

FCC Test Report

Report No.: RF160216E03

FCC ID: PPQ-MP1

Test Model: MP1

Received Date: Feb. 16, 2016

Test Date: Feb. 24 to Mar. 14, 2106

Issued Date: Apr. 26, 2016

Applicant: Lite-On Technology Corp.

Address: Bldg. C, No. 90, Chien 1 Rd., Chung-Ho ,New Taipei City 23585, Taiwan, R.O.C

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

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

Test Location (1): E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.



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 Antenna	8
3.3 Description of Test Modes	9
3.3.1 Test Mode Applicability and Tested Channel Detail	10
3.4 Duty Cycle of Test Signal	12
3.5 Description of Support Units	13
3.5.1 Configuration of System under Test	13
3.6 General Description of Applied Standards	14
4 Test Types and Results	15
4.1 Conducted Output Power Measurement	15
4.1.1 Limits of Conducted Output Power Measurement	15
4.1.2 Test Setup	15
4.1.3 Test Instruments	15
4.1.4 Test Procedures	15
4.1.5 Deviation from Test Standard	15
4.1.6 EUT Operating Conditions	15
4.1.7 Test Results	16
4.2 Power Spectral Density Measurement	18
4.2.1 Limits of Power Spectral Density Measurement	18
4.2.2 Test Setup	18
4.2.3 Test Instruments	18
4.2.4 Test Procedures	18
4.2.5 Deviation from Test Standard	18
4.2.6 EUT Operating Conditions	18
4.2.7 Test Results	19
4.3 6dB Bandwidth Measurement	23
4.3.1 Limits of 6dB Bandwidth Measurement	23
4.3.2 Test Setup	23
4.3.3 Test Instruments	23
4.3.4 Test Procedures	23
4.3.5 Deviation from Test Standard	23
4.3.6 EUT Operating Conditions	23
4.3.7 Test Results	24
4.4 Conducted Out of Band Emission Measurement	28
4.4.1 Limits of Conducted Out of Band Emission Measurement	28
4.4.2 Test Setup	28
4.4.3 Test Instruments	28
4.4.4 Test Procedures	28
4.4.5 Deviation from Test Standard	28
4.4.6 EUT Operating Conditions	28
4.4.7 Test Results	29
4.5 Unwanted Emission Measurement (Radiated Versus Conducted)	38
4.5.1 Limits of Unwanted Emission Measurement	38
4.5.2 Test Instruments	39
4.5.3 Test Procedures	40
4.5.4 Deviation from Test Standard	41
4.5.5 Test Setup	41

4.5.6	EUT Operating Conditions.....	42
4.5.7	Test Results (Radiated Measurement).....	42
4.5.8	Test Results (Conducted Measurement).....	85
4.6	Conducted Emission Measurement.....	127
4.6.1	Limits of Conducted Emission Measurement.....	127
4.6.2	Test Instruments	127
4.6.3	Test Procedures.....	128
4.6.4	Deviation from Test Standard	128
4.6.5	Test Setup.....	128
4.6.6	EUT Operating Conditions.....	128
4.6.7	Test Results	129
5	Pictures of Test Arrangements.....	131
6	Appendix A – Information on the Testing Laboratories.....	132



A D T

Release Control Record

Issue No.	Description	Date Issued
RF160216E03	Original release.	Apr. 26, 2016

1 Certificate of Conformity

Product: Low Energy Wi-Fi Single Band 802.11b/g/n module

Brand: LITEON

Test Model: MP1

Sample Status: R&D SAMPLE

Applicant: Lite-On Technology Corp.

Test Date: Feb. 24 to Mar. 14, 2106

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 EMC characteristics under the conditions specified in this report.

Prepared by : Wendy Wu , **Date:** Apr. 26, 2016
Wendy Wu / Specialist

Approved by : May Chen , **Date:** Apr. 26, 2016
May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (SECTION 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -2.98dB at 0.16953MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -2.4dB at 4924.00MHz and 4874.00MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.

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) ($\pm$)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.86 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.31 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz-	3.40 dB
	6GHz ~ 18GHz	3.73 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Low Energy Wi-Fi Single Band 802.11b/g/n module
Brand	LITEON
Test Model	MP1
Status of EUT	R&D SAMPLE
Power Supply Rating	3.3Vdc from host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 150Mbps
Operating Frequency	2.412 ~ 2.472GHz
Number of Channel	13 for 802.11b/g, 802.11n (HT20) 9 for 802.11n (HT40)
Output Power	802.11b: 86.099mW 802.11g: 149.968mW 802.11n (HT20): 162.555mW 802.11n (HT40): 76.56mW
Antenna Type	See item 3.2
Antenna Connector	See item 3.2
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. The EUT incorporates a 1T1R function.

MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	1TX	1RX
802.11g	6 ~ 54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX

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

3.2 Description of Antenna

The antenna gain was declared by client; please refer to the following table:

Ant No.	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	2.4GHz Cable Loss (dB)	Connector Type	Cable Length (mm)
Ant 1	WNC	81.EBJ15.005	PIFA	3.62	1.15	i-pex(MHF)	300
Ant 2	QCA	MP1-2.4GANT	PCB	3.68	NA	NA	NA

Note: 1. Above antenna gains of antenna are Total (H+V).

2. For testing, we select the highest gain on each frequency band for calculation and testing.

3.3 Description of Test Modes

13 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

Channel	Frequency	Channel	Frequency
1	2412MHz	8	2447MHz
2	2417MHz	9	2452MHz
3	2422MHz	10	2457MHz
4	2427MHz	11	2462MHz
5	2432MHz	12	2467MHz
6	2437MHz	13	2472MHz
7	2442MHz		

9 channels are provided for 802.11n (HT40):

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

3.3.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	UE≥1G	UE<1G	PLC	APCM	
-	√	√	√	√	-

Where **UE ≥ 1G**: Unwanted Emission above 1GHz **UE < 1G**: Unwanted Emission below 1GHz
PLC: Power Line Conducted Emission **APCM**: Antenna Port Conducted Measurement

Unwanted Emission Test (Above 1GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	DATA RATE (Mbps)
802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	1
802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	6
802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	6.5
802.11n (HT40)	3 to 11	3, 6, 9, 10, 11	OFDM	13.5

Unwanted Emission Test (Below 1GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	DATA RATE (Mbps)
802.11n (HT20)	1 to 13	6	OFDM	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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	DATA RATE (Mbps)
802.11n (HT20)	1 to 13	6	OFDM	6.5

Antenna Port Conducted 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.

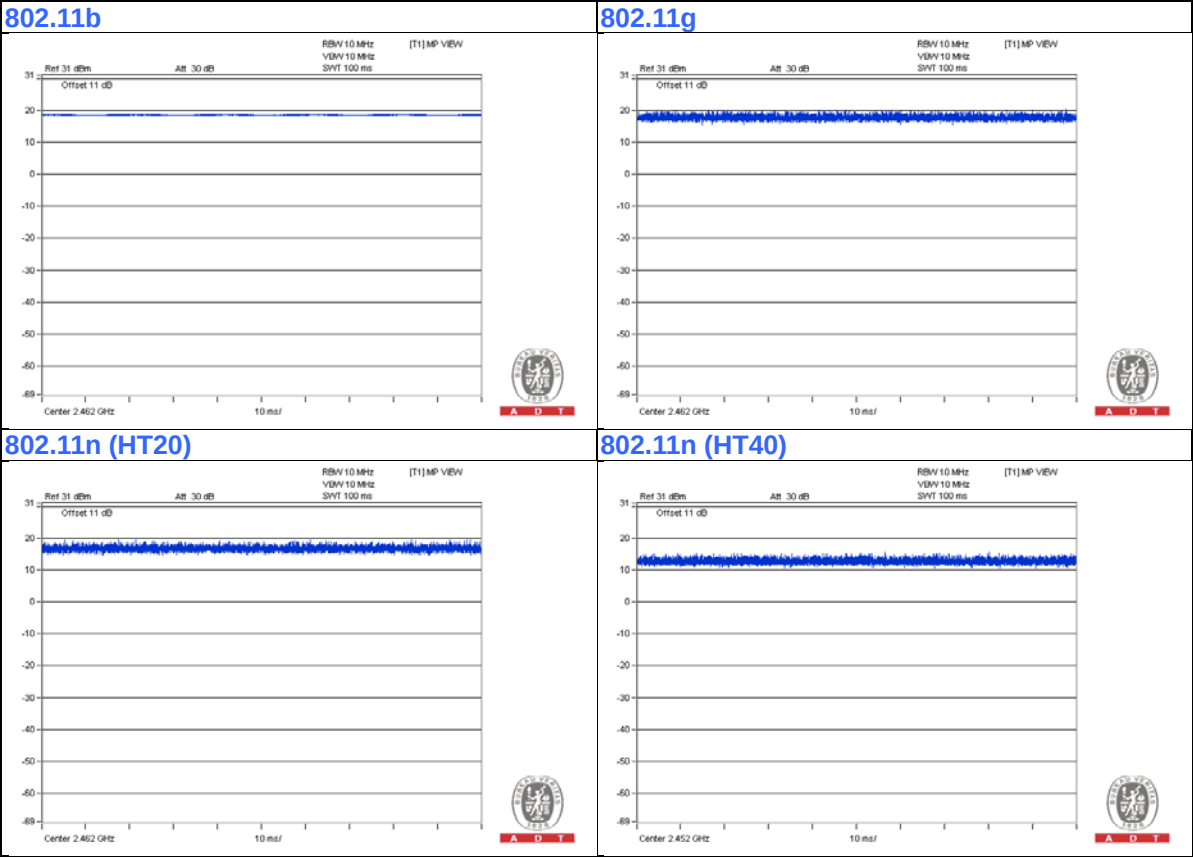
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	DATA RATE (Mbps)
802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	1
802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	6
802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	6.5
802.11n (HT40)	3 to 11	3, 6, 9, 10, 11	OFDM	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY	TEST LOCATION
UE $\geq$ 1G	20deg. C, 61%RH	120Vac, 60Hz	Tim Ho	1
UE<1G	20deg. C, 65%RH	120Vac, 60Hz	Tim Ho	1
PLC	18deg. C, 66%RH	120Vac, 60Hz	Timmy Hu	2
APCM	18deg. C, 65%RH	120Vac, 60Hz	Anderson Chen	1

3.4 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %, duty factor is not required.



3.5 Description of Support Units

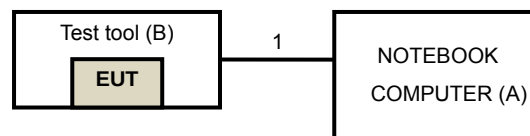
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	NOTEBOOK COMPUTER	DELL	E5430	4YV4VY1	FCC DoC	Provided by Lab
B	Test tool	Qualcomm Atheros	NA	NA	NA	Supplied by Client

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB	1	1	No	0	Provided by Lab

3.5.1 Configuration of System under Test



3.6 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 DTS Meas Guidance v03r05
ANSI C63.10- 2013

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

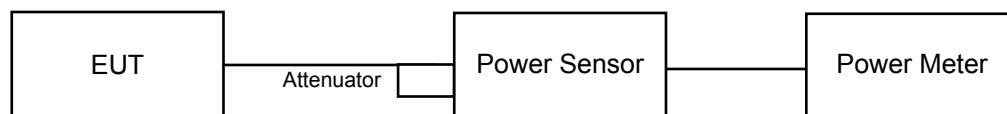
4 Test Types and Results

4.1 Conducted Output Power Measurement

4.1.1 Limits of Conducted Output Power Measurement

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

4.1.2 Test Setup



4.1.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter Anritsu	ML2495A	1014008	Apr. 28, 2015	Apr. 27, 2016
Power Sensor Anritsu	MA2411B	0917122	Apr. 28, 2015	Apr. 27, 2016

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. Tested date : Mar. 14, 2016

4.1.4 Test Procedures

A peak / average power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak / average power sensor. Record the power level.

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 EUT Operating Conditions

The software (Qualcomm Atheros Radio Tool V2.3) provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.1.7 Test Results

FOR PEAK POWER

802.11b

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	82.604	19.17	30	Pass
6	2437	86.099	19.35	30	Pass
11	2462	83.176	19.20	30	Pass
12	2467	49.659	16.96	30	Pass
13	2472	22.961	13.61	30	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	132.739	21.23	30	Pass
6	2437	149.968	21.76	30	Pass
11	2462	107.399	20.31	30	Pass
12	2467	73.451	18.66	30	Pass
13	2472	8.11	9.09	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	129.122	21.11	30	Pass
6	2437	162.555	22.11	30	Pass
11	2462	102.802	20.12	30	Pass
12	2467	67.298	18.28	30	Pass
13	2472	4.831	6.84	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
3	2422	76.56	18.84	30	Pass
6	2437	75.509	18.78	30	Pass
9	2452	59.566	17.75	30	Pass
10	2457	24.378	13.87	30	Pass
11	2462	3.648	5.62	30	Pass

FOR AVERAGE POWER

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	51.168	17.09
6	2437	53.333	17.27
11	2462	51.05	17.08
12	2467	29.309	14.67
13	2472	13.366	11.26

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	41.591	16.19
6	2437	50.466	17.03
11	2462	32.584	15.13
12	2467	19.77	12.96
13	2472	2.27	3.56

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	41.305	16.16
6	2437	53.703	17.30
11	2462	28.314	14.52
12	2467	18.493	12.67
13	2472	1.368	1.36

802.11n (HT40)

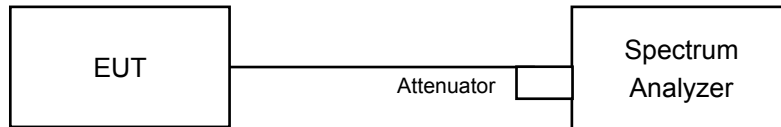
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
3	2422	26.485	14.23
6	2437	26.122	14.17
9	2452	20.324	13.08
10	2457	8.017	9.04
11	2462	1.208	0.82

4.2 Power Spectral Density Measurement

4.2.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

4.2.2 Test Setup



4.2.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum analyzer R&S	FSP 40	100060	May 08, 2015	May 07, 2016

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. Tested date : Mar. 14, 2016

4.2.4 Test Procedures

- 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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d. Set the VBW $\geq 3 \times \text{RBW}$.
- 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.

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

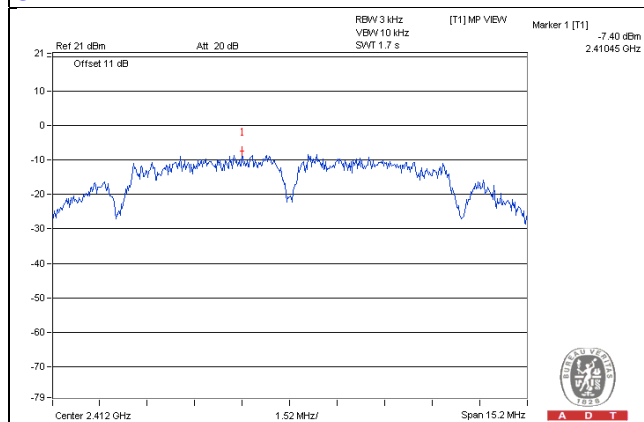
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Results

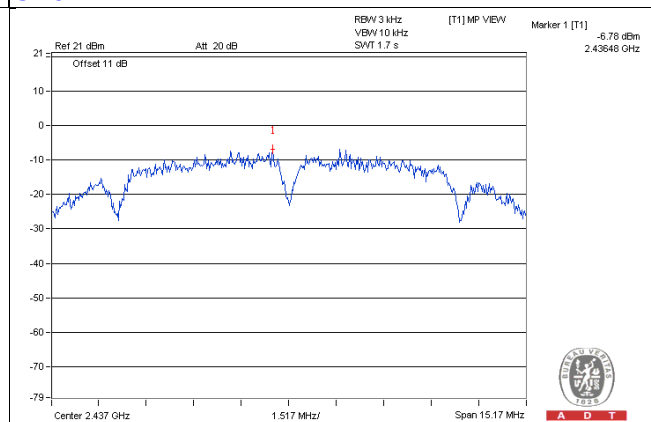
802.11b

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-7.40	8	Pass
6	2437	-6.78	8	Pass
11	2462	-7.51	8	Pass
12	2467	-9.96	8	Pass
13	2472	-11.59	8	Pass

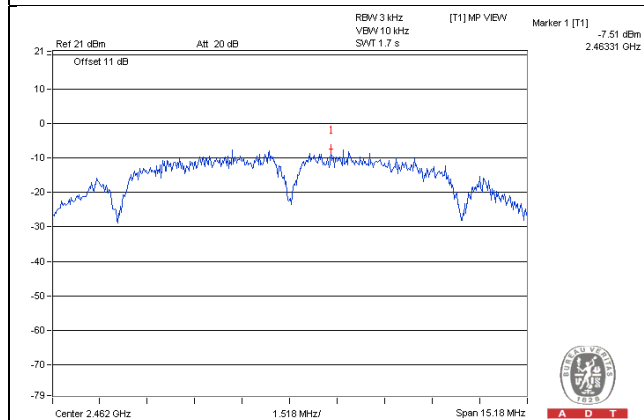
CH1



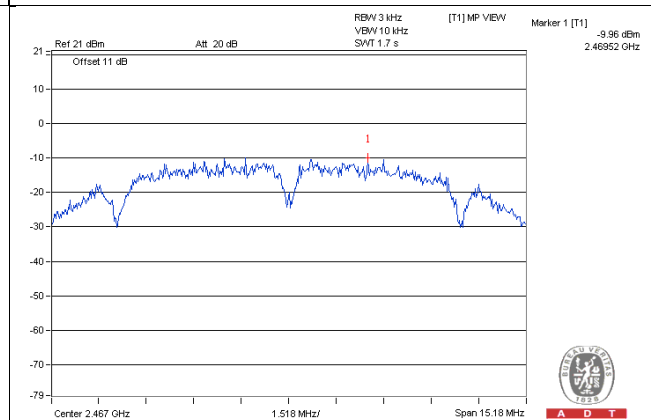
CH6



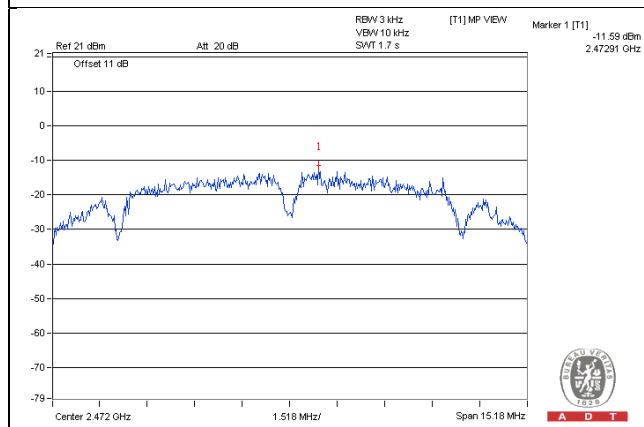
CH11



CH12



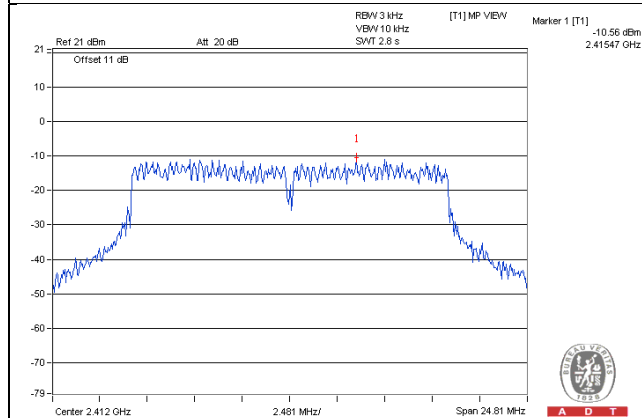
CH13



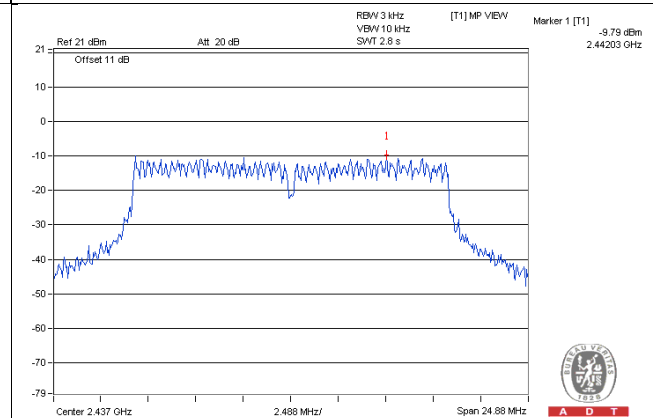
802.11g

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-10.56	8	Pass
6	2437	-9.79	8	Pass
11	2462	-11.89	8	Pass
12	2467	-13.83	8	Pass
13	2472	-21.91	8	Pass

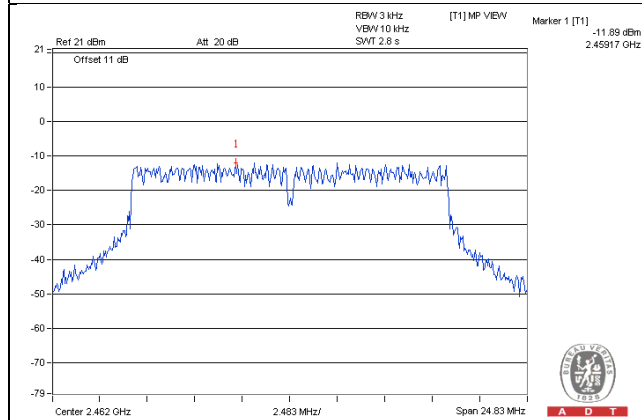
CH1



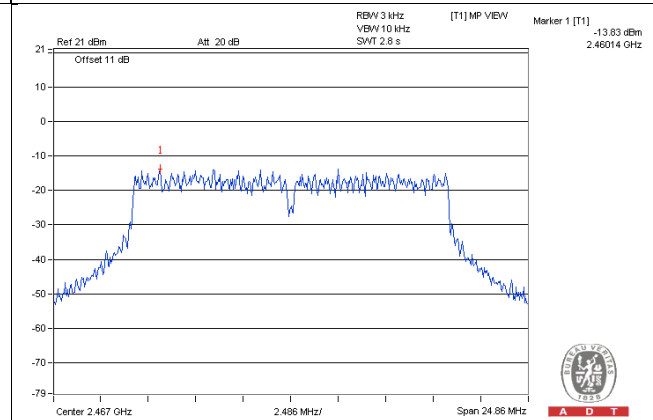
CH6



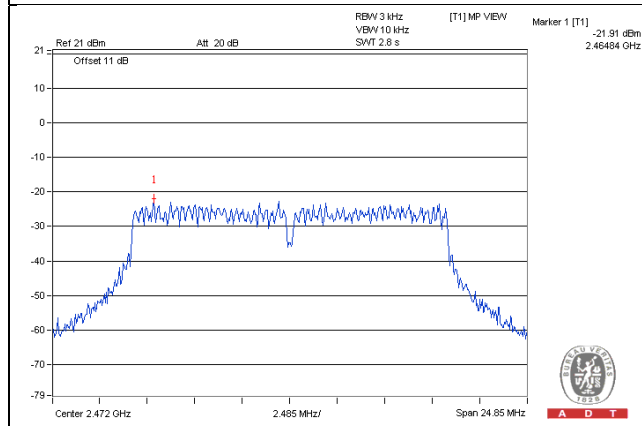
CH11



CH12



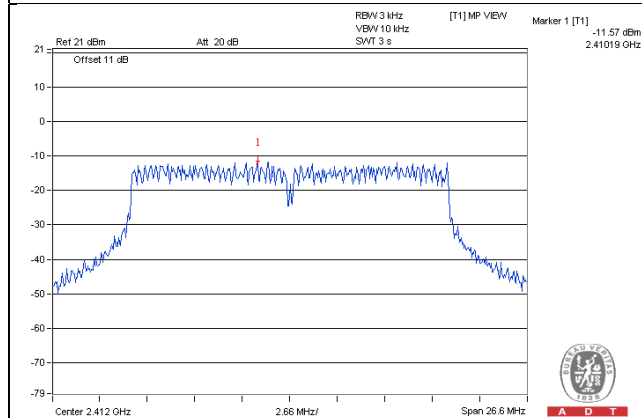
CH13



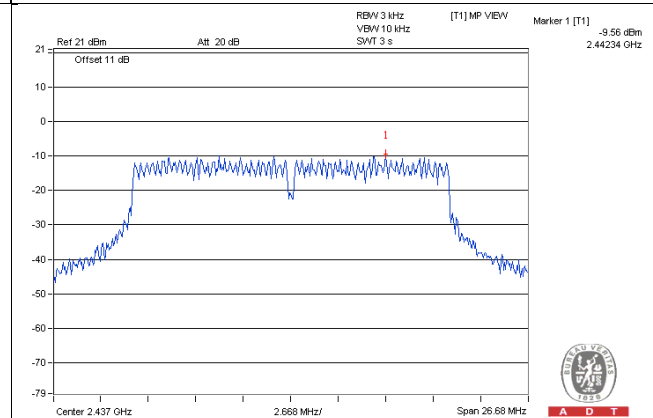
802.11n (HT20)

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-11.57	8	Pass
6	2437	-9.56	8	Pass
11	2462	-11.90	8	Pass
12	2467	-13.55	8	Pass
13	2472	-24.63	8	Pass

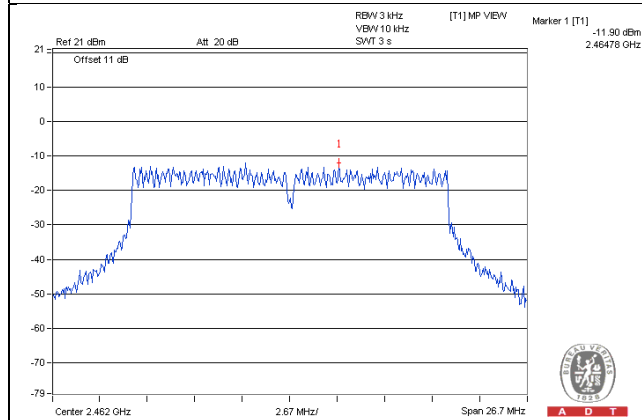
CH1



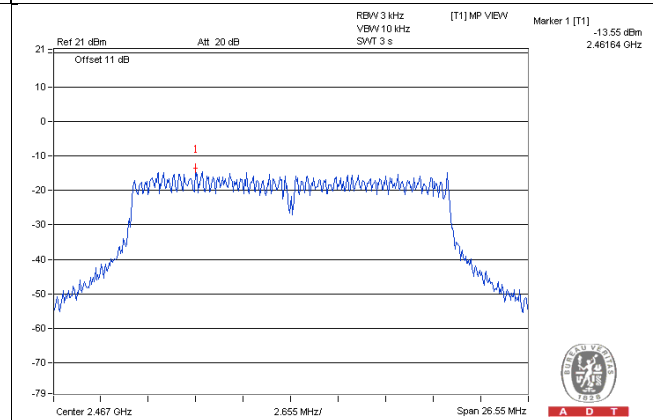
CH6



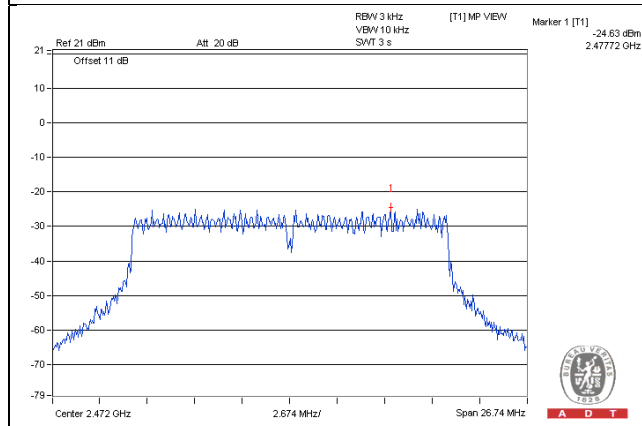
CH11



CH12



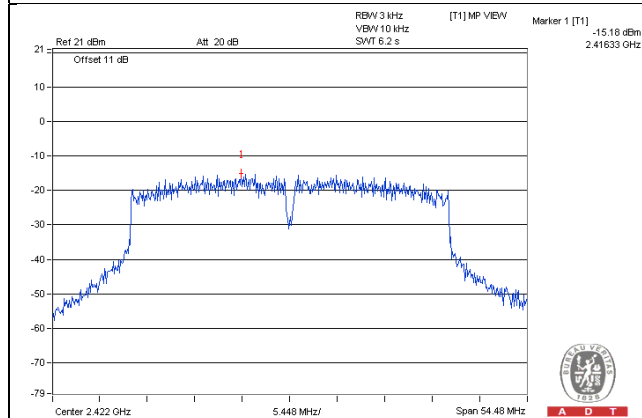
CH13



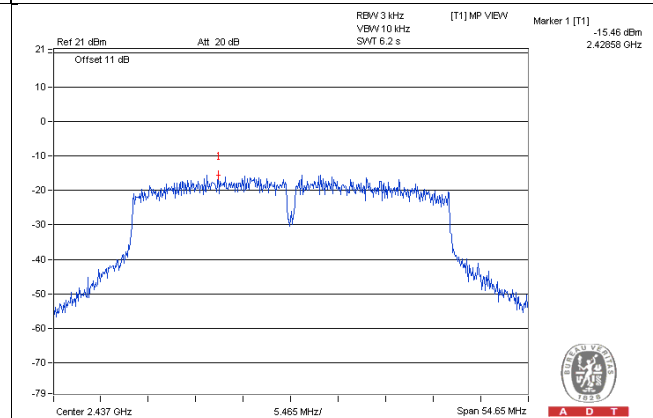
802.11n (HT40)

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-15.18	8	Pass
6	2437	-15.46	8	Pass
9	2452	-16.05	8	Pass
10	2457	-18.75	8	Pass
11	2462	-28.00	8	Pass

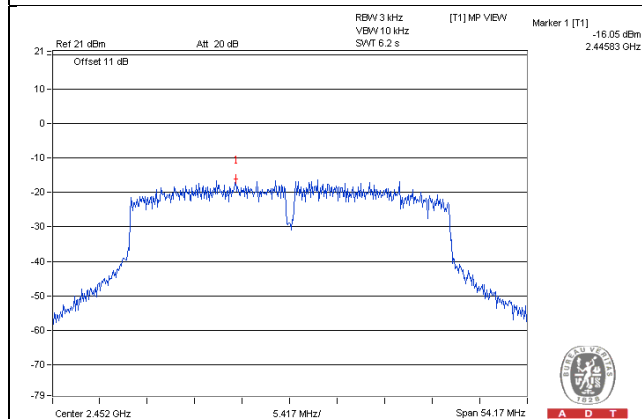
CH3



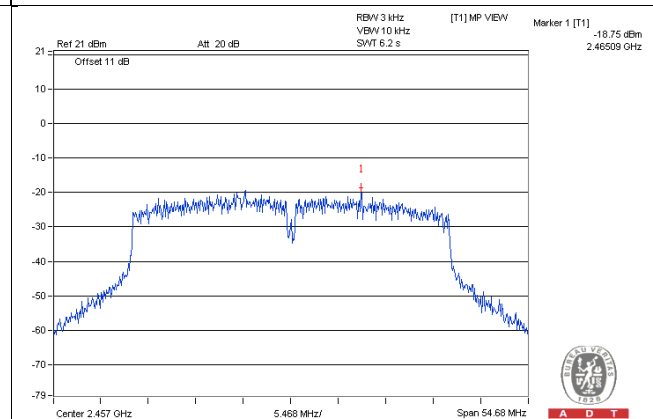
CH6



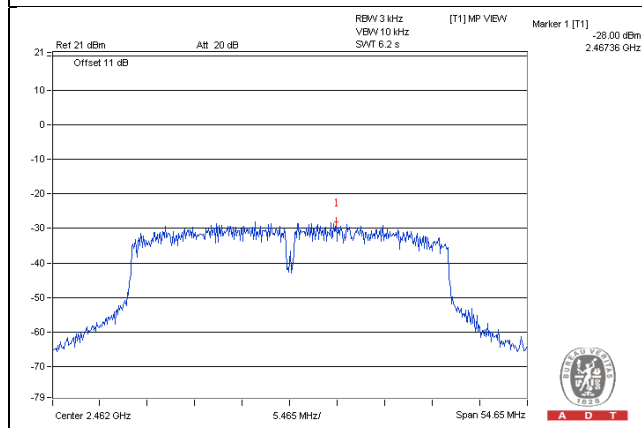
CH9



CH10



CH11

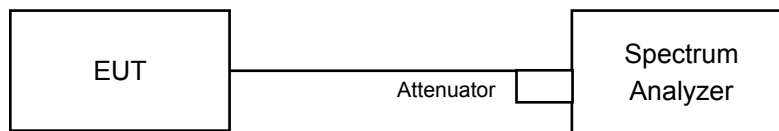


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum analyzer R&S	FSP 40	100060	May 08, 2015	May 07, 2016

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. Tested date : Mar. 14, 2016

4.3.4 Test Procedures

- a. Set resolution bandwidth (RBW) = 100kHz
- b. Set the video bandwidth (VBW) $\geq 3 \times$ 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

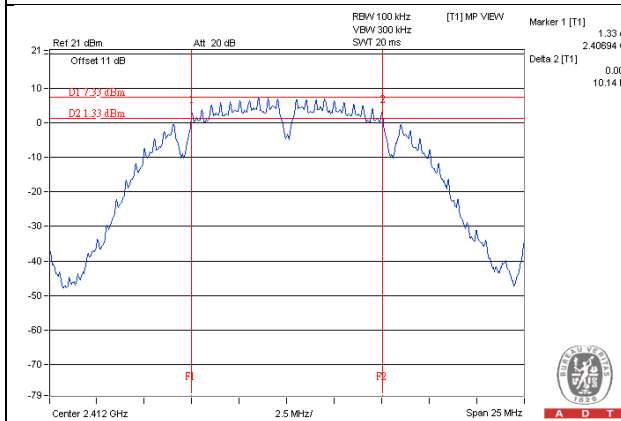
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

