

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBEIH-WTW-P24090570-3
FCC ID: P27XB10
Product: Comcast Xfinity DOCSIS 4.0 gateway with Wi-Fi 7
Brand: Comcast Xfinity
Model No.: XB10
Series Model: SG417DBCT
Received Date: 2024/10/9
Test Date: 2024/11/6 ~ 2025/1/20
Issued Date: 2025/2/18

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Test Location(2): No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan
FCC Registration / Test Location:
Designation Number: 198487 / TW2021 for Test Location(1)
281270 / TW0032 for Test Location(2)

Approved by:

Jeremy Lin

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, Date:

2025/2/18

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Prepared by : Annie Chang / Senior Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBEIH-WTW-P24090570-3	Original release.	2025/2/18

1 Certificate

Product: Comcast Xfinity DOCSIS 4.0 gateway with Wi-Fi 7

Brand: Comcast Xfinity

Test Model: XB10

Series Model: SG417DBCT

Sample Status: Engineering sample

Applicant: Sercomm Corporation

Test Date: 2024/11/6 ~ 2025/1/20

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

Measurement procedure: ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -6.42 dB at 0.15391 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -7.3 dB at 361.89 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 2390.00 and 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is U.FL not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	960 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.7 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB

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

2.2 Supplementary Information

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

3 General Information

3.1 General Description

Product	Comcast Xfinity DOCSIS 4.0 gateway with Wi-Fi 7
Brand	Comcast Xfinity
Test Model	XB10
Series Model	SG417DBCT
Model Difference	Marketing Differentiation
Status of EUT	Engineering sample
Power Supply Rating	15Vdc 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	CDD Mode: 987.608 mW (29.95 dBm) Beamforming Mode: 897.576 mW (29.53 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	NETBIT ELECTRONICS LTD	NBC80B150533VU	AC I/P: 120V, 60Hz, 1.8A DC O/P: 15.0V, 5.33A AC 2-Pin, Non-shielded DC cable (1.8m)
AC Adapter 2	LEADER ELECTRONICS INC	ML80-1150533-A1	AC I/P: 120V, 60Hz, 2.0A DC O/P: 15.0V, 5.33A AC 2-Pin, Non-shielded DC cable (1.8m)
AC Adapter 3	Delta	ADH-80AW BA	AC I/P: 120V, 60Hz, 1.6A DC O/P: 15.0V, 5.33A AC 2-Pin, Non-shielded DC cable (1.8m)

2. There are Bluetooth, Zigbee and WLAN (2.4 GHz & 5 GHz & 6 GHz) 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.

No.	Technology	Ant. Type	Connector	Model
1	WLAN	Dipole	U.FL	N06CTANG-PK1-LB1X80BU Rev F
2				N06CTANH-PK1-LP1X135BU Rev G
3				N06CTANE-PK1-LG1X180BU Rev G
4				N06CTANF-PK1-LW1X125BU Rev F
5				N03CTAND-PK1-Y1X205BU Rev E
6				N03CTANR-PK1-B1X150BU Rev A
7				N03CTANS-PK1-A1X240BU Rev B
8				N03CTANA-PK1-R1X215BU Rev E
9	Zigbee	Dipole	U.FL	N01CTANJ-PK1-B1X230BU Rev F
10				N01CTANK-PK1-Q1X245BU Rev G
11	Bluetooth	Dipole	ipex	-

Frequency Range (GHz)	Antenna gain (dBi)										
	Ant 1	Ant 2	Ant 3	Ant 4	Ant 5	Ant 6	Ant 7	Ant 8	Ant 9	Ant 10	Ant 11
2.4~2.4835					4.8	4.8	5.1	4.6	4.7	4.7	3.44
5.15~5.85					5	5	4.9	5			
5.925~7.125	5.2	5	5.3	4.9							

Frequency Range (GHz)	Antenna Directional Gain (dBi)
2.4~2.4835	6.43
5.15~5.85	5.43

* 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:

1. All of modulation mode support beamforming function except 802.11b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), 802.11ax mode for 20 MHz (40 MHz) and 802.11be mode for 20 MHz (40 MHz) therefore the manufacturer will control the power for 802.11n/VHT/ax mode is same as the 802.11be mode or more lower than it and investigated worst case to representative mode in test report.
4. The EUT device modulation technique OFDMA does not support partial RUs (resource units) and channel puncturing/bandwidth reduction mechanisms.

3.3 Channel List

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

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

7 channels are provided for 802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40):

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT has AC Adapter 1(NETBIT ELECTRONICS LTD)/ AC Adapter 2(LEADER ELECTRONICS INC)/ AC Adapter 3(Delta) modes of power supply. Pre-scan these modes and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter 3(Delta) is the worst case as a representative test condition.

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

Note: not support channel puncturing.

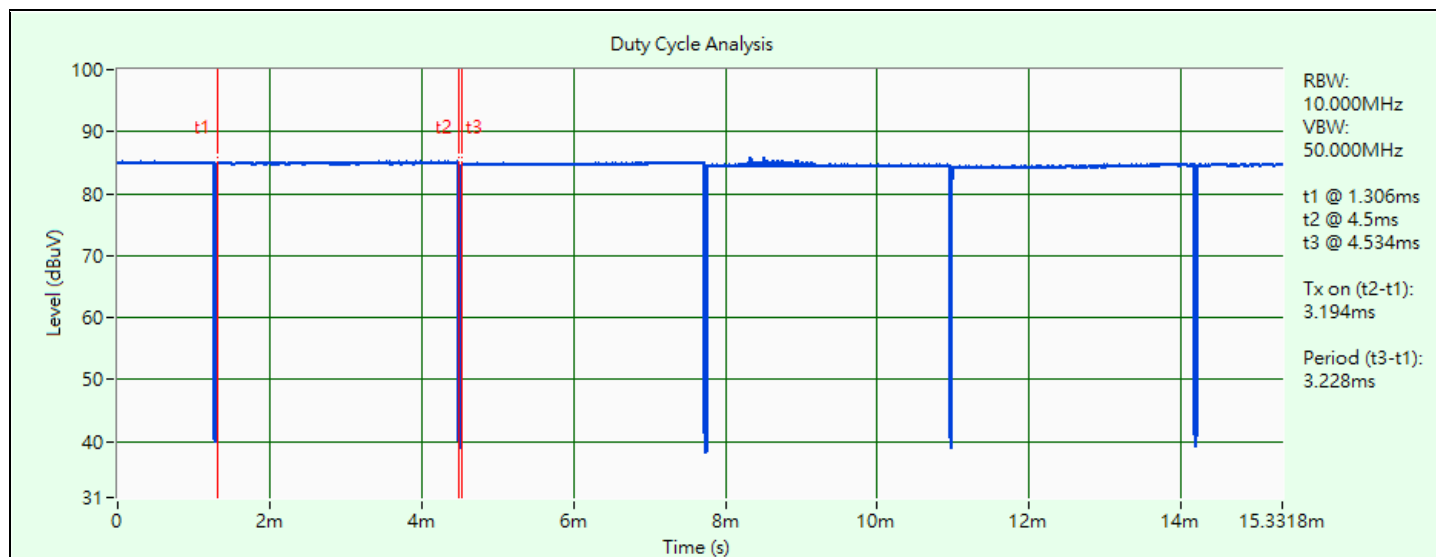
3.5 Duty Cycle of Test Signal

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

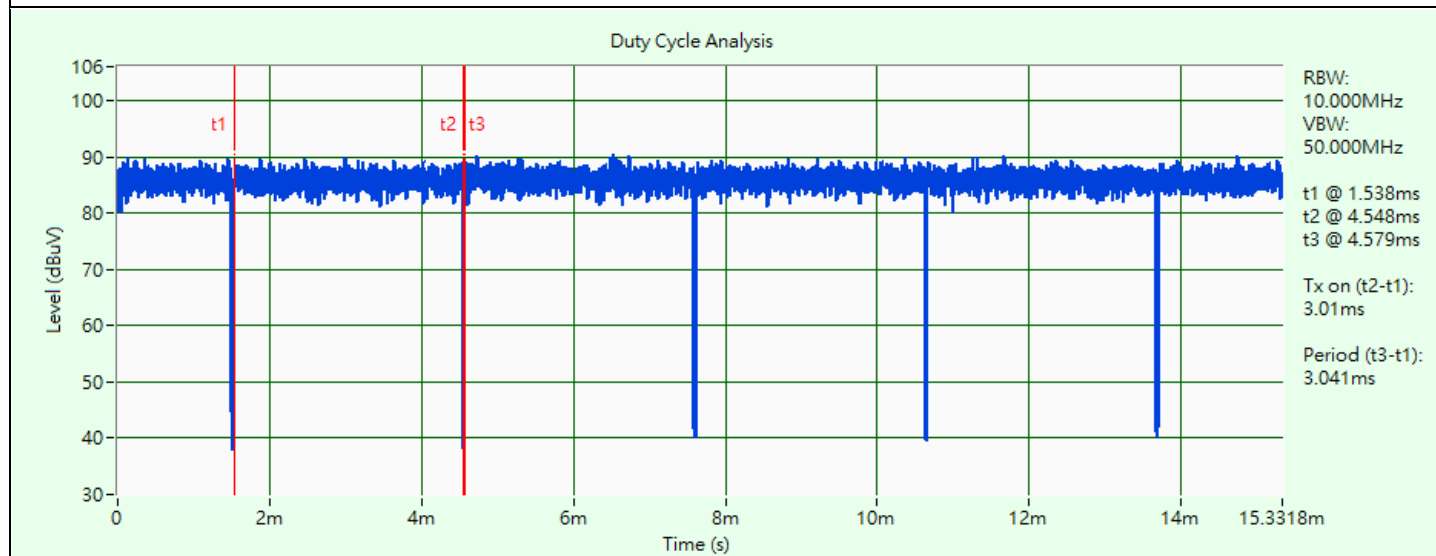
802.11g: Duty cycle = 3.01 ms / 3.041 ms x 100% = 99.0%

802.11be (EHT20): Duty cycle = 2.866 ms / 2.898 ms x 100% = 98.9%

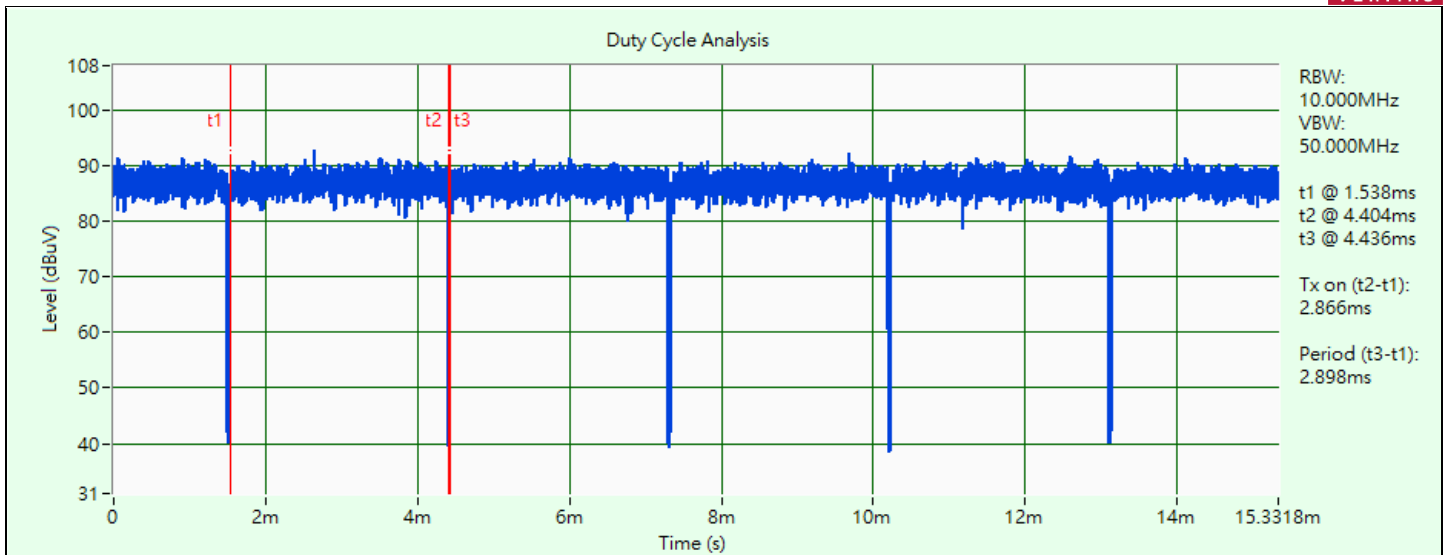
802.11be (EHT40): Duty cycle = 2.849 ms / 2.881 ms x 100% = 98.9%



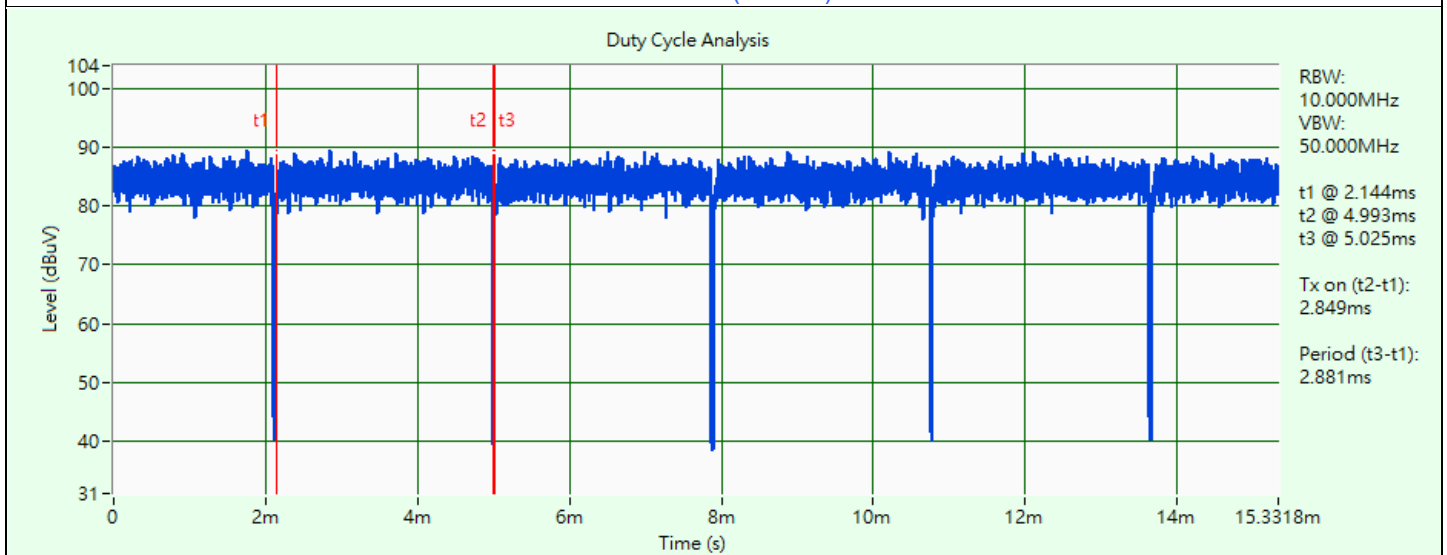
802.11b



802.11g



802.11be (EHT20)

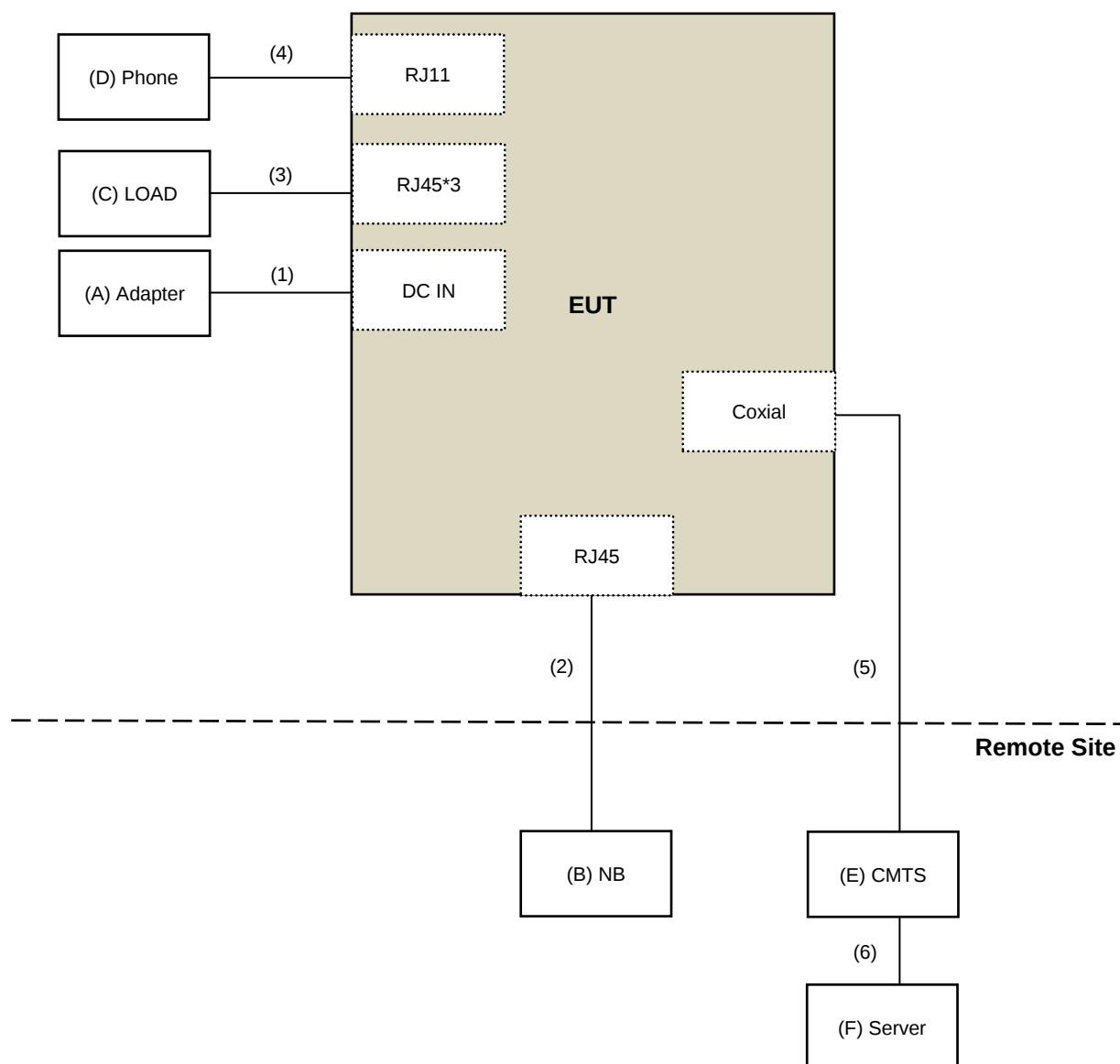


802.11be (EHT40)

3.6 Test Program Used and Operation Descriptions

Controlling software (accessMTool 3.3.0.9) 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	Delta	ADH-80AW BA	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
E	CMTS	Harmonic	D4.0 CMTS System	N/A	N/A	Supplied by applicant
F	Server	Harmonic	D4.0 CMTS System	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	Adapter DC cable	1	1.8	N	0	Supplied by applicant
2	LAN cable	1	10	N	0	Provided by Lab
3	LAN cable	3	1.5	N	0	Provided by Lab
4	Telecom	1	2.17	N	0	Provided by Lab
5	Coaxial	1	10	Y	0	Provided by Lab
6	Coaxial	1	15	Y	0	Supplied by applicant

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: 2025/1/20

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	2024/9/12	2025/9/11
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in LK - Oven
2. Tested Date: 2025/1/20

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
* Isolation Transformer Erika Fiedler	D-65396	46	2023/4/20	2025/4/19
50 ohm terminal resistance LYNICS	0900510	E1-011484	2024/8/12	2025/8/11
50 ohm terminal resistance SUHNER	65BNC-5001	E1-010773	2024/3/13	2025/3/12
EMI Test Receiver R&S	ESCI	100412	2024/9/3	2025/9/2
Fixed Attenuator STI	STI02-2200-10	NO.1	2024/9/12	2025/9/11
Isolation Transformer Erika Fiedler	D-65396	017	2024/9/18	2025/9/17
LISN R&S	ENV216	100024	2024/9/6	2025/9/5
		101196	2024/5/22	2025/5/21
		101197	2024/7/11	2025/7/10
LISN Schwarzbeck	NNLK 8121	8121-731	2024/6/12	2025/6/11
		8121-808	2024/4/26	2025/4/25
	NNLK 8129	8129229	2024/10/14	2025/10/13
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
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2024/8/28	2025/8/27

Notes:

- * The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA
- The test was performed in Linkou Conduction 10.
- Tested Date: 2024/11/8

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1214	2024/10/15	2025/10/14
EXA Signal Analyzer Agilent	N9010A	MY52220207	2024/12/30	2025/12/29
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC330N	980798	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201248	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-3000	201249	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-9000	201251(with PAD)	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: 2025/1/10

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
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	2024/11/10	2025/11/9
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2024/11/10	2025/11/9
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier Agilent	83017A	MY39501357	2024/6/12	2025/6/11
Preamplifier EMCI	EMC184045SE	980788	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: 2024/11/26 ~ 2024/12/10

Beamforming Mode and Plot of Band Edge_Beamforming

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/12/28	2024/12/27
Horn Antenna RFSPIN	DRH18-E	210103A18E	2023/11/12	2024/11/11
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2023/11/12	2024/11/11
MXE EMI Receiver Keysight	N9038B	MY60180019	2024/1/18	2025/1/17
Preamplifier EMCI	EMC118A45SE	980808	2023/12/28	2024/12/27
	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	210102	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201231	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201243	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	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2024/11/6 ~ 2024/11/7

5 Limits of Test Items

5.1 RF Output Power

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

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

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

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

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

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

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

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

5.5 AC Power Conducted Emissions

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

Notes:

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

5.6 Unwanted Emissions below 1 GHz

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

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

Notes:

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

5.7 Unwanted Emissions above 1 GHz

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

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

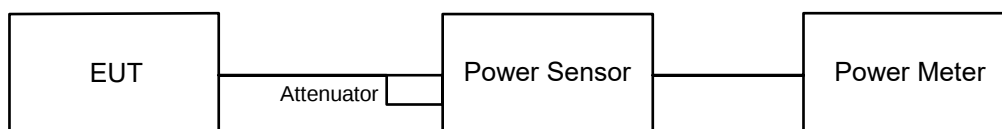
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



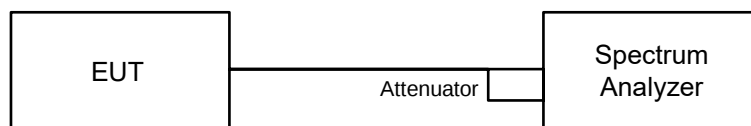
6.1.2 Test Procedure

Average Power:

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

6.2 Power Spectral Density

6.2.1 Test Setup



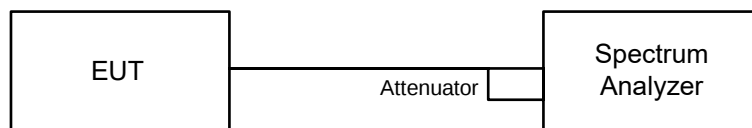
6.2.2 Test Procedure

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

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

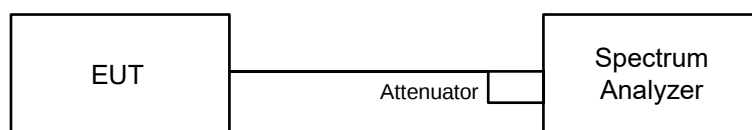


6.3.2 Test Procedure

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

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

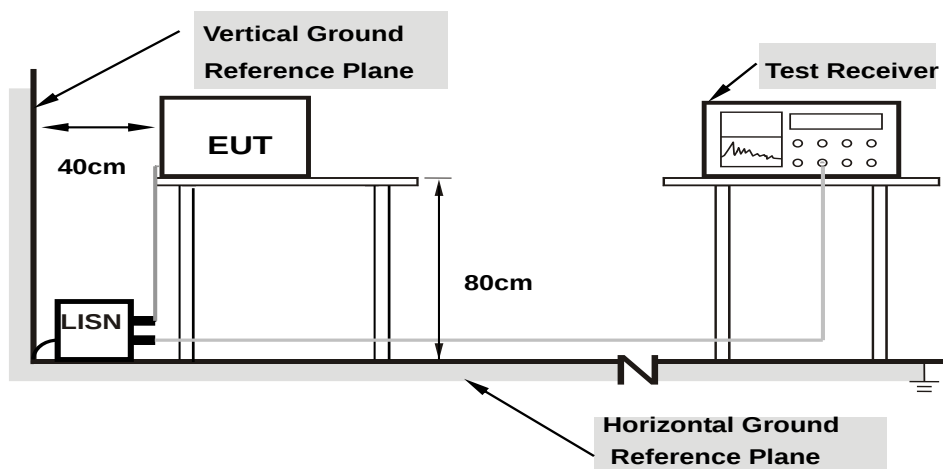
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

- 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

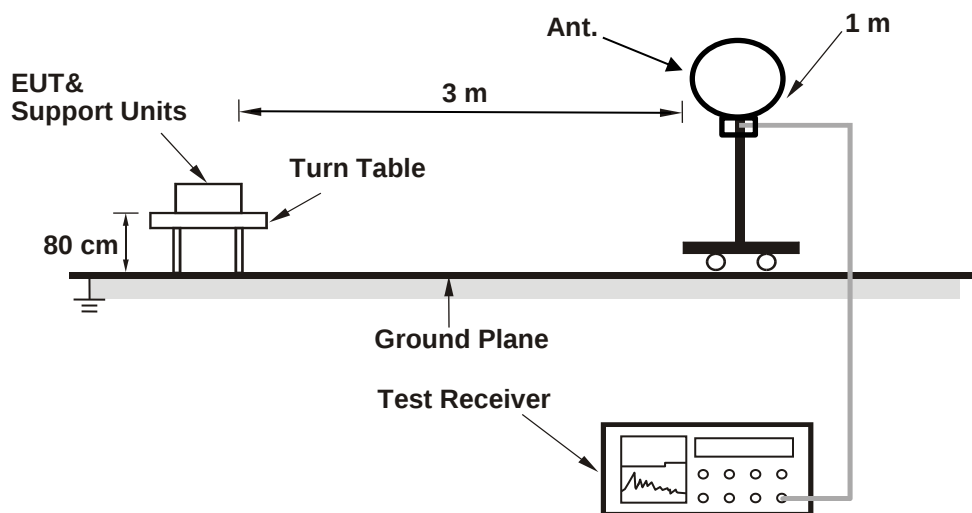
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

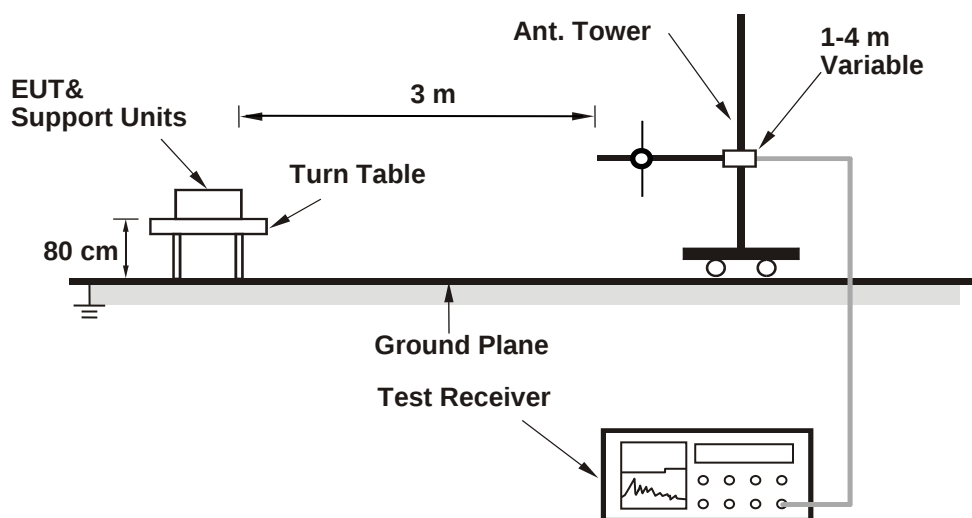
6.6 Unwanted Emissions below 1 GHz

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

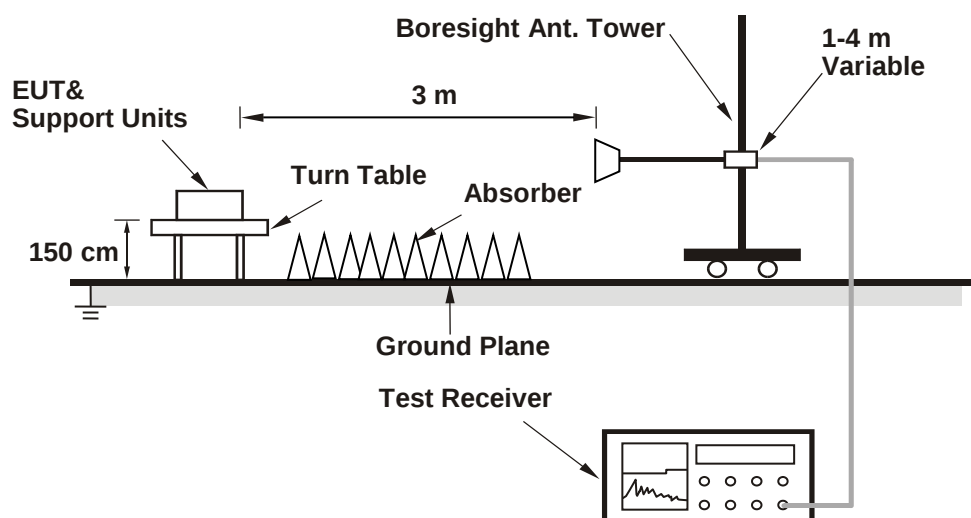
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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
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802.11b CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.87	23.98	23.96	23.89	987.608	29.95	30	Pass
6	2437	23.72	23.82	23.59	23.82	946.046	29.76	30	Pass
11	2462	23.70	23.82	23.71	23.91	956.413	29.81	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.07	23.55	23.72	23.92	963.843	29.84	30	Pass
6	2437	23.67	23.77	23.75	23.81	948.615	29.77	30	Pass
11	2462	23.76	23.46	23.59	23.46	909.883	29.59	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	23.96	23.63	23.80	23.62	949.588	29.78	30	Pass
6	2437	23.81	23.81	23.66	23.70	947.569	29.77	30	Pass
11	2462	24.05	23.52	23.71	23.73	950.014	29.78	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.04	23.69	23.62	23.56	944.527	29.75	30	Pass
6	2437	23.91	23.92	23.57	23.63	950.825	29.78	30	Pass
9	2452	24.01	23.66	23.58	23.65	943.815	29.75	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.00	23.63	23.80	23.64	952.953	29.79	30	Pass
6	2437	23.99	23.70	23.59	23.76	951.278	29.78	30	Pass
11	2462	24.05	23.54	23.70	23.72	949.969	29.78	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.07	23.69	23.59	23.55	944.178	29.75	30	Pass
6	2437	23.99	23.84	23.65	23.57	951.963	29.79	30	Pass
9	2452	23.94	23.64	23.67	23.69	945.642	29.76	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.00	23.65	23.83	23.66	956.748	29.81	30	Pass
6	2437	23.83	23.82	23.69	23.74	953.012	29.79	30	Pass
11	2462	24.08	23.56	23.73	23.74	955.485	29.80	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	24.08	23.72	23.64	23.57	950.08	29.78	30	Pass
6	2437	23.94	23.93	23.60	23.64	955.208	29.80	30	Pass
9	2452	24.05	23.69	23.63	23.67	951.465	29.78	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.1 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	23.66	23.35	23.52	23.36	890.221	29.49	29.57	Pass
6	2437	23.53	23.53	23.39	23.41	888.401	29.49	29.57	Pass
11	2462	23.76	23.25	23.44	23.45	891.143	29.50	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.43 - 6) = 29.57$ dBm.

