

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBEIH-WTW-P24070284

FCC ID: P27XER10

Product: Comcast Xfinity WiFi 7 Tri-band Router

Brand: Comcast, Rogers, Cox, Sky

Model No.: XER10

Series Model: XER10xxxxxxx, SCER11BELxxxxxxx (the 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-" , for marketing purpose)

Received Date: 2024/7/10

Test Date: 2024/7/15 ~ 2025/2/21

Issued Date: 2025/3/5

Applicant: Sercomm Corporation

Address: 8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location(1): No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location(2): No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

FCC Registration / Test Location:

Designation Number: 198487 / TW2021 for Test Location(1)

281270 / TW0032 for Test Location(2)

Approved by:

Jeremy Lin

Jeremy Lin / Project Engineer

Date:

2025/3/5

This test report consists of 88 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.

Prepared by : Annie Chang / Senior Specialist



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	4
1 Certificate	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description	7
3.2 Antenna Description of EUT	8
3.3 Channel List	9
3.4 Test Mode Applicability and Tested Channel Detail	10
3.5 Duty Cycle of Test Signal	11
3.6 Test Program Used and Operation Descriptions	13
3.7 Connection Diagram of EUT and Peripheral Devices	13
3.8 Configuration of Peripheral Devices and Cable Connections	13
4 Test Instruments	14
4.1 RF Output Power	14
4.2 Power Spectral Density	14
4.3 6 dB Bandwidth	14
4.4 Conducted Out of Band Emissions	14
4.5 AC Power Conducted Emissions	15
4.6 Unwanted Emissions below 1 GHz	16
4.7 Unwanted Emissions above 1 GHz	17
5 Limits of Test Items	19
5.1 RF Output Power	19
5.2 Power Spectral Density	19
5.3 6 dB Bandwidth	19
5.4 Conducted Out of Band Emissions	19
5.5 AC Power Conducted Emissions	19
5.6 Unwanted Emissions below 1 GHz	20
5.7 Unwanted Emissions above 1 GHz	20
6 Test Arrangements	21
6.1 RF Output Power	21
6.1.1 Test Setup	21
6.1.2 Test Procedure	21
6.2 Power Spectral Density	21
6.2.1 Test Setup	21
6.2.2 Test Procedure	21
6.3 6 dB Bandwidth	22
6.3.1 Test Setup	22
6.3.2 Test Procedure	22
6.4 Conducted Out of Band Emissions	22
6.4.1 Test Setup	22
6.4.2 Test Procedure	22
6.5 AC Power Conducted Emissions	23
6.5.1 Test Setup	23
6.5.2 Test Procedure	23
6.6 Unwanted Emissions below 1 GHz	24
6.6.1 Test Setup	24
6.6.2 Test Procedure	25
6.7 Unwanted Emissions above 1 GHz	26
6.7.1 Test Setup	26
6.7.2 Test Procedure	26
7 Test Results of Test Item	27



7.1	RF Output Power	27
7.2	Power Spectral Density	31
7.3	6 dB Bandwidth	35
7.4	Conducted Out of Band Emissions	37
7.5	AC Power Conducted Emissions	53
7.6	Unwanted Emissions below 1 GHz	55
7.7	Unwanted Emissions above 1 GHz.....	57
8	Pictures of Test Arrangements	87
9	Information of the Testing Laboratories	88



Release Control Record

Issue No.	Description	Date Issued
RFBEIH-WTW-P24070284	Original release.	2025/3/5

1 Certificate

Product: Comcast Xfinity WiFi 7 Tri-band Router

Brand: Comcast, Rogers, Cox, Sky

Test Model: XER10

Series Model: XER10xxxxxxx, SCER11BELxxxxxxx (the 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose)

Sample Status: Engineering sample

Applicant: Sercomm Corporation

Test Date: 2024/7/15 ~ 2025/2/21

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

Measurement ANSI C63.10-2013

procedure: KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -5.69 dB at 0.16562 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -13.6 dB at 65.99 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 2390.00 and 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
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	2.85 dB
	30 MHz ~ 1 GHz	5.7 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 6 GHz	3.06 dB
	6 GHz ~ 18 GHz	3.06 dB
	18 GHz ~ 40 GHz	3.29 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	Comcast Xfinity WiFi 7 Tri-band Router
Brand	Comcast, Rogers, Cox, Sky
Test Model	XER10
Series Model	XER10xxxxxxx, SCER11BELxxxxxxxx (the 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose)
Model Difference	Marketing Differentiation
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from Adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	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	986.609 mW (29.94 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	LEADER	ML55-3120460-A1	AC I/P: 100-120V, 50/60Hz, 1.5A DC O/P: 12.0V, 4.6A Non-shielded DC cable (1.8m)
AC Adapter 2	Netbit	NBC56B120460VU	AC I/P: 120V, 60Hz, 1.5A DC O/P: 12.0V, 4.6A Non-shielded DC cable (1.8m)

2. There are Bluetooth, Zigbee, Matter and WLAN (2.4 GHz & 5 GHz & 6GHz) technology used for the EUT.

3. Simultaneously transmission combination.

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

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

4. The directional antenna gain information is declared by manufacturer and more detailed features description please refer to operation description of antenna specifications exhibit.
5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
1	DB1	Sercomm	61720044WA	3.5	2.4~2.5	Dipole	ipex(MHF)
2	DB2	Sercomm	61720045WA	3.5	2.4~2.5	Dipole	ipex(MHF)
3	DB3	Sercomm	61720046WA	4.8	2.4~2.5	Dipole	ipex(MHF)
4	DB4	Sercomm	61720047WA	4.8	2.4~2.5	Dipole	ipex(MHF)

Frequency Range (GHz)	Antenna Directional Gain (dBi)
2.4~2.5	5.38

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

2. The EUT incorporates a MIMO function:

2.4 GHz Band			
Modulation Mode	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:

- All of modulation mode support beamforming function except 802.11b/g modulation mode.
- The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
- The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), 802.11ax mode for 20 MHz (40 MHz) and 802.11be mode for 20 MHz (40 MHz) therefore the 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.
- 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 Adapter1(LEADER)/ Adapter2(Netbit). Pre-scan these adapter and find the worst case as a representative test condition.
Worst Case:	1. Adapter1(LEADER)/ Adapter2(Netbit) Worst Condition: Adapter1(LEADER).

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
	802.11ac (VHT20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11ac (VHT40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
	802.11ax (HE20)	CDD & Beamforming	1, 6, 11	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0
	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	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
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 (EHT20)	CDD	6	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11be (EHT20)	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 & Beamforming	1, 6, 11	BPSK	MCS0
	802.11be (EHT40)	CDD & Beamforming	3, 6, 9	BPSK	MCS0

Note: not support channel puncturing.

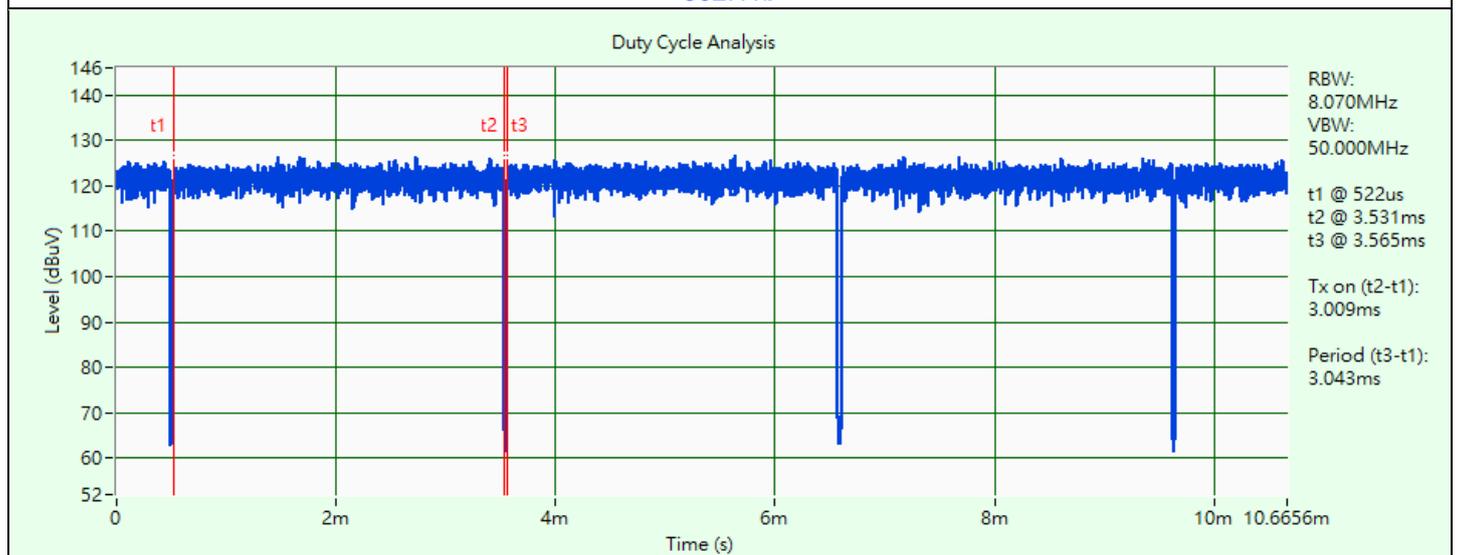
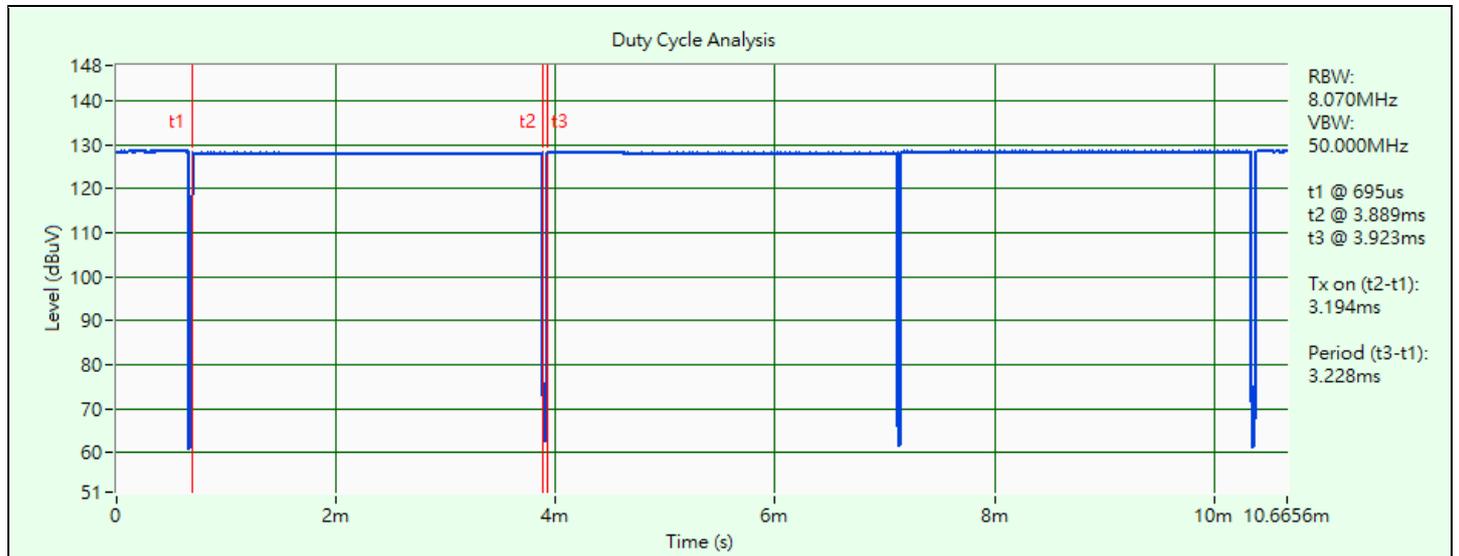
3.5 Duty Cycle of Test Signal

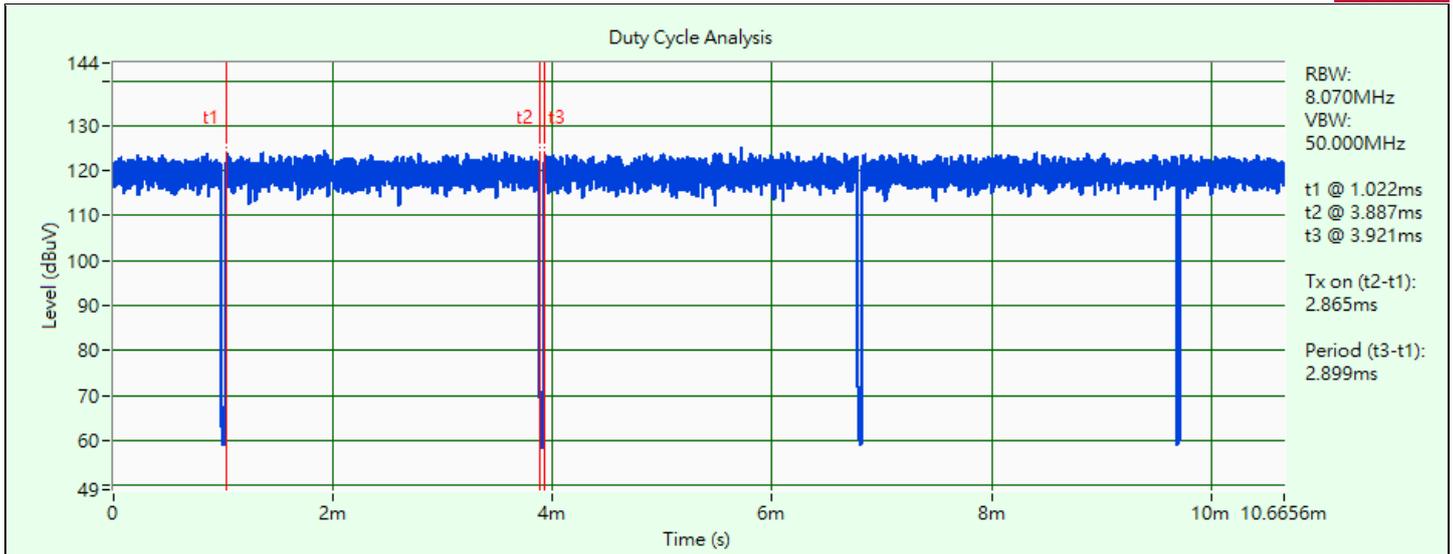
802.11b: Duty cycle = 3.194 ms / 3.228 ms x 100% = 98.9%

802.11g: Duty cycle = 3.009 ms / 3.043 ms x 100% = 98.9%

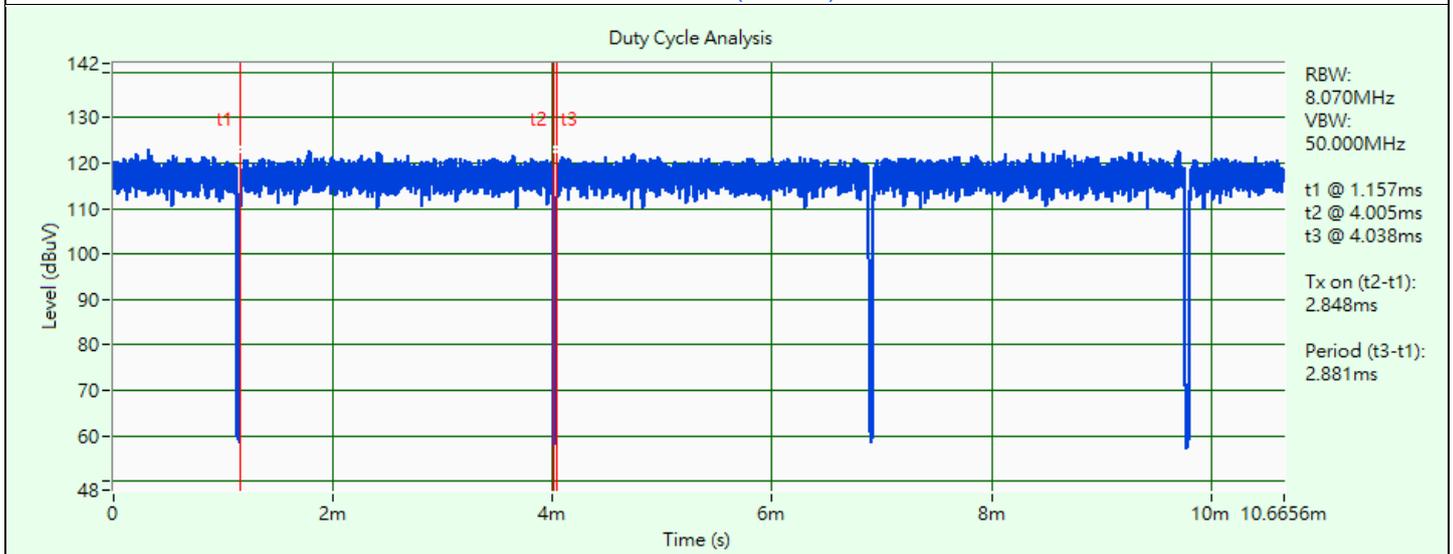
802.11be (EHT20): Duty cycle = 2.865 ms / 2.899 ms x 100% = 98.8%

802.11be (EHT40): Duty cycle = 2.848 ms / 2.881 ms x 100% = 98.9%





802.11be (EHT20)

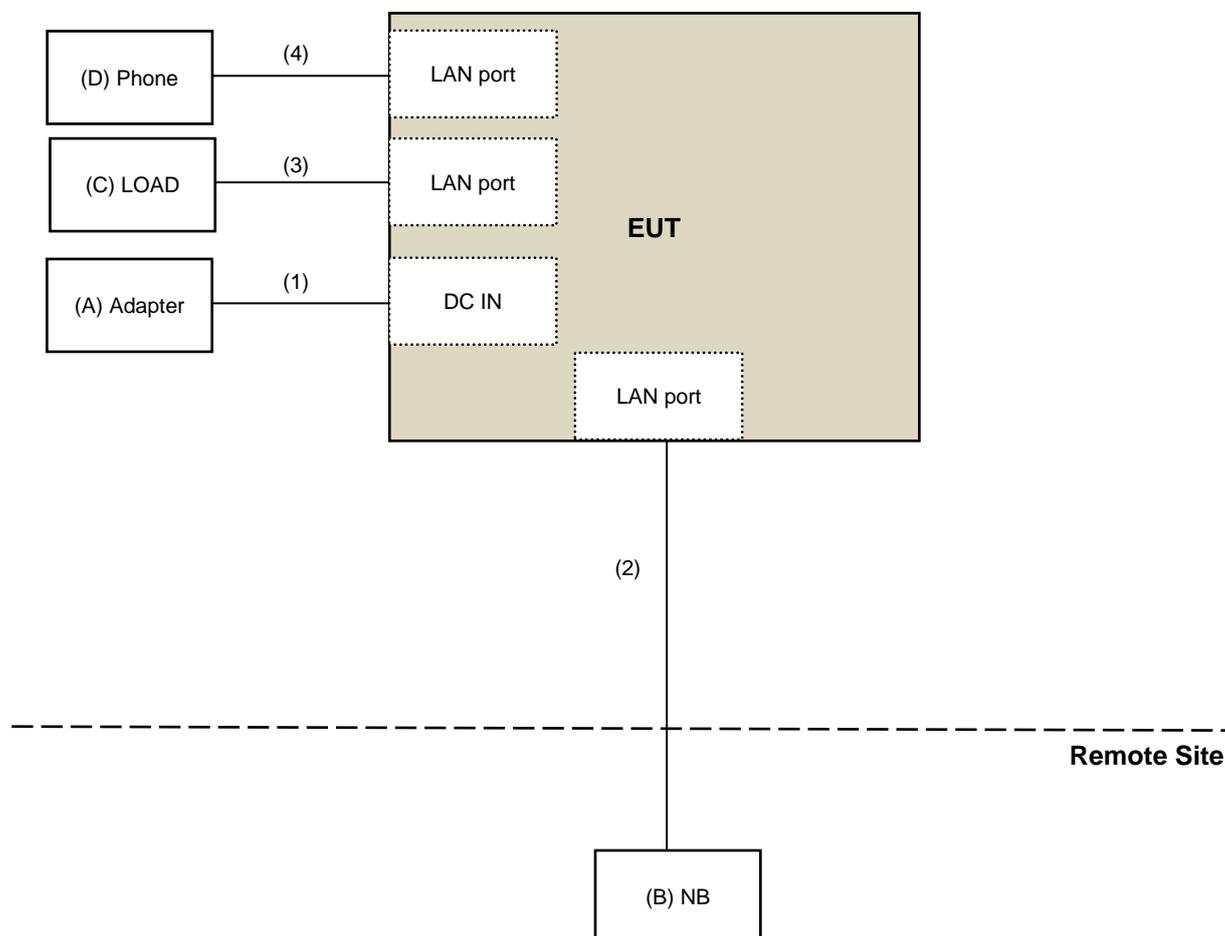


802.11be (EHT40)

3.6 Test Program Used and Operation Descriptions

Controlling software (accessMTool 3.3.0.8) 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	LEADER	ML55-3120460-A1	N/A	N/A	Supplied by applicant
B	NB	DELL	LA65NS2-01	N/A	N/A	Provided by Lab
C	LOAD	BV	BV	N/A	N/A	Provided by Lab
D	Phone	ISit0	IS-333	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	10	N	0	Provided by Lab
3	LAN cable	4	1.5	N	0	Provided by Lab
4	LAN cable	1	2.17	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
Pulse Power Sensor Anritsu	MA2411B	0738404	2024/5/13	2025/5/12
RF Power Meter Anritsu	ML2495A	0842014	2024/5/13	2025/5/12
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: 2025/2/21

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030A	MY54490260	2024/7/17	2025/7/16
Signal Analyzer R&S	FSV40	101042	2023/9/5	2024/9/4
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: 2024/8/1

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 LYNICS	0900510	E1-011285	2023/9/21	2024/9/20
		E1-011286	2023/9/21	2024/9/20
50 ohm terminal resistance SUHNER	65BNC-5001	E1-010789	2024/6/20	2025/6/19
EMI Test Receiver R&S	ESCI	100412	2023/8/23	2024/8/22
	ESCS 30	100288	2023/12/28	2024/12/27
Fixed Attenuator STI	STI02-2200-10	NO.1	2023/9/13	2024/9/12
LISN R&S	ENV216	100024	2023/9/6	2024/9/5
		101197	2024/7/11	2025/7/10
LISN Schwarzbeck	NNLK 8121	8121-731	2024/6/12	2025/6/11
		8121-00759	2023/8/21	2024/8/20
		8121-808	2024/4/26	2025/4/25
	NNLK 8129	8129229	2024/6/14	2025/6/13
RF Coaxial Cable PEWC	5D-FB	Cable-CO10-01	2024/2/7	2025/2/6
Software BVADT	Cond_V7.4.1.0	N/A	N/A	N/A

Notes:

1. The test was performed in Linkou Conduction 10.
2. Tested Date: 2024/8/10

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	137	2023/10/13	2024/10/12
Coupling / Decoupling Network Schwarzbeck	CDNE-M2	00097	2024/5/28	2025/5/27
	CDNE-M3	00091	2024/5/28	2025/5/27
Loop Antenna TESEQ	HLA 6121	64095	2023/9/23	2024/9/22
MXE EMI Receiver Agilent	N9038A	MY51210129	2024/3/22	2025/3/21
Preamplifier Agilent	8447D	2944A11064	2024/2/15	2025/2/14
Preamplifier EMCI	EMC001340	980269	2024/6/25	2025/6/24
RF Coaxial Cable Pacific	8D-FB	Cable-CH6-02	2024/6/25	2025/6/24
Signal Analyzer R&S	FSV40	101544	2024/6/20	2025/6/19
Software BVADT	Radiated_V8.7.08	N/A	N/A	N/A
Tower ADT	AT100	0306	N/A	N/A
Turn Table ADT	TT100	0306	N/A	N/A

Notes:

1. The test was performed in Linkou 966 Chamber 6 (CH 6).
2. Tested Date: 2024/8/30

4.7 Unwanted Emissions above 1 GHz

CDD Mode and Plot of Band Edge_CDD

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	
Boresight antenna tower fixture BV	BAF-02	6	N/A	N/A	
High Pass Filter Wainwright	WHK 3.1/18G-10SS	SN 8	2024/5/24	2025/5/23	
Horn Antenna EMCO	3115	00028257	2023/11/12	2024/11/11	
Horn Antenna ETS-Lindgren	3117-PA	00215857	2023/11/12	2024/11/11	
Horn Antenna Schwarzbeck	BBHA 9170	212	2023/10/16	2024/10/15	
		BBHA9170241	2023/10/16	2024/10/15	
MXE EMI Receiver Agilent	N9038A	MY51210129	2024/3/22	2025/3/21	
Notch Filter Micro-Tronics	BRC50703-01	010	2024/5/24	2025/5/23	
	BRM17690	005	2024/5/24	2025/5/23	
Preamplifier EMCI	EMC184045B	EMC0126545	980076	2024/2/15	2025/2/14
		980175	2023/9/2	2024/9/1	
		980235	2024/2/15	2025/2/14	
Preamplifier HP	8449B	3008A01201	2024/2/15	2025/2/14	
RF Coaxial Cable EMCI	EMC104	190801	2024/7/5	2025/7/4	
		190804	2024/7/5	2025/7/4	
RF Coaxial Cable EMEC	EM102-KMKM-100	02	2024/7/5	2025/7/4	
RF Coaxial Cable HUBER+SUHNER	SF-104	Cable-CH6-01	2024/7/5	2025/7/4	
Signal Analyzer R&S	FSV40	101042	2023/9/5	2024/9/4	
		101544	2024/6/20	2025/6/19	
Software BVADT	Radiated_V7.7.1.1.1	N/A	N/A	N/A	
Tower ADT	AT100	0306	N/A	N/A	
Turn Table ADT	TT100	0306	N/A	N/A	

Notes:

1. The test was performed in Linkou 966 Chamber 6 (CH 6).
2. Tested Date: 2024/7/15 ~ 2024/7/22

Beamforming Mode and Plot of Band Edge_Beamforming

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	2023/12/28	2024/12/27
Horn Antenna RFSPIN	DRH18-E	210104A18E	2023/11/12	2024/11/11
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2023/11/12	2024/11/11
MXE EMI Receiver Agilent	N9038A	MY52260177	2023/9/15	2024/9/14
Preamplifier Agilent	83017A	MY39501357	2024/6/12	2025/6/11
Preamplifier EMCI	EMC184045SE	980788	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2024/1/15	2025/1/14
	EMC101G-KM-KM-3000	201258	2024/1/15	2025/1/14
	EMC101G-KM-KM-5000	201261	2024/1/15	2025/1/14
	EMC104-SM-SM-1000	210103	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201241	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201244	2024/1/15	2025/1/14
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: 2024/8/27

5 Limits of Test Items

5.1 RF Output Power

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

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

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

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

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

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

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

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

5.5 AC Power Conducted Emissions

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

Notes:

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

5.6 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.7 Unwanted Emissions above 1 GHz

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

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

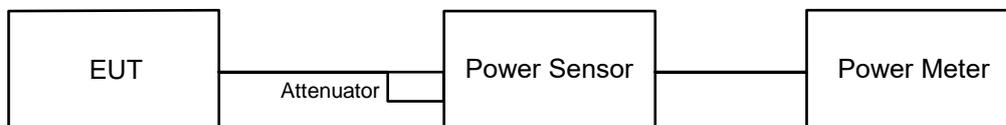
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



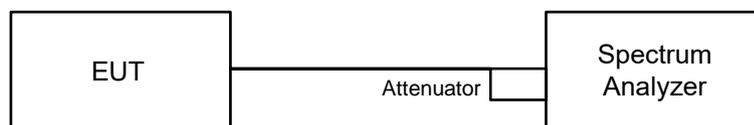
6.1.2 Test Procedure

Average Power:

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

6.2 Power Spectral Density

6.2.1 Test Setup



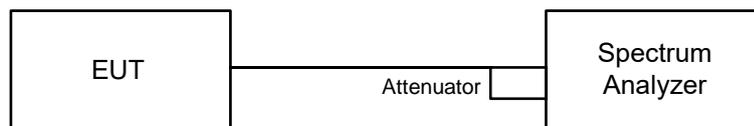
6.2.2 Test Procedure

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

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

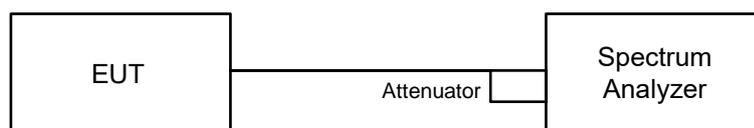


6.3.2 Test Procedure

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

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

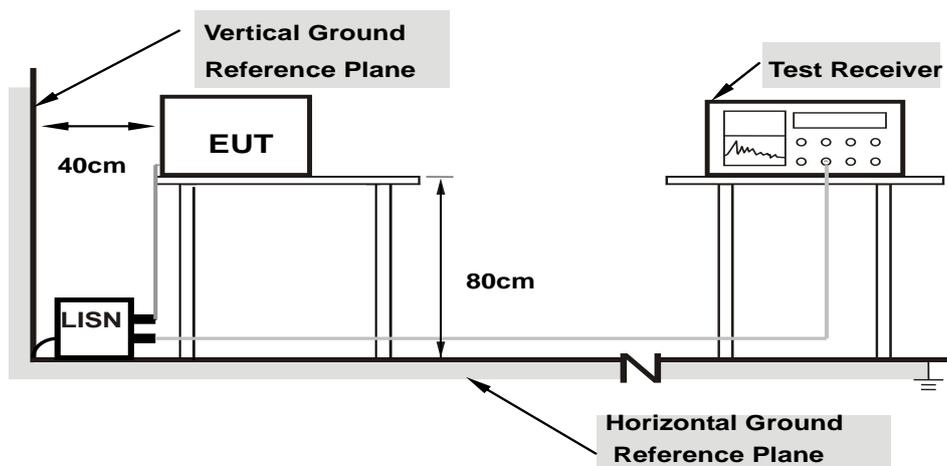
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

