FCC Test Report

Report No.:	RFBEIH-WTW-P20110721
FCC ID:	P27-XIONESCM1
Test Model:	SCXI13AEI-BCO
Series Model:	SCXIxxAEI-xCO (xx For Marketing purpose (e.g.11, 12,13,14~); x External Body Color for Product (e.g. Black=B; Gray=G; White= W))
Received Date:	Nov. 24, 2020
Test Date:	Dec. 3, 2020 to Jan. 5, 2021
Issued Date:	Jan. 15, 2021
Applicant:	Sercomm Corp.
Address:	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C. (NanKang Software Park)
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
FCC Registration / Designation Number:	198487 / TW2021

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Release Control Record

Issue No.	Description	Date Issued
RFBEIH-WTW-P20110721	Original release.	Jan. 15, 2021

1 Certificate of Conformity

Product:	Xione-SC
Brand:	Comcast Xnifity
Test Model:	SCXI13AEI-BCO
Series Model:	SCXIxxAEI-xCO (xx For Marketing purpose (e.g.11, 12,13,14~); x External Body Color for Product (e.g. Black=B; Gray=G; White= W))
Sample Status:	Engineering sample
Applicant:	Sercomm Corp.
Test Date:	Dec. 3, 2020 to Jan. 5, 2021
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10: 2013

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.

Prepared by : Annie Chang , **Date:** Jan. 15, 2021

Annie Chang / Senior Specialist

Approved by : Rex. Lai , **Date:** Jan. 15, 2021

Rex Lai / Associate Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -12.23dB at 0.58750MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.02dB at 2390.00MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

Note:
1. For 2.4GHz band compliance with rule 15.247(d) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
2. 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	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Conducted Emissions	9kHz ~ 40GHz	2.63 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	2.61 dB
	30MHz ~ 1GHz	5.43 dB
Radiated Emissions above 1 GHz	Above 1GHz	5.14 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Xione-SC
Brand	Comcast Xnifity
Test Model	SCXI13AEI-BCO
Series Model	SCXIxxAEI-xCO (xx For Marketing purpose (e.g.11, 12,13,14~); x External Body Color for Product (e.g. Black=B; Gray=G; White= W))
Model Difference	Marketing Differentiation
Test software Version	QRCT
Status of EUT	Engineering sample
Power Supply Rating	5Vdc from Adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n (20MHz/40MHz): up to 300Mbps 802.11ac (20MHz/40MHz): up to 400Mbps 802.11ax (20MHz/40MHz): up to 573.5Mbps
Operating Frequency	2412MHz ~ 2462MHz
Number of Channel	802.11b/ 802.11g/ 802.11n (20MHz)/802.11ac (20MHz)/802.11ax (20MHz): 11 802.11n (40MHz)/802.11ac (40MHz)/802.11ax (40MHz)): 7
Output Power	CDD Mode: 407.434mW Beamforming Mode: 173.385mW
Antenna Type	Ant. 0: Printed Antenna with 2.93dBi gain Ant. 1: Printed Antenna with 2.70dBi gain
Antenna Connector	N/A
Accessory Device	Adapter
Data Cable Supplied	N/A

Note:

1. The EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	CDD Mode	Beamforming Mode	TX Function
802.11b	Support	Not Support	2TX
802.11g	Support	Not Support	2TX
802.11n (20MHz)	Support	Not Support	2TX
802.11n (40MHz)	Support	Not Support	2TX
802.11ac (20MHz)	Support	Support	2TX
802.11ac (40MHz)	Support	Support	2TX
802.11ax (20MHz)	Support	Support	2TX
802.11ax (40MHz)	Support	Support	2TX

* The bandwidth and modulation are similar for 20MHz/40MHz on 802.11n mode and 20MHz/40MH on 802.11n mode and 20MHz/40MH on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n/ac/ax, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

2. WLAN & Bluetooth technologies can transmit at same time. 2.4GHz & 5GHz WLAN technologies cannot transmit at same time.

3. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

4. The EUT consumes power from a switching power adapter, which has several models could be chosen, as the following:

Adapter	Brand	Model No.	Specification
1	LEI	ML08-7050150-A1	AC I/P: 100-120V, 50/60Hz, 0.25A DC O/P: 5V, 1.5A AC 2 Pin Non-shielded DC cable (1.8m)
2	Acbel	WAK010	AC I/P: 100-120V, 50/60Hz, 0.25A DC O/P: 5V, 1.5A AC 2 Pin Non-shielded DC cable (1.8m)

The above two adapters were pre-tested, and Adapter 1 was the worst case for final test.

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 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz), 802.11ac (20MHz), 802.11ax (20MHz):

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

7 channels are provided for 802.11n (40MHz), 802.11ac (40MHz), 802.11ax (40MHz):

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz & Bandedge Measurement **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
CDD Mode						
-	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
	802.11ax (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11ax (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
CDD Mode						
-	802.11ax (20MHz)	1 to 11	6	OFDM	BPSK	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
CDD Mode						
-	802.11ax (20MHz)	1 to 11	6	OFDM	BPSK	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
CDD Mode						
-	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
	802.11n (20MHz)*	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (40MHz)*	3 to 9	3, 6, 9	OFDM	BPSK	13.5
	802.11ac (20MHz)*	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11ac (40MHz)*	3 to 9	3, 6, 9	OFDM	BPSK	13.5
	802.11ax (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11ax (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
* 802.11n (20MHz), 802.11n (40MHz), 802.11ac (20MHz), 802.11ac (40MHz) are for Conducted Power Measurement only.						
Beamforming Mode (Conducted Power Measurement only)						
-	802.11ac (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11ac (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
	802.11ax (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11ax (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

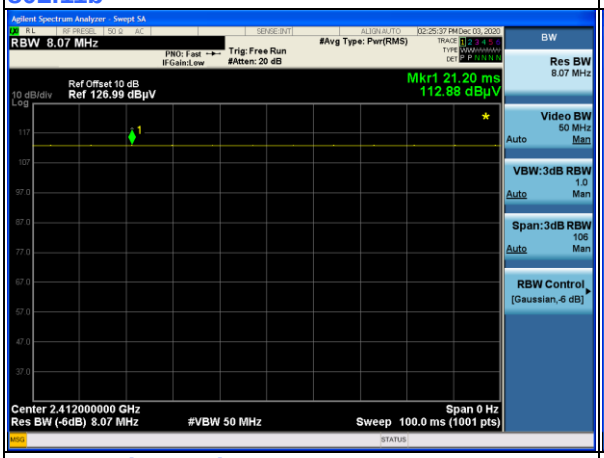
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	23deg. C, 70%RH	120Vac, 60Hz	Dalen Dai
RE<1G	19deg. C, 77%RH	120Vac, 60Hz	Dalen Dai
PLC	25deg. C, 75%RH	120Vac, 60Hz	Pirar Hsieh
APCM	25deg. C, 76%RH	120Vac, 60Hz	Saxon Lee

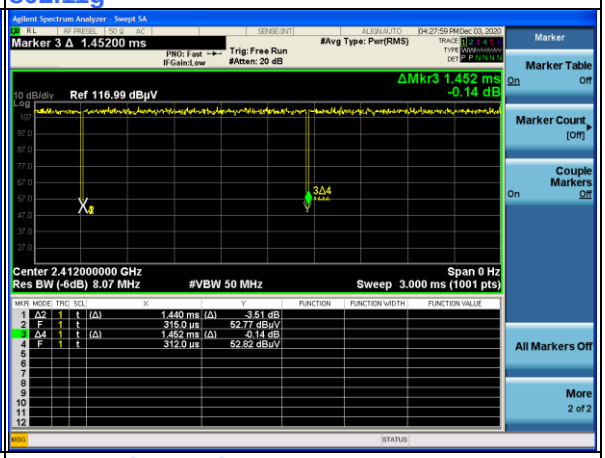
3.3 Duty Cycle of Test Signal

If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.
802.11b: Duty cycle = 100%
802.11g: Duty cycle = 1.44/1.452 = 0.992
802.11ax (20MHz): Duty cycle = 100%
802.11ax (40MHz): Duty cycle = 100%

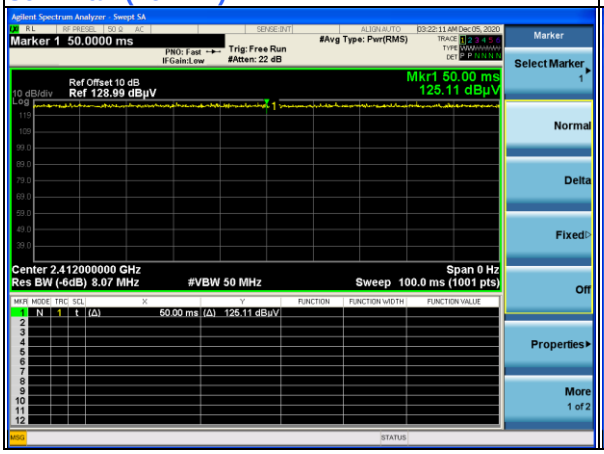
802.11b



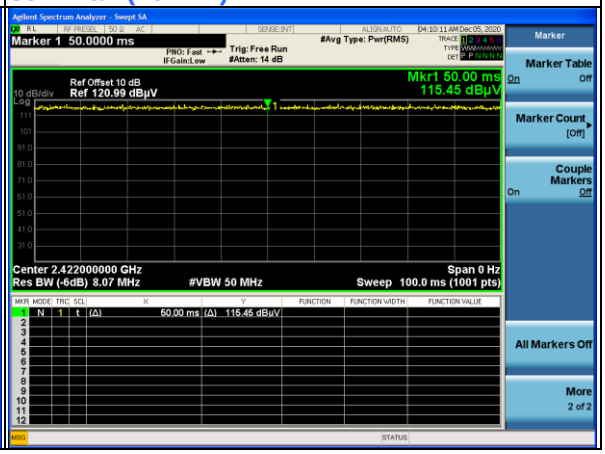
802.11g



802.11ax (20MHz)



802.11ax (40MHz)



3.4 Description of Support Units

The ET has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

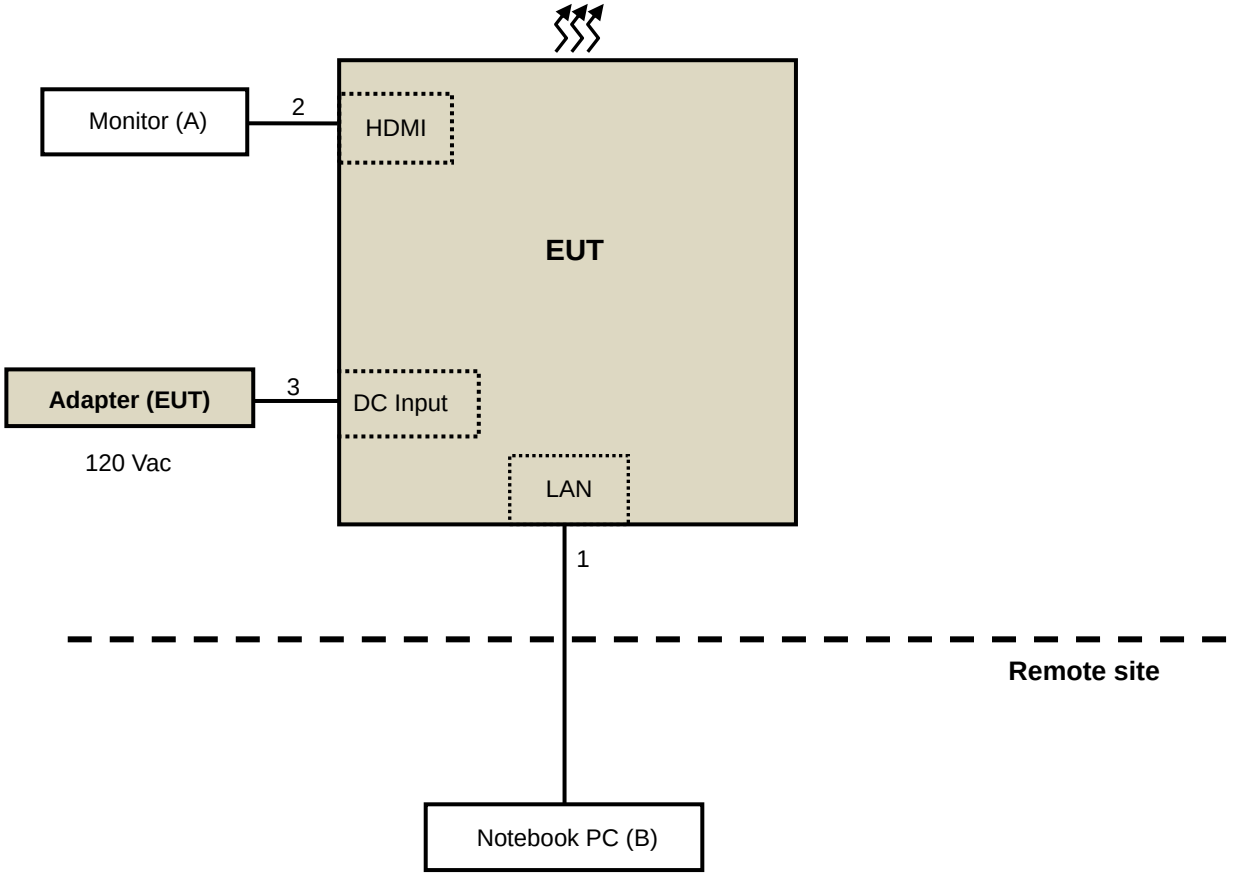
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	LCD Monitor	ASUS	MG28UQ	H8LMTF147978	N/A	Supplied by client
B.	Notebook PC	Lenovo	81LG	PHNGBDP	N/A	Provided by Lab

Note:
1. All power cords of the above support units are non-shielded (1.8m).
2. Item B acted as communication partners to transfer data.

No.	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/ No)	Cores (Qty.)	Remarks
1.	LAN cable	1	10	N	0	Provided by Lab (RJ45, Cat.5e)
2.	HDMI cable	1	1.5	Y	0	Provided by Lab
3.	DC cable	1	1.8	N	0	Supplied by client

NOTE: The core(s) is(are) originally attached to the cable(s).

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and references

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test standard:
FCC Part 15, Subpart C (15.247)
ANSI C63.10-2013
All test items have been performed and recorded as per the above standards.

References Test Guidance:
KDB 558074 D01 15.247 Meas Guidance v05r02
All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB 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

NOTE:

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 1000MHz, 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 20dB under any condition of modulation.

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 19, 2020	Feb. 18, 2021
HP Preamplifier	8449B	3008A01201	Feb. 20, 2020	Feb. 19, 2021
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Feb. 19, 2020	Feb. 18, 2021
Agilent TEST RECEIVER	N9038A	MY51210129	Mar. 18, 2020	Mar. 17, 2021
Schwarzbeck Antenna	VULB 9168	139	Nov. 6, 2020	Nov. 5, 2021
Schwarzbeck Antenna	VHBA 9123	480	Jun. 3, 2019	Jun. 2, 2021
Schwarzbeck Horn Antenna	BBHA-9170	212	Nov. 22, 2020	Nov. 21, 2021
EMCO Horn Antenna	3115	00027024	Nov. 22, 2020	Nov.21, 2021
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.5	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF102	Cable-CH6-01	Jul. 9, 2020	Jul. 8, 2021
EMEC RF cable With 3/4dB PAD	EM102-KMKM	01	Aug. 21, 2020	Aug. 20, 2021
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	Jun. 16, 2020	Jun. 15, 2021
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Jul. 22, 2020	Jul. 21, 2021
Loop Antenna EMCI	LPA600	270	Aug. 23, 2019	Aug. 22, 2021
EMCO Horn Antenna	3115	00028257	Nov. 22, 2020	Nov. 21, 2021
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 8, 2020	Sep. 7, 2021
Anritsu Power Sensor	MA2411B	0738404	Apr. 13, 2020	Apr. 12, 2021
Anritsu Power Meter	ML2495A	0842014	Apr. 13, 2020	Apr. 12, 2021

NOTE: 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Chamber No. 6.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) 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.

f. 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz. (802.11b: RBW = 1MHz, VBW = 10Hz; 802.11g: RBW = 1MHz, VBW = 10Hz; 802.11ax (20MHz): RBW = 1MHz, VBW = 10Hz; 802.11ax (40MHz): RBW = 1MHz, VBW = 10Hz)

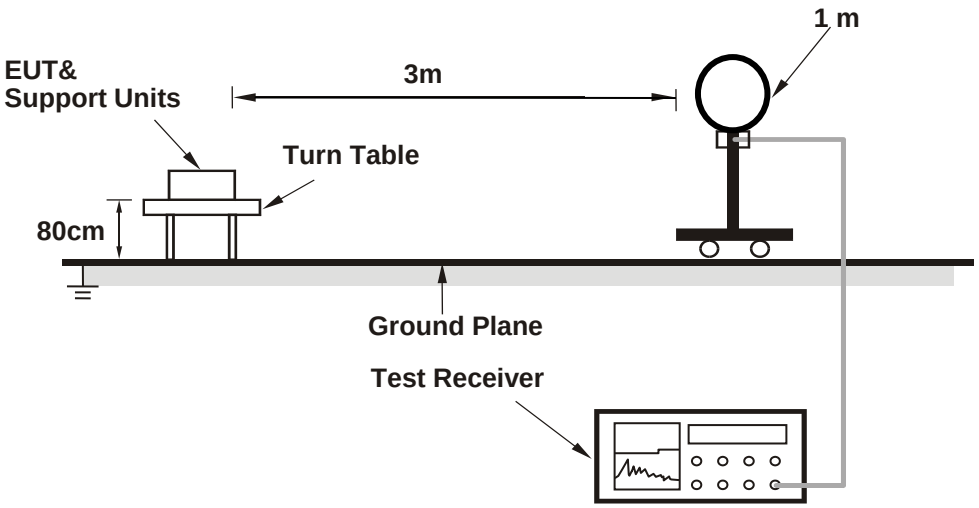
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

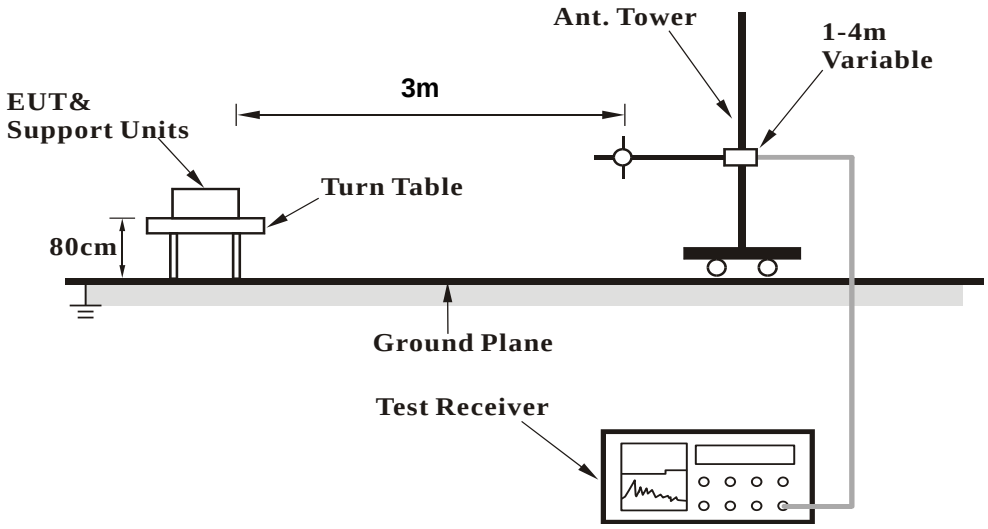
No deviation.

