

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBCKS-WTW-P26030459

FCC ID: 2ABLK-GS3037E

Product: WiFi7 AP

Brand: GigaSpire

Model No.: 7u6.2 GS3037E

Series Model: 7u6m.2 GS2039

Received Date: 2025/11/28

Test Date: 2026/3/27 ~ 2026/6/25

Issued Date: 2026/9/1

Applicant: Calix Inc.

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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: 2026/9/1
May Chen / Manager

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Prepared by: Vito Lung / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBCKS-WTW-P26030459	Original release.	2026/9/1

1 Certificate

Product: WiFi7 AP

Brand: GigaSpire

Test Model: 7u6.2 GS3037E

Series Model: 7u6m.2 GS2039

Sample Status: Engineering sample

Applicant: Calix Inc.

Test Date: 2026/3/27 ~ 2026/6/25

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 -13.48 dB at 0.47813 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.1 dB at 50.71 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(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:

Parameter	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	1050.00 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.6 dB
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.5 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	WiFi7 AP
Brand	GigaSpire
Test Model	7u6.2 GS3037E
Series Model	7u6m.2 GS2039
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 300 Mbps VHT: up to 400 Mbps 802.11ax: up to 573.5 Mbps 802.11be: up to 688.2 Mbps
Operating Frequency	2.412 GHz ~ 2.462 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20): 11 802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40): 7
Partial RU Mode	Not support
Channel Puncturing	Not support
Output Power	995.516 mW (29.98 dBm)

Note:

1. All models are listed as below.

Brand	Product	Model	Software Version	Difference
GigaSpire	WiFi7 AP	7u6.2 GS3037E	Calix FW	The same hardware with difference NVRAM setting.
		7u6m.2 GM2039	26.3.0.0	

2. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	AMIGO	AMS317-1202500FU	AC Input: 100-240V 50/60Hz 1.0A DC Output: 12V=2.5A DC Output Cable: 1.5 m
AC Adapter 2	MOSO	MSS-V2500WR120-030E1-US	AC Input: 100-240V~50/60Hz 1.0A max DC Output: 12.0V=2.5A DC Output Cable: 1.5 m

3. There are WLAN (2.4 GHz), WLAN (5 GHz) and WLAN (6 GHz) technology used for the EUT.

4. Simultaneously transmission combination.

Combination	Technology		
1	WLAN (2.4 GHz)	WLAN (5 GHz)	WLAN (6 GHz)

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 0	0	WNC	48XPAB0R	2.73	2.40	PCB	ipex(MHF)
				3.31	2.45		
				2.82	2.50		
2G 1	1	WNC	48XPAB0S	3.18	2.40	PCB	ipex(MHF)
				3.09	2.45		
				2.48	2.50		
5G 0	0	WNC	48XPAB09	5.18	5.15~5.25	PCB	ipex(MHF)
				5.17	5.25~5.35		
				5.17	5.47~5.725		
				4.69	5.725~5.85		
5G 1	1	WNC	48XPAB09	3.42	5.15~5.25	PCB	ipex(MHF)
				3.42	5.25~5.35		
				3.70	5.47~5.725		
				3.60	5.725~5.85		
6G 0	0	WNC	48XPAB0T	4.78	5.925~6.425	PCB	ipex(MHF)
				3.79	6.425~6.525		
				3.22	6.525~6.875		
				4.47	6.875~7.125		
6G 1	1	WNC	48XPAB0U	3.06	5.925~6.425	PCB	ipex(MHF)
				2.95	6.425~6.525		
				2.79	6.525~6.875		
				3.67	6.875~7.125		

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

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

Frequency Range (GHz)	Directional Antenna Gain (dBi)
2.4 ~ 2.4835	5.35
5.15 ~ 5.25	5.20
5.25 ~ 5.35	5.37
5.47 ~ 5.725	5.94
5.725 ~ 5.85	5.42
5.925 ~ 6.425	4.27
6.425 ~ 6.525	4.13
6.525 ~ 6.875	4.31
6.875 ~ 7.125	5.03

3. 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
802.11be (EHT20)	2TX	2RX
802.11be (EHT40)	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), 802.11ax mode for 20 MHz (40 MHz) and 802.11be mode for 20 MHz (40 MHz). Therefore the investigated worst case is the representative mode in test report.

3.3 Channel List

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20):

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), 802.11be (EHT40):

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: MSS-V2500WR120-030E1-US / AMS317-1202500FU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. EUT can be used in the following ways: Lying / Standing. 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. AC Adapter Worst Condition: AMS317-1202500FU 2. Lying / Standing Worst Condition: ➤ Unwanted Emission for Below 1GHz: Lying type. ➤ Unwanted Emission for Above 1GHz: Standing type.

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
	802.11be (EHT20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
Power Spectral Density	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)	CDD	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD	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
	802.11be (EHT20)	CDD	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD	3, 6, 9	BPSK	MCS0

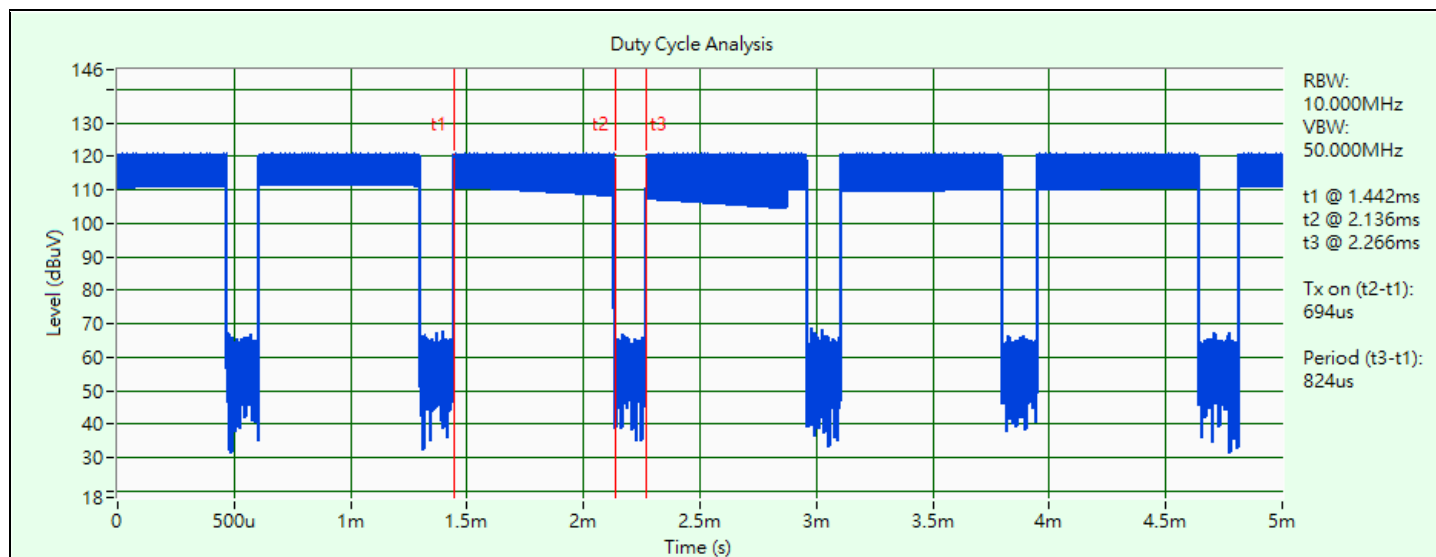
3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = $0.694 \text{ ms} / 0.824 \text{ ms} \times 100\% = 84.2\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.75 \text{ dB}$

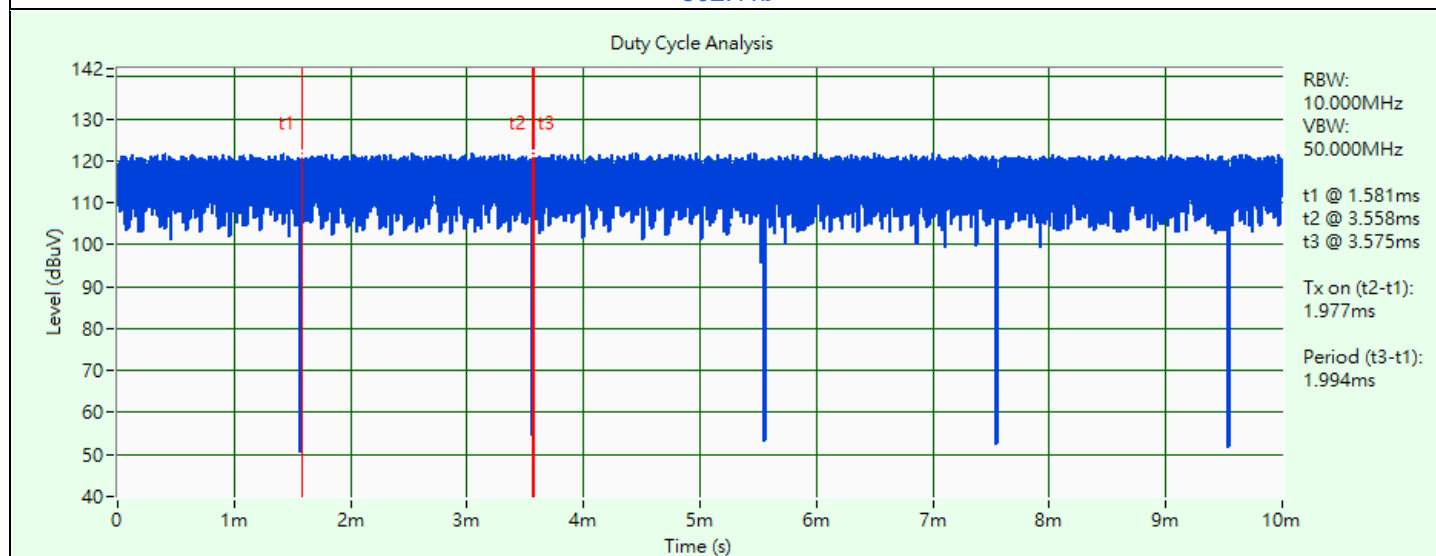
802.11g: Duty cycle = $1.977 \text{ ms} / 1.994 \text{ ms} \times 100\% = 99.1\%$

802.11be (EHT20): Duty cycle = $5.453 \text{ ms} / 5.469 \text{ ms} \times 100\% = 99.7\%$

802.11be (EHT40): Duty cycle = $5.452 \text{ ms} / 5.468 \text{ ms} \times 100\% = 99.7\%$

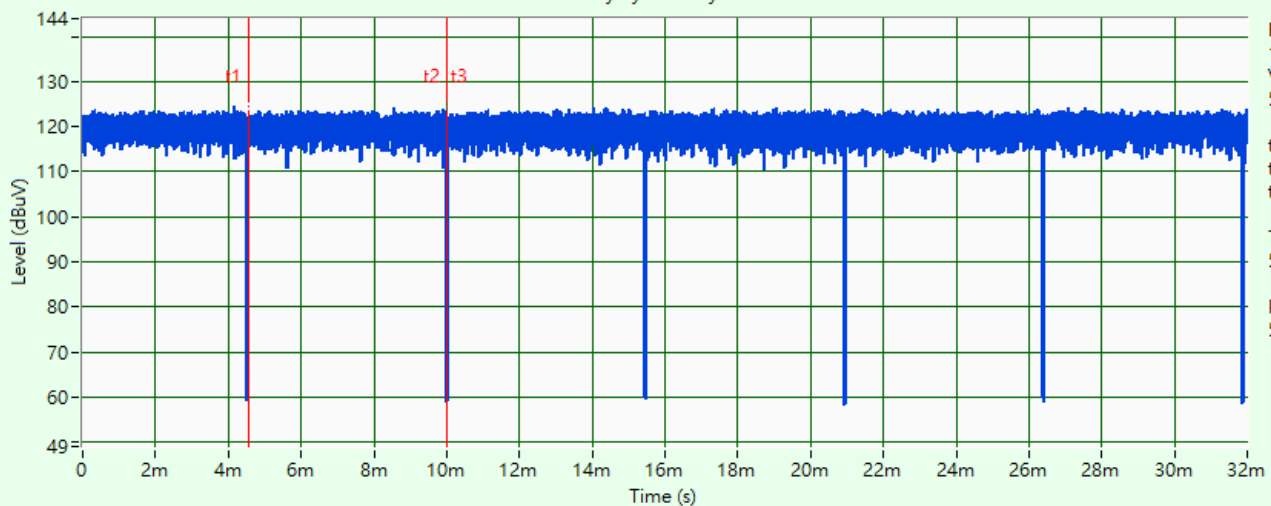


802.11b



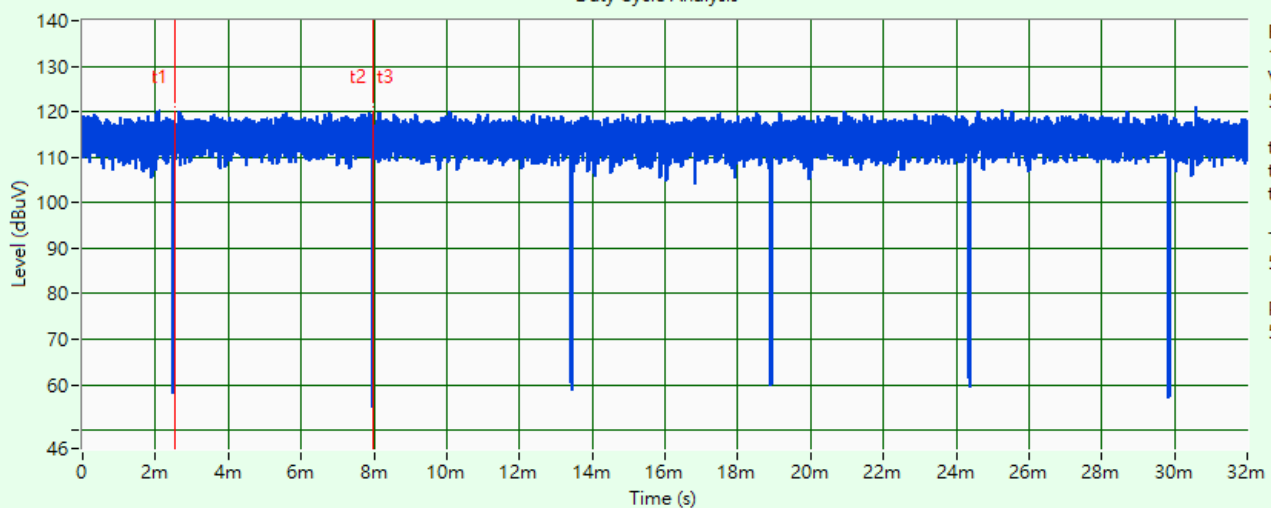
802.11g

Duty Cycle Analysis



802.11be (EHT20)

Duty Cycle Analysis

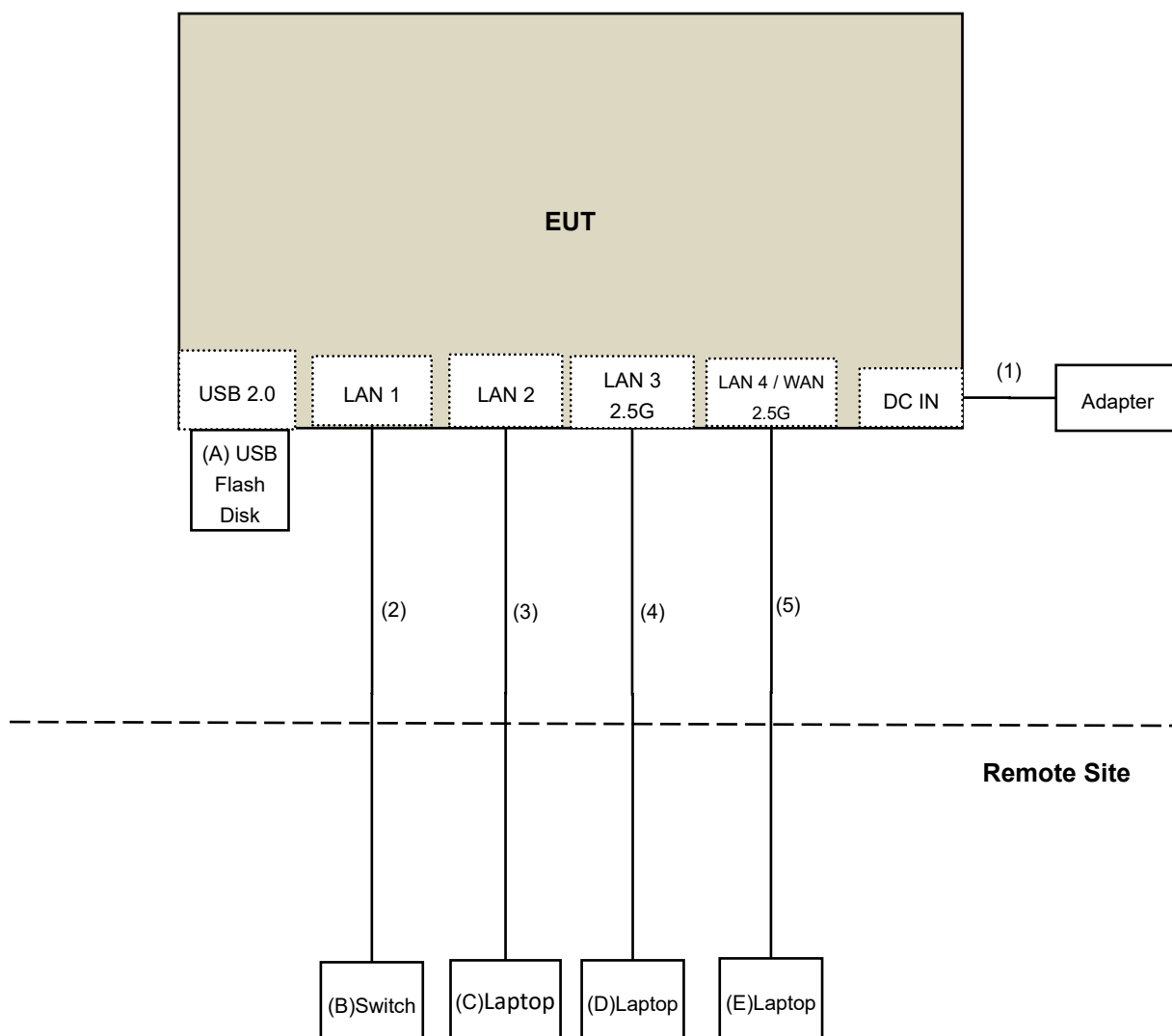


802.11be (EHT40)

3.6 Test Program Used and Operation Descriptions

Controlling software (QRCT V4.1_4.0.192.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	USB Flash Disk	SANDISK	SDDDC3-032G-I35NB	BM22065835SW	N/A	Provided by Lab
B	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab
C	Laptop	Lenovo	L480	RF1PRC03	N/A	Provided by Lab
D	Laptop	DELL	E6230	H86M3X1	N/A	Provided by Lab
E	Laptop	DELL	E6230	1BCMLX1	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.5	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	RJ-45 Cable	1	10	No	0	Provided by Lab
5	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-20	00800A1K01A-20-02	2025/5/23	2026/5/22
Pulse Power Sensor Anritsu	MA2411B	1726434	2025/6/3	2026/6/2
RF Power Meter Anritsu	ML2495A	1529002	2025/6/3	2026/6/2

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/3/27 ~ 2026/3/30

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
MXA Signal Analyzer Keysight	N9020B	MY60112408	2026/2/12	2027/2/11
Software	ADT_RF Test Software v8.5.6.4	N/A	N/A	N/A

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/3/27 ~ 2026/3/30

4.3 6 dB Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.4 Conducted Out of Band Emissions

Refer to section 4.2 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 Telegartner	50 ohm	3	2025/10/29	2026/10/28
EMI Test Receiver R&S	ESCS 30	100375	2026/5/20	2027/5/19
Fixed Attenuator STI	STI02-2200-10	005	2026/2/9	2027/2/8
LISN R&S	ESH3-Z5	835239/001	2026/3/30	2027/3/29
		848773/004	2025/10/3	2026/10/2
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2026/2/9	2027/2/8
Software BVADT	BVADT_Cond_V7.4.1.0	N/A	N/A	N/A

Notes:

1. The test was performed in HC - Conduction 1(Hsinchu).
2. Tested Date: 2026/6/24

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-406	2025/9/17	2026/9/16
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2026/2/7	2027/2/6
Loop Antenna TESEQ	HLA 6121	63620	2025/10/20	2026/10/19
MXE EMI Receiver Agilent	N9038A	MY51210202	2025/7/30	2026/7/29
Preamplifier EMCI	EMC330N	980701	2026/2/7	2027/2/6
RF Coaxial Cable mTJ	100100-CFD400LW-200	CFD400-200	2026/2/7	2027/2/6
	100100-CFD400LW-400	CFD400-400	2026/2/7	2027/2/6
	100100-CFD400LW-800	CFD400-800	2026/2/7	2027/2/6
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 4(Hsinchu).
2. Tested Date: 2026/6/24

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2025/11/9	2026/11/8
	BBHA 9170	9170-739	2025/11/9	2026/11/8
MXA Signal Analyzer Keysight	N9020B	MY60112410	2026/3/26	2027/3/25
Preamplifier EMCI	EMC12630SE	980688	2025/8/7	2026/8/6
	EMC184045SE	980387	2025/8/7	2026/8/6
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2026/1/15	2027/1/14
	EMC102-KM-KM-4000	200214	2026/1/15	2027/1/14
	EMC104-SM-SM-1200	160922	2026/1/10	2027/1/9
	EMC104-SM-SM-2000	180502	2026/1/10	2027/1/9
	EMC104-SM-SM-6000	210704	2025/10/22	2026/10/21
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 4(Hsinchu).
2. Tested Date: 2026/3/27 ~ 2026/6/25

5 Limits of Test Items

5.1 RF Output Power

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

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

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

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

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

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

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

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

5.5 AC Power Conducted Emissions

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

Notes:

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

5.6 Unwanted Emissions below 1 GHz

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	$2400/F(\text{kHz})$	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

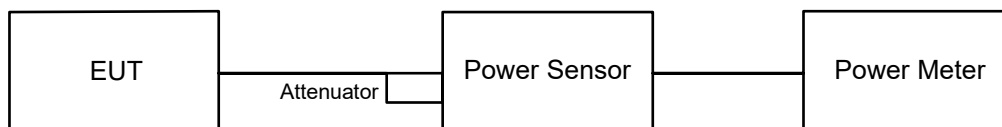
Notes:

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



Note: The correction factor has already been compensated by the instrument.

