

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBCMA-WTW-P22070299
FCC ID: RAXWE7224443
Model No.: CE1000A
Received Date: 2022/4/25
Test Date: 2022/7/7 ~ 2022/7/26
Issued Date: 2022/11/16

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FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____, **Date:** 2022/11/16
May Chen / Manager

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Prepared by : Vivian Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P22070299	Original release.	2022/11/16

1 Certificate

Product: Verizon Wi-Fi Extender

Brand: Verizon

Test Model: CE1000A

Sample Status: Engineering sample

Applicant: Arcadyan Technology Corporation

Test Date: 2022/7/7 ~ 2022/7/26

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 -9.68 dB at 0.55234 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -6.8 dB at 45.71 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -1.1 dB at 2388.00, 2485.20 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	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	Verizon Wi-Fi Extender
Brand	Verizon
Test Model	CE1000A
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from Adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 600 Mbps VHT: up to 800 Mbps 802.11ax: up to 1147.1Mbps
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: 983.881 mW (29.93 dBm) Beamforming Mode: 747.475 mW (28.74 dBm)

Note:

- The EUT must be supplied with a power adapter and following below table:

Adapter 1		
Brand	Model	Specification
DELTA	ADH-60BW B	AC Input : 120V ,1.2A, 60Hz DC Output : 12V ,5A ,60W DC Output Cable : 1.8 M , non-shielded cable Plug : US
Adapter 2 (Only for test, not for sale)		
Brand	Model	Specification
Lucent Trans	1A98-1250-02	AC Input : 100~120V ,1.2A, 50/60Hz DC Output : 12V ,5A ,60W DC Output Cable : 1.8 M , non-shielded cable Plug : US

- The EUT uses following accessories.

RJ45 Cable	
Specification	
Signal Line : 3 m , non-shielded	

- The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4
WLAN(2.4GHz)	WLAN 5GHz (low band) + 5GHz (full band)	WLAN 5GHz (high band)+ WLAN 6GHz	WLAN 5GHz Sensor (RX Only)

- Simultaneously transmission condition.

Condition	Technology
1	WLAN (2.4 GHz) + WLAN (5 GHz) _Low Band + WLAN (5 GHz)_High Band
2	WLAN (2.4 GHz) + WLAN (5 GHz) _ Full Band

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

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	Cable Loss (dB)	Cable Length (mm)
2.4G/5GL DB ANT 1	0.9	2.4~2.4835GHz	PIFA	ipex(MHF)	0.72	115
	0.6	5.15~5.25GHz			1	
	0.6	5.25~5.35GHz			1	
	1	5.47~5.725GHz			1.0	
	1	5.725~5.85GHz			1.0	
2.4G/5GL DB ANT 2	0.5	2.4~2.4835GHz	PIFA	ipex(MHF)	0.88	140
	0.7	5.15~5.25GHz			1.22	
	0.7	5.25~5.35GHz			1.22	
	2.2	5.47~5.725GHz			1.26	
	2.2	5.725~5.85GHz			1.26	
2.4G/5GL DB ANT 3	1.3	2.4~2.4835GHz	PIFA	ipex(MHF)	0.71	113
	0	5.15~5.25GHz			0.99	
	0	5.25~5.35GHz			0.99	
	0.4	5.47~5.725GHz			1.02	
	0.4	5.725~5.85GHz			1.02	
2.4G/5GL DB ANT 4	0.3	2.4~2.4835GHz	PIFA	ipex(MHF)	0.61	98
	3.1	5.15~5.25GHz			0.86	
	3.1	5.25~5.35GHz			0.86	
	3	5.47~5.725GHz			0.88	
	3	5.725~5.85GHz			0.88	
5GH/6E ANT 1	1.3	5.47~5.725GHz	PIFA	ipex(MHF)	1.26	140
	1.3	5.725~5.85GHz			1.26	
	0.7	5.925GHz~6.425GHz			1.4	
	0.7	6.425GHz~6.525GHz			1.4	
	0.7	6.525GHz~6.875Hz			1.45	
0.7	6.875Hz~7.125GHz	1.56				
5GH/6E ANT 2	3.2	5.47~5.725GHz	PIFA	ipex(MHF)	1.26	140
	3.2	5.725~5.85GHz			1.26	
	1.1	5.925GHz~6.425GHz			1.4	
	1.1	6.425GHz~6.525GHz			1.4	
	1.1	6.525GHz~6.875Hz			1.45	
1.1	6.875Hz~7.125GHz	1.56				
5GH/6E ANT 3	1.9	5.47~5.725GHz	PIFA	ipex(MHF)	0.63	70
	1.9	5.725~5.85GHz			0.63	
	2.8	5.925GHz~6.425GHz			0.7	
	2.8	6.425GHz~6.525GHz			0.7	
	2.8	6.525GHz~6.875Hz			0.73	
2.8	6.875Hz~7.125GHz	0.78				
5GH/6E ANT 4	0.2	5.47~5.725GHz	PIFA	ipex(MHF)	0.52	58
	0.2	5.725~5.85GHz			0.52	
	0.6	5.925GHz~6.425GHz			0.58	
	0.6	6.425GHz~6.525GHz			0.58	
	0.6	6.525GHz~6.875Hz			0.6	
0.6	6.875Hz~7.125GHz	0.65				
5GHz Sensor ANT	0.15	5.15~5.25GHz	Dipole	ipex(MHF)	1.22	140
	0.15	5.25~5.35GHz			1.22	
	0.15	5.47~5.725GHz			1.26	
	0.15	5.725~5.85GHz			1.26	

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

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

Note:

1. All of modulation mode support beamforming function except 802.11b modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz) and VHT mode for 20 MHz (40 MHz), therefore the manufacturer will control the power for 802.11n/VHT mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

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

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

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

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The AC Adapter has the following models: DELTA:ADH-60BW B / Lucent Trans:1A98-1250-02. Pre-scan these models of AC Adapters and find the worst case as a representative test condition.For AC Power Conducted Emissions items:Pre-scan these modes and find the worst case as a representative test condition. 2. The AC Adapter has the following models: DELTA:ADH-60BW B / Lucent Trans:1A98-1250-02. Pre-scan these models of AC Adapters and find the worst case as a representative test condition.ForUnwanted Emissions below 1 GHz items: Pre-scan these modes and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter For AC Power Conducted Emissions,Worst Condition: Lucent Trans:1A98-1250-02 2. AC Adapter For Unwanted Emissions below 1 GHz,Worst Condition: DELTA:ADH-60BW B 3. 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).

Note: Partial RU (resource unit) configurations not supported.

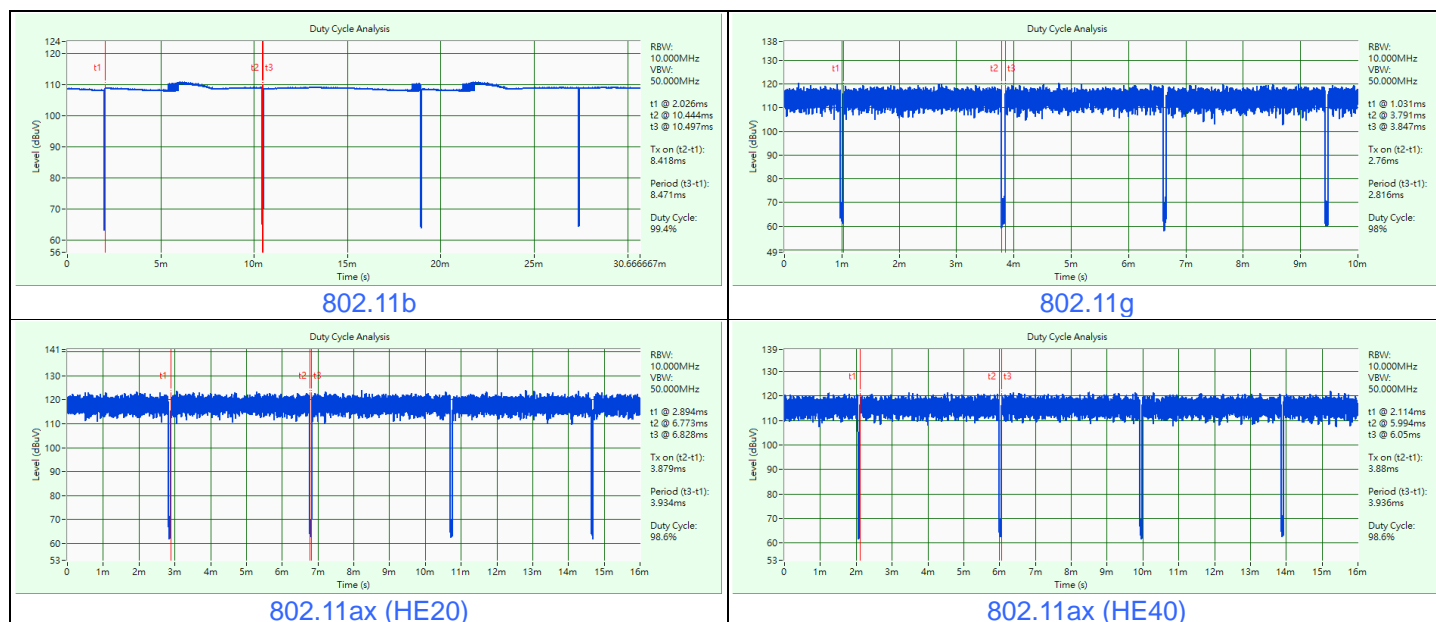
Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	VHT20	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	VHT40	CDD & Beamforming	3, 6, 9	BPSK	MCS0
	802.11ax (HE20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
Power Spectral Density	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11ax (HE20)	CDD	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11ax (HE20)	CDD	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11ax (HE20)	CDD	6	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE20)	CDD	6	BPSK	MCS0
Unwanted Emissions above 1 GHz	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

3.5 Duty Cycle of Test Signal

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

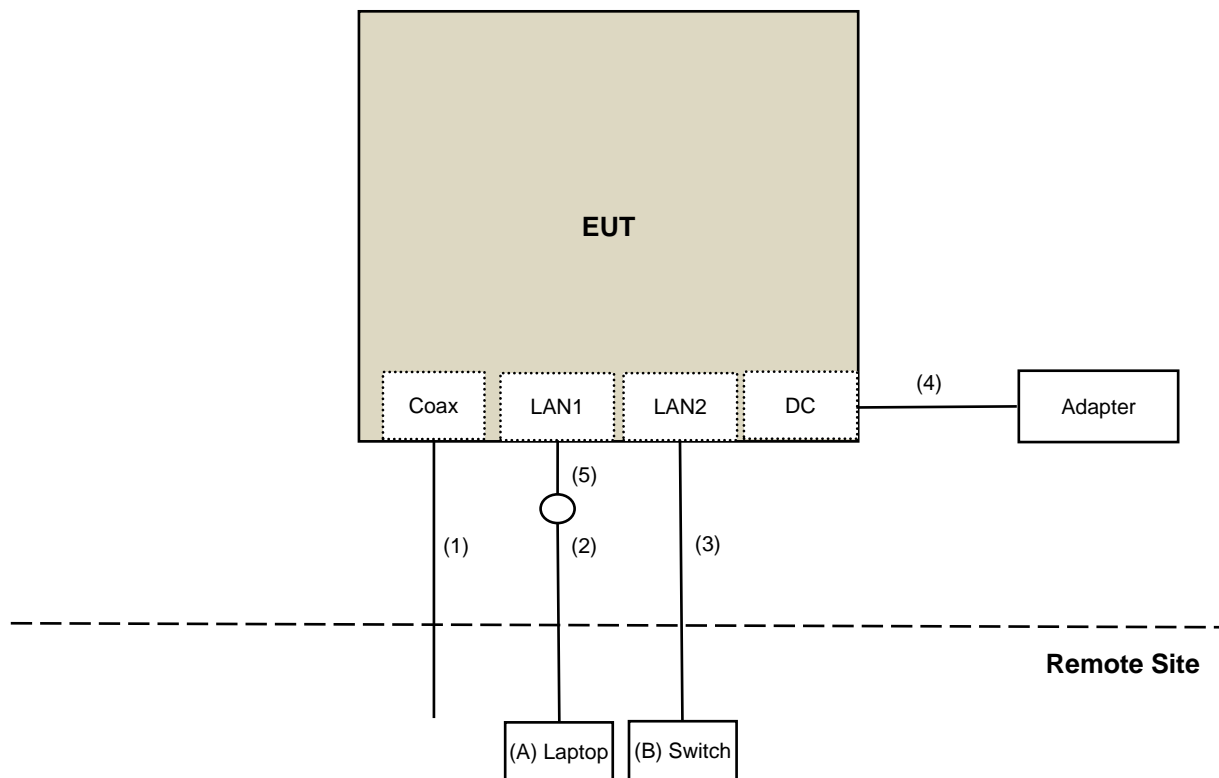
- 802.11b:** Duty cycle = $8.418 \text{ ms} / 8.471 \text{ ms} \times 100\% = 99.4\%$
- 802.11g:** Duty cycle = $2.76 \text{ ms} / 2.816 \text{ ms} \times 100\% = 98.0\%$
- 802.11ax (HE20):** Duty cycle = $3.879 \text{ ms} / 3.934 \text{ ms} \times 100\% = 98.6\%$
- 802.11ax (HE40):** Duty cycle = $3.88 \text{ ms} / 3.936 \text{ ms} \times 100\% = 98.6\%$



3.6 Test Program Used and Operation Descriptions

Controlling software (QATool_v0.0.2.73) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab
B	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	Coaxial Cable	1	10	Yes	0	Provided by Lab
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	1	10	No	0	Provided by Lab
4	DC Cable	1	1.8	No	1	Supplied by applicant
5	RJ-45 Cable	1	3	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	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
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: 2022/7/7

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: 2022/7/7

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: 2022/7/26

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bilog Antenna Schwarzbeck	VULB 9168	9168-0842	2021/10/26	2022/10/25
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	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	980538	2022/4/25	2023/4/24
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	966-5-1	2022/4/25	2023/4/24
		966-5-2	2022/4/25	2023/4/24
		966-5-3	2022/4/25	2023/4/24
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2022/3/13	2023/3/12
Test Receiver R&S	ESR3	102528	2022/2/25	2023/2/24

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2022/7/22

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-1819	2021/11/14	2022/11/13
	BBHA 9170	9170-739	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980509	2022/4/25	2023/4/24
	EMC184045SE	980387	2022/1/10	2023/1/9
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-1500	180503	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180501	2022/4/25	2023/4/24
	EMC104-SM-SM-6000	180506	2022/4/25	2023/4/24
	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2022/3/13	2023/3/12
Test Receiver R&S	ESR3	102528	2022/2/25	2023/2/24

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2022/7/14 ~ 2022/7/25

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

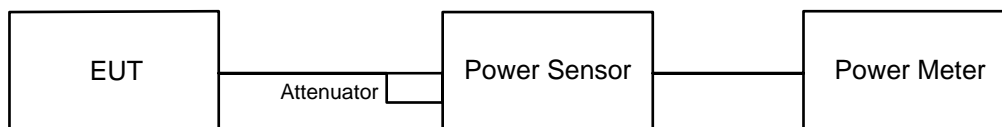
Notes:

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

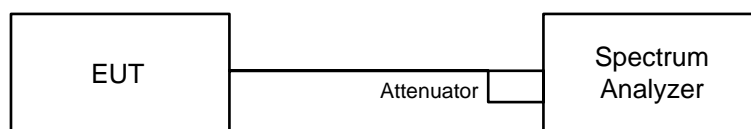


6.1.2 Test Procedure

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



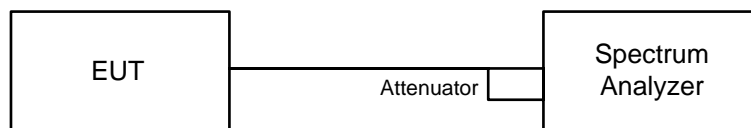
6.2.2 Test Procedure

- 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

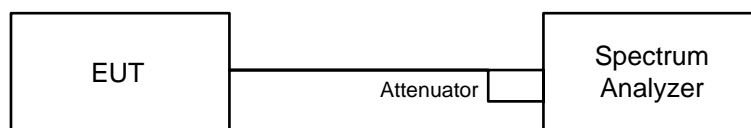


6.3.2 Test Procedure

- 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

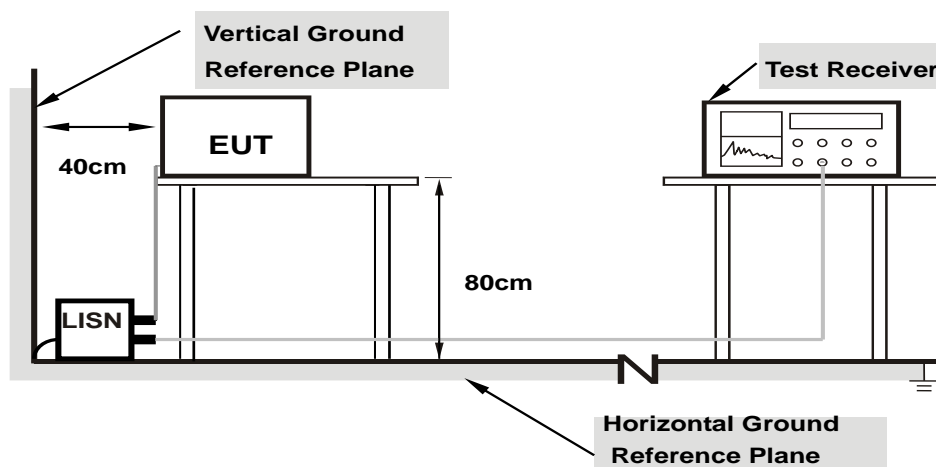
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level.

6.5 AC Power Conducted Emissions

6.5.1 Test Setup



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

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

6.5.2 Test Procedure

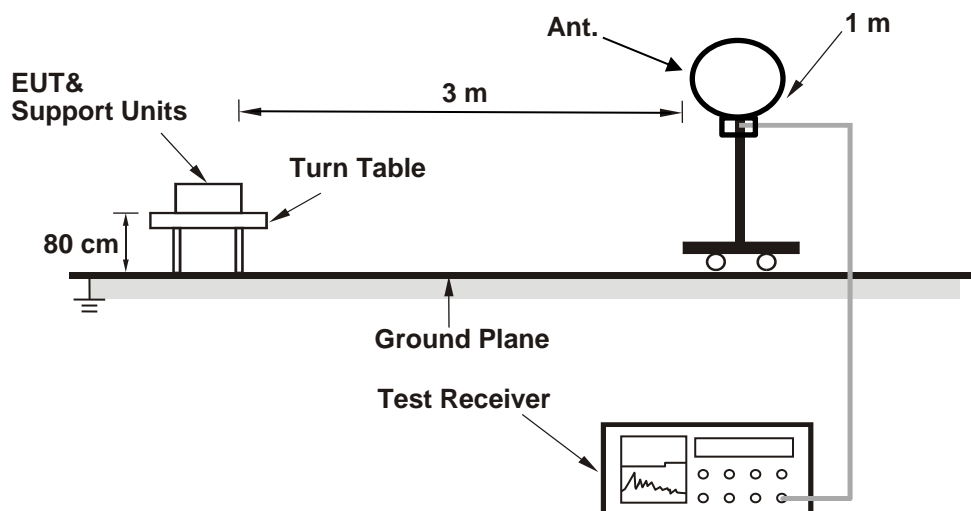
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

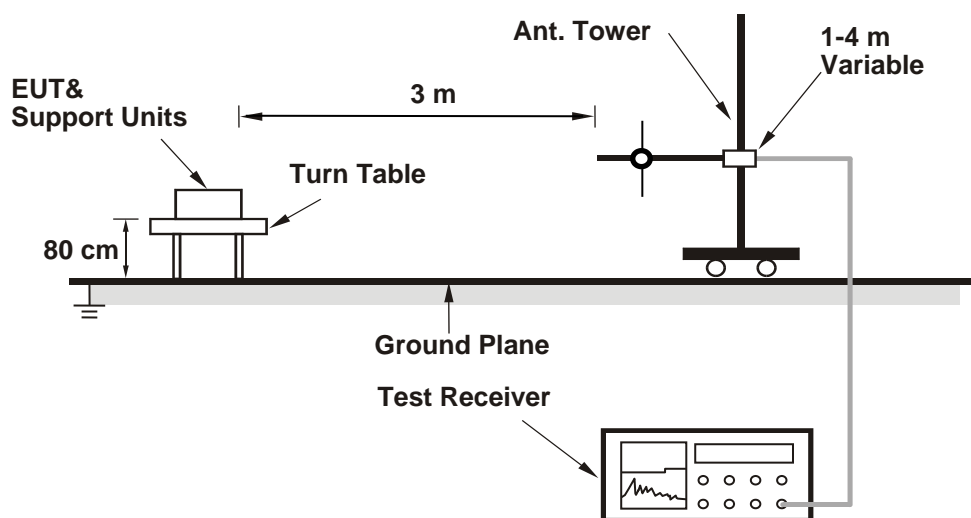
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

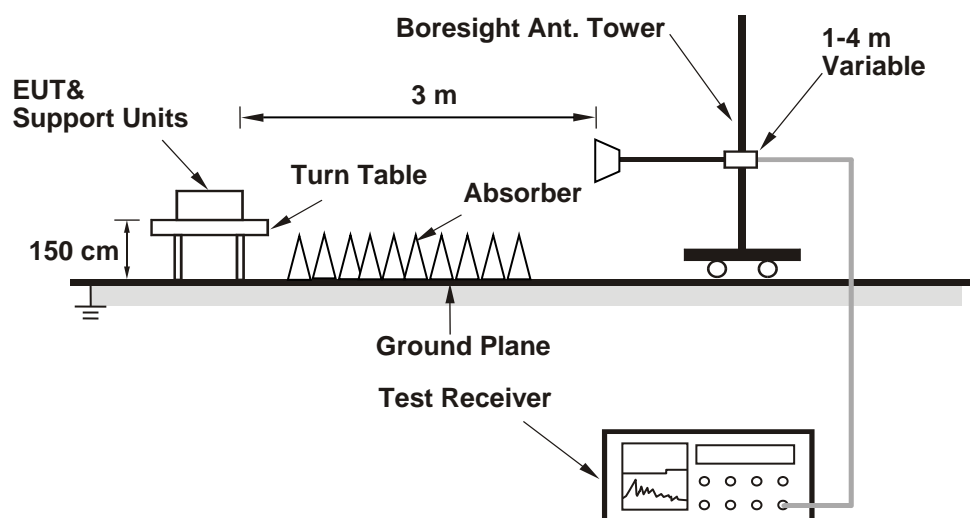
Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup

For 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

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Pirar Hsieh
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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	23.68	23.50	23.93	24.18	966.209	29.85	30	Pass
6	2437	23.43	23.08	24.20	24.37	960.082	29.82	30	Pass
11	2462	23.39	23.40	24.16	24.31	967.438	29.86	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 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	21.63	22.34	21.80	21.36	605.071	27.82	30	Pass
6	2437	24.12	24.29	23.60	23.58	983.881	29.93	30	Pass
11	2462	23.45	23.71	22.92	22.63	835.389	29.22	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	20.07	20.77	19.86	19.84	414.234	26.17	30	Pass
6	2437	23.98	24.14	23.69	23.37	960.606	29.83	30	Pass
11	2462	20.79	21.13	20.45	19.96	459.669	26.62	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	17.93	18.63	17.77	17.66	253.218	24.03	30	Pass
6	2437	19.87	19.86	19.65	19.14	368.171	25.66	30	Pass
9	2452	17.63	17.56	17.52	16.70	218.227	23.39	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 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	20.37	20.92	19.95	20.03	432.036	26.36	30	Pass
6	2437	24.01	24.21	23.74	23.42	971.779	29.88	30	Pass
11	2462	20.81	21.25	20.69	20.11	473.64	26.75	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 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	18.20	18.79	18.05	17.88	266.955	24.26	30	Pass
6	2437	20.06	20.10	19.84	19.29	385.021	25.85	30	Pass
9	2452	17.86	17.75	17.79	16.87	229.419	23.61	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 1.3 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	19.01	19.67	18.68	18.72	320.563	25.06	29.22	Pass
6	2437	22.65	23.04	22.58	22.13	729.889	28.63	29.22	Pass
11	2462	19.45	19.95	19.31	18.85	349.006	25.43	29.22	Pass

Notes:

1. Directional gain = $10 \log\left[\frac{10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20}}{4}\right]$
2. The directional gain is 6.78 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.78 - 6) = 29.22$ dBm.

VHT40 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	16.87	17.49	16.68	16.48	195.767	22.92	29.22	Pass
6	2437	18.71	18.72	18.58	18.04	284.565	24.54	29.22	Pass
9	2452	16.57	16.46	16.34	15.59	168.93	22.28	29.22	Pass

Notes:

- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.78 - 6) = 29.22$ dBm.

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	19.30	19.81	18.86	18.95	336.27	25.27	29.22	Pass
6	2437	22.87	23.05	22.66	22.24	747.475	28.74	29.22	Pass
11	2462	19.66	20.06	19.63	19.05	366.047	25.64	29.22	Pass

Notes:

- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.78 - 6) = 29.22$ 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	17.03	17.70	16.99	16.78	206.997	23.16	29.22	Pass
6	2437	18.99	19.00	18.65	18.09	296.382	24.72	29.22	Pass
9	2452	16.77	16.59	16.70	15.75	177.494	22.49	29.22	Pass

Notes:

- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.78 - 6) = 29.22$ dBm.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Pirar Hsieh
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802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-7.55	-8.15	-8.17	-7.86	-1.90	7.22	Pass
6	2437	-7.84	-8.19	-8.16	-7.95	-2.01	7.22	Pass
11	2462	-7.24	-7.58	-7.58	-7.63	-1.48	7.22	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.78 - 6) = 7.22$ dBm/3kHz.

