

FCC Test Report

FCC ID : 2AAS9-WLRRTES106
Equipment : Femto Lite IoT Gateway
(Refer to item 1.1.1 for more details)
Model No. : WLRRTES-106
Brand Name : BROWAN
Applicant : Browan Communications Incorporation.
Address : No.15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan (R.O.C.) , 30352.
Standard : 47 CFR FCC Part 15.247
Received Date : Jul. 02, 2021
Tested Date : Jul. 05, 2021 ~ Jul. 27, 2021

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 may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR0D2402-01AC	Rev. 01	Initial issue	Aug. 18, 2021

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.529MHz 36.20 (Margin -9.80dB) - AV	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 2390.00MHz 52.97 (Margin -1.03dB) - AV	Pass
15.247(b)(3)	Maximum Output Power	Max Power [dBm]: 23.02	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

The EUT has two housing options. Refers to EUT photo for detail information of housing.

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
BROWAN	WLRRTES-106	Femto Lite IoT Gateway	For marketing purpose
		MerryIoT Hub	

1.1.2 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 _{TX})	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.

1.1.3 Antenna Details

Ant. No.	Type	Gain (dBi)	Connector	Remark
1	PIFA	3.01	---	---

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	5Vdc from AC adapter
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1.1.5 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand: PHIHONG Model: PSAF10A-050Q I/P: 100-240Vac, 50/60Hz, 0.28A O/P: 5.0Vdc=2.0A Power Line: 1.10m non-shielded without core
2	AC adapter	Brand: Ktec Model: KSC-10A-050200HU I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5.0Vdc=2.0A Power Line: 1.10m non-shielded without core
3	Ethernet cable	0.95m non-shielded without core

1.1.6 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	---	---

1.1.7 Test Tool and Duty Cycle

Test Tool	ESP RF TEST TOOL, V2.5		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	100.00%	0.00
	11g	100.00%	0.00
	HT20	100.00%	0.00
	HT40	100.00%	0.00

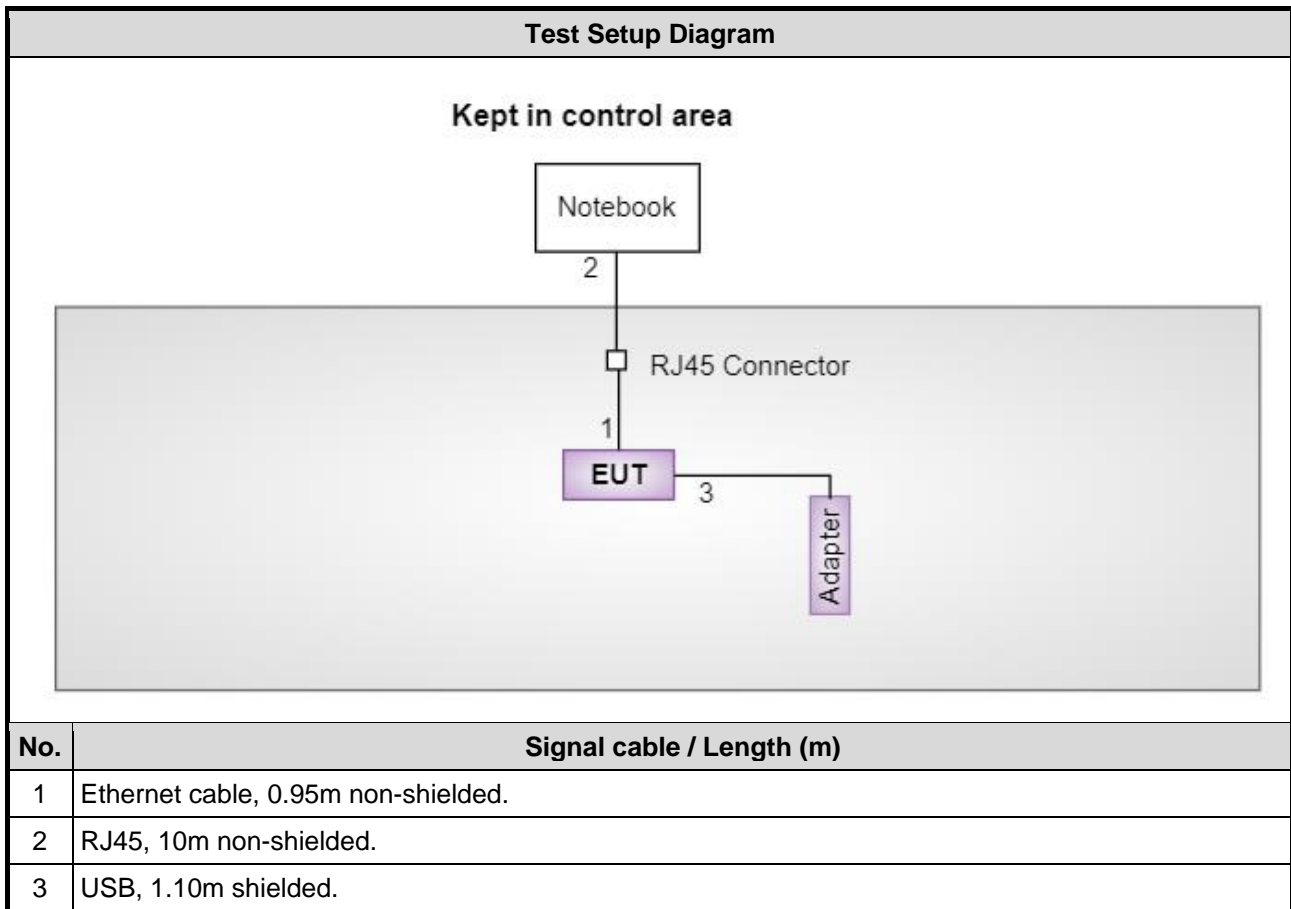
1.1.8 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	0
11b	2437	0
11b	2462	0
11g	2412	0
11g	2437	0
11g	2462	2
HT20	2412	0
HT20	2437	0
HT20	2462	2
HT40	2422	0
HT40	2437	0
HT40	2452	6

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	RJ45 Connector	ICC	---	---	---

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Jul. 21, 2021				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Feb. 08, 2021	Feb. 07, 2022
LISN	R&S	ENV216	101579	Mar. 17, 2021	Mar. 16, 2022
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 21, 2020	Oct. 20, 2021
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jul. 05 ~ Jul. 16, 2021				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2020	Dec. 03, 2021
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 17, 2020	Nov. 16, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jun. 30, 2021	Jun. 29, 2022
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 11, 2020	Dec. 10, 2021
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 06, 2020	Nov. 05, 2021
Preamplifier	EMC	EMC02325	980225	Jun. 29, 2021	Jun. 28, 2022
Preamplifier	Agilent	83017A	MY39501308	Sep. 26, 2020	Sep. 25, 2021
Preamplifier	EMC	EMC184045B	980192	Jul. 21, 2020	Jul. 20, 2021
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 06, 2020	Oct. 05, 2021
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 06, 2020	Oct. 05, 2021
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 06, 2020	Oct. 05, 2021
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 06, 2020	Oct. 05, 2021
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 06, 2020	Oct. 05, 2021
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 06, 2020	Oct. 05, 2021
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Jul. 27, 2021				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 19, 2021	Apr. 18, 2022
Power Meter	Anritsu	ML2495A	1241002	Nov. 04, 2020	Nov. 03, 2021
Power Sensor	Anritsu	MA2411B	1207366	Nov. 04, 2020	Nov. 03, 2021
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	± 34.130 Hz
Conducted power	± 0.808 dB
Power density	± 0.583 dB
Conducted emission	± 2.715 dB
AC conducted emission	± 2.92 dB
Radiated emission ≤ 1 GHz	± 4.32 dB
Radiated emission > 1 GHz	± 4.90 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS, 03CH01-WS, TH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- 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	2412	MCS 0	2
Radiated Emissions ≤1GHz	HT20	2412	MCS 0	1
Radiated Emissions >1GHz	11b 11g HT20 HT40	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	1
Maximum Output Power 6dB bandwidth Power spectral density	11b 11g HT20 HT40	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	1
<p>Note: The EUT had been tested by following test configurations.</p> <ol style="list-style-type: none"> 1) Configuration 1: PHIHONG adapter with housing 2 2) Configuration 2: Ktec adapter with housing 2 				

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

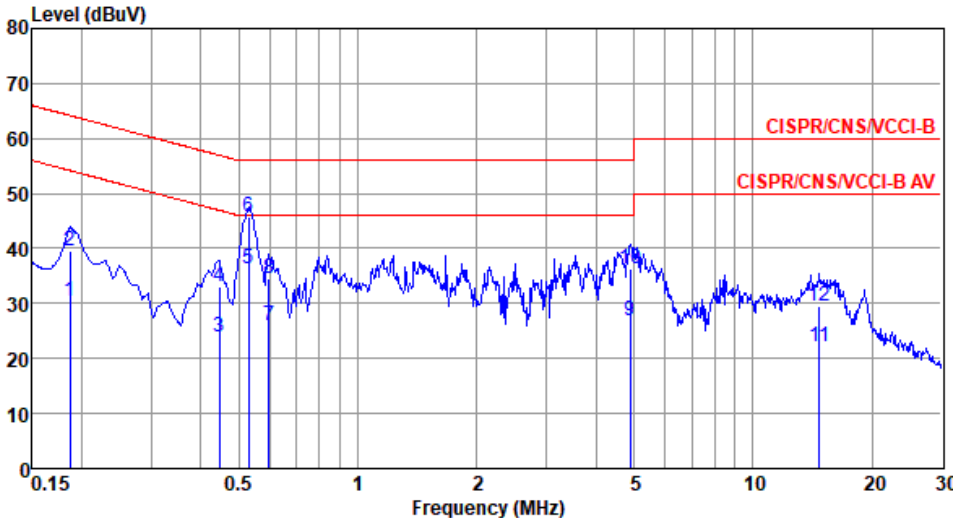
1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω 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



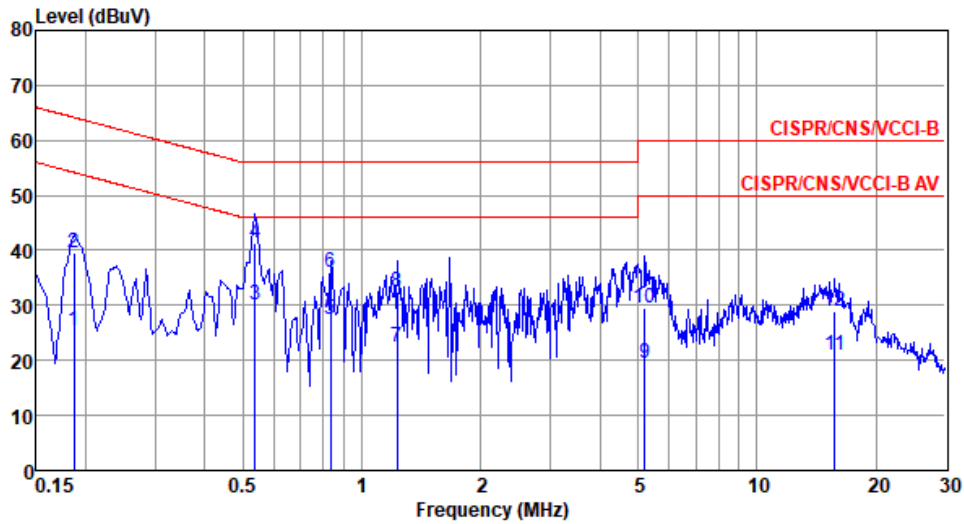
- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Modulation	HT20	Test Freq. (MHz)	2412																																																																																																																					
Power Phase	Line																																																																																																																							
<p>Test by : Alex Tsai Temperature: 22°C Humidity: 61%</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>Remark</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.186</td><td>30.30</td><td>54.20</td><td>-23.90</td><td>20.40</td><td>9.84</td><td>0.06</td><td>Average</td></tr> <tr><td>2</td><td>0.186</td><td>39.62</td><td>64.20</td><td>-24.58</td><td>29.72</td><td>9.84</td><td>0.06</td><td>QP</td></tr> <tr><td>3</td><td>0.447</td><td>24.00</td><td>46.93</td><td>-22.93</td><td>14.02</td><td>9.90</td><td>0.08</td><td>Average</td></tr> <tr><td>4</td><td>0.447</td><td>33.19</td><td>56.93</td><td>-23.74</td><td>23.21</td><td>9.90</td><td>0.08</td><td>QP</td></tr> <tr><td>5*</td><td>0.529</td><td>36.20</td><td>46.00</td><td>-9.80</td><td>26.19</td><td>9.92</td><td>0.09</td><td>Average</td></tr> <tr><td>6</td><td>0.529</td><td>45.78</td><td>56.00</td><td>-10.22</td><td>35.77</td><td>9.92</td><td>0.09</td><td>QP</td></tr> <tr><td>7</td><td>0.595</td><td>25.86</td><td>46.00</td><td>-20.14</td><td>15.83</td><td>9.93</td><td>0.10</td><td>Average</td></tr> <tr><td>8</td><td>0.595</td><td>34.43</td><td>56.00</td><td>-21.57</td><td>24.40</td><td>9.93</td><td>0.10</td><td>QP</td></tr> <tr><td>9</td><td>4.900</td><td>26.83</td><td>46.00</td><td>-19.17</td><td>16.46</td><td>10.06</td><td>0.31</td><td>Average</td></tr> <tr><td>10</td><td>4.900</td><td>36.36</td><td>56.00</td><td>-19.64</td><td>25.99</td><td>10.06</td><td>0.31</td><td>QP</td></tr> <tr><td>11</td><td>14.750</td><td>22.12</td><td>50.00</td><td>-27.88</td><td>11.34</td><td>10.19</td><td>0.59</td><td>Average</td></tr> <tr><td>12</td><td>14.750</td><td>29.40</td><td>60.00</td><td>-30.60</td><td>18.62</td><td>10.19</td><td>0.59</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	Remark	1	0.186	30.30	54.20	-23.90	20.40	9.84	0.06	Average	2	0.186	39.62	64.20	-24.58	29.72	9.84	0.06	QP	3	0.447	24.00	46.93	-22.93	14.02	9.90	0.08	Average	4	0.447	33.19	56.93	-23.74	23.21	9.90	0.08	QP	5*	0.529	36.20	46.00	-9.80	26.19	9.92	0.09	Average	6	0.529	45.78	56.00	-10.22	35.77	9.92	0.09	QP	7	0.595	25.86	46.00	-20.14	15.83	9.93	0.10	Average	8	0.595	34.43	56.00	-21.57	24.40	9.93	0.10	QP	9	4.900	26.83	46.00	-19.17	16.46	10.06	0.31	Average	10	4.900	36.36	56.00	-19.64	25.99	10.06	0.31	QP	11	14.750	22.12	50.00	-27.88	11.34	10.19	0.59	Average	12	14.750	29.40	60.00	-30.60	18.62	10.19	0.59	QP
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Modulation	HT20	Test Freq. (MHz)	2412
Power Phase	Neutral		

Test by : Alex Tsai Temperature: 22°C Humidity: 61%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Remark
1	0.186	25.35	54.20	-28.85	15.46	9.83	0.06	Average
2	0.186	39.45	64.20	-24.75	29.56	9.83	0.06	QP
3	0.538	30.05	46.00	-15.95	20.10	9.86	0.09	Average
4*	0.538	41.26	56.00	-14.74	31.31	9.86	0.09	QP
5	0.835	27.48	46.00	-18.52	17.50	9.87	0.11	Average
6	0.835	36.09	56.00	-19.91	26.11	9.87	0.11	QP
7	1.229	22.49	46.00	-23.51	12.45	9.90	0.14	Average
8	1.229	32.52	56.00	-23.48	22.48	9.90	0.14	QP
9	5.194	19.60	50.00	-30.40	9.28	10.00	0.32	Average
10	5.194	29.46	60.00	-30.54	19.14	10.00	0.32	QP
11	15.718	20.88	50.00	-29.12	10.03	10.24	0.61	Average
12	15.718	29.03	60.00	-30.97	18.18	10.24	0.61	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 Note 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

Ambient Condition	24°C / 66%	Tested By	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	9.13M	13.169M	13M2G1D	8.551M	13.169M
802.11g_Nss1,(6Mbps)_1TX	16.377M	16.353M	16M4D1D	16.377M	16.353M
802.11n HT20_Nss1,(MCS0)_1TX	17.029M	17.149M	17M1D1D	16.884M	17.149M
802.11n HT40_Nss1,(MCS0)_1TX	32.464M	33.719M	33M7D1D	32.029M	33.575M

