FCC Test Report

Report No.: RF180619C29

FCC ID: 2AP7A-AMBER12

Test Model: AM12

Received Date: Jun. 19, 2018

Test Date: Jul. 12, 2018 ~ Oct. 03, 2018

Issued Date: Oct. 04, 2018

Applicant: Latticework, Inc.

Address: 2210 O'Toole Ave, Suite 250, San Jose, CA 95131

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

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

Test Location: No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan, R.O.C.

FCC Registration / Designation Number: 788550 / TW0003

Testing Laboratory
2021

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record 4

1 Certificate of Conformity 5

2 Summary of Test Results 6

2.1 Measurement Uncertainty 6
2.2 Modification Record 6

3 General Information 7

3.1 General Description of EUT 7
3.2 Description of Test Modes 8
3.2.1 Test Mode Applicability and Tested Channel Detail 9
3.3 Duty Cycle of Test Signal 11
3.4 Description of Support Units 12
3.4.1 Configuration of System under Test 12
3.5 General Description of Applied Standards 12

4 Test Types and Results 13

4.1 Radiated Emission and Bandedge Measurement 13
4.1.1 Limits of Radiated Emission and Bandedge Measurement 13
4.1.2 Test Instruments 14
4.1.3 Test Procedures 15
4.1.4 Deviation from Test Standard 16
4.1.5 Test Set Up 17
4.1.6 EUT Operating Conditions 18
4.1.7 Test Results 19
4.2 Conducted Emission Measurement 73
4.2.1 Limits of Conducted Emission Measurement 73
4.2.2 Test Instruments 73
4.2.3 Test Procedures 74
4.2.4 Deviation from Test Standard 74
4.2.5 Test Setup 74
4.2.6 EUT Operating Conditions 74
4.2.7 Test Results 75
4.3 6 dB Bandwidth Measurement 77
4.3.1 Limits of 6 dB Bandwidth Measurement 77
4.3.2 Test Setup 77
4.3.3 Test Instruments 77
4.3.4 Test Procedure 77
4.3.5 Deviation from Test Standard 77
4.3.6 EUT Operating Conditions 77
4.3.7 Test Results 78
4.4 Occupied Bandwidth Measurement 80
4.4.1 Test Setup 80
4.4.2 Test Instruments 80
4.4.3 Test Procedure 80
4.4.4 Deviation from Test Standard 80
4.4.5 EUT Operating Conditions 80
4.4.6 Test Results 81
4.5 Conducted Output Power Measurement 83
4.5.1 Limits of Conducted Output Power Measurement 83
4.5.2 Test Setup 83
4.5.3 Test Instruments 83
4.5.4 Test Procedures 83
4.5.5 Deviation from Test Standard 83
4.5.6 EUT Operating Conditions 83
4.5.7 Test Results 84

4.6 Power Spectral Density Measurement 86
4.6.1 Limits of Power Spectral Density Measurement 86
4.6.2 Test Setup 86
4.6.3 Test Instruments 86
4.6.4 Test Procedure 86
4.6.5 Deviation from Test Standard 86
4.6.6 EUT Operating Condition 86
4.6.7 Test Results 87
4.7 Conducted Out of Band Emission Measurement 90
4.7.1 Limits of Conducted Out of Band Emission Measurement 90
4.7.2 Test Setup 90
4.7.3 Test Instruments 90
4.7.4 Test Procedure 90
4.7.5 Deviation from Test Standard 90
4.7.6 EUT Operating Condition 90
4.7.7 Test Results 91

5 Pictures of Test Arrangements 123

Appendix – Information on the Testing Laboratories 124

Release Control Record

Issue No.	Description	Date Issued
RF180619C29	Original Release	Oct. 04, 2018

1 Certificate of Conformity

Product: Amber Life

Brand: LatticeWork

Test Model: AM12

Sample Status: Engineering Sample

Applicant: Latticework, Inc.

Test Date: Jul. 12, 2018 ~ Oct. 03, 2018

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 : Rona Chen , **Date:** Oct. 04, 2018

Rona Chen / Specialist

Approved by : , **Date:** Oct. 04, 2018

Dylan Chiou / Project Engineer

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 -11.40 dB at 0.16125 MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.1 dB at 2390.00 MHz.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Reference only
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	Antenna connector is IPEX.

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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	3.86 dB
	200 MHz ~ 1000 MHz	3.87 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Amber Life
Brand	LatticeWork
Test Model	AM12
Status of EUT	Engineering Sample
Power Supply Rating	19.0 Vdc (Adapter)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to 600.0 Mbps 802.11ac: up to 800.0 Mbps
Operating Frequency	2412 ~ 2462 MHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20) 7 for 802.11n (HT40), 802.11ac (VHT40)
Output Power	834.177 mW
Antenna Type	Dipole antenna with 4.13 dBi gain (Chain-0) PIFA antenna with 3.25 dBi gain (Chain-1) Dipole antenna with 4.23 dBi gain (Chain-2) Dipole antenna with 2.87 dBi gain (Chain-3)
Antenna Connector	IPEX
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Modulation Mode	Tx Function
802.11b	4TX
802.11g	4TX
802.11n (HT20)	4TX
802.11n (HT40)	4TX
802.11ac (VHT20)	4TX
802.11ac (VHT40)	4TX

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for HT20 / HT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	Chicony	A12-065N2A	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19 Vdc, 3.42 A, 65W 1.7m shielded DC cable with 1 core 0.9m non-shielded AC cable w/o core
Cat.5e Cable	N/A	N/A	1.75m non-shielded cable w/o core

3. The worst case spurious emission of the simultaneous operation mode is listed as below and the test data please refer to BV CPS report no.: RF180619C29-3.

No.	Mode
1	WLAN 2.4GHz + WLAN 5GHz

4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), and 802.11ac (VHT20):

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

7 channels are provided for 802.11n (HT40) and 802.11ac (VHT40):

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

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 1 GHz **RE<1G:** Radiated Emission below 1 GHz
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 1 GHz):

☒ 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)
-	802.11b	1 to 11	1, 2, 3, 6, 9, 10, 11	DSSS	DBPSK	1.0
-	802.11g	1 to 11	1, 2, 3, 6, 9, 10, 11	OFDM	BPSK	6.0
-	802.11ac (VHT20)	1 to 11	1, 2, 3, 6, 9, 10, 11	OFDM	BPSK	6.5
-	802.11ac (VHT40)	3 to 9	3, 4, 6, 8, 9	OFDM	BPSK	13.5

Radiated Emission Test (Below 1 GHz):

☒ 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)
-	802.11ac (VHT20)	1 to 11	1	OFDM	BPSK	6.5

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)
-	802.11ac (VHT20)	1 to 11	1	OFDM	BPSK	6.5

Bandedge Measurement:

☒ 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)
-	802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0
-	802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
-	802.11ac (VHT20)	1 to 11	1, 11	OFDM	BPSK	6.5
-	802.11ac (VHT40)	3 to 9	3, 9	OFDM	BPSK	13.5

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)
-	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
-	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
-	802.11ac (VHT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
-	802.11ac (VHT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Adair Peng
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Adair Peng
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Adair Peng
APCM	25 deg. C, 65 % RH	19.0 Vdc	Frank Chiu

3.3 Duty Cycle of Test Signal

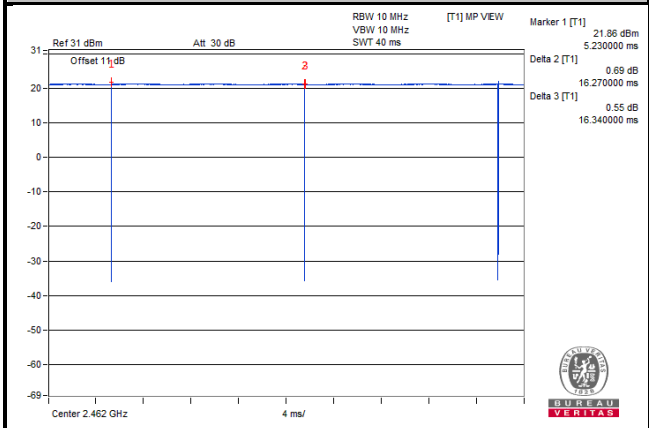
802.11b: Duty cycle of test signal is ≥ 98 %, duty factor is not required.

802.11g: Duty cycle of test signal is ≥ 98 %, duty factor is not required.

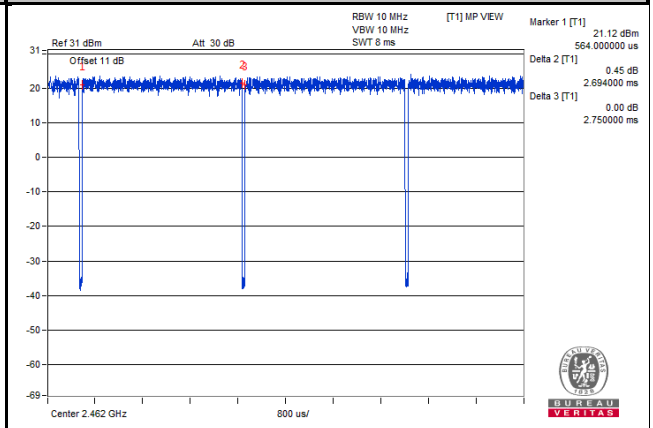
802.11ac (VHT20): Duty cycle = 1.896/1.971 = 0.962, Duty factor = 10 * log(1/0.962) = 0.17

802.11ac (VHT40): Duty cycle = 0.939/1.009 = 0.931, Duty factor = 10 * log(1/0.931) = 0.31

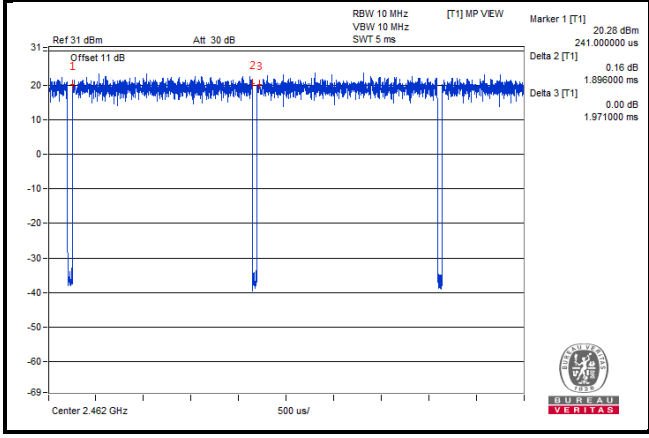
802.11b



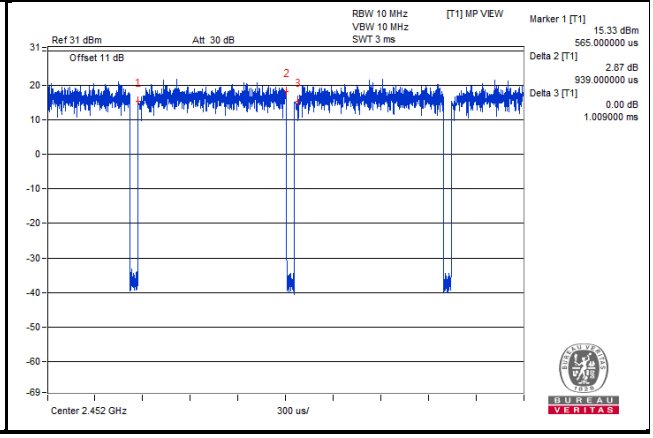
802.11g



802.11ac (VHT20)



802.11ac (VHT40)



3.4 Description of Support Units

The EUT 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.

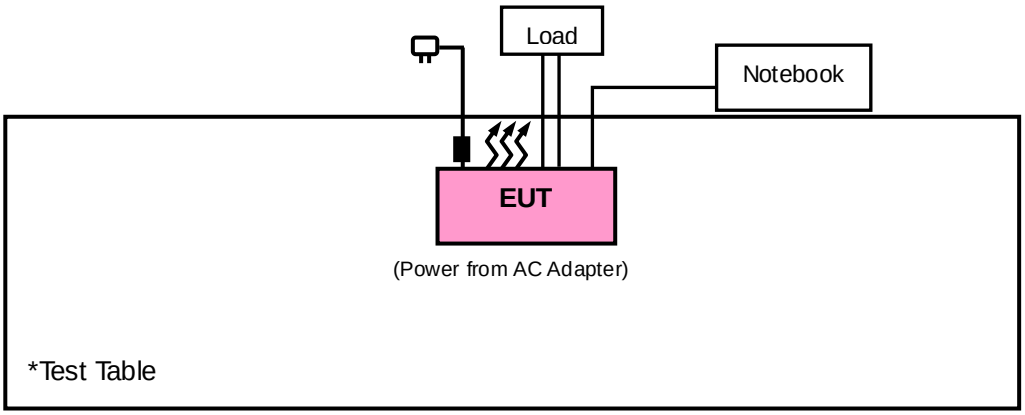
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Load	N/A	N/A	N/A	N/A
2.	Notebook	DELL	E5410	1HC2XM1	N/A

No.	Signal Cable Description Of The Above Support Units
1.	1.75m shielded adapter cable with 1 core
2.	1.5m non-shielded LAN Cable
3.	1.5m non-shielded LAN Cable
4.	5m non-shielded LAN Cable

Note:

1. All power cords of the above support units are non-shielded (1.8m).

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.247)
KDB 558074 D01 15.247 Meas Guidance v05
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

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 20 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

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 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.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 29, 2018	May 28, 2019
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Dec. 12, 2017	Dec. 11, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Dec. 11, 2017	Dec. 10, 2018
HORN Antenna SCHWARZBECK	9120D	209	Dec. 13, 2017	Dec. 12, 2018
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 01, 2017	Nov. 30, 2018
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 01, 2017	Nov. 30, 2018
Loop Antenna TESEQ	HLA 6121	45745	Jun. 14, 2018	Jun. 13, 2019
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 21, 2017	Aug. 20, 2018
			Aug. 21, 2018	Aug. 20, 2019
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Apr. 03, 2018	Apr. 02, 2019
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 21, 2017	Aug. 20, 2018
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM- SM-8000	Cable-CH3-03 (309224+170907)	Aug. 21, 2017	Aug. 20, 2018
Power Meter Anritsu	ML2495A	1232002	Dec. 07, 2017	Dec. 06, 2018
Power Sensor Anritsu	MA2411B	1207325	Dec. 07, 2017	Dec. 06, 2018
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA

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 HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450F-3.

4.1.3 Test Procedures

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 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 9 kHz at frequency below 30 MHz.

For Radiated Emission above 30 MHz

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

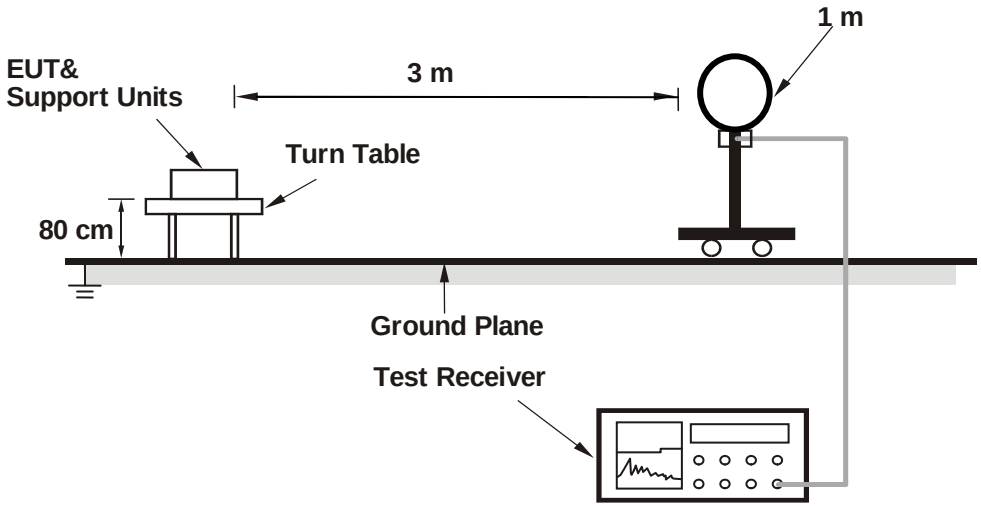
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
   (11b: RBW = 1 MHz, VBW =100 Hz ; 11g: RBW = 1 MHz, VBW = 1 kHz ;
   11ac (VHT20): RBW = 1 MHz, VBW = 1 kHz ; 11ac (VHT40): RBW = 1 MHz, VBW = 3 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

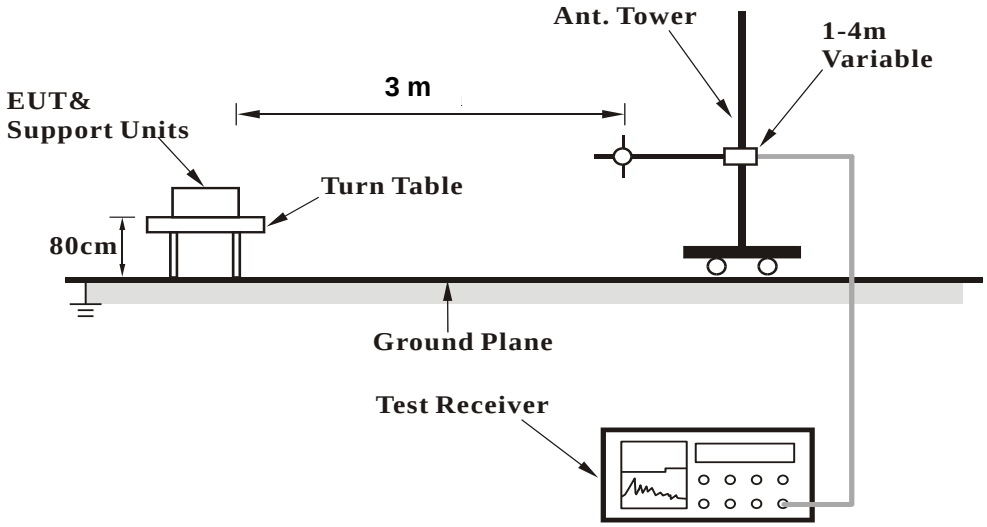
No deviation.

4.1.5 Test Set Up

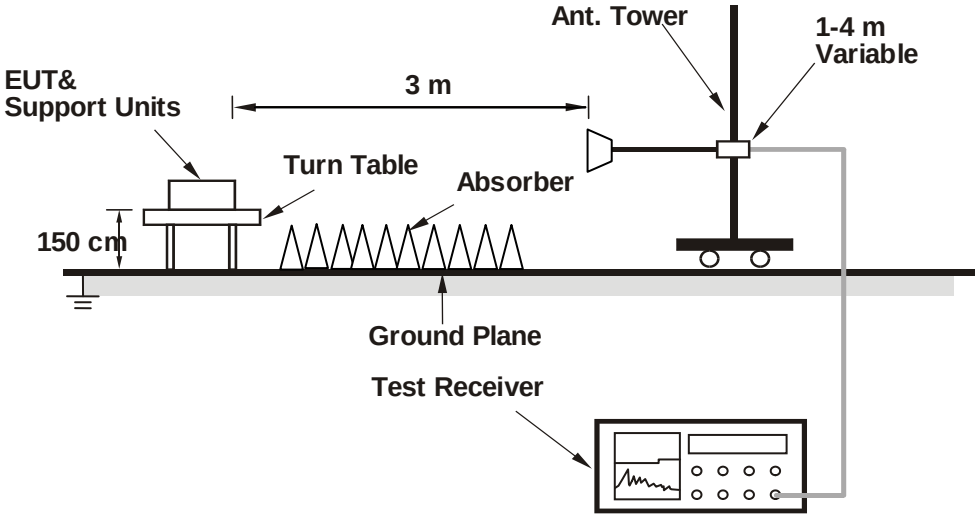
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



<Radiated Emission above 1 GHz>



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 a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1 GHz Data：

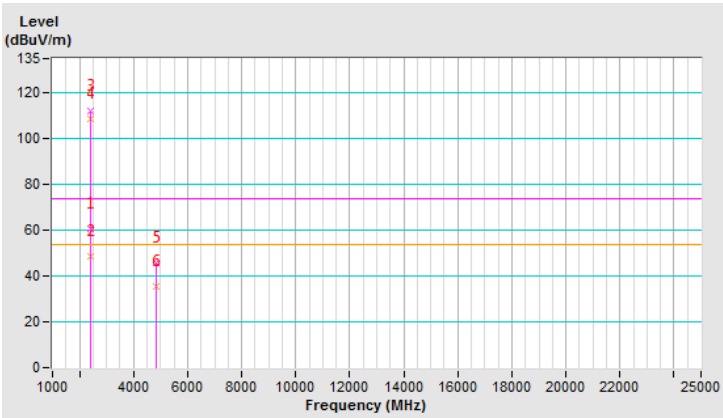
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.4 PK	74.0	-13.6	2.85 H	33	26.9	33.5
2	2390.00	48.8 AV	54.0	-5.2	2.85 H	33	15.3	33.5
3	*2412.00	112.2 PK			3.84 H	32	78.8	33.4
4	*2412.00	108.6 AV			3.84 H	32	75.2	33.4
5	4824.00	46.0 PK	74.0	-28.0	2.96 H	198	42.0	4.0
6	4824.00	35.5 AV	54.0	-18.5	2.96 H	198	31.5	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

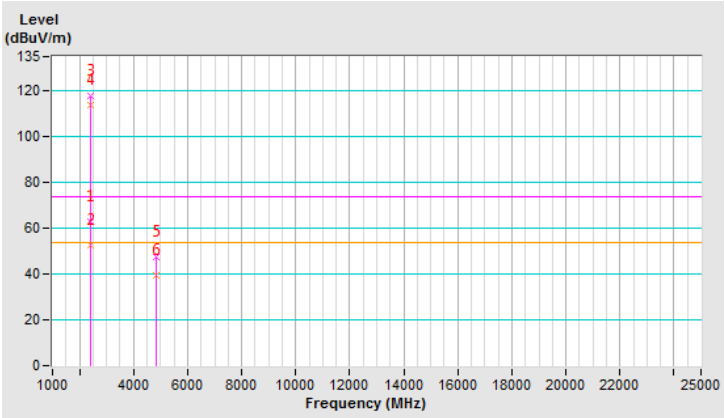


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.7 PK	74.0	-11.3	1.52 V	336	29.2	33.5
2	2390.00	52.4 AV	54.0	-1.6	1.52 V	336	18.9	33.5
3	*2412.00	117.9 PK			2.58 V	308	84.5	33.4
4	*2412.00	114.0 AV			2.58 V	308	80.6	33.4
5	4824.00	47.6 PK	74.0	-26.4	1.35 V	123	43.6	4.0
6	4824.00	39.4 AV	54.0	-14.6	1.35 V	123	35.4	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

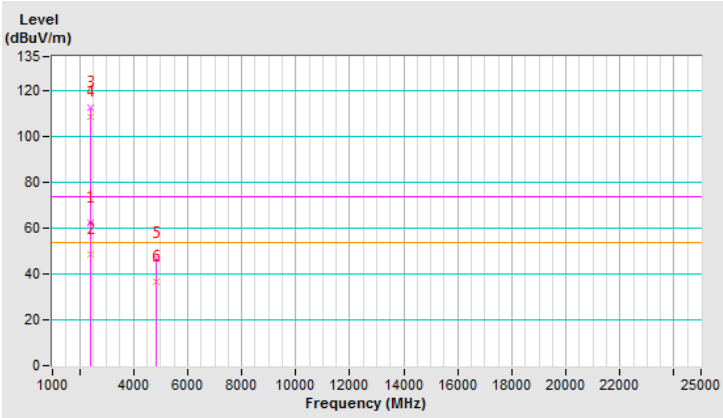


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.4 PK	74.0	-11.6	2.96 H	42	28.9	33.5
2	2390.00	48.9 AV	54.0	-5.1	2.96 H	42	15.4	33.5
3	*2417.00	112.7 PK			3.56 H	49	79.3	33.4
4	*2417.00	108.5 AV			3.56 H	49	75.1	33.4
5	4834.00	47.1 PK	74.0	-26.9	3.01 H	224	43.2	3.9
6	4834.00	36.4 AV	54.0	-17.6	3.01 H	224	32.5	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

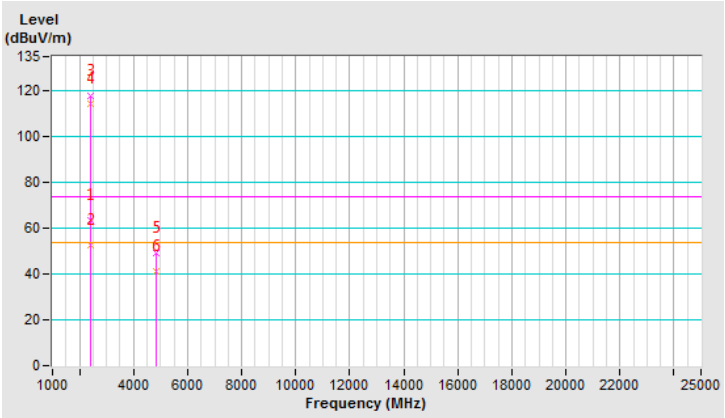


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	63.7 PK	74.0	-10.3	1.57 V	36	30.2	33.5
2	2390.00	52.8 AV	54.0	-1.2	1.57 V	36	19.3	33.5
3	*2417.00	118.1 PK			1.93 V	288	84.7	33.4
4	*2417.00	114.3 AV			1.93 V	288	80.9	33.4
5	4834.00	49.1 PK	74.0	-24.9	1.92 V	175	45.2	3.9
6	4834.00	41.1 AV	54.0	-12.9	1.92 V	175	37.2	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

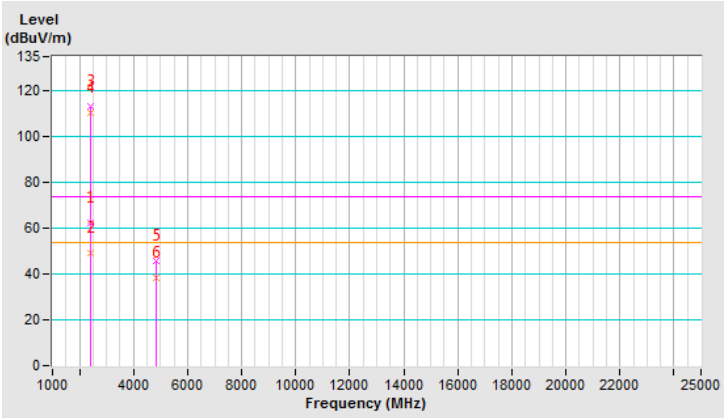


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	2.79 H	293	28.6	33.5
2	2390.00	49.3 AV	54.0	-4.7	2.79 H	293	15.8	33.5
3	*2422.00	113.5 PK			3.26 H	138	80.1	33.4
4	*2422.00	110.6 AV			3.26 H	138	77.2	33.4
5	4844.00	46.0 PK	74.0	-28.0	2.99 H	279	42.2	3.8
6	4844.00	38.1 AV	54.0	-15.9	2.99 H	279	34.3	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

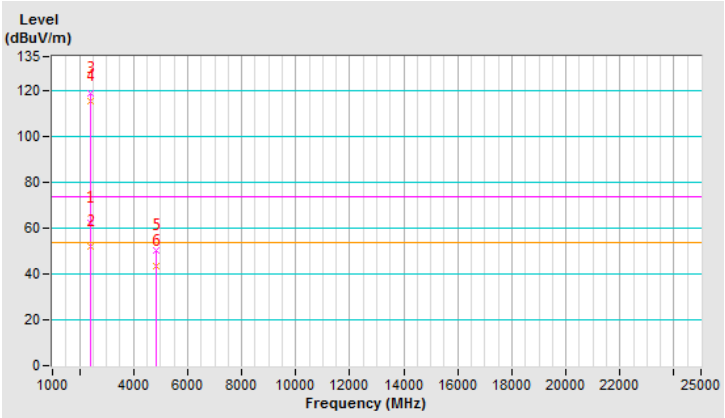


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	1.58 V	38	29.1	33.5
2	2390.00	52.3 AV	54.0	-1.7	1.58 V	38	18.8	33.5
3	*2422.00	118.8 PK			1.88 V	244	85.4	33.4
4	*2422.00	115.3 AV			1.88 V	244	81.9	33.4
5	4844.00	50.1 PK	74.0	-23.9	2.23 V	177	46.3	3.8
6	4844.00	43.7 AV	54.0	-10.3	2.23 V	177	39.9	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

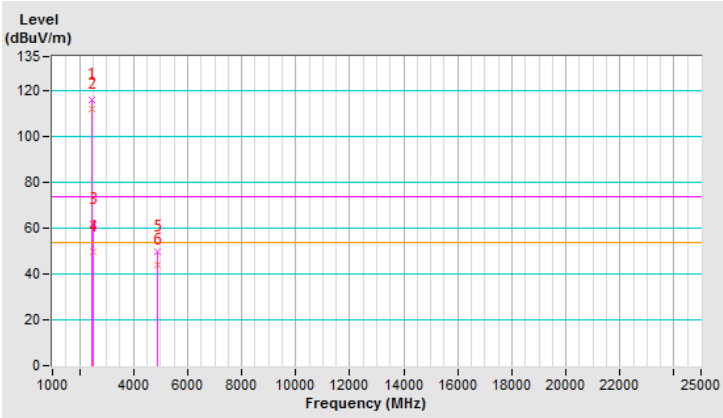


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	116.0 PK			3.59 H	30	82.6	33.4
2	*2437.00	112.2 AV			3.59 H	30	78.8	33.4
3	2483.50	62.0 PK	74.0	-12.0	3.77 H	40	28.8	33.2
4	2483.50	50.0 AV	54.0	-4.0	3.77 H	40	16.8	33.2
5	4874.00	49.6 PK	74.0	-24.4	3.11 H	211	45.9	3.7
6	4874.00	43.8 AV	54.0	-10.2	3.11 H	211	40.1	3.7

REMARKS:

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

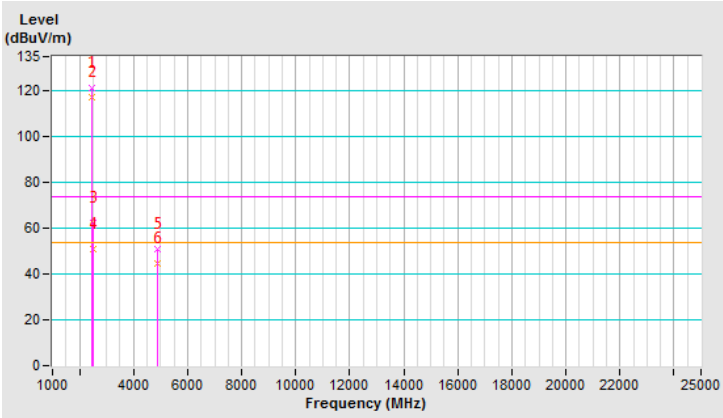


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	121.2 PK			2.79 V	310	87.8	33.4
2	*2437.00	117.4 AV			2.79 V	310	84.0	33.4
3	2483.50	62.6 PK	74.0	-11.4	2.63 V	300	29.4	33.2
4	2483.50	51.0 AV	54.0	-3.0	2.63 V	300	17.8	33.2
5	4874.00	50.8 PK	74.0	-23.2	1.29 V	333	47.1	3.7
6	4874.00	44.8 AV	54.0	-9.2	1.29 V	333	41.1	3.7