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	23.76	23.40	23.35	23.28	885.546	29.47	29.57	Pass
6	2437	23.64	23.63	23.27	23.34	889.98	29.49	29.57	Pass
9	2452	23.73	23.37	23.29	23.36	883.393	29.46	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.43 - 6) = 29.57$ dBm.

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	23.74	23.35	23.52	23.37	895.039	29.52	29.57	Pass
6	2437	23.72	23.41	23.30	23.46	890.401	29.50	29.57	Pass
11	2462	23.77	23.28	23.42	23.44	891.632	29.50	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.43 - 6) = 29.57$ dBm.

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	23.81	23.42	23.34	23.28	888.811	29.49	29.57	Pass
6	2437	23.70	23.57	23.39	23.28	893.02	29.51	29.57	Pass
9	2452	23.64	23.37	23.40	23.41	886.533	29.48	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.43-6) = 29.57$ dBm.

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	23.73	23.38	23.56	23.36	897.576	29.53	29.57	Pass
6	2437	23.54	23.56	23.39	23.45	892.513	29.51	29.57	Pass
11	2462	23.78	23.28	23.45	23.45	894.214	29.51	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.43-6) = 29.57$ dBm.

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	23.81	23.45	23.37	23.27	891.34	29.50	29.57	Pass
6	2437	23.65	23.67	23.32	23.34	895.106	29.52	29.57	Pass
9	2452	23.76	23.40	23.36	23.39	891.504	29.50	29.57	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 6.43 dBi > 6 dBi, so the output power limit shall be reduced to $30-(6.43-6) = 29.57$ dBm.

7.2 Power Spectral Density

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

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	-5.37	6.02	0.65	7.57	Pass
	6	2437	-5.99	6.02	0.03	7.57	Pass
	11	2462	-6	6.02	0.02	7.57	Pass
Chain 1	1	2412	-5.56	6.02	0.46	7.57	Pass
	6	2437	-5.43	6.02	0.59	7.57	Pass
	11	2462	-5.67	6.02	0.35	7.57	Pass
Chain 2	1	2412	-5.3	6.02	0.72	7.57	Pass
	6	2437	-5.8	6.02	0.22	7.57	Pass
	11	2462	-4.99	6.02	1.03	7.57	Pass
Chain 3	1	2412	-4.8	6.02	1.22	7.57	Pass
	6	2437	-5.49	6.02	0.53	7.57	Pass
	11	2462	-5.73	6.02	0.29	7.57	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 6.43 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.43 - 6) = 7.57$ dBm/3kHz.

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	-10.99	6.02	-4.97	7.57	Pass
	6	2437	-9.64	6.02	-3.62	7.57	Pass
	11	2462	-11.71	6.02	-5.69	7.57	Pass
Chain 1	1	2412	-11.29	6.02	-5.27	7.57	Pass
	6	2437	-9.96	6.02	-3.94	7.57	Pass
	11	2462	-11	6.02	-4.98	7.57	Pass
Chain 2	1	2412	-10.75	6.02	-4.73	7.57	Pass
	6	2437	-9.89	6.02	-3.87	7.57	Pass
	11	2462	-11.01	6.02	-4.99	7.57	Pass
Chain 3	1	2412	-10.94	6.02	-4.92	7.57	Pass
	6	2437	-9.21	6.02	-3.19	7.57	Pass
	11	2462	-11.01	6.02	-4.99	7.57	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 6.43 dBi > 6 dBi, so the power density limit shall be reduced to $8-(6.43-6) = 7.57$ dBm/3kHz.

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	-11.84	6.02	-5.82	7.57	Pass
	6	2437	-11.57	6.02	-5.55	7.57	Pass
	11	2462	-11.62	6.02	-5.6	7.57	Pass
Chain 1	1	2412	-12.08	6.02	-6.06	7.57	Pass
	6	2437	-10.68	6.02	-4.66	7.57	Pass
	11	2462	-10.99	6.02	-4.97	7.57	Pass
Chain 2	1	2412	-12.2	6.02	-6.18	7.57	Pass
	6	2437	-11.34	6.02	-5.32	7.57	Pass
	11	2462	-10.67	6.02	-4.65	7.57	Pass
Chain 3	1	2412	-11.32	6.02	-5.3	7.57	Pass
	6	2437	-10.54	6.02	-4.52	7.57	Pass
	11	2462	-11.07	6.02	-5.05	7.57	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 6.43 dBi > 6 dBi, so the power density limit shall be reduced to $8-(6.43-6) = 7.57$ dBm/3kHz.

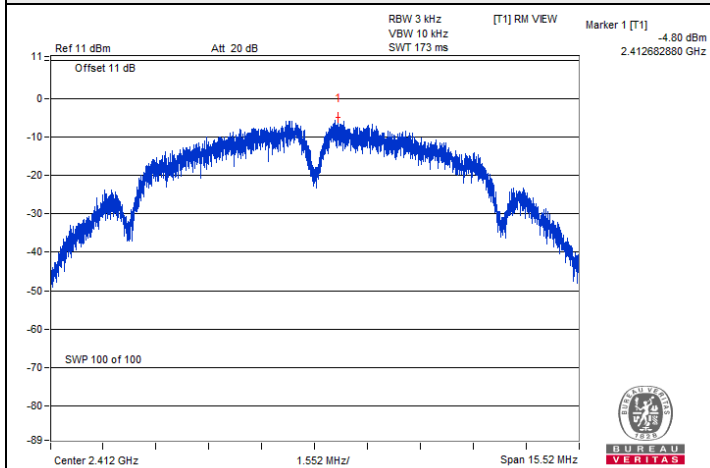
802.11be (EHT40)

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	-14.54	6.02	-8.52	7.57	Pass
	6	2437	-13.28	6.02	-7.26	7.57	Pass
	9	2452	-15.43	6.02	-9.41	7.57	Pass
Chain 1	3	2422	-14.89	6.02	-8.87	7.57	Pass
	6	2437	-12.68	6.02	-6.66	7.57	Pass
	9	2452	-14.8	6.02	-8.78	7.57	Pass
Chain 2	3	2422	-13.76	6.02	-7.74	7.57	Pass
	6	2437	-12.72	6.02	-6.7	7.57	Pass
	9	2452	-13.02	6.02	-7	7.57	Pass
Chain 3	3	2422	-14.78	6.02	-8.76	7.57	Pass
	6	2437	-12.1	6.02	-6.08	7.57	Pass
	9	2452	-14.62	6.02	-8.6	7.57	Pass

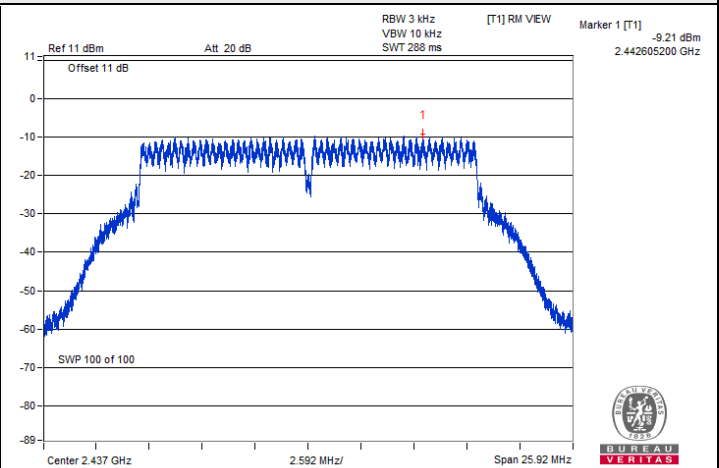
Notes:

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 6.43 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.43 - 6) = 7.57$ dBm/3kHz.

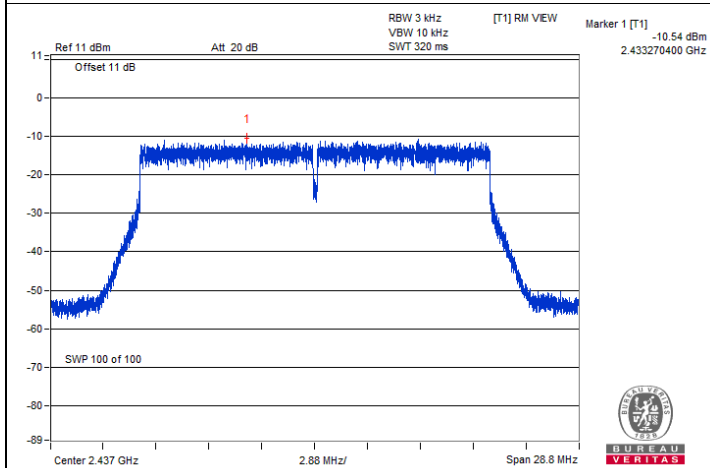
Spectrum Plot of Maximum Value



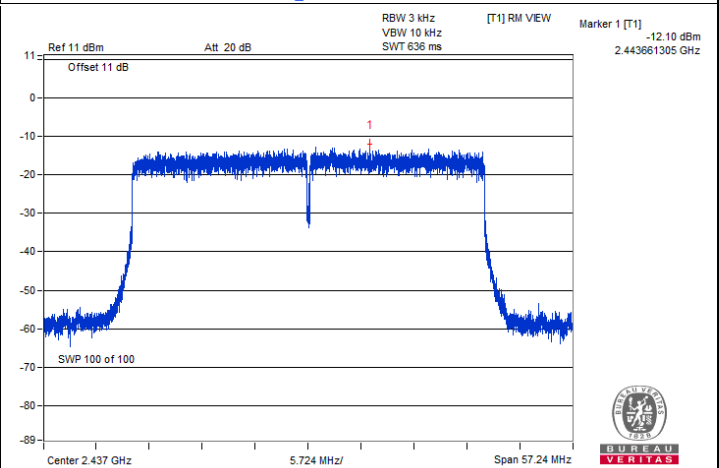
802.11b / Chain 3 : CH 1



802.11g / Chain 3 : CH 6



802.11be (EHT20) / Chain 3 : CH 6



802.11be (EHT40) / Chain 3 : CH 6

7.3 6 dB Bandwidth

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	7.11	7.12	7.12	7.12	0.5	Pass
6	2437	7.12	7.09	7.12	7.12	0.5	Pass
11	2462	7.11	7.10	7.10	7.11	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	16.38	16.38	16.40	16.39	0.5	Pass
6	2437	16.41	16.42	16.43	16.41	0.5	Pass
11	2462	16.42	16.41	16.38	16.38	0.5	Pass

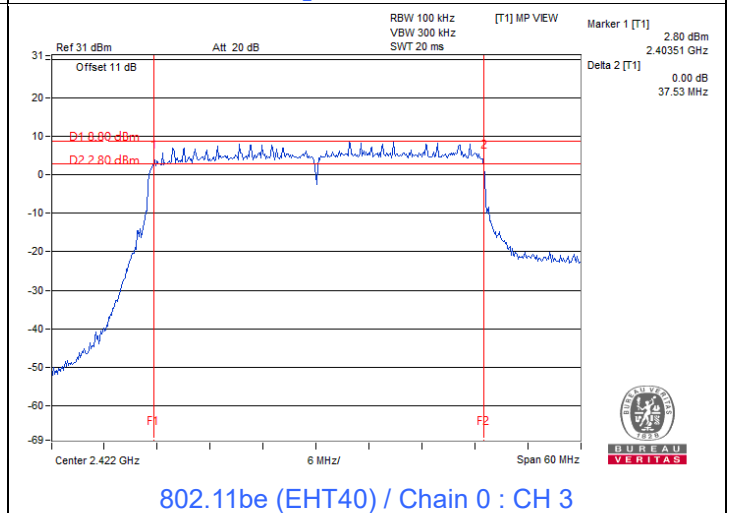
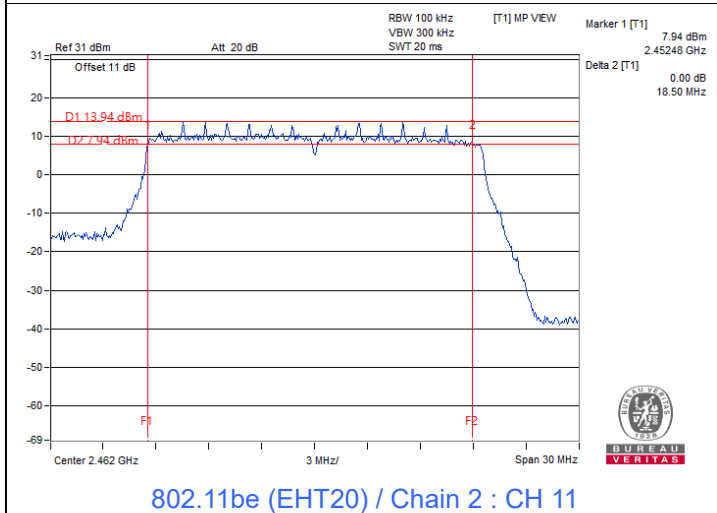
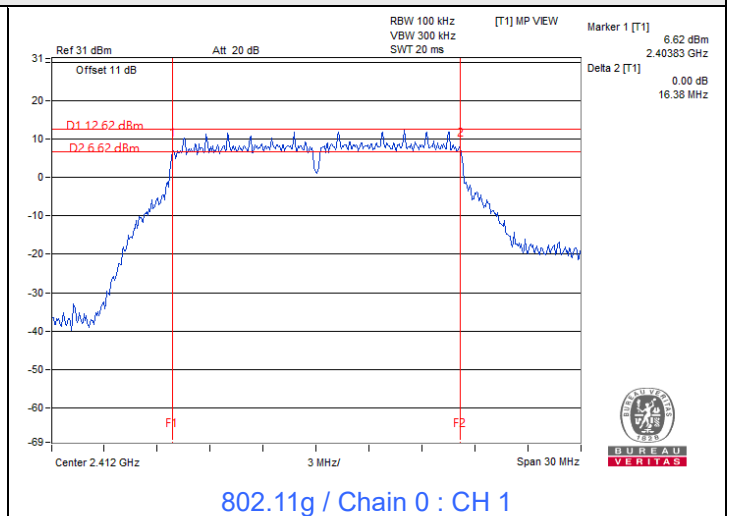
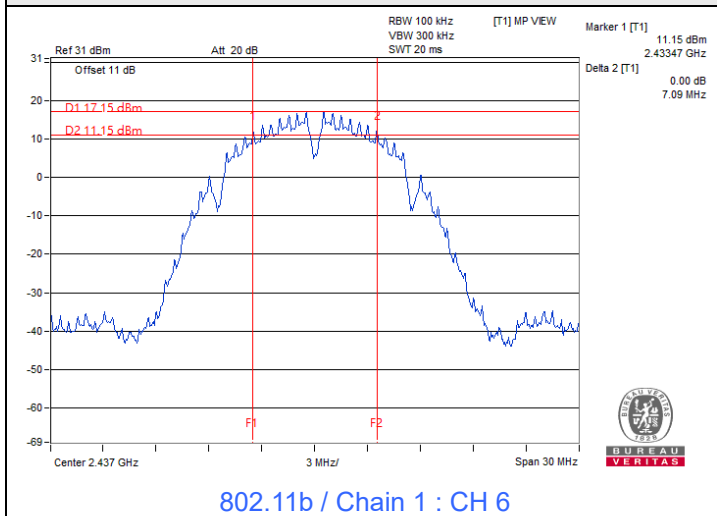
802.11be (EHT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	18.71	18.78	18.90	18.63	0.5	Pass
6	2437	19.01	19.01	19.02	19.05	0.5	Pass
11	2462	18.88	18.91	18.50	18.98	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	37.53	37.81	37.59	37.95	0.5	Pass
6	2437	37.96	38.09	37.91	38.05	0.5	Pass
9	2452	37.95	37.93	37.88	37.84	0.5	Pass

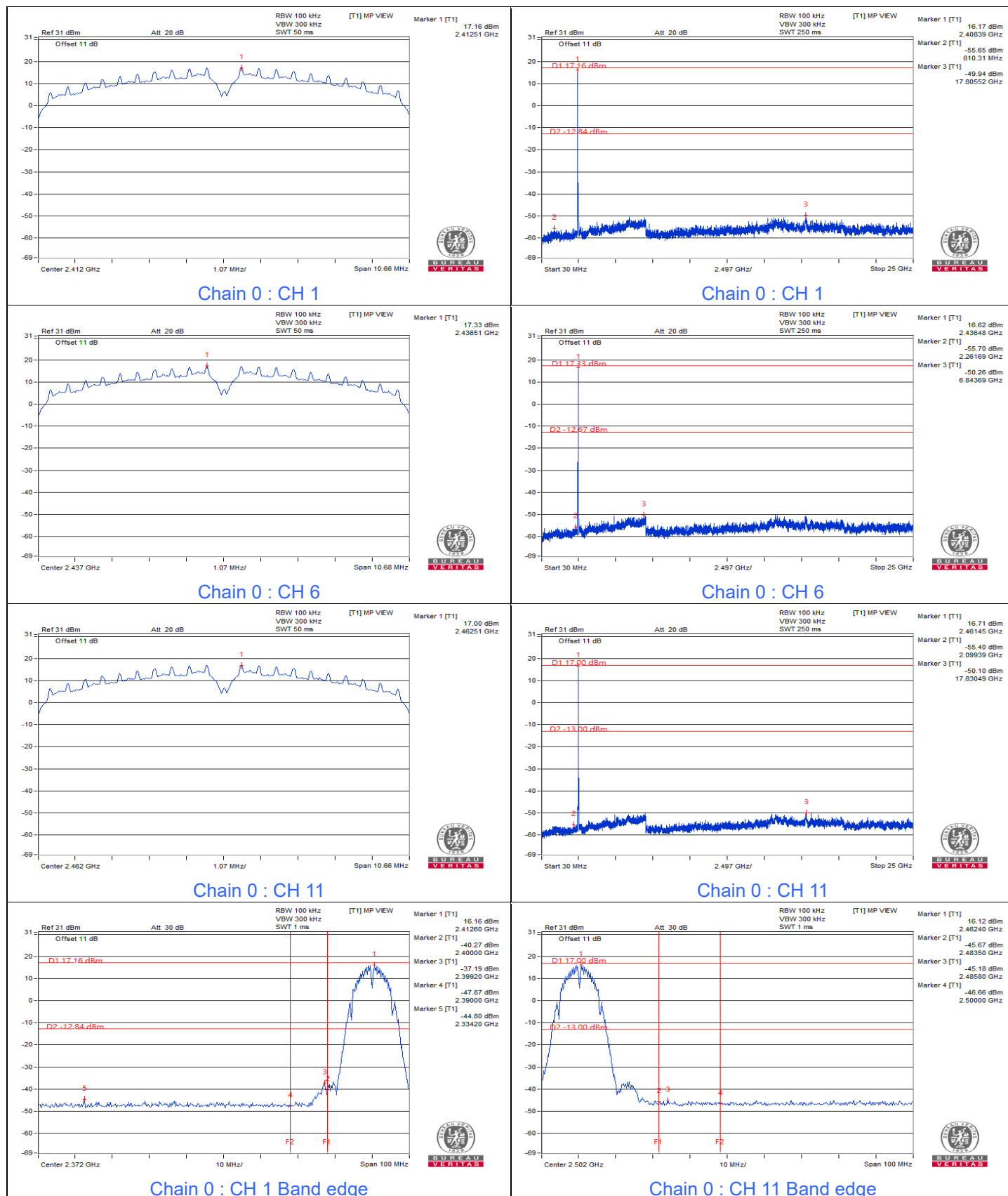
Spectrum Plot of Minimum Value

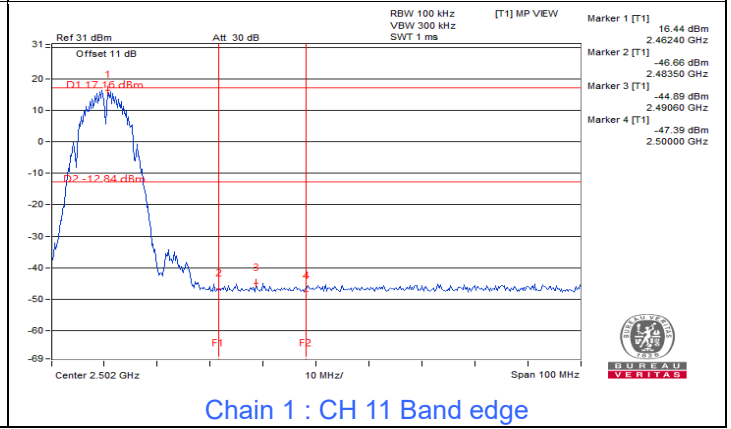
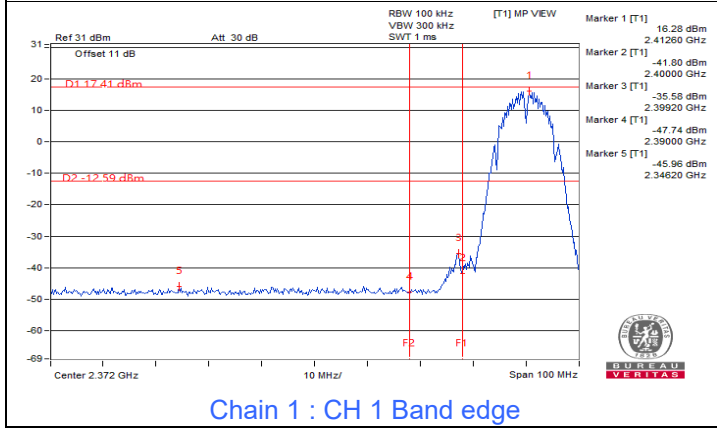
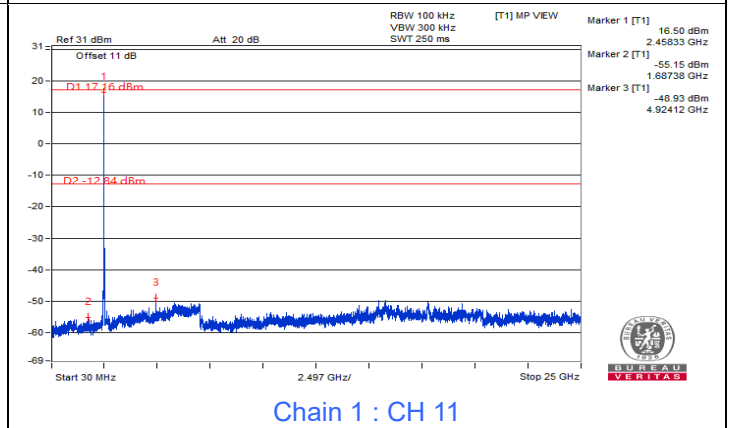
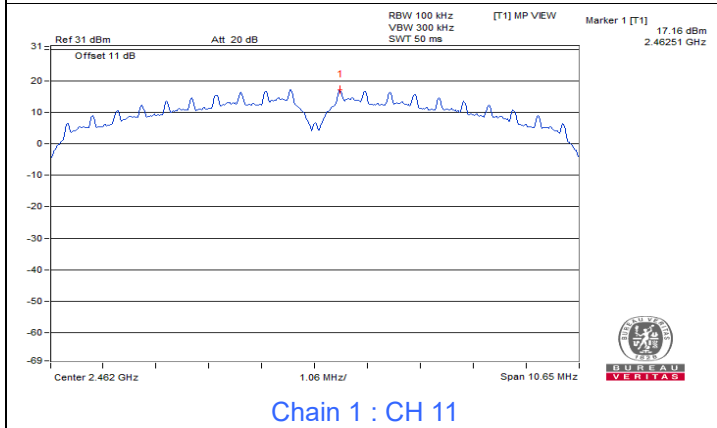
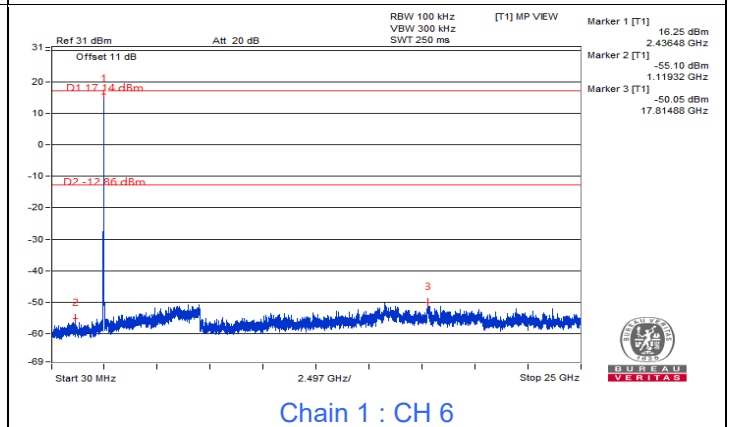
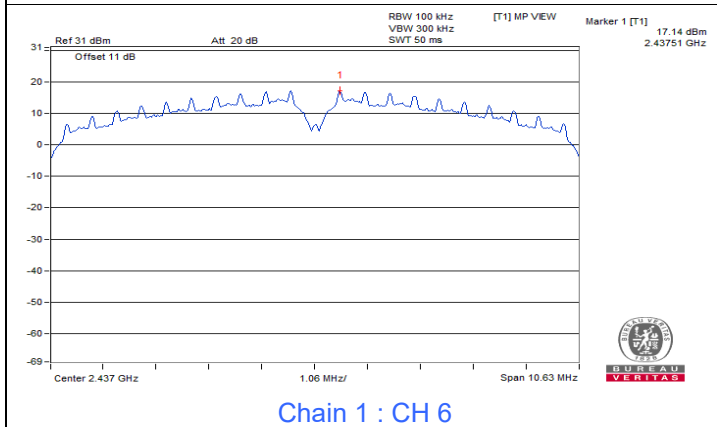
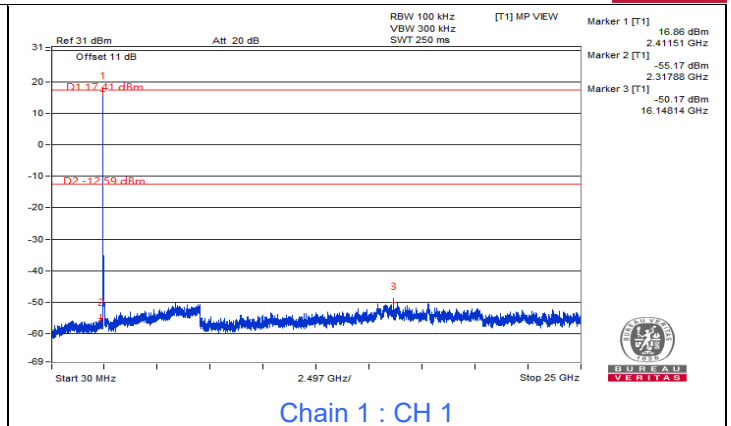
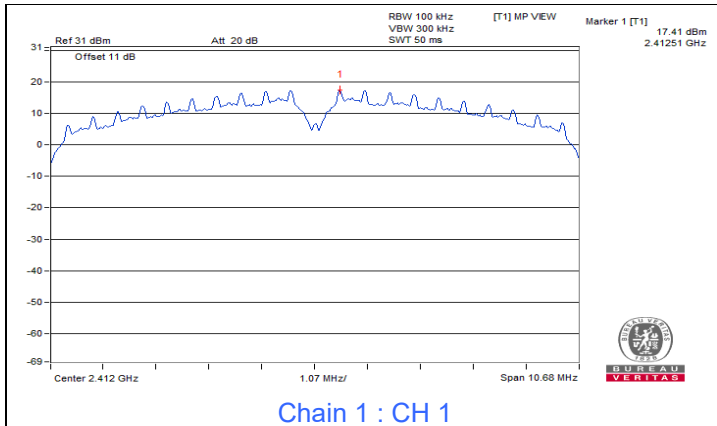


