

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFCJWN-WTW-P26010122-1
FCC ID: 2AEUP-5CFYA6
Product: Security Camera
Brand: ring
Model No.: 5CFYA6
Received Date: 2026/1/8
Test Date: 2026/1/13 ~ 2026/1/30
Issued Date: 2026/3/23
Applicant: Ring LLC
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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories
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FCC Registration /
Designation Number: 788550 / TW0003

Approved by:

Jeremy Lin

Jeremy Lin / Project Engineer

, Date:

2026/3/23

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Prepared by : Pettie Chen / Senior Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFCJWN-WTW-P26010122-1	Original release.	2026/3/23

1 Certificate

Product: Security Camera

Brand: ring

Test Model: 5CFYA6

Sample Status: Engineering sample

Applicant: Ring LLC

Test Date: 2026/1/13 ~ 2026/1/30

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

Measurement procedure: ANSI C63.10-2020

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.49 dB at 1.75701 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -2.7 dB at 43.58 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.0 dB at 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is IPEX not a standard connector.

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

2.1 Measurement Uncertainty

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

Parameter	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.371 dB
Power Spectral Density	-	1.017 dB
6 dB Bandwidth	-	206.5 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.79 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	2.44 dB
	30 MHz ~ 1 GHz	2.95 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 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	Security Camera
Brand	ring
Test Model	5CFYA6
Status of EUT	Engineering sample
Power Supply Rating	USB TypeC input: 20Vdc, 65W POE IN: 48Vdc, 36.2W (802.3bt)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 802.11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	Up to 573.5 Mbps
Operating Frequency	2.412 GHz ~ 2.462 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7
Output Power	135.412 mW (21.32 dBm)

Note:

1. The EUT uses following accessory.

Item	Brand	Model	Specification
Power Adapter	ring	6PFYA3	AC Input: 100-240Vac, 1.8A, 50/60Hz DC Output: 5.0Vdc, 3.0A, 15.0W / 9.0Vdc, 3.0A, 27.0W / 15.0Vdc, 3.0A, 45.0W / 20.0Vdc, 3.25A, 65.0W AC input Cable: Non-shielded 3-pin cable(2.2m) DC Output Cable: Shielded USB-C cable (1.65m)

2. There are Bluetooth LE and WLAN (2.4 GHz & 5 GHz) technology used for the EUT.

3. Simultaneously transmission combination.

Combination	Technology	
1	WLAN (5 GHz) MIMO	Bluetooth LE

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

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Ant. No.	Antenna Type	Connector Type	Frequency range	Antenna Net Gain(dBi)
Wi-Fi 0	Dipole - Flex	IPEX	2.4~2.4835GHz	3.6
			5.15~5.25GHz	4.1
			5.25~5.35GHz	4.1
			5.47~5.725GHz	3.8
			5.725~5.85GHz	3.5
Wi-Fi 1	Dipole - Flex	IPEX	2.4~2.4835GHz	4
			5.15~5.25GHz	2
			5.25~5.35GHz	2
			5.47~5.725GHz	2.6
			5.725~5.85GHz	2

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

2. The EUT incorporates a MIMO function:

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

Note:

1. All of modulation mode support beamforming function except 802.11b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), and 802.11ax mode for 20 MHz (40 MHz). Therefore, the investigated worst case is VHT mode for 20 MHz (40 MHz) as the representative mode in test report.
4. The EUT does not use channel puncturing and bandwidth reduction.

3.3 Channel List

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

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

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

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. 2. The EUT can be powered by following ways: Type-C with adapter / POE Adapter. Pre-scan these ways and find the worst case as a representative test condition. 3. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition: Z-axis. 2. Worst Condition: EUT with Type-C with adapter.

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

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

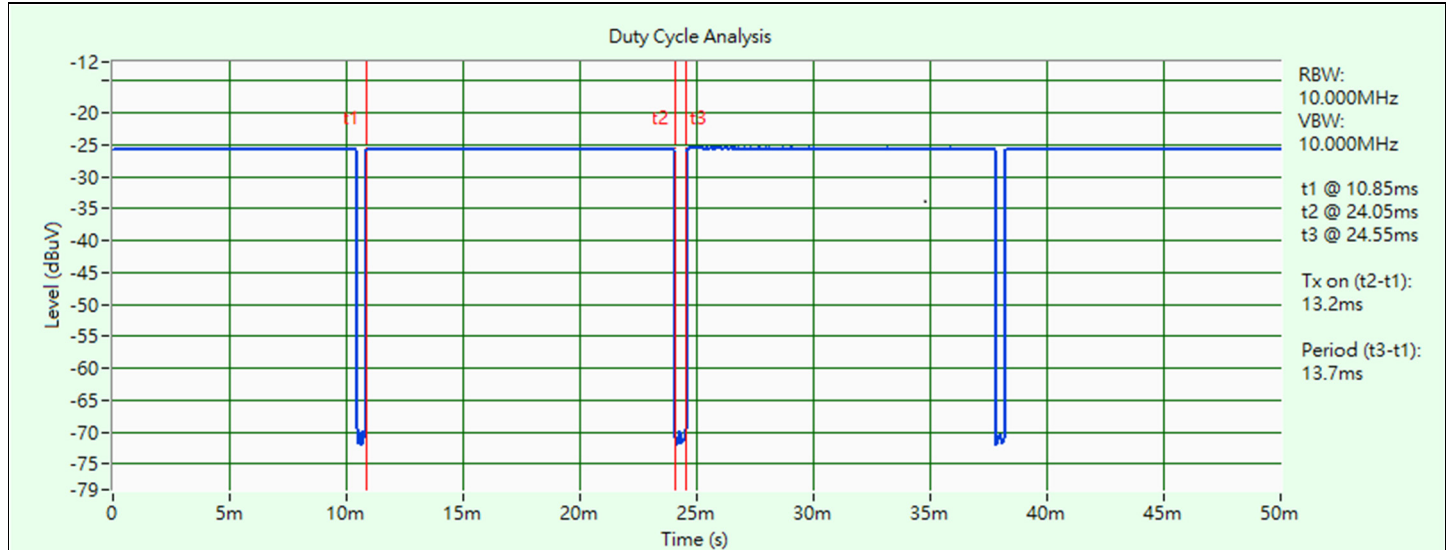
3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = 13.2 ms / 13.7 ms x 100% = 96.4%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.16 \text{ dB}$

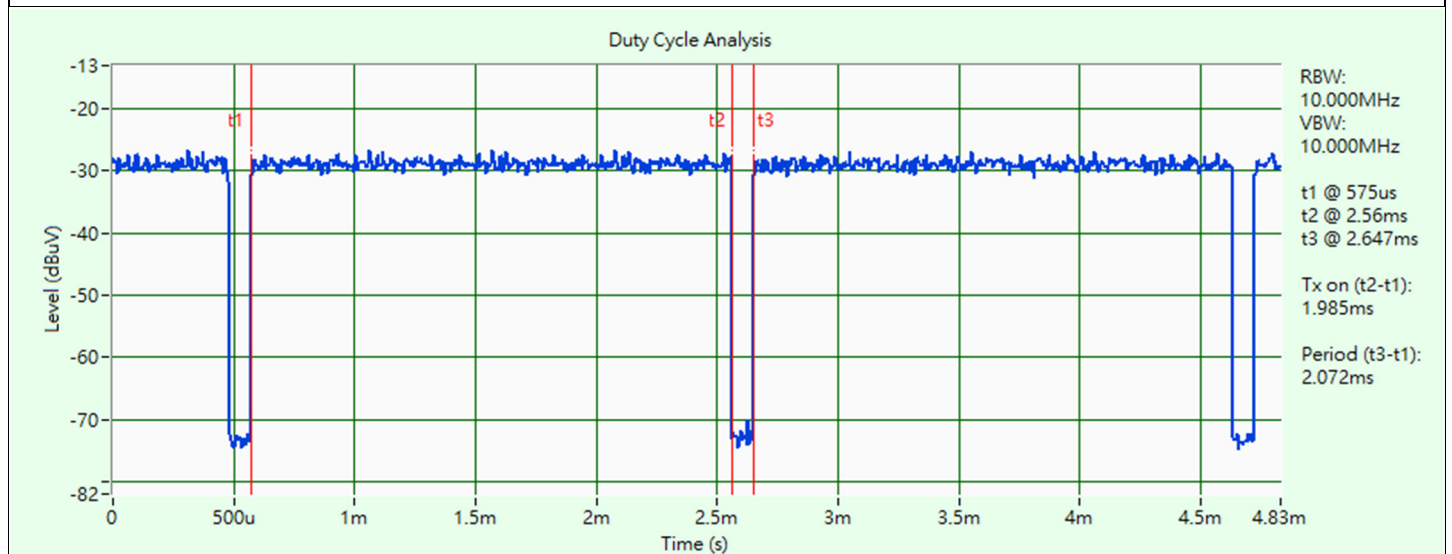
802.11g: Duty cycle = 1.985 ms / 2.072 ms x 100% = 95.8%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.19 \text{ dB}$

VHT20: Duty cycle = 5.46 ms / 5.88 ms x 100% = 92.9%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.32 \text{ dB}$

VHT40: Duty cycle = 5.49 ms / 5.88 ms x 100% = 93.4%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.30 \text{ dB}$

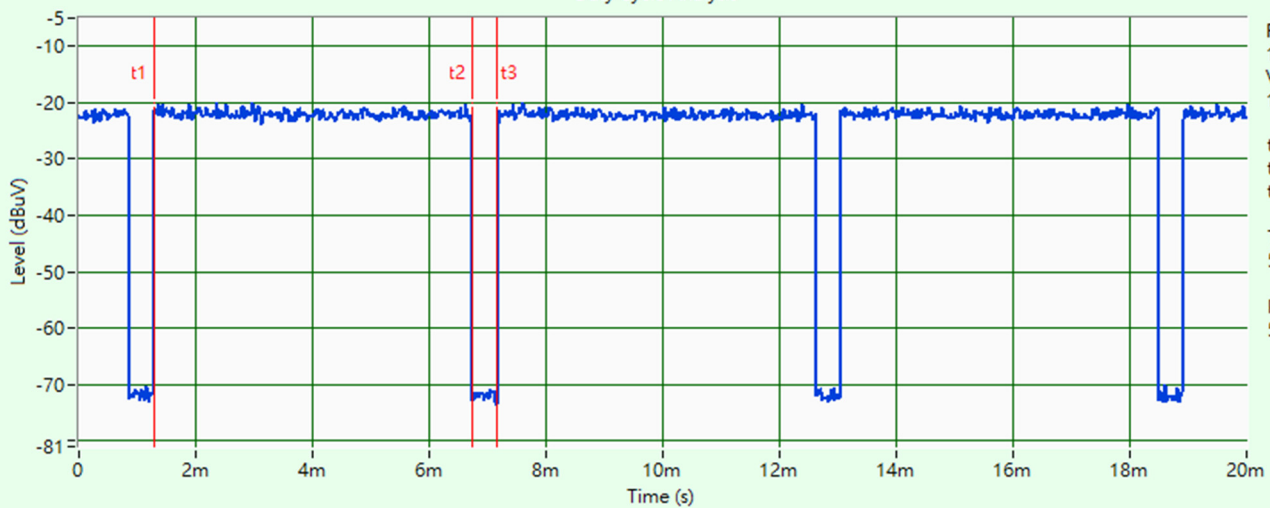


802.11b



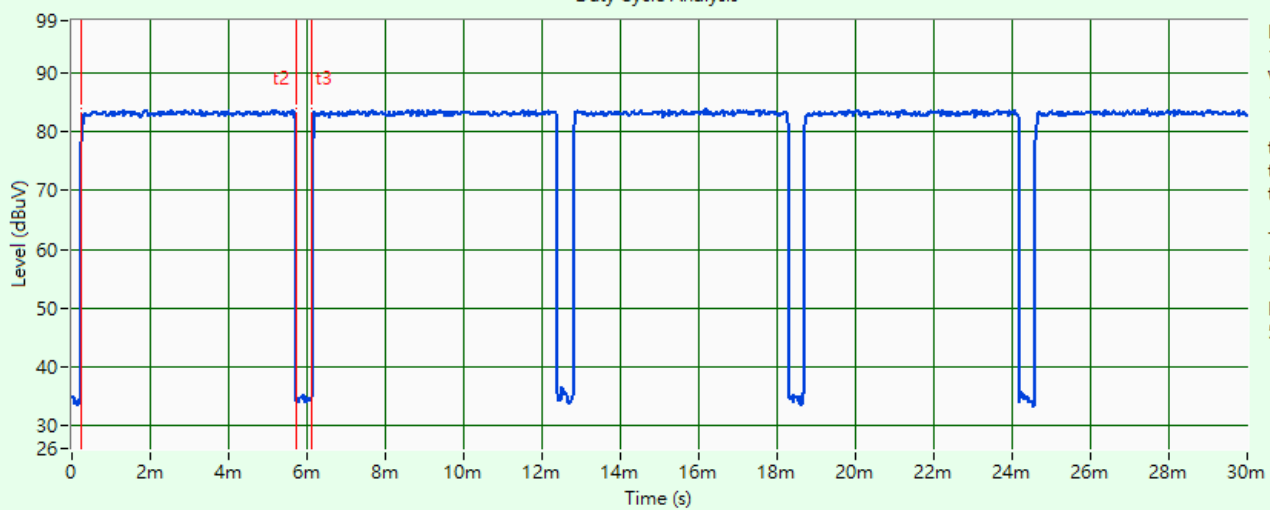
802.11g

Duty Cycle Analysis



VHT20

Duty Cycle Analysis

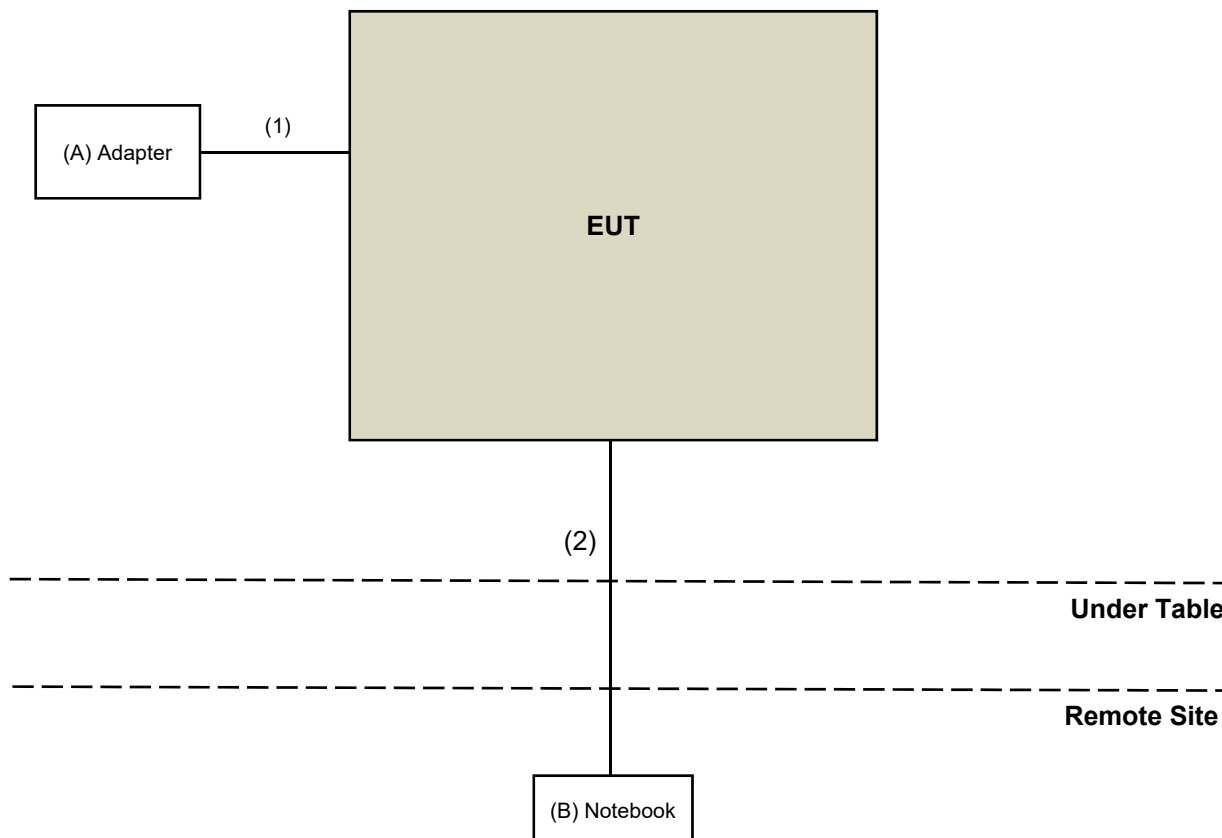


VHT40

3.6 Test Program Used and Operation Descriptions

Controlling software (QRCT v4.0.211) 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	Adapter	ring	6PFYA3	N/A	N/A	Accessory of EUT
B	Notebook	Lenovo	X260 4G	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB-C cable	1	1.65	Yes	0	Accessory of EUT
2	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
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
Peak Power Analyzer Keysight	8990B	MY51000538	2025/5/23	2026/5/22
Wideband Power Sensor Keysight	N1923A	MY58200003	2025/5/29	2026/5/28

Notes:

1. The test was performed in Huaya - Oven room.
2. Tested Date: 2026/1/21 ~ 2026/1/30

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
Signal & Spectrum Analyzer R&S	FSV3044	101504	2025/6/18	2026/6/17
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Huaya - Oven room.
2. Tested Date: 2026/1/21 ~ 2026/1/30

4.3 6 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
Signal & Spectrum Analyzer R&S	FSV3044	101504	2025/6/18	2026/6/17
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Huaya - Oven room.
2. Tested Date: 2026/1/21 ~ 2026/1/28

4.4 Conducted Out of Band Emissions

Refer to section 4.3 to get the tested date and information of the instruments.

