FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

AC Ryan Asia Pacific Pte Ltd

A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter

Model No.: ACR-WN10002

FCC ID: Y8JACRWN10002

Prepared for : AC Ryan Asia Pacific Pte Ltd
60 Kaki Bukit Place#01-12(Lobby A), Eunos Techpark
Singapore 415979, Singapore

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

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Report Number	:	ACS-F11073
Date of Test	:	Mar.01~Apr.04, 2011
Date of Report	:	Apr.07, 2011

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TEST REPORT CERTIFICATION

Applicant	:	AC Ryan Asia Pacific Pte Ltd
Manufacturer	:	AC Ryan Asia Pacific Pte Ltd
EUT Description	:	A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter
FCC ID	:	Y8JACRWN10002

(A) MODEL NO. : ACR-WN10002
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : DC 5V From PC Input AC 120/60Hz
(D) TEST VOLTAGE : AC 120/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2008

Test procedure used:
ANSI C63.10:2009

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 requirements.

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.

Date of Test : Mar.01~Apr.04, 2011 Report of date: Apr.07, 2011

Prepared by : Vicky Huang
Vicky Huang / Assistant

Reviewer by :
Sunny Lu/ Senior Assistant

AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: Ken Lu 4/8 11

Approved & Authorized Signer :
Ken Lu / 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 ANSI C63.10: 2009	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name	:	A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter
Model Number	:	ACR-WN10002
FCC ID	:	Y8JACRWN10002
Operation Frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE802.11n HT20: 2412MHz—2462MHz IEEE802.11n HT40: 2422MHz—2452MHz
Channel Number	:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7Channels
Modulation Technology	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Assembly Gain	:	Integrated Patch Antenna, MIMO 1Tx2R, 0dBi peak gain
Applicant	:	AC Ryan Asia Pacific Pte Ltd 60 Kaki Bukit Place#01-12(Lobby A), Eunos Techpark Singapore 415979, Singapore
Manufacturer	:	AC Ryan Asia Pacific Pte Ltd 60 Kaki Bukit Place#01-12(Lobby A), Eunos Techpark Singapore 415979, Singapore
Date of Test	:	Mar.01~Apr.04, 2011
Date of Receipt	:	Feb.20, 2011
Sample Type	:	Prototype production

2.2.Test Information

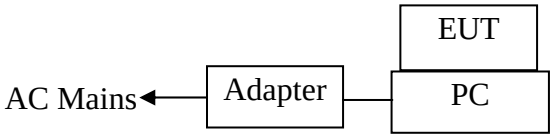
A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH6	2437
	11	High: CH11	2462
IEEE 802.11g	54	Low :CH1	2412
	54	Middle: CH6	2437
	54	High: CH11	2462
IEEE 802.11n HT20	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11n HT40	13.5	Low :CH1	2422
	13.5	Middle: CH4	2437
	13.5	High: CH7	2452
Note1: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

2.3.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1.	Notebook	N/A	DELL	PP09S	N/A	☑FCC DoC ☑BSMI ID: R41108
		Power Cord: Unshielded, Detachabled, 1.8m Power Adapter: Manufacturer: DELL, M/N: LA65NS1-00 Cable: Unshielded, Detachabled, 4.0m(Bond one ferrite core)				

2.4. Block diagram of connection between the EUT and simulators



Notebook run test software to control EUT work in Continuous TX mode

(EUT: A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter)

2.5. 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	:	Mar.31, 2009 File on Federal Communication Commission Registration Number: 90454
3m & 10m Anechoic Chamber	:	Dec. 30, 2009 File on Federal Communication Commission Registration Number: 794232
EMC Lab.	:	Certificated by Industry Canada Registration Number: IC 5183A-1 Jul. 03, 2009
	:	Accredited by DATech, German Registration Number: DAT-P-091/99-01 Feb. 02, 2009

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

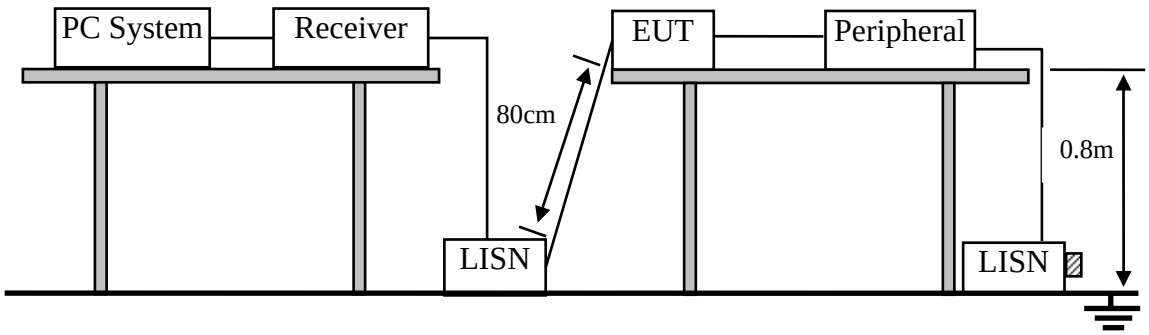
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.64 dB (9kHz to 150kHz
	3.22 dB(150kHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	4.20 dB (Polarize: V)
	4.66 dB (Polarize: H)
Uncertainty for Radiated Spurious Emission test in RF chamber	2.70 dB(Bilog antenna 30M~1000MHz)
	2.27 dB(Horn antenna 1000M~12750MHz)
Uncertainty for Conduction Spurious emission test	2.12 dB
Uncertainty for Output power test	0.97 dB
Uncertainty for Power density test	2.21 dB
Uncertainty for Frequency range test	$1x10^{-9}$
Uncertainty for Bandwidth test	$1x10^{-9}$
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.3℃
	2%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.05, 10	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Mar.30, 10	1 Year
3.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 10	1 Year
4.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 10	1Year
5.	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 10	1 Year
6.	Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May.08, 10	1 Year
7.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 10	1 Year

3.2.Block Diagram of Test Setup



▨ :50Ω Terminator

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. A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter (EUT)

Model Number : ACR-WN10002
Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.3.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 2.4.

3.5.2. Turned on the power of all equipment.

3.5.3. Notebook run test software to control EUT work in Tx mode.

3.6. Test Procedure

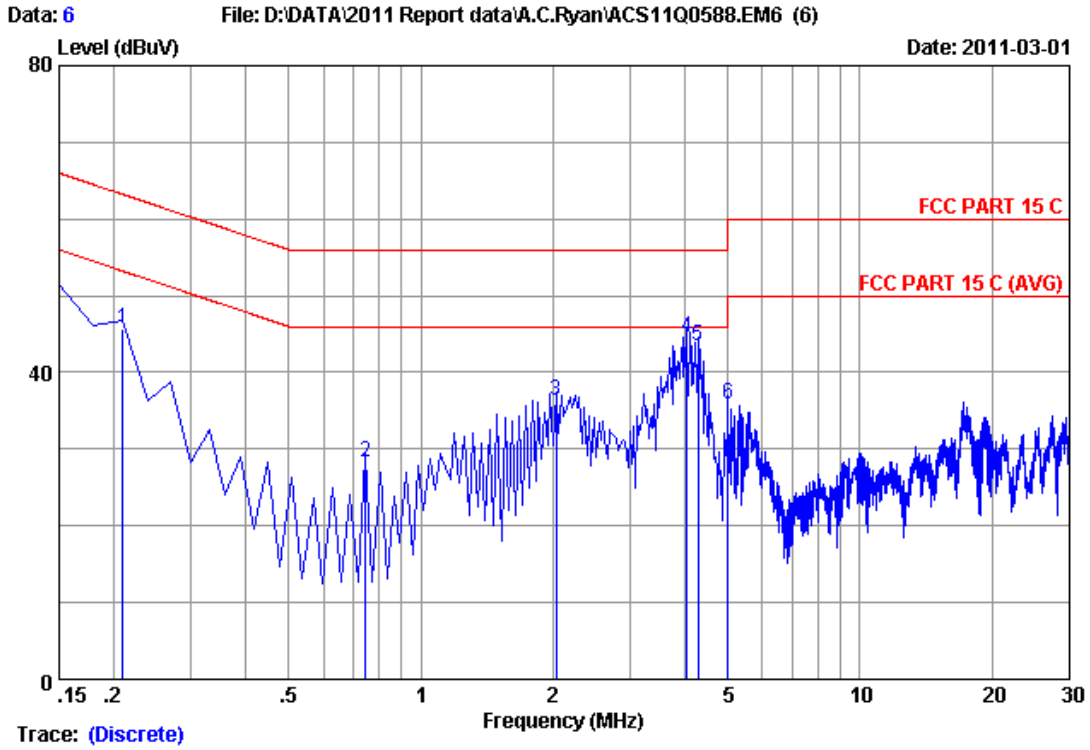
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The 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: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

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

3.7. Power Line Conducted Emission Test Results

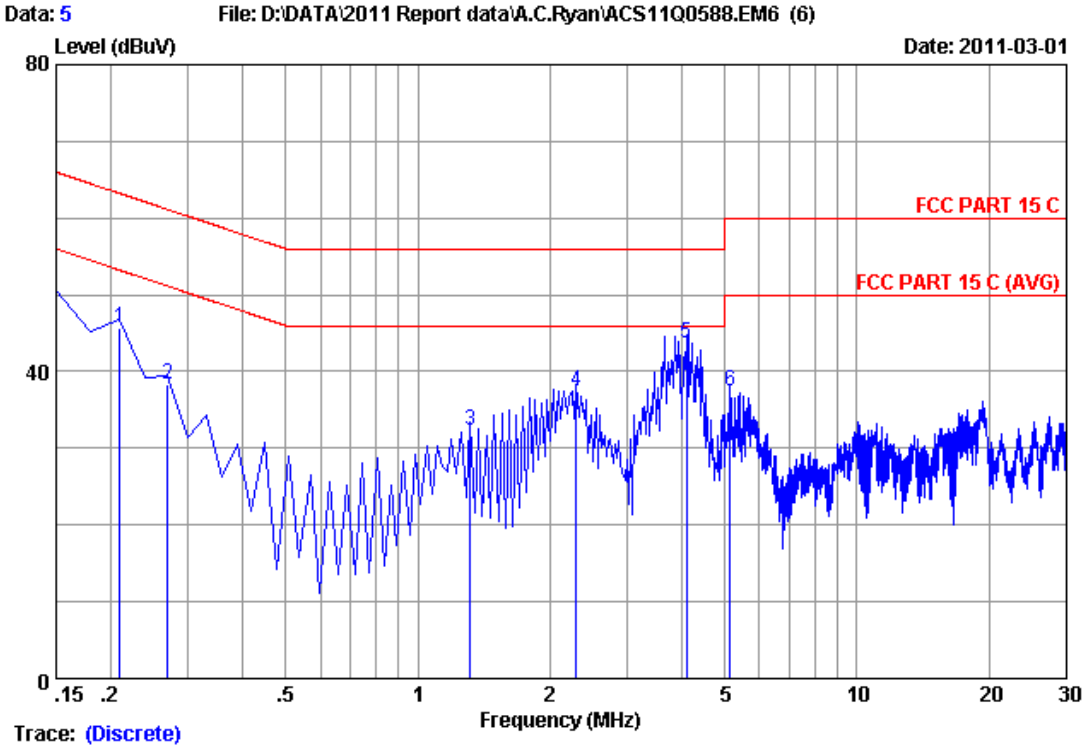
PASS. **(**All emissions not reported below are too low against the prescribed limits.)



Site no :1#conduction Data No :6
Dis./Ant. :** 2011 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :29.5*C/55% Engineer :Paul Tian
EUT :A.C.Ryan PLAYON!Essential Wireless-N 300Mbps USB Adapter
Power Rating :DC 5V From PC input AC 120V/60Hz
Test Mode :Tx Mode
M/N:ACR-WN10002

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.17	9.88	35.66	45.71	63.22	17.51	QP
2	0.74700	0.20	9.89	18.22	28.31	56.00	27.69	QP
3	2.031	0.31	9.91	26.17	36.39	56.00	19.61	QP
4	4.031	0.35	9.94	34.39	44.68	56.00	11.32	QP
5	4.269	0.36	9.94	33.22	43.52	56.00	12.48	QP
6	5.016	0.37	9.94	25.64	35.95	60.00	24.05	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
+Reading.
2.If the average limit is met when useing 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./Ant. :** 2011 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :29.5*C/55% Engineer :Paul Tian
EUT :A.C.Ryan PLAYON!Essential Wireless-N 300Mbps USB Adapter
Power Rating :DC 5V From PC input AC 120V/60Hz
Test Mode :Tx Mode
M/N:ACR-WN10002

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.21	9.88	35.64	45.73	63.22	17.49	QP
2	0.26940	0.21	9.88	28.31	38.40	61.14	22.74	QP
3	1.314	0.25	9.89	22.22	32.36	56.00	23.64	QP
4	2.299	0.28	9.92	27.17	37.37	56.00	18.63	QP
5	4.090	0.31	9.94	33.51	43.76	56.00	12.24	QP
6	5.135	0.33	9.94	27.07	37.34	60.00	22.66	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
+Reading.
2.If the average limit is met when useing 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

Frequency rang: 30~1000MHz

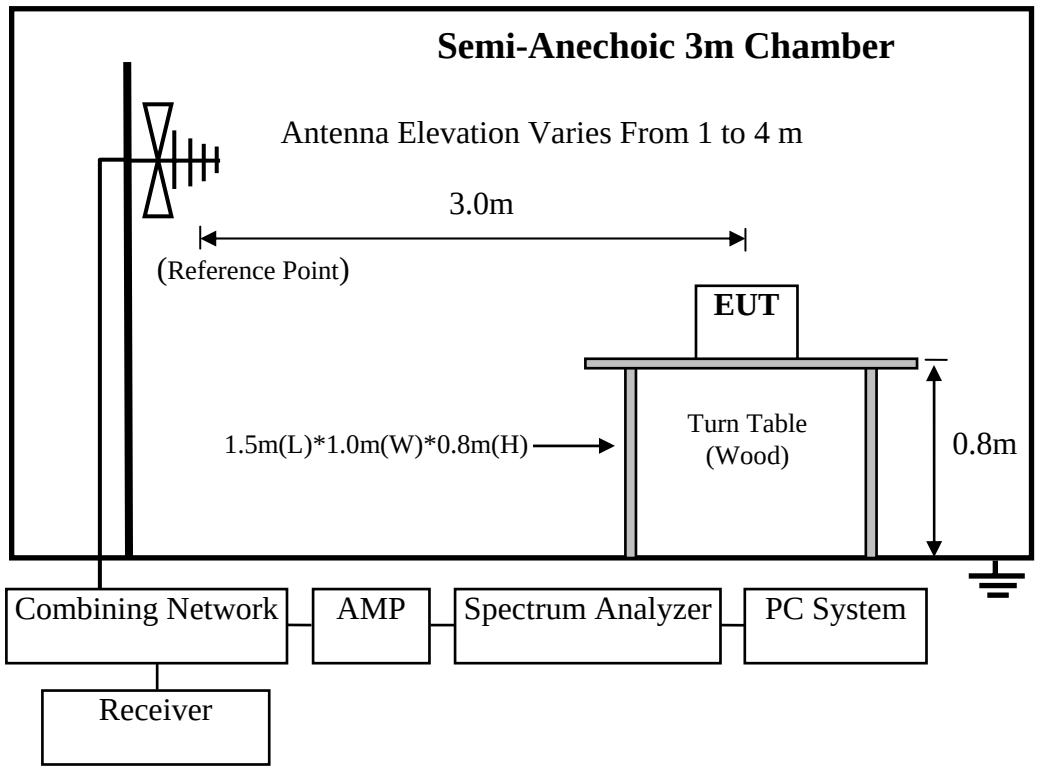
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.06,10	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 10	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 10	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 10	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	1.5 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 10	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 10	1 Year

Frequency rang: above 1000MHz

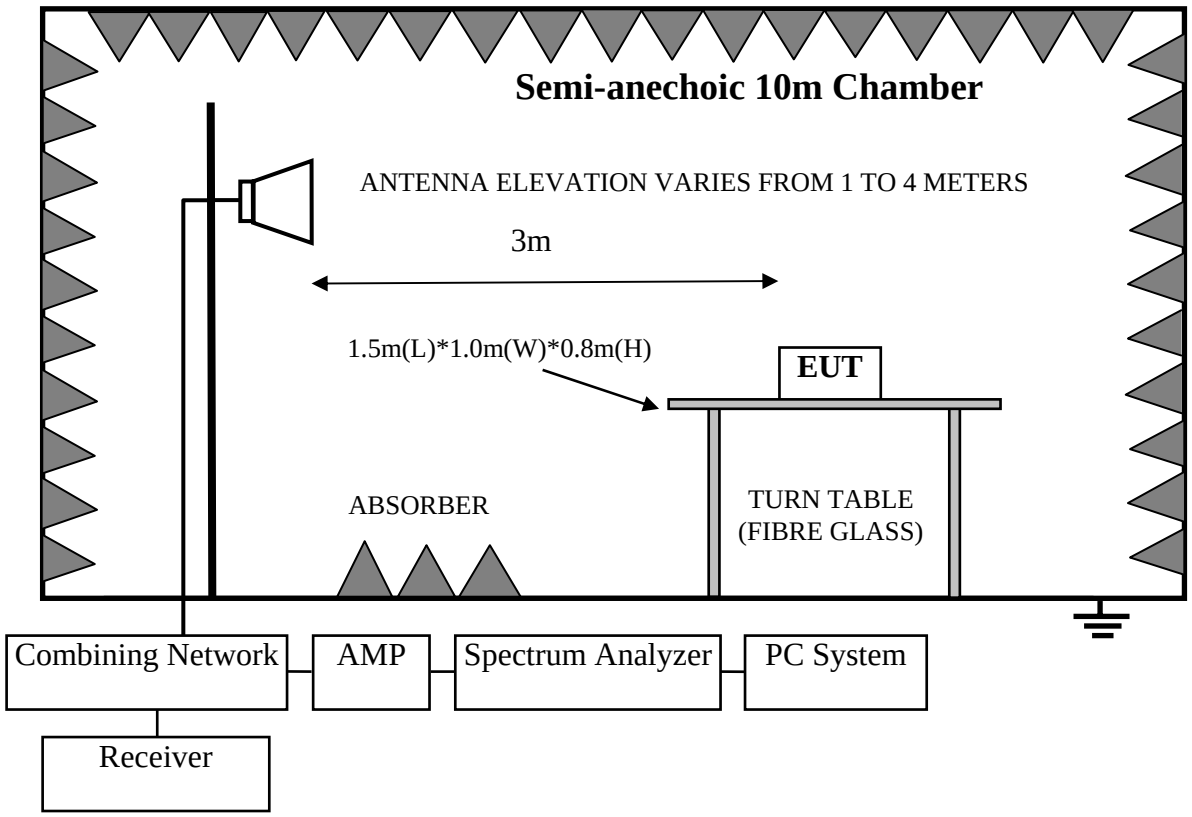
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3	Horn Antenna	EMCO	3116	00060089	Nov.25, 09	1.5 Year
4	Amplifier	Agilent	8449B	3008A00863	May.08, 10	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08, 10	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 10	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3.Radiated Emission Limit

4.3.1.15.209 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 configurations of EUT are listed in Section 3.5.

4.5.Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above 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. Both horizontal and vertical polarization of the antenna are set on test.

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 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

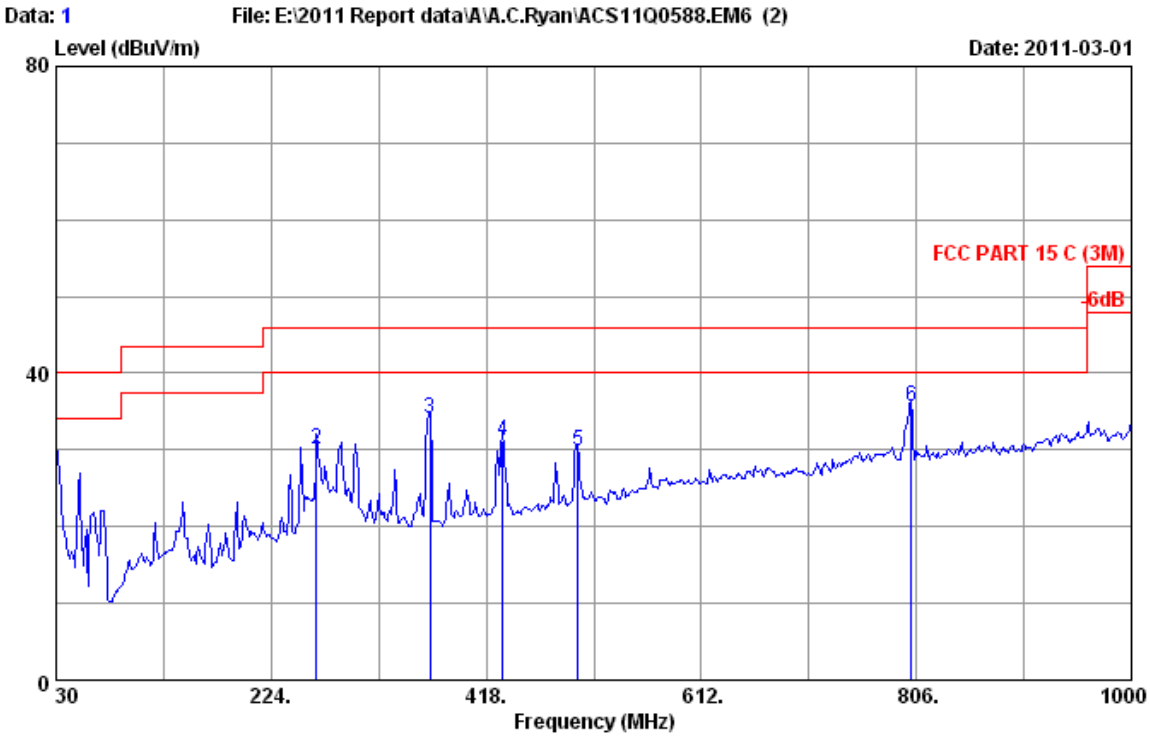
4.7. Radiated Emission Test Results

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.

