FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Razer Inc.

Notebook

Model Number: RZ09-0168

FCC ID: RWO-RZ090168

Prepared for : Razer Inc.
9 Pasteur, Suite 100 Irvine, California 92618, United States

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
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Report Number	:	ACS-F15259
Date of Test	:	Aug.19~Sep.08, 2015
Date of Report	:	Sep.24, 2015

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TEST REPORT CERTIFICATION

Applicant	:	Razer Inc.
Manufacturer	:	Razer Inc.
EUT Description	:	Notebook
FCC ID	:	RWO-RZ090168
(A) Model No.	:	RZ09-0168
(B) Serial No.	:	N/A
(C) Test Voltage	:	DC 20V From Adapter Input AC 120V/60Hz

Tested for comply with:
FCC CFR47 Part 15 Subpart C: 2014

Test procedure used:
ANSI C63.10: 2013
KDB558074 D01 v03r03

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Aug.19~Sep.08, 2015 Report of date: Sep.24, 2015

Prepared by : Kayli He
Kayli He / Assistant

Reviewed by :
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AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用
Stamp only for EMC Dept. Re

Approved & Authorized Signer : Signature: David Jin
David Jin / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	**Standard**	**Results**
Power Line Conducted Emission	FCC Part 15: 15.207	PASS
Radiated Emission	FCC Part 15: 15.209	PASS
Band Edge Compliance	FCC Part 15: 15.247	PASS
Conducted spurious emissions	FCC Part 15: 15.247	PASS
6dB Bandwidth	FCC Part 15: 15.247	PASS
Peak Output Power	FCC Part 15: 15.247	PASS
Power Spectral Density	FCC Part 15: 15.247	PASS
Antenna requirement	FCC Part 15: 15.203	PASS
N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : Notebook

Model Number : RZ09-0168

FCC ID : RWO-RZ090168

Radio : IEEE802.11 a/b/g/n/ac; Bluetooth V3.0+EDR; Bluetooth V4.1

Operation Frequency : IEEE 802.11a:
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE 802.11ac VHT20:
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE 802.11ac VHT40:
5190MHz—5230MHz; 5270MHz—5310MHz
5510MHz—5670MHz; 5755MHz—5795MHz
IEEE 802.11ac VHT80: 5210MHz, 5290MHz; 5530MHz; 5775MHz
IEEE 802.11b: 2412MHz—2462MHz
IEEE 802.11g: 2412MHz—2462MHz
IEEE802.11nHT20: 2412MHz—2462MHz;
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE802.11nHT40: 2422MHz—2452MHz;
5190MHz—5230MHz; 5270MHz—5310MHz
5510MHz—5670MHz; 5755MHz—5795MHz
Bluetooth : 2402-2480MHz

Modulation Technology : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)
IEEE 802.11a/g: OFDM(64QAM, 16QAM, QPSK, BPSK)
IEEE 802.11ac VHT20, VHT40, VHT80: OFDM(16QAM, 64QAM, 256QAM, QPSK, BPSK)
IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,QPSK,BPSK)
Bluetooth V3.0+EDR: GFSK, π/4DQPSK,8-DPSK
Bluetooth V4.1:GFSK

Antenna Assembly Gain : Antenna Type: PIFA
Bluetooth: 2.84dBi
WIFI 2.4GHz:ANT 0: 2.84dBi; ANT 1: 2.37dBi
U-NII 5180-5240MHz Band: ANT 0: -0.18dBi; ANT 1: -0.78dBi
U-NII 5260-5320MHz Band: ANT 0: 0.32dBi; ANT 1: -0.08dBi
U-NII 5500-5700MHz Band: ANT 0: 3.52dBi; ANT 1: 3.07dBi
U-NII 5745-5825MHz Band: ANT 0: 3.48dBi; ANT 1: 3.18dBi

Applicant	:	Razer Inc. 9 Pasteur, Suite 100 Irvine, California 92618, United States
Manufacturer	:	Razer Inc. 9 Pasteur, Suite 100 Irvine, California 92618, United States
Factory	:	BYD Precision Manufacture Co., Ltd No.3001, Baohe Road, Baolong Industrial, Longgang, Shenzhen, 518116, P.R., China
Power Adapter	:	Manufacturer: Razer Inc. M/N: RC30-0168 Input: 100-240 Vac,50/60Hz, 2.0A Output: 20V,2.25A
Date of Test	:	Aug.19~Sep.08, 2015
Date of Receipt	:	Aug.17, 2015

2.2.Test Information

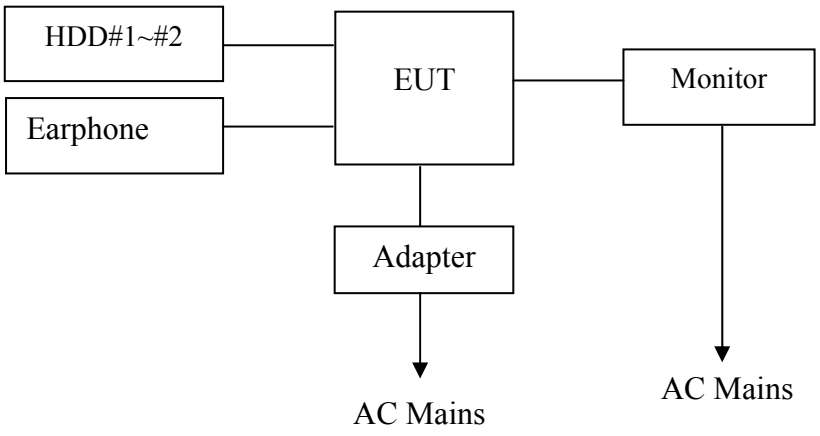
A special test software was used to control EUT work in Continuous TX mode(nearly 100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS0	Low :CH1	2412
	MCS0	Middle: CH6	2437
	MCS0	High: CH11	2462
IEEE 802.11n HT40	MCS0	Low :CH3	2422
	MCS0	Middle: CH6	2437
	MCS0	High: CH9	2452
Note: 1. According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test. Note: 2. 11b/g use SISO mode, choose ANT0 which has the worse case emission for the radiated emission and band edge measurement, 11n mode use MIMO Mode, test with two antenna transmit simultaneously in 11n mode, and comply with KDB662911D01 V02r01.			

2.1.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1.	HDD#1	ACS-EMC-HDD02	Terasys	F12-UF	A0100215-53 90018	☐FCC ID ☑BSMI ID : 4912A022
		Data Cable: Shielded, Detachable, 1.0m				
2.	HDD#2	ACS-EMC-HDD03	Terasys	F12-UF	A0100215-53 90030	☐FCC ID ☑BSMI ID : 4912A022
		Data Cable: Shielded, Detachable, 1.0m				
3.	Earphone	ACS-EMC-EP01	OVANN	OV880V	---	☑CCC
		Data Cable: Shielded, Undetachabled, 2.0m				
4.	3D Monitor	---	SamSung	SA950	---	---
		Adapter: M/N:AD-6314N DC Cable:Unshielded Undetachable 1.5m AC Cable: Unshielded Detachable 1.8m				

2.2.Block diagram of connection between the EUT and simulators



(EUT: Notebook)

2.3. Test Facility

Site Description

Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park,Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 90454 Valid Date: Dec.30, 2017
3m & 10m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 794232 Valid Date: Jul.12, 2017
EMC Lab.	:	Certificated by Industry Canada Registration Number: IC 5183A-1 Valid Date: May.14, 2017
	:	Certificated by DAkkS, Germany Registration No: D-PL-12151-01-00 Valid Date: Dec.15, 2016
	:	Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2016

2.4.Measurement Uncertainty (95% confidence levels, k=2)

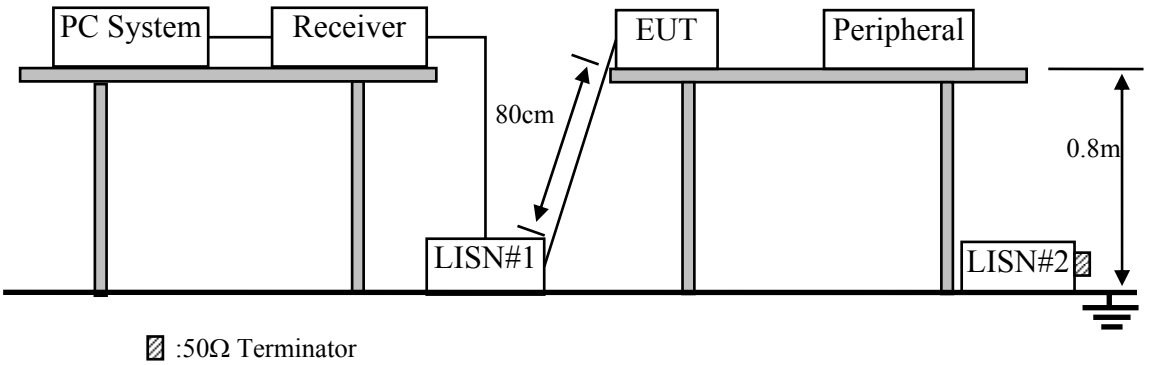
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.1dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.3 dB(30~200MHz, Polarization: H)
	3.3 dB(30~200MHz, Polarization: V)
	3.5 dB(200M~1GHz, Polarization: H)
	3.4 dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	5.0 dB (1~6GHz, Distance: 3m)
	5.0 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.6 dB
Uncertainty for Conduction Spurious emission test	2.0 dB
Uncertainty for Output power test	0.8 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.1 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	Apr.17,15	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.28,15	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	100429	Oct.29,14	1 Year
4.	L.I.S.N#2	Kyoritsu	K NW-403D	8-1750-2	Apr.28,15	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.28,15	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	3D-2W	No.1	Apr.28,15	1Year
8.	Coaxial Switch	Anritsu	MP59B	6200766906	Apr.28,15	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101838	Oct.29,14	1 Year
10.	Test Software	AUDIX	E3	6.100913a	N/A	N/A

3.2.Block Diagram of Test Setup



3.3.Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. Notebook (EUT)

Model Number : RZ09-0168
Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipments.

3.5.3. PC run test software to control EUT work in Tx(WiFi 2.4GHz) mode.

3.6. Test Procedure

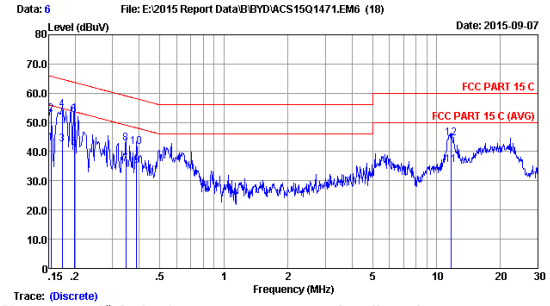
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESCI) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.7. Power Line Conducted Emission Test Results

PASS. **(**All emissions not reported below are too low against the prescribed limits.)

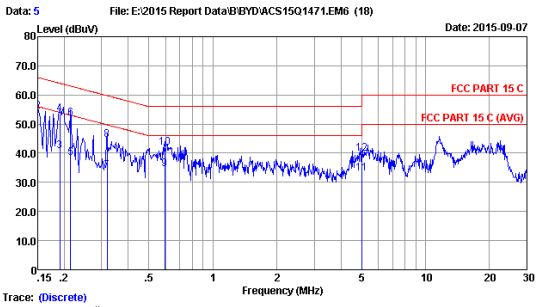


Trace: (Discrete)

Site no :1# Conduction Data No :6
Dis./Lisn :2014 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :25.5*C/54% Engineer :Evan
EUT :Notebook M/N:RZ09-0168
Power Rating :DC 20V From Adapter Input AC 120V/60Hz
Test Mode :TX Mode

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	0.14	10.30	32.50	42.94	55.78	12.84	Average
2	0.154	0.14	10.30	42.40	52.84	65.78	12.94	QP
3	0.174	0.14	10.29	32.09	42.52	54.77	12.25	Average
4	0.174	0.14	10.29	43.77	54.20	64.77	10.57	QP
5	0.198	0.13	10.27	30.80	41.20	53.71	12.51	Average
6	0.198	0.13	10.27	42.01	52.41	63.71	11.30	QP
7	0.346	0.14	10.20	25.30	35.64	49.05	13.41	Average
8	0.346	0.14	10.20	32.34	42.68	59.05	16.37	QP
9	0.389	0.71	10.18	24.11	35.00	48.08	13.08	Average
10	0.389	0.71	10.18	30.62	41.51	58.08	16.57	QP
11	11.683	0.34	10.11	25.11	35.56	50.00	14.44	Average
12	11.683	0.34	10.11	33.99	44.44	60.00	15.56	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.
2.If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



Trace: (Discrete)

Site no :1# Conduction Data No :5
Dis./Lisn :2014 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :25.5*C/54% Engineer :Evan
EUT :Notebook M/N:RZ09-0168
Power Rating :DC 20V From Adapter Input AC 120V/60Hz
Test Mode :TX Mode

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.150	0.13	10.30	30.20	40.63	56.00	15.37	Average
2	0.150	0.13	10.30	44.02	54.45	66.00	11.55	QP
3	0.190	0.13	10.27	30.40	40.80	54.02	13.22	Average
4	0.190	0.13	10.27	42.91	53.31	64.02	10.71	QP
5	0.214	0.13	10.26	28.10	38.49	53.05	14.56	Average
6	0.214	0.13	10.26	41.60	51.99	63.05	11.06	QP
7	0.318	0.15	10.21	23.60	33.96	49.75	15.79	Average
8	0.318	0.15	10.21	34.15	44.51	59.75	15.24	QP
9	0.595	0.16	10.15	24.10	34.41	46.00	11.59	Average
10	0.595	0.16	10.15	31.64	41.95	56.00	14.05	QP
11	5.005	0.27	10.20	22.50	32.97	50.00	17.03	Average
12	5.005	0.27	10.20	29.38	39.85	60.00	20.15	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.
2.If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1. Test Equipment

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

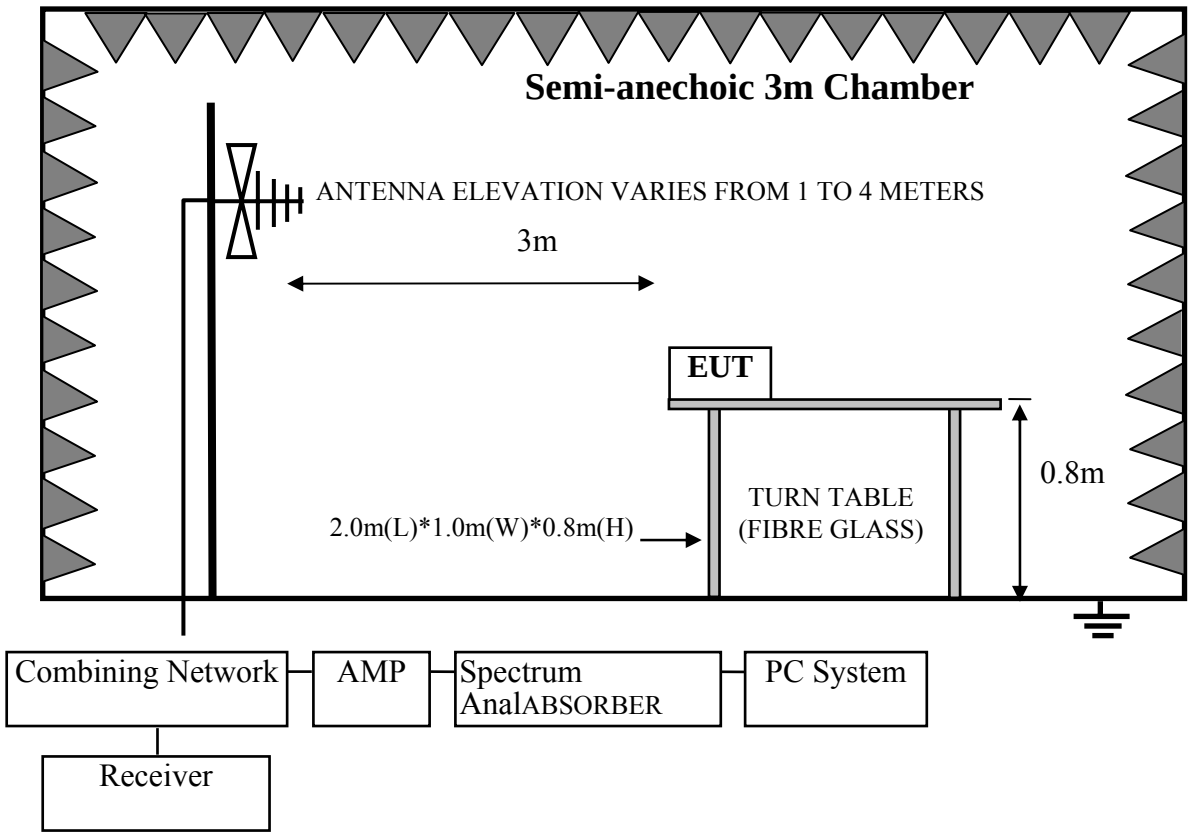
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.23,14	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr.28,15	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr.28,15	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.28,15	1 Year
5.	Bilog Antenna	TESEQ	CBL6112D	35375	Jun.30,15	1 Year
6.	RF Cable	MIYAZAKI	CFD400-NW(3.5M)	No.3	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	CFD400-LW(22M)	No.7	Apr.28,15	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.28,15	1 Year
9.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

4.1.2. For frequency range 1GHz~40GHz (At Anechoic Chamber)

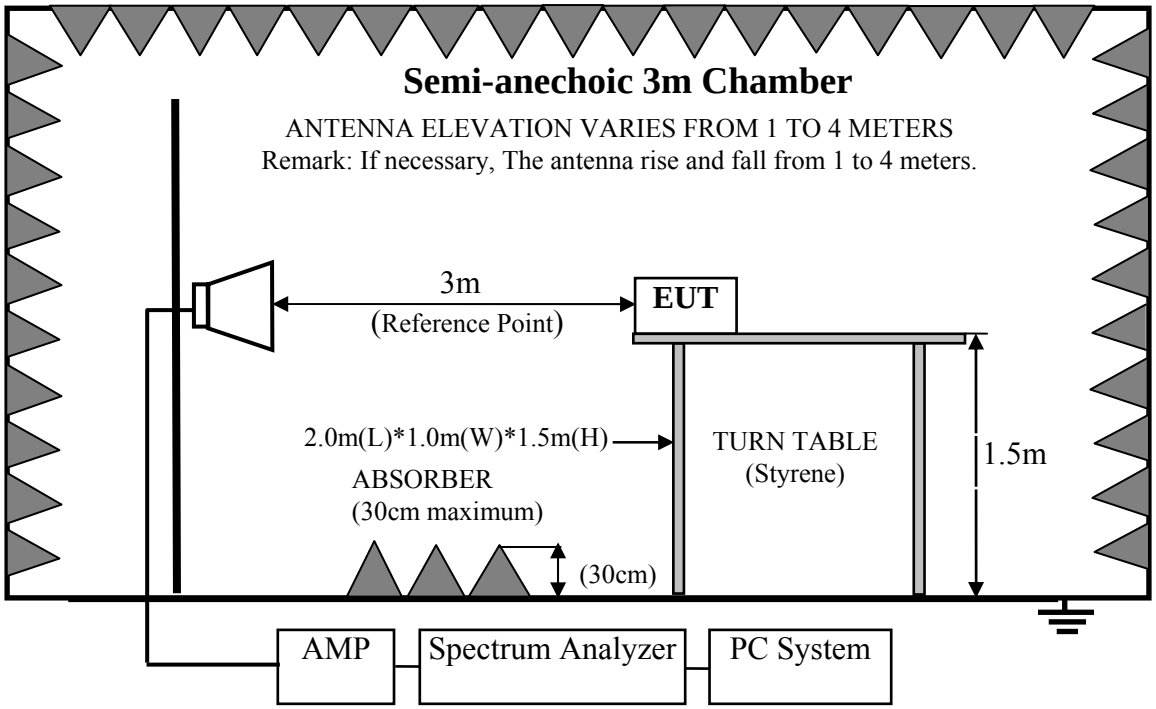
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.02, 14	1 Year
2.	Spectrum Analyzer	Agilent	E4407B	MY41440292	Apr. 28,15	1 Year
3.	Horn Antenna	ETS	3115	9607-4877	Sep.20, 14	1 Year
4.	Amplifier	Agilent	8449B	3008A00863	Apr. 28,15	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr. 28,15	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX106	28616/2	Apr. 28,15	1 Year
7.	Horn Antenna	ETS	3116	00060089	Sep.20, 14	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3. Radiated Emission Limit

4.3.1. 15.247&209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4. EUT Configuration on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

4.4.1. Notebook (EUT)

Model Number : RZ09-0168
Serial Number : N/A

4.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

4.5. Operating Condition of EUT

4.5.1. Setup the EUT and simulator as shown as Section 4.2.

4.5.2. Turn on the power of all equipments.

4.5.3. Let EUT work in Tx(WiFi 2.4GHz) mode

4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it.EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horm antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10^{th} harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25GHz, So the radiated emissions from 18GHz to 25GHz were not record.