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

6.5 AC Power Conducted Emissions

6.5.1 Test Setup



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

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

6.5.2 Test Procedure

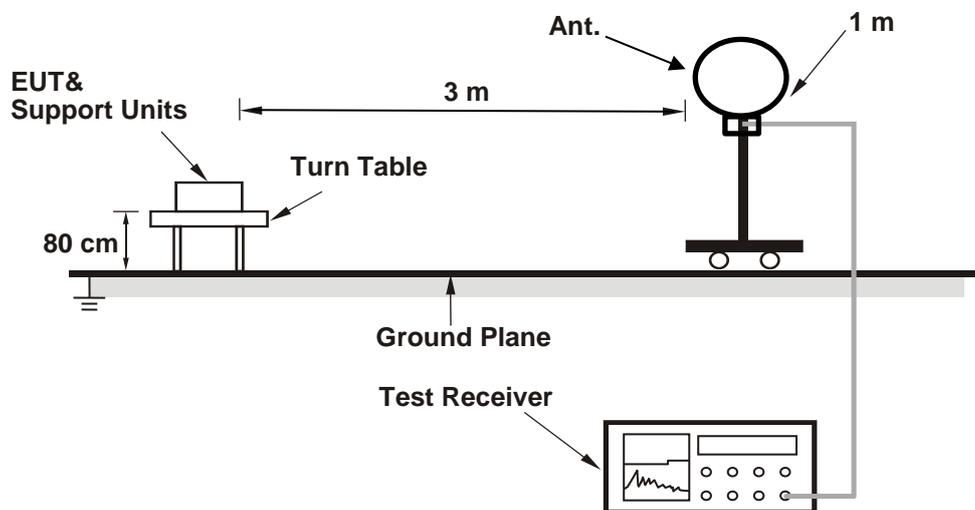
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

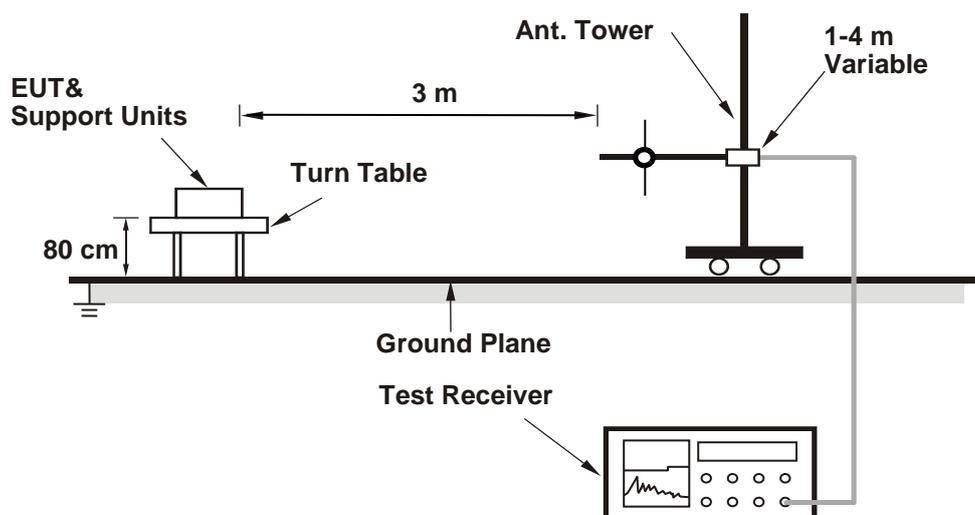
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

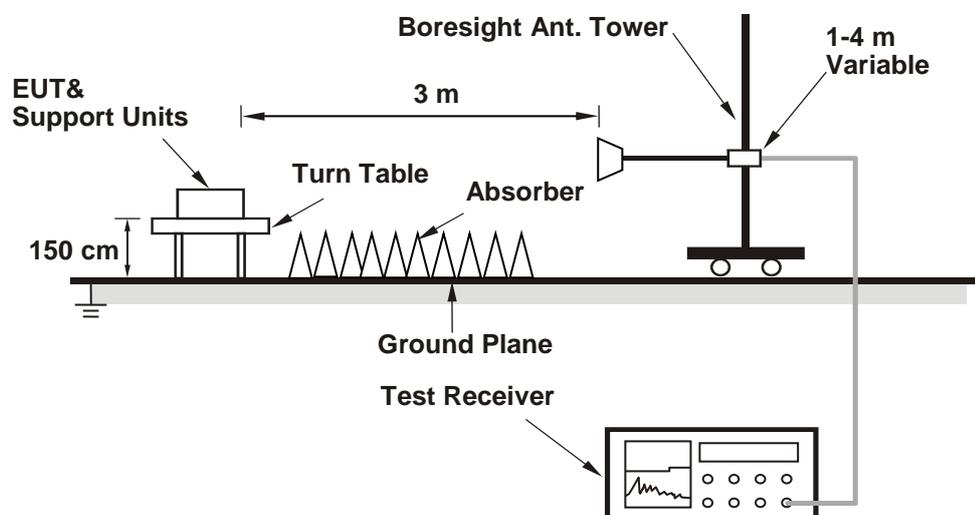
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

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

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 RF Output Power

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

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	23.78	23.64	23.56	23.93	944.147	29.75	30	Pass
6	2437	23.65	23.75	23.57	23.95	944.7	29.75	30	Pass
11	2462	23.61	24.04	23.55	23.71	944.555	29.75	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 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	23.86	23.78	23.87	23.50	949.655	29.78	30	Pass
6	2437	24.00	23.73	23.97	23.51	961.084	29.83	30	Pass
11	2462	24.22	23.57	23.86	23.70	969.394	29.87	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.91	23.74	23.64	23.68	947.181	29.76	30	Pass
6	2437	23.95	23.99	23.87	23.78	981.486	29.92	30	Pass
11	2462	23.56	24.11	23.68	23.60	947.051	29.76	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.94	23.88	23.75	23.46	951.042	29.78	30	Pass
6	2437	23.68	23.91	23.74	23.66	948.248	29.77	30	Pass
9	2452	23.83	23.86	23.95	23.89	977.986	29.90	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.89	23.73	23.66	23.69	947.112	29.76	30	Pass
6	2437	23.96	24.00	23.87	23.78	982.637	29.92	30	Pass
11	2462	23.58	24.07	23.66	23.63	946.253	29.76	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.93	23.87	23.75	23.49	951.448	29.78	30	Pass
6	2437	23.72	23.91	23.74	23.65	949.873	29.78	30	Pass
9	2452	23.93	23.82	23.94	23.86	979.126	29.91	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 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	23.95	23.80	23.70	23.53	948.043	29.77	30	Pass
6	2437	23.98	24.02	23.88	23.80	986.609	29.94	30	Pass
11	2462	23.60	24.12	23.70	23.64	952.942	29.79	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 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	23.95	23.90	23.80	23.50	957.54	29.81	30	Pass
6	2437	23.73	23.96	23.77	23.70	957.588	29.81	30	Pass
9	2452	23.84	23.87	23.98	23.90	981.389	29.92	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 4.8 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.88	23.74	23.61	23.48	933.393	29.70	30	Pass
6	2437	23.86	23.90	23.75	23.73	961.876	29.83	30	Pass
11	2462	23.54	24.04	23.60	23.57	936.053	29.71	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 5.38 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40 Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.85	23.83	23.66	23.41	935.761	29.71	30	Pass
6	2437	23.65	23.89	23.73	23.62	942.838	29.74	30	Pass
9	2452	23.78	23.80	23.88	23.80	962.891	29.84	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 5.38 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.92	23.76	23.64	23.50	939.367	29.73	30	Pass
6	2437	23.90	23.92	23.80	23.77	970.19	29.87	30	Pass
11	2462	23.56	24.06	23.62	23.58	939.848	29.73	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 5.38 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	23.86	23.85	23.71	23.45	942.154	29.74	30	Pass
6	2437	23.66	23.94	23.75	23.65	948.893	29.77	30	Pass
9	2452	23.79	23.82	23.90	23.84	967.896	29.86	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 5.38 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	23.93	23.79	23.68	23.52	944.755	29.75	30	Pass
6	2437	23.93	23.97	23.85	23.79	978.624	29.91	30	Pass
11	2462	23.57	24.08	23.67	23.59	944.737	29.75	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 5.38 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	23.91	23.88	23.76	23.46	949.883	29.78	30	Pass
6	2437	23.71	23.95	23.76	23.69	954.844	29.80	30	Pass
9	2452	23.83	23.83	23.93	23.87	974.046	29.89	30	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. The directional gain is 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
--------------	----------------	---------------------------	--------------	------------	------------

802.11b

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=4) dB	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
Chain 0	1	2412	-7.8	6.02	-1.78	8	Pass
	6	2437	-7.16	6.02	-1.14	8	Pass
	11	2462	-7.5	6.02	-1.48	8	Pass
Chain 1	1	2412	-7.5	6.02	-1.48	8	Pass
	6	2437	-7.31	6.02	-1.29	8	Pass
	11	2462	-7.68	6.02	-1.66	8	Pass
Chain 2	1	2412	-7.67	6.02	-1.65	8	Pass
	6	2437	-6.68	6.02	-0.66	8	Pass
	11	2462	-8.33	6.02	-2.31	8	Pass
Chain 3	1	2412	-7.43	6.02	-1.41	8	Pass
	6	2437	-7.47	6.02	-1.45	8	Pass
	11	2462	-7.83	6.02	-1.81	8	Pass

Notes:

1. Method E) 2) c) Measure and add 10 log(NANT) dB of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=4) dB	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
Chain 0	1	2412	-10.62	6.02	-4.6	8	Pass
	6	2437	-11.19	6.02	-5.17	8	Pass
	11	2462	-12.15	6.02	-6.13	8	Pass
Chain 1	1	2412	-11.39	6.02	-5.37	8	Pass
	6	2437	-11.67	6.02	-5.65	8	Pass
	11	2462	-12.23	6.02	-6.21	8	Pass
Chain 2	1	2412	-12.05	6.02	-6.03	8	Pass
	6	2437	-11.98	6.02	-5.96	8	Pass
	11	2462	-12.77	6.02	-6.75	8	Pass
Chain 3	1	2412	-11.06	6.02	-5.04	8	Pass
	6	2437	-12.21	6.02	-6.19	8	Pass
	11	2462	-12.78	6.02	-6.76	8	Pass

Notes:

1. Method E) 2) c) Measure and add 10 log(NANT) dB of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11be (EHT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=4) dB	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
Chain 0	1	2412	-12.95	6.02	-6.93	8	Pass
	6	2437	-12.29	6.02	-6.27	8	Pass
	11	2462	-13.45	6.02	-7.43	8	Pass
Chain 1	1	2412	-13.17	6.02	-7.15	8	Pass
	6	2437	-12.75	6.02	-6.73	8	Pass
	11	2462	-13.59	6.02	-7.57	8	Pass
Chain 2	1	2412	-12.06	6.02	-6.04	8	Pass
	6	2437	-12.08	6.02	-6.06	8	Pass
	11	2462	-14.05	6.02	-8.03	8	Pass
Chain 3	1	2412	-12.48	6.02	-6.46	8	Pass
	6	2437	-12.63	6.02	-6.61	8	Pass
	11	2462	-12.98	6.02	-6.96	8	Pass

Notes:

1. Method E) 2) c) Measure and add 10 log(NANT) dB of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11be (EHT40)

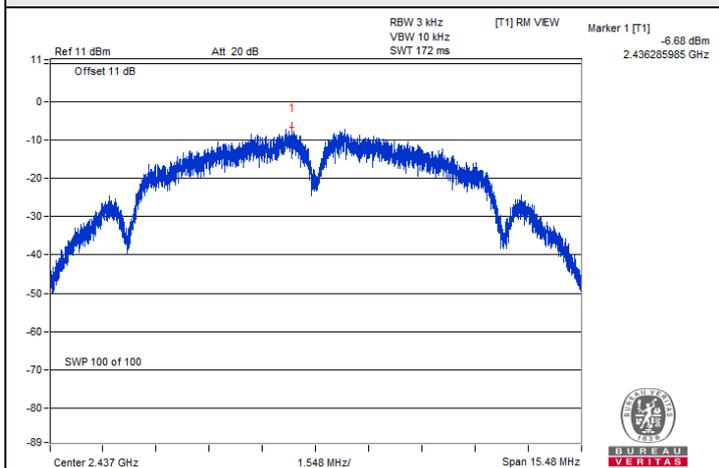
TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=4) dB	Total PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Pass / Fail
Chain 0	3	2422	-17.34	6.02	-11.32	8	Pass
	6	2437	-15.57	6.02	-9.55	8	Pass
	9	2452	-17.71	6.02	-11.69	8	Pass
Chain 1	3	2422	-16.77	6.02	-10.75	8	Pass
	6	2437	-13.49	6.02	-7.47	8	Pass
	9	2452	-17.48	6.02	-11.46	8	Pass
Chain 2	3	2422	-16.72	6.02	-10.7	8	Pass
	6	2437	-14.54	6.02	-8.52	8	Pass
	9	2452	-17.61	6.02	-11.59	8	Pass
Chain 3	3	2422	-17.11	6.02	-11.09	8	Pass
	6	2437	-13.86	6.02	-7.84	8	Pass
	9	2452	-16.97	6.02	-10.95	8	Pass

Notes:

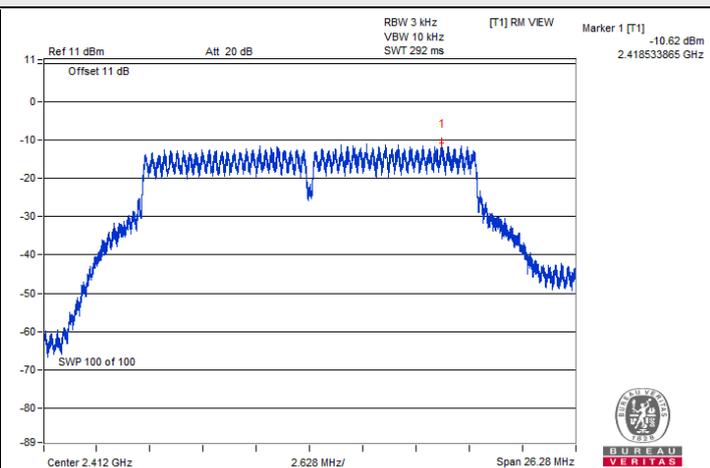
1. Method E) 2) c) Measure and add 10 log(NANT) dB of KDB 662911 is using for calculating total power density.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. The directional gain is 5.38 dBi < 6 dBi, so the power density limit shall not be reduced.



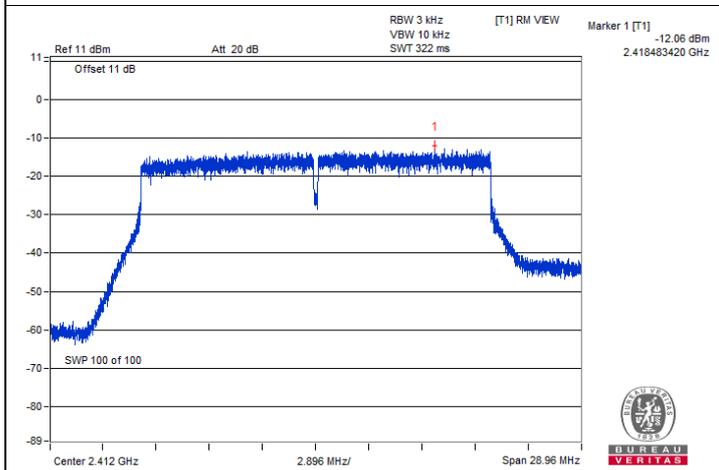
Spectrum Plot of Maximum Value



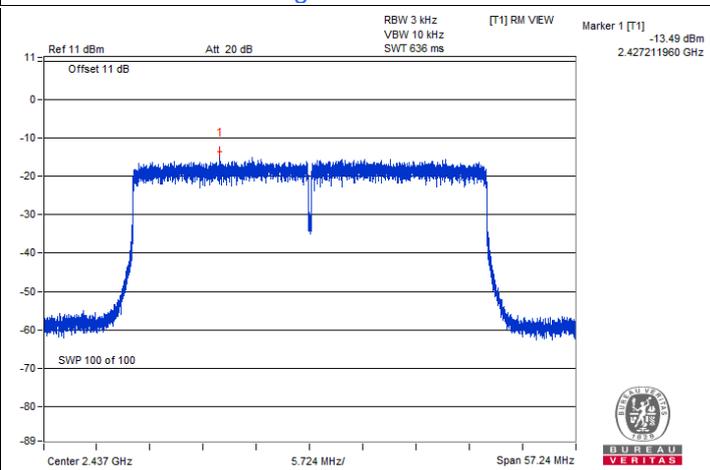
802.11b / Chain 2 : CH 6



802.11g / Chain 0 : CH 1



802.11be (EHT20) / Chain 2 : CH 1



802.11be (EHT40) / Chain 1 : CH 6

7.3 6 dB Bandwidth

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

802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.59	7.11	7.58	7.12	0.5	Pass
6	2437	7.13	7.11	7.12	7.13	0.5	Pass
11	2462	7.11	7.10	7.12	7.57	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	16.40	16.39	16.37	16.38	0.5	Pass
6	2437	16.42	16.41	16.40	16.44	0.5	Pass
11	2462	16.39	16.38	16.41	16.41	0.5	Pass

802.11be (EHT20)

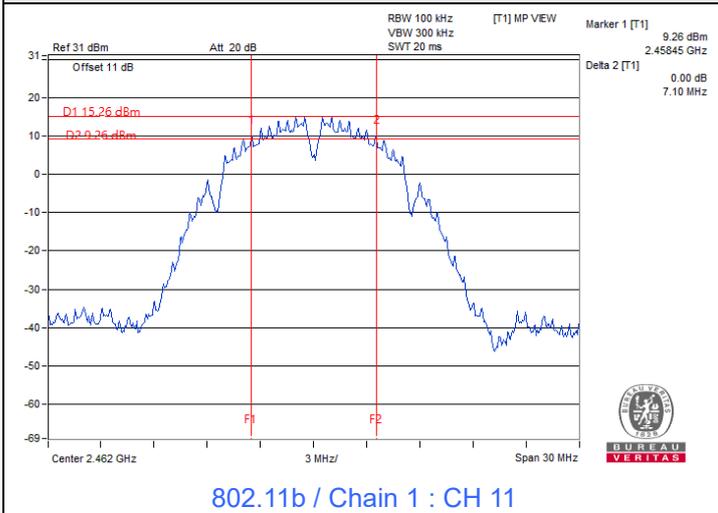
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.81	18.46	18.36	18.54	0.5	Pass
6	2437	19.06	19.04	18.96	18.99	0.5	Pass
11	2462	18.77	18.82	18.90	18.57	0.5	Pass

802.11be (EHT40)

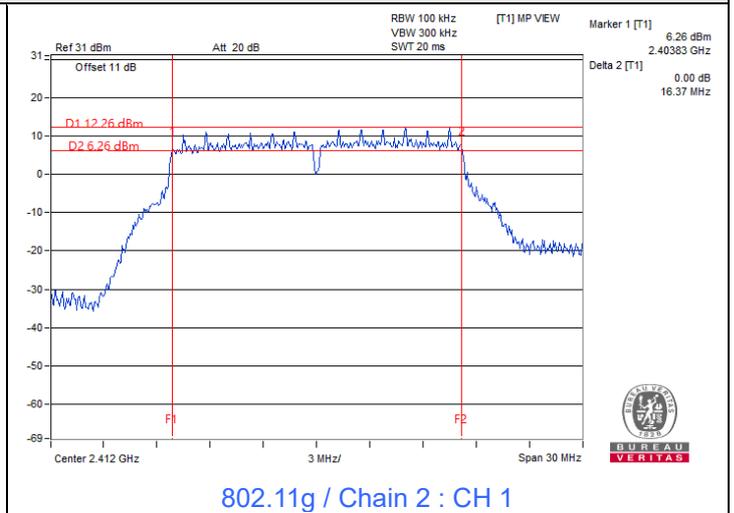
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	37.80	37.56	37.75	37.65	0.5	Pass
6	2437	38.10	37.95	38.06	37.90	0.5	Pass
9	2452	37.81	37.88	37.59	37.39	0.5	Pass



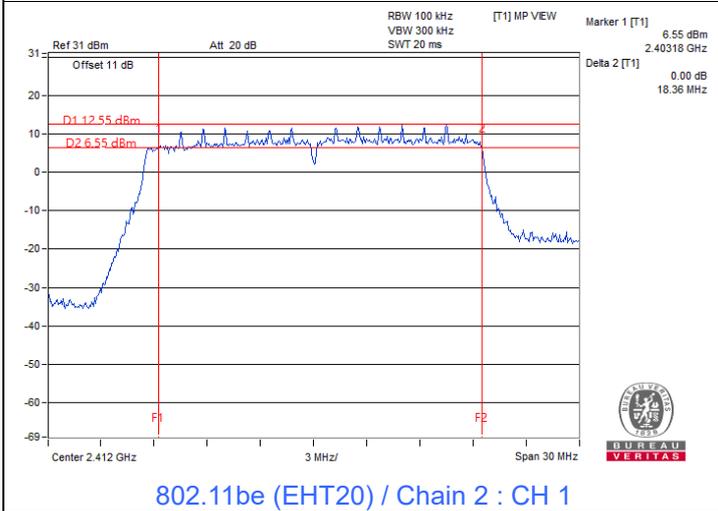
Spectrum Plot of Minimum Value



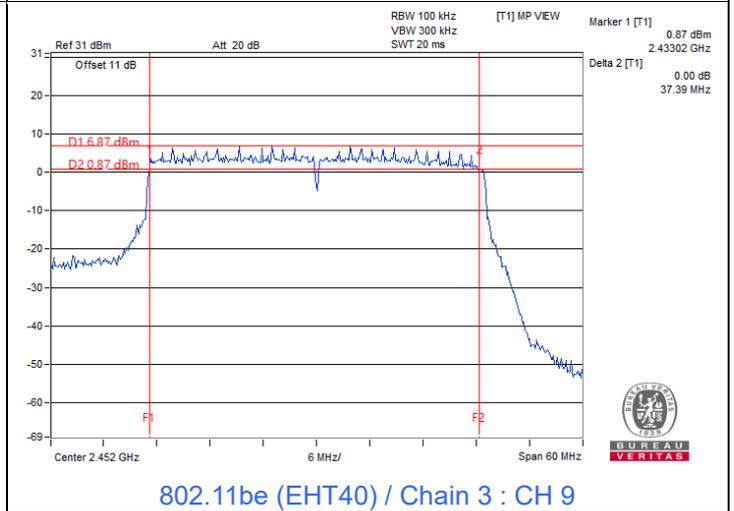
802.11b / Chain 1 : CH 11



802.11g / Chain 2 : CH 1



802.11be (EHT20) / Chain 2 : CH 1



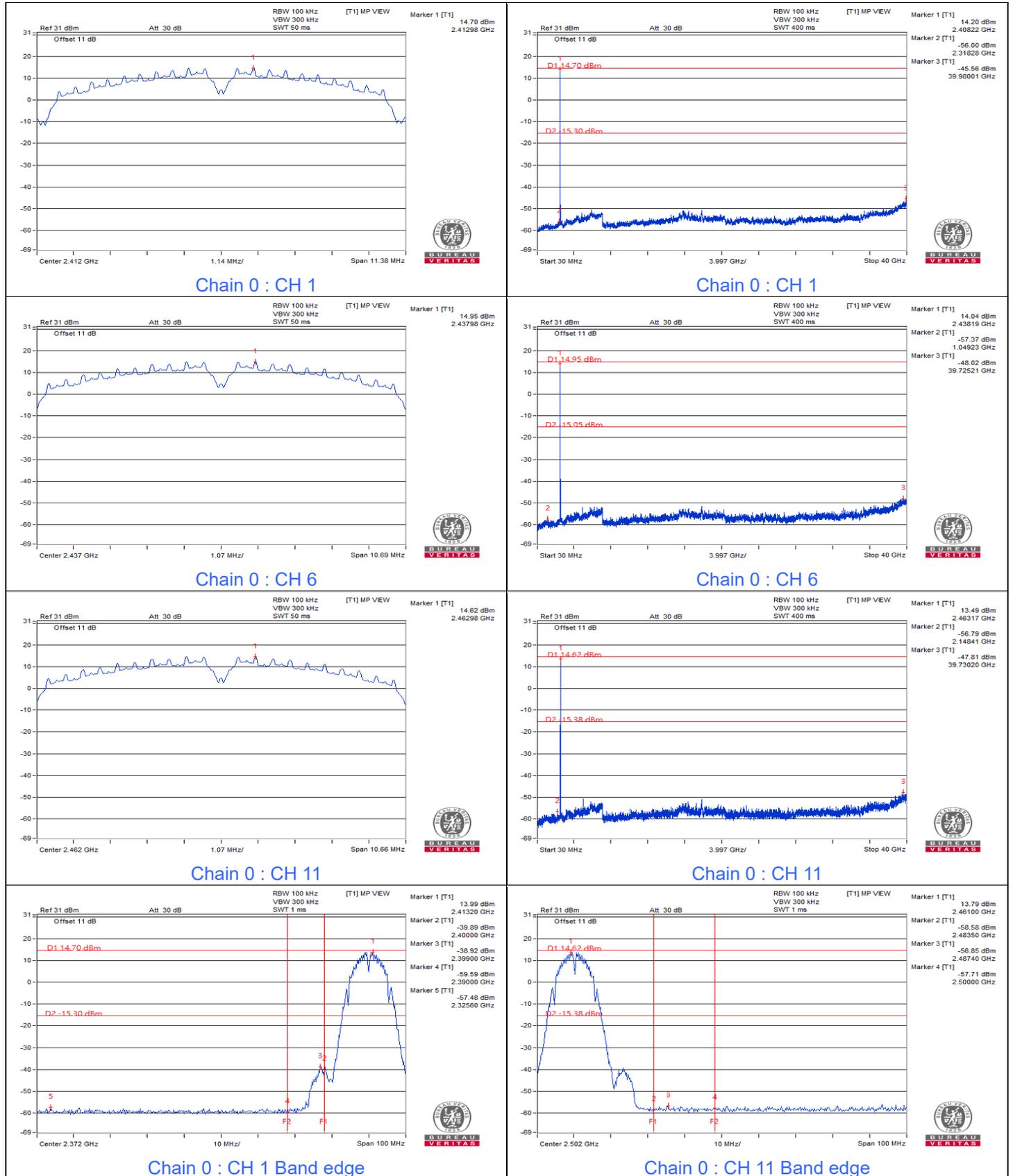
802.11be (EHT40) / Chain 3 : CH 9

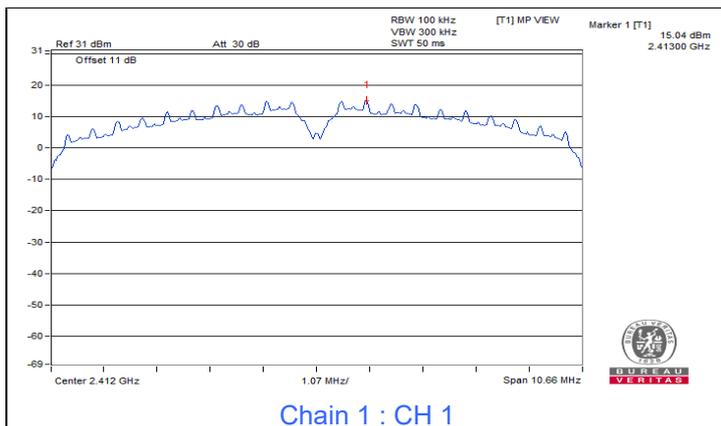


7.4 Conducted Out of Band Emissions

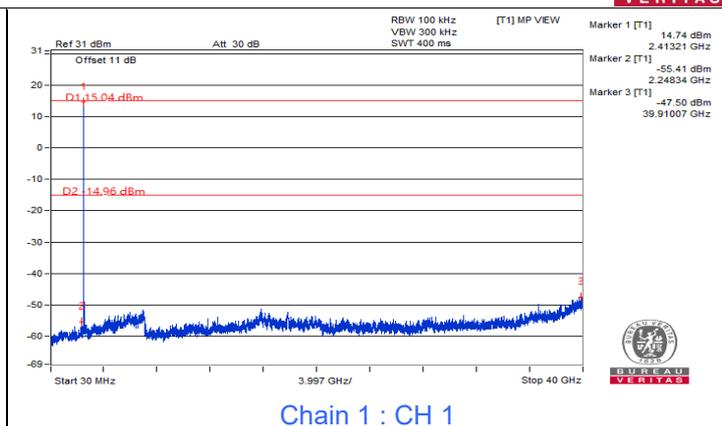
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
--------------	----------------	---------------------------	--------------	------------	------------

