

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBCMA-WTW-P25030861-1
FCC ID: RAXTMOG5AR
Product: 5G Gateway
Brand: T-Mobile
Model No.: TMO-G5AR
Received Date: 2025/3/24
Test Date: 2025/4/16 ~ 2025/5/16
Issued Date: 2025/5/29
Applicant: Arcadyan Technology Corporation
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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory
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FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____

May Chen / Manager

, Date: 2025/5/29

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Prepared by : Phoenix Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P25030861-1	Original release.	2025/5/29

1 Certificate

Product: 5G Gateway

Brand: T-Mobile

Test Model: TMO-G5AR

Sample Status: Engineering sample

Applicant: Arcadyan Technology Corporation

Test Date: 2025/4/16 ~ 2025/5/16

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

Measurement procedure: ANSI C63.10-2013
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 -6.31 dB at 0.41903 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -12.4 dB at 918.84 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 MHF1 not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
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	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	5G Gateway
Brand	T-Mobile
Test Model	TMO-G5AR
Status of EUT	Engineering sample
Power Supply Rating	20 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 600 Mbps VHT: up to 800 Mbps 802.11ax: up to 1147.1 Mbps 802.11be: up to 1376.5 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
Output Power	CDD Mode: 994.071 mW (29.97 dBm) Beamforming Mode: 929.001 mW (29.68 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	MOSO	P30-V3000R200-060Q0-US	AC Input: 100~240 Vac, 1.7 A, 50/60 Hz DC Output: 5.0 Vdc, 3.0 A; 9.0 Vdc, 3.0 A; 12.0 Vdc, 3.0 A; 15.0 Vdc, 3.0 A; 20.0 V, 3.0 A DC Output Cable: 1.85 m, non-shielded cable, W/O ferrite core Plug: US
AC Adapter 2	MASS POWER	PD065E-D1C0AVU	AC Input: 100~240 Vac, 1.5 A, 50/60 Hz DC Output: 5.0 Vdc, 3.0 A, 9.0 Vdc, 3.0 A; 12.0 Vdc, 3.0 A; 15.0 Vdc, 3.0 A; 20.0 Vdc, 2.25 A DC Output Cable: 1.8 m, non-shielded cable, W/O ferrite core Plug: US

2. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4	Radio 5	Radio 6
WLAN (2.4GHz + 5GHz)	WLAN (6 GHz)	BT-LE / 802.15.4 (Zigbee/Open Thread/Matter)	BT-LE	GPS	WWAN

3. Simultaneously transmission combination.

Combination	Technology
1	WLAN (2.4 GHz) + WLAN (5 GHz) + WLAN (6 GHz) + 802.15.4 (Zigbee/Open Thread/Matter) + BT-LE + WWAN (LTE)
2	WLAN (2.4 GHz) + WLAN (5 GHz) + WLAN (6 GHz) + 802.15.4 (Zigbee/Open Thread/Matter) + BT-LE + WWAN (5G NR)

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.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
D_1	0	ARC	120800157500J	3.43	2.4~2.4835	Dipole	MHF1
				3.21	5.15~5.25		
				3.4	5.25~5.35		
				3.24	5.47~5.725		
				3.67	5.725~5.85		
D_2	1	ARC	120800157600J	3.51	2.4~2.4835	Dipole	MHF1
				4.02	5.15~5.25		
				3.78	5.25~5.35		
				3.57	5.47~5.725		
				3.56	5.725~5.85		
D_3	2	ARC	120800157700J	3.67	2.4~2.4835	Dipole	MHF1
				4.08	5.15~5.25		
				4.13	5.25~5.35		
				4.62	5.47~5.725		
				4.23	5.725~5.85		
D_4	3	ARC	120800157800J	3.57	2.4~2.4835	Dipole	MHF1
				3.45	5.15~5.25		
				3.45	5.25~5.35		
				3.52	5.47~5.725		
				3.55	5.725~5.85		

* 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 Gain (dBi)
2.4~2.4835	5.99
5.15~5.25	5.78
5.725~5.85	6.52

3. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
VHT20	4TX	4RX
VHT40	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11be (EHT20)	4TX	4RX
802.11be (EHT40)	4TX	4RX

Note:

- All of modulation mode support beamforming function except 802.11b/g modulation mode.
- The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 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: P30-V3000R200-060Q0-US / PD065E-D1C0AVU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. AC Adapter worst condition: P30-V3000R200-060Q0-US

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		1, 6, 11	BPSK	6Mb/s
	VHT20	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	VHT40		3, 6, 9	BPSK	MCS0
	802.11be (EHT20)		1, 6, 11	BPSK	MCS0
	802.11be (EHT40)		3, 6, 9	BPSK	MCS0
Power Spectral Density	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)		1, 6, 11	BPSK	MCS0
	802.11be (EHT40)		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
	802.11be (EHT20)		1, 6, 11	BPSK	MCS0
	802.11be (EHT40)		3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11b	CDD	11	DBPSK	1Mb/s
Unwanted Emissions below 1 GHz	802.11b	CDD	11	DBPSK	1Mb/s
Unwanted Emissions above 1 GHz	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g		1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)		1, 6, 11	BPSK	MCS0
	802.11be (EHT40)		3, 6, 9	BPSK	MCS0

Note: Partial RU (resource unit) and channel puncturing mechanisms are not supported.

3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = 8.386 ms / 8.454 ms x 100% = 99.2%

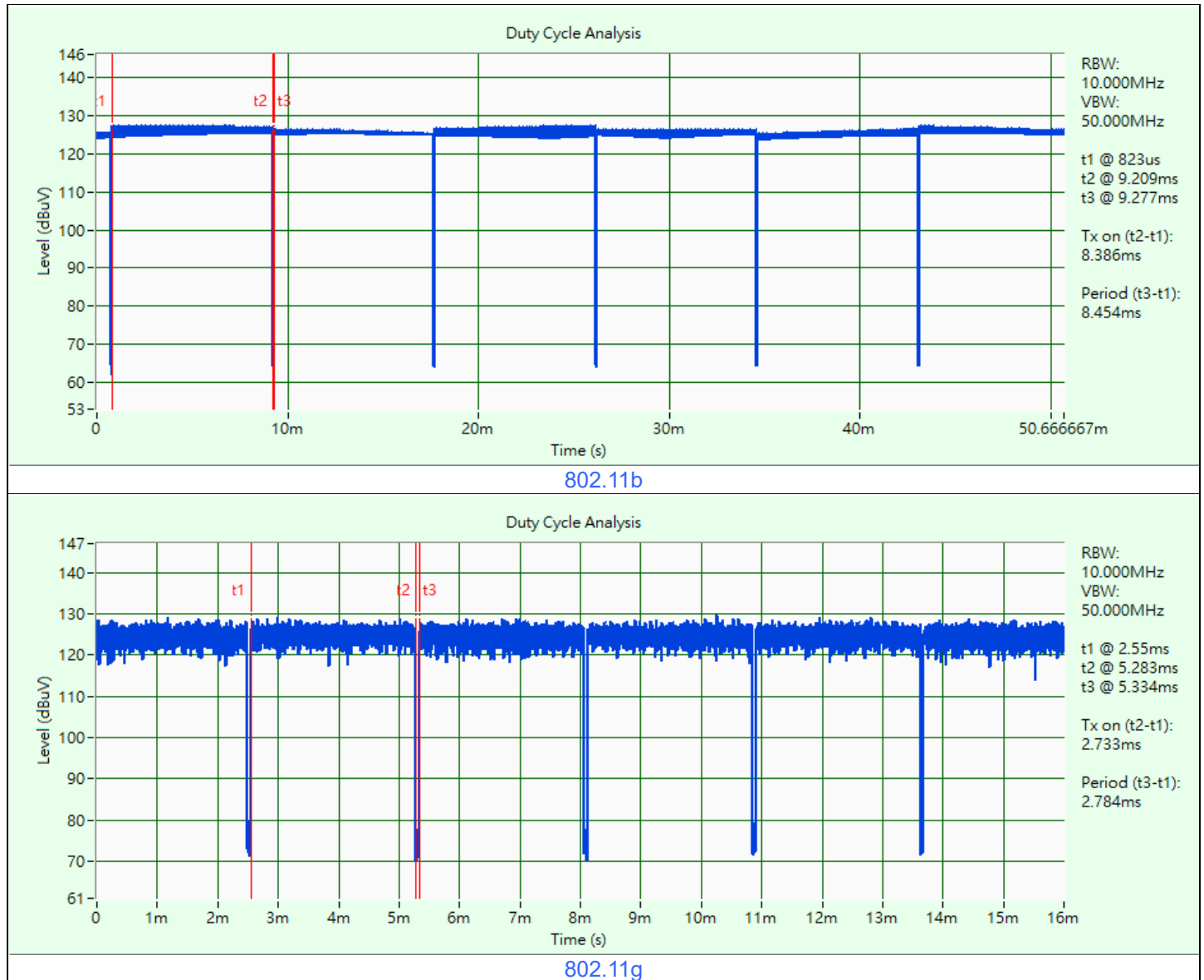
802.11g: Duty cycle = 2.733 ms / 2.784 ms x 100% = 98.2%

VHT20: Duty cycle = 3.948 ms / 4 ms x 100% = 98.7%

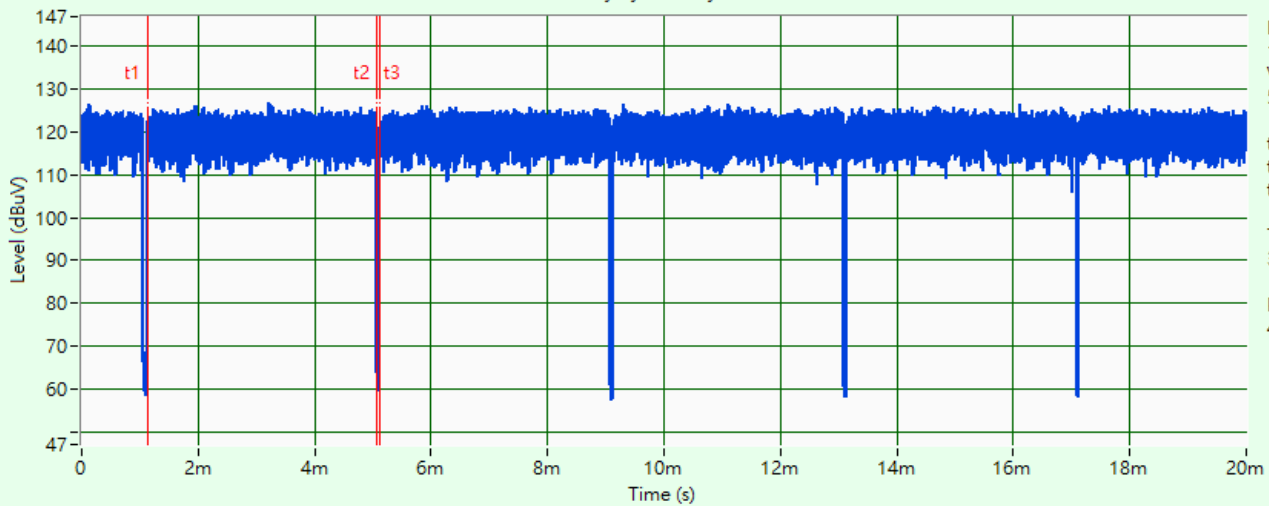
VHT40: Duty cycle = 3.949 ms / 3.999 ms x 100% = 98.7%

802.11be (EHT20): Duty cycle = 3.948 ms / 4 ms x 100% = 98.7%

802.11be (EHT40): Duty cycle = 3.949 ms / 3.999 ms x 100% = 98.7%

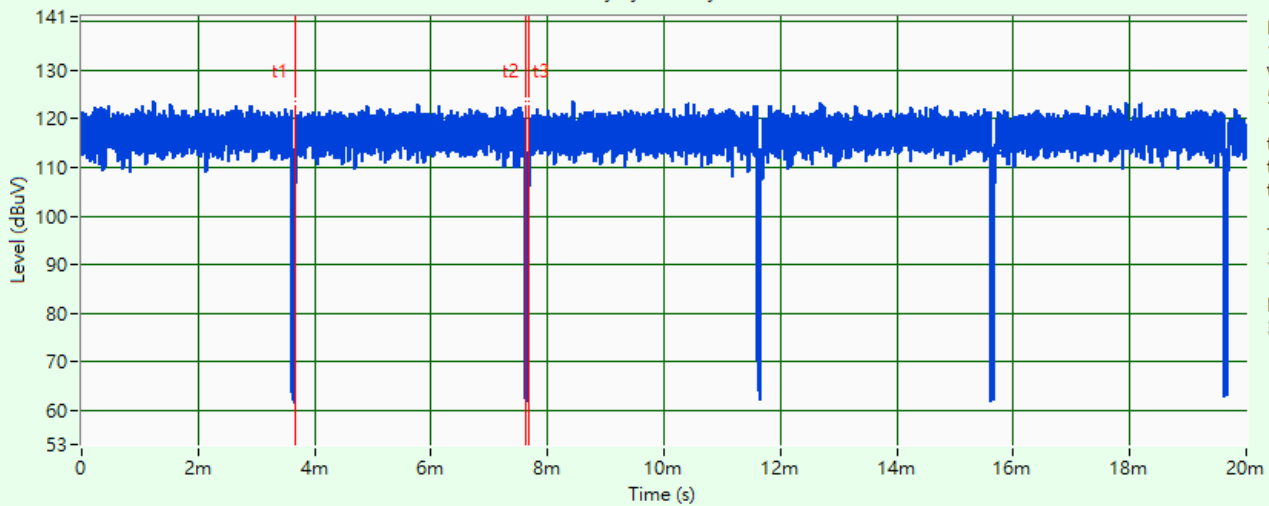


Duty Cycle Analysis



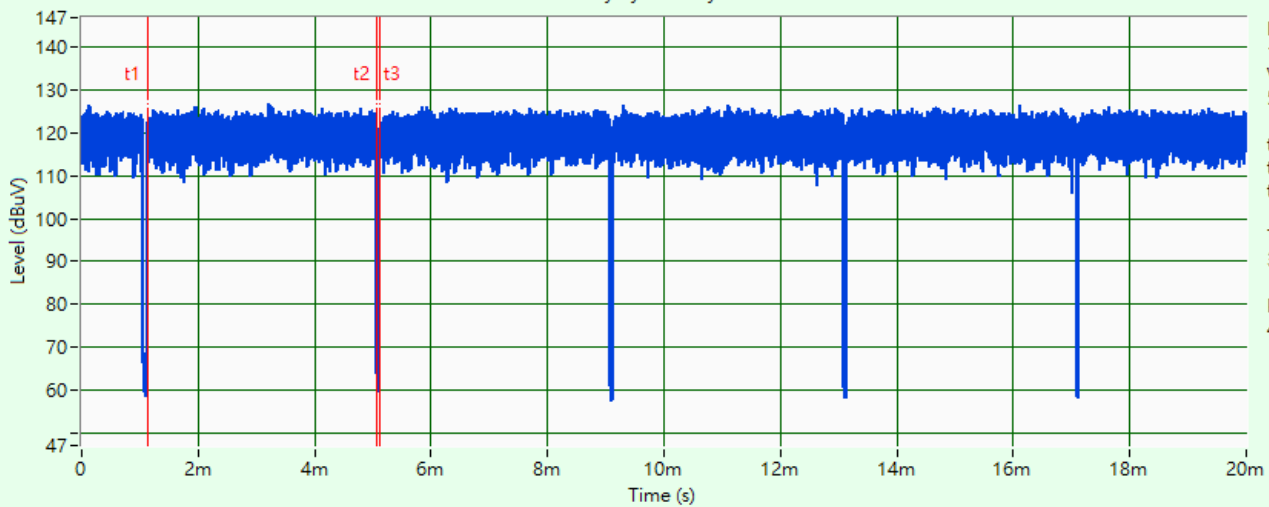
VHT20

Duty Cycle Analysis

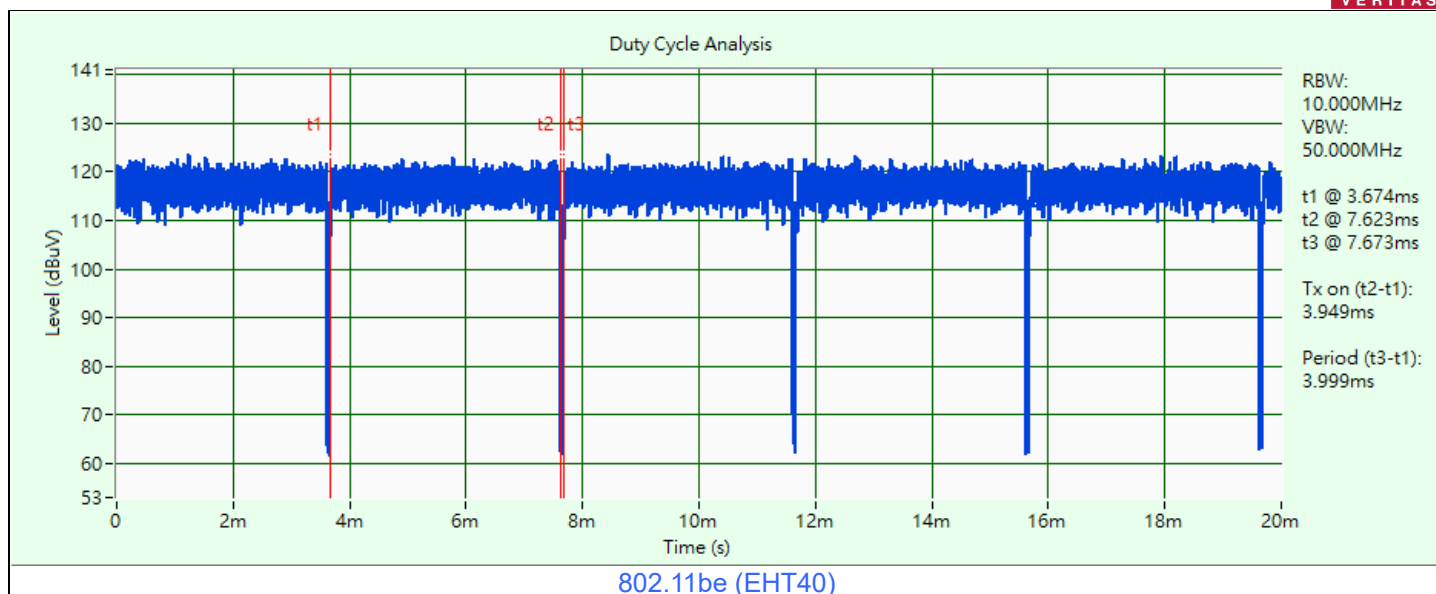


VHT40

Duty Cycle Analysis



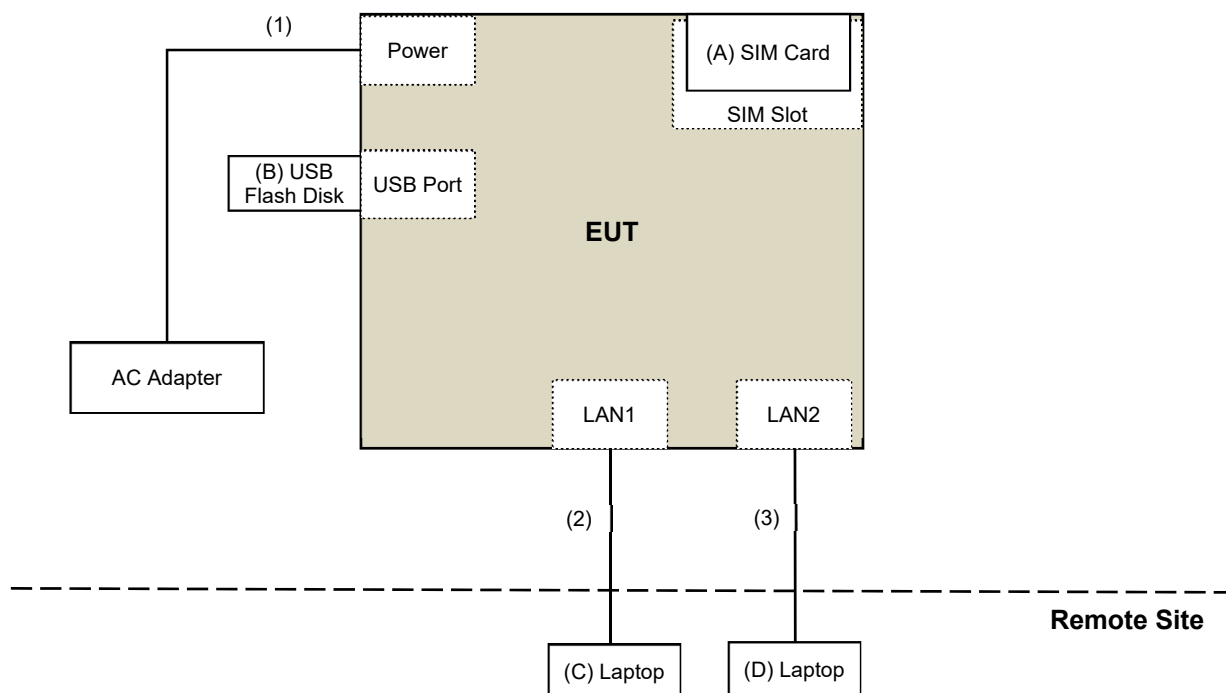
802.11be (EHT20)



3.6 Test Program Used and Operation Descriptions

Controlling software (Qatool Version 0.0.2.99) 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	SIM Card	KeysSight	E7515-10910	N/A	N/A	Provided by Lab
B	USB	SANDISK	Ultra Luxe	N/A	N/A	Provided by Lab
C	Laptop	Lenovo	20U5S01X00 L14	PF-28LKK7	N/A	Provided by Lab
D	Laptop	DELL	E6420	H62T3R1	DoC	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.85	No	0	Supplied by applicant
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	1	10	No	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Pulse Power Sensor Anritsu	MA2411B	1726434	2024/6/7	2025/6/6
RF Power Meter Anritsu	ML2495A	1529002	2024/6/7	2025/6/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/5/11

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030A	MY55410176	2024/6/12	2025/6/11
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/5/11

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	2024/11/1	2025/10/31
EMI Test Receiver R&S	ESCS 30	100375	2024/5/20	2025/5/19
Fixed Attenuator STI	STI02-2200-10	005	2025/2/17	2026/2/16
LISN R&S	ESH3-Z5	835239/001	2025/3/27	2026/3/26
		848773/004	2024/10/7	2025/10/6
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2025/2/17	2026/2/16
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2025/5/16

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0842	2024/10/8	2025/10/7
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2025/3/29	2026/3/28
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
Preamplifier EMCI	EMC330N	980538	2025/3/29	2026/3/28
	EMC001340	980142	2025/2/17	2026/2/16
PXA Signal Analyzer Keysight	N9030B	MY57141948	2024/5/20	2025/5/19
RF Coaxial Cable PEWC	8D	966-5-1	2025/3/29	2026/3/28
		966-5-2	2025/3/29	2026/3/28
		966-5-3	2025/3/29	2026/3/28
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/5/15

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
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1819	2024/11/10	2025/11/9
	BBHA 9170	9170-739	2024/11/10	2025/11/9
Preamplifier EMCI	EMC12630SE	980509	2025/1/18	2026/1/17
	EMC184045SE	980387	2024/8/8	2025/8/7
PXA Signal Analyzer Keysight	N9030B	MY57141948	2024/5/20	2025/5/19
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2025/1/24	2026/1/23
	EMC102-KM-KM-4000	200214	2025/1/24	2026/1/23
	EMC104-SM-SM-1500	180503	2025/3/8	2026/3/7
	EMC104-SM-SM-2000	180501	2025/3/8	2026/3/7
	EMC104-SM-SM-6000	180506	2025/3/8	2026/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/4/16 ~ 2025/5/14

5 Limits of Test Items

5.1 RF Output Power

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

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

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

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

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

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

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

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

5.5 AC Power Conducted Emissions

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

Notes:

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

5.6 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.7 Unwanted Emissions above 1 GHz

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

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

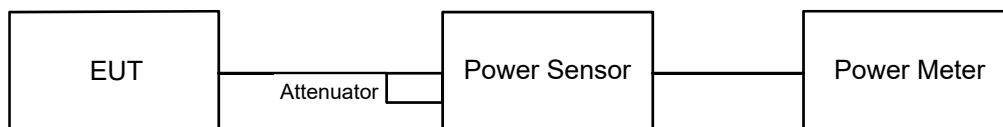
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



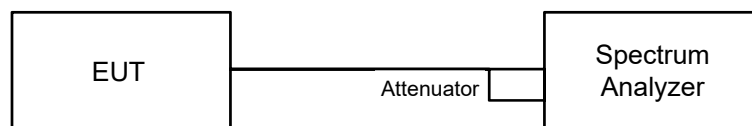
6.1.2 Test Procedure

Average Power:

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

6.2 Power Spectral Density

6.2.1 Test Setup



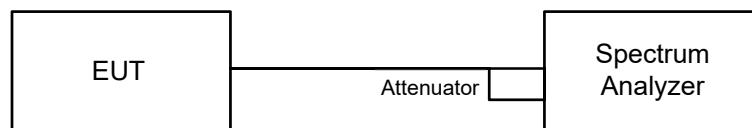
6.2.2 Test Procedure

- Measure the duty cycle (x).
- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: 3 kHz.
- Set VBW $\geq 3 \times$ RBW.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times$ 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

