

FCC Test Report (WLAN)

Report No.: RF150720E06

FCC ID: PPD-QCASP242

Test Model: QCASP242

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Release Control Record

Issue No.	Description	Date Issued
RF150720E06	Original release.	Jan. 08, 2016

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 -8.77dB at 0.19056MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -3.0dB at 4924.00MHz.
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 IPEX not a standard connector.

NOTE: 1. For WLAN: The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 2400 ~ 2483.5MHz. For the 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz and 5.725~5.850GHz RF parameters was recorded in another test report.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.86 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.19 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz-	3.43 dB
	6GHz ~ 18GHz	3.49 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 WiFi Dual-Band 802.11a/b/g/n
Brand	Qualcomm Atheros
Test Model	QCASP242
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 802.11a/g: up to 54Mbps 802.11n: up to 150Mbps
Operating Frequency	For 15.407 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.50 ~ 5.72GHz, 5.745 ~ 5.825GHz For 15.247 2.412 ~ 2.472GHz
Number of Channel	For 15.407 25 for 802.11a, 802.11n (HT20) 12 for 802.11n (HT40) For 15.247 13 for 802.11b/g, 802.11n (HT20) 9 for 802.11n (HT40)
Output Power	For 15.407 802.11a: 14.454 mW 802.11n (HT20): 14.06mW 802.11n (HT40): 11.749mW For 15.247 802.11b: 102.094mW 802.11g: 191.867mW 802.11n (HT20): 188.799mW 802.11n (HT40): 113.501mW
Antenna Type	See item 3.2
Antenna Connector	See item 3.2
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. 2.4GHz & 5GHz technology can't transmit at same time.
2. The modular has two variant designs as following table:

Variant No.	Difference	TX & RX Configuration
SKU #1	External antenna version	1TX/1RX
SKU #2	On board PCB antenna version	1TX/1RX

3. The EUT incorporates a 1T1R function.

2.4GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	1TX	1RX (diversity)
802.11g	6 ~ 54Mbps	1TX	1RX (diversity)
802.11n (HT20)	MCS 0~7	1TX	1RX (diversity)
802.11n (HT40)	MCS 0~7	1TX	1RX (diversity)
5GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11a	6 ~ 54Mbps	1TX	1RX (diversity)
802.11n (HT20)	MCS 0~7	1TX	1RX (diversity)
802.11n (HT40)	MCS 0~7	1TX	1RX (diversity)

4. The EUT was pre-tested under the following modes:

Test Mode	Data rate
Mode A	400ns GI
Mode B	800ns GI

From the above modes, the worst case was found in **Mode B**. Therefore only the test data of the mode was recorded in this report.

5. 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.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	2.4GHz Cable Loss (dB)	5GHz Cable Loss (dB)	Connector Type	Cable Length (mm)
1	Chain (0)	WNC	81.EBJ15.005	PIFA	3.00	5.15~5.35GHz: 2.56	1.15	5.15~5.35GHz: 1.70	IPEX	300
						5.47~5.725GHz: 4.76		5.47~5.725GHz: 1.74		
						5.725~5.85GHz: 4.76		5.725~5.85GHz: 1.79		
	Chain (1)	WNC	81.EBJ15.005	PIFA	3.62	5.15~5.35GHz: 3.08	1.15	5.15~5.35GHz: 1.70	IPEX	300
						5.47~5.725GHz: 3.31		5.47~5.725GHz: 1.74		
						5.725~5.85GHz: 2.42		5.725~5.85GHz: 1.79		
Ant. No.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain (dBi)	5GHz Gain (dBi)	Connector Type			
2	Chain (0)	QCA	QCASP242-Ant	PCB	1.72	1.91	IPEX			

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

Following antenna combination(s) was (were) selected as representative mode for test or evaluate in this report as listed.

Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	2.4GHz Cable Loss (dB)	5GHz Cable Loss (dB)	Connector Type	Cable Length (mm)
Chain (0)+(1)	WNC	81.EBJ15.005	PIFA	3.62	5.15~5.35GHz: 2.56	1.15	5.15~5.35GHz: 1.70	IPEX	300
					5.47~5.725GHz: 4.76		5.47~5.725GHz: 1.74		
					5.725~5.85GHz: 4.76		5.725~5.85GHz: 1.79		

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 \geq 1G	UE<1G	PLC	APCM	
-	√	√	√	√	-

Where **UE \geq 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)
802.11g	1 to 13	6	OFDM	6

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)
802.11g	1 to 13	6	OFDM	6

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.

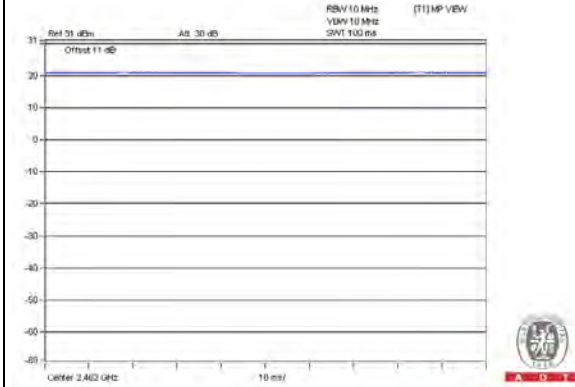
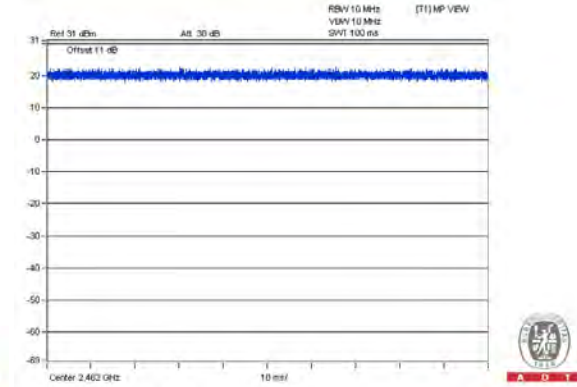
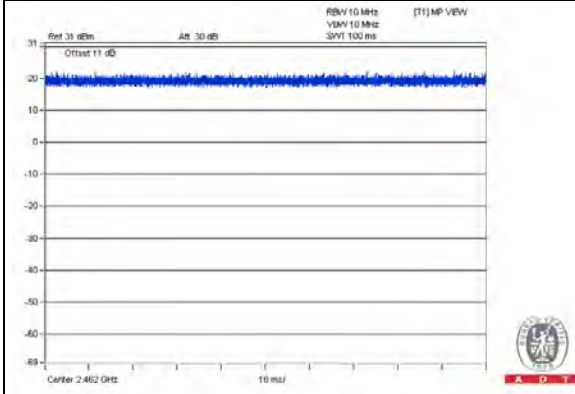
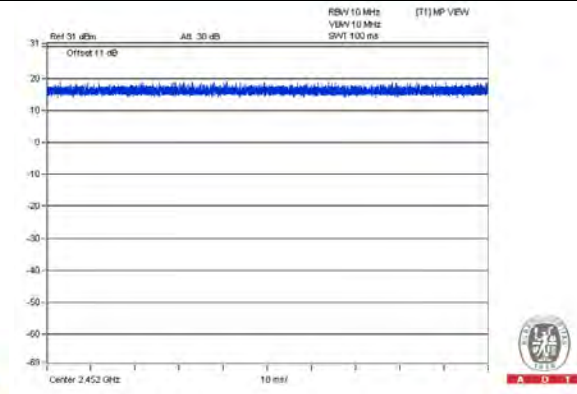
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	DATA RATE (Mbps)
802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	1
802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	6
802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	6.5
802.11n (HT40)	3 to 11	3, 6, 9, 10, 11	OFDM	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
UE≥1G	26deg. C, 71%RH	120Vac, 60Hz	Gary Cheng
UE<1G	19deg. C, 65%RH	120Vac, 60Hz	Gary Cheng
PLC	25deg. C, 67%RH	120Vac, 60Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.4 Duty Cycle of Test Signal

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

802.11b**802.11g****802.11n (HT20)****802.11n (HT40)**

3.5 Description of Support Units

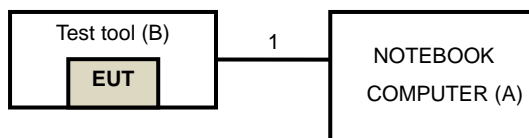
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	NOTEBOOK COMPUTER	Lenovo	0769	NA	NA	Provided by Lab
B	Test tool	NA	9583H3D0100	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	0.5	Yes	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 v03r04
ANSI C63.10- 2013

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

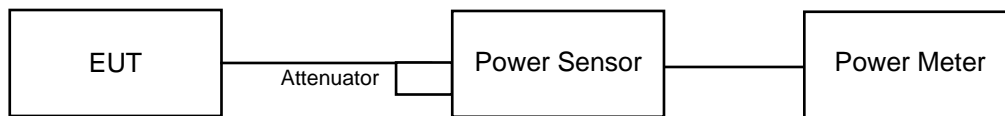
4 Test Types and Results

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 : Nov. 16, 2015

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 (artgui.exe 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	86.298	19.36	30	Pass
6	2437	91.622	19.62	30	Pass
11	2462	102.094	20.09	30	Pass
12	2467	100.462	20.02	30	Pass
13	2472	19.454	12.89	30	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	97.949	19.91	30	Pass
6	2437	191.867	22.83	30	Pass
11	2462	155.597	21.92	30	Pass
12	2467	94.624	19.76	30	Pass
13	2472	14.158	11.51	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	86.099	19.35	30	Pass
6	2437	188.799	22.76	30	Pass
11	2462	138.357	21.41	30	Pass
12	2467	87.902	19.44	30	Pass
13	2472	8.072	9.07	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
3	2422	55.847	17.47	30	Pass
6	2437	113.501	20.55	30	Pass
9	2452	90.782	19.58	30	Pass
10	2457	46.881	16.71	30	Pass
11	2462	3.622	5.59	30	Pass

FOR AVERAGE POWER
802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	50.234	17.01
6	2437	51.880	17.15
11	2462	59.429	17.74
12	2467	58.884	17.70
13	2472	11.614	10.65

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	24.491	13.89
6	2437	54.075	17.33
11	2462	40.926	16.12
12	2467	21.928	13.41
13	2472	3.133	4.96

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	20.137	13.04
6	2437	51.880	17.15
11	2462	34.674	15.40
12	2467	21.038	13.23
13	2472	1.982	2.97

802.11n (HT40)

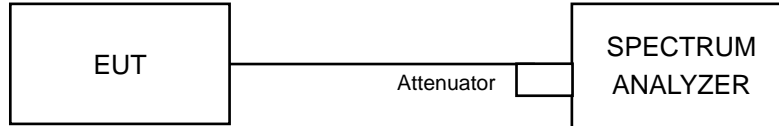
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
3	2422	17.824	12.51
6	2437	35.645	15.52
9	2452	29.444	14.69
10	2457	15.382	11.87
11	2462	1.183	0.73

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 : Nov. 16, 2015

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

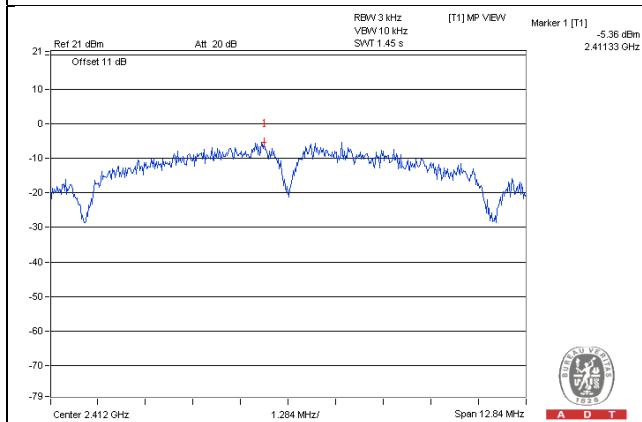
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Results

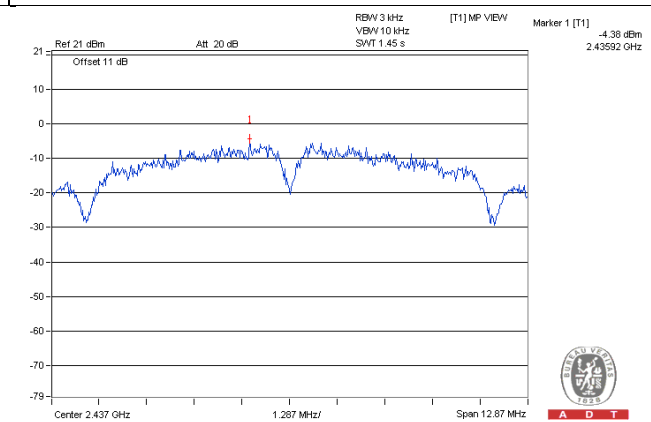
802.11b

Channel	Freq. (MHz)	PSD (dBm)	Limit (dBm)	Pass /Fail
1	2412	-5.36	8	Pass
6	2437	-4.38	8	Pass
11	2462	-4.47	8	Pass
12	2467	-4.16	8	Pass
13	2472	-11.77	8	Pass

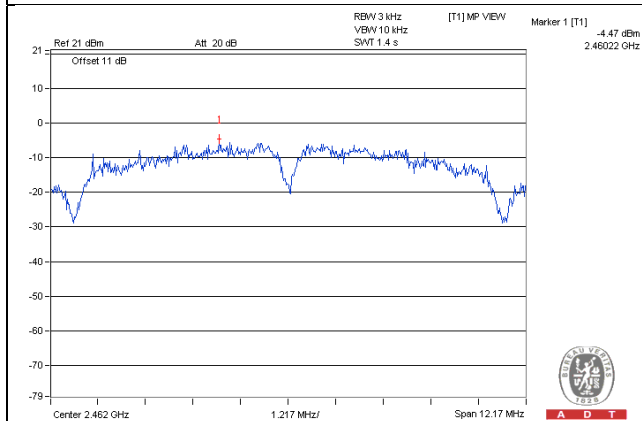
CH1



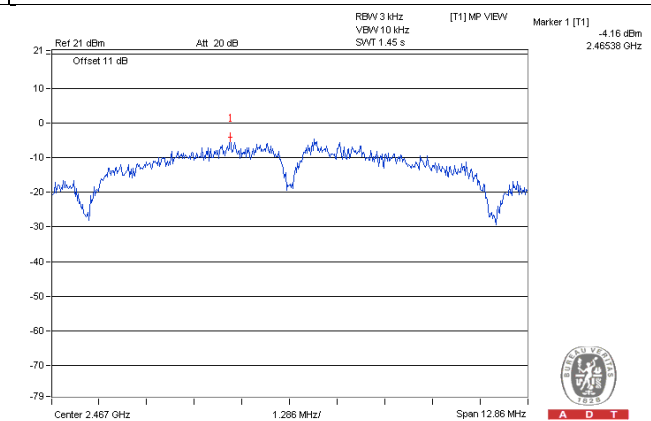
CH6



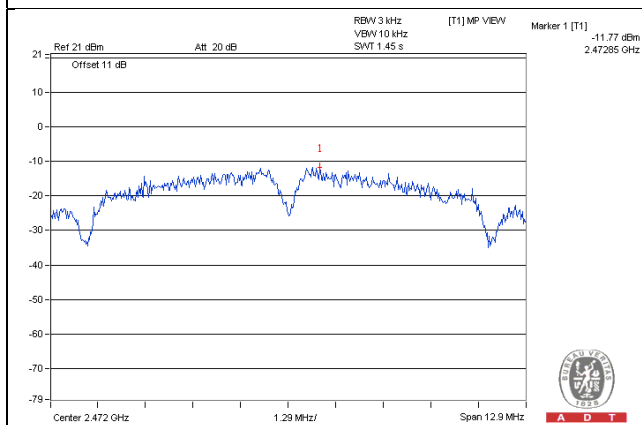
CH11



CH12

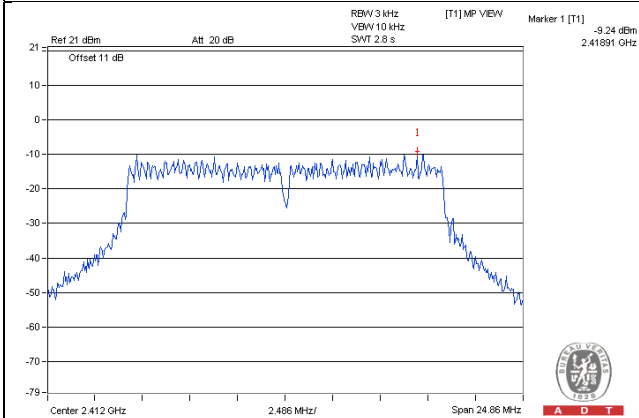
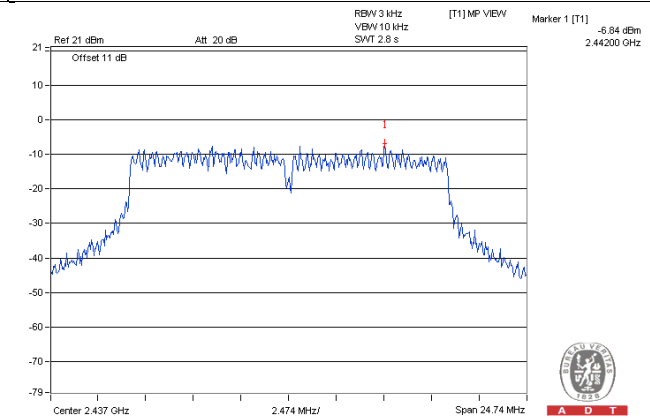
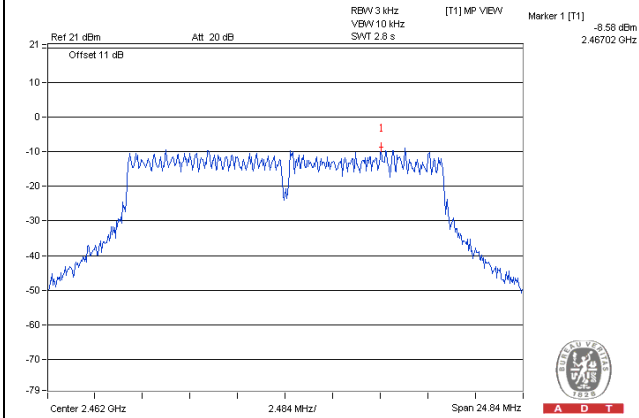
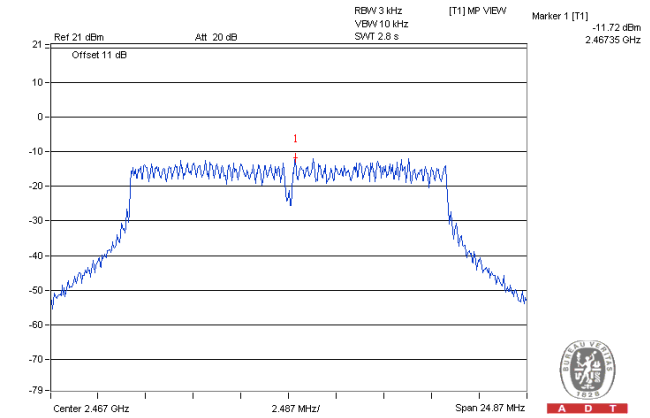
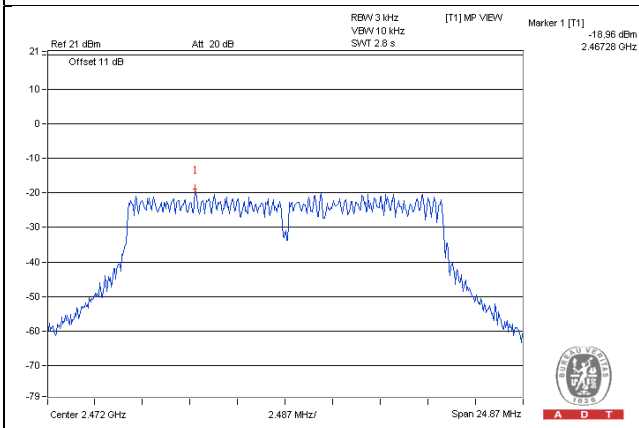


CH13



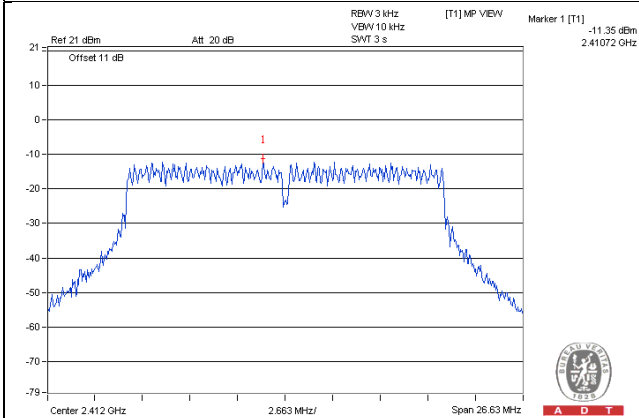
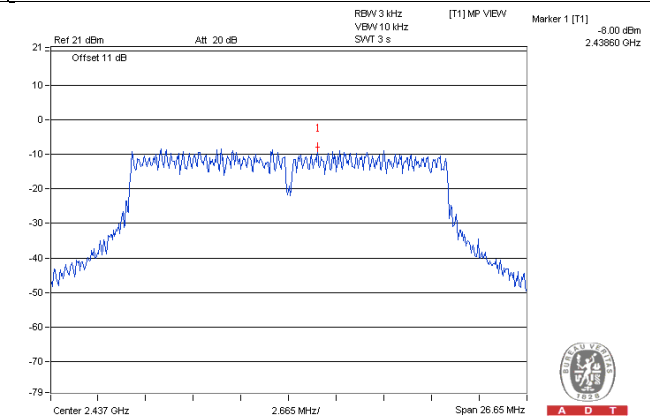
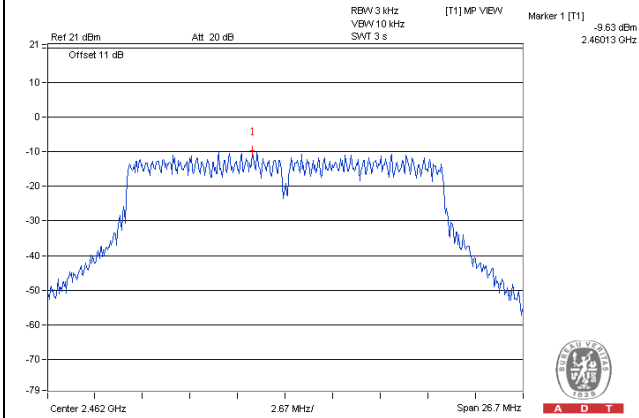
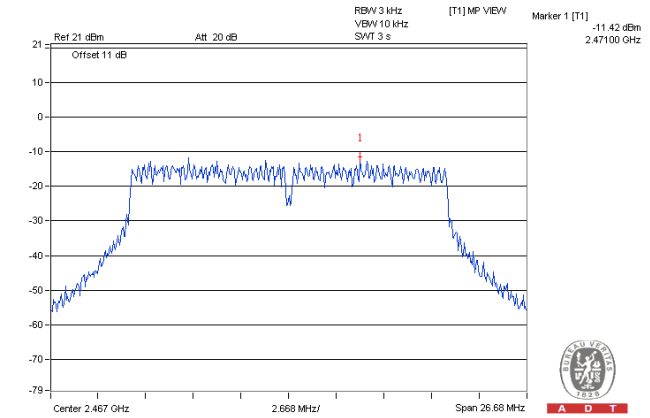
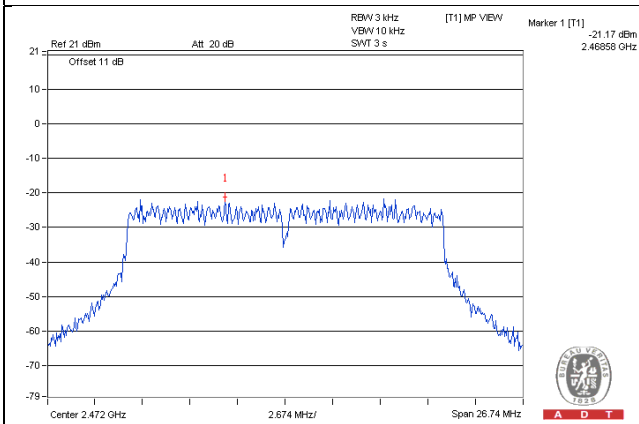
802.11g

Channel	Freq. (MHz)	PSD (dBm)	Limit (dBm)	Pass /Fail
1	2412	-9.24	8	Pass
6	2437	-6.84	8	Pass
11	2462	-8.58	8	Pass
12	2467	-11.72	8	Pass
13	2472	-18.96	8	Pass

CH1

CH6

CH11

CH12

CH13


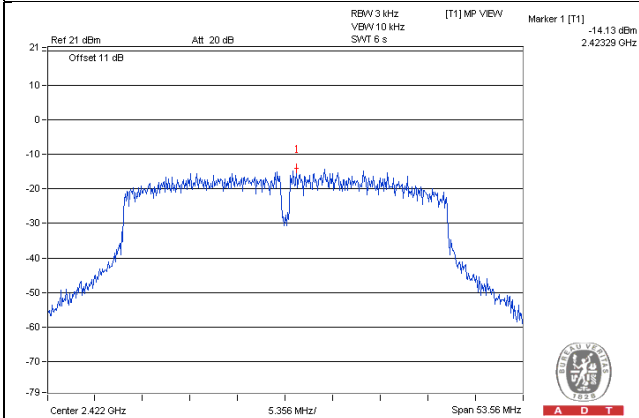
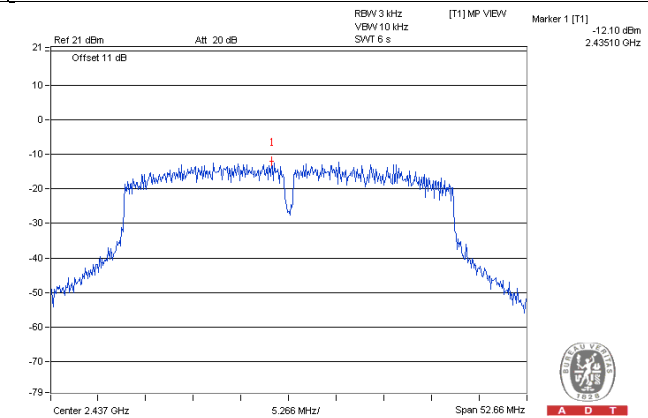
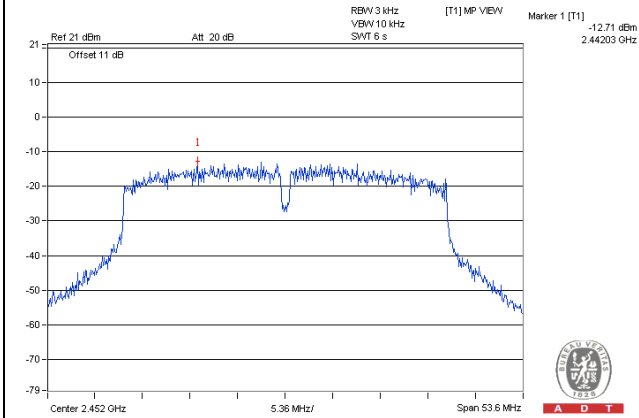
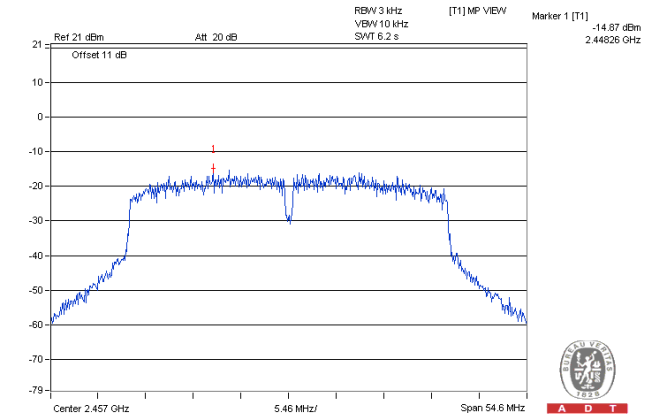
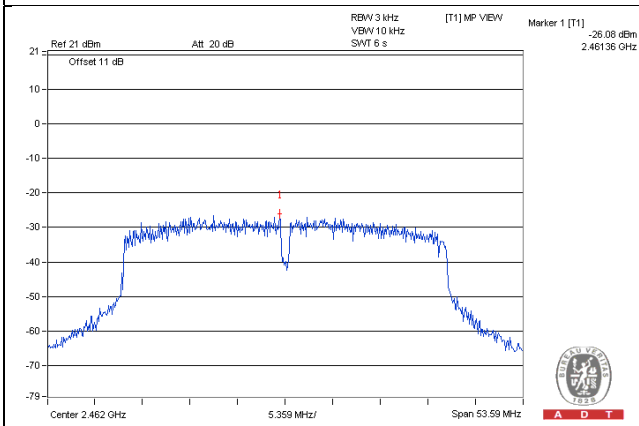
802.11n (HT20)

Channel	Freq. (MHz)	PSD (dBm)	Limit (dBm)	Pass /Fail
1	2412	-11.35	8	Pass
6	2437	-8.00	8	Pass
11	2462	-9.63	8	Pass
12	2467	-11.42	8	Pass
13	2472	-21.17	8	Pass

CH1

CH6

CH11

CH12

CH13


802.11n (HT40)

Channel	Freq. (MHz)	PSD (dBm)	Limit (dBm)	Pass /Fail
3	2422	-14.13	8	Pass
6	2437	-12.10	8	Pass
9	2452	-12.71	8	Pass
10	2457	-14.87	8	Pass
11	2462	-26.08	8	Pass

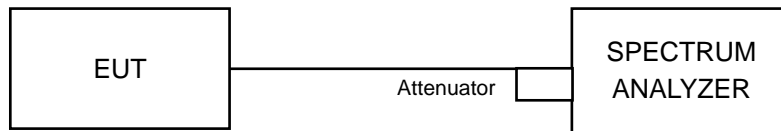
CH3

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 : Nov. 16, 2015

4.3.4 Test Procedures

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

4.3.5 Deviation from Test Standard

No deviation.