802.11b

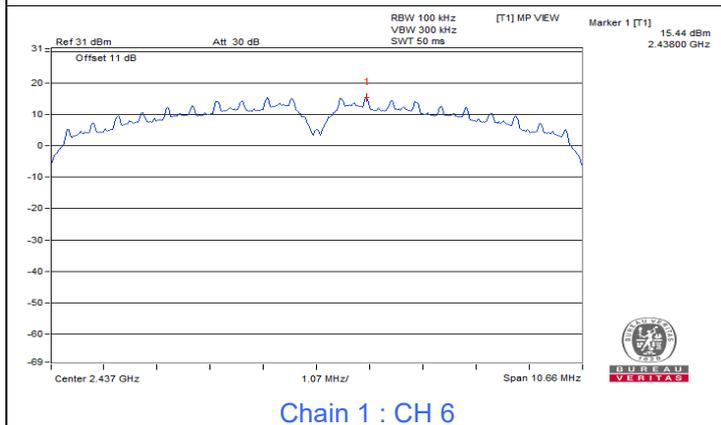




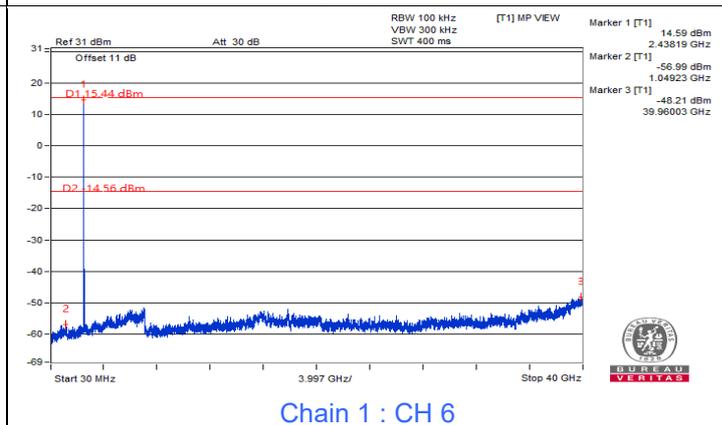
Chain 1 : CH 1



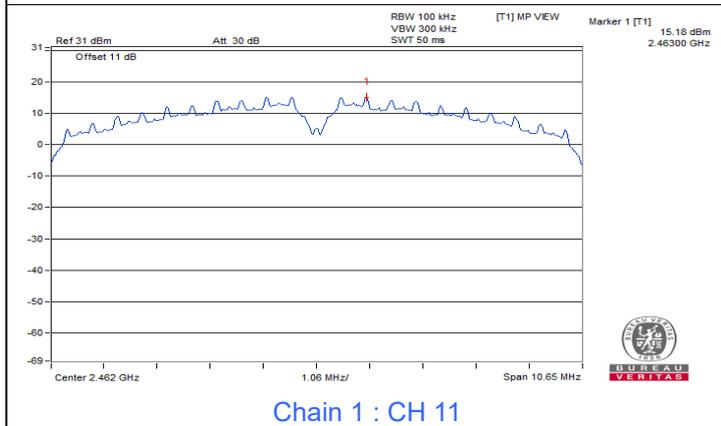
Chain 1 : CH 1



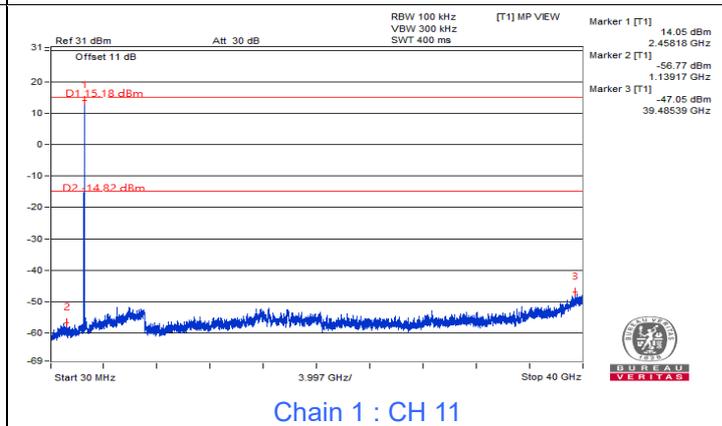
Chain 1 : CH 6



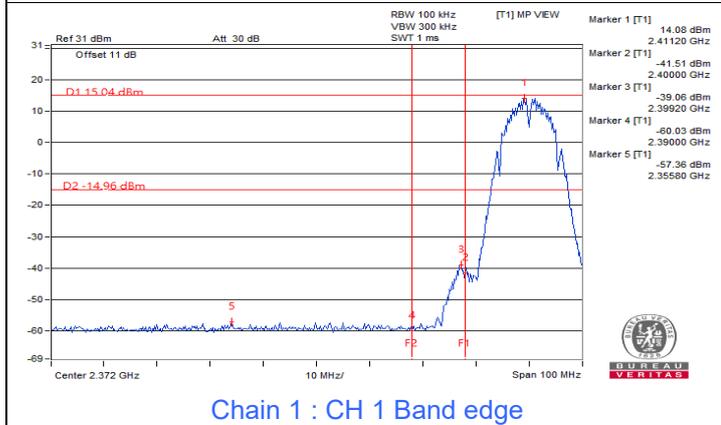
Chain 1 : CH 6



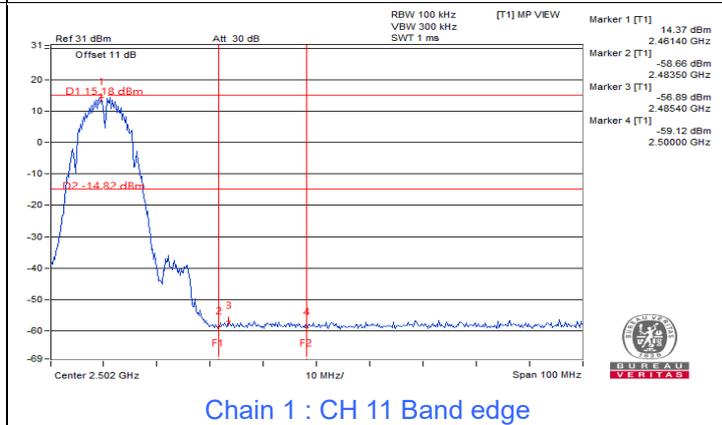
Chain 1 : CH 11



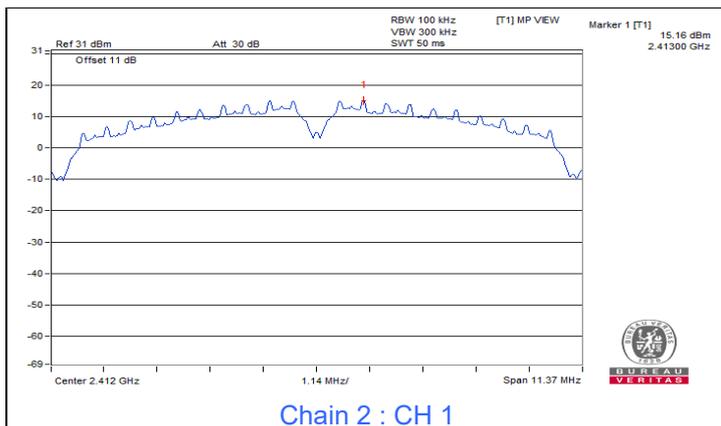
Chain 1 : CH 11



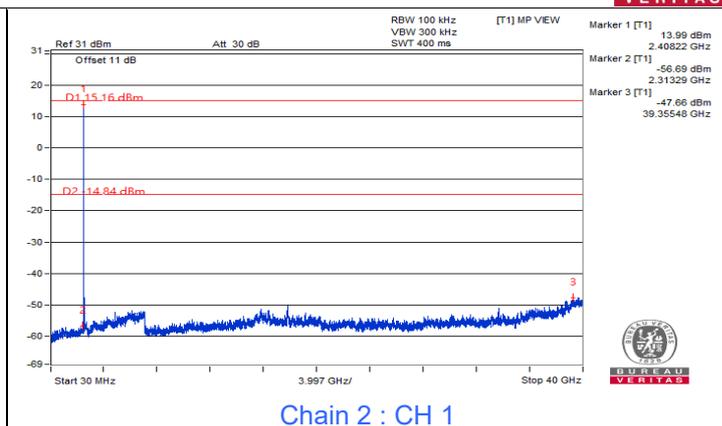
Chain 1 : CH 1 Band edge



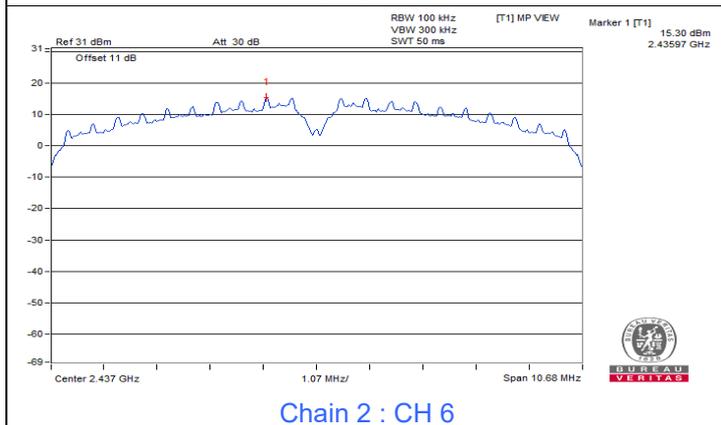
Chain 1 : CH 11 Band edge



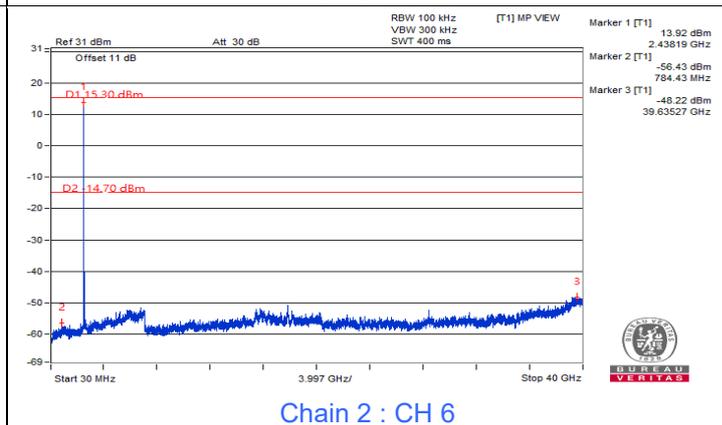
Chain 2 : CH 1



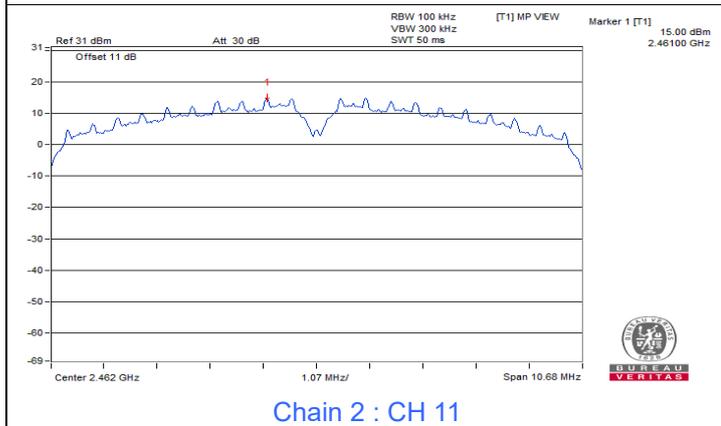
Chain 2 : CH 1



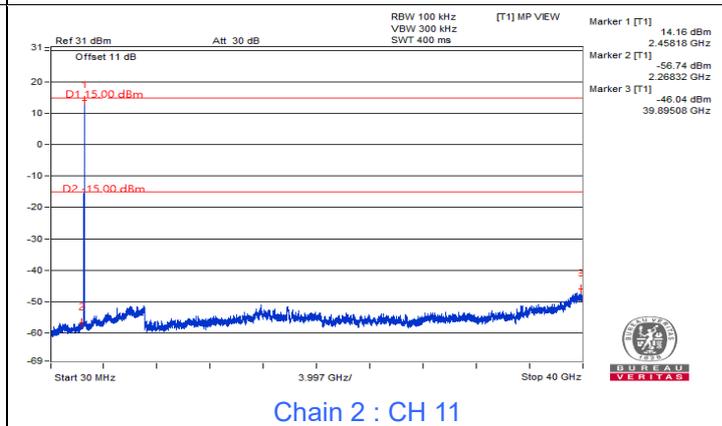
Chain 2 : CH 6



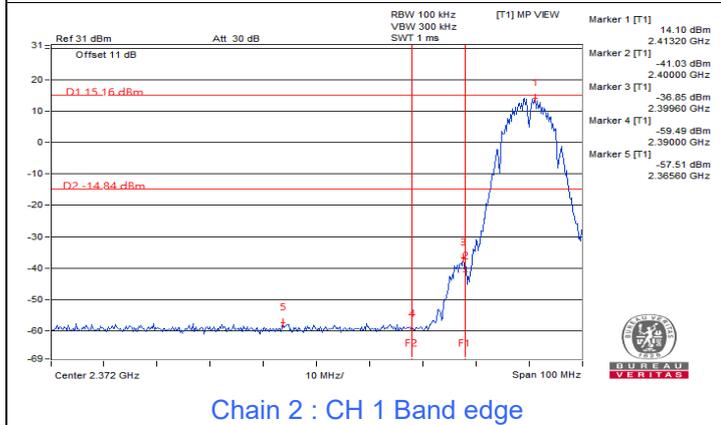
Chain 2 : CH 6



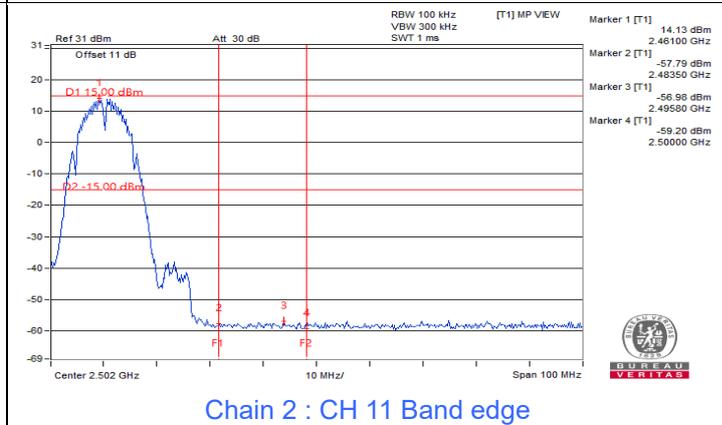
Chain 2 : CH 11



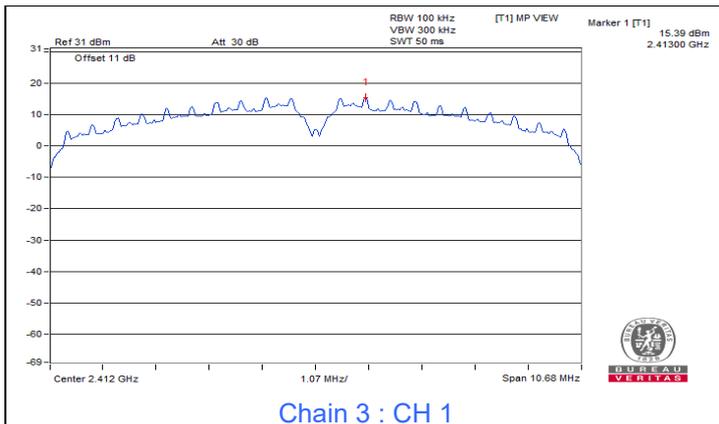
Chain 2 : CH 11



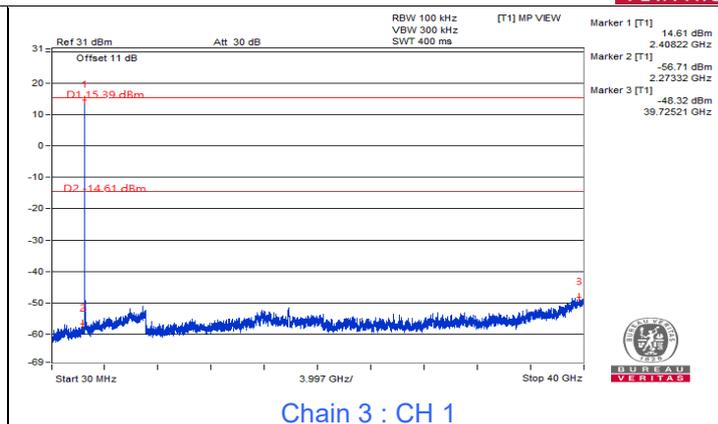
Chain 2 : CH 1 Band edge



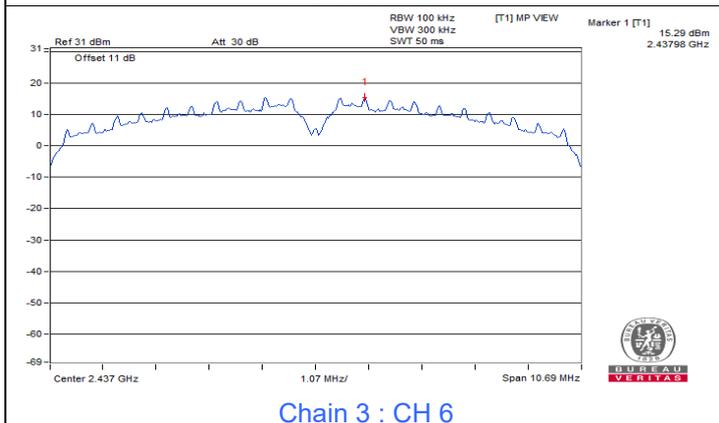
Chain 2 : CH 11 Band edge



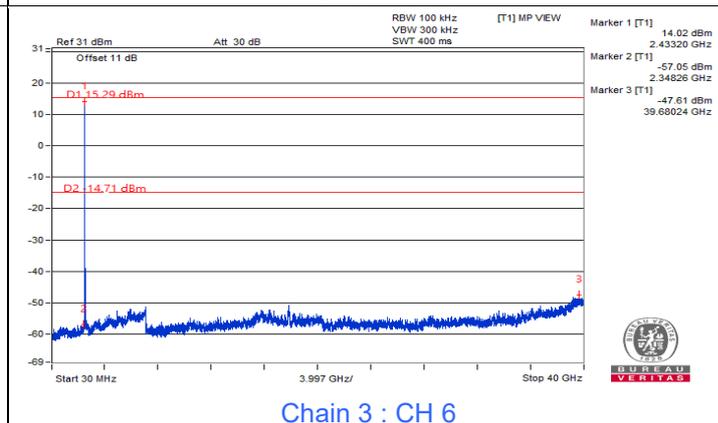
Chain 3 : CH 1



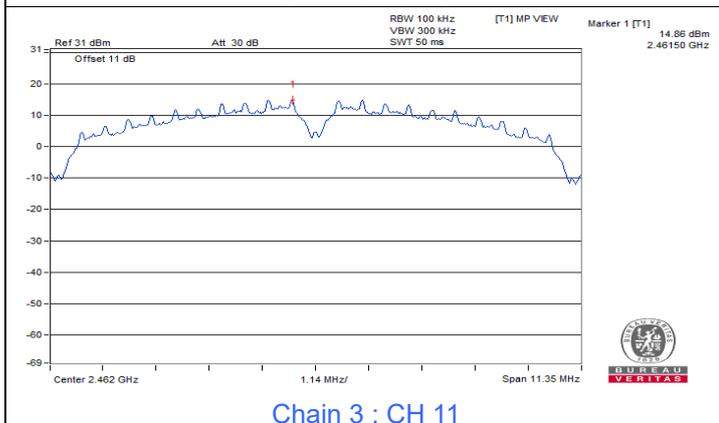
Chain 3 : CH 1



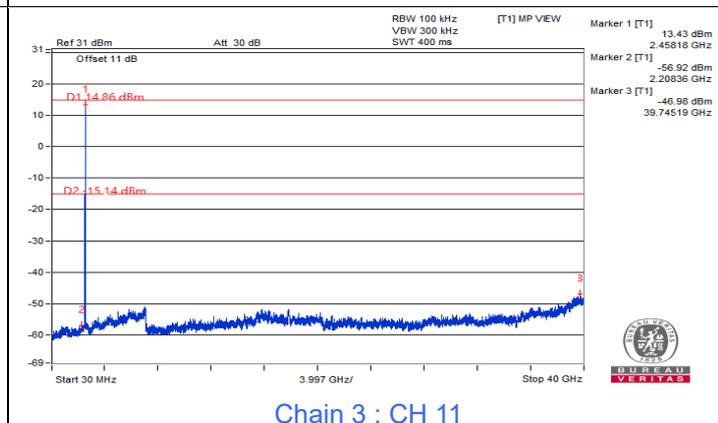
Chain 3 : CH 6



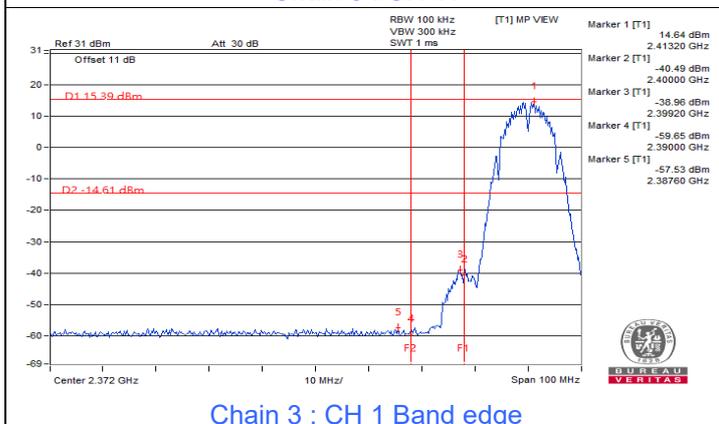
Chain 3 : CH 6



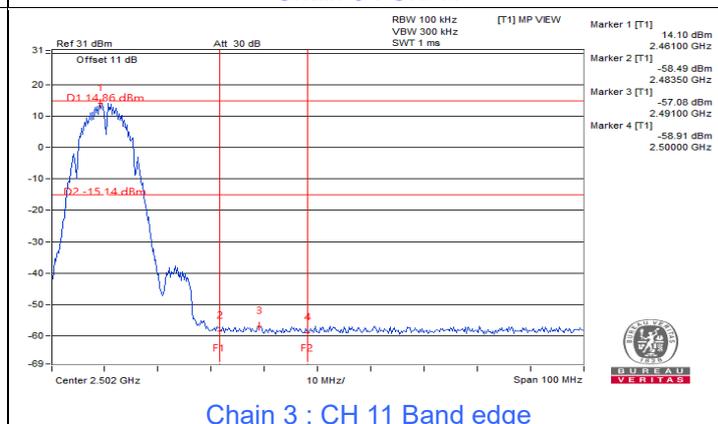
Chain 3 : CH 11



Chain 3 : CH 11



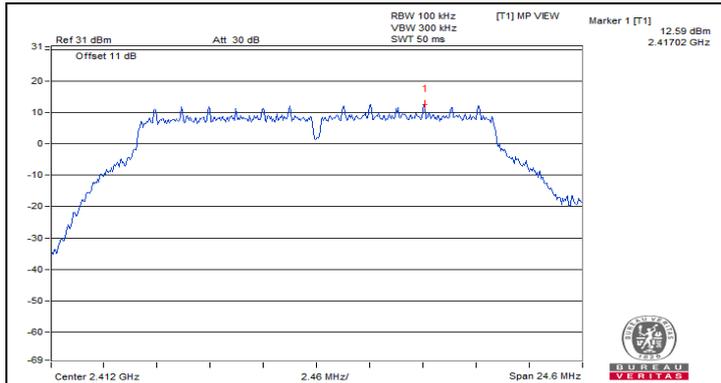
Chain 3 : CH 1 Band edge



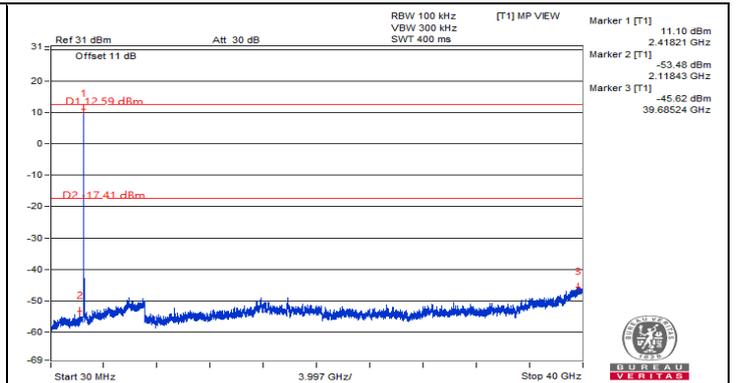
Chain 3 : CH 11 Band edge



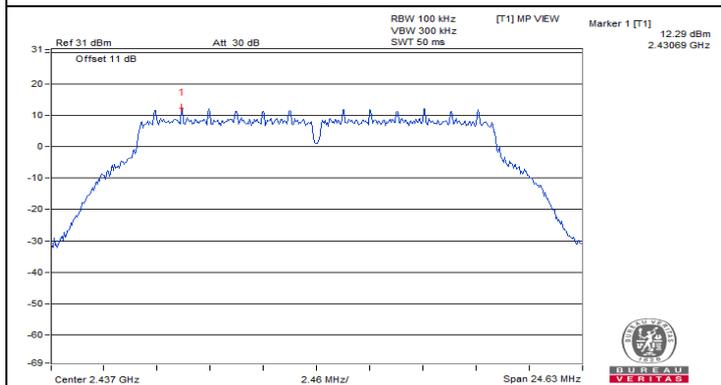
802.11g



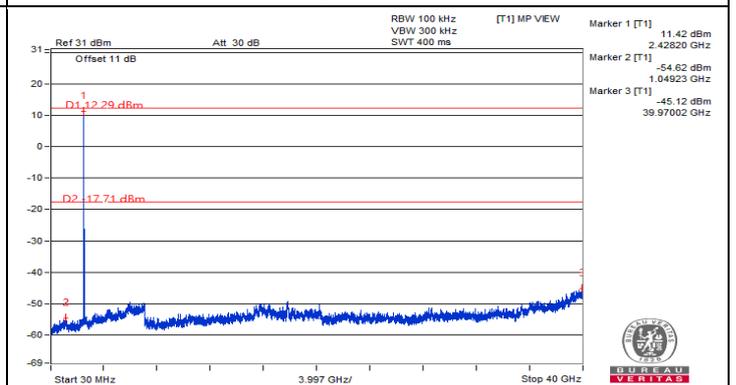
Chain 0 : CH 1



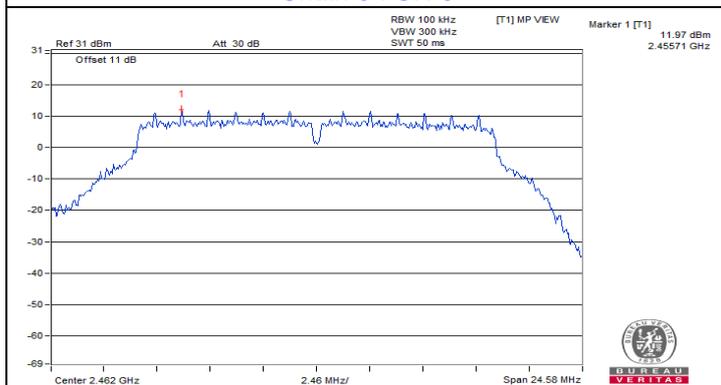
Chain 0 : CH 1



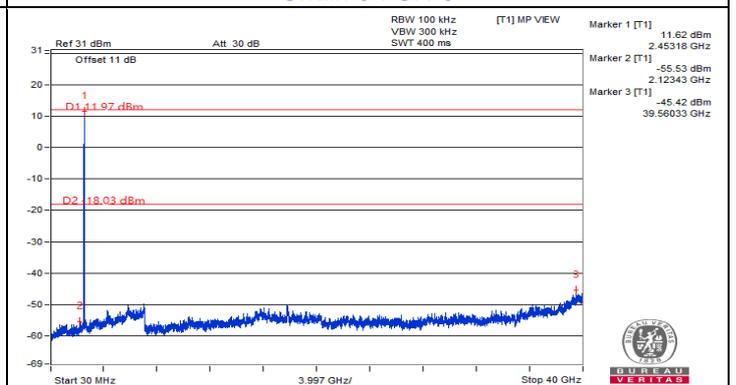
