

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBCKS-WTW-P22080716

FCC ID: NKR-WNXL11BWL

Model No.: WNXL11BWL

Received Date: 2022/8/24

Test Date: 2022/8/25 ~ 2022/9/21

Issued Date: 2022/10/3

Applicant: Wistron NeWeb Corp.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____, **Date:** 2022/10/3
May Chen / Manager

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Prepared by : Cherry Chuo / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCKS-WTW-P22080716	Original release.	2022/10/3

1 Certificate

Product: AP

Brand: WNC, Comcast, Cox, Charter

Test Model: WNXL11BWL

Sample Status: Engineering sample

Applicant: Wistron NeWeb Corp.

Test Date: 2022/8/25 ~ 2022/9/21

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 -17.51 dB at 0.15000 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.3 dB at 35.75 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 2388.10, 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.5 dB
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 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	AP
Brand	WNC, Comcast, Cox, Charter
Test Model	WNXL11BWL
Status of EUT	Engineering sample
Power Supply Rating	Refer to Note
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 11Mbps 802.11g: up to 54Mbps 802.11n: up to 300Mbps VHT: up to 400Mbps 802.11ax: up to 573.5Mbps
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 505.925 mW (27.04 dBm) Beamforming Mode 324.365 mW (25.11 dBm)

Note:

1. The EUT contains certified WWAN module which FCC ID: XMR201906EM06A (Brand: QUECTEL; Model: EM06-A)
2. The EUT uses following accessories.

AC Adapter 1		
Brand	Model	Specification
EPS3	ML36-7120300-A1	AC Input : 100-120V, 50/60Hz, 1A DC Output : 12V, 0.3A DC Output Cable : 1.8m Plug : US
AC Adapter 2		
Brand	Model	Specification
EPS3	NBC36G120300VU	AC Input : 100-120V, 50/60Hz, 1A DC Output : 12V, 0.3A DC Output Cable : 1.8m Plug : US

3. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3
WLAN 2.4GHz + BT-LE	WLAN 5GHz (Low Band)	WLAN 5GHz (High Band)

4. Simultaneously transmission condition.

Condition	Technology				
1	WLAN 2.4GHz	WLAN 5GHz (Low Band)	WLAN 5GHz (High Band)	BT-LE	LTE

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

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
2G ANT	Chain 0	WNC	XLE	4.00	2.4~2.4835	Dipole	ipex(MHF)
	Chain 1	WNC	XLE	3.20	2.4~2.4835	Dipole	ipex(MHF)
5GL ANT	Chain 0	WNC	XLE	4.60	5.15~5.35	Dipole	ipex(MHF)
	Chain 1	WNC	XLE	4.70	5.15~5.35	Dipole	ipex(MHF)
5GH ANT	Chain 0	WNC	XLE	4.90	5.47~5850	Dipole	ipex(MHF)
	Chain 1	WNC	XLE	4.50	5.47~5850	Dipole	ipex(MHF)
	Chain 2	WNC	XLE	5.00	5.47~5850	Dipole	ipex(MHF)
	Chain 3	WNC	XLE	4.80	5.47~5850	Dipole	ipex(MHF)
BLE ANT	Chain 0	WNC	XLE	4.10	2.4~2.4835	PCB	ipex(MHF)

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

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

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	3.63	Dipole	i-pex(MHF)
5.15~5.24	5.68		
5.725~5.85	4.89		

Note: Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.

2. The EUT incorporates a MIMO function:

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

Note:

- All of modulation mode support beamforming function except 802.11b modulation mode.
- 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.
- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz) and VHT mode for 20 MHz (40 MHz) and 802.11ax mode for 20MHz (40MHz), therefore the manufacturer will control the power for 802.11n/VHT mode is the same as the 802.11ax 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: EPS3 ML36-7120300-A1/ EPS3 NBC36G120300VU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter Worst Condition:EPS3 ML36-7120300-A1 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Test Item	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
	802.11n (HT20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11n (HT40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
	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
6 dB Bandwidth / Conducted Out of Band Emissions / 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 & Beamforming	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11b	CDD	6	DBPSK	1Mb/s
Unwanted Emissions below 1 GHz	802.11b	CDD	6	DBPSK	1Mb/s
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 & Beamforming	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0

Note: Only support Full RU for OFDMA.

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 CDD: Duty cycle = $3.193 \text{ ms} / 3.216 \text{ ms} \times 100\% = 99.3\%$

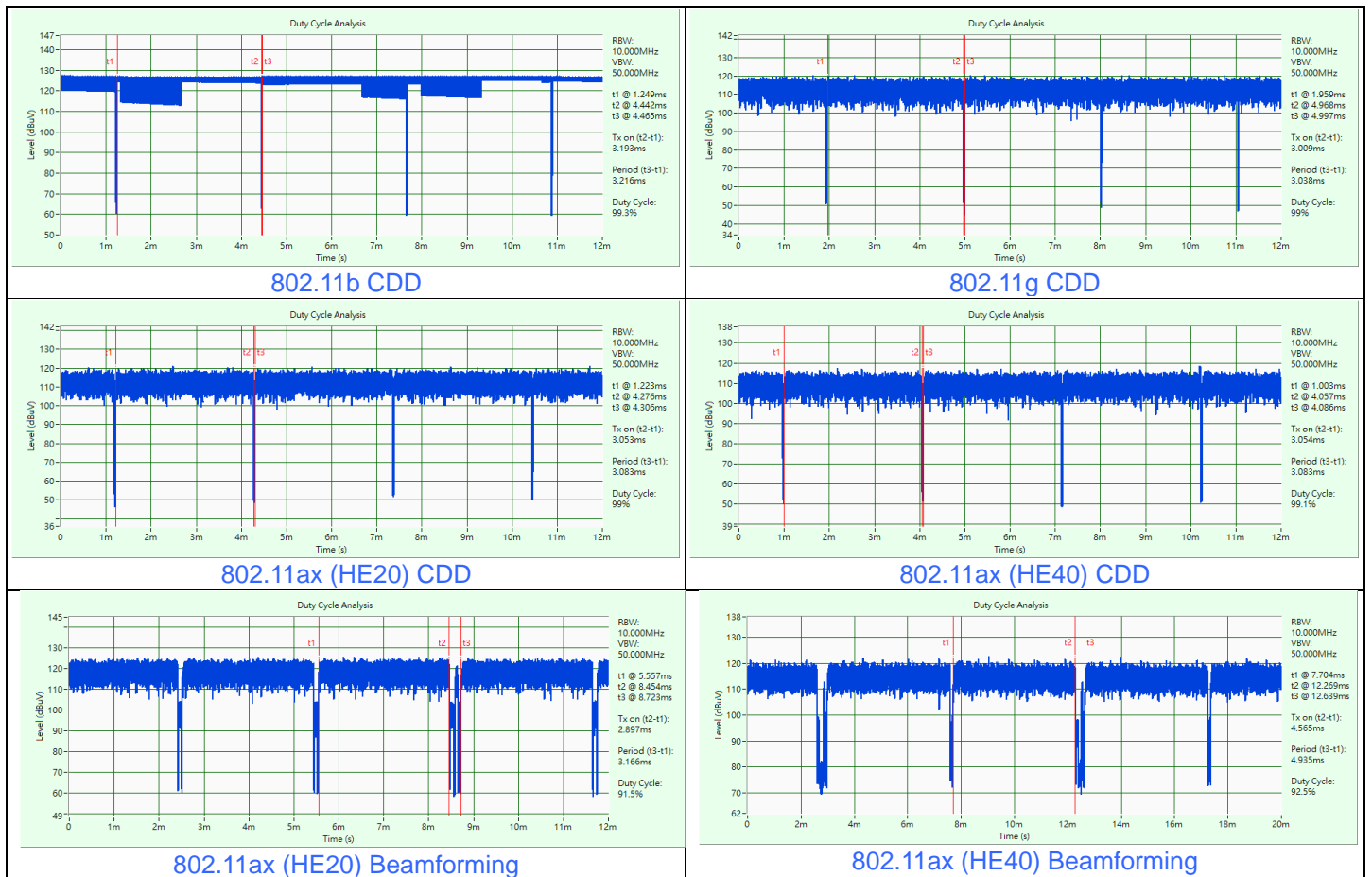
802.11g CDD: Duty cycle = $3.009 \text{ ms} / 3.038 \text{ ms} \times 100\% = 99.0\%$

802.11ax (HE20) CDD: Duty cycle = $3.053 \text{ ms} / 3.083 \text{ ms} \times 100\% = 99.0\%$

802.11ax (HE40) CDD: Duty cycle = $3.054 \text{ ms} / 3.083 \text{ ms} \times 100\% = 99.1\%$

802.11ax (HE20) Beamforming: Duty cycle = $2.897 \text{ ms} / 3.166 \text{ ms} \times 100\% = 91.5\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 0.39 \text{ dB}$

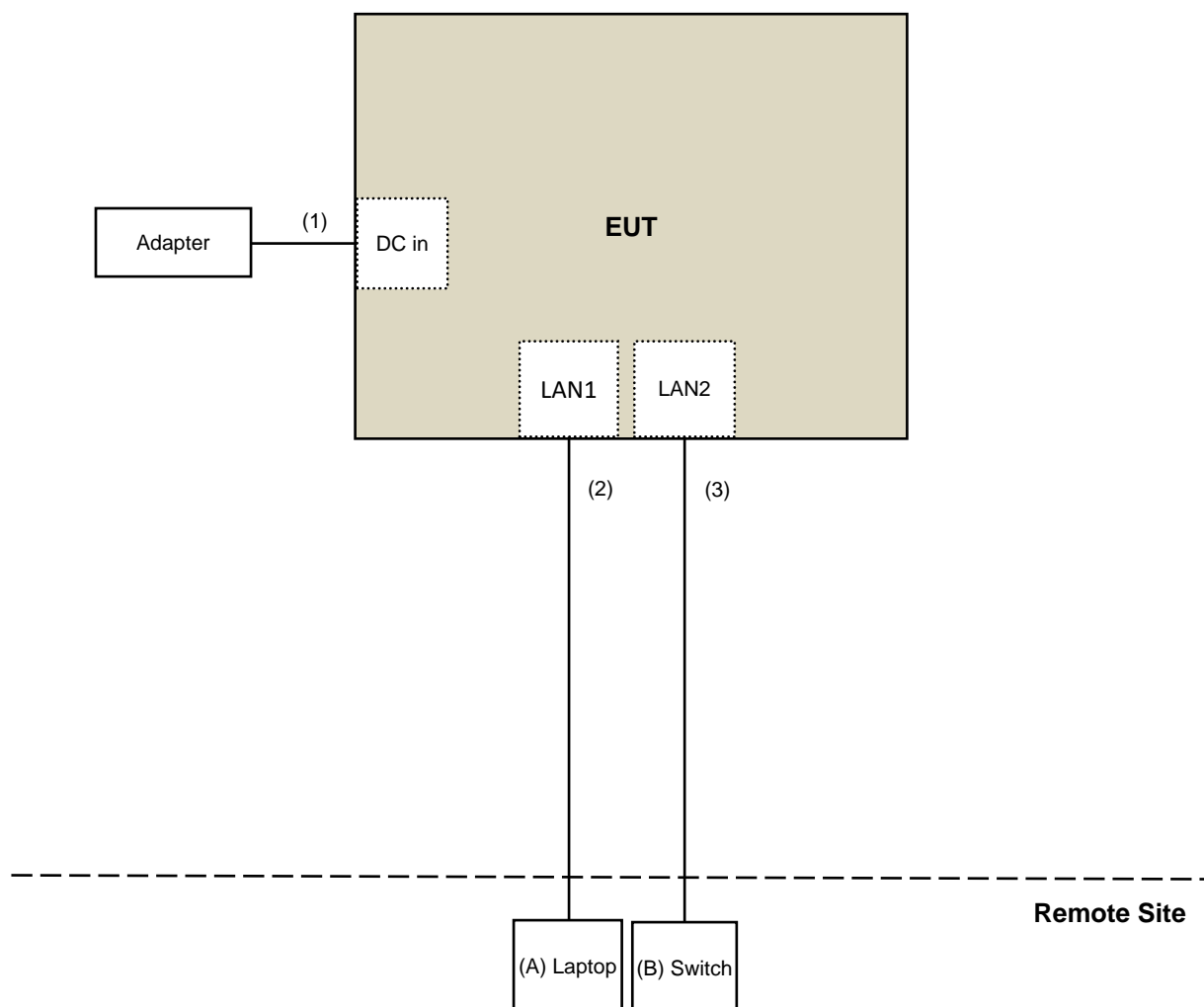
802.11ax (HE40) Beamforming: Duty cycle = $4.565 \text{ ms} / 4.935 \text{ ms} \times 100\% = 92.5\%$, duty factor = $10 * \log(1/\text{Duty cycle}) = 0.34 \text{ dB}$



3.6 Test Program Used and Operation Descriptions

Controlling software (accessMTool_REL_3_2_1_5) 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	Dell	P92G	BM6Q4P2	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	DC Cable	1	1.8	No	0	Supplied by applicant
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	1	10	No	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
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

Notes:

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

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: 2022/8/26

4.3 6 dB Bandwidth

Refer to section 4.2 to get information of the instruments.

4.4 Conducted Out of Band Emissions

Refer to section 4.2 to get information of the instruments.

4.5 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohms Terminator	50	3	2021/10/27	2022/10/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
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: 2022/9/21

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bilog Antenna Schwarzbeck	VULB 9168	9168-0942	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-ATT5-01	2022/1/10	2023/1/9
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
Pre_Amplifier EMCI	EMC001340	980142	2022/6/2	2023/6/1
Pre_Amplifier(20M-3G) EMCI	EMC330N	980852	2022/3/28	2023/3/27
RF Coaxial Cable COMMATE/PEWC	8D	966-6-1	2022/4/25	2023/4/24
		966-6-2	2022/4/25	2023/4/24
		966-6-3	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
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 KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2022/9/20

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-2035	2021/11/14	2022/11/13
	BBHA 9170	BBHA9170519	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980385	2022/8/15	2023/8/14
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable EMCI	EMC104-SM-SM-1300	210205	2022/5/10	2023/5/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
	EMC101G-KM-KM-10000	210708	2021/11/9	2022/11/8
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 KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2022/8/25 ~ 2022/9/19

5 Limits of Test Items

5.1 RF Output Power

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30 dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

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

5.5 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.6 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.7 Unwanted Emissions above 1 GHz

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

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

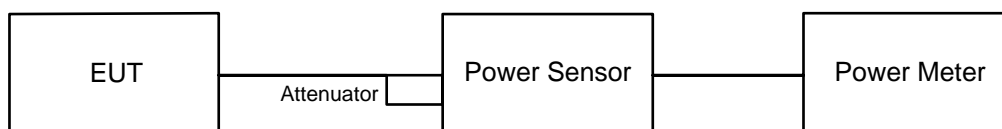
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



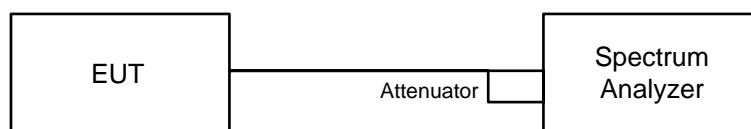
6.1.2 Test Procedure

Average Power:

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

6.2 Power Spectral Density

6.2.1 Test Setup



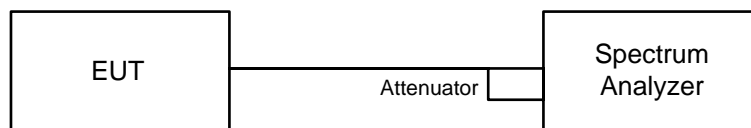
6.2.2 Test Procedure

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

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

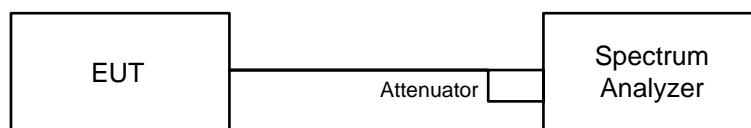


6.3.2 Test Procedure

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

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

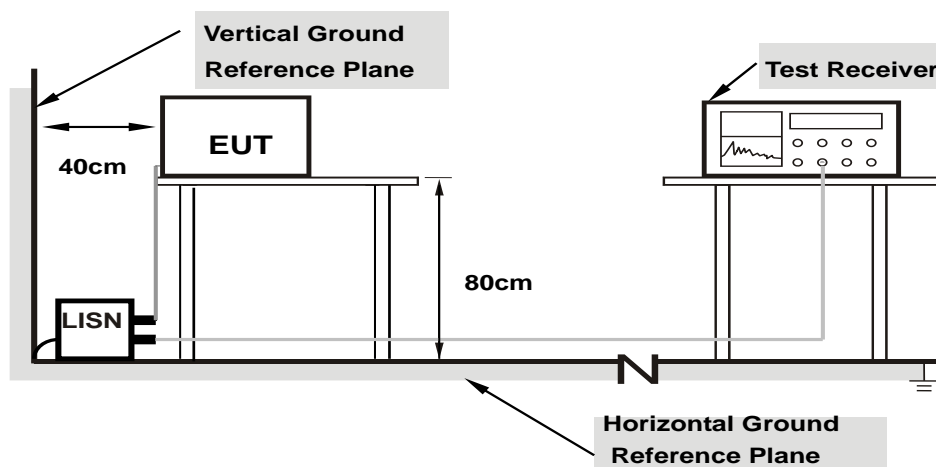
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

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

6.5 AC Power Conducted Emissions

6.5.1 Test Setup



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

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

6.5.2 Test Procedure

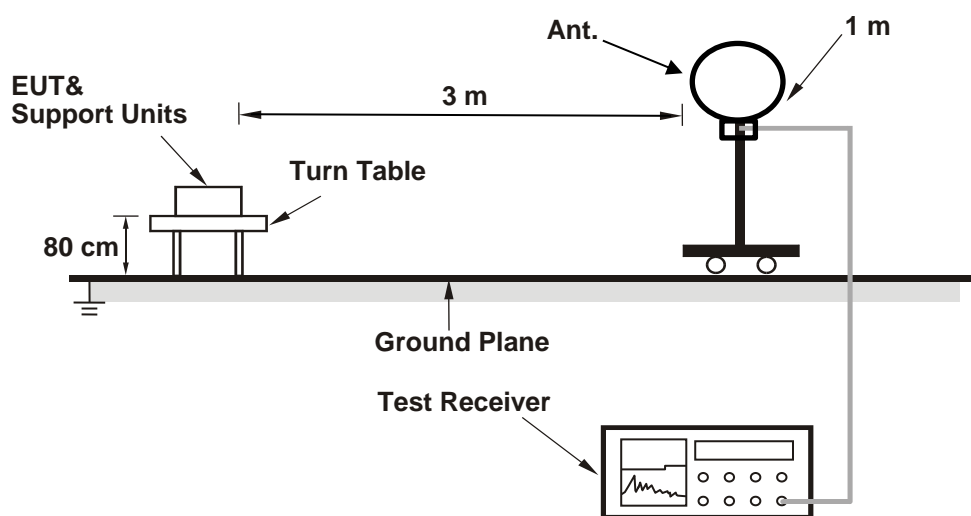
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

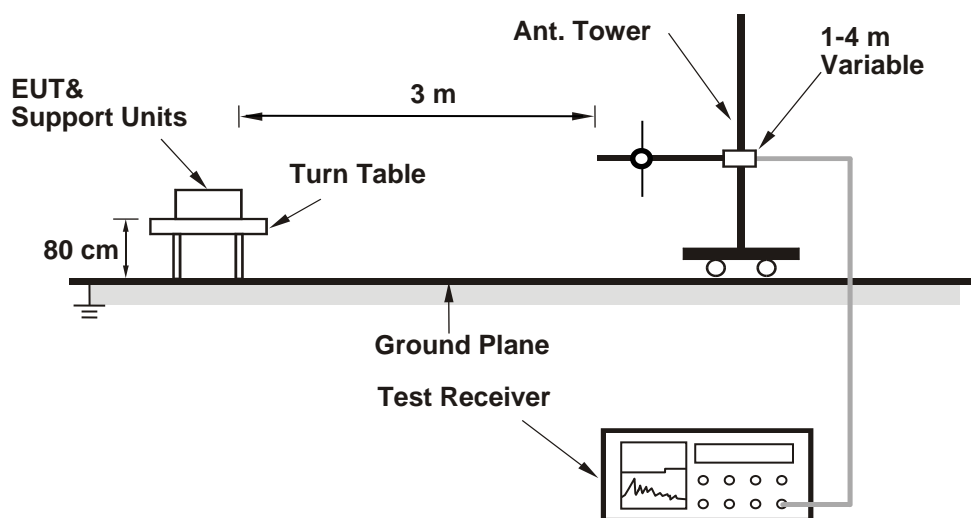
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

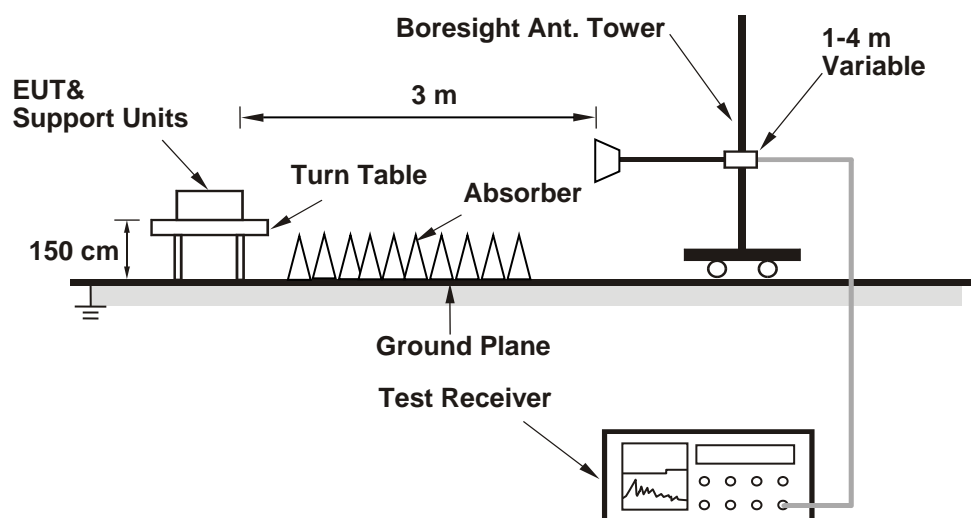
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 62% RH	Tested By:	John Peng
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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				
1	2412	23.09	23.07	406.472	26.09	30	Pass
6	2437	23.96	24.10	505.925	27.04	30	Pass
11	2462	23.74	23.67	469.401	26.72	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 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				
1	2412	20.03	20.15	204.207	23.10	30	Pass
6	2437	22.97	23.20	407.082	26.10	30	Pass
11	2462	20.19	20.36	213.115	23.29	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	19.42	19.44	175.401	22.44	30	Pass
6	2437	22.53	22.72	366.129	25.64	30	Pass
11	2462	19.40	19.50	176.221	22.46	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	17.16	17.11	103.404	20.15	30	Pass
6	2437	17.97	18.00	125.757	21.00	30	Pass
9	2452	17.96	18.38	131.382	21.19	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 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				
1	2412	19.63	19.64	183.878	22.65	30	Pass
6	2437	22.75	22.98	386.974	25.88	30	Pass
11	2462	19.65	19.77	187.099	22.72	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 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				
3	2422	17.38	17.36	109.152	20.38	30	Pass
6	2437	18.26	18.30	134.597	21.29	30	Pass
9	2452	18.16	18.61	138.074	21.40	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 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				
1	2412	19.87	19.91	195	22.90	30	Pass
6	2437	23.04	23.19	409.822	26.13	30	Pass
11	2462	19.86	20.04	197.753	22.96	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 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				
3	2422	17.61	17.58	114.956	20.61	30	Pass
6	2437	18.52	18.56	142.901	21.55	30	Pass
9	2452	18.42	18.83	145.886	21.64	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	16.39	16.43	87.505	19.42	30	Pass
6	2437	21.59	21.66	290.766	24.64	30	Pass
11	2462	16.35	16.41	86.904	19.39	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.14	15.38	67.173	18.27	30	Pass
6	2437	17.06	17.20	103.297	20.14	30	Pass
9	2452	15.65	15.68	73.711	18.68	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 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				
1	2412	16.63	16.69	92.692	19.67	30	Pass
6	2437	21.85	21.88	307.279	24.88	30	Pass
11	2462	16.59	16.65	91.842	19.63	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.37	15.61	70.826	18.50	30	Pass
6	2437	17.29	17.44	109.042	20.38	30	Pass
9	2452	15.88	15.91	77.72	18.91	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	16.87	16.94	98.072	19.92	30	Pass
6	2437	22.08	22.12	324.365	25.11	30	Pass
11	2462	16.83	16.92	97.399	19.89	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	15.62	15.85	74.935	18.75	30	Pass
6	2437	17.53	17.68	115.238	20.62	30	Pass
9	2452	16.12	16.14	82.041	19.14	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 3.63 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 62% RH	Tested By:	John Peng
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802.11b CDD

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-8.30	-8.16	-5.22	8.00	Pass
6	2437	-6.88	-6.94	-3.90	8.00	Pass
11	2462	-7.65	-7.53	-4.58	8.00	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11g CDD

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-14.70	-14.89	-11.78	8.00	Pass
6	2437	-11.64	-10.70	-8.13	8.00	Pass
11	2462	-14.70	-14.45	-11.56	8.00	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-16.96	-16.72	-13.83	8.00	Pass
6	2437	-12.83	-12.77	-9.79	8.00	Pass
11	2462	-16.41	-16.49	-13.44	8.00	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
3	2422	-22.73	-22.79	-19.75	8.00	Pass
6	2437	-21.40	-21.01	-18.19	8.00	Pass
9	2452	-21.24	-21.33	-18.27	8.00	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1				
1	2412	-15.63	-14.79	0.39	-11.79	8.00	Pass
6	2437	-9.70	-9.33	0.39	-6.12	8.00	Pass
11	2462	-16.85	-14.64	0.39	-12.21	8.00	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

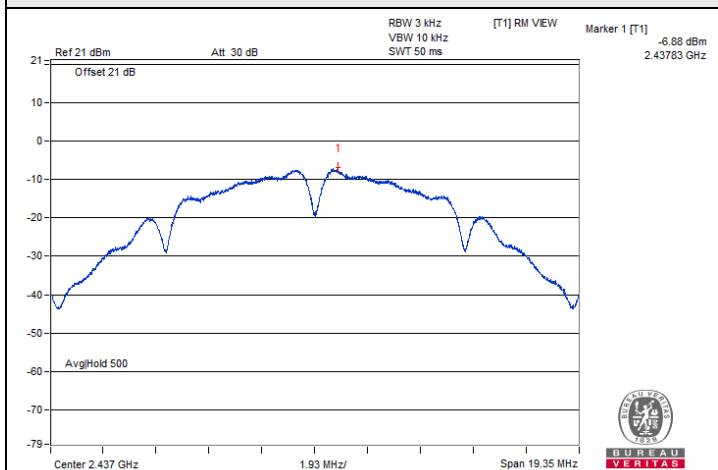
802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1				
3	2422	-21.56	-21.41	0.34	-18.14	8.00	Pass
6	2437	-18.14	-18.96	0.34	-15.18	8.00	Pass
9	2452	-20.74	-20.87	0.34	-17.46	8.00	Pass

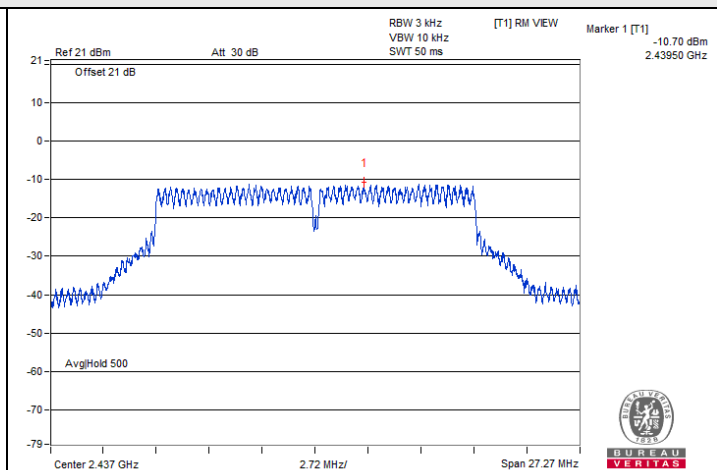
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 3.63 dBi < 6 dBi, so the power density limit shall not be reduced.

