

# TEST REPORT

## CERTIFICATE OF CONFORMITY

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

**Report No.:** RFBEIH-WTW-P25030743-5

**FCC ID:** P27-TMOG5SE

**Product:** T-Mobile 5G Gateway

**Brand:** T-Mobile

**Model No.:** TMO-G5SE

**Received Date:** 2025/4/1

**Test Date:** 2025/4/18 ~ 2025/5/12

**Issued Date:** 2025/6/11

**Applicant:** Sercomm Corp.

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

**Designation Number:** 788550 / TW0003 for Test Location(1)  
198487 / TW2021 for Test Location(2)  
281270 / TW0032 for Test Location(3)

Approved by: \_\_\_\_\_

*Jeremy Lin*

Jeremy Lin / Project Engineer

, Date: \_\_\_\_\_

2025/6/11

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Prepared by : Annie Chang / Senior Specialist



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## Release Control Record

Issue No.	Description	Date Issued
RFBEIH-WTW-P25030743-5	Original release.	2025/6/11

## 1 Certificate

**Product:** T-Mobile 5G Gateway  
**Brand:** T-Mobile  
**Test Model:** TMO-G5SE  
**Sample Status:** Engineering sample  
**Applicant:** Sercomm Corp.  
**Test Date:** 2025/4/18 ~ 2025/5/12  
**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 -6.40 dB at 0.41800 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -1.9 dB at 51.34 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 2390.00 MHz and 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is U.FL 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	-	960 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.7 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 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	T-Mobile 5G Gateway
Brand	T-Mobile
Test Model	TMO-G5SE
Status of EUT	Engineering sample
Power Supply Rating	20Vdc, 3.0A, 60W
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	Up to 1147.1 Mbps Up to 1376 Mbps (802.11be)
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	985.372 mW (29.94 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
Adapter 1	MASS POWER	PD065E-D1C0AVU	AC Input : 100-240V, 50/60Hz, 1.5A DC Output : 5.0V, 3.0A or 9.0V, 3.0A or 12.0V, 3.0A or 15.0, 3.0A or 20.0V, 3.0A DC Cable : 1.8m non-shielded
Adapter 2	MOSO	P30-V3000R200-060Q0-US	AC Input : 100-240V, 50/60Hz, 1.7A DC Output : 5V, 3A or 9V, 3A or 12V, 3A or 15, 3A or 20V, 3A DC Cable : 1.8m non-shielded
Adapter 3	Sercomm	PU60W200ULW18-ECY-00	AC Input : 100-240V, 50/60Hz, 1.3A DC Output : 5.0V, 3.0A, 15W or 9.0V, 3.0A, 27W or 12.0V, 3.0A, 36W or 15.0, 3.0A, 45W or 20.0V, 3.0A, 60W DC Cable : 1.8m non-shielded

2. Two Bluetooth modules provided to the EUT, please refer to the following table:

No.	Model	Function
1	EFR32BG21A020F512IM32	BT-LE
2	EFR32MG21A020F512IM32	BT-LE, Zigbee, Thread, Matter

3. There are Bluetooth, Zigbee, Thread, Matter, WWAN (WCDMA/LTE/5G NR) and WLAN (2.4 GHz/ 5 GHz/ 6 GHz) technology used for the EUT.

4. Simultaneously transmission combination.

Combination	Technology					
	WLAN (2.4 GHz)	WLAN (5 GHz)	WLAN (6 GHz)	WWAN	BT-LE (EFR32BG21A020F512IM32)	Zigbee (EFR32MG21A020F512IM32)
1						

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

5. Contains Module FCC ID: P27-TMOG5SEM

6. 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.

Function	Antenna Gain (dBi)	Directional Gain (dBi)	Antenna Type	Connector Type
WLAN 2.4 GHz	3.88	5.38	Dipole	U.FL

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

\* The directional antenna gain information is declared by manufacturer and more detailed features description please refer to operation description of antenna specifications exhibit.

2. The EUT incorporates a MIMO function:

2.4 GHz Band			
Modulation Mode	Beamforming Mode	TX & RX Configuration	
802.11b	Not Support	4TX	4RX
802.11g	Not Support	4TX	4RX
802.11n (HT20)	Support	4TX	4RX
802.11n (HT40)	Support	4TX	4RX
VHT20	Support	4TX	4RX
VHT40	Support	4TX	4RX
802.11ax (HE20)	Support	4TX	4RX
802.11ax (HE40)	Support	4TX	4RX
802.11be (EHT20)	Support	4TX	4RX
802.11be (EHT40)	Support	4TX	4RX

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 manufacturer will control the power for 802.11n/VHT/ax mode is same as the 802.11be mode or more lower than it and investigated worst case to representative mode in test report.
4. The EUT device modulation technique OFDMA does not support partial RUs (resource units) and channel puncturing/bandwidth reduction mechanisms.

### 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. EUT has PD065E-D1C0AVU/ P30-V3000R200-060Q0-US/ PU60W200ULW18-ECY-00 adpter mode of power supply.Pre-scan these modes and find the worst charging case as a representative test condition.
Worst Case:	1. PD065E-D1C0AVU/ P30-V3000R200-060Q0-US/ PU60W200ULW18-ECY-00 adapter worse condition: PD065E-D1C0AVU.

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	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD	3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)	CDD	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD	3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11be (EHT40)	CDD	6	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11be (EHT40)	CDD	6	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11b	CDD	1, 6, 11	DBPSK	1Mb/s
	802.11g	CDD	1, 6, 11	BPSK	6Mb/s
	802.11be (EHT20)	CDD	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD	3, 6, 9	BPSK	MCS0

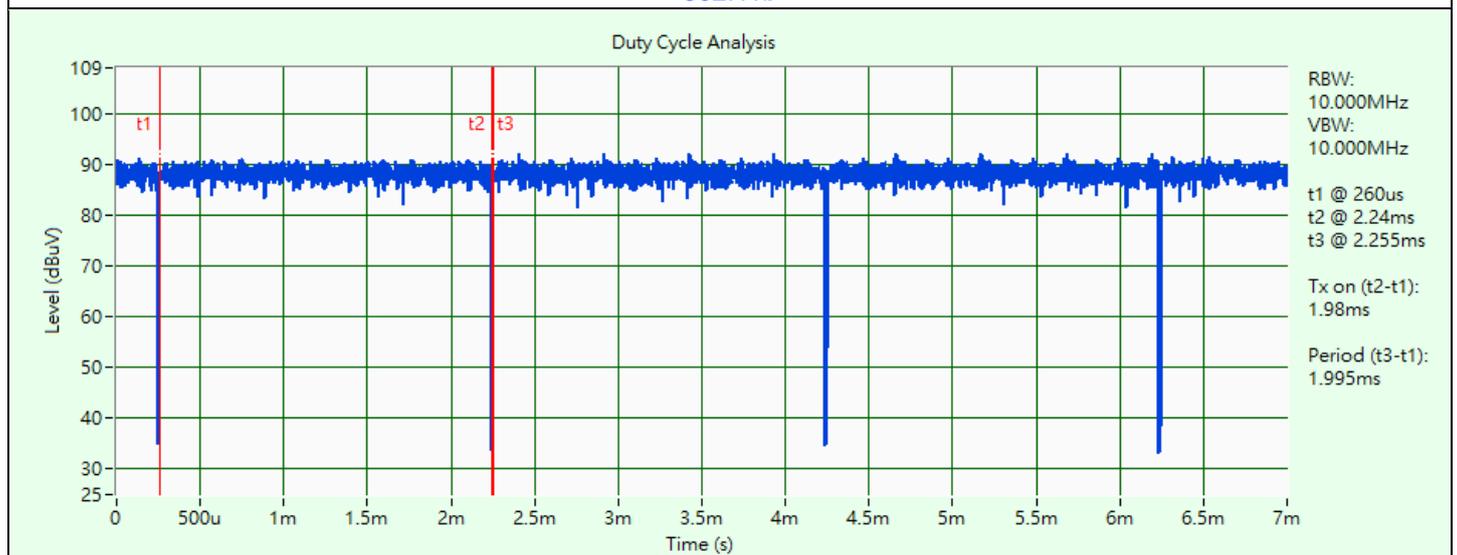
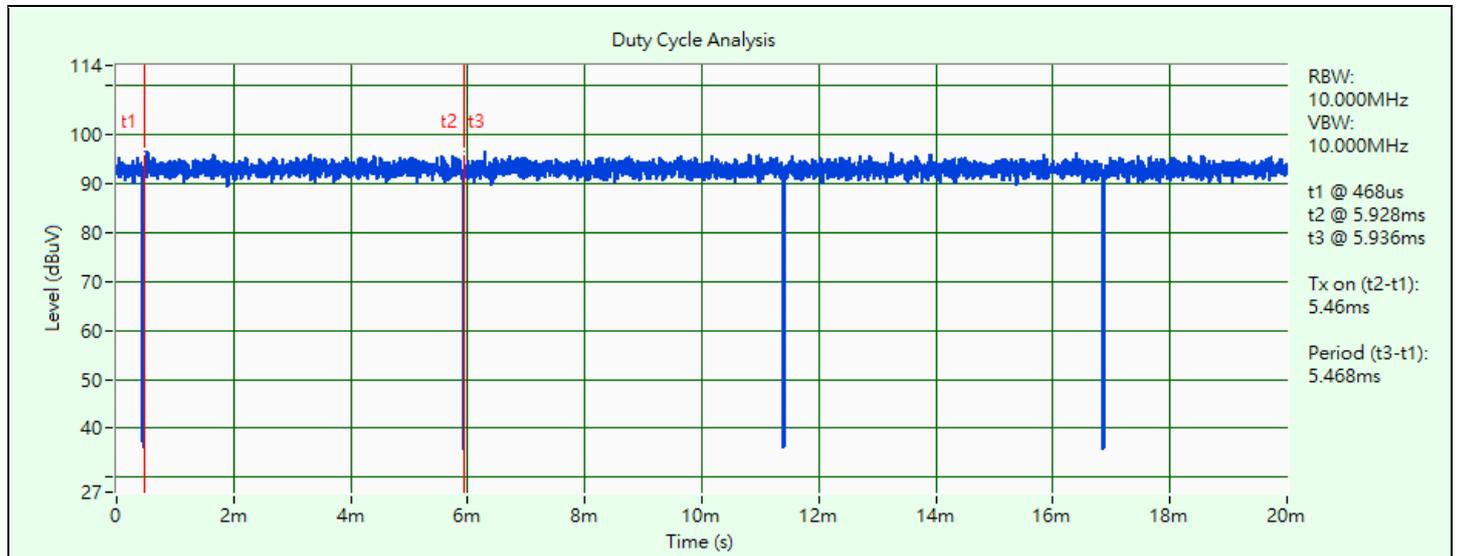
### 3.5 Duty Cycle of Test Signal

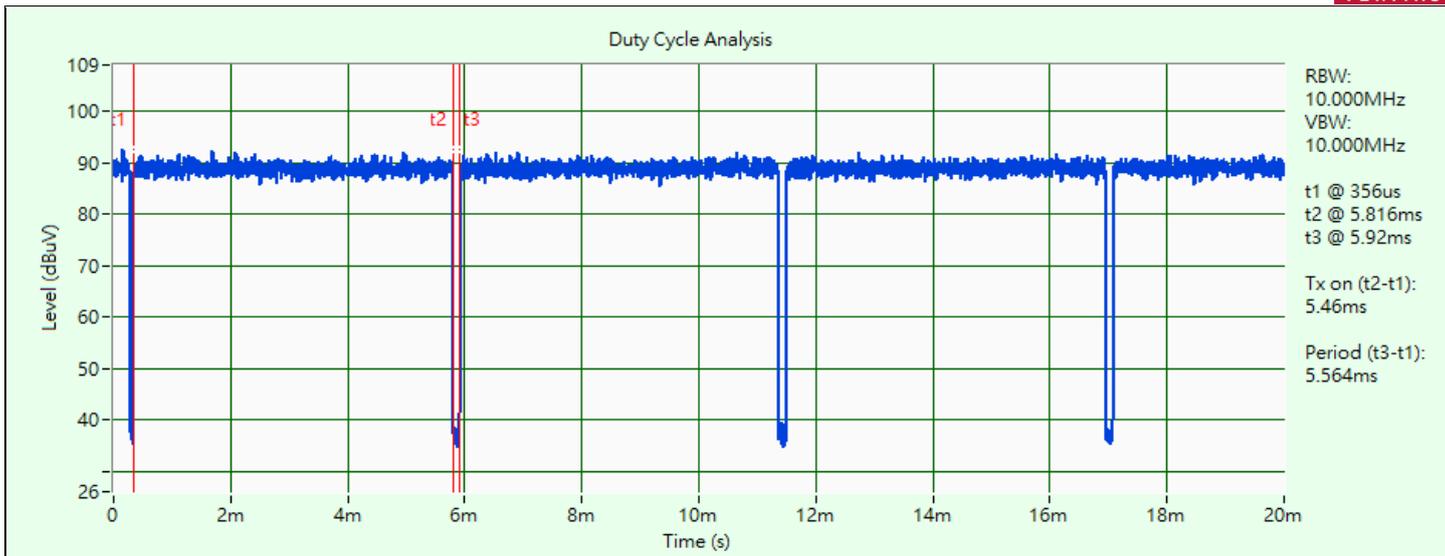
**802.11b:** Duty cycle = 5.46 ms / 5.468 ms x 100% = 99.9%

**802.11g:** Duty cycle = 1.98 ms / 1.995 ms x 100% = 99.2%

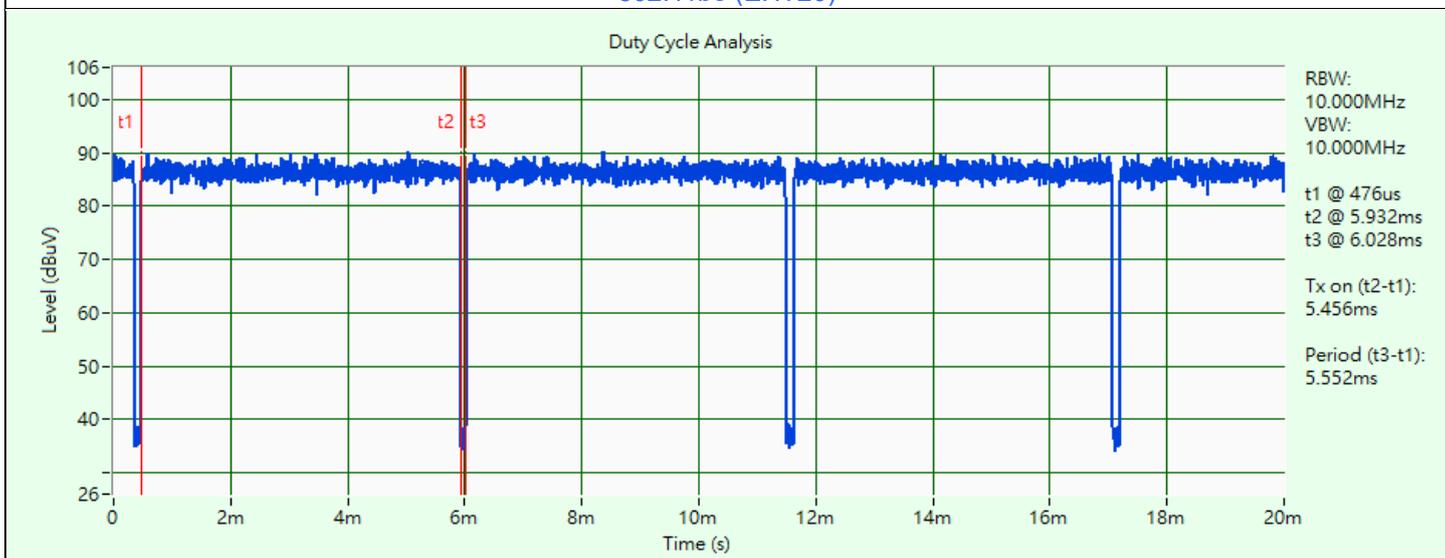
**802.11be (EHT20):** Duty cycle = 5.46 ms / 5.564 ms x 100% = 98.1%

**802.11be (EHT40):** Duty cycle = 5.456 ms / 5.552 ms x 100% = 98.3%





802.11be (EHT20)

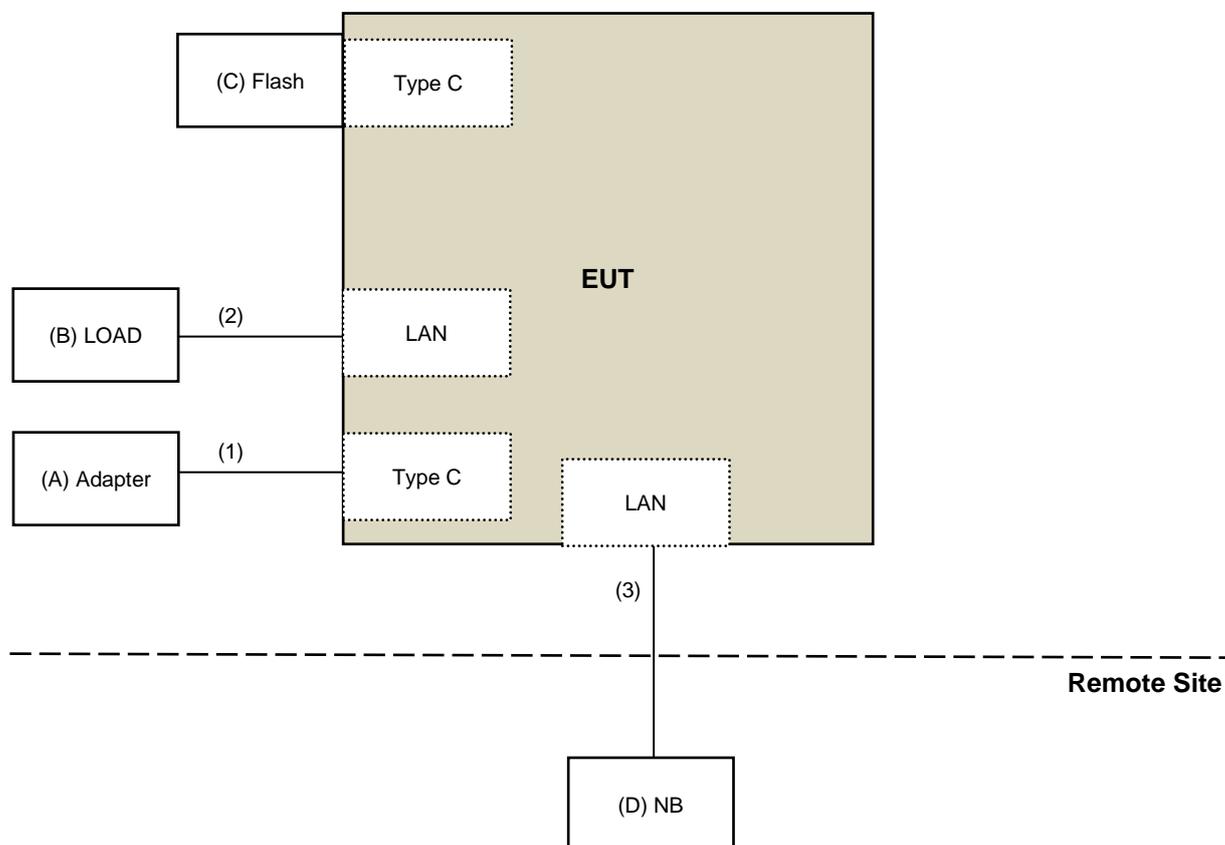


802.11be (EHT40)

### 3.6 Test Program Used and Operation Descriptions

Controlling software (QSPR v6.00.00209.1) 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	Adapter	MASSPOWER	PD065E-D1C0AVU	N/A	N/A	Supplied by applicant
B	LOAD	BV	BV	N/A	N/A	Provided by Lab
C	Flash	SanDisk	32GB	N/A	N/A	Provided by Lab
D	NB	Lenovo	IdeaPad 5 15ITL05	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC cable	1	1.8	N	0	Supplied by applicant
2	LAN cable	1	1.8	N	0	Provided by Lab
3	LAN cable	1	10	N	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 Solvang Technology	STI02-3310-10	STI02-3310-10_013	2024/6/19	2025/6/18
Pulse Power Sensor Anritsu	MA2411B	1339443	2024/5/24	2025/5/23
RF Power Meter Anritsu	ML2495A	1529002	2024/6/7	2025/6/6
USB Wideband Power Sensor Keysight	U2021XA	U2021XA_001	2024/6/7	2025/6/6

Notes:

1. The test was performed in LK - Oven
2. Tested Date: 2025/5/12

### 4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Solvang Technology	STI02-3310-10	STI02-3310-10_013	2024/6/19	2025/6/18
PXA Signal Analyzer Keysight	N9030A	MY54490260	2024/7/17	2025/7/16
Signal Analyzer R&S	FSV40	101042	2024/9/12	2025/9/11
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in LK - Oven
2. Tested Date: 2025/5/12

### 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	E1-011279	04	2024/11/28	2025/11/27
	E1-011280	05	2024/11/28	2025/11/27
	E1-011311	09	2024/11/28	2025/11/27
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2024/11/5	2025/11/4
EMI Test Receiver R&S	ESCI	100613	2024/11/25	2025/11/24
Fixed Attenuator Mini-Circuits	HAT-10+	PAD-COND1-01	2025/1/5	2026/1/4
LISN R&S	ENV216	101826	2025/3/24	2026/3/23
	ESH3-Z5	100311	2024/9/5	2025/9/4
RF Coaxial Cable Woken	5D-FB	Cable-cond1-01	2025/1/5	2026/1/4
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2024/8/28	2025/8/27

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2025/4/18

#### 4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2024/12/30	2025/12/29
Horn Antenna RFSPIN	DRH18-E	210104A18E	2024/11/10	2025/11/9
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2024/11/10	2025/11/9
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier Agilent	83017A	MY39501357	2024/6/12	2025/6/11
Preamplifier EMCI	EMC184045SE	980788	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2025/1/14	2026/1/13
	EMC101G-KM-KM-3000	201258	2025/1/14	2026/1/13
	EMC101G-KM-KM-5000	201261	2025/1/14	2026/1/13
	EMC104-SM-SM-1000	210103	2025/1/14	2026/1/13
	EMC104-SM-SM-3000	201241	2025/1/14	2026/1/13
	EMC104-SM-SM-9000	201244	2025/1/14	2026/1/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2025/4/24

#### 4.7 Unwanted Emissions above 1 GHz

Refer to section 4.6 to get the tested date and information of the instruments.

## 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  $\geq 40$  MHz for any  $N_{ANT}$ ;

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

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

### 5.2 Power Spectral Density

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

### 5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

### 5.4 Conducted Out of Band Emissions

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

### 5.5 AC Power Conducted Emissions

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

Notes:

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

## 5.6 Unwanted Emissions below 1 GHz

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

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

Notes:

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

## 5.7 Unwanted Emissions above 1 GHz

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

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

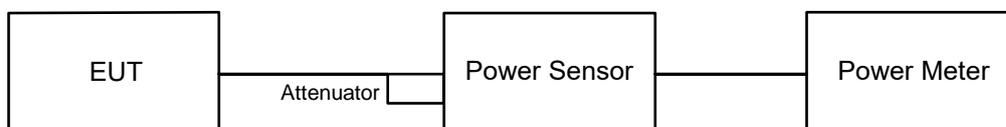
Notes:

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

## 6 Test Arrangements

### 6.1 RF Output Power

#### 6.1.1 Test Setup



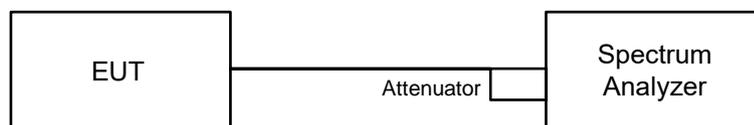
#### 6.1.2 Test Procedure

Average Power:

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

### 6.2 Power Spectral Density

#### 6.2.1 Test Setup



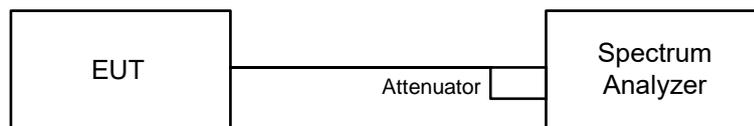
#### 6.2.2 Test Procedure

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

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

### 6.3 6 dB Bandwidth

#### 6.3.1 Test Setup



#### 6.3.2 Test Procedure

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

### 6.4 Conducted Out of Band Emissions

#### 6.4.1 Test Setup



#### 6.4.2 Test Procedure

##### MEASUREMENT PROCEDURE REF

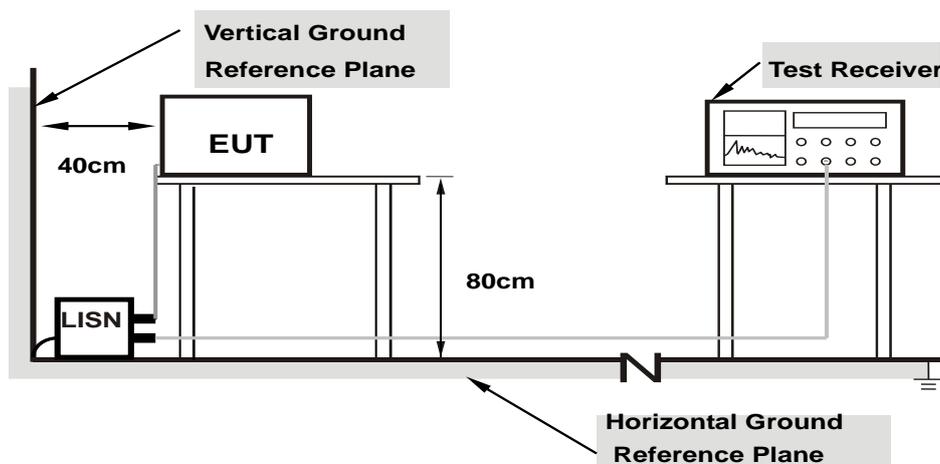
- Set the RBW = 100 kHz.
- Set the VBW  $\geq 300$  kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

##### MEASUREMENT PROCEDURE OOBE

- Set RBW = 100 kHz.
- Set VBW  $\geq 300$  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

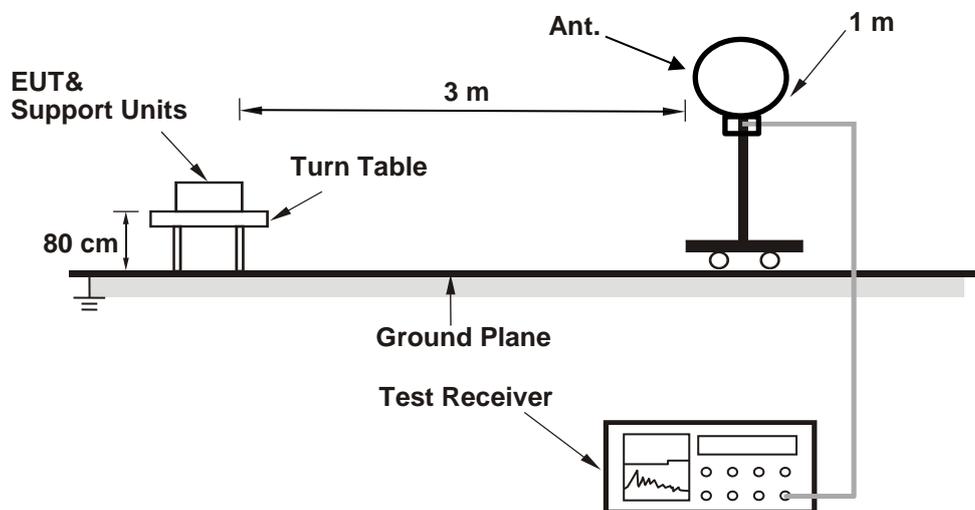
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The 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.

