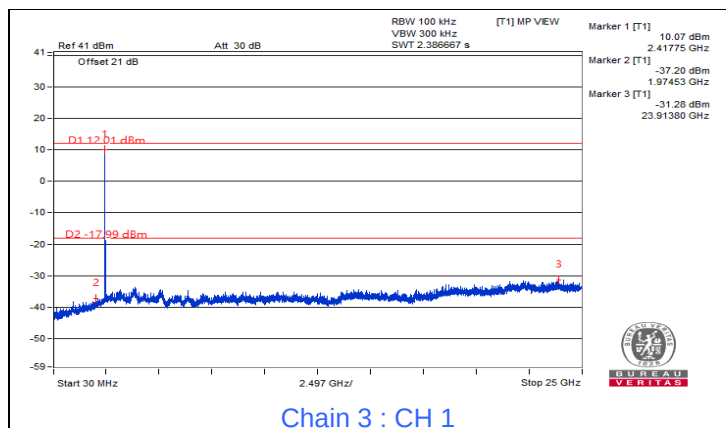


802.11ax (HE20)

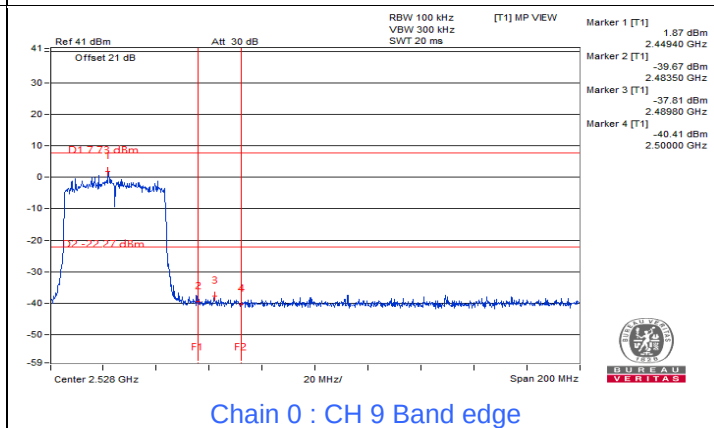
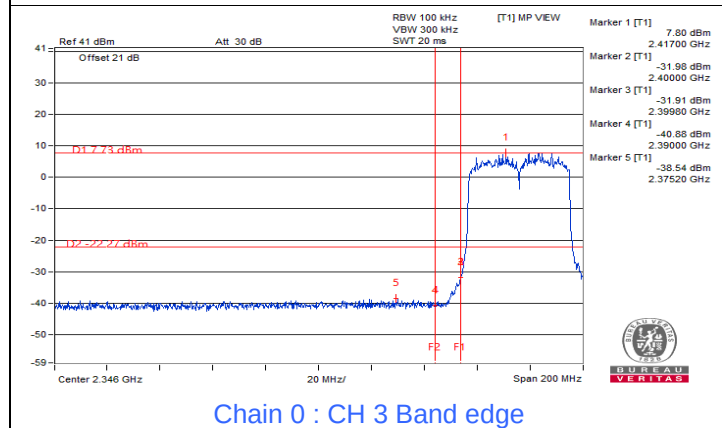
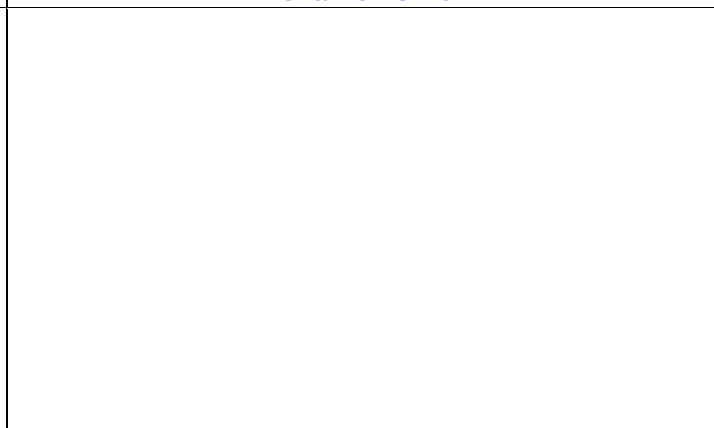
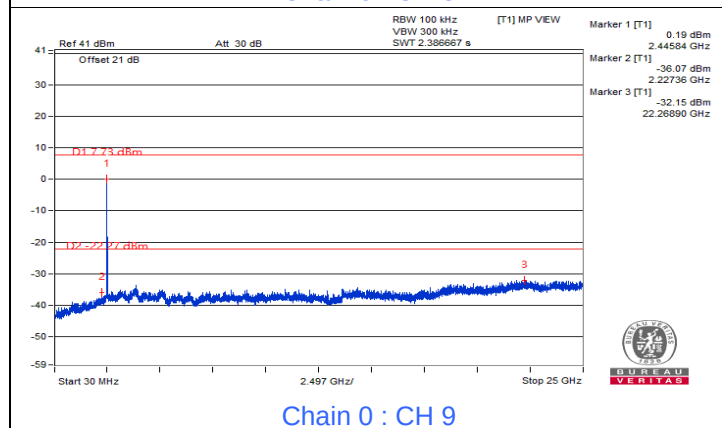
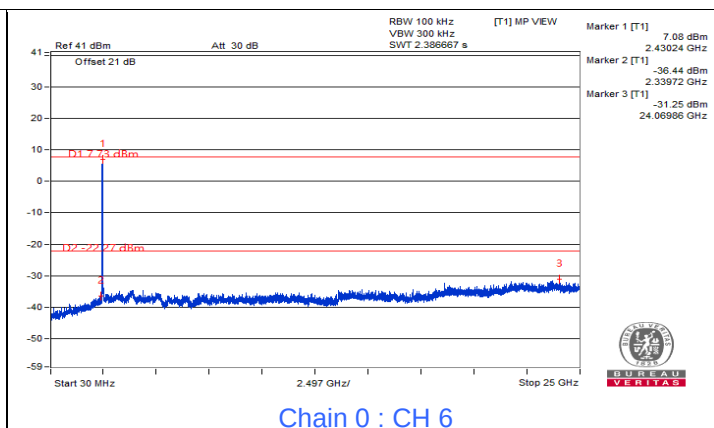
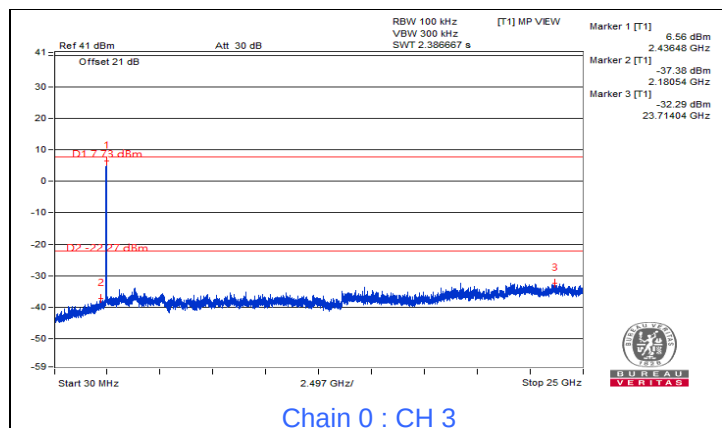
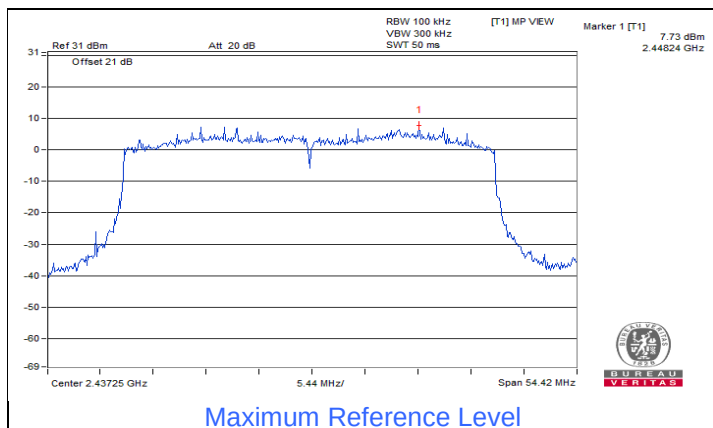


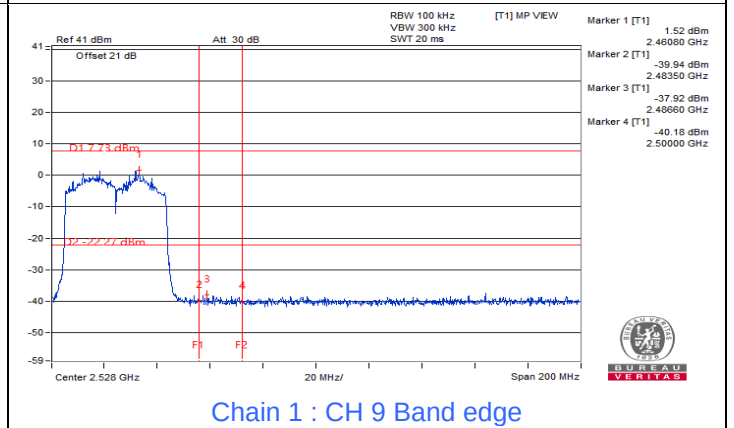
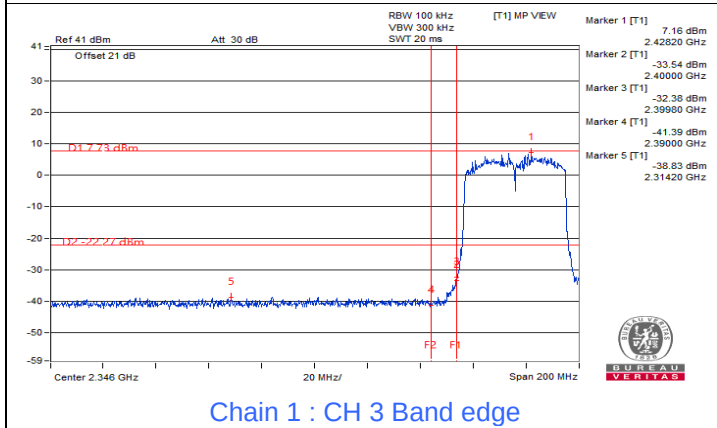
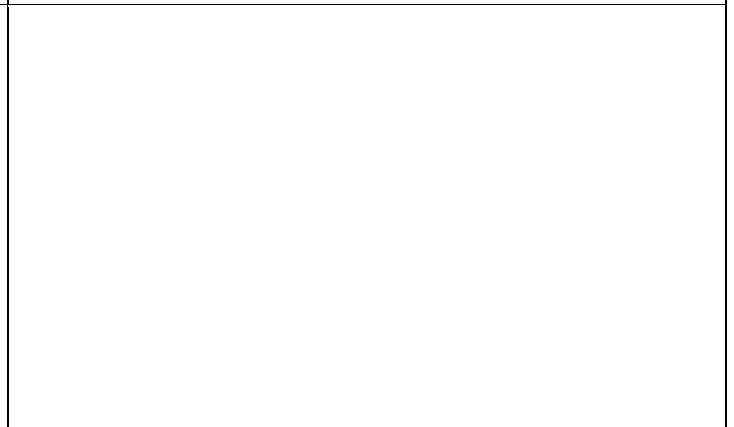
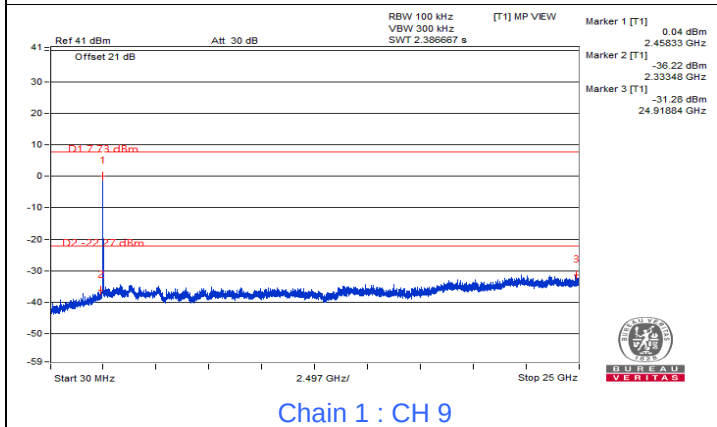
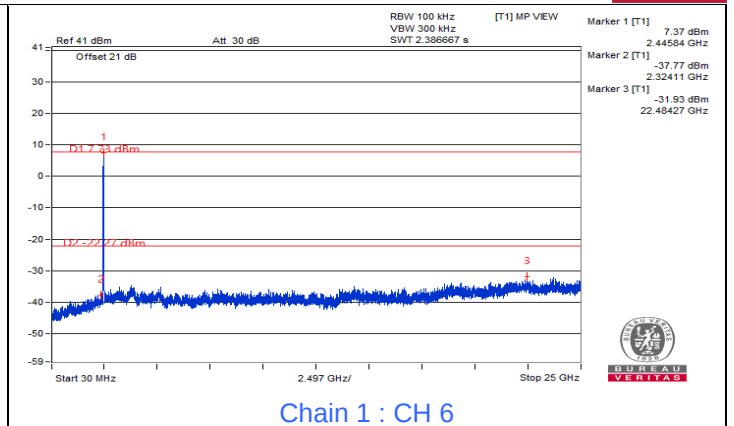
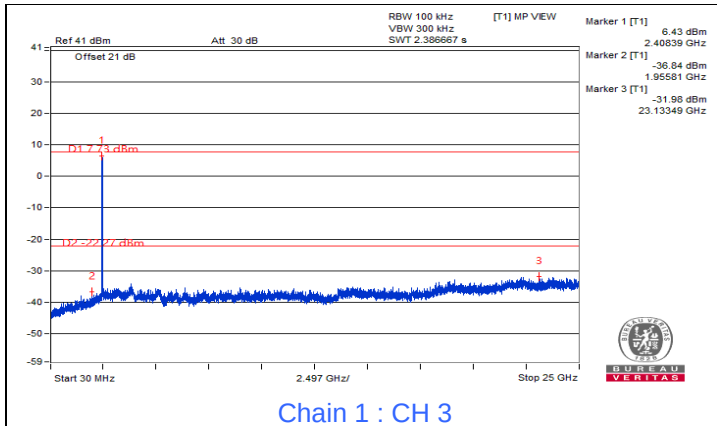