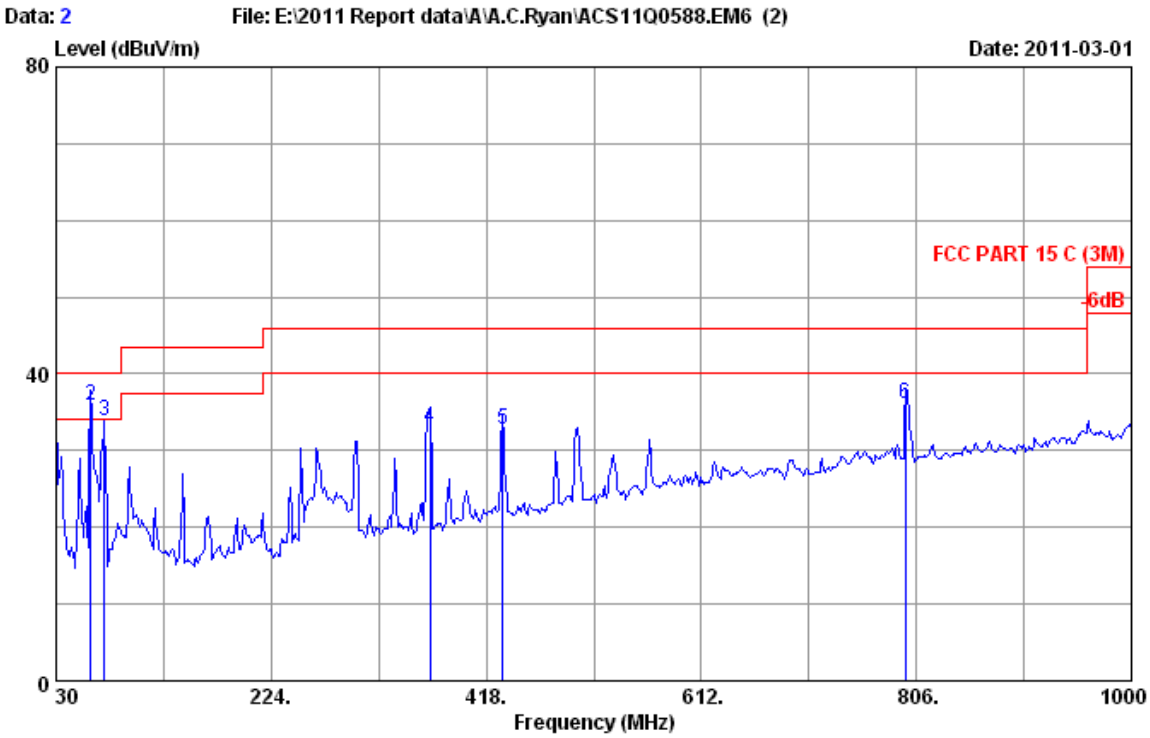
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/56% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power rating : DC 5V From PC input AC 120V/60Hz
Test Mode : Tx Mode
M/N:ACR-WN10002

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.00	0.61	8.45	29.06	40.00	10.94	QP
2	264.740	13.80	2.26	13.93	29.99	46.00	16.01	QP
3	367.560	15.53	2.77	15.70	34.00	46.00	12.00	QP
4	432.550	17.42	3.12	10.68	31.22	46.00	14.78	QP
5	500.450	18.30	3.55	7.98	29.83	46.00	16.17	QP
6	801.150	22.00	4.90	8.72	35.62	46.00	10.38	QP

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

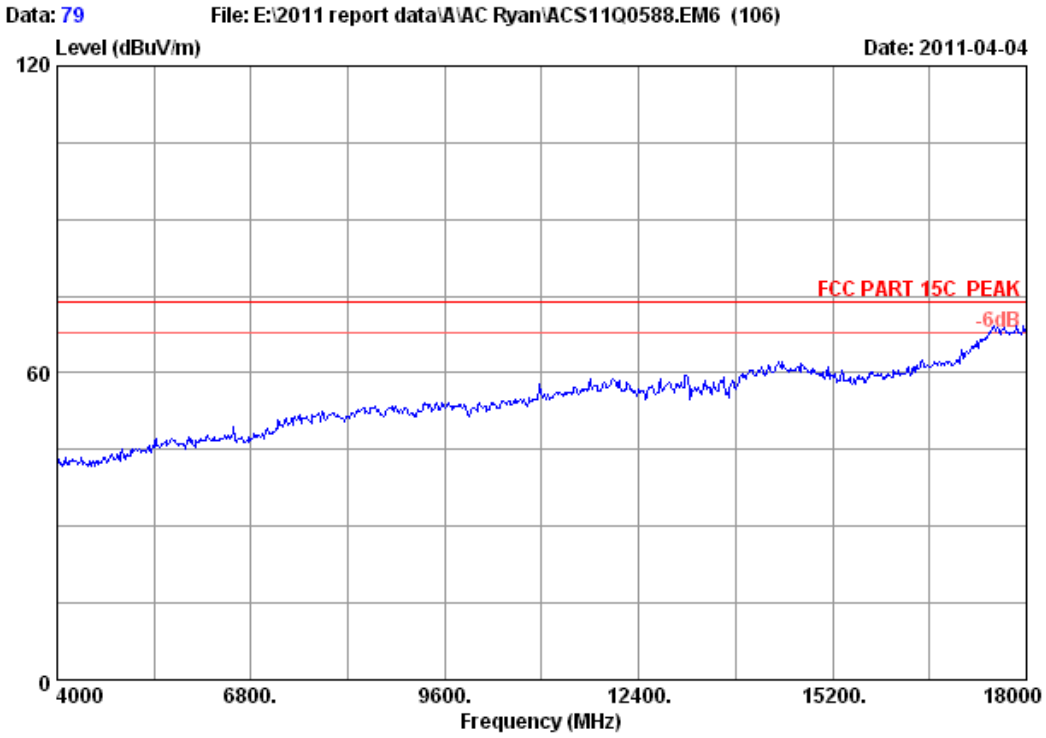


Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/56% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power rating : DC 5V From PC input AC 120V/60Hz
Test Mode : Tx Mode
M/N:ACR-WN10002

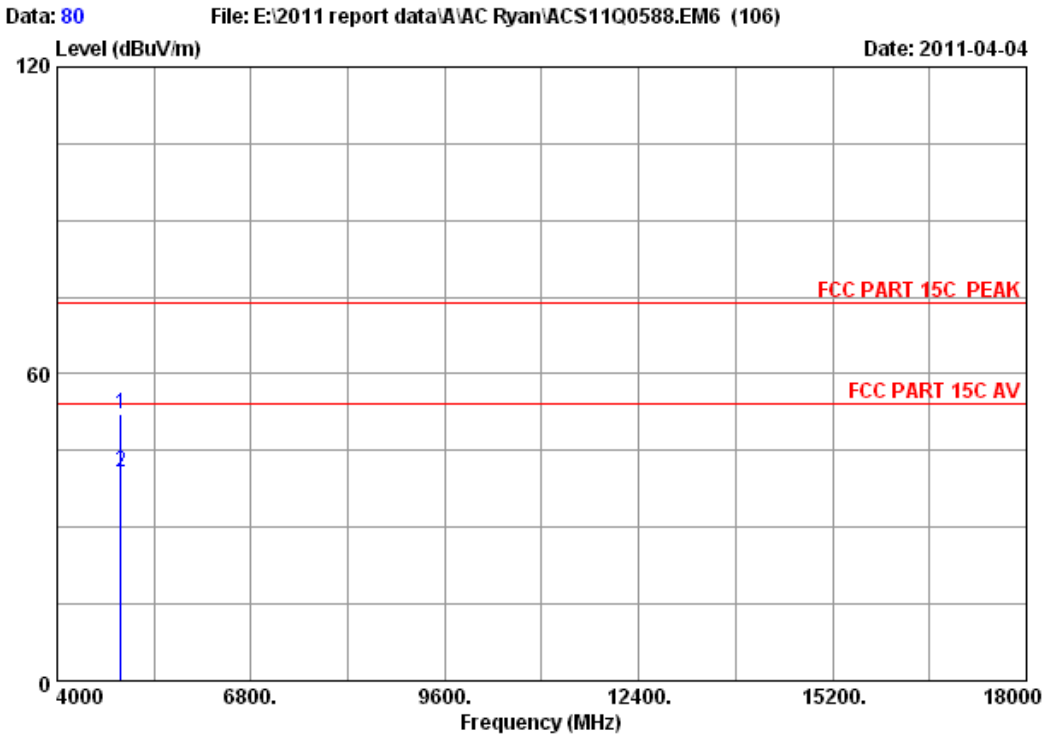
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.00	0.61	10.38	30.99	40.00	9.01	QP
2	61.040	6.00	0.86	29.09	35.95	40.00	4.05	QP
3	73.650	7.16	0.95	25.73	33.84	40.00	6.16	QP
4	367.560	15.53	2.77	14.72	33.02	46.00	12.98	QP
5	432.550	17.42	3.12	12.13	32.67	46.00	13.33	QP
6	796.300	22.04	4.88	9.27	36.19	46.00	9.81	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



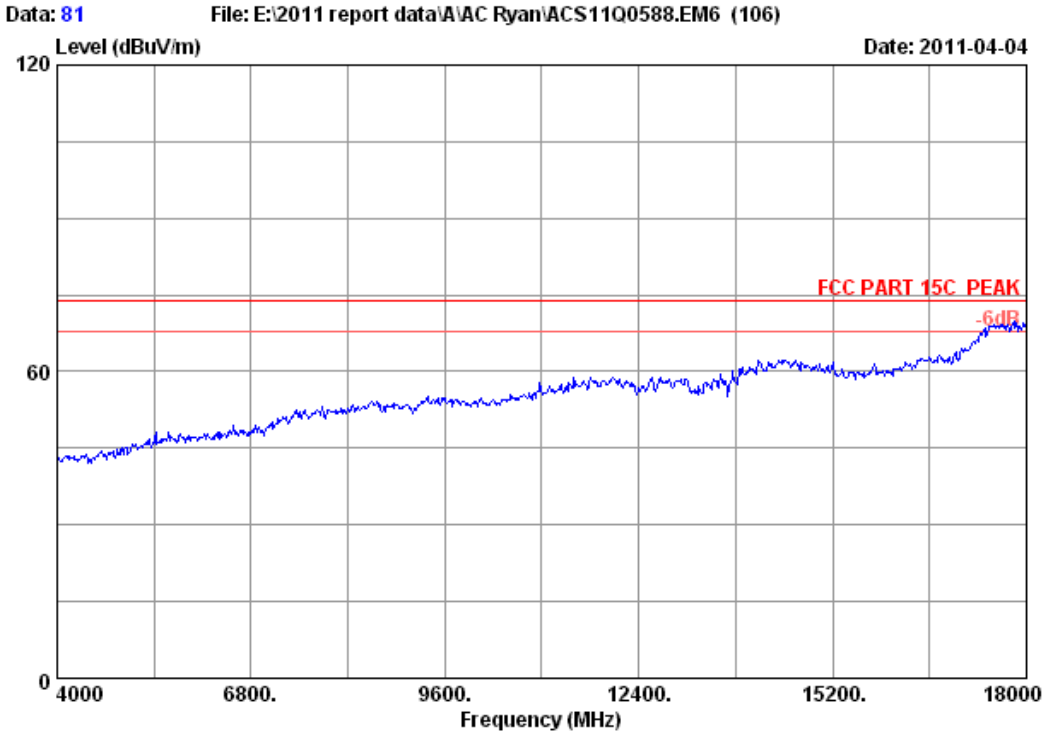
Site no.	: 3m Chamber	Data no.	: 79
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11nHT20 CH11 2462MHz Tx Mode		
M/N	: ACR-WN10002		



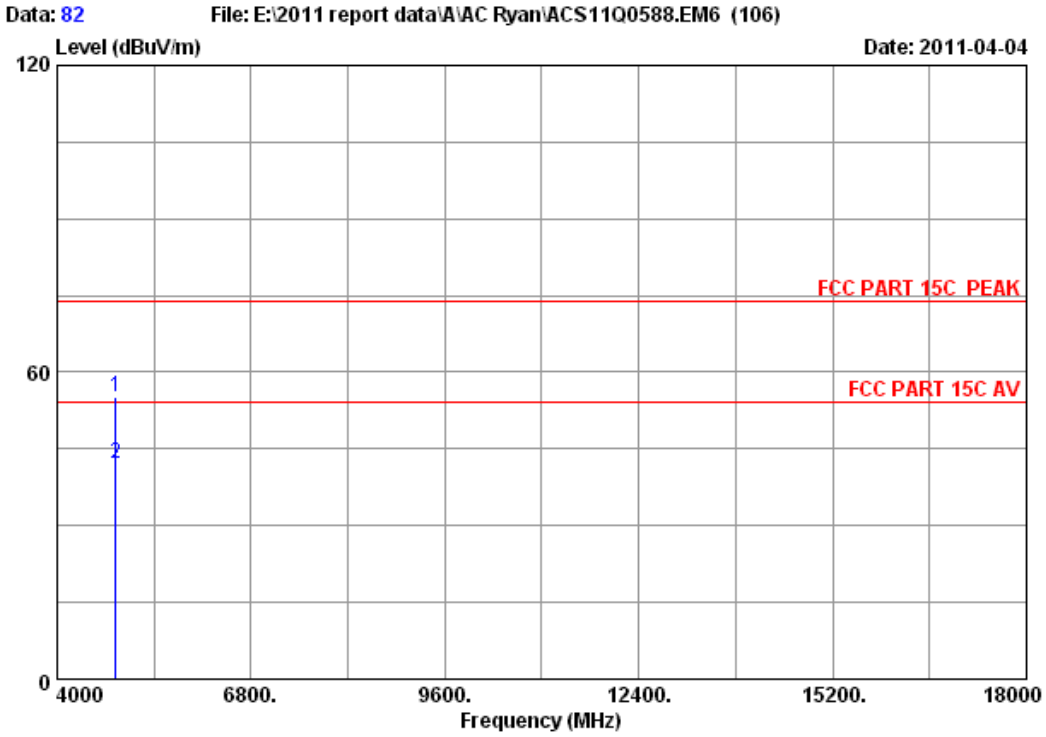
Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	41.73	52.00	74.00	22.00	Peak
2	4924.000	34.49	10.76	34.98	30.44	40.71	54.00	13.29	Average

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



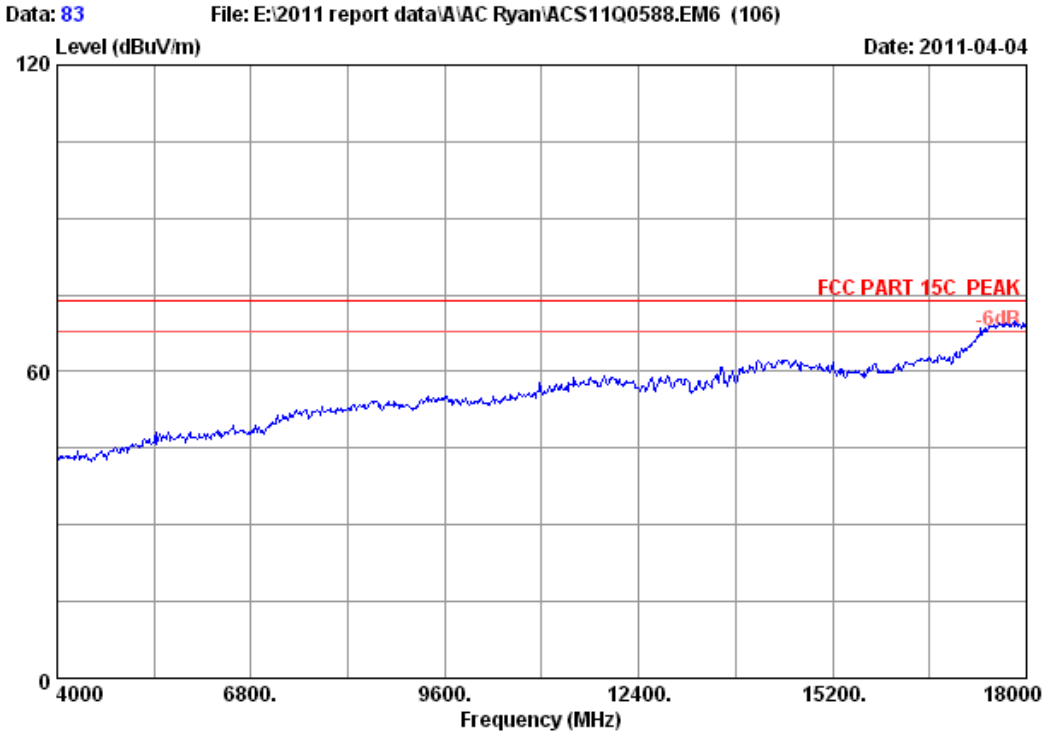

```
Site no.      : 3m Chamber                Data no. :  81
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH3 2422MHz Tx Mode
M/N           : ACR-WN10002
```



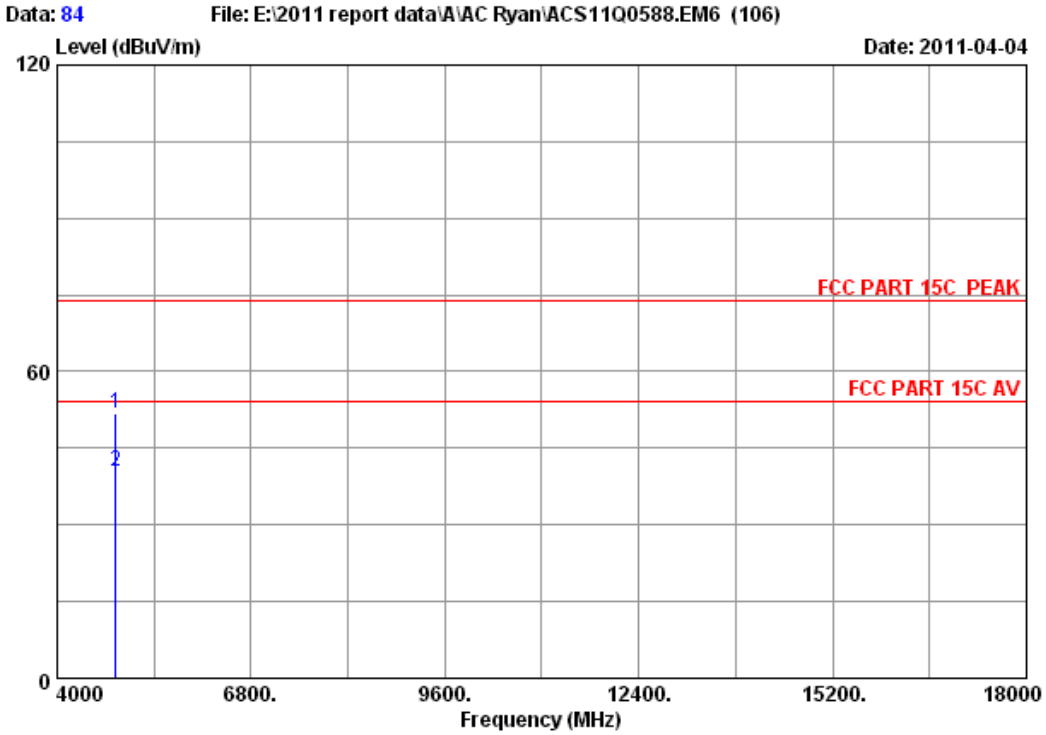
Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	4844.000	34.35	10.67	35.05	45.20	55.17	74.00	18.83	Peak
2	4844.000	34.35	10.67	35.05	32.14	42.11	54.00	11.89	Average

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



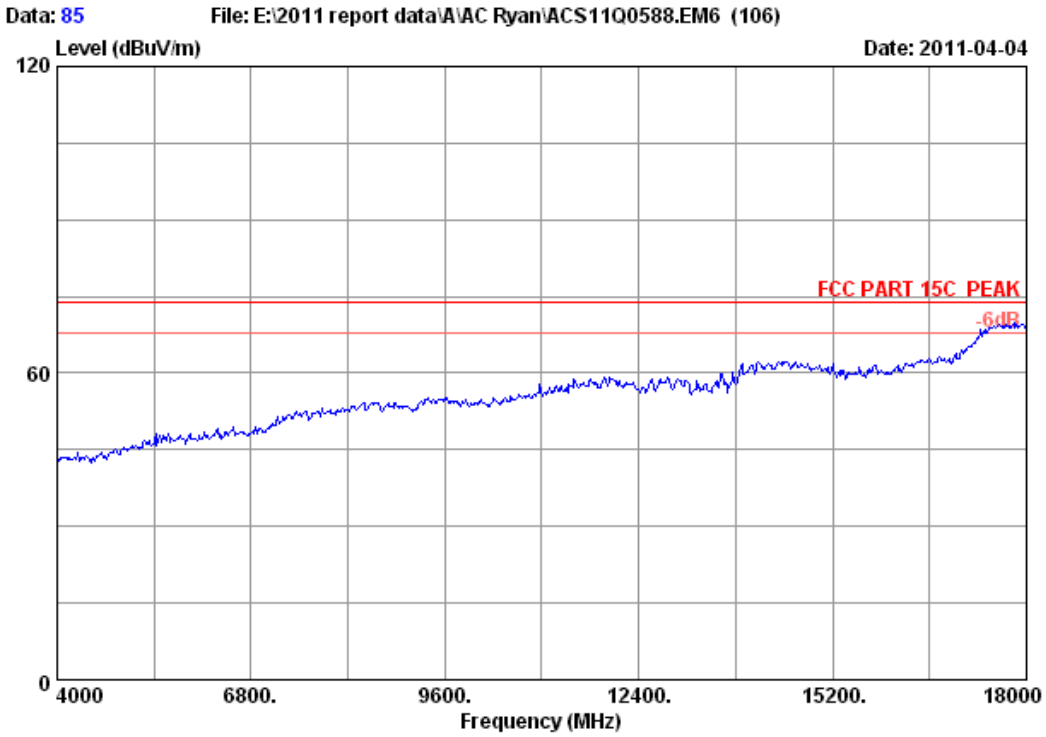

```
Site no.      : 3m Chamber                Data no. :  83
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH3 2422MHz Tx Mode
M/N           : ACR-WN10002
```



