FCC Test Report

FCC ID	:	**2AWC2-AIRH203**
Equipment	:	**Kebbi Air S** **(Please refer to section 1.1.1 for more details)**
Model No.	:	**AIR-H203** **(Please refer to section 1.1.1 for more details)**
Brand Name	:	**NUWAROBOTICS**
Applicant	:	**NUWA ROBOTICS (HK) LIMITED TAIWAN BRANCH**
Address	:	**3F., No. 102, Dunhua N. Rd., Songshan Dist., Taipei City , Taiwan (R.O.C.)**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Apr. 07, 2021**
Tested Date	:	**May 04 ~ May 13, 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**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR240701AC	Rev. 01	Initial issue	Jun. 06, 2022

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	[dBuV]: 14.440MHz 35.01 (Margin -14.99dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 4924.00MHz 53.38 (Margin -0.42dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: 27.06	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 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
NUWAROBOTICS	AIR-H203	Kebbi Air S	Outer appearance: white
NUWAROBOTICS	AIR-H204	Robot Creator DX	Outer appearance: black

- All models are electrically identical, different model names are for marketing purpose.
- The above models, model **AIR-H203** was selected as a representative one for the final test and only its data was recorded in this report.

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 Conducted (Average) Output Power.
Note 2: DSSS-DBPSK, DQPSK, CCK modulation
OFDM - BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.3 Antenna Details

Ant. No.	Model	Type	Connector	Gain (dBi)
1	NUWA	PIFA	No	2.4

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	DC 3.7V from battery DC 5V⎓3A/10V⎓2A/12V⎓1.67A from adapter DC 5V⎓3A/9V⎓2A/12V⎓1.5A from adapter

1.1.5 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC adapter	Brand: JIANGSU CHENYANG Model: MC-201 I/P: 100-240Vac, 50/60Hz, 0.7A Max O/P: 5V⎓3A, 15.0W / 10.0V⎓2.0A, 20W / 12V⎓1.67A, 20W
2	AC adapter	Brand: Jiangxi Jian Aohai Model: A138A-120150U-UK3 I/P: 100-240Vac, 50/60Hz, 0.5A Max O/P: 5V⎓3A, 15.0W / 9.0V⎓2.0A, 18W / 12V⎓1.5A, 18W
3	AC adapter	Brand: SHENZHEN KEYU Model: KA1803A-US I/P: 100-240Vac, 50/60Hz, 0.5A Max O/P: 5V⎓3A / 9.0V⎓2.0A / 12V⎓1.5A
4	AC adapter	Brand: JIANGSU CHENYANG Model: MC-203 I/P: 100-240Vac, 50/60Hz, 0.7A Max O/P: 5V⎓3A, 15.0W / 10V⎓2.0A, 20W / 12V⎓1.67A, 20W
5	Li-ion Battery	Brand: Shenzhen GUANGWEI Electronic Technology Co., Ltd Model: NB2 Rating: 3.7Vdc, 9100mA, 33.67Wh
6	USB charger Cable	1.2m 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	Qualcomm Radio Control Tool, V4.0.00185.0		
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

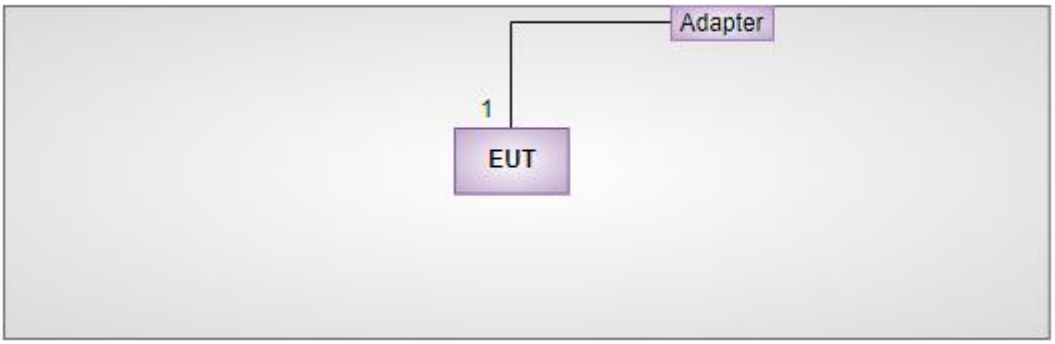
Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	17.5
11b	2437	17
11b	2462	16.5
11g	2412	18.5
11g	2437	22
11g	2462	18
HT20	2412	18
HT20	2437	22
HT20	2462	17.5
HT40	2422	18.5
HT40	2437	22
HT40	2452	18

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E5470	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



No.	Signal cable / Length (m)
1	USB charger cable, 1.2m non-shielded.

Note: The support notebook was disconnected from EUT and removed from test table when EUT is set to transmit/receive continuously.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	May 12, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023
LISN	R&S	ENV216	101579	Apr. 21, 2022	Apr. 20, 2023
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 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.					

Test Item	Radiated Emission below 1GHz				
Test Site	966 chamber3 / (03CH03-WS)				
Tested Date	May 04, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
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
Preamplifier	EMC	EMC02325	980187	Jul. 26, 2021	Jul. 25, 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-3000	131103	Sep. 24, 2021	Sep. 23, 2022
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 24, 2021	Sep. 23, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission above 1GHz				
Test Site	966 chamber3 / (03CH03-WS)				
Tested Date	May 05, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Mar. 08, 2022	Mar. 07, 2023
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	Agilent	83017A	MY39501309	Sep. 06, 2021	Sep. 05, 2022
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Sep. 24, 2021	Sep. 23, 2022
RF cable-8M	EMC	EMC104-SM-SM-8000	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.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	May 13, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2022	Apr. 17, 2023
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	V5.10.7.18	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	±34.130 Hz
Conducted power	±0.808 dB
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.96 dB
Unwanted Emission > 1GHz	±4.51 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-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.)
Test Site	03CH03-WS
Address of Test Site	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#: 10807C
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
AC Power Line Conducted Emission	HT20	2437	MCS 0	2
Unwanted Emissions ≤ 1GHz	HT20	2437	MCS 0	1
Unwanted Emissions >1GHz Conducted 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

NOTE:

1. Four adapters (Model: MC-201, A138A-120150U-UK3, KA1803A-US and MC-203) had been covered during the pretest, and found that Model: A138A-120150U-UK was worst case of AC power line conducted emission and Model: MC-203 was worst case of Radiated emission.
2. Test configurations are listed as below:
   1) Configuration 1: Model:MC-201 adapter
   2) Configuration 2: Model:A138A-120150U-UK3 adapter

3 Transmitter Test Results

3.1 6dB and Occupied Bandwidth

3.1.1 Limit of 6dB Bandwidth

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

3.1.2 Test Procedures

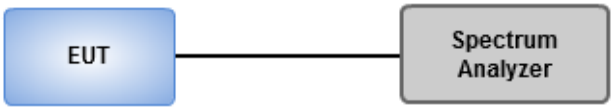
6dB Bandwidth

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.

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	24°C / 67%	**Tested By**	Aska Huang

Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Limit of Conducted Output Power

Conducted power shall not exceed 1Watt.

Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

Antenna gain > 6dBi

Non Fixed, point to point operations.
The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

Fixed, point to point operations
Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 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.

3.2.3 Test Setup

3.2.4 Test Results

Ambient Condition	24°C / 67%	**Tested By**	Aska Huang

Refer to Appendix B.

3.3 Power Spectral Density

3.3.1 Limit of Power Spectral Density

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

3.3.2 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 ≥ 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.

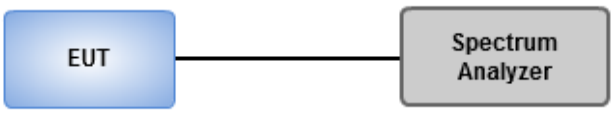
2 Set the sweep time to: ≥ 10 (number of measurement points in sweep) x (total on/off period of the transmitted signal).

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.

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	24°C / 67%	**Tested By**	Aska Huang

Refer to Appendix C.

3.4 Unwanted Emissions into Restricted Frequency Bands

3.4.1 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.

3.4.2 Test Procedures

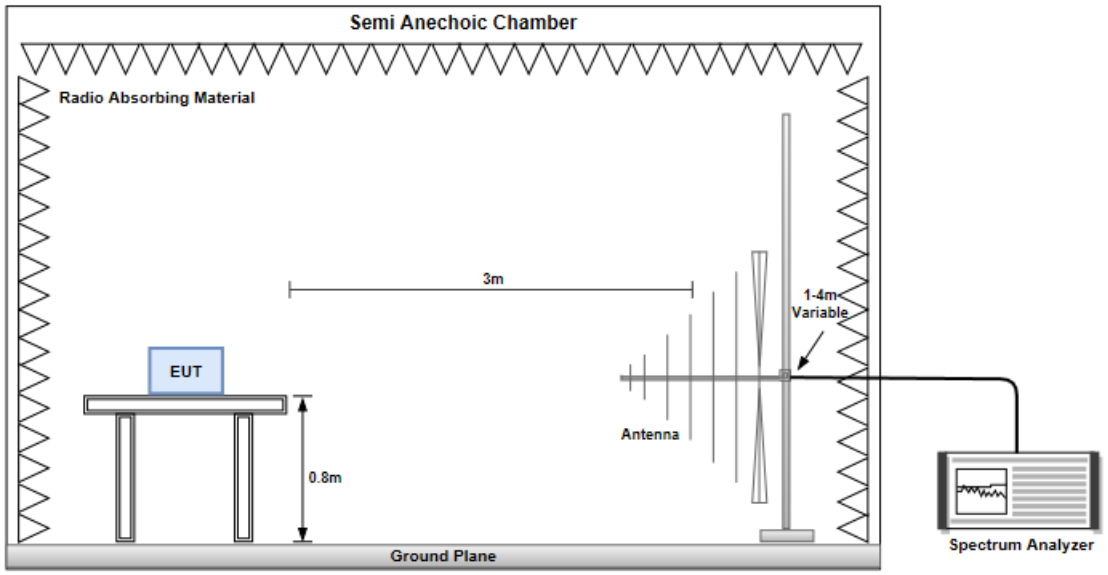
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

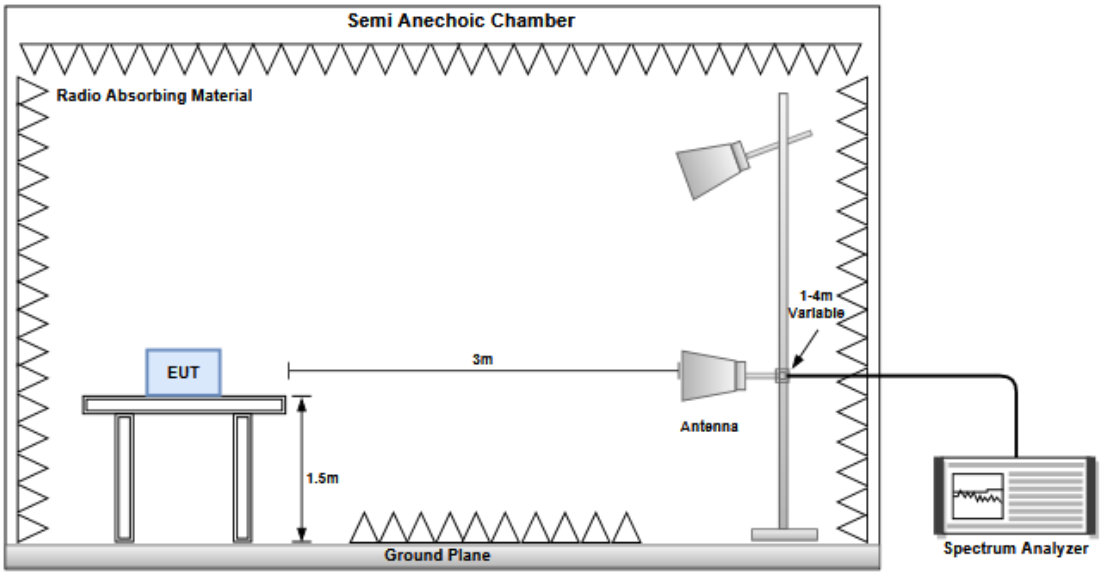
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

Refer to Appendix D.

3.5 Emissions in Non-Restricted Frequency Bands

3.5.1 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.

3.5.2 Test Procedures

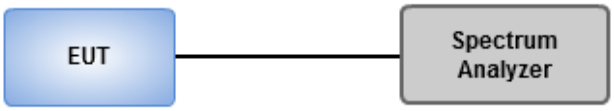
Reference level measurement

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

3.5.3 Test Setup



3.5.4 Test Results

Ambient Condition	24°C / 67%	**Tested By**	Aska Huang

Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

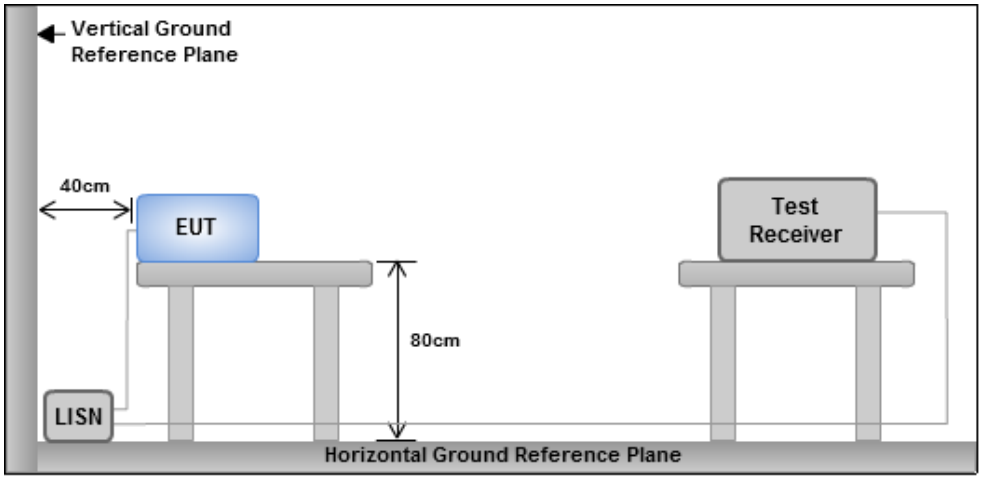
3.6.1 Limit of AC Power Line Conducted Emissions

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.		

3.6.2 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.

3.6.3 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

3.6.4 Test Results

Refer to Appendix F.

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==

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	8.575M	13.118M	13M1G1D	8.025M	13.068M
802.11g_Nss1,(6Mbps)_1TX	16.35M	17.016M	17M0D1D	16.35M	16.742M
802.11n HT20_Nss1,(MCS0)_1TX	17.6M	18.141M	18M1D1D	17.575M	17.766M
802.11n HT40_Nss1,(MCS0)_1TX	35.1M	36.332M	36M3D1D	35M	36.182M

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

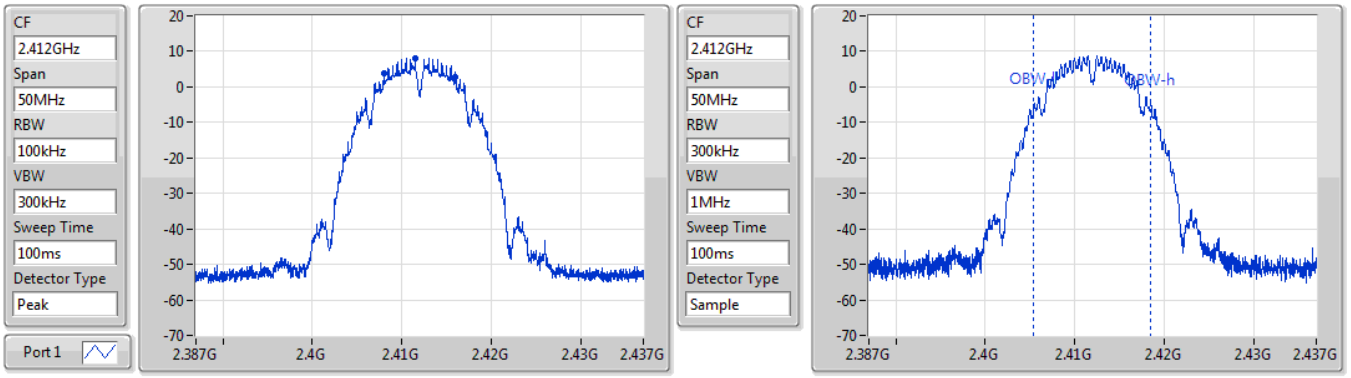
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8.025M	13.068M
2437MHz	Pass	500k	8.575M	13.093M
2462MHz	Pass	500k	8.05M	13.118M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.35M	16.742M
2437MHz	Pass	500k	16.35M	17.016M
2462MHz	Pass	500k	16.35M	16.792M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.6M	17.891M
2437MHz	Pass	500k	17.575M	18.141M
2462MHz	Pass	500k	17.575M	17.766M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35M	36.182M
2437MHz	Pass	500k	35.05M	36.332M
2452MHz	Pass	500k	35.1M	36.182M

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

802.11b_Nss1,(1Mbps)_1TX EBW

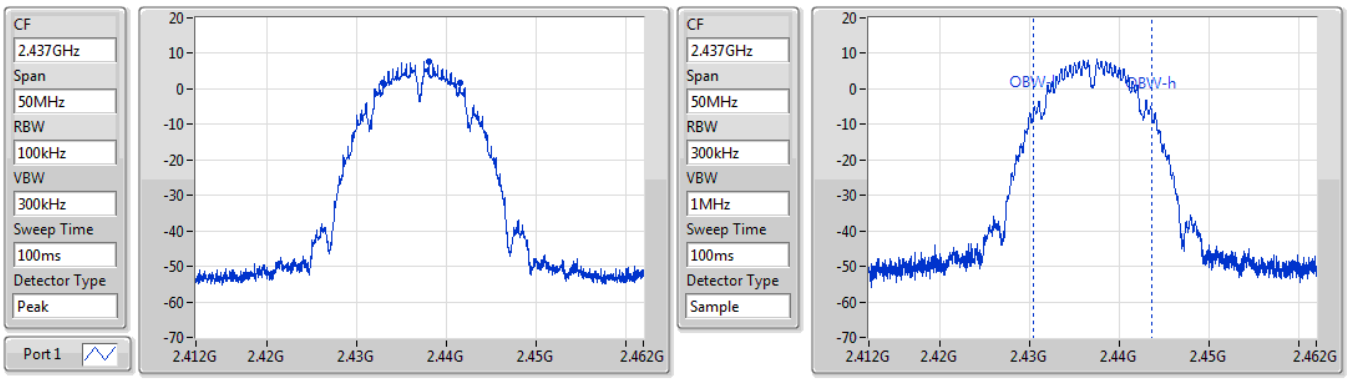
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.408G	2.416025G	13.068M	2.405453G	2.418522G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

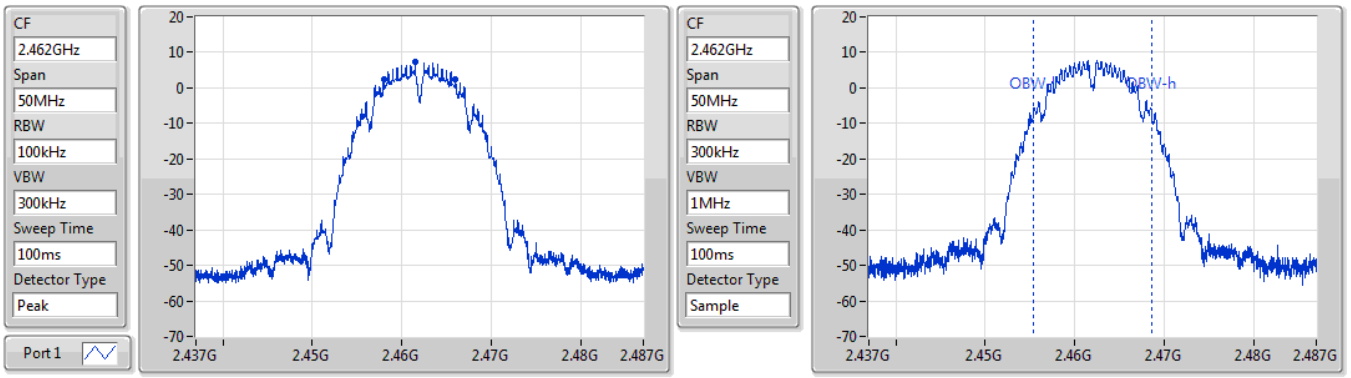
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.575M	2.43295G	2.441525G	13.093M	2.430453G	2.443547G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