4.5 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011276	01	2025/2/11	2026/2/10
	E1-011277	02	2025/10/31	2026/10/30
	E1-011313	11	2025/2/11	2026/2/10
DC LISN Schwarzbeck	NNBM 8126G	8126G-069	2025/11/3	2026/11/2
Diode Pulse Limiter Schwarzbeck	VTSD 9561 F-N	01617	2025/8/23	2026/8/22
EMI Test Receiver R&S	ESR3	102783	2025/12/15	2026/12/14
LISN R&S	ESH2-Z5	100100	2025/3/5	2026/3/4
	ESH3-Z5	100312	2025/8/29	2026/8/28
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2025/8/23	2026/8/22
Software BVADT	BVADT_Conf_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2025/8/27	2026/8/26

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2026/1/28

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-472	2025/9/16	2026/9/15
Loop Antenna TESEQ	HLA 6121	45745	2025/9/1	2026/8/31
MXE EMI Receiver Agilent	N9038A	MY51210203	2025/8/27	2026/8/26
Preamplifier EMCI	EMC 330H	980112	2025/9/21	2026/9/20
	EMC001340	980201	2025/9/21	2026/9/20
RF Coaxial Cable Woken	8D-FB	Cable-Ch10-01	2025/9/21	2026/9/20
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in Huaya - 966 chamber 5.
2. Tested Date: 2026/1/28

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	7	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-969	2025/11/9	2026/11/8
	BBHA 9170	148	2025/11/9	2026/11/8
MXE EMI Receiver Agilent	N9038A	MY51210203	2025/8/27	2026/8/26
Preamplifier EMCI	EMC 184045	980116	2025/9/21	2026/9/20
	EMC118A45SE	980809	2025/4/24	2026/4/23
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2025/6/30	2026/6/29
	EMC102-KM-KM-3000	150929	2025/6/30	2026/6/29
	EMC104-SM-SM- 8000+3000	171005	2025/9/21	2026/9/20
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	EMC104-SM-SM- 1000(140807)	2025/9/21	2026/9/20
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in Huaya - 966 chamber 5.
2. Tested Date: 2026/1/13 ~ 2026/1/15

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	$2400/F(\text{kHz})$	300
0.490 ~ 1.705	$24000/F(\text{kHz})$	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

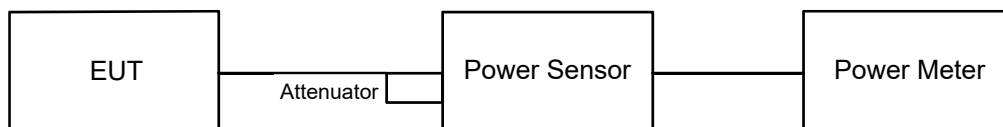
Notes:

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



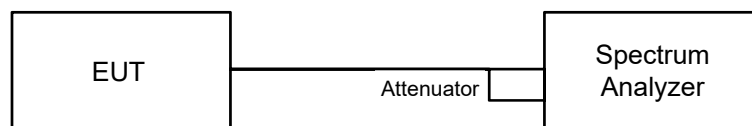
6.1.2 Test Procedure

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



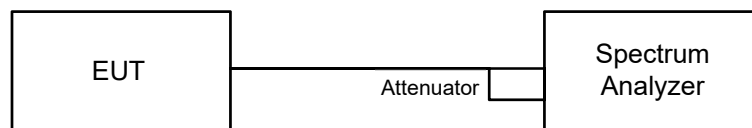
6.2.2 Test Procedure

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

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

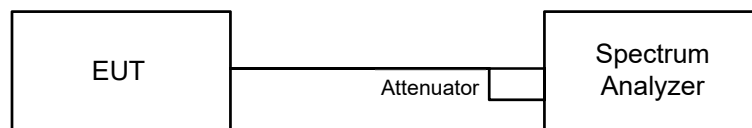


6.3.2 Test Procedure

- a. Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b. Set the VBW $\geq [3 \times \text{RBW}]$.
- c. Detector = peak.
- d. Trace mode = max-hold.
- e. Sweep = No faster than coupled (auto) time.
- f. Allow the trace to stabilize.
- g. Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

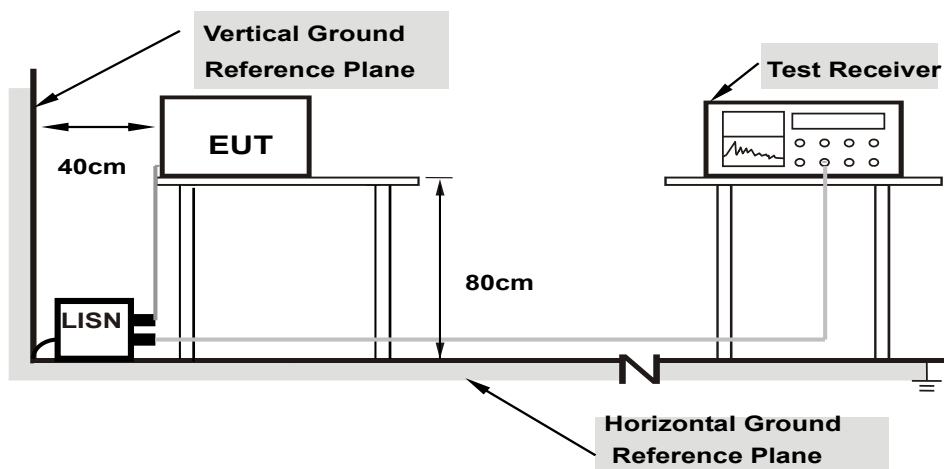
- Set instrument center frequency to DTS channel center frequency.
- Set the span to ≥ 1.5 times the DTS bandwidth.
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum PSD level.

MEASUREMENT PROCEDURE OOB

- Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.
- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = No faster than coupled (auto) time.
- 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

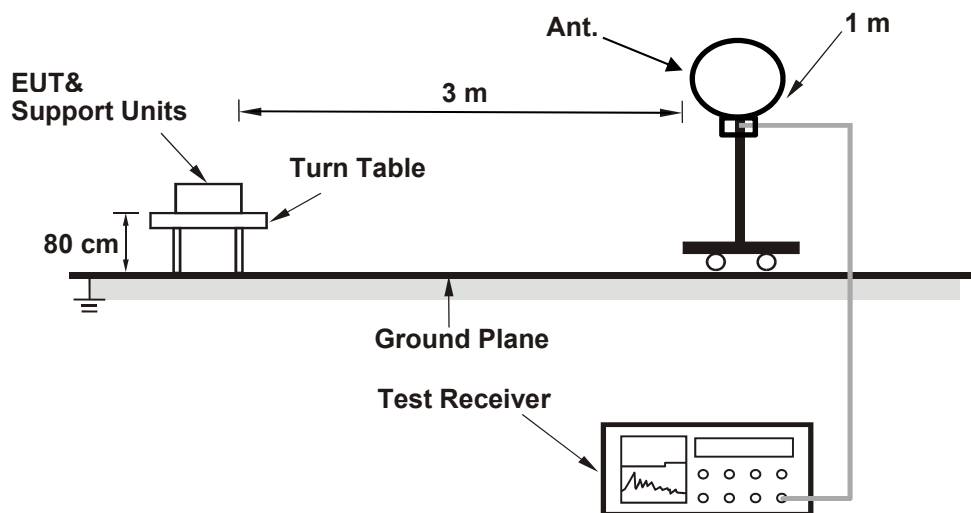
- Exploratory ac power-line conducted emission measurements: The EUT shall be operated on the mid channel and in the mode with highest output power unless the fundamental operates in the AC power-line emission test range then the EUT shall be operated in the range of typical modes of operation.
- The 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.

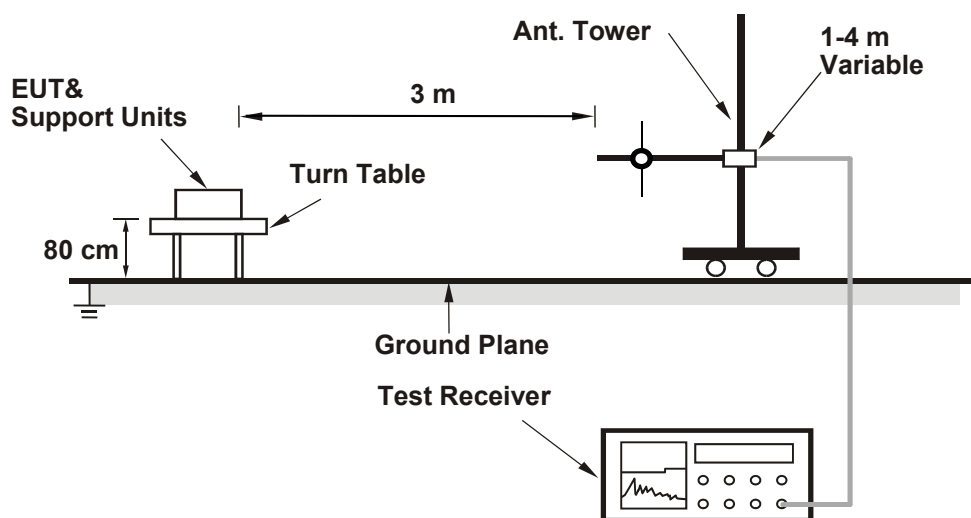
6.6 Unwanted Emissions below 1 GHz

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 (however, peak detector measurements may be used to determine compliance with QP requirements), 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

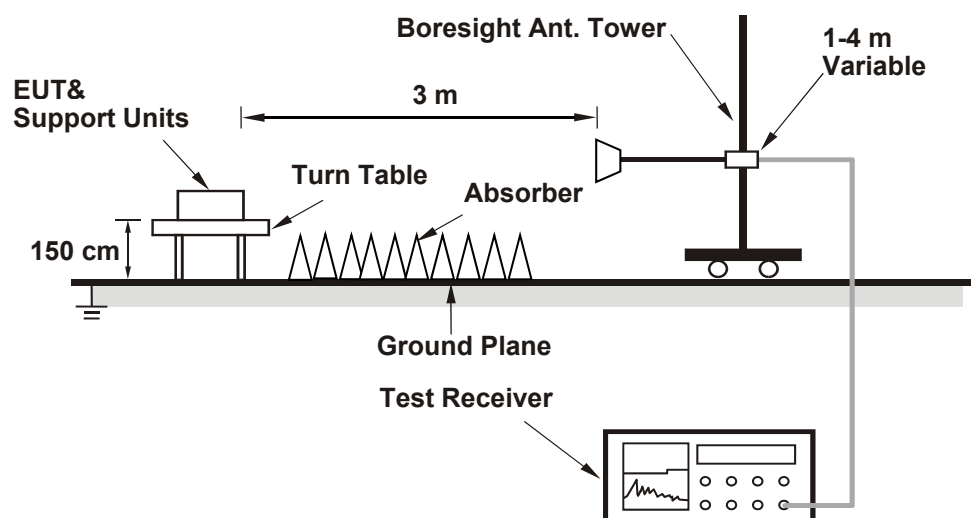
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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(QP) detect function, Average(AV) detect function, Peak(PK) detect function and specified bandwidth with maximum hold mode when the test frequencies less than or equal to 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 (however, peak detector measurements may be used to determine compliance with QP requirements).
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

Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
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CDD Mode

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	17.87	17.73	120.528	20.81	30	Pass
6	2437	17.74	17.67	117.908	20.72	30	Pass
11	2462	16.80	16.71	94.744	19.77	30	Pass

Notes:

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

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	17.45	17.18	107.83	20.33	30	Pass
6	2437	18.41	18.20	135.412	21.32	30	Pass
11	2462	17.30	17.13	105.345	20.23	30	Pass

Notes:

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

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	17.11	17.13	103.046	20.13	30	Pass
6	2437	18.26	18.07	131.109	21.18	30	Pass
11	2462	17.14	17.07	102.694	20.12	30	Pass

Notes:

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

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	14.87	14.82	61.029	17.86	30	Pass
6	2437	16.82	16.65	94.322	19.75	30	Pass
9	2452	15.76	15.71	74.91	18.75	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.

Beamforming Mode

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	17.11	17.13	103.046	20.13	29.19	Pass
6	2437	18.26	18.07	131.109	21.18	29.19	Pass
11	2462	17.14	17.07	102.694	20.12	29.19	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. The directional gain is 6.81 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.81 - 6) = 29.19$ dBm.

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	14.87	14.82	61.029	17.86	29.19	Pass
6	2437	16.82	16.65	94.322	19.75	29.19	Pass
9	2452	15.76	15.71	74.91	18.75	29.19	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. The directional gain is 6.81 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.81 - 6) = 29.19$ dBm.

7.2 Power Spectral Density

Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
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802.11b

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Conducted PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1					
1	2412	-16.62	-16.74	0.16	-13.67	-13.51	7.19	Pass
6	2437	-16.78	-16.88	0.16	-13.82	-13.66	7.19	Pass
11	2462	-17.64	-17.77	0.16	-14.69	-14.53	7.19	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- The directional gain is 6.81 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.81 - 6) = 7.19$ dBm/3kHz.

802.11g

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Conducted PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1					
1	2412	-17.26	-17.49	0.19	-14.36	-14.17	7.19	Pass
6	2437	-16.28	-16.53	0.19	-13.39	-13.20	7.19	Pass
11	2462	-17.30	-17.47	0.19	-14.37	-14.18	7.19	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- The directional gain is 6.81 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.81 - 6) = 7.19$ dBm/3kHz.

VHT20

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Conducted PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1					
1	2412	-21.49	-21.55	0.32	-18.51	-18.19	7.19	Pass
6	2437	-20.44	-20.54	0.32	-17.48	-17.16	7.19	Pass
11	2462	-21.53	-21.56	0.32	-18.53	-18.21	7.19	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- The directional gain is 6.81 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.81 - 6) = 7.19$ dBm/3kHz.

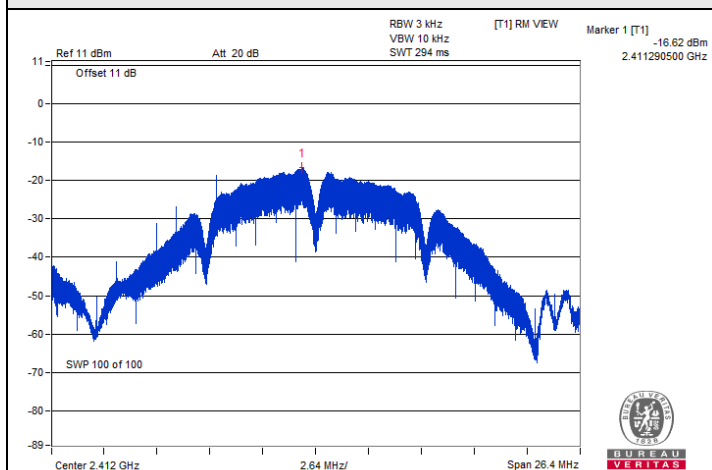
VHT40

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)		Duty Factor (dB)	Conducted PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1					
3	2422	-27.43	-27.55	0.30	-24.48	-24.18	7.19	Pass
6	2437	-25.47	-25.68	0.30	-22.56	-22.26	7.19	Pass
9	2452	-26.64	-26.91	0.30	-23.76	-23.46	7.19	Pass

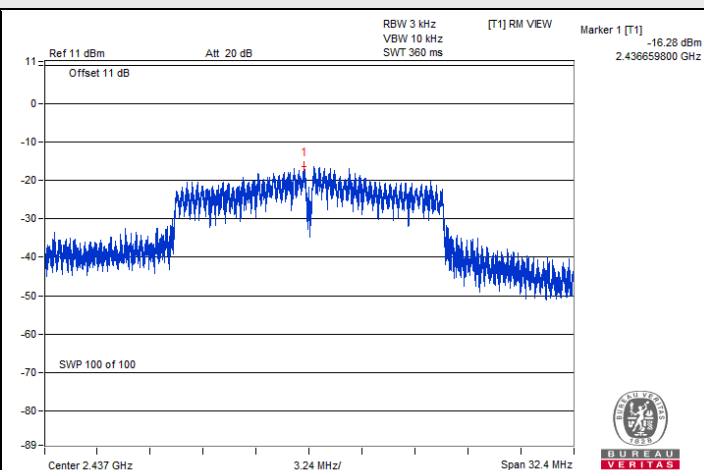
Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- The directional gain is 6.81 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.81 - 6) = 7.19$ dBm/3kHz.

