

# FCC Test Report

**FCC ID** : QVHDBWIFIBLE04  
**Equipment** : 802.11 abgn + BLE 5.0 module  
**Model No.** : DBWIFIBLE04  
**Brand Name** : Dyson  
**Applicant** : Dyson Technology Ltd  
**Address** : Tetbury Hill Malmesbury Wiltshire SN16 0RP  
United Kingdom  
**Standard** : 47 CFR FCC Part 15.247  
**Received Date** : Feb. 12, 2022  
**Tested Date** : Feb. 15 ~ Mar. 01, 2022

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

  
\_\_\_\_\_  
Along Chen / Assistant Manager

  
\_\_\_\_\_  
Gary Chang / Manager

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## Release Record

Report No.	Version	Description	Issued Date
FR212701AC	Rev. 01	Initial issue	May 06, 2022

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.168MHz 49.17 (Margin -15.91dB) - QP	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 2390.00 & 2483.50MHz 50.99 (Margin -3.01dB) - AV	Pass
15.247(b)(3)	Maximum Output Power	Max Power [dBm]: 25.23	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

### Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

# 1 General Description

## 1.1 Information

### 1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N <sub>TX</sub> )	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	1	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	MCS 0-7
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	1	MCS 0-7

Note 1: RF output power specifies that Maximum Peak Conducted Output Power.  
 Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.  
 Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

### 1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
					2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	Dyson	ANT2_1370X950	PIFA	No	2.12	2.59	2.62	2.79	3.44

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

<b>Power Supply Type</b>	3.3Vdc from host
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### 1.1.4 Accessories

N/A

### 1.1.5 Channel List

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	---	---
9	2452	---	---
10	2457	---	---
11	2462	---	---

### 1.1.6 Test Tool and Duty Cycle

Test Tool	AmebaD_mptool, Version: 2V2		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	99.65%	0.02
	11g	94.94%	0.23
	HT20	95.05%	0.22
	HT40	89.26%	0.49

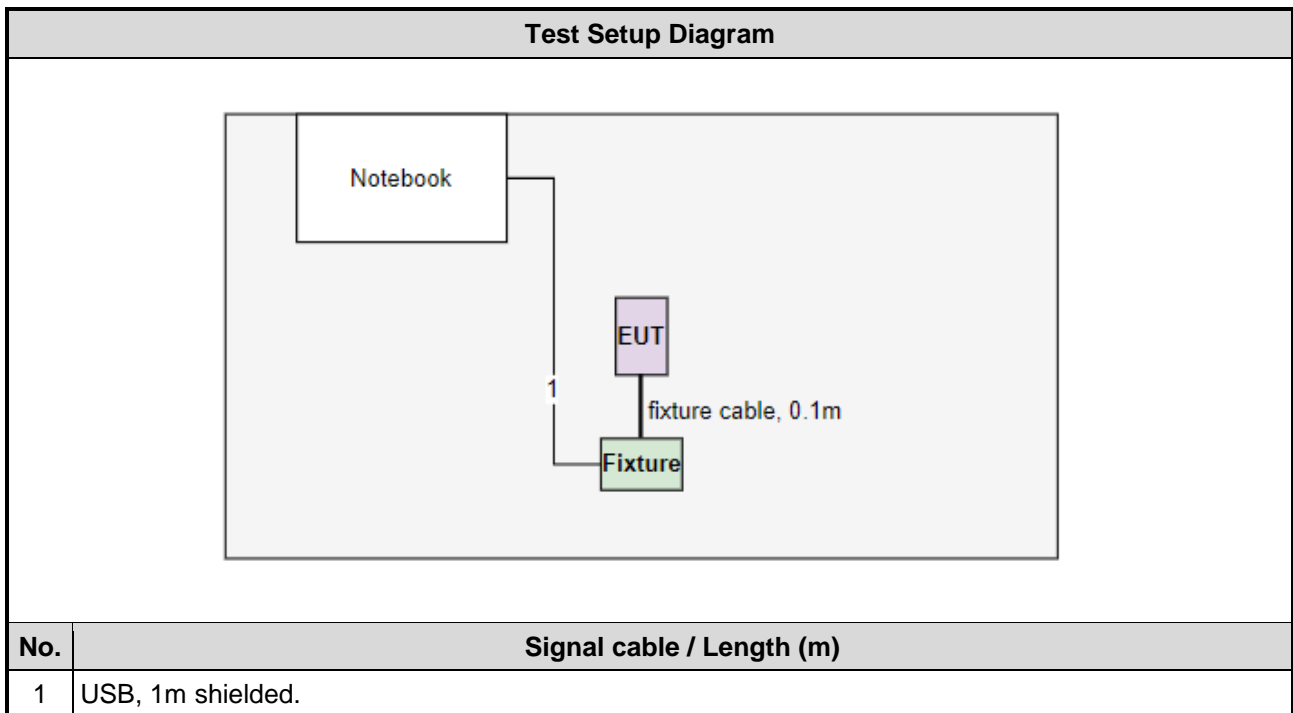
### 1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	120
11b	2437	119
11b	2462	118
11g	2412	97
11g	2437	125
11g	2462	96
HT20	2412	96
HT20	2437	124
HT20	2462	95
HT40	2422	88
HT40	2437	99
HT40	2452	93

## 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	Fixture	WNC	48DHSK07.SGA	---	Provided by applicant.

## 1.3 Test Setup Chart





## 1.4 The Equipment List

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Tested Date</b>	Feb. 28, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023
LISN	R&S	ENV216	101579	Mar. 17, 2021	Mar. 16, 2022
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127667	Jan. 07, 2022	Jan. 06, 2023
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 25, 2021	May 24, 2022
Measurement Software	AUDIX	e3	6.120210k	NA	NA

Note: Calibration Interval of instruments listed above is one year.

<b>Test Item</b>	Radiated Emission				
<b>Test Site</b>	966 chamber3 / (03CH03-WS)				
<b>Tested Date</b>	Feb. 15 ~ Feb. 23, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
Spectrum Analyzer	R&S	FSV40	101499	Mar. 02, 2021	Mar. 01, 2022
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	May 06, 2021	May 05, 2022
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Dec. 20, 2021	Dec. 19, 2022
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 11, 2022	Jan. 10, 2023
Preamplifier	EMC	EMC02325	980187	Jul. 26, 2021	Jul. 25, 2022
Preamplifier	Agilent	83017A	MY39501309	Sep. 06, 2021	Sep. 05, 2022
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800 -001	Sep. 24, 2021	Sep. 23, 2022
LF cable-3M	EMC	EMC8D-NM-NM-300 0	131103	Sep. 24, 2021	Sep. 23, 2022
LF cable-13M	EMC	EMC8D-NM-NM-130 00	131104	Sep. 24, 2021	Sep. 23, 2022
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Sep. 24, 2021	Sep. 23, 2022
RF cable-8M	EMC	EMC104-SM-SM-80 00	181107	Sep. 24, 2021	Sep. 23, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA

Note: Calibration Interval of instruments listed above is one year.

<b>Test Item</b>	RF Conducted				
<b>Test Site</b>	(TH01-WS)				
<b>Tested Date</b>	Mar. 01, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022
Measurement Software	Sporton	SENSE-15247_DTS	V5.10	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

## 1.5 Test Standards

47 CFR FCC Part 15.247  
ANSI C63.10-2013

## 1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

## 1.7 Deviation from Test Standard and Measurement Procedure

None

## 1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ( $k=2$ )).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	$\pm 34.130$ Hz
Conducted power	$\pm 0.808$ dB
Power density	$\pm 0.583$ dB
Conducted emission	$\pm 2.715$ dB
AC conducted emission	$\pm 2.92$ dB
Radiated emission $\leq 1$ GHz	$\pm 3.96$ dB
Radiated emission $> 1$ GHz	$\pm 4.51$ dB

## 2 Test Configuration

### 2.1 Testing Facility

<b>Test Laboratory</b>	International Certification Corporation
<b>Test Site</b>	CO01-WS, TH01-WS
<b>Address of Test Site</b>	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)
<b>Test Site</b>	03CH03-WS
<b>Address of Test Site</b>	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807A
- CAB identifier: TW2732

### 2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	HT20	2437	MCS 0	---
Radiated Emissions ≤1GHz	HT20	2437	MCS 0	---
Radiated Emissions >1GHz	11b	2412 / 2437 / 2462	1 Mbps	---
Maximum Output Power	11g	2412 / 2437 / 2462	6 Mbps	
6dB bandwidth	HT20	2412 / 2437 / 2462	MCS 0	
Power spectral density	HT40	2422 / 2437 / 2452	MCS 0	
<b>NOTE:</b>				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The <b>Z-plane</b> results were found as the worst case and were shown in this report.				

## 3 Transmitter Test Results

### 3.1 Conducted Emissions

#### 3.1.1 Limit of Conducted Emissions

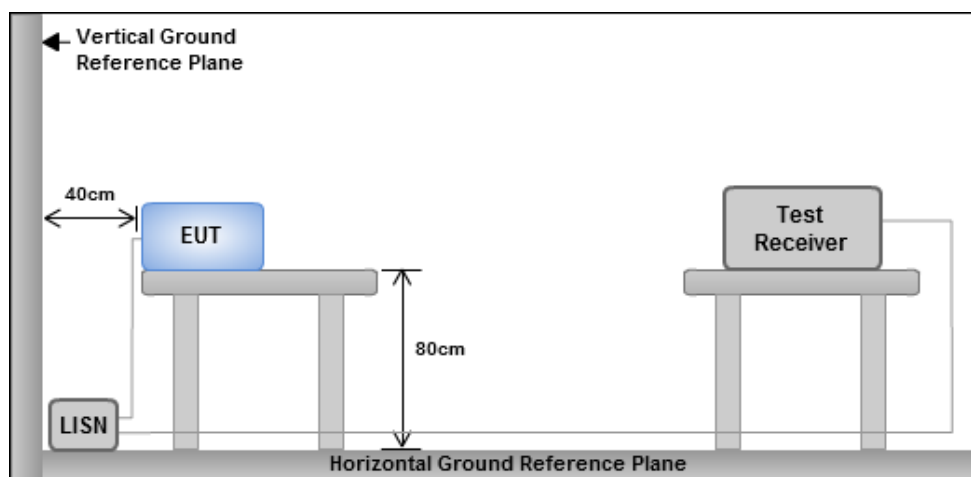
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

#### 3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50  $\Omega$  LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

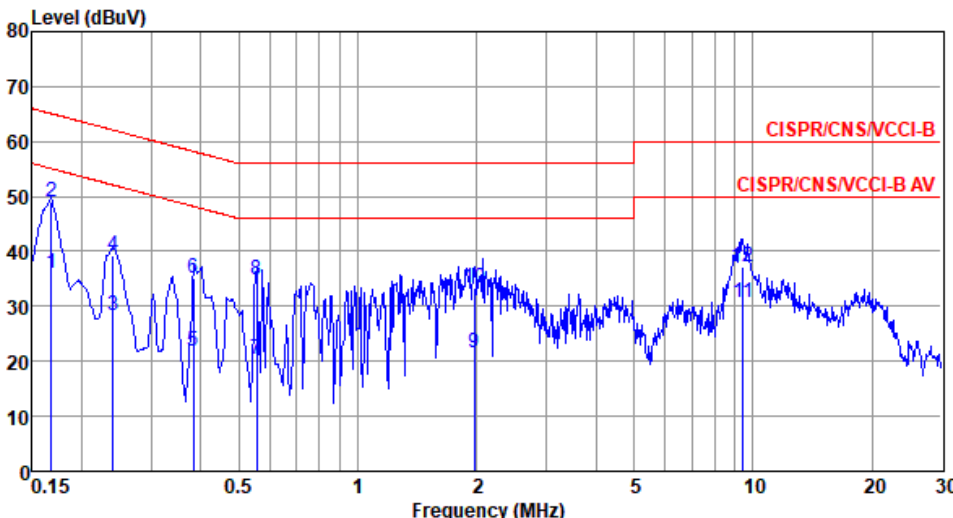
#### 3.1.3 Test Setup



Note: 1. Support units were connected to second LISN.

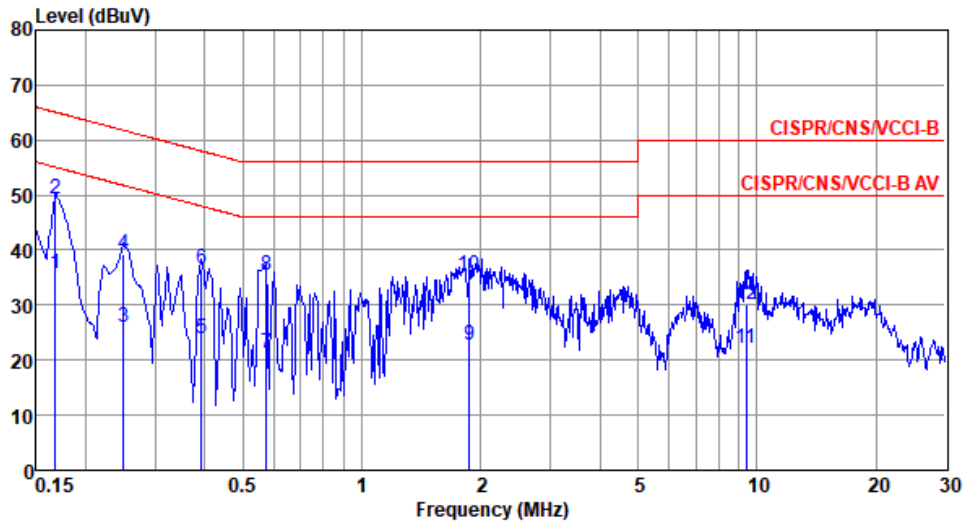
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437																																																																																																																																		
<b>Power Phase</b>	Line																																																																																																																																				
<p>Test by : Joe Liao      Temperature: 19°C      Humidity: 59%</p>																																																																																																																																					
																																																																																																																																					
<table border="1"> <thead> <tr> <th></th> <th>Freq MHz</th> <th>Level dBuV</th> <th>Limit Line dBuV</th> <th>Over Limit dB</th> <th>Read Level dBuV</th> <th>Factor dB</th> <th>Cable loss dB</th> <th>Aux dB</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.168</td> <td>35.91</td> <td>55.08</td> <td>-19.17</td> <td>26.17</td> <td>9.66</td> <td>0.08</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>2*</td> <td>0.168</td> <td>48.94</td> <td>65.08</td> <td>-16.14</td> <td>39.20</td> <td>9.66</td> <td>0.08</td> <td>0.00</td> <td>QP</td> </tr> <tr> <td>3</td> <td>0.240</td> <td>28.39</td> <td>52.08</td> <td>-23.69</td> <td>18.66</td> <td>9.65</td> <td>0.08</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>4</td> <td>0.240</td> <td>39.23</td> <td>62.08</td> <td>-22.85</td> <td>29.50</td> <td>9.65</td> <td>0.08</td> <td>0.00</td> <td>QP</td> </tr> <tr> <td>5</td> <td>0.383</td> <td>21.89</td> <td>48.21</td> <td>-26.32</td> <td>12.17</td> <td>9.64</td> <td>0.08</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>6</td> <td>0.383</td> <td>35.24</td> <td>58.21</td> <td>-22.97</td> <td>25.52</td> <td>9.64</td> <td>0.08</td> <td>0.00</td> <td>QP</td> </tr> <tr> <td>7</td> <td>0.555</td> <td>20.51</td> <td>46.00</td> <td>-25.49</td> <td>10.76</td> <td>9.64</td> <td>0.11</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>8</td> <td>0.555</td> <td>34.80</td> <td>56.00</td> <td>-21.20</td> <td>25.05</td> <td>9.64</td> <td>0.11</td> <td>0.00</td> <td>QP</td> </tr> <tr> <td>9</td> <td>1.970</td> <td>21.63</td> <td>46.00</td> <td>-24.37</td> <td>11.77</td> <td>9.66</td> <td>0.20</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>10</td> <td>1.970</td> <td>33.24</td> <td>56.00</td> <td>-22.76</td> <td>23.38</td> <td>9.66</td> <td>0.20</td> <td>0.00</td> <td>QP</td> </tr> <tr> <td>11</td> <td>9.451</td> <td>30.79</td> <td>50.00</td> <td>-19.21</td> <td>20.64</td> <td>9.71</td> <td>0.44</td> <td>0.00</td> <td>Average</td> </tr> <tr> <td>12</td> <td>9.451</td> <td>37.05</td> <td>60.00</td> <td>-22.95</td> <td>26.90</td> <td>9.71</td> <td>0.44</td> <td>0.00</td> <td>QP</td> </tr> </tbody> </table>					Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark	1	0.168	35.91	55.08	-19.17	26.17	9.66	0.08	0.00	Average	2*	0.168	48.94	65.08	-16.14	39.20	9.66	0.08	0.00	QP	3	0.240	28.39	52.08	-23.69	18.66	9.65	0.08	0.00	Average	4	0.240	39.23	62.08	-22.85	29.50	9.65	0.08	0.00	QP	5	0.383	21.89	48.21	-26.32	12.17	9.64	0.08	0.00	Average	6	0.383	35.24	58.21	-22.97	25.52	9.64	0.08	0.00	QP	7	0.555	20.51	46.00	-25.49	10.76	9.64	0.11	0.00	Average	8	0.555	34.80	56.00	-21.20	25.05	9.64	0.11	0.00	QP	9	1.970	21.63	46.00	-24.37	11.77	9.66	0.20	0.00	Average	10	1.970	33.24	56.00	-22.76	23.38	9.66	0.20	0.00	QP	11	9.451	30.79	50.00	-19.21	20.64	9.71	0.44	0.00	Average	12	9.451	37.05	60.00	-22.95	26.90	9.71	0.44	0.00	QP
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<p>Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).            Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).</p>																																																																																																																																					