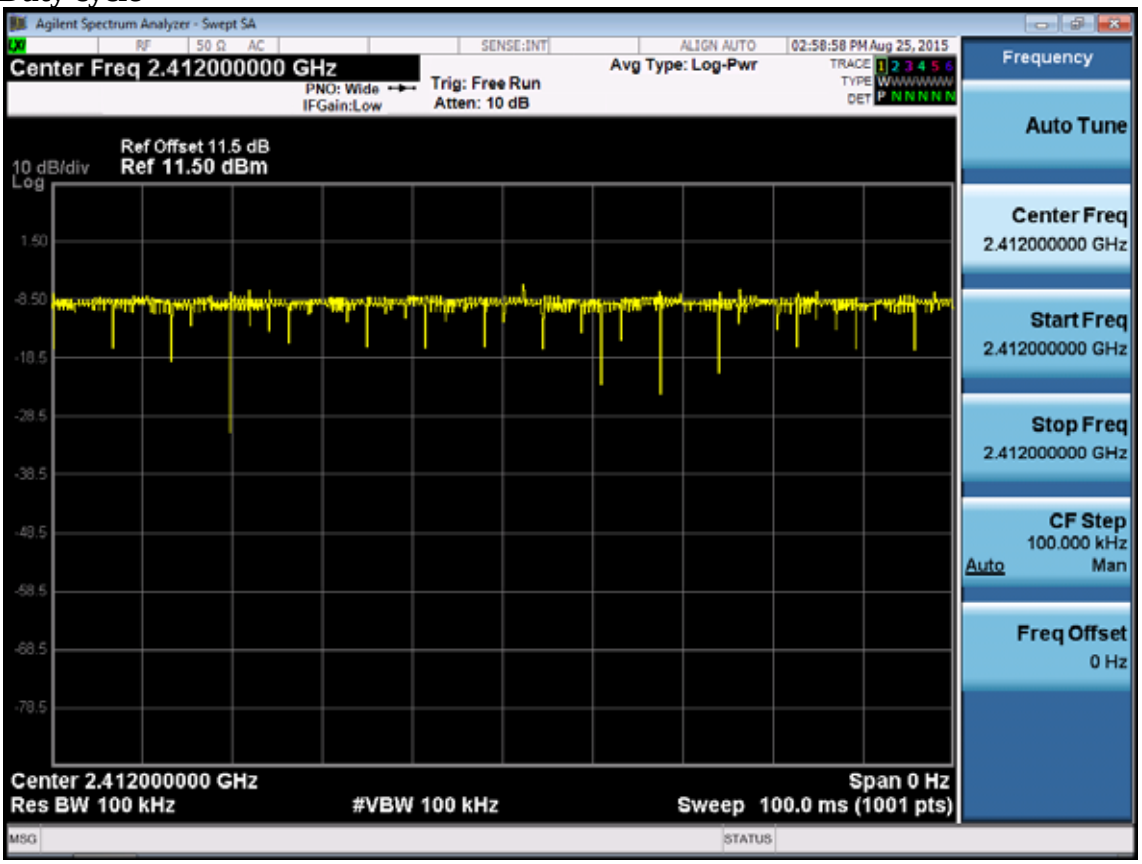
4.7. Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

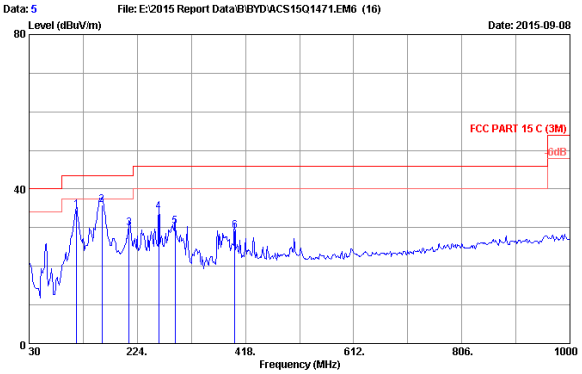
Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

Duty cycle



Note: The Duty Cycle is close to 100%.

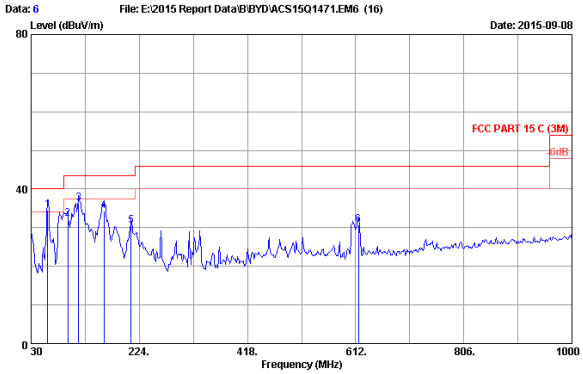
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2015 CBL6112D 35375 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Brown
EUT : Notebook M/N:RZ09-0168
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	115.360	12.84	1.16	48.17	34.62	43.50	8.88	QP
2	160.950	11.15	1.35	50.70	35.81	43.50	7.69	QP
3	209.450	10.83	1.54	44.77	29.92	43.50	13.58	QP
4	262.800	14.36	1.76	44.94	34.03	46.00	11.97	QP
5	291.900	14.00	1.87	41.30	30.24	46.00	15.76	QP
6	398.600	16.85	2.20	37.43	29.17	46.00	16.83	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

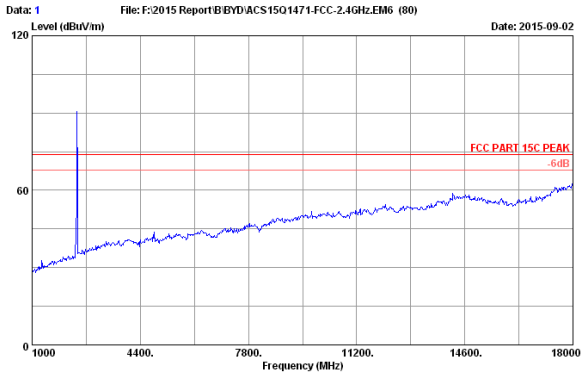


Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2015 CBL6112D 35375 Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Brown
EUT : Notebook M/N:RZ09-0168
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode

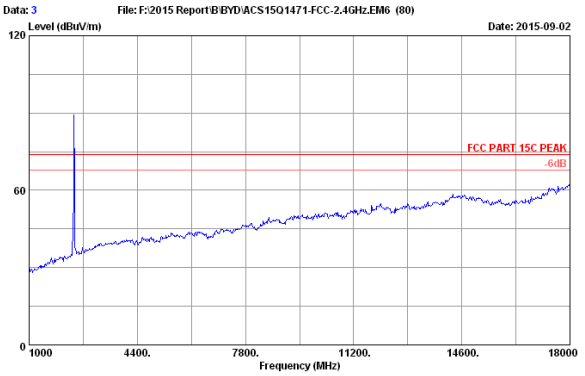
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	59.517	6.87	0.89	26.81	34.57	40.00	5.43	QP
2	95.960	10.99	1.10	47.91	32.38	43.50	11.12	QP
3	115.360	12.84	1.16	49.96	36.41	43.50	7.09	QP
4	160.950	11.15	1.35	49.14	34.25	43.50	9.25	QP
5	209.450	10.83	1.54	45.29	30.44	43.50	13.06	QP
6	616.850	19.64	2.81	36.30	30.66	46.00	15.34	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

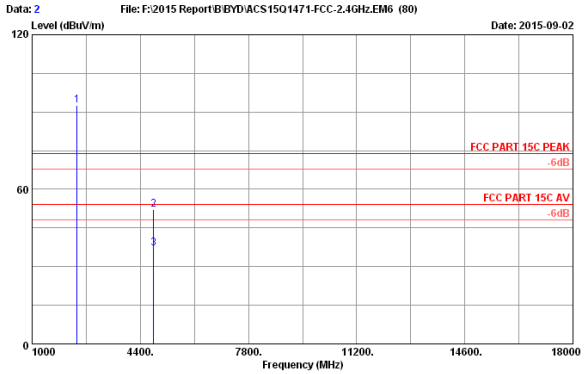
Frequency: 1GHz~18GHz



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168



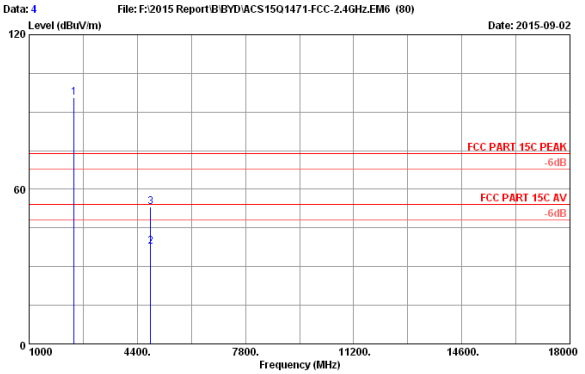
Site no. : 3m Chamber Data no. : 3
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	93.51	92.51	74.00	-18.51	Peak
2	4824.000	33.06	9.46	35.53	45.29	52.28	54.00	1.72	Average
3	4824.000	33.06	9.46	35.53	30.06	37.05	74.00	36.95	Peak

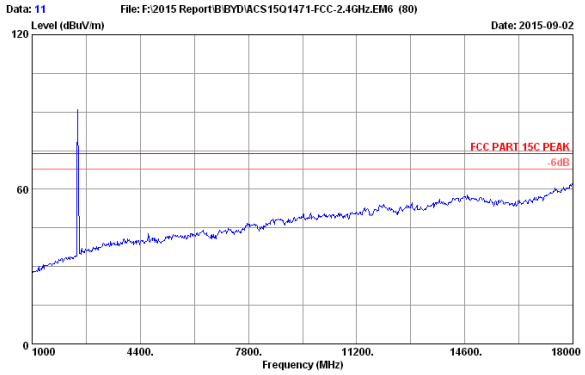
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



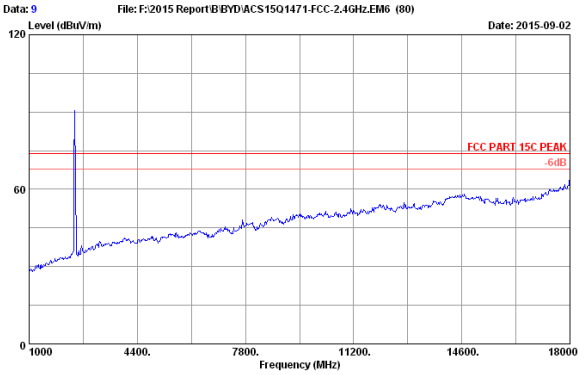
Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	96.58	95.58	74.00	-21.58	Peak
2	4824.000	33.06	9.46	35.53	30.69	37.68	54.00	16.32	Average
3	4824.000	33.06	9.46	35.53	46.14	53.13	74.00	20.87	Peak

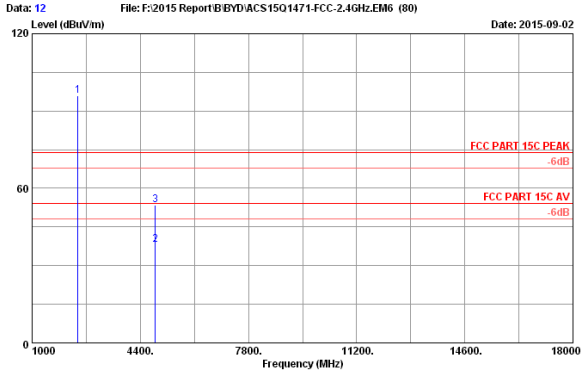
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 11
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx
M/N : RZ09-0168



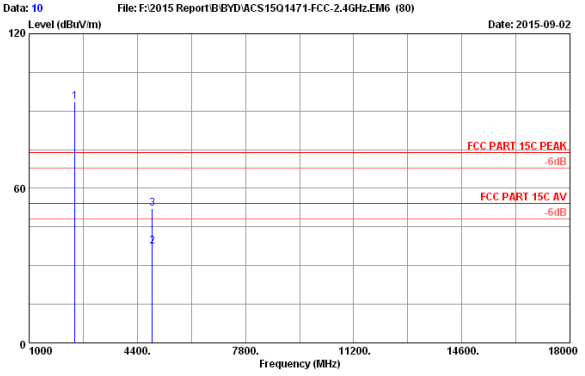
Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	96.78	95.87	74.00	-21.87	Peak
2	4874.000	33.16	9.49	35.51	31.02	38.16	54.00	15.84	Average
3	4874.000	33.16	9.49	35.51	46.37	53.51	74.00	20.49	Peak

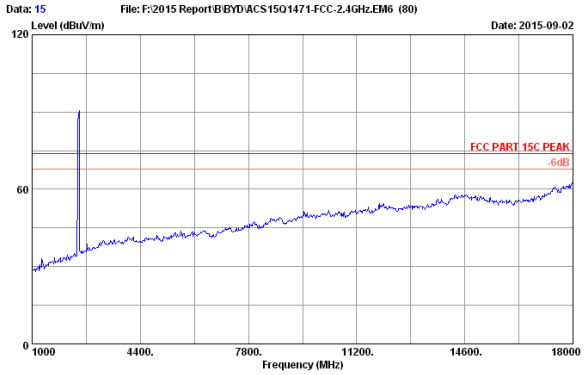
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



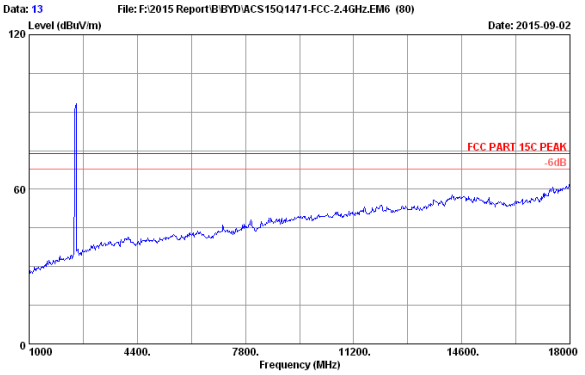
Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	94.54	93.63	74.00	-19.63	Peak
2	4874.000	33.16	9.49	35.51	30.29	37.43	54.00	16.57	Average
3	4874.000	33.16	9.49	35.51	45.13	52.27	74.00	21.73	Peak

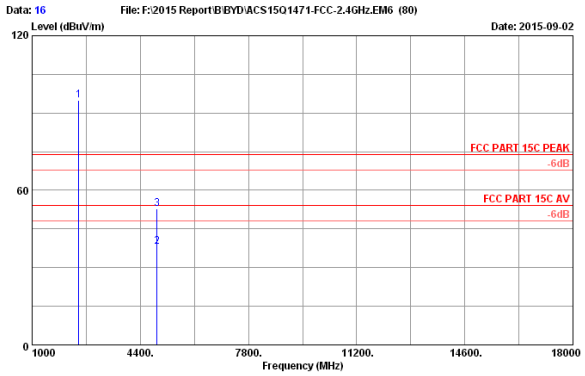
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168



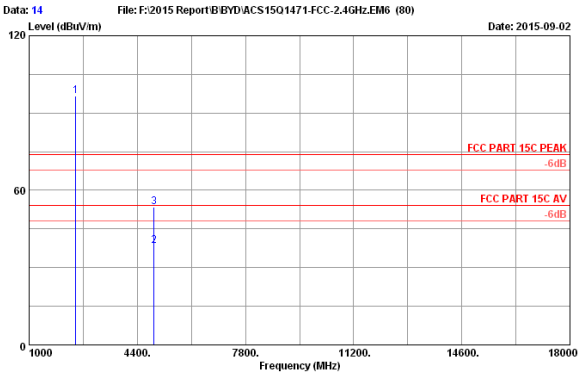
Site no. : 3m Chamber Data no. : 13
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	95.73	94.91	74.00	-20.91	Peak
2	4924.000	33.25	9.51	35.48	30.84	38.12	54.00	15.88	Average
3	4924.000	33.25	9.51	35.48	45.67	52.95	74.00	21.05	Peak

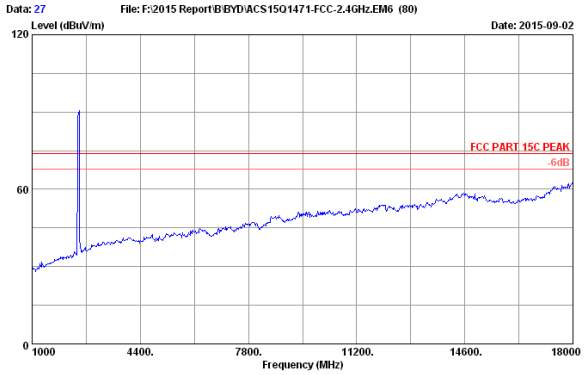
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



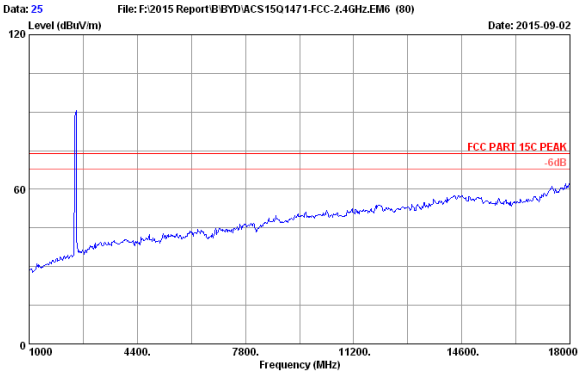
Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	97.45	96.63	74.00	-22.63	Peak
2	4924.000	33.25	9.51	35.48	31.22	38.50	54.00	15.50	Average
3	4924.000	33.25	9.51	35.48	46.37	53.65	74.00	20.35	Peak

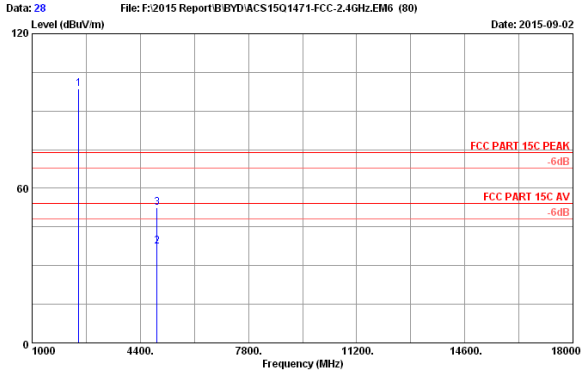
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168



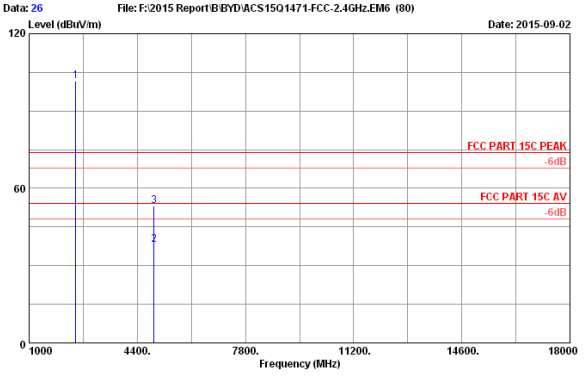
Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	99.45	98.63	74.00	-24.63	Peak
2	4924.000	33.25	9.51	35.48	30.28	37.56	54.00	16.44	Average
3	4924.000	33.25	9.51	35.48	45.31	52.59	74.00	21.41	Peak

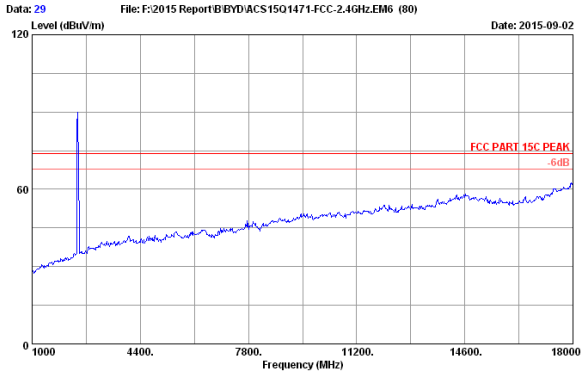
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



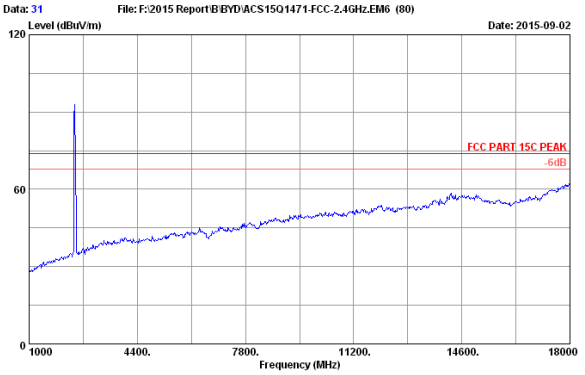
Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	102.37	101.55	74.00	-27.55	Peak
2	4924.000	33.25	9.51	35.48	30.67	37.95	54.00	16.05	Average
3	4924.000	33.25	9.51	35.48	45.78	53.06	74.00	20.94	Peak

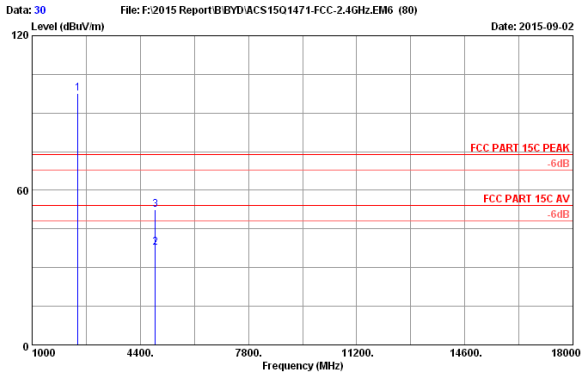
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx
M/N : RZ09-0168



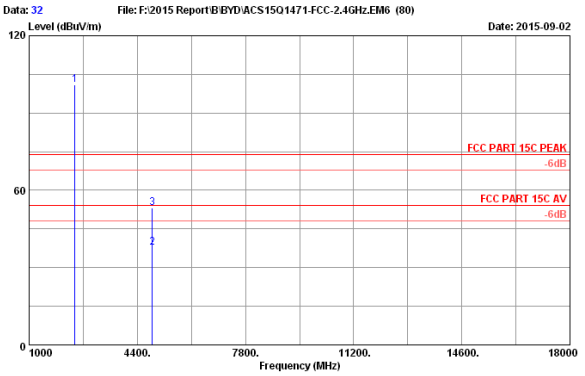
Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	98.67	97.76	74.00	-23.76	Peak
2	4874.000	33.16	9.49	35.51	30.48	37.62	54.00	16.38	Average
3	4874.000	33.16	9.49	35.51	45.29	52.43	74.00	21.57	Peak

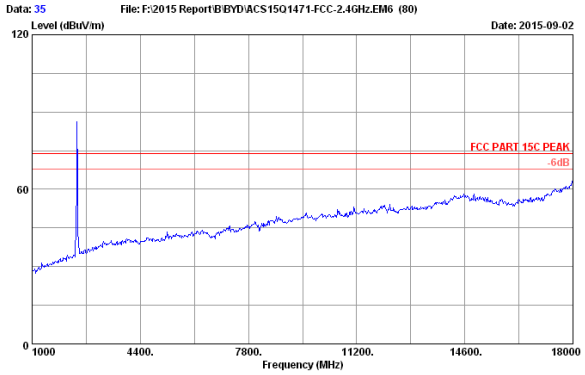
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