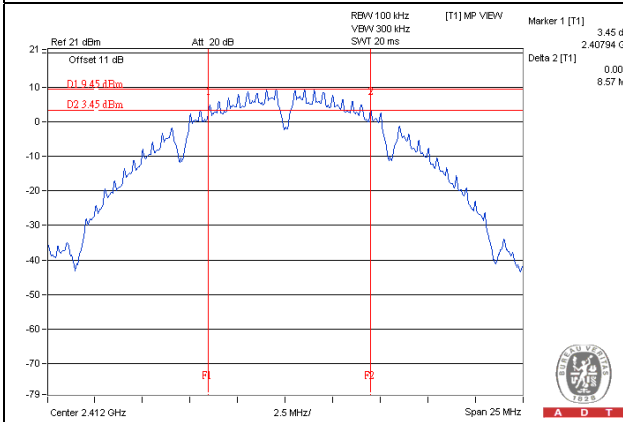
4.3.6 EUT Operating Conditions

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

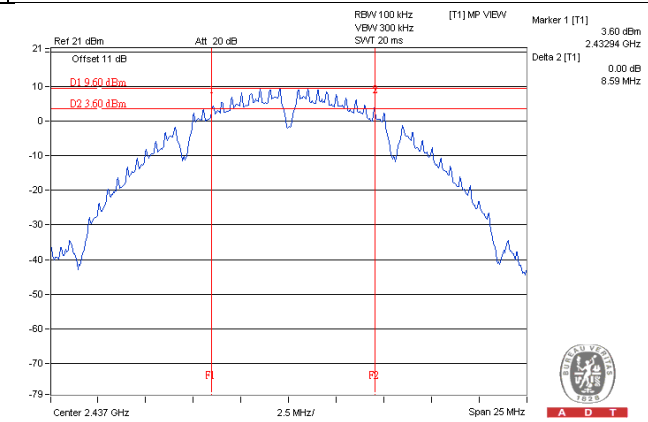
4.3.7 Test Results 802.11b

Channel	Frequency (MHz)	6db Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	8.57	0.5	PASS
6	2437	8.59	0.5	PASS
11	2462	8.12	0.5	PASS
12	2467	8.57	0.5	PASS
13	2472	8.61	0.5	PASS

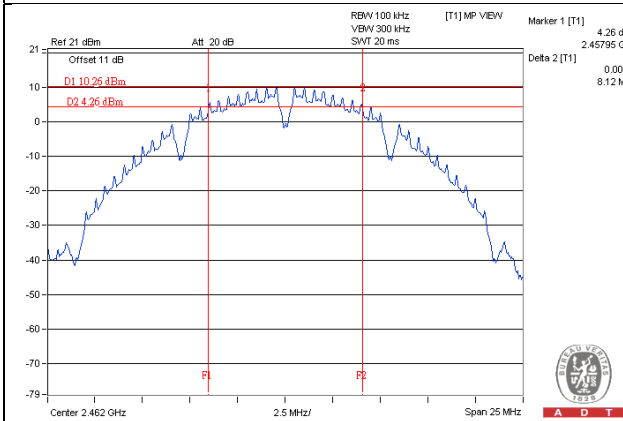
CH1



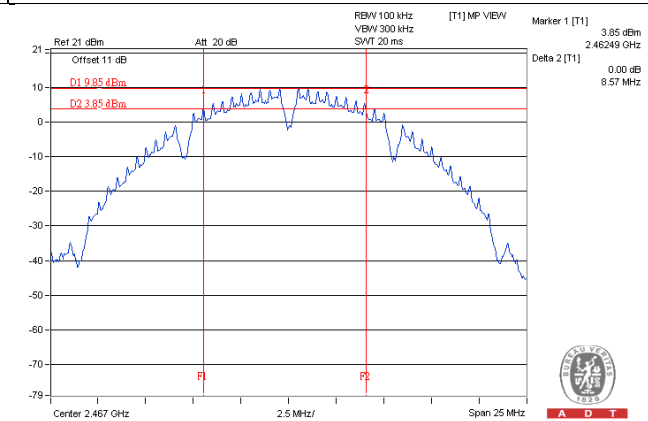
CH6



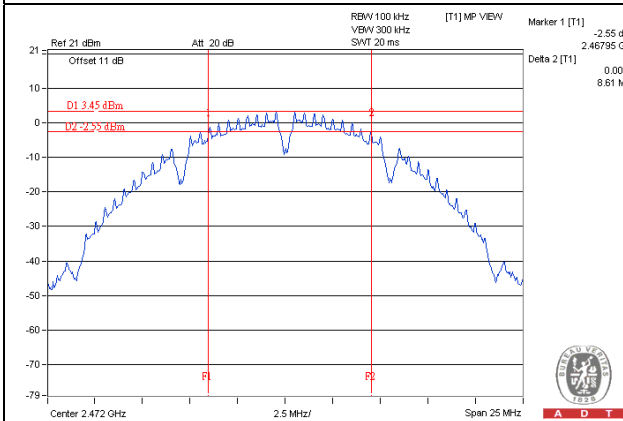
CH11



CH12



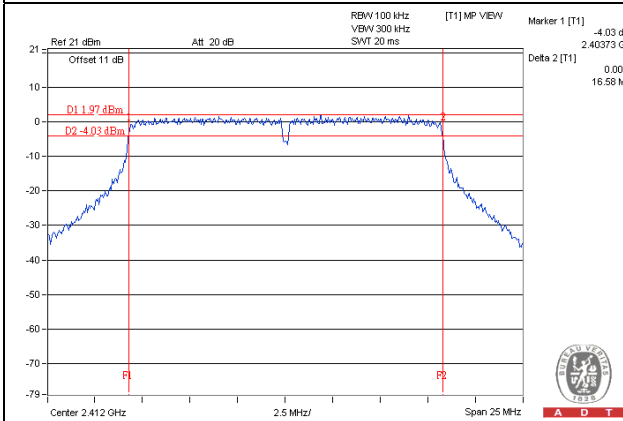
CH13



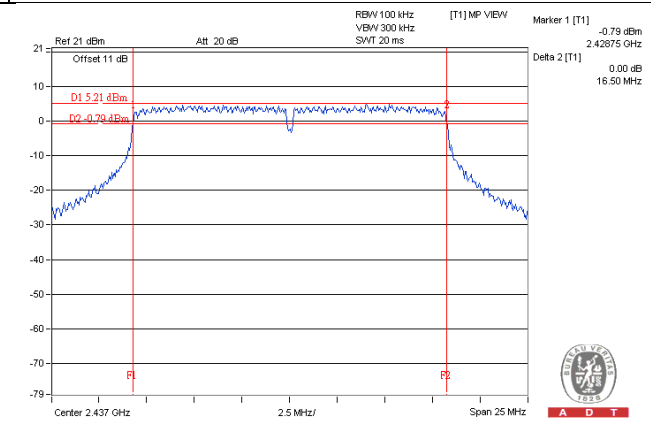
802.11g

Channel	Frequency (MHz)	6db Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	16.58	0.5	PASS
6	2437	16.50	0.5	PASS
11	2462	16.56	0.5	PASS
12	2467	16.58	0.5	PASS
13	2472	16.58	0.5	PASS

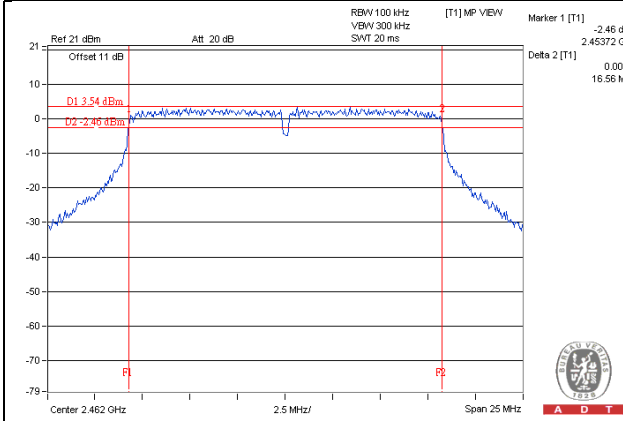
CH1



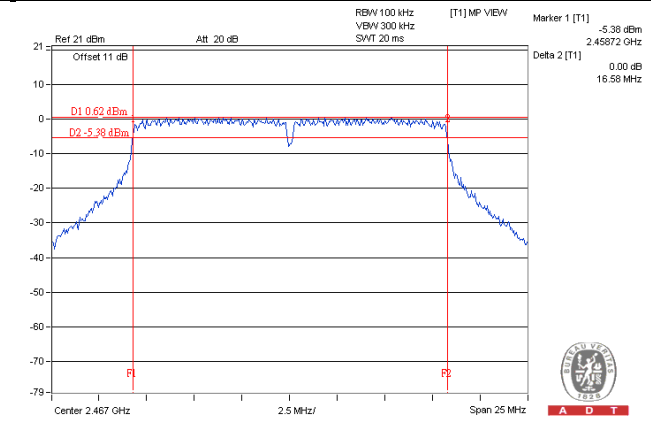
CH6



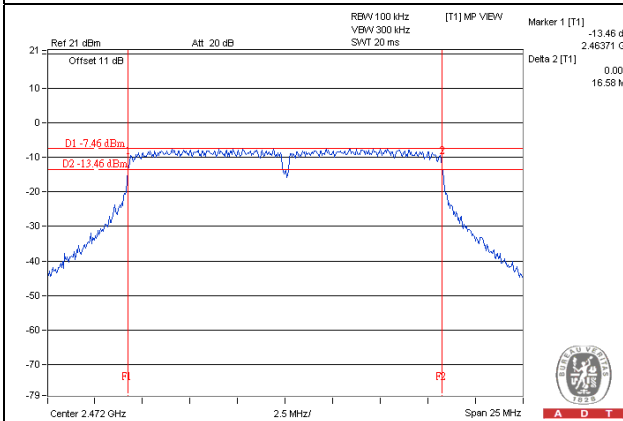
CH11



CH12



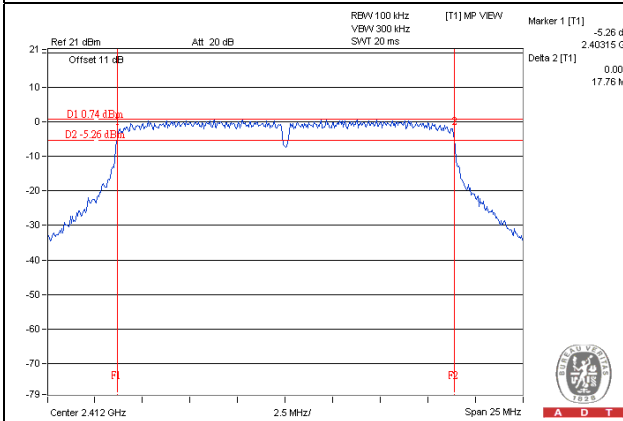
CH13



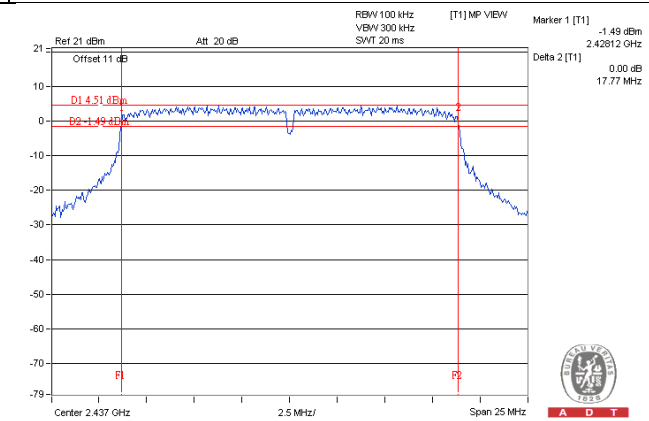
802.11n (HT20)

Channel	Frequency (MHz)	6db Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	17.76	0.5	PASS
6	2437	17.77	0.5	PASS
11	2462	17.80	0.5	PASS
12	2467	17.79	0.5	PASS
13	2472	17.83	0.5	PASS

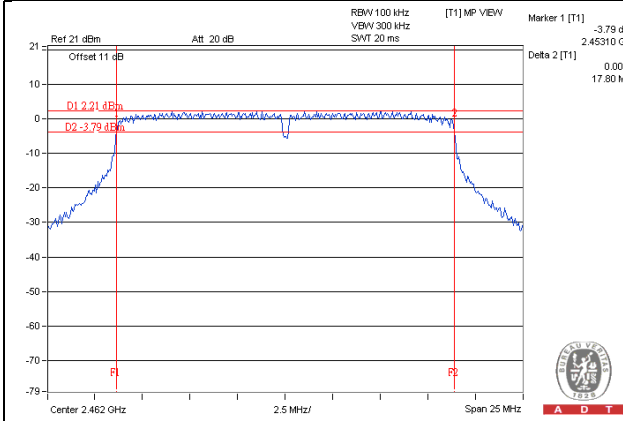
CH1



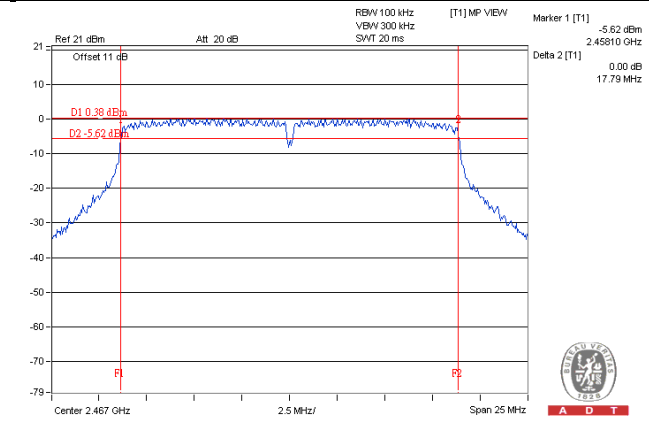
CH6



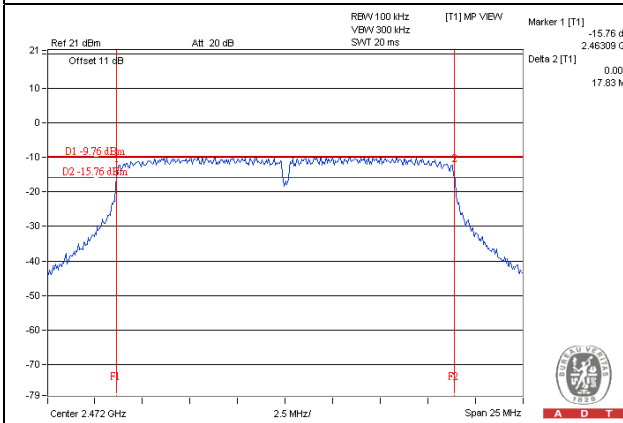
CH11



CH12



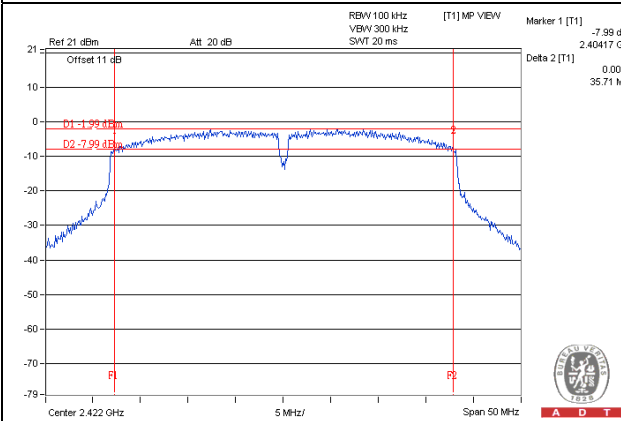
CH13



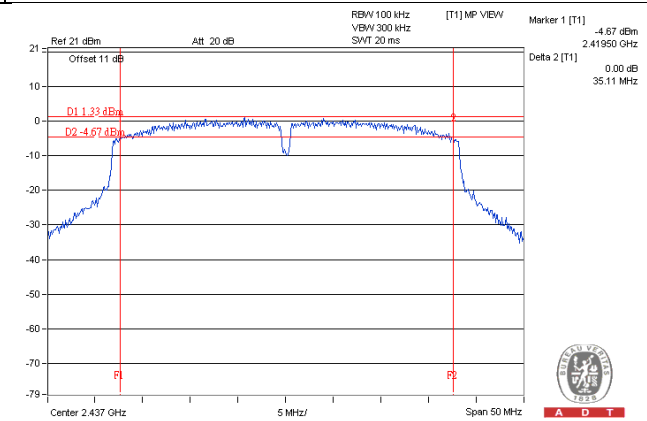
802.11n (HT40)

Channel	Frequency (MHz)	6db Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	35.71	0.5	PASS
6	2437	35.11	0.5	PASS
9	2452	35.74	0.5	PASS
10	2457	36.40	0.5	PASS
11	2462	35.73	0.5	PASS

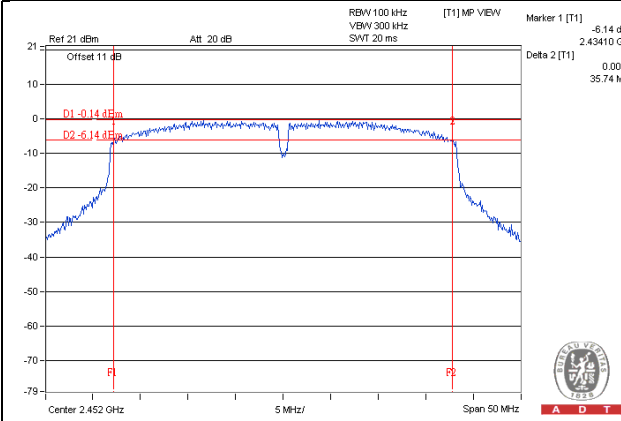
CH3



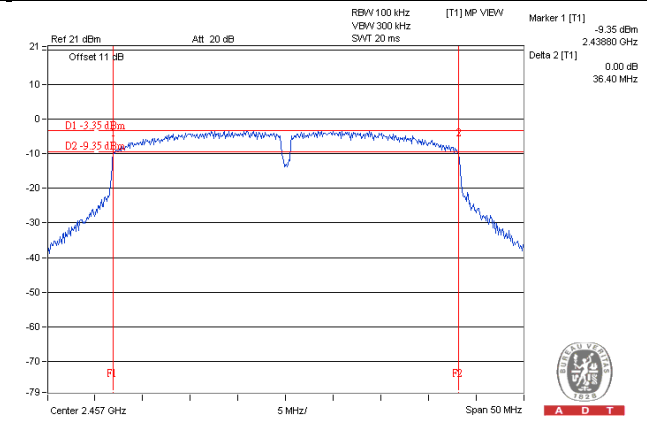
CH6



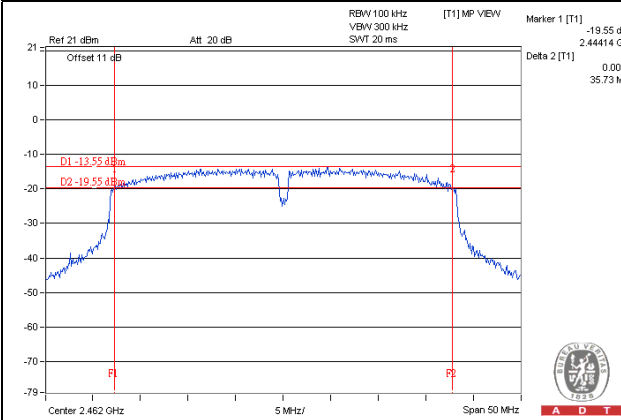
CH9



CH10



CH11

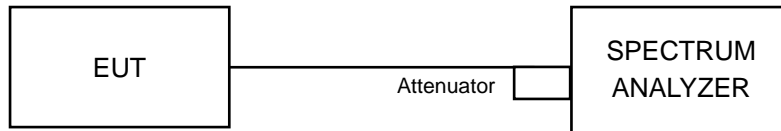


4.4 Conducted Out of Band Emission Measurement

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 : Nov. 16, 2015

4.4.4 Test Procedures

MEASUREMENT PROCEDURE REF

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

MEASUREMENT PROCEDURE OOB

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

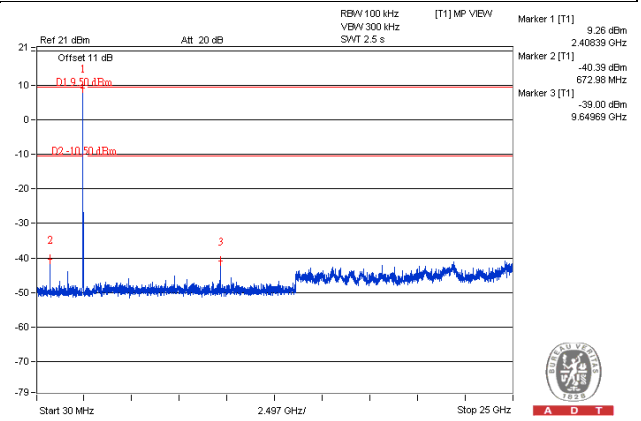
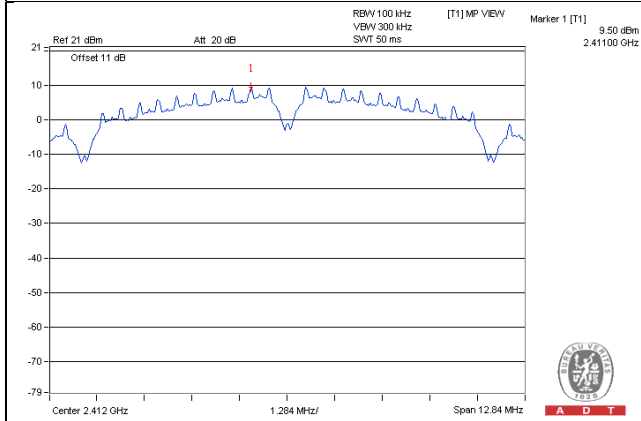
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.4.7 Test Results

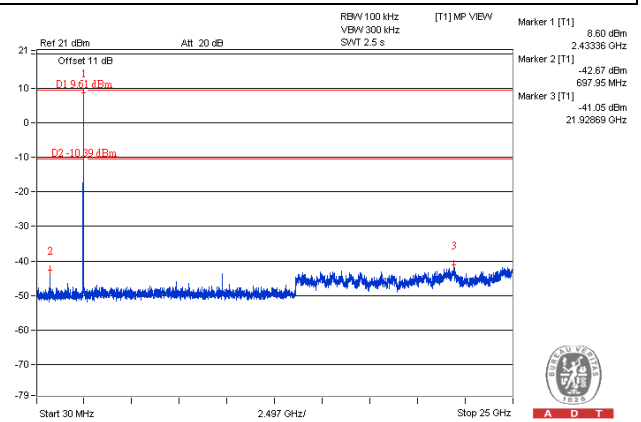
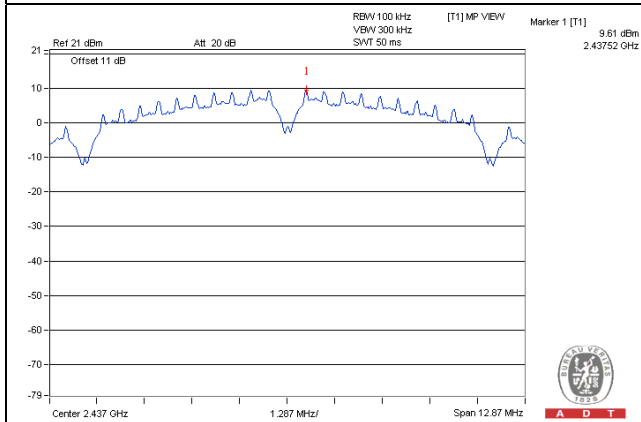
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b

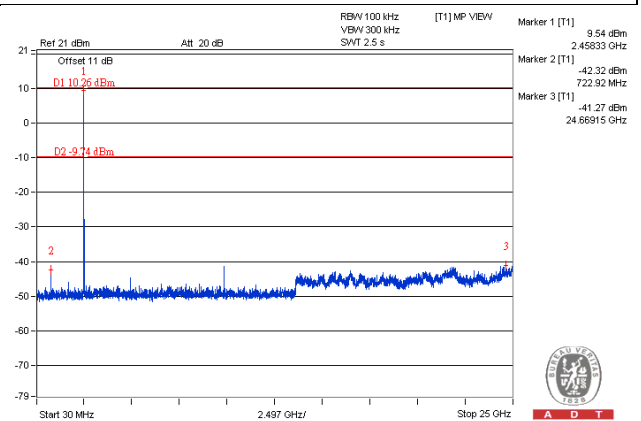
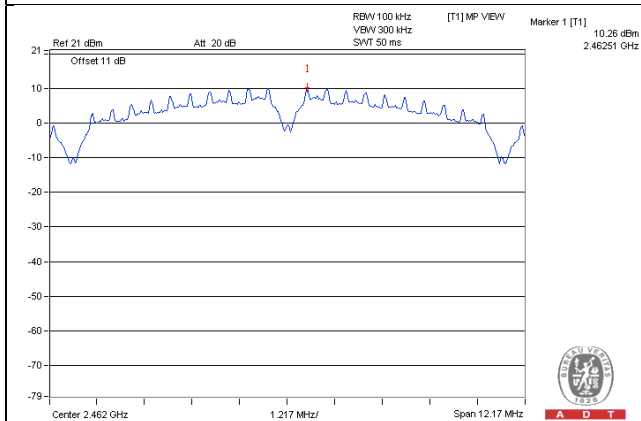
CH 1



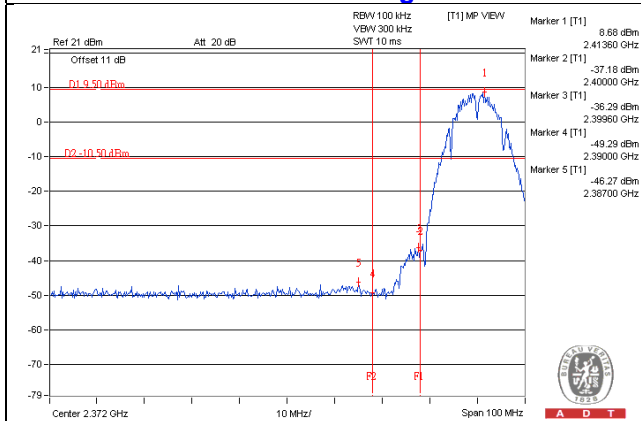
CH 6



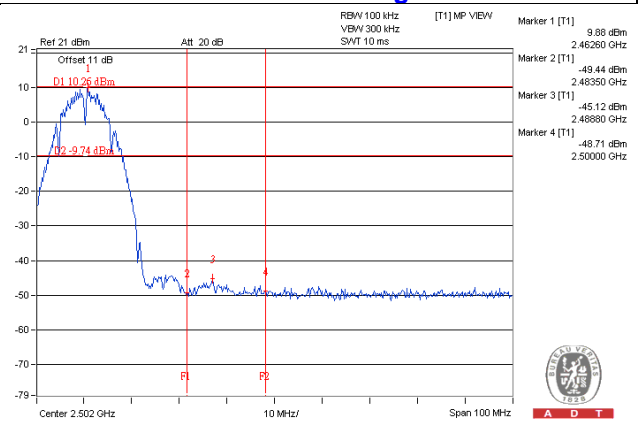
CH 11



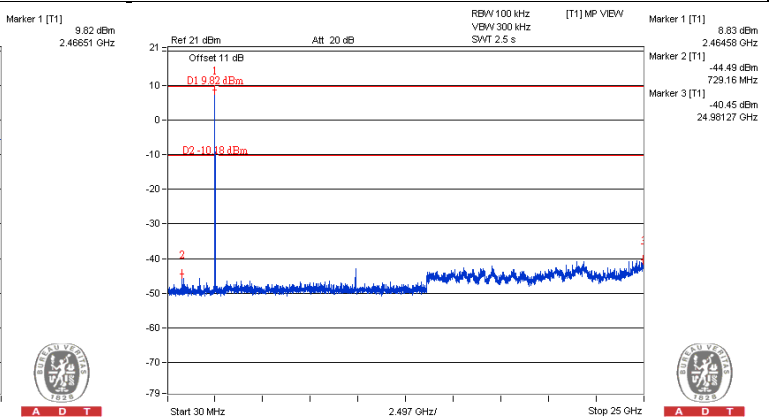
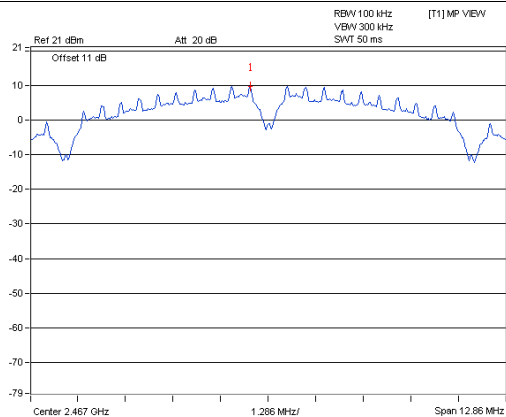
CH 1 Band edge



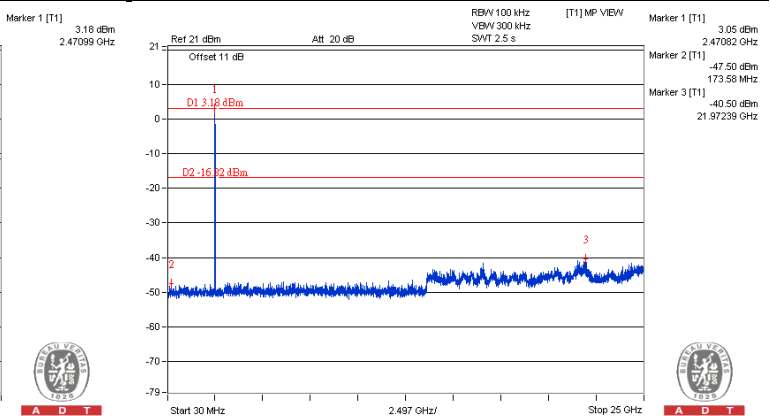
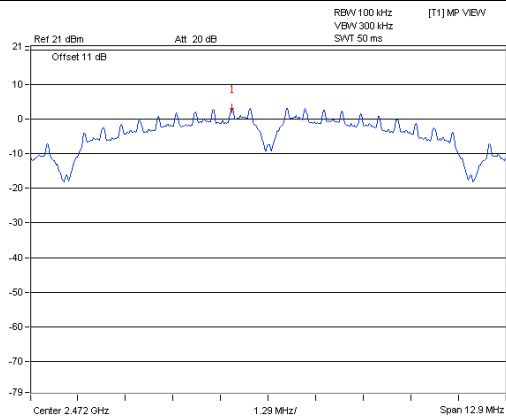
CH 11 Band edge



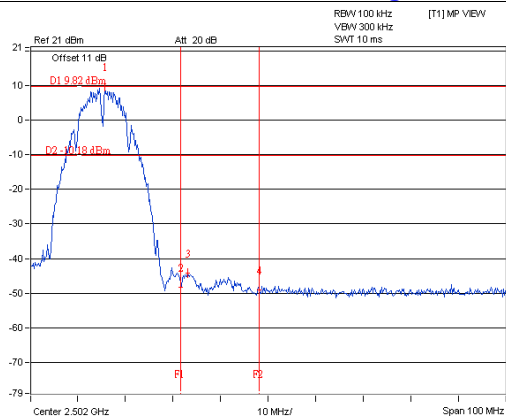
CH 12



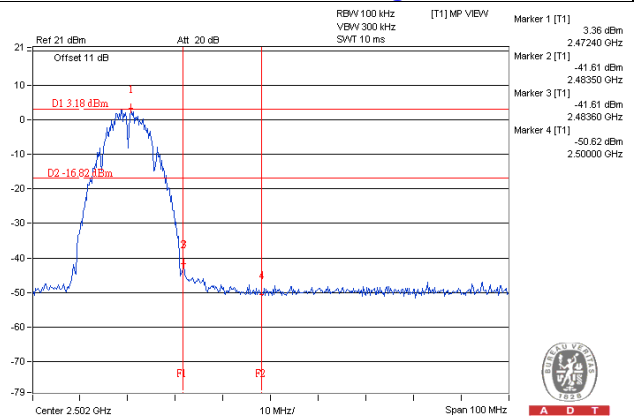
CH 13

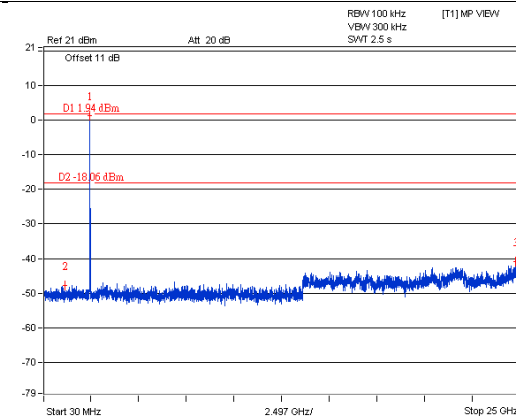
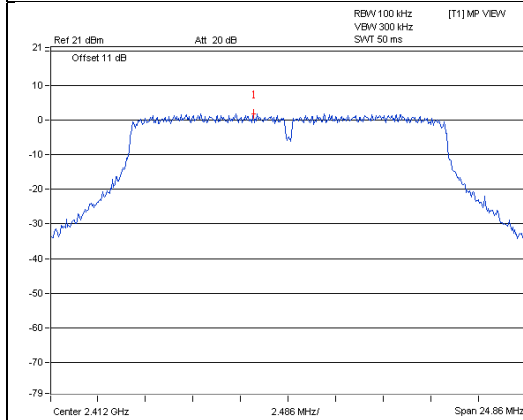
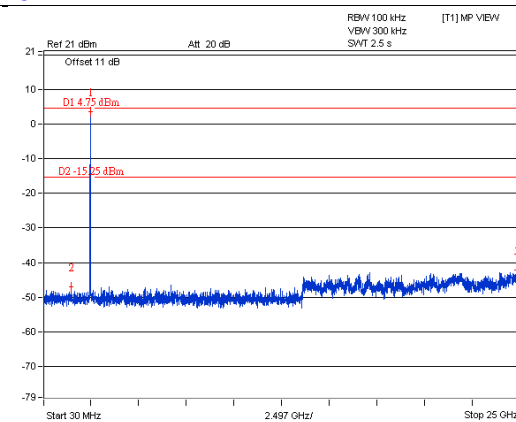
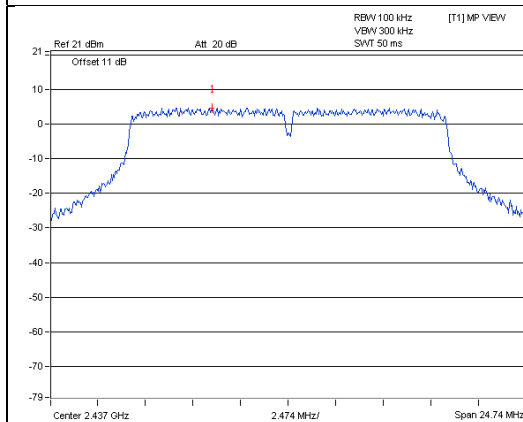
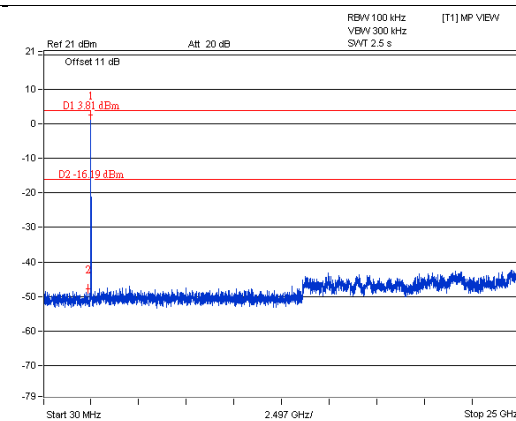
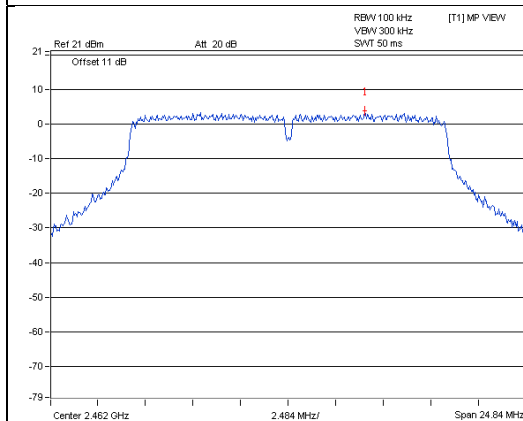
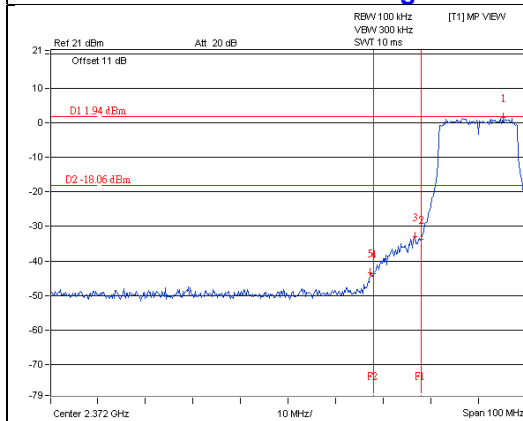
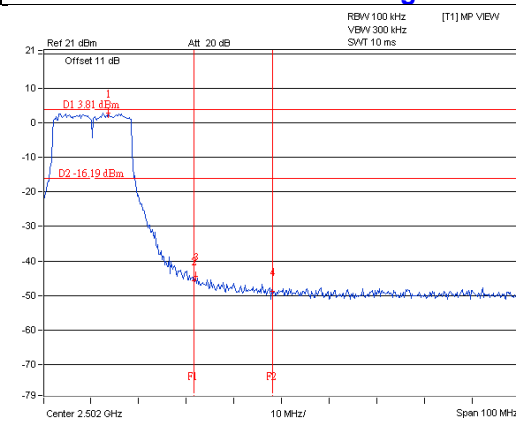