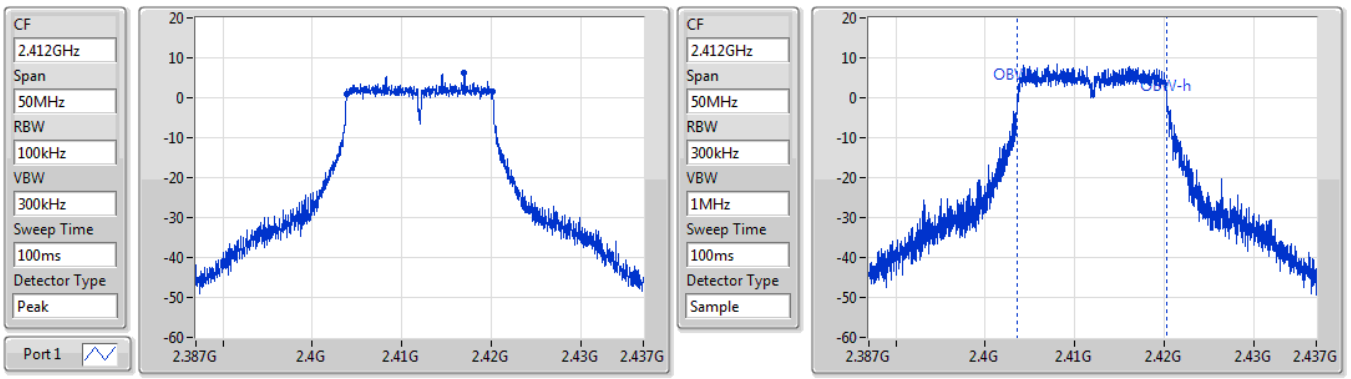
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.457975G	2.466025G	13.118M	2.455428G	2.468547G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

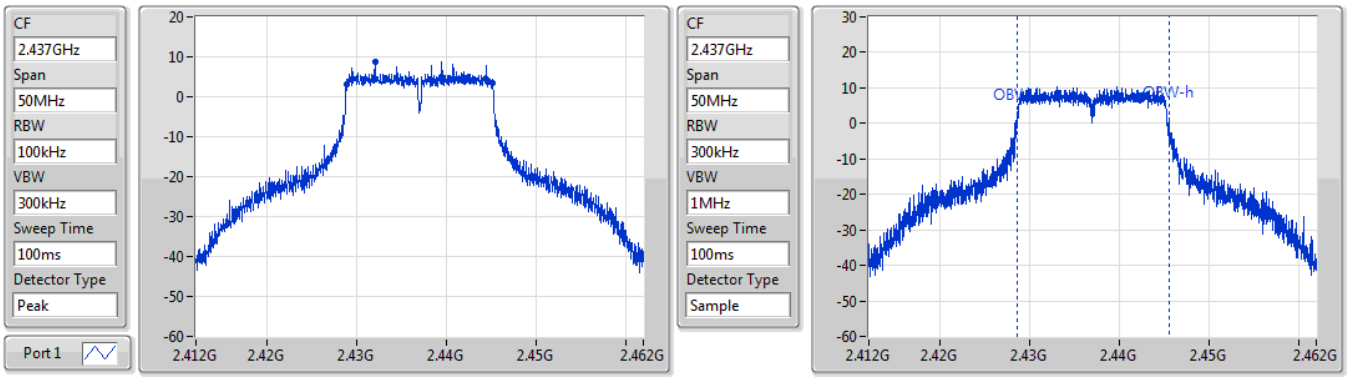
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.742M	2.403604G	2.420346G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

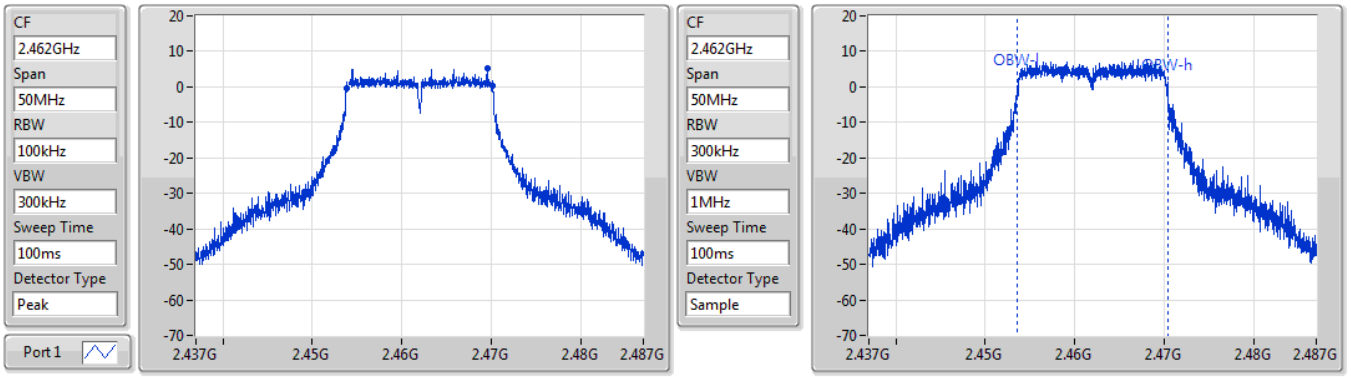
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.428825G	2.445175G	17.016M	2.428504G	2.445521G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

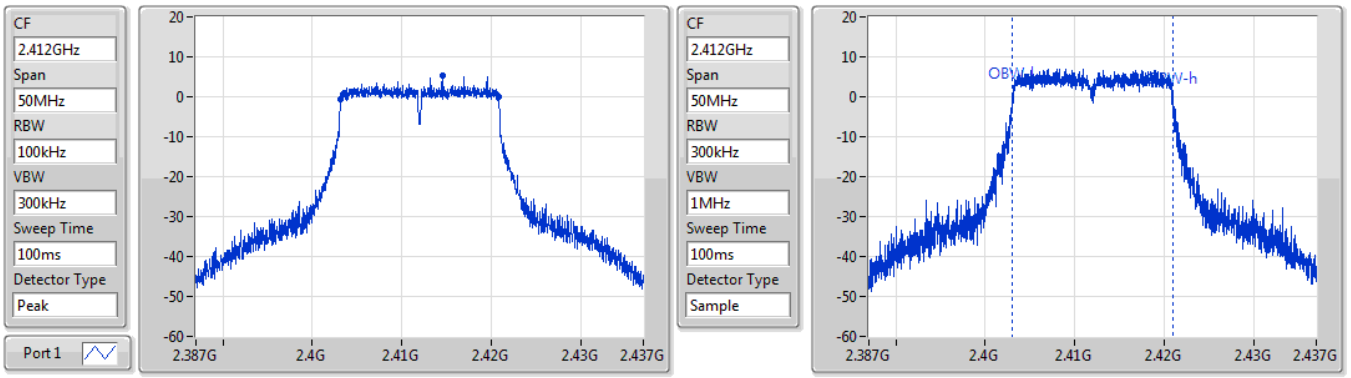
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.453825G	2.470175G	16.792M	2.453604G	2.470396G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

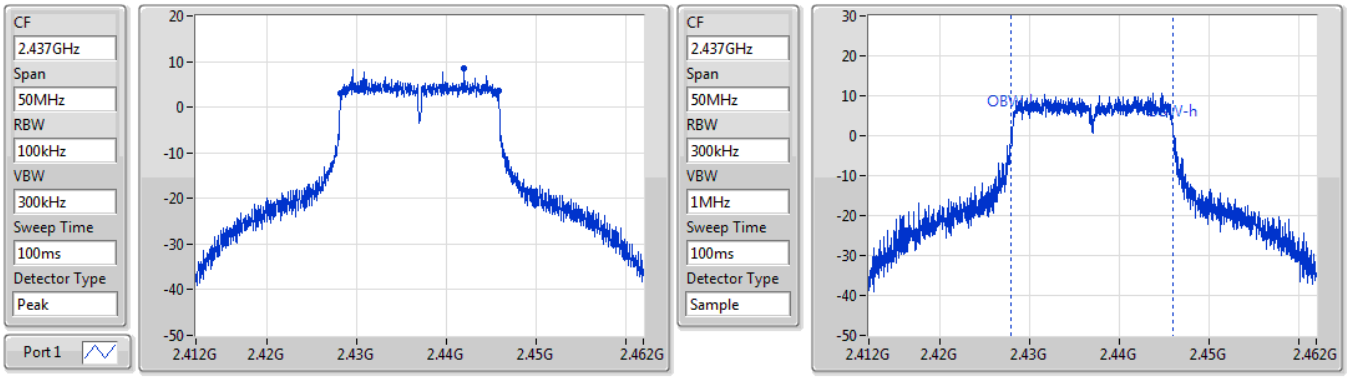
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.6M	2.4032G	2.4208G	17.891M	2.403054G	2.420946G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

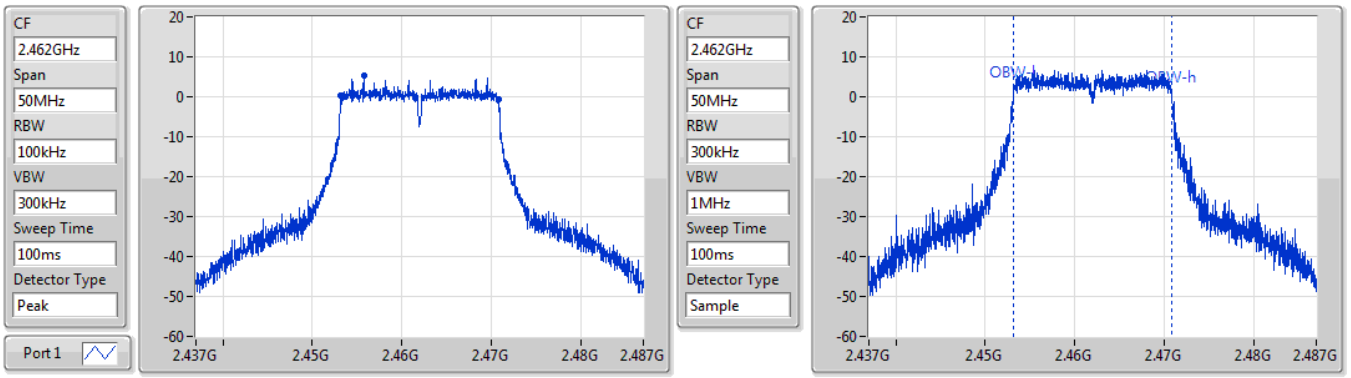
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	18.141M	2.427905G	2.446045G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX EBW

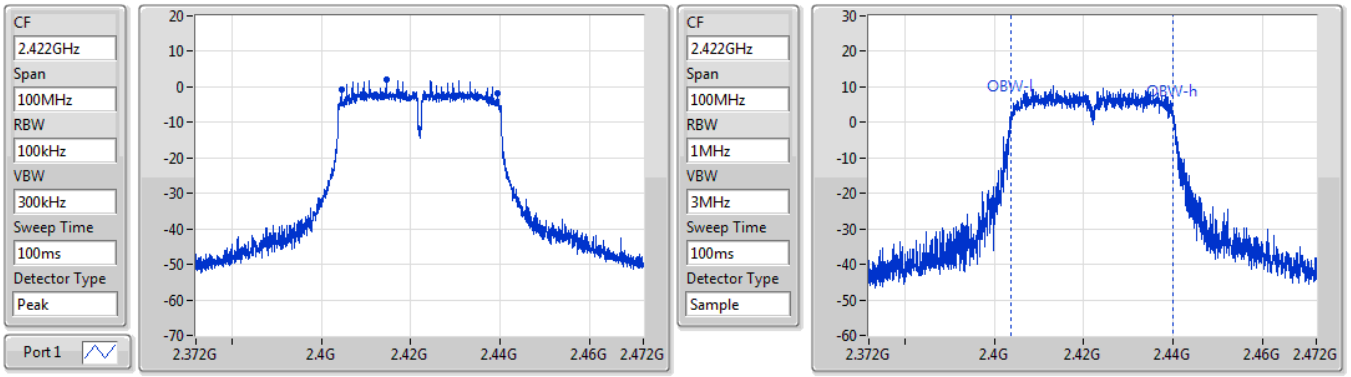
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.766M	2.453104G	2.470871G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

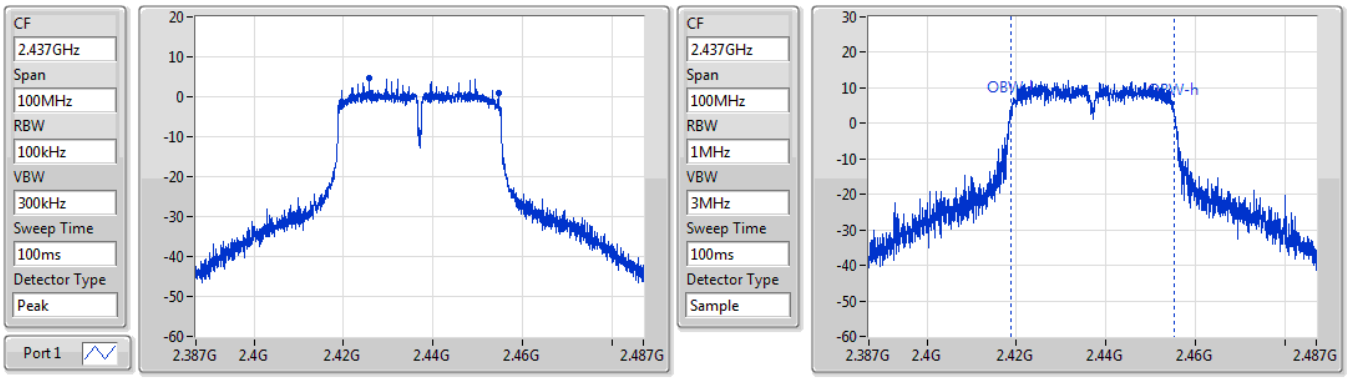
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.4045G	2.4395G	36.182M	2.403859G	2.440041G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

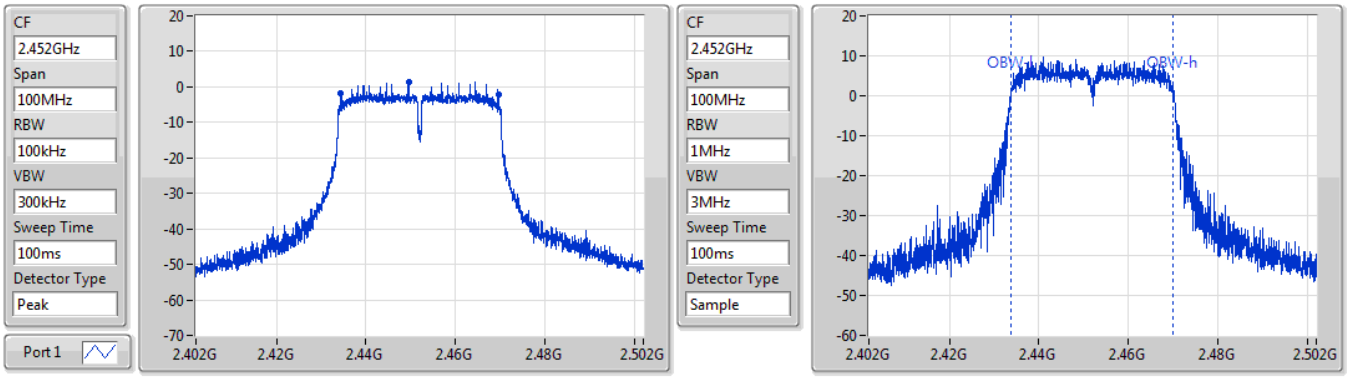
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4195G	2.45455G	36.332M	2.418809G	2.455141G	500k	1

802.11n HT40_Nss1,(MCS0)_1TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	2.43445G	2.46955G	36.182M	2.433859G	2.470041G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	20.31	0.10740
802.11g_Nss1,(6Mbps)_1TX	26.86	0.48529
802.11n HT20_Nss1,(MCS0)_1TX	27.06	0.50816
802.11n HT40_Nss1,(MCS0)_1TX	26.62	0.45920

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	2.40	20.31	20.31	30.00	22.71	36.00
2437MHz	Pass	2.40	19.75	19.75	30.00	22.15	36.00
2462MHz	Pass	2.40	19.16	19.16	30.00	21.56	36.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.40	26.36	26.36	30.00	28.76	36.00
2437MHz	Pass	2.40	26.86	26.86	30.00	29.26	36.00
2462MHz	Pass	2.40	25.76	25.76	30.00	28.16	36.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.40	26.22	26.22	30.00	28.62	36.00
2437MHz	Pass	2.40	27.06	27.06	30.00	29.46	36.00
2462MHz	Pass	2.40	25.63	25.63	30.00	28.03	36.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	2.40	25.44	25.44	30.00	27.84	36.00
2437MHz	Pass	2.40	26.62	26.62	30.00	29.02	36.00
2452MHz	Pass	2.40	25.04	25.04	30.00	27.44	36.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	17.86	0.06109
802.11g_Nss1,(6Mbps)_1TX	21.05	0.12735
802.11n HT20_Nss1,(MCS0)_1TX	21.24	0.13305
802.11n HT40_Nss1,(MCS0)_1TX	20.02	0.10046

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	2.40	17.86	17.86	-	20.26	-
2437MHz	Pass	2.40	17.14	17.14	-	19.54	-
2462MHz	Pass	2.40	16.62	16.62	-	19.02	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.40	18.88	18.88	-	21.28	-
2437MHz	Pass	2.40	21.05	21.05	-	23.45	-
2462MHz	Pass	2.40	18.33	18.33	-	20.73	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.40	18.56	18.56	-	20.96	-
2437MHz	Pass	2.40	21.24	21.24	-	23.64	-
2462MHz	Pass	2.40	17.86	17.86	-	20.26	-
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
2422MHz	Pass	2.40	17.28	17.28	-	19.68	-
2437MHz	Pass	2.40	20.02	20.02	-	22.42	-
2452MHz	Pass	2.40	16.81	16.81	-	19.21	-

DG = Directional Gain; Port X = Port X output power
Note: Conducted average output power is for reference

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-5.49
802.11g_Nss1,(6Mbps)_1TX	-3.90
802.11n HT20_Nss1,(MCS0)_1TX	-4.55
802.11n HT40_Nss1,(MCS0)_1TX	-9.09

RBW = 3kHz;

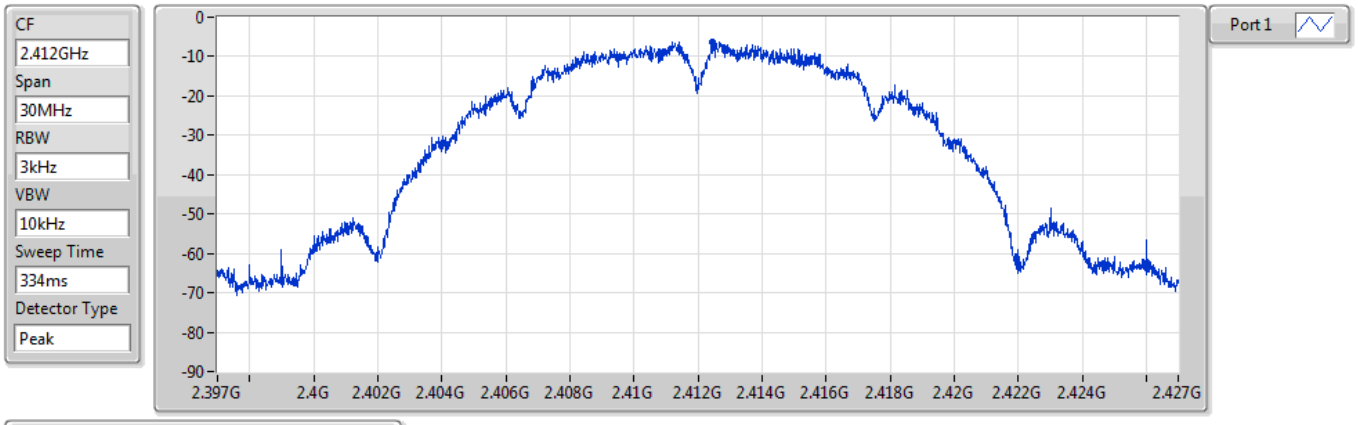
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.40	-6.25	-6.25	8.00
2437MHz	Pass	2.40	-6.44	-6.44	8.00
2462MHz	Pass	2.40	-5.49	-5.49	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.40	-5.25	-5.25	8.00
2437MHz	Pass	2.40	-3.90	-3.90	8.00
2462MHz	Pass	2.40	-8.48	-8.48	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.40	-8.60	-8.60	8.00
2437MHz	Pass	2.40	-4.55	-4.55	8.00
2462MHz	Pass	2.40	-8.29	-8.29	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	2.40	-11.85	-11.85	8.00
2437MHz	Pass	2.40	-9.09	-9.09	8.00
2452MHz	Pass	2.40	-11.93	-11.93	8.00