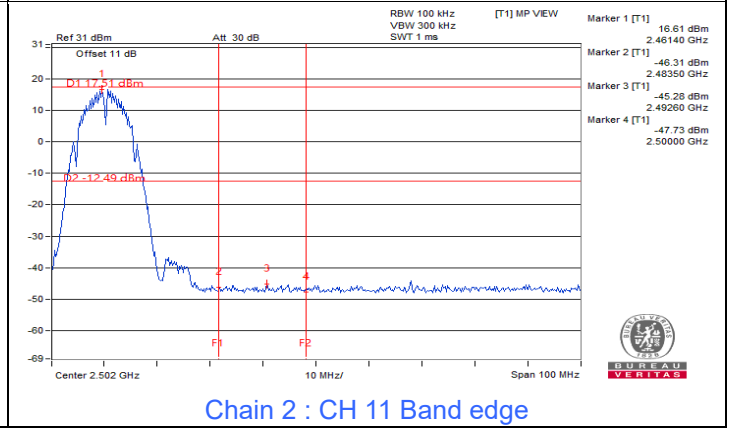
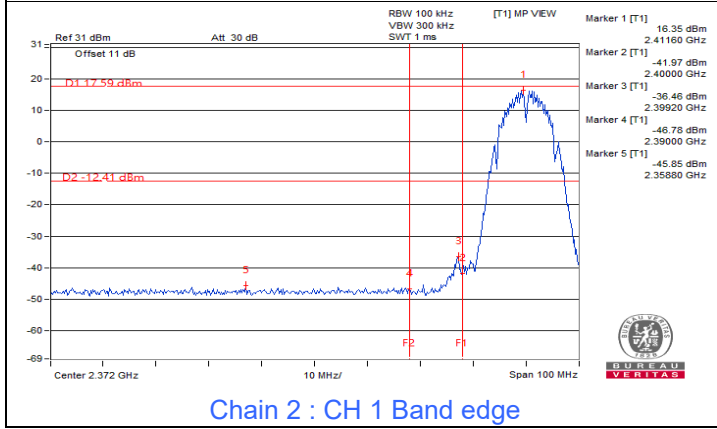
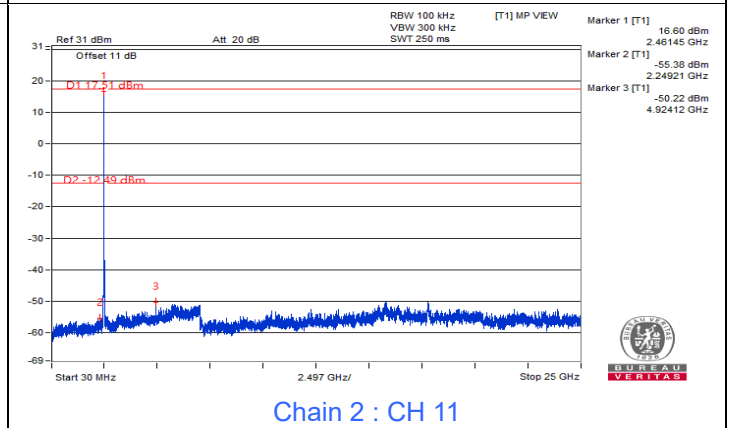
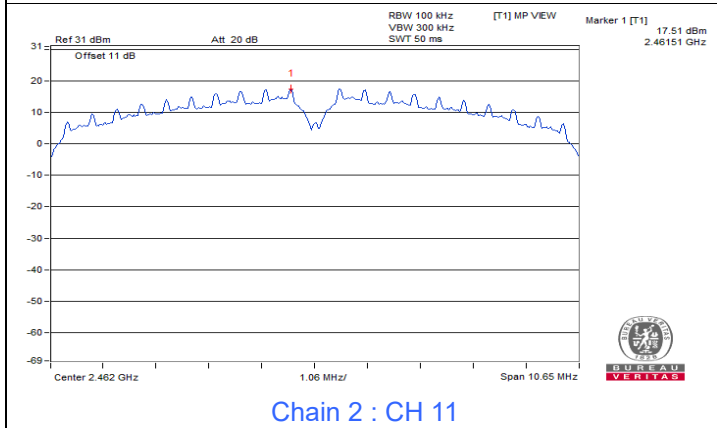
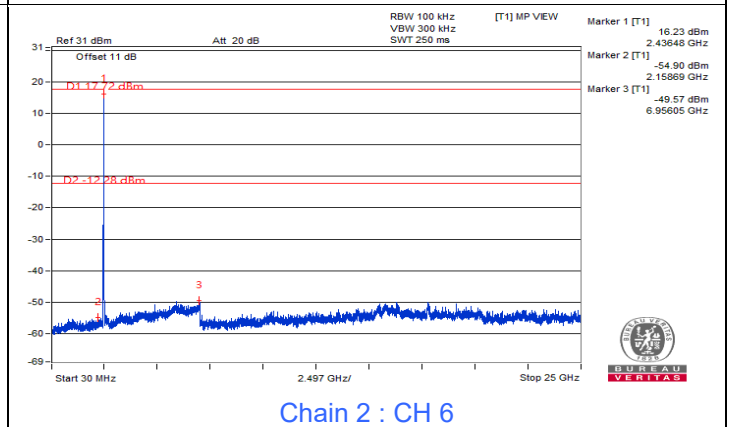
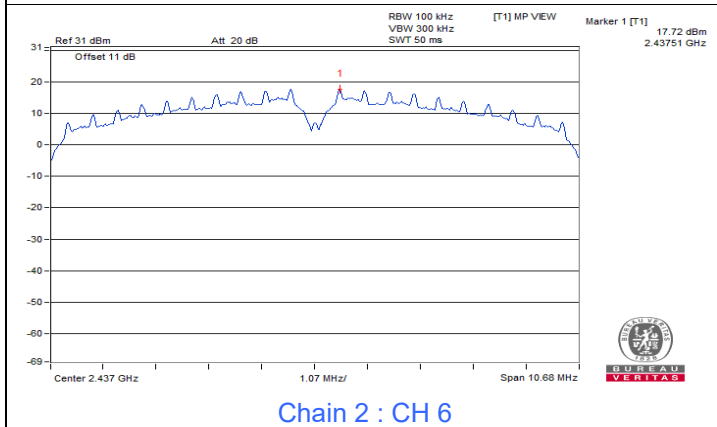
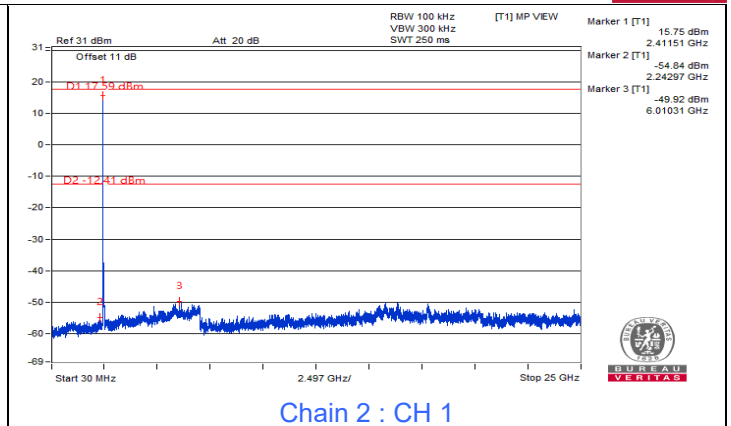
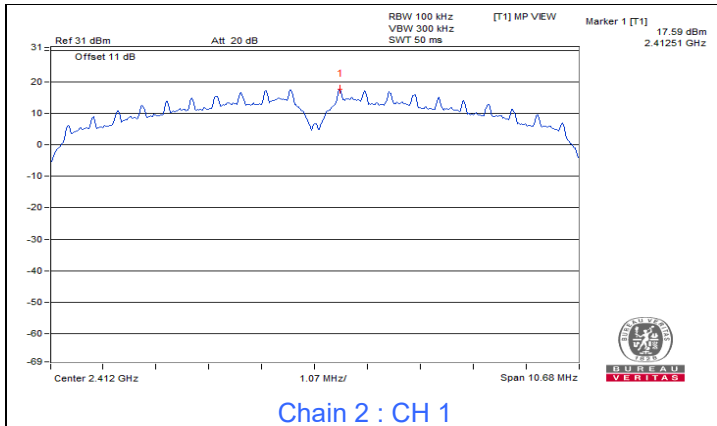
7.4 Conducted Out of Band Emissions

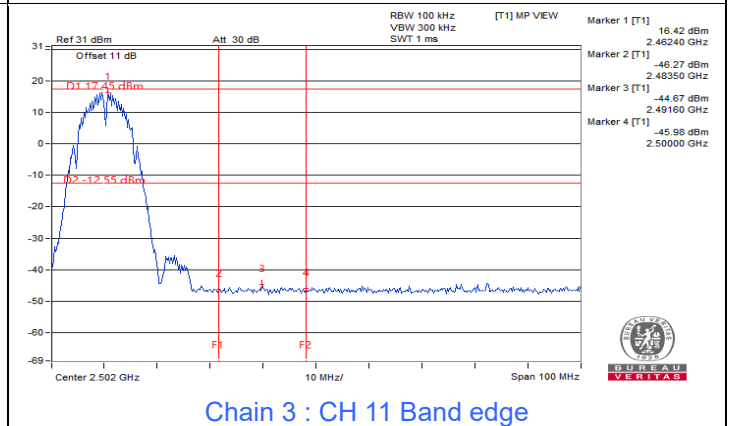
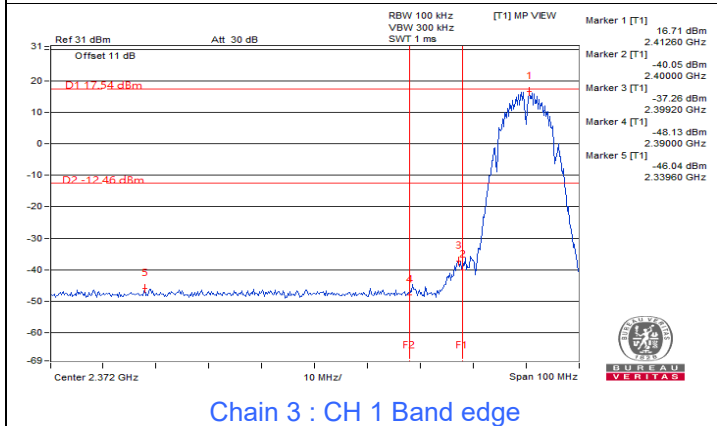
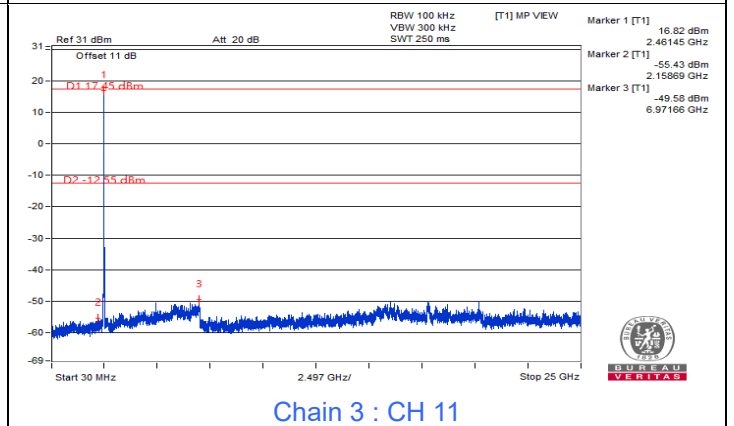
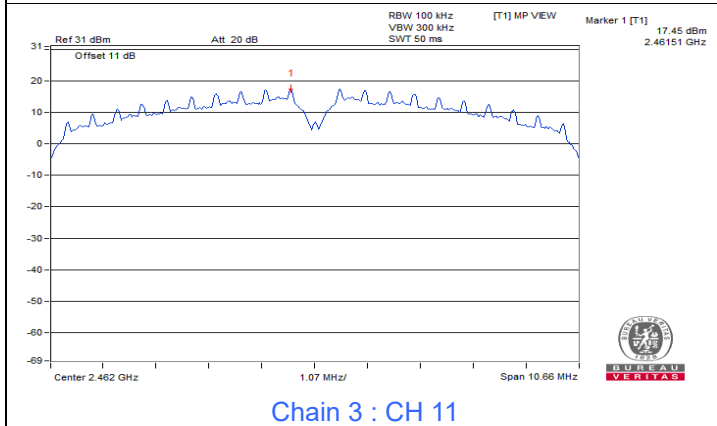
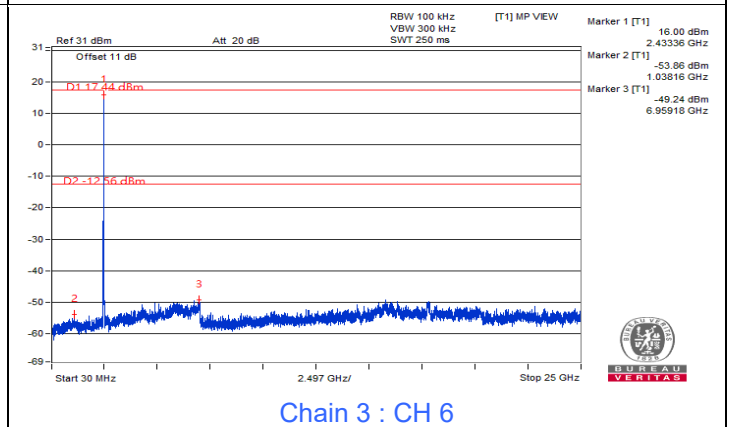
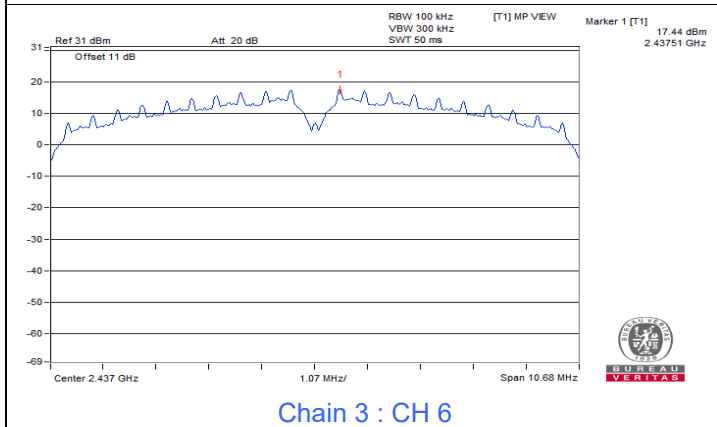
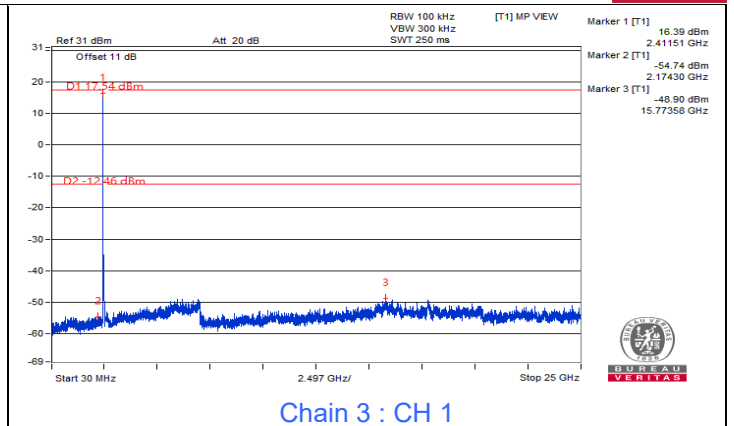
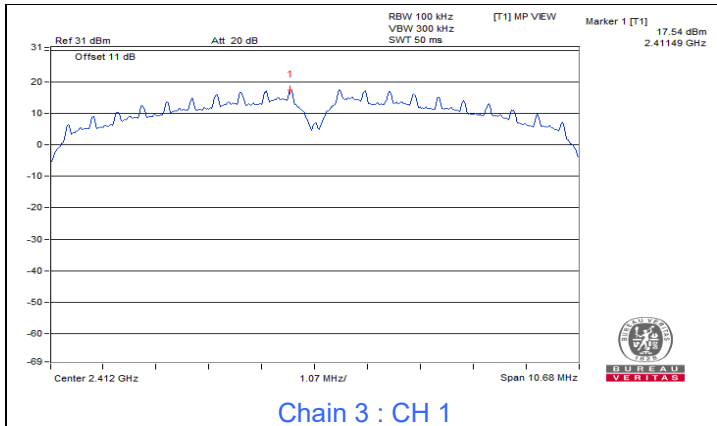
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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802.11b

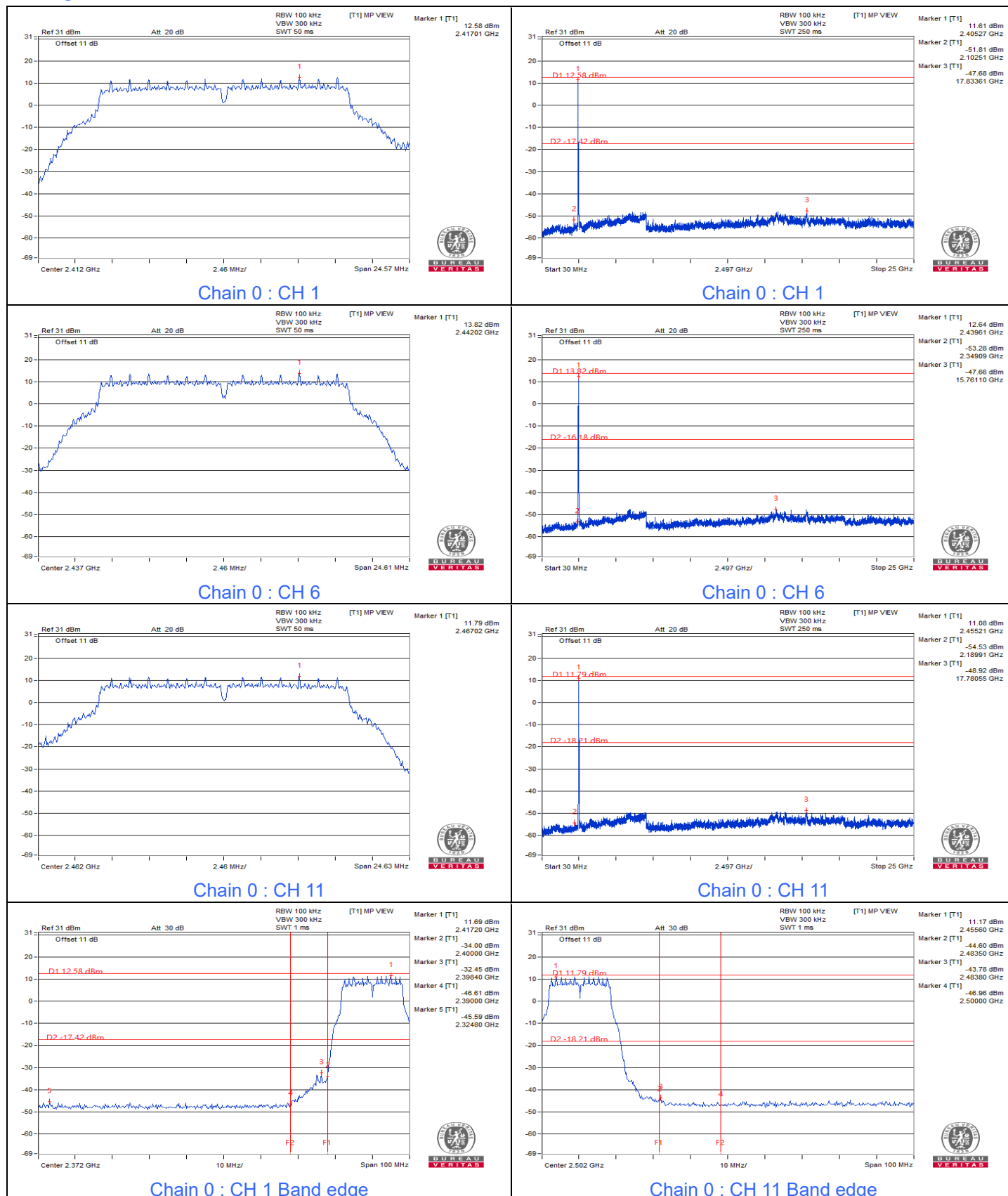


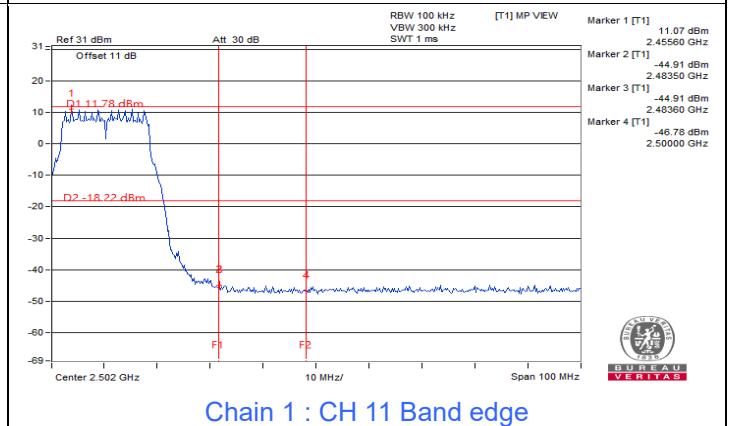
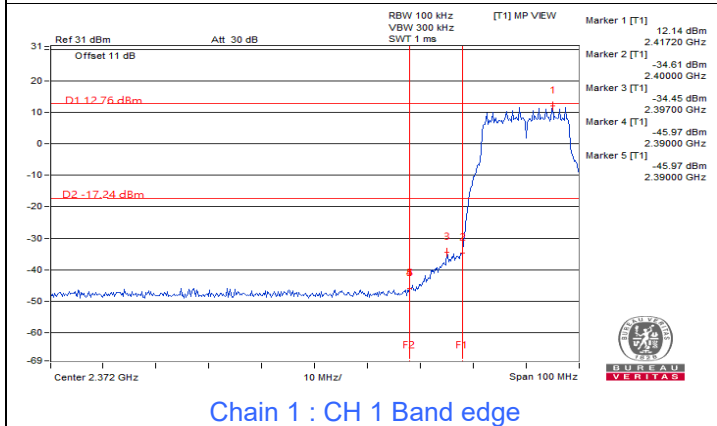
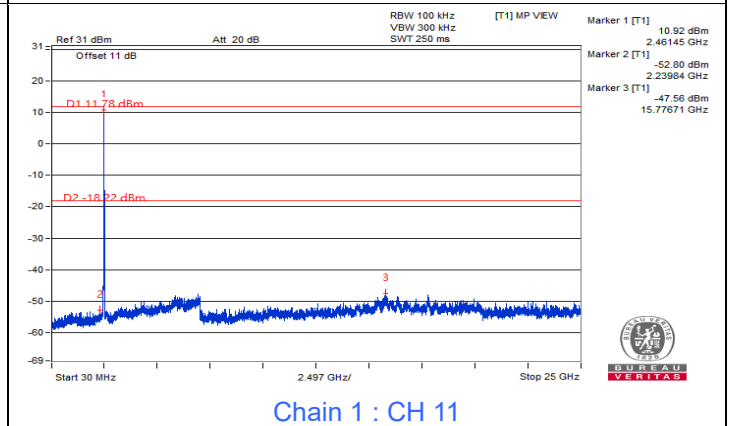
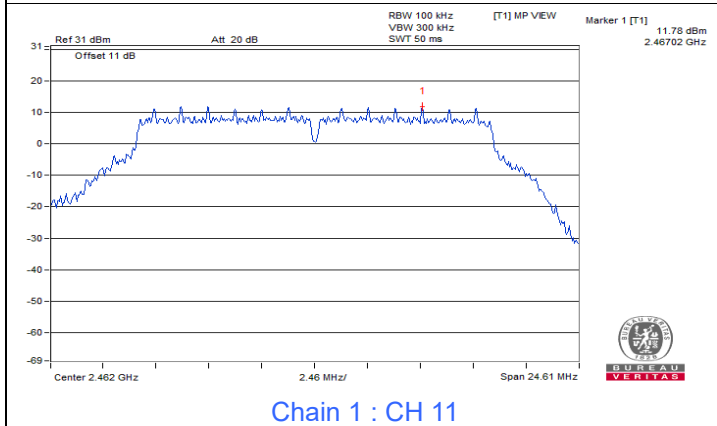
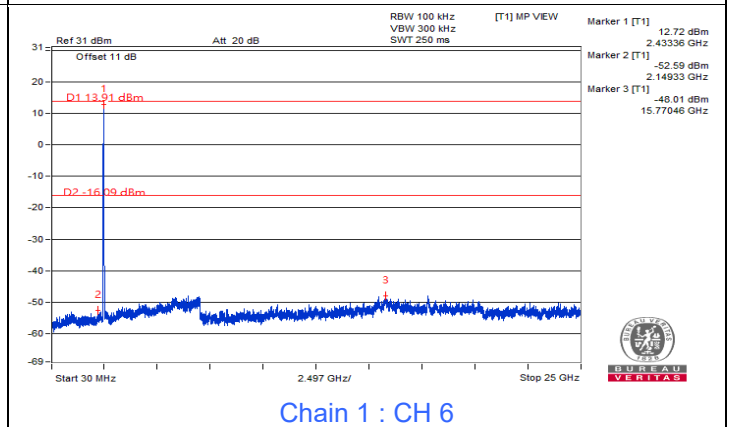
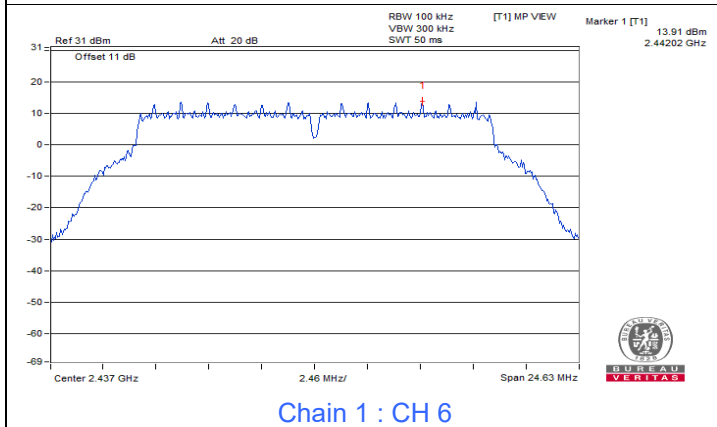
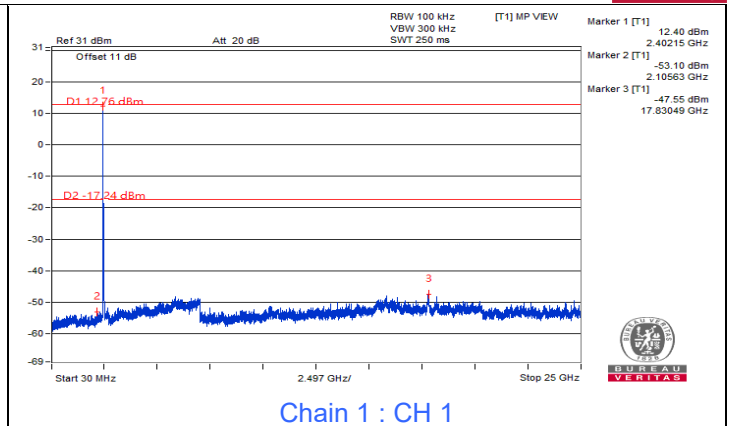
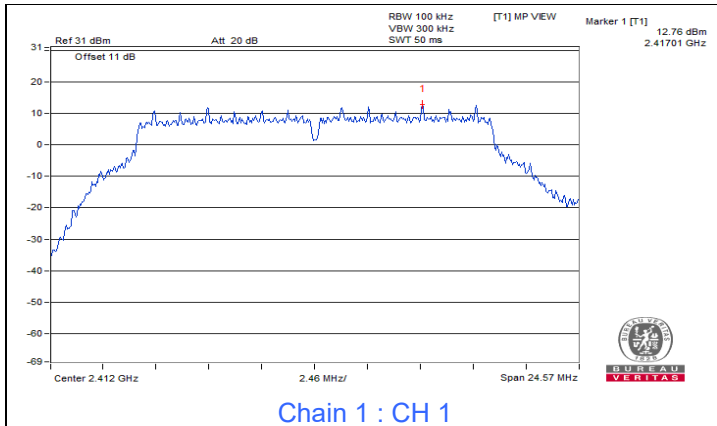