Chain 0 : CH 6



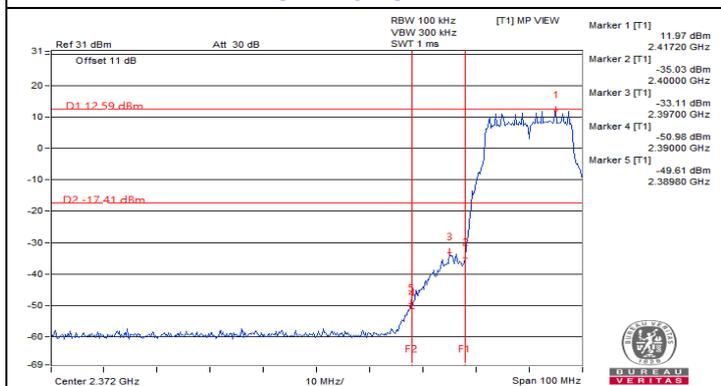
Chain 0 : CH 6



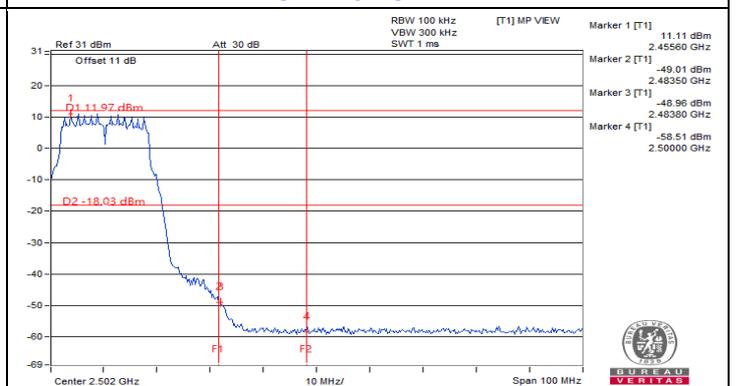
Chain 0 : CH 11



Chain 0 : CH 11



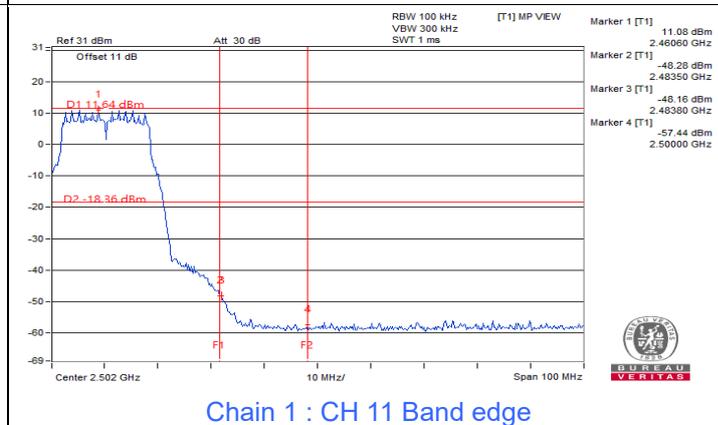
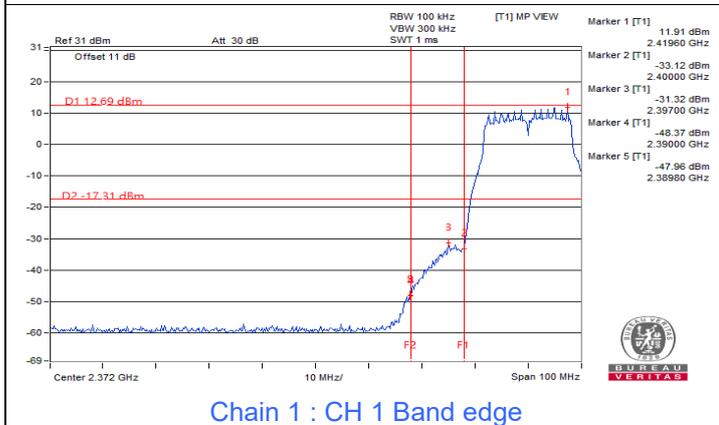
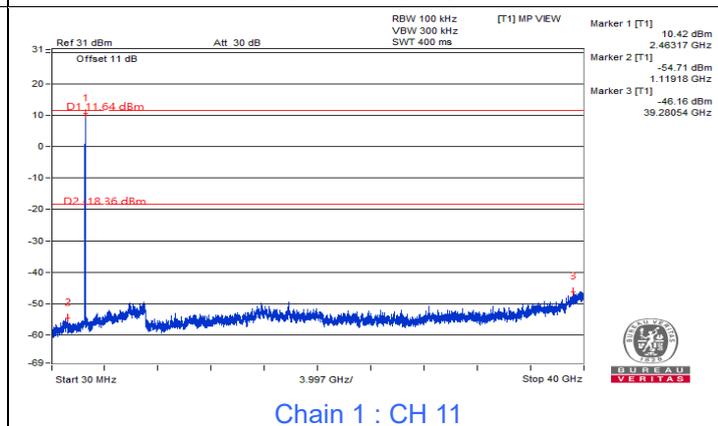
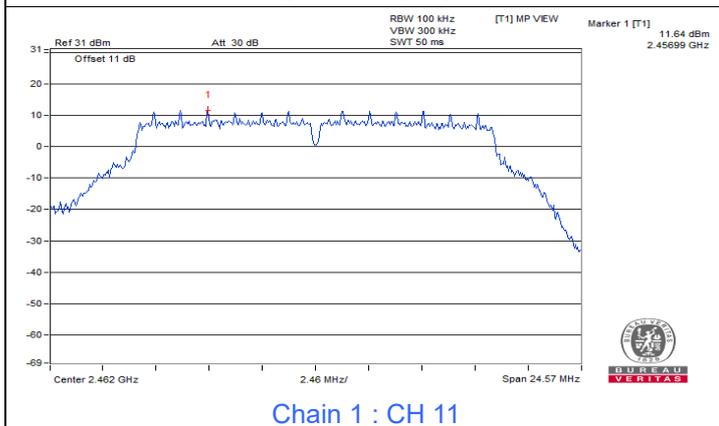
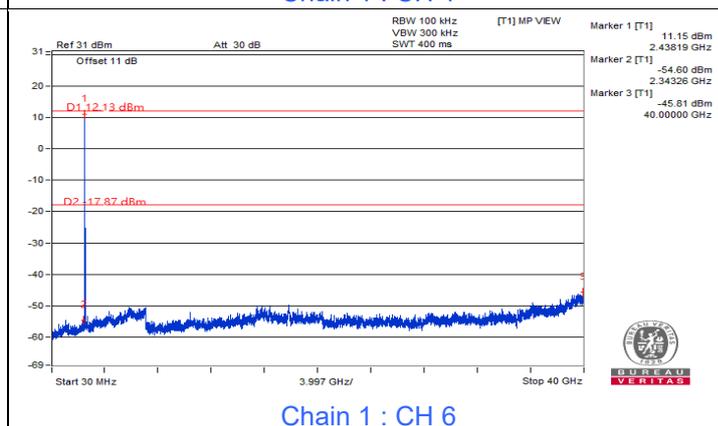
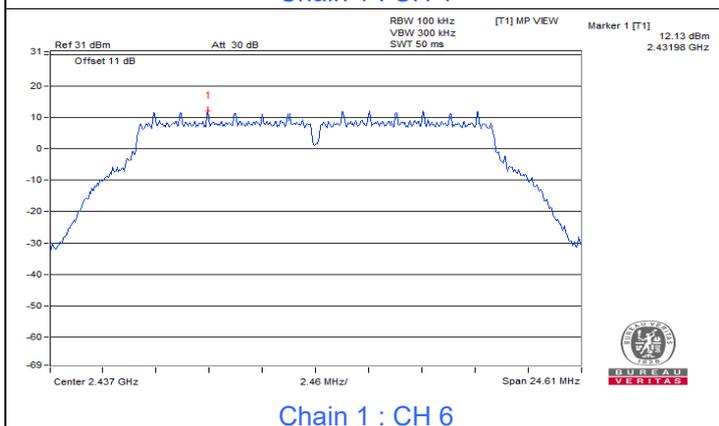
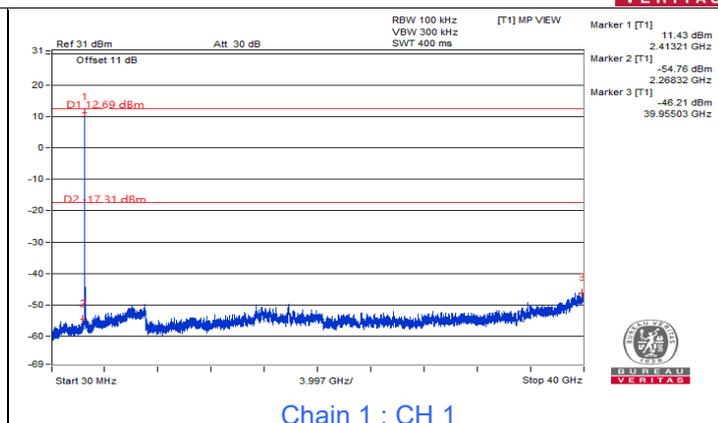
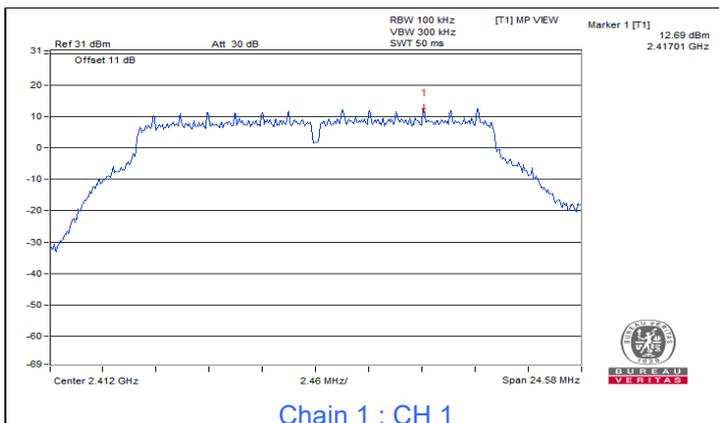
Chain 0 : CH 1 Band edge

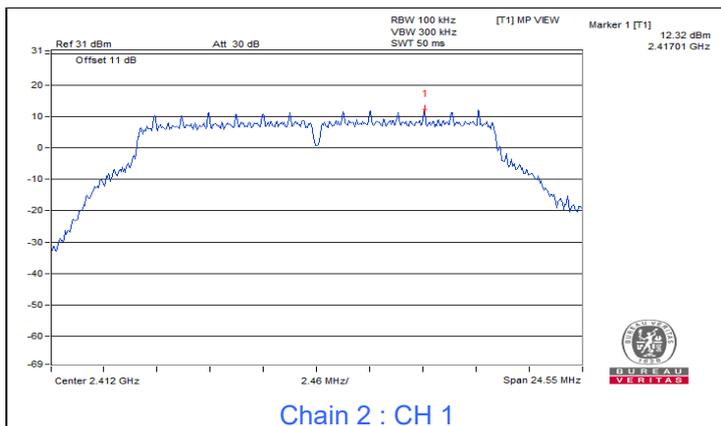


Chain 0 : CH 11 Band edge

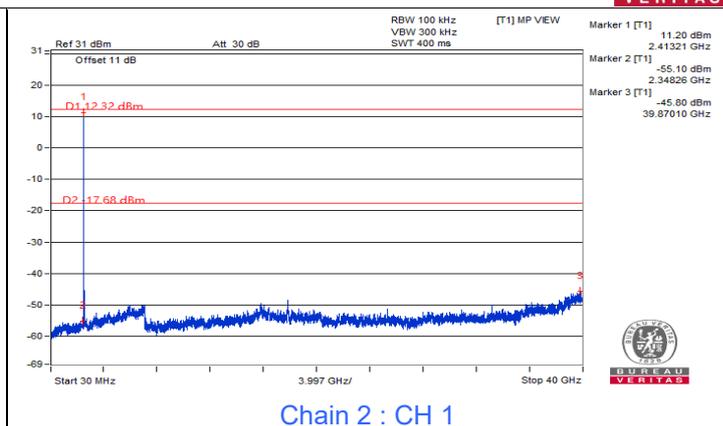


BUREAU VERITAS

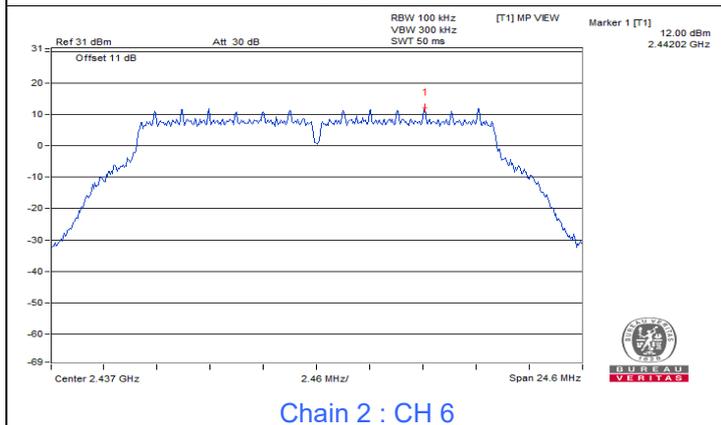




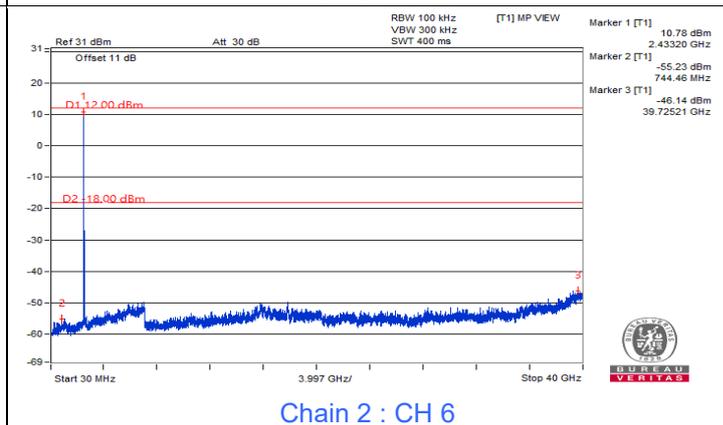
Chain 2 : CH 1



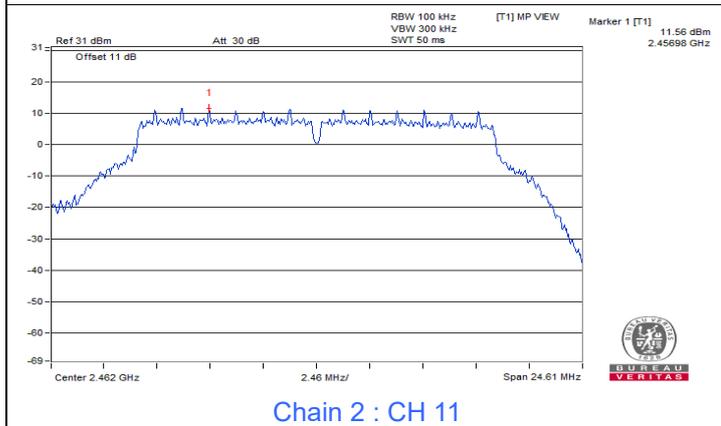
Chain 2 : CH 1



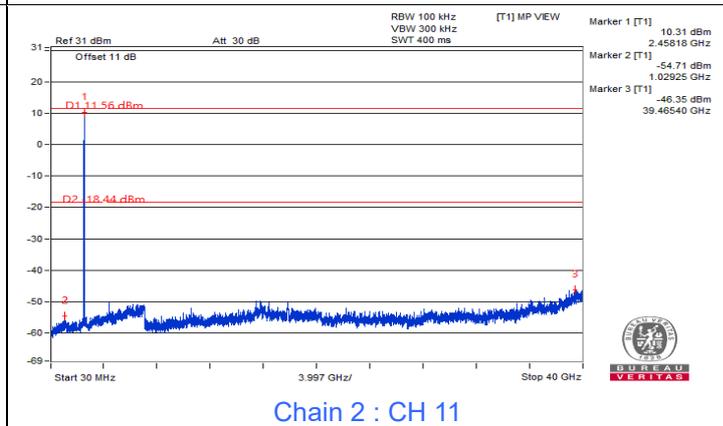
Chain 2 : CH 6



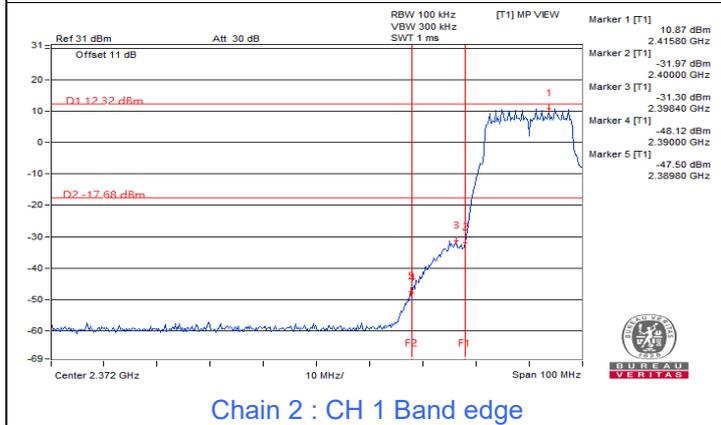
Chain 2 : CH 6



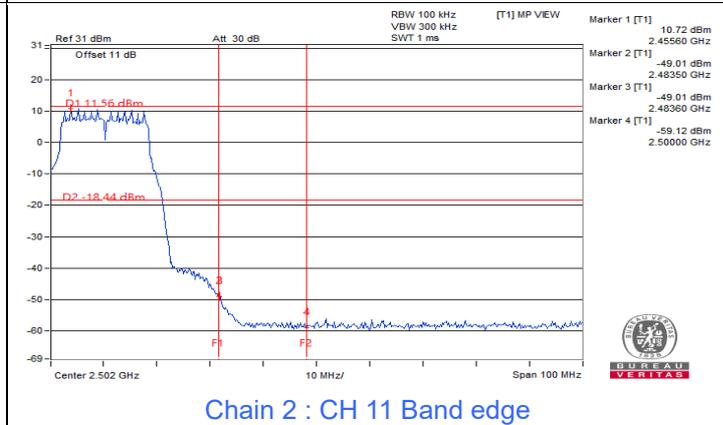
Chain 2 : CH 11



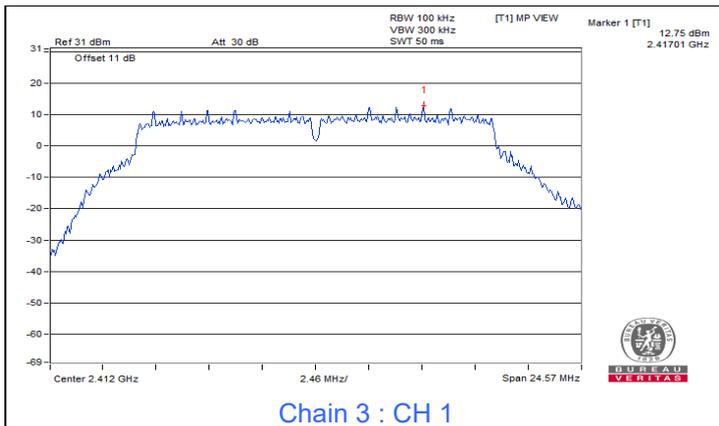
Chain 2 : CH 11



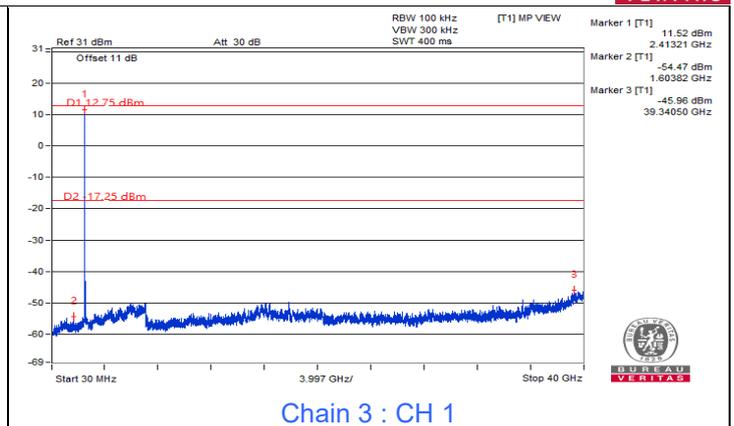
Chain 2 : CH 1 Band edge



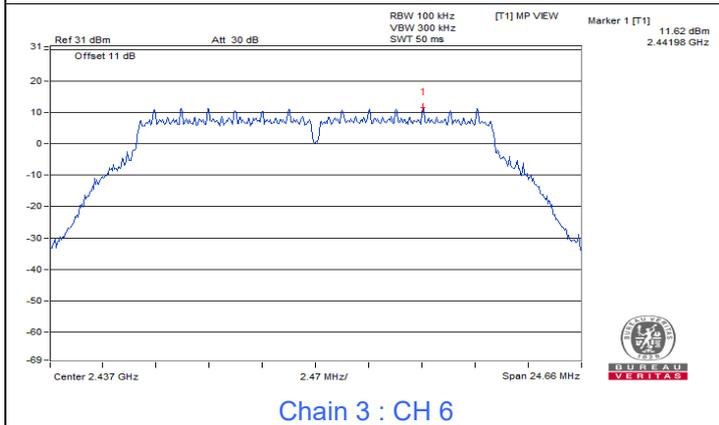
Chain 2 : CH 11 Band edge



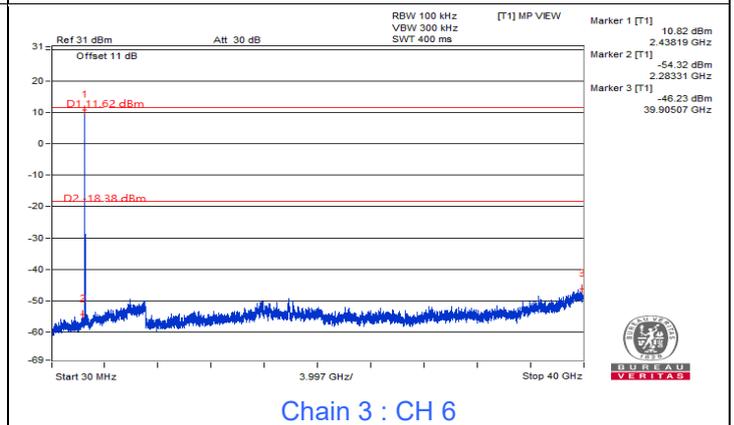
Chain 3 : CH 1



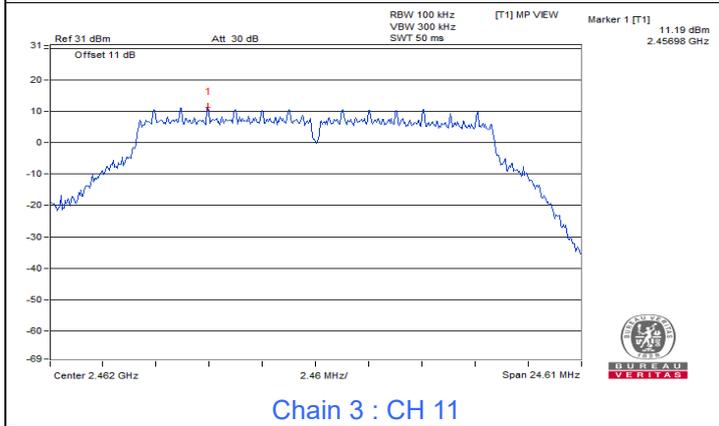
Chain 3 : CH 1



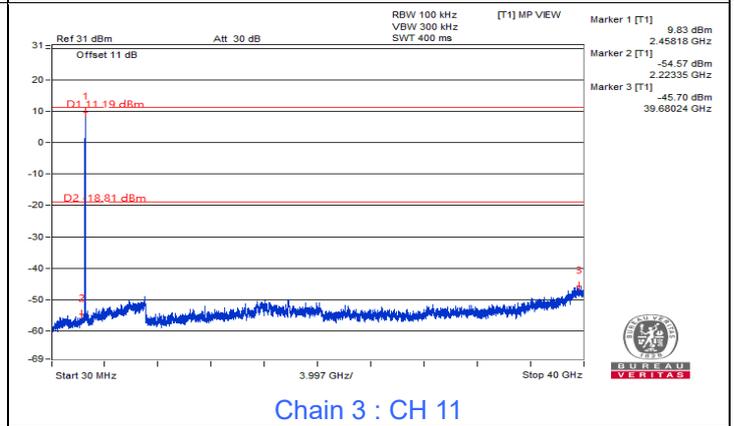
Chain 3 : CH 6



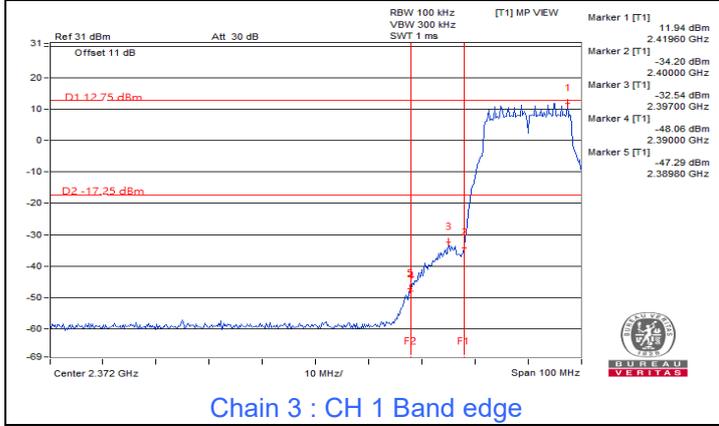
Chain 3 : CH 6



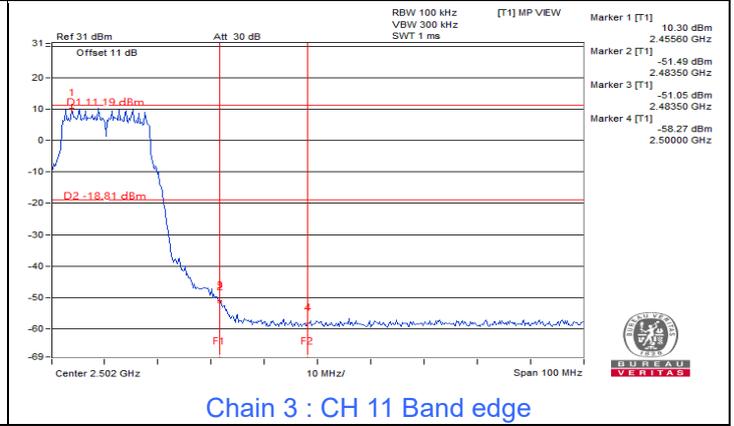
Chain 3 : CH 11



Chain 3 : CH 11



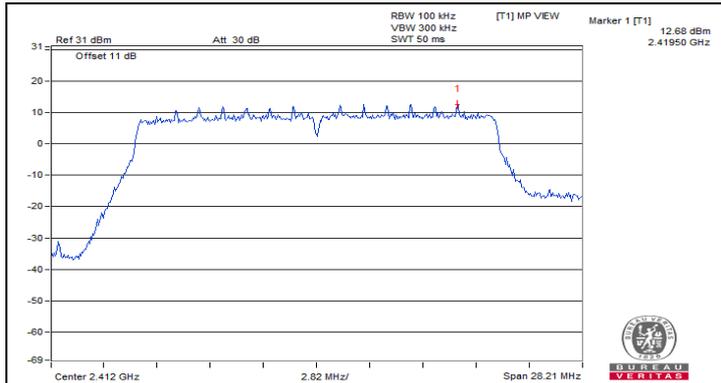
Chain 3 : CH 1 Band edge



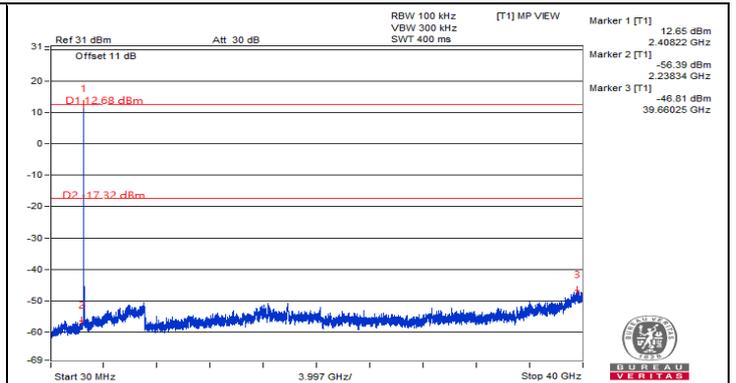
Chain 3 : CH 11 Band edge



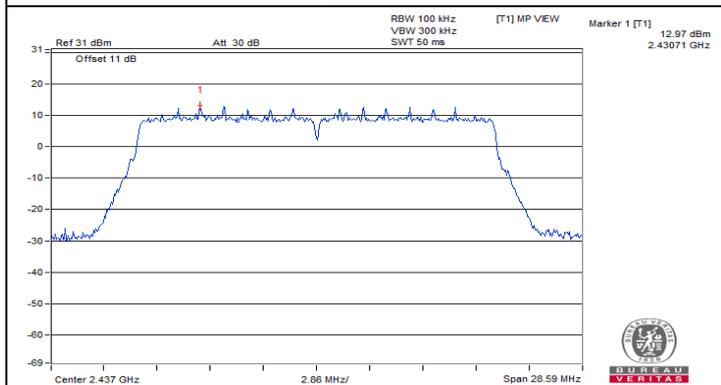
802.11be (EHT20)