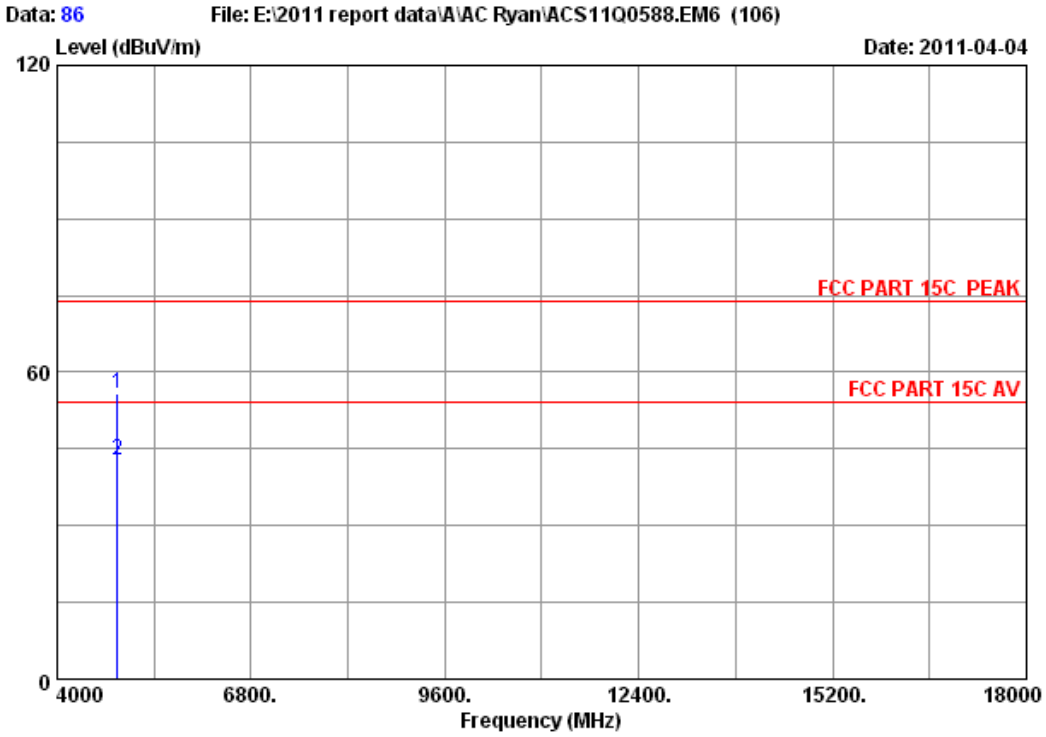
Site no. : 3m Chamber Data no. : 84
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	4844.000	34.35	10.67	35.05	42.01	51.98	74.00	22.02	Peak
2	4844.000	34.35	10.67	35.05	30.54	40.51	54.00	13.49	Average

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



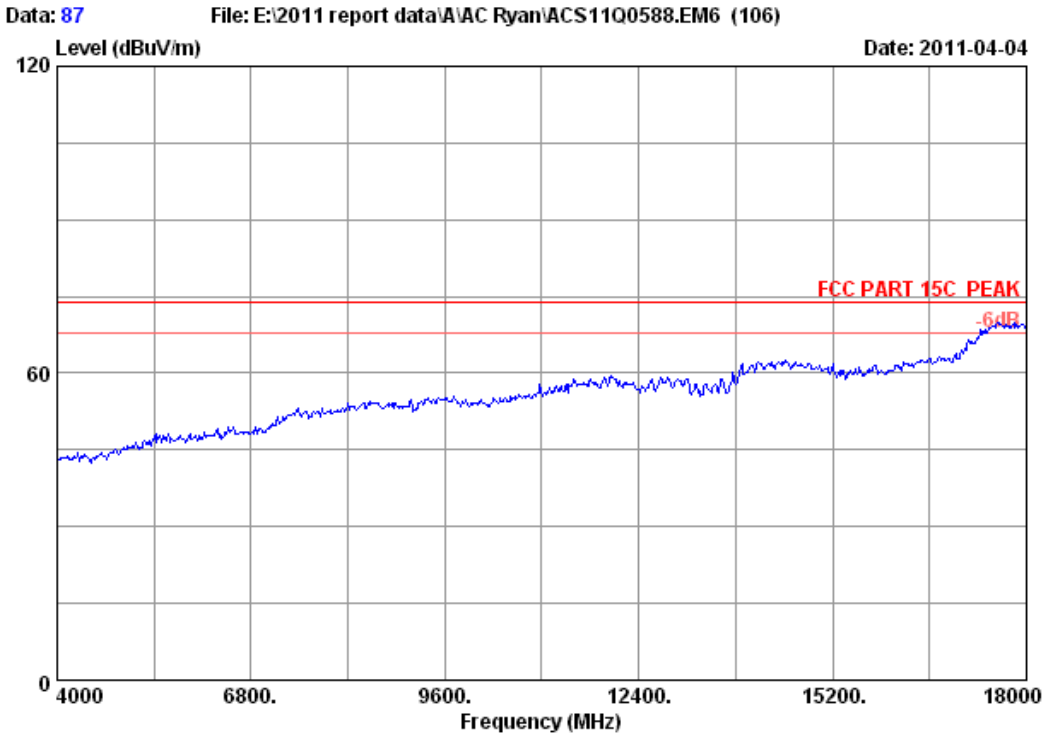

```
Site no.      : 3m Chamber                Data no. :  85
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```



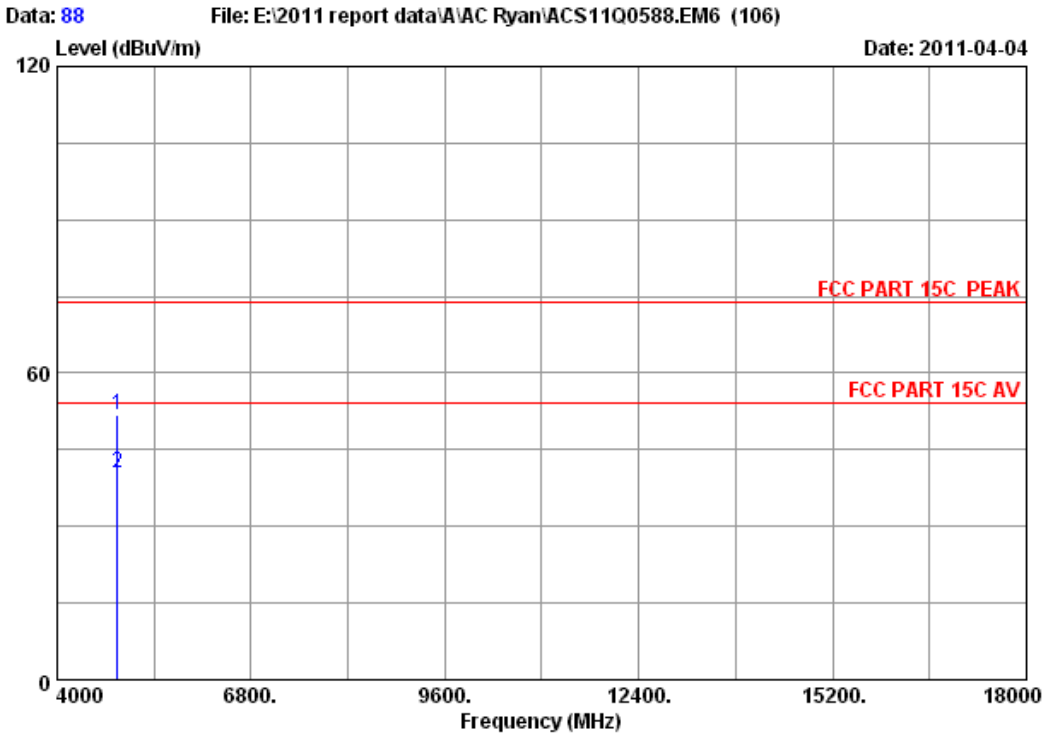
Site no. : 3m Chamber Data no. : 86
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	45.65	55.72	74.00	18.28	Peak
2	4874.000	34.41	10.69	35.03	32.55	42.62	54.00	11.38	Average

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



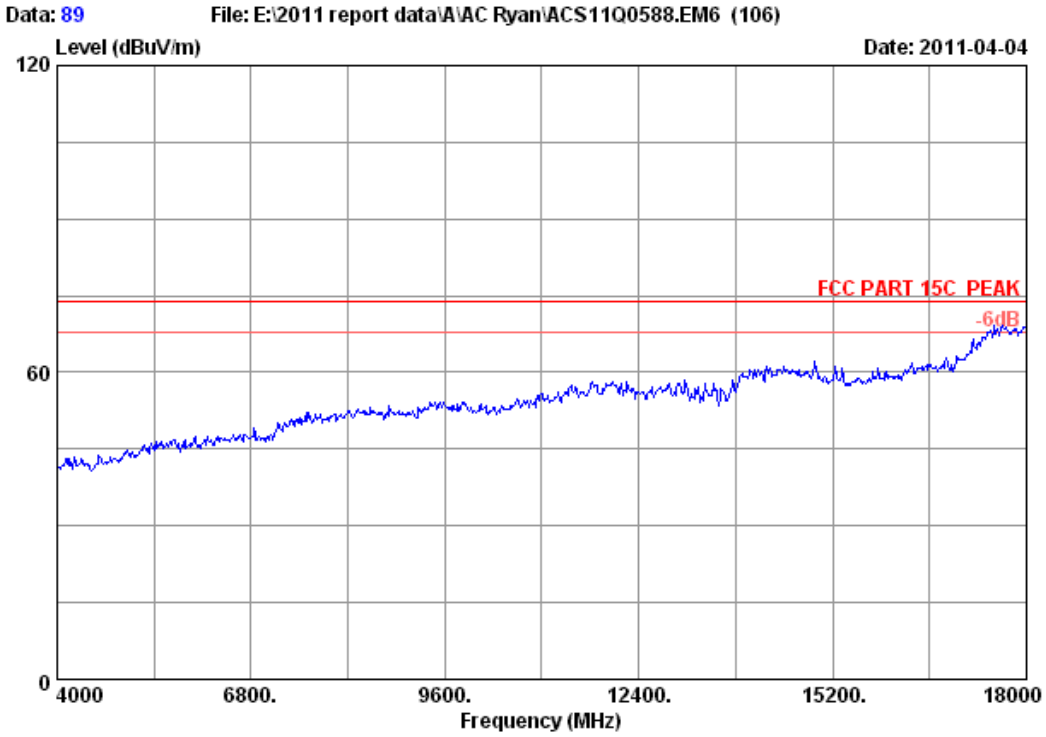
Site no.	: 3m Chamber	Data no.	: 87
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11nHT40 CH6 2437MHz Tx Mode		
M/N	: ACR-WN10002		



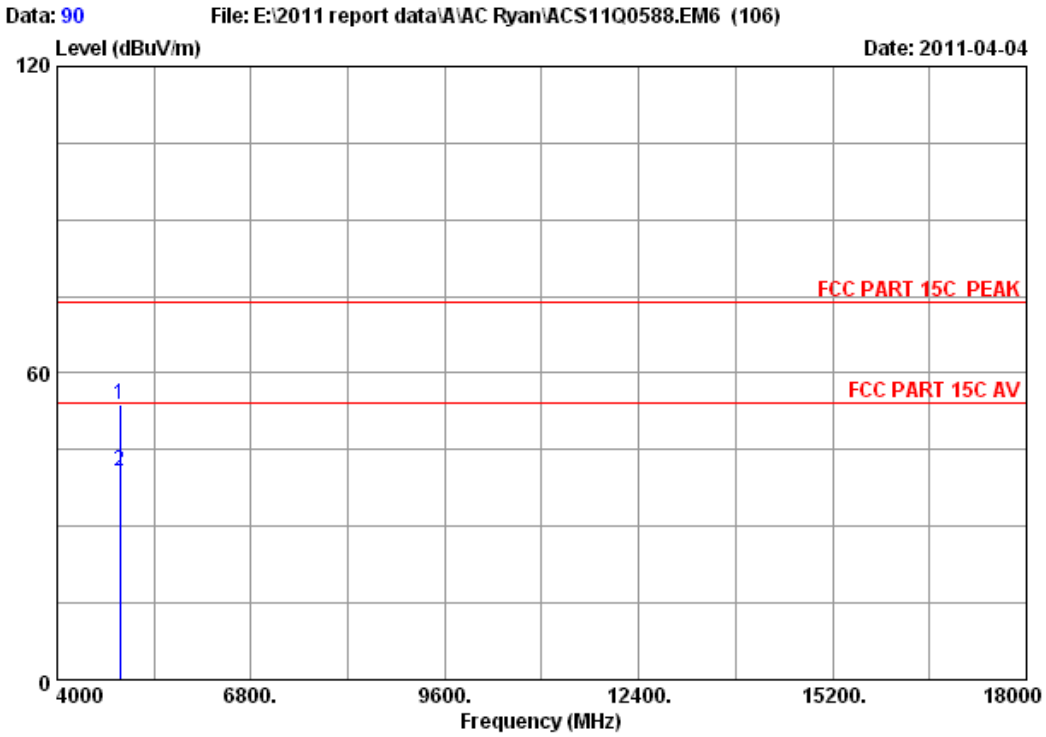
Site no. : 3m Chamber Data no. : 88
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	41.65	51.72	74.00	22.28	Peak
2	4874.000	34.41	10.69	35.03	30.42	40.49	54.00	13.51	Average

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



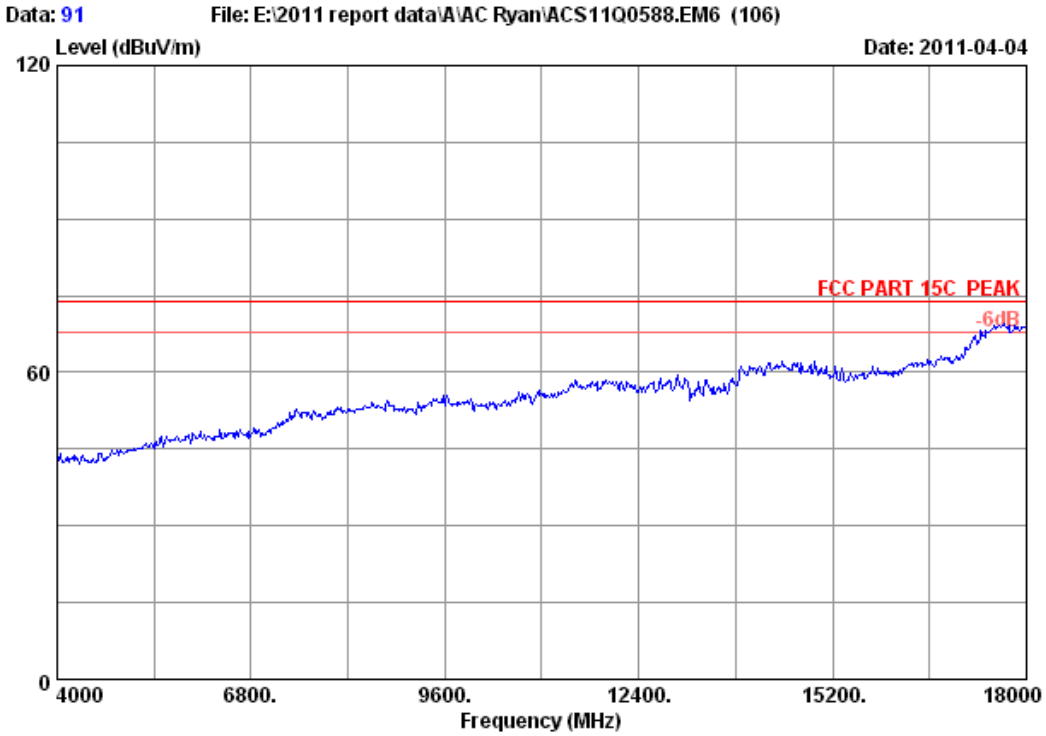

```
Site no.      : 3m Chamber                Data no. :  89
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH9 2452MHz Tx Mode
M/N           : ACR-WN10002
```



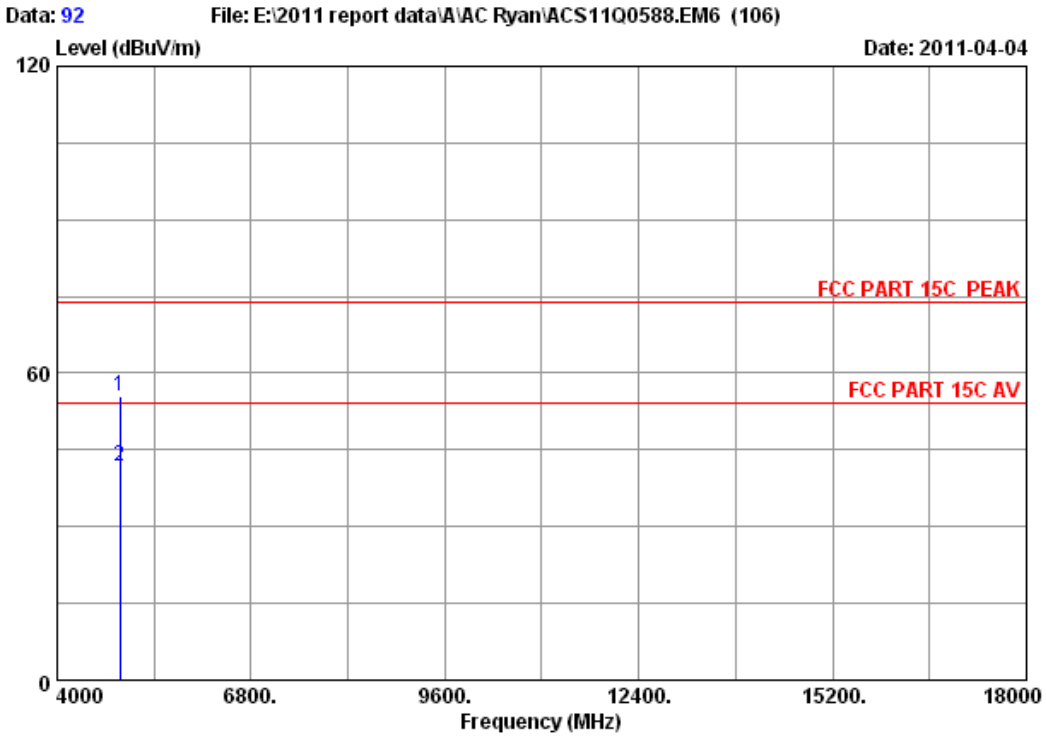
Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	4904.000	34.46	10.74	35.00	43.62	53.82	74.00	20.18	Peak
2	4904.000	34.46	10.74	35.00	30.61	40.81	54.00	13.19	Average

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



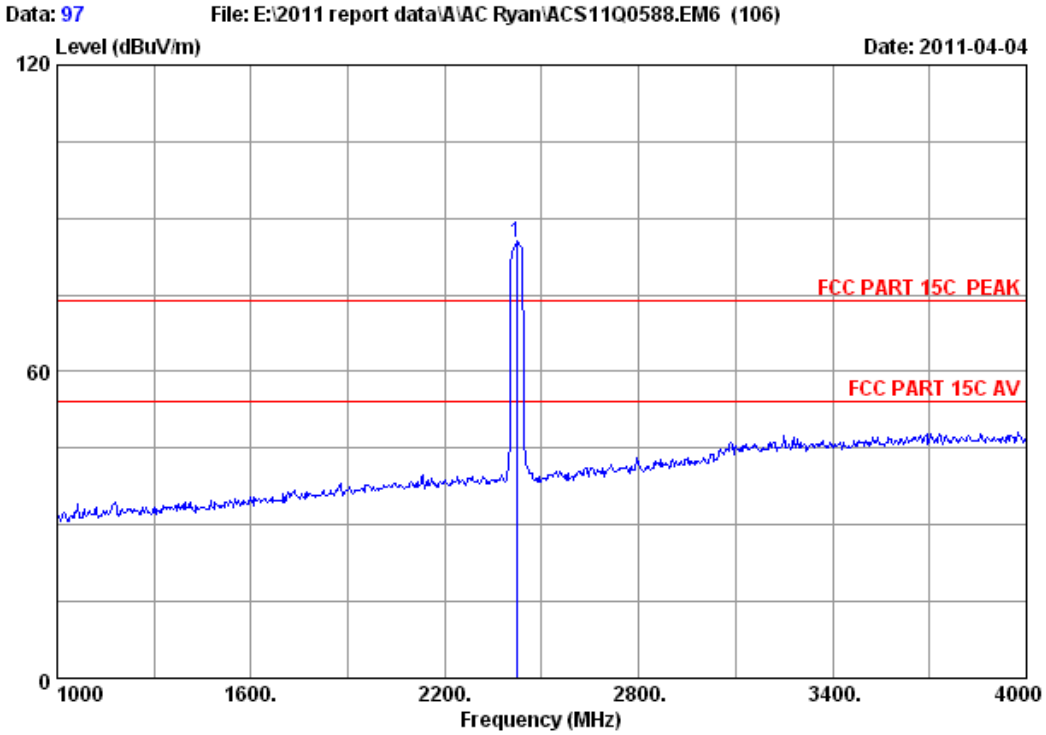

```
Site no.      : 3m Chamber                Data no. :  91
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH9 2452MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 92
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	4904.000	34.46	10.74	35.00	45.45	55.65	74.00	18.35	Peak
2	4904.000	34.46	10.74	35.00	31.46	41.66	54.00	12.34	Average