CH 12 Band edge

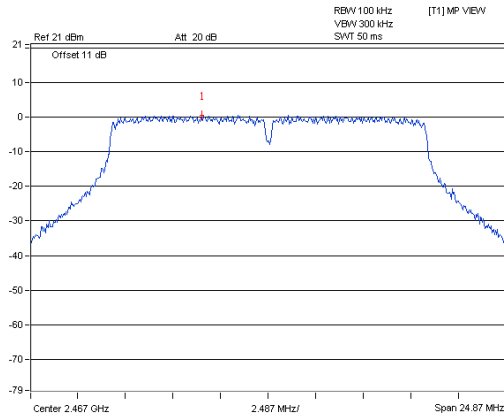


CH 13 Band edge

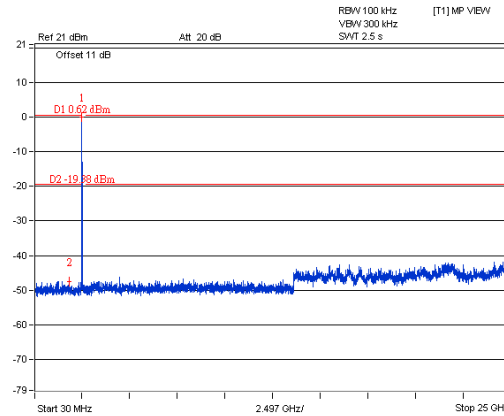


802.11g
CH 1

CH 6

CH 11

CH 1 Band edge

CH 11 Band edge


CH 12

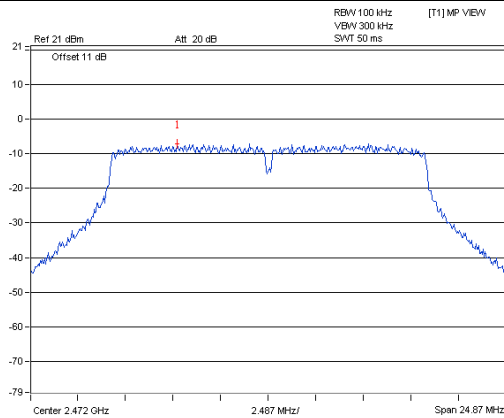


A D T

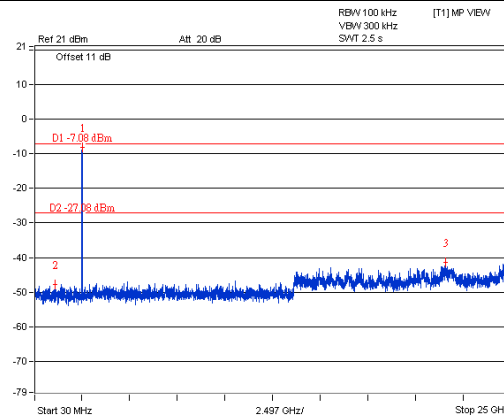


A D T

CH 13

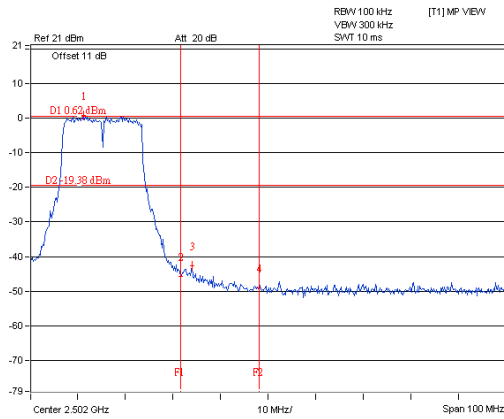


A D T



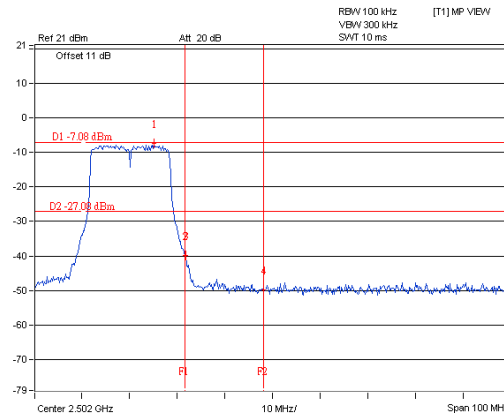
A D T

CH 12 Band edge



A D T

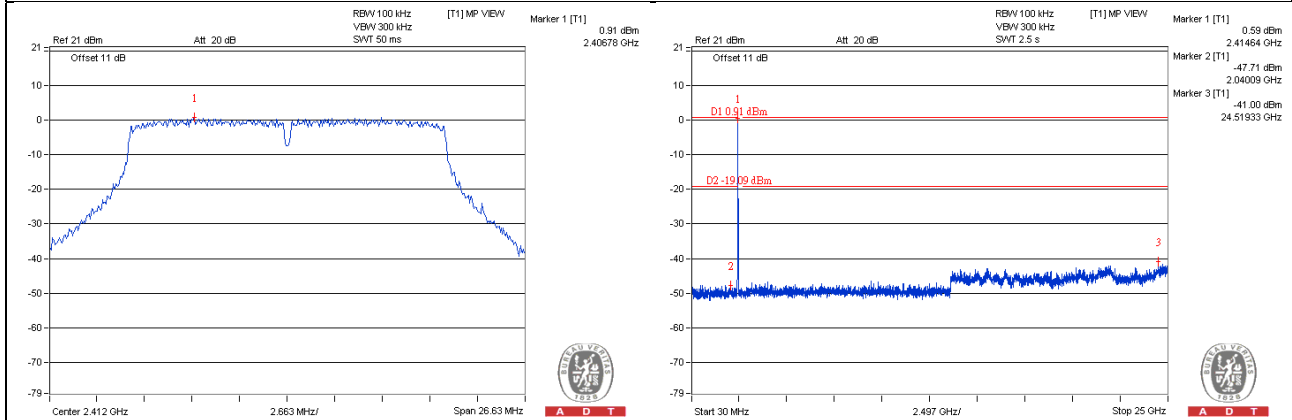
CH 13 Band edge



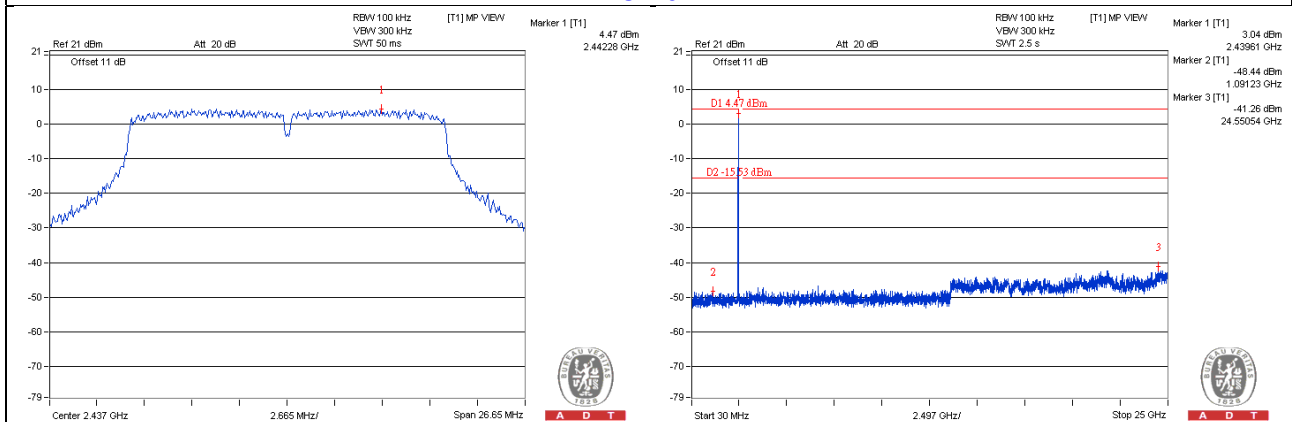
A D T

802.11n (HT20)

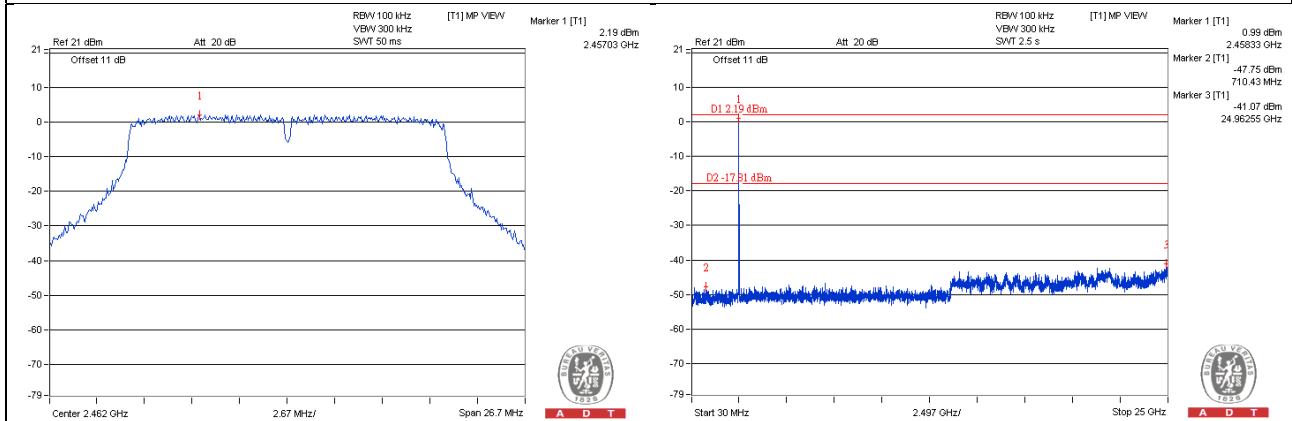
CH 1



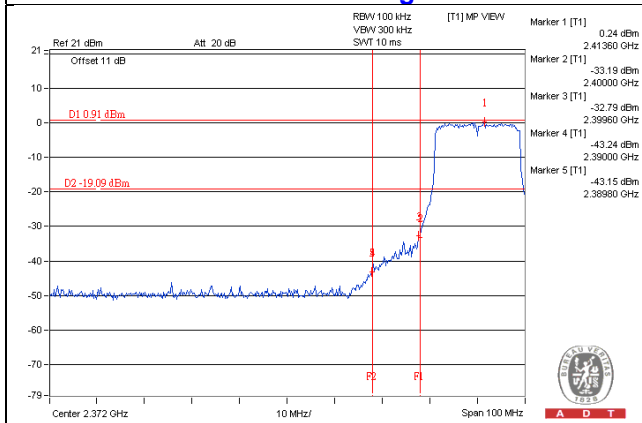
CH 6



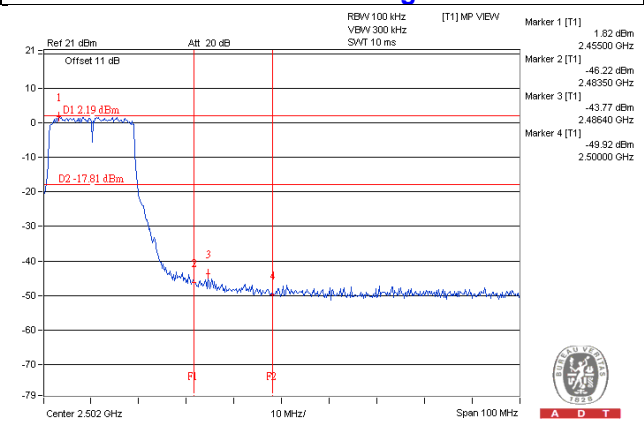
CH 11



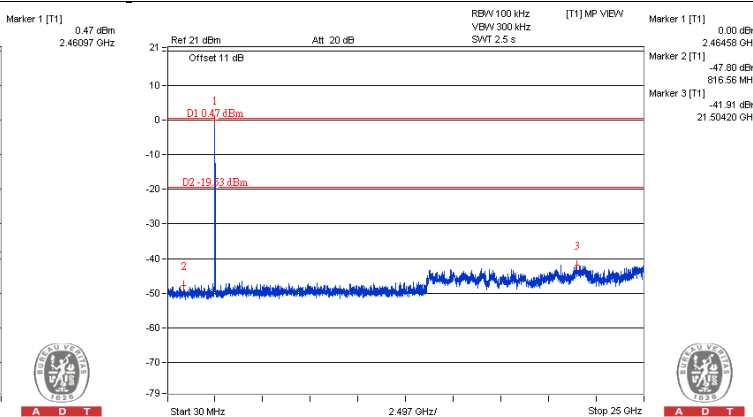
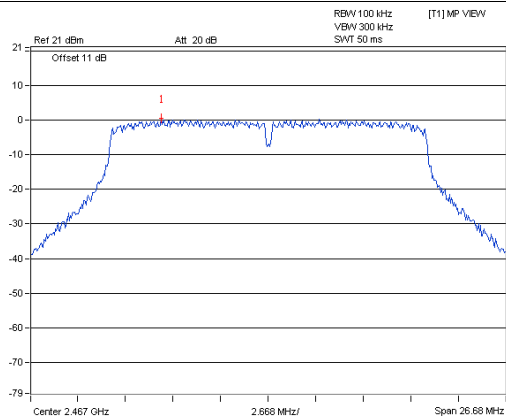
CH 1 Band edge



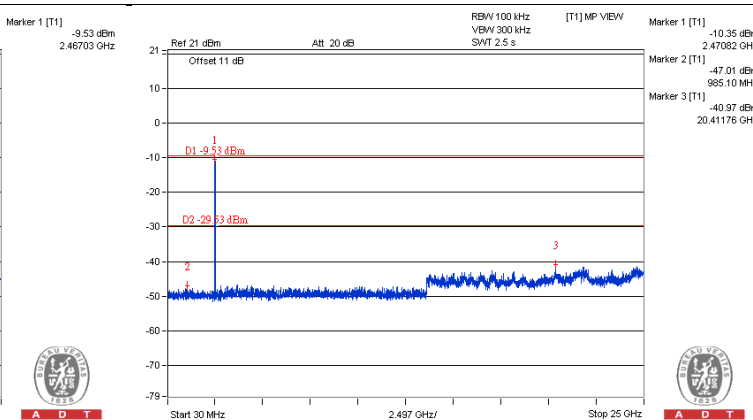
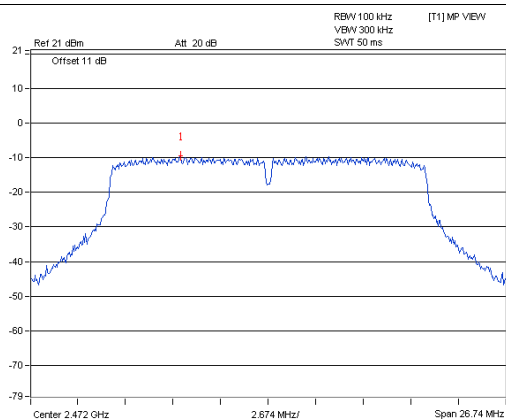
CH 11 Band edge



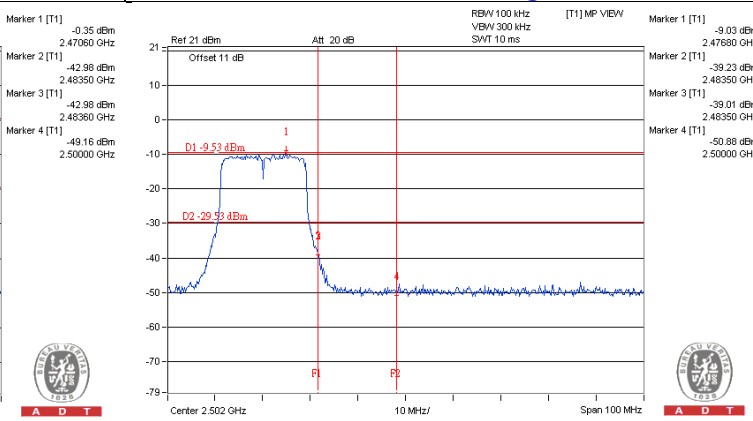
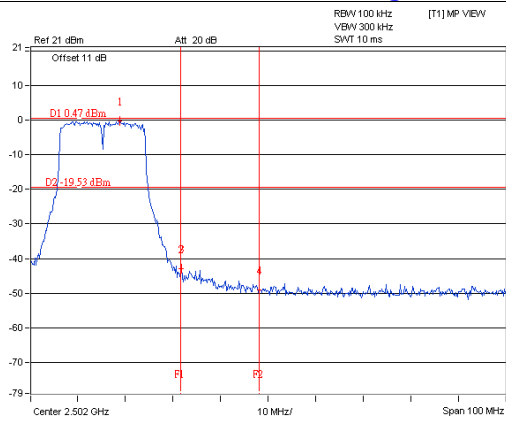
CH 12



CH 13



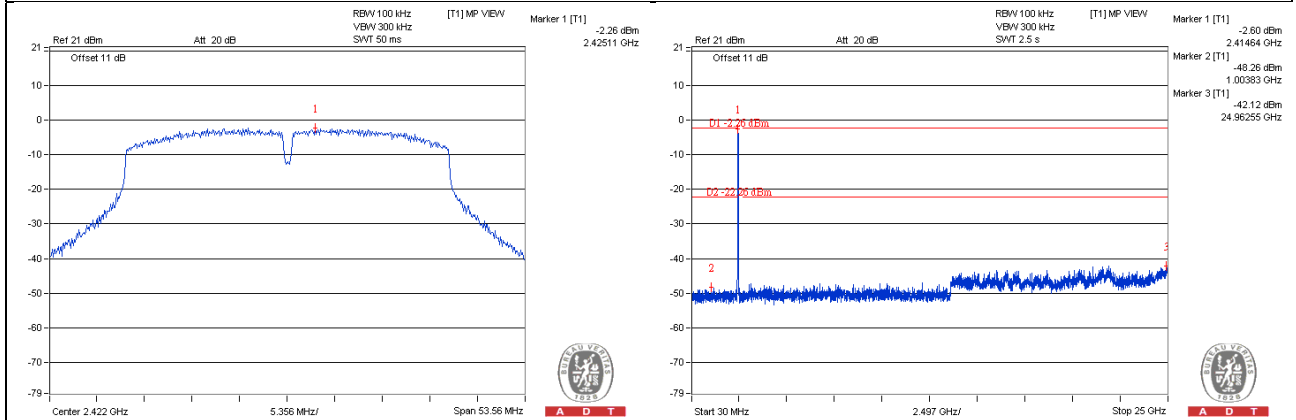
CH 12 Band edge



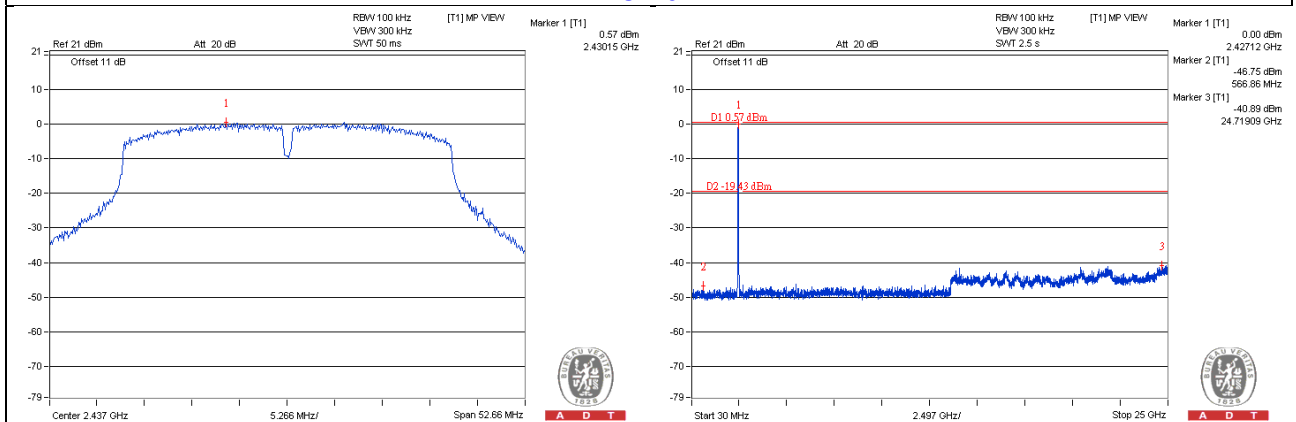
CH 13 Band edge

802.11n (HT40)

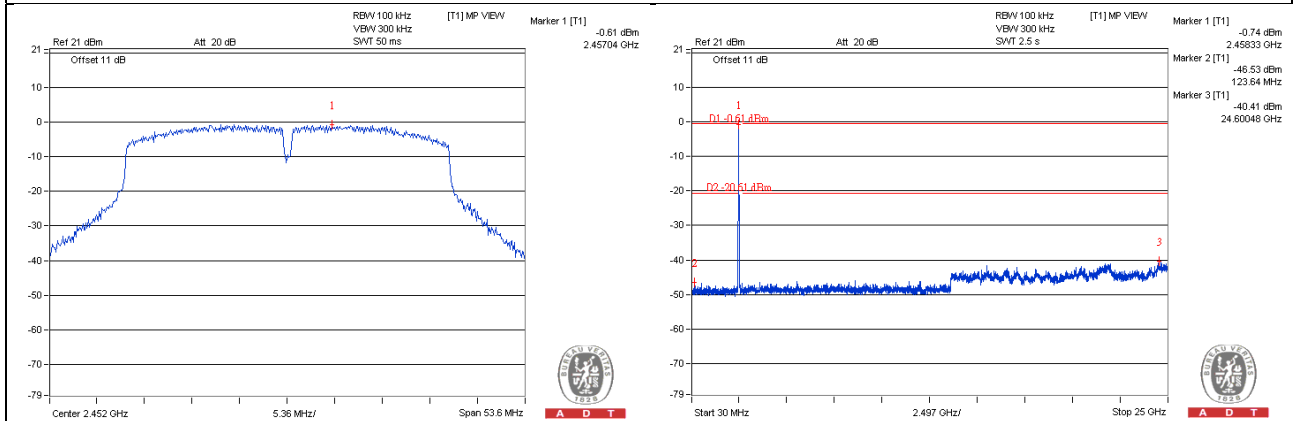
CH 3



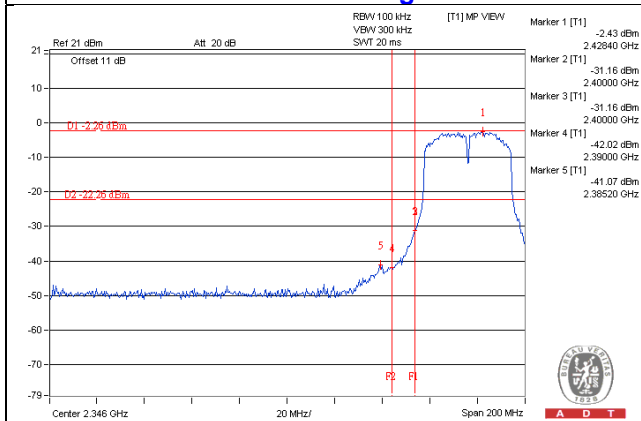
CH 6



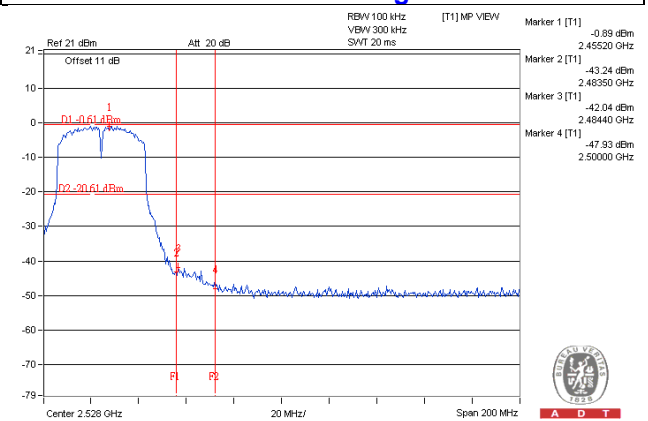
CH 9



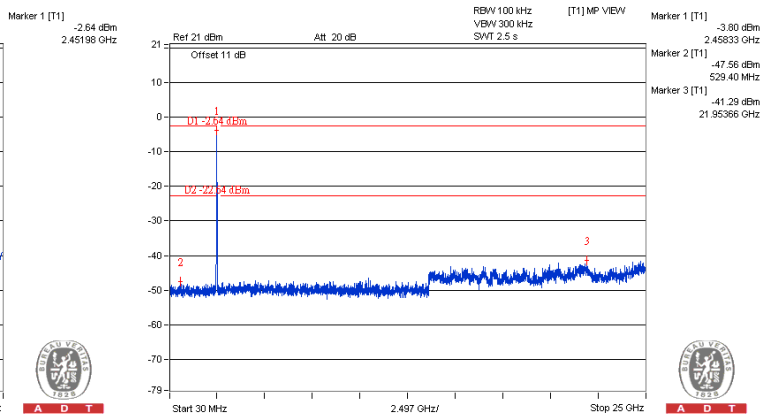
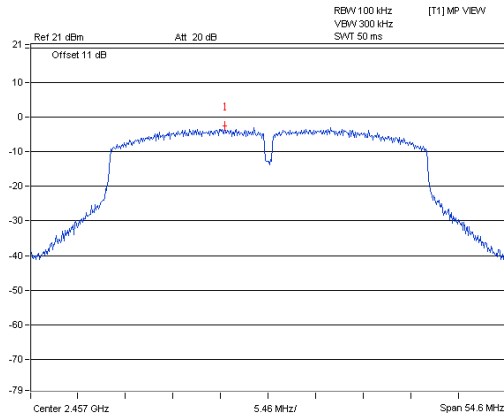
CH 3 Band edge



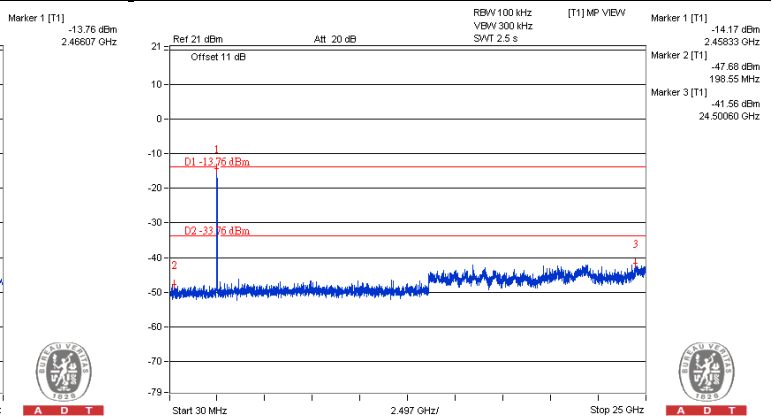
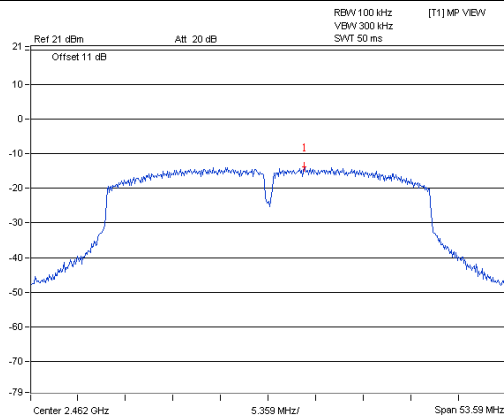
CH 9 Band edge



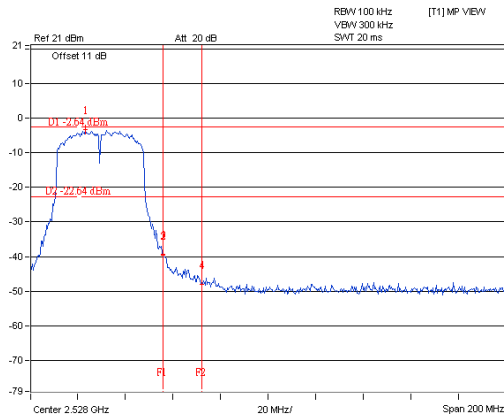
CH 10



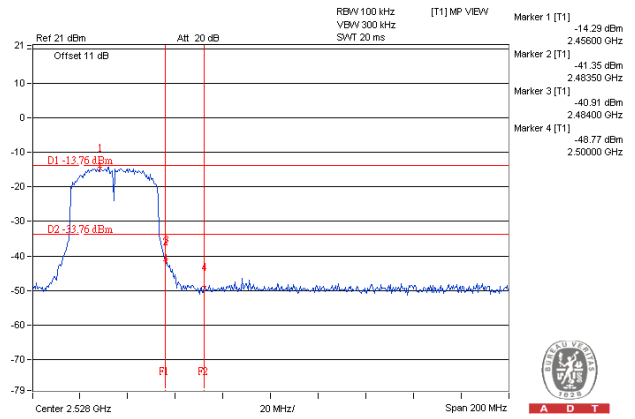
CH 11



CH 10 Band edge



CH 11 Band edge



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

For below 1GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY54450088	July 24, 2015	July 23, 2016
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-06	Nov. 12, 2014	Nov. 11, 2015
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Feb. 03, 2015	Feb. 02, 2016
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 03, 2015	Apr. 02, 2016
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. 4.
4. The FCC Site Registration No. is 292998
5. The CANADA Site Registration No. is 20331-2
6. Tested Date: Nov. 10, 2015

For above 1GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY54450088	July 24, 2015	July 23, 2016
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Feb. 06, 2015	Feb. 05, 2016
Pre-Amplifier Agilent	8449B	3008A01922	Sep. 19, 2015	Sep. 18, 2016
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150318 150323 150324	Mar. 31, 2015	Mar. 30, 2016
Pre-Amplifier EMCI	EMC184045	980143	Jan. 16, 2015	Jan. 15, 2016
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Feb. 05, 2015	Feb. 04, 2016
RF Cable	SUCOFLEX 104	329751/4 RF104-204	Dec. 11, 2014	Dec. 10, 2015
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. 4.
4. The FCC Site Registration No. is 292998
5. The CANADA Site Registration No. is 20331-2
6. Tested Date: Nov. 25, 2015

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:

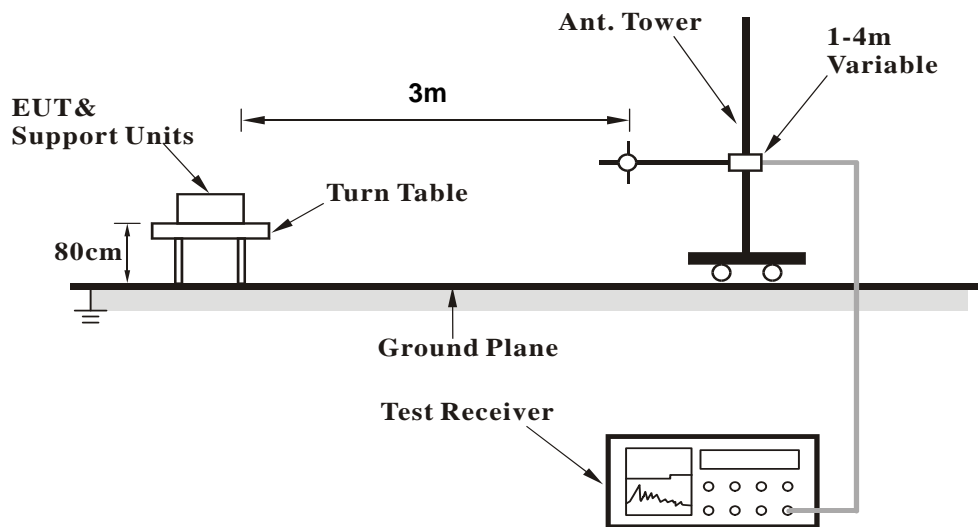
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

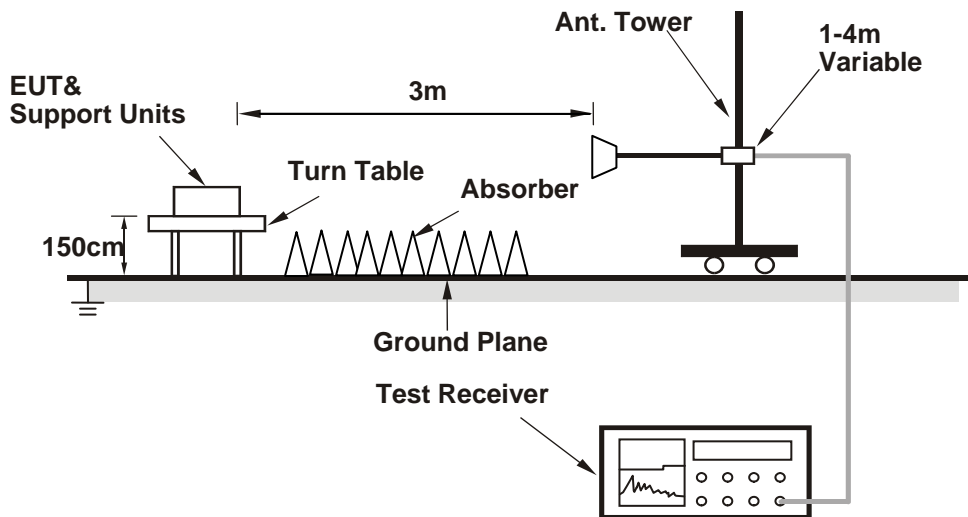
No deviation.