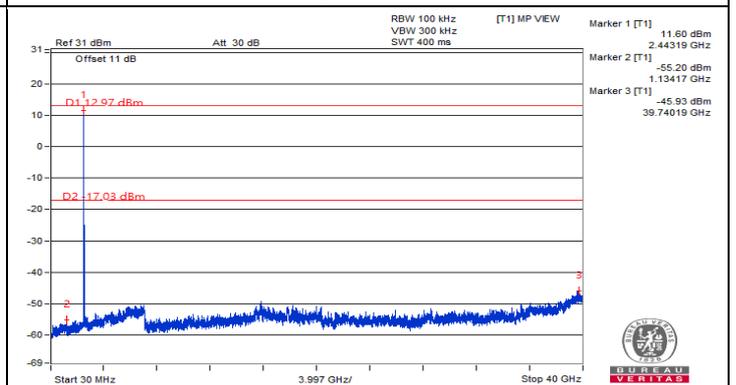
Chain 0 : CH 1



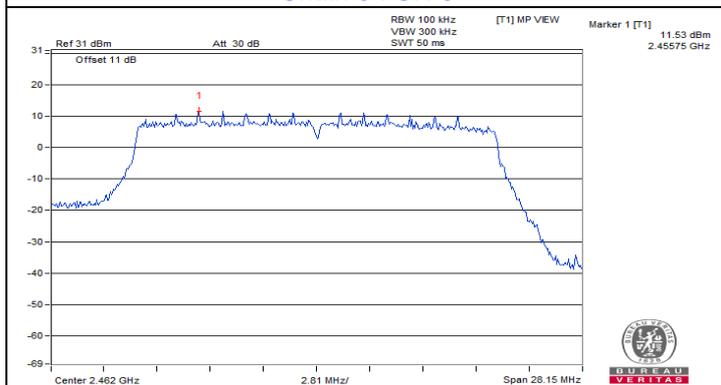
Chain 0 : CH 1



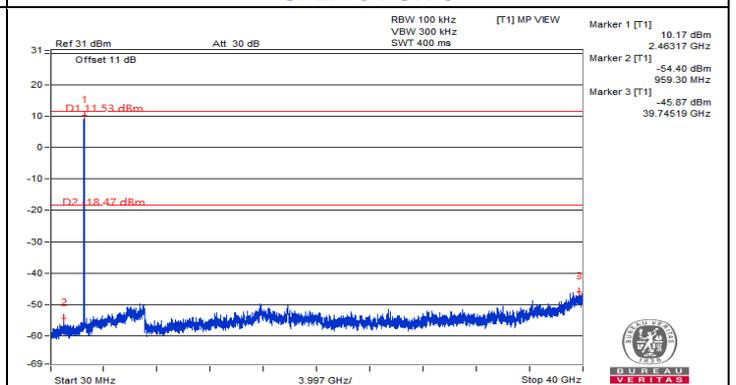
Chain 0 : CH 6



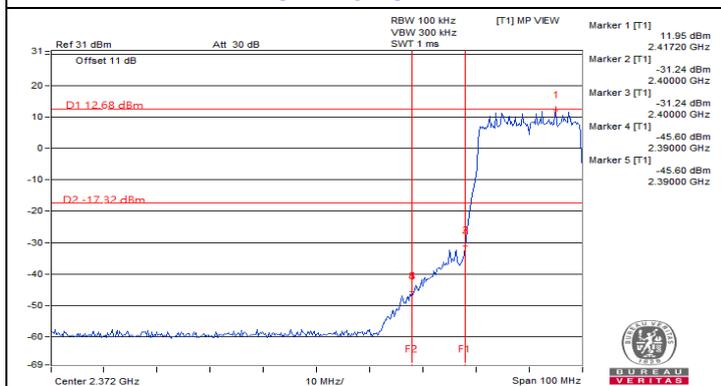
Chain 0 : CH 6



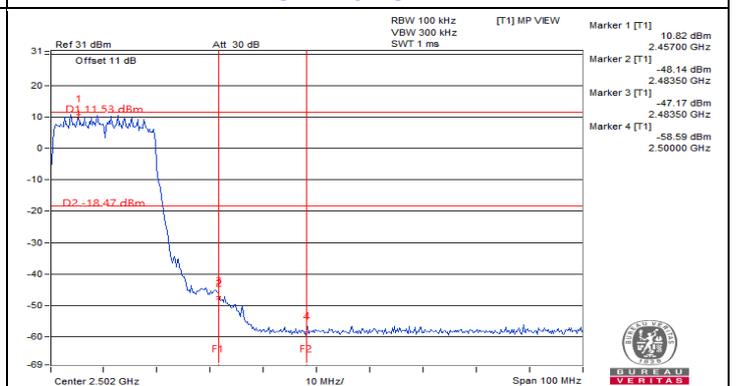
Chain 0 : CH 11



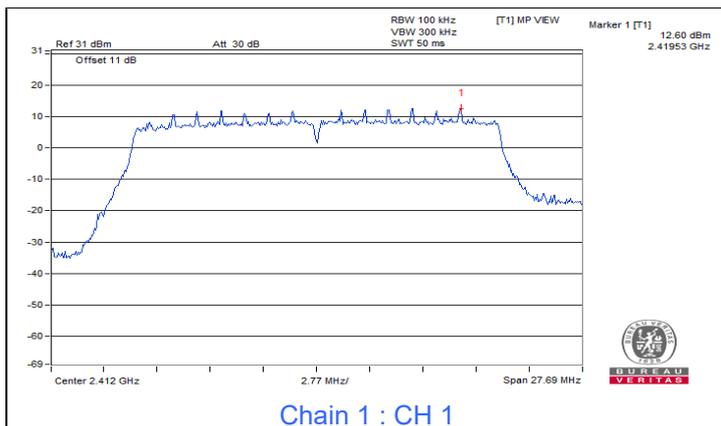
Chain 0 : CH 11



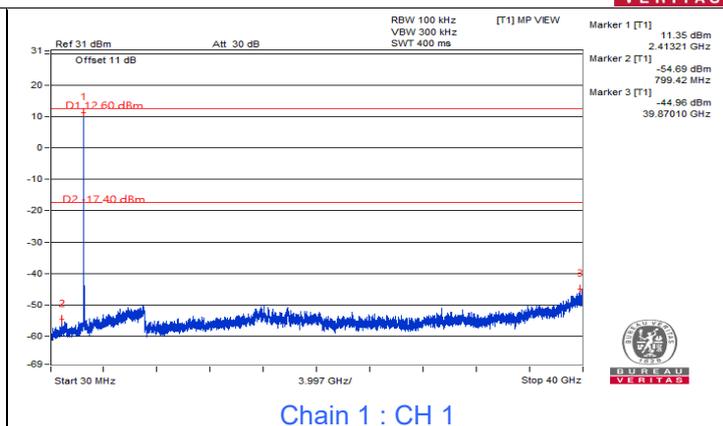
Chain 0 : CH 1 Band edge



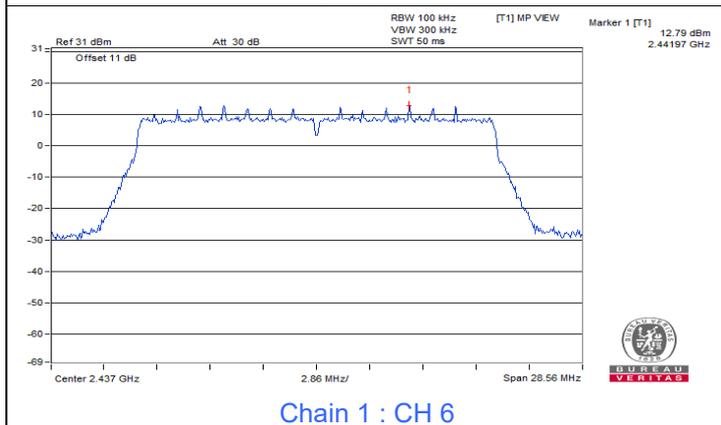
Chain 0 : CH 11 Band edge



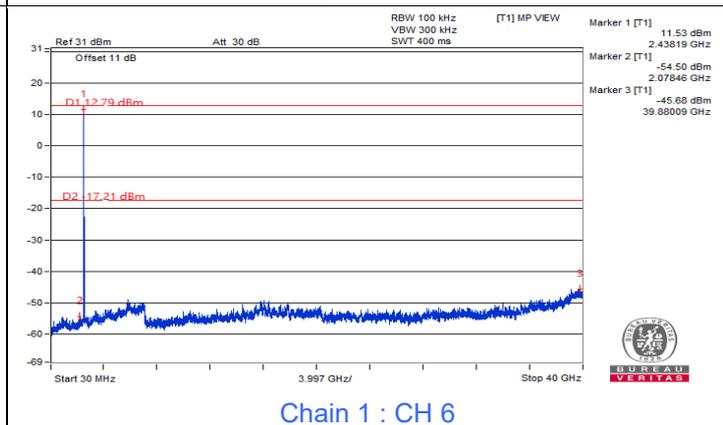
Chain 1 : CH 1



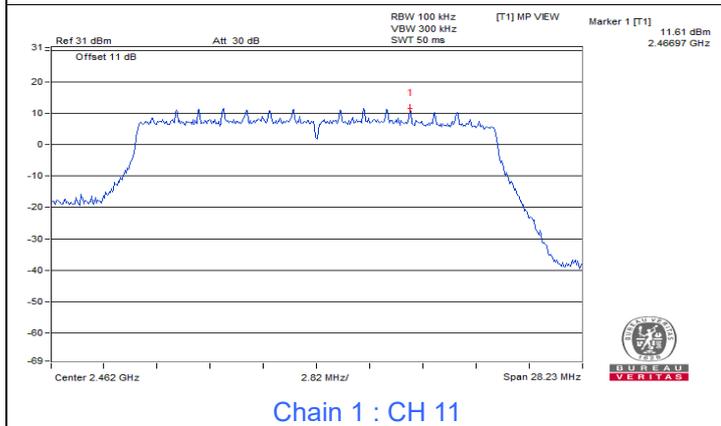
Chain 1 : CH 1



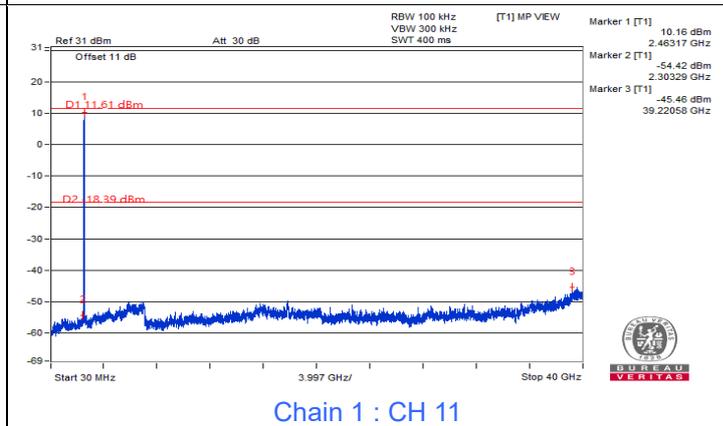
Chain 1 : CH 6



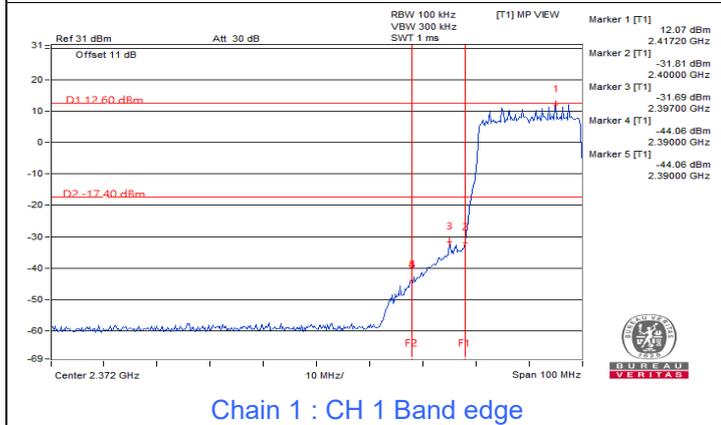
Chain 1 : CH 6



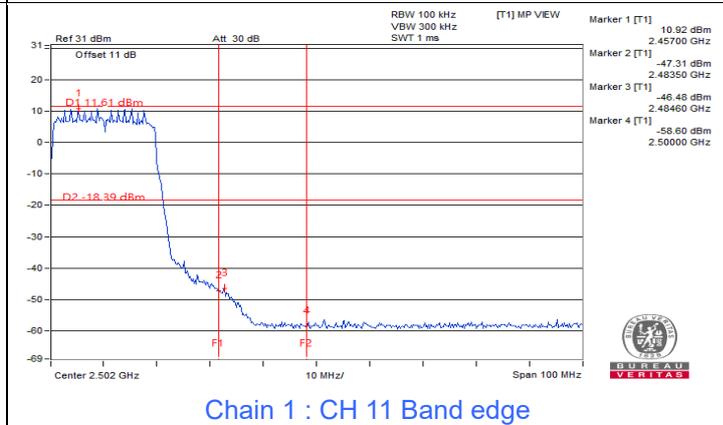
Chain 1 : CH 11



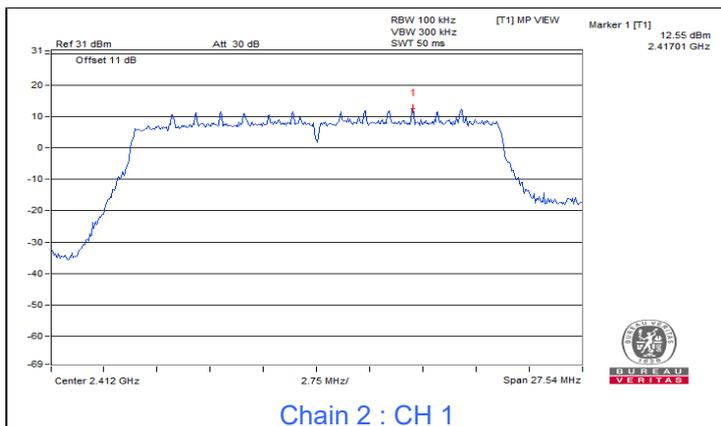
Chain 1 : CH 11



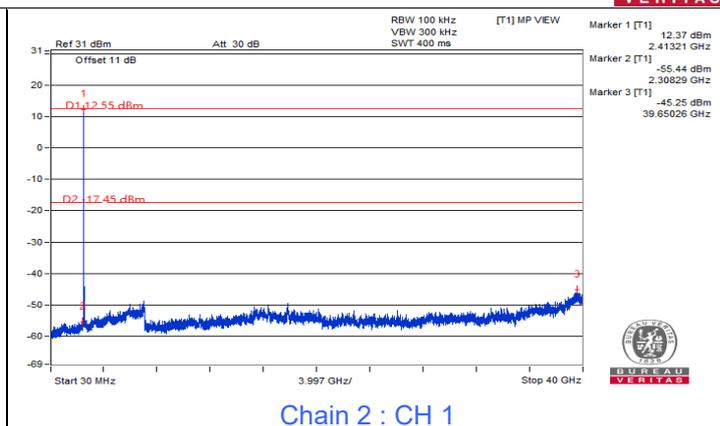
Chain 1 : CH 1 Band edge



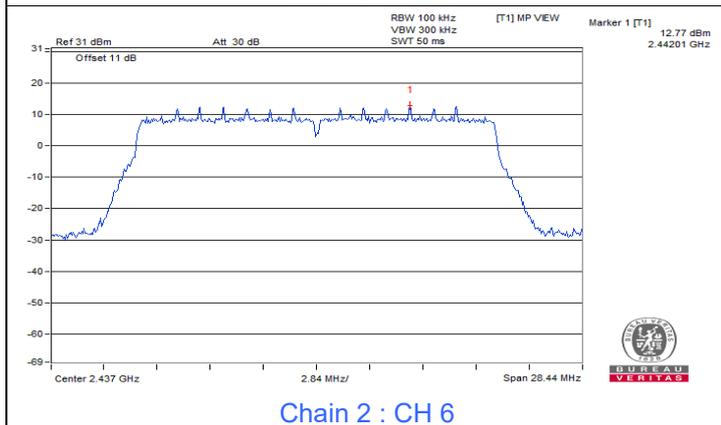
Chain 1 : CH 11 Band edge



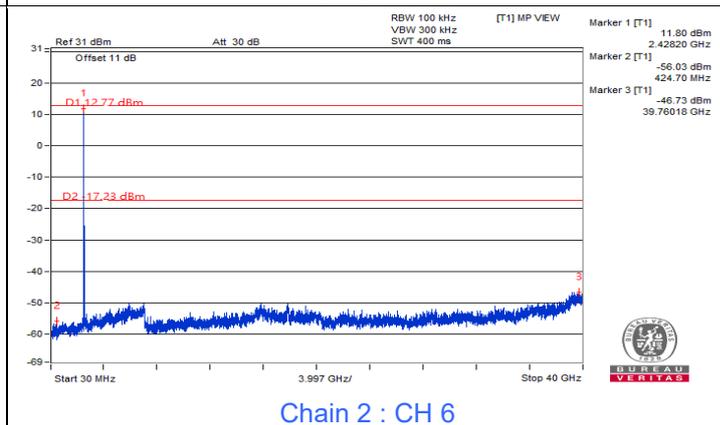
Chain 2 : CH 1



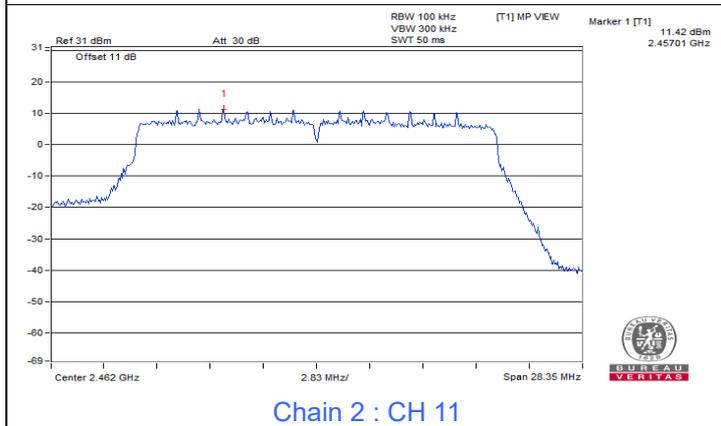
Chain 2 : CH 1



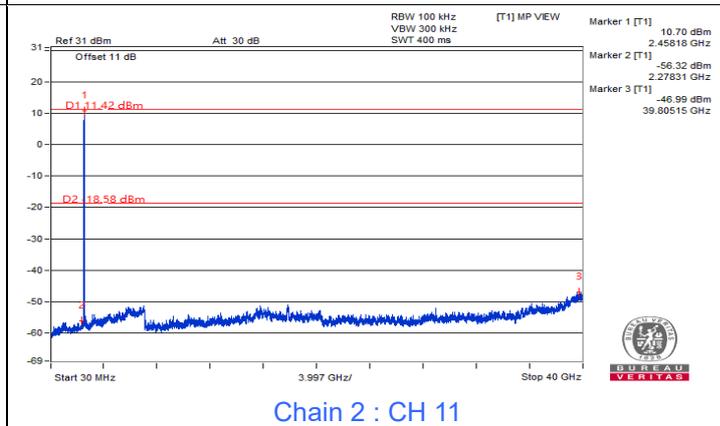
Chain 2 : CH 6



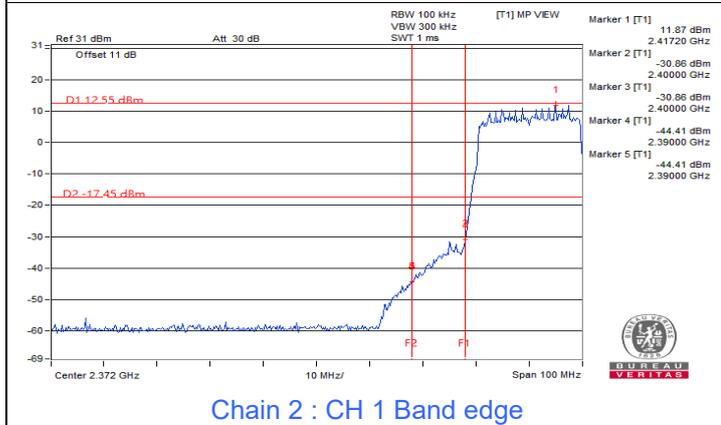
Chain 2 : CH 6



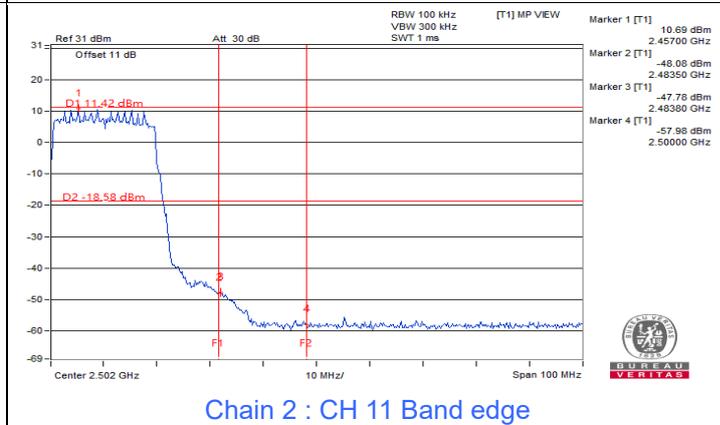
Chain 2 : CH 11



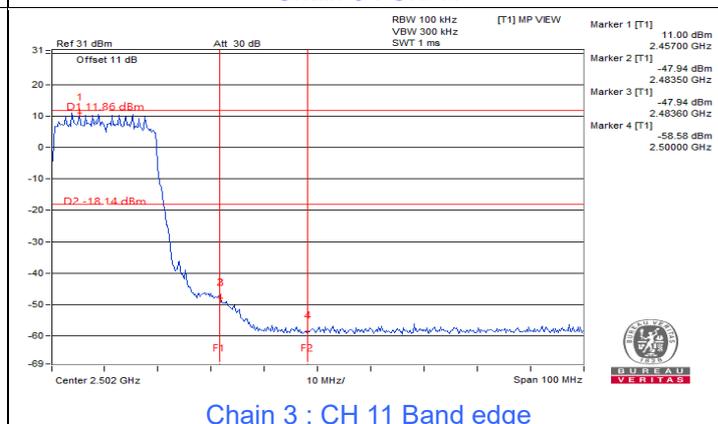
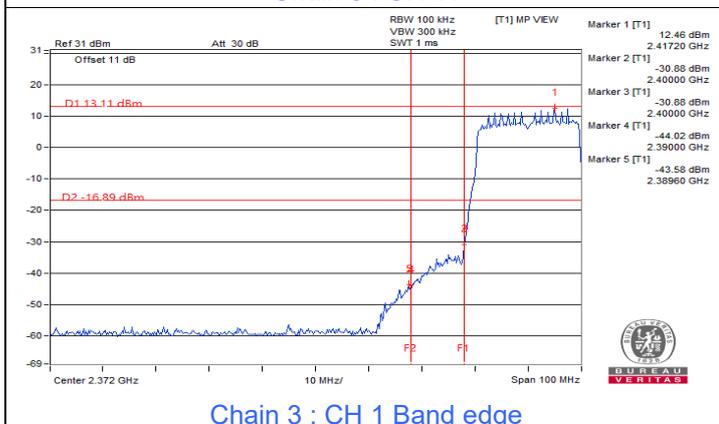
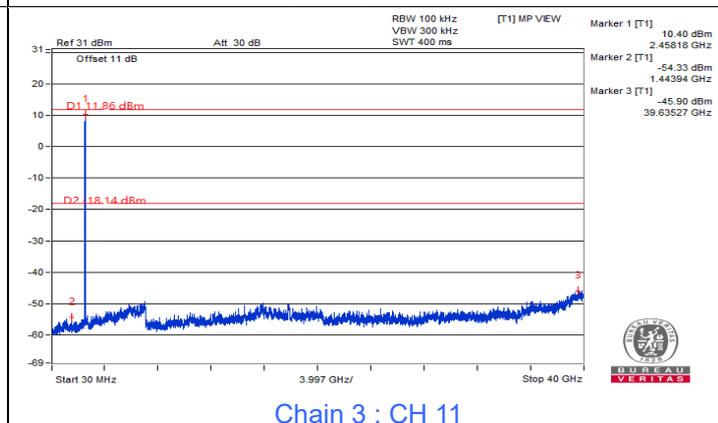
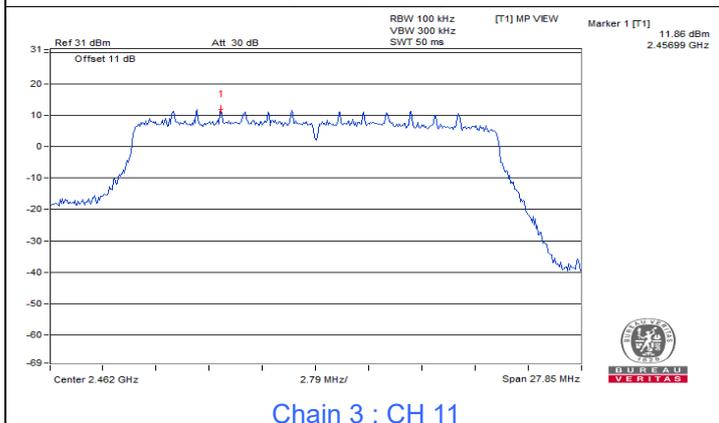
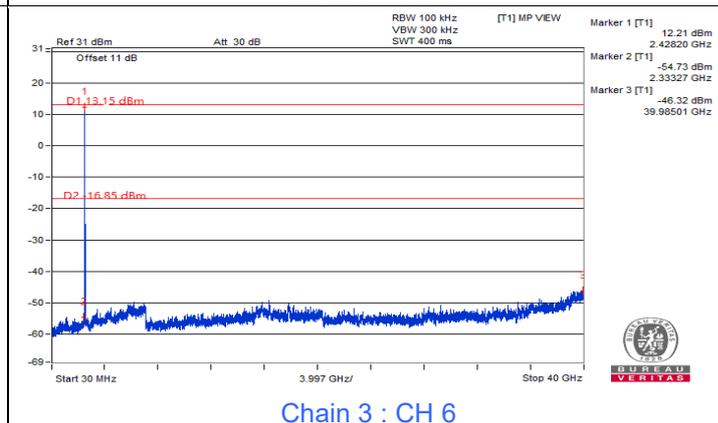
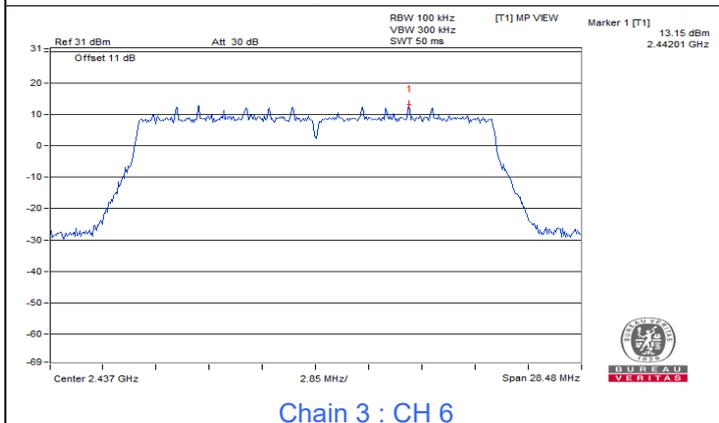
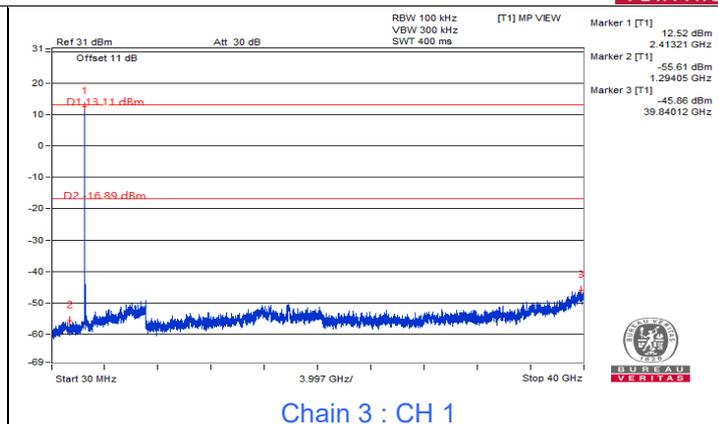
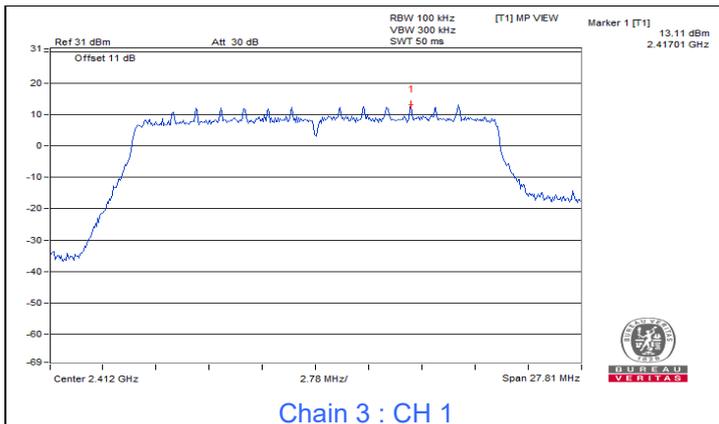
Chain 2 : CH 11



Chain 2 : CH 1 Band edge

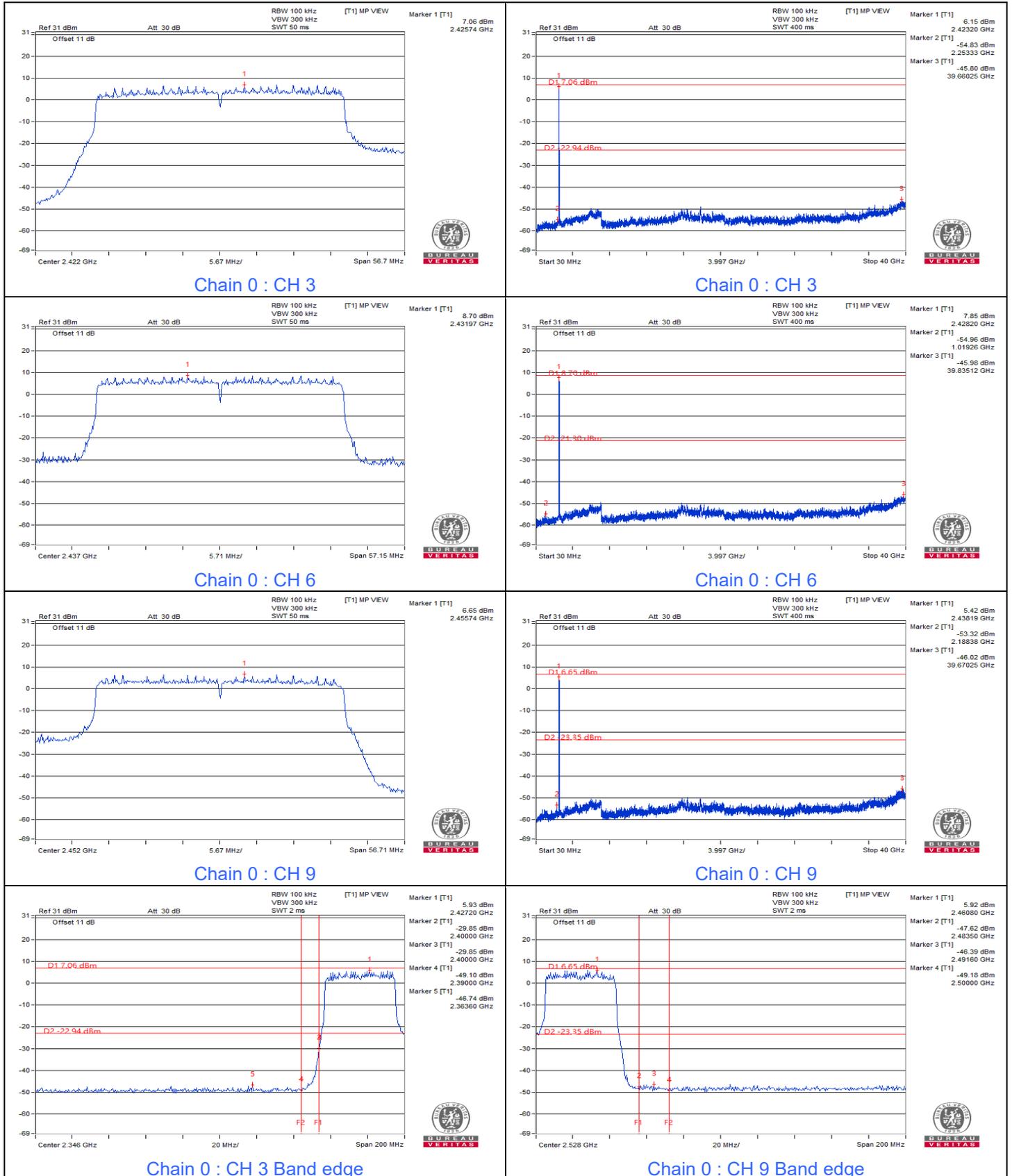


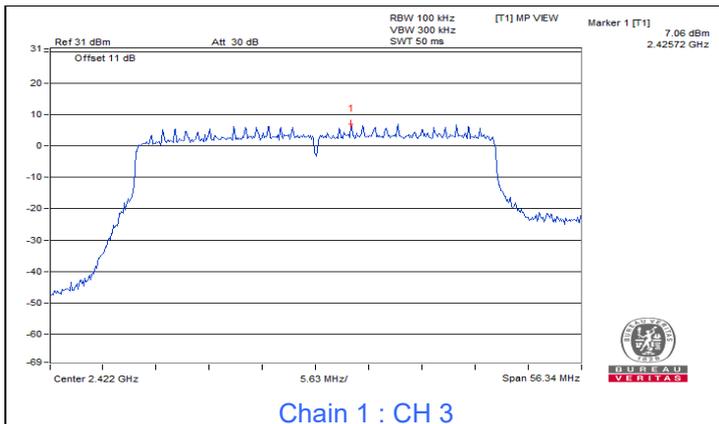
Chain 2 : CH 11 Band edge



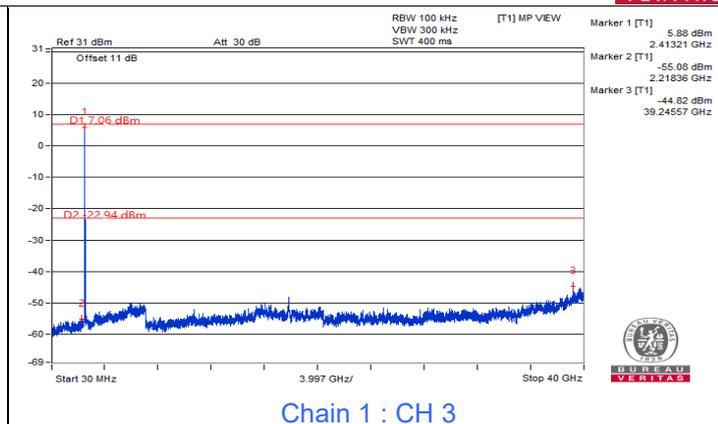


802.11be (EHT40)