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	9.13M	13.169M
2437MHz	Pass	500k	9.13M	13.169M
2462MHz	Pass	500k	8.551M	13.169M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.377M	16.353M
2437MHz	Pass	500k	16.377M	16.353M
2462MHz	Pass	500k	16.377M	16.353M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	16.957M	17.149M
2437MHz	Pass	500k	17.029M	17.149M
2462MHz	Pass	500k	16.884M	17.149M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	32.029M	33.719M
2437MHz	Pass	500k	32.464M	33.719M
2452MHz	Pass	500k	32.029M	33.575M

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

802.11b_Nss1,(1Mbps)_1TX

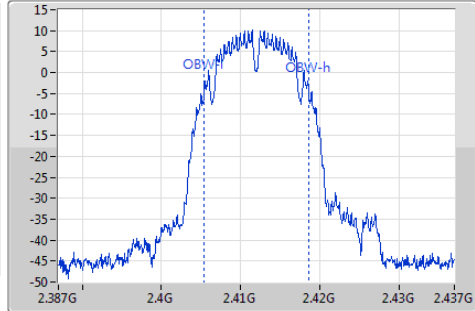
EBW

2412MHz

CF
2.412GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
1.08ms
Detector Type
Peak
Port 1



CF
2.412GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
1.02ms
Detector Type
Sample



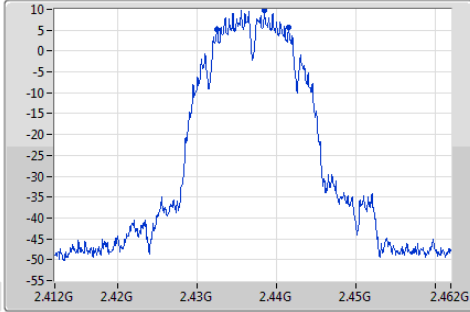
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.13M	2.407435G	2.416565G	13.169M	2.405415G	2.418585G	500k	1

802.11b_Nss1,(1Mbps)_1TX

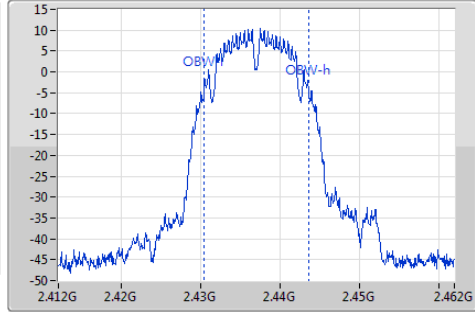
EBW

2437MHz

CF
2.437GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
1.08ms
Detector Type
Peak
Port 1



CF
2.437GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
1.02ms
Detector Type
Sample



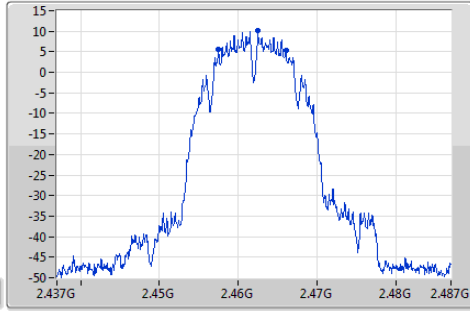
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.13M	2.432435G	2.441565G	13.169M	2.430415G	2.443585G	500k	1

802.11b_Nss1,(1Mbps)_1TX

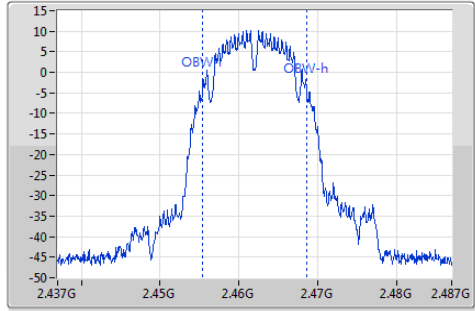
EBW

2462MHz

CF
2.462GHz
Span
50MHz
RBW
100kHz
VBW
300kHz
Sweep Time
1.08ms
Detector Type
Peak
Port 1



CF
2.462GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
1.02ms
Detector Type
Sample

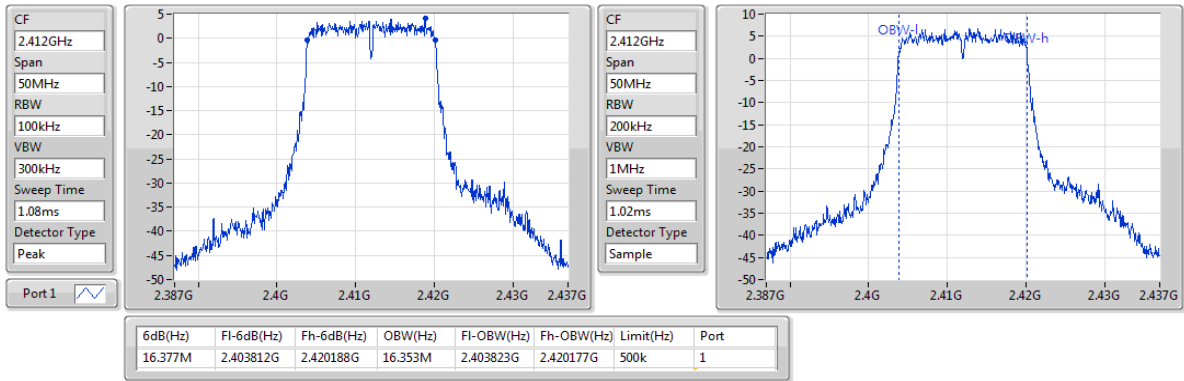


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.551M	2.457507G	2.4666058G	13.169M	2.455415G	2.468585G	500k	1

802.11g_Nss1,(6Mbps)_1TX

EBW

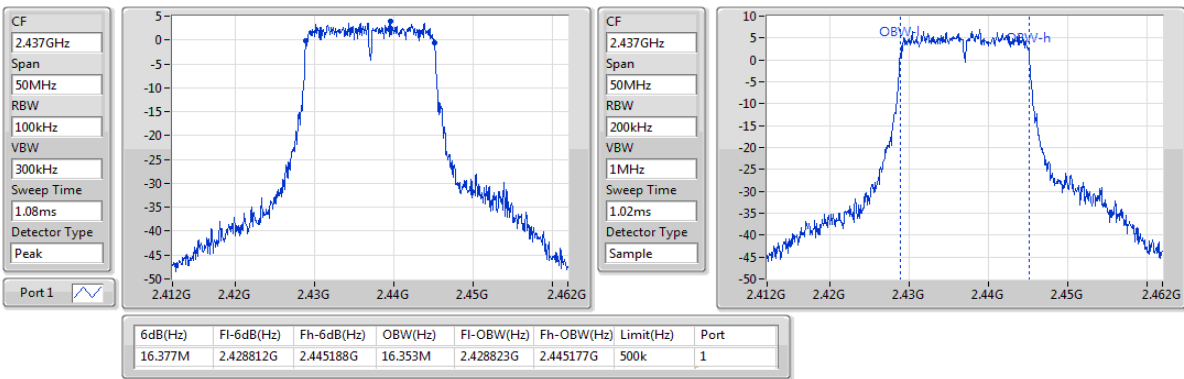
2412MHz



802.11g_Nss1,(6Mbps)_1TX

EBW

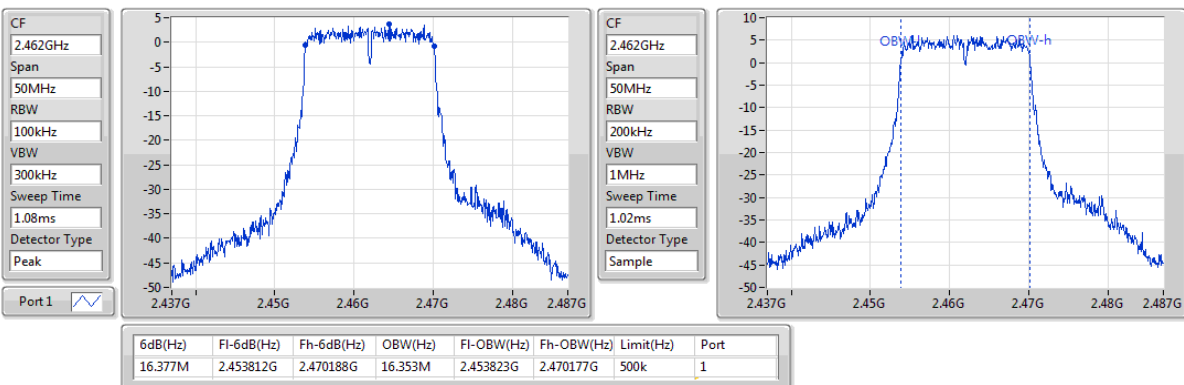
2437MHz



802.11g_Nss1,(6Mbps)_1TX

EBW

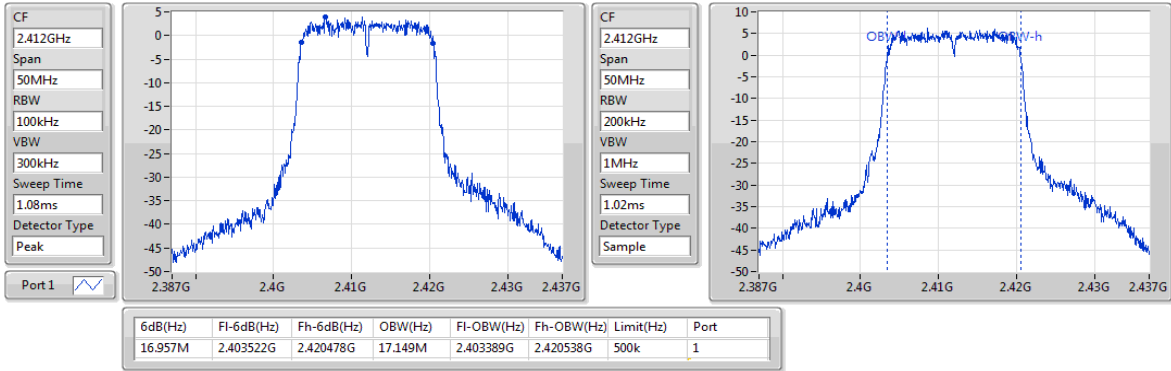
2462MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

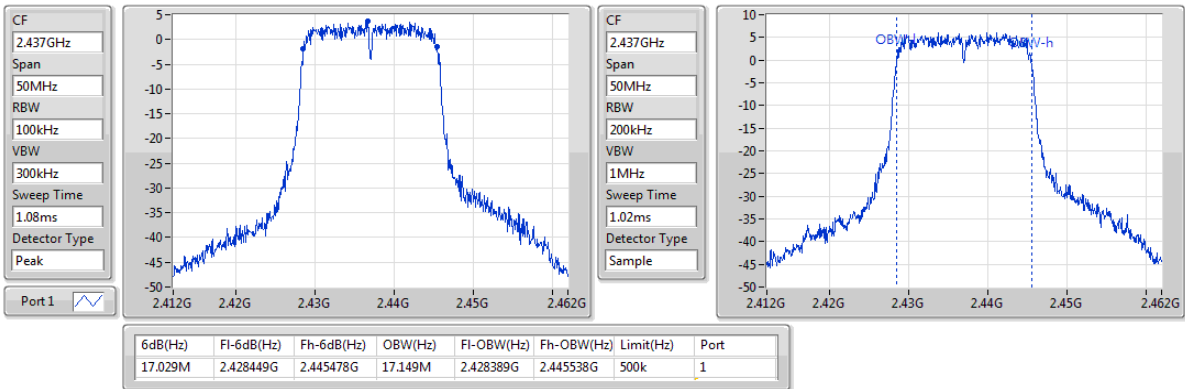
2412MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

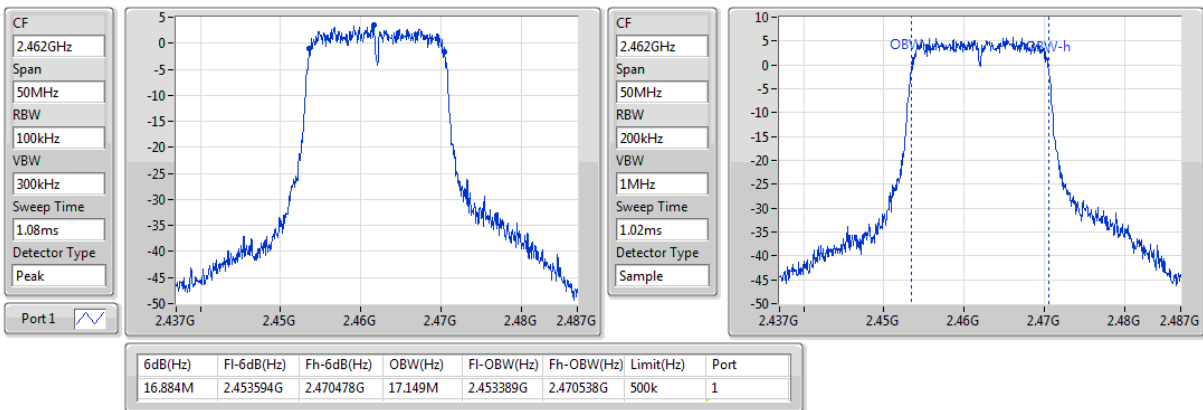
2437MHz



802.11n HT20_Nss1,(MCS0)_1TX

EBW

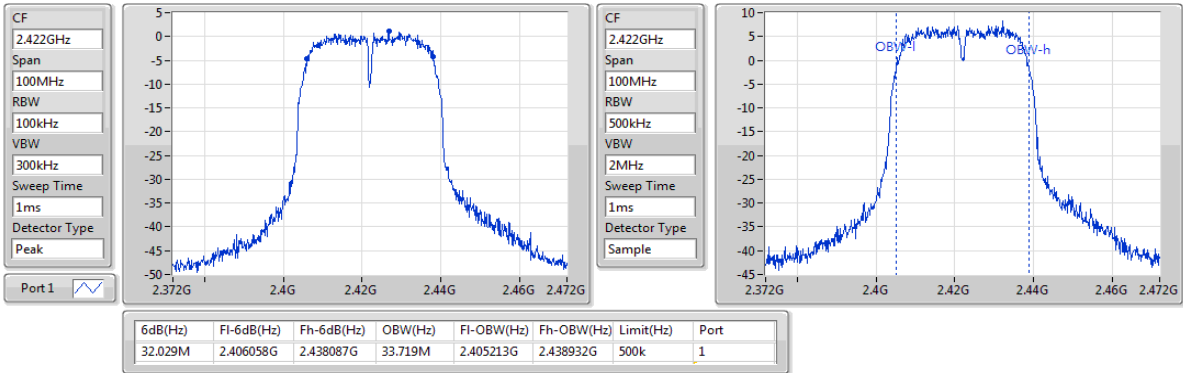
2462MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

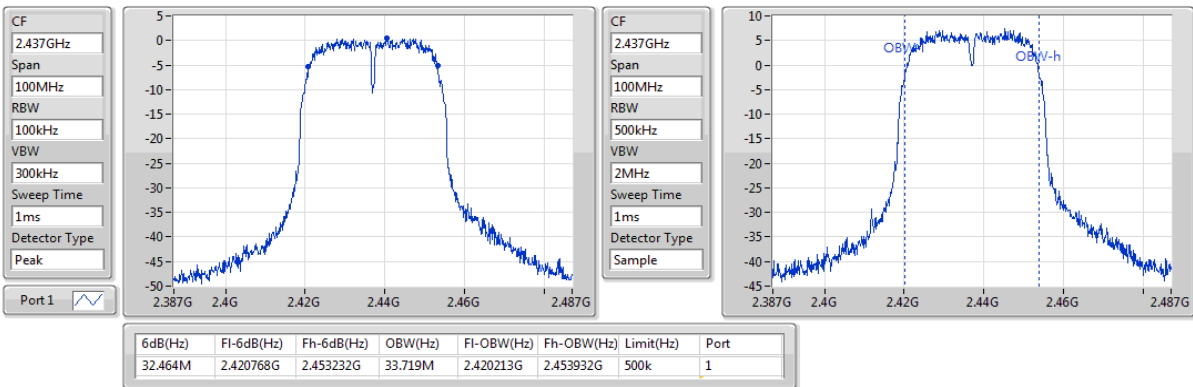
2422MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

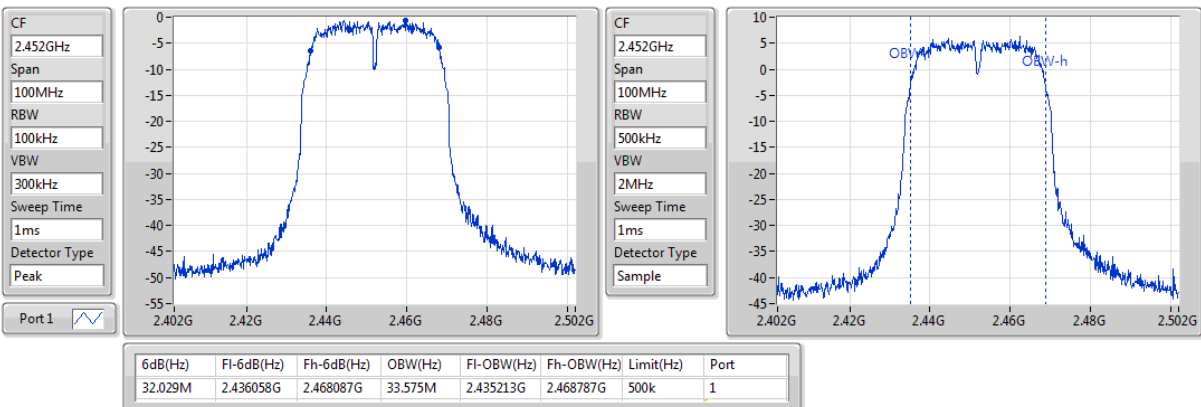
2437MHz



802.11n HT40_Nss1,(MCS0)_1TX

EBW

2452MHz



3.3 RF Output Power

3.3.1 Limit of RF Output Power

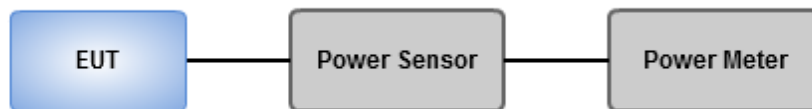
Conducted power shall not exceed 1Watt.