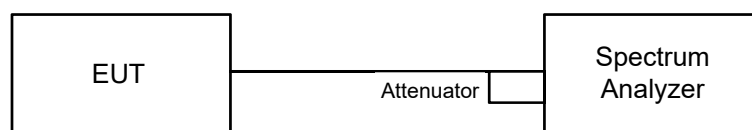


6.3.2 Test Procedure

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

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

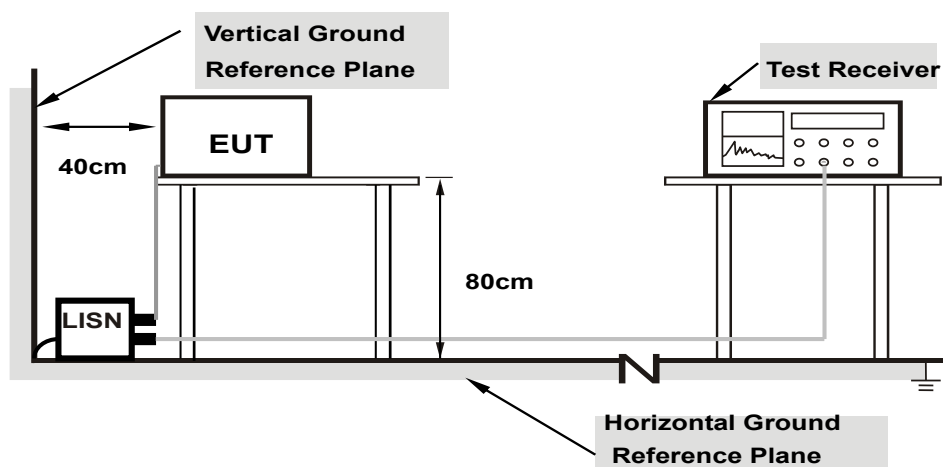
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

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

6.5 AC Power Conducted Emissions

6.5.1 Test Setup



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

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

6.5.2 Test Procedure

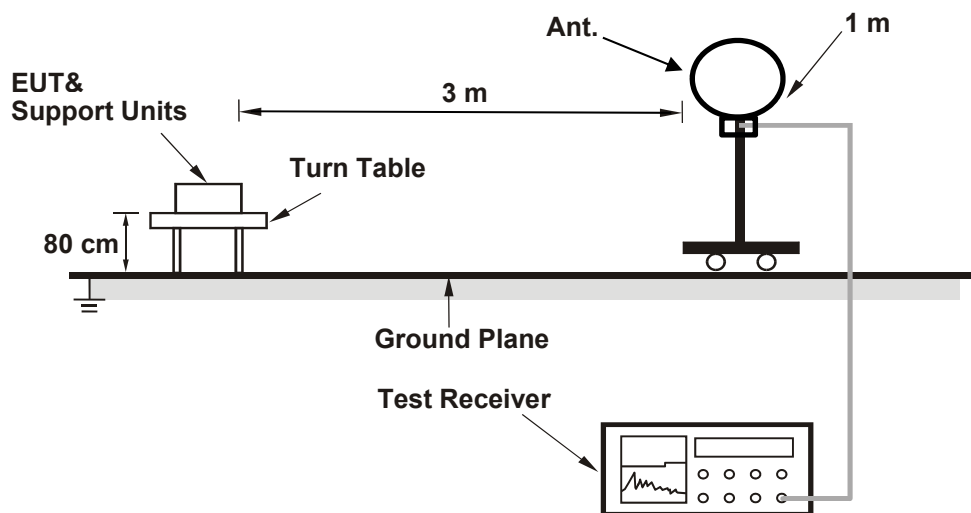
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

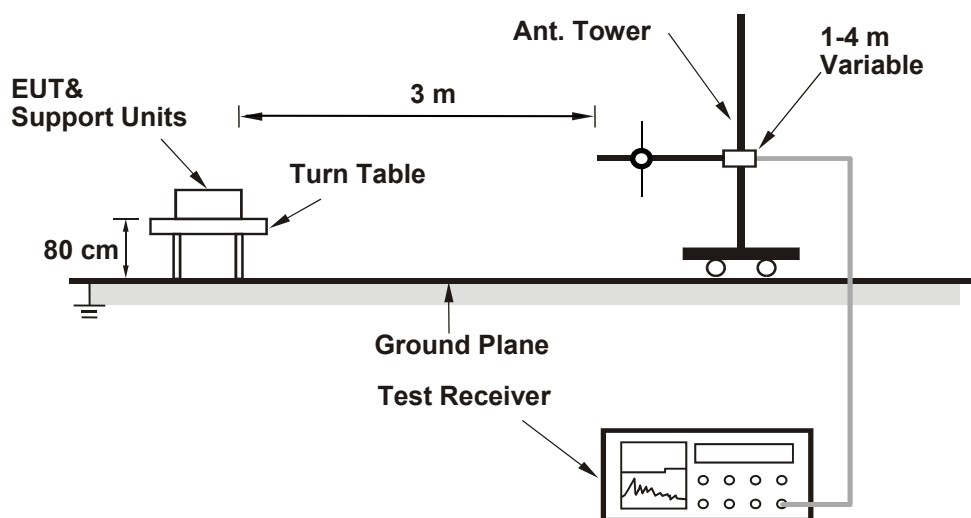
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

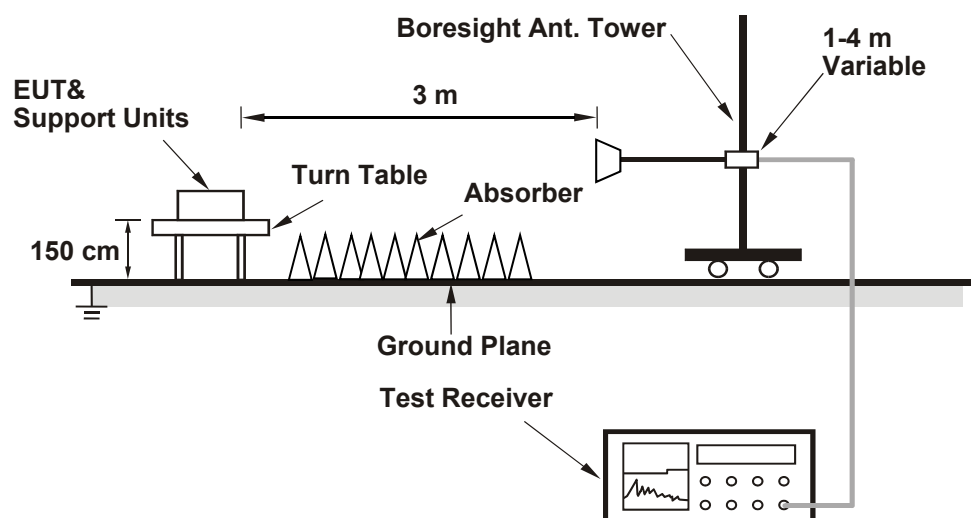
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 RF Output Power

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

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.81	24.34	23.86	23.69	989.184	29.95	30	Pass
6	2437	23.48	24.17	23.74	23.52	945.557	29.76	30	Pass
11	2462	23.92	24.06	24.02	23.81	994.071	29.97	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	21.89	22.33	21.92	21.45	620.76	27.93	30	Pass
6	2437	23.84	24.16	23.77	23.82	981.941	29.92	30	Pass
11	2462	20.75	20.76	20.92	20.47	472.999	26.75	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	20.89	21.22	20.39	20.51	477.034	26.79	30	Pass
6	2437	23.39	23.95	23.45	23.34	903.67	29.56	30	Pass
11	2462	20.05	20.13	20.22	20.05	410.551	26.13	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	19.59	19.84	19.59	19.32	363.872	25.61	30	Pass
6	2437	20.63	20.87	21.18	21.10	497.836	26.97	30	Pass
9	2452	19.19	19.51	19.17	18.89	332.366	25.22	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	21.02	21.42	20.69	20.71	500.129	26.99	30	Pass
6	2437	23.59	24.25	23.75	23.64	962.976	29.84	30	Pass
11	2462	20.35	20.33	20.52	20.25	434.932	26.38	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11be (EHT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	19.84	20.06	19.79	19.55	383.211	25.83	30	Pass
6	2437	20.86	21.11	21.38	21.31	523.632	27.19	30	Pass
9	2452	19.41	19.72	19.37	19.11	349.021	25.43	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.67 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	20.75	21.08	20.18	20.36	459.958	26.63	30	Pass
6	2437	23.25	23.81	23.24	23.19	871.097	29.40	30	Pass
11	2462	19.91	19.99	20.01	19.90	395.673	25.97	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 5.99 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	19.45	19.64	19.39	19.19	350.031	25.44	30	Pass
6	2437	20.49	20.67	20.98	20.97	478.965	26.80	30	Pass
9	2452	19.05	19.31	18.97	18.76	319.711	25.05	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 5.99 dBi < 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	Chain 2	Chain 3				
1	2412	20.83	21.30	20.53	20.55	482.437	26.83	30	Pass
6	2437	23.40	24.13	23.59	23.48	929.001	29.68	30	Pass
11	2462	20.16	20.21	20.36	20.09	419.444	26.23	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 5.99 dBi < 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	Chain 2	Chain 3				
3	2422	19.66	19.87	19.60	19.37	367.219	25.65	30	Pass
6	2437	20.68	20.92	21.19	21.13	501.785	27.01	30	Pass
9	2452	19.23	19.53	19.18	18.93	334.453	25.24	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 5.99 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
1	2412	-7.54	-6.92	-6.80	-7.75	-1.21	8	Pass
6	2437	-8.58	-7.87	-7.89	-8.83	-2.25	8	Pass
11	2462	-7.92	-7.89	-7.42	-7.83	-1.74	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 5.99 dBi < 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	Chain 2	Chain 3			
1	2412	-12.87	-12.88	-11.83	-12.47	-6.47	8	Pass
6	2437	-10.27	-10.58	-10.05	-10.28	-4.27	8	Pass
11	2462	-13.73	-13.24	-13.57	-12.56	-7.23	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 5.99 dBi < 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	Chain 2	Chain 3			
1	2412	-15.39	-14.91	-14.56	-15.26	-9.00	8	Pass
6	2437	-11.36	-11.40	-11.54	-12.08	-5.57	8	Pass
11	2462	-14.69	-15.25	-14.78	-14.90	-8.88	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 5.99 dBi < 6 dBi, so the power density limit shall not be reduced.

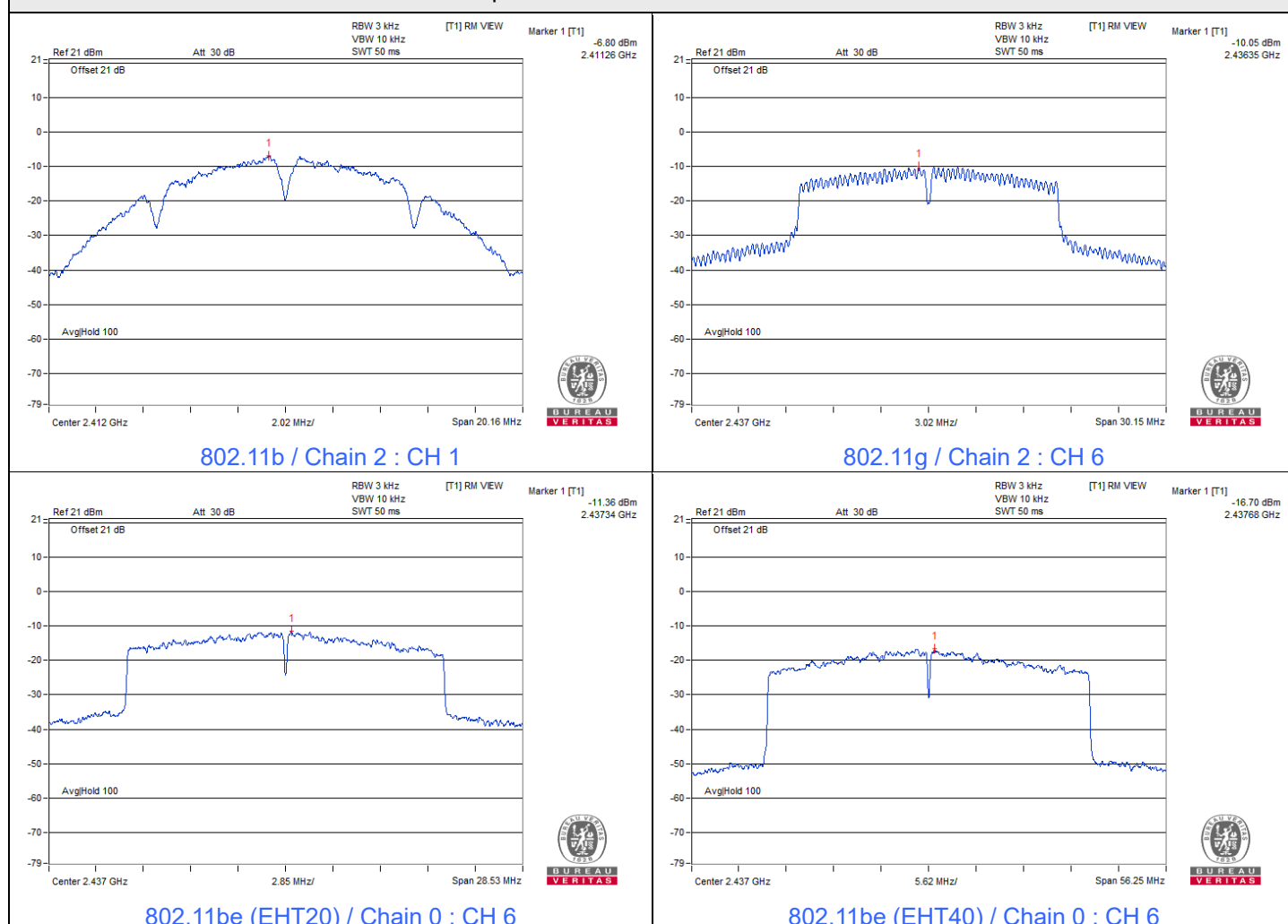
802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)				Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
3	2422	-17.64	-17.76	-17.36	-17.73	-11.60	8	Pass
6	2437	-16.70	-17.10	-16.79	-17.03	-10.88	8	Pass
9	2452	-18.83	-18.56	-18.08	-18.35	-12.43	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 5.99 dBi < 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:	25°C, 60% RH	Tested By:	Chun Wu
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802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	8.05	7.58	8.56	8.57	0.5	Pass
6	2437	7.59	7.54	8.08	8.54	0.5	Pass
11	2462	8.08	8.06	7.61	8.08	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.70	15.91	15.11	15.14	0.5	Pass
6	2437	15.34	15.72	15.16	15.49	0.5	Pass
11	2462	15.12	15.13	15.15	15.10	0.5	Pass

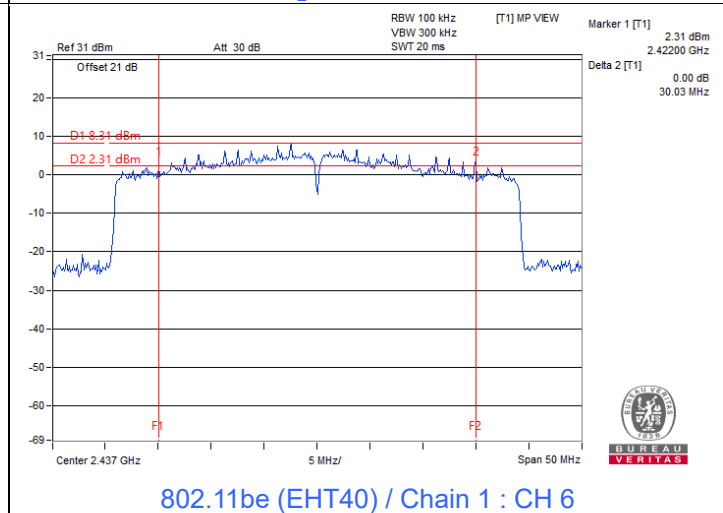
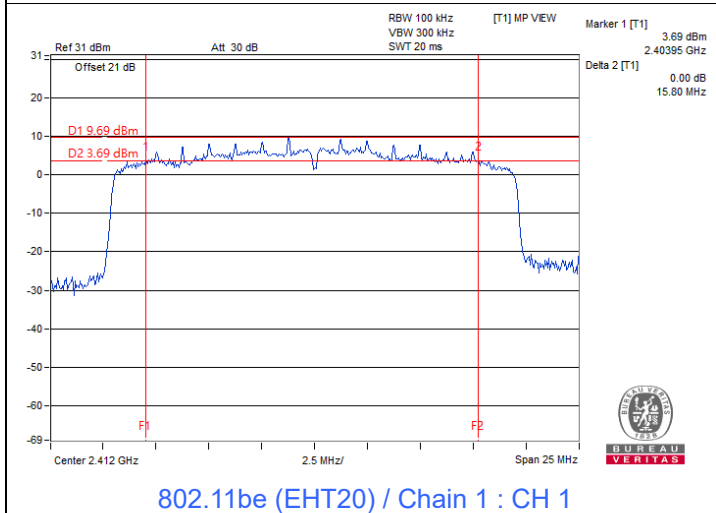
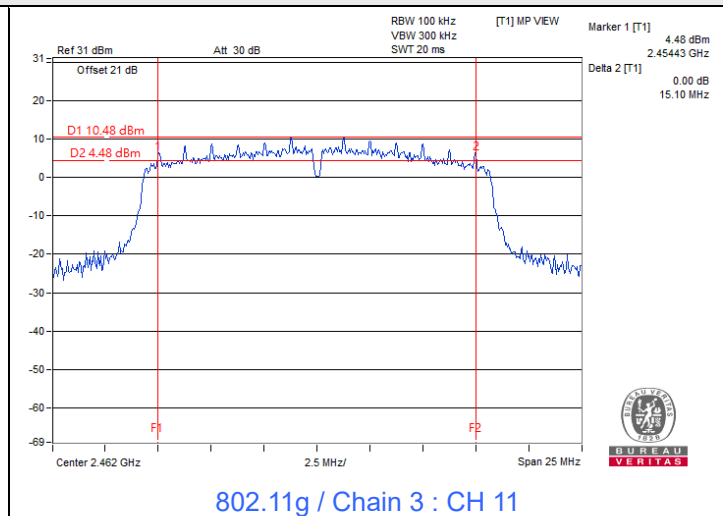
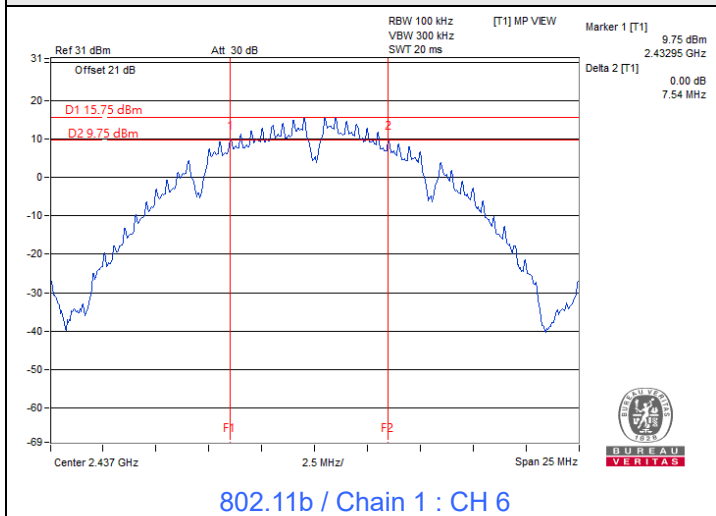
802.11be (EHT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.93	15.80	16.64	17.36	0.5	Pass
6	2437	17.44	16.66	16.36	16.74	0.5	Pass
11	2462	17.28	17.48	16.24	16.38	0.5	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	30.04	31.37	32.57	32.46	0.5	Pass
6	2437	32.57	30.03	32.56	33.84	0.5	Pass
9	2452	35.03	35.03	33.80	35.03	0.5	Pass

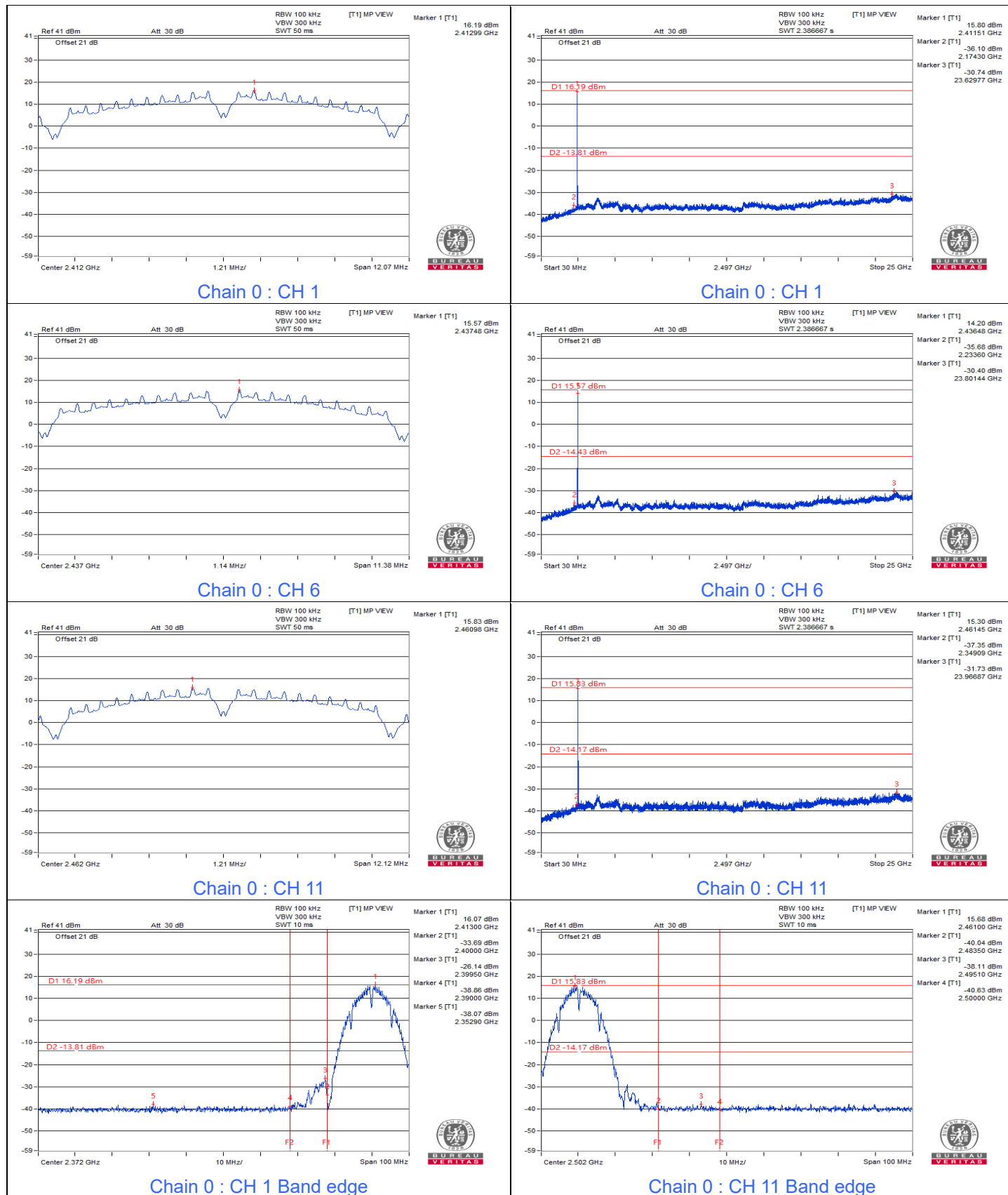
Spectrum Plot of Minimum Value

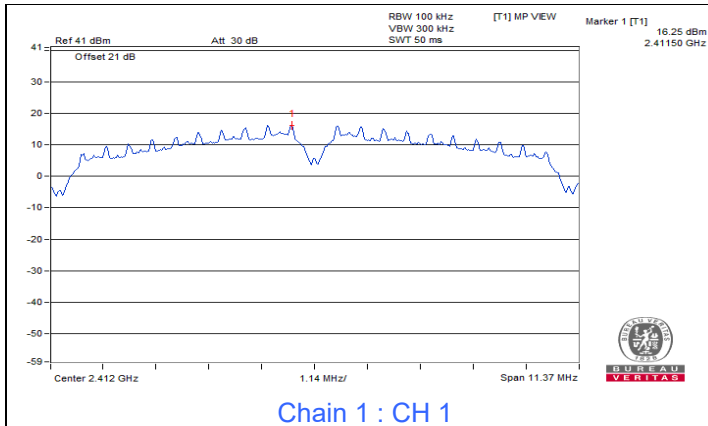


7.4 Conducted Out of Band Emissions

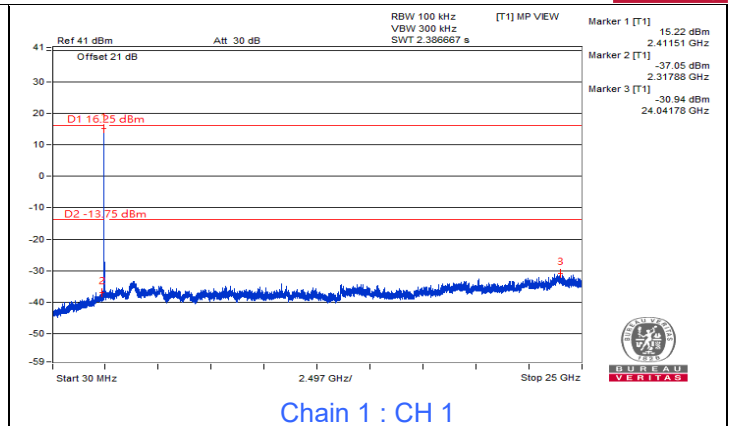
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Chun Wu
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802.11b