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437
<b>Power Phase</b>	Neutral		

Test by : Joe Liao      Temperature: 19°C      Humidity: 59%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.168	35.82	55.08	-19.26	26.05	9.69	0.08	0.00	Average
2*	0.168	49.17	65.08	-15.91	39.40	9.69	0.08	0.00	QP
3	0.249	26.11	51.78	-25.67	16.35	9.68	0.08	0.00	Average
4	0.249	39.25	61.78	-22.53	29.49	9.68	0.08	0.00	QP
5	0.393	23.97	47.99	-24.02	14.22	9.67	0.08	0.00	Average
6	0.393	36.50	57.99	-21.49	26.75	9.67	0.08	0.00	QP
7	0.573	21.31	46.00	-24.69	11.53	9.67	0.11	0.00	Average
8	0.573	35.39	56.00	-20.61	25.61	9.67	0.11	0.00	QP
9	1.868	22.78	46.00	-23.22	12.89	9.69	0.20	0.00	Average
10	1.868	35.41	56.00	-20.59	25.52	9.69	0.20	0.00	QP
11	9.401	22.12	50.00	-27.88	11.93	9.76	0.43	0.00	Average
12	9.401	30.21	60.00	-29.79	20.02	9.76	0.43	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

## 3.2 6dB and Occupied Bandwidth

### 3.2.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

### 3.2.2 Test Procedures

#### 6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

#### Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1% ~ 5 % of OBW, Video bandwidth = 3 x RBW
2. Detector = Sample, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

### 3.2.3 Test Setup



### 3.2.4 Test Result of 6dB and Occupied Bandwidth

<b>Ambient Condition</b>	24°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	9.565M	15.051M	15M1G1D	9.058M	14.978M
802.11g_Nss1,(6Mbps)_1TX	16.304M	27.424M	27M4D1D	16.304M	16.57M
802.11n HT20_Nss1,(MCS0)_1TX	17.536M	27.858M	27M9D1D	16.884M	17.656M
802.11n HT40_Nss1,(MCS0)_1TX	35.217M	35.89M	35M9D1D	34.783M	35.89M

**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

#### Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9.058M	14.978M
2437MHz	Pass	500k	9.058M	15.051M
2462MHz	Pass	500k	9.565M	14.978M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.304M	16.57M
2437MHz	Pass	500k	16.304M	27.424M
2462MHz	Pass	500k	16.304M	16.643M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.101M	17.728M
2437MHz	Pass	500k	16.884M	27.858M
2462MHz	Pass	500k	17.536M	17.656M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.072M	35.89M
2437MHz	Pass	500k	34.783M	35.89M
2452MHz	Pass	500k	35.217M	35.89M

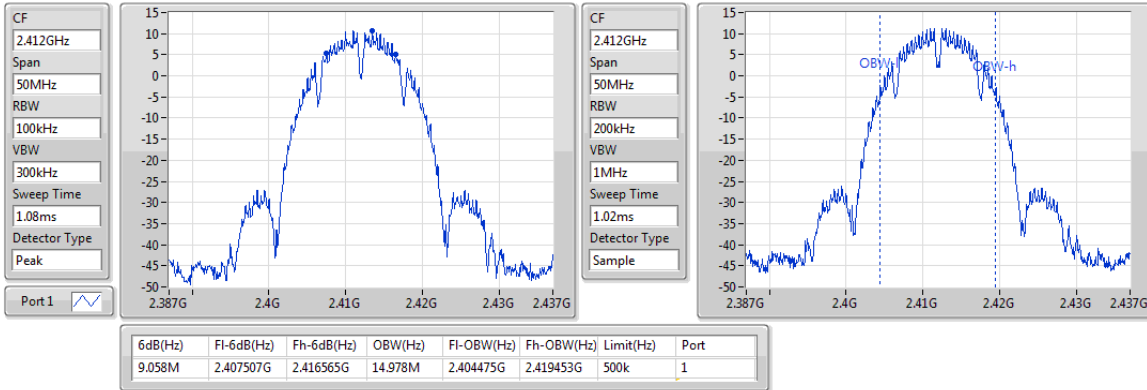
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