4.1.5 Test Setup

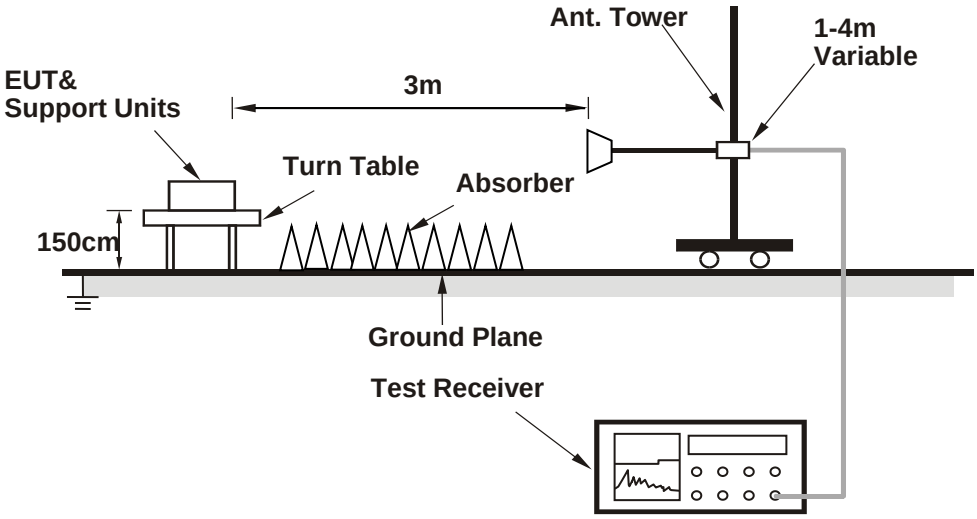
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

ABOVE 1GHz DATA

CDD Mode

RF Mode	TX 802.11b	**Channel**	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	**Detector Function**	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	2390.00	57.77 PK	74.00	-16.23	1.46 H	125	56.42	1.35
2	2390.00	47.82 AV	54.00	-6.18	1.46 H	125	46.47	1.35
3	*2412.00	115.47 PK			1.46 H	125	114.02	1.45
4	*2412.00	113.33 AV			1.46 H	125	111.88	1.45
5	4824.00	51.04 PK	74.00	-22.96	1.34 H	141	41.62	9.42
6	4824.00	40.45 AV	54.00	-13.55	1.34 H	141	31.03	9.42
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	56.62 PK	74.00	-17.38	3.73 V	246	55.27	1.35
2	2390.00	46.57 AV	54.00	-7.43	3.73 V	246	45.22	1.35
3	*2412.00	112.47 PK			3.73 V	246	111.02	1.45
4	*2412.00	110.32 AV			3.73 V	246	108.87	1.45
5	4824.00	50.86 PK	74.00	-23.14	2.93 V	174	41.44	9.42
6	4824.00	40.30 AV	54.00	-13.70	2.93 V	174	30.88	9.42

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.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	115.11 PK			1.61 H	115	113.58	1.53
2	*2437.00	112.94 AV			1.61 H	115	111.41	1.53
3	4874.00	51.01 PK	74.00	-22.99	1.31 H	138	41.50	9.51
4	4874.00	40.45 AV	54.00	-13.55	1.31 H	138	30.94	9.51
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	112.24 PK			3.69 V	252	110.71	1.53
2	*2437.00	110.13 AV			3.69 V	252	108.60	1.53
3	4874.00	49.83 PK	74.00	-24.17	2.95 V	177	40.32	9.51
4	4874.00	40.24 AV	54.00	-13.76	2.95 V	177	30.73	9.51

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.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	113.80 PK			2.17 H	116	112.12	1.68
2	*2462.00	111.59 AV			2.17 H	116	109.91	1.68
3	2483.50	58.04 PK	74.00	-15.96	2.17 H	116	56.21	1.83
4	2483.50	50.15 AV	54.00	-3.85	2.17 H	116	48.32	1.83
5	4924.00	50.99 PK	74.00	-23.01	1.36 H	145	41.44	9.55
6	4924.00	40.46 AV	54.00	-13.54	1.36 H	145	30.91	9.55
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	111.57 PK			3.70 V	256	109.89	1.68
2	*2462.00	109.53 AV			3.70 V	256	107.85	1.68
3	2483.50	57.14 PK	74.00	-16.86	3.70 V	256	55.31	1.83
4	2483.50	47.72 AV	54.00	-6.28	3.70 V	256	45.89	1.83
5	4924.00	50.63 PK	74.00	-23.37	2.99 V	172	41.08	9.55
6	4924.00	40.06 AV	54.00	-13.94	2.99 V	172	30.51	9.55

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.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	64.05 PK	74.00	-9.95	1.45 H	0	62.70	1.35
2	2390.00	52.80 AV	54.00	-1.20	1.45 H	0	51.45	1.35
3	*2412.00	116.47 PK			1.45 H	0	115.02	1.45
4	*2412.00	107.42 AV			1.45 H	0	105.97	1.45
5	4824.00	50.03 PK	74.00	-23.97	1.28 H	146	40.61	9.42
6	4824.00	39.35 AV	54.00	-14.65	1.28 H	146	29.93	9.42
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	59.12 PK	74.00	-14.88	3.38 V	148	57.77	1.35
2	2390.00	48.86 AV	54.00	-5.14	3.38 V	148	47.51	1.35
3	*2412.00	111.13 PK			3.38 V	148	109.68	1.45
4	*2412.00	101.85 AV			3.38 V	148	100.40	1.45
5	4824.00	49.95 PK	74.00	-24.05	2.84 V	178	40.53	9.42
6	4824.00	39.31 AV	54.00	-14.69	2.84 V	178	29.89	9.42

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.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	118.73 PK			1.45 H	114	117.20	1.53
2	*2437.00	109.59 AV			1.45 H	114	108.06	1.53
3	4874.00	51.14 PK	74.00	-22.86	1.24 H	155	41.63	9.51
4	4874.00	40.16 AV	54.00	-13.84	1.24 H	155	30.65	9.51
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	113.52 PK			3.43 V	241	111.99	1.53
2	*2437.00	104.39 AV			3.43 V	241	102.86	1.53
3	4874.00	50.67 PK	74.00	-23.33	2.89 V	173	41.16	9.51
4	4874.00	39.88 AV	54.00	-14.12	2.89 V	173	30.37	9.51

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.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	115.04 PK			1.43 H	113	113.36	1.68
2	*2462.00	106.03 AV			1.43 H	113	104.35	1.68
3	2483.50	62.82 PK	74.00	-11.18	1.43 H	113	60.99	1.83
4	2483.50	52.27 AV	54.00	-1.73	1.43 H	113	50.44	1.83
5	4924.00	49.97 PK	74.00	-24.03	1.25 H	151	40.42	9.55
6	4924.00	39.31 AV	54.00	-14.69	1.25 H	151	29.76	9.55
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	110.22 PK			3.39 V	238	108.54	1.68
2	*2462.00	101.18 AV			3.39 V	238	99.50	1.68
3	2483.50	58.71 PK	74.00	-15.29	3.39 V	238	56.88	1.83
4	2483.50	48.33 AV	54.00	-5.67	3.39 V	238	46.50	1.83
5	4924.00	49.85 PK	74.00	-24.15	2.82 V	170	40.30	9.55
6	4924.00	39.26 AV	54.00	-14.74	2.82 V	170	29.71	9.55

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.

RF Mode	TX 802.11ax (20MHz)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	62.53 PK	74.00	-11.47	1.46 H	115	61.18	1.35
2	2390.00	52.24 AV	54.00	-1.76	1.46 H	115	50.89	1.35
3	*2412.00	117.40 PK			1.46 H	115	115.95	1.45
4	*2412.00	106.14 AV			1.46 H	115	104.69	1.45
5	4824.00	51.20 PK	74.00	-22.80	1.68 H	234	41.78	9.42
6	4824.00	40.30 AV	54.00	-13.70	1.68 H	234	30.88	9.42
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	57.83 PK	74.00	-16.17	3.46 V	241	56.48	1.35
2	2390.00	47.03 AV	54.00	-6.97	3.46 V	241	45.68	1.35
3	*2412.00	111.32 PK			3.46 V	241	109.87	1.45
4	*2412.00	100.21 AV			3.46 V	241	98.76	1.45
5	4824.00	50.55 PK	74.00	-23.45	2.25 V	231	41.13	9.42
6	4824.00	39.66 AV	54.00	-14.34	2.25 V	231	30.24	9.42

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.

RF Mode	TX 802.11ax (20MHz)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	121.07 PK			1.27 H	122	119.54	1.53
2	*2437.00	109.80 AV			1.27 H	122	108.27	1.53
3	4874.00	51.19 PK	74.00	-22.81	1.94 H	264	41.68	9.51
4	4874.00	40.35 AV	54.00	-13.65	1.94 H	264	30.84	9.51
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	115.66 PK			3.44 V	236	114.13	1.53
2	*2437.00	104.87 AV			3.44 V	236	103.34	1.53
3	4874.00	50.74 PK	74.00	-23.26	1.63 V	230	41.23	9.51
4	4874.00	39.78 AV	54.00	-14.22	1.63 V	230	30.27	9.51

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.

RF Mode	TX 802.11ax (20MHz)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	116.46 PK			1.25 H	121	114.78	1.68
2	*2462.00	105.31 AV			1.25 H	121	103.63	1.68
3	2483.50	64.18 PK	74.00	-9.82	1.25 H	121	62.35	1.83
4	2483.50	52.93 AV	54.00	-1.07	1.25 H	121	51.10	1.83
5	4924.00	51.31 PK	74.00	-22.69	1.57 H	148	41.76	9.55
6	4924.00	40.21 AV	54.00	-13.79	1.57 H	148	30.66	9.55
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	110.35 PK			3.48 V	239	108.67	1.68
2	*2462.00	99.21 AV			3.48 V	239	97.53	1.68
3	2483.50	59.32 PK	74.00	-14.68	3.48 V	239	57.49	1.83
4	2483.50	48.48 AV	54.00	-5.52	3.48 V	239	46.65	1.83
5	4924.00	50.44 PK	74.00	-23.56	2.21 V	317	40.89	9.55
6	4924.00	39.62 AV	54.00	-14.38	2.21 V	317	30.07	9.55

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.

RF Mode	TX 802.11ax (40MHz)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	66.38 PK	74.00	-7.62	2.05 H	262	65.03	1.35
2	**2390.00**	**52.98 AV**	**54.00**	**-1.02**	**2.05 H**	**262**	**51.63**	**1.35**
3	*2422.00	111.74 PK			2.05 H	262	110.25	1.49
4	*2422.00	100.35 AV			2.05 H	262	98.86	1.49
5	4844.00	51.00 PK	74.00	-23.00	1.63 H	325	41.54	9.46
6	4844.00	40.20 AV	54.00	-13.80	1.63 H	325	30.74	9.46
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	61.46 PK	74.00	-12.54	3.49 V	265	60.11	1.35
2	2390.00	48.30 AV	54.00	-5.70	3.49 V	265	46.95	1.35
3	*2422.00	106.95 PK			3.49 V	265	105.46	1.49
4	*2422.00	96.37 AV			3.49 V	265	94.88	1.49
5	4844.00	50.30 PK	74.00	-23.70	1.74 V	185	40.84	9.46
6	4844.00	39.67 AV	54.00	-14.33	1.74 V	185	30.21	9.46

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.

RF Mode	TX 802.11ax (40MHz)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	64.32 PK	74.00	-9.68	2.04 H	253	62.97	1.35
2	2390.00	52.20 AV	54.00	-1.80	2.04 H	253	50.85	1.35
3	*2437.00	113.06 PK			2.04 H	253	111.53	1.53
4	*2437.00	102.17 AV			2.04 H	253	100.64	1.53
5	4874.00	50.80 PK	74.00	-23.20	1.55 H	236	41.29	9.51
6	4874.00	39.95 AV	54.00	-14.05	1.55 H	236	30.44	9.51
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	57.84 PK	74.00	-16.16	3.36 V	271	56.49	1.35
2	2390.00	46.53 AV	54.00	-7.47	3.36 V	271	45.18	1.35
3	*2437.00	108.32 PK			3.36 V	271	106.79	1.53
4	*2437.00	97.32 AV			3.36 V	271	95.79	1.53
5	4874.00	50.16 PK	74.00	-23.84	1.15 V	241	40.65	9.51
6	4874.00	39.40 AV	54.00	-14.60	1.15 V	241	29.89	9.51

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.

RF Mode	TX 802.11ax (40MHz)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	110.89 PK			2.04 H	250	109.28	1.61
2	*2452.00	99.68 AV			2.04 H	250	98.07	1.61
3	2483.50	69.76 PK	74.00	-4.24	2.04 H	250	67.93	1.83
4	2483.50	52.75 AV	54.00	-1.25	2.04 H	250	50.92	1.83
5	4904.00	50.81 PK	74.00	-23.19	2.14 H	195	41.26	9.55
6	4904.00	40.21 AV	54.00	-13.79	2.14 H	195	30.66	9.55
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	106.23 PK			3.44 V	281	104.62	1.61
2	*2452.00	95.10 AV			3.44 V	281	93.49	1.61
3	2483.50	63.97 PK	74.00	-10.03	3.44 V	281	62.14	1.83
4	2483.50	47.23 AV	54.00	-6.77	3.44 V	281	45.40	1.83
5	4904.00	50.06 PK	74.00	-23.94	2.23 V	231	40.51	9.55
6	4904.00	39.23 AV	54.00	-14.77	2.23 V	231	29.68	9.55

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.

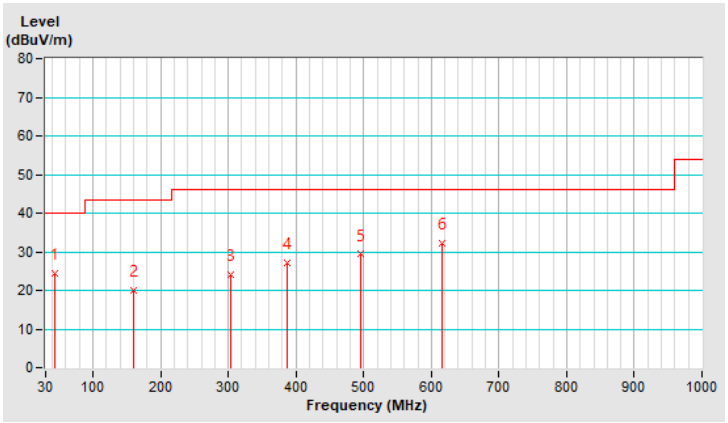
Below 1GHz Data:

RF Mode	TX 802.11ax (20MHz)	Channel	CH 6：2437 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	43.53	24.38 QP	40.00	-15.62	1.43 H	56	31.89	-7.51
2	160.80	20.02 QP	43.50	-23.48	1.29 H	329	26.52	-6.50
3	302.57	24.11 QP	46.00	-21.89	1.67 H	309	28.49	-4.38
4	387.54	27.22 QP	46.00	-18.78	1.95 H	311	29.69	-2.47
5	495.21	29.38 QP	46.00	-16.62	1.52 H	10	29.51	-0.13
6	616.17	32.12 QP	46.00	-13.88	1.18 H	174	29.48	2.64

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

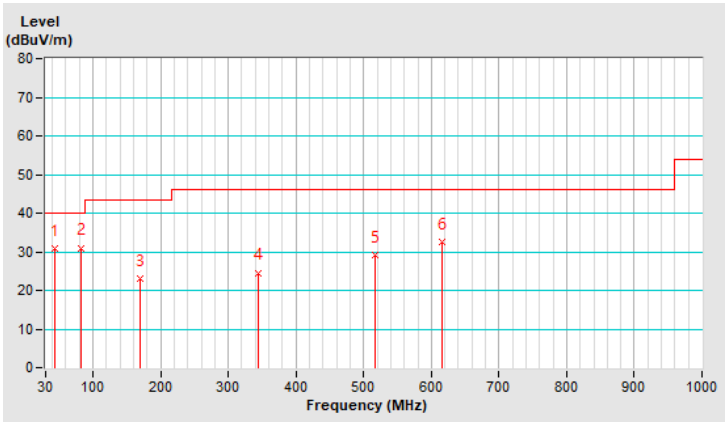


RF Mode	TX 802.11ax (20MHz)	Channel	CH 6：2437 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	43.48	30.75 QP	40.00	-9.25	1.56 V	131	38.26	-7.51
2	82.33	30.88 QP	40.00	-9.12	1.37 V	264	43.02	-12.14
3	169.83	22.92 QP	43.50	-20.58	1.09 V	262	29.63	-6.71
4	344.43	24.39 QP	46.00	-21.61	1.84 V	334	27.87	-3.48
5	516.70	28.99 QP	46.00	-17.01	2.09 V	288	28.66	0.33
6	615.88	32.42 QP	46.00	-13.58	1.53 V	278	29.78	2.64

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 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 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESCS30	100276	Apr. 16, 2020	Apr. 15, 2021
SCHWARZBECK Artificial Mains Network (for EUT)	NSLK 8128	8128-244	Nov. 19, 2020	Nov. 18, 2021
LISN With Adapter (for EUT)	AD10	C05Ada-001	Nov. 19, 2020	Nov. 18, 2021
R&S Artificial Mains Network (for peripheral)	ESH3-Z5	100220	Dec. 1, 2020	Nov. 30, 2021
Software	Cond_V7.3.7.4	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C05.01	Jan. 30, 2020	Jan. 29, 2021
LYNICS Terminator (For R&S LISN)	0900510	E1-01-305	Feb. 17, 2020	Feb. 16, 2021

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. 5. (Conduction 5)
3. The VCCI Site Registration No. C-11093.