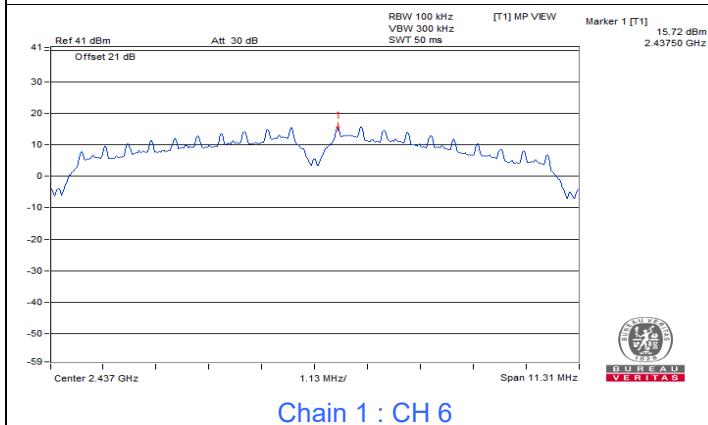




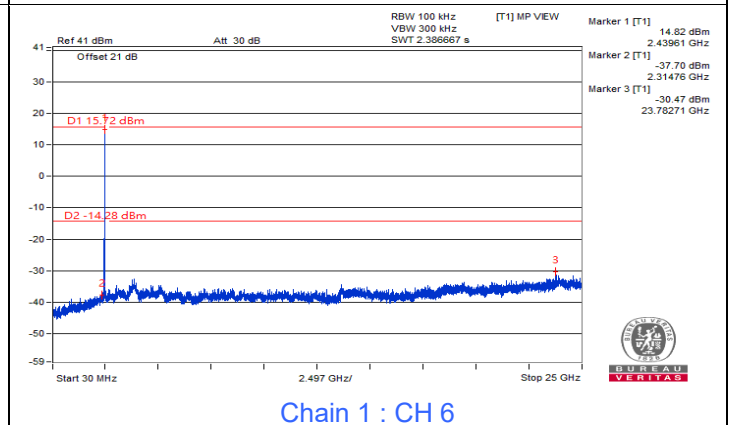
Chain 1 : CH 1



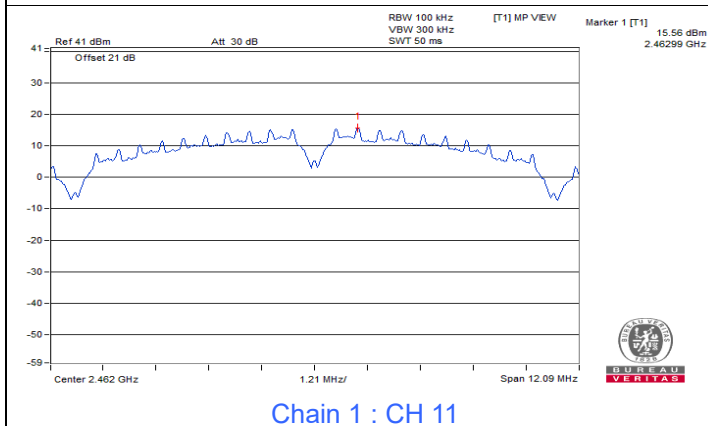
Chain 1 : CH 1



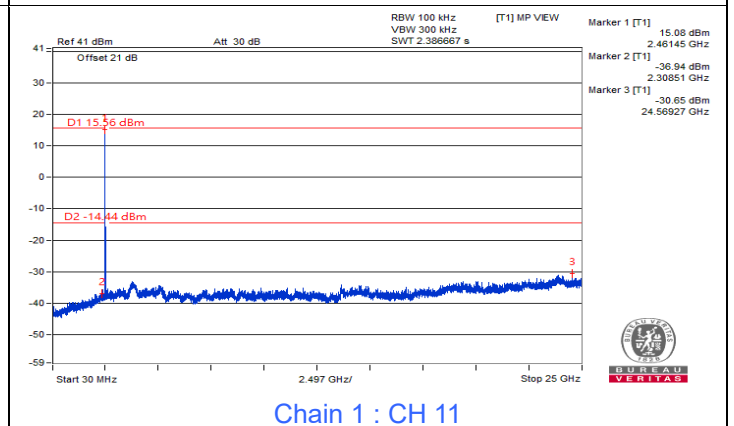
Chain 1 : CH 6



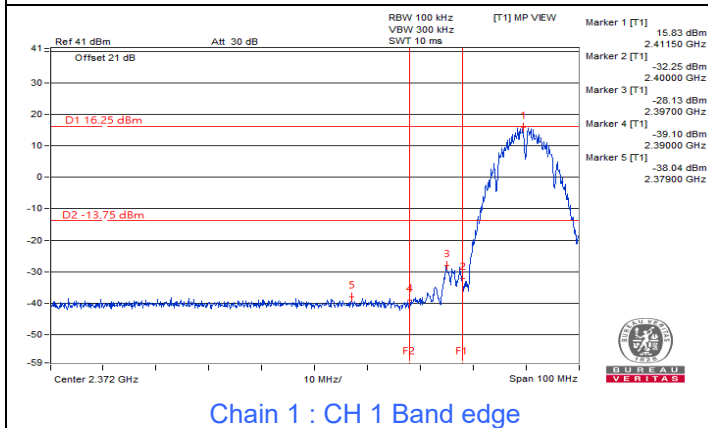
Chain 1 : CH 6



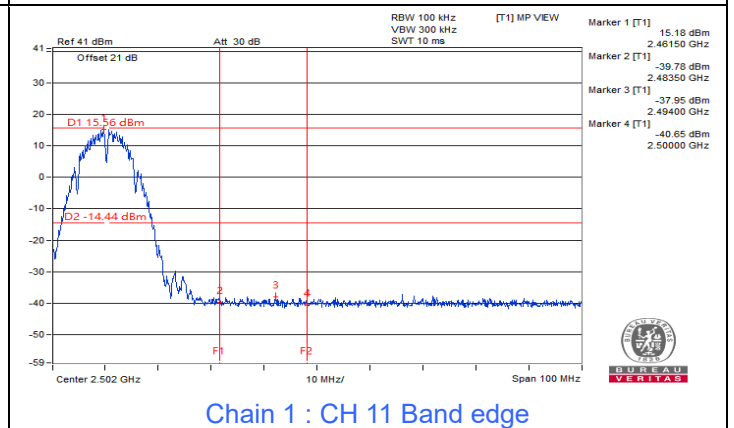
Chain 1 : CH 11



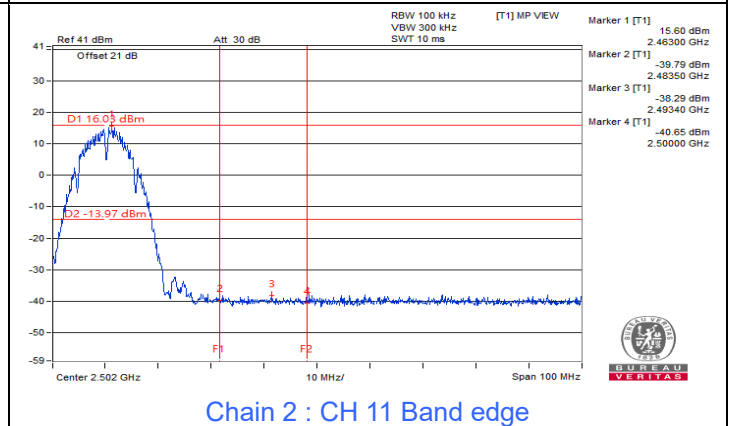
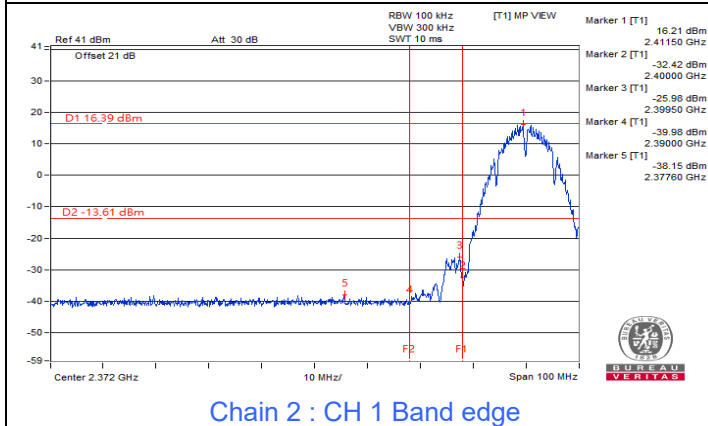
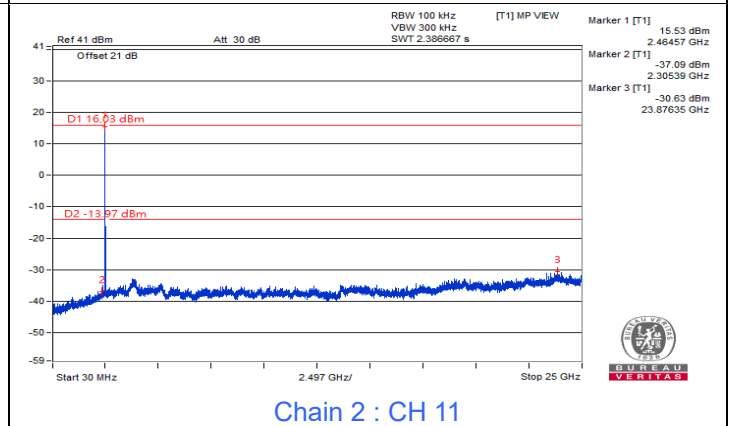
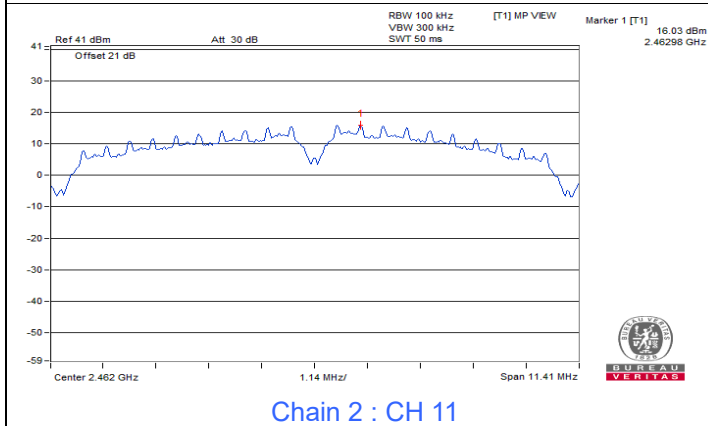
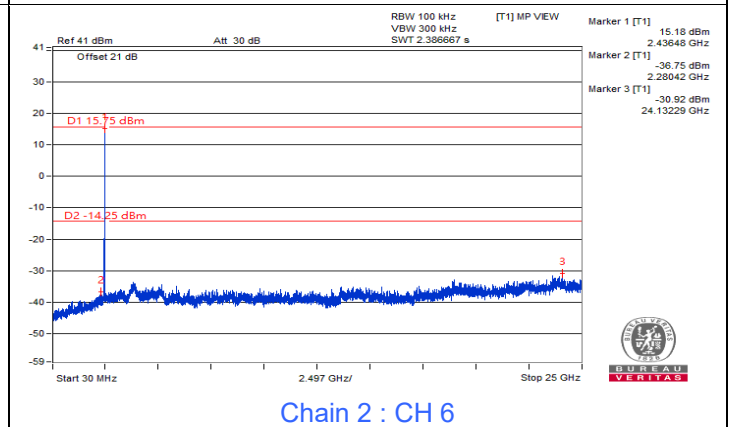
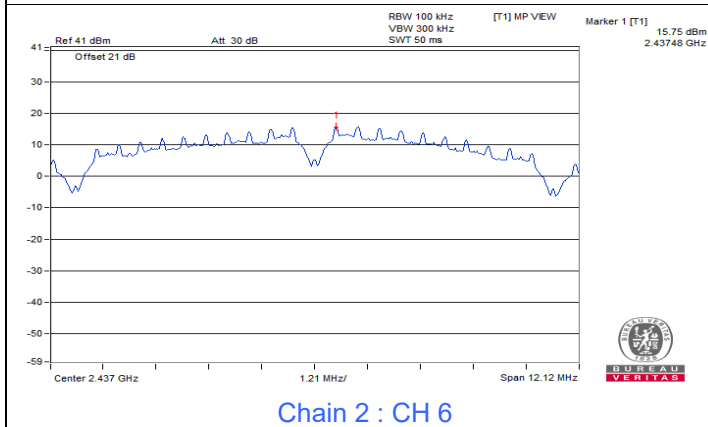
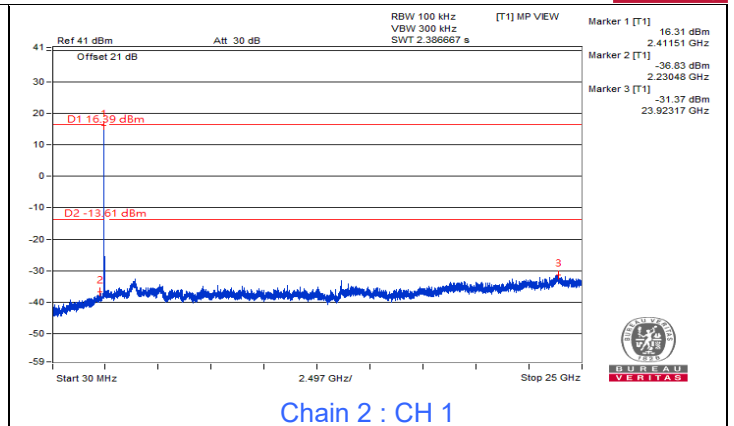
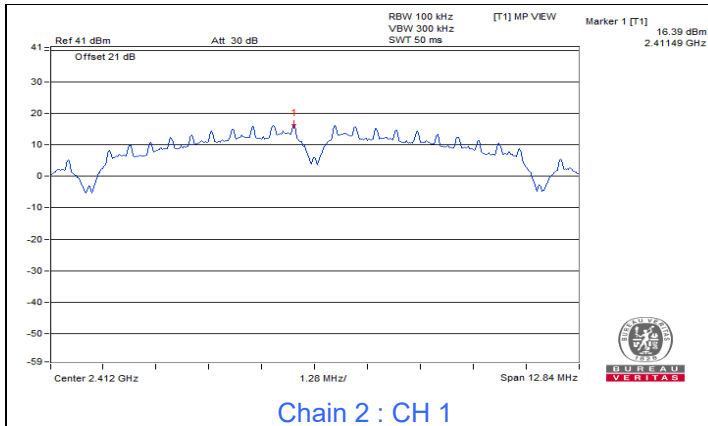
Chain 1 : CH 11

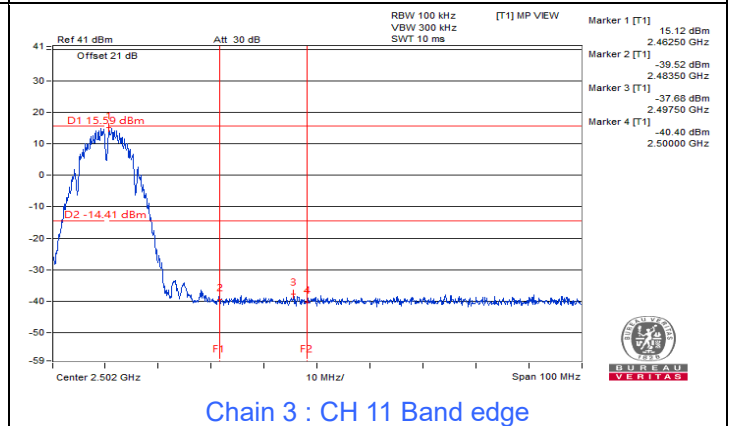
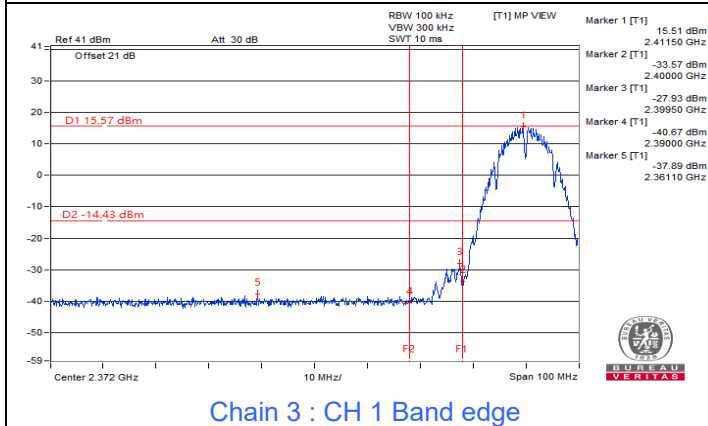
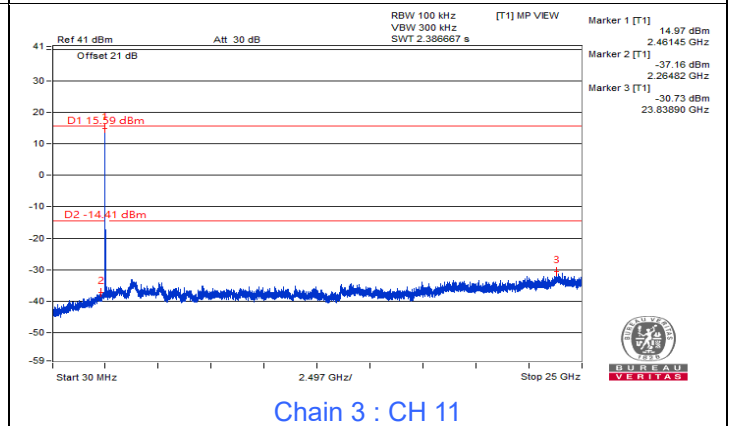
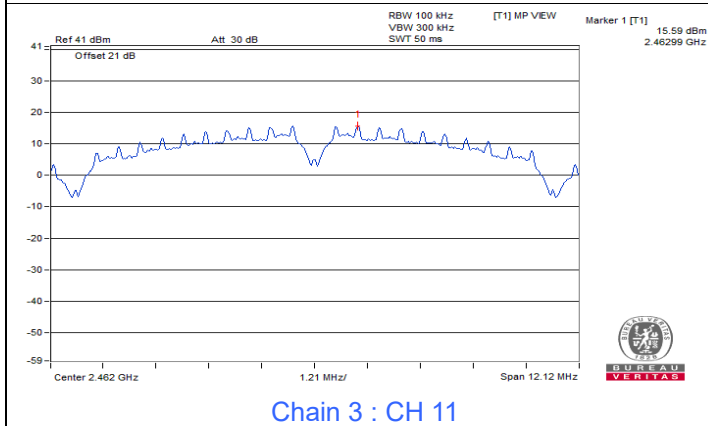
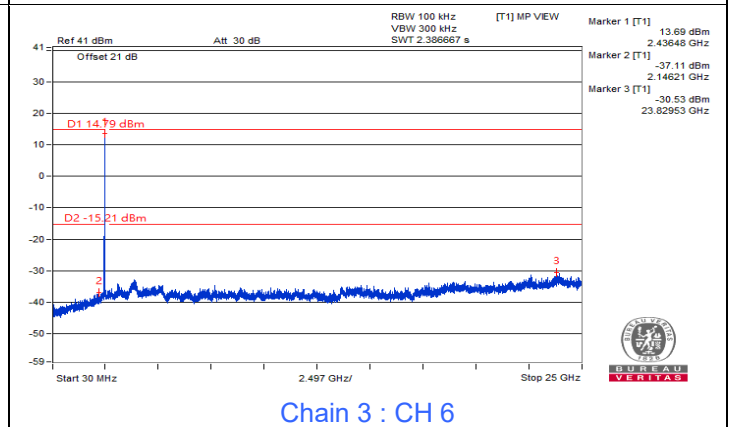
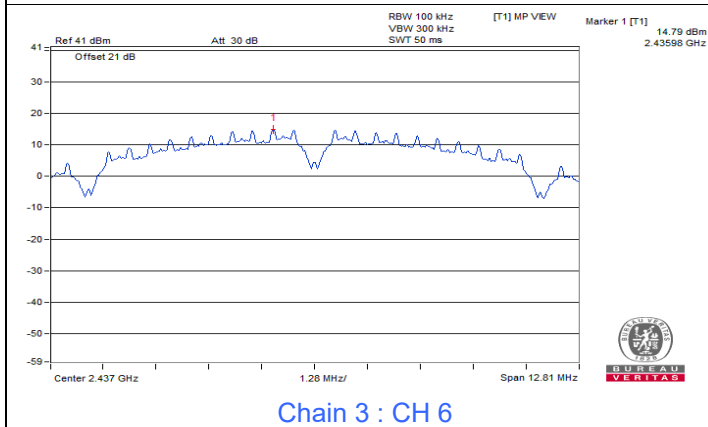
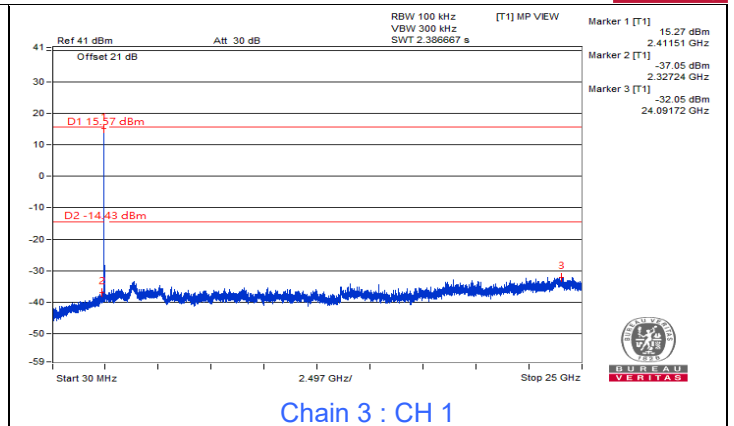
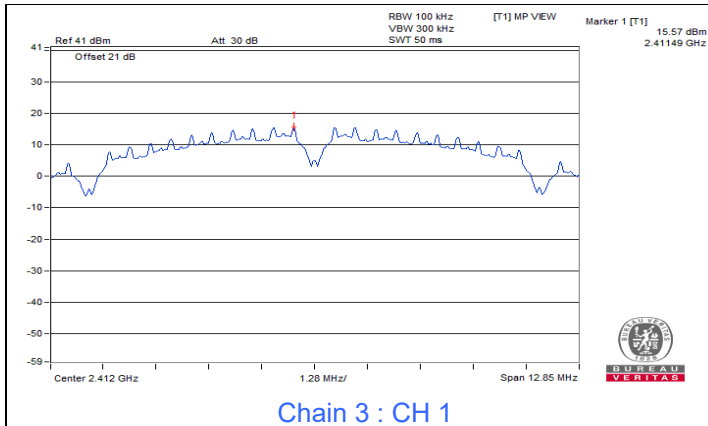