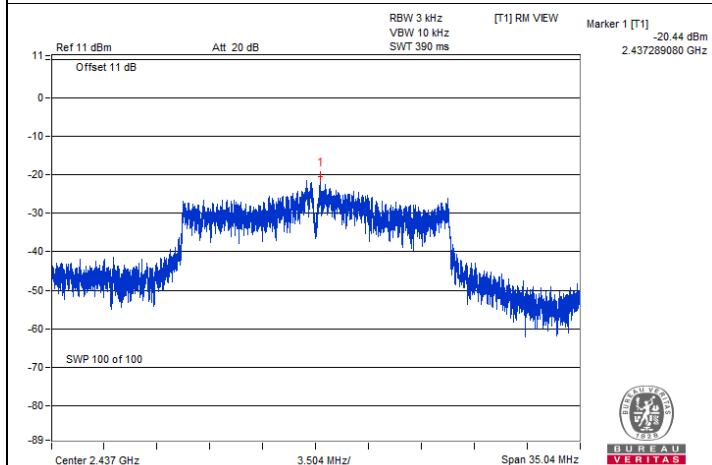
Spectrum Plot of Maximum Value



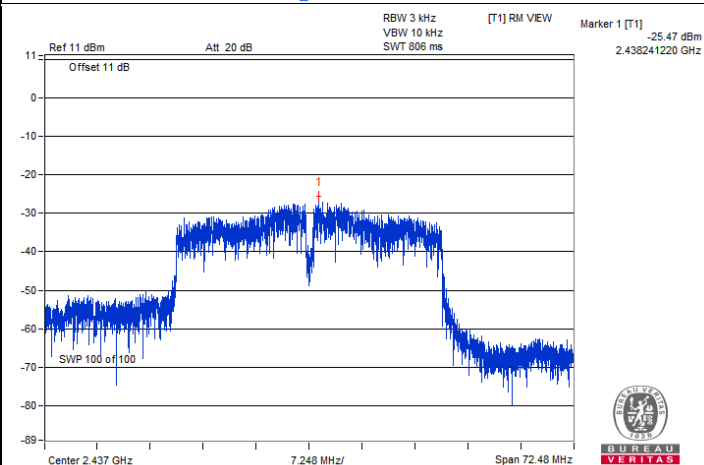
802.11b / Chain 0: CH 1



802.11g / Chain 0: CH 6



VHT20 / Chain 0: CH 6



VHT40 / Chain 0: CH 6

7.3 6 dB Bandwidth

Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
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802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	8.25	8.26	0.5	Pass
6	2437	8.26	8.27	0.5	Pass
11	2462	8.25	8.24	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	15.51	15.38	0.5	Pass
6	2437	15.42	15.64	0.5	Pass
11	2462	15.75	15.61	0.5	Pass

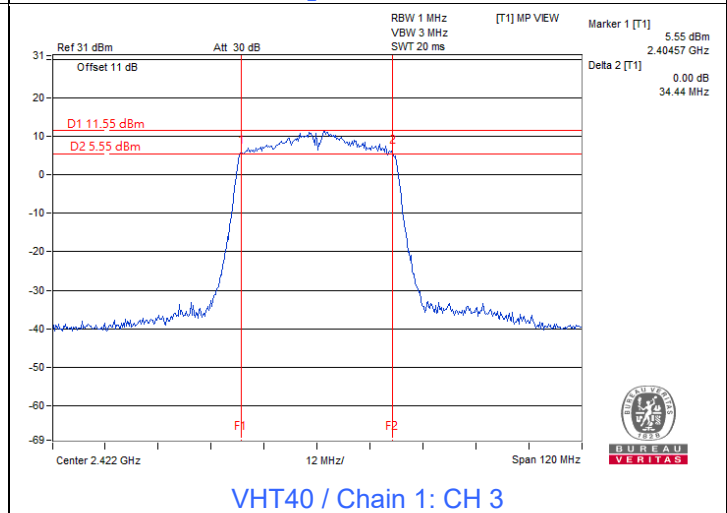
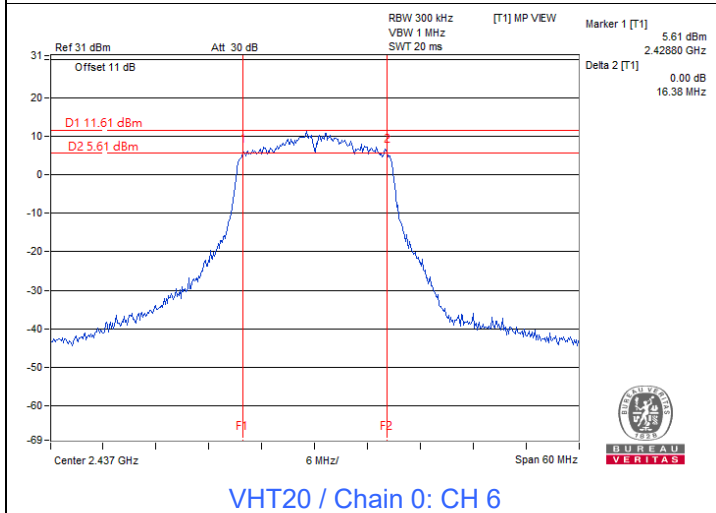
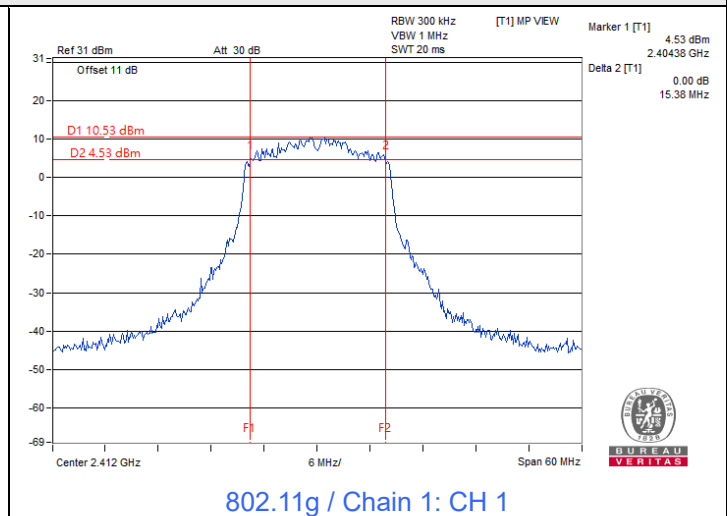
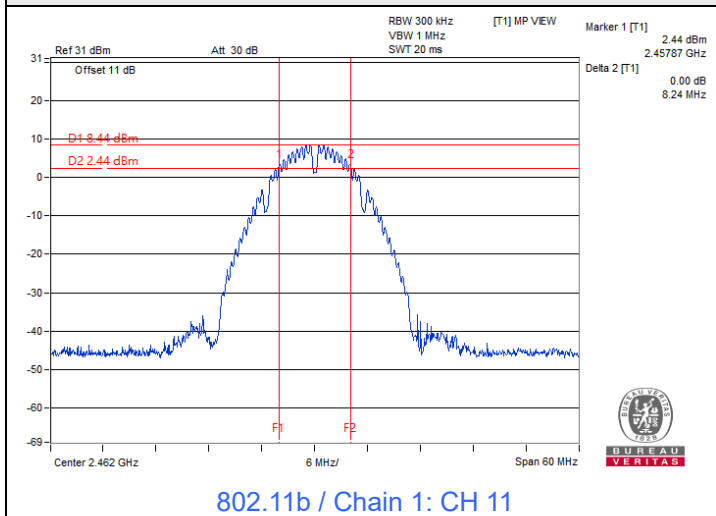
VHT20

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	16.59	16.86	0.5	Pass
6	2437	16.38	16.88	0.5	Pass
11	2462	16.67	16.52	0.5	Pass

VHT40

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	2422	34.94	34.44	0.5	Pass
6	2437	35.27	35.20	0.5	Pass
9	2452	34.61	35.36	0.5	Pass

Spectrum Plot of Minimum Value

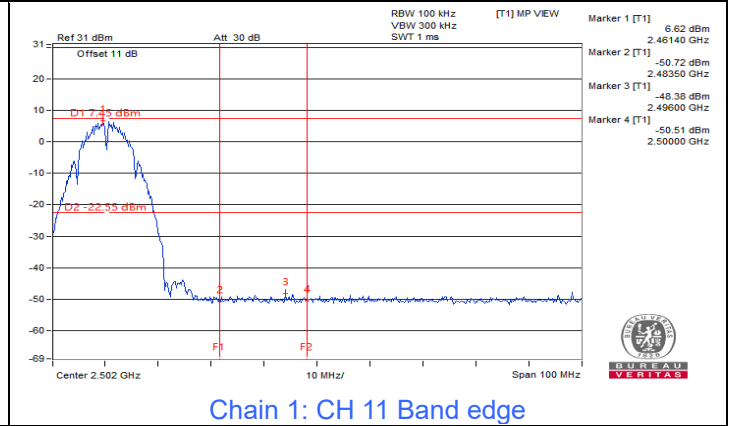
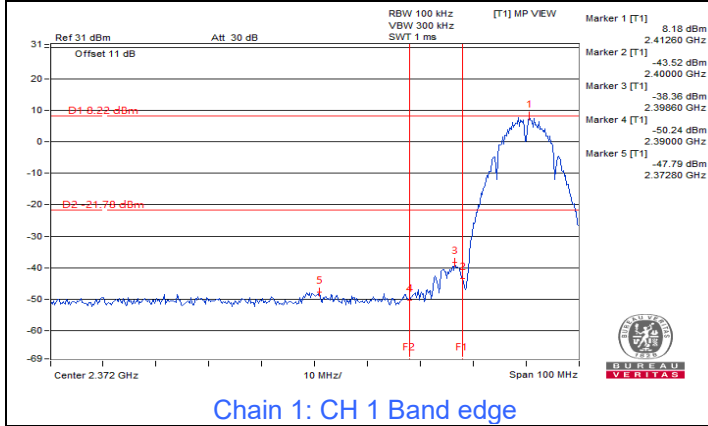
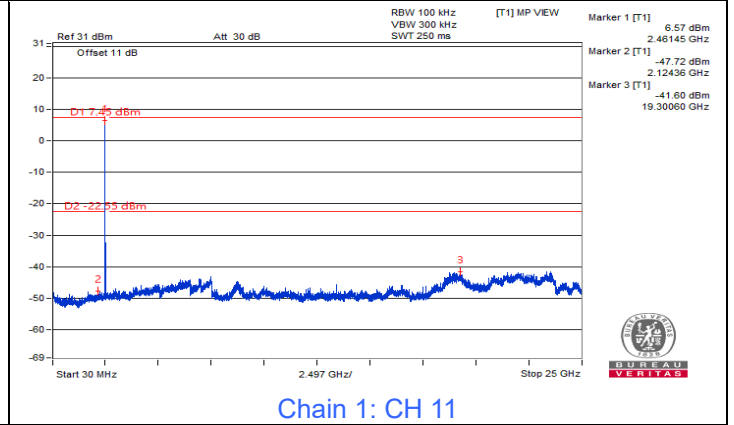
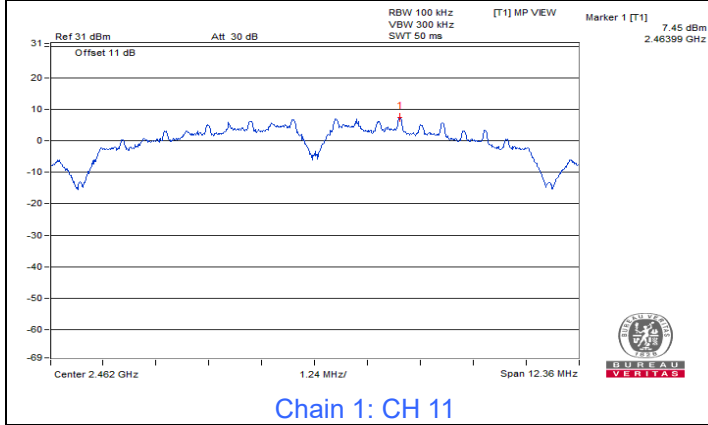
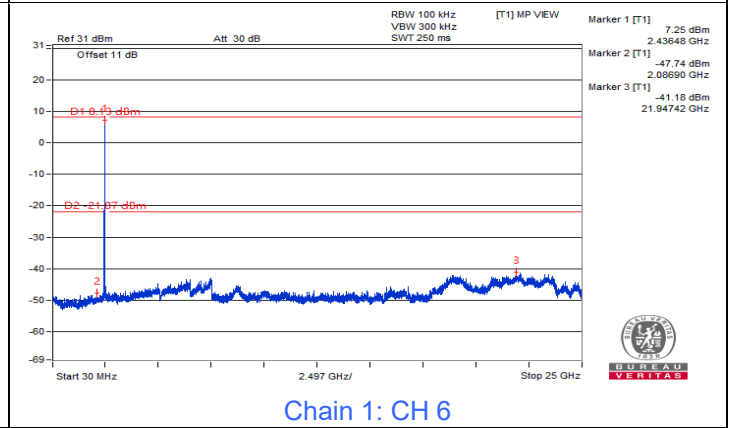
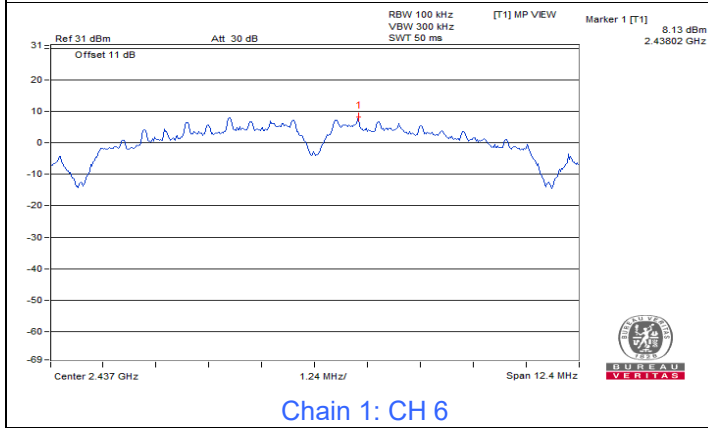
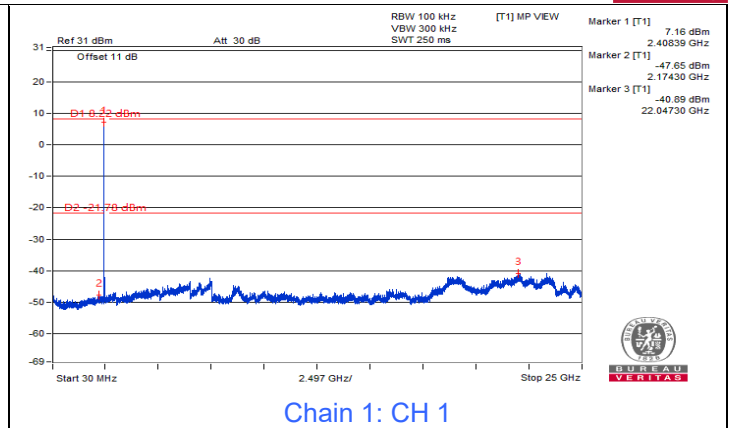
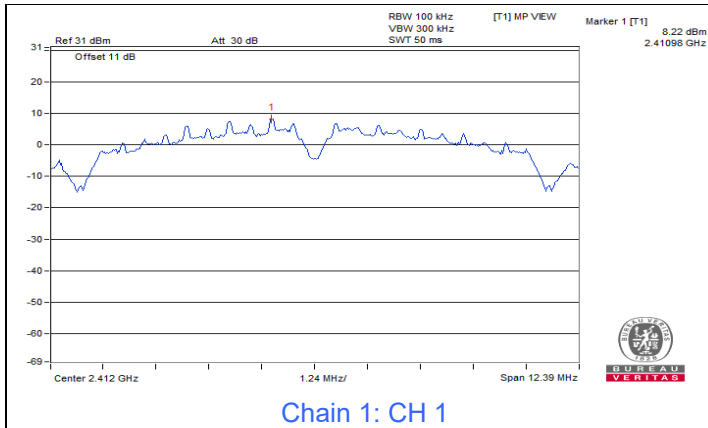