4.2.3 Test Procedures

a. The EUT was 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/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

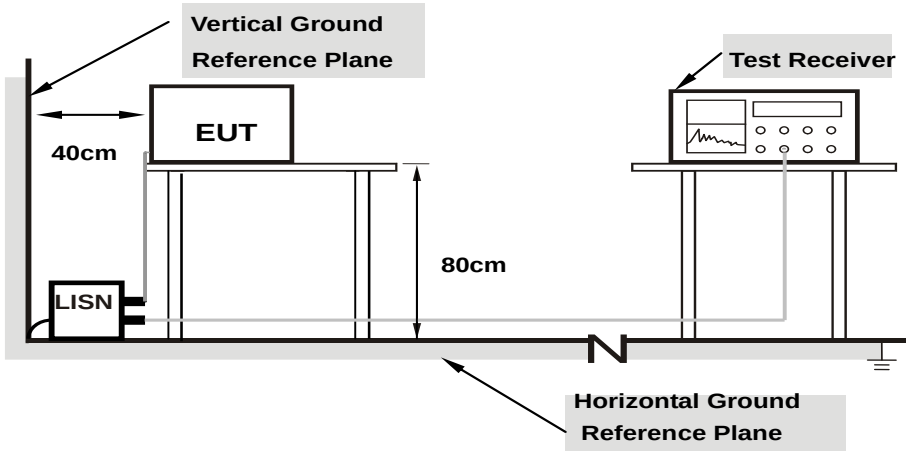
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 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).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

CDD Mode

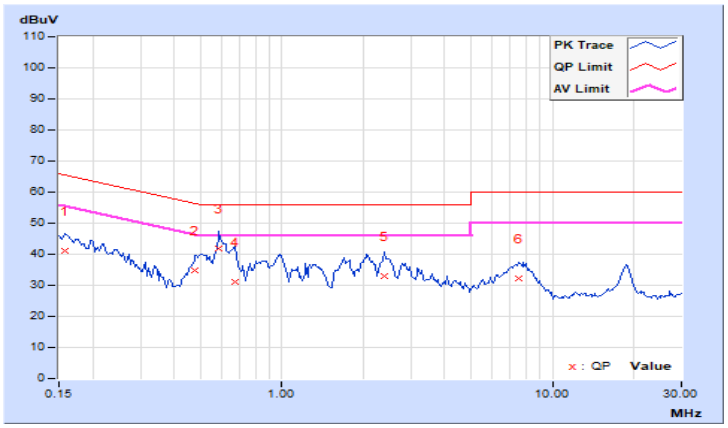
802.11ax (20MHz)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	9.93	31.00	19.73	40.93	29.66	65.58	55.58	-24.65	-25.92
2	0.47813	9.96	24.75	16.20	34.71	26.16	56.37	46.37	-21.66	-20.21
3	**0.58750**	**9.97**	**31.89**	**23.80**	**41.86**	**33.77**	**56.00**	**46.00**	**-14.14**	**-12.23**
4	0.67344	9.98	21.17	13.51	31.15	23.49	56.00	46.00	-24.85	-22.51
5	2.40625	10.11	22.79	15.65	32.90	25.76	56.00	46.00	-23.10	-20.24
6	7.52734	10.51	21.63	15.54	32.14	26.05	60.00	50.00	-27.86	-23.95

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.

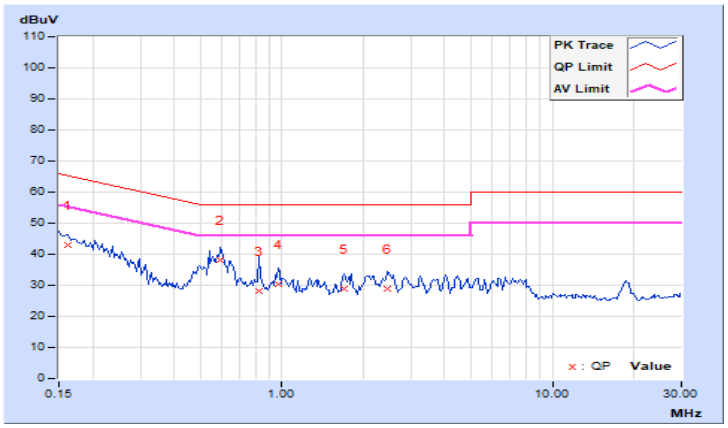


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	9.96	32.82	20.04	42.78	30.00	65.38	55.38	-22.60	-25.38
2	0.59531	10.01	28.07	19.30	38.08	29.31	56.00	46.00	-17.92	-16.69
3	0.82578	10.03	18.01	9.13	28.04	19.16	56.00	46.00	-27.96	-26.84
4	0.97031	10.04	20.27	11.58	30.31	21.62	56.00	46.00	-25.69	-24.38
5	1.69922	10.10	18.84	7.90	28.94	18.00	56.00	46.00	-27.06	-28.00
6	2.45703	10.15	18.80	8.46	28.95	18.61	56.00	46.00	-27.05	-27.39

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

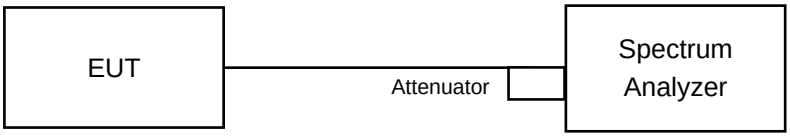


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

CDD Mode

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	8.60	9.08	0.5	Pass
6	2437	9.57	9.60	0.5	Pass
11	2462	9.58	9.56	0.5	Pass

802.11g

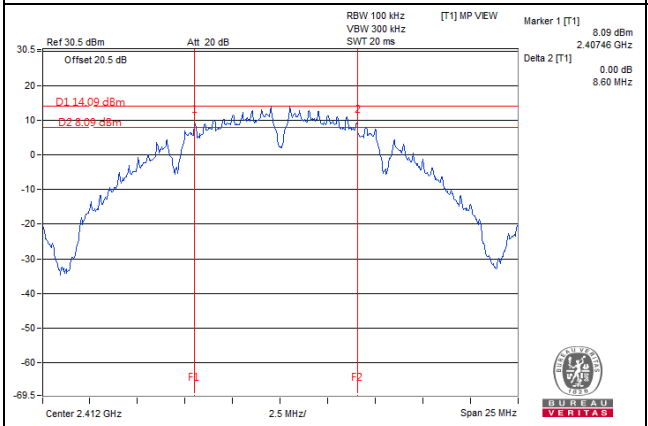
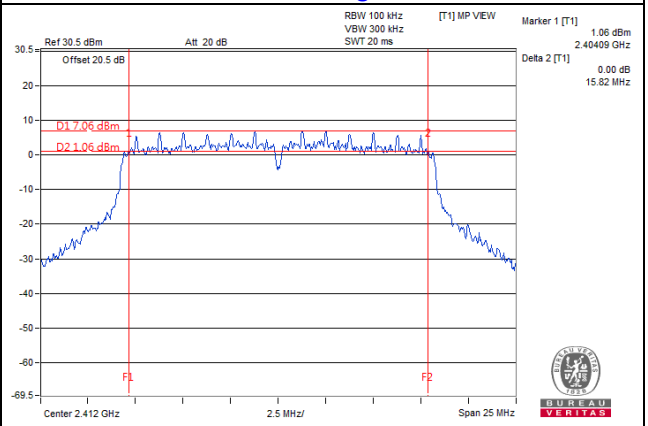
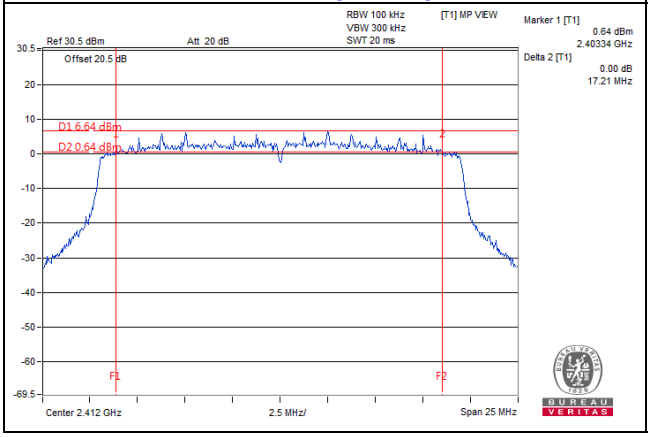
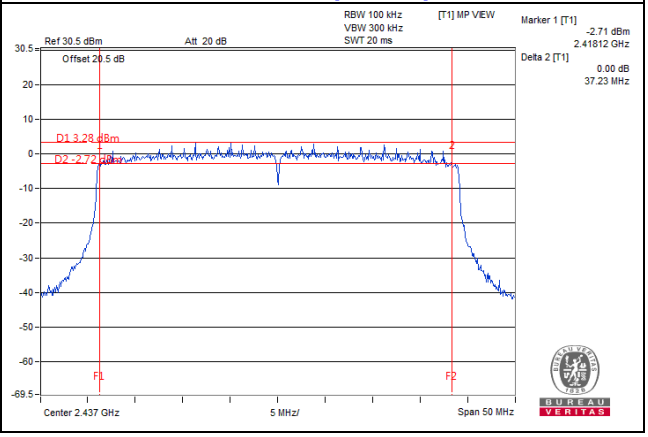
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.82	16.06	0.5	Pass
6	2437	16.37	16.34	0.5	Pass
11	2462	16.05	15.83	0.5	Pass

802.11ax (20MHz)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	18.32	17.21	0.5	Pass
6	2437	18.71	18.7	0.5	Pass
11	2462	17.7	18.17	0.5	Pass

802.11ax (40MHz)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	37.56	37.26	0.5	Pass
6	2437	37.44	37.23	0.5	Pass
9	2452	37.37	37.48	0.5	Pass

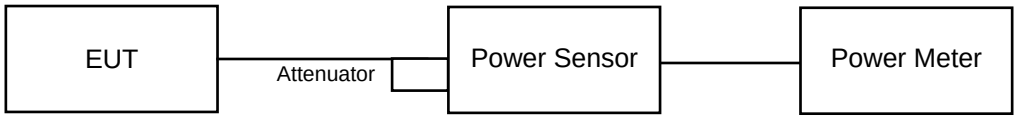
Spectrum Plot of Worst Value	
802.11b	**802.11g**
	
802.11ax (20MHz)	**802.11ax (40MHz)**
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

CDD Mode

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	23.49	22.65	**407.434**	26.10	30	Pass
6	2437	22.86	22.53	372.257	25.71	30	Pass
11	2462	22.53	22.01	337.915	25.29	30	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	17.97	16.78	110.304	20.43	30	Pass
6	2437	23.12	21.97	362.515	25.59	30	Pass
11	2462	17.21	16.85	101.019	20.04	30	Pass

802.11n (20MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.23	14.85	72.525	18.60	30	Pass
6	2437	21.99	20.73	276.429	24.42	30	Pass
11	2462	15.49	14.88	66.161	18.21	30	Pass

802.11n (40MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	15.15	14.37	60.087	17.79	30	Pass
6	2437	16.29	15.73	79.971	19.03	30	Pass
9	2452	15.50	14.81	65.750	18.18	30	Pass

802.11ac (20MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.46	15.10	76.618	18.84	30	Pass
6	2437	22.26	20.98	293.582	24.68	30	Pass
11	2462	15.75	15.11	70.018	18.45	30	Pass

802.11ac (40MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	15.39	14.62	63.567	18.03	30	Pass
6	2437	16.50	15.94	83.933	19.24	30	Pass
9	2452	15.71	15.04	69.155	18.40	30	Pass

802.11ax (20MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	17.19	15.82	90.554	19.57	30	Pass
6	2437	22.97	21.72	346.746	25.40	30	Pass
11	2462	16.47	15.88	83.087	19.20	30	Pass

802.11ax (40MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	16.12	15.36	75.282	18.77	30	Pass
6	2437	17.27	16.70	100.107	20.00	30	Pass
9	2452	16.47	15.77	82.118	19.14	30	Pass

Beamforming Mode

802.11ac (20MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	13.45	12.09	38.312	15.83	30	Pass
6	2437	19.25	17.97	146.801	21.67	30	Pass
11	2462	12.74	12.10	35.011	15.44	30	Pass

Note: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]=5.83dBi < 6dBi, so the power limit is not reduced.

802.11ac (40MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	12.38	11.61	31.786	15.02	30	Pass
6	2437	13.49	12.93	41.969	16.23	30	Pass
9	2452	12.70	12.03	34.580	15.39	30	Pass

Note: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]=5.83dBi < 6dBi, so the power limit is not reduced.

802.11ax (20MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	14.18	12.81	45.280	16.56	30	Pass
6	2437	19.96	18.71	**173.385**	22.39	30	Pass
11	2462	13.46	12.87	41.546	16.19	30	Pass

Note: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]=5.83dBi < 6dBi, so the power limit is not reduced.

802.11ax (40MHz)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	13.11	12.35	37.644	15.76	30	Pass
6	2437	14.26	13.69	50.057	16.99	30	Pass
9	2452	13.46	12.76	41.062	16.13	30	Pass

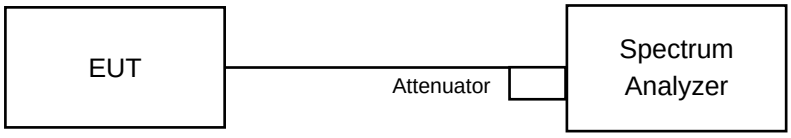
Note: Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]=5.83dBi < 6dBi, so the power limit is not reduced.

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

For Average Power (Duty cycle ≥ 98%)
a) Set instrument center frequency to DTS channel center frequency.
b) Set span to at least 1.5 times the OBW.
c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d) Set VBW ≥3 x RBW.
e) Detector = power averaging (RMS) or sample detector (when RMS not available).
f) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g) Sweep time = auto couple.
h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
i) Use the peak marker function to determine the maximum amplitude level.

For Average Power (Duty cycle < 98%)
a) Measure the duty cycle (x).
b) Set instrument center frequency to DTS channel center frequency.
c) Set span to at least 1.5 times the OBW.
d) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
e) Set VBW ≥3 x RBW.
f) Detector = power averaging (RMS) or sample detector (when RMS not available).
g) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h) Sweep time = auto couple.
i) Do not use sweep triggering. Allow sweep to “free run”.
j) Employ trace averaging (RMS) mode over a minimum of 100 traces.
k) Use the peak marker function to determine the maximum amplitude level.
l) 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.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6

4.5.7 Test Results

CDD Mode

802.11b

Chan.	Freq. (MHz)	PSD (dBm/10kHz)		Total PSD (dBm/10kHz)	Max. Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1			
1	2412	-3.86	-4.16	-1.00	8.00	Pass
6	2437	-4.25	-4.29	-1.26	8.00	Pass
11	2462	-4.52	-4.56	-1.53	8.00	Pass

Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]=5.83dBi < 6dBi, so the power density limit is not reduced.

802.11g

Chan.	Freq. (MHz)	PSD (dBm/10kHz)		Total PSD (dBm/10kHz)	Max. Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1			
1	2412	-12.51	-12.06	-9.27	8.00	Pass
6	2437	-6.64	-6.31	-3.46	8.00	Pass
11	2462	-12.77	-12.65	-9.70	8.00	Pass

Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]=5.83dBi < 6dBi, so the power density limit is not reduced.

802.11ax (20MHz)

Chan.	Freq. (MHz)	PSD (dBm/10kHz)		Total PSD (dBm/10kHz)	Max. Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1			
1	2412	-15.60	-14.88	-12.21	8.00	Pass
6	2437	-9.14	-8.98	-6.05	8.00	Pass
11	2462	-15.93	-16.06	-12.98	8.00	Pass

Note:
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]=5.83dBi < 6dBi, so the power density limit is not reduced.