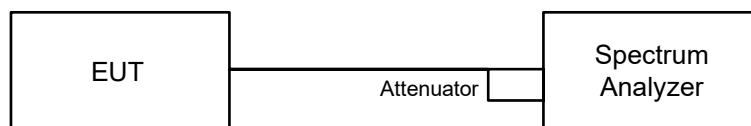
6.1.2 Test Procedure

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



Note: The correction factor has already been compensated by the instrument.

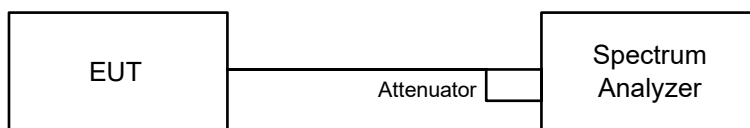
6.2.2 Test Procedure

- a. Measure the duty cycle (x).
- b. Set instrument center frequency to DTS channel center frequency.
- c. Set span to > 1.5 times the OBW.
- d. Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- e. Set VBW $\geq 3 \times \text{RBW}$.
- f. Detector = power averaging (RMS) or sample detector (when RMS not available).
- g. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$.
- 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



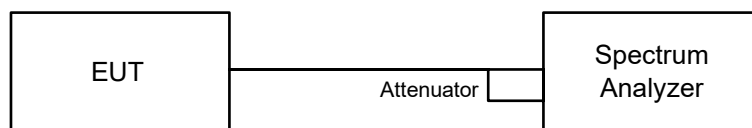
Note: The correction factor has already been compensated by the instrument.

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



Note: The correction factor has already been compensated by the instrument.

6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

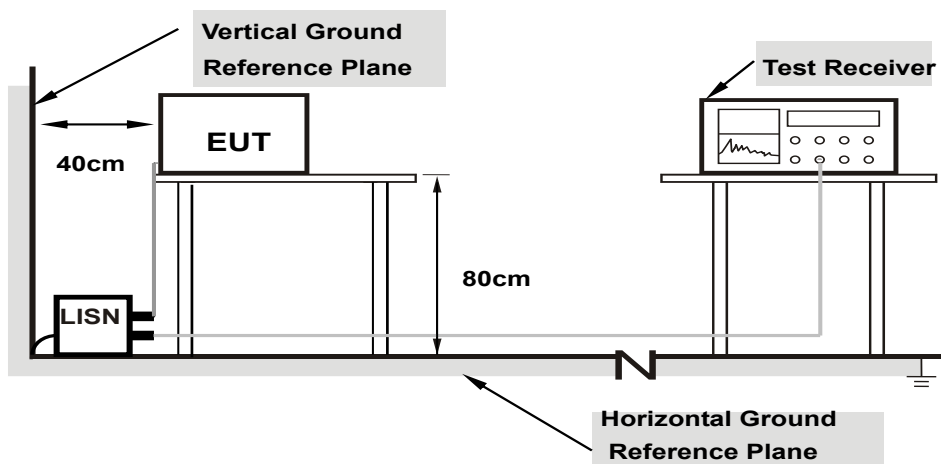
- Set instrument center frequency to DTS channel center frequency.
- Set the span to ≥ 1.5 times the DTS bandwidth.
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use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

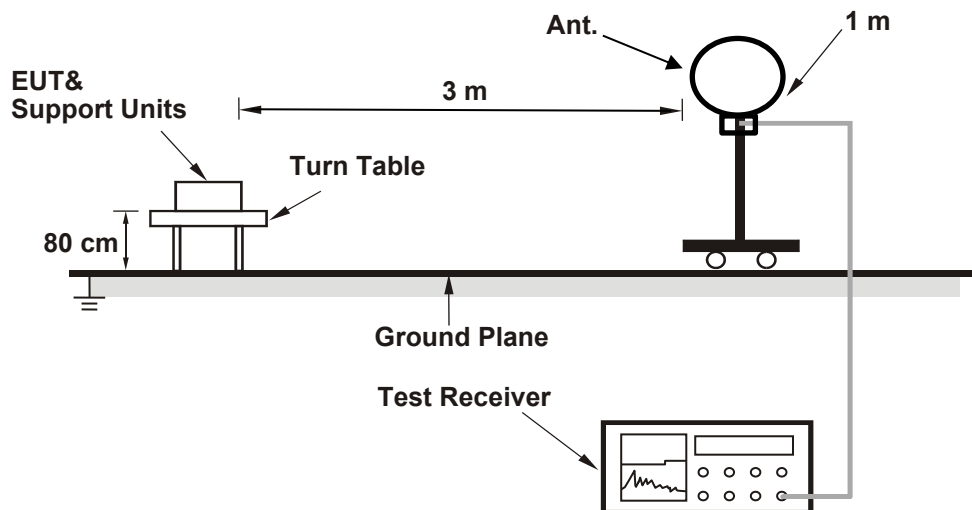
- Exploratory ac power-line conducted emission measurements: The EUT shall be operated on the mid channel and in the mode with highest output power unless the fundamental operates in the AC power-line emission test range then the EUT shall be operated in the range of typical modes of operation.
- The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

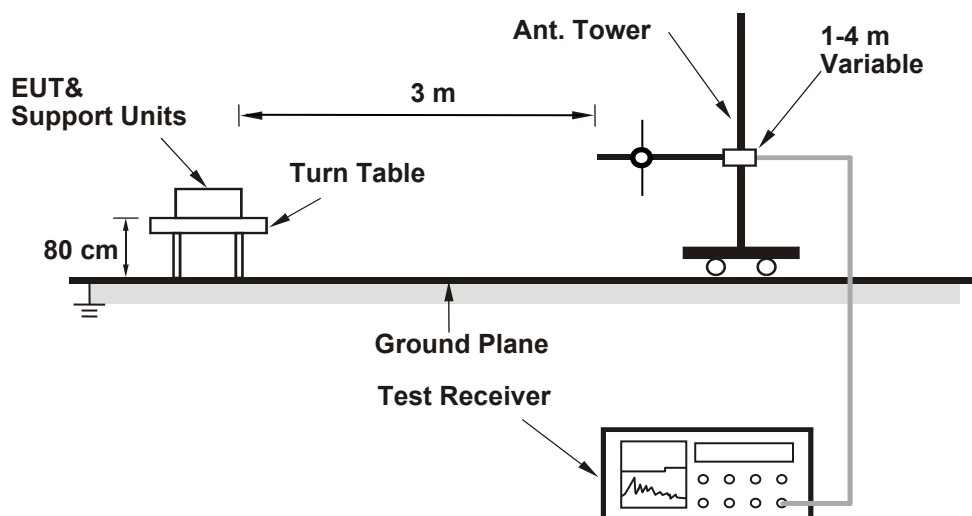
6.6 Unwanted Emissions below 1 GHz

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

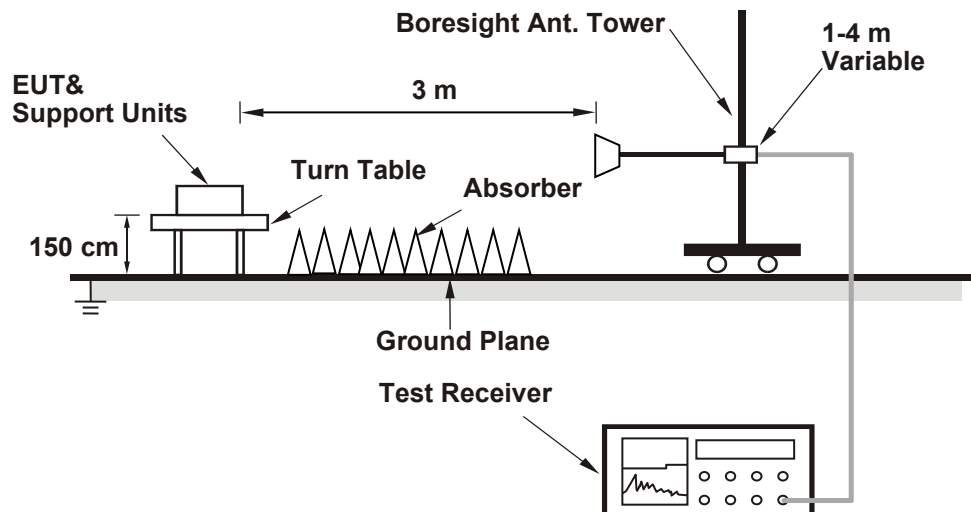
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	24°C, 58% RH	Tested By:	Henry Hsu
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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	24.44	24.61	567.039	27.54	30	Pass
6	2437	27.01	26.93	995.516	29.98	30	Pass
11	2462	24.32	24.58	557.474	27.46	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.31 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	21.79	22.03	310.596	24.92	30	Pass
6	2437	25.81	25.79	760.381	28.81	30	Pass
11	2462	20.45	20.49	222.861	23.48	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.31 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	21.89	22.15	318.584	25.03	30	Pass
6	2437	25.79	25.96	773.772	28.89	30	Pass
11	2462	20.73	20.83	239.364	23.79	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.31 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	20.61	20.88	237.542	23.76	30	Pass
6	2437	21.79	21.84	303.765	24.83	30	Pass
9	2452	20.08	20.09	203.953	23.10	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.31 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT20) 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	17.87	17.54	117.989	20.72	30	Pass
6	2437	23.86	23.97	492.68	26.93	30	Pass
11	2462	17.83	17.66	119.018	20.76	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 5.35 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT40) 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	16.91	16.64	95.223	19.79	30	Pass
6	2437	18.93	18.62	150.941	21.79	30	Pass
9	2452	16.95	16.68	96.104	19.83	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 5.35 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	24°C, 58% RH	Tested By:	Henry Hsu
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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	-7.10	-6.17	0.75	-3.60	-2.85	8	Pass
6	2437	-6.05	-5.47	0.75	-2.74	-1.99	8	Pass
11	2462	-9.17	-8.44	0.75	-5.78	-5.03	8	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- The directional gain is 5.35 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-12.21	-10.76	-8.41	8	Pass
6	2437	-8.00	-7.07	-4.50	8	Pass
11	2462	-11.49	-11.20	-8.33	8	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- The directional gain is 5.35 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
1	2412	-14.02	-15.23	-11.57	8	Pass
6	2437	-10.88	-10.88	-7.87	8	Pass
11	2462	-12.74	-14.45	-10.50	8	Pass

Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- The directional gain is 5.35 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

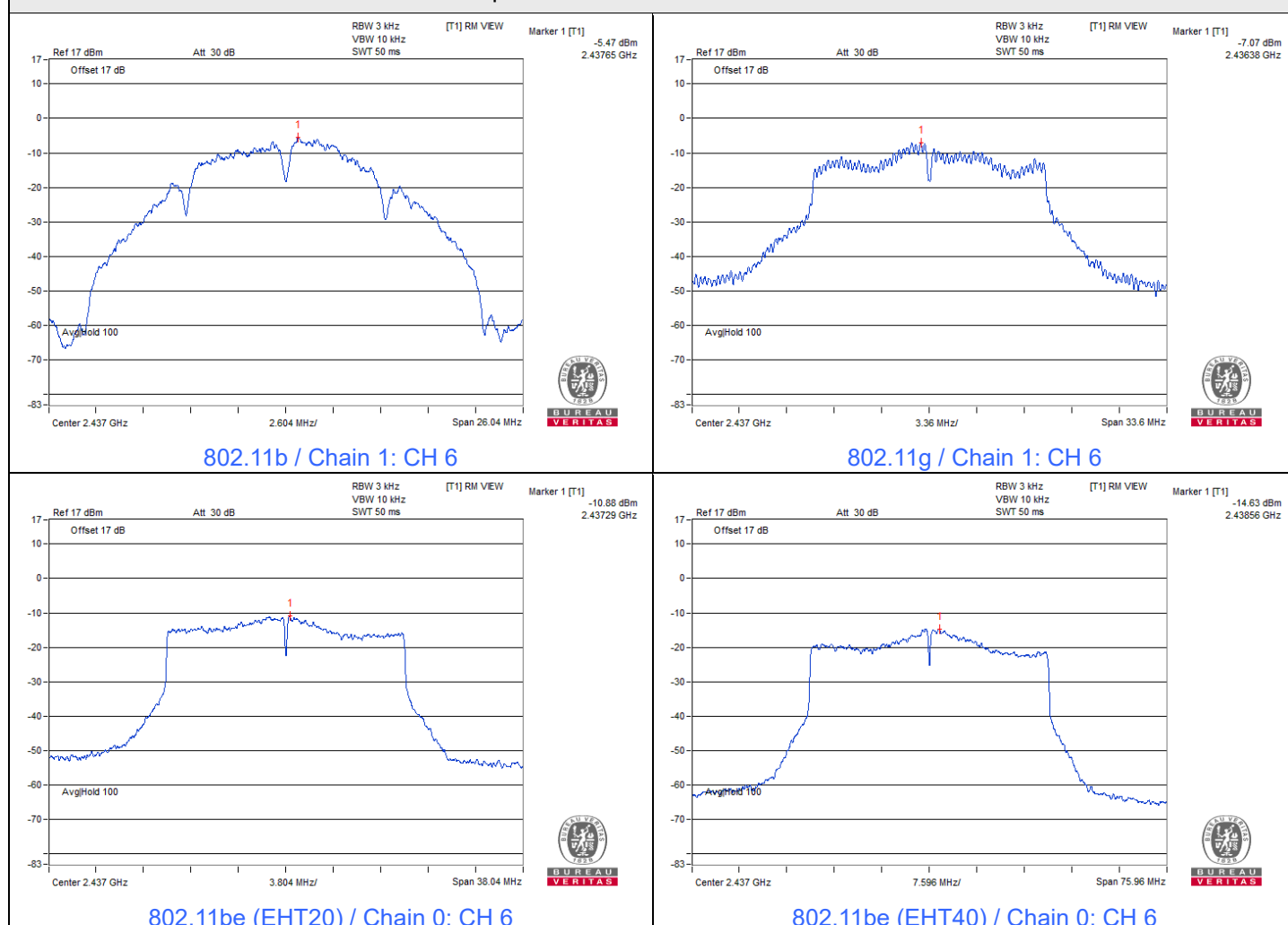
802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1			
3	2422	-17.53	-15.91	-13.63	8	Pass
6	2437	-14.63	-15.68	-12.11	8	Pass
9	2452	-17.62	-16.33	-13.92	8	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 5.35 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	24°C, 58% RH	Tested By:	Henry Hsu
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802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	8.64	7.18	0.5	Pass
6	2437	7.82	7.60	0.5	Pass
11	2462	7.74	8.61	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	15.22	15.10	0.5	Pass
6	2437	15.48	15.19	0.5	Pass
11	2462	15.21	15.22	0.5	Pass

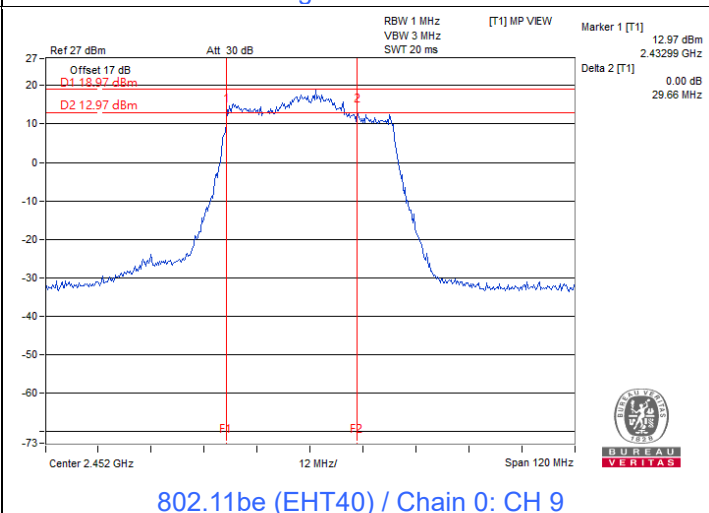
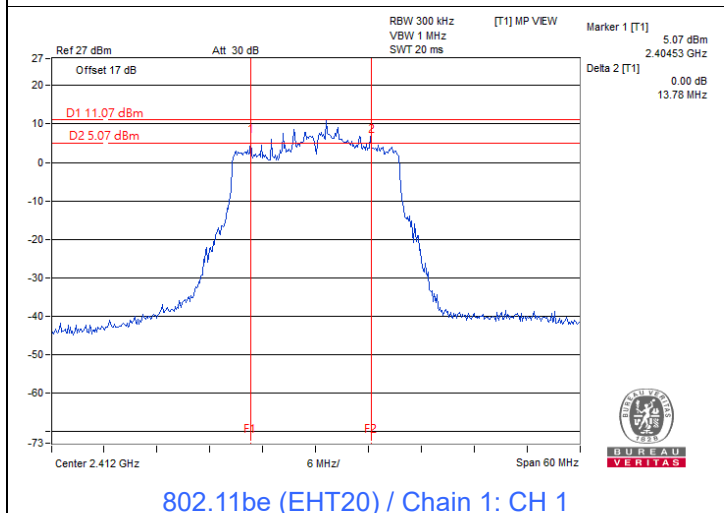
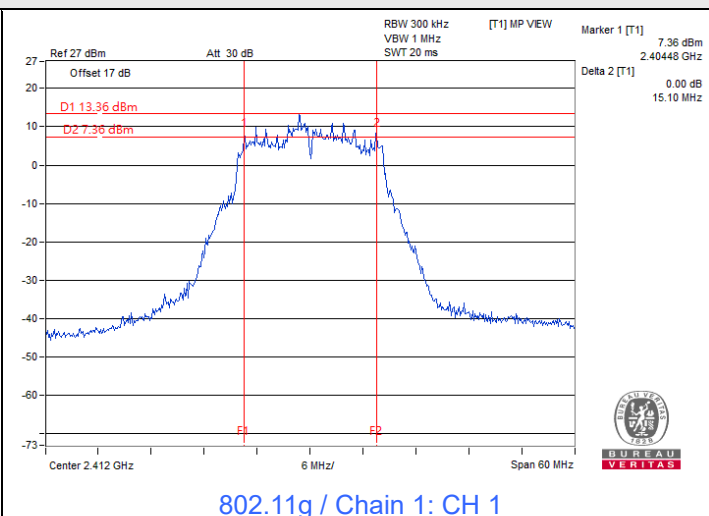
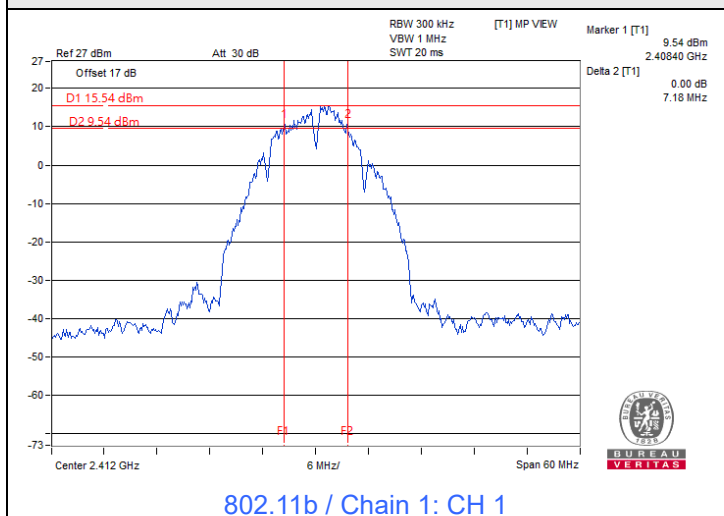
802.11be (EHT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	2412	16.77	13.78	0.5	Pass
6	2437	13.92	15.21	0.5	Pass
11	2462	16.87	16.99	0.5	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	2422	35.77	36.80	0.5	Pass
6	2437	34.28	36.80	0.5	Pass
9	2452	29.66	36.15	0.5	Pass