### 802.11b\_Nss1,(1Mbps)\_1TX

EBW

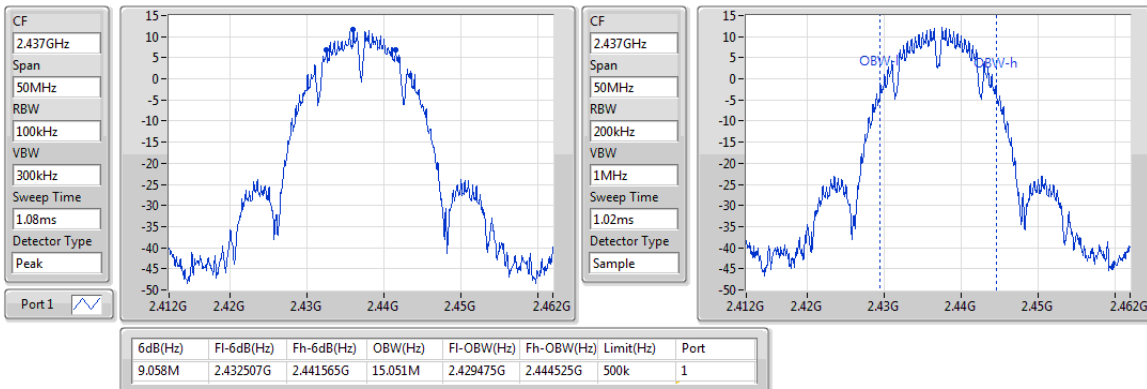
2412MHz



### 802.11b\_Nss1,(1Mbps)\_1TX

EBW

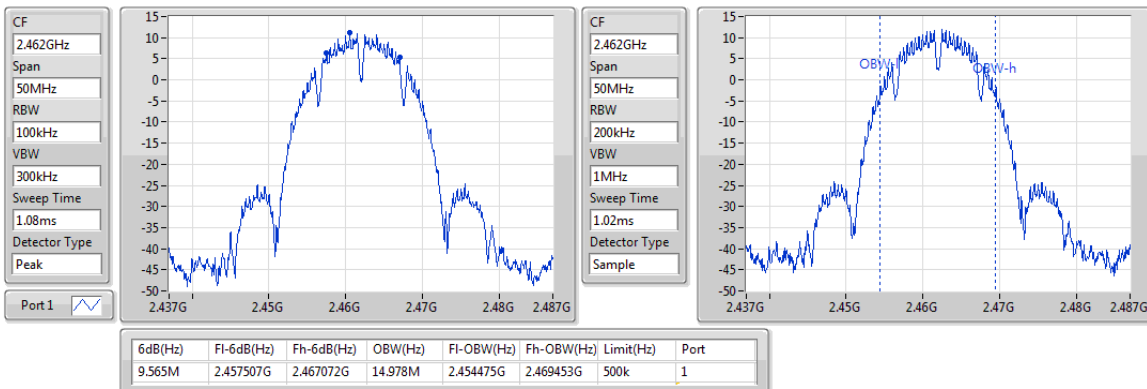
2437MHz



### 802.11b\_Nss1,(1Mbps)\_1TX

EBW

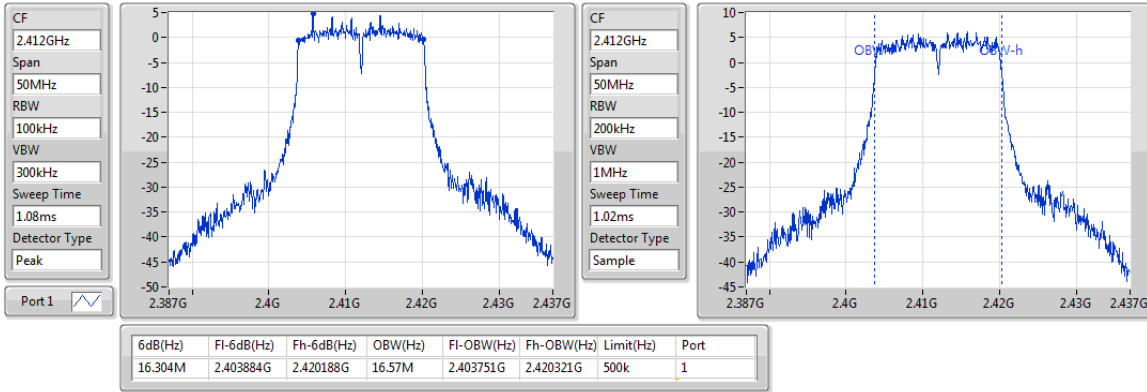
2462MHz



### 802.11g\_Nss1,(6Mbps)\_1TX

EBW

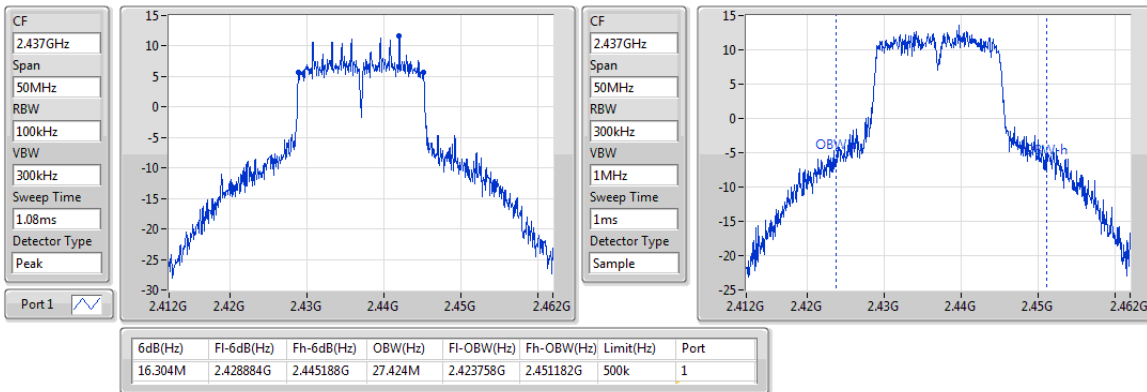
2412MHz



### 802.11g\_Nss1,(6Mbps)\_1TX

EBW

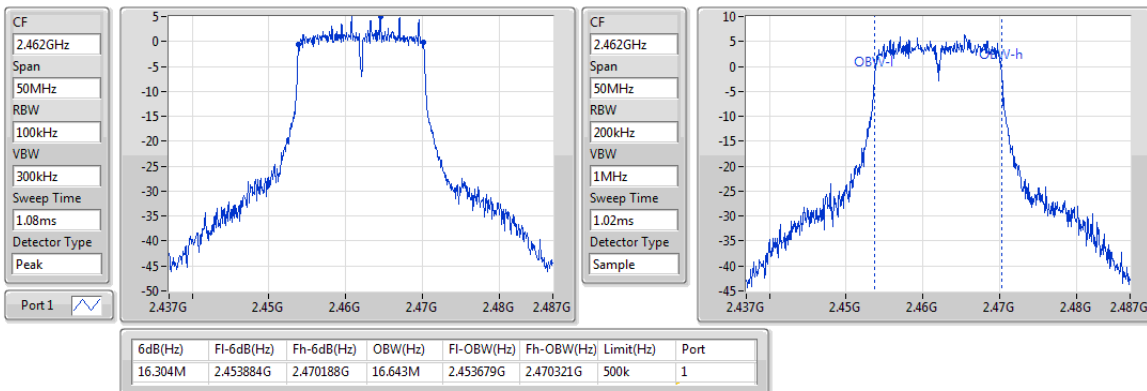
2437MHz



### 802.11g\_Nss1,(6Mbps)\_1TX

EBW

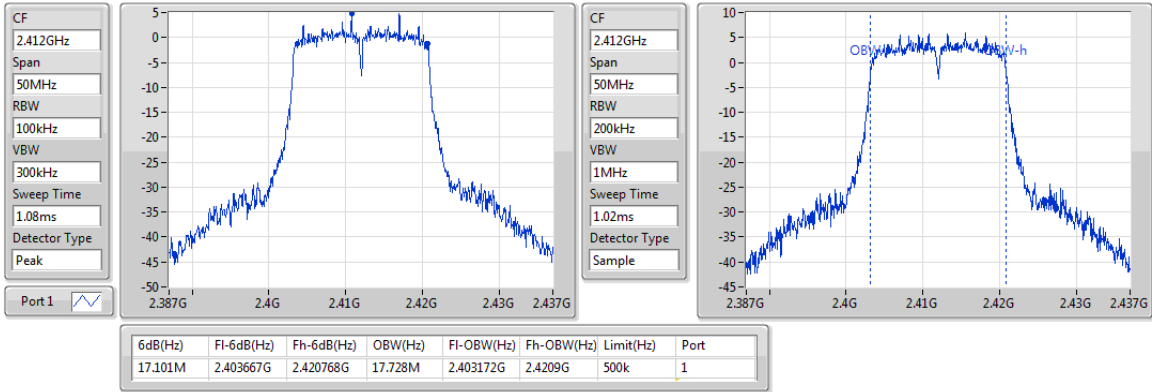
2462MHz



### 802.11n HT20\_Nss1,(MCS0)\_1TX

EBW

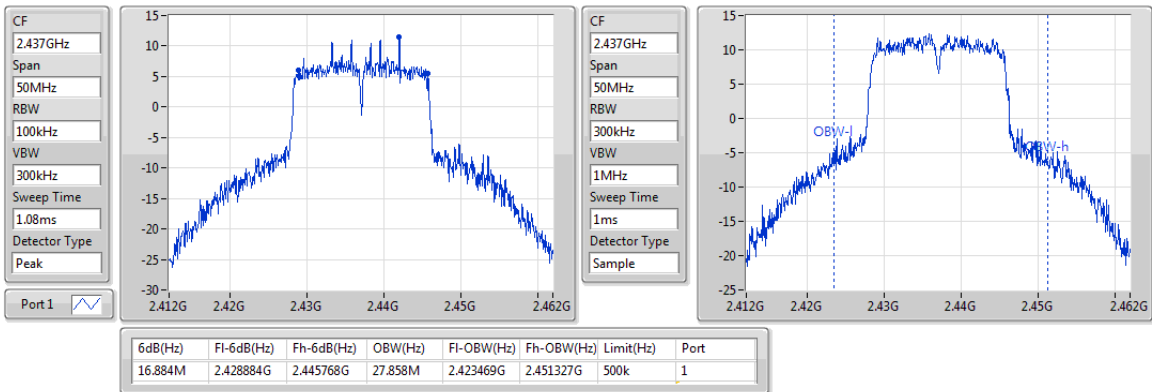
2412MHz



### 802.11n HT20\_Nss1,(MCS0)\_1TX

EBW

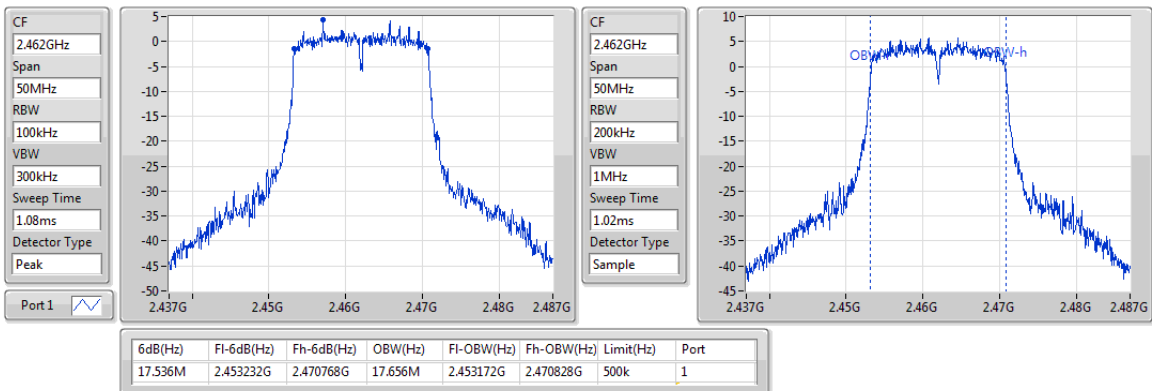
2437MHz



### 802.11n HT20\_Nss1,(MCS0)\_1TX

EBW

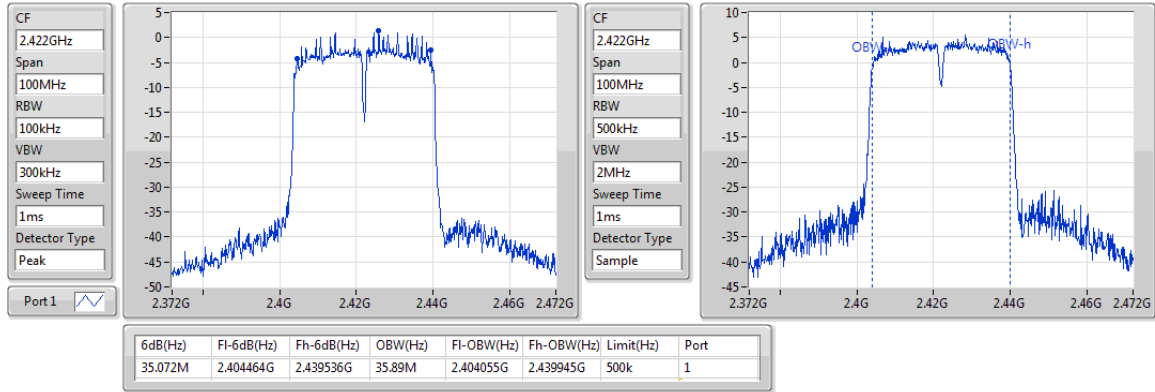
2462MHz



### 802.11n HT40\_Nss1,(MCS0)\_1TX

EBW

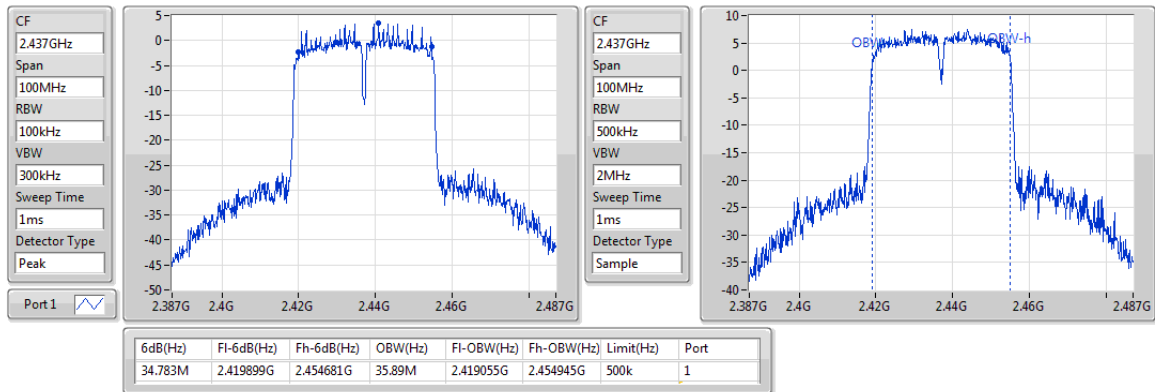
2422MHz



### 802.11n HT40\_Nss1,(MCS0)\_1TX

EBW

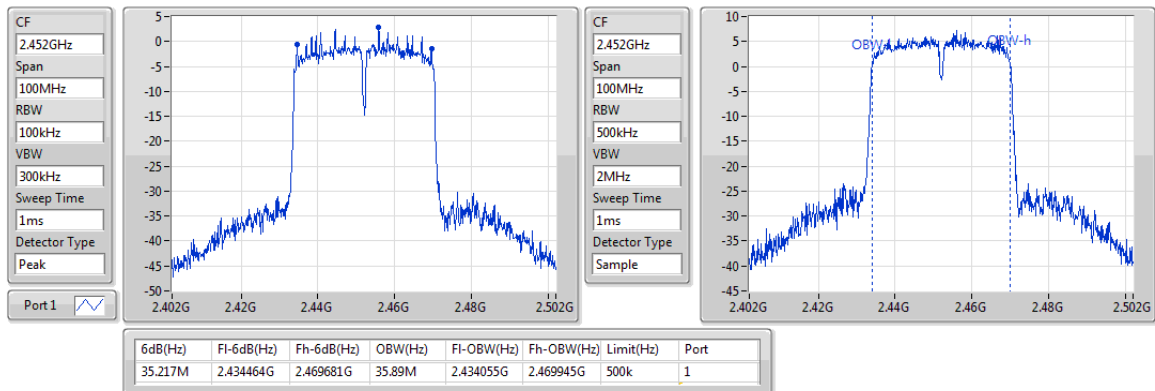
2437MHz



### 802.11n HT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz



### 3.3 RF Output Power

#### 3.3.1 Limit of RF Output Power

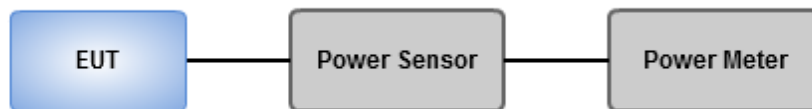
Conducted power shall not exceed 1Watt.

Antenna gain  $\leq 6\text{dBi}$ , no any corresponding reduction is in output power limit.

#### 3.3.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

#### 3.3.3 Test Setup



### 3.3.4 Test Result of Maximum Output Power

<b>Ambient Condition</b>	24°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary of Peak Conducted Output Power

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	23.05	0.20184
802.11g_Nss1,(6Mbps)_1TX	25.16	0.32810
802.11n HT20_Nss1,(MCS0)_1TX	<b>25.23</b>	0.33343
802.11n HT40_Nss1,(MCS0)_1TX	24.95	0.31261

#### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	22.73	22.73	30.00	24.85	36.00
2437MHz	Pass	2.12	23.05	23.05	30.00	25.17	36.00
2462MHz	Pass	2.12	22.64	22.64	30.00	24.76	36.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	24.8	24.80	30.00	26.92	36.00
2437MHz	Pass	2.12	25.16	25.16	30.00	27.28	36.00
2462MHz	Pass	2.12	24.7	24.70	30.00	26.82	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	24.77	24.77	30.00	26.89	36.00
2437MHz	Pass	2.12	25.23	<b>25.23</b>	30.00	27.35	36.00
2462MHz	Pass	2.12	24.26	24.26	30.00	26.38	36.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	2.12	23.79	23.79	30.00	25.91	36.00
2437MHz	Pass	2.12	24.95	24.95	30.00	27.07	36.00
2452MHz	Pass	2.12	24.58	24.58	30.00	26.70	36.00

**DG** = Directional Gain; **Port X** = Port X output power

### Summary of Conducted (Average) Output Power

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	21.08	0.12823
802.11g_Nss1,(6Mbps)_1TX	<b>22.12</b>	0.16293
802.11n HT20_Nss1,(MCS0)_1TX	21.98	0.15776
802.11n HT40_Nss1,(MCS0)_1TX	17.35	0.05433

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	20.81	20.81	-	22.93	-
2437MHz	Pass	2.12	21.08	21.08	-	23.20	-
2462MHz	Pass	2.12	20.71	20.71	-	22.83	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	16.88	16.88	-	19.00	-
2437MHz	Pass	2.12	22.12	<b>22.12</b>	-	24.24	-
2462MHz	Pass	2.12	16.6	16.60	-	18.72	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.12	16.71	16.71	-	18.83	-
2437MHz	Pass	2.12	21.98	21.98	-	24.10	-
2462MHz	Pass	2.12	16.21	16.21	-	18.33	-
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	2.12	15.05	15.05	-	17.17	-
2437MHz	Pass	2.12	17.35	17.35	-	19.47	-
2452MHz	Pass	2.12	15.95	15.95	-	18.07	-

DG = Directional Gain; Port X = Port X output power

**Note : Conducted average output power is for reference only**

## 3.4 Power Spectral Density

### 3.4.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

### 3.4.2 Test Procedures

#### Peak PSD

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

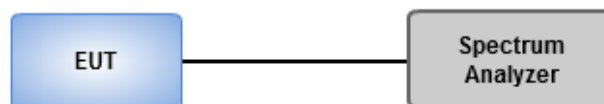
#### Average PSD, duty cycle $\geq$ 98%

1. Set the RBW = 30 kHz, VBW = 100 kHz.
2. Detector = RMS, Sweep time = auto couple.
3. Sweep time = auto couple.
4. Employ trace averaging (RMS) mode over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum amplitude level.

#### Average PSD, duty cycle $<$ 98%

1. Set the RBW = 30 kHz, VBW = 100 kHz. Detector = RMS.
2. Set the sweep time to:  $\geq 10$  (number of measurement points in sweep) x (total on/off period of the transmitted signal).
3. Perform the measurement over a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add  $10 \log (1/x)$ , where x is the duty cycle.

### 3.4.3 Test Setup





### 3.4.4 Test Result of Power Spectral Density

<b>Ambient Condition</b>	24°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-1.63
802.11g_Nss1,(6Mbps)_1TX	-2.94
802.11n HT20_Nss1,(MCS0)_1TX	-3.19
802.11n HT40_Nss1,(MCS0)_1TX	-11.16

#### Result

Mode	Result	DG (dBi)	Port 1 (dBm/3kHz)	PD (dBm/3kHz)	PD Limit (dBm/3kHz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.12	-2.86	-2.86	8.00
2437MHz	Pass	2.12	-1.63	-1.63	8.00
2462MHz	Pass	2.12	-2.06	-2.06	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.12	-9.30	-9.30	8.00
2437MHz	Pass	2.12	-2.94	-2.94	8.00
2462MHz	Pass	2.12	-9.88	-9.88	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.12	-9.92	-9.92	8.00
2437MHz	Pass	2.12	-3.19	-3.19	8.00
2462MHz	Pass	2.12	-9.31	-9.31	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	2.12	-13.32	-13.32	8.00
2437MHz	Pass	2.12	-11.16	-11.16	8.00
2452MHz	Pass	2.12	-12.61	-12.61	8.00

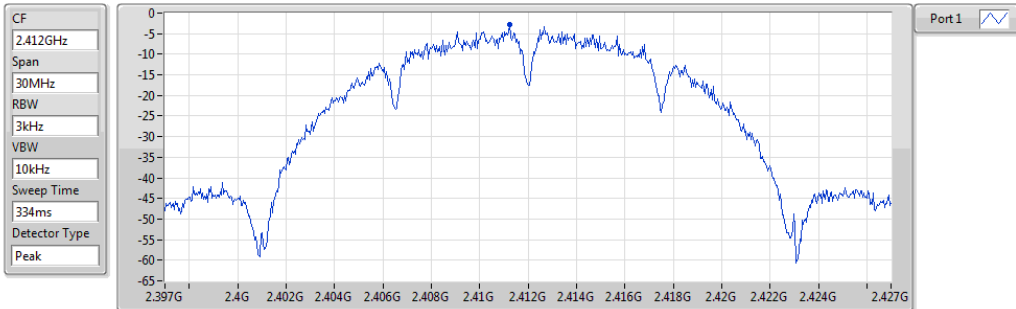
**DG** = Directional Gain;