4.5.5 Test Setup

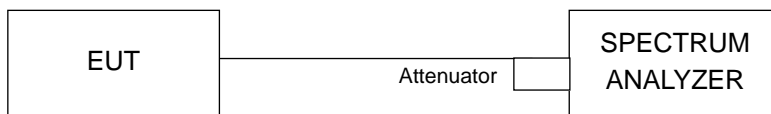
For radiated configuration:
<Frequency Range below 1GHz>



<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 "artgui.exe 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	
<input type="checkbox"/> Conducted measurement	<input checked="" type="checkbox"/> 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

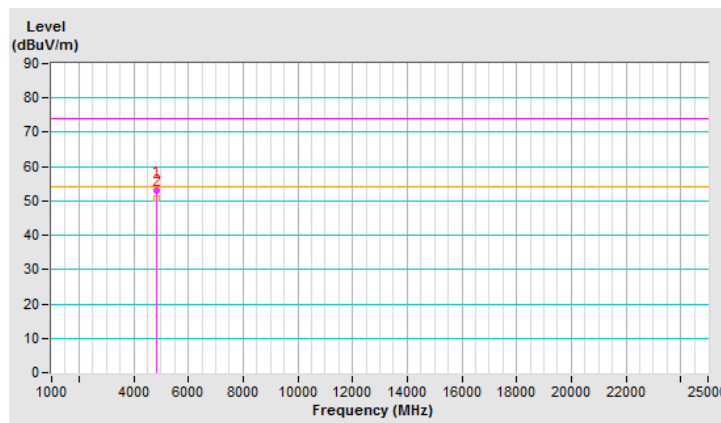
802.11b

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	52.9 PK	74.0	-21.1	1.18 H	334	51.14	1.76
2	4824.00	50.7 AV	54.0	-3.3	1.18 H	334	48.94	1.76

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

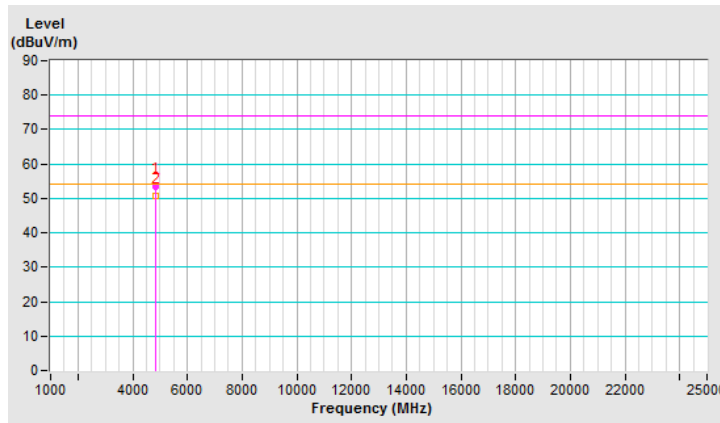


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	53.2 PK	74.0	-20.8	2.77 V	135	51.44	1.76
2	4824.00	50.8 AV	54.0	-3.2	2.77 V	135	49.04	1.76

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



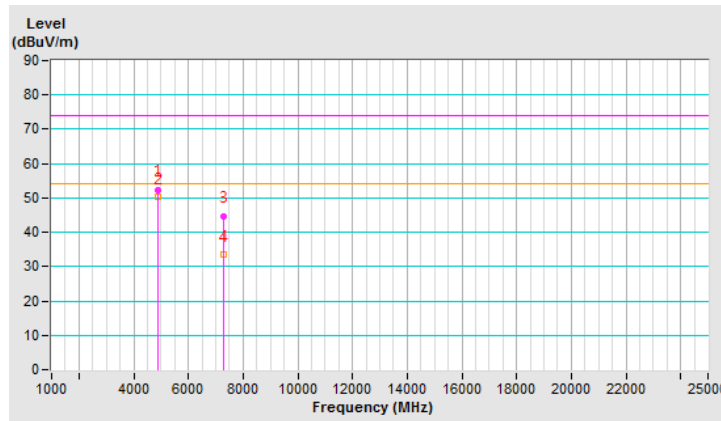
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	1.17 H	347	50.41	1.99
2	4874.00	50.2 AV	54.0	-3.8	1.17 H	347	48.21	1.99
3	7311.00	44.8 PK	74.0	-29.2	2.73 H	32	36.15	8.65
4	7311.00	33.6 AV	54.0	-20.4	2.73 H	32	24.95	8.65

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

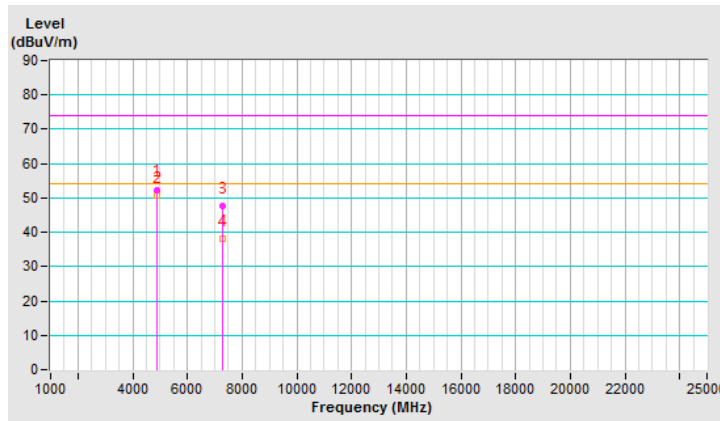


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	2.67 V	149	50.41	1.99
2	4874.00	50.8 AV	54.0	-3.2	2.67 V	149	48.81	1.99
3	7311.00	47.6 PK	74.0	-26.4	2.78 V	128	38.95	8.65
4	7311.00	38.2 AV	54.0	-15.8	2.78 V	128	29.55	8.65

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



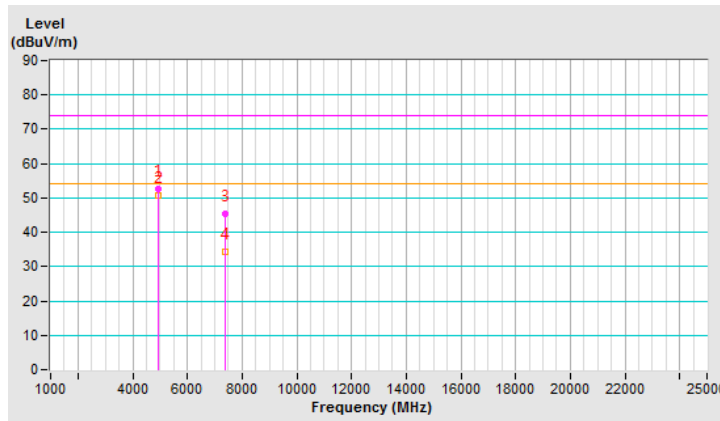
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.5 PK	74.0	-21.5	1.12 H	350	50.37	2.13
2	4924.00	50.8 AV	54.0	-3.2	1.12 H	350	48.67	2.13
3	7386.00	45.3 PK	74.0	-28.7	2.76 H	17	36.56	8.74
4	7386.00	34.3 AV	54.0	-19.7	2.76 H	17	25.56	8.74

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

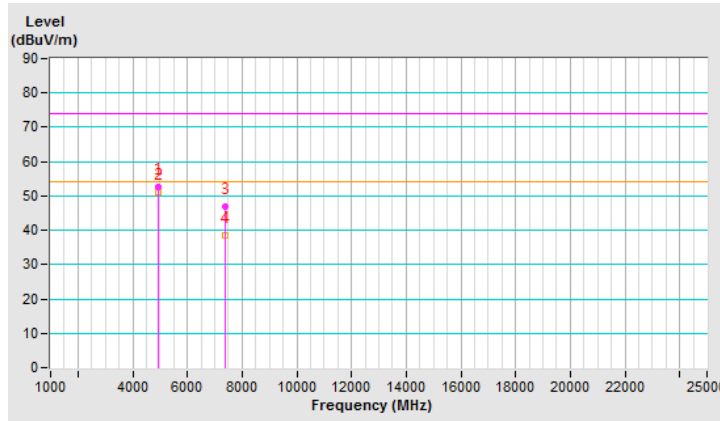


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.6 PK	74.0	-21.4	1.00 V	161	50.47	2.13
2	4924.00	51.0 AV	54.0	-3.0	1.00 V	161	48.87	2.13
3	7386.00	46.9 PK	74.0	-27.1	2.82 V	115	38.16	8.74
4	7386.00	38.6 AV	54.0	-15.4	2.82 V	115	29.86	8.74

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



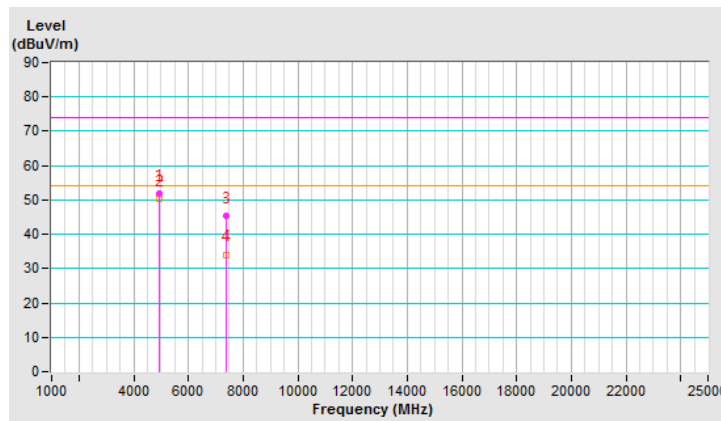
CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.0 PK	74.0	-22.0	1.00 H	350	49.86	2.14
2	4934.00	50.2 AV	54.0	-3.8	1.00 H	350	48.06	2.14
3	7401.00	45.2 PK	74.0	-28.8	2.67 H	41	36.45	8.75
4	7401.00	34.1 AV	54.0	-19.9	2.67 H	41	25.35	8.75

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

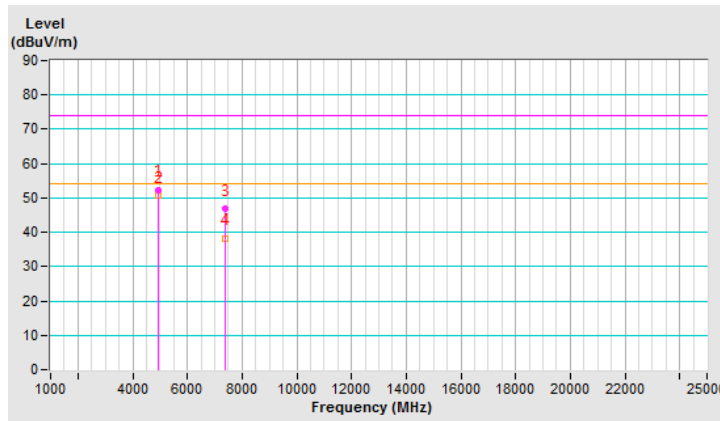


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	1.01 V	167	50.26	2.14
2	4934.00	50.6 AV	54.0	-3.4	1.01 V	167	48.46	2.14
3	7401.00	46.8 PK	74.0	-27.2	2.72 V	144	38.05	8.75
4	7401.00	38.3 AV	54.0	-15.7	2.72 V	144	29.55	8.75

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

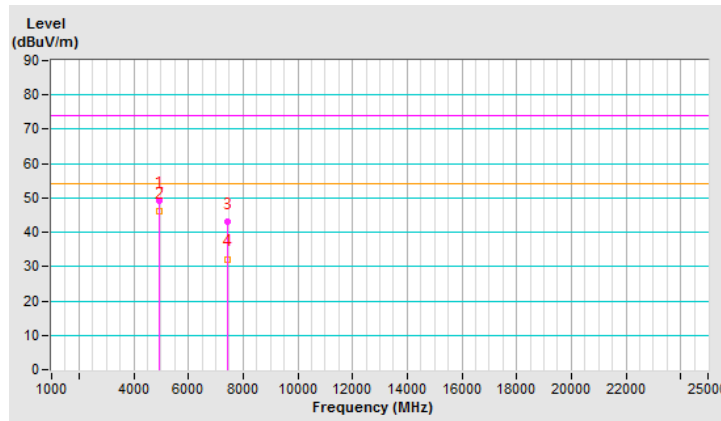


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	49.3 PK	74.0	-24.7	1.02 H	352	47.15	2.15
2	4944.00	46.2 AV	54.0	-7.8	1.02 H	352	44.05	2.15
3	7416.00	43.2 PK	74.0	-30.8	2.63 H	52	34.42	8.78
4	7416.00	32.2 AV	54.0	-21.8	2.63 H	52	23.42	8.78

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



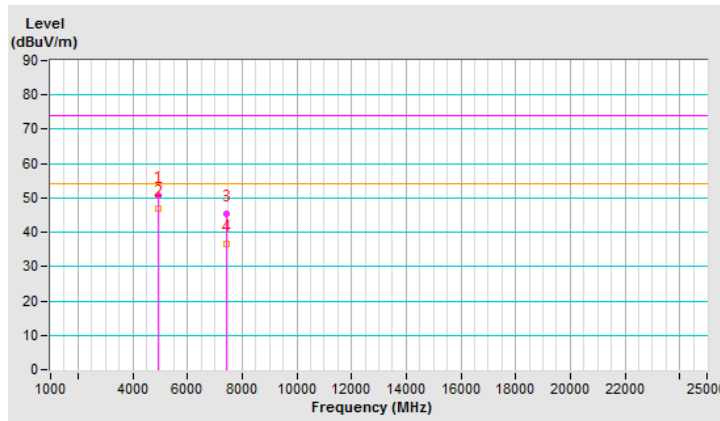
CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	50.6 PK	74.0	-23.4	1.01 V	163	48.45	2.15
2	4944.00	46.8 AV	54.0	-7.2	1.01 V	163	44.65	2.15
3	7416.00	45.4 PK	74.0	-28.6	2.66 V	148	36.62	8.78
4	7416.00	36.5 AV	54.0	-17.5	2.66 V	148	27.72	8.78

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



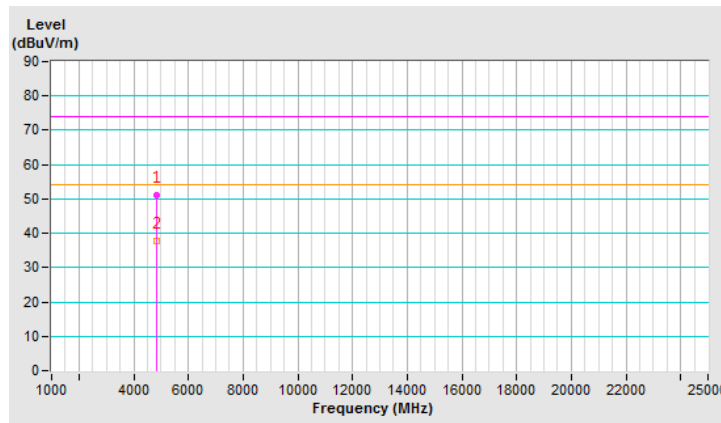
802.11g

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	51.2 PK	74.0	-22.8	3.12 H	354	49.44	1.76
2	4824.00	37.7 AV	54.0	-16.3	3.12 H	354	35.94	1.76

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

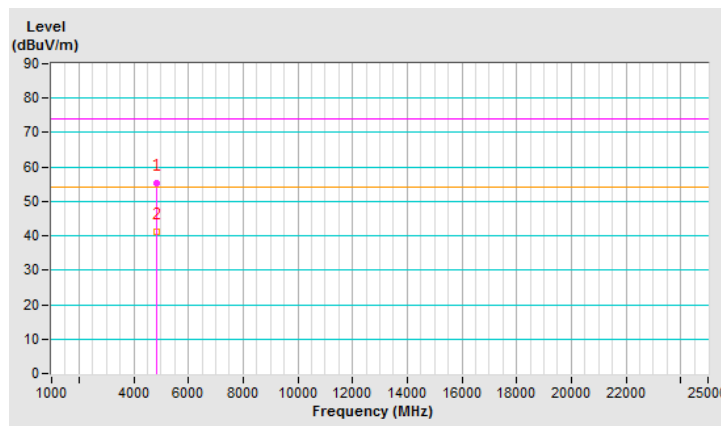


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	55.2 PK	74.0	-18.8	3.26 V	75	53.44	1.76
2	4824.00	41.3 AV	54.0	-12.7	3.26 V	75	39.54	1.76

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



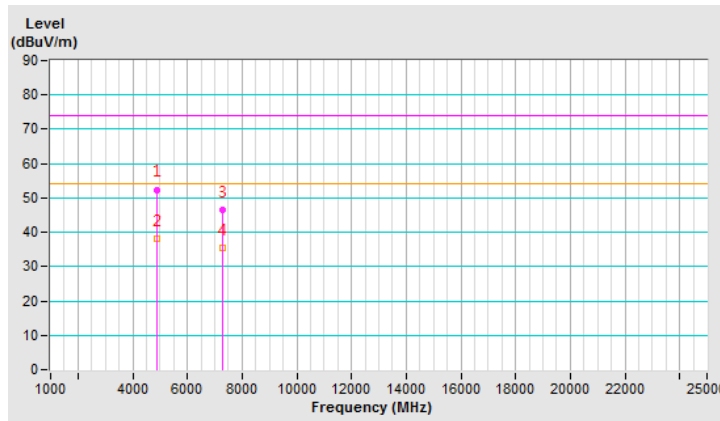
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	3.17 H	357	50.41	1.99
2	4874.00	38.2 AV	54.0	-15.8	3.17 H	357	36.21	1.99
3	7311.00	46.4 PK	74.0	-27.6	3.26 H	200	37.75	8.65
4	7311.00	35.4 AV	54.0	-18.6	3.26 H	200	26.75	8.65

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

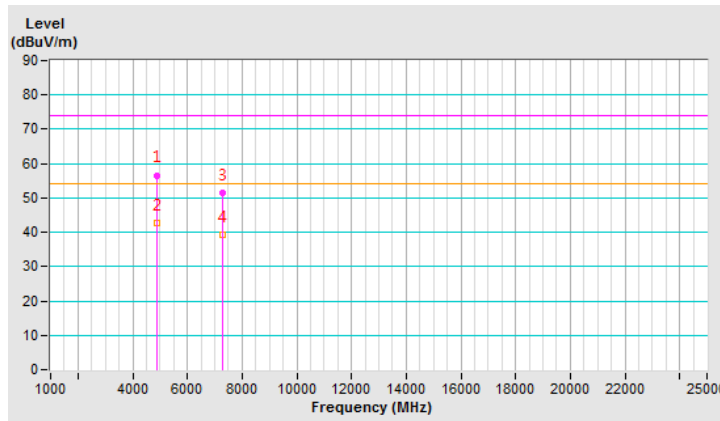


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.6 PK	74.0	-17.4	3.23 V	83	54.61	1.99
2	4874.00	42.6 AV	54.0	-11.4	3.23 V	83	40.61	1.99
3	7311.00	51.5 PK	74.0	-22.5	2.64 V	128	42.85	8.65
4	7311.00	39.2 AV	54.0	-14.8	2.64 V	128	30.55	8.65

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



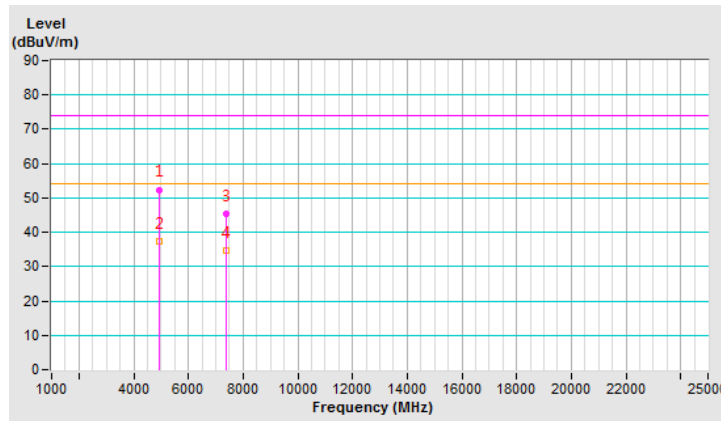
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	3.12 H	360	50.27	2.13
2	4924.00	37.2 AV	54.0	-16.8	3.12 H	360	35.07	2.13
3	7386.00	45.4 PK	74.0	-28.6	3.30 H	206	36.66	8.74
4	7386.00	34.6 AV	54.0	-19.4	3.30 H	206	25.86	8.74

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



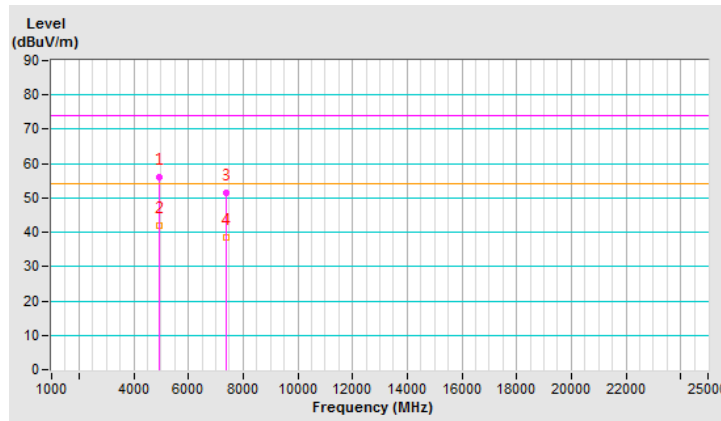
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.1 PK	74.0	-17.9	3.23 V	70	53.97	2.13
2	4924.00	42.0 AV	54.0	-12.0	3.23 V	70	39.87	2.13
3	7386.00	51.3 PK	74.0	-22.7	2.65 V	123	42.56	8.74
4	7386.00	38.4 AV	54.0	-15.6	2.65 V	123	29.66	8.74

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



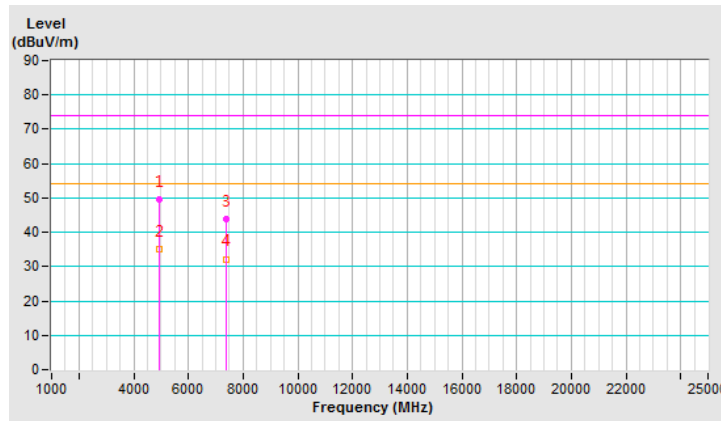
CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	49.4 PK	74.0	-24.6	3.06 H	357	47.26	2.14
2	4934.00	35.2 AV	54.0	-18.8	3.06 H	357	33.06	2.14
3	7401.00	44.0 PK	74.0	-30.0	3.32 H	206	35.25	8.75
4	7401.00	32.2 AV	54.0	-21.8	3.32 H	206	23.45	8.75

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

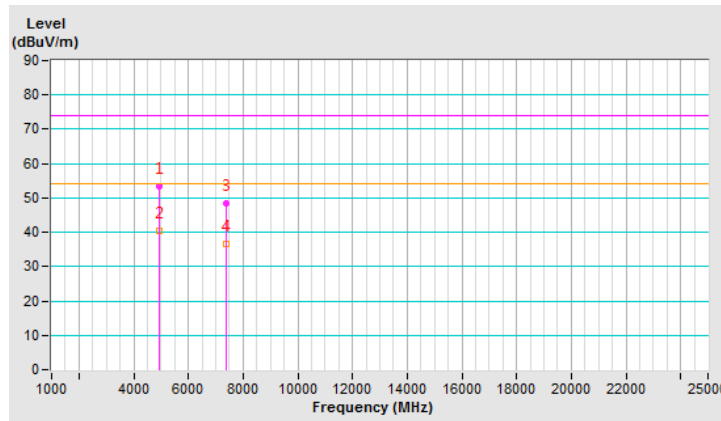


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	53.4 PK	74.0	-20.6	3.23 V	61	51.26	2.14
2	4934.00	40.3 AV	54.0	-13.7	3.23 V	61	38.16	2.14
3	7401.00	48.4 PK	74.0	-25.6	2.68 V	128	39.65	8.75
4	7401.00	36.5 AV	54.0	-17.5	2.68 V	128	27.75	8.75

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

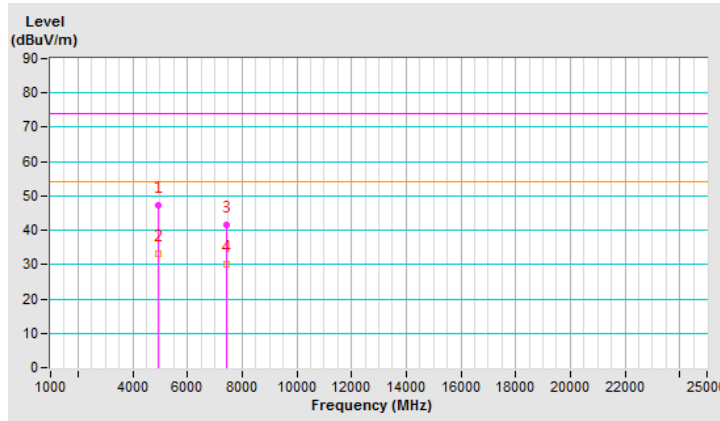


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	47.4 PK	74.0	-26.6	3.06 H	349	45.25	2.15
2	4944.00	33.3 AV	54.0	-20.7	3.06 H	349	31.15	2.15
3	7416.00	41.4 PK	74.0	-32.6	3.36 H	195	32.62	8.78
4	7416.00	30.2 AV	54.0	-23.8	3.36 H	195	21.42	8.78

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

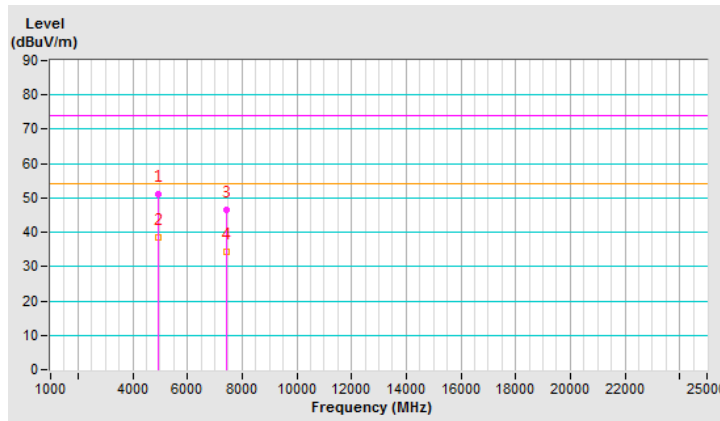


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	51.0 PK	74.0	-23.0	3.24 V	68	48.85	2.15
2	4944.00	38.4 AV	54.0	-15.6	3.24 V	68	36.25	2.15
3	7416.00	46.5 PK	74.0	-27.5	2.65 V	119	37.72	8.78
4	7416.00	34.4 AV	54.0	-19.6	2.65 V	119	25.62	8.78

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



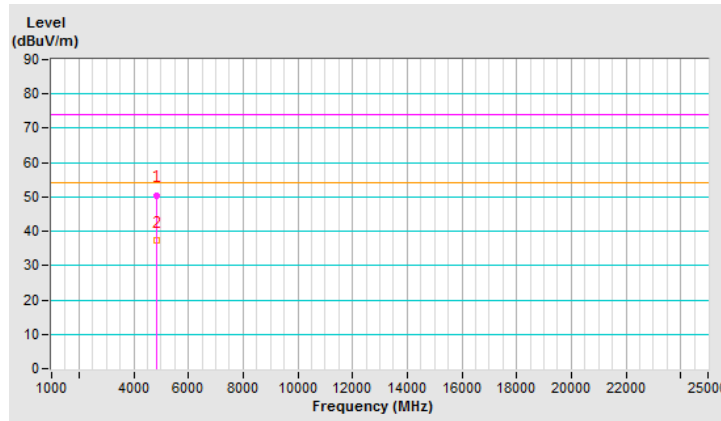
802.11n (HT20)

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	50.5 PK	74.0	-23.5	3.07 H	352	48.74	1.76
2	4824.00	37.2 AV	54.0	-16.8	3.07 H	352	35.44	1.76

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

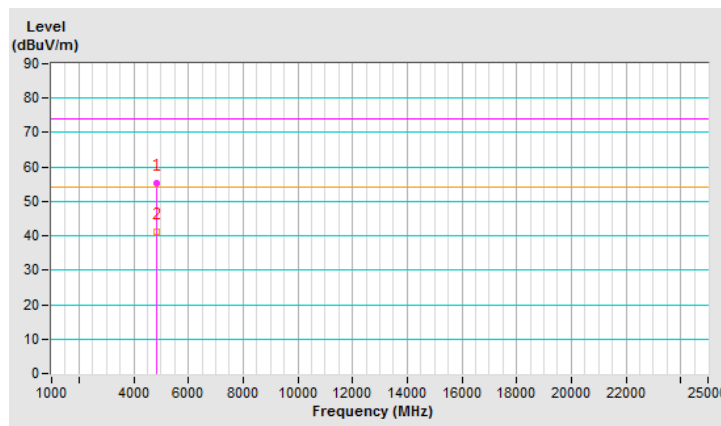


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	55.3 PK	74.0	-18.7	3.22 V	87	53.54	1.76
2	4824.00	41.3 AV	54.0	-12.7	3.22 V	87	39.54	1.76

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

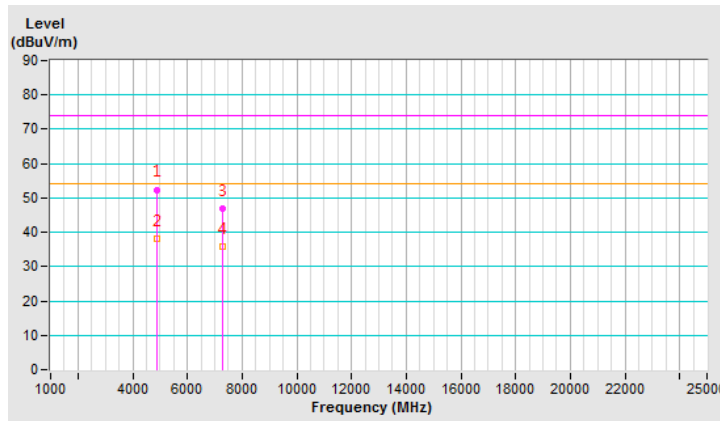


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	52.4 PK	74.0	-21.6	3.12 H	351	50.41	1.99
2	4874.00	38.0 AV	54.0	-16.0	3.12 H	351	36.01	1.99
3	7311.00	47.0 PK	74.0	-27.0	3.20 H	206	38.35	8.65
4	7311.00	35.7 AV	54.0	-18.3	3.20 H	206	27.05	8.65

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

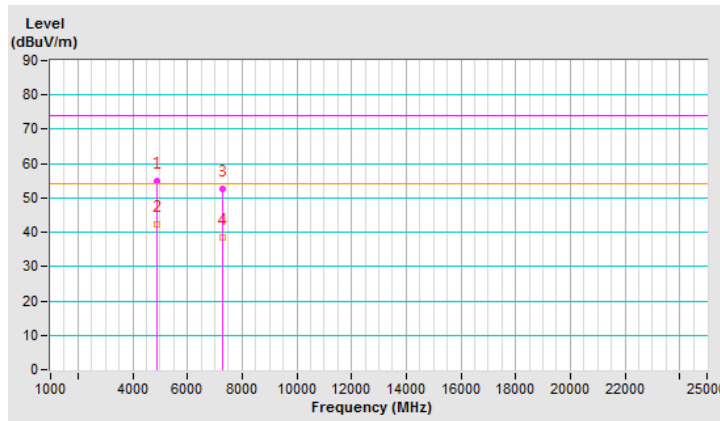


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	54.8 PK	74.0	-19.2	3.10 V	86	52.81	1.99
2	4874.00	42.2 AV	54.0	-11.8	3.10 V	86	40.21	1.99
3	7311.00	52.7 PK	74.0	-21.3	2.65 V	130	44.05	8.65
4	7311.00	38.6 AV	54.0	-15.4	2.65 V	130	29.95	8.65

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



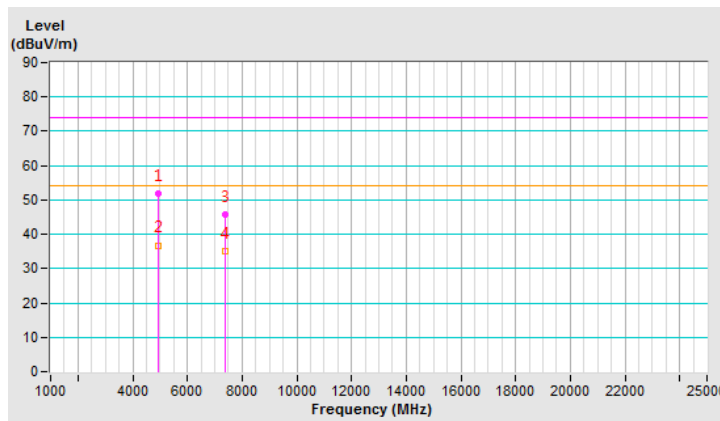
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	51.8 PK	74.0	-22.2	3.09 H	360	49.67	2.13
2	4924.00	36.8 AV	54.0	-17.2	3.09 H	360	34.67	2.13
3	7386.00	45.9 PK	74.0	-28.1	3.26 H	192	37.16	8.74
4	7386.00	34.9 AV	54.0	-19.1	3.26 H	192	26.16	8.74

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

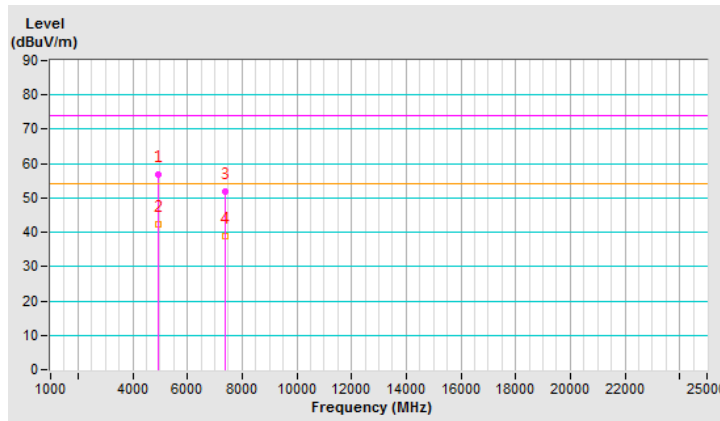


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.8 PK	74.0	-17.2	3.27 V	83	54.67	2.13
2	4924.00	42.4 AV	54.0	-11.6	3.27 V	83	40.27	2.13
3	7386.00	51.7 PK	74.0	-22.3	2.62 V	110	42.96	8.74
4	7386.00	38.9 AV	54.0	-15.1	2.62 V	110	30.16	8.74