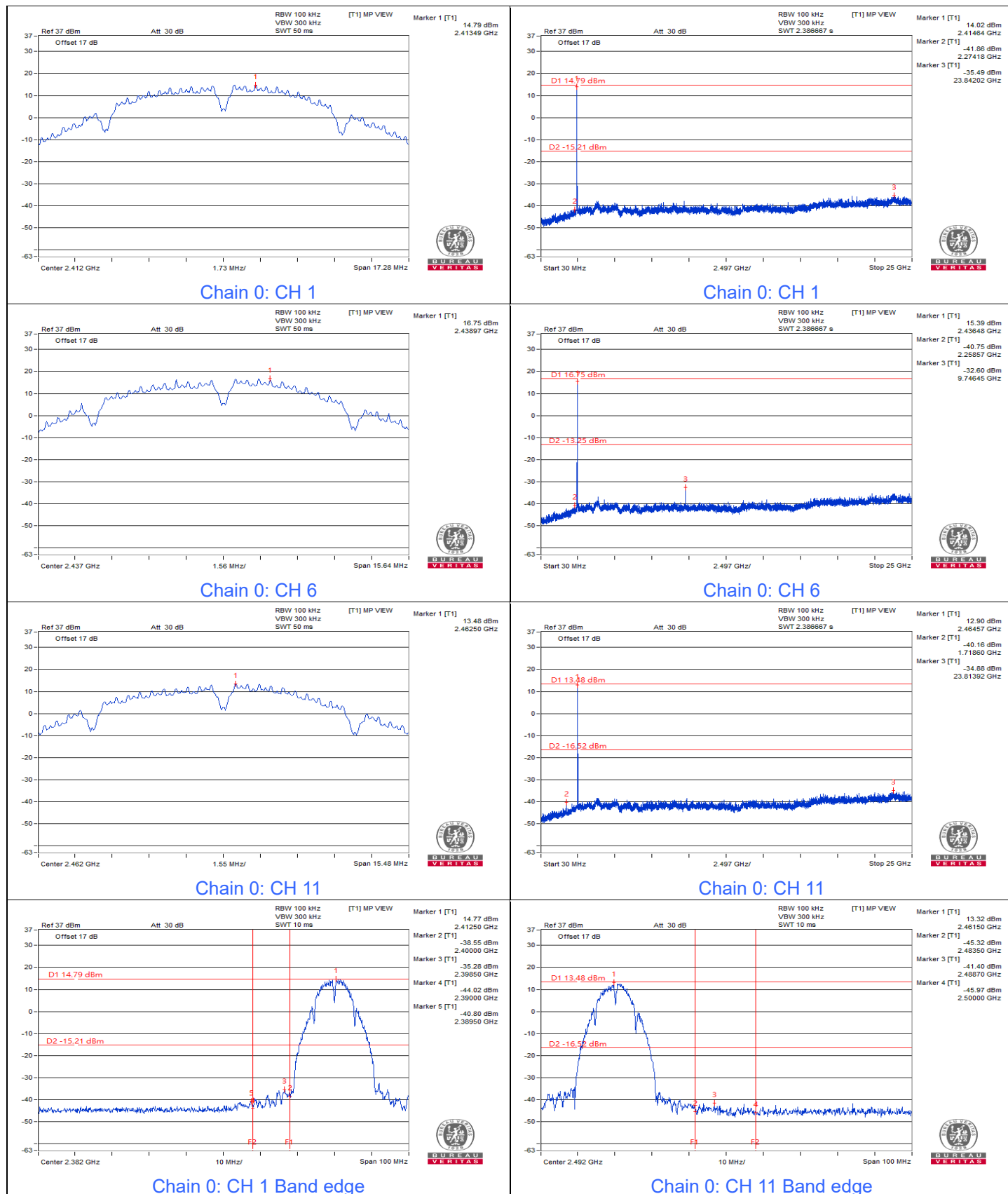
Spectrum Plot of Minimum Value

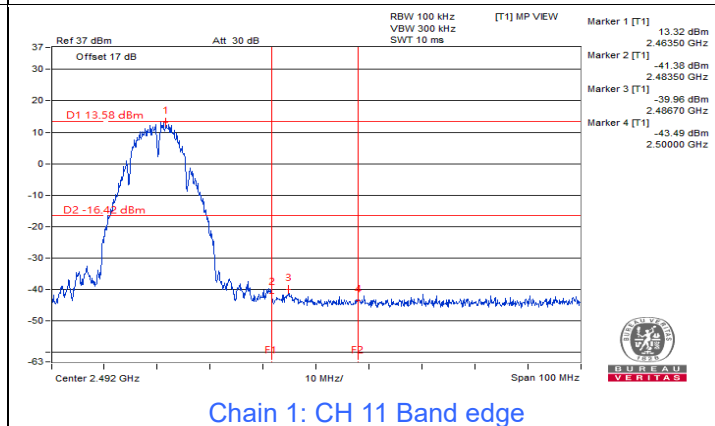
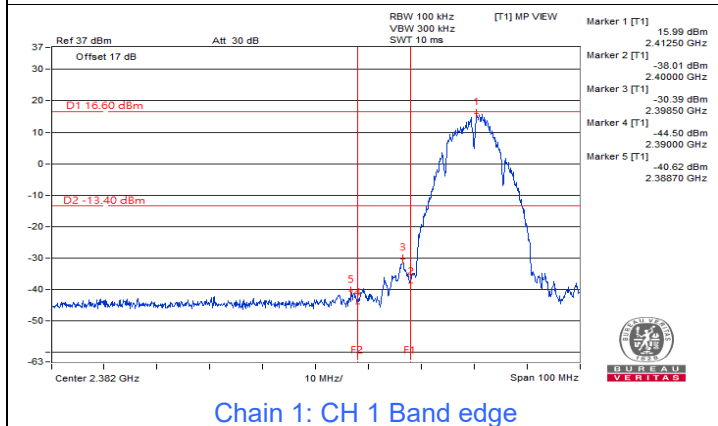
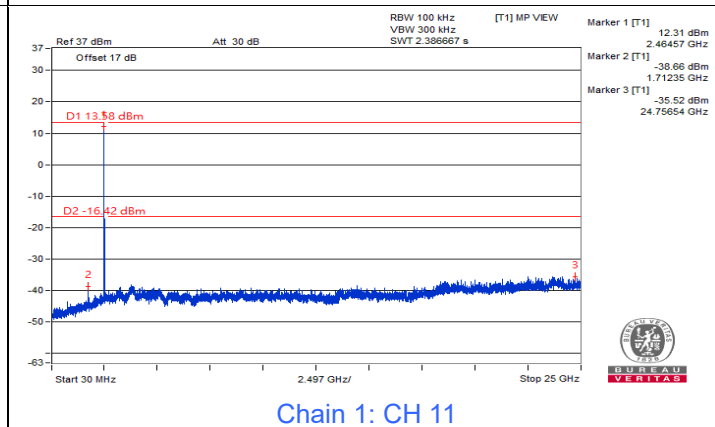
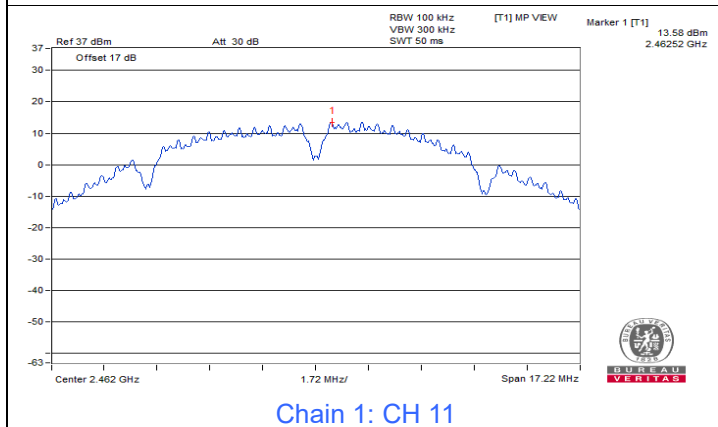
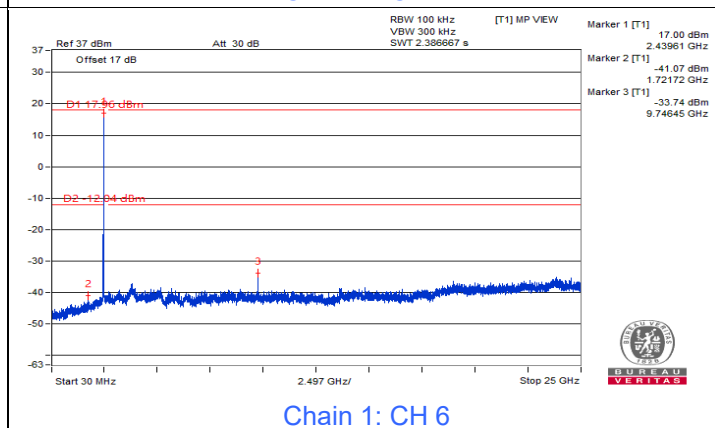
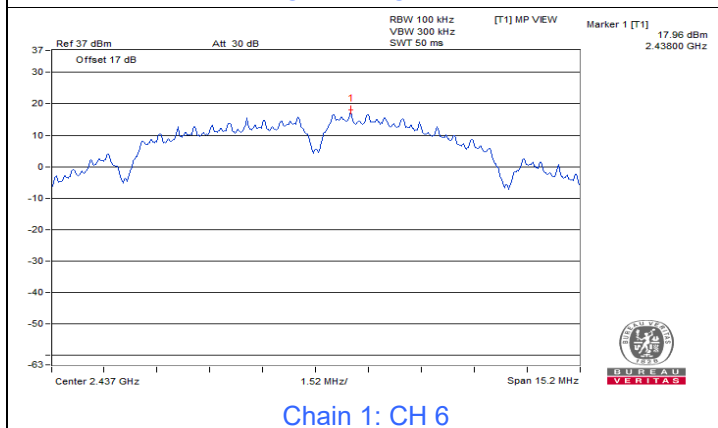
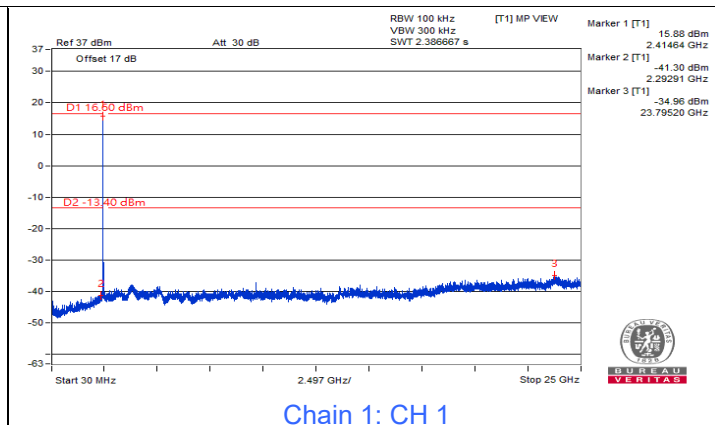
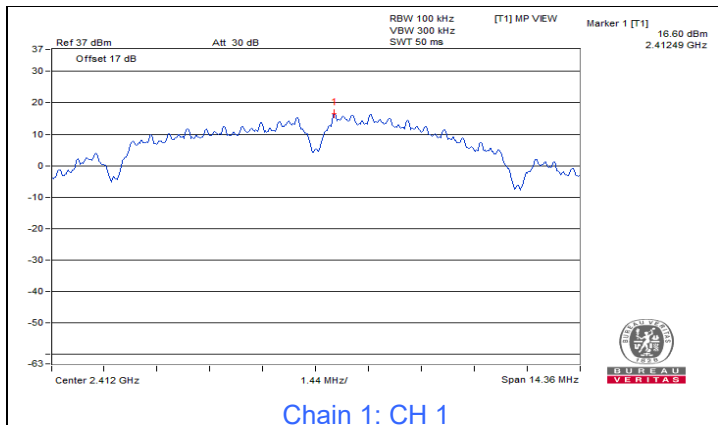