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

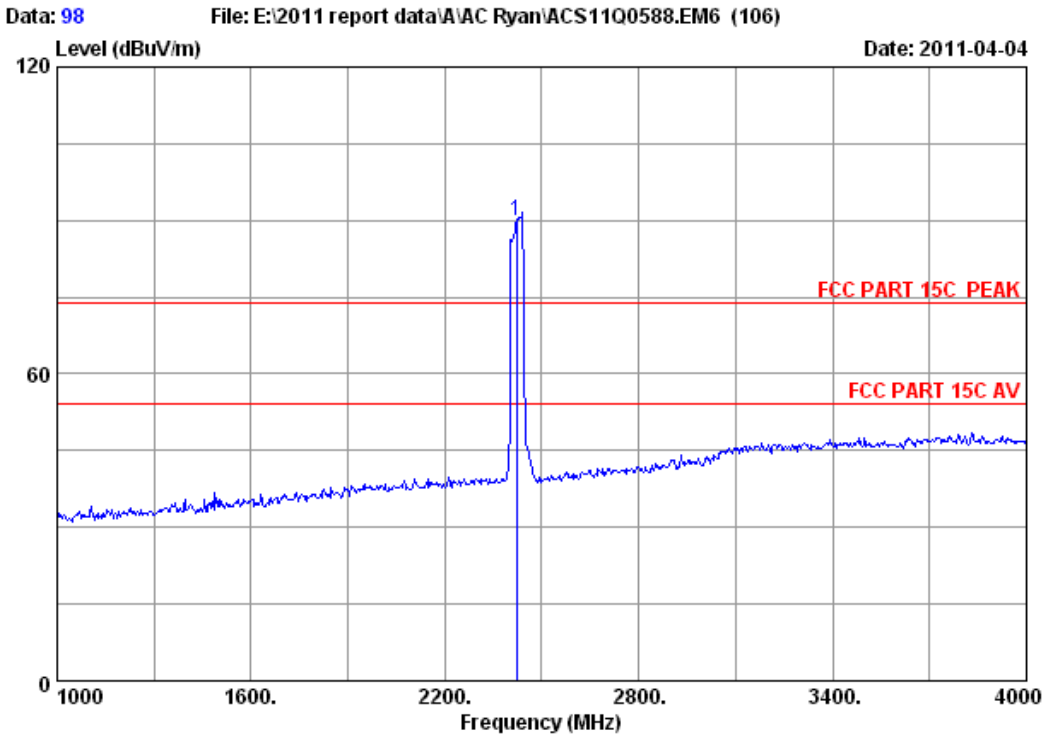



```
Site no.      : 3m Chamber                Data no. :  97
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT40 CH3 2422MHz Tx Mode
M/N           : ACR-WN10002
```

	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	2422.000	29.46	7.46	36.61	84.96	85.27	74.00	-11.27	Peak

Remarks:

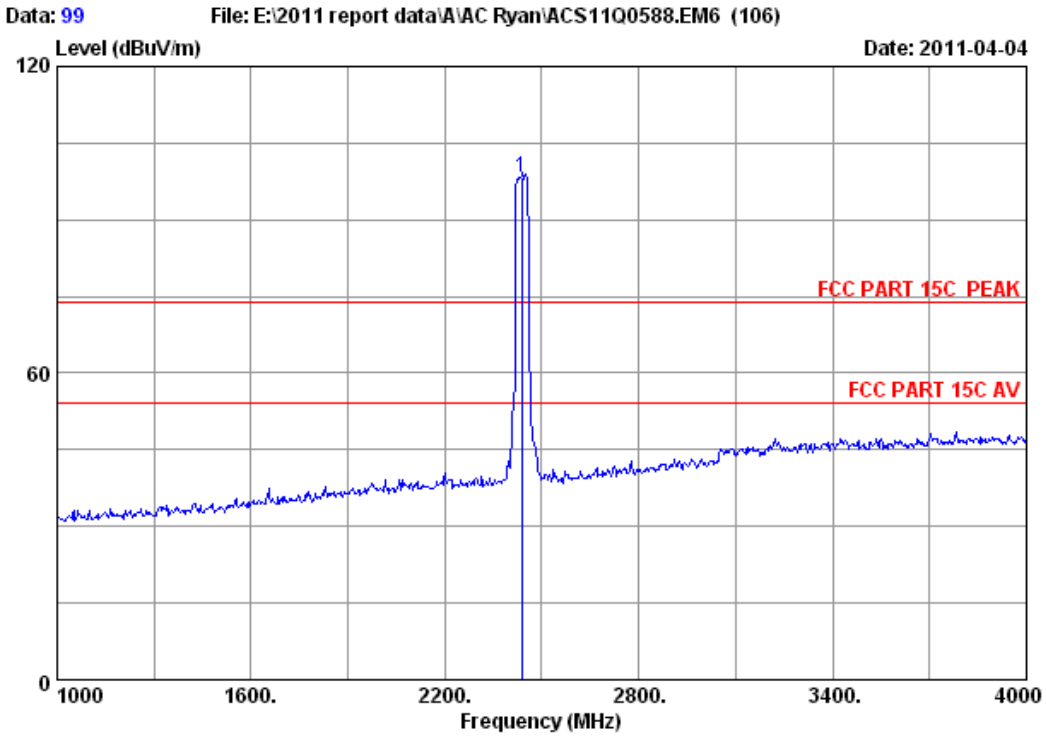
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 98
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	2422.000	29.46	7.46	36.61	89.68	89.99	74.00	-15.99	Peak

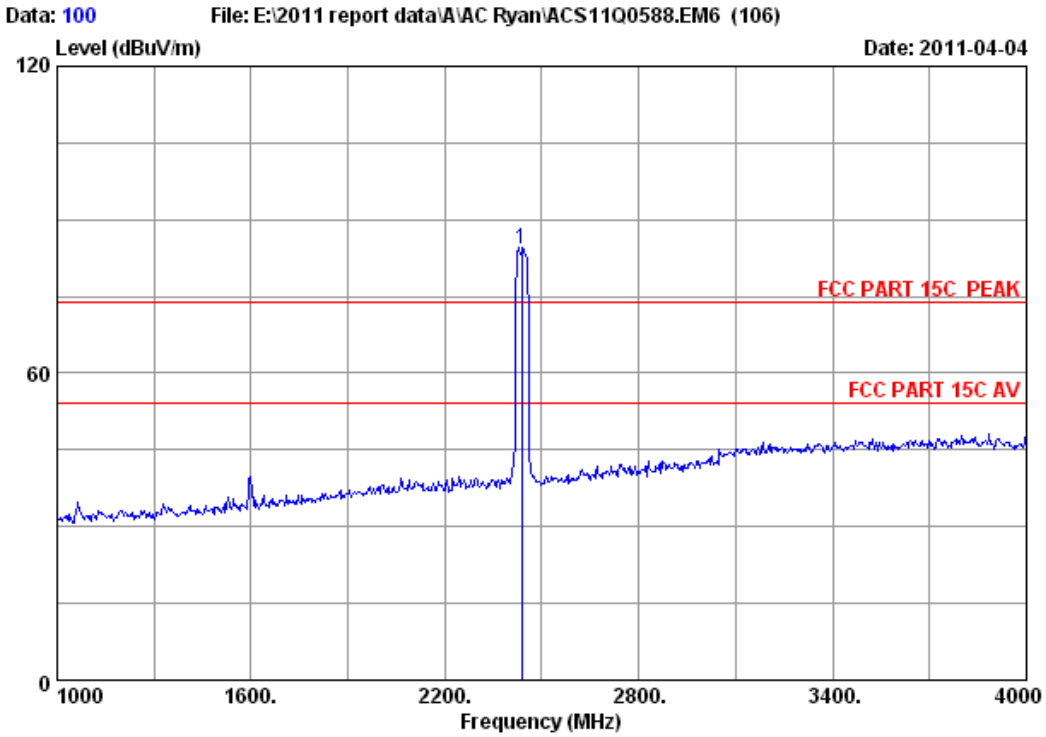
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 99
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	97.86	98.18	74.00	-24.18	Peak

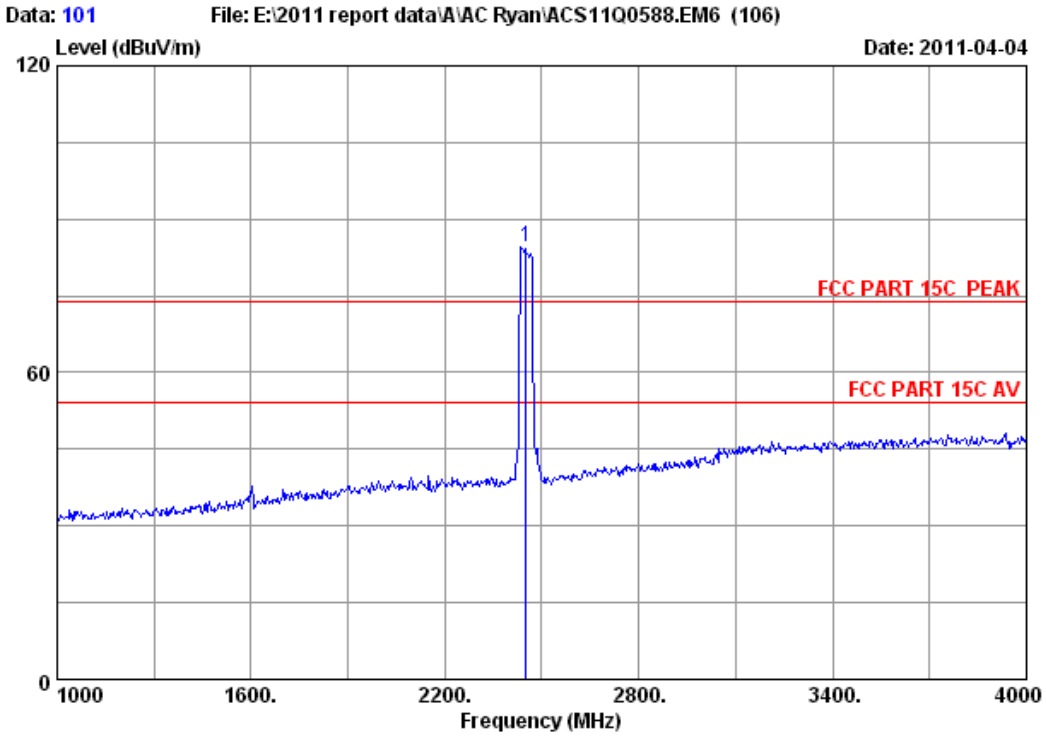
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 100
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	83.98	84.30	74.00	-10.30	Peak

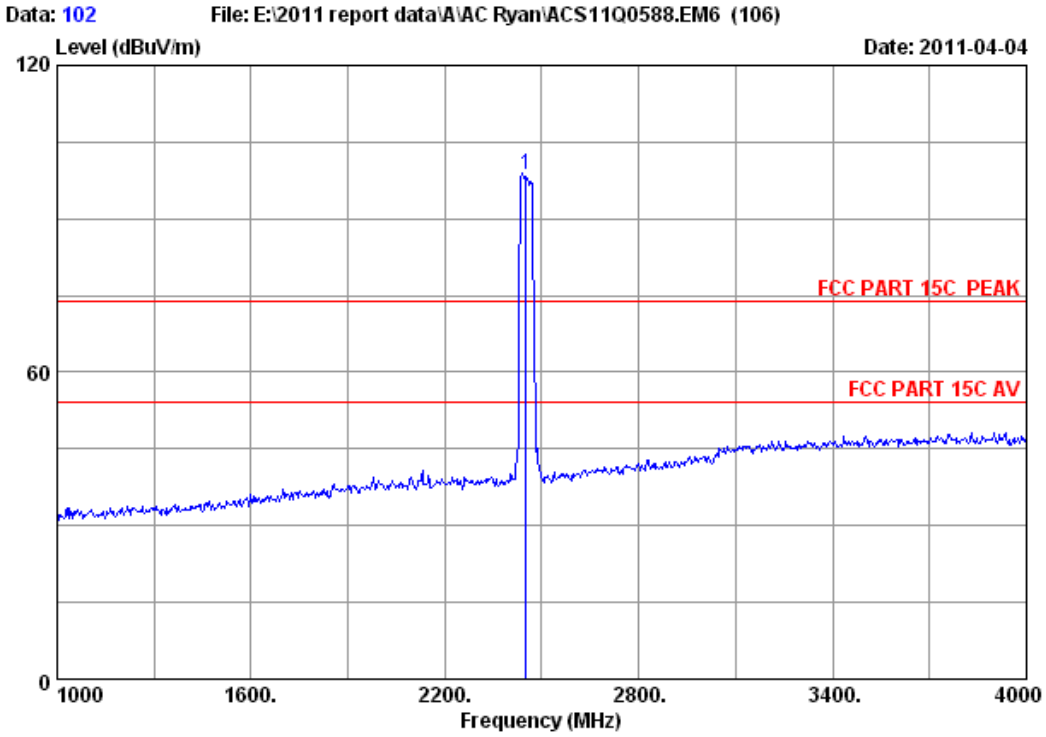
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 101
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2452.000	29.47	7.50	36.61	84.31	84.67	74.00	-10.67	Peak

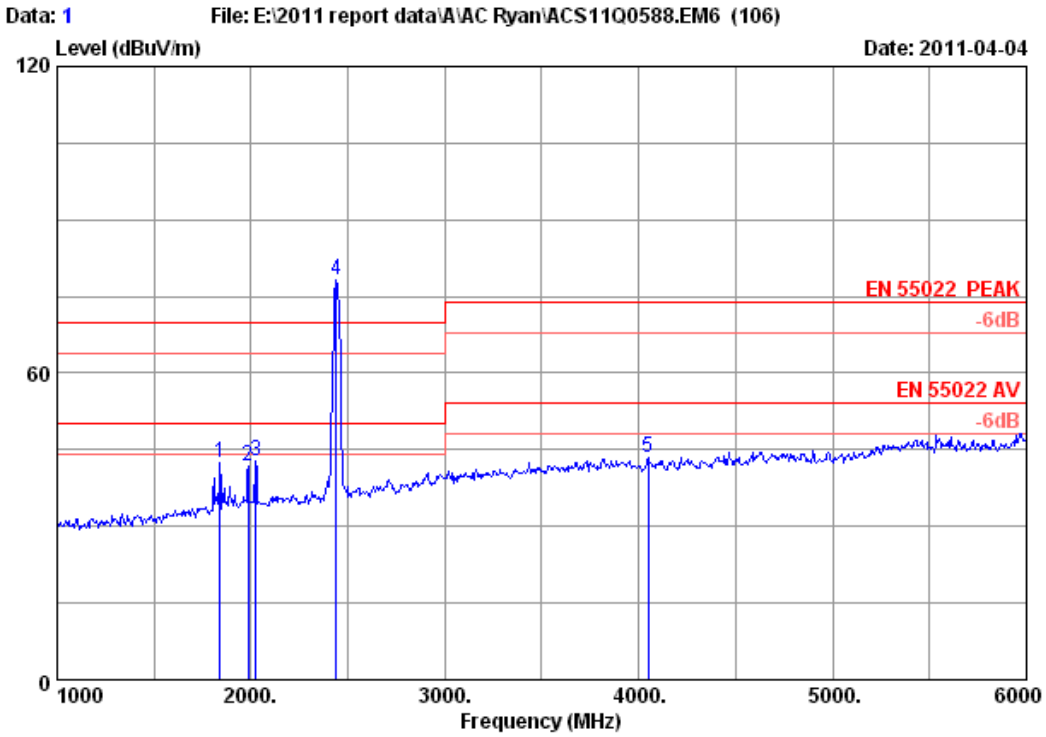
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2452.000	29.47	7.50	36.61	98.08	98.44	74.00	-24.44	Peak

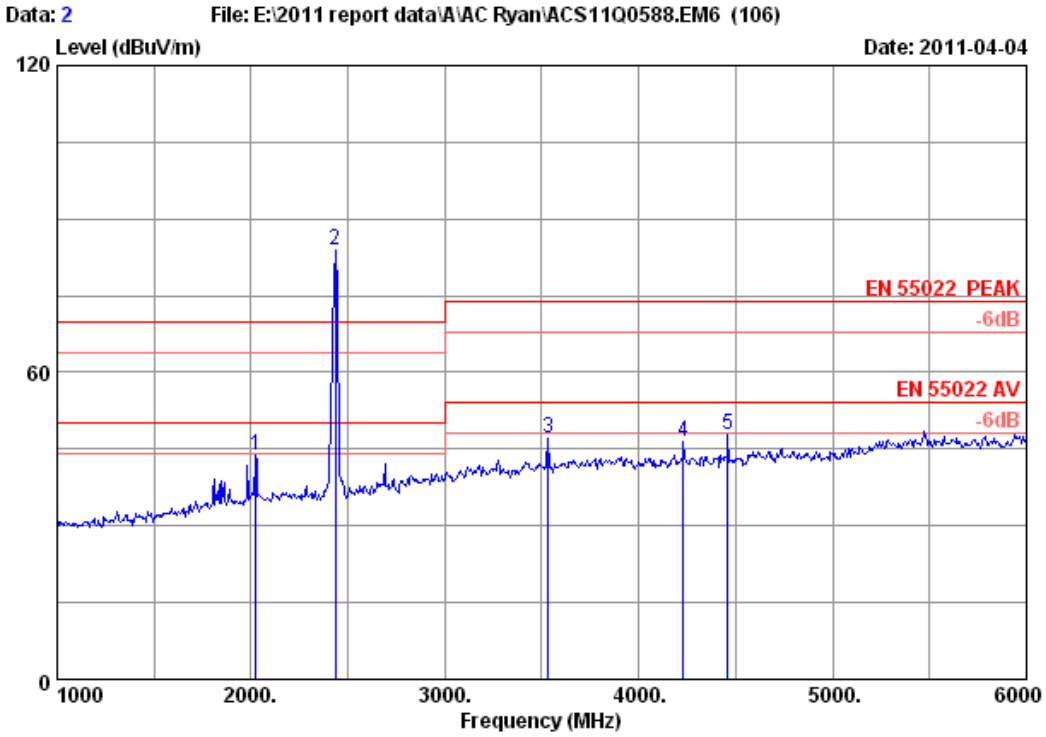
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : EN 55022 PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 230V/50Hz
Test mode : Tx Mode
M/N : ACR-WN10002

	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	1840.000	28.27	6.37	36.79	44.74	42.59	70.00	27.41	Peak
2	1985.000	29.11	6.63	36.70	42.89	41.93	70.00	28.07	Peak
3	2025.000	29.21	6.71	36.69	43.54	42.77	70.00	27.23	Peak
4	2440.000	29.47	7.50	36.61	77.95	78.31	70.00	-8.31	Peak
5	4050.000	33.98	9.75	35.58	35.23	43.38	74.00	30.62	Peak

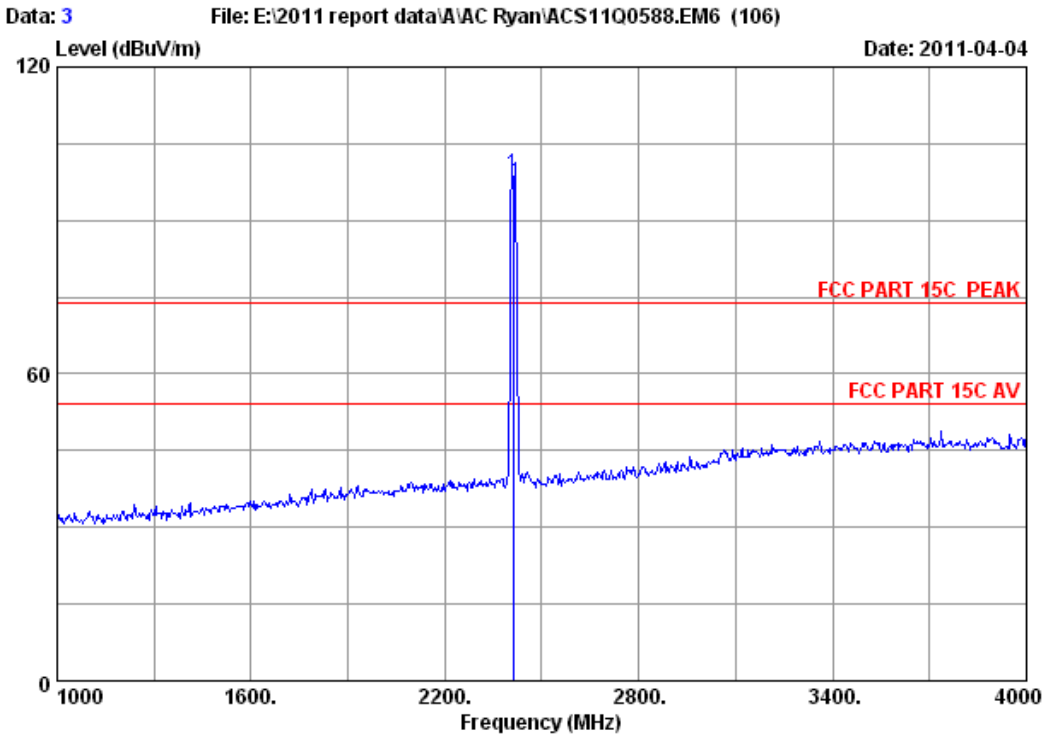
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : EN 55022 PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 230V/50Hz
Test mode : Tx Mode
M/N : ACR-WN10002

	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	2025.000	29.21	6.71	36.69	44.55	43.78	70.00	26.22	Peak
2	2435.000	29.46	7.46	36.61	83.54	83.85	70.00	-13.85	Peak
3	3535.000	33.35	9.16	35.98	40.57	47.10	74.00	26.90	Peak
4	4230.000	33.91	9.96	35.51	38.04	46.40	74.00	27.60	Peak
5	4460.000	33.81	10.23	35.41	39.22	47.85	74.00	26.15	Peak