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

Ambient Condition	24°C / 66%	Tested By	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	22.22	0.16672
802.11g_Nss1,(6Mbps)_1TX	22.87	0.19364
802.11n HT20_Nss1,(MCS0)_1TX	23.02	0.20045
802.11n HT40_Nss1,(MCS0)_1TX	22.68	0.18535

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	3.01	22.22	22.22	30.00	25.23	36.00
2437MHz	Pass	3.01	22.11	22.11	30.00	25.12	36.00
2462MHz	Pass	3.01	21.93	21.93	30.00	24.94	36.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.01	22.85	22.85	30.00	25.86	36.00
2437MHz	Pass	3.01	22.87	22.87	30.00	25.88	36.00
2462MHz	Pass	3.01	22.41	22.41	30.00	25.42	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.01	23.02	23.02	30.00	26.03	36.00
2437MHz	Pass	3.01	22.95	22.95	30.00	25.96	36.00
2462MHz	Pass	3.01	22.65	22.65	30.00	25.66	36.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	3.01	22.68	22.68	30.00	25.69	36.00
2437MHz	Pass	3.01	22.41	22.41	30.00	25.42	36.00
2452MHz	Pass	3.01	21.85	21.85	30.00	24.86	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	19.41	0.08730
802.11g_Nss1,(6Mbps)_1TX	17.86	0.06109
802.11n HT20_Nss1,(MCS0)_1TX	17.73	0.05929
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	3.01	19.41	19.41	-	22.42	-
2437MHz	Pass	3.01	19.32	19.32	-	22.33	-
2462MHz	Pass	3.01	19.12	19.12	-	22.13	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.01	17.82	17.82	-	20.83	-
2437MHz	Pass	3.01	17.86	17.86	-	20.87	-
2462MHz	Pass	3.01	17.51	17.51	-	20.52	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	3.01	17.73	17.73	-	20.74	-
2437MHz	Pass	3.01	17.73	17.73	-	20.74	-
2462MHz	Pass	3.01	17.33	17.33	-	20.34	-
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	3.01	17.35	17.35	-	20.36	-
2437MHz	Pass	3.01	17.16	17.16	-	20.17	-
2452MHz	Pass	3.01	16.12	16.12	-	19.13	-

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.

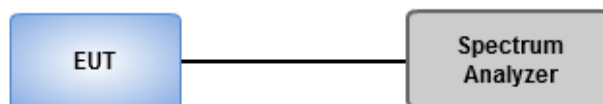
Average PSD, duty cycle \geq 98%

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: ≥ 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

Ambient Condition	24°C / 66%	Tested By	Aska Huang
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Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-5.96
802.11g_Nss1,(6Mbps)_1TX	-11.03
802.11n HT20_Nss1,(MCS0)_1TX	-10.60
802.11n HT40_Nss1,(MCS0)_1TX	-12.54

Result

Mode	Result	DG (dBi)	Port 1 (dBm/3kHz)	PD (dBm/3kHz)	PD Limit (dBm/3kHz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.01	-6.37	-6.37	8.00
2437MHz	Pass	3.01	-6.24	-6.24	8.00
2462MHz	Pass	3.01	-5.96	-5.96	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.01	-11.14	-11.14	8.00
2437MHz	Pass	3.01	-11.03	-11.03	8.00
2462MHz	Pass	3.01	-11.33	-11.33	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.01	-10.82	-10.82	8.00
2437MHz	Pass	3.01	-10.60	-10.60	8.00
2462MHz	Pass	3.01	-10.95	-10.95	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	3.01	-13.22	-13.22	8.00
2437MHz	Pass	3.01	-12.54	-12.54	8.00
2452MHz	Pass	3.01	-14.37	-14.37	8.00

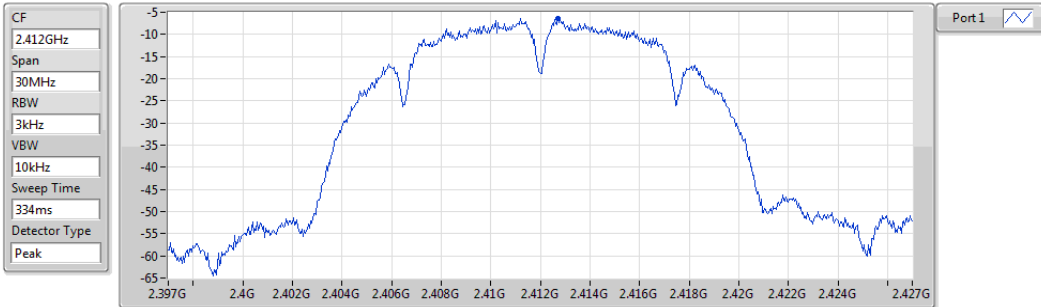
DG = Directional Gain;

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

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

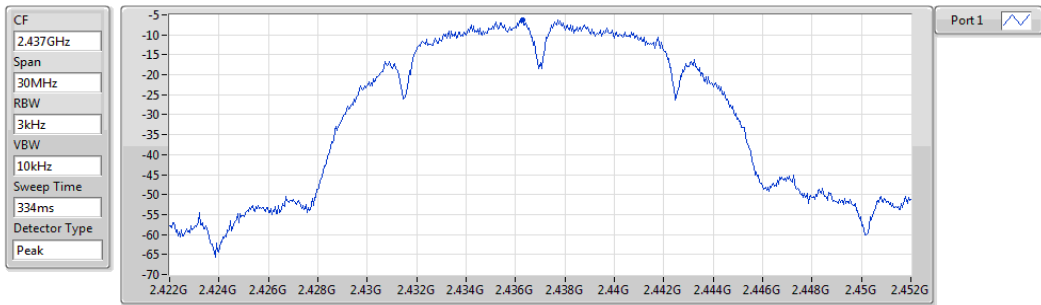


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.37	-6.37	-6.37

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

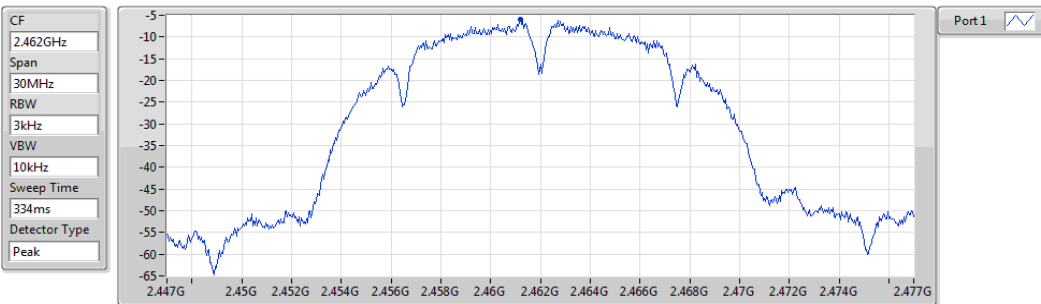


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.24	-6.24	-6.24

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

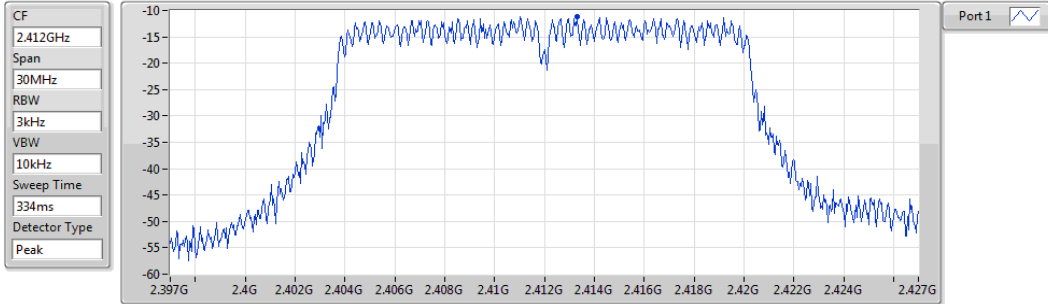


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.96	-5.96	-5.96

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

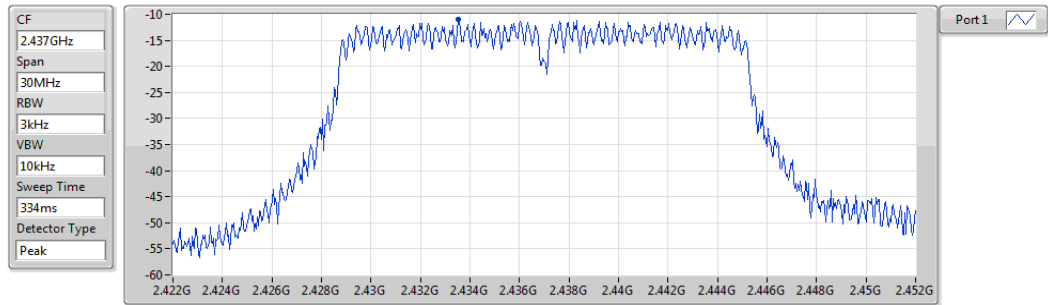


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.14	-11.14	-11.14

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

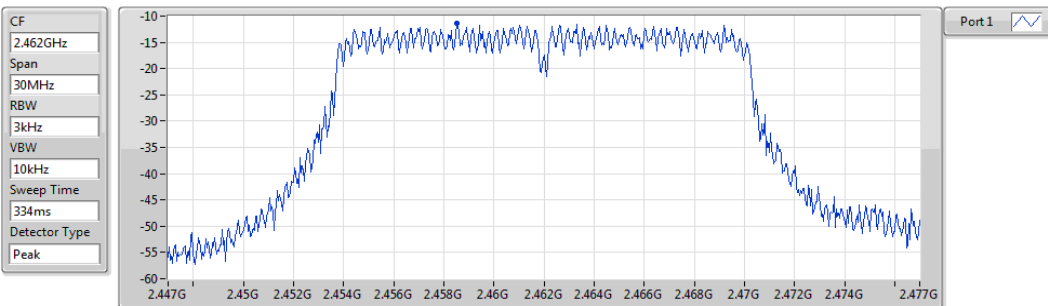


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.03	-11.03	-11.03

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

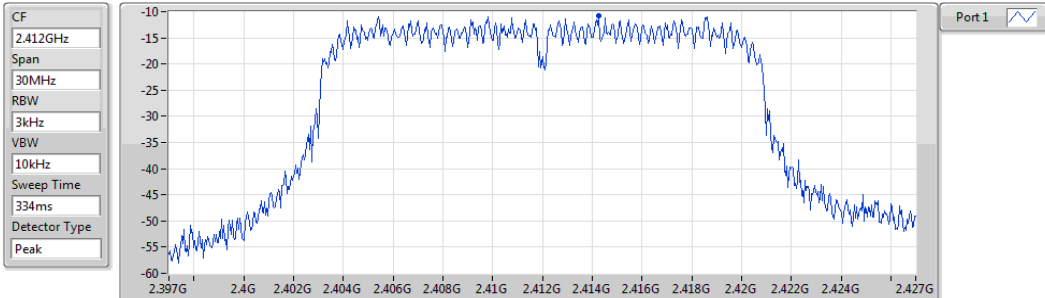


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.33	-11.33	-11.33

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2412MHz

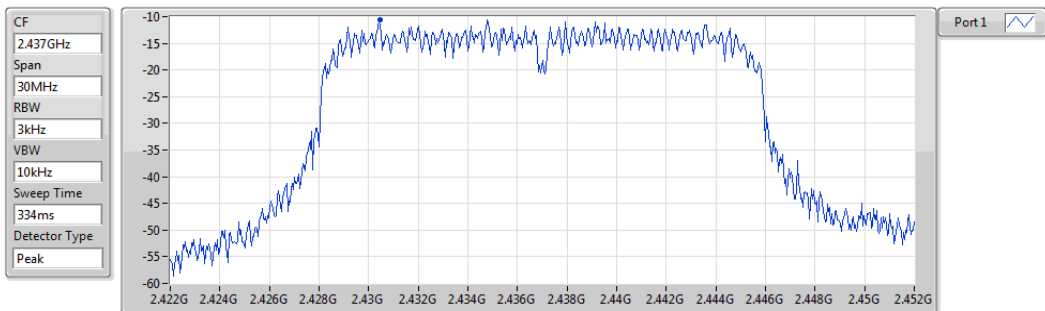


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.82	-10.82	-10.82

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

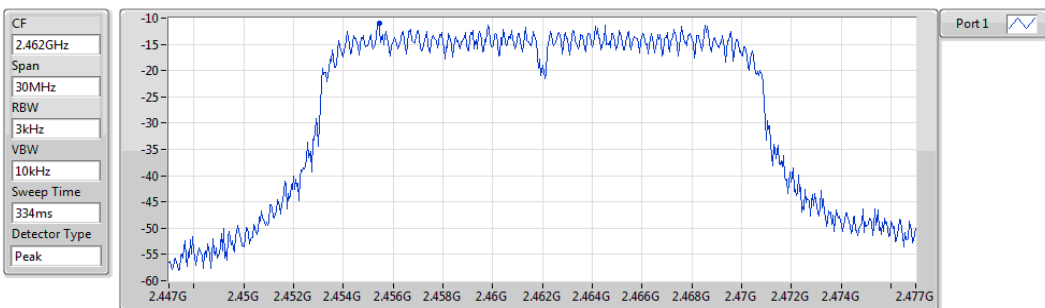


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.60	-10.60	-10.60

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2462MHz

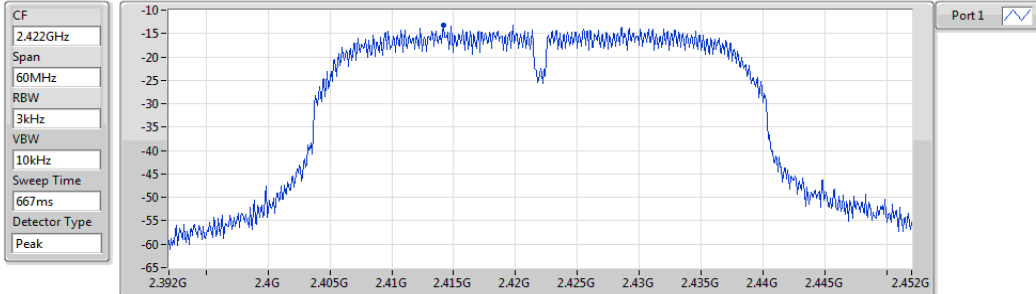


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.95	-10.95	-10.95

802.11n HT40_Nss1,(MCS0)_1TX

PSD

2422MHz

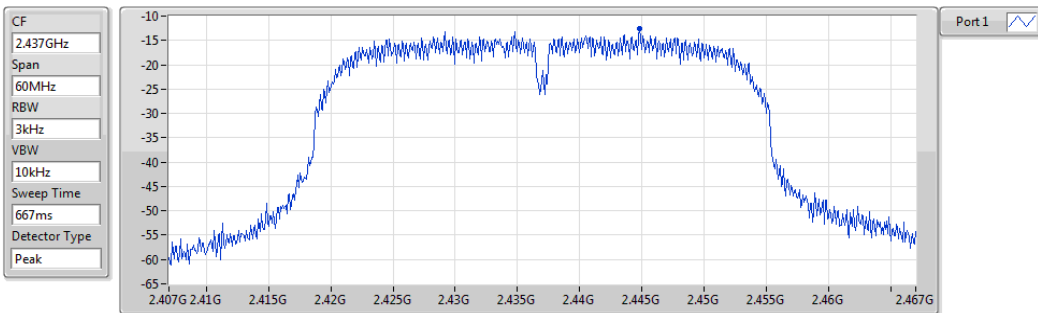


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.22	-13.22	-13.22

802.11n HT40_Nss1,(MCS0)_1TX

PSD

2437MHz

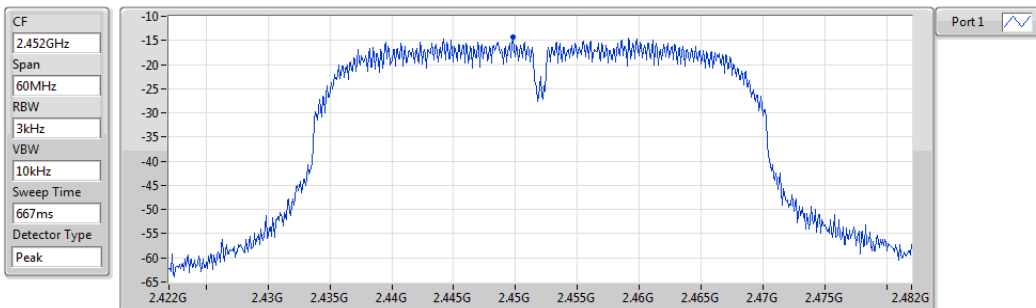


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-12.54	-12.54	-12.54

802.11n HT40_Nss1,(MCS0)_1TX

PSD

2452MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.37	-14.37	-14.37

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:
Qusai-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