7.4 Conducted Out of Band Emissions

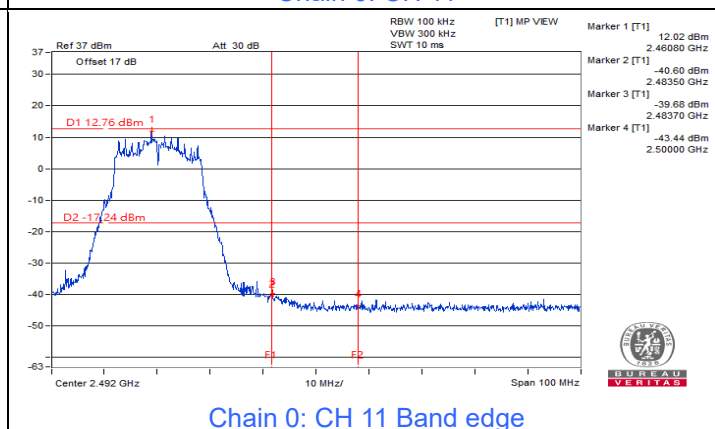
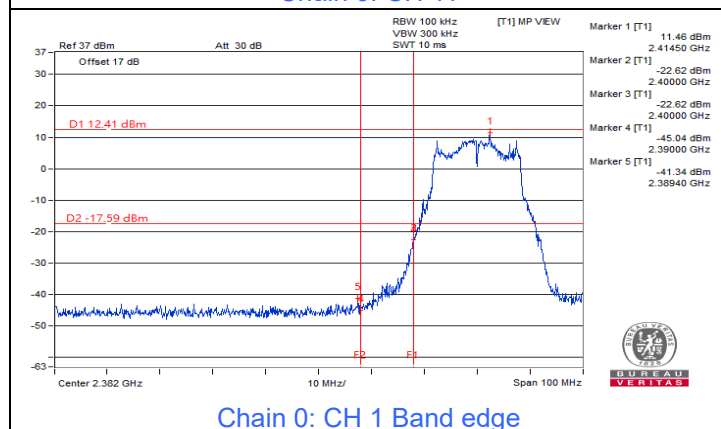
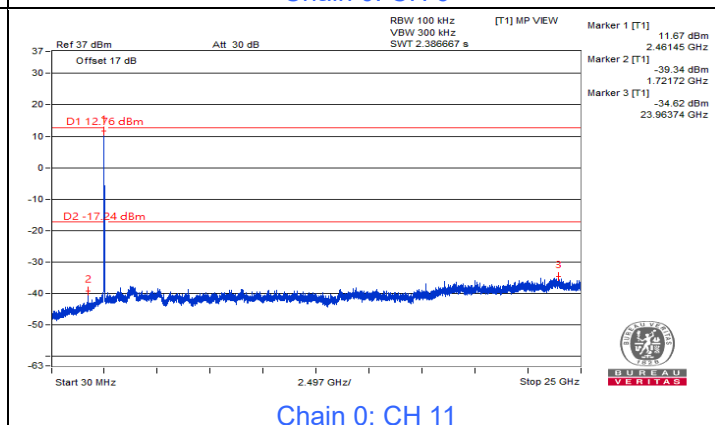
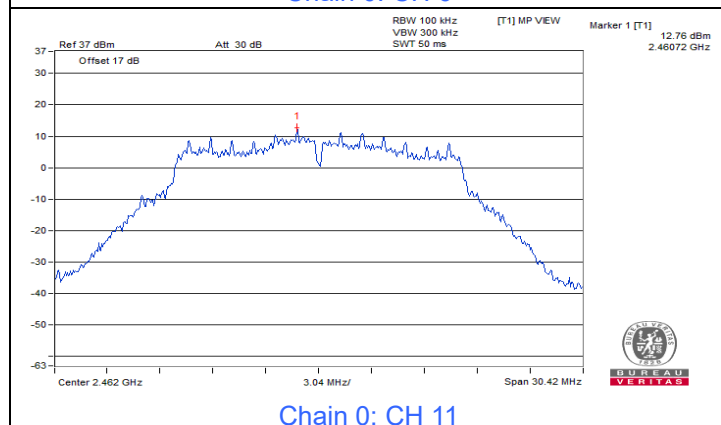
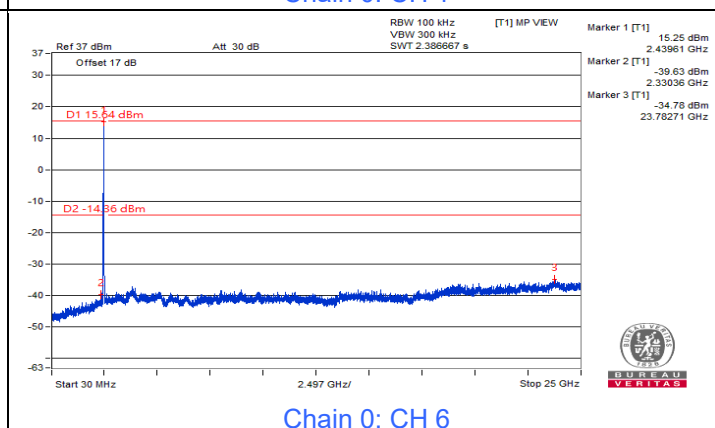
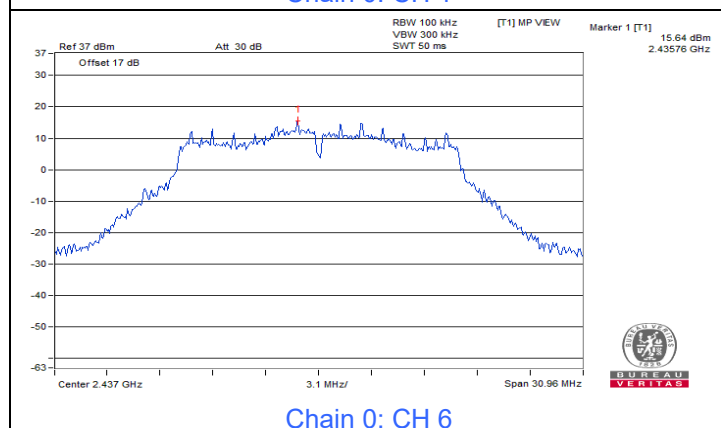
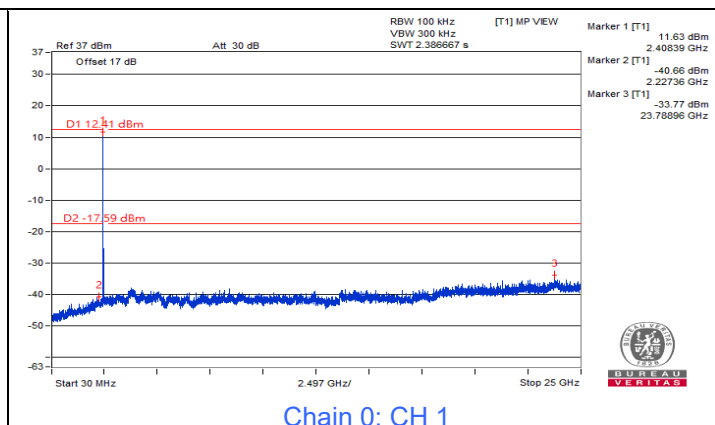
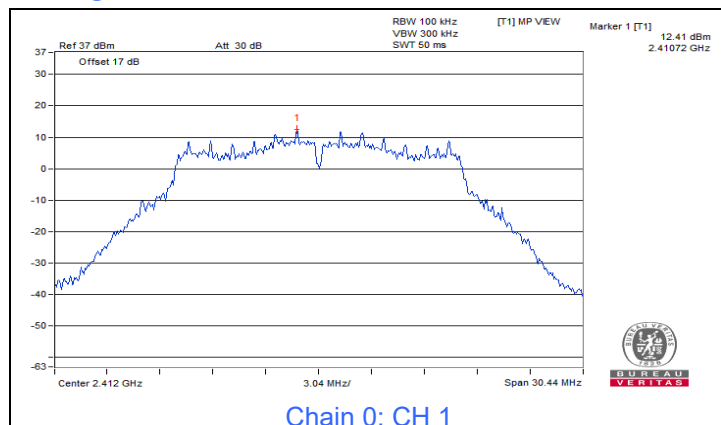
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	24°C, 58% RH	Tested By:	Henry Hsu
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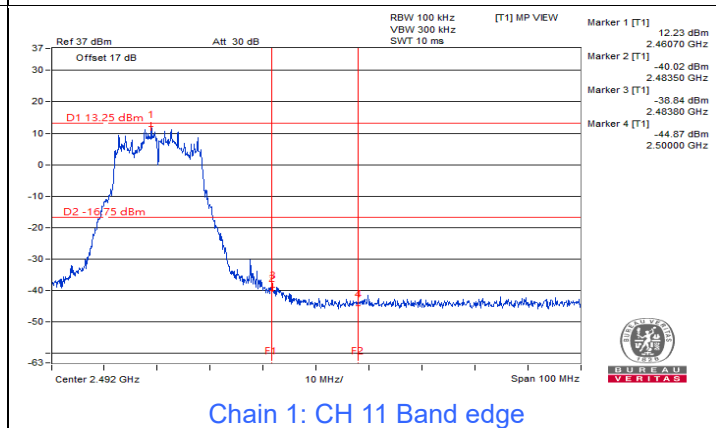
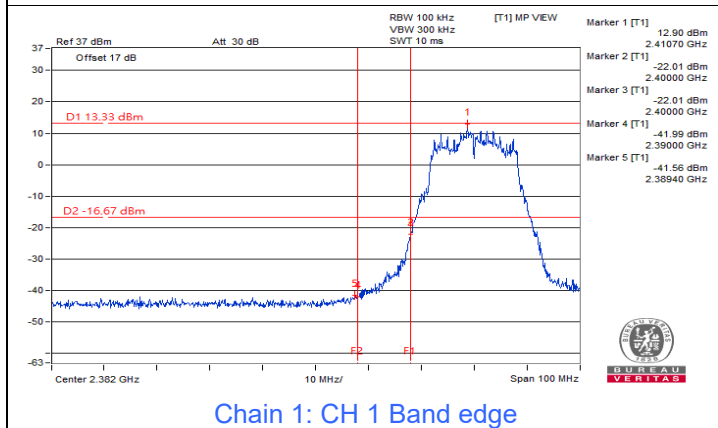
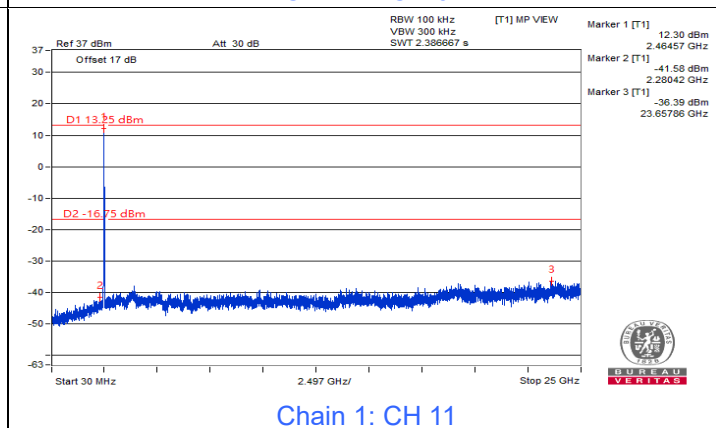
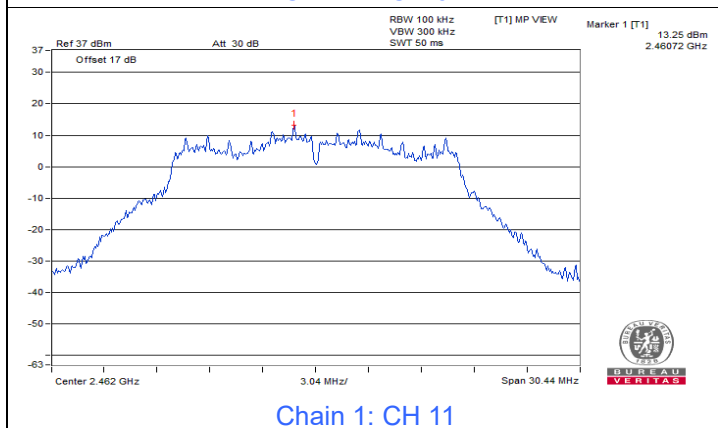
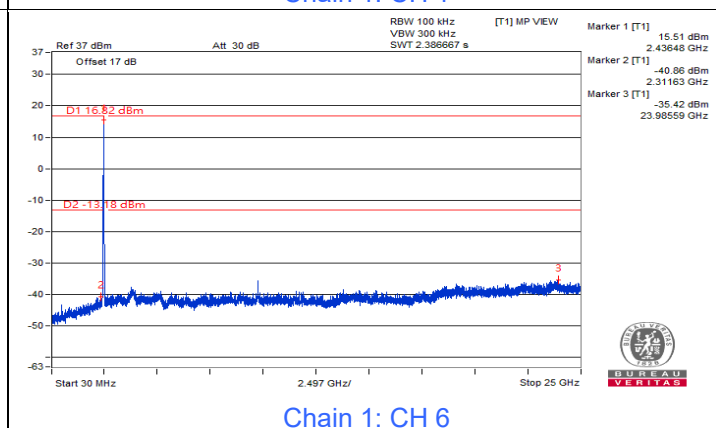
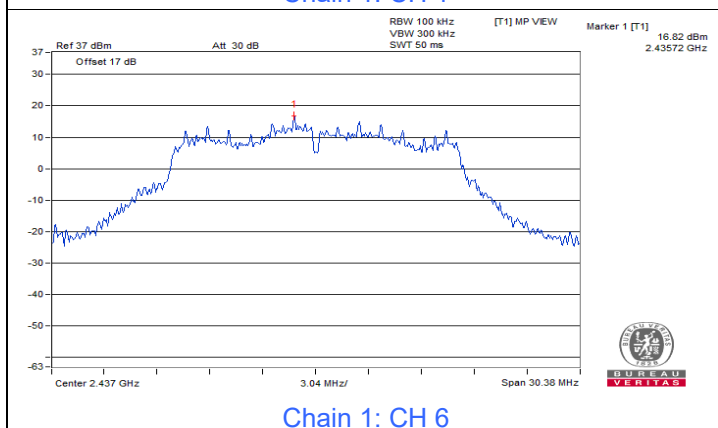
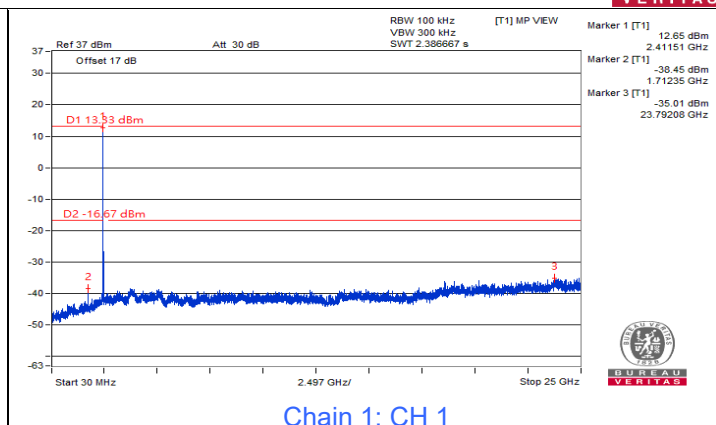
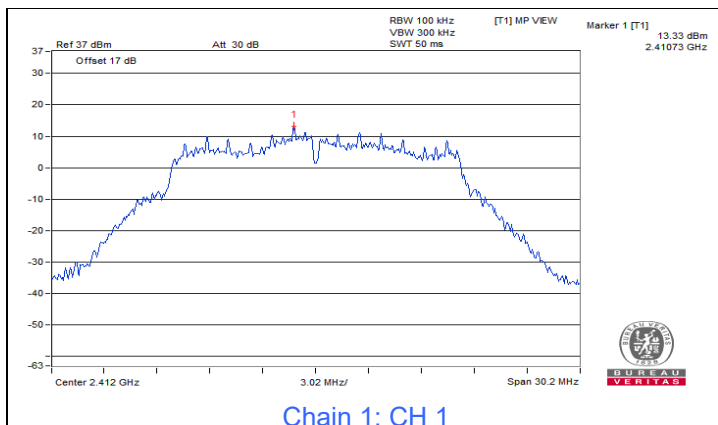
802.11b





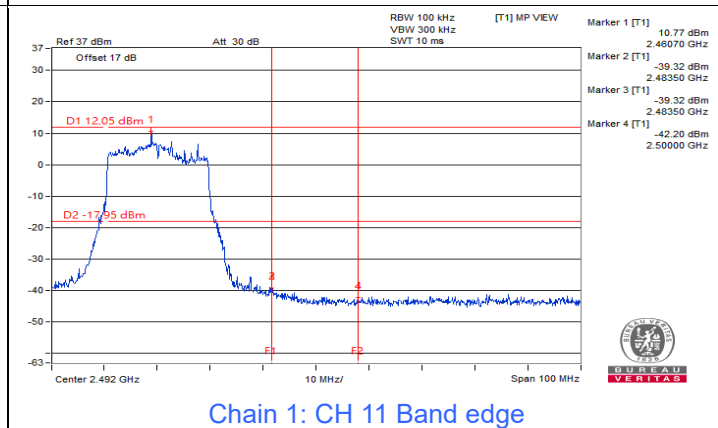
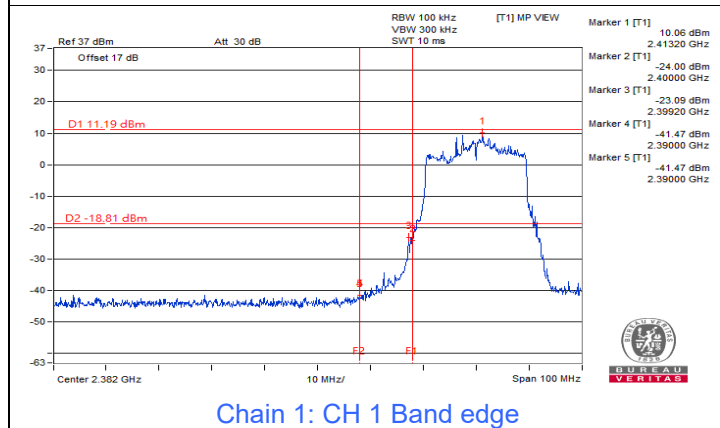
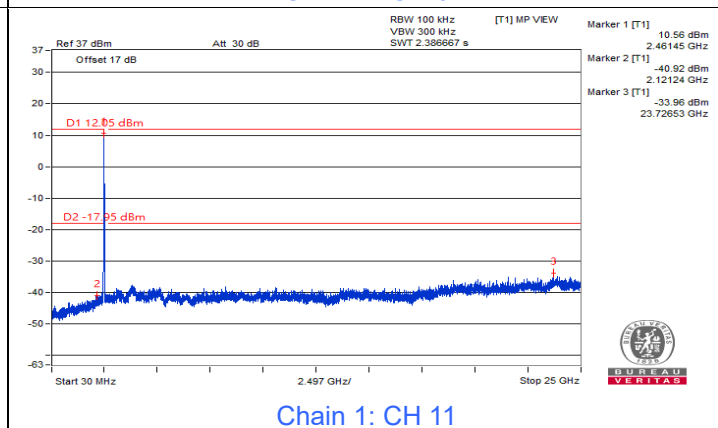
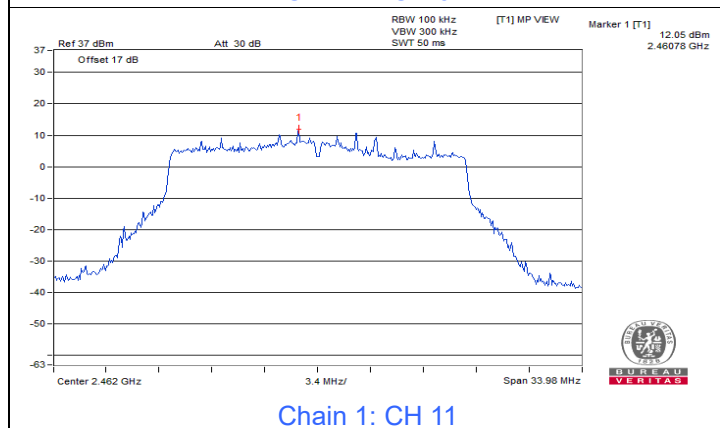
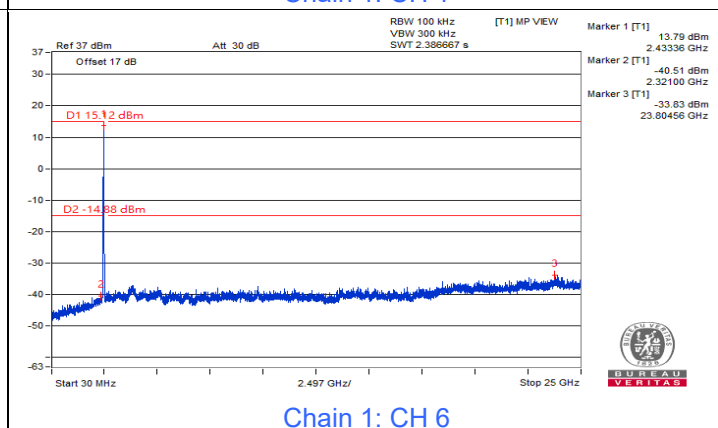
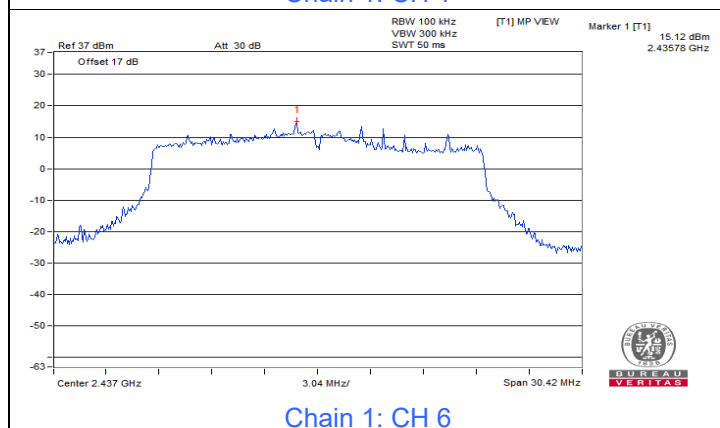
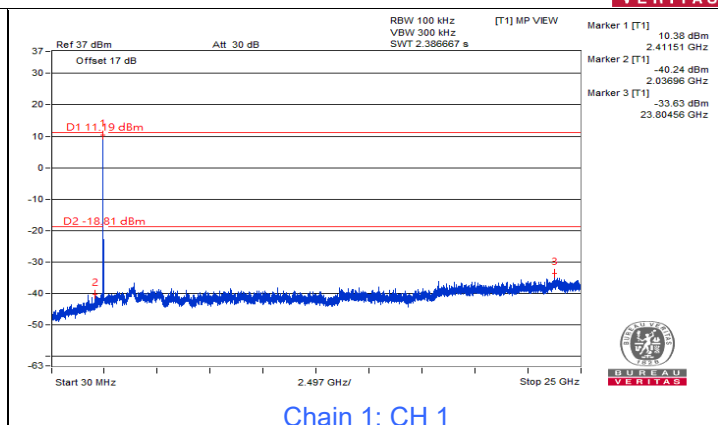
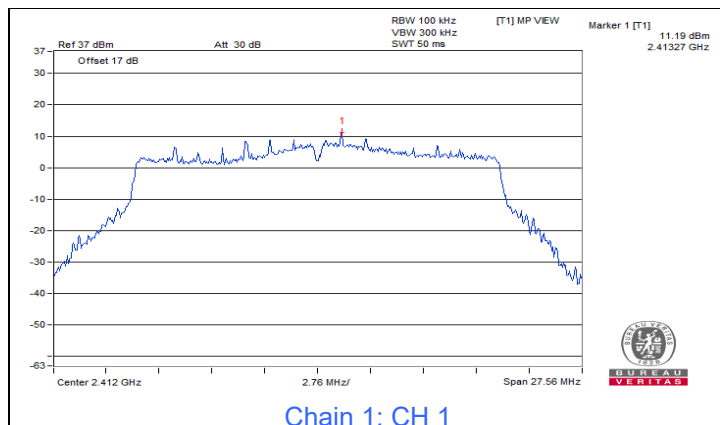
802.11g