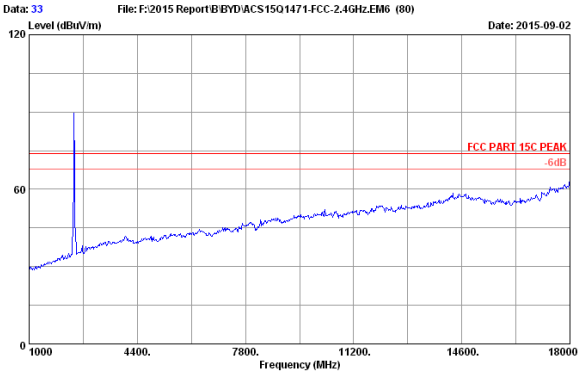
Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	101.89	100.98	74.00	-26.98	Peak
2	4874.000	33.16	9.49	35.51	30.57	37.71	54.00	16.29	Average
3	4874.000	33.16	9.49	35.51	46.12	53.26	74.00	20.74	Peak

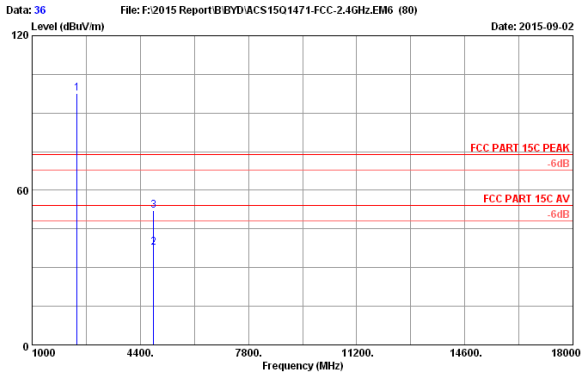
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 35
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168



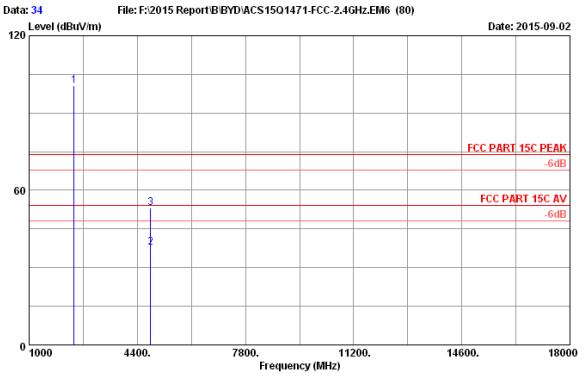
Site no. : 3m Chamber Data no. : 33
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	98.77	97.77	74.00	-23.77	Peak
2	4824.000	33.06	9.46	35.53	30.63	37.62	54.00	16.38	Average
3	4824.000	33.06	9.46	35.53	45.22	52.21	74.00	21.79	Peak

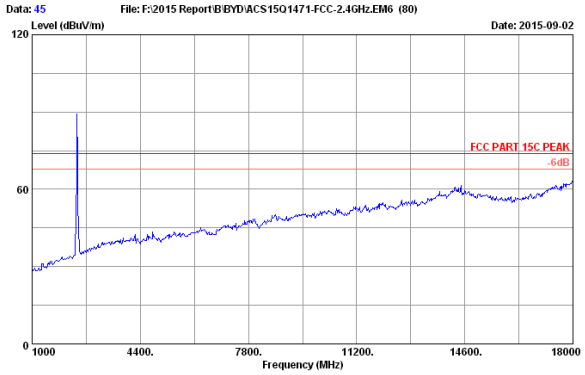
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



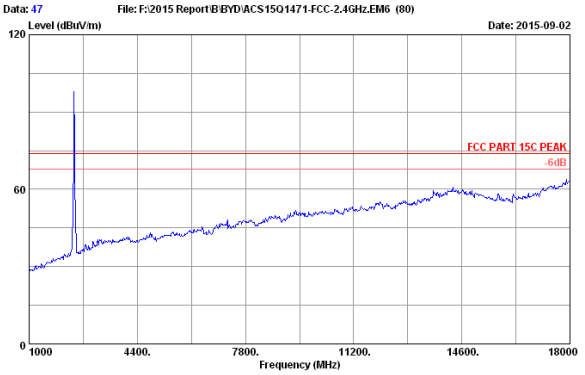
Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	101.58	100.58	74.00	-26.58	Peak
2	4824.000	33.06	9.46	35.53	30.90	37.89	54.00	16.11	Average
3	4824.000	33.06	9.46	35.53	46.13	53.12	74.00	20.88	Peak

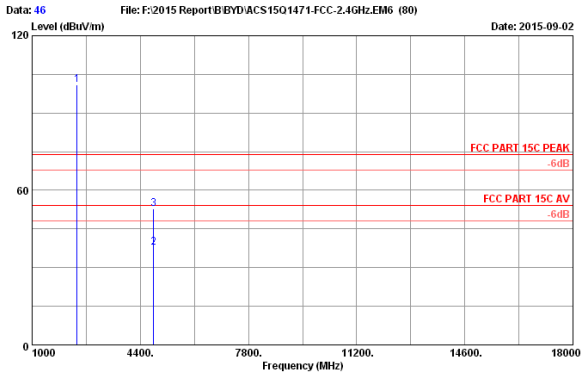
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 45
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168



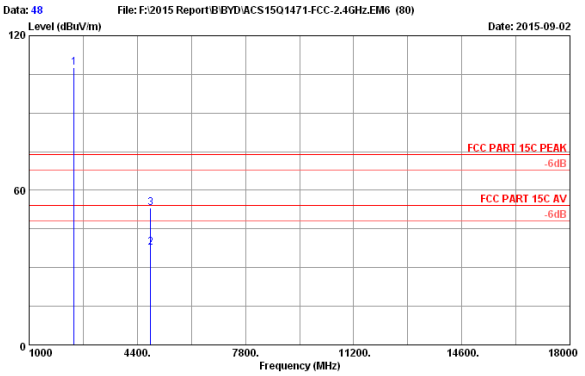
Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	101.85	100.85	74.00	-26.85	Peak
2	4824.000	33.06	9.46	35.53	30.70	37.69	54.00	16.31	Average
3	4824.000	33.06	9.46	35.53	45.78	52.77	74.00	21.23	Peak

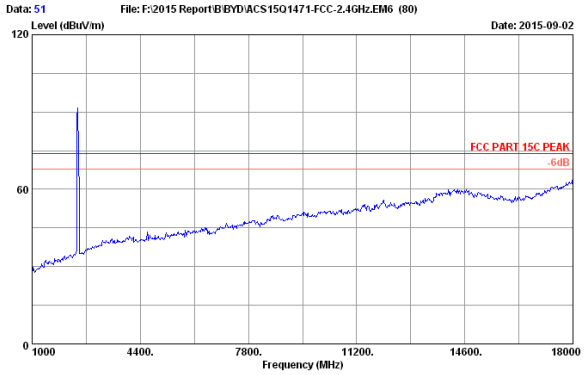
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



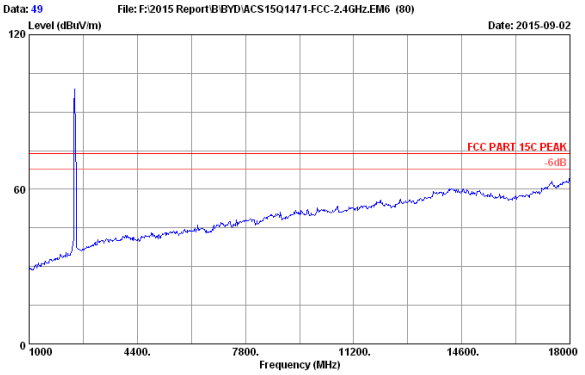
Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	28.27	7.35	36.62	108.48	107.48	74.00	-33.48	Peak
2	4824.000	33.06	9.46	35.53	30.89	37.88	54.00	16.12	Average
3	4824.000	33.06	9.46	35.53	46.26	53.25	74.00	20.75	Peak

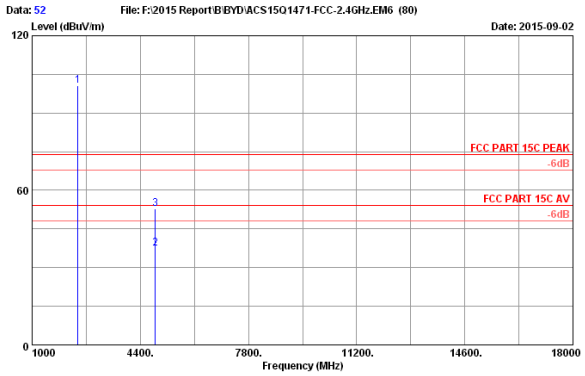
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 51
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx
M/N : RZ09-0168



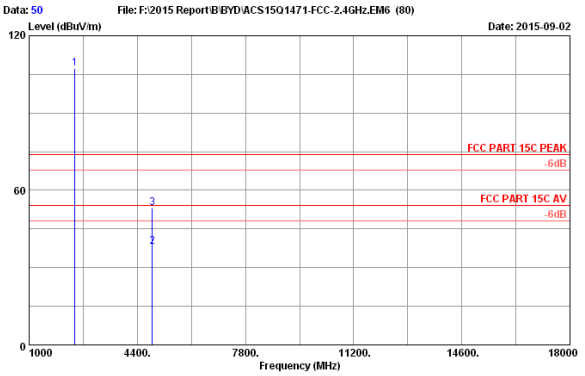
Site no. : 3m Chamber Data no. : 49
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	101.42	100.51	74.00	-26.51	Peak
2	4874.000	33.16	9.49	35.51	30.45	37.59	54.00	16.41	Average
3	4874.000	33.16	9.49	35.51	45.69	52.83	74.00	21.17	Peak

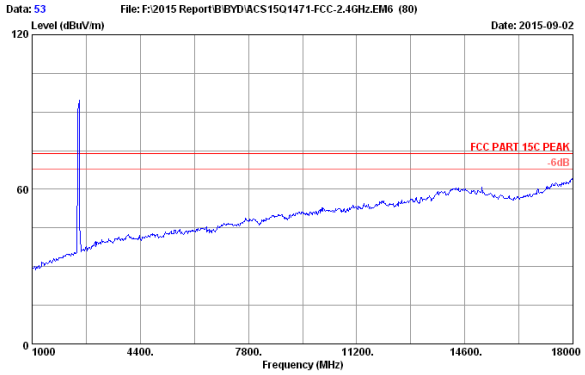
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



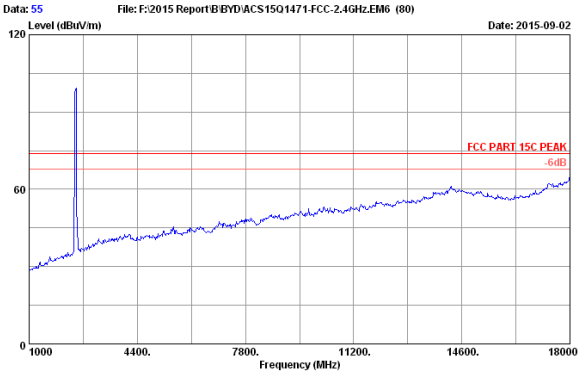
Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	108.25	107.34	74.00	-33.34	Peak
2	4874.000	33.16	9.49	35.51	30.84	37.98	54.00	16.02	Average
3	4874.000	33.16	9.49	35.51	45.96	53.10	74.00	20.90	Peak

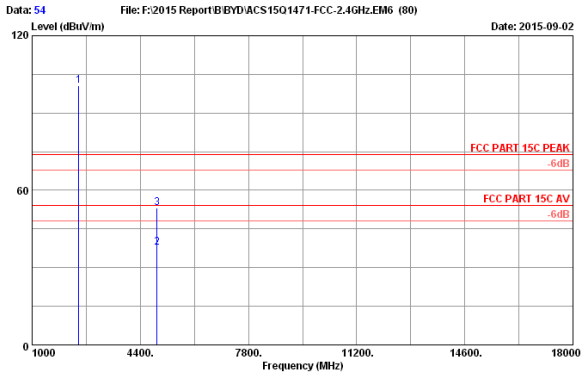
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168



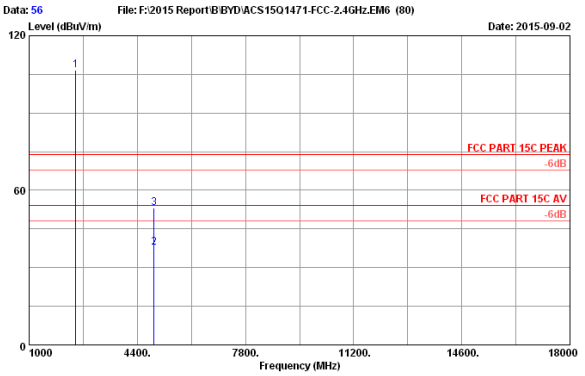
Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	101.35	100.53	74.00	-26.53	Peak
2	4924.000	33.25	9.51	35.48	30.58	37.86	54.00	16.14	Average
3	4924.000	33.25	9.51	35.48	46.03	53.31	74.00	20.69	Peak

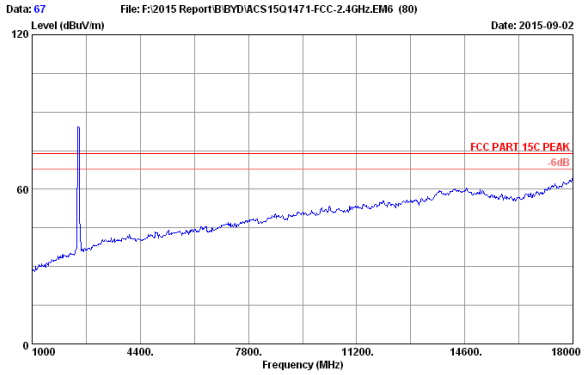
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



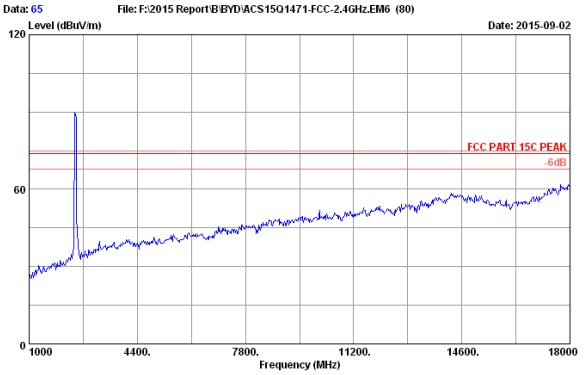
Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	107.32	106.50	74.00	-32.50	Peak
2	4924.000	33.25	9.51	35.48	30.65	37.93	54.00	16.07	Average
3	4924.000	33.25	9.51	35.48	45.98	53.26	74.00	20.74	Peak

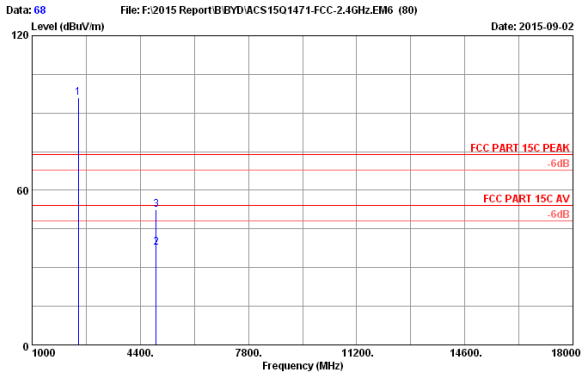
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 67
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168



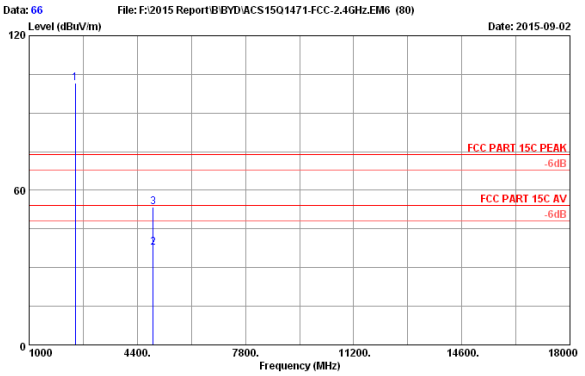
Site no. : 3m Chamber Data no. : 65
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.000	28.33	7.43	36.60	96.89	96.05	74.00	-22.05	Peak
2	4904.000	33.22	9.50	35.50	30.69	37.91	54.00	16.09	Average
3	4904.000	33.22	9.50	35.50	45.38	52.60	74.00	21.40	Peak

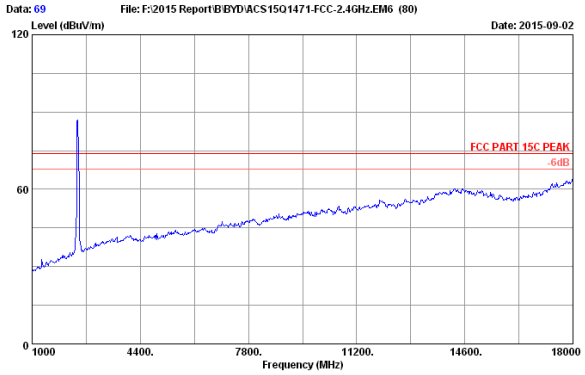
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



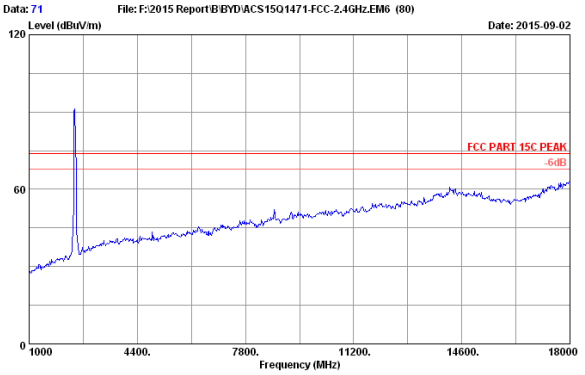
Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.000	28.33	7.43	36.60	102.37	101.53	74.00	-27.53	Peak
2	4904.000	33.22	9.50	35.50	30.45	37.67	54.00	16.33	Average
3	4904.000	33.22	9.50	35.50	46.13	53.35	74.00	20.65	Peak

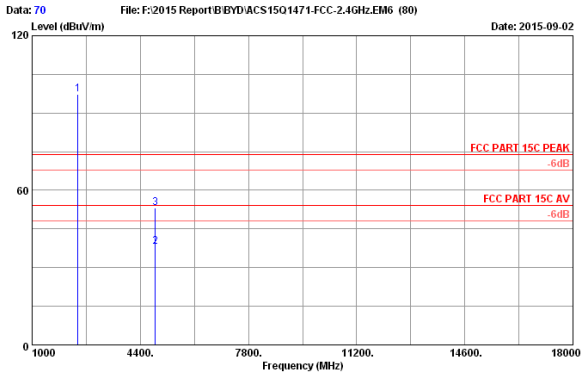
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx
M/N : RZ09-0168



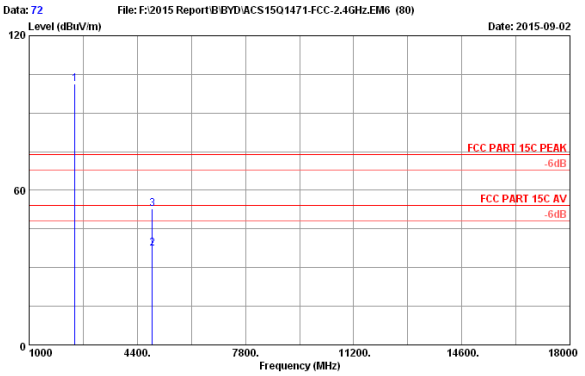
Site no. : 3m Chamber Data no. : 71
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	98.11	97.20	74.00	-23.20	Peak
2	4874.000	33.16	9.49	35.51	30.85	37.99	54.00	16.01	Average
3	4874.000	33.16	9.49	35.51	46.03	53.17	74.00	20.83	Peak

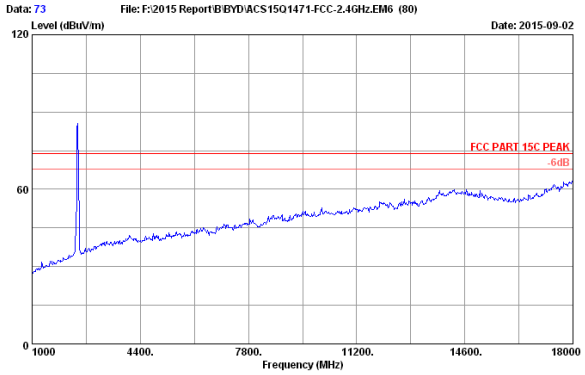
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



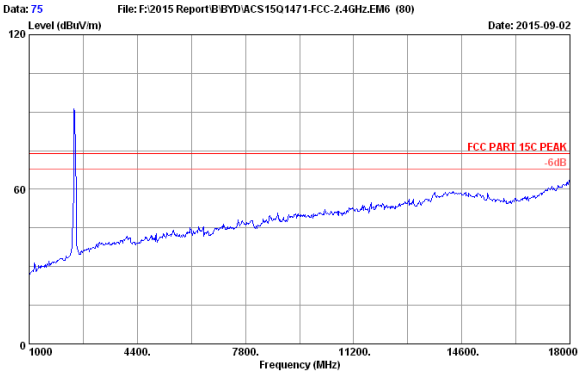
Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.31	7.39	36.61	102.08	101.17	74.00	-27.17	Peak
2	4874.000	33.16	9.49	35.51	30.29	37.43	54.00	16.57	Average
3	4874.000	33.16	9.49	35.51	45.77	52.91	74.00	21.09	Peak

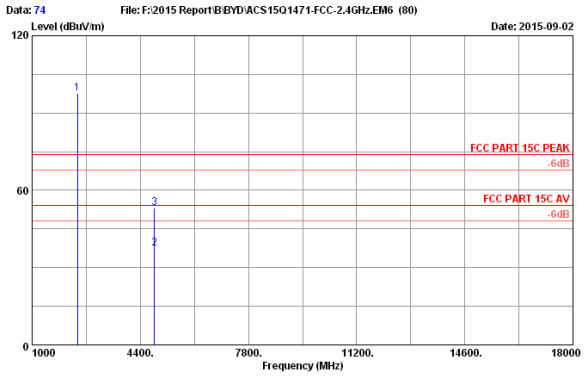
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168



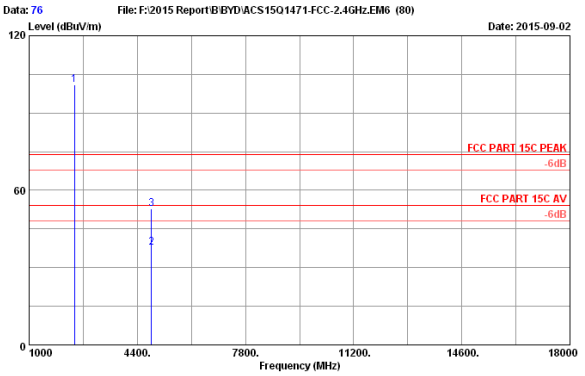
Site no. : 3m Chamber Data no. : 75
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168



Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.000	28.29	7.35	36.61	98.42	97.45	74.00	-23.45	Peak
2	4844.000	33.10	9.47	35.52	30.27	37.32	54.00	16.68	Average
3	4844.000	33.10	9.47	35.52	46.01	53.06	74.00	20.94	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.000	28.29	7.35	36.61	101.88	100.88	74.00	-26.88	Peak
2	4844.000	33.10	9.47	35.52	30.69	37.74	54.00	16.26	Average
3	4844.000	33.10	9.47	35.52	45.73	52.78	74.00	21.22	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,15	1 Year

5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.3. Test Procedure

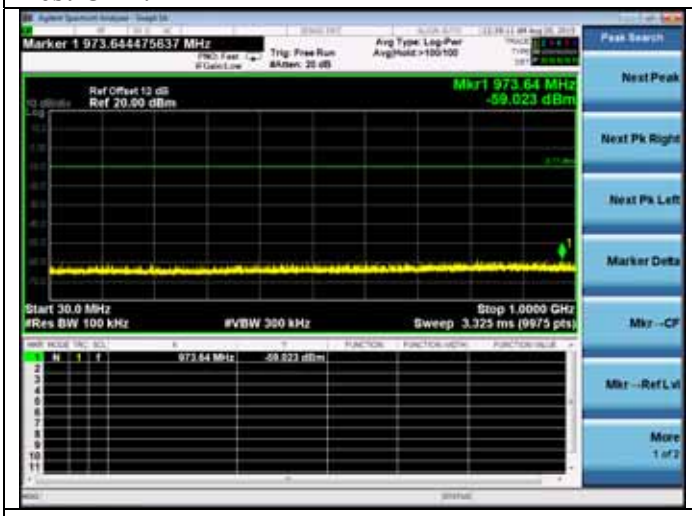
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions with peak detector.