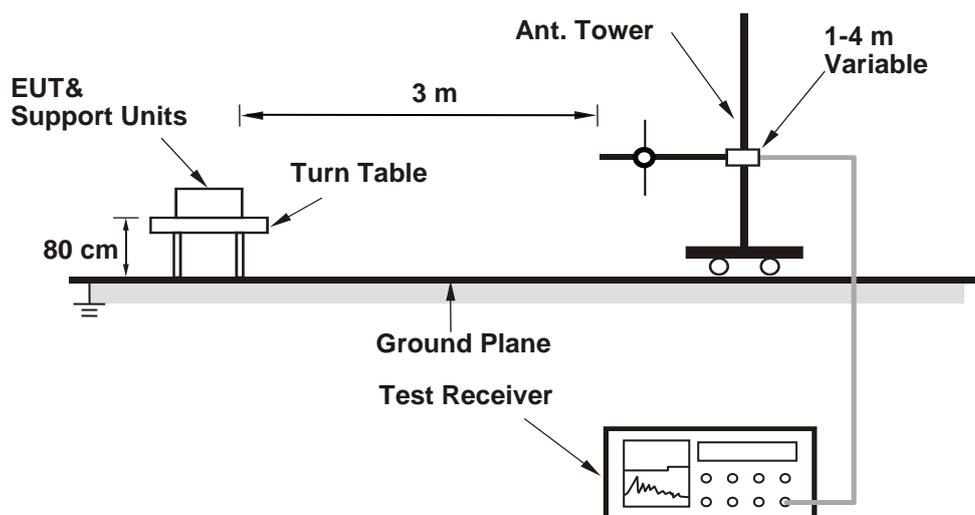
## 6.6 Unwanted Emissions below 1 GHz

### 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

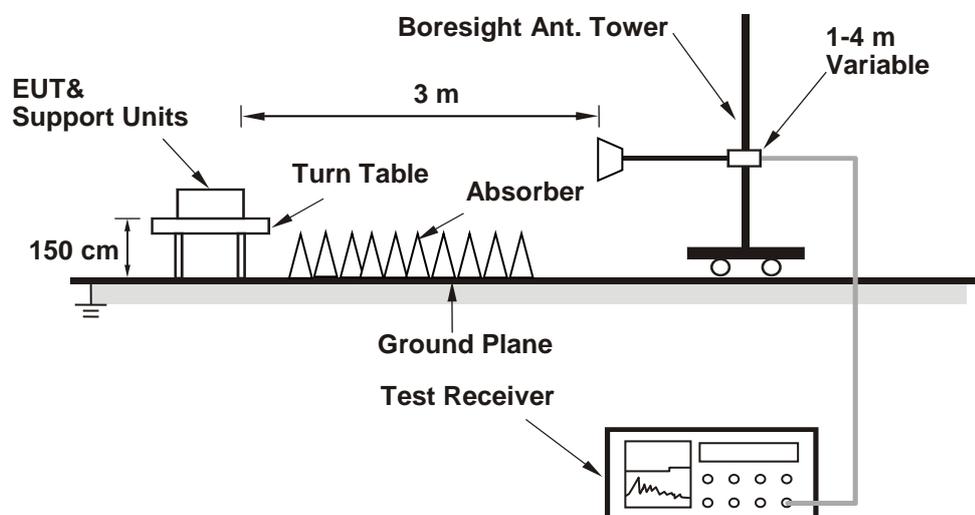
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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, 76% RH	Tested By:	Waydi Tuan
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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	23.83	23.54	23.69	23.36	918.144	29.63	30	Pass
6	2437	23.89	23.66	23.79	23.39	934.785	29.71	30	Pass
11	2462	24.14	23.79	24.03	23.47	974.01	29.89	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.88 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	23.59	23.52	23.52	23.14	884.434	29.47	30	Pass
6	2437	23.81	23.71	23.83	23.30	930.742	29.69	30	Pass
11	2462	22.08	21.98	22.07	21.67	627.154	27.97	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.88 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	23.71	23.71	23.51	23.27	906.639	29.57	30	Pass
6	2437	23.87	23.64	23.72	23.46	932.312	29.70	30	Pass
11	2462	22.20	22.03	22.06	21.83	638.646	28.05	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.88 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	22.64	22.35	22.09	21.97	674.651	28.29	30	Pass
6	2437	23.86	23.93	24.15	23.71	985.372	29.94	30	Pass
9	2452	20.85	20.68	20.63	20.49	466.124	26.69	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.88 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	23.65	23.57	23.35	23.21	884.932	29.47	30	Pass
6	2437	23.72	23.59	23.67	23.37	914.144	29.61	30	Pass
11	2462	22.13	21.87	21.88	21.64	617.172	27.90	30	Pass

Notes:

1. The directional antenna gain information is declared by manufacturer.
2. The directional gain is 5.38 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	22.45	22.18	22.02	21.92	655.806	28.17	30	Pass
6	2437	23.66	23.84	24.01	23.64	957.351	29.81	30	Pass
9	2452	20.68	20.57	20.55	20.38	453.62	26.57	30	Pass

Notes:

1. The directional antenna gain information is declared by manufacturer.
2. The directional gain is 5.38 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, 76% RH	Tested By:	Waydi Tuan
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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	-3.43	-3.99	-4.36	-4.30	2.02	8	Pass
6	2437	-3.34	-2.15	-5.41	-5.04	2.24	8	Pass
11	2462	-3.03	-2.39	-4.66	-3.73	2.65	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. The directional antenna gain information is declared by manufacturer.
3. The directional gain is 5.38 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	-8.06	-8.09	-8.42	-8.67	-2.28	8	Pass
6	2437	-7.81	-7.32	-8.71	-8.84	-2.10	8	Pass
11	2462	-10.89	-10.81	-10.20	-10.68	-4.62	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. The directional antenna gain information is declared by manufacturer.
3. The directional gain is 5.38 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	-10.63	-9.40	-11.27	-10.72	-4.43	8	Pass
6	2437	-9.56	-9.22	-11.69	-11.65	-4.36	8	Pass
11	2462	-12.99	-13.21	-13.31	-13.88	-7.31	8	Pass

#### Notes:

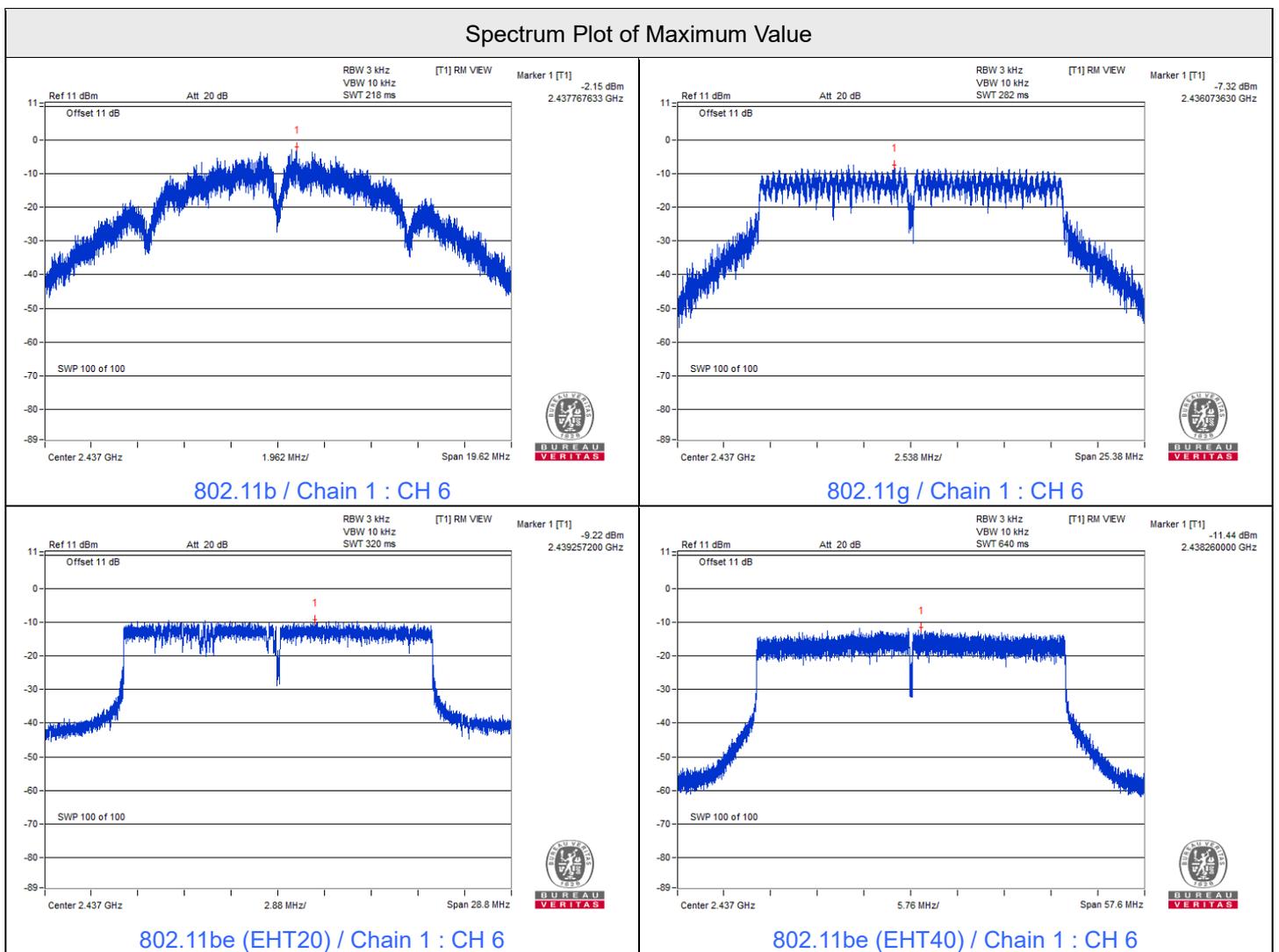
1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. The directional antenna gain information is declared by manufacturer.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.

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	-13.74	-14.35	-14.65	-15.09	-8.41	8	Pass
6	2437	-11.61	-11.44	-12.99	-12.41	-6.05	8	Pass
9	2452	-15.70	-15.40	-15.57	-15.84	-9.60	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. The directional antenna gain information is declared by manufacturer.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.



### 7.3 6 dB Bandwidth

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.15	7.15	7.15	7.15	0.5	Pass
6	2437	7.14	7.59	7.60	8.04	0.5	Pass
11	2462	8.09	8.09	7.61	7.61	0.5	Pass

#### 802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	16.39	16.41	16.38	16.39	0.5	Pass
6	2437	16.39	16.39	16.39	16.37	0.5	Pass
11	2462	16.40	16.41	16.42	16.43	0.5	Pass

#### 802.11be (EHT20)

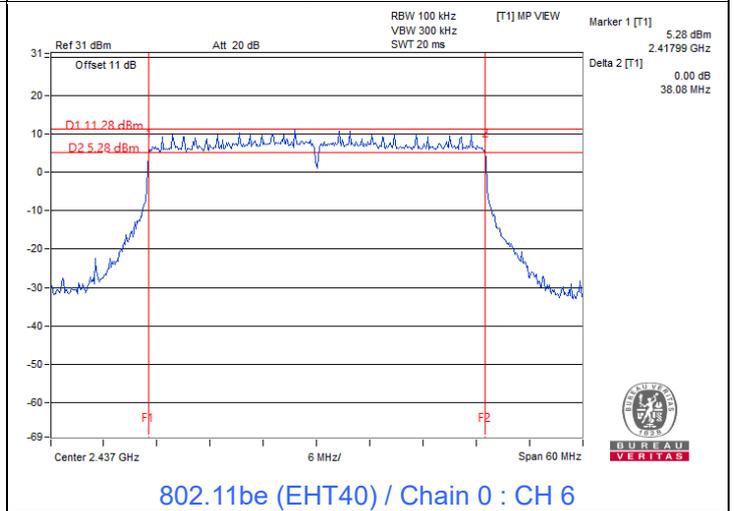
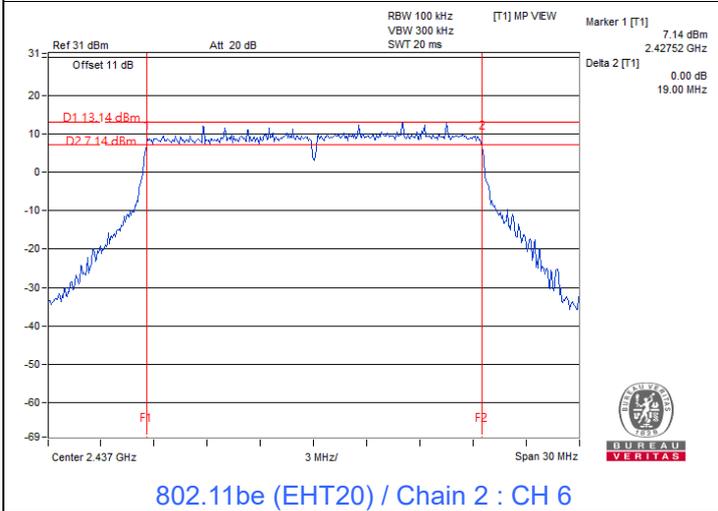
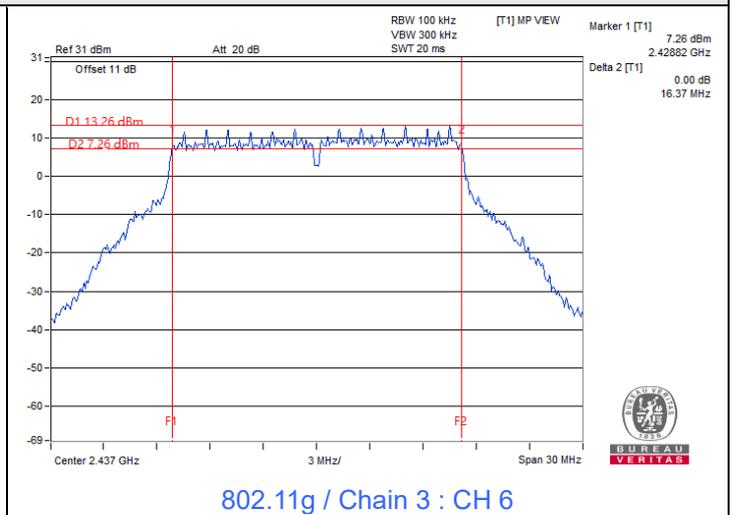
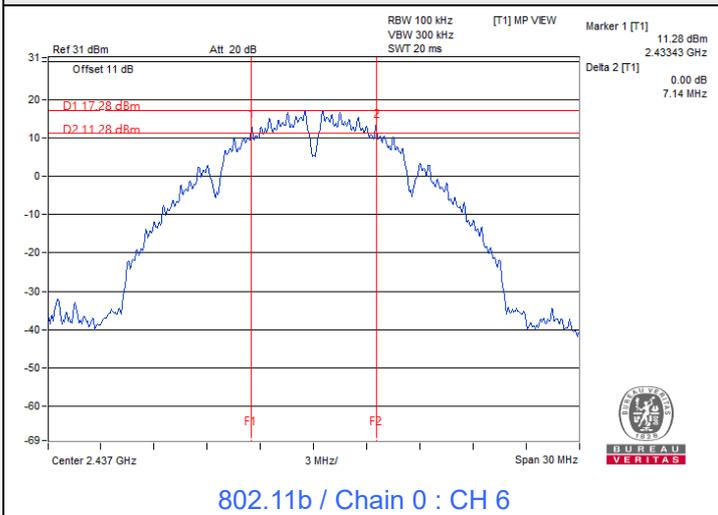
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	19.09	19.06	19.04	19.01	0.5	Pass
6	2437	19.17	19.16	19.00	19.02	0.5	Pass
11	2462	19.04	19.14	19.07	19.14	0.5	Pass

#### 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	38.14	38.23	38.32	38.12	0.5	Pass
6	2437	38.08	38.12	38.21	38.23	0.5	Pass
9	2452	38.32	38.25	38.16	38.09	0.5	Pass



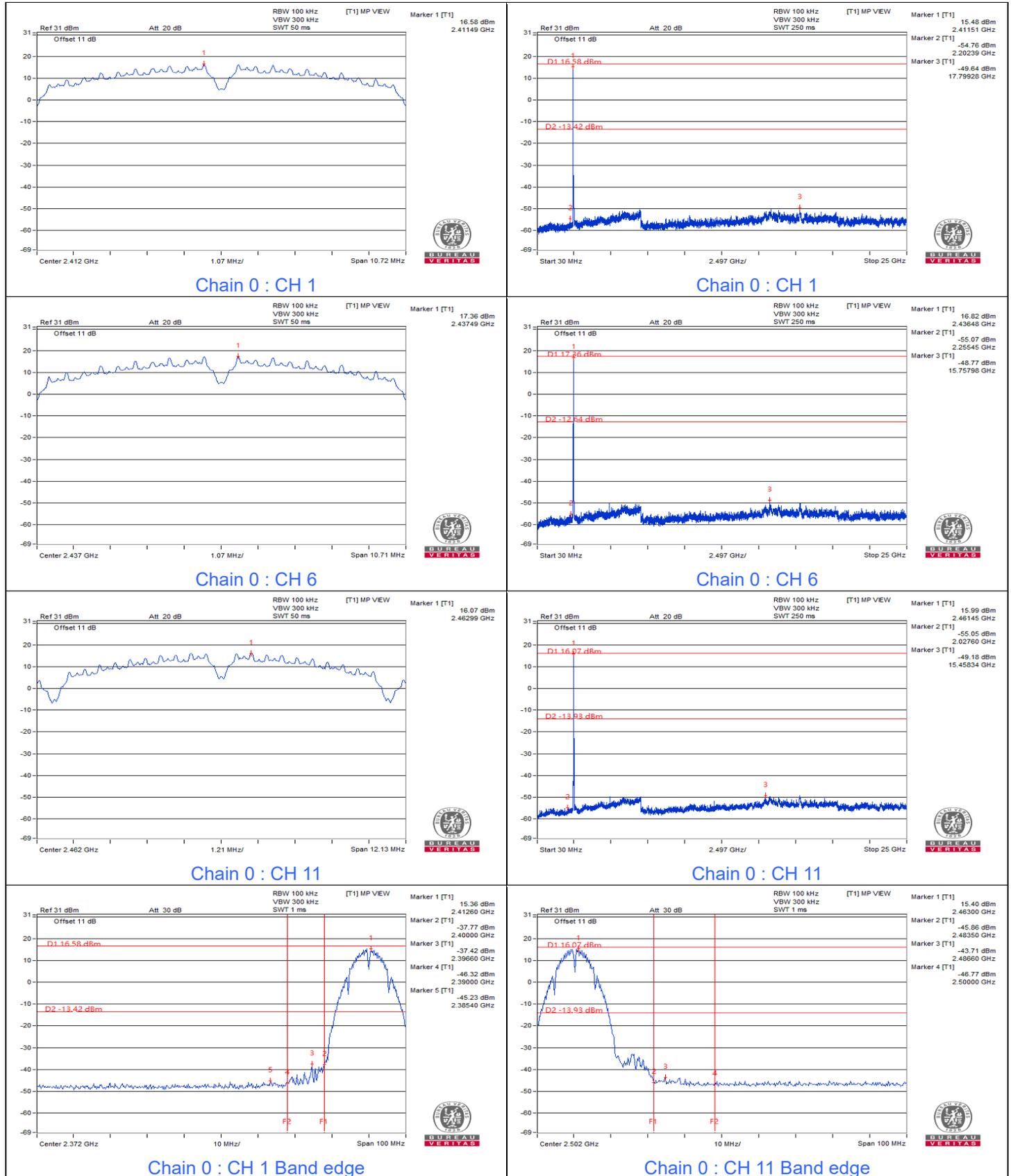
### Spectrum Plot of Minimum Value



### 7.4 Conducted Out of Band Emissions

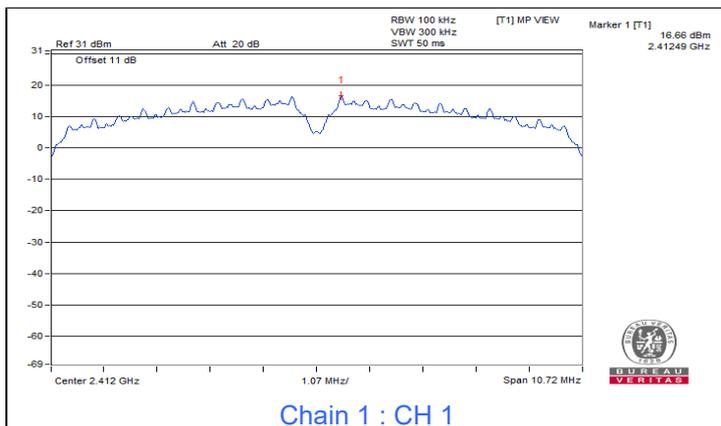
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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#### 802.11b