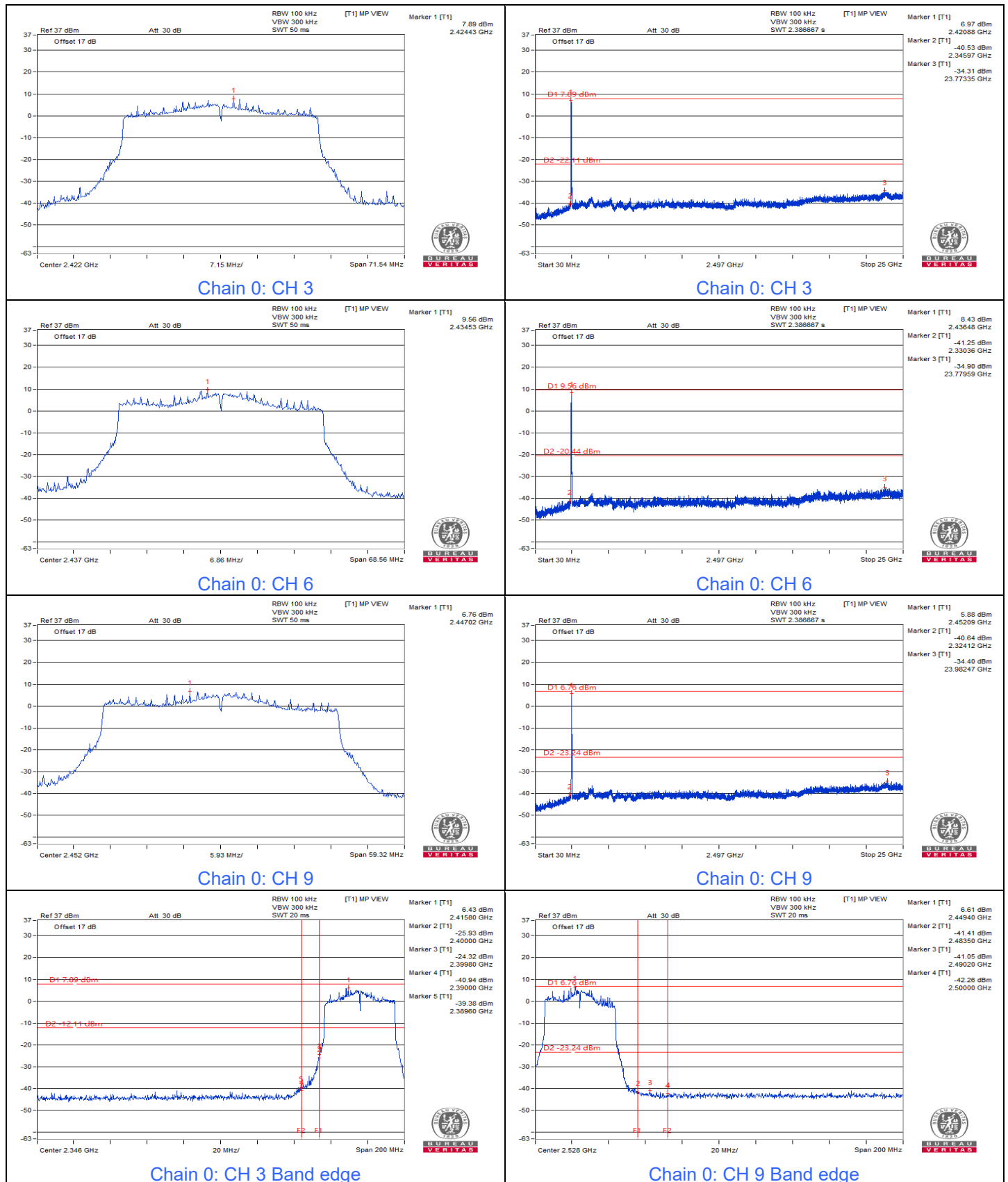


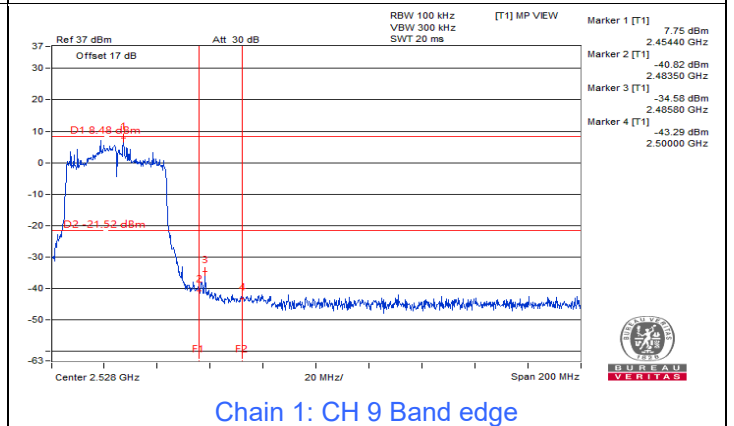
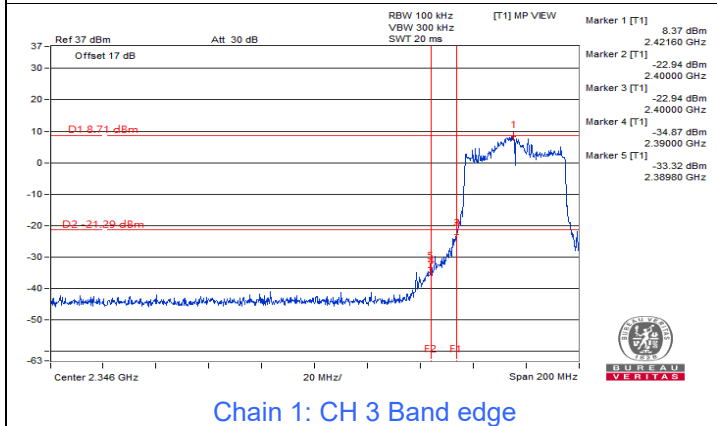
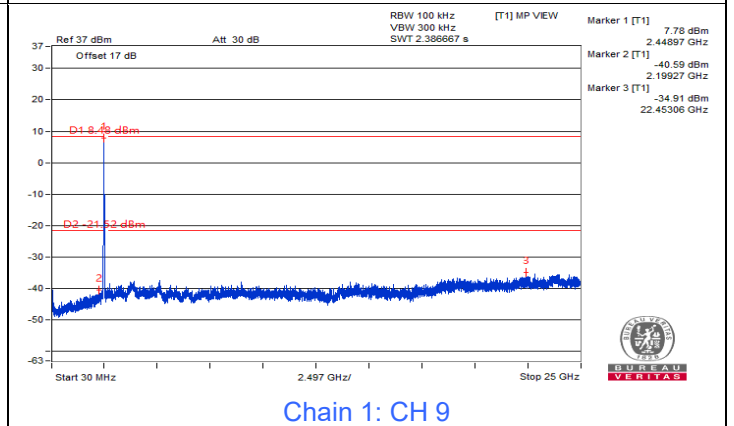
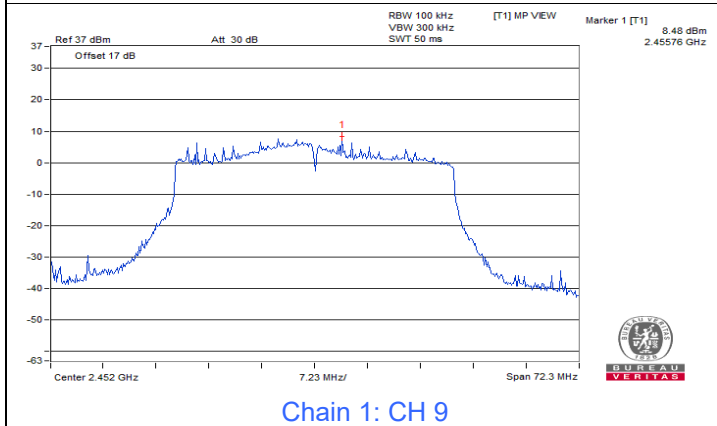
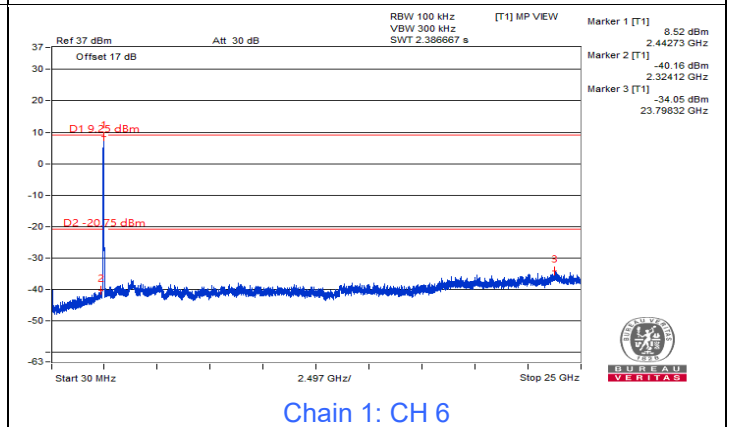
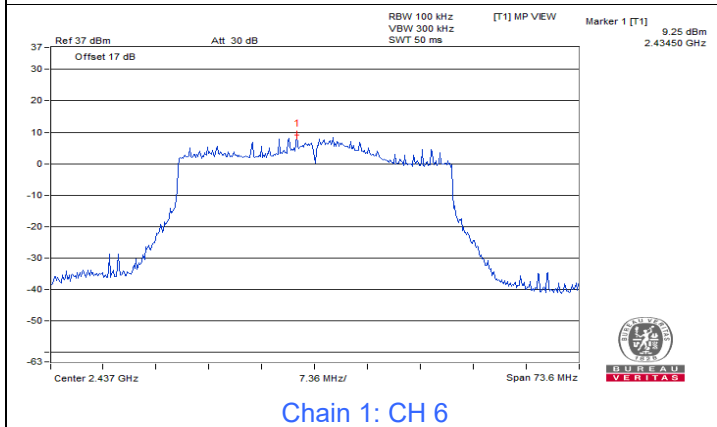
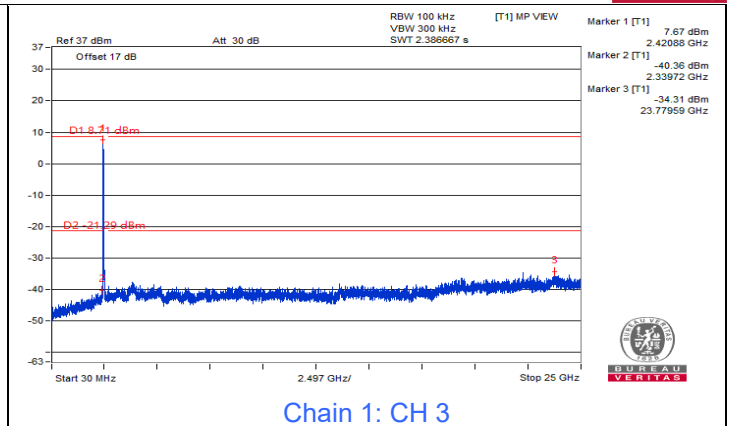
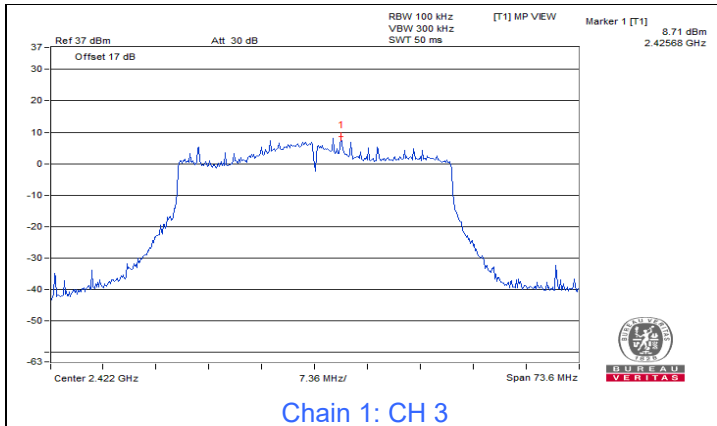
802.11be (EHT20)





802.11be (EHT40)





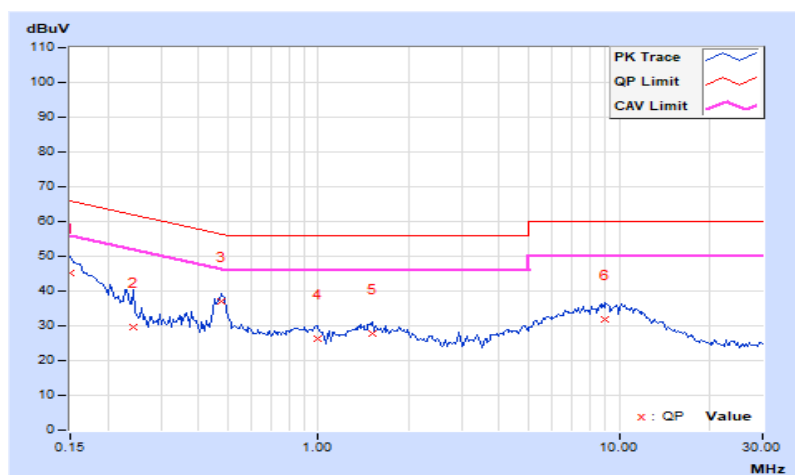
7.5 AC Power Conducted Emissions

RF Mode	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	25 °C, 75% RH
Tested By	Tank Wu		

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	0.15017	9.97	35.08	21.75	45.05	31.72	65.99	55.99	-20.94	-24.27
2	0.24375	9.98	19.58	10.77	29.56	20.75	61.97	51.97	-32.41	-31.22
3	0.47813	10.01	27.15	22.36	37.16	32.37	56.37	46.37	-19.21	-14.00
4	0.99375	10.06	16.14	11.66	26.20	21.72	56.00	46.00	-29.80	-24.28
5	1.50781	10.08	17.81	13.31	27.89	23.39	56.00	46.00	-28.11	-22.61
6	9.00391	10.57	21.40	15.70	31.97	26.27	60.00	50.00	-28.03	-23.73

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

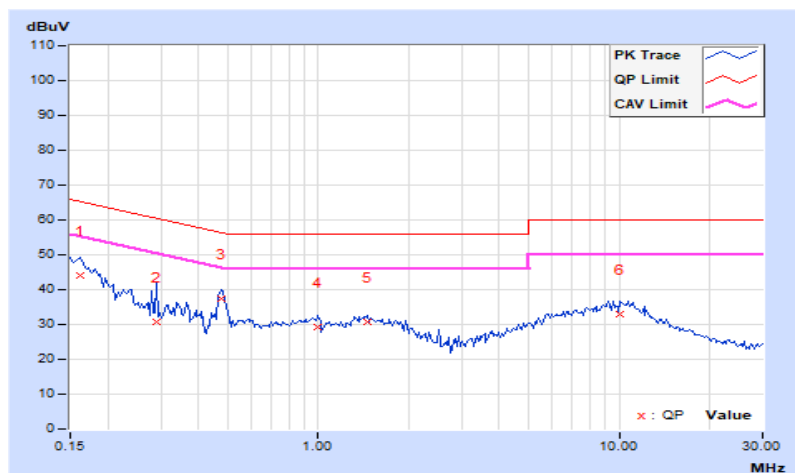


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Tank Wu		

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	9.99	34.10	21.19	44.09	31.18	65.38	55.38	-21.29	-24.20
2	0.29063	9.96	20.66	13.83	30.62	23.79	60.51	50.51	-29.89	-26.72
3	0.47813	9.95	27.53	22.94	37.48	32.89	56.37	46.37	-18.89	-13.48
4	0.99766	10.00	19.25	13.44	29.25	23.44	56.00	46.00	-26.75	-22.56
5	1.46094	10.03	20.79	14.96	30.82	24.99	56.00	46.00	-25.18	-21.01
6	10.08984	10.46	22.36	16.86	32.82	27.32	60.00	50.00	-27.18	-22.68

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



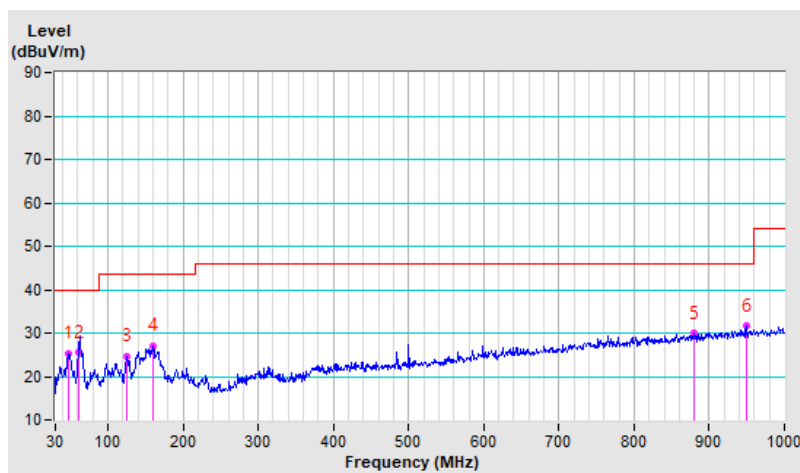
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Tank Wu		

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	46.73	25.2 PK	40.0	-14.8	4.00 H	146	38.1	-12.9
2	60.94	25.5 PK	40.0	-14.5	3.00 H	254	39.1	-13.6
3	125.01	24.7 PK	43.5	-18.8	2.00 H	300	39.1	-14.4
4	160.56	26.9 PK	43.5	-16.6	1.00 H	111	39.8	-12.9
5	879.55	29.9 PK	46.0	-16.1	4.00 H	188	30.7	-0.8
6	948.95	31.6 PK	46.0	-14.4	3.00 H	360	31.1	0.5

Remarks:

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

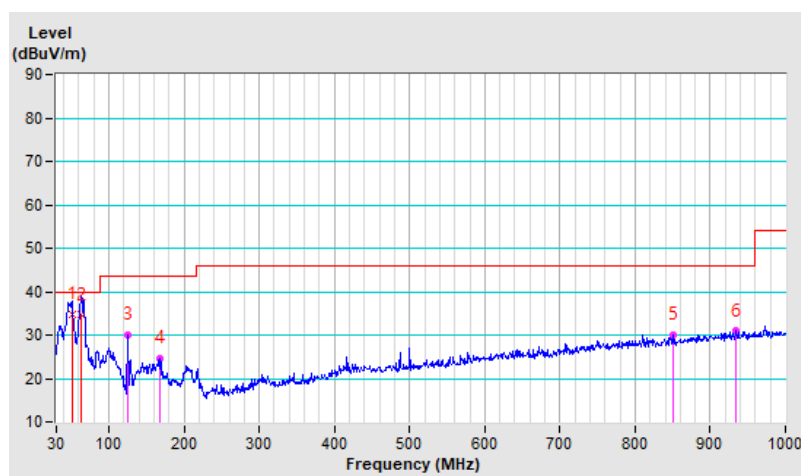


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Tank Wu		

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	50.71	34.9 QP	40.0	-5.1	1.00 V	62	47.7	-12.8
2	63.42	34.6 QP	40.0	-5.4	1.00 V	102	48.4	-13.8
3	125.01	30.1 PK	43.5	-13.4	2.00 V	360	44.5	-14.4
4	166.84	24.7 PK	43.5	-18.8	1.00 V	258	37.9	-13.2
5	850.30	30.0 PK	46.0	-16.0	2.00 V	360	31.2	-1.2
6	934.55	30.9 PK	46.0	-15.1	4.00 V	360	30.6	0.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The 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=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	59.4 PK	74.0	-14.6	1.54 H	164	59.5	-0.1
2	2390.00	48.8 AV	54.0	-5.2	1.54 H	164	48.9	-0.1
3	*2412.00	112.9 PK			1.54 H	164	113.1	-0.2
4	*2412.00	109.7 AV			1.54 H	164	109.9	-0.2
5	4824.00	38.4 PK	74.0	-35.6	2.58 H	56	33.9	4.5
6	4824.00	27.5 AV	54.0	-26.5	2.58 H	56	23.0	4.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.0 PK	74.0	-12.0	2.08 V	114	62.1	-0.1
2	2390.00	51.7 AV	54.0	-2.3	2.08 V	114	51.8	-0.1
3	*2412.00	121.8 PK			2.08 V	114	122.0	-0.2
4	*2412.00	118.3 AV			2.08 V	114	118.5	-0.2
5	4824.00	42.3 PK	74.0	-31.7	1.56 V	135	37.8	4.5
6	4824.00	35.9 AV	54.0	-18.1	1.56 V	135	31.4	4.5