DG = Directional Gain
PD = Power density; Port X = Port X Power Density;
RBW = 3kHz;

802.11b_Nss1,(1Mbps)_1TX PSD

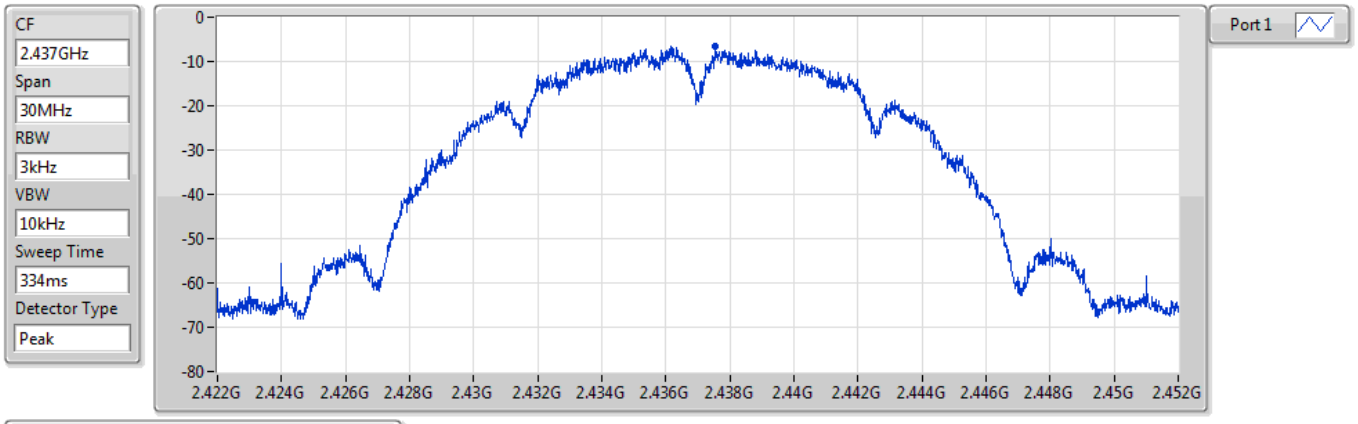
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.25	-6.25	-6.25

802.11b_Nss1,(1Mbps)_1TX PSD

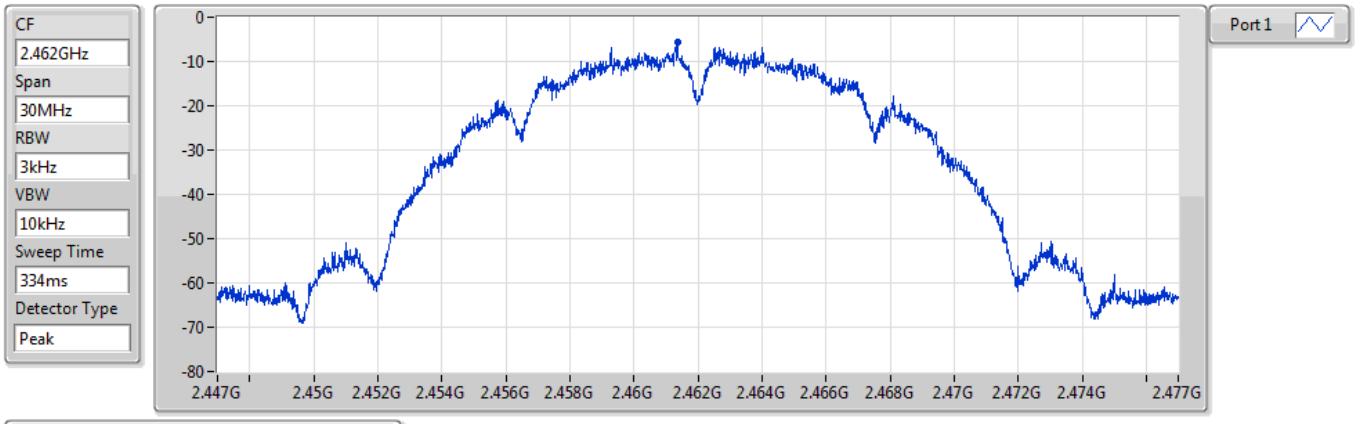
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.44	-6.44	-6.44

802.11b_Nss1,(1Mbps)_1TX PSD

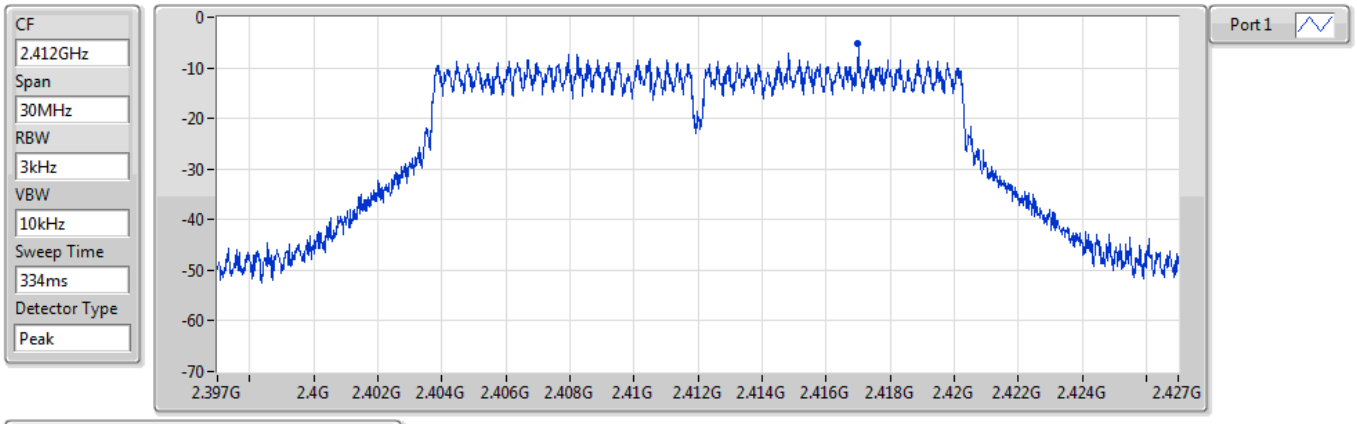
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.49	-5.49	-5.49

802.11g_Nss1,(6Mbps)_1TX PSD

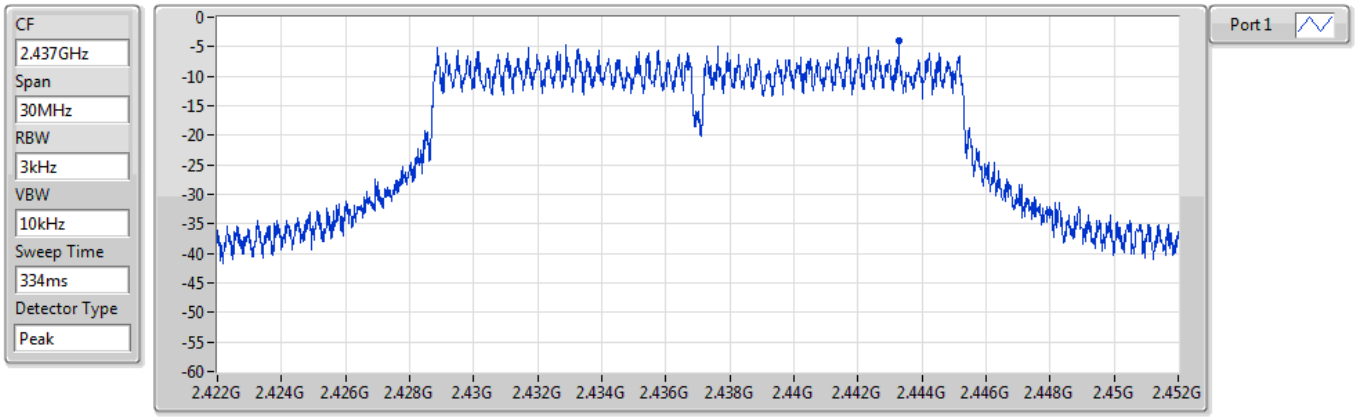
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.25	-5.25	-5.25

802.11g_Nss1,(6Mbps)_1TX PSD

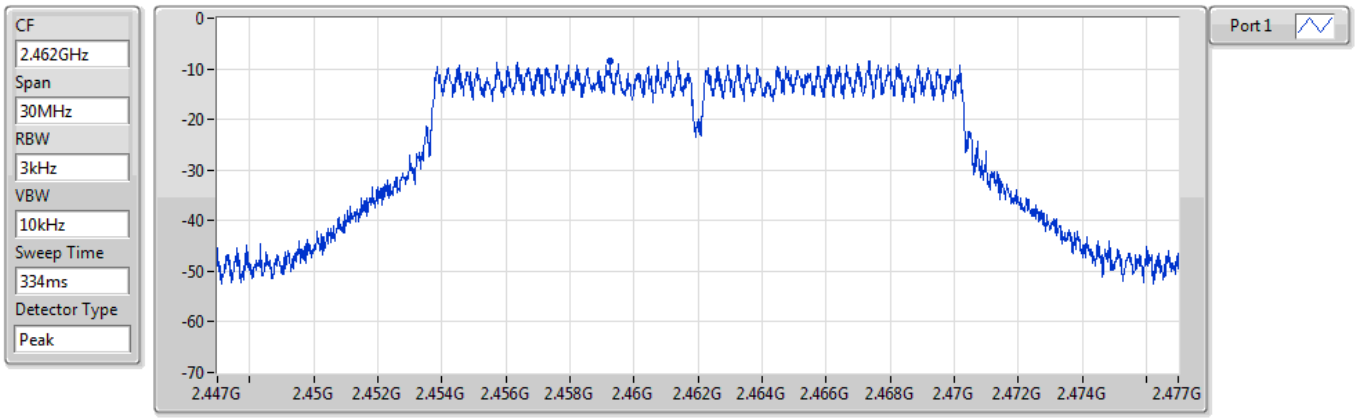
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.90	-3.90	-3.90

802.11g_Nss1,(6Mbps)_1TX PSD

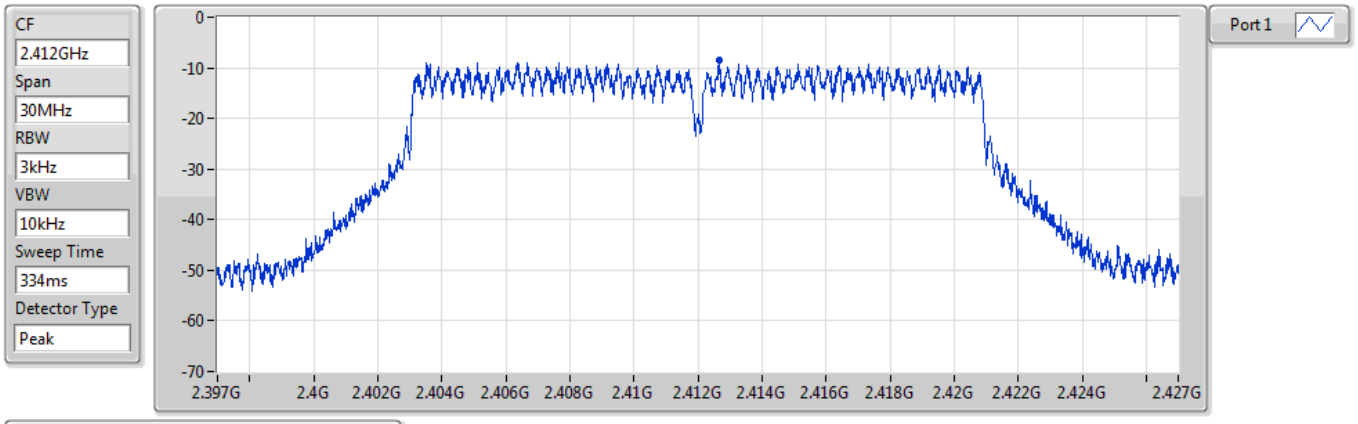
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.48	-8.48	-8.48

802.11n HT20_Nss1,(MCS0)_1TX PSD

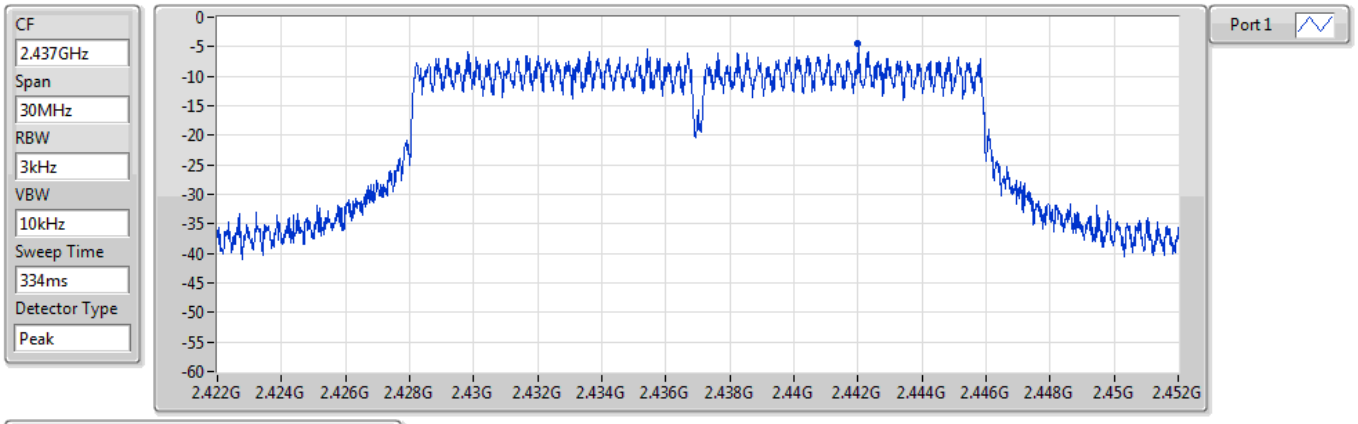
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.60	-8.60	-8.60

802.11n HT20_Nss1,(MCS0)_1TX PSD

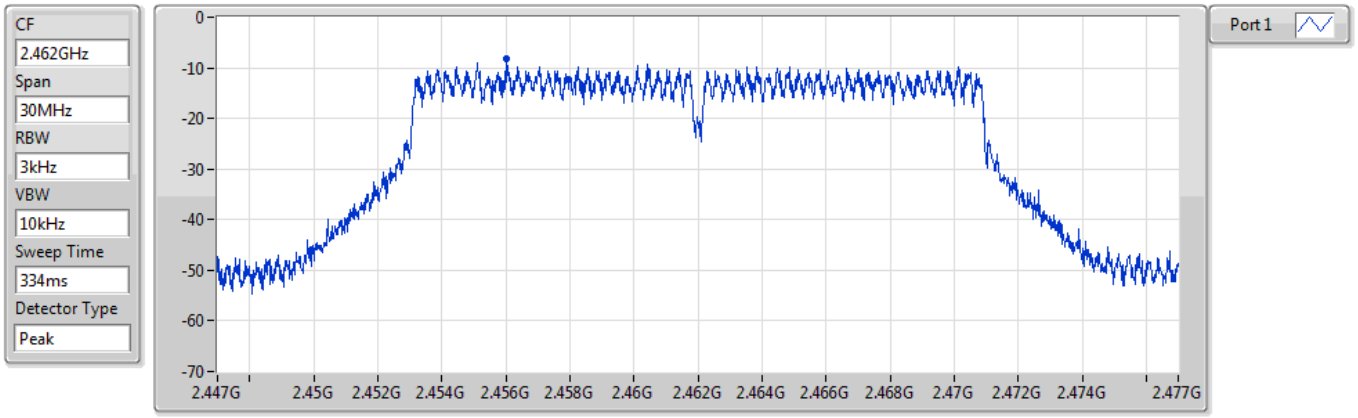
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.55	-4.55	-4.55

802.11n HT20_Nss1,(MCS0)_1TX PSD

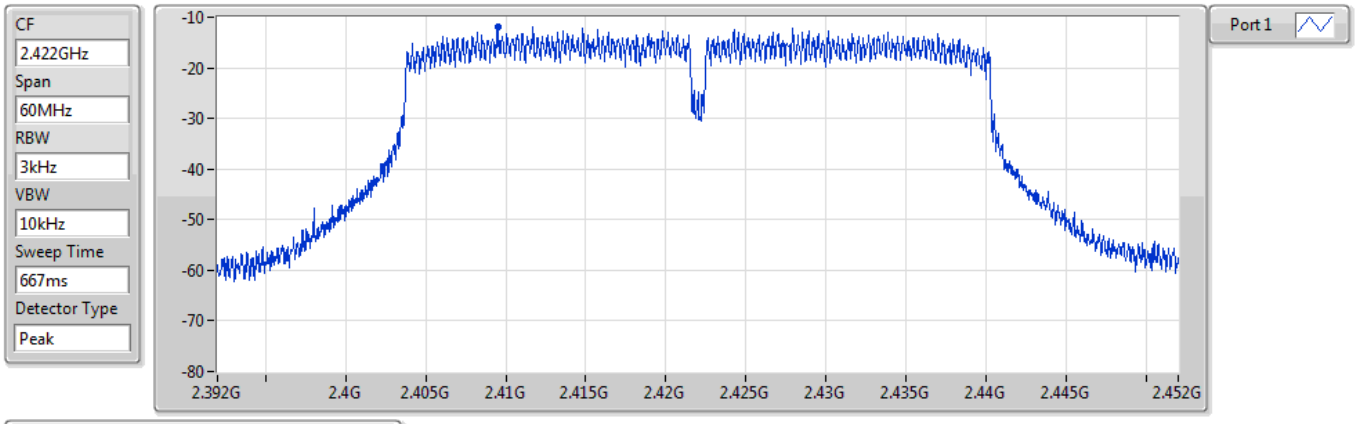
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.29	-8.29	-8.29

802.11n HT40_Nss1,(MCS0)_1TX PSD

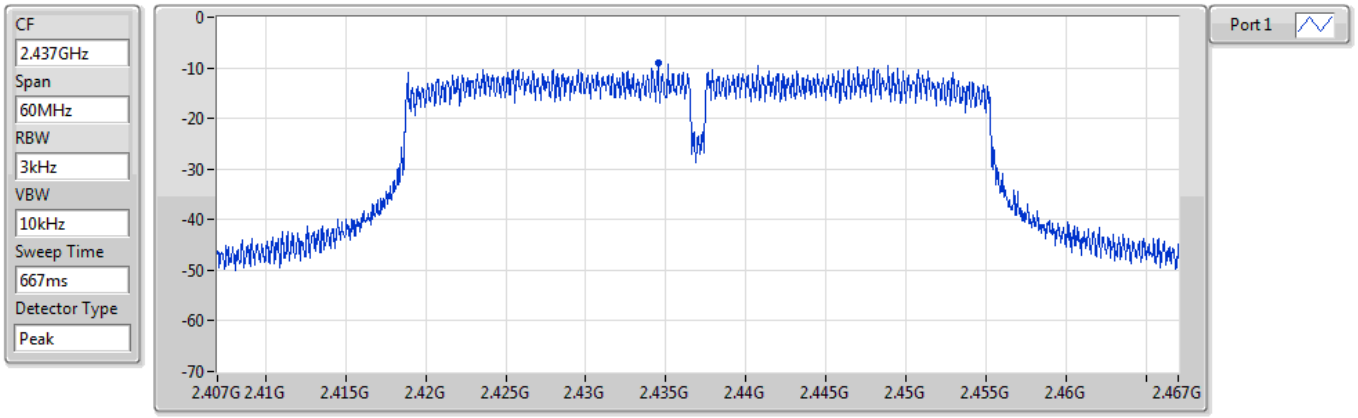
2422MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.85	-11.85	-11.85