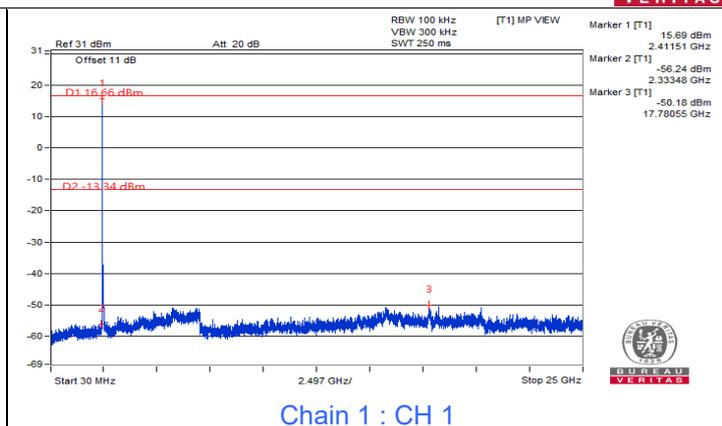




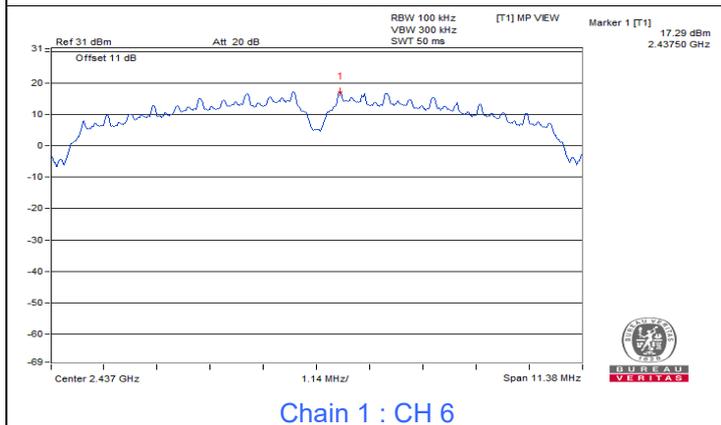
BUREAU VERITAS



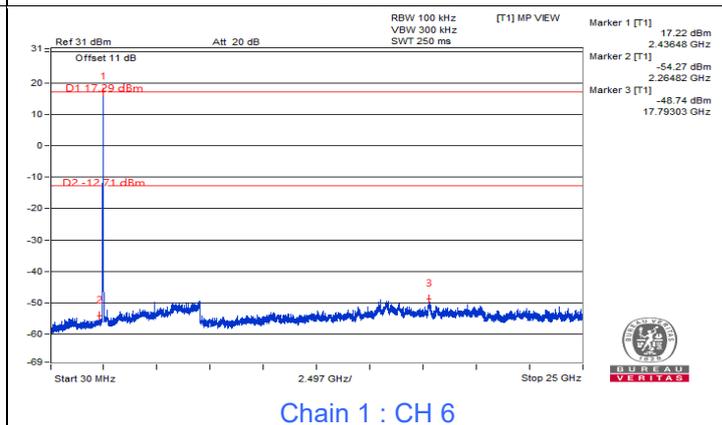
Chain 1 : CH 1



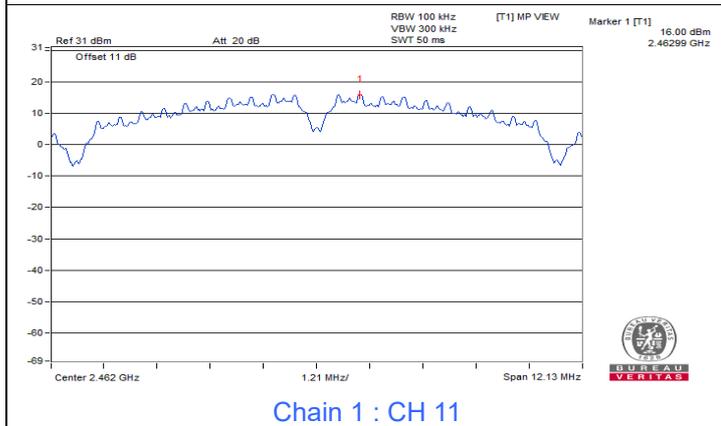
Chain 1 : CH 1



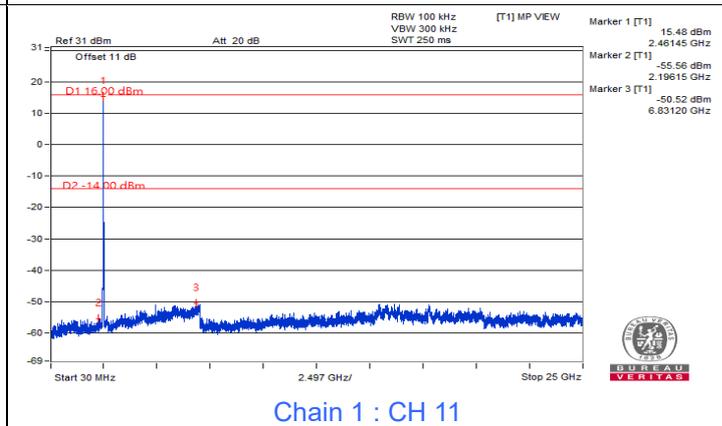
Chain 1 : CH 6



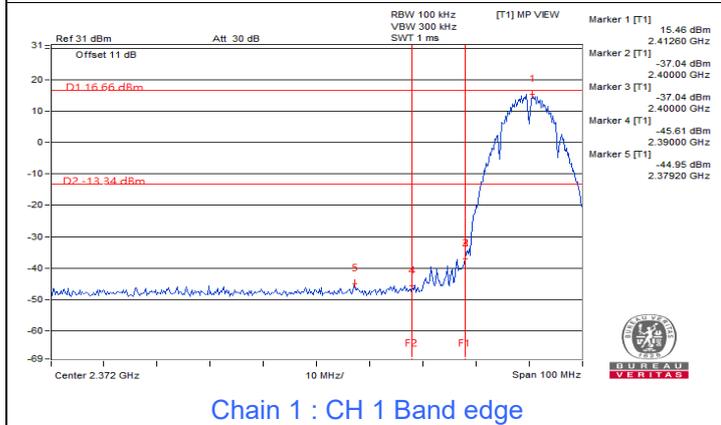
Chain 1 : CH 6



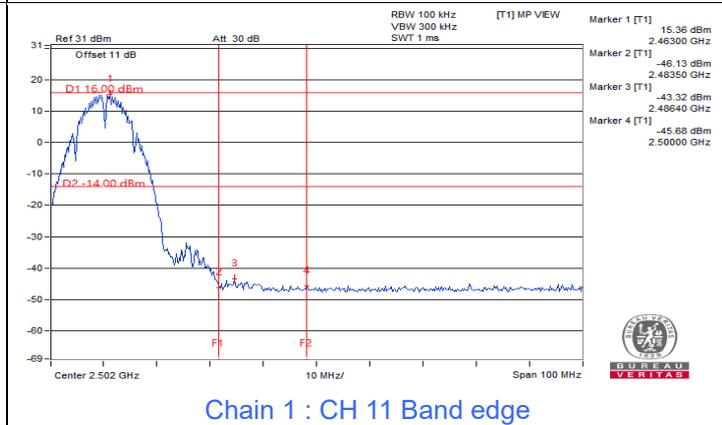
Chain 1 : CH 11



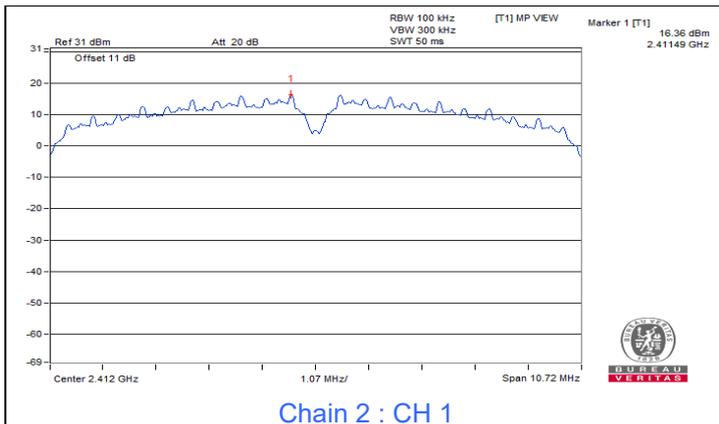
Chain 1 : CH 11



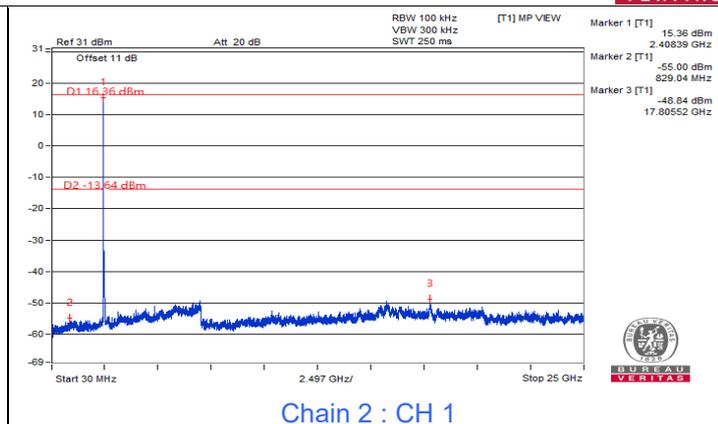
Chain 1 : CH 1 Band edge



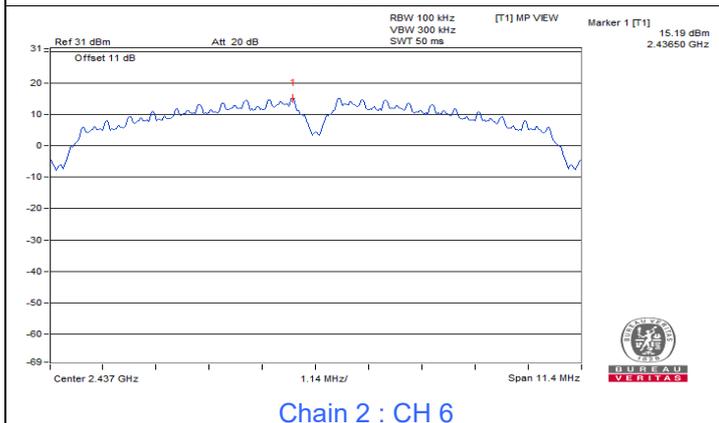
Chain 1 : CH 11 Band edge



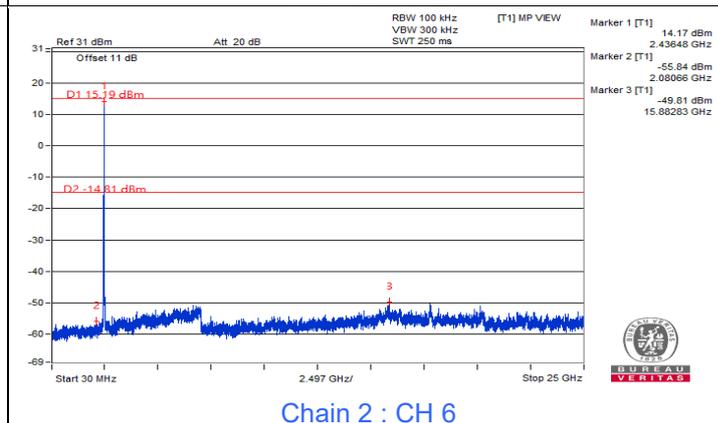
Chain 2 : CH 1



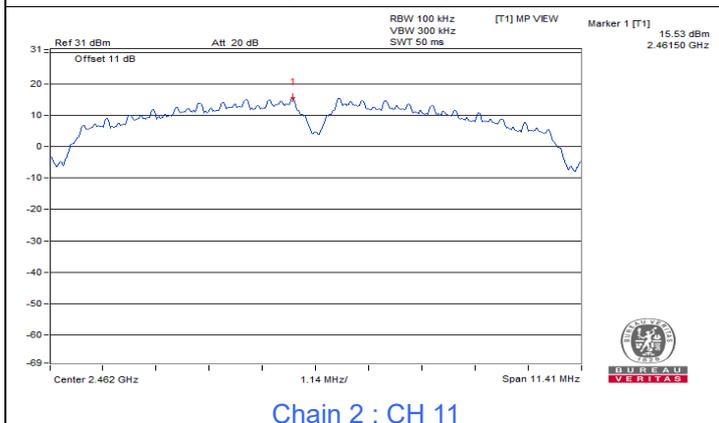
Chain 2 : CH 1



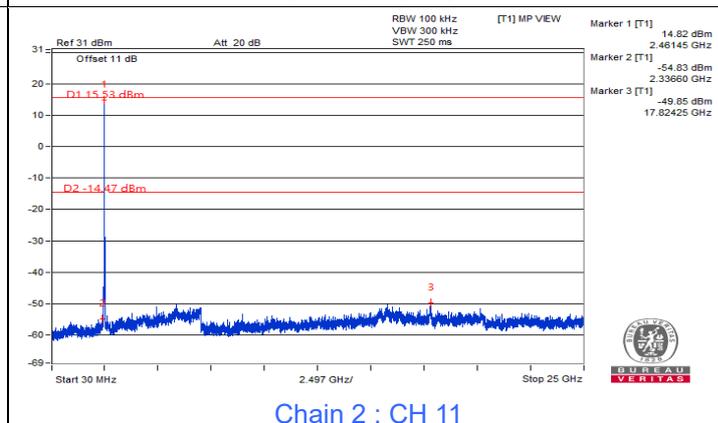
Chain 2 : CH 6



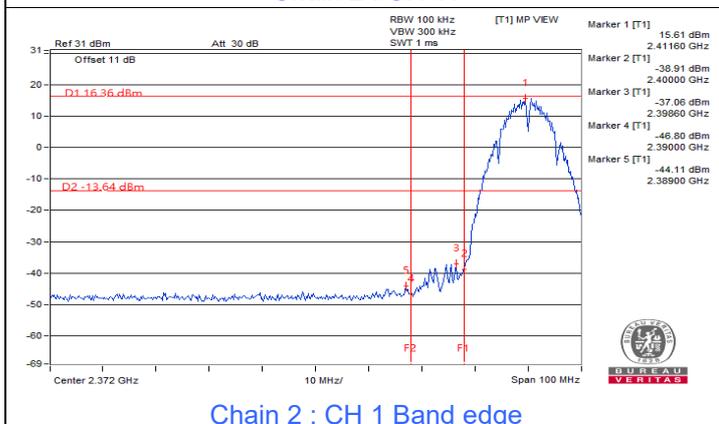
Chain 2 : CH 6



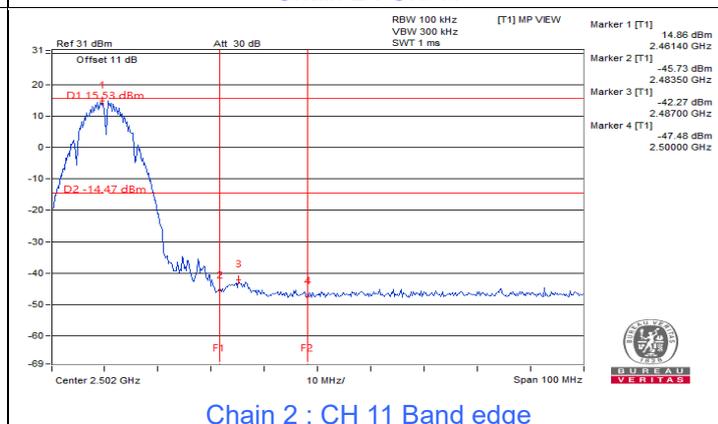
Chain 2 : CH 11



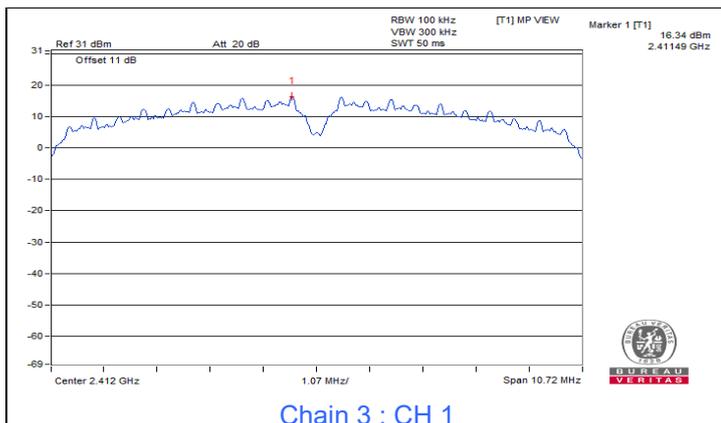
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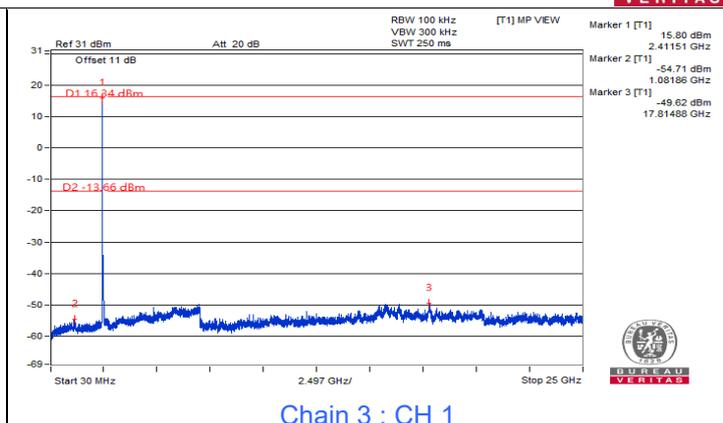
Chain 2 : CH 1 Band edge



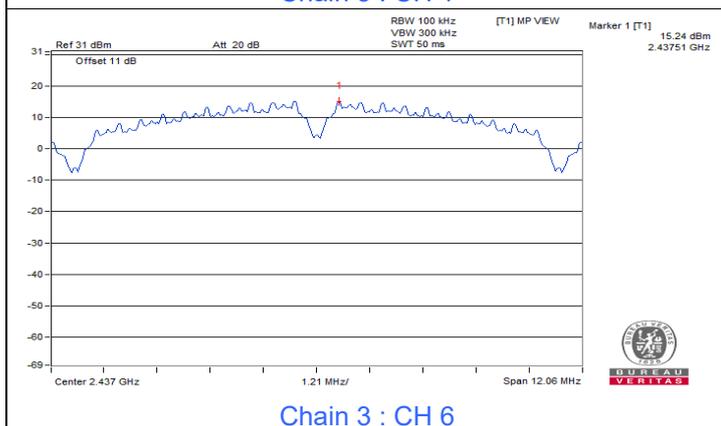
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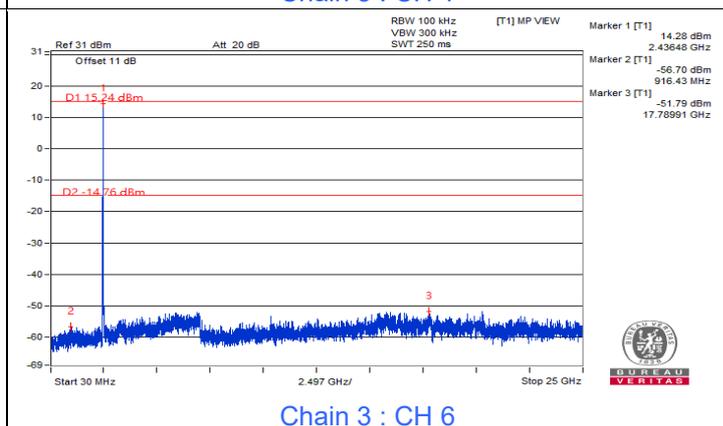
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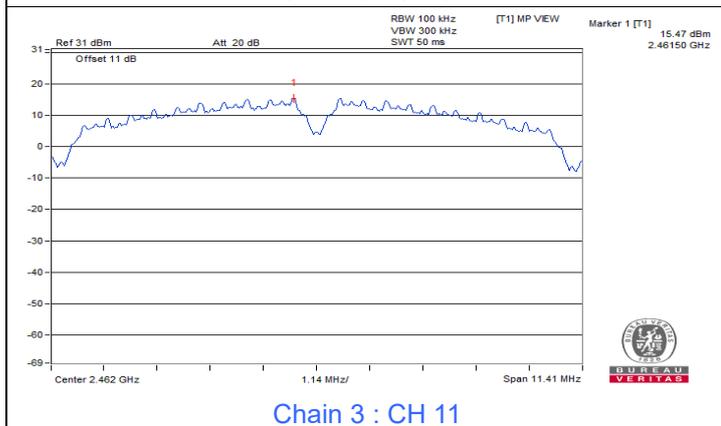
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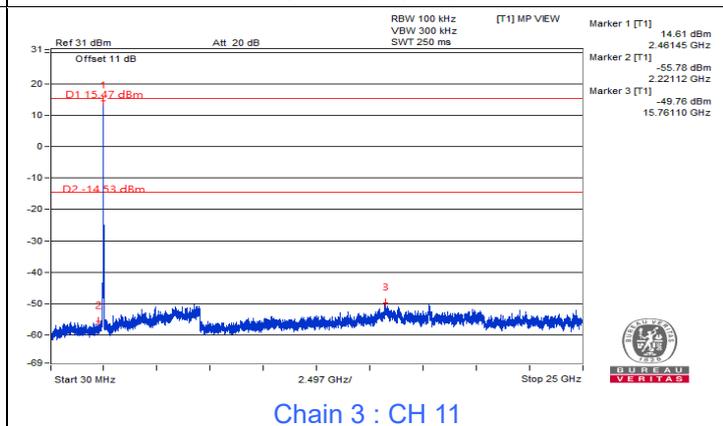
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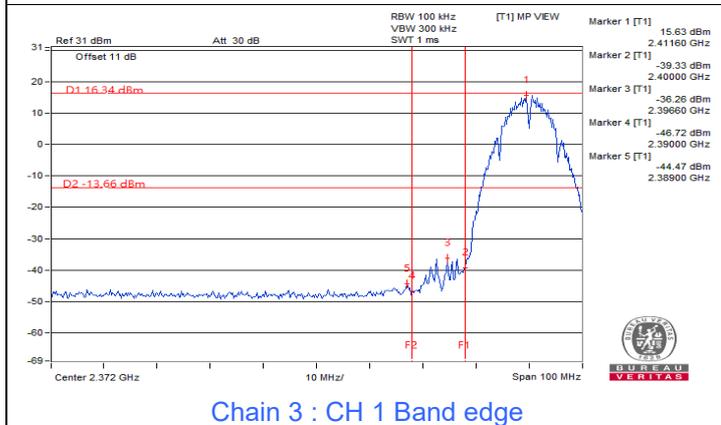
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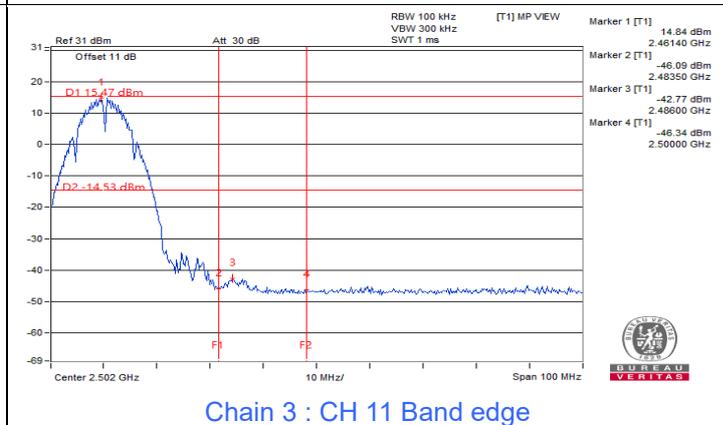
Chain 3 : CH 11



Chain 3 : CH 11



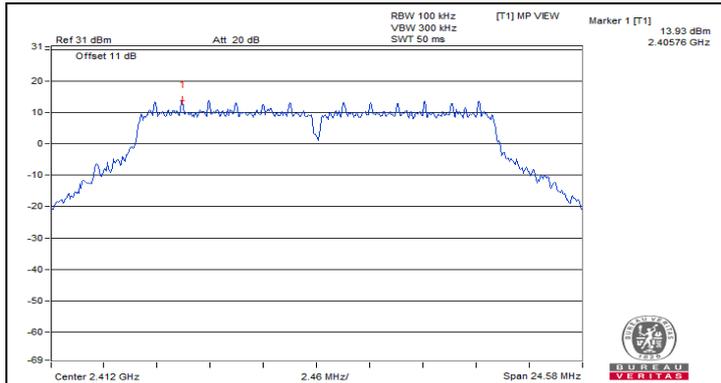
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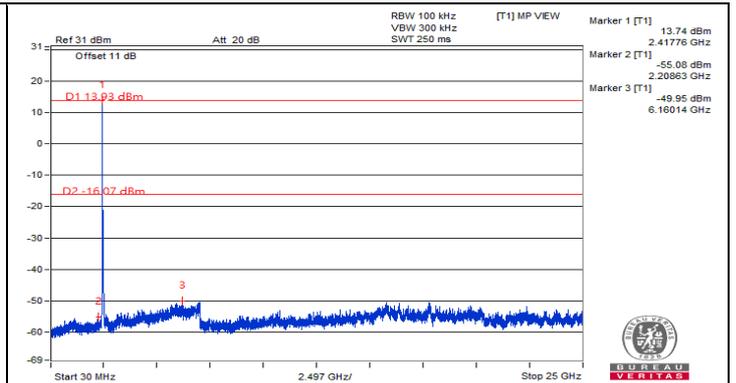
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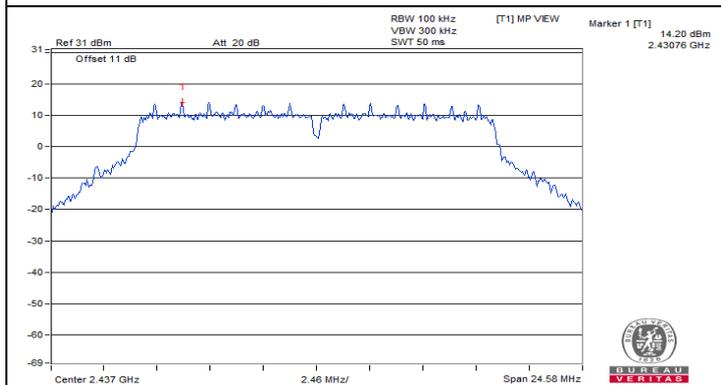
802.11g



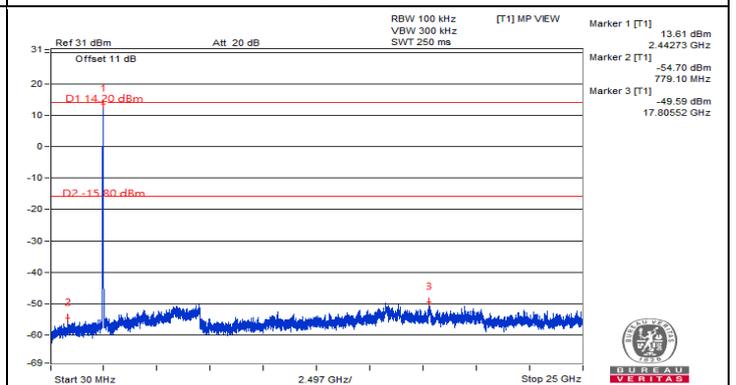
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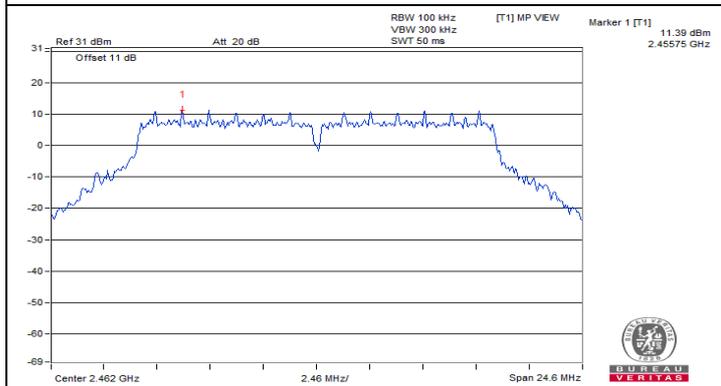
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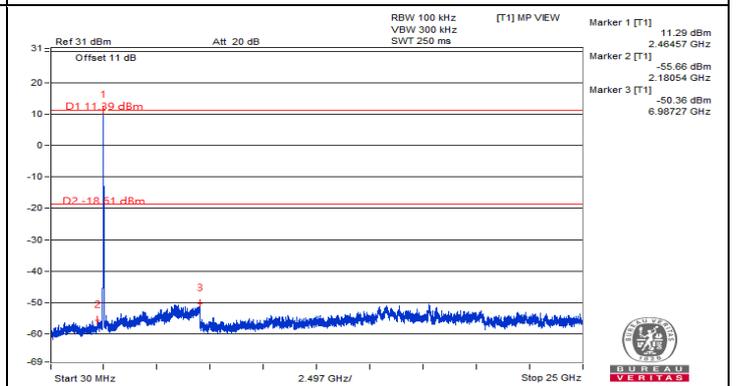
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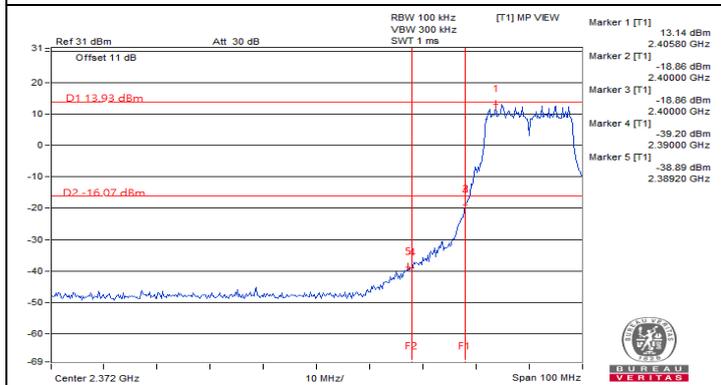
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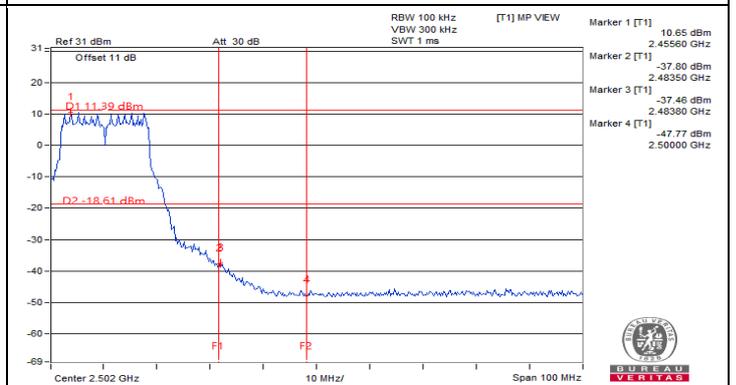
Chain 0 : CH 11