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	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=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.4 PK	74.0	-17.6	1.47 H	157	56.5	-0.1
2	2390.00	44.7 AV	54.0	-9.3	1.47 H	157	44.8	-0.1
3	*2437.00	113.6 PK			1.47 H	157	113.8	-0.2
4	*2437.00	111.2 AV			1.47 H	157	111.4	-0.2
5	2483.50	55.4 PK	74.0	-18.6	1.47 H	157	55.7	-0.3
6	2483.50	43.7 AV	54.0	-10.3	1.47 H	157	44.0	-0.3
7	4874.00	40.1 PK	74.0	-33.9	2.71 H	44	35.6	4.5
8	4874.00	28.3 AV	54.0	-25.7	2.71 H	44	23.8	4.5
9	7311.00	45.8 PK	74.0	-28.2	1.50 H	250	34.0	11.8
10	7311.00	32.8 AV	54.0	-21.2	1.50 H	250	21.0	11.8
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	62.8 PK	74.0	-11.2	2.06 V	114	62.9	-0.1
2	2390.00	52.3 AV	54.0	-1.7	2.06 V	114	52.4	-0.1
3	*2437.00	124.1 PK			2.06 V	114	124.3	-0.2
4	*2437.00	120.4 AV			2.06 V	114	120.6	-0.2
5	2483.50	57.7 PK	74.0	-16.3	2.06 V	114	58.0	-0.3
6	2483.50	47.8 AV	54.0	-6.2	2.06 V	114	48.1	-0.3
7	4874.00	47.1 PK	74.0	-26.9	1.80 V	314	42.6	4.5
8	4874.00	42.9 AV	54.0	-11.1	1.80 V	314	38.4	4.5
9	7311.00	47.1 PK	74.0	-26.9	1.43 V	334	35.3	11.8
10	7311.00	37.7 AV	54.0	-16.3	1.43 V	334	25.9	11.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	109.9 PK			1.81 H	155	110.2	-0.3
2	*2462.00	107.6 AV			1.81 H	155	107.9	-0.3
3	2483.50	55.8 PK	74.0	-18.2	1.81 H	155	56.1	-0.3
4	2483.50	44.2 AV	54.0	-9.8	1.81 H	155	44.5	-0.3
5	4924.00	38.6 PK	74.0	-35.4	2.27 H	52	33.9	4.7
6	4924.00	27.6 AV	54.0	-26.4	2.27 H	52	22.9	4.7
7	7386.00	44.5 PK	74.0	-29.5	1.50 H	243	32.5	12.0
8	7386.00	32.3 AV	54.0	-21.7	1.50 H	243	20.3	12.0
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	*2462.00	120.5 PK			2.21 V	292	120.8	-0.3
2	*2462.00	116.9 AV			2.21 V	292	117.2	-0.3
3	2483.50	60.7 PK	74.0	-13.3	2.21 V	292	61.0	-0.3
4	2483.50	53.9 AV	54.0	-0.1	2.21 V	292	54.2	-0.3
5	4924.00	45.5 PK	74.0	-28.5	1.62 V	136	40.8	4.7
6	4924.00	40.2 AV	54.0	-13.8	1.62 V	136	35.5	4.7
7	7386.00	44.9 PK	74.0	-29.1	1.50 V	327	32.9	12.0
8	7386.00	32.4 AV	54.0	-21.6	1.50 V	327	20.4	12.0

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 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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.3 PK	74.0	-10.7	1.57 H	154	63.4	-0.1
2	2390.00	49.5 AV	54.0	-4.5	1.57 H	154	49.6	-0.1
3	*2412.00	111.2 PK			1.57 H	154	111.4	-0.2
4	*2412.00	102.8 AV			1.57 H	154	103.0	-0.2
5	4824.00	39.1 PK	74.0	-34.9	3.17 H	39	34.6	4.5
6	4824.00	28.3 AV	54.0	-25.7	3.17 H	39	23.8	4.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	71.6 PK	74.0	-2.4	1.87 V	292	71.7	-0.1
2	2390.00	53.7 AV	54.0	-0.3	1.87 V	292	53.8	-0.1
3	*2412.00	121.0 PK			1.87 V	292	121.2	-0.2
4	*2412.00	111.7 AV			1.87 V	292	111.9	-0.2
5	4824.00	43.1 PK	74.0	-30.9	1.71 V	298	38.6	4.5
6	4824.00	30.2 AV	54.0	-23.8	1.71 V	298	25.7	4.5

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	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	60.1 PK	74.0	-13.9	1.56 H	152	60.2	-0.1
2	2390.00	46.6 AV	54.0	-7.4	1.56 H	152	46.7	-0.1
3	*2437.00	115.1 PK			1.56 H	152	115.3	-0.2
4	*2437.00	106.5 AV			1.56 H	152	106.7	-0.2
5	2483.50	59.6 PK	74.0	-14.4	1.56 H	152	59.9	-0.3
6	2483.50	46.3 AV	54.0	-7.7	1.56 H	152	46.6	-0.3
7	4874.00	39.5 PK	74.0	-34.5	3.20 H	42	35.0	4.5
8	4874.00	28.8 AV	54.0	-25.2	3.20 H	42	24.3	4.5
9	7311.00	44.6 PK	74.0	-29.4	1.50 H	262	32.8	11.8
10	7311.00	32.4 AV	54.0	-21.6	1.50 H	262	20.6	11.8
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	69.2 PK	74.0	-4.8	1.96 V	302	69.3	-0.1
2	2390.00	53.0 AV	54.0	-1.0	1.96 V	302	53.1	-0.1
3	*2437.00	124.9 PK			1.96 V	302	125.1	-0.2
4	*2437.00	115.4 AV			1.96 V	302	115.6	-0.2
5	2483.50	69.1 PK	74.0	-4.9	1.96 V	302	69.4	-0.3
6	2483.50	50.9 AV	54.0	-3.1	1.96 V	302	51.2	-0.3
7	4874.00	43.7 PK	74.0	-30.3	1.66 V	309	39.2	4.5
8	4874.00	30.8 AV	54.0	-23.2	1.66 V	309	26.3	4.5
9	7311.00	45.9 PK	74.0	-28.1	1.50 V	342	34.1	11.8
10	7311.00	33.2 AV	54.0	-20.8	1.50 V	342	21.4	11.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	113.6 PK			1.80 H	151	113.9	-0.3
2	*2462.00	103.7 AV			1.80 H	151	104.0	-0.3
3	2483.50	62.8 PK	74.0	-11.2	1.80 H	151	63.1	-0.3
4	2483.50	50.1 AV	54.0	-3.9	1.80 H	151	50.4	-0.3
5	4924.00	38.8 PK	74.0	-35.2	3.16 H	25	34.1	4.7
6	4924.00	28.1 AV	54.0	-25.9	3.16 H	25	23.4	4.7
7	7386.00	44.4 PK	74.0	-29.6	1.46 H	262	32.4	12.0
8	7386.00	32.1 AV	54.0	-21.9	1.46 H	262	20.1	12.0
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	*2462.00	121.5 PK			1.91 V	242	121.8	-0.3
2	*2462.00	111.6 AV			1.91 V	242	111.9	-0.3
3	2483.50	68.1 PK	74.0	-5.9	1.91 V	242	68.4	-0.3
4	2483.50	53.7 AV	54.0	-0.3	1.91 V	242	54.0	-0.3
5	4924.00	43.3 PK	74.0	-30.7	1.74 V	284	38.6	4.7
6	4924.00	30.6 AV	54.0	-23.4	1.74 V	284	25.9	4.7
7	7386.00	45.5 PK	74.0	-28.5	1.51 V	332	33.5	12.0
8	7386.00	32.8 AV	54.0	-21.2	1.51 V	332	20.8	12.0

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	802.11be (EHT20)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	67.7 PK	74.0	-6.3	1.21 H	167	67.8	-0.1
2	2390.00	51.6 AV	54.0	-2.4	1.21 H	167	51.7	-0.1
3	*2412.00	113.9 PK			1.21 H	167	114.1	-0.2
4	*2412.00	102.1 AV			1.21 H	167	102.3	-0.2
5	4824.00	39.7 PK	74.0	-34.3	3.12 H	43	35.2	4.5
6	4824.00	28.7 AV	54.0	-25.3	3.12 H	43	24.2	4.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	69.9 PK	74.0	-4.1	1.72 V	250	70.0	-0.1
2	2390.00	53.7 AV	54.0	-0.3	1.72 V	250	53.8	-0.1
3	*2412.00	122.0 PK			1.72 V	250	122.2	-0.2
4	*2412.00	109.3 AV			1.72 V	250	109.5	-0.2
5	4824.00	42.9 PK	74.0	-31.1	1.72 V	311	38.4	4.5
6	4824.00	30.1 AV	54.0	-23.9	1.72 V	311	25.6	4.5

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	802.11be (EHT20)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	57.5 PK	74.0	-16.5	1.18 H	165	57.6	-0.1
2	2390.00	45.9 AV	54.0	-8.1	1.18 H	165	46.0	-0.1
3	*2437.00	116.5 PK			1.18 H	165	116.7	-0.2
4	*2437.00	105.9 AV			1.18 H	165	106.1	-0.2
5	2483.50	58.1 PK	74.0	-15.9	1.18 H	165	58.4	-0.3
6	2483.50	46.1 AV	54.0	-7.9	1.18 H	165	46.4	-0.3
7	4874.00	38.3 PK	74.0	-35.7	3.21 H	35	33.8	4.5
8	4874.00	27.7 AV	54.0	-26.3	3.21 H	35	23.2	4.5
9	7311.00	44.6 PK	74.0	-29.4	1.44 H	273	32.8	11.8
10	7311.00	32.2 AV	54.0	-21.8	1.44 H	273	20.4	11.8
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	72.1 PK	74.0	-1.9	1.97 V	292	72.2	-0.1
2	2390.00	53.1 AV	54.0	-0.9	1.97 V	292	53.2	-0.1
3	*2437.00	125.8 PK			1.97 V	292	126.0	-0.2
4	*2437.00	113.1 AV			1.97 V	292	113.3	-0.2
5	2483.50	67.2 PK	74.0	-6.8	1.97 V	292	67.5	-0.3
6	2483.50	49.8 AV	54.0	-4.2	1.97 V	292	50.1	-0.3
7	4874.00	43.6 PK	74.0	-30.4	1.76 V	272	39.1	4.5
8	4874.00	30.7 AV	54.0	-23.3	1.76 V	272	26.2	4.5
9	7311.00	45.8 PK	74.0	-28.2	1.54 V	318	34.0	11.8
10	7311.00	33.1 AV	54.0	-20.9	1.54 V	318	21.3	11.8

Remarks:

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

RF Mode	802.11be (EHT20)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	113.8 PK			1.24 H	166	114.1	-0.3
2	*2462.00	101.2 AV			1.24 H	166	101.5	-0.3
3	2483.50	61.7 PK	74.0	-12.3	1.24 H	166	62.0	-0.3
4	2483.50	47.8 AV	54.0	-6.2	1.24 H	166	48.1	-0.3
5	4924.00	38.5 PK	74.0	-35.5	3.21 H	22	33.8	4.7
6	4924.00	27.8 AV	54.0	-26.2	3.21 H	22	23.1	4.7
7	7386.00	44.3 PK	74.0	-29.7	1.49 H	250	32.3	12.0
8	7386.00	32.1 AV	54.0	-21.9	1.49 H	250	20.1	12.0
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	*2462.00	122.4 PK			1.81 V	286	122.7	-0.3
2	*2462.00	109.9 AV			1.81 V	286	110.2	-0.3
3	2483.50	68.4 PK	74.0	-5.6	1.81 V	286	68.7	-0.3
4	2483.50	53.7 AV	54.0	-0.3	1.81 V	286	54.0	-0.3
5	4924.00	43.1 PK	74.0	-30.9	1.74 V	269	38.4	4.7
6	4924.00	30.4 AV	54.0	-23.6	1.74 V	269	25.7	4.7
7	7386.00	45.5 PK	74.0	-28.5	1.55 V	318	33.5	12.0
8	7386.00	32.7 AV	54.0	-21.3	1.55 V	318	20.7	12.0

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	802.11be (EHT40)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	69.8 PK	74.0	-4.2	1.24 H	168	69.9	-0.1
2	2390.00	53.3 AV	54.0	-0.7	1.24 H	168	53.4	-0.1
3	*2422.00	110.2 PK			1.24 H	168	110.4	-0.2
4	*2422.00	98.1 AV			1.24 H	168	98.3	-0.2
5	4844.00	38.2 PK	74.0	-35.8	3.22 H	34	33.8	4.4
6	4844.00	27.5 AV	54.0	-26.5	3.22 H	34	23.1	4.4
7	7266.00	44.0 PK	74.0	-30.0	1.48 H	253	32.2	11.8
8	7266.00	31.8 AV	54.0	-22.2	1.48 H	253	20.0	11.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	73.1 PK	74.0	-0.9	1.08 V	291	73.2	-0.1
2	2390.00	53.6 AV	54.0	-0.4	1.08 V	291	53.7	-0.1
3	*2422.00	121.4 PK			1.08 V	291	121.6	-0.2
4	*2422.00	108.8 AV			1.08 V	291	109.0	-0.2
5	4844.00	43.4 PK	74.0	-30.6	1.76 V	278	39.0	4.4
6	4844.00	30.3 AV	54.0	-23.7	1.76 V	278	25.9	4.4
7	7266.00	45.1 PK	74.0	-28.9	1.56 V	344	33.3	11.8
8	7266.00	32.1 AV	54.0	-21.9	1.56 V	344	20.3	11.8

Remarks:

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

RF Mode	802.11be (EHT40)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	60.3 PK	74.0	-13.7	1.41 H	165	60.4	-0.1
2	2390.00	48.7 AV	54.0	-5.3	1.41 H	165	48.8	-0.1
3	*2437.00	112.5 PK			1.41 H	165	112.7	-0.2
4	*2437.00	100.5 AV			1.41 H	165	100.7	-0.2
5	2483.50	60.8 PK	74.0	-13.2	1.41 H	165	61.1	-0.3
6	2483.50	48.3 AV	54.0	-5.7	1.41 H	165	48.6	-0.3
7	4874.00	38.1 PK	74.0	-35.9	3.16 H	24	33.6	4.5
8	4874.00	27.4 AV	54.0	-26.6	3.16 H	24	22.9	4.5
9	7311.00	44.2 PK	74.0	-29.8	1.44 H	237	32.4	11.8
10	7311.00	31.8 AV	54.0	-22.2	1.44 H	237	20.0	11.8
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	67.2 PK	74.0	-6.8	2.09 V	72	67.3	-0.1
2	2390.00	50.8 AV	54.0	-3.2	2.09 V	72	50.9	-0.1
3	*2437.00	122.6 PK			2.09 V	72	122.8	-0.2
4	*2437.00	109.7 AV			2.09 V	72	109.9	-0.2
5	2483.50	67.7 PK	74.0	-6.3	2.09 V	72	68.0	-0.3
6	2483.50	50.9 AV	54.0	-3.1	2.09 V	72	51.2	-0.3
7	4874.00	43.4 PK	74.0	-30.6	1.76 V	267	38.9	4.5
8	4874.00	30.6 AV	54.0	-23.4	1.76 V	267	26.1	4.5
9	7311.00	45.3 PK	74.0	-28.7	1.58 V	328	33.5	11.8
10	7311.00	32.5 AV	54.0	-21.5	1.58 V	328	20.7	11.8

Remarks:

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

RF Mode	802.11be (EHT40)	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 65% RH
Tested By	Wayne 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	109.4 PK			1.24 H	166	109.7	-0.3
2	*2452.00	97.8 AV			1.24 H	166	98.1	-0.3
3	2483.50	62.9 PK	74.0	-11.1	1.24 H	166	63.2	-0.3
4	2483.50	48.7 AV	54.0	-5.3	1.24 H	166	49.0	-0.3
5	4904.00	38.8 PK	74.0	-35.2	3.19 H	38	34.2	4.6
6	4904.00	27.8 AV	54.0	-26.2	3.19 H	38	23.2	4.6
7	7356.00	44.6 PK	74.0	-29.4	1.50 H	232	32.8	11.8
8	7356.00	32.2 AV	54.0	-21.8	1.50 H	232	20.4	11.8
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	120.2 PK			1.85 V	290	120.5	-0.3
2	*2452.00	107.3 AV			1.85 V	290	107.6	-0.3
3	2483.50	65.5 PK	74.0	-8.5	1.85 V	290	65.8	-0.3
4	2483.50	53.3 AV	54.0	-0.7	1.85 V	290	53.6	-0.3
5	4904.00	43.4 PK	74.0	-30.6	1.71 V	281	38.8	4.6
6	4904.00	30.4 AV	54.0	-23.6	1.71 V	281	25.8	4.6
7	7356.00	45.2 PK	74.0	-28.8	1.62 V	313	33.4	11.8
8	7356.00	32.3 AV	54.0	-21.7	1.62 V	313	20.5	11.8

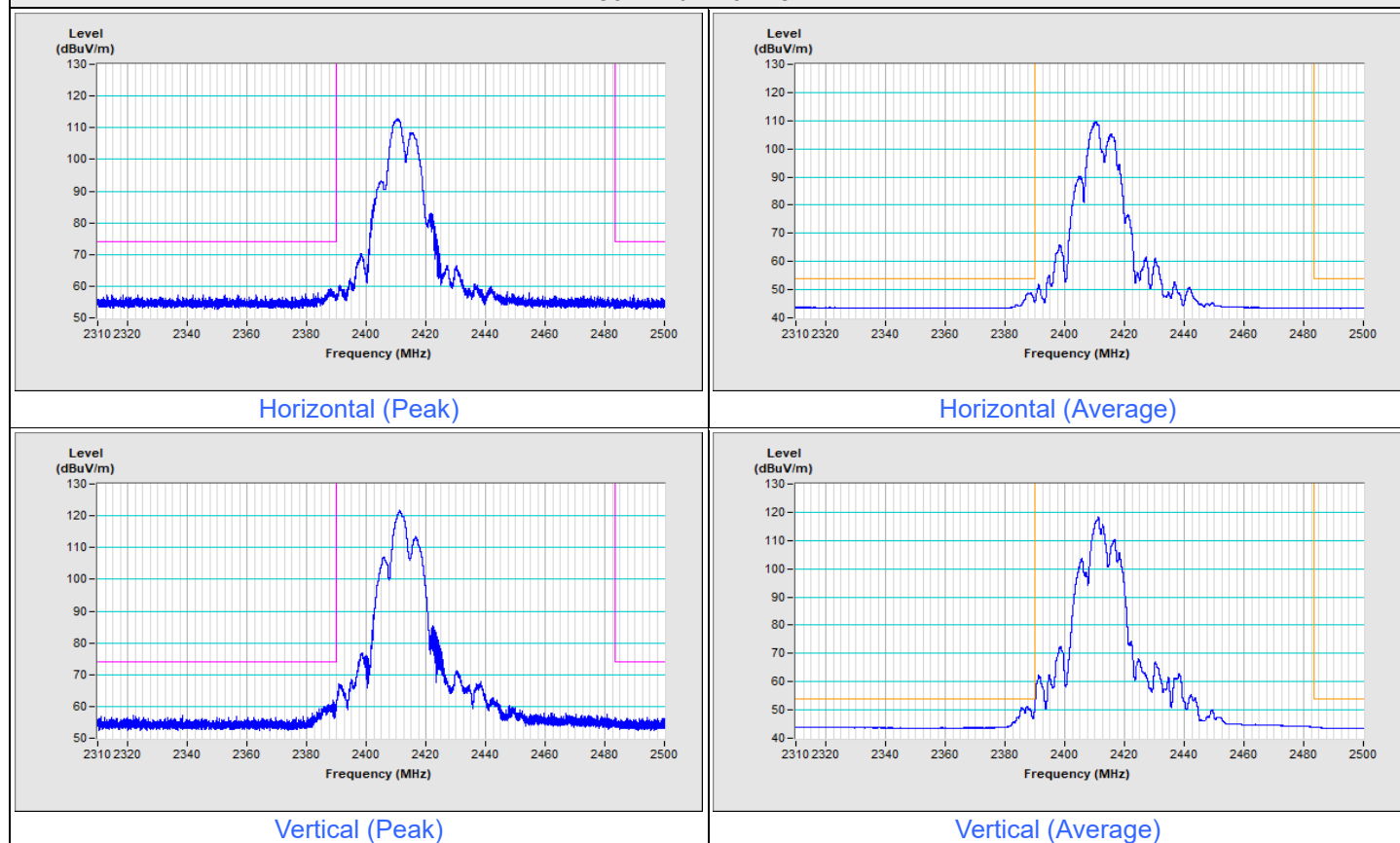
Remarks:

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

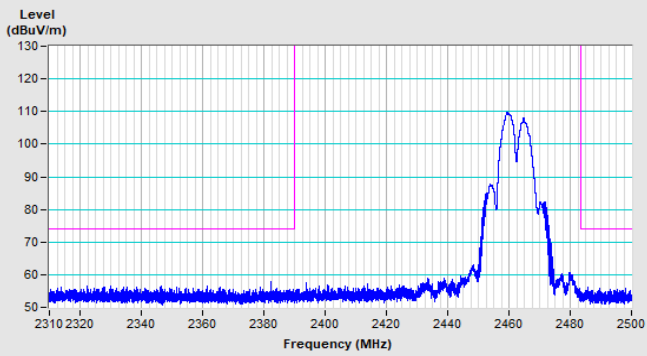
Plot of Band Edge

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=2 kHz, DET=Peak
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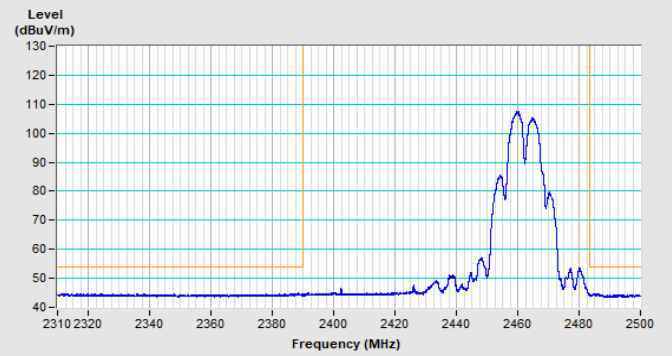
802.11b Channel 1



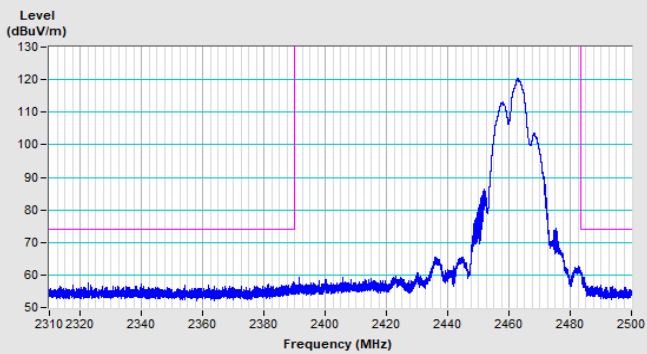
802.11b Channel 11



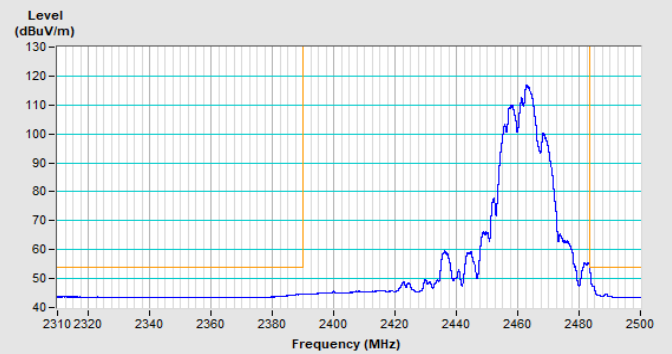
Horizontal (Peak)



Horizontal (Average)

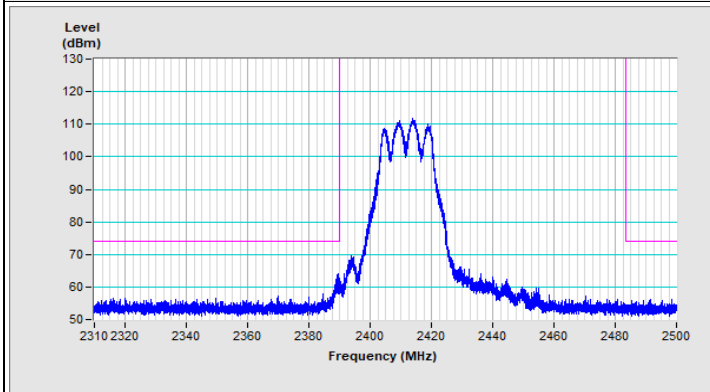


Vertical (Peak)

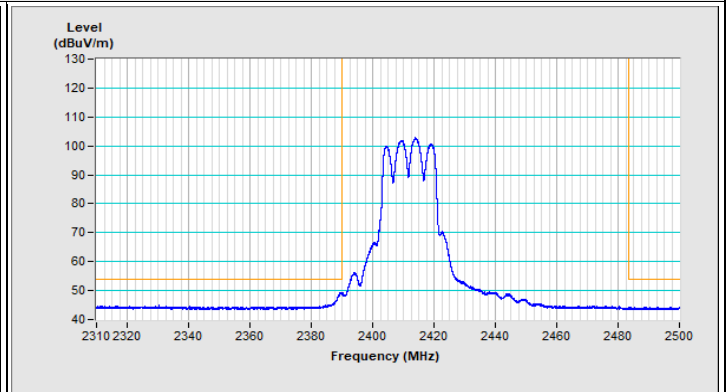


Vertical (Average)

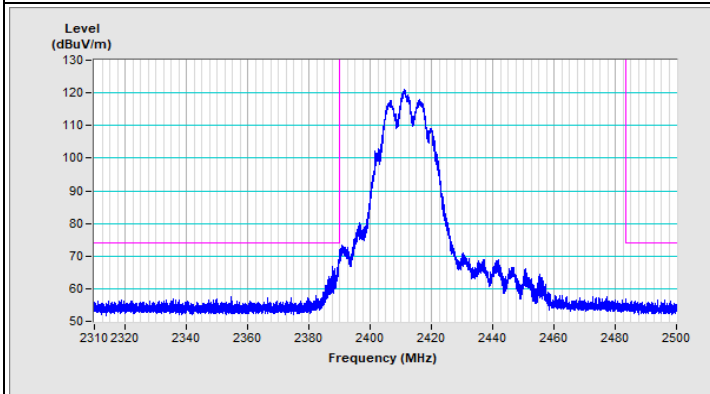
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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802.11g Channel 1

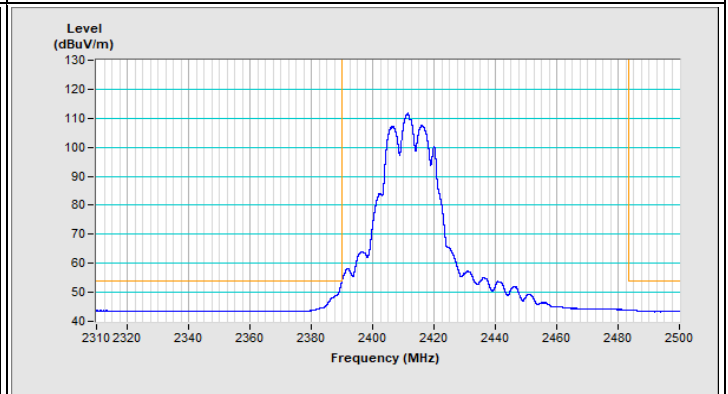
Horizontal (Peak)



Horizontal (Average)

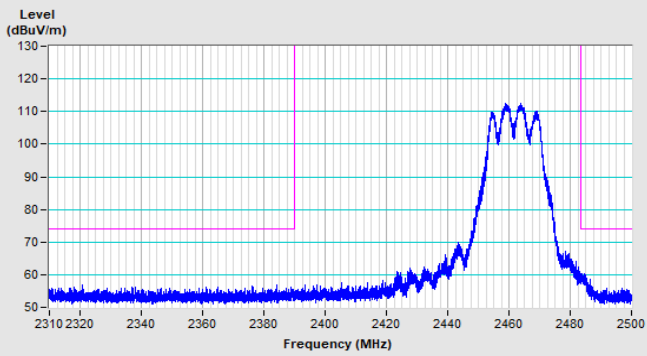


Vertical (Peak)

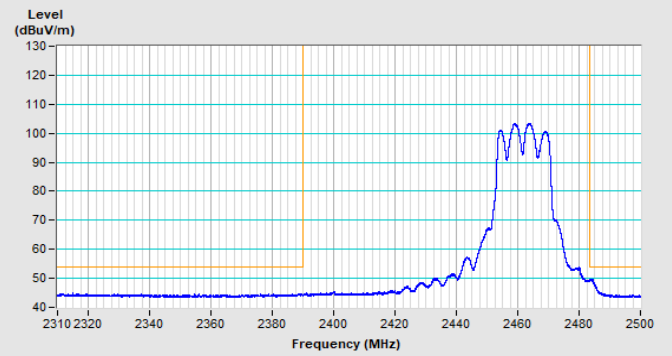


Vertical (Average)

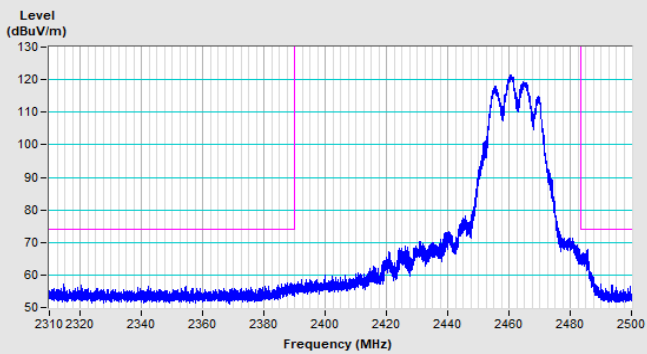
802.11g Channel 11



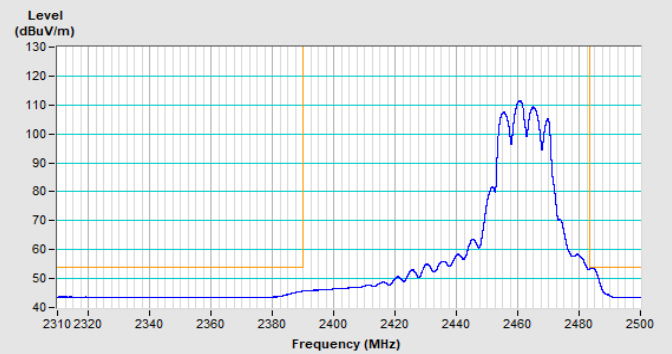
Horizontal (Peak)



Horizontal (Average)



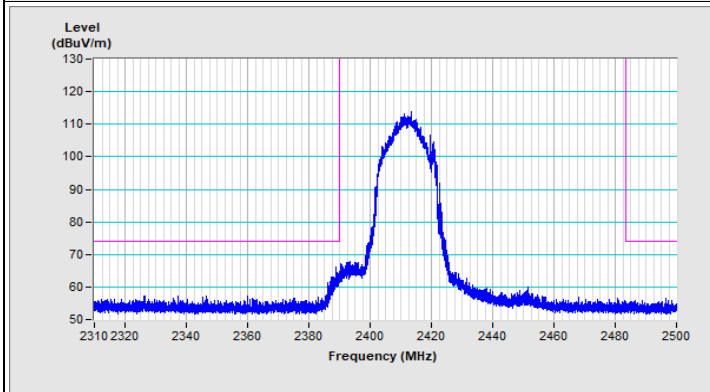
Vertical (Peak)



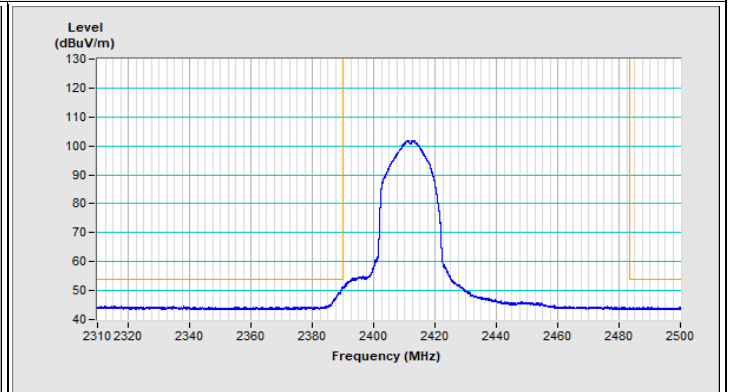
Vertical (Average)

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=10 Hz, DET=Peak
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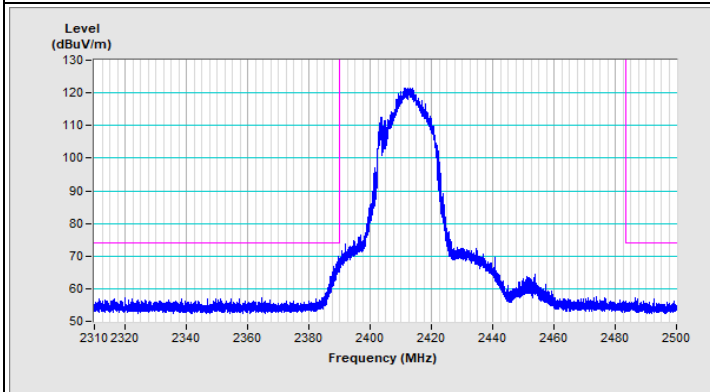
802.11be (EHT20) Channel 1



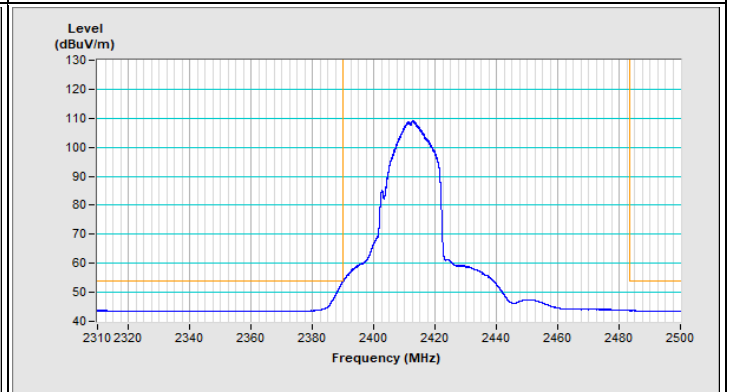
Horizontal (Peak)



Horizontal (Average)

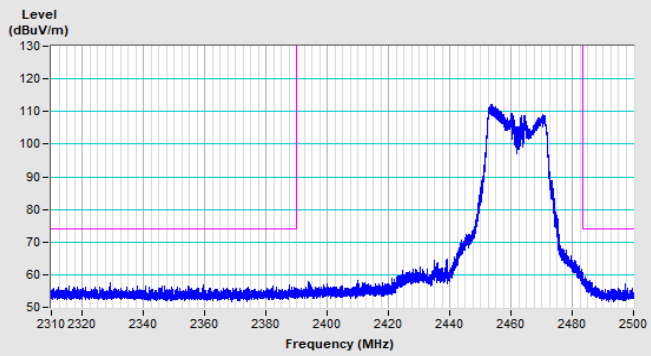


Vertical (Peak)

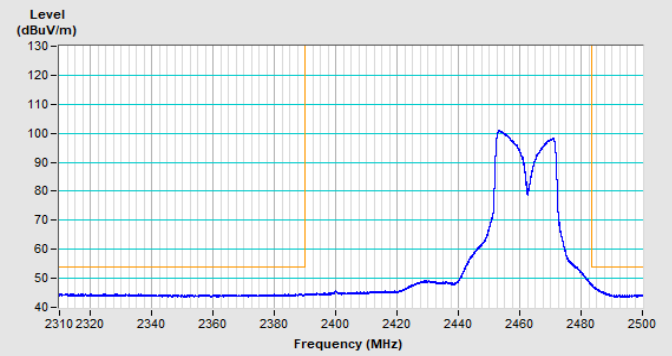


Vertical (Average)

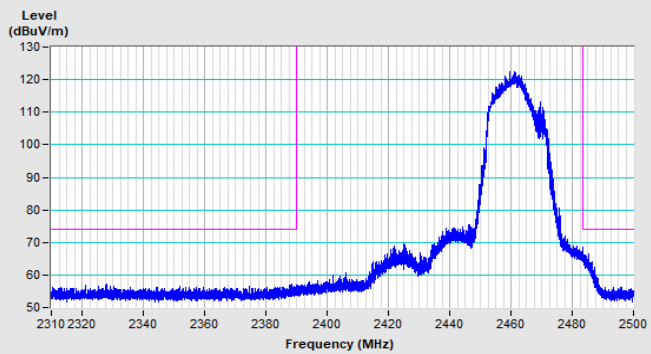
802.11be (EHT20) Channel 11



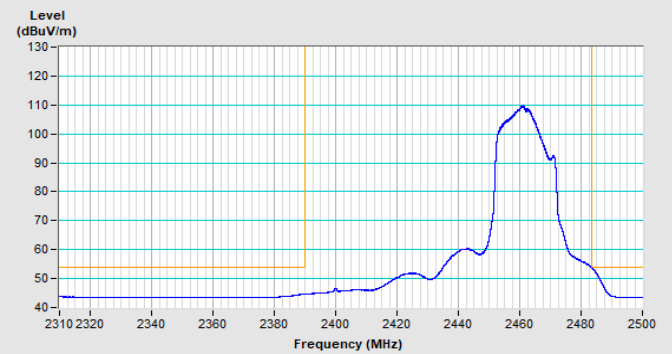
Horizontal (Peak)



Horizontal (Average)



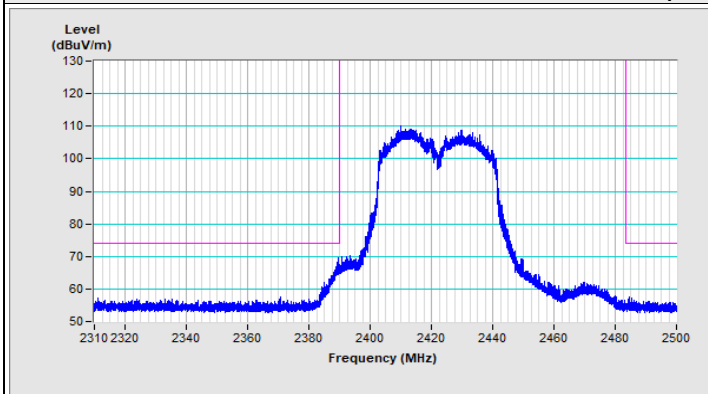
Vertical (Peak)



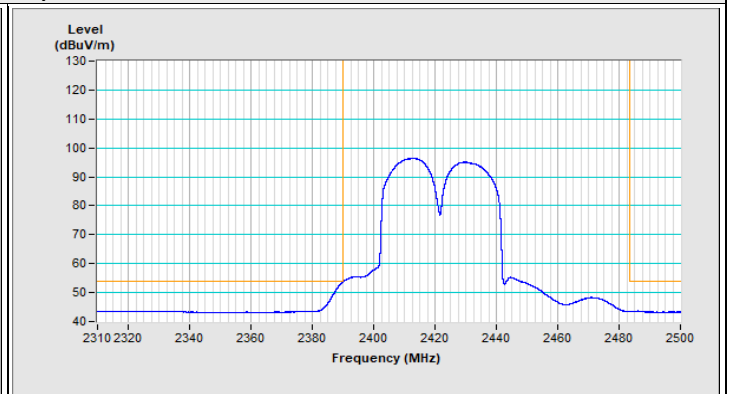
Vertical (Average)