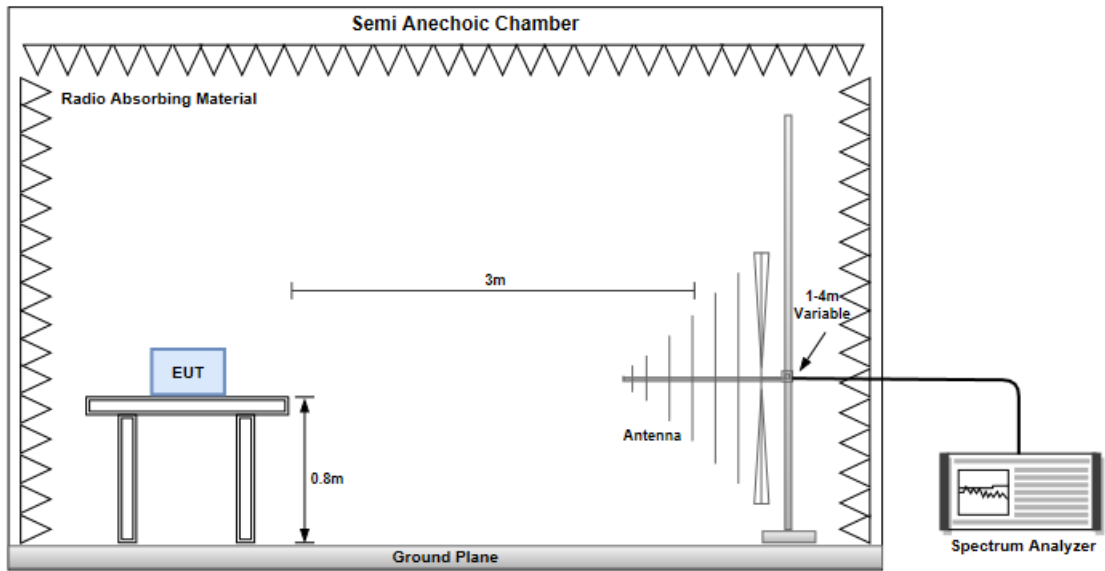
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission 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:

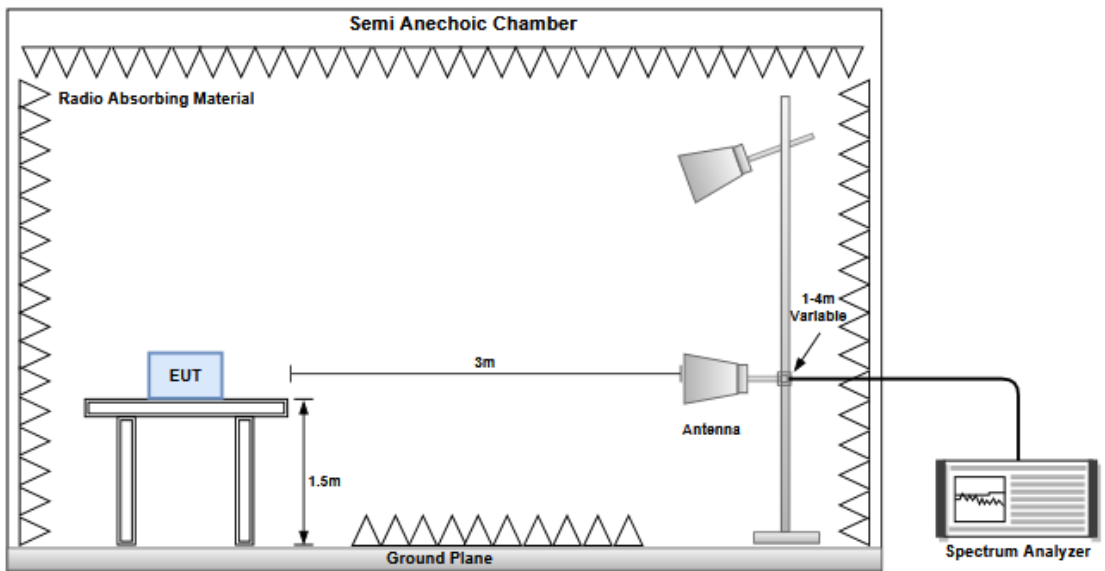
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

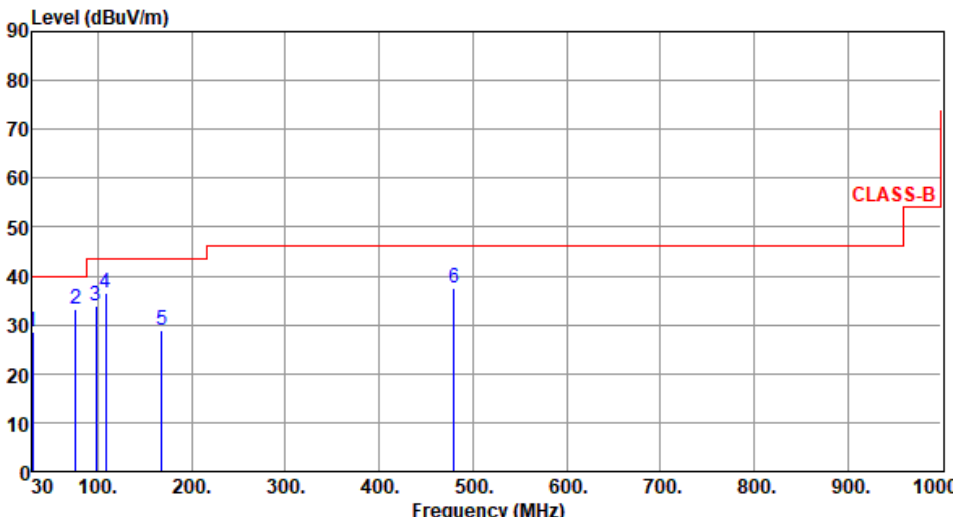
Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz

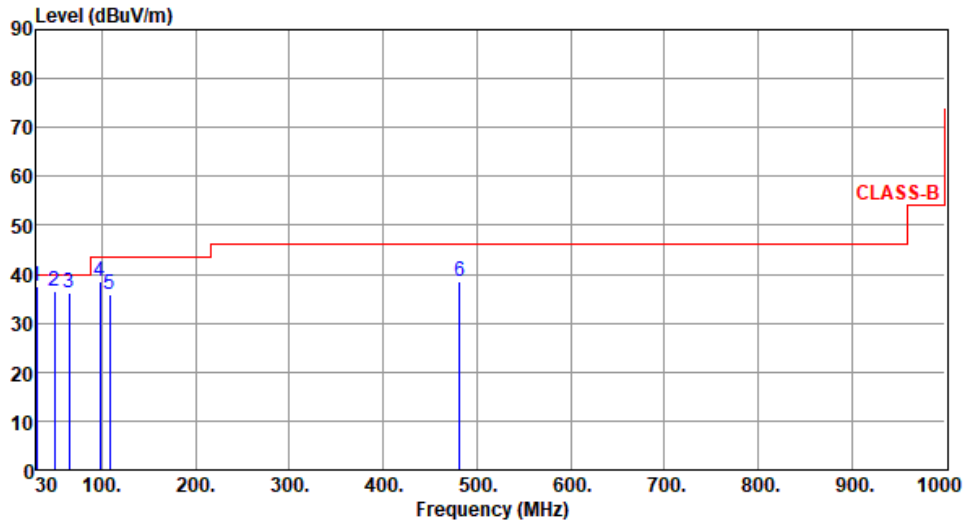


3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	HT20	Test Freq. (MHz)	2412						
Polarization	Horizontal								
Test By : Roger Lu Temperature(°C):25 Humidity(%):61									
 <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 step function labeled 'CLASS-B' represents the emission limit. Six blue vertical lines represent measured peaks, labeled 1 through 6. Peak 1 is at 30.12 MHz, peak 2 at 76.42 MHz, peak 3 at 98.02 MHz, peak 4 at 108.61 MHz, peak 5 at 168.12 MHz, and peak 6 at 480.15 MHz.</p>									
	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	30.12	28.45	40.00	-11.55	38.46	-10.01	Peak	---	---
2	76.42	33.15	40.00	-6.85	45.59	-12.44	Peak	---	---
3	98.02	33.95	43.50	-9.55	47.70	-13.75	Peak	---	---
4	108.61	36.48	43.50	-7.02	48.51	-12.03	Peak	---	---
5	168.12	28.94	43.50	-14.56	37.96	-9.02	Peak	---	---
6	480.15	37.59	46.00	-8.41	41.40	-3.81	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>									

Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	30.33	37.61	40.00	-2.39	47.62	-10.01	QP	100	255
2	49.56	36.58	40.00	-3.42	45.14	-8.56	Peak	---	---
3	64.59	36.21	40.00	-3.79	46.06	-9.85	Peak	---	---
4	97.82	38.55	43.50	-4.95	52.32	-13.77	Peak	---	---
5	108.16	35.94	43.50	-7.56	48.10	-12.16	Peak	---	---
6	481.22	38.49	46.00	-7.51	42.30	-3.81	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.

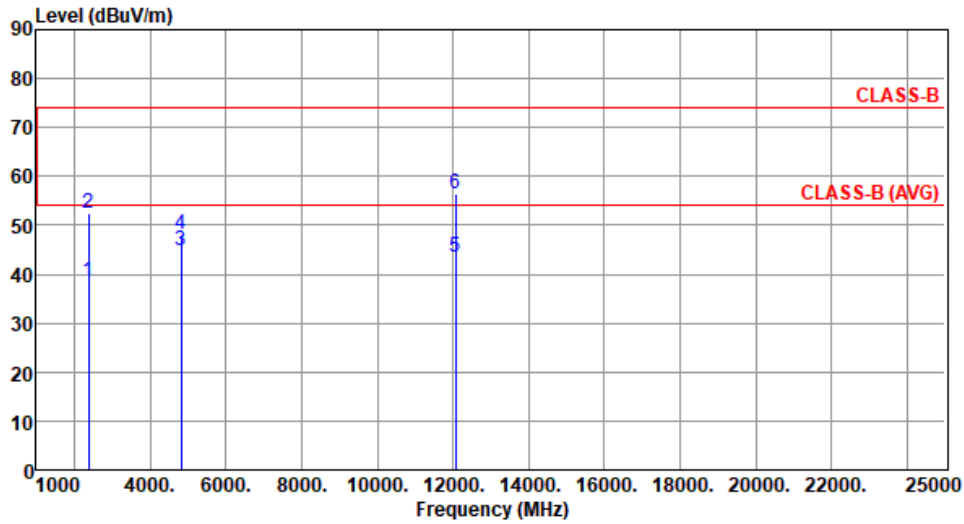
3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

Modulation	11b	Test Freq. (MHz)	2412						
Polarization	Horizontal								
Test By : Roger Lu Temperature(°C):24 Humidity(%):62									
	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	41.74	54.00	-12.26	44.53	-2.79	Average	143	183
2	2390.00	54.25	74.00	-19.75	57.04	-2.79	Peak	143	183
3	4824.00	47.90	54.00	-6.10	44.43	3.47	Average	295	296
4	4824.00	50.98	74.00	-23.02	47.51	3.47	Peak	295	296
5	12060.00	43.39	54.00	-10.61	29.07	14.32	Average	100	40
6	12060.00	56.71	74.00	-17.29	42.39	14.32	Peak	100	40

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).

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

Test By :Roger Lu Temperature(°C):24 Humidity(%):62



	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	38.55	54.00	-15.45	41.34	-2.79	Average	291	165
2	2390.00	52.40	74.00	-21.60	55.19	-2.79	Peak	291	165
3	4824.00	44.73	54.00	-9.27	41.26	3.47	Average	105	222
4	4824.00	48.06	74.00	-25.94	44.59	3.47	Peak	105	222
5	12060.00	43.48	54.00	-10.52	29.16	14.32	Average	100	30
6	12060.00	56.61	74.00	-17.39	42.29	14.32	Peak	100	30

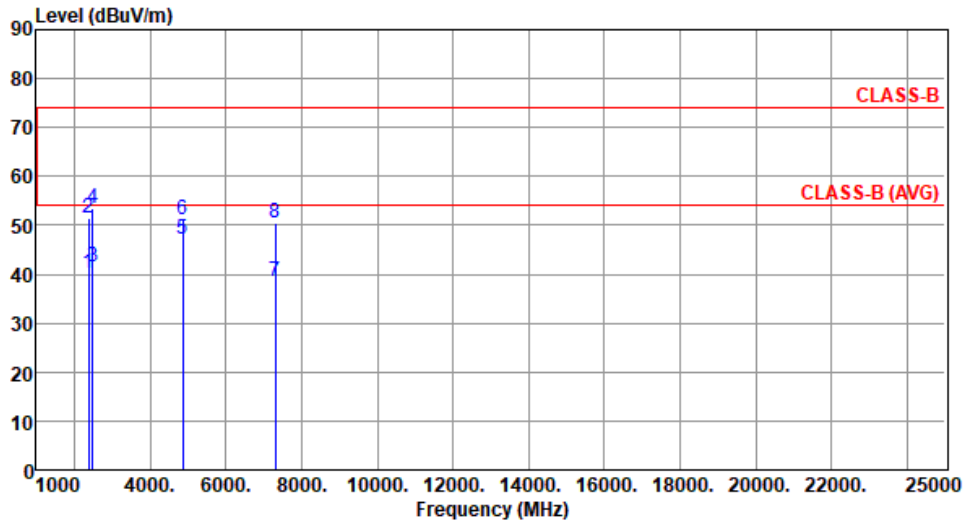
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Test By :Roger Lu Temperature(°C):24 Humidity(%):62



	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	40.03	54.00	-13.97	42.82	-2.79	Average	145	231
2	2390.00	51.33	74.00	-22.67	54.12	-2.79	Peak	145	231
3	2483.50	41.51	54.00	-12.49	44.25	-2.74	Average	145	231
4	2483.50	53.52	74.00	-20.48	56.26	-2.74	Peak	145	231
5	4874.00	47.26	54.00	-6.74	43.81	3.45	Average	293	289
6	4874.00	50.99	74.00	-23.01	47.54	3.45	Peak	293	289
7	7311.00	38.39	54.00	-15.61	29.40	8.99	Average	100	40
8	7311.00	50.59	74.00	-23.41	41.60	8.99	Peak	100	40

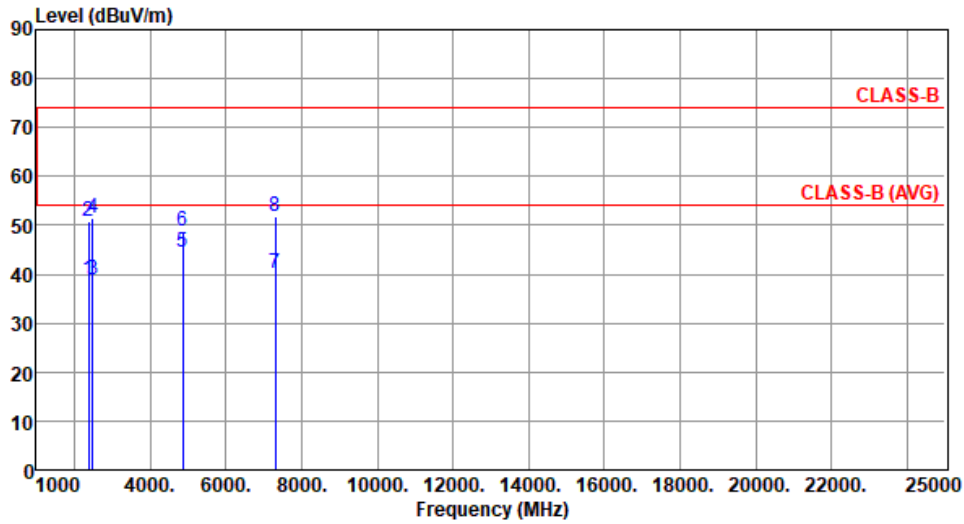
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Test By :Roger Lu Temperature(°C):24 Humidity(%):62