802.11g

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-12.05	-11.74	-11.36	-12.22	-5.81	7.22	Pass
6	2437	-9.22	-9.89	-9.60	-9.97	-3.64	7.22	Pass
11	2462	-10.59	-10.15	-10.52	-10.11	-4.32	7.22	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.78 - 6) = 7.22$ dBm/3kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-14.53	-14.21	-14.26	-14.23	-8.29	7.22	Pass
6	2437	-10.95	-10.94	-10.53	-10.46	-4.69	7.22	Pass
11	2462	-13.93	-13.77	-13.73	-13.50	-7.71	7.22	Pass

Notes:

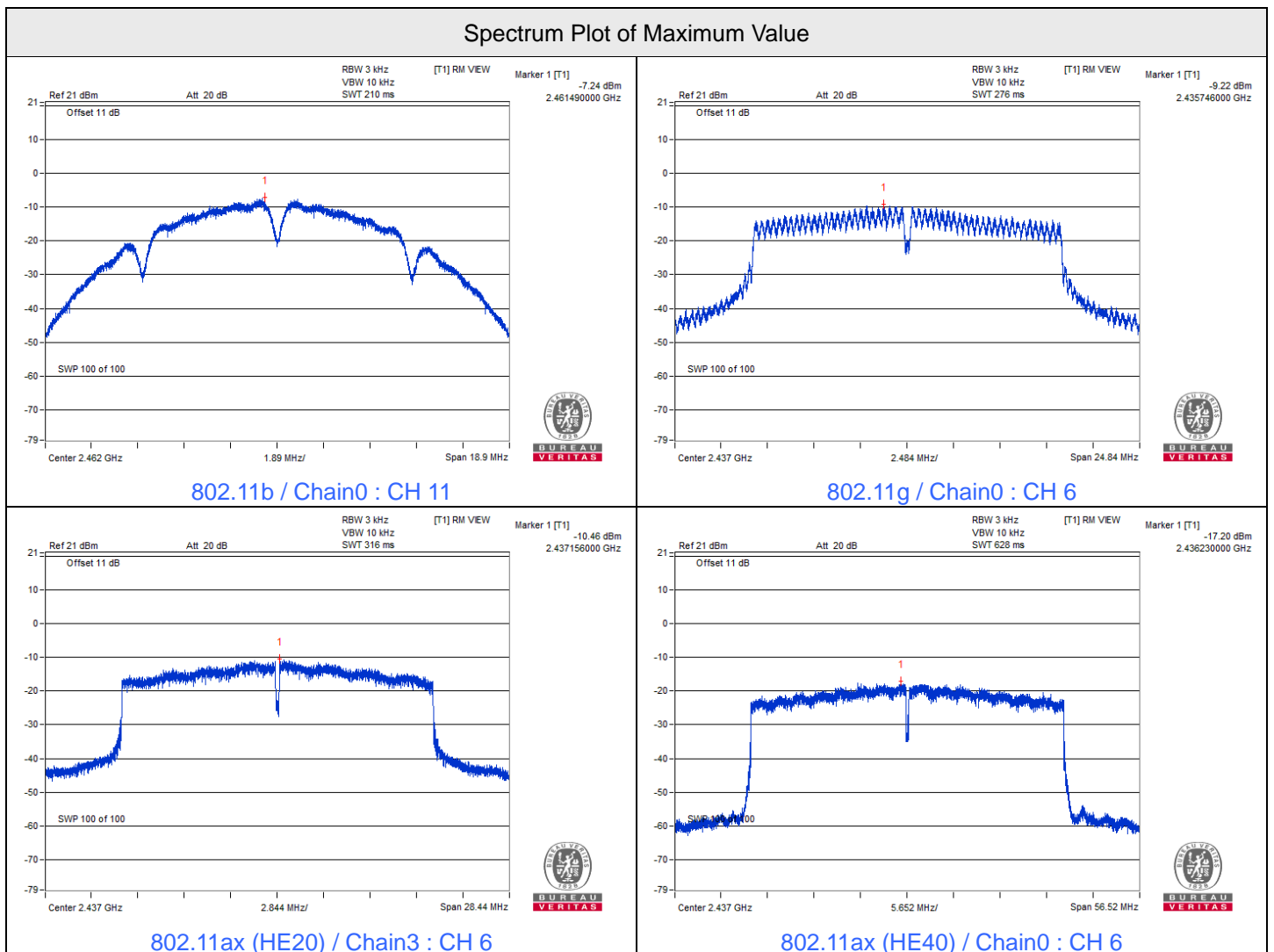
- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.78 - 6) = 7.22$ dBm/3kHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
3	2422	-18.74	-18.82	-18.35	-18.78	-12.65	7.22	Pass
6	2437	-17.20	-17.29	-17.71	-17.93	-11.50	7.22	Pass
9	2452	-19.18	-19.56	-18.62	-19.91	-13.27	7.22	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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- The directional gain is 6.78 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.78 - 6) = 7.22$ dBm/3kHz.



7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Pirar Hsieh
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802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.61	8.10	7.62	7.61	0.5	Pass
6	2437	7.61	7.60	7.61	7.59	0.5	Pass
11	2462	7.61	8.08	8.07	7.61	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.20	15.20	15.47	15.16	0.5	Pass
6	2437	15.19	15.14	15.17	15.15	0.5	Pass
11	2462	15.19	15.19	15.52	15.18	0.5	Pass

802.11ax (HE20)

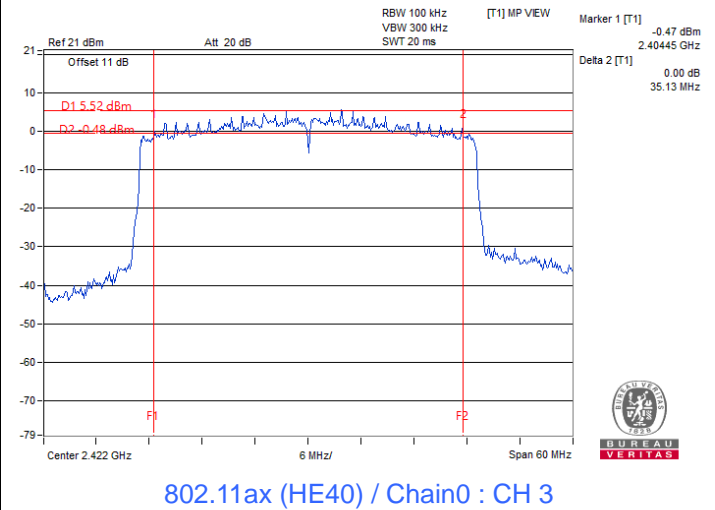
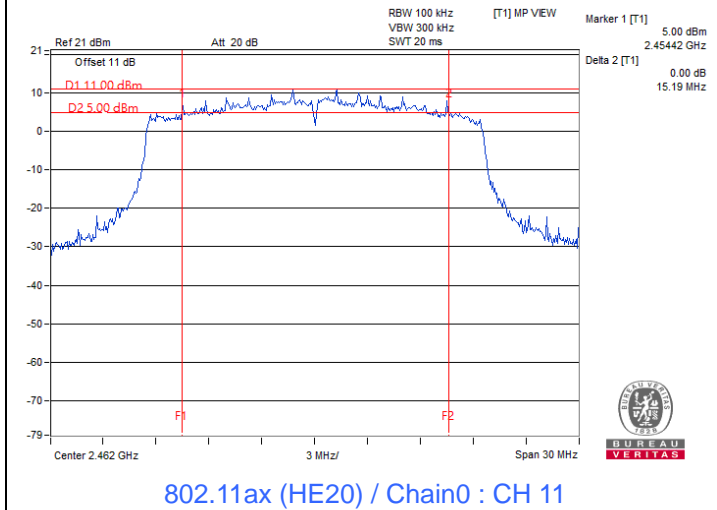
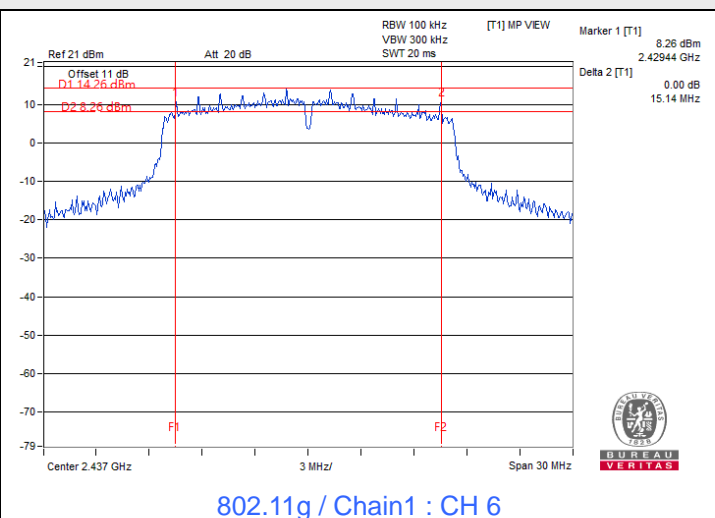
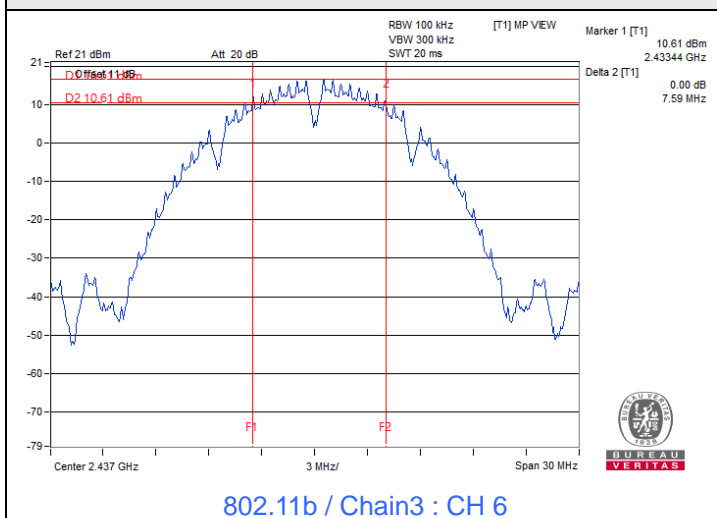
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	17.92	18.48	17.99	17.80	0.5	Pass
6	2437	15.87	16.08	16.03	15.86	0.5	Pass
11	2462	15.19	16.38	16.31	15.23	0.5	Pass

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	35.13	35.61	35.19	35.26	0.5	Pass
6	2437	35.22	35.22	35.21	35.13	0.5	Pass
9	2452	35.27	36.26	35.26	35.30	0.5	Pass



Spectrum Plot of Minimum Value

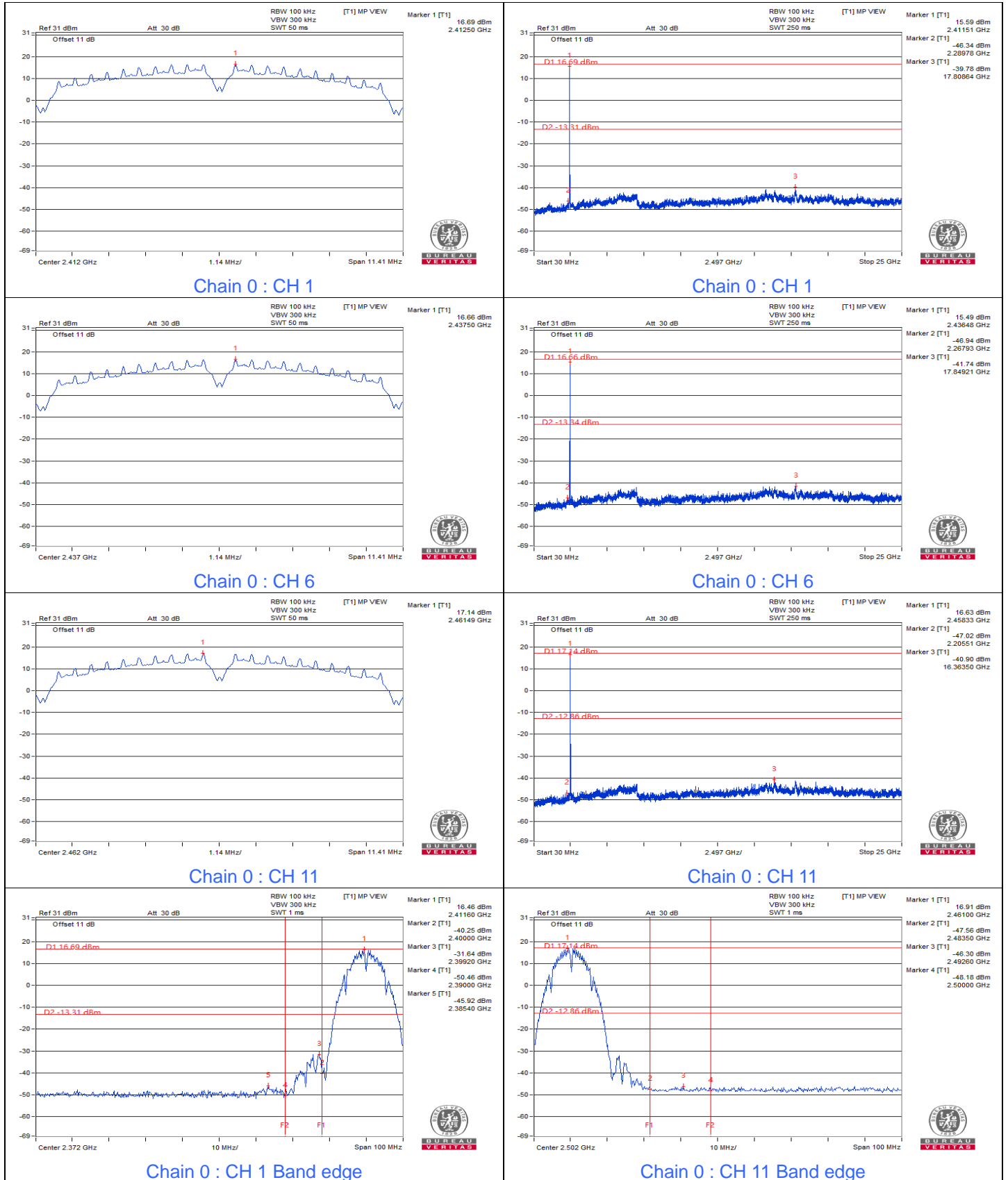


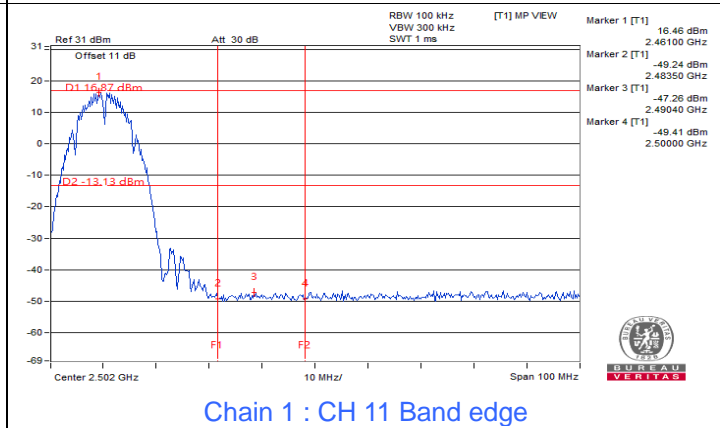
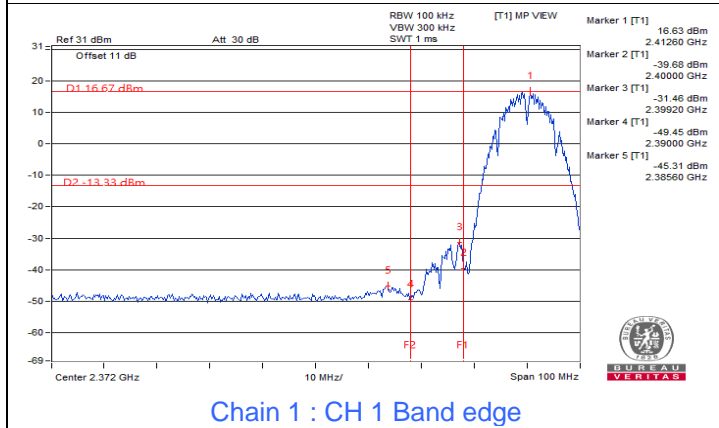
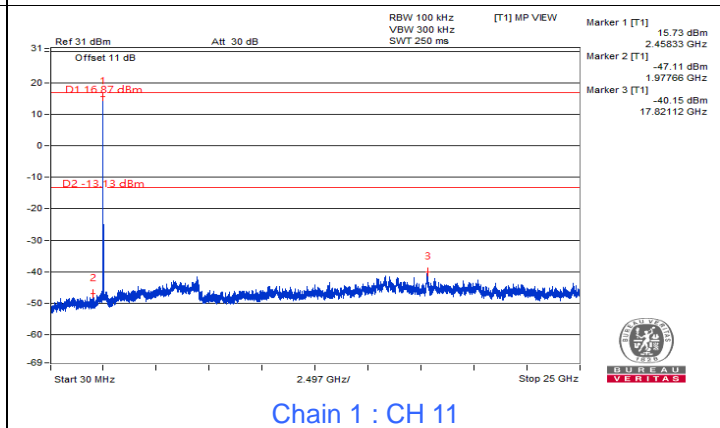
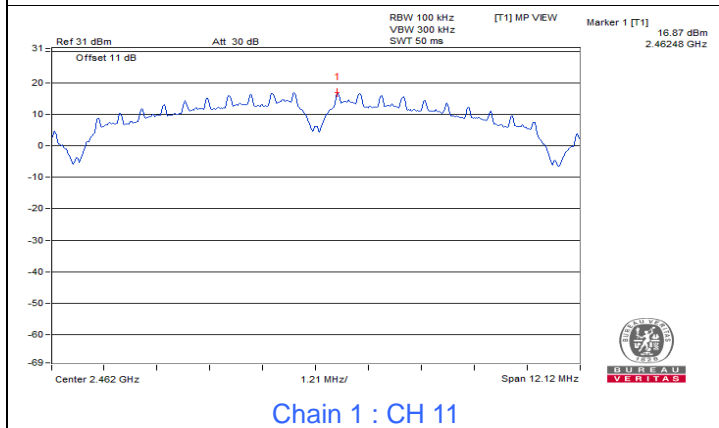
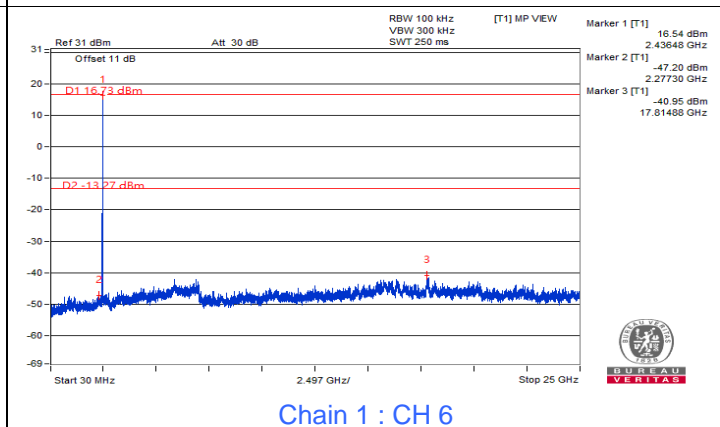
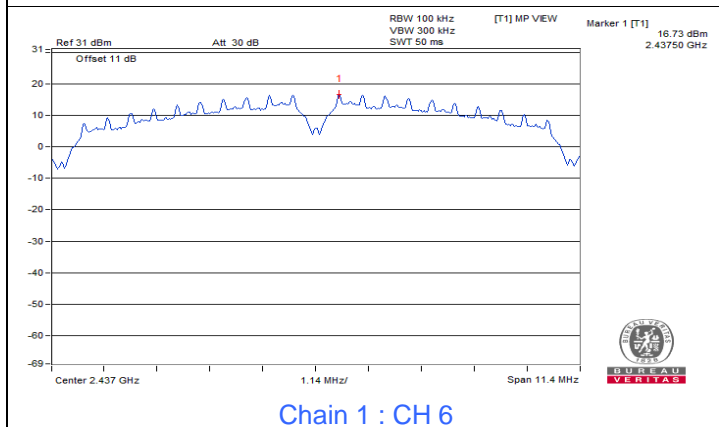
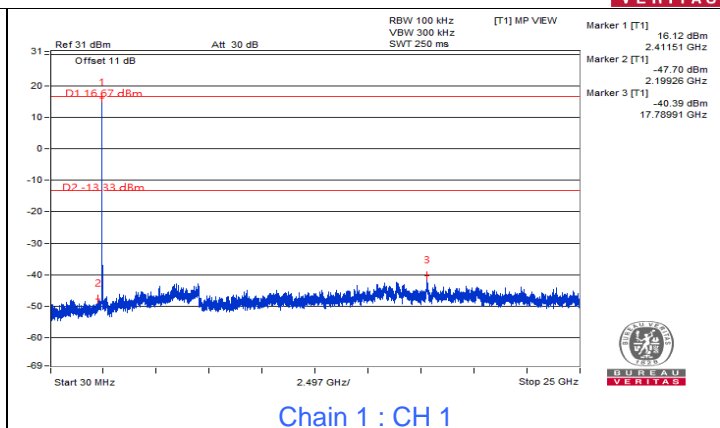
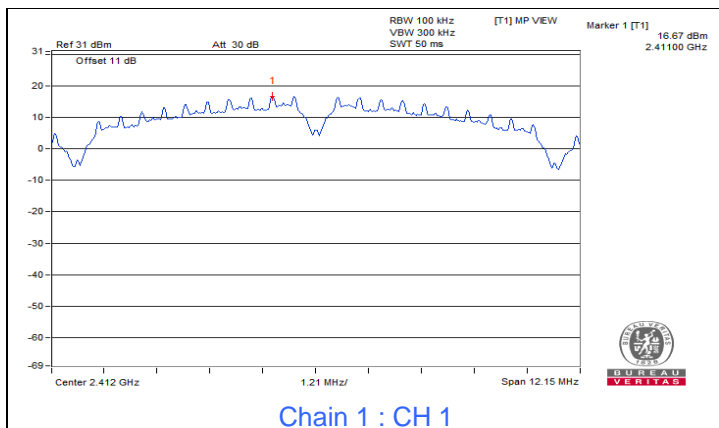


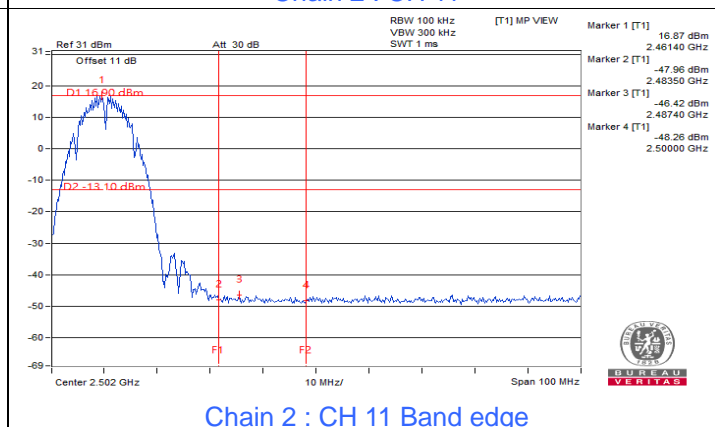
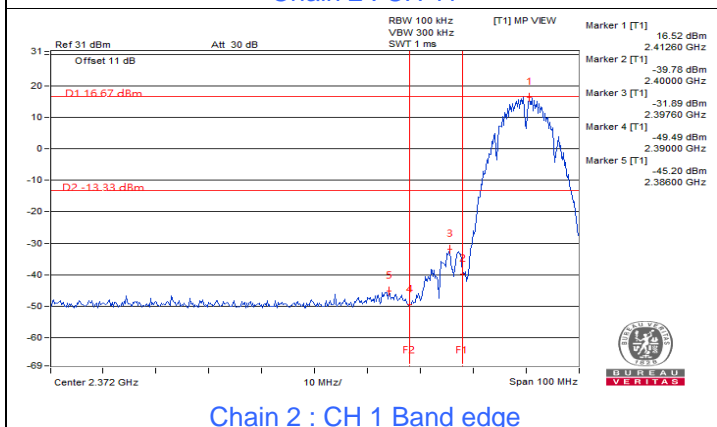
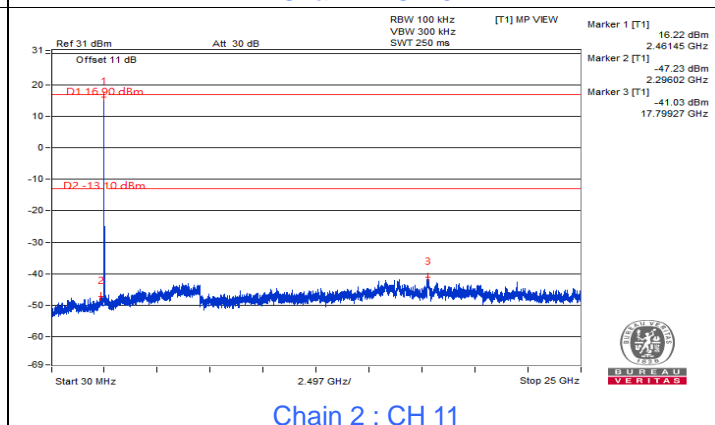
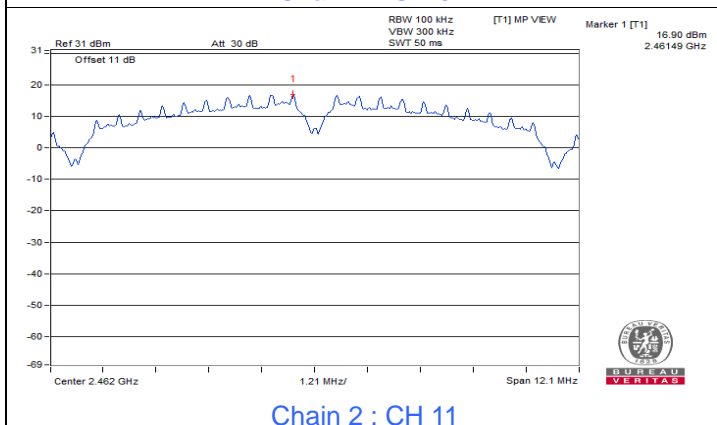
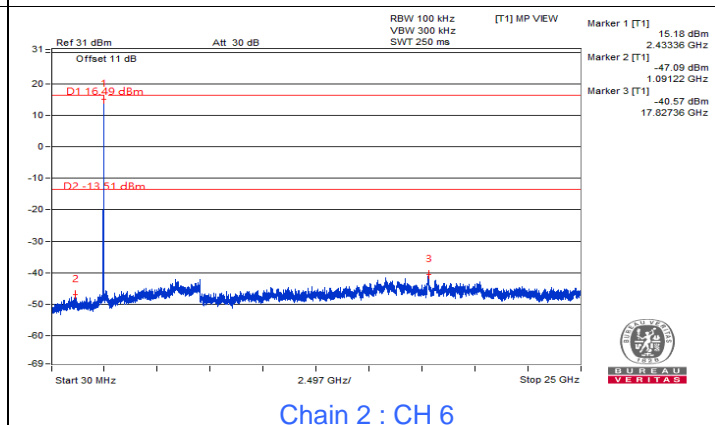
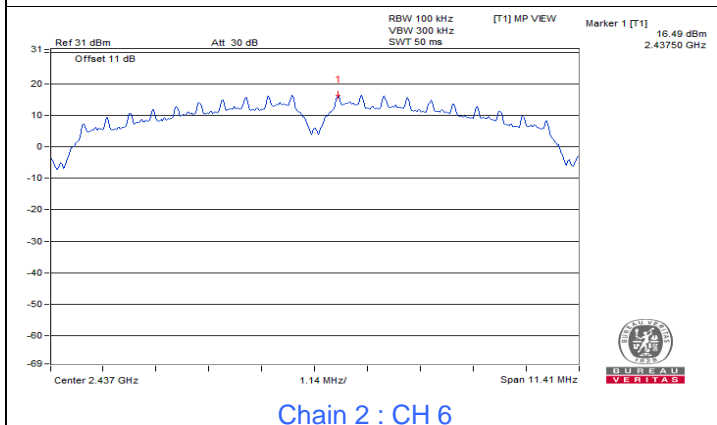
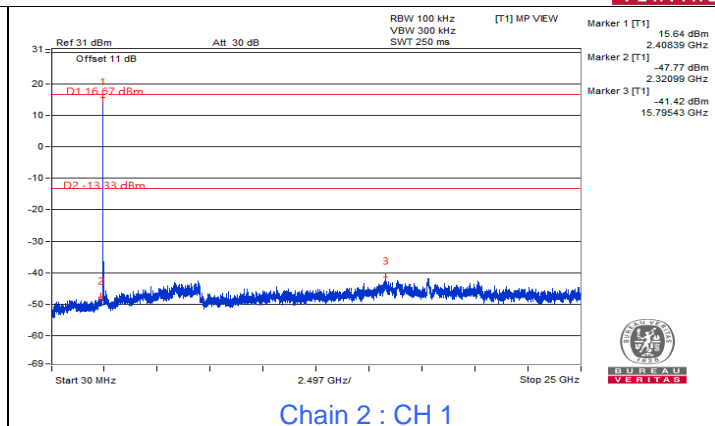
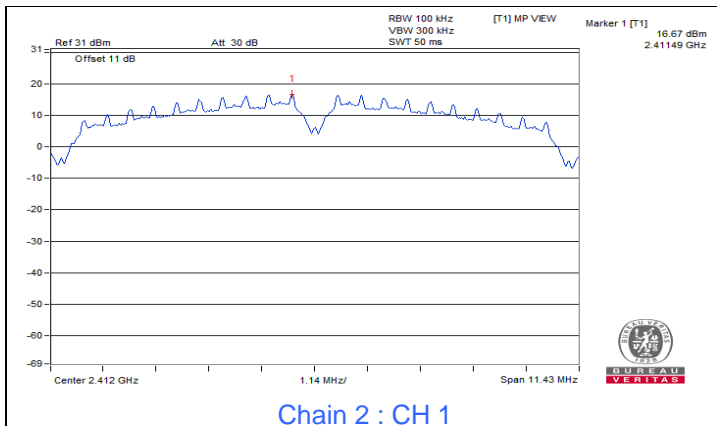
7.4 Conducted Out of Band Emissions