Chain 1 : CH 1 Band edge

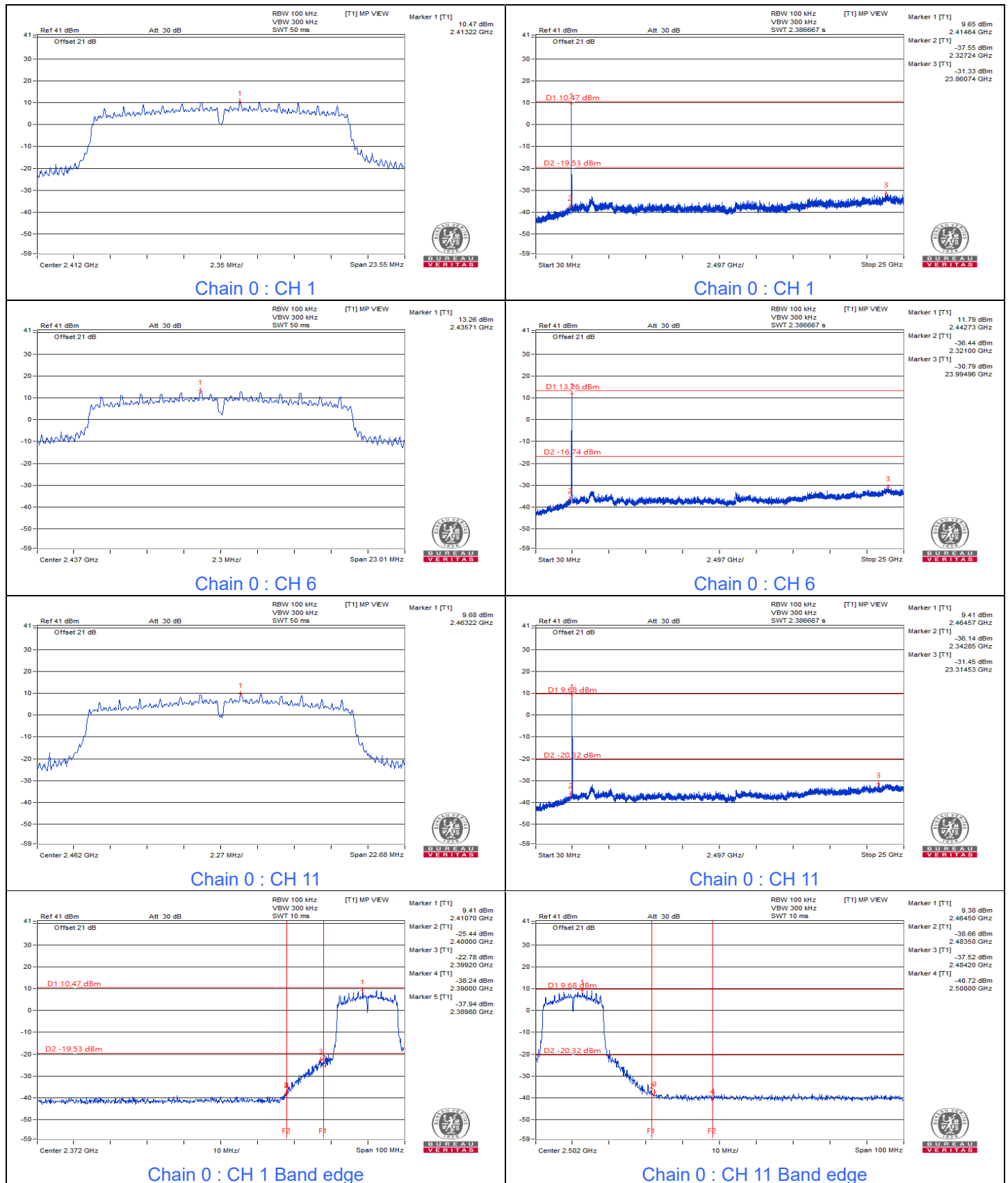


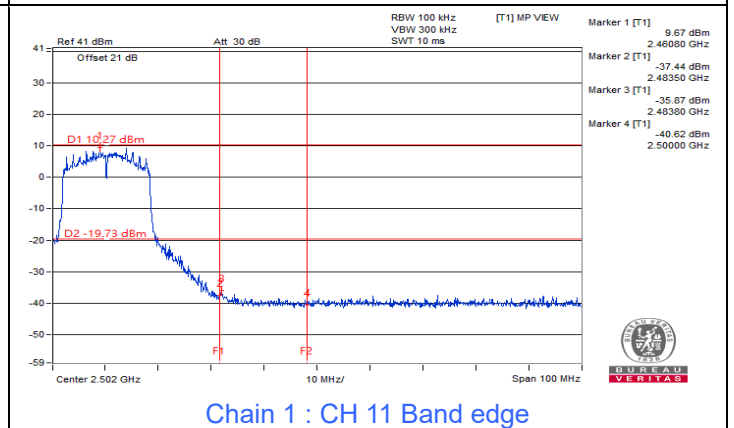
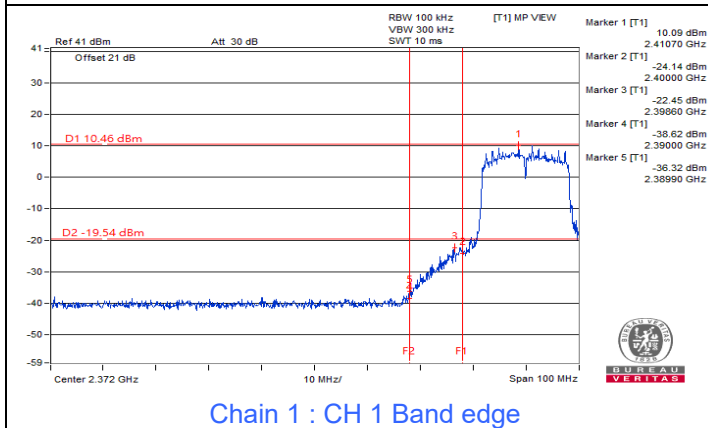
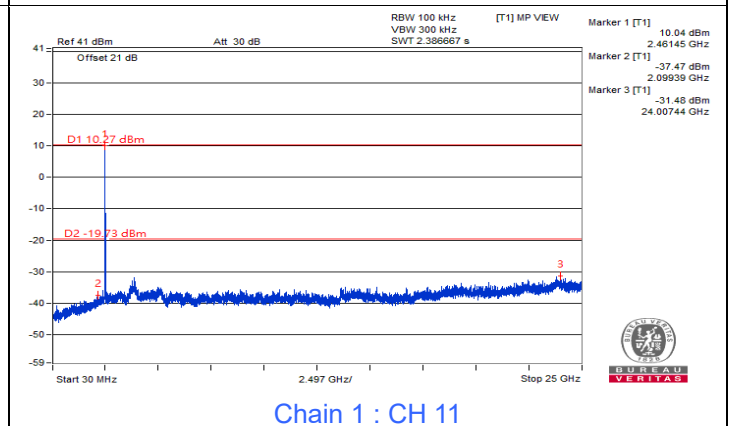
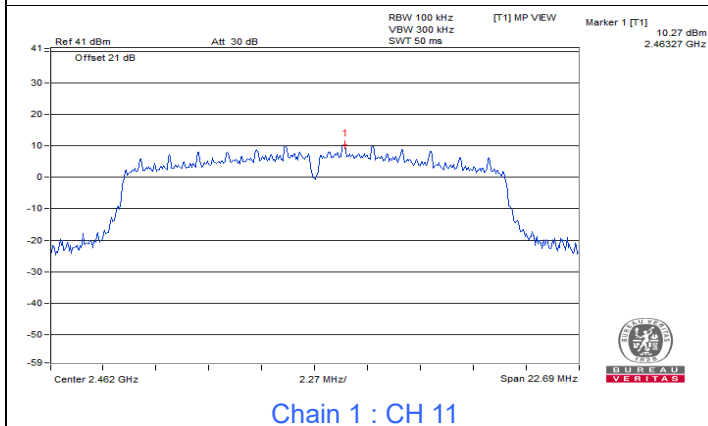
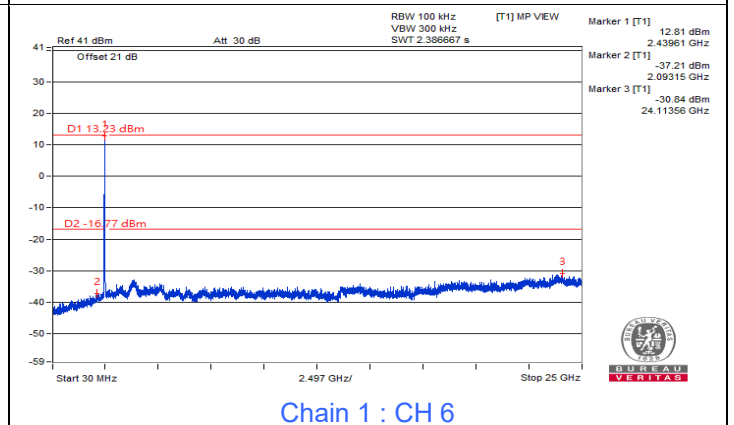
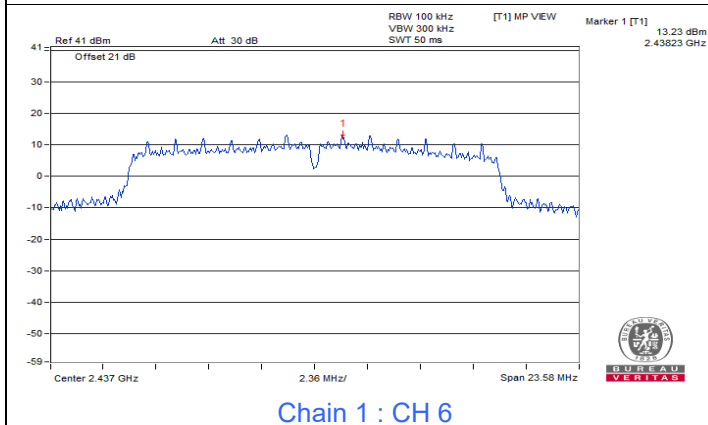
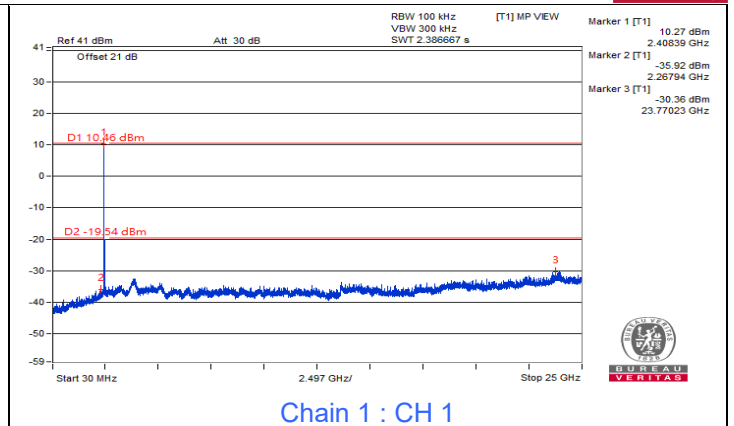
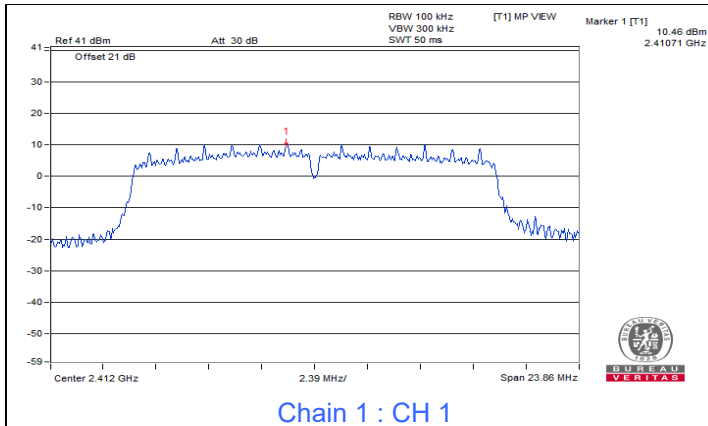
Chain 1 : CH 11 Band edge

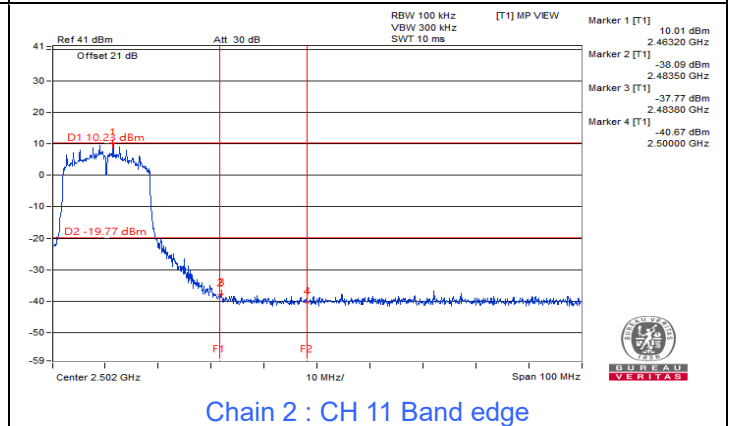
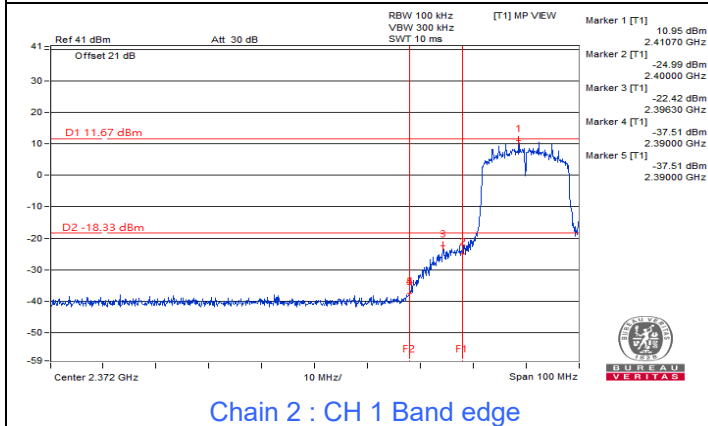
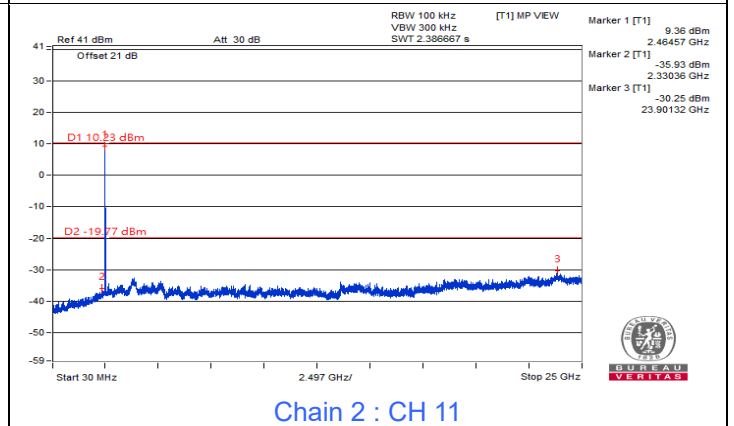
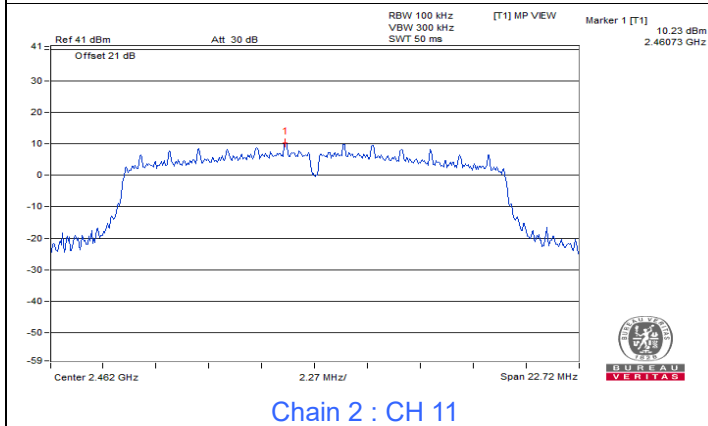
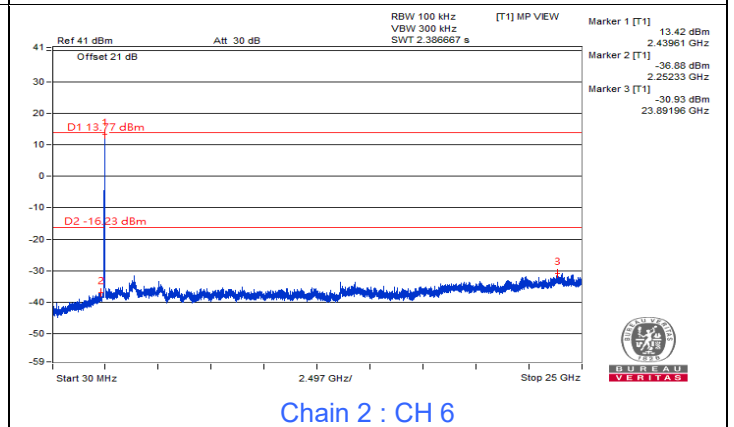
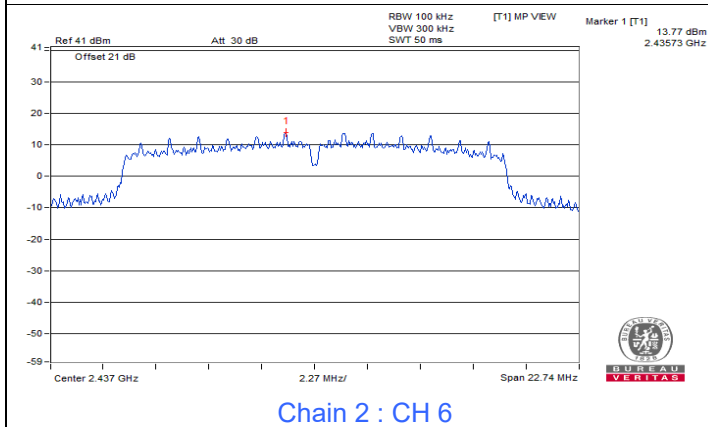
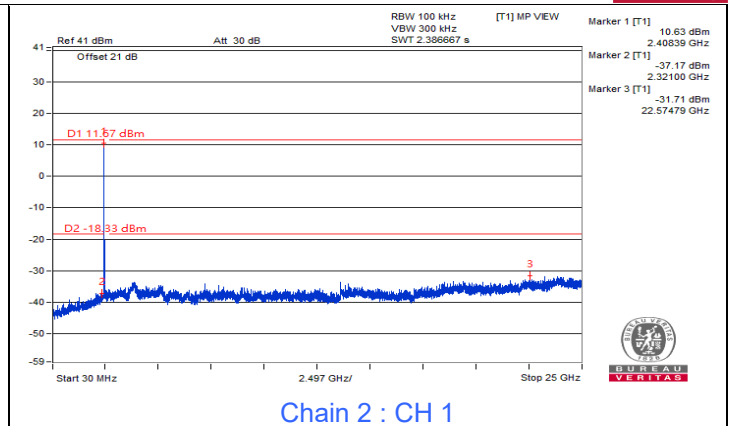
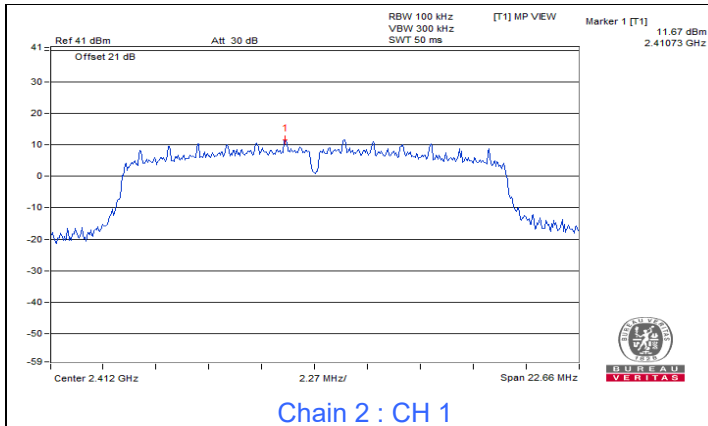


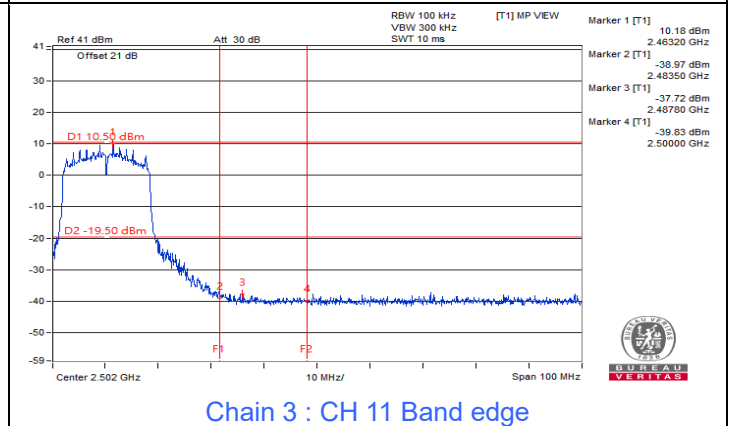
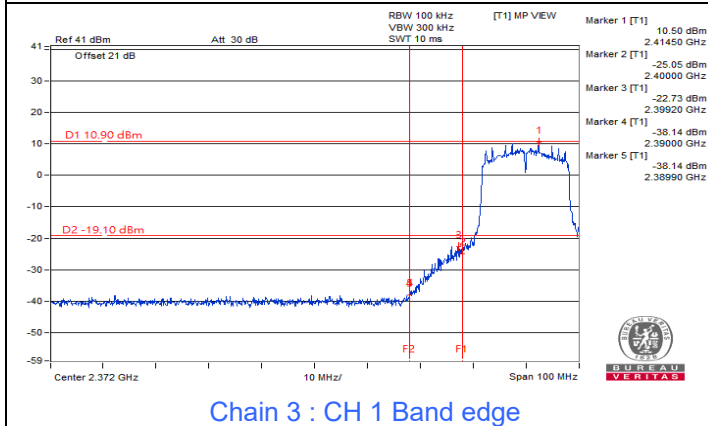
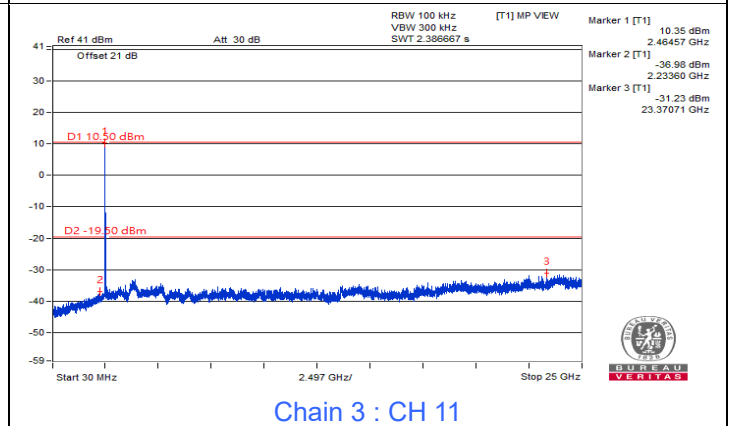
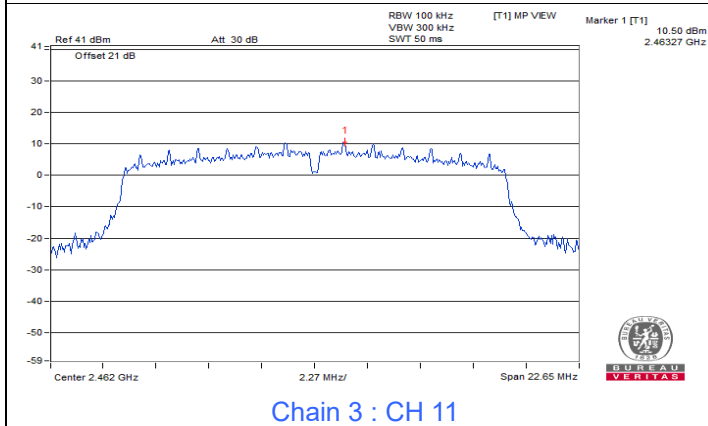
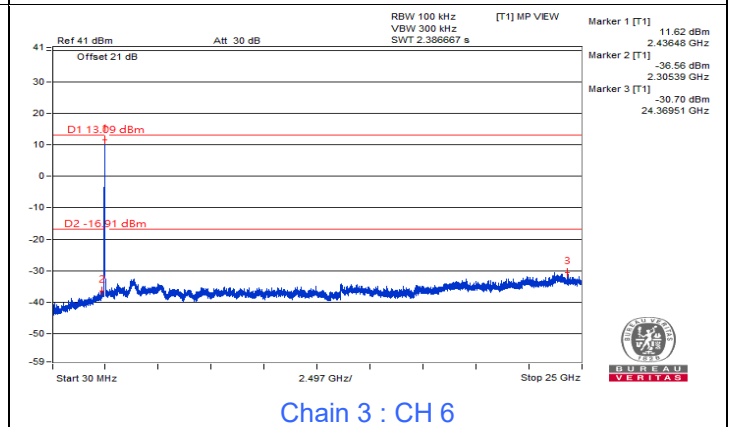
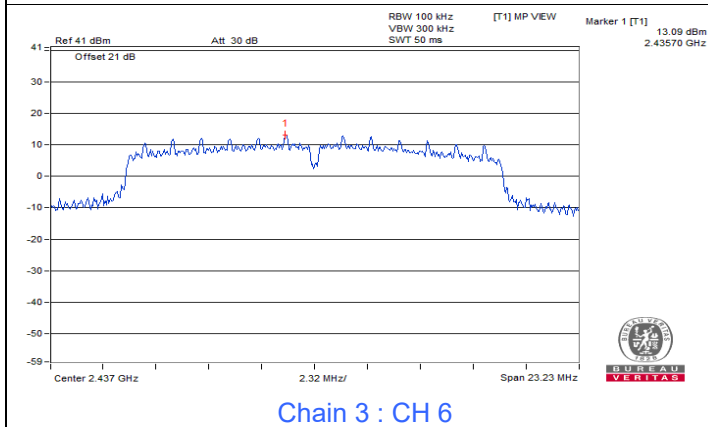
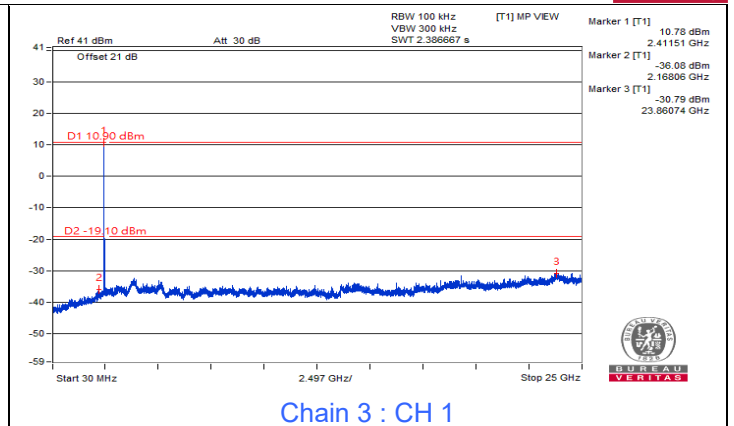
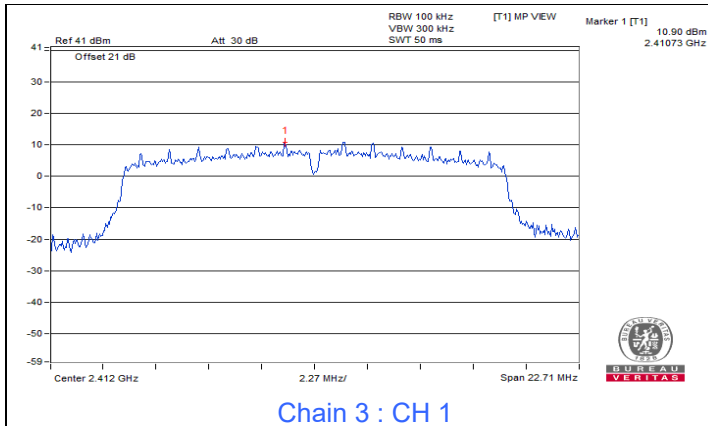