Chain 0 : CH 11



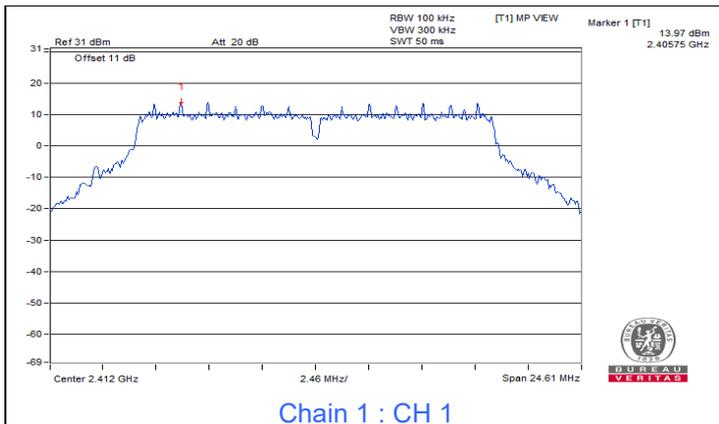
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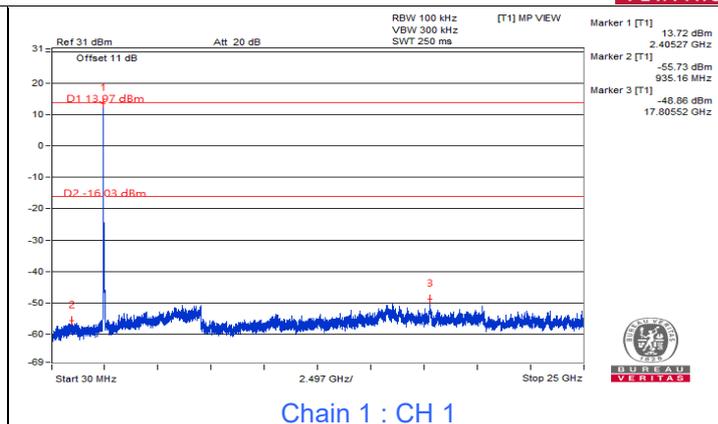
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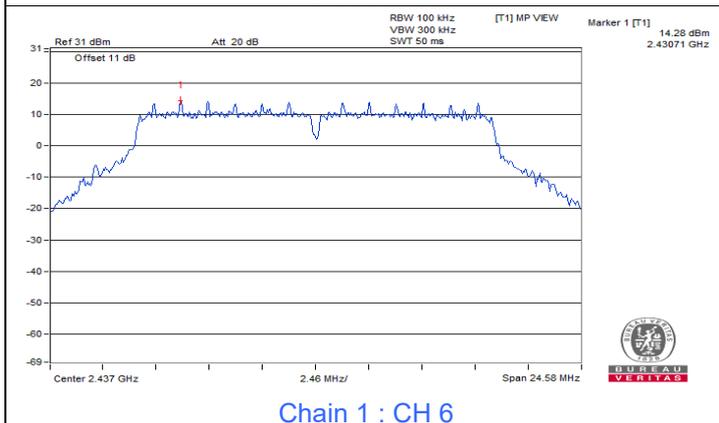
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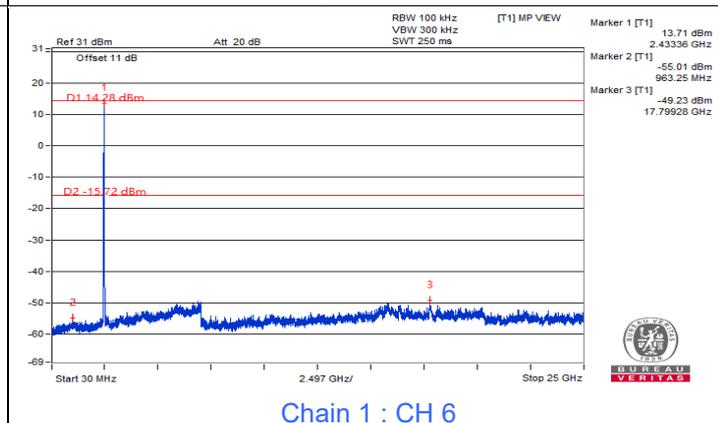
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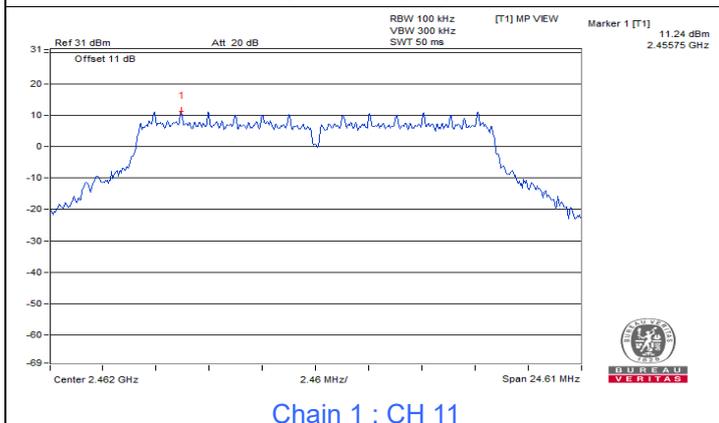
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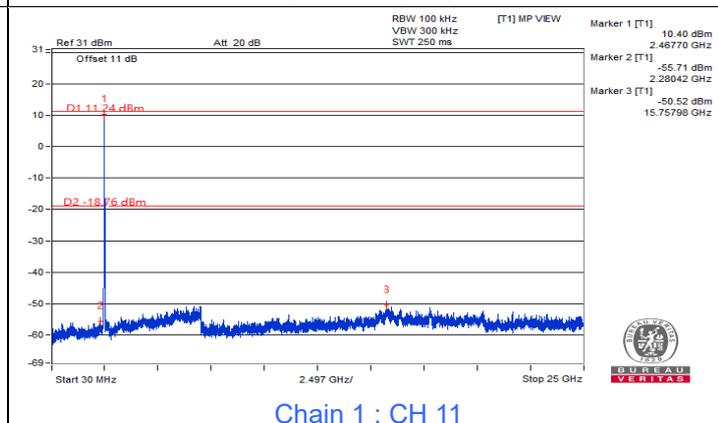
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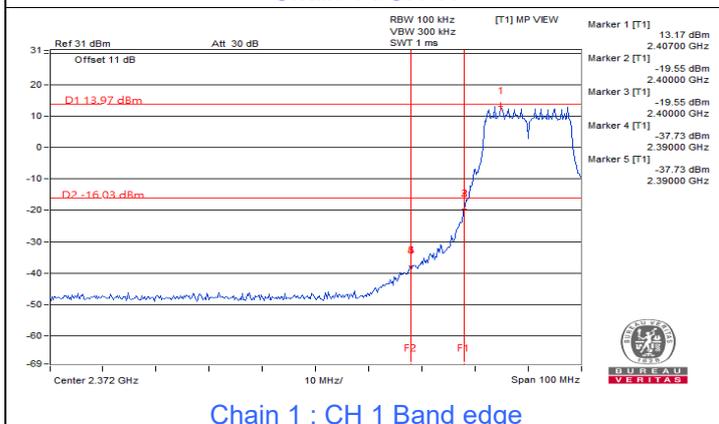
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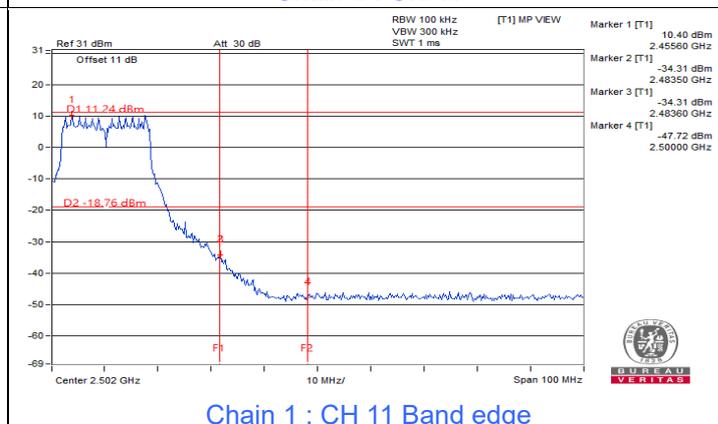
Chain 1 : CH 11



Chain 1 : CH 11



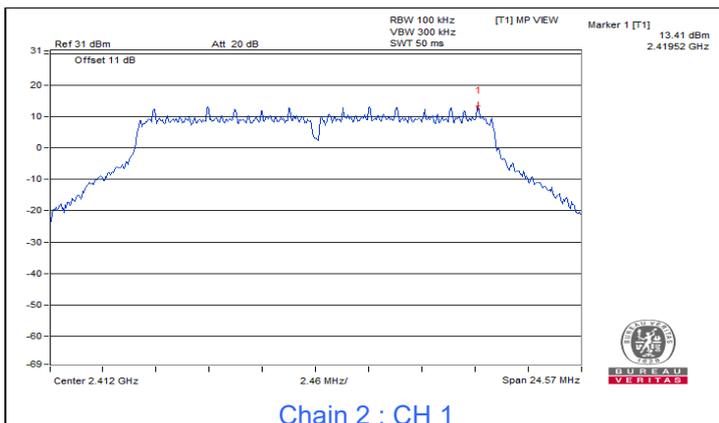
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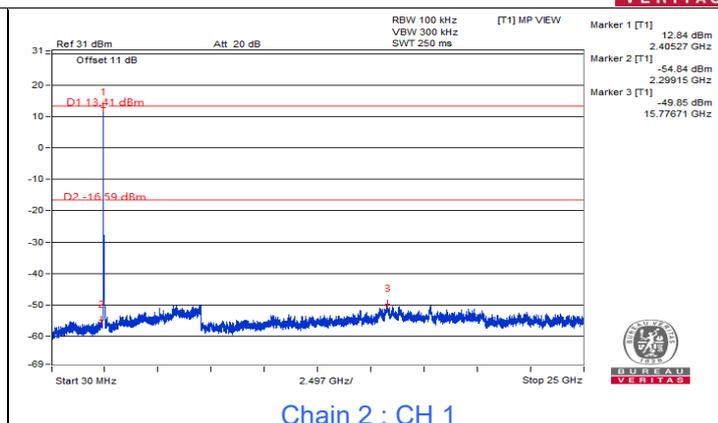
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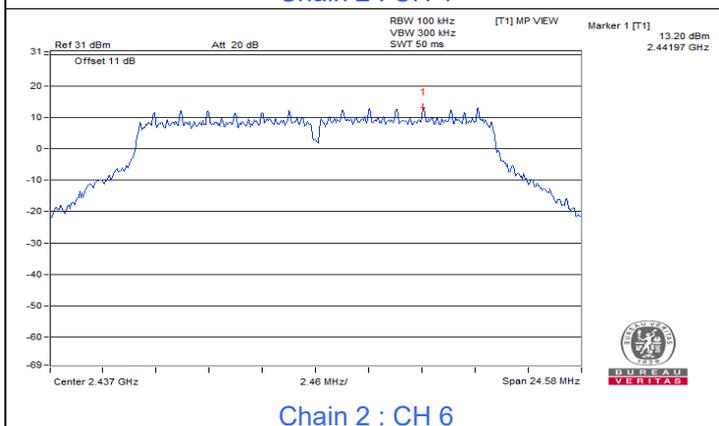
BUREAU VERITAS



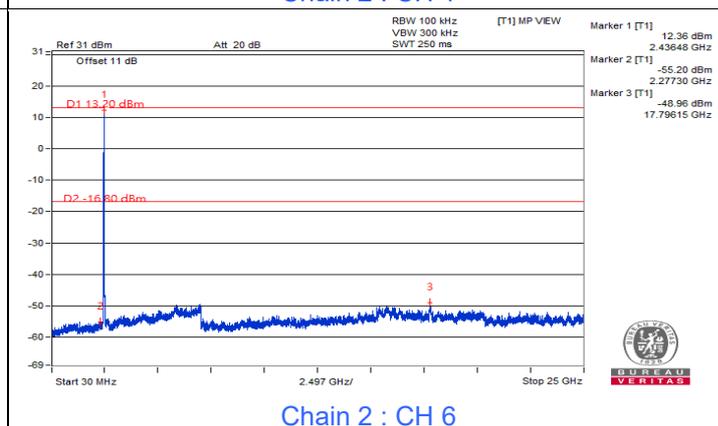
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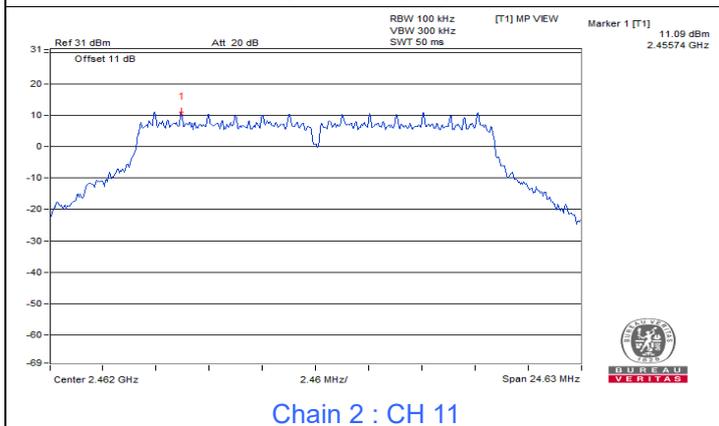
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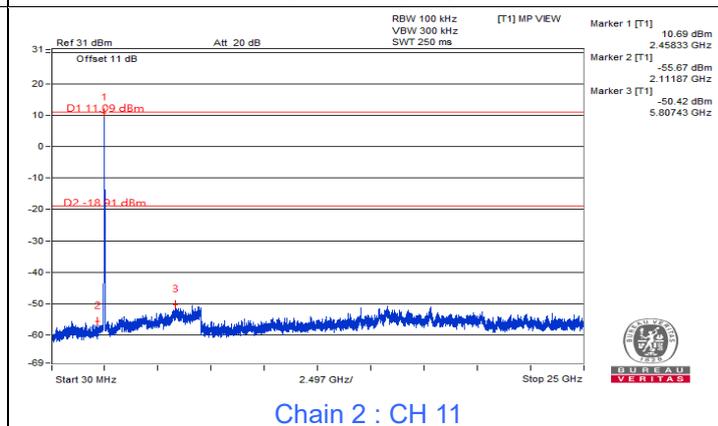
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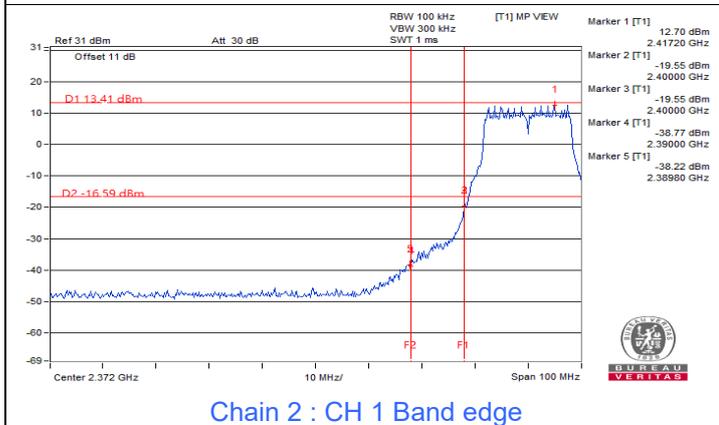
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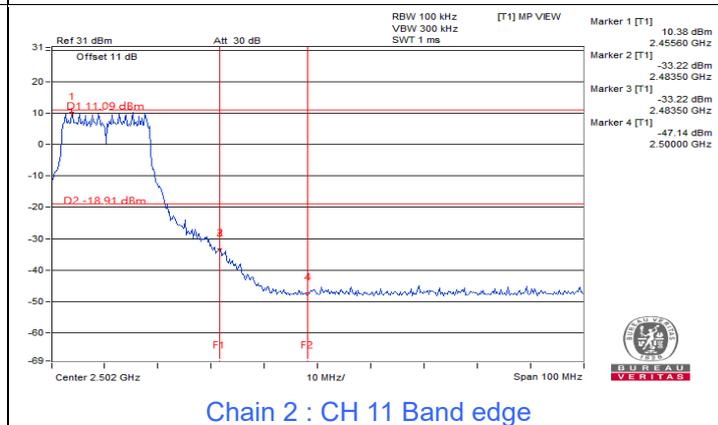
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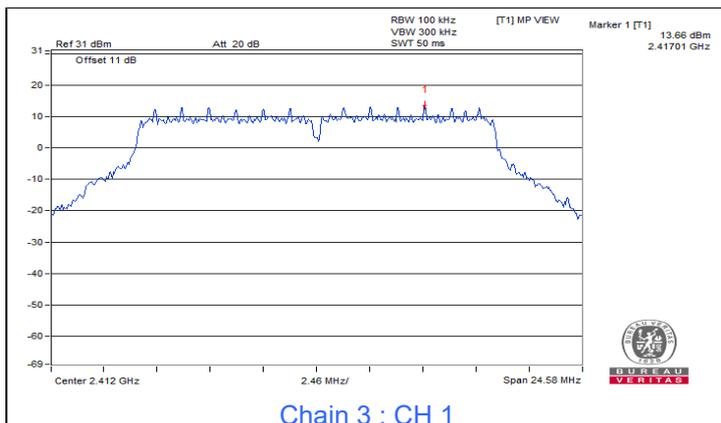
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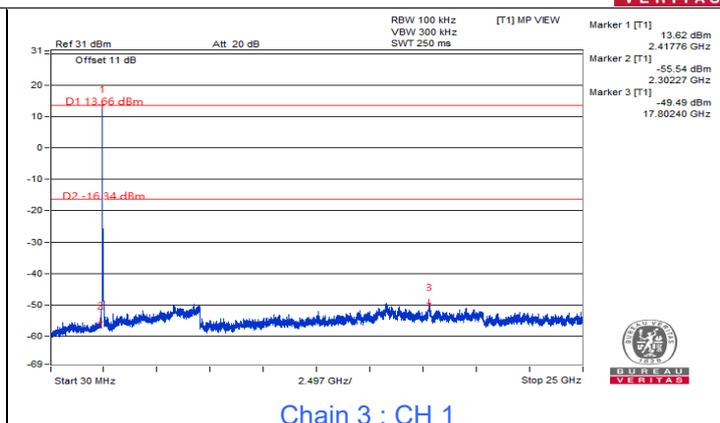
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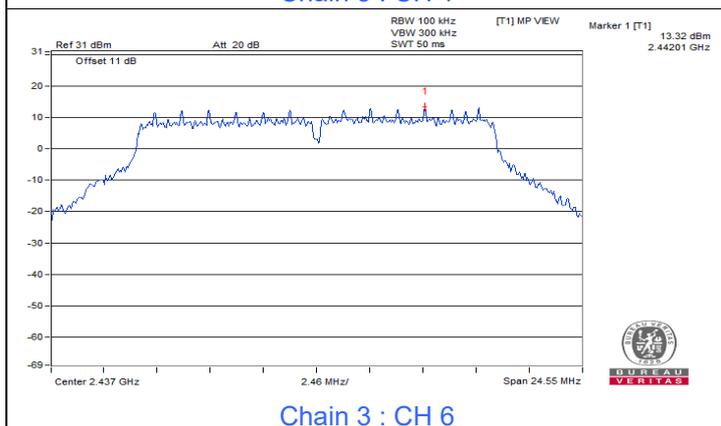
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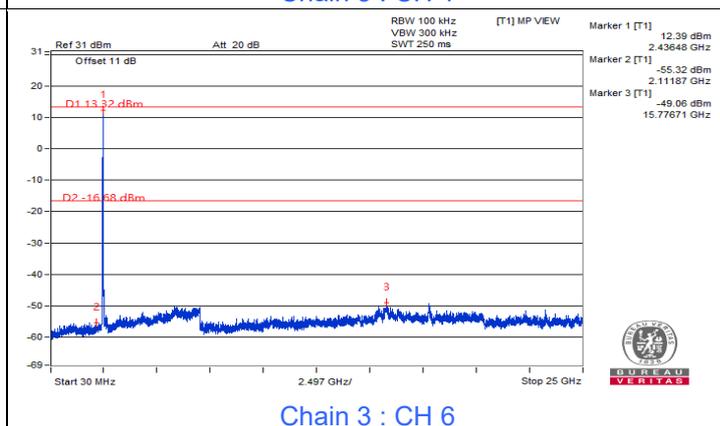
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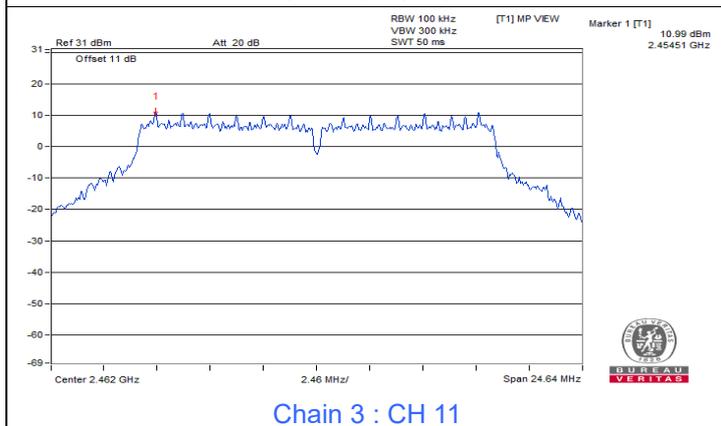
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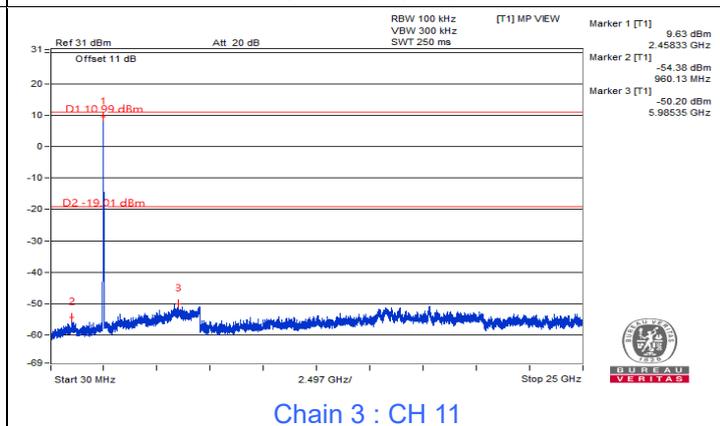
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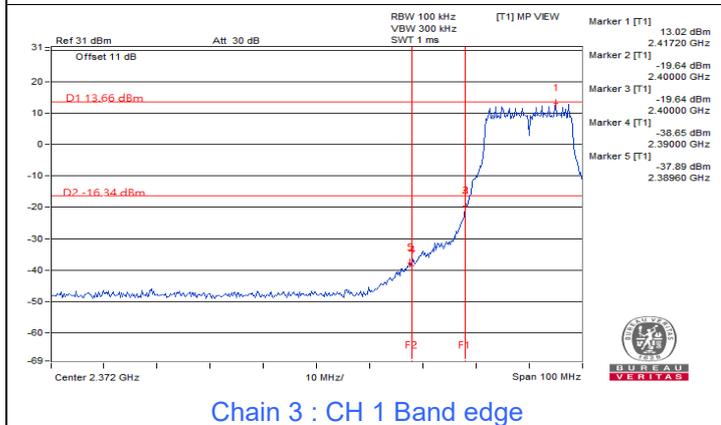
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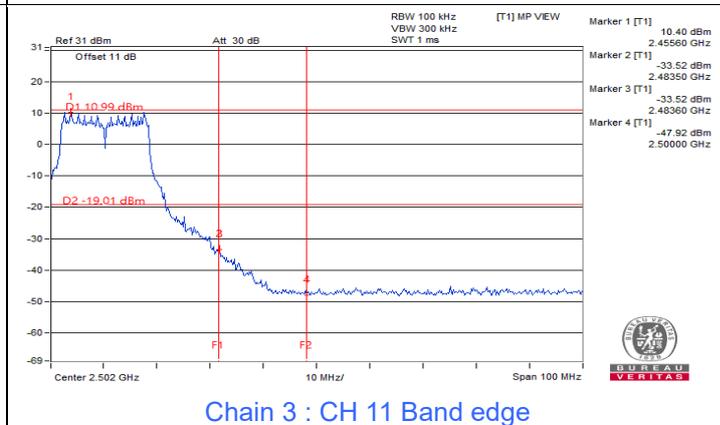
Chain 3 : CH 11



Chain 3 : CH 11



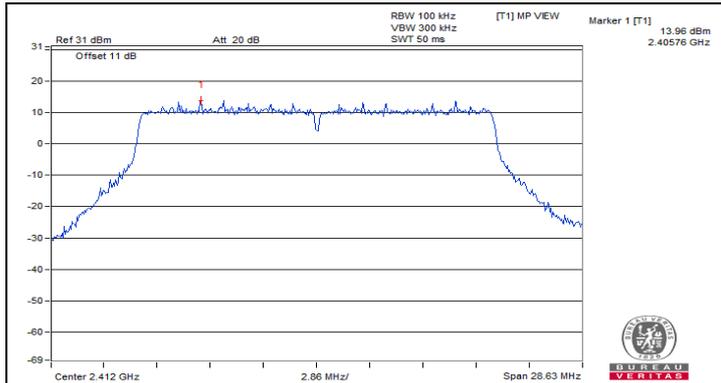
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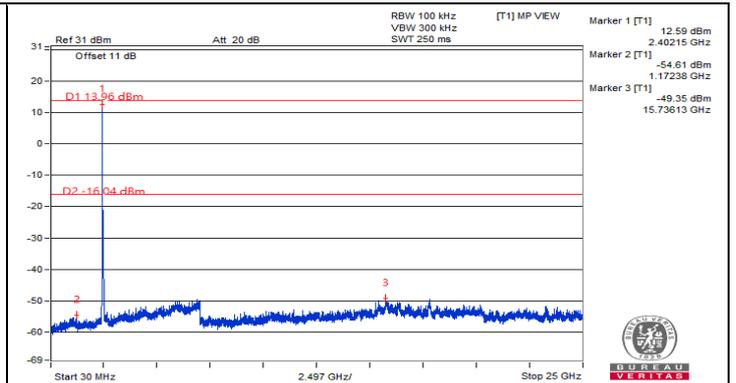
Chain 3 : CH 11 Band edge



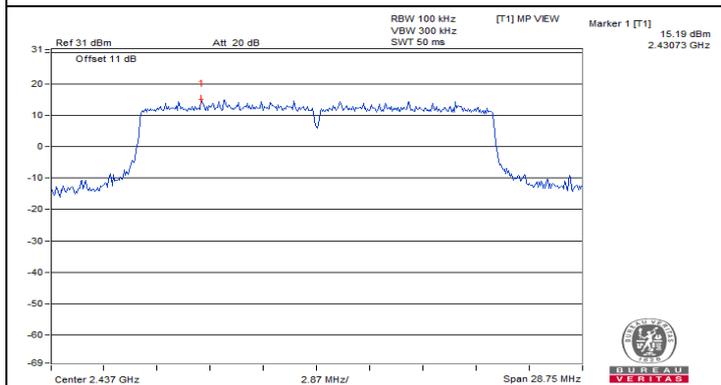
### 802.11be (EHT20)