	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	38.77	54.00	-15.23	41.56	-2.79	Average	285	165
2	2390.00	50.90	74.00	-23.10	53.69	-2.79	Peak	285	165
3	2483.50	38.94	54.00	-15.06	41.68	-2.74	Average	285	165
4	2483.50	51.62	74.00	-22.38	54.36	-2.74	Peak	285	165
5	4874.00	44.42	54.00	-9.58	40.97	3.45	Average	101	221
6	4874.00	48.81	74.00	-25.19	45.36	3.45	Peak	101	221
7	7311.00	40.11	54.00	-13.89	31.12	8.99	Average	100	286
8	7311.00	51.97	74.00	-22.03	42.98	8.99	Peak	100	286

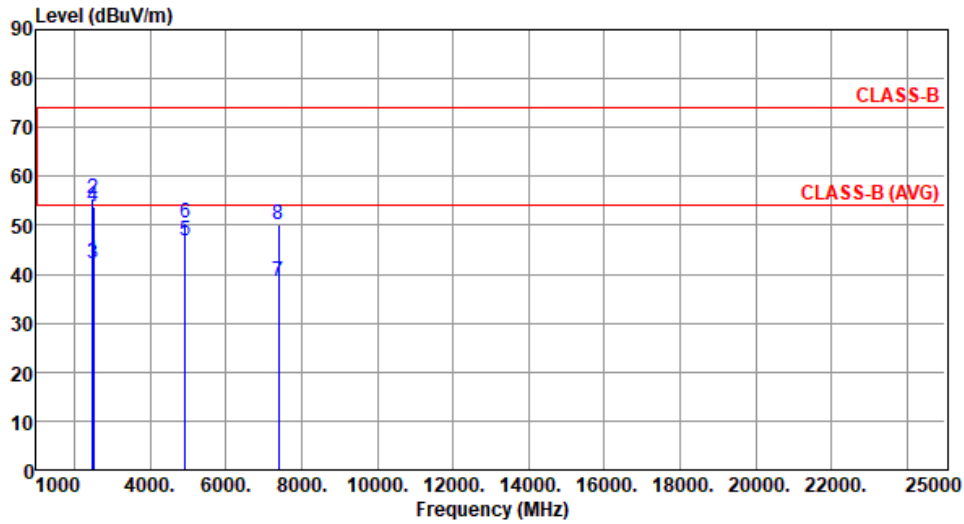
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Test By :Roger Lu Temperature(°C):24 Humidity(%):62

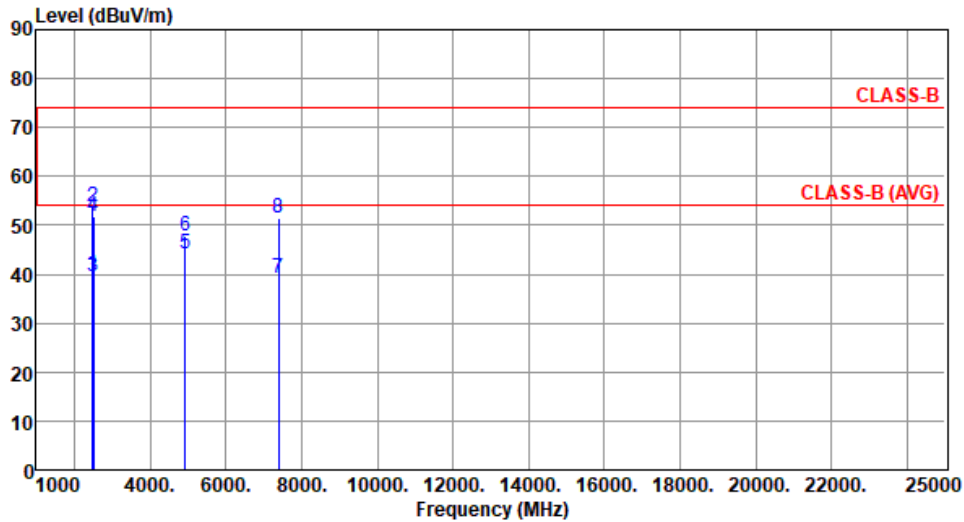


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	42.80	54.00	-11.20	45.54	-2.74	Average	147	184
2	2483.50	55.47	74.00	-18.53	58.21	-2.74	Peak	147	184
3	2499.00	42.32	54.00	-11.68	45.07	-2.75	Average	147	184
4	2499.00	53.72	74.00	-20.28	56.47	-2.75	Peak	147	184
5	4924.00	46.88	54.00	-7.12	43.33	3.55	Average	292	301
6	4924.00	50.54	74.00	-23.46	46.99	3.55	Peak	292	301
7	7386.00	38.54	54.00	-15.46	29.57	8.97	Average	100	50
8	7386.00	50.28	74.00	-23.72	41.31	8.97	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).

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

Test By :Roger Lu Temperature(°C):24 Humidity(%):62



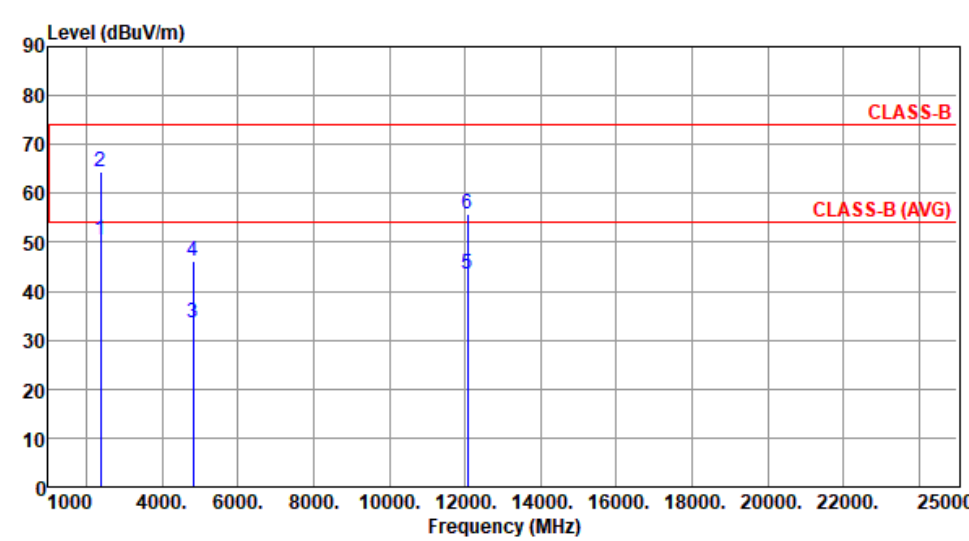
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	39.94	54.00	-14.06	42.68	-2.74	Average	288	164
2	2483.50	53.82	74.00	-20.18	56.56	-2.74	Peak	288	164
3	2499.00	39.55	54.00	-14.45	42.30	-2.75	Average	288	164
4	2499.00	51.80	74.00	-22.20	54.55	-2.75	Peak	288	164
5	4924.00	44.13	54.00	-9.87	40.58	3.55	Average	105	225
6	4924.00	47.69	74.00	-26.31	44.14	3.55	Peak	105	225
7	7386.00	39.26	54.00	-14.74	30.29	8.97	Average	100	284
8	7386.00	51.61	74.00	-22.39	42.64	8.97	Peak	100	284

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).

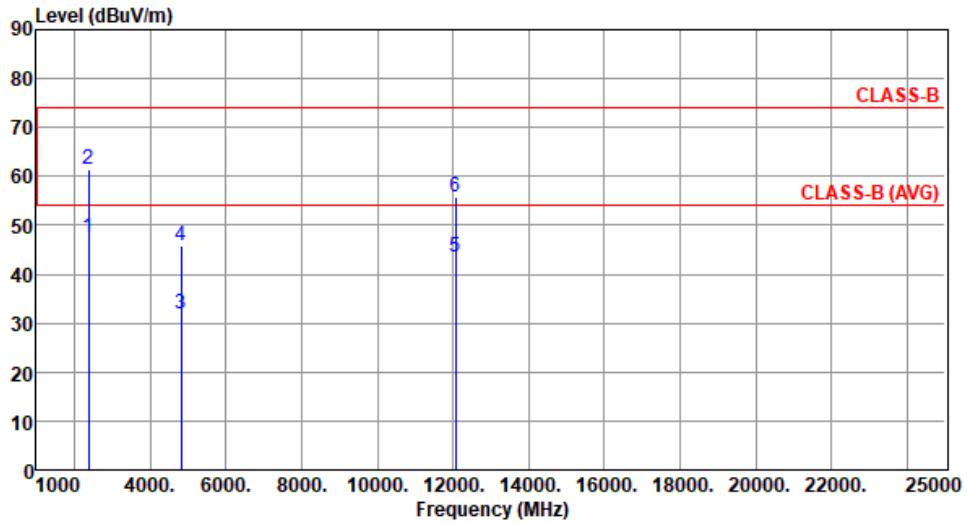
3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	Test Freq. (MHz)	2412						
Polarization	Horizontal								
Test By : Roger Lu Temperature(°C):25 Humidity(%):61									
									
	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	50.57	54.00	-3.43	53.36	-2.79	Average	154	186
2	2390.00	64.37	74.00	-9.63	67.16	-2.79	Peak	154	186
3	4824.00	33.48	54.00	-20.52	30.01	3.47	Average	295	12
4	4824.00	46.03	74.00	-27.97	42.56	3.47	Peak	295	12
5	12060.00	43.66	54.00	-10.34	29.34	14.32	Average	100	40
6	12060.00	55.90	74.00	-18.10	41.58	14.32	Peak	100	40

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).

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	47.36	54.00	-6.64	50.15	-2.79	Average	289	165
2	2390.00	61.47	74.00	-12.53	64.26	-2.79	Peak	289	165
3	4824.00	32.03	54.00	-21.97	28.56	3.47	Average	100	50
4	4824.00	45.78	74.00	-28.22	42.31	3.47	Peak	100	50
5	12060.00	43.47	54.00	-10.53	29.15	14.32	Average	100	30
6	12060.00	55.78	74.00	-18.22	41.46	14.32	Peak	100	30

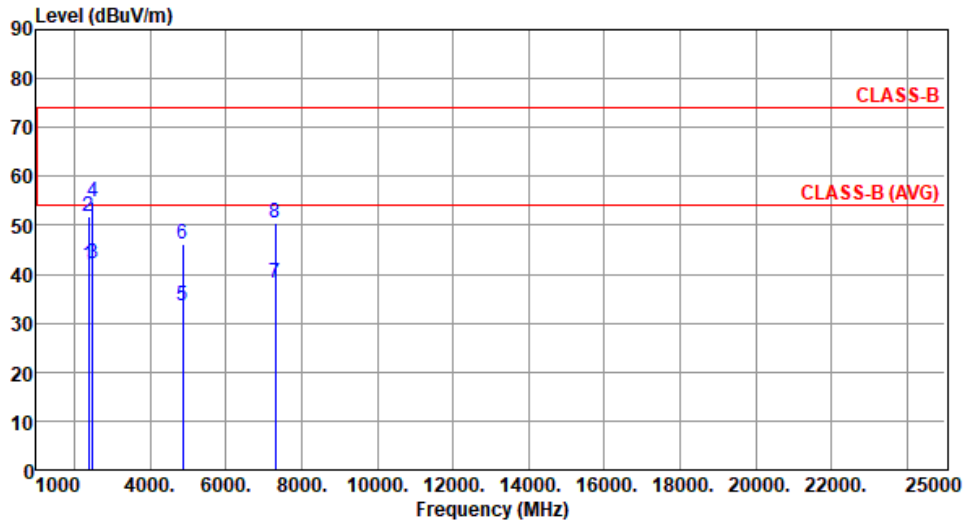
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	41.96	54.00	-12.04	44.75	-2.79	Average	149	182
2	2390.00	51.94	74.00	-22.06	54.73	-2.79	Peak	149	182
3	2483.50	42.33	54.00	-11.67	45.07	-2.74	Average	149	182
4	2483.50	54.92	74.00	-19.08	57.66	-2.74	Peak	149	182
5	4874.00	33.70	54.00	-20.30	30.25	3.45	Average	299	11
6	4874.00	46.28	74.00	-27.72	42.83	3.45	Peak	299	11
7	7311.00	38.26	54.00	-15.74	29.27	8.99	Average	100	20
8	7311.00	50.45	74.00	-23.55	41.46	8.99	Peak	100	20

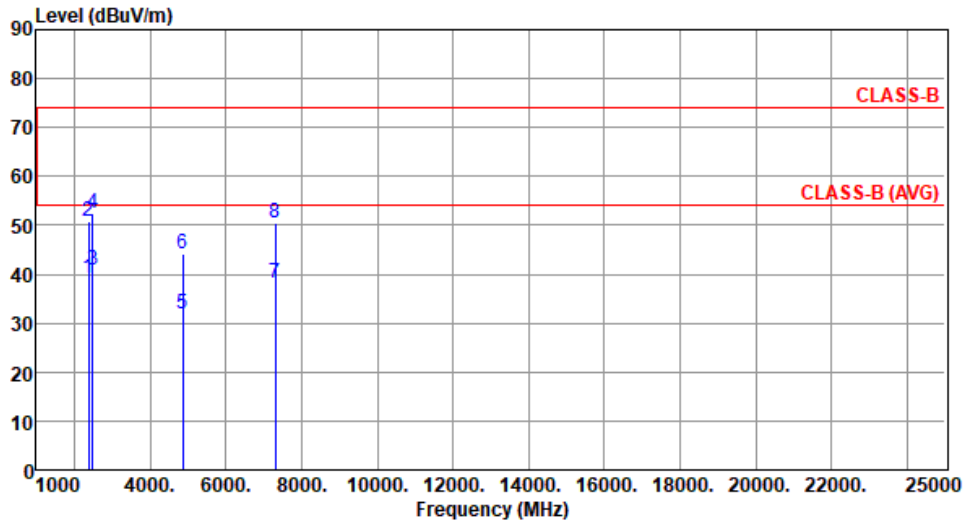
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	39.22	54.00	-14.78	42.01	-2.79	Average	287	169
2	2390.00	50.66	74.00	-23.34	53.45	-2.79	Peak	287	169
3	2483.50	40.74	54.00	-13.26	43.48	-2.74	Average	287	169
4	2483.50	52.61	74.00	-21.39	55.35	-2.74	Peak	287	169
5	4874.00	32.02	54.00	-21.98	28.57	3.45	Average	100	225
6	4874.00	44.05	74.00	-29.95	40.60	3.45	Peak	100	225
7	7311.00	38.31	54.00	-15.69	29.32	8.99	Average	100	100
8	7311.00	50.56	74.00	-23.44	41.57	8.99	Peak	100	100

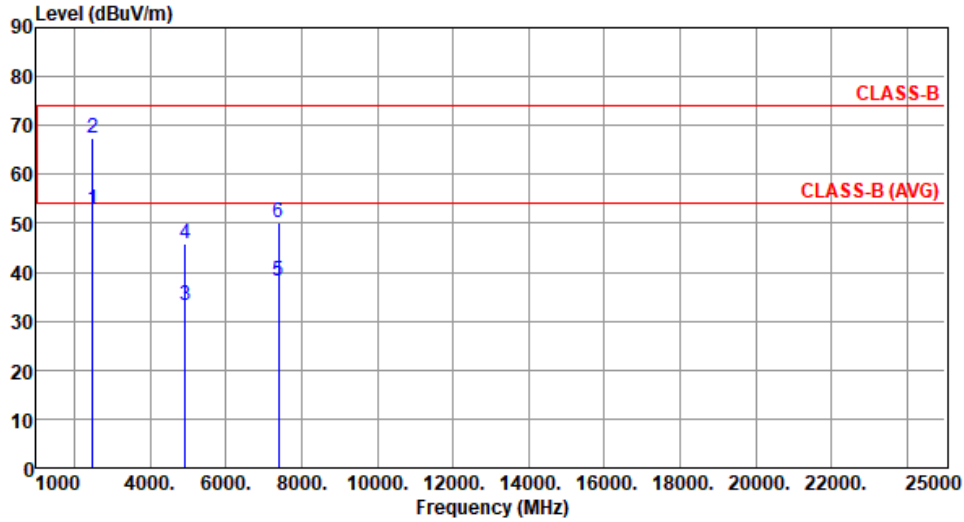
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61

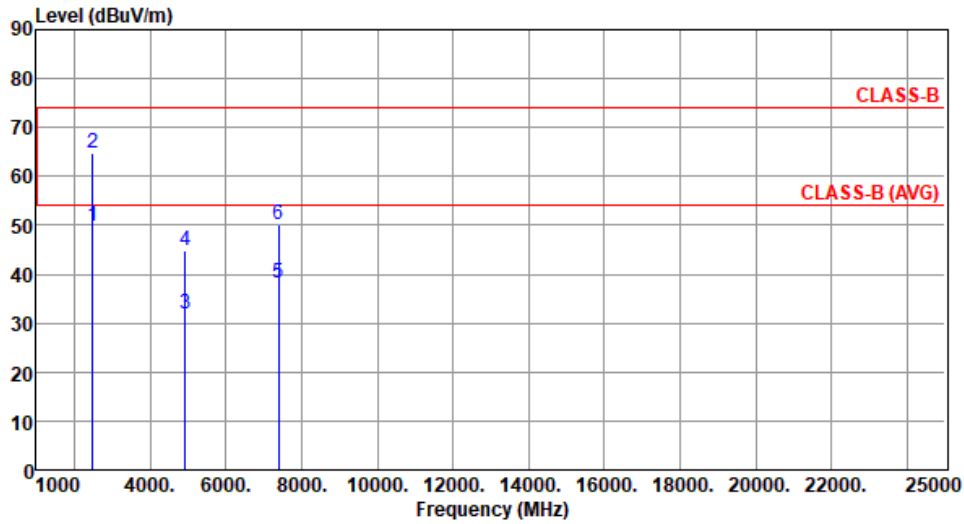


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	52.82	54.00	-1.18	55.56	-2.74	Average	138	184
2	2483.50	67.28	74.00	-6.72	70.02	-2.74	Peak	138	184
3	4924.00	33.22	54.00	-20.78	29.67	3.55	Average	295	15
4	4924.00	45.83	74.00	-28.17	42.28	3.55	Peak	295	15
5	7386.00	38.13	54.00	-15.87	29.16	8.97	Average	100	40
6	7386.00	50.30	74.00	-23.70	41.33	8.97	Peak	100	40

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).