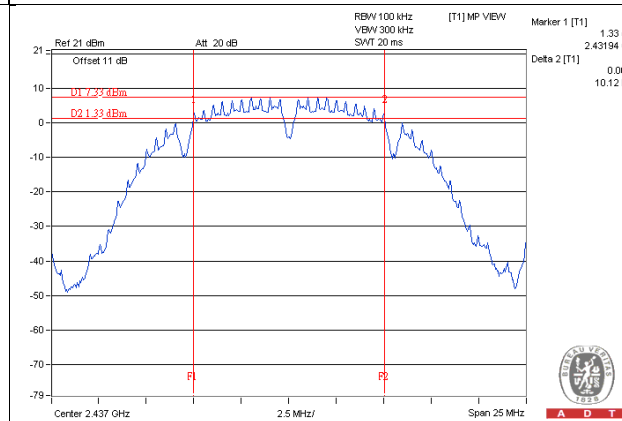
802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	10.14	0.5	Pass
6	2437	10.12	0.5	Pass
11	2462	10.12	0.5	Pass
12	2467	10.13	0.5	Pass
13	2472	10.12	0.5	Pass

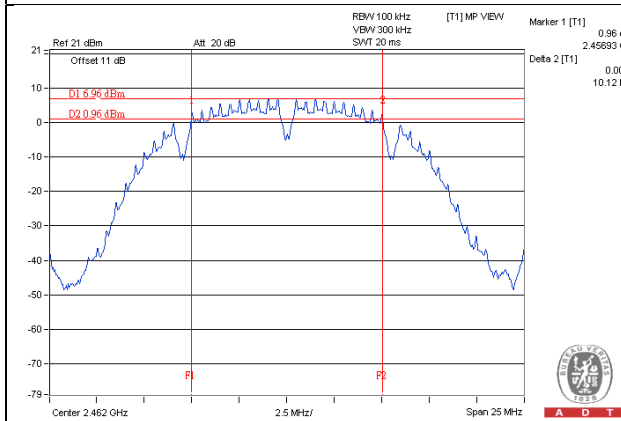
CH1



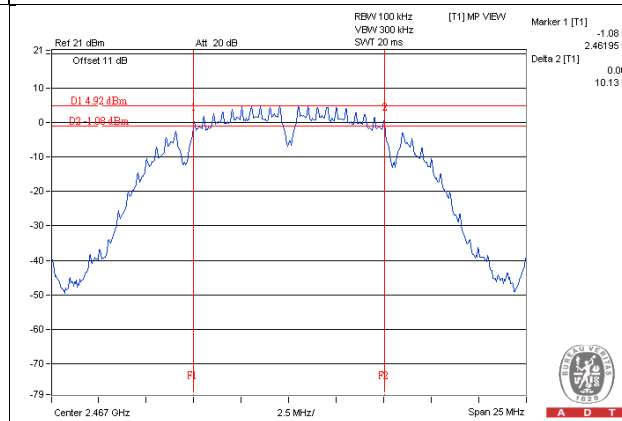
CH6



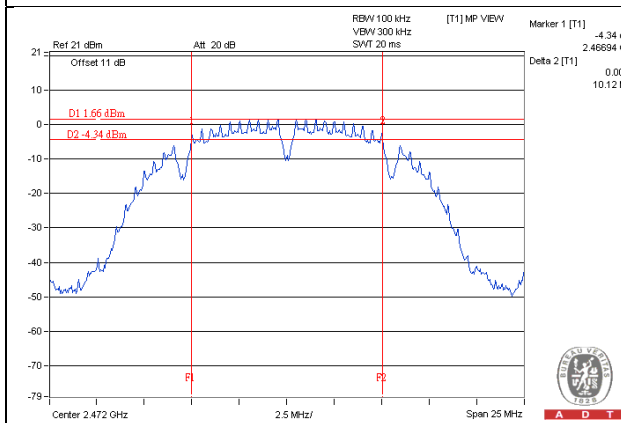
CH11



CH12



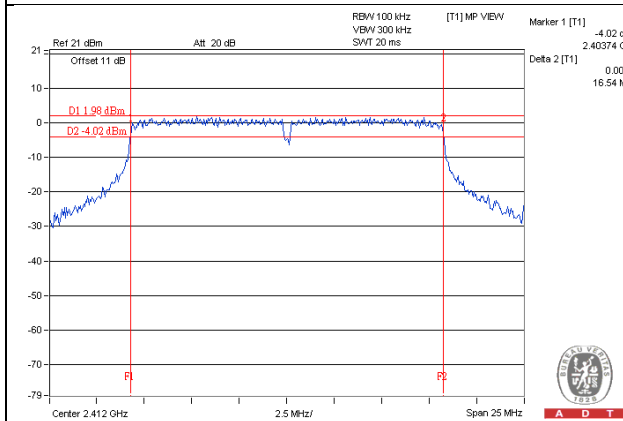
CH13



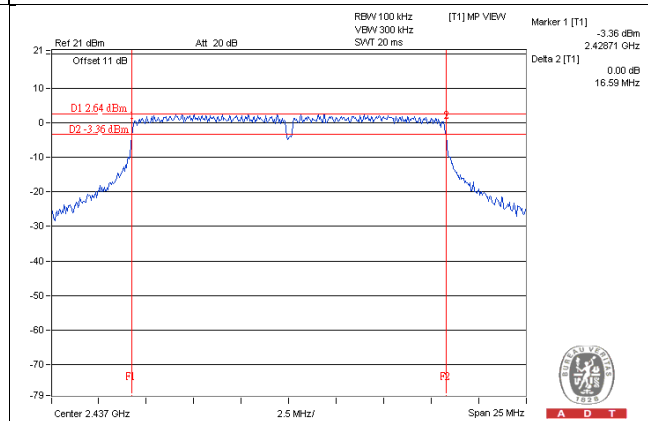
802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	16.54	0.5	Pass
6	2437	16.59	0.5	Pass
11	2462	16.55	0.5	Pass
12	2467	16.58	0.5	Pass
13	2472	16.57	0.5	Pass

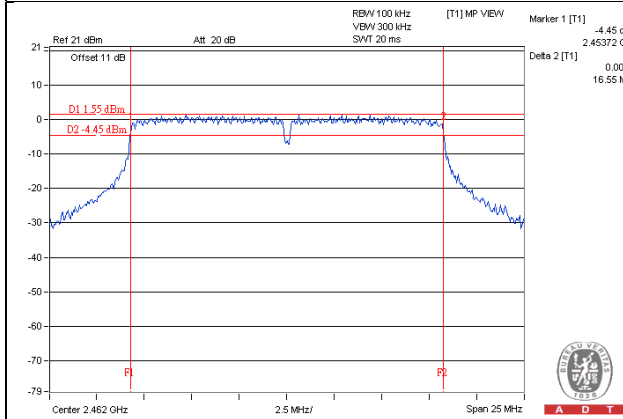
CH1



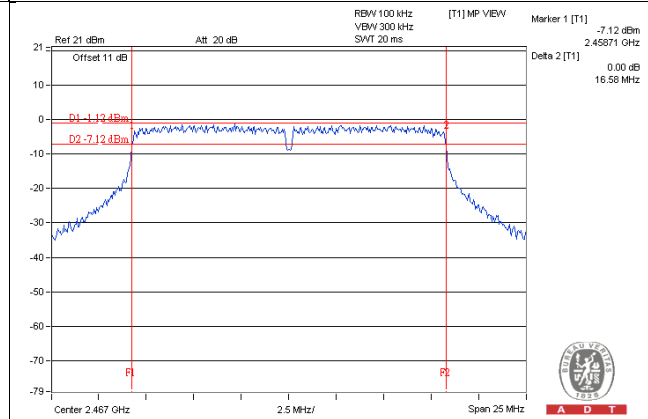
CH6



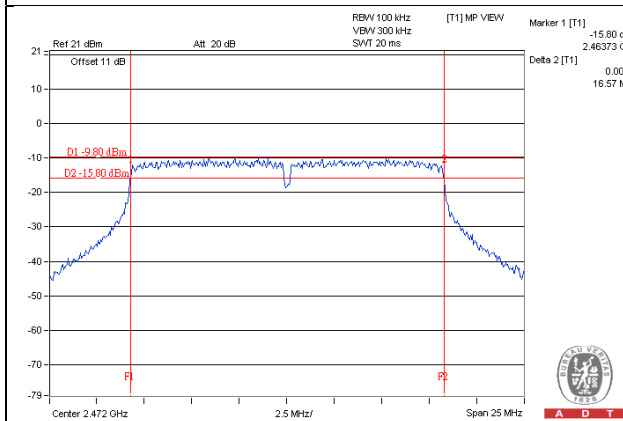
CH11



CH12



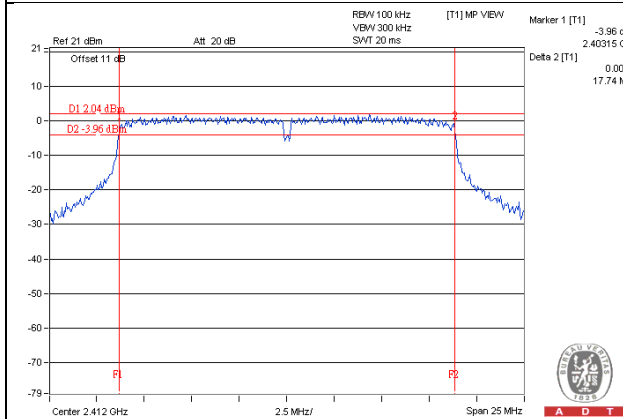
CH13



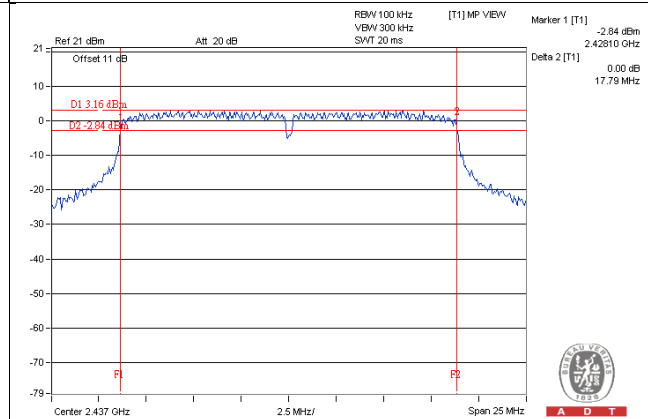
802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	17.74	0.5	Pass
6	2437	17.79	0.5	Pass
11	2462	17.81	0.5	Pass
12	2467	17.71	0.5	Pass
13	2472	17.83	0.5	Pass

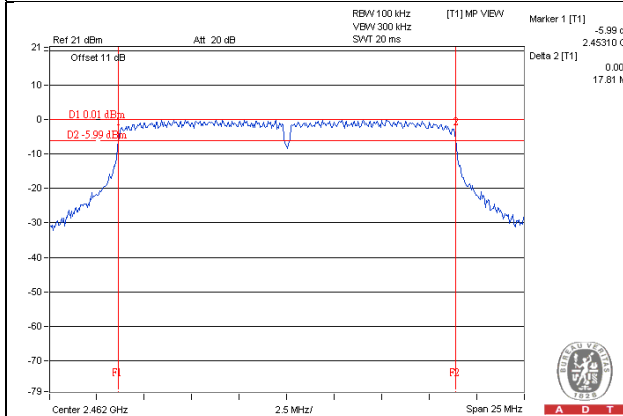
CH1



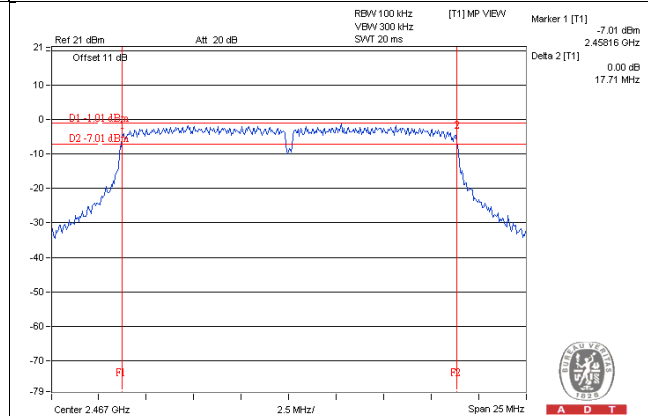
CH6



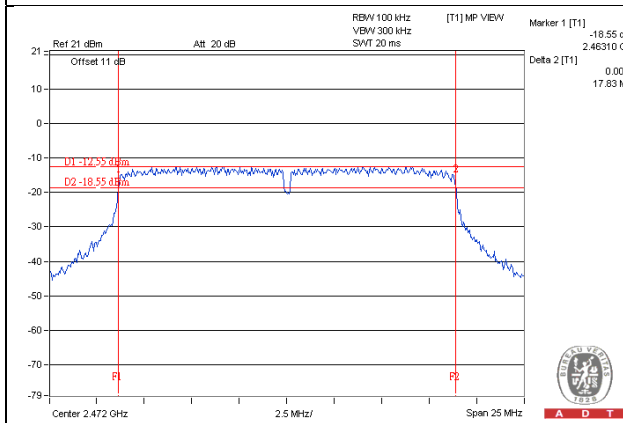
CH11



CH12



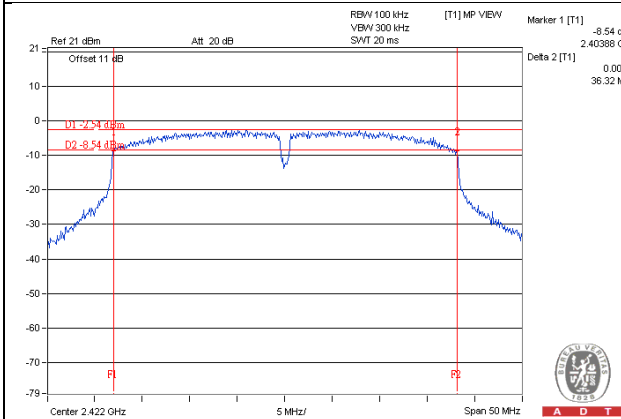
CH13



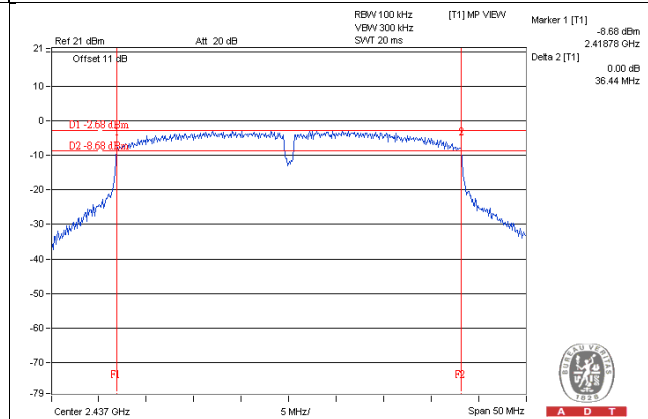
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	36.32	0.5	Pass
6	2437	36.44	0.5	Pass
9	2452	36.11	0.5	Pass
10	2457	36.46	0.5	Pass
11	2462	36.44	0.5	Pass

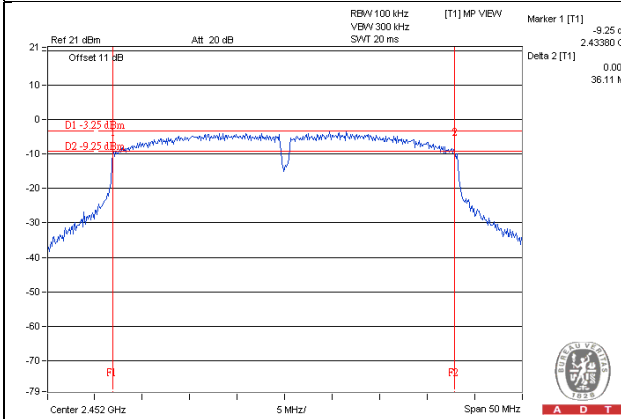
CH3



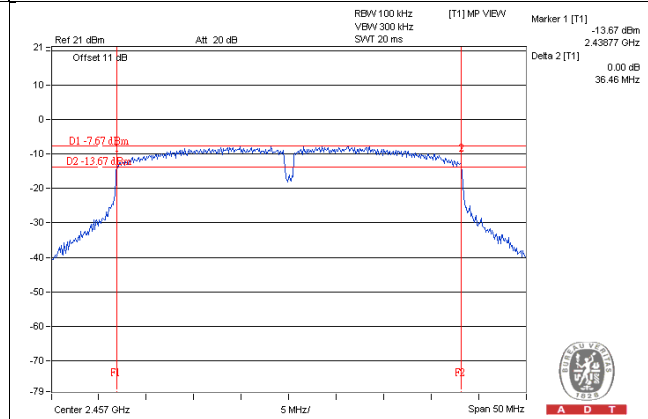
CH6



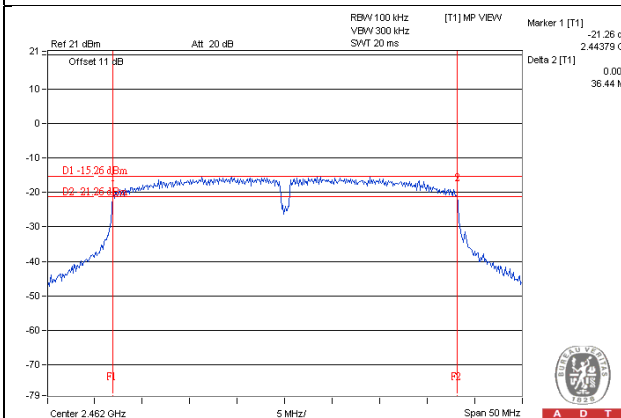
CH9



CH10



CH11

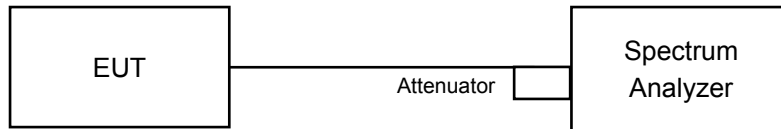


4.4 Conducted Out of Band Emission Measurement

4.4.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.4.2 Test Setup



4.4.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum analyzer R&S	FSP 40	100060	May 08, 2015	May 07, 2016

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. Tested date : Mar. 14, 2016

4.4.4 Test Procedures

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 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 OOB

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 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.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

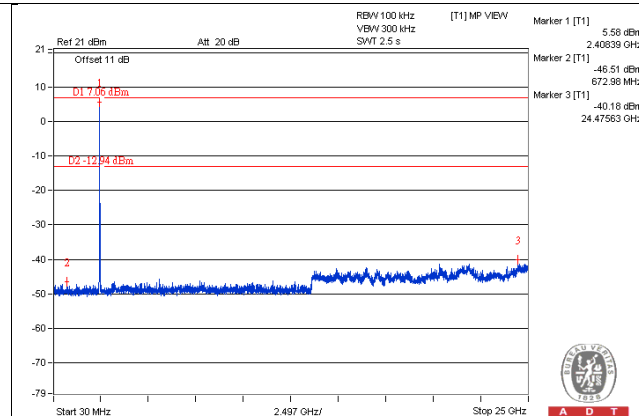
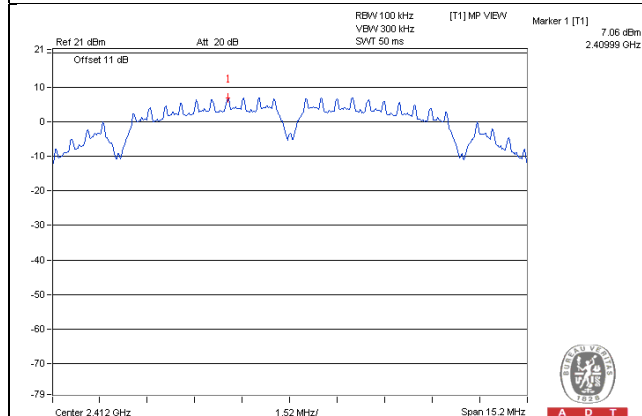
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.4.7 Test Results

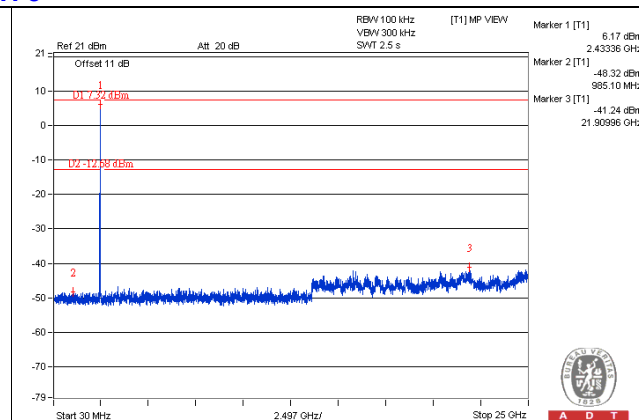
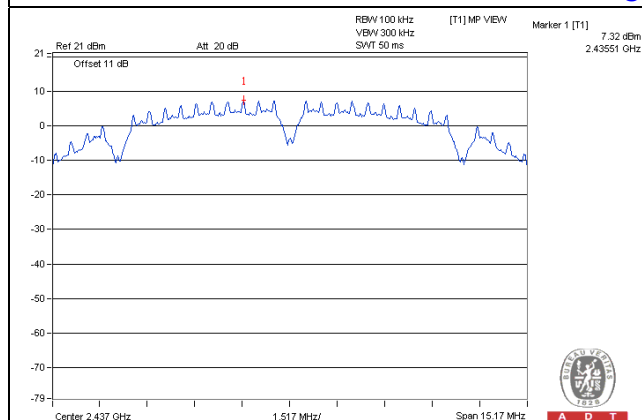
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b

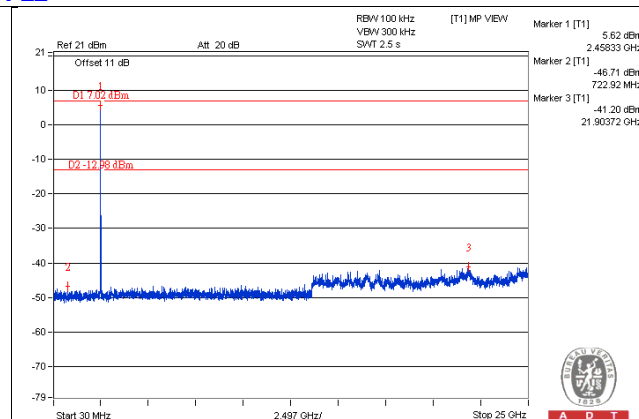
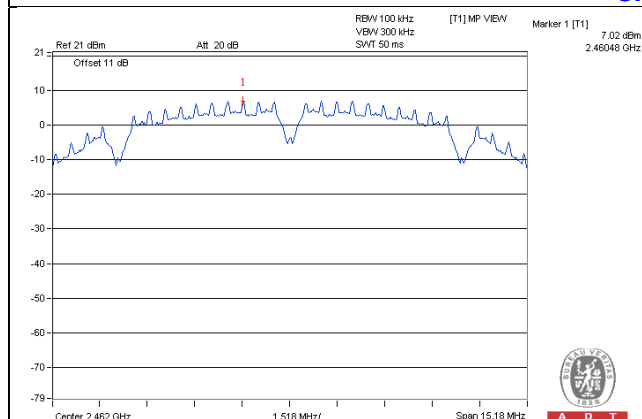
CH 1



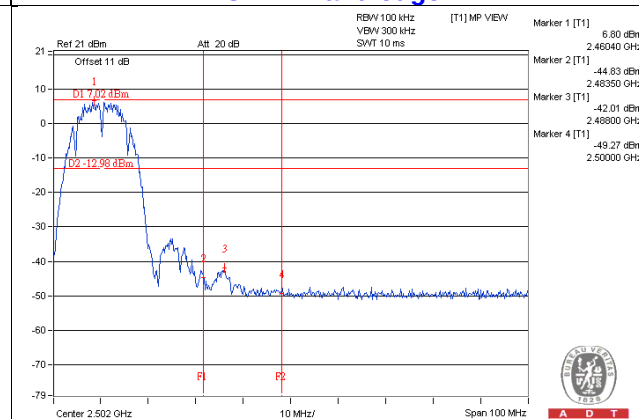
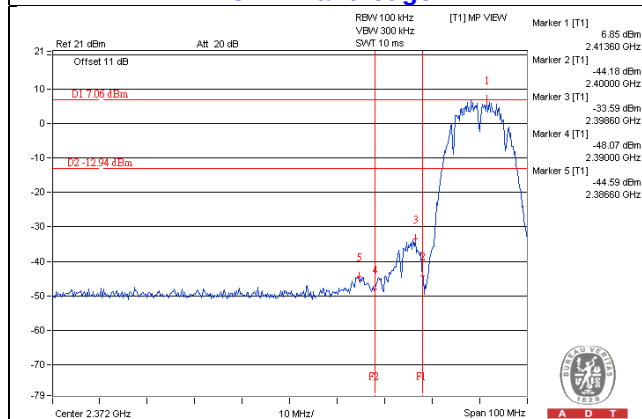
CH 6



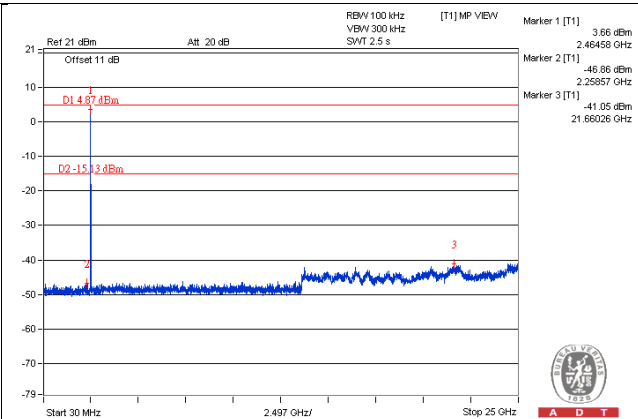
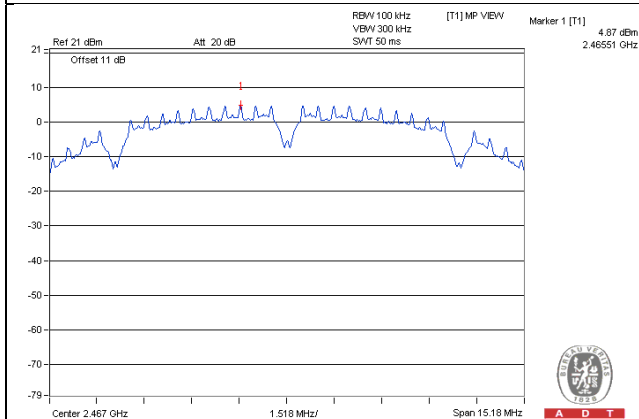
CH 11



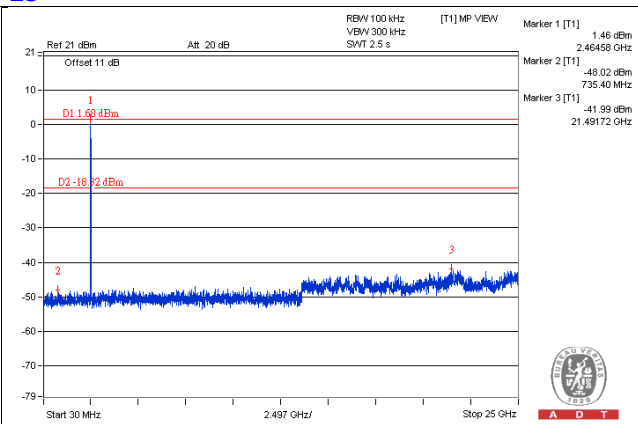
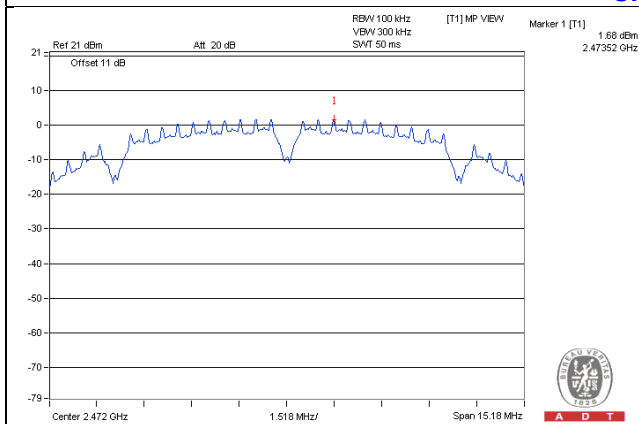
CH 1 Band edge



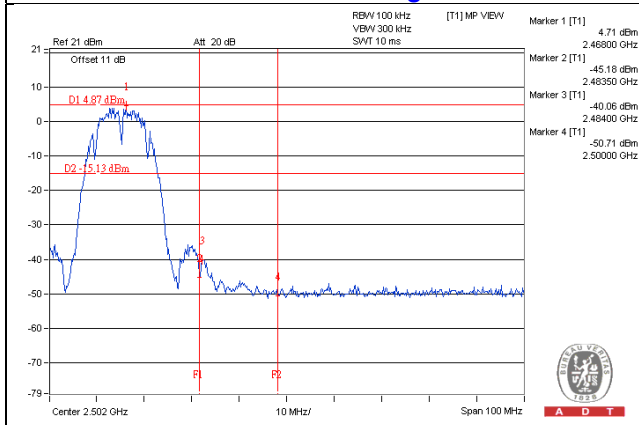
CH 12



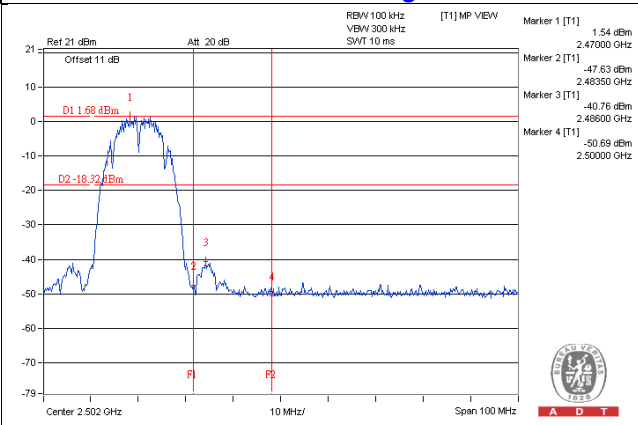
CH 13



CH 12 Band edge

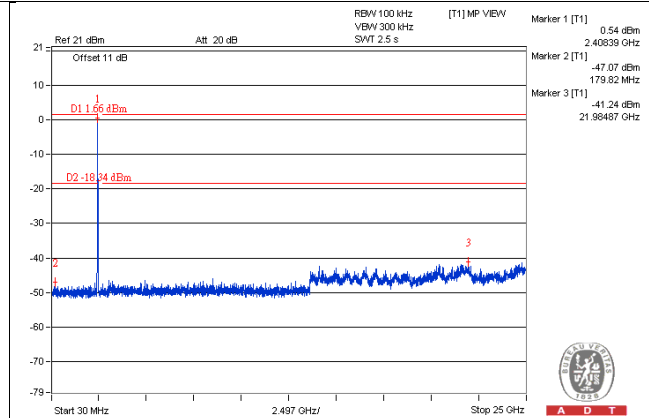
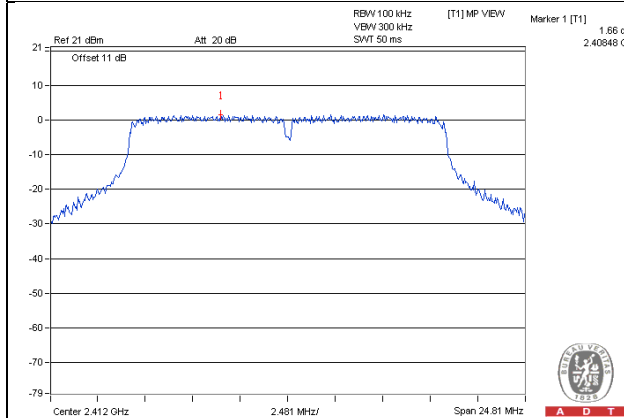


CH 13 Band edge

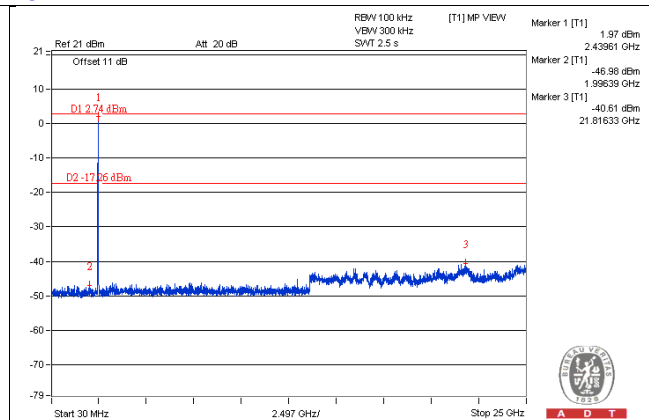
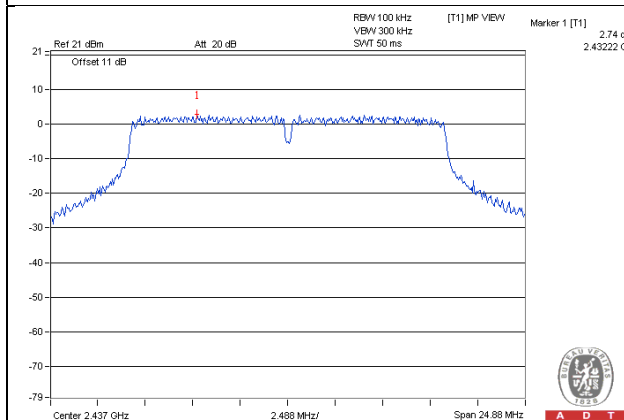


802.11g

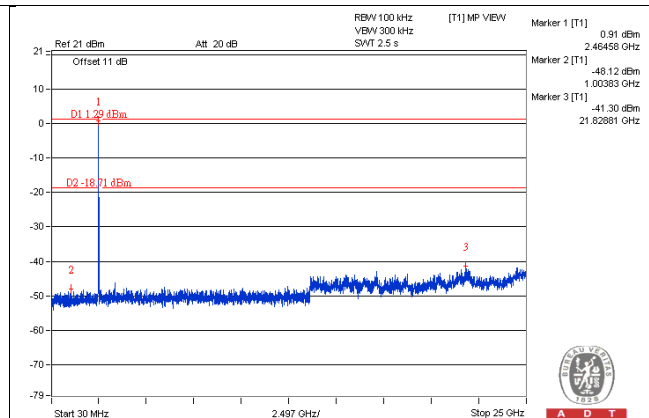
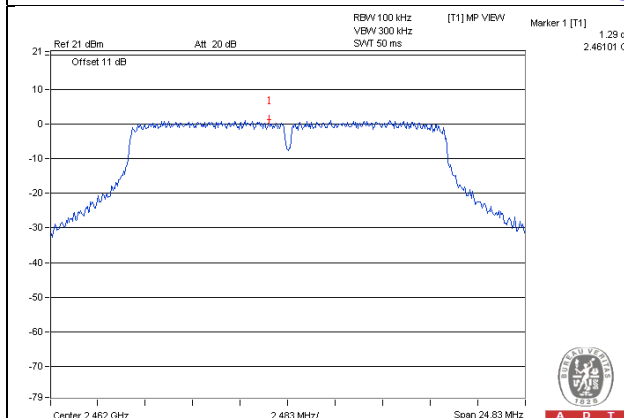
CH 1