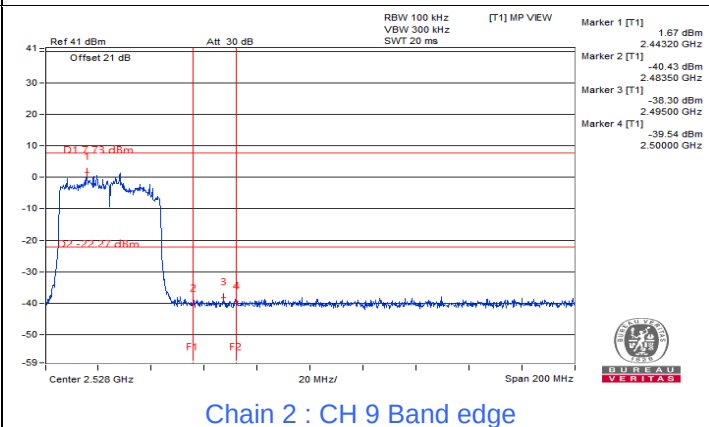
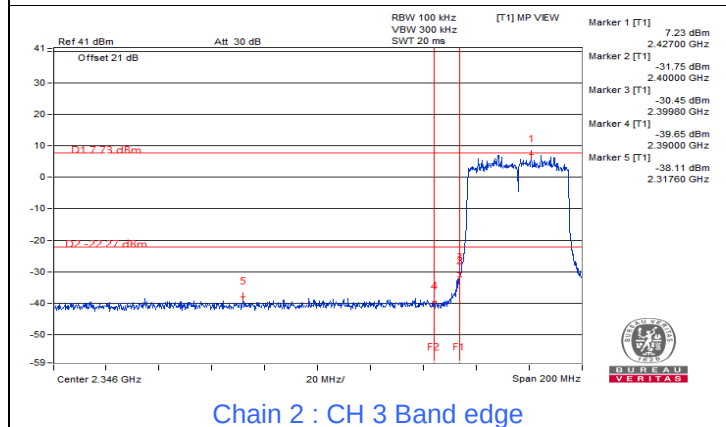
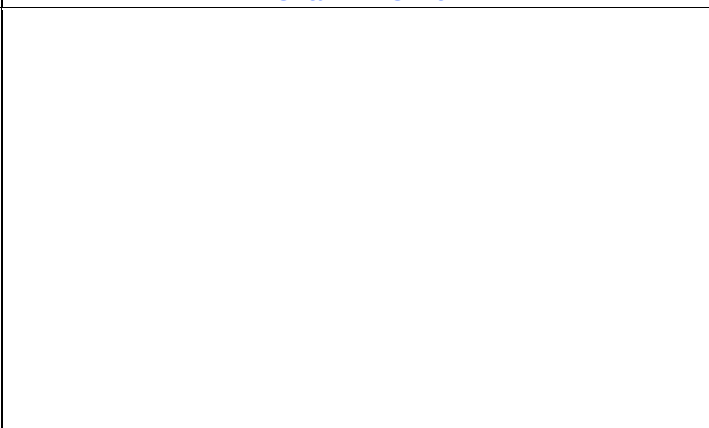
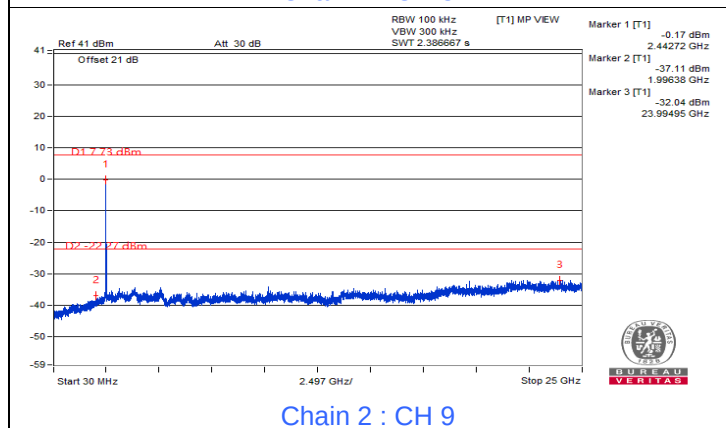
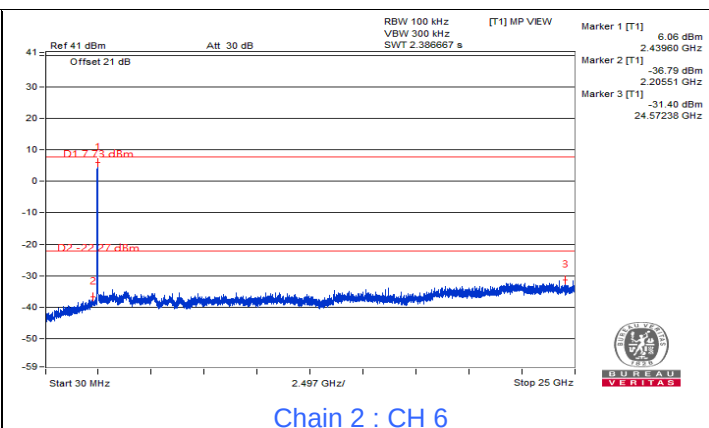
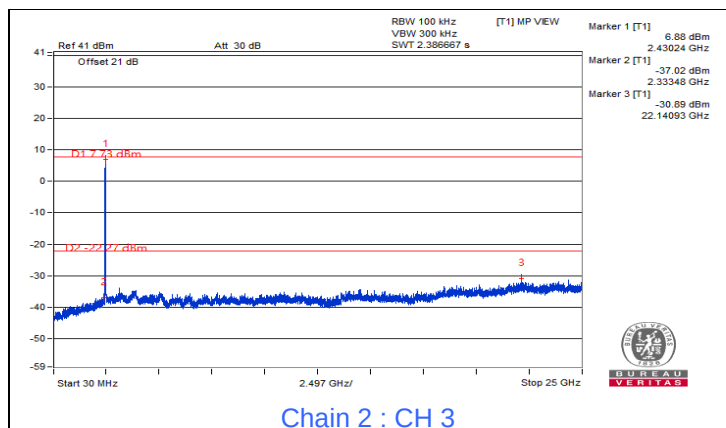


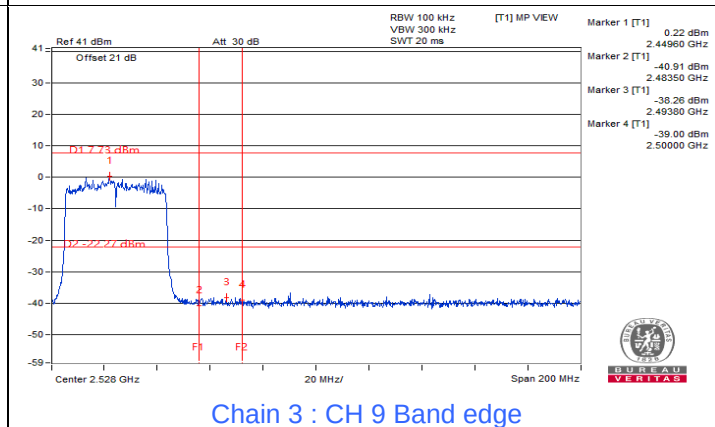
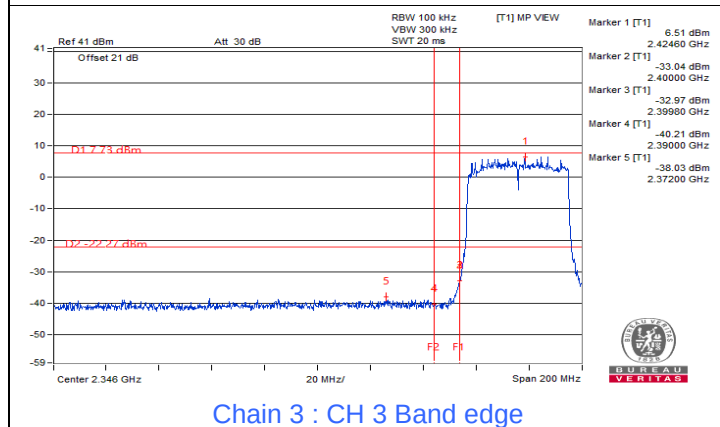
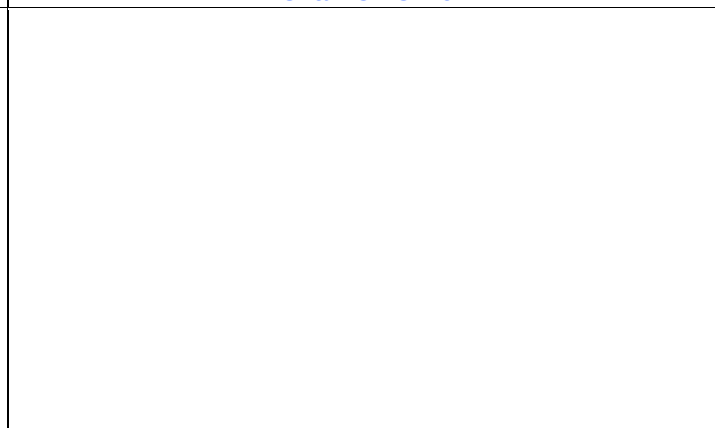
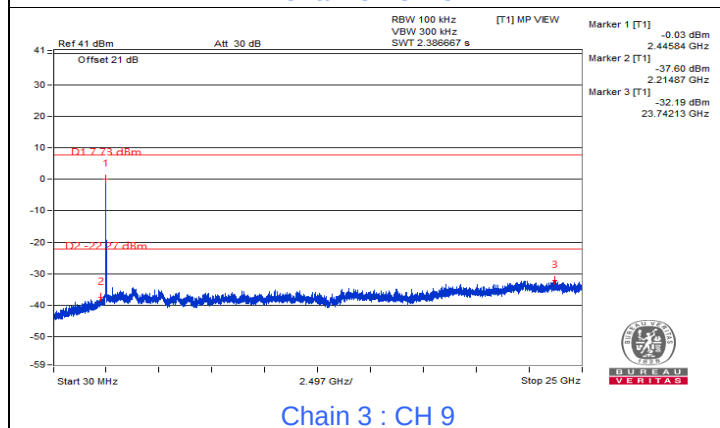
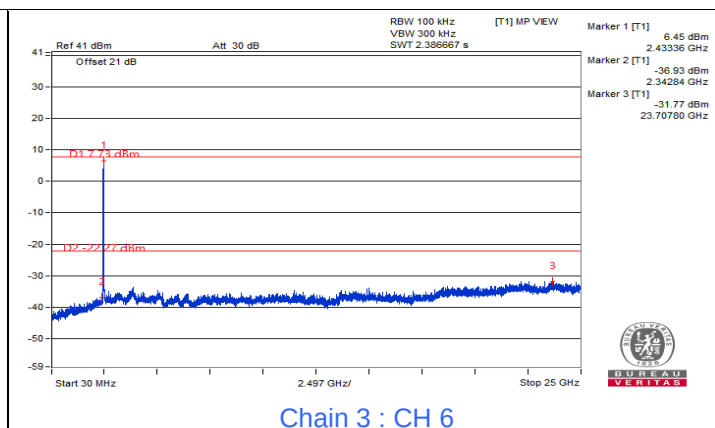
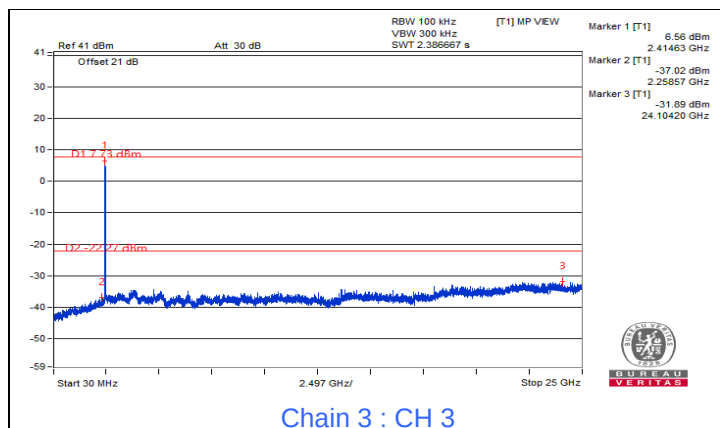