5.4. Test result

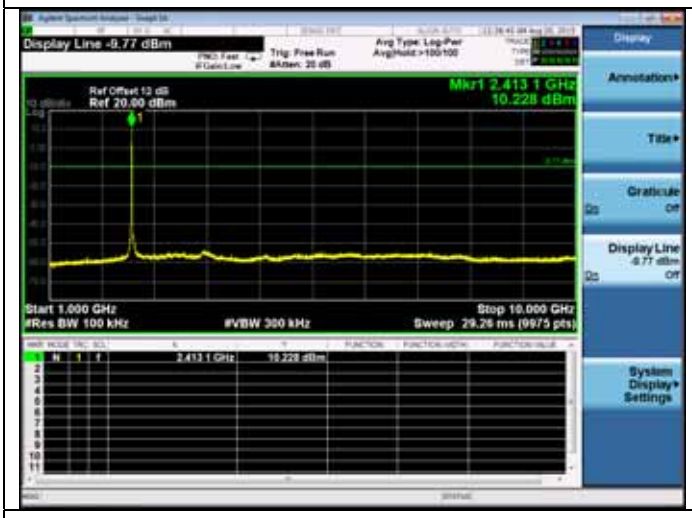
PASS (The testing data was attached in the next pages.)

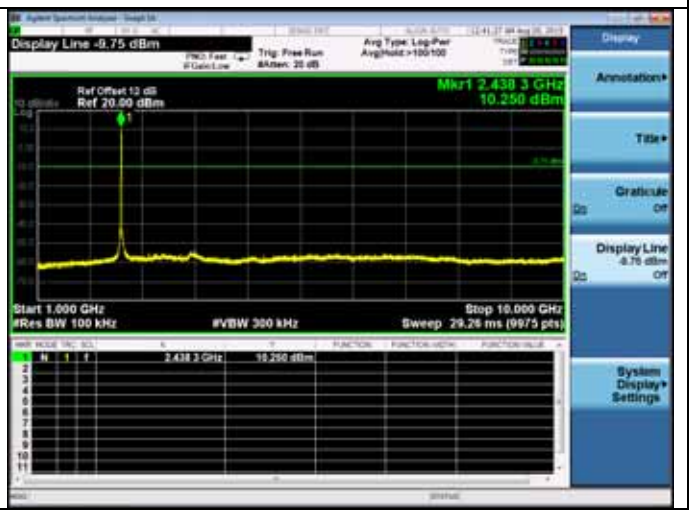
ANT0:

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

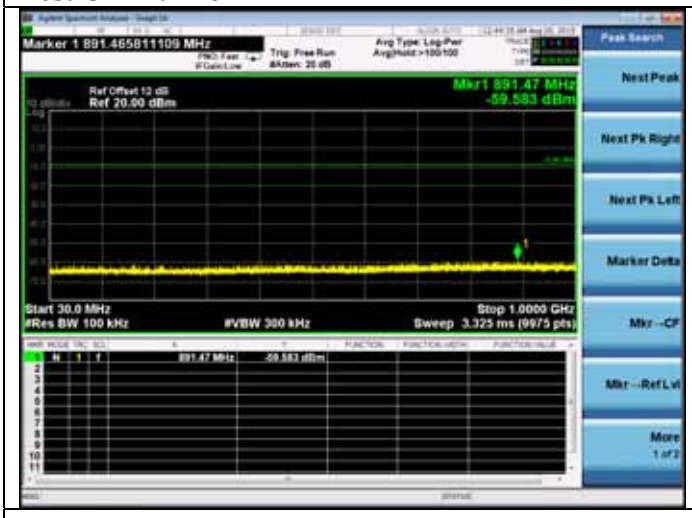


Test CH6: 2437MHz

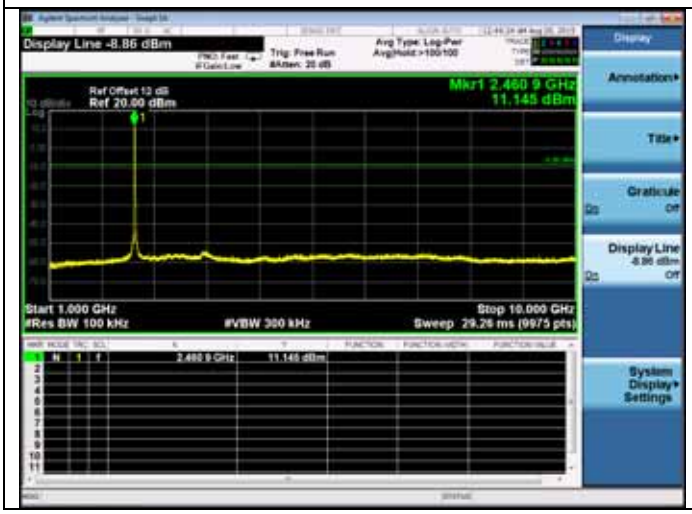


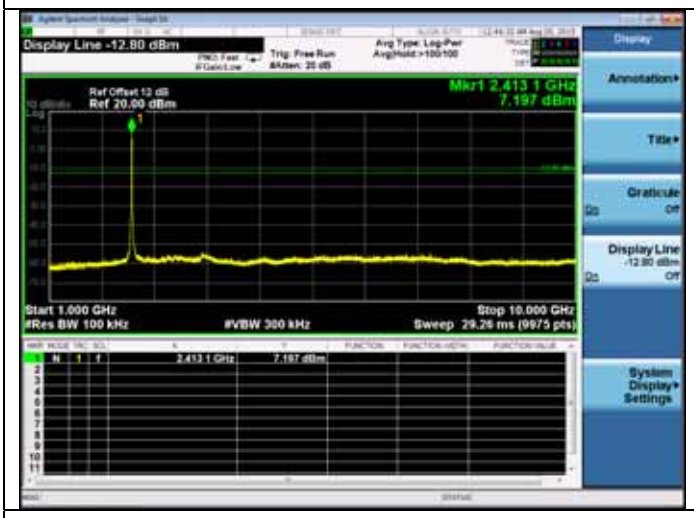
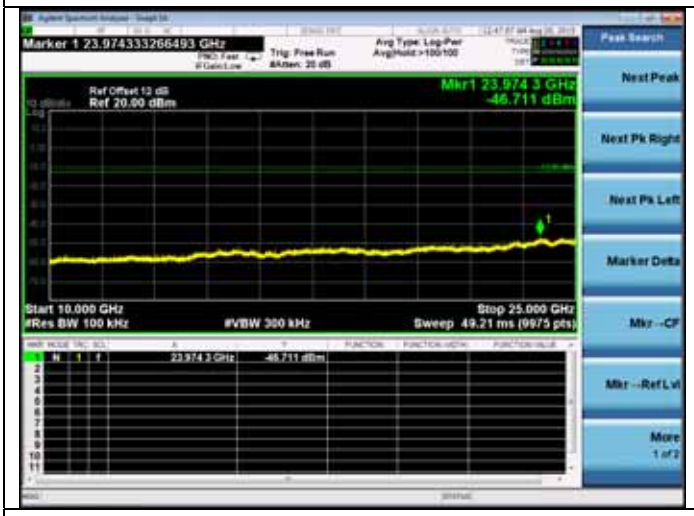
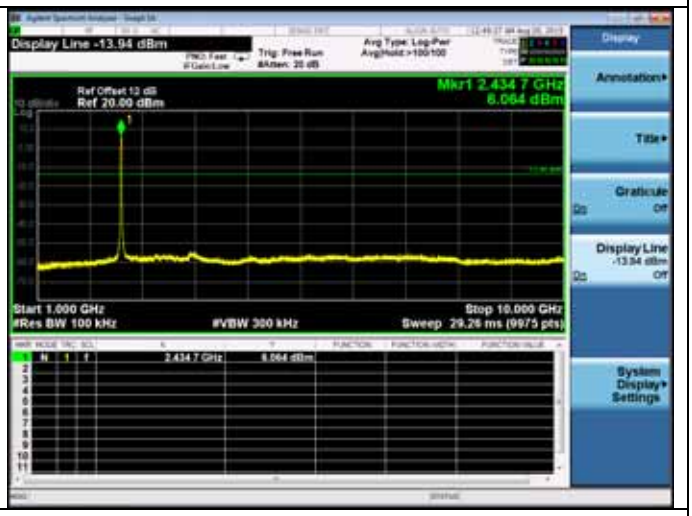


Test CH11: 2462MHz

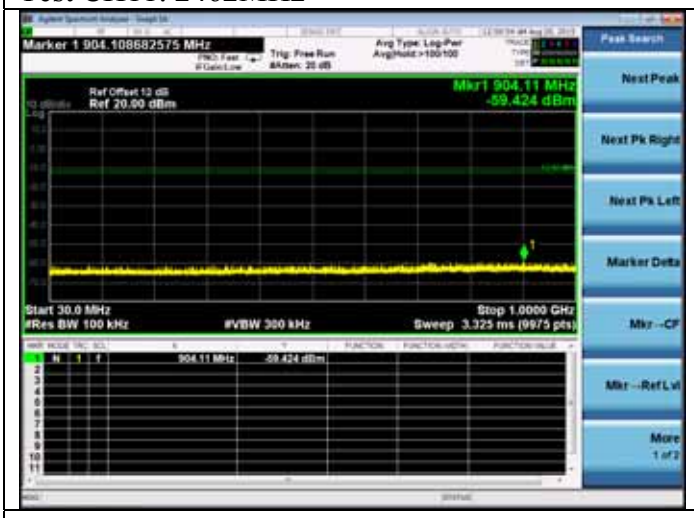


Test Mode: IEEE 802.11g
Test CH1: 2412MHz

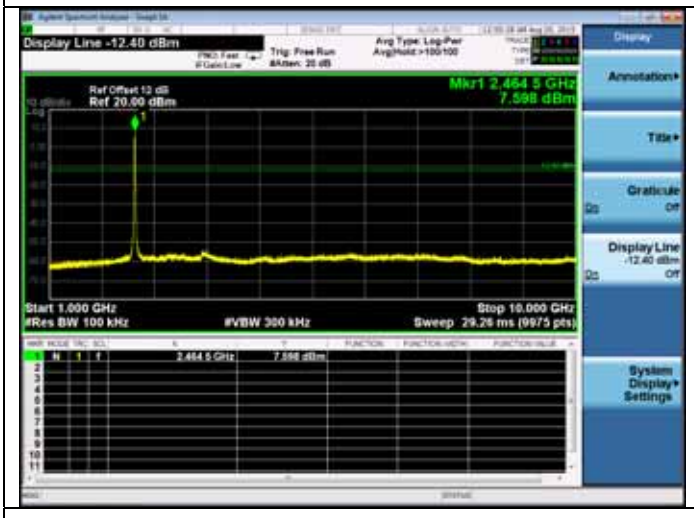


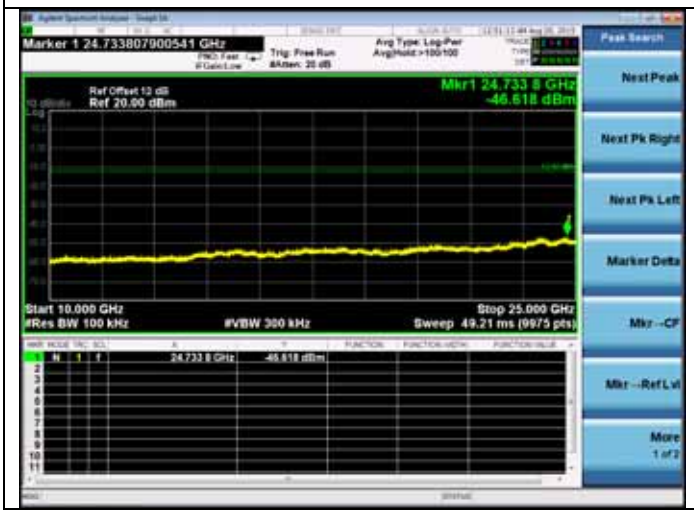
	Test CH6: 2437MHz
	
	
	

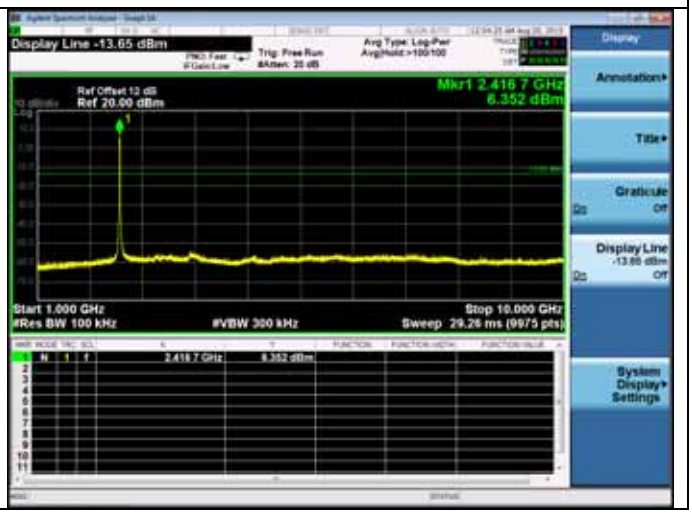
Test CH11: 2462MHz

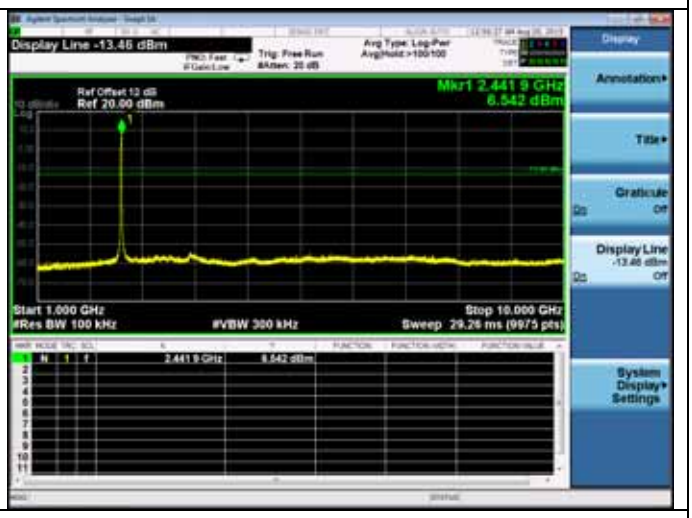


Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz



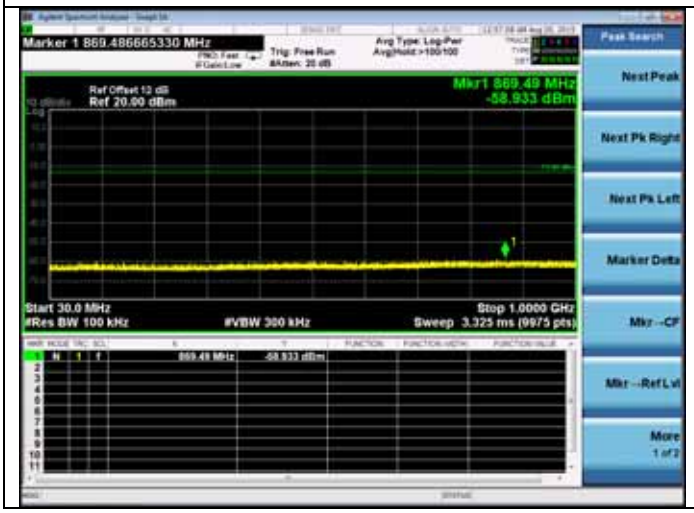


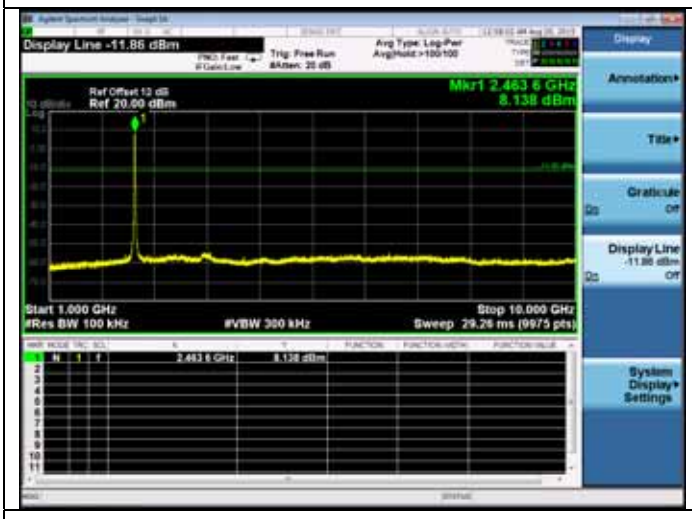
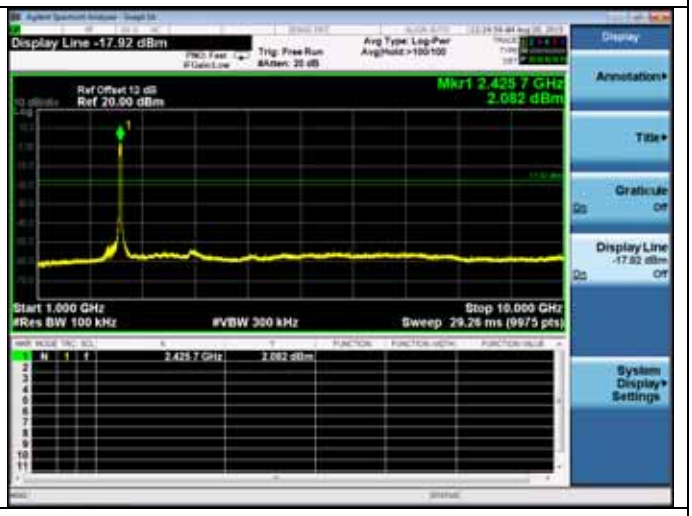




Test CH6: 2437MHz

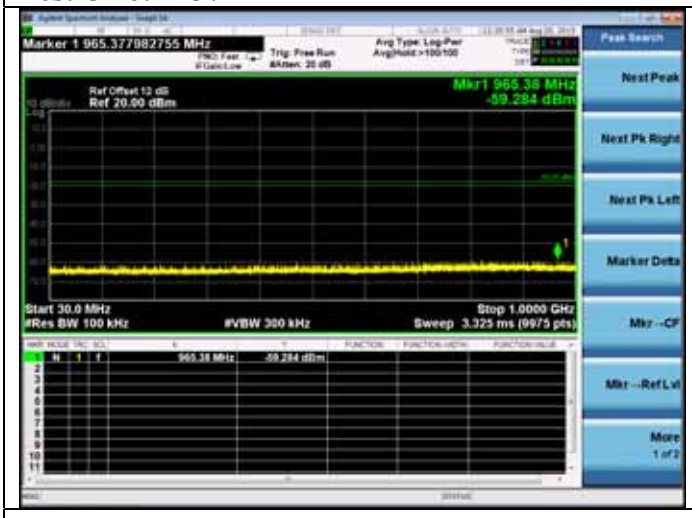
Test CH11: 2462MHz

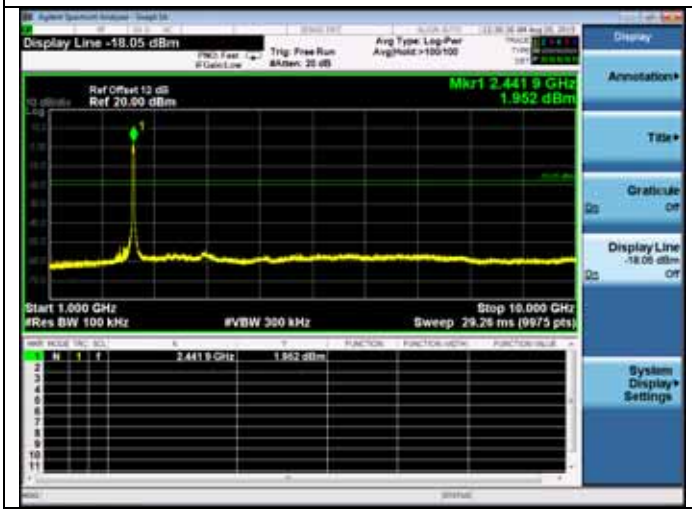


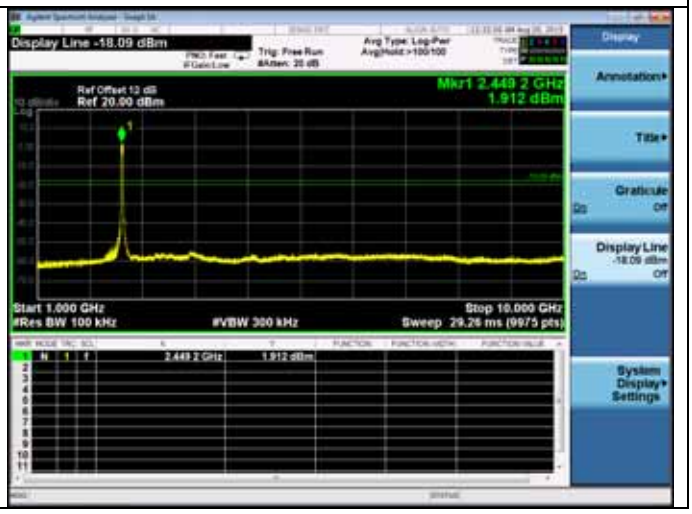
	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
	