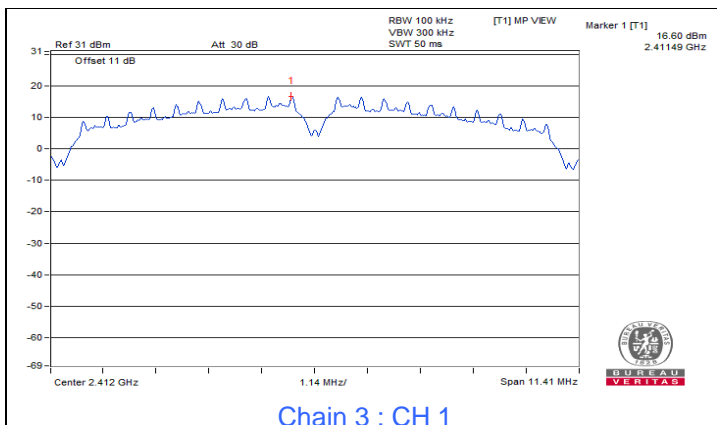
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Pirar Hsieh
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802.11b

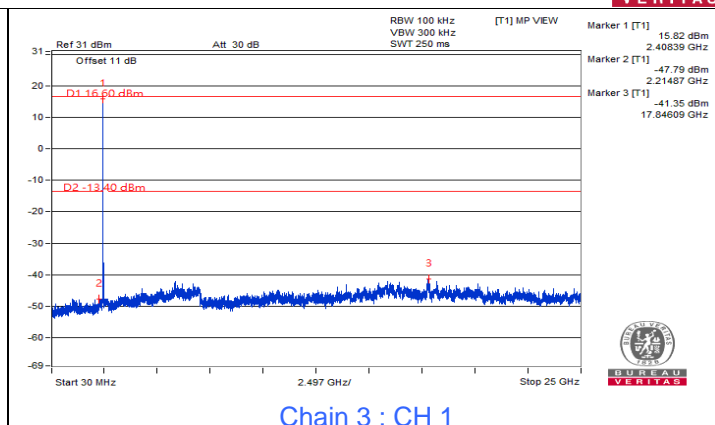




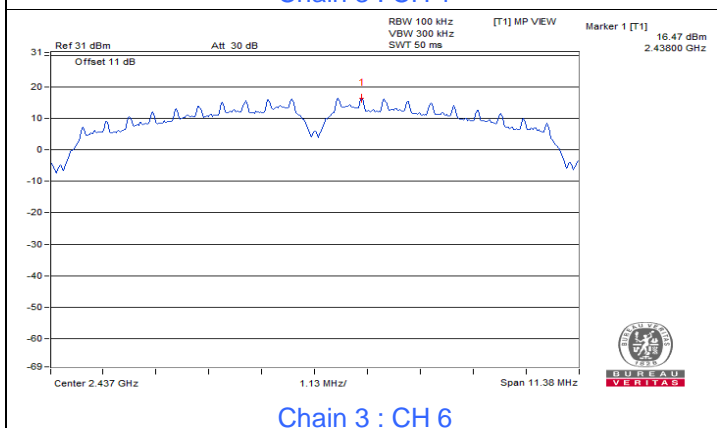




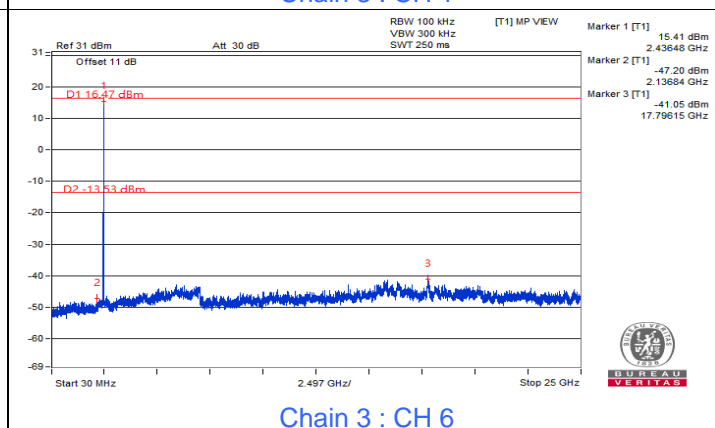
Chain 3 : CH 1



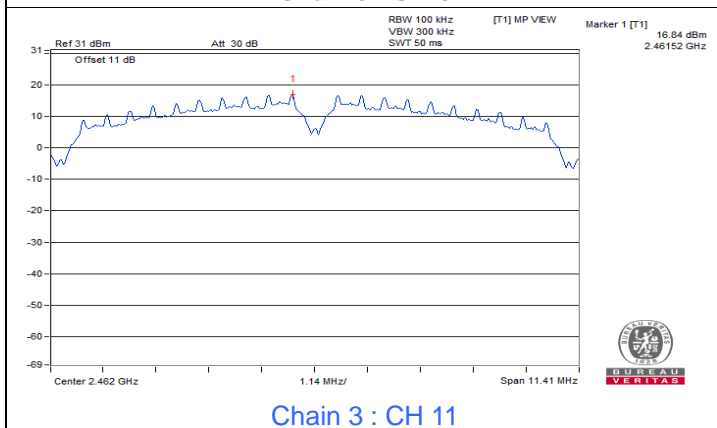
Chain 3 : CH 1



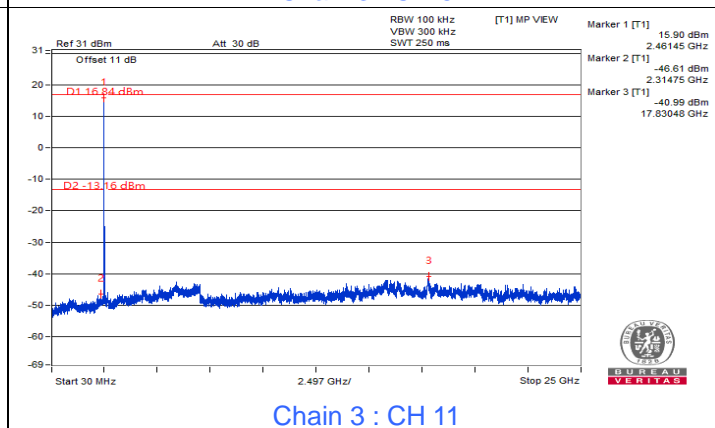
Chain 3 : CH 6



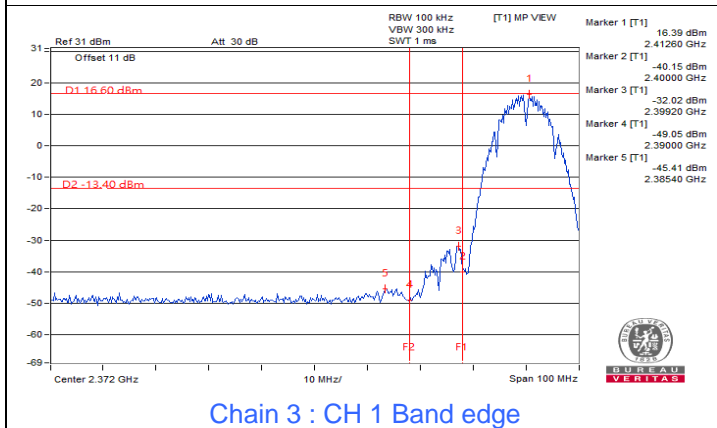
Chain 3 : CH 6



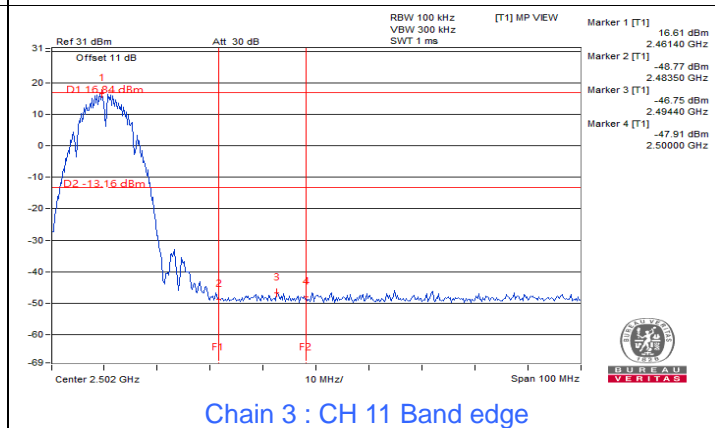
Chain 3 : CH 11



Chain 3 : CH 11



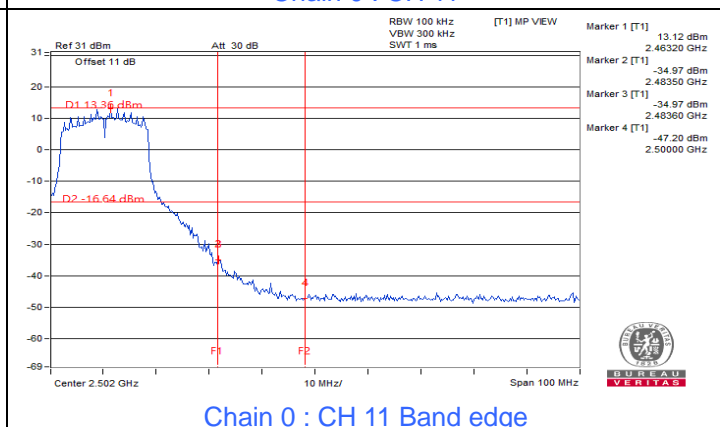
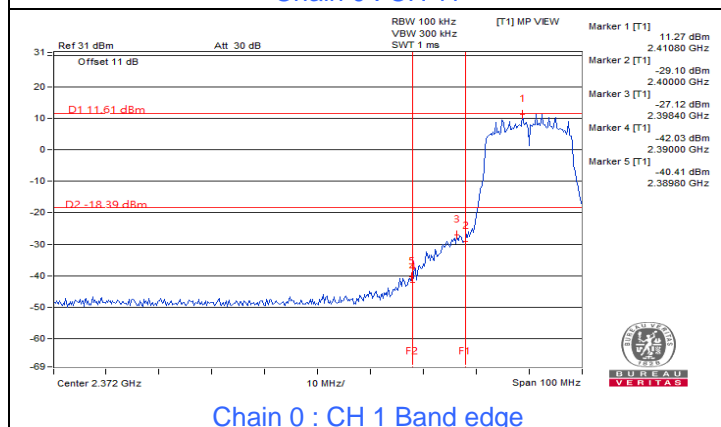
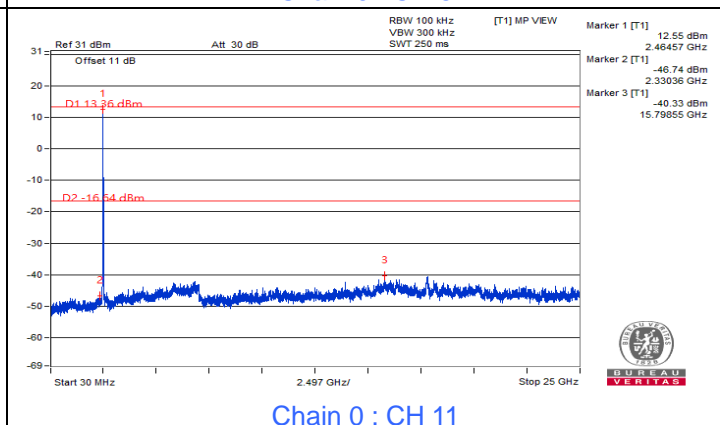
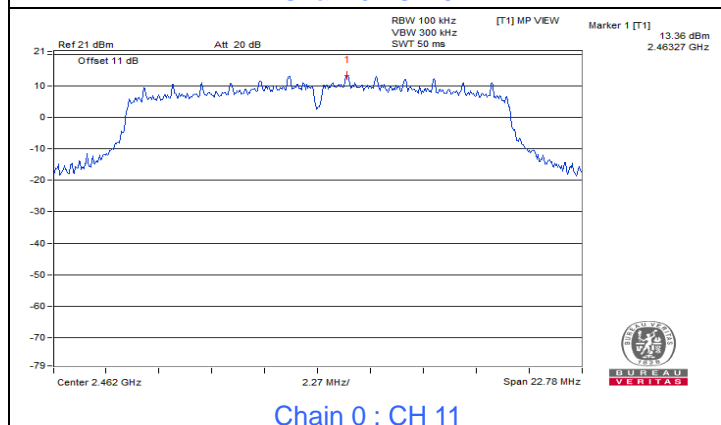
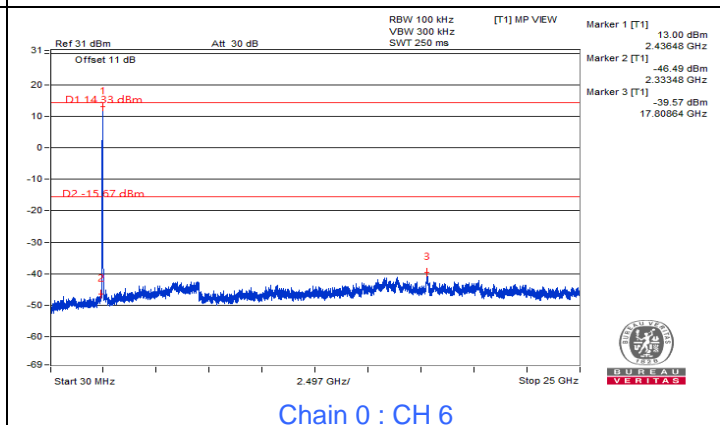
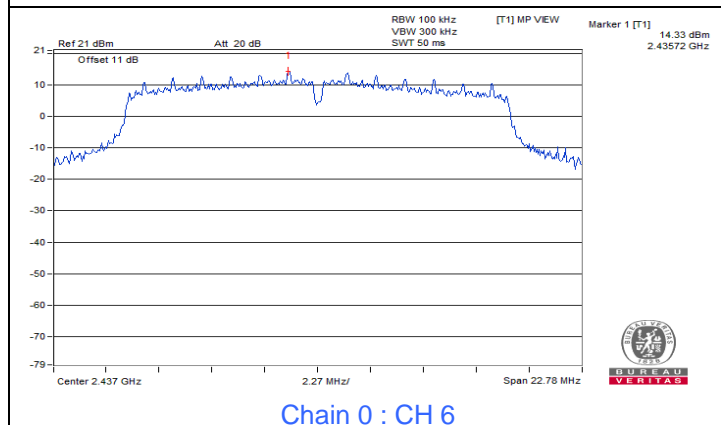
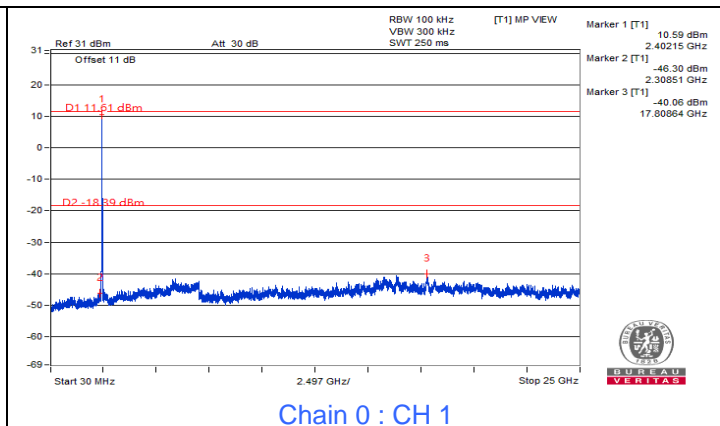
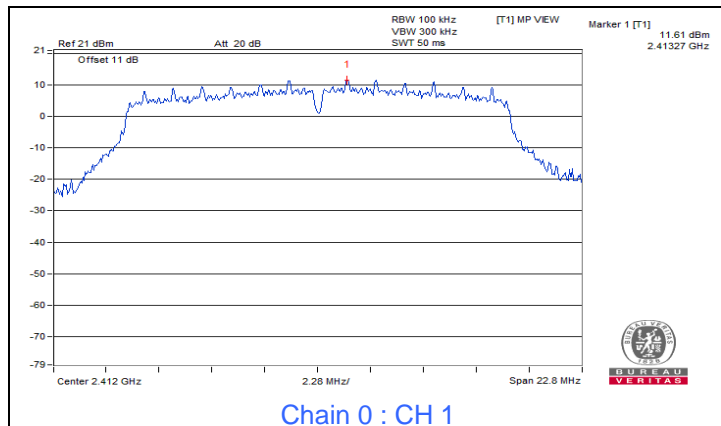
Chain 3 : CH 1 Band edge

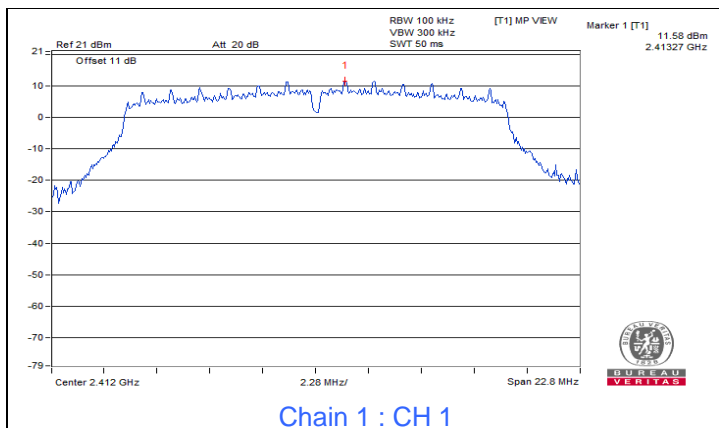


Chain 3 : CH 11 Band edge

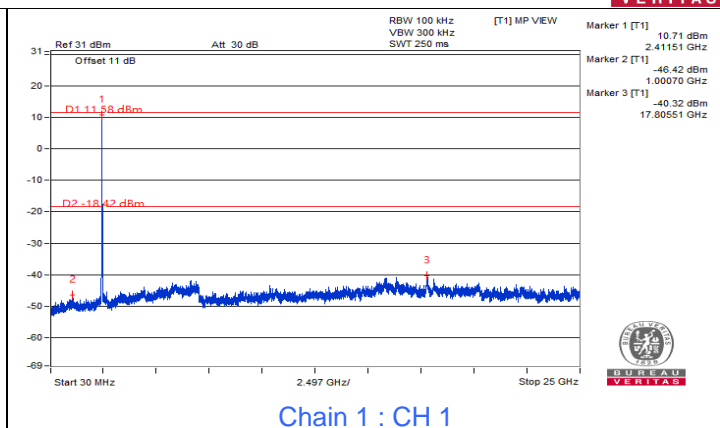


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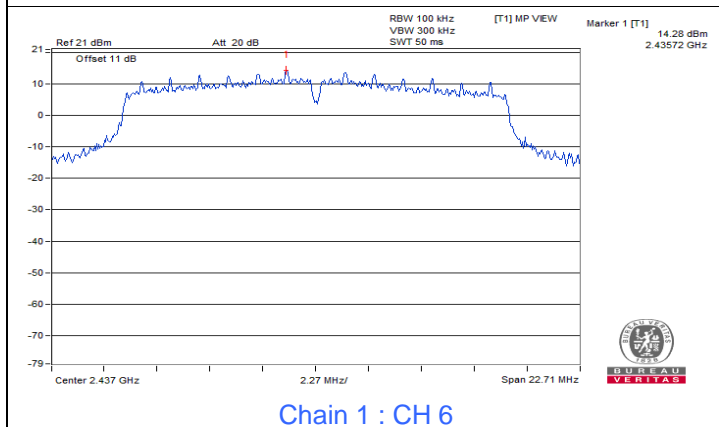