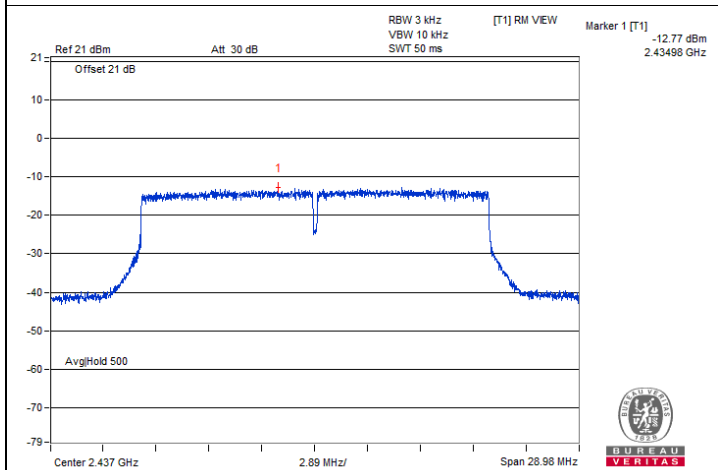
Spectrum Plot of Maximum Value



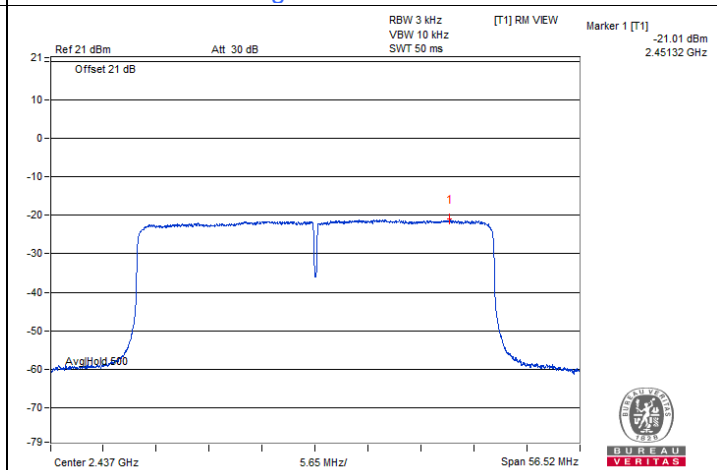
802.11b CDD / Chain0 : CH 6



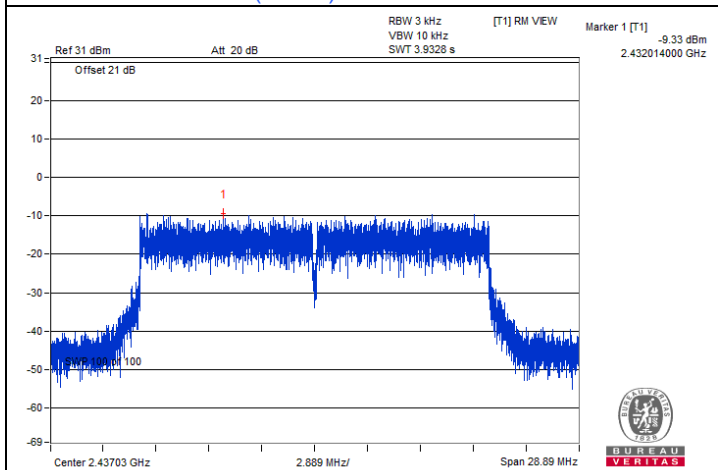
802.11g CDD / Chain1 : CH 6



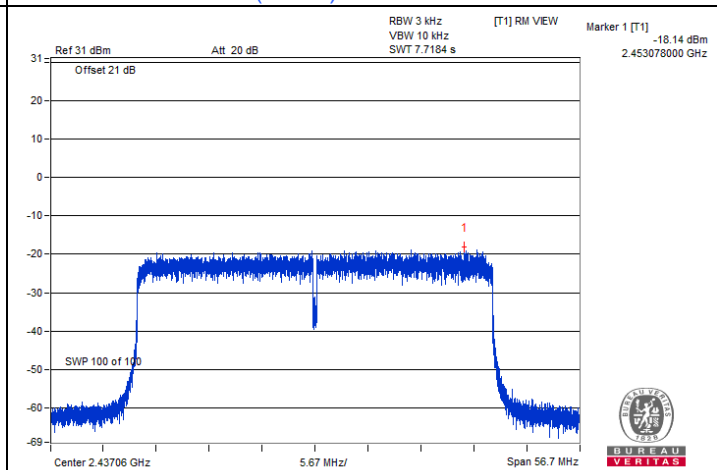
802.11ax (HE20) CDD / Chain1 : CH 6



802.11ax (HE40) CDD / Chain1 : CH 6



802.11ax (HE20) Beamforming / Chain1 : CH 6



802.11ax (HE40) Beamforming / Chain0 : CH 6

7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 62% RH	Tested By:	John Peng
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802.11b CDD

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	7.08	7.07	0.5	Pass
6	2437	7.57	7.54	0.5	Pass
11	2462	7.08	7.09	0.5	Pass

802.11g CDD

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	16.36	16.38	0.5	Pass
6	2437	16.38	16.36	0.5	Pass
11	2462	16.36	16.37	0.5	Pass

802.11ax (HE20) CDD

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	18.98	18.84	0.5	Pass
6	2437	18.90	18.73	0.5	Pass
11	2462	18.99	18.85	0.5	Pass

802.11ax (HE40) CDD

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	2422	37.59	37.27	0.5	Pass
6	2437	37.73	37.21	0.5	Pass
9	2452	37.67	37.03	0.5	Pass

802.11ax (HE20) Beamforming

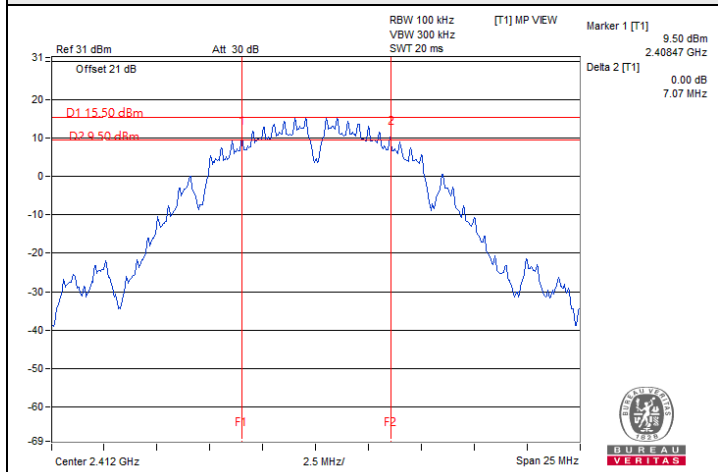
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	18.99	18.81	0.5	Pass
6	2437	19.04	18.87	0.5	Pass
11	2462	18.99	18.80	0.5	Pass



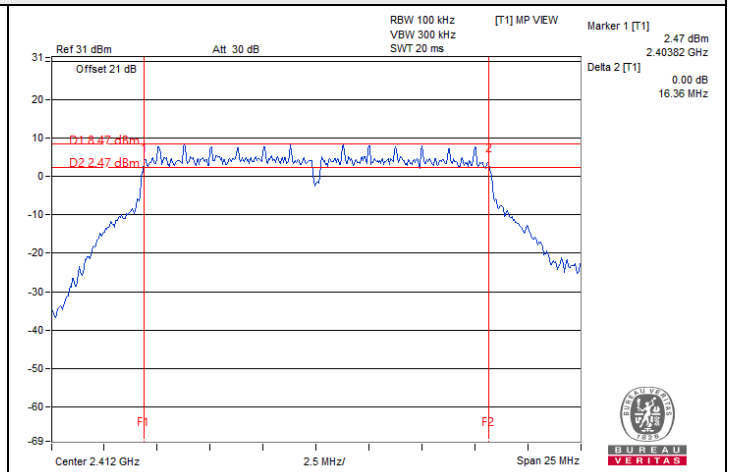
802.11ax (HE40) Beamforming

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	2422	37.35	37.04	0.5	Pass
6	2437	37.84	37.28	0.5	Pass
9	2452	37.51	36.95	0.5	Pass

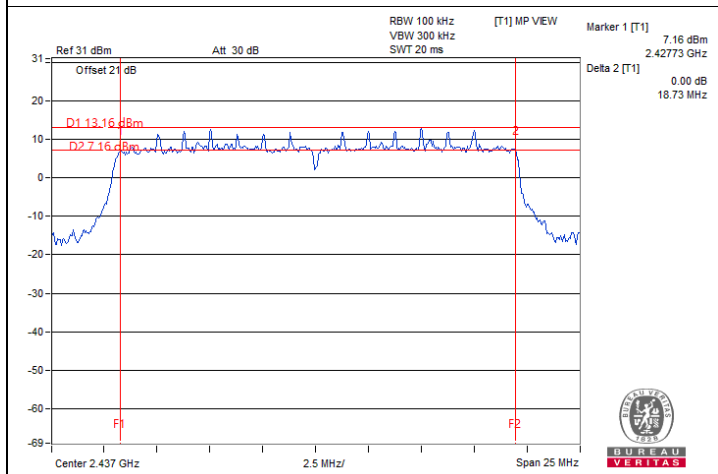
Spectrum Plot of Minimum Value



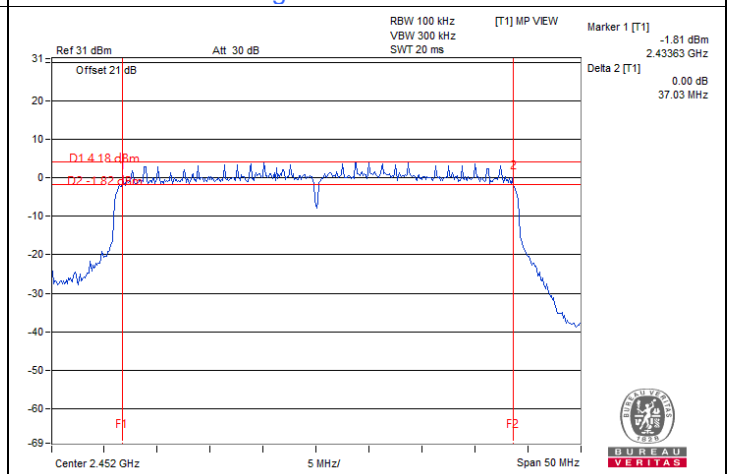
802.11b CDD / Chain1 : CH 1



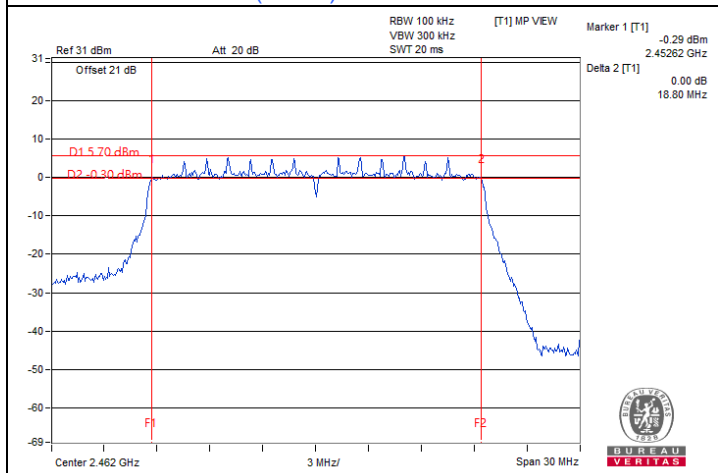
802.11g CDD / Chain0 : CH 1



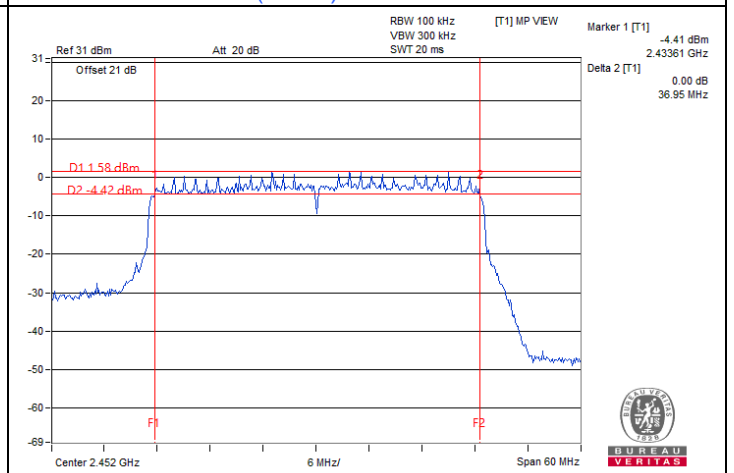
802.11ax (HE20) CDD / Chain1 : CH 6



802.11ax (HE40) CDD / Chain1 : CH 9



802.11ax (HE20) Beamforming / Chain1 : CH 11

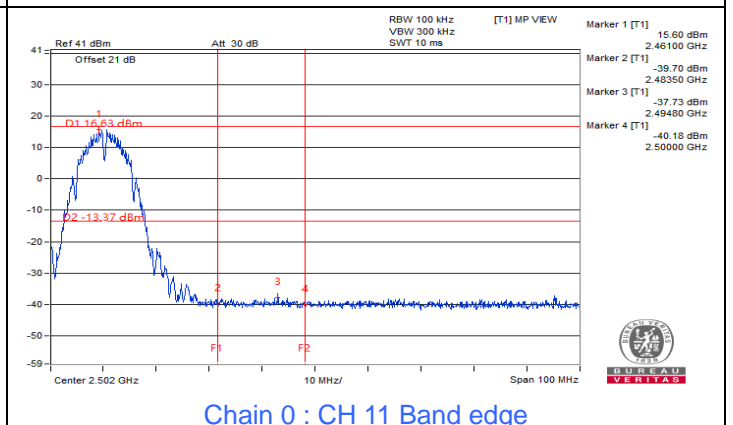
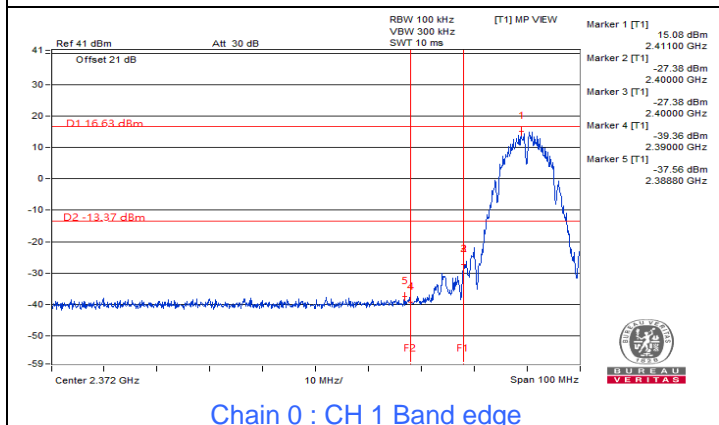
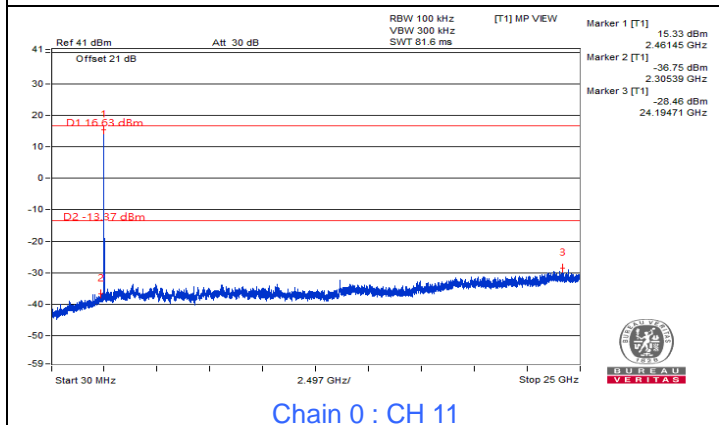
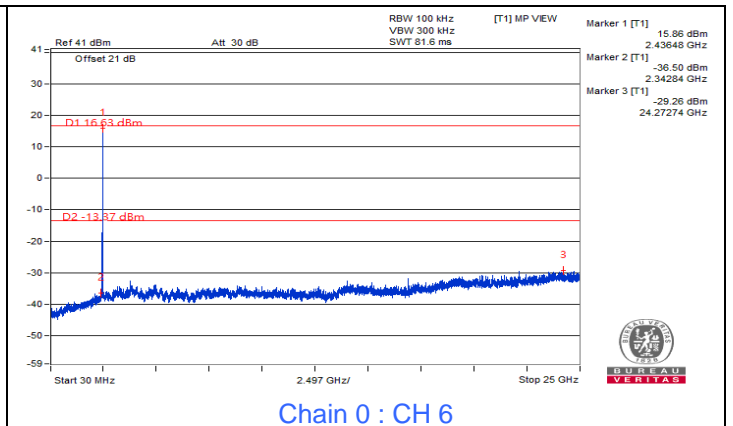
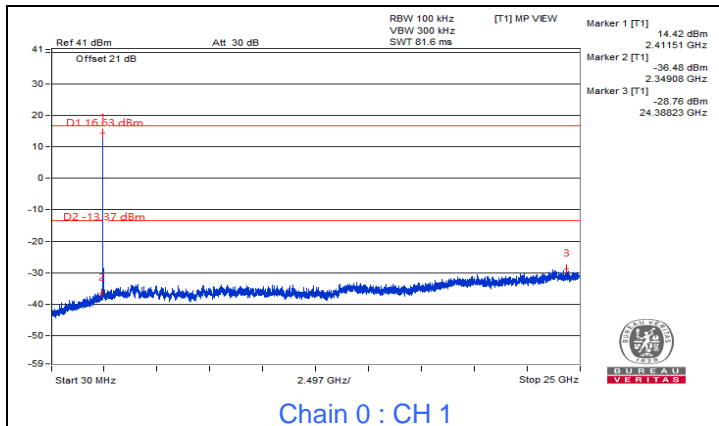
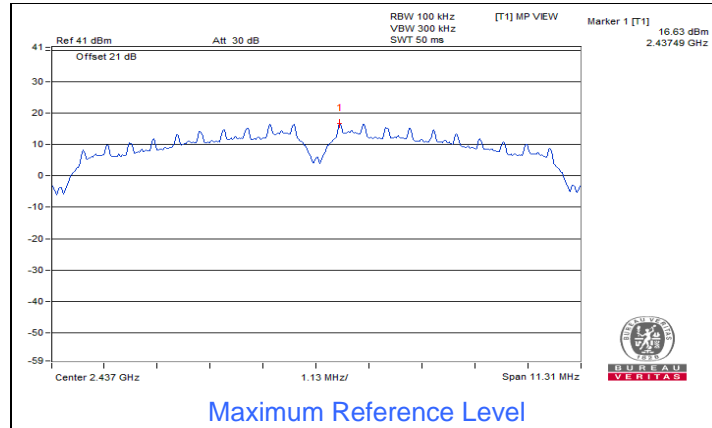


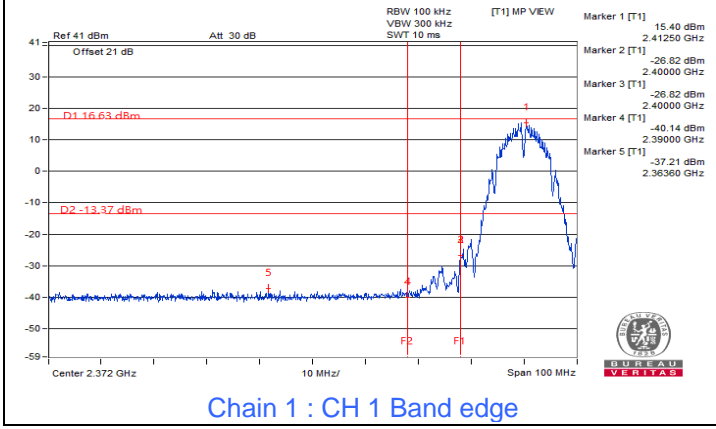
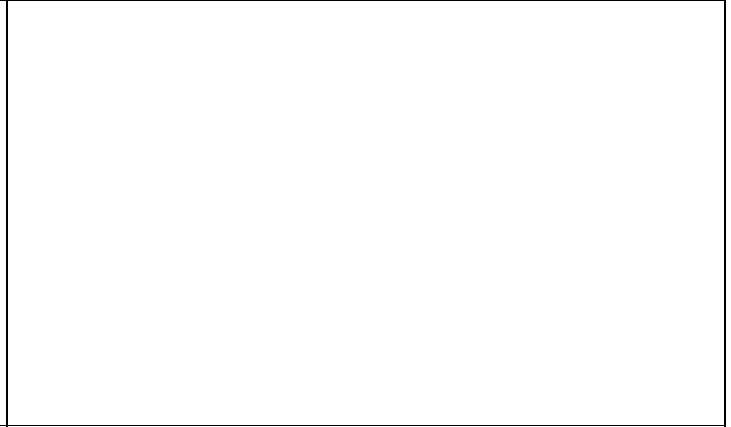
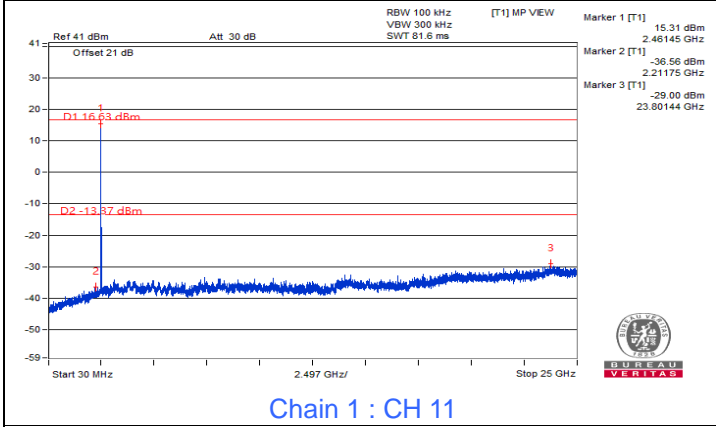
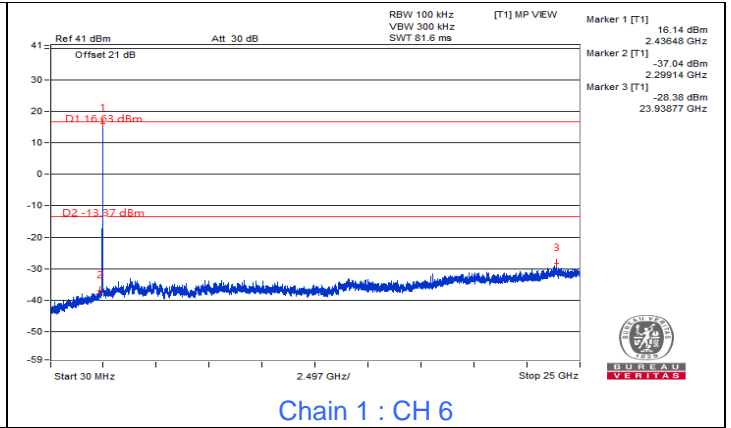
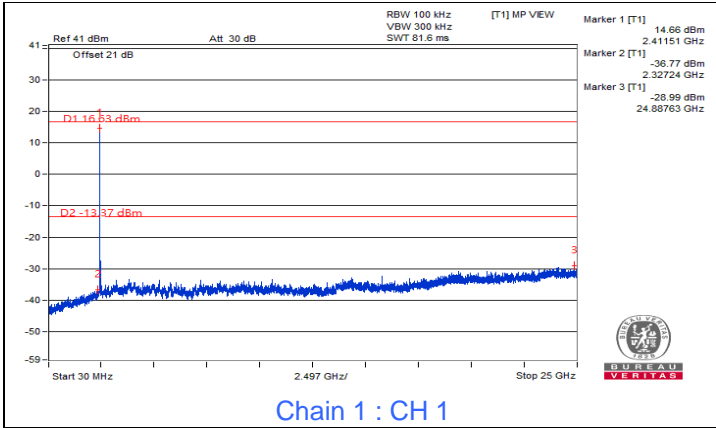
802.11ax (HE40) Beamforming / Chain1 : CH 9