802.11g



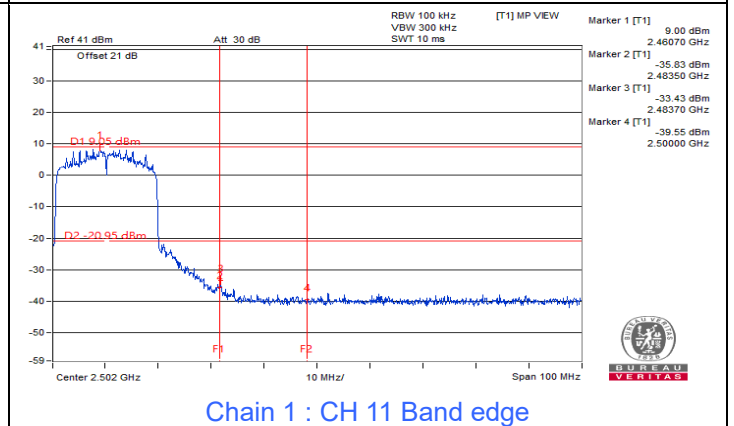
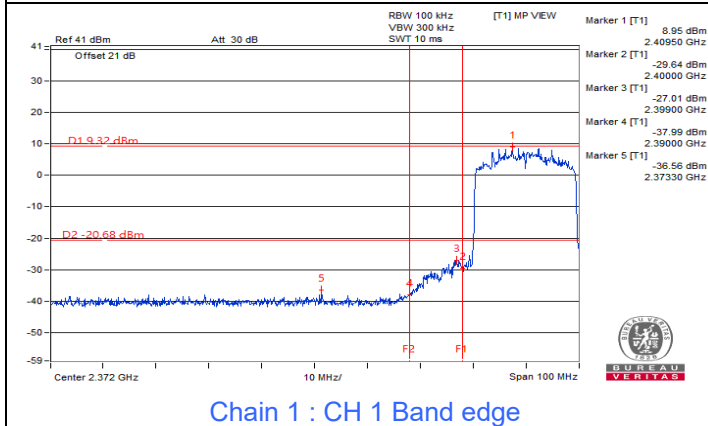
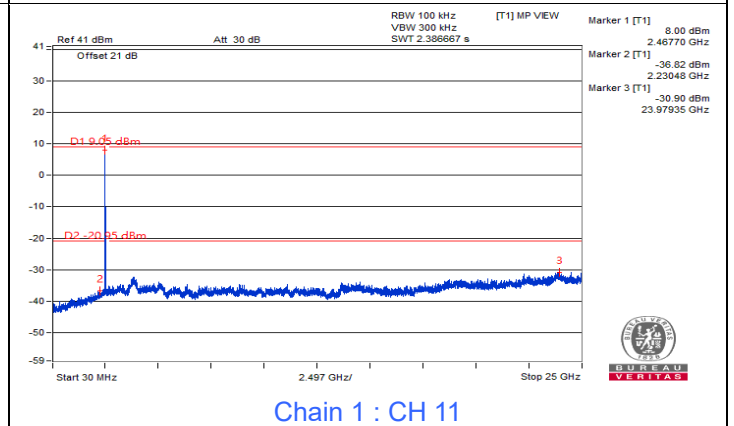
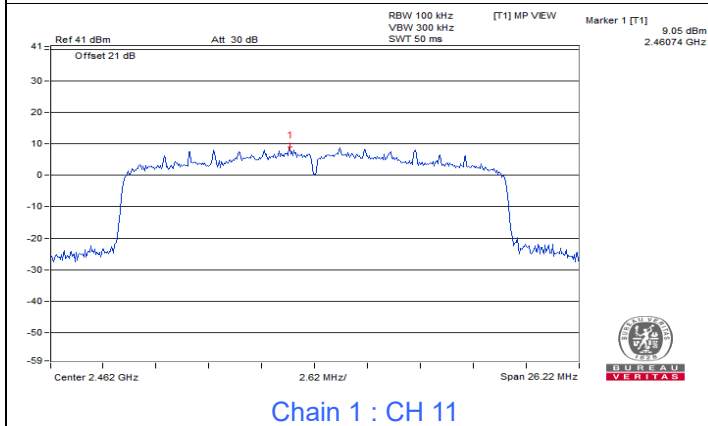
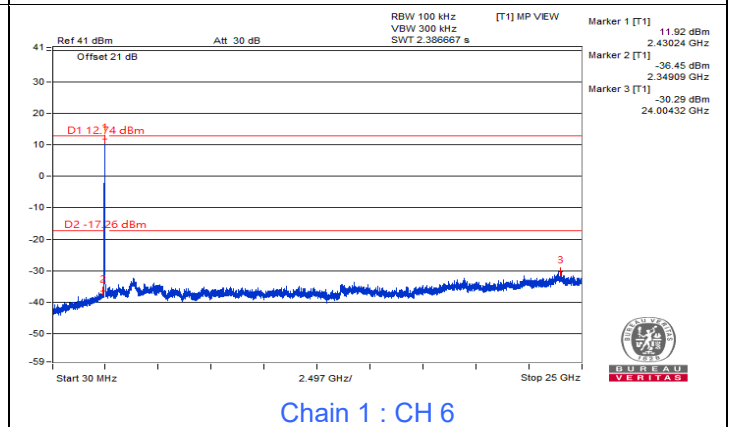
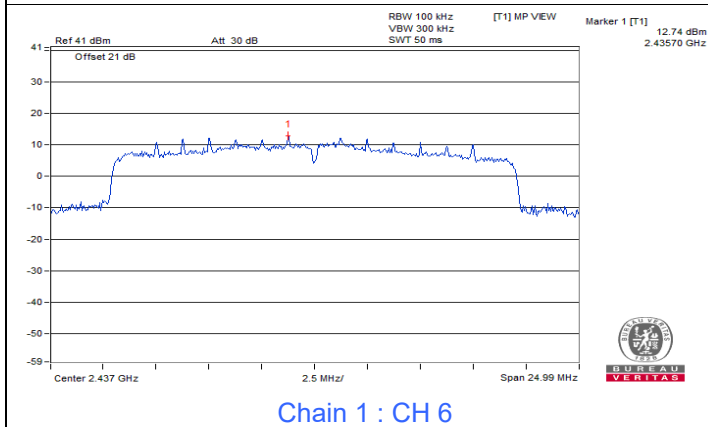
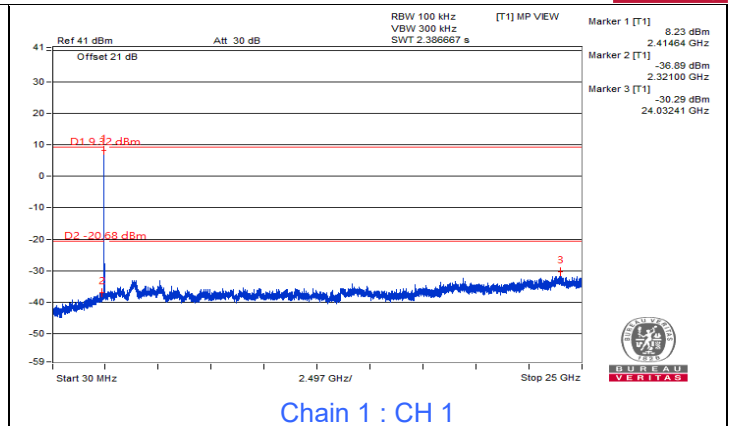
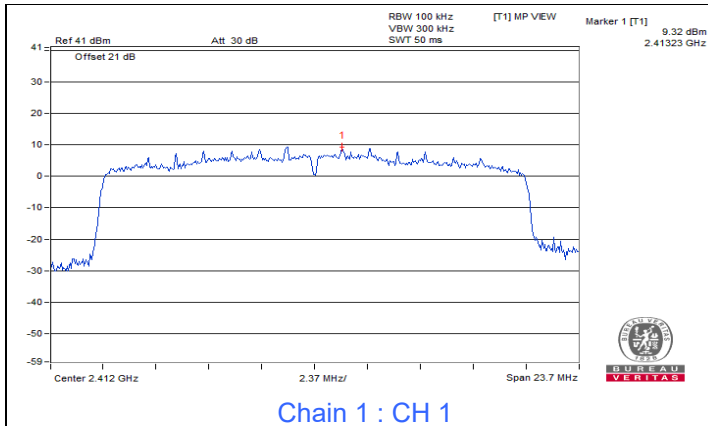


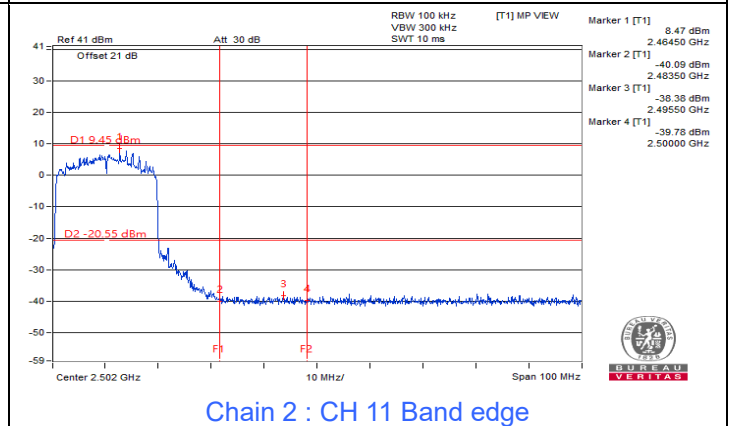
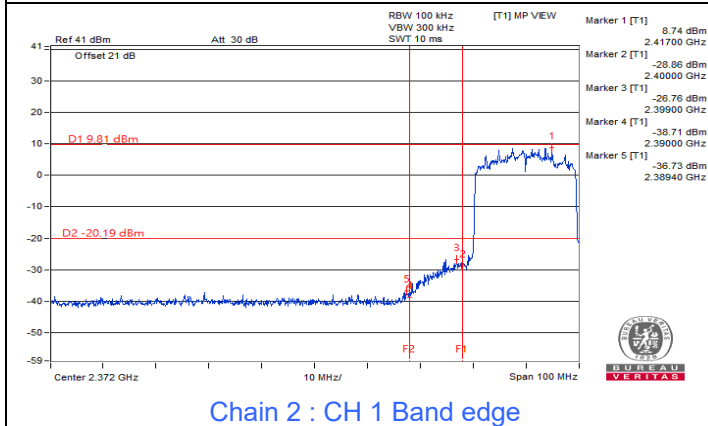
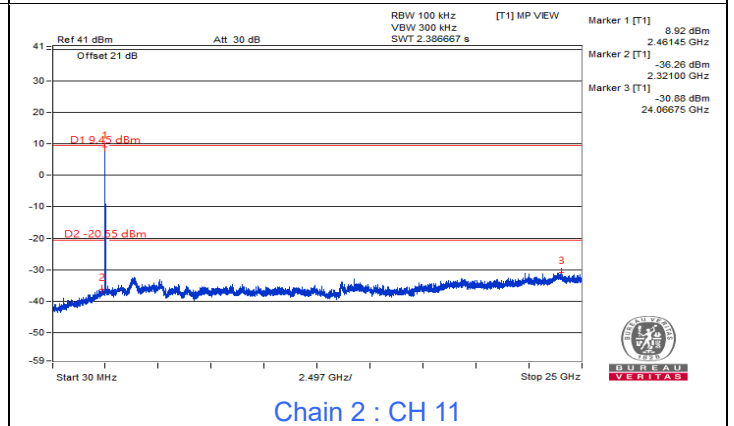
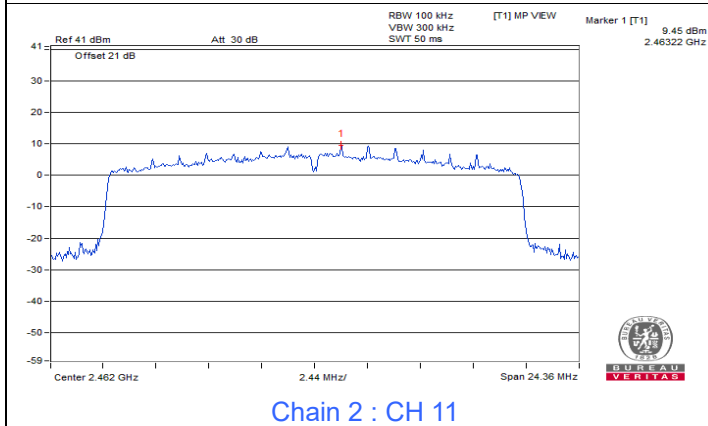
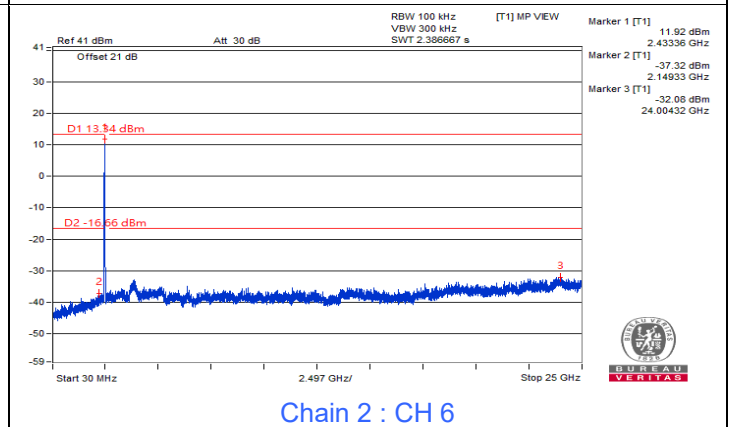
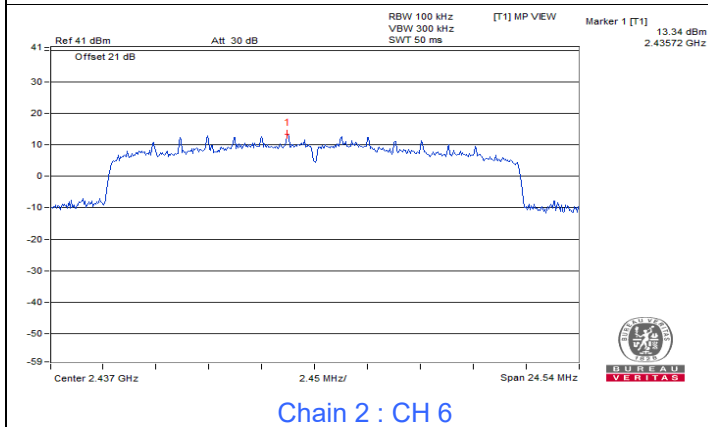
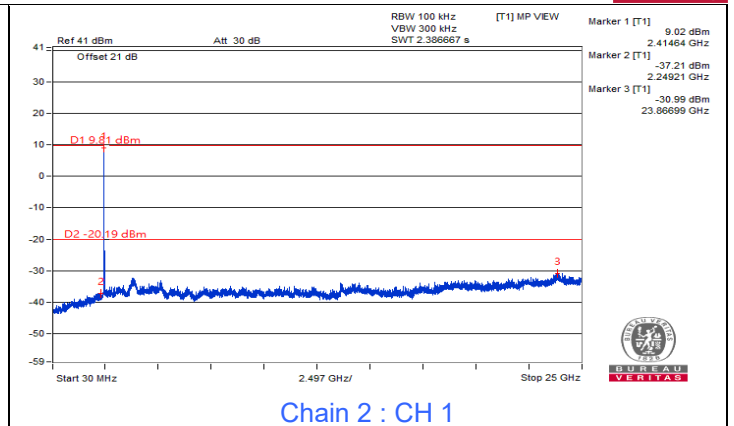
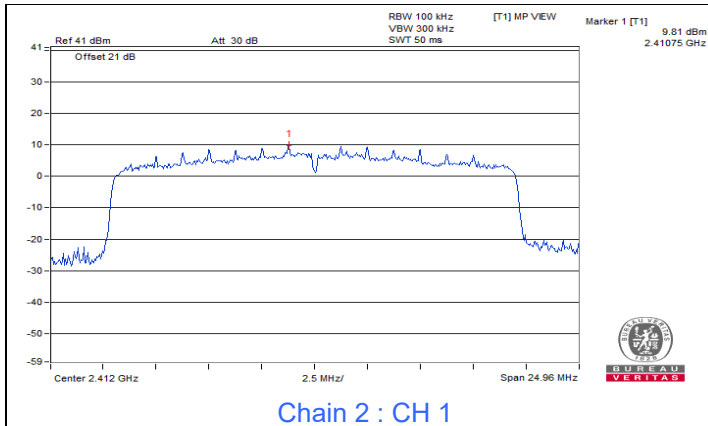


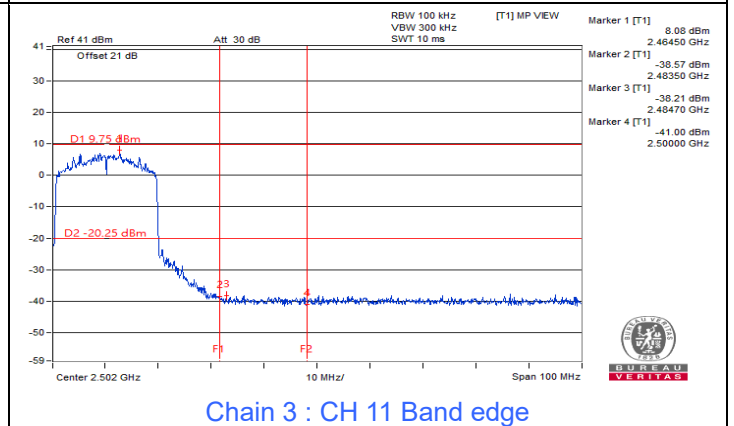
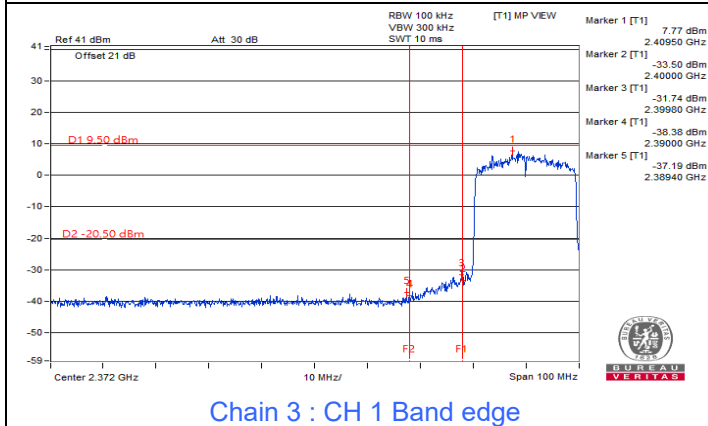
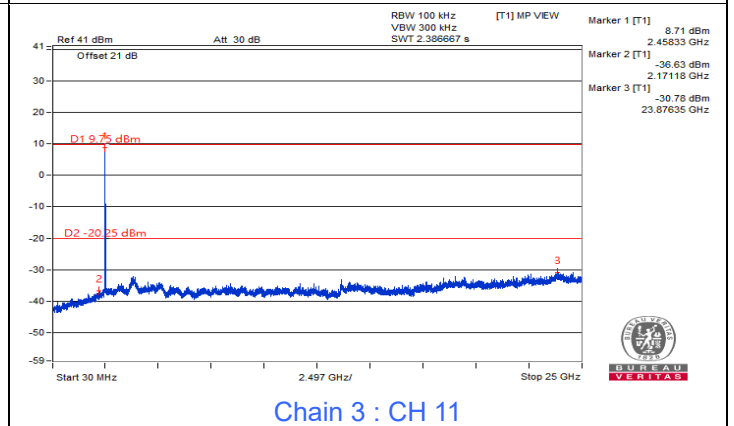
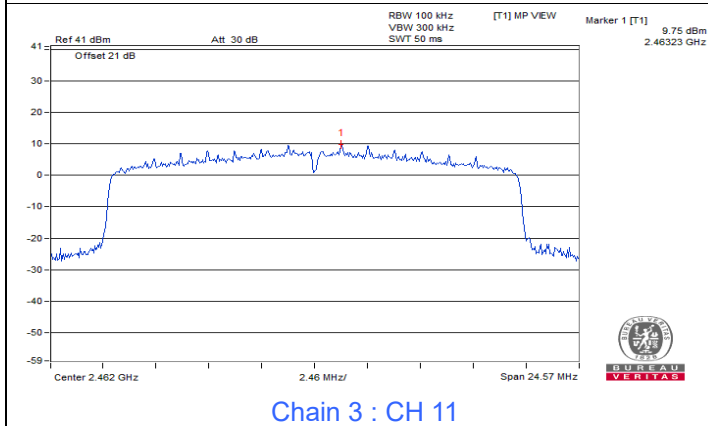
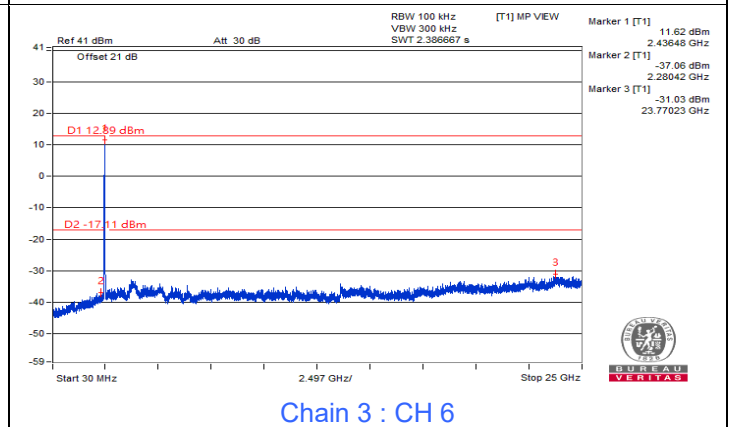
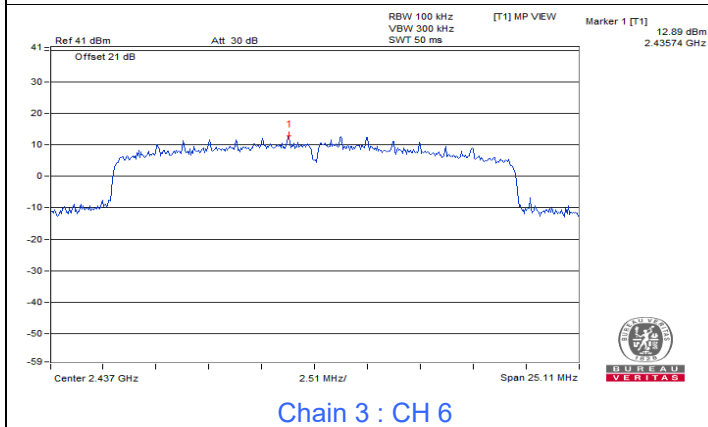
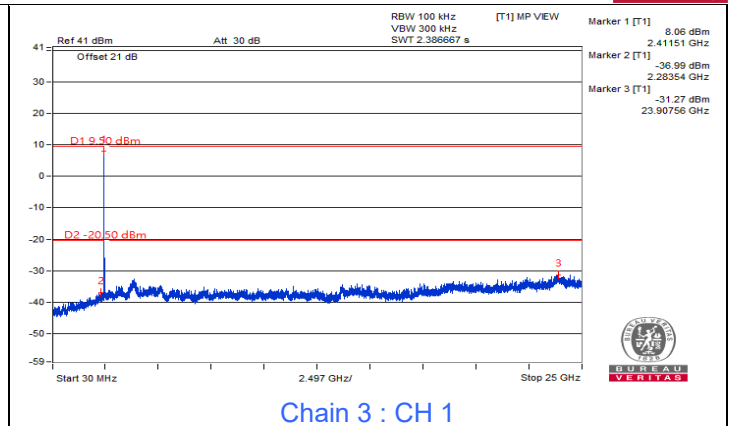
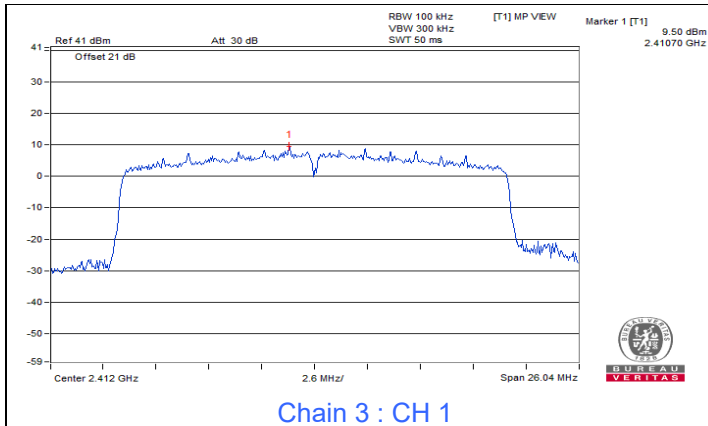


802.11be (EHT20)