802.11ax (40MHz)

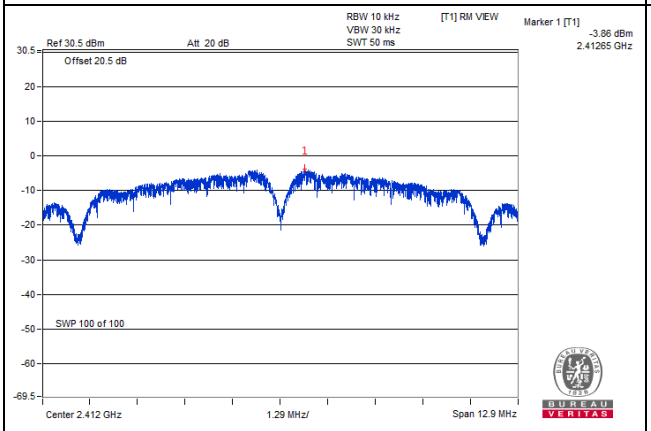
Chan.	Freq. (MHz)	PSD (dBm/10kHz)		Total PSD (dBm/10kHz)	Max. Limit (dBm/3kHz)	Pass / Fail
		Chain 0	Chain 1			
3	2422	-18.71	-18.80	-15.74	8.00	Pass
6	2437	-17.44	-17.36	-14.39	8.00	Pass
9	2452	-18.07	-18.59	-15.31	8.00	Pass

Note:

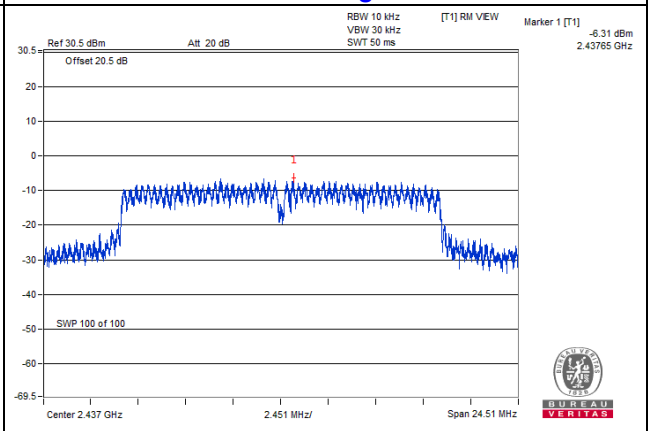
1. Method E) 2) b) of power density measurement of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[(10$^{G1/20}$ + 10$^{G2/20}$ + ... + 10$^{GN/20}$)^2/2]=5.83dBi < 6dBi, so the power density limit is not reduced.

Spectrum Plot of Worst Value

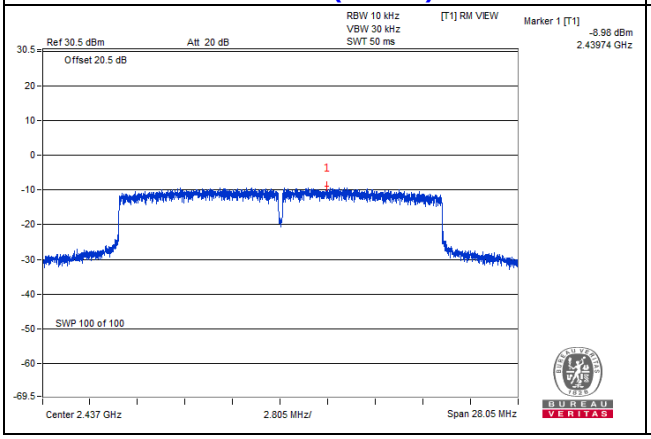
802.11b



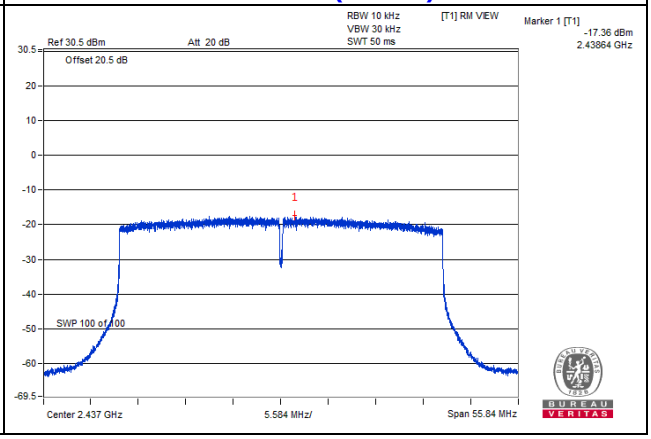
802.11g



802.11ax (20MHz)



802.11ax (40MHz)

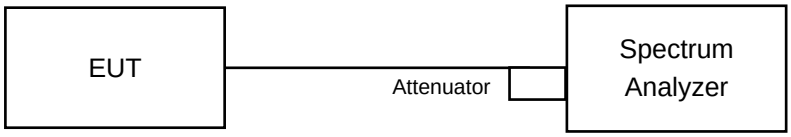


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Same as Item 4.3.6

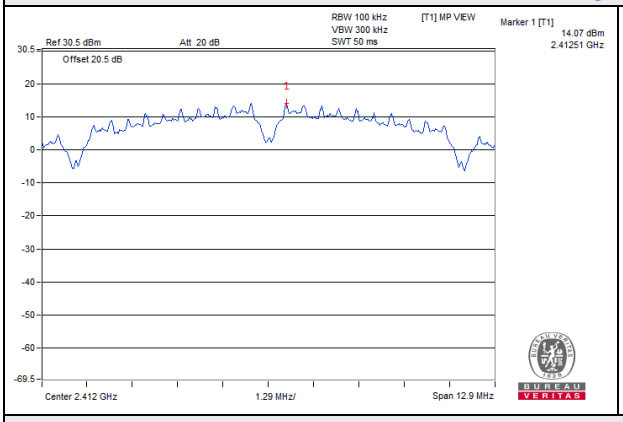
4.6.7 Test Results

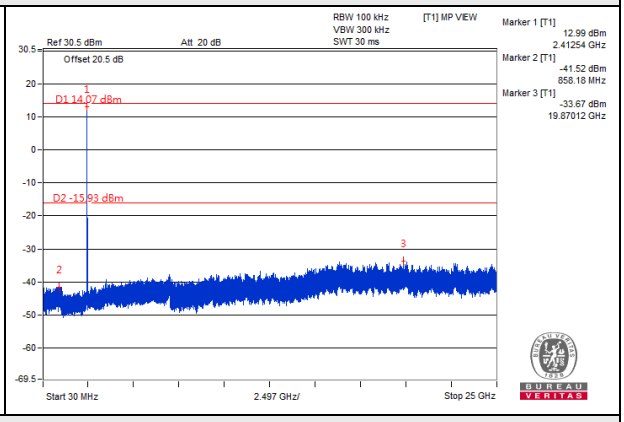
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