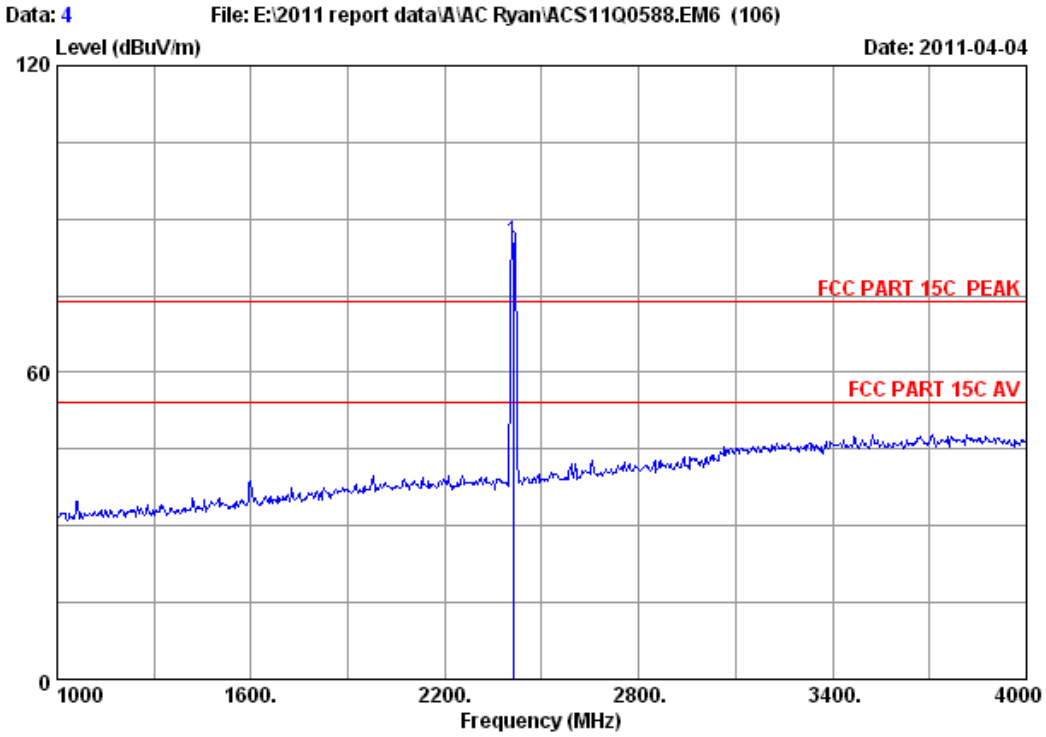
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 3
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.45	7.43	36.62	98.52	98.78	74.00	-24.78	Peak

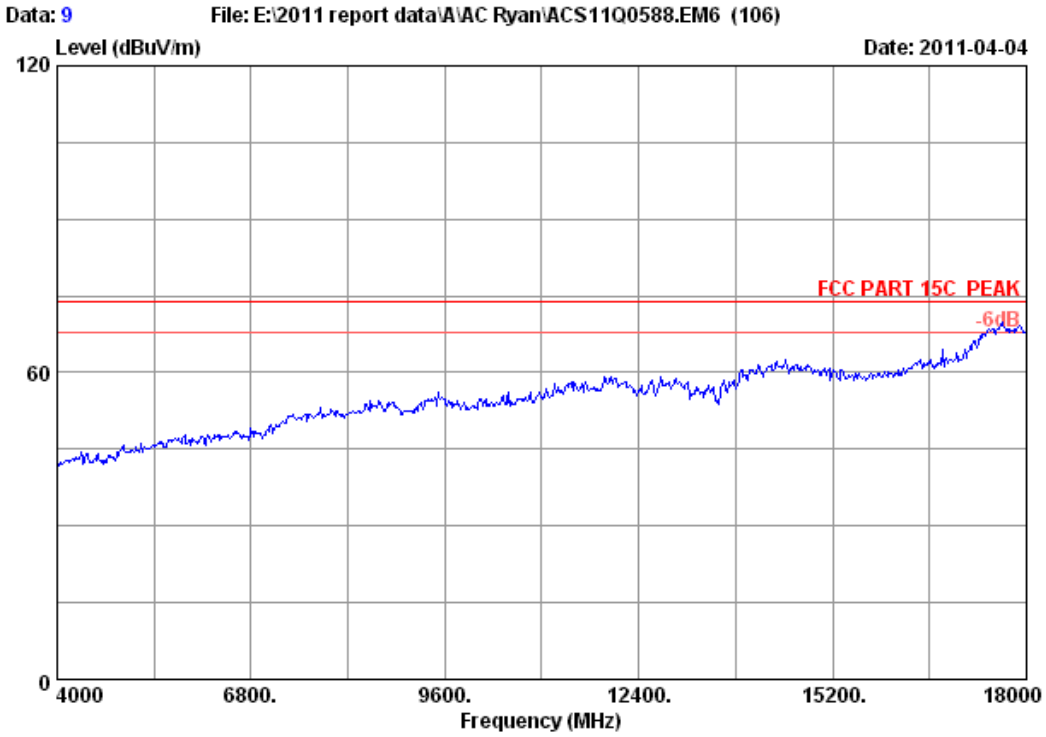
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



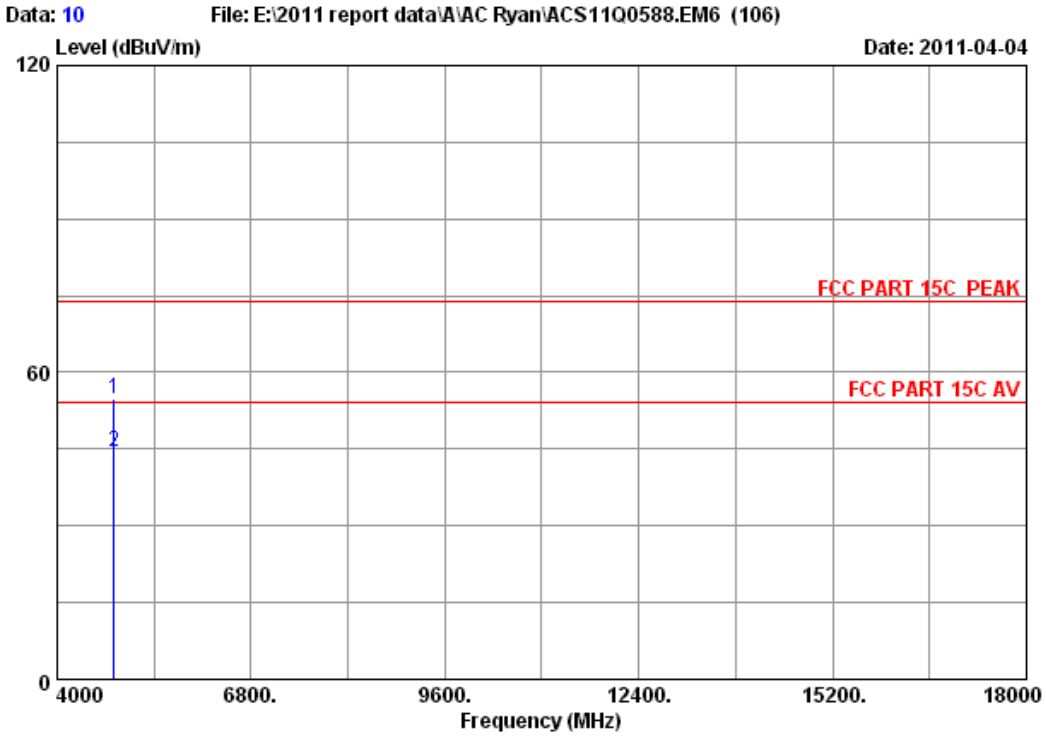
Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.45	7.43	36.62	85.37	85.63	74.00	-11.63	Peak

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



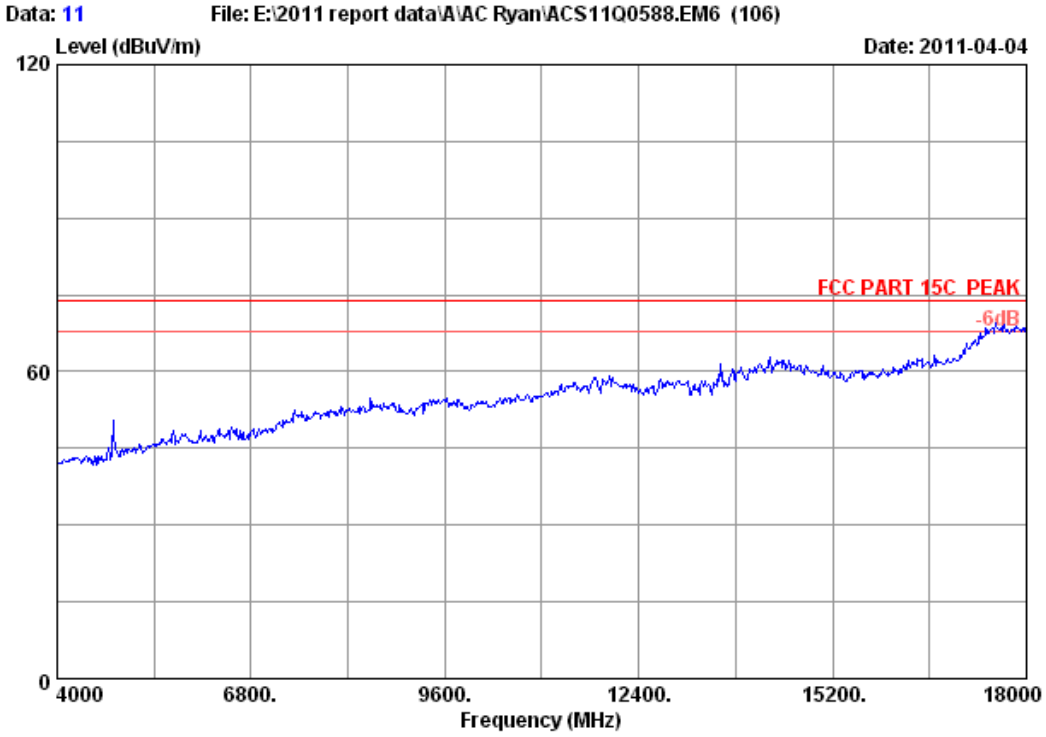
Site no.	: 3m Chamber	Data no.	: 9
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11b CH1 2412MHz Tx Mode		
M/N	: ACR-WN10002		



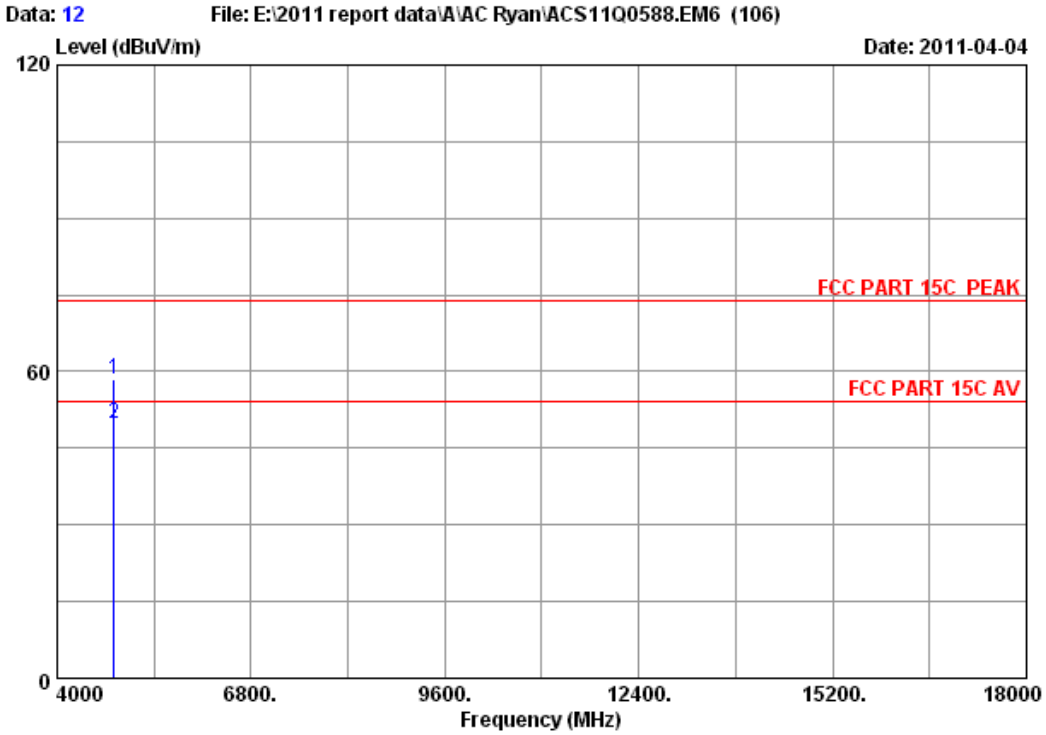
Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	4824.000	34.32	10.64	35.08	44.82	54.70	74.00	19.30	Peak
2	4824.000	34.32	10.64	35.08	34.50	44.38	54.00	9.62	Average

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



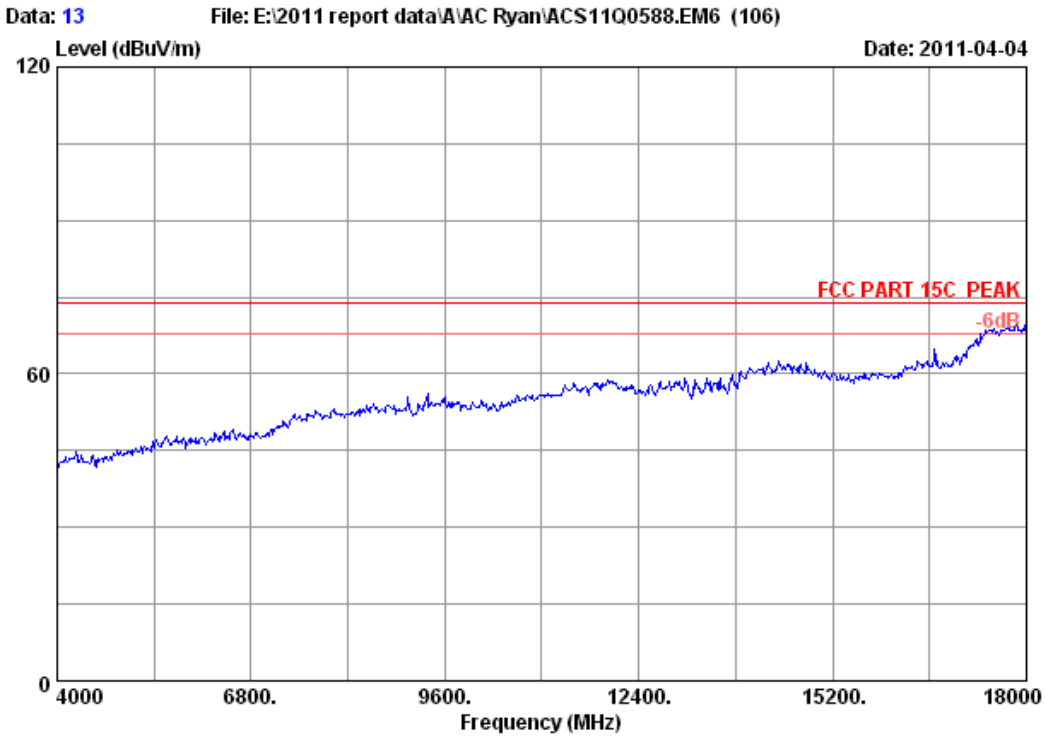

```
Site no.      : 3m Chamber                Data no. :  11
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11b CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```



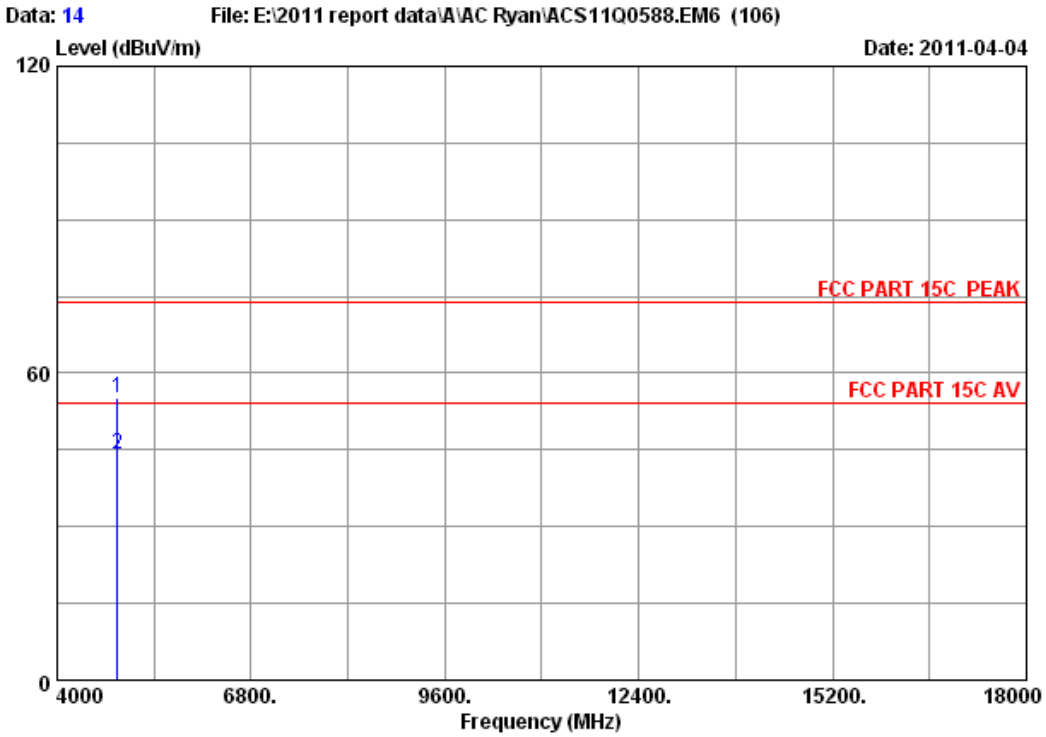
Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	4824.000	34.32	10.64	35.08	48.77	58.65	74.00	15.35	Peak
2	4824.000	34.32	10.64	35.08	40.00	49.88	54.00	4.12	Average

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



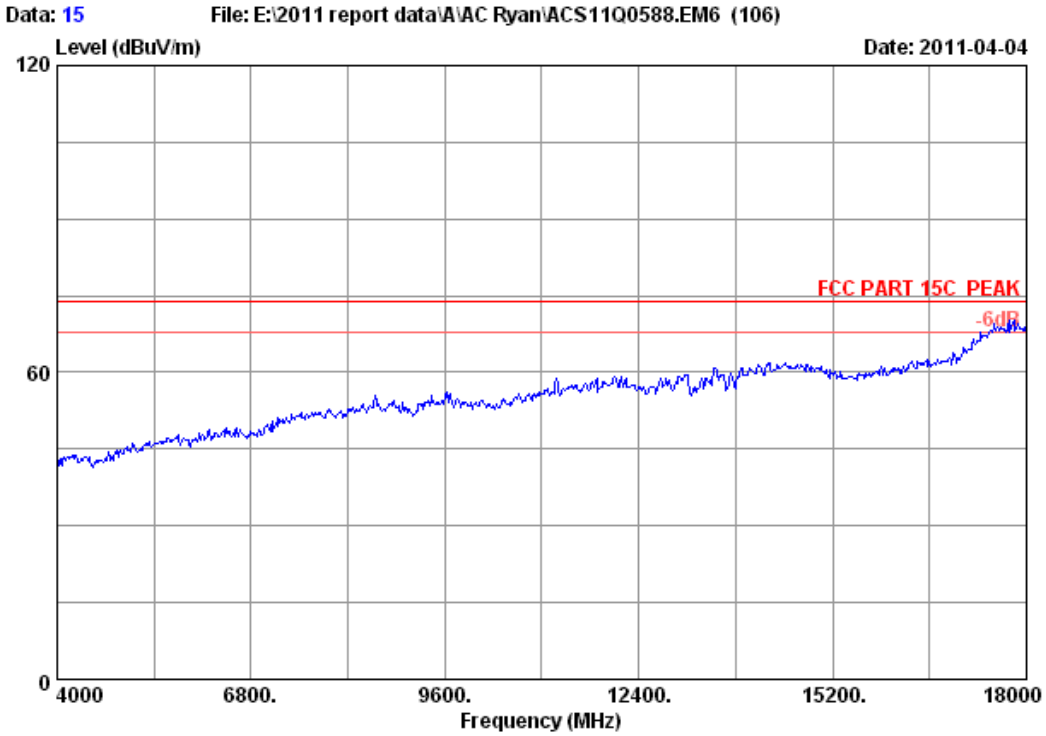
Site no.	: 3m Chamber	Data no. :	13
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer :	Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11b CH6 2437MHz Tx Mode		
M/N	: ACR-WN10002		



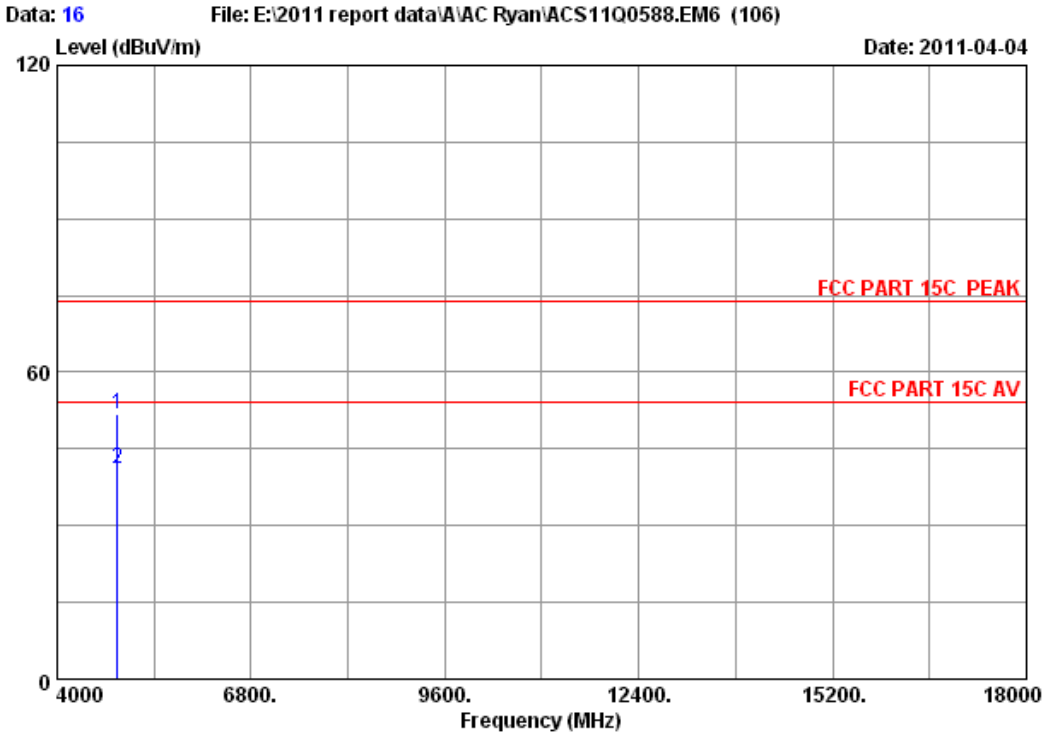
Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	44.92	54.99	74.00	19.01	Peak
2	4874.000	34.41	10.69	35.03	34.14	44.21	54.00	9.79	Average

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



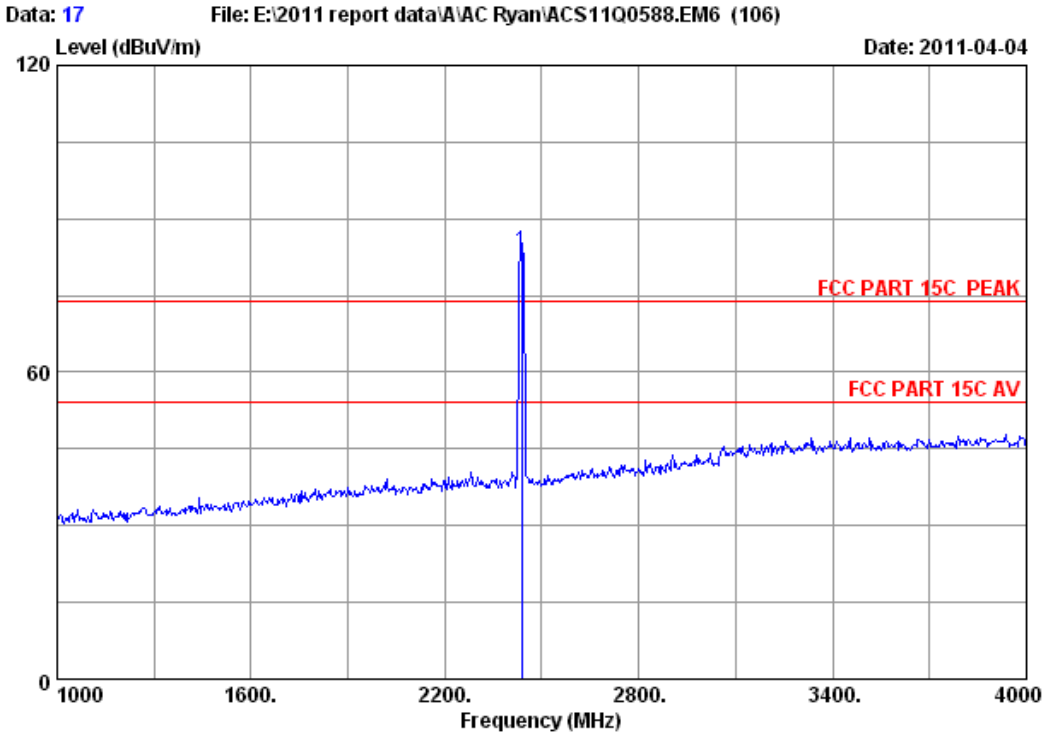