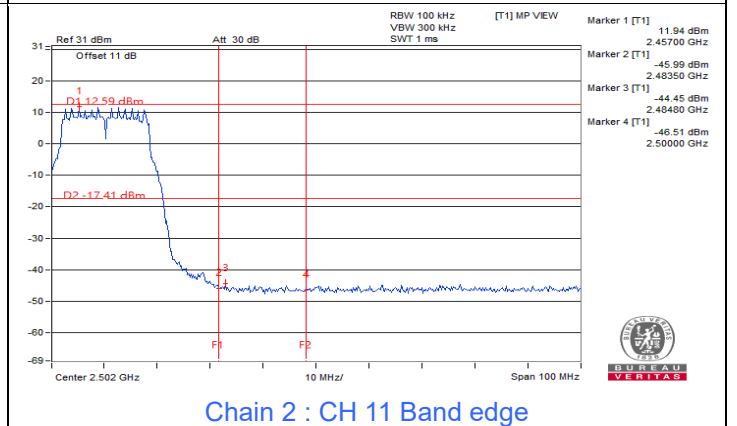
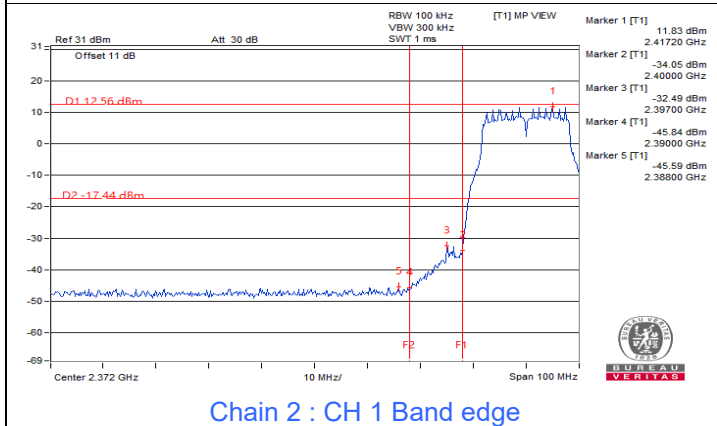
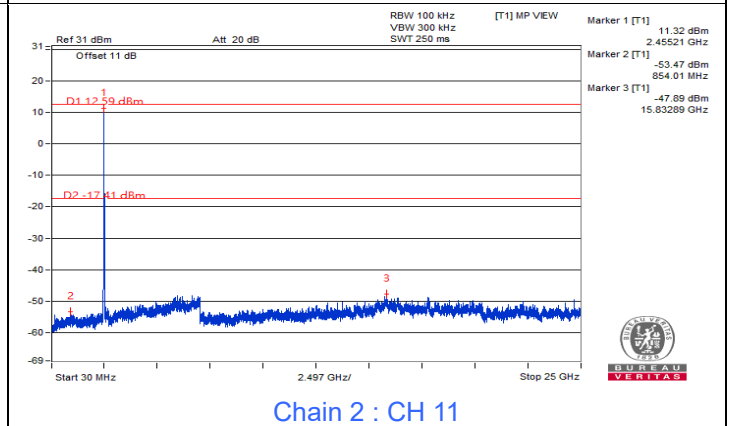
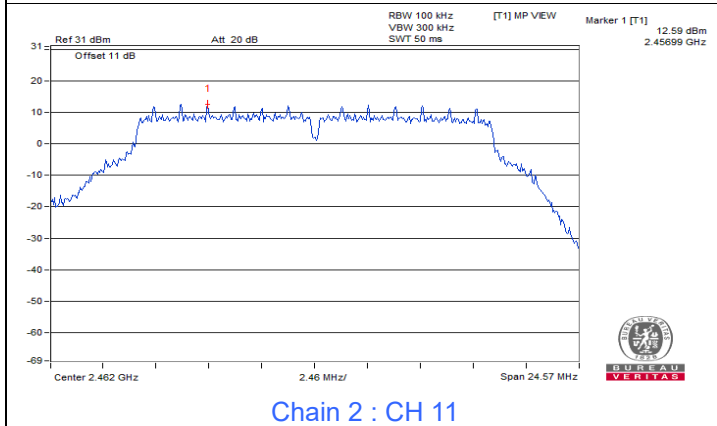
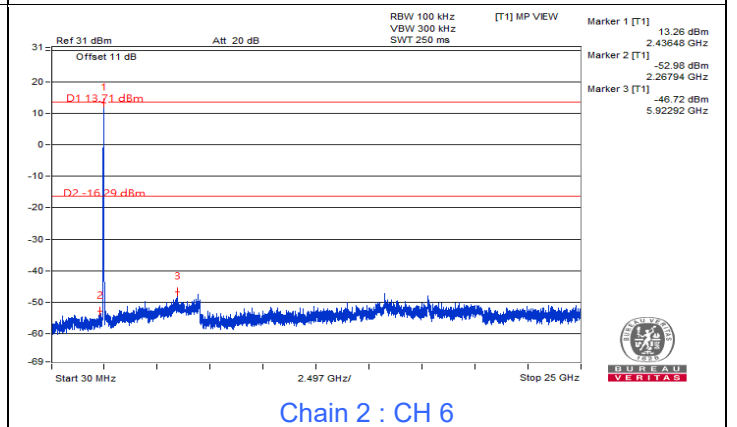
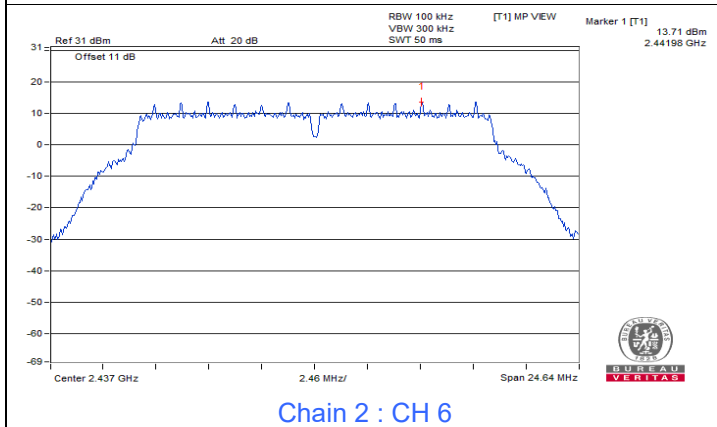
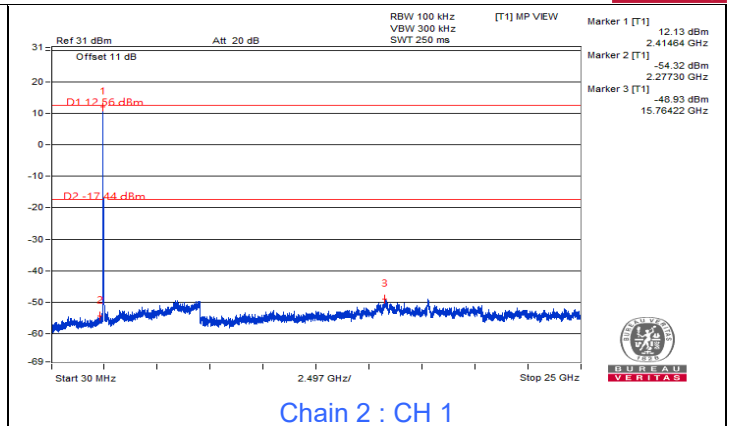
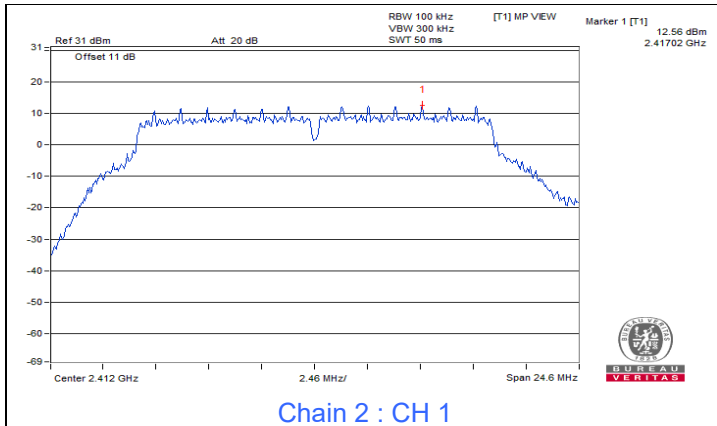


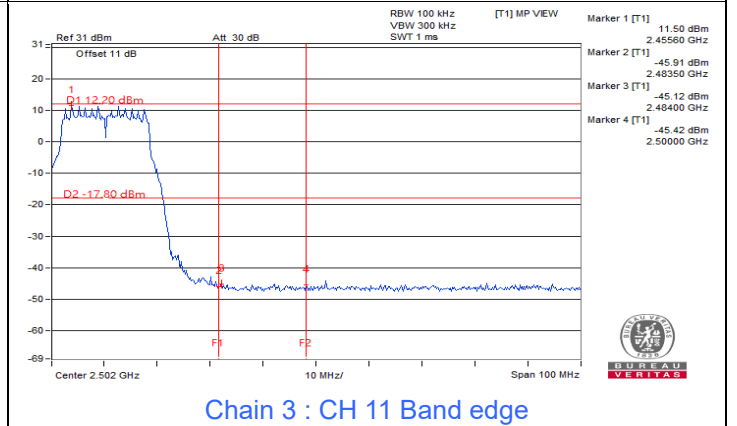
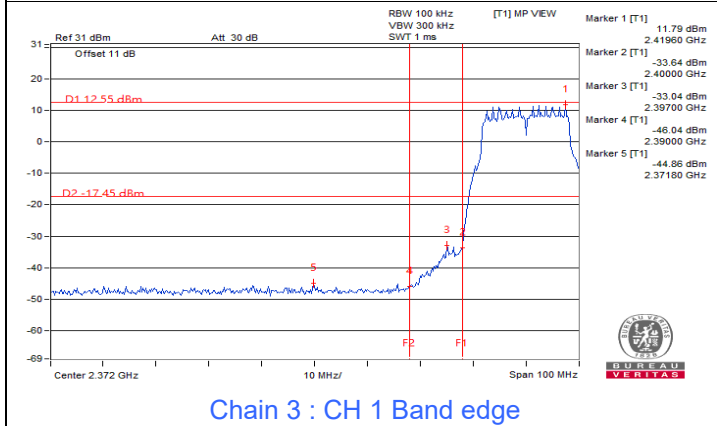
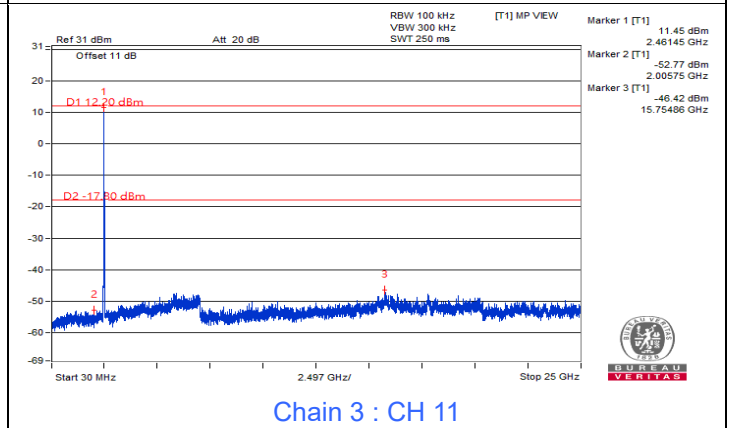
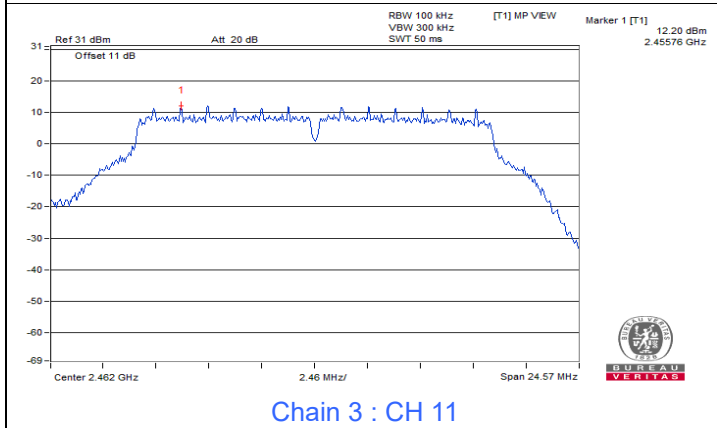
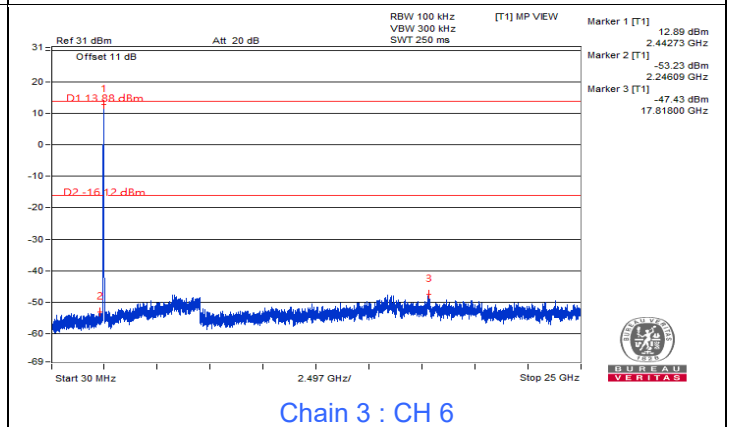
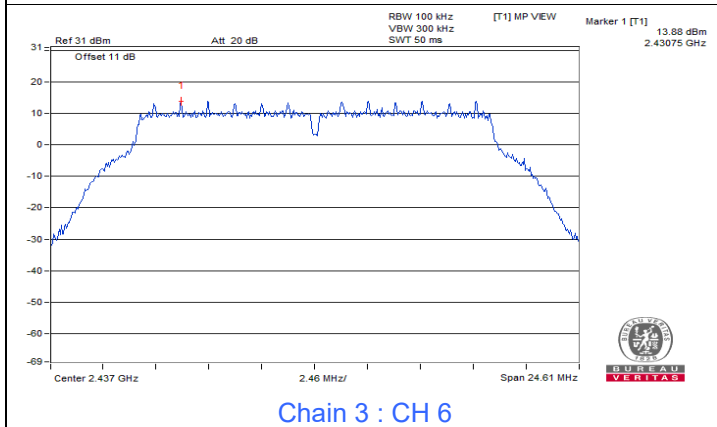
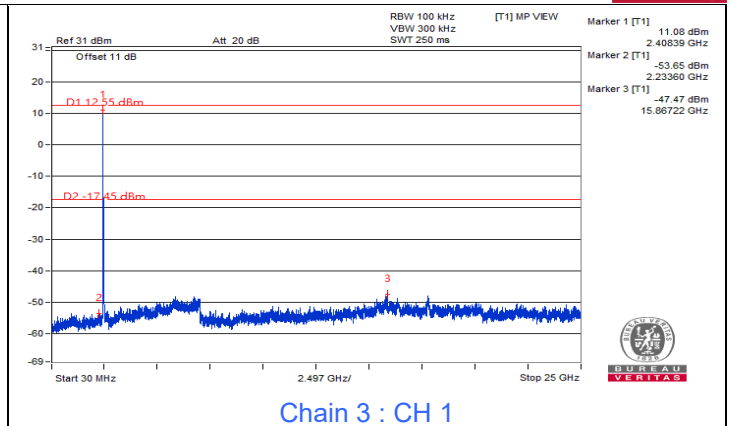
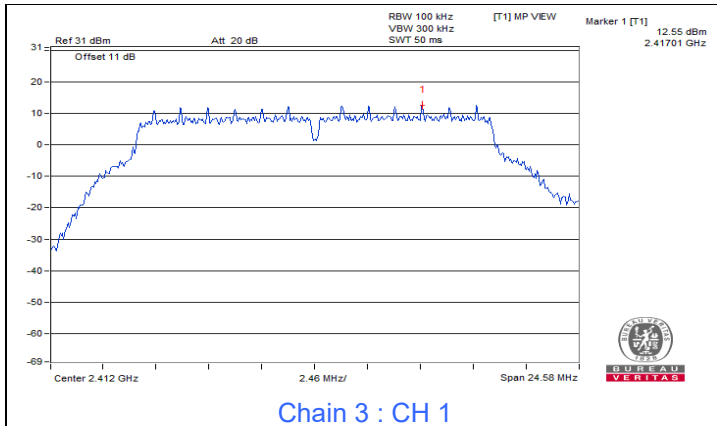


802.11g

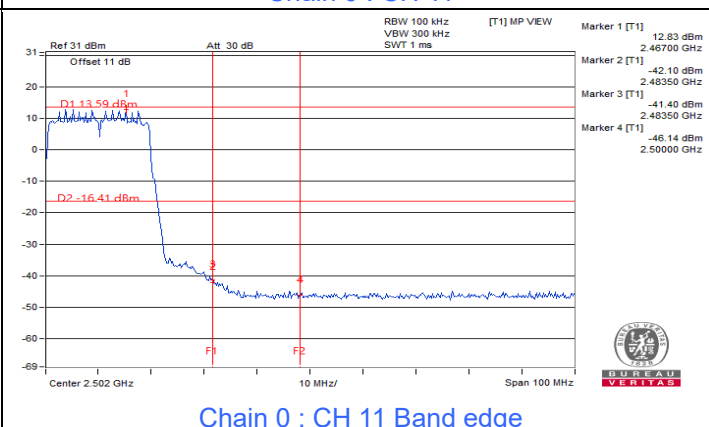
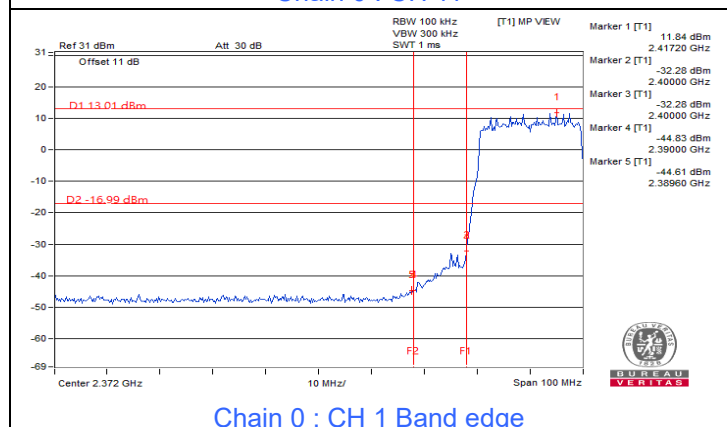
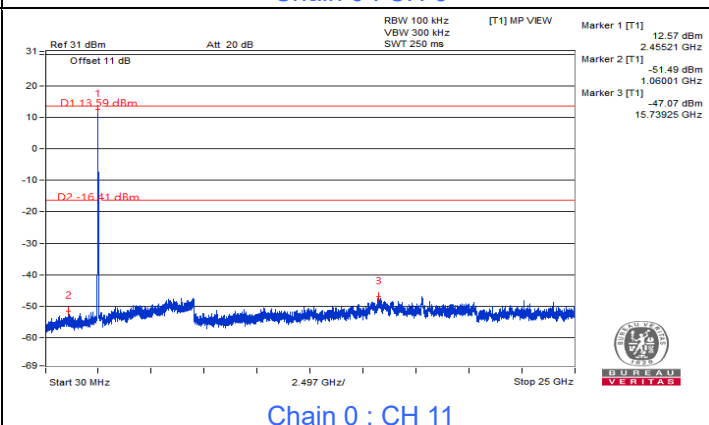
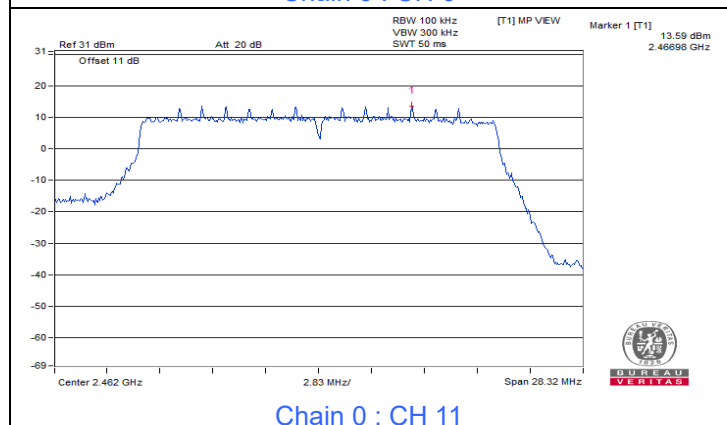
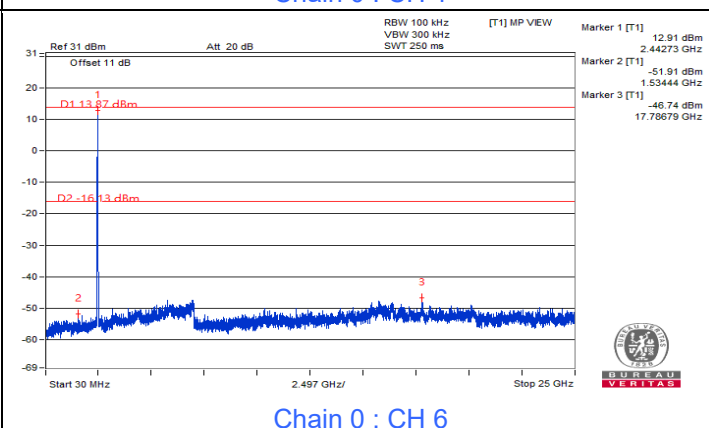
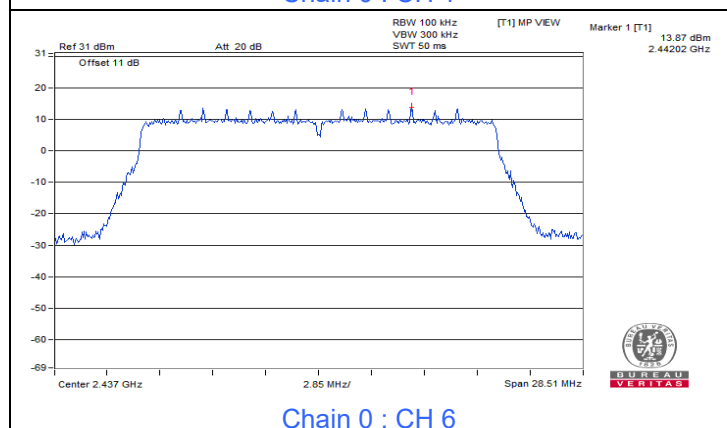
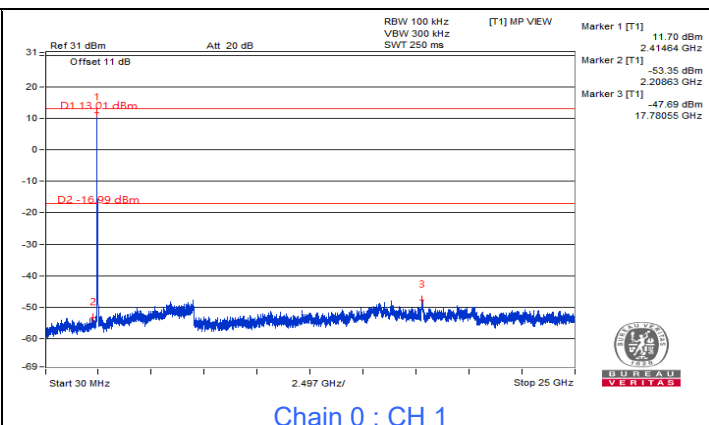
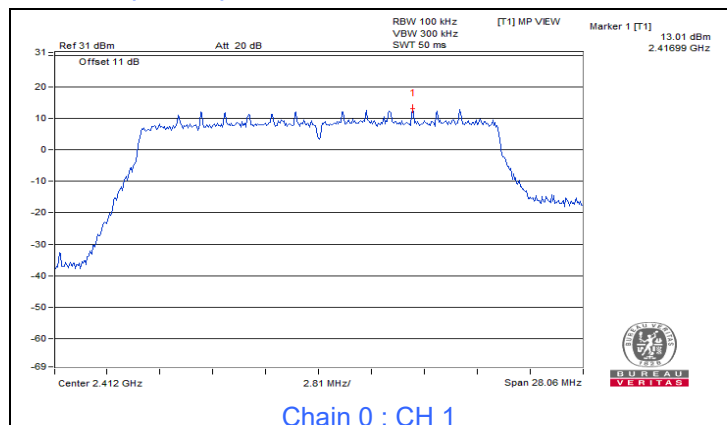


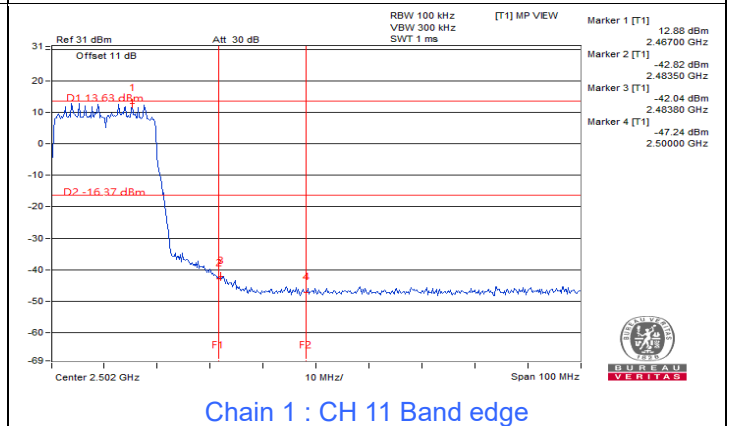
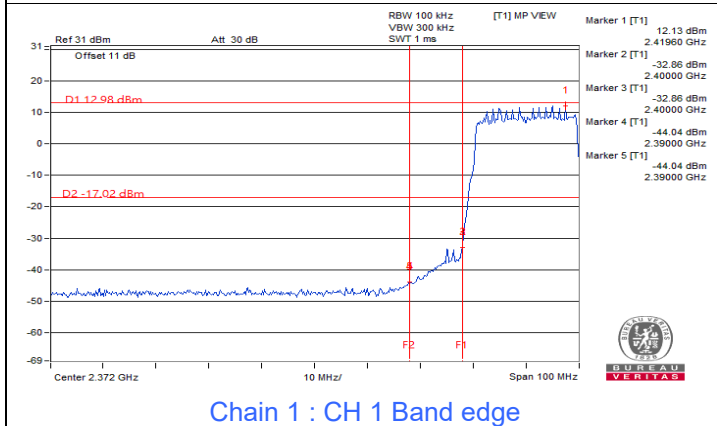
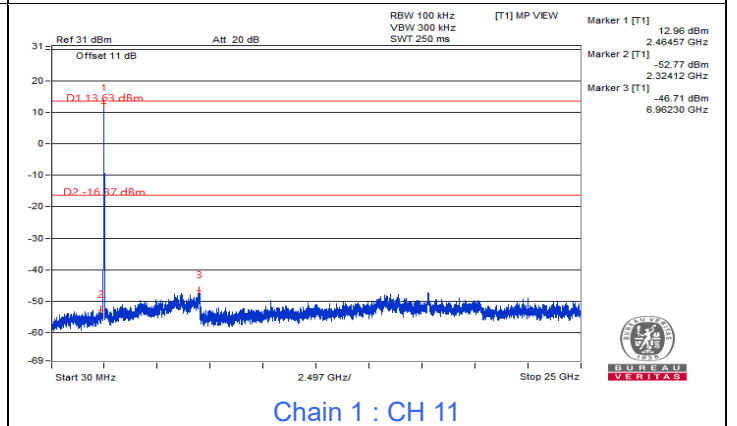
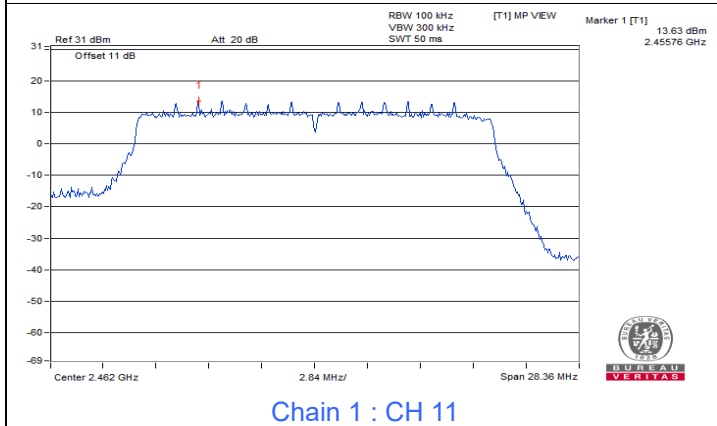
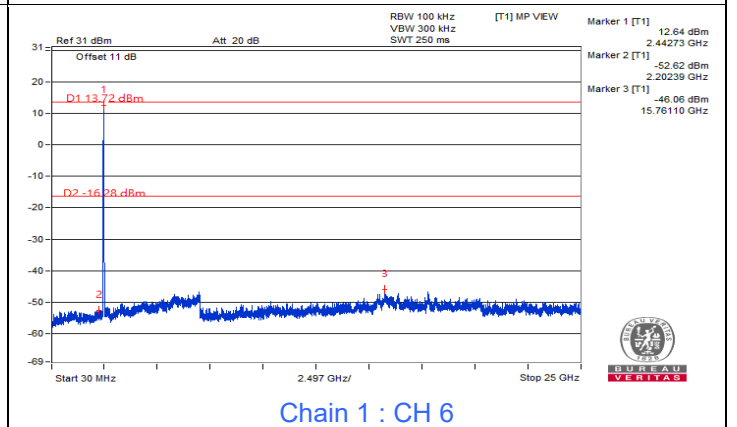
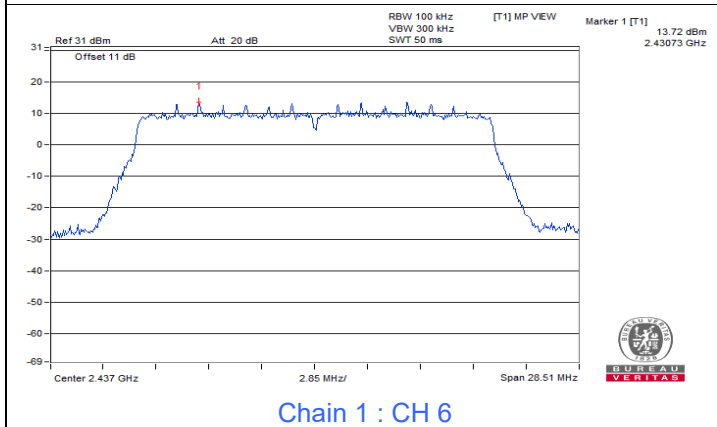
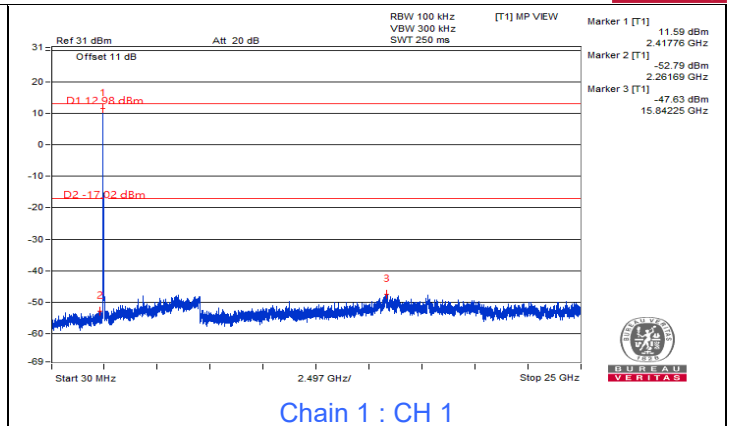
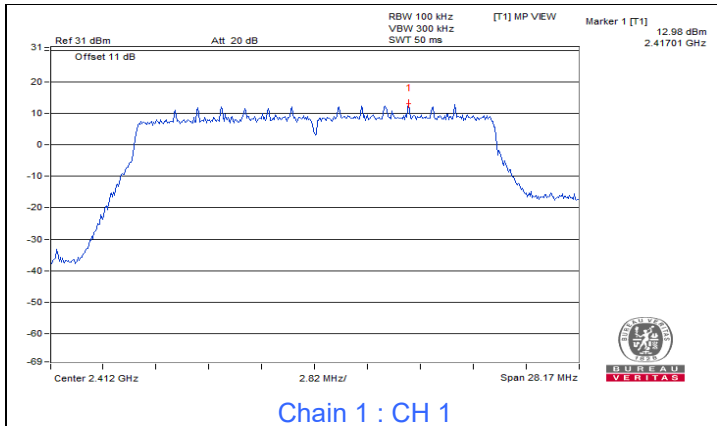