802.11n HT40_Nss1,(MCS0)_1TX PSD

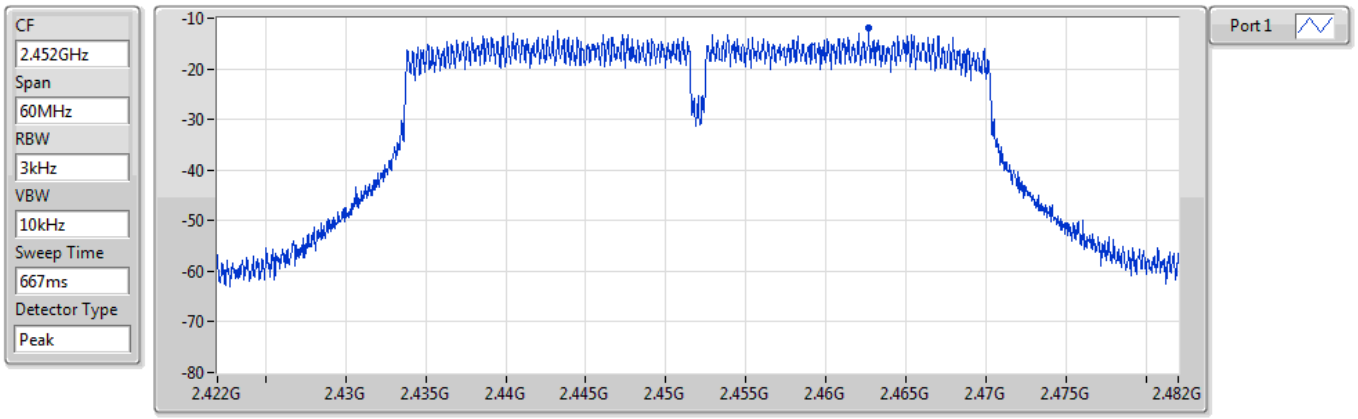
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.09	-9.09	-9.09

802.11n HT40_Nss1,(MCS0)_1TX PSD

2452MHz

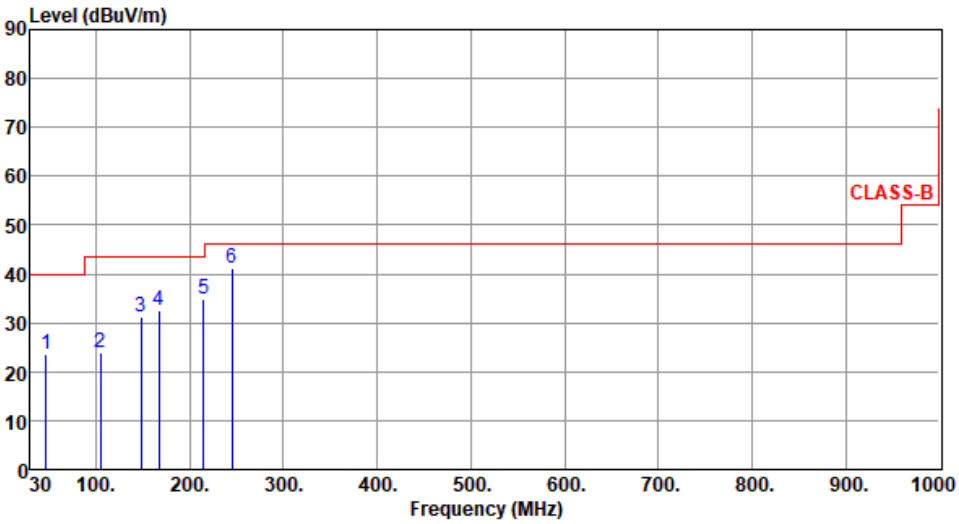


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.93	-11.93	-11.93

Unwanted Emissions (Below 1GHz)

Modulation	HT20	**Test Freq. (MHz)**	2437
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):25 Humidity(%):65

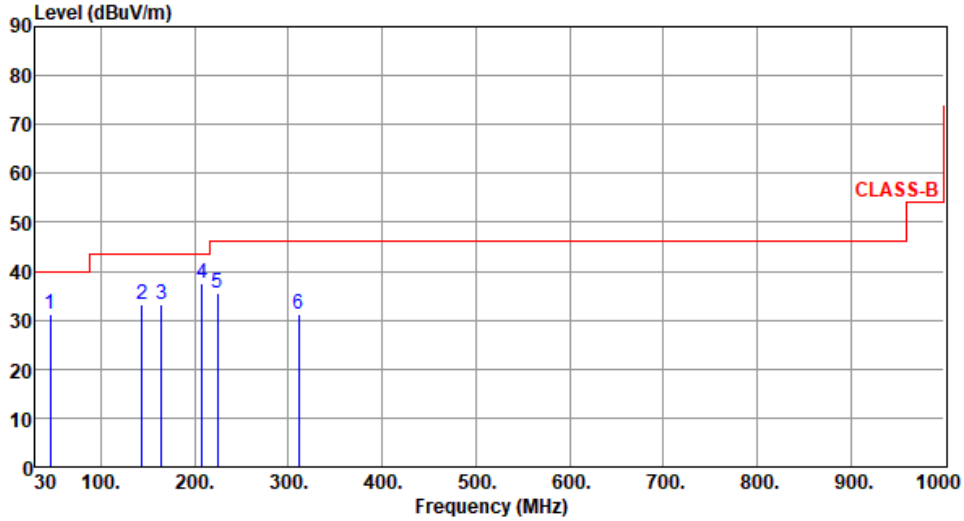


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	46.49	23.65	40.00	-16.35	32.46	-8.81	Peak	---	---
2	104.69	23.84	43.50	-19.66	36.45	-12.61	Peak	---	---
3	148.34	31.18	43.50	-12.32	39.85	-8.67	Peak	---	---
4	166.77	32.42	43.50	-11.08	41.19	-8.77	Peak	---	---
5	215.27	34.79	43.50	-8.71	46.56	-11.77	Peak	---	---
6	245.34	41.14	46.00	-4.86	51.11	-9.97	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.

Modulation	HT20	**Test Freq. (MHz)**	2437
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):25 Humidity(%):65



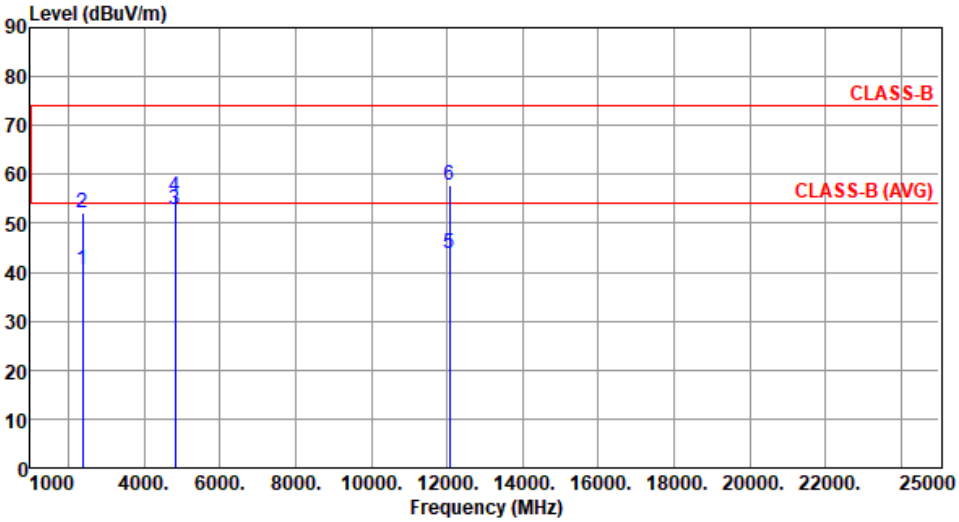
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	45.52	31.35	40.00	-8.65	40.22	-8.87	Peak	---	---
2	143.49	33.16	43.50	-10.34	41.96	-8.80	Peak	---	---
3	164.83	33.36	43.50	-10.14	42.02	-8.66	Peak	---	---
4	207.51	37.64	43.50	-5.86	49.33	-11.69	Peak	---	---
5	224.00	35.54	46.00	-10.46	47.38	-11.84	Peak	---	---
6	311.30	31.35	46.00	-14.65	39.18	-7.83	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.

Unwanted Emission (Above 1GHz) for 11b

Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

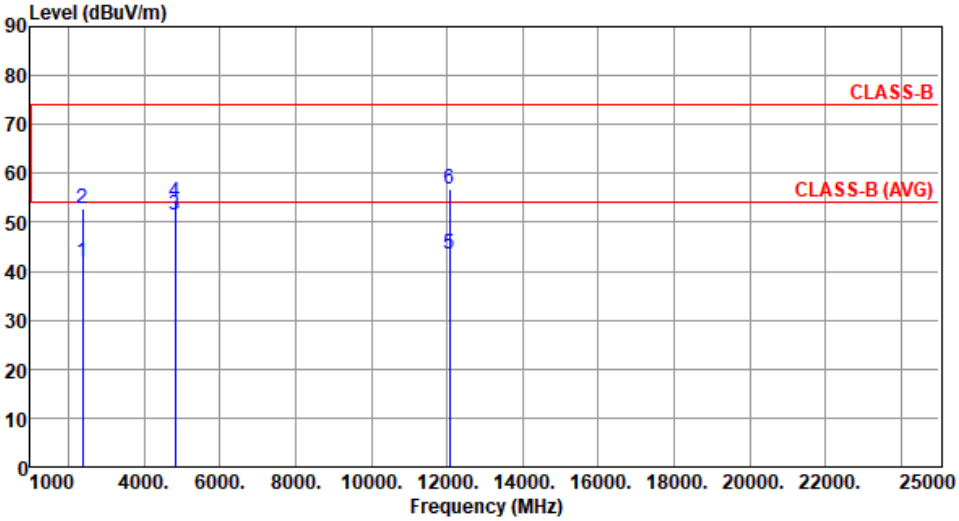


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.36	54.00	-13.64	41.85	-1.49	Average	100	297
2	2390.00	52.18	74.00	-21.82	53.67	-1.49	Peak	100	297
3	4824.00	52.92	54.00	-1.08	47.65	5.27	Average	128	147
4	4824.00	55.49	74.00	-18.51	50.22	5.27	Peak	128	147
5	12060.00	43.86	54.00	-10.14	28.90	14.96	Average	100	25
6	12060.00	57.84	74.00	-16.16	42.88	14.96	Peak	100	25

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 :Brad Wu Temperature(°C):25 Humidity(%):65

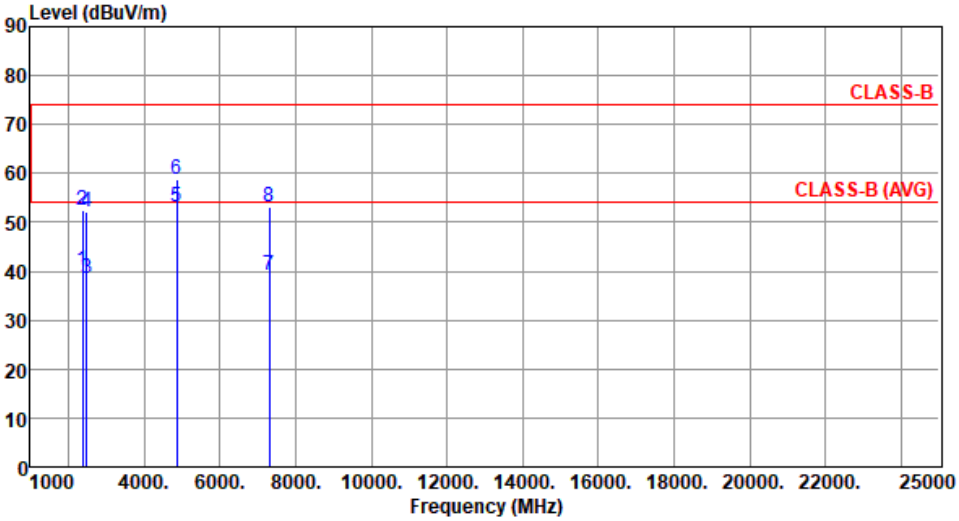


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	41.71	54.00	-12.29	43.20	-1.49	Average	284	248
2	2390.00	52.88	74.00	-21.12	54.37	-1.49	Peak	284	248
3	4824.00	51.49	54.00	-2.51	46.22	5.27	Average	100	267
4	4824.00	54.15	74.00	-19.85	48.88	5.27	Peak	100	267
5	12060.00	43.40	54.00	-10.60	28.44	14.96	Average	100	18
6	12060.00	56.91	74.00	-17.09	41.95	14.96	Peak	100	18

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 :Brad Wu Temperature(℃):25 Humidity(%):65

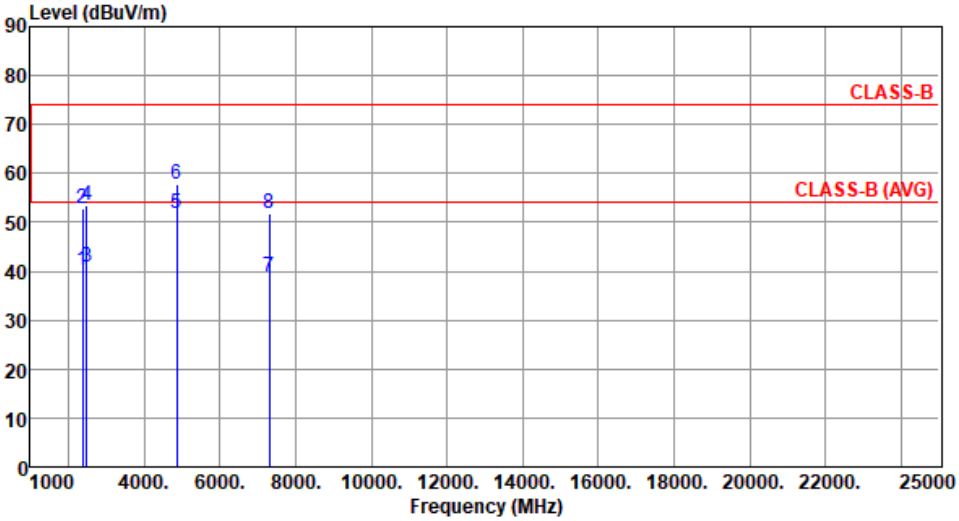


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.21	54.00	-13.79	41.70	-1.49	Average	100	301
2	2390.00	52.58	74.00	-21.42	54.07	-1.49	Peak	100	301
3	2483.50	38.68	54.00	-15.32	40.26	-1.58	Average	100	301
4	2483.50	52.03	74.00	-21.97	53.61	-1.58	Peak	100	301
5	4874.00	53.14	54.00	-0.86	47.81	5.33	Average	110	143
6	4874.00	58.72	74.00	-15.28	53.39	5.33	Peak	110	143
7	7311.00	39.04	54.00	-14.96	28.15	10.89	Average	100	22
8	7311.00	53.23	74.00	-20.77	42.34	10.89	Peak	100	22

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 :Brad Wu Temperature(℃):25 Humidity(%):65

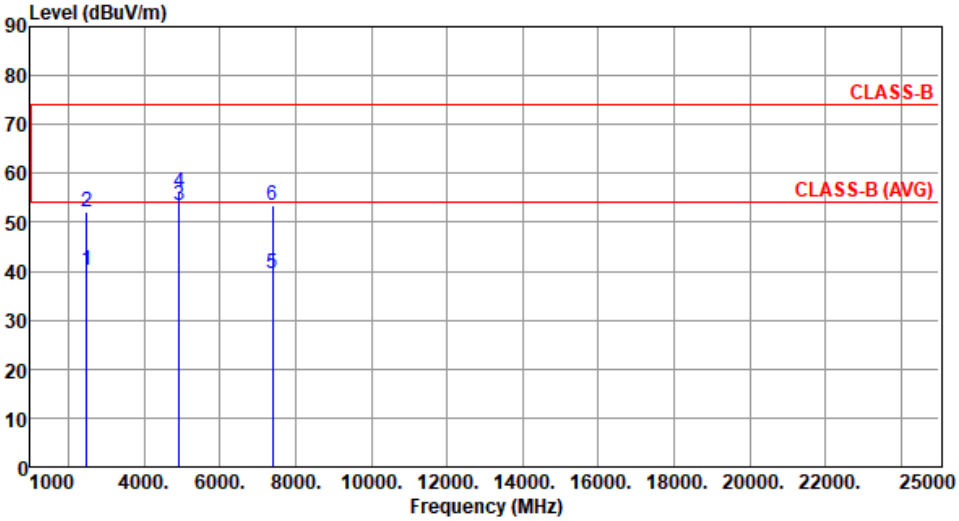


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	40.30	54.00	-13.70	41.79	-1.49	Average	294	287
2	2390.00	52.88	74.00	-21.12	54.37	-1.49	Peak	294	287
3	2483.50	40.86	54.00	-13.14	42.44	-1.58	Average	294	287
4	2483.50	53.48	74.00	-20.52	55.06	-1.58	Peak	294	287
5	4874.00	51.69	54.00	-2.31	46.36	5.33	Average	100	265
6	4874.00	57.94	74.00	-16.06	52.61	5.33	Peak	100	265
7	7311.00	38.77	54.00	-15.23	27.88	10.89	Average	100	15
8	7311.00	51.79	74.00	-22.21	40.90	10.89	Peak	100	15

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 :Akun Chung Temperature(℃):25 Humidity(%):65

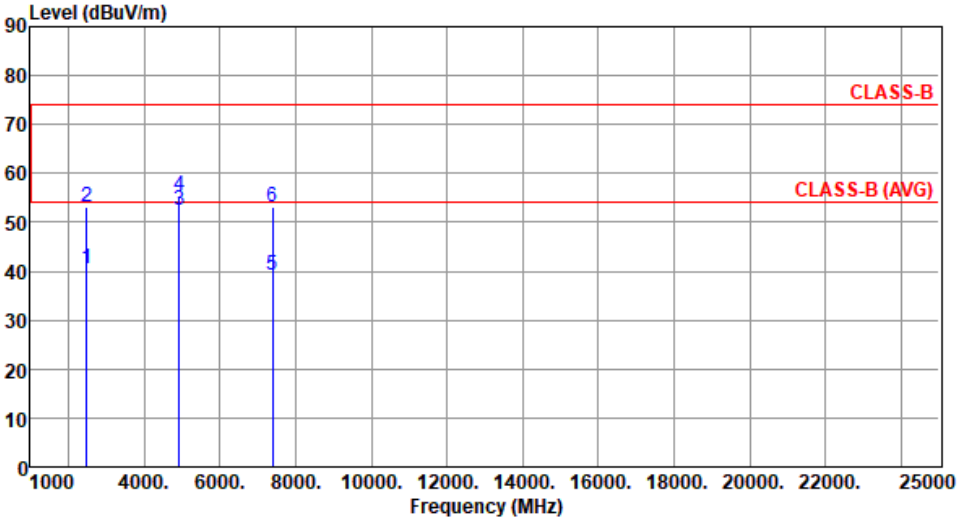


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	40.19	54.00	-13.81	41.77	-1.58	Average	100	305
2	2483.50	52.11	74.00	-21.89	53.69	-1.58	Peak	100	305
3	4924.00	53.58	54.00	-0.42	48.11	5.47	Average	107	146
4	4924.00	56.07	74.00	-17.93	50.60	5.47	Peak	107	146
5	7386.00	39.58	54.00	-14.42	28.94	10.64	Average	100	150
6	7386.00	53.41	74.00	-20.59	42.77	10.64	Peak	100	150

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 :Akun Chung Temperature(℃):25 Humidity(%):65



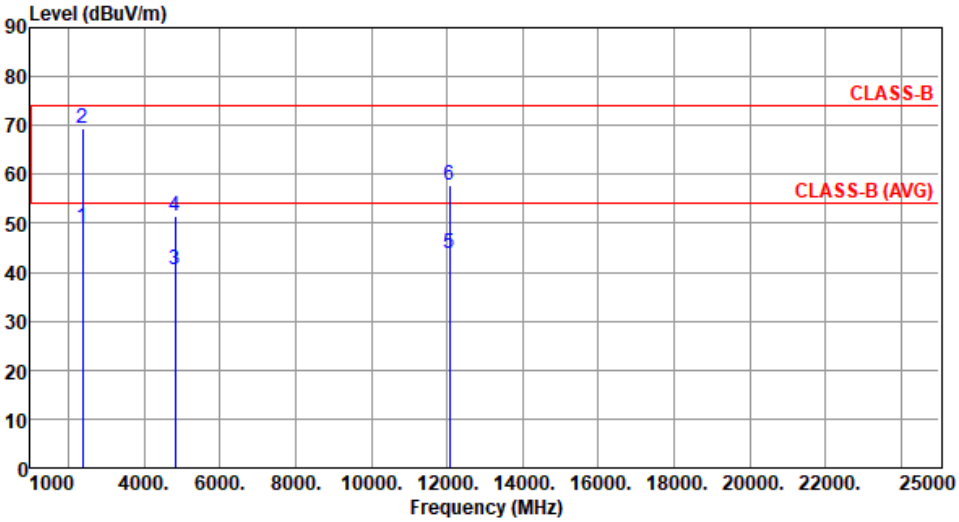
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	40.68	54.00	-13.32	42.26	-1.58	Average	284	255
2	2483.50	52.98	74.00	-21.02	54.56	-1.58	Peak	284	255
3	4924.00	52.40	54.00	-1.60	46.93	5.47	Average	106	263
4	4924.00	55.49	74.00	-18.51	50.02	5.47	Peak	106	263
5	7386.00	39.11	54.00	-14.89	28.47	10.64	Average	100	255
6	7386.00	53.06	74.00	-20.94	42.42	10.64	Peak	100	255

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).