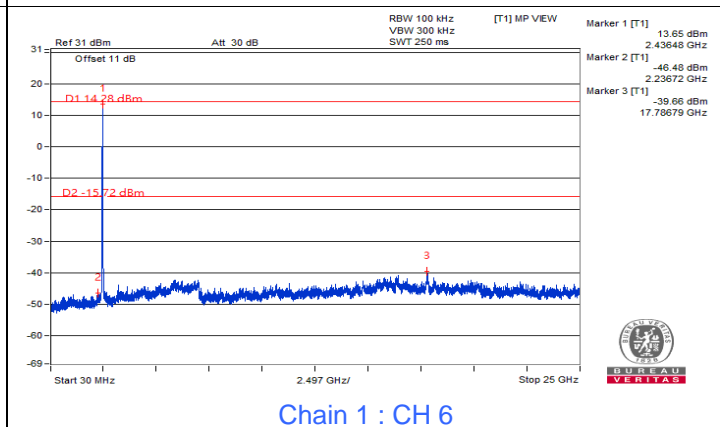
Chain 1 : CH 1



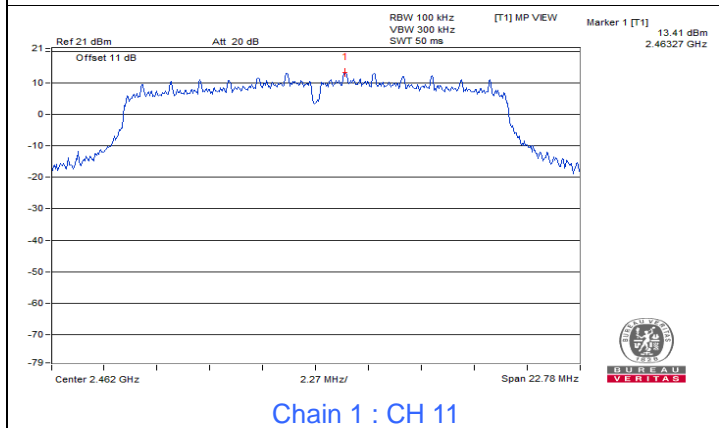
Chain 1 : CH 1



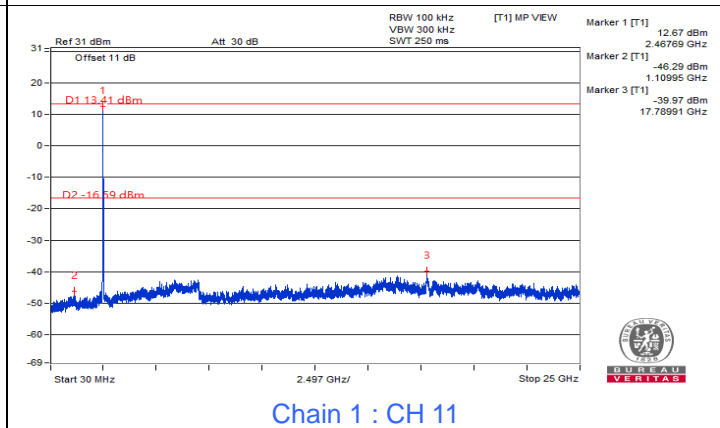
Chain 1 : CH 6



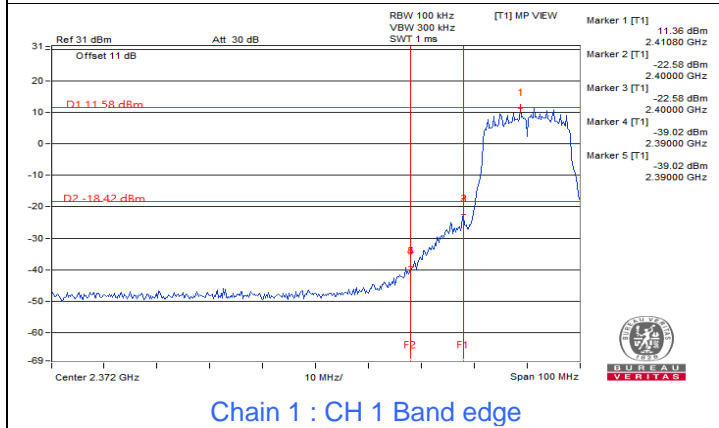
Chain 1 : CH 6



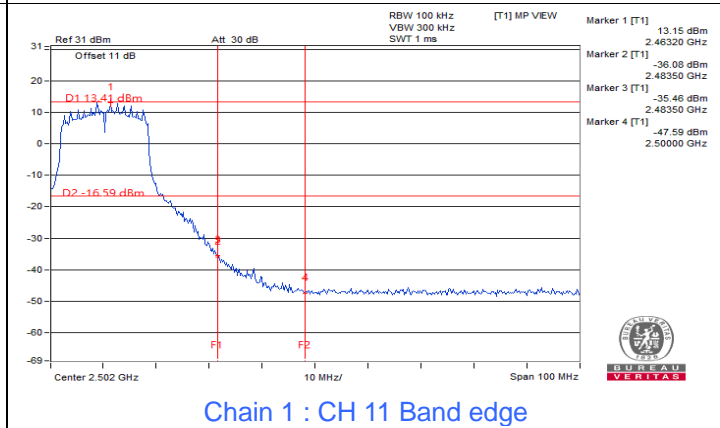
Chain 1 : CH 11



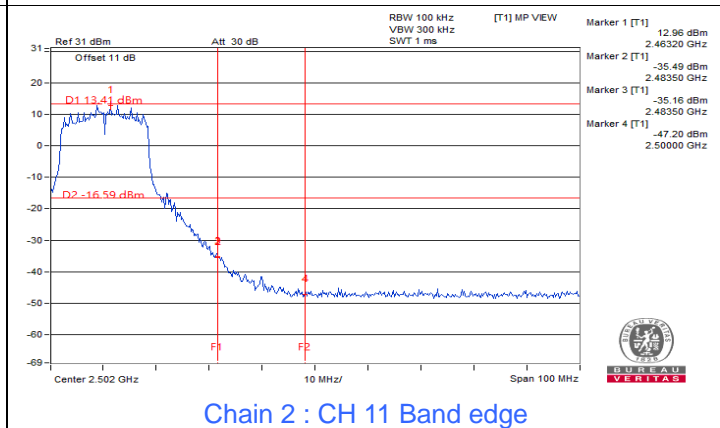
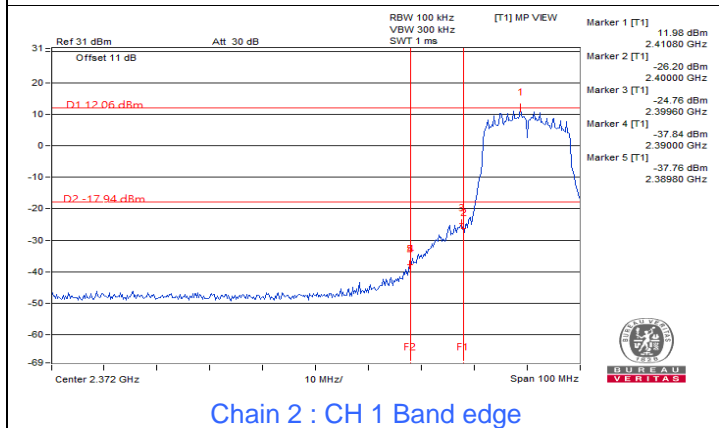
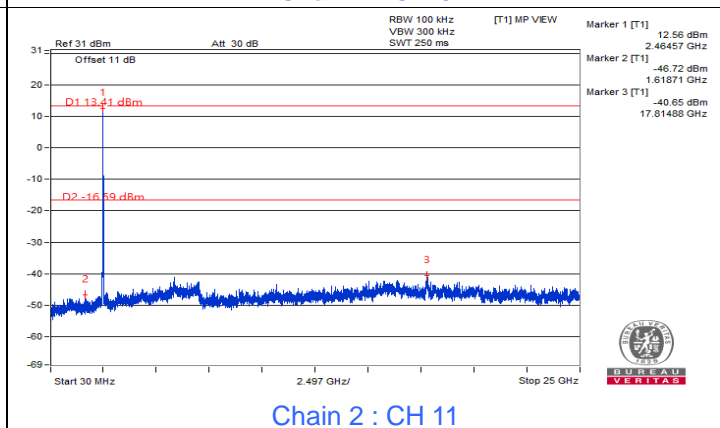
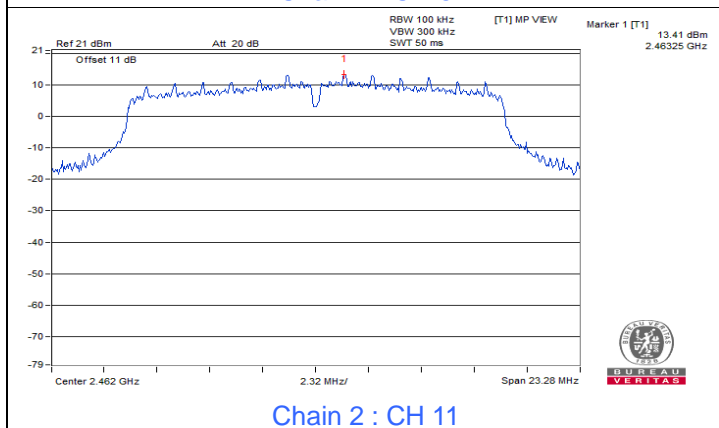
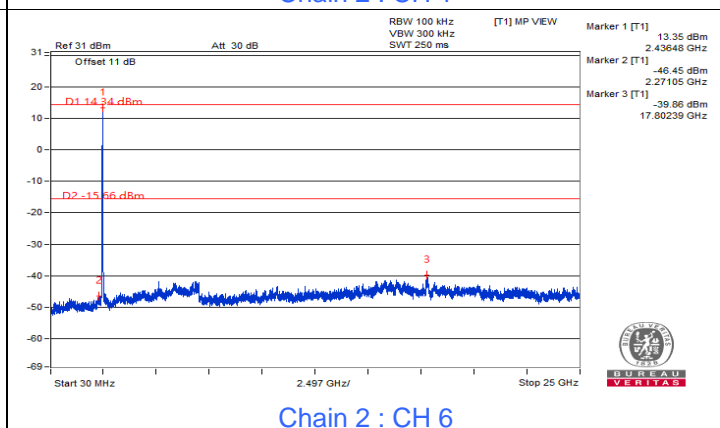
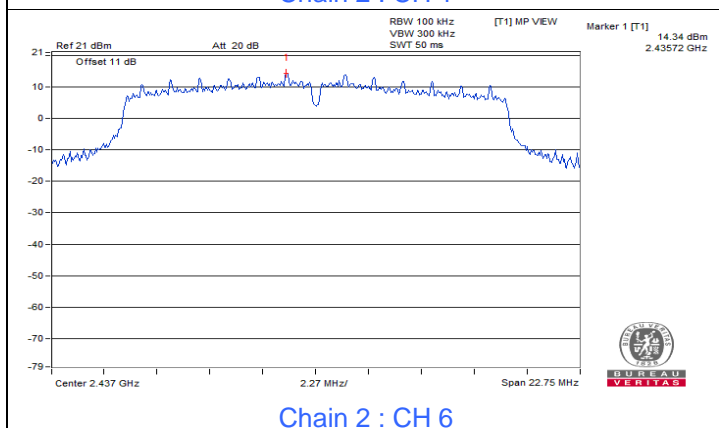
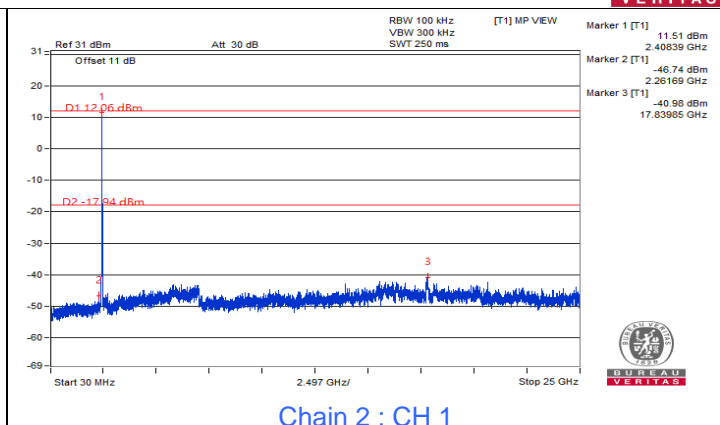
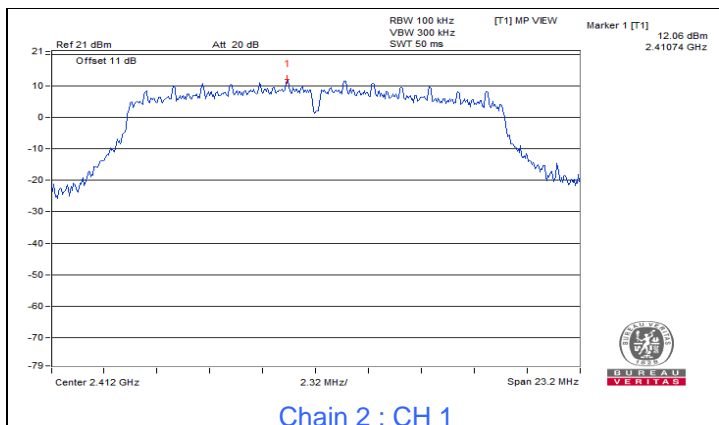
Chain 1 : CH 11

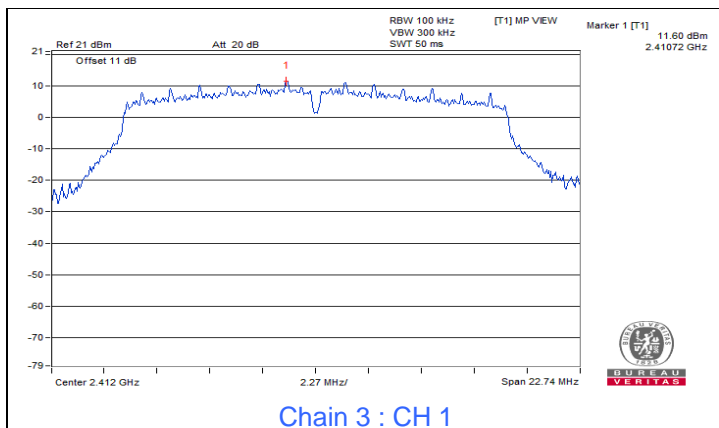


Chain 1 : CH 1 Band edge

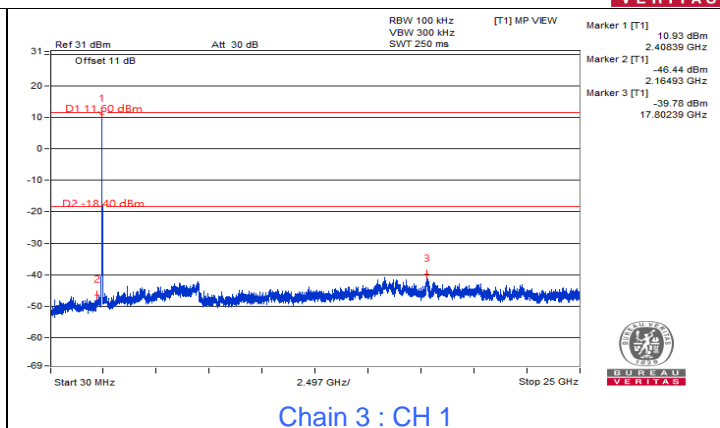


Chain 1 : CH 11 Band edge

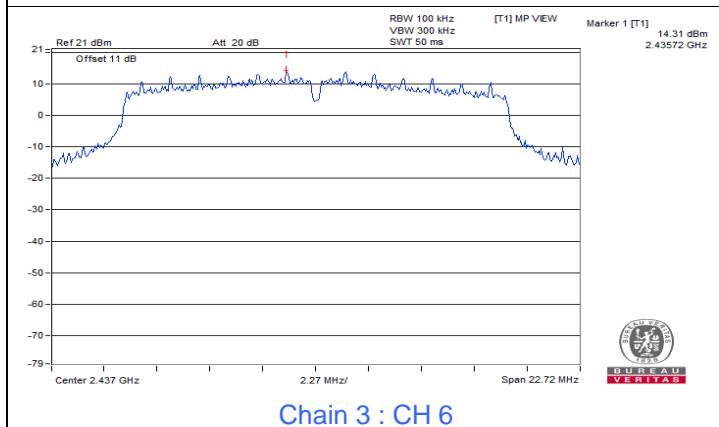




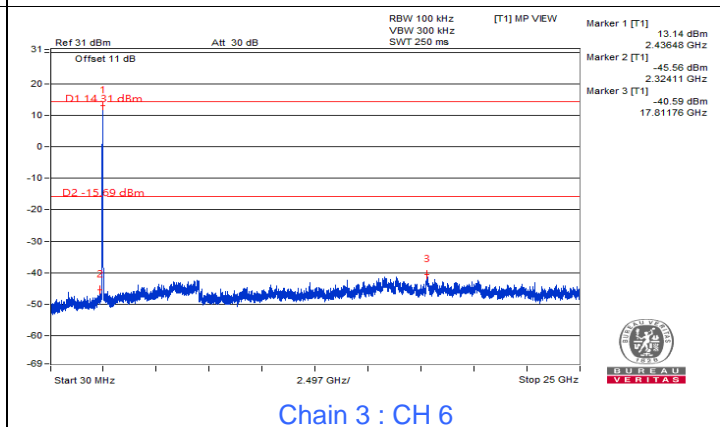
Chain 3 : CH 1



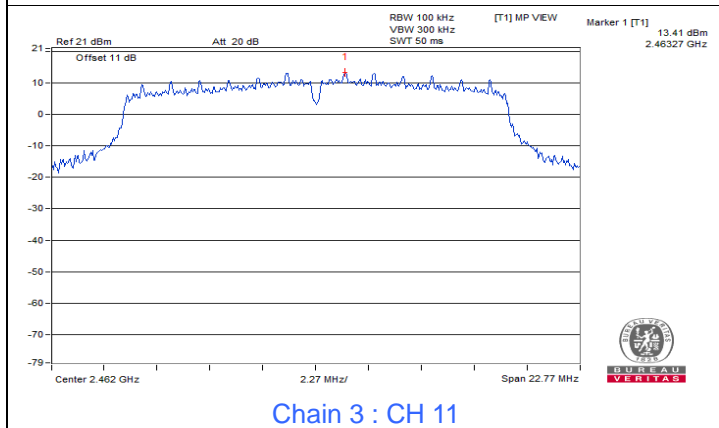
Chain 3 : CH 1



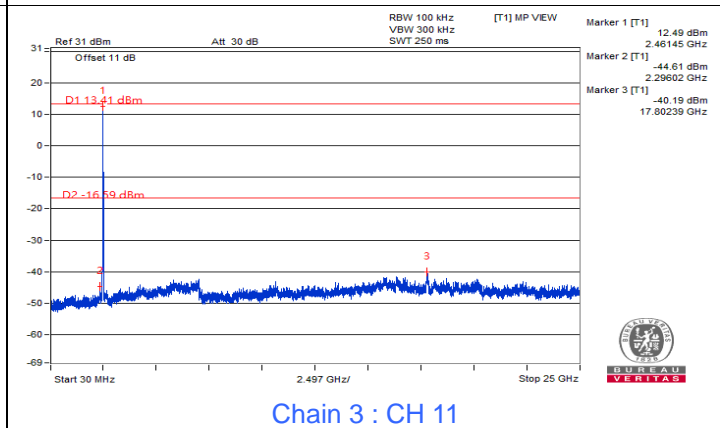
Chain 3 : CH 6



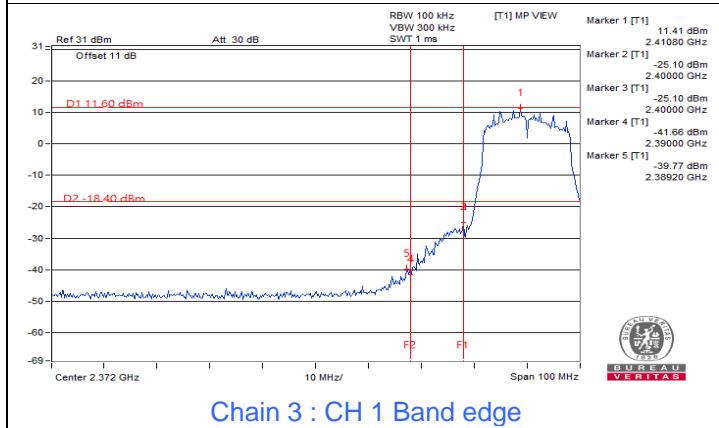
Chain 3 : CH 6



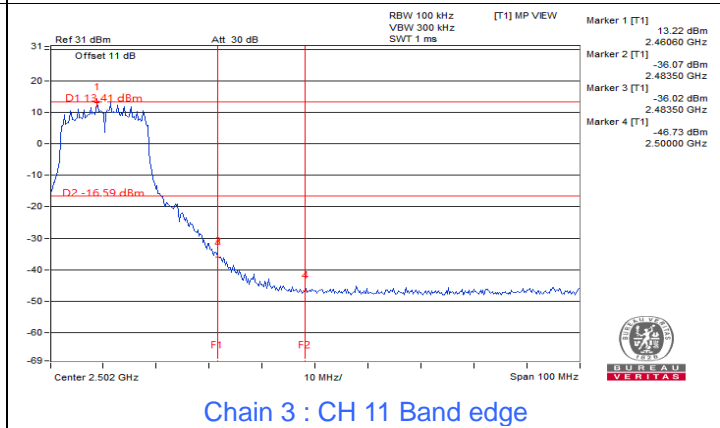
Chain 3 : CH 11



Chain 3 : CH 11



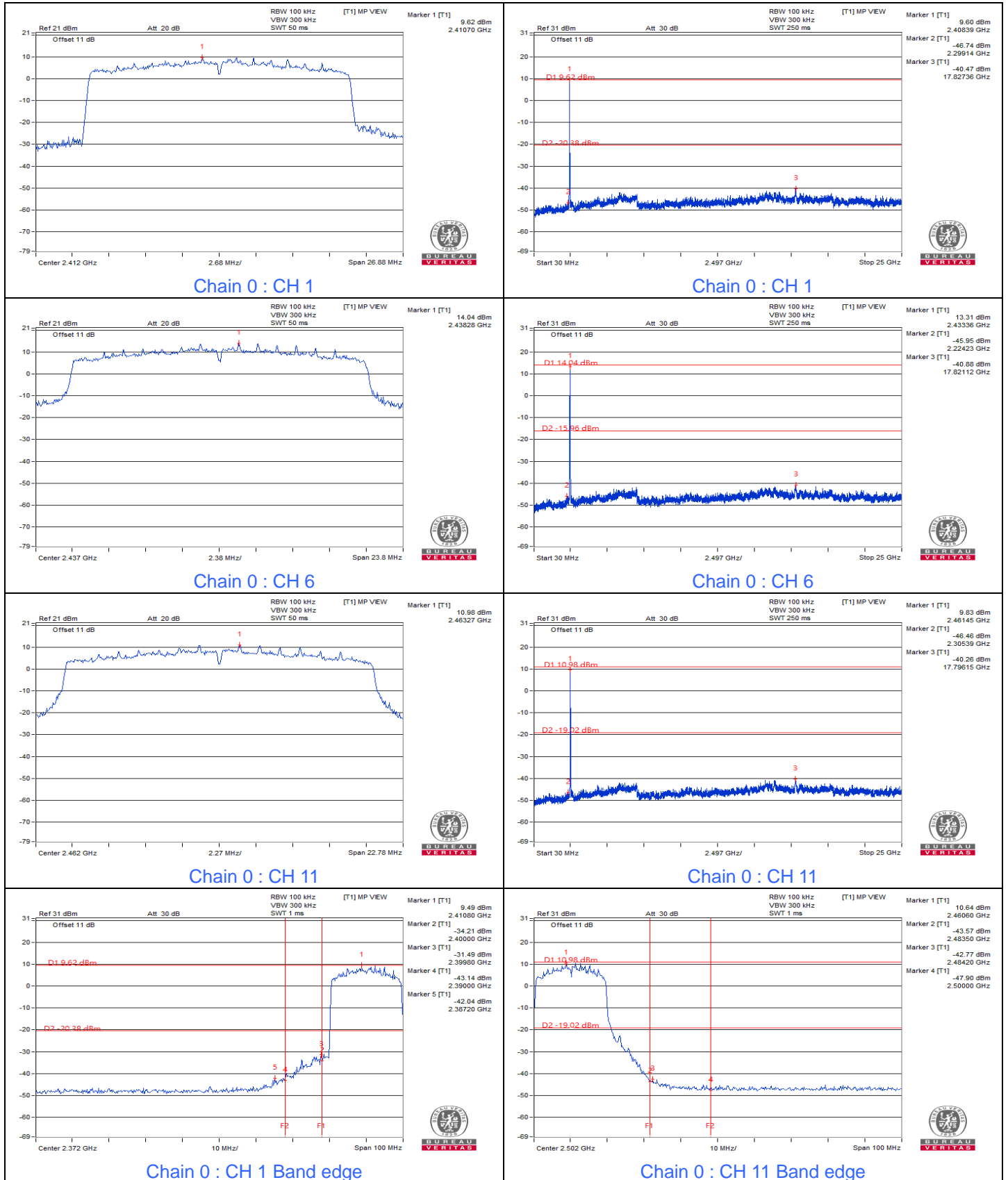
Chain 3 : CH 1 Band edge

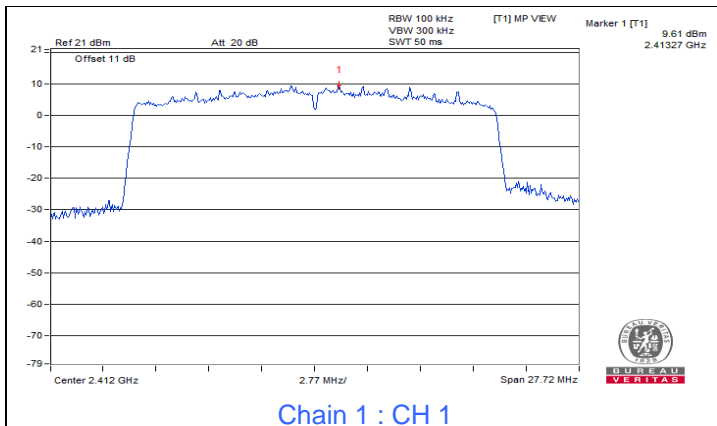


Chain 3 : CH 11 Band edge

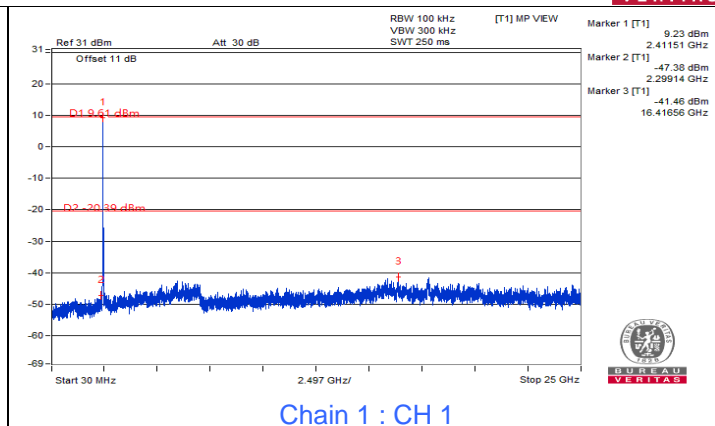


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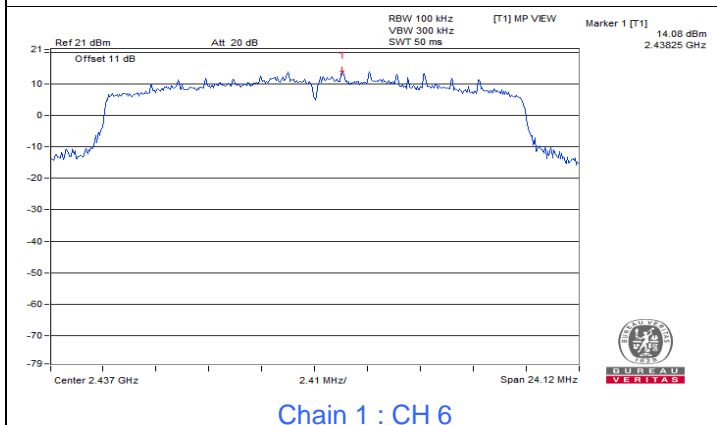