REMARKS:

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

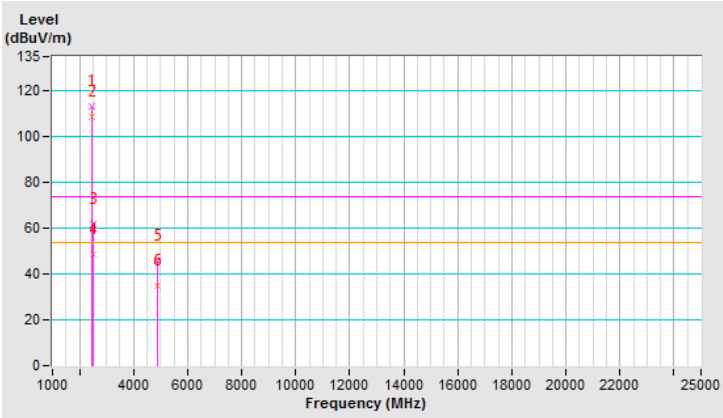


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	113.2 PK			3.22 H	36	79.8	33.4
2	*2452.00	108.8 AV			3.22 H	36	75.4	33.4
3	2483.50	61.6 PK	74.0	-12.4	3.54 H	13	28.4	33.2
4	2483.50	48.8 AV	54.0	-5.2	3.54 H	13	15.6	33.2
5	4904.00	45.8 PK	74.0	-28.2	2.64 H	183	42.3	3.5
6	4904.00	35.0 AV	54.0	-19.0	2.64 H	183	31.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

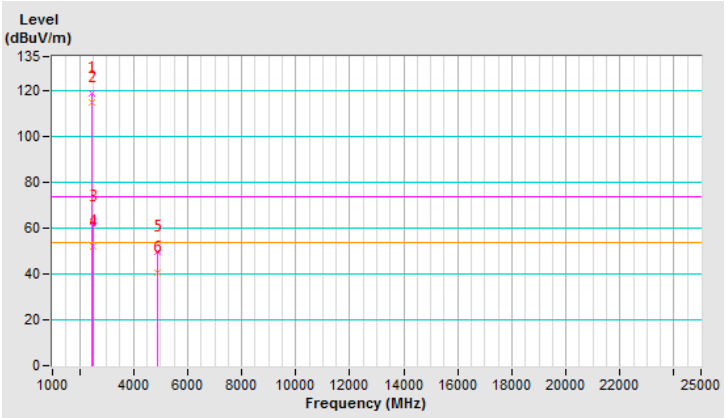


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	118.8 PK			1.47 V	357	85.4	33.4
2	*2452.00	115.0 AV			1.47 V	357	81.6	33.4
3	2483.50	63.0 PK	74.0	-11.0	1.64 V	322	29.8	33.2
4	2483.50	52.3 AV	54.0	-1.7	1.64 V	322	19.1	33.2
5	4904.00	49.7 PK	74.0	-24.3	1.58 V	234	46.2	3.5
6	4904.00	40.7 AV	54.0	-13.3	1.58 V	234	37.2	3.5

REMARKS:

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

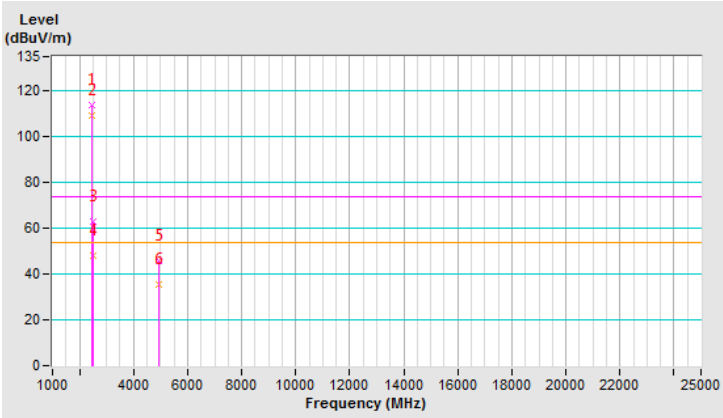


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	113.8 PK			3.29 H	46	80.5	33.3
2	*2457.00	109.4 AV			3.29 H	46	76.1	33.3
3	2483.50	62.8 PK	74.0	-11.2	3.26 H	261	29.6	33.2
4	2483.50	48.0 AV	54.0	-6.0	3.26 H	261	14.8	33.2
5	4914.00	45.7 PK	74.0	-28.3	2.89 H	265	42.2	3.5
6	4914.00	35.3 AV	54.0	-18.7	2.89 H	265	31.8	3.5

REMARKS:

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

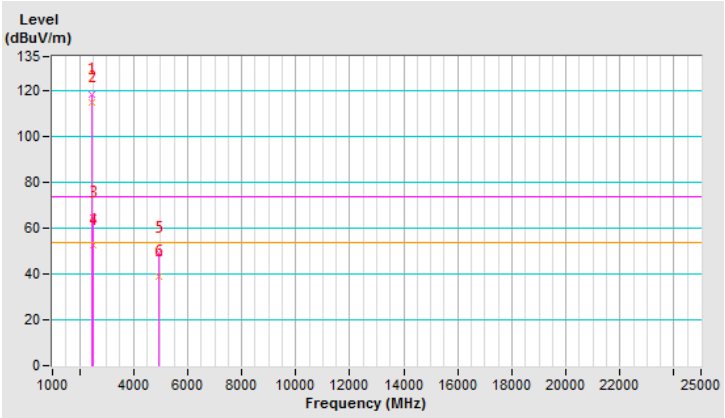


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	118.6 PK			2.06 V	286	85.3	33.3
2	*2457.00	115.0 AV			2.06 V	286	81.7	33.3
3	2483.50	64.5 PK	74.0	-9.5	1.66 V	19	31.3	33.2
4	2483.50	52.7 AV	54.0	-1.3	1.66 V	19	19.5	33.2
5	4914.00	49.3 PK	74.0	-24.7	2.06 V	178	45.8	3.5
6	4914.00	38.8 AV	54.0	-15.2	2.06 V	178	35.3	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

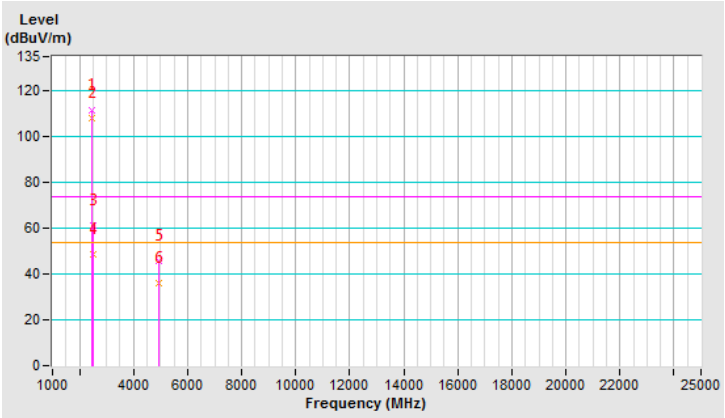


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	111.7 PK			3.59 H	31	78.4	33.3
2	*2462.00	108.3 AV			3.59 H	31	75.0	33.3
3	2483.50	61.2 PK	74.0	-12.8	2.89 H	40	28.0	33.2
4	2483.50	48.6 AV	54.0	-5.4	2.89 H	40	15.4	33.2
5	4924.00	45.6 PK	74.0	-28.4	2.89 H	195	42.1	3.5
6	4924.00	36.0 AV	54.0	-18.0	2.89 H	195	32.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

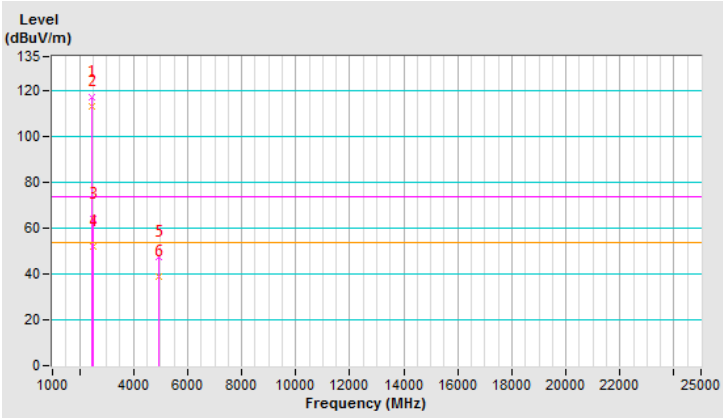


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	117.3 PK			2.50 V	308	84.0	33.3
2	*2462.00	113.5 AV			2.50 V	308	80.2	33.3
3	2483.50	64.3 PK	74.0	-9.7	2.94 V	298	31.1	33.2
4	2483.50	52.3 AV	54.0	-1.7	2.94 V	298	19.1	33.2
5	4924.00	47.5 PK	74.0	-26.5	1.41 V	261	44.0	3.5
6	4924.00	39.0 AV	54.0	-15.0	1.41 V	261	35.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



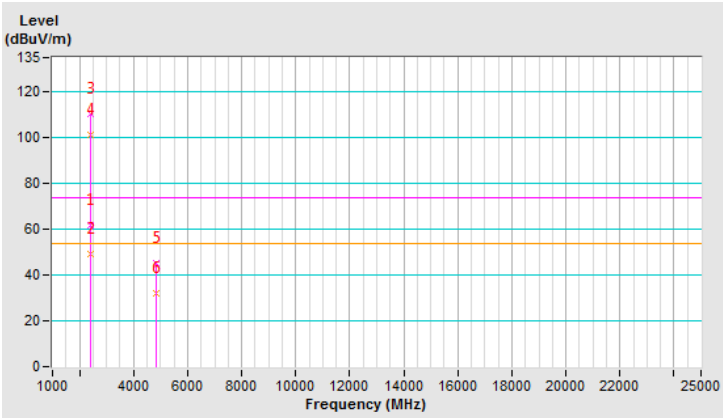
802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.5 PK	74.0	-12.5	3.31 H	33	28.0	33.5
2	2390.00	49.3 AV	54.0	-4.7	3.31 H	33	15.8	33.5
3	*2412.00	110.6 PK			3.39 H	42	77.2	33.4
4	*2412.00	101.3 AV			3.39 H	42	67.9	33.4
5	4824.00	45.4 PK	74.0	-28.6	2.93 H	229	41.4	4.0
6	4824.00	32.2 AV	54.0	-21.8	2.93 H	229	28.2	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

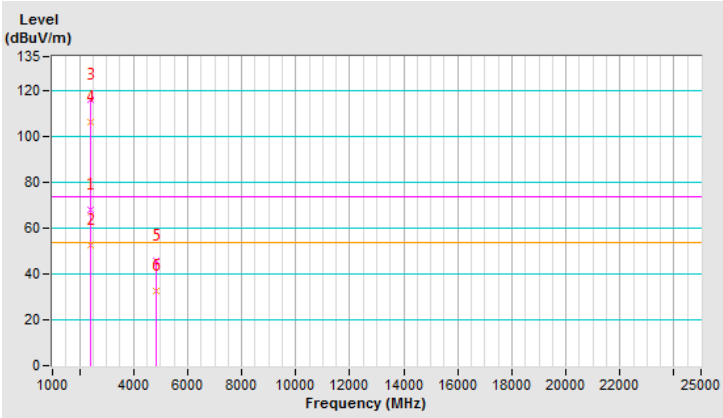


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.0 PK	74.0	-6.0	3.26 V	311	34.5	33.5
2	2390.00	52.6 AV	54.0	-1.4	3.58 V	306	19.1	33.5
3	*2412.00	116.1 PK			3.40 V	315	82.7	33.4
4	*2412.00	106.4 AV			3.40 V	315	73.0	33.4
5	4824.00	46.0 PK	74.0	-28.0	1.63 V	341	42.0	4.0
6	4824.00	32.5 AV	54.0	-21.5	1.56 V	350	28.5	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

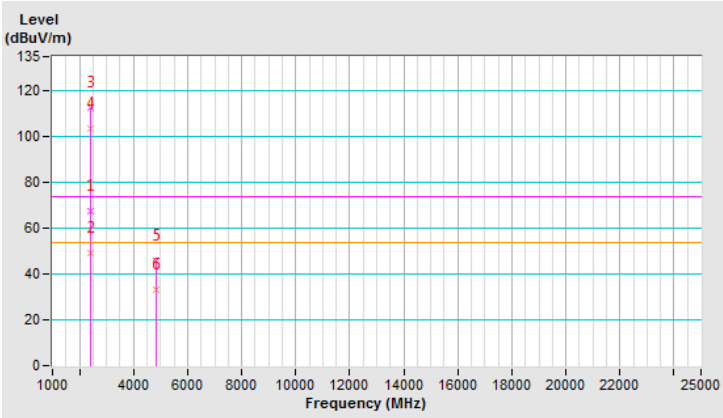


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	2.94 H	33	33.9	33.5
2	2390.00	49.1 AV	54.0	-4.9	2.94 H	33	15.6	33.5
3	*2417.00	112.7 PK			3.54 H	41	79.3	33.4
4	*2417.00	103.4 AV			3.54 H	41	70.0	33.4
5	4834.00	45.7 PK	74.0	-28.3	2.96 H	235	41.8	3.9
6	4834.00	33.4 AV	54.0	-20.6	2.96 H	235	29.5	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

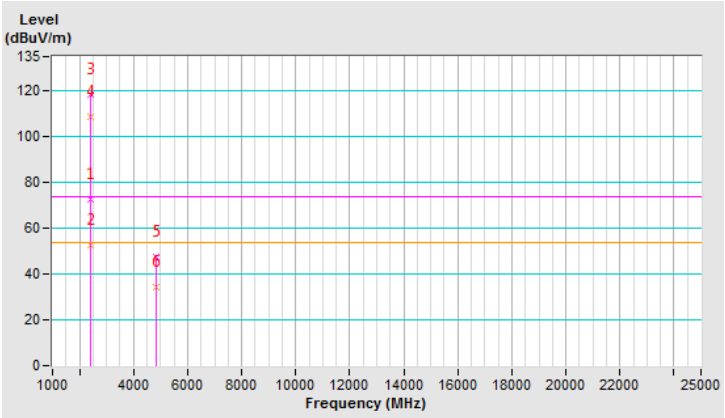


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.6 PK	74.0	-1.4	2.14 V	264	39.1	33.5
2	2390.00	52.8 AV	54.0	-1.2	2.14 V	264	19.3	33.5
3	*2417.00	118.3 PK			1.94 V	290	84.9	33.4
4	*2417.00	108.5 AV			1.94 V	290	75.1	33.4
5	4834.00	47.2 PK	74.0	-26.8	2.69 V	196	43.3	3.9
6	4834.00	34.5 AV	54.0	-19.5	2.69 V	196	30.6	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

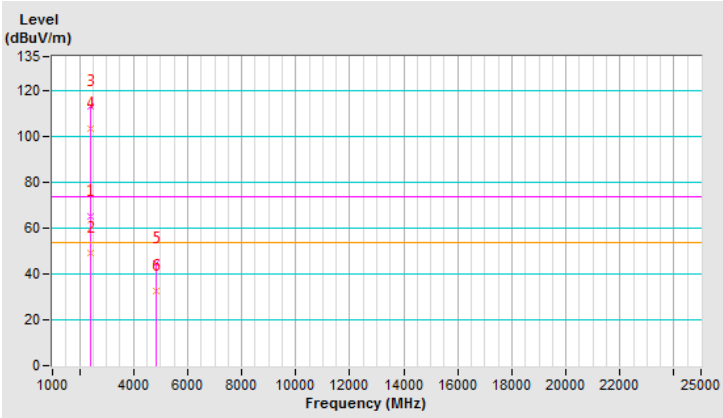


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.0 PK	74.0	-9.0	3.45 H	342	31.5	33.5
2	2390.00	49.4 AV	54.0	-4.6	3.45 H	342	15.9	33.5
3	*2422.00	113.5 PK			3.38 H	16	80.1	33.4
4	*2422.00	103.7 AV			3.38 H	16	70.3	33.4
5	4844.00	44.9 PK	74.0	-29.1	2.99 H	246	41.1	3.8
6	4844.00	32.5 AV	54.0	-21.5	2.99 H	246	28.7	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

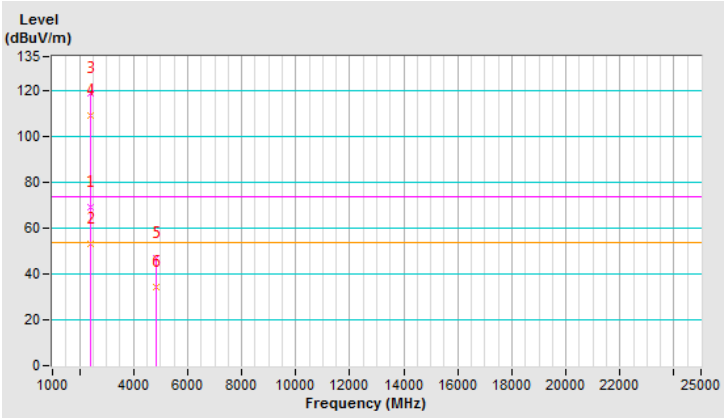


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.1 PK	74.0	-4.9	1.97 V	335	35.6	33.5
2	2390.00	53.0 AV	54.0	-1.2	1.97 V	335	19.5	33.5
3	*2422.00	118.7 PK			1.82 V	285	85.3	33.4
4	*2422.00	109.5 AV			1.82 V	285	76.1	33.4
5	4844.00	46.7 PK	74.0	-27.3	2.38 V	178	42.9	3.8
6	4844.00	34.2 AV	54.0	-19.8	2.38 V	178	30.4	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

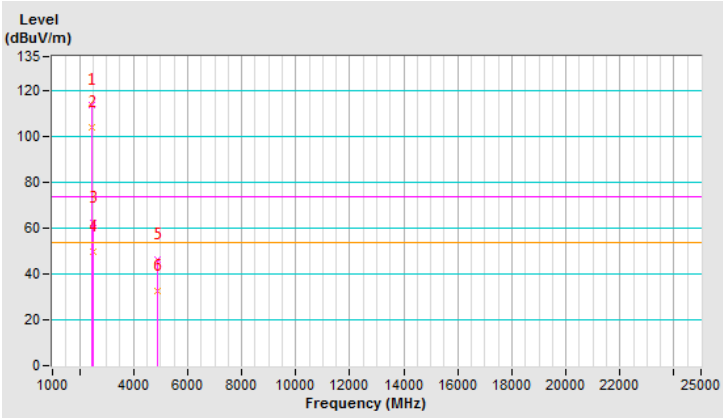


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	114.1 PK			3.81 H	39	80.7	33.4
2	*2437.00	104.0 AV			3.81 H	39	70.6	33.4
3	2483.50	62.3 PK	74.0	-11.7	3.66 H	39	29.1	33.2
4	2483.50	49.6 AV	54.0	-4.4	3.66 H	39	16.4	33.2
5	4874.00	46.4 PK	74.0	-27.6	3.33 H	215	42.7	3.7
6	4874.00	32.7 AV	54.0	-21.3	3.33 H	215	29.0	3.7

REMARKS:

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

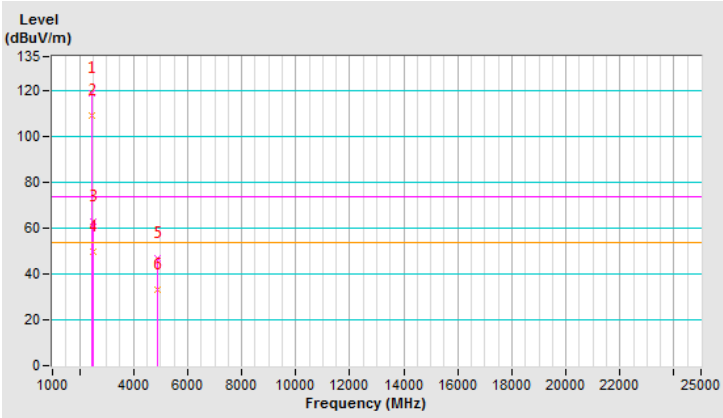


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	119.0 PK			2.26 V	308	85.6	33.4
2	*2437.00	109.0 AV			2.26 V	308	75.6	33.4
3	2483.50	62.9 PK	74.0	-11.1	2.51 V	288	29.7	33.2
4	2483.50	49.9 AV	54.0	-4.1	2.51 V	288	16.7	33.2
5	4874.00	46.7 PK	74.0	-27.3	2.20 V	354	43.0	3.7
6	4874.00	33.0 AV	54.0	-21.0	2.20 V	354	29.3	3.7

REMARKS:

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

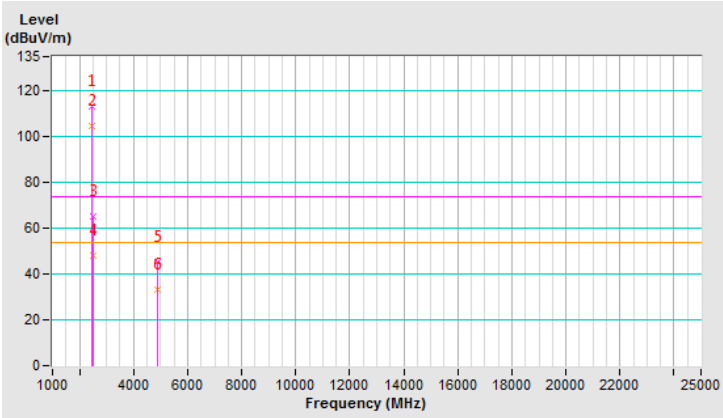


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	113.3 PK			3.73 H	26	79.9	33.4
2	*2452.00	104.6 AV			3.73 H	26	71.2	33.4
3	2483.50	65.4 PK	74.0	-8.6	3.18 H	357	32.2	33.2
4	2483.50	48.3 AV	54.0	-5.7	3.18 H	357	15.1	33.2
5	4904.00	45.2 PK	74.0	-28.8	2.88 H	265	41.7	3.5
6	4904.00	33.1 AV	54.0	-20.9	2.88 H	265	29.6	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

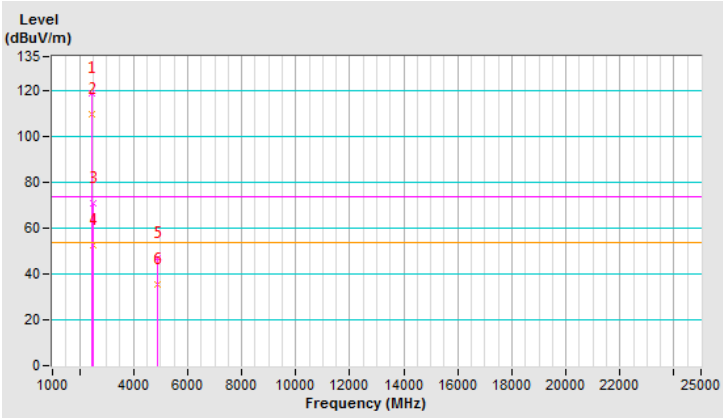


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	119.0 PK			1.98 V	280	85.6	33.4
2	*2452.00	109.9 AV			1.98 V	280	76.5	33.4
3	2483.50	70.8 PK	74.0	-3.2	1.72 V	5	37.6	33.2
4	2483.50	52.9 AV	54.0	-1.1	1.72 V	5	19.7	33.2
5	4904.00	46.8 PK	74.0	-27.2	2.43 V	194	43.3	3.5
6	4904.00	35.2 AV	54.0	-18.8	2.43 V	194	31.7	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

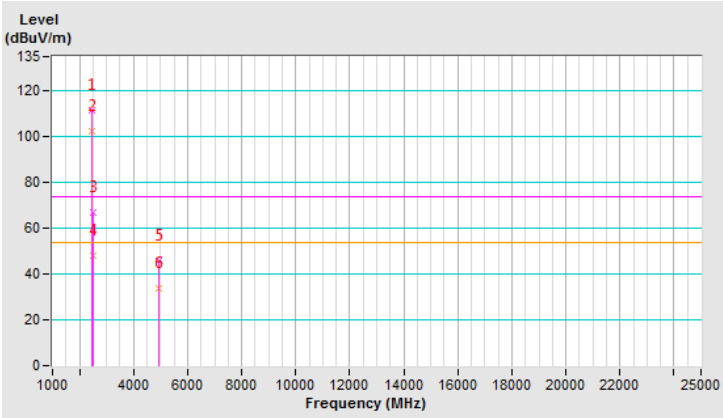


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	111.8 PK			3.43 H	359	78.5	33.3
2	*2457.00	102.5 AV			3.43 H	359	69.2	33.3
3	2483.50	66.7 PK	74.0	-7.3	2.96 H	18	33.5	33.2
4	2483.50	47.8 AV	54.0	-6.2	2.96 H	18	14.6	33.2
5	4914.00	46.0 PK	74.0	-28.0	2.08 H	261	42.5	3.5
6	4914.00	33.6 AV	54.0	-20.4	2.08 H	261	30.1	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

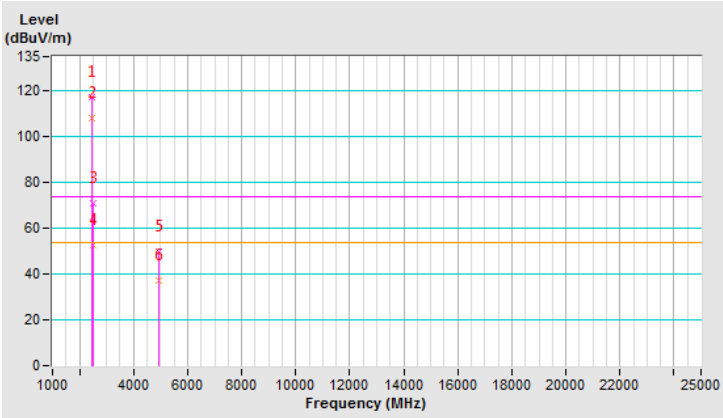


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	117.2 PK			2.05 V	288	83.9	33.3
2	*2457.00	107.9 AV			2.05 V	288	74.6	33.3
3	2483.50	70.7 PK	74.0	-3.3	1.91 V	22	37.5	33.2
4	2483.50	52.7 AV	54.0	-1.3	1.91 V	22	19.5	33.2
5	4914.00	50.0 PK	74.0	-24.0	2.56 V	205	46.5	3.5
6	4914.00	37.2 AV	54.0	-16.8	2.56 V	205	33.7	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

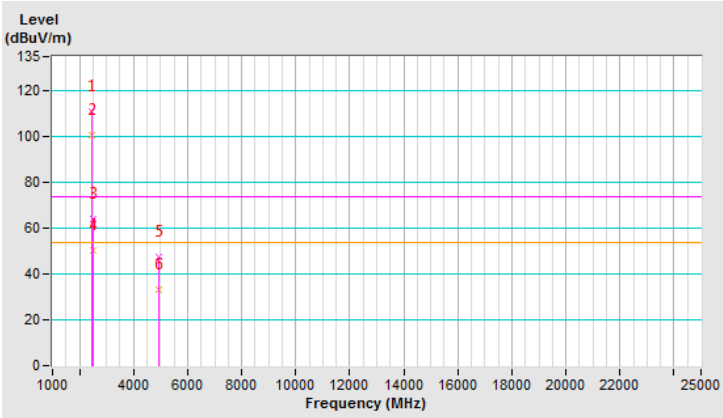


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	110.7 PK			3.44 H	44	77.4	33.3
2	*2462.00	100.9 AV			3.44 H	44	67.6	33.3
3	2483.50	64.3 PK	74.0	-9.7	3.63 H	33	31.1	33.2
4	2483.50	50.1 AV	54.0	-3.9	3.63 H	33	16.9	33.2
5	4924.00	47.2 PK	74.0	-26.8	3.20 H	243	43.7	3.5
6	4924.00	33.0 AV	54.0	-21.0	3.20 H	243	29.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

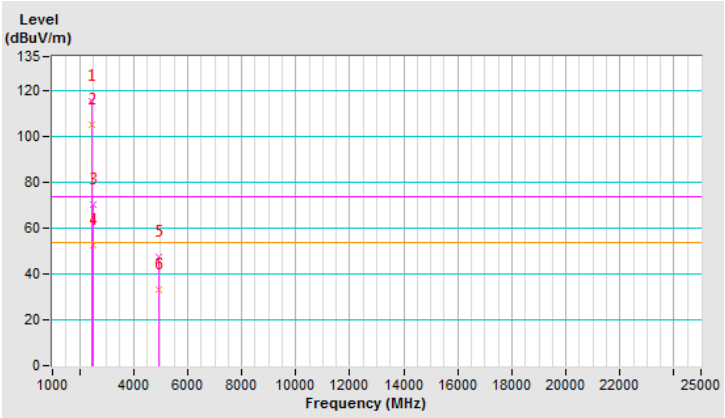


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	115.4 PK			2.22 V	299	82.1	33.3
2	*2462.00	105.5 AV			2.22 V	299	72.2	33.3
3	2483.50	70.4 PK	74.0	-3.6	1.99 V	187	37.2	33.2
4	2483.50	52.5 AV	54.0	-1.5	1.99 V	187	19.3	33.2
5	4924.00	47.5 PK	74.0	-26.5	2.03 V	289	44.0	3.5
6	4924.00	33.2 AV	54.0	-20.8	2.03 V	289	29.7	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



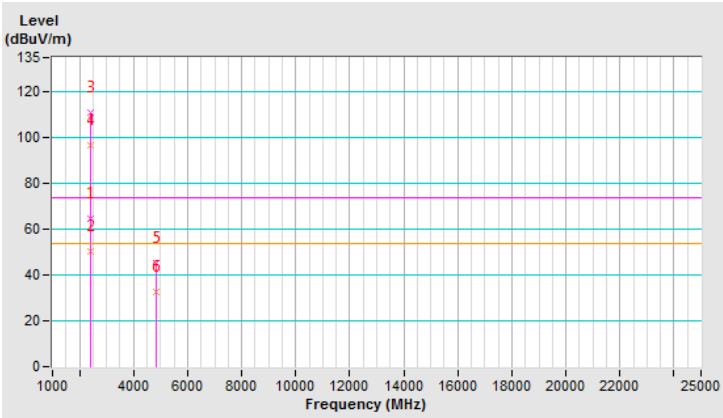
802.11ac (VHT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.7 PK	74.0	-9.3	2.33 H	346	31.2	33.5
2	2390.00	50.6 AV	54.0	-3.4	2.33 H	346	17.1	33.5
3	*2412.00	110.8 PK			2.49 H	339	77.4	33.4
4	*2412.00	96.6 AV			2.49 H	339	63.2	33.4
5	4824.00	45.2 PK	74.0	-28.8	2.93 H	255	41.2	4.0
6	4824.00	32.5 AV	54.0	-21.5	2.93 H	255	28.5	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