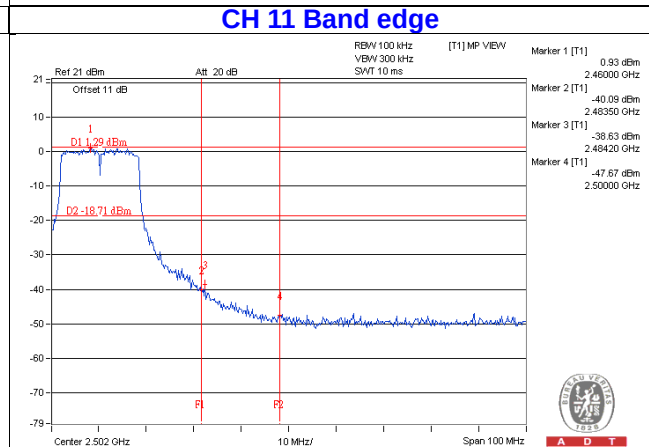
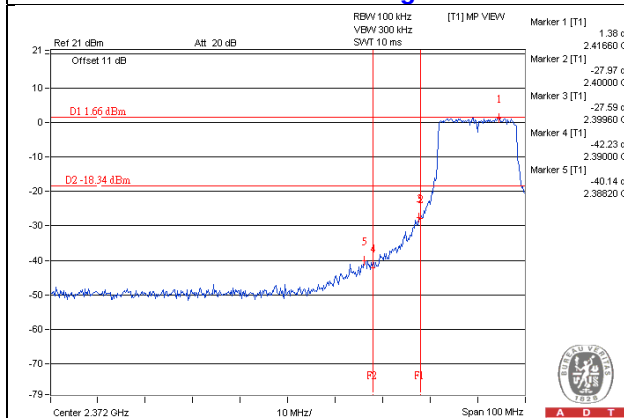
CH 6



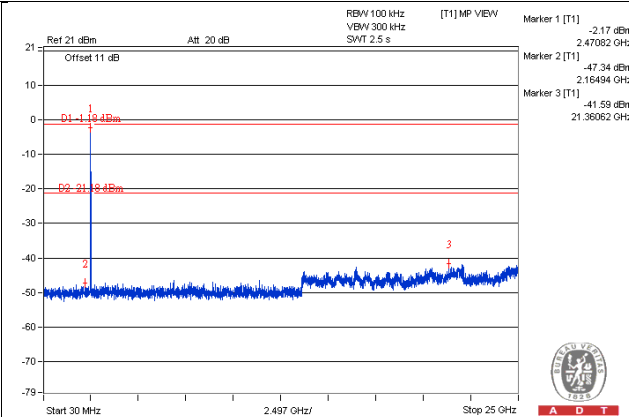
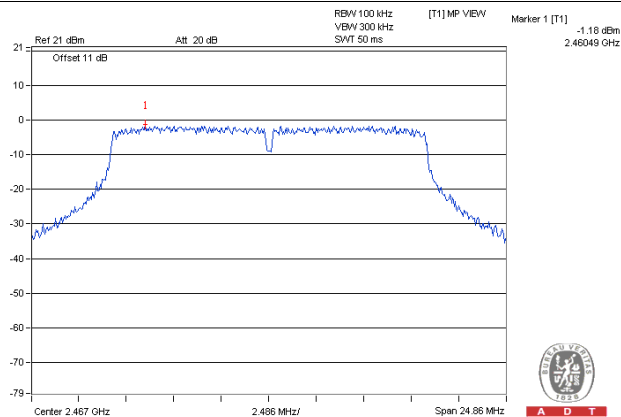
CH 11



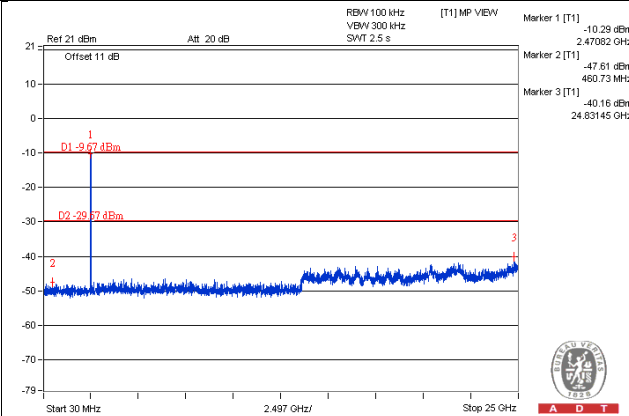
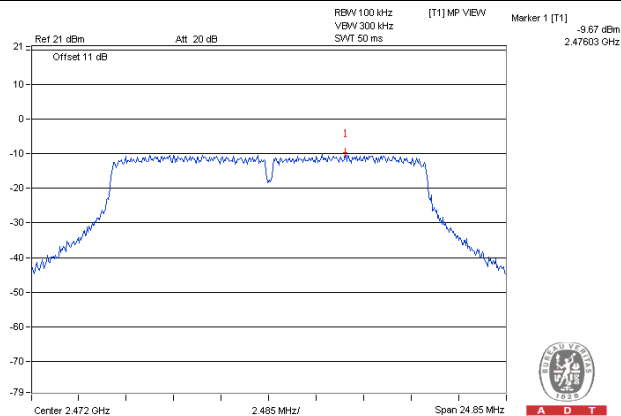
CH 1 Band edge



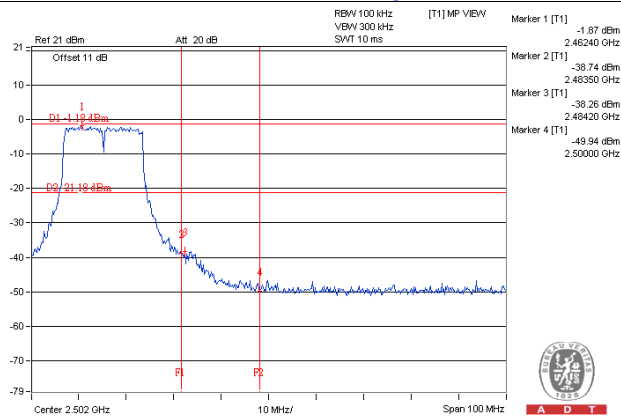
CH 12



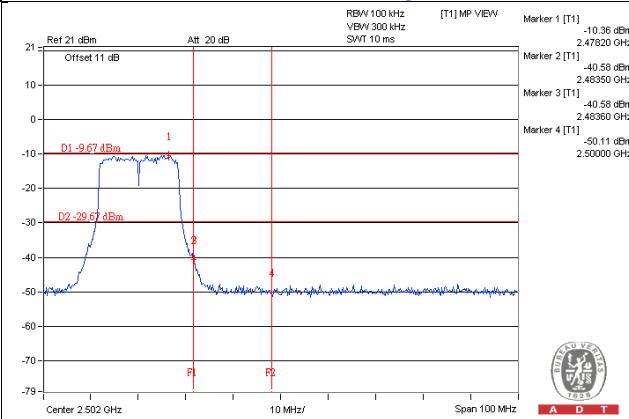
CH 13



CH 12 Band edge

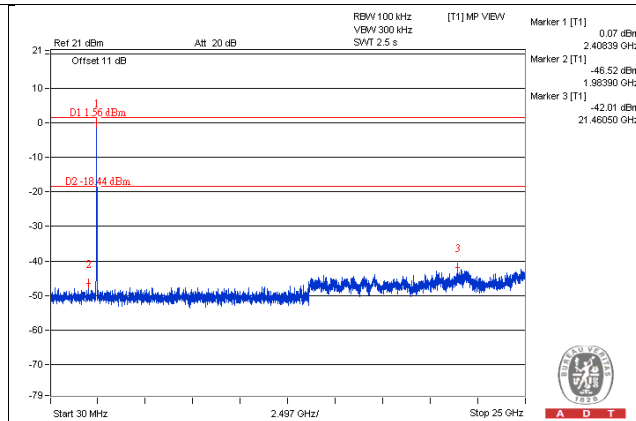
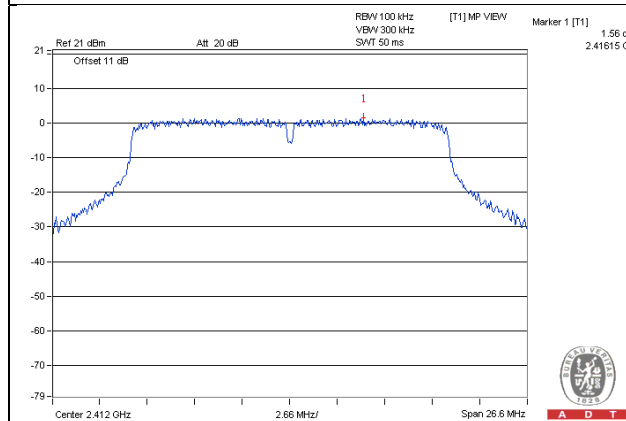


CH 13 Band edge

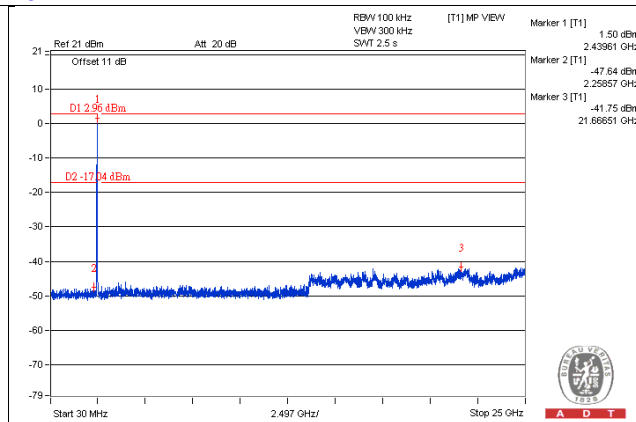
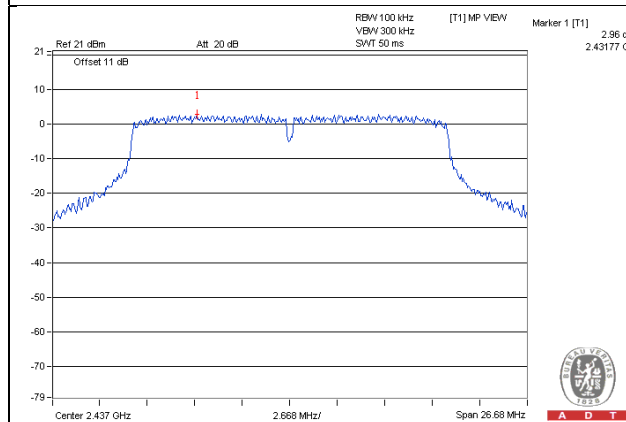


802.11n (HT20)

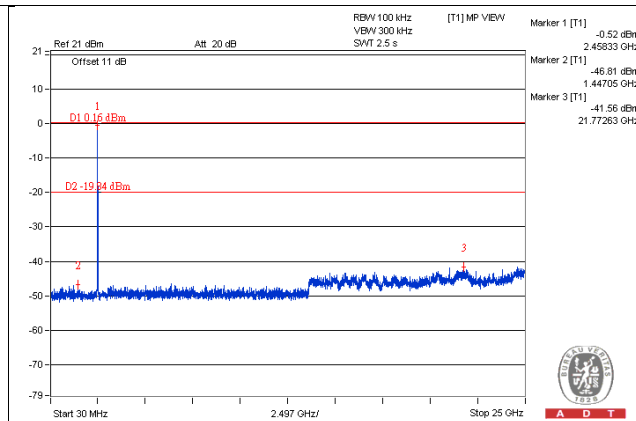
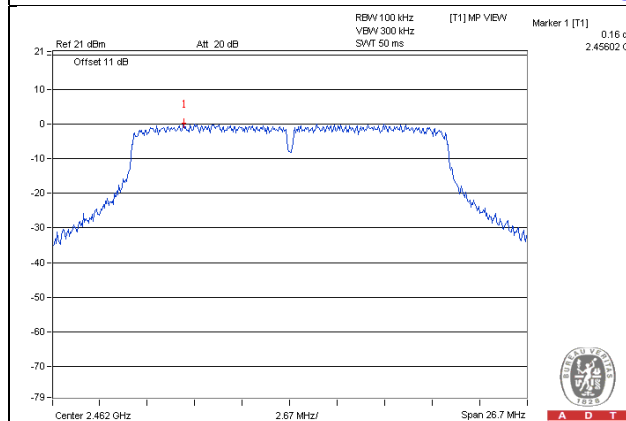
CH 1



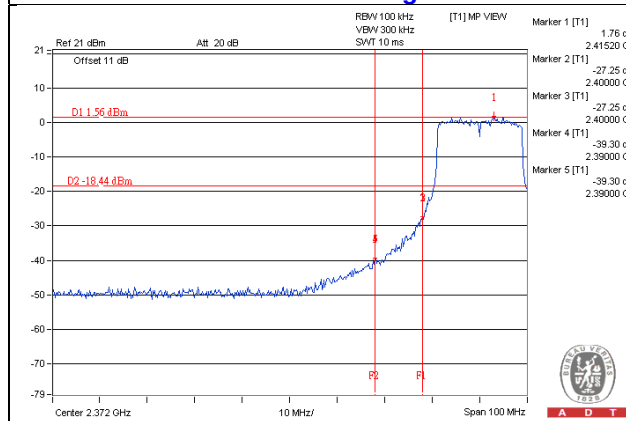
CH 6



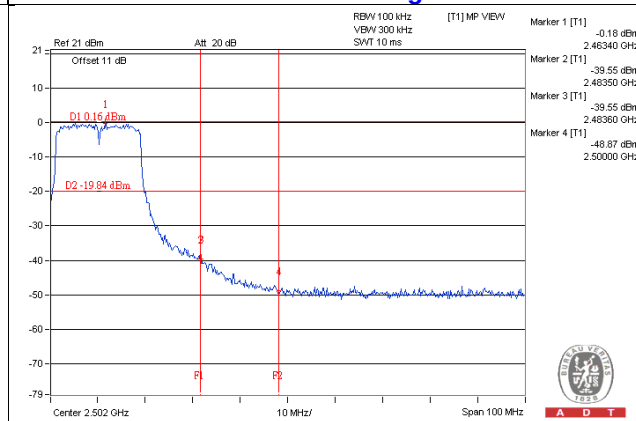
CH 11



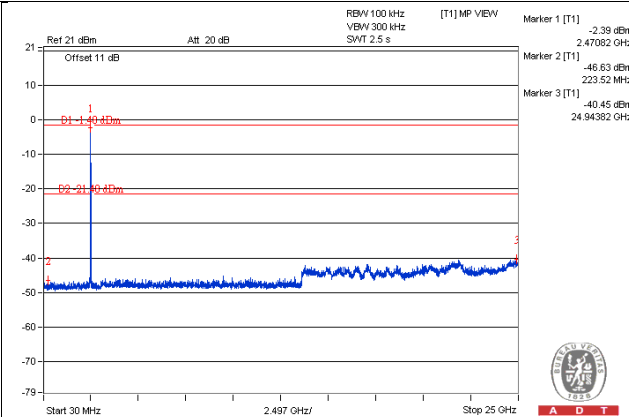
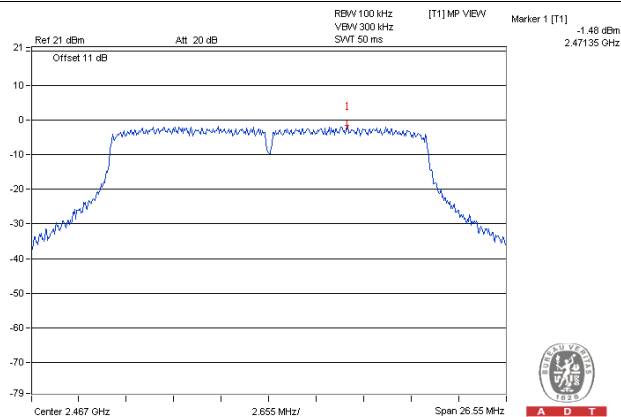
CH 1 Band edge



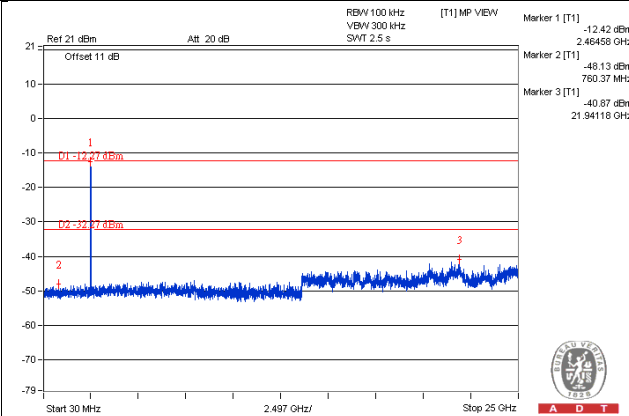
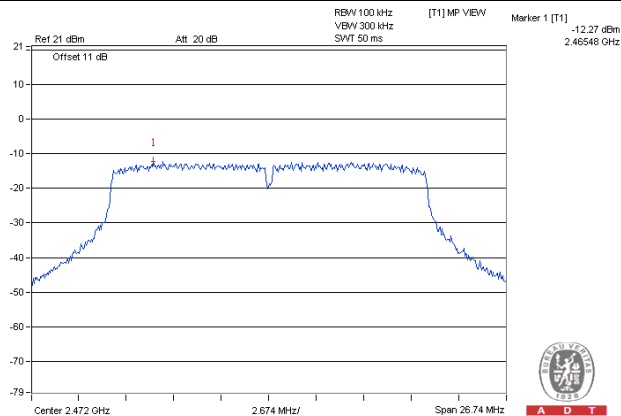
CH 11 Band edge



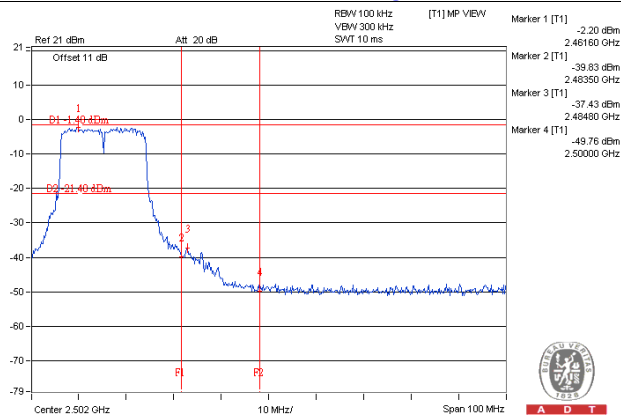
CH 12



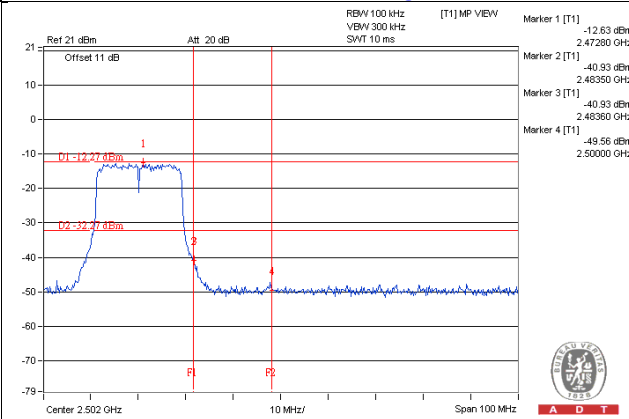
CH 13



CH 12 Band edge

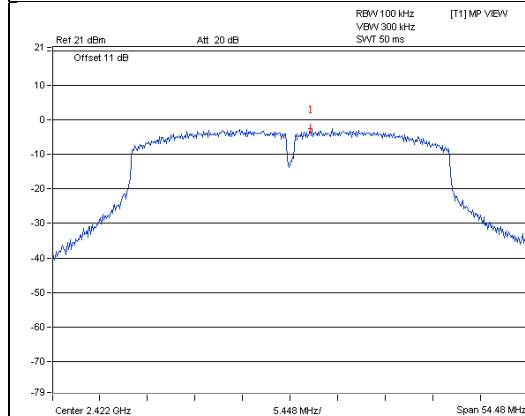


CH 13 Band edge

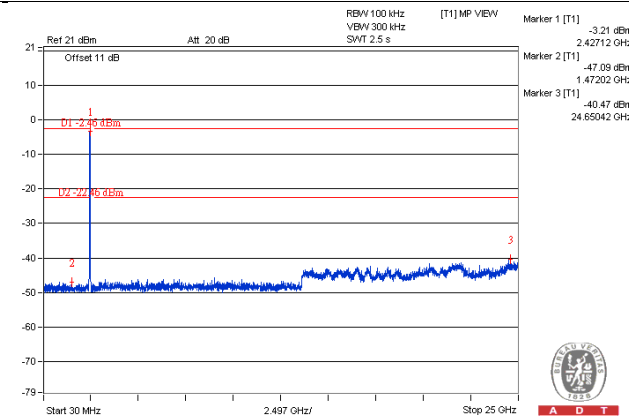


802.11n (HT40)

CH 3

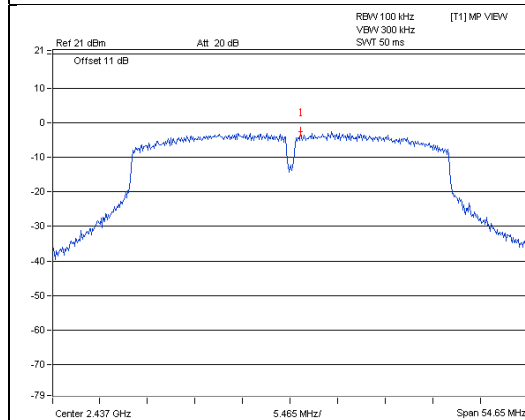


A D T

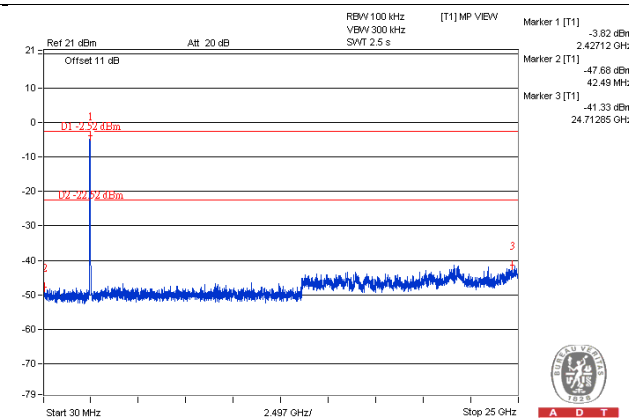


A D T

CH 6

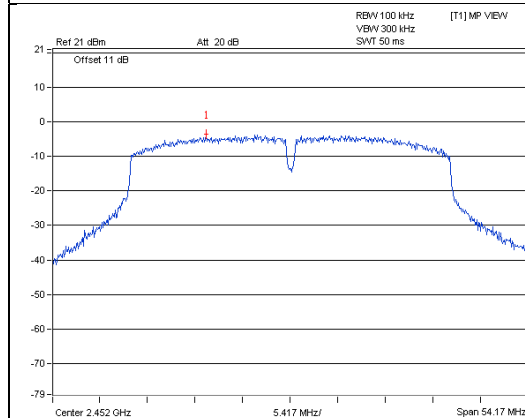


A D T

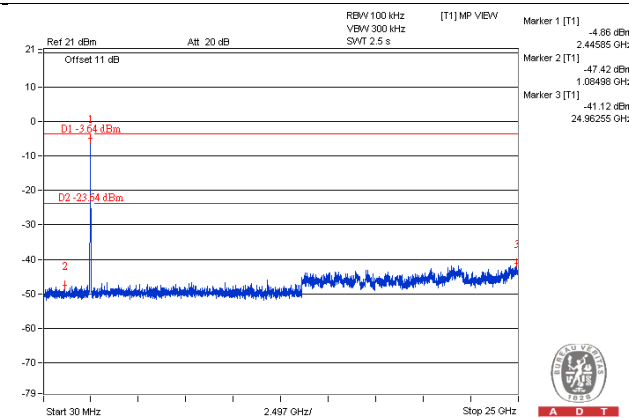


A D T

CH 9

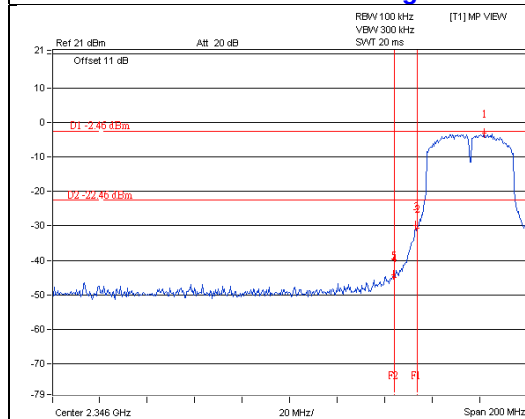


A D T



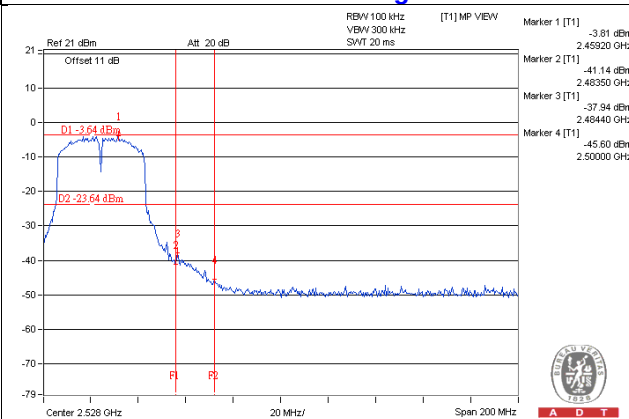
A D T

CH 3 Band edge



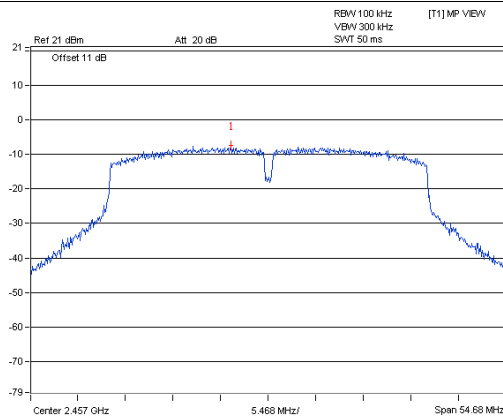
A D T

CH 9 Band edge

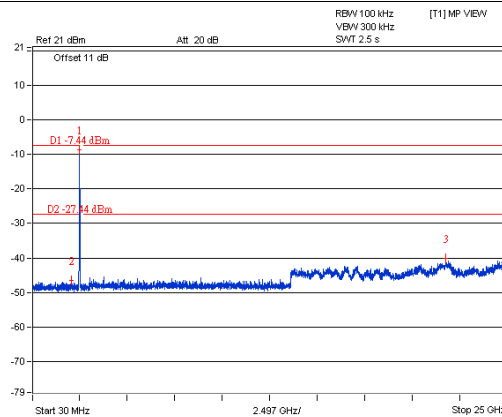


A D T

CH 10

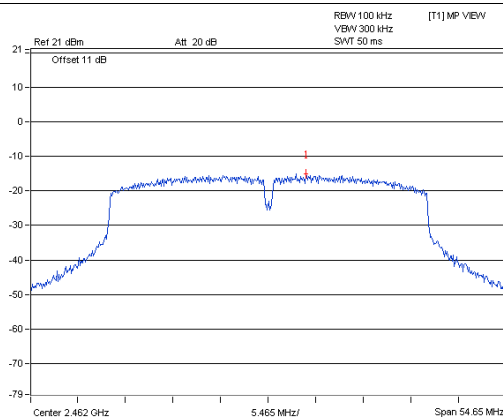


A D T

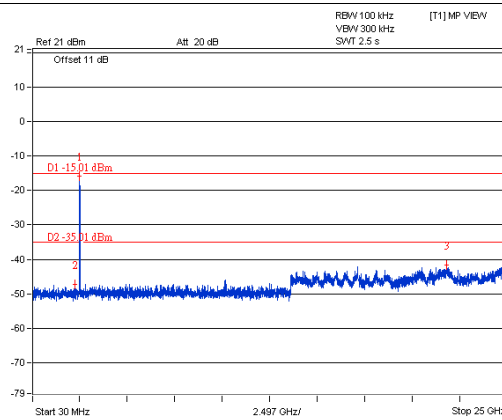


A D T

CH 11

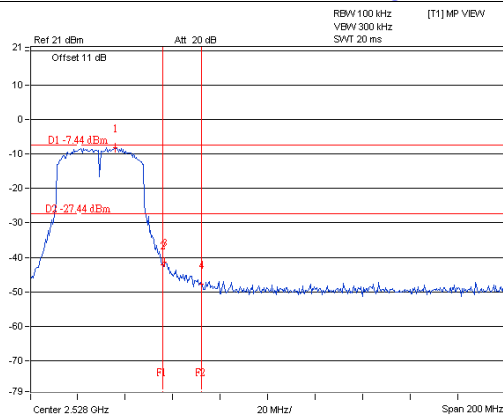


A D T



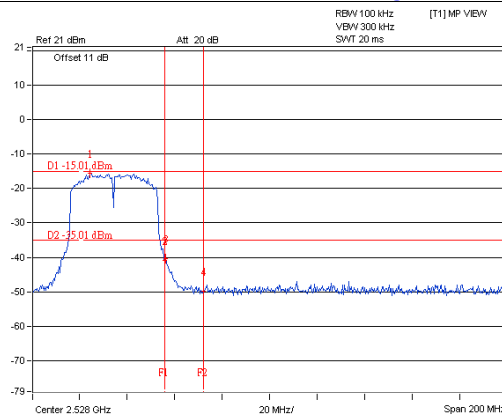
A D T

CH 10 Band edge



A D T

CH 11 Band edge



A D T

4.5 Unwanted Emission Measurement (Radiated Versus Conducted)

4.5.1 Limits of Unwanted Emission 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 20dB below the highest level of the desired power:

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

NOTE:

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

4.5.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	Aug. 12, 2015	Aug. 11, 2016
Pre-Amplifier ^(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna ^(*) Electro-Metrics	EM-6879	264	Dec. 16, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2016	Jan. 17, 2017
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-07	May 08, 2015	May 07, 2016
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	138	Jan. 18, 2016	Jan. 17, 2017
RF Cable	8D	966-3-1 966-3-2 966-3-3	Apr. 03, 2015	Apr. 02, 2016
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Jan. 20, 2016	Jan. 19, 2017
Pre-Amplifier Agilent	8449B	3008A02465	Apr. 06, 2015	Apr. 05, 2016
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150317 150321 150322	Mar. 31, 2015	Mar. 30, 2016
Spectrum Analyzer Keysight	N9030A	MY54490520	July 26, 2015	July 25, 2016
Pre-Amplifier EMCI	EMC184045	980143	Jan. 15, 2016	Jan. 14, 2017
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Jan. 08, 2016	Jan. 07, 2017
RF Cable	SUCOFLEX 102	36432/2 36441/2	Jan. 16, 2016	Jan. 15, 2017
Software	ADT_Radiated_V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA
Boresight Antenna Fixture	NA	NA	NA	NA
Spectrum Analyzer R&S	FSP 40	100060	May 08, 2015	May 07, 2016

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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Loop antenna was used for all emissions below 30 MHz.
4. The test was performed in 966 Chamber No. 3.
5. The FCC Site Registration No. is 147459
6. The CANADA Site Registration No. is 20331-1
7. Tested Date: Feb. 24, 2016

4.5.3 Test Procedures

Following FCC KDB 558074 D01 DTS Meas. Guidance :

Radiated versus Conducted Measurements.

The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.

The following steps was performed:

- a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
- b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT
- c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater
- d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
- e. For all of Radiation emission test
 - e-1. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at a 3 meters chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
 - e-2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
 - e-3. 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.
 - e-4. 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-5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
 - e-6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

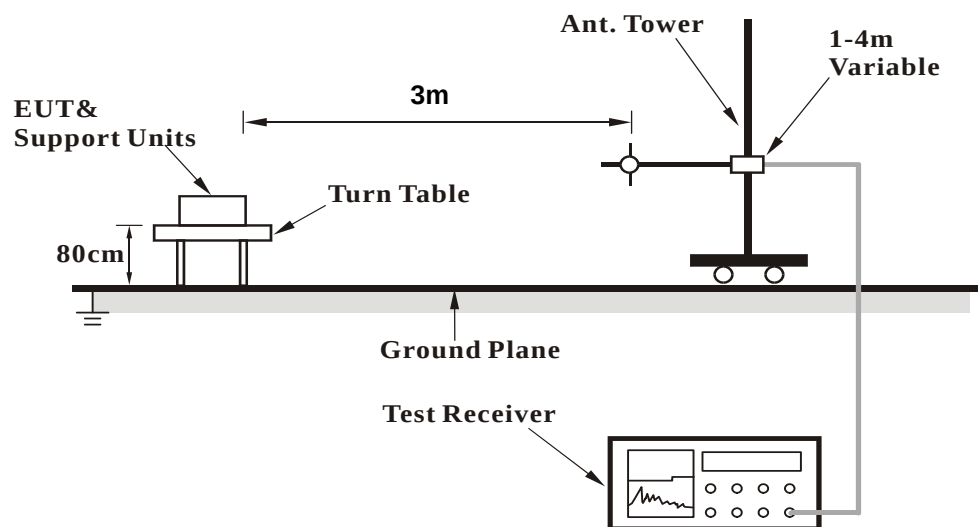
4.5.4 Deviation from Test Standard

No deviation.