7.4 Conducted Out of Band Emissions

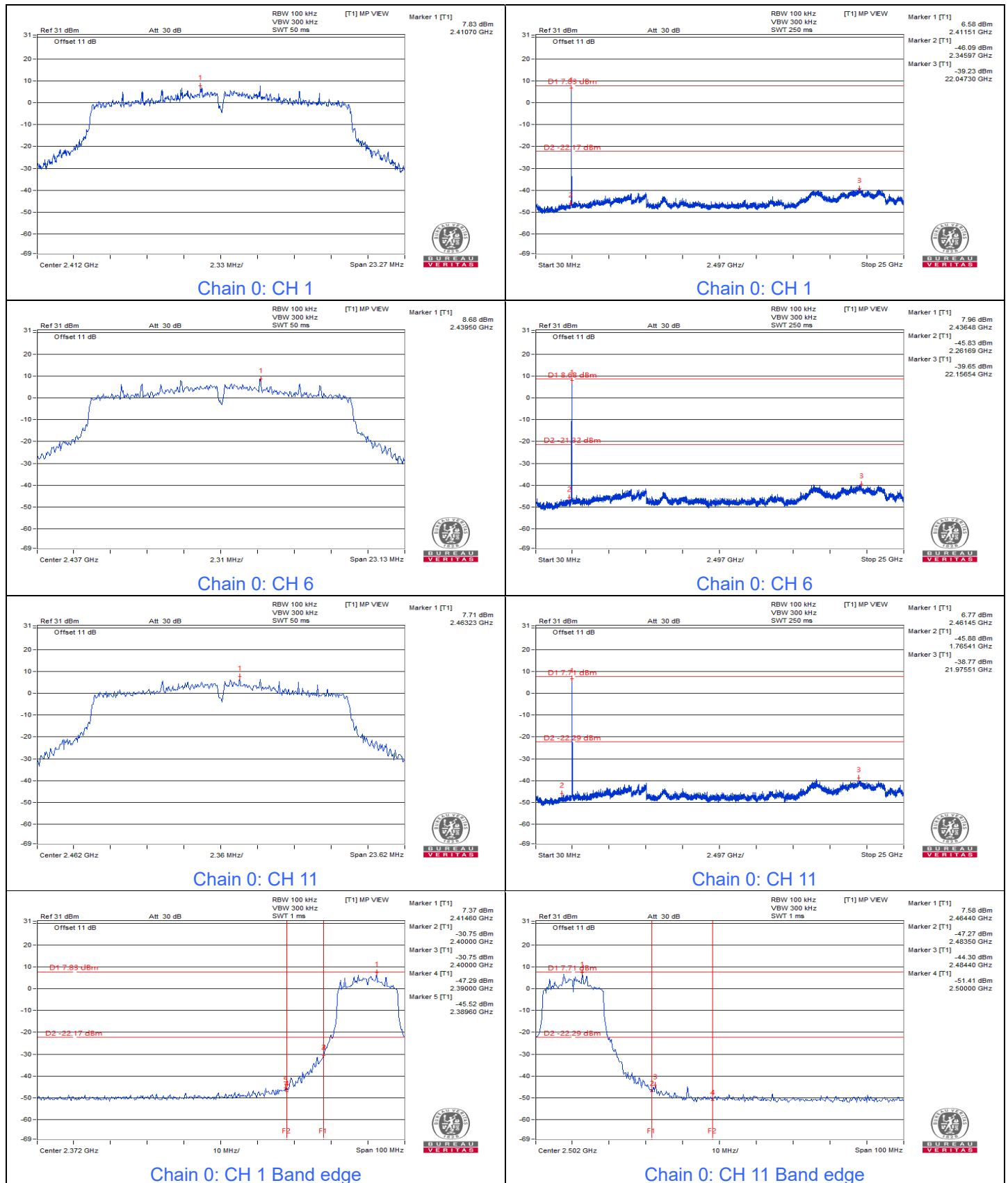
Environmental Conditions:	25°C, 60% RH	Tested By:	Ivan Tseng
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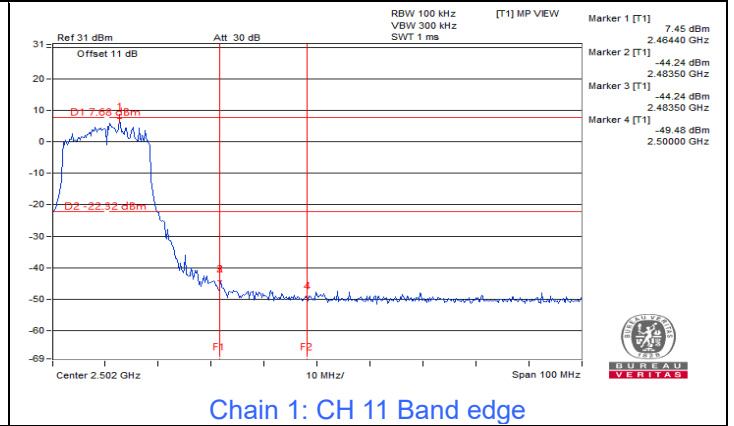
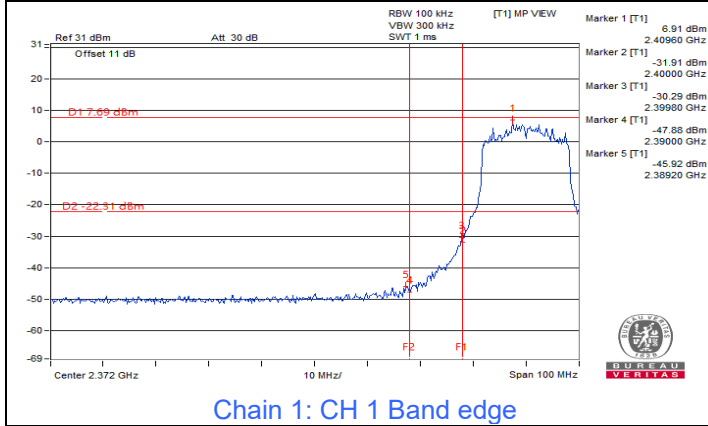
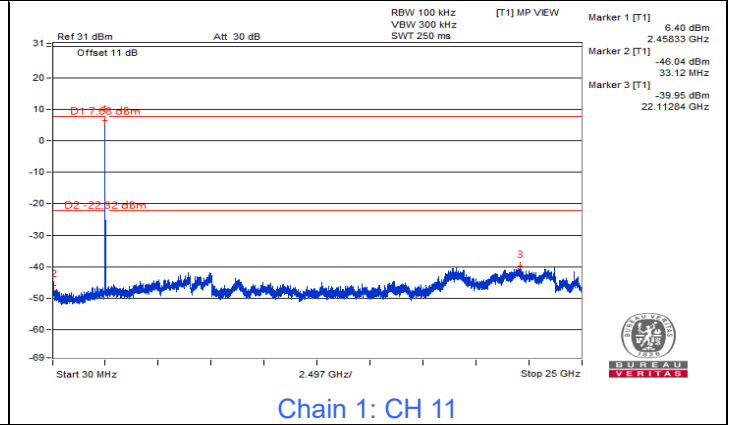
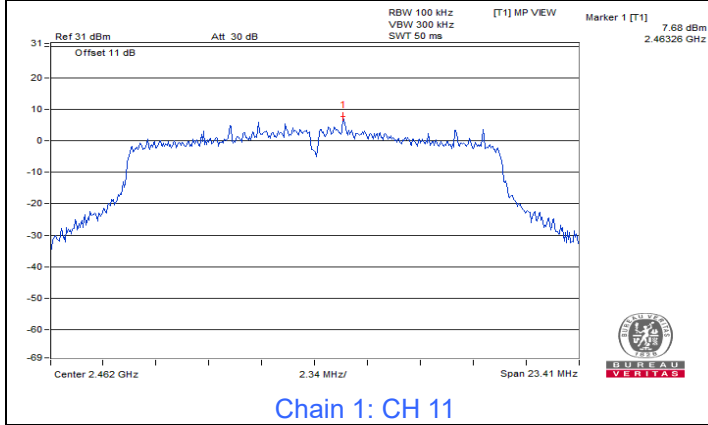
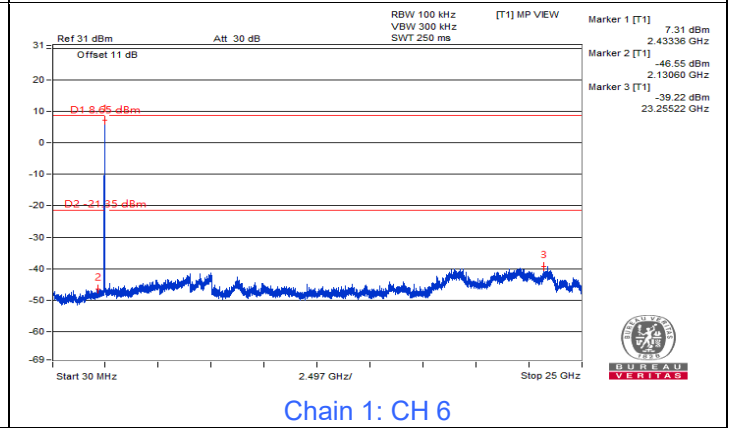
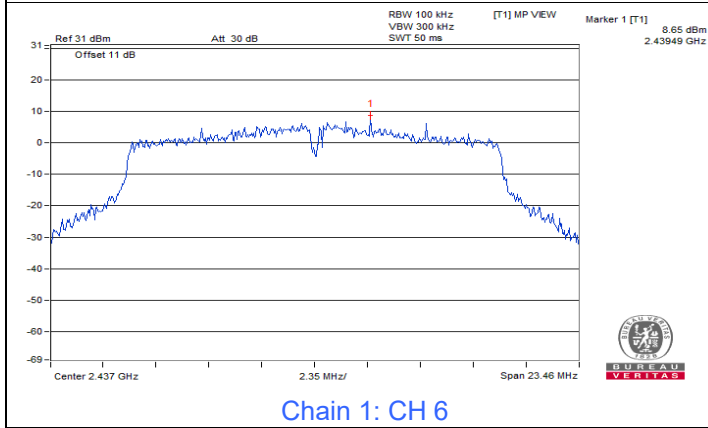
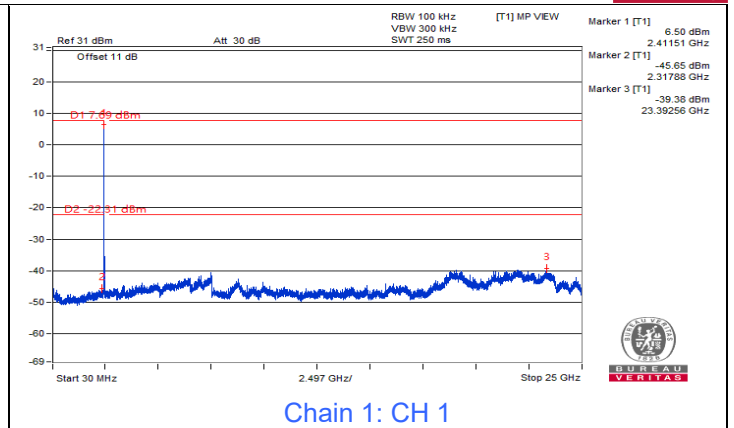
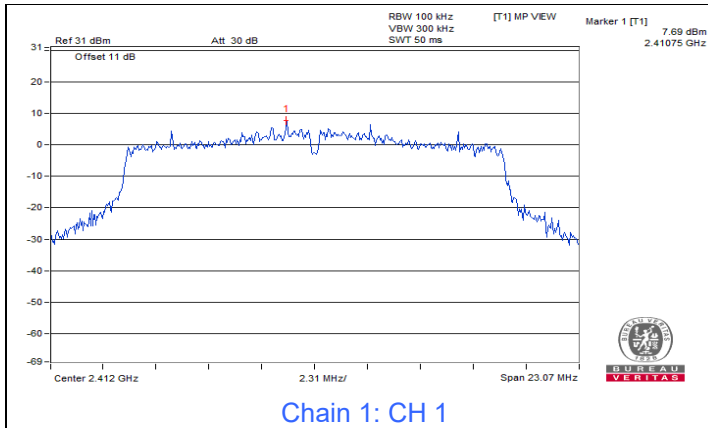
802.11b



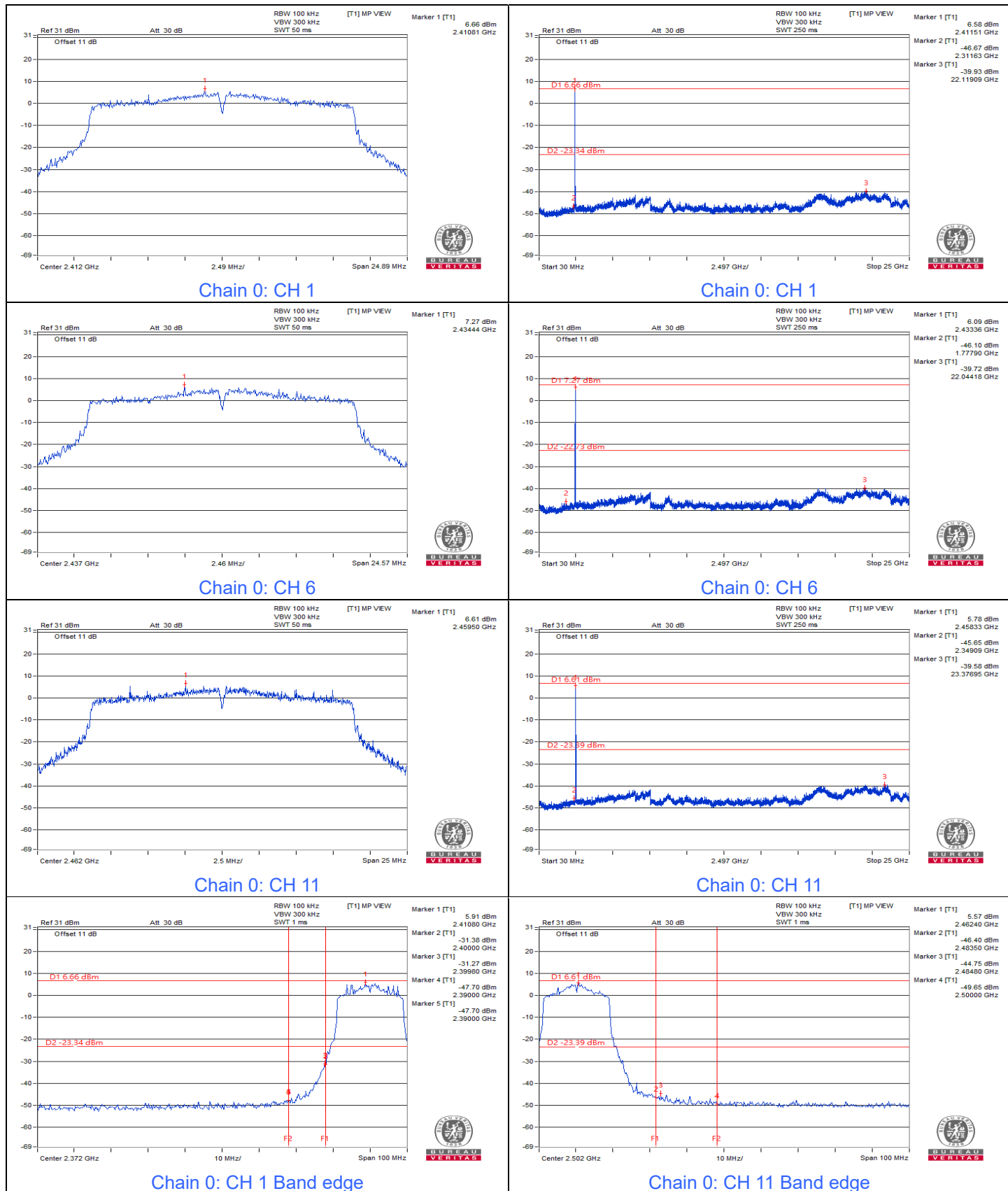


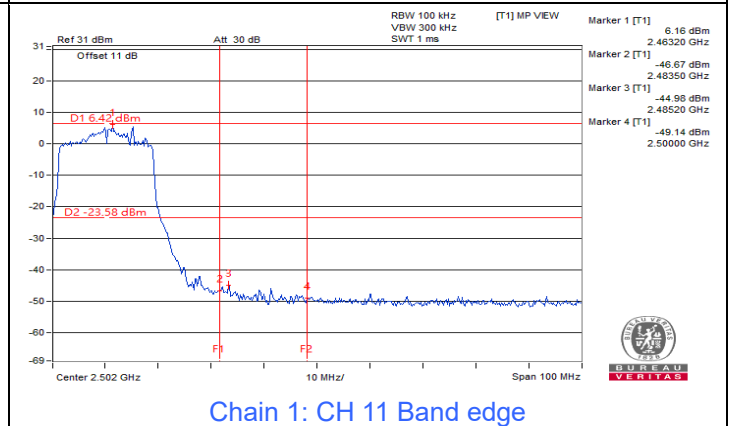
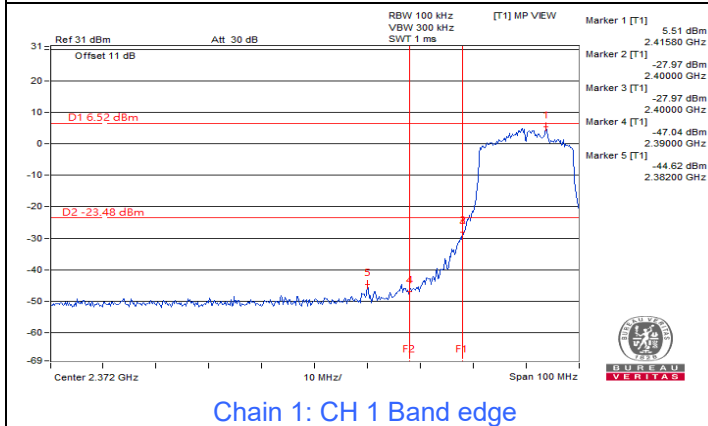
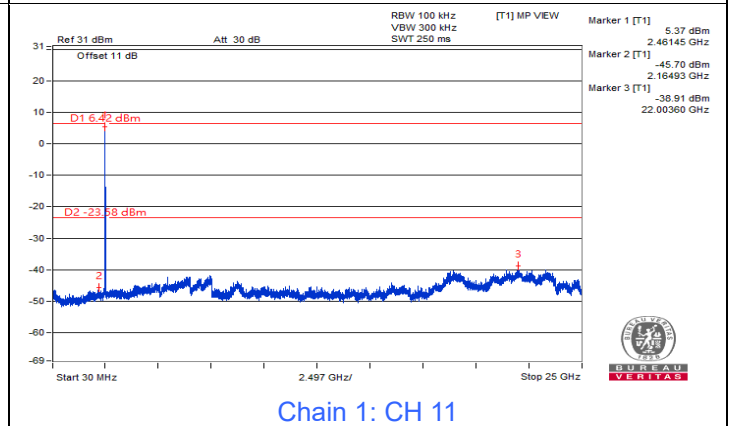
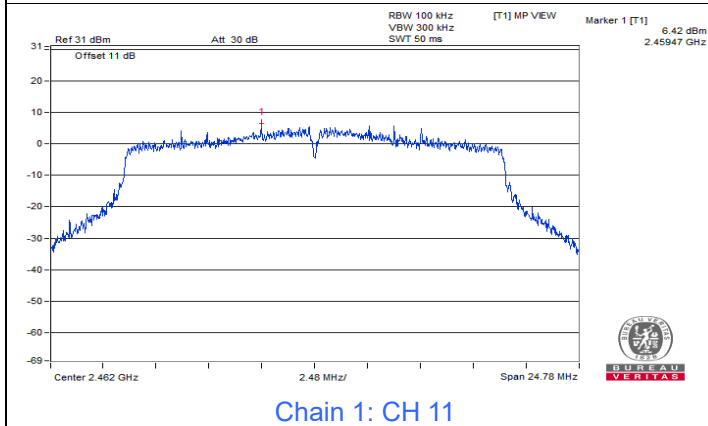
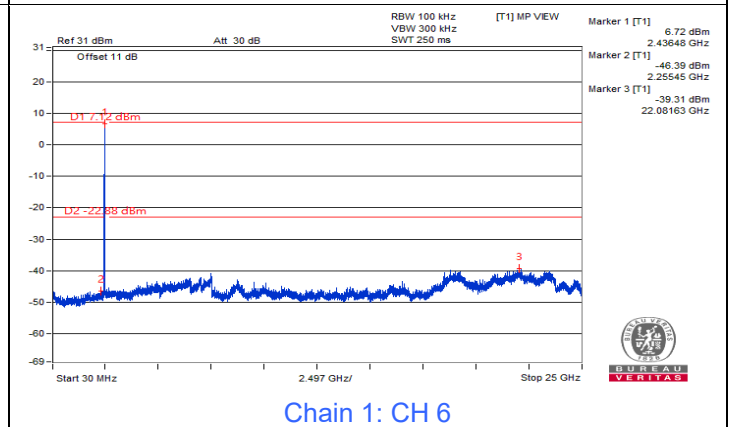
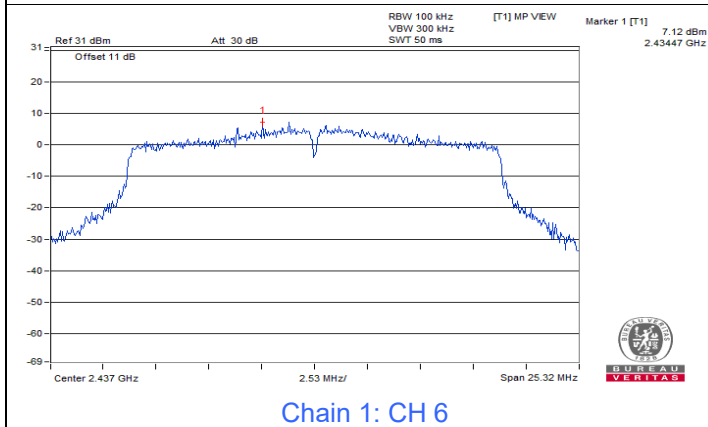
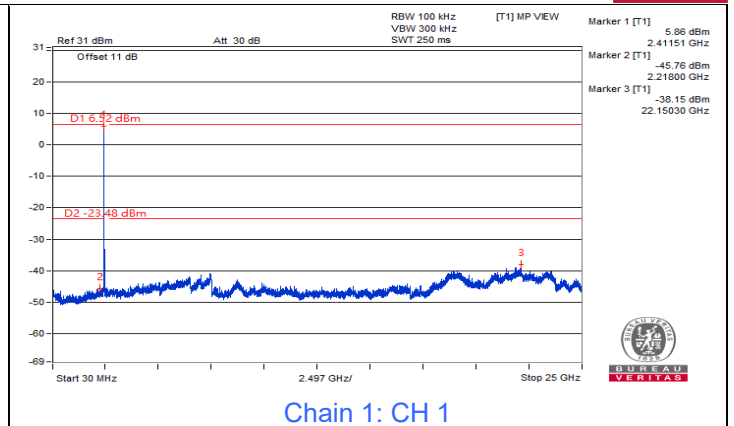
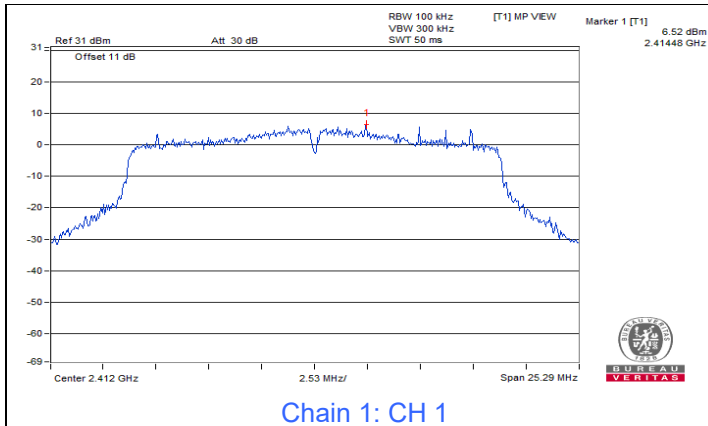
802.11g