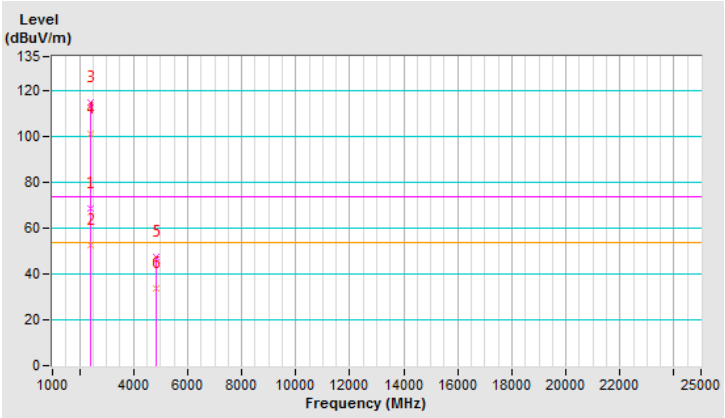


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.5 PK	74.0	-5.5	1.54 V	318	35.0	33.5
2	**2390.00**	**52.9 AV**	**54.0**	**-1.1**	**1.54 V**	**318**	**19.4**	**33.5**
3	*2412.00	115.1 PK			2.13 V	250	81.7	33.4
4	*2412.00	101.0 AV			2.13 V	250	67.6	33.4
5	4824.00	47.3 PK	74.0	-26.7	2.22 V	293	43.3	4.0
6	4824.00	33.5 AV	54.0	-20.5	2.22 V	293	29.5	4.0

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

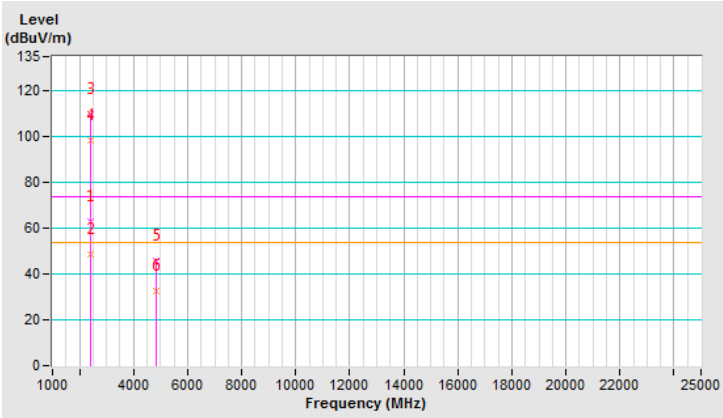


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	63.1 PK	74.0	-10.9	3.32 H	37	29.6	33.5
2	2390.00	48.4 AV	54.0	-5.6	3.32 H	37	14.9	33.5
3	*2417.00	110.0 PK			3.68 H	96	76.6	33.4
4	*2417.00	98.2 AV			3.68 H	96	64.8	33.4
5	4834.00	45.7 PK	74.0	-28.3	2.91 H	236	41.8	3.9
6	4834.00	32.8 AV	54.0	-21.2	2.91 H	236	28.9	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

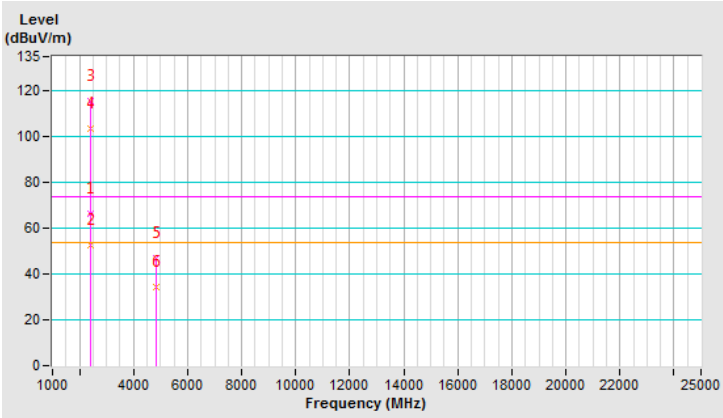


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.4 PK	74.0	-7.6	1.96 V	339	32.9	33.5
2	2390.00	52.5 AV	54.0	-1.5	1.96 V	339	19.0	33.5
3	*2417.00	115.3 PK			1.98 V	293	81.9	33.4
4	*2417.00	103.8 AV			1.98 V	293	70.4	33.4
5	4834.00	47.1 PK	74.0	-26.9	2.26 V	181	43.2	3.9
6	4834.00	34.5 AV	54.0	-19.5	2.26 V	181	30.6	3.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

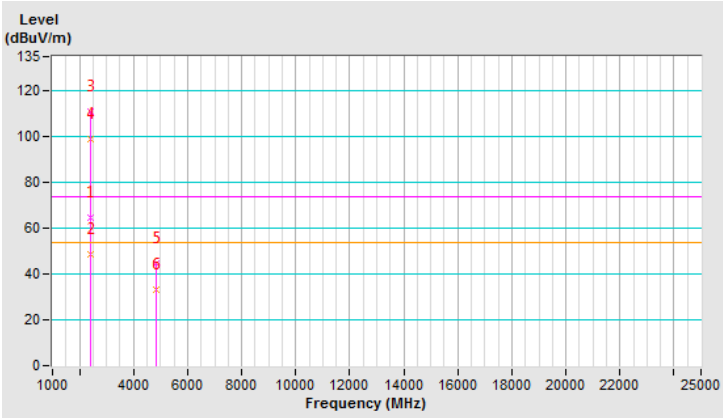


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.7 PK	74.0	-9.3	3.52 H	13	31.2	33.5
2	2390.00	48.4 AV	54.0	-5.6	3.52 H	13	14.9	33.5
3	*2422.00	111.0 PK			3.09 H	28	77.6	33.4
4	*2422.00	98.7 AV			3.09 H	28	65.3	33.4
5	4844.00	44.9 PK	74.0	-29.1	2.63 H	194	41.1	3.8
6	4844.00	33.2 AV	54.0	-20.8	2.63 H	194	29.4	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

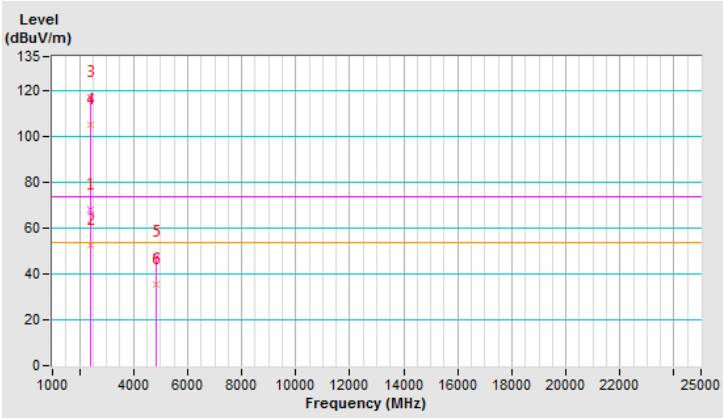


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	67.8 PK	74.0	-6.2	2.02 V	335	34.3	33.5
2	2390.00	52.8 AV	54.0	-1.2	2.02 V	335	19.3	33.5
3	*2422.00	117.3 PK			2.14 V	31	83.9	33.4
4	*2422.00	105.1 AV			2.14 V	31	71.7	33.4
5	4844.00	47.4 PK	74.0	-26.6	2.35 V	179	43.6	3.8
6	4844.00	35.7 AV	54.0	-18.3	2.35 V	179	31.9	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

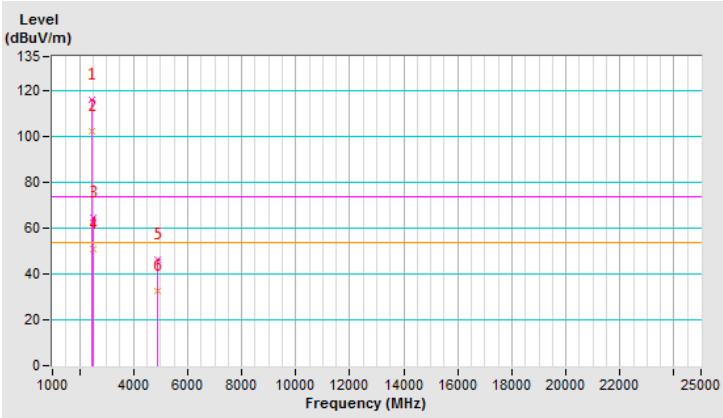


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	116.4 PK			2.40 H	349	83.0	33.4
2	*2437.00	102.6 AV			2.40 H	349	69.2	33.4
3	2483.50	64.7 PK	74.0	-9.3	2.31 H	323	31.5	33.2
4	2483.50	50.8 AV	54.0	-3.2	2.31 H	323	17.6	33.2
5	4874.00	46.6 PK	74.0	-27.4	3.09 H	236	42.9	3.7
6	4874.00	32.6 AV	54.0	-21.4	3.09 H	236	28.9	3.7

REMARKS:

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

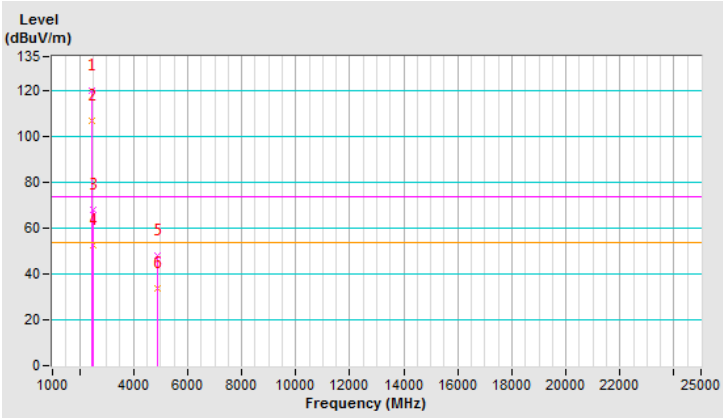


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	120.0 PK			2.33 V	238	86.6	33.4
2	*2437.00	106.9 AV			2.33 V	238	73.5	33.4
3	2483.50	67.8 PK	74.0	-6.2	2.24 V	232	34.6	33.2
4	2483.50	52.6 AV	54.0	-1.4	2.24 V	232	19.4	33.2
5	4874.00	47.8 PK	74.0	-26.2	2.11 V	310	44.1	3.7
6	4874.00	33.8 AV	54.0	-20.2	2.11 V	310	30.1	3.7

REMARKS:

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

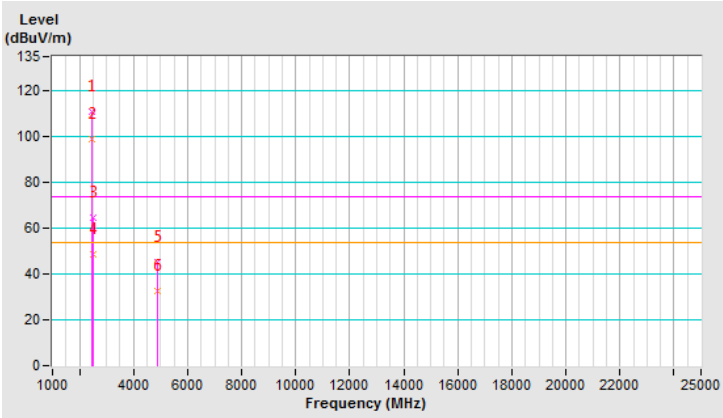


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	111.0 PK			3.62 H	22	77.6	33.4
2	*2452.00	99.0 AV			3.62 H	22	65.6	33.4
3	2483.50	64.5 PK	74.0	-9.5	3.15 H	351	31.3	33.2
4	2483.50	48.4 AV	54.0	-5.6	3.15 H	351	15.2	33.2
5	4904.00	45.4 PK	74.0	-28.6	2.91 H	189	41.9	3.5
6	4904.00	32.8 AV	54.0	-21.2	2.91 H	189	29.3	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

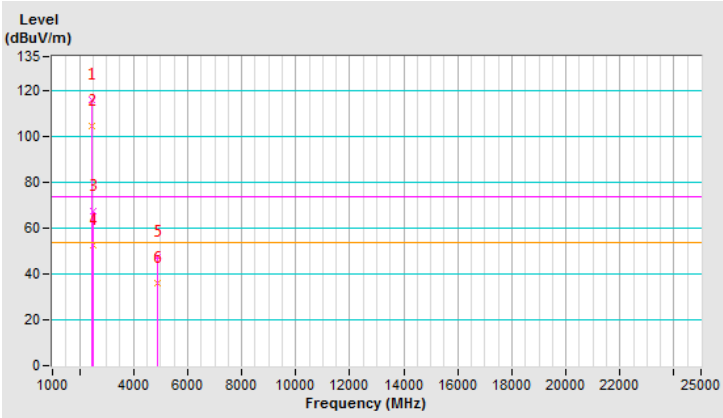


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	116.4 PK			2.23 V	326	83.0	33.4
2	*2452.00	104.7 AV			2.23 V	326	71.3	33.4
3	2483.50	67.4 PK	74.0	-6.6	1.93 V	289	34.2	33.2
4	2483.50	52.5 AV	54.0	-1.5	1.93 V	289	19.3	33.2
5	4904.00	47.3 PK	74.0	-26.7	2.69 V	231	43.8	3.5
6	4904.00	36.1 AV	54.0	-17.9	2.69 V	231	32.6	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

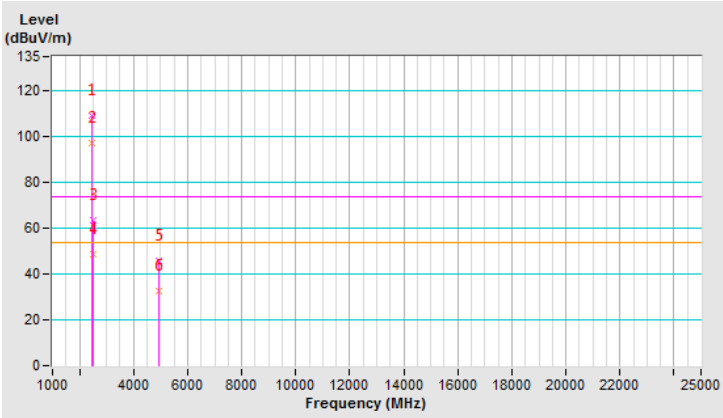


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	109.1 PK			3.51 H	11	75.8	33.3
2	*2457.00	97.2 AV			3.51 H	11	63.9	33.3
3	2483.50	63.7 PK	74.0	-10.3	3.35 H	28	30.5	33.2
4	2483.50	48.5 AV	54.0	-5.5	3.35 H	28	15.3	33.2
5	4914.00	46.0 PK	74.0	-28.0	2.89 H	266	42.5	3.5
6	4914.00	32.5 AV	54.0	-21.5	2.89 H	266	29.0	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

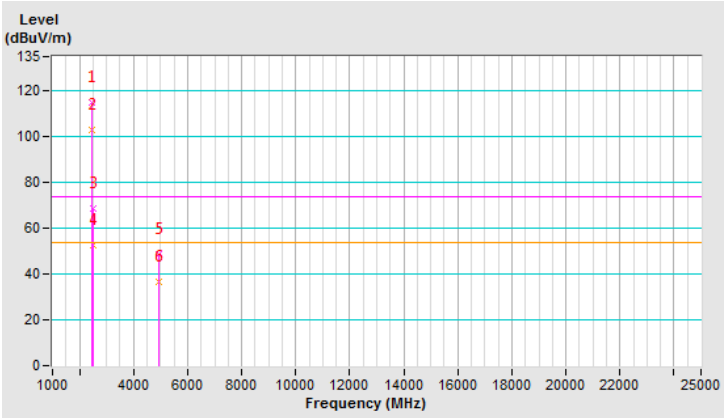


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2457.00	115.2 PK			2.08 V	241	81.9	33.3
2	*2457.00	103.1 AV			2.08 V	241	69.8	33.3
3	2483.50	68.6 PK	74.0	-5.4	1.82 V	14	35.4	33.2
4	2483.50	52.8 AV	54.0	-1.2	1.82 V	14	19.6	33.2
5	4914.00	48.7 PK	74.0	-25.3	2.25 V	193	45.2	3.5
6	4914.00	36.4 AV	54.0	-17.6	2.25 V	193	32.9	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

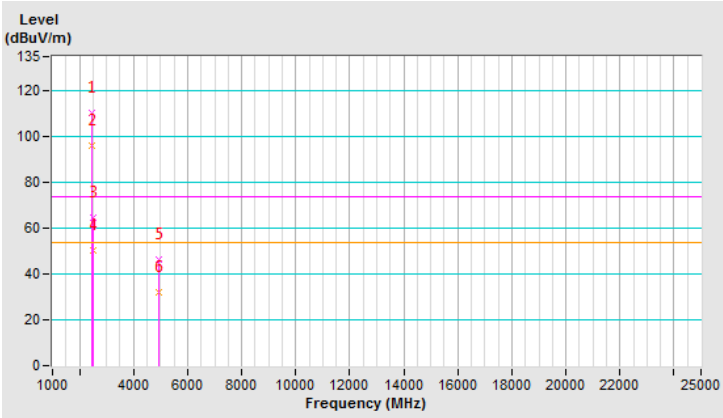


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	110.5 PK			2.45 H	333	77.2	33.3
2	*2462.00	96.3 AV			2.45 H	333	63.0	33.3
3	2483.50	64.7 PK	74.0	-9.3	2.22 H	350	31.5	33.2
4	2483.50	50.4 AV	54.0	-3.6	2.22 H	350	17.2	33.2
5	4924.00	46.3 PK	74.0	-27.7	2.99 H	235	42.8	3.5
6	4924.00	32.0 AV	54.0	-22.0	2.99 H	235	28.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

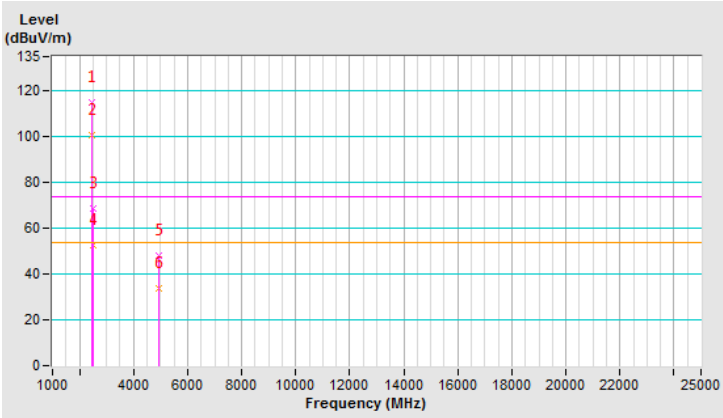


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	114.8 PK			2.24 V	244	81.5	33.3
2	*2462.00	100.6 AV			2.24 V	244	67.3	33.3
3	2483.50	68.6 PK	74.0	-5.4	2.48 V	235	35.4	33.2
4	2483.50	52.6 AV	54.0	-1.4	2.48 V	235	19.4	33.2
5	4924.00	48.0 PK	74.0	-26.0	2.02 V	321	44.5	3.5
6	4924.00	33.6 AV	54.0	-20.4	2.02 V	321	30.1	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



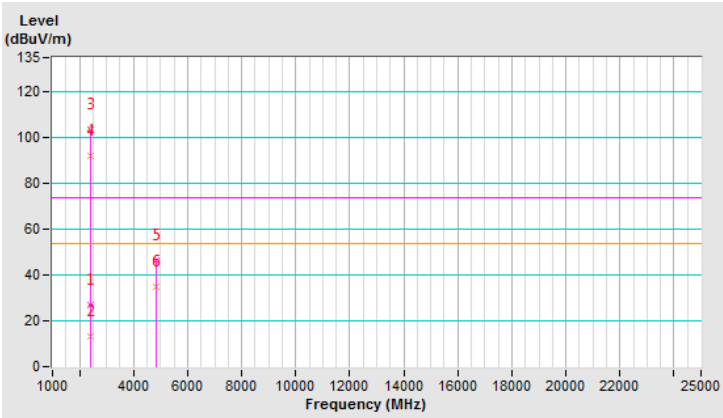
802.11ac (VHT40)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	26.6 PK	74.0	-47.4	2.39 H	340	29.3	-2.7
2	2390.00	13.2 AV	54.0	-40.8	2.39 H	340	15.9	-2.7
3	*2422.00	103.3 PK			2.44 H	351	69.9	33.4
4	*2422.00	92.3 AV			2.44 H	351	58.9	33.4
5	4844.00	46.5 PK	74.0	-27.5	3.12 H	243	42.7	3.8
6	4844.00	34.7 AV	54.0	-19.3	3.12 H	243	30.9	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

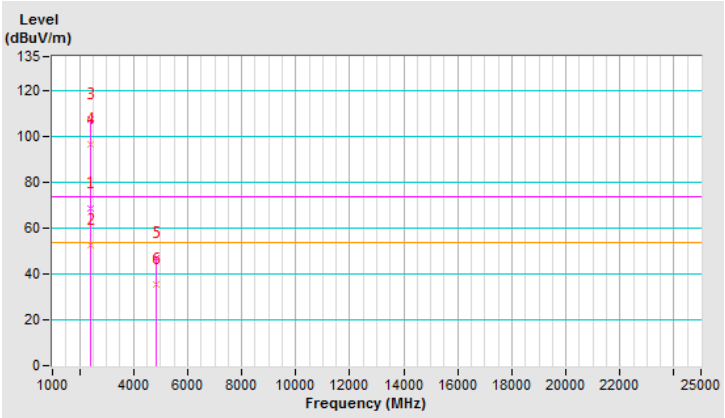


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.5 PK	74.0	-5.5	1.96 V	323	35.0	33.5
2	2390.00	52.6 AV	54.0	-1.4	1.96 V	323	19.1	33.5
3	*2422.00	107.8 PK			2.14 V	324	74.4	33.4
4	*2422.00	96.6 AV			2.14 V	324	63.2	33.4
5	4844.00	47.1 PK	74.0	-26.9	1.93 V	322	43.3	3.8
6	4844.00	35.3 AV	54.0	-18.7	1.93 V	322	31.5	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

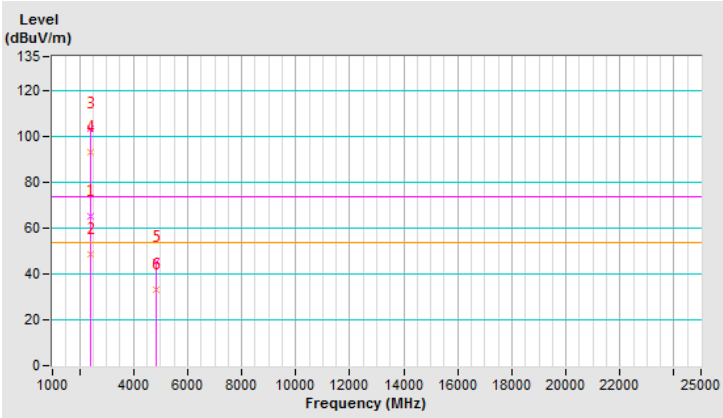


CHANNEL	TX Channel 4	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	65.1 PK	74.0	-8.9	3.76 H	355	31.6	33.5
2	2390.00	48.9 AV	54.0	-5.1	3.76 H	355	15.4	33.5
3	*2427.00	103.7 PK			3.52 H	16	70.3	33.4
4	*2427.00	93.2 AV			3.52 H	16	59.8	33.4
5	4854.00	45.1 PK	74.0	-28.9	2.59 H	188	41.3	3.8
6	4854.00	33.4 AV	54.0	-20.6	2.59 H	188	29.6	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

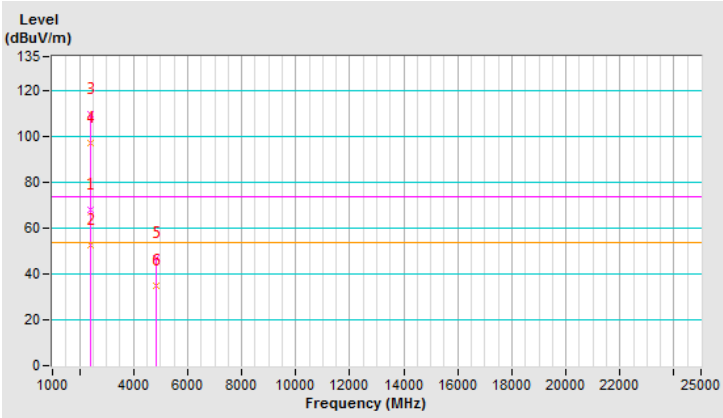


CHANNEL	TX Channel 4	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.2 PK	74.0	-5.8	1.96 V	336	34.7	33.5
2	2390.00	52.8 AV	54.0	-1.2	1.96 V	336	19.3	33.5
3	*2427.00	109.9 PK			2.13 V	338	76.5	33.4
4	*2427.00	97.5 AV			2.13 V	338	64.1	33.4
5	4854.00	46.7 PK	74.0	-27.3	2.16 V	174	42.9	3.8
6	4854.00	35.1 AV	54.0	-18.9	2.16 V	174	31.3	3.8

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

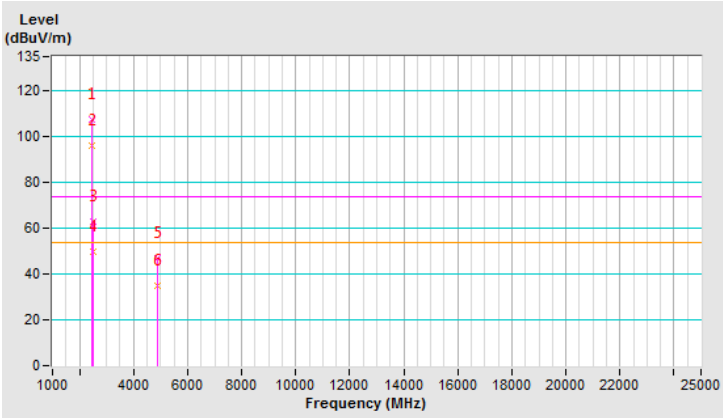


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	107.6 PK			2.49 H	343	74.2	33.4
2	*2437.00	96.2 AV			2.49 H	343	62.8	33.4
3	2483.50	62.9 PK	74.0	-11.1	2.40 H	333	29.7	33.2
4	2483.50	49.7 AV	54.0	-4.3	2.40 H	333	16.5	33.2
5	4874.00	46.8 PK	74.0	-27.2	2.83 H	199	43.1	3.7
6	4874.00	34.9 AV	54.0	-19.1	2.83 H	199	31.2	3.7

REMARKS:

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

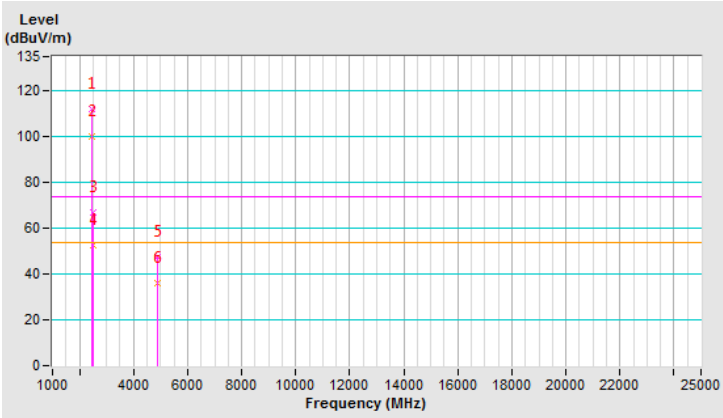


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	112.3 PK			2.35 V	237	78.9	33.4
2	*2437.00	100.1 AV			2.35 V	237	66.7	33.4
3	2483.50	66.7 PK	74.0	-7.3	2.23 V	227	33.5	33.2
4	2483.50	52.6 AV	54.0	-1.4	2.23 V	227	19.4	33.2
5	4874.00	47.7 PK	74.0	-26.3	2.10 V	305	44.0	3.7
6	4874.00	36.2 AV	54.0	-17.8	2.10 V	305	32.5	3.7

REMARKS:

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

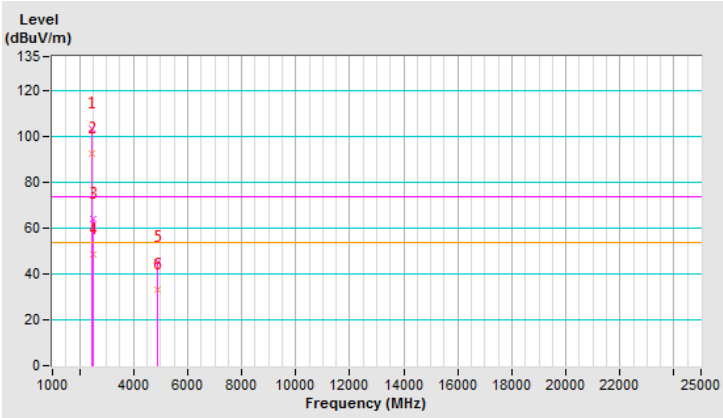


CHANNEL	TX Channel 8	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2447.00	103.6 PK			3.33 H	26	70.2	33.4
2	*2447.00	92.7 AV			3.33 H	26	59.3	33.4
3	2483.50	64.3 PK	74.0	-9.7	3.09 H	355	31.1	33.2
4	2483.50	48.8 AV	54.0	-5.2	3.09 H	355	15.6	33.2
5	4894.00	45.3 PK	74.0	-28.7	2.89 H	236	41.8	3.5
6	4894.00	33.4 AV	54.0	-20.6	2.89 H	236	29.9	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

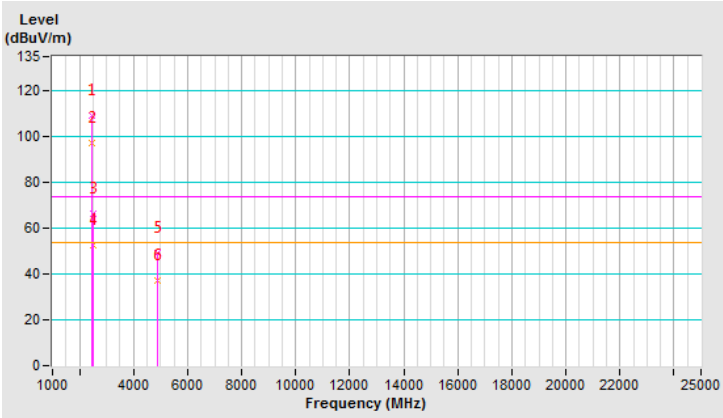


CHANNEL	TX Channel 8	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2447.00	109.3 PK			1.78 V	35	75.9	33.4
2	*2447.00	97.5 AV			1.78 V	35	64.1	33.4
3	2483.50	66.4 PK	74.0	-7.6	1.74 V	291	33.2	33.2
4	2483.50	52.7 AV	54.0	-1.3	1.74 V	291	19.5	33.2
5	4894.00	49.1 PK	74.0	-24.9	2.58 V	197	45.6	3.5
6	4894.00	37.1 AV	54.0	-16.9	2.58 V	197	33.6	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