802.11ax (HE40)









7.5 AC Power Conducted Emissions

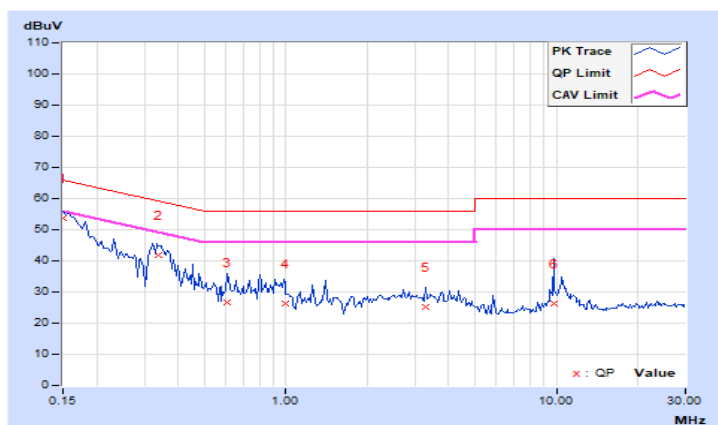
Mode A

RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 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	25°C, 66% RH
Tested By	Tom Yang		

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	10.07	43.46	24.81	53.53	34.88	66.00	56.00	-12.47	-21.12
2	0.33750	10.10	31.78	26.58	41.88	36.68	59.26	49.26	-17.38	-12.58
3	0.60703	10.12	16.57	9.37	26.69	19.49	56.00	46.00	-29.31	-26.51
4	0.98984	10.15	16.20	10.14	26.35	20.29	56.00	46.00	-29.65	-25.71
5	3.28906	10.30	14.75	8.93	25.05	19.23	56.00	46.00	-30.95	-26.77
6	9.85938	10.77	15.42	9.10	26.19	19.87	60.00	50.00	-33.81	-30.13

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

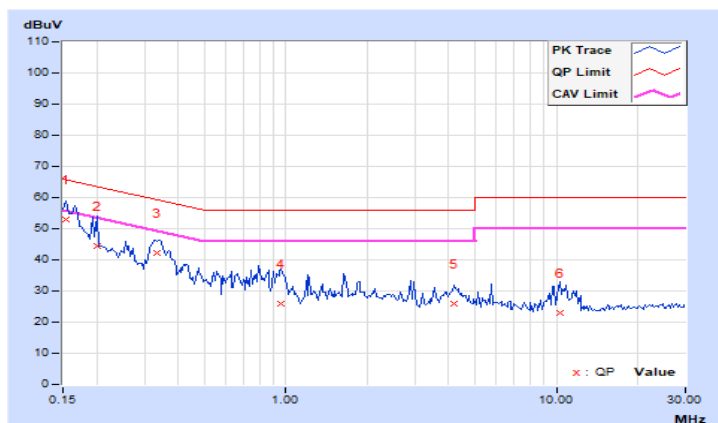


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	0.15391	10.05	42.92	24.42	52.97	34.47	65.79	55.79	-12.82	-21.32
2	0.20078	10.08	34.21	18.24	44.29	28.32	63.58	53.58	-19.29	-25.26
3	0.33359	10.09	32.01	23.00	42.10	33.09	59.36	49.36	-17.26	-16.27
4	0.96250	10.14	15.74	8.41	25.88	18.55	56.00	46.00	-30.12	-27.45
5	4.20313	10.34	15.47	8.30	25.81	18.64	56.00	46.00	-30.19	-27.36
6	10.33203	10.70	12.22	4.35	22.92	15.05	60.00	50.00	-37.08	-34.95

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



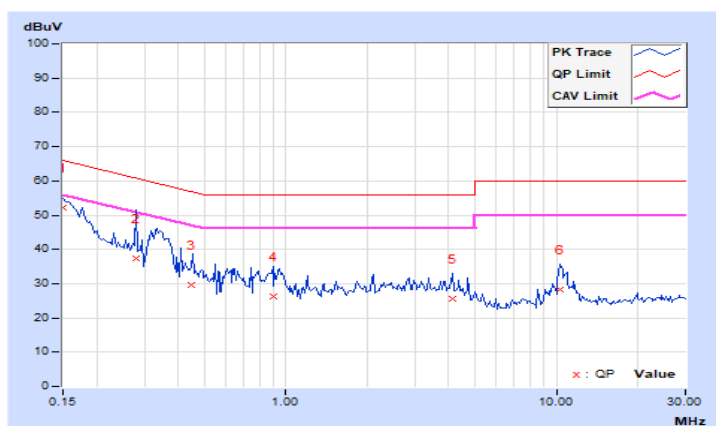
Mode B

RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 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	25°C, 68% RH
Tested By	Tom Yang		

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	0.15056	10.07	42.15	23.76	52.22	33.83	65.97	55.97	-13.75	-22.14
2	0.28011	10.09	27.18	18.03	37.27	28.12	60.81	50.81	-23.54	-22.69
3	0.44953	10.11	19.36	12.29	29.47	22.40	56.88	46.88	-27.41	-24.48
4	0.90157	10.14	16.23	8.11	26.37	18.25	56.00	46.00	-29.63	-27.75
5	4.11235	10.36	15.15	9.26	25.51	19.62	56.00	46.00	-30.49	-26.38
6	10.35154	10.81	17.46	11.35	28.27	22.16	60.00	50.00	-31.73	-27.84

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

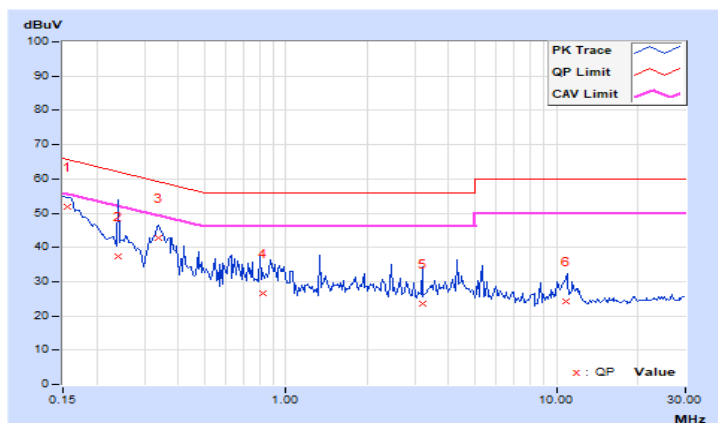


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	0.15537	10.05	41.76	23.25	51.81	33.30	65.71	55.71	-13.90	-22.41
2	0.24015	10.08	27.35	12.46	37.43	22.54	62.09	52.09	-24.66	-29.55
3	0.34011	10.09	32.64	27.11	42.73	37.20	59.20	49.20	-16.47	-12.00
4	0.82017	10.13	16.61	10.03	26.74	20.16	56.00	46.00	-29.26	-25.84
5	3.21537	10.29	13.14	6.35	23.43	16.64	56.00	46.00	-32.57	-29.36
6	10.90571	10.74	13.43	6.95	24.17	17.69	60.00	50.00	-35.83	-32.31

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

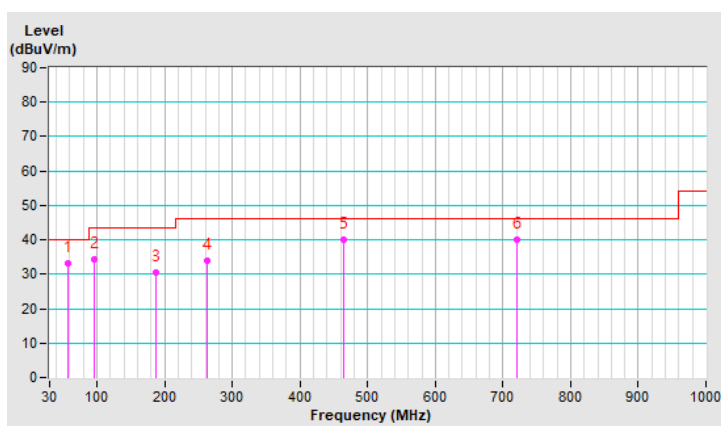
Mode A

RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	56.77	33.3 QP	40.0	-6.7	3.00 H	356	45.9	-12.6
2	96.52	34.4 QP	43.5	-9.1	2.00 H	100	51.4	-17.0
3	186.29	30.6 QP	43.5	-12.9	1.50 H	265	44.5	-13.9
4	262.44	33.8 QP	46.0	-12.2	1.00 H	28	45.8	-12.0
5	464.03	39.9 QP	46.0	-6.1	2.00 H	74	45.4	-5.5
6	719.99	40.0 QP	46.0	-6.0	1.00 H	360	40.2	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The 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.

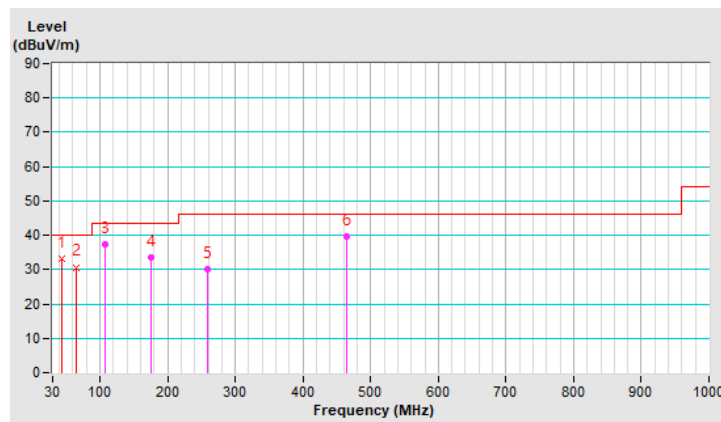


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	43.91	33.2 QP	40.0	-6.8	1.50 V	295	45.6	-12.4
2	64.95	30.7 QP	40.0	-9.3	1.00 V	286	44.4	-13.7
3	108.04	37.2 QP	43.5	-6.3	1.00 V	197	52.1	-14.9
4	174.97	33.7 QP	43.5	-9.8	1.00 V	157	46.3	-12.6
5	259.21	30.2 QP	46.0	-15.8	2.00 V	171	42.3	-12.1
6	464.03	39.5 QP	46.0	-6.5	1.00 V	309	45.0	-5.5

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 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.