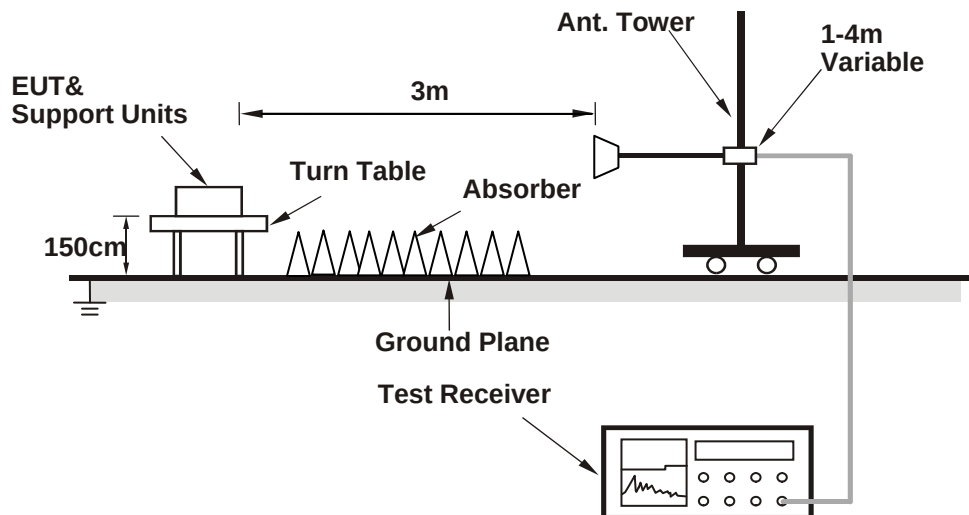
4.5.5 Test Setup

For radiated configuration:

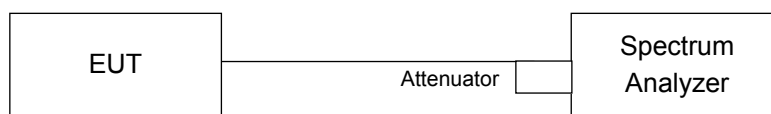
<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For conducted configuration:



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

4.5.6 EUT Operating Conditions

1. Connect the EUT with the support unit A (Notebook Computer) which is placed on a testing table.
2. The communication partner run test program “Qualcomm Atheros Radio Tool V2.3” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.5.7 Test Results (Radiated Measurement)

Radiated versus Conducted Measurement	
☐ Conducted measurement	☒ Radiated measurement
<u>For Radiated measurement:</u> The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation)	
<u>For Conducted measurement:</u> The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).	

Radiated test was done with 50ohm terminator on antenna port

Above 1GHz Data

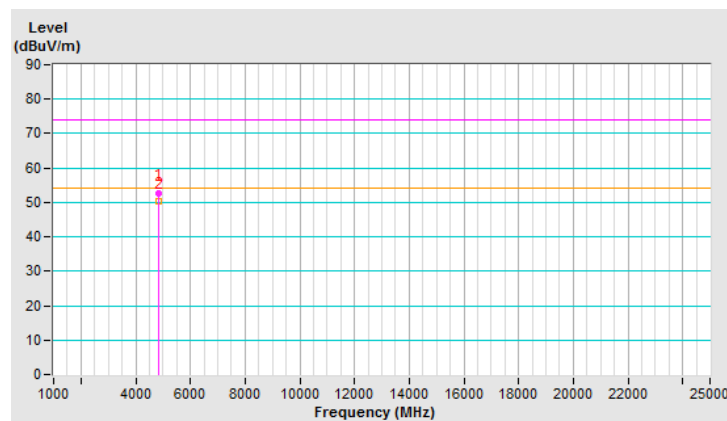
802.11b

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

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	4824.00	52.7 PK	74.0	-21.3	1.00 H	324	51.37	1.33
2	4824.00	50.4 AV	54.0	-3.6	1.00 H	324	49.07	1.33

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

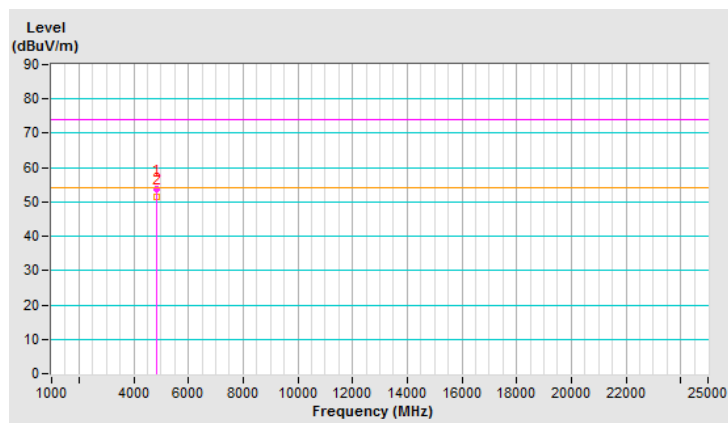


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4824.00	53.7 PK	74.0	-20.3	3.59 V	275	52.37	1.33
2	4824.00	51.3 AV	54.0	-2.7	3.59 V	275	49.97	1.33

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

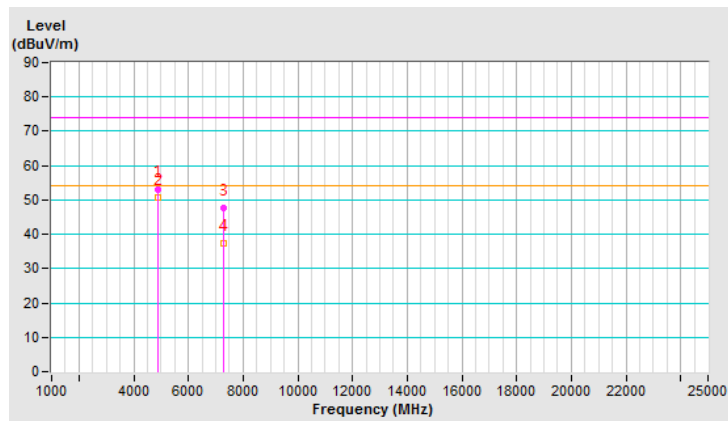


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	53.1 PK	74.0	-20.9	1.05 H	350	51.62	1.48
2	4874.00	50.8 AV	54.0	-3.2	1.05 H	350	49.32	1.48
3	7311.00	47.6 PK	74.0	-26.4	3.52 H	306	39.52	8.08
4	7311.00	37.3 AV	54.0	-16.7	3.52 H	306	29.22	8.08

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

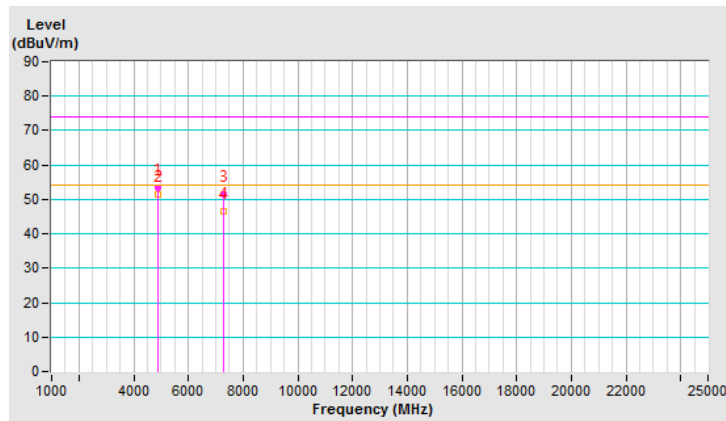


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	53.2 PK	74.0	-20.8	3.43 V	276	51.72	1.48
2	4874.00	51.6 AV	54.0	-2.4	3.43 V	276	50.12	1.48
3	7311.00	51.6 PK	74.0	-22.4	3.43 V	321	43.52	8.08
4	7311.00	46.5 AV	54.0	-7.5	3.43 V	321	38.42	8.08

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

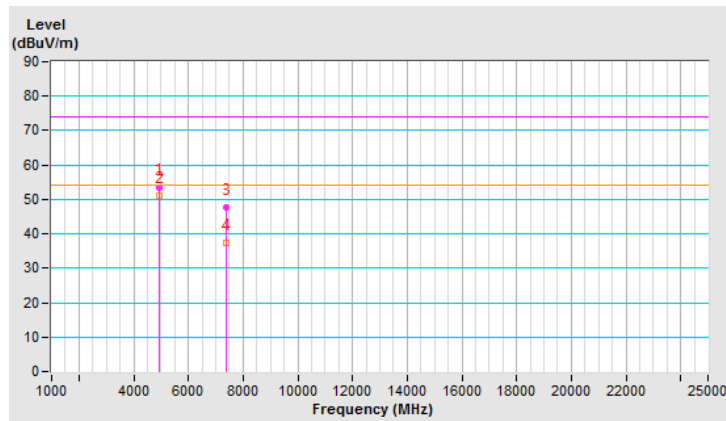


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	53.5 PK	74.0	-20.5	1.05 H	358	51.92	1.58
2	4924.00	51.0 AV	54.0	-3.0	1.05 H	358	49.42	1.58
3	7386.00	47.7 PK	74.0	-26.3	3.55 H	312	39.42	8.28
4	7386.00	37.2 AV	54.0	-16.8	3.55 H	312	28.92	8.28

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

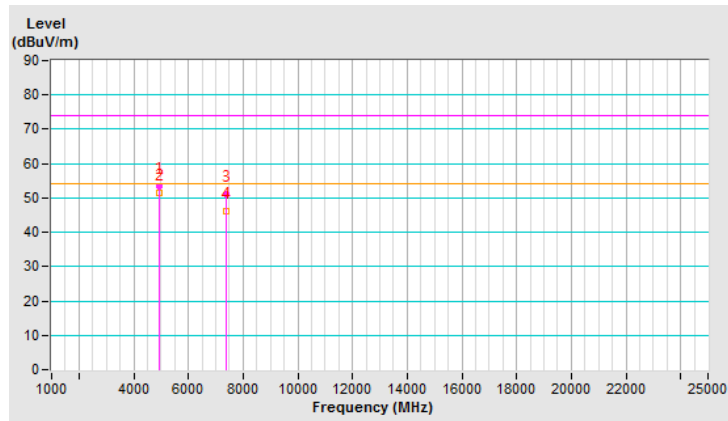


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	53.2 PK	74.0	-20.8	3.44 V	289	51.62	1.58
2	4924.00	51.6 AV	54.0	-2.4	3.44 V	289	50.02	1.58
3	7386.00	51.1 PK	74.0	-22.9	3.47 V	319	42.82	8.28
4	7386.00	46.1 AV	54.0	-7.9	3.47 V	319	37.82	8.28

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

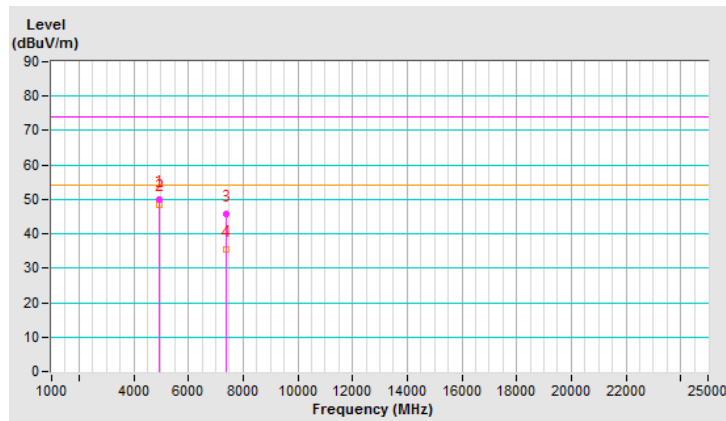


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	49.8 PK	74.0	-24.2	1.03 H	360	48.22	1.58
2	4934.00	48.6 AV	54.0	-5.4	1.03 H	360	47.02	1.58
3	7401.00	45.9 PK	74.0	-28.1	3.54 H	312	37.58	8.32
4	7401.00	35.3 AV	54.0	-18.7	3.54 H	312	26.98	8.32

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

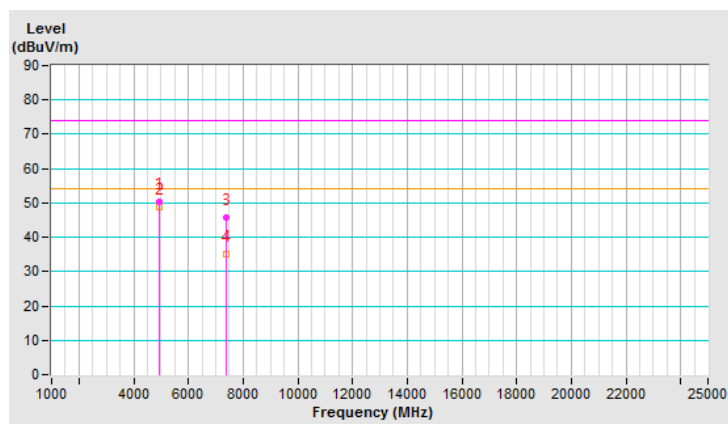


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	50.2 PK	74.0	-23.8	3.43 V	237	48.62	1.58
2	4934.00	48.8 AV	54.0	-5.2	3.43 V	237	47.22	1.58
3	7401.00	45.9 PK	74.0	-28.1	3.43 V	161	37.58	8.32
4	7401.00	35.1 AV	54.0	-18.9	3.43 V	161	26.78	8.32

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

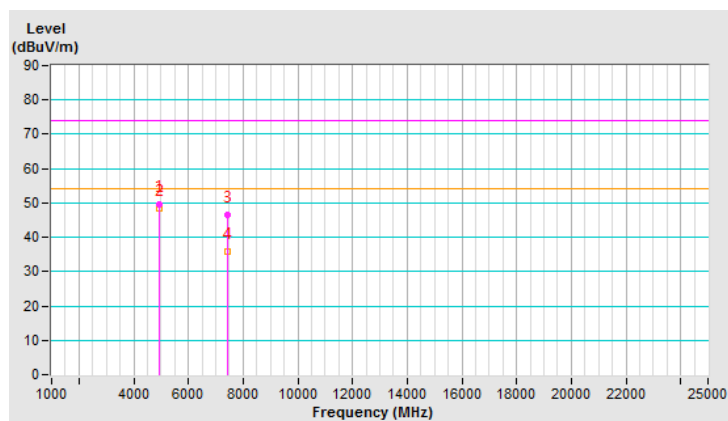


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	49.6 PK	74.0	-24.4	1.09 H	360	48.01	1.59
2	4944.00	48.4 AV	54.0	-5.6	1.09 H	360	46.81	1.59
3	7416.00	46.5 PK	74.0	-27.5	3.51 H	313	38.13	8.37
4	7416.00	35.7 AV	54.0	-18.3	3.51 H	313	27.33	8.37

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

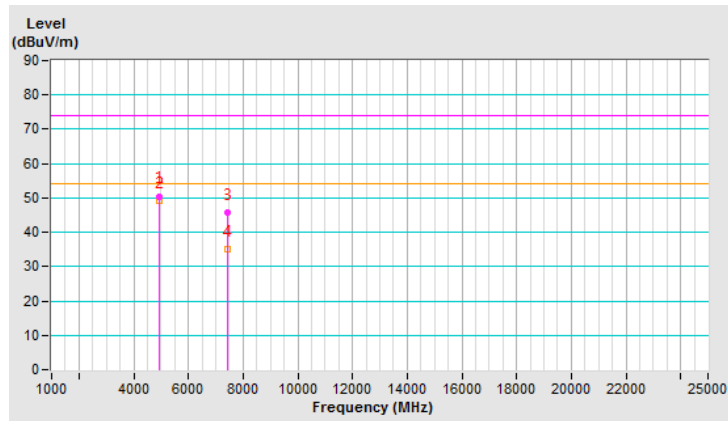


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	50.5 PK	74.0	-23.5	3.41 V	228	48.91	1.59
2	4944.00	49.2 AV	54.0	-4.8	3.41 V	228	47.61	1.59
3	7416.00	45.7 PK	74.0	-28.3	3.37 V	170	37.33	8.37
4	7416.00	34.9 AV	54.0	-19.1	3.37 V	170	26.53	8.37

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



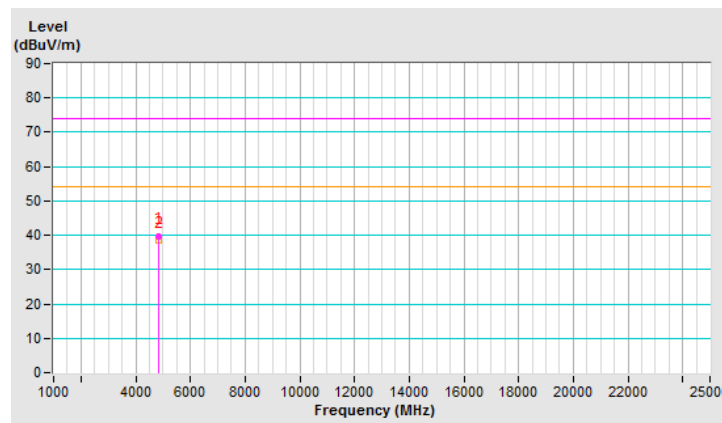
802.11g

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

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	4824.00	39.6 PK	74.0	-34.4	1.09 H	360	38.27	1.33
2	4824.00	38.6 AV	54.0	-15.4	1.09 H	360	37.27	1.33

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

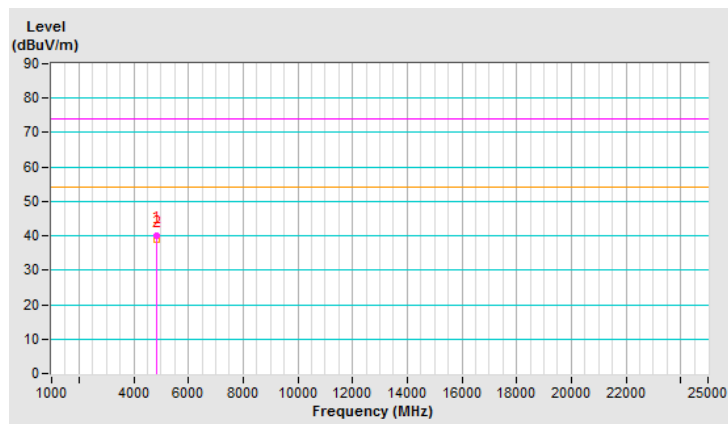


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4824.00	40.1 PK	74.0	-33.9	3.35 V	216	38.77	1.33
2	4824.00	38.9 AV	54.0	-15.1	3.35 V	216	37.57	1.33

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

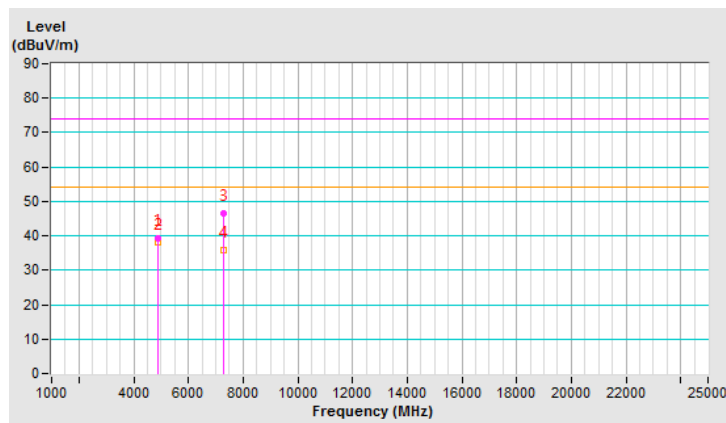


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	39.1 PK	74.0	-34.9	1.13 H	360	37.62	1.48
2	4874.00	38.2 AV	54.0	-15.8	1.13 H	360	36.72	1.48
3	7311.00	46.4 PK	74.0	-27.6	3.52 H	306	38.32	8.08
4	7311.00	35.7 AV	54.0	-18.3	3.52 H	306	27.62	8.08

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

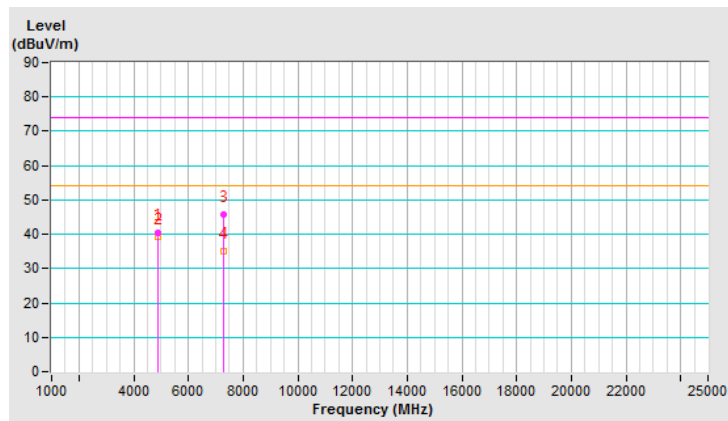


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	40.5 PK	74.0	-33.5	3.30 V	212	39.02	1.48
2	4874.00	39.1 AV	54.0	-14.9	3.30 V	212	37.62	1.48
3	7311.00	45.9 PK	74.0	-28.1	3.32 V	180	37.82	8.08
4	7311.00	35.2 AV	54.0	-18.8	3.32 V	180	27.12	8.08

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

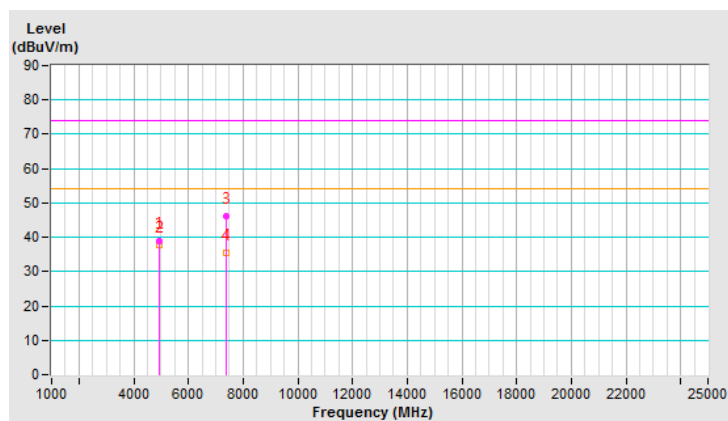


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	38.9 PK	74.0	-35.1	1.08 H	360	37.32	1.58
2	4924.00	37.8 AV	54.0	-16.2	1.08 H	360	36.22	1.58
3	7386.00	46.0 PK	74.0	-28.0	3.48 H	322	37.72	8.28
4	7386.00	35.5 AV	54.0	-18.5	3.48 H	322	27.22	8.28

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

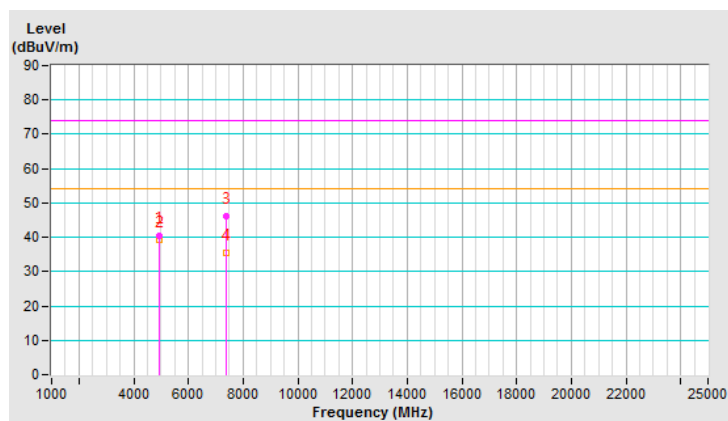


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	40.4 PK	74.0	-33.6	3.29 V	201	38.82	1.58
2	4924.00	39.2 AV	54.0	-14.8	3.29 V	201	37.62	1.58
3	7386.00	46.0 PK	74.0	-28.0	3.35 V	165	37.72	8.28
4	7386.00	35.4 AV	54.0	-18.6	3.35 V	165	27.12	8.28

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

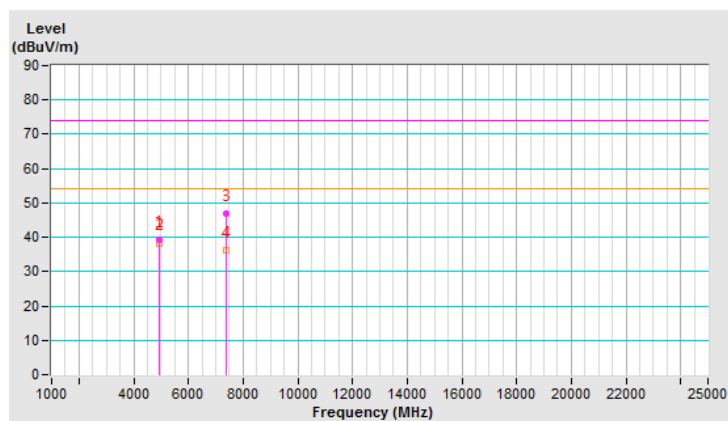


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	39.3 PK	74.0	-34.7	1.15 H	360	37.72	1.58
2	4934.00	38.3 AV	54.0	-15.7	1.15 H	360	36.72	1.58
3	7401.00	46.9 PK	74.0	-27.1	3.58 H	310	38.58	8.32
4	7401.00	36.1 AV	54.0	-17.9	3.58 H	310	27.78	8.32

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

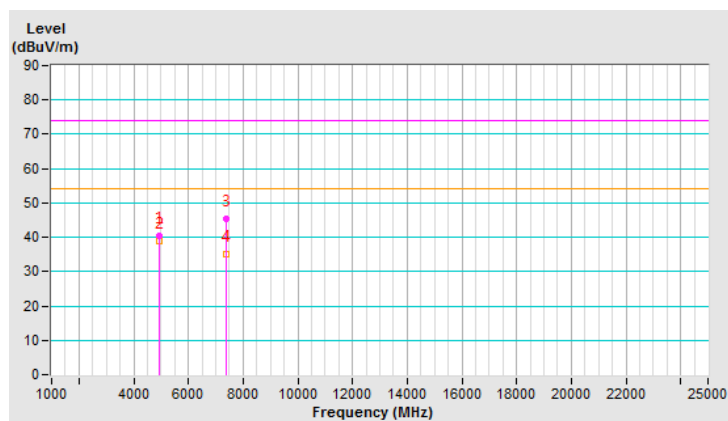


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	40.4 PK	74.0	-33.6	3.36 V	211	38.82	1.58
2	4934.00	39.0 AV	54.0	-15.0	3.36 V	211	37.42	1.58
3	7401.00	45.5 PK	74.0	-28.5	3.27 V	177	37.18	8.32
4	7401.00	35.0 AV	54.0	-19.0	3.27 V	177	26.68	8.32

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

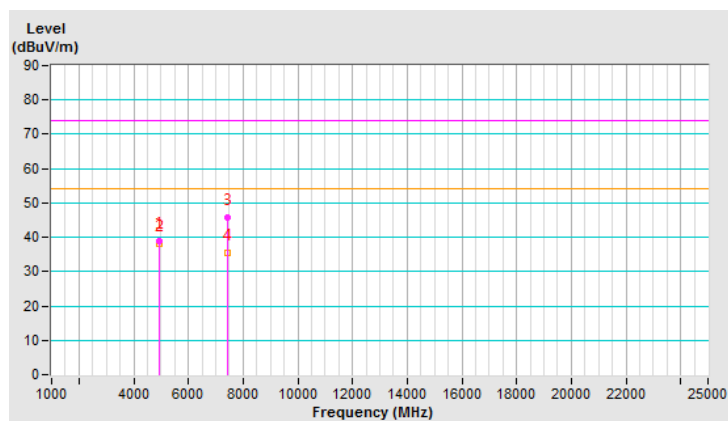


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	38.9 PK	74.0	-35.1	1.13 H	360	37.31	1.59
2	4944.00	38.1 AV	54.0	-15.9	1.13 H	360	36.51	1.59
3	7416.00	45.9 PK	74.0	-28.1	3.46 H	301	37.53	8.37
4	7416.00	35.3 AV	54.0	-18.7	3.46 H	301	26.93	8.37

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

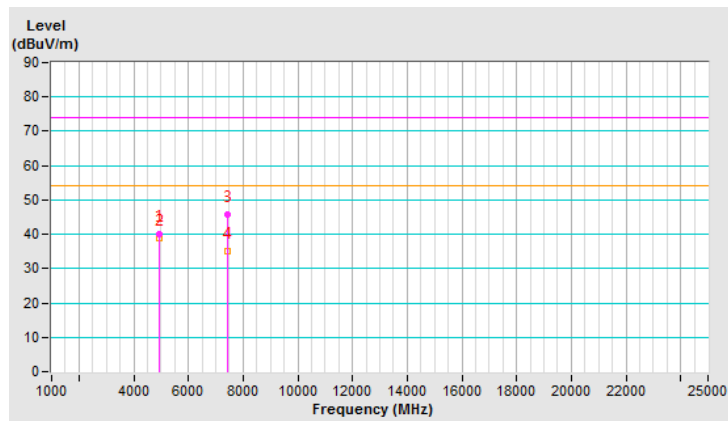


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	40.1 PK	74.0	-33.9	3.30 V	210	38.51	1.59
2	4944.00	38.9 AV	54.0	-15.1	3.30 V	210	37.31	1.59
3	7416.00	45.8 PK	74.0	-28.2	3.31 V	185	37.43	8.37
4	7416.00	34.9 AV	54.0	-19.1	3.31 V	185	26.53	8.37

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



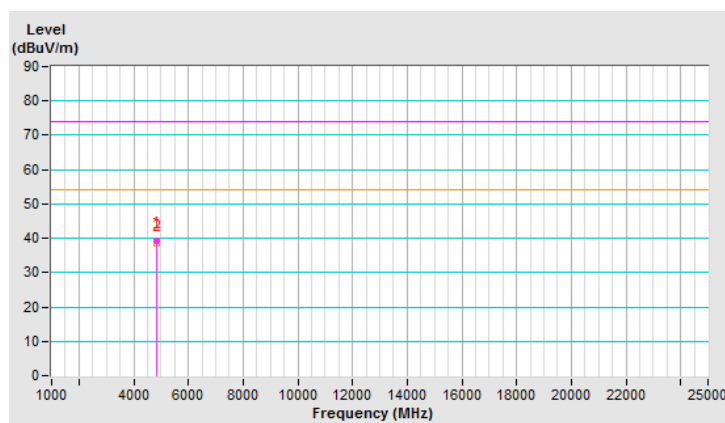
802.11n (HT20)

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

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	4824.00	39.4 PK	74.0	-34.6	1.18 H	360	38.07	1.33
2	4824.00	38.5 AV	54.0	-15.5	1.18 H	360	37.17	1.33

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

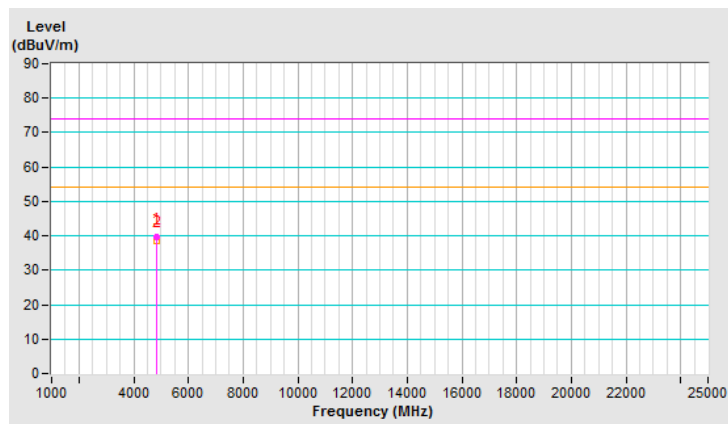


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4824.00	39.8 PK	74.0	-34.2	3.28 V	225	38.47	1.33
2	4824.00	38.7 AV	54.0	-15.3	3.28 V	225	37.37	1.33

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

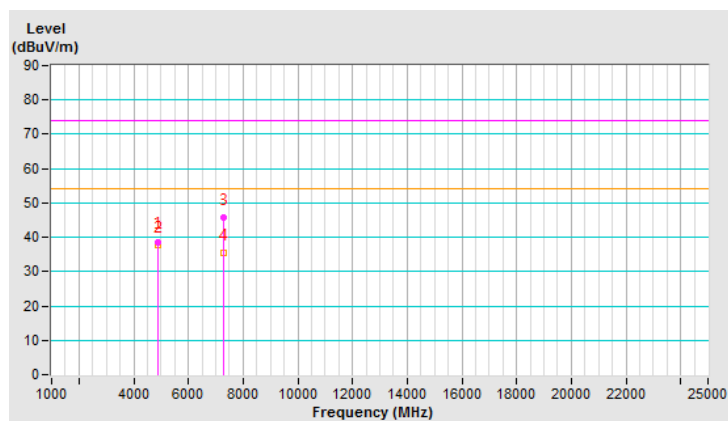


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	38.7 PK	74.0	-35.3	1.17 H	360	37.22	1.48
2	4874.00	37.7 AV	54.0	-16.3	1.17 H	360	36.22	1.48
3	7311.00	45.7 PK	74.0	-28.3	3.52 H	305	37.62	8.08
4	7311.00	35.3 AV	54.0	-18.7	3.52 H	305	27.22	8.08

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

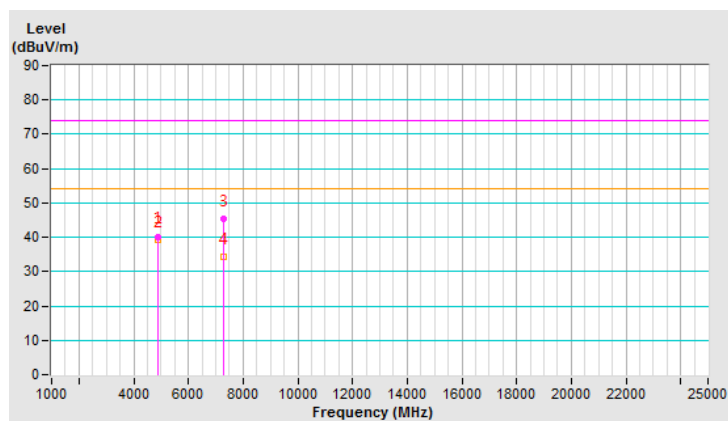


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	40.2 PK	74.0	-33.8	3.32 V	212	38.72	1.48
2	4874.00	39.1 AV	54.0	-14.9	3.32 V	212	37.62	1.48
3	7311.00	45.5 PK	74.0	-28.5	3.35 V	183	37.42	8.08
4	7311.00	34.4 AV	54.0	-19.6	3.35 V	183	26.32	8.08