CDD Mode

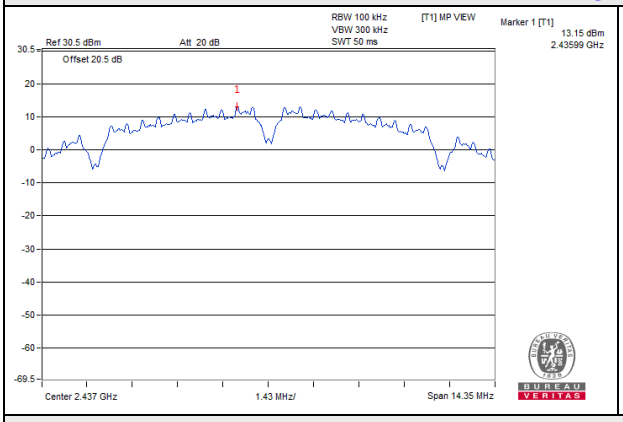
802.11b_Chain 0

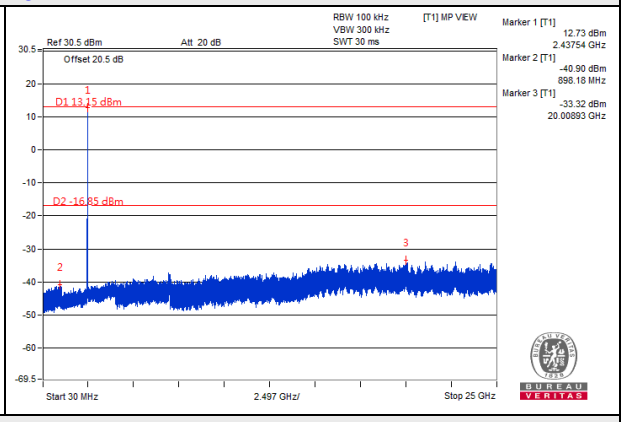
CH 1



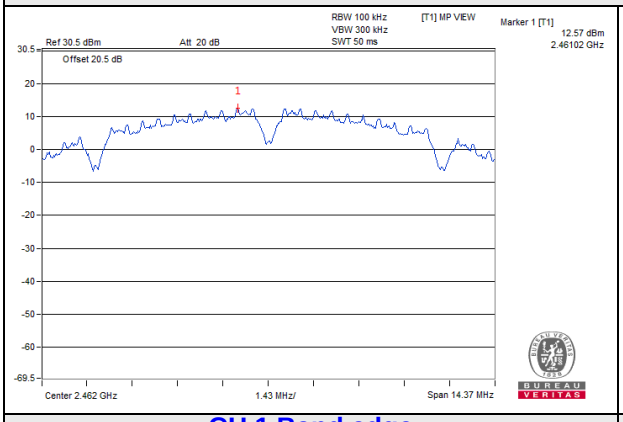


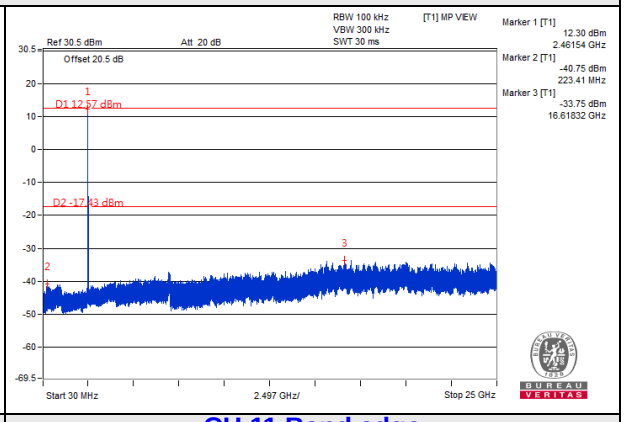
CH 6



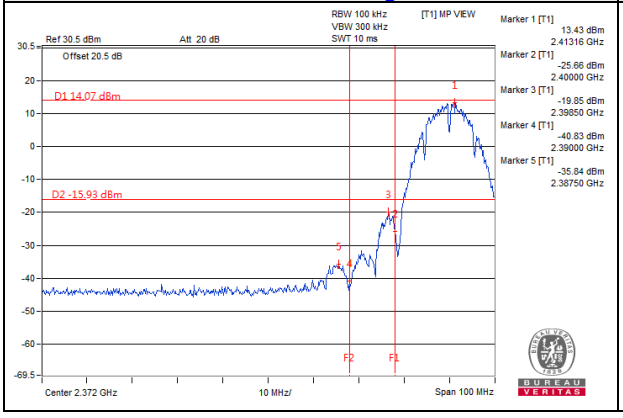


CH 11

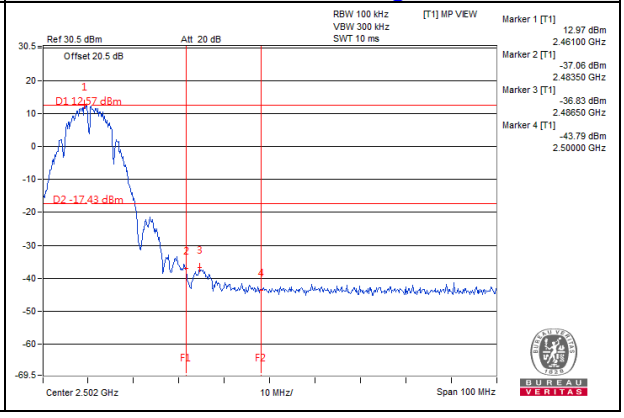




CH 1 Band edge

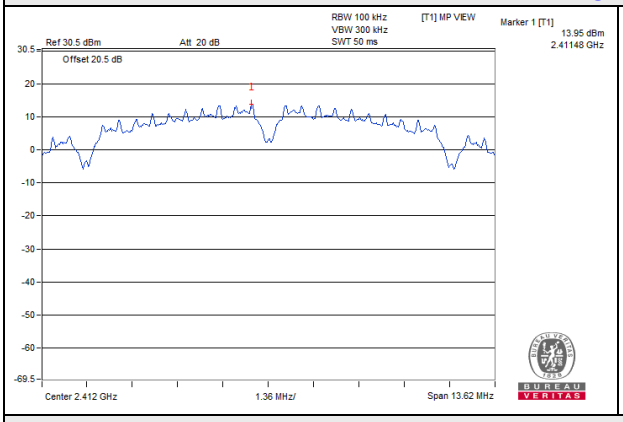


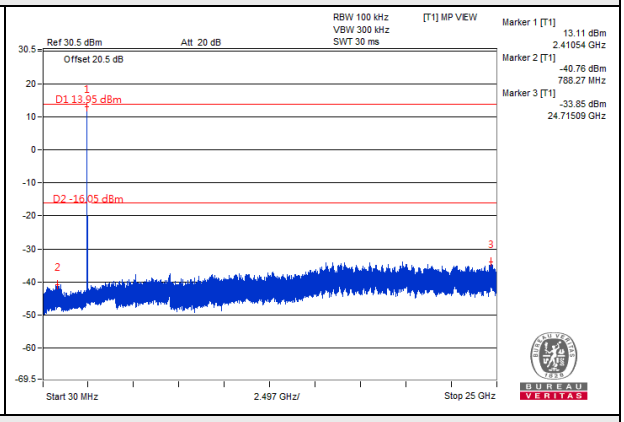
CH 11 Band edge



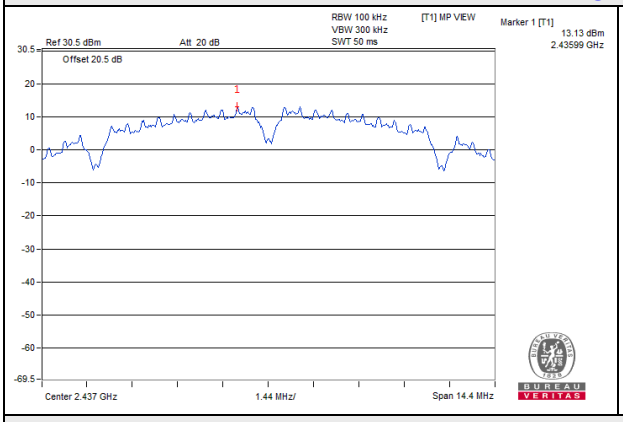
802.11b_Chain 1

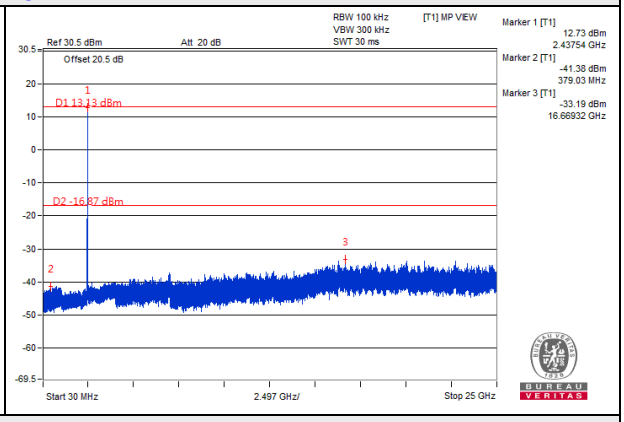
CH 1



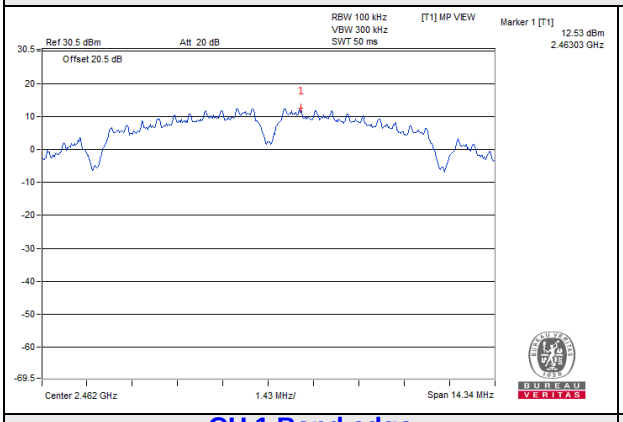


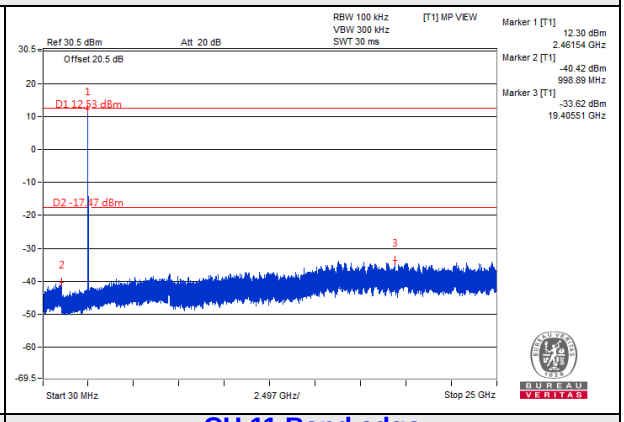
CH 6



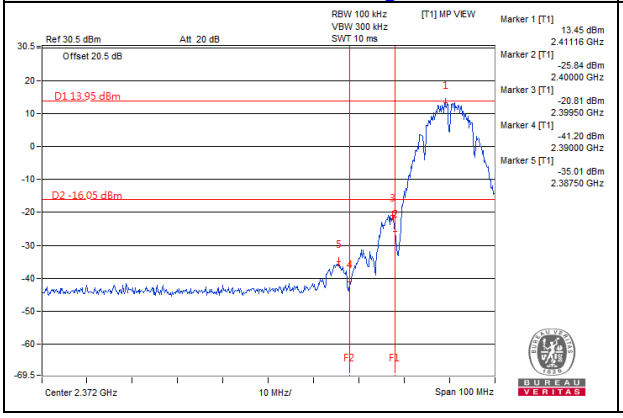


CH 11

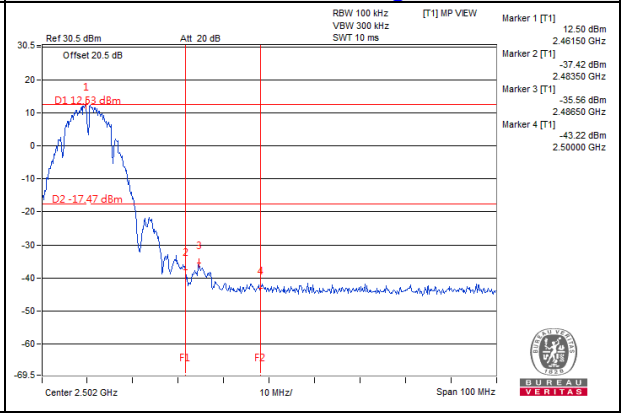




CH 1 Band edge

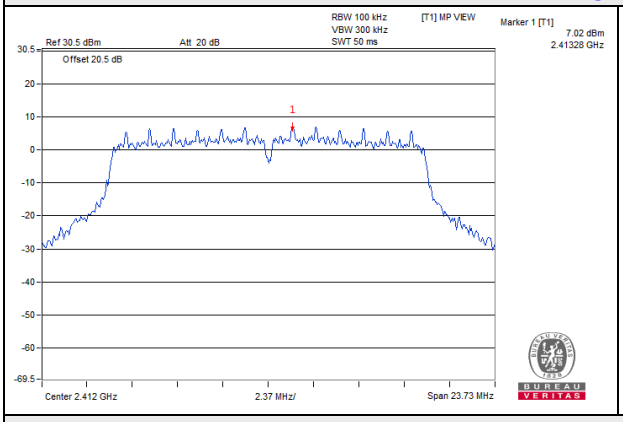


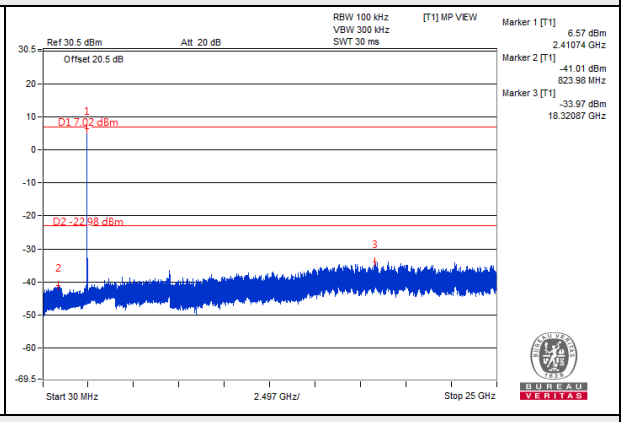
CH 11 Band edge



802.11g_Chain 0

CH 1





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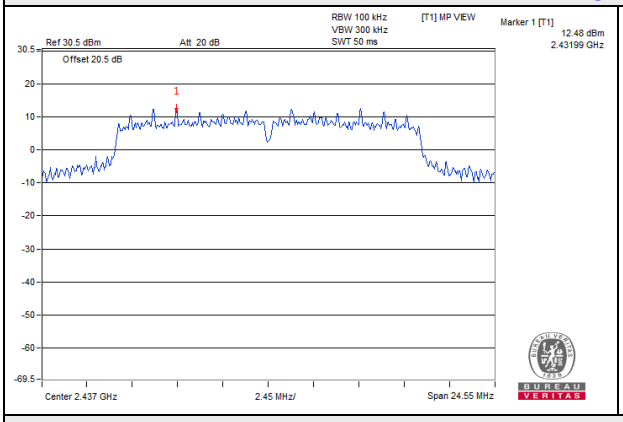
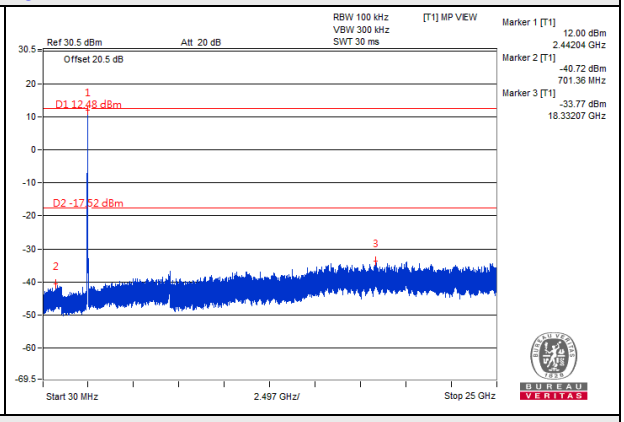
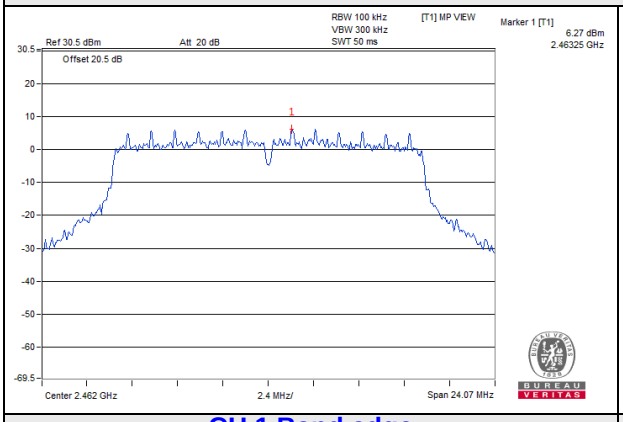
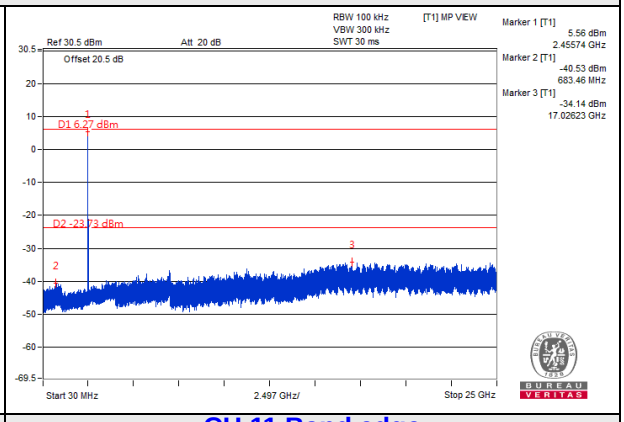


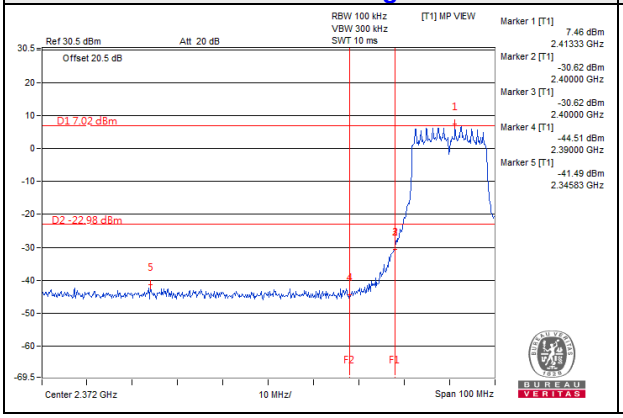


CH 11

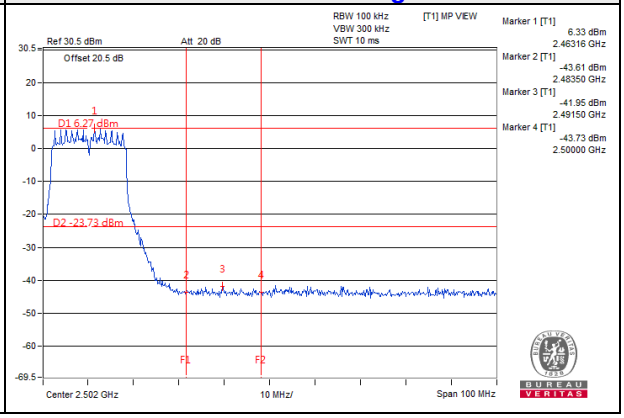




CH 1 Band edge

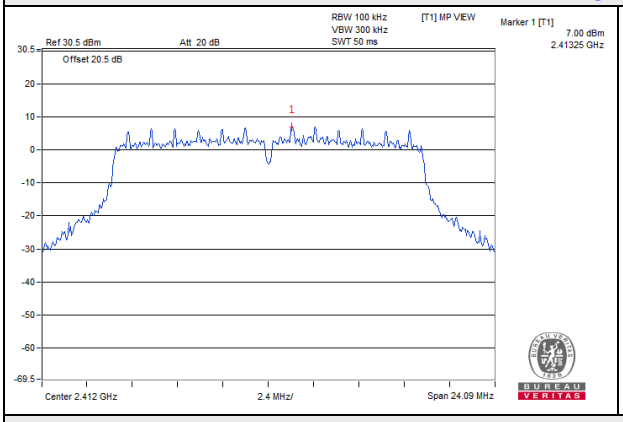


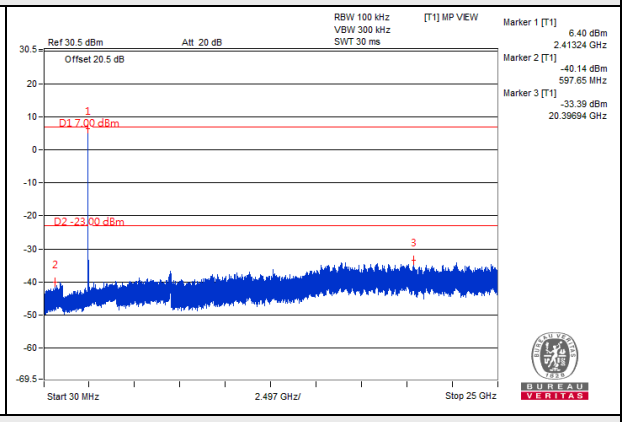
CH 11 Band edge



802.11g_Chain 1

CH 1





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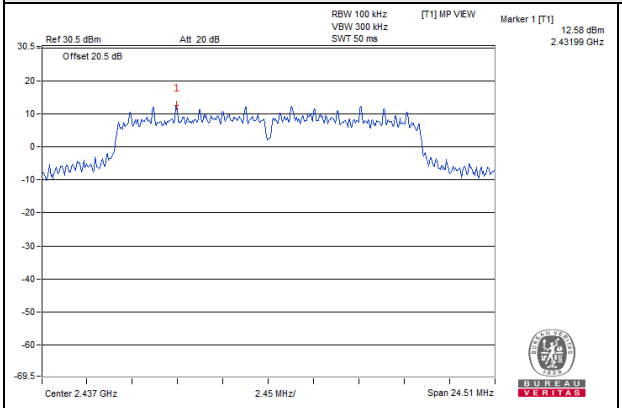
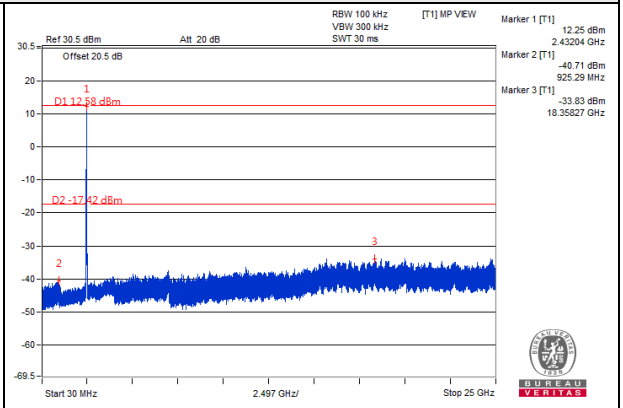
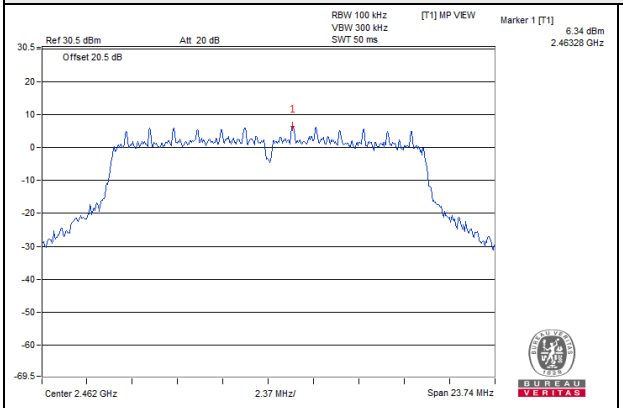
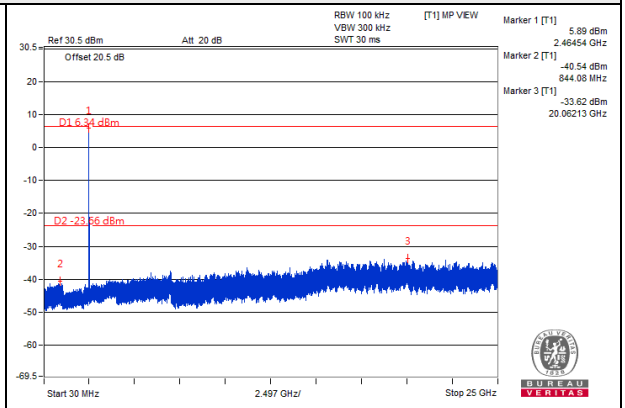