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=10 Hz, DET=Peak
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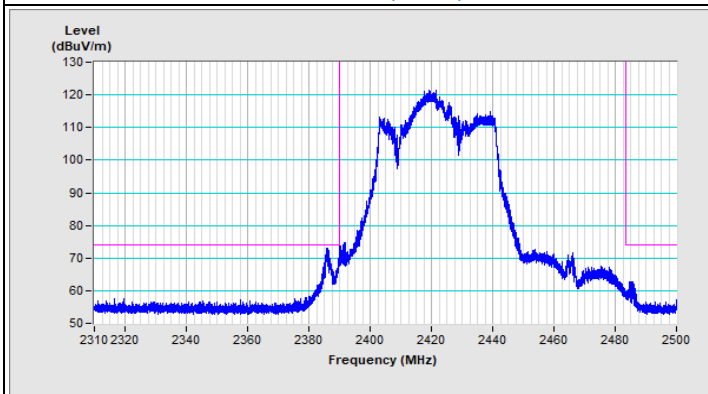
802.11be (EHT40) Channel 3



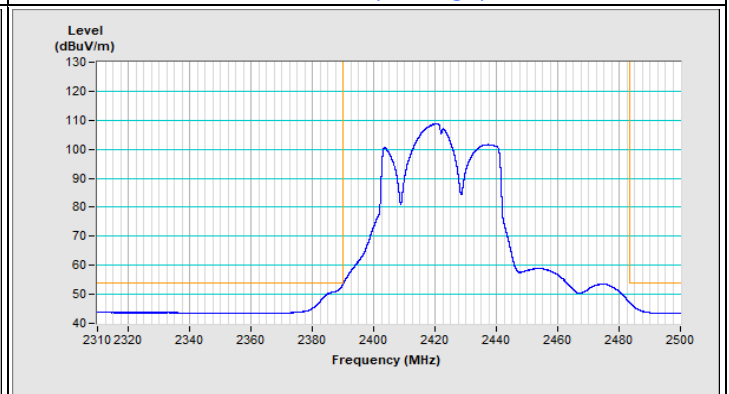
Horizontal (Peak)



Horizontal (Average)

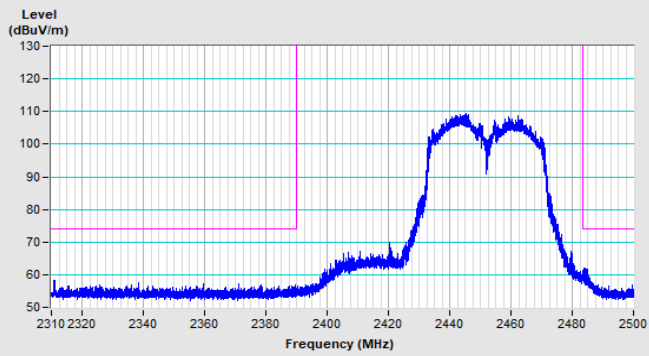


Vertical (Peak)

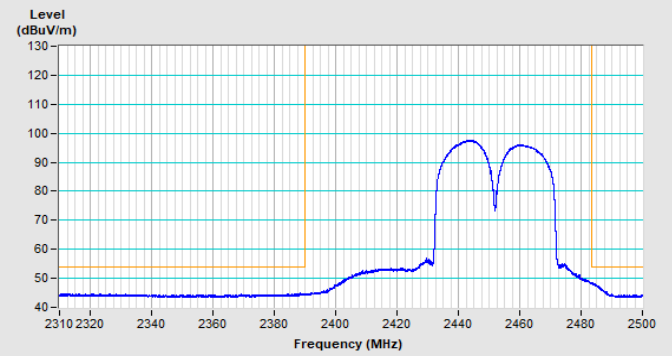


Vertical (Average)

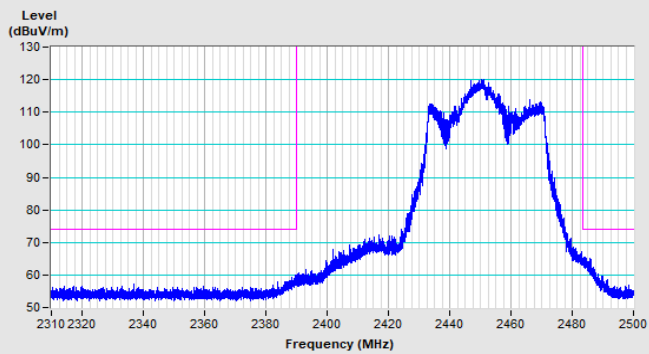
802.11be (EHT40) Channel 9



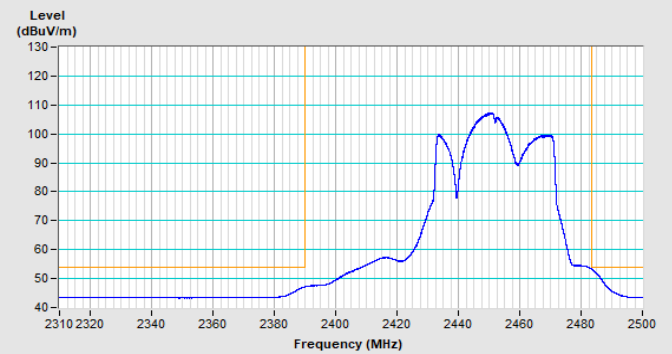
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

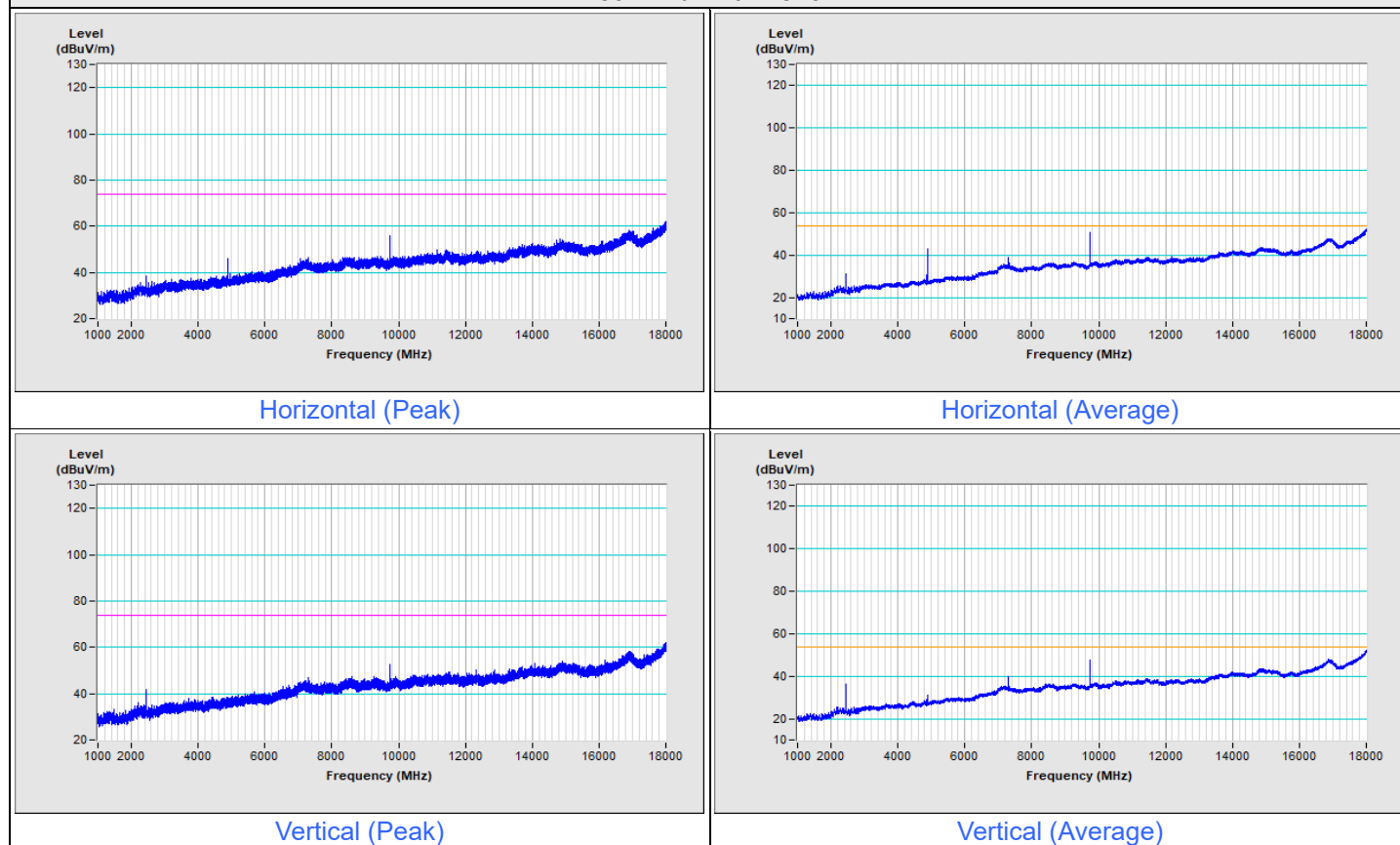


Vertical (Average)

Plot of Other Emission

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11b Channel 6

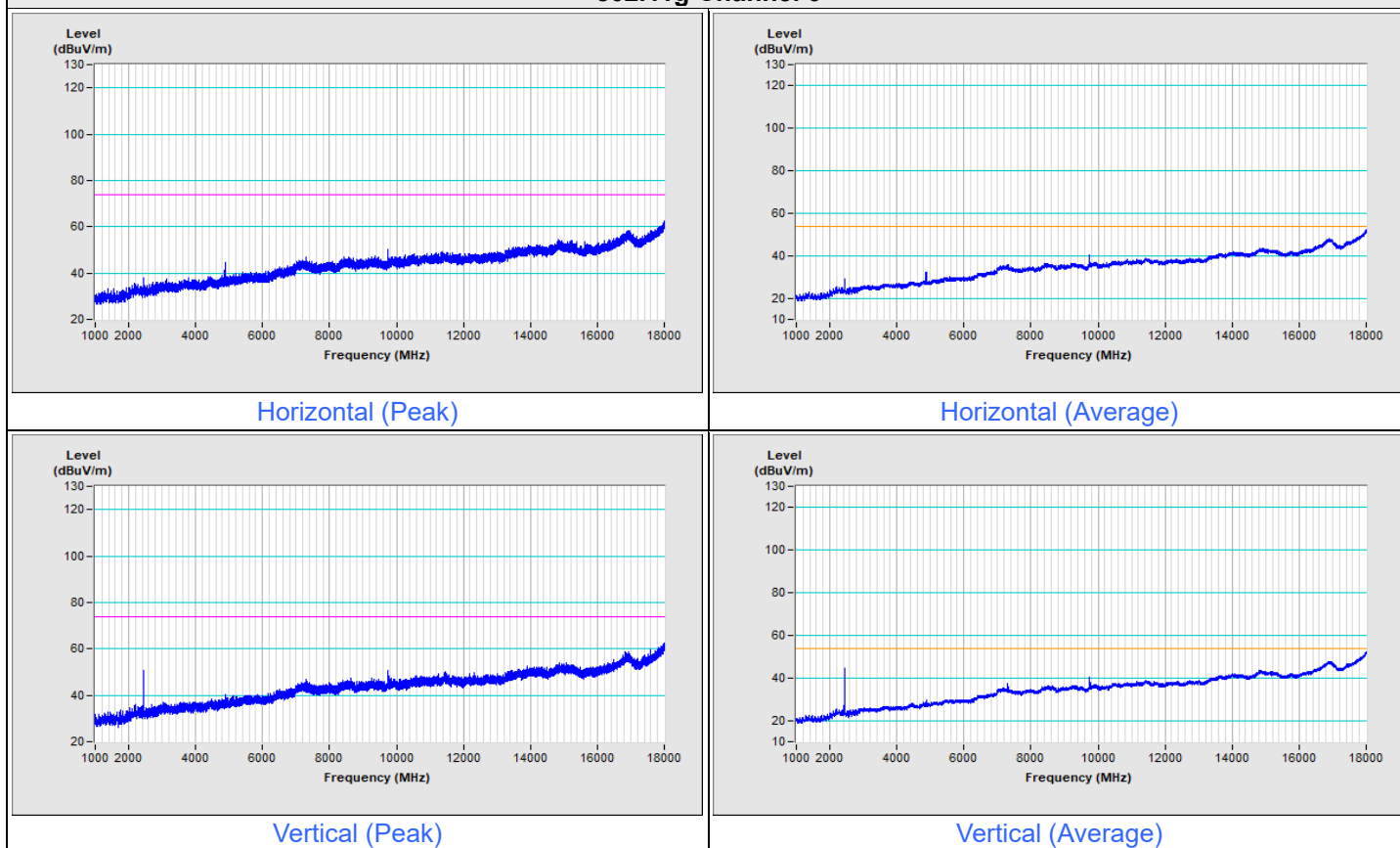


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11g Channel 6

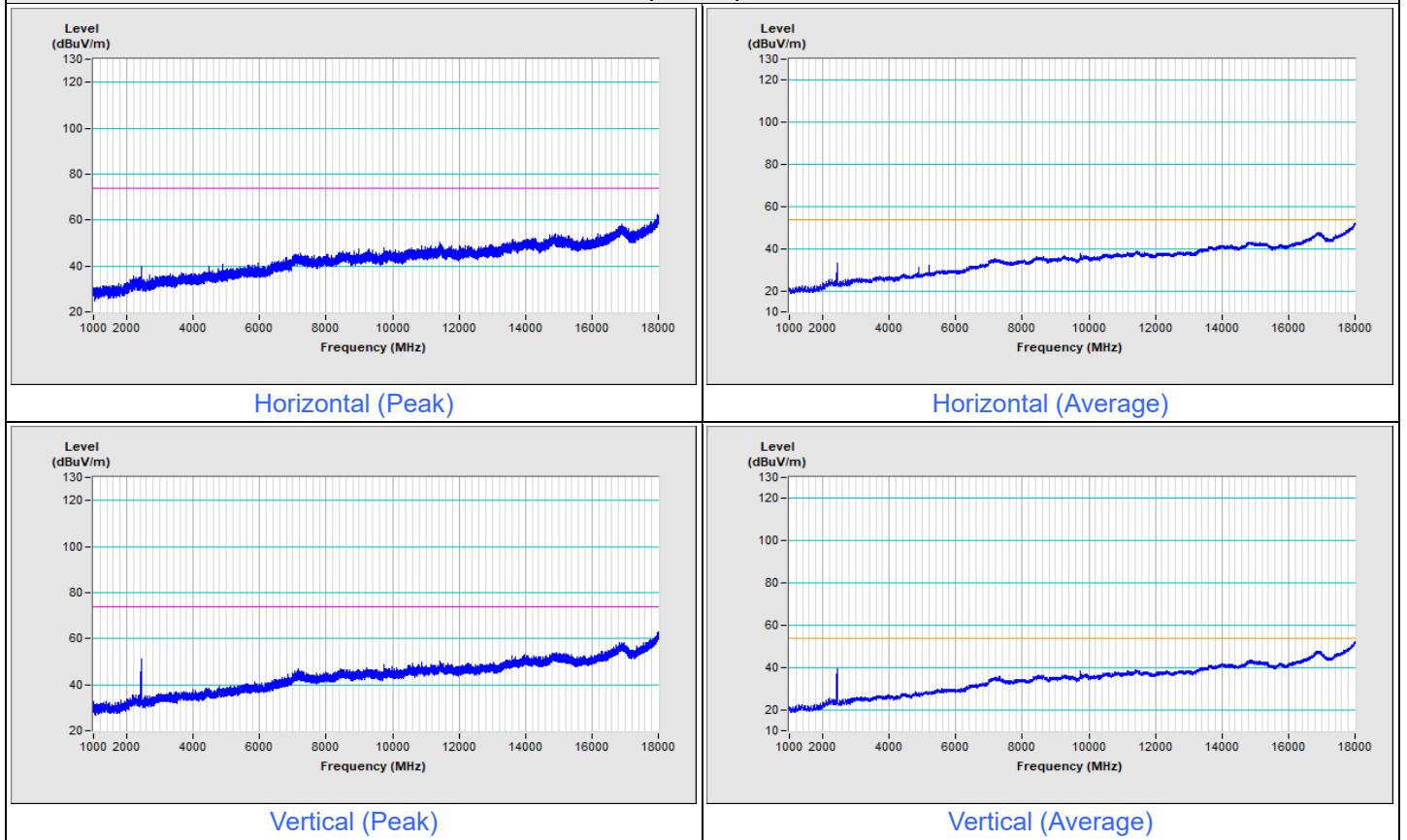


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT20) Channel 6

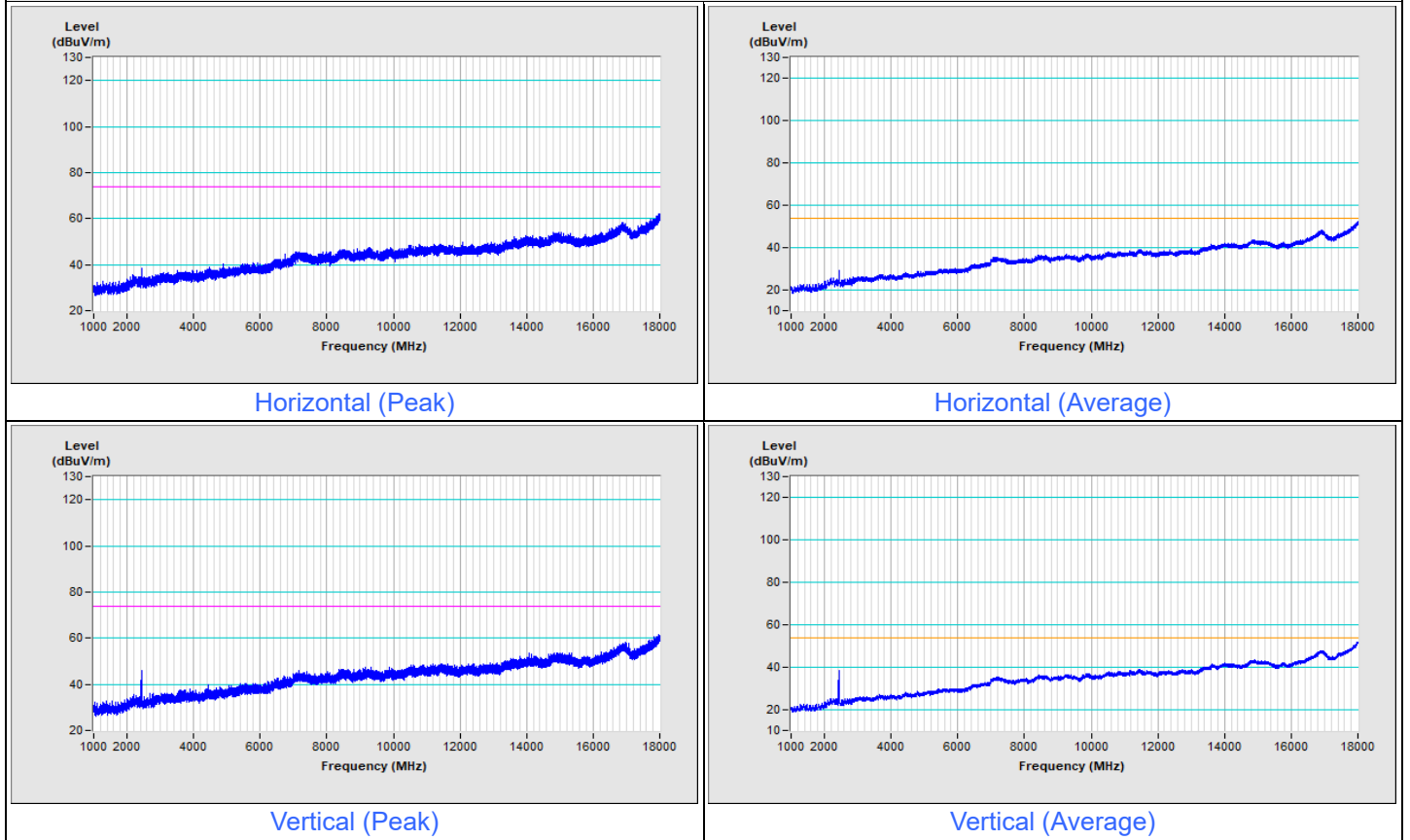


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT40) Channel 6



Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

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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