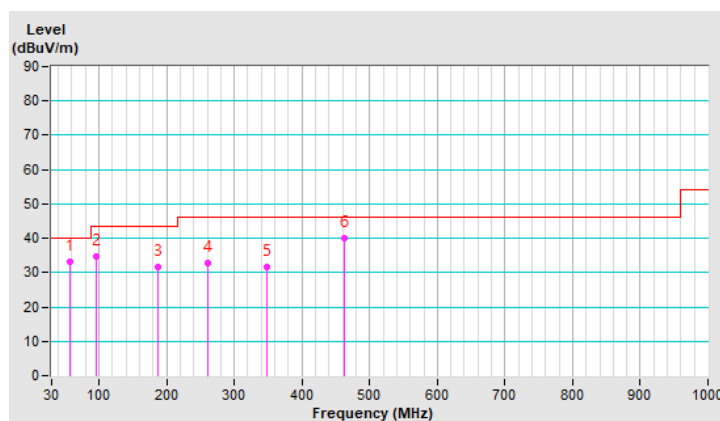
Mode B

RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	56.52	33.1 QP	40.0	-6.9	1.50 H	357	45.6	-12.5
2	96.57	34.7 QP	43.5	-8.8	1.50 H	156	51.7	-17.0
3	186.28	31.7 QP	43.5	-11.8	1.00 H	331	45.6	-13.9
4	261.79	32.8 QP	46.0	-13.2	1.00 H	352	44.8	-12.0
5	348.89	31.8 QP	46.0	-14.2	1.50 H	100	41.0	-9.2
6	463.58	40.0 QP	46.0	-6.0	1.50 H	175	45.5	-5.5

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 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.

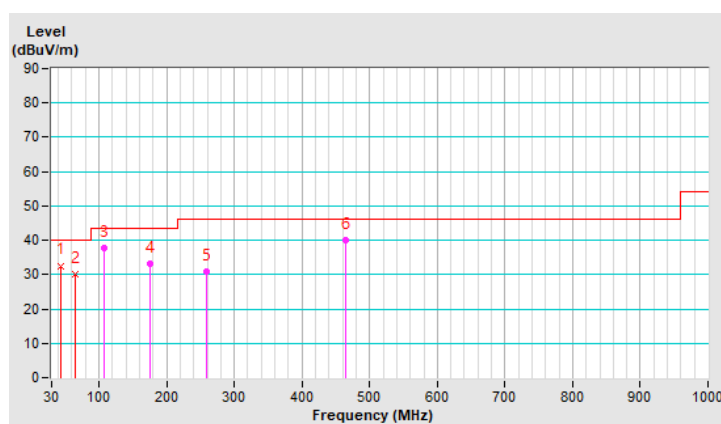


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	43.74	32.6 QP	40.0	-7.4	1.00 V	357	45.0	-12.4
2	65.18	30.1 QP	40.0	-9.9	1.50 V	309	43.8	-13.7
3	107.76	37.7 QP	43.5	-5.8	2.00 V	320	52.7	-15.0
4	174.64	33.2 QP	43.5	-10.3	1.00 V	124	45.7	-12.5
5	259.64	31.0 QP	46.0	-15.0	1.50 V	204	43.1	-12.1
6	464.26	40.0 QP	46.0	-6.0	1.00 V	334	45.5	-5.5

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 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

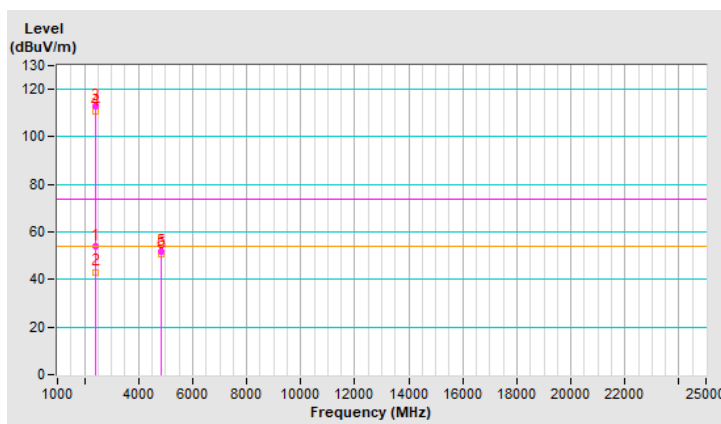
Mode A

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 = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.1 PK	74.0	-19.9	1.14 H	206	58.6	-4.5
2	2390.00	43.2 AV	54.0	-10.8	1.14 H	206	47.7	-4.5
3	*2412.00	113.0 PK			1.14 H	206	117.5	-4.5
4	*2412.00	110.7 AV			1.14 H	206	115.2	-4.5
5	4824.00	51.7 PK	74.0	-22.3	1.52 H	196	51.9	-0.2
6	4824.00	50.7 AV	54.0	-3.3	1.52 H	196	50.9	-0.2

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.

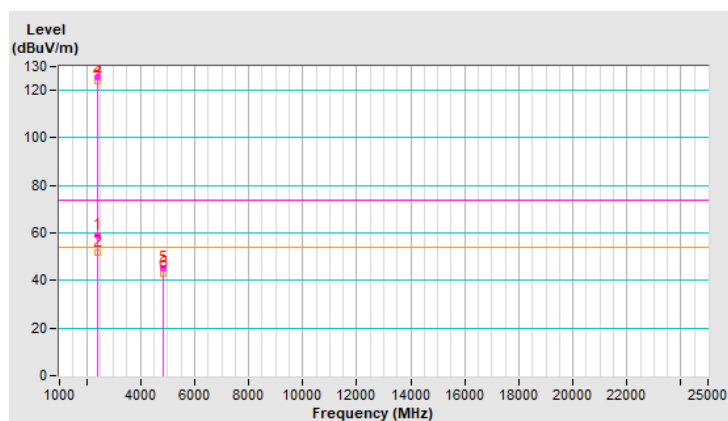


RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	58.9 PK	74.0	-15.1	1.22 V	11	63.4	-4.5
2	2390.00	51.7 AV	54.0	-2.3	1.22 V	11	56.2	-4.5
3	*2412.00	125.6 PK			1.22 V	11	130.1	-4.5
4	*2412.00	124.0 AV			1.22 V	11	128.5	-4.5
5	4824.00	44.9 PK	74.0	-29.1	1.51 V	190	45.1	-0.2
6	4824.00	42.7 AV	54.0	-11.3	1.51 V	190	42.9	-0.2

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.

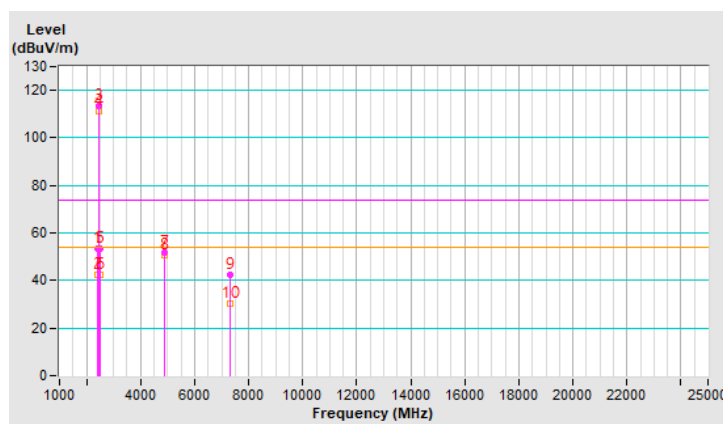


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.5 PK	74.0	-20.5	1.21 H	203	58.0	-4.5
2	2390.00	42.6 AV	54.0	-11.4	1.21 H	203	47.1	-4.5
3	*2437.00	113.5 PK			1.21 H	203	118.0	-4.5
4	*2437.00	111.1 AV			1.21 H	203	115.6	-4.5
5	2483.50	53.2 PK	74.0	-20.8	1.21 H	203	57.7	-4.5
6	2483.50	42.2 AV	54.0	-11.8	1.21 H	203	46.7	-4.5
7	4874.00	51.8 PK	74.0	-22.2	1.56 H	185	52.0	-0.2
8	4874.00	50.8 AV	54.0	-3.2	1.56 H	185	51.0	-0.2
9	7311.00	42.2 PK	74.0	-31.8	1.58 H	213	36.1	6.1
10	7311.00	30.4 AV	54.0	-23.6	1.58 H	213	24.3	6.1

Remarks:

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

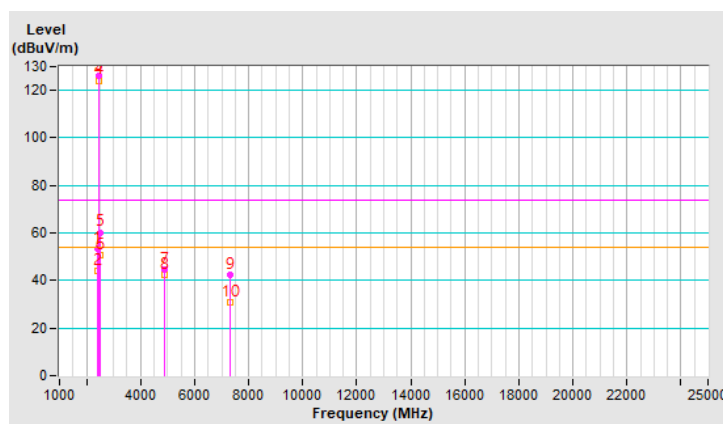


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.6 PK	74.0	-20.4	1.50 V	139	58.1	-4.5
2	2390.00	44.3 AV	54.0	-9.7	1.50 V	139	48.8	-4.5
3	*2437.00	125.9 PK			1.50 V	139	130.4	-4.5
4	*2437.00	124.2 AV			1.50 V	139	128.7	-4.5
5	2483.50	60.3 PK	74.0	-13.7	1.50 V	139	64.8	-4.5
6	2483.50	50.9 AV	54.0	-3.1	1.50 V	139	55.4	-4.5
7	4874.00	44.8 PK	74.0	-29.2	1.55 V	179	45.0	-0.2
8	4874.00	42.3 AV	54.0	-11.7	1.55 V	179	42.5	-0.2
9	7311.00	42.3 PK	74.0	-31.7	1.92 V	253	36.2	6.1
10	7311.00	30.6 AV	54.0	-23.4	1.92 V	253	24.5	6.1

Remarks:

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

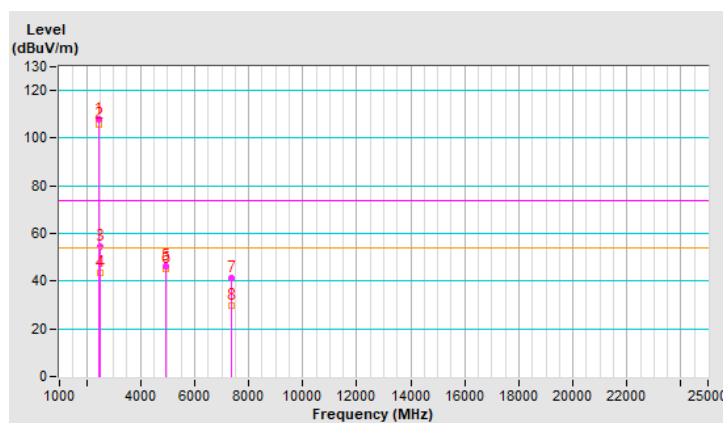


RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	107.7 PK			1.25 H	195	112.2	-4.5
2	*2462.00	105.5 AV			1.25 H	195	110.0	-4.5
3	2483.50	54.3 PK	74.0	-19.7	1.25 H	195	58.8	-4.5
4	2483.50	43.5 AV	54.0	-10.5	1.25 H	195	48.0	-4.5
5	4924.00	46.1 PK	74.0	-27.9	1.55 H	179	46.1	0.0
6	4924.00	45.3 AV	54.0	-8.7	1.55 H	179	45.3	0.0
7	7386.00	41.4 PK	74.0	-32.6	1.64 H	213	35.0	6.4
8	7386.00	29.7 AV	54.0	-24.3	1.64 H	213	23.3	6.4

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.