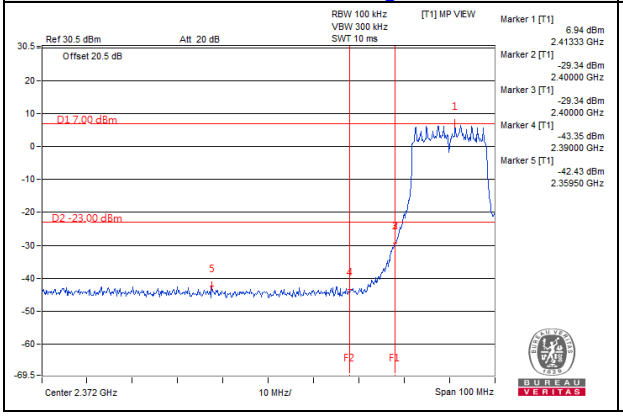


CH 11

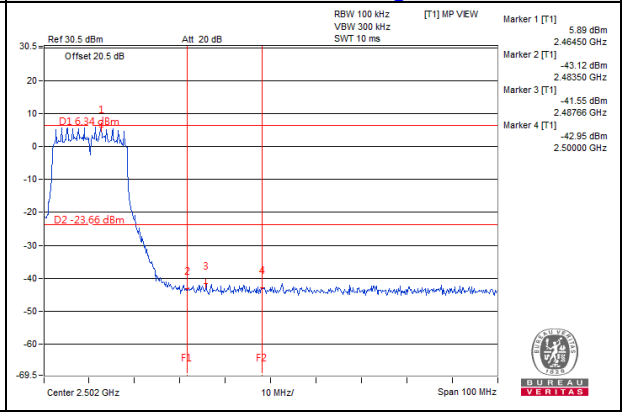




CH 1 Band edge

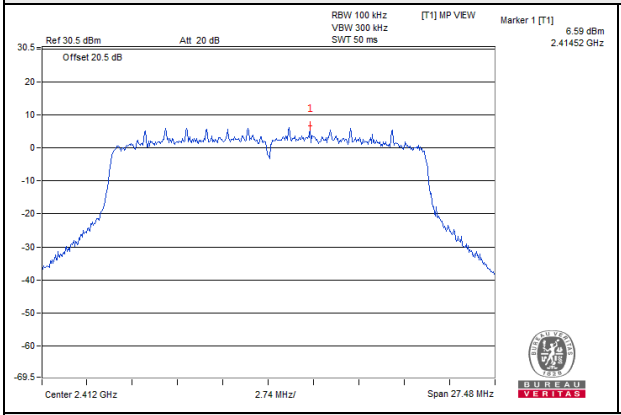


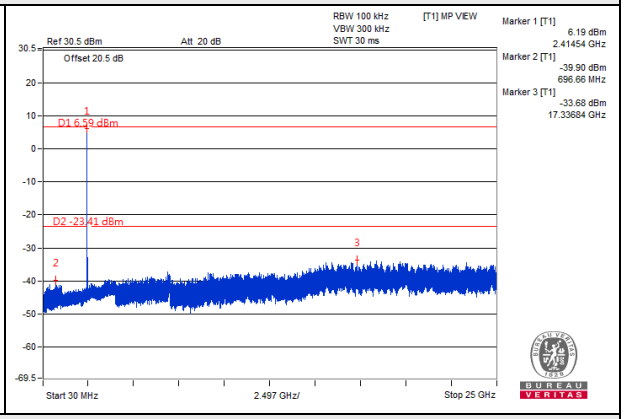
CH 11 Band edge



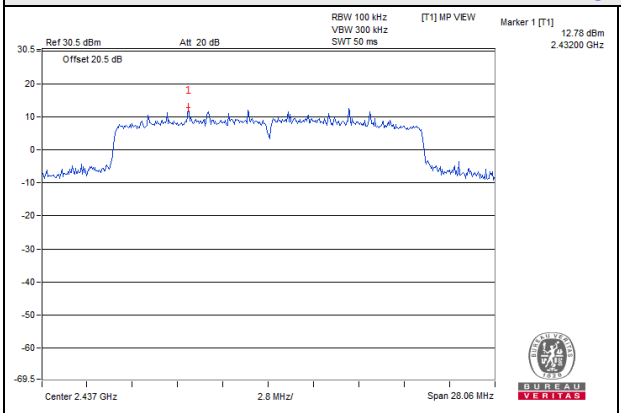
802.11ax (20MHz)_Chain 0

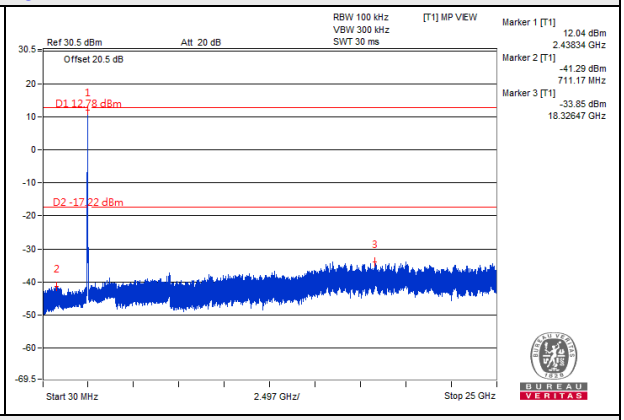
CH 1



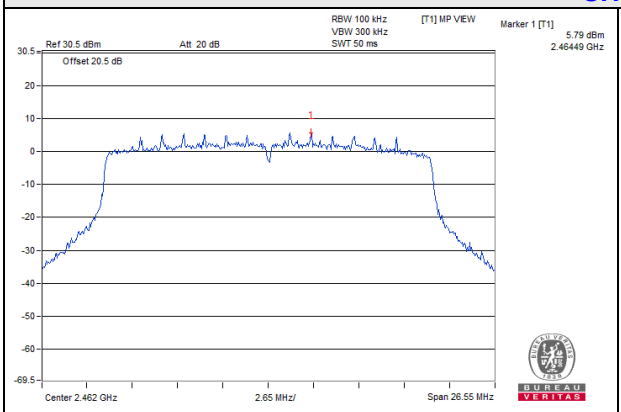


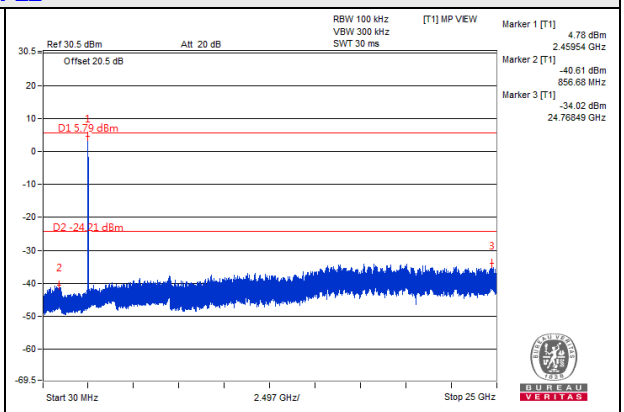
CH 6



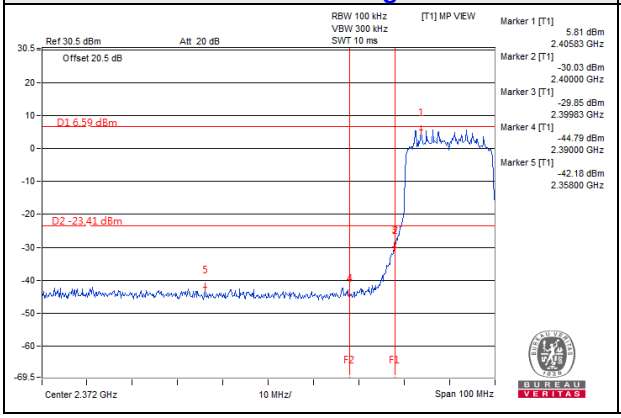


CH 11

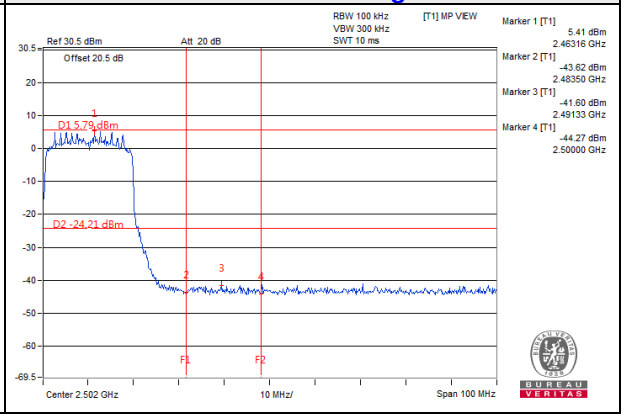




CH 1 Band edge

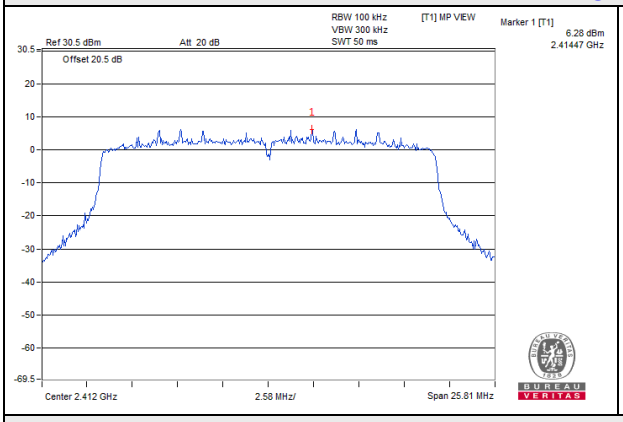


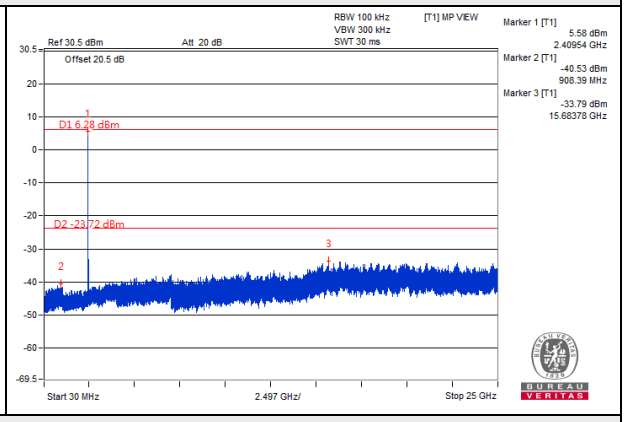
CH 11 Band edge



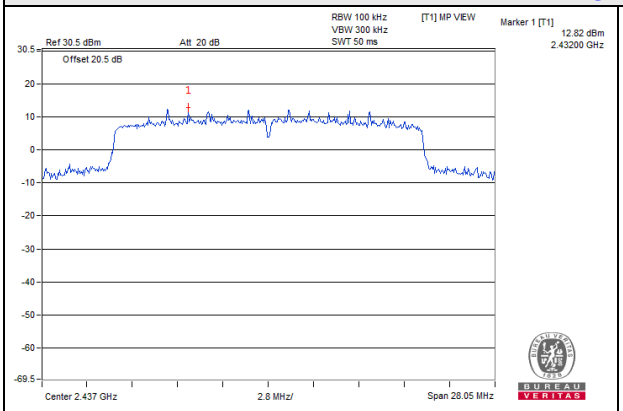
802.11ax (20MHz)_Chain 1

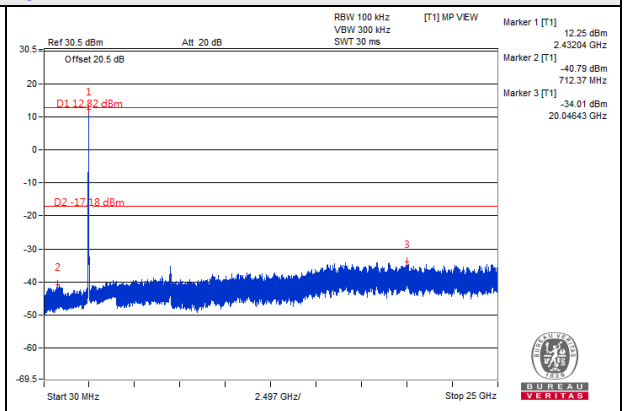
CH 1



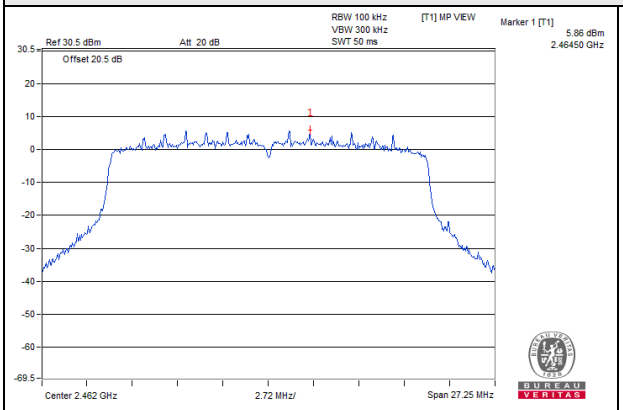


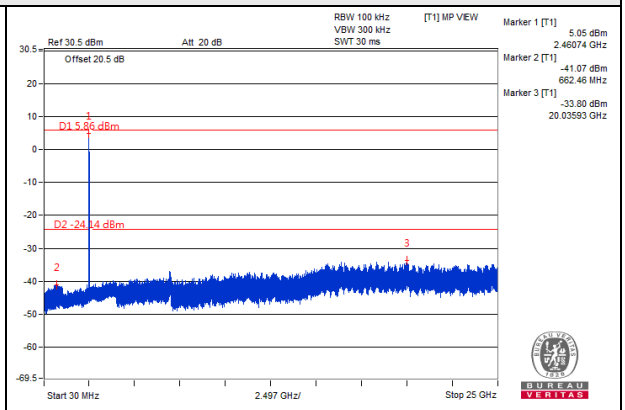
CH 6



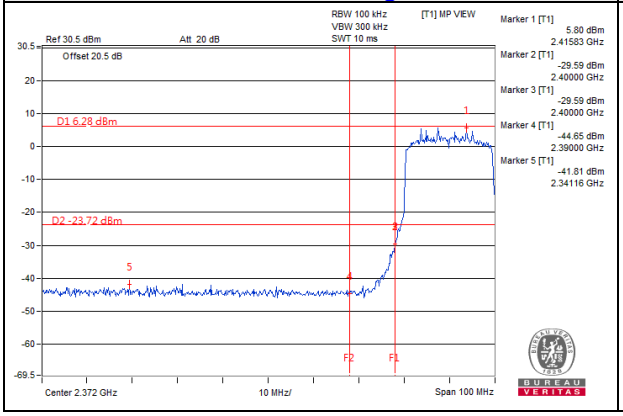


CH 11

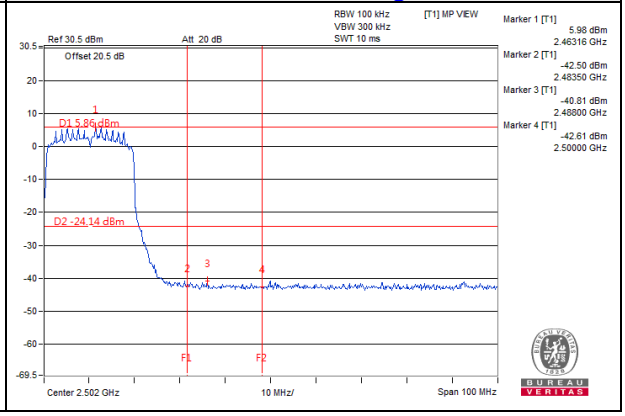




CH 1 Band edge

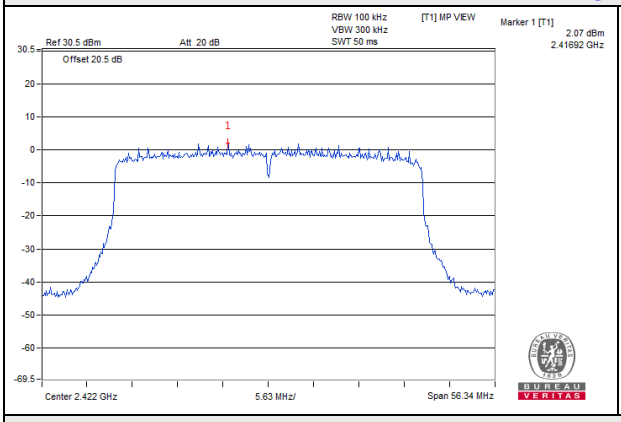


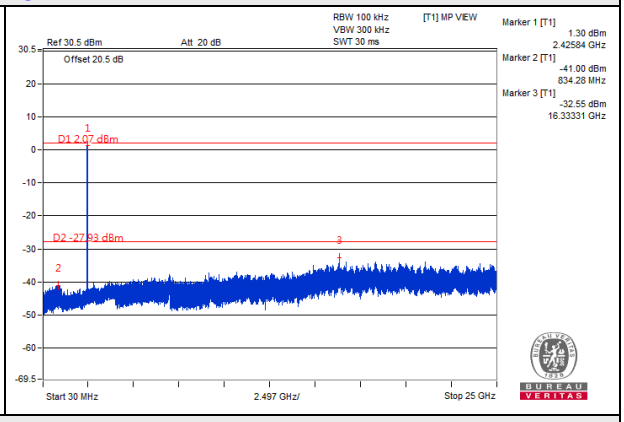
CH 11 Band edge



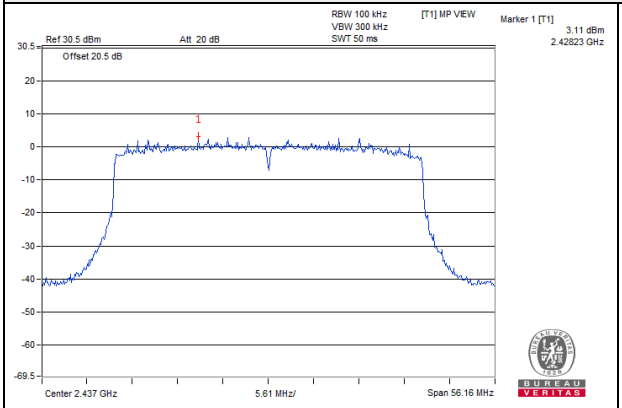
802.11ax (40MHz)_Chain 0

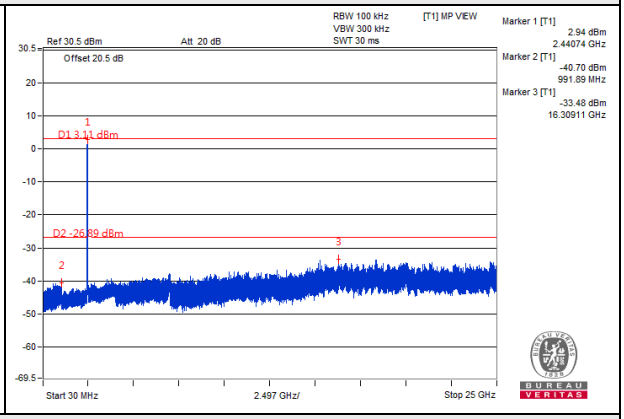
CH 3



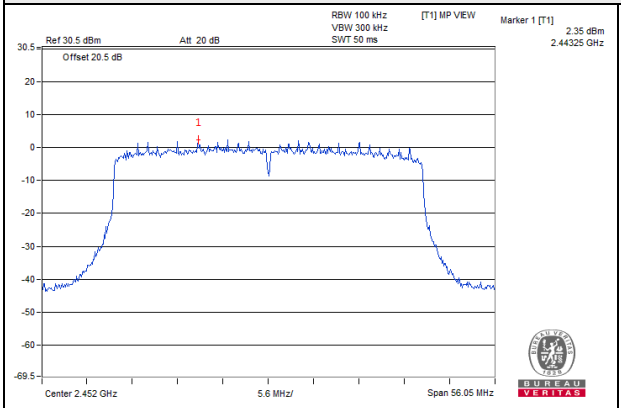


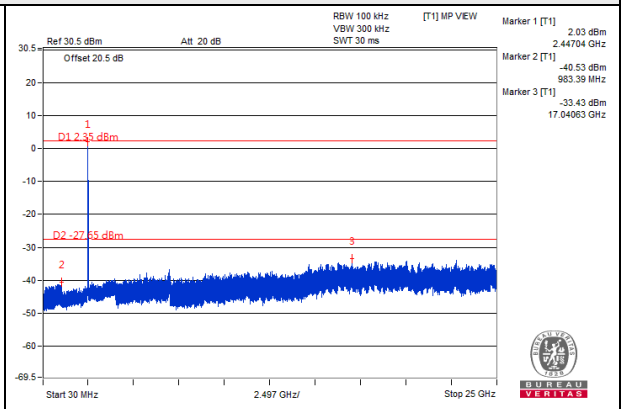
CH 6



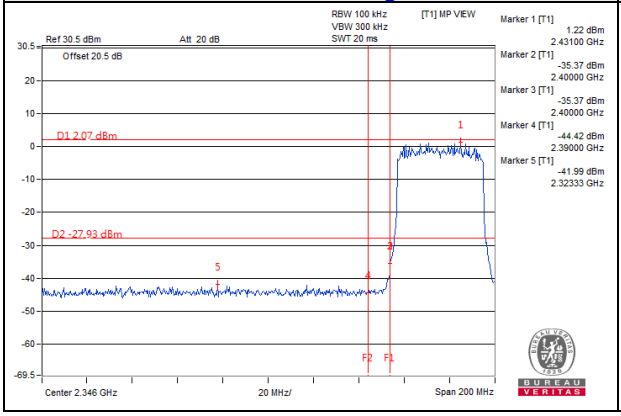


CH 9