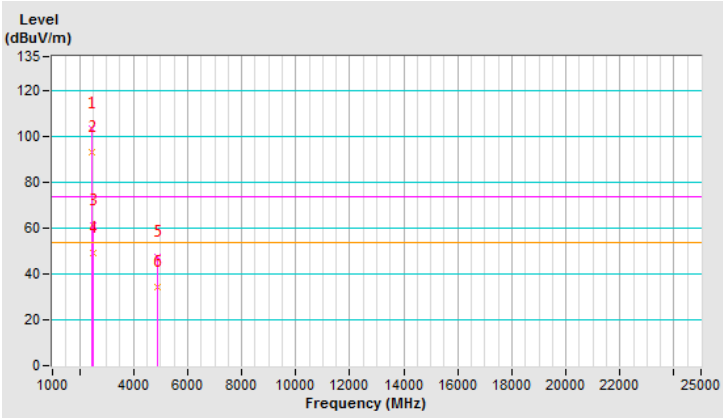


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	103.7 PK			2.34 H	340	70.3	33.4
2	*2452.00	93.1 AV			2.34 H	340	59.7	33.4
3	2483.50	61.2 PK	74.0	-12.8	2.53 H	321	28.0	33.2
4	2483.50	49.2 AV	54.0	-4.8	2.53 H	321	16.0	33.2
5	4904.00	47.7 PK	74.0	-26.3	2.99 H	222	44.2	3.5
6	4904.00	34.5 AV	54.0	-19.5	2.99 H	222	31.0	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

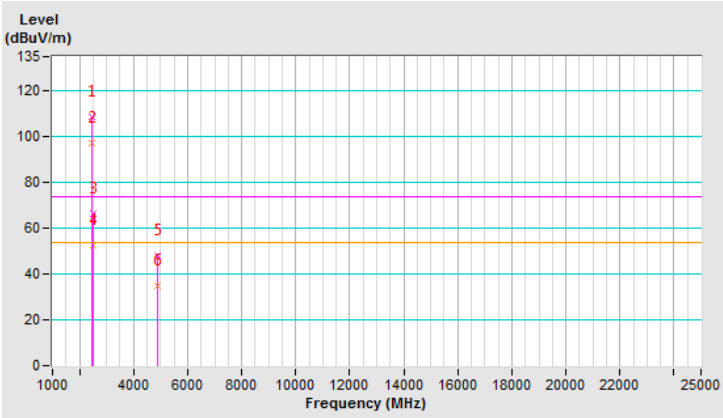


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	108.7 PK			2.25 V	307	75.3	33.4
2	*2452.00	97.3 AV			2.25 V	307	63.9	33.4
3	2483.50	66.2 PK	74.0	-7.8	2.21 V	234	33.0	33.2
4	2483.50	52.4 AV	54.0	-1.6	2.21 V	234	19.2	33.2
5	4904.00	48.3 PK	74.0	-25.7	2.09 V	289	44.8	3.5
6	4904.00	35.0 AV	54.0	-19.0	2.09 V	289	31.5	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



9 kHz ~ 30 MHz Data:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz Worst-Case Data:

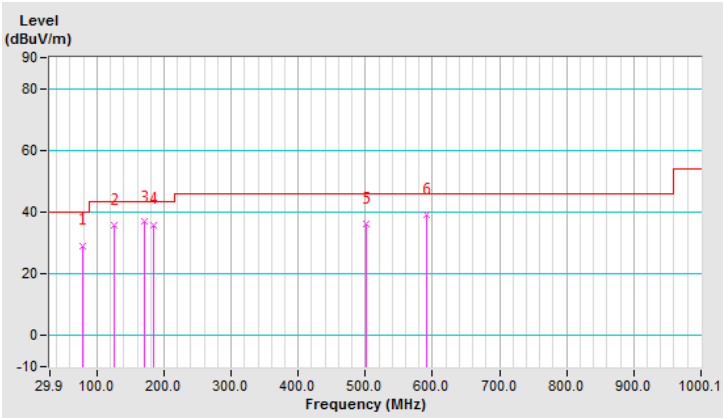
802.11ac (VHT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	78.51	29.2 QP	40.0	-10.8	1.49 H	76	42.2	-13.0
2	125.17	35.6 QP	43.5	-7.9	1.49 H	249	46.5	-10.9
3	169.89	36.8 QP	43.5	-6.7	1.49 H	261	45.7	-8.9
4	183.50	36.0 QP	43.5	-7.5	1.49 H	252	46.4	-10.4
5	500.42	36.2 QP	46.0	-9.8	1.99 H	28	39.1	-2.9
6	591.80	39.3 QP	46.0	-6.7	1.49 H	107	40.0	-0.7

REMARKS:

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

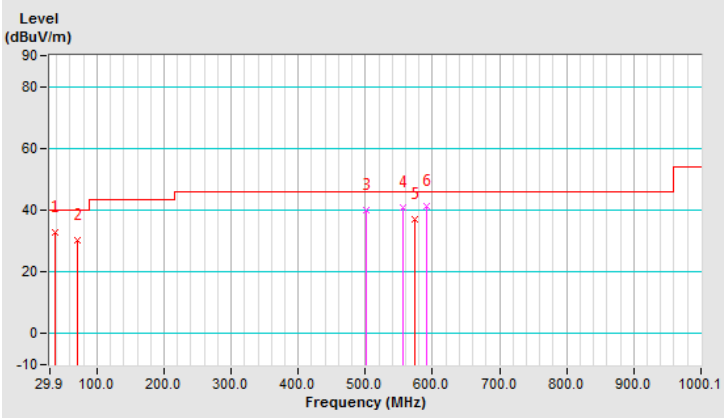


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	38.06	32.8 QP	40.0	-7.2	1.00 V	17	43.1	-10.3
2	71.05	30.4 QP	40.0	-9.6	1.61 V	2	41.8	-11.4
3	500.42	39.8 QP	46.0	-6.2	1.00 V	67	42.7	-2.9
4	556.80	41.0 QP	46.0	-5.0	1.00 V	152	42.8	-1.8
5	573.23	37.0 QP	46.0	-9.0	1.00 V	160	38.3	-1.3
6	591.80	41.3 QP	46.0	-4.7	1.00 V	95	42.0	-0.7

REMARKS:

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



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 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Feb. 08, 2018	Feb. 07, 2019
RF signal cable Woken	5D-FB	Cable-cond2-01	Sep. 08, 2017	Sep. 07, 2018
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Feb. 05, 2018	Feb. 04, 2019
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 13, 2018	Aug. 12, 2019
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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 HwaYa Shielded Room 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

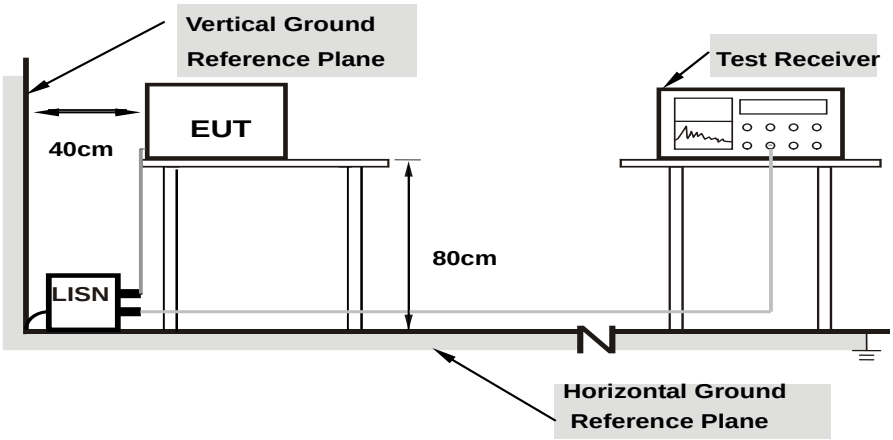
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling 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 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.

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

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

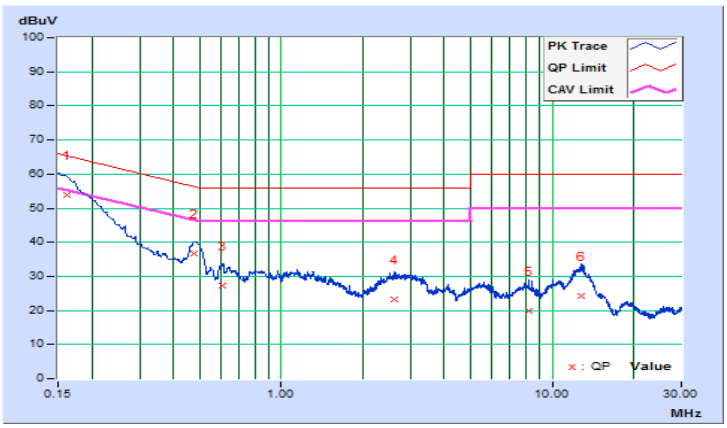
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23℃, 66%RH
Tested by	Adair Peng	Test Date	2018/7/17

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	**0.16125**	**10.25**	**43.75**	**21.68**	**54.00**	**31.93**	**65.40**	**55.40**	**-11.40**	**-23.47**
2	0.47509	10.28	26.35	16.37	36.63	26.65	56.42	46.42	-19.79	-19.77
3	0.61054	10.29	16.88	6.44	27.17	16.73	56.00	46.00	-28.83	-29.27
4	2.60160	10.40	12.73	7.13	23.13	17.53	56.00	46.00	-32.87	-28.47
5	8.20275	10.54	9.24	4.48	19.78	15.02	60.00	50.00	-40.22	-34.98
6	12.86025	10.64	13.58	6.88	24.22	17.52	60.00	50.00	-35.78	-32.48

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

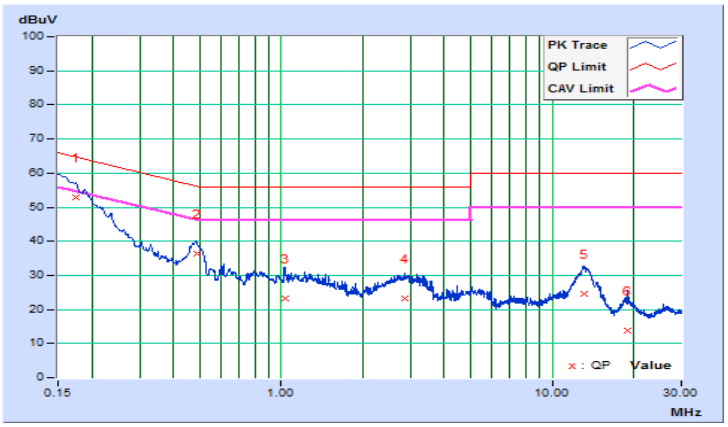


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	23℃, 66%RH
Tested by	Adair Peng	Test Date	2018/7/17

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	0.17420	10.26	42.44	24.36	52.70	34.62	64.76	54.76	-12.06	-20.14
2	0.48750	10.29	26.17	16.39	36.46	26.68	56.21	46.21	-19.75	-19.53
3	1.02975	10.33	13.06	3.54	23.39	13.87	56.00	46.00	-32.61	-32.13
4	2.85675	10.42	12.68	7.07	23.10	17.49	56.00	46.00	-32.90	-28.51
5	13.07175	10.74	13.97	7.10	24.71	17.84	60.00	50.00	-35.29	-32.16
6	18.93525	10.95	2.75	1.54	13.70	12.49	60.00	50.00	-46.30	-37.51

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

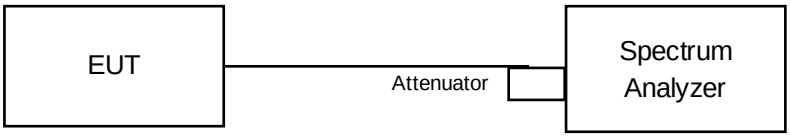


4.3 6 dB Bandwidth Measurement

4.3.1 Limits of 6 dB Bandwidth Measurement

The minimum of 6 dB 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) = 100 kHz
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 from Test 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 Results

802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	9.11	9.08	8.58	9.10	0.5	Pass
6	2437	10.10	9.60	10.11	9.14	0.5	Pass
11	2462	9.09	9.06	9.09	9.09	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.16	15.12	15.14	15.16	0.5	Pass
6	2437	15.15	15.14	15.13	15.14	0.5	Pass
11	2462	15.16	15.14	15.17	15.17	0.5	Pass

802.11ac (VHT20)

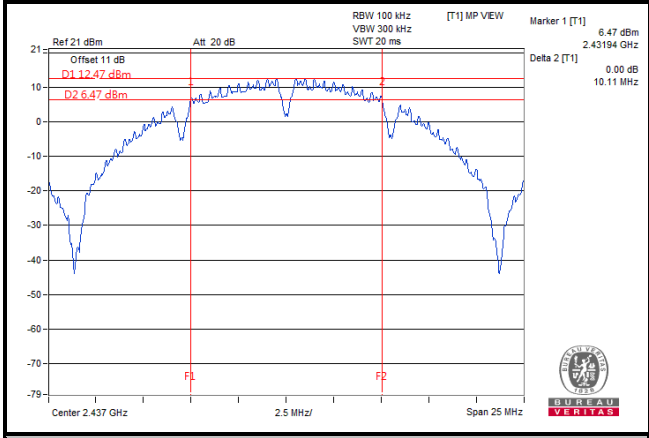
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
1	2412	15.16	15.72	15.70	15.16	0.5	Pass
6	2437	15.15	16.30	15.17	15.18	0.5	Pass
11	2462	15.17	15.75	15.16	15.16	0.5	Pass

802.11ac (VHT40)

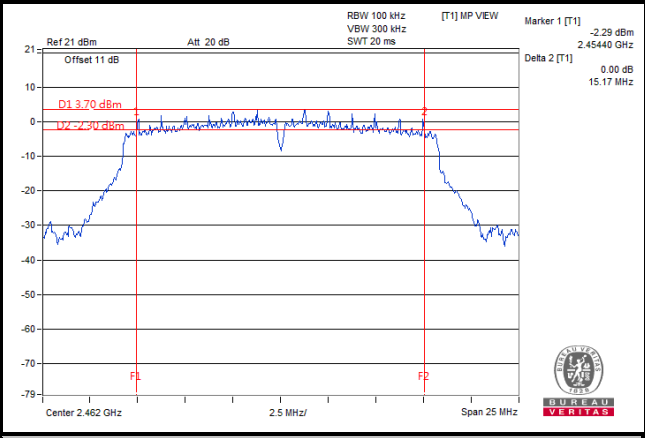
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
3	2422	35.13	35.13	35.15	35.14	0.5	Pass
6	2437	35.15	35.14	35.13	35.16	0.5	Pass
9	2452	35.16	35.13	35.14	35.16	0.5	Pass

Spectrum Plot of Worst Value

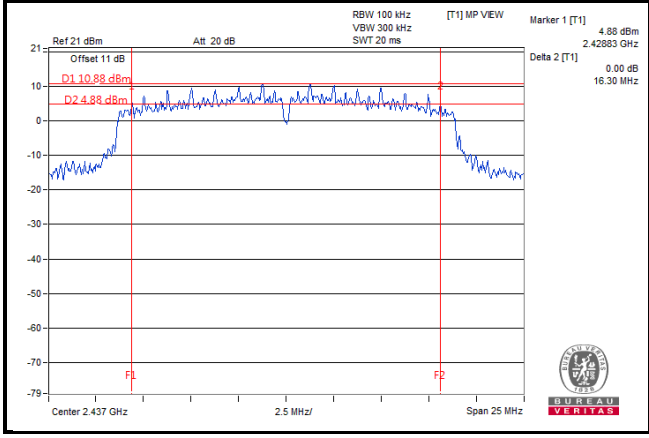
802.11b



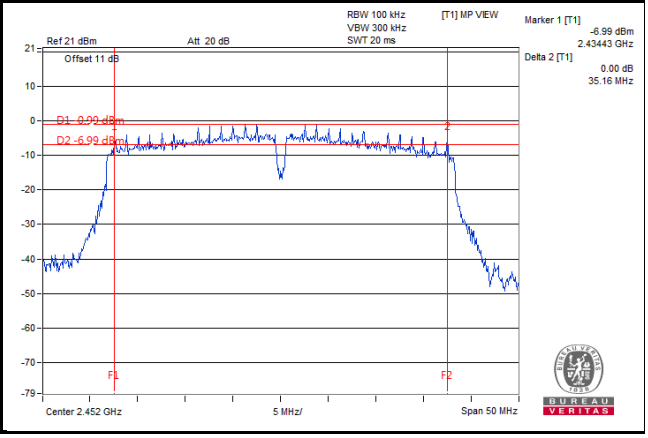
802.11g



802.11ac (VHT20)

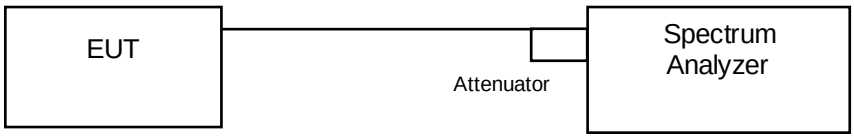


802.11ac (VHT40)



4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to PEAK. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

4.4.4 Deviation from Test Standard

No deviation.

4.4.5 EUT Operating Conditions

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

4.4.6 Test Results

802.11b

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
1	2412	13.84	13.36	13.66	13.46	Pass
6	2437	15.20	15.00	15.76	14.33	Pass
11	2462	13.56	13.26	13.46	13.36	Pass

802.11g

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
1	2412	16.74	16.54	16.54	16.54	Pass
6	2437	20.29	20.87	23.55	18.65	Pass
11	2462	16.64	16.64	16.64	16.54	Pass

802.11ac (VHT20)

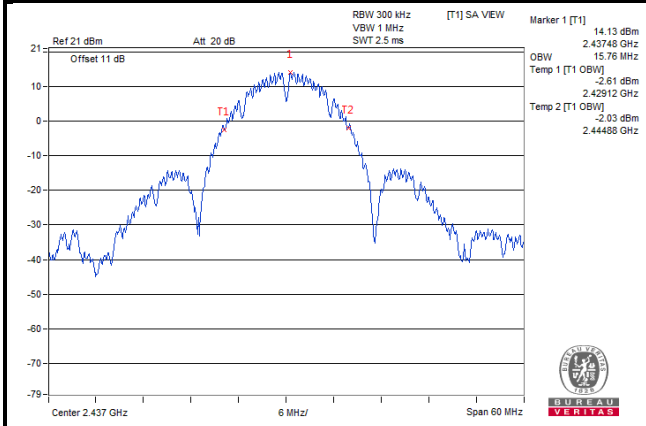
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
1	2412	17.70	17.70	17.70	17.70	Pass
6	2437	18.75	18.17	19.71	17.98	Pass
11	2462	17.70	17.70	17.79	17.70	Pass

802.11ac (VHT40)

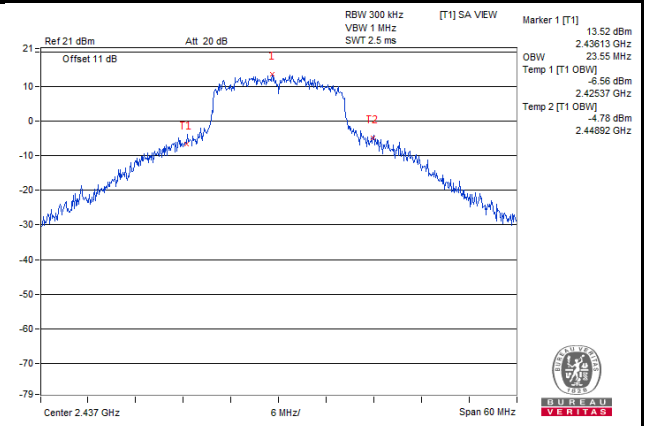
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)				Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3	
3	2422	36.15	36.25	36.06	36.06	Pass
6	2437	36.15	36.15	36.06	36.15	Pass
9	2452	36.15	36.15	36.06	35.96	Pass

Spectrum Plot of Worst Value

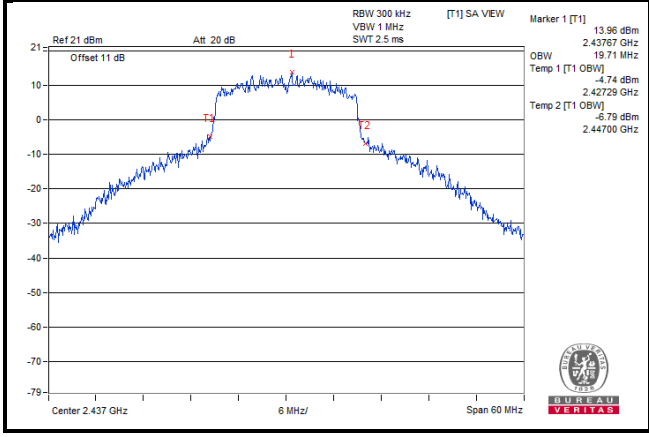
802.11b



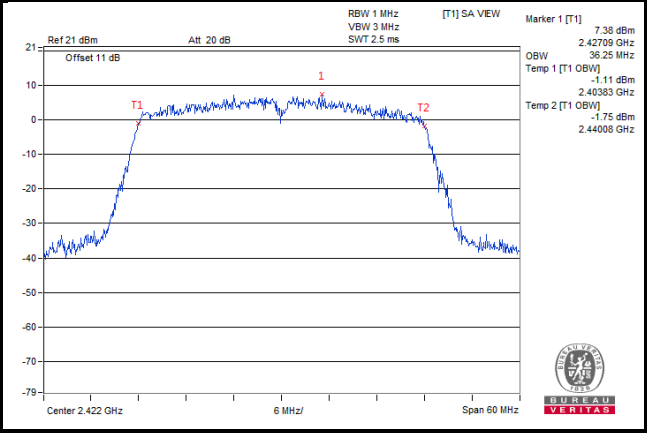
802.11g



802.11ac (VHT20)



802.11ac (VHT40)



4.5 Conducted Output Power Measurement

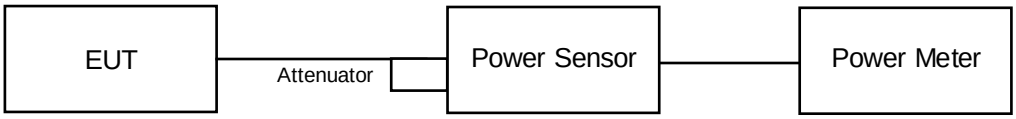
4.5.1 Limits of Conducted Output Power Measurement

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 NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20 MHz channel widths with NANT ≥ 5.

For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

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 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.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

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

4.5.7 Test Results

802.11b

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	19.43	17.52	19.76	18.83	315.201	24.99	30	Pass
2	2417	19.70	19.56	19.42	18.98	350.257	25.44	30	Pass
3	2422	21.85	21.95	21.82	21.42	600.514	27.79	30	Pass
6	2437	22.97	23.41	23.45	22.91	834.177	29.21	30	Pass
9	2452	21.49	21.43	21.28	20.92	537.795	27.31	30	Pass
10	2457	20.04	19.98	19.86	19.34	383.195	25.83	30	Pass
11	2462	18.27	18.20	18.28	18.05	264.336	24.22	30	Pass

802.11g

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.26	15.32	15.36	15.27	135.622	21.32	30	Pass
2	2417	17.52	17.99	17.93	17.85	242.485	23.85	30	Pass
3	2422	19.22	19.31	19.15	19.31	336.405	25.27	30	Pass
6	2437	21.68	21.77	22.24	21.70	612.951	27.87	30	Pass
9	2452	18.87	19.15	19.17	18.87	319.009	25.04	30	Pass
10	2457	16.83	17.11	17.03	16.87	198.706	22.98	30	Pass
11	2462	14.74	14.22	14.29	14.24	109.609	20.40	30	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	15.11	15.01	15.15	15.05	128.853	21.10	30	Pass
2	2417	17.79	17.89	17.92	17.76	243.283	23.86	30	Pass
3	2422	18.96	19.23	19.32	19.04	328.132	25.16	30	Pass
6	2437	20.81	21.05	21.30	20.96	507.489	27.05	30	Pass
9	2452	18.12	18.26	18.15	18.07	261.286	24.17	30	Pass
10	2457	17.45	17.65	17.73	17.69	231.842	23.65	30	Pass
11	2462	14.43	13.98	13.99	13.84	102.008	20.09	30	Pass

802.11ac (VHT40)

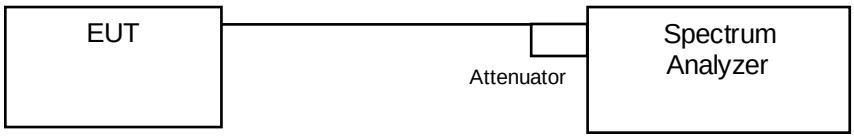
Channel	Frequency (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	11.87	12.01	11.97	12.05	63.039	18.00	30	Pass
4	2427	13.73	13.98	14.01	13.94	98.559	19.94	30	Pass
6	2437	15.34	15.30	15.29	14.71	131.469	21.19	30	Pass
8	2447	13.52	13.99	14.06	13.98	98.023	19.91	30	Pass
9	2452	12.25	12.16	12.36	12.51	68.274	18.34	30	Pass

4.6 Power Spectral Density Measurement

4.6.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8 dBm.

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

a. Set analyzer center frequency to DTS channel center frequency.
b. Set the span to 1.5 times the DTS bandwidth.
c. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d. Set the VBW ≥ 3 × RBW.
e. Detector = peak.
f. Sweep time = auto couple.
g. Trace mode = max hold.
h. Allow trace to fully stabilize.
i. Use the peak marker function to determine the maximum amplitude level within the RBW.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11b

TX Chain	Channel	Freq. (MHz)	PSD (dBm/3 kHz)	10 log (N=4) dB	Total PSD (dBm/3 kHz)	Limit (dBm/3 kHz)	Pass / Fail
0	1	2412	-7.95	6.02	-1.91	4.34	Pass
	6	2437	-5.55	6.02	0.49	4.34	Pass
	11	2462	-9.00	6.02	-2.96	4.34	Pass
1	1	2412	-8.00	6.02	-1.96	4.34	Pass
	6	2437	-5.33	6.02	0.71	4.34	Pass
	11	2462	-9.23	6.02	-3.19	4.34	Pass
2	1	2412	-7.66	6.02	-1.62	4.34	Pass
	6	2437	-5.62	6.02	0.42	4.34	Pass
	11	2462	-8.80	6.02	-2.76	4.34	Pass
3	1	2412	-8.66	6.02	-2.62	4.34	Pass
	6	2437	-5.13	6.02	0.91	4.34	Pass
	11	2462	-9.45	6.02	-3.41	4.34	Pass

NOTE: Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 9.66 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.66-6) = 4.34 dBm.

802.11g

TX Chain	Channel	Freq. (MHz)	PSD (dBm/3 kHz)	10 log (N=4) dB	Total PSD (dBm/3 kHz)	Limit (dBm/3 kHz)	Pass / Fail
0	1	2412	-14.23	6.02	-8.12	4.34	Pass
	6	2437	-7.15	6.02	-1.04	4.34	Pass
	11	2462	-15.21	6.02	-9.10	4.34	Pass
1	1	2412	-13.94	6.02	-7.83	4.34	Pass
	6	2437	-7.70	6.02	-1.59	4.34	Pass
	11	2462	-14.76	6.02	-8.65	4.34	Pass
2	1	2412	-13.89	6.02	-7.78	4.34	Pass
	6	2437	-7.74	6.02	-1.63	4.34	Pass
	11	2462	-15.16	6.02	-9.05	4.34	Pass
3	1	2412	-14.38	6.02	-8.27	4.34	Pass
	6	2437	-7.91	6.02	-1.80	4.34	Pass
	11	2462	-15.08	6.02	-8.97	4.34	Pass

NOTE: Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 9.66 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.66-6) = 4.34 dBm.

802.11ac (VHT20)

TX Chain	Channel	Freq. (MHz)	PSD (dBm/3 kHz)	10 log (N=4) dB	Total PSD (dBm/3 kHz)	Limit (dBm/3 kHz)	Pass / Fail
0	1	2412	-14.61	6.02	-8.42	4.34	Pass
	6	2437	-9.04	6.02	-2.85	4.34	Pass
	11	2462	-15.79	6.02	-9.60	4.34	Pass
1	1	2412	-14.72	6.02	-8.53	4.34	Pass
	6	2437	-8.45	6.02	-2.26	4.34	Pass
	11	2462	-15.62	6.02	-9.43	4.34	Pass
2	1	2412	-14.69	6.02	-8.50	4.34	Pass
	6	2437	-9.00	6.02	-2.81	4.34	Pass
	11	2462	-15.60	6.02	-9.41	4.34	Pass
3	1	2412	-14.29	6.02	-8.10	4.34	Pass
	6	2437	-9.37	6.02	-3.18	4.34	Pass
	11	2462	-15.34	6.02	-9.15	4.34	Pass

NOTE: Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 9.66 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.66-6) = 4.34 dBm.

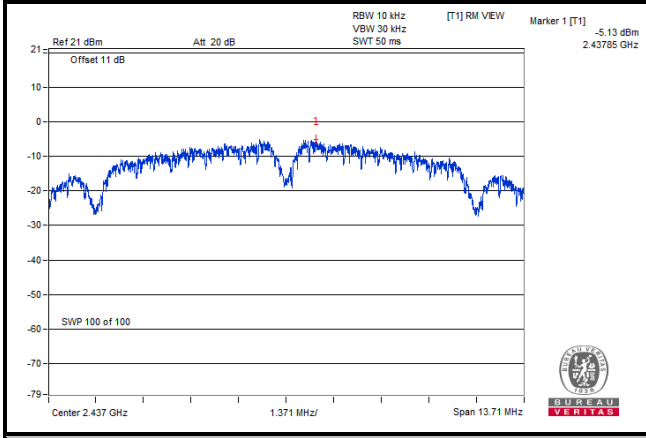
802.11ac (VHT40)

TX Chain	Channel	Freq. (MHz)	PSD (dBm/3 kHz)	10 log (N=4) dB	Total PSD (dBm/3 kHz)	Limit (dBm/3 kHz)	Pass / Fail
0	3	2422	-21.19	6.02	-14.86	4.34	Pass
	6	2437	-17.27	6.02	-10.94	4.34	Pass
	9	2452	-20.97	6.02	-14.64	4.34	Pass
1	3	2422	-21.81	6.02	-15.48	4.34	Pass
	6	2437	-18.31	6.02	-11.98	4.34	Pass
	9	2452	-21.07	6.02	-14.74	4.34	Pass
2	3	2422	-20.77	6.02	-14.44	4.34	Pass
	6	2437	-17.88	6.02	-11.55	4.34	Pass
	9	2452	-20.60	6.02	-14.27	4.34	Pass
3	3	2422	-20.83	6.02	-14.50	4.34	Pass
	6	2437	-17.59	6.02	-11.26	4.34	Pass
	9	2452	-21.04	6.02	-14.71	4.34	Pass

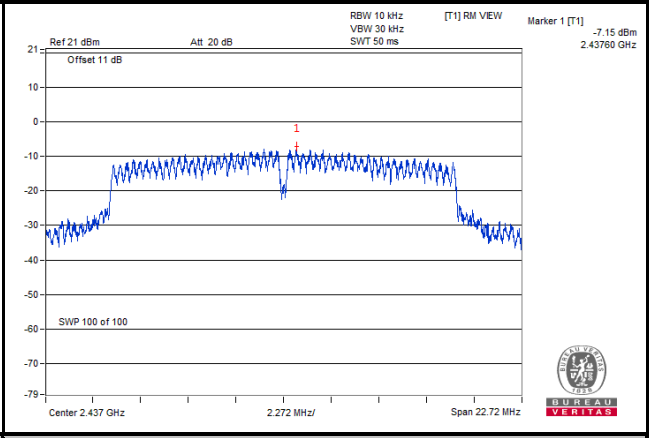
NOTE: Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 9.66 dBi > 6 dBi, so the power density limit shall be reduced to 8-(9.66-6) = 4.34 dBm.