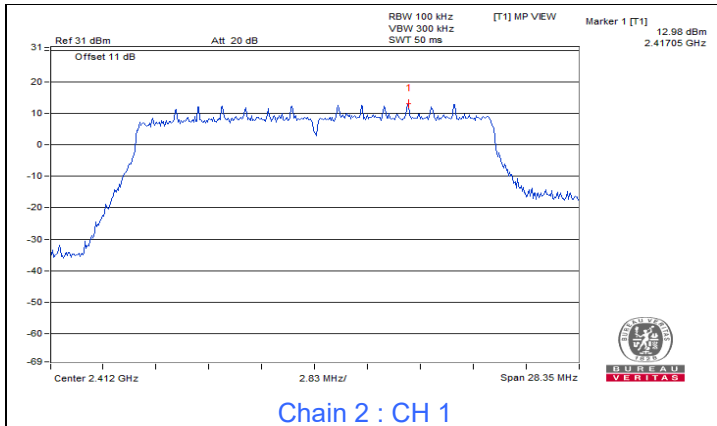




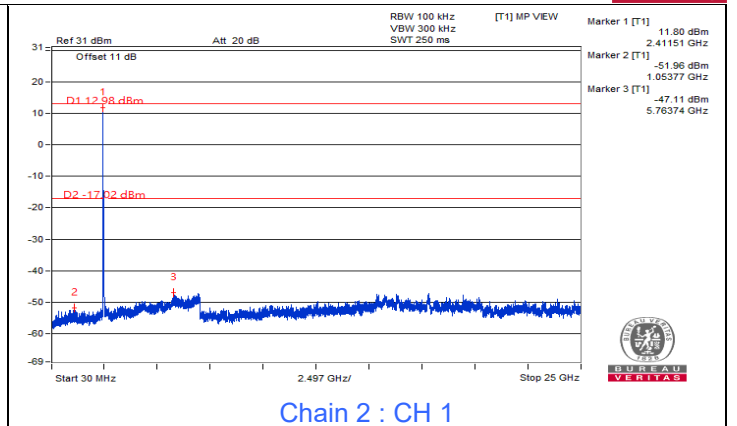
802.11be (EHT20)



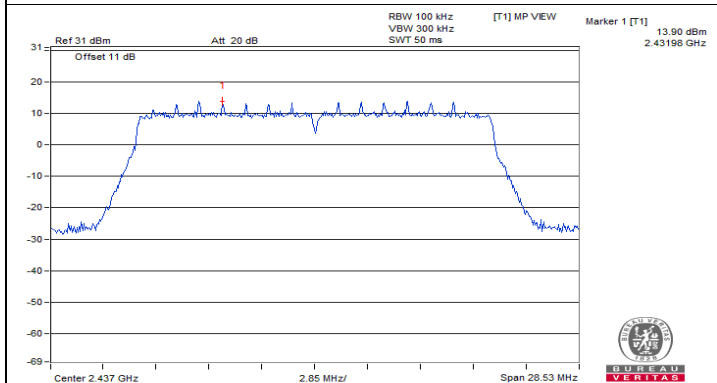




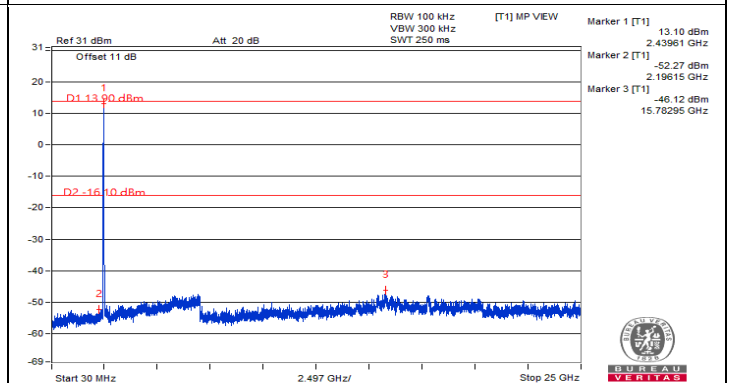
Chain 2 : CH 1



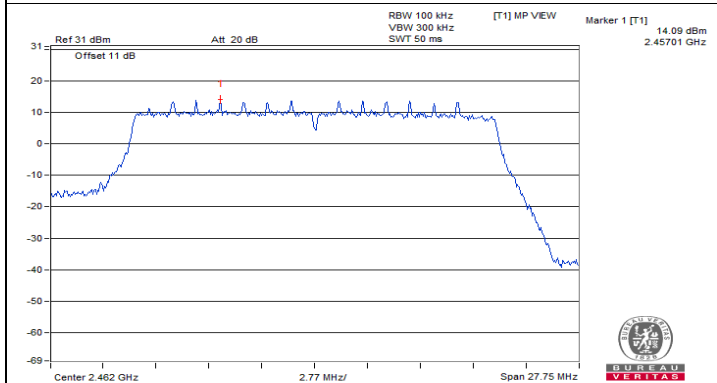
Chain 2 : CH 1



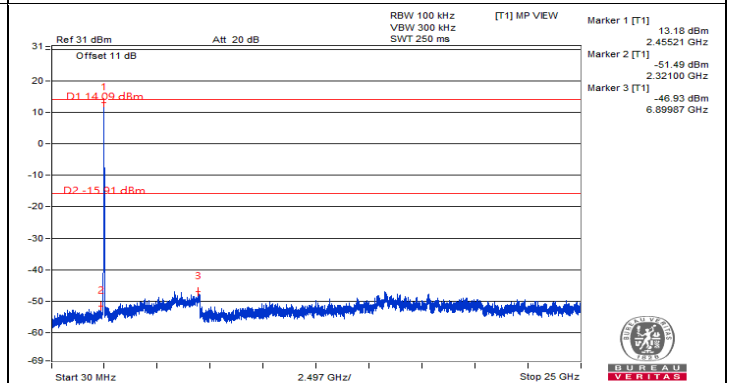
Chain 2 : CH 6



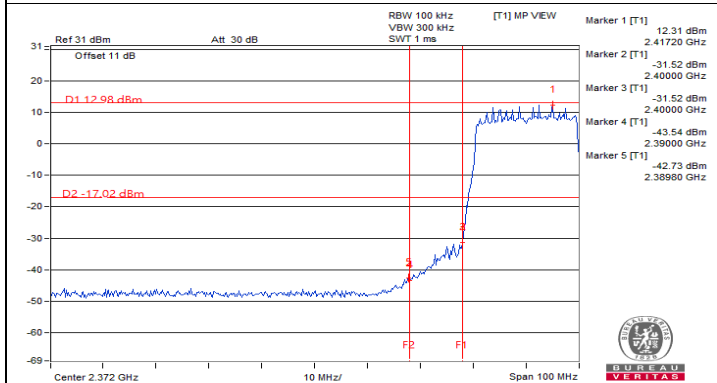
Chain 2 : CH 6



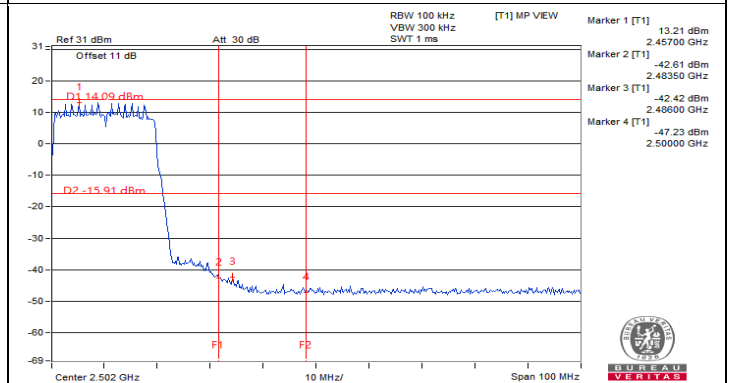
Chain 2 : CH 11



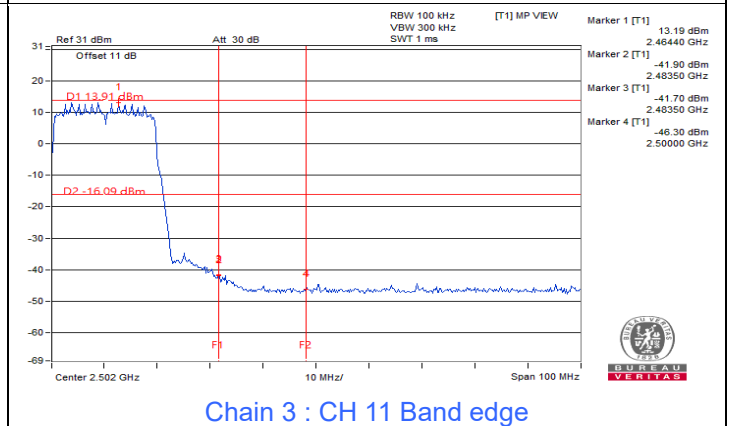
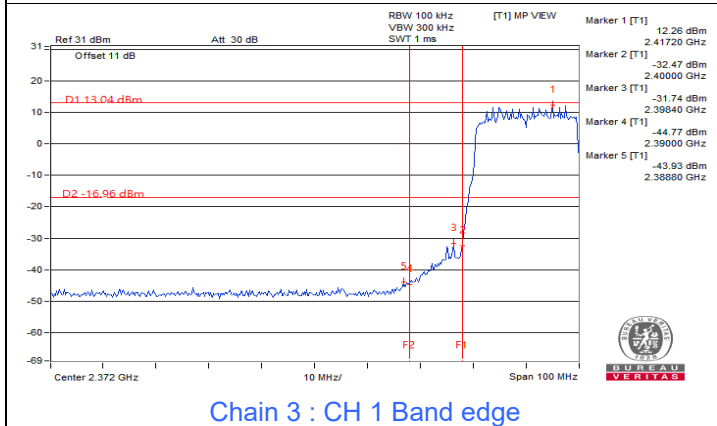
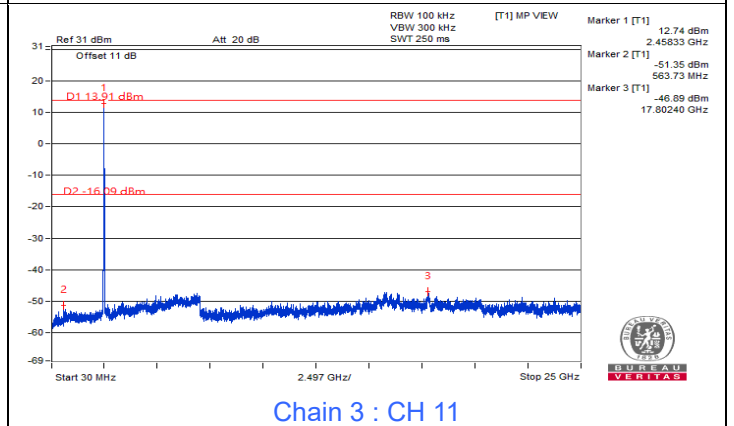
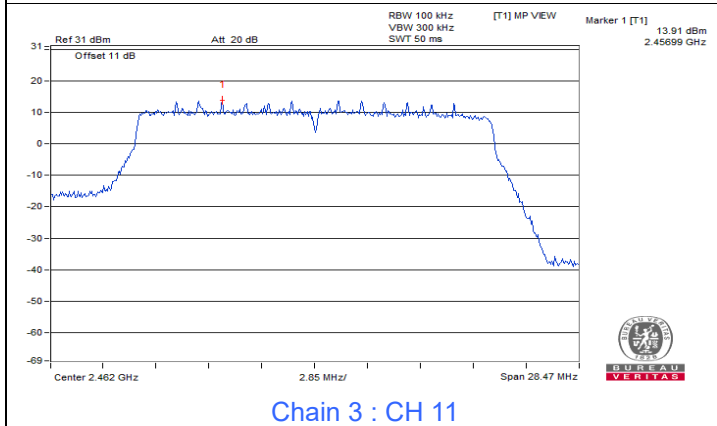
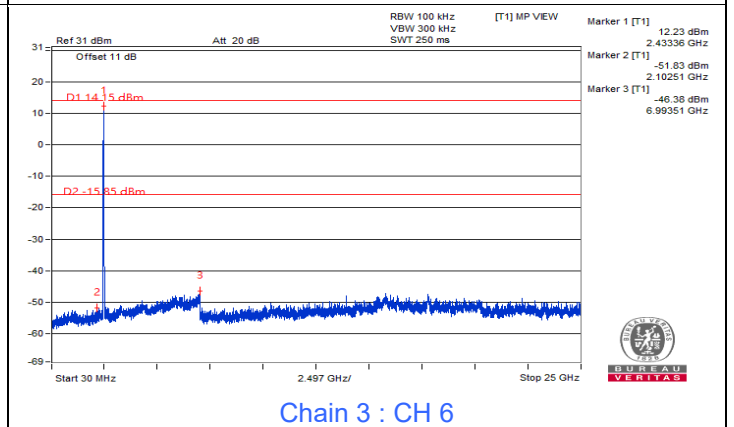
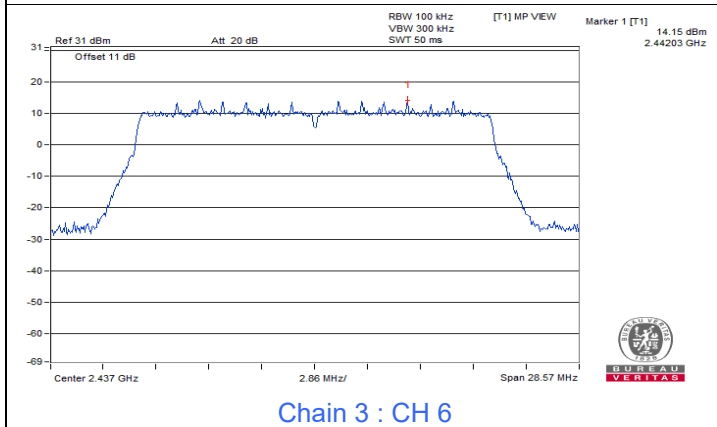
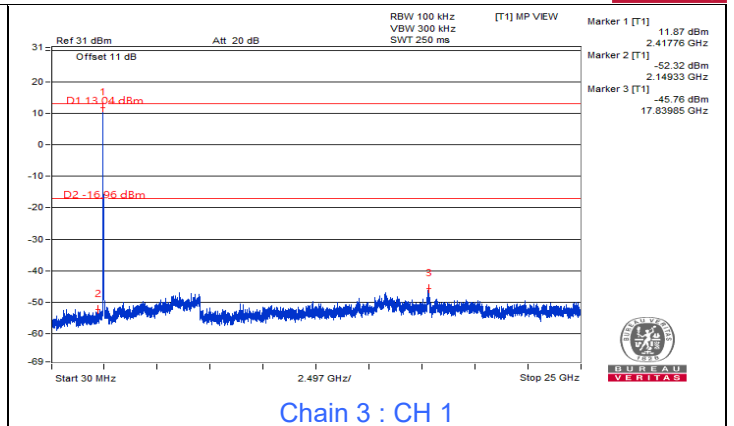
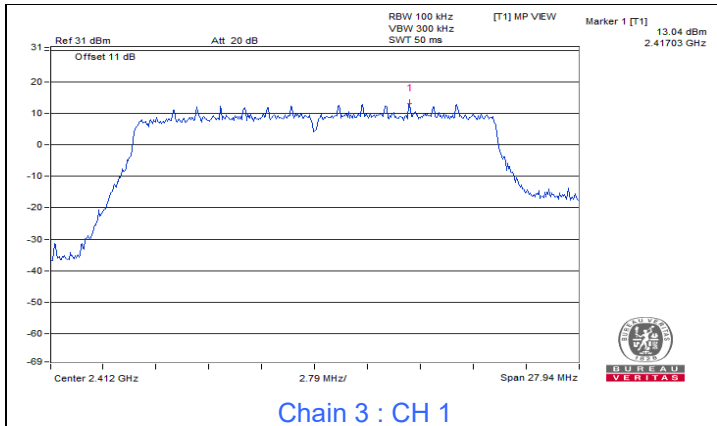
Chain 2 : CH 11



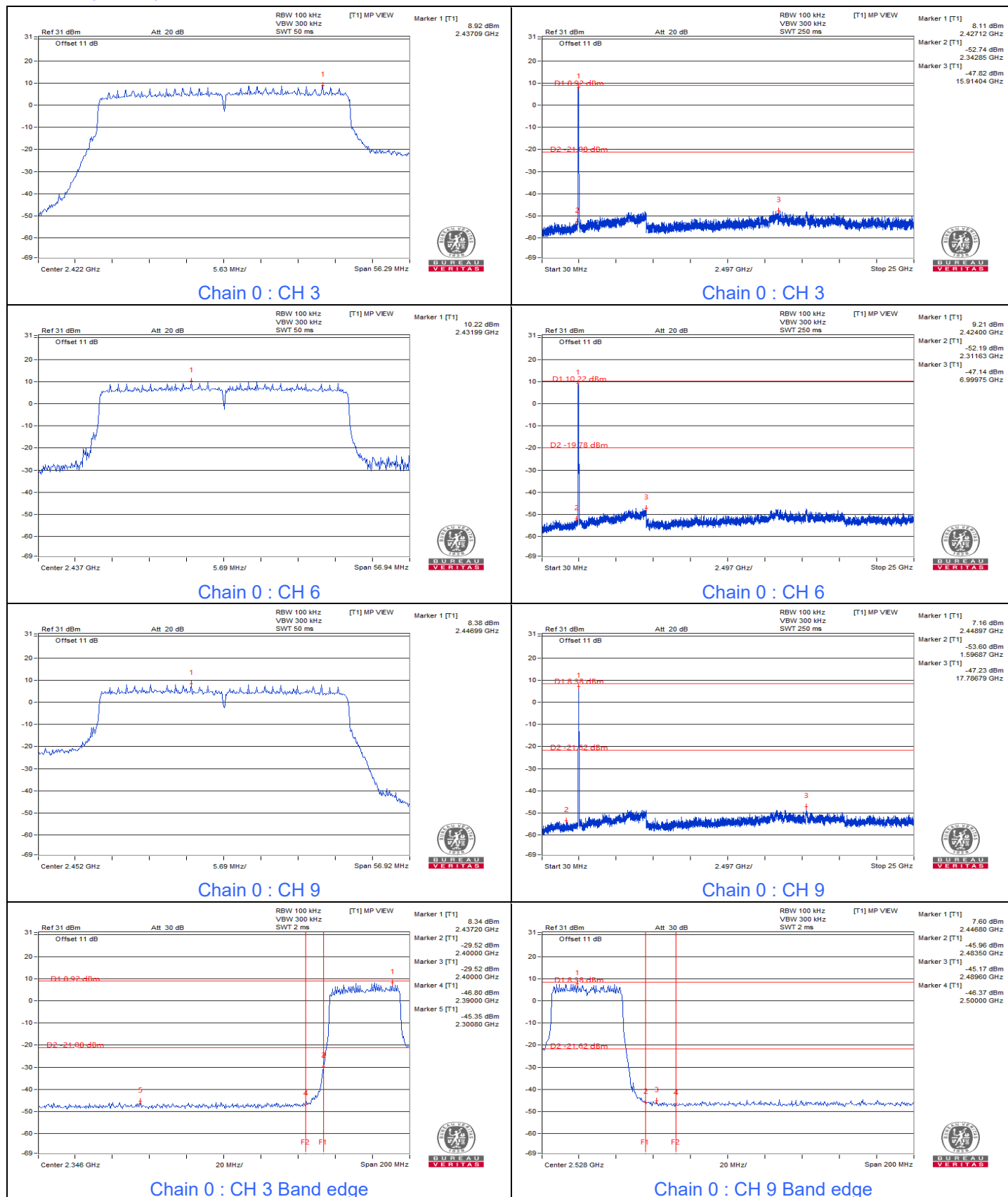
Chain 2 : CH 1 Band edge

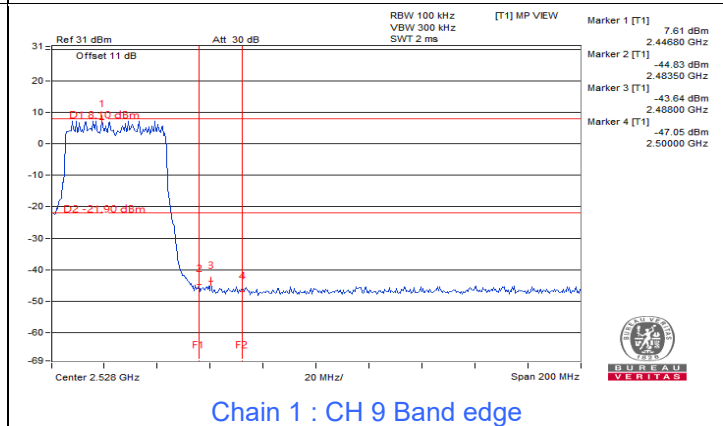
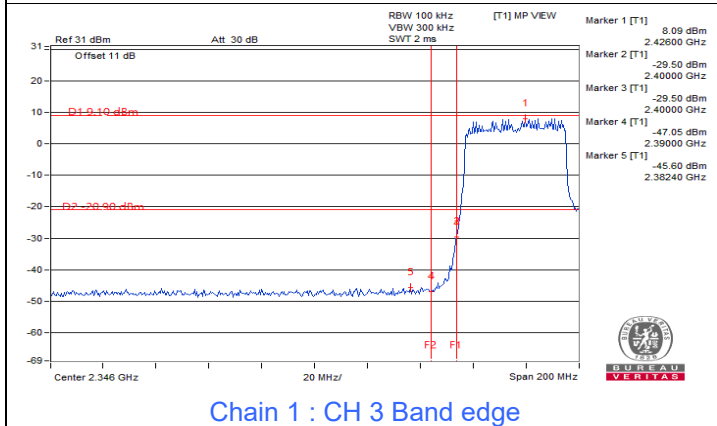
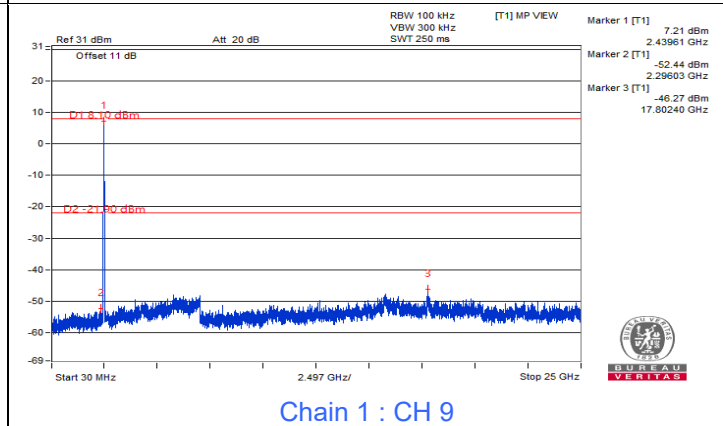
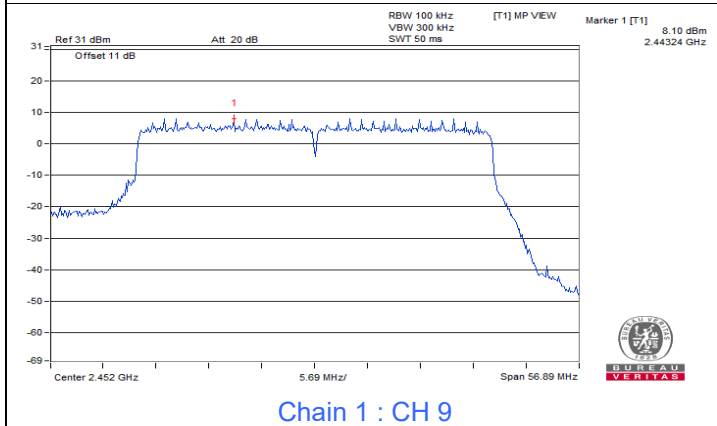
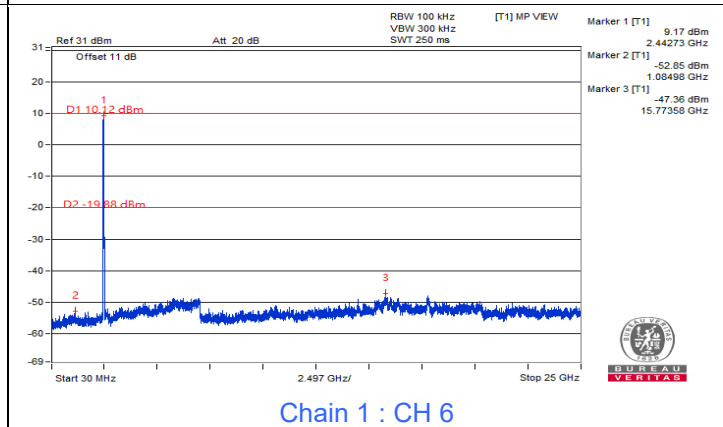
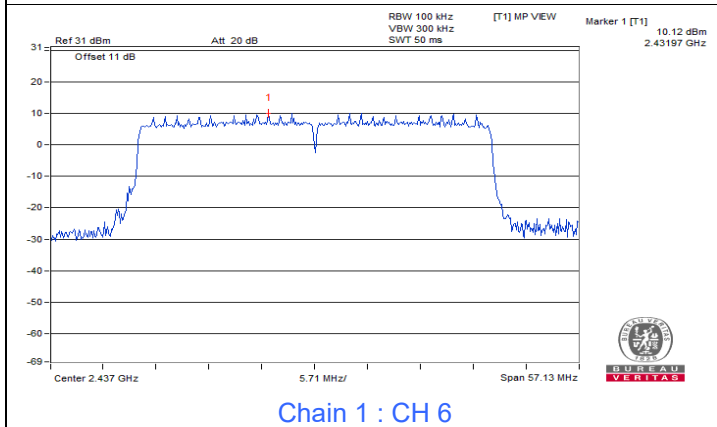
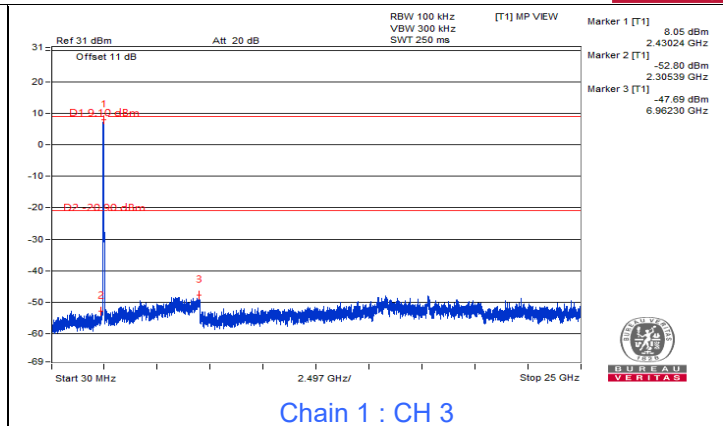
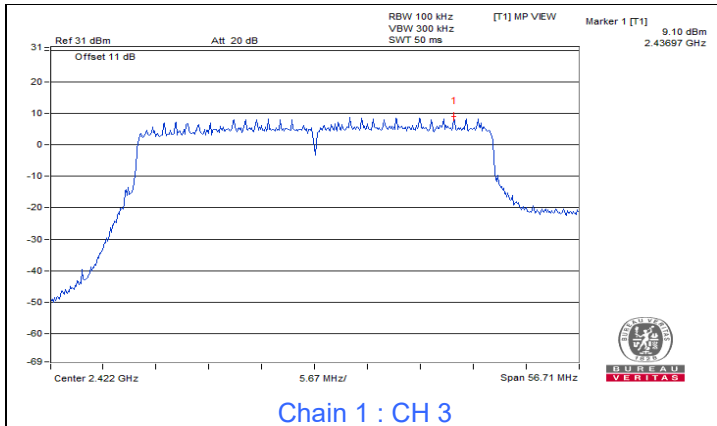