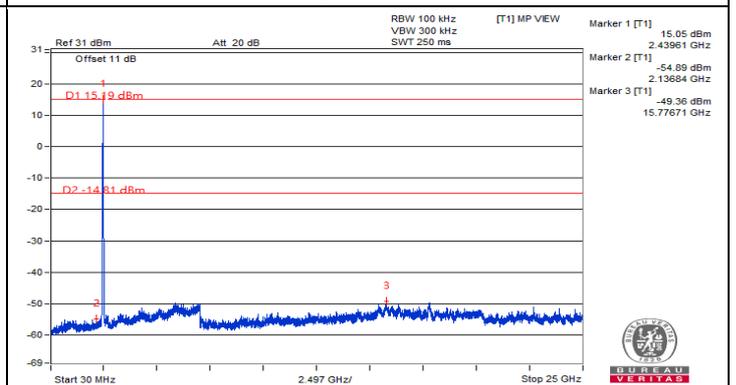
Chain 0 : CH 1



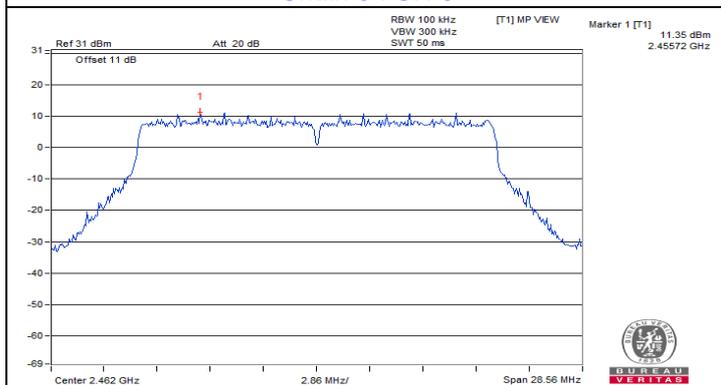
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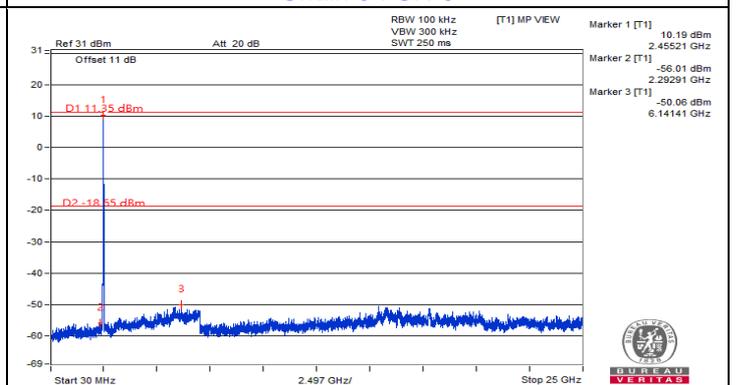
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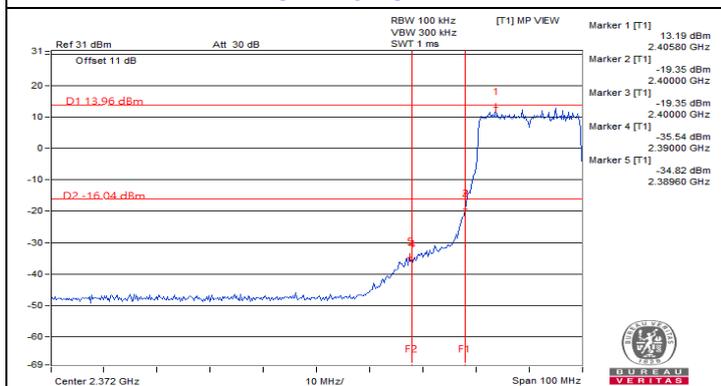
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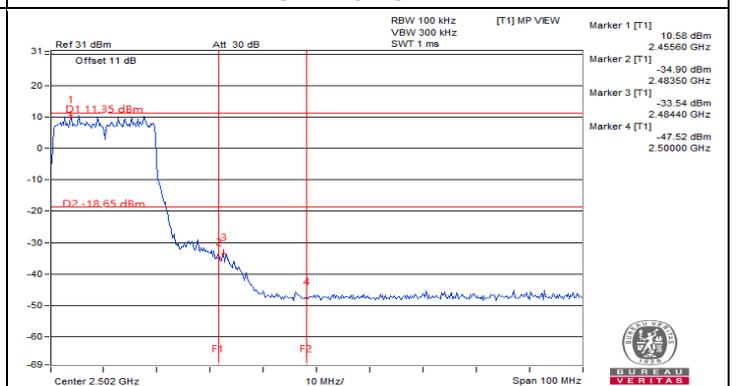
Chain 0 : CH 11



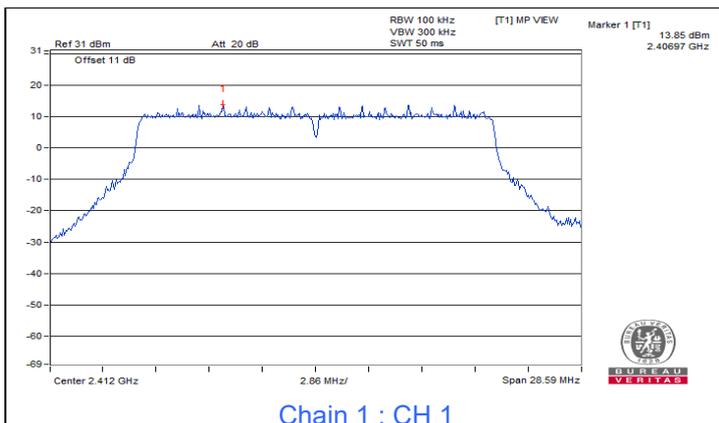
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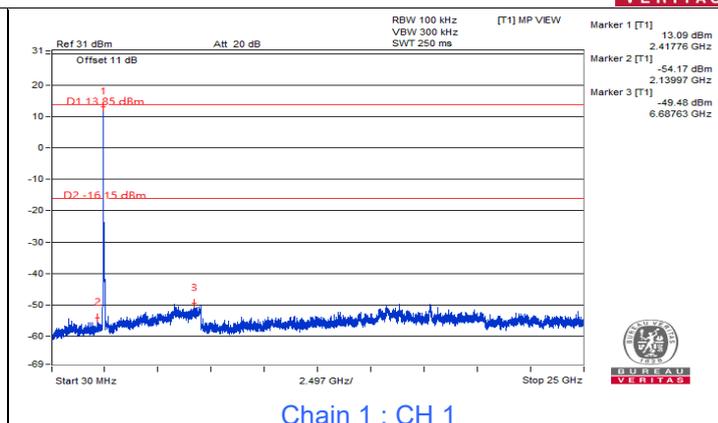
Chain 0 : CH 1 Band edge



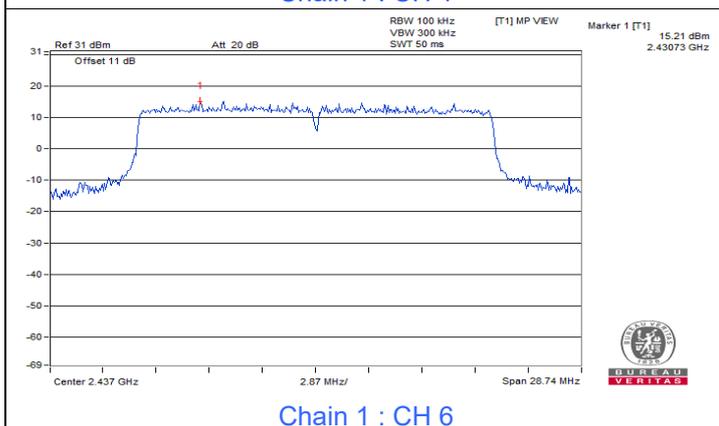
Chain 0 : CH 11 Band edge



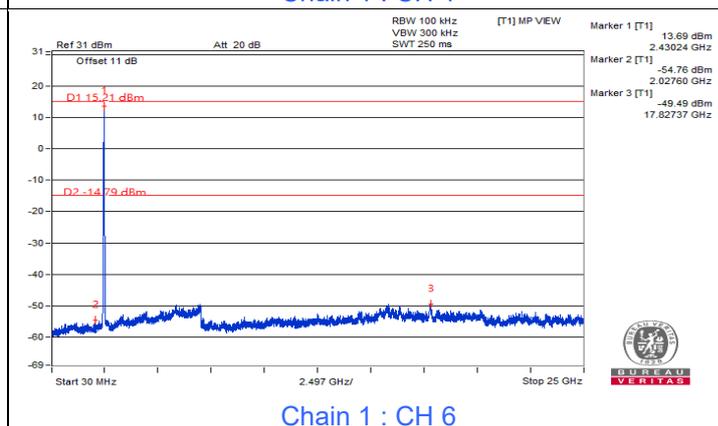
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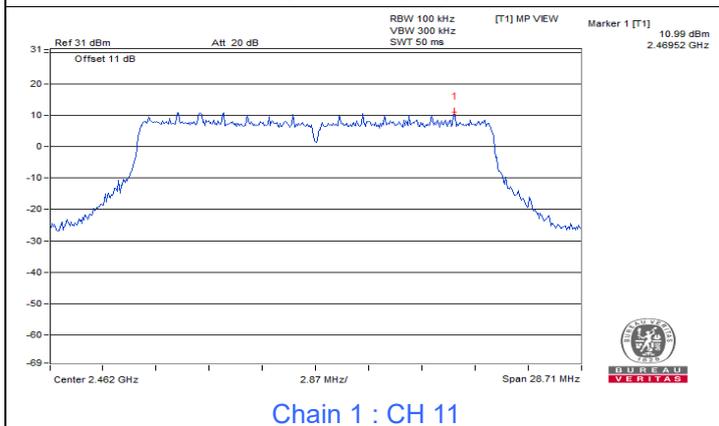
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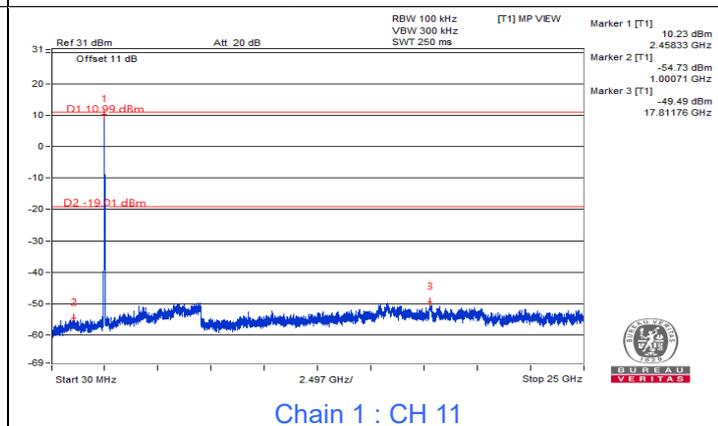
Chain 1 : CH 6



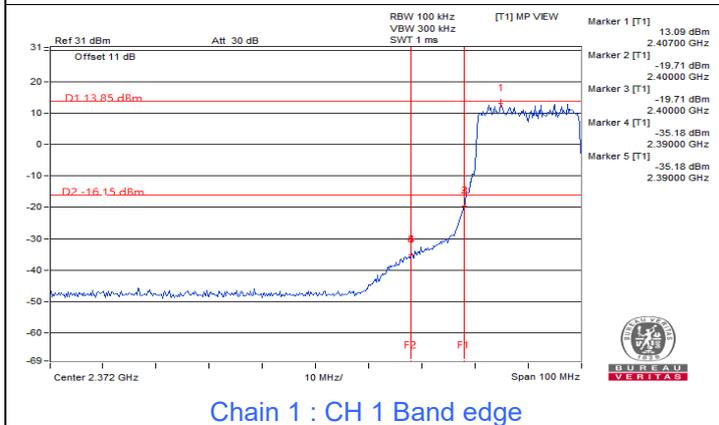
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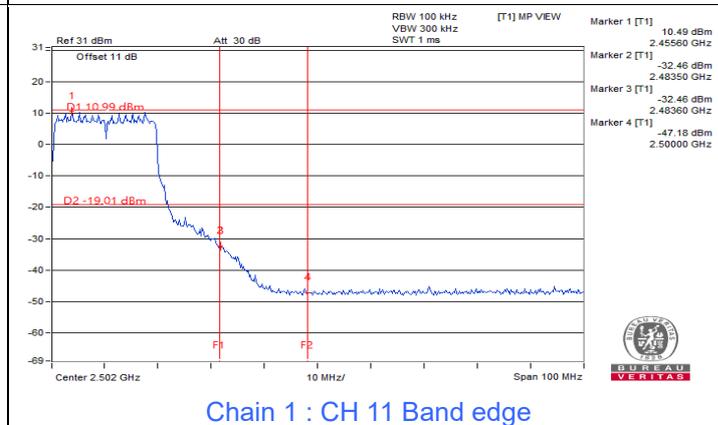
Chain 1 : CH 11



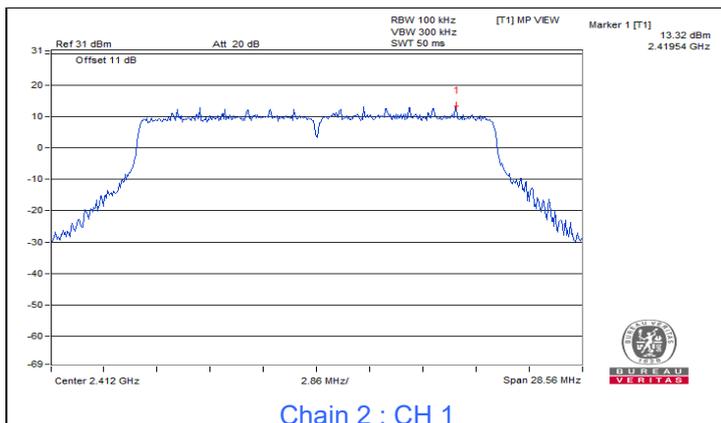
Chain 1 : CH 11



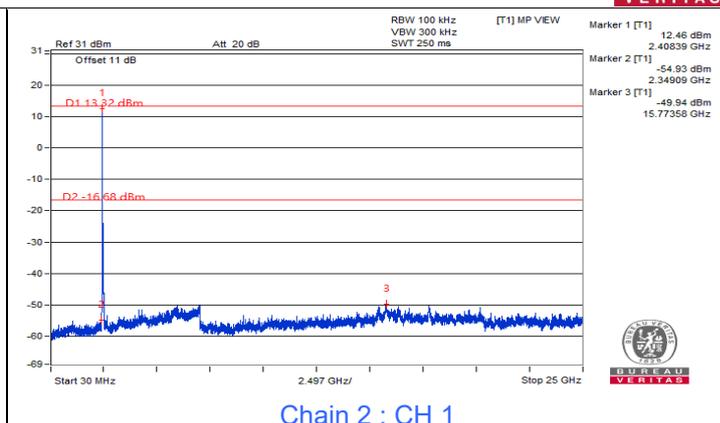
Chain 1 : CH 1 Band edge



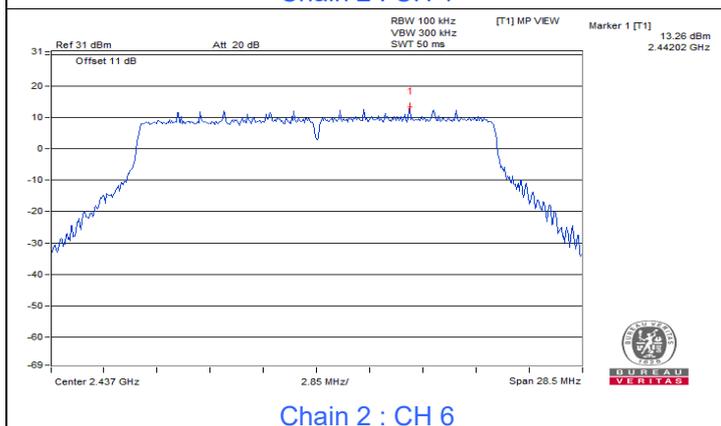
Chain 1 : CH 11 Band edge



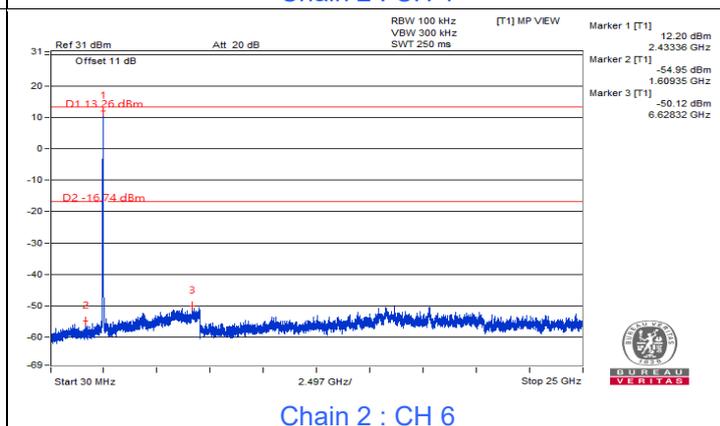
Chain 2 : CH 1



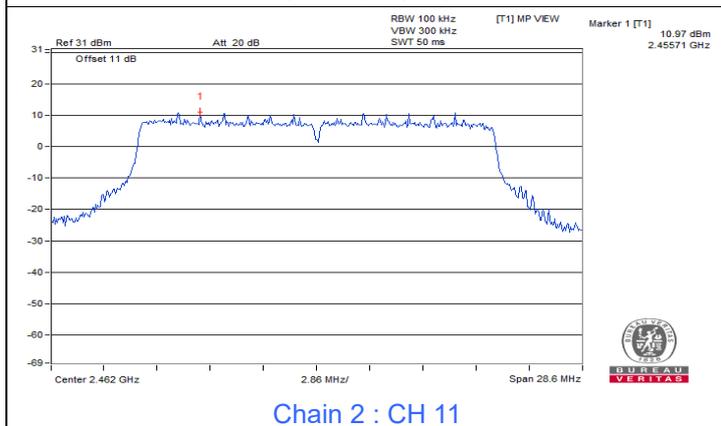
Chain 2 : CH 1



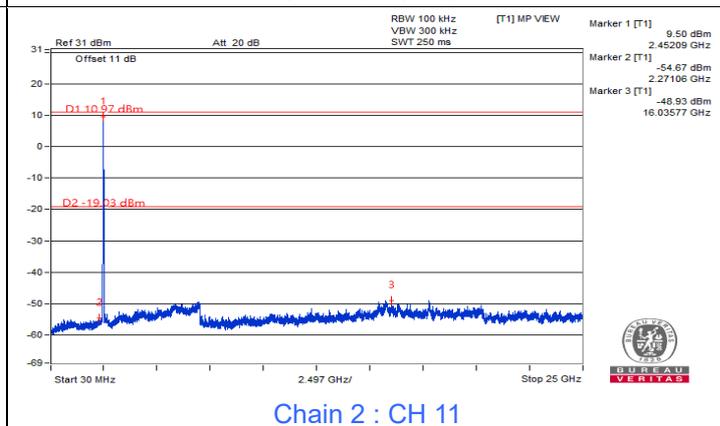
Chain 2 : CH 6



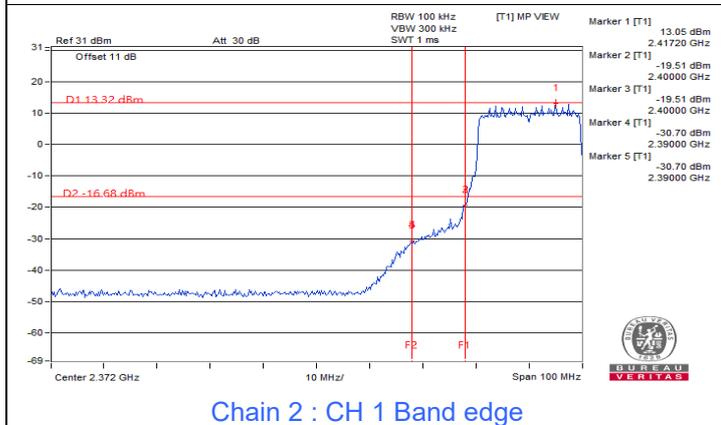
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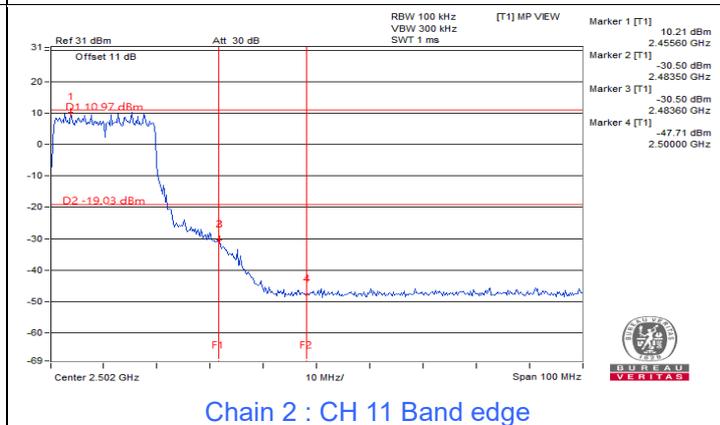
Chain 2 : CH 11



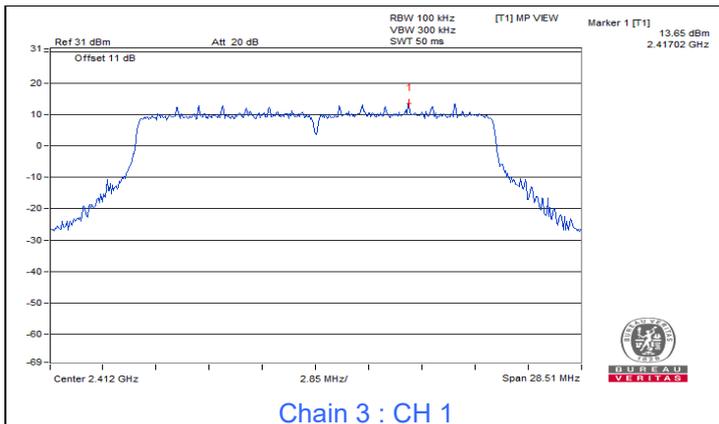
Chain 2 : CH 11



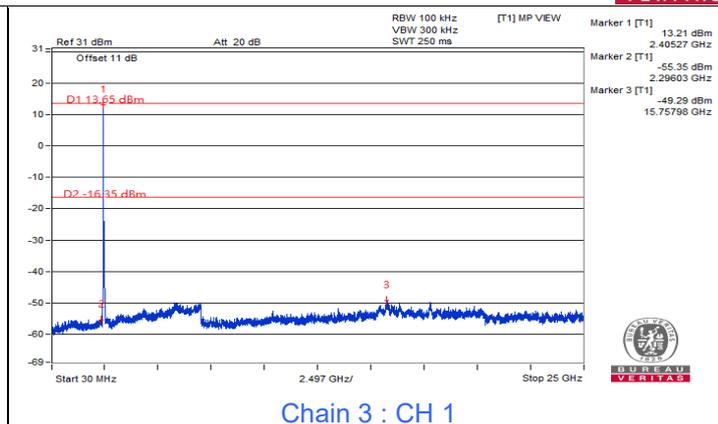
Chain 2 : CH 1 Band edge



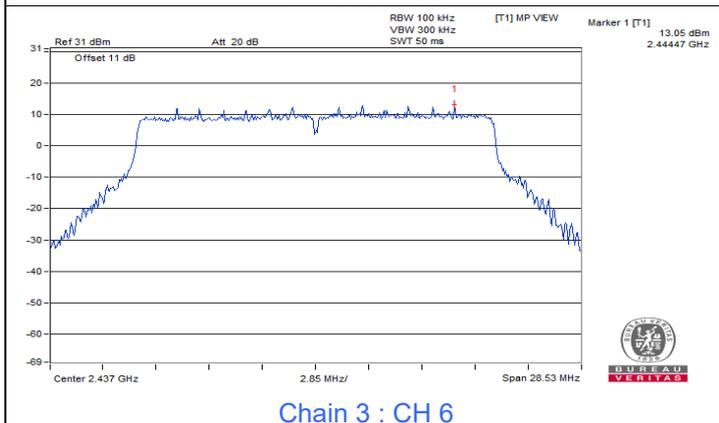
Chain 2 : CH 11 Band edge



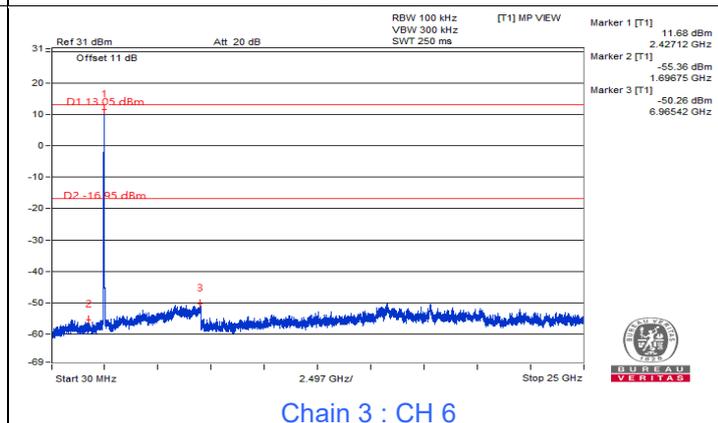
Chain 3 : CH 1



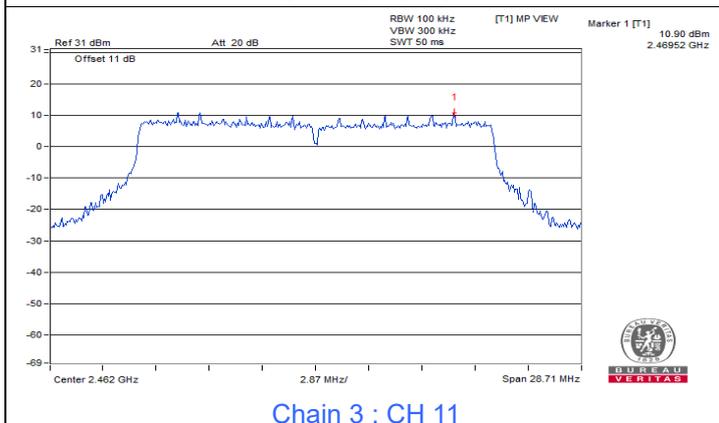
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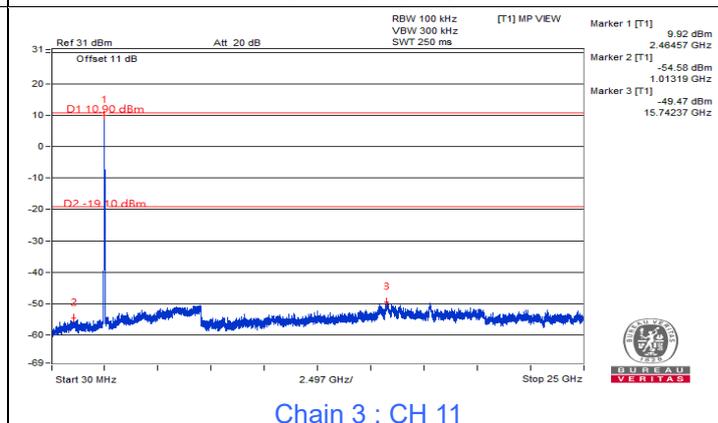
Chain 3 : CH 6