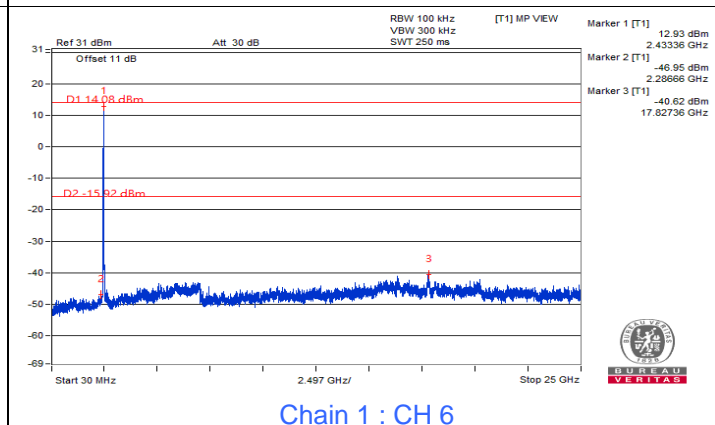
Chain 1 : CH 1



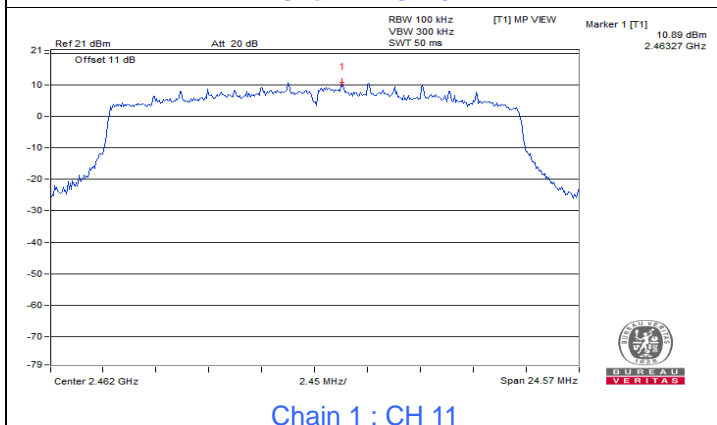
Chain 1 : CH 1



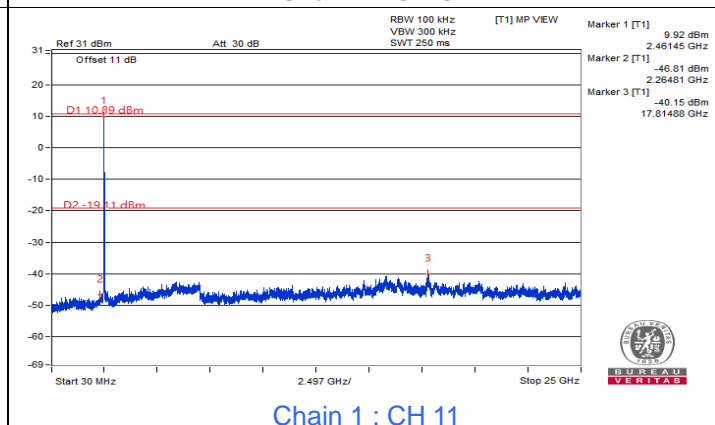
Chain 1 : CH 6



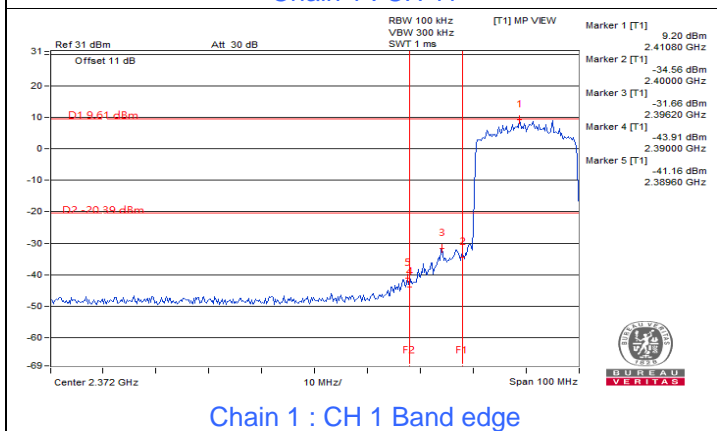
Chain 1 : CH 6



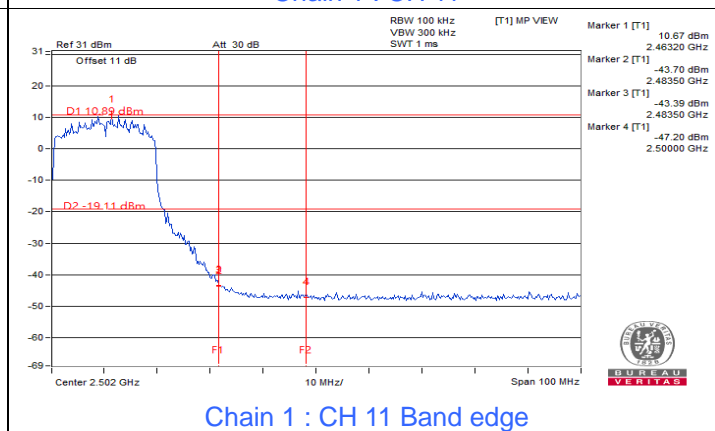
Chain 1 : CH 11



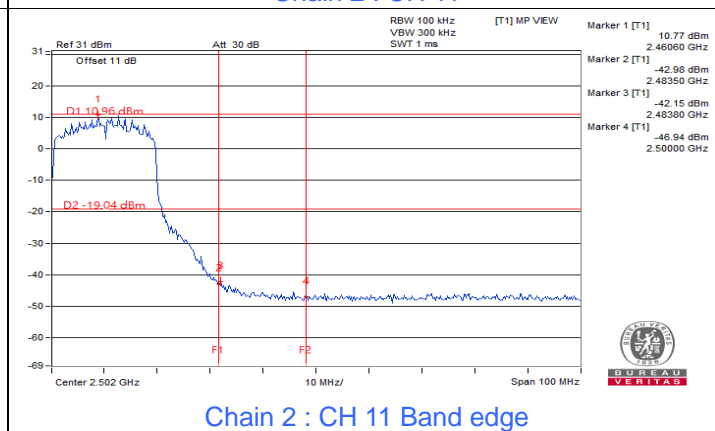
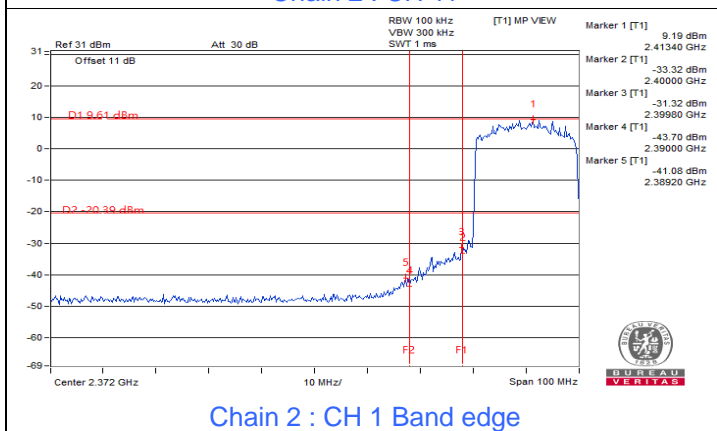
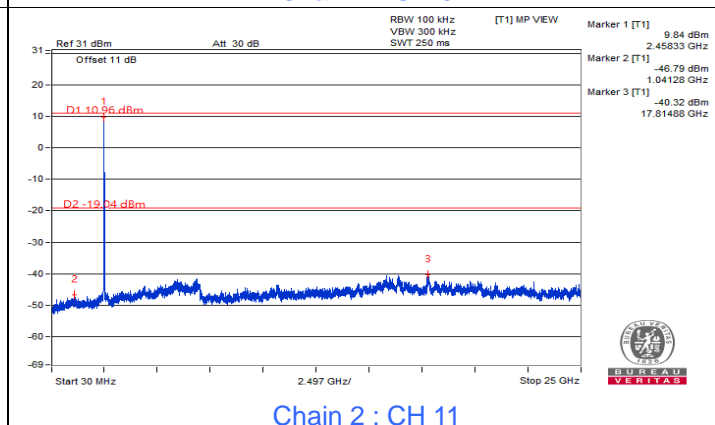
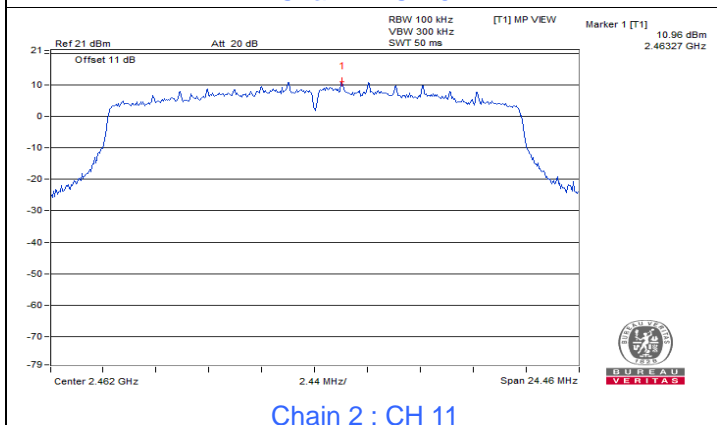
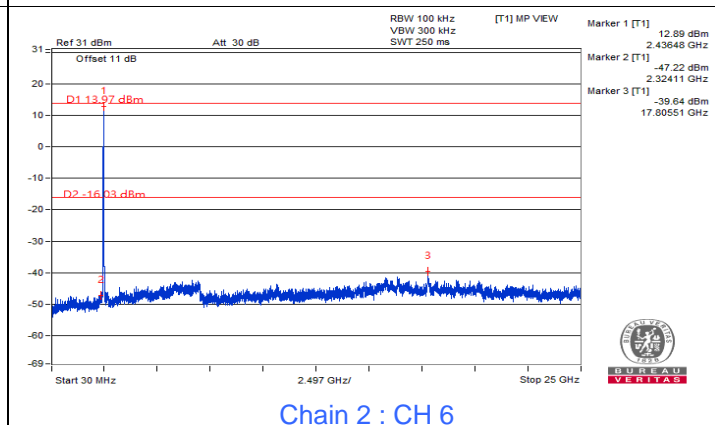
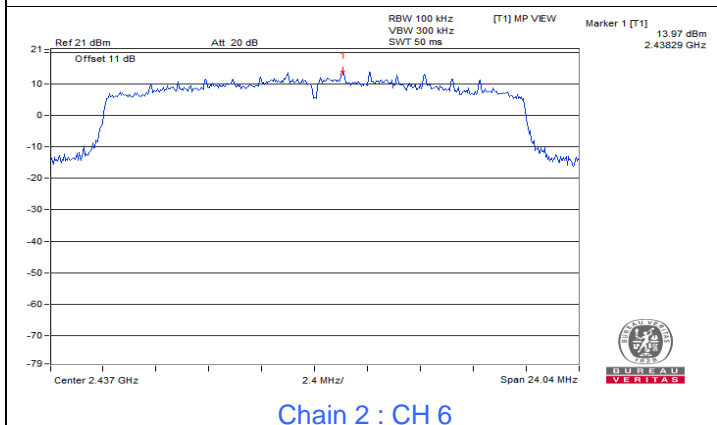
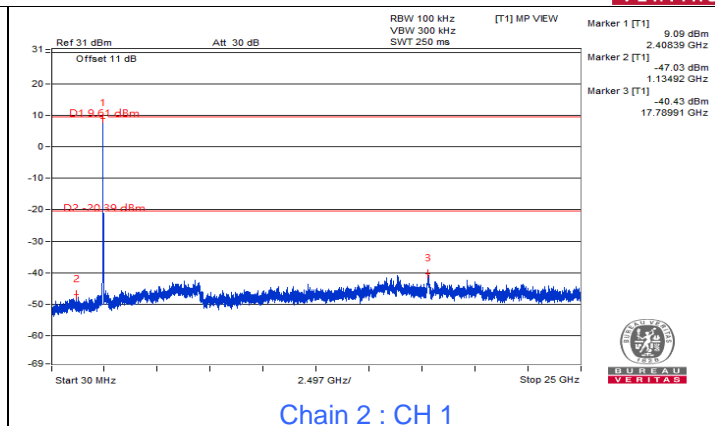
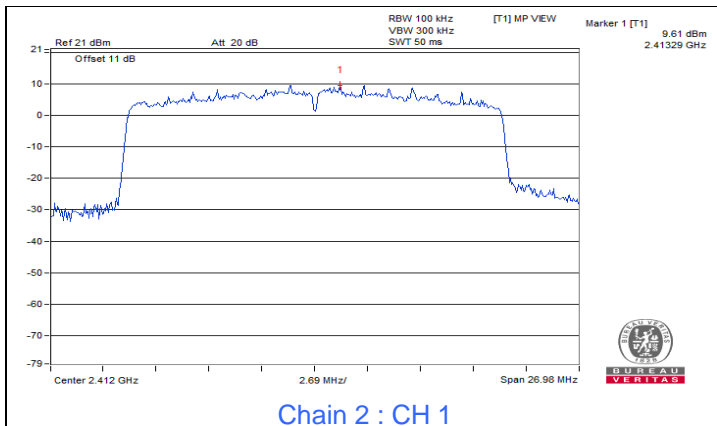
Chain 1 : CH 11

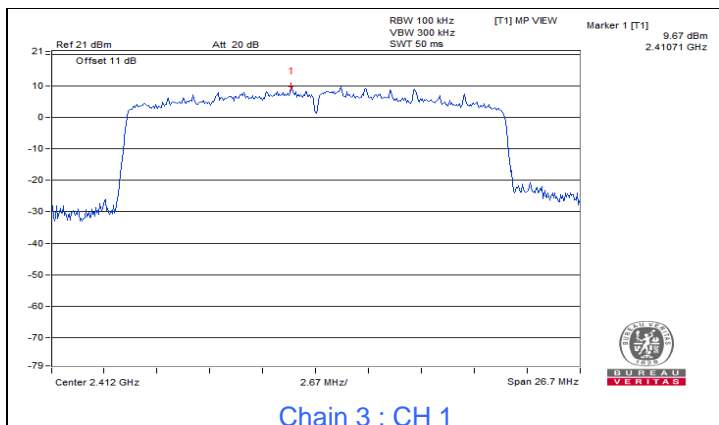


Chain 1 : CH 1 Band edge

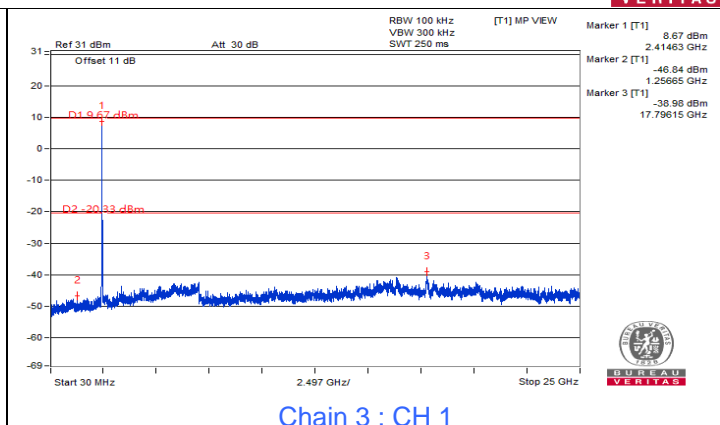


Chain 1 : CH 11 Band edge

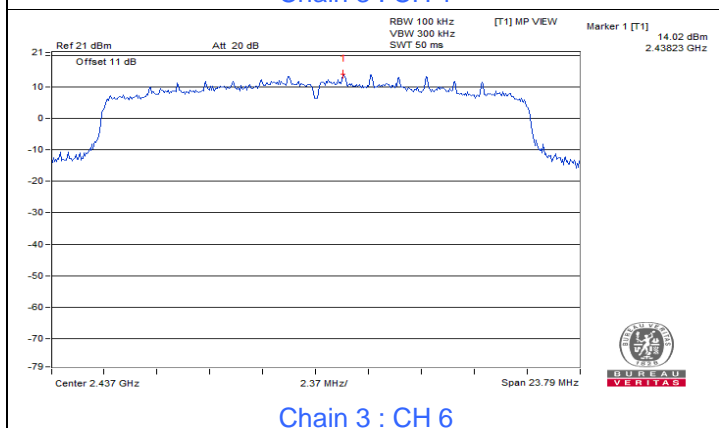




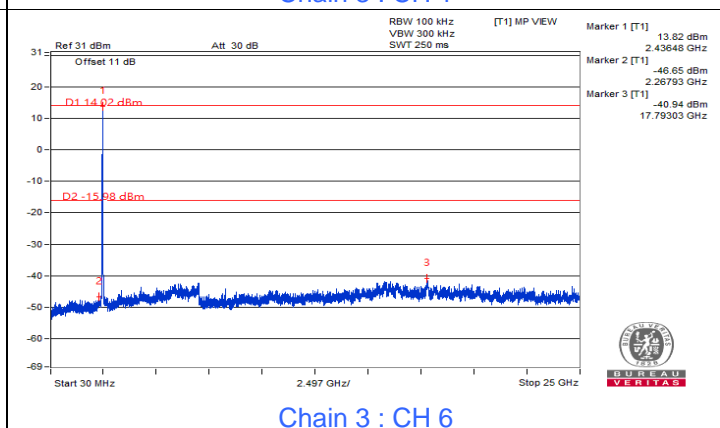
Chain 3 : CH 1



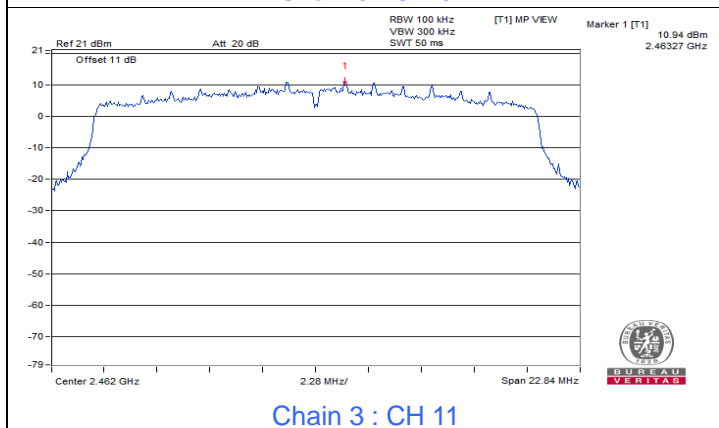
Chain 3 : CH 1



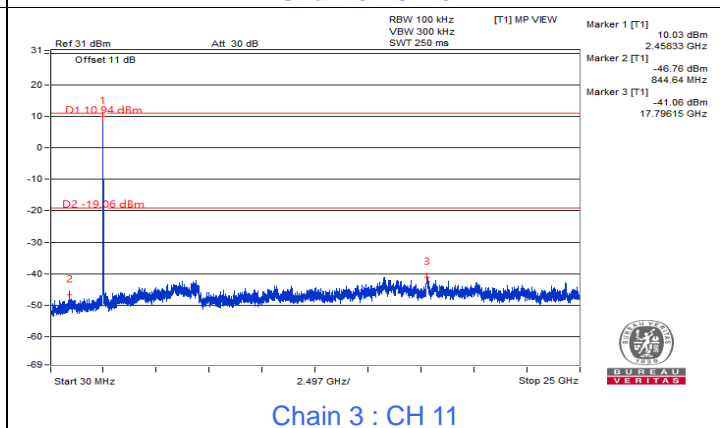
Chain 3 : CH 6



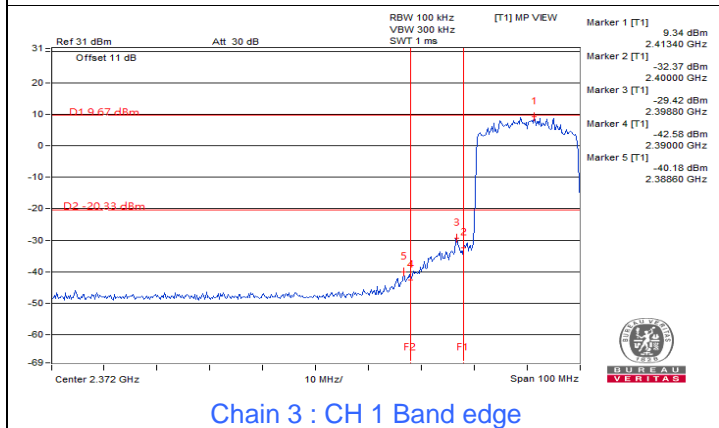
Chain 3 : CH 6



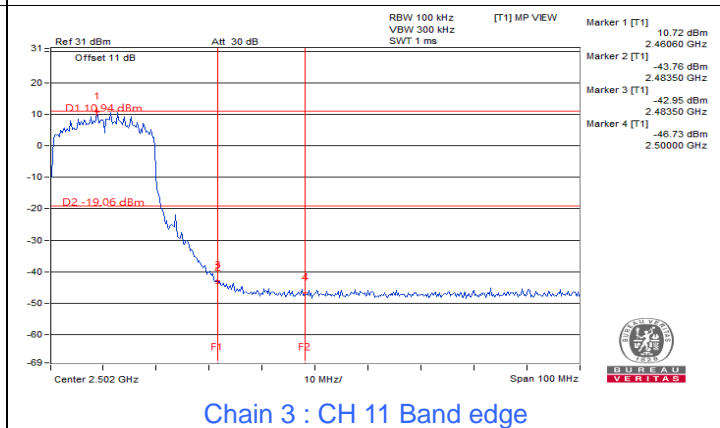
Chain 3 : CH 11



Chain 3 : CH 11



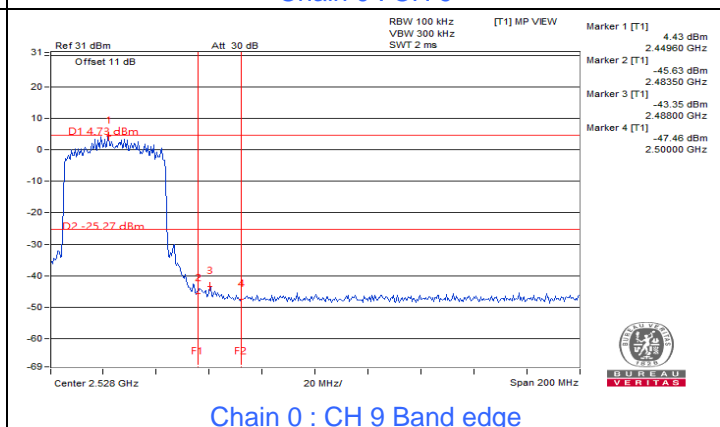
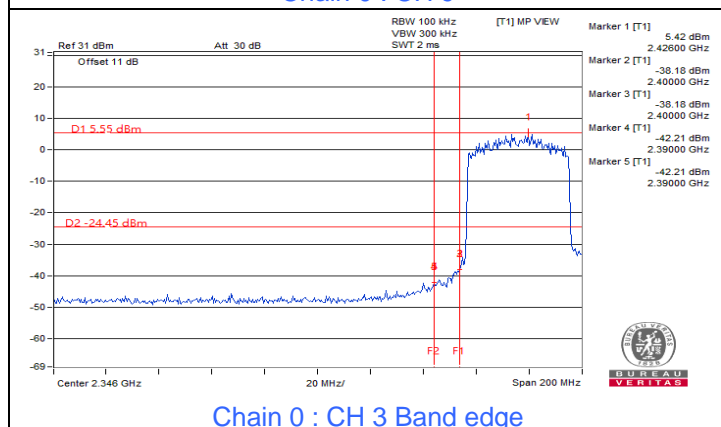
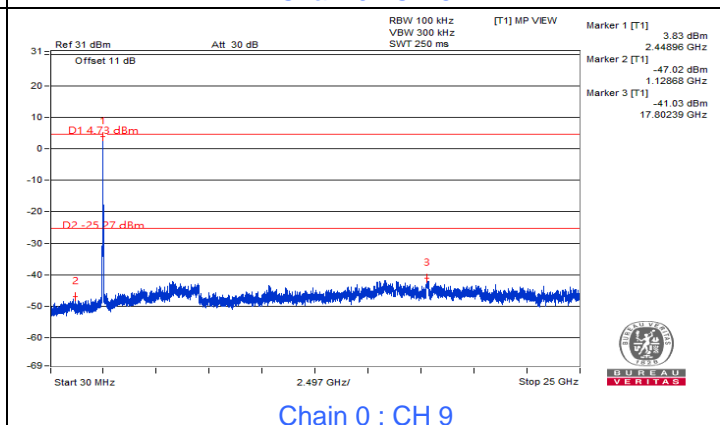
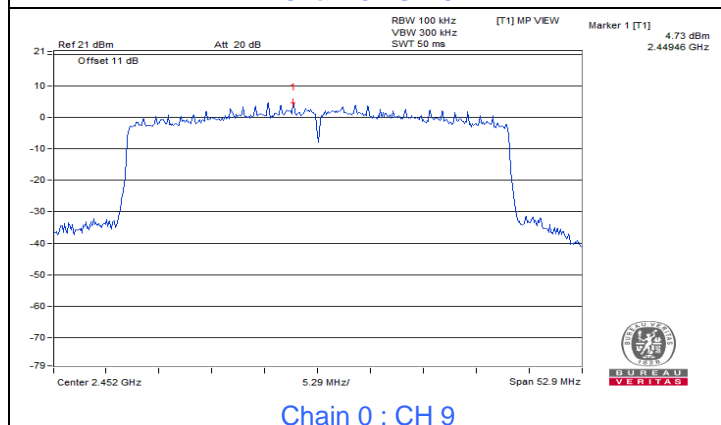
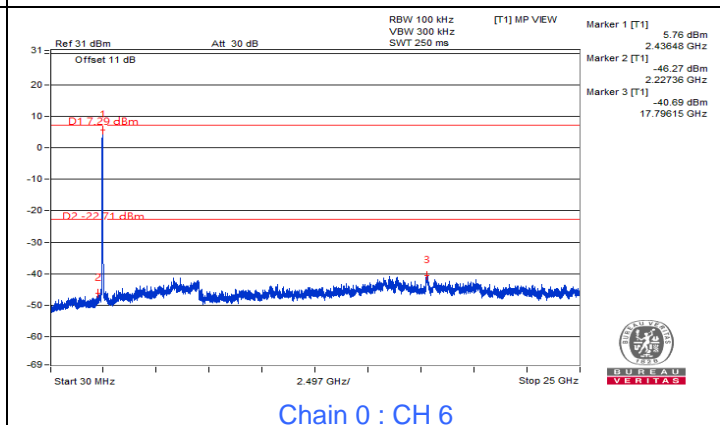
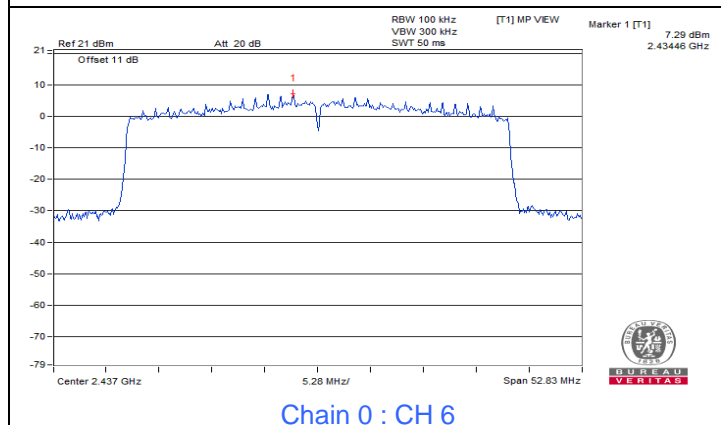
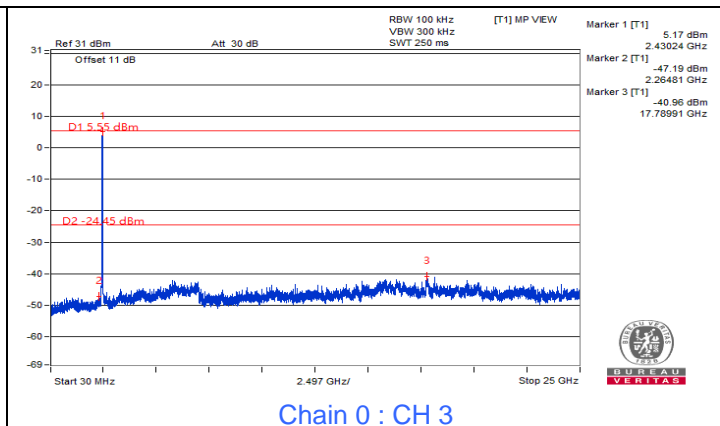
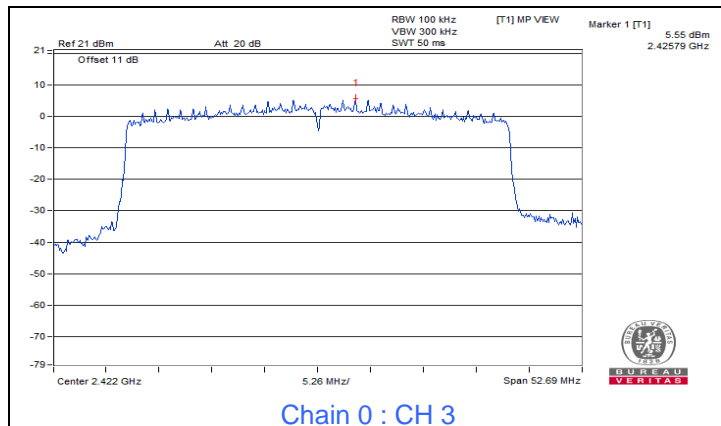
Chain 3 : CH 1 Band edge