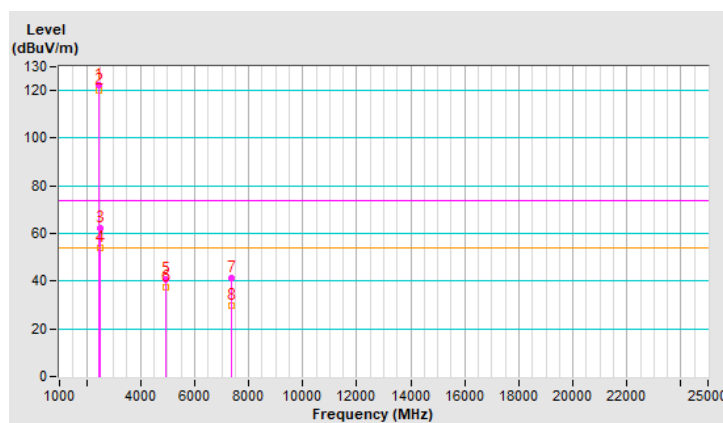


RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	122.3 PK			1.22 V	13	126.8	-4.5
2	*2462.00	120.1 AV			1.22 V	13	124.6	-4.5
3	2483.50	62.2 PK	74.0	-11.8	1.22 V	13	66.7	-4.5
4	2483.50	53.8 AV	54.0	-0.2	1.22 V	13	58.3	-4.5
5	4924.00	40.8 PK	74.0	-33.2	1.55 V	190	40.8	0.0
6	4924.00	37.6 AV	54.0	-16.4	1.55 V	190	37.6	0.0
7	7386.00	41.3 PK	74.0	-32.7	1.96 V	259	34.9	6.4
8	7386.00	29.8 AV	54.0	-24.2	1.96 V	259	23.4	6.4

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.

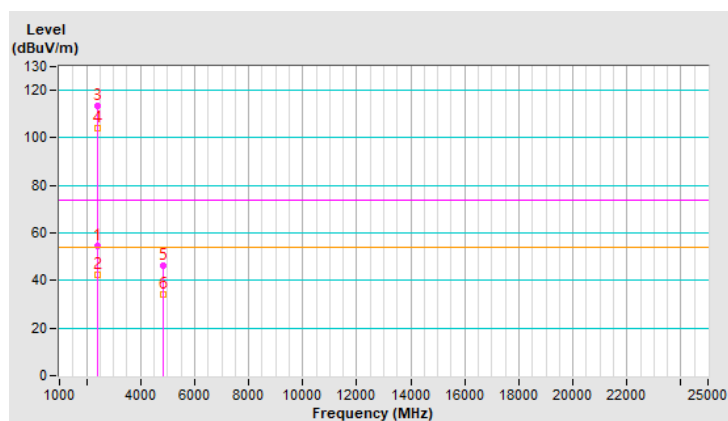


RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.7 PK	74.0	-19.3	1.09 H	66	59.2	-4.5
2	2390.00	42.6 AV	54.0	-11.4	1.09 H	66	47.1	-4.5
3	*2412.00	113.7 PK			1.09 H	66	118.2	-4.5
4	*2412.00	104.1 AV			1.09 H	66	108.6	-4.5
5	4824.00	46.0 PK	74.0	-28.0	1.60 H	33	46.2	-0.2
6	4824.00	34.3 AV	54.0	-19.7	1.60 H	33	34.5	-0.2

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.

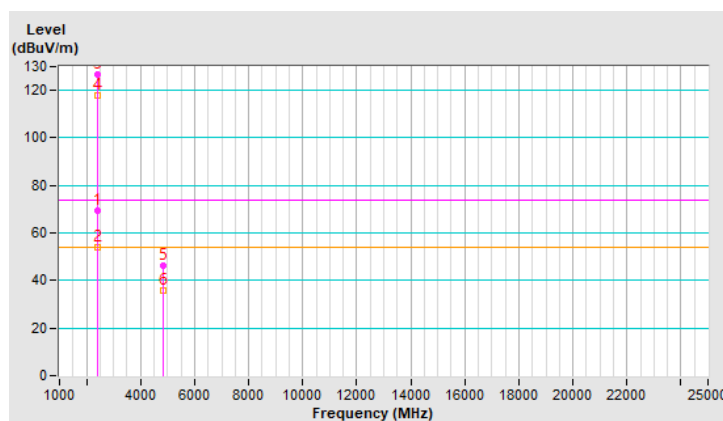


RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	69.4 PK	74.0	-4.6	1.58 V	9	73.9	-4.5
2	2390.00	53.8 AV	54.0	-0.2	1.58 V	9	58.3	-4.5
3	*2412.00	126.7 PK			1.58 V	9	131.2	-4.5
4	*2412.00	118.1 AV			1.58 V	9	122.6	-4.5
5	4824.00	46.4 PK	74.0	-27.6	1.57 V	168	46.6	-0.2
6	4824.00	35.6 AV	54.0	-18.4	1.57 V	168	35.8	-0.2

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.

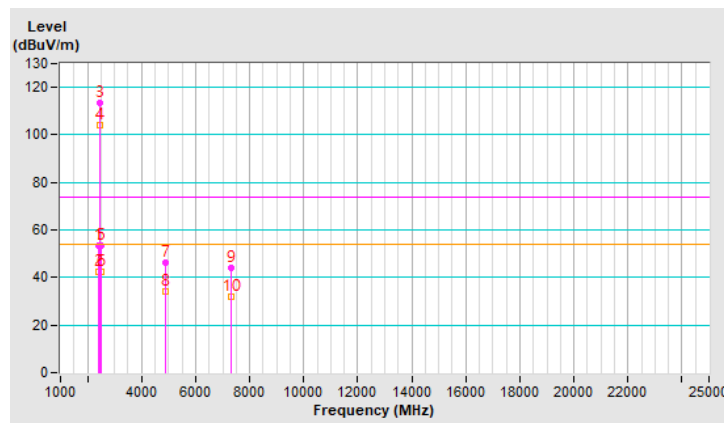


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.4 PK	74.0	-20.6	1.06 H	73	57.9	-4.5
2	2390.00	42.3 AV	54.0	-11.7	1.06 H	73	46.8	-4.5
3	*2437.00	113.7 PK			1.06 H	73	118.2	-4.5
4	*2437.00	104.2 AV			1.06 H	73	108.7	-4.5
5	2483.50	53.3 PK	74.0	-20.7	1.06 H	73	57.8	-4.5
6	2483.50	42.4 AV	54.0	-11.6	1.06 H	73	46.9	-4.5
7	4874.00	46.0 PK	74.0	-28.0	1.66 H	28	46.2	-0.2
8	4874.00	34.3 AV	54.0	-19.7	1.66 H	28	34.5	-0.2
9	7311.00	43.8 PK	74.0	-30.2	1.65 H	253	37.7	6.1
10	7311.00	31.7 AV	54.0	-22.3	1.65 H	253	25.6	6.1

Remarks:

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

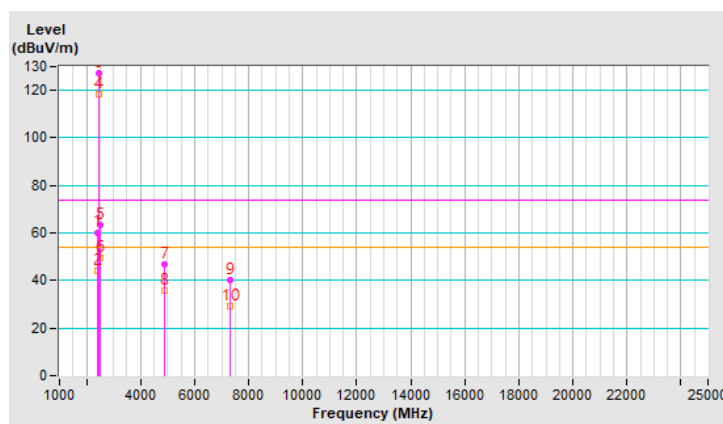


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.3 PK	74.0	-13.7	1.52 V	137	64.8	-4.5
2	2390.00	43.9 AV	54.0	-10.1	1.52 V	137	48.4	-4.5
3	*2437.00	127.1 PK			1.52 V	137	131.6	-4.5
4	*2437.00	118.5 AV			1.52 V	137	123.0	-4.5
5	2483.50	63.5 PK	74.0	-10.5	1.52 V	137	68.0	-4.5
6	2483.50	49.6 AV	54.0	-4.4	1.52 V	137	54.1	-4.5
7	4874.00	46.7 PK	74.0	-27.3	1.57 V	168	46.9	-0.2
8	4874.00	36.0 AV	54.0	-18.0	1.57 V	168	36.2	-0.2
9	7311.00	40.4 PK	74.0	-33.6	1.92 V	255	34.3	6.1
10	7311.00	29.0 AV	54.0	-25.0	1.92 V	255	22.9	6.1

Remarks:

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

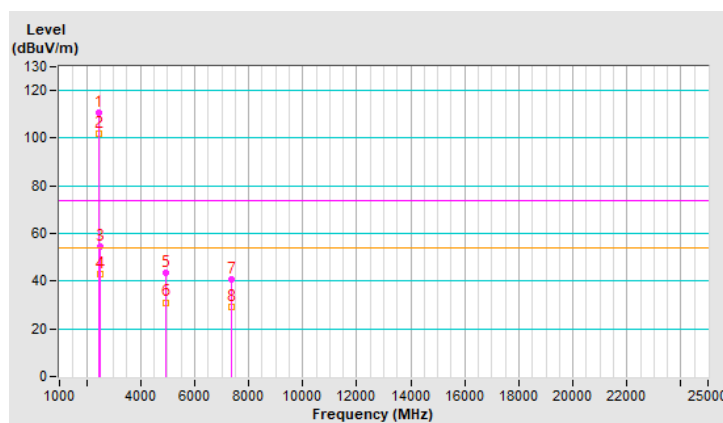


RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	110.7 PK			2.87 H	192	115.2	-4.5
2	*2462.00	101.7 AV			2.87 H	192	106.2	-4.5
3	2483.50	54.6 PK	74.0	-19.4	2.87 H	192	59.1	-4.5
4	2483.50	43.1 AV	54.0	-10.9	2.87 H	192	47.6	-4.5
5	4924.00	43.4 PK	74.0	-30.6	1.71 H	146	43.4	0.0
6	4924.00	31.1 AV	54.0	-22.9	1.71 H	146	31.1	0.0
7	7386.00	40.7 PK	74.0	-33.3	1.65 H	205	34.3	6.4
8	7386.00	29.3 AV	54.0	-24.7	1.65 H	205	22.9	6.4

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.

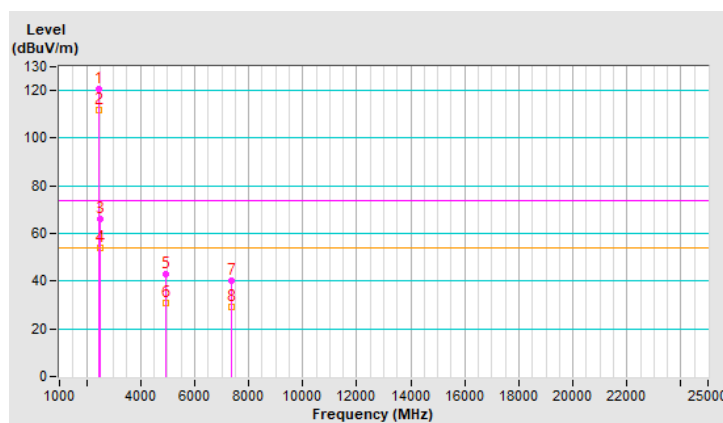


RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.4 PK			1.37 V	12	124.9	-4.5
2	*2462.00	111.8 AV			1.37 V	12	116.3	-4.5
3	2483.50	66.3 PK	74.0	-7.7	1.37 V	12	70.8	-4.5
4	2483.50	53.8 AV	54.0	-0.2	1.37 V	12	58.3	-4.5
5	4924.00	42.7 PK	74.0	-31.3	1.52 V	177	42.7	0.0
6	4924.00	30.8 AV	54.0	-23.2	1.52 V	177	30.8	0.0
7	7386.00	40.4 PK	74.0	-33.6	1.96 V	242	34.0	6.4
8	7386.00	29.1 AV	54.0	-24.9	1.96 V	242	22.7	6.4

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.