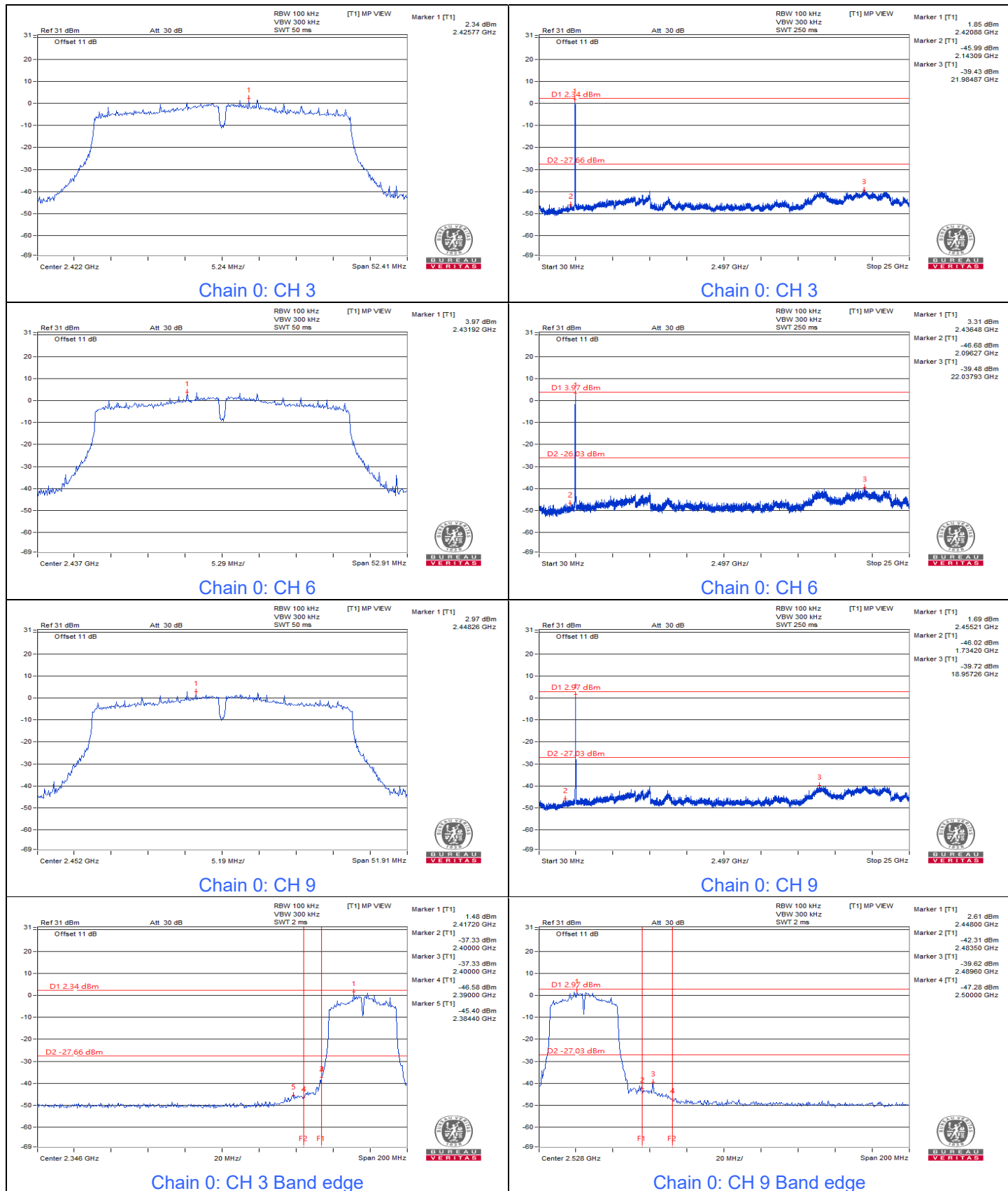


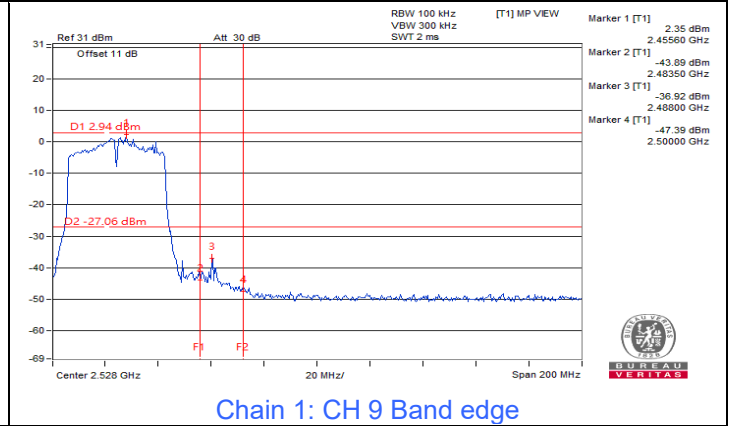
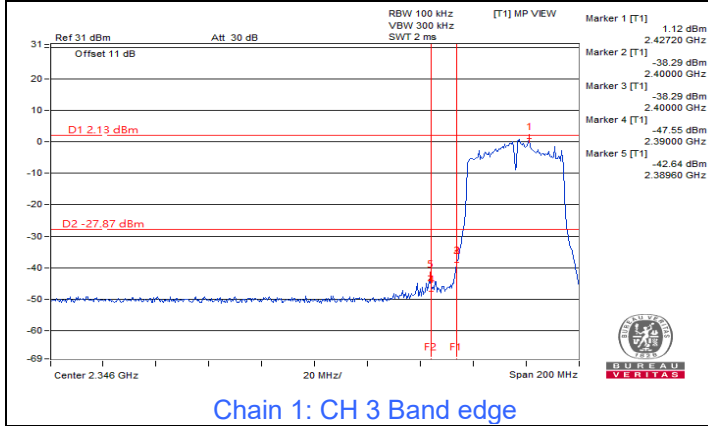
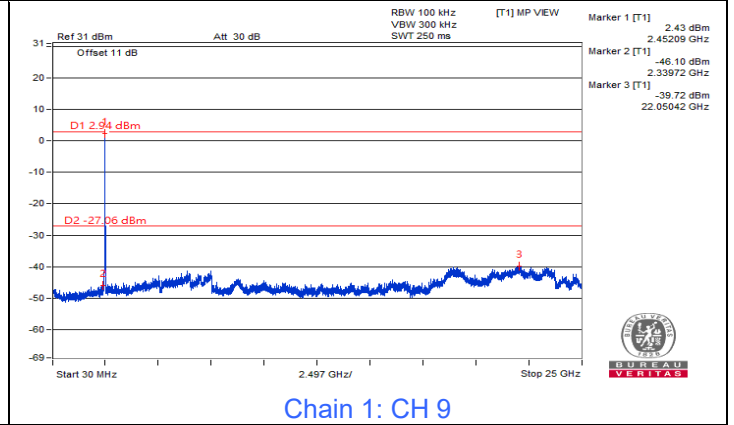
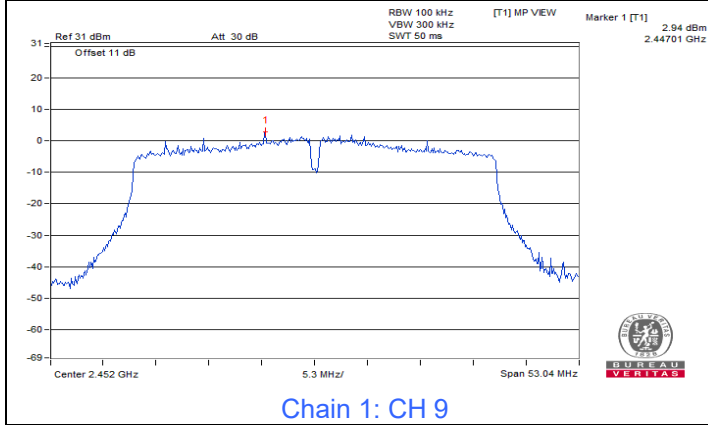
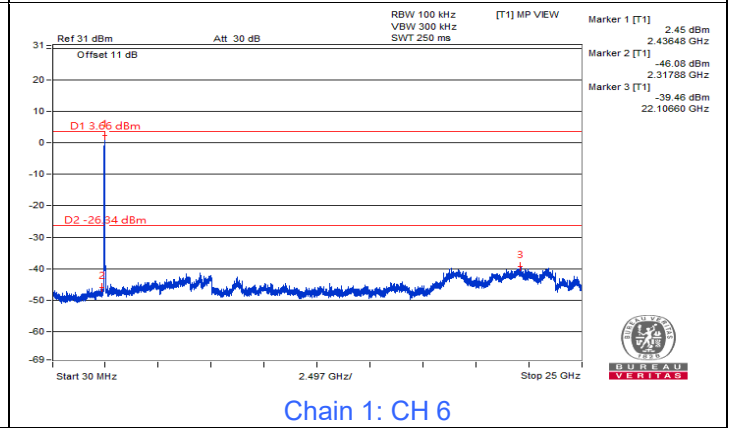
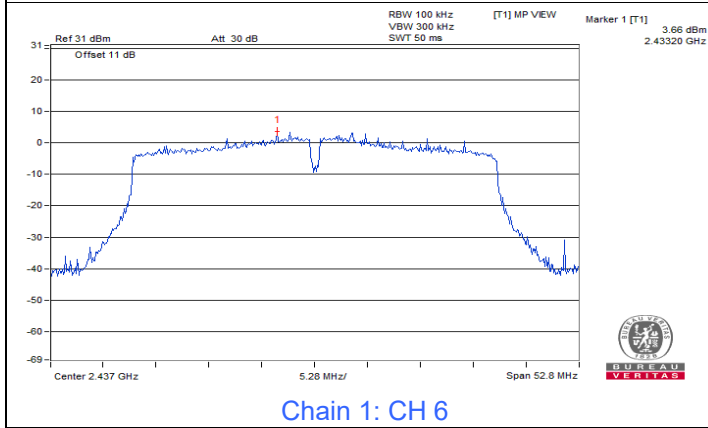
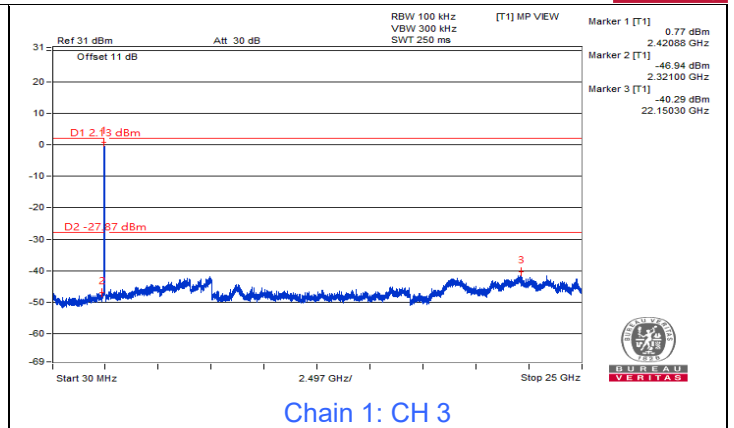
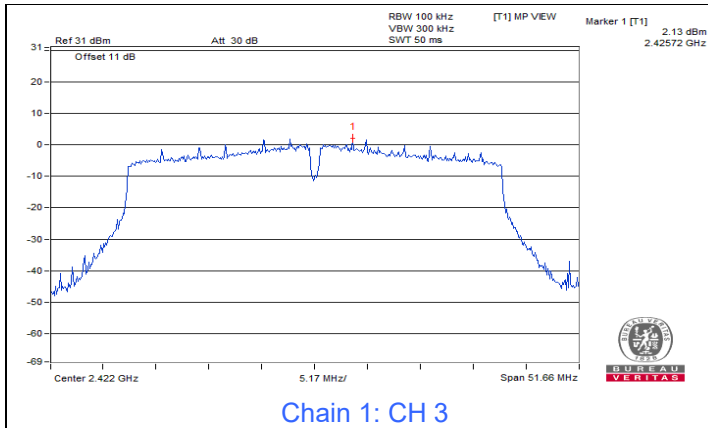
VHT20





VHT40





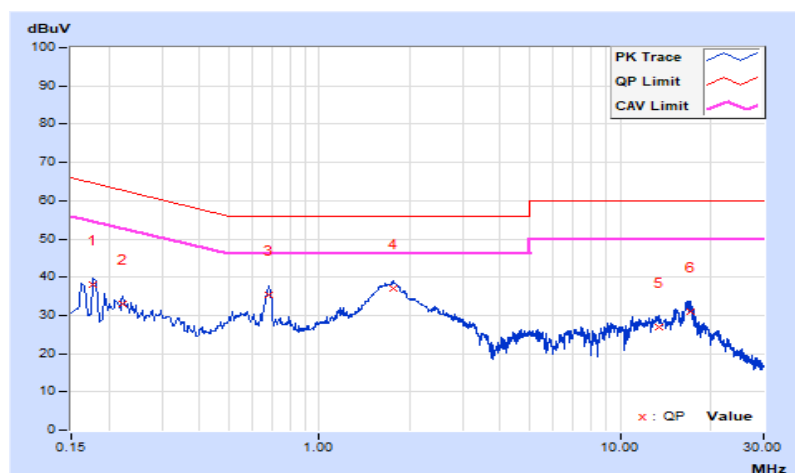
7.5 AC Power Conducted Emissions

RF Mode	802.11g	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	20 °C, 67% RH
Tested By	Thomas Cheng		

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	0.17800	10.26	27.85	15.90	38.11	26.16	64.58	54.58	-26.47	-28.42
2	0.22200	10.29	22.64	13.48	32.93	23.77	62.74	52.74	-29.81	-28.97
3	0.68200	10.46	24.90	20.77	35.36	31.23	56.00	46.00	-20.64	-14.77
4	1.75701	10.56	26.42	22.95	36.98	33.51	56.00	46.00	-19.02	-12.49
5	13.54200	10.94	15.93	4.78	26.87	15.72	60.00	50.00	-33.13	-34.28
6	17.10600	11.01	20.10	10.76	31.11	21.77	60.00	50.00	-28.89	-28.23

Remarks:

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

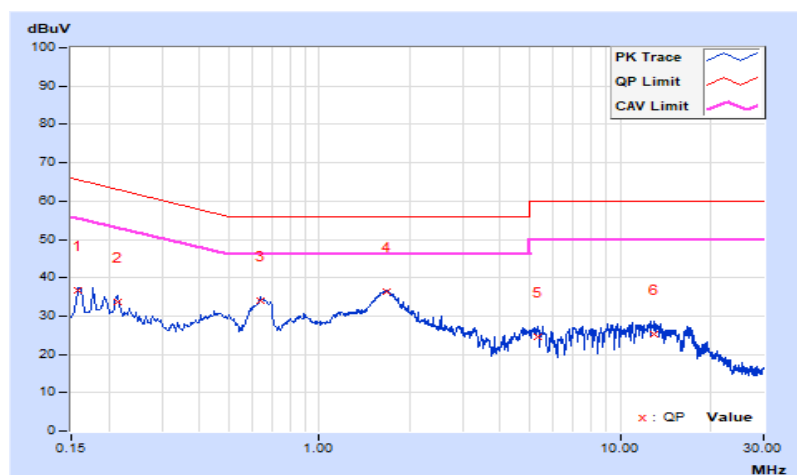


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 67% RH
Tested By	Thomas Cheng		

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	0.15800	10.29	26.39	18.77	36.68	29.06	65.57	55.57	-28.89	-26.51
2	0.21294	10.32	23.27	17.52	33.59	27.84	63.09	53.09	-29.50	-25.25
3	0.64200	10.49	23.40	19.21	33.89	29.70	56.00	46.00	-22.11	-16.30
4	1.67122	10.60	25.87	22.36	36.47	32.96	56.00	46.00	-19.53	-13.04
5	5.31305	10.85	13.88	9.38	24.73	20.23	60.00	50.00	-35.27	-29.77
6	12.98200	11.06	14.27	8.98	25.33	20.04	60.00	50.00	-34.67	-29.96

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



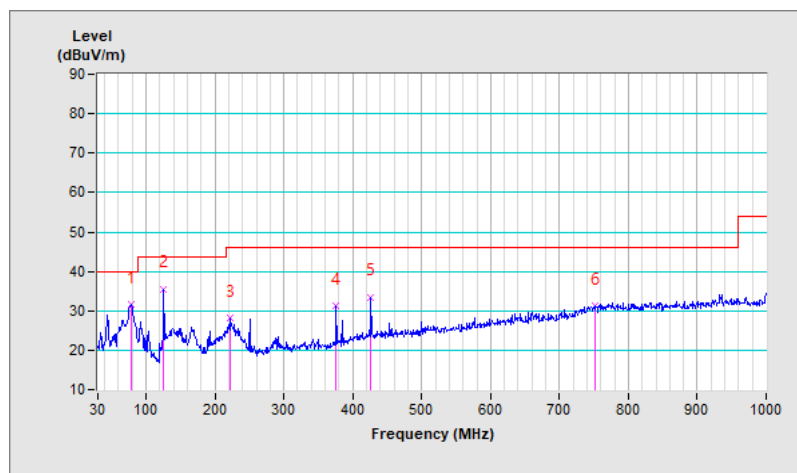
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

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	78.50	31.6 QP	40.0	-8.4	1.00 H	32	48.2	-16.6
2	125.06	35.6 QP	43.5	-7.9	1.00 H	100	49.2	-13.6
3	222.06	28.2 QP	46.0	-17.8	1.50 H	214	43.6	-15.4
4	375.32	31.4 QP	46.0	-14.6	1.50 H	119	41.0	-9.6
5	425.76	33.6 QP	46.0	-12.4	1.00 H	282	41.7	-8.1
6	750.71	31.2 QP	46.0	-14.8	2.00 H	8	31.6	-0.4

Remarks:

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

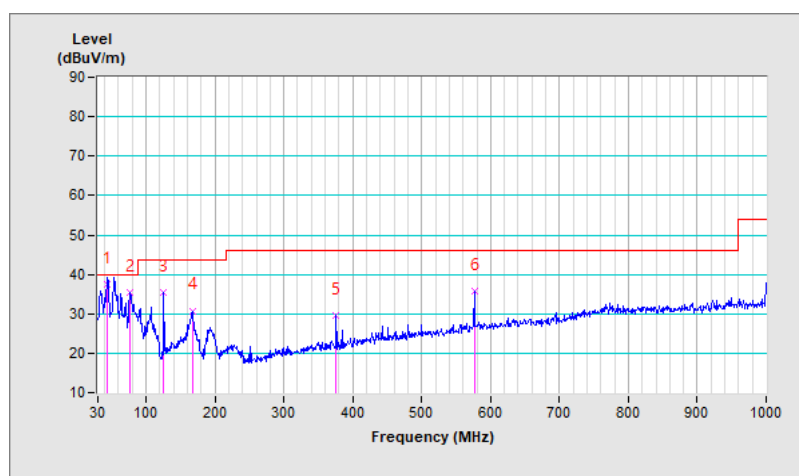


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.58	37.3 QP	40.0	-2.7	1.00 V	149	49.3	-12.0
2	76.56	35.4 QP	40.0	-4.6	1.00 V	135	51.6	-16.2
3	125.06	35.5 QP	43.5	-8.0	2.00 V	253	49.1	-13.6
4	166.77	30.8 QP	43.5	-12.7	1.00 V	298	43.2	-12.4
5	375.32	29.6 QP	46.0	-16.4	1.00 V	146	39.2	-9.6
6	576.11	35.8 QP	46.0	-10.2	2.00 V	18	40.7	-4.9

Remarks:

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



7.7 Unwanted Emissions above 1 GHz

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.7 PK	74.0	-10.3	2.08 H	215	28.2	35.5
2	2390.00	51.0 AV	54.0	-3.0	2.08 H	215	15.5	35.5
3	*2412.00	105.2 PK			2.08 H	215	69.7	35.5
4	*2412.00	102.4 AV			2.08 H	215	66.9	35.5
5	4824.00	54.4 PK	74.0	-19.6	1.55 H	319	47.0	7.4
6	4824.00	50.4 AV	54.0	-3.6	1.55 H	319	43.0	7.4
7	12060.00	60.7 PK	74.0	-13.3	1.98 H	70	49.4	11.3
8	12060.00	49.0 AV	54.0	-5.0	1.98 H	70	37.7	11.3

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.8 PK	74.0	-10.2	1.69 V	169	28.3	35.5
2	2390.00	50.4 AV	54.0	-3.6	1.69 V	169	14.9	35.5
3	*2412.00	105.6 PK			1.69 V	169	70.1	35.5
4	*2412.00	104.2 AV			1.69 V	169	68.7	35.5
5	4824.00	54.2 PK	74.0	-19.8	1.00 V	39	46.8	7.4
6	4824.00	49.9 AV	54.0	-4.1	1.00 V	39	42.5	7.4
7	12060.00	60.9 PK	74.0	-13.1	1.53 V	19	49.6	11.3
8	12060.00	50.9 AV	54.0	-3.1	1.53 V	19	39.6	11.3

Remarks:

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

RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	105.4 PK			2.08 H	215	69.9	35.5
2	*2437.00	102.8 AV			2.08 H	215	67.3	35.5
3	4874.00	53.7 PK	74.0	-20.3	1.31 H	331	46.4	7.3
4	4874.00	50.2 AV	54.0	-3.8	1.31 H	331	42.9	7.3
5	7311.00	58.7 PK	74.0	-15.3	1.33 H	330	46.9	11.8
6	7311.00	47.0 AV	54.0	-7.0	1.33 H	330	35.2	11.8
7	12185.00	60.9 PK	74.0	-13.1	1.68 H	38	49.9	11.0
8	12185.00	49.9 AV	54.0	-4.1	1.68 H	38	38.9	11.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	106.0 PK			1.69 V	170	70.5	35.5
2	*2437.00	104.6 AV			1.69 V	170	69.1	35.5
3	4874.00	53.8 PK	74.0	-20.2	1.00 V	86	46.5	7.3
4	4874.00	50.2 AV	54.0	-3.8	1.00 V	86	42.9	7.3
5	7311.00	58.3 PK	74.0	-15.7	2.63 V	56	46.5	11.8
6	7311.00	45.6 AV	54.0	-8.4	2.63 V	56	33.8	11.8
7	12185.00	61.3 PK	74.0	-12.7	1.53 V	19	50.3	11.0
8	12185.00	50.9 AV	54.0	-3.1	1.53 V	19	39.9	11.0

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	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

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	106.7 PK			2.08 H	215	71.2	35.5
2	*2462.00	104.2 AV			2.08 H	215	68.7	35.5
3	2483.50	62.7 PK	74.0	-11.3	2.08 H	215	27.2	35.5
4	2483.50	49.8 AV	54.0	-4.2	2.08 H	215	14.3	35.5
5	4924.00	53.6 PK	74.0	-20.4	1.66 H	334	46.3	7.3
6	4924.00	49.3 AV	54.0	-4.7	1.66 H	334	42.0	7.3
7	7386.00	58.5 PK	74.0	-15.5	1.33 H	330	46.8	11.7
8	7386.00	47.0 AV	54.0	-7.0	1.33 H	330	35.3	11.7
9	12310.00	60.5 PK	74.0	-13.5	1.68 H	40	49.2	11.3
10	12310.00	49.2 AV	54.0	-4.8	1.68 H	40	37.9	11.3
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	107.4 PK			1.63 V	140	71.9	35.5
2	*2462.00	105.1 AV			1.63 V	140	69.6	35.5
3	2483.50	62.8 PK	74.0	-11.2	1.63 V	140	27.3	35.5
4	2483.50	49.9 AV	54.0	-4.1	1.63 V	140	14.4	35.5
5	4924.00	52.4 PK	74.0	-21.6	1.00 V	94	45.1	7.3
6	4924.00	47.9 AV	54.0	-6.1	1.00 V	94	40.6	7.3
7	7386.00	59.5 PK	74.0	-14.5	2.78 V	72	47.8	11.7
8	7386.00	49.0 AV	54.0	-5.0	2.78 V	72	37.3	11.7
9	12310.00	62.2 PK	74.0	-11.8	1.34 V	17	50.9	11.3
10	12310.00	50.6 AV	54.0	-3.4	1.34 V	17	39.3	11.3

Remarks:

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

RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.5 PK	74.0	-9.5	2.70 H	90	29.0	35.5
2	2390.00	50.7 AV	54.0	-3.3	2.70 H	90	15.2	35.5
3	*2412.00	113.7 PK			2.70 H	90	78.2	35.5
4	*2412.00	103.9 AV			2.70 H	90	68.4	35.5
5	4824.00	52.1 PK	74.0	-21.9	1.92 H	145	44.7	7.4
6	4824.00	38.2 AV	54.0	-15.8	1.92 H	145	30.8	7.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.6 PK	74.0	-9.4	1.72 V	170	29.1	35.5
2	2390.00	51.0 AV	54.0	-3.0	1.72 V	170	15.5	35.5
3	*2412.00	114.3 PK			1.72 V	170	78.8	35.5
4	*2412.00	104.7 AV			1.72 V	170	69.2	35.5
5	4824.00	41.7 PK	74.0	-32.3	1.58 V	161	34.3	7.4
6	4824.00	29.8 AV	54.0	-24.2	1.58 V	161	22.4	7.4

Remarks:

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

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	114.2 PK			2.70 H	96	78.7	35.5
2	*2437.00	104.4 AV			2.70 H	96	68.9	35.5
3	4874.00	50.3 PK	74.0	-23.7	1.30 H	331	43.0	7.3
4	4874.00	38.1 AV	54.0	-15.9	1.30 H	331	30.8	7.3
5	7311.00	64.4 PK	74.0	-9.6	1.00 H	241	52.6	11.8
6	7311.00	50.9 AV	54.0	-3.1	1.00 H	241	39.1	11.8
7	12185.00	61.5 PK	74.0	-12.5	1.81 H	39	50.5	11.0
8	12185.00	49.4 AV	54.0	-4.6	1.81 H	39	38.4	11.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	115.9 PK			1.61 V	171	80.4	35.5
2	*2437.00	106.2 AV			1.61 V	171	70.7	35.5
3	4874.00	51.0 PK	74.0	-23.0	1.00 V	102	43.7	7.3
4	4874.00	39.1 AV	54.0	-14.9	1.00 V	102	31.8	7.3
5	7311.00	62.3 PK	74.0	-11.7	2.63 V	188	50.5	11.8
6	7311.00	48.4 AV	54.0	-5.6	2.63 V	188	36.6	11.8
7	12185.00	65.3 PK	74.0	-8.7	1.49 V	23	54.3	11.0
8	12185.00	51.0 AV	54.0	-3.0	1.49 V	23	40.0	11.0

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	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.9 PK			2.64 H	102	76.4	35.5
2	*2462.00	102.0 AV			2.64 H	102	66.5	35.5
3	2483.50	63.0 PK	74.0	-11.0	2.64 H	102	27.5	35.5
4	2483.50	50.6 AV	54.0	-3.4	2.64 H	102	15.1	35.5
5	4924.00	50.4 PK	74.0	-23.6	1.30 H	339	43.1	7.3
6	4924.00	38.1 AV	54.0	-15.9	1.30 H	339	30.8	7.3
7	7386.00	59.6 PK	74.0	-14.4	1.00 H	240	47.9	11.7
8	7386.00	47.0 AV	54.0	-7.0	1.00 H	240	35.3	11.7
9	12310.00	62.6 PK	74.0	-11.4	1.81 H	38	51.3	11.3
10	12310.00	49.7 AV	54.0	-4.3	1.81 H	38	38.4	11.3
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			1.61 V	170	79.2	35.5
2	*2462.00	105.0 AV			1.61 V	170	69.5	35.5
3	2483.50	63.7 PK	74.0	-10.3	1.61 V	170	28.2	35.5
4	2483.50	51.0 AV	54.0	-3.0	1.61 V	170	15.5	35.5
5	4924.00	51.4 PK	74.0	-22.6	1.00 V	95	44.1	7.3
6	4924.00	38.4 AV	54.0	-15.6	1.00 V	95	31.1	7.3
7	7386.00	59.3 PK	74.0	-14.7	2.60 V	188	47.6	11.7
8	7386.00	46.1 AV	54.0	-7.9	2.60 V	188	34.4	11.7
9	12310.00	61.0 PK	74.0	-13.0	1.50 V	315	49.7	11.3
10	12310.00	48.8 AV	54.0	-5.2	1.50 V	315	37.5	11.3

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	VHT20	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.8 PK	74.0	-10.2	2.70 H	85	28.3	35.5
2	2390.00	50.7 AV	54.0	-3.3	2.70 H	85	15.2	35.5
3	*2412.00	114.3 PK			2.70 H	85	78.8	35.5
4	*2412.00	103.0 AV			2.70 H	85	67.5	35.5
5	4824.00	49.4 PK	74.0	-24.6	1.87 H	154	42.0	7.4
6	4824.00	36.5 AV	54.0	-17.5	1.87 H	154	29.1	7.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.9 PK	74.0	-10.1	1.72 V	167	28.4	35.5
2	2390.00	51.0 AV	54.0	-3.0	1.72 V	167	15.5	35.5
3	*2412.00	115.3 PK			1.72 V	167	79.8	35.5
4	*2412.00	104.0 AV			1.72 V	167	68.5	35.5
5	4824.00	49.8 PK	74.0	-24.2	1.58 V	336	42.4	7.4
6	4824.00	36.9 AV	54.0	-17.1	1.58 V	336	29.5	7.4

Remarks:

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

RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	113.4 PK			2.70 H	98	77.9	35.5
2	*2437.00	102.1 AV			2.70 H	98	66.6	35.5
3	4874.00	52.4 PK	74.0	-21.6	1.30 H	331	45.1	7.3
4	4874.00	38.6 AV	54.0	-15.4	1.30 H	331	31.3	7.3
5	7311.00	64.9 PK	74.0	-9.1	1.00 H	245	53.1	11.8
6	7311.00	51.0 AV	54.0	-3.0	1.00 H	245	39.2	11.8
7	12185.00	62.3 PK	74.0	-11.7	1.80 H	41	51.3	11.0
8	12185.00	49.7 AV	54.0	-4.3	1.80 H	41	38.7	11.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	117.2 PK			1.61 V	170	81.7	35.5
2	*2437.00	105.6 AV			1.61 V	170	70.1	35.5
3	4874.00	53.9 PK	74.0	-20.1	1.00 V	100	46.6	7.3
4	4874.00	39.8 AV	54.0	-14.2	1.00 V	100	32.5	7.3
5	7311.00	61.4 PK	74.0	-12.6	2.65 V	188	49.6	11.8
6	7311.00	47.5 AV	54.0	-6.5	2.65 V	188	35.7	11.8
7	12185.00	62.3 PK	74.0	-11.7	1.49 V	23	51.3	11.0
8	12185.00	49.9 AV	54.0	-4.1	1.49 V	23	38.9	11.0

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	VHT20	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 66% RH
Tested By	Thomas Cheng		

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	112.8 PK			2.66 H	90	77.3	35.5
2	*2462.00	101.7 AV			2.66 H	90	66.2	35.5
3	2483.50	63.4 PK	74.0	-10.6	2.66 H	90	27.9	35.5
4	2483.50	50.9 AV	54.0	-3.1	2.66 H	90	15.4	35.5
5	4924.00	50.9 PK	74.0	-23.1	1.30 H	339	43.6	7.3
6	4924.00	37.5 AV	54.0	-16.5	1.30 H	339	30.2	7.3
7	7386.00	61.1 PK	74.0	-12.9	1.00 H	240	49.4	11.7
8	7386.00	47.2 AV	54.0	-6.8	1.00 H	240	35.5	11.7
9	12310.00	62.4 PK	74.0	-11.6	1.81 H	38	51.1	11.3
10	12310.00	49.3 AV	54.0	-4.7	1.81 H	38	38.0	11.3
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			1.61 V	170	80.7	35.5
2	*2462.00	104.6 AV			1.61 V	170	69.1	35.5
3	2483.50	63.5 PK	74.0	-10.5	1.61 V	170	28.0	35.5
4	2483.50	51.0 AV	54.0	-3.0	1.61 V	170	15.5	35.5
5	4924.00	51.8 PK	74.0	-22.2	1.00 V	99	44.5	7.3
6	4924.00	38.3 AV	54.0	-15.7	1.00 V	99	31.0	7.3
7	7386.00	59.2 PK	74.0	-14.8	2.60 V	190	47.5	11.7
8	7386.00	46.0 AV	54.0	-8.0	2.60 V	190	34.3	11.7
9	12310.00	60.6 PK	74.0	-13.4	1.50 V	309	49.3	11.3
10	12310.00	48.7 AV	54.0	-5.3	1.50 V	309	37.4	11.3