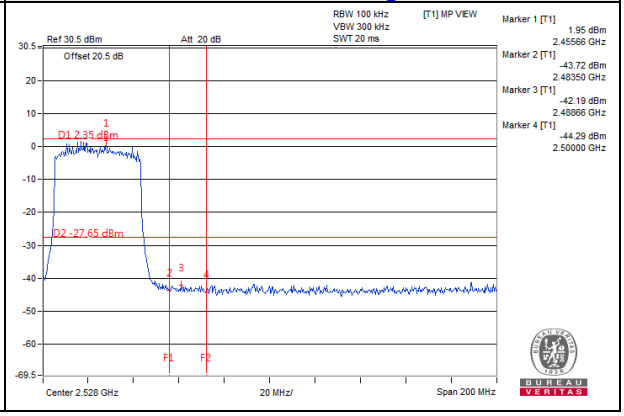




CH 3 Band edge

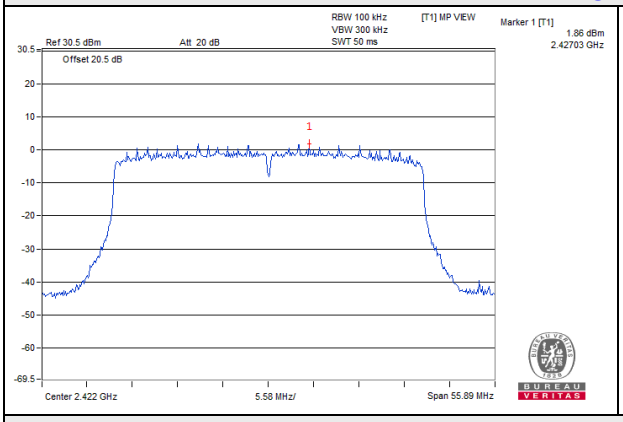


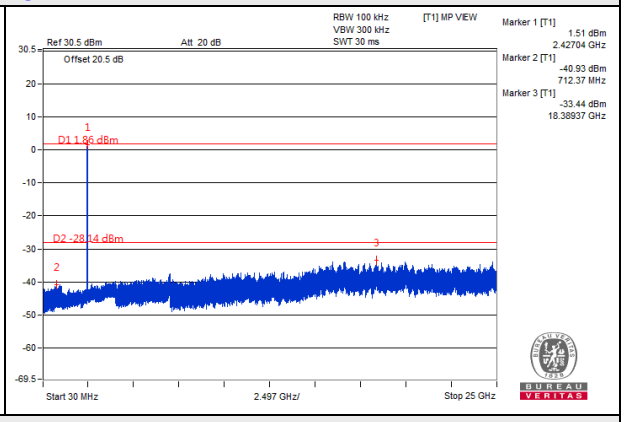
CH 9 Band edge



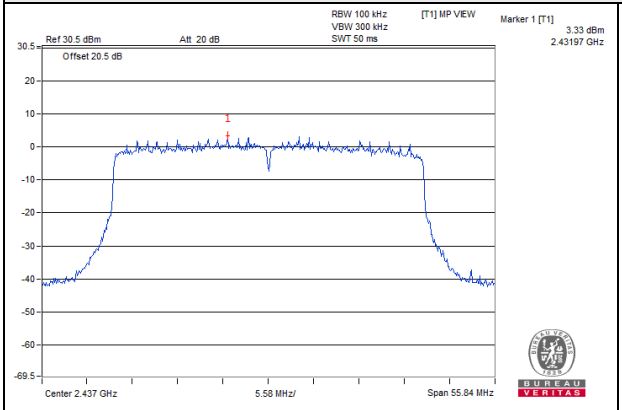
802.11ax (40MHz)_Chain 1

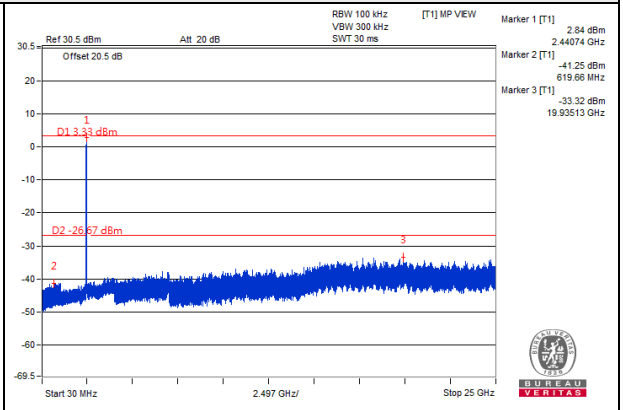
CH 3



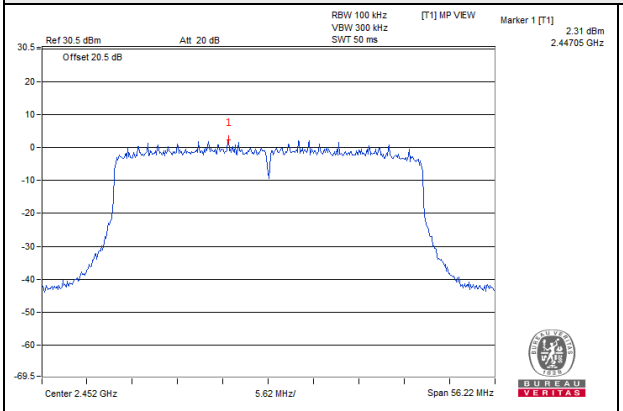


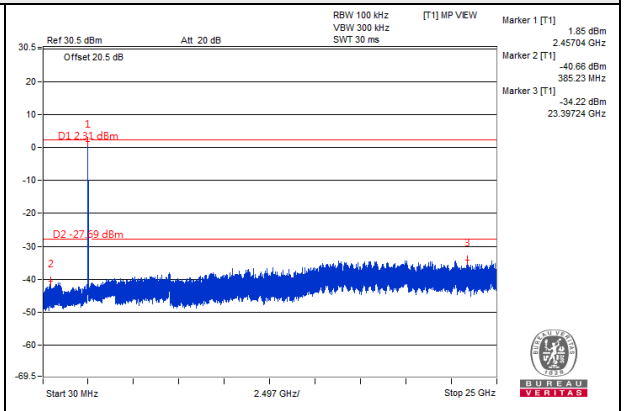
CH 6



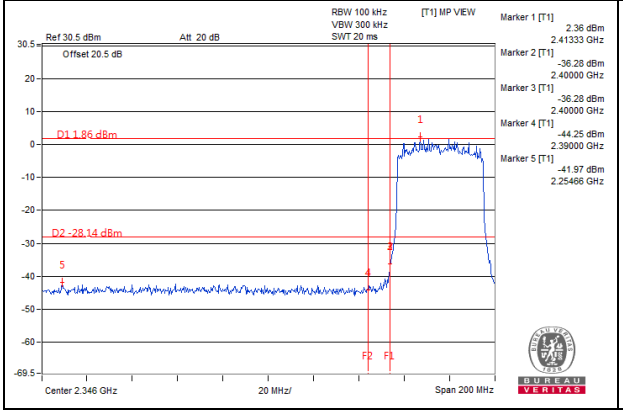


CH 9

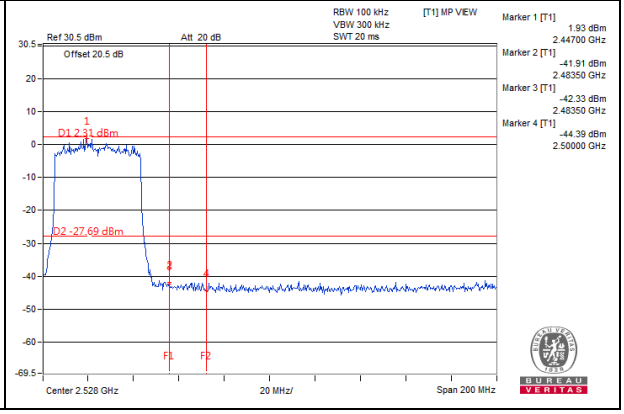




CH 3 Band edge



CH 9 Band edge

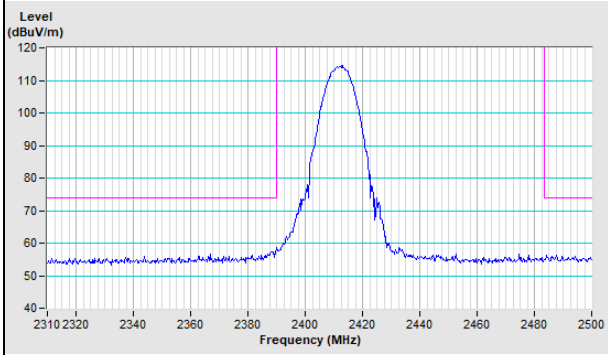


Annex A- Band Edge Measurement

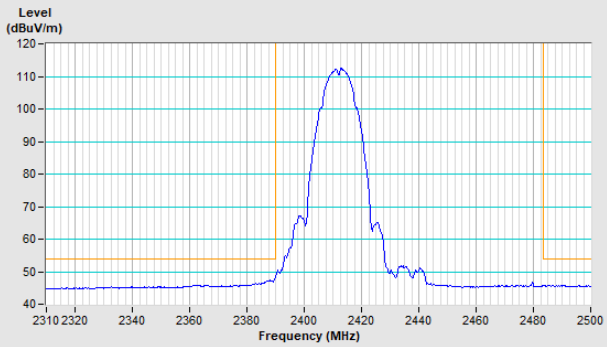
CDD Mode

802.11b Channel 1

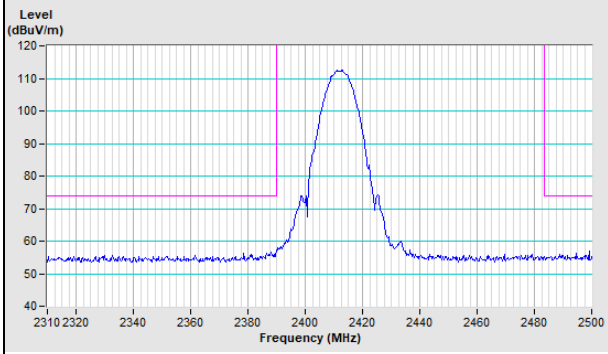
Horizontal (Peak)



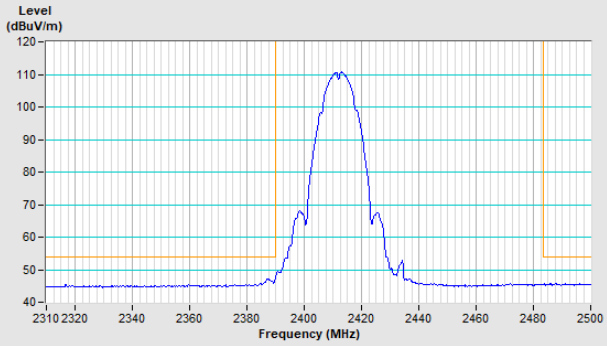
Horizontal (Average)



Vertical (Peak)

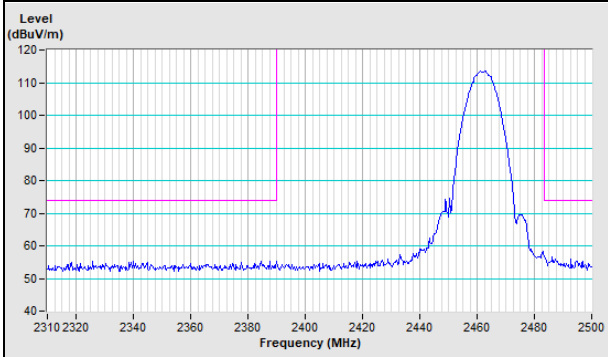


Vertical (Average)

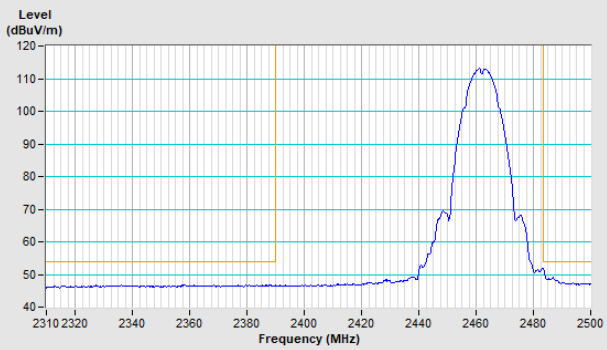


802.11b Channel 11

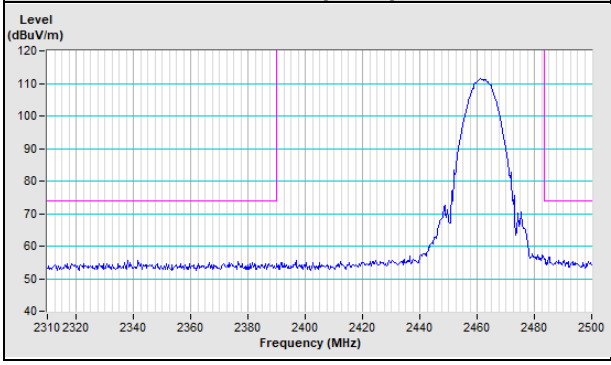
Horizontal (Peak)



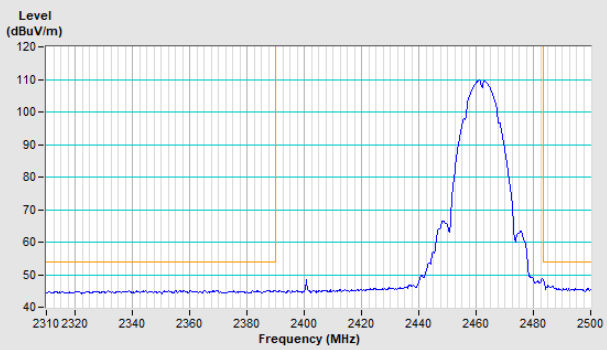
Horizontal (Average)



Vertical (Peak)

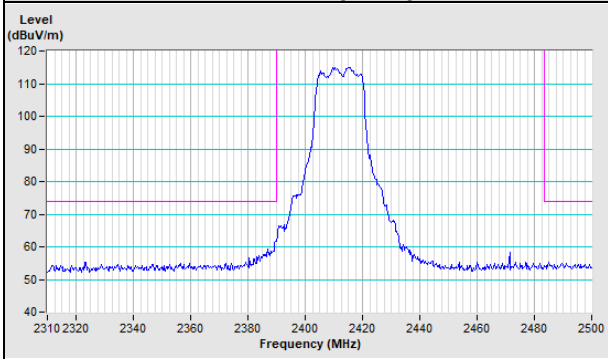


Vertical (Average)

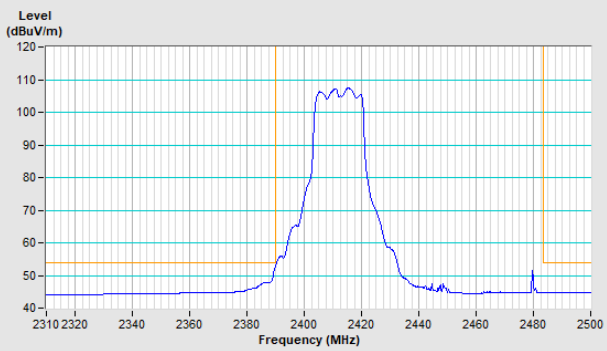


802.11g Channel 1

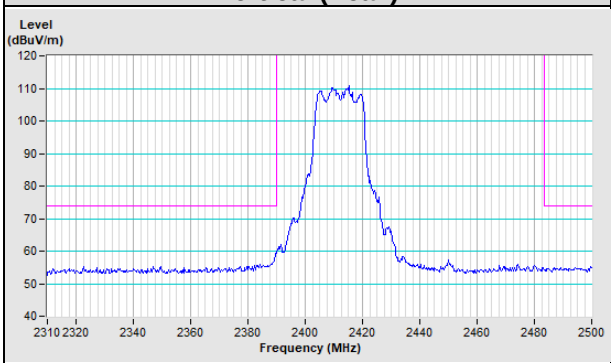
Horizontal (Peak)



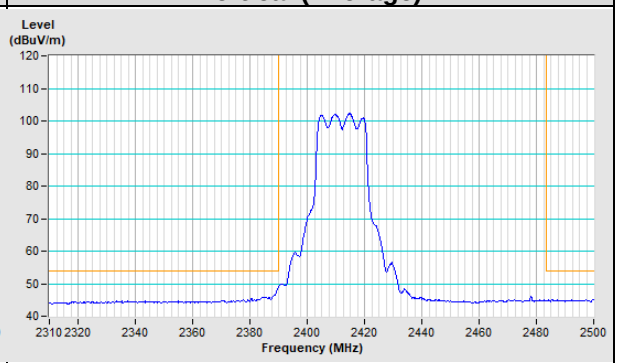
Horizontal (Average)



Vertical (Peak)