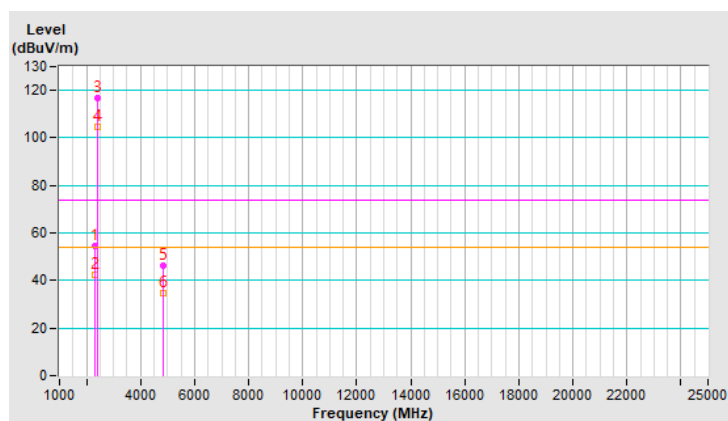


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	2334.40	54.5 PK	74.0	-19.5	1.32 H	204	59.0	-4.5
2	2334.40	42.2 AV	54.0	-11.8	1.32 H	204	46.7	-4.5
3	*2412.00	117.0 PK			1.32 H	204	121.5	-4.5
4	*2412.00	104.5 AV			1.32 H	204	109.0	-4.5
5	4824.00	46.5 PK	74.0	-27.5	1.61 H	21	46.7	-0.2
6	4824.00	34.8 AV	54.0	-19.2	1.61 H	21	35.0	-0.2

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.

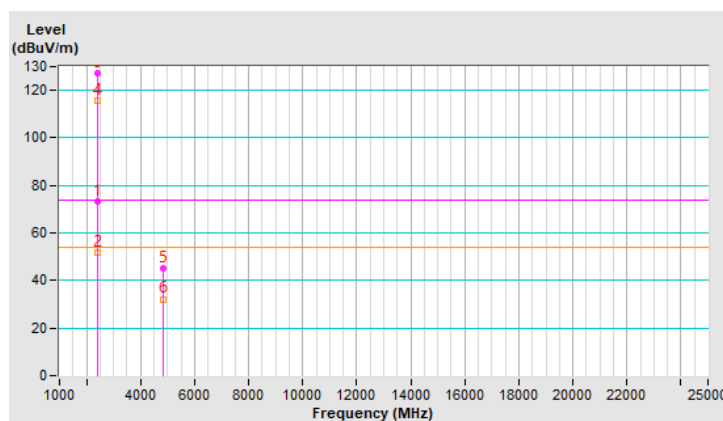


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	73.3 PK	74.0	-0.7	1.50 V	170	77.8	-4.5
2	2390.00	52.0 AV	54.0	-2.0	1.50 V	170	56.5	-4.5
3	*2412.00	127.3 PK			1.50 V	170	131.8	-4.5
4	*2412.00	115.8 AV			1.50 V	170	120.3	-4.5
5	4824.00	45.0 PK	74.0	-29.0	1.48 V	23	45.2	-0.2
6	4824.00	32.2 AV	54.0	-21.8	1.48 V	23	32.4	-0.2

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.

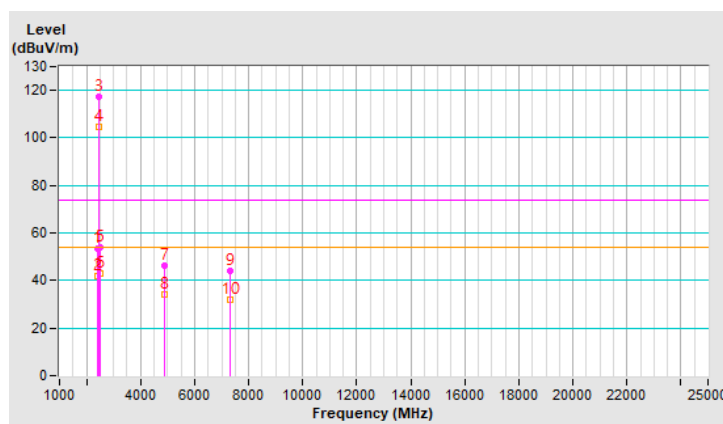


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.3 PK	74.0	-20.7	1.28 H	189	57.8	-4.5
2	2390.00	42.0 AV	54.0	-12.0	1.28 H	189	46.5	-4.5
3	*2437.00	117.2 PK			1.28 H	189	121.7	-4.5
4	*2437.00	104.6 AV			1.28 H	189	109.1	-4.5
5	2483.50	53.9 PK	74.0	-20.1	1.28 H	189	58.4	-4.5
6	2483.50	42.7 AV	54.0	-11.3	1.28 H	189	47.2	-4.5
7	4874.00	46.1 PK	74.0	-27.9	1.62 H	19	46.3	-0.2
8	4874.00	34.3 AV	54.0	-19.7	1.62 H	19	34.5	-0.2
9	7311.00	44.1 PK	74.0	-29.9	1.63 H	253	38.0	6.1
10	7311.00	32.0 AV	54.0	-22.0	1.63 H	253	25.9	6.1

Remarks:

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

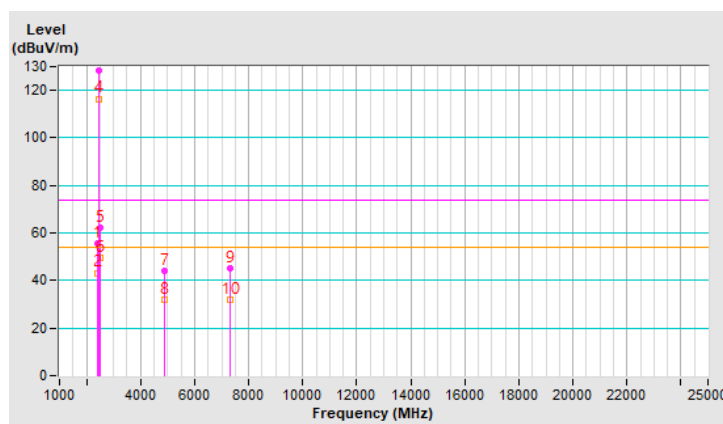


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	55.6 PK	74.0	-18.4	1.68 V	212	60.1	-4.5
2	2390.00	43.2 AV	54.0	-10.8	1.68 V	212	47.7	-4.5
3	*2437.00	128.4 PK			1.68 V	212	132.9	-4.5
4	*2437.00	116.5 AV			1.68 V	212	121.0	-4.5
5	2483.50	62.4 PK	74.0	-11.6	1.68 V	212	66.9	-4.5
6	2483.50	49.5 AV	54.0	-4.5	1.68 V	212	54.0	-4.5
7	4874.00	44.3 PK	74.0	-29.7	1.53 V	38	44.5	-0.2
8	4874.00	31.7 AV	54.0	-22.3	1.53 V	38	31.9	-0.2
9	7311.00	44.9 PK	74.0	-29.1	1.51 V	128	38.8	6.1
10	7311.00	31.9 AV	54.0	-22.1	1.51 V	128	25.8	6.1

Remarks:

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

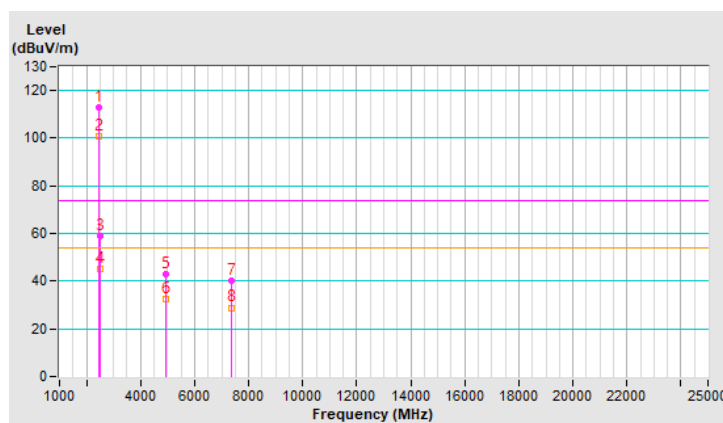


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	113.1 PK			2.46 H	194	117.6	-4.5
2	*2462.00	100.7 AV			2.46 H	194	105.2	-4.5
3	2486.50	58.7 PK	74.0	-15.3	2.46 H	194	63.2	-4.5
4	2486.50	45.3 AV	54.0	-8.7	2.46 H	194	49.8	-4.5
5	4924.00	43.1 PK	74.0	-30.9	1.70 H	151	43.1	0.0
6	4924.00	32.4 AV	54.0	-21.6	1.70 H	151	32.4	0.0
7	7386.00	40.1 PK	74.0	-33.9	1.69 H	201	33.7	6.4
8	7386.00	28.9 AV	54.0	-25.1	1.69 H	201	22.5	6.4

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.

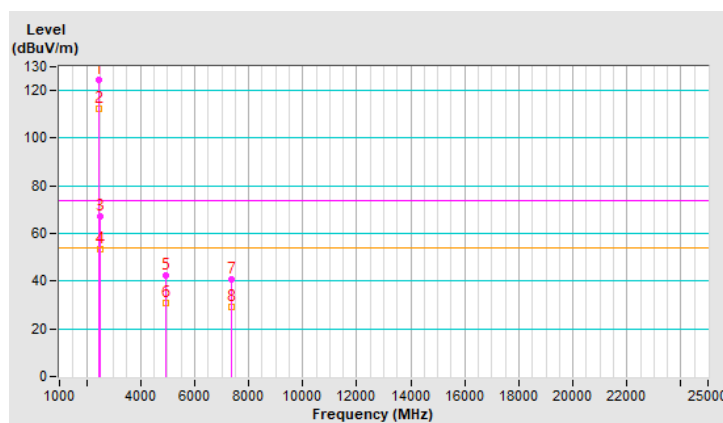


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	124.7 PK			1.41 V	182	129.2	-4.5
2	*2462.00	112.2 AV			1.41 V	182	116.7	-4.5
3	2483.50	67.0 PK	74.0	-7.0	1.41 V	182	71.5	-4.5
4	2483.50	53.3 AV	54.0	-0.7	1.41 V	182	57.8	-4.5
5	4924.00	42.6 PK	74.0	-31.4	1.46 V	172	42.6	0.0
6	4924.00	30.8 AV	54.0	-23.2	1.46 V	172	30.8	0.0
7	7386.00	40.6 PK	74.0	-33.4	1.99 V	250	34.2	6.4
8	7386.00	29.1 AV	54.0	-24.9	1.99 V	250	22.7	6.4

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.

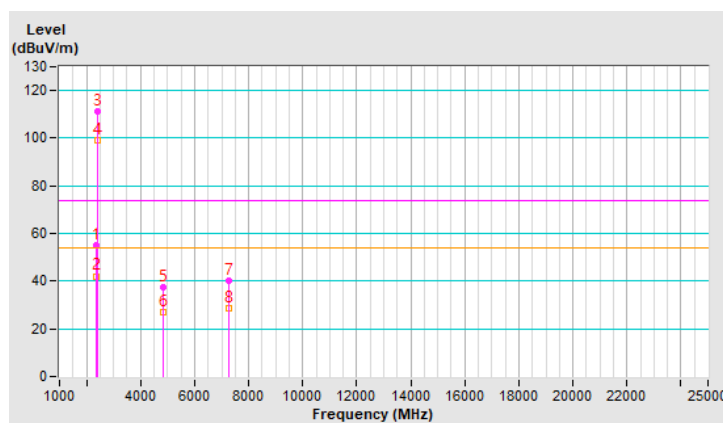


RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	2371.80	55.1 PK	74.0	-18.9	2.82 H	46	59.6	-4.5
2	2371.80	42.1 AV	54.0	-11.9	2.82 H	46	46.6	-4.5
3	*2422.00	111.3 PK			2.82 H	46	115.8	-4.5
4	*2422.00	99.0 AV			2.82 H	46	103.5	-4.5
5	4844.00	37.2 PK	74.0	-36.8	1.72 H	136	37.5	-0.3
6	4844.00	26.9 AV	54.0	-27.1	1.72 H	136	27.2	-0.3
7	7266.00	40.4 PK	74.0	-33.6	1.67 H	200	34.4	6.0
8	7266.00	28.6 AV	54.0	-25.4	1.67 H	200	22.6	6.0

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.
5. " * ": Fundamental frequency.