**PD** = Power density; **Port X** = Port X power density;

### 802.11b\_Nss1,(1Mbps)\_1TX

PSD

2412MHz

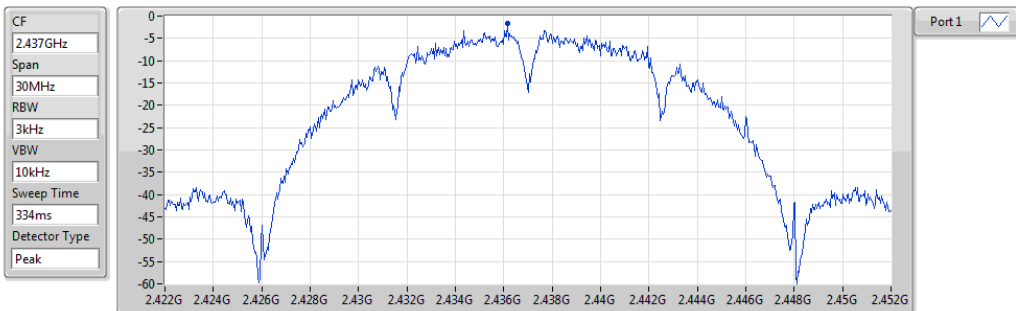


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.86	-2.86	-2.86

### 802.11b\_Nss1,(1Mbps)\_1TX

PSD

2437MHz

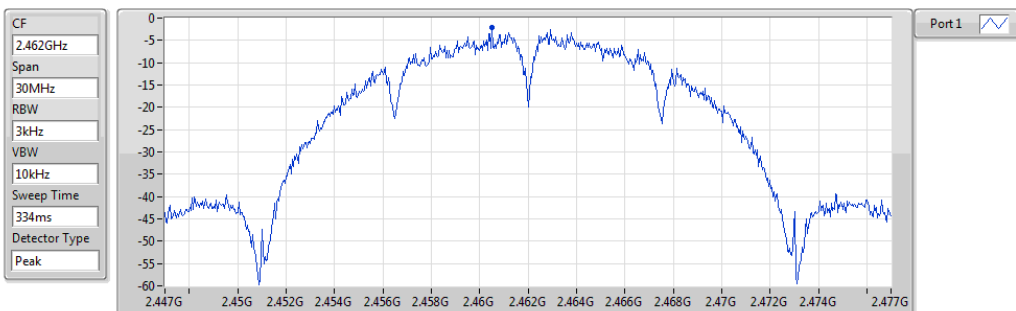


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.63	-1.63	-1.63

### 802.11b\_Nss1,(1Mbps)\_1TX

PSD

2462MHz

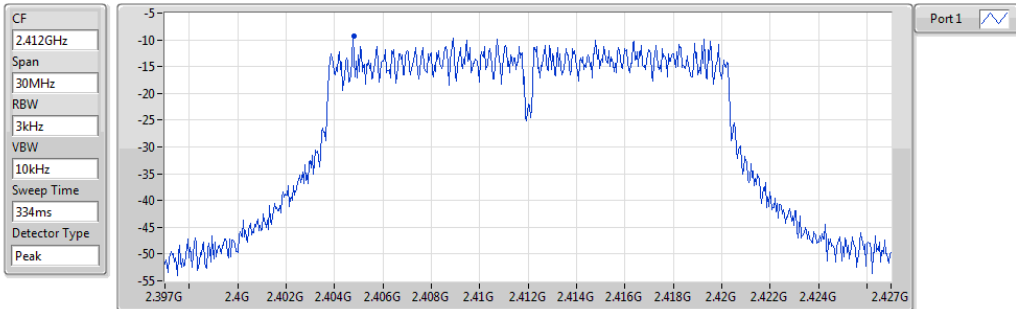


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.06	-2.06	-2.06

### 802.11g\_Nss1,(6Mbps)\_1TX

PSD

2412MHz

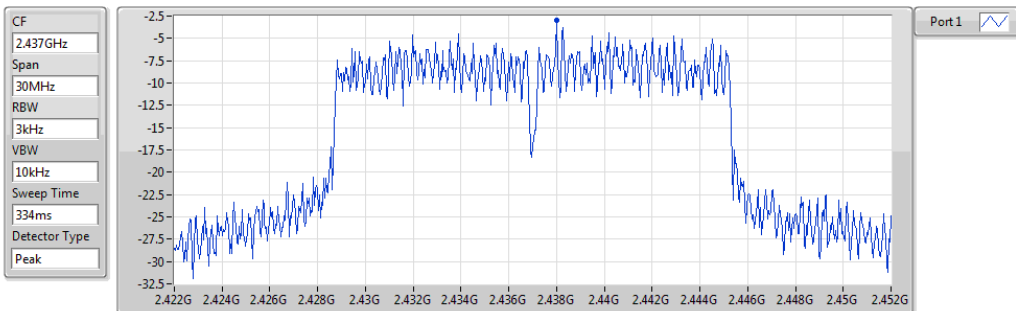


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.30	-9.30	-9.30

### 802.11g\_Nss1,(6Mbps)\_1TX

PSD

2437MHz

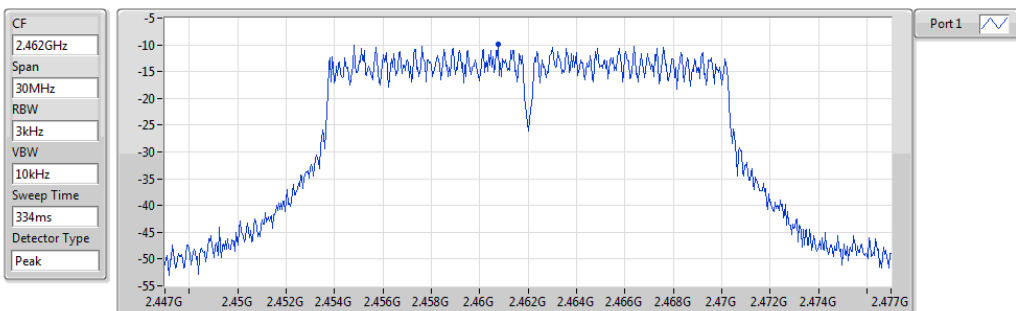


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.94	-2.94	-2.94

### 802.11g\_Nss1,(6Mbps)\_1TX

PSD

2462MHz

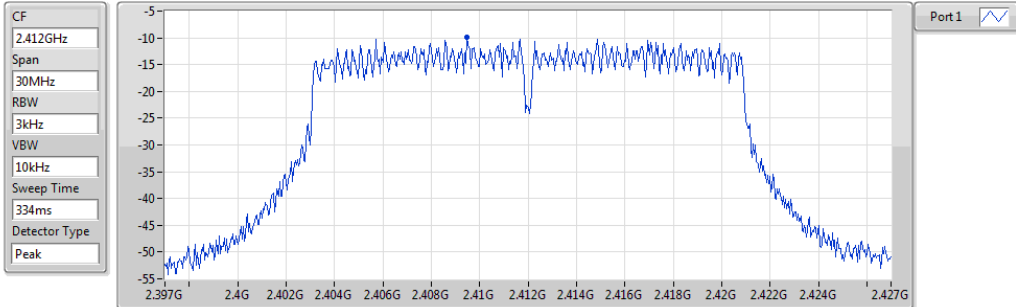


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.88	-9.88	-9.88

**802.11n HT20\_Nss1,(MCS0)\_1TX**

**PSD**

**2412MHz**

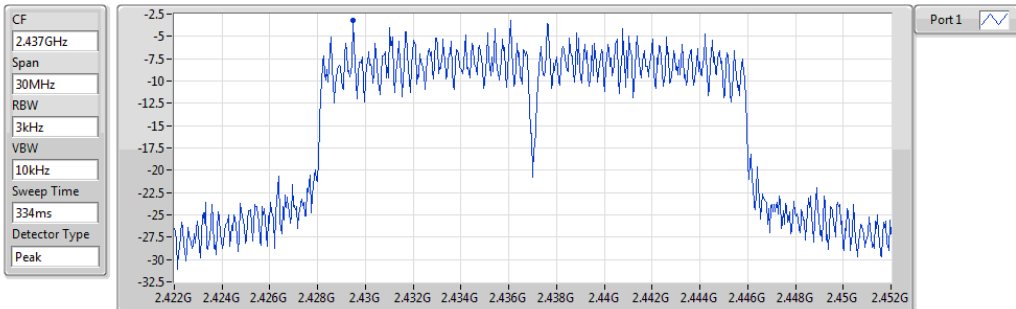


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.92	-9.92	-9.92

**802.11n HT20\_Nss1,(MCS0)\_1TX**

**PSD**

**2437MHz**

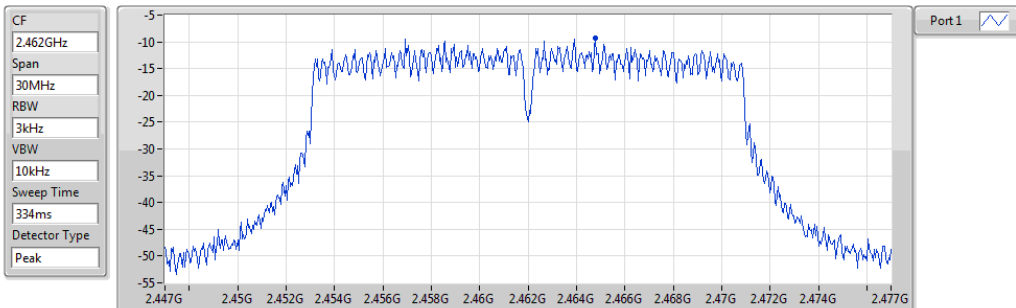


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.19	-3.19	-3.19

**802.11n HT20\_Nss1,(MCS0)\_1TX**

**PSD**

**2462MHz**

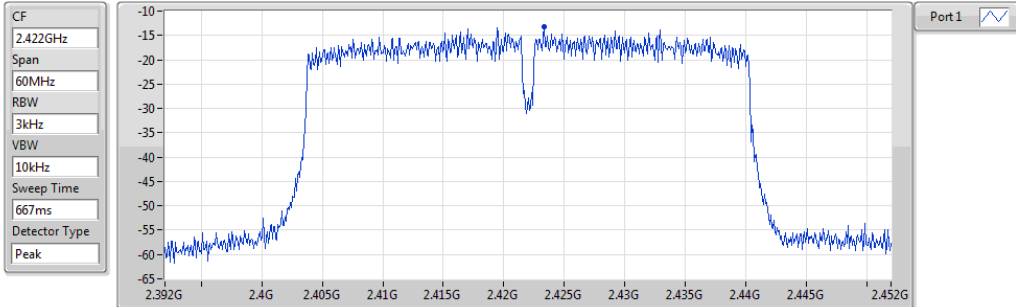


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.31	-9.31	-9.31

**802.11n HT40\_Nss1,(MCS0)\_1TX**

**PSD**

**2422MHz**

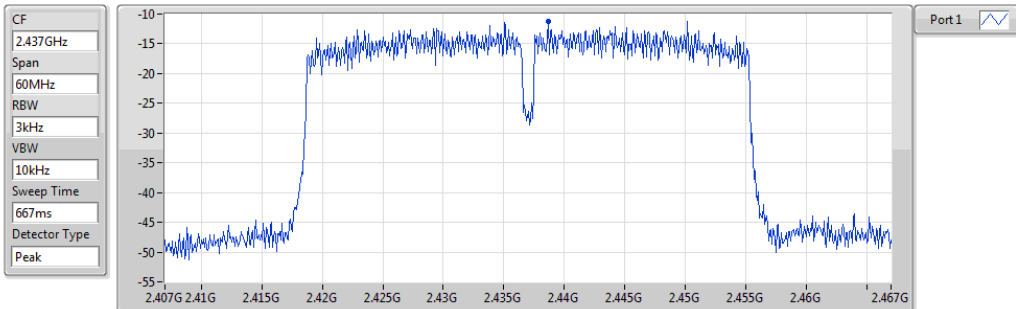


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.32	-13.32	-13.32

**802.11n HT40\_Nss1,(MCS0)\_1TX**

**PSD**

**2437MHz**

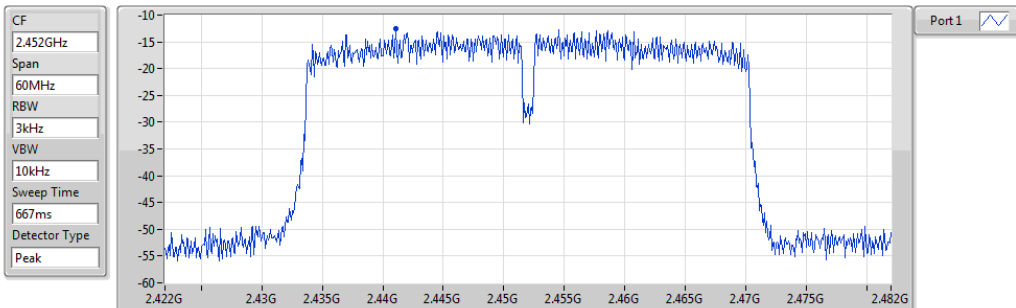


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.16	-11.16	-11.16

**802.11n HT40\_Nss1,(MCS0)\_1TX**

**PSD**

**2452MHz**



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-12.61	-12.61	-12.61

## 3.5 Unwanted Emissions into Restricted Frequency Bands

### 3.5.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

**Note 1:**  
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

**Note 2:**  
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

### 3.5.2 Test Procedures

1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

**Note:**

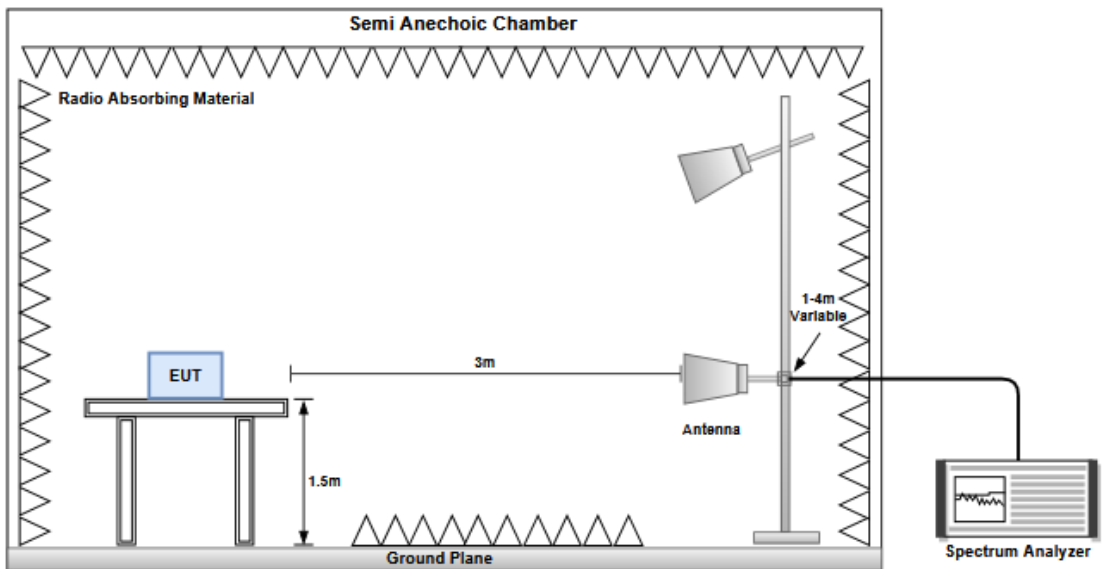
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

### 3.5.3 Test Setup

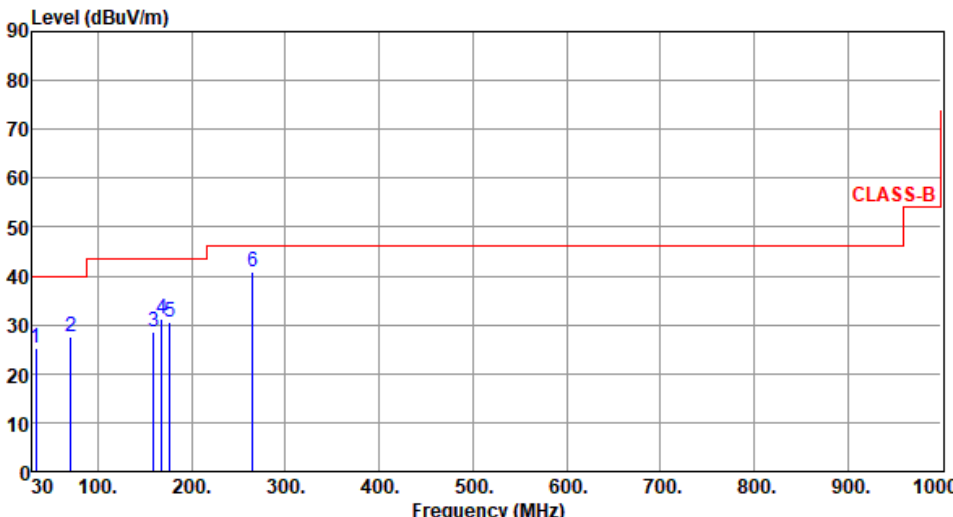
#### Radiated Emissions below 1 GHz



#### Radiated Emissions above 1 GHz



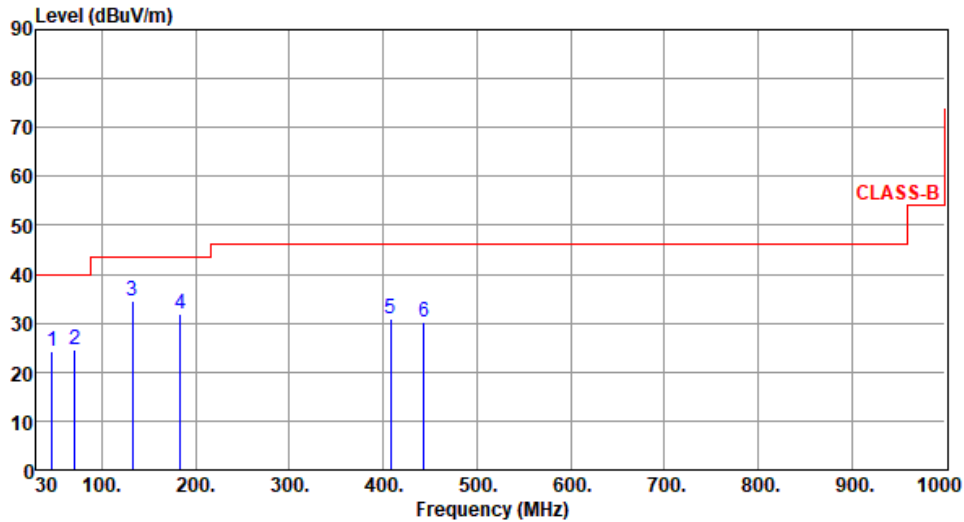
### 3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437						
<b>Polarization</b>	Horizontal								
Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 66									
 <p>The graph plots Level (dBuV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (30 to 1000). A red line represents the CLASS-B limit, which is constant at 40 dBuV/m from 30 MHz to 100 MHz, then steps up to 45 dBuV/m from 100 MHz to 250 MHz, and finally to 55 dBuV/m from 250 MHz to 1000 MHz. Six blue vertical lines represent emission peaks at frequencies 1, 2, 3, 4, 5, and 6 MHz, with their respective levels and margins indicated in the table below.</p>									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m			
1	33.88	25.27	40.00	-14.73	35.45	-10.18	Peak	---	---
2	70.74	27.71	40.00	-12.29	38.74	-11.03	Peak	---	---
3	159.01	28.47	43.50	-15.03	36.86	-8.39	Peak	---	---
4	167.74	31.07	43.50	-12.43	39.91	-8.84	Peak	---	---
5	176.47	30.66	43.50	-12.84	40.25	-9.59	Peak	---	---
6	264.74	40.73	46.00	-5.27	50.17	-9.44	Peak	---	---
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)          *Factor includes antenna factor , cable loss and amplifier gain          Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).          Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.</p>									



<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	46.49	24.31	40.00	-15.69	33.12	-8.81	Peak	---	---
2	70.74	24.46	40.00	-15.54	35.49	-11.03	Peak	---	---
3	132.82	34.47	43.50	-9.03	44.15	-9.68	Peak	---	---
4	183.26	31.92	43.50	-11.58	42.35	-10.43	Peak	---	---
5	408.30	30.77	46.00	-15.23	36.01	-5.24	Peak	---	---
6	443.22	30.22	46.00	-15.78	34.15	-3.93	Peak	---	---

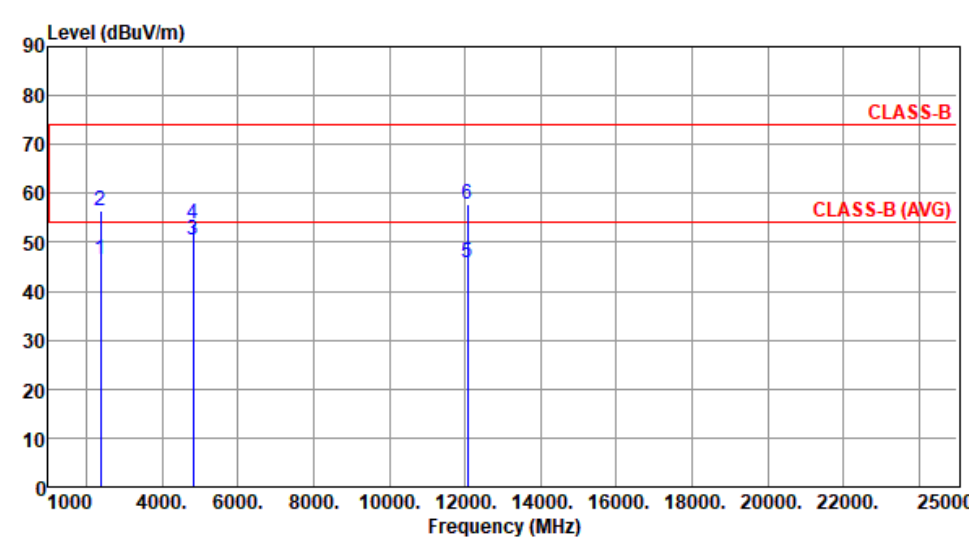
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

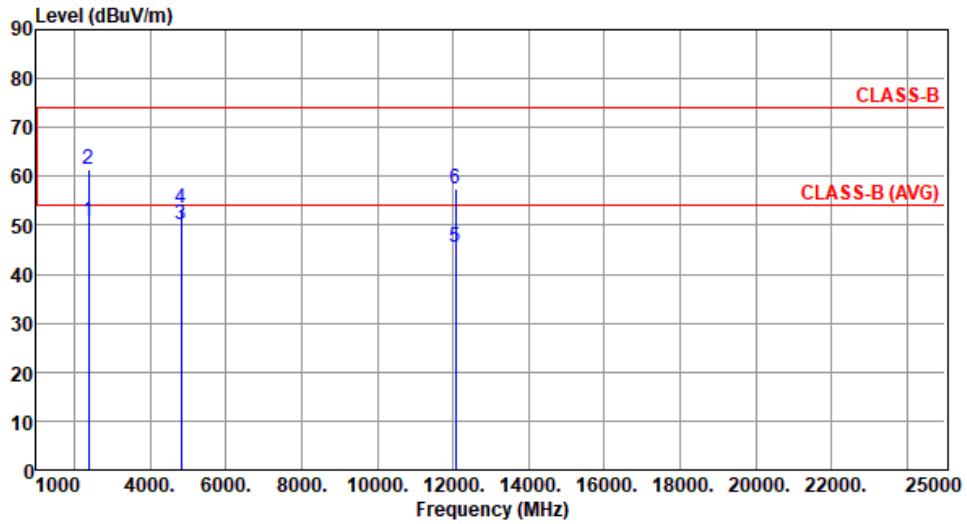
### 3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2412						
<b>Polarization</b>	Horizontal								
Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 68									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	46.38	54.00	-7.62	47.87	-1.49	Average	100	220
2	2390.00	56.36	74.00	-17.64	57.85	-1.49	Peak	100	220
3	4824.00	50.40	54.00	-3.60	45.13	5.27	Average	223	55
4	4824.00	53.92	74.00	-20.08	48.65	5.27	Peak	223	55
5	12060.00	45.72	54.00	-8.28	30.76	14.96	Average	100	225
6	12060.00	57.80	74.00	-16.20	42.84	14.96	Peak	100	225

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
\*Factor includes antenna factor , cable loss and amplifier gain  
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2412
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.94	54.00	-3.06	52.43	-1.49	Average	253	305
2	2390.00	61.35	74.00	-12.65	62.84	-1.49	Peak	253	305
3	4824.00	50.26	54.00	-3.74	44.99	5.27	Average	101	7
4	4824.00	53.57	74.00	-20.43	48.30	5.27	Peak	101	7
5	12060.00	45.39	54.00	-8.61	30.43	14.96	Average	100	50
6	12060.00	57.40	74.00	-16.60	42.44	14.96	Peak	100	50