Spectrum Plot of Worst Value

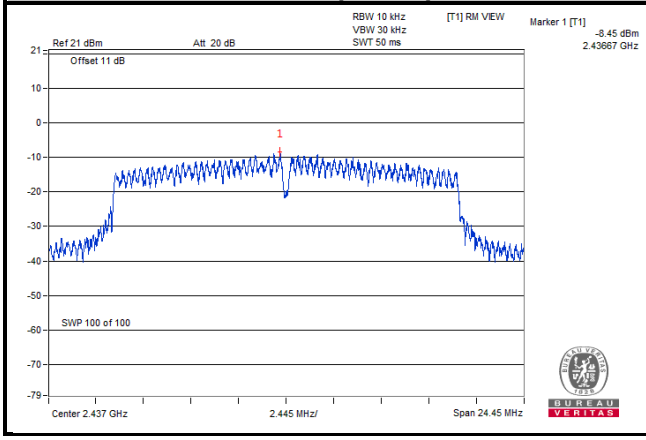
802.11b



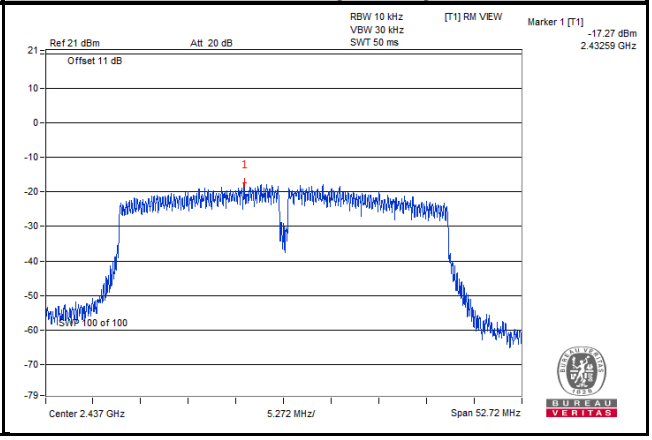
802.11g



802.11ac (VHT20)



802.11ac (VHT40)

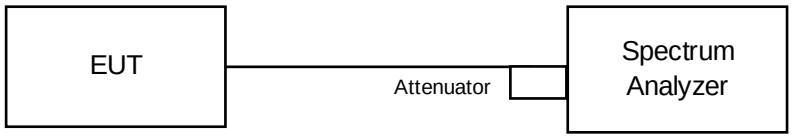


4.7 Conducted Out of Band Emission Measurement

4.7.1 Limits of Conducted Out of Band Emission Measurement

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

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 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.

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

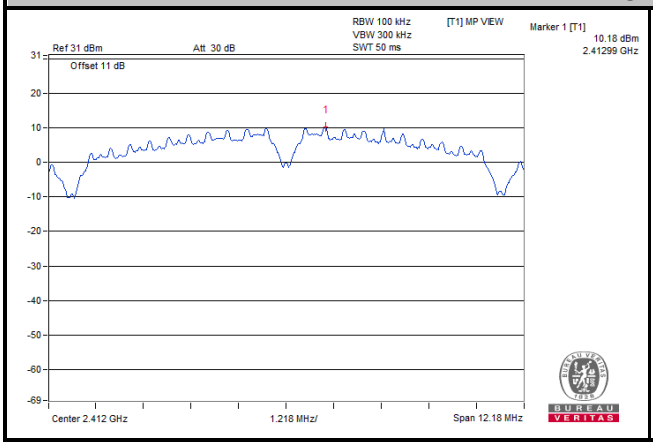
4.7.7 Test Results

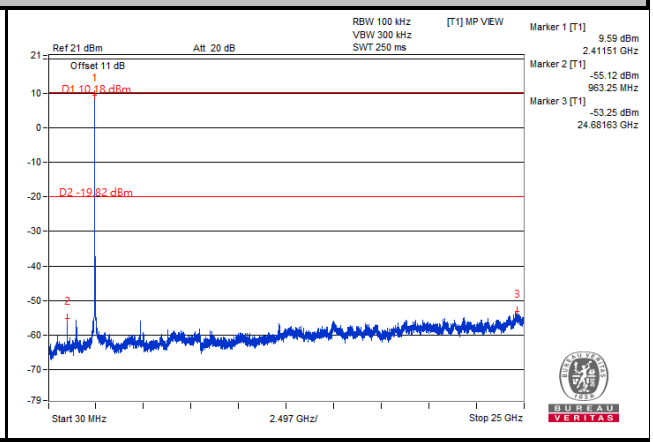
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 30 dB offset below D1. It shows compliance with the requirement.

802.11b

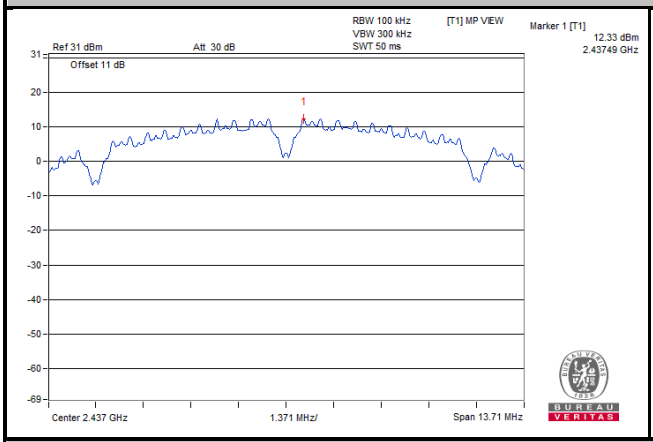
CHAIN 0

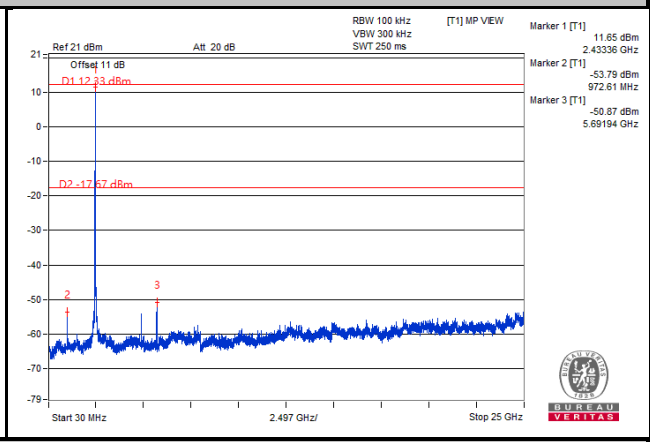
Ch 1



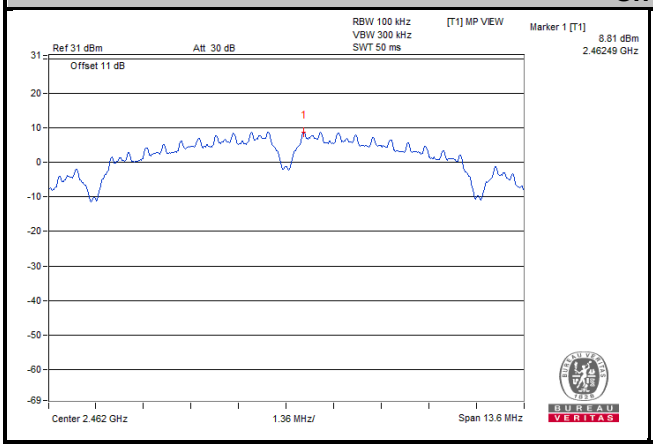


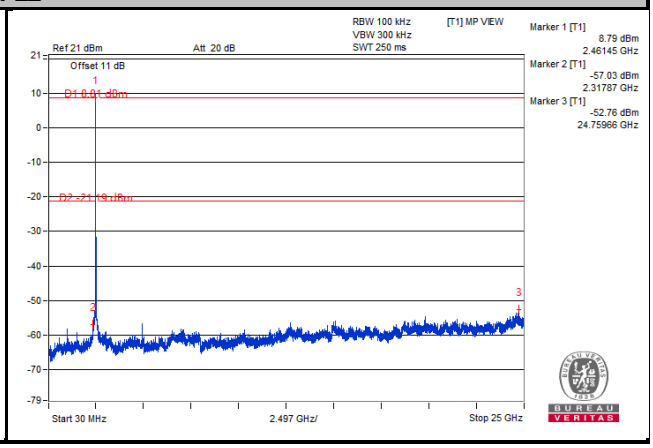
Ch 6

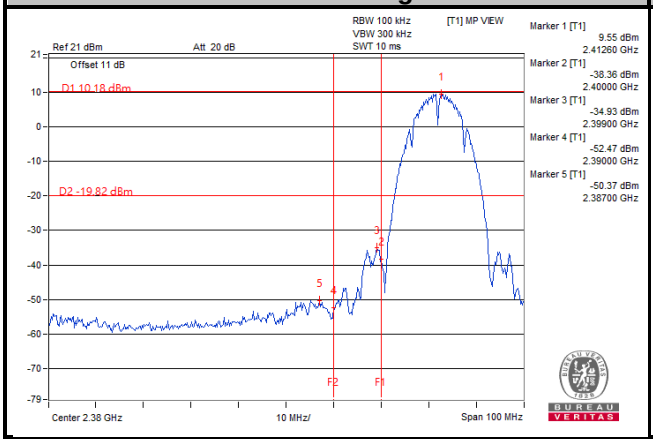
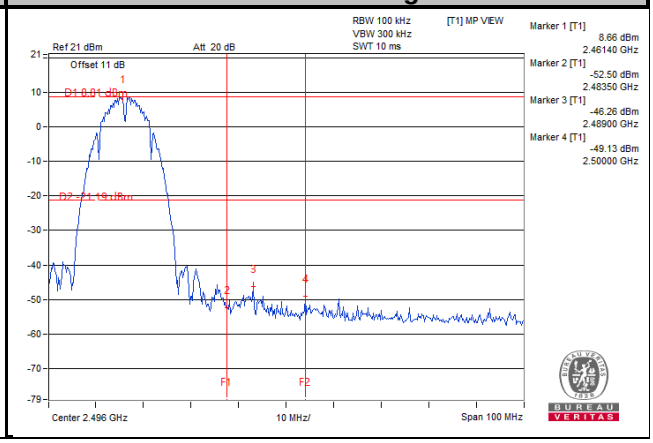




Ch 11

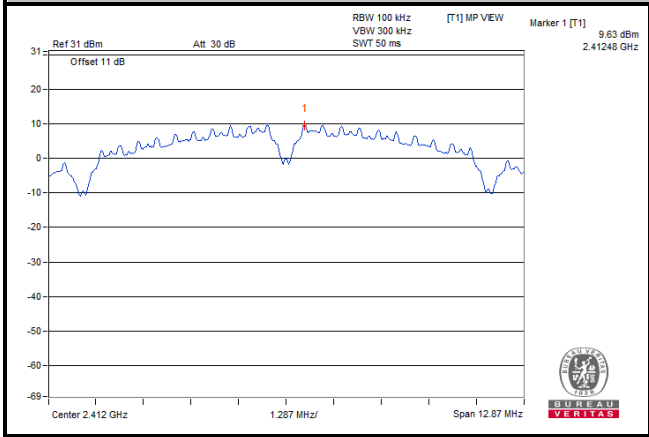


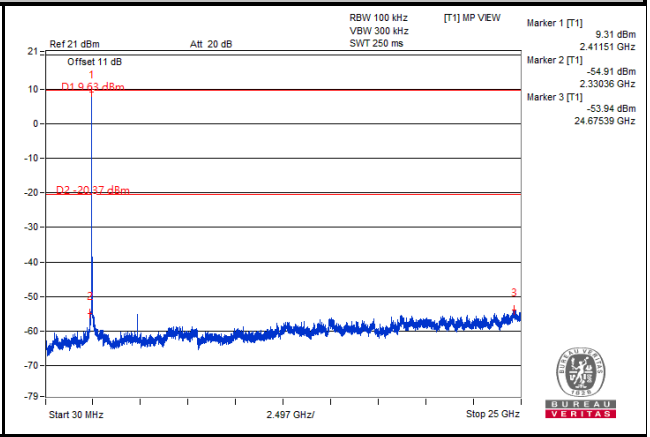


Ch 1 Band Edge	Ch 11 Band Edge
	

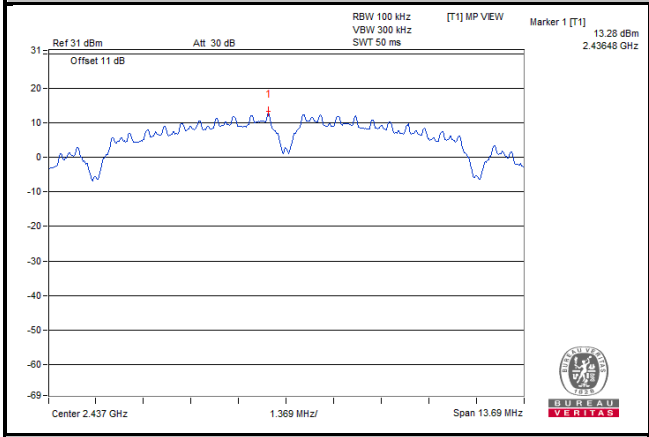
CHAIN 1

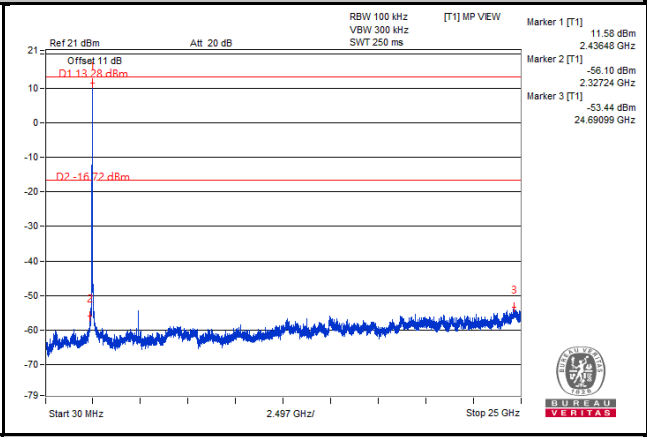
Ch 1



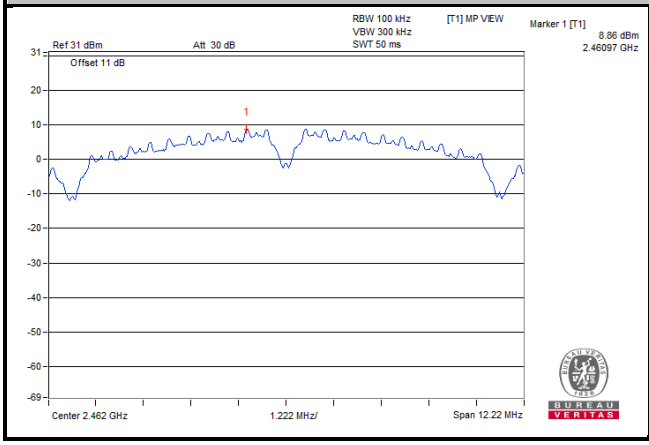


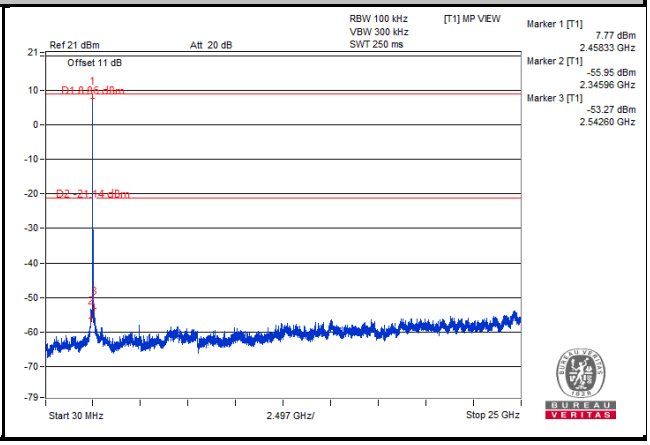
Ch 6

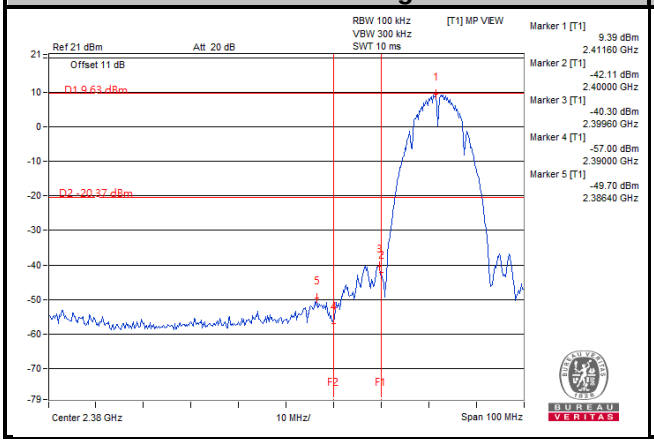
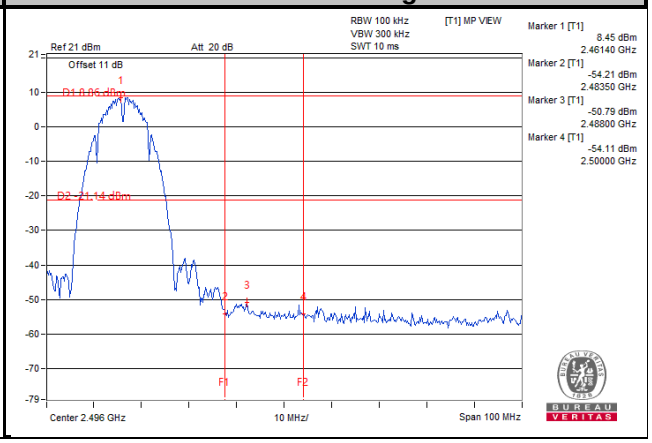




Ch 11

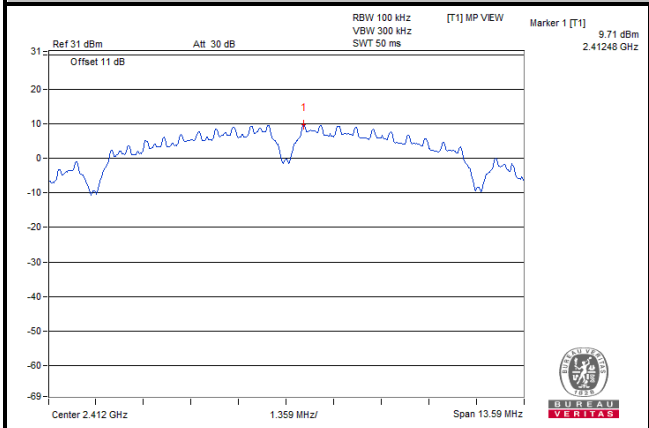


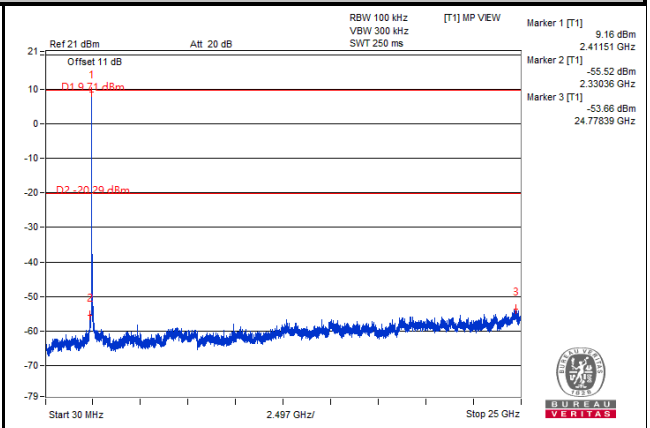


Ch 1 Band Edge	Ch 11 Band Edge
	

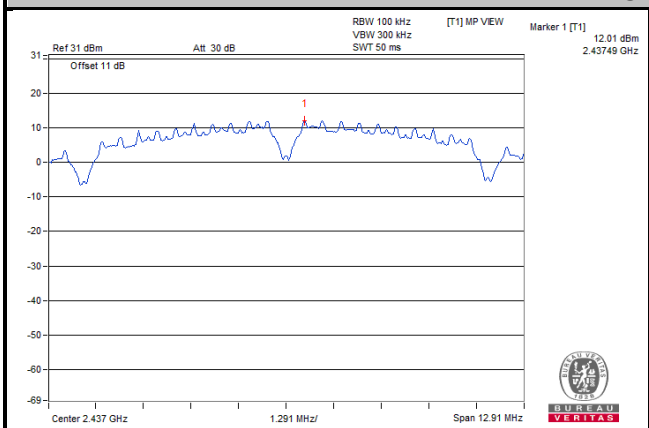
CHAIN 2

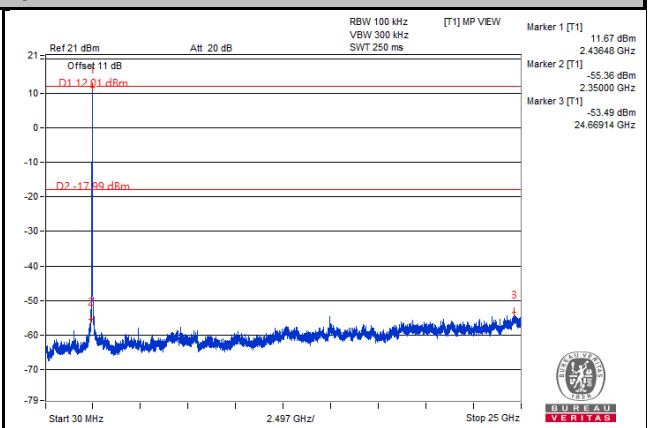
Ch 1



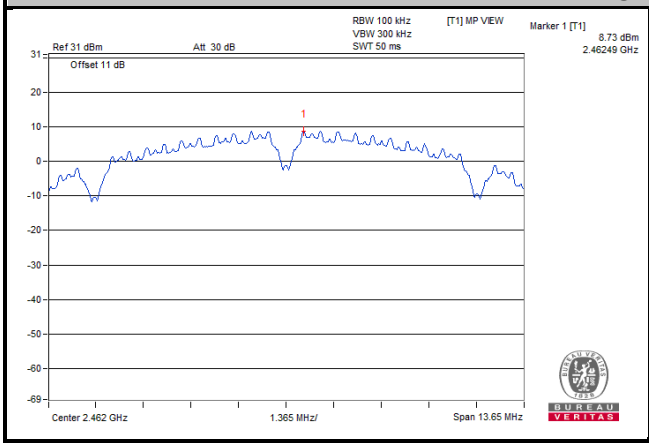


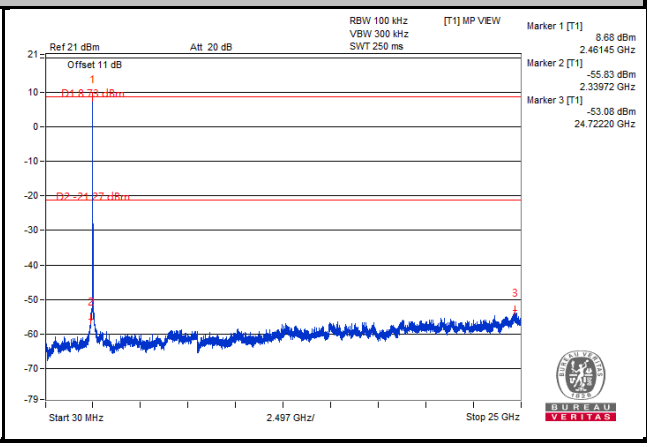
Ch 6

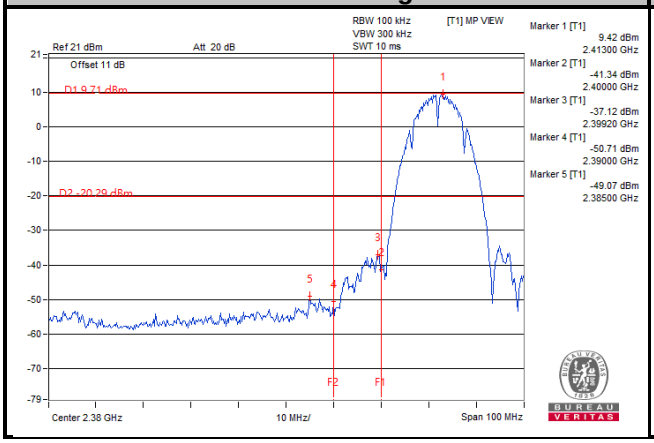
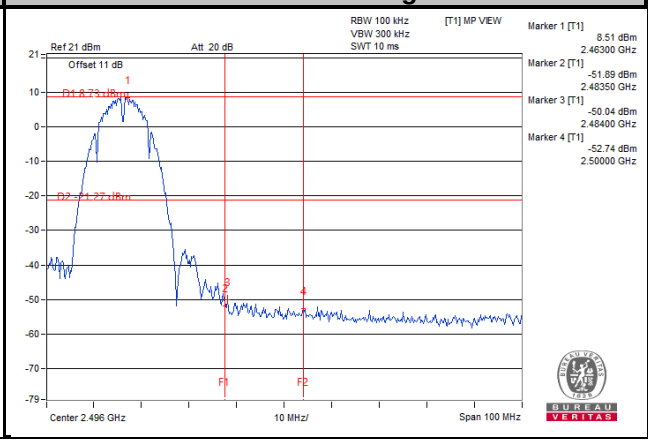




Ch 11

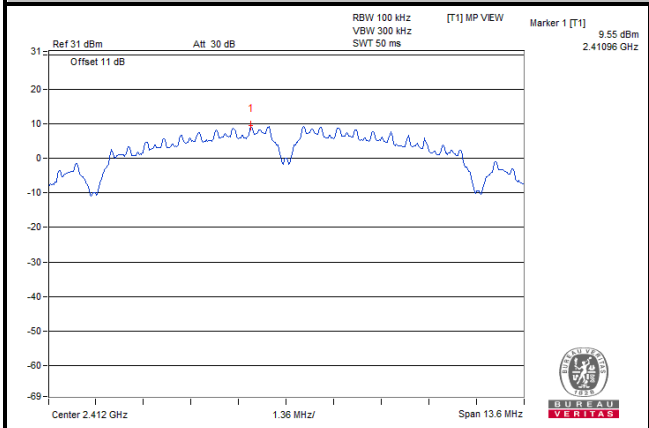


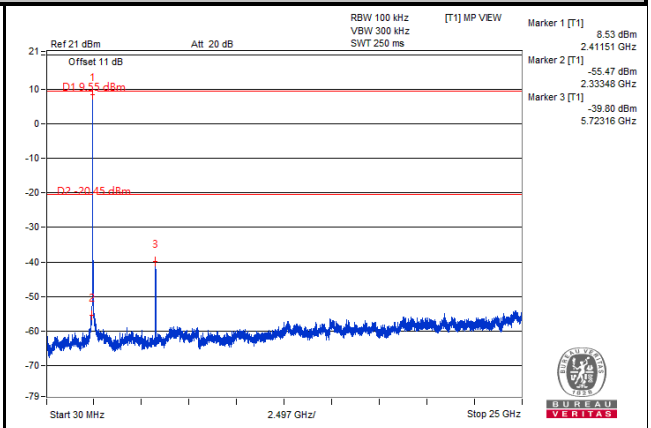


Ch 1 Band Edge	Ch 11 Band Edge
	

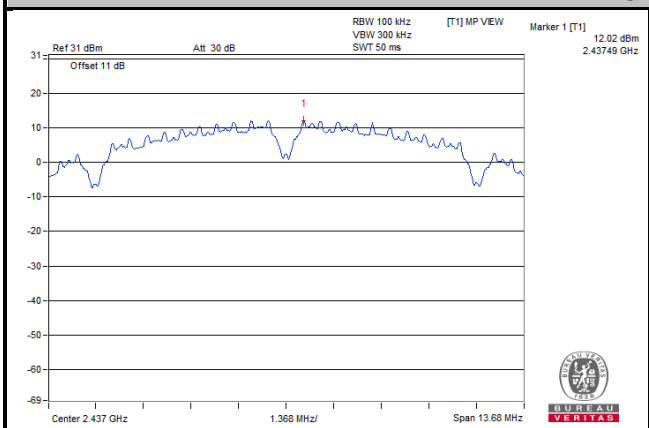
CHAIN 3

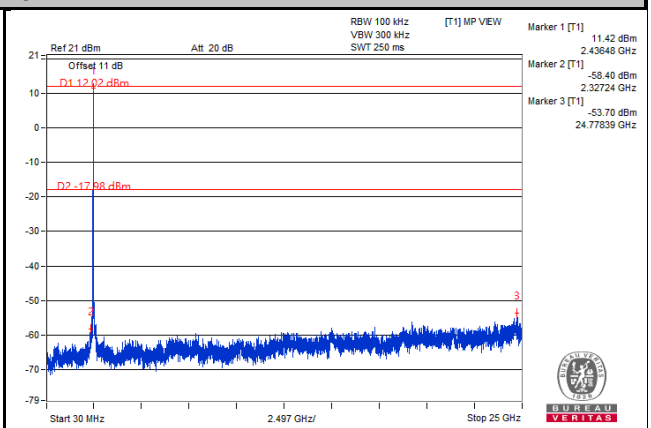
Ch 1



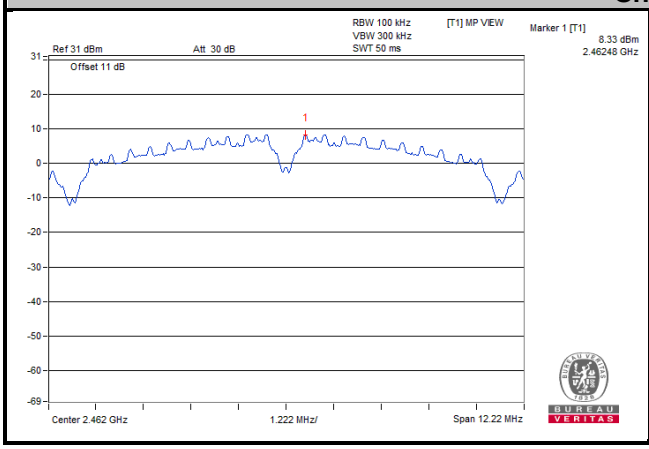


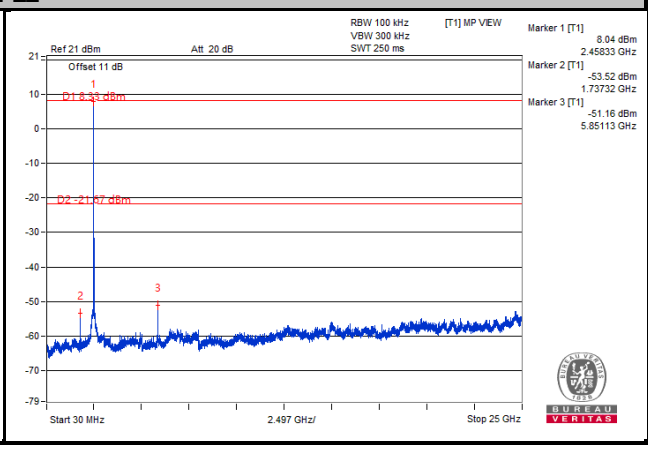
Ch 6

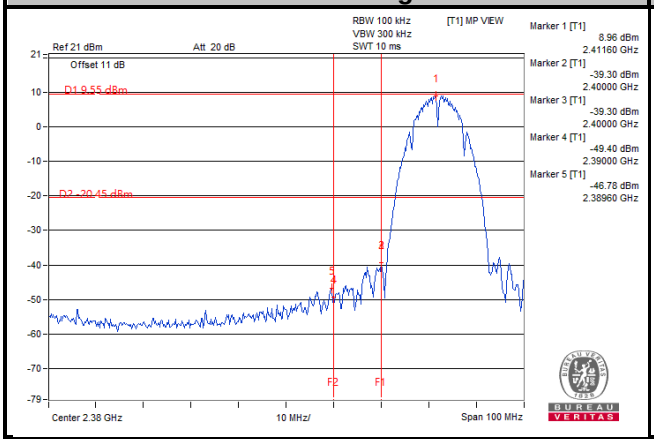
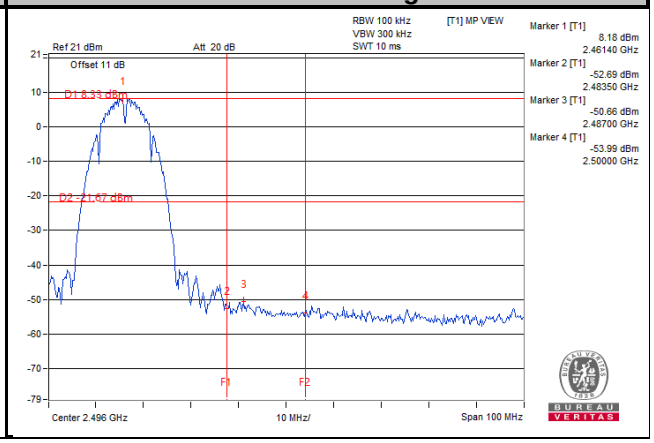