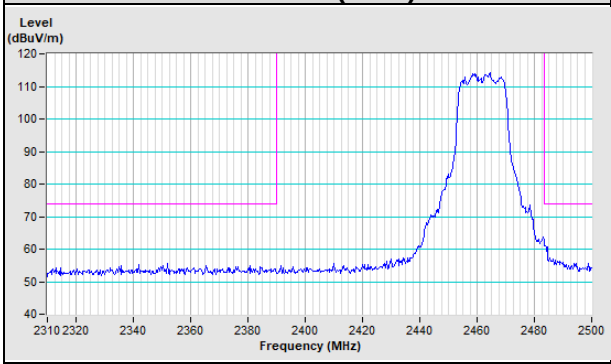


Vertical (Average)

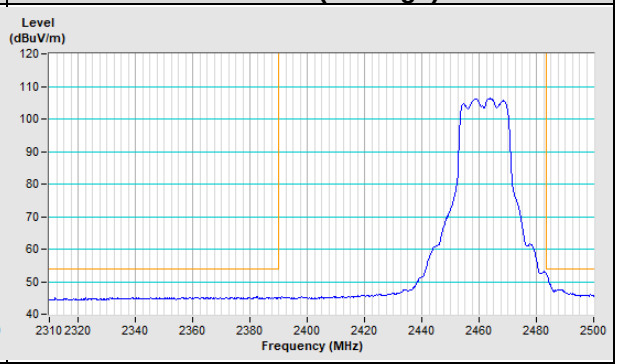


802.11g Channel 11

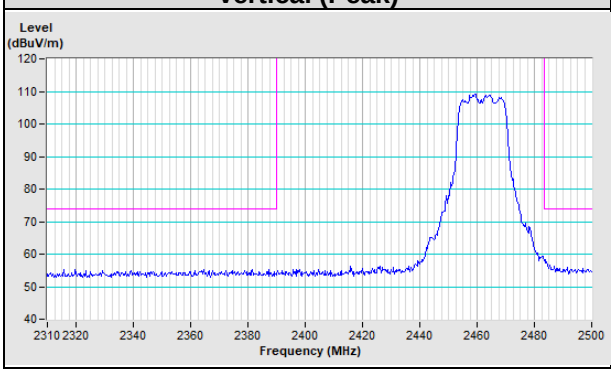
Horizontal (Peak)



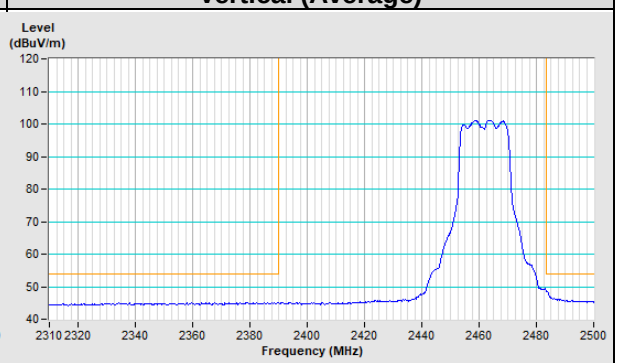
Horizontal (Average)



Vertical (Peak)

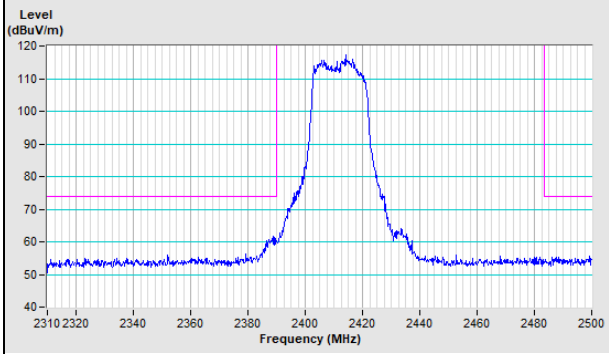


Vertical (Average)

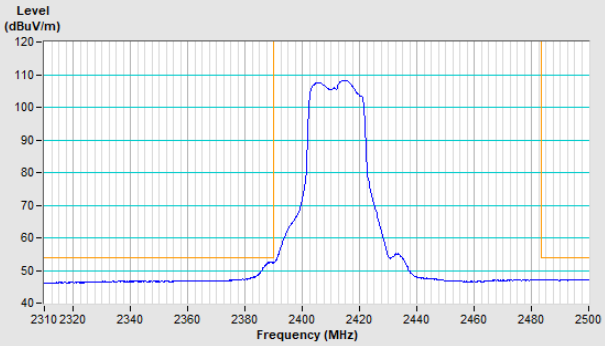


802.11ax (20MHz) Channel 1

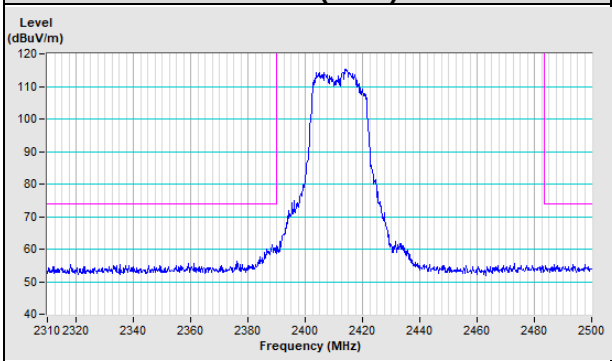
Horizontal (Peak)



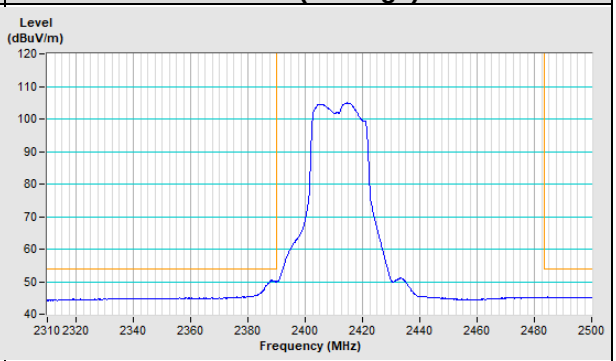
Horizontal (Average)



Vertical (Peak)

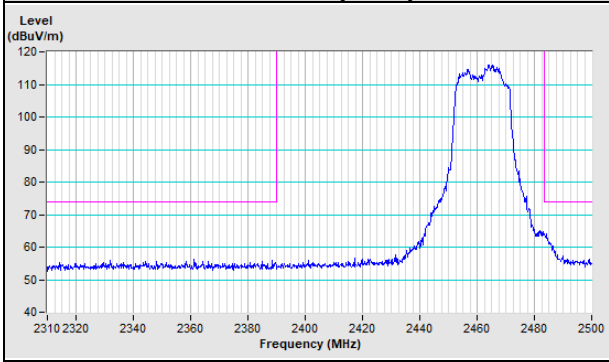


Vertical (Average)

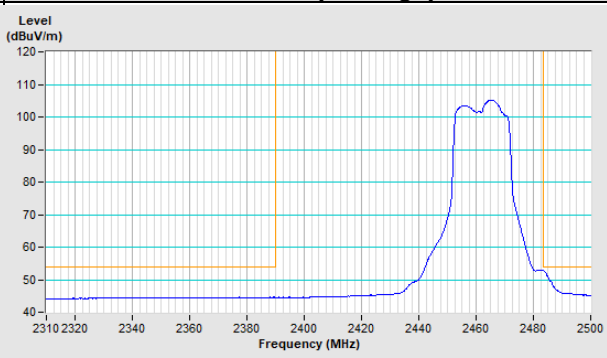


802.11ax (20MHz) Channel 11

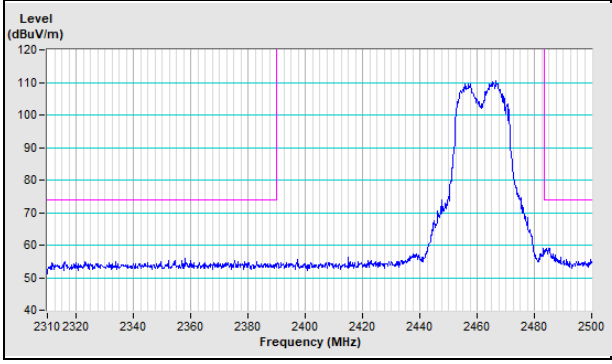
Horizontal (Peak)



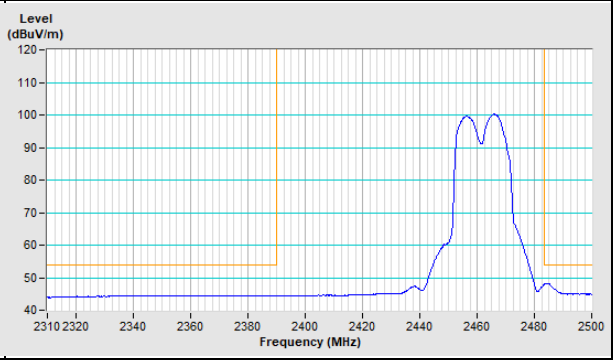
Horizontal (Average)



Vertical (Peak)

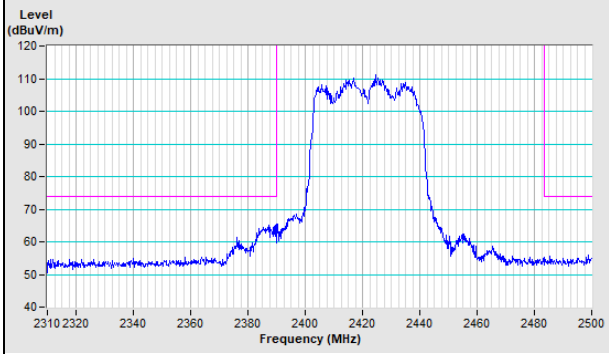


Vertical (Average)

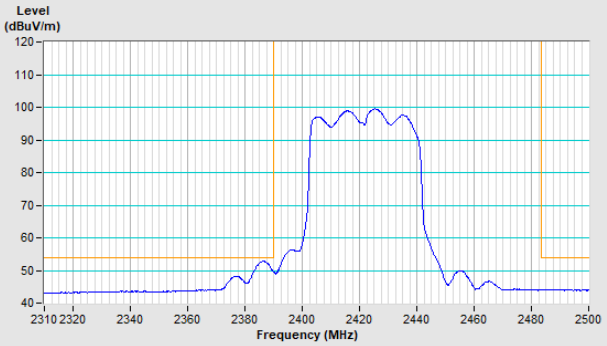


802.11ax (40MHz) Channel 3

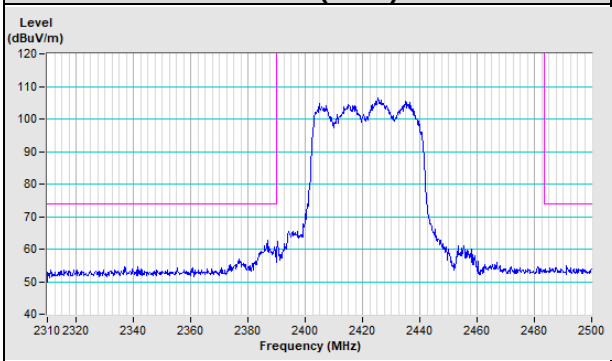
Horizontal (Peak)



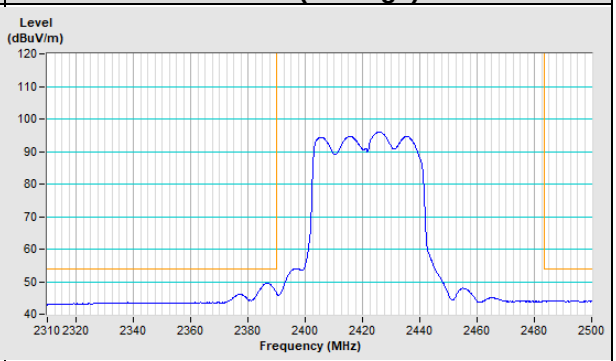
Horizontal (Average)



Vertical (Peak)

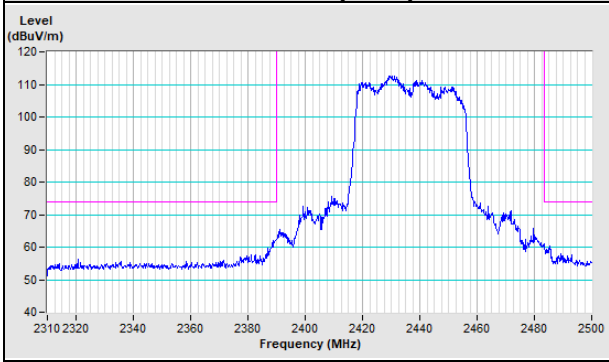


Vertical (Average)

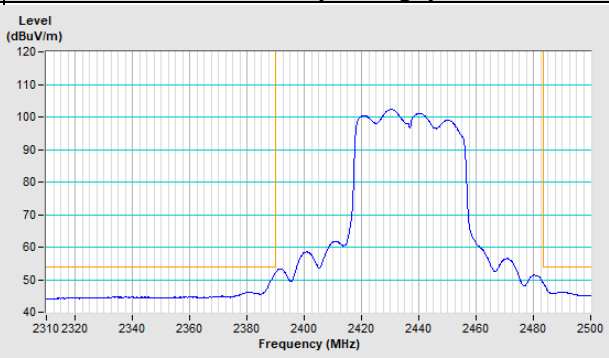


802.11ax (40MHz) Channel 6

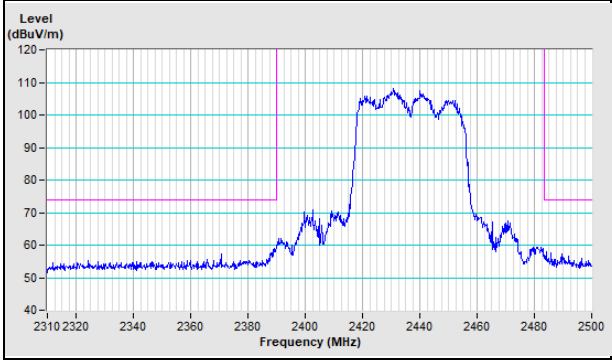
Horizontal (Peak)



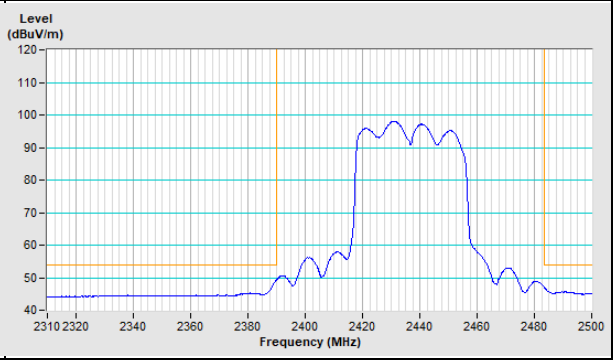
Horizontal (Average)

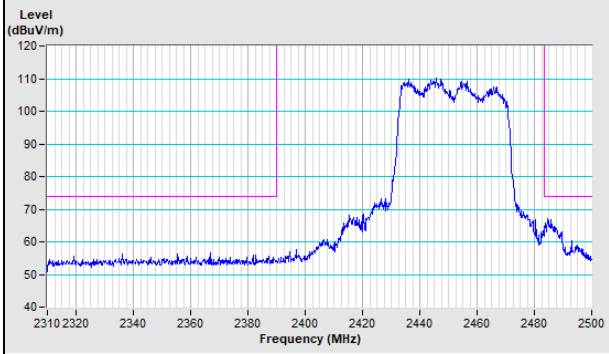
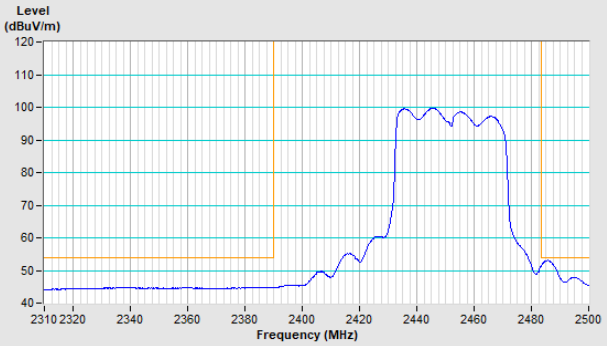
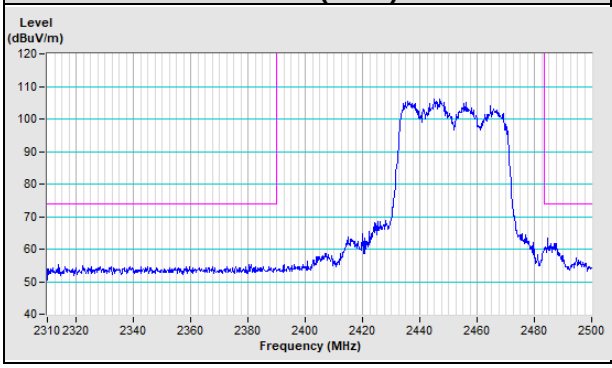
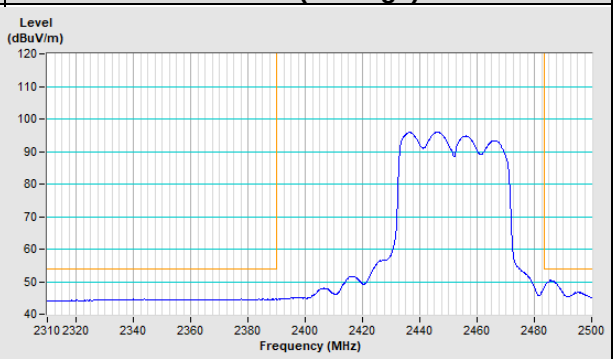


Vertical (Peak)



Vertical (Average)



802.11ax (40MHz) Channel 9	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – 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: 886-2-26051924

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Fax: 886-3-6668323

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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