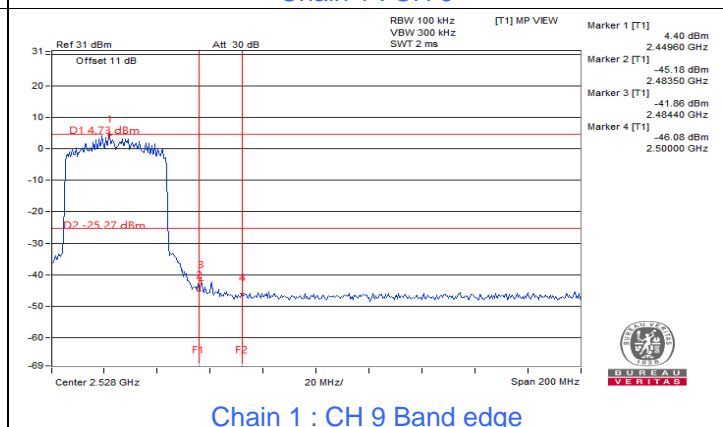
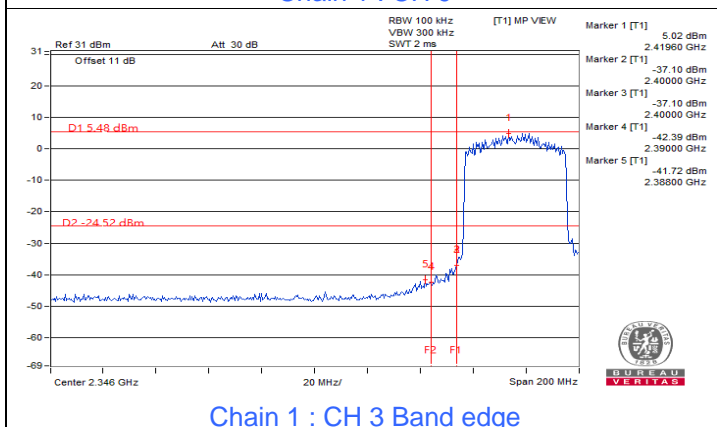
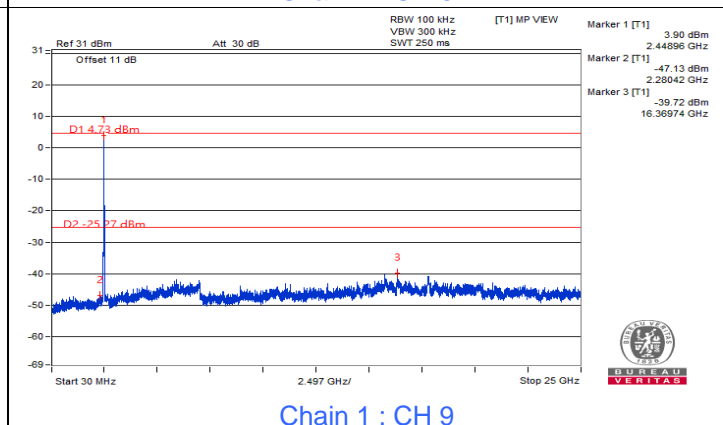
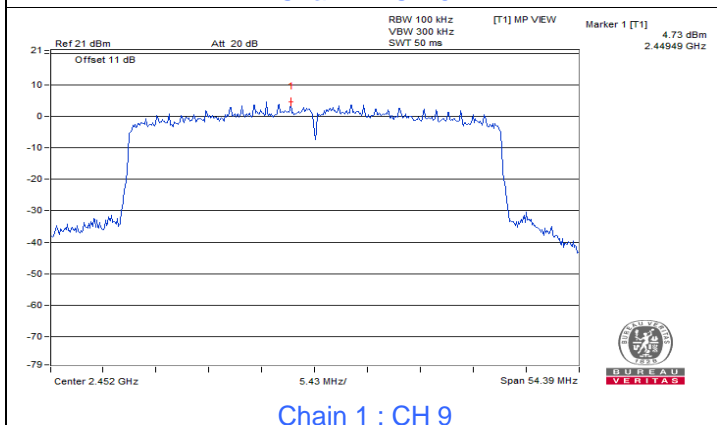
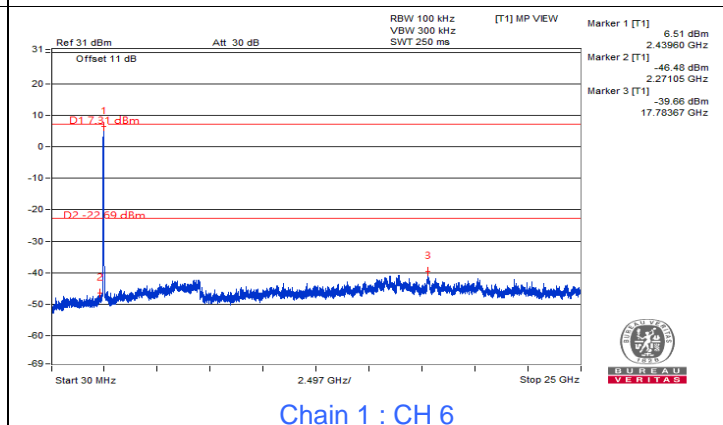
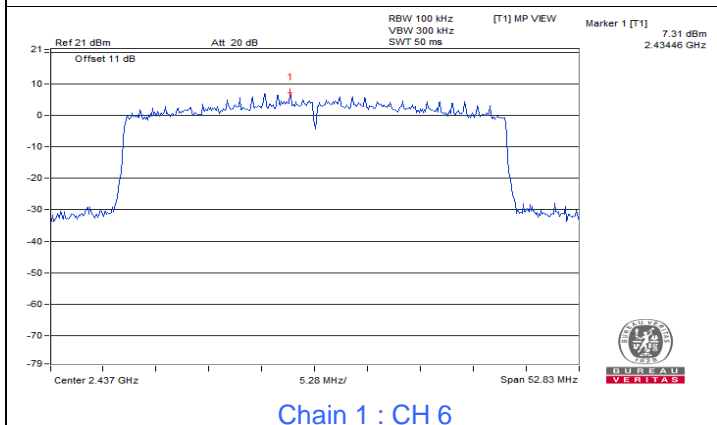
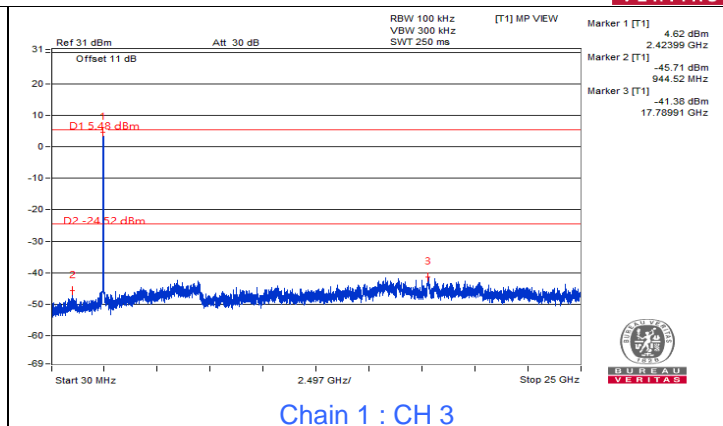
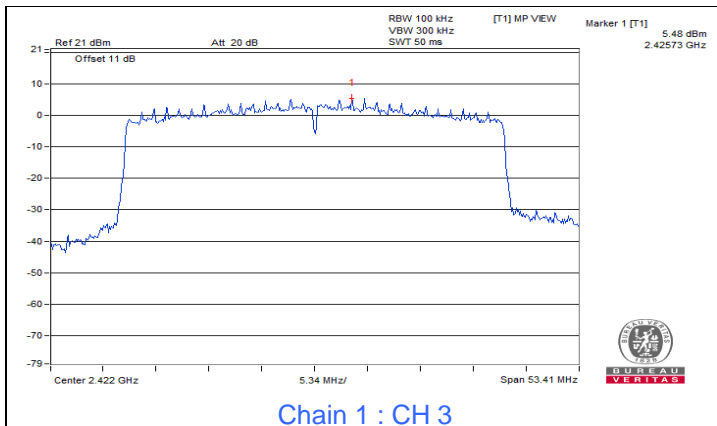


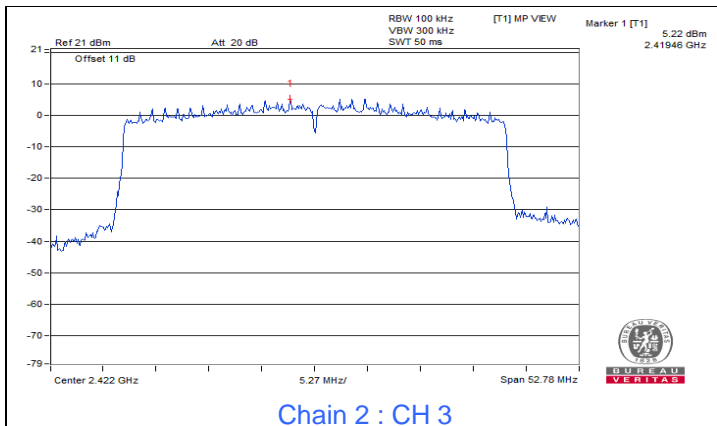
Chain 3 : CH 11 Band edge



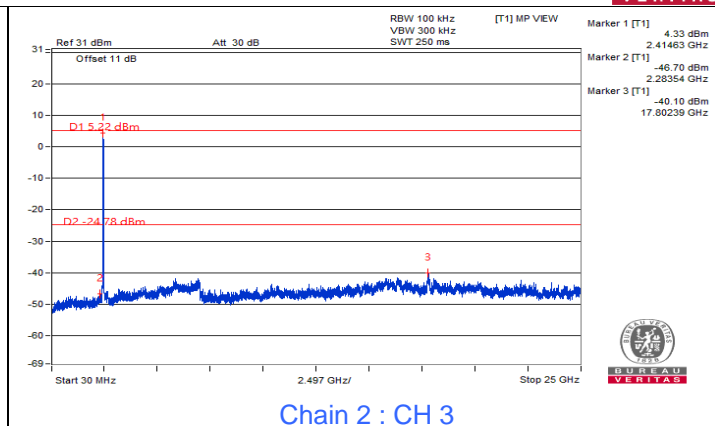
802.11ax (HE40)



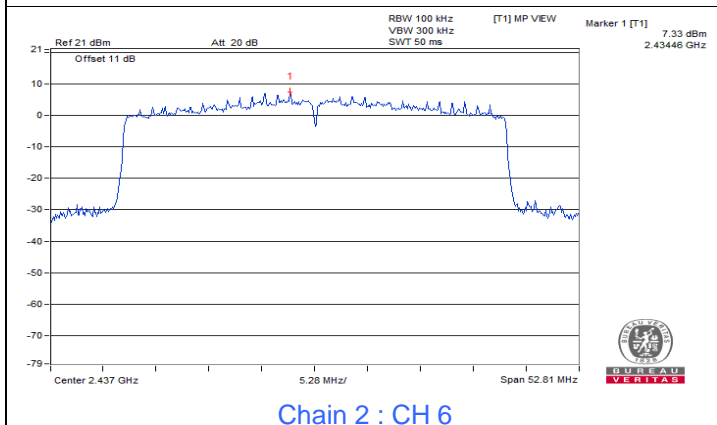




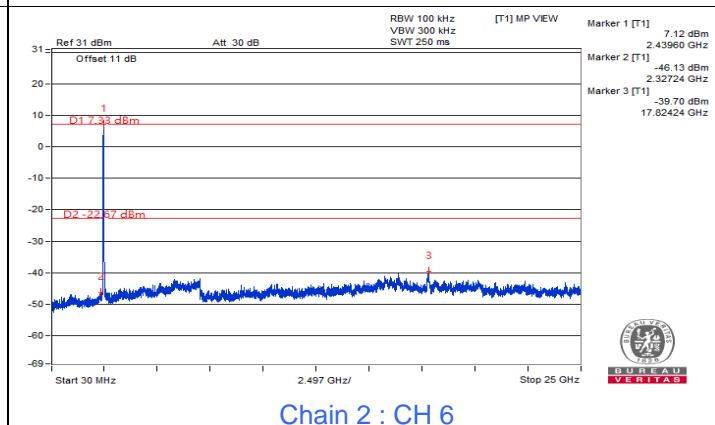
Chain 2 : CH 3



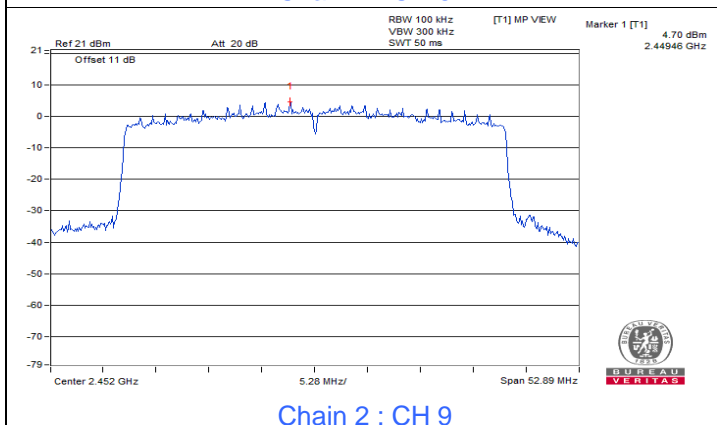
Chain 2 : CH 3



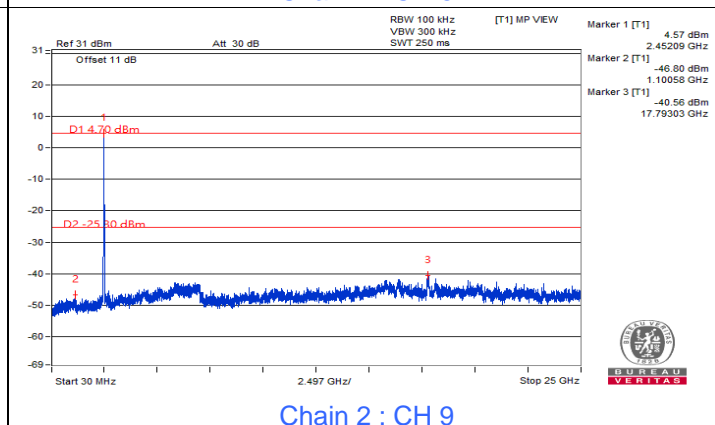
Chain 2 : CH 6



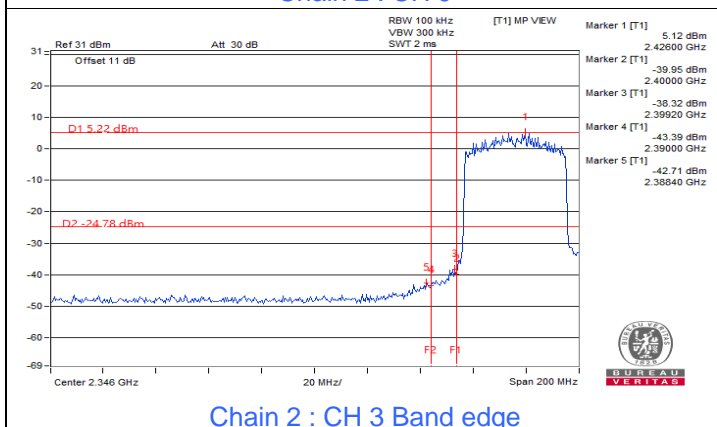
Chain 2 : CH 6



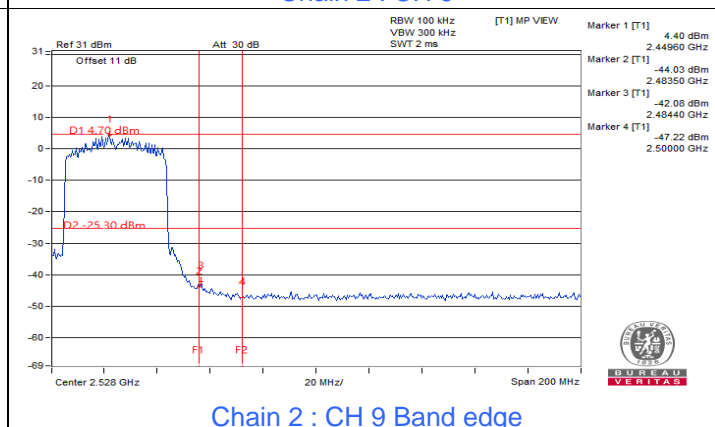
Chain 2 : CH 9



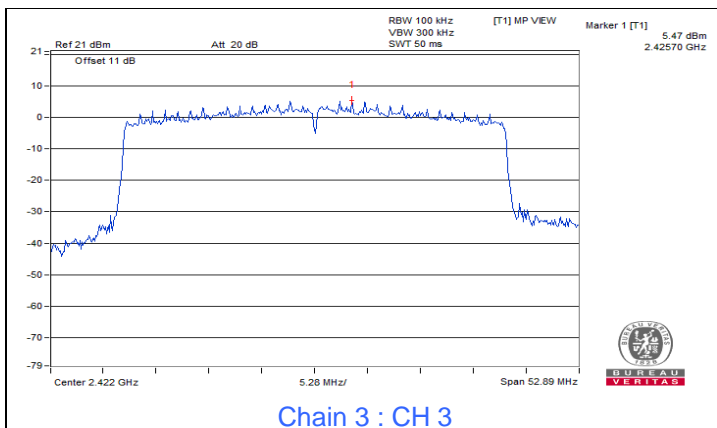
Chain 2 : CH 9



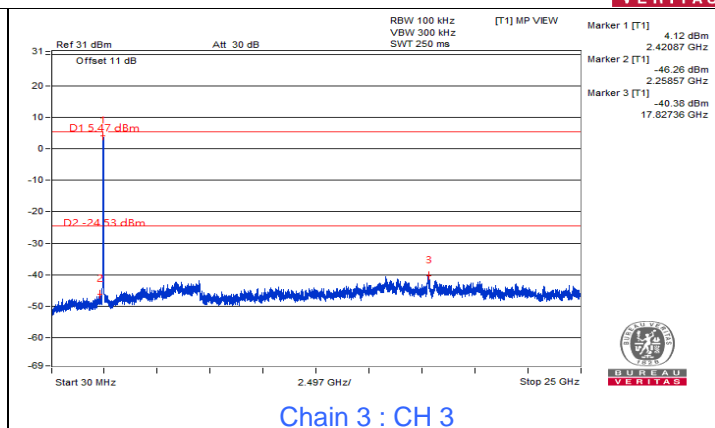
Chain 2 : CH 3 Band edge



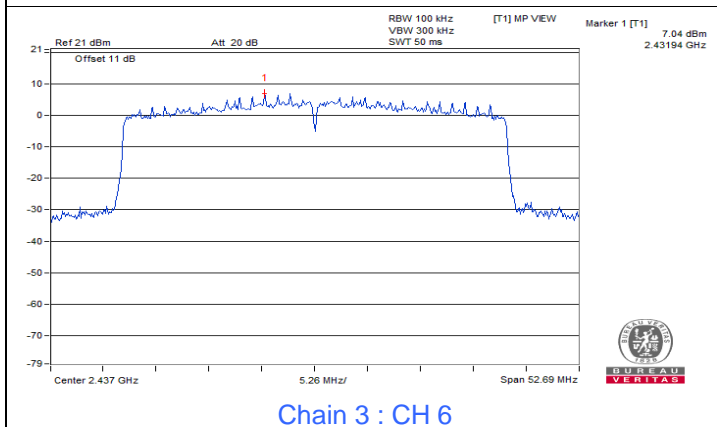
Chain 2 : CH 9 Band edge



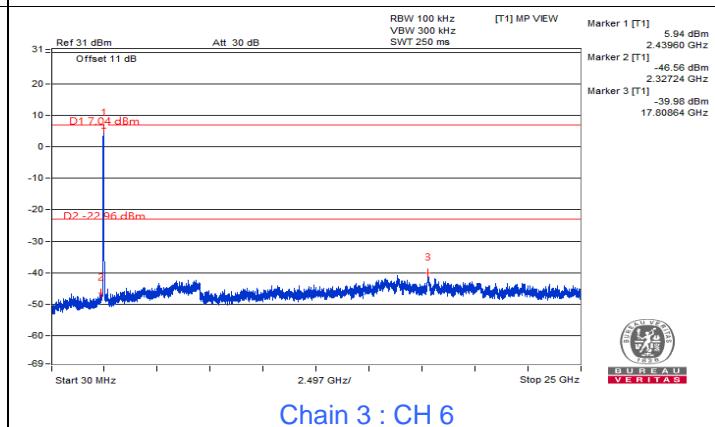
Chain 3 : CH 3



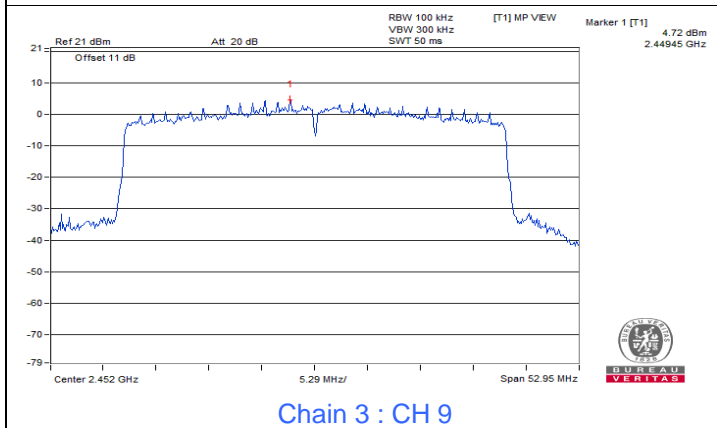
Chain 3 : CH 3



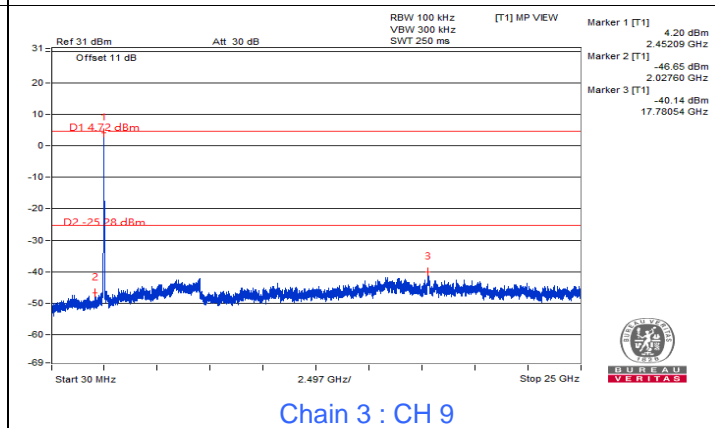
Chain 3 : CH 6



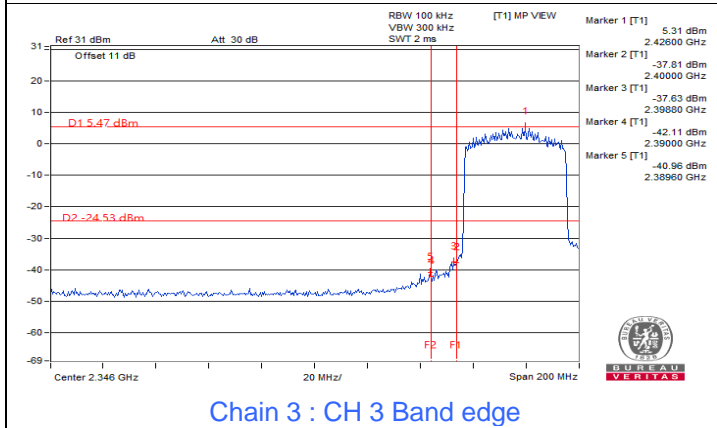
Chain 3 : CH 6



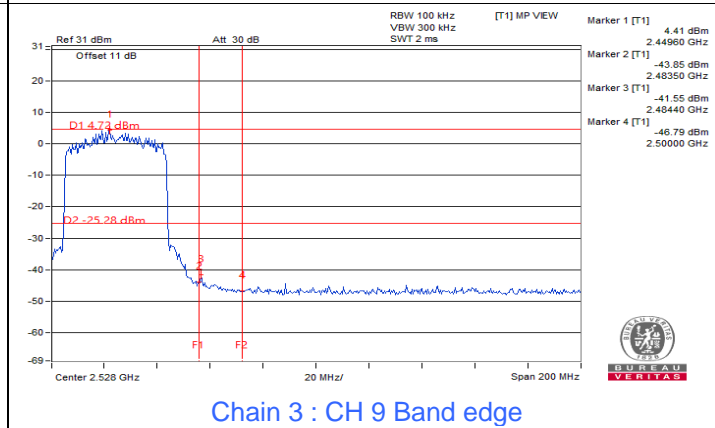
Chain 3 : CH 9



Chain 3 : CH 9



Chain 3 : CH 3 Band edge



Chain 3 : CH 9 Band edge

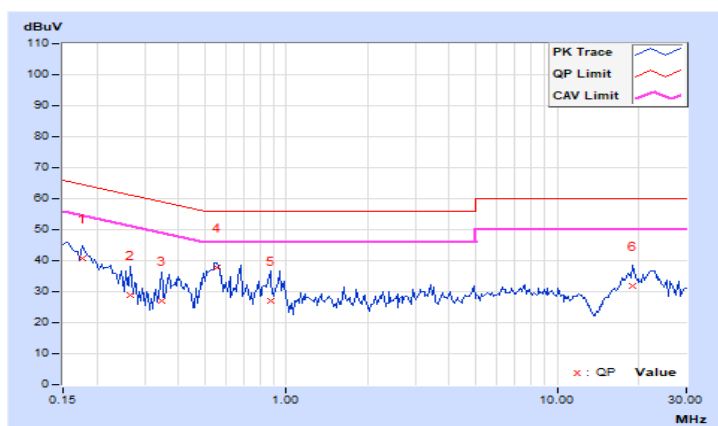
7.5 AC Power Conducted Emissions

RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Sampson Chen		

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	0.17734	10.05	30.65	18.06	40.70	28.11	64.61	54.61	-23.91	-26.50
2	0.26719	10.05	18.92	10.85	28.97	20.90	61.20	51.20	-32.23	-30.30
3	0.34531	10.06	17.11	10.02	27.17	20.08	59.07	49.07	-31.90	-28.99
4	0.55234	10.07	27.88	26.25	37.95	36.32	56.00	46.00	-18.05	-9.68
5	0.87266	10.10	16.77	11.21	26.87	21.31	56.00	46.00	-29.13	-24.69
6	18.99609	11.26	20.64	13.86	31.90	25.12	60.00	50.00	-28.10	-24.88