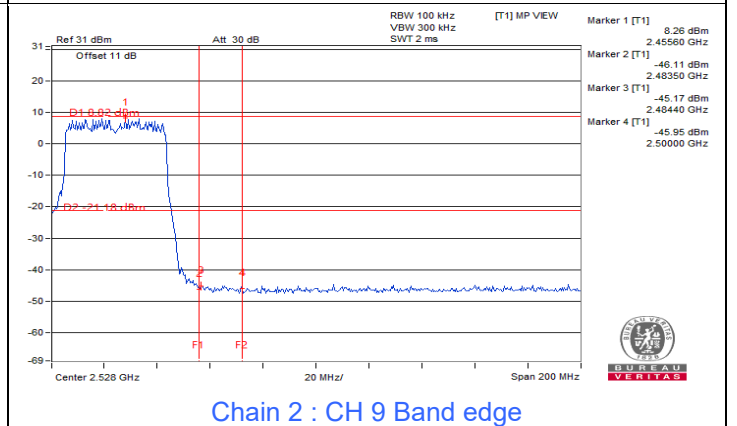
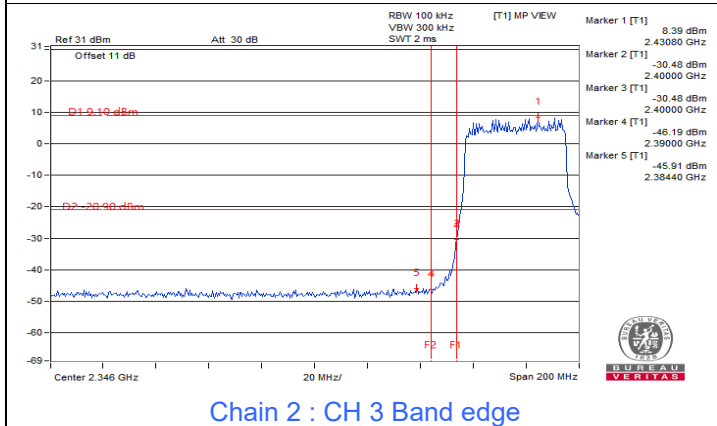
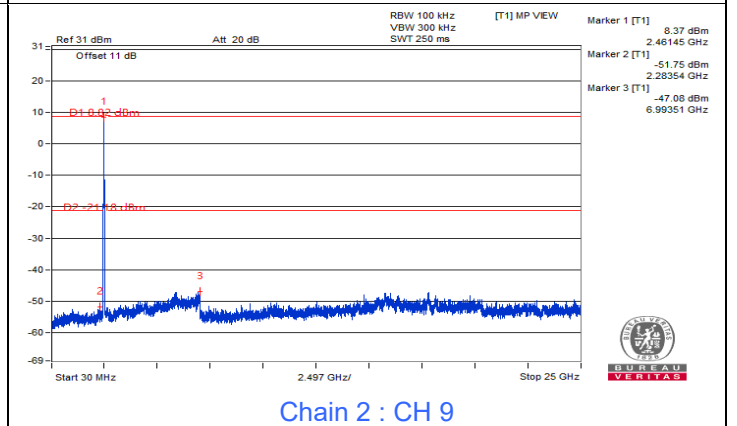
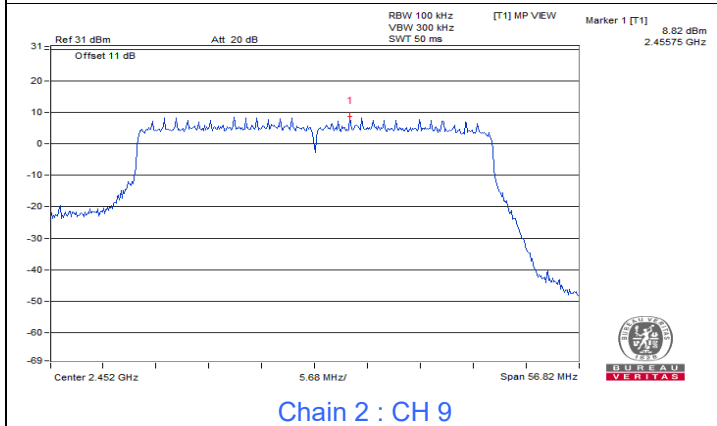
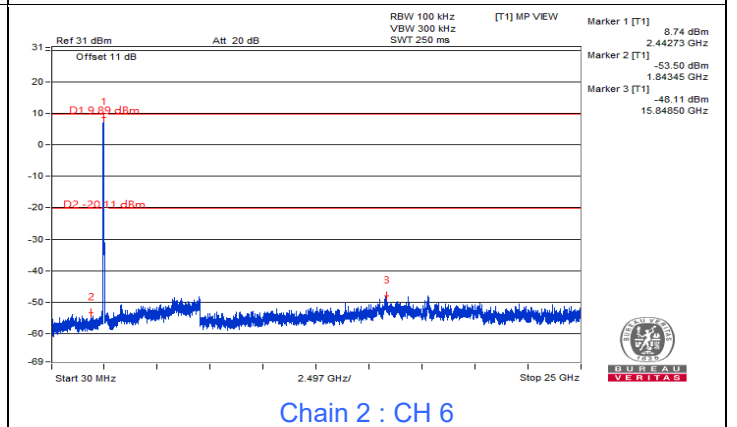
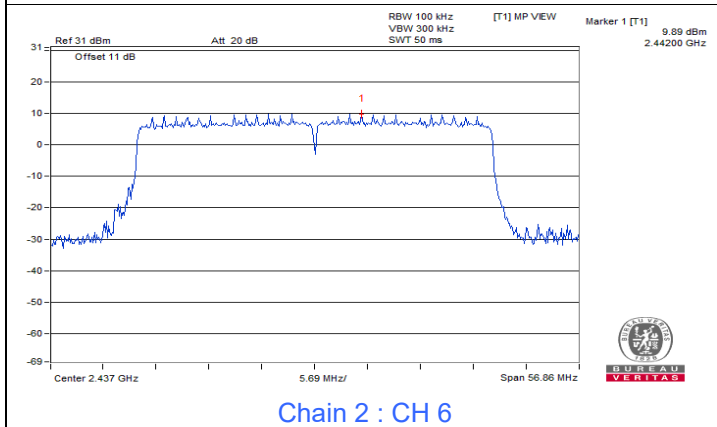
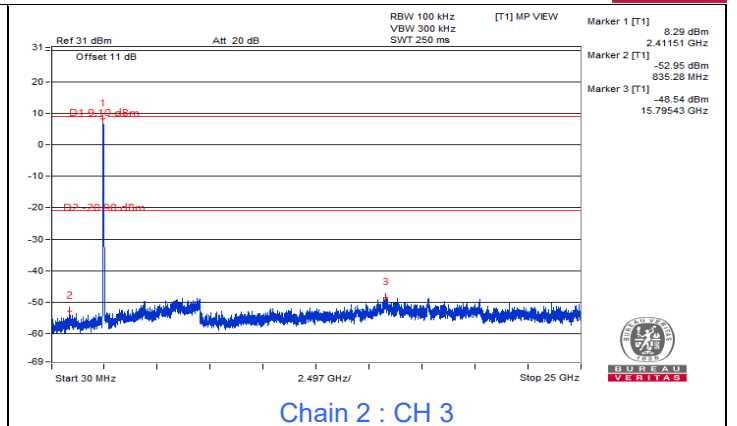
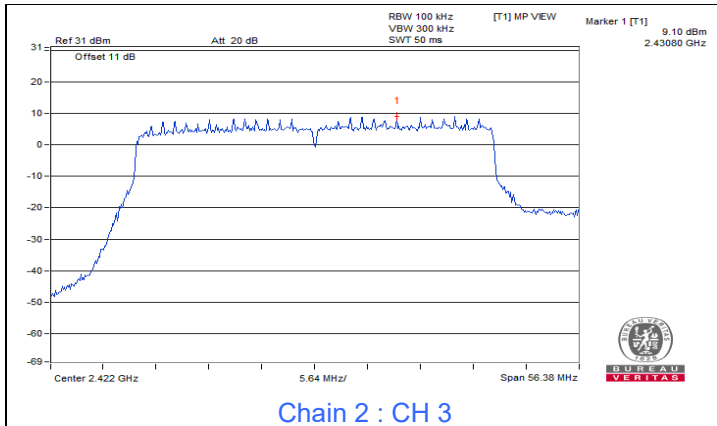
Chain 2 : CH 11 Band edge

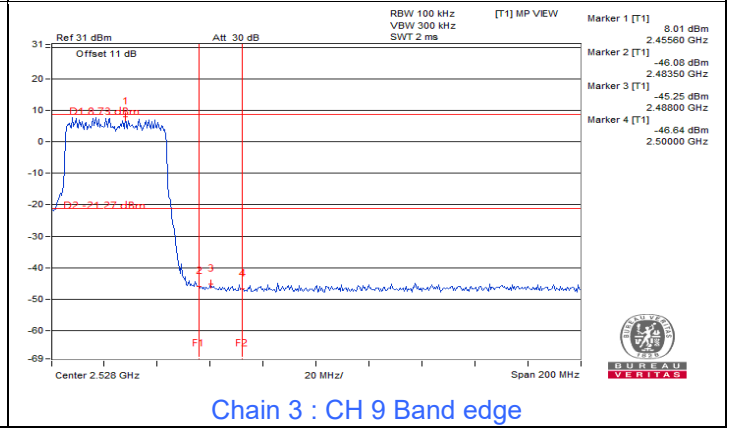
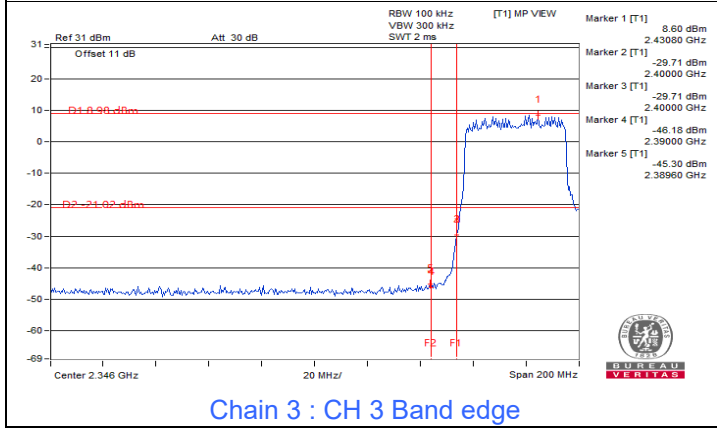
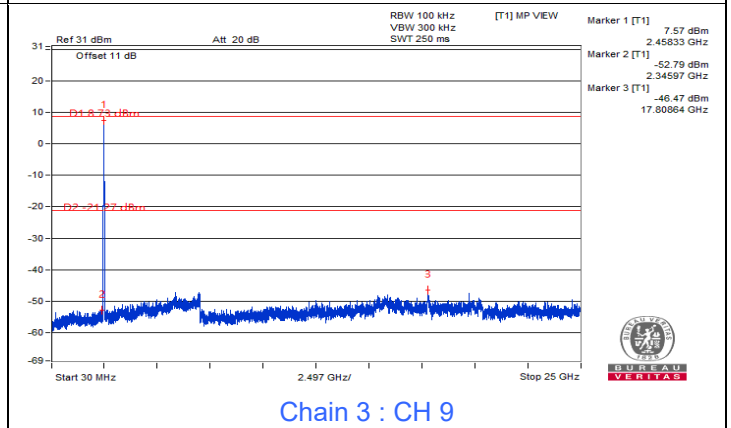
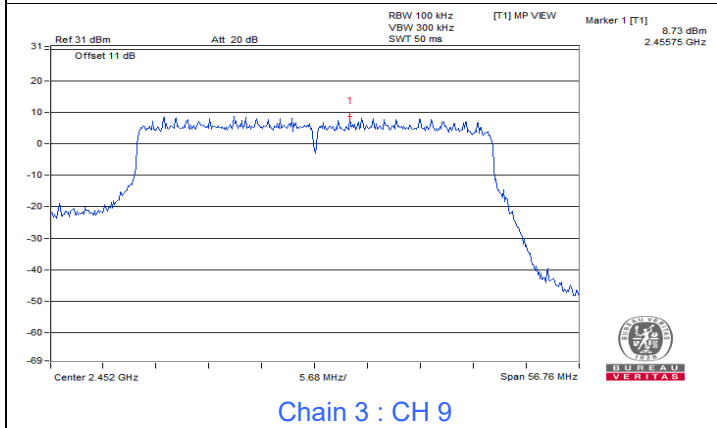
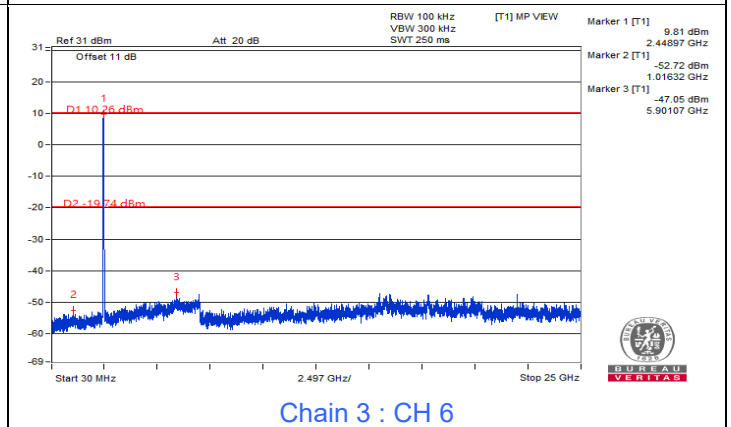
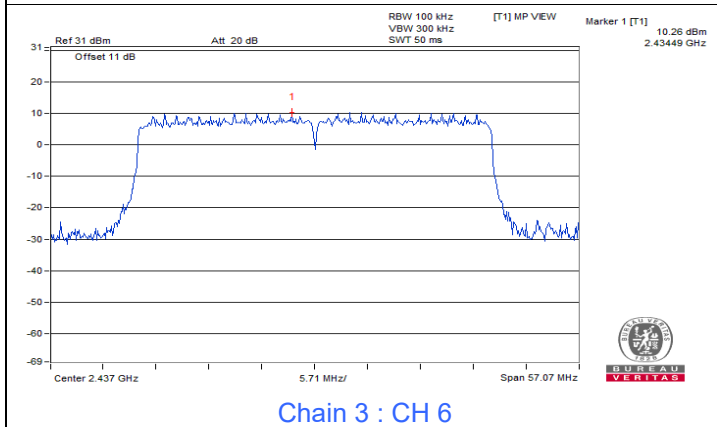
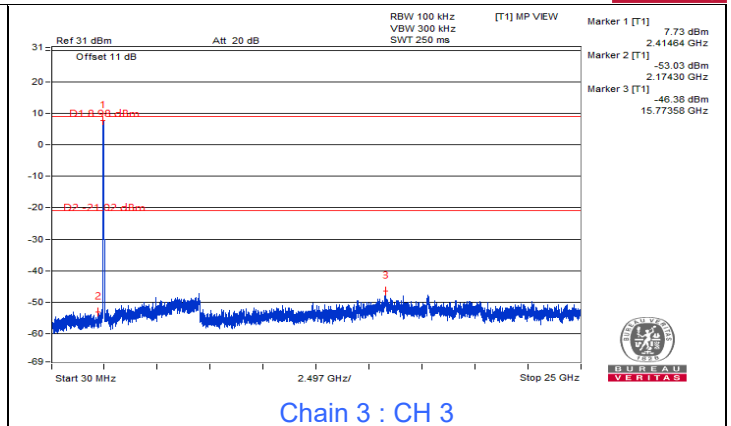
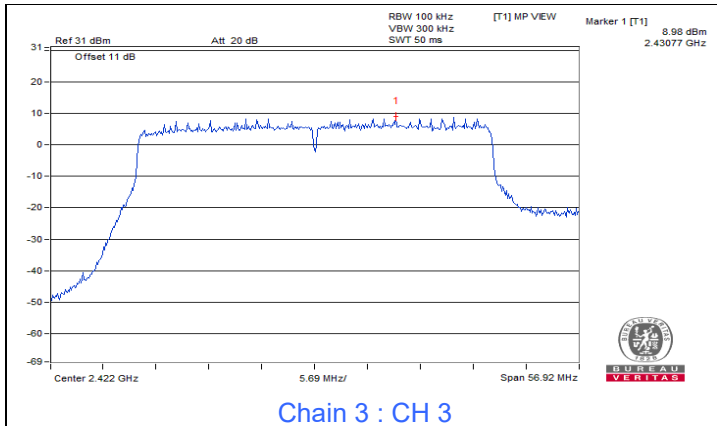


802.11be (EHT40)









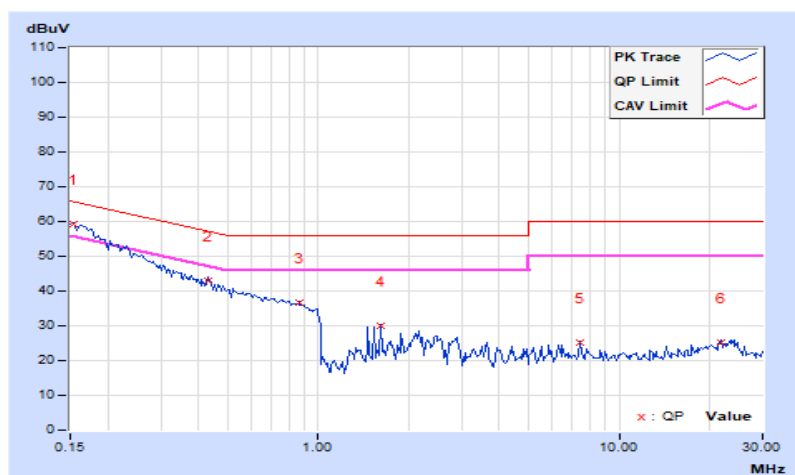
7.5 AC Power Conducted Emissions

RF Mode	802.11b	Channel	CH 1 : 2412 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	0.15391	9.64	49.73	25.77	59.37	35.41	65.79	55.79	-6.42	-20.38
2	0.43125	9.64	33.43	23.78	43.07	33.42	57.23	47.23	-14.16	-13.81
3	0.86875	9.65	27.02	11.60	36.67	21.25	56.00	46.00	-19.33	-24.75
4	1.60938	9.67	20.43	11.17	30.10	20.84	56.00	46.00	-25.90	-25.16
5	7.44531	9.96	15.06	9.81	25.02	19.77	60.00	50.00	-34.98	-30.23
6	21.80078	10.35	14.87	9.91	25.22	20.26	60.00	50.00	-34.78	-29.74

Remarks:

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

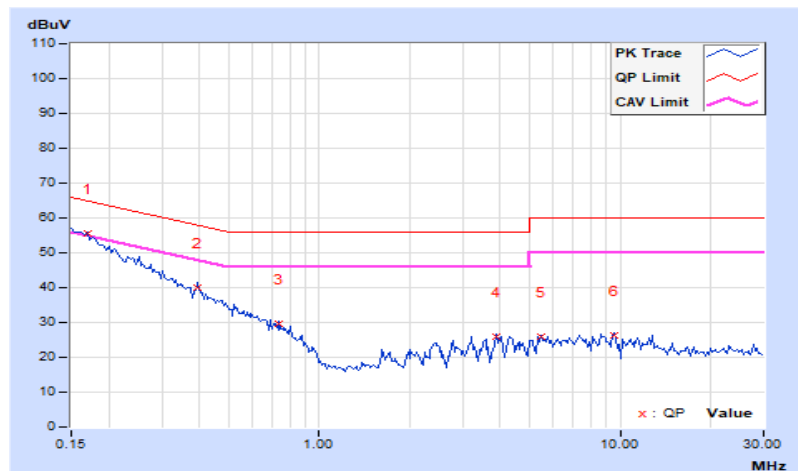


RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Jed Wu		

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	0.16953	9.62	45.96	18.13	55.58	27.75	64.98	54.98	-9.40	-27.23
2	0.39609	9.61	30.36	22.52	39.97	32.13	57.93	47.93	-17.96	-15.80
3	0.73594	9.64	20.06	12.88	29.70	22.52	56.00	46.00	-26.30	-23.48
4	3.89844	9.78	16.18	11.11	25.96	20.89	56.00	46.00	-30.04	-25.11
5	5.43359	9.85	15.92	10.94	25.77	20.79	60.00	50.00	-34.23	-29.21
6	9.50391	10.05	16.37	10.64	26.42	20.69	60.00	50.00	-33.58	-29.31

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

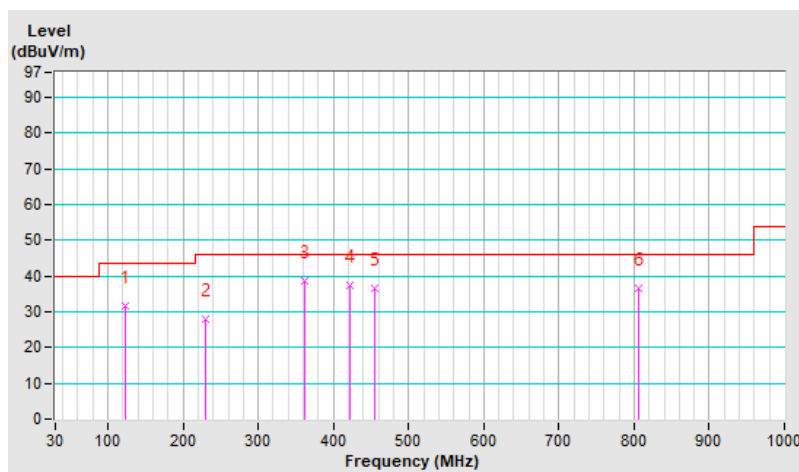
CDD Mode

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 66 % RH
Tested By	Ian Chang		

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	122.54	31.6 QP	43.5	-11.9	1.80 H	85	46.6	-15.0
2	230.10	28.0 QP	46.0	-18.0	2.30 H	145	43.3	-15.3
3	361.89	38.7 QP	46.0	-7.3	2.71 H	193	49.7	-11.0
4	421.00	37.6 QP	46.0	-8.4	3.16 H	244	46.9	-9.3
5	453.95	36.4 QP	46.0	-9.6	3.54 H	286	44.6	-8.2
6	805.71	36.4 QP	46.0	-9.6	4.00 H	1	38.3	-1.9

Remarks:

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

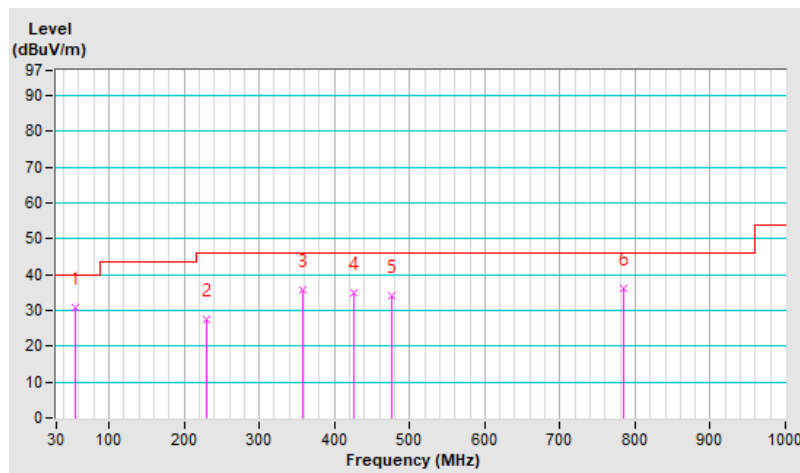


RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 66 % RH
Tested By	Ian Chang		

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	55.68	30.8 QP	40.0	-9.2	1.00 V	0	44.1	-13.3
2	230.10	27.4 QP	46.0	-18.6	1.18 V	46	42.7	-15.3
3	358.02	35.7 QP	46.0	-10.3	1.61 V	97	46.8	-11.1
4	425.85	34.9 QP	46.0	-11.1	3.04 V	266	44.0	-9.1
5	475.27	34.2 QP	46.0	-11.8	2.55 V	210	42.0	-7.8
6	784.39	36.1 QP	46.0	-9.9	2.18 V	166	38.1	-2.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit 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	20 °C, 66 % RH
Tested By	Edison Lee		

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	58.1 PK	74.0	-15.9	1.76 H	287	26.0	32.1
2	2390.00	49.3 AV	54.0	-4.7	1.76 H	287	17.2	32.1
3	*2412.00	118.9 PK			1.76 H	287	86.8	32.1
4	*2412.00	116.8 AV			1.76 H	287	84.7	32.1
5	4824.00	47.2 PK	74.0	-26.8	1.72 H	308	44.2	3.0
6	4824.00	37.0 AV	54.0	-17.0	1.72 H	308	34.0	3.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.1 PK	74.0	-16.9	1.95 V	327	25.0	32.1
2	2390.00	47.9 AV	54.0	-6.1	1.95 V	327	15.8	32.1
3	*2412.00	123.4 PK			1.95 V	327	91.3	32.1
4	*2412.00	121.3 AV			1.95 V	327	89.2	32.1
5	4824.00	47.5 PK	74.0	-26.5	1.58 V	237	44.5	3.0
6	4824.00	37.3 AV	54.0	-16.7	1.58 V	237	34.3	3.0

Remarks:

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

RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 66 % RH
Tested By	Edison Lee		

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	118.9 PK			1.39 H	285	86.8	32.1
2	*2437.00	116.9 AV			1.39 H	285	84.8	32.1
3	4874.00	47.7 PK	74.0	-26.3	1.78 H	312	44.4	3.3
4	4874.00	37.5 AV	54.0	-16.5	1.78 H	312	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	*2437.00	123.5 PK			1.93 V	330	91.4	32.1
2	*2437.00	121.4 AV			1.93 V	330	89.3	32.1
3	4874.00	48.0 PK	74.0	-26.0	1.58 V	237	44.7	3.3
4	4874.00	37.9 AV	54.0	-16.1	1.58 V	237	34.6	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	802.11b	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	20 °C, 66 % RH
Tested By	Edison Lee		

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	118.2 PK			1.44 H	293	85.9	32.3
2	*2462.00	116.0 AV			1.44 H	293	83.7	32.3
3	2483.50	58.3 PK	74.0	-15.7	1.44 H	293	25.8	32.5
4	2483.50	47.9 AV	54.0	-6.1	1.44 H	293	15.4	32.5
5	4924.00	47.7 PK	74.0	-26.3	1.77 H	300	44.3	3.4
6	4924.00	37.5 AV	54.0	-16.5	1.77 H	300	34.1	3.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	123.0 PK			1.85 V	330	90.7	32.3
2	*2462.00	120.8 AV			1.85 V	330	88.5	32.3
3	2483.50	59.0 PK	74.0	-15.0	1.85 V	330	26.5	32.5
4	2483.50	50.0 AV	54.0	-4.0	1.85 V	330	17.5	32.5
5	4924.00	47.9 PK	74.0	-26.1	1.59 V	230	44.5	3.4
6	4924.00	37.8 AV	54.0	-16.2	1.59 V	230	34.4	3.4

Remarks:

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

RF Mode	802.11g	Channel	CH 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	20 °C, 66 % RH
Tested By	Edison Lee		