```
Site no.      : 3m Chamber                Data no. :  15
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11b CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	41.59	51.66	74.00	22.34	Peak
2	4874.000	34.41	10.69	35.03	31.02	41.09	54.00	12.91	Average

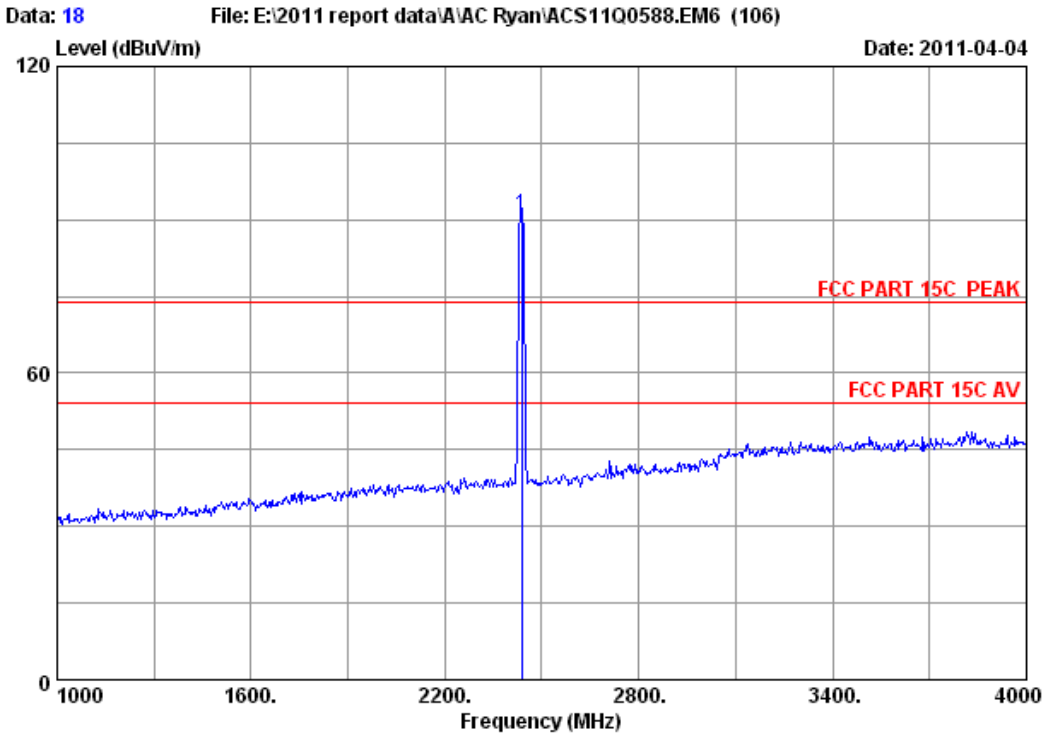
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 17
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	83.41	83.73	74.00	-9.73	Peak

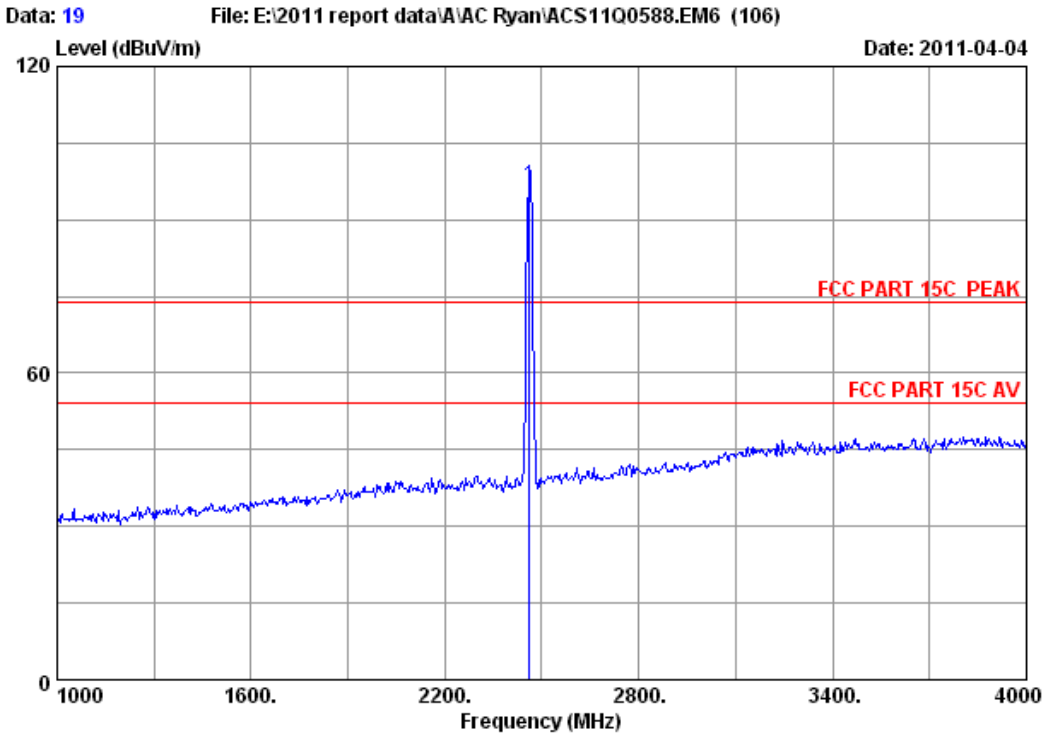
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	90.50	90.82	74.00	-16.82	Peak

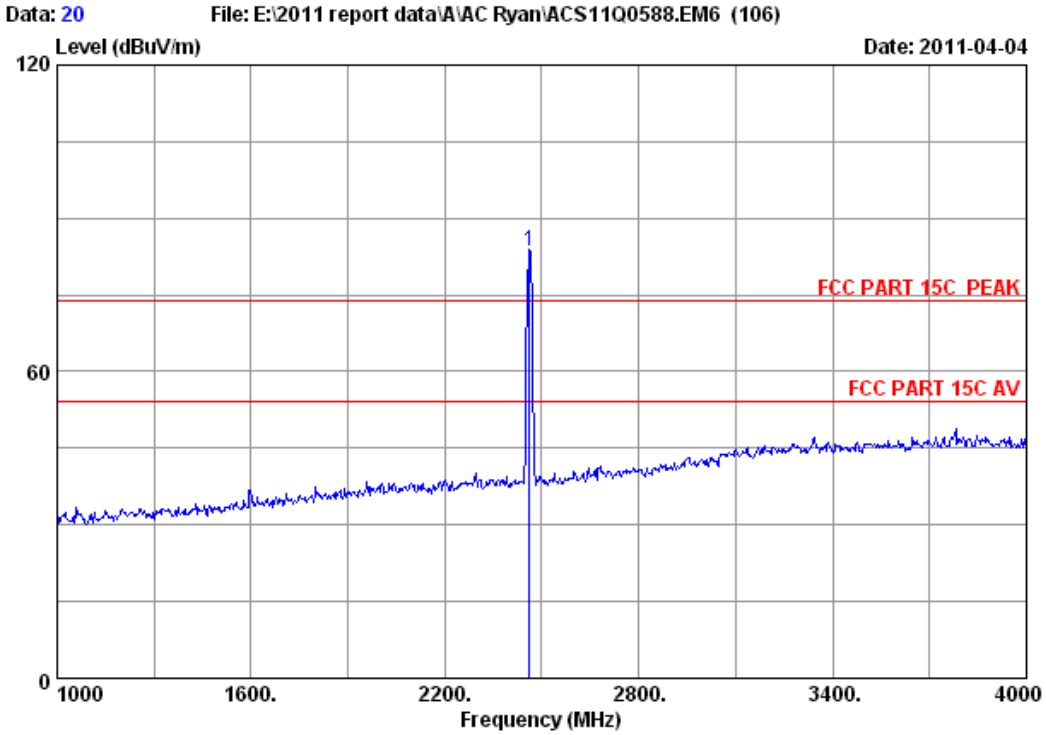
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	29.48	7.54	36.61	96.35	96.76	74.00	-22.76	Peak

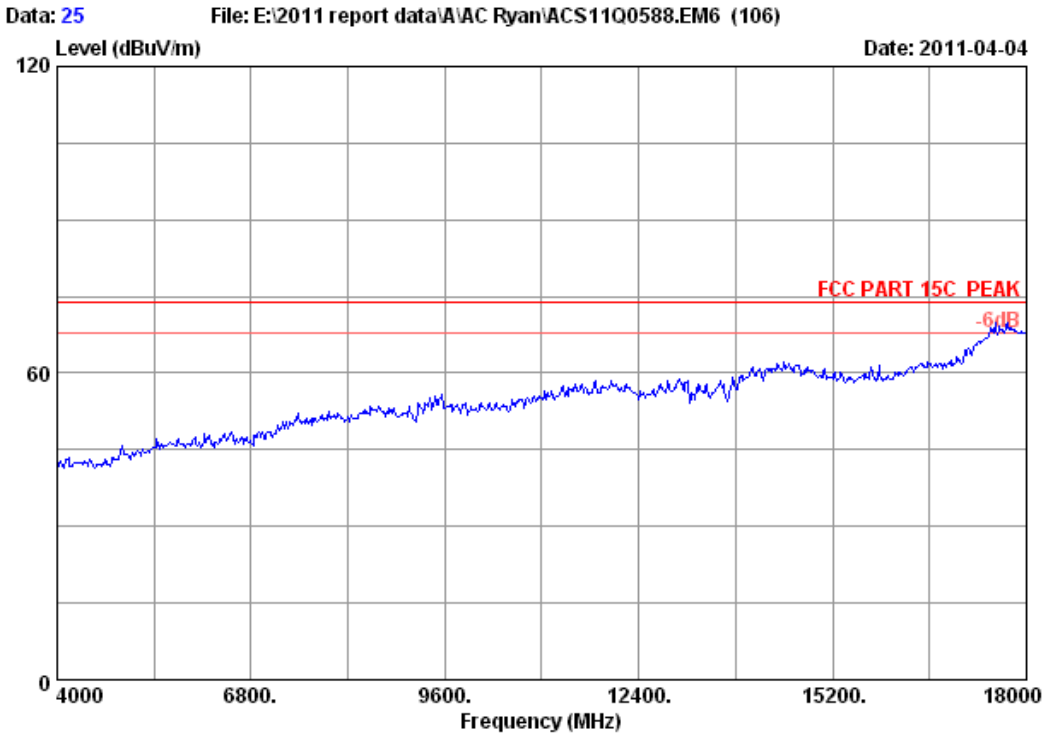
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



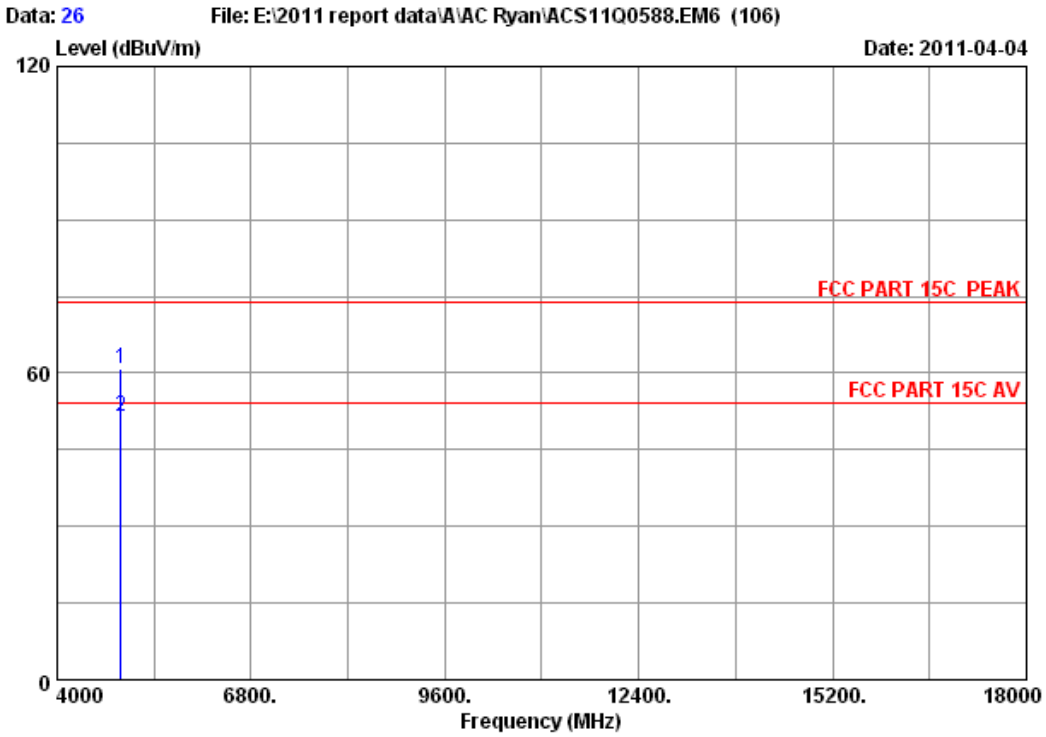
Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	29.48	7.54	36.61	83.25	83.66	74.00	-9.66	Peak

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



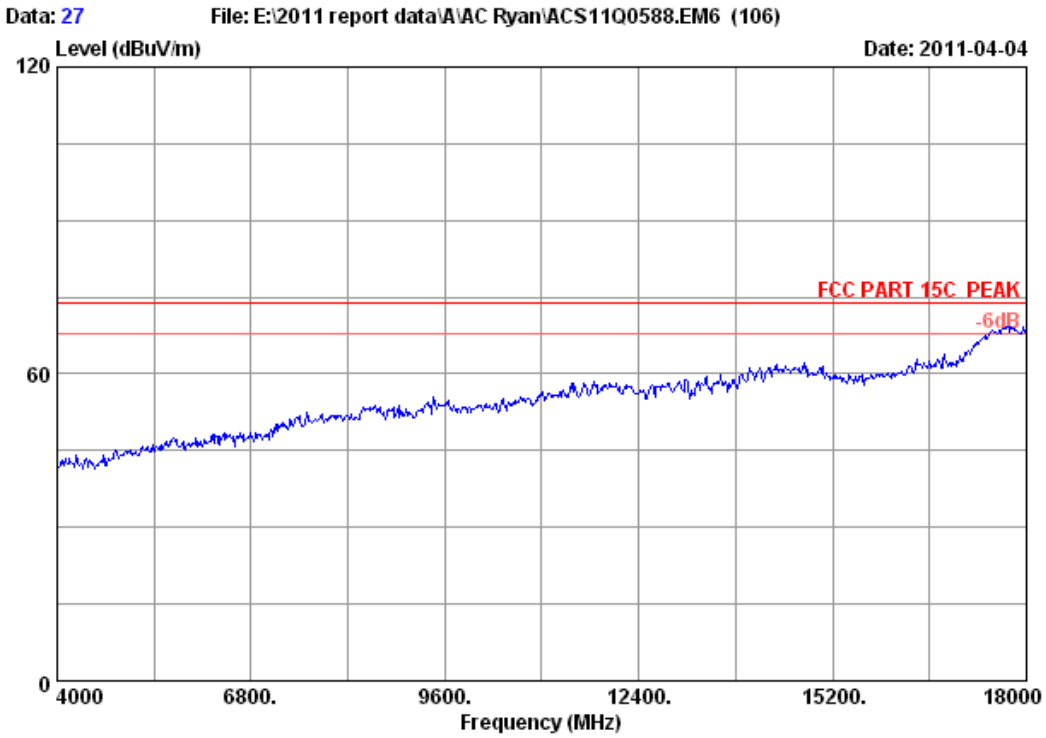

```
Site no.      : 3m Chamber                Data no. :  25
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11b CH11 2462MHz Tx Mode
M/N           : ACR-WN10002
```



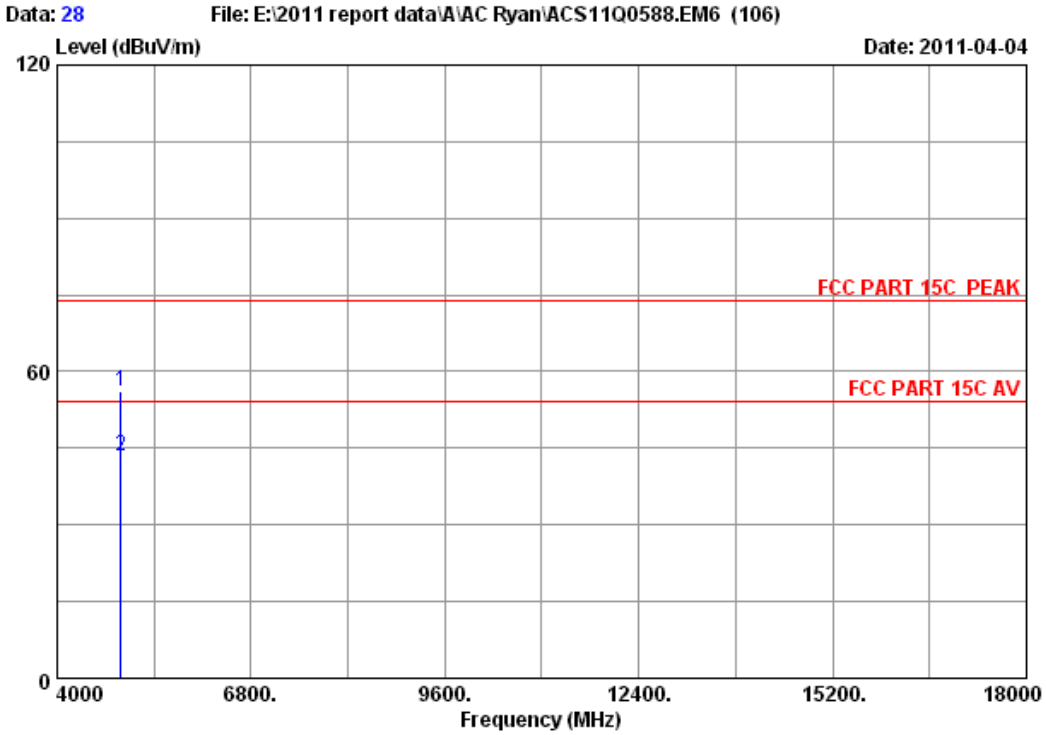
Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	50.64	60.91	74.00	13.09	Peak
2	4924.000	34.49	10.76	34.98	41.18	51.45	54.00	2.55	Average