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

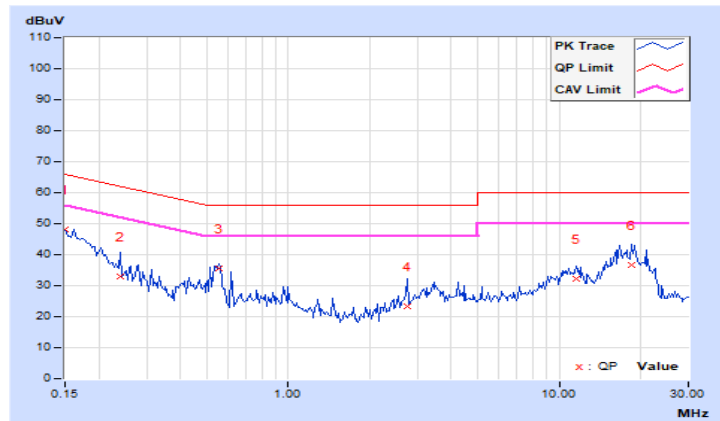


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 67% RH
Tested By	Sampson Chen		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.04	38.10	23.54	48.14	33.58	66.00	56.00	-17.86	-22.42
2	0.23984	10.05	22.93	10.50	32.98	20.55	62.10	52.10	-29.12	-31.55
3	0.55234	10.07	25.53	24.17	35.60	34.24	56.00	46.00	-20.40	-11.76
4	2.75000	10.21	13.30	1.97	23.51	12.18	56.00	46.00	-32.49	-33.82
5	11.58203	10.72	21.56	15.48	32.28	26.20	60.00	50.00	-27.72	-23.80
6	18.46094	11.03	25.68	19.33	36.71	30.36	60.00	50.00	-23.29	-19.64

Remarks:

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



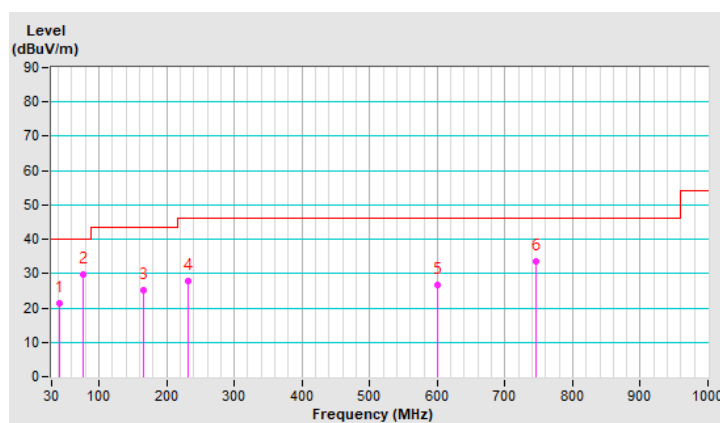
7.6 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 73% RH
Tested By	Sampson Chen		

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	42.08	21.4 QP	40.0	-18.6	1.00 H	227	34.4	-13.0
2	76.66	29.6 QP	40.0	-10.4	3.00 H	268	46.3	-16.7
3	166.39	25.2 QP	43.5	-18.3	2.00 H	72	38.2	-13.0
4	232.69	27.7 QP	46.0	-18.3	1.50 H	229	42.8	-15.1
5	600.19	26.8 QP	46.0	-19.2	1.50 H	93	31.9	-5.1
6	746.82	33.5 QP	46.0	-12.5	1.00 H	103	36.3	-2.8

Remarks:

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

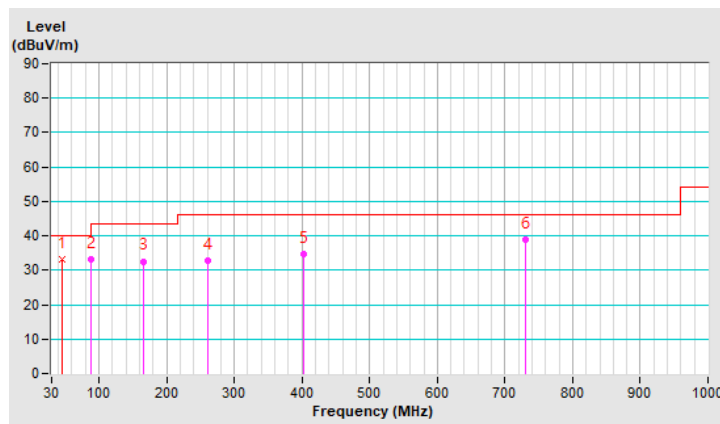


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 73% RH
Tested By	Sampson Chen		

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	45.71	33.2 QP	40.0	-6.8	1.00 V	17	45.9	-12.7
2	88.30	33.2 QP	43.5	-10.3	1.00 V	252	51.7	-18.5
3	165.66	32.6 QP	43.5	-10.9	1.50 V	203	45.5	-12.9
4	261.55	32.9 QP	46.0	-13.1	1.50 V	193	46.6	-13.7
5	403.32	34.6 QP	46.0	-11.4	1.50 V	301	44.3	-9.7
6	729.79	38.9 QP	46.0	-7.1	1.00 V	237	42.2	-3.3

Remarks:

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



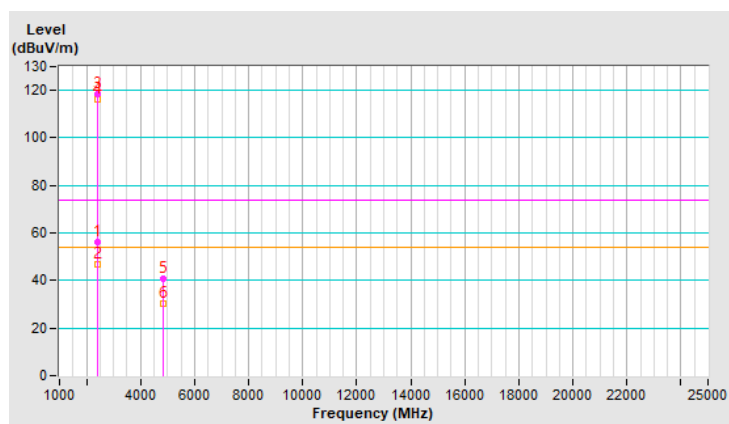
7.7 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2385.30	56.0 PK	74.0	-18.0	2.09 H	313	58.7	-2.7
2	2385.30	46.7 AV	54.0	-7.3	2.09 H	313	49.4	-2.7
3	*2412.00	118.6 PK			2.09 H	313	121.3	-2.7
4	*2412.00	116.2 AV			2.09 H	313	118.9	-2.7
5	4824.00	40.6 PK	74.0	-33.4	1.52 H	19	39.1	1.5
6	4824.00	30.5 AV	54.0	-23.5	1.52 H	19	29.0	1.5

Remarks:

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

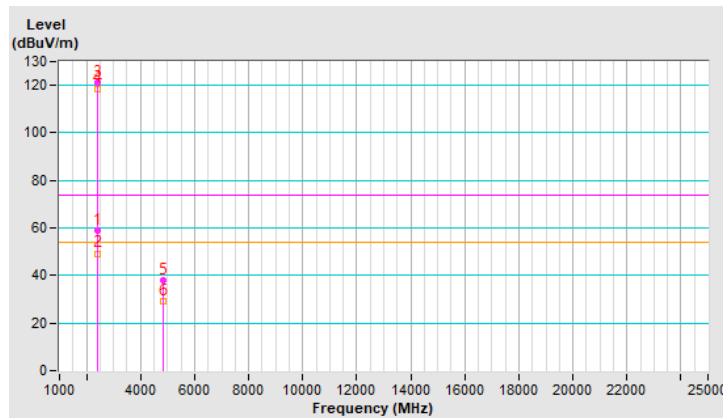


RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2385.60	59.0 PK	74.0	-15.0	1.37 V	357	61.7	-2.7
2	2385.60	49.3 AV	54.0	-4.7	1.37 V	357	52.0	-2.7
3	*2412.00	121.0 PK			1.37 V	357	123.7	-2.7
4	*2412.00	118.7 AV			1.37 V	357	121.4	-2.7
5	4824.00	37.8 PK	74.0	-36.2	2.86 V	223	36.3	1.5
6	4824.00	29.4 AV	54.0	-24.6	2.86 V	223	27.9	1.5

Remarks:

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



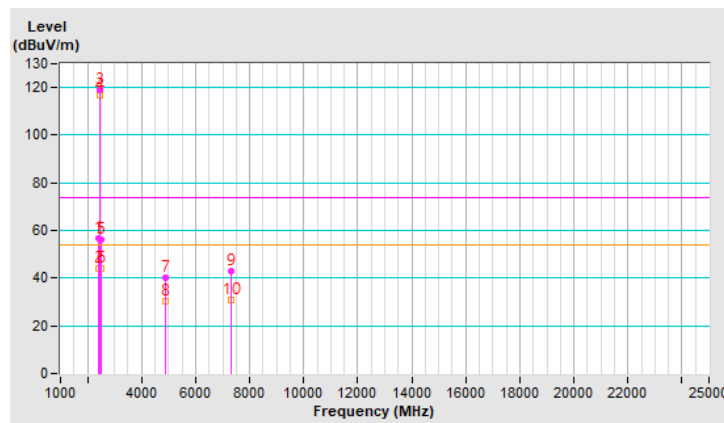
RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	56.8 PK	74.0	-17.2	1.33 H	287	59.5	-2.7
2	2390.00	43.9 AV	54.0	-10.1	1.33 H	287	46.6	-2.7
3	*2437.00	119.0 PK			1.33 H	287	121.8	-2.8
4	*2437.00	116.8 AV			1.33 H	287	119.6	-2.8
5	2483.50	56.4 PK	74.0	-17.6	1.33 H	287	59.3	-2.9
6	2483.50	43.8 AV	54.0	-10.2	1.33 H	287	46.7	-2.9
7	4874.00	40.0 PK	74.0	-34.0	1.57 H	26	38.5	1.5
8	4874.00	30.2 AV	54.0	-23.8	1.57 H	26	28.7	1.5
9	7311.00	42.7 PK	74.0	-31.3	1.37 H	56	35.5	7.2
10	7311.00	30.6 AV	54.0	-23.4	1.37 H	56	23.4	7.2

Remarks:

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

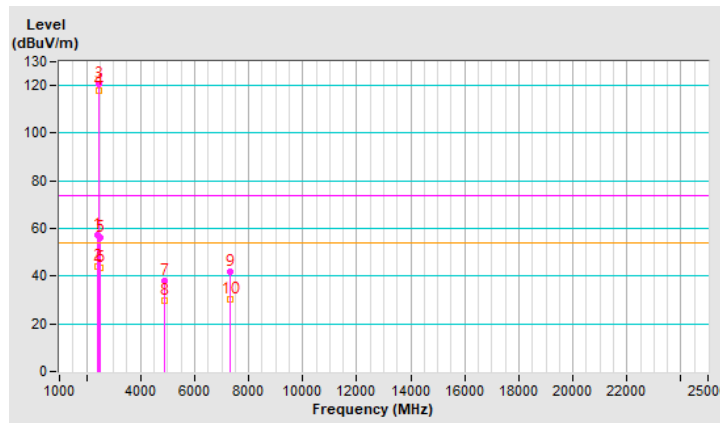


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.1 PK	74.0	-16.9	1.44 V	0	59.8	-2.7
2	2390.00	44.3 AV	54.0	-9.7	1.44 V	0	47.0	-2.7
3	*2437.00	120.5 PK			1.44 V	0	123.3	-2.8
4	*2437.00	117.8 AV			1.44 V	0	120.6	-2.8
5	2483.50	56.4 PK	74.0	-17.6	1.44 V	0	59.3	-2.9
6	2483.50	43.7 AV	54.0	-10.3	1.44 V	0	46.6	-2.9
7	4874.00	38.2 PK	74.0	-35.8	2.82 V	236	36.7	1.5
8	4874.00	29.6 AV	54.0	-24.4	2.82 V	236	28.1	1.5
9	7311.00	42.0 PK	74.0	-32.0	1.56 V	37	34.8	7.2
10	7311.00	30.4 AV	54.0	-23.6	1.56 V	37	23.2	7.2

Remarks:

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



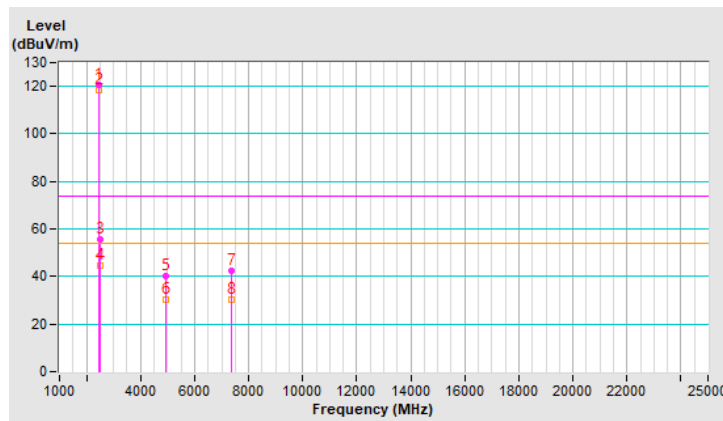
RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.8 PK			3.90 H	82	123.6	-2.8
2	*2462.00	118.5 AV			3.90 H	82	121.3	-2.8
3	2487.00	55.6 PK	74.0	-18.4	3.90 H	82	58.5	-2.9
4	2487.00	44.5 AV	54.0	-9.5	3.90 H	82	47.4	-2.9
5	4924.00	40.3 PK	74.0	-33.7	1.54 H	16	38.8	1.5
6	4924.00	30.4 AV	54.0	-23.6	1.54 H	16	28.9	1.5
7	7386.00	42.4 PK	74.0	-31.6	1.32 H	41	35.2	7.2
8	7386.00	30.2 AV	54.0	-23.8	1.32 H	41	23.0	7.2

Remarks:

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

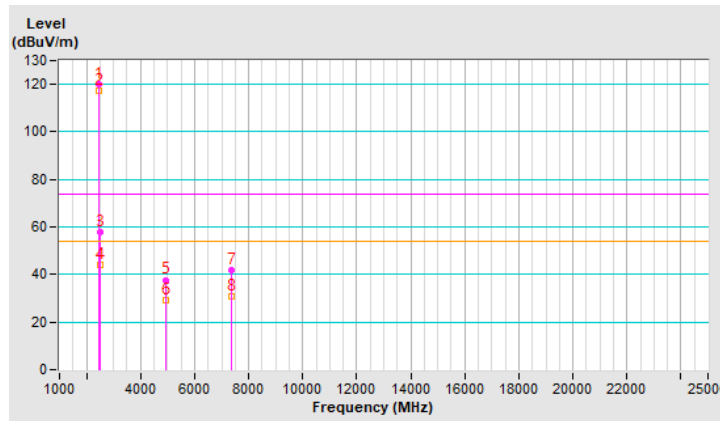


RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	119.8 PK			1.44 V	360	122.6	-2.8
2	*2462.00	117.5 AV			1.44 V	360	120.3	-2.8
3	2487.00	57.6 PK	74.0	-16.4	1.44 V	360	60.5	-2.9
4	2487.00	44.2 AV	54.0	-9.8	1.44 V	360	47.1	-2.9
5	4924.00	37.7 PK	74.0	-36.3	2.83 V	221	36.2	1.5
6	4924.00	29.2 AV	54.0	-24.8	2.83 V	221	27.7	1.5
7	7386.00	41.9 PK	74.0	-32.1	1.57 V	26	34.7	7.2
8	7386.00	30.6 AV	54.0	-23.4	1.57 V	26	23.4	7.2

Remarks:

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



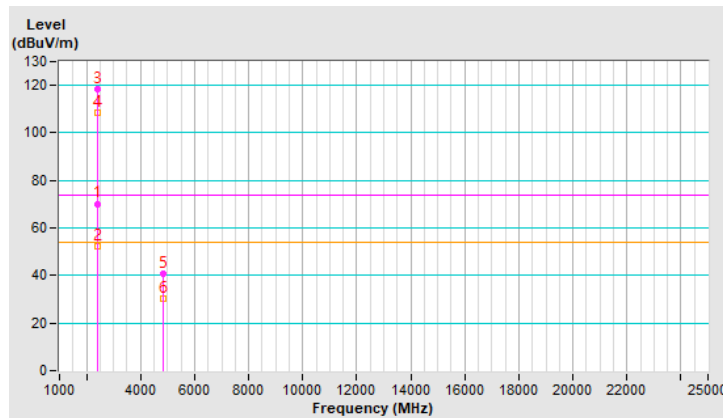
RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	70.2 PK	74.0	-3.8	1.88 H	304	72.9	-2.7
2	2390.00	52.1 AV	54.0	-1.9	1.88 H	304	54.8	-2.7
3	*2412.00	118.6 PK			1.88 H	304	121.3	-2.7
4	*2412.00	108.5 AV			1.88 H	304	111.2	-2.7
5	4824.00	40.6 PK	74.0	-33.4	1.56 H	34	39.1	1.5
6	4824.00	30.3 AV	54.0	-23.7	1.56 H	34	28.8	1.5

Remarks:

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

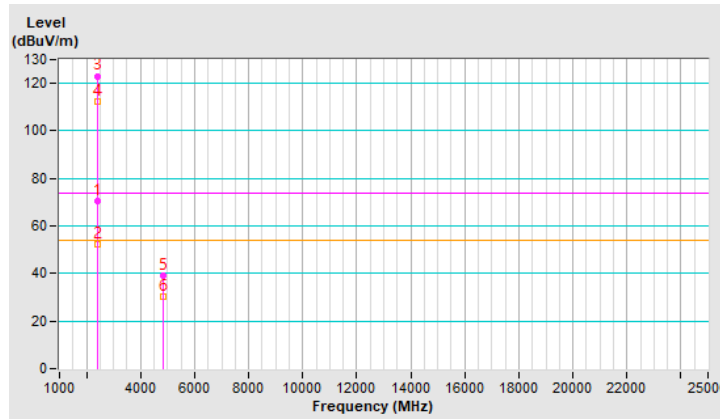


RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	70.6 PK	74.0	-3.4	1.00 V	2	73.3	-2.7
2	2390.00	52.3 AV	54.0	-1.7	1.00 V	2	55.0	-2.7
3	*2412.00	123.1 PK			1.00 V	2	125.8	-2.7
4	*2412.00	112.2 AV			1.00 V	2	114.9	-2.7
5	4824.00	39.1 PK	74.0	-34.9	2.86 V	248	37.6	1.5
6	4824.00	30.4 AV	54.0	-23.6	2.86 V	248	28.9	1.5

Remarks:

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

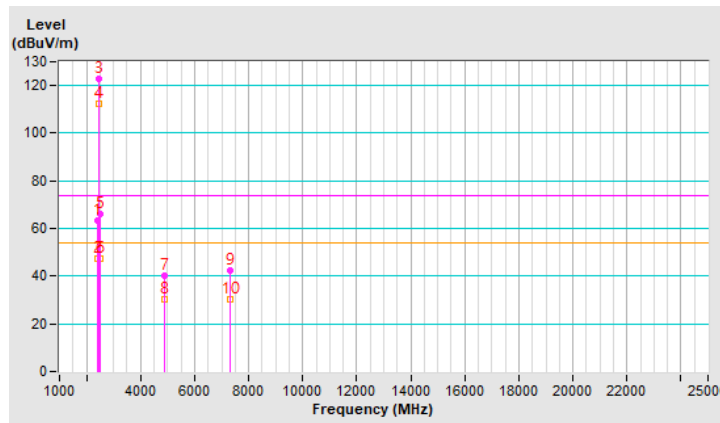


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.2 PK	74.0	-10.8	1.92 H	312	65.9	-2.7
2	2390.00	47.2 AV	54.0	-6.8	1.92 H	312	49.9	-2.7
3	*2437.00	122.6 PK			1.92 H	312	125.4	-2.8
4	*2437.00	112.3 AV			1.92 H	312	115.1	-2.8
5	2483.50	66.3 PK	74.0	-7.7	1.92 H	312	69.2	-2.9
6	2483.50	47.1 AV	54.0	-6.9	1.92 H	312	50.0	-2.9
7	4874.00	40.4 PK	74.0	-33.6	1.57 H	37	38.9	1.5
8	4874.00	30.3 AV	54.0	-23.7	1.57 H	37	28.8	1.5
9	7311.00	42.5 PK	74.0	-31.5	1.43 H	64	35.3	7.2
10	7311.00	30.3 AV	54.0	-23.7	1.43 H	64	23.1	7.2

Remarks:

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

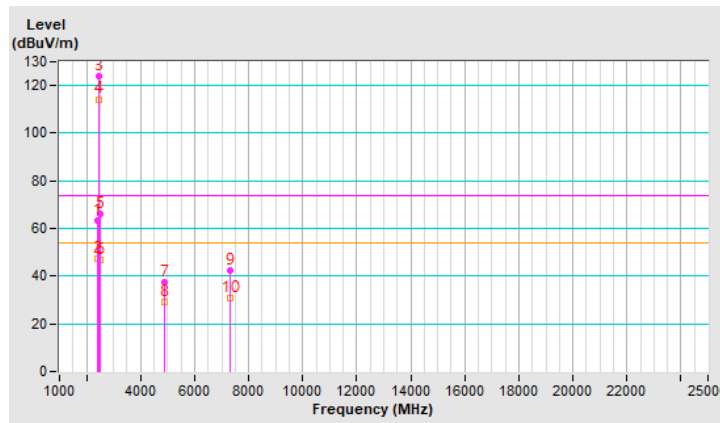


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.3 PK	74.0	-10.7	1.44 V	356	66.0	-2.7
2	2390.00	47.6 AV	54.0	-6.4	1.44 V	356	50.3	-2.7
3	*2437.00	124.1 PK			1.44 V	356	126.9	-2.8
4	*2437.00	114.3 AV			1.44 V	356	117.1	-2.8
5	2483.50	65.9 PK	74.0	-8.1	1.44 V	356	68.8	-2.9
6	2483.50	47.0 AV	54.0	-7.0	1.44 V	356	49.9	-2.9
7	4874.00	37.5 PK	74.0	-36.5	2.76 V	250	36.0	1.5
8	4874.00	29.1 AV	54.0	-24.9	2.76 V	250	27.6	1.5
9	7311.00	42.5 PK	74.0	-31.5	1.52 V	39	35.3	7.2
10	7311.00	30.8 AV	54.0	-23.2	1.52 V	39	23.6	7.2

Remarks:

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



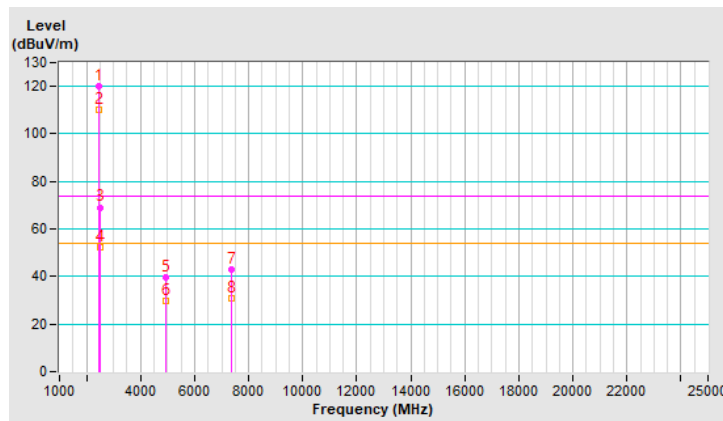
RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.3 PK			1.44 H	59	123.1	-2.8
2	*2462.00	109.9 AV			1.44 H	59	112.7	-2.8
3	2483.50	69.1 PK	74.0	-4.9	1.44 H	59	72.0	-2.9
4	2483.50	52.2 AV	54.0	-1.8	1.44 H	59	55.1	-2.9
5	4924.00	39.6 PK	74.0	-34.4	1.62 H	25	38.1	1.5
6	4924.00	29.8 AV	54.0	-24.2	1.62 H	25	28.3	1.5
7	7386.00	43.1 PK	74.0	-30.9	1.34 H	56	35.9	7.2
8	7386.00	30.9 AV	54.0	-23.1	1.34 H	56	23.7	7.2

Remarks:

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

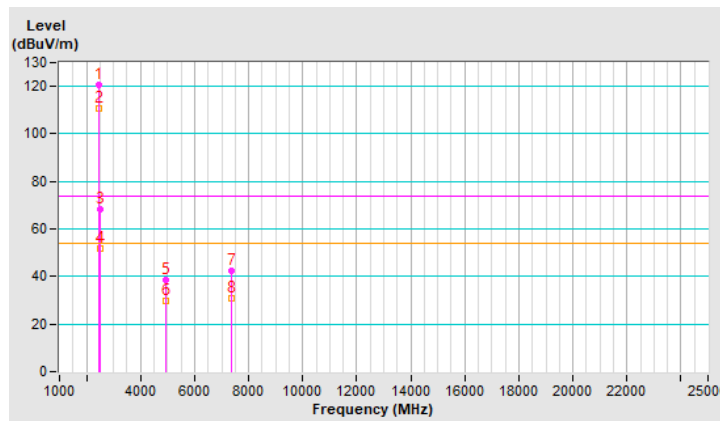


RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	120.5 PK			1.16 V	352	123.3	-2.8
2	*2462.00	110.8 AV			1.16 V	352	113.6	-2.8
3	2485.80	68.5 PK	74.0	-5.5	1.16 V	352	71.4	-2.9
4	2485.80	51.7 AV	54.0	-2.3	1.16 V	352	54.6	-2.9
5	4924.00	38.4 PK	74.0	-35.6	2.79 V	245	36.9	1.5
6	4924.00	29.8 AV	54.0	-24.2	2.79 V	245	28.3	1.5
7	7386.00	42.4 PK	74.0	-31.6	1.56 V	23	35.2	7.2
8	7386.00	30.7 AV	54.0	-23.3	1.56 V	23	23.5	7.2

Remarks:

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



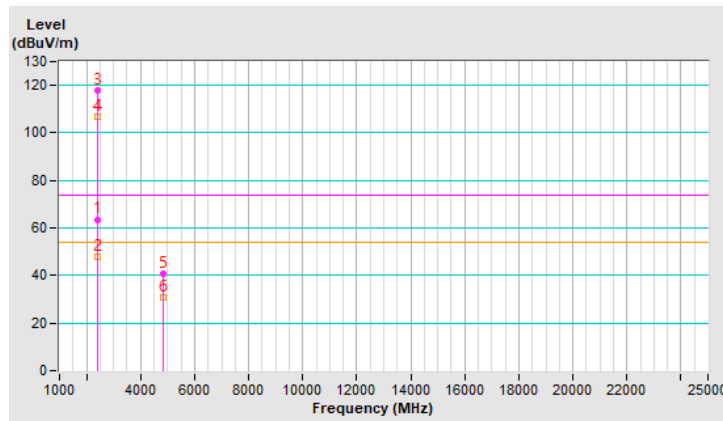
RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	2389.00	63.6 PK	74.0	-10.4	3.85 H	287	66.3	-2.7
2	2389.00	48.0 AV	54.0	-6.0	3.85 H	287	50.7	-2.7
3	*2412.00	118.1 PK			3.85 H	287	120.8	-2.7
4	*2412.00	106.8 AV			3.85 H	287	109.5	-2.7
5	4824.00	40.7 PK	74.0	-33.3	1.46 H	21	39.2	1.5
6	4824.00	30.6 AV	54.0	-23.4	1.46 H	21	29.1	1.5

Remarks:

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

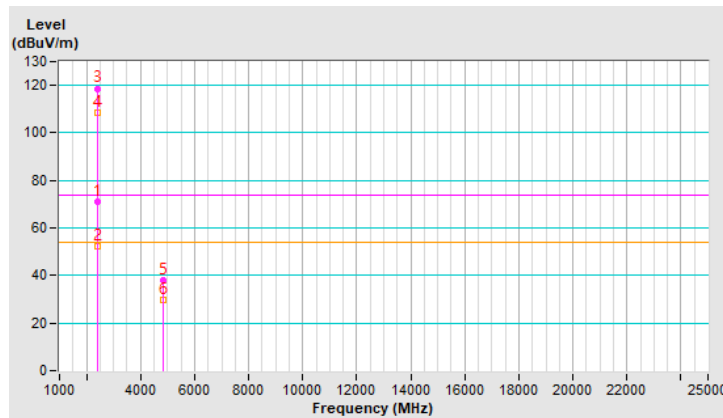


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	71.0 PK	74.0	-3.0	1.68 V	246	73.7	-2.7
2	2390.00	52.2 AV	54.0	-1.8	1.68 V	246	54.9	-2.7
3	*2412.00	118.7 PK			1.68 V	246	121.4	-2.7
4	*2412.00	108.5 AV			1.68 V	246	111.2	-2.7
5	4824.00	38.1 PK	74.0	-35.9	2.83 V	229	36.6	1.5
6	4824.00	29.6 AV	54.0	-24.4	2.83 V	229	28.1	1.5

Remarks:

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



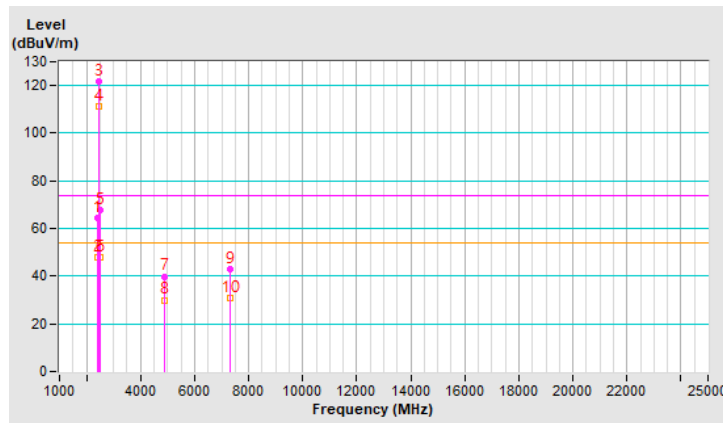
RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.5 PK	74.0	-9.5	3.57 H	293	67.2	-2.7
2	2390.00	47.9 AV	54.0	-6.1	3.57 H	293	50.6	-2.7
3	*2437.00	121.9 PK			3.57 H	293	124.7	-2.8
4	*2437.00	111.3 AV			3.57 H	293	114.1	-2.8
5	2483.50	67.8 PK	74.0	-6.2	3.57 H	293	70.7	-2.9
6	2483.50	47.7 AV	54.0	-6.3	3.57 H	293	50.6	-2.9
7	4874.00	39.9 PK	74.0	-34.1	1.59 H	20	38.4	1.5
8	4874.00	30.0 AV	54.0	-24.0	1.59 H	20	28.5	1.5
9	7311.00	43.1 PK	74.0	-30.9	1.43 H	50	35.9	7.2
10	7311.00	31.0 AV	54.0	-23.0	1.43 H	50	23.8	7.2

Remarks:

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

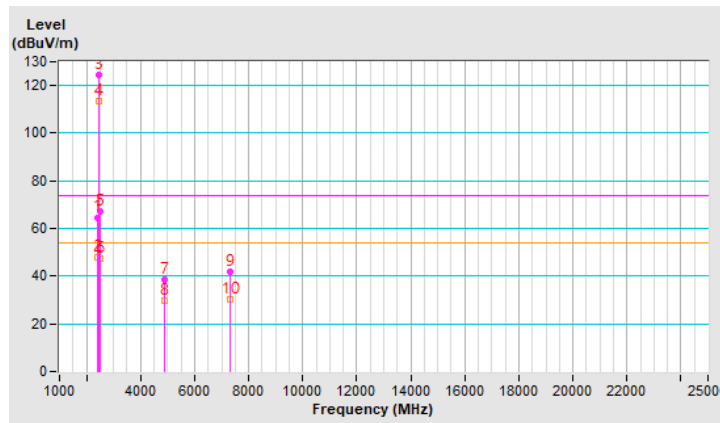


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	64.7 PK	74.0	-9.3	1.27 V	351	67.4	-2.7
2	2390.00	48.1 AV	54.0	-5.9	1.27 V	351	50.8	-2.7
3	*2437.00	124.5 PK			1.27 V	351	127.3	-2.8
4	*2437.00	113.4 AV			1.27 V	351	116.2	-2.8
5	2483.50	67.4 PK	74.0	-6.6	1.27 V	351	70.3	-2.9
6	2483.50	47.5 AV	54.0	-6.5	1.27 V	351	50.4	-2.9
7	4874.00	38.3 PK	74.0	-35.7	2.87 V	225	36.8	1.5
8	4874.00	29.6 AV	54.0	-24.4	2.87 V	225	28.1	1.5
9	7311.00	41.9 PK	74.0	-32.1	1.57 V	25	34.7	7.2
10	7311.00	30.5 AV	54.0	-23.5	1.57 V	25	23.3	7.2

Remarks:

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



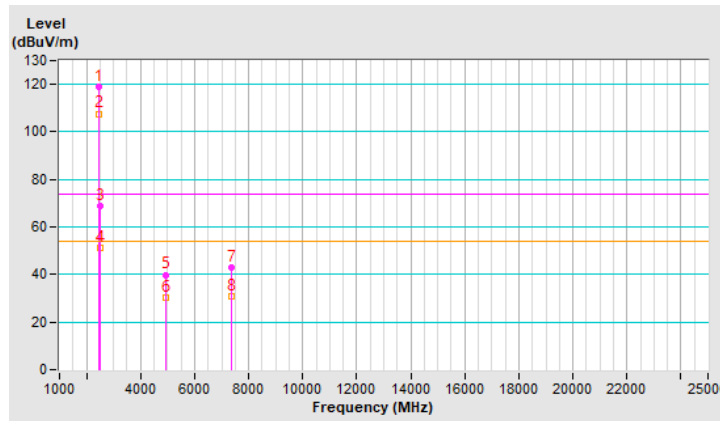
RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	119.0 PK			1.82 H	276	121.8	-2.8
2	*2462.00	107.7 AV			1.82 H	276	110.5	-2.8
3	2485.60	68.8 PK	74.0	-5.2	1.82 H	276	71.7	-2.9
4	2485.60	51.0 AV	54.0	-3.0	1.82 H	276	53.9	-2.9
5	4924.00	39.9 PK	74.0	-34.1	1.61 H	31	38.4	1.5
6	4924.00	30.4 AV	54.0	-23.6	1.61 H	31	28.9	1.5
7	7386.00	43.0 PK	74.0	-31.0	1.36 H	47	35.8	7.2
8	7386.00	30.7 AV	54.0	-23.3	1.36 H	47	23.5	7.2

Remarks:

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

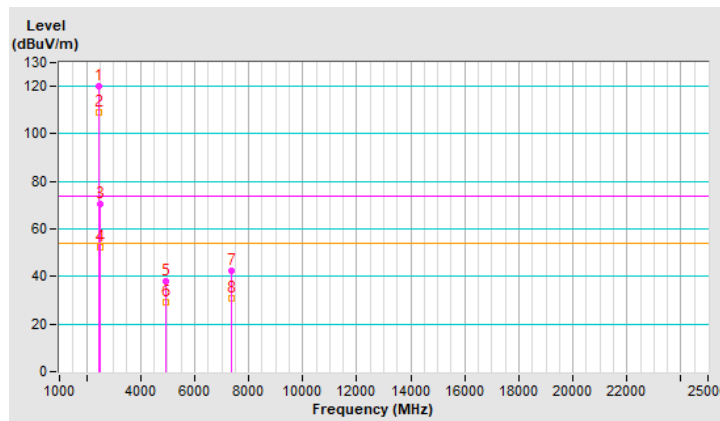


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	120.2 PK			3.21 V	5	123.0	-2.8
2	*2462.00	109.0 AV			3.21 V	5	111.8	-2.8
3	2483.50	70.7 PK	74.0	-3.3	3.21 V	5	73.6	-2.9
4	2483.50	52.2 AV	54.0	-1.8	3.21 V	5	55.1	-2.9
5	4924.00	37.9 PK	74.0	-36.1	2.79 V	227	36.4	1.5
6	4924.00	29.1 AV	54.0	-24.9	2.79 V	227	27.6	1.5
7	7386.00	42.4 PK	74.0	-31.6	1.60 V	43	35.2	7.2
8	7386.00	30.8 AV	54.0	-23.2	1.60 V	43	23.6	7.2

Remarks:

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



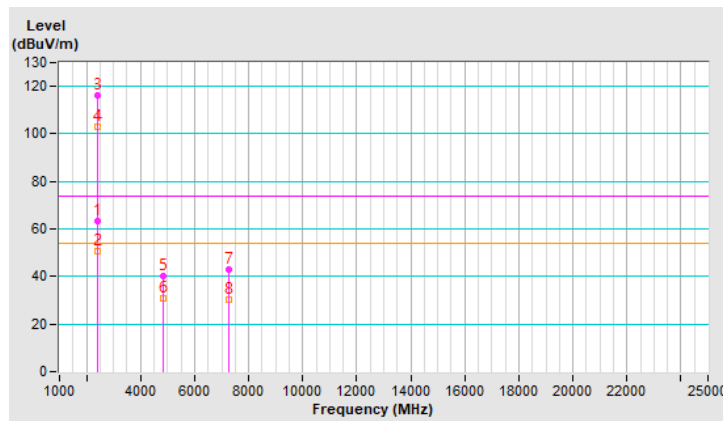
RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	2386.60	63.2 PK	74.0	-10.8	3.78 H	274	65.9	-2.7
2	2386.60	50.7 AV	54.0	-3.3	3.78 H	274	53.4	-2.7
3	*2422.00	116.0 PK			3.78 H	274	118.8	-2.8
4	*2422.00	103.2 AV			3.78 H	274	106.0	-2.8
5	4844.00	40.4 PK	74.0	-33.6	1.51 H	20	38.9	1.5
6	4844.00	30.6 AV	54.0	-23.4	1.51 H	20	29.1	1.5
7	7266.00	42.7 PK	74.0	-31.3	1.37 H	45	35.5	7.2
8	7266.00	30.4 AV	54.0	-23.6	1.37 H	45	23.2	7.2

Remarks:

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



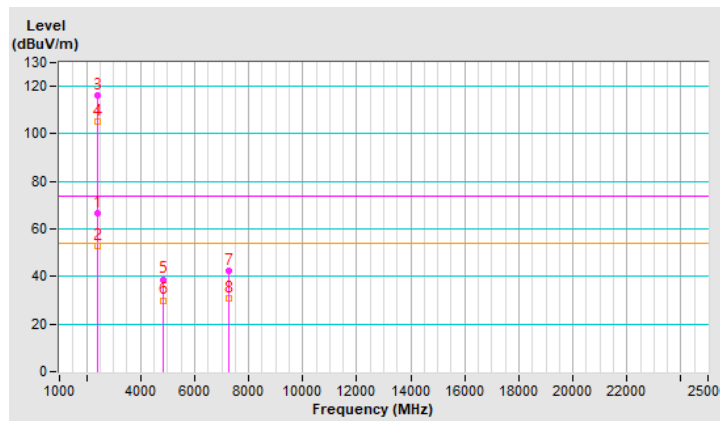
RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	66.8 PK	74.0	-7.2	3.21 V	5	69.5	-2.7
2	2388.00	52.9 AV	54.0	-1.1	3.21 V	5	55.6	-2.7
3	*2422.00	116.4 PK			3.21 V	5	119.2	-2.8
4	*2422.00	105.2 AV			3.21 V	5	108.0	-2.8
5	4844.00	38.8 PK	74.0	-35.2	2.81 V	238	37.3	1.5
6	4844.00	30.0 AV	54.0	-24.0	2.81 V	238	28.5	1.5
7	7266.00	42.5 PK	74.0	-31.5	1.52 V	49	35.3	7.2
8	7266.00	30.7 AV	54.0	-23.3	1.52 V	49	23.5	7.2

Remarks:

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

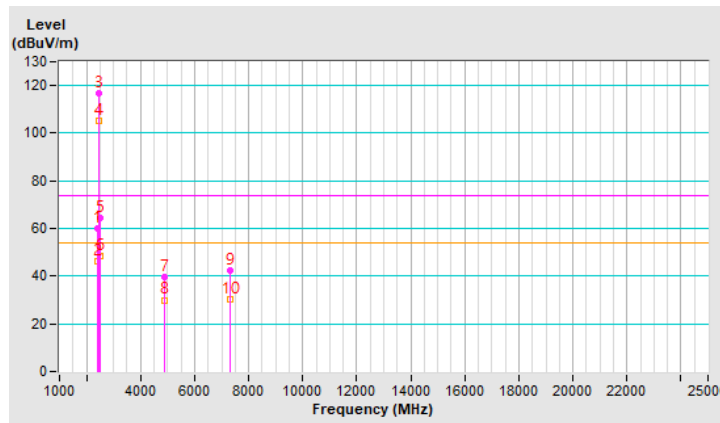


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	2386.00	60.1 PK	74.0	-13.9	3.67 H	274	62.8	-2.7
2	2386.00	46.1 AV	54.0	-7.9	3.67 H	274	48.8	-2.7
3	*2437.00	116.7 PK			3.67 H	274	119.5	-2.8
4	*2437.00	105.2 AV			3.67 H	274	108.0	-2.8
5	2486.00	64.2 PK	74.0	-9.8	3.67 H	274	67.1	-2.9
6	2486.00	48.3 AV	54.0	-5.7	3.67 H	274	51.2	-2.9
7	4874.00	39.8 PK	74.0	-34.2	1.52 H	19	38.3	1.5
8	4874.00	30.0 AV	54.0	-24.0	1.52 H	19	28.5	1.5
9	7311.00	42.2 PK	74.0	-31.8	1.33 H	41	35.0	7.2
10	7311.00	30.3 AV	54.0	-23.7	1.33 H	41	23.1	7.2

Remarks:

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

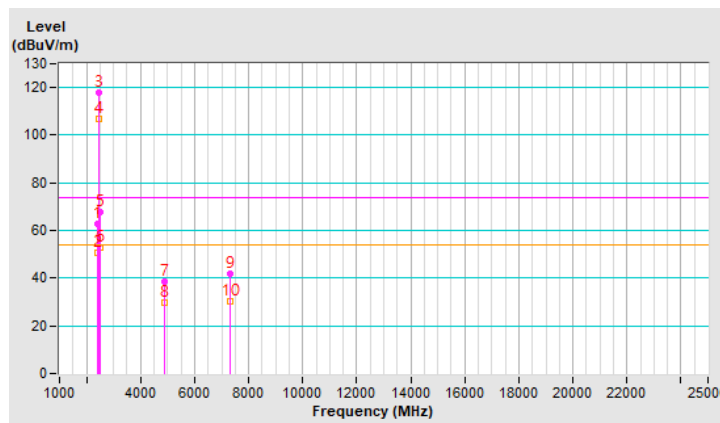


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.0 PK	74.0	-11.0	1.20 V	1	65.7	-2.7
2	2390.00	50.8 AV	54.0	-3.2	1.20 V	1	53.5	-2.7
3	*2437.00	118.0 PK			1.20 V	1	120.8	-2.8
4	*2437.00	106.8 AV			1.20 V	1	109.6	-2.8
5	2483.50	67.8 PK	74.0	-6.2	1.20 V	1	70.7	-2.9
6	2483.50	52.8 AV	54.0	-1.2	1.20 V	1	55.7	-2.9
7	4874.00	38.5 PK	74.0	-35.5	2.80 V	229	37.0	1.5
8	4874.00	29.9 AV	54.0	-24.1	2.80 V	229	28.4	1.5
9	7311.00	42.0 PK	74.0	-32.0	1.53 V	41	34.8	7.2
10	7311.00	30.2 AV	54.0	-23.8	1.53 V	41	23.0	7.2

Remarks:

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

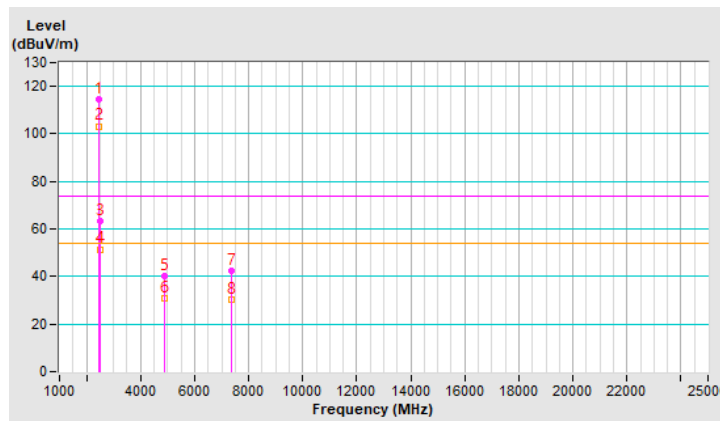


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	114.6 PK			3.28 H	275	117.4	-2.8
2	*2452.00	103.3 AV			3.28 H	275	106.1	-2.8
3	2486.00	63.3 PK	74.0	-10.7	3.28 H	275	66.2	-2.9
4	2486.00	51.5 AV	54.0	-2.5	3.28 H	275	54.4	-2.9
5	4904.00	40.2 PK	74.0	-33.8	1.57 H	29	38.7	1.5
6	4904.00	30.6 AV	54.0	-23.4	1.57 H	29	29.1	1.5
7	7356.00	42.5 PK	74.0	-31.5	1.31 H	67	35.4	7.1
8	7356.00	30.5 AV	54.0	-23.5	1.31 H	67	23.4	7.1

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, the limit was restricted at the RF Output Power.

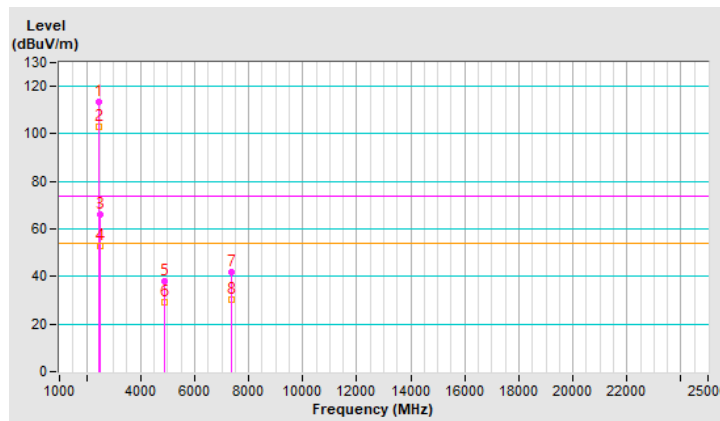


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 69% RH
Tested By	Sampson Chen		

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	113.7 PK			1.57 V	248	116.5	-2.8
2	*2452.00	103.0 AV			1.57 V	248	105.8	-2.8
3	2485.20	66.2 PK	74.0	-7.8	1.57 V	248	69.1	-2.9
4	2485.20	52.9 AV	54.0	-1.1	1.57 V	248	55.8	-2.9
5	4904.00	38.1 PK	74.0	-35.9	2.84 V	229	36.6	1.5
6	4904.00	29.2 AV	54.0	-24.8	2.84 V	229	27.7	1.5
7	7356.00	41.6 PK	74.0	-32.4	1.58 V	25	34.5	7.1
8	7356.00	30.1 AV	54.0	-23.9	1.58 V	25	23.0	7.1

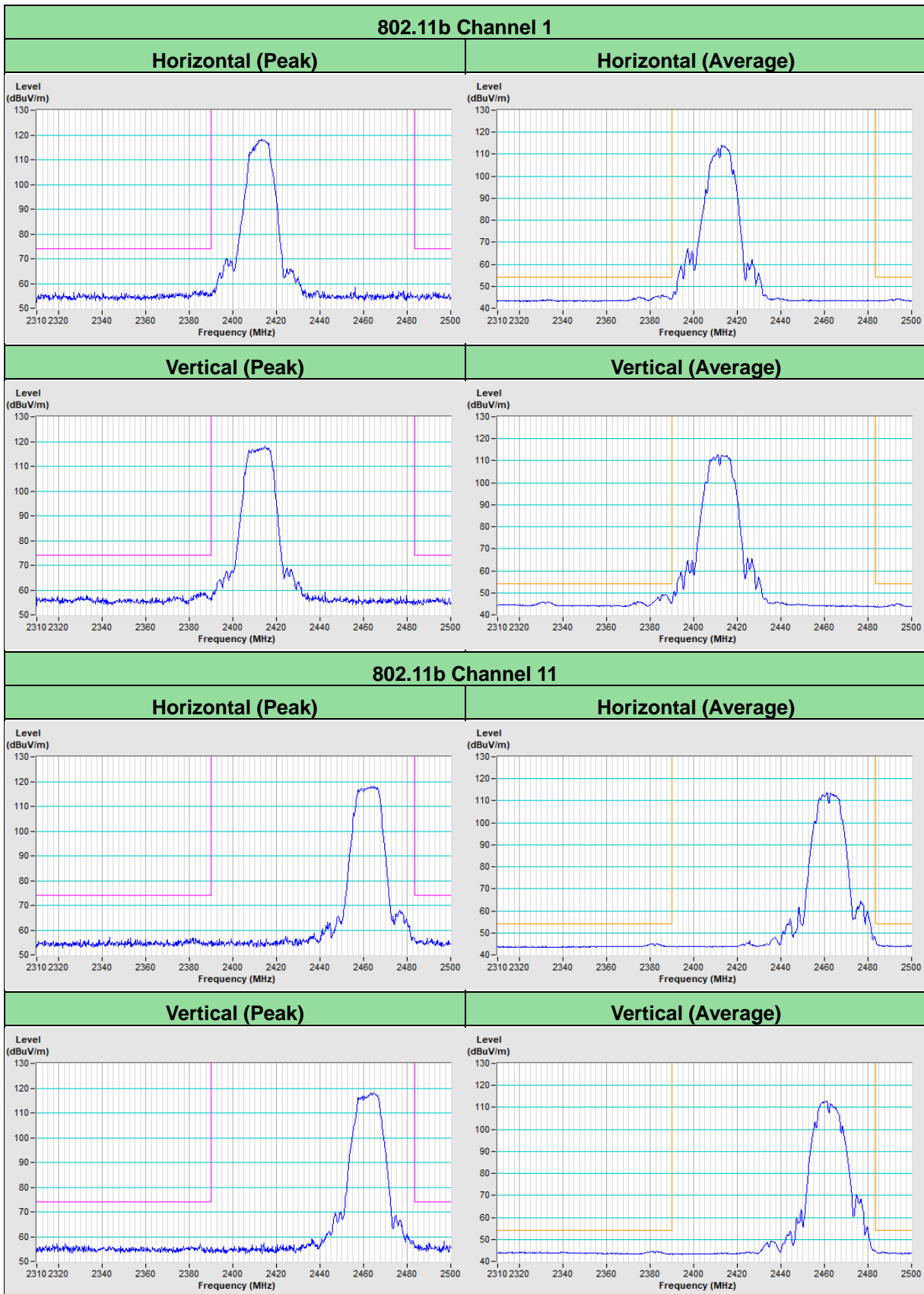
Remarks:

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, the limit was restricted at the RF Output Power.





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:

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

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

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