Ch 11



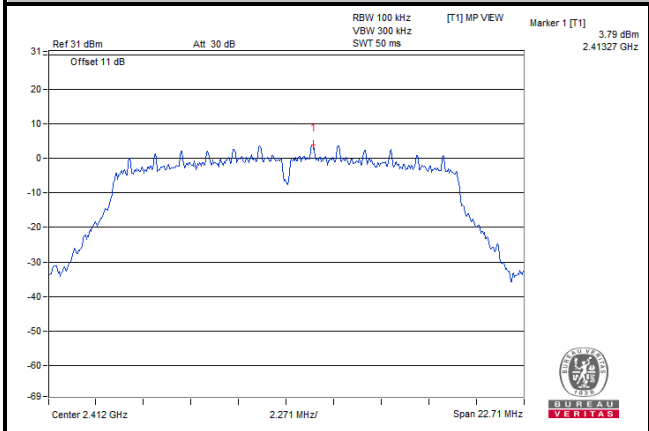


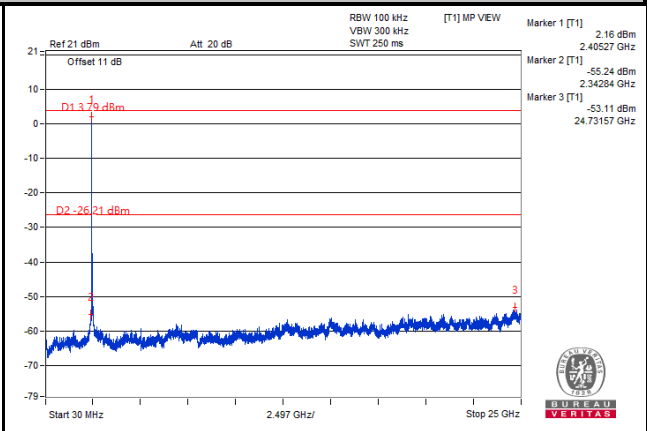
Ch 1 Band Edge	Ch 11 Band Edge
	

802.11g

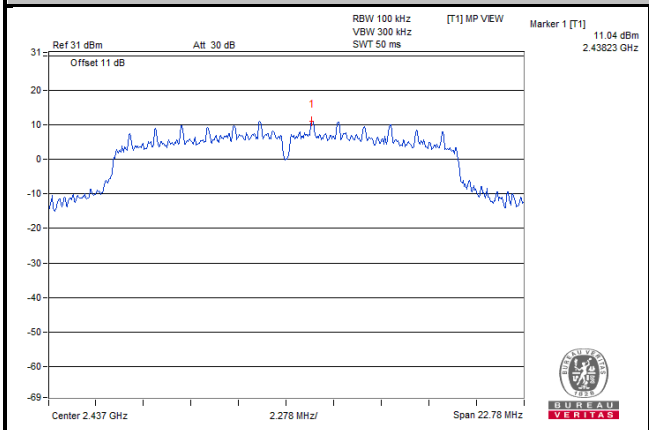
CHAIN 0

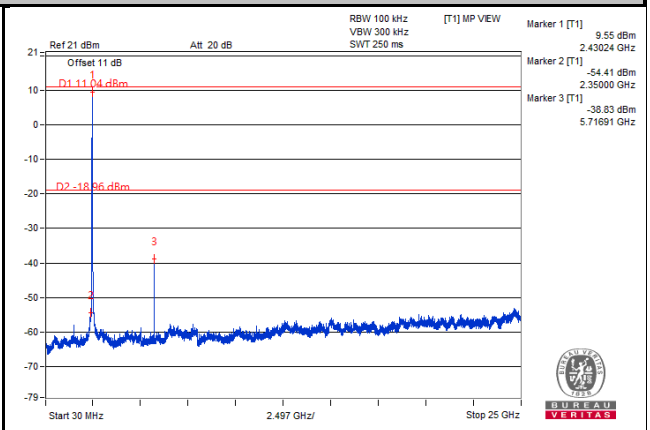
Ch 1



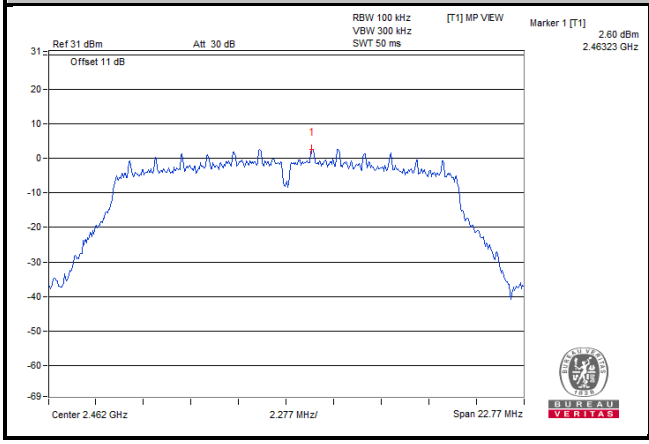


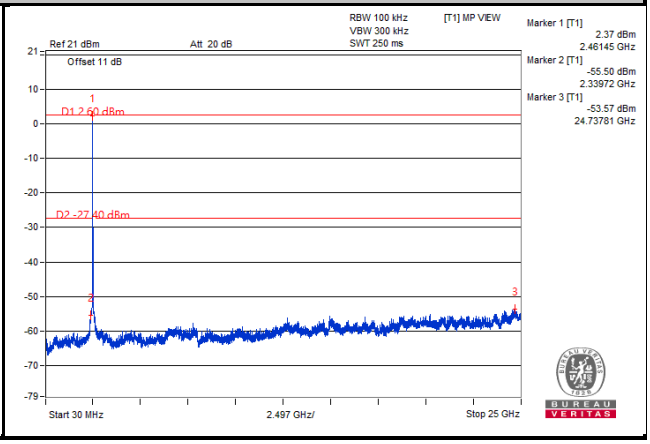
Ch 6

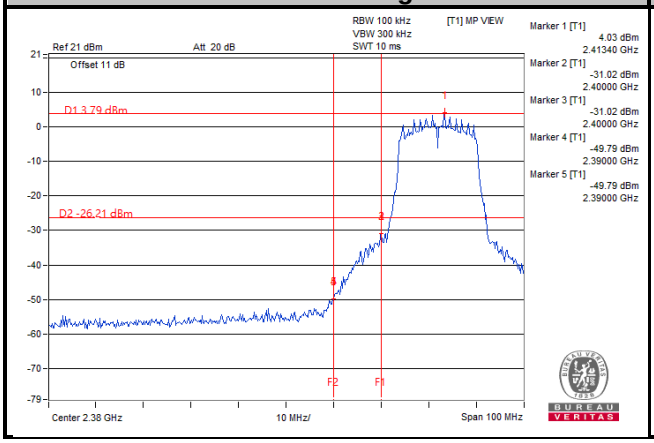
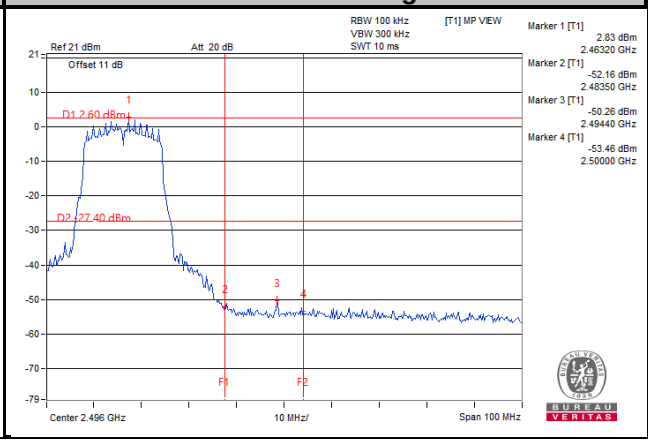




Ch 11

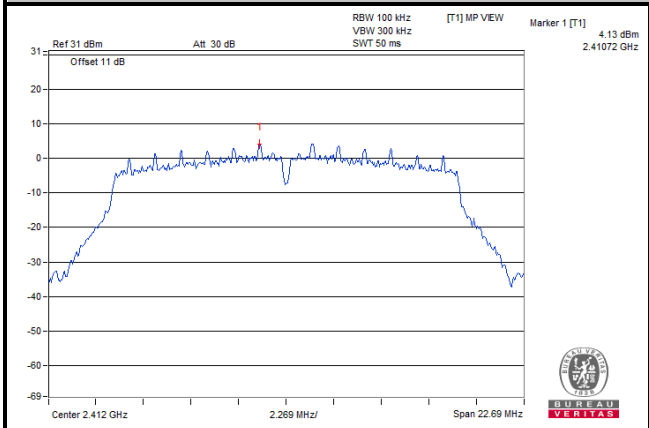


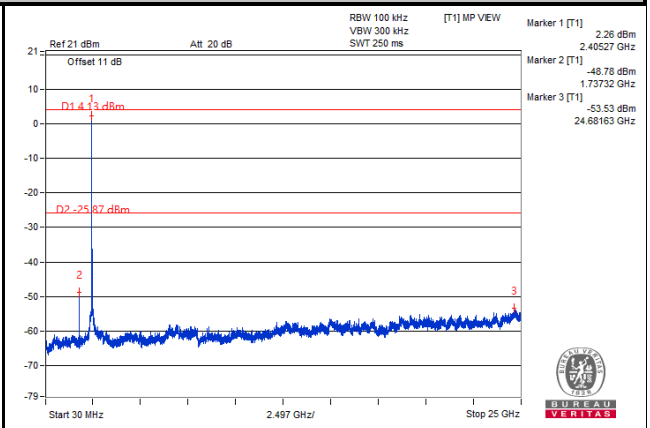


Ch 1 Band Edge	Ch 11 Band Edge
	

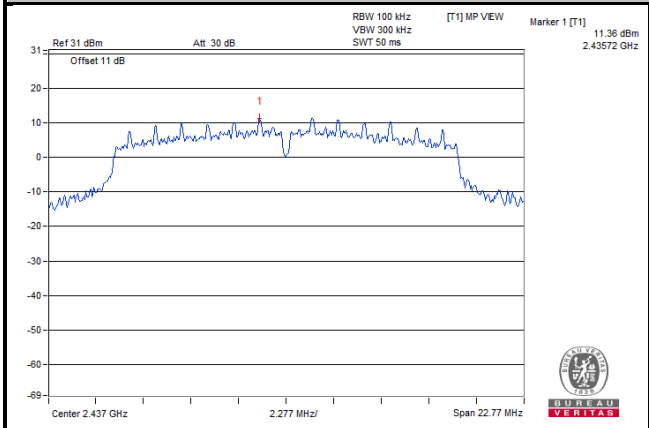
CHAIN 1

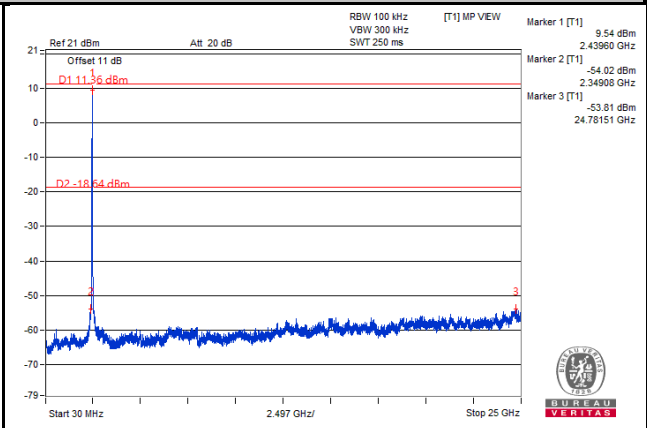
Ch 1



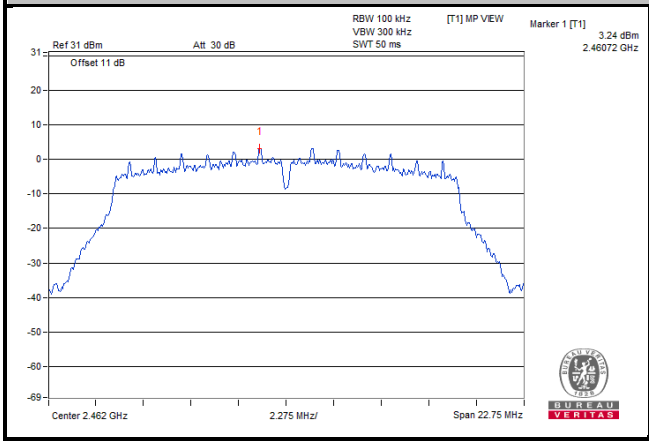


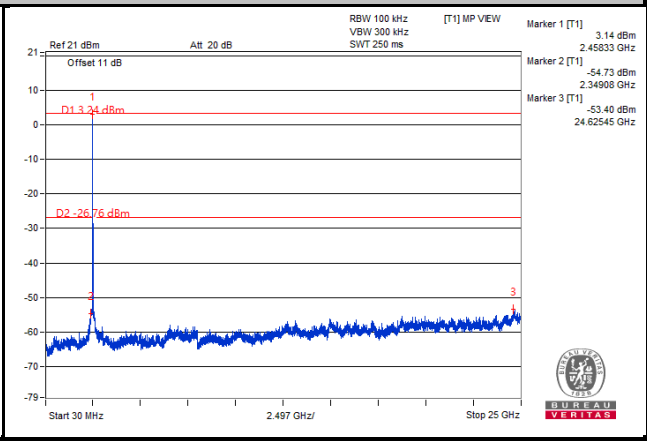
Ch 6

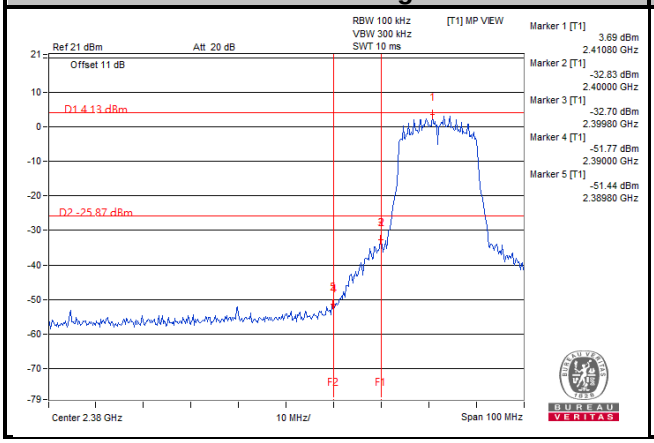
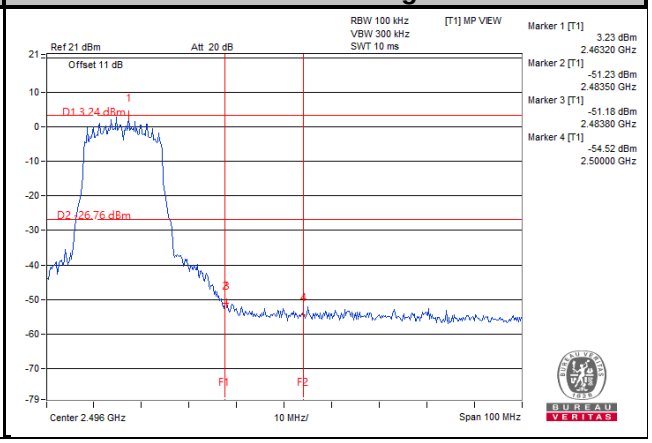




Ch 11

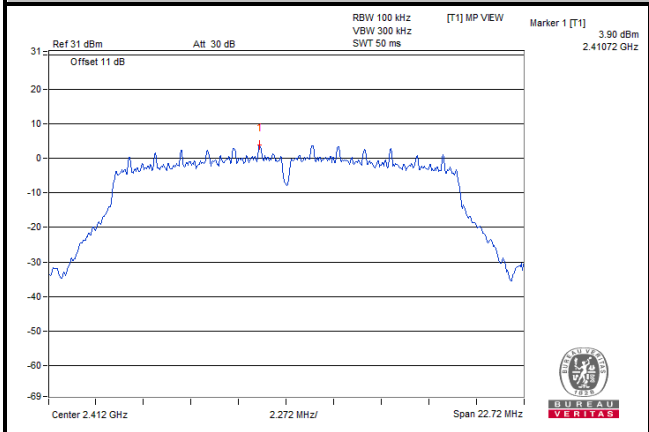


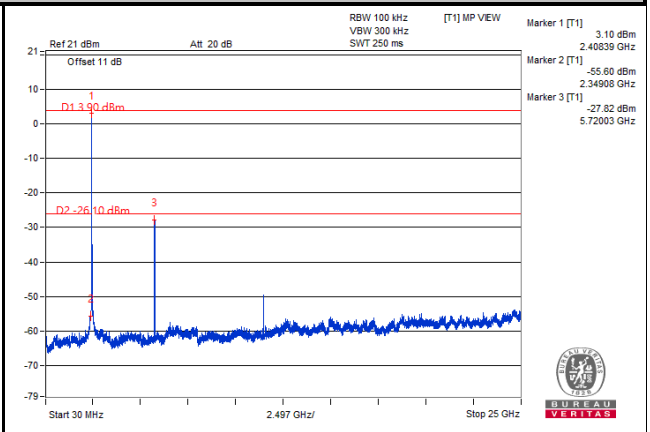


Ch 1 Band Edge	Ch 11 Band Edge
	

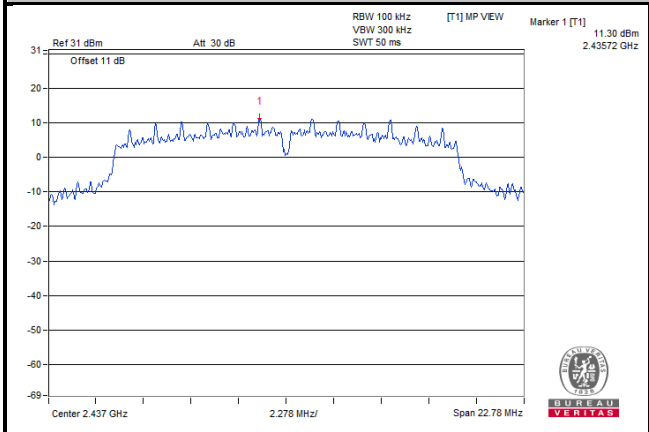
CHAIN 2

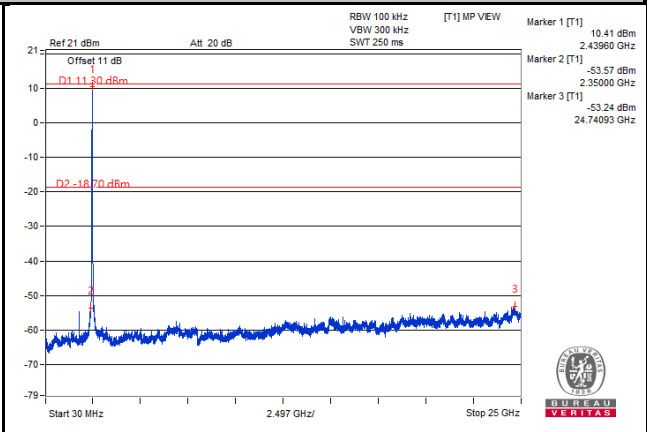
Ch 1



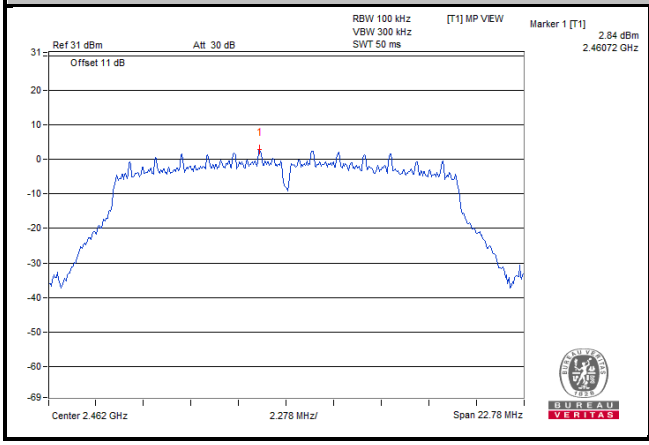


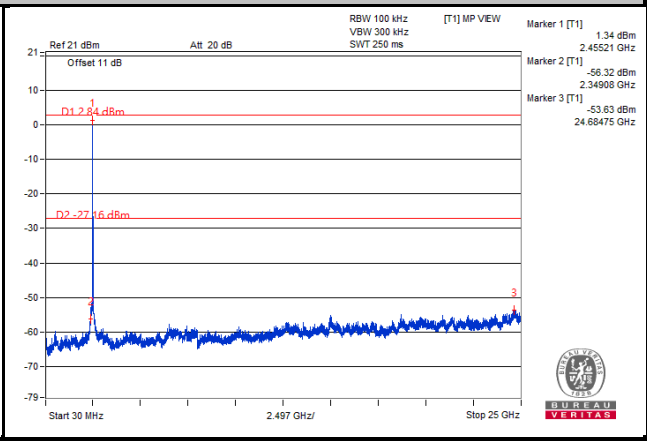
Ch 6

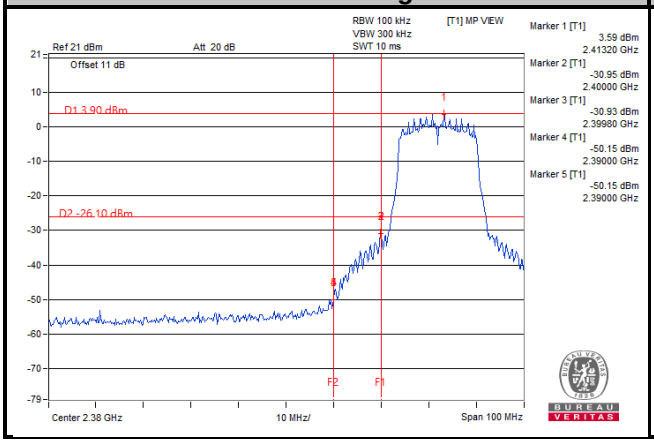
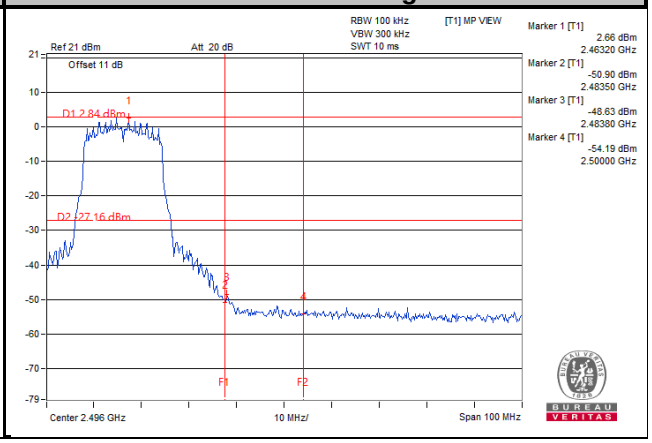




Ch 11

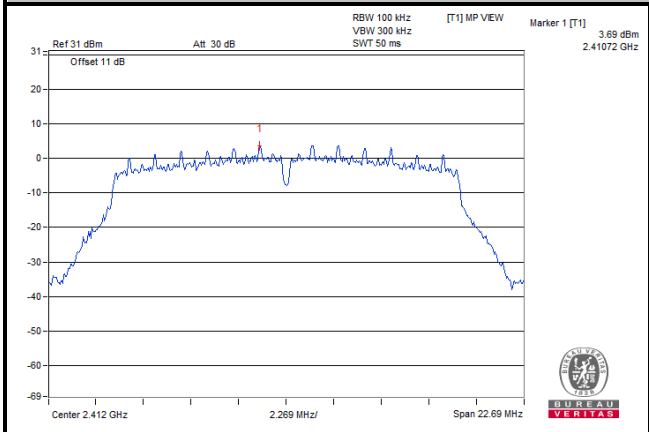


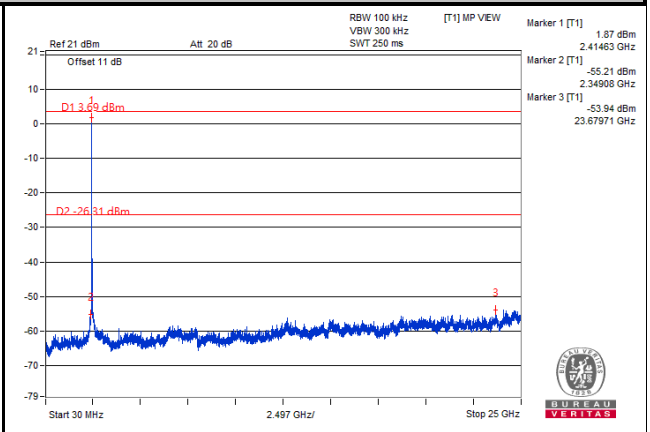


Ch 1 Band Edge	Ch 11 Band Edge
	

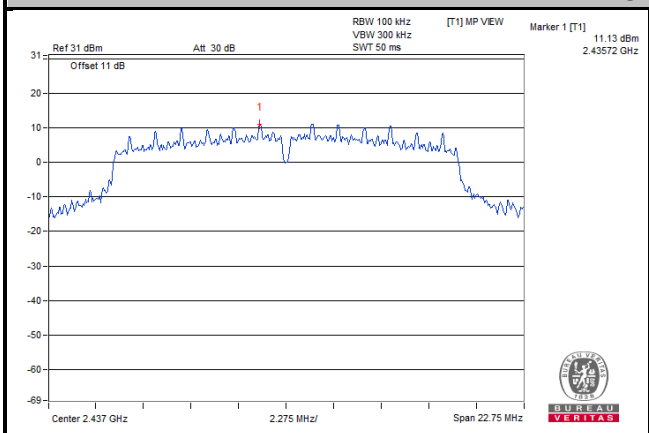
CHAIN 3

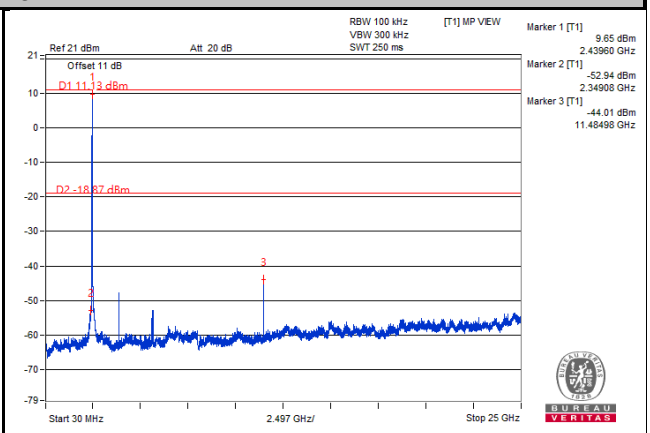
Ch 1



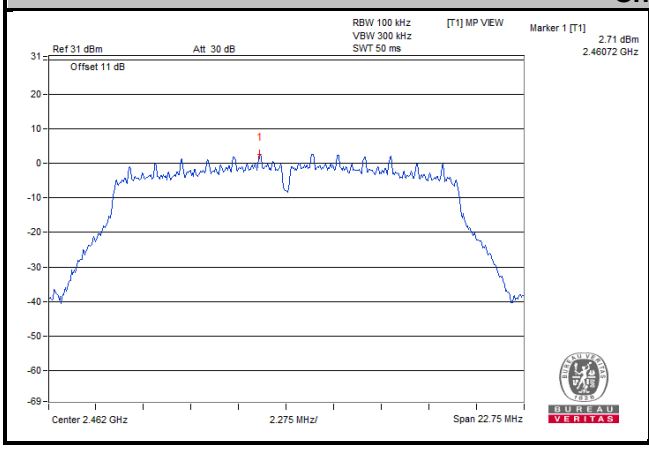


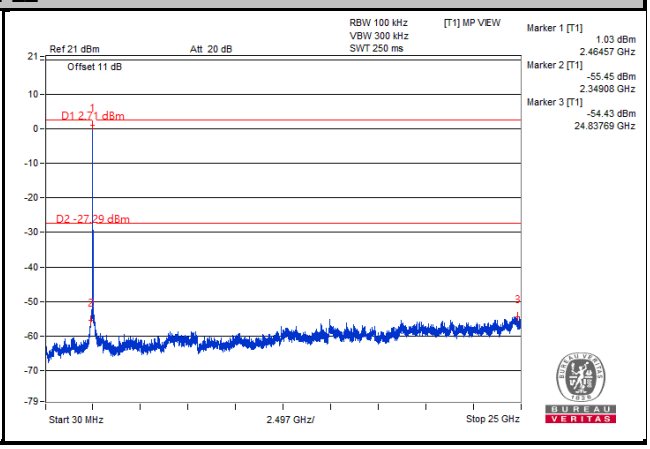
Ch 6

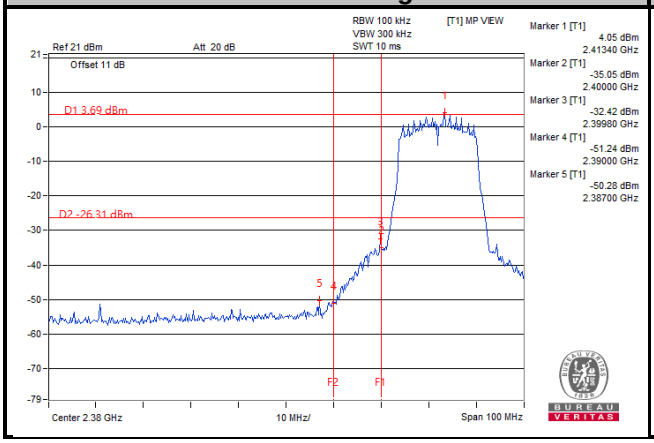
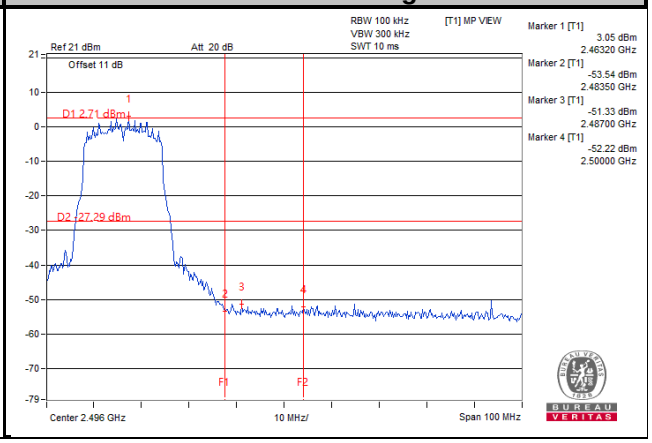