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



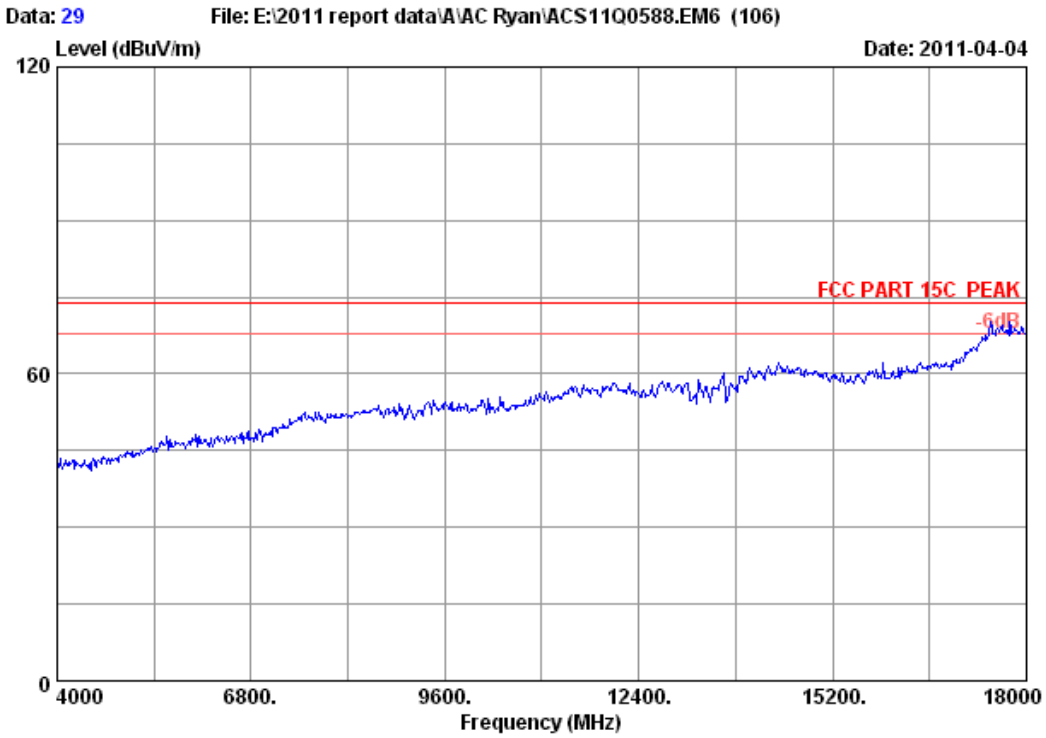
Site no.	: 3m Chamber	Data no.	: 27
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11b CH11 2462MHz Tx Mode		
M/N	: ACR-WN10002		



Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	45.88	56.15	74.00	17.85	Peak
2	4924.000	34.49	10.76	34.98	33.28	43.55	54.00	10.45	Average

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

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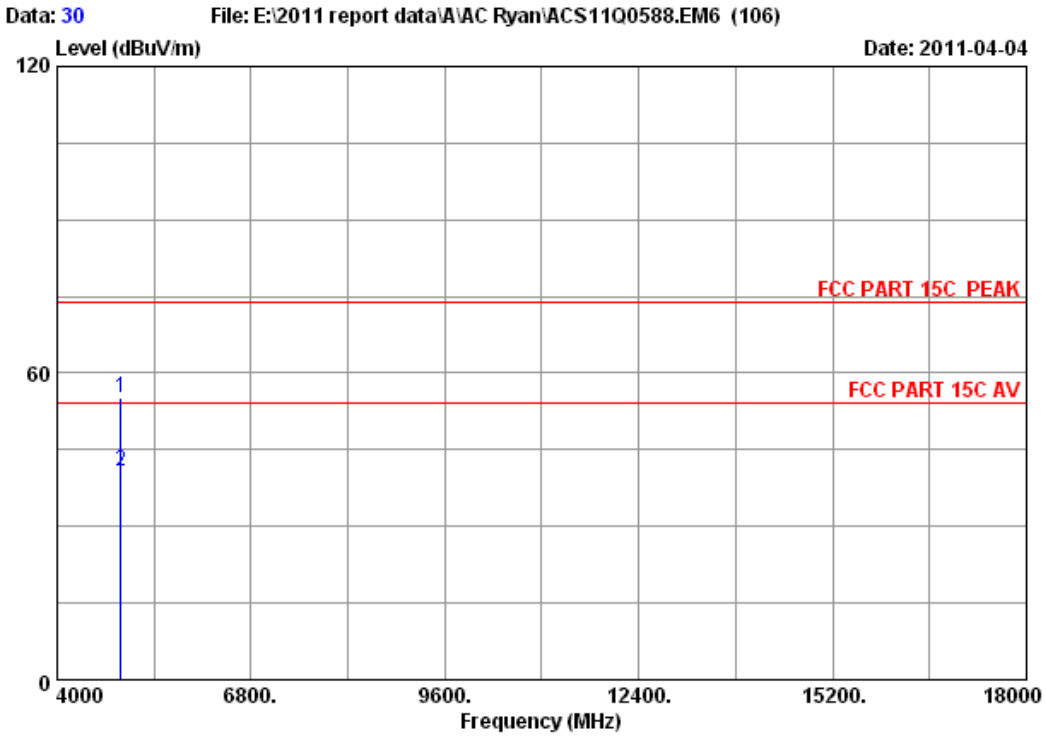
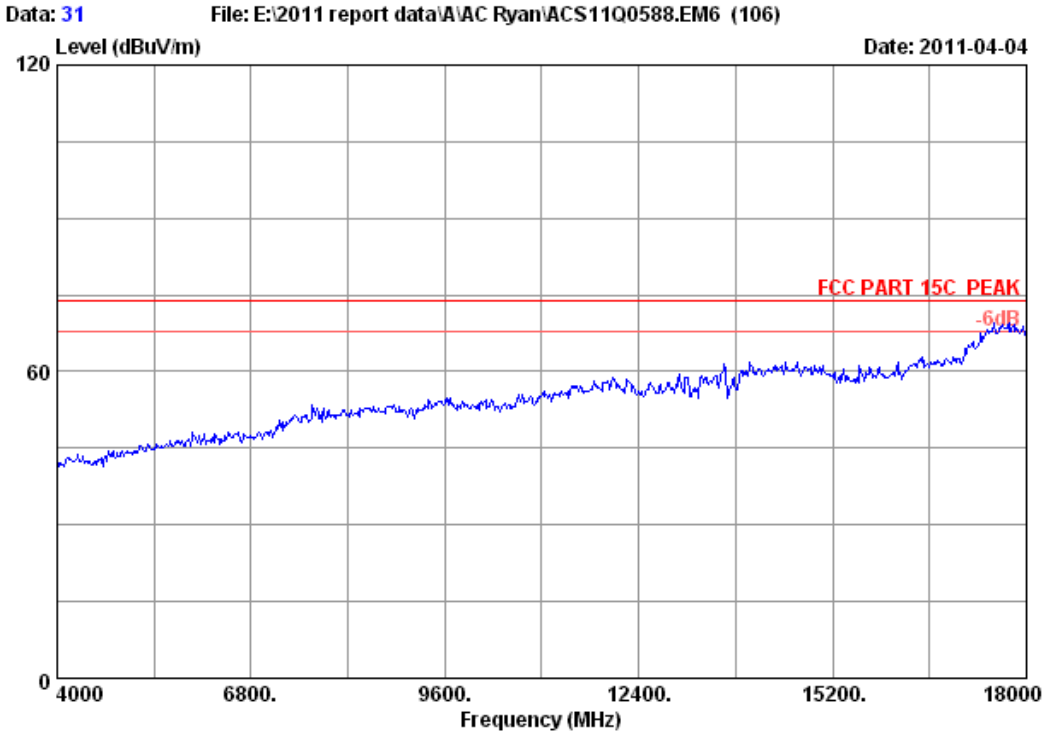
Site no.      : 3m Chamber                Data no. :  29
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH11 2462MHz Tx Mode
M/N           : ACR-WN10002
```



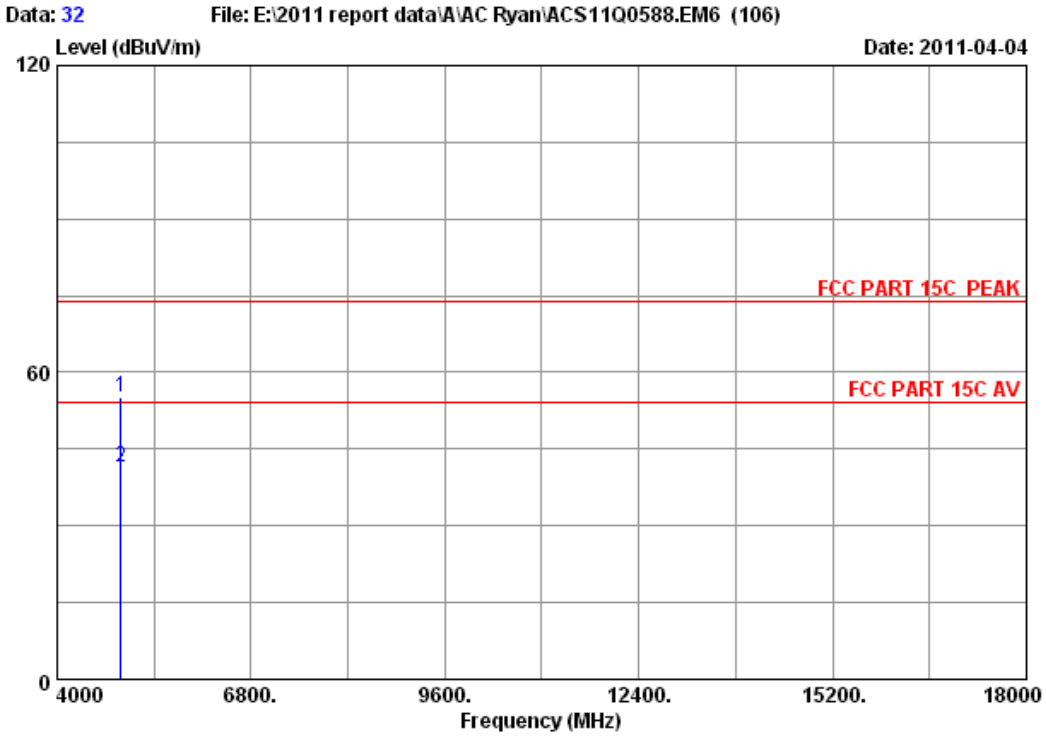
Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	44.78	55.05	74.00	18.95	Peak
2	4924.000	34.49	10.76	34.98	30.43	40.70	54.00	13.30	Average

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



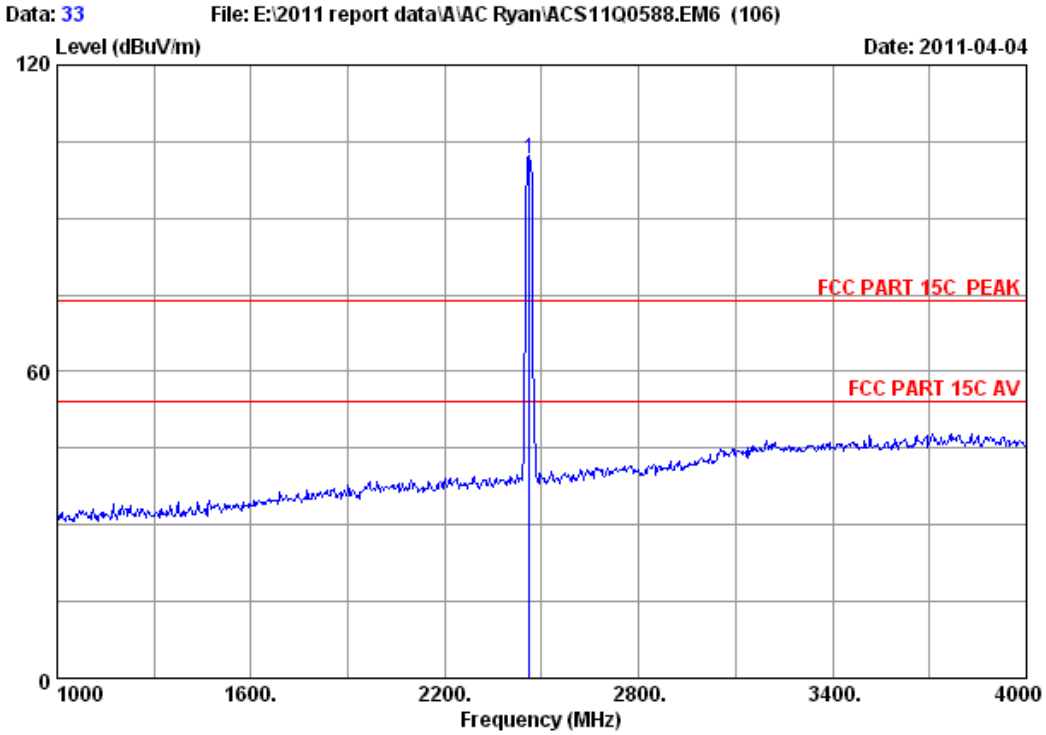

```
Site no.      : 3m Chamber                Data no. :  31
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH11 2462MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	44.75	55.02	74.00	18.98	Peak
2	4924.000	34.49	10.76	34.98	31.02	41.29	54.00	12.71	Average

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

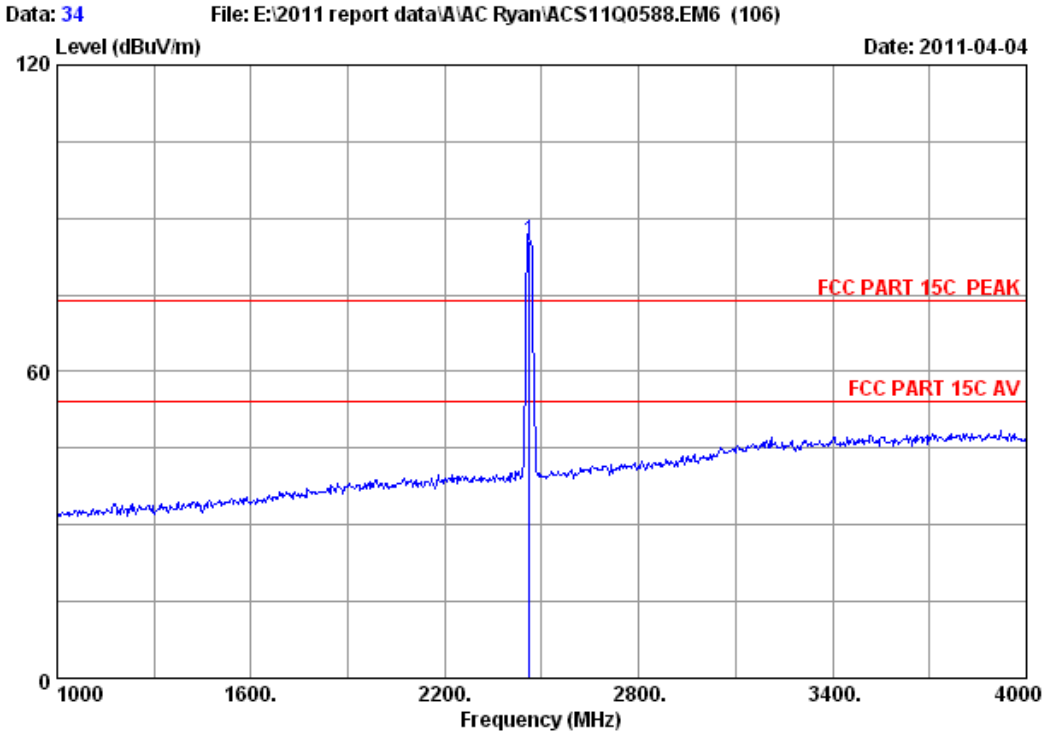



```
Site no.      : 3m Chamber                Data no. :  33
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH11 2462MHz Tx Mode
M/N           : ACR-WN10002
```

	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	29.48	7.54	36.61	101.21	101.62	74.00	-27.62	Peak

Remarks:

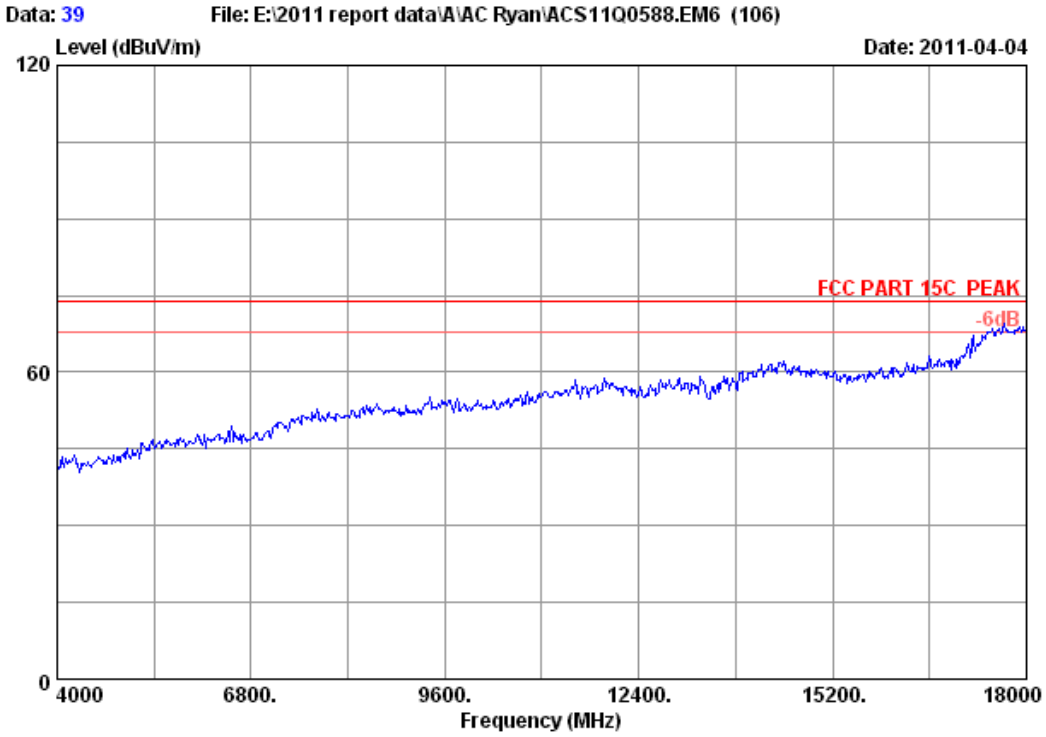
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



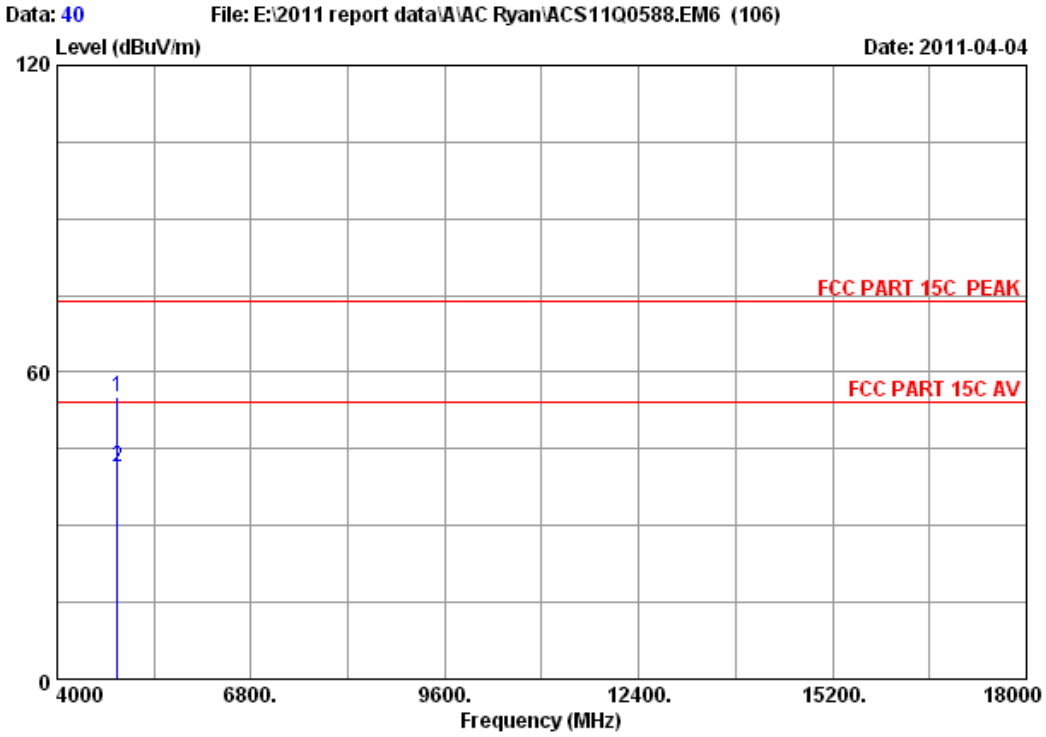
Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	29.48	7.54	36.61	85.02	85.43	74.00	-11.43	Peak

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




```
Site no.      : 3m Chamber                Data no. :  39
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```

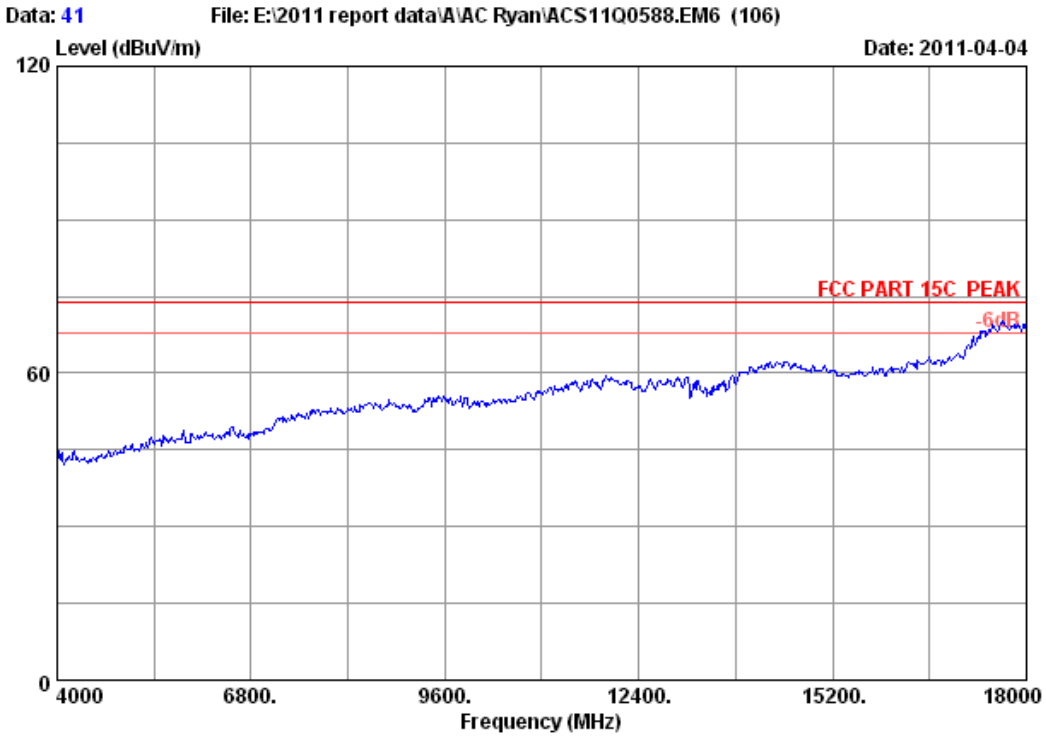