Unwanted Emissions (Above 1GHz) for 11g

Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

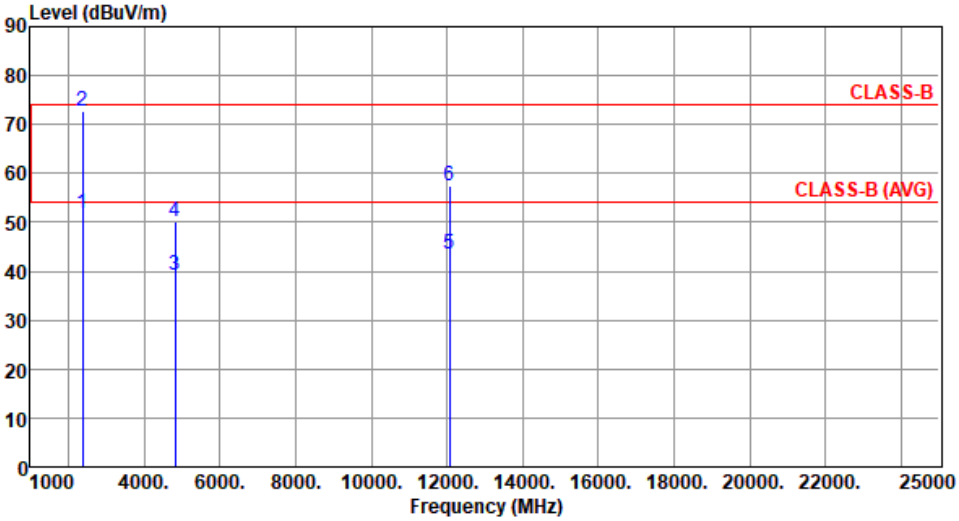


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	49.19	54.00	-4.81	50.68	-1.49	Average	100	302
2	2390.00	69.55	74.00	-4.45	71.04	-1.49	Peak	100	302
3	4824.00	40.49	54.00	-13.51	35.22	5.27	Average	133	142
4	4824.00	51.48	74.00	-22.52	46.21	5.27	Peak	133	142
5	12060.00	43.70	54.00	-10.30	28.74	14.96	Average	100	145
6	12060.00	57.68	74.00	-16.32	42.72	14.96	Peak	100	145

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 :Brad Wu Temperature(℃):25 Humidity(%):65

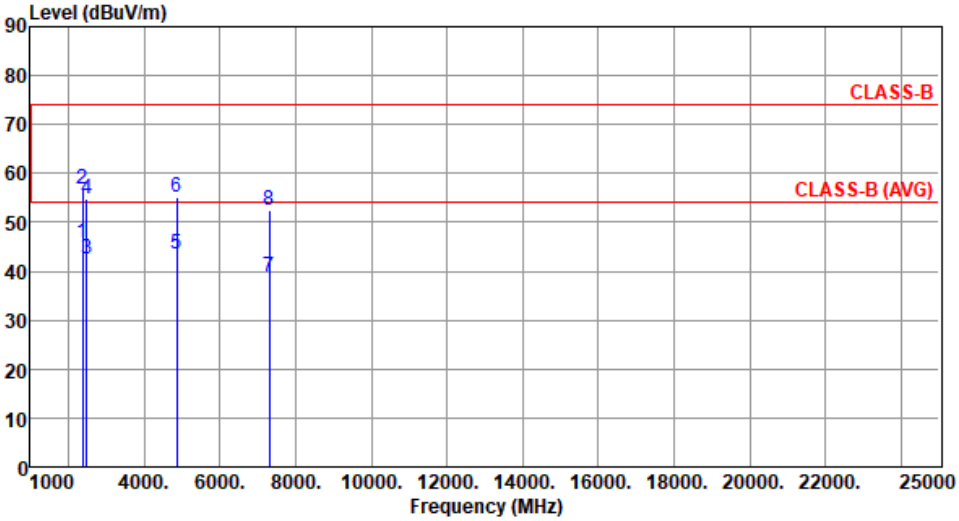


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.96	54.00	-2.04	53.45	-1.49	Average	288	255
2	2390.00	72.71	74.00	-1.29	74.20	-1.49	Peak	288	255
3	4824.00	39.16	54.00	-14.84	33.89	5.27	Average	100	256
4	4824.00	50.16	74.00	-23.84	44.89	5.27	Peak	100	256
5	12060.00	43.50	54.00	-10.50	28.54	14.96	Average	100	251
6	12060.00	57.54	74.00	-16.46	42.58	14.96	Peak	100	251

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 :Brad Wu Temperature(℃):25 Humidity(%):65

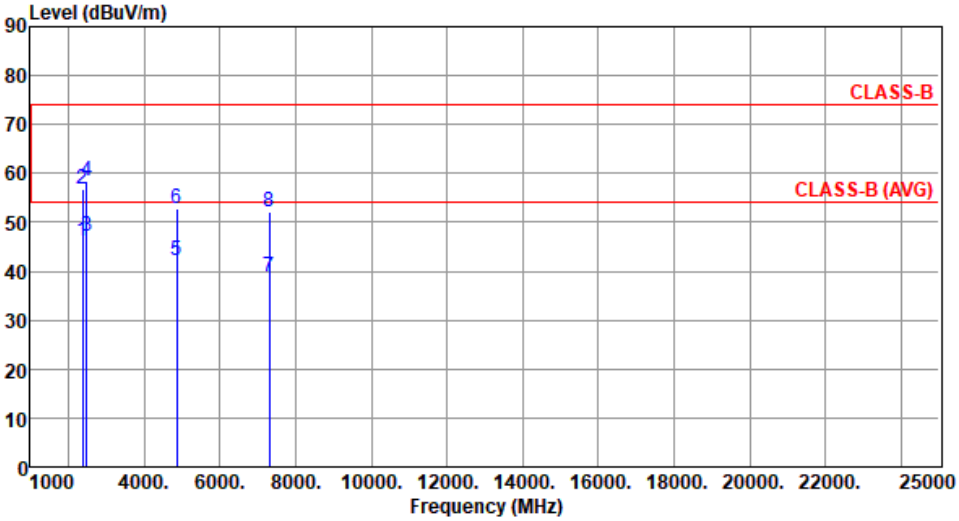


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2385.00	45.77	54.00	-8.23	47.26	-1.49	Average	100	301
2	2385.00	56.86	74.00	-17.14	58.35	-1.49	Peak	100	301
3	2488.50	42.67	54.00	-11.33	44.25	-1.58	Average	100	301
4	2488.50	54.70	74.00	-19.30	56.28	-1.58	Peak	100	301
5	4874.00	43.66	54.00	-10.34	38.33	5.33	Average	106	144
6	4874.00	55.14	74.00	-18.86	49.81	5.33	Peak	106	144
7	7311.00	38.83	54.00	-15.17	27.94	10.89	Average	100	44
8	7311.00	52.41	74.00	-21.59	41.52	10.89	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).

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

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

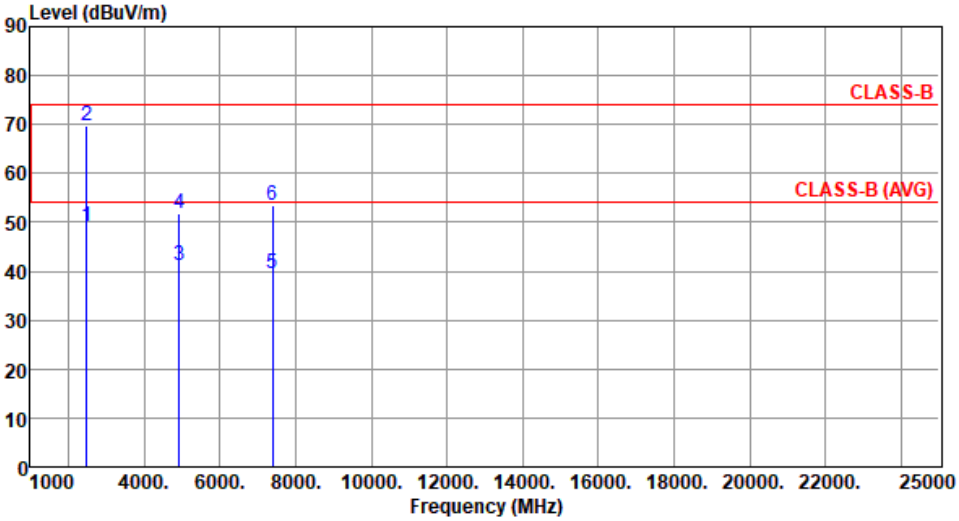


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2385.00	46.09	54.00	-7.91	47.58	-1.49	Average	258	86
2	2385.00	56.66	74.00	-17.34	58.15	-1.49	Peak	258	86
3	2488.50	47.06	54.00	-6.94	48.64	-1.58	Average	258	86
4	2488.50	58.57	74.00	-15.43	60.15	-1.58	Peak	258	86
5	4874.00	42.13	54.00	-11.87	36.80	5.33	Average	100	258
6	4874.00	52.67	74.00	-21.33	47.34	5.33	Peak	100	258
7	7311.00	38.74	54.00	-15.26	27.85	10.89	Average	100	21
8	7311.00	52.17	74.00	-21.83	41.28	10.89	Peak	100	21

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 :Brad Wu Temperature(℃):25 Humidity(%):65

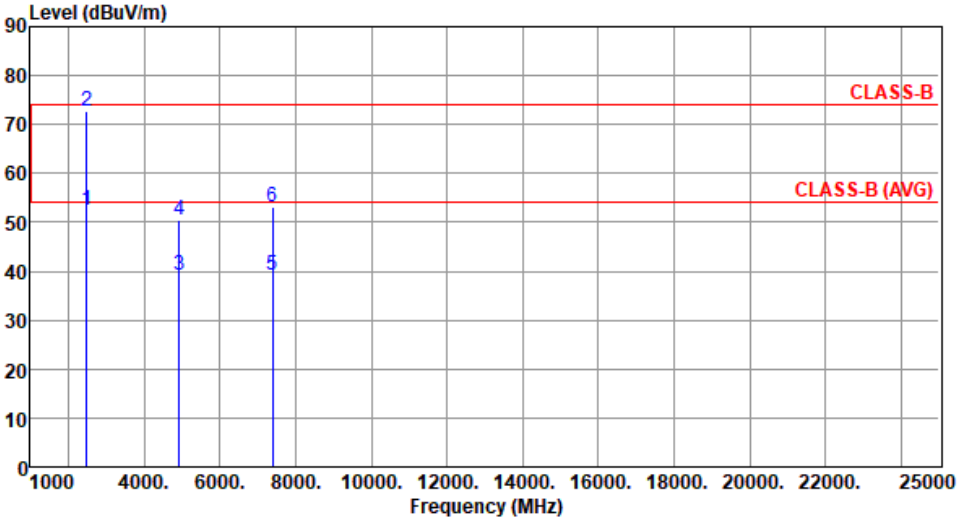


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.29	54.00	-4.71	50.87	-1.58	Average	100	310
2	2483.50	69.67	74.00	-4.33	71.25	-1.58	Peak	100	310
3	4924.00	41.25	54.00	-12.75	35.78	5.47	Average	102	149
4	4924.00	51.73	74.00	-22.27	46.26	5.47	Peak	102	149
5	7386.00	39.40	54.00	-14.60	28.76	10.64	Average	100	155
6	7386.00	53.43	74.00	-20.57	42.79	10.64	Peak	100	155

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 :Brad Wu Temperature(℃):25 Humidity(%):65



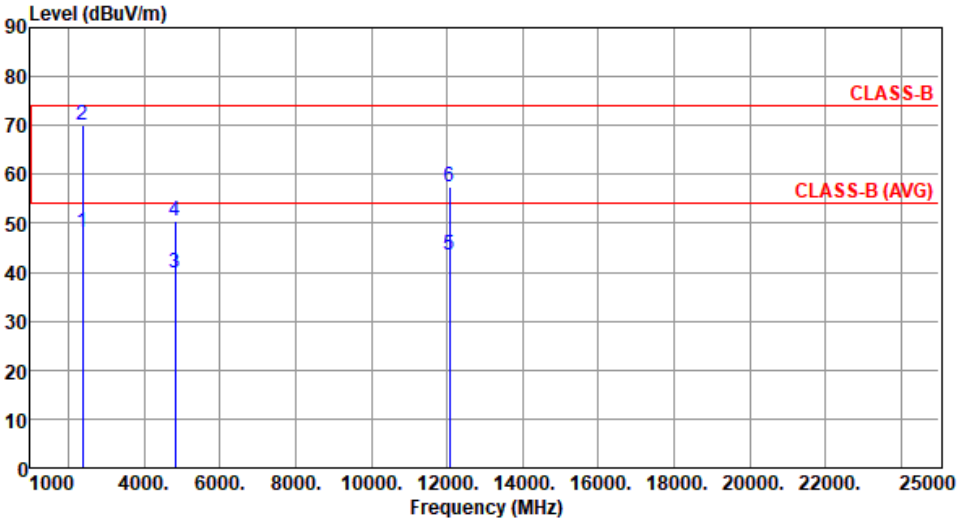
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	52.37	54.00	-1.63	53.95	-1.58	Average	286	90
2	2483.50	72.84	74.00	-1.16	74.42	-1.58	Peak	286	90
3	4924.00	39.05	54.00	-14.95	33.58	5.47	Average	100	251
4	4924.00	50.47	74.00	-23.53	45.00	5.47	Peak	100	251
5	7386.00	39.22	54.00	-14.78	28.58	10.64	Average	100	253
6	7386.00	53.14	74.00	-20.86	42.50	10.64	Peak	100	253

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).

Unwanted Emissions (Above 1GHz) for HT20

Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

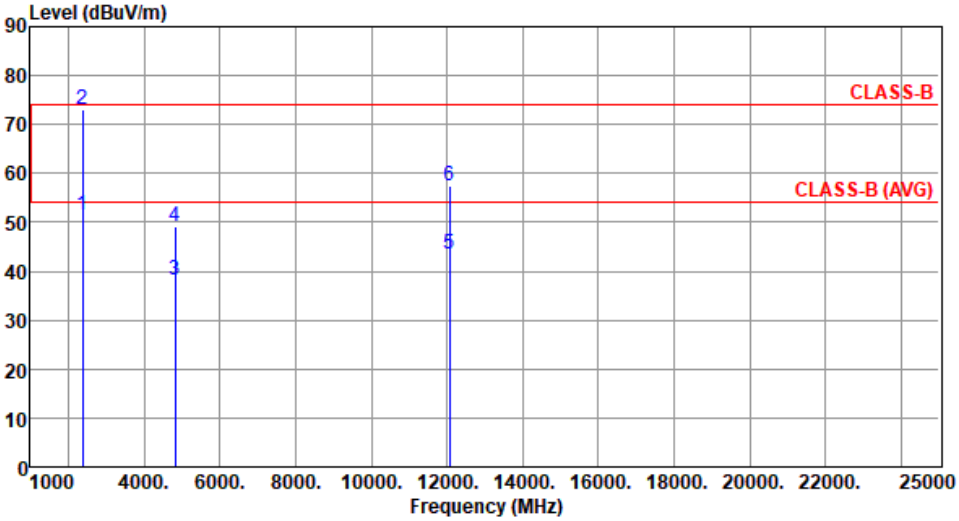


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	48.22	54.00	-5.78	49.71	-1.49	Average	100	303
2	2390.00	69.92	74.00	-4.08	71.41	-1.49	Peak	100	303
3	4824.00	39.82	54.00	-14.18	34.55	5.27	Average	112	143
4	4824.00	50.52	74.00	-23.48	45.25	5.27	Peak	112	143
5	12060.00	43.64	54.00	-10.36	28.68	14.96	Average	100	147
6	12060.00	57.60	74.00	-16.40	42.64	14.96	Peak	100	147

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 :Brad Wu Temperature(℃):25 Humidity(%):65

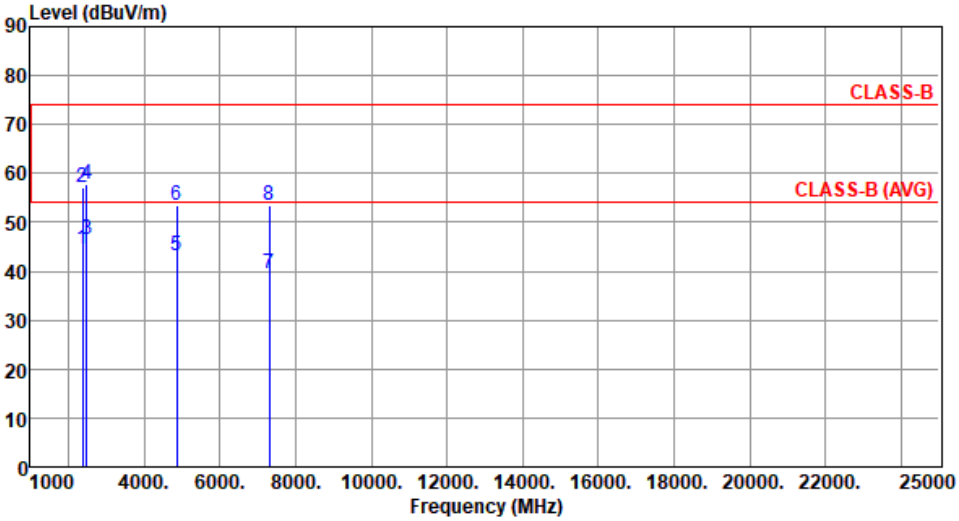


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	51.31	54.00	-2.69	52.80	-1.49	Average	288	254
2	2390.00	73.11	74.00	-0.89	74.60	-1.49	Peak	288	254
3	4824.00	38.16	54.00	-15.84	32.89	5.27	Average	100	261
4	4824.00	49.26	74.00	-24.74	43.99	5.27	Peak	100	261
5	12060.00	43.35	54.00	-10.65	28.39	14.96	Average	100	254
6	12060.00	57.43	74.00	-16.57	42.47	14.96	Peak	100	254

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 :Brad Wu Temperature(℃):25 Humidity(%):65