7.4 Conducted Out of Band Emissions

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 62% RH	Tested By:	John Peng
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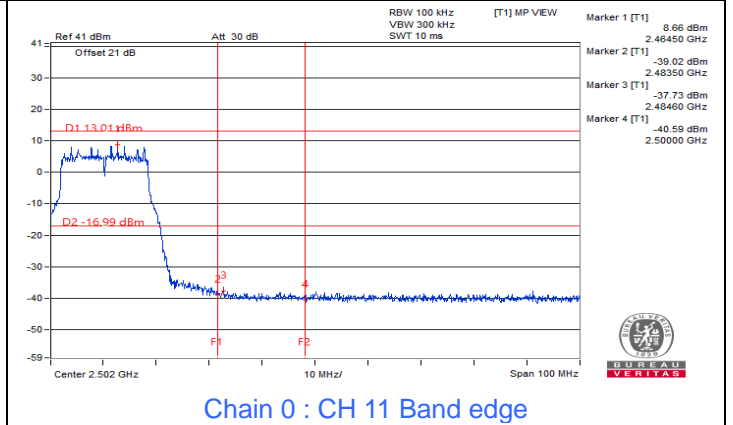
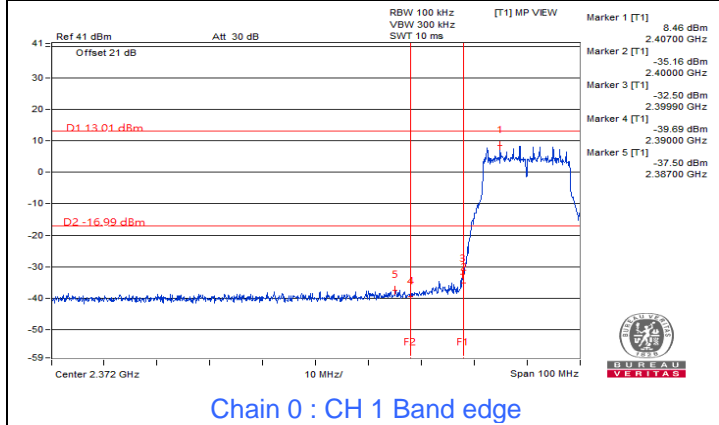
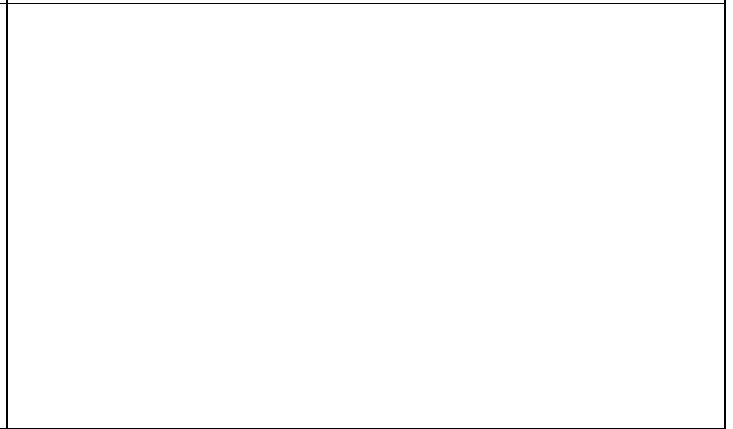
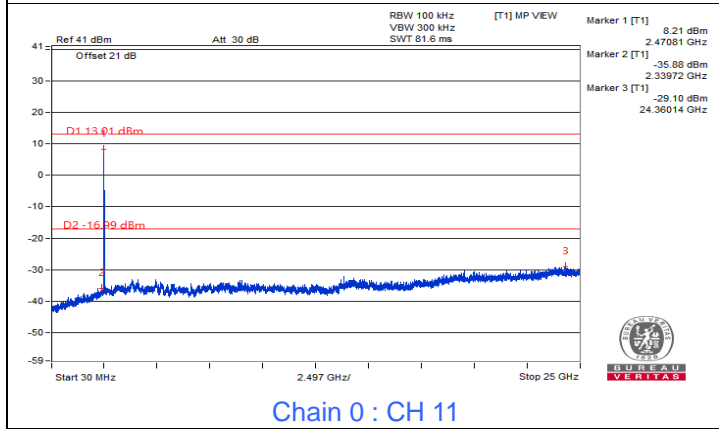
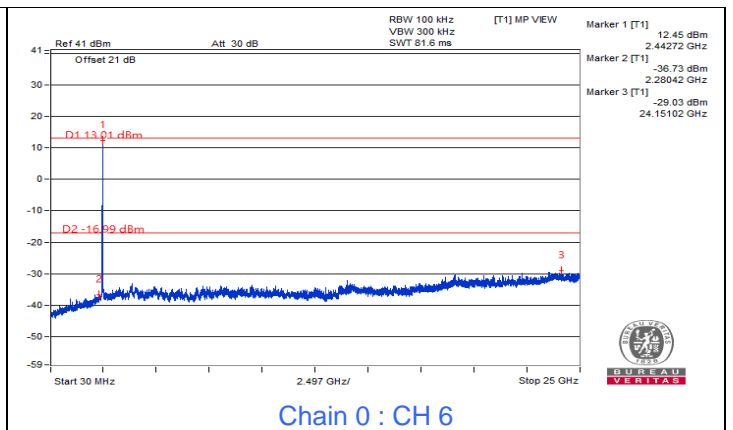
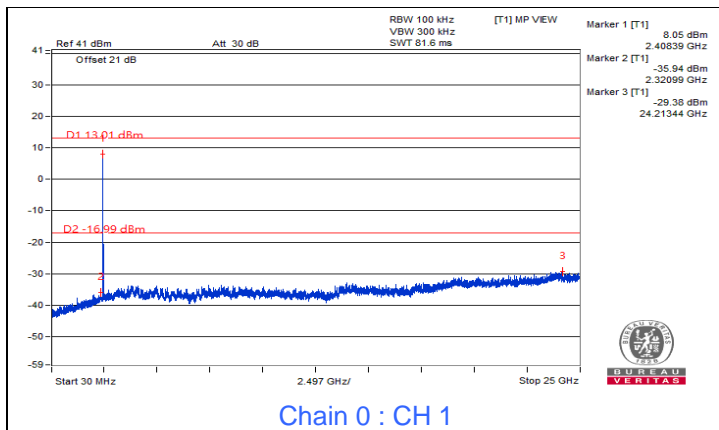
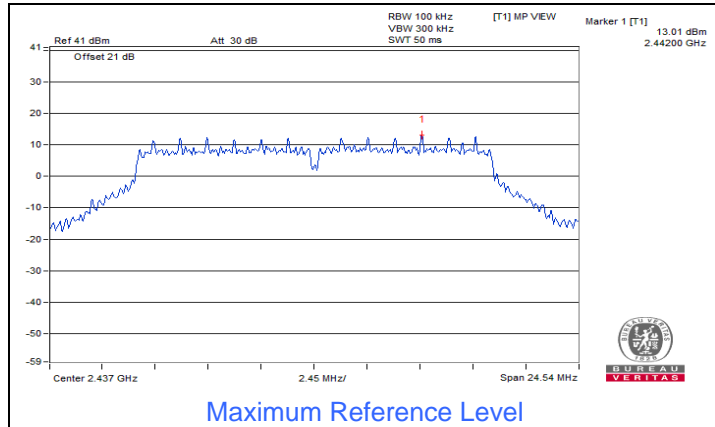
802.11b CDD

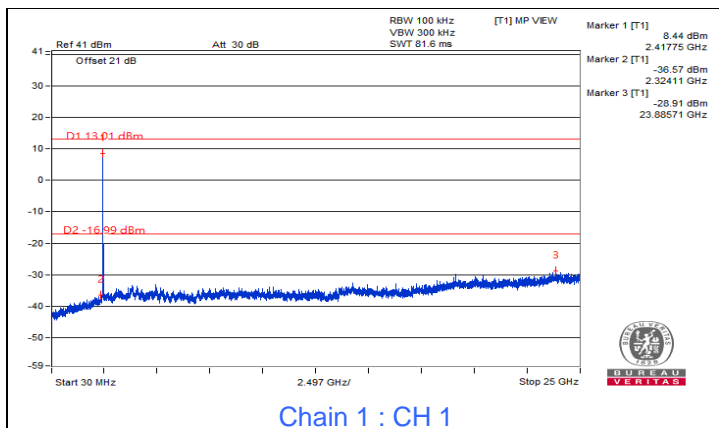




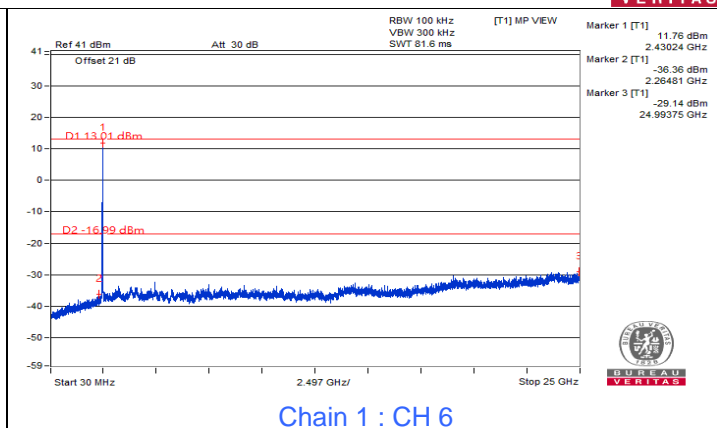


802.11g CDD

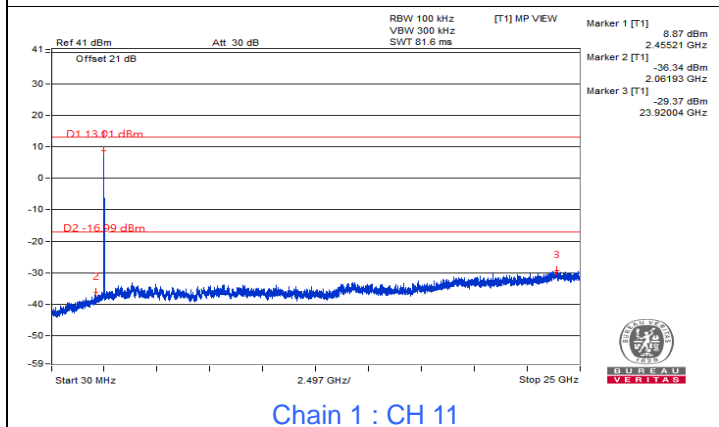




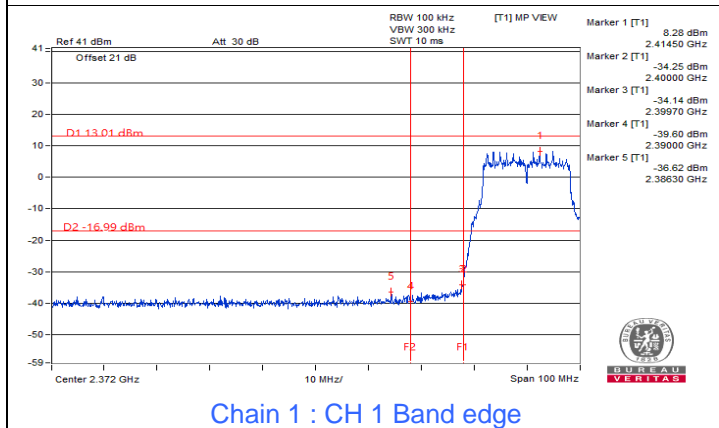
Chain 1 : CH 1



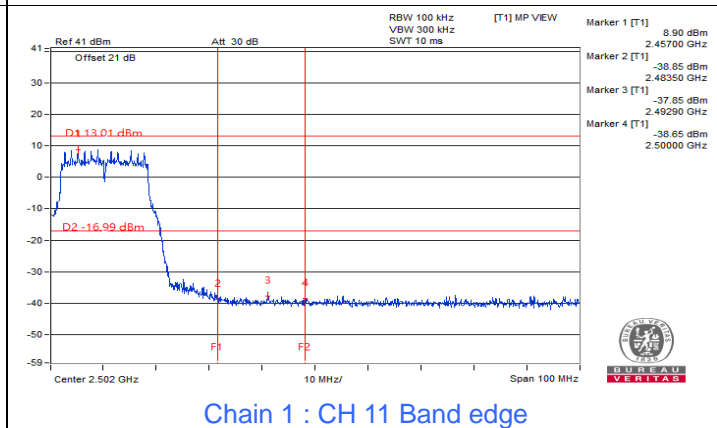
Chain 1 : CH 6



Chain 1 : CH 11



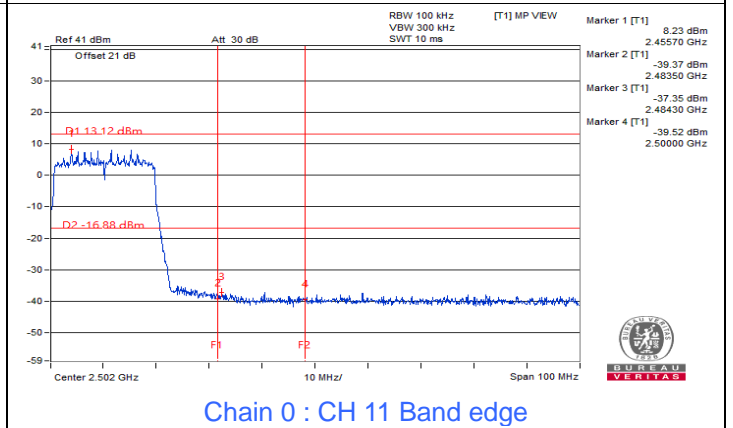
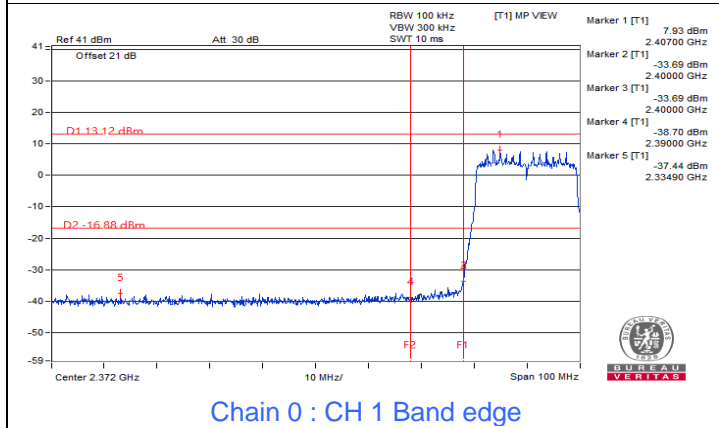
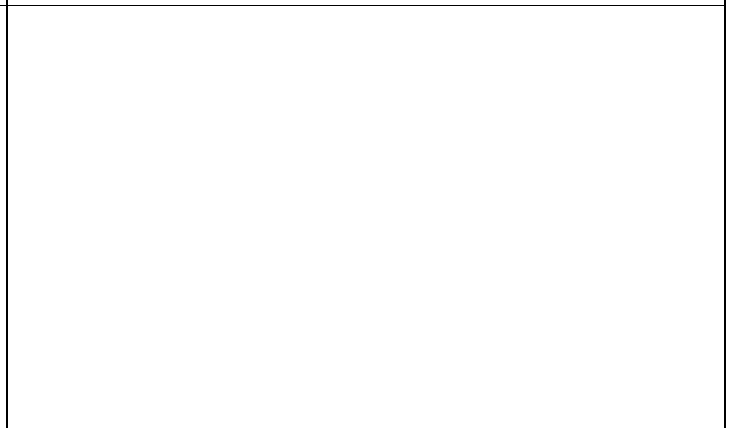
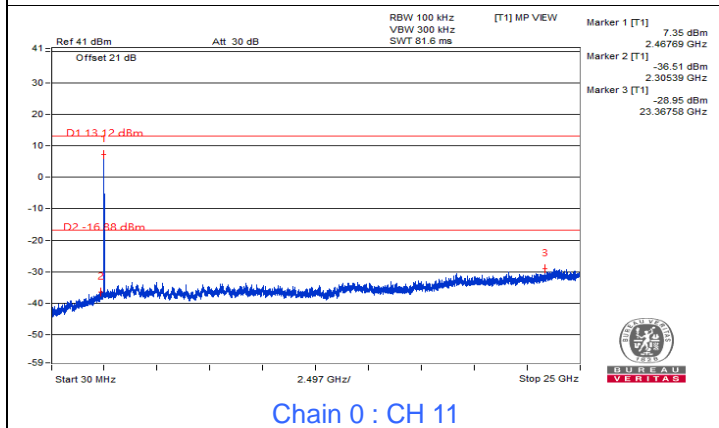
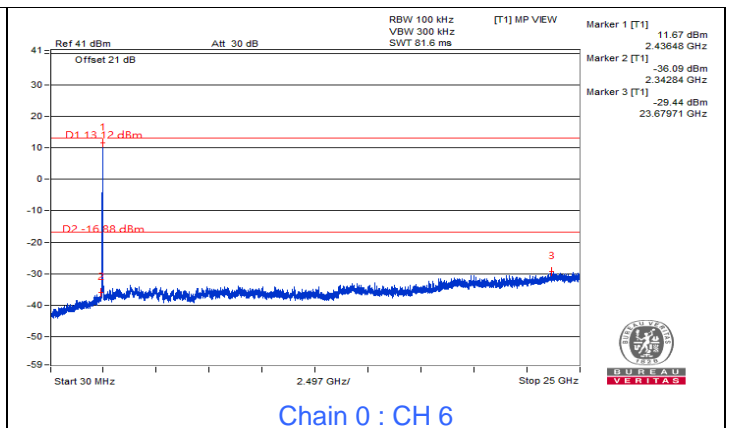
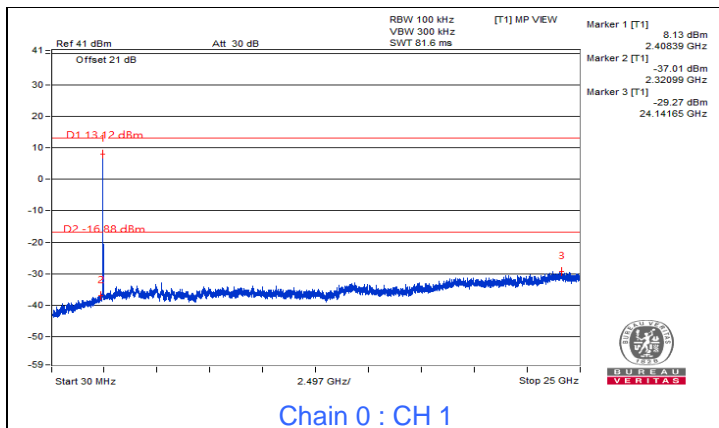
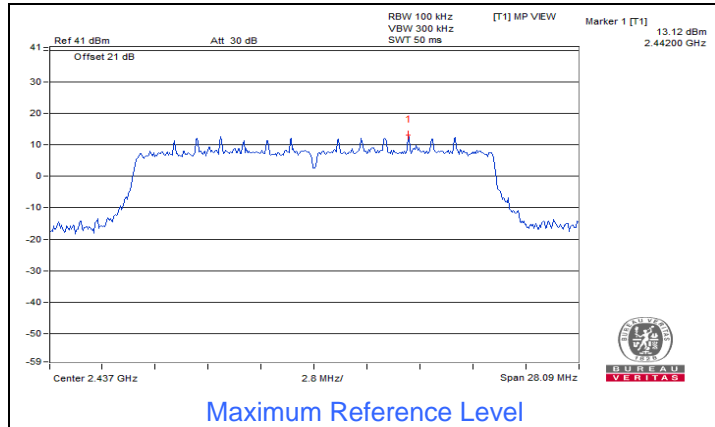
Chain 1 : CH 1 Band edge



Chain 1 : CH 11 Band edge

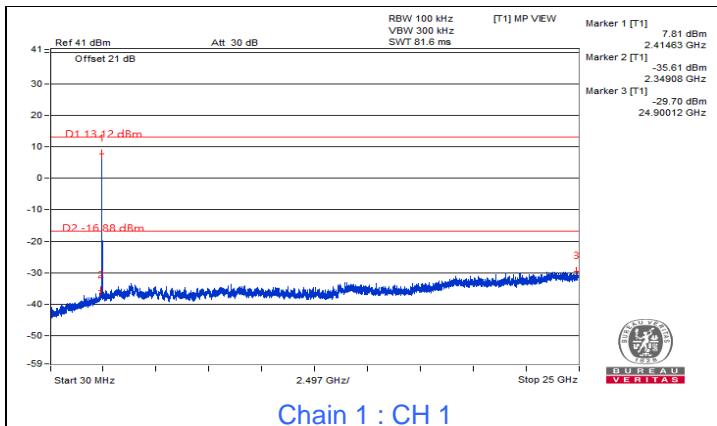


802.11ax (HE20) CDD

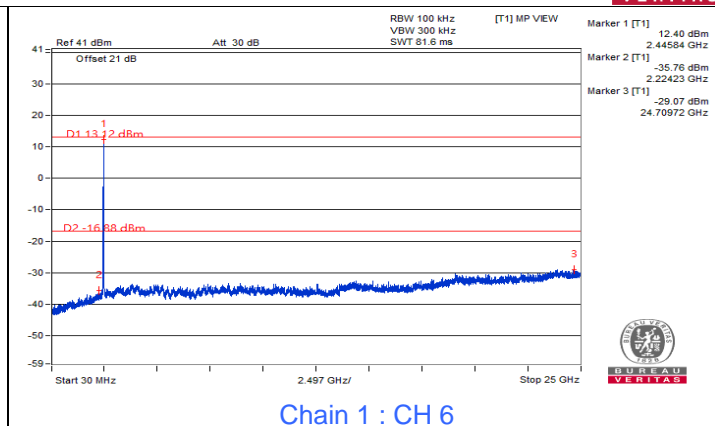




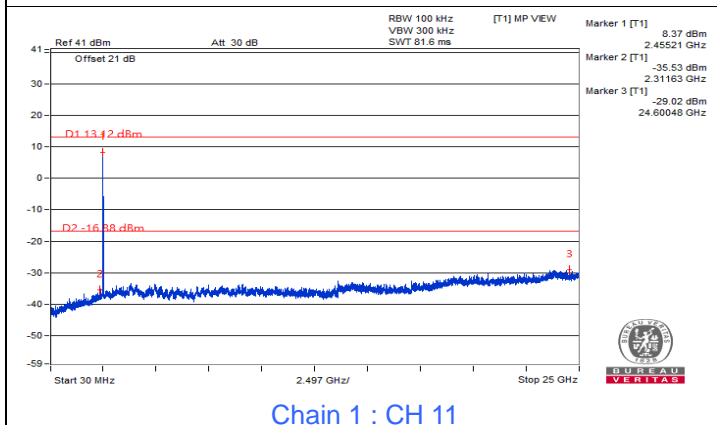
BUREAU VERITAS



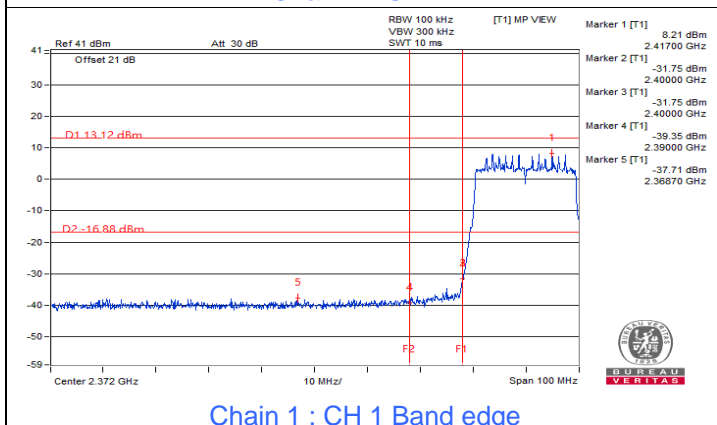
Chain 1 : CH 1



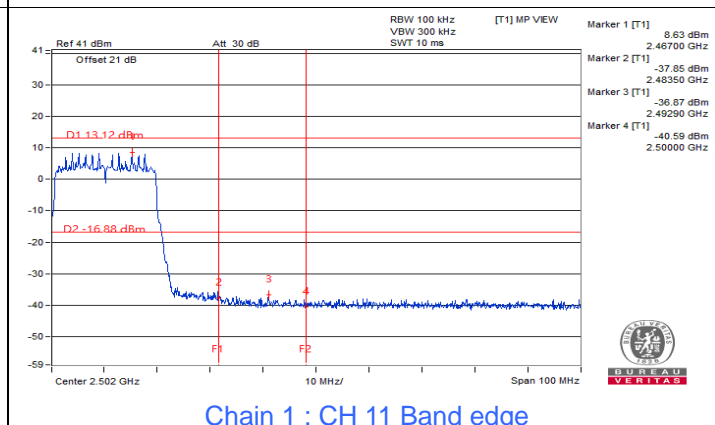
Chain 1 : CH 6



Chain 1 : CH 11



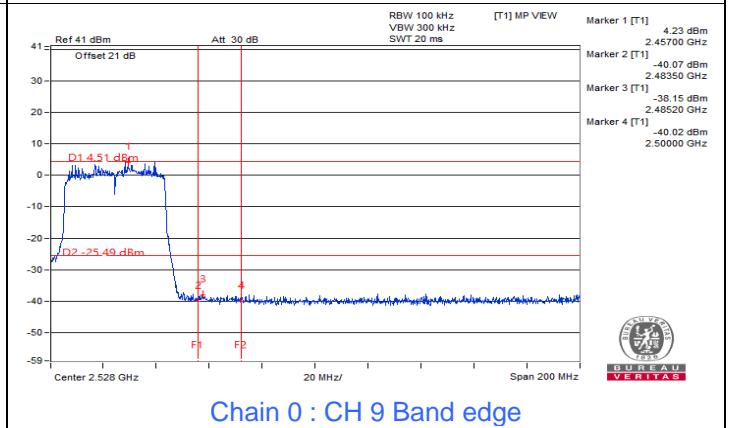
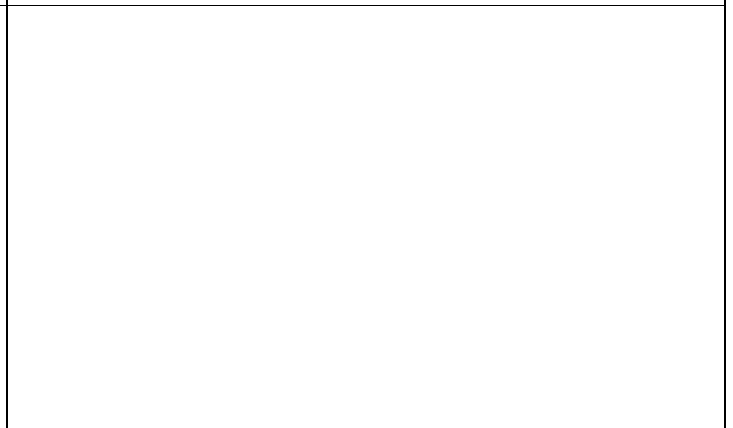
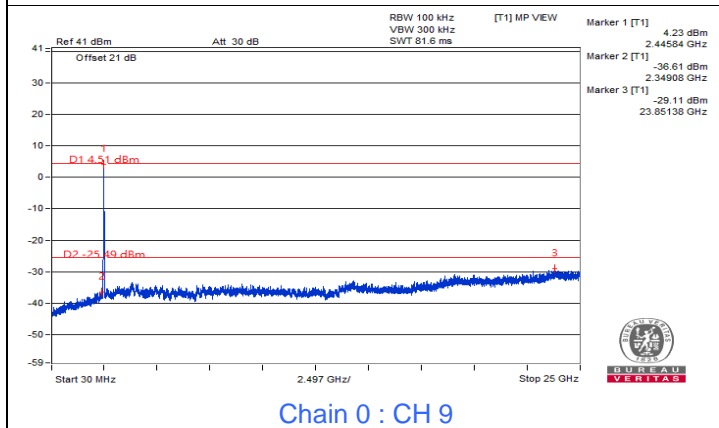
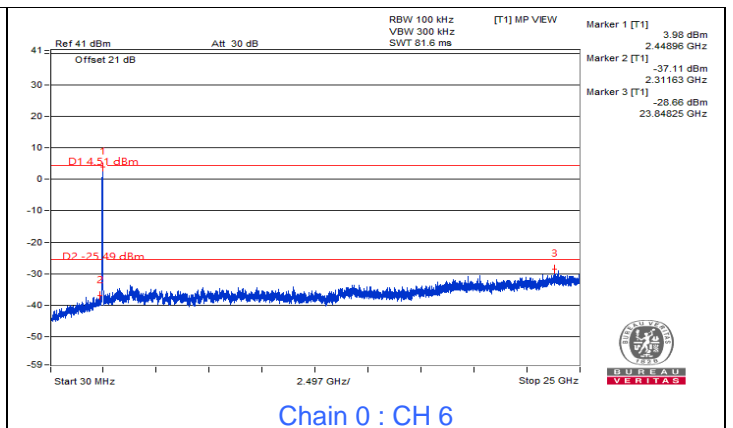
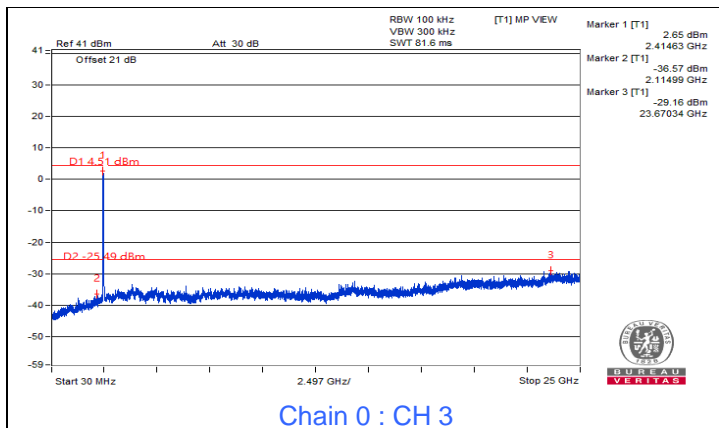
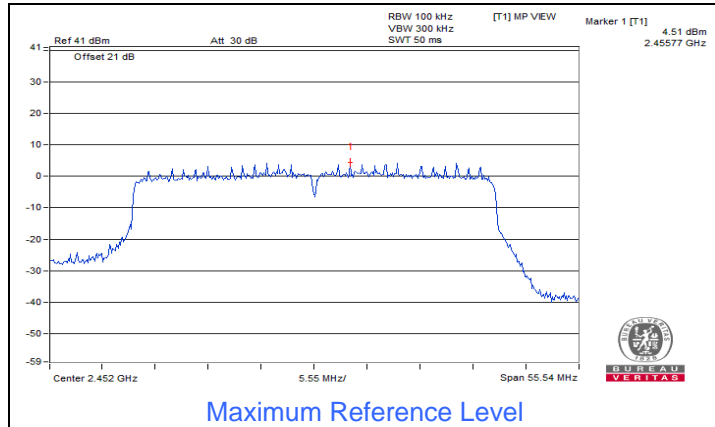
Chain 1 : CH 1 Band edge