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	1.91 H	123	32.7	32.1
2	2390.00	53.8 AV	54.0	-0.2	1.91 H	123	21.7	32.1
3	*2412.00	122.8 PK			1.91 H	123	90.7	32.1
4	*2412.00	112.1 AV			1.91 H	123	80.0	32.1
5	4824.00	47.4 PK	74.0	-26.6	1.81 H	313	44.4	3.0
6	4824.00	37.2 AV	54.0	-16.8	1.81 H	313	34.2	3.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.5 PK	74.0	-7.5	1.93 V	339	34.4	32.1
2	2390.00	53.4 AV	54.0	-0.6	1.93 V	339	21.3	32.1
3	*2412.00	123.0 PK			1.93 V	339	90.9	32.1
4	*2412.00	115.3 AV			1.93 V	339	83.2	32.1
5	4824.00	47.6 PK	74.0	-26.4	1.58 V	244	44.6	3.0
6	4824.00	40.6 AV	54.0	-13.4	1.58 V	244	37.6	3.0

Remarks:

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

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 66 % RH
Tested By	Edison Lee		

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	121.5 PK			1.93 H	271	89.4	32.1
2	*2437.00	114.4 AV			1.93 H	271	82.3	32.1
3	4874.00	47.6 PK	74.0	-26.4	1.76 H	305	44.3	3.3
4	4874.00	37.5 AV	54.0	-16.5	1.76 H	305	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	*2437.00	124.0 PK			1.91 V	329	91.9	32.1
2	*2437.00	117.1 AV			1.91 V	329	85.0	32.1
3	4874.00	47.9 PK	74.0	-26.1	1.55 V	243	44.6	3.3
4	4874.00	37.8 AV	54.0	-16.2	1.55 V	243	34.5	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	802.11g	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	20 °C, 66 % RH
Tested By	Edison Lee		

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	119.7 PK			1.93 H	127	87.4	32.3
2	*2462.00	111.9 AV			1.93 H	127	79.6	32.3
3	2483.50	65.8 PK	74.0	-8.2	1.93 H	127	33.3	32.5
4	2483.50	53.7 AV	54.0	-0.3	1.93 H	127	21.2	32.5
5	4924.00	47.9 PK	74.0	-26.1	1.80 H	312	44.5	3.4
6	4924.00	37.7 AV	54.0	-16.3	1.80 H	312	34.3	3.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	122.5 PK			1.93 V	331	90.2	32.3
2	*2462.00	115.0 AV			1.93 V	331	82.7	32.3
3	2483.50	65.5 PK	74.0	-8.5	1.93 V	331	33.0	32.5
4	2483.50	53.9 AV	54.0	-0.1	1.93 V	331	21.4	32.5
5	4924.00	48.0 PK	74.0	-26.0	1.55 V	250	44.6	3.4
6	4924.00	37.9 AV	54.0	-16.1	1.55 V	250	34.5	3.4

Remarks:

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

RF Mode	802.11be (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	20 °C, 66 % RH
Tested By	Edison Lee		

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	1.89 H	122	32.7	32.1
2	2390.00	53.9 AV	54.0	-0.1	1.89 H	122	21.8	32.1
3	*2412.00	121.5 PK			1.89 H	122	89.4	32.1
4	*2412.00	110.8 AV			1.89 H	122	78.7	32.1
5	4824.00	47.4 PK	74.0	-26.6	1.88 H	312	44.4	3.0
6	4824.00	37.4 AV	54.0	-16.6	1.88 H	312	34.4	3.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.1 PK	74.0	-11.9	1.93 V	335	30.0	32.1
2	2390.00	51.4 AV	54.0	-2.6	1.93 V	335	19.3	32.1
3	*2412.00	122.0 PK			1.96 V	335	89.9	32.1
4	*2412.00	112.6 AV			1.96 V	335	80.5	32.1
5	4824.00	47.2 PK	74.0	-26.8	1.59 V	250	44.2	3.0
6	4824.00	37.2 AV	54.0	-16.8	1.59 V	250	34.2	3.0

Remarks:

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

RF Mode	802.11be (EHT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	20 °C, 66 % RH
Tested By	Edison Lee		

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	122.9 PK			1.92 H	271	90.8	32.1
2	*2437.00	113.4 AV			1.92 H	271	81.3	32.1
3	4874.00	47.9 PK	74.0	-26.1	1.85 H	310	44.6	3.3
4	4874.00	37.8 AV	54.0	-16.2	1.85 H	310	34.5	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	*2437.00	124.8 PK			1.93 V	329	92.7	32.1
2	*2437.00	115.4 AV			1.93 V	329	83.3	32.1
3	4874.00	48.1 PK	74.0	-25.9	1.61 V	244	44.8	3.3
4	4874.00	38.0 AV	54.0	-16.0	1.61 V	244	34.7	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 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	20 °C, 66 % RH
Tested By	Edison Lee		

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	121.7 PK			1.95 H	275	89.4	32.3
2	*2462.00	110.7 AV			1.95 H	275	78.4	32.3
3	2483.50	64.1 PK	74.0	-9.9	1.95 H	275	31.6	32.5
4	2483.50	53.3 AV	54.0	-0.7	1.95 H	275	20.8	32.5
5	4924.00	47.8 PK	74.0	-26.2	1.79 H	310	44.4	3.4
6	4924.00	37.8 AV	54.0	-16.2	1.79 H	310	34.4	3.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	123.0 PK			1.96 V	332	90.7	32.3
2	*2462.00	112.6 AV			1.96 V	332	80.3	32.3
3	2483.50	67.0 PK	74.0	-7.0	1.96 V	332	34.5	32.5
4	2483.50	53.9 AV	54.0	-0.1	1.96 V	332	21.4	32.5
5	4924.00	48.1 PK	74.0	-25.9	1.55 V	244	44.7	3.4
6	4924.00	38.1 AV	54.0	-15.9	1.55 V	244	34.7	3.4

Remarks:

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

RF Mode	802.11be (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	20 °C, 66 % RH
Tested By	Edison Lee		

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	64.6 PK	74.0	-9.4	1.96 H	271	32.5	32.1
2	2390.00	53.9 AV	54.0	-0.1	1.96 H	271	21.8	32.1
3	*2422.00	115.6 PK			1.96 H	271	83.5	32.1
4	*2422.00	105.6 AV			1.96 H	271	73.5	32.1
5	4844.00	47.7 PK	74.0	-26.3	1.79 H	311	44.6	3.1
6	4844.00	37.5 AV	54.0	-16.5	1.79 H	311	34.4	3.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.2 PK	74.0	-11.8	1.99 V	336	30.1	32.1
2	2390.00	50.1 AV	54.0	-3.9	1.99 V	336	18.0	32.1
3	*2422.00	117.7 PK			1.99 V	336	85.6	32.1
4	*2422.00	108.5 AV			1.99 V	336	76.4	32.1
5	4844.00	47.6 PK	74.0	-26.4	1.56 V	247	44.5	3.1
6	4844.00	37.7 AV	54.0	-16.3	1.56 V	247	34.6	3.1

Remarks:

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

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	20 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	121.3 PK			1.99 H	269	89.2	32.1
2	*2437.00	110.1 AV			1.99 H	269	78.0	32.1
3	4874.00	47.8 PK	74.0	-26.2	1.83 H	315	44.5	3.3
4	4874.00	37.8 AV	54.0	-16.2	1.83 H	315	34.5	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	*2437.00	121.9 PK			1.87 V	333	89.8	32.1
2	*2437.00	112.7 AV			1.87 V	333	80.6	32.1
3	4874.00	48.1 PK	74.0	-25.9	1.55 V	248	44.8	3.3
4	4874.00	38.0 AV	54.0	-16.0	1.55 V	248	34.7	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 (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	20 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	118.3 PK			1.99 H	271	86.1	32.2
2	*2452.00	107.8 AV			1.99 H	271	75.6	32.2
3	2483.50	64.1 PK	74.0	-9.9	1.99 H	271	31.6	32.5
4	2483.50	53.4 AV	54.0	-0.6	1.99 H	271	20.9	32.5
5	4904.00	47.9 PK	74.0	-26.1	1.83 H	314	44.4	3.5
6	4904.00	37.9 AV	54.0	-16.1	1.83 H	314	34.4	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	119.3 PK			1.94 V	331	87.1	32.2
2	*2452.00	109.0 AV			1.94 V	331	76.8	32.2
3	2483.50	66.7 PK	74.0	-7.3	1.94 V	331	34.2	32.5
4	2483.50	53.9 AV	54.0	-0.1	1.94 V	331	21.4	32.5
5	4904.00	47.9 PK	74.0	-26.1	1.83 V	300	44.4	3.5
6	4904.00	37.8 AV	54.0	-16.2	1.83 V	300	34.3	3.5

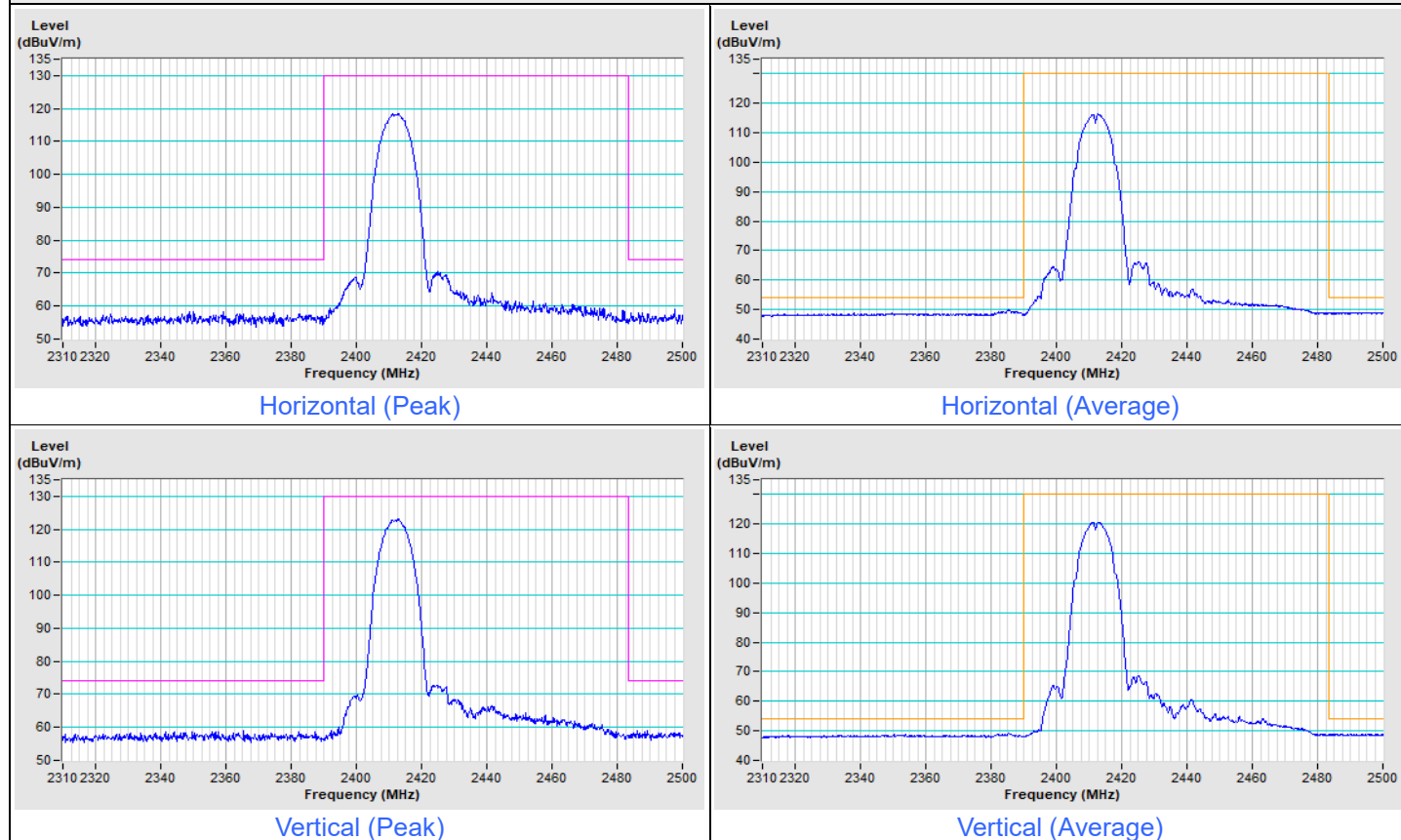
Remarks:

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.

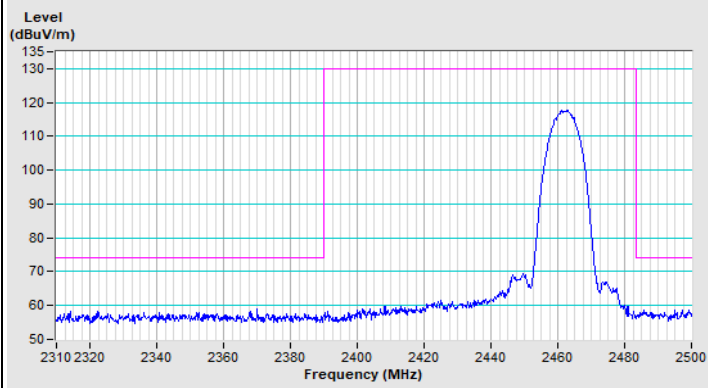
Plot of Band Edge_CDD

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
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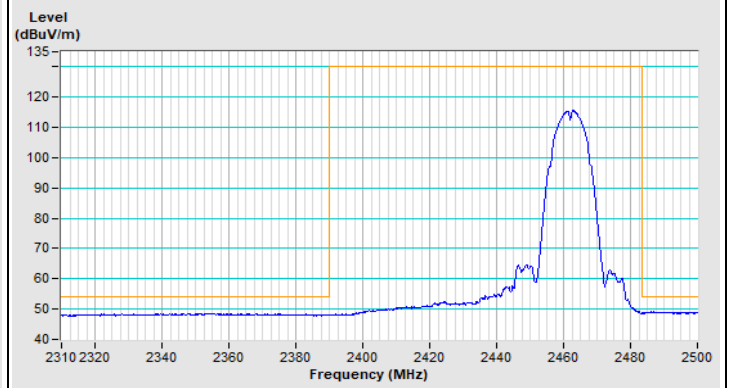
802.11b Channel 1



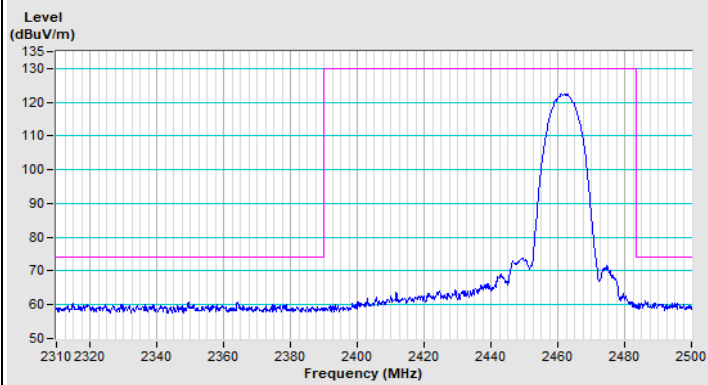
802.11b Channel 11



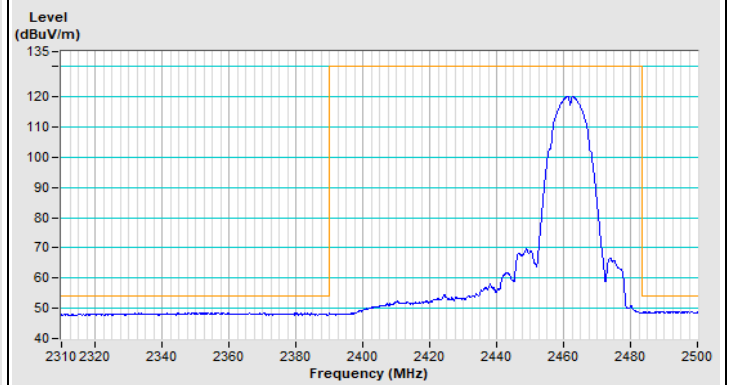
Horizontal (Peak)



Horizontal (Average)



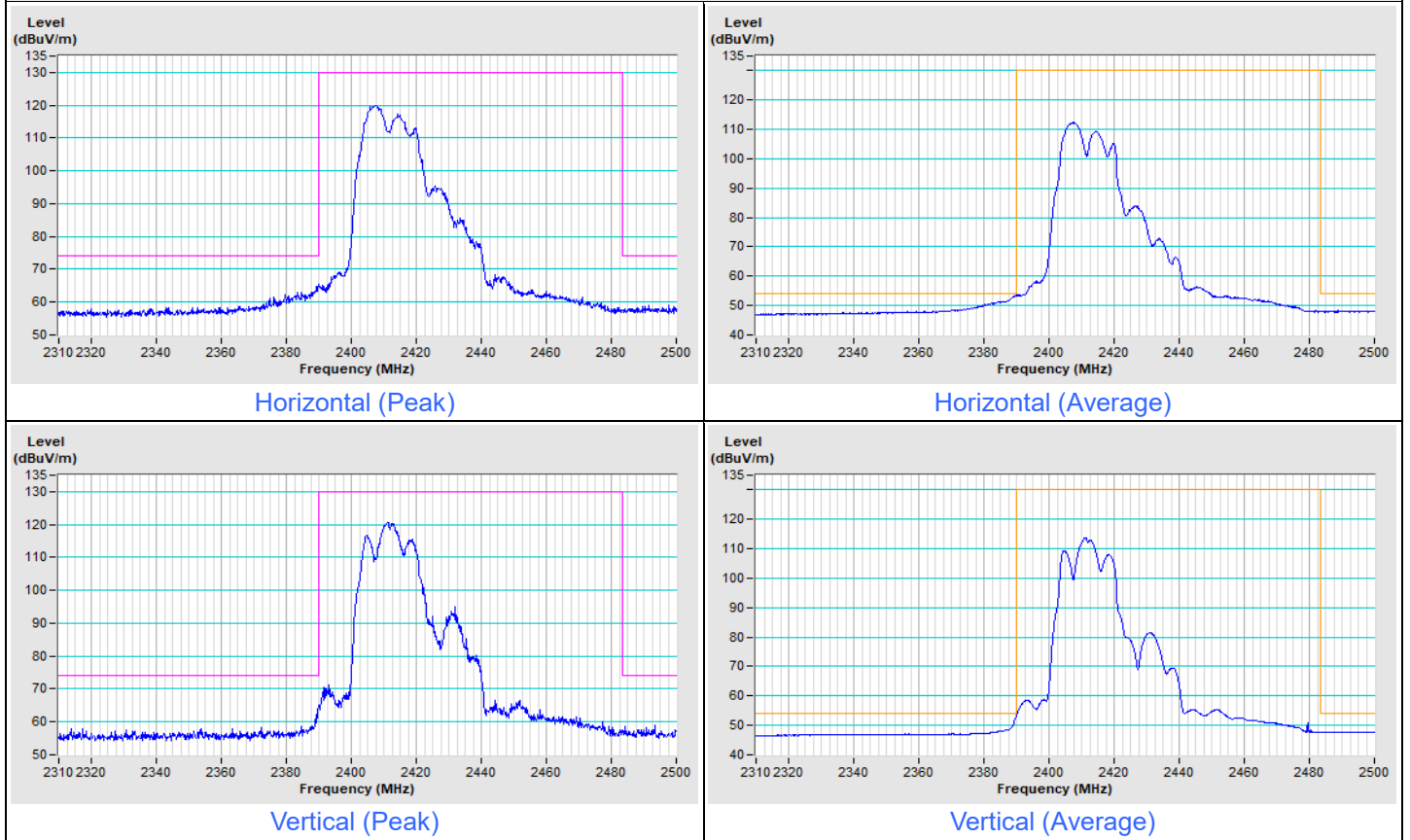
Vertical (Peak)



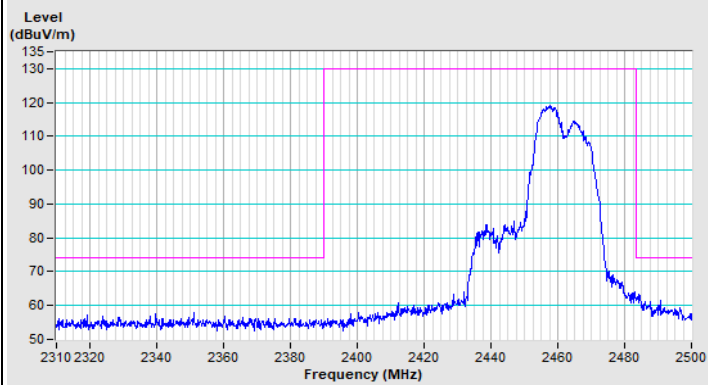
Vertical (Average)

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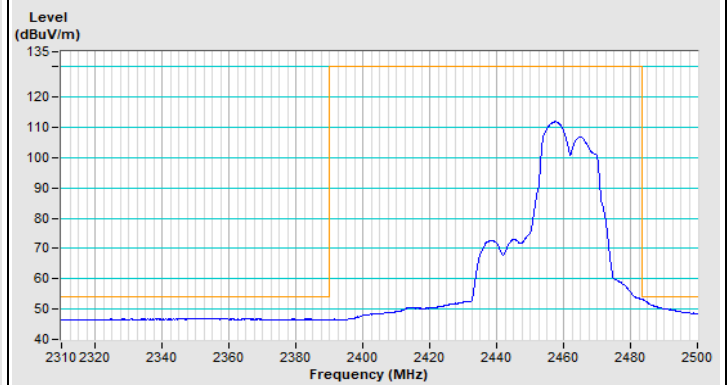
802.11g Channel 1



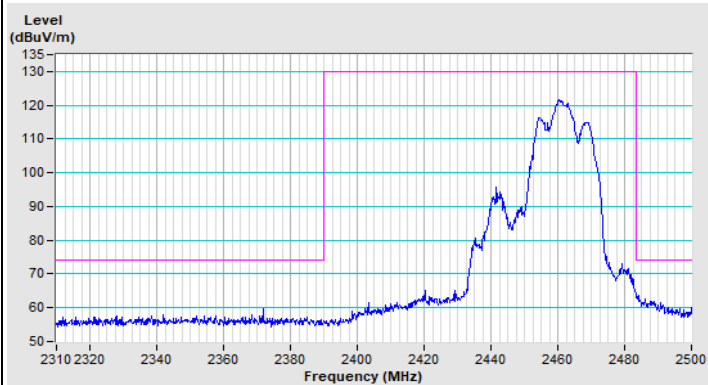
802.11g Channel 11



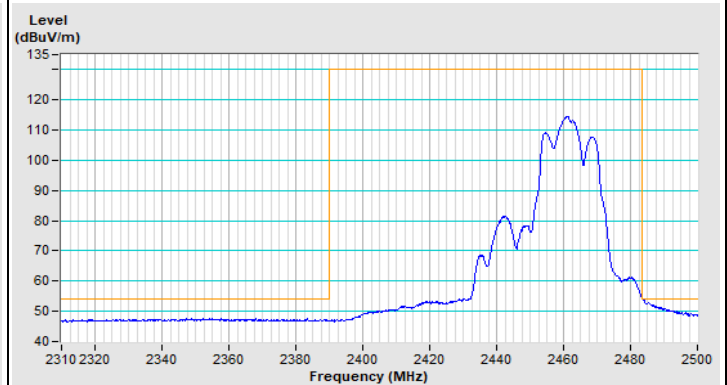
Horizontal (Peak)



Horizontal (Average)



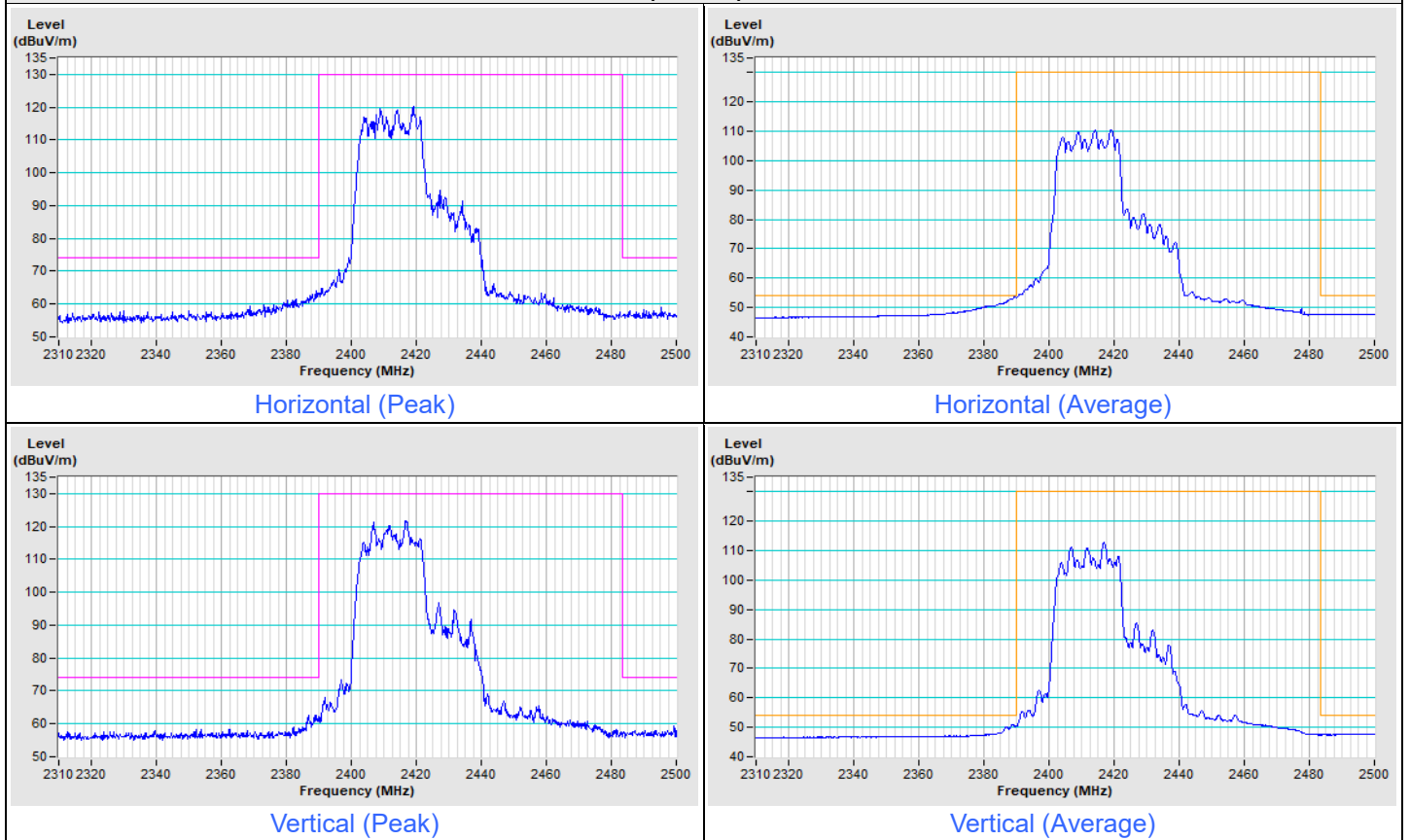
Vertical (Peak)



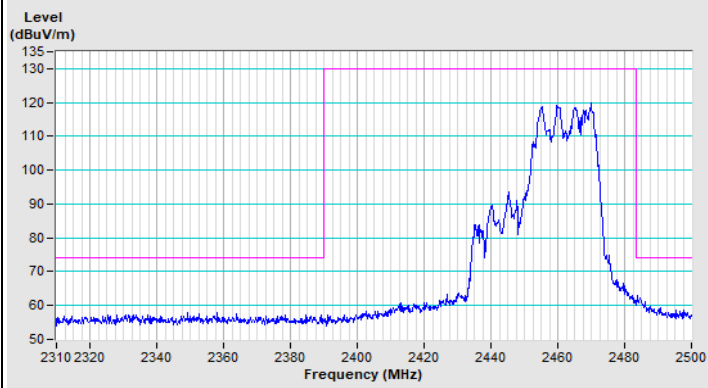
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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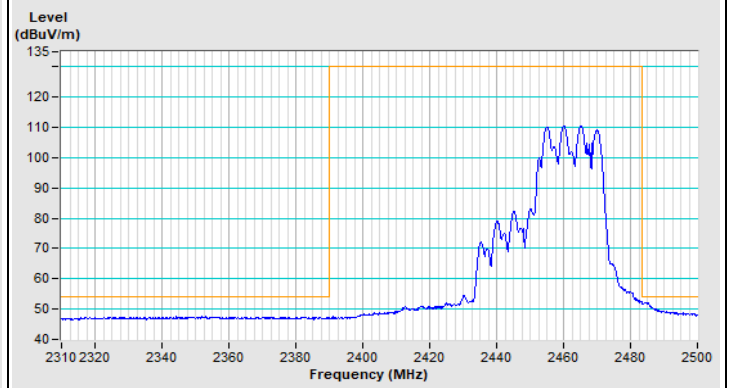
802.11be (EHT20) Channel 1