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

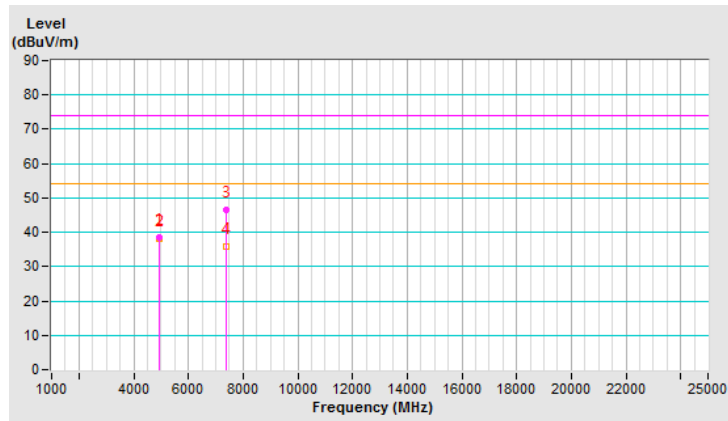


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	38.6 PK	74.0	-35.4	1.11 H	360	37.02	1.58
2	4924.00	38.0 AV	54.0	-16.0	1.11 H	360	36.42	1.58
3	7386.00	46.5 PK	74.0	-27.5	3.47 H	298	38.22	8.28
4	7386.00	35.7 AV	54.0	-18.3	3.47 H	298	27.42	8.28

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

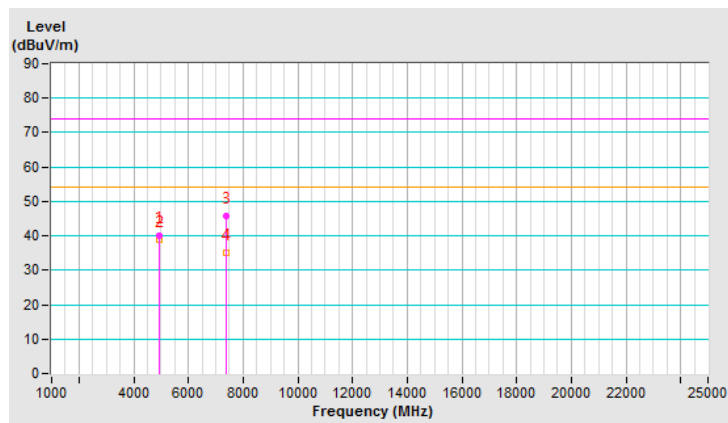


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	40.0 PK	74.0	-34.0	3.32 V	202	38.42	1.58
2	4924.00	38.9 AV	54.0	-15.1	3.32 V	202	37.32	1.58
3	7386.00	45.6 PK	74.0	-28.4	3.27 V	186	37.32	8.28
4	7386.00	35.0 AV	54.0	-19.0	3.27 V	186	26.72	8.28

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

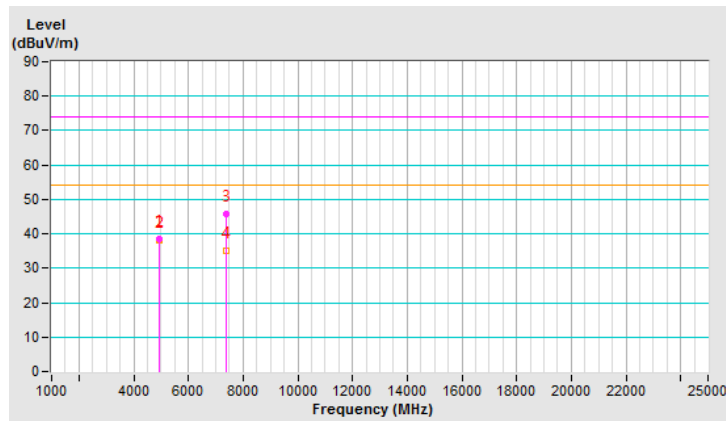


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	38.6 PK	74.0	-35.4	1.16 H	360	37.02	1.58
2	4934.00	38.0 AV	54.0	-16.0	1.16 H	360	36.42	1.58
3	7401.00	45.8 PK	74.0	-28.2	3.41 H	295	37.48	8.32
4	7401.00	35.1 AV	54.0	-18.9	3.41 H	295	26.78	8.32

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

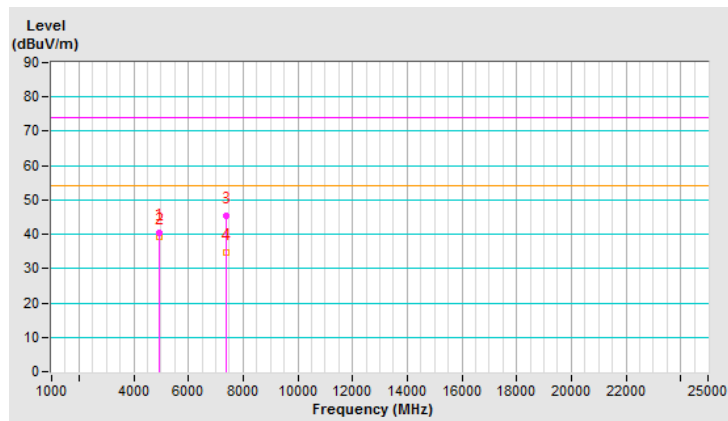


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4934.00	40.5 PK	74.0	-33.5	3.33 V	212	38.92	1.58
2	4934.00	39.1 AV	54.0	-14.9	3.33 V	212	37.52	1.58
3	7401.00	45.4 PK	74.0	-28.6	3.25 V	195	37.08	8.32
4	7401.00	34.7 AV	54.0	-19.3	3.25 V	195	26.38	8.32

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

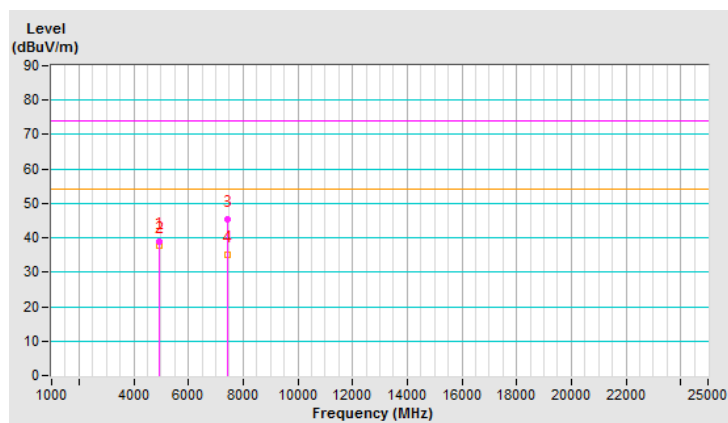


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	38.9 PK	74.0	-35.1	1.16 H	360	37.31	1.59
2	4944.00	37.9 AV	54.0	-16.1	1.16 H	360	36.31	1.59
3	7416.00	45.3 PK	74.0	-28.7	3.50 H	301	36.93	8.37
4	7416.00	34.9 AV	54.0	-19.1	3.50 H	301	26.53	8.37

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

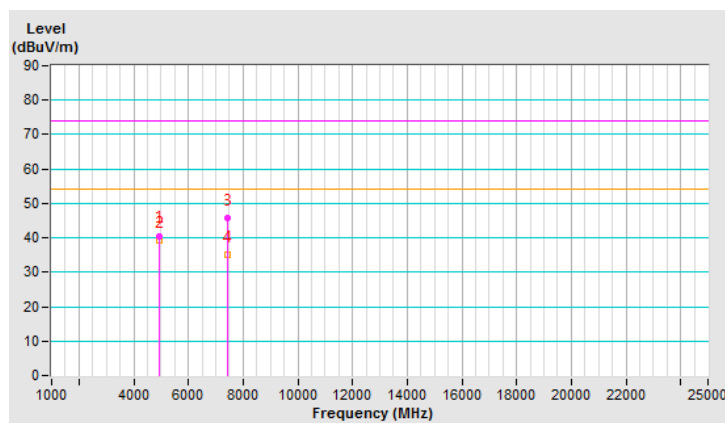


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4944.00	40.6 PK	74.0	-33.4	3.30 V	209	39.01	1.59
2	4944.00	39.2 AV	54.0	-14.8	3.30 V	209	37.61	1.59
3	7416.00	45.7 PK	74.0	-28.3	3.34 V	178	37.33	8.37
4	7416.00	35.0 AV	54.0	-19.0	3.34 V	178	26.63	8.37

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



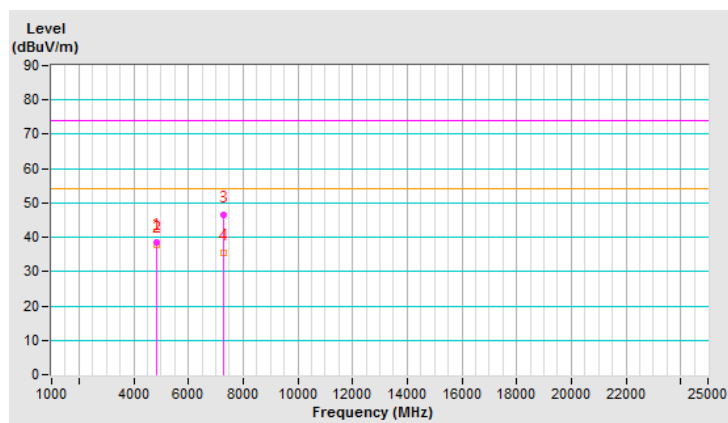
802.11n (HT40)

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

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	4844.00	38.4 PK	74.0	-35.6	1.17 H	360	37.01	1.39
2	4844.00	37.7 AV	54.0	-16.3	1.17 H	360	36.31	1.39
3	7266.00	46.4 PK	74.0	-27.6	3.40 H	297	38.41	7.99
4	7266.00	35.6 AV	54.0	-18.4	3.40 H	297	27.61	7.99

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

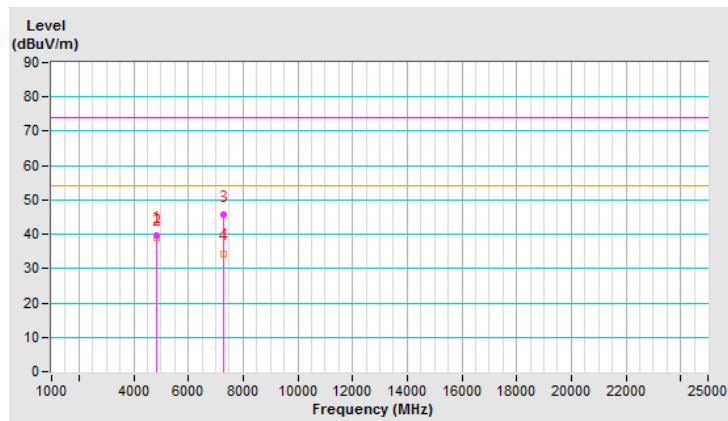


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4844.00	39.8 PK	74.0	-34.2	3.27 V	207	38.41	1.39
2	4844.00	38.9 AV	54.0	-15.1	3.27 V	207	37.51	1.39
3	7266.00	45.6 PK	74.0	-28.4	3.28 V	176	37.61	7.99
4	7266.00	34.5 AV	54.0	-19.5	3.28 V	176	26.51	7.99

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

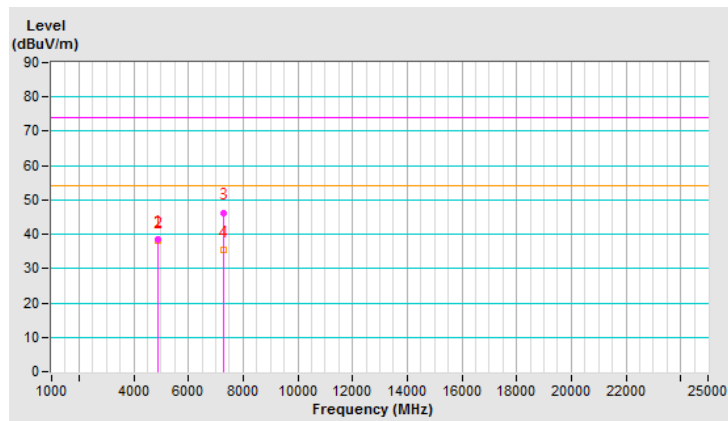


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	38.5 PK	74.0	-35.5	1.13 H	360	37.02	1.48
2	4874.00	38.0 AV	54.0	-16.0	1.13 H	360	36.52	1.48
3	7311.00	46.3 PK	74.0	-27.7	3.49 H	314	38.22	8.08
4	7311.00	35.6 AV	54.0	-18.4	3.49 H	314	27.52	8.08

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

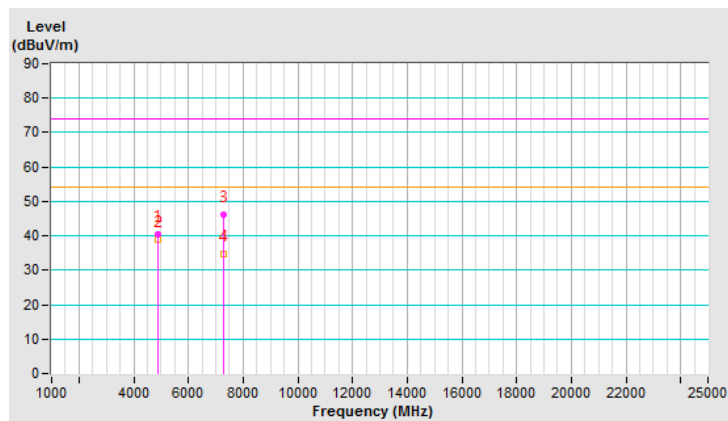


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4874.00	40.5 PK	74.0	-33.5	3.25 V	207	39.02	1.48
2	4874.00	39.0 AV	54.0	-15.0	3.25 V	207	37.52	1.48
3	7311.00	46.0 PK	74.0	-28.0	3.29 V	197	37.92	8.08
4	7311.00	34.8 AV	54.0	-19.2	3.29 V	197	26.72	8.08

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

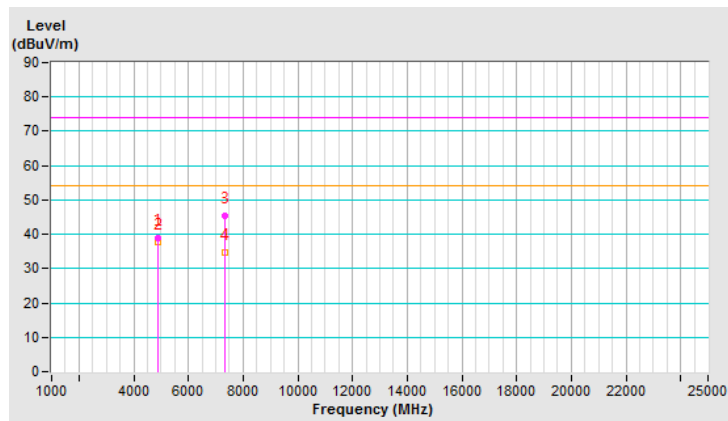


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4904.00	38.8 PK	74.0	-35.2	1.16 H	360	37.25	1.55
2	4904.00	37.9 AV	54.0	-16.1	1.16 H	360	36.35	1.55
3	7356.00	45.4 PK	74.0	-28.6	3.47 H	290	37.20	8.20
4	7356.00	34.8 AV	54.0	-19.2	3.47 H	290	26.60	8.20

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

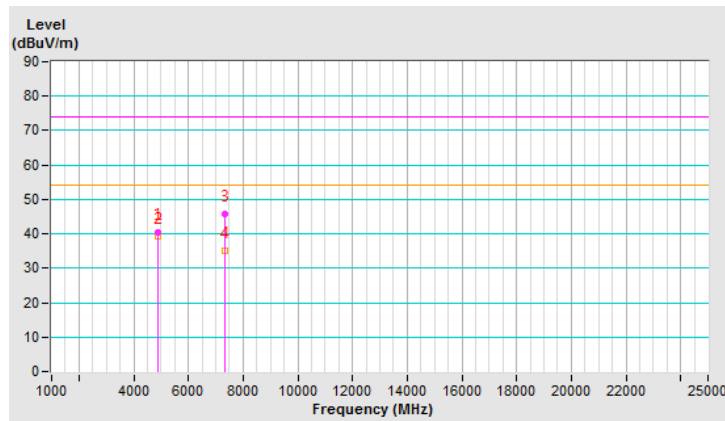


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4904.00	40.4 PK	74.0	-33.6	3.34 V	224	38.85	1.55
2	4904.00	39.4 AV	54.0	-14.6	3.34 V	224	37.85	1.55
3	7356.00	45.8 PK	74.0	-28.2	3.28 V	179	37.60	8.20
4	7356.00	35.1 AV	54.0	-18.9	3.28 V	179	26.90	8.20

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

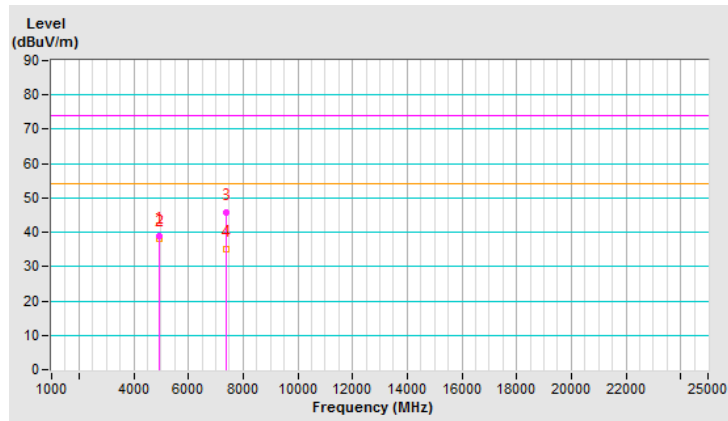


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4914.00	38.8 PK	74.0	-35.2	1.09 H	360	37.23	1.57
2	4914.00	38.0 AV	54.0	-16.0	1.09 H	360	36.43	1.57
3	7371.00	45.8 PK	74.0	-28.2	3.42 H	296	37.56	8.24
4	7371.00	35.1 AV	54.0	-18.9	3.42 H	296	26.86	8.24

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

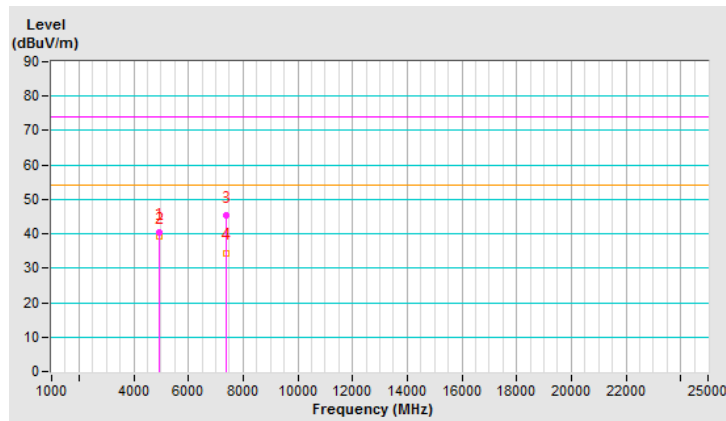


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4914.00	40.4 PK	74.0	-33.6	3.35 V	202	38.83	1.57
2	4914.00	39.4 AV	54.0	-14.6	3.35 V	202	37.83	1.57
3	7371.00	45.3 PK	74.0	-28.7	3.33 V	192	37.06	8.24
4	7371.00	34.5 AV	54.0	-19.5	3.33 V	192	26.26	8.24

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

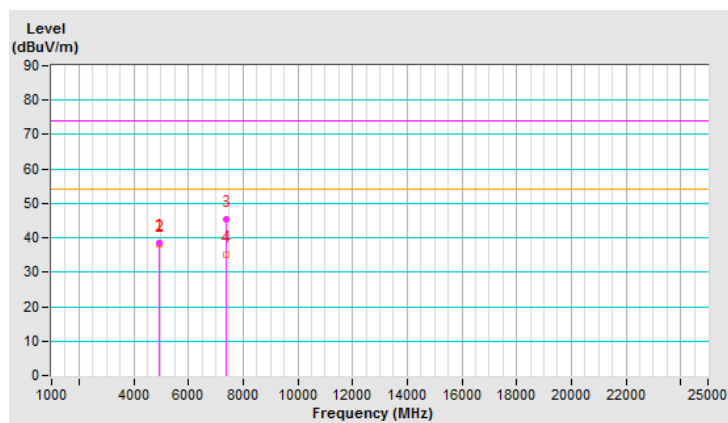


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	38.6 PK	74.0	-35.4	1.11 H	360	37.02	1.58
2	4924.00	38.0 AV	54.0	-16.0	1.11 H	360	36.42	1.58
3	7386.00	45.5 PK	74.0	-28.5	3.46 H	305	37.22	8.28
4	7386.00	35.0 AV	54.0	-19.0	3.46 H	305	26.72	8.28

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

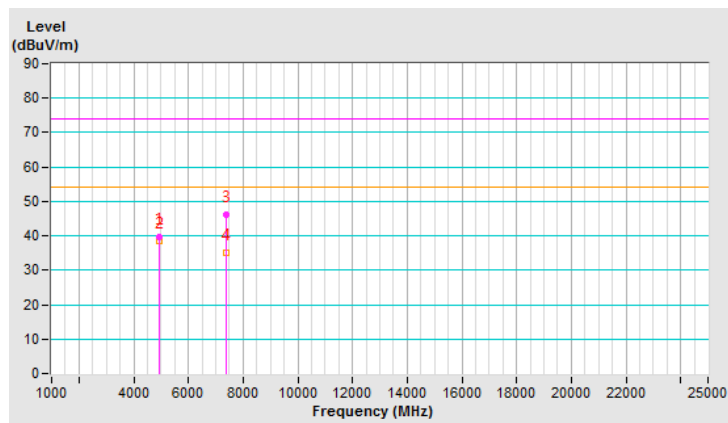


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	4924.00	39.8 PK	74.0	-34.2	3.26 V	195	38.22	1.58
2	4924.00	38.6 AV	54.0	-15.4	3.26 V	195	37.02	1.58
3	7386.00	46.1 PK	74.0	-27.9	3.33 V	199	37.82	8.28
4	7386.00	35.1 AV	54.0	-18.9	3.33 V	199	26.82	8.28

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



Below 1GHz Data:

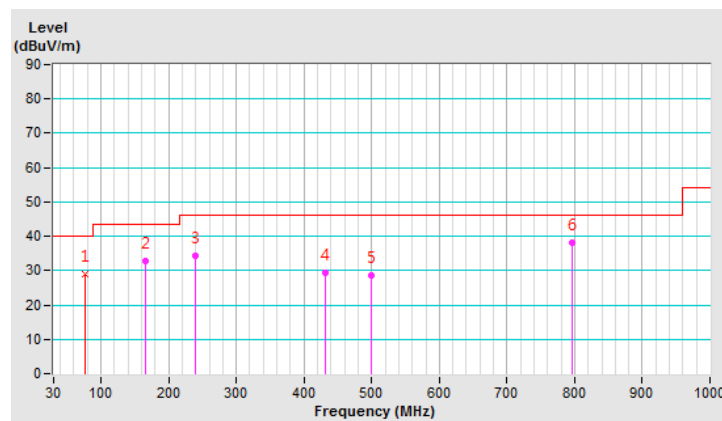
802.11n (HT20)

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	75.90	29.0 QP	40.0	-11.1	2.00 H	231	45.19	-16.24
2	166.26	32.9 QP	43.5	-10.6	1.50 H	264	46.00	-13.10
3	240.00	34.4 QP	46.0	-11.6	1.00 H	273	49.28	-14.86
4	432.02	29.4 QP	46.0	-16.6	2.00 H	207	38.27	-8.91
5	498.87	28.5 QP	46.0	-17.6	1.50 H	213	36.34	-7.89
6	796.57	38.2 QP	46.0	-7.8	1.00 H	260	40.22	-2.06

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

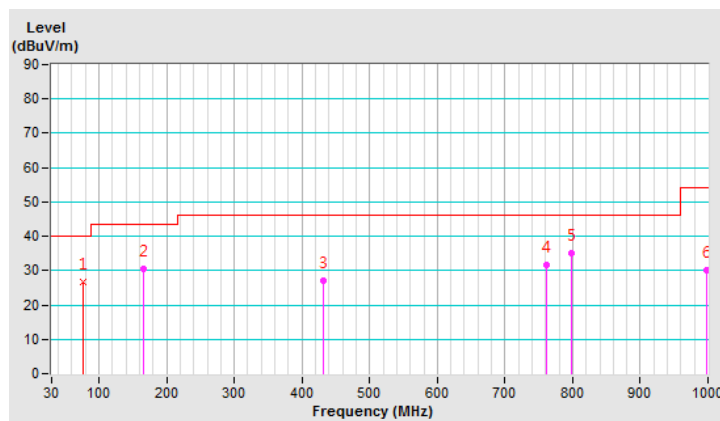


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

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	75.77	26.7 QP	40.0	-13.3	1.00 V	267	42.89	-16.20
2	166.26	30.6 QP	43.5	-12.9	1.00 V	319	43.67	-13.10
3	432.04	26.9 QP	46.0	-19.1	1.00 V	224	35.83	-8.91
4	760.99	31.7 QP	46.0	-14.3	2.00 V	174	34.14	-2.43
5	798.22	35.1 QP	46.0	-10.9	1.50 V	306	37.18	-2.06
6	997.94	30.1 QP	54.0	-23.9	1.00 V	283	29.82	0.24

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



4.5.8 Test Results (Conducted Measurement)

Radiated versus Conducted Measurement	
☒ Conducted measurement	☐ Radiated measurement
<u>For Radiated measurement:</u> The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation) <u>For Conducted measurement:</u> The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).	

Conducted Measurement Factor
a. The max antenna gain were be used for conducted measurement.(Antenna gain=3.62dBi) b. For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands. c. For the band edge the gain for the specific band may have been used. d. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For $f = 30 - 1000$ MHz, add 4.7 dB. Note: The conducted emission test was considered some factor to compute test result.

Above 1GHz Data 802.11b - Channel 1

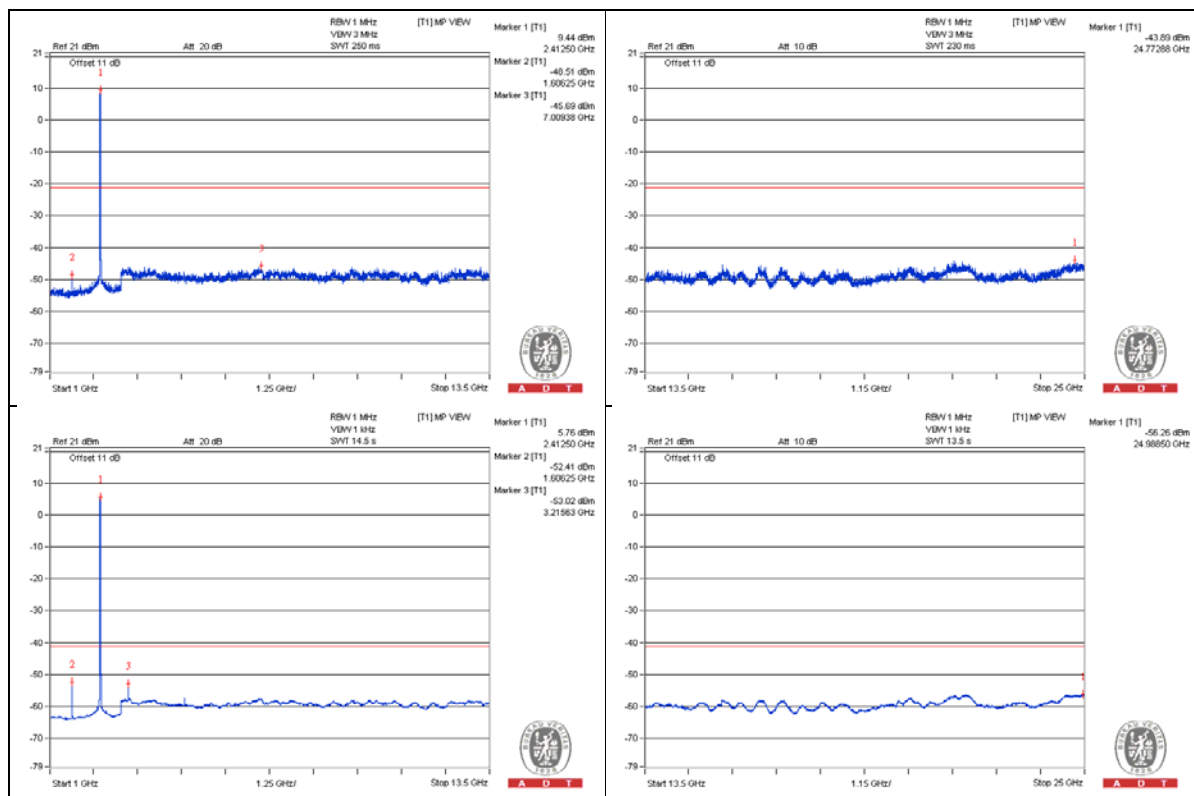
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1606.25 PK	50.43	74	-23.57	-48.51	3.68	-44.83
2	1606.25 AV	46.53	54	-7.47	-52.41	3.68	-48.73
3	4825 PK	50.49	74	-23.51	-48.45	3.68	-44.77
4	4825 AV	41.53	54	-12.47	-57.41	3.68	-53.73

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



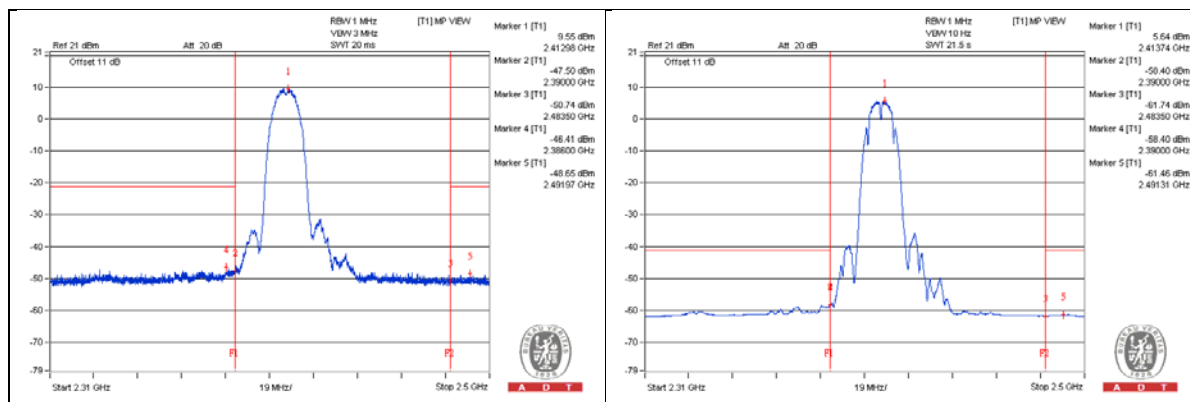
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2386 PK	52.53	74	-21.47	-46.41	3.68	-42.73
2	2390 AV	40.54	54	-13.46	-58.4	3.68	-54.72
3	2491.97 PK	50.29	74	-23.71	-48.65	3.68	-44.97
4	2491.31 AV	37.48	54	-16.52	-61.46	3.68	-57.78

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11b - Channel 6

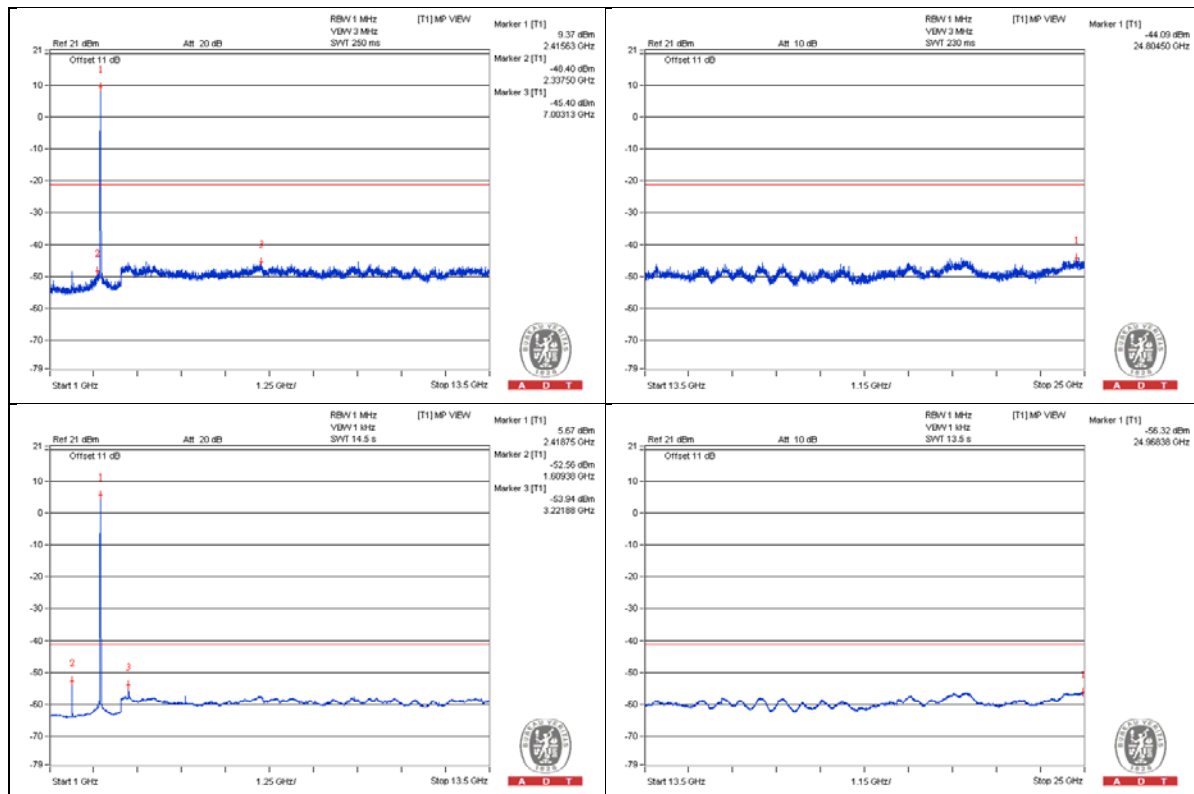
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	49.77	74	-24.23	-49.17	3.68	-45.49
2	1625 AV	45.6	54	-8.4	-53.34	3.68	-49.66
3	4875 PK	50.36	74	-23.64	-48.58	3.68	-44.9
4	4875 AV	41.87	54	-12.13	-57.07	3.68	-53.39
5	7312.5 PK	51.52	74	-22.48	-47.42	3.68	-43.74
6	7309.375 AV	40.46	54	-13.54	-58.48	3.68	-54.8