Modulation	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



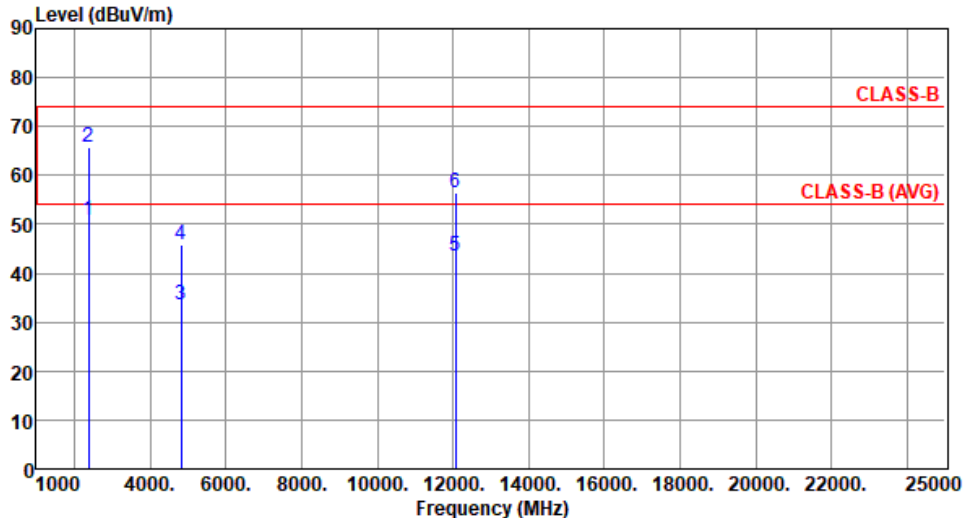
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.75	54.00	-4.25	52.49	-2.74	Average	289	166
2	2483.50	64.72	74.00	-9.28	67.46	-2.74	Peak	289	166
3	4924.00	31.83	54.00	-22.17	28.28	3.55	Average	100	40
4	4924.00	44.88	74.00	-29.12	41.33	3.55	Peak	100	40
5	7386.00	38.03	54.00	-15.97	29.06	8.97	Average	100	30
6	7386.00	50.27	74.00	-23.73	41.30	8.97	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).

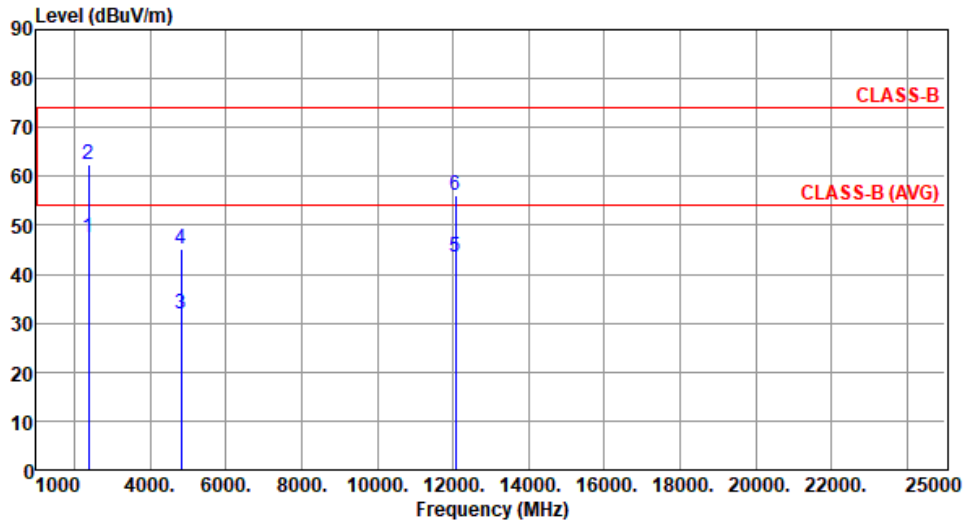
3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

Modulation	HT20	Test Freq. (MHz)	2412						
Polarization	Horizontal								
Test By : Roger Lu Temperature(°C):25 Humidity(%):61									
									
	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	50.66	54.00	-3.34	53.45	-2.79	Average	153	183
2	2390.00	65.66	74.00	-8.34	68.45	-2.79	Peak	153	183
3	4824.00	33.53	54.00	-20.47	30.06	3.47	Average	296	15
4	4824.00	45.78	74.00	-28.22	42.31	3.47	Peak	296	15
5	12060.00	43.60	54.00	-10.40	29.28	14.32	Average	100	40
6	12060.00	56.48	74.00	-17.52	42.16	14.32	Peak	100	40

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).

Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	47.50	54.00	-6.50	50.29	-2.79	Average	287	168
2	2390.00	62.53	74.00	-11.47	65.32	-2.79	Peak	287	168
3	4824.00	31.93	54.00	-22.07	28.46	3.47	Average	100	60
4	4824.00	45.03	74.00	-28.97	41.56	3.47	Peak	100	60
5	12060.00	43.47	54.00	-10.53	29.15	14.32	Average	100	100
6	12060.00	55.99	74.00	-18.01	41.67	14.32	Peak	100	100

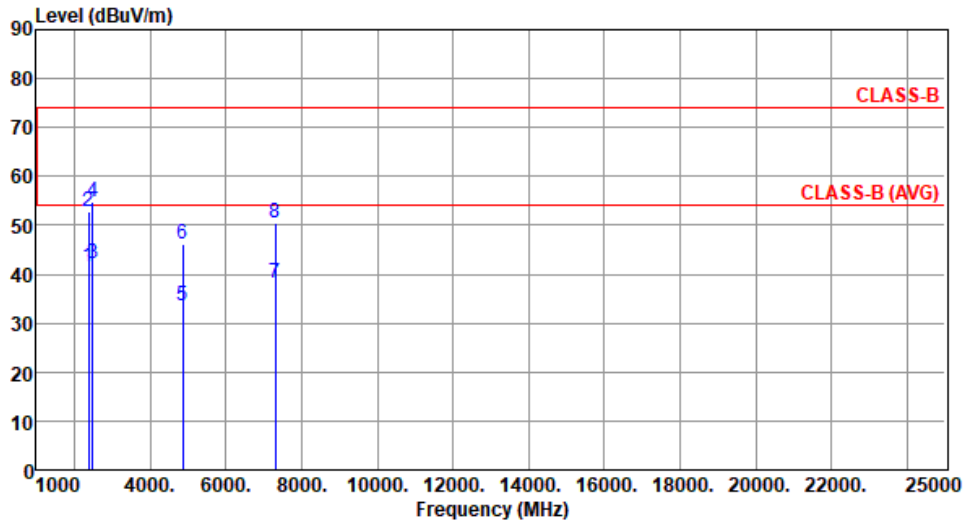
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61

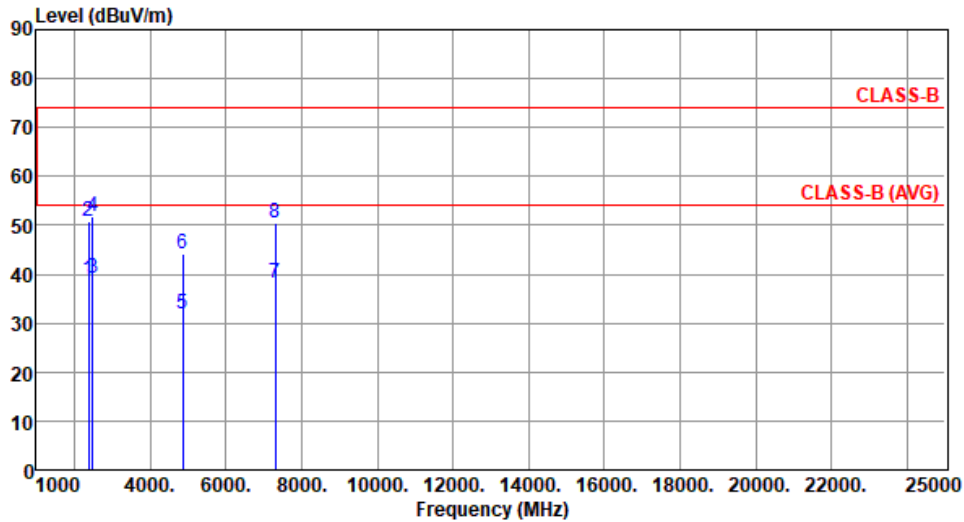


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	41.47	54.00	-12.53	44.26	-2.79	Average	151	182
2	2390.00	52.68	74.00	-21.32	55.47	-2.79	Peak	151	182
3	2483.50	42.15	54.00	-11.85	44.89	-2.74	Average	151	182
4	2483.50	54.71	74.00	-19.29	57.45	-2.74	Peak	151	182
5	4874.00	33.64	54.00	-20.36	30.19	3.45	Average	295	12
6	4874.00	46.01	74.00	-27.99	42.56	3.45	Peak	295	12
7	7311.00	38.25	54.00	-15.75	29.26	8.99	Average	100	40
8	7311.00	50.32	74.00	-23.68	41.33	8.99	Peak	100	40

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).

Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	38.80	54.00	-15.20	41.59	-2.79	Average	283	165
2	2390.00	50.80	74.00	-23.20	53.59	-2.79	Peak	283	165
3	2483.50	39.22	54.00	-14.78	41.96	-2.74	Average	283	165
4	2483.50	51.84	74.00	-22.16	54.58	-2.74	Peak	283	165
5	4874.00	31.92	54.00	-22.08	28.47	3.45	Average	100	220
6	4874.00	44.02	74.00	-29.98	40.57	3.45	Peak	100	220
7	7311.00	38.18	54.00	-15.82	29.19	8.99	Average	100	60
8	7311.00	50.56	74.00	-23.44	41.57	8.99	Peak	100	60

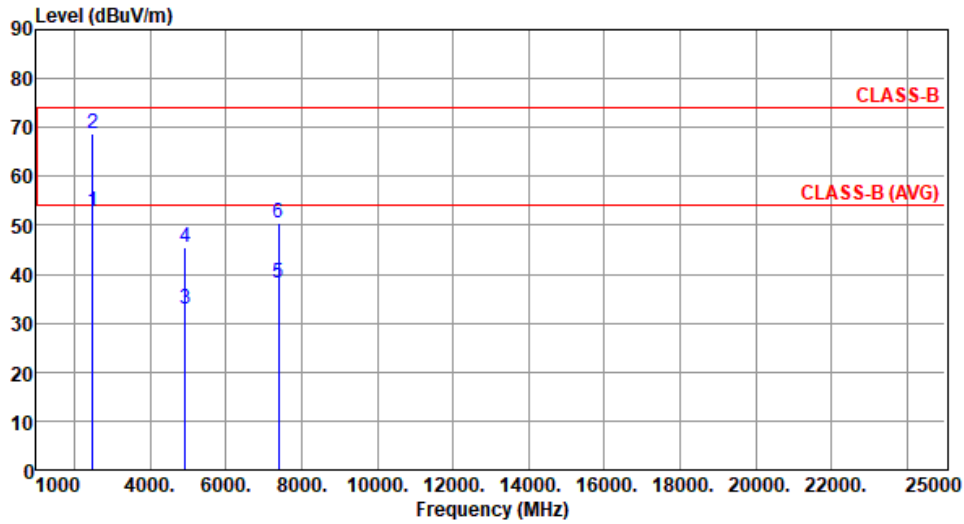
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	52.94	54.00	-1.06	55.68	-2.74	Average	143	183
2	2483.50	68.83	74.00	-5.17	71.57	-2.74	Peak	143	183
3	4924.00	32.88	54.00	-21.12	29.33	3.55	Average	296	15
4	4924.00	45.43	74.00	-28.57	41.88	3.55	Peak	296	15
5	7386.00	38.33	54.00	-15.67	29.36	8.97	Average	100	50
6	7386.00	50.54	74.00	-23.46	41.57	8.97	Peak	100	50

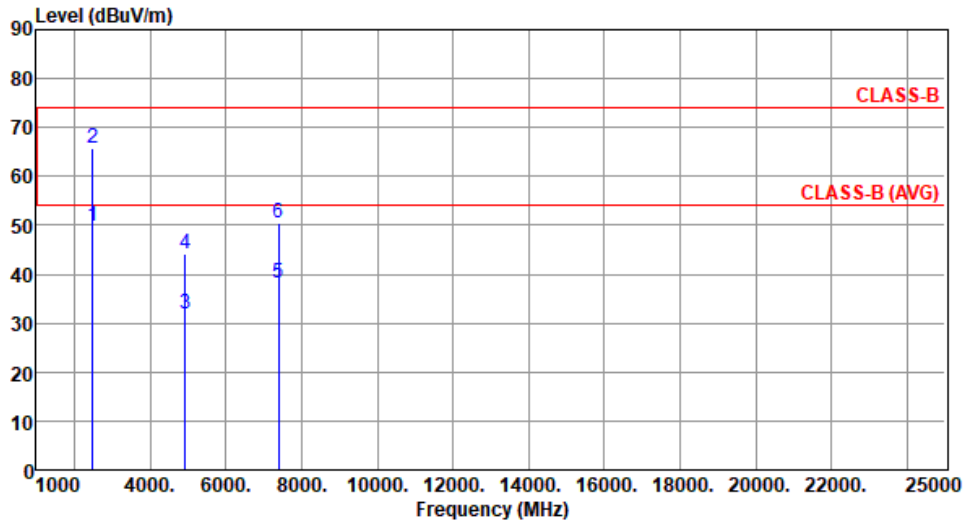
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



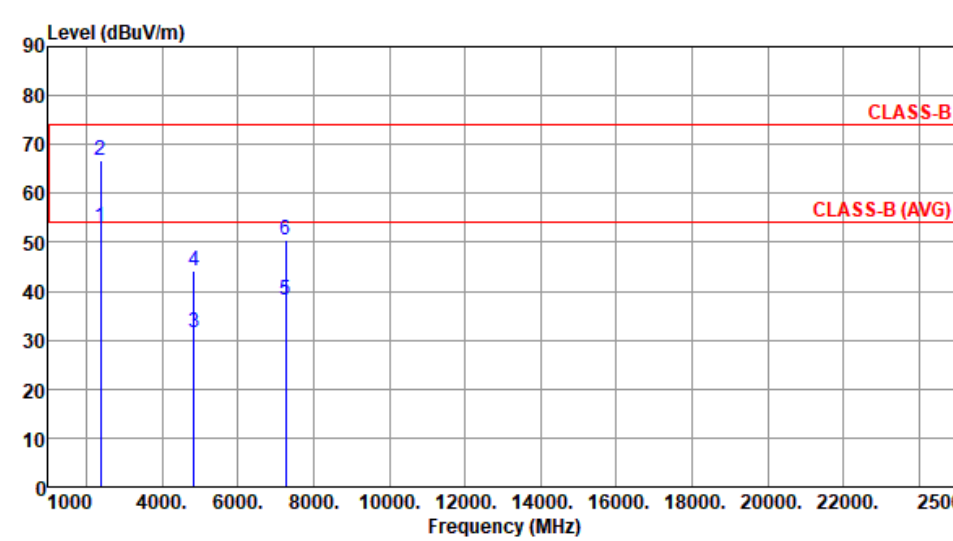
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.72	54.00	-4.28	52.46	-2.74	Average	281	165
2	2483.50	65.75	74.00	-8.25	68.49	-2.74	Peak	281	165
3	4924.00	31.93	54.00	-22.07	28.38	3.55	Average	100	30
4	4924.00	44.13	74.00	-29.87	40.58	3.55	Peak	100	30
5	7386.00	38.13	54.00	-15.87	29.16	8.97	Average	100	20
6	7386.00	50.44	74.00	-23.56	41.47	8.97	Peak	100	20