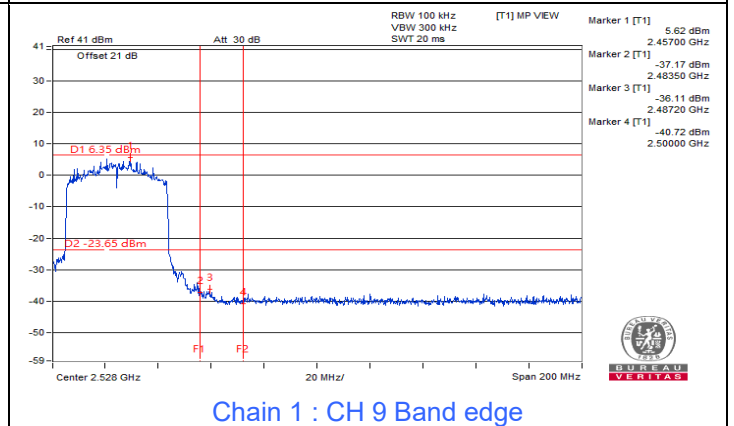
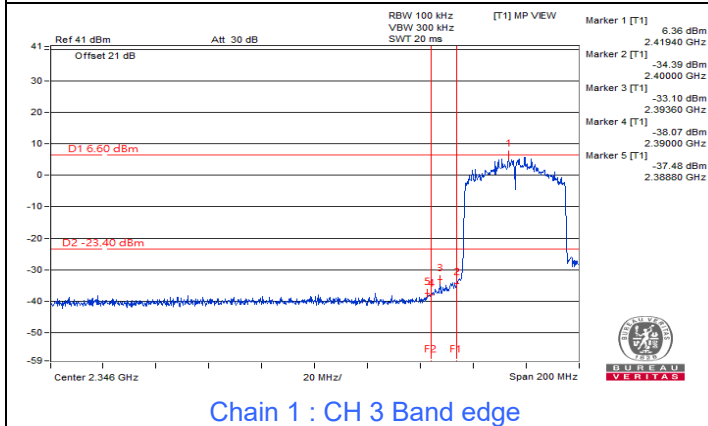
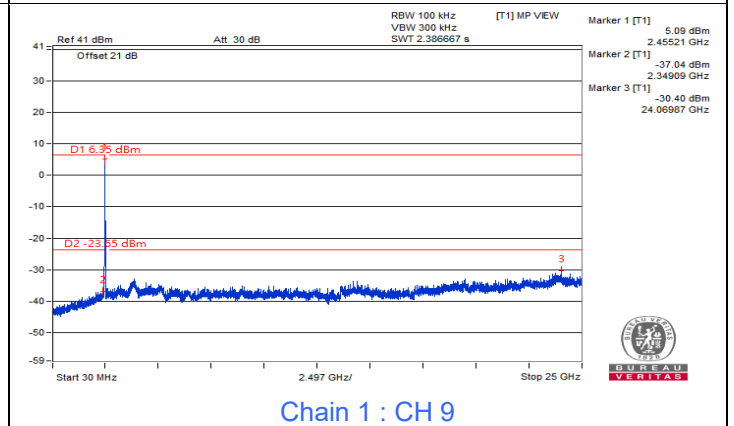
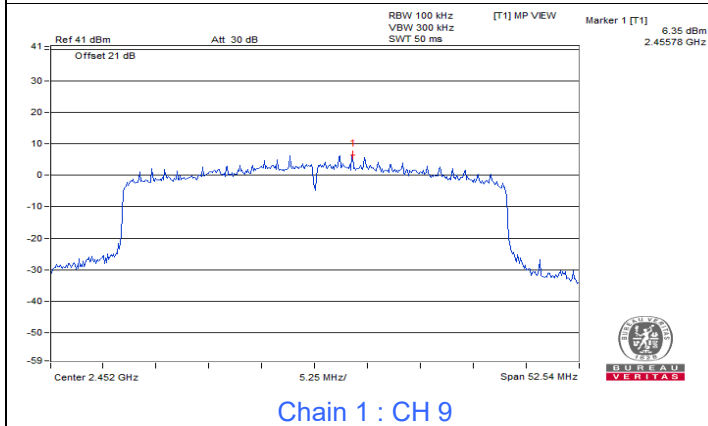
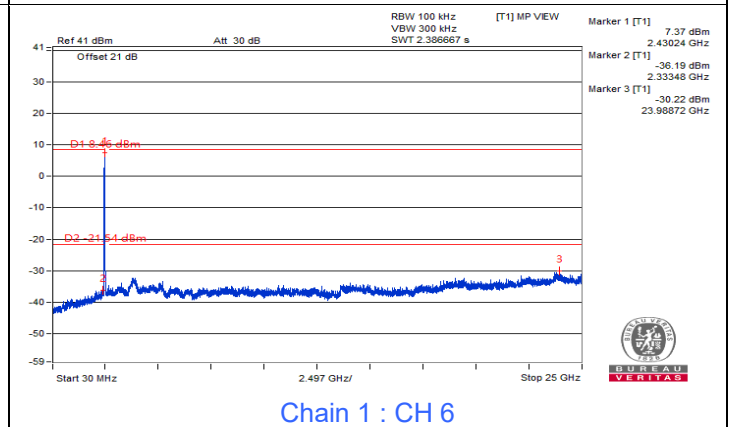
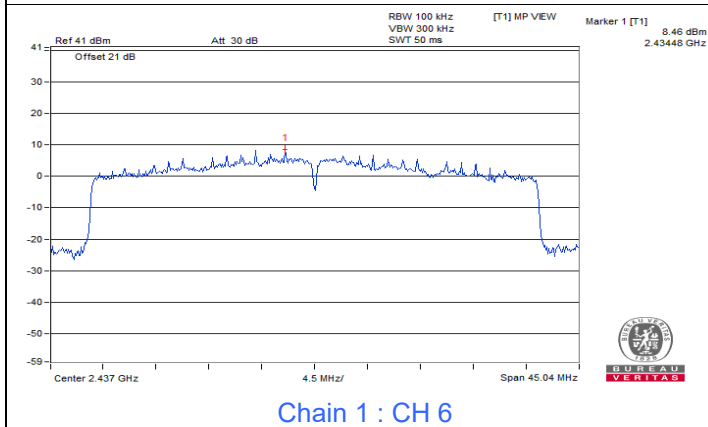
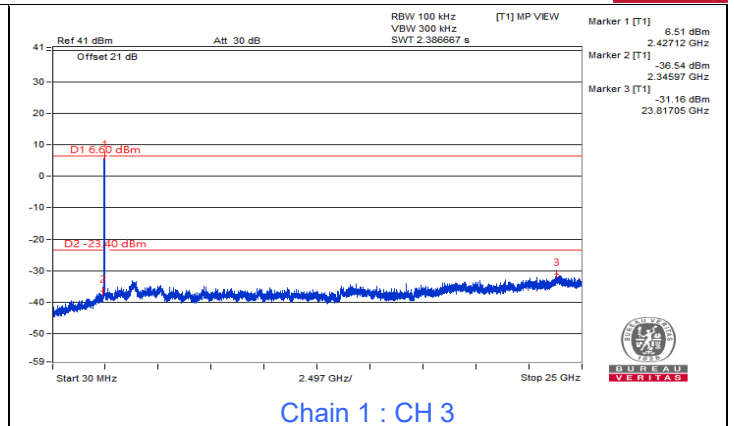
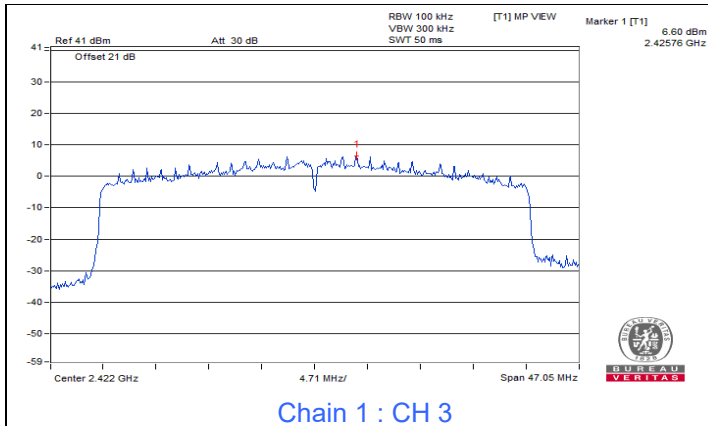


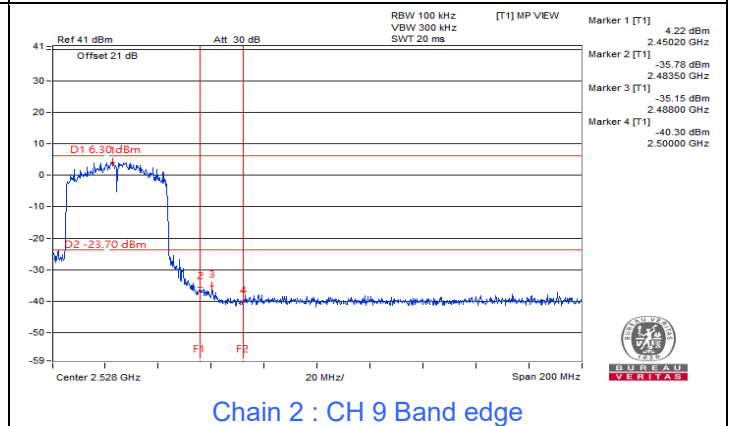
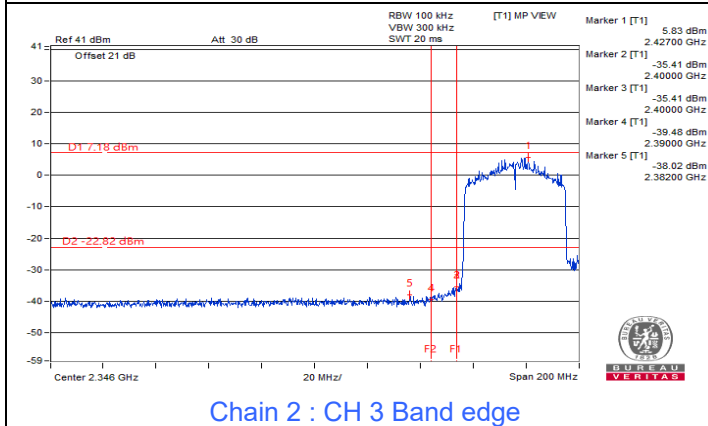
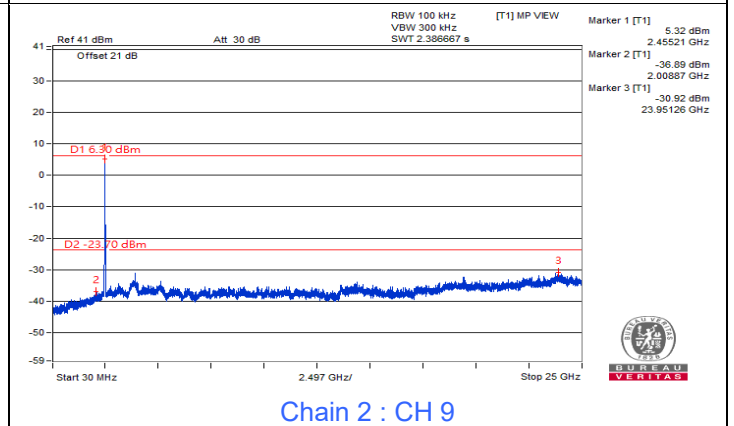
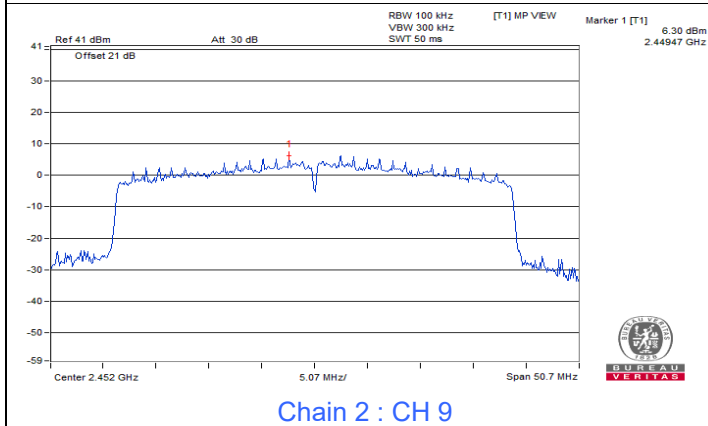
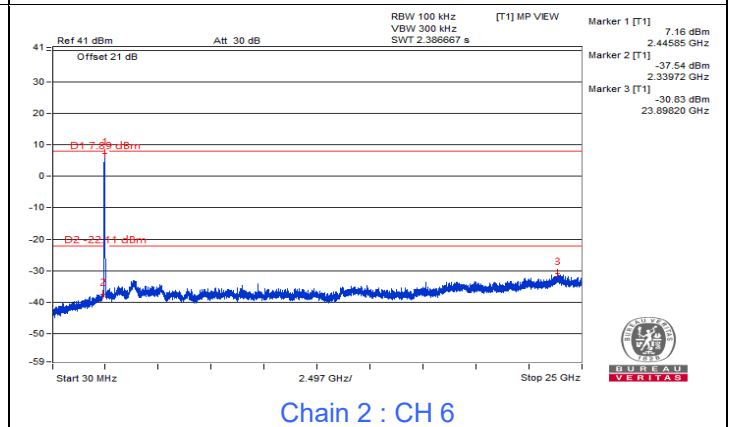
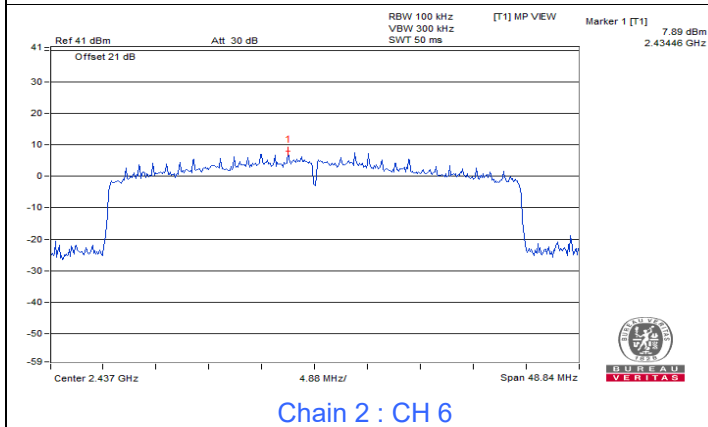
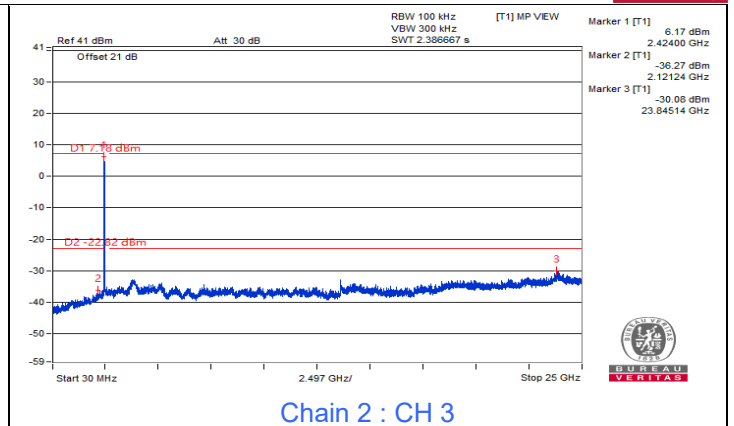
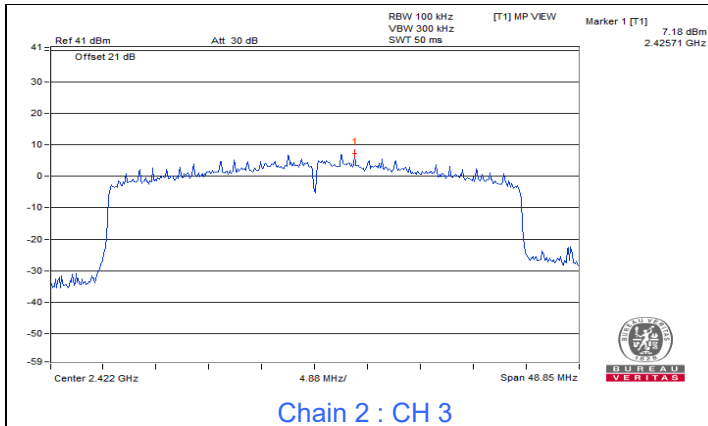


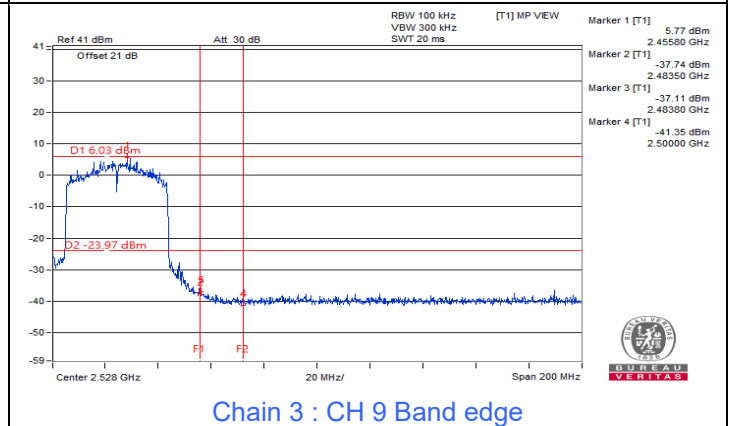
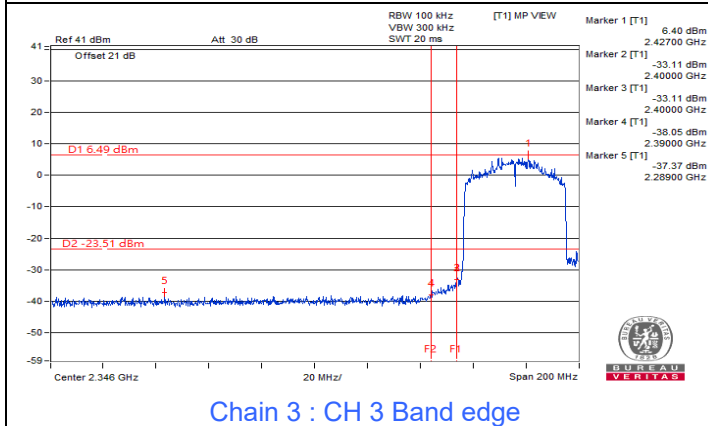
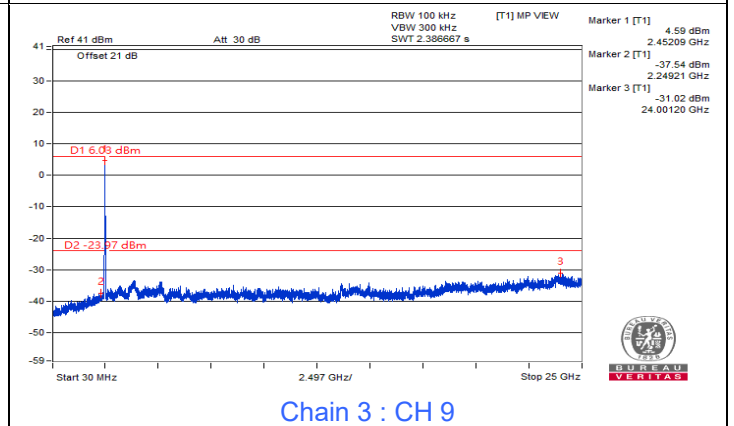
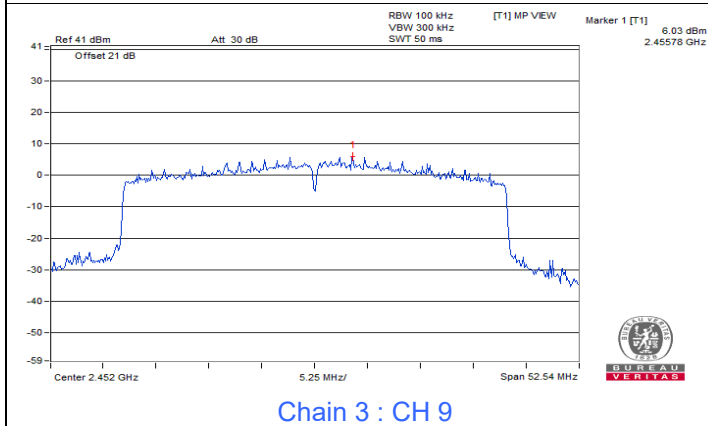
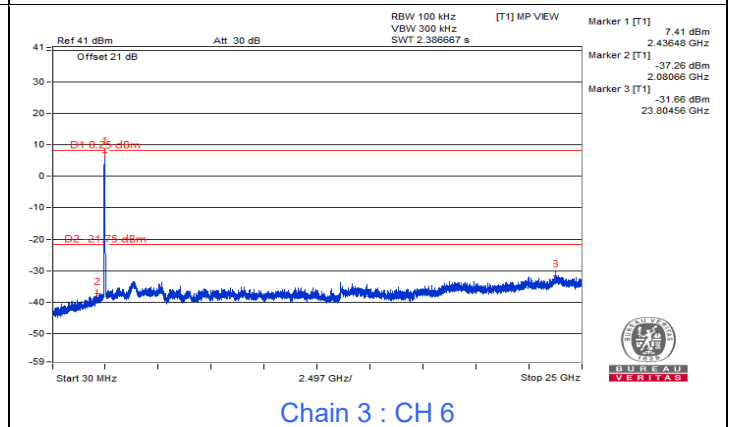
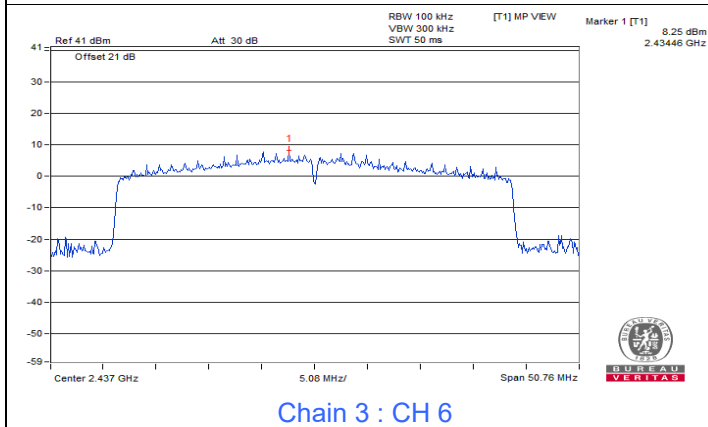
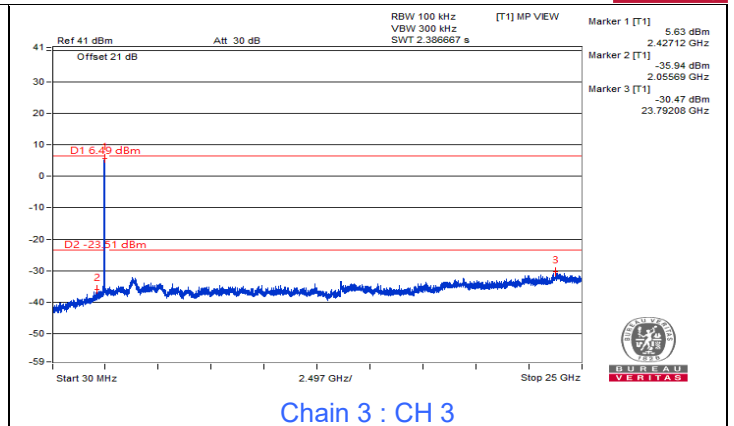
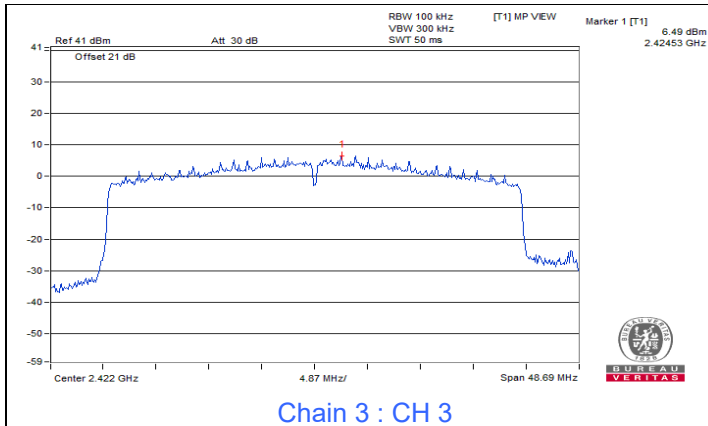


802.11be (EHT40)









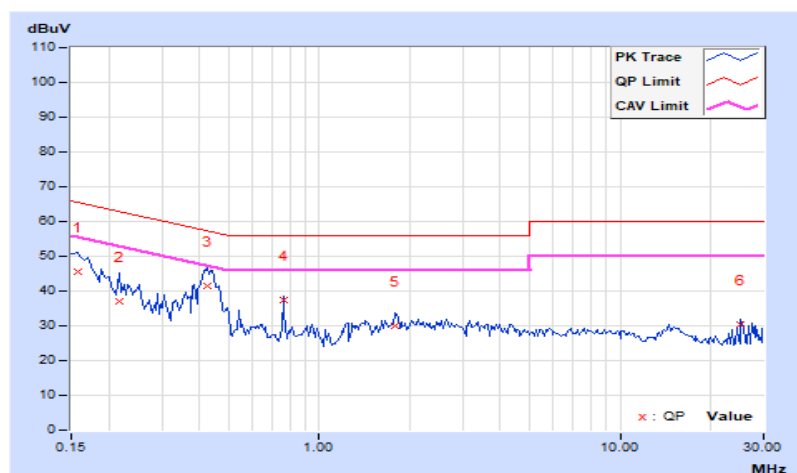
7.5 AC Power Conducted Emissions

RF Mode	802.11b	Channel	CH 11 : 2462 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	23 °C, 76 % RH
Tested By	Andy Ho		

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	0.15781	10.00	35.57	17.44	45.57	27.44	65.58	55.58	-20.01	-28.14
2	0.21641	10.03	27.03	14.33	37.06	24.36	62.96	52.96	-25.90	-28.60
3	0.42656	10.04	31.36	26.23	41.40	36.27	57.32	47.32	-15.92	-11.05
4	0.76178	10.07	27.39	27.29	37.46	37.36	56.00	46.00	-18.54	-8.64
5	1.77734	10.14	19.88	13.39	30.02	23.53	56.00	46.00	-25.98	-22.47
6	25.14844	11.20	18.99	16.74	30.19	27.94	60.00	50.00	-29.81	-22.06

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

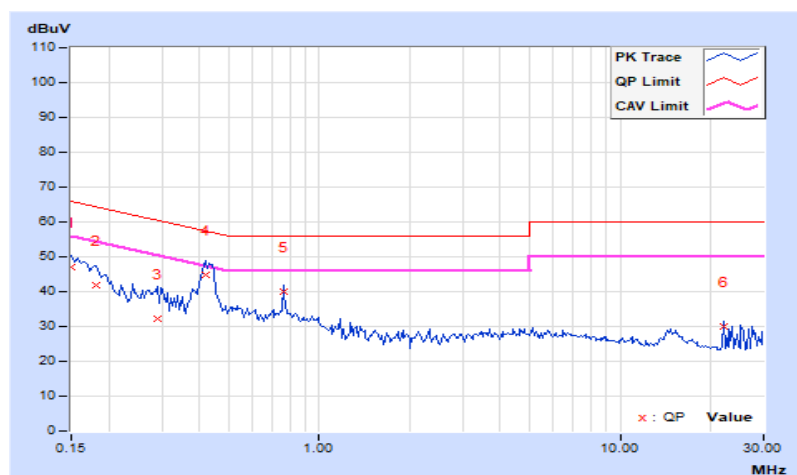


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 76 % RH
Tested By	Andy Ho		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.02	37.11	21.61	47.13	31.63	66.00	56.00	-18.87	-24.37
2	0.18125	10.02	31.90	14.59	41.92	24.61	64.43	54.43	-22.51	-29.82
3	0.29063	10.03	22.05	10.61	32.08	20.64	60.51	50.51	-28.43	-29.87
4	0.41903	10.02	34.88	31.14	44.90	41.16	57.47	47.47	-12.57	-6.31
5	0.76325	10.06	30.11	28.41	40.17	38.47	56.00	46.00	-15.83	-7.53
6	22.09769	11.01	19.06	17.24	30.07	28.25	60.00	50.00	-29.93	-21.75

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



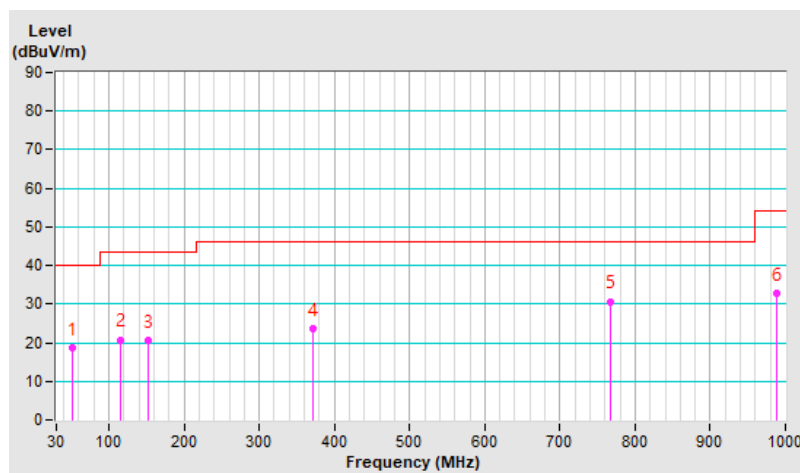
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11b	Channel	CH 11 : 2462 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, 70 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	51.83	18.7 QP	40.0	-21.3	4.00 H	258	31.3	-12.6
2	115.02	20.8 QP	43.5	-22.7	2.00 H	270	35.8	-15.0
3	151.42	20.7 QP	43.5	-22.8	1.00 H	250	33.0	-12.3
4	371.83	23.7 QP	46.0	-22.3	1.00 H	225	33.6	-9.9
5	767.54	30.7 QP	46.0	-15.3	4.00 H	3	32.2	-1.5
6	988.34	32.7 QP	54.0	-21.3	2.00 H	31	31.6	1.1

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 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.