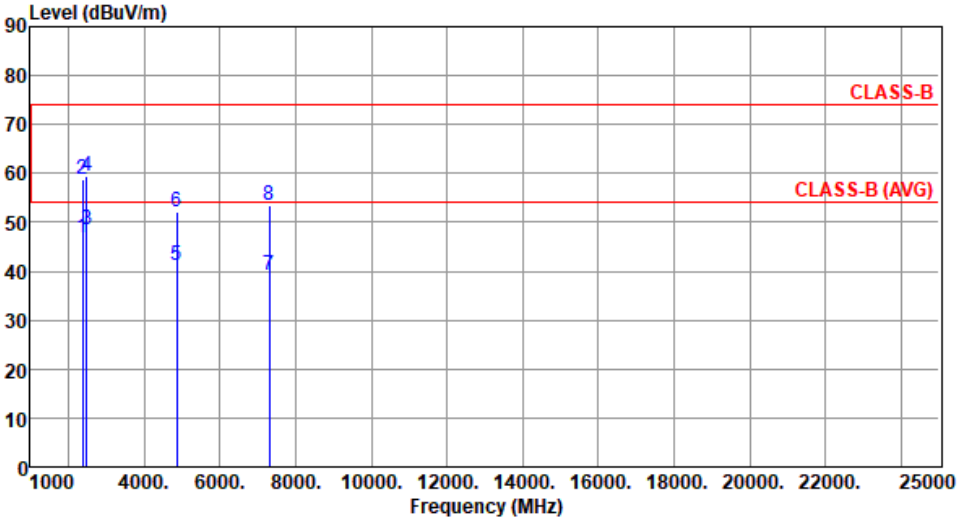


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2385.00	44.62	54.00	-9.38	46.11	-1.49	Average	100	299
2	2385.00	57.28	74.00	-16.72	58.77	-1.49	Peak	100	299
3	2488.50	46.52	54.00	-7.48	48.10	-1.58	Average	100	299
4	2488.50	57.62	74.00	-16.38	59.20	-1.58	Peak	100	299
5	4874.00	43.21	54.00	-10.79	37.88	5.33	Average	110	149
6	4874.00	53.58	74.00	-20.42	48.25	5.33	Peak	110	149
7	7311.00	39.57	54.00	-14.43	28.68	10.89	Average	100	152
8	7311.00	53.60	74.00	-20.40	42.71	10.89	Peak	100	152

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 :Brad Wu Temperature(℃):25 Humidity(%):65

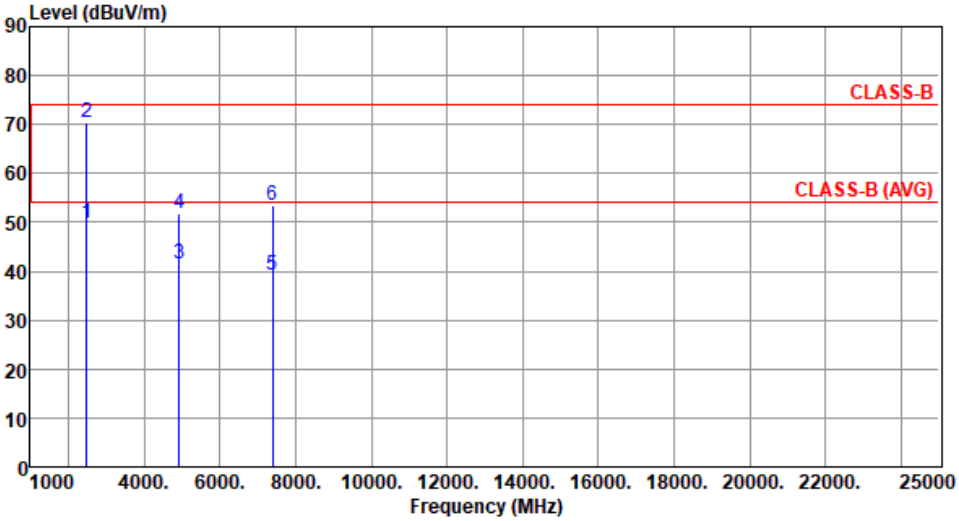


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2385.00	46.97	54.00	-7.03	48.46	-1.49	Average	245	82
2	2385.00	58.65	74.00	-15.35	60.14	-1.49	Peak	245	82
3	2488.50	48.51	54.00	-5.49	50.09	-1.58	Average	281	86
4	2488.50	59.51	74.00	-14.49	61.09	-1.58	Peak	281	86
5	4874.00	41.28	54.00	-12.72	35.95	5.33	Average	100	252
6	4874.00	52.20	74.00	-21.80	46.87	5.33	Peak	100	252
7	7311.00	39.30	54.00	-14.70	28.41	10.89	Average	100	248
8	7311.00	53.36	74.00	-20.64	42.47	10.89	Peak	100	248

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 :Brad Wu Temperature(°C):25 Humidity(%):65

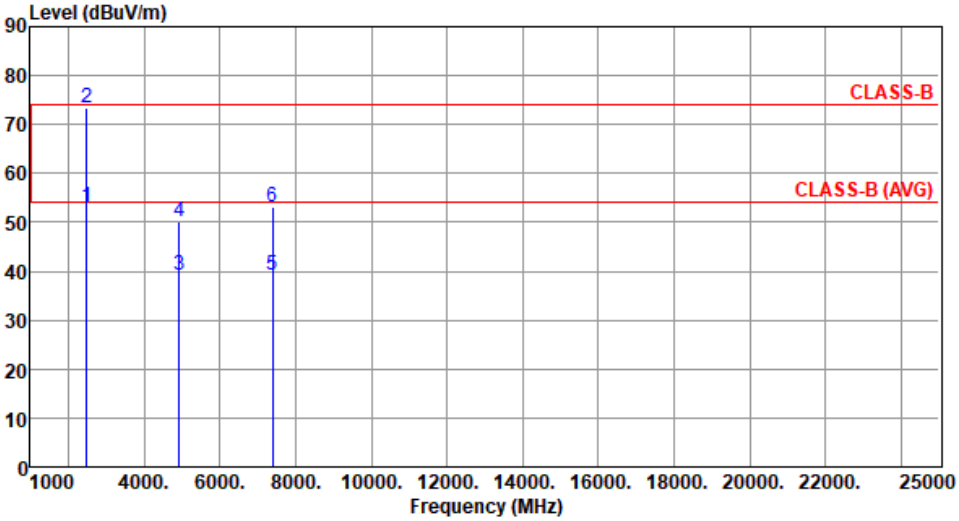


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	49.87	54.00	-4.13	51.45	-1.58	Average	100	307
2	2483.50	70.52	74.00	-3.48	72.10	-1.58	Peak	100	307
3	4924.00	41.36	54.00	-12.64	35.89	5.47	Average	100	140
4	4924.00	51.73	74.00	-22.27	46.26	5.47	Peak	100	140
5	7386.00	39.30	54.00	-14.70	28.66	10.64	Average	100	147
6	7386.00	53.31	74.00	-20.69	42.67	10.64	Peak	100	147

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 :Brad Wu Temperature(℃):25 Humidity(%):65



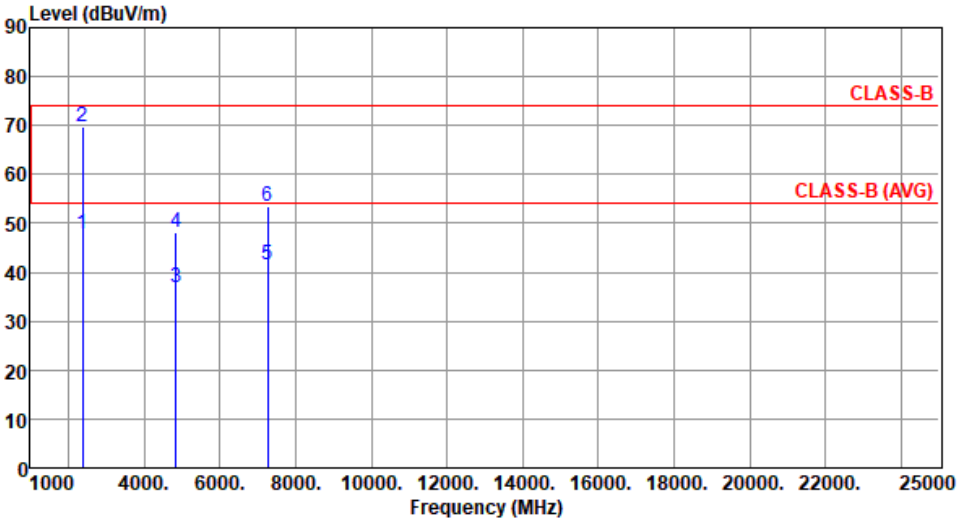
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	53.07	54.00	-0.93	54.65	-1.58	Average	286	89
2	2483.50	73.44	74.00	-0.56	75.02	-1.58	Peak	286	89
3	4924.00	39.35	54.00	-14.65	33.88	5.47	Average	100	263
4	4924.00	50.25	74.00	-23.75	44.78	5.47	Peak	100	263
5	7386.00	39.04	54.00	-14.96	28.40	10.64	Average	100	253
6	7386.00	53.08	74.00	-20.92	42.44	10.64	Peak	100	253

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).

Unwanted Emissions (Above 1GHz) for HT40

Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

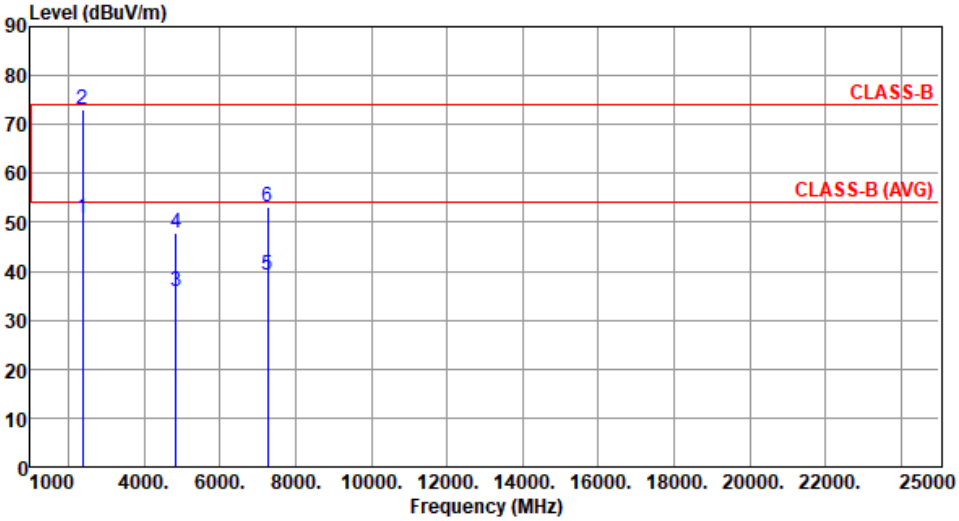


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	47.83	54.00	-6.17	49.32	-1.49	Average	100	302
2	2390.00	69.75	74.00	-4.25	71.24	-1.49	Peak	100	302
3	4844.00	36.99	54.00	-17.01	31.66	5.33	Average	100	145
4	4844.00	48.03	74.00	-25.97	42.70	5.33	Peak	100	145
5	7266.00	41.35	54.00	-12.65	30.51	10.84	Average	100	143
6	7266.00	53.36	74.00	-20.64	42.52	10.84	Peak	100	143

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)**	2422
Polarization	Vertical		

Test By :Brad Wu Temperature(℃):25 Humidity(%):65

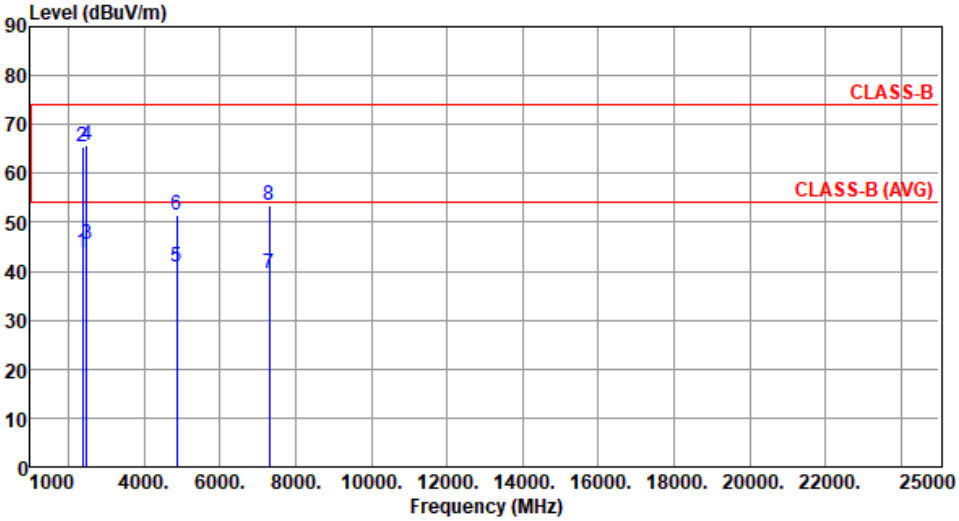


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	50.71	54.00	-3.29	52.20	-1.49	Average	288	249
2	2390.00	73.06	74.00	-0.94	74.55	-1.49	Peak	288	249
3	4844.00	35.77	54.00	-18.23	30.44	5.33	Average	100	252
4	4844.00	47.91	74.00	-26.09	42.58	5.33	Peak	100	252
5	7266.00	39.10	54.00	-14.90	28.26	10.84	Average	100	254
6	7266.00	53.03	74.00	-20.97	42.19	10.84	Peak	100	254

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 :Brad Wu Temperature(℃):25 Humidity(%):65

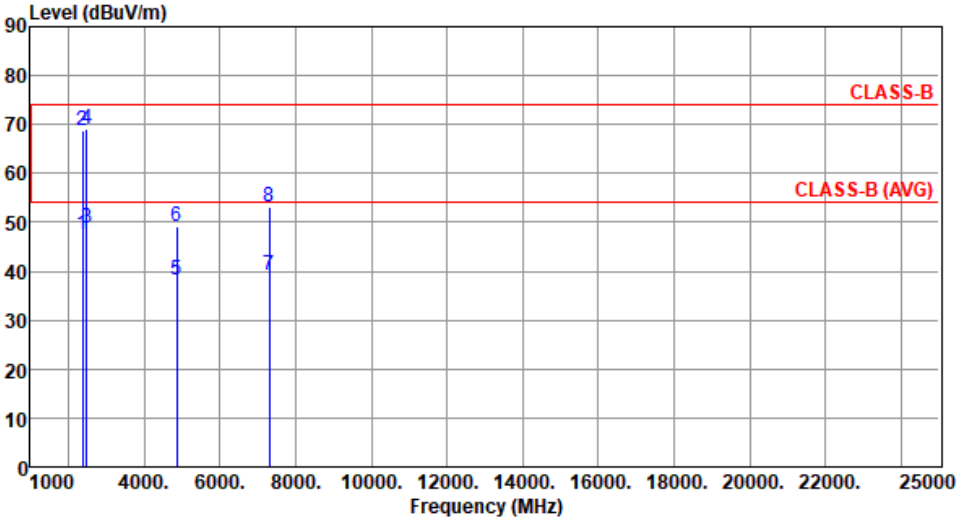


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	43.72	54.00	-10.28	45.21	-1.49	Average	100	312
2	2390.00	65.52	74.00	-8.48	67.01	-1.49	Peak	100	312
3	2483.50	45.63	54.00	-8.37	47.21	-1.58	Average	100	312
4	2483.50	65.85	74.00	-8.15	67.43	-1.58	Peak	100	312
5	4874.00	40.77	54.00	-13.23	35.44	5.33	Average	100	143
6	4874.00	51.58	74.00	-22.42	46.25	5.33	Peak	100	143
7	7311.00	39.43	54.00	-14.57	28.54	10.89	Average	100	139
8	7311.00	53.42	74.00	-20.58	42.53	10.89	Peak	100	139

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 :Brad Wu Temperature(℃):25 Humidity(%):65

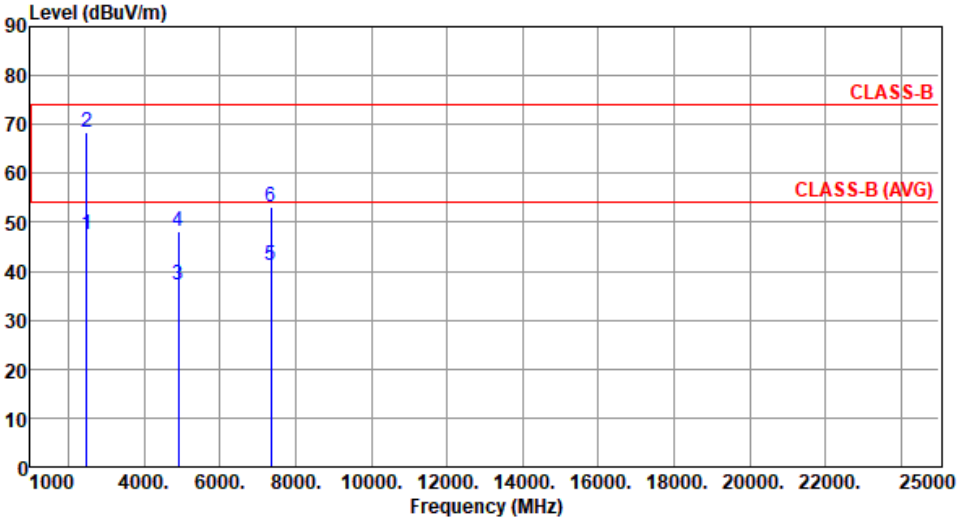


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	47.48	54.00	-6.52	48.97	-1.49	Average	282	250
2	2390.00	68.71	74.00	-5.29	70.20	-1.49	Peak	282	250
3	2483.50	48.78	54.00	-5.22	50.36	-1.58	Average	282	250
4	2483.50	69.03	74.00	-4.97	70.61	-1.58	Peak	282	250
5	4874.00	38.13	54.00	-15.87	32.80	5.33	Average	100	258
6	4874.00	49.28	74.00	-24.72	43.95	5.33	Peak	100	258
7	7311.00	39.12	54.00	-14.88	28.23	10.89	Average	100	260
8	7311.00	53.15	74.00	-20.85	42.26	10.89	Peak	100	260

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 :Brad Wu Temperature(℃):25 Humidity(%):65

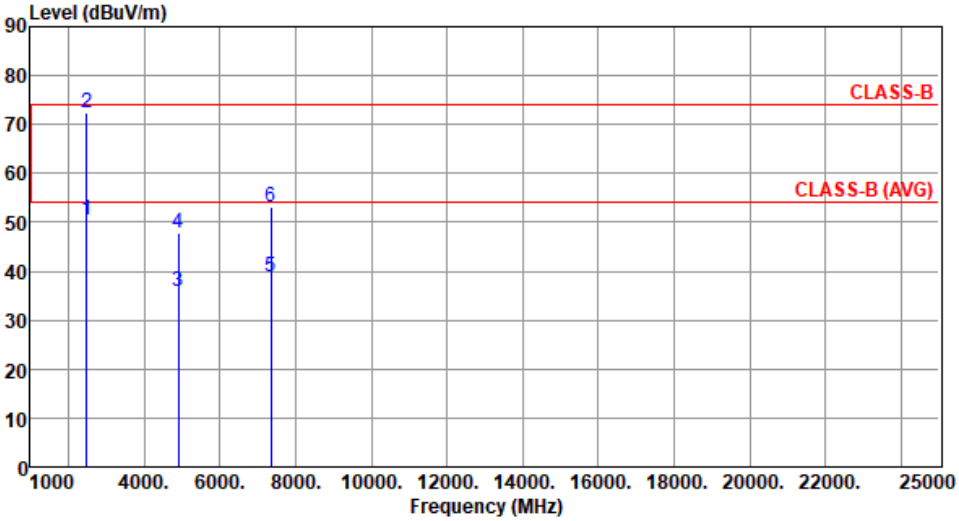


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	47.63	54.00	-6.37	49.21	-1.58	Average	100	295
2	2483.50	68.53	74.00	-5.47	70.11	-1.58	Peak	100	295
3	4904.00	37.22	54.00	-16.78	31.89	5.33	Average	100	145
4	4904.00	48.28	74.00	-25.72	42.95	5.33	Peak	100	145
5	7356.00	41.24	54.00	-12.76	30.57	10.67	Average	100	142
6	7356.00	53.20	74.00	-20.80	42.53	10.67	Peak	100	142

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 :Brad Wu Temperature(℃):25 Humidity(%):65

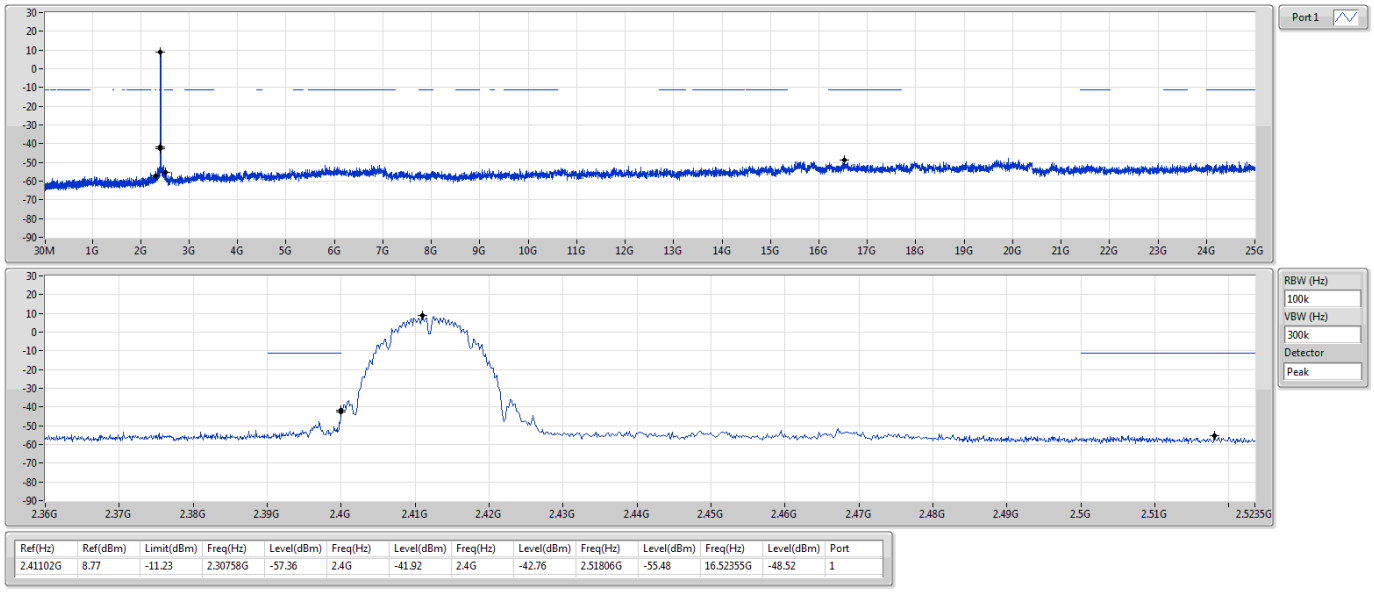


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	50.49	54.00	-3.51	52.07	-1.58	Average	280	89
2	2483.50	72.36	74.00	-1.64	73.94	-1.58	Peak	280	89
3	4904.00	35.89	54.00	-18.11	30.56	5.33	Average	100	256
4	4904.00	47.81	74.00	-26.19	42.48	5.33	Peak	100	256
5	7356.00	38.91	54.00	-15.09	28.24	10.67	Average	100	263
6	7356.00	53.05	74.00	-20.95	42.38	10.67	Peak	100	263

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).