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	VHT40	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.7 °C, 63.2% RH
Tested By	vincent 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	62.6 PK	74.0	-11.4	1.20 H	220	27.1	35.5
2	2390.00	50.9 AV	54.0	-3.1	1.20 H	220	15.4	35.5
3	*2422.00	108.7 PK			1.20 H	220	73.2	35.5
4	*2422.00	97.9 AV			1.20 H	220	62.4	35.5
5	4844.00	41.1 PK	74.0	-32.9	2.34 H	123	33.7	7.4
6	4844.00	27.8 AV	54.0	-26.2	2.34 H	123	20.4	7.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.5 PK	74.0	-10.5	1.65 V	171	28.0	35.5
2	2390.00	49.8 AV	54.0	-4.2	1.65 V	171	14.3	35.5
3	*2422.00	111.9 PK			1.65 V	171	76.4	35.5
4	*2422.00	100.7 AV			1.65 V	171	65.2	35.5
5	4844.00	41.4 PK	74.0	-32.6	1.34 V	256	34.0	7.4
6	4844.00	28.1 AV	54.0	-25.9	1.34 V	256	20.7	7.4

Remarks:

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

RF Mode	VHT40	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.7 °C, 63.2% RH
Tested By	Vincent 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	62.3 PK	74.0	-11.7	1.14 H	237	26.8	35.5
2	2390.00	48.8 AV	54.0	-5.2	1.14 H	237	13.3	35.5
3	*2437.00	111.8 PK			1.14 H	237	76.3	35.5
4	*2437.00	100.1 AV			1.14 H	237	64.6	35.5
5	2483.50	66.7 PK	74.0	-7.3	1.14 H	237	31.2	35.5
6	2483.50	51.0 AV	54.0	-3.0	1.14 H	237	15.5	35.5
7	4874.00	42.0 PK	74.0	-32.0	1.34 H	287	34.7	7.3
8	4874.00	29.1 AV	54.0	-24.9	1.34 H	287	21.8	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.6 PK	74.0	-9.4	1.65 V	172	29.1	35.5
2	2390.00	50.8 AV	54.0	-3.2	1.65 V	172	15.3	35.5
3	*2437.00	113.7 PK			1.65 V	172	78.2	35.5
4	*2437.00	102.9 AV			1.65 V	172	67.4	35.5
5	2483.50	64.0 PK	74.0	-10.0	1.65 V	172	28.5	35.5
6	2483.50	50.4 AV	54.0	-3.6	1.65 V	172	14.9	35.5
7	4874.00	41.5 PK	74.0	-32.5	1.46 V	215	34.2	7.3
8	4874.00	28.7 AV	54.0	-25.3	1.46 V	215	21.4	7.3

Remarks:

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

RF Mode	VHT40	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.7 °C, 63.2% RH
Tested By	Vincent 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	109.2 PK			1.31 H	201	73.6	35.6
2	*2452.00	98.9 AV			1.31 H	201	63.3	35.6
3	2483.50	65.3 PK	74.0	-8.7	1.31 H	201	29.8	35.5
4	2483.50	50.0 AV	54.0	-4.0	1.31 H	201	14.5	35.5
5	4904.00	41.5 PK	74.0	-32.5	1.35 H	221	34.4	7.1
6	4904.00	28.8 AV	54.0	-25.2	1.35 H	221	21.7	7.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	113.9 PK			1.86 V	174	78.3	35.6
2	*2452.00	102.8 AV			1.86 V	174	67.2	35.6
3	2483.50	65.0 PK	74.0	-9.0	1.86 V	174	29.5	35.5
4	2483.50	51.0 AV	54.0	-3.0	1.86 V	174	15.5	35.5
5	4904.00	41.2 PK	74.0	-32.8	2.34 V	105	34.1	7.1
6	4904.00	28.1 AV	54.0	-25.9	2.34 V	105	21.0	7.1

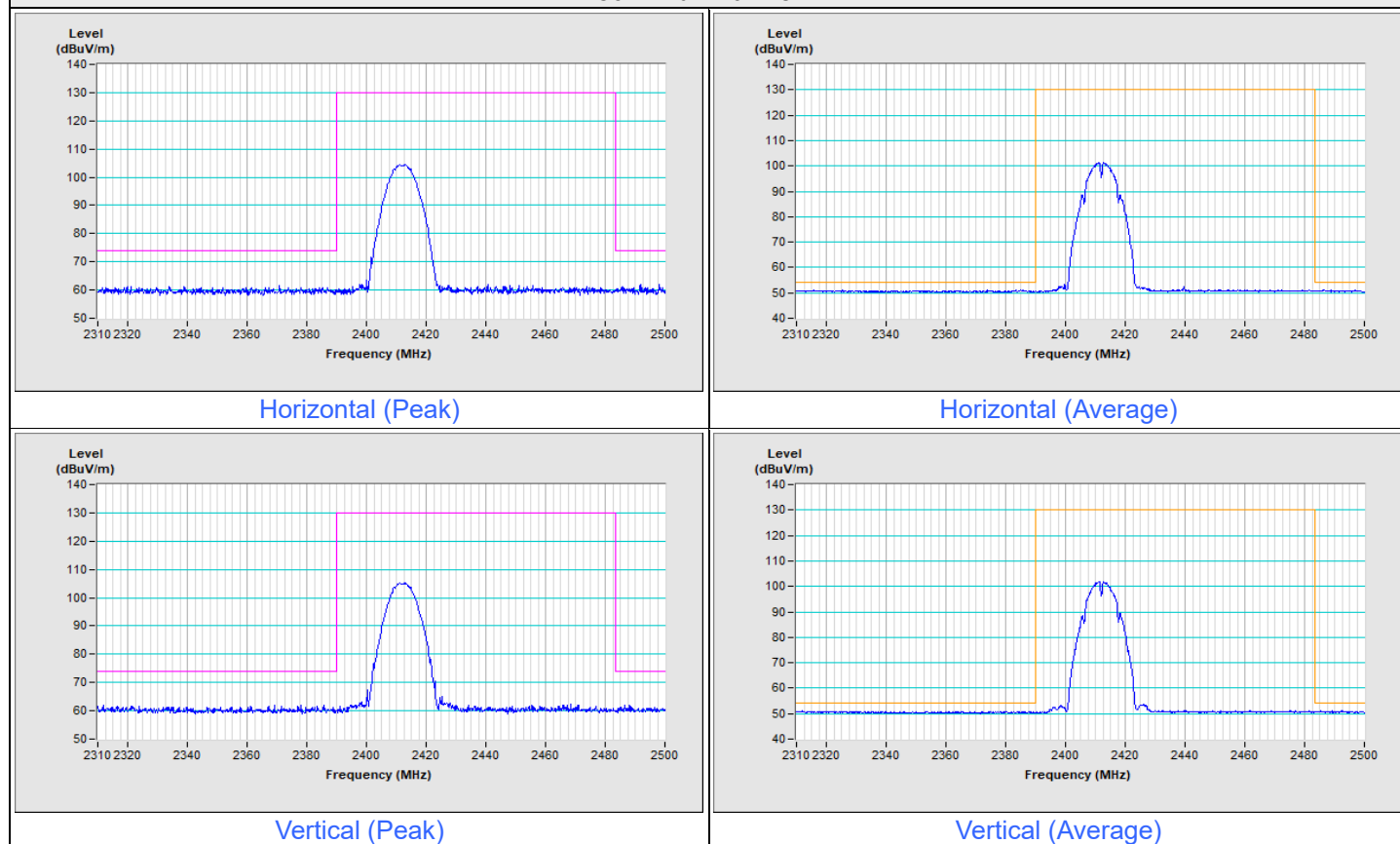
Remarks:

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

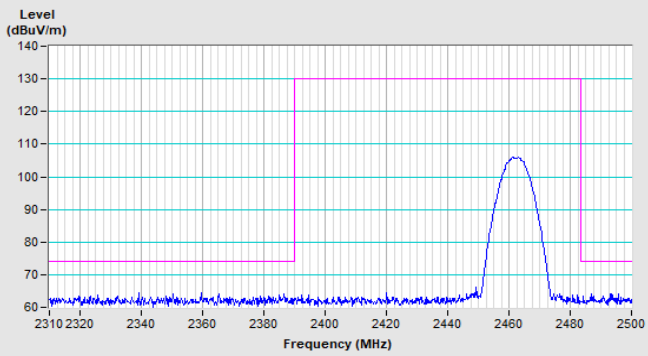
Plot of Band Edge

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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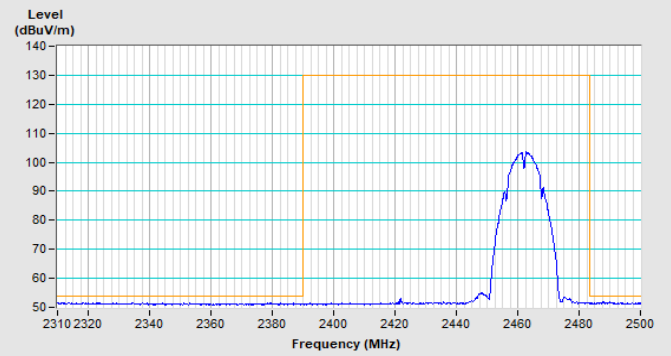
802.11b Channel 1



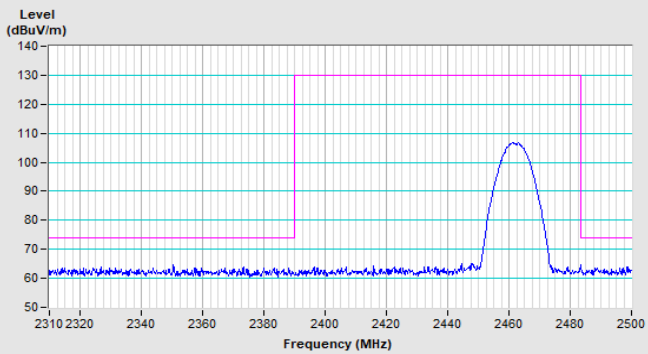
802.11b Channel 11



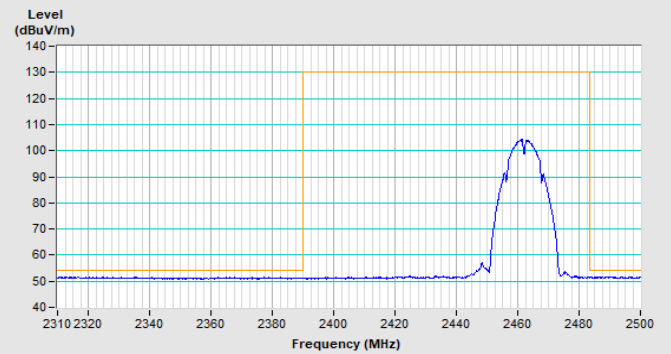
Horizontal (Peak)



Horizontal (Average)



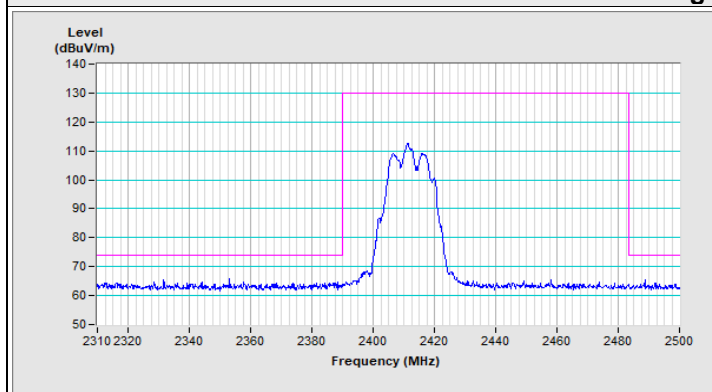
Vertical (Peak)



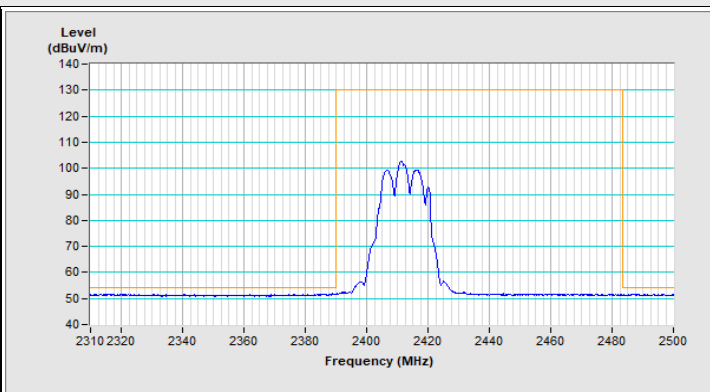
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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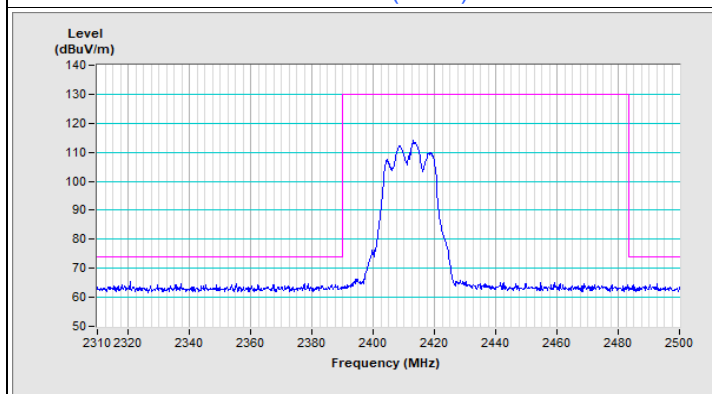
802.11g Channel 1



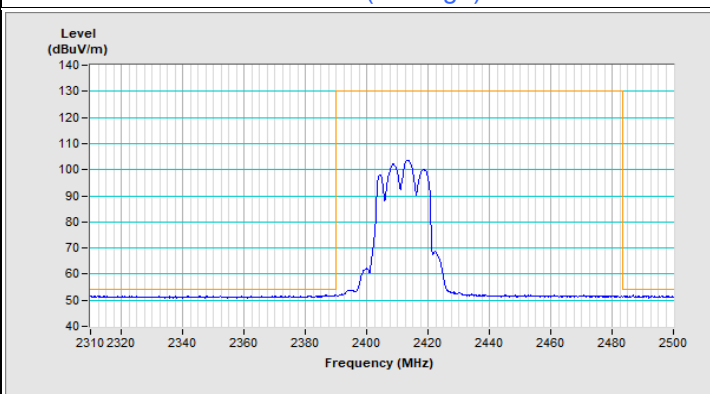
Horizontal (Peak)



Horizontal (Average)

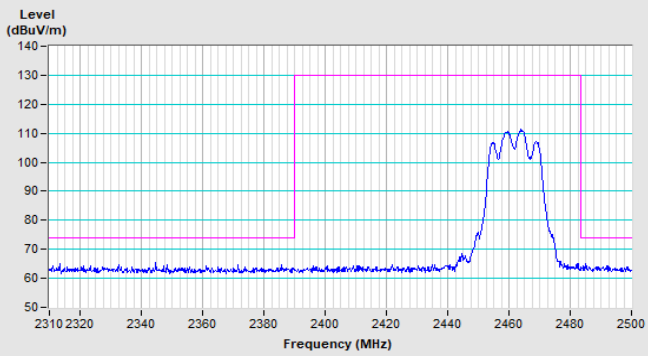


Vertical (Peak)

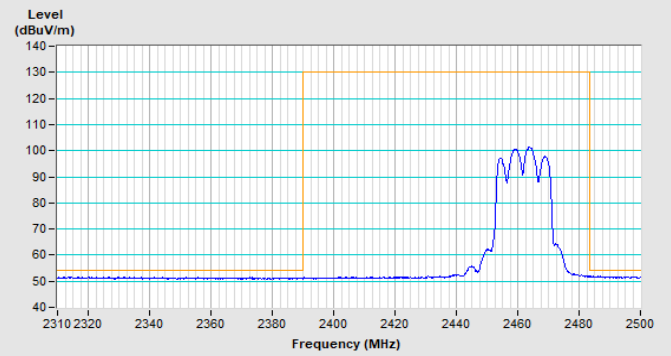


Vertical (Average)

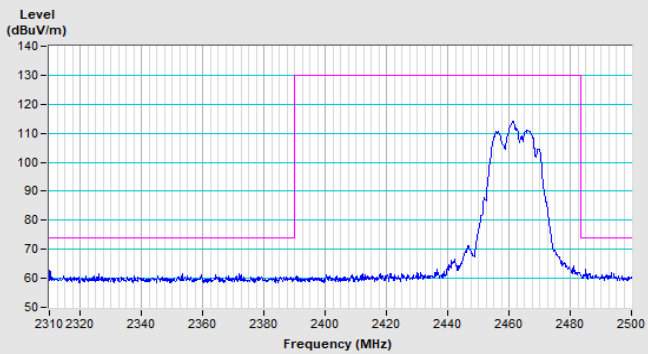
802.11g Channel 11



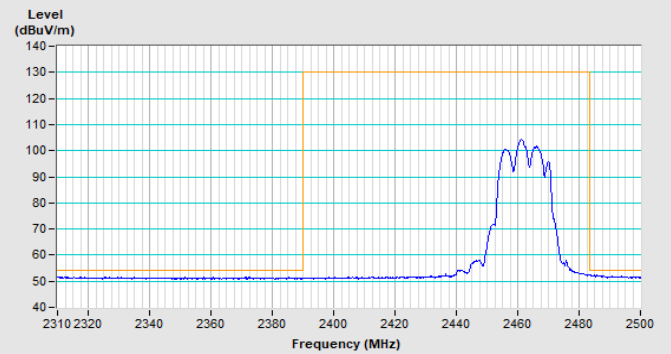
Horizontal (Peak)