	

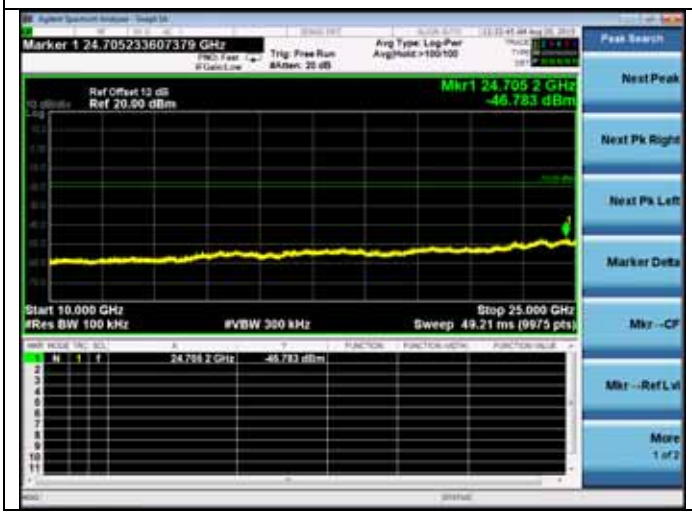
Test CH6: 2437MHz

Test CH9: 2452MHz







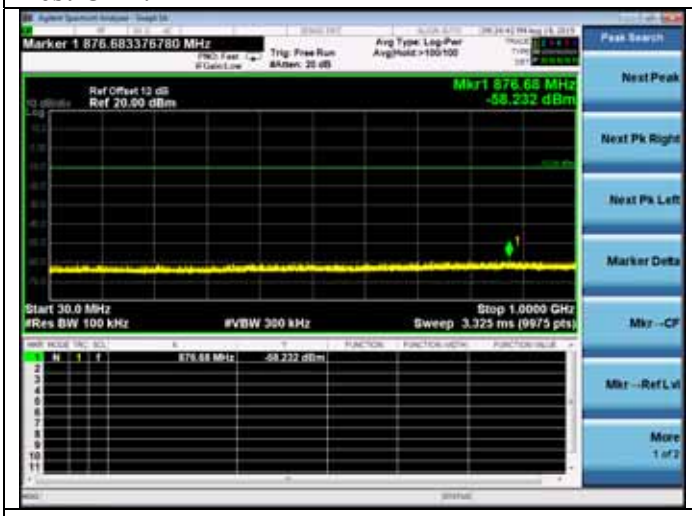
	

Marker 1 24.705233607379 GHz
Ref Offset 10 dB
Ref 20.00 dBm
Mkr1 24.705 2 GHz
-46.783 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 49.21 ms (9975 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

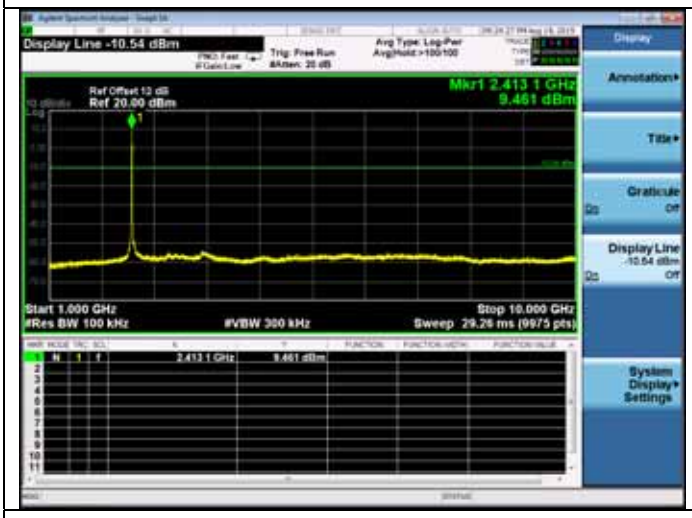
Display Line -17.70 dBm
Ref Offset 10 dB
Ref 20.00 dBm
Mkr1 2.456 975 GHz
2.296 dBm
Start 2.42500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.51000 GHz
Sweep 1.330 ms (9975 pts)
Display
Annotation
Title
Graticule
Display Line
System Display Settings

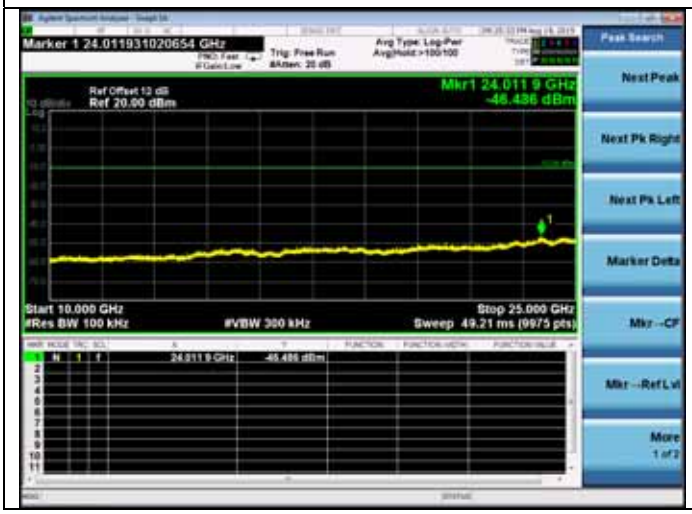
ANT1:

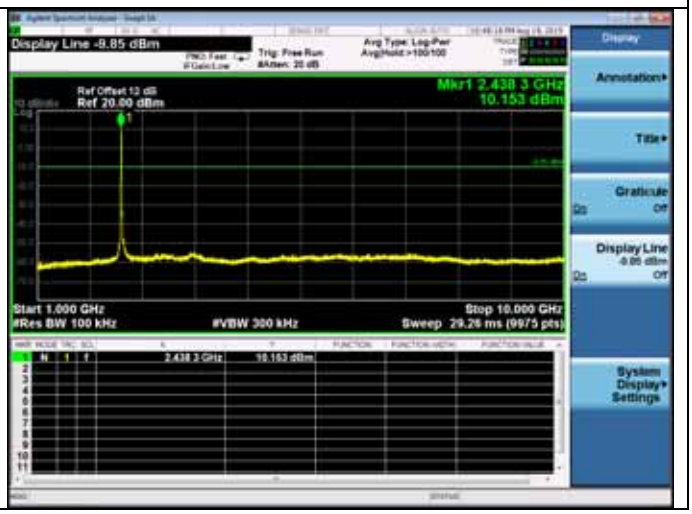
Test Mode: IEEE 802.11b
Test CH1: 2412MHz

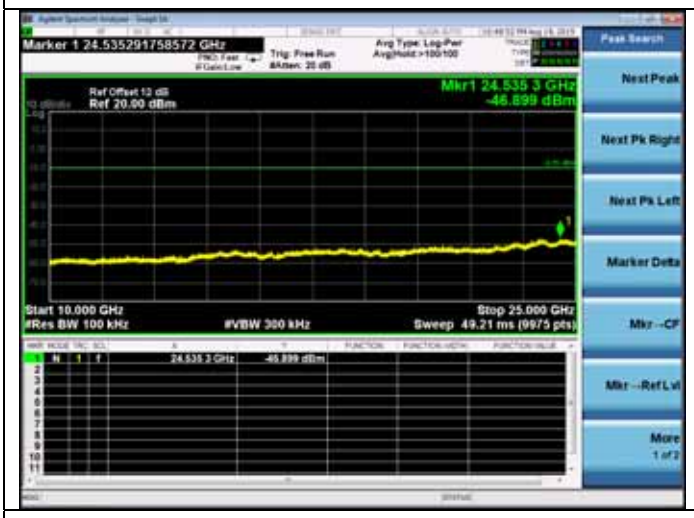


Test CH6: 2437MHz

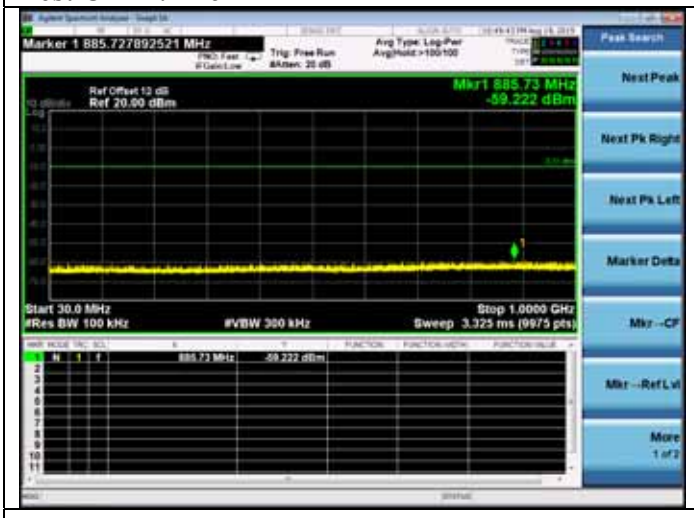




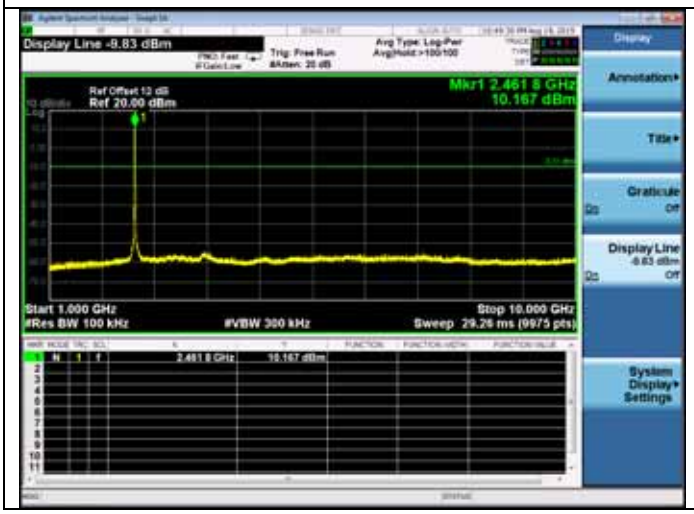


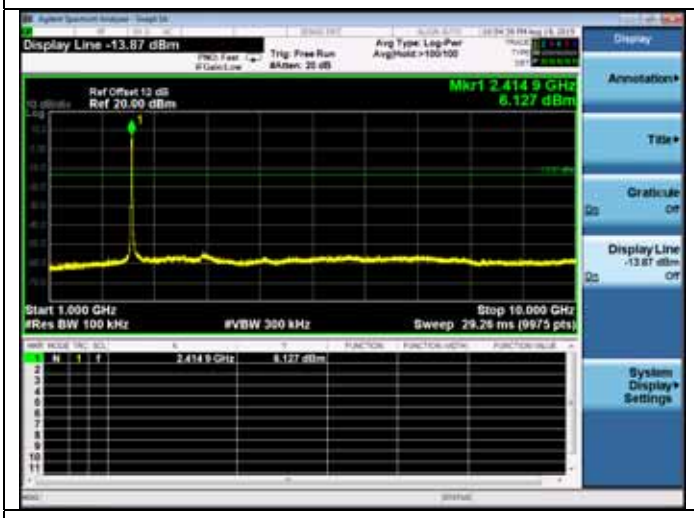
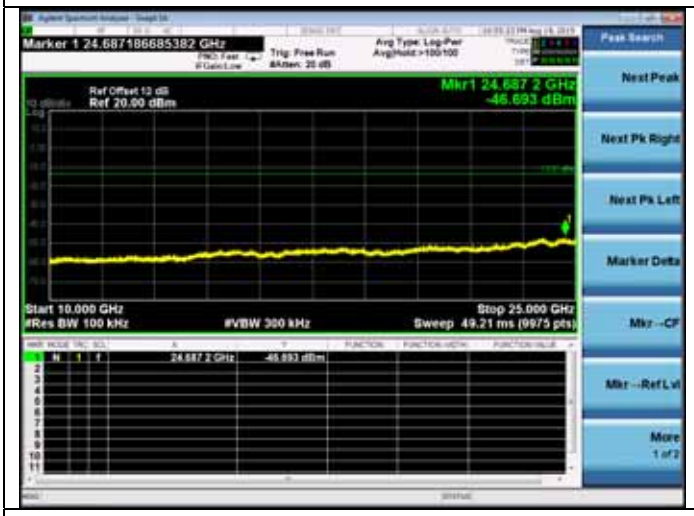
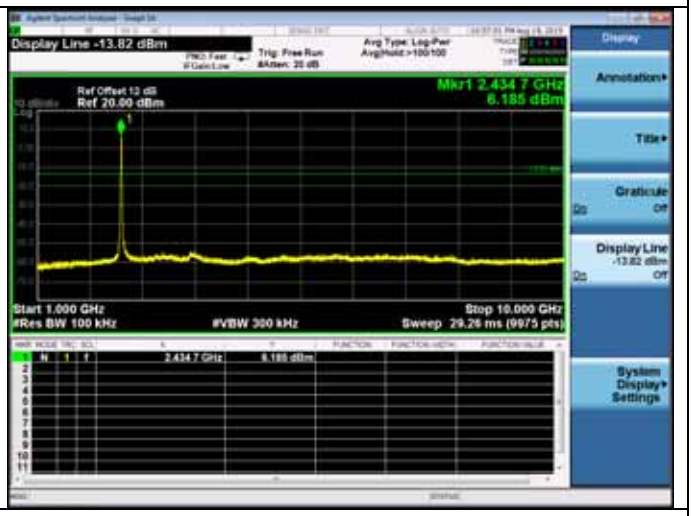


Test CH11: 2462MHz

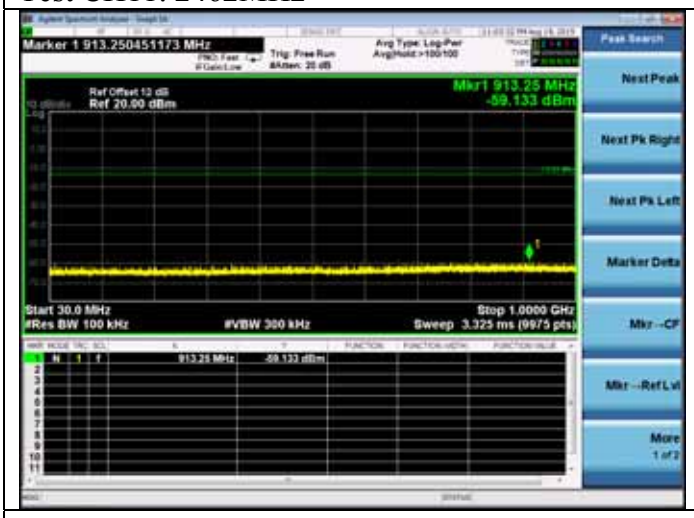


Test Mode: IEEE 802.11g
Test CH1: 2412MHz

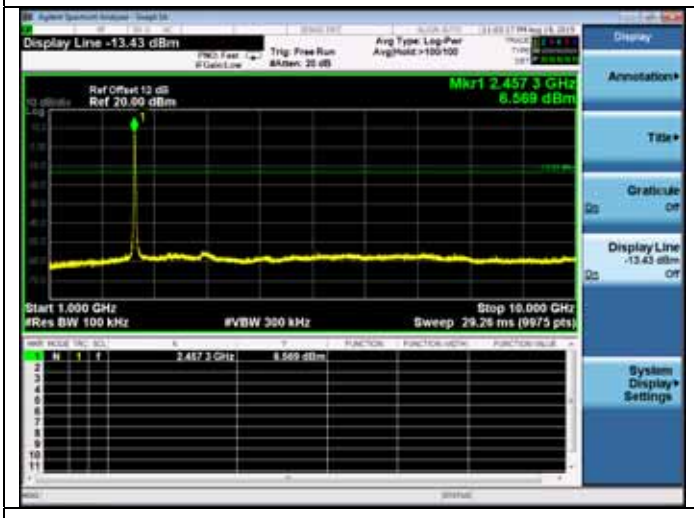


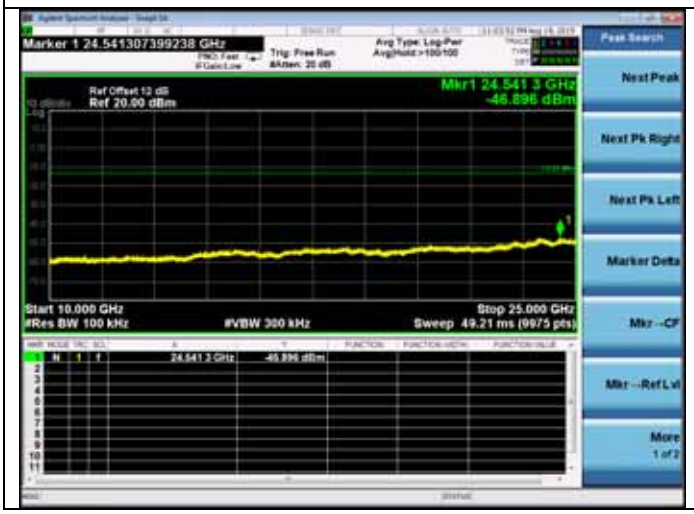
	Test CH6: 2437MHz
	
	
	