802.11b_Nss1,(1Mbps)_1TX **CSENdB**

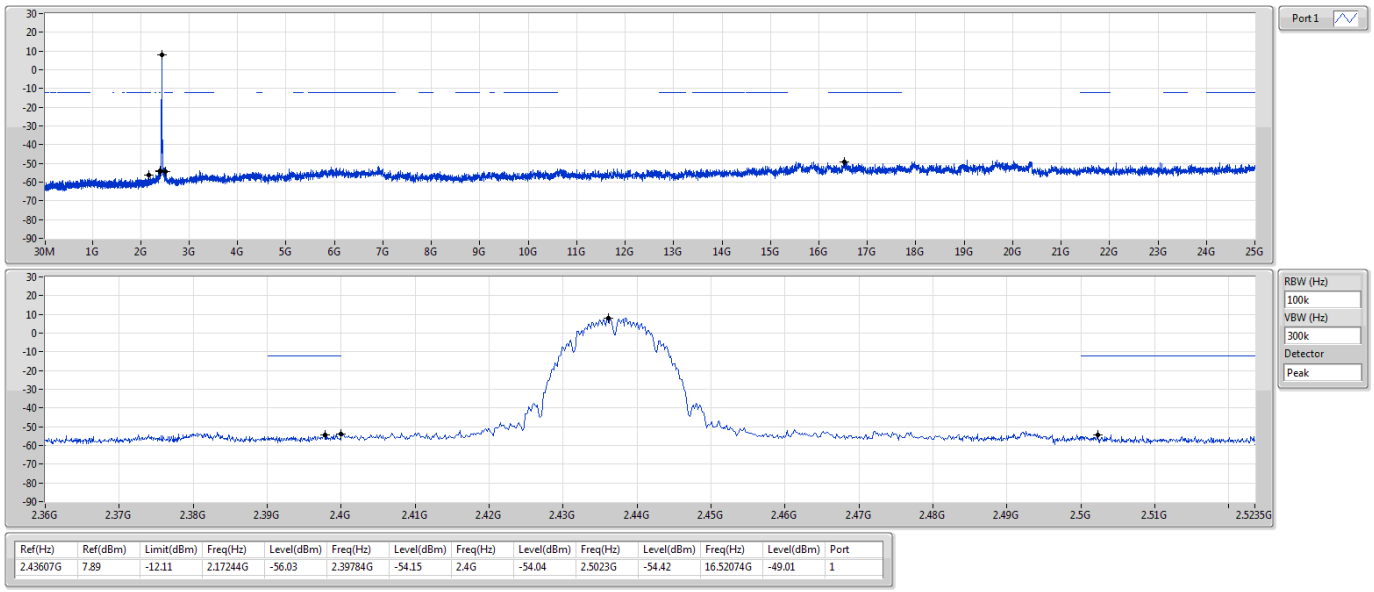
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41102G	8.77	-11.23	2.30758G	-57.36	2.4G	-41.92	2.4G	-42.76	2.51806G	-55.48	16.52355G	-48.52	1

802.11b_Nss1,(1Mbps)_1TX **CSENdB**

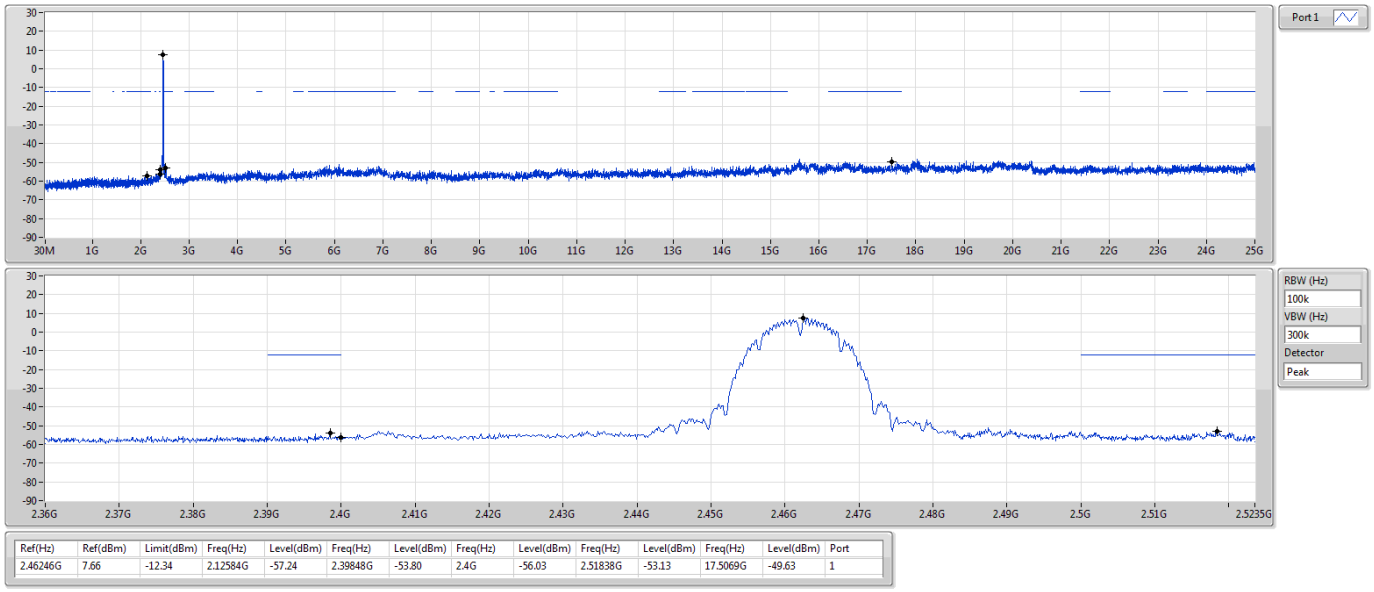
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43607G	7.89	-12.11	2.17244G	-56.03	2.39784G	-54.15	2.4G	-54.04	2.5023G	-54.42	16.52074G	-49.01	1

802.11b_Nss1,(1Mbps)_1TX **CSENdB**

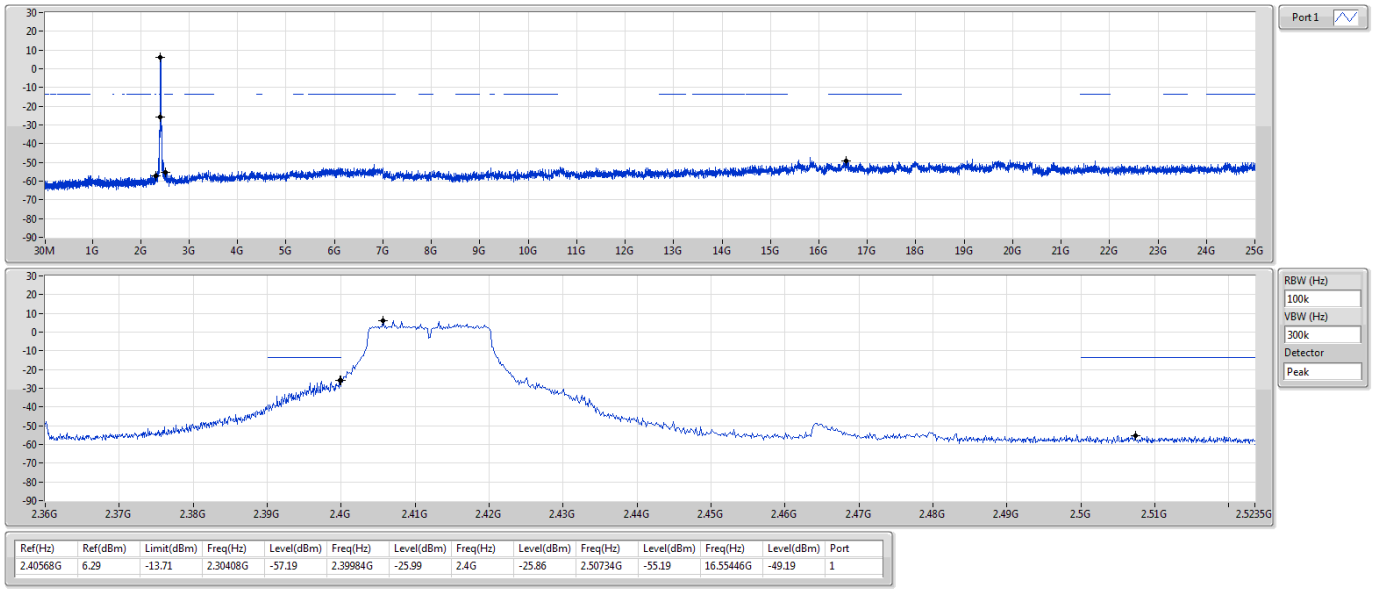
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.46246G	7.66	-12.34	2.12584G	-57.24	2.39848G	-53.80	2.4G	-56.03	2.51838G	-53.13	17.5069G	-49.63	1

802.11g_Nss1,(6Mbps)_1TX **CSENdB**

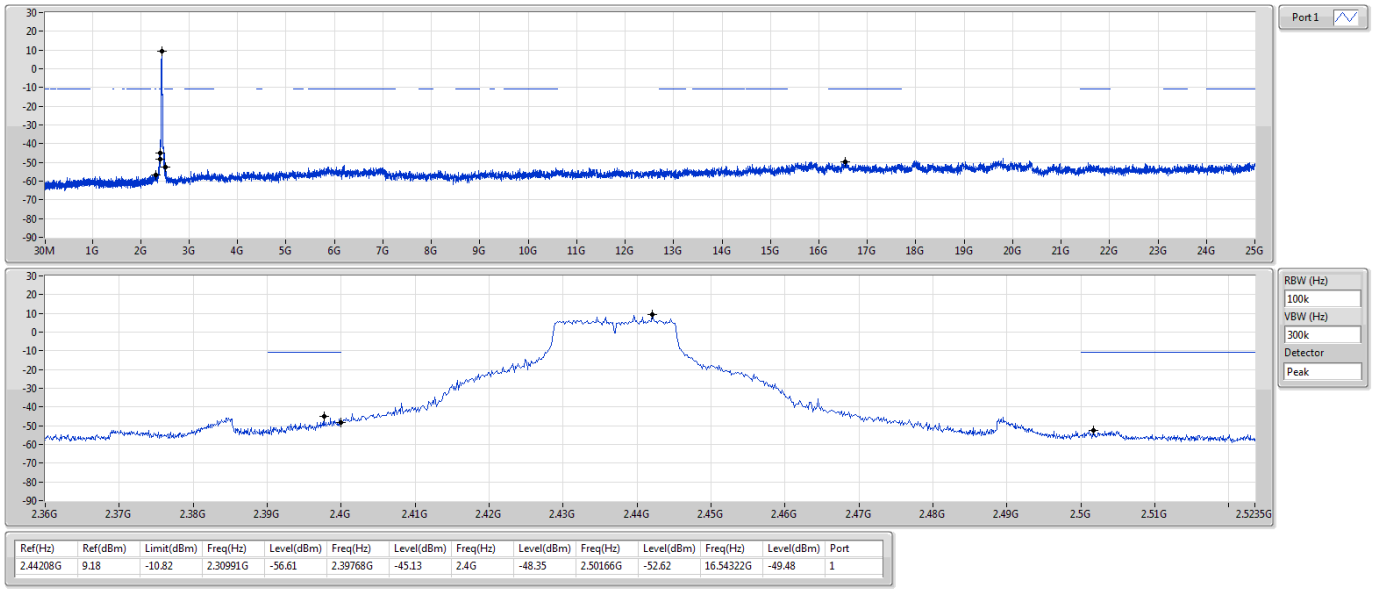
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40568G	6.29	-13.71	2.30408G	-57.19	2.39984G	-25.99	2.4G	-25.86	2.50734G	-55.19	16.55446G	-49.19	1

802.11g_Nss1,(6Mbps)_1TX **CSENdB**

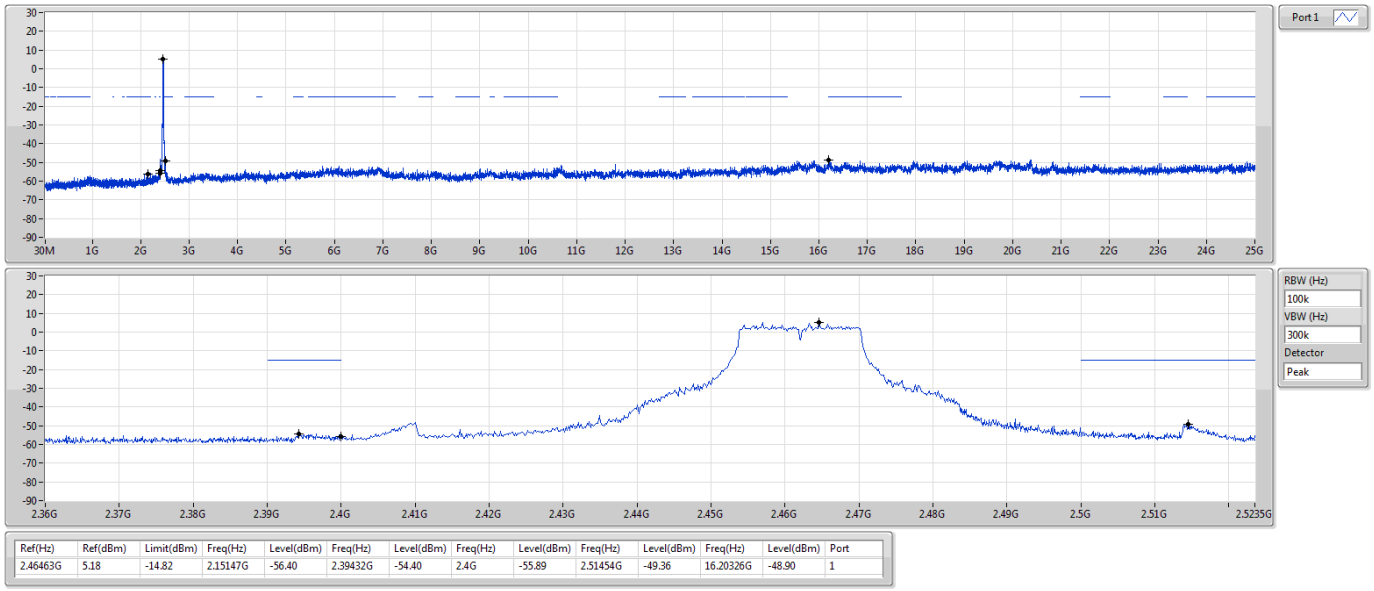
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44208G	9.18	-10.82	2.30991G	-56.61	2.39768G	-45.13	2.4G	-48.35	2.50166G	-52.62	16.54322G	-49.48	1

802.11g_Nss1,(6Mbps)_1TX **CSENdB**

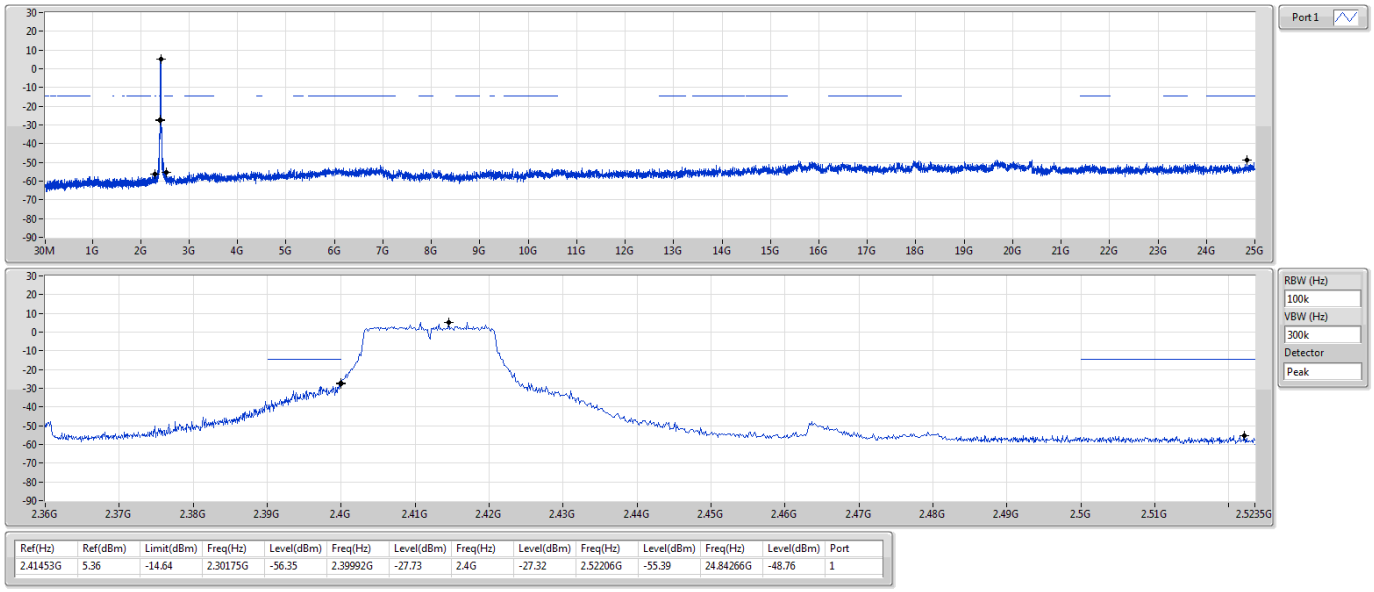
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.46463G	5.18	-14.82	2.15147G	-56.40	2.39432G	-54.40	2.4G	-55.89	2.51454G	-49.36	16.20326G	-48.90	1