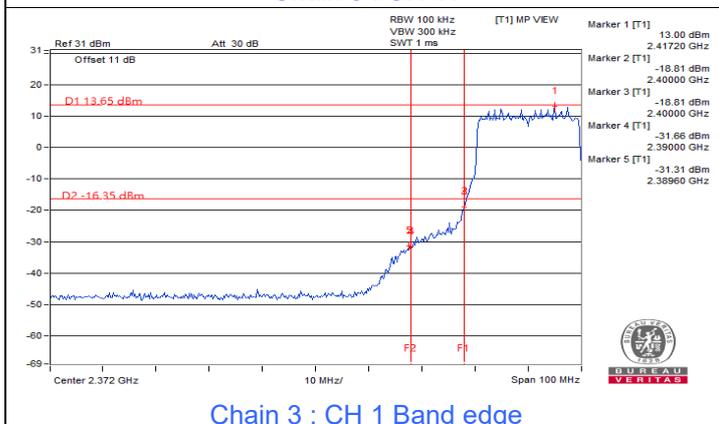
Chain 3 : CH 6



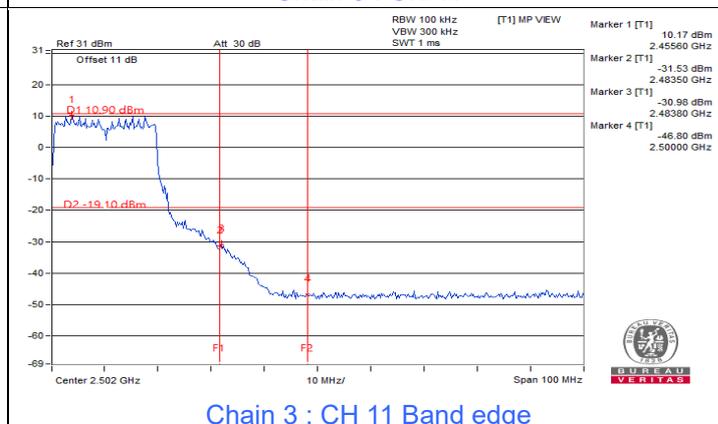
Chain 3 : CH 11



Chain 3 : CH 11



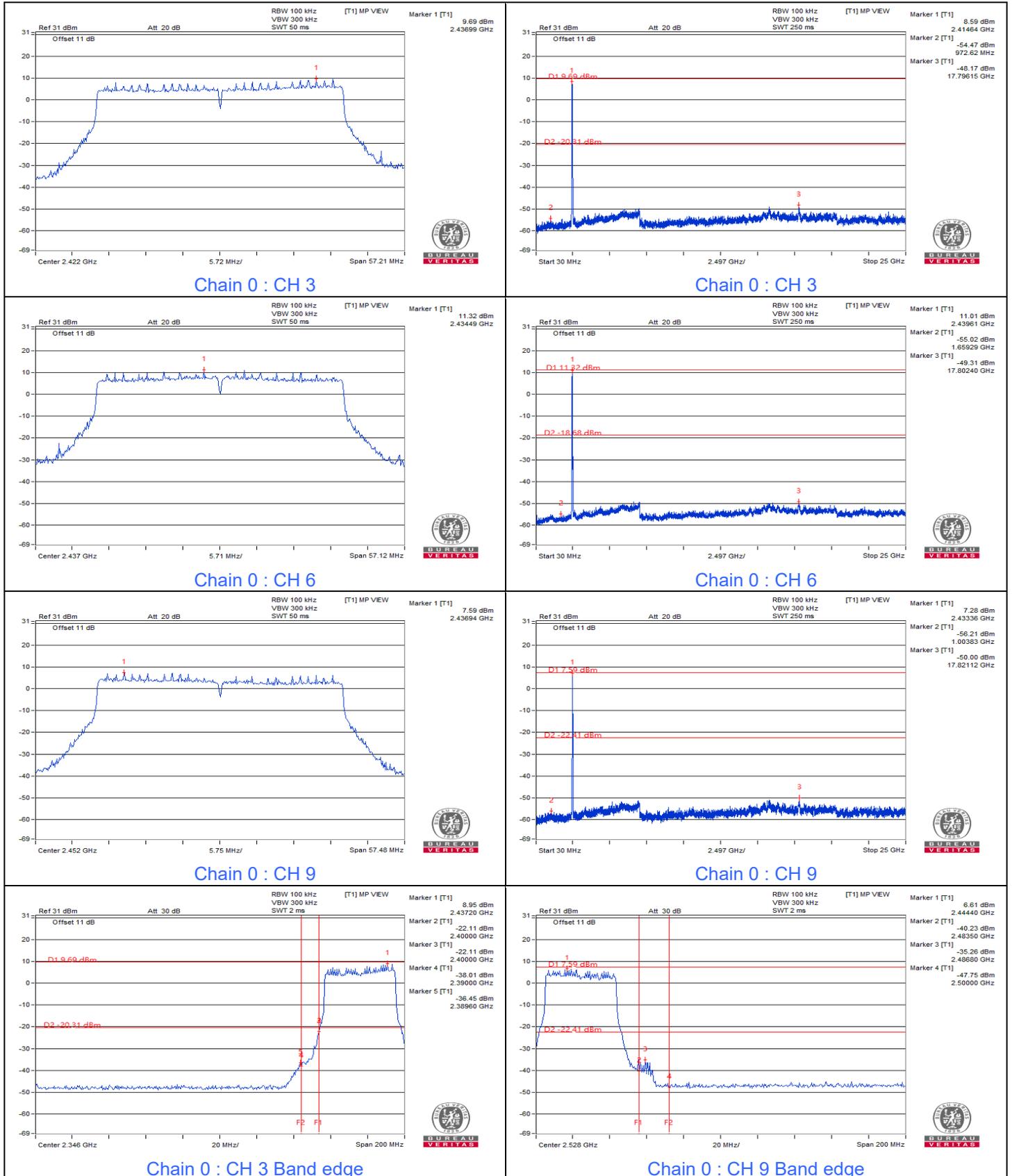
Chain 3 : CH 1 Band edge

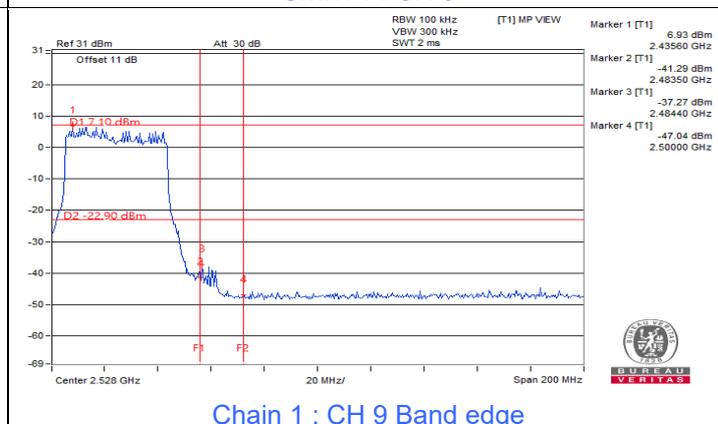
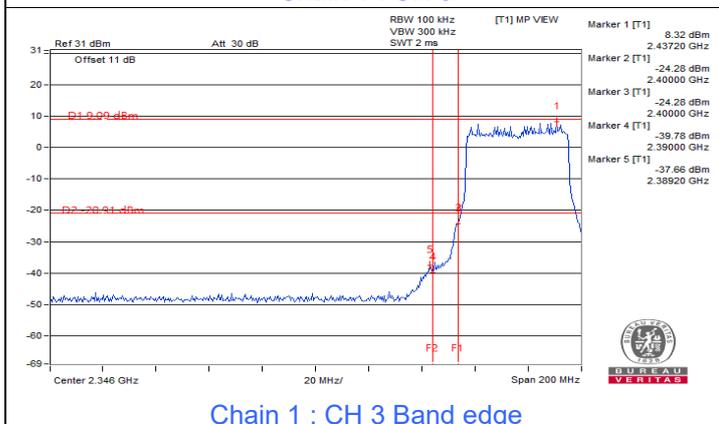
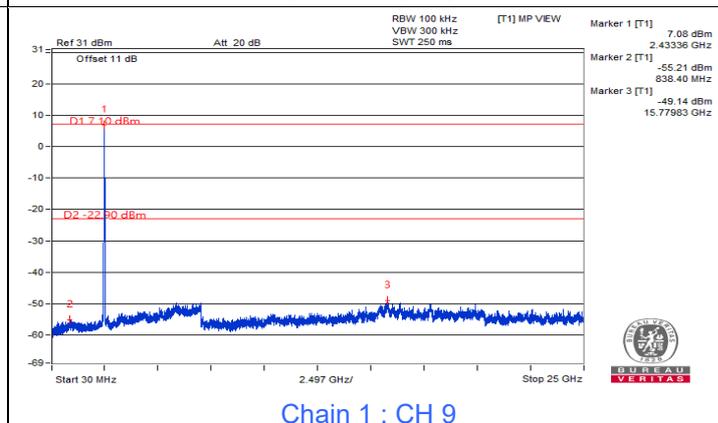
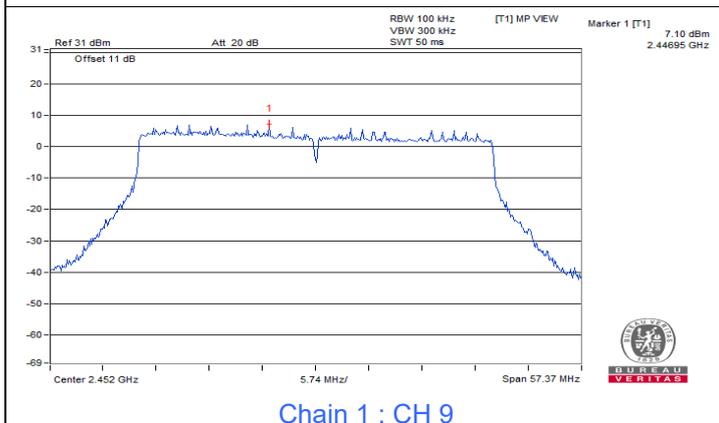
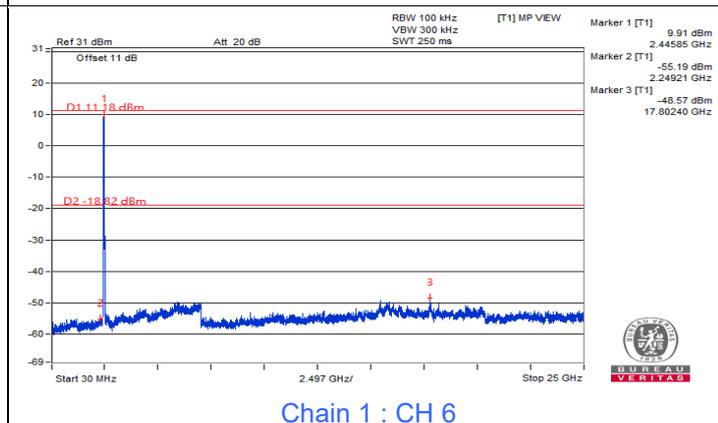
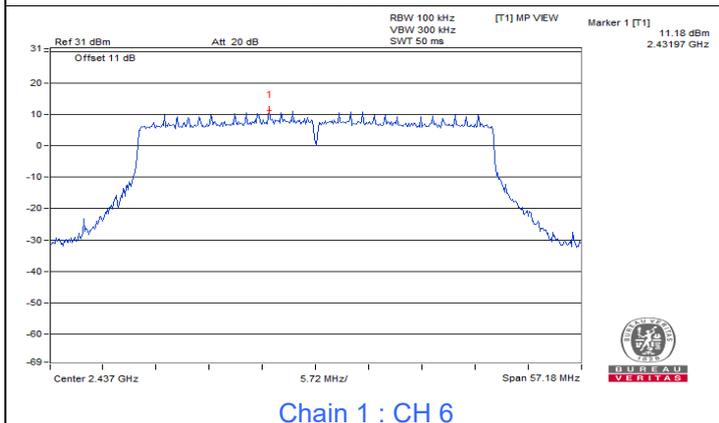
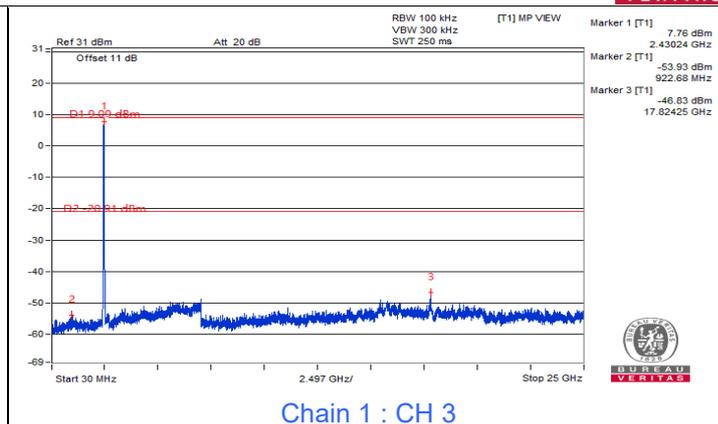
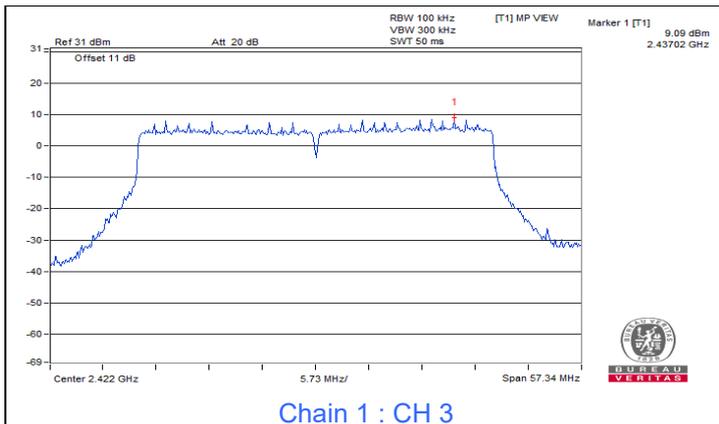


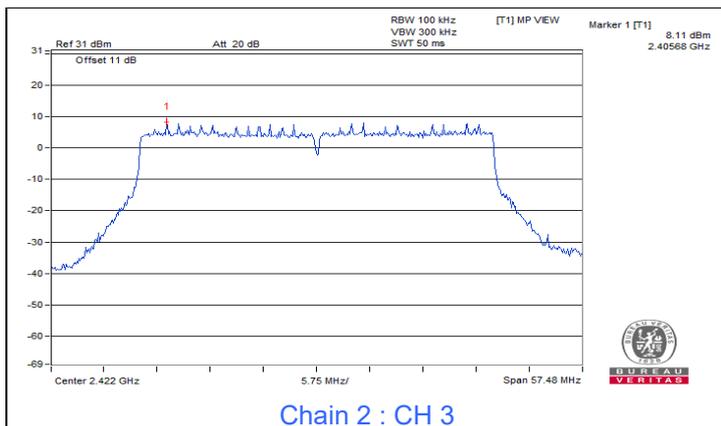
Chain 3 : CH 11 Band edge



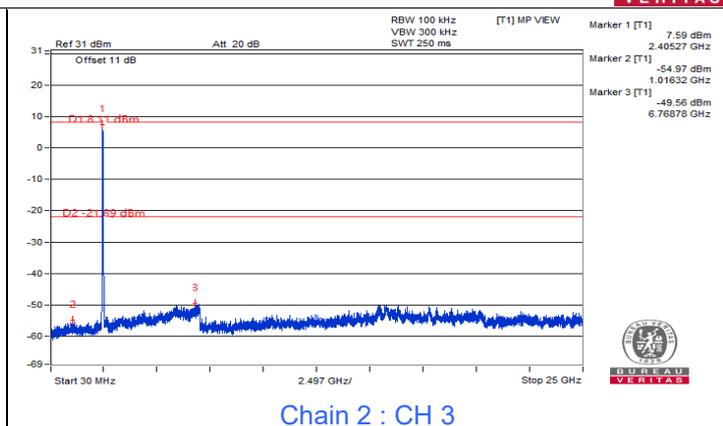
### 802.11be (EHT40)



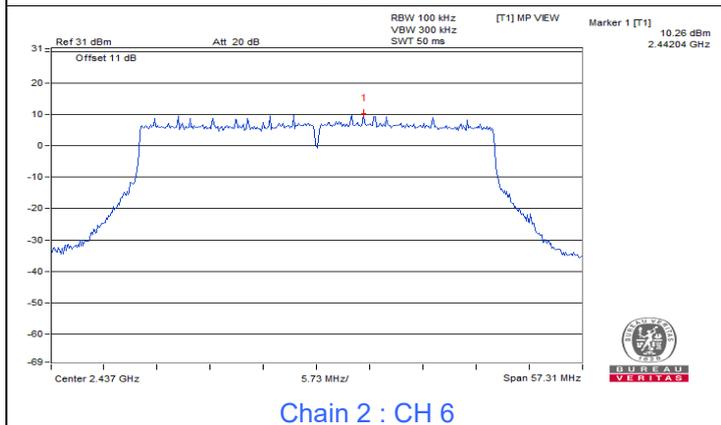




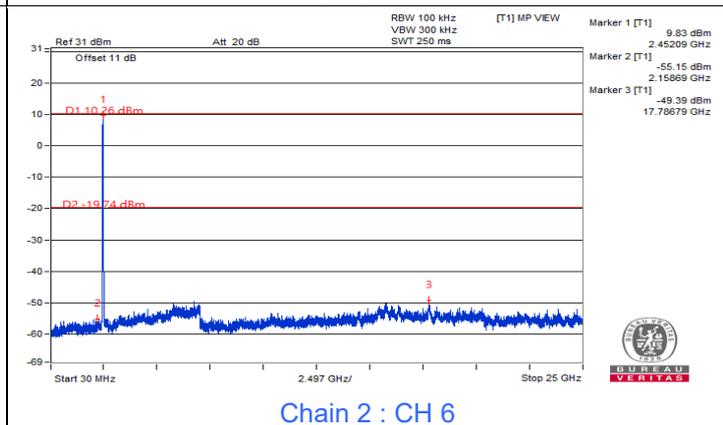
Chain 2 : CH 3



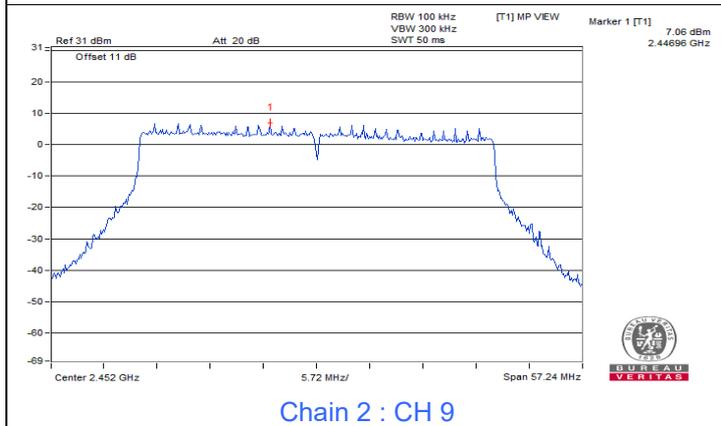
Chain 2 : CH 3



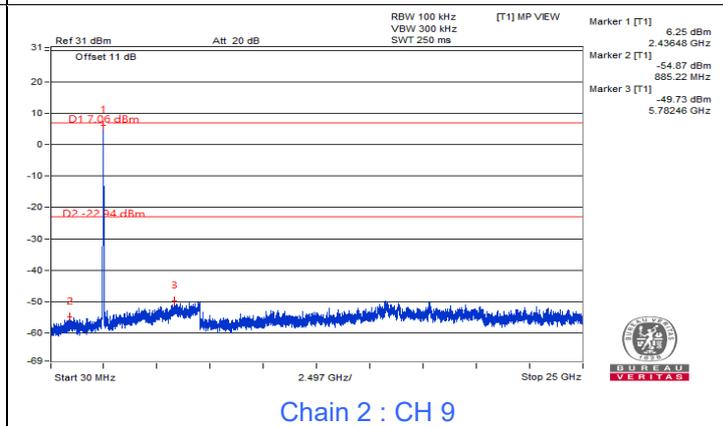
Chain 2 : CH 6



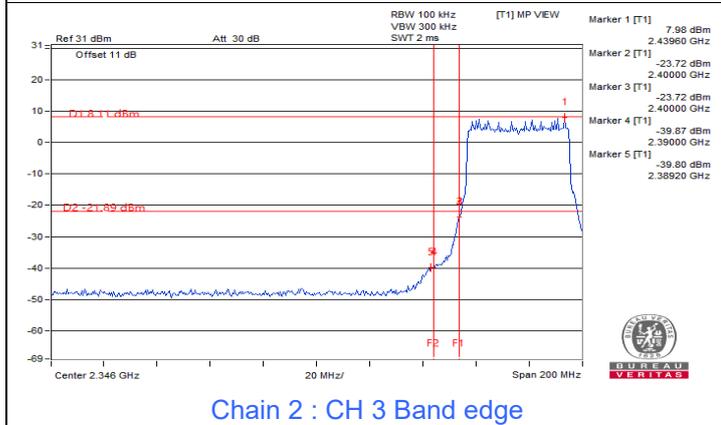
Chain 2 : CH 6



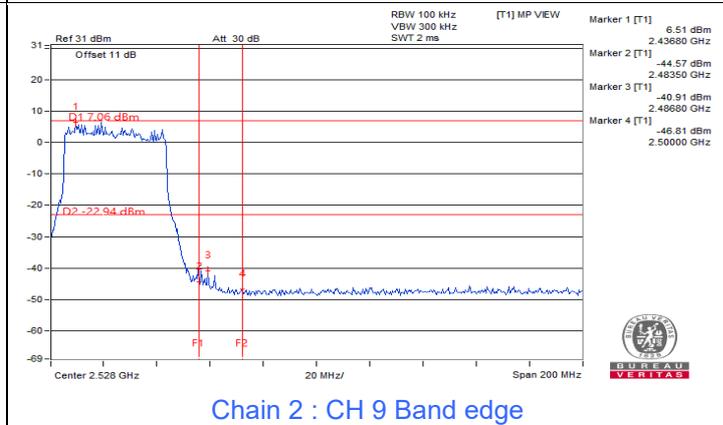
Chain 2 : CH 9



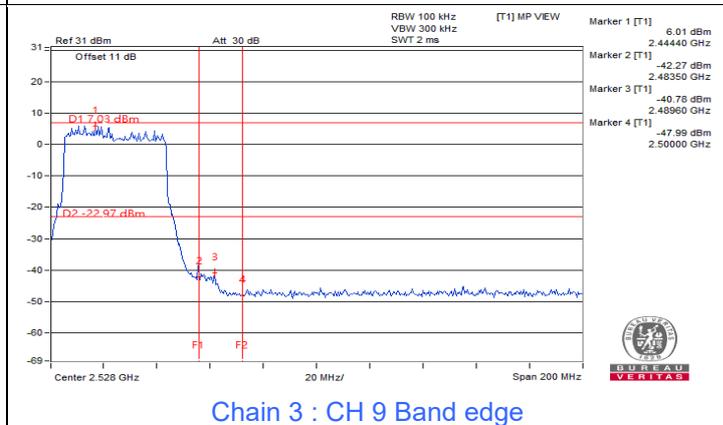
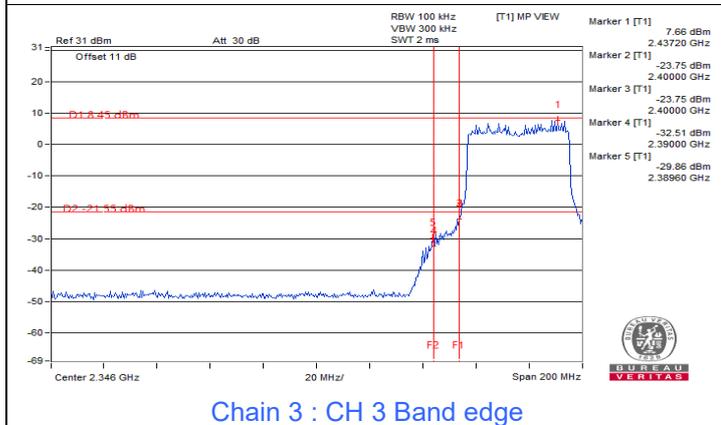
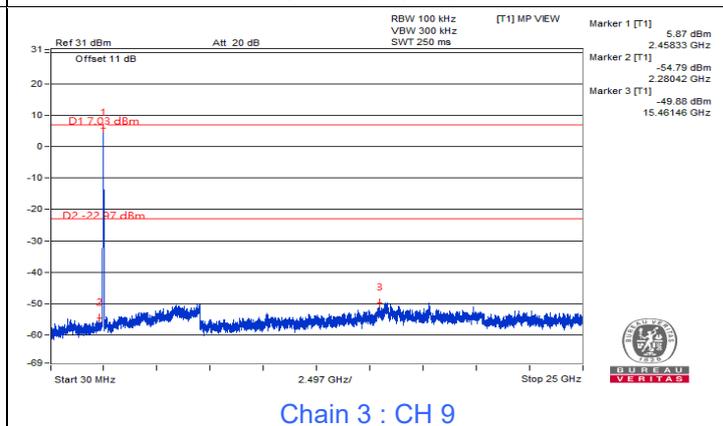
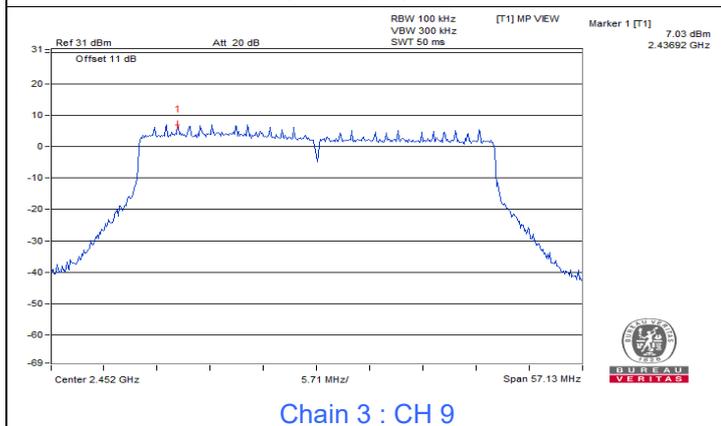
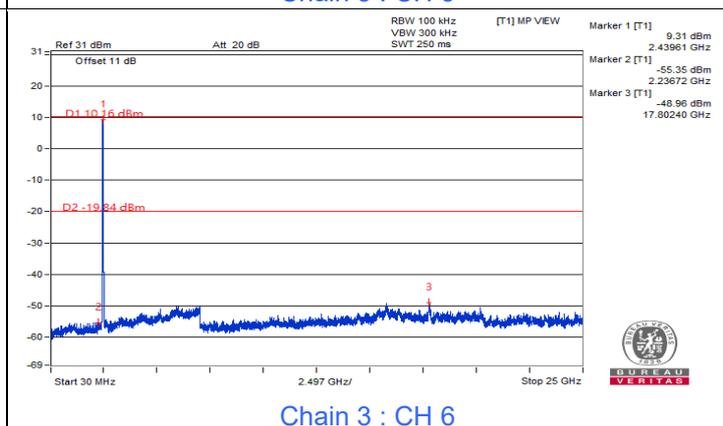
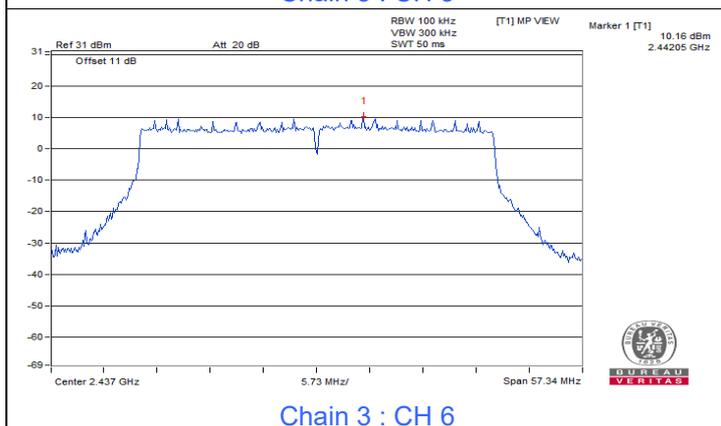
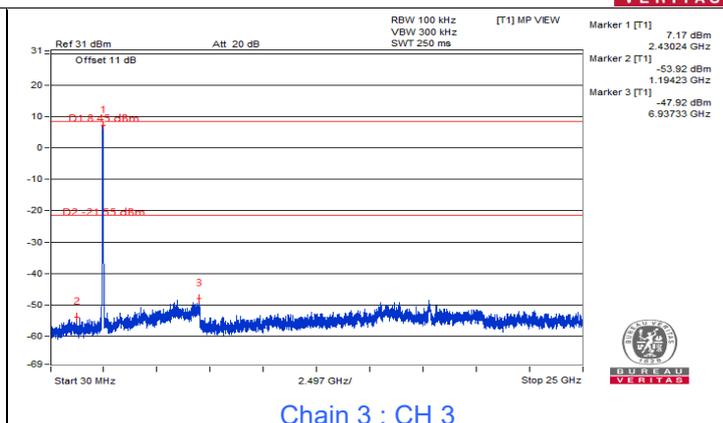
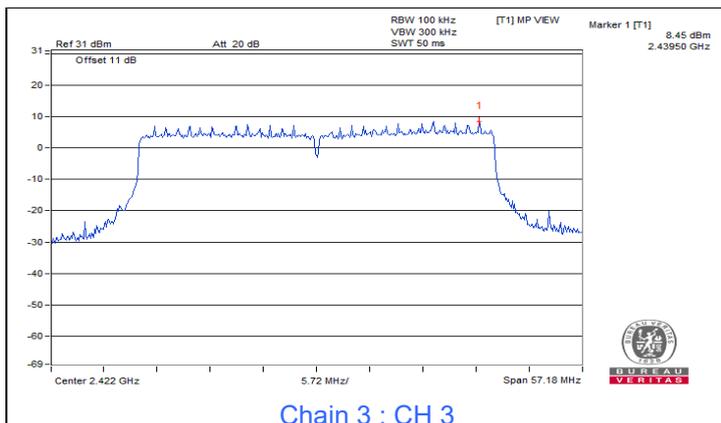
Chain 2 : CH 9