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



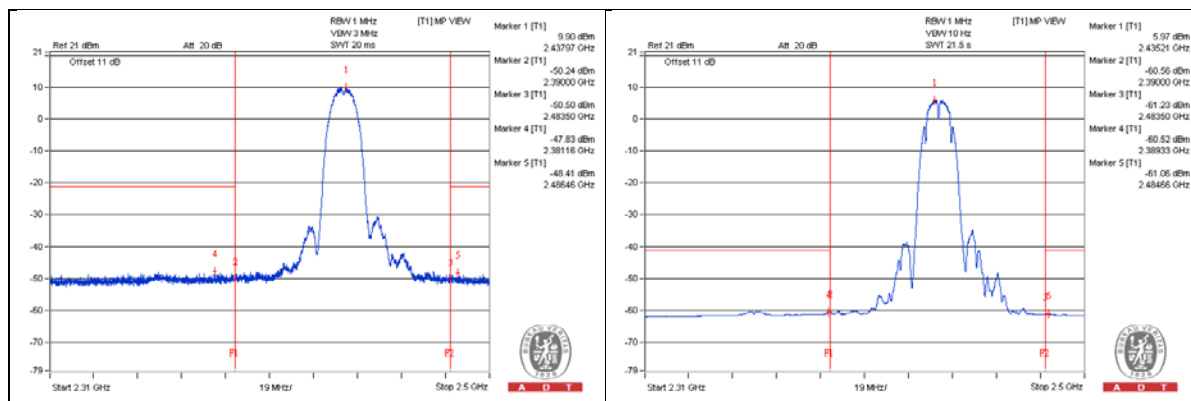
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2381.16 PK	51.11	74	-22.89	-47.83	3.68	-44.15
2	2389.33 AV	38.42	54	-15.58	-60.52	3.68	-56.84
3	2486.46 PK	50.53	74	-23.47	-48.41	3.68	-44.73
4	2484.66 AV	37.88	54	-16.12	-61.06	3.68	-57.38

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11b - Channel 11

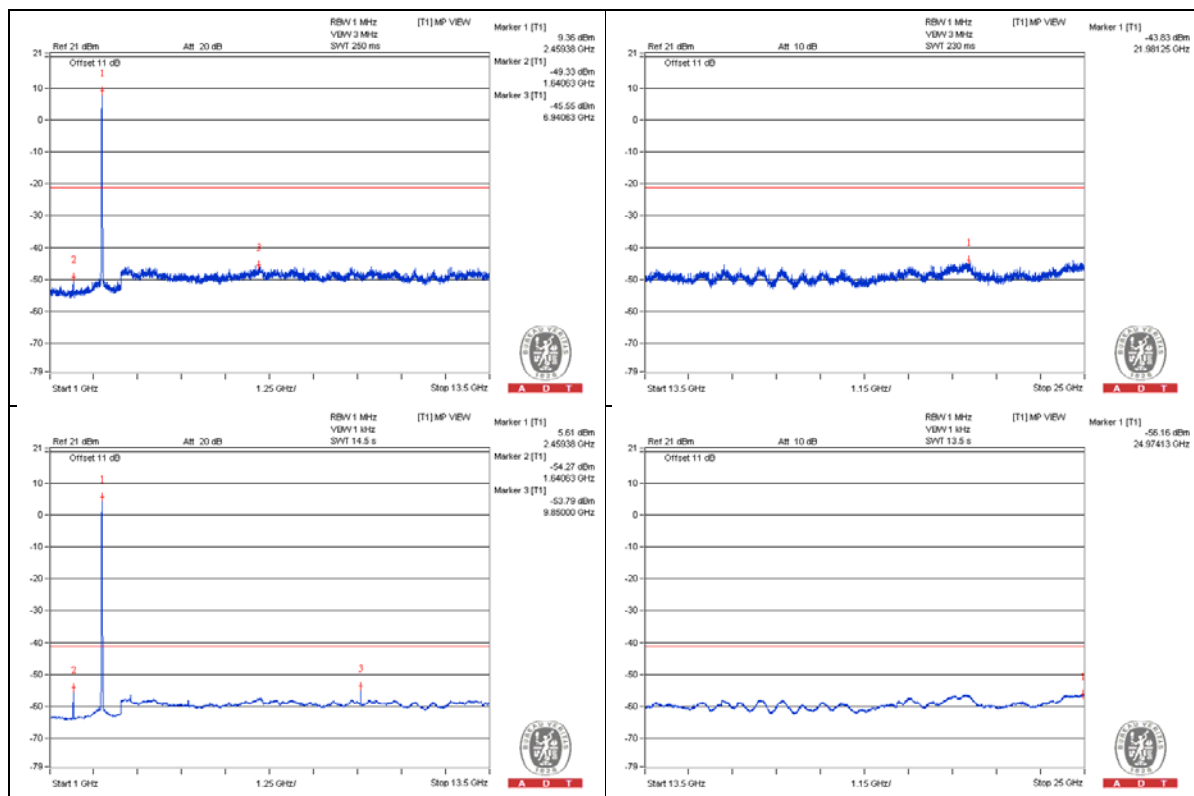
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	49.6	74	-24.4	-49.34	3.68	-45.66
2	4925 AV	40.53	54	-13.47	-58.41	3.68	-54.73
3	7387.5 PK	51.27	74	-22.73	-47.67	3.68	-43.99
4	7384.375 AV	40.76	54	-13.24	-58.18	3.68	-54.5

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



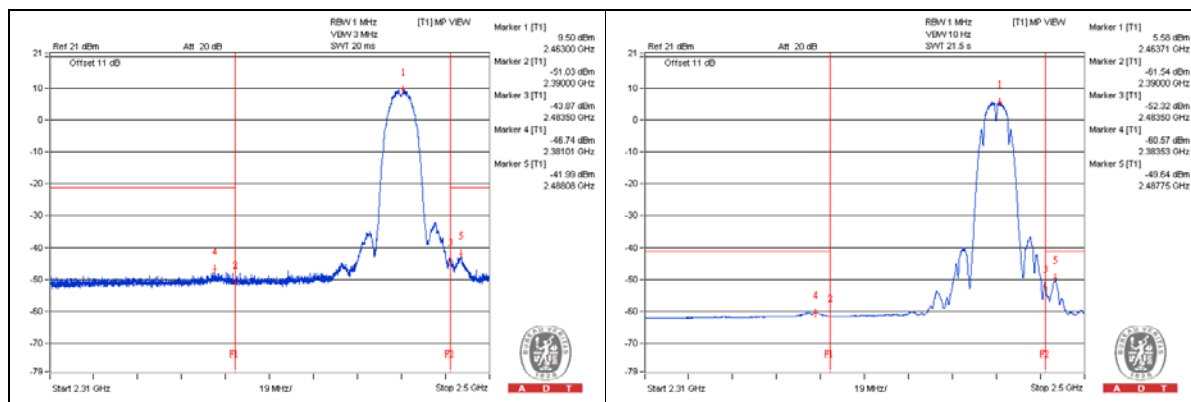
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2381.01 PK	52.2	74	-21.8	-46.74	3.68	-43.06
2	2383.53 AV	38.37	54	-15.63	-60.57	3.68	-56.89
3	2488.08 PK	56.95	74	-17.05	-41.99	3.68	-38.31
4	2487.75 AV	49.3	54	-4.7	-49.64	3.68	-45.96

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11b - Channel 12

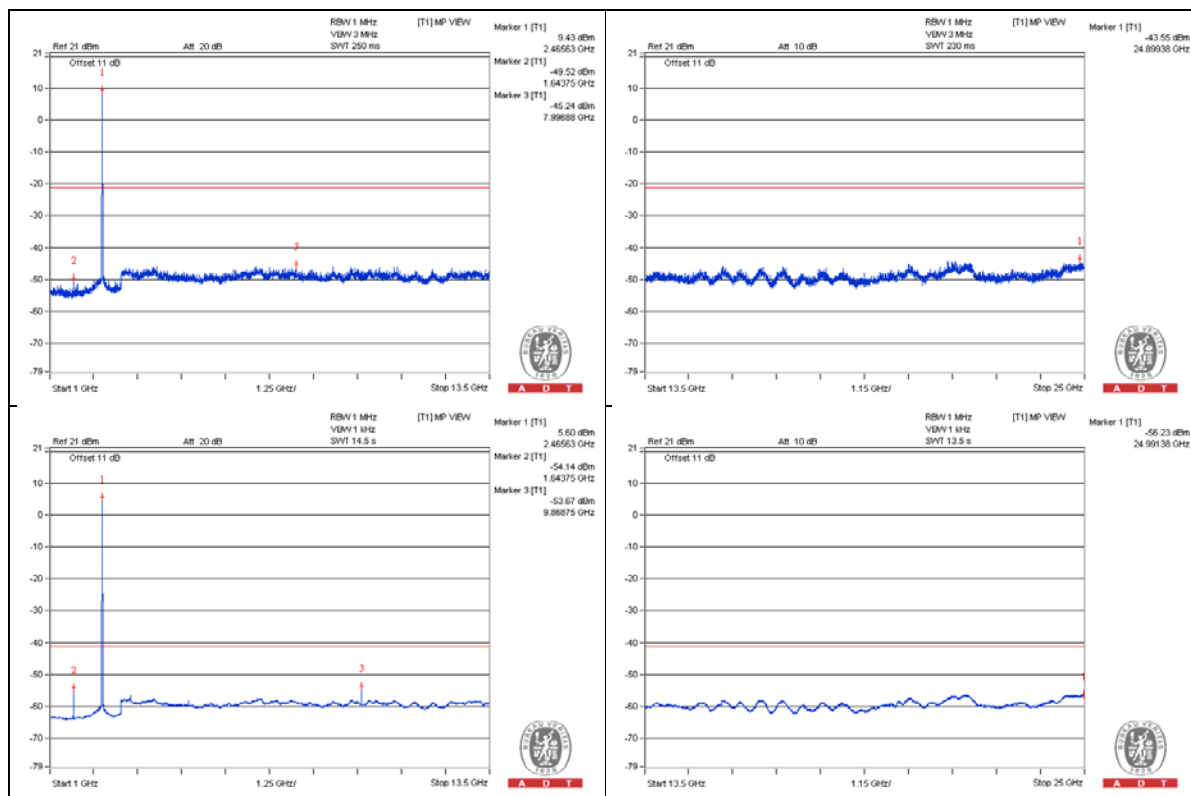
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4934.375 PK	49.15	74	-24.85	-49.79	3.68	-46.11
2	4934.375 AV	40.6	54	-13.4	-58.34	3.68	-54.66
3	7400 PK	51.01	74	-22.99	-47.93	3.68	-44.25
4	7400 AV	40.63	54	-13.37	-58.31	3.68	-54.63

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



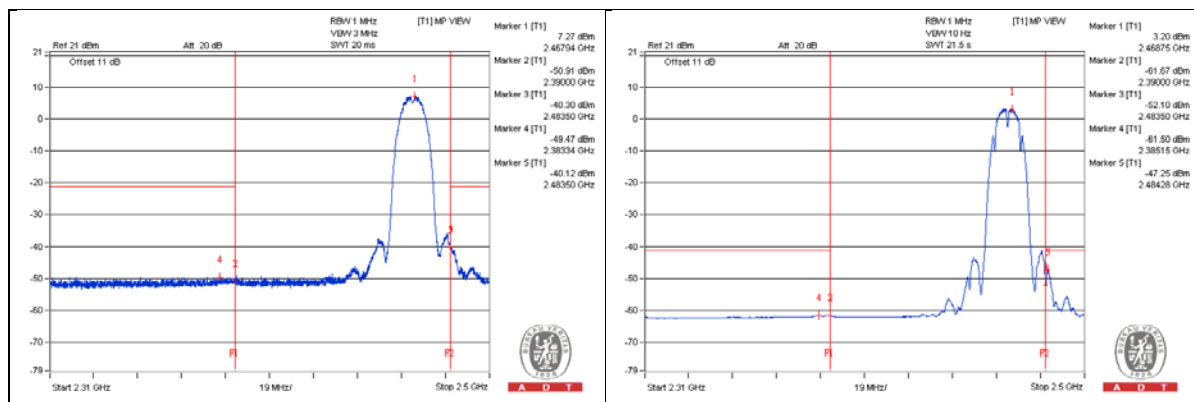
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2383.34 PK	49.47	74	-24.53	-49.47	3.68	-45.79
2	2385.15 AV	37.44	54	-16.56	-61.5	3.68	-57.82
3	2483.5 PK	58.82	74	-15.18	-40.12	3.68	-36.44
4	2484.28 AV	51.69	54	-2.31	-47.25	3.68	-43.57

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11b - Channel 13

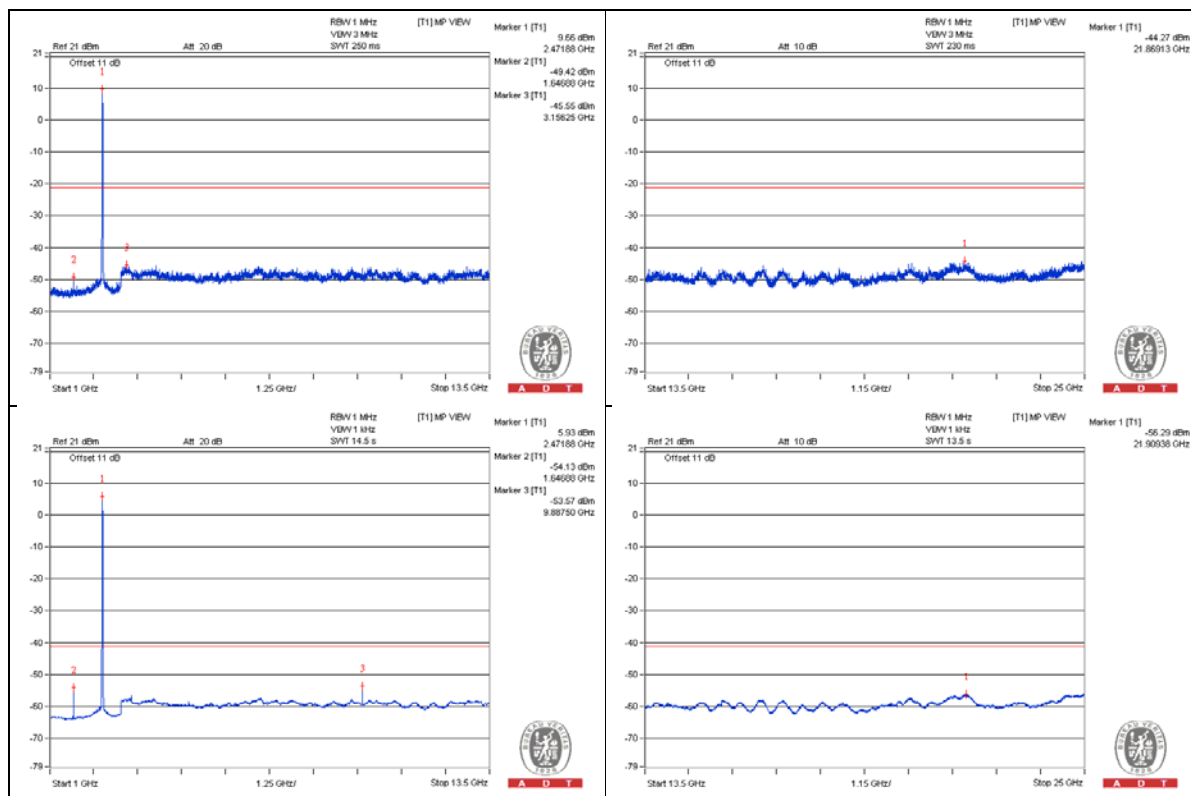
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4943.75 PK	50.32	74	-23.68	-48.62	3.68	-44.94
2	4943.75 AV	40.36	54	-13.64	-58.58	3.68	-54.9
3	7415.625 PK	50.55	74	-23.45	-48.39	3.68	-44.71
4	7415.625 AV	40.79	54	-13.21	-58.15	3.68	-54.47

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



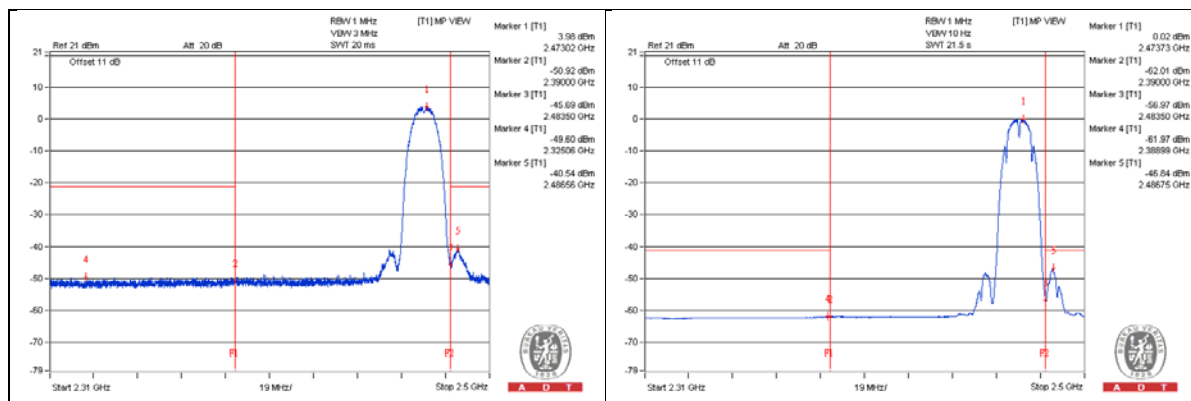
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2325.06 PK	49.34	74	-24.66	-49.6	3.68	-45.92
2	2388.99 AV	36.97	54	-17.03	-61.97	3.68	-58.29
3	2486.56 PK	58.4	74	-15.6	-40.54	3.68	-36.86
4	2486.75 AV	52.1	54	-1.9	-46.84	3.68	-43.16

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11g - Channel 1

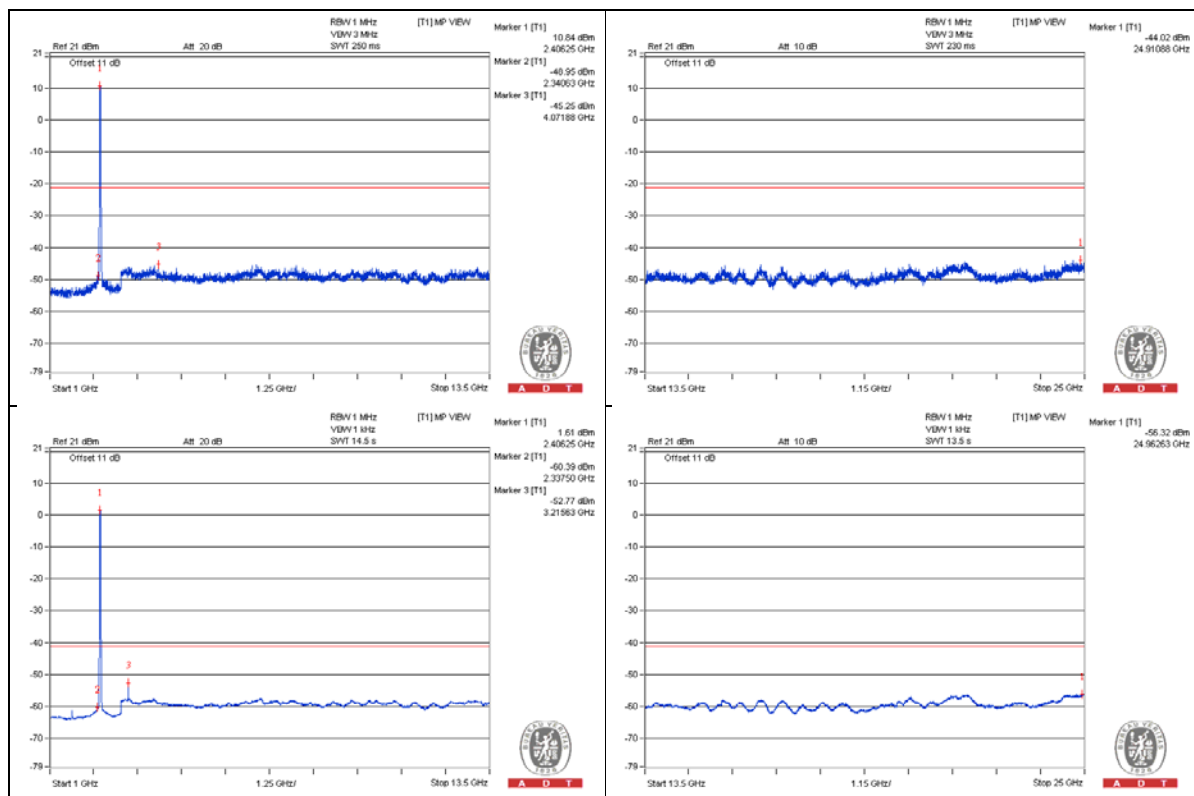
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1606.25 PK	46.07	74	-27.93	-52.87	3.68	-49.19
2	1606.25 AV	37.66	54	-16.34	-61.28	3.68	-57.6
3	4825 PK	48.83	74	-25.17	-50.11	3.68	-46.43
4	4825 AV	39.32	54	-14.68	-59.62	3.68	-55.94

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



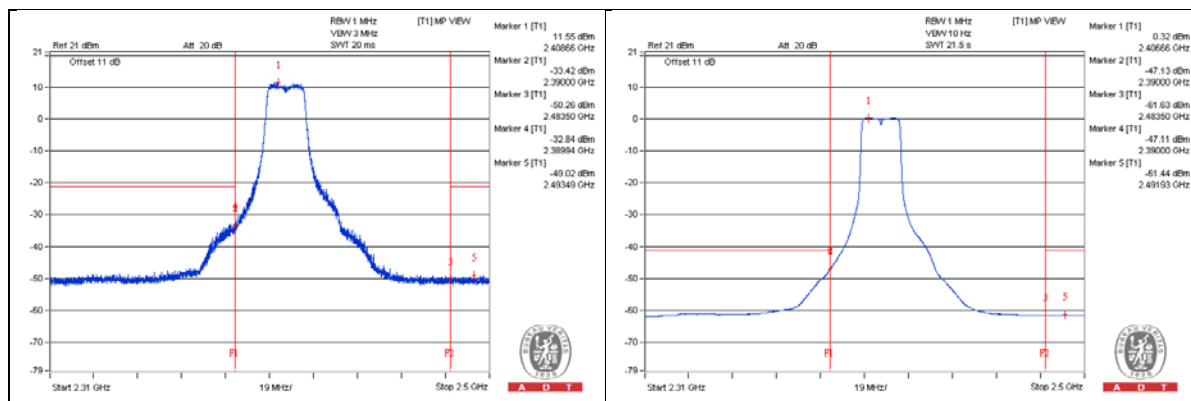
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.94 PK	66.1	74	-7.9	-32.84	3.68	-29.16
2	2390 AV	51.83	54	-2.17	-47.11	3.68	-43.43
3	2493.49 PK	49.92	74	-24.08	-49.02	3.68	-45.34
4	2491.93 AV	37.5	54	-16.5	-61.44	3.68	-57.76

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11g - Channel 6

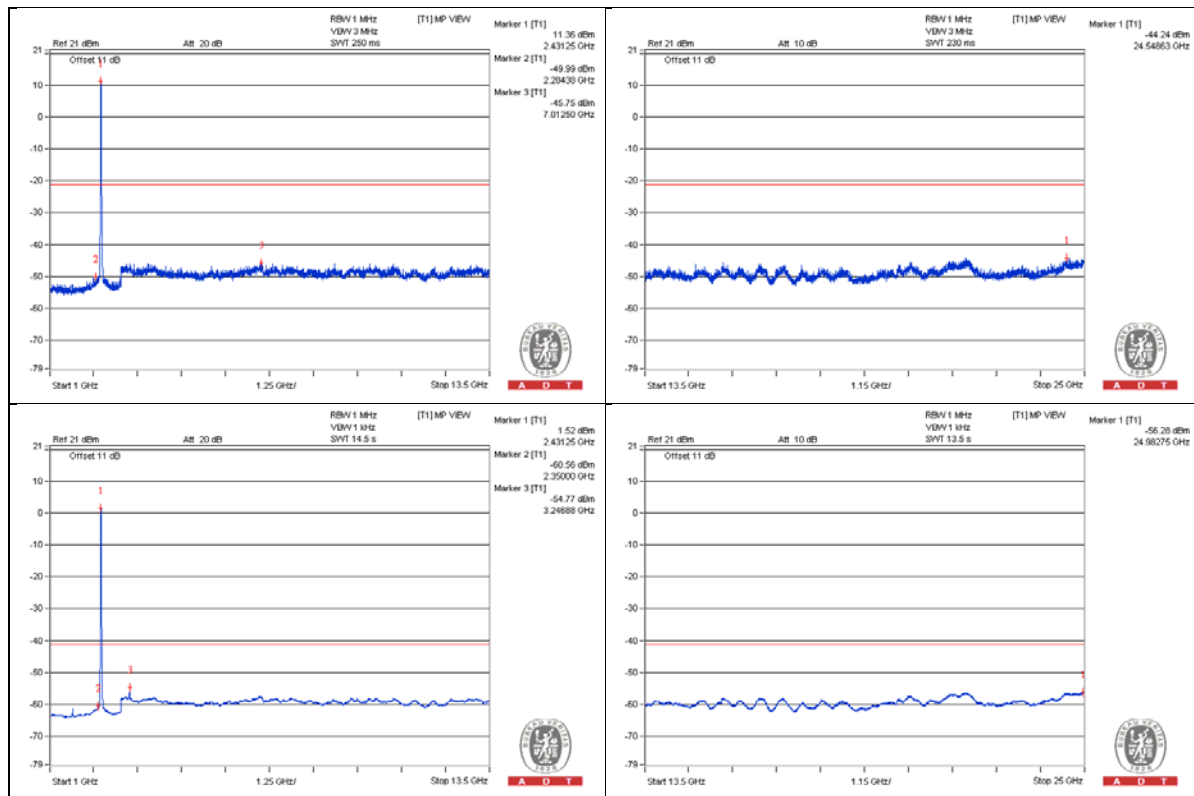
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	45.68	74	-28.32	-53.26	3.68	-49.58
2	1625 AV	37.27	54	-16.73	-61.67	3.68	-57.99
3	4875 PK	50.15	74	-23.85	-48.79	3.68	-45.11
4	4875 AV	39.46	54	-14.54	-59.48	3.68	-55.8
5	7312.5 PK	51.27	74	-22.73	-47.67	3.68	-43.99
6	7309.375 AV	40.28	54	-13.72	-58.66	3.68	-54.98

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



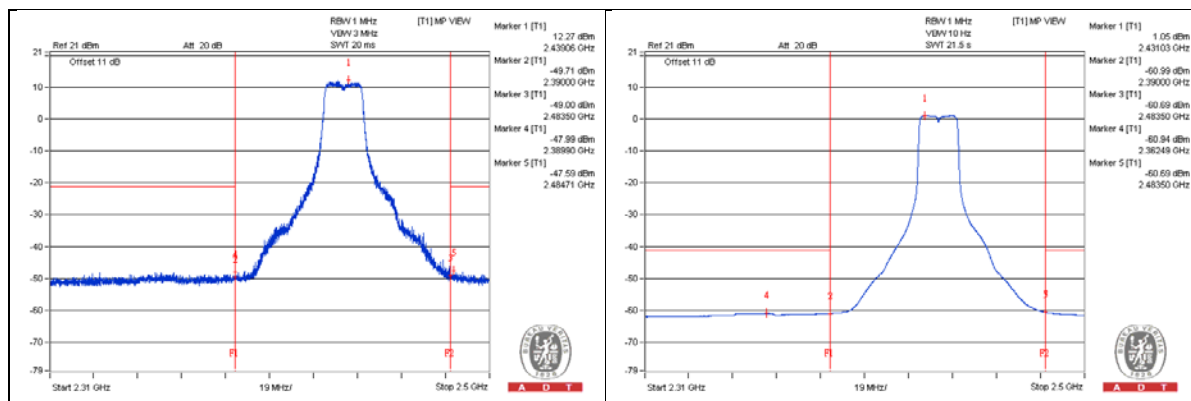
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.9 PK	50.95	74	-23.05	-47.99	3.68	-44.31
2	2362.49 AV	38	54	-16	-60.94	3.68	-57.26
3	2484.71 PK	51.35	74	-22.65	-47.59	3.68	-43.91
4	2483.5 AV	38.25	54	-15.75	-60.69	3.68	-57.01

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11g - Channel 11

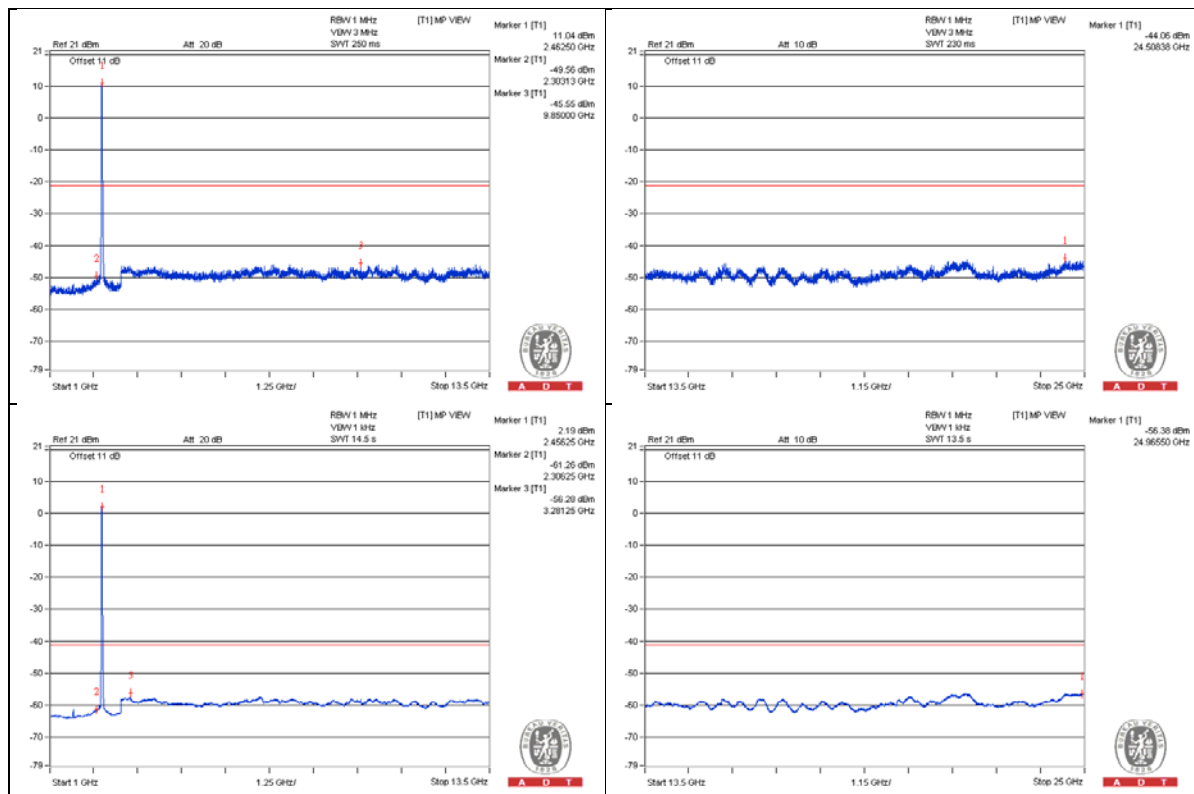
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	48.27	74	-25.73	-50.67	3.68	-46.99
2	4925 AV	39.11	54	-14.89	-59.83	3.68	-56.15
3	7384.375 PK	52.05	74	-21.95	-46.89	3.68	-43.21
4	7387.5 AV	40.86	54	-13.14	-58.08	3.68	-54.4

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



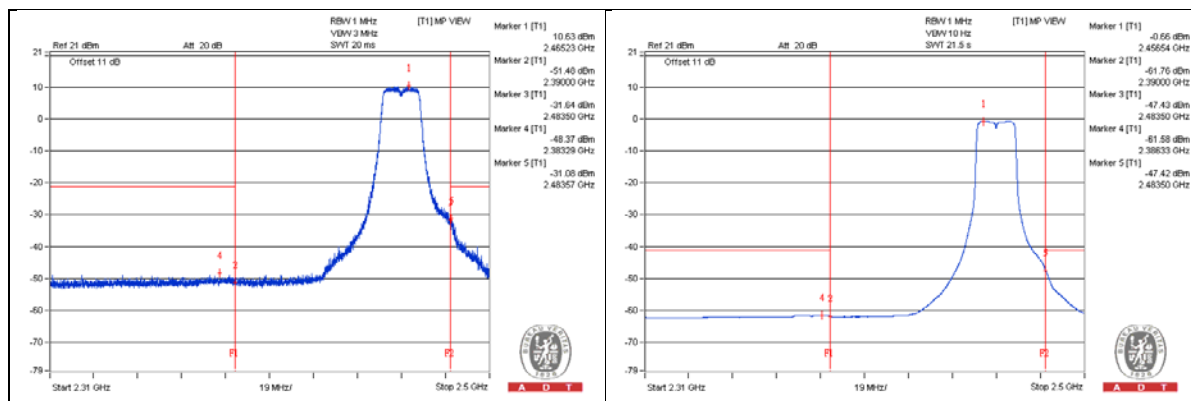
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2383.29 PK	50.57	74	-23.43	-48.37	3.68	-44.69
2	2386.33 AV	37.36	54	-16.64	-61.58	3.68	-57.9
3	2483.57 PK	67.86	74	-6.14	-31.08	3.68	-27.4
4	2483.5 AV	51.52	54	-2.48	-47.42	3.68	-43.74