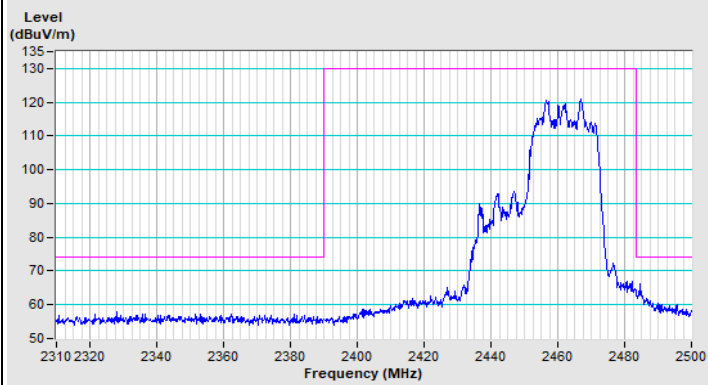
802.11be (EHT20) Channel 11



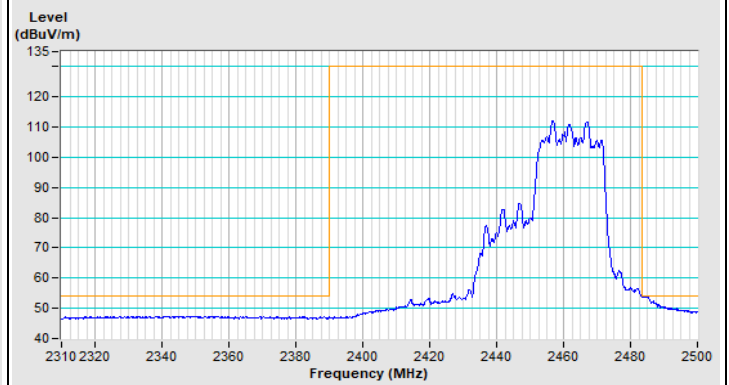
Horizontal (Peak)



Horizontal (Average)



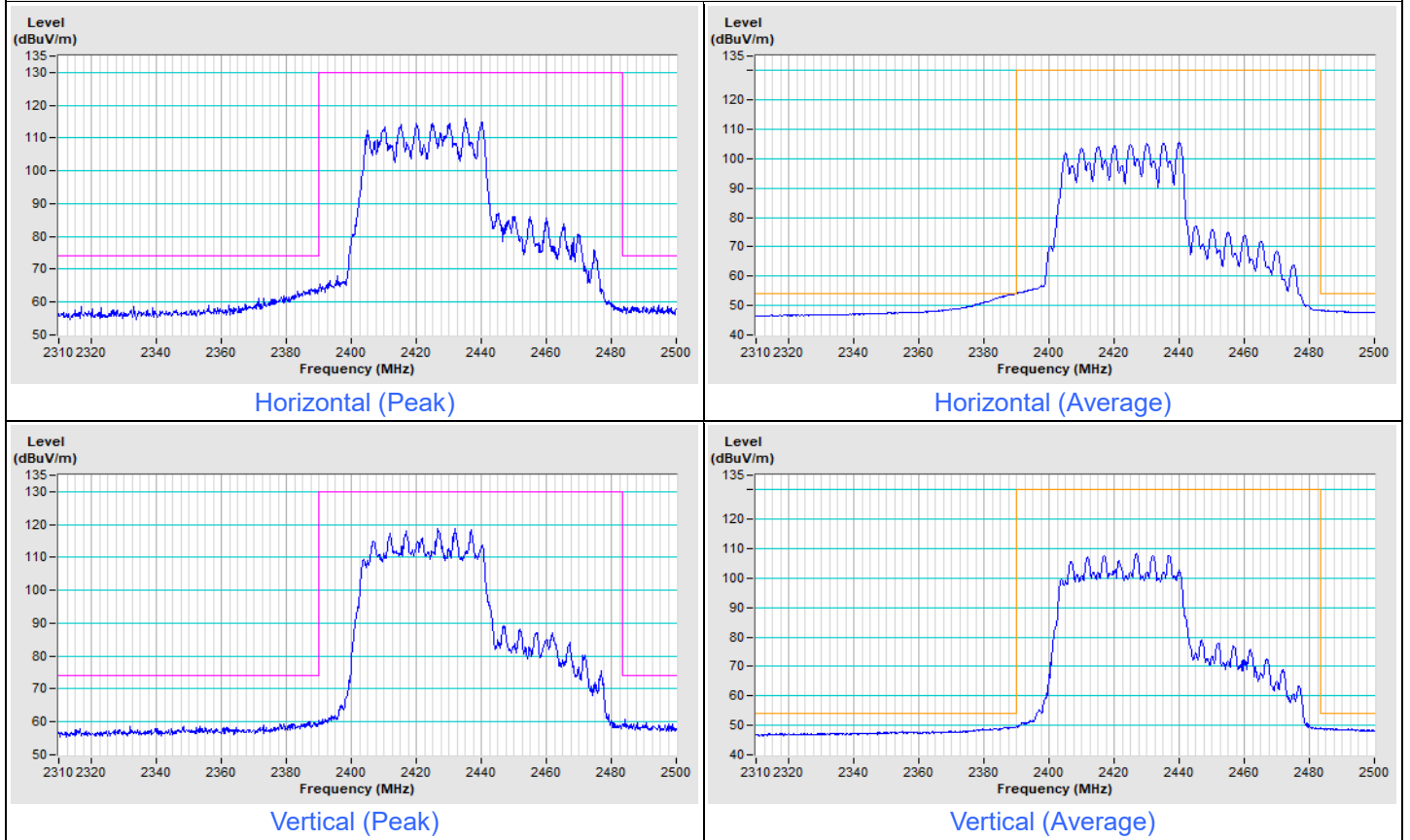
Vertical (Peak)



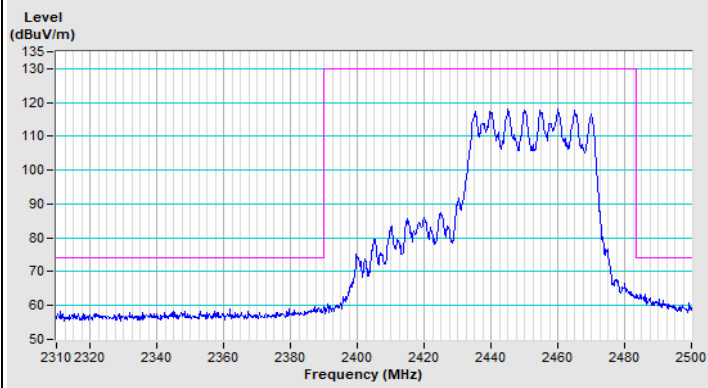
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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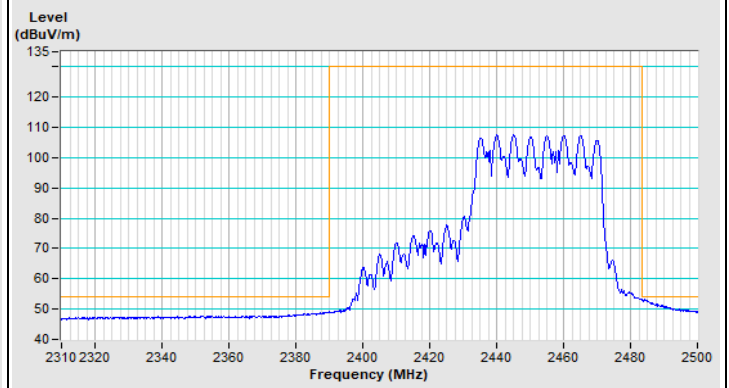
802.11be (EHT40) Channel 3



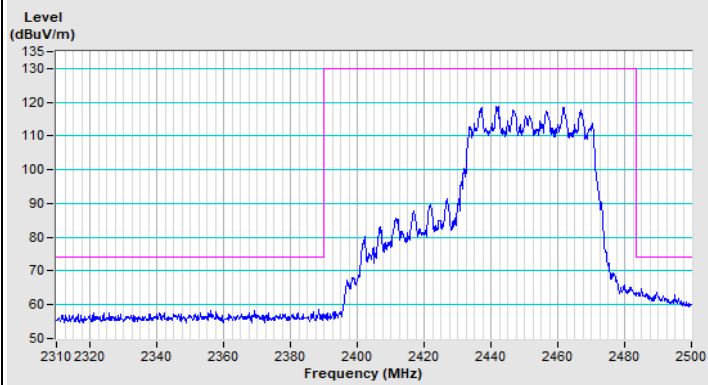
802.11be (EHT40) Channel 9



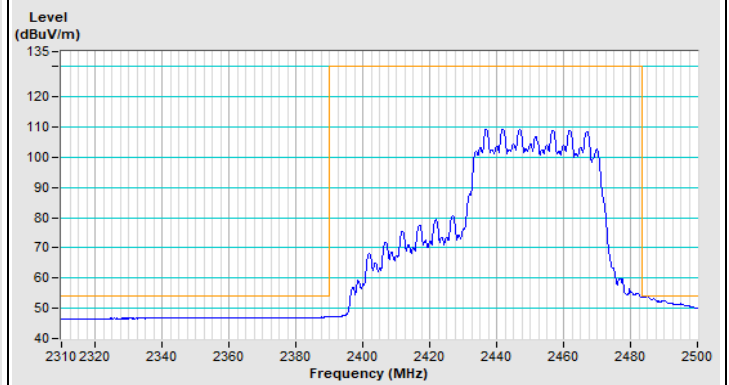
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.6 PK	74.0	-11.4	1.71 H	305	66.2	-3.6
2	2390.00	49.3 AV	54.0	-4.7	1.71 H	305	52.9	-3.6
3	*2412.00	116.0 PK			1.71 H	305	83.7	32.3
4	*2412.00	105.9 AV			1.71 H	305	73.6	32.3
5	4824.00	46.9 PK	74.0	-27.1	1.64 H	251	43.8	3.1
6	4824.00	35.7 AV	54.0	-18.3	1.64 H	251	32.6	3.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.4 PK	74.0	-10.6	1.89 V	336	67.0	-3.6
2	2390.00	44.7 AV	54.0	-9.3	1.89 V	336	48.3	-3.6
3	*2412.00	122.9 PK			1.89 V	336	90.6	32.3
4	*2412.00	111.9 AV			1.89 V	336	79.6	32.3
5	4824.00	48.0 PK	74.0	-26.0	1.64 V	158	44.9	3.1
6	4824.00	36.4 AV	54.0	-17.6	1.64 V	158	33.3	3.1

Remarks:

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

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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	113.9 PK			1.75 H	302	81.6	32.3
2	*2437.00	103.9 AV			1.75 H	302	71.6	32.3
3	4874.00	46.4 PK	74.0	-27.6	1.77 H	189	43.2	3.2
4	4874.00	35.7 AV	54.0	-18.3	1.77 H	189	32.5	3.2
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			1.72 V	336	87.9	32.3
2	*2437.00	110.2 AV			1.72 V	336	77.9	32.3
3	4874.00	48.0 PK	74.0	-26.0	1.64 V	128	44.8	3.2
4	4874.00	36.6 AV	54.0	-17.4	1.64 V	128	33.4	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	115.5 PK			1.73 H	300	83.3	32.2
2	*2462.00	106.1 AV			1.73 H	300	73.9	32.2
3	2483.50	63.5 PK	74.0	-10.5	1.73 H	300	66.9	-3.4
4	2483.50	44.5 AV	54.0	-9.5	1.73 H	300	47.9	-3.4
5	4924.00	46.6 PK	74.0	-27.4	1.94 H	228	43.3	3.3
6	4924.00	35.5 AV	54.0	-18.5	1.94 H	228	32.2	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	*2462.00	120.0 PK			1.83 V	335	87.8	32.2
2	*2462.00	110.1 AV			1.83 V	335	77.9	32.2
3	2483.50	64.3 PK	74.0	-9.7	1.83 V	335	67.7	-3.4
4	2483.50	45.4 AV	54.0	-8.6	1.83 V	335	48.8	-3.4
5	4924.00	47.8 PK	74.0	-26.2	1.52 V	126	44.5	3.3
6	4924.00	37.0 AV	54.0	-17.0	1.52 V	126	33.7	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 (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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

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	65.5 PK	74.0	-8.5	1.86 H	305	69.1	-3.6
2	2390.00	49.6 AV	54.0	-4.4	1.86 H	305	53.2	-3.6
3	*2422.00	116.2 PK			1.86 H	305	83.9	32.3
4	*2422.00	105.6 AV			1.86 H	305	73.3	32.3
5	4844.00	46.6 PK	74.0	-27.4	2.32 H	265	43.5	3.1
6	4844.00	34.3 AV	54.0	-19.7	2.32 H	265	31.2	3.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	67.4 PK	74.0	-6.6	1.84 V	340	71.0	-3.6
2	2390.00	47.7 AV	54.0	-6.3	1.84 V	340	51.3	-3.6
3	*2422.00	119.5 PK			1.84 V	340	87.2	32.3
4	*2422.00	109.2 AV			1.84 V	340	76.9	32.3
5	4844.00	47.7 PK	74.0	-26.3	1.25 V	188	44.6	3.1
6	4844.00	35.3 AV	54.0	-18.7	1.25 V	188	32.2	3.1

Remarks:

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

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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

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	118.6 PK			1.85 H	302	86.3	32.3
2	*2437.00	107.9 AV			1.85 H	302	75.6	32.3
3	4874.00	46.7 PK	74.0	-27.3	2.15 H	146	43.5	3.2
4	4874.00	34.8 AV	54.0	-19.2	2.15 H	146	31.6	3.2
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	121.8 PK			1.84 V	335	89.5	32.3
2	*2437.00	111.3 AV			1.84 V	335	79.0	32.3
3	4874.00	47.5 PK	74.0	-26.5	1.84 V	155	44.3	3.2
4	4874.00	35.8 AV	54.0	-18.2	1.84 V	155	32.6	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	21.6 °C, 71.3 % RH
Tested By	Ian Chang		

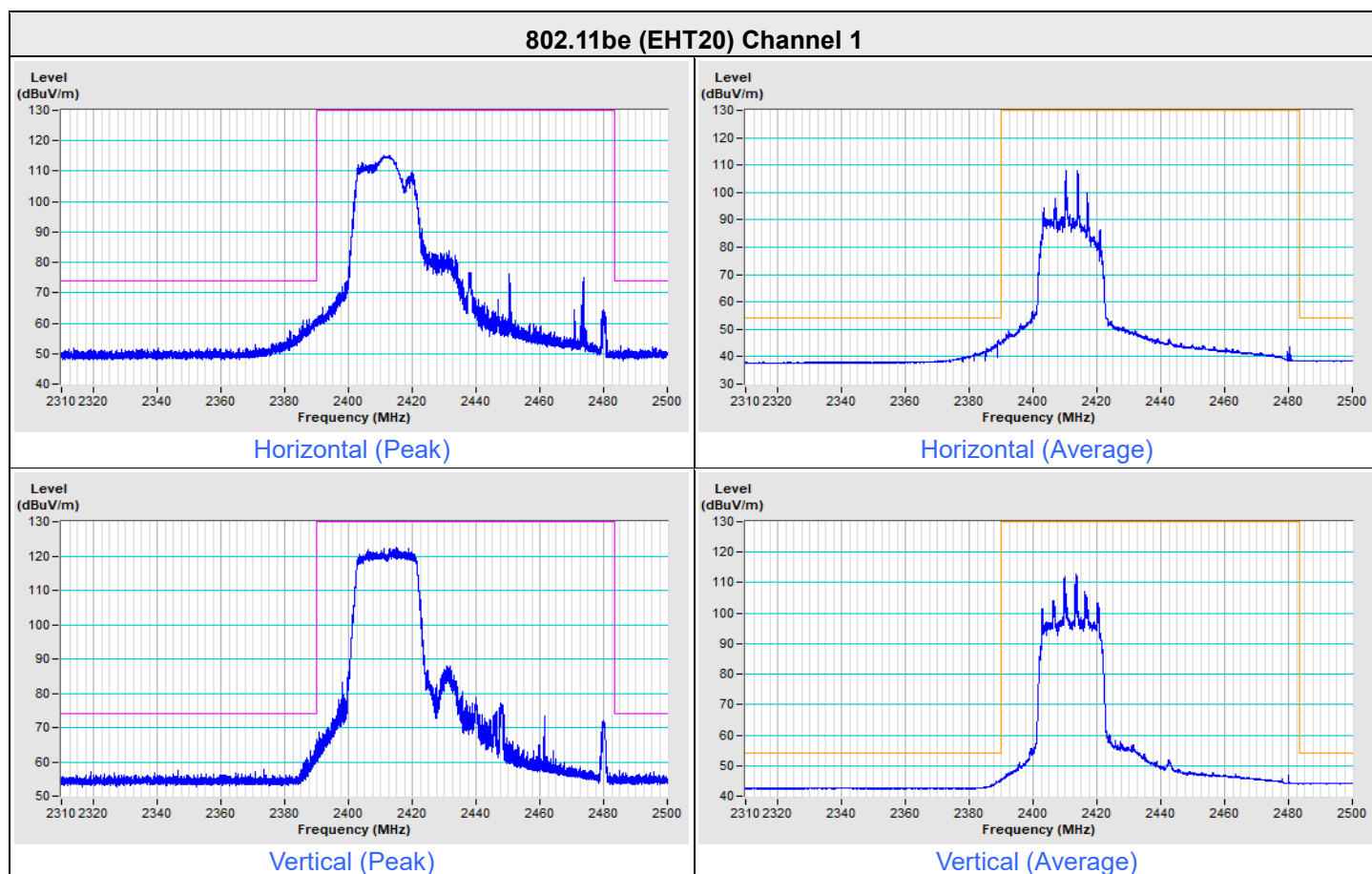
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	116.3 PK			1.58 H	303	84.1	32.2
2	*2452.00	106.4 AV			1.58 H	303	74.2	32.2
3	2483.50	59.2 PK	74.0	-14.8	1.58 H	303	62.6	-3.4
4	2483.50	43.0 AV	54.0	-11.0	1.58 H	303	46.4	-3.4
5	4904.00	46.9 PK	74.0	-27.1	2.15 H	148	43.6	3.3
6	4904.00	34.9 AV	54.0	-19.1	2.15 H	148	31.6	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	*2452.00	119.7 PK			1.87 V	333	87.5	32.2
2	*2452.00	109.8 AV			1.87 V	333	77.6	32.2
3	2483.50	61.5 PK	74.0	-12.5	1.87 V	333	64.9	-3.4
4	2483.50	45.0 AV	54.0	-9.0	1.87 V	333	48.4	-3.4
5	4904.00	47.9 PK	74.0	-26.1	1.62 V	134	44.6	3.3
6	4904.00	35.8 AV	54.0	-18.2	1.62 V	134	32.5	3.3

Remarks:

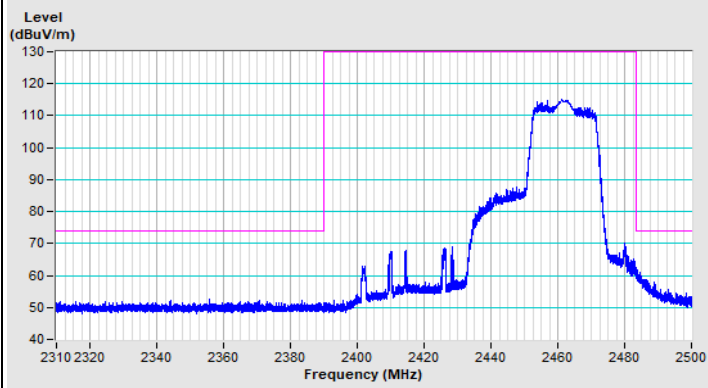
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency,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

Plot of Band Edge_Beamforming

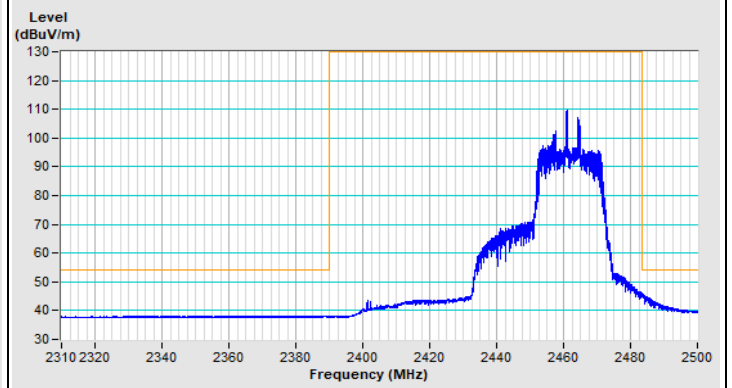
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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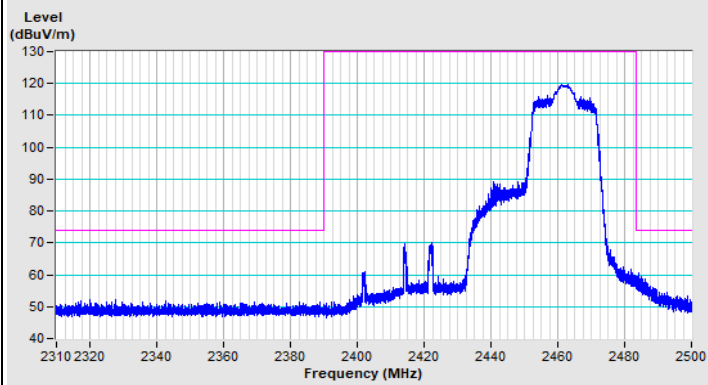
802.11be (EHT20) Channel 11



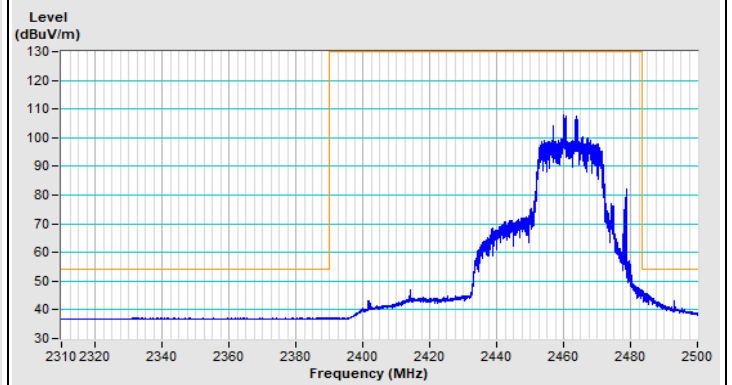
Horizontal (Peak)



Horizontal (Average)



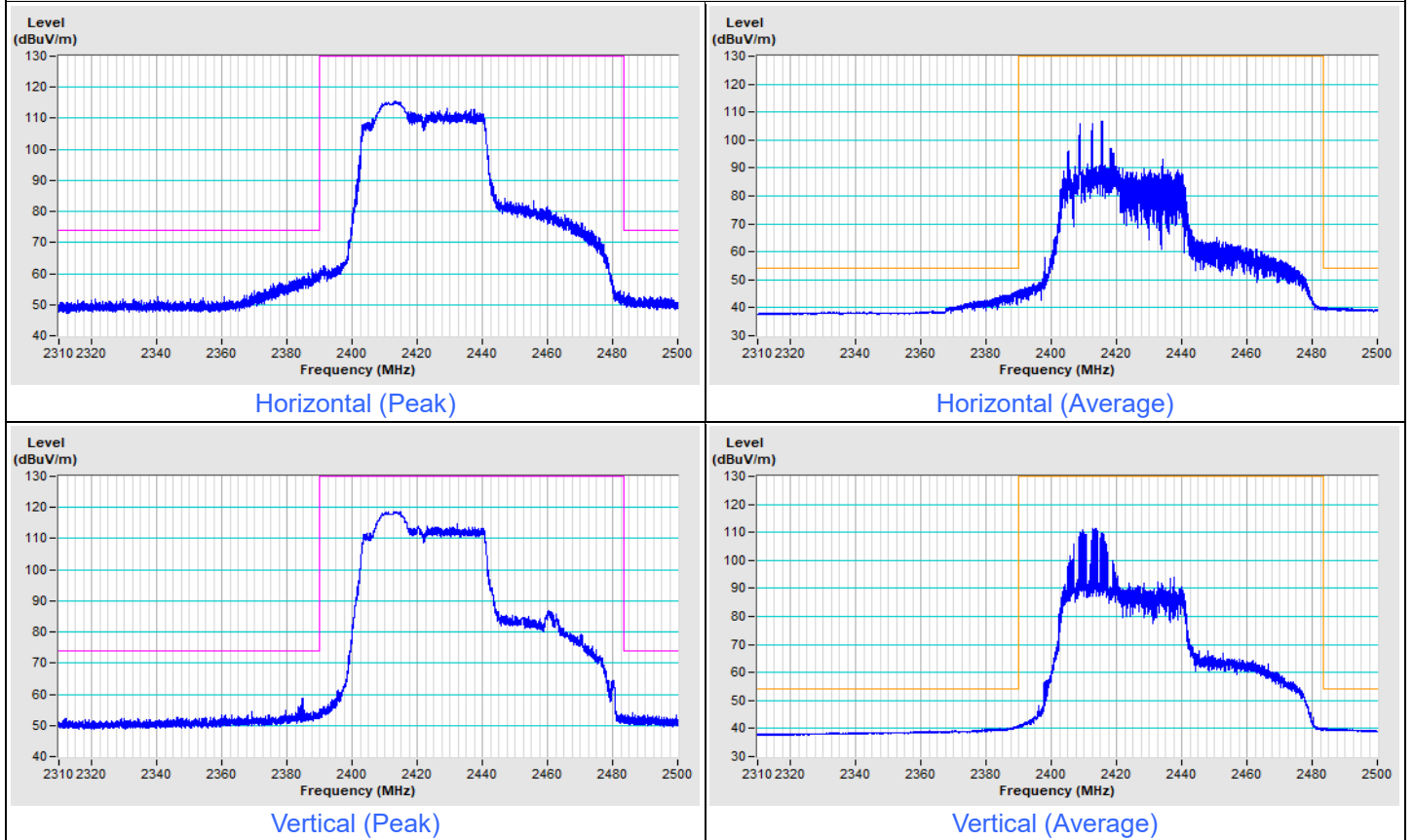
Vertical (Peak)



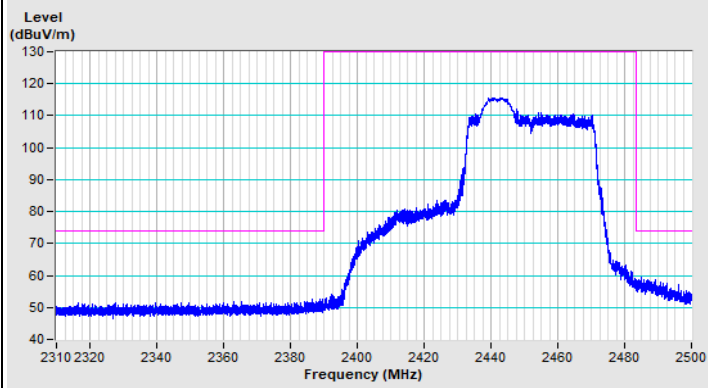
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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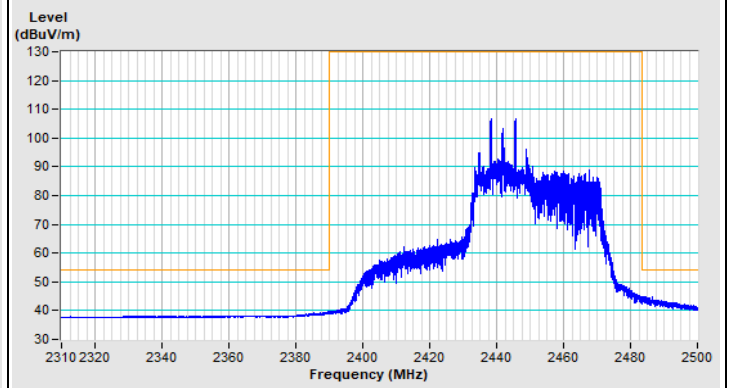
802.11be (EHT40) Channel 3



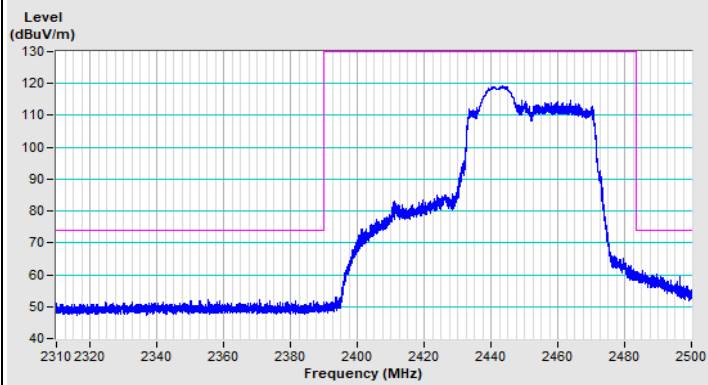
802.11be (EHT40) Channel 9



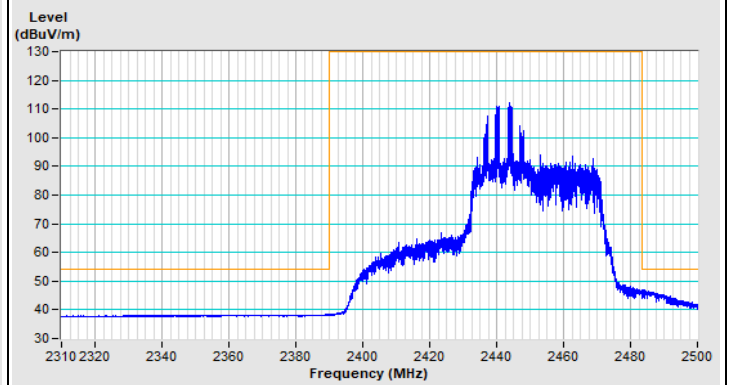
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Fax: 886-3-6668323

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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.

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