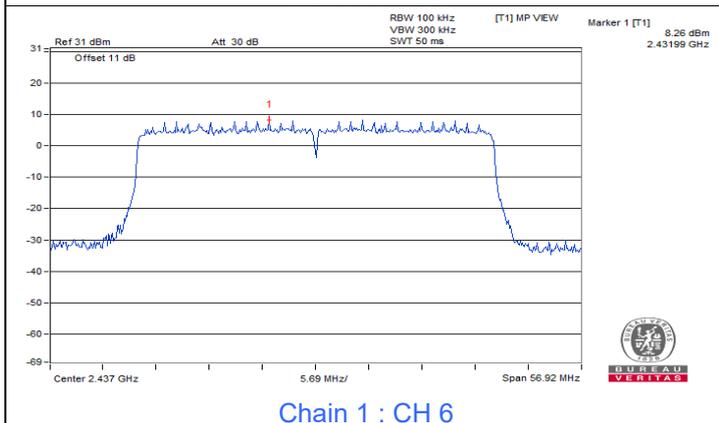




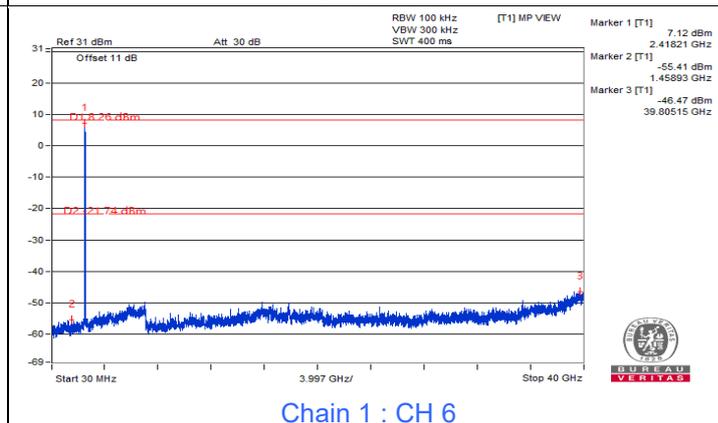
Chain 1 : CH 3



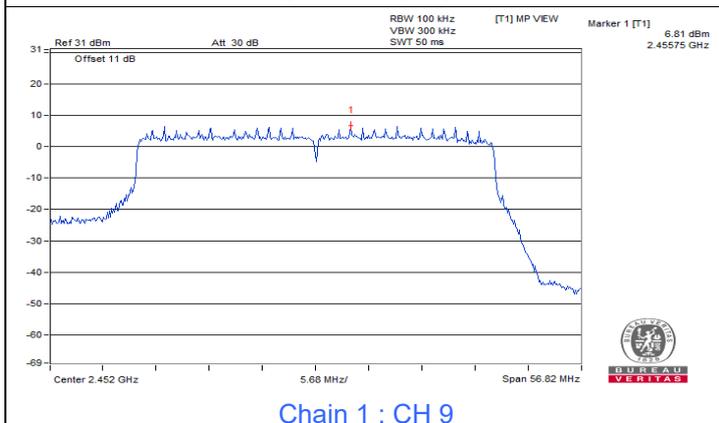
Chain 1 : CH 3



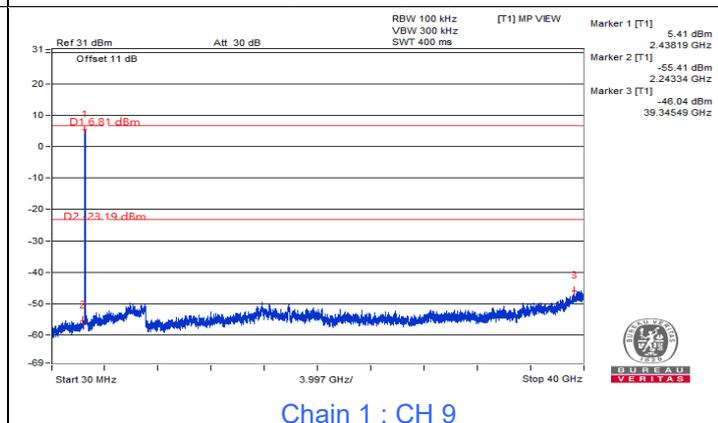
Chain 1 : CH 6



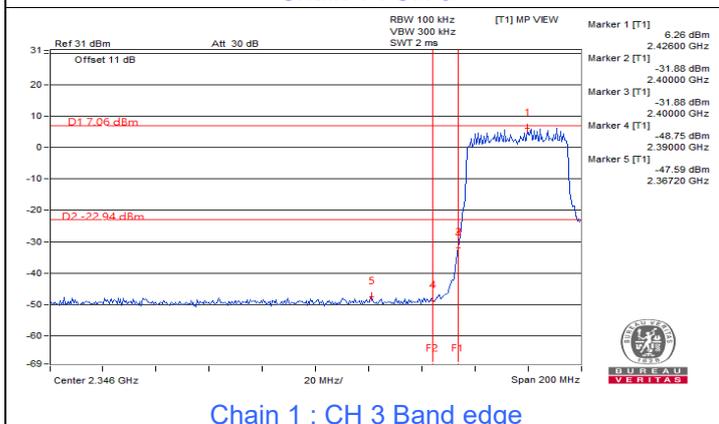
Chain 1 : CH 6



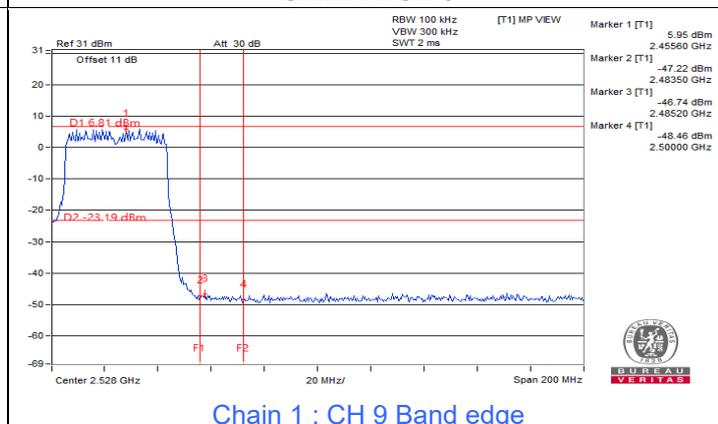
Chain 1 : CH 9



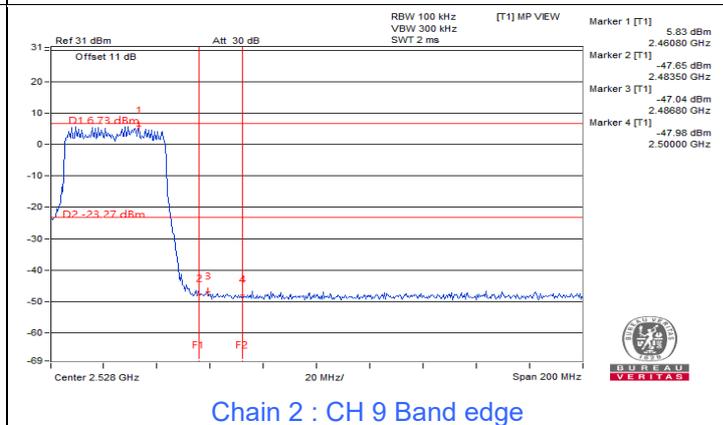
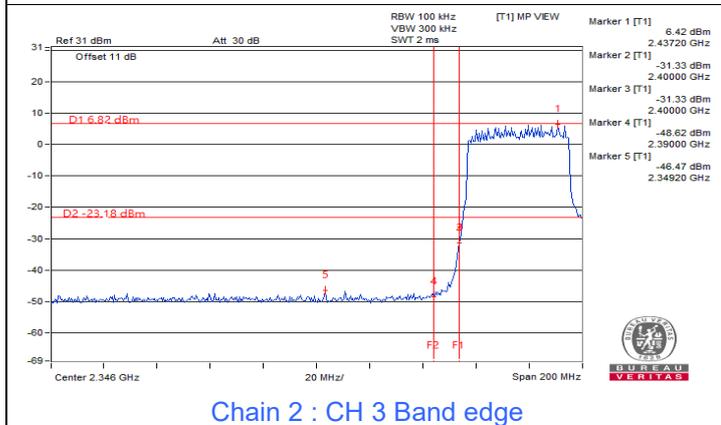
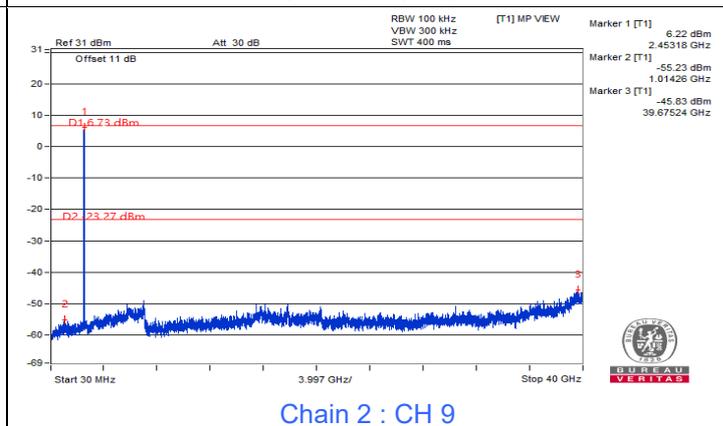
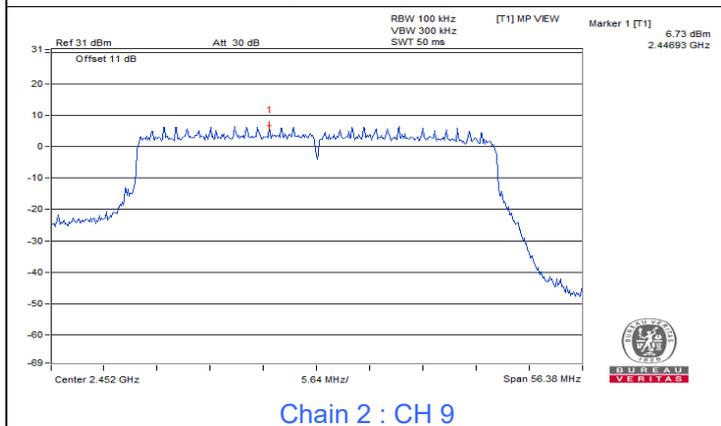
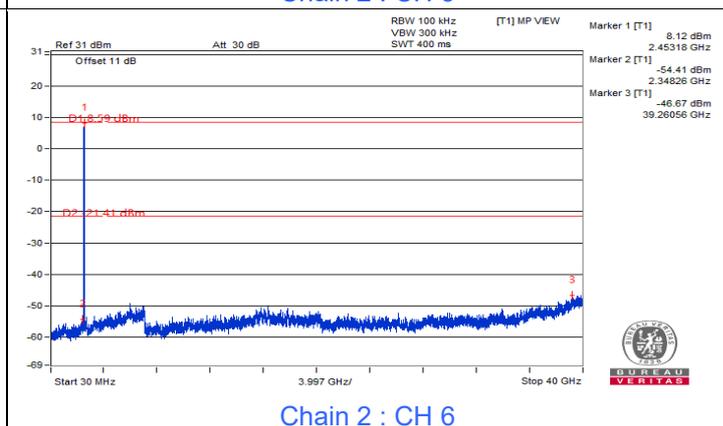
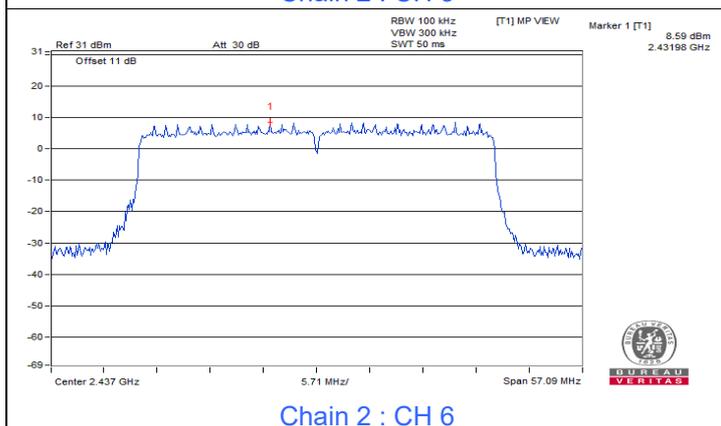
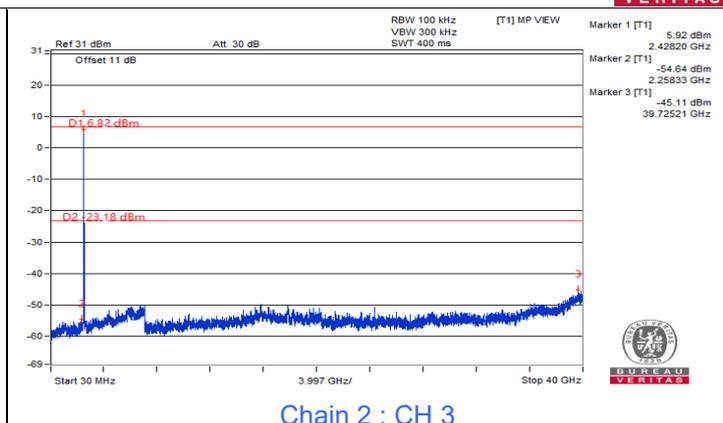
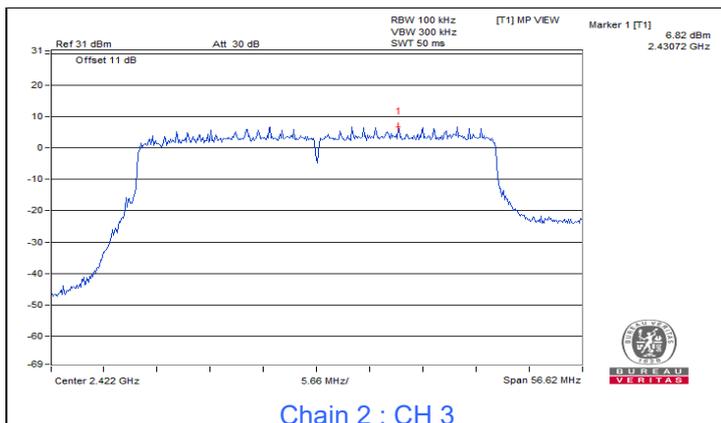
Chain 1 : CH 9

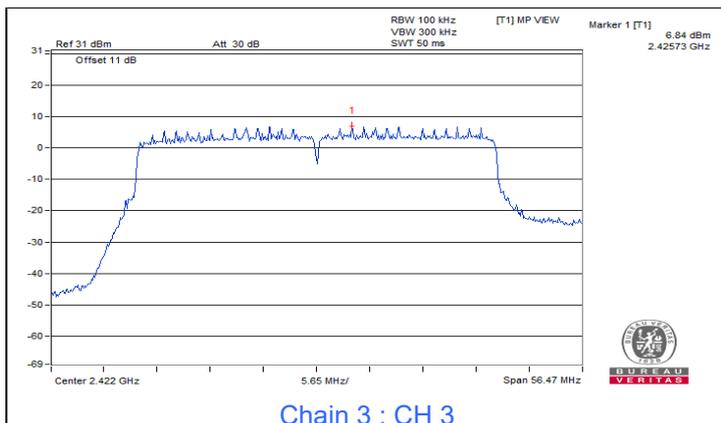


Chain 1 : CH 3 Band edge

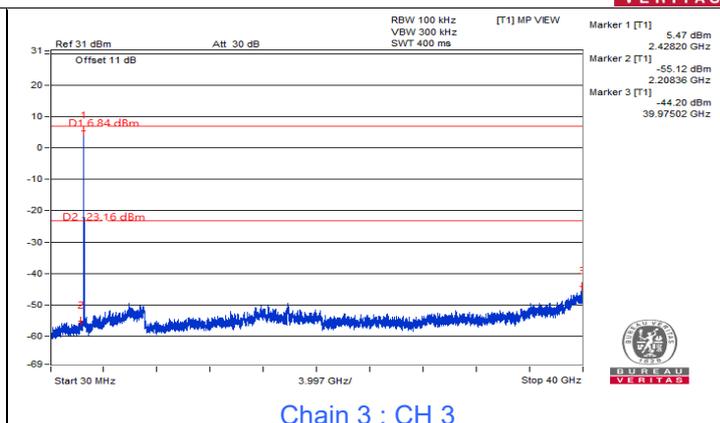


Chain 1 : CH 9 Band edge

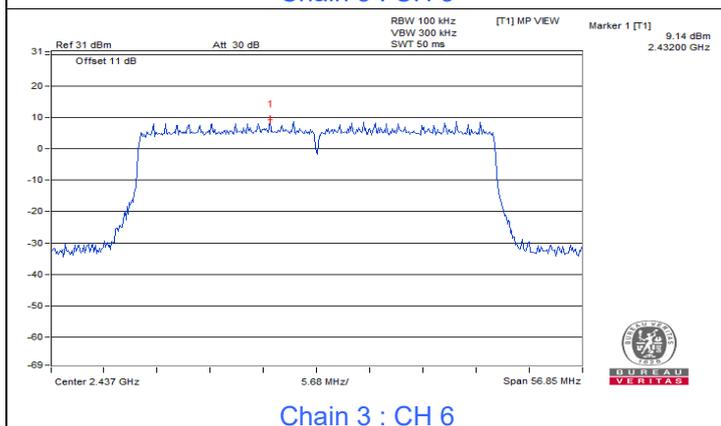




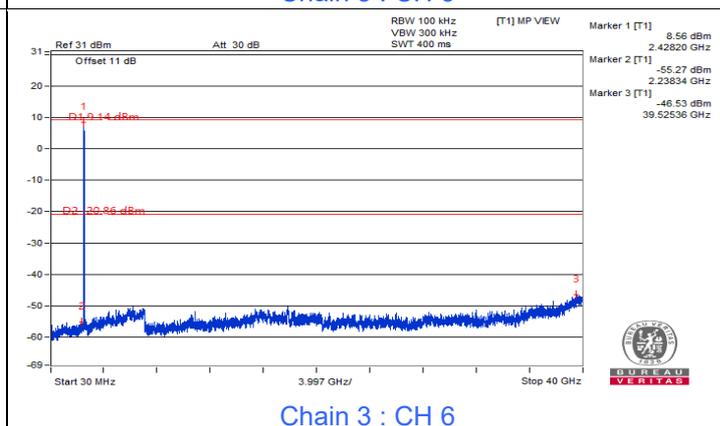
Chain 3 : CH 3



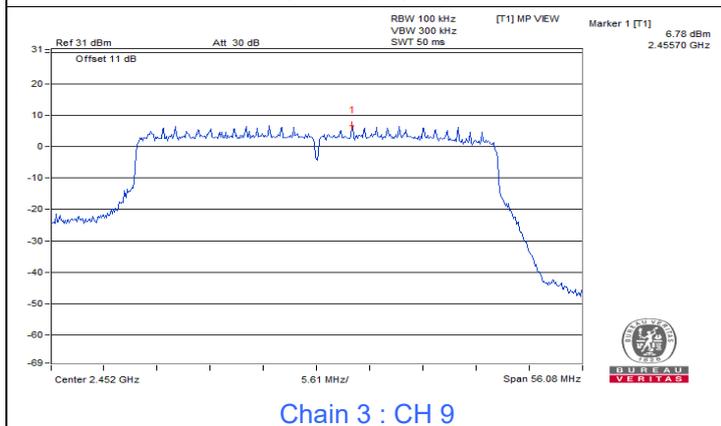
Chain 3 : CH 3



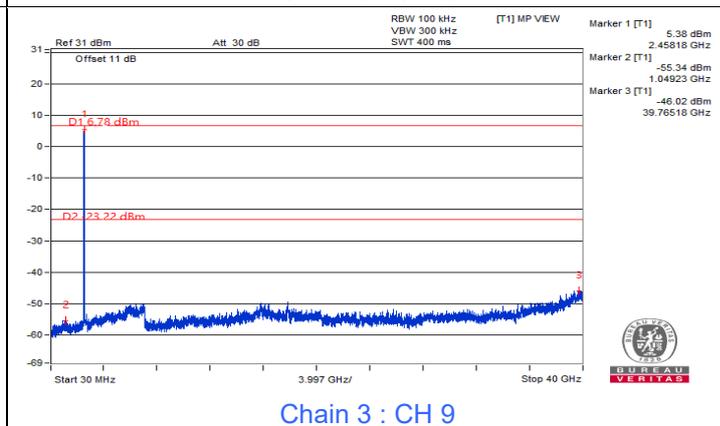
Chain 3 : CH 6



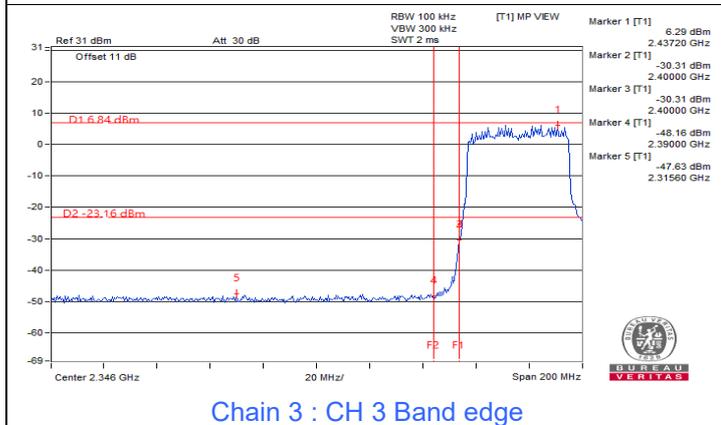
Chain 3 : CH 6



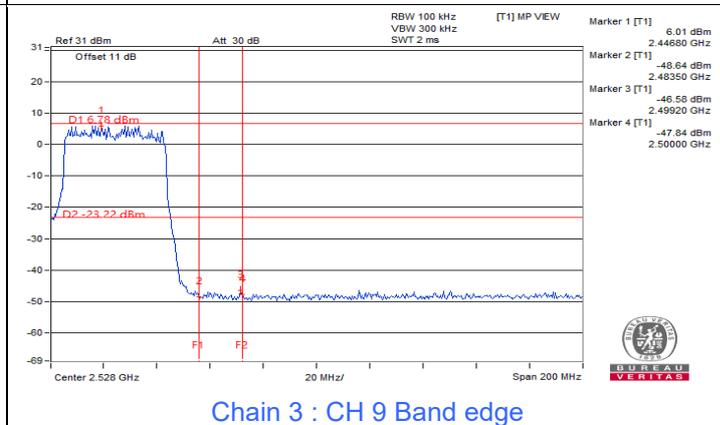
Chain 3 : CH 9



Chain 3 : CH 9



Chain 3 : CH 3 Band edge



Chain 3 : CH 9 Band edge

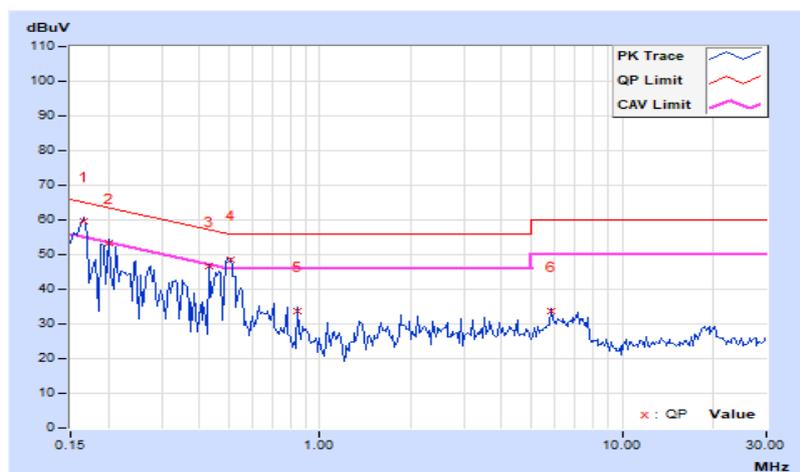
7.5 AC Power Conducted Emissions

RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	9.64	49.85	36.76	59.49	46.40	65.18	55.18	-5.69	-8.78
2	0.20078	9.63	43.62	27.91	53.25	37.54	63.58	53.58	-10.33	-16.04
3	0.43125	9.64	36.97	27.79	46.61	37.43	57.23	47.23	-10.62	-9.80
4	0.50547	9.64	38.90	28.93	48.54	38.57	56.00	46.00	-7.46	-7.43
5	0.84922	9.65	24.14	14.71	33.79	24.36	56.00	46.00	-22.21	-21.64
6	5.83203	9.89	23.66	14.87	33.55	24.76	60.00	50.00	-26.45	-25.24

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

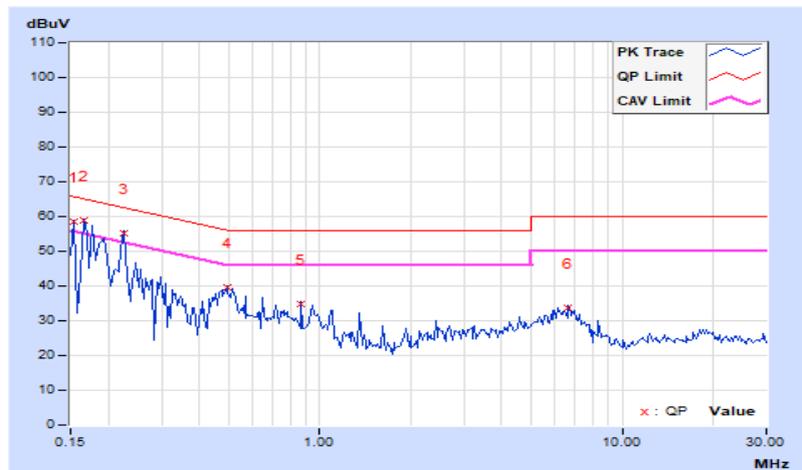


RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.63	48.90	29.55	58.53	39.18	65.79	55.79	-7.26	-16.61
2	0.16562	9.62	49.09	35.68	58.71	45.30	65.18	55.18	-6.47	-9.88
3	0.22422	9.61	45.43	32.21	55.04	41.82	62.66	52.66	-7.62	-10.84
4	0.49375	9.62	30.01	24.64	39.63	34.26	56.10	46.10	-16.47	-11.84
5	0.86875	9.65	25.20	15.98	34.85	25.63	56.00	46.00	-21.15	-20.37
6	6.62891	9.91	23.82	16.22	33.73	26.13	60.00	50.00	-26.27	-23.87

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



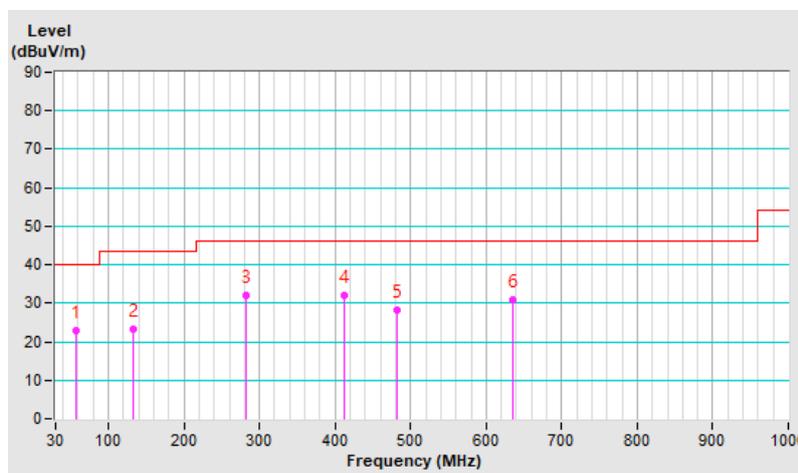
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	57.69	22.7 QP	40.0	-17.3	1.10 H	166	31.5	-8.8
2	133.26	23.2 QP	43.5	-20.3	1.08 H	299	31.9	-8.7
3	281.67	31.9 QP	46.0	-14.1	1.58 H	259	37.7	-5.8
4	412.08	31.9 QP	46.0	-14.1	1.63 H	203	35.0	-3.1
5	481.73	28.3 QP	46.0	-17.7	1.49 H	134	29.5	-1.2
6	635.43	30.9 QP	46.0	-15.1	1.79 H	222	28.2	2.7

Remarks:

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

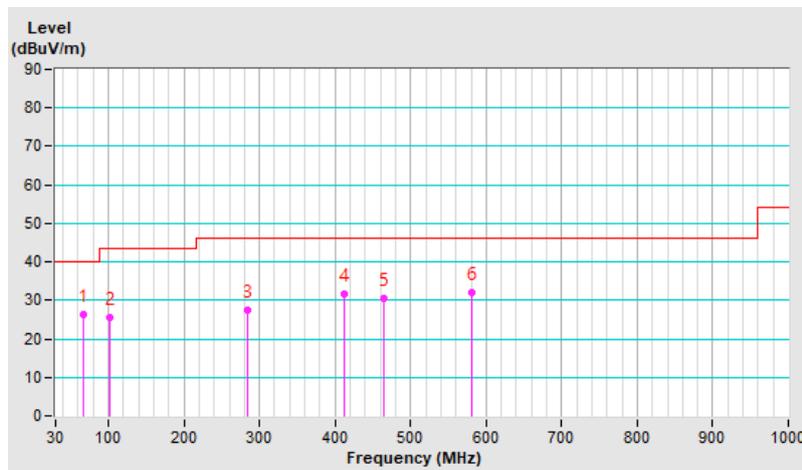


RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	65.99	26.4 QP	40.0	-13.6	1.30 V	260	36.2	-9.8
2	101.83	25.4 QP	43.5	-18.1	1.49 V	246	37.7	-12.3
3	283.85	27.4 QP	46.0	-18.6	1.76 V	188	33.1	-5.7
4	412.57	31.8 QP	46.0	-14.2	1.93 V	315	34.8	-3.0
5	465.43	30.5 QP	46.0	-15.5	1.28 V	115	32.0	-1.5
6	580.91	32.1 QP	46.0	-13.9	1.18 V	118	31.0	1.1

Remarks:

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



7.7 Unwanted Emissions above 1 GHz

CDD Mode

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	58.2 PK	74.0	-15.8	4.00 H	110	58.7	-0.5
2	2390.00	47.3 AV	54.0	-6.7	4.00 H	110	47.8	-0.5
3	*2412.00	118.0 PK			4.00 H	110	118.4	-0.4
4	*2412.00	116.2 AV			4.00 H	110	116.6	-0.4
5	4824.00	47.9 PK	74.0	-26.1	3.52 H	163	40.0	7.9
6	4824.00	37.3 AV	54.0	-16.7	3.52 H	163	29.4	7.9

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	57.7 PK	74.0	-16.3	1.30 V	75	58.2	-0.5
2	2390.00	46.6 AV	54.0	-7.4	1.30 V	75	47.1	-0.5
3	*2412.00	117.3 PK			1.30 V	75	117.7	-0.4
4	*2412.00	115.5 AV			1.30 V	75	115.9	-0.4
5	4824.00	47.6 PK	74.0	-26.4	1.23 V	128	39.7	7.9
6	4824.00	37.1 AV	54.0	-16.9	1.23 V	128	29.2	7.9

Remarks:

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



RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	118.5 PK			4.00 H	98	118.8	-0.3
2	*2437.00	116.9 AV			4.00 H	98	117.2	-0.3
3	4874.00	48.3 PK	74.0	-25.7	3.53 H	151	40.4	7.9
4	4874.00	37.7 AV	54.0	-16.3	3.53 H	151	29.8	7.9