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11g - Channel 12

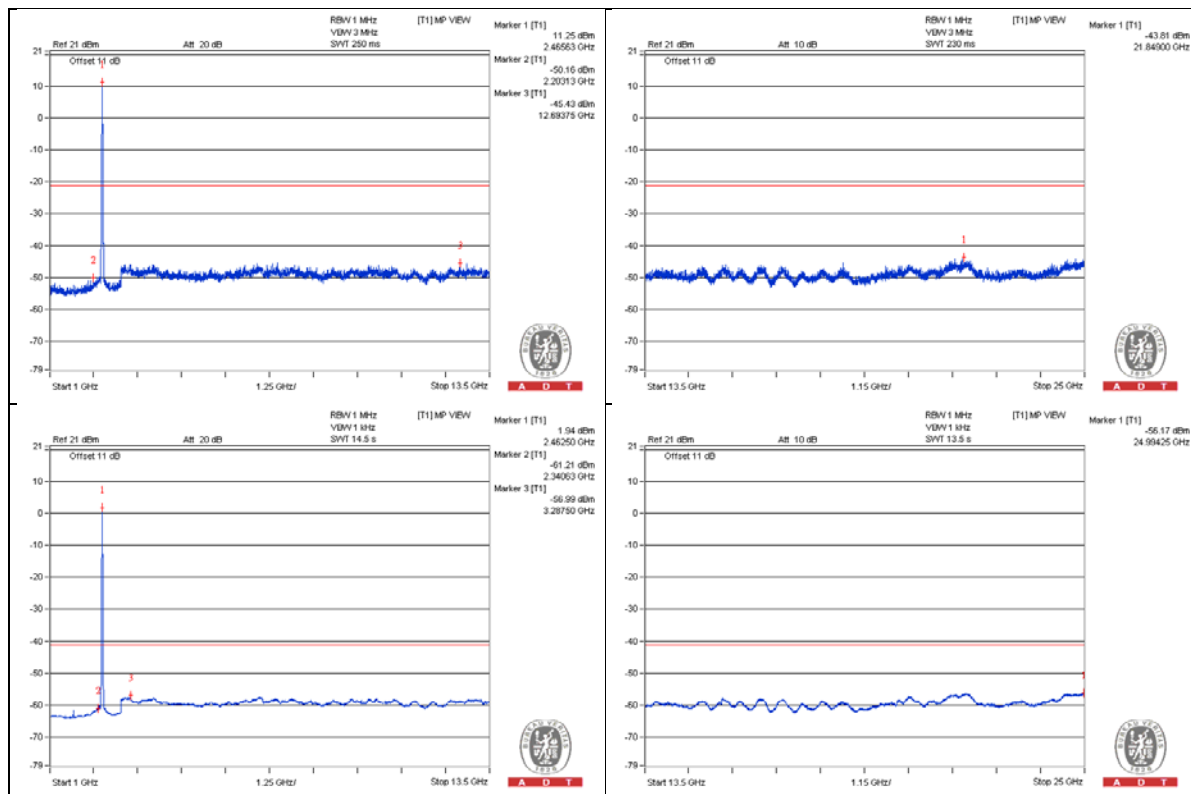
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4934.375 PK	48.92	74	-25.08	-50.02	3.68	-46.34
2	4934.375 AV	39.03	54	-14.97	-59.91	3.68	-56.23
3	7400 PK	50.57	74	-23.43	-48.37	3.68	-44.69
4	7400 AV	40.83	54	-13.17	-58.11	3.68	-54.43

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



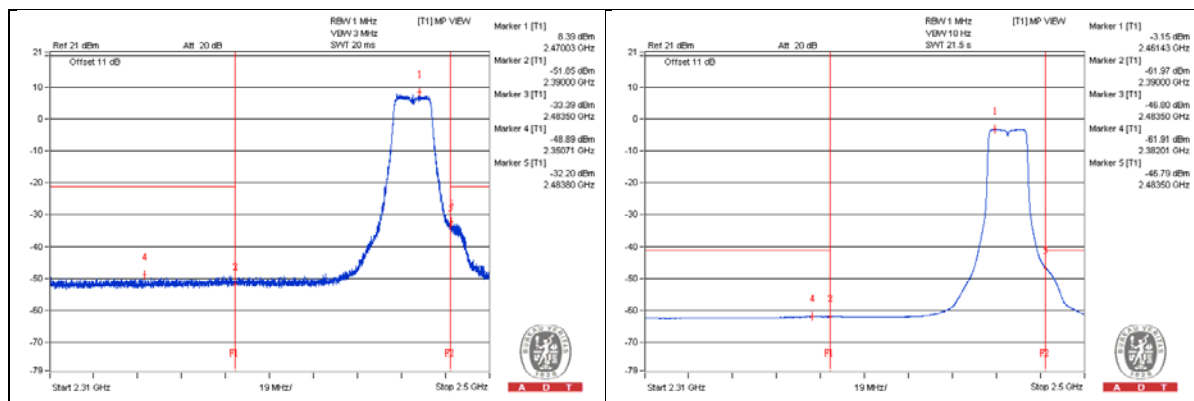
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2350.71 PK	50.05	74	-23.95	-48.89	3.68	-45.21
2	2382.01 AV	37.03	54	-16.97	-61.91	3.68	-58.23
3	2483.8 PK	66.74	74	-7.26	-32.2	3.68	-28.52
4	2483.5 AV	52.15	54	-1.85	-46.79	3.68	-43.11

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11g - Channel 13

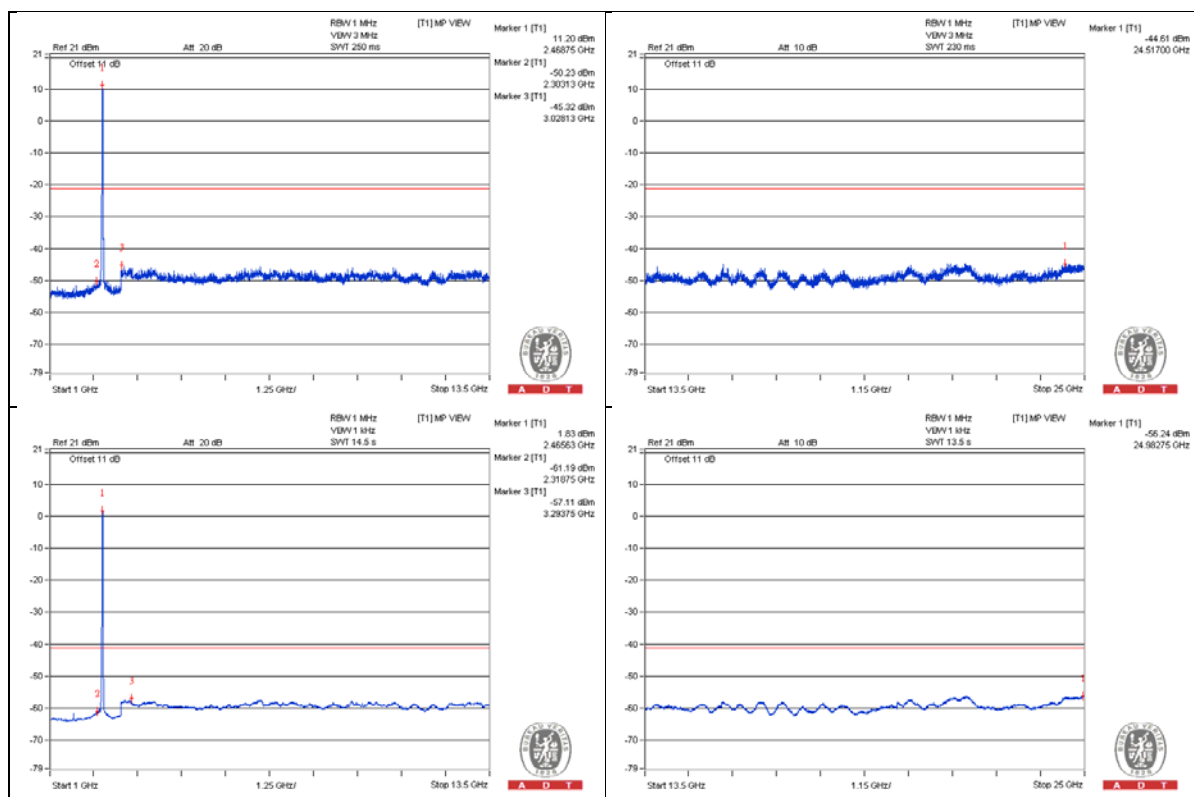
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4943.75 PK	49.54	74	-24.46	-49.4	3.68	-45.72
2	4943.75 AV	38.87	54	-15.13	-60.07	3.68	-56.39
3	7415.625 PK	51.16	74	-22.84	-47.78	3.68	-44.1
4	7415.625 AV	40.69	54	-13.31	-58.25	3.68	-54.57

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



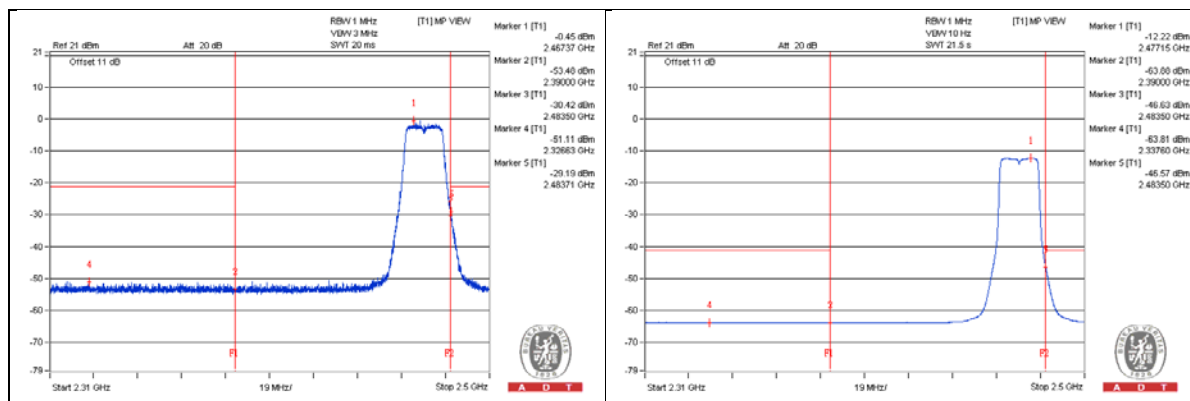
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2326.63 PK	47.83	74	-26.17	-51.11	3.68	-47.43
2	2337.6 AV	35.13	54	-18.87	-63.81	3.68	-60.13
3	2483.71 PK	69.75	74	-4.25	-29.19	3.68	-25.51
4	2483.5 AV	52.37	54	-1.63	-46.57	3.68	-42.89

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 1

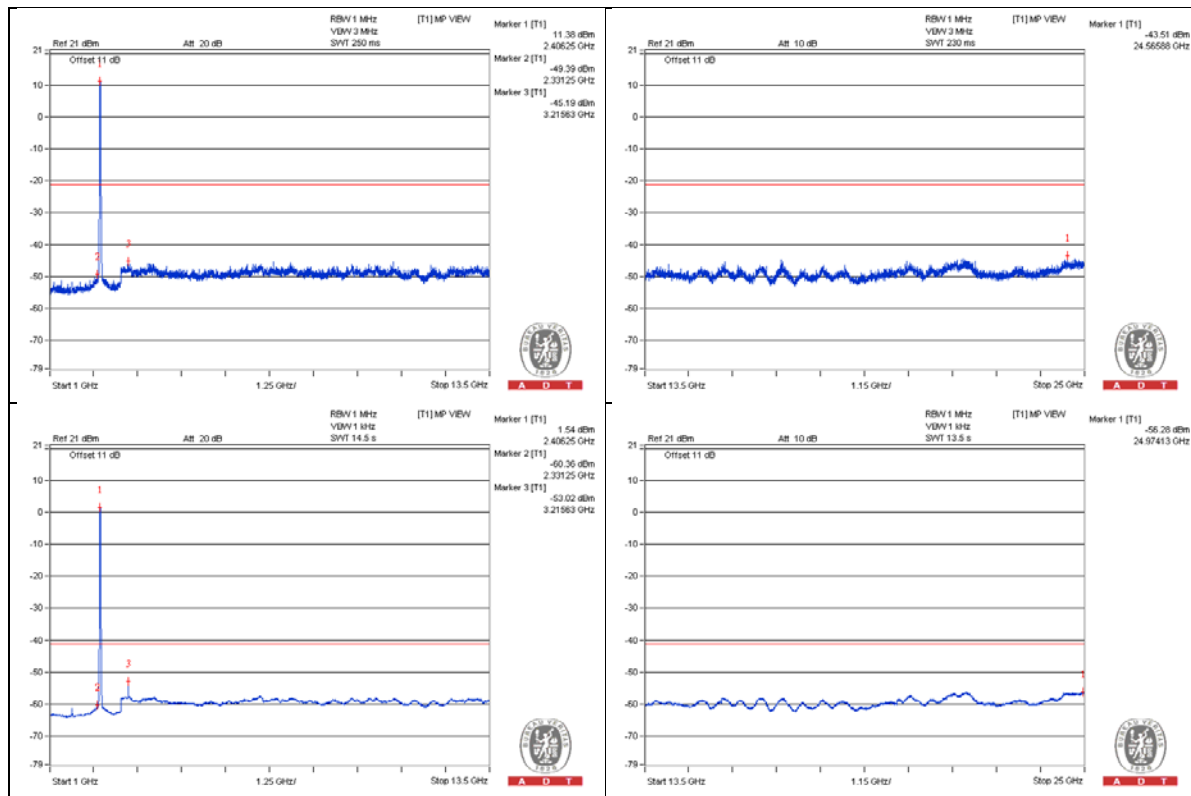
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1606.25 PK	47.03	74	-26.97	-51.91	3.68	-48.23
2	1606.25 AV	37.63	54	-16.37	-61.31	3.68	-57.63
3	4825 PK	50.97	74	-23.03	-47.97	3.68	-44.29
4	4825 AV	39.26	54	-14.74	-59.68	3.68	-56

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



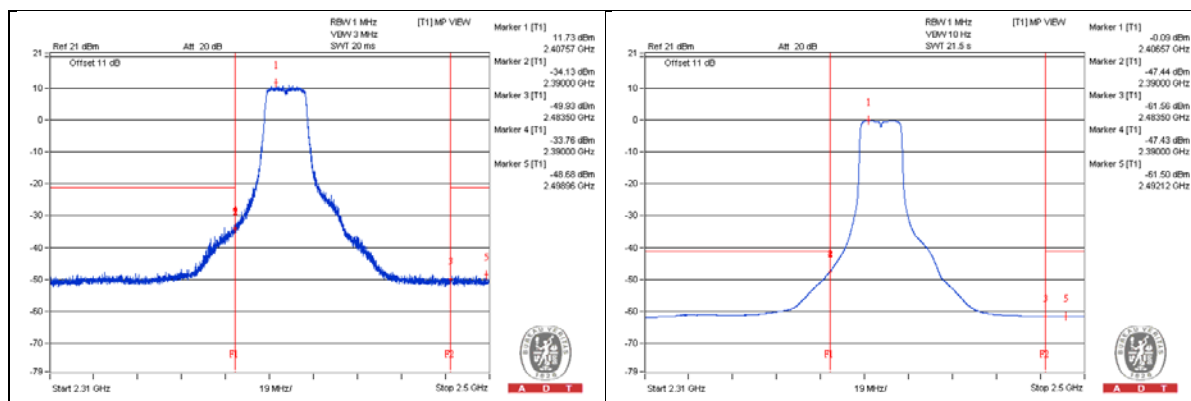
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2390 PK	65.18	74	-8.82	-33.76	3.68	-30.08
2	2390 AV	51.51	54	-2.49	-47.43	3.68	-43.75
3	2498.96 PK	50.26	74	-23.74	-48.68	3.68	-45
4	2492.12 AV	37.44	54	-16.56	-61.5	3.68	-57.82

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 6

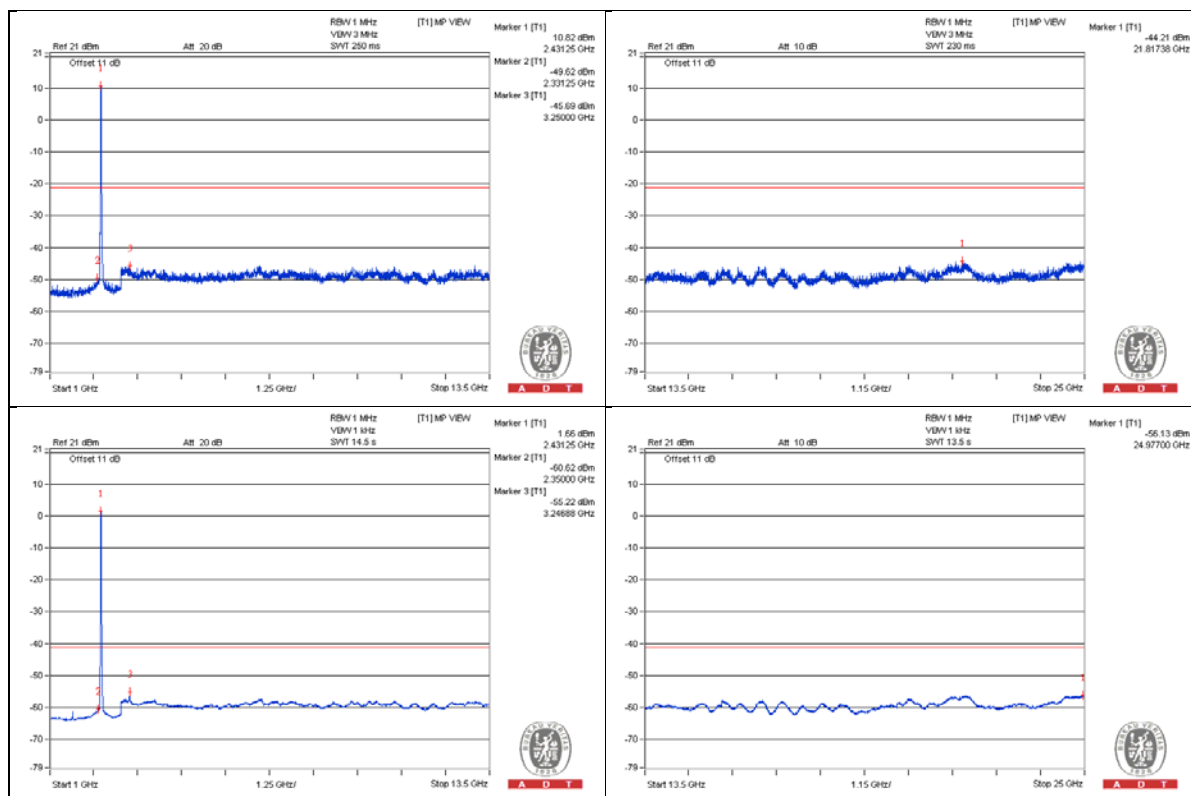
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	46.39	74	-27.61	-52.55	3.68	-48.87
2	1625 AV	37.43	54	-16.57	-61.51	3.68	-57.83
3	4875 PK	50.5	74	-23.5	-48.44	3.68	-44.76
4	4875 AV	39.36	54	-14.64	-59.58	3.68	-55.9
5	7309.375 PK	51.64	74	-22.36	-47.3	3.68	-43.62
6	7312.5 AV	40.36	54	-13.64	-58.58	3.68	-54.9

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



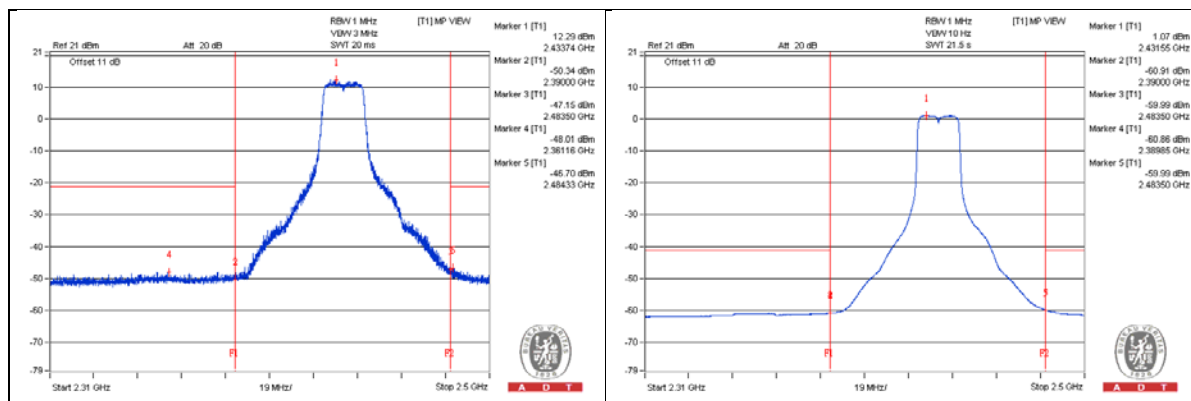
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2361.16 PK	50.93	74	-23.07	-48.01	3.68	-44.33
2	2389.85 AV	38.08	54	-15.92	-60.86	3.68	-57.18
3	2484.33 PK	52.24	74	-21.76	-46.7	3.68	-43.02
4	2483.5 AV	38.95	54	-15.05	-59.99	3.68	-56.31

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 11

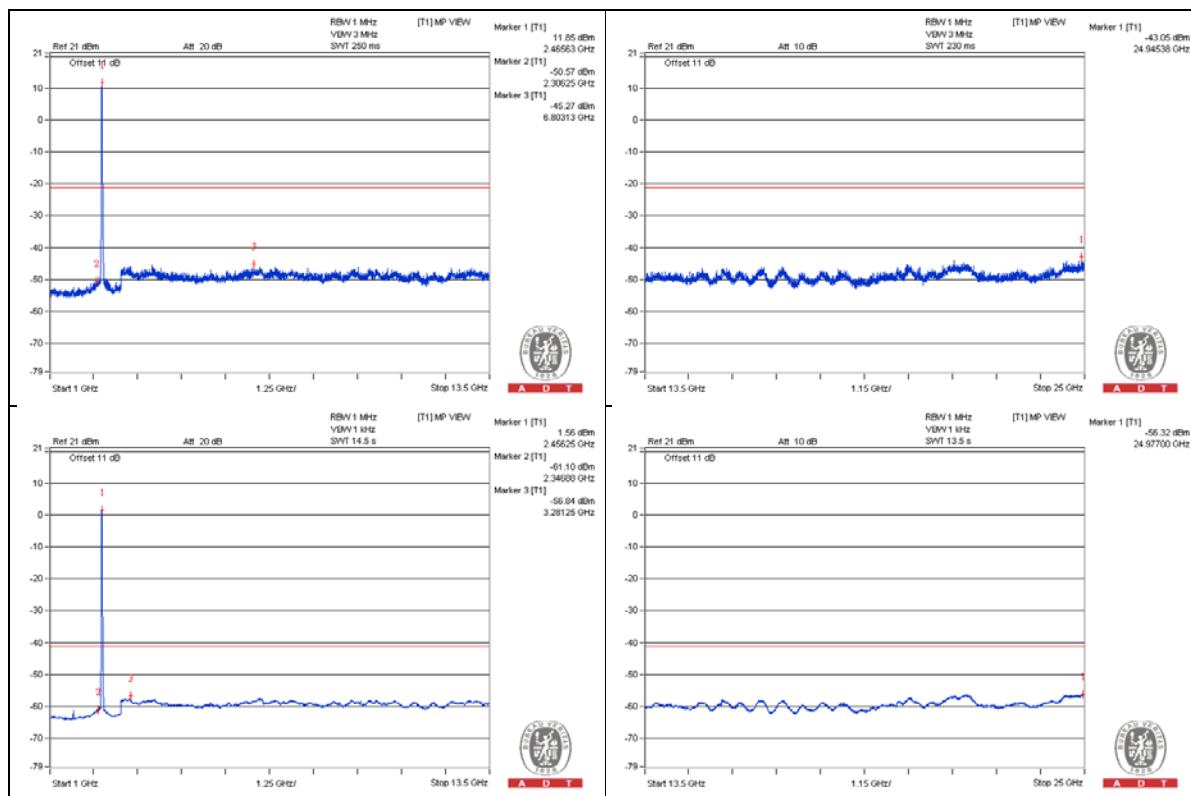
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	48.51	74	-25.49	-50.43	3.68	-46.75
2	4925 AV	39.04	54	-14.96	-59.9	3.68	-56.22
3	7384.375 PK	51.45	74	-22.55	-47.49	3.68	-43.81
4	7384.375 AV	40.73	54	-13.27	-58.21	3.68	-54.53

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



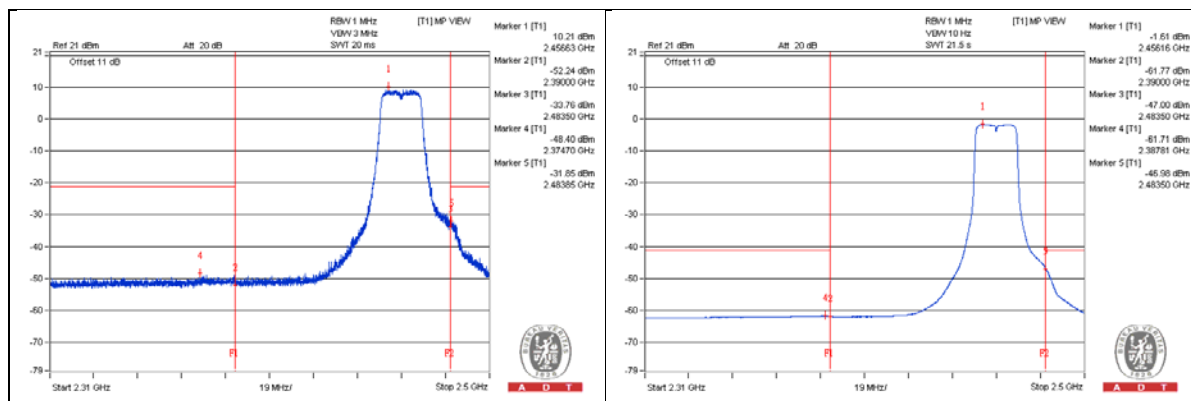
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2374.7 PK	50.54	74	-23.46	-48.4	3.68	-44.72
2	2387.81 AV	37.23	54	-16.77	-61.71	3.68	-58.03
3	2483.85 PK	67.09	74	-6.91	-31.85	3.68	-28.17
4	2483.5 AV	51.96	54	-2.04	-46.98	3.68	-43.3

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 12

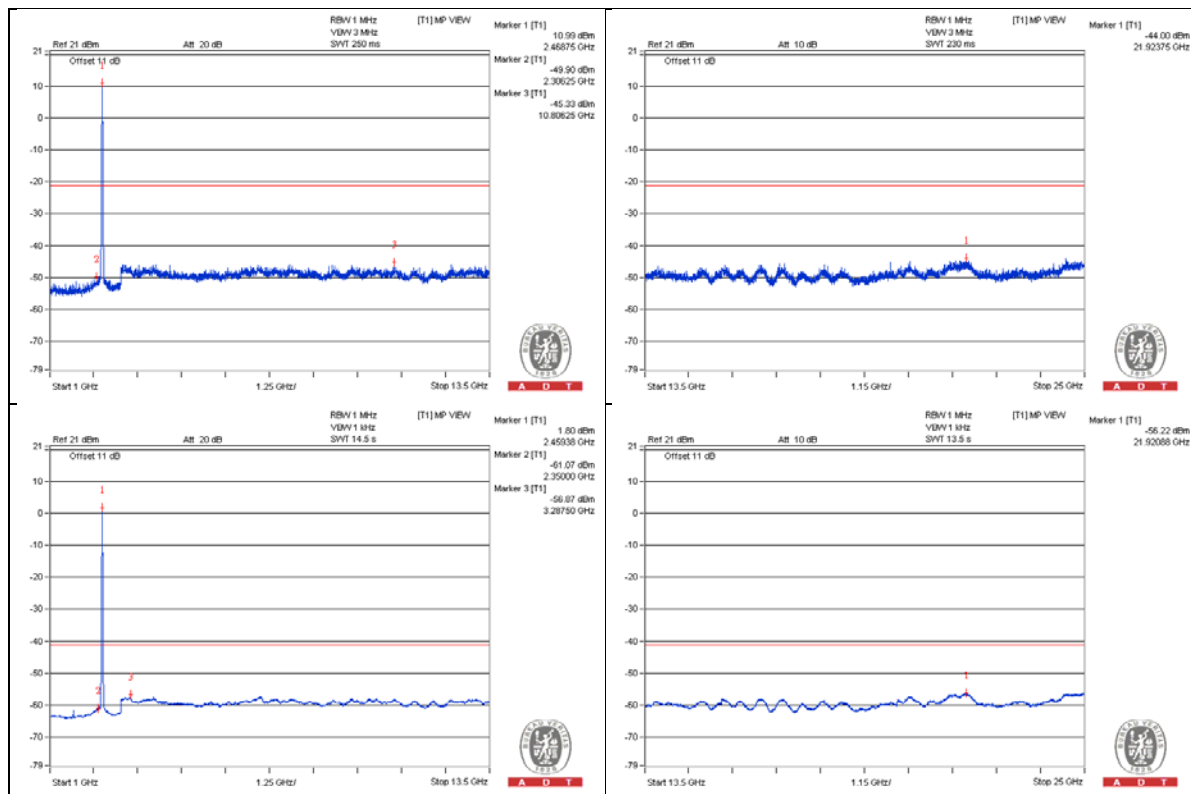
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4934.375 PK	48.77	74	-25.23	-50.17	3.68	-46.49
2	4934.375 AV	39.49	54	-14.51	-59.45	3.68	-55.77
3	7400 PK	50.18	74	-23.82	-48.76	3.68	-45.08
4	7400 AV	40.63	54	-13.37	-58.31	3.68	-54.63

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



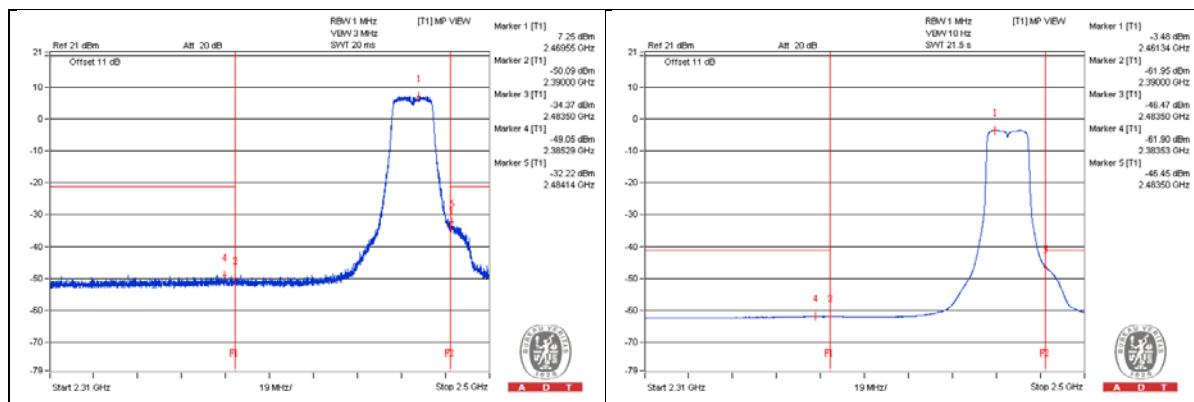
Bandedge table

No.	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2385.29 PK	49.89	74	-24.11	-49.05	3.68	-45.37
2	2383.53 AV	37.04	54	-16.96	-61.9	3.68	-58.22
3	2484.14 PK	66.72	74	-7.28	-32.22	3.68	-28.54
4	2483.5 AV	52.49	54	-1.51	-46.45	3.68	-42.77

Note :

Emission Level (dBUV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 13

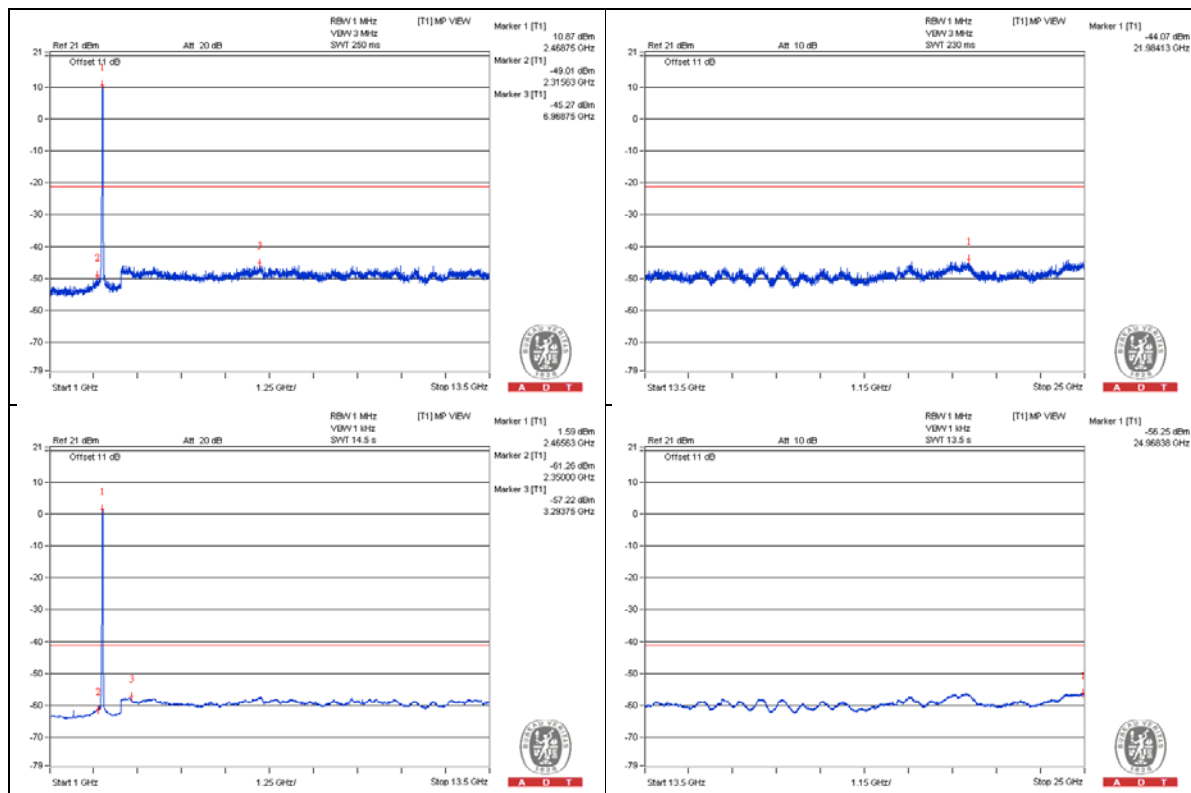
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4943.75 PK	49.88	74	-24.12	-49.06	3.68	-45.38
2	4943.75 AV	39.25	54	-14.75	-59.69	3.68	-56.01
3	7415.625 PK	51.02	74	-22.98	-47.92	3.68	-44.24
4	7415.625 AV	40.65	54	-13.35	-58.29	3.68	-54.61