Ch 11



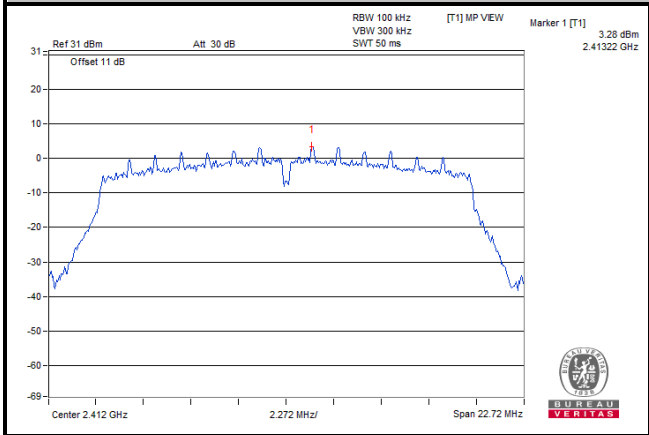


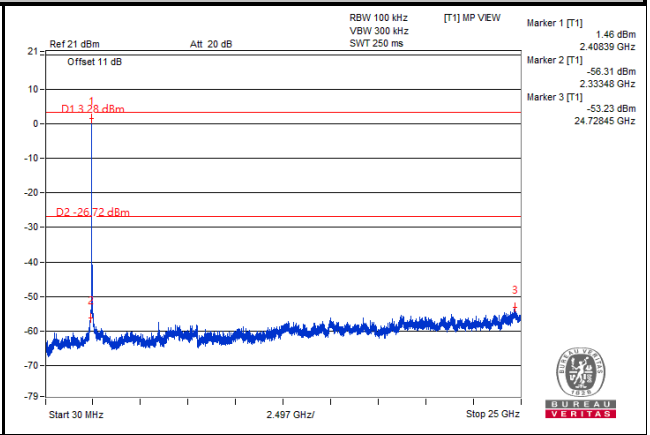
Ch 1 Band Edge	Ch 11 Band Edge
	

802.11ac (VHT20)

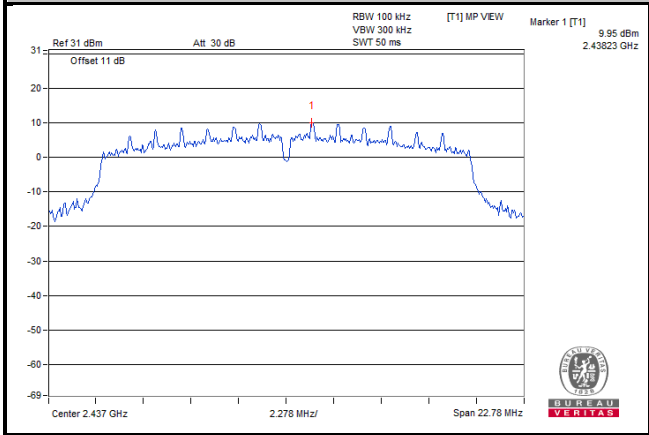
CHAIN 0

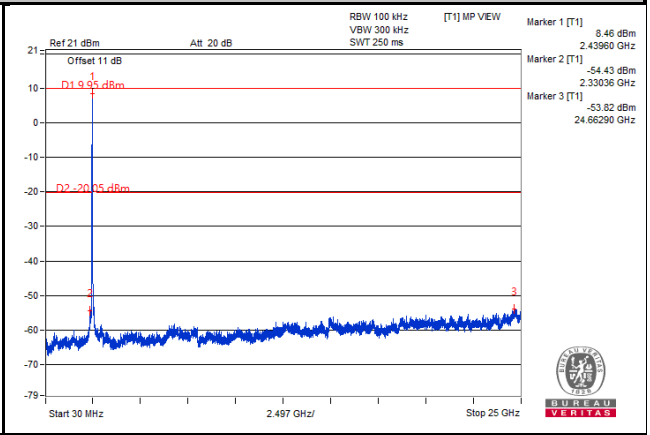
Ch 1



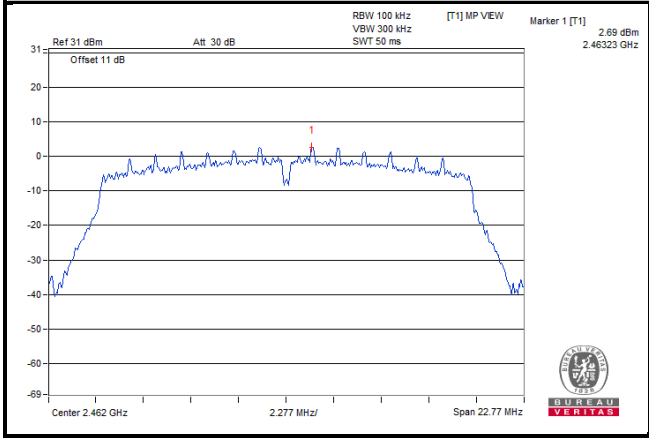


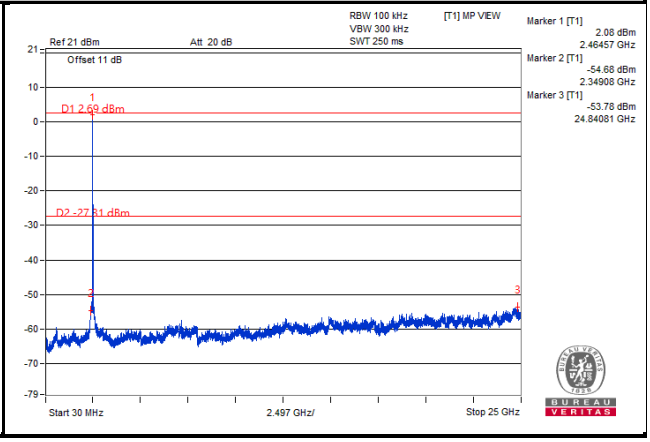
Ch 6

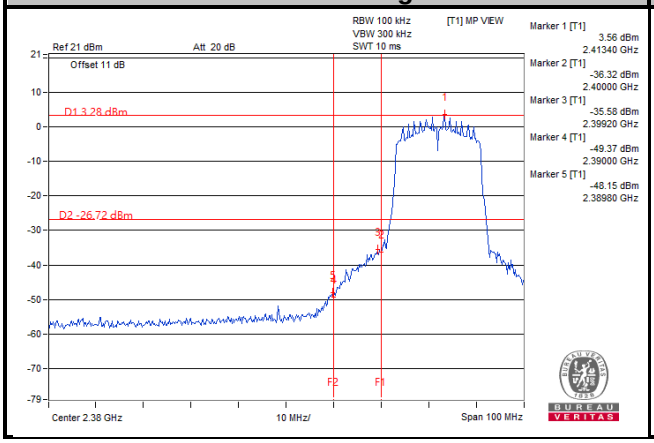
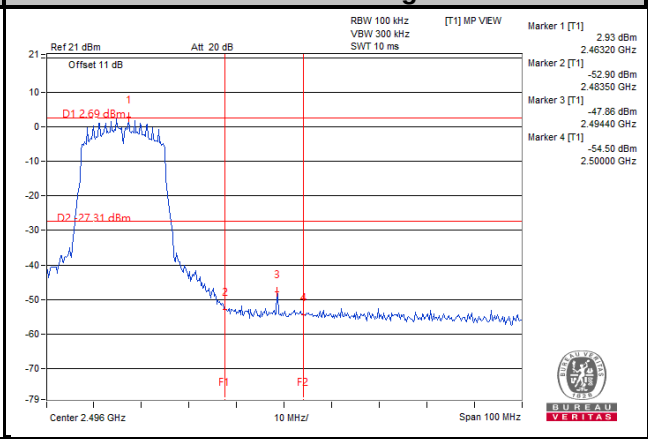




Ch 11

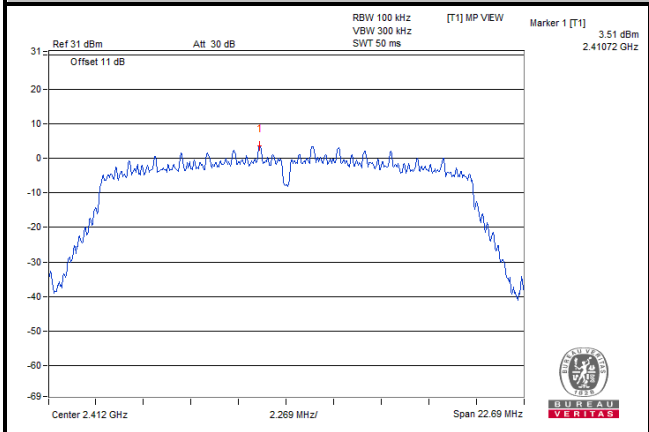


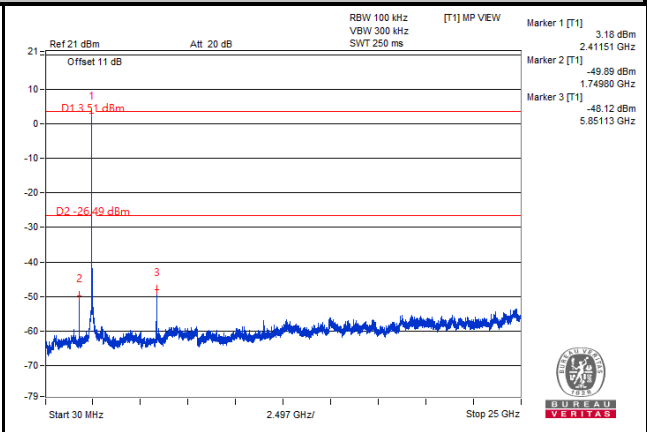


Ch 1 Band Edge	Ch 11 Band Edge
	

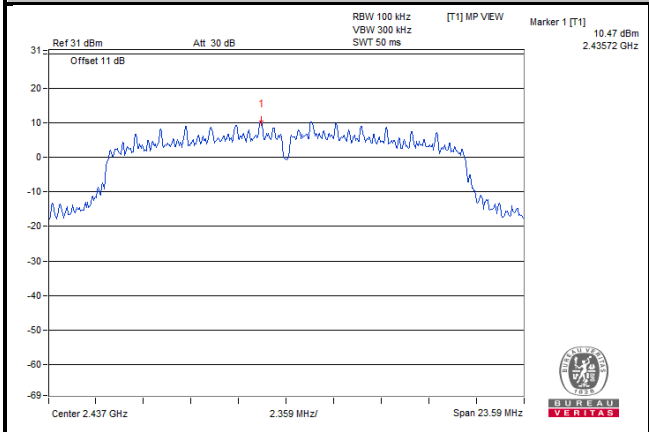
CHAIN 1

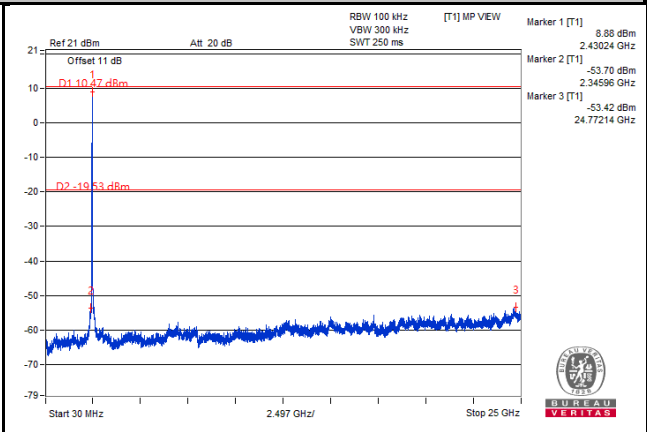
Ch 1



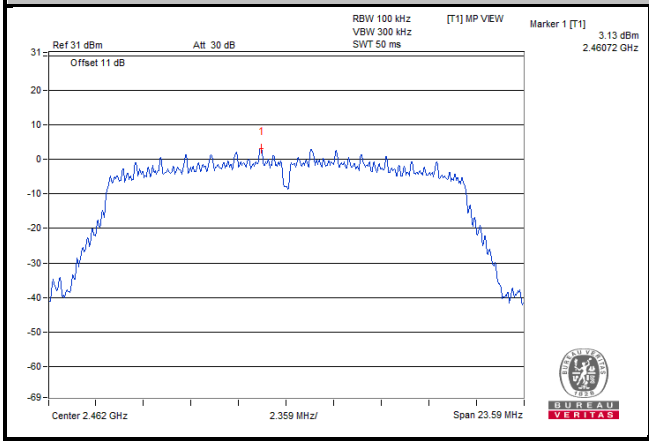


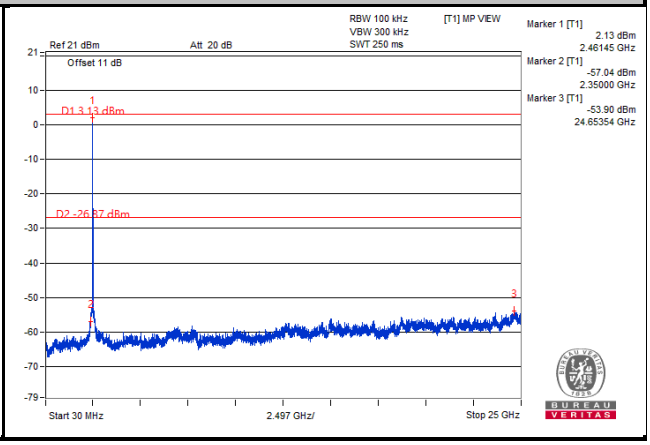
Ch 6

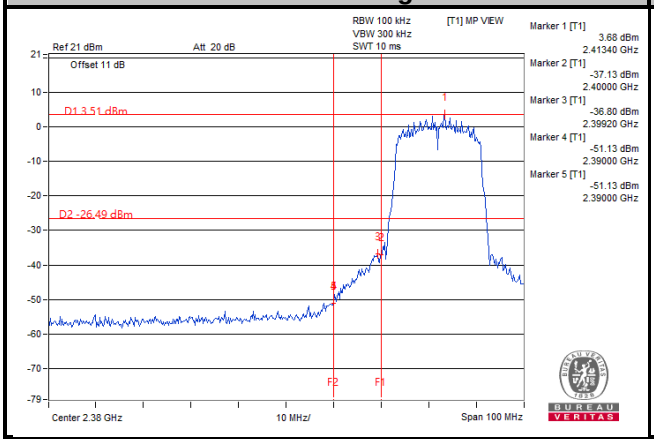
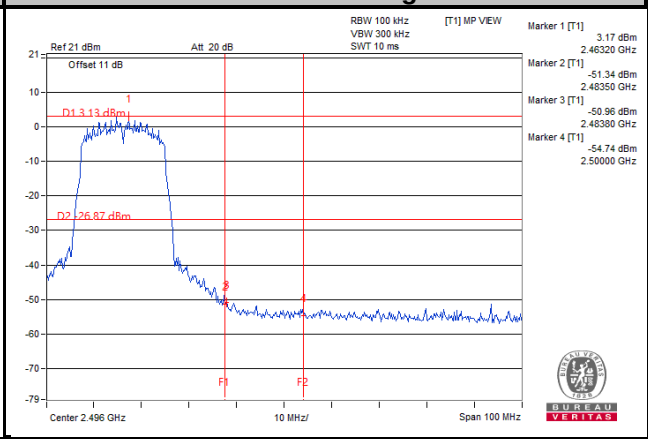




Ch 11

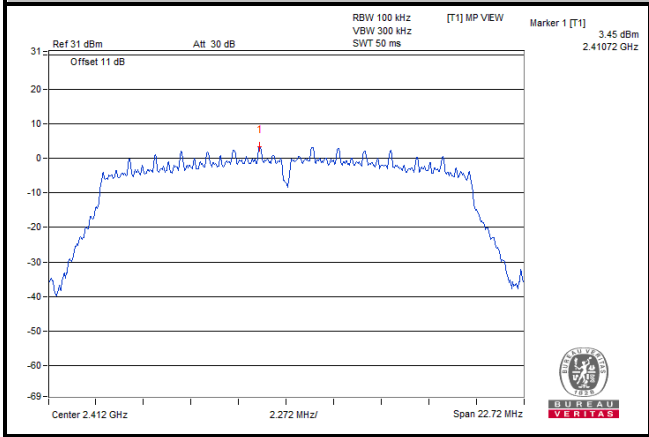


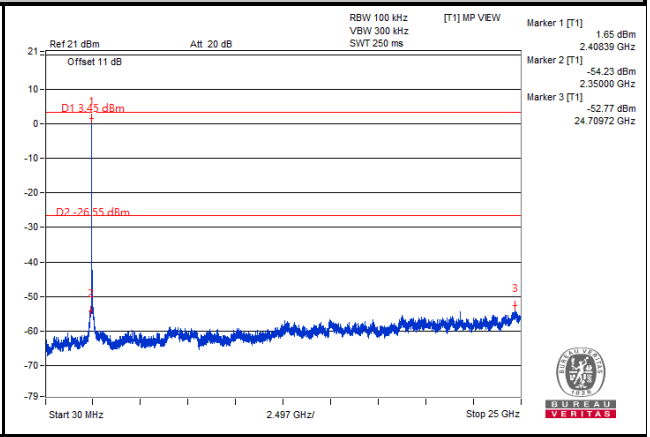


Ch 1 Band Edge	Ch 11 Band Edge
	

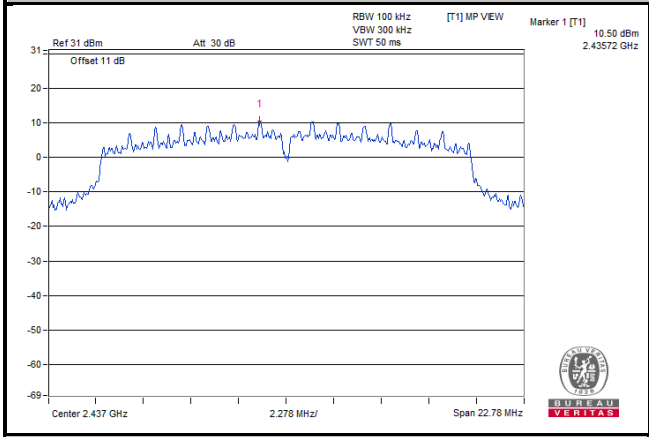
CHAIN 2

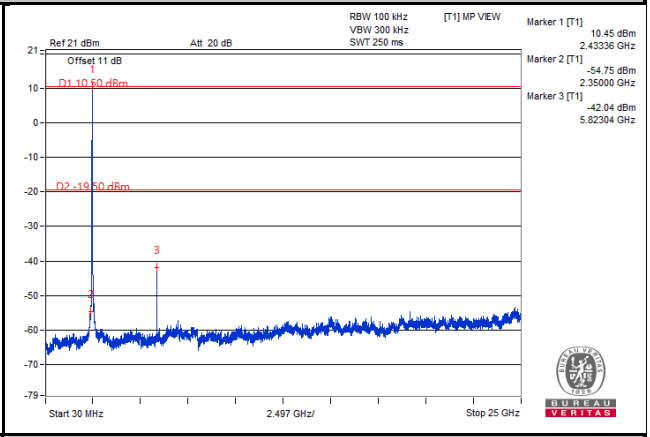
Ch 1



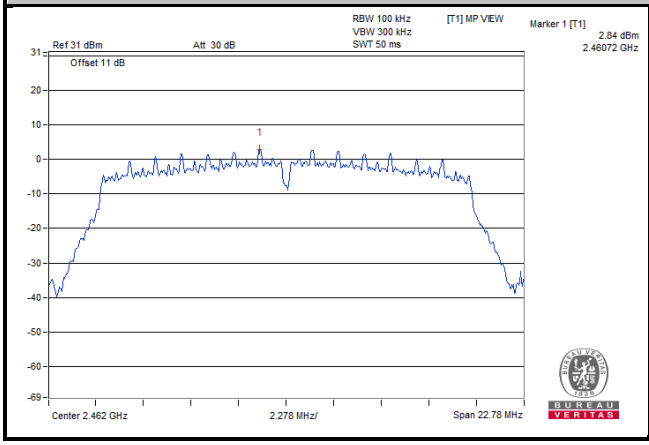


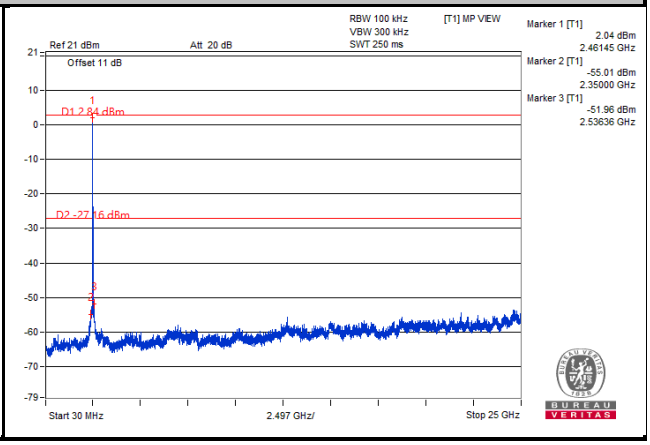
Ch 6

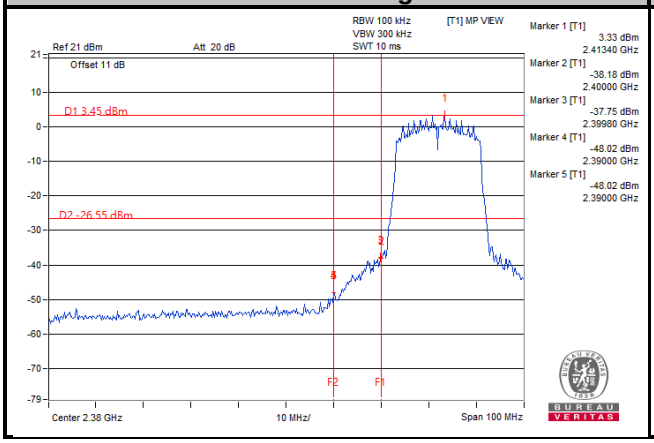
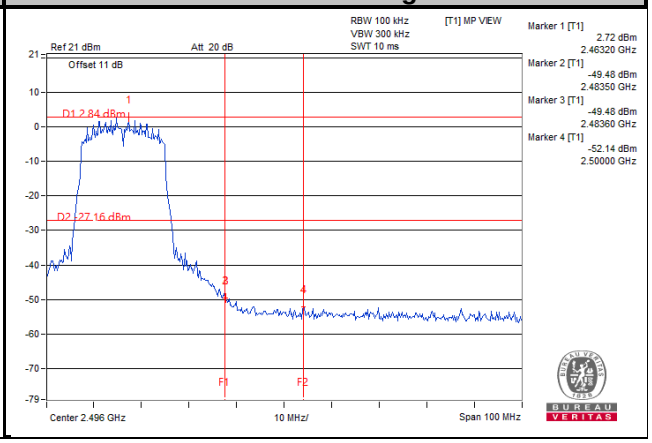




Ch 11

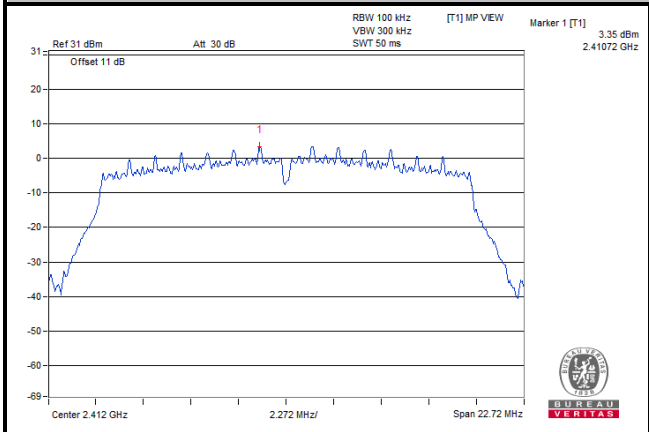


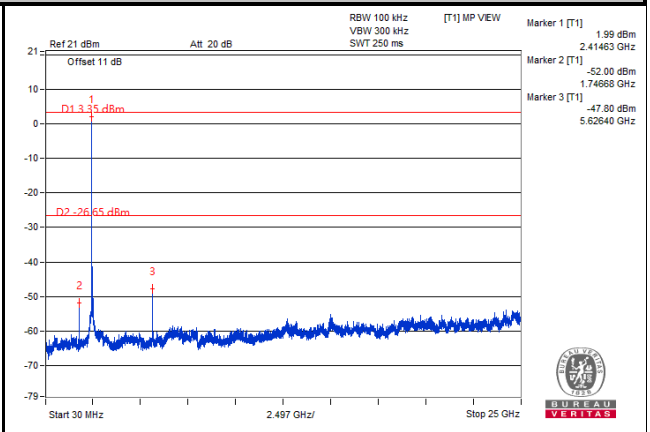


Ch 1 Band Edge	Ch 11 Band Edge
	

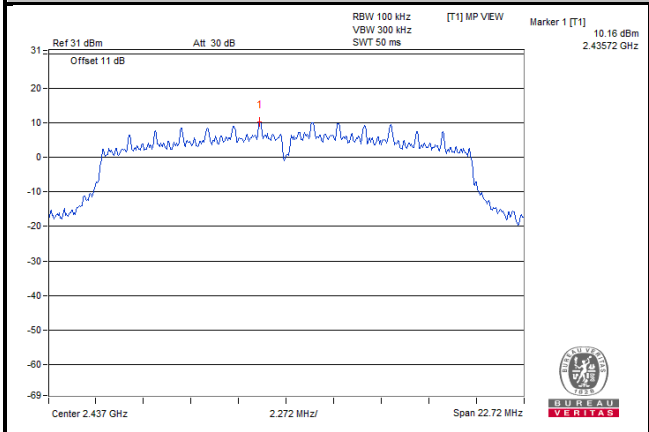
CHAIN 3

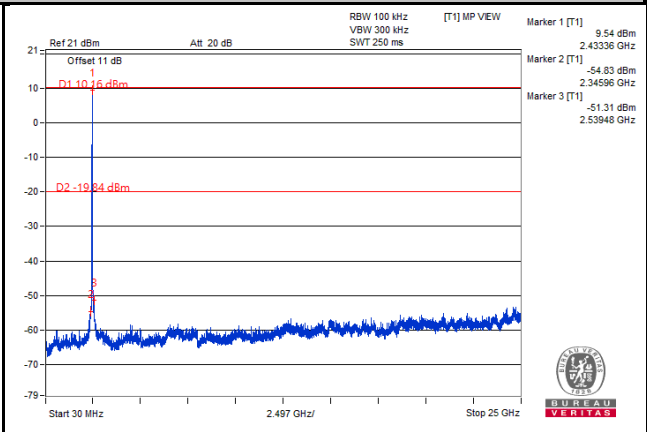
Ch 1



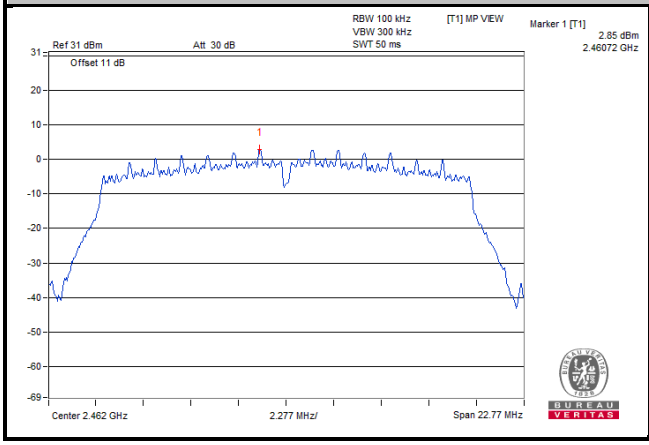


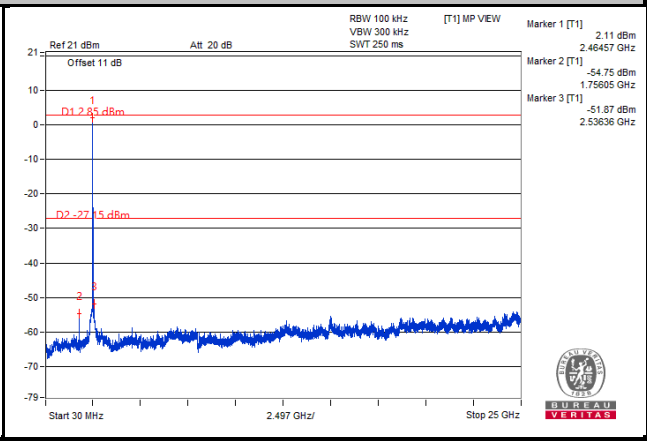
Ch 6

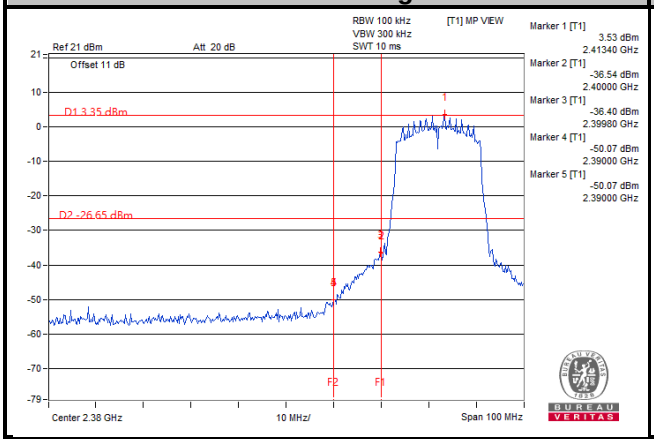
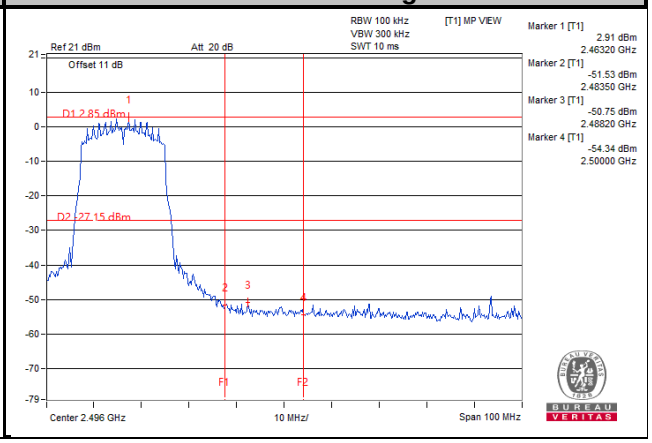