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	117.8 PK			1.32 V	63	118.1	-0.3
2	*2437.00	116.2 AV			1.32 V	63	116.5	-0.3
3	4874.00	48.0 PK	74.0	-26.0	1.23 V	116	40.1	7.9
4	4874.00	37.5 AV	54.0	-16.5	1.23 V	116	29.6	7.9

Remarks:

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



RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	118.9 PK			4.00 H	221	119.1	-0.2
2	*2462.00	117.2 AV			4.00 H	221	117.4	-0.2
3	2483.50	60.0 PK	74.0	-14.0	4.00 H	221	60.2	-0.2
4	2483.50	49.9 AV	54.0	-4.1	4.00 H	221	50.1	-0.2
5	4924.00	48.7 PK	74.0	-25.3	3.50 H	274	40.7	8.0
6	4924.00	38.1 AV	54.0	-15.9	3.50 H	274	30.1	8.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	118.3 PK			1.32 V	186	118.5	-0.2
2	*2462.00	116.5 AV			1.32 V	186	116.7	-0.2
3	2483.50	59.2 PK	74.0	-14.8	1.32 V	186	59.4	-0.2
4	2483.50	49.6 AV	54.0	-4.4	1.32 V	186	49.8	-0.2
5	4924.00	48.4 PK	74.0	-25.6	1.21 V	139	40.4	8.0
6	4924.00	37.9 AV	54.0	-16.1	1.21 V	139	29.9	8.0

Remarks:

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



RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.4 PK	74.0	-9.6	4.00 H	86	64.9	-0.5
2	2390.00	53.0 AV	54.0	-1.0	4.00 H	86	53.5	-0.5
3	*2412.00	119.4 PK			4.00 H	86	119.8	-0.4
4	*2412.00	111.8 AV			4.00 H	86	112.2	-0.4
5	4824.00	48.3 PK	74.0	-25.7	3.53 H	139	40.4	7.9
6	4824.00	37.7 AV	54.0	-16.3	3.53 H	139	29.8	7.9

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	62.7 PK	74.0	-11.3	1.31 V	51	63.2	-0.5
2	2390.00	52.6 AV	54.0	-1.4	1.31 V	51	53.1	-0.5
3	*2412.00	118.7 PK			1.31 V	51	119.1	-0.4
4	*2412.00	111.1 AV			1.31 V	51	111.5	-0.4
5	4824.00	48.0 PK	74.0	-26.0	1.25 V	104	40.1	7.9
6	4824.00	37.5 AV	54.0	-16.5	1.25 V	104	29.6	7.9

Remarks:

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



RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	119.9 PK			3.81 H	94	120.2	-0.3
2	*2437.00	112.5 AV			3.81 H	94	112.8	-0.3
3	4874.00	48.7 PK	74.0	-25.3	3.33 H	147	40.8	7.9
4	4874.00	38.5 AV	54.0	-15.5	3.33 H	147	30.6	7.9
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	119.2 PK			1.11 V	59	119.5	-0.3
2	*2437.00	111.8 AV			1.11 V	59	112.1	-0.3
3	4874.00	48.4 PK	74.0	-25.6	1.04 V	112	40.5	7.9
4	4874.00	38.3 AV	54.0	-15.7	1.04 V	112	30.4	7.9

Remarks:

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



RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	119.8 PK			3.87 H	118	120.0	-0.2
2	*2462.00	111.9 AV			3.87 H	118	112.1	-0.2
3	2483.50	62.9 PK	74.0	-11.1	3.87 H	118	63.1	-0.2
4	2483.50	51.5 AV	54.0	-2.5	3.87 H	118	51.7	-0.2
5	4924.00	48.6 PK	74.0	-25.4	3.39 H	171	40.6	8.0
6	4924.00	38.4 AV	54.0	-15.6	3.39 H	171	30.4	8.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	119.1 PK			1.17 V	83	119.3	-0.2
2	*2462.00	111.0 AV			1.17 V	83	111.2	-0.2
3	2483.50	59.9 PK	74.0	-14.1	1.17 V	83	60.1	-0.2
4	2483.50	49.1 AV	54.0	-4.9	1.17 V	83	49.3	-0.2
5	4924.00	48.3 PK	74.0	-25.7	1.10 V	136	40.3	8.0
6	4924.00	37.8 AV	54.0	-16.2	1.10 V	136	29.8	8.0

Remarks:

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



RF Mode	802.11be (EHT20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.7 PK	74.0	-8.3	3.62 H	116	66.2	-0.5
2	2390.00	53.4 AV	54.0	-0.6	3.62 H	116	53.9	-0.5
3	*2412.00	122.5 PK			3.62 H	116	122.9	-0.4
4	*2412.00	112.4 AV			3.62 H	116	112.8	-0.4
5	4824.00	47.6 PK	74.0	-26.4	3.14 H	169	39.7	7.9
6	4824.00	38.4 AV	54.0	-15.6	3.14 H	169	30.5	7.9

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.9 PK	74.0	-9.1	1.68 V	81	65.4	-0.5
2	2390.00	53.0 AV	54.0	-1.0	1.68 V	81	53.5	-0.5
3	*2412.00	120.9 PK			1.68 V	81	121.3	-0.4
4	*2412.00	111.1 AV			1.68 V	81	111.5	-0.4
5	4824.00	47.3 PK	74.0	-26.7	1.61 V	134	39.4	7.9
6	4824.00	38.2 AV	54.0	-15.8	1.61 V	134	30.3	7.9

Remarks:

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



RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	123.3 PK			3.74 H	116	123.6	-0.3
2	*2437.00	112.7 AV			3.74 H	116	113.0	-0.3
3	4874.00	48.3 PK	74.0	-25.7	3.26 H	170	40.4	7.9
4	4874.00	39.1 AV	54.0	-14.9	3.26 H	170	31.2	7.9

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	122.6 PK			1.04 V	81	122.9	-0.3
2	*2437.00	112.0 AV			1.04 V	81	112.3	-0.3
3	4874.00	48.0 PK	74.0	-26.0	1.49 V	122	40.1	7.9
4	4874.00	37.9 AV	54.0	-16.1	1.49 V	122	30.0	7.9

Remarks:

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



RF Mode	802.11be (EHT20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	121.3 PK			2.48 H	228	121.5	-0.2
2	*2462.00	111.1 AV			2.48 H	228	111.3	-0.2
3	2483.50	69.1 PK	74.0	-4.9	2.48 H	228	69.3	-0.2
4	2483.50	53.5 AV	54.0	-0.5	2.48 H	228	53.7	-0.2
5	4924.00	48.3 PK	74.0	-25.7	3.08 H	167	40.3	8.0
6	4924.00	36.6 AV	54.0	-17.4	3.08 H	167	28.6	8.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	120.7 PK			1.74 V	79	120.9	-0.2
2	*2462.00	110.5 AV			1.74 V	79	110.7	-0.2
3	2483.50	67.2 PK	74.0	-6.8	1.74 V	79	67.4	-0.2
4	2483.50	52.5 AV	54.0	-1.5	1.74 V	79	52.7	-0.2
5	4924.00	46.9 PK	74.0	-27.1	1.67 V	132	38.9	8.0
6	4924.00	36.4 AV	54.0	-17.6	1.67 V	132	28.4	8.0

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.4 PK	74.0	-9.6	3.74 H	118	64.9	-0.5
2	2390.00	53.8 AV	54.0	-0.2	3.74 H	118	54.3	-0.5
3	*2422.00	117.2 PK			3.74 H	118	117.6	-0.4
4	*2422.00	106.7 AV			3.74 H	118	107.1	-0.4
5	4844.00	47.9 PK	74.0	-26.1	3.26 H	171	40.0	7.9
6	4844.00	37.1 AV	54.0	-16.9	3.26 H	171	29.2	7.9

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.4 PK	74.0	-10.6	1.04 V	83	63.9	-0.5
2	2390.00	53.4 AV	54.0	-0.6	1.04 V	83	53.9	-0.5
3	*2422.00	116.2 PK			1.04 V	83	116.6	-0.4
4	*2422.00	106.0 AV			1.04 V	83	106.4	-0.4
5	4844.00	47.7 PK	74.0	-26.3	1.49 V	136	39.8	7.9
6	4844.00	36.9 AV	54.0	-17.1	1.49 V	136	29.0	7.9

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	120.2 PK			3.78 H	224	120.5	-0.3
2	*2437.00	109.7 AV			3.78 H	224	110.0	-0.3
3	2483.50	70.1 PK	74.0	-3.9	3.78 H	224	70.3	-0.2
4	2483.50	53.7 AV	54.0	-0.3	3.78 H	224	53.9	-0.2
5	4874.00	48.0 PK	74.0	-26.0	3.30 H	277	40.1	7.9
6	4874.00	37.4 AV	54.0	-16.6	3.30 H	277	29.5	7.9

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	119.1 PK			1.08 V	189	119.4	-0.3
2	*2437.00	108.7 AV			1.08 V	189	109.0	-0.3
3	2483.50	70.1 PK	74.0	-3.9	1.08 V	189	70.3	-0.2
4	2483.50	53.3 AV	54.0	-0.7	1.08 V	189	53.5	-0.2
5	4874.00	47.7 PK	74.0	-26.3	1.01 V	14	39.8	7.9
6	4874.00	37.2 AV	54.0	-16.8	1.01 V	14	29.3	7.9

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	117.8 PK			3.68 H	223	118.1	-0.3
2	*2452.00	107.0 AV			3.68 H	223	107.3	-0.3
3	2483.50	65.3 PK	74.0	-8.7	3.68 H	223	65.5	-0.2
4	2483.50	53.8 AV	54.0	-0.2	3.68 H	223	54.0	-0.2
5	4904.00	47.6 PK	74.0	-26.4	3.20 H	50	39.7	7.9
6	4904.00	37.0 AV	54.0	-17.0	3.20 H	50	29.1	7.9

Antenna Polarity & Test Distance : Vertical at 3 m

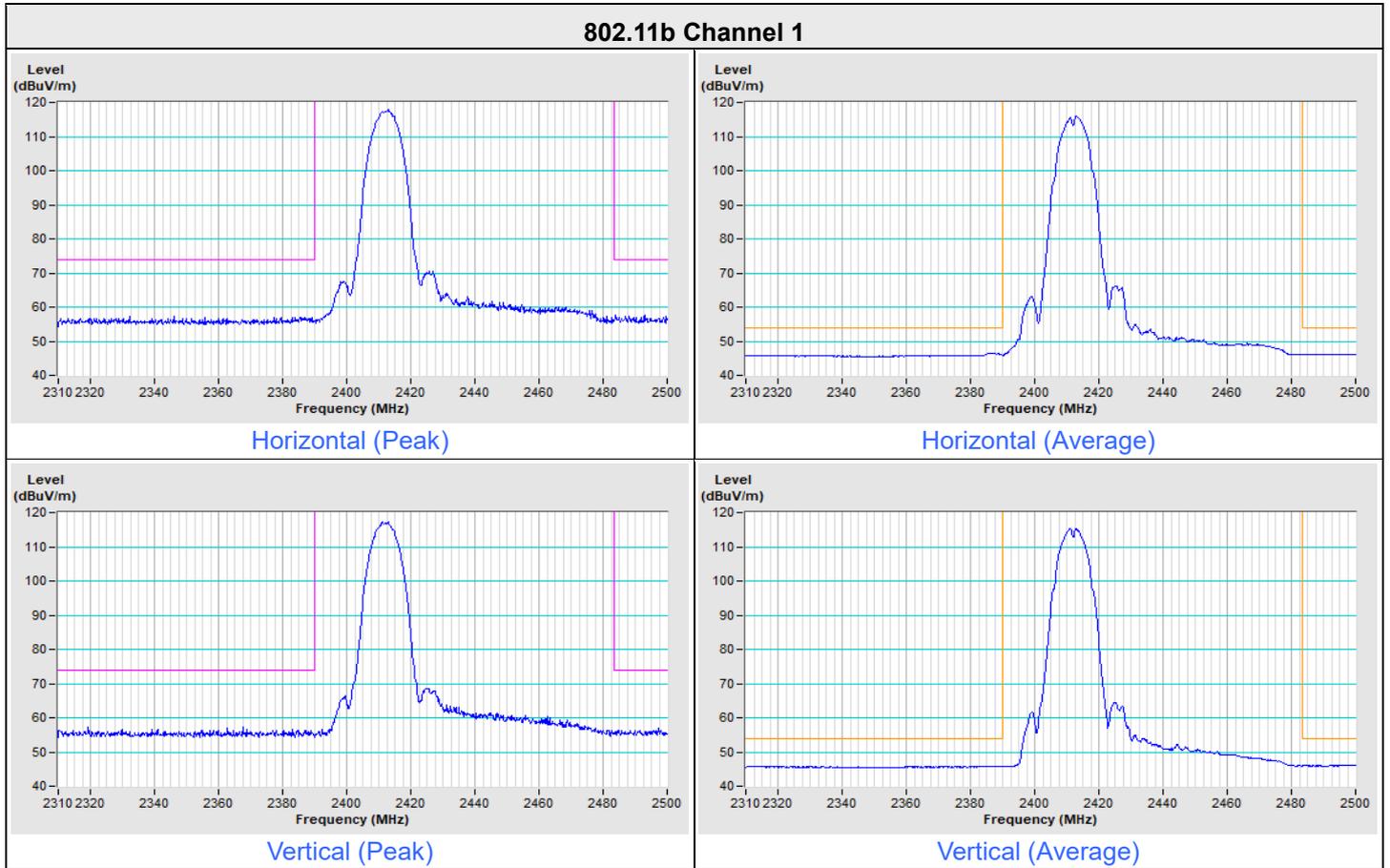
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	116.7 PK			1.62 V	188	117.0	-0.3
2	*2452.00	106.4 AV			1.62 V	188	106.7	-0.3
3	2483.50	64.5 PK	74.0	-9.5	1.62 V	188	64.7	-0.2
4	2483.50	53.2 AV	54.0	-0.8	1.62 V	188	53.4	-0.2
5	4904.00	47.3 PK	74.0	-26.7	1.55 V	241	39.4	7.9
6	4904.00	36.8 AV	54.0	-17.2	1.55 V	241	28.9	7.9

Remarks:

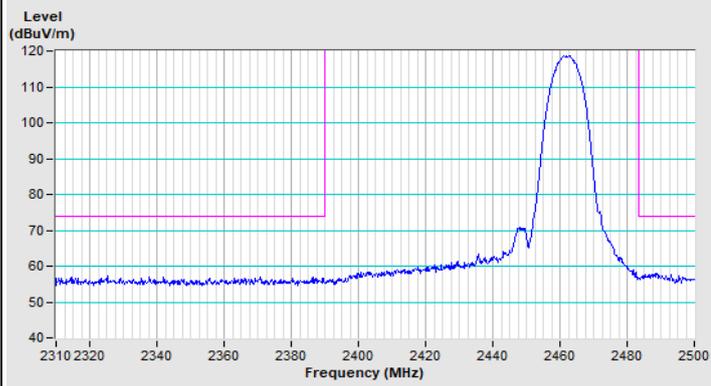
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

Plot of Band Edge_CDD

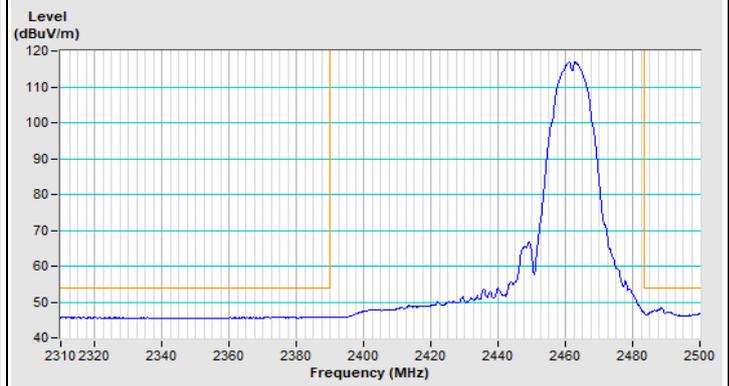
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--



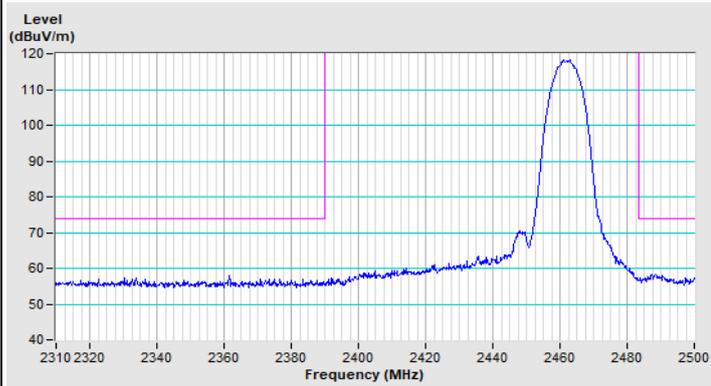
802.11b Channel 11



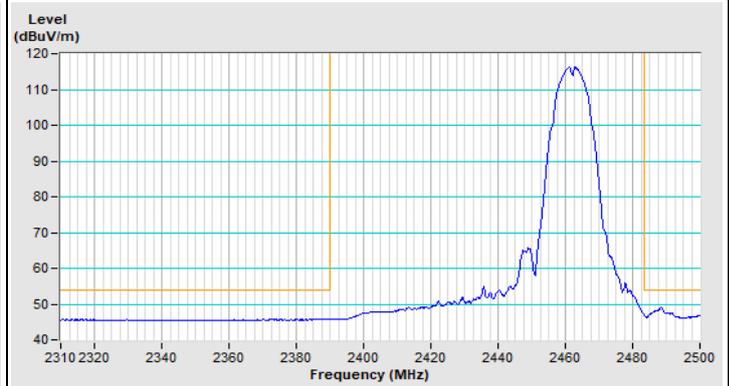
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

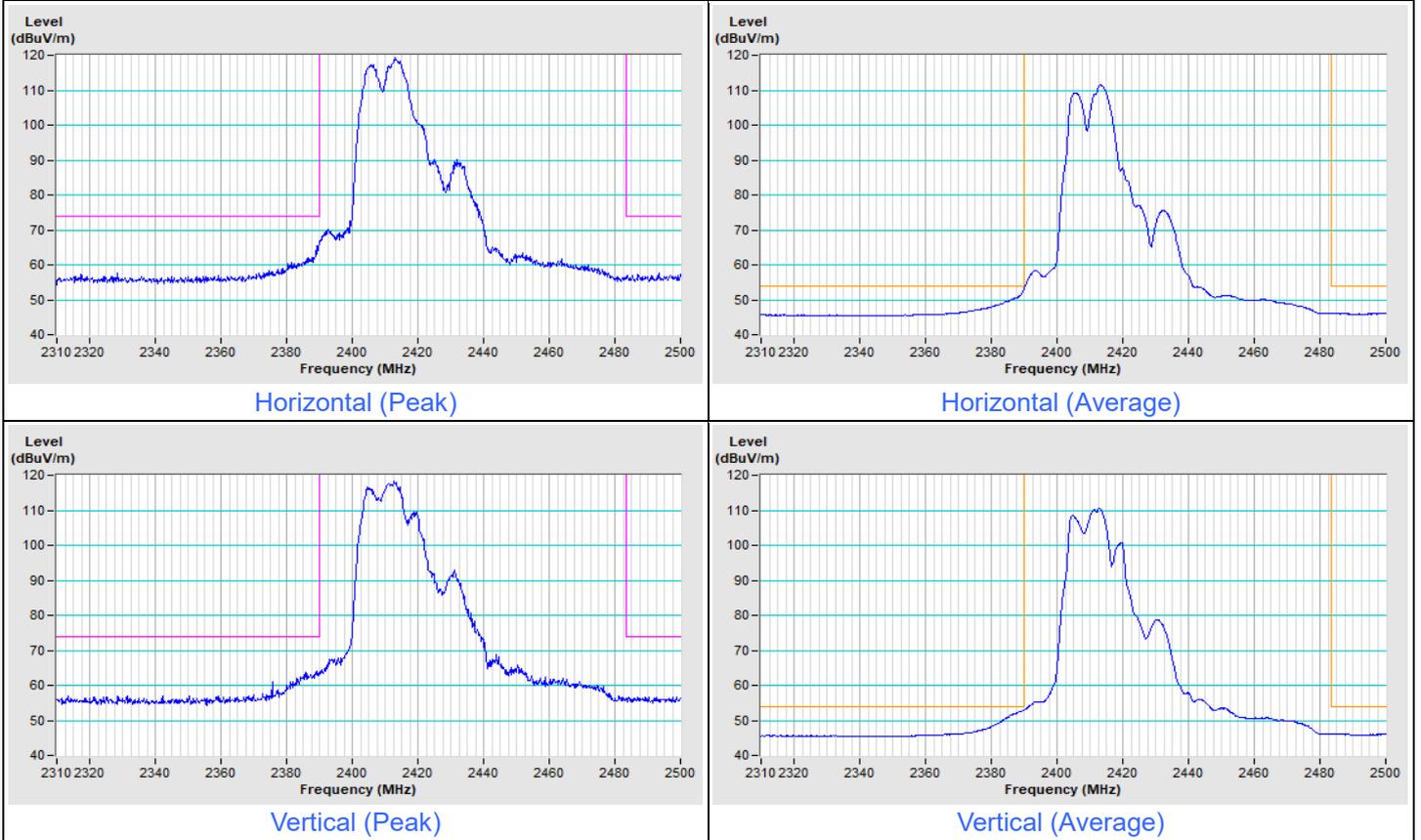


Vertical (Average)

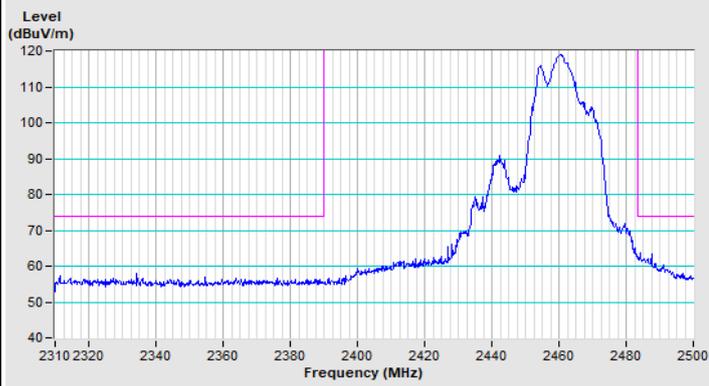


Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--

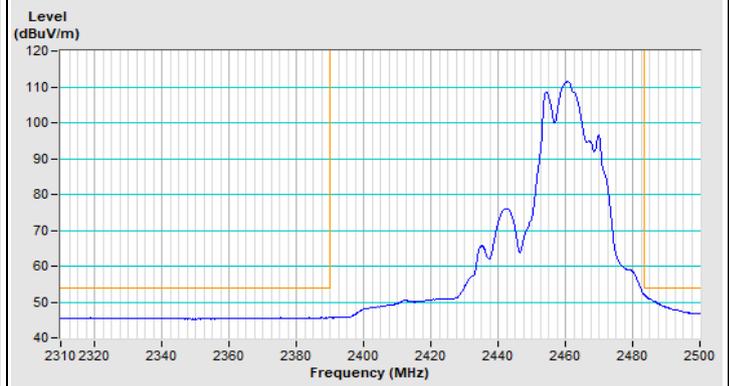
802.11g Channel 1



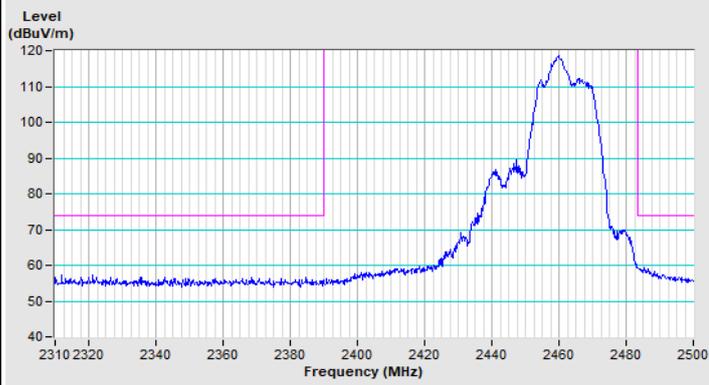
802.11g Channel 11



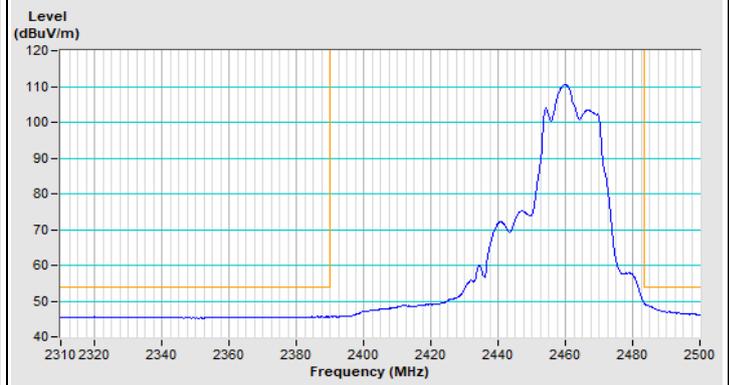
Horizontal (Peak)



Horizontal (Average)



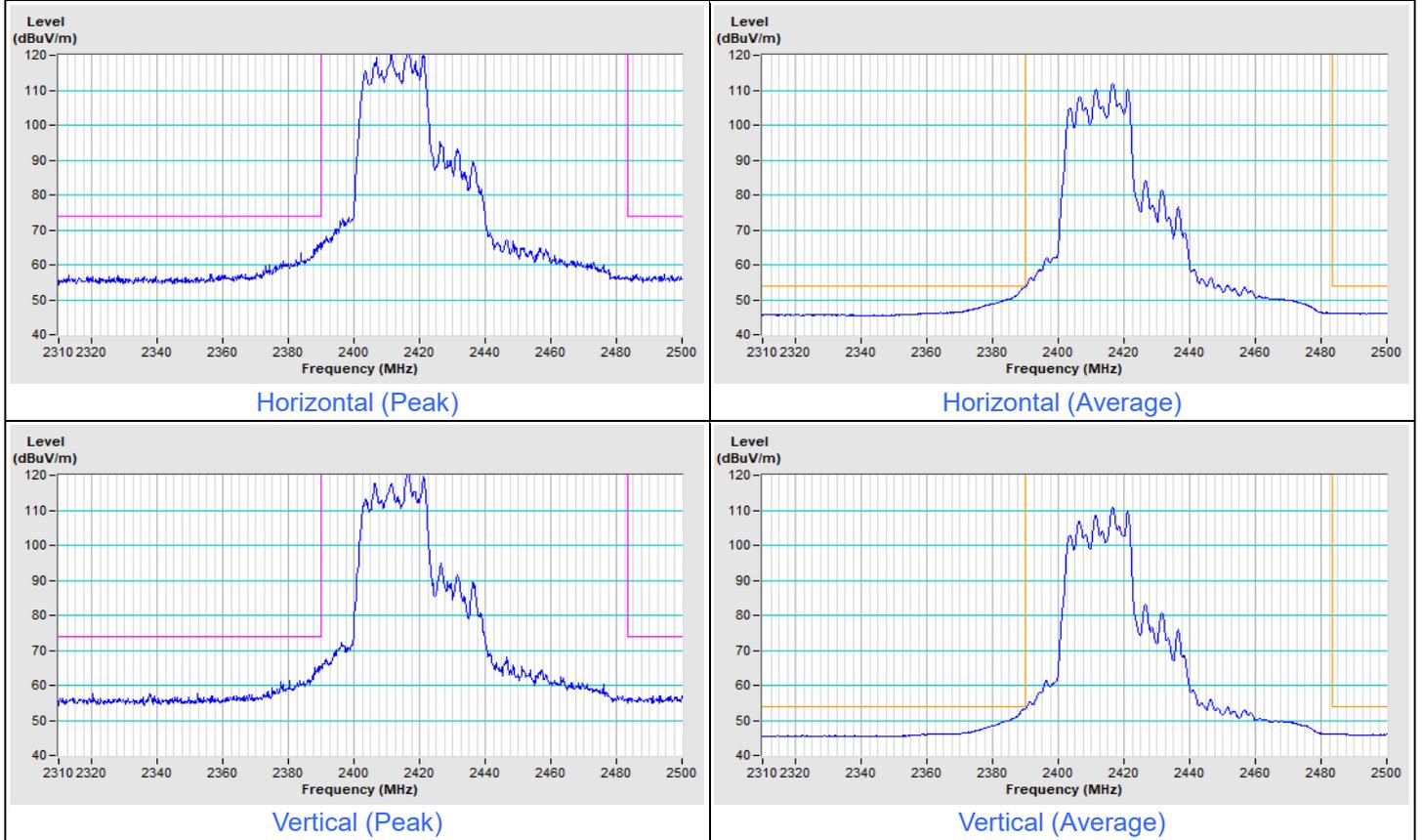
Vertical (Peak)



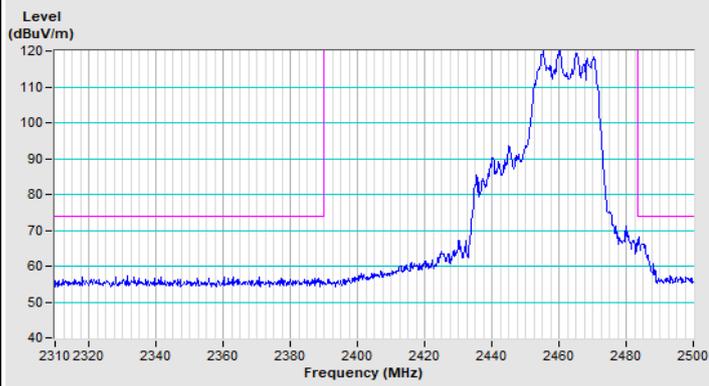
Vertical (Average)