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



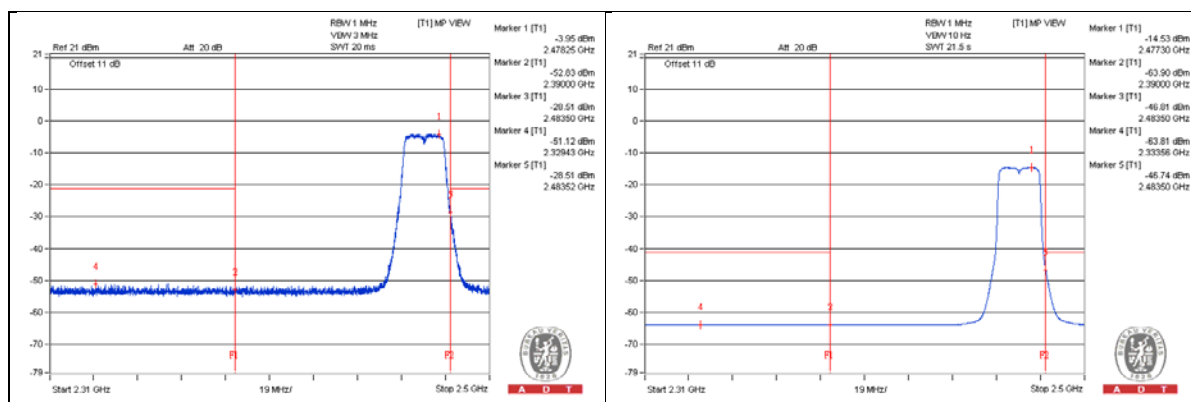
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2329.43 PK	47.82	74	-26.18	-51.12	3.68	-47.44
2	2333.56 AV	35.13	54	-18.87	-63.81	3.68	-60.13
3	2483.52 PK	70.43	74	-3.57	-28.51	3.68	-24.83
4	2483.5 AV	52.2	54	-1.8	-46.74	3.68	-43.06

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT40) - Channel 3

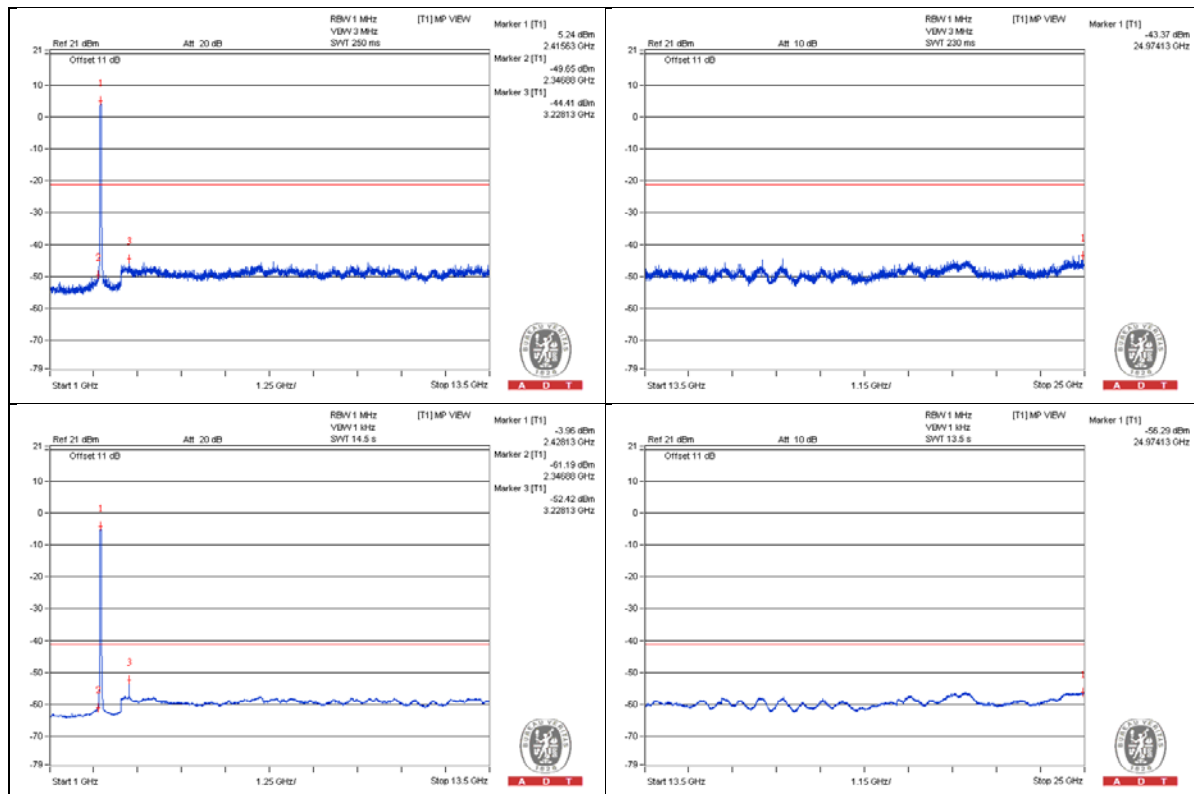
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1615.625 PK	44.35	74	-29.65	-54.59	3.68	-50.91
2	1615.625 AV	35.24	54	-18.76	-63.7	3.68	-60.02
3	4843.75 PK	49	74	-25	-49.94	3.68	-46.26
4	4843.75 AV	39.13	54	-14.87	-59.81	3.68	-56.13
5	7265.625 PK	51.07	74	-22.93	-47.87	3.68	-44.19
6	7265.625 AV	40.32	54	-13.68	-58.62	3.68	-54.94

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



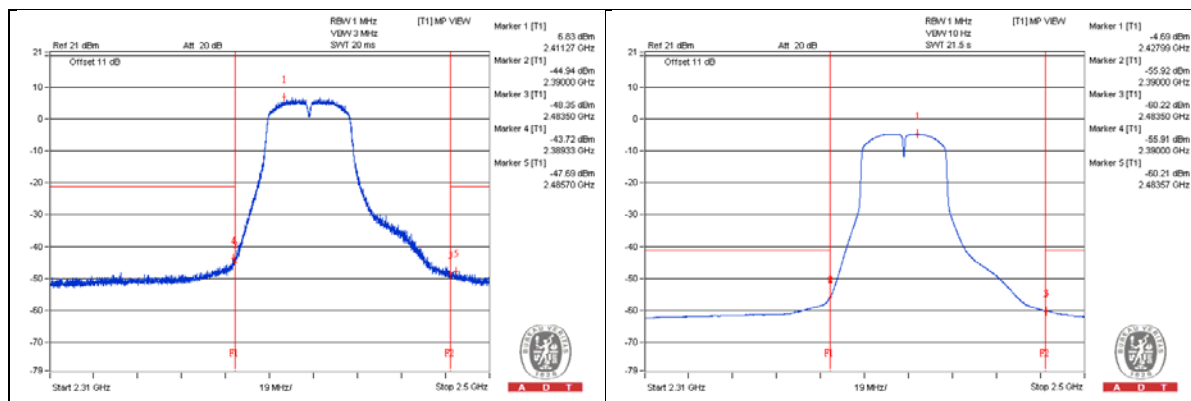
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.33 PK	55.22	74	-18.78	-43.72	3.68	-40.04
2	2390 AV	43.03	54	-10.97	-55.91	3.68	-52.23
3	2485.7 PK	51.25	74	-22.75	-47.69	3.68	-44.01
4	2483.57 AV	38.73	54	-15.27	-60.21	3.68	-56.53

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT40) - Channel 6

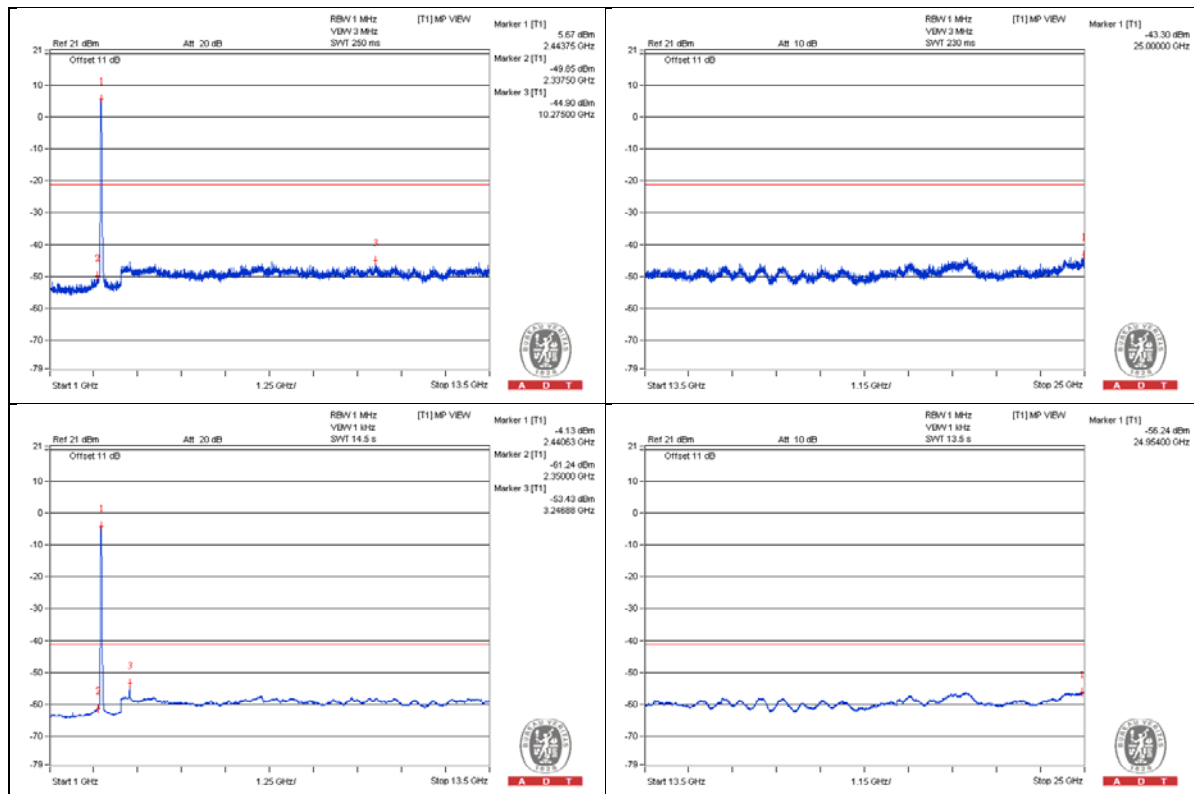
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	44.99	74	-29.01	-53.95	3.68	-50.27
2	1625 AV	36.08	54	-17.92	-62.86	3.68	-59.18
3	4875 PK	49.79	74	-24.21	-49.15	3.68	-45.47
4	4875 AV	39.15	54	-14.85	-59.79	3.68	-56.11
5	7312.5 PK	53.49	74	-20.51	-45.45	3.68	-41.77
6	7309.375 AV	40.48	54	-13.52	-58.46	3.68	-54.78

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



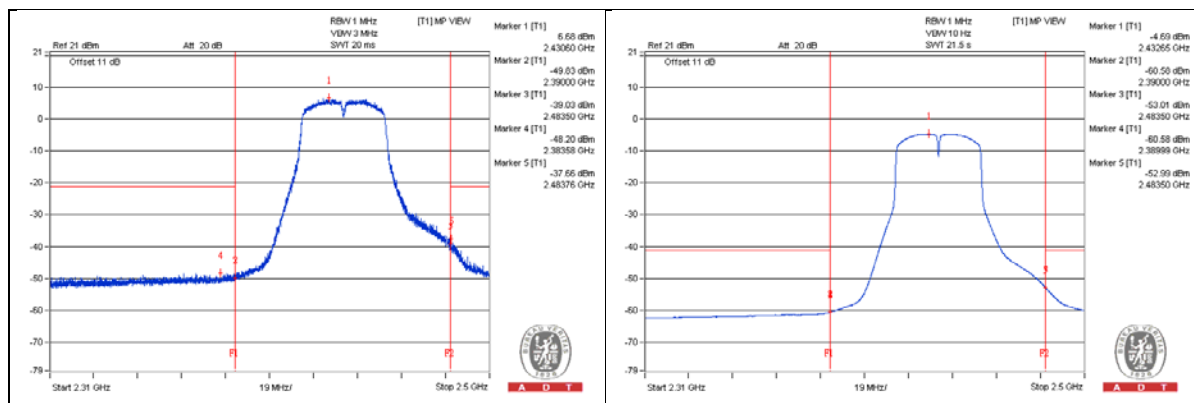
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2383.58 PK	50.74	74	-23.26	-48.2	3.68	-44.52
2	2389.99 AV	38.36	54	-15.64	-60.58	3.68	-56.9
3	2483.76 PK	61.28	74	-12.72	-37.66	3.68	-33.98
4	2483.5 AV	45.95	54	-8.05	-52.99	3.68	-49.31

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT40) - Channel 9

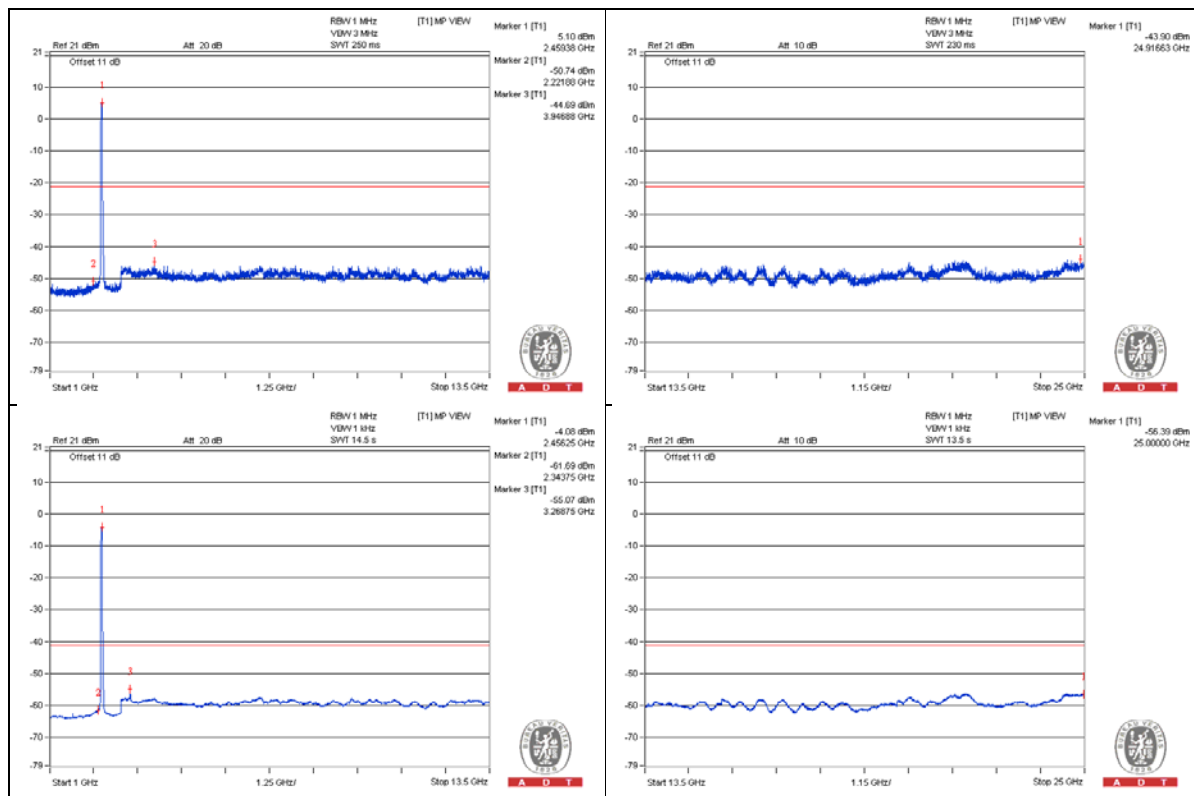
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4903.125 PK	50.21	74	-23.79	-48.73	3.68	-45.05
2	4903.125 AV	39.15	54	-14.85	-59.79	3.68	-56.11
3	7356.25 PK	50.03	74	-23.97	-48.91	3.68	-45.23
4	7356.25 AV	40.26	54	-13.74	-58.68	3.68	-55

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



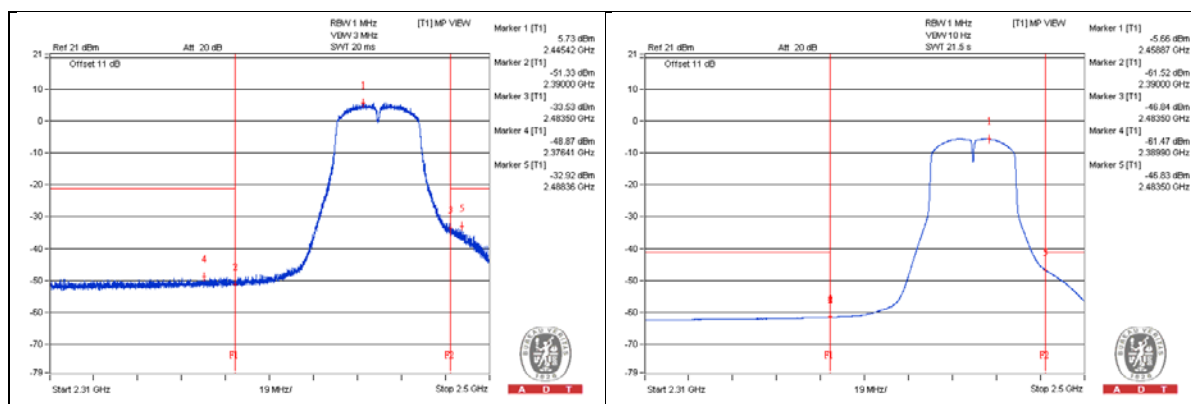
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2376.41 PK	50.07	74	-23.93	-48.87	3.68	-45.19
2	2389.9 AV	37.47	54	-16.53	-61.47	3.68	-57.79
3	2488.36 PK	66.02	74	-7.98	-32.92	3.68	-29.24
4	2483.5 AV	52.11	54	-1.89	-46.83	3.68	-43.15

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT40) - Channel 10

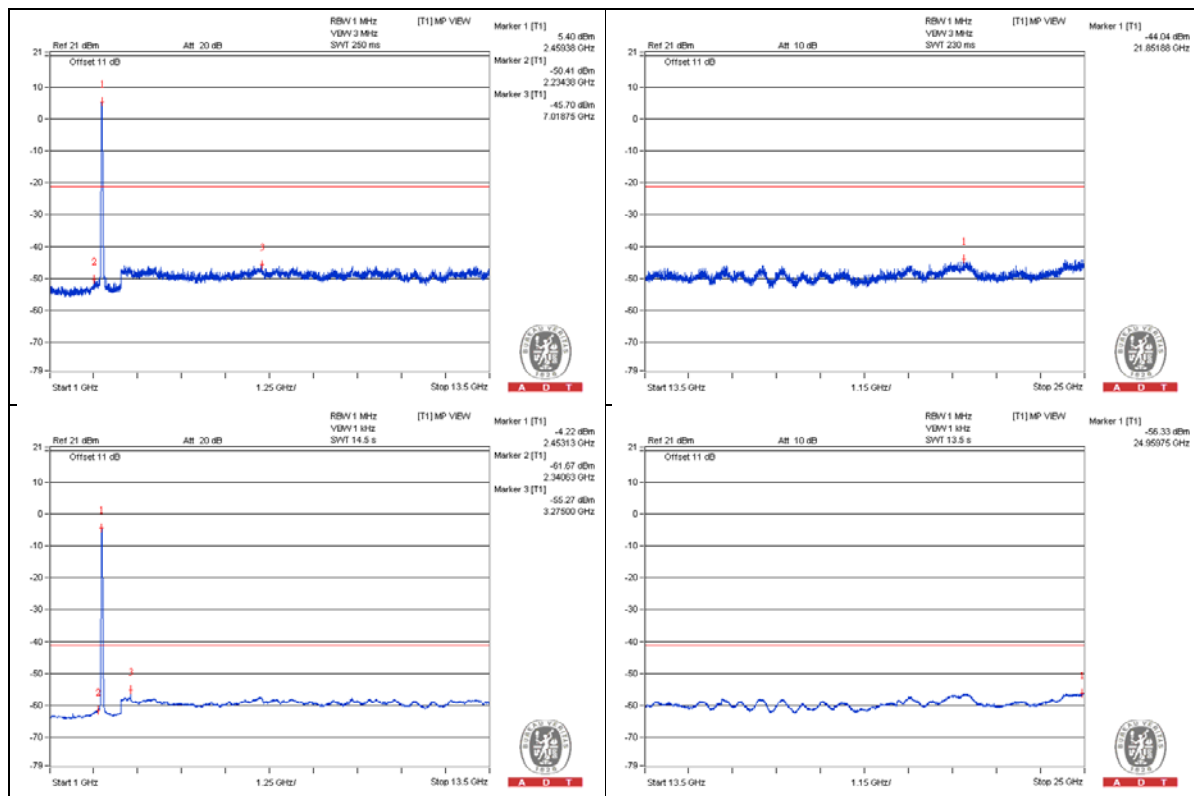
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4912.5 PK	49.94	74	-24.06	-49	3.68	-45.32
2	4912.5 AV	39	54	-15	-59.94	3.68	-56.26
3	7371.875 PK	50.67	74	-23.33	-48.27	3.68	-44.59
4	7371.875 AV	40.36	54	-13.64	-58.58	3.68	-54.9

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



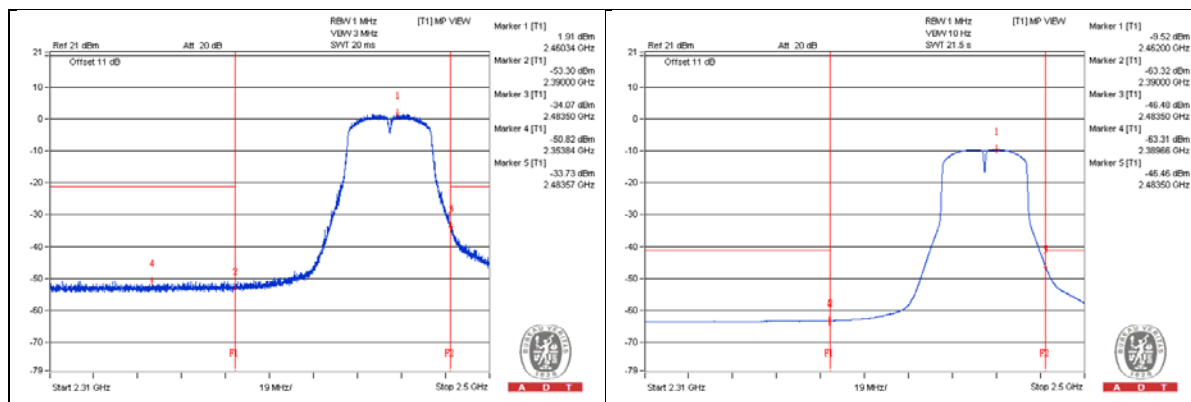
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2353.84 PK	48.12	74	-25.88	-50.82	3.68	-47.14
2	2389.66 AV	35.63	54	-18.37	-63.31	3.68	-59.63
3	2483.57 PK	65.21	74	-8.79	-33.73	3.68	-30.05
4	2483.5 AV	52.48	54	-1.52	-46.46	3.68	-42.78

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



802.11n (HT40) - Channel 11

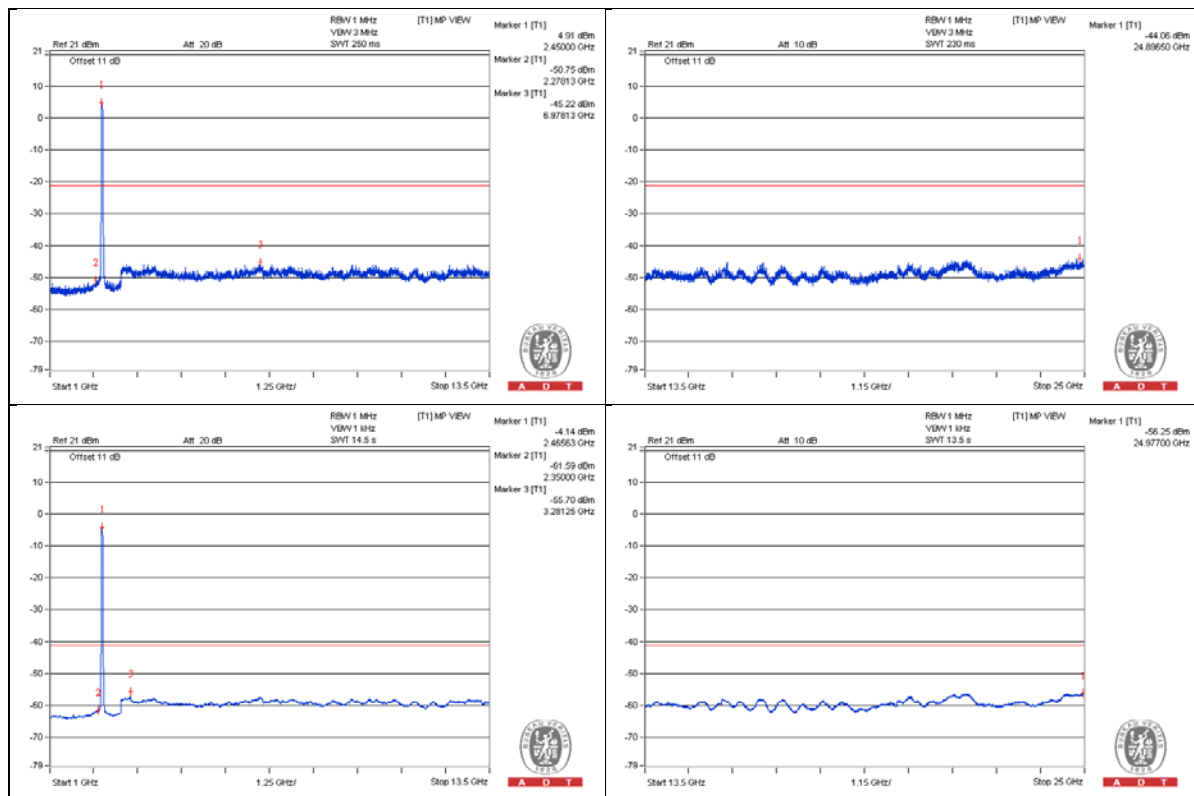
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	49.99	74	-24.01	-48.95	3.68	-45.27
2	4925 AV	38.87	54	-15.13	-60.07	3.68	-56.39
3	7387.5 PK	50.64	74	-23.36	-48.3	3.68	-44.62
4	7387.5 AV	40.53	54	-13.47	-58.41	3.68	-54.73

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



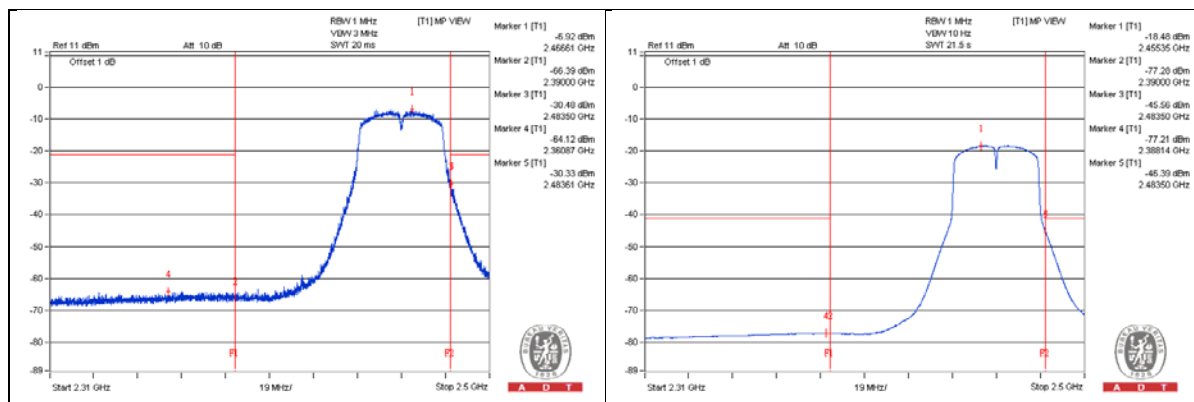
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2360.87 PK	34.82	74	-39.18	-64.12	3.68	-60.44
2	2388.14 AV	21.73	54	-32.27	-77.21	3.68	-73.53
3	2483.61 PK	68.61	74	-5.39	-30.33	3.68	-26.65
4	2483.5 AV	52.55	54	-1.45	-46.39	3.68	-42.71

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.



Below 1GHz Data

802.11n (HT20) - Channel 6

Conducted spurious emission table

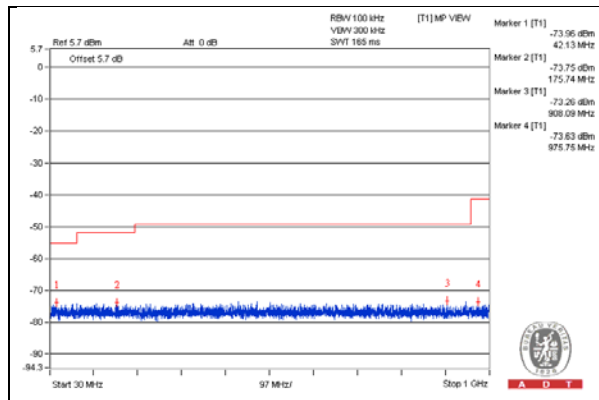
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	42.125	24.98	40	-15.02	-73.96	3.68	-70.28
2	175.7425	25.19	43.5	-18.31	-73.75	3.68	-70.07
3	344.0375	24.91	46	-21.09	-74.03	3.68	-70.35
4	486.6275	25.39	46	-20.61	-73.55	3.68	-69.87
5	640.13	24.95	46	-21.05	-73.99	3.68	-70.31

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8

d = measurement distance in 3 meters.

Emission levels include upper bound on ground plane reflection (4.7dB) for below 1GHz emission.



4.6 Conducted Emission Measurement

4.6.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.6.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100375	May 06, 2015	May 05, 2016
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-522	Sep. 01, 2015	Aug. 31, 2016
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 11, 2015	June 10, 2016
RF Cable	5D-FB	COCCAB-001	Mar. 09, 2015	Mar. 08, 2016
50 ohms Terminator	N/A	EMC-03	Sep. 23, 2015	Sep. 22, 2016
50 ohms Terminator	N/A	EMC-02	Oct. 01, 2015	Sep. 30, 2016
Software BVADT	BVADT_Cond_ V7.3.7.3	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: Feb. 26, 2016

4.6.3 Test Procedures

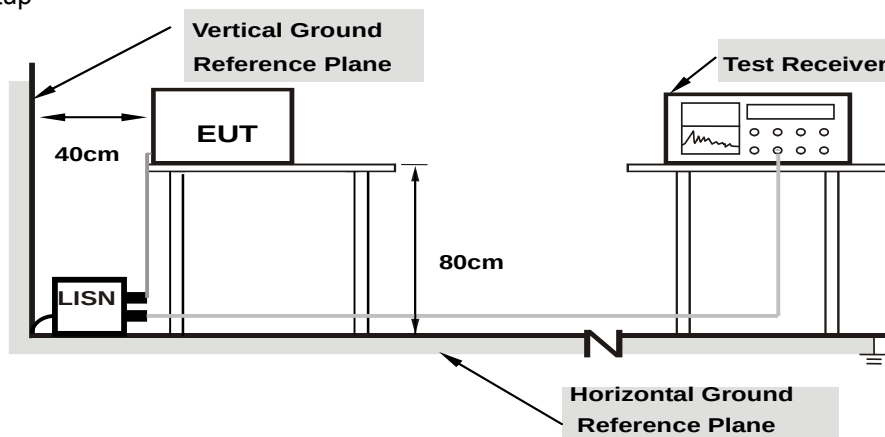
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.6.4 Deviation from Test Standard

No deviation.

4.6.5 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).

4.6.6 EUT Operating Conditions

Same as 4.5.6.

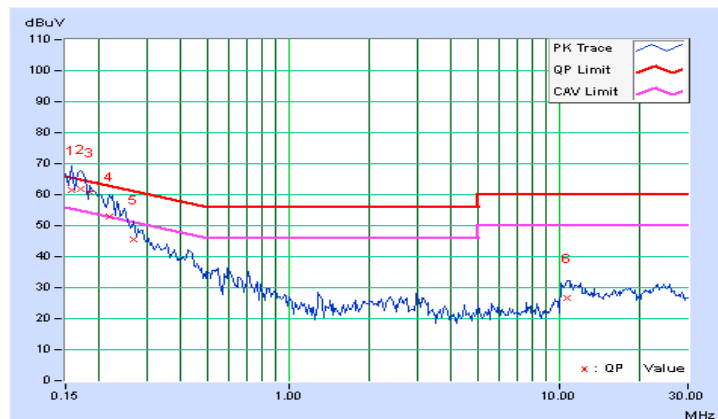
4.6.7 Test Results

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

No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	10.25	51.11	37.46	61.36	47.71	65.58	55.58	-4.21	-7.86
2	0.16953	10.24	51.76	37.48	62.00	47.72	64.98	54.98	-2.98	-7.26
3	0.18516	10.23	50.59	37.20	60.82	47.43	64.25	54.25	-3.43	-6.82
4	0.21641	10.22	42.60	28.17	52.82	38.39	62.96	52.96	-10.13	-14.56
5	0.26719	10.23	35.47	22.36	45.70	32.59	61.20	51.20	-15.51	-18.62
6	10.72656	10.56	16.21	8.46	26.77	19.02	60.00	50.00	-33.23	-30.98

REMARKS:

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

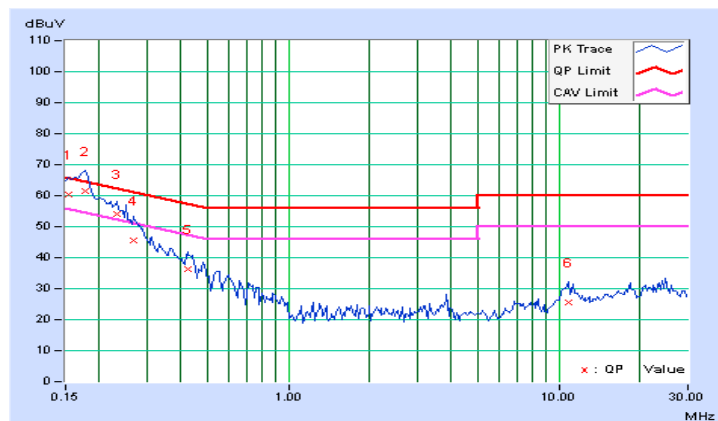


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.24	50.20	35.21	60.44	45.45	65.79	55.79	-5.35	-10.34
2	0.17734	10.22	51.33	37.04	61.55	47.26	64.61	54.61	-3.06	-7.35
3	0.23203	10.20	43.81	31.14	54.01	41.34	62.38	52.38	-8.36	-11.03
4	0.26719	10.21	35.40	22.12	45.61	32.33	61.20	51.20	-15.60	-18.88
5	0.42344	10.22	25.94	10.29	36.16	20.51	57.38	47.38	-21.22	-26.87
6	10.89063	10.58	15.04	7.88	25.62	18.46	60.00	50.00	-34.38	-31.54

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.



5 Pictures of Test Arrangements

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

6 Appendix A – 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 accredited and approved 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 ---