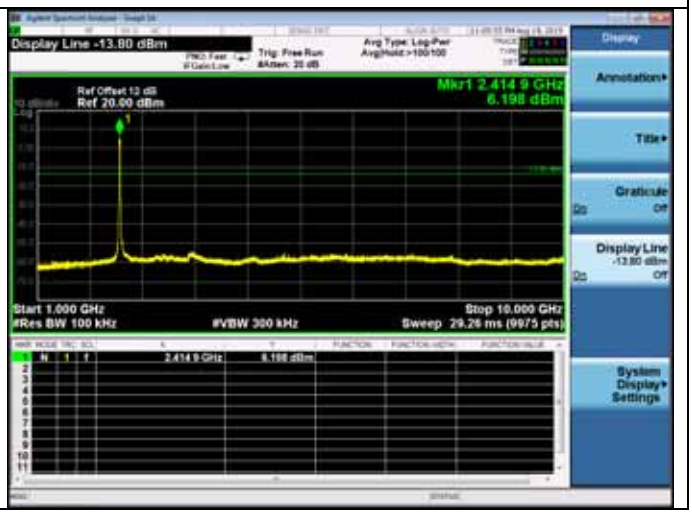
Test CH11: 2462MHz

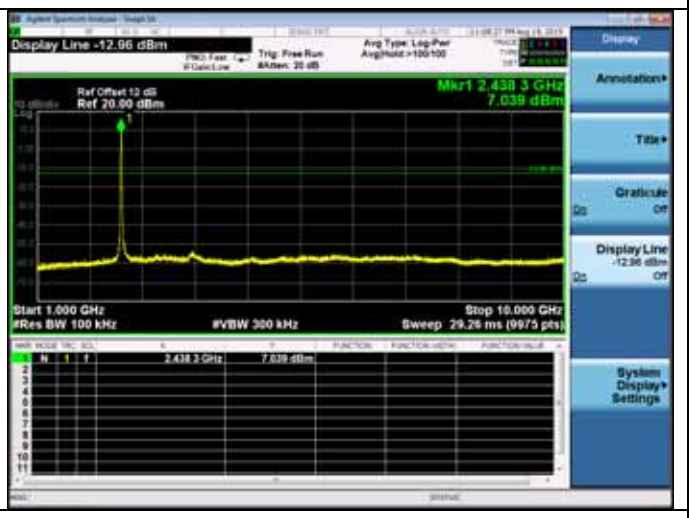


Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz



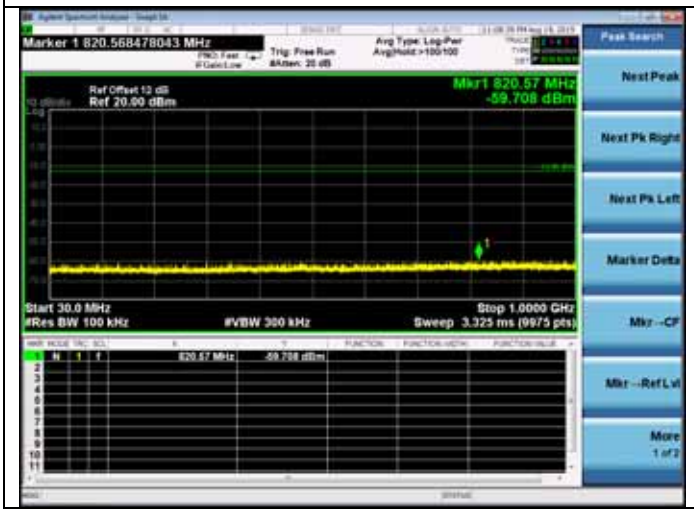


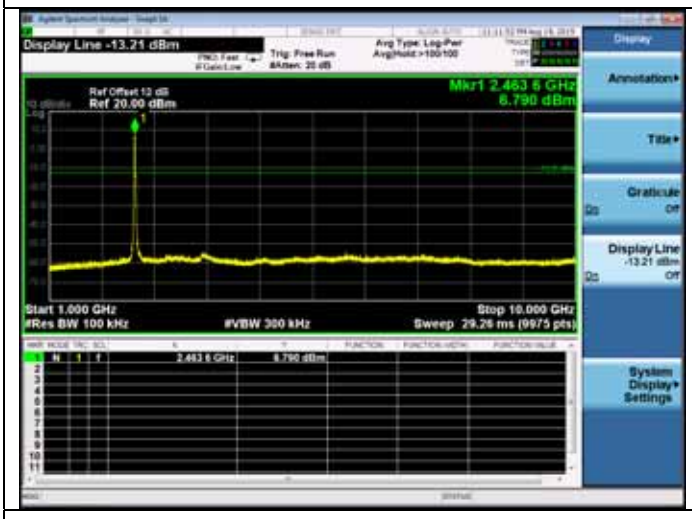
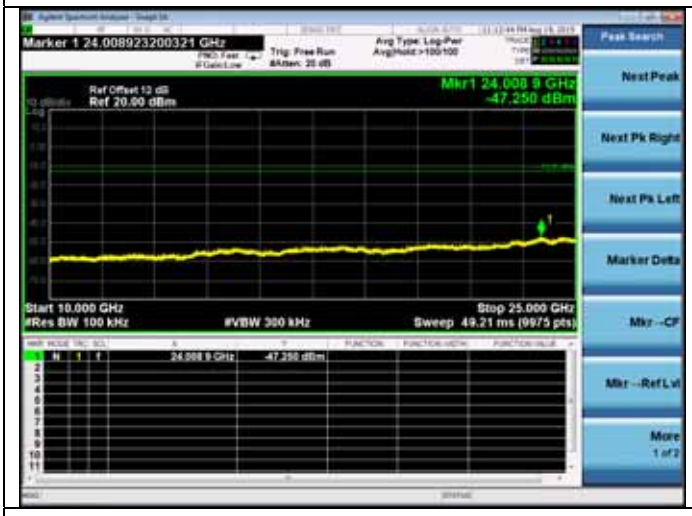
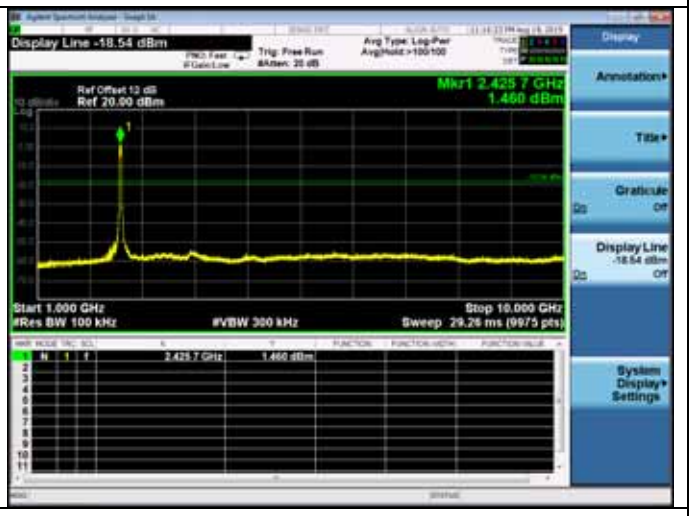




Test CH6: 2437MHz

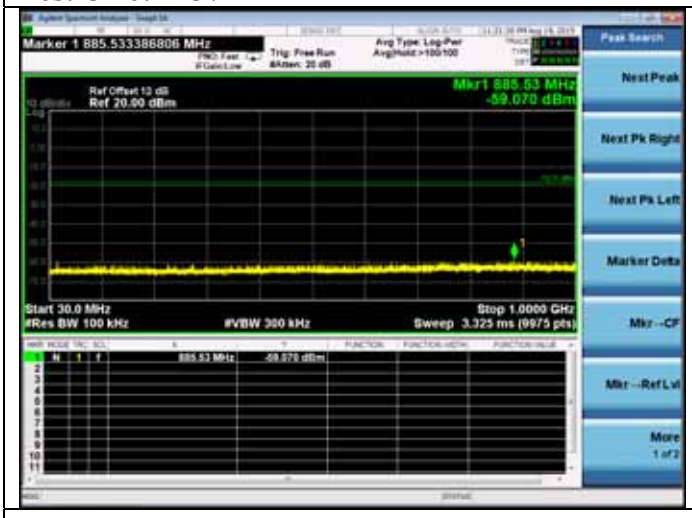
Test CH11: 2462MHz

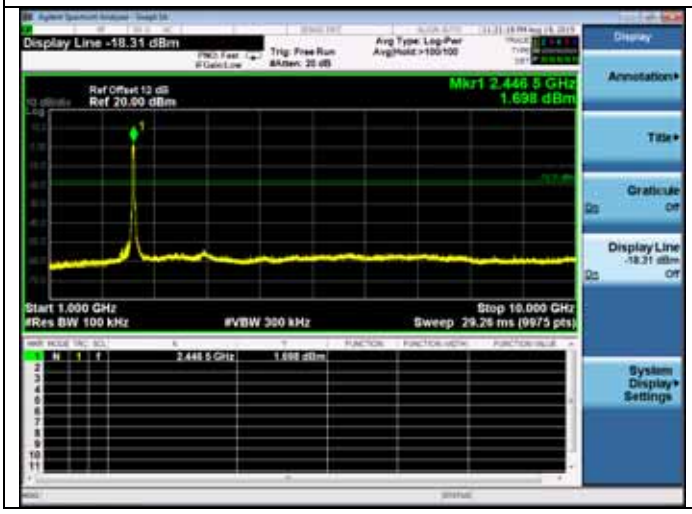


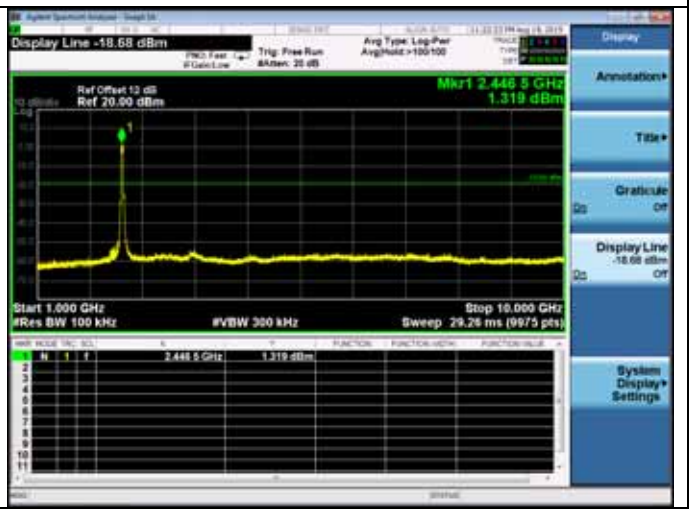
	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
	
	

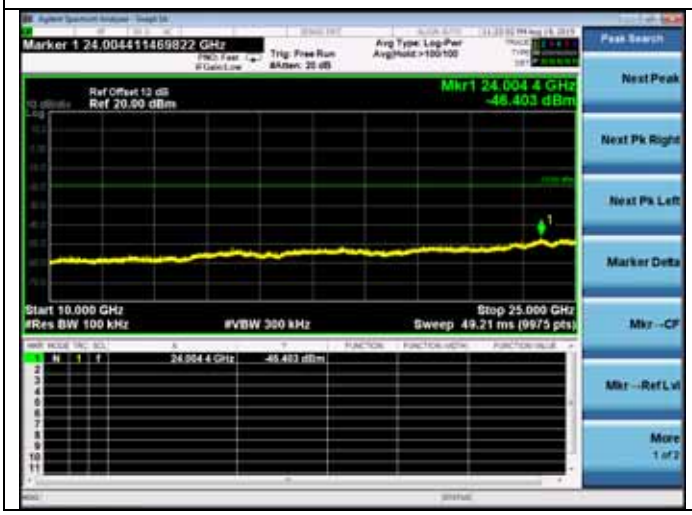
Test CH6: 2437MHz

Test CH9: 2452MHz







Marker 1 24.004411469822 GHz
Ref Offset 10 dB
Ref 20.00 dBm
Mkr1 24.004 4 GHz
-46.403 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 49.21 ms (9975 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Display Line -17.75 dBm
Ref Offset 10 dB
Ref 20.00 dBm
Mkr1 2.457 052 GHz
2.249 dBm
Start 2.42500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.51000 GHz
Sweep 1.330 ms (9975 pts)
Display
Annotation
Title
Graticule
Display Line
System Display Settings

6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Amp	HP	8449B	3008A02495	Apr. 28,15	1 Year
2.	Horn Antenna	ETS	3115	9510-4877	Sep.20,14	1 Year
3.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr. 28,15	1 Year
4.	RF Cable	Hubersuhner	Sucoflex102	28610/2	Apr. 28,15	1 Year

6.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.

2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

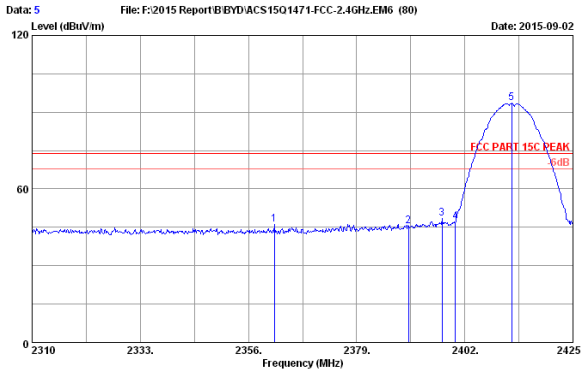
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

(a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
(b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

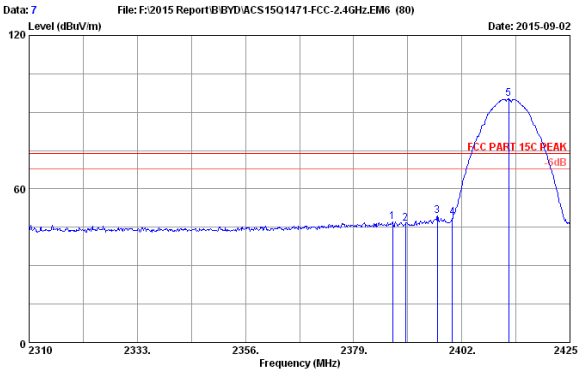
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2361.520	28.20	7.24	36.64	47.50	46.30	74.00	27.70	Peak
2	2390.000	28.24	7.28	36.62	46.47	45.37	74.00	28.63	Peak
3	2397.170	28.25	7.32	36.62	49.51	48.46	74.00	25.54	Peak
4	2400.000	28.25	7.32	36.62	48.28	47.23	74.00	26.77	Peak
5	2412.005	28.27	7.35	36.62	94.43	93.43	74.00	-19.43	Peak

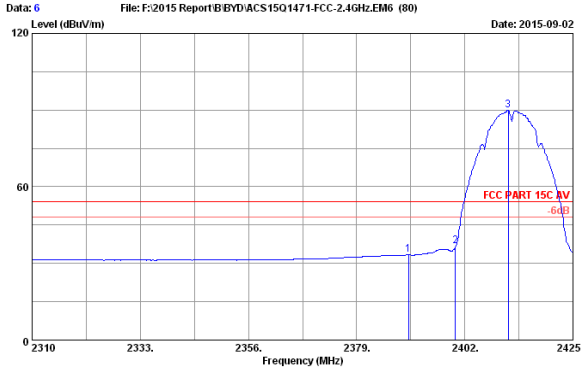
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2387.280	28.23	7.28	36.63	48.11	46.99	74.00	27.01	Peak
2	2390.000	28.24	7.28	36.62	47.65	46.55	74.00	27.45	Peak
3	2396.825	28.25	7.32	36.62	50.68	49.63	74.00	24.37	Peak
4	2400.000	28.25	7.32	36.62	49.80	48.75	74.00	25.25	Peak
5	2412.005	28.27	7.35	36.62	96.17	95.17	74.00	-21.17	Peak

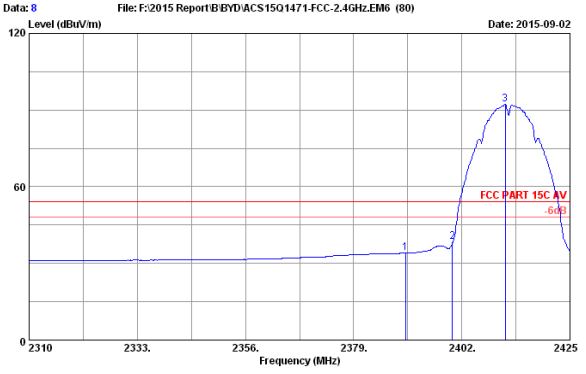
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	34.44	33.34	54.00	20.66	Average
2	2400.000	28.25	7.32	36.62	37.83	36.78	54.00	17.22	Average
3	2411.200	28.27	7.35	36.62	90.90	89.90	54.00	-35.90	Average

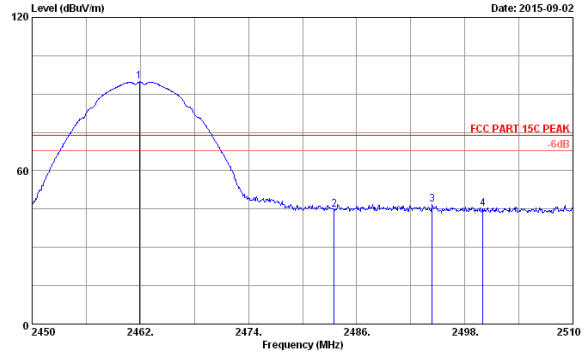
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	35.18	34.08	54.00	19.92	Average
2	2400.000	28.25	7.32	36.62	39.37	38.32	54.00	15.68	Average
3	2411.200	28.27	7.35	36.62	93.18	92.18	54.00	-38.18	Average

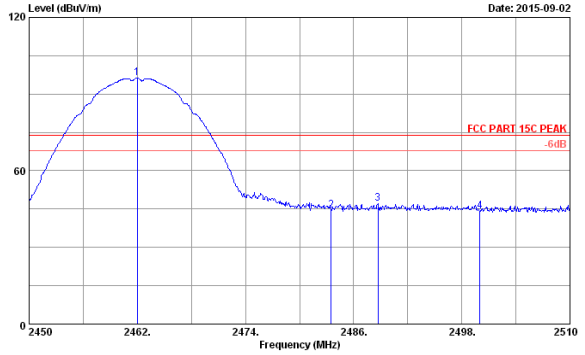
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 17
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.880	28.34	7.43	36.60	95.61	94.78	74.00	-20.78	Peak
2	2483.500	28.38	7.51	36.59	45.45	44.75	74.00	29.25	Peak
3	2494.400	28.39	7.51	36.58	47.56	46.88	74.00	27.12	Peak
4	2500.000	28.40	7.51	36.58	45.72	45.05	74.00	28.95	Peak

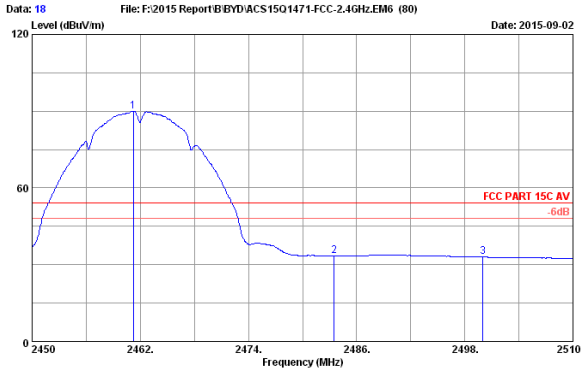
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	97.03	96.21	74.00	-22.21	Peak
2	2483.500	28.38	7.51	36.59	45.18	44.48	74.00	29.52	Peak
3	2488.700	28.38	7.51	36.58	47.91	47.22	74.00	26.78	Peak
4	2500.000	28.40	7.51	36.58	44.74	44.07	74.00	29.93	Peak

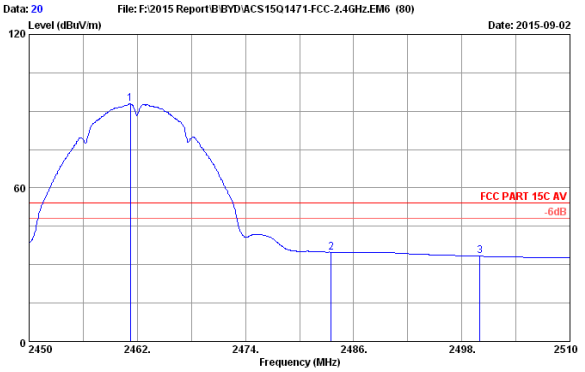
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.220	28.34	7.43	36.60	90.90	90.07	54.00	-36.07	Average
2	2483.500	28.38	7.51	36.59	34.20	33.50	54.00	20.50	Average
3	2500.000	28.40	7.51	36.58	33.67	33.00	54.00	21.00	Average

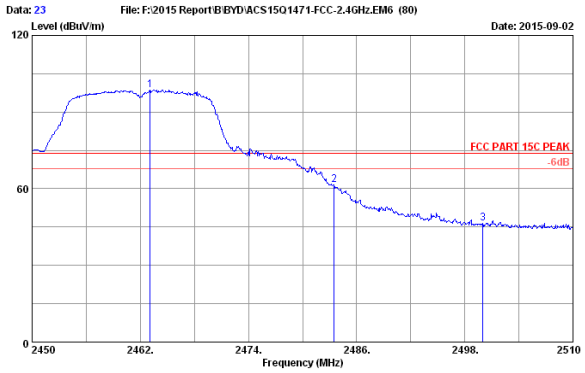
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.220	28.34	7.43	36.60	93.74	92.91	54.00	-38.91	Average
2	2483.500	28.38	7.51	36.59	35.61	34.91	54.00	19.09	Average
3	2500.000	28.40	7.51	36.58	33.98	33.31	54.00	20.69	Average

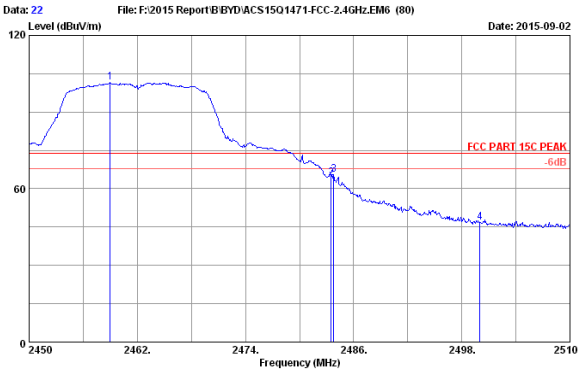
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.080	28.35	7.43	36.59	99.53	98.72	74.00	-24.72	Peak
2	2483.500	28.38	7.51	36.59	62.13	61.43	74.00	12.57	Peak
3	2500.000	28.40	7.51	36.58	47.12	46.45	74.00	27.55	Peak

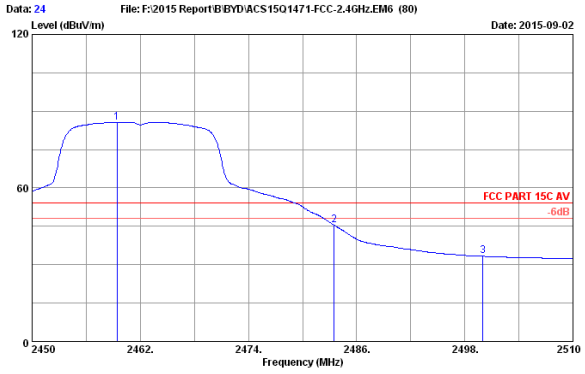
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.000	28.34	7.43	36.60	102.43	101.60	74.00	-27.60	Peak
2	2483.500	28.38	7.51	36.59	65.00	64.30	74.00	9.70	Peak
3	2483.780	28.38	7.51	36.59	66.06	65.36	74.00	8.64	Peak
4	2500.000	28.40	7.51	36.58	47.62	46.95	74.00	27.05	Peak

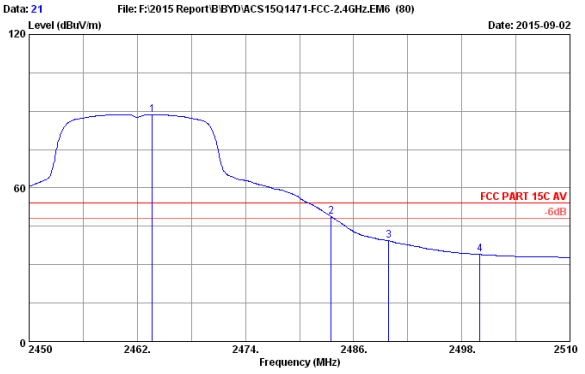
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.420	28.34	7.43	36.60	86.53	85.70	54.00	-31.70	Average
2	2483.500	28.38	7.51	36.59	46.25	45.55	54.00	8.45	Average
3	2500.000	28.40	7.51	36.58	33.96	33.29	54.00	20.71	Average

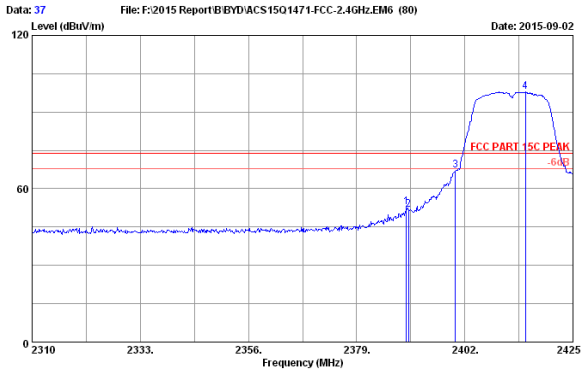
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.680	28.35	7.43	36.59	89.43	88.62	54.00	-34.62	Average
2	2483.500	28.38	7.51	36.59	49.57	48.87	54.00	5.13	Average
3	2489.900	28.39	7.51	36.58	40.07	39.39	54.00	14.61	Average
4	2500.000	28.40	7.51	36.58	34.64	33.97	54.00	20.03	Average