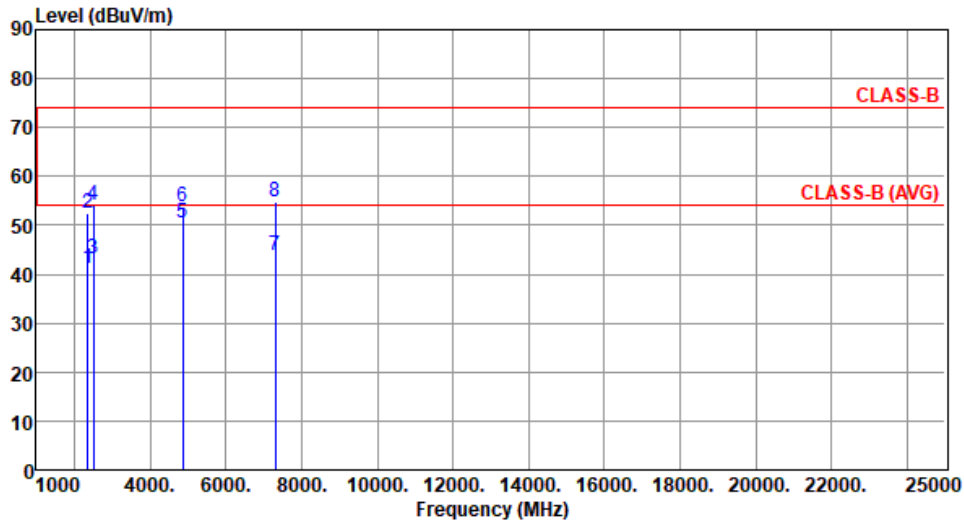
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2357.00	41.20	54.00	-12.80	42.65	-1.45	Average	227	28
2	2357.00	52.42	74.00	-21.58	53.87	-1.45	Peak	227	28
3	2517.00	43.34	54.00	-10.66	44.87	-1.53	Average	227	28
4	2517.00	54.08	74.00	-19.92	55.61	-1.53	Peak	227	28
5	4874.00	50.44	54.00	-3.56	45.11	5.33	Average	102	5
6	4874.00	53.68	74.00	-20.32	48.35	5.33	Peak	102	5
7	7311.00	43.99	54.00	-10.01	33.10	10.89	Average	118	57
8	7311.00	54.65	74.00	-19.35	43.76	10.89	Peak	118	57

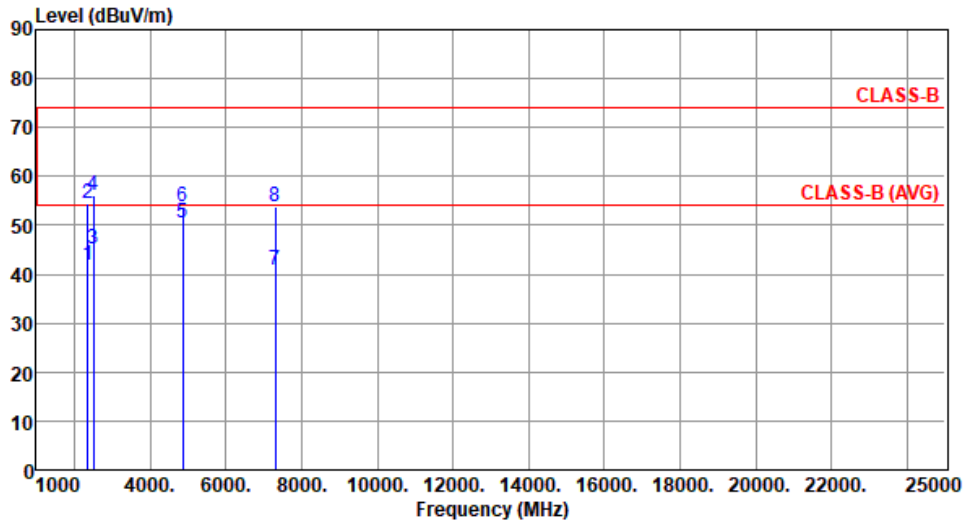
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2357.00	41.83	54.00	-12.17	43.28	-1.45	Average	115	335
2	2357.00	54.35	74.00	-19.65	55.80	-1.45	Peak	115	335
3	2517.00	45.27	54.00	-8.73	46.80	-1.53	Average	115	335
4	2517.00	55.97	74.00	-18.03	57.50	-1.53	Peak	115	335
5	4874.00	50.32	54.00	-3.68	44.99	5.33	Average	100	40
6	4874.00	53.66	74.00	-20.34	48.33	5.33	Peak	100	40
7	7311.00	40.97	54.00	-13.03	30.08	10.89	Average	100	37
8	7311.00	53.91	74.00	-20.09	43.02	10.89	Peak	100	37

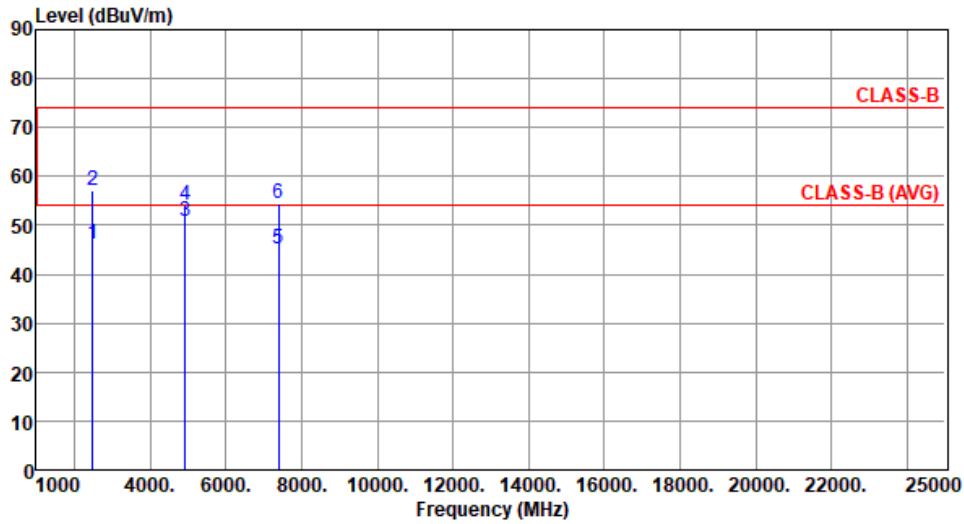
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	46.17	54.00	-7.83	47.75	-1.58	Average	100	207
2	2483.50	56.97	74.00	-17.03	58.55	-1.58	Peak	100	207
3	4924.00	50.70	54.00	-3.30	45.23	5.47	Average	213	51
4	4924.00	54.11	74.00	-19.89	48.64	5.47	Peak	213	51
5	7386.00	45.18	54.00	-8.82	34.54	10.64	Average	115	45
6	7386.00	54.51	74.00	-19.49	43.87	10.64	Peak	115	45

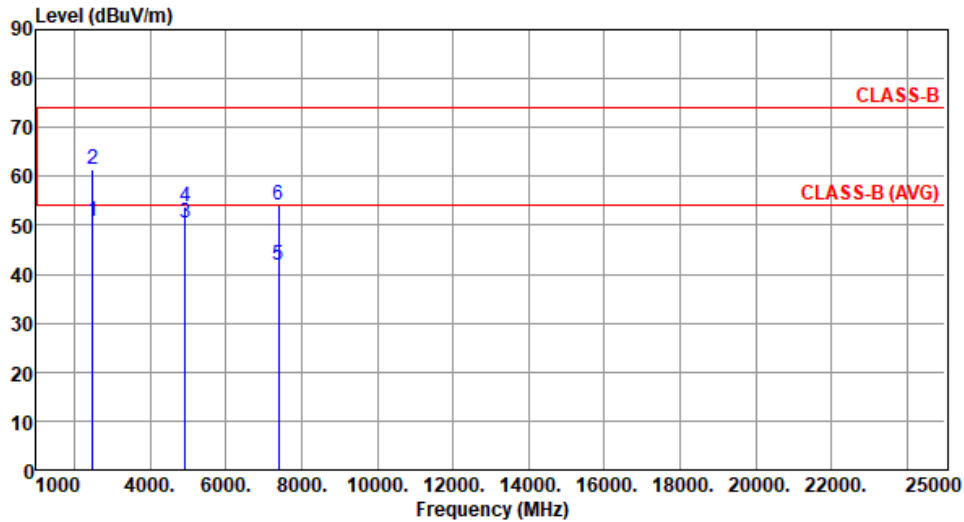
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11b	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



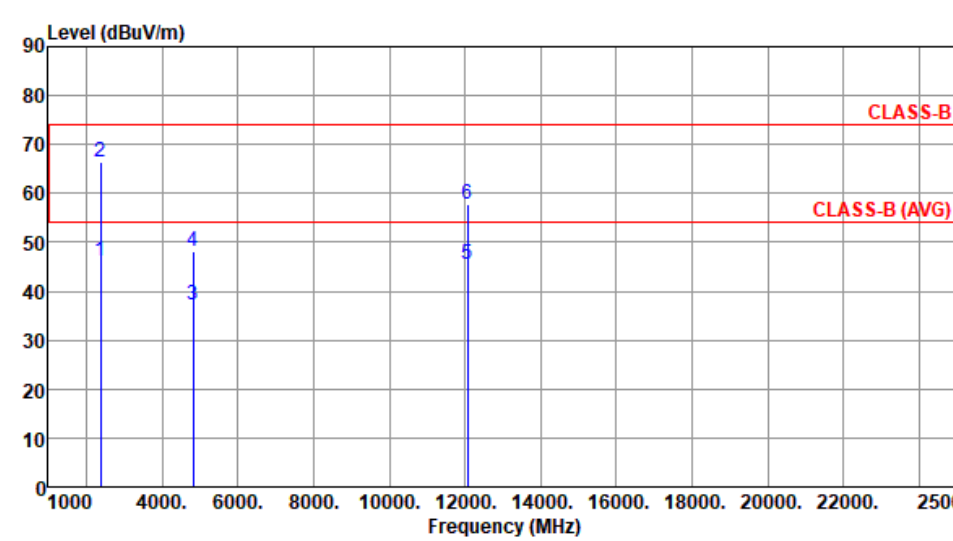
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.95	54.00	-3.05	52.53	-1.58	Average	269	302
2	2483.50	61.38	74.00	-12.62	62.96	-1.58	Peak	269	302
3	4924.00	50.51	54.00	-3.49	45.04	5.47	Average	111	30
4	4924.00	53.80	74.00	-20.20	48.33	5.47	Peak	111	30
5	7386.00	41.78	54.00	-12.22	31.14	10.64	Average	100	31
6	7386.00	54.29	74.00	-19.71	43.65	10.64	Peak	100	31

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

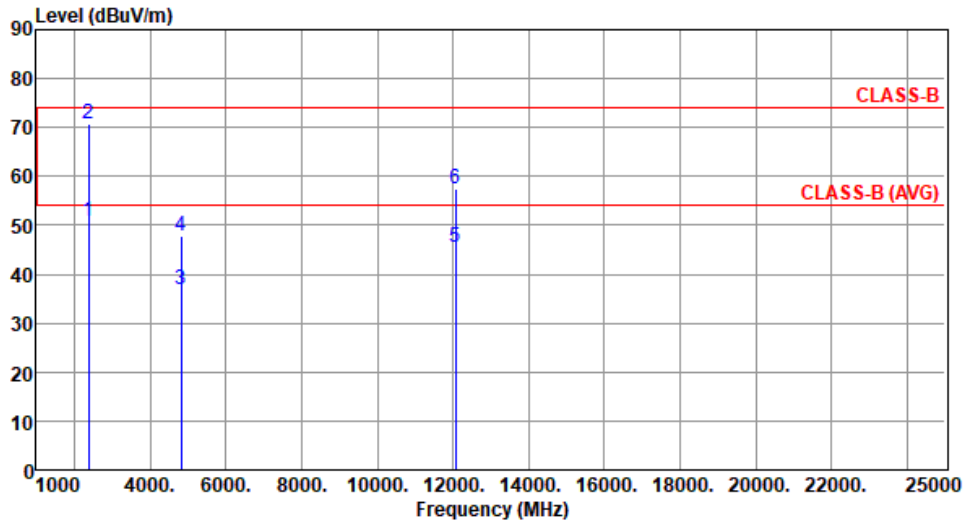
### 3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2412						
<b>Polarization</b>	Horizontal								
Test By : Akun Chung      Temperature(°C):22      Humidity(%):68									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	46.16	54.00	-7.84	47.65	-1.49	Average	100	208
2	2390.00	66.38	74.00	-7.62	67.87	-1.49	Peak	100	208
3	4824.00	37.26	54.00	-16.74	31.99	5.27	Average	100	344
4	4824.00	48.25	74.00	-25.75	42.98	5.27	Peak	100	344
5	12060.00	45.65	54.00	-8.35	30.69	14.96	Average	100	346
6	12060.00	57.67	74.00	-16.33	42.71	14.96	Peak	100	346
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)          *Factor includes antenna factor , cable loss and amplifier gain          Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									



<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2412
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.74	54.00	-3.26	52.23	-1.49	Average	223	313
2	2390.00	70.70	74.00	-3.30	72.19	-1.49	Peak	223	313
3	4824.00	36.82	54.00	-17.18	31.55	5.27	Average	100	42
4	4824.00	47.90	74.00	-26.10	42.63	5.27	Peak	100	42
5	12060.00	45.39	54.00	-8.61	30.43	14.96	Average	100	48
6	12060.00	57.37	74.00	-16.63	42.41	14.96	Peak	100	48

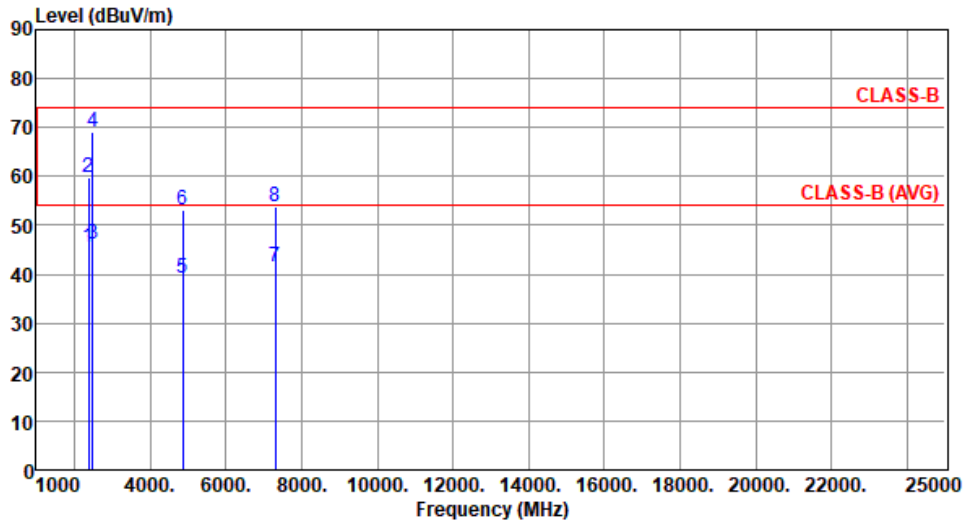
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	45.35	54.00	-8.65	46.84	-1.49	Average	100	218
2	2390.00	59.75	74.00	-14.25	61.24	-1.49	Peak	100	218
3	2483.50	46.13	54.00	-7.87	47.71	-1.58	Average	100	218
4	2483.50	69.08	74.00	-4.92	70.66	-1.58	Peak	100	218
5	4874.00	39.19	54.00	-14.81	33.86	5.33	Average	102	337
6	4874.00	53.18	74.00	-20.82	47.85	5.33	Peak	102	337
7	7311.00	41.65	54.00	-12.35	30.76	10.89	Average	100	350
8	7311.00	53.67	74.00	-20.33	42.78	10.89	Peak	100	350

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

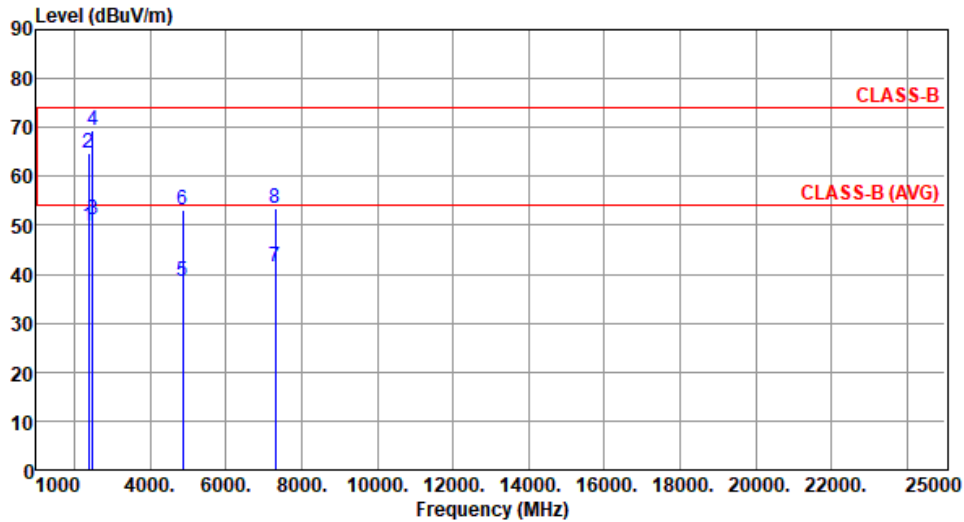
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2437
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<b>Polarization</b>	Vertical
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Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.94	54.00	-4.06	51.43	-1.49	Average	240	311
2	2390.00	64.73	74.00	-9.27	66.22	-1.49	Peak	240	311
3	2483.50	50.99	54.00	-3.01	52.57	-1.58	Average	240	311
4	2483.50	69.27	74.00	-4.73	70.85	-1.58	Peak	240	311
5	4874.00	38.55	54.00	-15.45	33.22	5.33	Average	102	45
6	4874.00	52.99	74.00	-21.01	47.66	5.33	Peak	102	45
7	7311.00	41.54	54.00	-12.46	30.65	10.89	Average	100	42
8	7311.00	53.42	74.00	-20.58	42.53	10.89	Peak	100	42