Horizontal (Average)



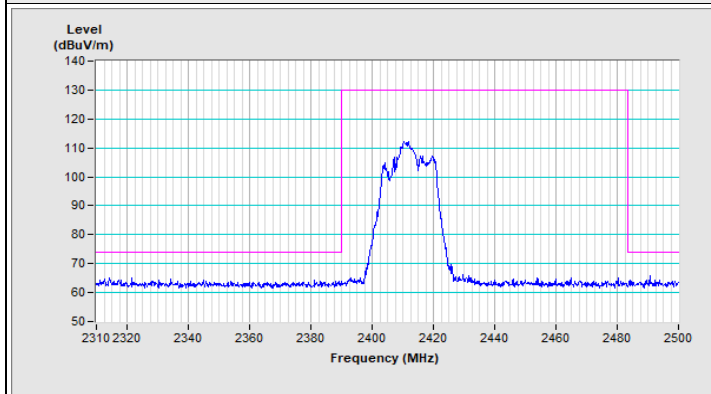
Vertical (Peak)



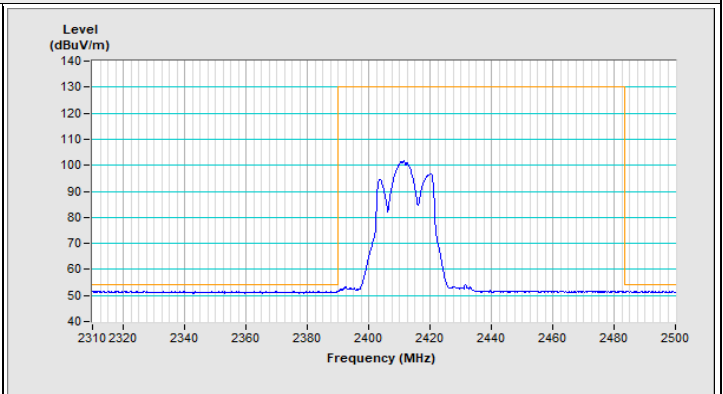
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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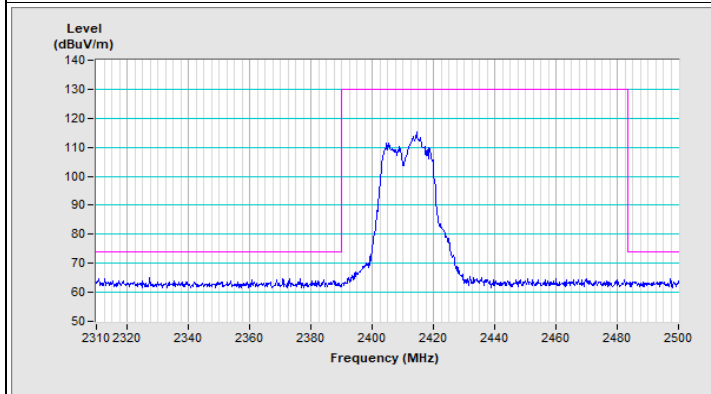
VHT20 Channel 1



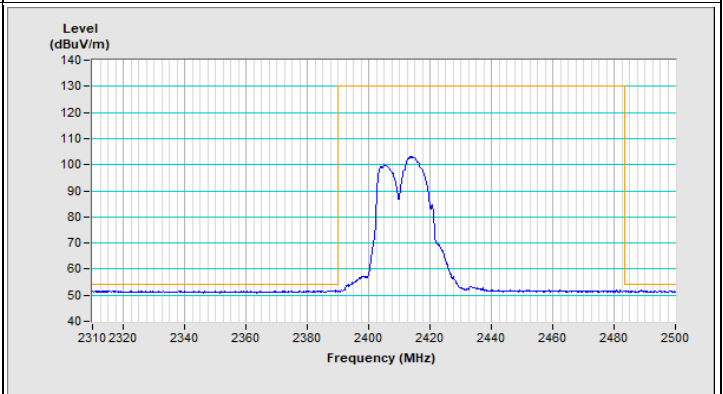
Horizontal (Peak)



Horizontal (Average)

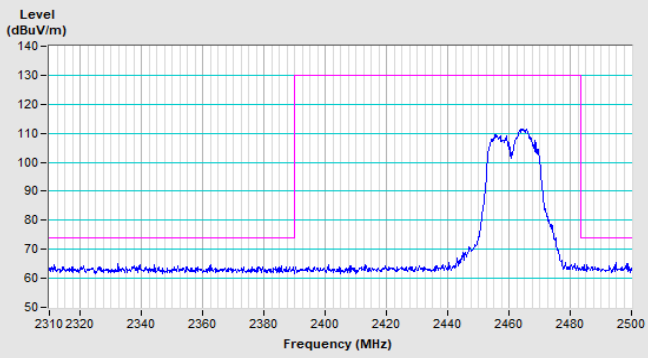


Vertical (Peak)

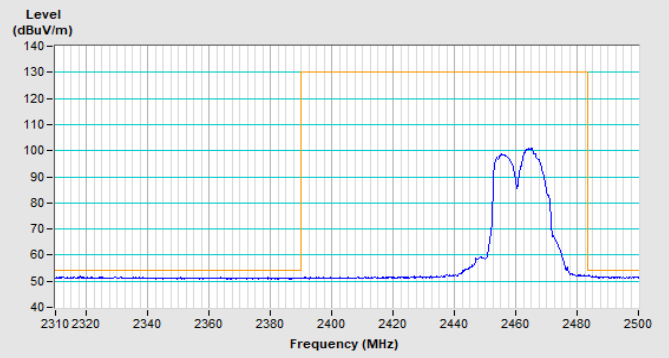


Vertical (Average)

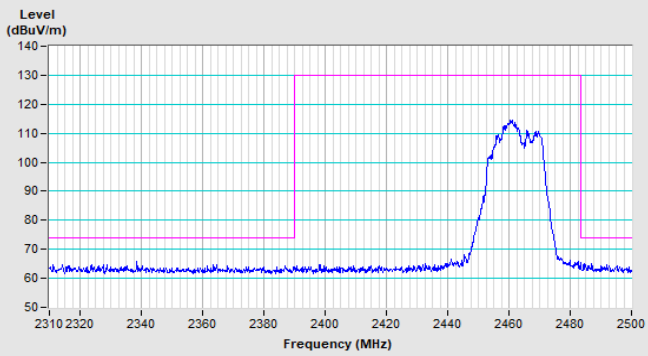
VHT20 Channel 11



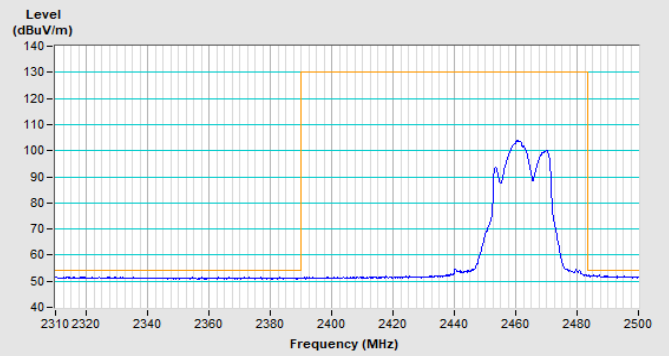
Horizontal (Peak)



Horizontal (Average)



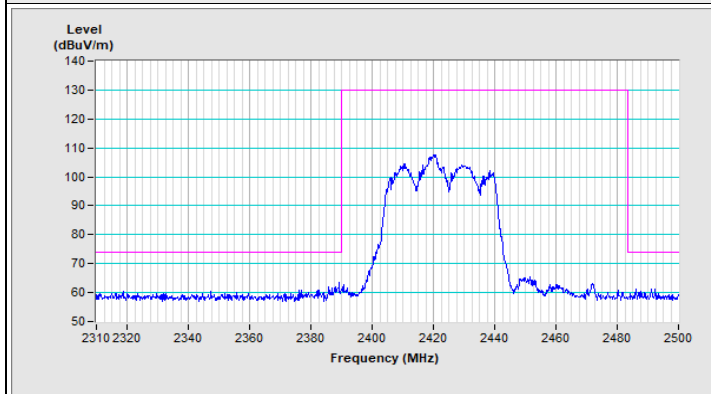
Vertical (Peak)



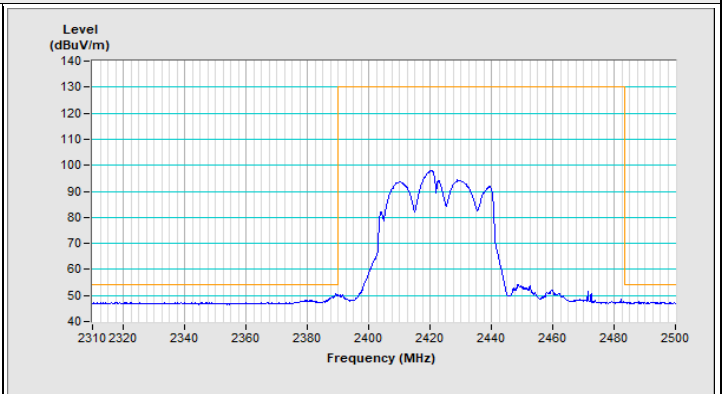
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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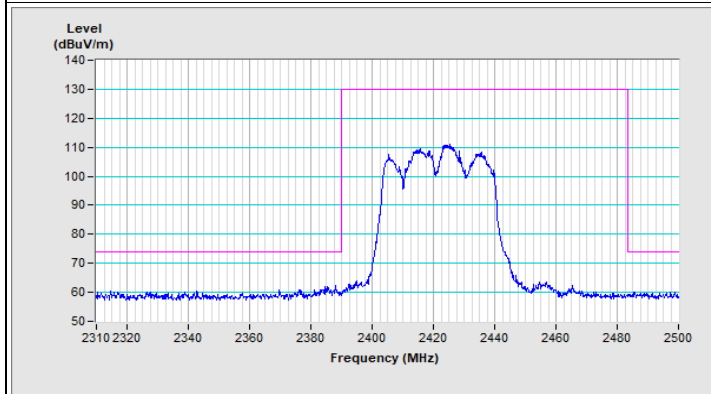
VHT40 Channel 3



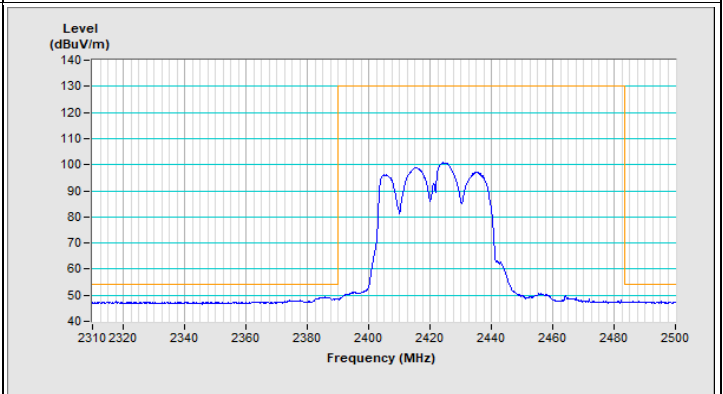
Horizontal (Peak)



Horizontal (Average)

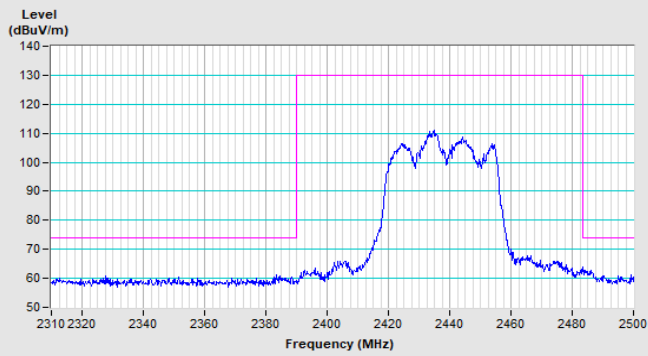


Vertical (Peak)

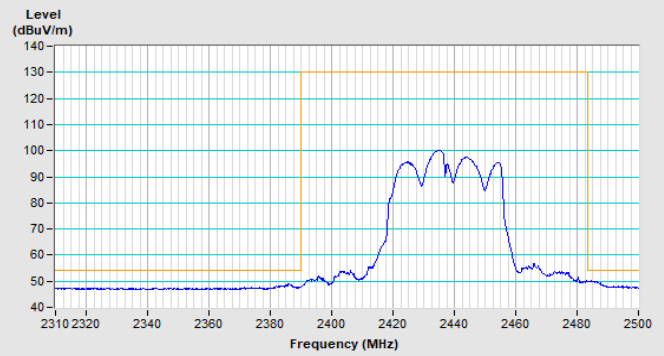


Vertical (Average)

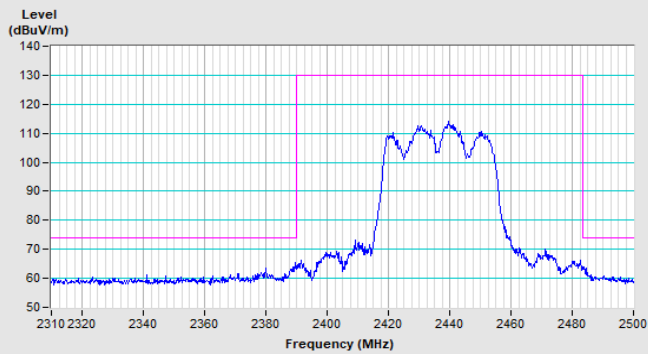
VHT40 Channel 6



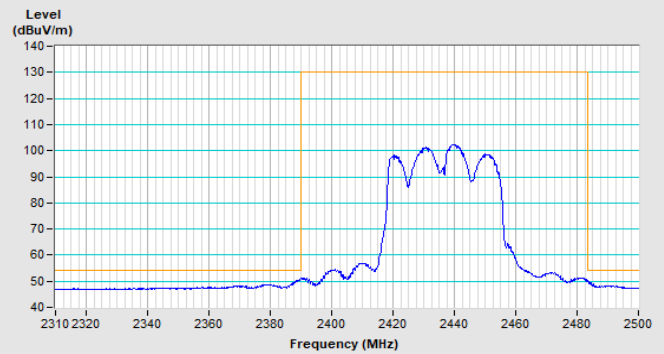
Horizontal (Peak)



Horizontal (Average)

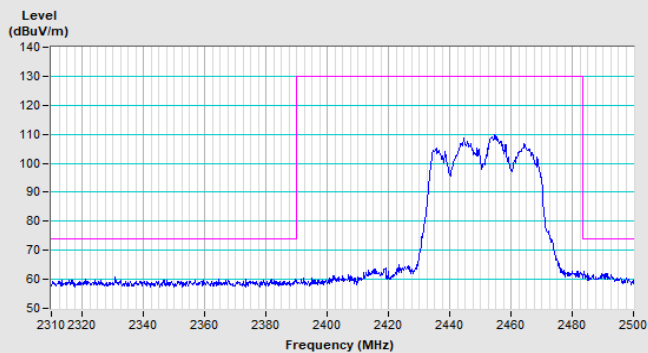


Vertical (Peak)

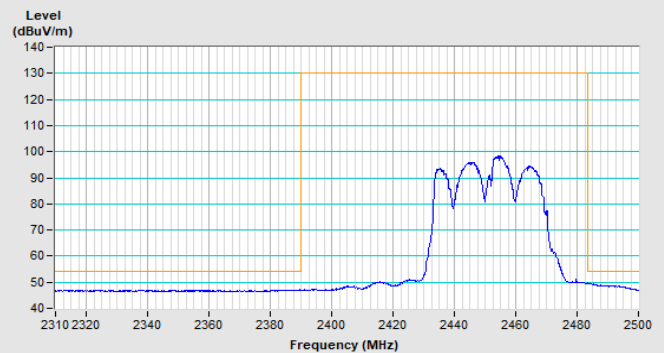


Vertical (Average)

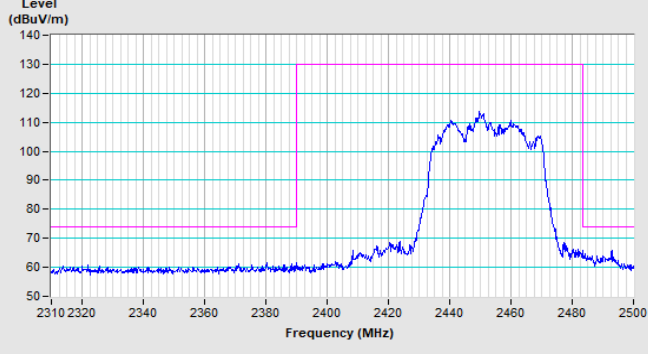
VHT40 Channel 9



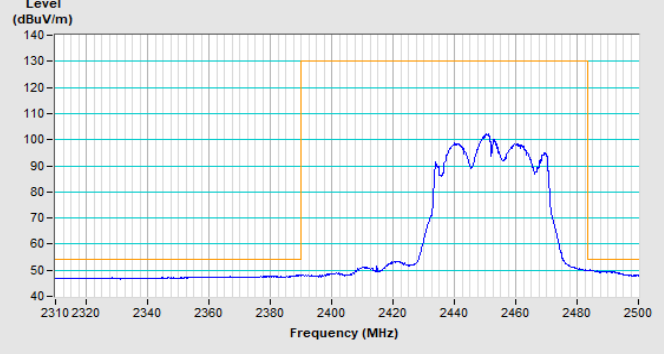
Horizontal (Peak)



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

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