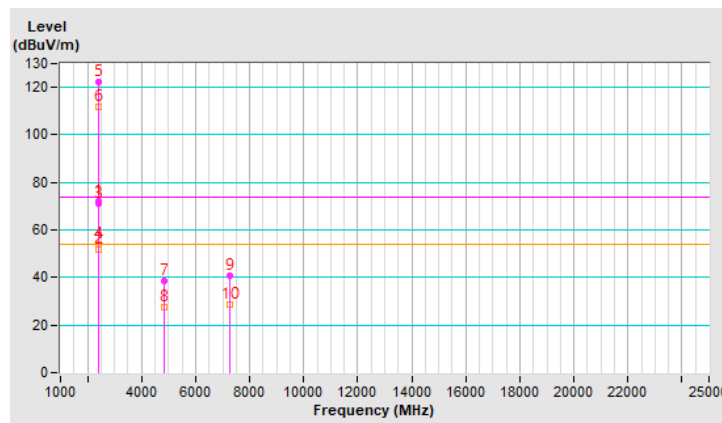


RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	2388.00	72.3 PK	74.0	-1.7	1.75 V	147	76.8	-4.5
2	2388.00	51.7 AV	54.0	-2.3	1.75 V	147	56.2	-4.5
3	2390.00	71.2 PK	74.0	-2.8	1.75 V	147	75.7	-4.5
4	2390.00	53.8 AV	54.0	-0.2	1.75 V	147	58.3	-4.5
5	*2422.00	122.3 PK			1.75 V	147	126.8	-4.5
6	*2422.00	111.7 AV			1.75 V	147	116.2	-4.5
7	4844.00	38.5 PK	74.0	-35.5	1.48 V	156	38.8	-0.3
8	4844.00	27.7 AV	54.0	-26.3	1.48 V	156	28.0	-0.3
9	7266.00	40.7 PK	74.0	-33.3	1.92 V	269	34.7	6.0
10	7266.00	28.7 AV	54.0	-25.3	1.92 V	269	22.7	6.0

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.
5. " * ": Fundamental frequency.

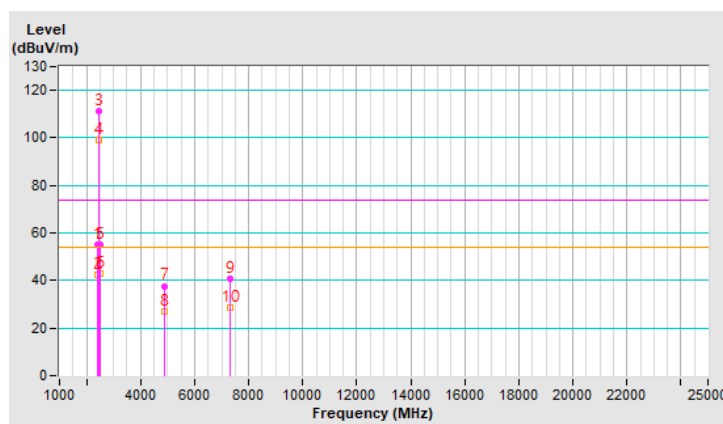


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.9 PK	74.0	-19.1	1.95 H	207	59.4	-4.5
2	2390.00	42.6 AV	54.0	-11.4	1.95 H	207	47.1	-4.5
3	*2437.00	111.3 PK			1.95 H	207	115.8	-4.5
4	*2437.00	98.9 AV			1.95 H	207	103.4	-4.5
5	2483.50	55.3 PK	74.0	-18.7	1.95 H	207	59.8	-4.5
6	2483.50	43.1 AV	54.0	-10.9	1.95 H	207	47.6	-4.5
7	4874.00	37.7 PK	74.0	-36.3	1.68 H	148	37.9	-0.2
8	4874.00	27.2 AV	54.0	-26.8	1.68 H	148	27.4	-0.2
9	7311.00	40.5 PK	74.0	-33.5	1.66 H	193	34.4	6.1
10	7311.00	28.6 AV	54.0	-25.4	1.66 H	193	22.5	6.1

Remarks:

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

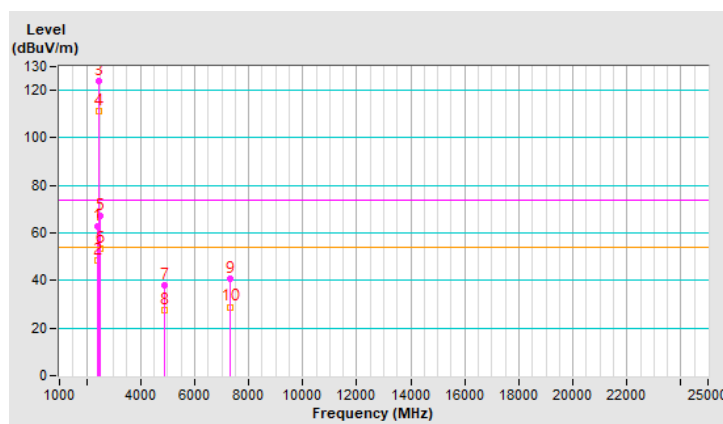


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	62.6 PK	74.0	-11.4	1.65 V	218	67.1	-4.5
2	2390.00	48.2 AV	54.0	-5.8	1.65 V	218	52.7	-4.5
3	*2437.00	124.0 PK			1.65 V	218	128.5	-4.5
4	*2437.00	111.3 AV			1.65 V	218	115.8	-4.5
5	2483.50	67.3 PK	74.0	-6.7	1.65 V	218	71.8	-4.5
6	2483.50	53.3 AV	54.0	-0.7	1.65 V	218	57.8	-4.5
7	4874.00	38.2 PK	74.0	-35.8	1.50 V	165	38.4	-0.2
8	4874.00	27.5 AV	54.0	-26.5	1.50 V	165	27.7	-0.2
9	7311.00	40.6 PK	74.0	-33.4	1.94 V	265	34.5	6.1
10	7311.00	28.9 AV	54.0	-25.1	1.94 V	265	22.8	6.1

Remarks:

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

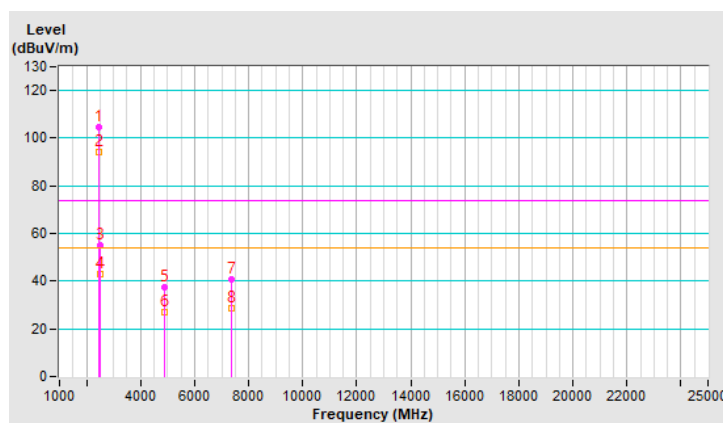


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	104.6 PK			1.97 H	196	109.1	-4.5
2	*2452.00	94.2 AV			1.97 H	196	98.7	-4.5
3	2483.50	54.9 PK	74.0	-19.1	1.97 H	196	59.4	-4.5
4	2483.50	42.9 AV	54.0	-11.1	1.97 H	196	47.4	-4.5
5	4904.00	37.6 PK	74.0	-36.4	1.72 H	161	37.7	-0.1
6	4904.00	26.9 AV	54.0	-27.1	1.72 H	161	27.0	-0.1
7	7356.00	40.6 PK	74.0	-33.4	1.68 H	181	34.4	6.2
8	7356.00	28.7 AV	54.0	-25.3	1.68 H	181	22.5	6.2

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.

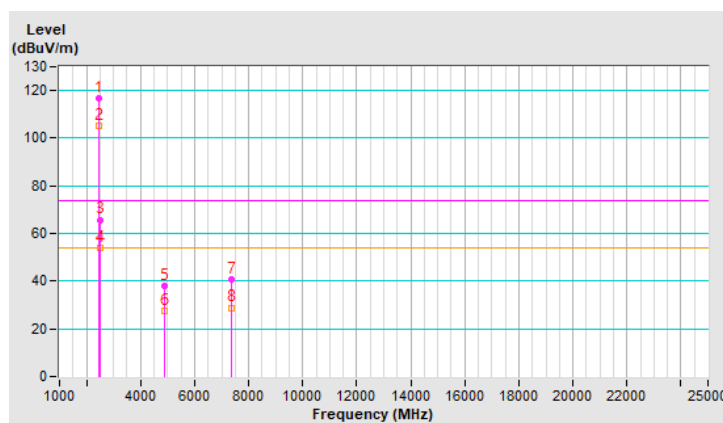


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

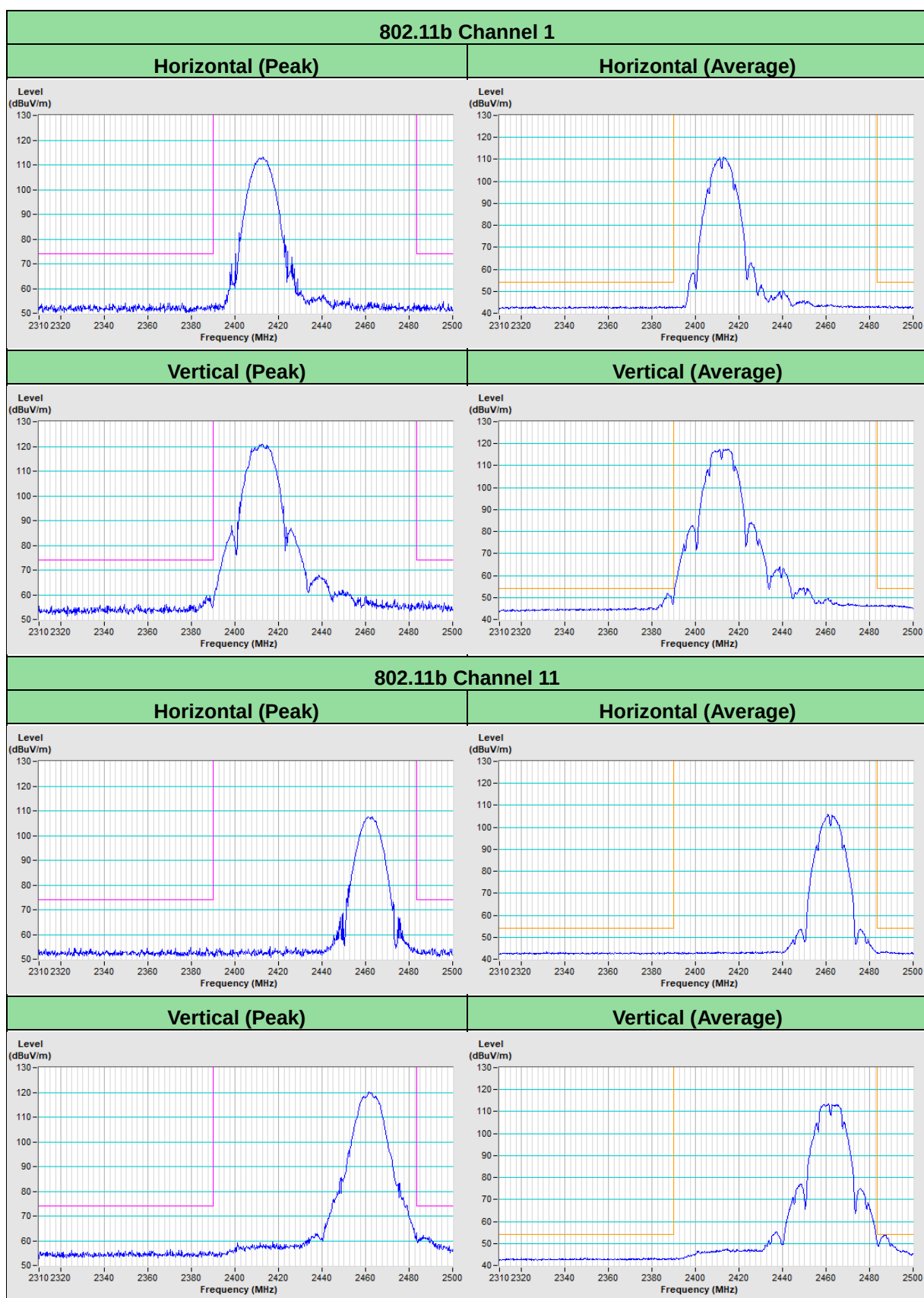
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	116.8 PK			1.80 V	191	121.3	-4.5
2	*2452.00	105.2 AV			1.80 V	191	109.7	-4.5
3	2483.50	65.8 PK	74.0	-8.2	1.80 V	191	70.3	-4.5
4	2483.50	53.8 AV	54.0	-0.2	1.80 V	191	58.3	-4.5
5	4904.00	38.1 PK	74.0	-35.9	1.50 V	177	38.2	-0.1
6	4904.00	27.3 AV	54.0	-26.7	1.50 V	177	27.4	-0.1
7	7356.00	40.8 PK	74.0	-33.2	1.92 V	273	34.6	6.2
8	7356.00	28.9 AV	54.0	-25.1	1.92 V	273	22.7	6.2