802.11n HT20_Nss1,(MCS0)_1TX **CSENdB**

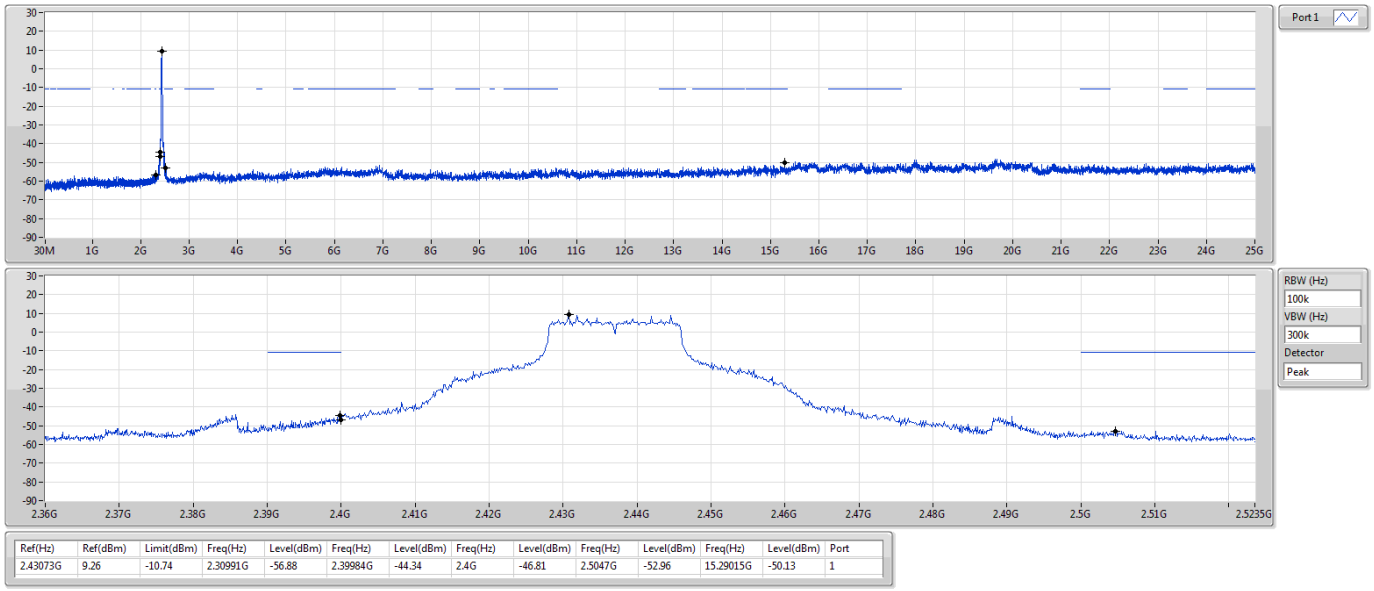
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41453G	5.36	-14.64	2.30175G	-56.35	2.39992G	-27.73	2.4G	-27.32	2.52206G	-55.39	24.84266G	-48.76	1

802.11n HT20_Nss1,(MCS0)_1TX **CSENdB**

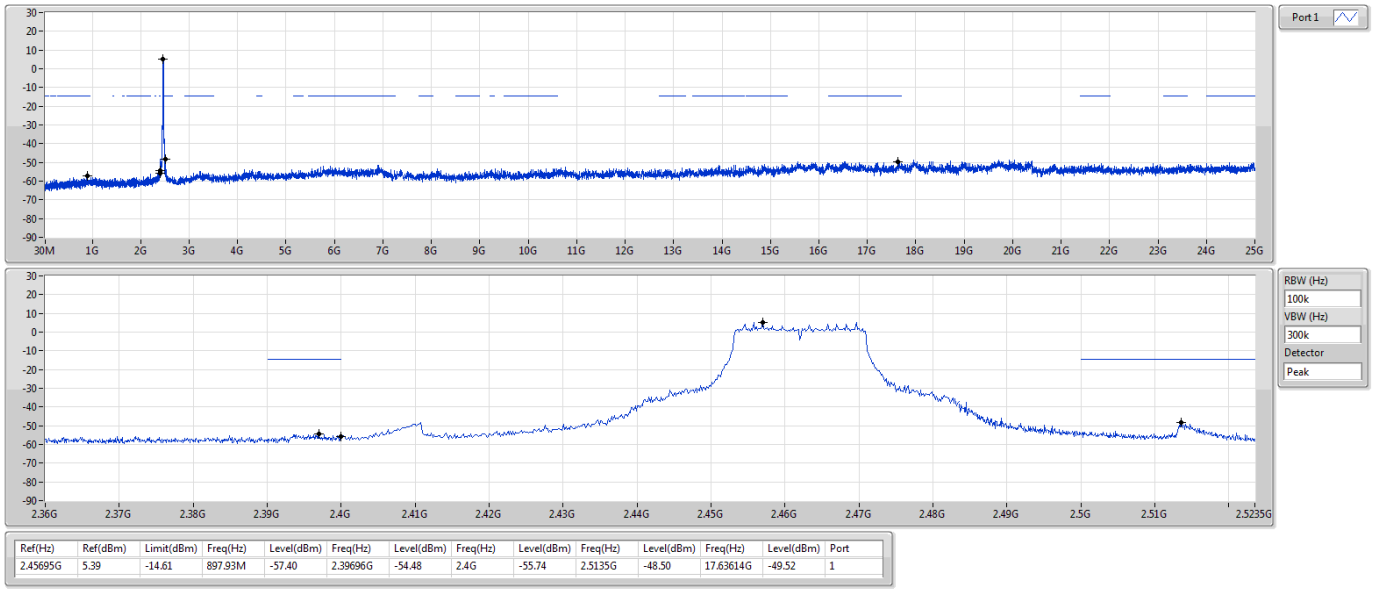
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43073G	9.26	-10.74	2.30991G	-56.88	2.39984G	-44.34	2.4G	-46.81	2.5047G	-52.96	15.29015G	-50.13	1

802.11n HT20_Nss1,(MCS0)_1TX **CSENdB**

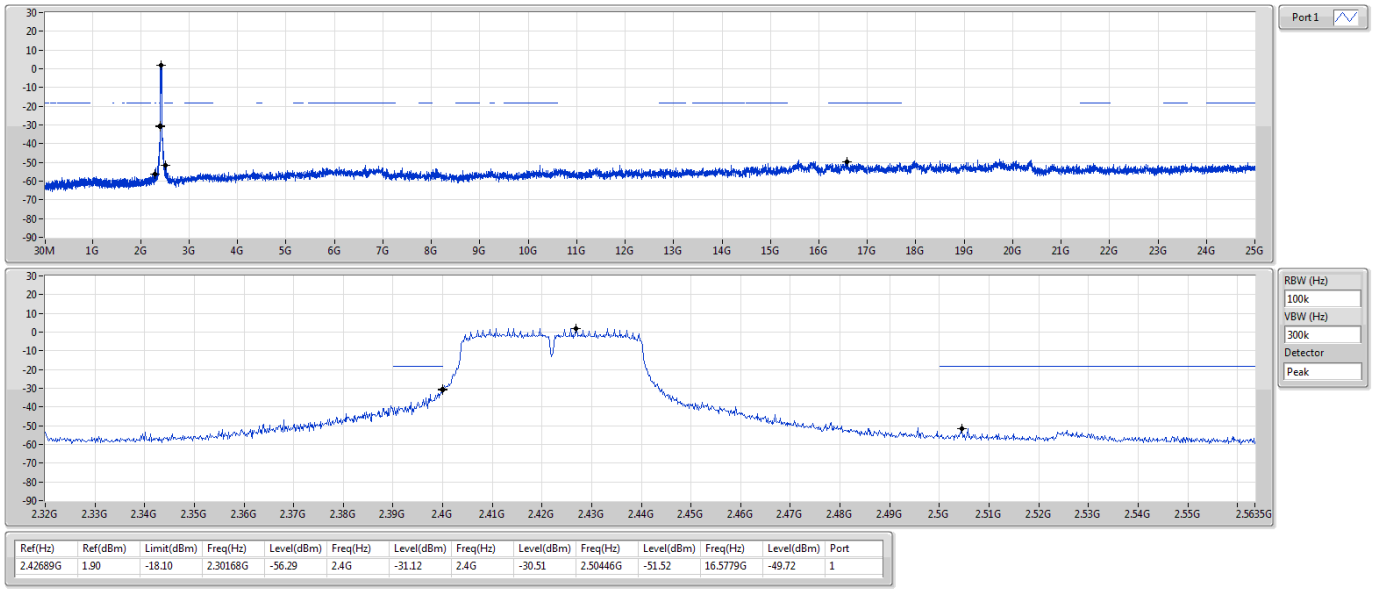
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45695G	5.39	-14.61	897.93M	-57.40	2.39696G	-54.48	2.4G	-55.74	2.5135G	-48.50	17.63614G	-49.52	1

802.11n HT40_Nss1,(MCS0)_1TX **CSENdB**

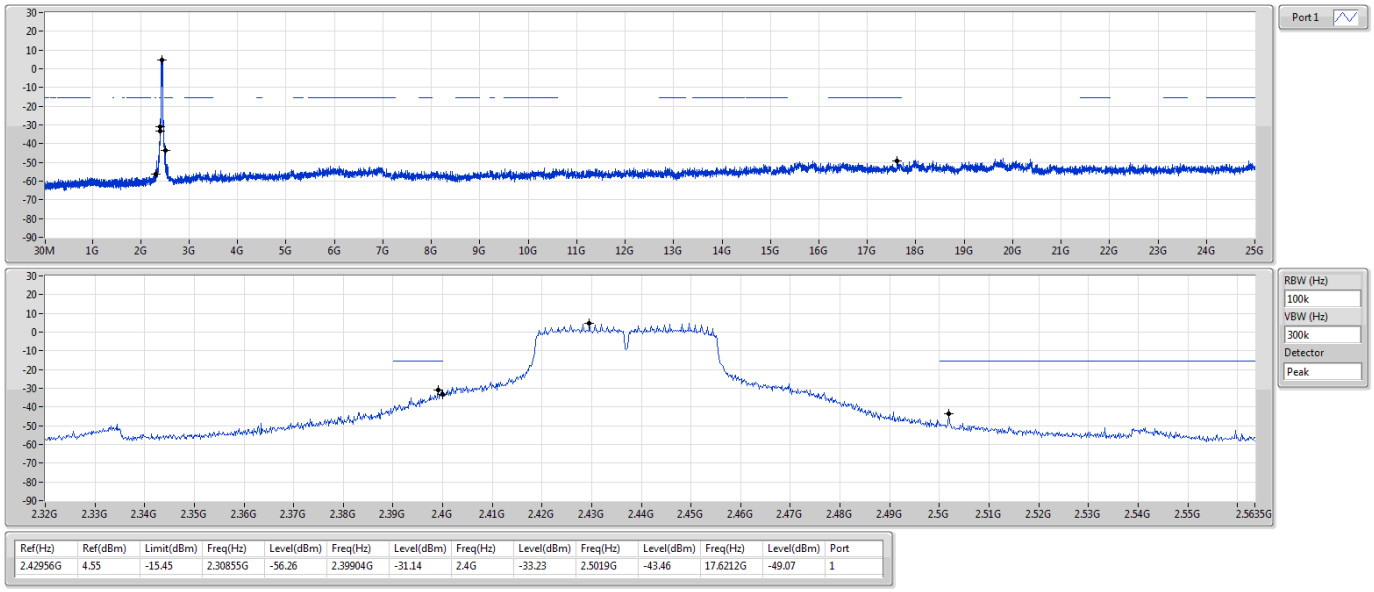
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.42689G	1.90	-18.10	2.30168G	-56.29	2.4G	-31.12	2.4G	-30.51	2.50446G	-51.52	16.5779G	-49.72	1

802.11n HT40_Nss1,(MCS0)_1TX **CSENdB**

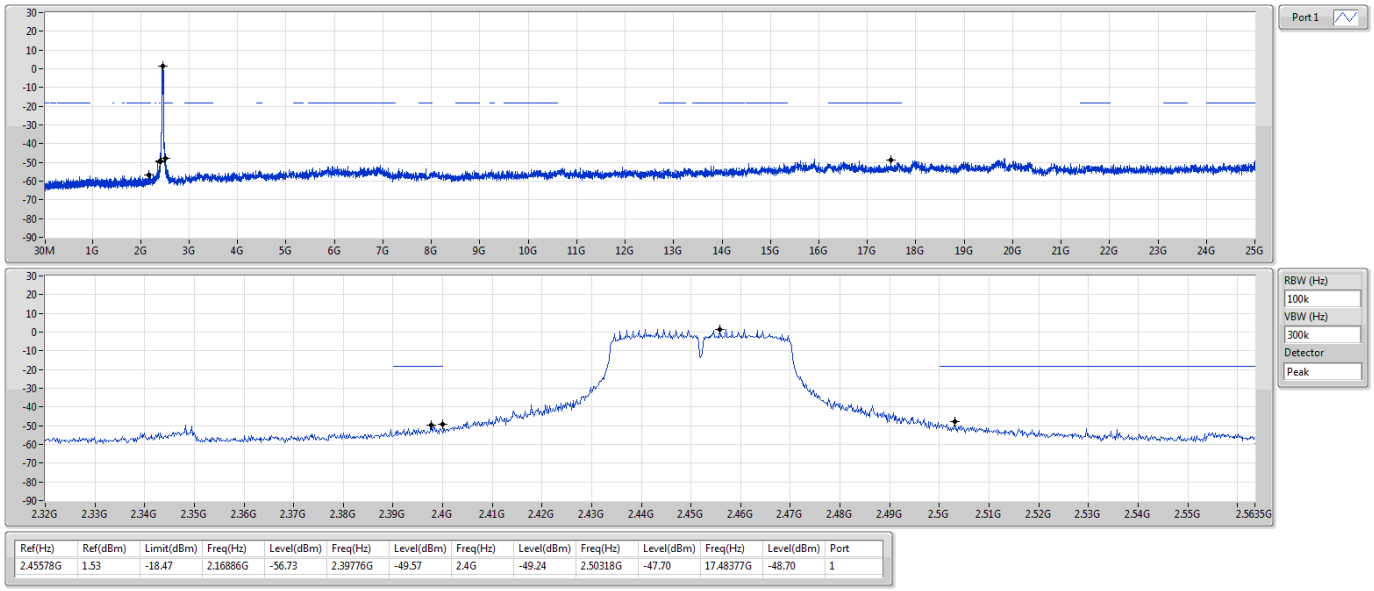
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.42956G	4.55	-15.45	2.30855G	-56.26	2.39904G	-31.14	2.4G	-33.23	2.5019G	-43.46	17.6212G	-49.07	1

802.11n HT40_Nss1,(MCS0)_1TX **CSENdB**

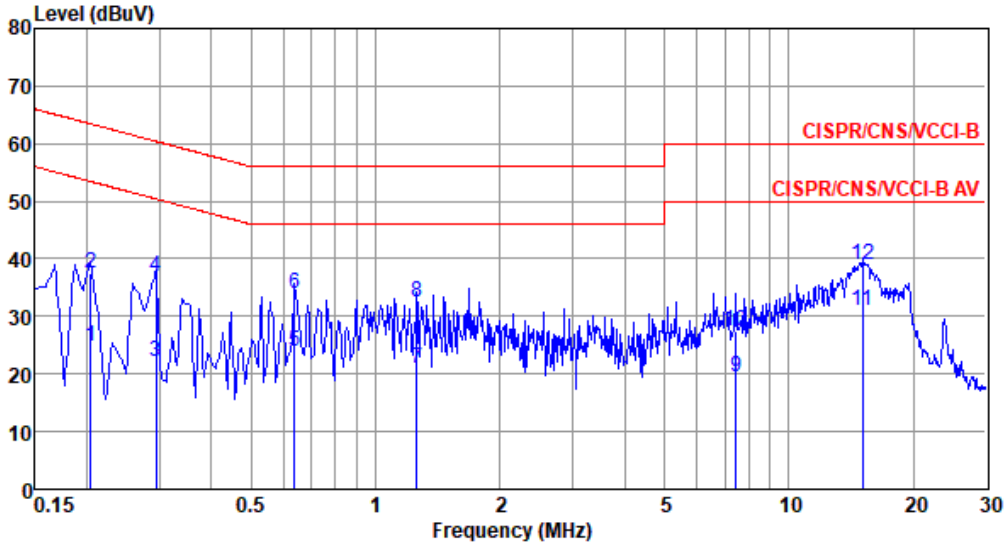
2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.45578G	1.53	-18.47	2.16886G	-56.73	2.39776G	-49.57	2.4G	-49.24	2.50318G	-47.70	17.48377G	-48.70	1

Modulation	HT20	**Test Freq. (MHz)**	2437
Power Phase	Line		

Test by : Joe Liao Temperature: 22°C Humidity: 61%

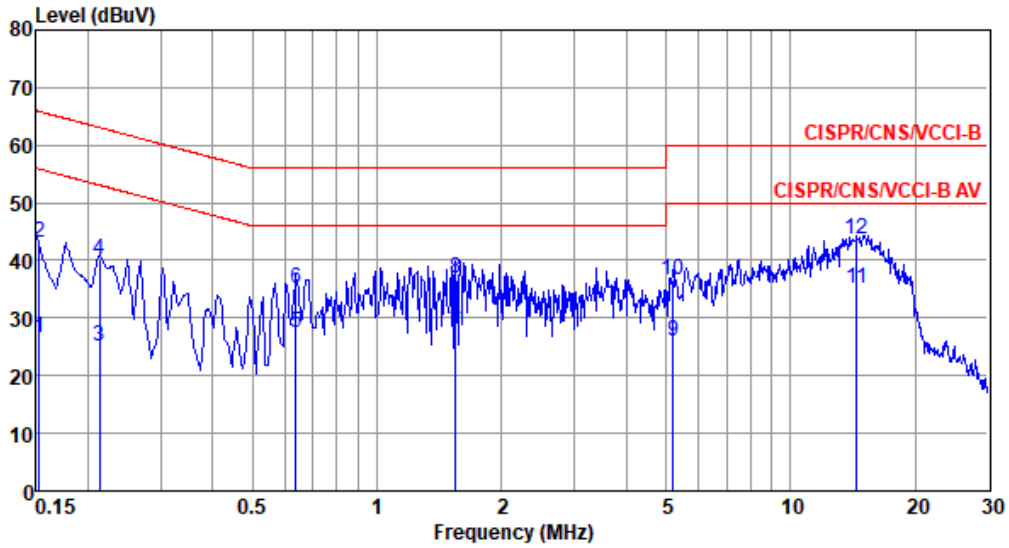


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.204	24.72	53.45	-28.73	14.74	9.68	0.08	0.22	Average
2	0.204	37.60	63.45	-25.85	27.62	9.68	0.08	0.22	QP
3	0.294	22.25	50.41	-28.16	12.20	9.67	0.08	0.30	Average
4	0.294	36.95	60.41	-23.46	26.90	9.67	0.08	0.30	QP
5	0.637	23.92	46.00	-22.08	13.75	9.68	0.12	0.37	Average
6	0.637	34.06	56.00	-21.94	23.89	9.68	0.12	0.37	QP
7	1.255	20.86	46.00	-25.14	10.63	9.68	0.17	0.38	Average
8	1.255	32.61	56.00	-23.39	22.38	9.68	0.17	0.38	QP
9	7.446	19.35	50.00	-30.65	8.82	9.73	0.37	0.43	Average
10	7.446	27.45	60.00	-32.55	16.92	9.73	0.37	0.43	QP
11*	15.066	31.06	50.00	-18.94	20.25	9.73	0.56	0.52	Average
12	15.066	39.03	60.00	-20.97	28.22	9.73	0.56	0.52	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).

Modulation	HT20	**Test Freq. (MHz)**	2437
Power Phase	Neutral		

Test by : Joe Liao Temperature: 22°C Humidity: 61%



	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.152	26.48	55.87	-29.39	16.63	9.61	0.08	0.16	Average
2	0.152	43.11	65.87	-22.76	33.26	9.61	0.08	0.16	QP
3	0.213	25.22	53.10	-27.88	15.35	9.61	0.08	0.18	Average
4	0.213	40.04	63.10	-23.06	30.17	9.61	0.08	0.18	QP
5	0.637	27.58	46.00	-18.42	17.61	9.61	0.12	0.24	Average
6	0.637	35.04	56.00	-20.96	25.07	9.61	0.12	0.24	QP
7	1.552	27.53	46.00	-18.47	17.43	9.62	0.19	0.29	Average
8	1.552	36.80	56.00	-19.20	26.70	9.62	0.19	0.29	QP
9	5.194	25.90	50.00	-24.10	15.63	9.65	0.28	0.34	Average
10	5.194	36.54	60.00	-23.46	26.27	9.65	0.28	0.34	QP
11*	14.440	35.01	50.00	-14.99	24.26	9.74	0.55	0.46	Average
12	14.440	43.81	60.00	-16.19	33.06	9.74	0.55	0.46	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).