Chain 2 : CH 3 Band edge



Chain 2 : CH 9 Band edge



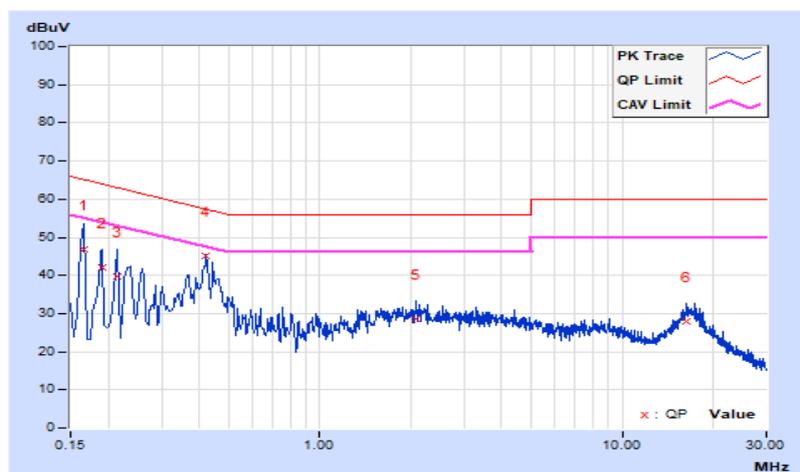
## 7.5 AC Power Conducted Emissions

RF Mode	802.11be (EHT40)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 68 % RH
Tested By	Edison Lee		

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	0.16600	9.69	36.95	22.09	46.64	31.78	65.16	55.16	-18.52	-23.38
2	0.19000	9.70	32.38	19.71	42.08	29.41	64.04	54.04	-21.96	-24.63
3	0.21400	9.71	30.07	18.15	39.78	27.86	63.05	53.05	-23.27	-25.19
4	0.42200	9.72	35.33	31.09	45.05	40.81	57.41	47.41	-12.36	-6.60
5	2.08600	9.79	18.91	13.20	28.70	22.99	56.00	46.00	-27.30	-23.01
6	16.27800	10.04	17.74	12.83	27.78	22.87	60.00	50.00	-32.22	-27.13

### 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

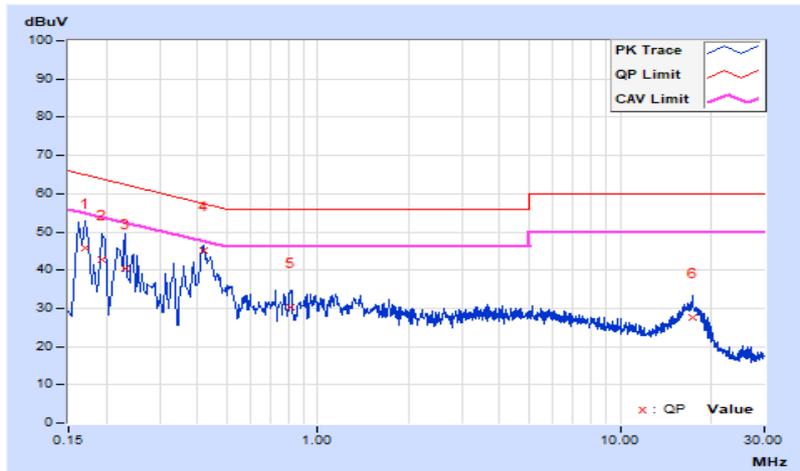


RF Mode	802.11be (EHT40)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 68 % RH
Tested By	Edison Lee		

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	0.17000	9.66	36.14	20.89	45.80	30.55	64.96	54.96	-19.16	-24.41
2	0.19400	9.66	33.10	19.92	42.76	29.58	63.86	53.86	-21.10	-24.28
3	0.23000	9.67	30.81	17.67	40.48	27.34	62.45	52.45	-21.97	-25.11
<b>4</b>	<b>0.41800</b>	<b>9.73</b>	<b>35.45</b>	<b>31.36</b>	<b>45.18</b>	<b>41.09</b>	<b>57.49</b>	<b>47.49</b>	<b>-12.31</b>	<b>-6.40</b>
5	0.81400	9.79	20.65	13.99	30.44	23.78	56.00	46.00	-25.56	-22.22
6	17.39800	10.21	17.25	12.77	27.46	22.98	60.00	50.00	-32.54	-27.02

**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



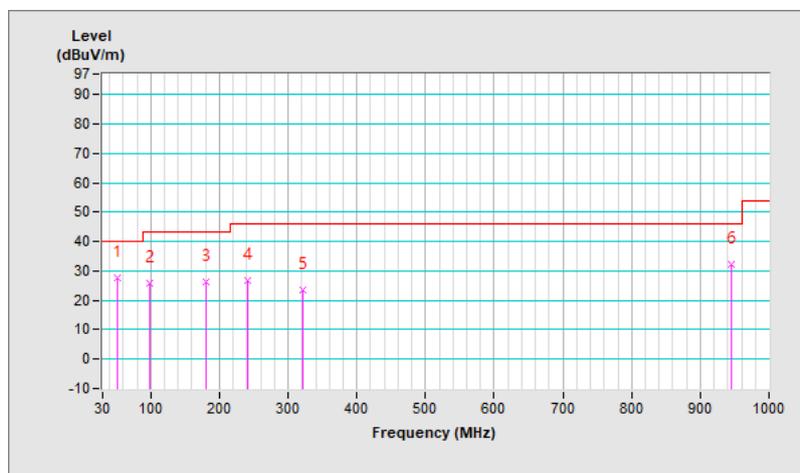
### 7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11be (EHT40)	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68 % RH
Tested By	Greg Lin		

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	51.34	27.6 QP	40.0	-12.4	1.50 H	222	40.6	-13.0
2	97.90	25.7 QP	43.5	-17.8	1.25 H	246	43.5	-17.8
3	180.35	26.4 QP	43.5	-17.1	1.00 H	253	40.9	-14.5
4	240.49	26.7 QP	46.0	-19.3	1.00 H	266	41.0	-14.3
5	321.00	23.7 QP	46.0	-22.3	1.00 H	4	35.1	-11.4
6	944.71	32.4 QP	46.0	-13.6	1.50 H	16	32.2	0.2

**Remarks:**

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

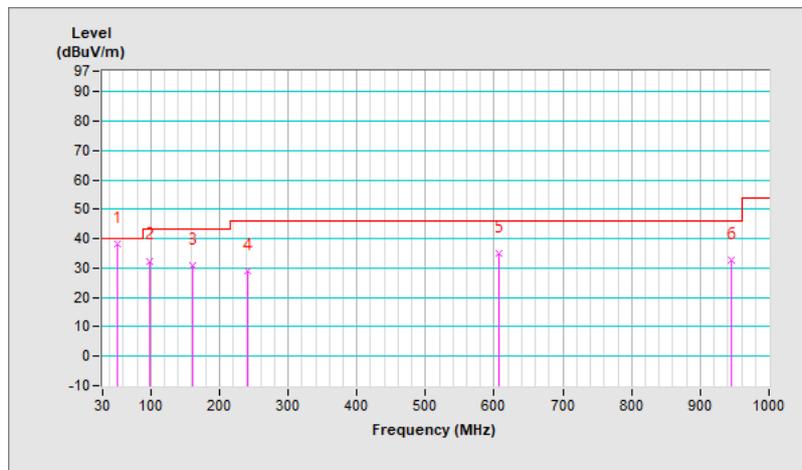


<b>RF Mode</b>	802.11be (EHT40)	<b>Channel</b>	CH 6 : 2437 MHz
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	QP: RB=120 kHz, DET=Quasi-Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

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	51.34	38.1 QP	40.0	-1.9	1.25 V	199	51.1	-13.0
2	98.87	32.5 QP	43.5	-11.0	1.01 V	265	50.0	-17.5
3	161.92	30.8 QP	43.5	-12.7	1.50 V	151	43.6	-12.8
4	240.49	28.9 QP	46.0	-17.1	1.01 V	5	43.2	-14.3
5	607.15	35.2 QP	46.0	-10.8	1.01 V	103	40.0	-4.8
6	944.71	32.9 QP	46.0	-13.1	1.25 V	325	32.7	0.2

**Remarks:**

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

<b>RF Mode</b>	802.11b	<b>Channel</b>	CH 1 : 2412 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

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	61.5 PK	74.0	-12.5	1.99 H	177	28.9	32.6
2	2390.00	51.3 AV	54.0	-2.7	1.99 H	177	18.7	32.6
3	*2412.00	120.5 PK			1.99 H	177	87.9	32.6
4	*2412.00	118.0 AV			1.99 H	177	85.4	32.6
5	4824.00	51.1 PK	74.0	-22.9	1.79 H	21	46.6	4.5
6	4824.00	39.9 AV	54.0	-14.1	1.79 H	21	35.4	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	62.4 PK	74.0	-11.6	1.30 V	335	29.8	32.6
2	2390.00	53.5 AV	54.0	-0.5	1.30 V	335	20.9	32.6
3	*2412.00	123.5 PK			1.30 V	335	90.9	32.6
4	*2412.00	120.9 AV			1.30 V	335	88.3	32.6
5	4824.00	51.6 PK	74.0	-22.4	1.24 V	342	47.1	4.5
6	4824.00	41.2 AV	54.0	-12.8	1.24 V	342	36.7	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.



<b>RF Mode</b>	802.11b	<b>Channel</b>	CH 6 : 2437 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	120.7 PK			1.66 H	173	88.1	32.6
2	*2437.00	118.1 AV			1.66 H	173	85.5	32.6
3	4874.00	51.2 PK	74.0	-22.8	1.74 H	17	46.7	4.5
4	4874.00	40.3 AV	54.0	-13.7	1.74 H	17	35.8	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	*2437.00	124.5 PK			1.24 V	340	91.9	32.6
2	*2437.00	121.9 AV			1.24 V	340	89.3	32.6
3	4874.00	51.8 PK	74.0	-22.2	1.19 V	339	47.3	4.5
4	4874.00	41.5 AV	54.0	-12.5	1.19 V	339	37.0	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.



<b>RF Mode</b>	802.11b	<b>Channel</b>	CH 11 : 2462 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.0 PK			1.92 H	177	87.3	32.7
2	*2462.00	117.4 AV			1.92 H	177	84.7	32.7
3	2483.50	60.9 PK	74.0	-13.1	1.92 H	177	28.1	32.8
4	2483.50	49.9 AV	54.0	-4.1	1.92 H	177	17.1	32.8
5	4924.00	51.6 PK	74.0	-22.4	1.82 H	23	46.9	4.7
6	4924.00	40.5 AV	54.0	-13.5	1.82 H	23	35.8	4.7

**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	*2462.00	123.3 PK			1.18 V	335	90.6	32.7
2	*2462.00	120.8 AV			1.18 V	335	88.1	32.7
3	2483.50	61.5 PK	74.0	-12.5	1.18 V	335	28.7	32.8
4	2483.50	50.2 AV	54.0	-3.8	1.18 V	335	17.4	32.8
5	4924.00	52.2 PK	74.0	-21.8	1.28 V	346	47.5	4.7
6	4924.00	41.8 AV	54.0	-12.2	1.28 V	346	37.1	4.7

**Remarks:**

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



<b>RF Mode</b>	802.11g	<b>Channel</b>	CH 1 : 2412 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**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	1.97 H	178	30.8	32.6
2	2390.00	50.5 AV	54.0	-3.5	1.97 H	178	17.9	32.6
3	*2412.00	120.4 PK			1.97 H	178	87.8	32.6
4	*2412.00	111.0 AV			1.97 H	178	78.4	32.6
5	4824.00	41.1 PK	74.0	-32.9	1.78 H	25	36.6	4.5
6	4824.00	40.0 AV	54.0	-14.0	1.78 H	25	35.5	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	66.0 PK	74.0	-8.0	1.57 V	340	33.4	32.6
2	2390.00	53.5 AV	54.0	-0.5	1.57 V	340	20.9	32.6
3	*2412.00	123.4 PK			1.57 V	340	90.8	32.6
4	*2412.00	113.9 AV			1.57 V	340	81.3	32.6
5	4824.00	51.7 PK	74.0	-22.3	1.28 V	331	47.2	4.5
6	4824.00	41.2 AV	54.0	-12.8	1.28 V	331	36.7	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.



<b>RF Mode</b>	802.11g	<b>Channel</b>	CH 6 : 2437 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.3 PK			1.96 H	173	88.7	32.6
2	*2437.00	111.8 AV			1.96 H	173	79.2	32.6
3	4874.00	51.2 PK	74.0	-22.8	1.83 H	19	46.7	4.5
4	4874.00	40.0 AV	54.0	-14.0	1.83 H	19	35.5	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	*2437.00	124.5 PK			1.33 V	339	91.9	32.6
2	*2437.00	115.1 AV			1.33 V	339	82.5	32.6
3	4874.00	51.7 PK	74.0	-22.3	1.13 V	347	47.2	4.5
4	4874.00	41.3 AV	54.0	-12.7	1.13 V	347	36.8	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.



<b>RF Mode</b>	802.11g	<b>Channel</b>	CH 11 : 2462 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**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	118.3 PK			2.11 H	172	85.6	32.7
2	*2462.00	108.8 AV			2.11 H	172	76.1	32.7
3	2483.50	62.9 PK	74.0	-11.1	2.11 H	172	30.1	32.8
4	2483.50	50.7 AV	54.0	-3.3	2.11 H	172	17.9	32.8
5	4924.00	51.1 PK	74.0	-22.9	1.87 H	24	46.4	4.7
6	4924.00	40.0 AV	54.0	-14.0	1.87 H	24	35.3	4.7

**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	*2462.00	122.1 PK			1.23 V	338	89.4	32.7
2	*2462.00	111.6 AV			1.23 V	338	78.9	32.7
3	2483.50	67.9 PK	74.0	-6.1	1.23 V	338	35.1	32.8
4	2483.50	53.7 AV	54.0	-0.3	1.23 V	338	20.9	32.8
5	4924.00	51.4 PK	74.0	-22.6	1.15 V	343	46.7	4.7
6	4924.00	41.2 AV	54.0	-12.8	1.15 V	343	36.5	4.7

**Remarks:**

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



<b>RF Mode</b>	802.11be (EHT20)	<b>Channel</b>	CH 1 : 2412 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.4 PK	74.0	-7.6	1.96 H	172	33.8	32.6
2	2390.00	52.0 AV	54.0	-2.0	1.96 H	172	19.4	32.6
3	*2412.00	123.0 PK			1.96 H	172	90.4	32.6
4	*2412.00	110.2 AV			1.96 H	172	77.6	32.6
5	4824.00	51.1 PK	74.0	-22.9	1.79 H	21	46.6	4.5
6	4824.00	40.0 AV	54.0	-14.0	1.79 H	21	35.5	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	71.2 PK	74.0	-2.8	1.32 V	337	38.6	32.6
2	2390.00	53.7 AV	54.0	-0.3	1.32 V	337	21.1	32.6
3	*2412.00	125.9 PK			1.32 V	337	93.3	32.6
4	*2412.00	113.0 AV			1.32 V	337	80.4	32.6
5	4824.00	51.6 PK	74.0	-22.4	1.13 V	346	47.1	4.5
6	4824.00	41.3 AV	54.0	-12.7	1.13 V	346	36.8	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.



<b>RF Mode</b>	802.11be (EHT20)	<b>Channel</b>	CH 6 : 2437 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	124.7 PK			1.92 H	176	92.1	32.6
2	*2437.00	111.5 AV			1.92 H	176	78.9	32.6
3	4874.00	51.4 PK	74.0	-22.6	1.79 H	25	46.9	4.5
4	4874.00	40.8 AV	54.0	-13.2	1.79 H	25	36.3	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	*2437.00	127.8 PK			1.36 V	337	95.2	32.6
2	*2437.00	114.7 AV			1.36 V	337	82.1	32.6
3	4874.00	51.9 PK	74.0	-22.1	1.21 V	348	47.4	4.5
4	4874.00	41.7 AV	54.0	-12.3	1.21 V	348	37.2	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.



<b>RF Mode</b>	802.11be (EHT20)	<b>Channel</b>	CH 11 : 2462 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**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	121.1 PK			1.76 H	175	88.4	32.7
2	*2462.00	108.5 AV			1.76 H	175	75.8	32.7
3	2483.50	66.2 PK	74.0	-7.8	1.76 H	175	33.4	32.8
4	2483.50	51.7 AV	54.0	-2.3	1.76 H	175	18.9	32.8
5	4924.00	51.2 PK	74.0	-22.8	1.79 H	32	46.5	4.7
6	4924.00	40.0 AV	54.0	-14.0	1.79 H	32	35.3	4.7

**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	*2462.00	124.8 PK			2.97 V	341	92.1	32.7
2	*2462.00	111.9 AV			2.97 V	341	79.2	32.7
3	2483.50	72.0 PK	74.0	-2.0	2.97 V	341	39.2	32.8
<b>4</b>	<b>2483.50</b>	<b>53.8 AV</b>	<b>54.0</b>	<b>-0.2</b>	<b>2.97 V</b>	<b>341</b>	<b>21.0</b>	<b>32.8</b>
5	4924.00	51.7 PK	74.0	-22.3	1.15 V	347	47.0	4.7
6	4924.00	41.5 AV	54.0	-12.5	1.15 V	347	36.8	4.7

**Remarks:**

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



<b>RF Mode</b>	802.11be (EHT40)	<b>Channel</b>	CH 3 : 2422 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.0 PK	74.0	-9.0	1.95 H	173	32.4	32.6
2	2390.00	52.6 AV	54.0	-1.4	1.95 H	173	20.0	32.6
3	*2422.00	119.0 PK			1.95 H	173	86.4	32.6
4	*2422.00	106.4 AV			1.95 H	173	73.8	32.6
5	4844.00	51.0 PK	74.0	-23.0	1.85 H	19	46.4	4.6
6	4844.00	39.9 AV	54.0	-14.1	1.85 H	19	35.3	4.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	67.1 PK	74.0	-6.9	1.27 V	343	34.5	32.6
2	<b>2390.00</b>	<b>53.8 AV</b>	<b>54.0</b>	<b>-0.2</b>	<b>1.27 V</b>	<b>343</b>	<b>21.2</b>	<b>32.6</b>
3	*2422.00	122.4 PK			1.27 V	343	89.8	32.6
4	*2422.00	109.5 AV			1.27 V	343	76.9	32.6
5	4844.00	51.4 PK	74.0	-22.6	1.17 V	332	46.8	4.6
6	4844.00	41.0 AV	54.0	-13.0	1.17 V	332	36.4	4.6

**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.



<b>RF Mode</b>	802.11be (EHT40)	<b>Channel</b>	CH 6 : 2437 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**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	63.9 PK	74.0	-10.1	2.41 H	5	31.3	32.6
2	2390.00	50.0 AV	54.0	-4.0	2.41 H	5	17.4	32.6
3	*2437.00	122.2 PK			2.41 H	5	89.6	32.6
4	*2437.00	109.3 AV			2.41 H	5	76.7	32.6
5	4874.00	51.0 PK	74.0	-23.0	N/A H	N/A	46.5	4.5
6	4874.00	39.8 AV	54.0	-14.2	N/A H	N/A	35.3	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	69.4 PK	74.0	-4.6	1.25 V	345	36.8	32.6
2	2390.00	53.6 AV	54.0	-0.4	1.25 V	345	21.0	32.6
3	*2437.00	124.2 PK			1.25 V	345	91.6	32.6
4	*2437.00	111.4 AV			1.25 V	345	78.8	32.6
5	4874.00	51.4 PK	74.0	-22.6	1.13 V	335	46.9	4.5
6	4874.00	41.2 AV	54.0	-12.8	1.13 V	335	36.7	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.



<b>RF Mode</b>	802.11be (EHT40)	<b>Channel</b>	CH 9 : 2452 MHz
<b>Frequency Range</b>	1 GHz ~ 25 GHz	<b>Detector Function &amp; Bandwidth</b>	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22 °C, 68 % RH
<b>Tested By</b>	Greg Lin		

**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	118.0 PK			1.85 H	179	85.4	32.6
2	*2452.00	105.0 AV			1.85 H	179	72.4	32.6
3	2483.50	67.1 PK	74.0	-6.9	1.85 H	179	34.3	32.8
4	2483.50	52.2 AV	54.0	-1.8	1.85 H	179	19.4	32.8
5	4904.00	50.9 PK	74.0	-23.1	1.83 H	23	46.3	4.6
6	4904.00	39.9 AV	54.0	-14.1	1.83 H	23	35.3	4.6

**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	120.7 PK			1.34 V	340	88.1	32.6
2	*2452.00	107.8 AV			1.34 V	340	75.2	32.6
3	2483.50	69.9 PK	74.0	-4.1	1.34 V	340	37.1	32.8
4	2483.50	53.7 AV	54.0	-0.3	1.34 V	340	20.9	32.8
5	4904.00	51.4 PK	74.0	-22.6	1.27 V	332	46.8	4.6
6	4904.00	41.0 AV	54.0	-13.0	1.27 V	332	36.4	4.6

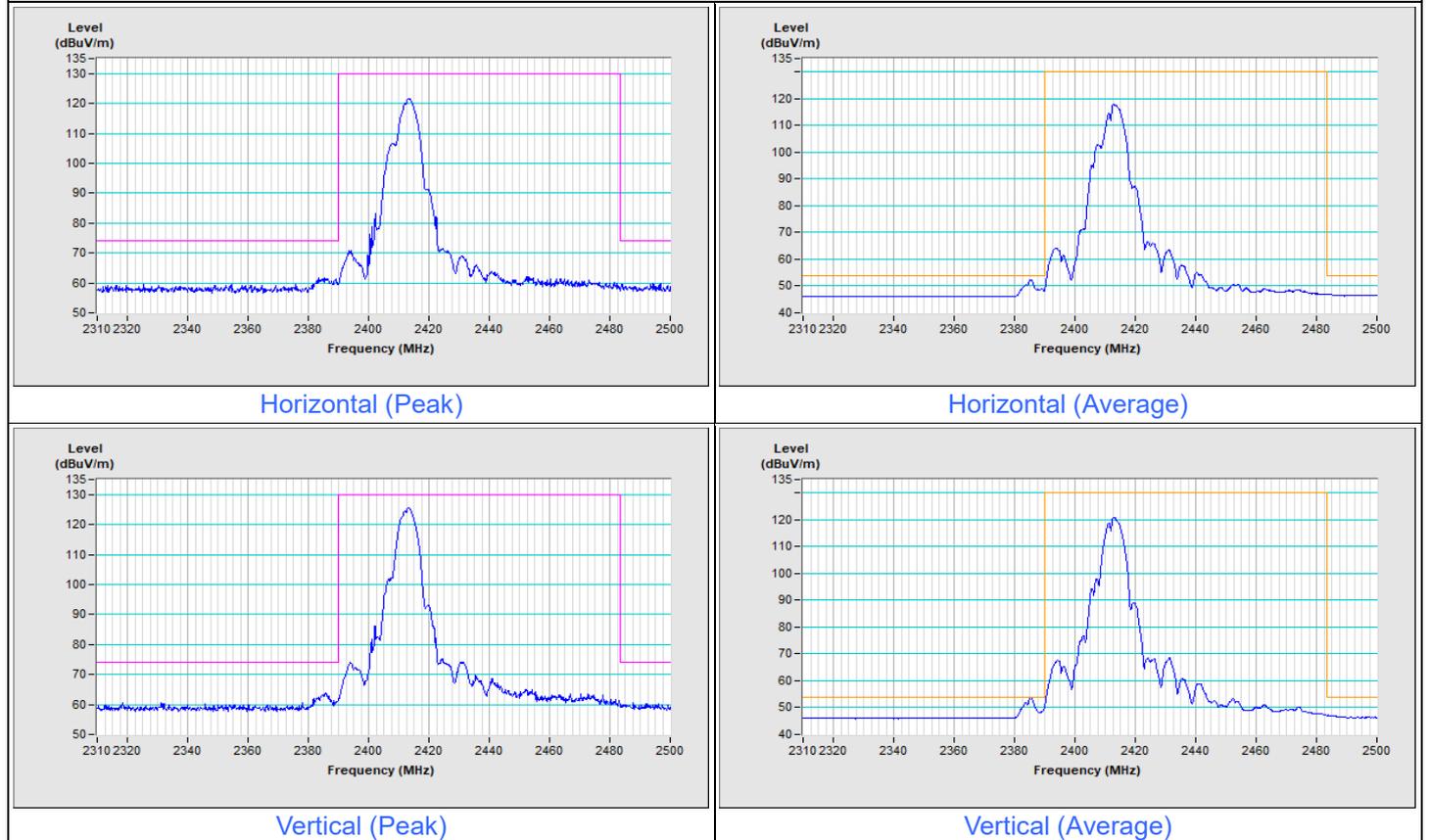
**Remarks:**

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.