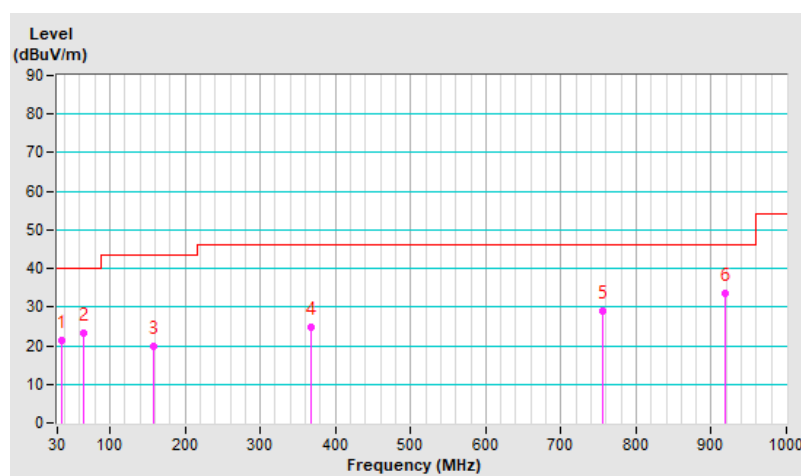


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	34.97	21.4 QP	40.0	-18.6	1.50 V	360	34.6	-13.2
2	64.85	23.4 QP	40.0	-16.6	2.00 V	228	37.5	-14.1
3	158.89	19.9 QP	43.5	-23.6	1.00 V	26	32.1	-12.2
4	367.90	24.7 QP	46.0	-21.3	1.00 V	360	34.8	-10.1
5	756.29	28.9 QP	46.0	-17.1	1.50 V	360	30.7	-1.8
6	918.84	33.6 QP	46.0	-12.4	2.00 V	131	32.9	0.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The 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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24 °C, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.3 PK	74.0	-15.7	1.51 H	11	61.4	-3.1
2	2390.00	47.5 AV	54.0	-6.5	1.51 H	11	50.6	-3.1
3	*2412.00	116.7 PK			1.51 H	11	119.9	-3.2
4	*2412.00	114.8 AV			1.51 H	11	118.0	-3.2
5	4824.00	53.2 PK	74.0	-20.8	1.36 H	190	51.2	2.0
6	4824.00	51.4 AV	54.0	-2.6	1.36 H	190	49.4	2.0
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	2390.00	58.9 PK	74.0	-15.1	1.17 V	15	62.0	-3.1
2	2390.00	50.5 AV	54.0	-3.5	1.17 V	15	53.6	-3.1
3	*2412.00	118.9 PK			1.17 V	15	122.1	-3.2
4	*2412.00	115.6 AV			1.17 V	15	118.8	-3.2
5	4824.00	54.3 PK	74.0	-19.7	1.36 V	166	52.3	2.0
6	4824.00	52.8 AV	54.0	-1.2	1.36 V	166	50.8	2.0

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	53.7 PK	74.0	-20.3	1.62 H	9	56.8	-3.1
2	2390.00	41.3 AV	54.0	-12.7	1.62 H	9	44.4	-3.1
3	*2437.00	117.0 PK			1.62 H	9	120.3	-3.3
4	*2437.00	114.6 AV			1.62 H	9	117.9	-3.3
5	2483.50	54.5 PK	74.0	-19.5	1.62 H	9	57.6	-3.1
6	2483.50	41.9 AV	54.0	-12.1	1.62 H	9	45.0	-3.1
7	4874.00	47.8 PK	74.0	-26.2	1.01 H	222	45.8	2.0
8	4874.00	44.7 AV	54.0	-9.3	1.01 H	222	42.7	2.0
9	7311.00	46.1 PK	74.0	-27.9	1.73 H	357	38.6	7.5
10	7311.00	37.9 AV	54.0	-16.1	1.73 H	357	30.4	7.5
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	55.4 PK	74.0	-18.6	1.73 V	331	58.5	-3.1
2	2390.00	41.2 AV	54.0	-12.8	1.73 V	331	44.3	-3.1
3	*2437.00	117.9 PK			1.73 V	331	121.2	-3.3
4	*2437.00	114.8 AV			1.73 V	331	118.1	-3.3
5	2483.50	54.3 PK	74.0	-19.7	1.73 V	331	57.4	-3.1
6	2483.50	41.9 AV	54.0	-12.1	1.73 V	331	45.0	-3.1
7	4874.00	56.2 PK	74.0	-17.8	1.40 V	147	54.2	2.0
8	4874.00	53.2 AV	54.0	-0.8	1.40 V	147	51.2	2.0
9	7311.00	43.8 PK	74.0	-30.2	2.15 V	293	36.3	7.5
10	7311.00	36.7 AV	54.0	-17.3	2.15 V	293	29.2	7.5

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	117.2 PK			3.86 H	285	120.3	-3.1
2	*2462.00	113.7 AV			3.86 H	285	116.8	-3.1
3	2483.50	58.6 PK	74.0	-15.4	3.86 H	285	61.7	-3.1
4	2483.50	50.8 AV	54.0	-3.2	3.86 H	285	53.9	-3.1
5	4924.00	47.2 PK	74.0	-26.8	1.00 H	209	45.1	2.1
6	4924.00	44.3 AV	54.0	-9.7	1.00 H	209	42.2	2.1
7	7386.00	45.7 PK	74.0	-28.3	1.78 H	355	38.2	7.5
8	7386.00	37.5 AV	54.0	-16.5	1.78 H	355	30.0	7.5
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	*2462.00	118.4 PK			1.07 V	11	121.5	-3.1
2	*2462.00	115.5 AV			1.07 V	11	118.6	-3.1
3	2483.50	58.1 PK	74.0	-15.9	1.07 V	11	61.2	-3.1
4	2483.50	53.9 AV	54.0	-0.1	1.07 V	11	57.0	-3.1
5	4924.00	44.1 PK	74.0	-29.9	1.25 V	165	42.0	2.1
6	4924.00	42.2 AV	54.0	-11.8	1.25 V	165	40.1	2.1
7	7386.00	49.2 PK	74.0	-24.8	1.38 V	163	41.7	7.5
8	7386.00	42.8 AV	54.0	-11.2	1.38 V	163	35.3	7.5

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	72.3 PK	74.0	-1.7	1.51 H	65	75.4	-3.1
2	2390.00	50.2 AV	54.0	-3.8	1.51 H	65	53.3	-3.1
3	*2412.00	116.3 PK			1.51 H	65	119.5	-3.2
4	*2412.00	106.2 AV			1.51 H	65	109.4	-3.2
5	4824.00	47.7 PK	74.0	-26.3	1.04 H	220	45.7	2.0
6	4824.00	44.7 AV	54.0	-9.3	1.04 H	220	42.7	2.0
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	2390.00	72.7 PK	74.0	-1.3	1.50 V	344	75.8	-3.1
2	2390.00	53.5 AV	54.0	-0.5	1.50 V	344	56.6	-3.1
3	*2412.00	118.6 PK			1.50 V	344	121.8	-3.2
4	*2412.00	106.8 AV			1.50 V	344	110.0	-3.2
5	4824.00	44.9 PK	74.0	-29.1	1.51 V	164	42.9	2.0
6	4824.00	31.8 AV	54.0	-22.2	1.51 V	164	29.8	2.0

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.7 PK	74.0	-9.3	1.99 H	101	67.8	-3.1
2	2390.00	47.9 AV	54.0	-6.1	1.99 H	101	51.0	-3.1
3	*2437.00	121.1 PK			1.99 H	101	124.4	-3.3
4	*2437.00	110.8 AV			1.99 H	101	114.1	-3.3
5	2483.50	66.5 PK	74.0	-7.5	1.99 H	101	69.6	-3.1
6	2483.50	51.8 AV	54.0	-2.2	1.99 H	101	54.9	-3.1
7	4874.00	48.4 PK	74.0	-25.6	1.05 H	222	46.4	2.0
8	4874.00	45.2 AV	54.0	-8.8	1.05 H	222	43.2	2.0
9	7311.00	45.6 PK	74.0	-28.4	1.70 H	360	38.1	7.5
10	7311.00	37.4 AV	54.0	-16.6	1.70 H	360	29.9	7.5
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	64.6 PK	74.0	-9.4	1.73 V	336	67.7	-3.1
2	2390.00	51.1 AV	54.0	-2.9	1.73 V	336	54.2	-3.1
3	*2437.00	120.8 PK			1.73 V	336	124.1	-3.3
4	*2437.00	110.2 AV			1.73 V	336	113.5	-3.3
5	2483.50	65.6 PK	74.0	-8.4	1.73 V	336	68.7	-3.1
6	2483.50	50.5 AV	54.0	-3.5	1.73 V	336	53.6	-3.1
7	4874.00	60.4 PK	74.0	-13.6	1.51 V	165	58.4	2.0
8	4874.00	47.8 AV	54.0	-6.2	1.51 V	165	45.8	2.0
9	7311.00	47.6 PK	74.0	-26.4	1.04 V	31	40.1	7.5
10	7311.00	34.5 AV	54.0	-19.5	1.04 V	31	27.0	7.5

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	115.4 PK			1.49 H	127	118.5	-3.1
2	*2462.00	104.9 AV			1.49 H	127	108.0	-3.1
3	2483.50	68.0 PK	74.0	-6.0	1.49 H	127	71.1	-3.1
4	2483.50	49.6 AV	54.0	-4.4	1.49 H	127	52.7	-3.1
5	4924.00	47.9 PK	74.0	-26.1	1.02 H	210	45.8	2.1
6	4924.00	45.0 AV	54.0	-9.0	1.02 H	210	42.9	2.1
7	7386.00	46.1 PK	74.0	-27.9	1.69 H	355	38.6	7.5
8	7386.00	37.8 AV	54.0	-16.2	1.69 H	355	30.3	7.5
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	*2462.00	117.8 PK			3.97 V	355	120.9	-3.1
2	*2462.00	107.8 AV			3.97 V	355	110.9	-3.1
3	2483.50	73.1 PK	74.0	-0.9	3.97 V	355	76.2	-3.1
4	2483.50	53.7 AV	54.0	-0.3	3.97 V	355	56.8	-3.1
5	4924.00	43.9 PK	74.0	-30.1	1.44 V	166	41.8	2.1
6	4924.00	31.4 AV	54.0	-22.6	1.44 V	166	29.3	2.1
7	7386.00	42.8 PK	74.0	-31.2	1.67 V	48	35.3	7.5
8	7386.00	30.6 AV	54.0	-23.4	1.67 V	48	23.1	7.5

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.1 PK	74.0	-11.9	1.51 H	55	65.2	-3.1
2	2390.00	45.1 AV	54.0	-8.9	1.51 H	55	48.2	-3.1
3	*2412.00	117.9 PK			1.51 H	55	121.1	-3.2
4	*2412.00	105.6 AV			1.51 H	55	108.8	-3.2
5	4824.00	47.8 PK	74.0	-26.2	1.00 H	227	45.8	2.0
6	4824.00	44.5 AV	54.0	-9.5	1.00 H	227	42.5	2.0
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	2390.00	69.7 PK	74.0	-4.3	1.50 V	346	72.8	-3.1
2	2390.00	53.2 AV	54.0	-0.8	1.50 V	346	56.3	-3.1
3	*2412.00	119.8 PK			1.50 V	346	123.0	-3.2
4	*2412.00	107.7 AV			1.50 V	346	110.9	-3.2
5	4824.00	45.9 PK	74.0	-28.1	1.38 V	166	43.9	2.0
6	4824.00	33.7 AV	54.0	-20.3	1.38 V	166	31.7	2.0

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.1 PK	74.0	-13.9	3.68 H	89	63.2	-3.1
2	2390.00	47.1 AV	54.0	-6.9	3.68 H	89	50.2	-3.1
3	*2437.00	120.7 PK			3.68 H	89	124.0	-3.3
4	*2437.00	108.9 AV			3.68 H	89	112.2	-3.3
5	2483.50	65.1 PK	74.0	-8.9	3.68 H	89	68.2	-3.1
6	2483.50	52.1 AV	54.0	-1.9	3.68 H	89	55.2	-3.1
7	4874.00	47.2 PK	74.0	-26.8	1.05 H	232	45.2	2.0
8	4874.00	44.3 AV	54.0	-9.7	1.05 H	232	42.3	2.0
9	7311.00	46.2 PK	74.0	-27.8	1.67 H	360	38.7	7.5
10	7311.00	37.9 AV	54.0	-16.1	1.67 H	360	30.4	7.5
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	62.1 PK	74.0	-11.9	1.50 V	334	65.2	-3.1
2	2390.00	52.3 AV	54.0	-1.7	1.50 V	334	55.4	-3.1
3	*2437.00	120.3 PK			1.50 V	334	123.6	-3.3
4	*2437.00	111.0 AV			1.50 V	334	114.3	-3.3
5	2483.50	69.8 PK	74.0	-4.2	1.50 V	334	72.9	-3.1
6	2483.50	53.9 AV	54.0	-0.1	1.50 V	334	57.0	-3.1
7	4874.00	56.9 PK	74.0	-17.1	1.50 V	166	54.9	2.0
8	4874.00	43.5 AV	54.0	-10.5	1.50 V	166	41.5	2.0
9	7311.00	45.9 PK	74.0	-28.1	1.04 V	106	38.4	7.5
10	7311.00	32.9 AV	54.0	-21.1	1.04 V	106	25.4	7.5

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 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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	118.5 PK			2.75 H	107	121.6	-3.1
2	*2462.00	105.7 AV			2.75 H	107	108.8	-3.1
3	2483.50	69.9 PK	74.0	-4.1	2.75 H	107	73.0	-3.1
4	2483.50	51.8 AV	54.0	-2.2	2.75 H	107	54.9	-3.1
5	4924.00	48.3 PK	74.0	-25.7	1.01 H	222	46.2	2.1
6	4924.00	45.0 AV	54.0	-9.0	1.01 H	222	42.9	2.1
7	7386.00	45.4 PK	74.0	-28.6	1.67 H	360	37.9	7.5
8	7386.00	37.5 AV	54.0	-16.5	1.67 H	360	30.0	7.5
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	*2462.00	120.0 PK			1.49 V	353	123.1	-3.1
2	*2462.00	108.1 AV			1.49 V	353	111.2	-3.1
3	2483.50	67.2 PK	74.0	-6.8	1.49 V	353	70.3	-3.1
4	2483.50	52.6 AV	54.0	-1.4	1.49 V	353	55.7	-3.1
5	4924.00	42.0 PK	74.0	-32.0	1.42 V	167	39.9	2.1
6	4924.00	32.5 AV	54.0	-21.5	1.42 V	167	30.4	2.1
7	7386.00	42.8 PK	74.0	-31.2	1.01 V	51	35.3	7.5
8	7386.00	30.6 AV	54.0	-23.4	1.01 V	51	23.1	7.5

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 (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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.4 PK	74.0	-11.6	3.72 H	91	65.5	-3.1
2	2390.00	49.7 AV	54.0	-4.3	3.72 H	91	52.8	-3.1
3	*2422.00	113.2 PK			3.72 H	91	116.4	-3.2
4	*2422.00	102.5 AV			3.72 H	91	105.7	-3.2
5	4844.00	48.6 PK	74.0	-25.4	1.01 H	215	46.6	2.0
6	4844.00	45.2 AV	54.0	-8.8	1.01 H	215	43.2	2.0
7	7266.00	45.4 PK	74.0	-28.6	1.71 H	360	37.7	7.7
8	7266.00	37.5 AV	54.0	-16.5	1.71 H	360	29.8	7.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.4 PK	74.0	-5.6	1.18 V	354	71.5	-3.1
2	2390.00	53.1 AV	54.0	-0.9	1.18 V	354	56.2	-3.1
3	*2422.00	117.4 PK			1.18 V	354	120.6	-3.2
4	*2422.00	105.4 AV			1.18 V	354	108.6	-3.2
5	4844.00	42.9 PK	74.0	-31.1	1.76 V	168	40.9	2.0
6	4844.00	30.1 AV	54.0	-23.9	1.76 V	168	28.1	2.0
7	7266.00	43.1 PK	74.0	-30.9	3.00 V	127	35.4	7.7
8	7266.00	30.7 AV	54.0	-23.3	3.00 V	127	23.0	7.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.4 PK	74.0	-10.6	2.00 H	80	66.5	-3.1
2	2390.00	46.9 AV	54.0	-7.1	2.00 H	80	50.0	-3.1
3	*2437.00	115.8 PK			2.00 H	80	119.1	-3.3
4	*2437.00	104.8 AV			2.00 H	80	108.1	-3.3
5	2483.50	67.1 PK	74.0	-6.9	2.00 H	80	70.2	-3.1
6	2483.50	53.1 AV	54.0	-0.9	2.00 H	80	56.2	-3.1
7	4874.00	47.3 PK	74.0	-26.7	1.00 H	227	45.3	2.0
8	4874.00	44.3 AV	54.0	-9.7	1.00 H	227	42.3	2.0
9	7311.00	46.4 PK	74.0	-27.6	1.76 H	350	38.9	7.5
10	7311.00	38.1 AV	54.0	-15.9	1.76 H	350	30.6	7.5
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	63.2 PK	74.0	-10.8	1.75 V	336	66.3	-3.1
2	2390.00	45.8 AV	54.0	-8.2	1.75 V	336	48.9	-3.1
3	*2437.00	117.6 PK			1.75 V	336	120.9	-3.3
4	*2437.00	105.6 AV			1.75 V	336	108.9	-3.3
5	2483.50	70.3 PK	74.0	-3.7	1.75 V	336	73.4	-3.1
6	2483.50	53.1 AV	54.0	-0.9	1.75 V	336	56.2	-3.1
7	4874.00	44.4 PK	74.0	-29.6	1.01 V	165	42.4	2.0
8	4874.00	30.5 AV	54.0	-23.5	1.01 V	165	28.5	2.0
9	7311.00	41.7 PK	74.0	-32.3	1.08 V	180	34.2	7.5
10	7311.00	29.8 AV	54.0	-24.2	1.08 V	180	22.3	7.5

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 (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, 75 % RH
Tested By	Louis Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	114.0 PK			2.76 H	82	117.1	-3.1
2	*2452.00	101.5 AV			2.76 H	82	104.6	-3.1
3	2483.50	67.3 PK	74.0	-6.7	2.76 H	82	70.4	-3.1
4	2483.50	52.6 AV	54.0	-1.4	2.76 H	82	55.7	-3.1
5	4904.00	40.4 PK	74.0	-33.6	1.48 H	114	38.3	2.1
6	4904.00	28.7 AV	54.0	-25.3	1.48 H	114	26.6	2.1
7	7356.00	41.2 PK	74.0	-32.8	1.51 H	326	33.7	7.5
8	7356.00	29.8 AV	54.0	-24.2	1.51 H	326	22.3	7.5
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	*2452.00	117.4 PK			1.51 V	347	120.5	-3.1
2	*2452.00	105.0 AV			1.51 V	347	108.1	-3.1
3	2483.50	72.2 PK	74.0	-1.8	1.51 V	347	75.3	-3.1
4	2483.50	53.8 AV	54.0	-0.2	1.51 V	347	56.9	-3.1
5	4904.00	40.5 PK	74.0	-33.5	1.36 V	165	38.4	2.1
6	4904.00	29.9 AV	54.0	-24.1	1.36 V	165	27.8	2.1
7	7356.00	41.9 PK	74.0	-32.1	1.51 V	200	34.4	7.5
8	7356.00	31.1 AV	54.0	-22.9	1.51 V	200	23.6	7.5

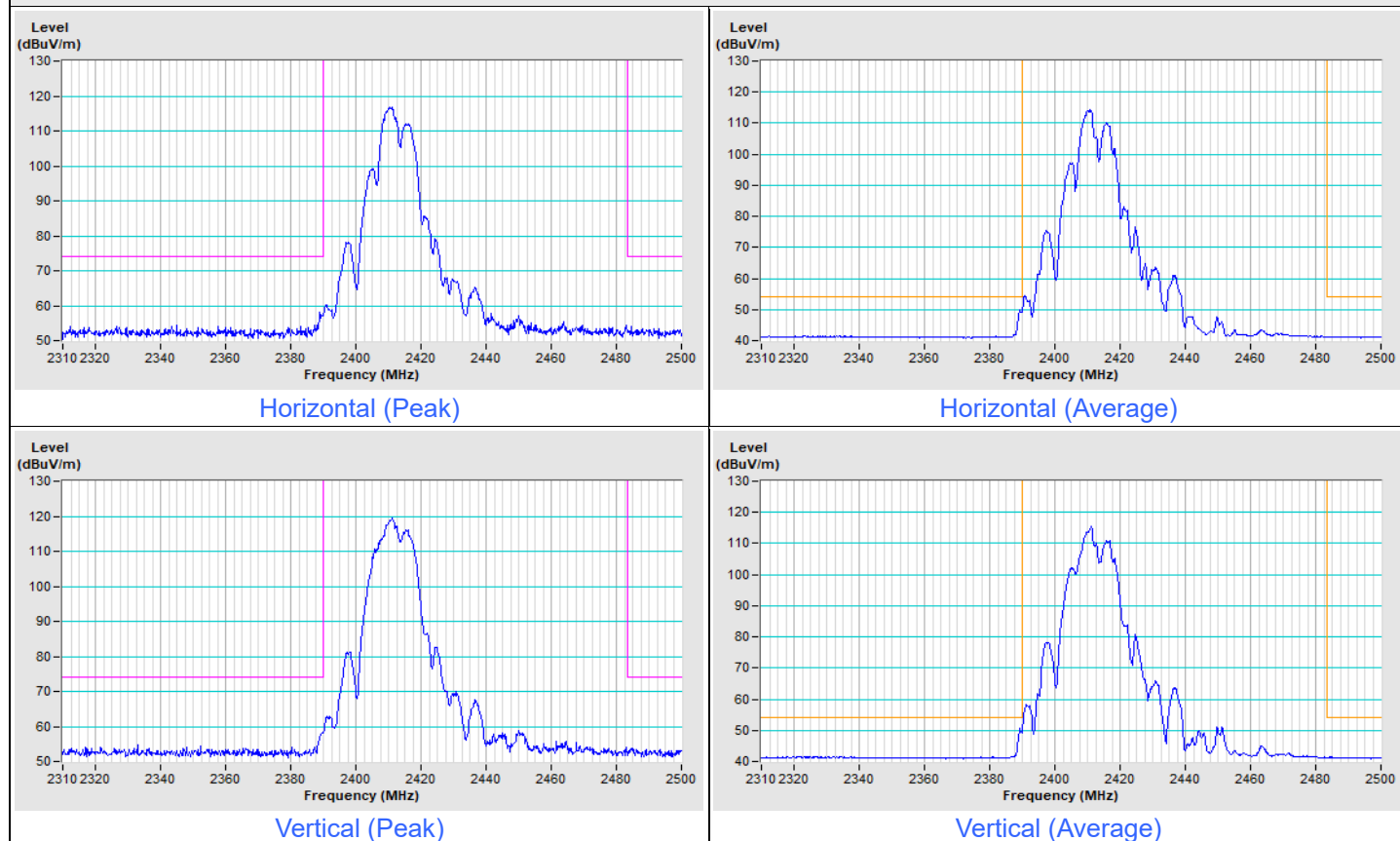
Remarks:

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.