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

*Factor includes antenna factor , cable loss and amplifier gain

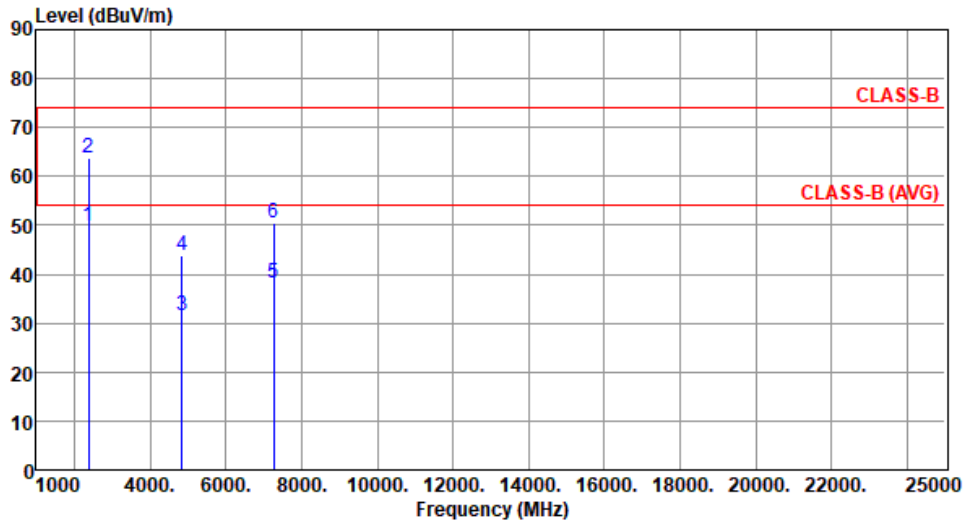
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

Modulation	HT40		Test Freq. (MHz)	2422																																																																							
Polarization	Horizontal																																																																										
Test By : Roger Lu		Temperature(°C): 25		Humidity(%): 61																																																																							
 <p>The graph plots Level (dBuV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (1000 to 25000). Two horizontal red lines represent CLASS-B limits: one at approximately 75 dBuV/m and another at approximately 55 dBuV/m. Six vertical blue lines represent emission peaks labeled 1 through 6. Peak 1 is at 2390 MHz (52.97 dBuV/m), peak 2 at 2390 MHz (66.83 dBuV/m), peak 3 at 4844 MHz (31.71 dBuV/m), peak 4 at 4844 MHz (44.09 dBuV/m), peak 5 at 7266 MHz (38.18 dBuV/m), and peak 6 at 7266 MHz (50.64 dBuV/m).</p>																																																																											
<table border="1"> <thead> <tr> <th></th> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB/m</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>52.97</td> <td>54.00</td> <td>-1.03</td> <td>55.76</td> <td>-2.79</td> <td>Average</td> <td>152</td> <td>183</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>66.83</td> <td>74.00</td> <td>-7.17</td> <td>69.62</td> <td>-2.79</td> <td>Peak</td> <td>152</td> <td>183</td> </tr> <tr> <td>3</td> <td>4844.00</td> <td>31.71</td> <td>54.00</td> <td>-22.29</td> <td>28.26</td> <td>3.45</td> <td>Average</td> <td>100</td> <td>30</td> </tr> <tr> <td>4</td> <td>4844.00</td> <td>44.09</td> <td>74.00</td> <td>-29.91</td> <td>40.64</td> <td>3.45</td> <td>Peak</td> <td>100</td> <td>30</td> </tr> <tr> <td>5</td> <td>7266.00</td> <td>38.18</td> <td>54.00</td> <td>-15.82</td> <td>29.18</td> <td>9.00</td> <td>Average</td> <td>100</td> <td>40</td> </tr> <tr> <td>6</td> <td>7266.00</td> <td>50.64</td> <td>74.00</td> <td>-23.36</td> <td>41.64</td> <td>9.00</td> <td>Peak</td> <td>100</td> <td>40</td> </tr> </tbody> </table>							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	52.97	54.00	-1.03	55.76	-2.79	Average	152	183	2	2390.00	66.83	74.00	-7.17	69.62	-2.79	Peak	152	183	3	4844.00	31.71	54.00	-22.29	28.26	3.45	Average	100	30	4	4844.00	44.09	74.00	-29.91	40.64	3.45	Peak	100	30	5	7266.00	38.18	54.00	-15.82	29.18	9.00	Average	100	40	6	7266.00	50.64	74.00	-23.36	41.64	9.00	Peak	100	40
	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	52.97	54.00	-1.03	55.76	-2.79	Average	152	183																																																																		
2	2390.00	66.83	74.00	-7.17	69.62	-2.79	Peak	152	183																																																																		
3	4844.00	31.71	54.00	-22.29	28.26	3.45	Average	100	30																																																																		
4	4844.00	44.09	74.00	-29.91	40.64	3.45	Peak	100	30																																																																		
5	7266.00	38.18	54.00	-15.82	29.18	9.00	Average	100	40																																																																		
6	7266.00	50.64	74.00	-23.36	41.64	9.00	Peak	100	40																																																																		
<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>																																																																											

Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	49.85	54.00	-4.15	52.64	-2.79	Average	286	169
2	2390.00	63.70	74.00	-10.30	66.49	-2.79	Peak	286	169
3	4844.00	31.60	54.00	-22.40	28.15	3.45	Average	100	25
4	4844.00	43.91	74.00	-30.09	40.46	3.45	Peak	100	25
5	7266.00	38.11	54.00	-15.89	29.11	9.00	Average	100	50
6	7266.00	50.46	74.00	-23.54	41.46	9.00	Peak	100	50

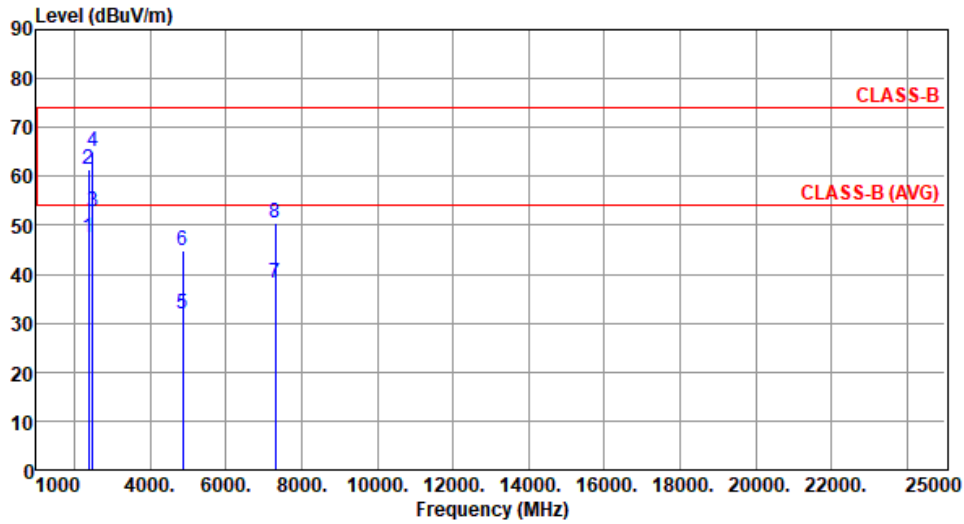
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	47.47	54.00	-6.53	50.26	-2.79	Average	149	184
2	2390.00	61.50	74.00	-12.50	64.29	-2.79	Peak	149	184
3	2483.50	52.82	54.00	-1.18	55.56	-2.74	Average	149	184
4	2483.50	64.97	74.00	-9.03	67.71	-2.74	Peak	149	184
5	4874.00	31.92	54.00	-22.08	28.47	3.45	Average	100	90
6	4874.00	44.72	74.00	-29.28	41.27	3.45	Peak	100	90
7	7311.00	38.22	54.00	-15.78	29.23	8.99	Average	100	40
8	7311.00	50.64	74.00	-23.36	41.65	8.99	Peak	100	40

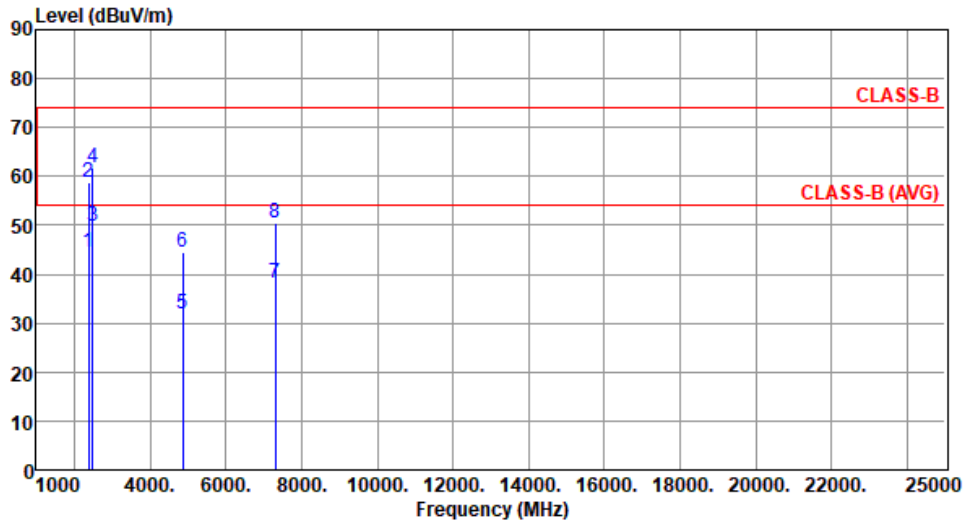
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61

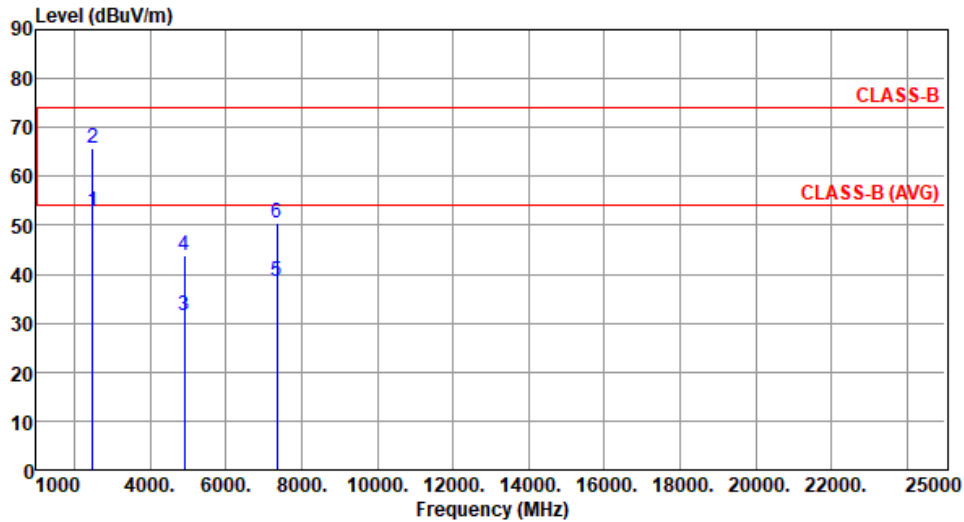


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	44.57	54.00	-9.43	47.36	-2.79	Average	282	161
2	2390.00	58.67	74.00	-15.33	61.46	-2.79	Peak	282	161
3	2483.50	49.68	54.00	-4.32	52.42	-2.74	Average	282	161
4	2483.50	61.83	74.00	-12.17	64.57	-2.74	Peak	282	161
5	4874.00	31.78	54.00	-22.22	28.33	3.45	Average	100	80
6	4874.00	44.62	74.00	-29.38	41.17	3.45	Peak	100	80
7	7311.00	38.15	54.00	-15.85	29.16	8.99	Average	100	30
8	7311.00	50.46	74.00	-23.54	41.47	8.99	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).

Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	52.94	54.00	-1.06	55.68	-2.74	Average	139	183
2	2483.50	65.91	74.00	-8.09	68.65	-2.74	Peak	139	183
3	4904.00	31.71	54.00	-22.29	28.22	3.49	Average	100	20
4	4904.00	43.95	74.00	-30.05	40.46	3.49	Peak	100	20
5	7356.00	38.39	54.00	-15.61	29.34	9.05	Average	100	30
6	7356.00	50.43	74.00	-23.57	41.38	9.05	Peak	100	30

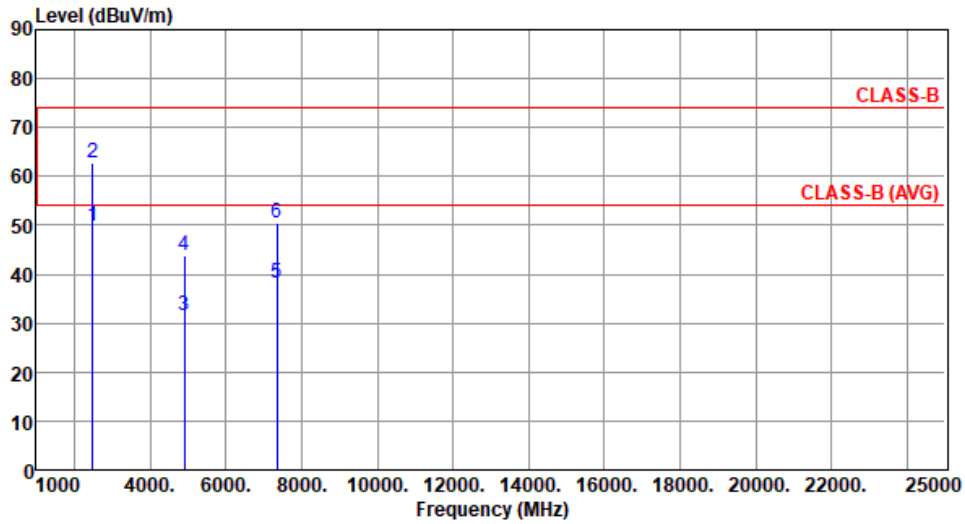
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Vertical		

Test By :Roger Lu Temperature(°C):25 Humidity(%):61



	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	49.72	54.00	-4.28	52.46	-2.74	Average	285	168
2	2483.50	62.75	74.00	-11.25	65.49	-2.74	Peak	285	168
3	4904.00	31.67	54.00	-22.33	28.18	3.49	Average	100	15
4	4904.00	43.82	74.00	-30.18	40.33	3.49	Peak	100	15
5	7356.00	38.20	54.00	-15.80	29.15	9.05	Average	100	60
6	7356.00	50.34	74.00	-23.66	41.29	9.05	Peak	100	60