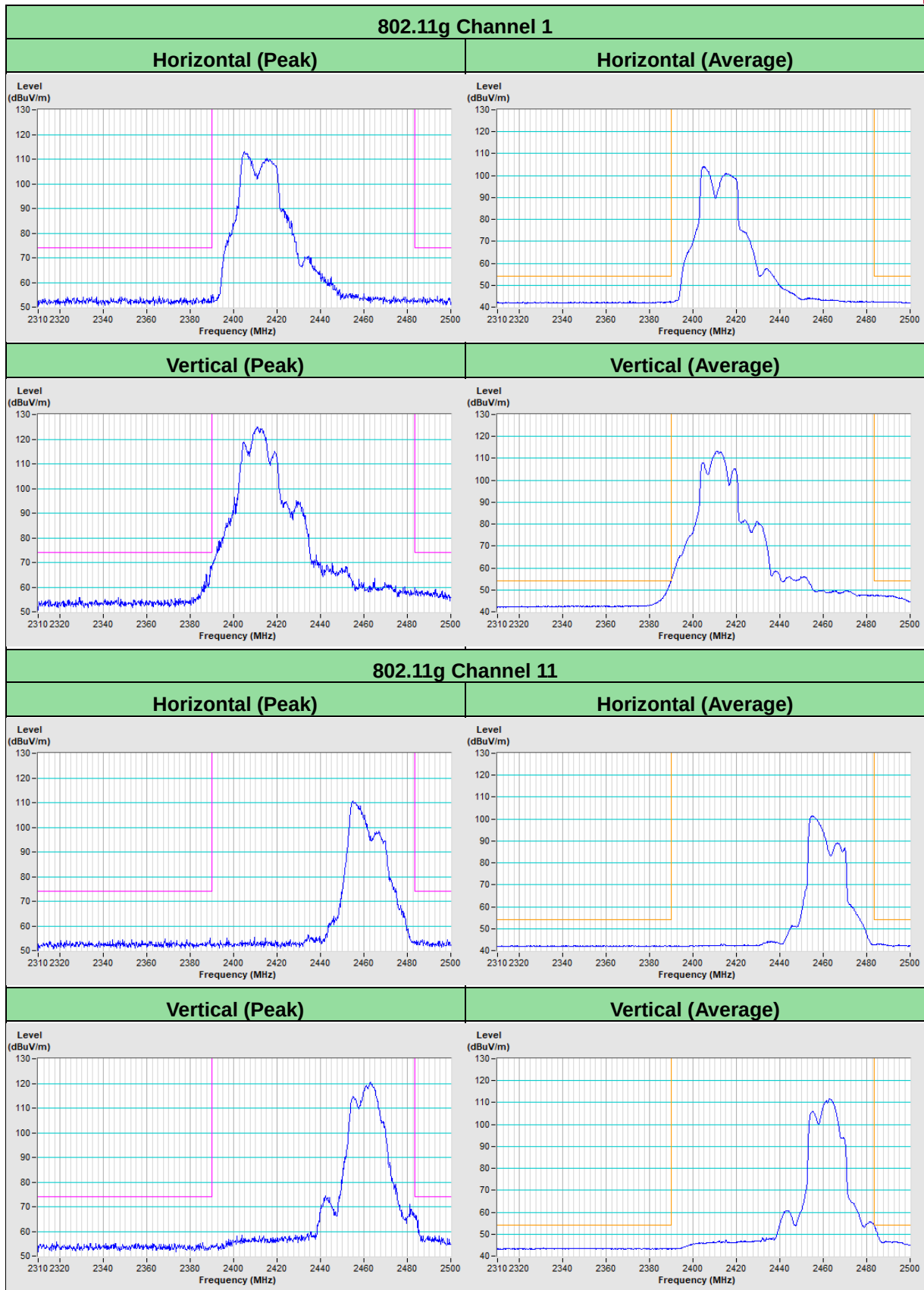
Remarks:

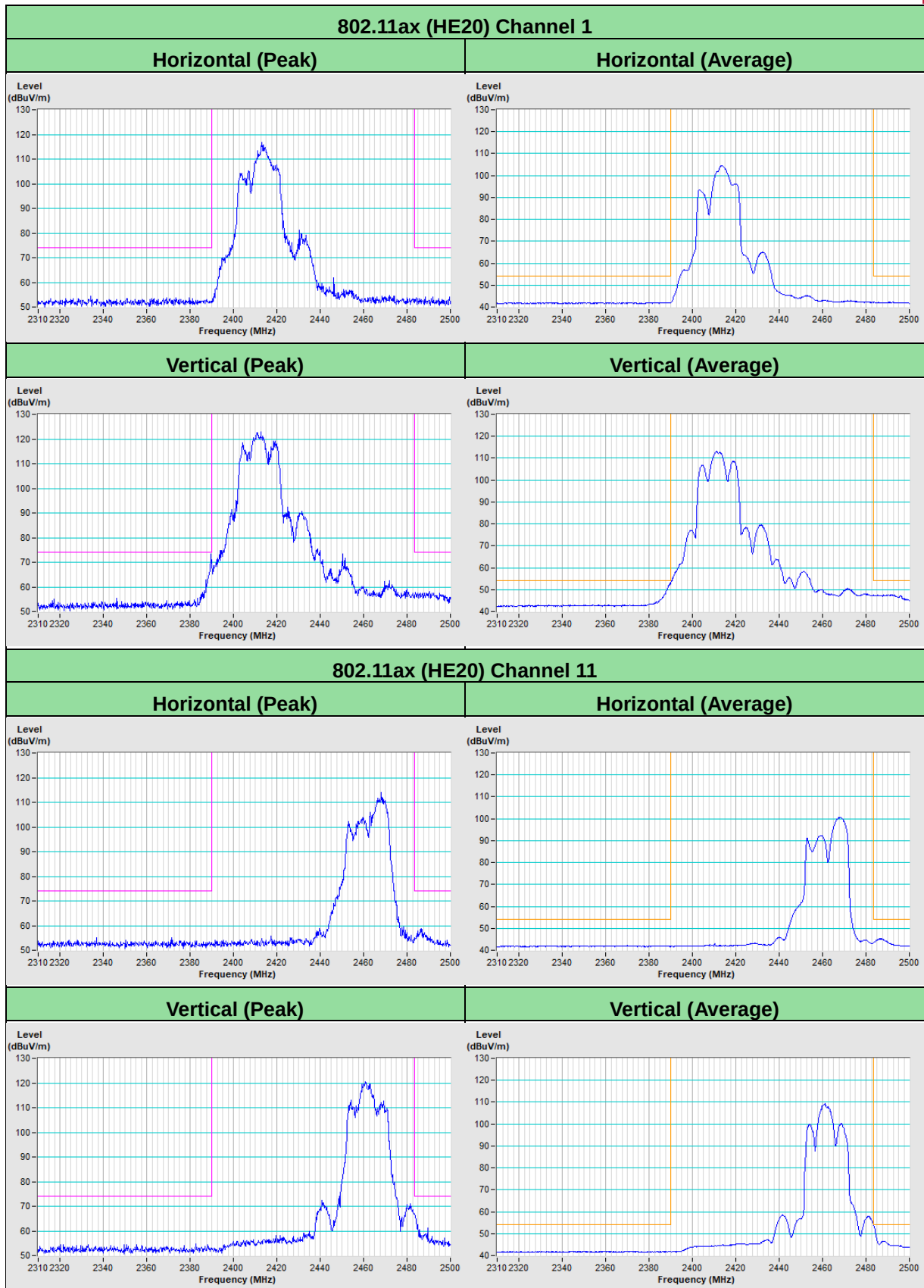
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

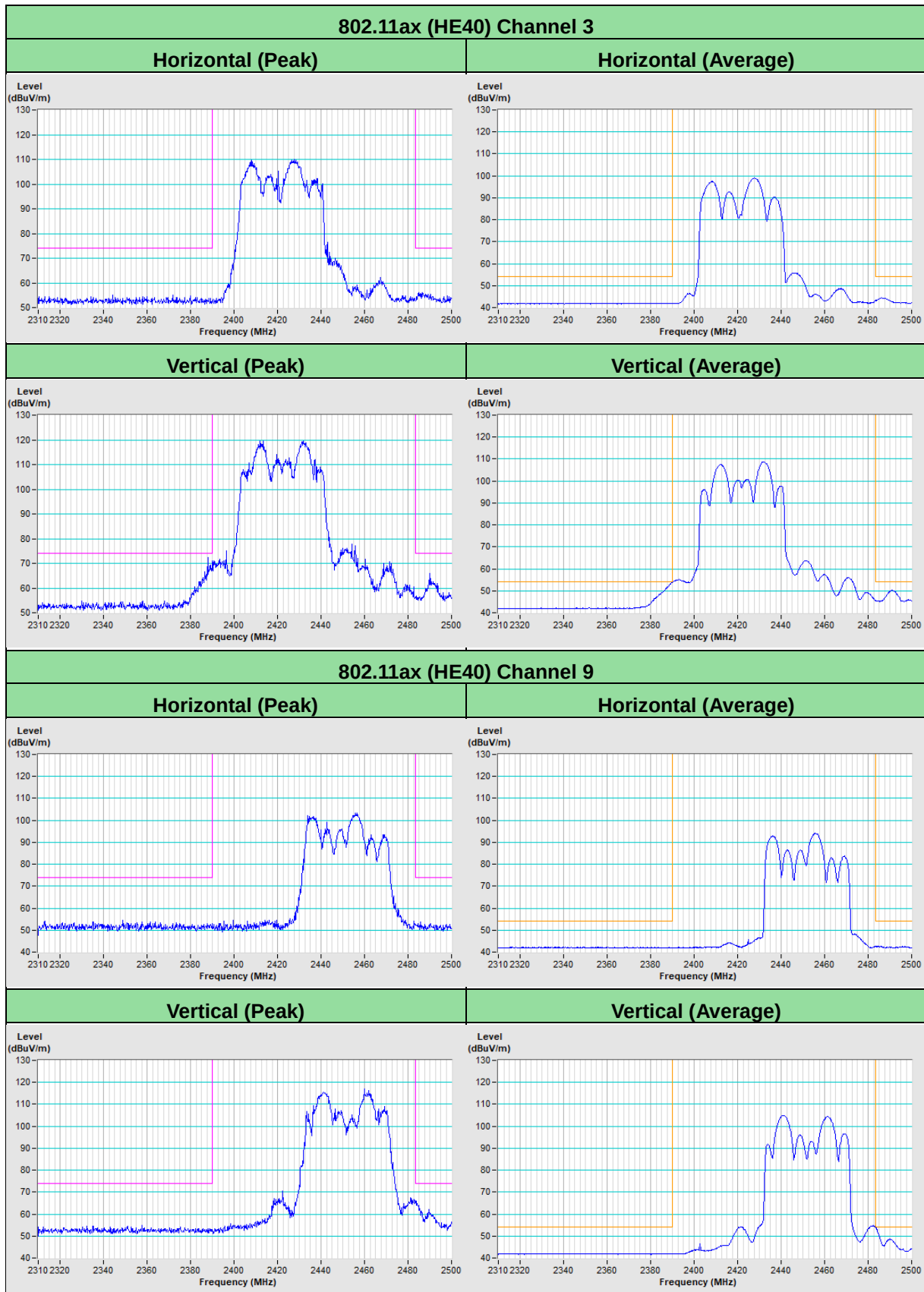


Mode A_Plot of Band Edge









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 ---