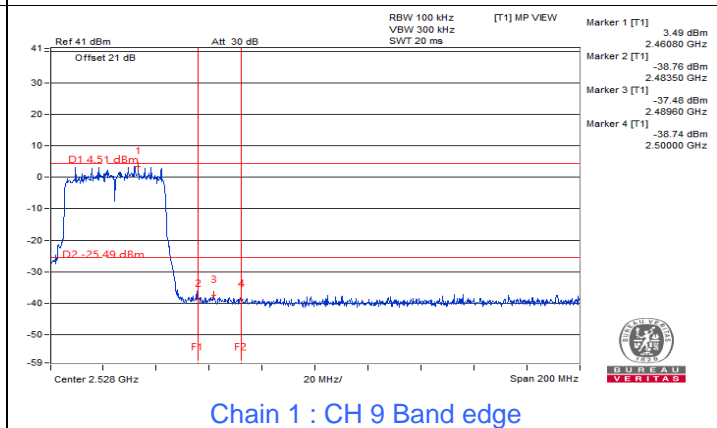
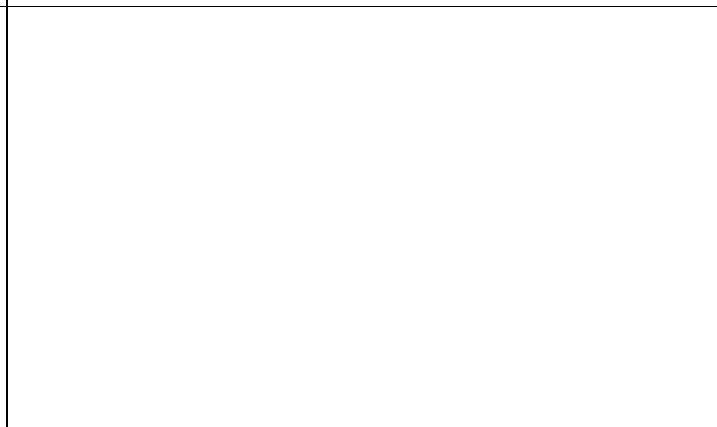
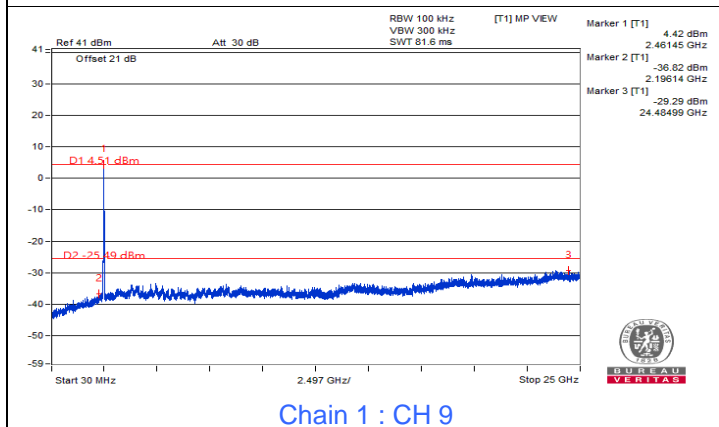
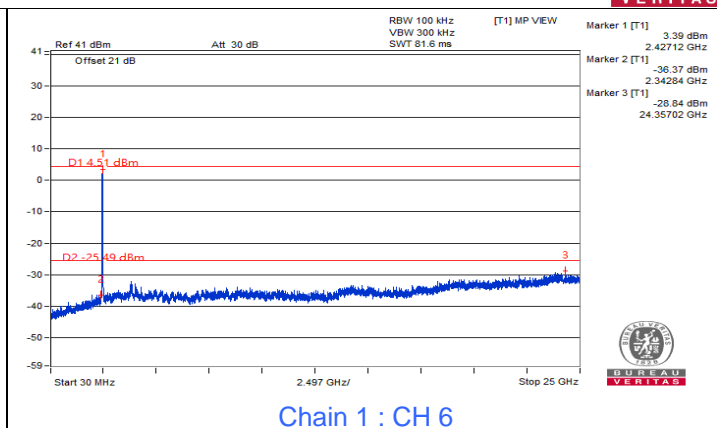
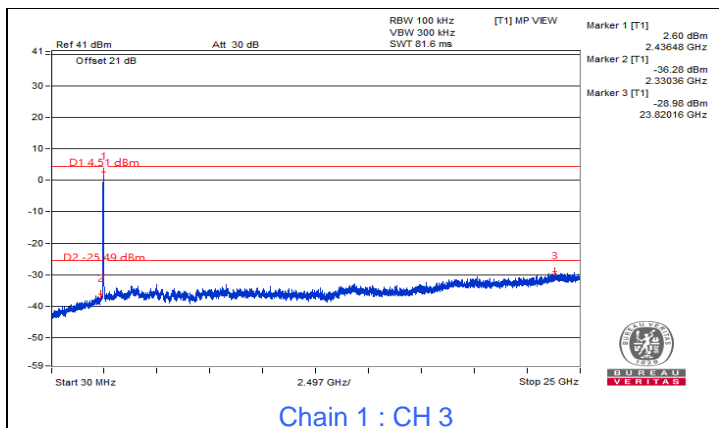


Chain 1 : CH 11 Band edge



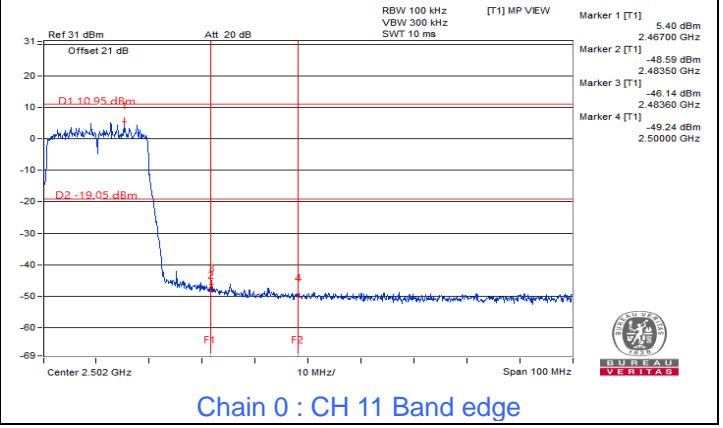
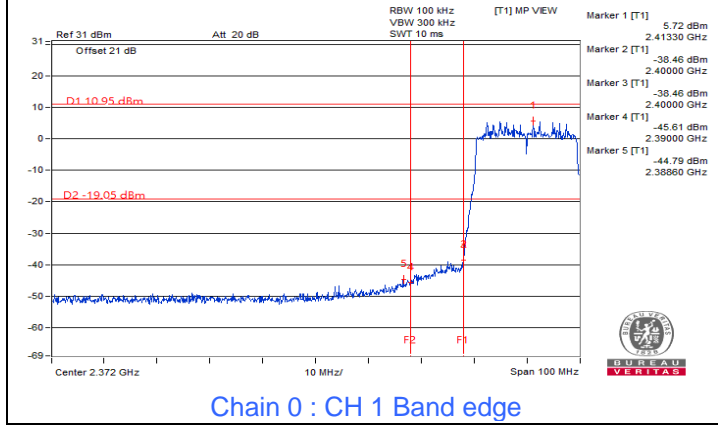
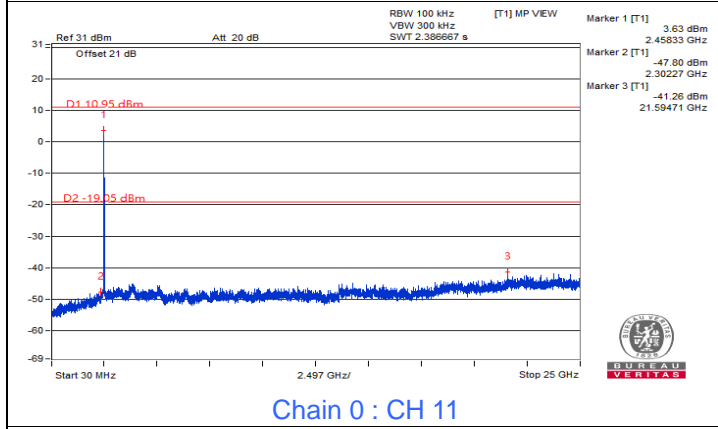
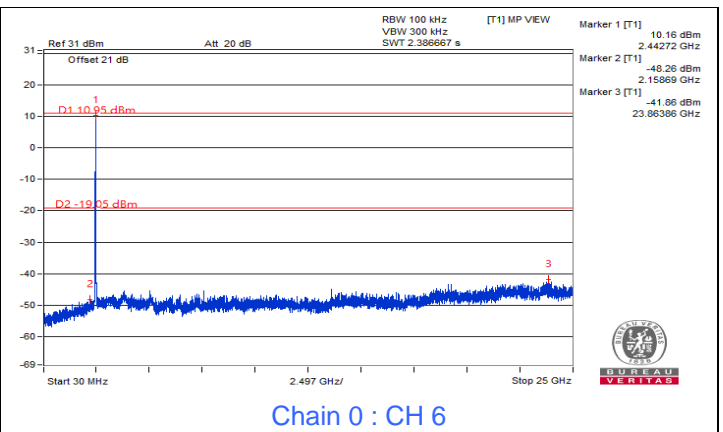
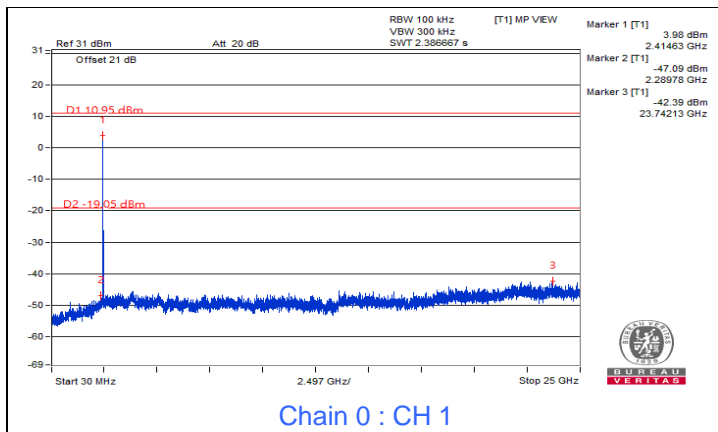
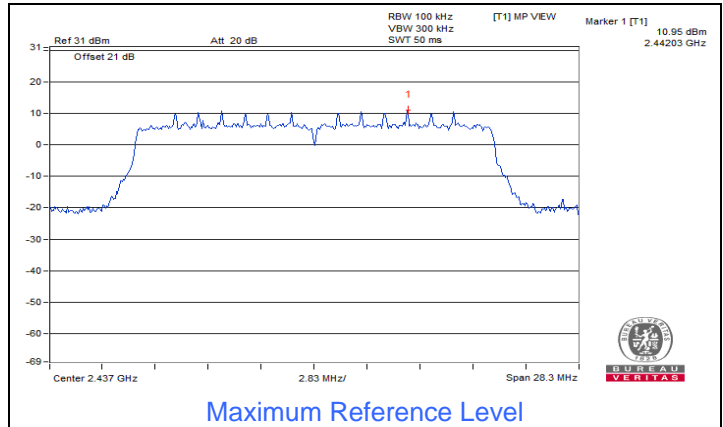
802.11ax (HE40) CDD

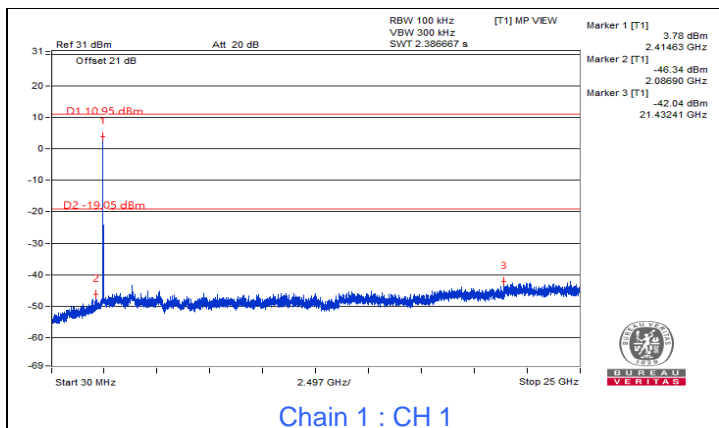




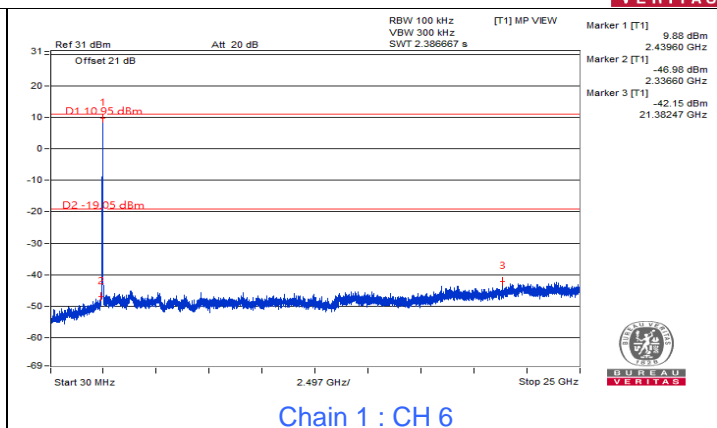


802.11ax (HE20) Beamforming

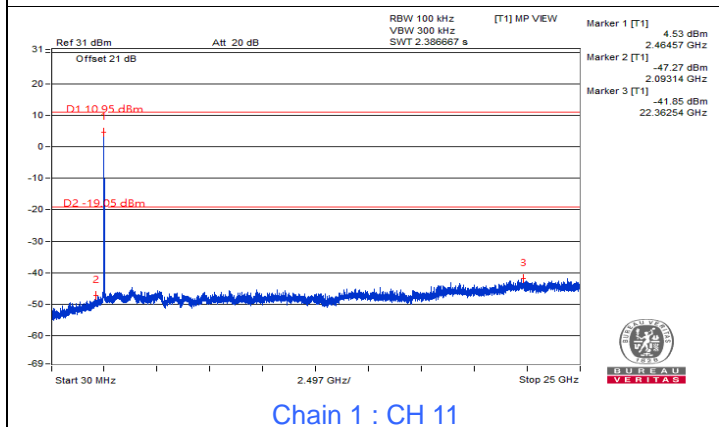




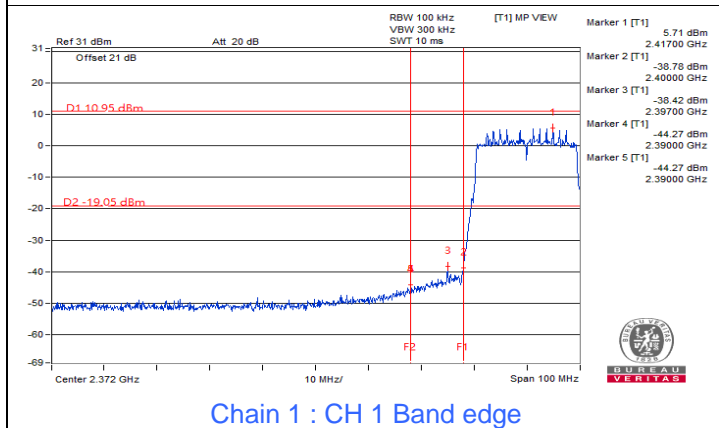
Chain 1 : CH 1



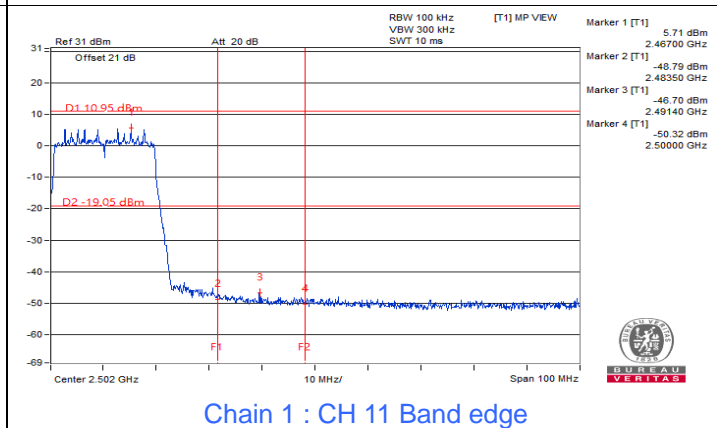
Chain 1 : CH 6



Chain 1 : CH 11



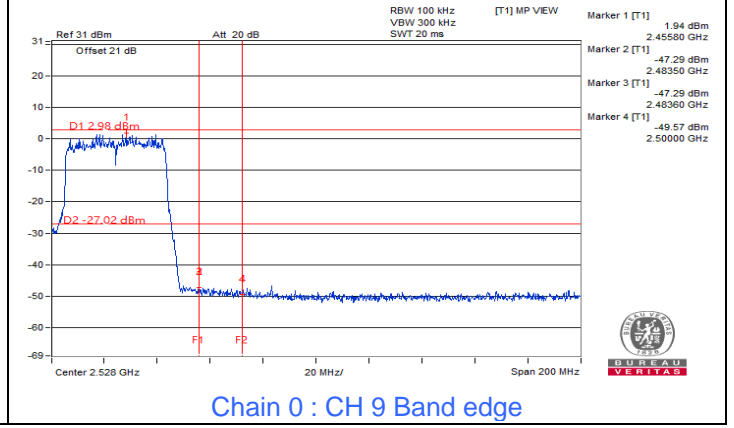
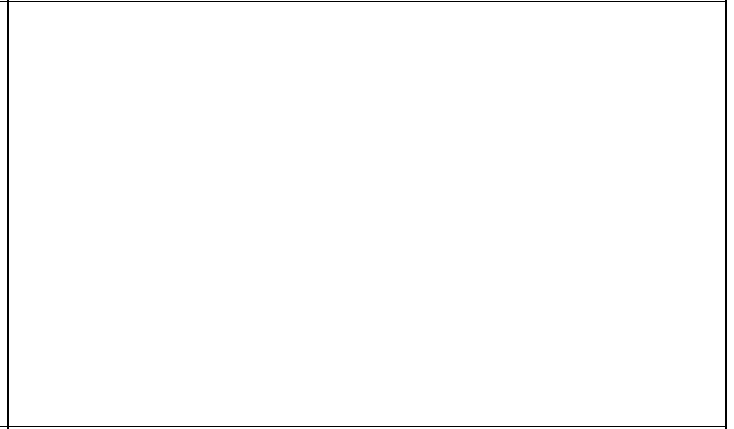
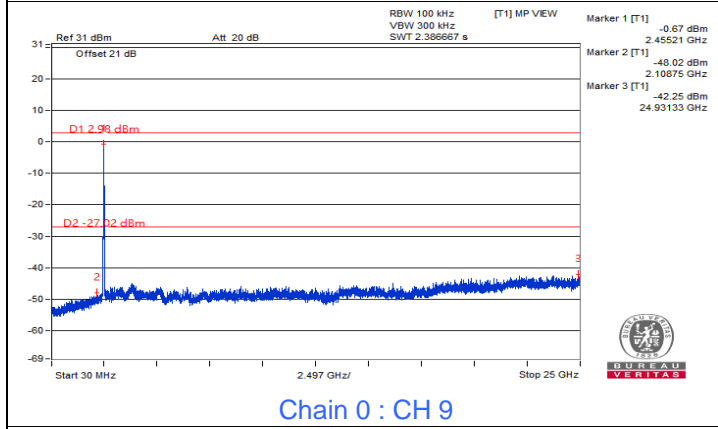
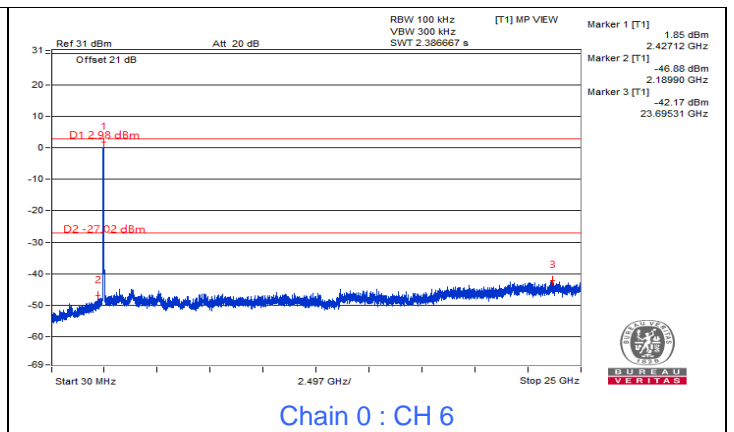
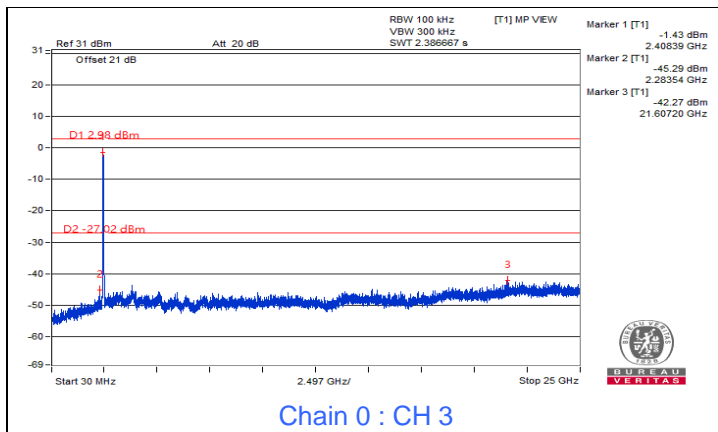
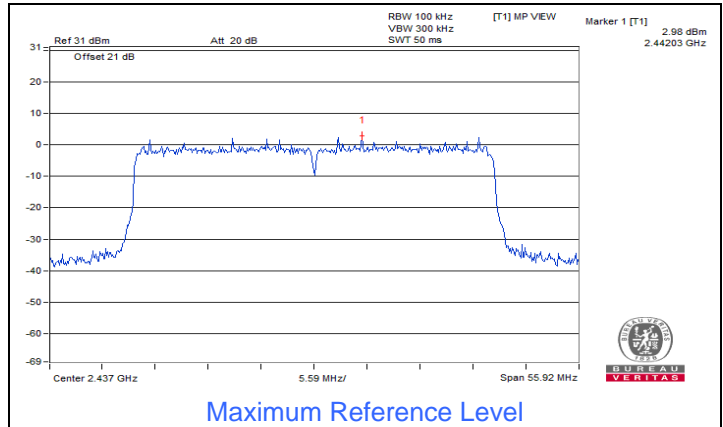
Chain 1 : CH 1 Band edge