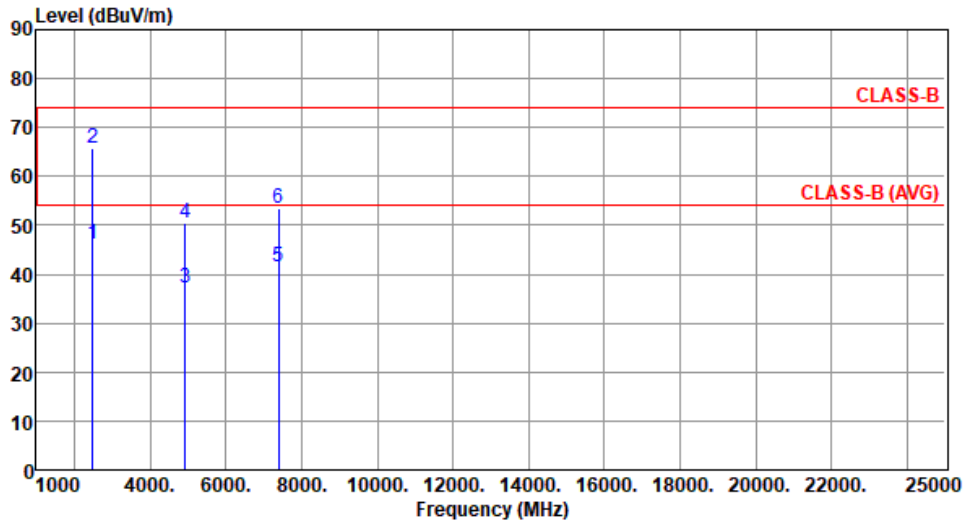
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	46.27	54.00	-7.73	47.85	-1.58	Average	100	217
2	2483.50	65.80	74.00	-8.20	67.38	-1.58	Peak	100	217
3	4924.00	37.33	54.00	-16.67	31.86	5.47	Average	100	329
4	4924.00	50.36	74.00	-23.64	44.89	5.47	Peak	100	329
5	7386.00	41.38	54.00	-12.62	30.74	10.64	Average	100	339
6	7386.00	53.37	74.00	-20.63	42.73	10.64	Peak	100	339

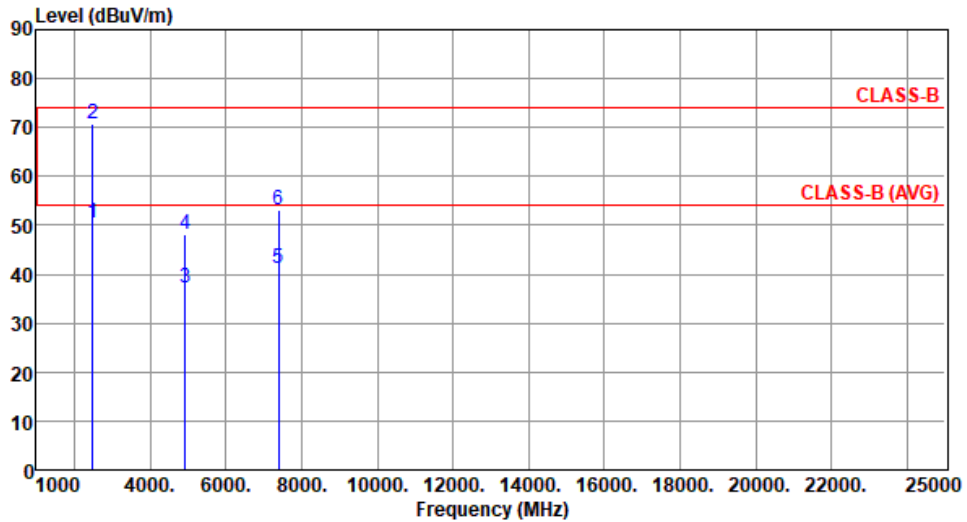
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11g	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 68



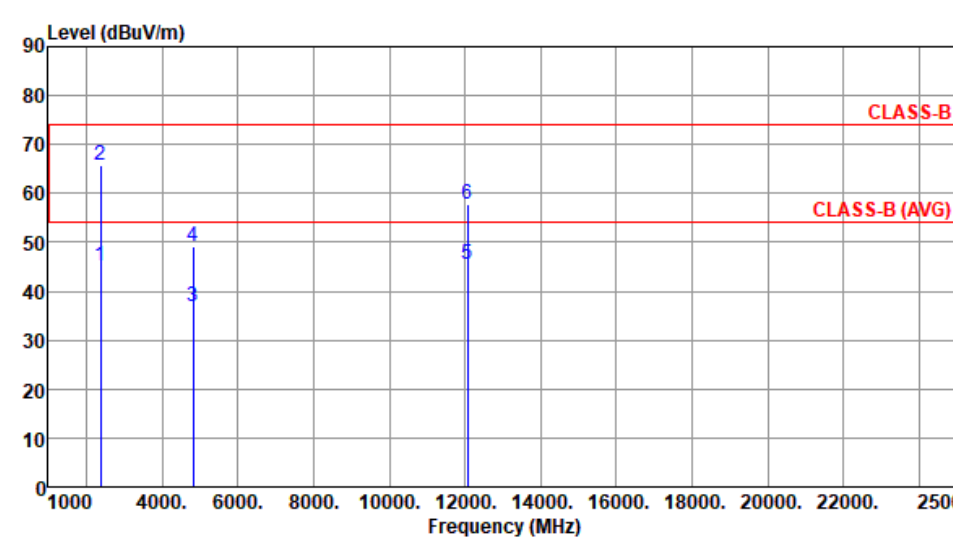
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.61	54.00	-3.39	52.19	-1.58	Average	231	312
2	2483.50	70.75	74.00	-3.25	72.33	-1.58	Peak	231	312
3	4924.00	37.08	54.00	-16.92	31.61	5.47	Average	100	35
4	4924.00	48.16	74.00	-25.84	42.69	5.47	Peak	100	35
5	7386.00	41.04	54.00	-12.96	30.40	10.64	Average	100	42
6	7386.00	53.18	74.00	-20.82	42.54	10.64	Peak	100	42

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

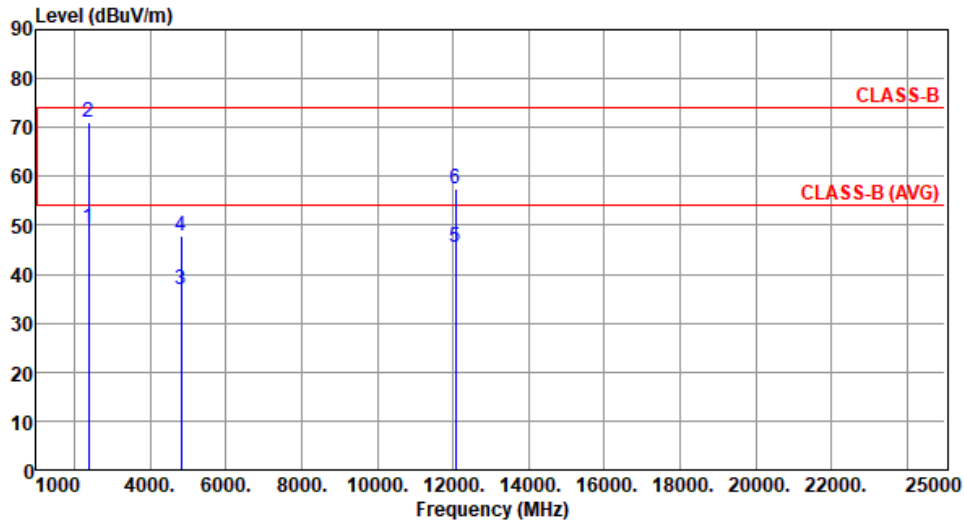
### 3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2412						
<b>Polarization</b>	Horizontal								
Test By : Akun Chung      Temperature(°C): 21      Humidity(%): 69									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	45.05	54.00	-8.95	46.54	-1.49	Average	100	215
2	2390.00	65.75	74.00	-8.25	67.24	-1.49	Peak	100	215
3	4824.00	37.02	54.00	-16.98	31.75	5.27	Average	100	336
4	4824.00	49.02	74.00	-24.98	43.75	5.27	Peak	100	336
5	12060.00	45.61	54.00	-8.39	30.65	14.96	Average	100	332
6	12060.00	57.63	74.00	-16.37	42.67	14.96	Peak	100	332

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
 \*Factor includes antenna factor , cable loss and amplifier gain  
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2412
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):21      Humidity(%):69



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.58	54.00	-4.42	51.07	-1.49	Average	232	314
2	2390.00	70.95	74.00	-3.05	72.44	-1.49	Peak	232	314
3	4824.00	36.93	54.00	-17.07	31.66	5.27	Average	100	41
4	4824.00	47.96	74.00	-26.04	42.69	5.27	Peak	100	41
5	12060.00	45.40	54.00	-8.60	30.44	14.96	Average	100	33
6	12060.00	57.43	74.00	-16.57	42.47	14.96	Peak	100	33

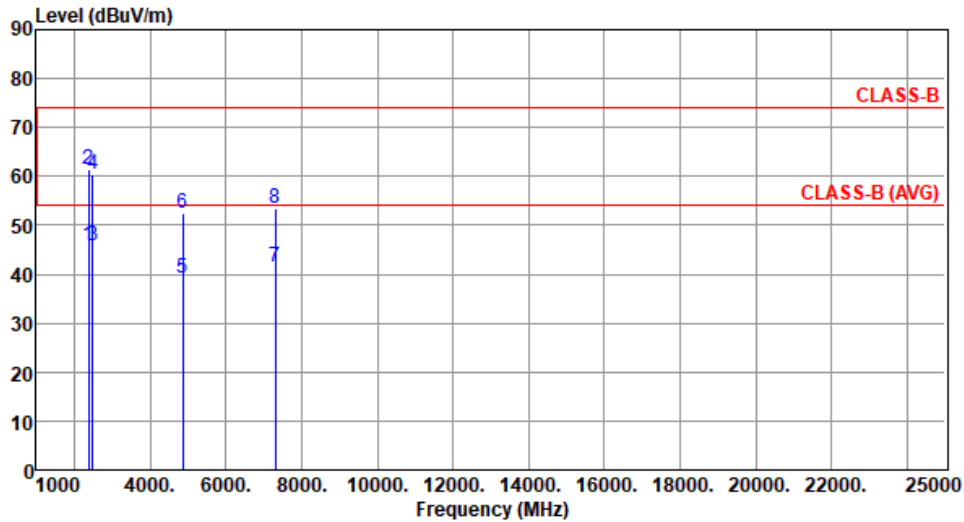
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):21      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	45.72	54.00	-8.28	47.21	-1.49	Average	100	219
2	2390.00	61.38	74.00	-12.62	62.87	-1.49	Peak	100	219
3	2483.50	45.97	54.00	-8.03	47.55	-1.58	Average	100	219
4	2483.50	60.56	74.00	-13.44	62.14	-1.58	Peak	100	219
5	4874.00	39.10	54.00	-14.90	33.77	5.33	Average	100	335
6	4874.00	52.55	74.00	-21.45	47.22	5.33	Peak	100	335
7	7311.00	41.57	54.00	-12.43	30.68	10.89	Average	100	339
8	7311.00	53.55	74.00	-20.45	42.66	10.89	Peak	100	339

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

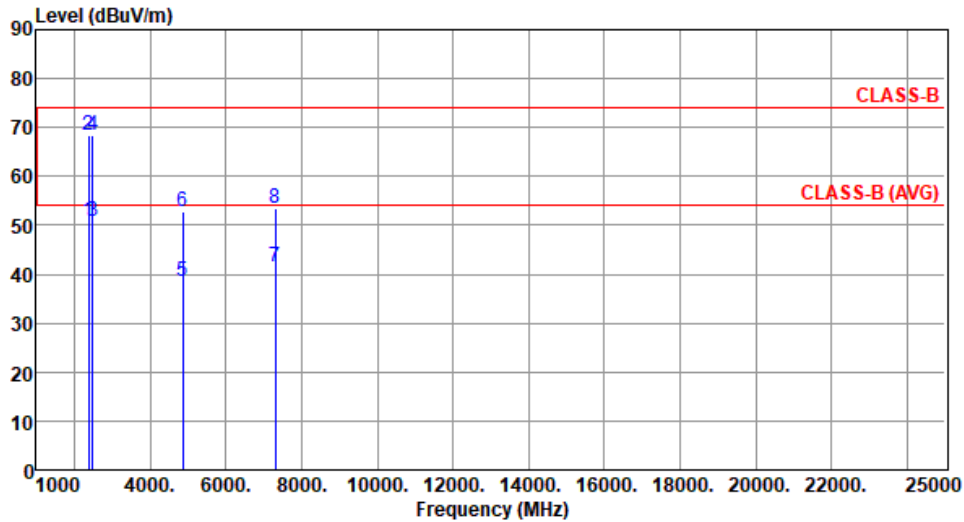
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 21      Humidity(%): 69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.71	54.00	-3.29	52.20	-1.49	Average	269	314
2	2390.00	68.35	74.00	-5.65	69.84	-1.49	Peak	269	314
3	2483.50	50.66	54.00	-3.34	52.24	-1.58	Average	269	314
4	2483.50	68.40	74.00	-5.60	69.98	-1.58	Peak	269	314
5	4874.00	38.48	54.00	-15.52	33.15	5.33	Average	100	43
6	4874.00	52.88	74.00	-21.12	47.55	5.33	Peak	100	43
7	7311.00	41.43	54.00	-12.57	30.54	10.89	Average	100	41
8	7311.00	53.39	74.00	-20.61	42.50	10.89	Peak	100	41

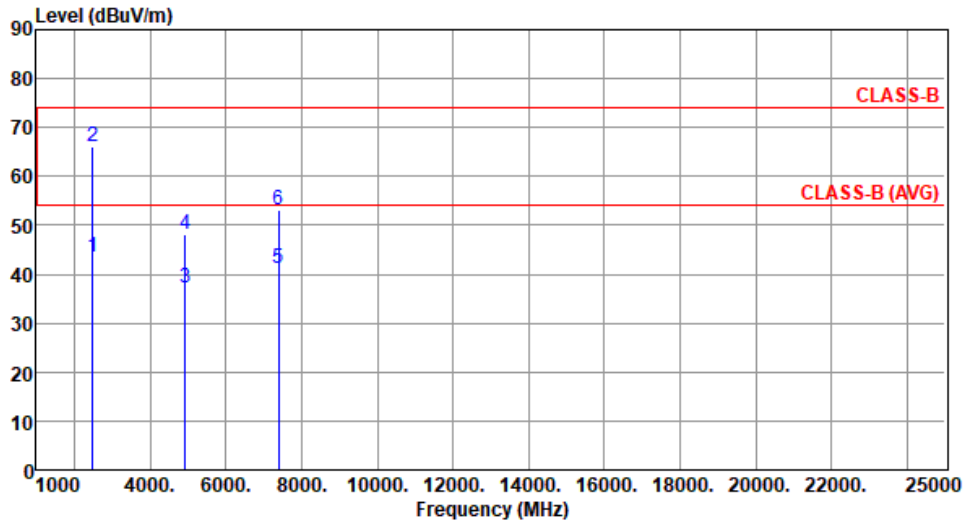
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):21      Humidity(%):69



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	43.67	54.00	-10.33	45.25	-1.58	Average	100	214
2	2483.50	65.97	74.00	-8.03	67.55	-1.58	Peak	100	214
3	4924.00	37.17	54.00	-16.83	31.70	5.47	Average	100	329
4	4924.00	48.16	74.00	-25.84	42.69	5.47	Peak	100	329
5	7386.00	41.31	54.00	-12.69	30.67	10.64	Average	100	330
6	7386.00	53.28	74.00	-20.72	42.64	10.64	Peak	100	330

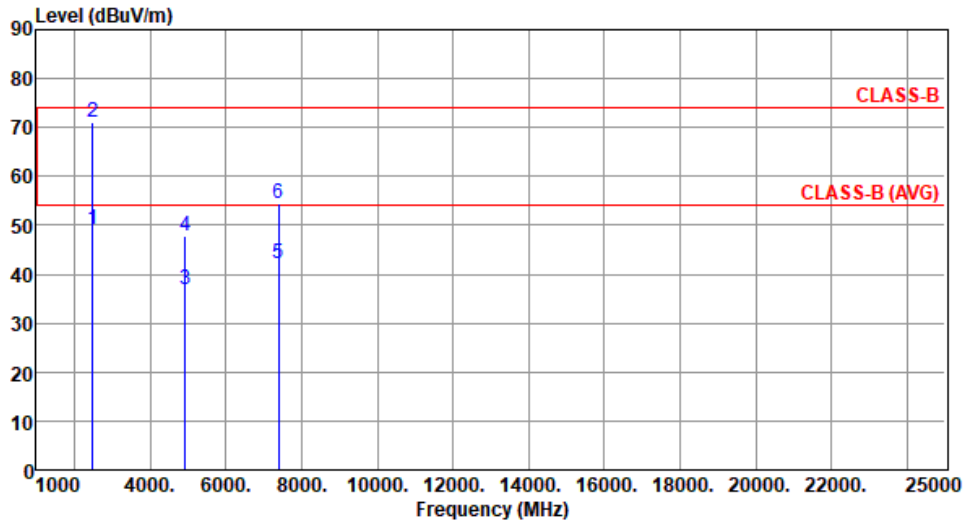
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

<b>Modulation</b>	HT20	<b>Test Freq. (MHz)</b>	2462
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 21      Humidity(%): 69