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

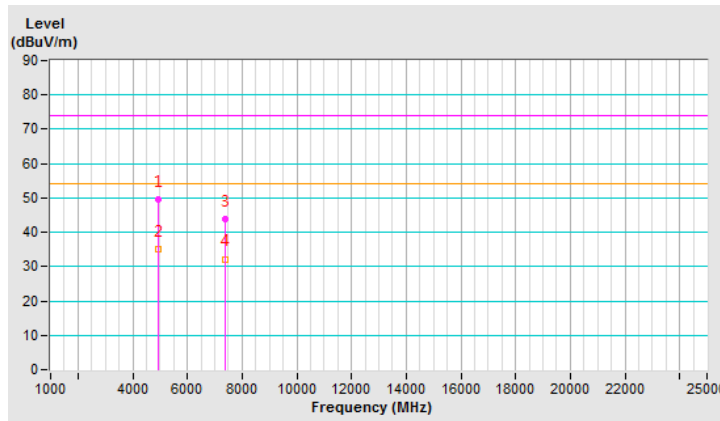


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	49.5 PK	74.0	-24.5	3.08 H	344	47.36	2.14
2	4934.00	35.1 AV	54.0	-18.9	3.08 H	344	32.96	2.14
3	7401.00	43.7 PK	74.0	-30.3	3.34 H	209	34.95	8.75
4	7401.00	32.2 AV	54.0	-21.8	3.34 H	209	23.45	8.75

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



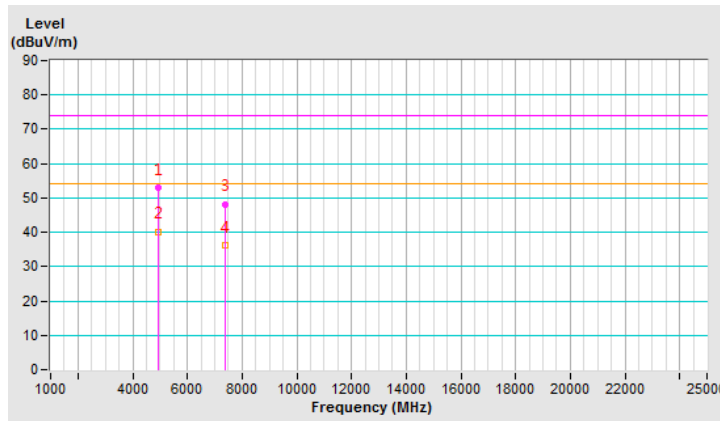
CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	53.0 PK	74.0	-21.0	3.28 V	53	50.86	2.14
2	4934.00	40.2 AV	54.0	-13.8	3.28 V	53	38.06	2.14
3	7401.00	48.2 PK	74.0	-25.8	2.70 V	131	39.45	8.75
4	7401.00	36.1 AV	54.0	-17.9	2.70 V	131	27.35	8.75

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

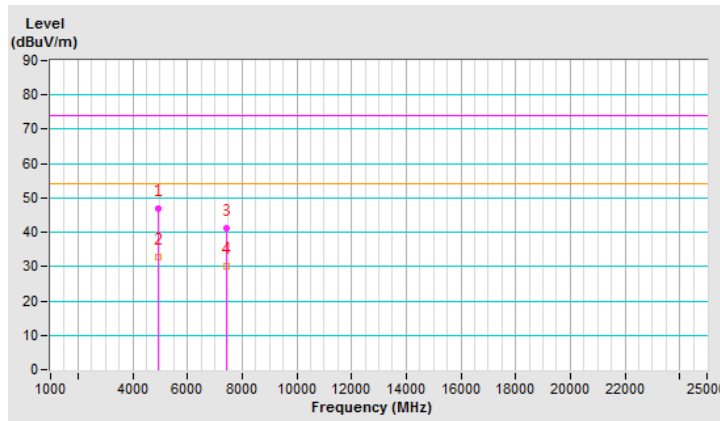


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	46.8 PK	74.0	-27.2	3.05 H	353	44.65	2.15
2	4944.00	32.9 AV	54.0	-21.1	3.05 H	353	30.75	2.15
3	7416.00	41.2 PK	74.0	-32.8	3.35 H	195	32.42	8.78
4	7416.00	30.1 AV	54.0	-23.9	3.35 H	195	21.32	8.78

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

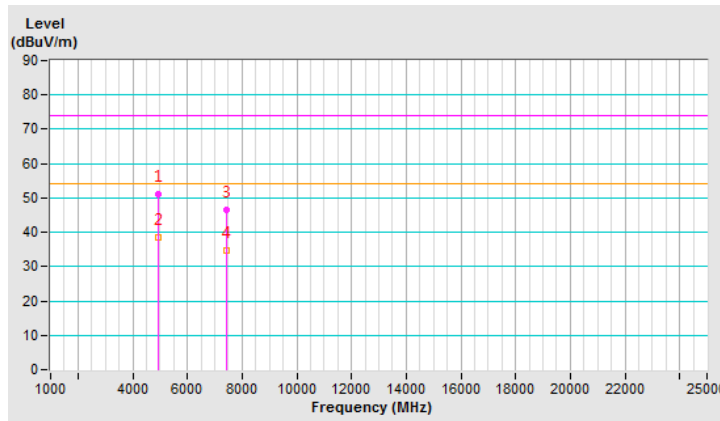


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	51.0 PK	74.0	-23.0	3.18 V	75	48.85	2.15
2	4944.00	38.5 AV	54.0	-15.5	3.18 V	75	36.35	2.15
3	7416.00	46.6 PK	74.0	-27.4	2.63 V	132	37.82	8.78
4	7416.00	34.8 AV	54.0	-19.2	2.63 V	132	26.02	8.78

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



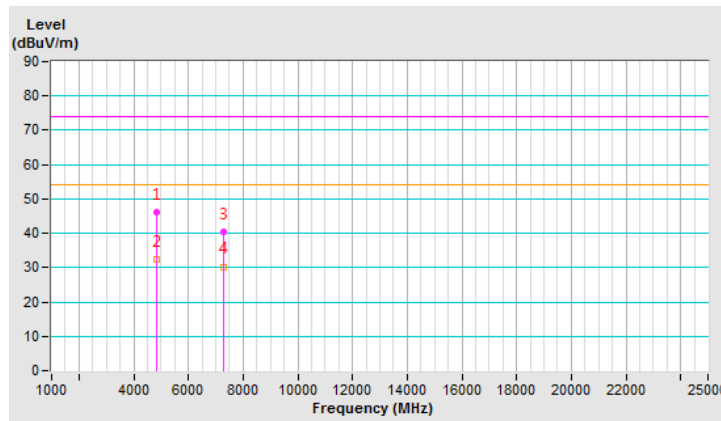
802.11n (HT40)

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	46.2 PK	74.0	-27.8	3.05 H	351	44.35	1.85
2	4844.00	32.4 AV	54.0	-21.6	3.05 H	351	30.55	1.85
3	7266.00	40.5 PK	74.0	-33.5	3.46 H	195	31.94	8.56
4	7266.00	30.3 AV	54.0	-23.7	3.46 H	195	21.74	8.56

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



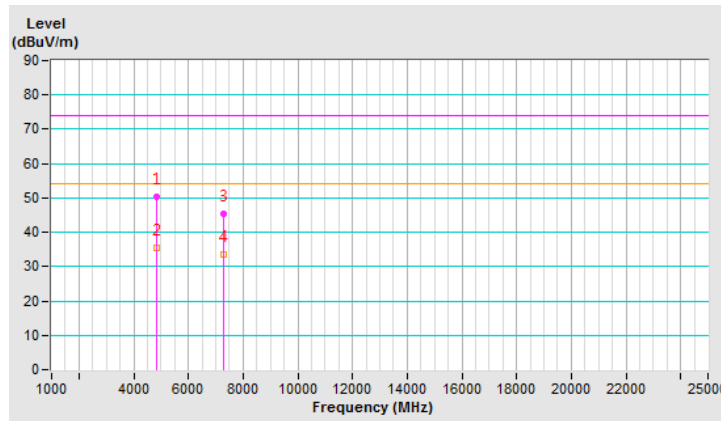
CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	50.4 PK	74.0	-23.6	2.40 V	97	48.55	1.85
2	4844.00	35.4 AV	54.0	-18.6	2.40 V	97	33.55	1.85
3	7266.00	45.4 PK	74.0	-28.6	2.70 V	143	36.84	8.56
4	7266.00	33.6 AV	54.0	-20.4	2.70 V	143	25.04	8.56

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



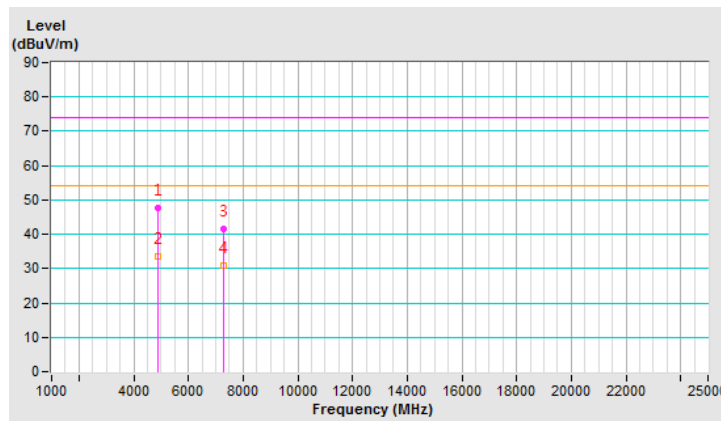
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	47.7 PK	74.0	-26.3	3.07 H	351	45.71	1.99
2	4874.00	33.6 AV	54.0	-20.4	3.07 H	351	31.61	1.99
3	7311.00	41.7 PK	74.0	-32.3	3.41 H	188	33.05	8.65
4	7311.00	30.7 AV	54.0	-23.3	3.41 H	188	22.05	8.65

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

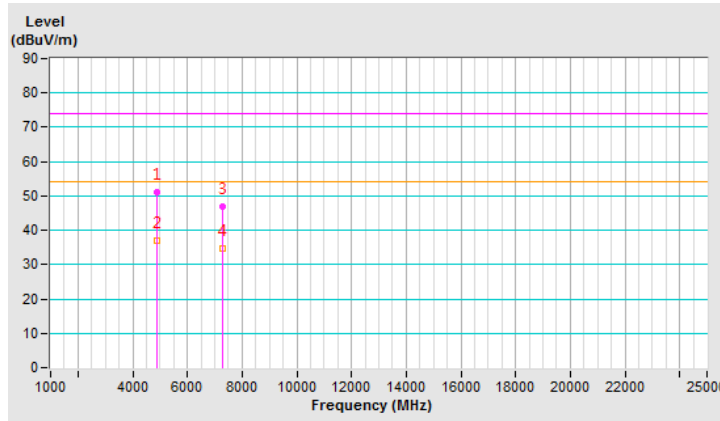


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	51.2 PK	74.0	-22.8	2.38 V	83	49.21	1.99
2	4874.00	36.9 AV	54.0	-17.1	2.38 V	83	34.91	1.99
3	7311.00	46.8 PK	74.0	-27.2	2.69 V	135	38.15	8.65
4	7311.00	34.6 AV	54.0	-19.4	2.69 V	135	25.95	8.65

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



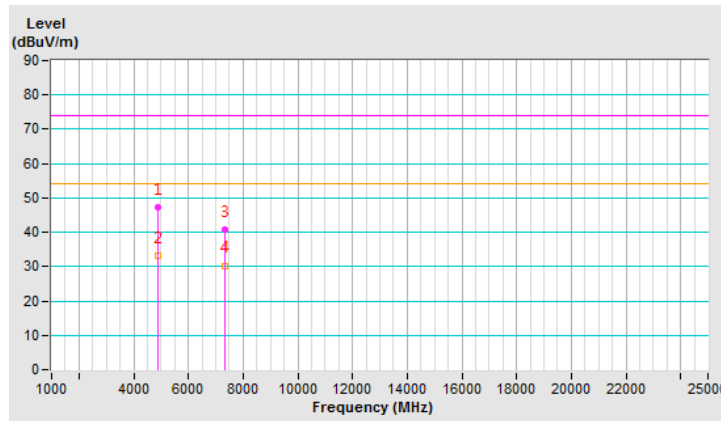
CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	47.3 PK	74.0	-26.7	3.06 H	351	45.19	2.11
2	4904.00	33.2 AV	54.0	-20.8	3.06 H	351	31.09	2.11
3	7356.00	40.9 PK	74.0	-33.1	3.44 H	189	32.19	8.71
4	7356.00	30.3 AV	54.0	-23.7	3.44 H	189	21.59	8.71

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

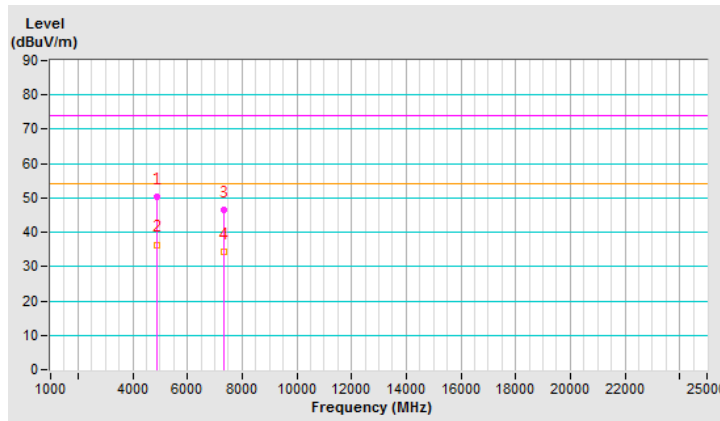


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	50.3 PK	74.0	-23.7	2.38 V	91	48.19	2.11
2	4904.00	36.4 AV	54.0	-17.6	2.38 V	91	34.29	2.11
3	7356.00	46.4 PK	74.0	-27.6	2.68 V	136	37.69	8.71
4	7356.00	34.3 AV	54.0	-19.7	2.68 V	136	25.59	8.71

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

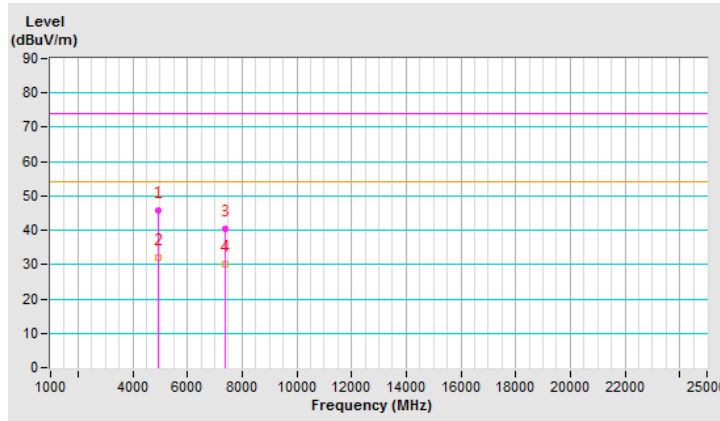


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	45.8 PK	74.0	-28.2	3.07 H	352	43.69	2.11
2	4914.00	32.1 AV	54.0	-21.9	3.07 H	352	29.99	2.11
3	7371.00	40.5 PK	74.0	-33.5	3.42 H	181	31.78	8.72
4	7371.00	30.2 AV	54.0	-23.8	3.42 H	181	21.48	8.72

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

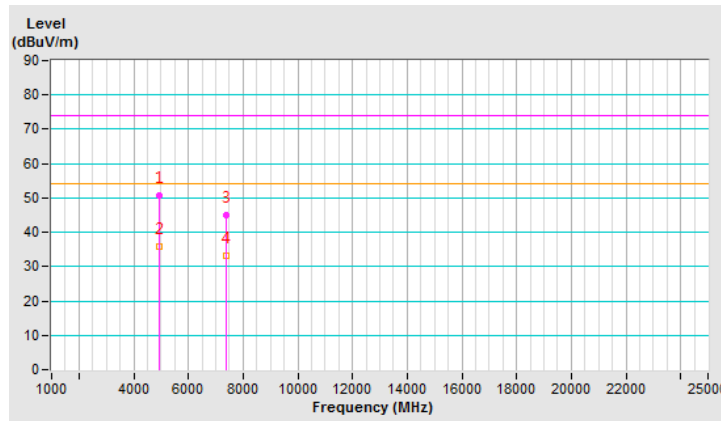


CHANNEL	TX Channel 10	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	50.7 PK	74.0	-23.3	2.35 V	106	48.59	2.11
2	4914.00	35.7 AV	54.0	-18.3	2.35 V	106	33.59	2.11
3	7371.00	45.1 PK	74.0	-28.9	2.74 V	128	36.38	8.72
4	7371.00	33.1 AV	54.0	-20.9	2.74 V	128	24.38	8.72

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

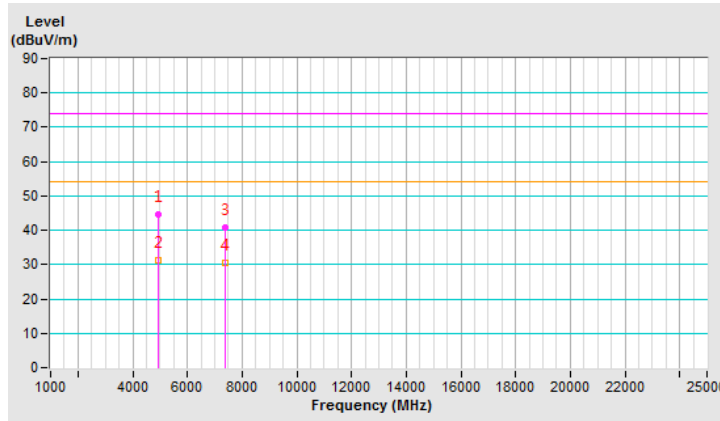


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	44.6 PK	74.0	-29.4	3.05 H	339	42.47	2.13
2	4924.00	31.4 AV	54.0	-22.6	3.05 H	339	29.27	2.13
3	7386.00	40.8 PK	74.0	-33.2	3.50 H	190	32.06	8.74
4	7386.00	30.5 AV	54.0	-23.5	3.50 H	190	21.76	8.74

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

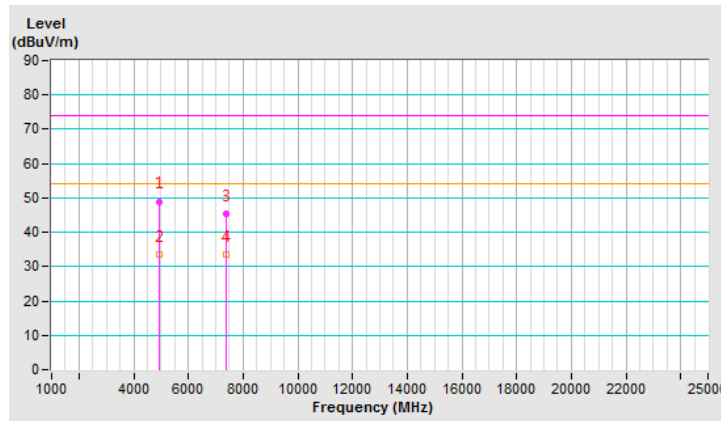


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	49.0 PK	74.0	-25.0	2.36 V	99	46.87	2.13
2	4924.00	33.5 AV	54.0	-20.5	2.36 V	99	31.37	2.13
3	7386.00	45.4 PK	74.0	-28.6	2.78 V	112	36.66	8.74
4	7386.00	33.4 AV	54.0	-20.6	2.78 V	112	24.66	8.74

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:

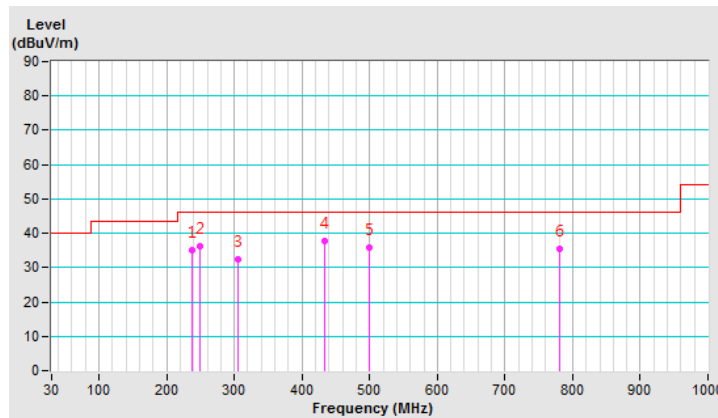
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	237.30	35.1 QP	46.0	-10.9	1.80 H	67	44.81	-9.71
2	249.20	36.3 QP	46.0	-9.7	1.10 H	202	45.49	-9.19
3	305.10	32.3 QP	46.0	-13.8	1.00 H	104	39.49	-7.24
4	433.10	37.9 QP	46.0	-8.1	1.10 H	101	41.56	-3.66
5	499.80	35.9 QP	46.0	-10.1	1.80 H	102	38.42	-2.50
6	780.15	35.4 QP	46.0	-10.6	1.10 H	258	32.31	3.09

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

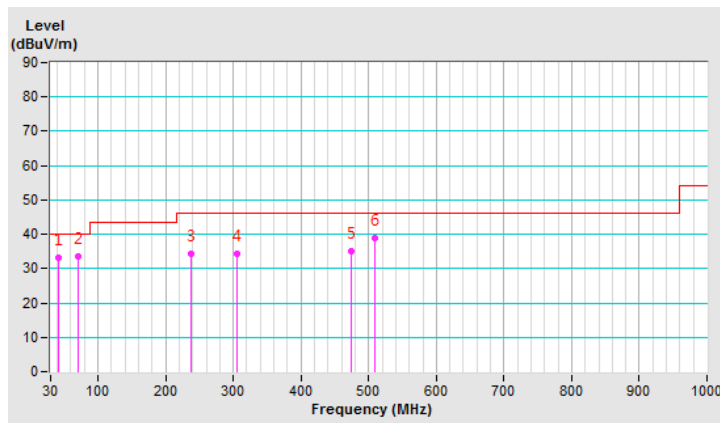


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	41.45	33.2 QP	40.0	-6.8	1.00 V	68	41.87	-8.68
2	71.18	33.6 QP	40.0	-6.4	1.00 V	360	43.95	-10.33
3	236.61	34.4 QP	46.0	-11.6	2.00 V	2	44.22	-9.79
4	305.19	34.3 QP	46.0	-11.7	1.50 V	352	41.54	-7.23
5	474.70	35.1 QP	46.0	-10.9	1.00 V	353	38.06	-2.92
6	508.65	38.9 QP	46.0	-7.1	1.00 V	176	41.13	-2.23

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	
<input checked="" type="checkbox"/> Conducted measurement	<input type="checkbox"/> 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
<p>a. The max antenna gain were be used for conducted measurement.(Antenna gain=3.62dBi)</p> <p>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.</p> <p>c. For the band edge the gain for the specific band may have been used.</p> <p>d. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For $f = 30 - 1000$ MHz, add 4.7 dB.</p> <p>Note: The conducted emission test was considered some factor to compute test result.</p>

Above 1GHz Data
802.11b - Channel 1

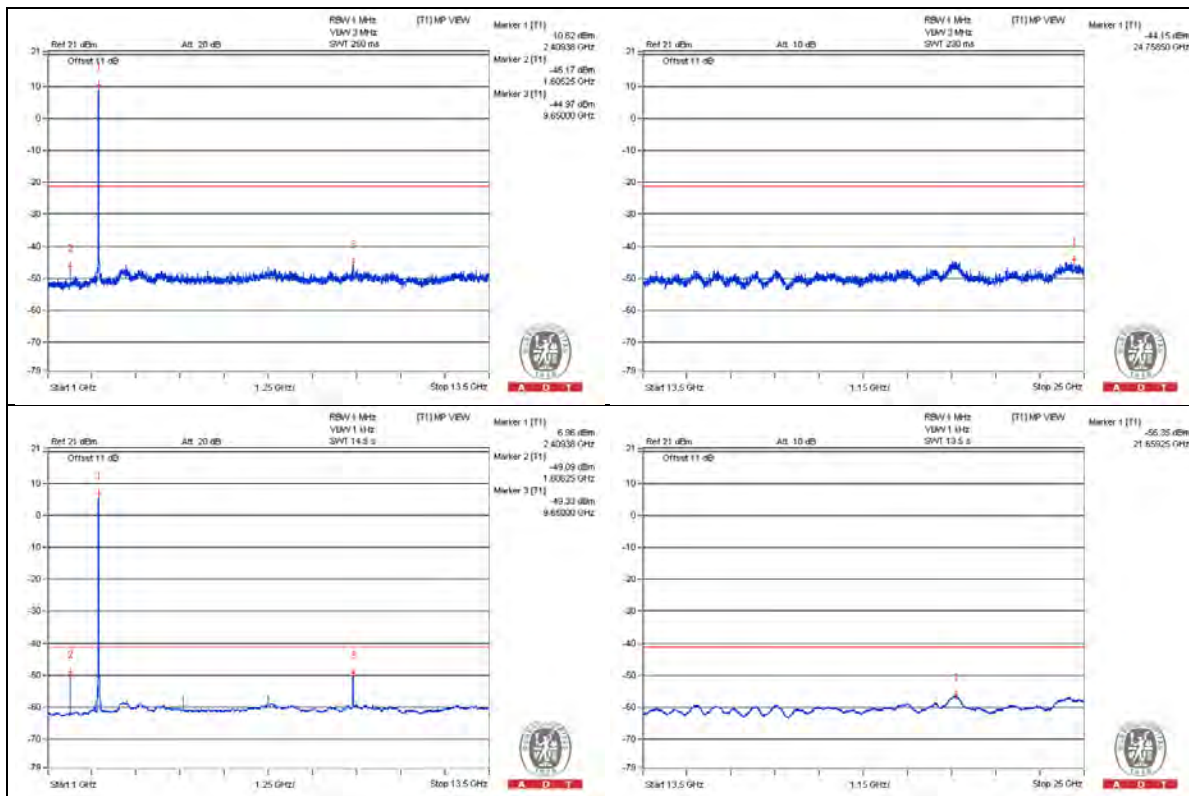
Conducted spurious emission table

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	52.71	74	-21.29	-46.17	3.62	-42.55
2	1606.25 AV	49.79	54	-4.21	-49.09	3.62	-45.47
3	4825 PK	49.7	74	-24.3	-49.18	3.62	-45.56
4	4825 AV	42.02	54	-11.98	-56.86	3.62	-53.24

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

d = measurement distance in 3 meters.



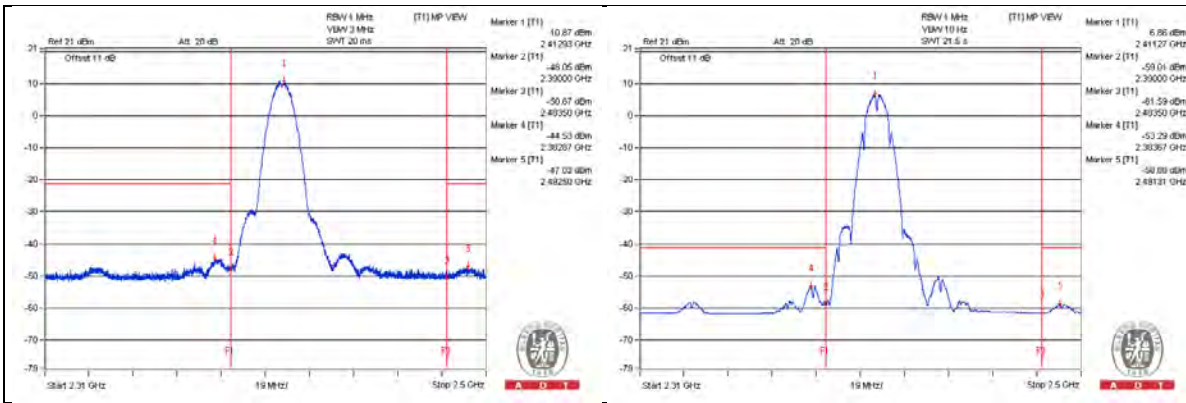
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2382.86 PK	54.35	74	-19.65	-44.53	3.62	-40.91
2	2383.67 AV	45.59	54	-8.41	-53.29	3.62	-49.67
3	2492.49 PK	51.86	74	-22.14	-47.02	3.62	-43.4
4	2491.31 AV	40	54	-14	-58.88	3.62	-55.26

Note :

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

d = measurement distance in 3 meters.



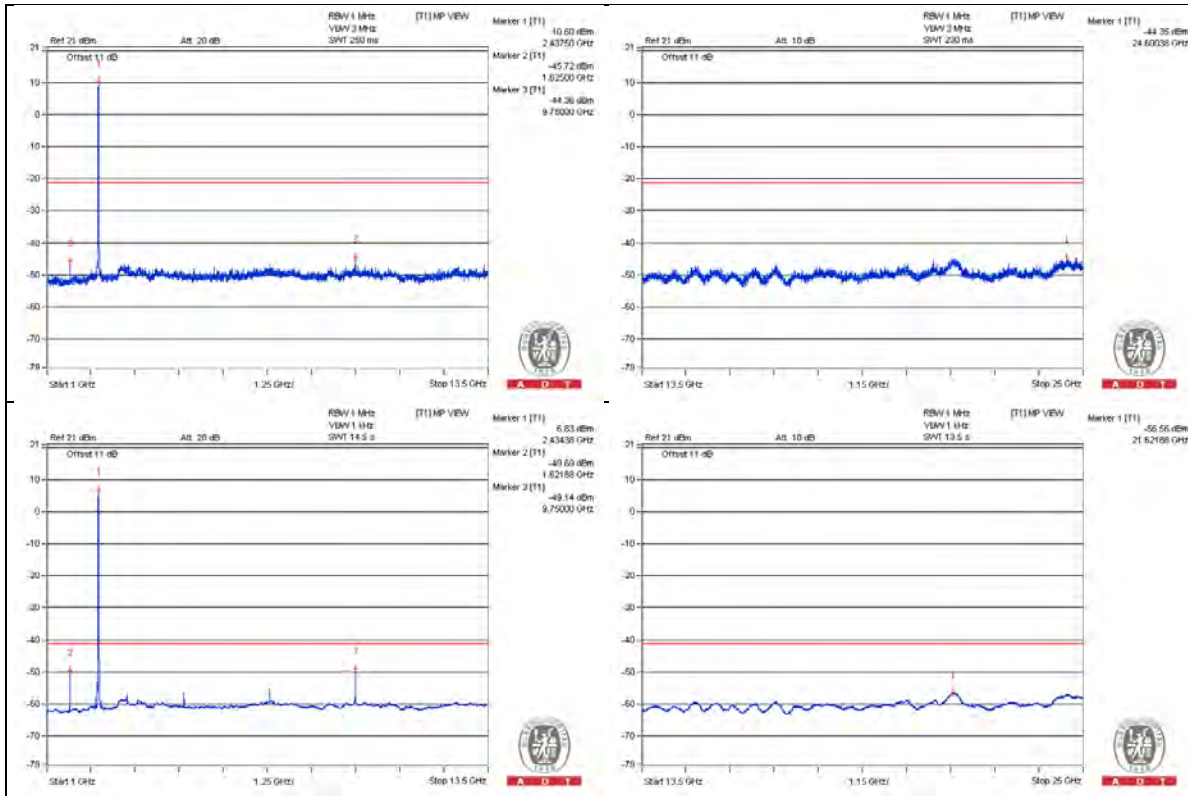
802.11b - Channel 6

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	53.16	74	-20.84	-45.72	3.62	-42.1
2	1625 AV	48.48	54	-5.52	-50.4	3.62	-46.78
3	4875 PK	49.52	74	-24.48	-49.36	3.62	-45.74
4	4875 AV	42.34	54	-11.66	-56.54	3.62	-52.92
5	7309.375 PK	52.32	74	-21.68	-46.56	3.62	-42.94
6	7312.5 AV	43.4	54	-10.6	-55.48	3.62	-51.86

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
 d = measurement distance in 3 meters.



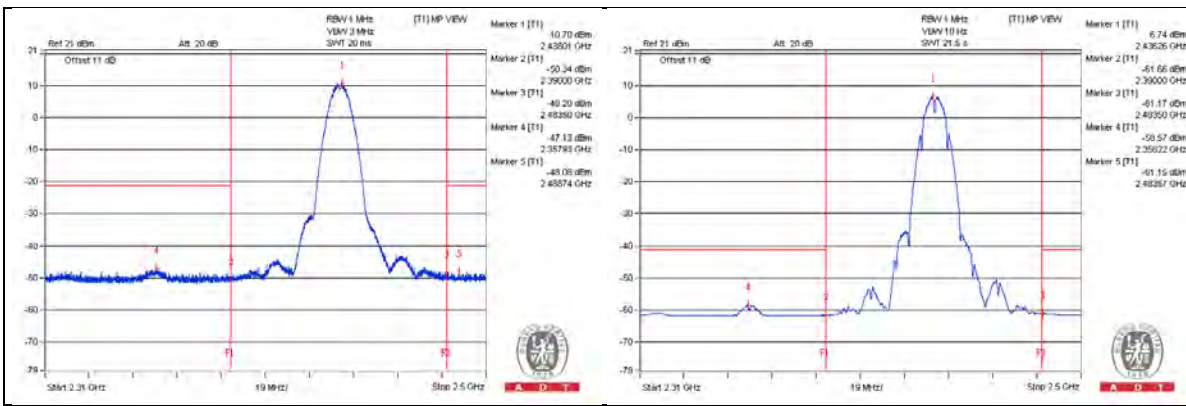
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2357.93 PK	51.75	74	-22.25	-47.13	3.62	-43.51
2	2356.22 AV	40.31	54	-13.69	-58.57	3.62	-54.95
3	2488.74 PK	50.8	74	-23.2	-48.08	3.62	-44.46
4	2483.57 AV	37.73	54	-16.27	-61.15	3.62	-57.53

Note :

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

d = measurement distance in 3 meters.