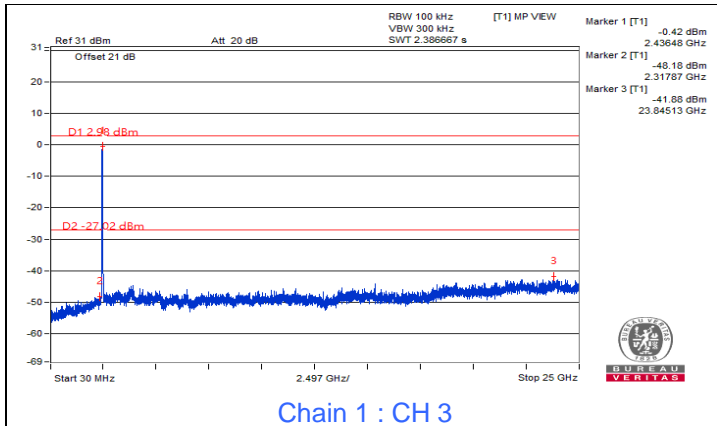


Chain 1 : CH 11 Band edge

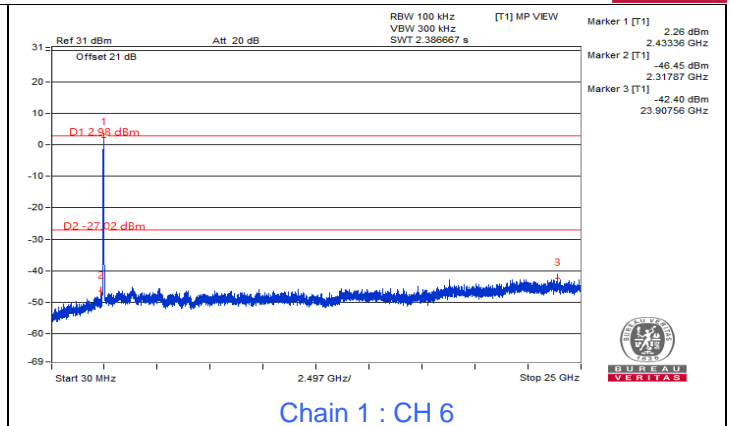


802.11ax (HE40) Beamforming

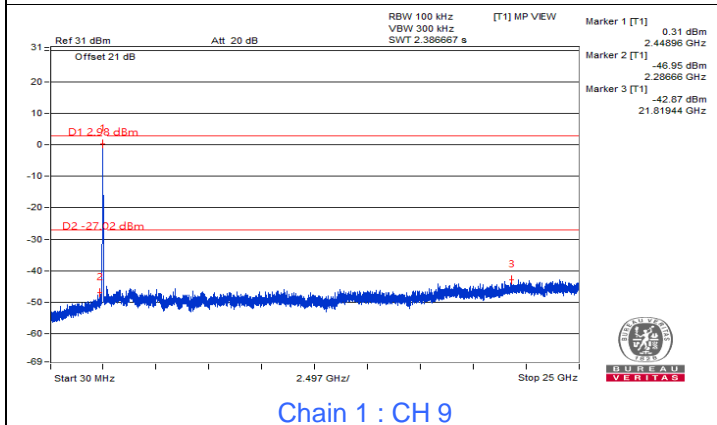




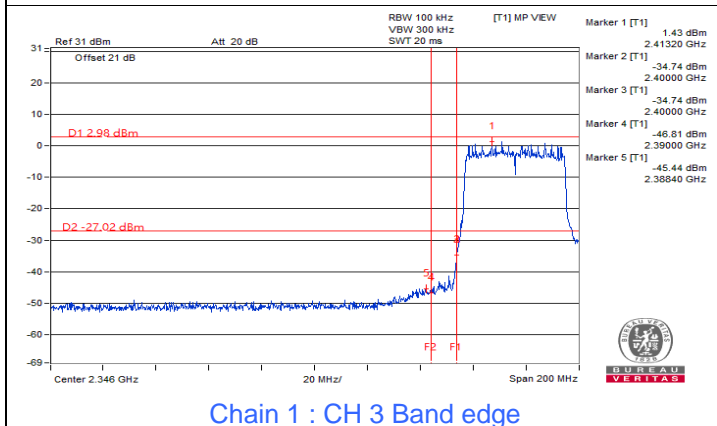
Chain 1 : CH 3



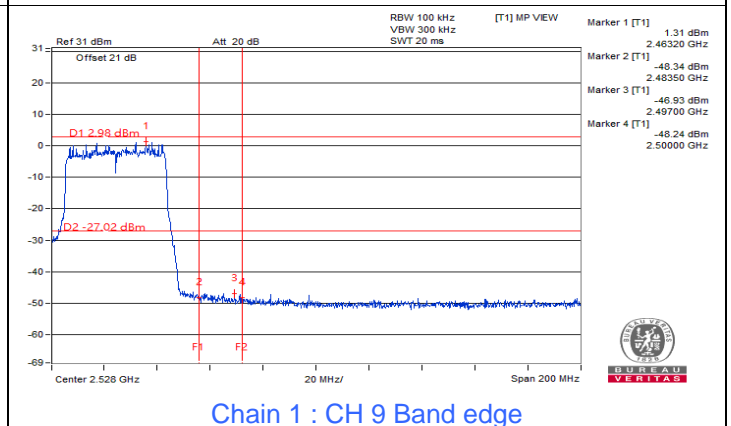
Chain 1 : CH 6



Chain 1 : CH 9



Chain 1 : CH 3 Band edge



Chain 1 : CH 9 Band edge

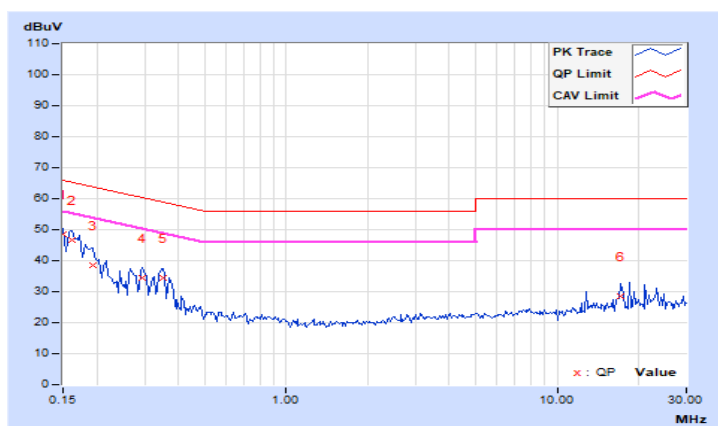
7.5 AC Power Conducted Emissions

RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22°C, 68% 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	0.15000	9.95	38.54	21.08	48.49	31.03	66.00	56.00	-17.51	-24.97
2	0.16172	9.95	36.87	17.46	46.82	27.41	65.38	55.38	-18.56	-27.97
3	0.19297	9.96	28.48	12.27	38.44	22.23	63.91	53.91	-25.47	-31.68
4	0.29453	9.96	24.40	7.61	34.36	17.57	60.40	50.40	-26.04	-32.83
5	0.35313	9.96	24.60	11.45	34.56	21.41	58.89	48.89	-24.33	-27.48
6	17.09766	11.03	17.35	-1.99	28.38	9.04	60.00	50.00	-31.62	-40.96

Remarks:

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

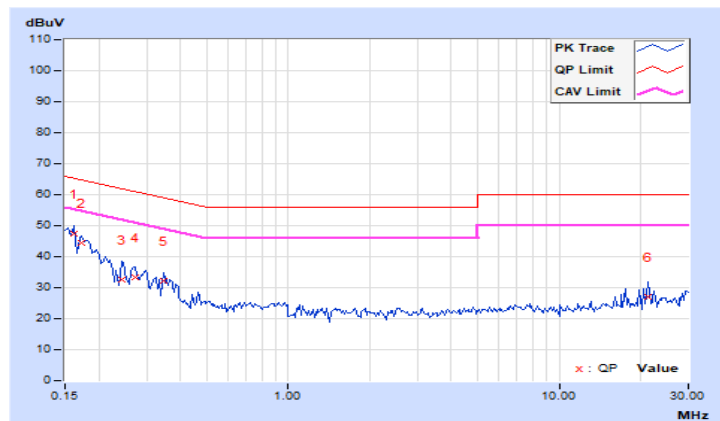


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22°C, 68% RH
Tested By	Sampson Chen		

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	0.16172	9.95	37.57	18.66	47.52	28.61	65.38	55.38	-17.86	-26.77
2	0.17344	9.95	34.67	17.70	44.62	27.65	64.79	54.79	-20.17	-27.14
3	0.24375	9.96	22.74	11.31	32.70	21.27	61.97	51.97	-29.27	-30.70
4	0.27109	9.96	23.45	12.29	33.41	22.25	61.08	51.08	-27.67	-28.83
5	0.34531	9.96	22.16	15.62	32.12	25.58	59.07	49.07	-26.95	-23.49
6	21.30859	10.99	15.94	-3.28	26.93	7.71	60.00	50.00	-33.07	-42.29

Remarks:

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



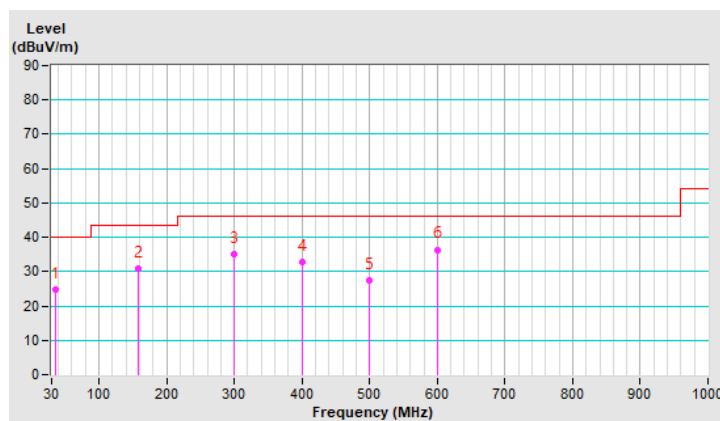
7.6 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% 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	35.70	24.7 QP	40.0	-15.3	2.00 H	222	38.2	-13.5
2	158.14	31.0 QP	43.5	-12.5	2.00 H	99	43.3	-12.3
3	300.02	35.1 QP	46.0	-10.9	1.00 H	120	47.1	-12.0
4	400.01	32.8 QP	46.0	-13.2	2.00 H	169	42.4	-9.6
5	500.04	27.6 QP	46.0	-18.4	1.50 H	102	34.8	-7.2
6	600.02	36.4 QP	46.0	-9.6	1.50 H	1	41.1	-4.7

Remarks:

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

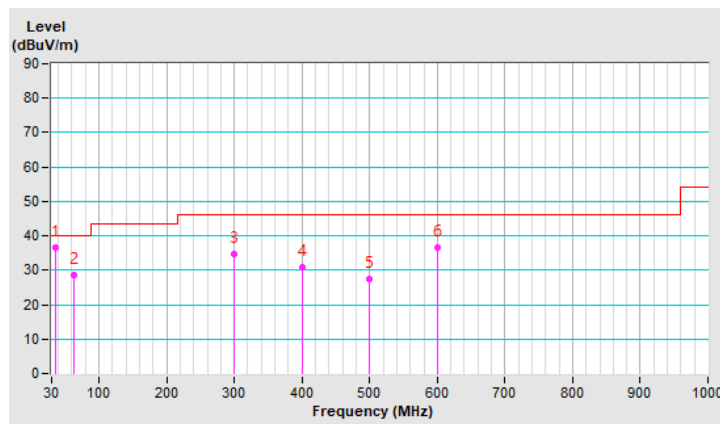


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Sampson Chen		

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	35.75	36.7 QP	40.0	-3.3	1.00 V	336	50.2	-13.5
2	63.93	28.5 QP	40.0	-11.5	1.00 V	258	41.7	-13.2
3	300.02	34.5 QP	46.0	-11.5	1.50 V	95	46.5	-12.0
4	400.01	30.7 QP	46.0	-15.3	1.00 V	192	40.3	-9.6
5	500.01	27.5 QP	46.0	-18.5	1.00 V	278	34.7	-7.2
6	600.02	36.5 QP	46.0	-9.5	1.00 V	102	41.2	-4.7

Remarks:

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



7.7 Unwanted Emissions above 1 GHz

CDD

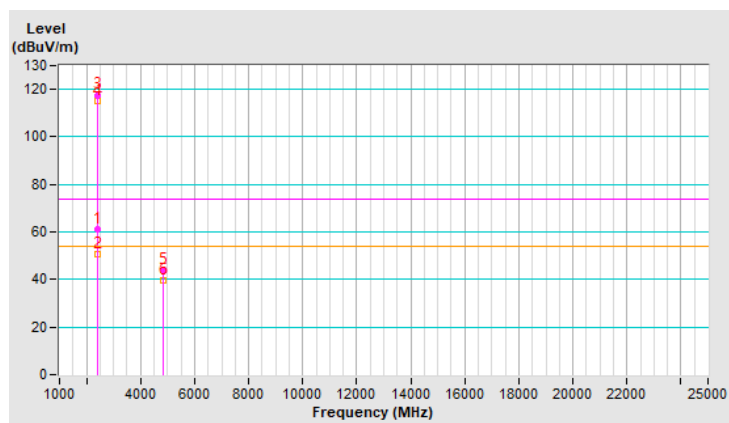
RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	61.1 PK	74.0	-12.9	2.58 H	144	62.2	-1.1
2	2389.00	50.7 AV	54.0	-3.3	2.58 H	144	51.8	-1.1
3	*2412.00	117.6 PK			2.58 H	144	118.8	-1.2
4	*2412.00	115.1 AV			2.58 H	144	116.3	-1.2
5	4824.00	44.1 PK	74.0	-29.9	1.14 H	170	39.9	4.2
6	4824.00	39.6 AV	54.0	-14.4	1.14 H	170	35.4	4.2

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.

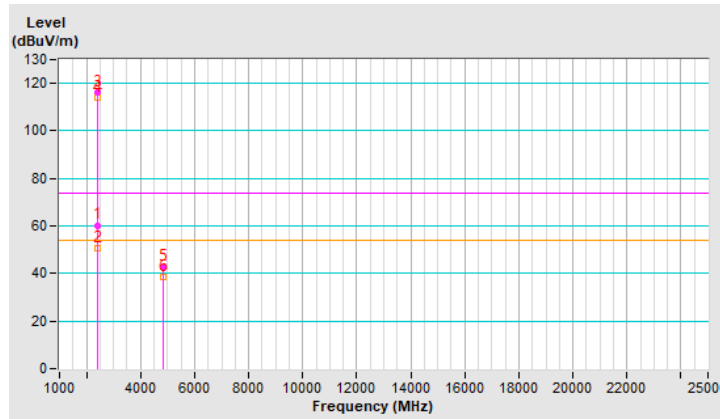


RF Mode	TX 802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2389.00	60.3 PK	74.0	-13.7	2.55 V	159	61.4	-1.1
2	2389.00	50.6 AV	54.0	-3.4	2.55 V	159	51.7	-1.1
3	*2412.00	116.3 PK			2.55 V	159	117.5	-1.2
4	*2412.00	114.0 AV			2.55 V	159	115.2	-1.2
5	4824.00	42.7 PK	74.0	-31.3	1.67 V	226	38.5	4.2
6	4824.00	38.7 AV	54.0	-15.3	1.67 V	226	34.5	4.2

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.



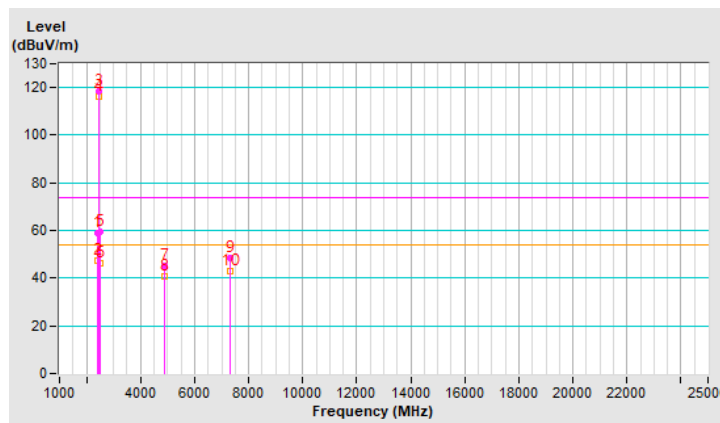
RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	59.1 PK	74.0	-14.9	2.39 H	136	60.2	-1.1
2	2390.00	47.1 AV	54.0	-6.9	2.39 H	136	48.2	-1.1
3	*2437.00	118.5 PK			2.39 H	136	119.7	-1.2
4	*2437.00	116.2 AV			2.39 H	136	117.4	-1.2
5	2483.50	59.3 PK	74.0	-14.7	2.39 H	136	60.5	-1.2
6	2483.50	46.3 AV	54.0	-7.7	2.39 H	136	47.5	-1.2
7	4874.00	44.9 PK	74.0	-29.1	1.13 H	1	40.7	4.2
8	4874.00	40.6 AV	54.0	-13.4	1.13 H	1	36.4	4.2
9	7311.00	48.5 PK	74.0	-25.5	1.15 H	37	38.5	10.0
10	7311.00	42.8 AV	54.0	-11.2	1.15 H	37	32.8	10.0

Remarks:

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

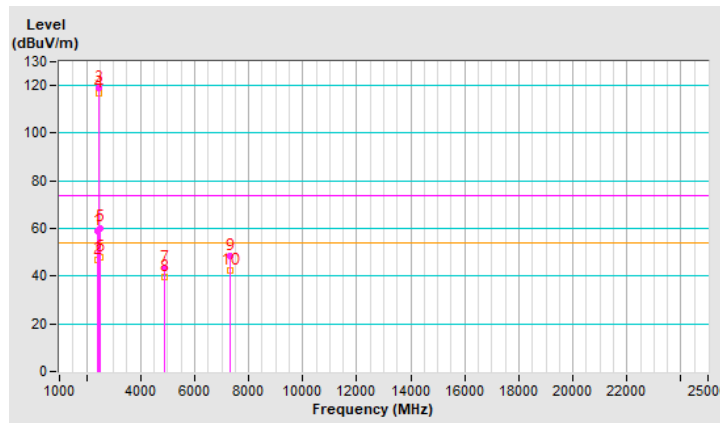


RF Mode	TX 802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	59.1 PK	74.0	-14.9	2.22 V	158	60.2	-1.1
2	2390.00	46.7 AV	54.0	-7.3	2.22 V	158	47.8	-1.1
3	*2437.00	118.9 PK			2.22 V	158	120.1	-1.2
4	*2437.00	116.7 AV			2.22 V	158	117.9	-1.2
5	2483.50	60.3 PK	74.0	-13.7	2.22 V	158	61.5	-1.2
6	2483.50	47.9 AV	54.0	-6.1	2.22 V	158	49.1	-1.2
7	4874.00	43.6 PK	74.0	-30.4	1.62 V	220	39.4	4.2
8	4874.00	39.6 AV	54.0	-14.4	1.62 V	220	35.4	4.2
9	7311.00	48.7 PK	74.0	-25.3	1.37 V	212	38.7	10.0
10	7311.00	42.5 AV	54.0	-11.5	1.37 V	212	32.5	10.0

Remarks:

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



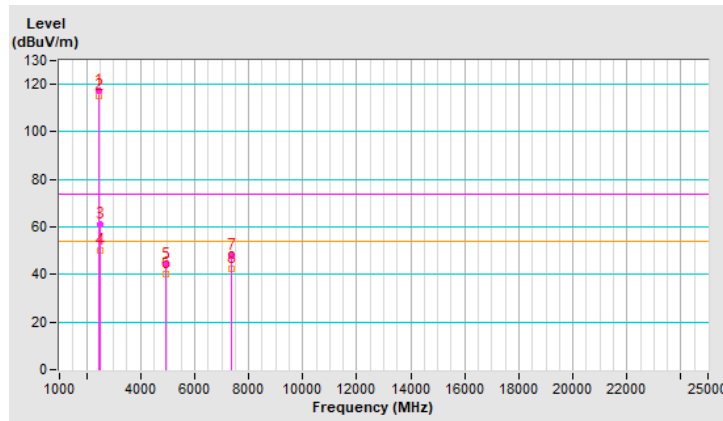
RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	117.3 PK			2.30 H	138	118.4	-1.1
2	*2462.00	114.9 AV			2.30 H	138	116.0	-1.1
3	2486.20	61.3 PK	74.0	-12.7	2.30 H	138	62.5	-1.2
4	2486.20	49.9 AV	54.0	-4.1	2.30 H	138	51.1	-1.2
5	4924.00	44.3 PK	74.0	-29.7	1.12 H	167	40.1	4.2
6	4924.00	40.0 AV	54.0	-14.0	1.12 H	167	35.8	4.2
7	7386.00	47.9 PK	74.0	-26.1	1.14 H	38	37.4	10.5
8	7386.00	42.1 AV	54.0	-11.9	1.14 H	38	31.6	10.5

Remarks:

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

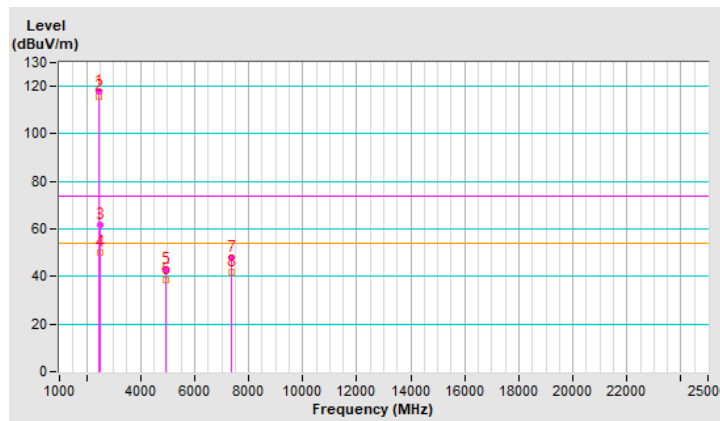


RF Mode	TX 802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	117.8 PK			1.95 V	156	118.9	-1.1
2	*2462.00	115.5 AV			1.95 V	156	116.6	-1.1
3	2486.10	61.7 PK	74.0	-12.3	1.95 V	156	62.9	-1.2
4	2486.10	50.0 AV	54.0	-4.0	1.95 V	156	51.2	-1.2
5	4924.00	43.0 PK	74.0	-31.0	1.66 V	218	38.8	4.2
6	4924.00	38.6 AV	54.0	-15.4	1.66 V	218	34.4	4.2
7	7386.00	47.7 PK	74.0	-26.3	1.35 V	207	37.2	10.5
8	7386.00	42.0 AV	54.0	-12.0	1.35 V	207	31.5	10.5

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.

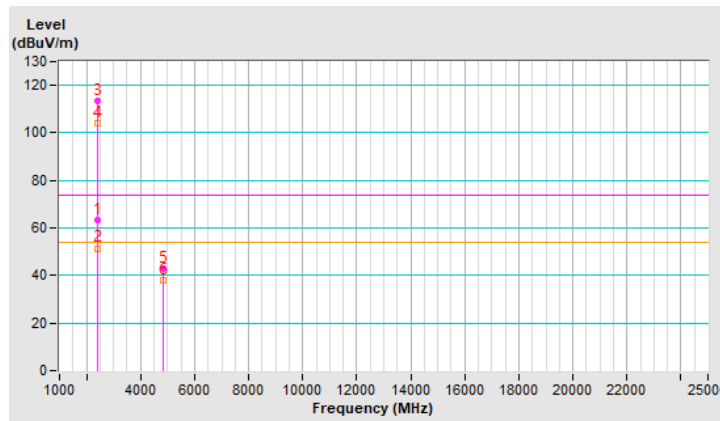


RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	63.3 PK	74.0	-10.7	2.26 H	118	64.4	-1.1
2	2389.00	51.5 AV	54.0	-2.5	2.26 H	118	52.6	-1.1
3	*2412.00	113.3 PK			2.26 H	118	114.5	-1.2
4	*2412.00	104.0 AV			2.26 H	118	105.2	-1.2
5	4824.00	42.9 PK	74.0	-31.1	1.08 H	161	38.7	4.2
6	4824.00	37.9 AV	54.0	-16.1	1.08 H	161	33.7	4.2

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.

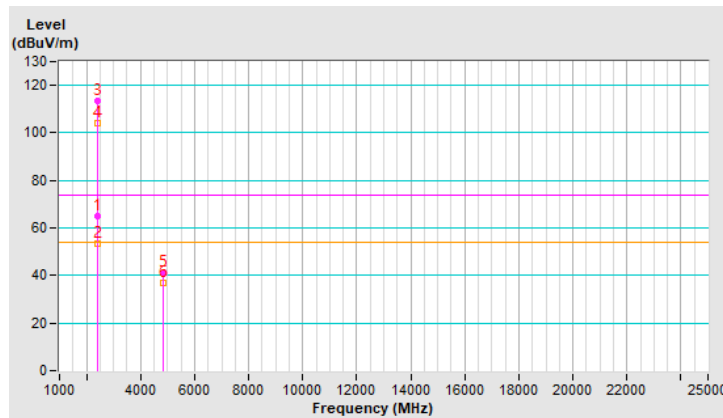


RF Mode	TX 802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	65.1 PK	74.0	-8.9	2.47 V	146	66.2	-1.1
2	2390.00	53.3 AV	54.0	-0.7	2.47 V	146	54.4	-1.1
3	*2412.00	113.6 PK			2.47 V	146	114.8	-1.2
4	*2412.00	104.0 AV			2.47 V	146	105.2	-1.2
5	4824.00	41.0 PK	74.0	-33.0	1.58 V	216	36.8	4.2
6	4824.00	37.0 AV	54.0	-17.0	1.58 V	216	32.8	4.2

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.