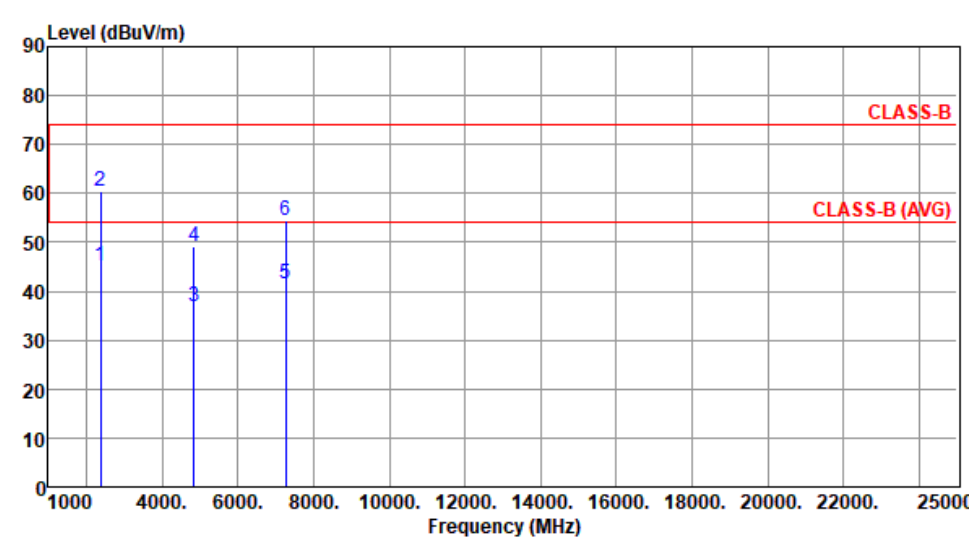
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.32	54.00	-4.68	50.90	-1.58	Average	230	317
2	2483.50	70.95	74.00	-3.05	72.53	-1.58	Peak	230	317
3	4924.00	37.02	54.00	-16.98	31.55	5.47	Average	100	36
4	4924.00	47.99	74.00	-26.01	42.52	5.47	Peak	100	36
5	7386.00	42.10	54.00	-11.90	31.46	10.64	Average	100	44
6	7386.00	54.31	74.00	-19.69	43.67	10.64	Peak	100	44

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

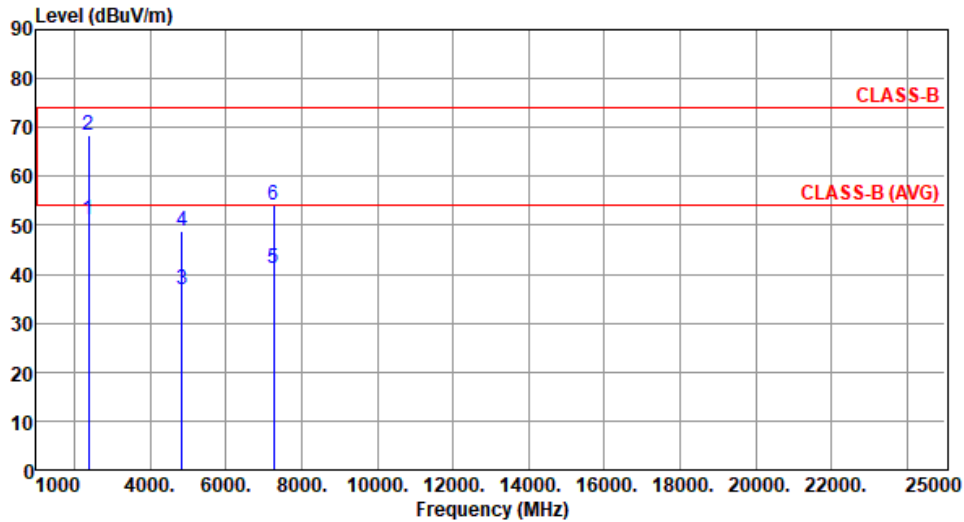
### 3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40

<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2422						
<b>Polarization</b>	Horizontal								
Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 68									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	45.08	54.00	-8.92	46.57	-1.49	Average	149	217
2	2390.00	60.35	74.00	-13.65	61.84	-1.49	Peak	149	217
3	4844.00	36.99	54.00	-17.01	31.66	5.33	Average	100	337
4	4844.00	49.02	74.00	-24.98	43.69	5.33	Peak	100	337
5	7266.00	41.50	54.00	-12.50	30.66	10.84	Average	100	332
6	7266.00	54.48	74.00	-19.52	43.64	10.84	Peak	100	332

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
 \*Factor includes antenna factor , cable loss and amplifier gain  
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2422
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.99	54.00	-3.01	52.48	-1.49	Average	225	314
2	2390.00	68.35	74.00	-5.65	69.84	-1.49	Peak	225	314
3	4844.00	36.88	54.00	-17.12	31.55	5.33	Average	100	48
4	4844.00	48.84	74.00	-25.16	43.51	5.33	Peak	100	48
5	7266.00	41.24	54.00	-12.76	30.40	10.84	Average	100	39
6	7266.00	54.13	74.00	-19.87	43.29	10.84	Peak	100	39

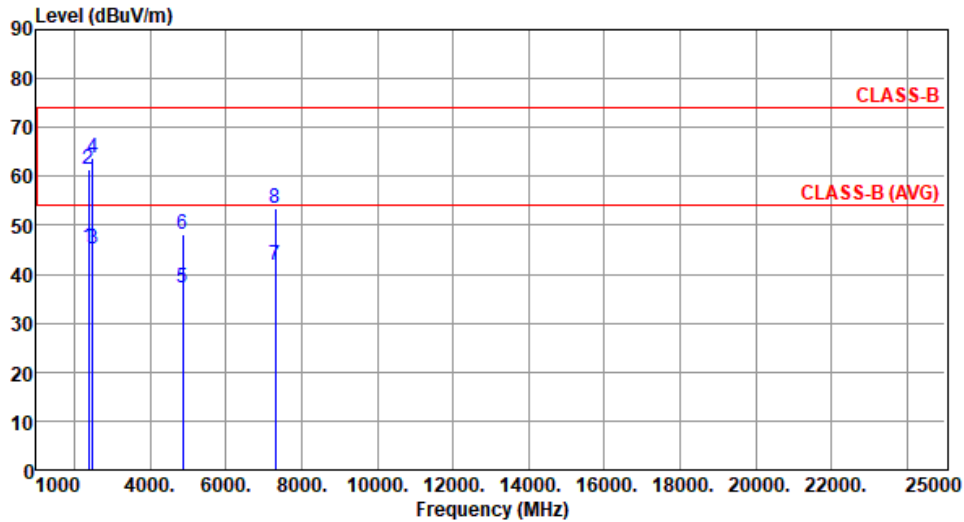
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	45.49	54.00	-8.51	46.98	-1.49	Average	100	202
2	2390.00	61.38	74.00	-12.62	62.87	-1.49	Peak	100	202
3	2483.50	45.30	54.00	-8.70	46.88	-1.58	Average	100	202
4	2483.50	63.67	74.00	-10.33	65.25	-1.58	Peak	100	202
5	4874.00	37.32	54.00	-16.68	31.99	5.33	Average	100	357
6	4874.00	48.18	74.00	-25.82	42.85	5.33	Peak	100	357
7	7311.00	41.74	54.00	-12.26	30.85	10.89	Average	100	354
8	7311.00	53.63	74.00	-20.37	42.74	10.89	Peak	100	354

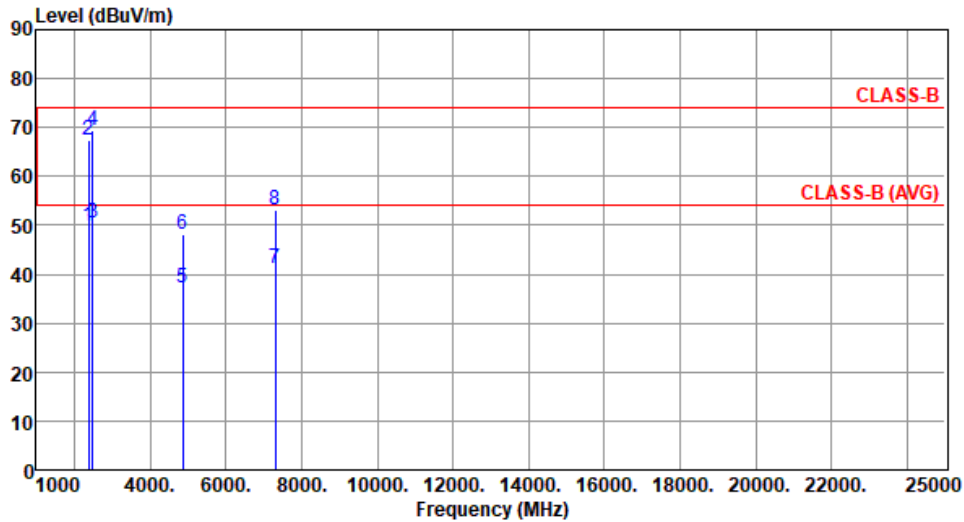
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2437
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.69	54.00	-4.31	51.18	-1.49	Average	212	325
2	2390.00	67.45	74.00	-6.55	68.94	-1.49	Peak	212	325
3	2483.50	50.32	54.00	-3.68	51.90	-1.58	Average	212	325
4	2483.50	69.38	74.00	-4.62	70.96	-1.58	Peak	212	325
5	4874.00	37.18	54.00	-16.82	31.85	5.33	Average	100	36
6	4874.00	48.11	74.00	-25.89	42.78	5.33	Peak	100	36
7	7311.00	41.21	54.00	-12.79	30.32	10.89	Average	100	43
8	7311.00	53.08	74.00	-20.92	42.19	10.89	Peak	100	43

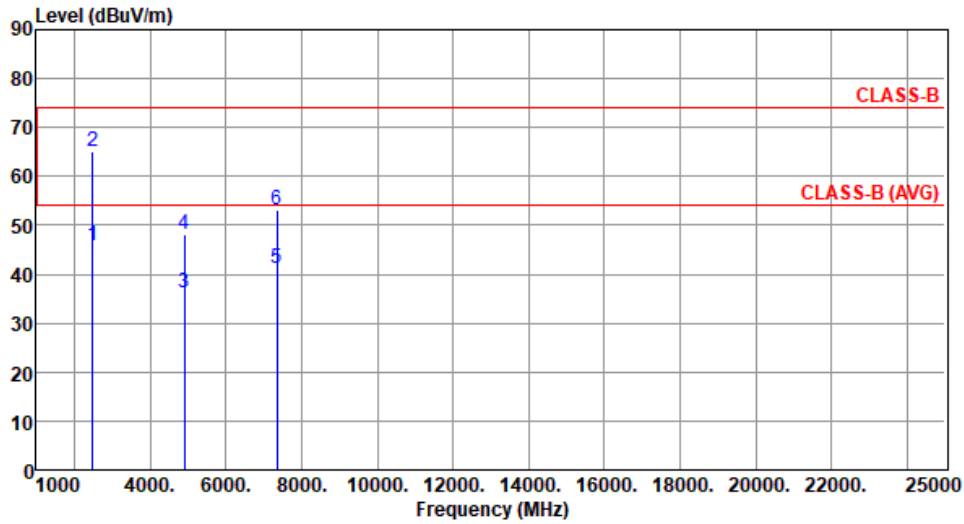
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2452
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):22      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	45.97	54.00	-8.03	47.55	-1.58	Average	100	205
2	2483.50	65.08	74.00	-8.92	66.66	-1.58	Peak	100	205
3	4904.00	36.08	54.00	-17.92	30.75	5.33	Average	100	355
4	4904.00	47.99	74.00	-26.01	42.66	5.33	Peak	100	355
5	7356.00	41.21	54.00	-12.79	30.54	10.67	Average	100	351
6	7356.00	53.19	74.00	-20.81	42.52	10.67	Peak	100	351

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

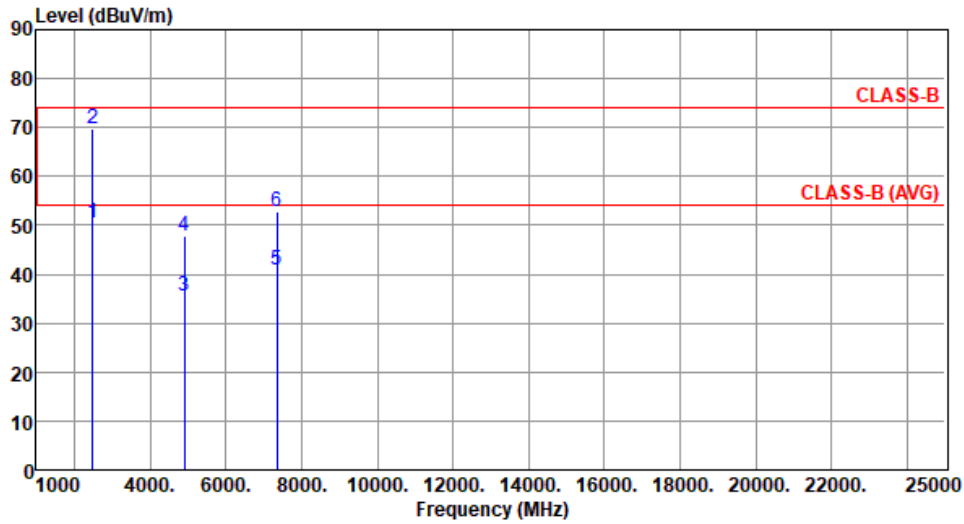
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



<b>Modulation</b>	HT40	<b>Test Freq. (MHz)</b>	2452
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 22      Humidity(%): 68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.63	54.00	-3.37	52.21	-1.58	Average	212	321
2	2483.50	69.82	74.00	-4.18	71.40	-1.58	Peak	212	321
3	4904.00	35.66	54.00	-18.34	30.33	5.33	Average	100	29
4	4904.00	47.68	74.00	-26.32	42.35	5.33	Peak	100	29
5	7356.00	41.01	54.00	-12.99	30.34	10.67	Average	100	30
6	7356.00	52.95	74.00	-21.05	42.28	10.67	Peak	100	30

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

## 3.6 Emissions in Non-Restricted Frequency Bands

### 3.6.1 Emissions in Non-Restricted Frequency Bands Limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz.

### 3.6.2 Test Procedures

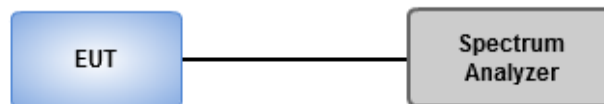
#### Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