802.11b - Channel 11

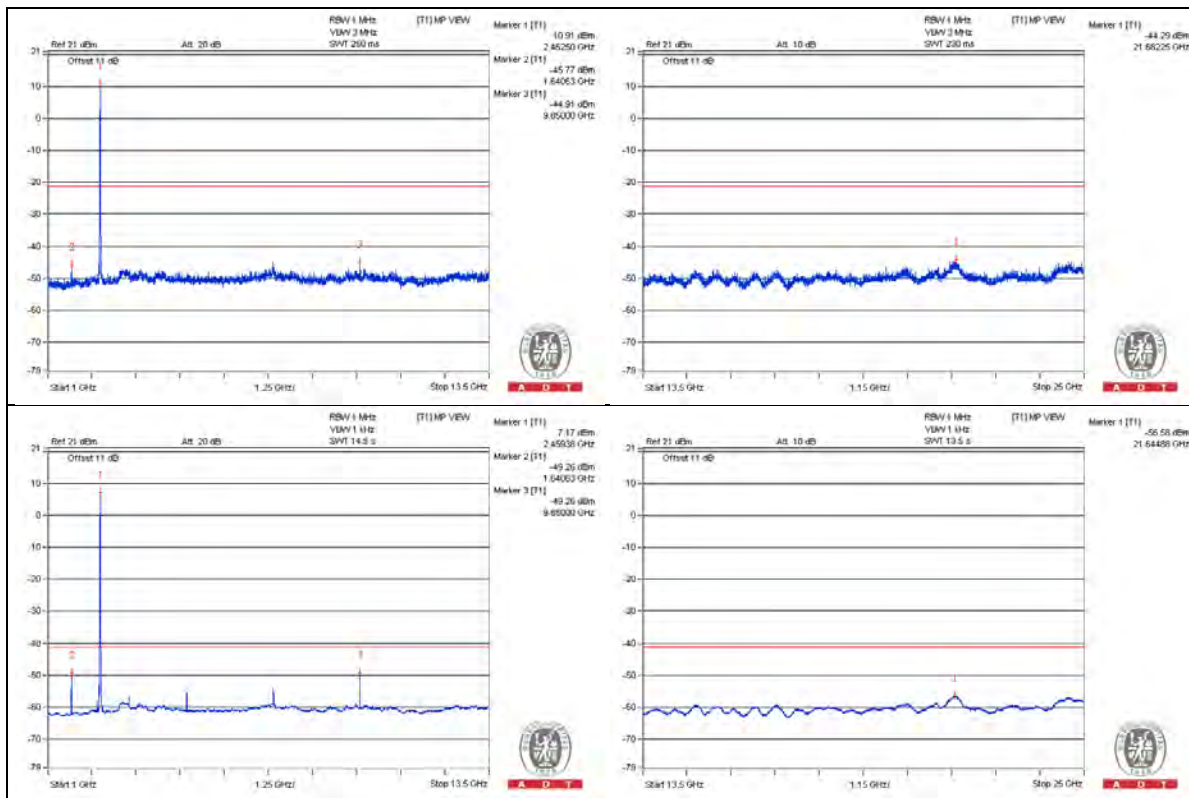
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	50.25	74	-23.75	-48.63	3.62	-45.01
2	4925 AV	43.26	54	-10.74	-55.62	3.62	-52
3	7384.375 PK	53.82	74	-20.18	-45.06	3.62	-41.44
4	7387.5 AV	44.68	54	-9.32	-54.2	3.62	-50.58

Note :

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

d = measurement distance in 3 meters.



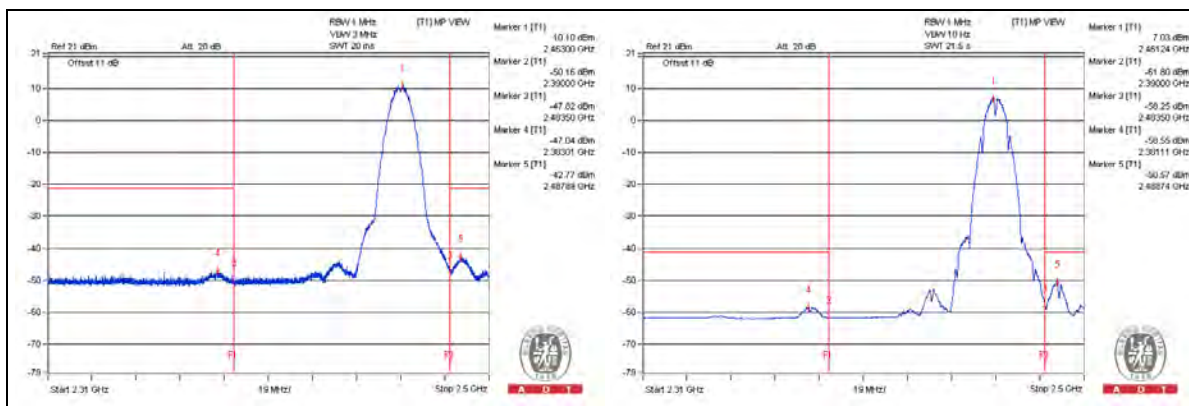
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2383.01 PK	51.84	74	-22.16	-47.04	3.62	-43.42
2	2381.11 AV	40.33	54	-13.67	-58.55	3.62	-54.93
3	2487.89 PK	56.11	74	-17.89	-42.77	3.62	-39.15
4	2488.74 AV	48.31	54	-5.69	-50.57	3.62	-46.95

Note :

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

d = measurement distance in 3 meters.



802.11b - Channel 12

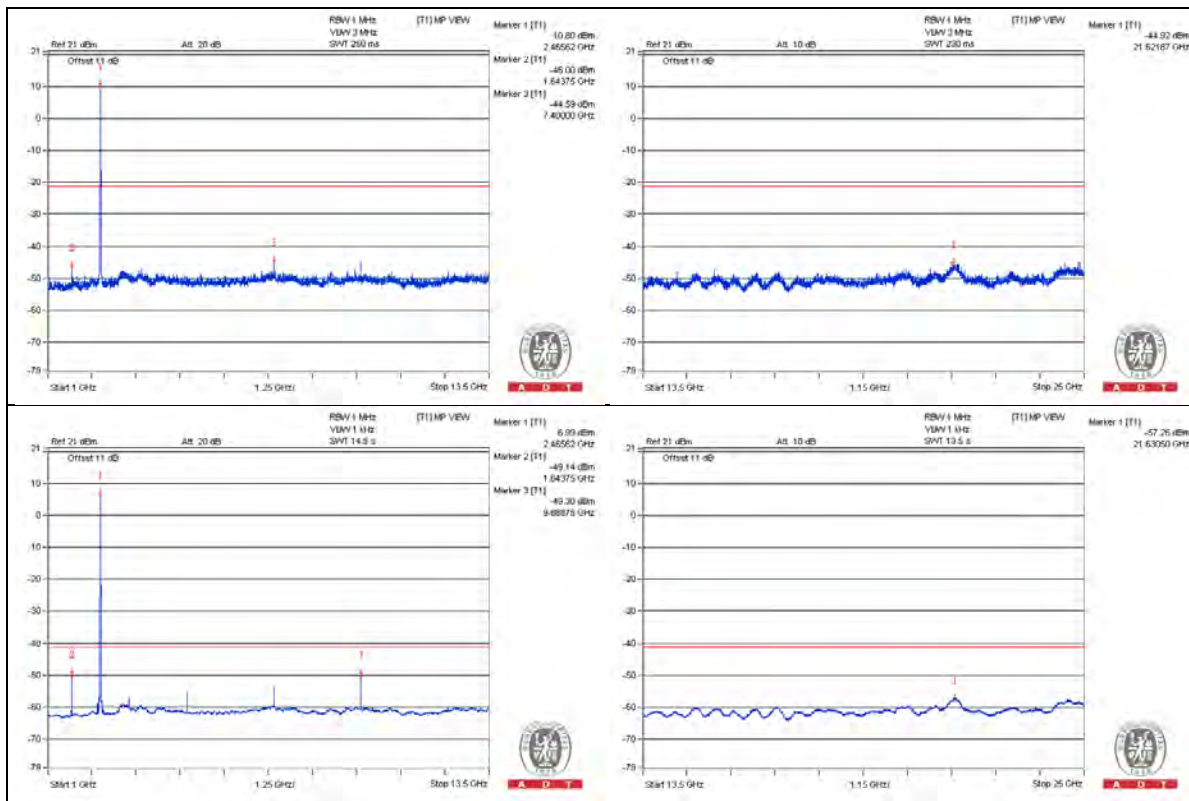
Conducted spurious emission table

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	49.03	74	-24.97	-49.85	3.62	-46.23
2	4934.375 AV	43.33	54	-10.67	-55.55	3.62	-51.93
3	7400 PK	54.29	74	-19.71	-44.59	3.62	-40.97
4	7400 AV	45.07	54	-8.93	-53.81	3.62	-50.19

Note :

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

d = measurement distance in 3 meters.



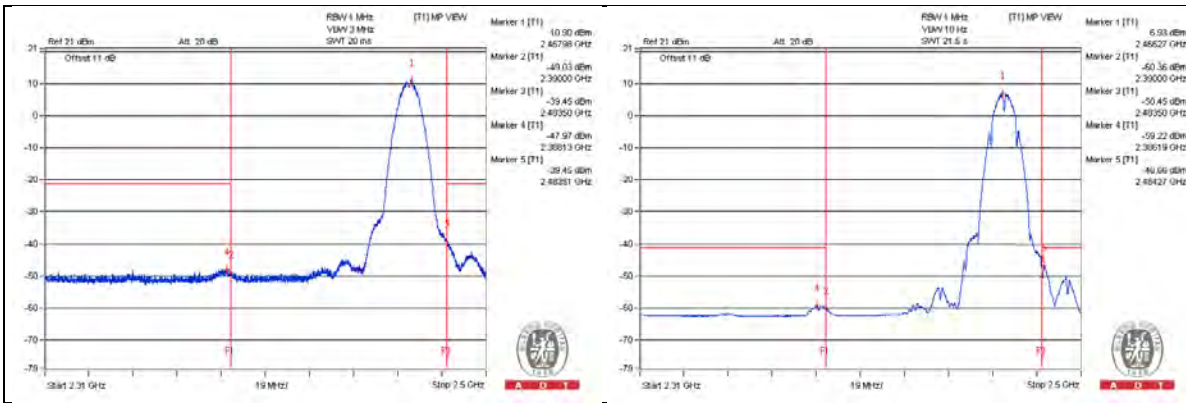
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2388.13 PK	50.91	74	-23.09	-47.97	3.62	-44.35
2	2386.19 AV	39.66	54	-14.34	-59.22	3.62	-55.6
3	2483.51 PK	59.43	74	-14.57	-39.45	3.62	-35.83
4	2484.27 AV	52.22	54	-1.78	-46.66	3.62	-43.04

Note :

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

d = measurement distance in 3 meters.



802.11b - Channel 13

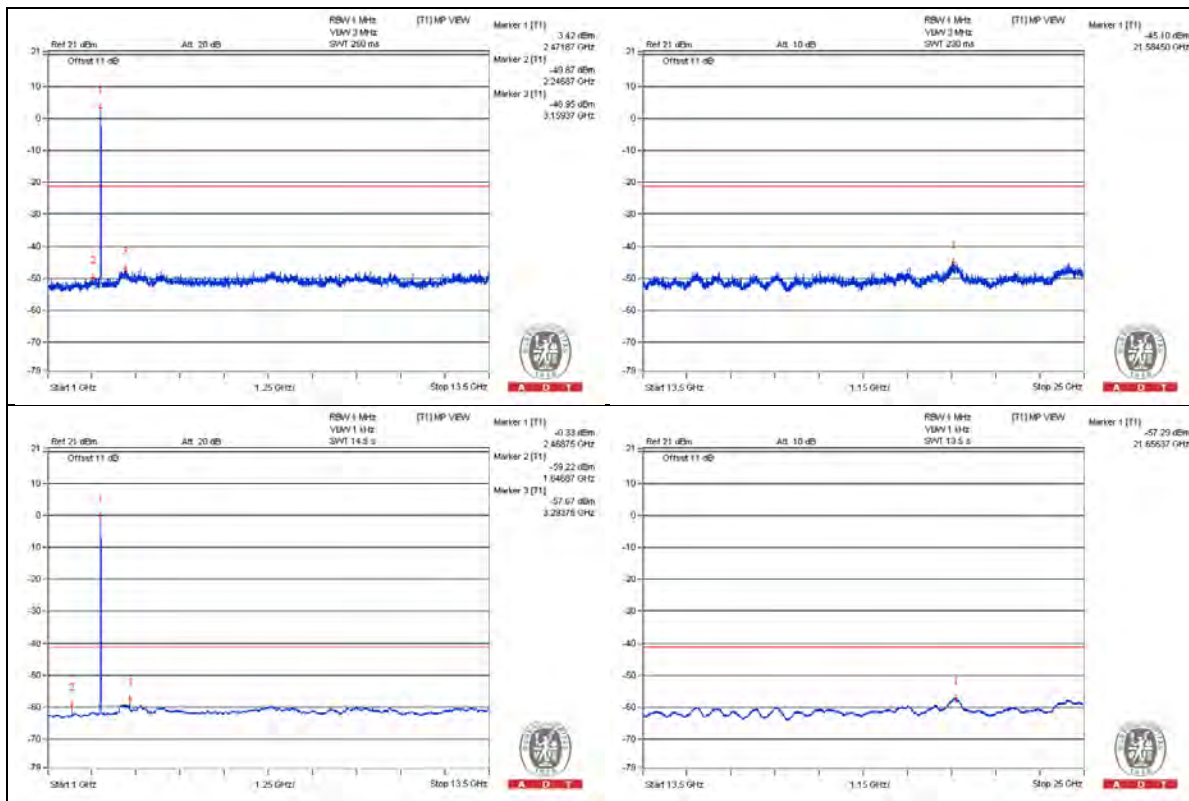
Conducted spurious emission table

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	47.75	74	-26.25	-51.13	3.62	-47.51
2	4943.75 AV	37.31	54	-16.69	-61.57	3.62	-57.95
3	7415.625 PK	49.73	74	-24.27	-49.15	3.62	-45.53
4	7415.625 AV	38.93	54	-15.07	-59.95	3.62	-56.33

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

d = measurement distance in 3 meters.



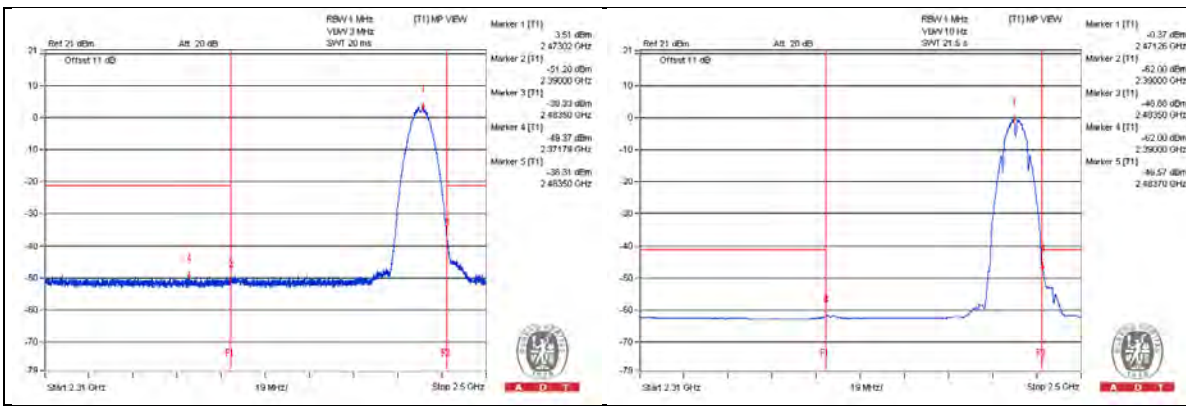
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2371.79 PK	49.51	74	-24.49	-49.37	3.62	-45.75
2	2390 AV	36.88	54	-17.12	-62	3.62	-58.38
3	2483.5 PK	60.57	74	-13.43	-38.31	3.62	-34.69
4	2483.7 AV	52.31	54	-1.69	-46.57	3.62	-42.95

Note :

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

d = measurement distance in 3 meters.



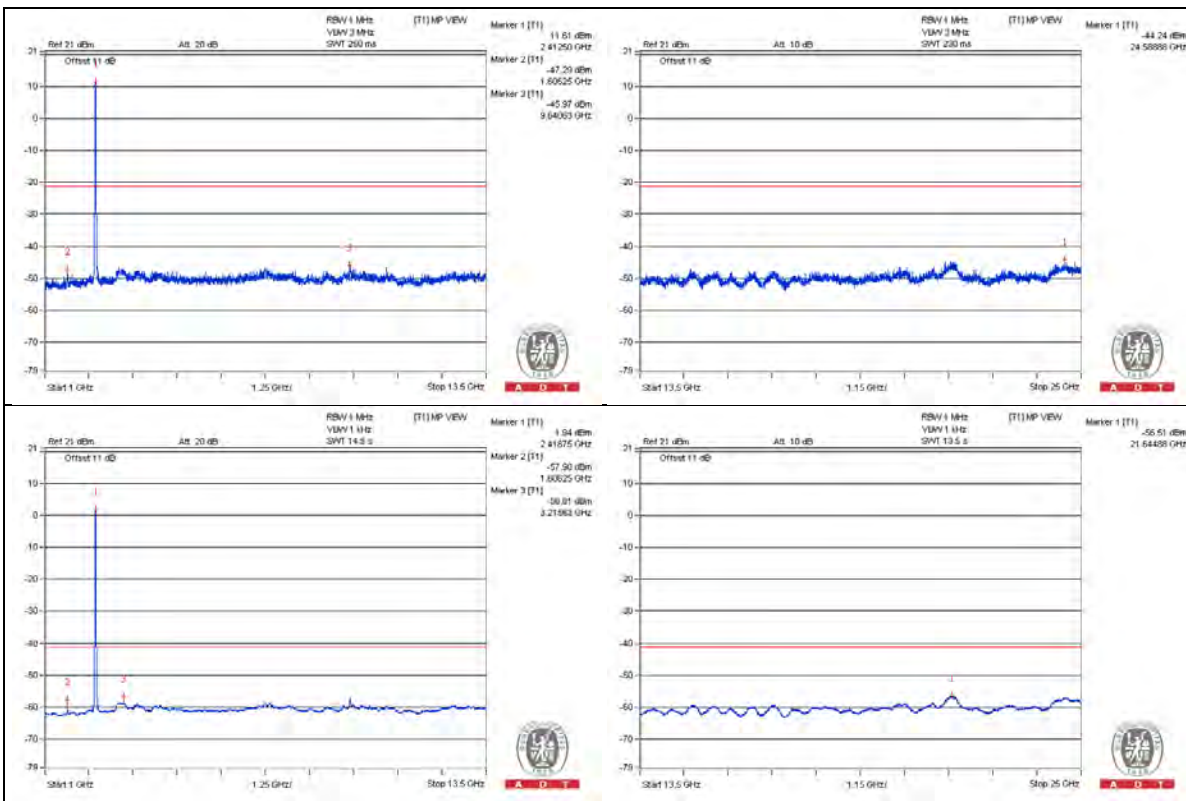
802.11g - Channel 1

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	51.59	74	-22.41	-47.29	3.62	-43.67
2	1606.25 AV	40.98	54	-13.02	-57.9	3.62	-54.28
3	4825 PK	49.97	74	-24.03	-48.91	3.62	-45.29
4	4825 AV	38.94	54	-15.06	-59.94	3.62	-56.32

Note :

Emission Level (dBUV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



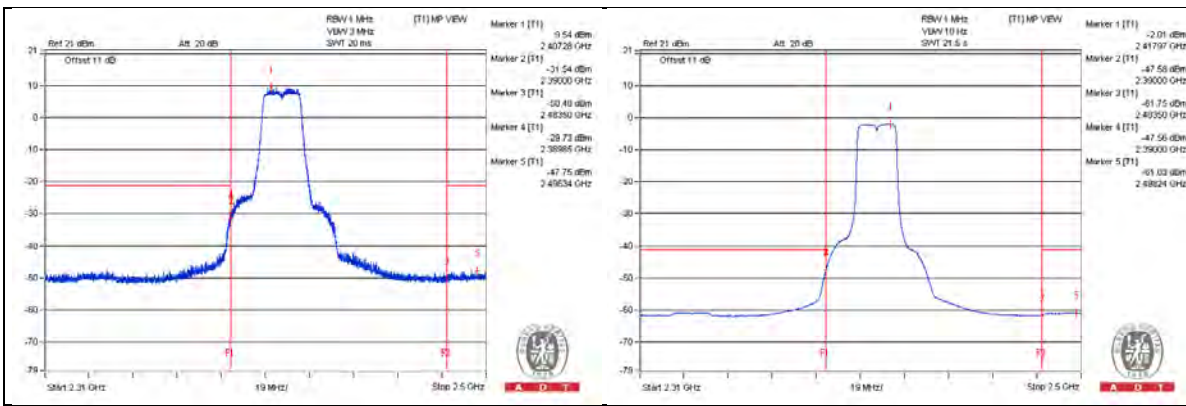
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.85 PK	69.15	74	-4.85	-29.73	3.62	-26.11
2	2390 AV	51.32	54	-2.68	-47.56	3.62	-43.94
3	2496.34 PK	51.13	74	-22.87	-47.75	3.62	-44.13
4	2498.24 AV	37.85	54	-16.15	-61.03	3.62	-57.41

Note :

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

d = measurement distance in 3 meters.



802.11g - Channel 6

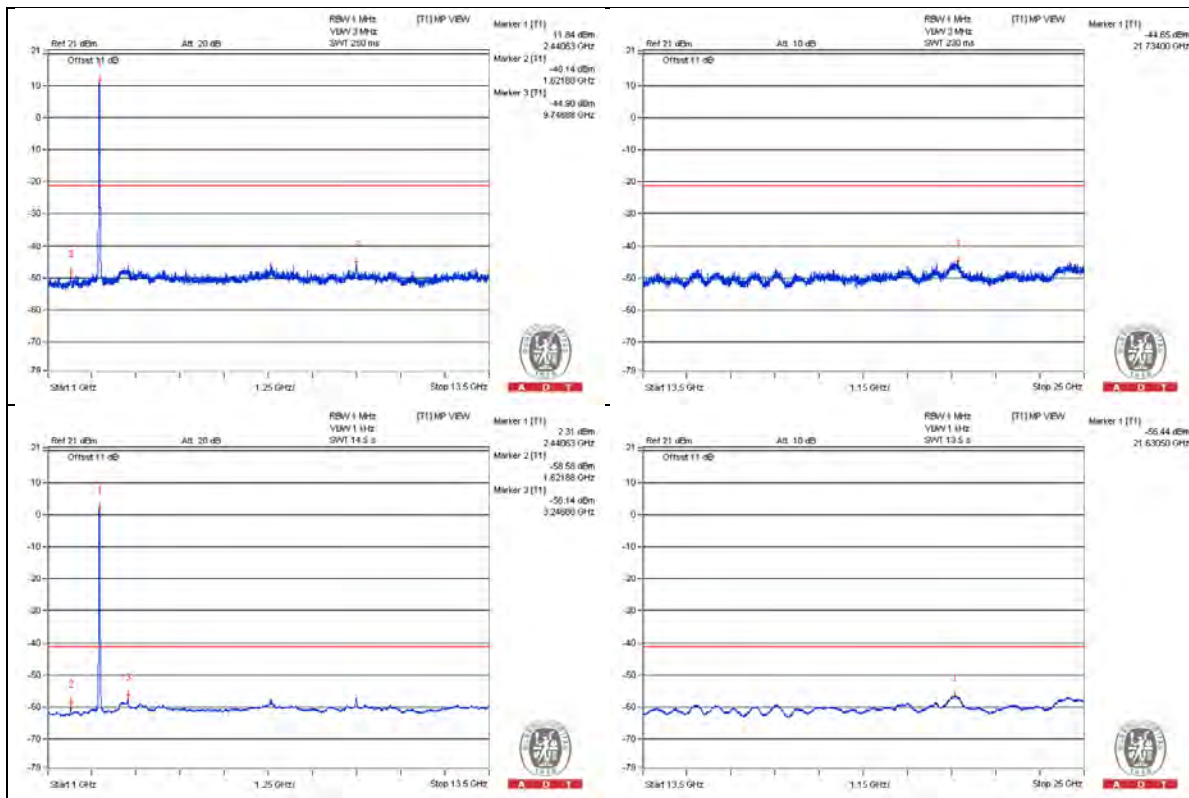
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	50.11	74	-23.89	-48.77	3.62	-45.15
2	1625 AV	39.85	54	-14.15	-59.03	3.62	-55.41
3	4875 PK	49.53	74	-24.47	-49.35	3.62	-45.73
4	4875 AV	38.71	54	-15.29	-60.17	3.62	-56.55
5	7312.5 PK	51.61	74	-22.39	-47.27	3.62	-43.65
6	7312.5 AV	41.25	54	-12.75	-57.63	3.62	-54.01

Note :

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

d = measurement distance in 3 meters.



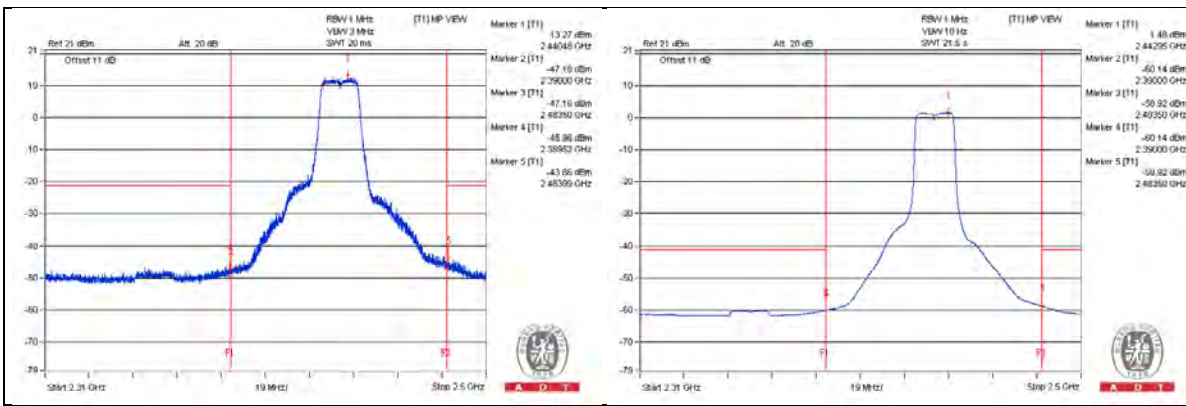
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.51 PK	52.92	74	-21.08	-45.96	3.62	-42.34
2	2390 AV	38.74	54	-15.26	-60.14	3.62	-56.52
3	2483.99 PK	55.02	74	-18.98	-43.86	3.62	-40.24
4	2483.5 AV	39.96	54	-14.04	-58.92	3.62	-55.3

Note :

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

d = measurement distance in 3 meters.



802.11g - Channel 11

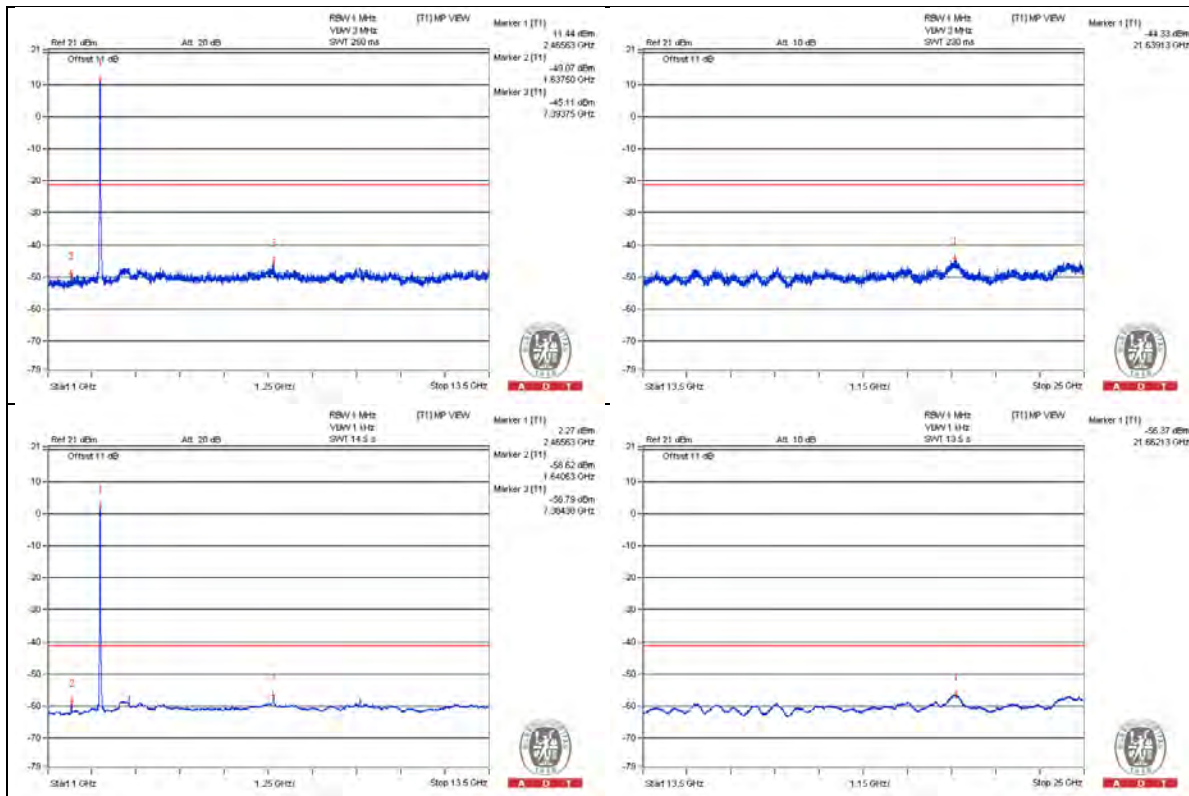
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	4925 PK	48.37	74	-25.63	-50.51	3.62	-46.89
2	4925 AV	38.65	54	-15.35	-60.23	3.62	-56.61
3	7384.375 PK	53.37	74	-20.63	-45.51	3.62	-41.89
4	7384.375 AV	42.09	54	-11.91	-56.79	3.62	-53.17

Note :

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

d = measurement distance in 3 meters.



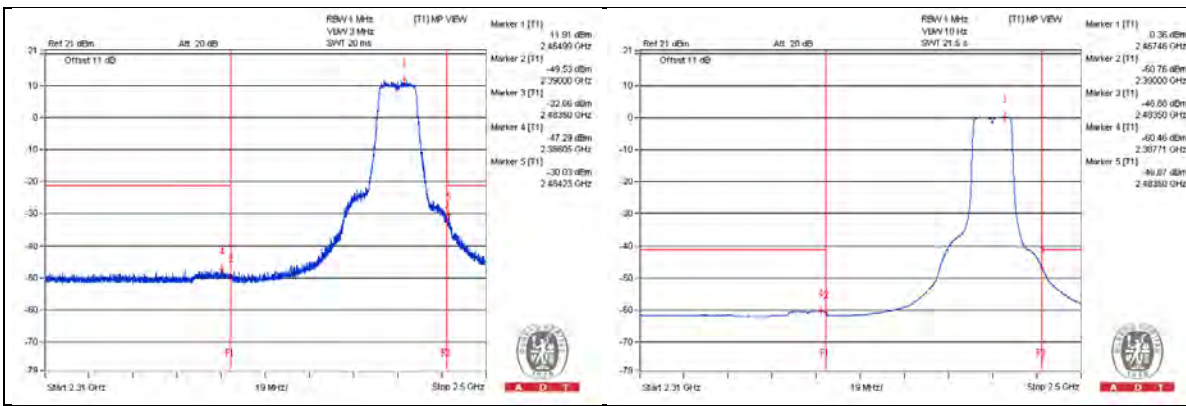
Bandedge table

No.	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2386.05 PK	51.59	74	-22.41	-47.29	3.62	-43.67
2	2387.71 AV	38.42	54	-15.58	-60.46	3.62	-56.84
3	2484.23 PK	68.85	74	-5.15	-30.03	3.62	-26.41
4	2483.5 AV	52.01	54	-1.99	-46.87	3.62	-43.25

Note :

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

d = measurement distance in 3 meters.



802.11g - Channel 12

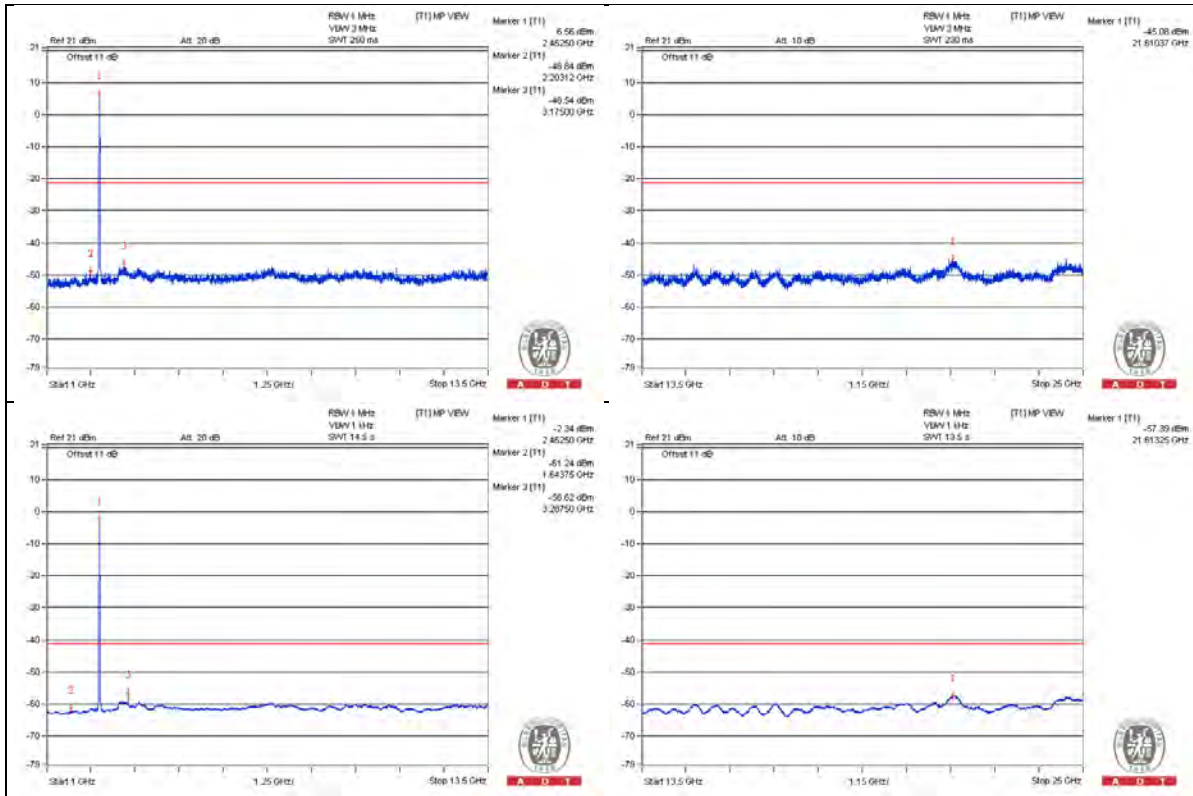
Conducted spurious emission table

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	47.44	74	-26.56	-51.44	3.62	-47.82
2	4934.375 AV	37.24	54	-16.76	-61.64	3.62	-58.02
3	7400 PK	49.62	74	-24.38	-49.26	3.62	-45.64
4	7400 AV	38.86	54	-15.14	-60.02	3.62	-56.4

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

d = measurement distance in 3 meters.