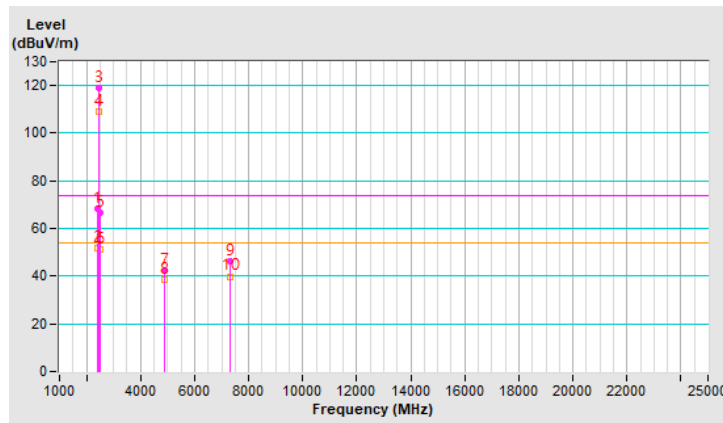
RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.50	68.4 PK	74.0	-5.6	2.41 H	139	69.5	-1.1
2	2388.50	52.0 AV	54.0	-2.0	2.41 H	139	53.1	-1.1
3	*2437.00	118.9 PK			2.41 H	139	120.1	-1.2
4	*2437.00	109.3 AV			2.41 H	139	110.5	-1.2
5	2484.40	66.6 PK	74.0	-7.4	2.41 H	139	67.8	-1.2
6	2484.40	51.4 AV	54.0	-2.6	2.41 H	139	52.6	-1.2
7	4874.00	42.3 PK	74.0	-31.7	1.15 H	172	38.1	4.2
8	4874.00	38.4 AV	54.0	-15.6	1.15 H	172	34.2	4.2
9	7311.00	46.2 PK	74.0	-27.8	1.13 H	36	36.2	10.0
10	7311.00	39.9 AV	54.0	-14.1	1.13 H	36	29.9	10.0

Remarks:

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

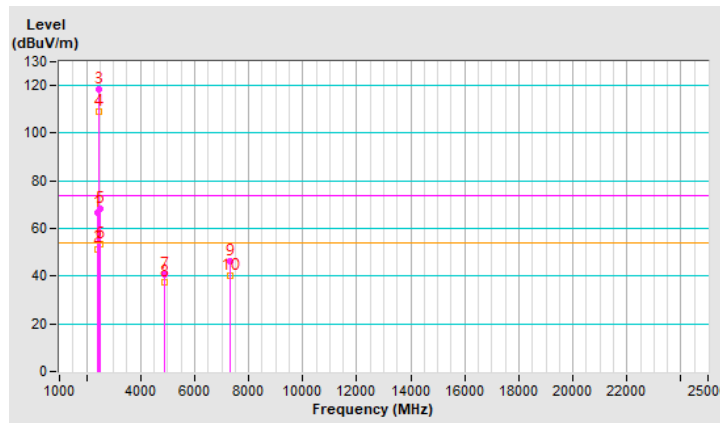


RF Mode	TX 802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.50	66.8 PK	74.0	-7.2	2.21 V	170	67.9	-1.1
2	2388.50	51.5 AV	54.0	-2.5	2.21 V	170	52.6	-1.1
3	*2437.00	118.5 PK			2.21 V	170	119.7	-1.2
4	*2437.00	108.8 AV			2.21 V	170	110.0	-1.2
5	2485.20	68.5 PK	74.0	-5.5	2.21 V	170	69.7	-1.2
6	2485.20	53.3 AV	54.0	-0.7	2.21 V	170	54.5	-1.2
7	4874.00	40.7 PK	74.0	-33.3	1.66 V	205	36.5	4.2
8	4874.00	37.4 AV	54.0	-16.6	1.66 V	205	33.2	4.2
9	7311.00	46.5 PK	74.0	-27.5	1.37 V	209	36.5	10.0
10	7311.00	40.4 AV	54.0	-13.6	1.37 V	209	30.4	10.0

Remarks:

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



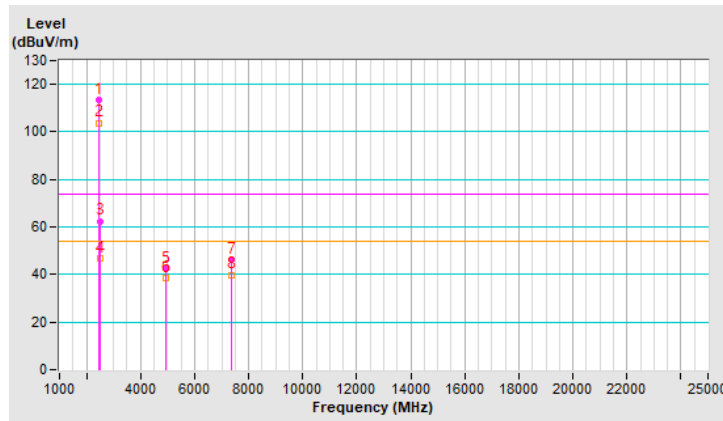
RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	113.4 PK			3.06 H	123	114.5	-1.1
2	*2462.00	103.8 AV			3.06 H	123	104.9	-1.1
3	2485.30	62.5 PK	74.0	-11.5	3.06 H	123	63.7	-1.2
4	2485.30	46.7 AV	54.0	-7.3	3.06 H	123	47.9	-1.2
5	4924.00	42.6 PK	74.0	-31.4	1.07 H	178	38.4	4.2
6	4924.00	38.3 AV	54.0	-15.7	1.07 H	178	34.1	4.2
7	7386.00	46.2 PK	74.0	-27.8	1.15 H	52	35.7	10.5
8	7386.00	39.9 AV	54.0	-14.1	1.15 H	52	29.4	10.5

Remarks:

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

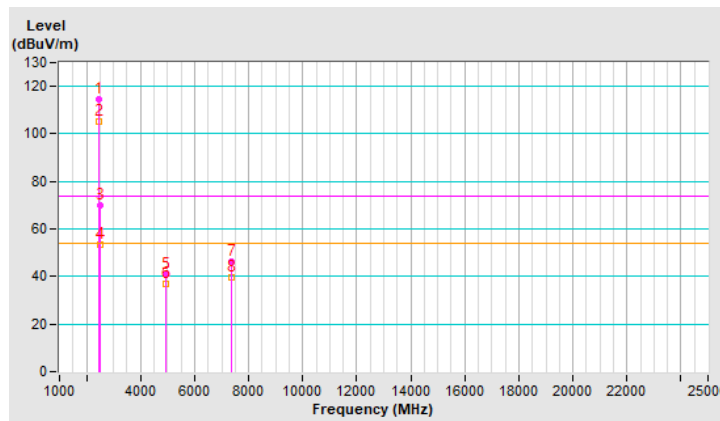


RF Mode	TX 802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	114.7 PK			1.96 V	158	115.8	-1.1
2	*2462.00	105.0 AV			1.96 V	158	106.1	-1.1
3	2483.50	69.8 PK	74.0	-4.2	1.96 V	158	71.0	-1.2
4	2483.50	53.4 AV	54.0	-0.6	1.96 V	158	54.6	-1.2
5	4924.00	40.8 PK	74.0	-33.2	1.66 V	209	36.6	4.2
6	4924.00	37.0 AV	54.0	-17.0	1.66 V	209	32.8	4.2
7	7386.00	46.3 PK	74.0	-27.7	1.36 V	220	35.8	10.5
8	7386.00	39.6 AV	54.0	-14.4	1.36 V	220	29.1	10.5

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.



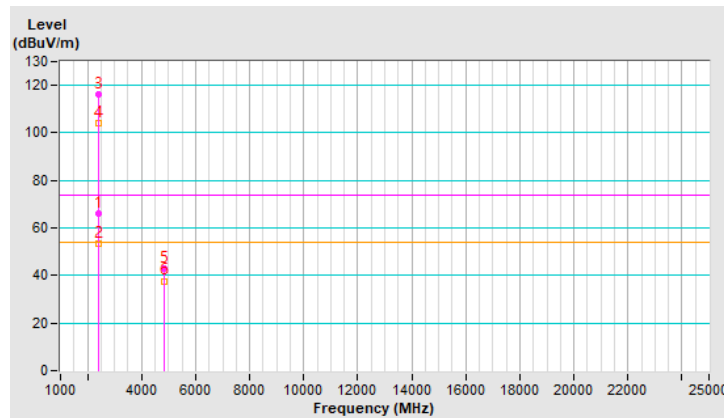
RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.60	66.0 PK	74.0	-8.0	2.17 H	119	67.1	-1.1
2	2388.60	53.5 AV	54.0	-0.5	2.17 H	119	54.6	-1.1
3	*2412.00	116.1 PK			2.17 H	119	117.3	-1.2
4	*2412.00	104.0 AV			2.17 H	119	105.2	-1.2
5	4824.00	42.7 PK	74.0	-31.3	1.11 H	169	38.5	4.2
6	4824.00	37.7 AV	54.0	-16.3	1.11 H	169	33.5	4.2

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.

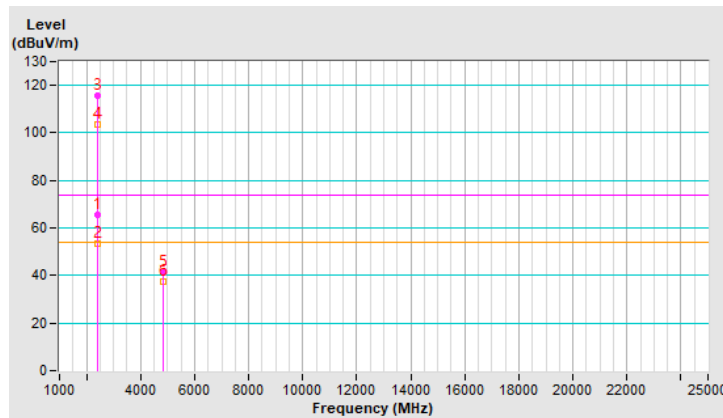


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.60	65.7 PK	74.0	-8.3	2.50 V	157	66.8	-1.1
2	2388.60	53.2 AV	54.0	-0.8	2.50 V	157	54.3	-1.1
3	*2412.00	115.8 PK			2.50 V	157	117.0	-1.2
4	*2412.00	103.3 AV			2.50 V	157	104.5	-1.2
5	4824.00	41.1 PK	74.0	-32.9	1.56 V	233	36.9	4.2
6	4824.00	37.3 AV	54.0	-16.7	1.56 V	233	33.1	4.2

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.



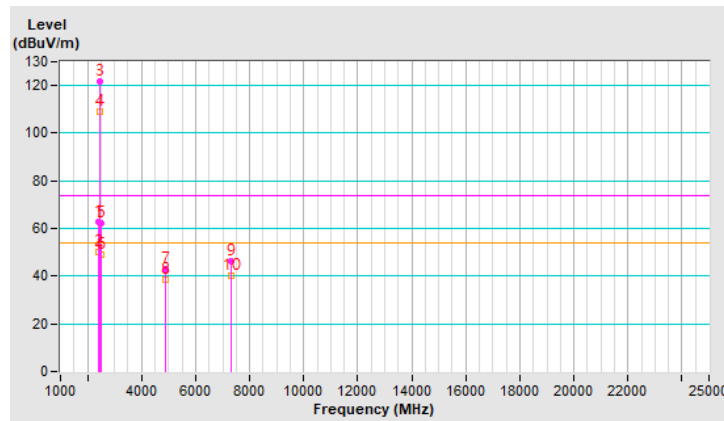
RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	62.8 PK	74.0	-11.2	2.33 H	135	63.9	-1.1
2	2390.00	50.0 AV	54.0	-4.0	2.33 H	135	51.1	-1.1
3	*2437.00	121.9 PK			2.33 H	135	123.1	-1.2
4	*2437.00	109.2 AV			2.33 H	135	110.4	-1.2
5	2483.50	62.4 PK	74.0	-11.6	2.33 H	135	63.6	-1.2
6	2483.50	49.2 AV	54.0	-4.8	2.33 H	135	50.4	-1.2
7	4874.00	42.8 PK	74.0	-31.2	1.16 H	158	38.6	4.2
8	4874.00	38.5 AV	54.0	-15.5	1.16 H	158	34.3	4.2
9	7311.00	46.1 PK	74.0	-27.9	1.09 H	36	36.1	10.0
10	7311.00	40.1 AV	54.0	-13.9	1.09 H	36	30.1	10.0

Remarks:

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



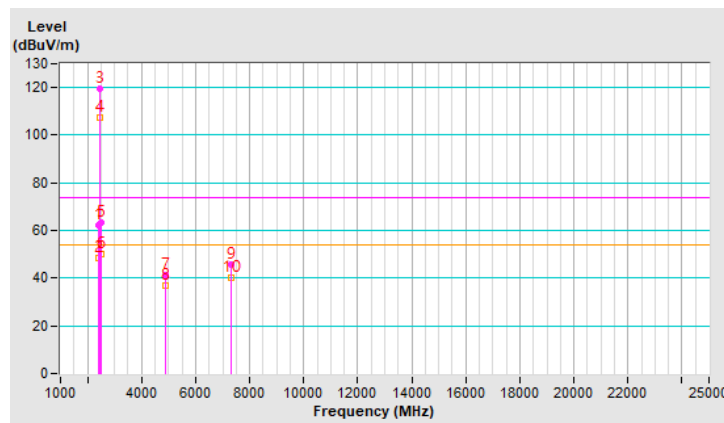
RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	62.2 PK	74.0	-11.8	2.34 V	149	63.3	-1.1
2	2390.00	48.5 AV	54.0	-5.5	2.34 V	149	49.6	-1.1
3	*2437.00	119.5 PK			2.34 V	149	120.7	-1.2
4	*2437.00	107.6 AV			2.34 V	149	108.8	-1.2
5	2483.50	63.5 PK	74.0	-10.5	2.34 V	149	64.7	-1.2
6	2483.50	50.0 AV	54.0	-4.0	2.34 V	149	51.2	-1.2
7	4874.00	41.1 PK	74.0	-32.9	1.58 V	220	36.9	4.2
8	4874.00	36.7 AV	54.0	-17.3	1.58 V	220	32.5	4.2
9	7311.00	45.7 PK	74.0	-28.3	1.36 V	202	35.7	10.0
10	7311.00	40.4 AV	54.0	-13.6	1.36 V	202	30.4	10.0

Remarks:

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

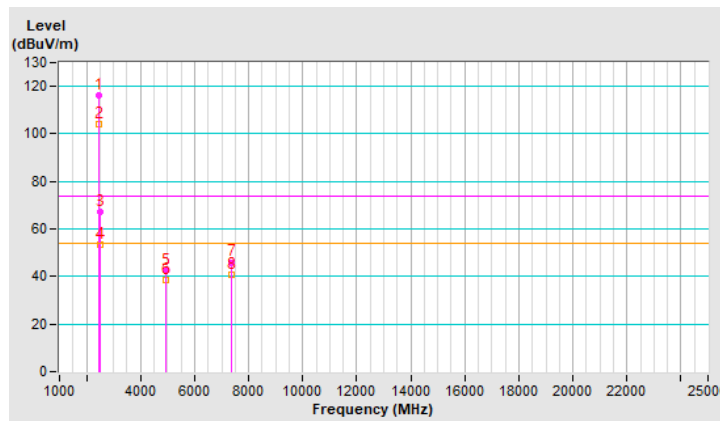


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	116.4 PK			2.58 H	138	117.5	-1.1
2	*2462.00	103.9 AV			2.58 H	138	105.0	-1.1
3	2483.50	67.2 PK	74.0	-6.8	2.58 H	138	68.4	-1.2
4	2483.50	53.5 AV	54.0	-0.5	2.58 H	138	54.7	-1.2
5	4924.00	42.5 PK	74.0	-31.5	1.10 H	164	38.3	4.2
6	4924.00	38.4 AV	54.0	-15.6	1.10 H	164	34.2	4.2
7	7386.00	46.0 PK	74.0	-28.0	1.13 H	37	35.5	10.5
8	7386.00	40.8 AV	54.0	-13.2	1.13 H	37	30.3	10.5

Remarks:

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

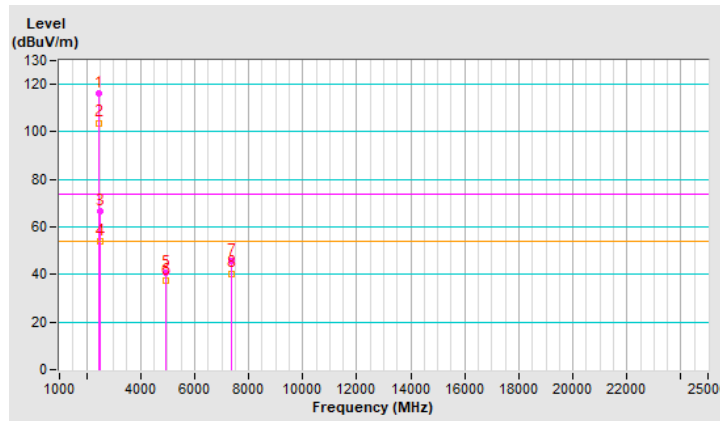


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	116.2 PK			1.96 V	157	117.3	-1.1
2	*2462.00	103.8 AV			1.96 V	157	104.9	-1.1
3	2483.50	66.6 PK	74.0	-7.4	1.96 V	157	67.8	-1.2
4	2483.50	53.8 AV	54.0	-0.2	1.96 V	157	55.0	-1.2
5	4924.00	40.9 PK	74.0	-33.1	1.63 V	220	36.7	4.2
6	4924.00	37.2 AV	54.0	-16.8	1.63 V	220	33.0	4.2
7	7386.00	45.8 PK	74.0	-28.2	1.35 V	222	35.3	10.5
8	7386.00	40.5 AV	54.0	-13.5	1.35 V	222	30.0	10.5

Remarks:

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

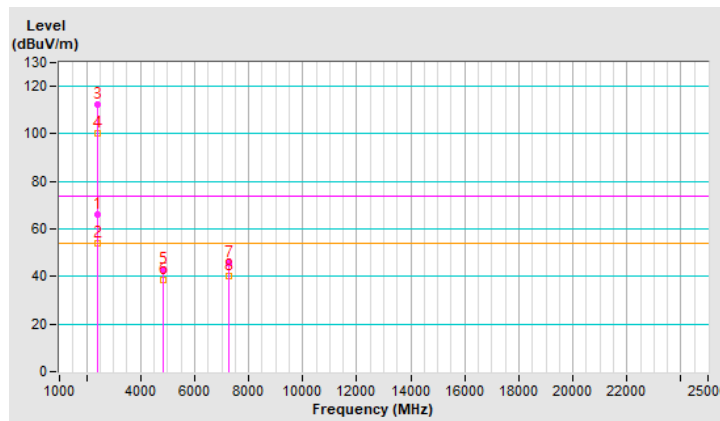


RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.10	66.0 PK	74.0	-8.0	2.65 H	134	67.1	-1.1
2	2388.10	53.8 AV	54.0	-0.2	2.65 H	134	54.9	-1.1
3	*2422.00	112.3 PK			2.65 H	134	113.5	-1.2
4	*2422.00	100.3 AV			2.65 H	134	101.5	-1.2
5	4844.00	42.8 PK	74.0	-31.2	1.14 H	182	38.6	4.2
6	4844.00	38.6 AV	54.0	-15.4	1.14 H	182	34.4	4.2
7	7266.00	45.6 PK	74.0	-28.4	1.18 H	36	35.5	10.1
8	7266.00	40.1 AV	54.0	-13.9	1.18 H	36	30.0	10.1

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.

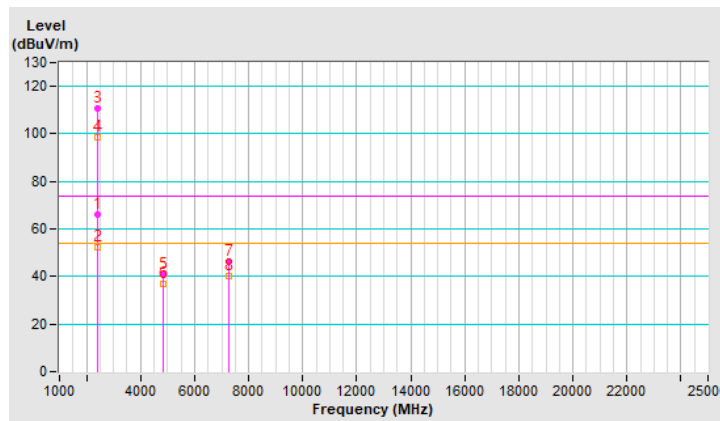


RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	2388.20	66.1 PK	74.0	-7.9	1.94 V	157	67.2	-1.1
2	2388.20	52.3 AV	54.0	-1.7	1.94 V	157	53.4	-1.1
3	*2422.00	110.7 PK			1.94 V	157	111.9	-1.2
4	*2422.00	98.8 AV			1.94 V	157	100.0	-1.2
5	4844.00	40.9 PK	74.0	-33.1	1.65 V	206	36.7	4.2
6	4844.00	37.0 AV	54.0	-17.0	1.65 V	206	32.8	4.2
7	7266.00	46.5 PK	74.0	-27.5	1.35 V	198	36.4	10.1
8	7266.00	40.1 AV	54.0	-13.9	1.35 V	198	30.0	10.1

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.



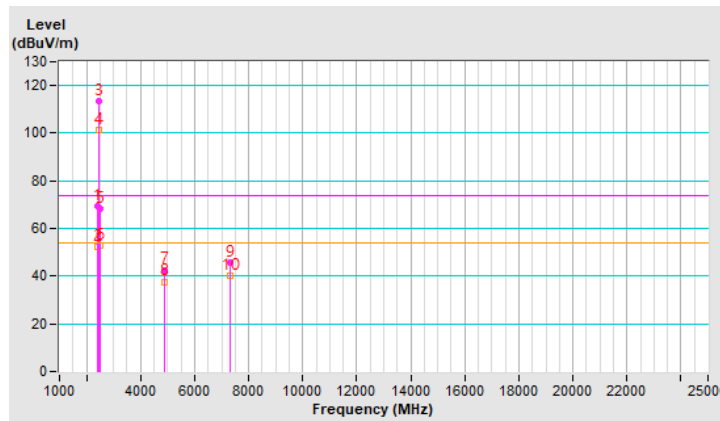
RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	69.5 PK	74.0	-4.5	2.43 H	140	70.6	-1.1
2	2390.00	52.4 AV	54.0	-1.6	2.43 H	140	53.5	-1.1
3	*2437.00	113.2 PK			2.43 H	140	114.4	-1.2
4	*2437.00	101.5 AV			2.43 H	140	102.7	-1.2
5	2483.50	68.2 PK	74.0	-5.8	2.43 H	140	69.4	-1.2
6	2483.50	53.1 AV	54.0	-0.9	2.43 H	140	54.3	-1.2
7	4874.00	42.7 PK	74.0	-31.3	1.11 H	154	38.5	4.2
8	4874.00	37.7 AV	54.0	-16.3	1.11 H	154	33.5	4.2
9	7311.00	45.7 PK	74.0	-28.3	1.11 H	25	35.7	10.0
10	7311.00	40.3 AV	54.0	-13.7	1.11 H	25	30.3	10.0

Remarks:

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

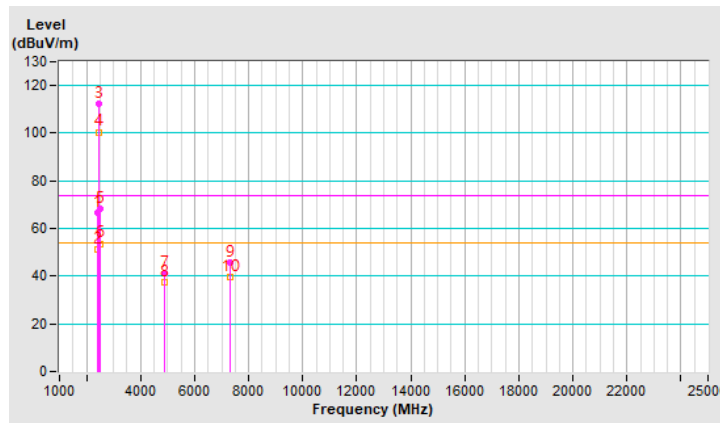


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	66.8 PK	74.0	-7.2	2.35 V	152	67.9	-1.1
2	2390.00	51.0 AV	54.0	-3.0	2.35 V	152	52.1	-1.1
3	*2437.00	112.3 PK			2.35 V	152	113.5	-1.2
4	*2437.00	100.5 AV			2.35 V	152	101.7	-1.2
5	2483.50	68.4 PK	74.0	-5.6	2.35 V	152	69.6	-1.2
6	2483.50	53.7 AV	54.0	-0.3	2.35 V	152	54.9	-1.2
7	4874.00	41.2 PK	74.0	-32.8	1.68 V	235	37.0	4.2
8	4874.00	37.4 AV	54.0	-16.6	1.68 V	235	33.2	4.2
9	7311.00	45.8 PK	74.0	-28.2	1.34 V	209	35.8	10.0
10	7311.00	39.7 AV	54.0	-14.3	1.34 V	209	29.7	10.0

Remarks:

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

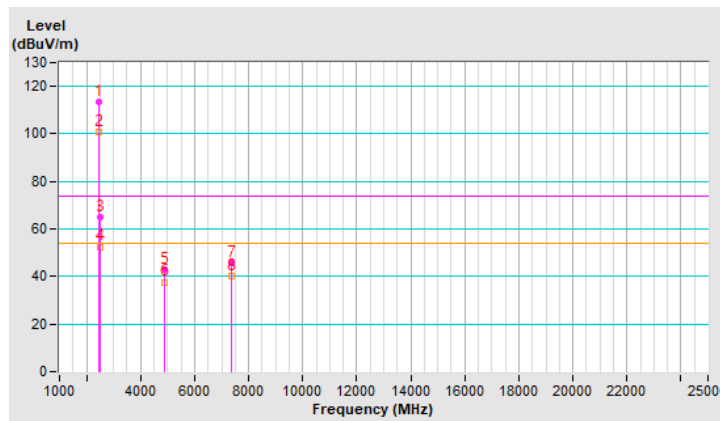


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	113.6 PK			2.39 H	136	114.7	-1.1
2	*2452.00	100.9 AV			2.39 H	136	102.0	-1.1
3	2484.20	64.8 PK	74.0	-9.2	2.39 H	136	66.0	-1.2
4	2484.20	52.6 AV	54.0	-1.4	2.39 H	136	53.8	-1.2
5	4904.00	42.9 PK	74.0	-31.1	1.13 H	151	38.6	4.3
6	4904.00	37.7 AV	54.0	-16.3	1.13 H	151	33.4	4.3
7	7356.00	45.8 PK	74.0	-28.2	1.16 H	54	35.5	10.3
8	7356.00	40.0 AV	54.0	-14.0	1.16 H	54	29.7	10.3

Remarks:

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

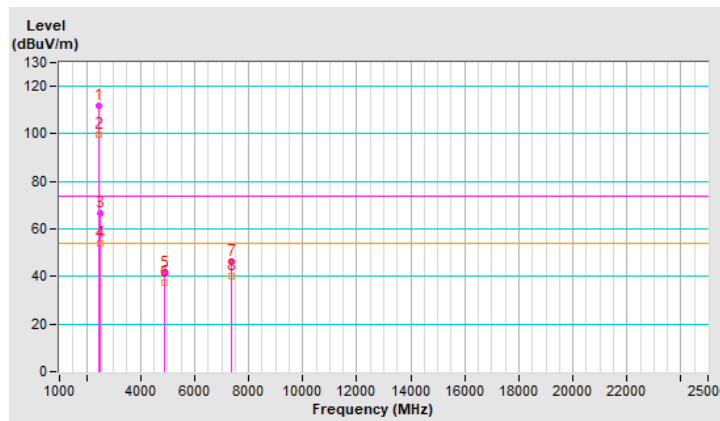


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

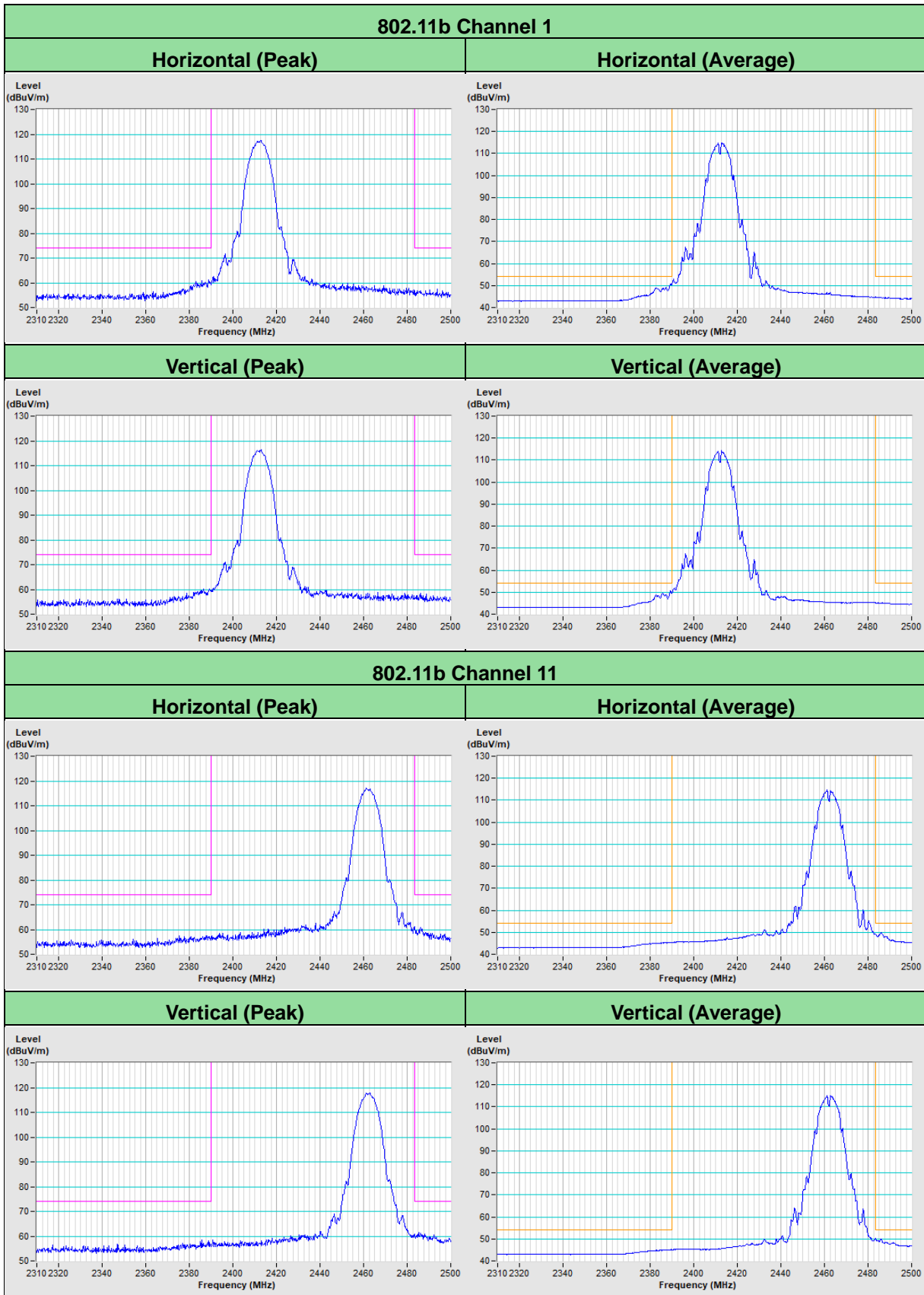
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	111.9 PK			2.38 V	156	113.0	-1.1
2	*2452.00	99.7 AV			2.38 V	156	100.8	-1.1
3	2483.50	66.8 PK	74.0	-7.2	2.38 V	156	68.0	-1.2
4	2483.50	53.8 AV	54.0	-0.2	2.38 V	156	55.0	-1.2
5	4904.00	41.3 PK	74.0	-32.7	1.62 V	232	37.0	4.3
6	4904.00	37.4 AV	54.0	-16.6	1.62 V	232	33.1	4.3
7	7356.00	46.5 PK	74.0	-27.5	1.31 V	222	36.2	10.3
8	7356.00	40.4 AV	54.0	-13.6	1.31 V	222	30.1	10.3

Remarks:

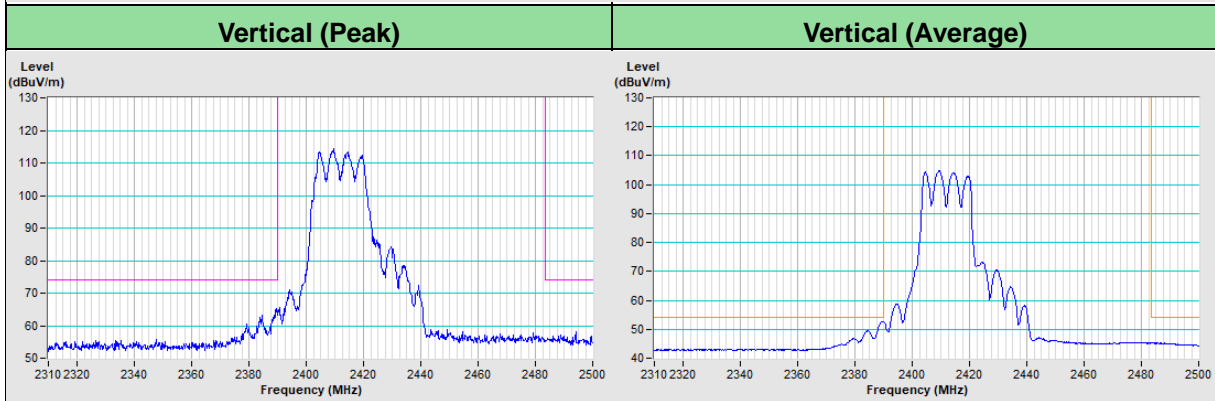
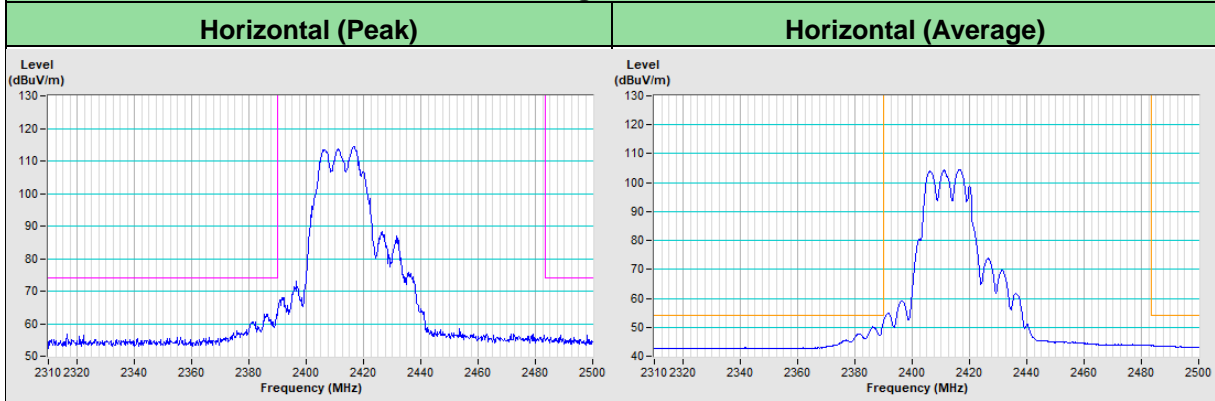
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency,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



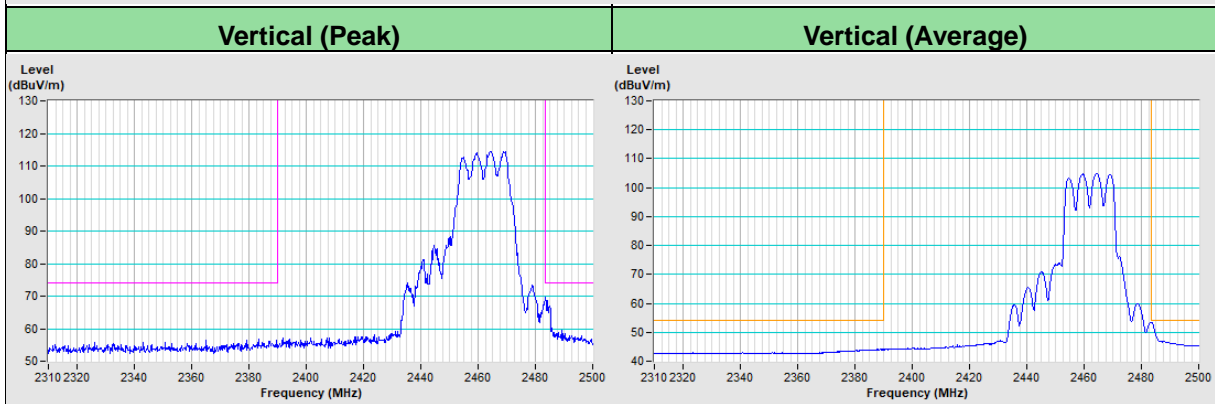
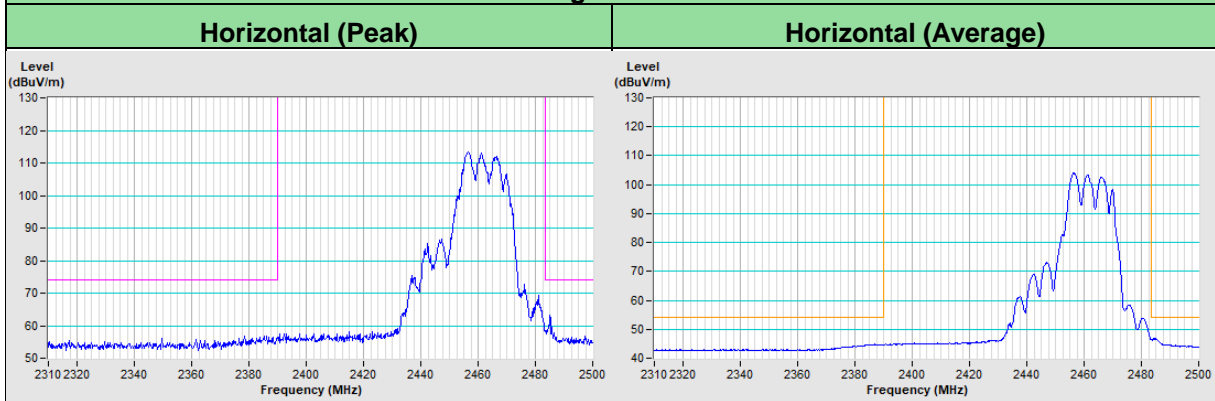
Plot of Band Edge_CDD



802.11g Channel 1

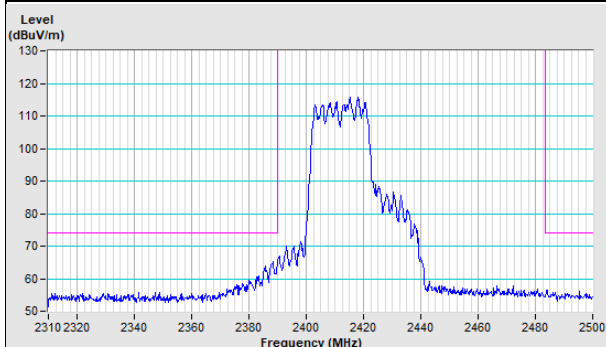


802.11g Channel 11

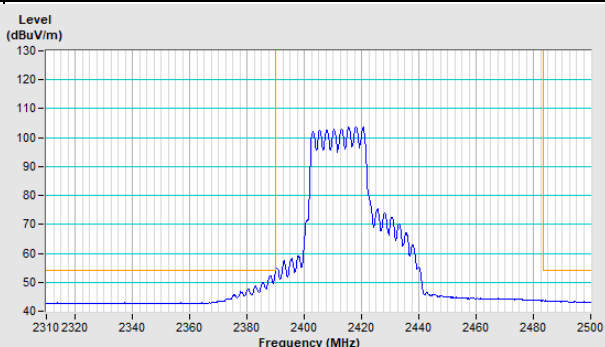


802.11ax (HE20) Channel 1

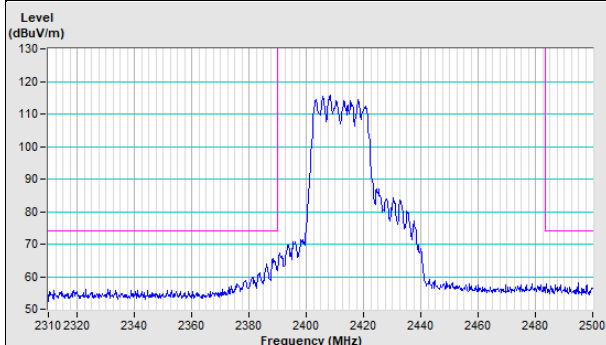
Horizontal (Peak)



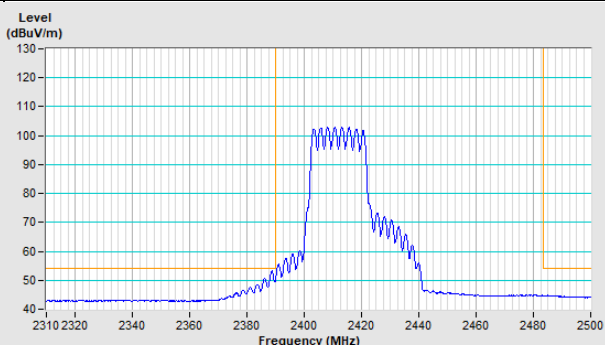
Horizontal (Average)



Vertical (Peak)

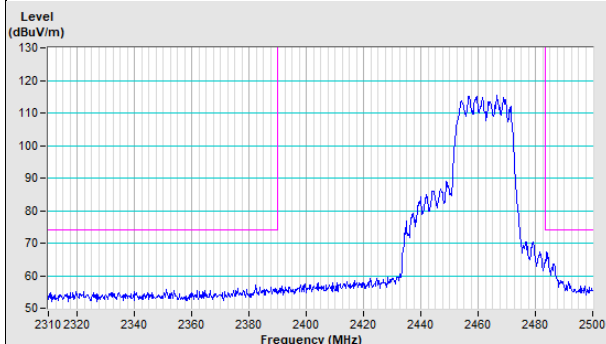


Vertical (Average)

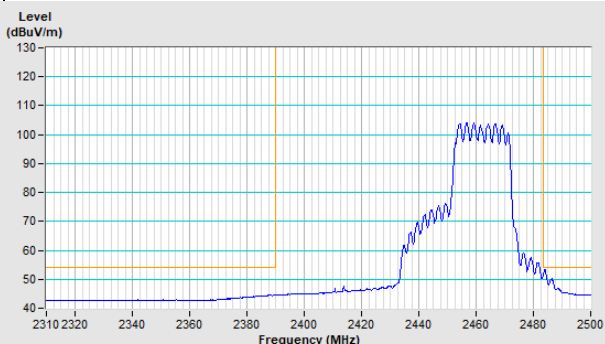


802.11ax (HE20) Channel 11

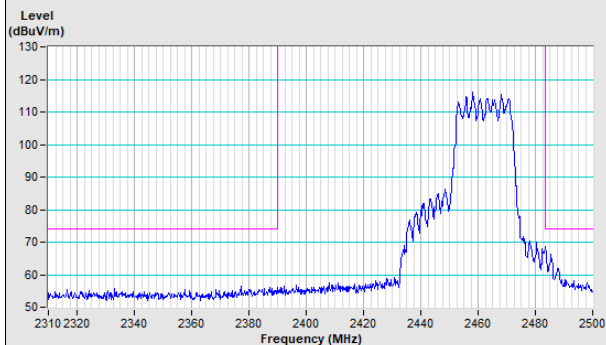
Horizontal (Peak)



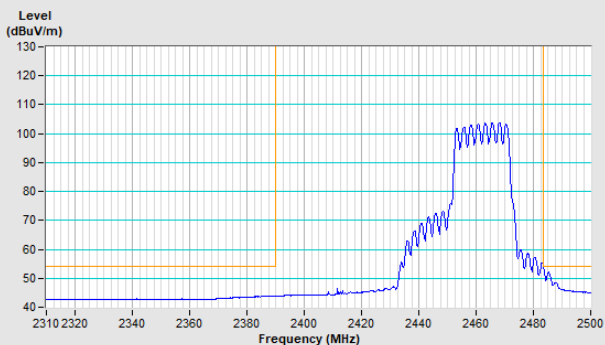
Horizontal (Average)



Vertical (Peak)

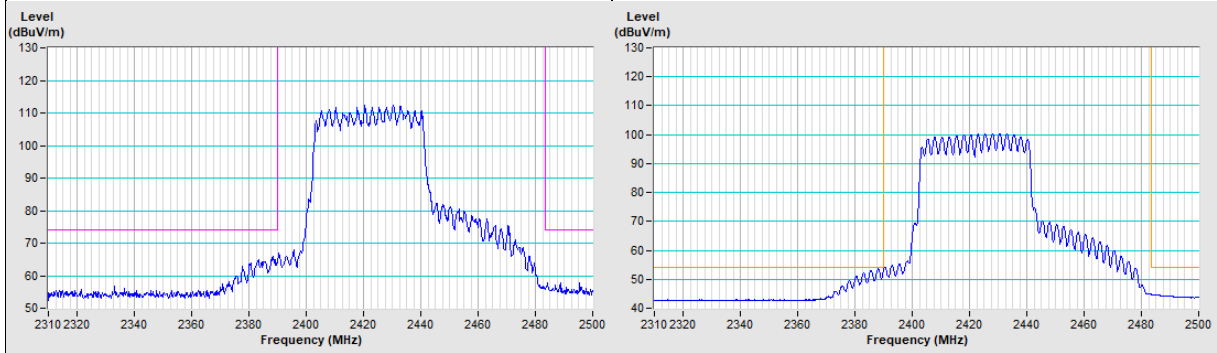


Vertical (Average)

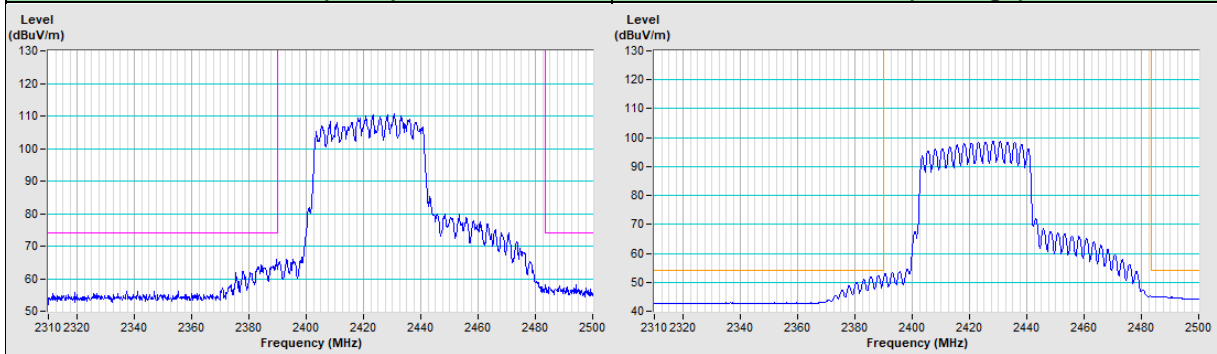


802.11ax (HE40) Channel 3

Horizontal (Peak)	Horizontal (Average)
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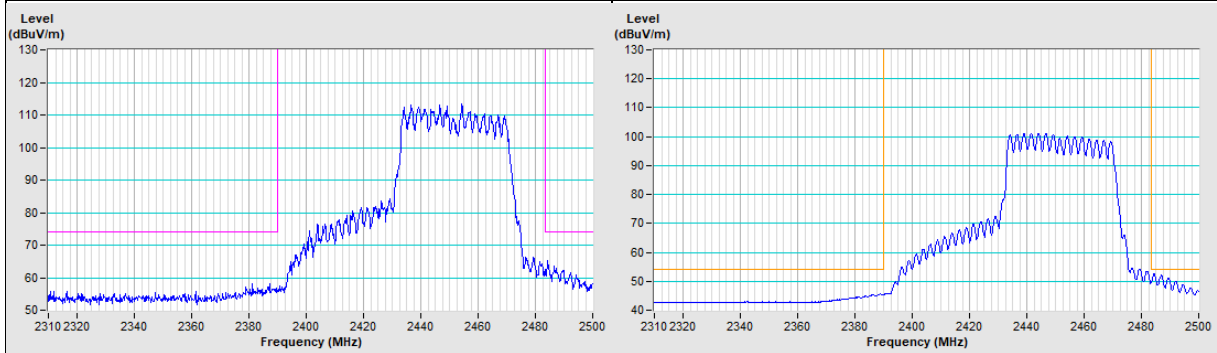


Vertical (Peak)	Vertical (Average)
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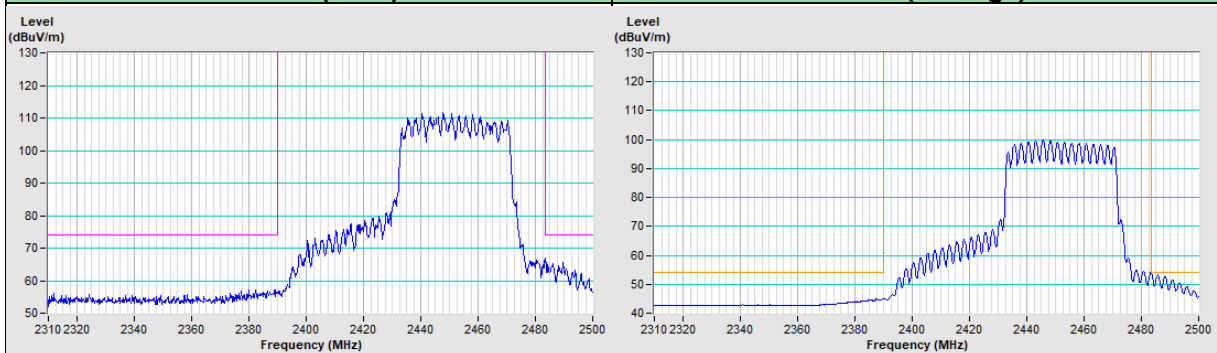


802.11ax (HE40) Channel 9

Horizontal (Peak)	Horizontal (Average)
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Vertical (Peak)	Vertical (Average)
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Beamforming

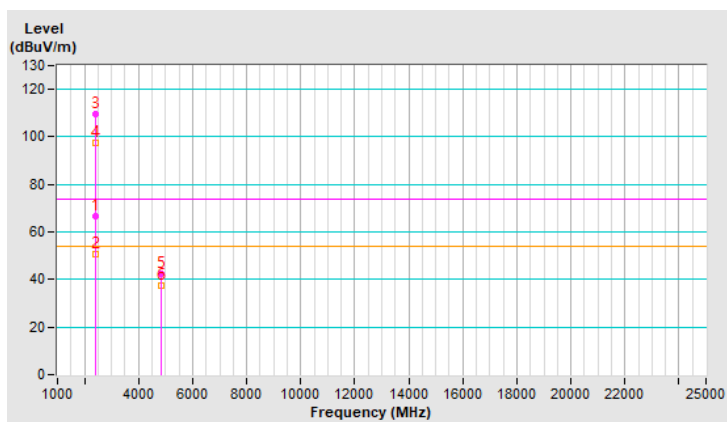
RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	66.5 PK	74.0	-7.5	3.48 H	130	67.6	-1.1
2	2390.00	50.6 AV	54.0	-3.4	3.48 H	130	51.7	-1.1
3	*2412.00	109.8 PK			3.48 H	130	111.0	-1.2
4	*2412.00	97.6 AV			3.48 H	130	98.8	-1.2
5	4824.00	42.2 PK	74.0	-31.8	1.06 H	178	38.0	4.2
6	4824.00	37.4 AV	54.0	-16.6	1.06 H	178	33.2	4.2

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.

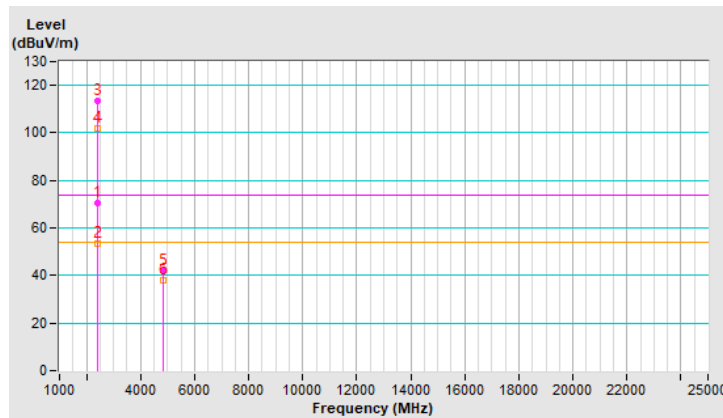


RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	70.7 PK	74.0	-3.3	2.55 V	158	71.8	-1.1
2	2390.00	53.4 AV	54.0	-0.6	2.55 V	158	54.5	-1.1
3	*2412.00	113.5 PK			2.55 V	158	114.7	-1.2
4	*2412.00	102.0 AV			2.55 V	158	103.2	-1.2
5	4824.00	41.8 PK	74.0	-32.2	1.58 V	218	37.6	4.2
6	4824.00	37.8 AV	54.0	-16.2	1.58 V	218	33.6	4.2

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.