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

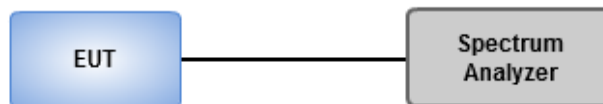
Reference level measurement

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

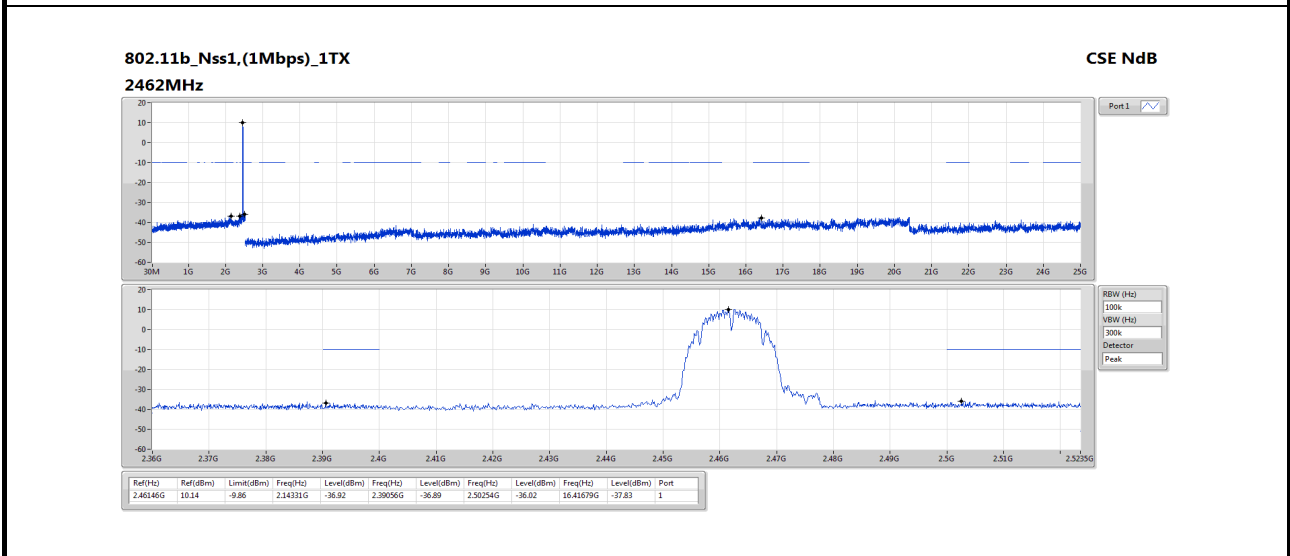
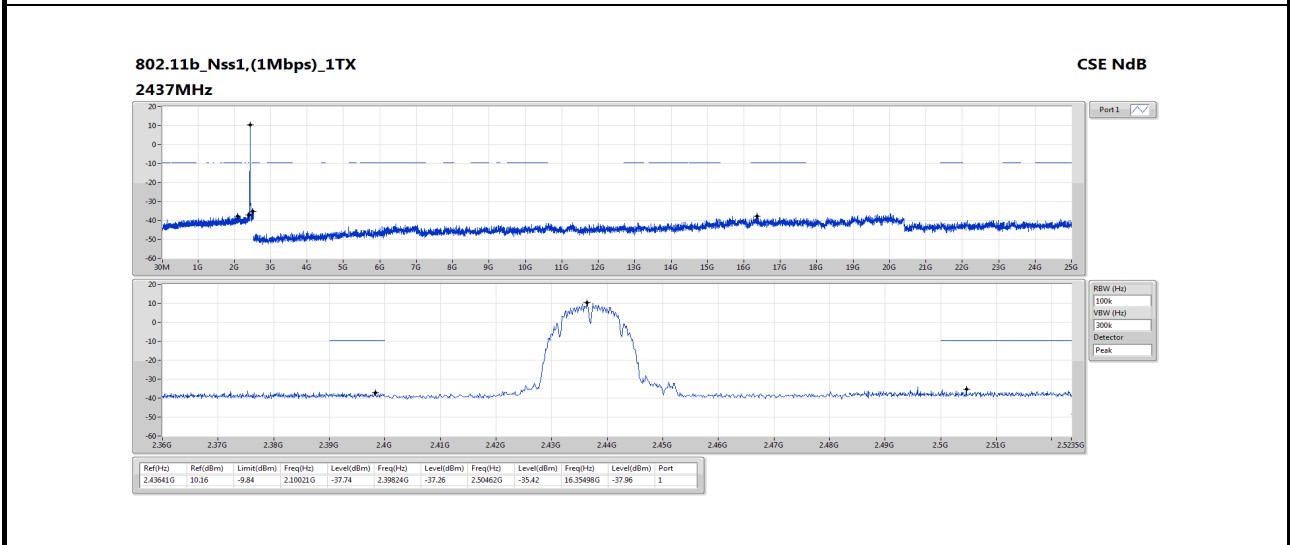
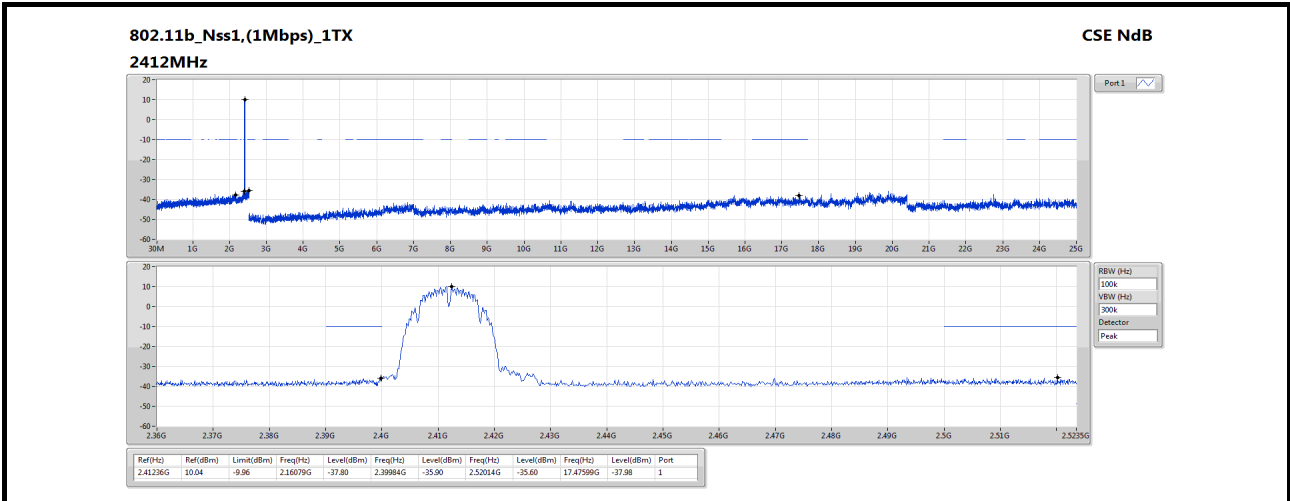
1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

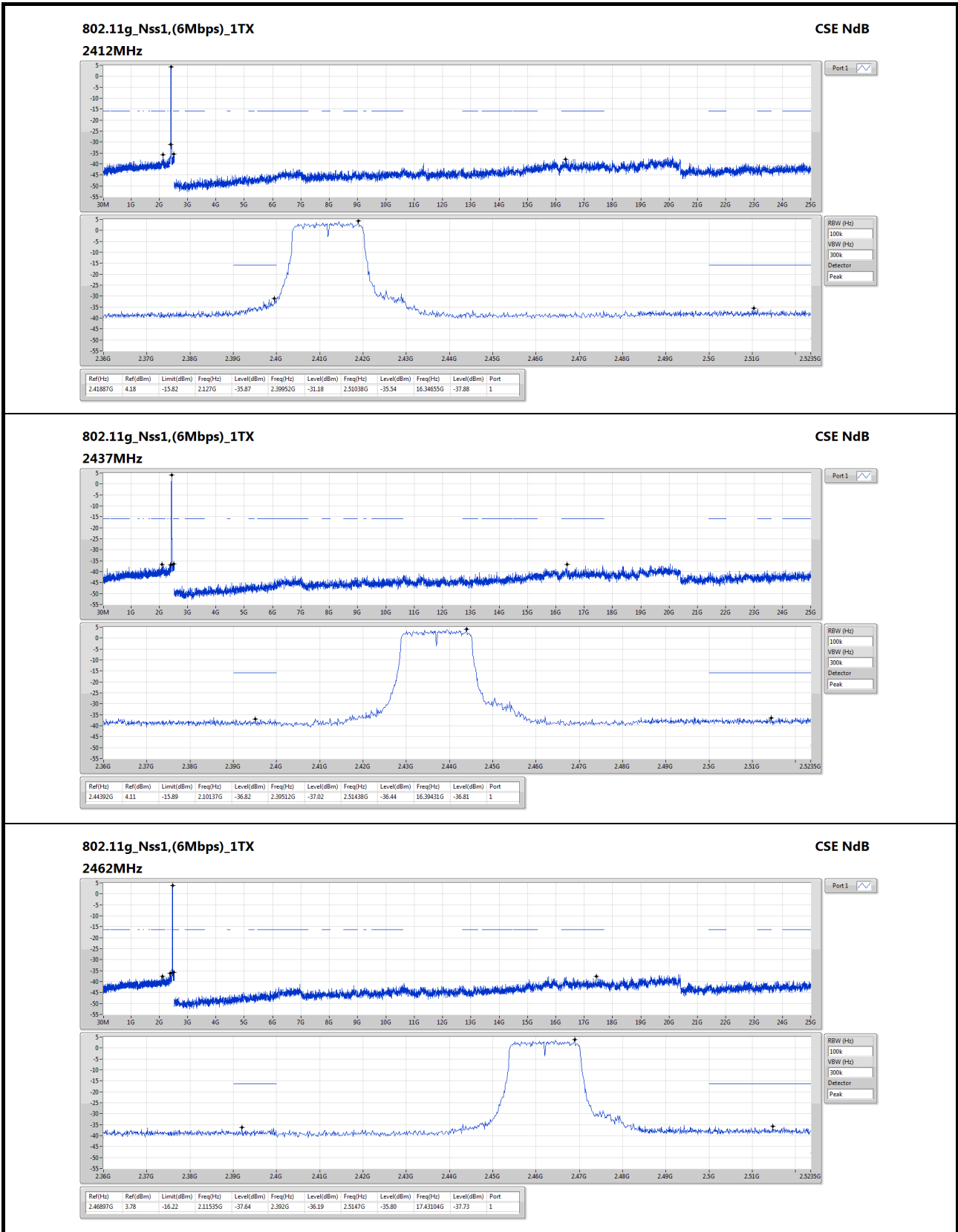
3.6.3 Test Setup

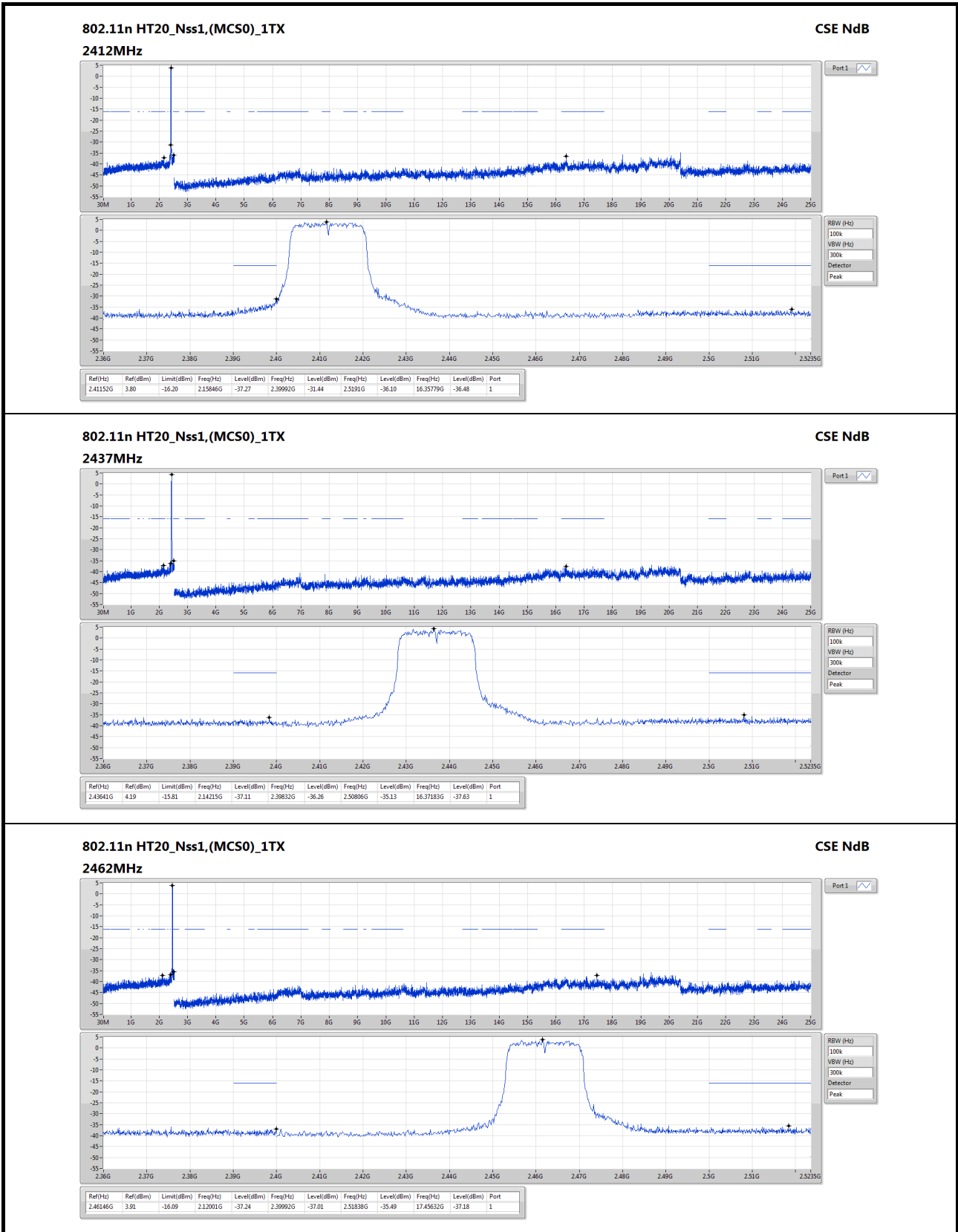


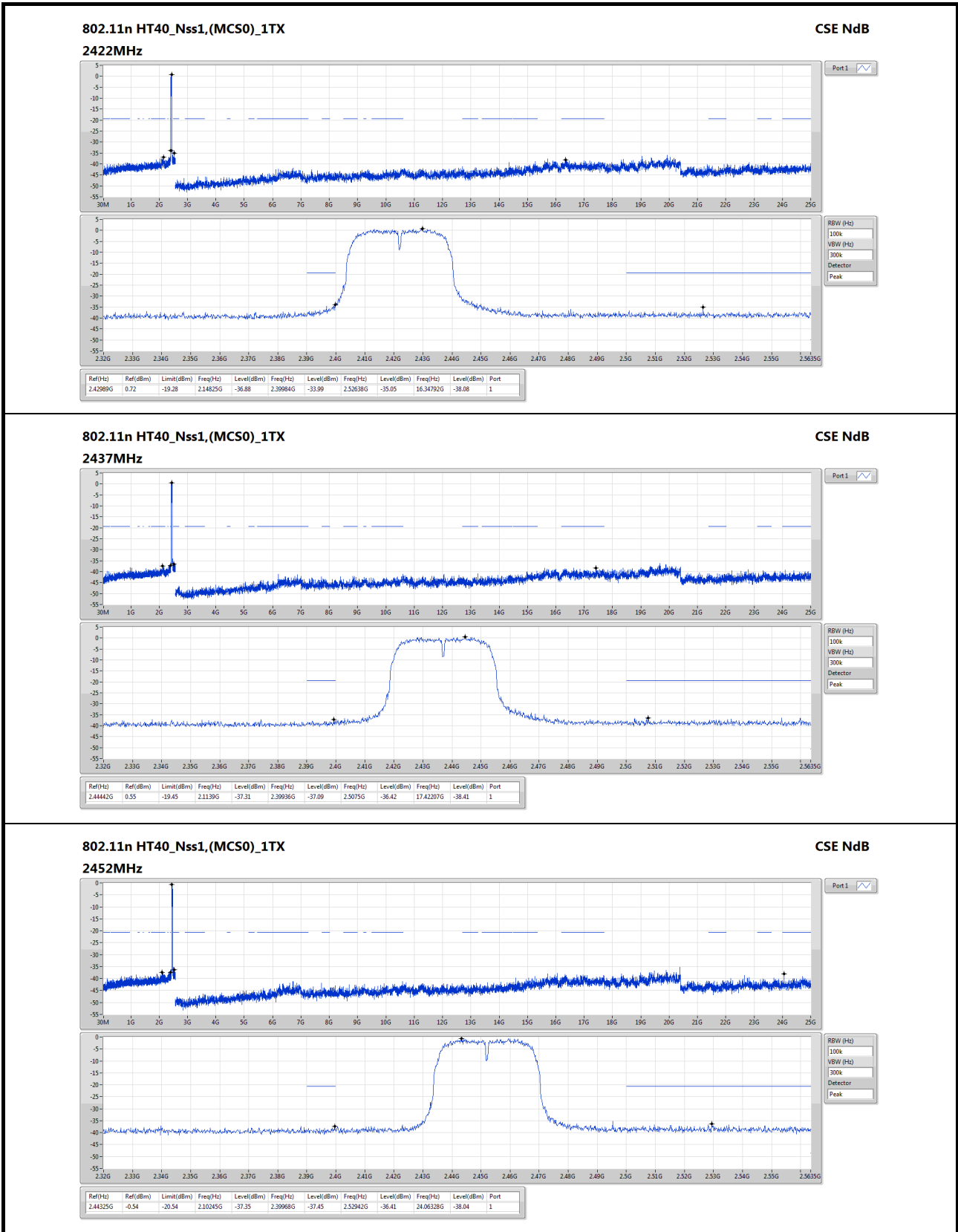
3.6.4 Unwanted Emissions into Non-Restricted Frequency Bands

Ambient Condition	24°C / 66%	Tested By	Aska Huang
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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==