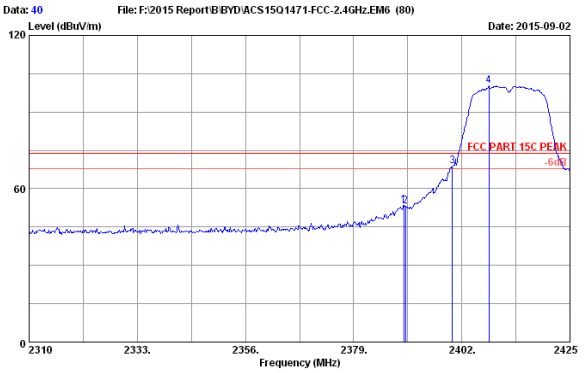
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.580	28.24	7.28	36.62	54.01	52.91	74.00	21.09	Peak
2	2390.000	28.24	7.28	36.62	52.78	51.68	74.00	22.32	Peak
3	2400.000	28.25	7.32	36.62	68.09	67.04	74.00	6.96	Peak
4	2414.880	28.28	7.35	36.61	98.83	97.85	74.00	-23.85	Peak

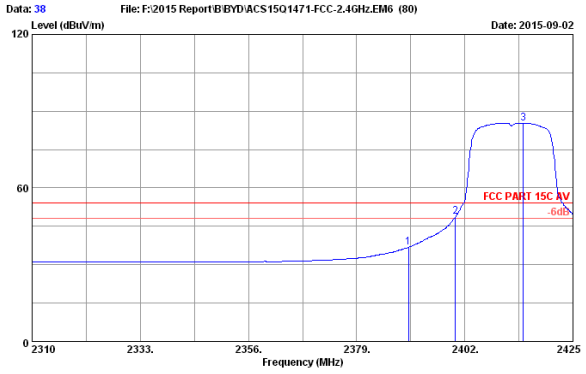
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 40
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.695	28.24	7.28	36.62	54.50	53.40	74.00	20.60	Peak
2	2390.000	28.24	7.28	36.62	54.12	53.02	74.00	20.98	Peak
3	2400.000	28.25	7.32	36.62	69.76	68.71	74.00	5.29	Peak
4	2407.750	28.27	7.32	36.62	101.25	100.22	74.00	-26.22	Peak

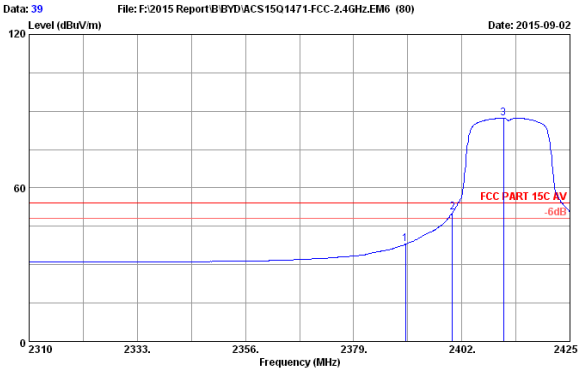
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	37.94	36.84	54.00	17.16	Average
2	2400.000	28.25	7.32	36.62	49.99	48.94	54.00	5.06	Average
3	2414.420	28.28	7.35	36.61	86.32	85.34	54.00	-31.34	Average

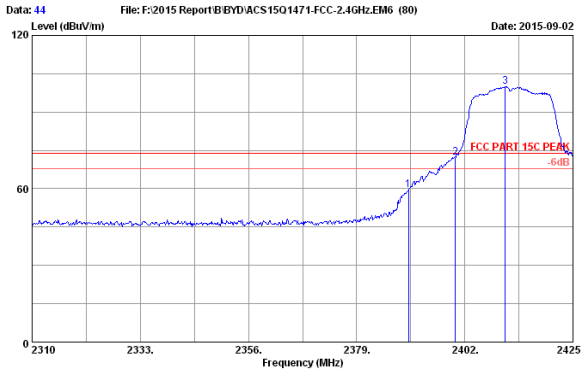
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 39
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	39.13	38.03	54.00	15.97	Average
2	2400.000	28.25	7.32	36.62	51.60	50.55	54.00	3.45	Average
3	2410.855	28.27	7.32	36.62	88.23	87.20	54.00	-33.20	Average

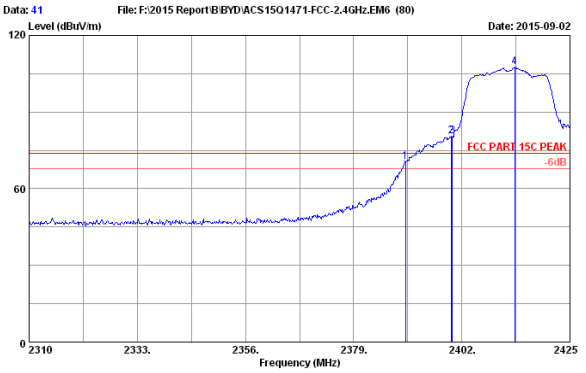
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	60.64	59.54	74.00	14.46	Peak
2	2400.000	28.25	7.32	36.62	73.31	72.26	74.00	1.74	Peak
3	2410.625	28.27	7.32	36.62	101.02	99.99	74.00	-25.99	Peak

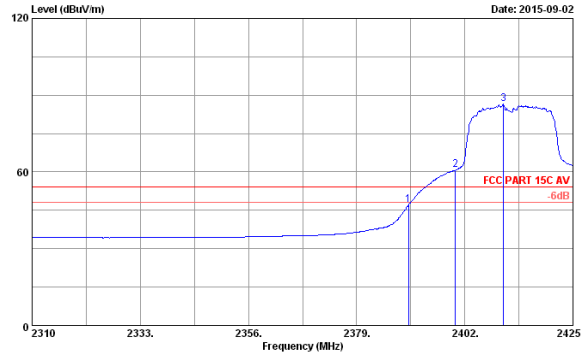
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 41
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	71.59	70.49	74.00	3.51	Peak
2	2399.700	28.25	7.32	36.62	81.72	80.67	74.00	-6.67	Peak
3	2400.000	28.25	7.32	36.62	81.48	80.43	74.00	-6.43	Peak
4	2413.270	28.27	7.35	36.61	108.52	107.53	74.00	-33.53	Peak

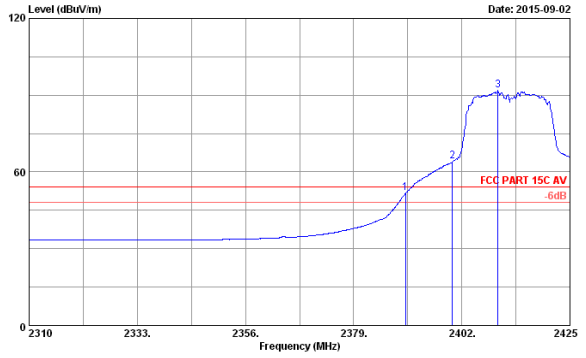
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	48.16	47.06	54.00	6.94	Average
2	2400.000	28.25	7.32	36.62	61.75	60.70	54.00	-6.70	Average
3	2410.280	28.27	7.32	36.62	87.49	86.46	54.00	-32.46	Average

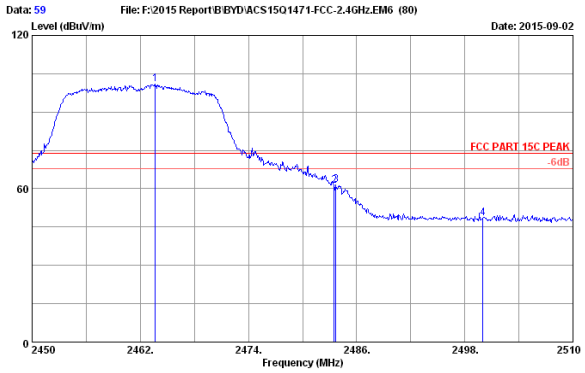
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	52.76	51.66	54.00	2.34	Average
2	2400.000	28.25	7.32	36.62	65.15	64.10	54.00	-10.10	Average
3	2409.705	28.27	7.32	36.62	92.86	91.83	54.00	-37.83	Average

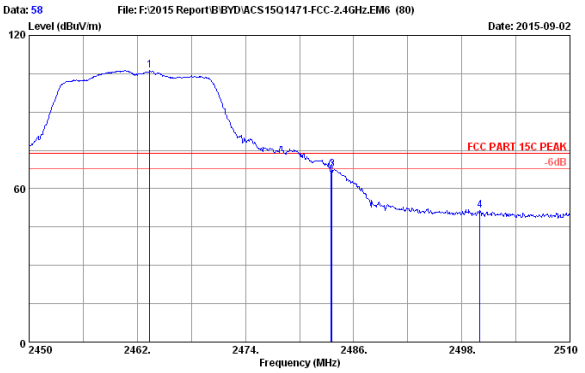
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 59
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.680	28.35	7.43	36.59	101.91	101.10	74.00	-27.10	Peak
2	2483.500	28.38	7.51	36.59	61.99	61.29	74.00	12.71	Peak
3	2483.720	28.38	7.51	36.59	62.09	61.39	74.00	12.61	Peak
4	2500.000	28.40	7.51	36.58	49.22	48.55	74.00	25.45	Peak

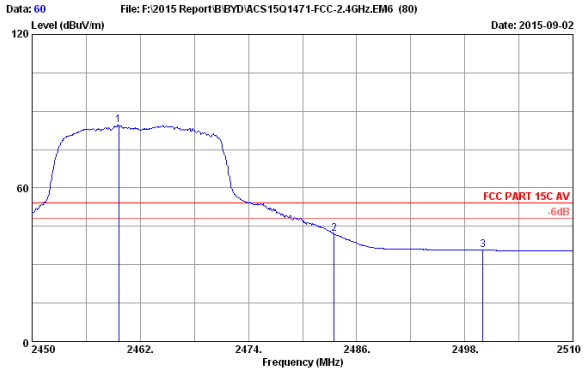
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 58
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.380	28.35	7.43	36.59	107.04	106.23	74.00	-32.23	Peak
2	2483.500	28.38	7.51	36.59	67.49	66.79	74.00	7.21	Peak
3	2483.600	28.38	7.51	36.59	68.23	67.53	74.00	6.47	Peak
4	2500.000	28.40	7.51	36.58	52.03	51.36	74.00	22.64	Peak

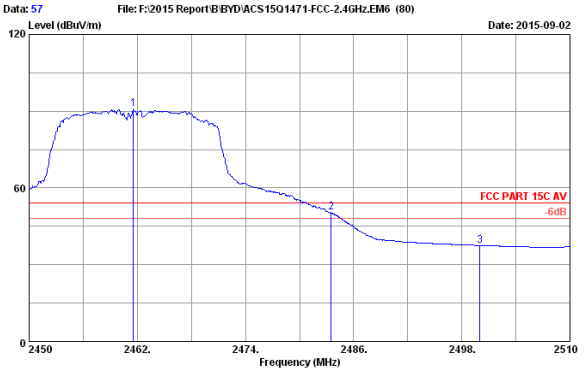
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.600	28.34	7.43	36.60	85.46	84.63	54.00	-30.63	Average
2	2483.500	28.38	7.51	36.59	42.75	42.05	54.00	11.95	Average
3	2500.000	28.40	7.51	36.58	36.29	35.62	54.00	18.38	Average

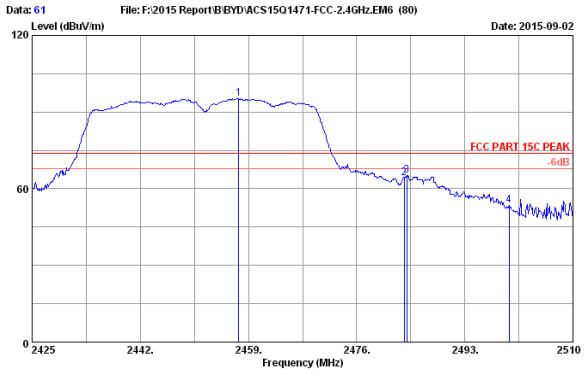
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.580	28.34	7.43	36.60	91.59	90.76	54.00	-36.76	Average
2	2483.500	28.38	7.51	36.59	51.02	50.32	54.00	3.68	Average
3	2500.000	28.40	7.51	36.58	38.18	37.51	54.00	16.49	Average

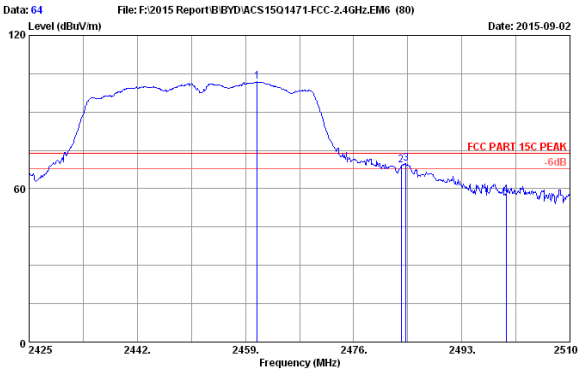
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 61
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.470	28.34	7.43	36.60	96.09	95.26	74.00	-21.26	Peak
2	2483.500	28.38	7.51	36.59	64.99	64.29	74.00	9.71	Peak
3	2483.905	28.38	7.51	36.59	65.91	65.21	74.00	8.79	Peak
4	2500.000	28.40	7.51	36.58	54.02	53.35	74.00	20.65	Peak

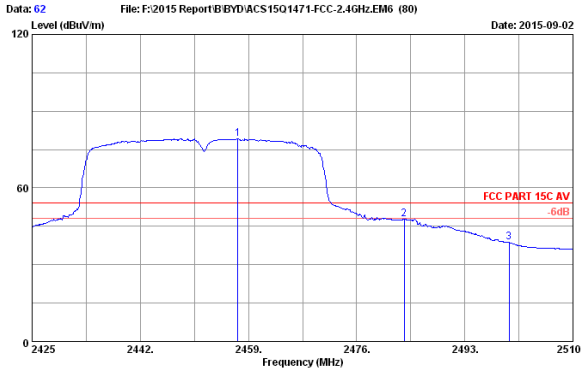
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 64
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.870	28.34	7.43	36.60	102.62	101.79	74.00	-27.79	Peak
2	2483.500	28.38	7.51	36.59	69.82	69.12	74.00	4.88	Peak
3	2484.245	28.38	7.51	36.59	70.49	69.79	74.00	4.21	Peak
4	2500.000	28.40	7.51	36.58	58.20	57.53	74.00	16.47	Peak

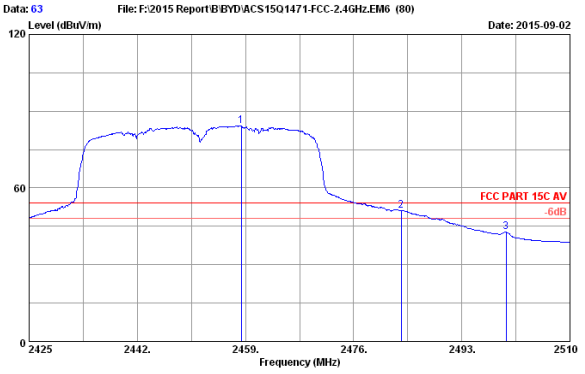
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.300	28.34	7.43	36.60	80.19	79.36	54.00	-25.36	Average
2	2483.500	28.38	7.51	36.59	48.39	47.69	54.00	6.31	Average
3	2500.000	28.40	7.51	36.58	39.41	38.74	54.00	15.26	Average

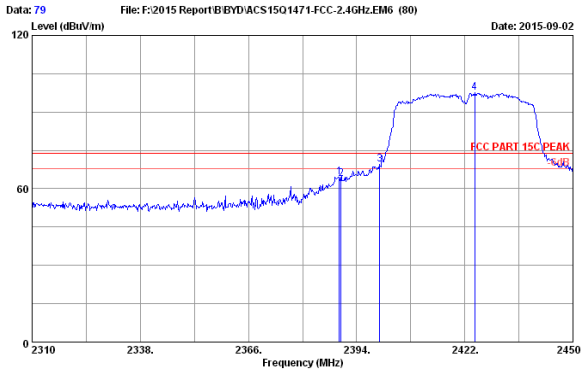
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 63
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2458.320	28.34	7.43	36.60	85.15	84.32	54.00	-30.32	Average
2	2483.500	28.38	7.51	36.59	51.72	51.02	54.00	2.98	Average
3	2500.000	28.40	7.51	36.58	43.38	42.71	54.00	11.29	Average

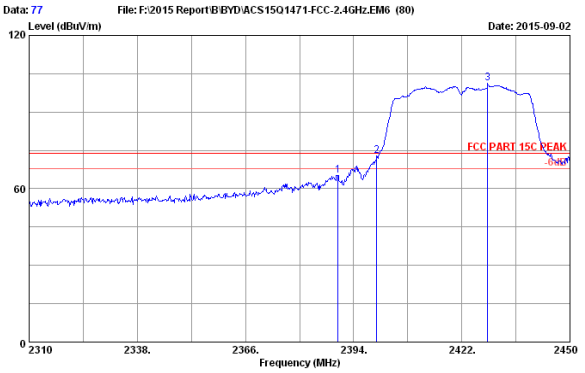
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 79
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.520	28.24	7.28	36.62	65.69	64.59	74.00	9.41	Peak
2	2390.000	28.24	7.28	36.62	64.89	63.79	74.00	10.21	Peak
3	2400.000	28.25	7.32	36.62	70.41	69.36	74.00	4.64	Peak
4	2424.520	28.29	7.35	36.61	98.49	97.52	74.00	-23.52	Peak

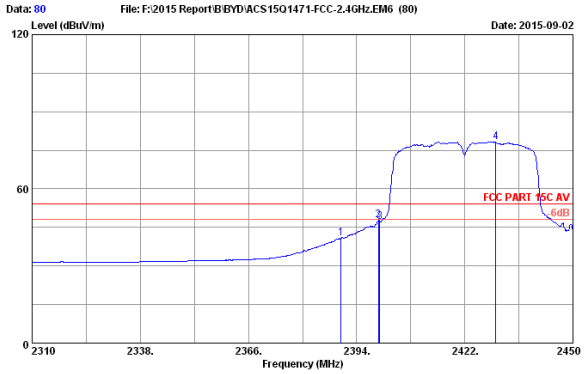
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 77
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	66.22	65.12	74.00	8.88	Peak
2	2400.000	28.25	7.32	36.62	74.02	72.97	74.00	1.03	Peak
3	2428.720	28.30	7.35	36.61	102.18	101.22	74.00	-27.22	Peak

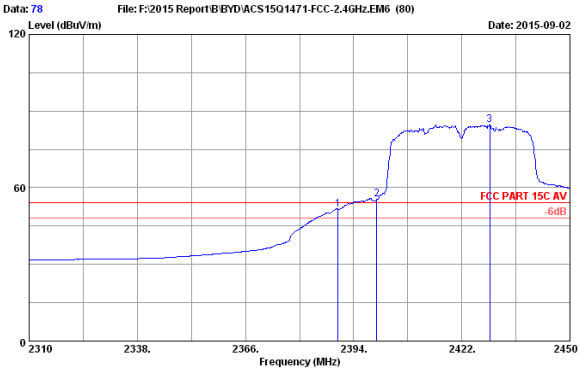
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	41.96	40.86	54.00	13.14	Average
2	2399.600	28.25	7.32	36.62	48.78	47.73	54.00	6.27	Average
3	2400.000	28.25	7.32	36.62	48.26	47.21	54.00	6.79	Average
4	2429.980	28.30	7.39	36.61	79.15	78.23	54.00	-24.23	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 2014 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54%
Engineer : Alice_yang
EUT : Notebook
Power rating : DC 20V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx
M/N : RZ09-0168

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.24	7.28	36.62	52.71	51.61	54.00	2.39	Average
2	2400.000	28.25	7.32	36.62	56.55	55.50	54.00	-1.50	Average
3	2429.280	28.30	7.39	36.61	85.50	84.58	54.00	-30.58	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28, 15	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr.28, 15	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

EUT: Notebook		
M/N: RZ09-0168		
Test date: 2015-08-19	Pressure: 101.3±1.0kpa	Humidity: 49.5±3.0%
Tested by: Alice-Yang	Test site: RF site	Temperature:22.6±0.6 ℃

Test Mode	CH	6dB bandwidth (MHz)		Limit (KHz)
		ANT0	ANT1	
11b	CH1	8.082	8.087	>500
	CH6	8.084	8.088	>500
	CH11	8.084	8.089	>500
11g	CH1	15.15	15.13	>500
	CH6	15.35	15.49	>500
	CH11	15.07	15.15	>500
11n HT20	CH1	15.15	15.16	>500
	CH6	15.10	15.12	>500
	CH11	15.16	15.01	>500
11n HT40	CH3	35.57	35.30	>500
	CH6	35.54	34.49	>500
	CH9	35.75	35.62	>500
Conclusion：PASS				

ANT0:

Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH9: 2452MHz
	

ANT1:

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

Test CH6: 2437MHz

Test CH6: 2437MHz

Test CH11: 2462MHz

Test CH11: 2462MHz

Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH9: 2452MHz
	

8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.28, 15	1Year
3.	Power sensor	Anritsu	MA2491A	0033005	Apr.28, 15	1Year
4.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28, 15	1Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr.28, 15	1Year

8.2.Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.3.Test Procedure

1, Connected the EUT's antenna port to measure device by 26dB attenuator.