Ch 11



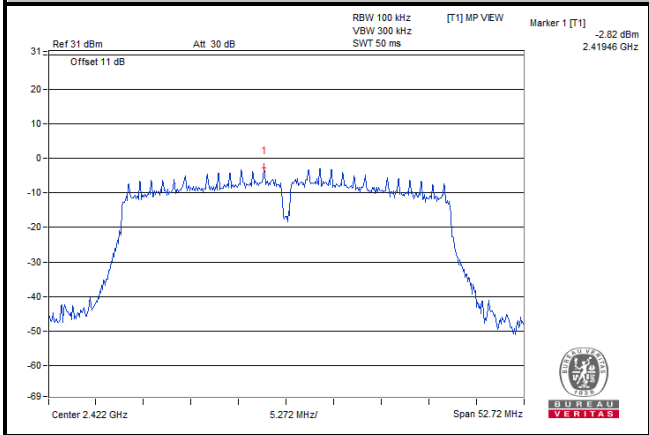


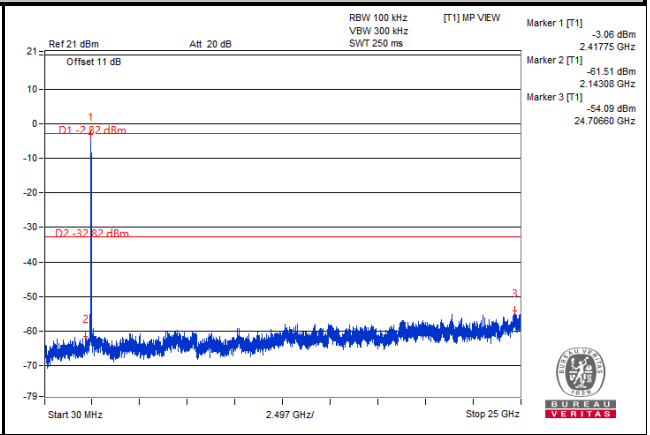
Ch 1 Band Edge	Ch 11 Band Edge
	

802.11ac (VHT40)

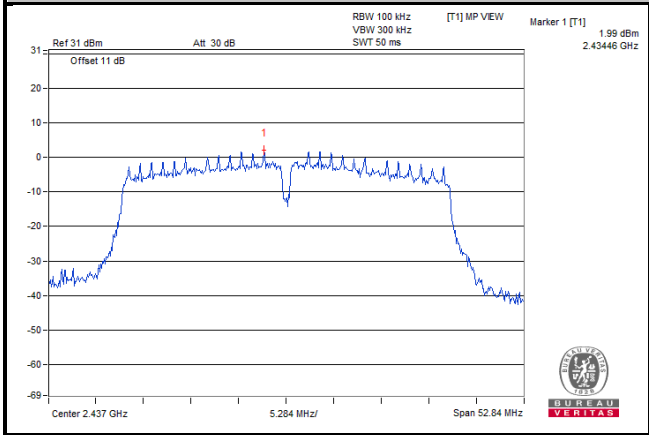
CHAIN 0

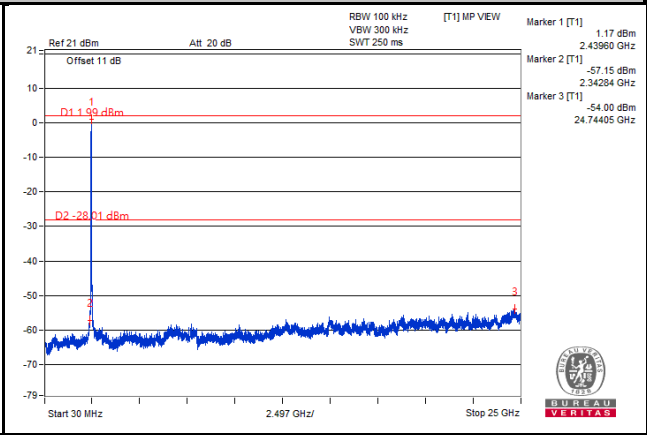
Ch 3



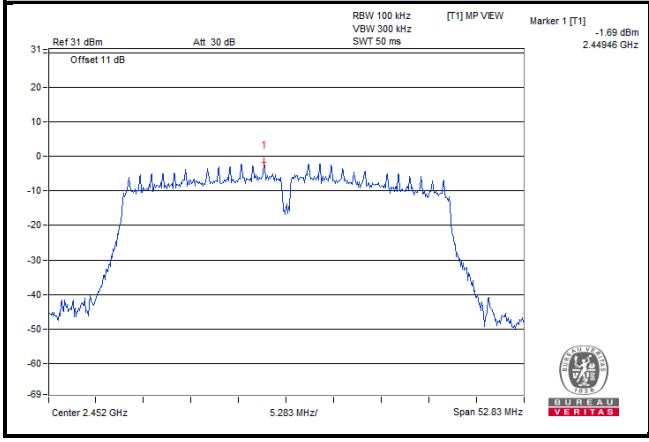


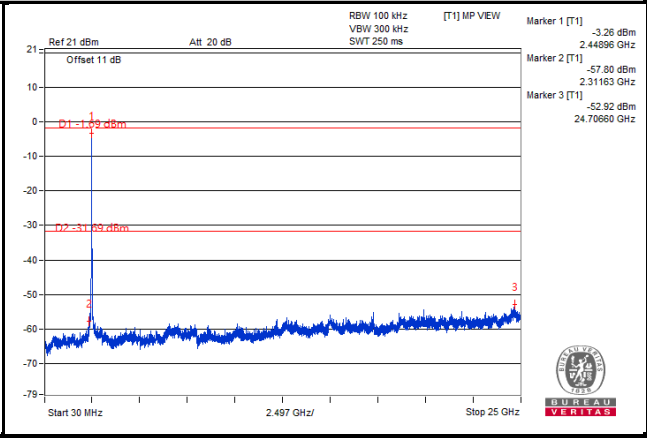
Ch 6

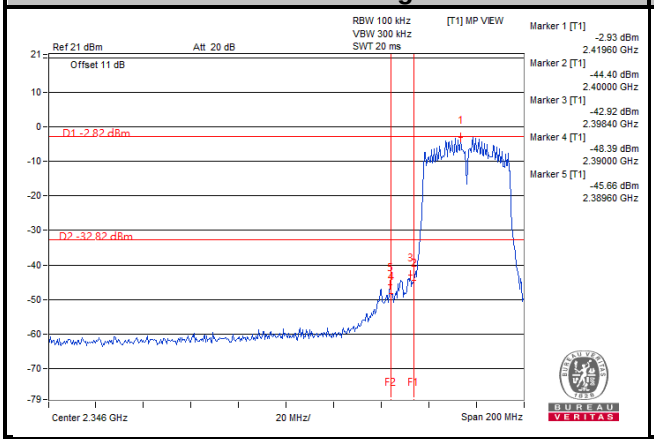
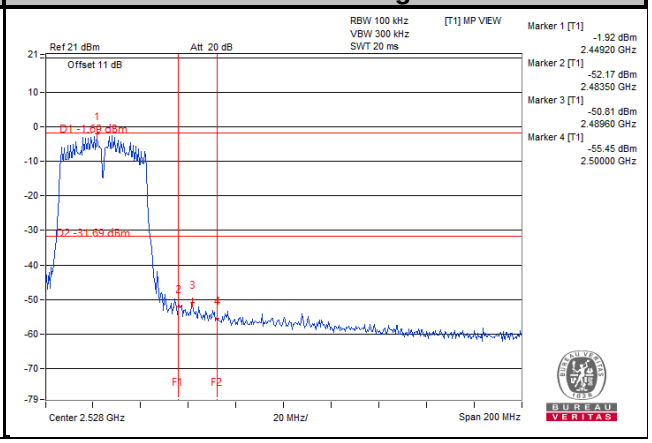




Ch 9

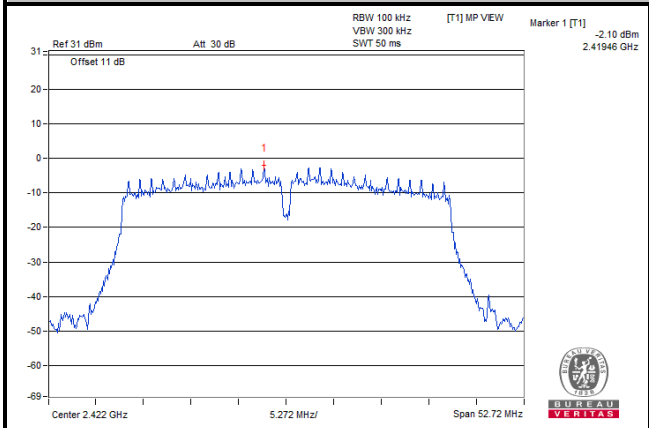


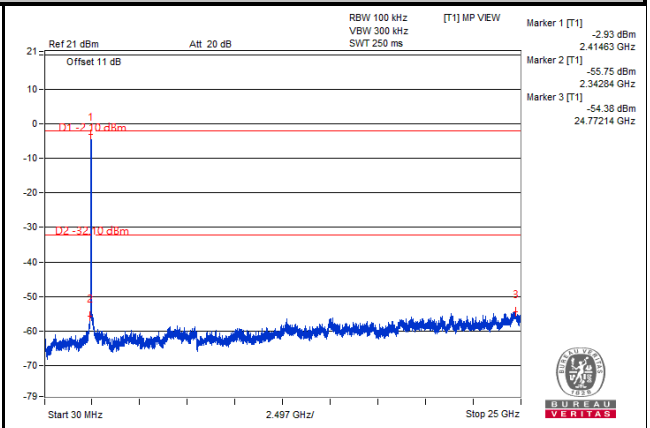


Ch 3 Band Edge	Ch 9 Band Edge
	

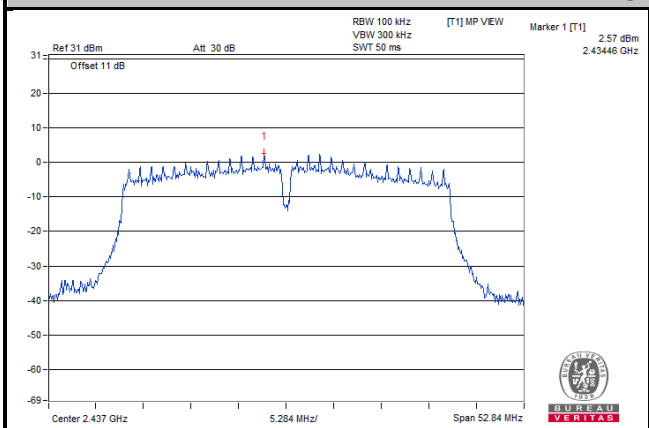
CHAIN 1

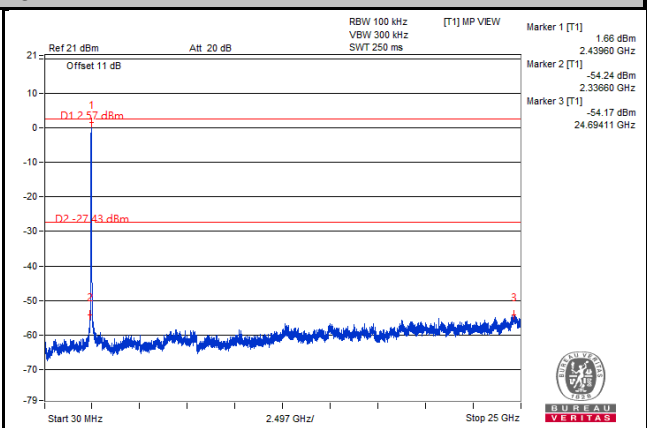
Ch 3



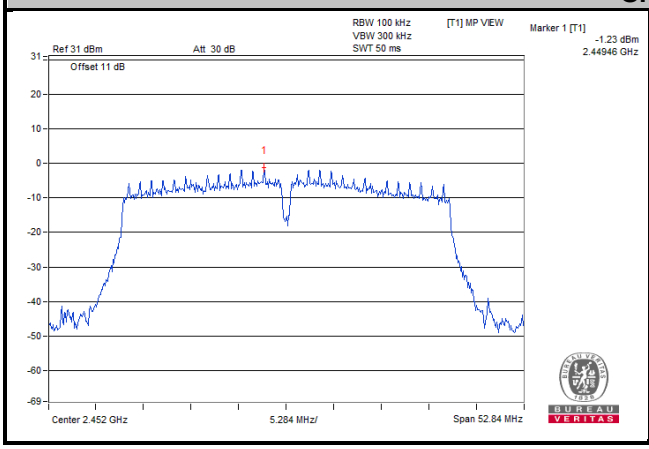


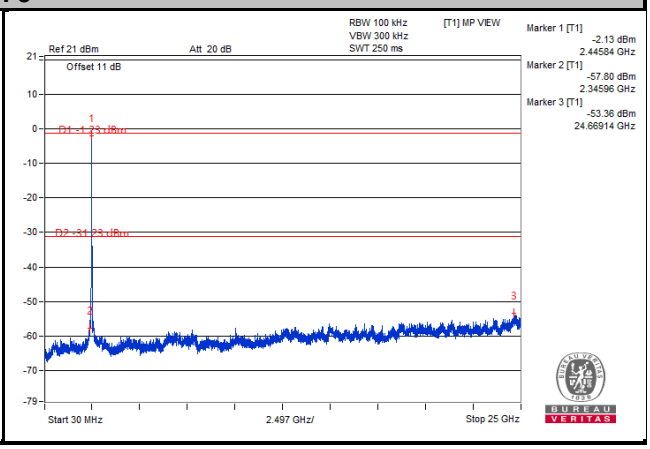
Ch 6

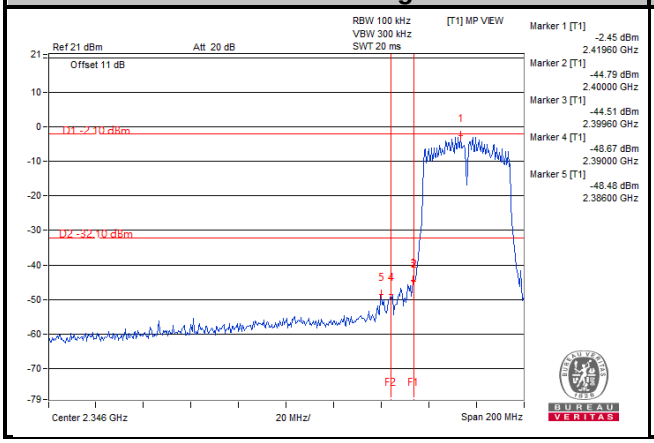
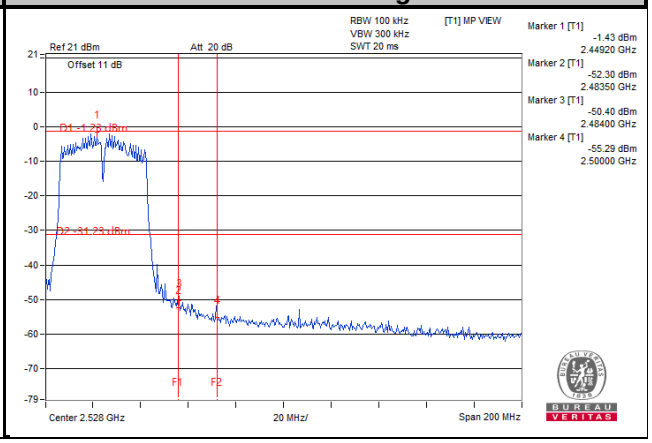




Ch 9

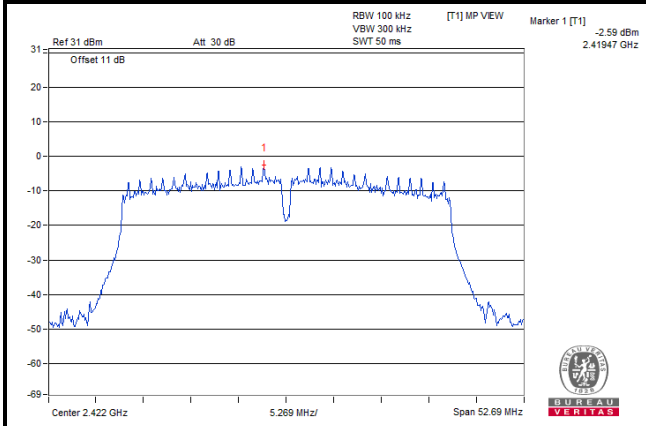


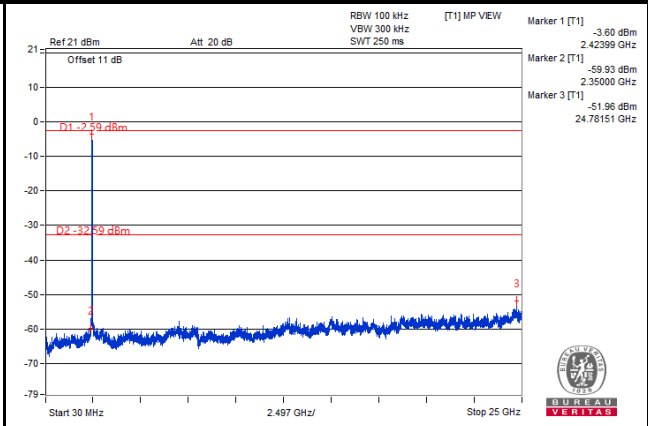


Ch 3 Band Edge	Ch 9 Band Edge
	

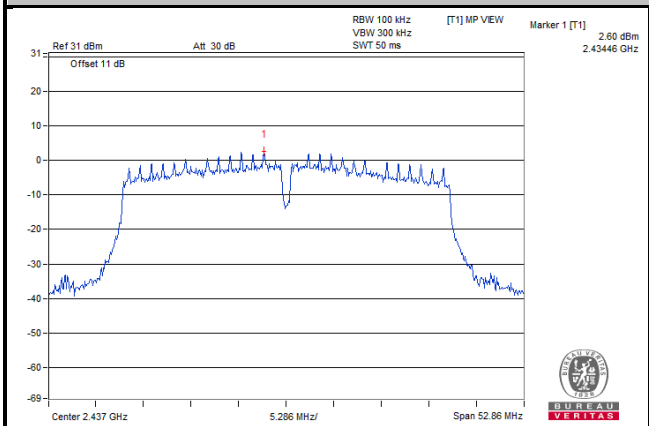
CHAIN 2

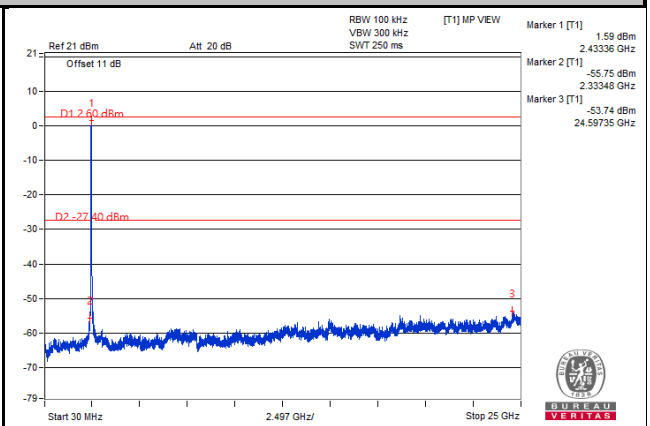
Ch 3



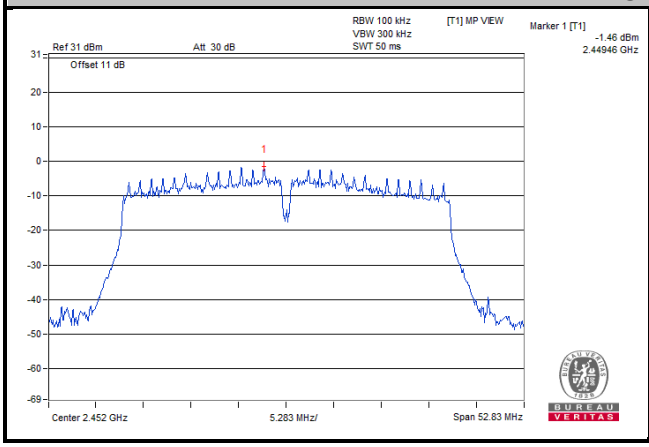


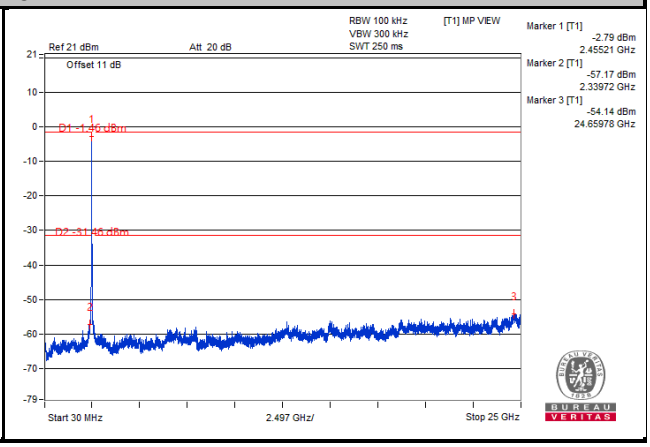
Ch 6

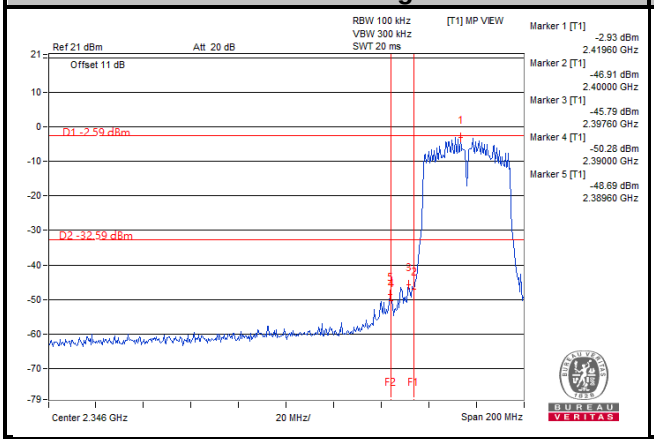
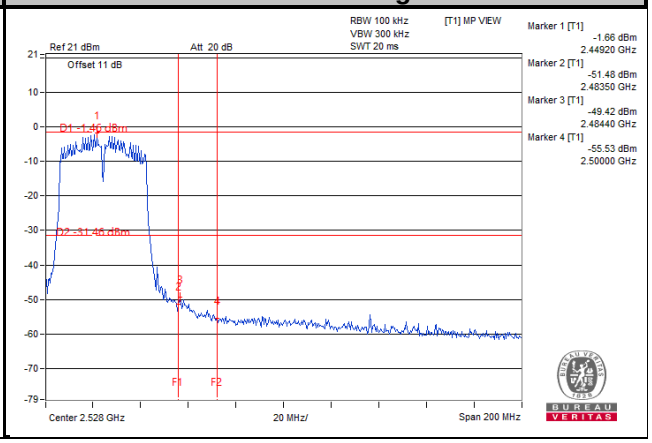




Ch 9

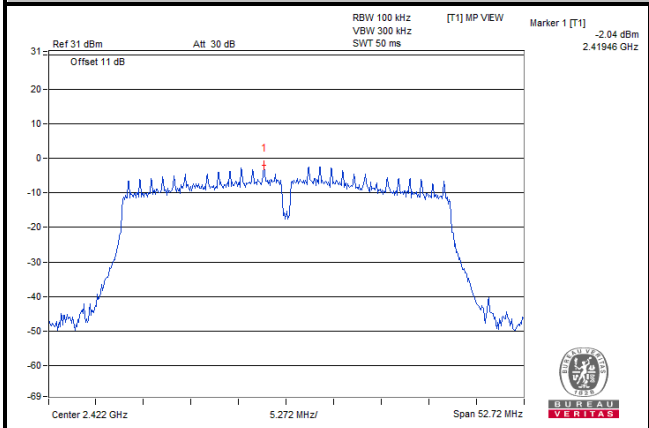


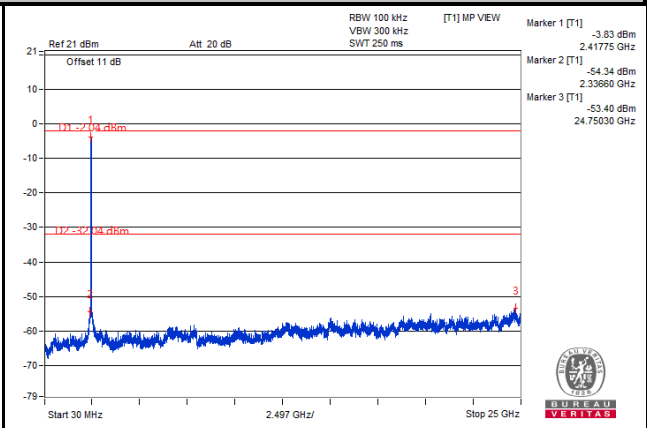


Ch 3 Band Edge	Ch 9 Band Edge
	

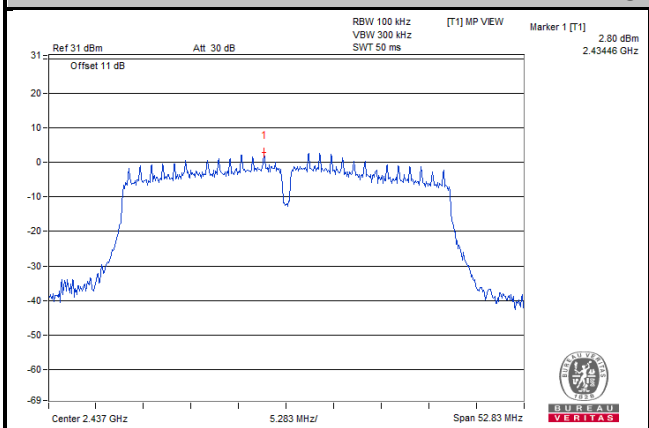
CHAIN 3

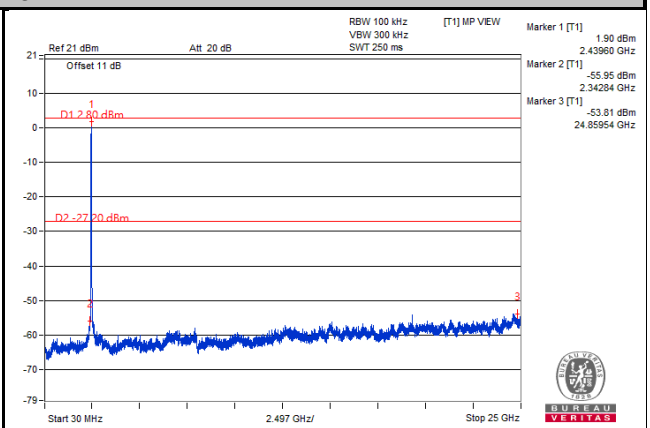
Ch 3



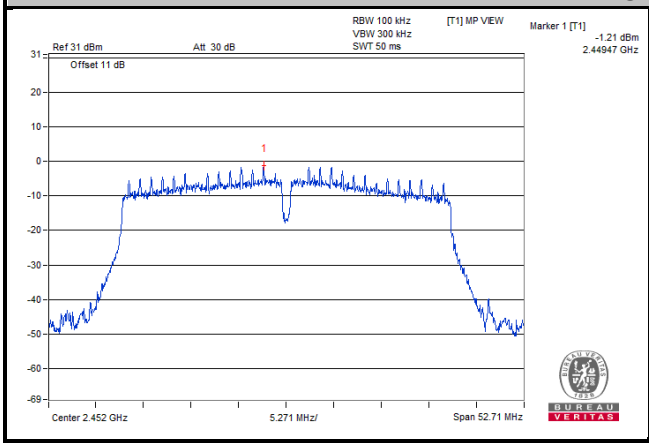


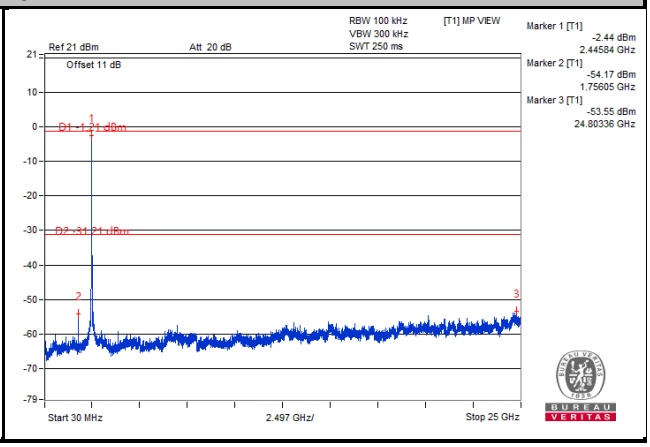
Ch 6

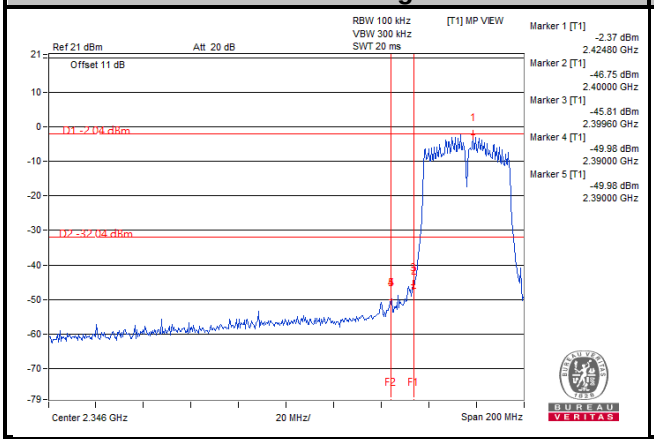
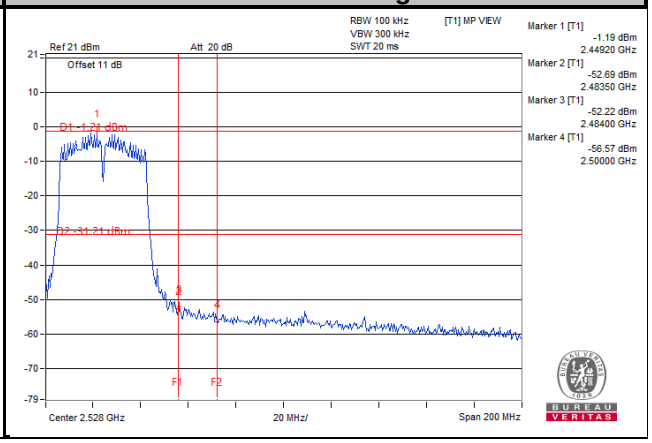




Ch 9





Ch 3 Band Edge	Ch 9 Band Edge
	

5 Pictures of Test Arrangements

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

Appendix – Information on 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:

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@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.

--- END ---