#### Emission level measurement

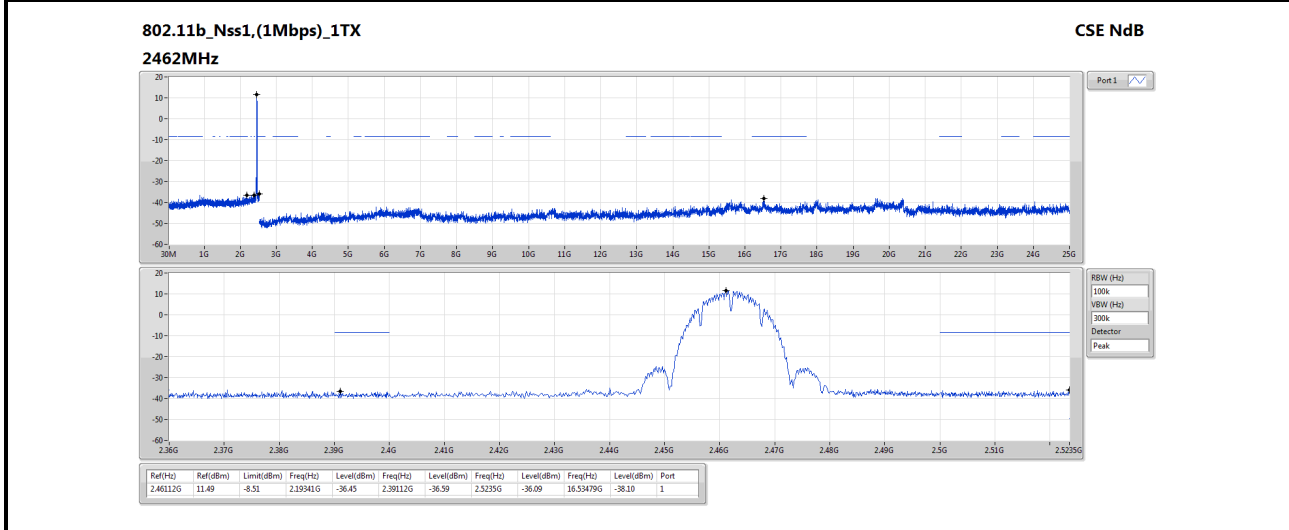
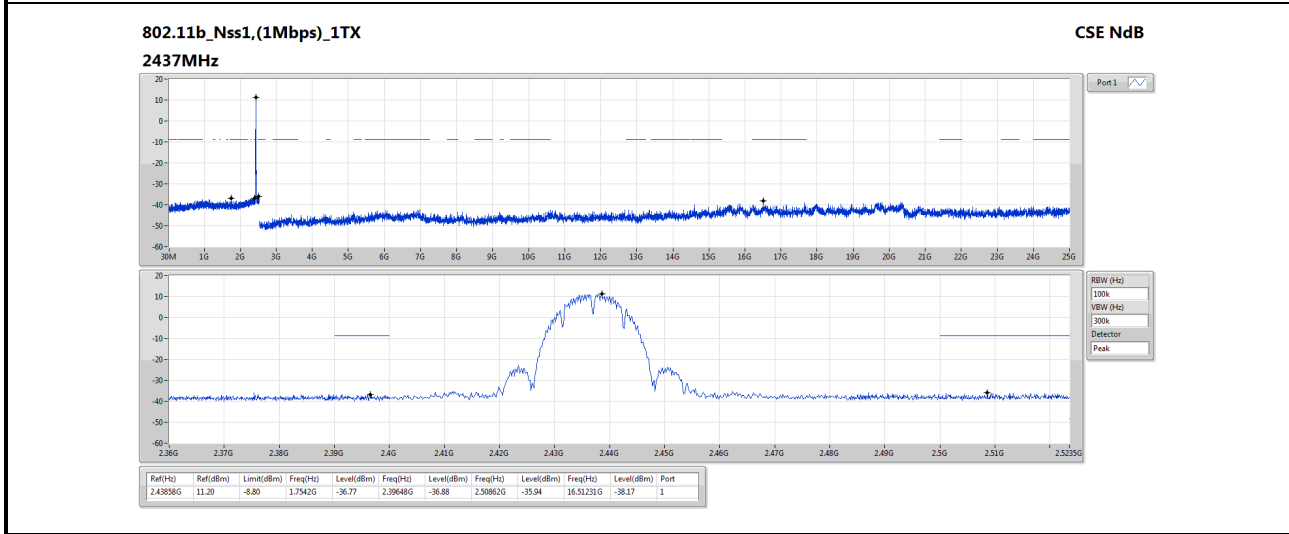
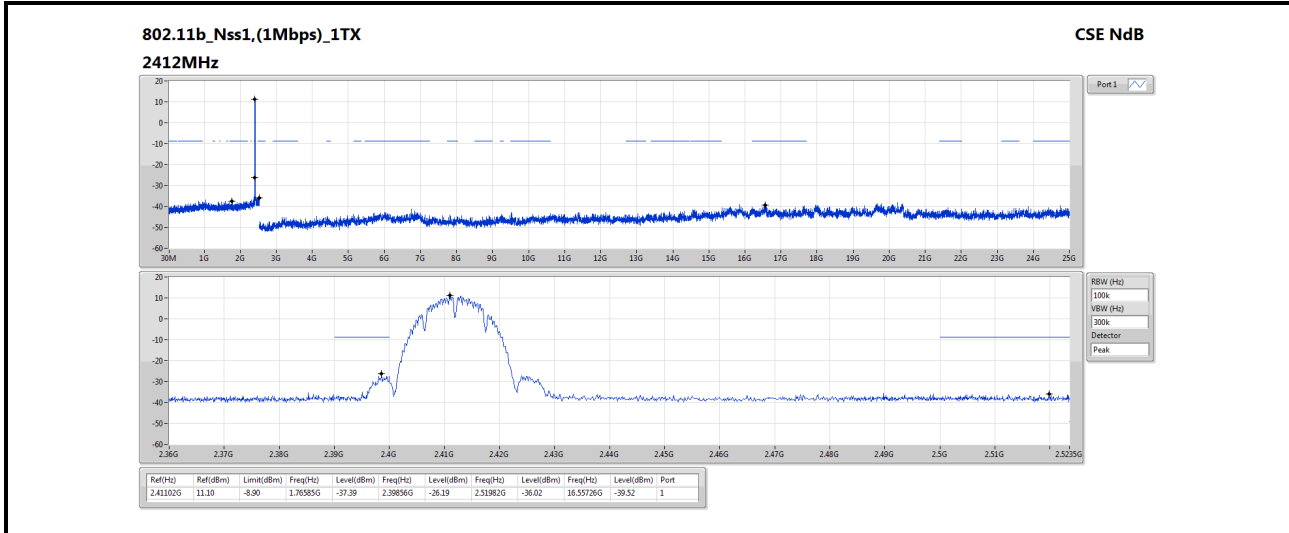
1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

### 3.6.3 Test Setup



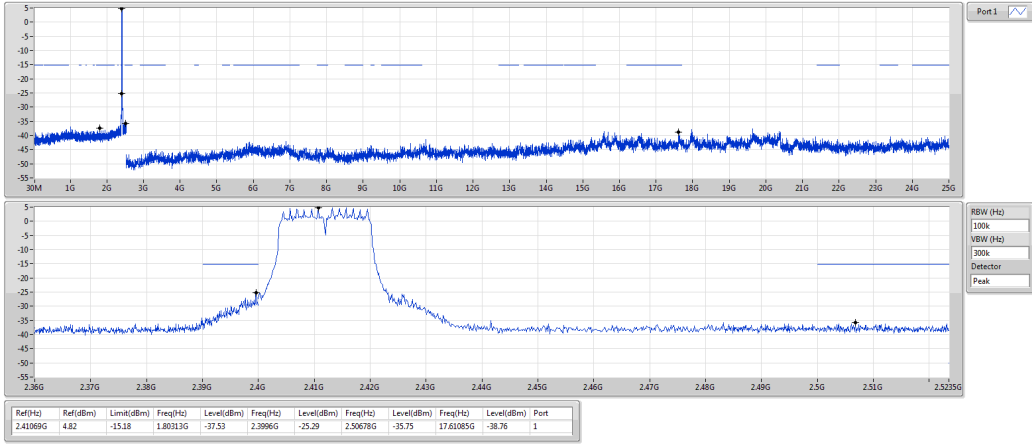
### 3.6.4 Unwanted Emissions into Non-Restricted Frequency Bands

Ambient Condition	24°C / 67%	Tested By	Aska Huang
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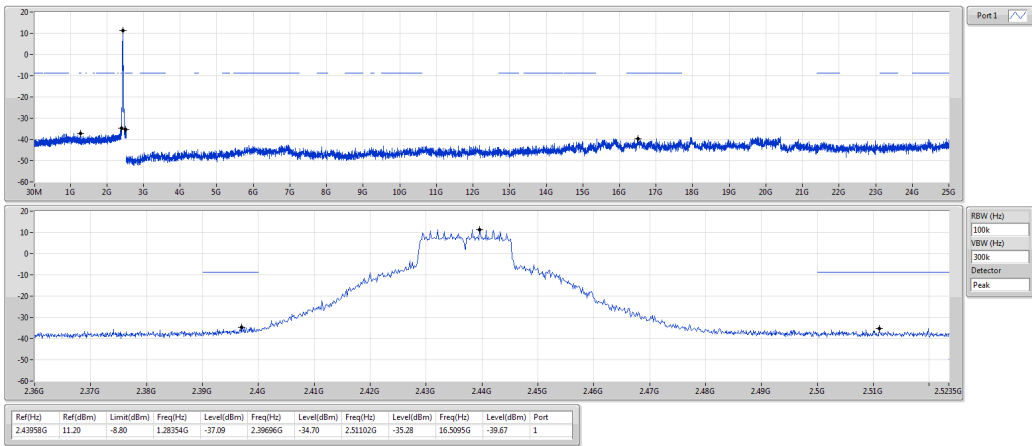
**802.11g\_Nss1,(6Mbps)\_1TX**  
**2412MHz**

CSE NdB



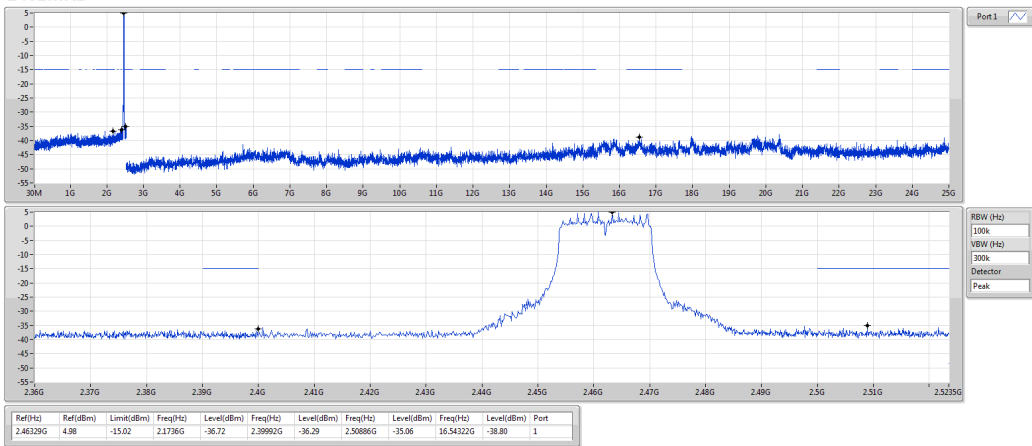
**802.11g\_Nss1,(6Mbps)\_1TX**  
**2437MHz**

CSE NdB



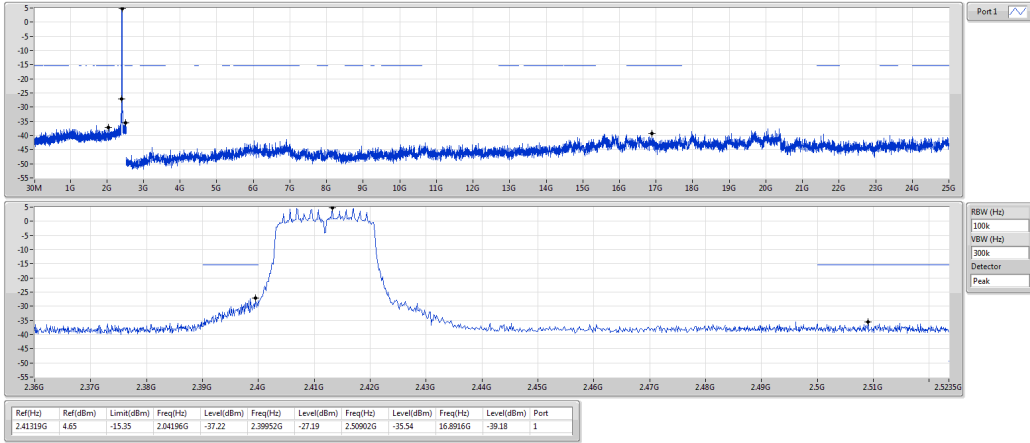
**802.11g\_Nss1,(6Mbps)\_1TX**  
**2462MHz**

CSE NdB



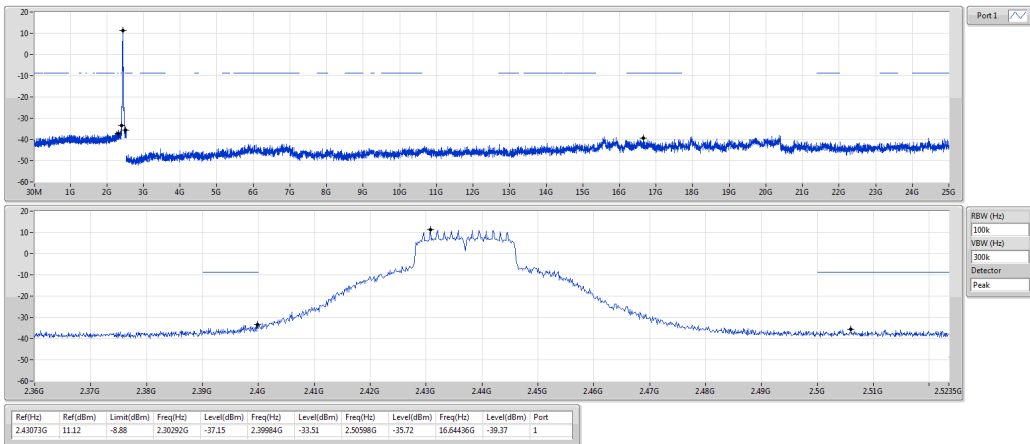
802.11n HT20\_Nss1,(MCS0)\_1TX  
2412MHz

CSE NdB



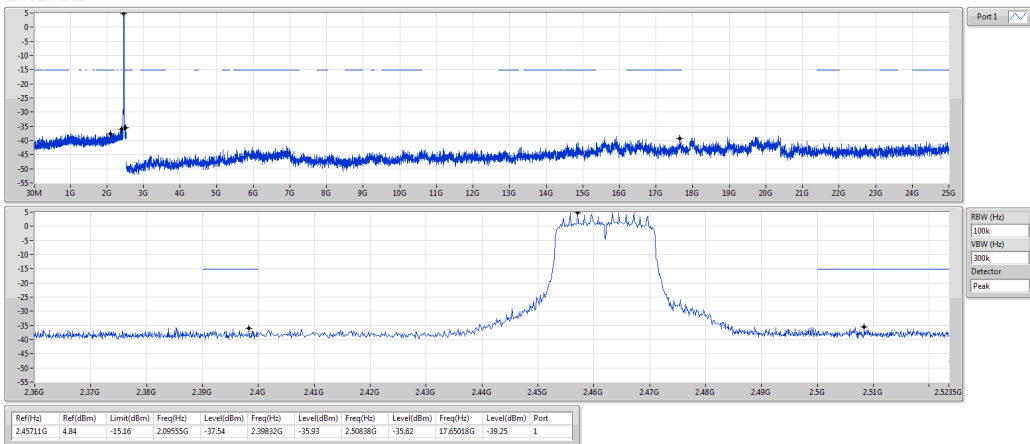
802.11n HT20\_Nss1,(MCS0)\_1TX  
2437MHz

CSE NdB



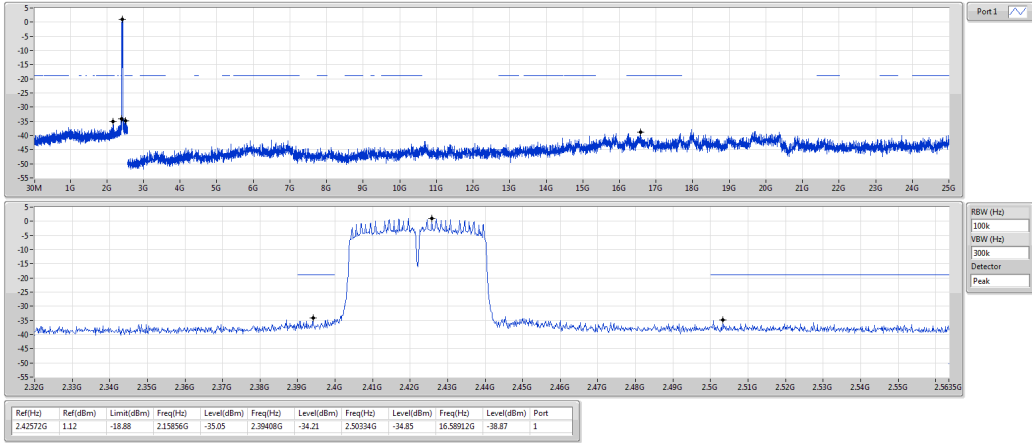
802.11n HT20\_Nss1,(MCS0)\_1TX  
2462MHz

CSE NdB



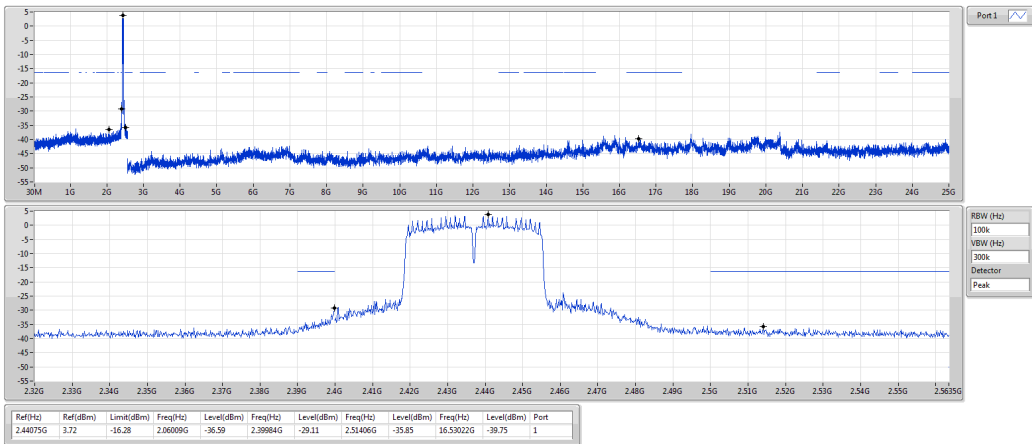
**802.11n HT40\_Nss1,(MCS0)\_1TX**  
**2422MHz**

CSE NdB



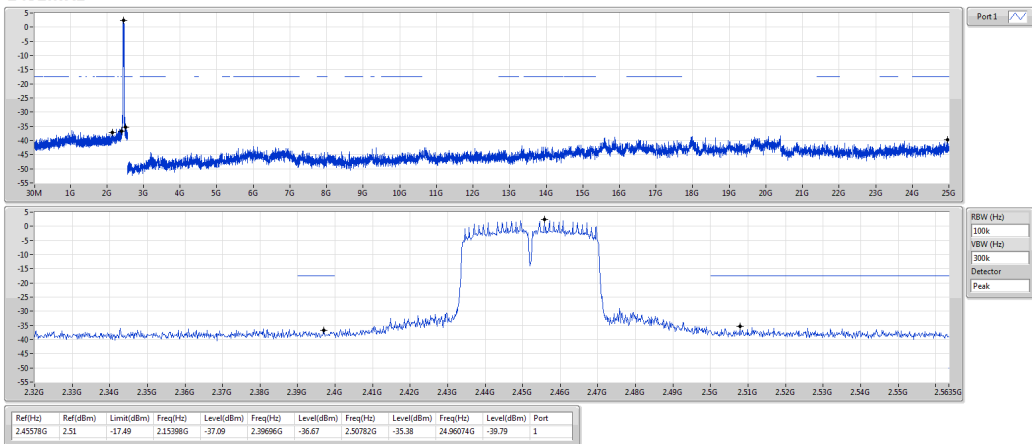
**802.11n HT40\_Nss1,(MCS0)\_1TX**  
**2437MHz**

CSE NdB



**802.11n HT40\_Nss1,(MCS0)\_1TX**  
**2452MHz**

CSE NdB



## 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: ICC\_Service@icertifi.com.tw

==END==