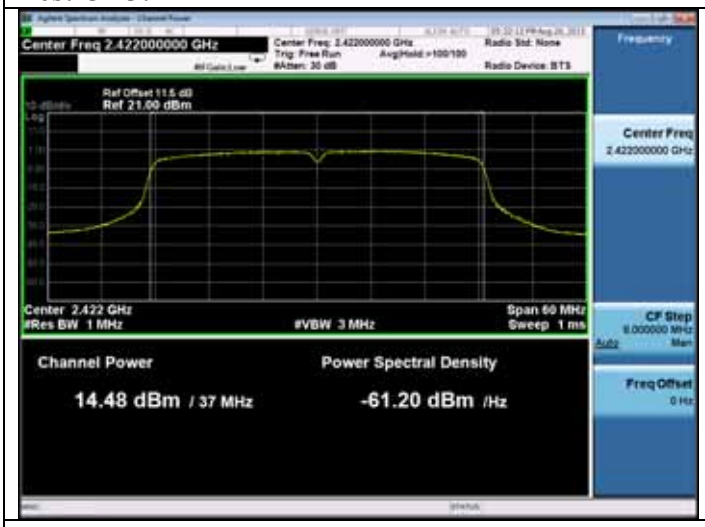
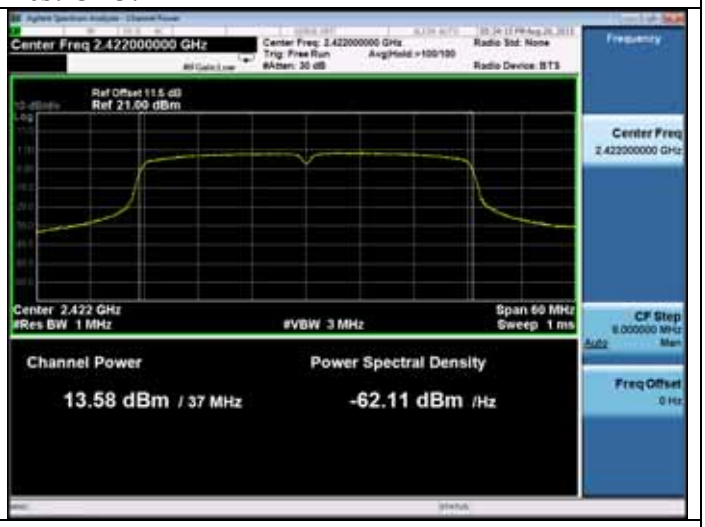
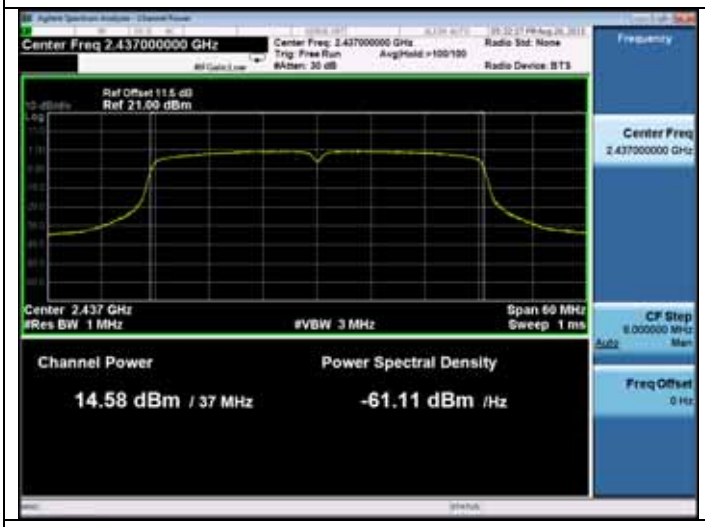
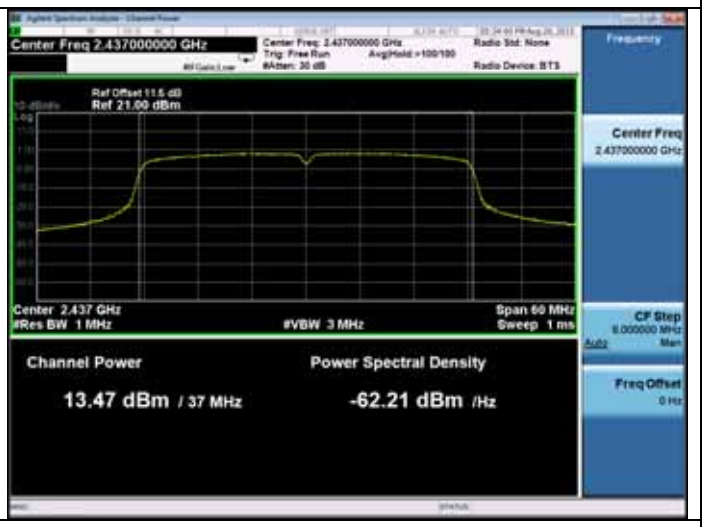
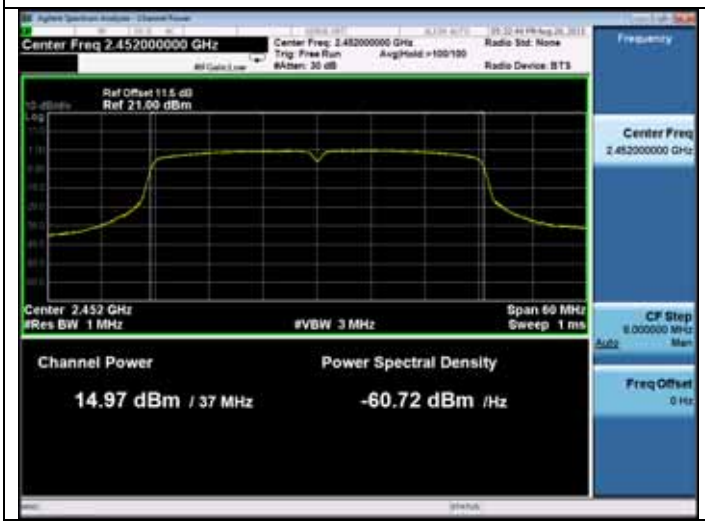
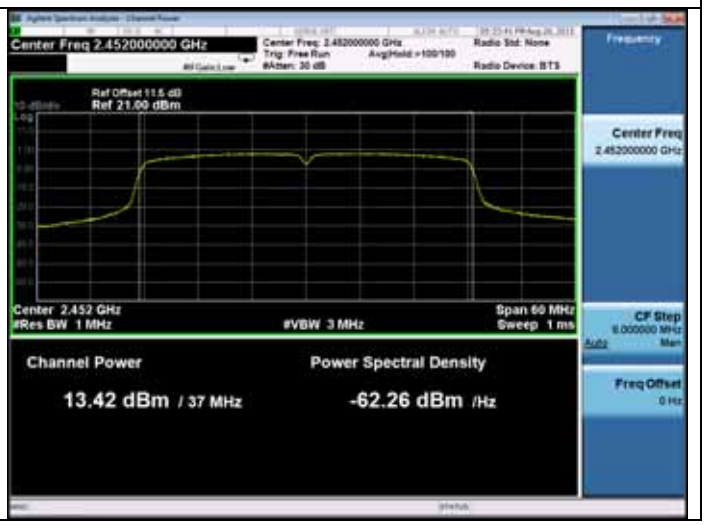
2, For IEEE 802.11b/g and IEEE802.11n HT20 modes, use a power meter which bandwidth is 20MHz, above the bandwidth of signals, to measure out output power in each mode.

3, For IEEE802.11n HT40 mode, since the signal bandwidth is nearly 40MHz, which is above 20MHz bandwidth of power sensor of ML2491A. use the test method descried in KDB558074 clause 9.2.2.
1) Set the RBW=1MHz and VBW =3MHz
2) Set the span at least 1.5 times the OBW
3) Detector = RMS
4) Sweep time = auto couple
5) allow trace to fully stabilize
6) use the spectrum amalyser's integrated band power measurement function with band limits set equal to the EBW band edges.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4.Test Results

EUT: Notebook					
M/N: RZ09-0168					
Test date: 2015-08-20		Pressure: 101.3±1.0 kpa		Humidity: 49.5±3.0%	
Tested by: Alice-Yang		Test site: RF site		Temperature:22.6±0.6 ℃	
Test Mode	CH	output Power （dBm）			Limit (dBm)
		ANT0	ANT1	Total	
11b	CH1	15.39	14.07	N/A	30
	CH6	15.58	14.53	N/A	30
	CH11	15.51	14.65	N/A	30
11g	CH1	15.67	14.25	N/A	30
	CH6	15.05	14.45	N/A	30
	CH11	15.56	14.52	N/A	30
11n HT20	CH1	16.55	15.52	19.08	30
	CH6	16.77	15.53	19.20	30
	CH11	17.47	15.27	19.52	30
11n HT40	CH3	14.48	13.58	17.06	30
	CH6	14.58	13.47	17.07	30
	CH9	14.97	13.42	17.27	30
Conclusion: PASS					

ANT0:	ANT1:
Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH9: 2452MHz	Test CH9: 2452MHz
	

9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28, 15	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr.28, 15	1 Year

9.2.Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3.Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.

2. Set span to 1.5 times the DTS Bandwidth.

3. Set the RBW=3KHz, VBW=10KHz.

4. Detector=peak, Sweep time=Auto, Trace mode=max Hold

5. All the trace to fully stabilize.

6. Use the peak marker function to determine the maximum amplitude level with in the RBW.

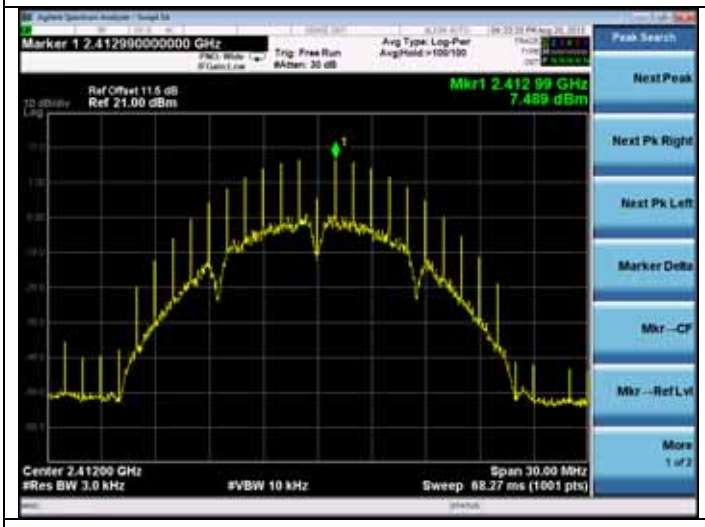
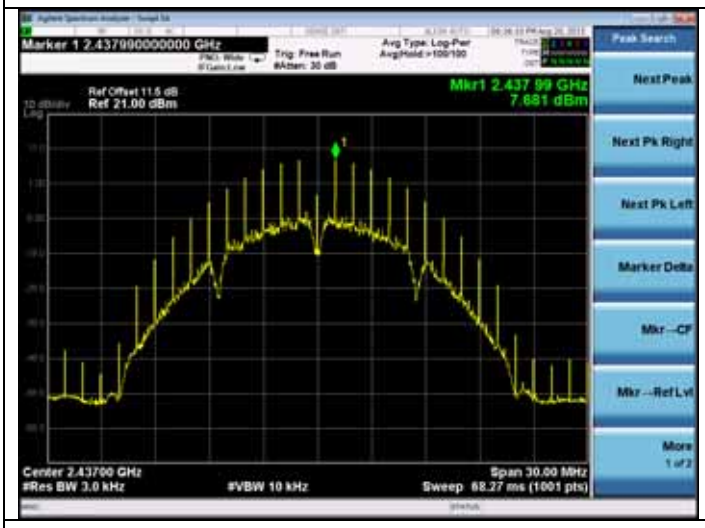
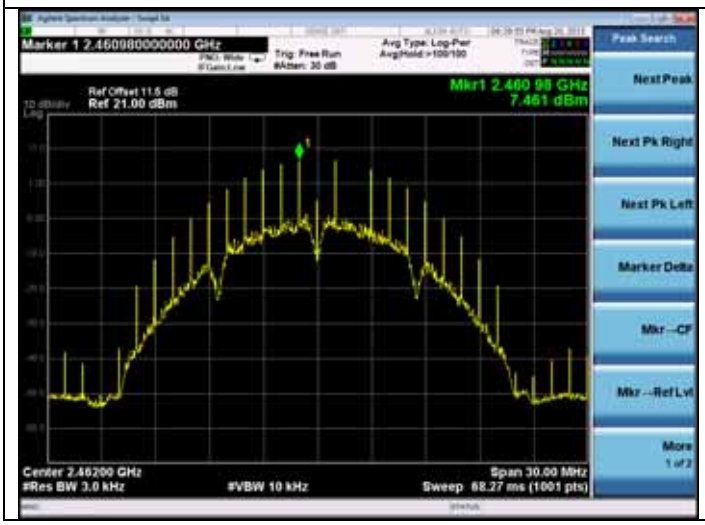
Note: The cable loss and attenuator loss were offset into measure device as an amplitude

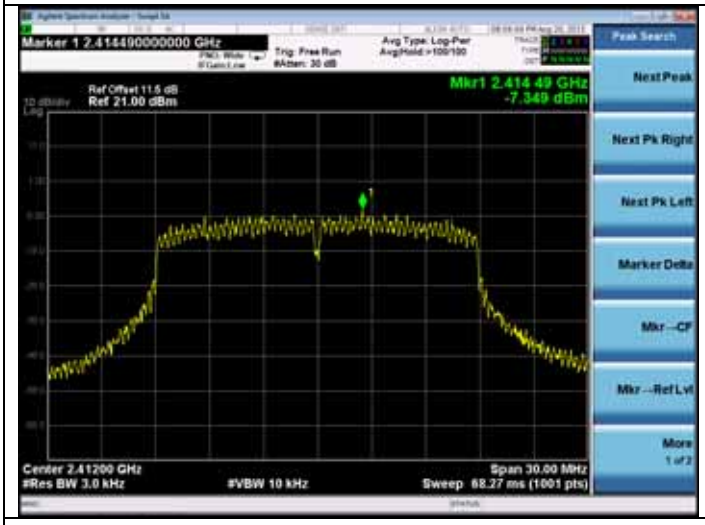
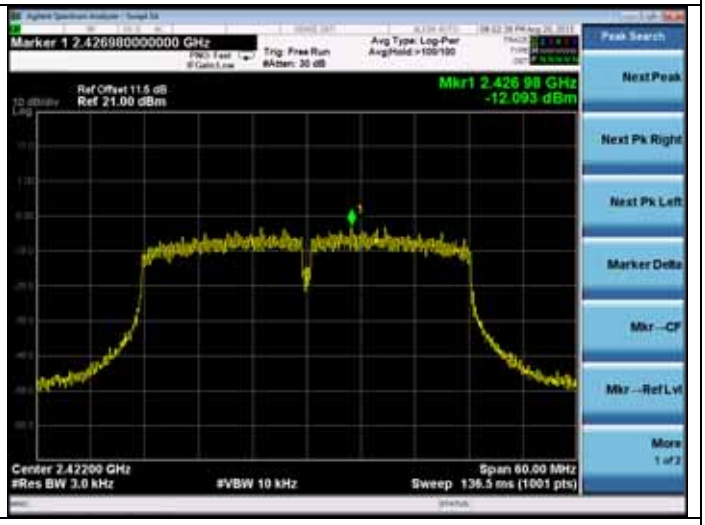
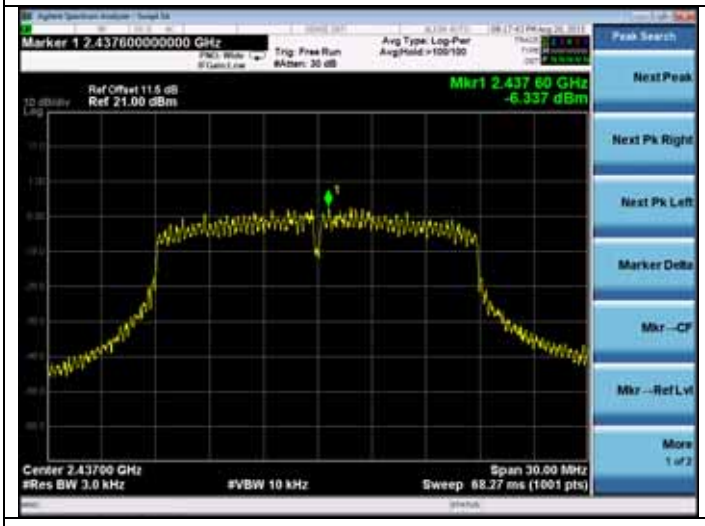
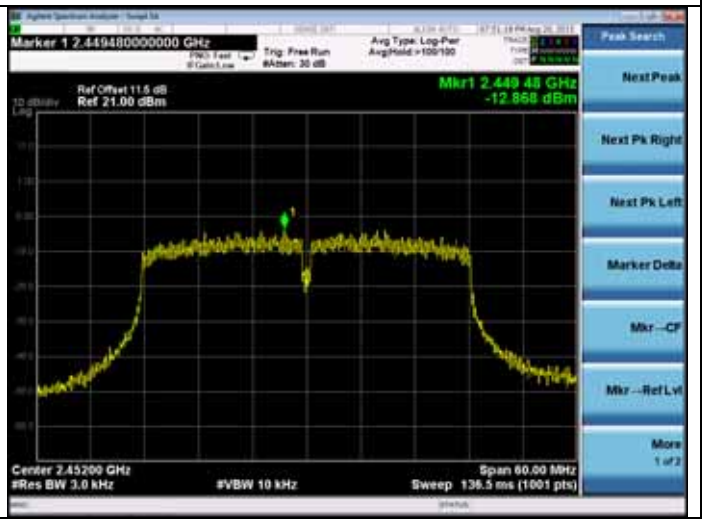
9.4.Test Results

EUT: Notebook					
M/N: RZ09-0168					
Test date: 2015-08-20		Pressure: 101.1±1.0 kpa		Humidity: 49.8±3.0%	
Tested by: Alice-Yang		Test site: RF site		Temperature:22.2±0.6 ℃	
Test Mode	CH	Power Density （dBm/3KHz）			Limit (dBm/3KHz)
		ANT0	ANT1	Total	
11b	CH1	7.489	6.226	N/A	8
	CH6	7.681	6.733	N/A	8
	CH11	7.461	6.952	N/A	8
11g	CH1	-7.980	-8.330	N/A	8
	CH6	-8.339	-9.327	N/A	8
	CH11	-8.133	-8.588	N/A	8
11n HT20	CH1	-7.349	-8.674	-4.95	8
	CH6	-6.337	-9.156	-4.51	8
	CH11	-6.307	-8.719	-4.34	8
11n HT40	CH3	-12.093	-12.847	-9.44	8
	CH6	-13.356	-13.175	-10.25	8
	CH9	-12.868	-13.219	-10.03	8
Conclusion: PASS					

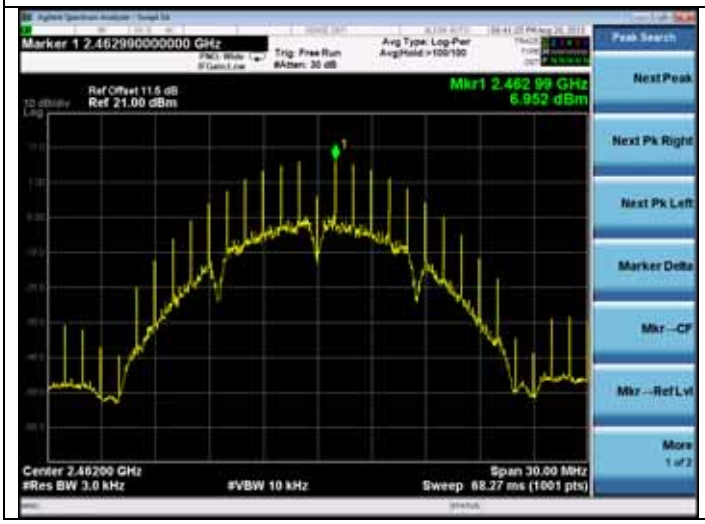
Note: For 11n mode, the direction gain less than 6dBi.

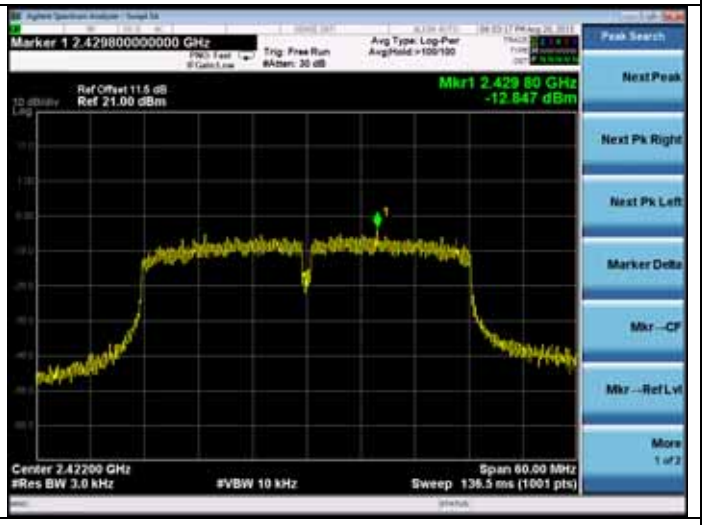
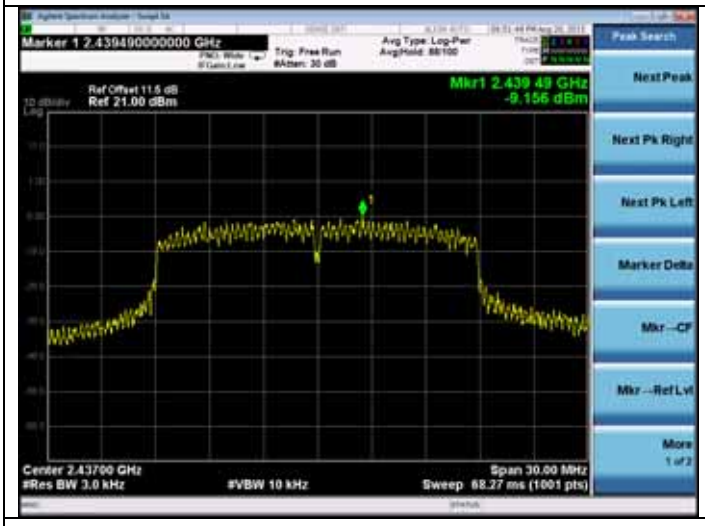
ANT0:

Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH9: 2452MHz
	

ANT1:

Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11n HT40 Test CH3: 2422MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH9: 2452MHz
	

10. ANTENNA REQUIREMENT

10.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. Antenna Connected Construction

The antennas used for this product are PIFA antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 2.84dBi.

11. DEVIATION TO TEST SPECIFICATIONS

[NONE]