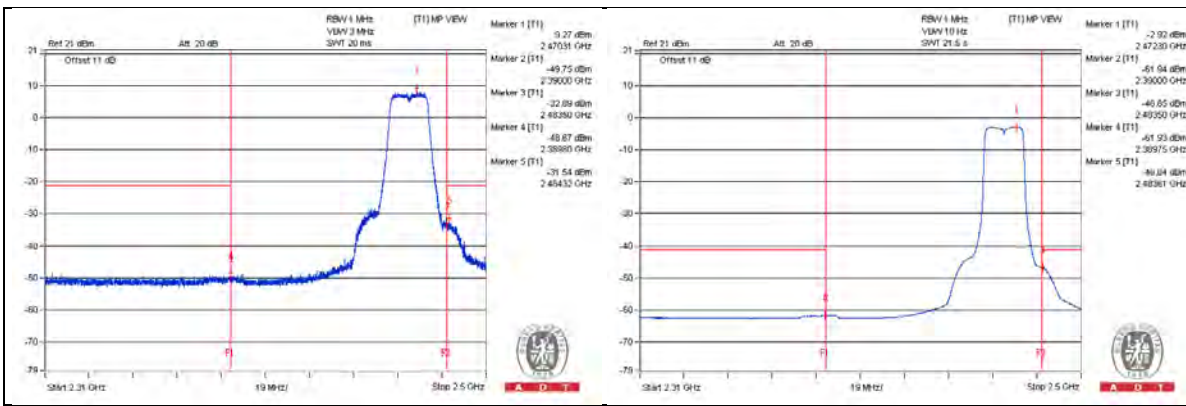
Bandedge table

No.	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.8 PK	50.21	74	-23.79	-48.67	3.62	-45.05
2	2389.75 AV	36.95	54	-17.05	-61.93	3.62	-58.31
3	2484.32 PK	67.34	74	-6.66	-31.54	3.62	-27.92
4	2483.61 AV	52.04	54	-1.96	-46.84	3.62	-43.22

Note :

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

d = measurement distance in 3 meters.



802.11g - Channel 13

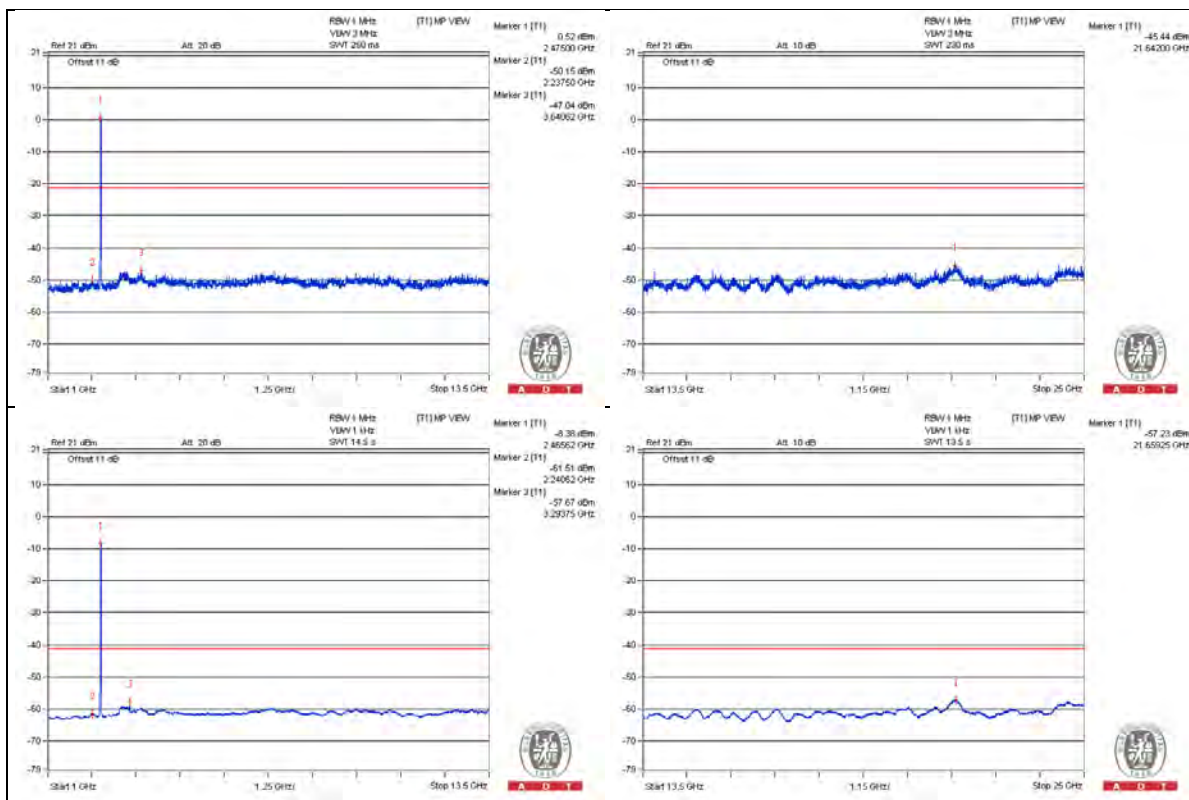
Conducted spurious emission table

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	46.71	74	-27.29	-52.17	3.62	-48.55
2	4943.75 AV	36.97	54	-17.03	-61.91	3.62	-58.29
3	7415.625 PK	49.33	74	-24.67	-49.55	3.62	-45.93
4	7415.625 AV	38.94	54	-15.06	-59.94	3.62	-56.32

Note :

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

d = measurement distance in 3 meters.



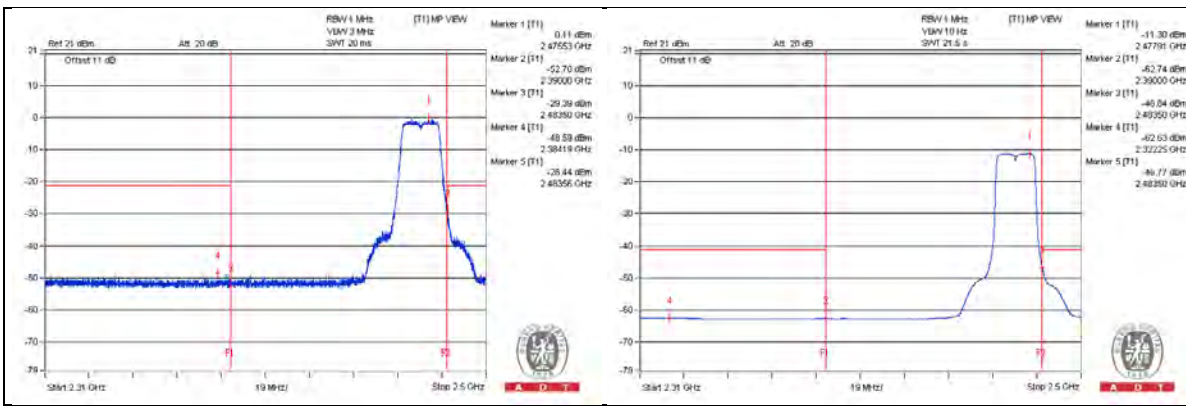
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2384.19 PK	50.29	74	-23.71	-48.59	3.62	-44.97
2	2322.25 AV	36.25	54	-17.75	-62.63	3.62	-59.01
3	2483.56 PK	70.44	74	-3.56	-28.44	3.62	-24.82
4	2483.5 AV	52.11	54	-1.89	-46.77	3.62	-43.15

Note :

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

d = measurement distance in 3 meters.



802.11n (HT20) - Channel 1

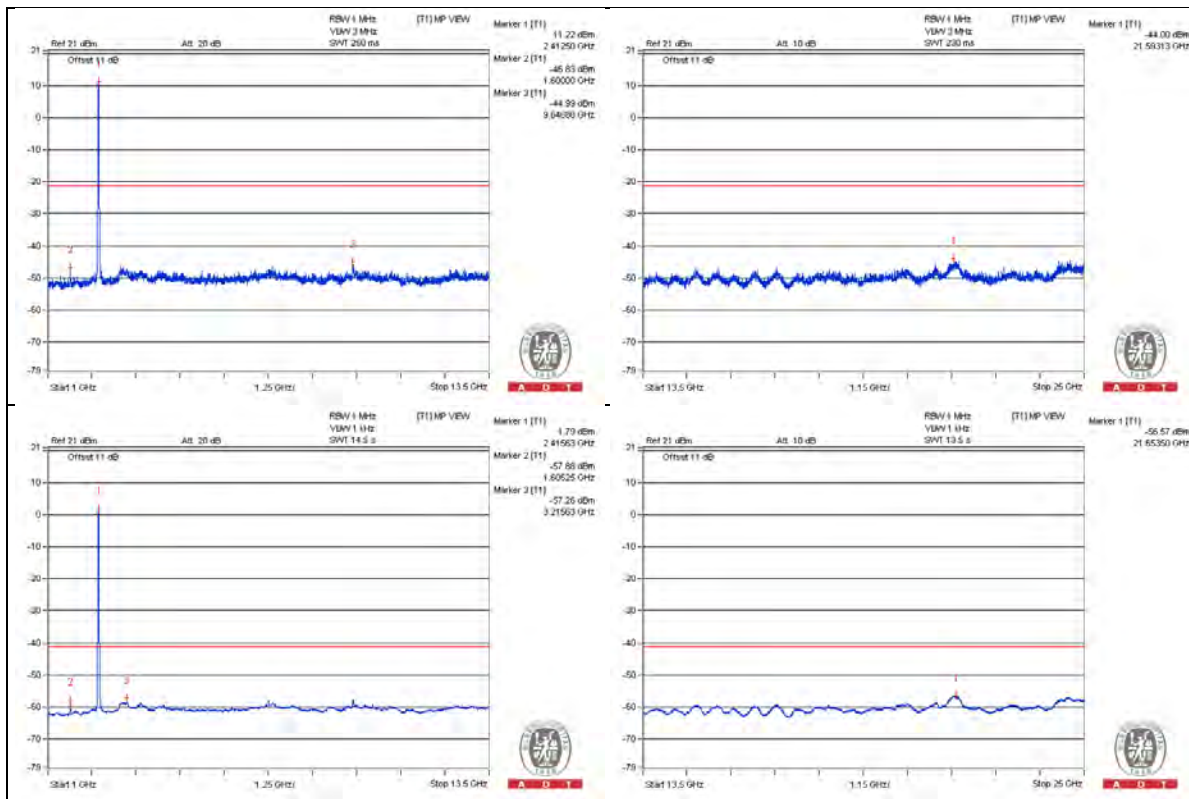
Conducted spurious emission table

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	51.31	74	-22.69	-47.57	3.62	-43.95
2	1606.25 AV	41	54	-13	-57.88	3.62	-54.26
3	4825 PK	50.33	74	-23.67	-48.55	3.62	-44.93
4	4825 AV	38.72	54	-15.28	-60.16	3.62	-56.54

Note :

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

d = measurement distance in 3 meters.



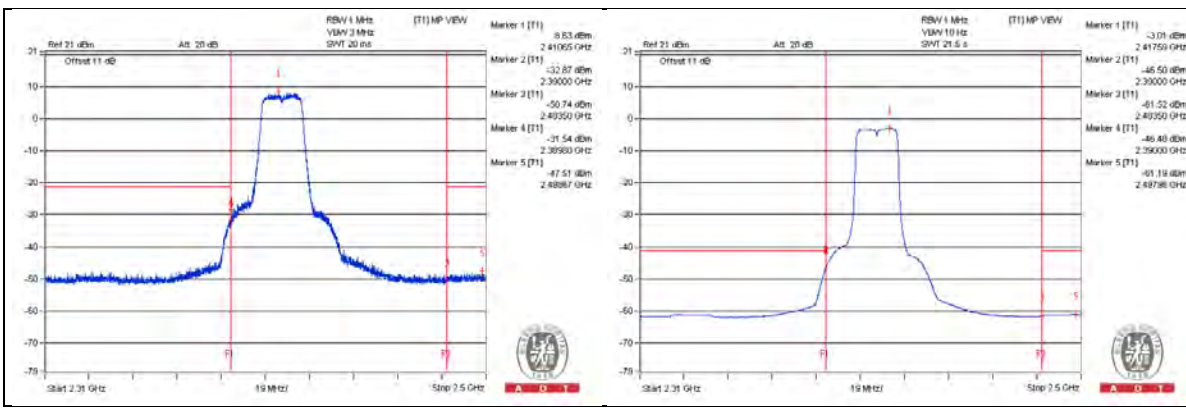
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.8 PK	67.34	74	-6.66	-31.54	3.62	-27.92
2	2390 AV	52.4	54	-1.6	-46.48	3.62	-42.86
3	2498.67 PK	51.37	74	-22.63	-47.51	3.62	-43.89
4	2497.96 AV	37.69	54	-16.31	-61.19	3.62	-57.57

Note :

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

d = measurement distance in 3 meters.

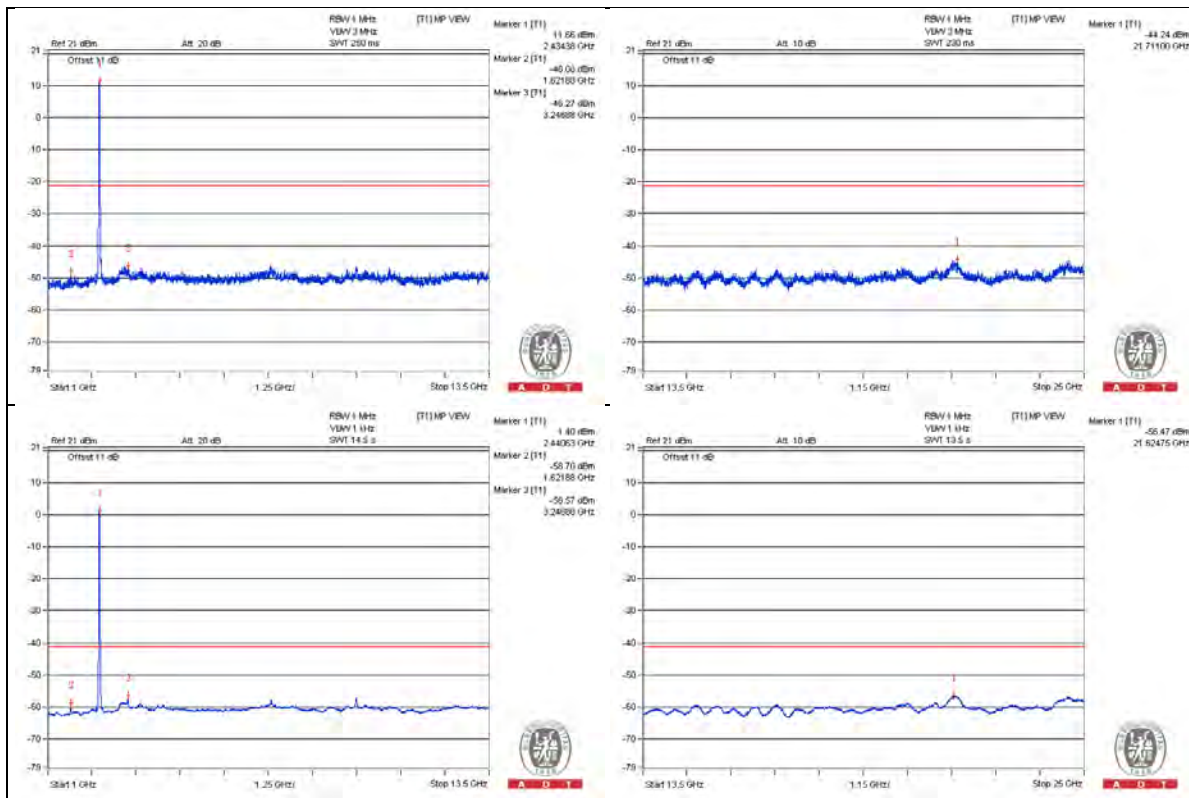


802.11n (HT20) - Channel 6
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	49.32	74	-24.68	-49.56	3.62	-45.94
2	1625 AV	40.06	54	-13.94	-58.82	3.62	-55.2
3	4875 PK	49.68	74	-24.32	-49.2	3.62	-45.58
4	4875 AV	38.56	54	-15.44	-60.32	3.62	-56.7
5	7309.375 PK	52.61	74	-21.39	-46.27	3.62	-42.65
6	7312.5 AV	40.93	54	-13.07	-57.95	3.62	-54.33

Note :

Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



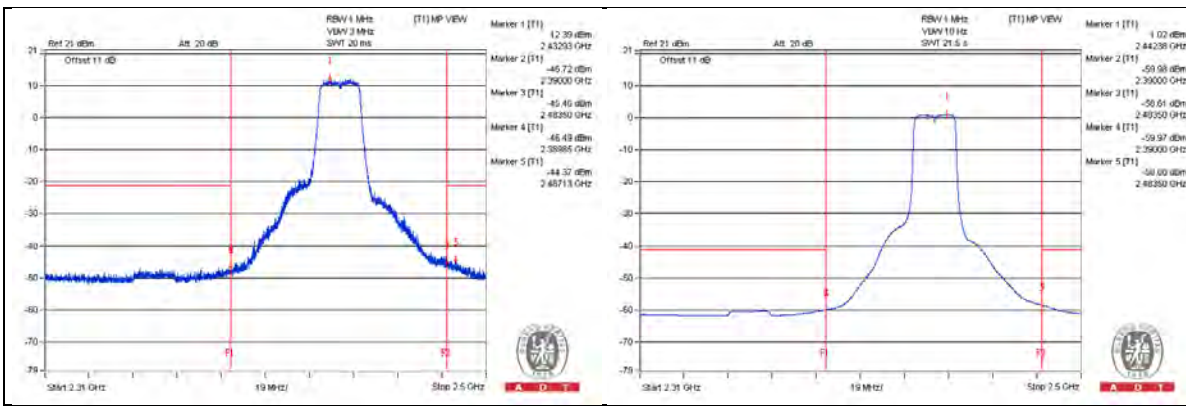
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.85 PK	52.39	74	-21.61	-46.49	3.62	-42.87
2	2390 AV	38.91	54	-15.09	-59.97	3.62	-56.35
3	2487.13 PK	54.51	74	-19.49	-44.37	3.62	-40.75
4	2483.5 AV	40.28	54	-13.72	-58.6	3.62	-54.98

Note :

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

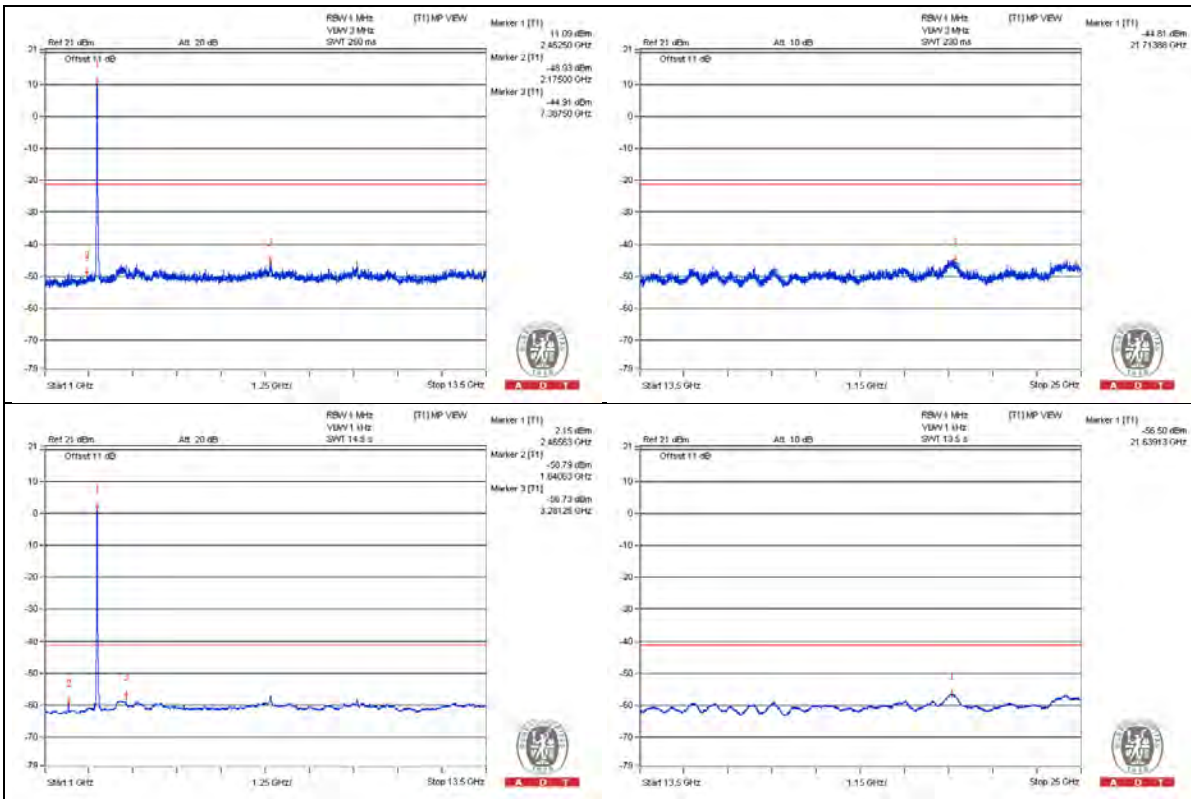
d = measurement distance in 3 meters.



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	48.9	74	-25.1	-49.98	3.62	-46.36
2	4925 AV	38.58	54	-15.42	-60.3	3.62	-56.68
3	7387.5 PK	53.97	74	-20.03	-44.91	3.62	-41.29
4	7387.5 AV	41.85	54	-12.15	-57.03	3.62	-53.41

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



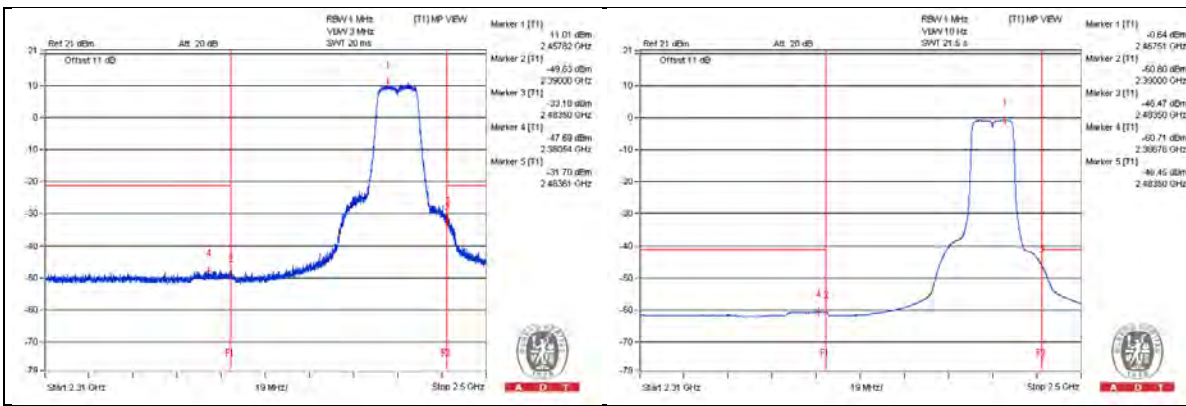
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2380.54 PK	51.19	74	-22.81	-47.69	3.62	-44.07
2	2386.76 AV	38.17	54	-15.83	-60.71	3.62	-57.09
3	2483.61 PK	67.18	74	-6.82	-31.7	3.62	-28.08
4	2483.5 AV	52.43	54	-1.57	-46.45	3.62	-42.83

Note :

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

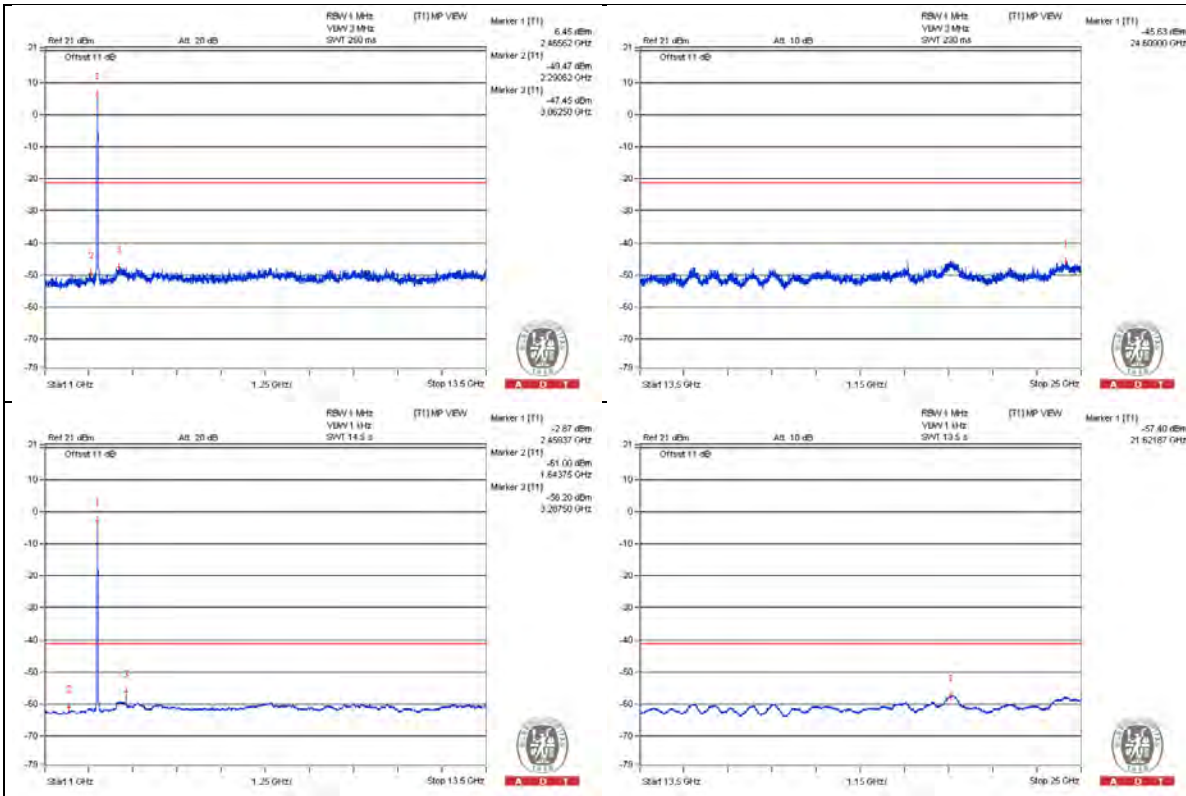
d = measurement distance in 3 meters.



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	46.95	74	-27.05	-51.93	3.62	-48.31
2	4934.375 AV	37.1	54	-16.9	-61.78	3.62	-58.16
3	7400 PK	48.76	74	-25.24	-50.12	3.62	-46.5
4	7400 AV	38.79	54	-15.21	-60.09	3.62	-56.47

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



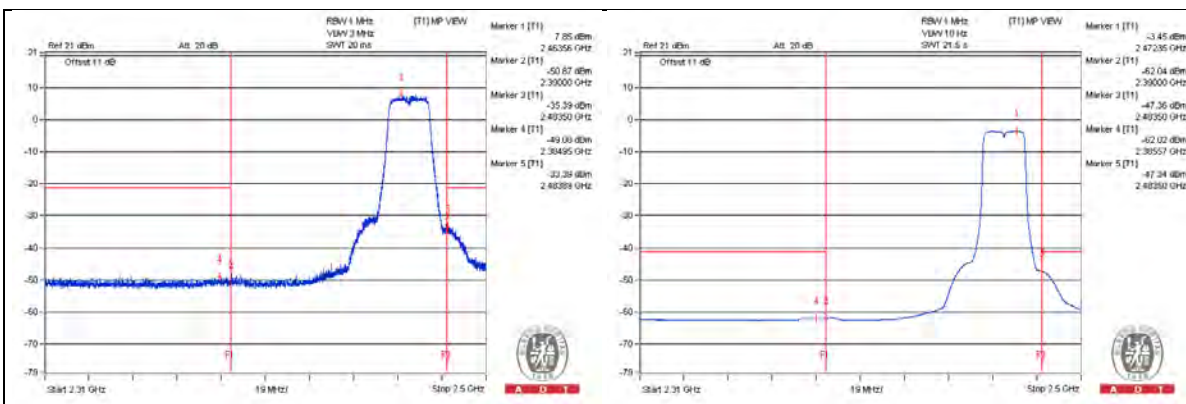
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2384.95 PK	49.8	74	-24.2	-49.08	3.62	-45.46
2	2385.57 AV	36.86	54	-17.14	-62.02	3.62	-58.4
3	2483.89 PK	65.49	74	-8.51	-33.39	3.62	-29.77
4	2483.5 AV	51.54	54	-2.46	-47.34	3.62	-43.72

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

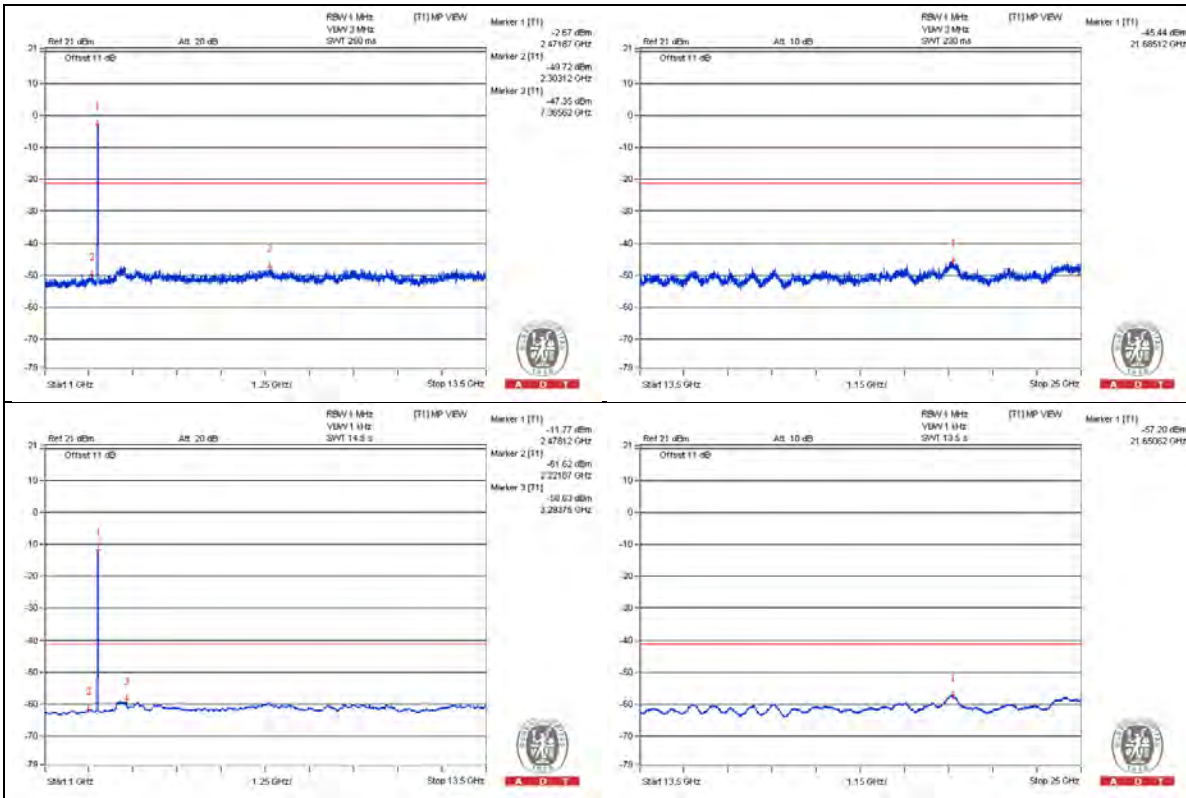
d = measurement distance in 3 meters.