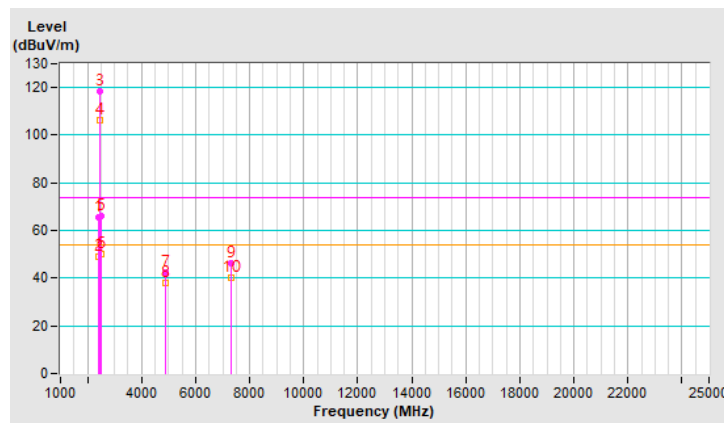
RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	65.7 PK	74.0	-8.3	3.51 H	144	66.8	-1.1
2	2390.00	49.2 AV	54.0	-4.8	3.51 H	144	50.3	-1.1
3	*2437.00	118.3 PK			3.51 H	144	119.5	-1.2
4	*2437.00	106.4 AV			3.51 H	144	107.6	-1.2
5	2483.50	66.1 PK	74.0	-7.9	3.51 H	144	67.3	-1.2
6	2483.50	50.1 AV	54.0	-3.9	3.51 H	144	51.3	-1.2
7	4874.00	42.5 PK	74.0	-31.5	1.15 H	149	38.3	4.2
8	4874.00	38.1 AV	54.0	-15.9	1.15 H	149	33.9	4.2
9	7311.00	46.3 PK	74.0	-27.7	1.09 H	31	36.3	10.0
10	7311.00	40.4 AV	54.0	-13.6	1.09 H	31	30.4	10.0

Remarks:

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

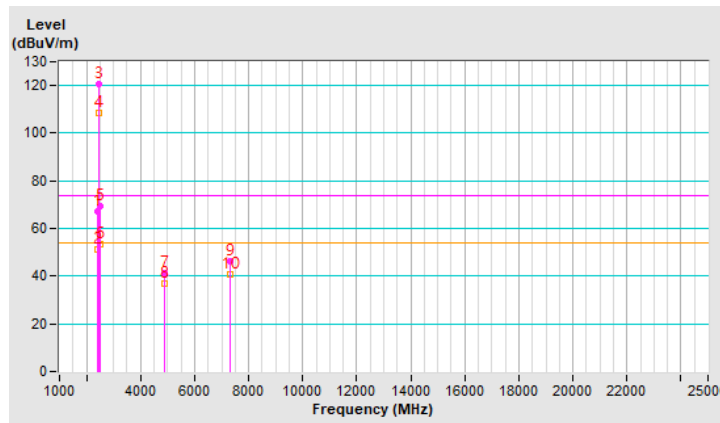


RF Mode	TX 802.11ax (HE20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	67.1 PK	74.0	-6.9	2.17 V	154	68.2	-1.1
2	2390.00	51.1 AV	54.0	-2.9	2.17 V	154	52.2	-1.1
3	*2437.00	120.8 PK			2.17 V	154	122.0	-1.2
4	*2437.00	108.4 AV			2.17 V	154	109.6	-1.2
5	2483.50	69.4 PK	74.0	-4.6	2.17 V	154	70.6	-1.2
6	2483.50	53.6 AV	54.0	-0.4	2.17 V	154	54.8	-1.2
7	4874.00	41.3 PK	74.0	-32.7	1.54 V	212	37.1	4.2
8	4874.00	37.0 AV	54.0	-17.0	1.54 V	212	32.8	4.2
9	7311.00	46.2 PK	74.0	-27.8	1.35 V	208	36.2	10.0
10	7311.00	40.6 AV	54.0	-13.4	1.35 V	208	30.6	10.0

Remarks:

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



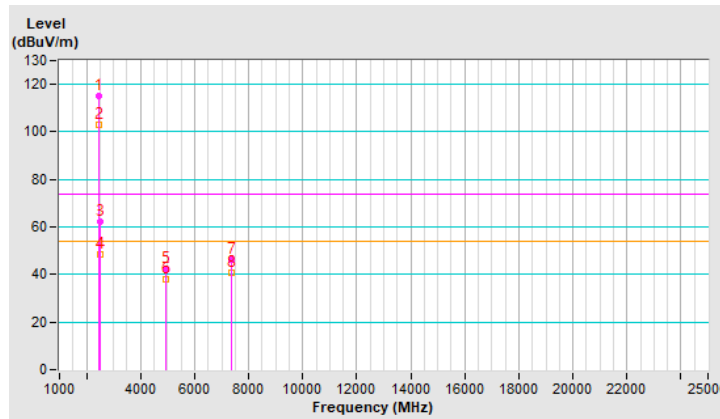
RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	115.2 PK			3.12 H	139	116.3	-1.1
2	*2462.00	103.1 AV			3.12 H	139	104.2	-1.1
3	2483.50	62.4 PK	74.0	-11.6	3.12 H	139	63.6	-1.2
4	2483.50	48.2 AV	54.0	-5.8	3.12 H	139	49.4	-1.2
5	4924.00	42.2 PK	74.0	-31.8	1.13 H	159	38.0	4.2
6	4924.00	38.1 AV	54.0	-15.9	1.13 H	159	33.9	4.2
7	7386.00	46.3 PK	74.0	-27.7	1.11 H	44	35.8	10.5
8	7386.00	40.9 AV	54.0	-13.1	1.11 H	44	30.4	10.5

Remarks:

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

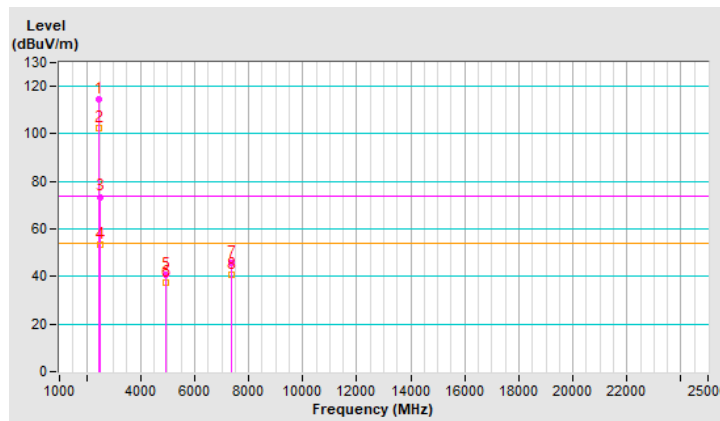


RF Mode	TX 802.11ax (HE20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	114.8 PK			1.93 V	157	115.9	-1.1
2	*2462.00	102.5 AV			1.93 V	157	103.6	-1.1
3	2483.50	73.5 PK	74.0	-0.5	1.93 V	157	74.7	-1.2
4	2483.50	53.4 AV	54.0	-0.6	1.93 V	157	54.6	-1.2
5	4924.00	40.9 PK	74.0	-33.1	1.62 V	217	36.7	4.2
6	4924.00	37.5 AV	54.0	-16.5	1.62 V	217	33.3	4.2
7	7386.00	45.8 PK	74.0	-28.2	1.31 V	222	35.3	10.5
8	7386.00	40.7 AV	54.0	-13.3	1.31 V	222	30.2	10.5

Remarks:

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



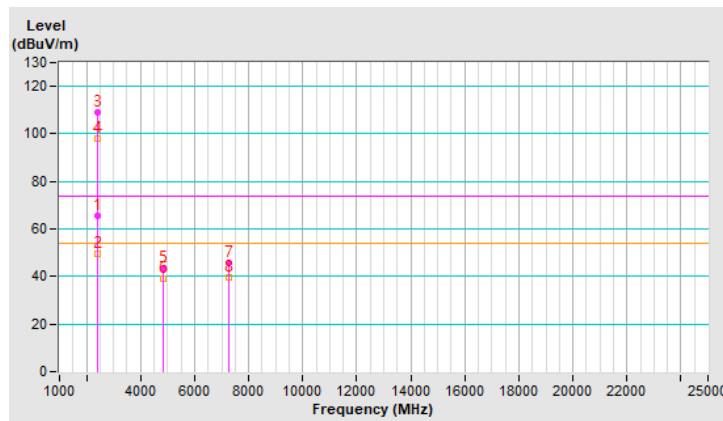
RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	65.3 PK	74.0	-8.7	3.45 H	131	66.4	-1.1
2	2390.00	49.8 AV	54.0	-4.2	3.45 H	131	50.9	-1.1
3	*2422.00	108.9 PK			3.45 H	131	110.1	-1.2
4	*2422.00	98.1 AV			3.45 H	131	99.3	-1.2
5	4844.00	43.2 PK	74.0	-30.8	1.10 H	182	39.0	4.2
6	4844.00	39.0 AV	54.0	-15.0	1.10 H	182	34.8	4.2
7	7266.00	45.5 PK	74.0	-28.5	1.19 H	25	35.4	10.1
8	7266.00	39.7 AV	54.0	-14.3	1.19 H	25	29.6	10.1

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.

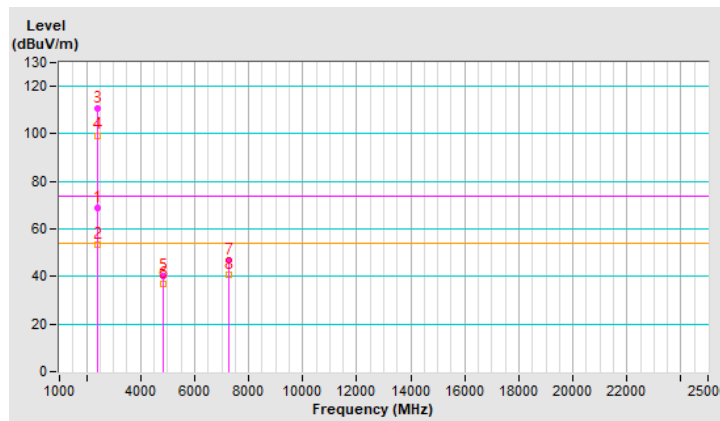


RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	68.7 PK	74.0	-5.3	1.94 V	156	69.8	-1.1
2	2390.00	53.2 AV	54.0	-0.8	1.94 V	156	54.3	-1.1
3	*2422.00	110.9 PK			1.94 V	156	112.1	-1.2
4	*2422.00	99.4 AV			1.94 V	156	100.6	-1.2
5	4844.00	40.3 PK	74.0	-33.7	1.61 V	221	36.1	4.2
6	4844.00	36.7 AV	54.0	-17.3	1.61 V	221	32.5	4.2
7	7266.00	46.8 PK	74.0	-27.2	1.30 V	207	36.7	10.1
8	7266.00	40.5 AV	54.0	-13.5	1.30 V	207	30.4	10.1

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.



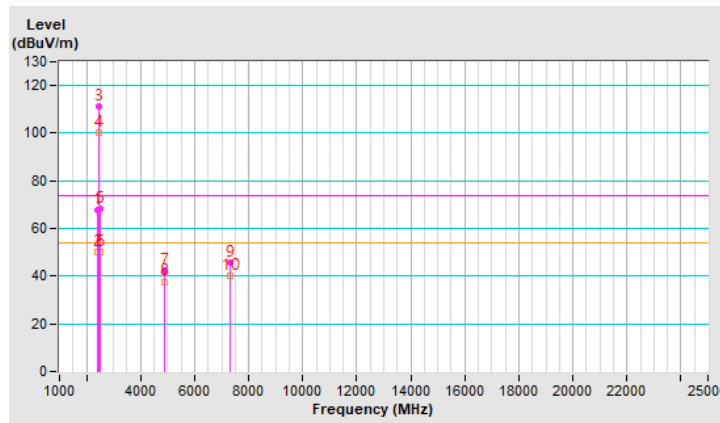
RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	67.8 PK	74.0	-6.2	3.44 H	134	68.9	-1.1
2	2390.00	49.9 AV	54.0	-4.1	3.44 H	134	51.0	-1.1
3	*2437.00	111.3 PK			3.44 H	134	112.5	-1.2
4	*2437.00	100.1 AV			3.44 H	134	101.3	-1.2
5	2483.50	68.3 PK	74.0	-5.7	3.44 H	134	69.5	-1.2
6	2483.50	50.1 AV	54.0	-3.9	3.44 H	134	51.3	-1.2
7	4874.00	42.5 PK	74.0	-31.5	1.05 H	168	38.3	4.2
8	4874.00	37.7 AV	54.0	-16.3	1.05 H	168	33.5	4.2
9	7311.00	45.8 PK	74.0	-28.2	1.09 H	30	35.8	10.0
10	7311.00	40.3 AV	54.0	-13.7	1.09 H	30	30.3	10.0

Remarks:

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

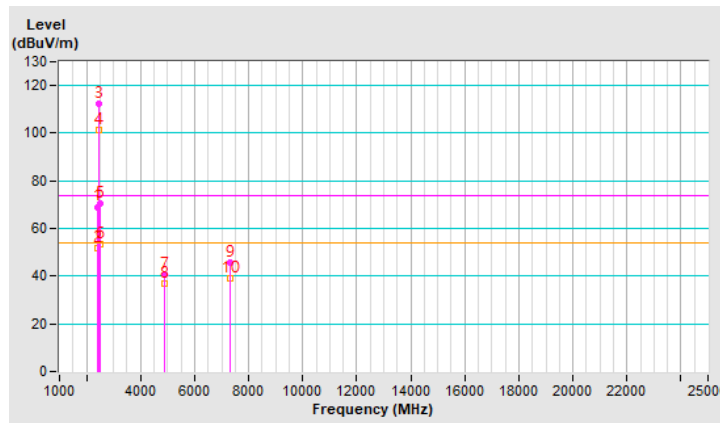


RF Mode	TX 802.11ax (HE40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	69.1 PK	74.0	-4.9	2.98 V	165	70.2	-1.1
2	2390.00	51.9 AV	54.0	-2.1	2.98 V	165	53.0	-1.1
3	*2437.00	112.6 PK			2.98 V	165	113.8	-1.2
4	*2437.00	101.2 AV			2.98 V	165	102.4	-1.2
5	2483.50	70.6 PK	74.0	-3.4	2.98 V	165	71.8	-1.2
6	2483.50	53.4 AV	54.0	-0.6	2.98 V	165	54.6	-1.2
7	4874.00	40.9 PK	74.0	-33.1	1.70 V	239	36.7	4.2
8	4874.00	37.0 AV	54.0	-17.0	1.70 V	239	32.8	4.2
9	7311.00	45.5 PK	74.0	-28.5	1.34 V	211	35.5	10.0
10	7311.00	39.3 AV	54.0	-14.7	1.34 V	211	29.3	10.0

Remarks:

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



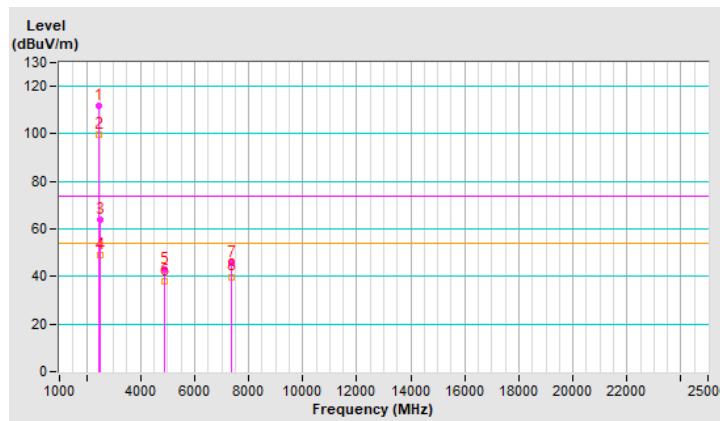
RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

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	111.6 PK			3.08 H	132	112.7	-1.1
2	*2452.00	99.8 AV			3.08 H	132	100.9	-1.1
3	2483.50	64.1 PK	74.0	-9.9	3.08 H	132	65.3	-1.2
4	2483.50	48.8 AV	54.0	-5.2	3.08 H	132	50.0	-1.2
5	4904.00	43.0 PK	74.0	-31.0	1.12 H	157	38.7	4.3
6	4904.00	37.9 AV	54.0	-16.1	1.12 H	157	33.6	4.3
7	7356.00	45.7 PK	74.0	-28.3	1.16 H	48	35.4	10.3
8	7356.00	39.9 AV	54.0	-14.1	1.16 H	48	29.6	10.3

Remarks:

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

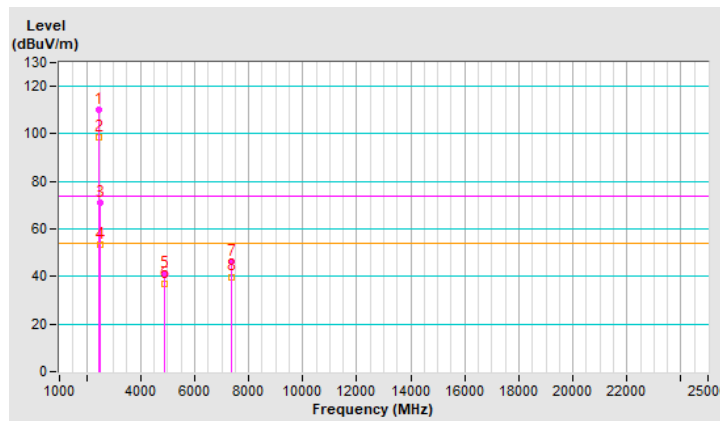


RF Mode	TX 802.11ax (HE40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 300 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	26°C, 68% RH
Tested By	Sampson Chen		

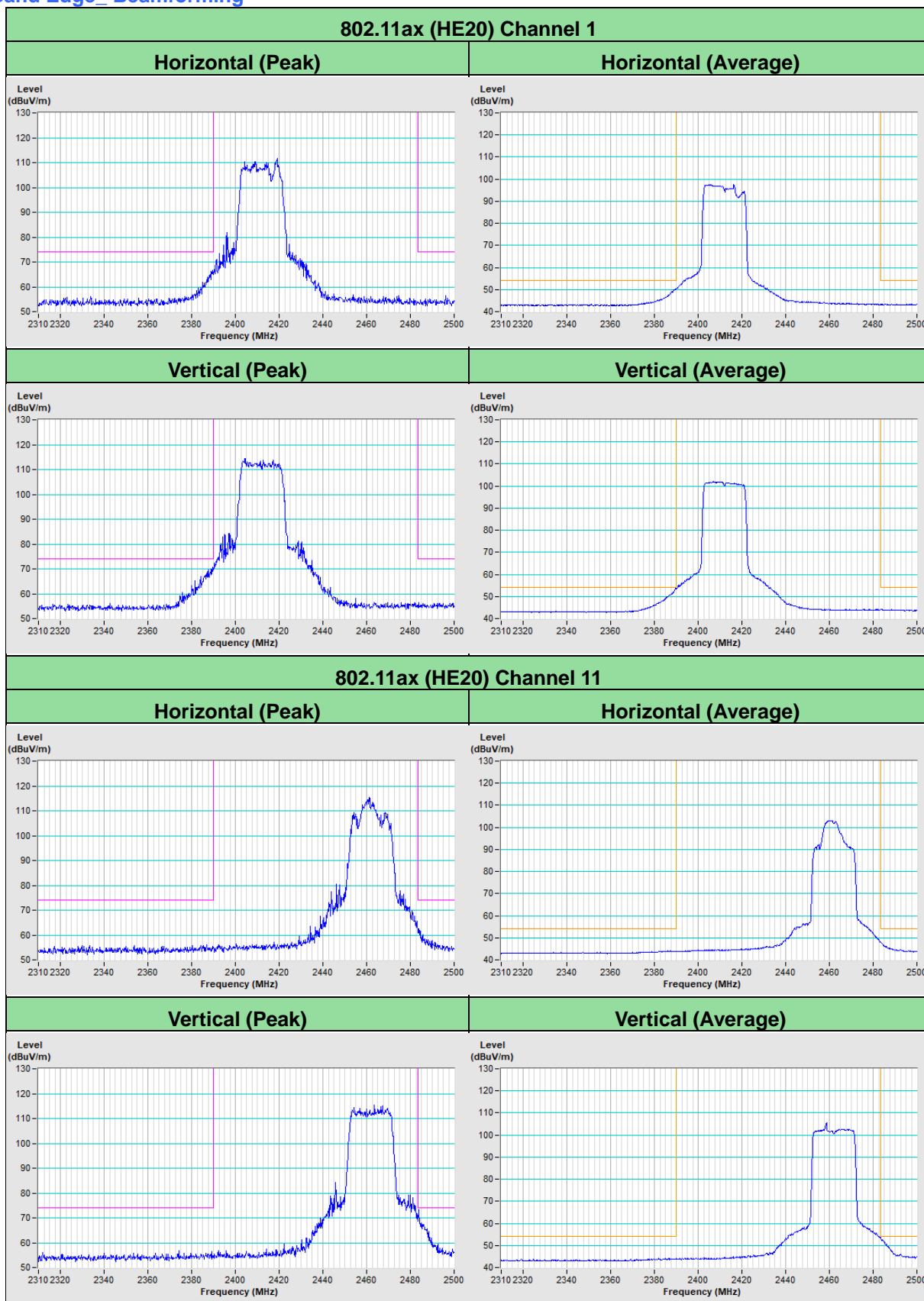
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	110.3 PK			2.10 V	156	111.4	-1.1
2	*2452.00	98.4 AV			2.10 V	156	99.5	-1.1
3	2483.50	71.0 PK	74.0	-3.0	2.10 V	156	72.2	-1.2
4	2483.50	53.4 AV	54.0	-0.6	2.10 V	156	54.6	-1.2
5	4904.00	41.2 PK	74.0	-32.8	1.61 V	226	36.9	4.3
6	4904.00	37.0 AV	54.0	-17.0	1.61 V	226	32.7	4.3
7	7356.00	46.0 PK	74.0	-28.0	1.28 V	238	35.7	10.3
8	7356.00	39.9 AV	54.0	-14.1	1.28 V	238	29.6	10.3

Remarks:

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

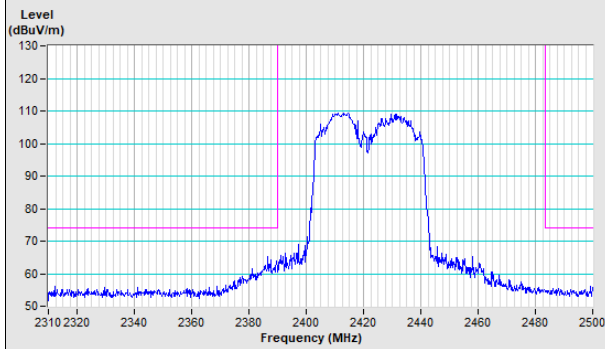


Plot of Band Edge_ Beamforming

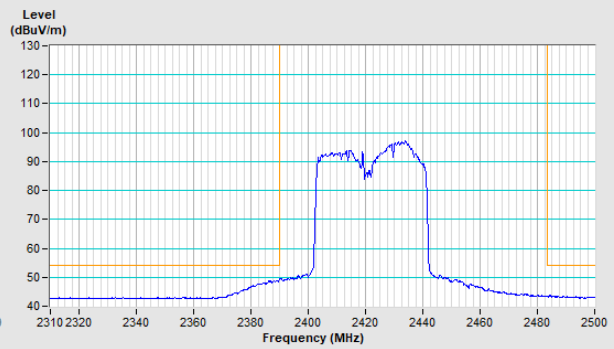


802.11ax (HE40) Channel 3

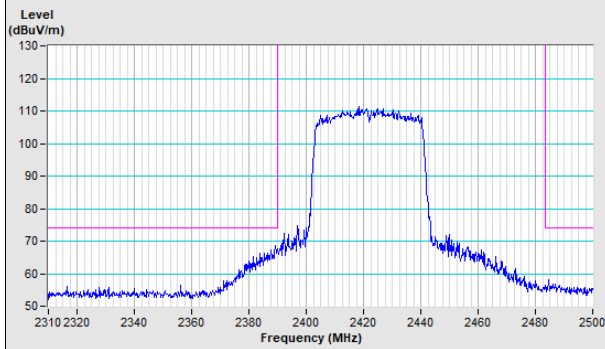
Horizontal (Peak)



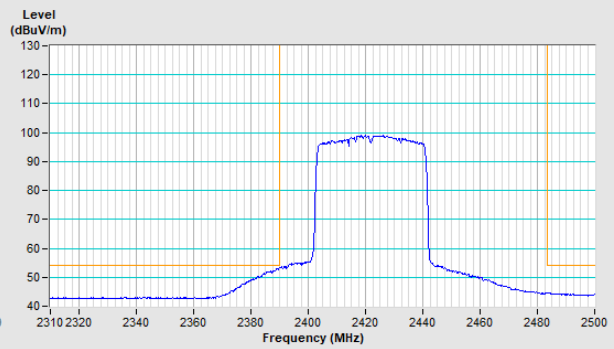
Horizontal (Average)



Vertical (Peak)

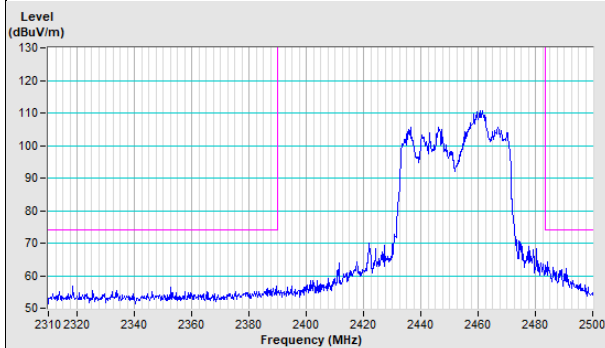


Vertical (Average)

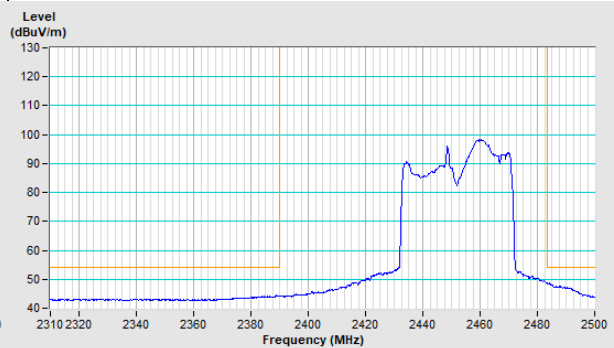


802.11ax (HE40) Channel 9

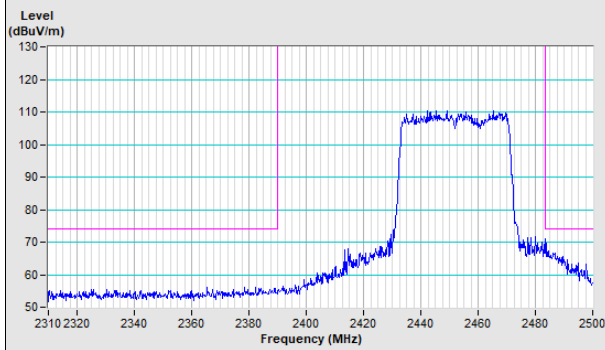
Horizontal (Peak)



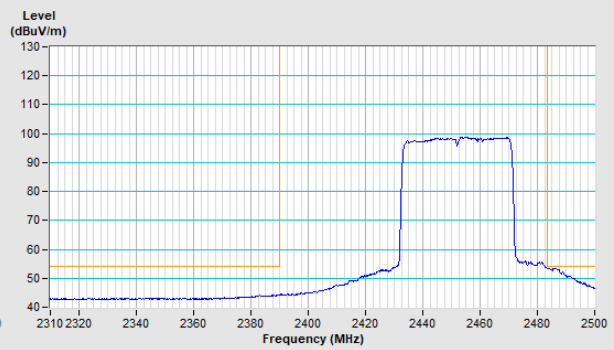
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Email: service.adt@bureauveritas.com

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

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

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