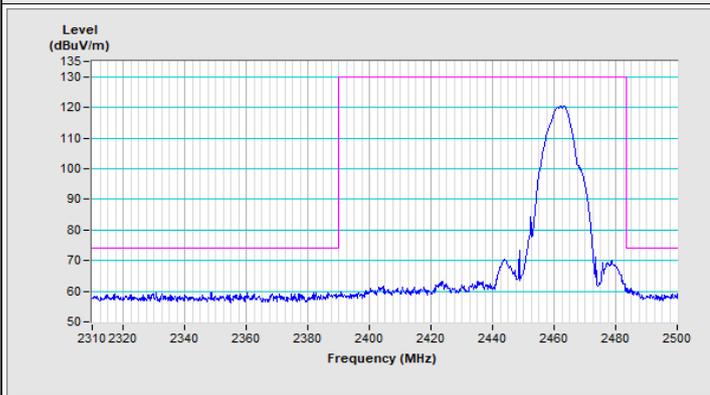
### Plot of Band Edge

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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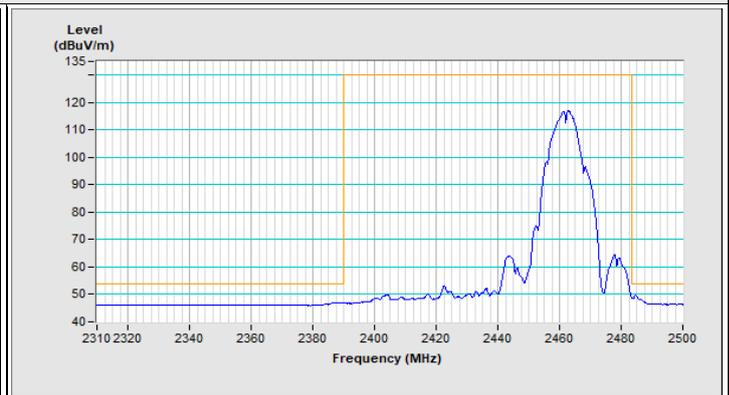
#### 802.11b Channel 1



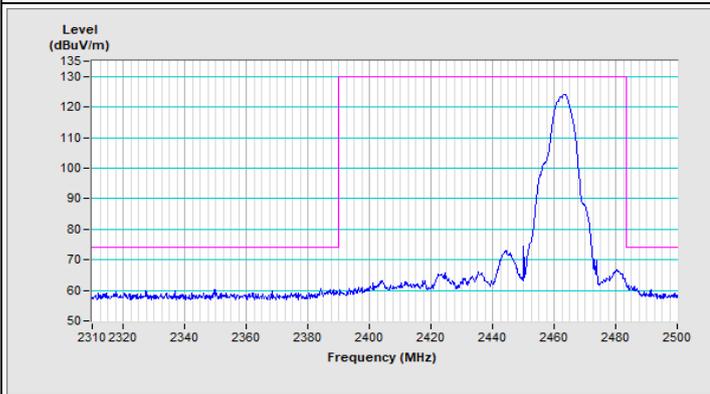
### 802.11b Channel 11



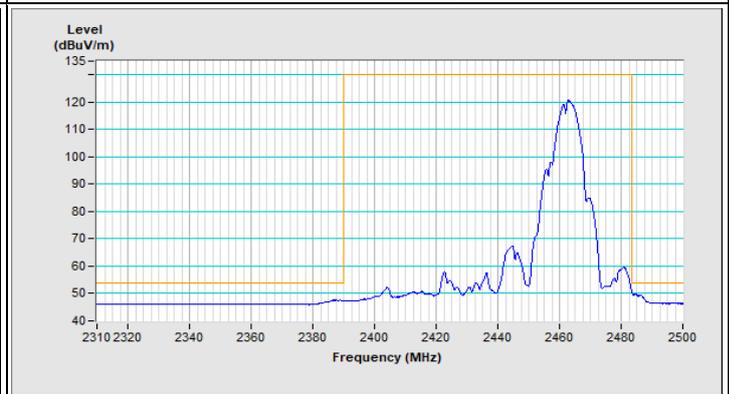
Horizontal (Peak)



Horizontal (Average)



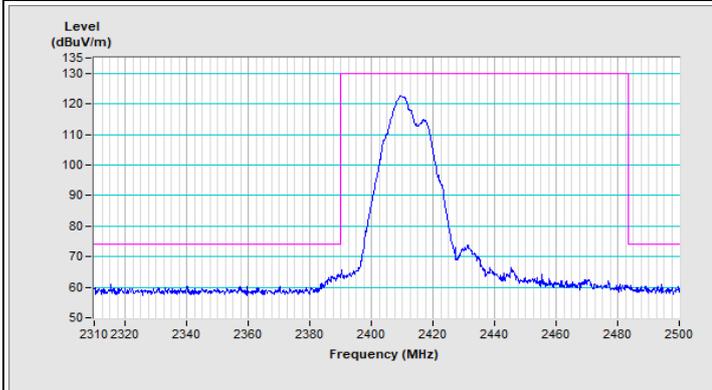
Vertical (Peak)



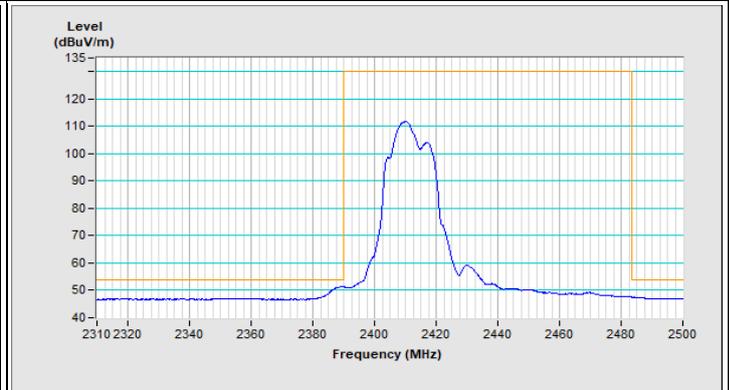
Vertical (Average)

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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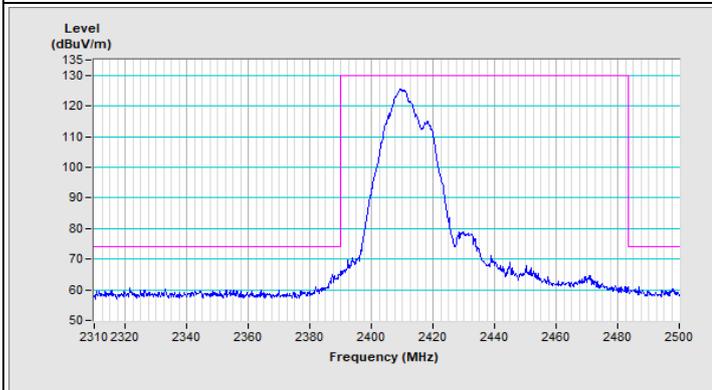
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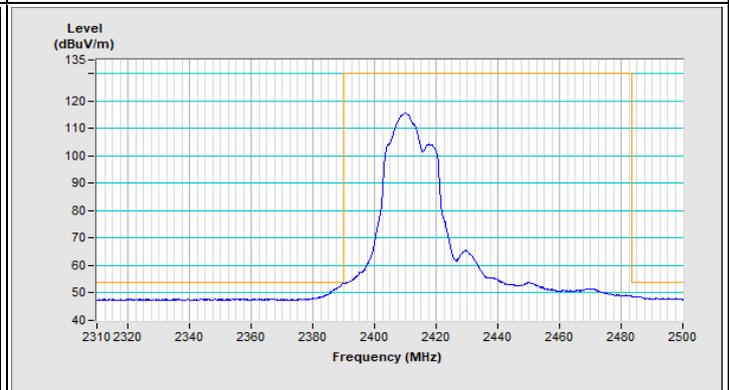
Horizontal (Peak)



Horizontal (Average)

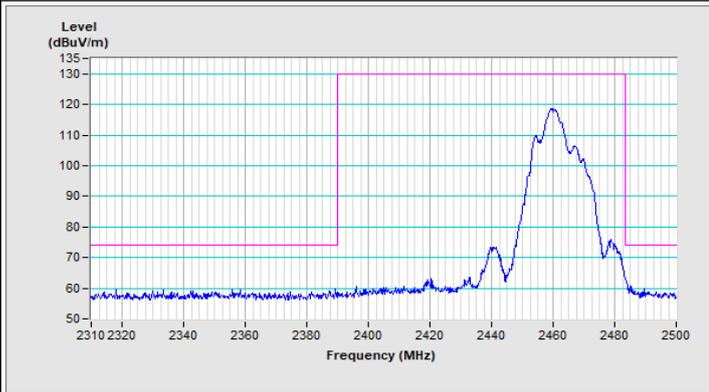


Vertical (Peak)

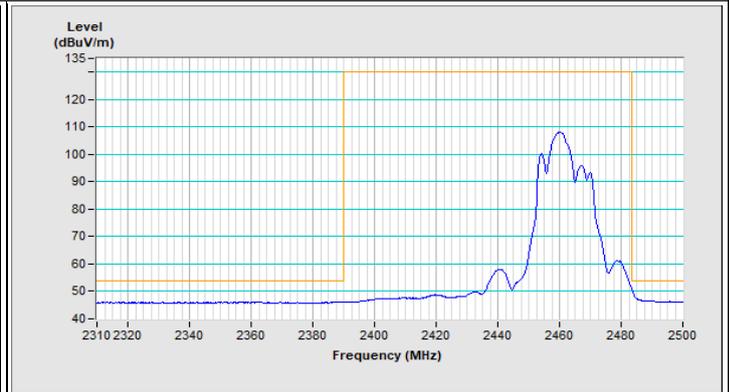


Vertical (Average)

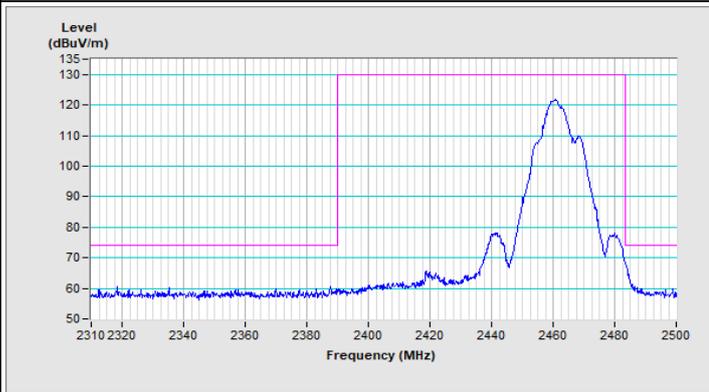
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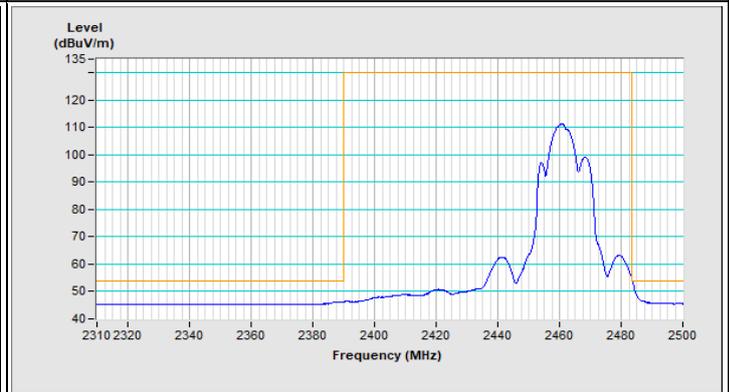
Horizontal (Peak)



Horizontal (Average)



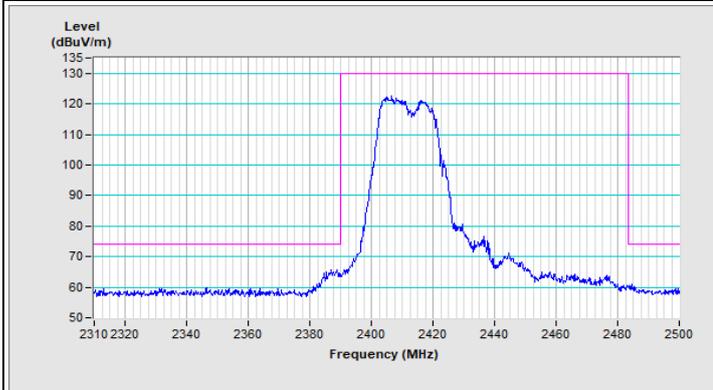
Vertical (Peak)



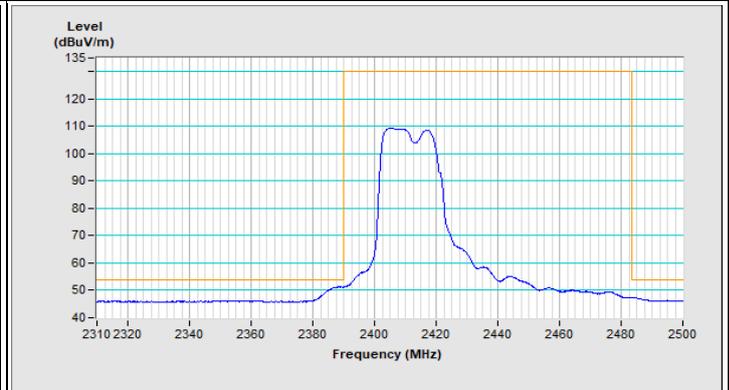
Vertical (Average)

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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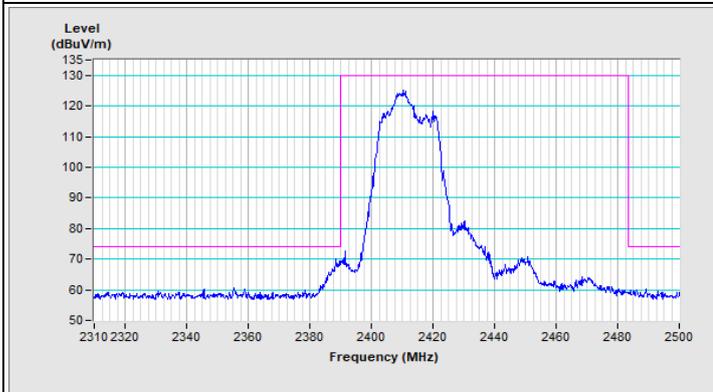
**802.11be (EHT20) Channel 1**



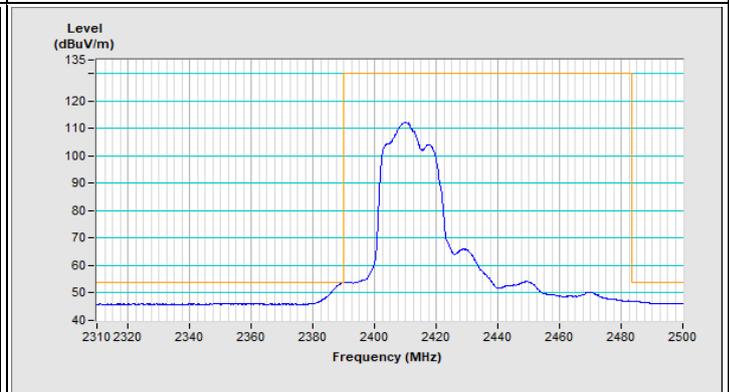
Horizontal (Peak)



Horizontal (Average)

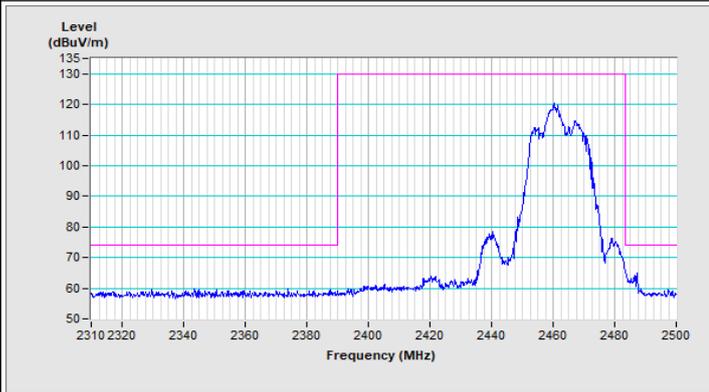


Vertical (Peak)

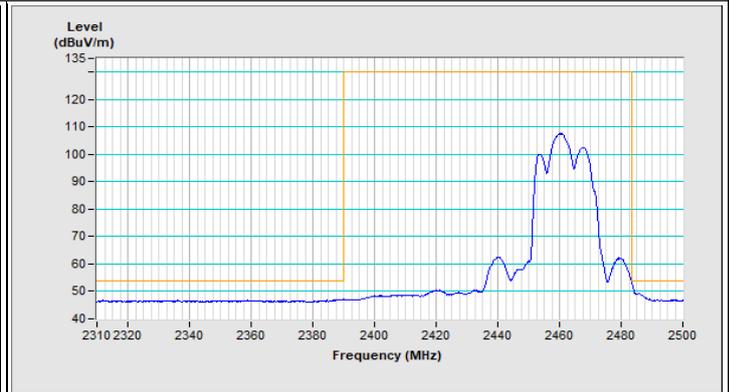


Vertical (Average)

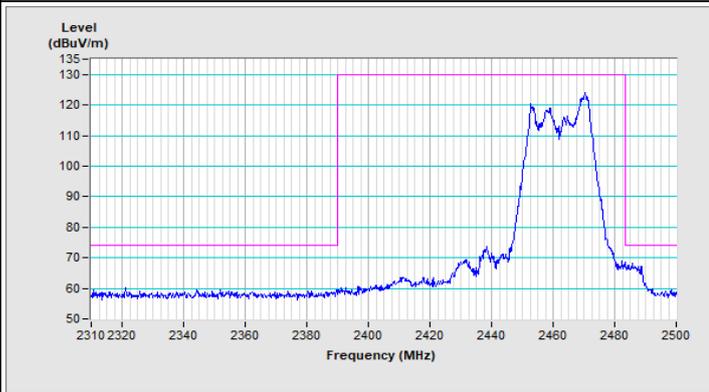
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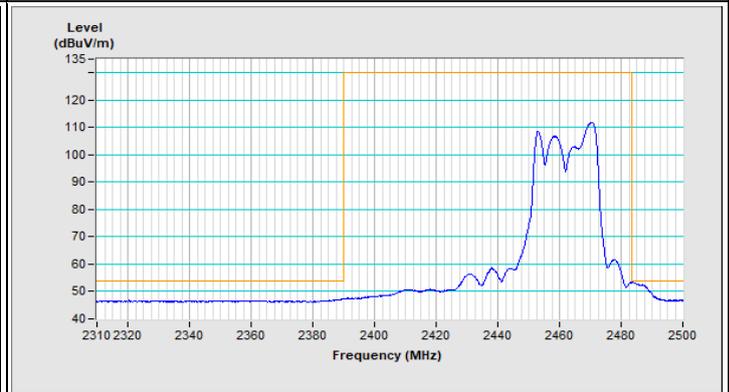
Horizontal (Peak)



Horizontal (Average)



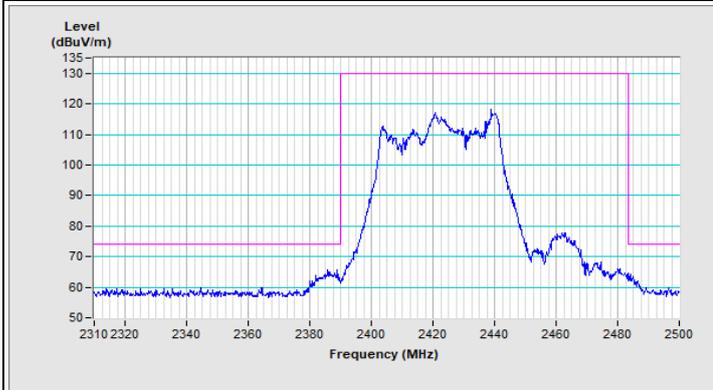
Vertical (Peak)



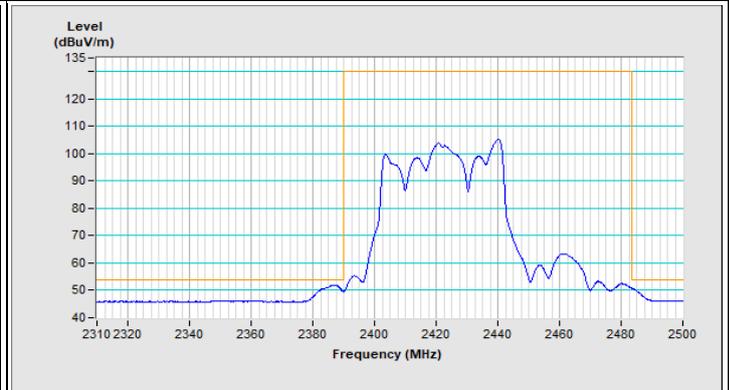
Vertical (Average)

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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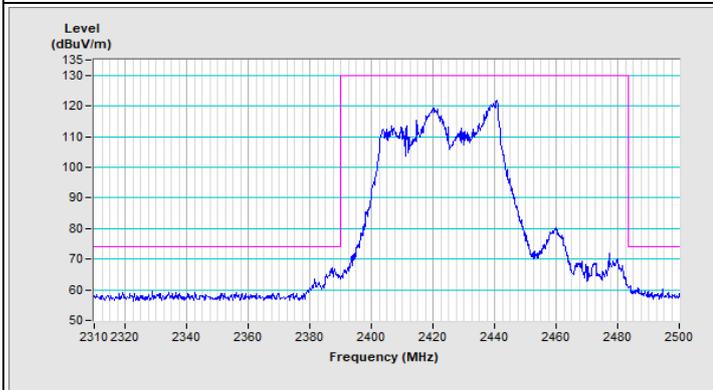
**802.11be (EHT40) Channel 3**



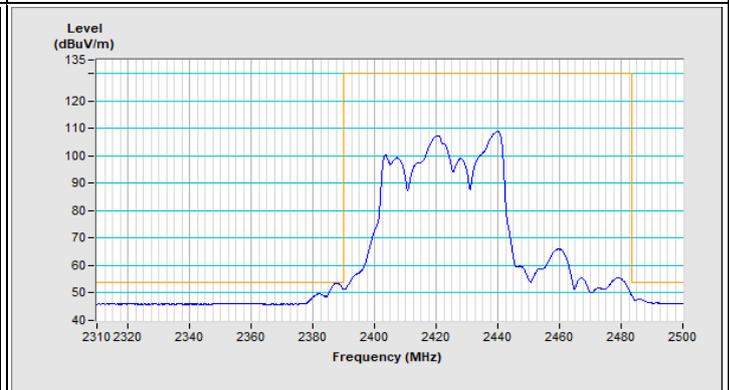
Horizontal (Peak)



Horizontal (Average)

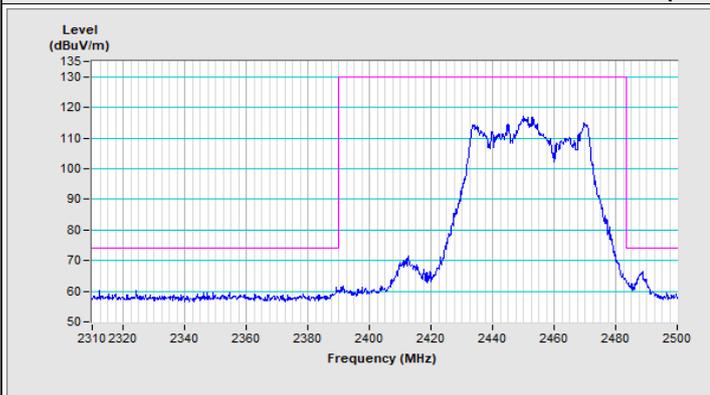


Vertical (Peak)

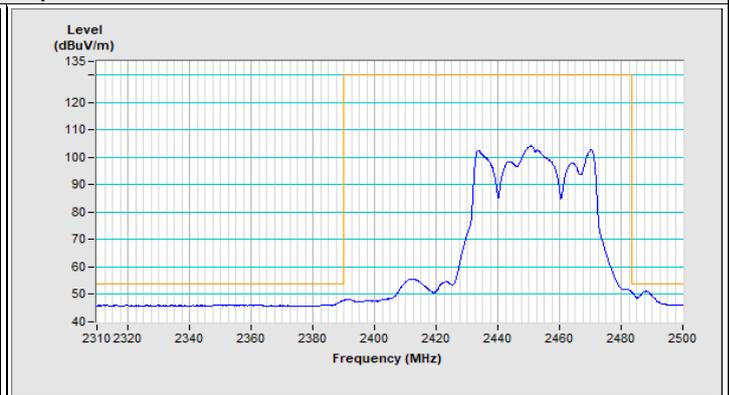


Vertical (Average)

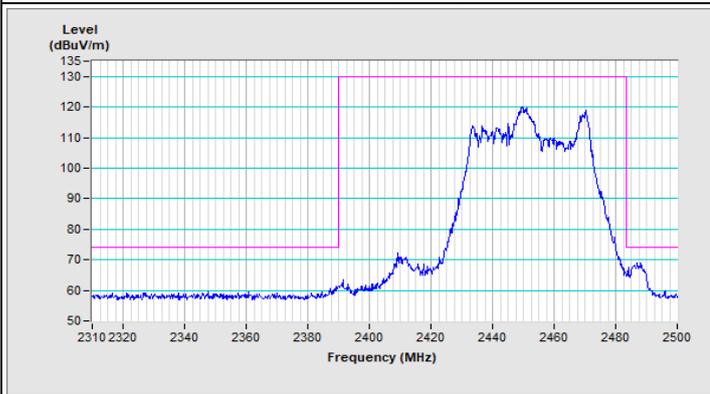
### 802.11be (EHT40) Channel 9



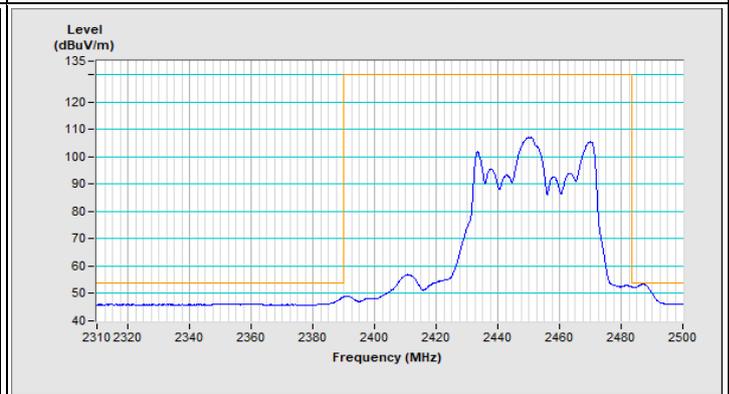
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

## 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.

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

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