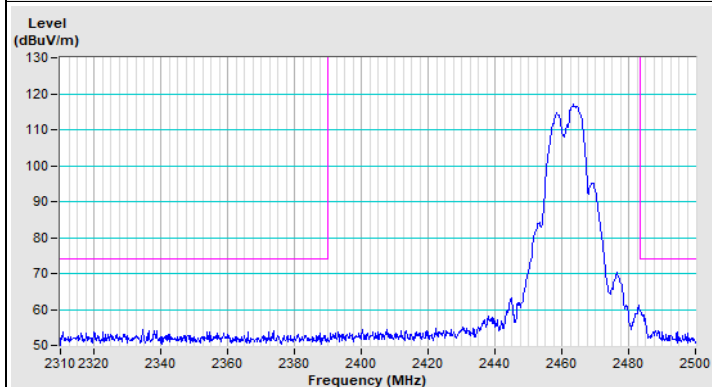
Plot of Band Edge

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=10 Hz, DET=Peak
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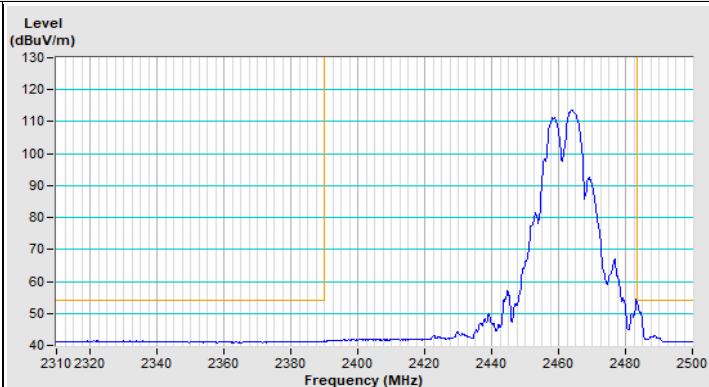
802.11b Channel 1



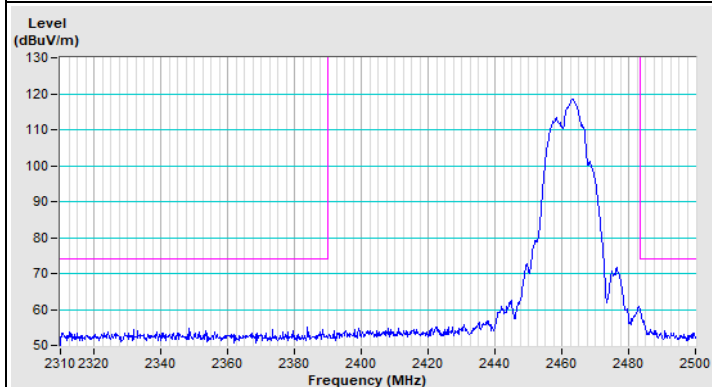
802.11b Channel 11



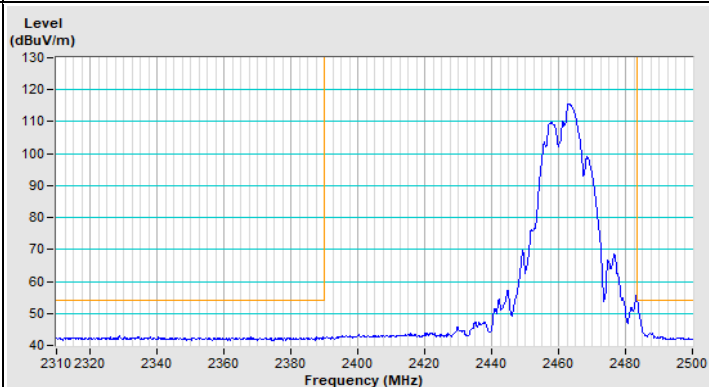
Horizontal (Peak)



Horizontal (Average)



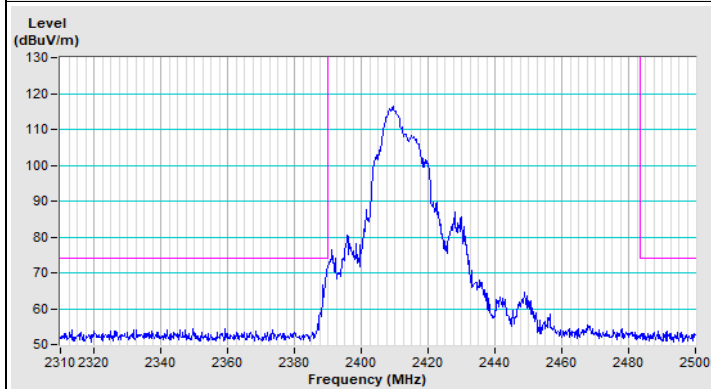
Vertical (Peak)



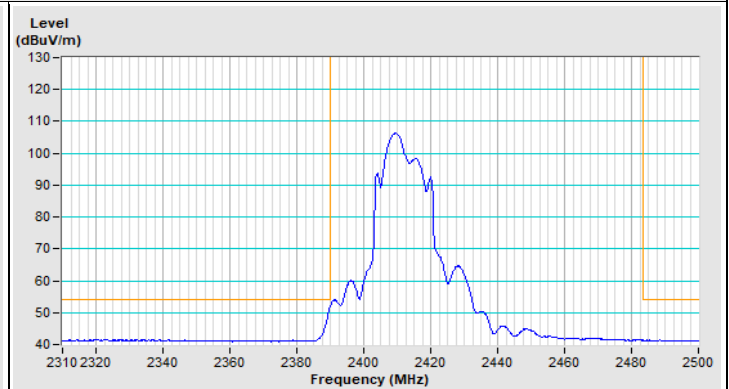
Vertical (Average)

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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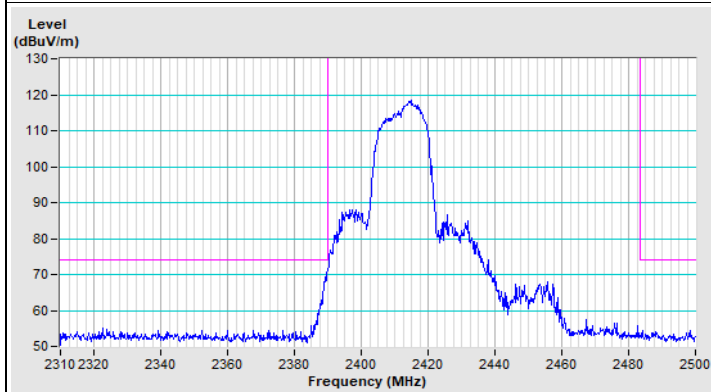
802.11g Channel 1



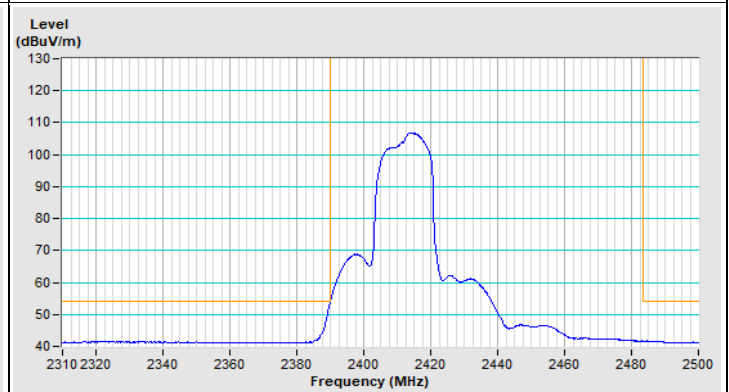
Horizontal (Peak)



Horizontal (Average)

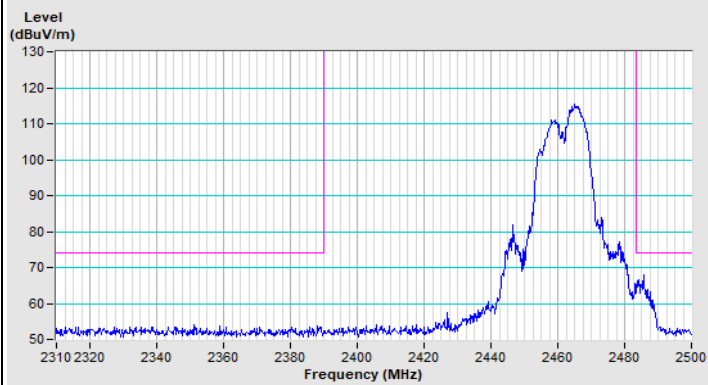


Vertical (Peak)

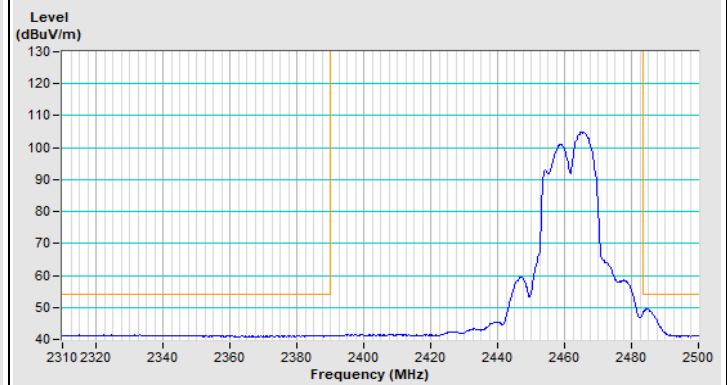


Vertical (Average)

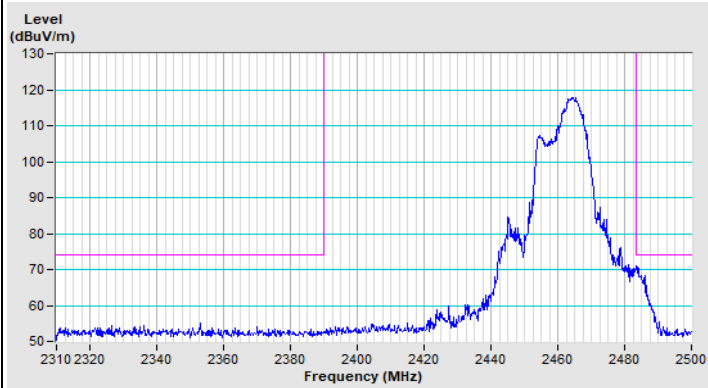
802.11g Channel 11



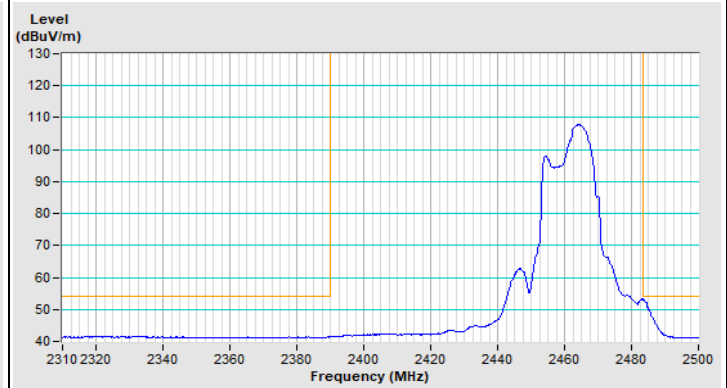
Horizontal (Peak)



Horizontal (Average)



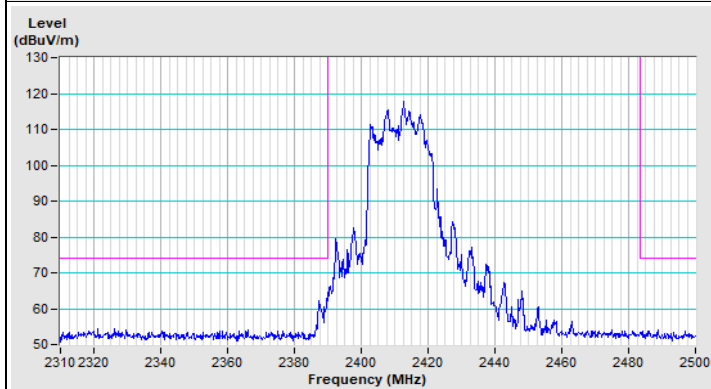
Vertical (Peak)



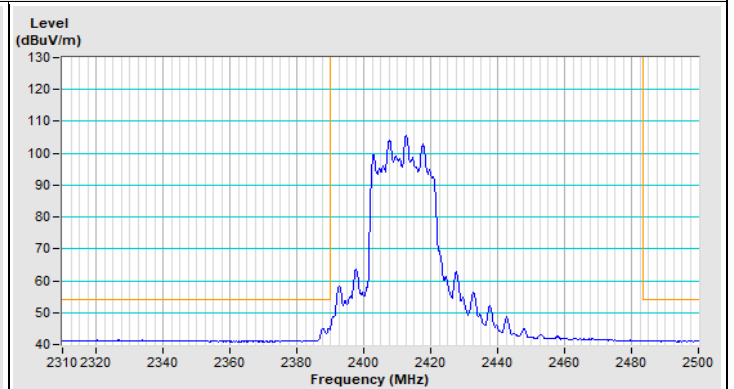
Vertical (Average)

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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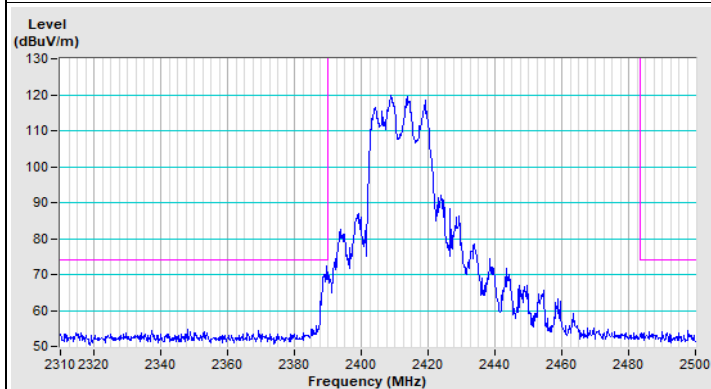
802.11be (EHT20) Channel 1



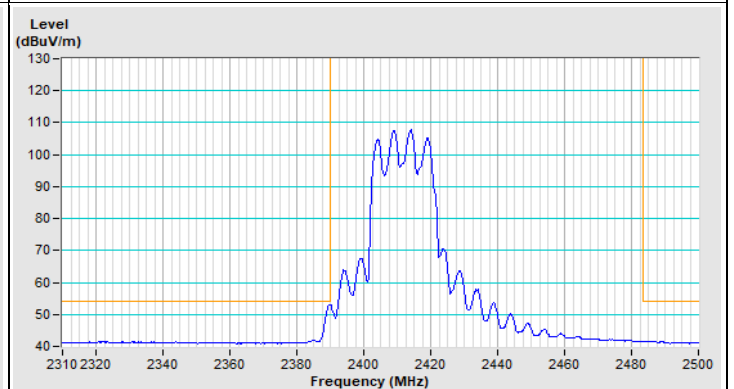
Horizontal (Peak)



Horizontal (Average)

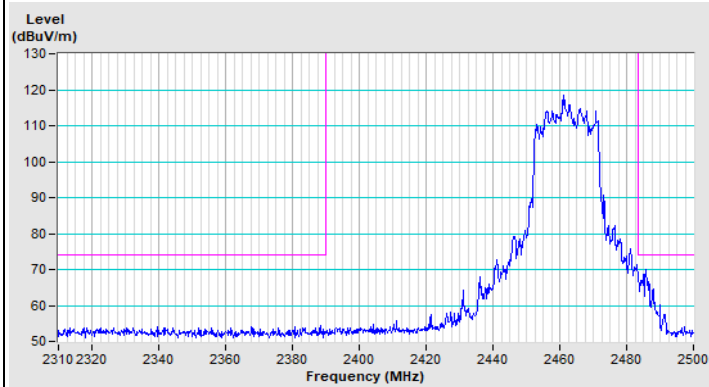


Vertical (Peak)

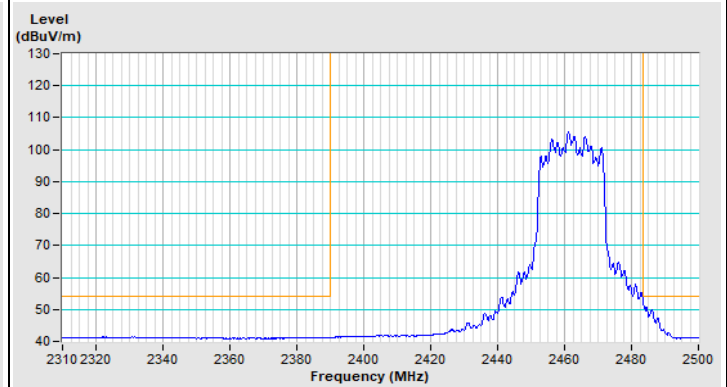


Vertical (Average)

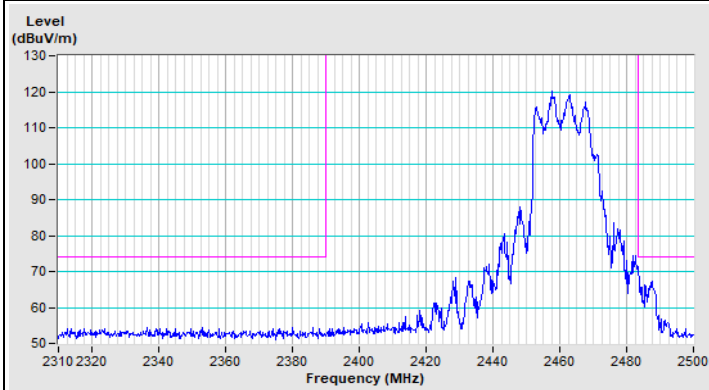
802.11be (EHT20) Channel 11



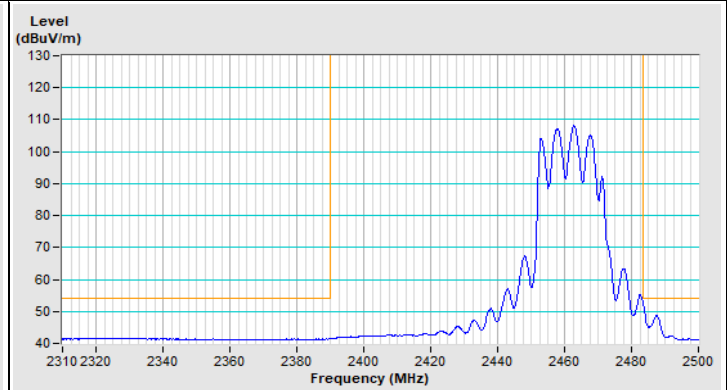
Horizontal (Peak)



Horizontal (Average)



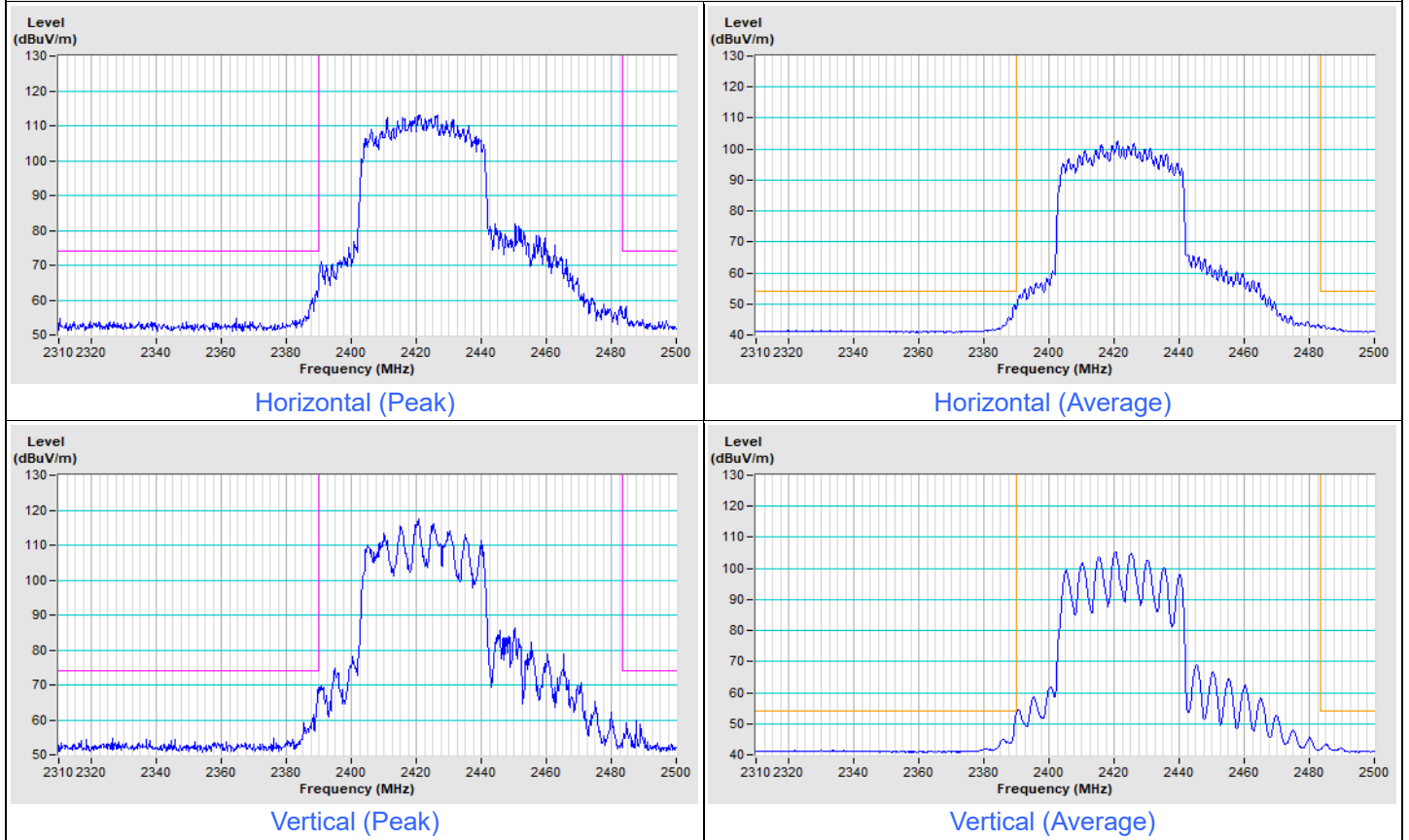
Vertical (Peak)



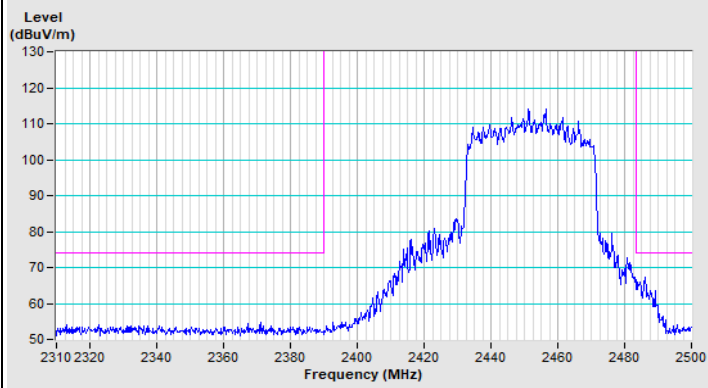
Vertical (Average)

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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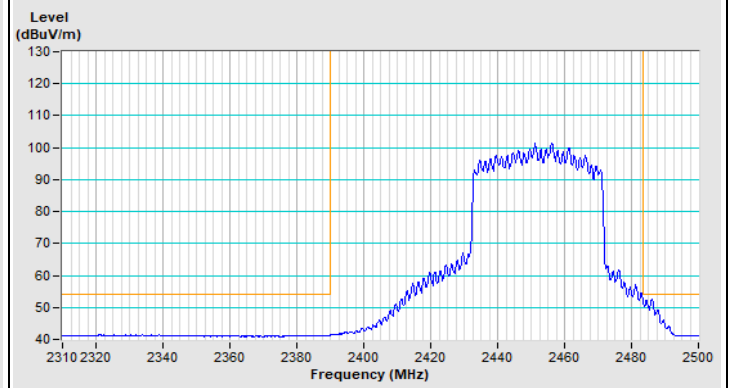
802.11be (EHT40) Channel 3



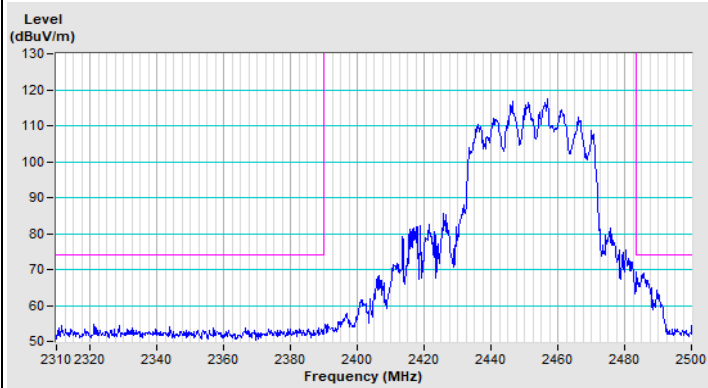
802.11be (EHT40) Channel 9



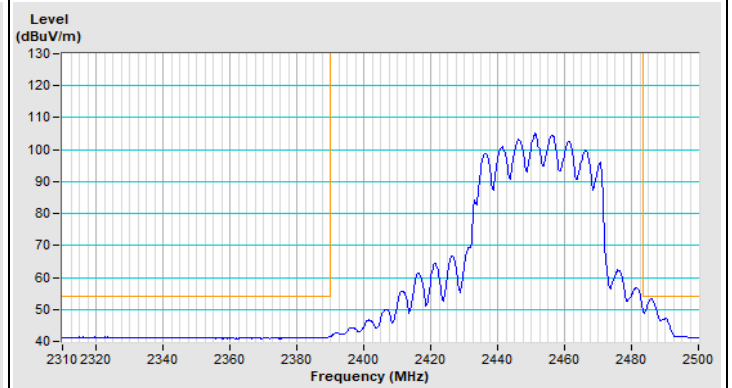
Horizontal (Peak)



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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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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