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	47.69	74	-26.31	-51.19	3.62	-47.57
2	4943.75 AV	37.2	54	-16.8	-61.68	3.62	-58.06
3	7415.625 PK	49.7	74	-24.3	-49.18	3.62	-45.56
4	7415.625 AV	38.84	54	-15.16	-60.04	3.62	-56.42

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



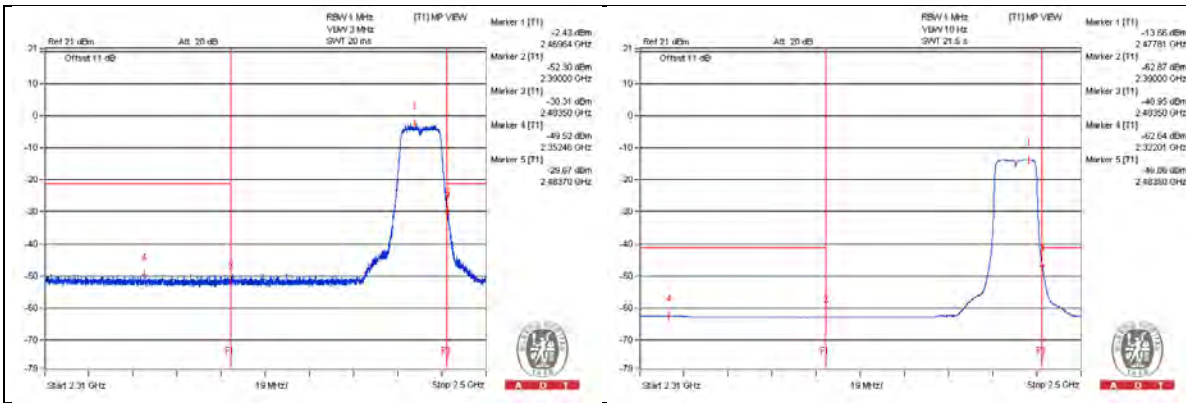
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2352.46 PK	49.36	74	-24.64	-49.52	3.62	-45.9
2	2322.01 AV	36.24	54	-17.76	-62.64	3.62	-59.02
3	2483.7 PK	69.21	74	-4.79	-29.67	3.62	-26.05
4	2483.5 AV	52.02	54	-1.98	-46.86	3.62	-43.24

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

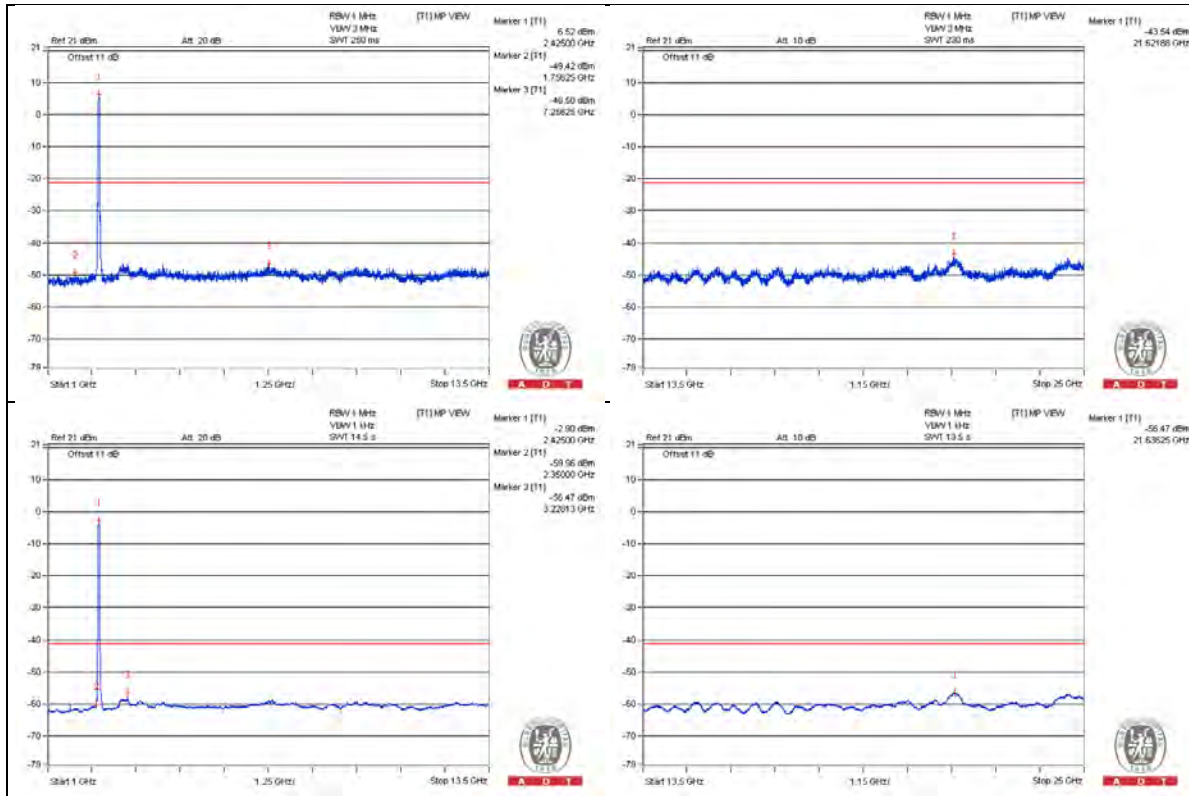
d = measurement distance in 3 meters.



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	46.94	74	-27.06	-51.94	3.62	-48.32
2	1615.625 AV	37.06	54	-16.94	-61.82	3.62	-58.2
3	4843.75 PK	47.74	74	-26.26	-51.14	3.62	-47.52
4	4843.75 AV	37.97	54	-16.03	-60.91	3.62	-57.29
5	7265.625 PK	49.97	74	-24.03	-48.91	3.62	-45.29
6	7265.625 AV	39.66	54	-14.34	-59.22	3.62	-55.6

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



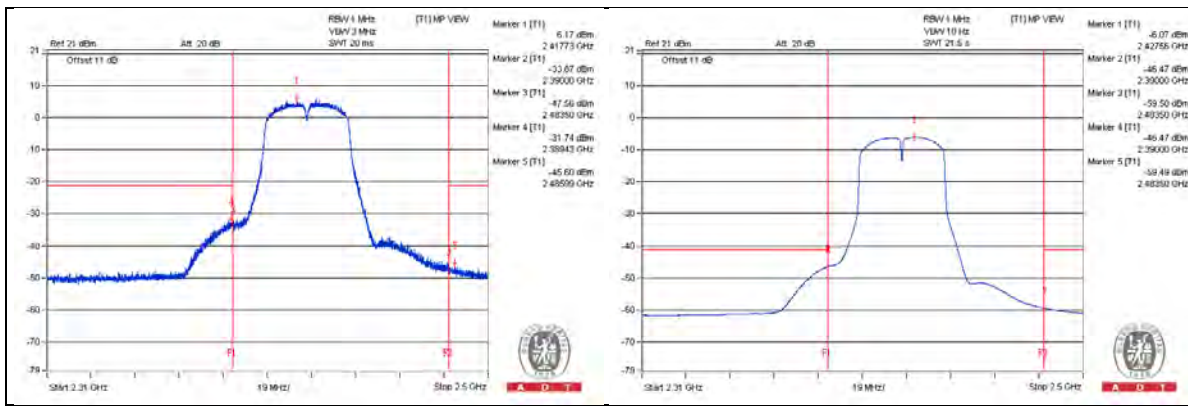
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.42 PK	67.14	74	-6.86	-31.74	3.62	-28.12
2	2390 AV	52.41	54	-1.59	-46.47	3.62	-42.85
3	2485.99 PK	53.28	74	-20.72	-45.6	3.62	-41.98
4	2483.5 AV	39.39	54	-14.61	-59.49	3.62	-55.87

Note :

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

d = measurement distance in 3 meters.



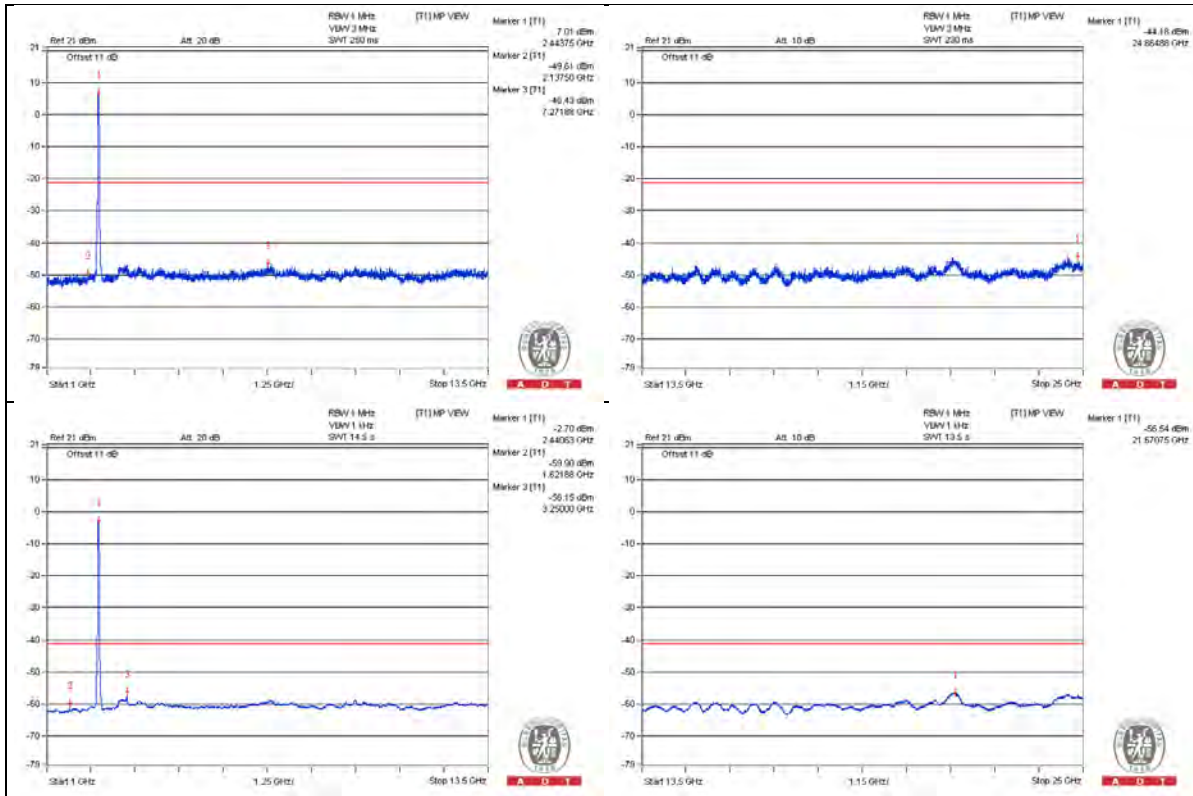
802.11n (HT40) - Channel 6
Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	1625 PK	46.38	74	-27.62	-52.5	3.62	-48.88
2	1625 AV	38.43	54	-15.57	-60.45	3.62	-56.83
3	4875 PK	49.26	74	-24.74	-49.62	3.62	-46
4	4875 AV	38.01	54	-15.99	-60.87	3.62	-57.25
5	7309.375 PK	49.77	74	-24.23	-49.11	3.62	-45.49
6	7309.375 AV	39.66	54	-14.34	-59.22	3.62	-55.6

Note :

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

d = measurement distance in 3 meters.



Bandedge table

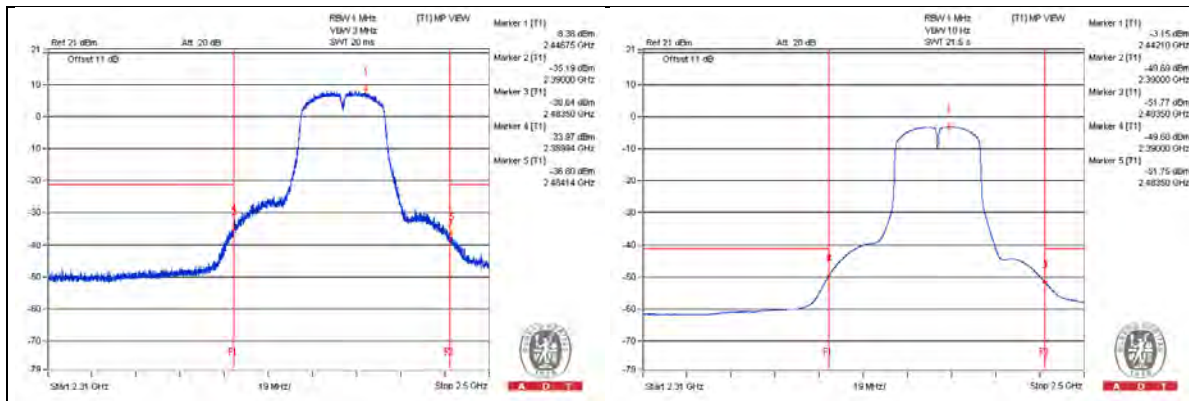
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2389.94 PK	64.91	74	-9.09	-33.97	3.62	-30.35
2	2390 AV	49.2	54	-4.8	-49.68	3.62	-46.06
3	2484.14 PK	62.08	74	-11.92	-36.8	3.62	-33.18
4	2483.5 AV	47.13	54	-6.87	-51.75	3.62	-48.13

Note :

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

d = measurement distance in 3 meters.

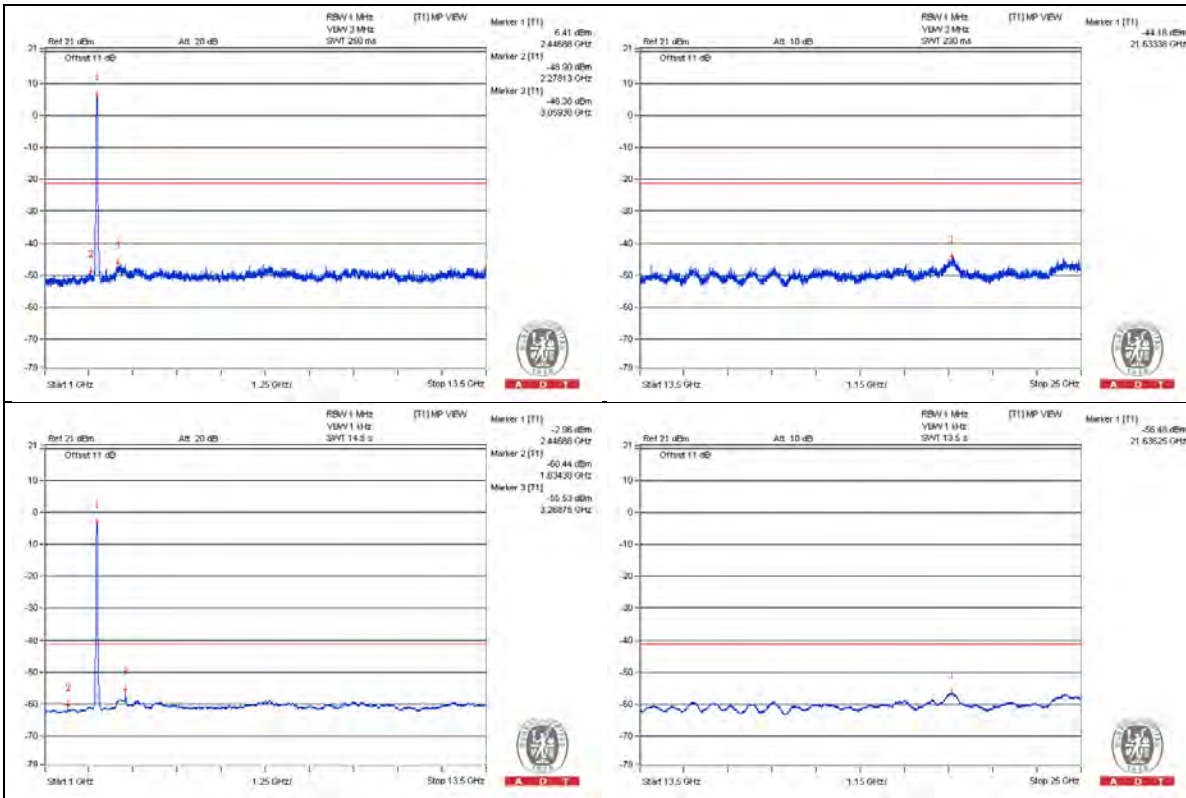
* The unwanted emission was verified and the test result was passed by radiated measurement.
(Please refer APPENDIX A)



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	48.7	74	-25.3	-50.18	3.62	-46.56
2	4903.125 AV	37.66	54	-16.34	-61.22	3.62	-57.6
3	7356.25 PK	50.02	74	-23.98	-48.86	3.62	-45.24
4	7356.25 AV	39.96	54	-14.04	-58.92	3.62	-55.3

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



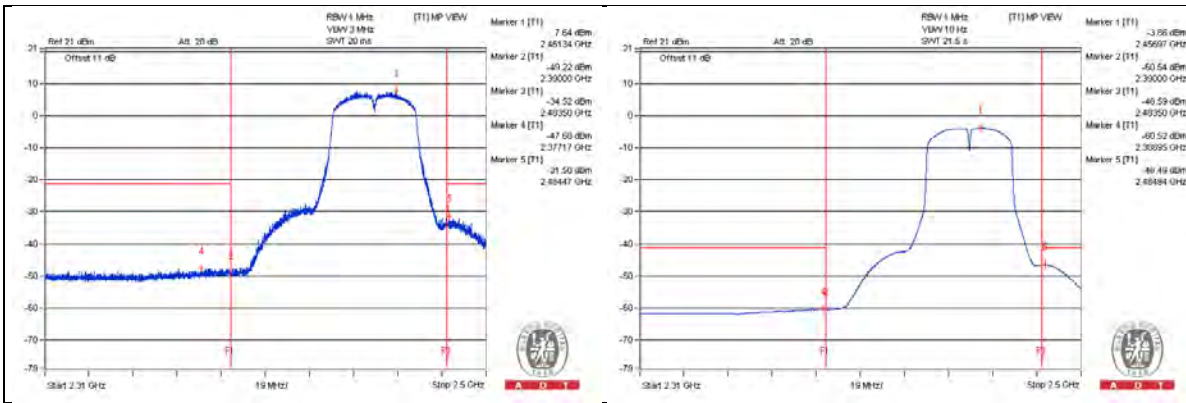
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2377.16 PK	51.2	74	-22.8	-47.68	3.62	-44.06
2	2388.95 AV	38.36	54	-15.64	-60.52	3.62	-56.9
3	2484.47 PK	67.38	74	-6.62	-31.5	3.62	-27.88
4	2484.94 AV	52.39	54	-1.61	-46.49	3.62	-42.87

Note :

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

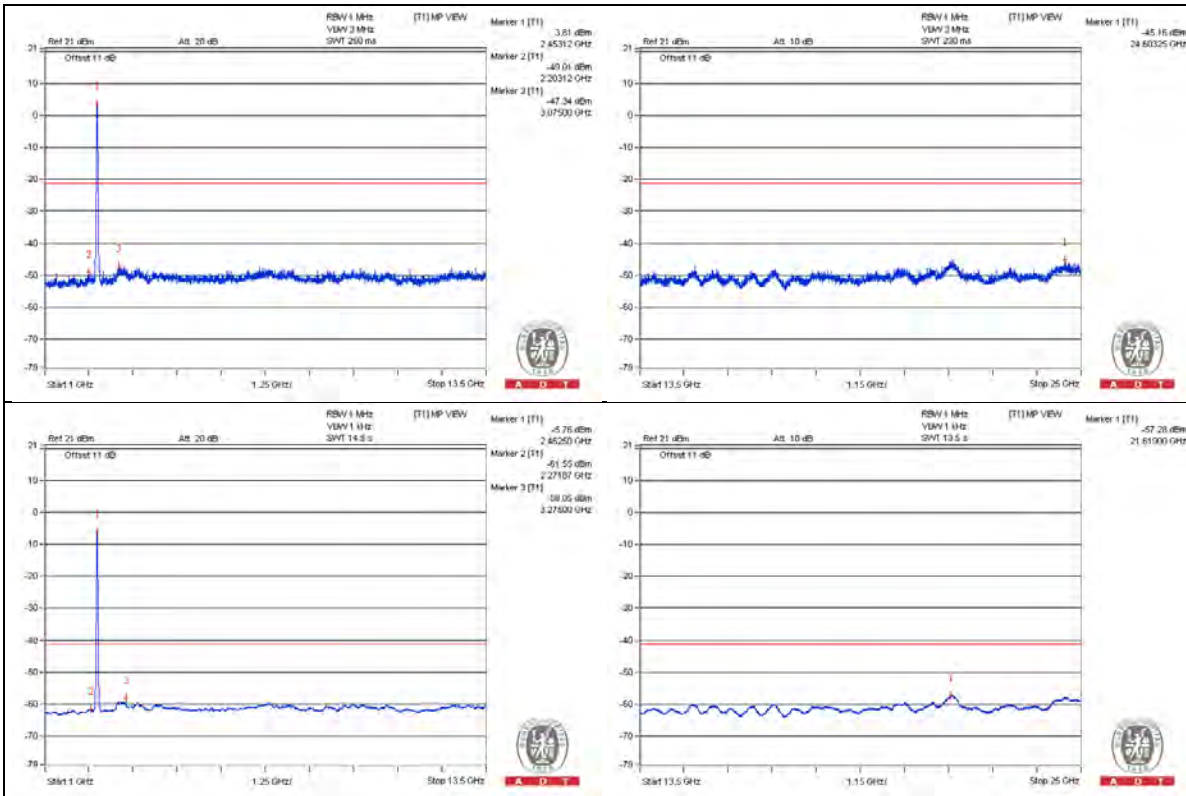
d = measurement distance in 3 meters.



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	47.56	74	-26.44	-51.32	3.62	-47.7
2	4912.5 AV	37.09	54	-16.91	-61.79	3.62	-58.17
3	7371.875 PK	49.55	74	-24.45	-49.33	3.62	-45.71
4	7371.875 AV	38.87	54	-15.13	-60.01	3.62	-56.39

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



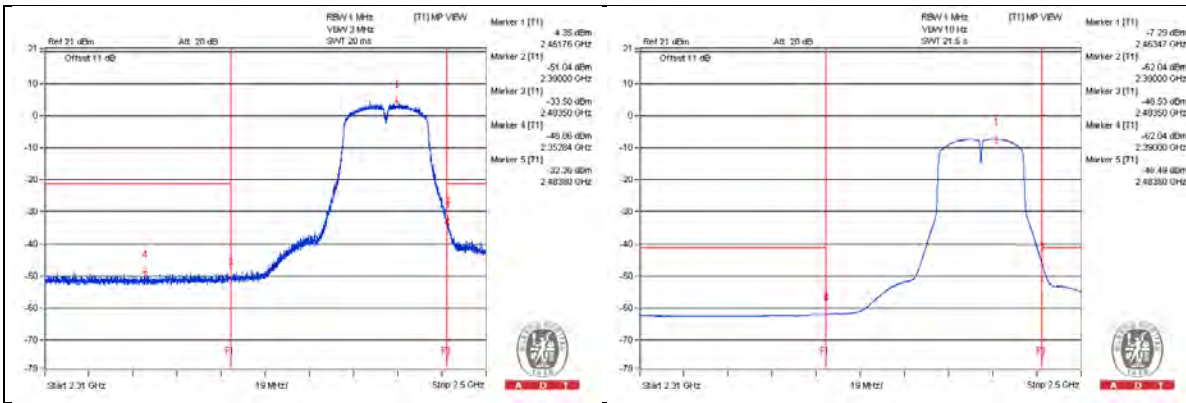
Bandedge table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2352.84 PK	50.02	74	-23.98	-48.86	3.62	-45.24
2	2390 AV	36.84	54	-17.16	-62.04	3.62	-58.42
3	2483.8 PK	66.52	74	-7.48	-32.36	3.62	-28.74
4	2483.5 AV	52.39	54	-1.61	-46.49	3.62	-42.87

Note :

$$\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

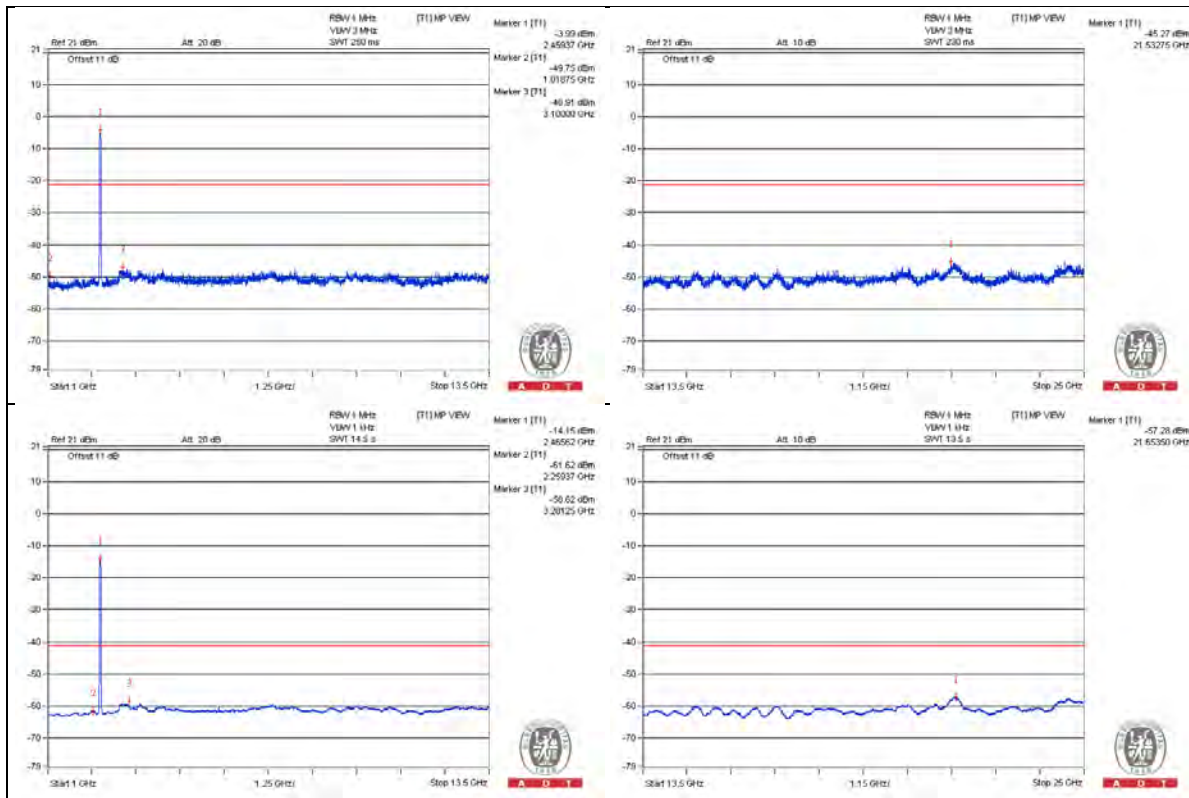
d = measurement distance in 3 meters.



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	47.14	74	-26.86	-51.74	3.62	-48.12
2	4925 AV	37.11	54	-16.89	-61.77	3.62	-58.15
3	7384.375 PK	49.21	74	-24.79	-49.67	3.62	-46.05
4	7387.5 AV	38.81	54	-15.19	-60.07	3.62	-56.45

Note :
Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
d = measurement distance in 3 meters.



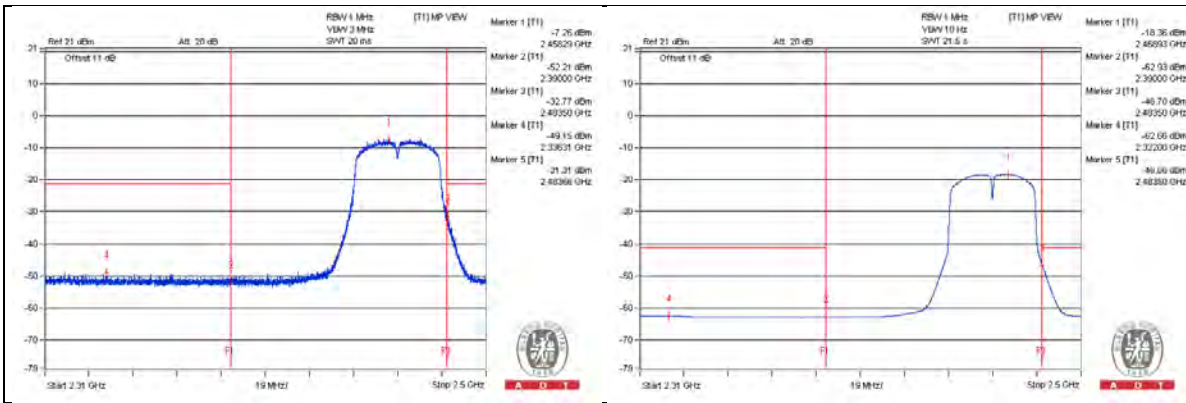
Bandedge table

No.	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2336.31 PK	49.73	74	-24.27	-49.15	3.62	-45.53
2	2322 AV	36.22	54	-17.78	-62.66	3.62	-59.04
3	2483.66 PK	67.57	74	-6.43	-31.31	3.62	-27.69
4	2483.5 AV	52.22	54	-1.78	-46.66	3.62	-43.04

Note :

$$\text{Emission Level (dBUV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$$

d = measurement distance in 3 meters.



Below 1GHz Data
802.11g - Channel 6

Conducted spurious emission table

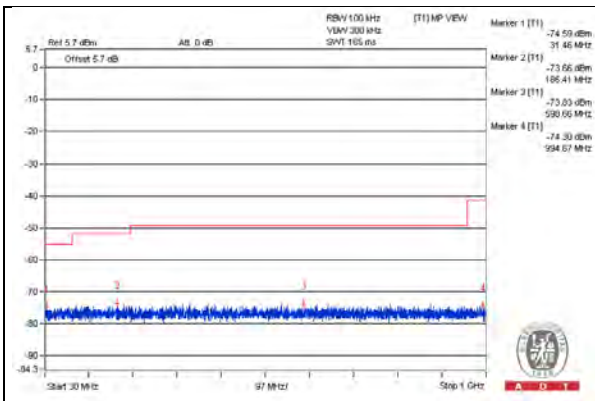
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	332.3975	24.89	46	-21.11	-73.99	3.62	-70.37
2	878.75	24.67	46	-21.33	-74.21	3.62	-70.59

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: Nov. 19, 2015

4.6.3 Test Procedures

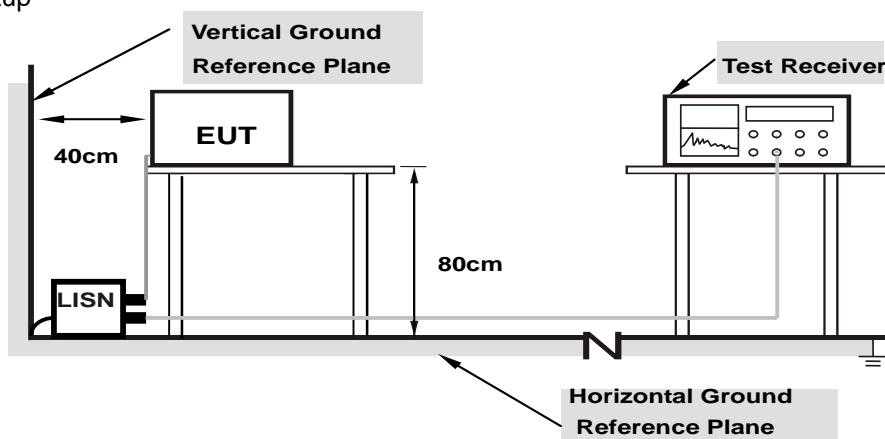
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

4.6.4 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.

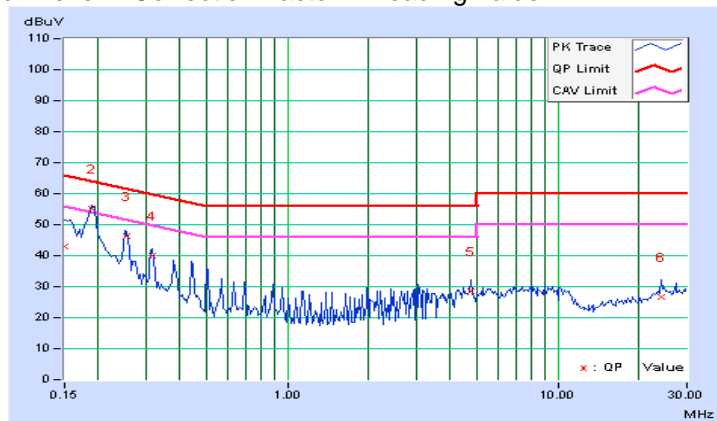
4.6.7 Test Results

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

No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor (dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.26	32.86	8.08	43.12	18.34	66.00	56.00	-22.88	-37.66
2	0.18981	10.23	44.84	34.04	55.07	44.27	64.04	54.04	-8.98	-9.78
3	0.25344	10.23	36.14	26.97	46.37	37.20	61.64	51.64	-15.28	-14.45
4	0.31797	10.23	29.80	22.76	40.03	32.99	59.76	49.76	-19.73	-16.77
5	4.75000	10.40	18.11	11.97	28.51	22.37	56.00	46.00	-27.49	-23.63
6	24.00391	10.97	15.62	11.76	26.59	22.73	60.00	50.00	-33.41	-27.27

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.

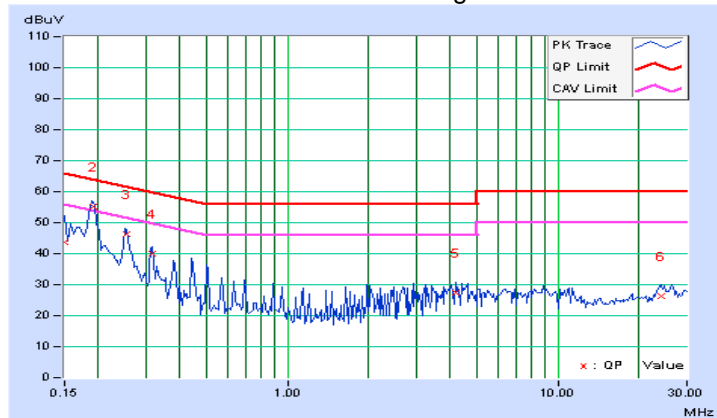


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

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	0.15000	10.24	33.40	8.12	43.64	18.36	66.00	56.00	-22.36	-37.64
2	0.19056	10.21	45.03	34.26	55.24	44.47	64.01	54.01	-8.77	-9.54
3	0.25547	10.21	35.92	26.80	46.13	37.01	61.58	51.58	-15.45	-14.57
4	0.31797	10.21	29.80	22.88	40.01	33.09	59.76	49.76	-19.75	-16.67
5	4.17578	10.39	17.17	12.46	27.56	22.85	56.00	46.00	-28.44	-23.15
6	24.00000	10.99	15.34	11.76	26.33	22.75	60.00	50.00	-33.67	-27.25

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: 886-3-5935343

Fax: 886-3-5935342

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.

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