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

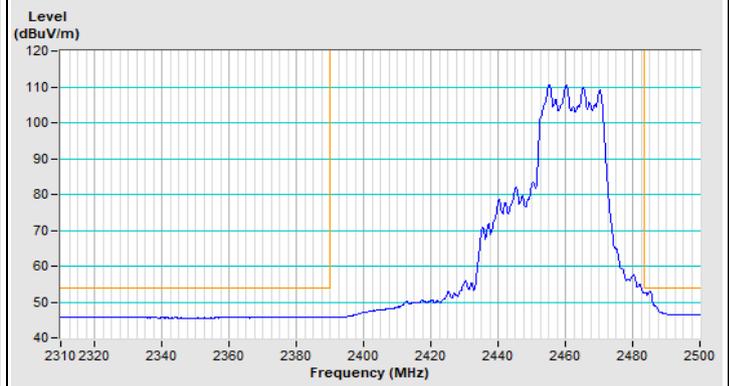
802.11be (EHT20) Channel 1



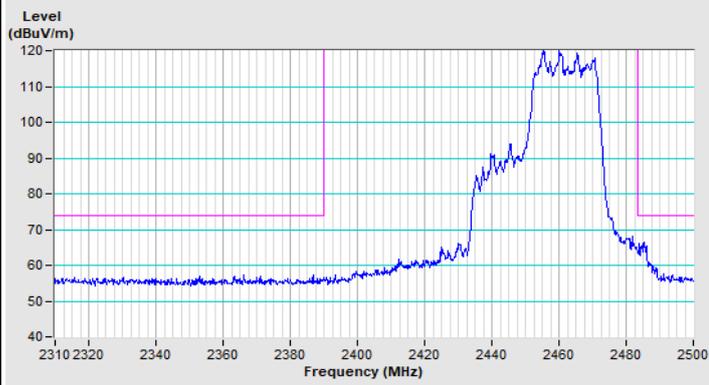
802.11be (EHT20) Channel 11



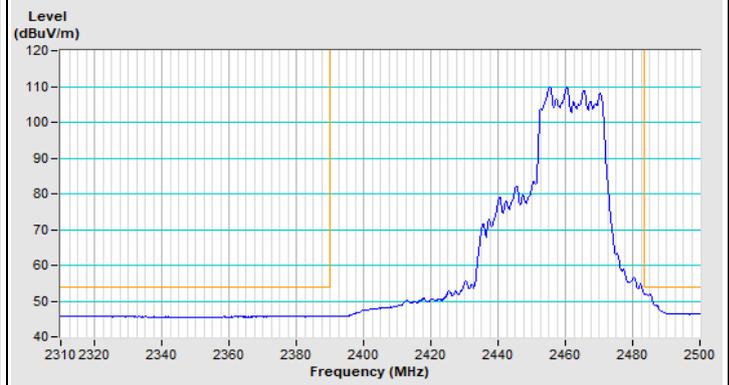
Horizontal (Peak)



Horizontal (Average)



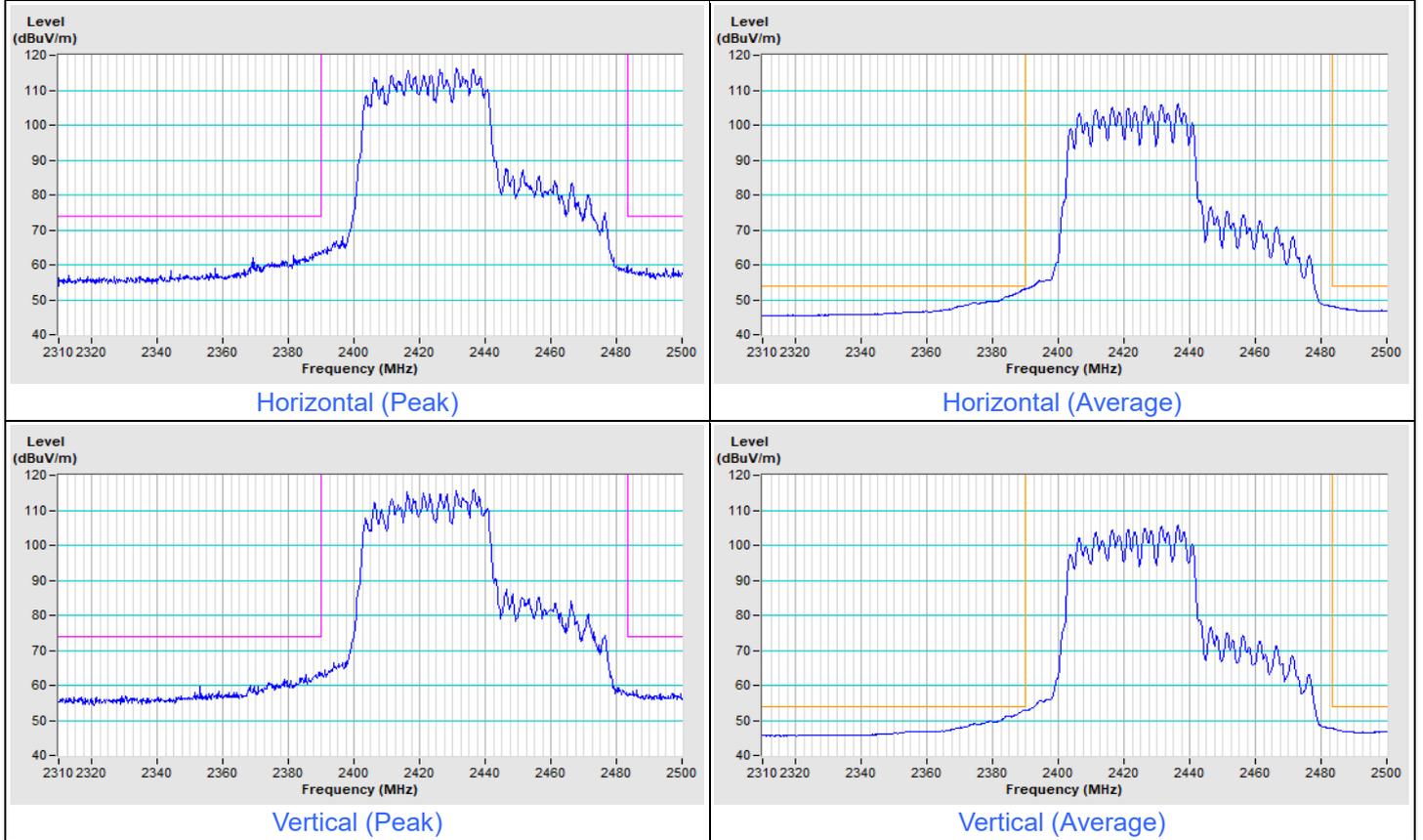
Vertical (Peak)



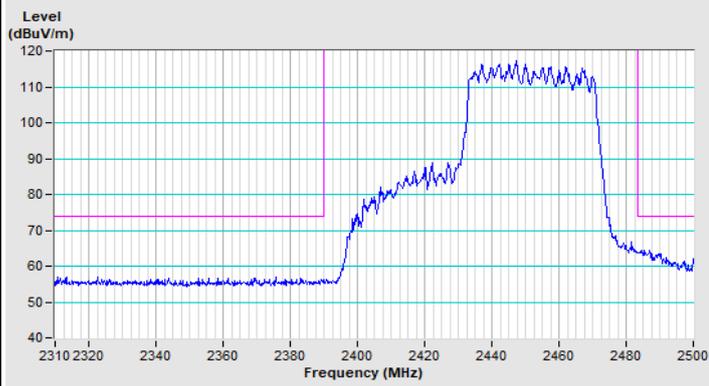
Vertical (Average)

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

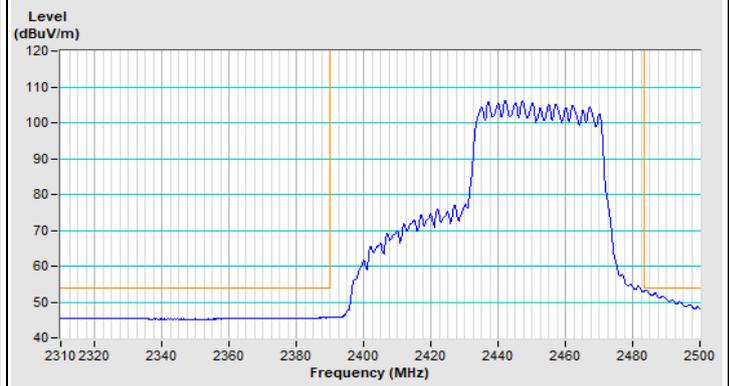
802.11be (EHT40) Channel 3



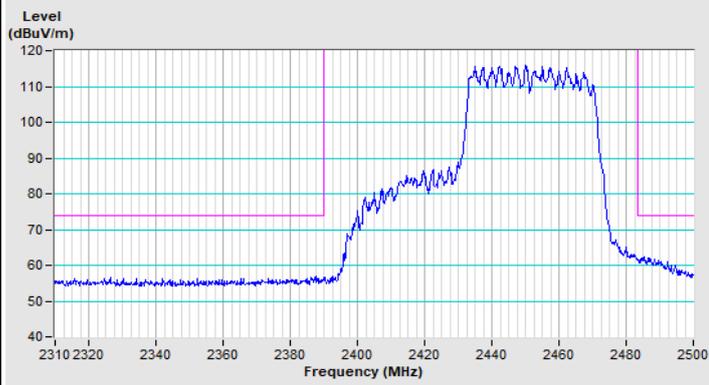
802.11be (EHT40) Channel 9



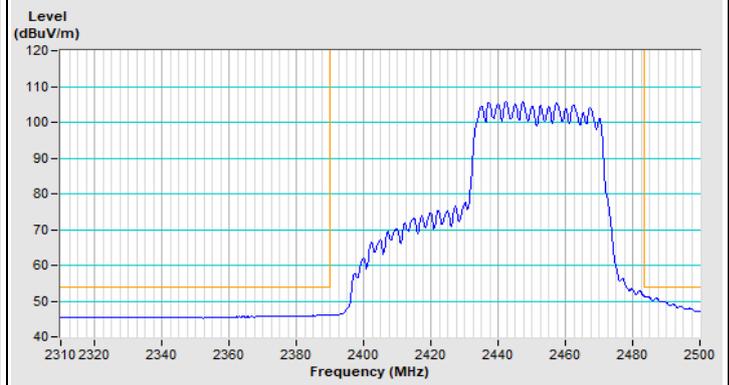
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

Beamforming Mode

RF Mode	802.11be (EHT20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	2390.00	64.1 PK	74.0	-9.9	1.72 H	225	31.8	32.3
2	2390.00	52.5 AV	54.0	-1.5	1.72 H	225	20.2	32.3
3	*2412.00	120.8 PK			1.72 H	225	88.4	32.4
4	*2412.00	110.8 AV			1.72 H	225	78.4	32.4
5	4824.00	46.7 PK	74.0	-27.3	3.16 H	174	43.4	3.3
6	4824.00	37.5 AV	54.0	-16.5	3.16 H	174	34.2	3.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	64.9 PK	74.0	-9.1	1.54 V	57	32.6	32.3
2	2390.00	53.2 AV	54.0	-0.8	1.54 V	57	20.9	32.3
3	*2412.00	122.2 PK			1.54 V	57	89.8	32.4
4	*2412.00	112.1 AV			1.54 V	57	79.7	32.4
5	4824.00	47.0 PK	74.0	-27.0	1.72 V	141	43.7	3.3
6	4824.00	37.6 AV	54.0	-16.4	1.72 V	141	34.3	3.3

Remarks:

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



RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	*2437.00	121.2 PK			1.77 H	221	88.8	32.4
2	*2437.00	110.8 AV			1.77 H	221	78.4	32.4
3	4874.00	47.2 PK	74.0	-26.8	3.26 H	172	43.7	3.5
4	4874.00	37.4 AV	54.0	-16.6	3.26 H	172	33.9	3.5
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	122.6 PK			1.59 V	62	90.2	32.4
2	*2437.00	112.1 AV			1.59 V	62	79.7	32.4
3	4874.00	48.0 PK	74.0	-26.0	1.64 V	136	44.5	3.5
4	4874.00	37.9 AV	54.0	-16.1	1.64 V	136	34.4	3.5

Remarks:

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



RF Mode	802.11be (EHT20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	*2462.00	119.8 PK			1.71 H	223	87.3	32.5
2	*2462.00	109.3 AV			1.71 H	223	76.8	32.5
3	2483.50	63.8 PK	74.0	-10.2	1.71 H	223	31.2	32.6
4	2483.50	52.3 AV	54.0	-1.7	1.71 H	223	19.7	32.6
5	4924.00	47.3 PK	74.0	-26.7	3.12 H	185	43.8	3.5
6	4924.00	37.4 AV	54.0	-16.6	3.12 H	185	33.9	3.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	121.1 PK			1.40 V	60	88.6	32.5
2	*2462.00	110.7 AV			1.40 V	60	78.2	32.5
3	2483.50	64.9 PK	74.0	-9.1	1.40 V	60	32.3	32.6
4	2483.50	53.5 AV	54.0	-0.5	1.40 V	60	20.9	32.6
5	4924.00	47.6 PK	74.0	-26.4	1.87 V	135	44.1	3.5
6	4924.00	37.9 AV	54.0	-16.1	1.87 V	135	34.4	3.5

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	2390.00	64.8 PK	74.0	-9.2	1.71 H	231	32.5	32.3
2	2390.00	52.6 AV	54.0	-1.4	1.71 H	231	20.3	32.3
3	*2422.00	116.3 PK			1.71 H	231	83.9	32.4
4	*2422.00	105.7 AV			1.71 H	231	73.3	32.4
5	4844.00	47.1 PK	74.0	-26.9	3.17 H	181	43.6	3.5
6	4844.00	37.0 AV	54.0	-17.0	3.17 H	181	33.5	3.5

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	65.7 PK	74.0	-8.3	1.76 V	37	33.4	32.3
2	2390.00	53.7 AV	54.0	-0.3	1.76 V	37	21.4	32.3
3	*2422.00	117.3 PK			1.76 V	37	84.9	32.4
4	*2422.00	106.8 AV			1.76 V	37	74.4	32.4
5	4844.00	47.7 PK	74.0	-26.3	1.73 V	134	44.2	3.5
6	4844.00	37.7 AV	54.0	-16.3	1.73 V	134	34.2	3.5

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	*2437.00	119.3 PK			1.71 H	224	86.9	32.4
2	*2437.00	108.8 AV			1.71 H	224	76.4	32.4
3	2483.50	64.0 PK	74.0	-10.0	1.71 H	224	31.4	32.6
4	2483.50	51.8 AV	54.0	-2.2	1.71 H	224	19.2	32.6
5	4874.00	47.3 PK	74.0	-26.7	3.11 H	173	43.8	3.5
6	4874.00	37.2 AV	54.0	-16.8	3.11 H	173	33.7	3.5
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	120.2 PK			1.64 V	59	87.8	32.4
2	*2437.00	109.6 AV			1.64 V	59	77.2	32.4
3	2483.50	64.2 PK	74.0	-9.8	1.64 V	59	31.6	32.6
4	2483.50	52.1 AV	54.0	-1.9	1.64 V	59	19.5	32.6
5	4874.00	47.7 PK	74.0	-26.3	1.69 V	141	44.2	3.5
6	4874.00	37.9 AV	54.0	-16.1	1.69 V	141	34.4	3.5

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	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	*2452.00	116.7 PK			1.73 H	234	84.2	32.5
2	*2452.00	105.8 AV			1.73 H	234	73.3	32.5
3	2483.50	70.1 PK	74.0	-3.9	1.73 H	234	37.5	32.6
4	2483.50	53.1 AV	54.0	-0.9	1.73 H	234	20.5	32.6
5	4904.00	47.1 PK	74.0	-26.9	3.14 H	182	43.6	3.5
6	4904.00	37.0 AV	54.0	-17.0	3.14 H	182	33.5	3.5

Antenna Polarity & Test Distance : Vertical at 3 m

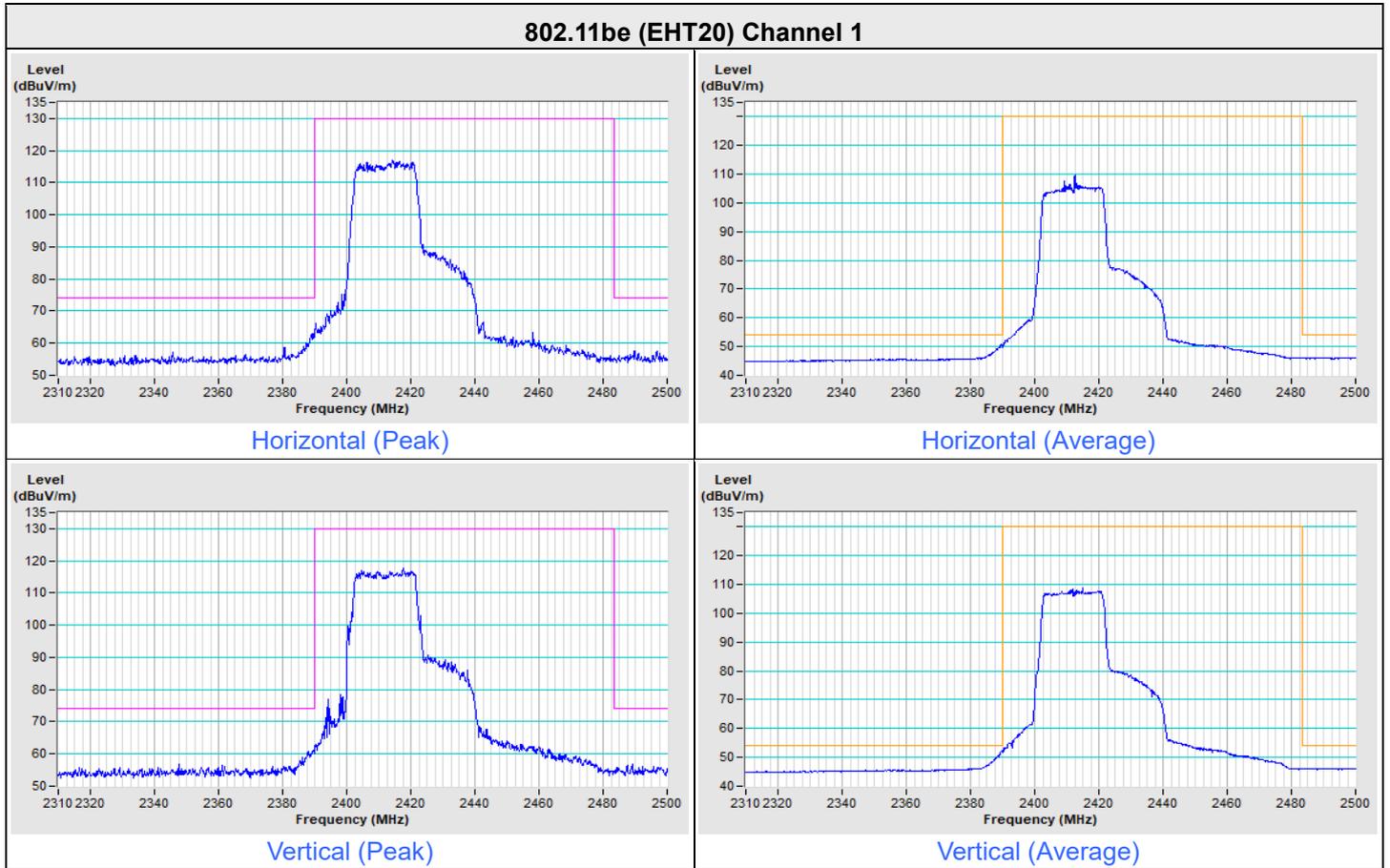
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	117.4 PK			1.87 V	57	84.9	32.5
2	*2452.00	106.6 AV			1.87 V	57	74.1	32.5
3	2483.50	71.5 PK	74.0	-2.5	1.87 V	57	38.9	32.6
4	2483.50	53.8 AV	54.0	-0.2	1.87 V	57	21.2	32.6
5	4904.00	47.4 PK	74.0	-26.6	1.83 V	134	43.9	3.5
6	4904.00	37.3 AV	54.0	-16.7	1.83 V	134	33.8	3.5

Remarks:

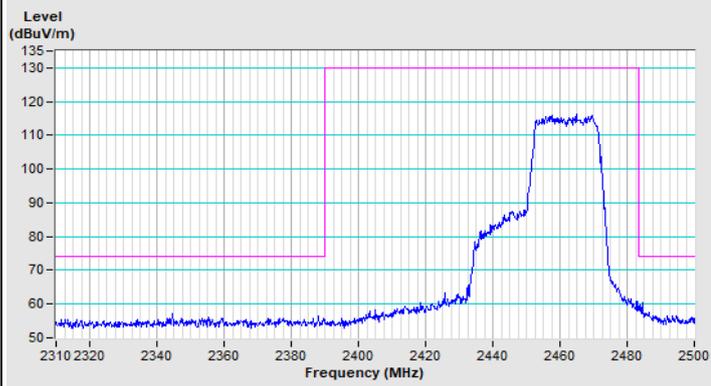
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

Plot of Band Edge_Beamforming

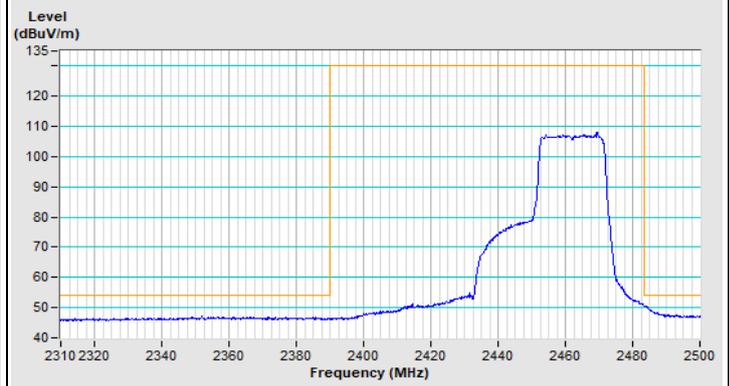
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--



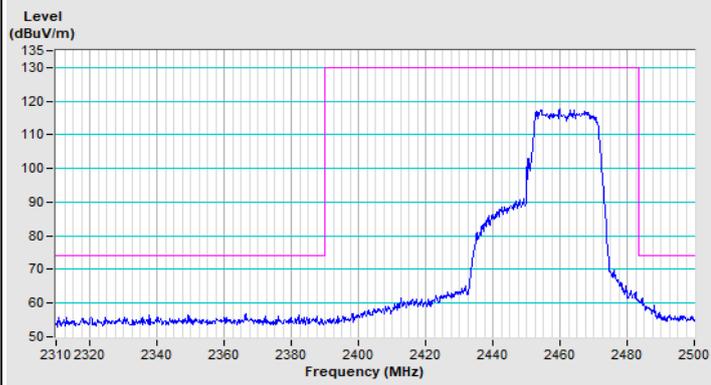
802.11be (EHT20) Channel 11



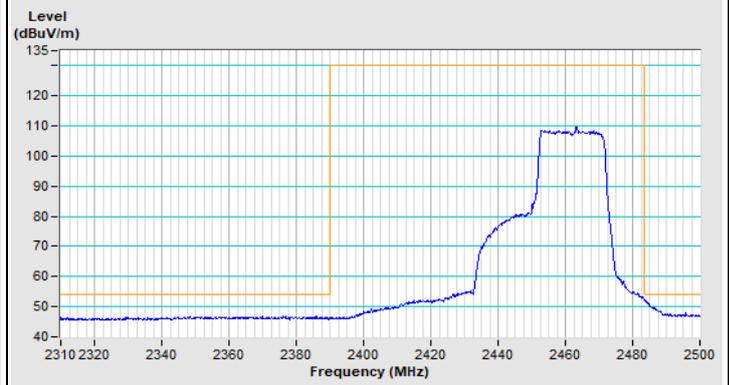
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

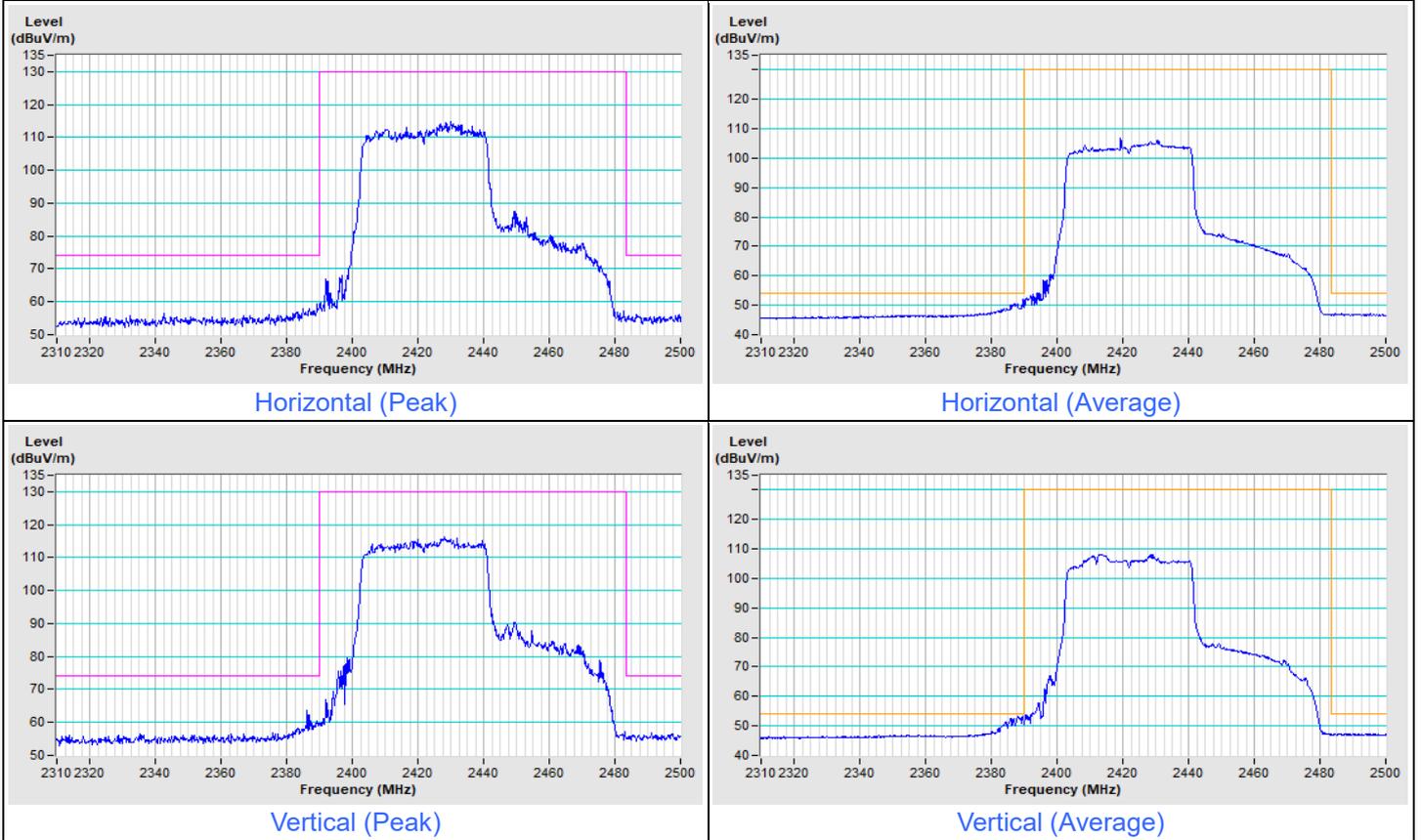


Vertical (Average)

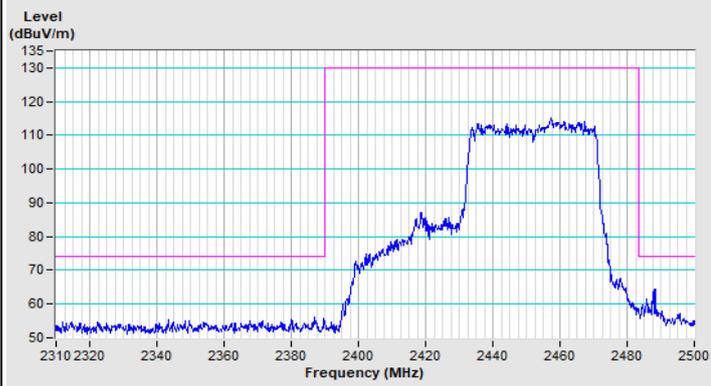


Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
-----------------	--------------------	-------------------------------	--

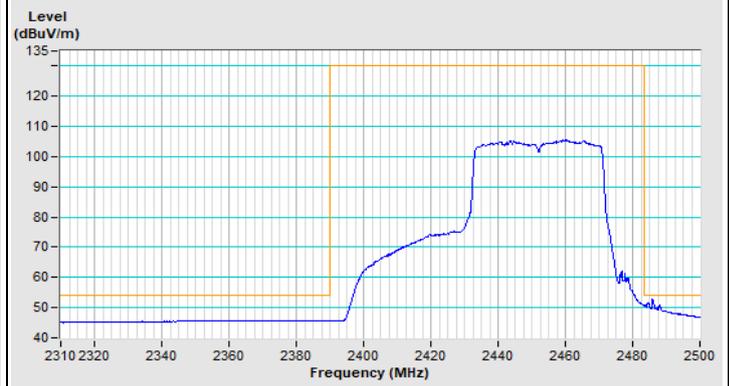
802.11be (EHT40) Channel 3



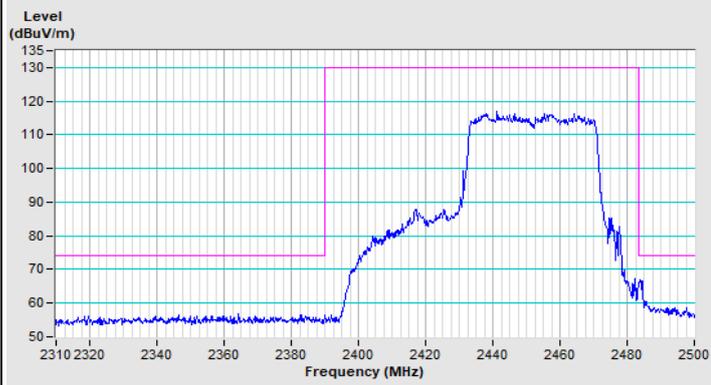
802.11be (EHT40) Channel 9



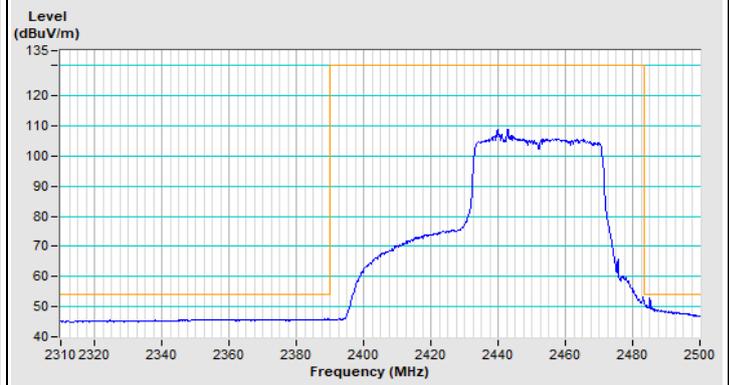
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@bureauveritas.com

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

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

--- END ---