```
Site no.      : 3m Chamber                Data no. :  40
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```

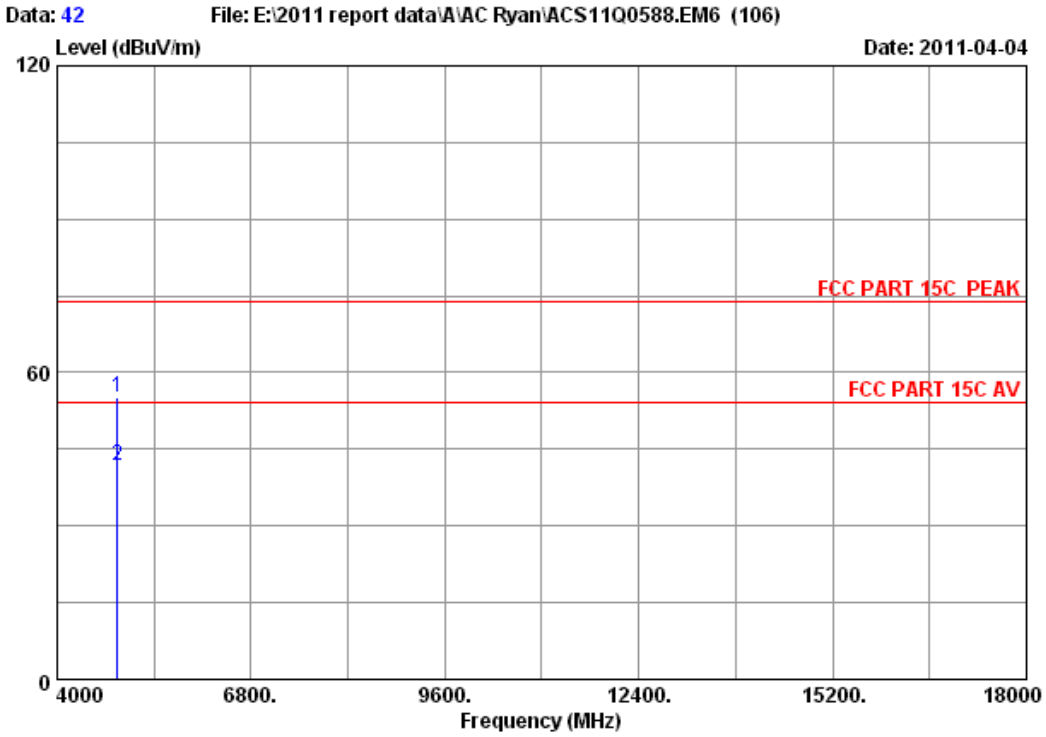
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	10.69	35.03	45.23	55.30	74.00	18.70	Peak
2	4874.000	34.41	10.69	35.03	31.25	41.32	54.00	12.68	Average

Remarks:

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



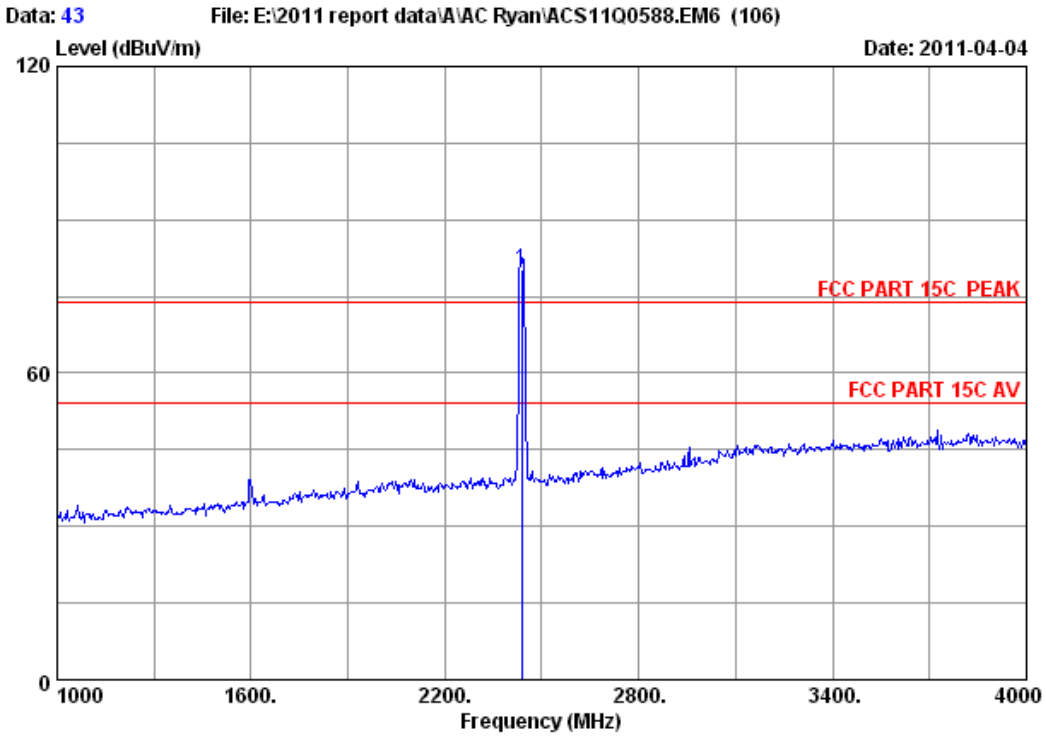
Site no.	: 3m Chamber	Data no.	: 41
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter		
Power	: DC 5V From PC input AC 120V/60Hz		
Test mode	: 11g CH6 2437MHz Tx Mode		
M/N	: ACR-WN10002		



Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	45.02	55.09	74.00	18.91	Peak
2	4874.000	34.41	10.69	35.03	31.78	41.85	54.00	12.15	Average

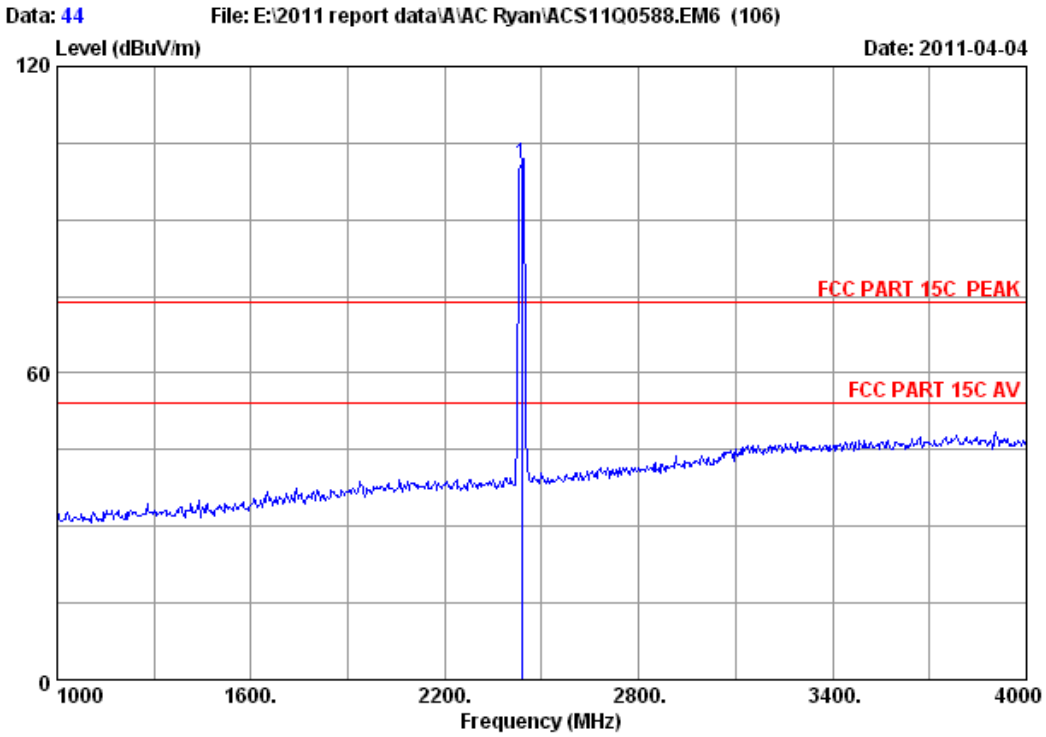
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	80.07	80.39	74.00	-6.39	Peak

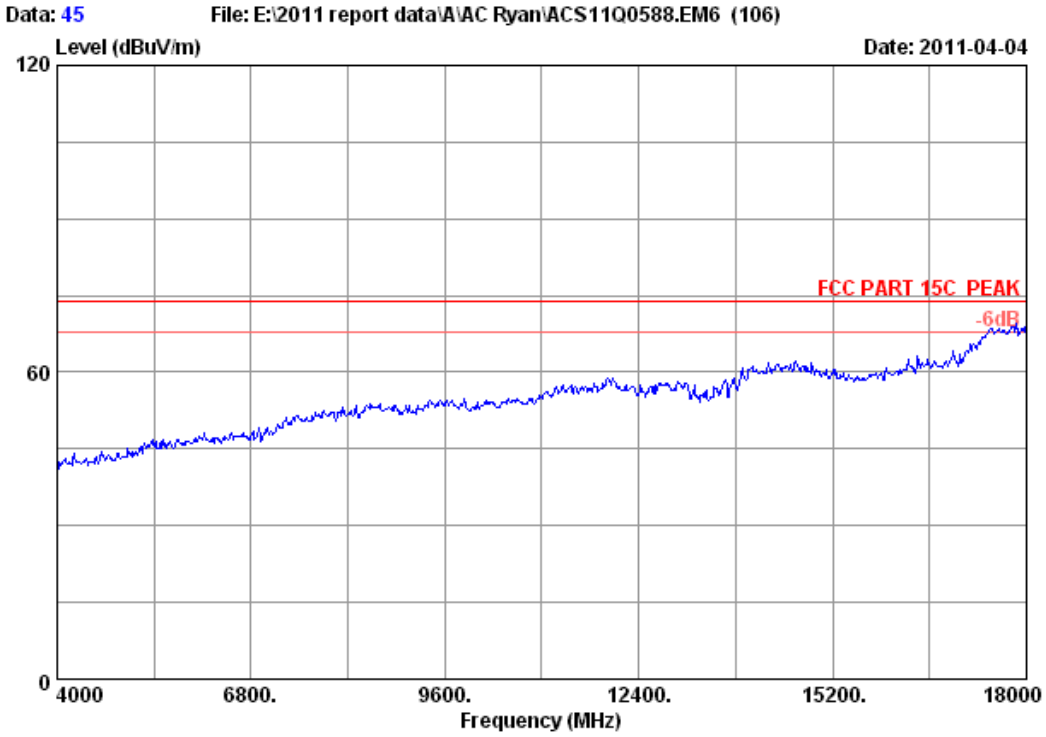
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



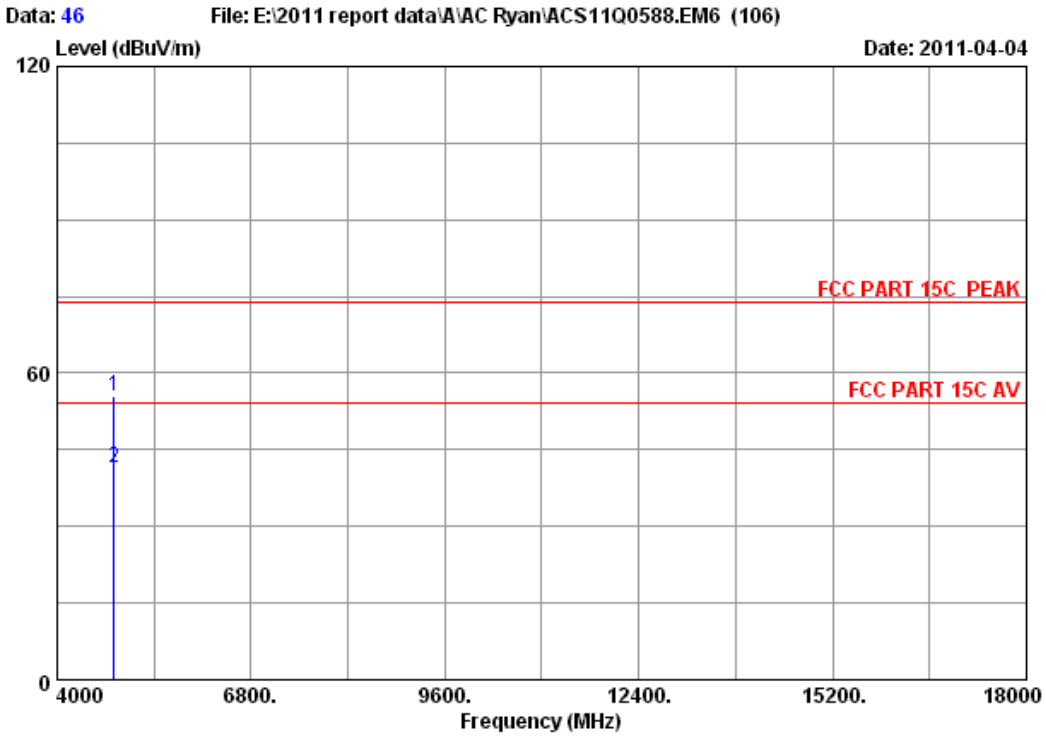
Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	100.60	100.92	74.00	-26.92	Peak

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




```
Site no.      : 3m Chamber                Data no. :  45
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

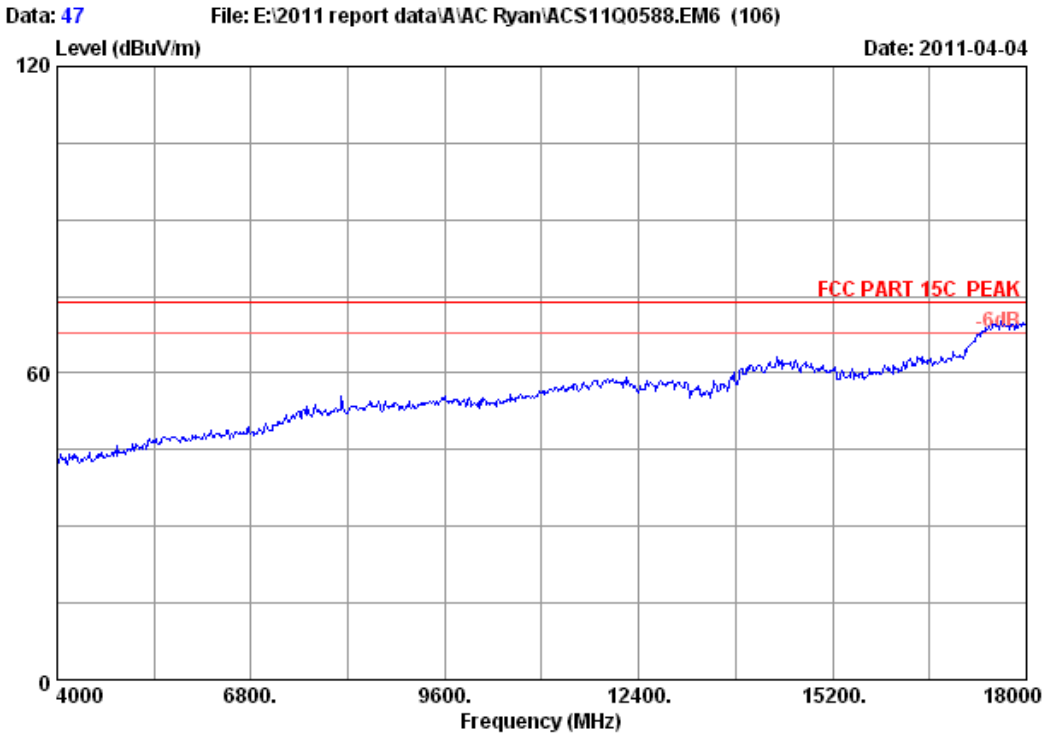



```
Site no.      : 3m Chamber                Data no. :  46
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

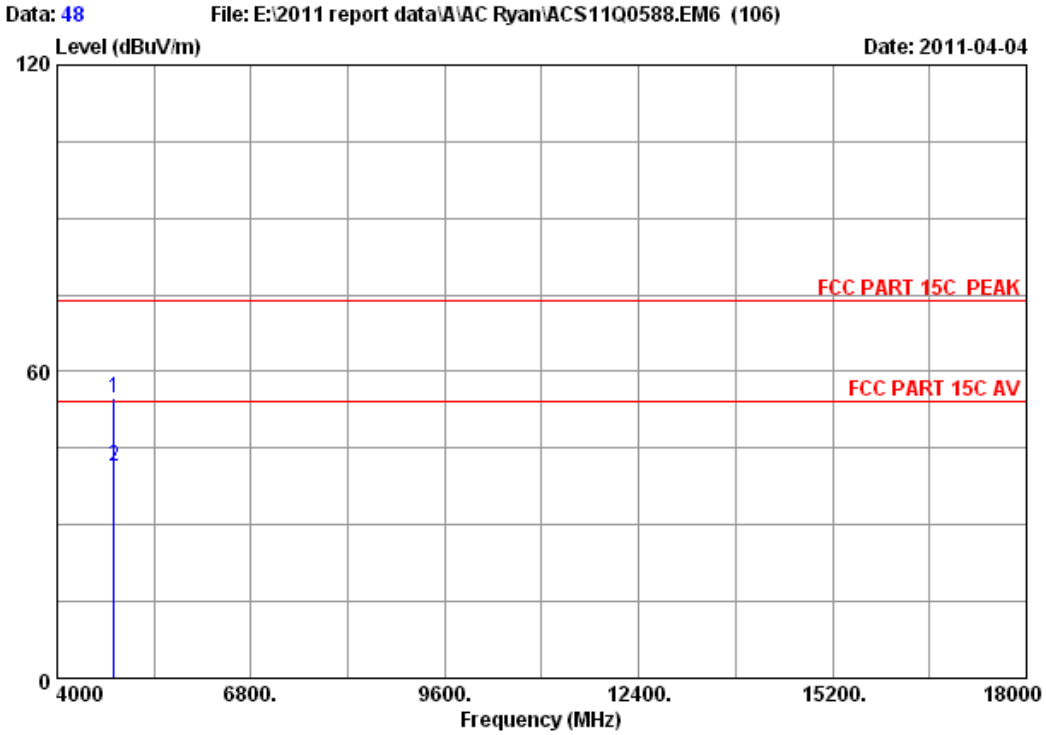
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	10.64	35.08	45.59	55.47	74.00	18.53	Peak
2	4824.000	34.32	10.64	35.08	31.70	41.58	54.00	12.42	Average

Remarks:

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



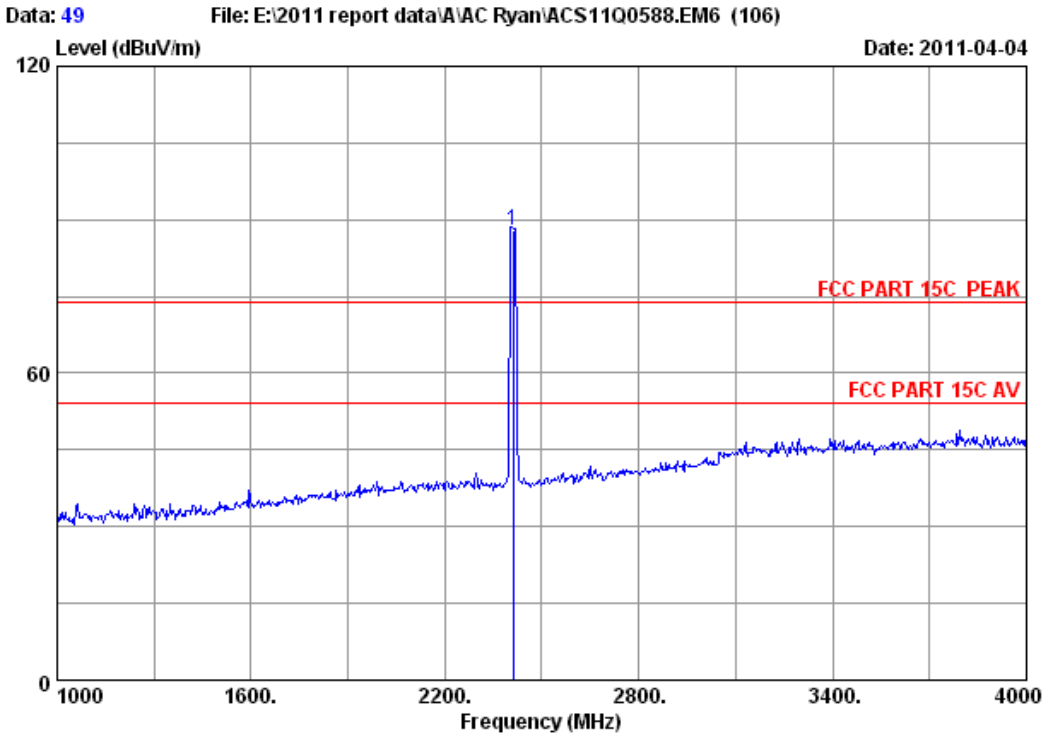

```
Site no.      : 3m Chamber                Data no. :  47
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	4824.000	34.32	10.64	35.08	44.81	54.69	74.00	19.31	Peak
2	4824.000	34.32	10.64	35.08	31.47	41.35	54.00	12.65	Average

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

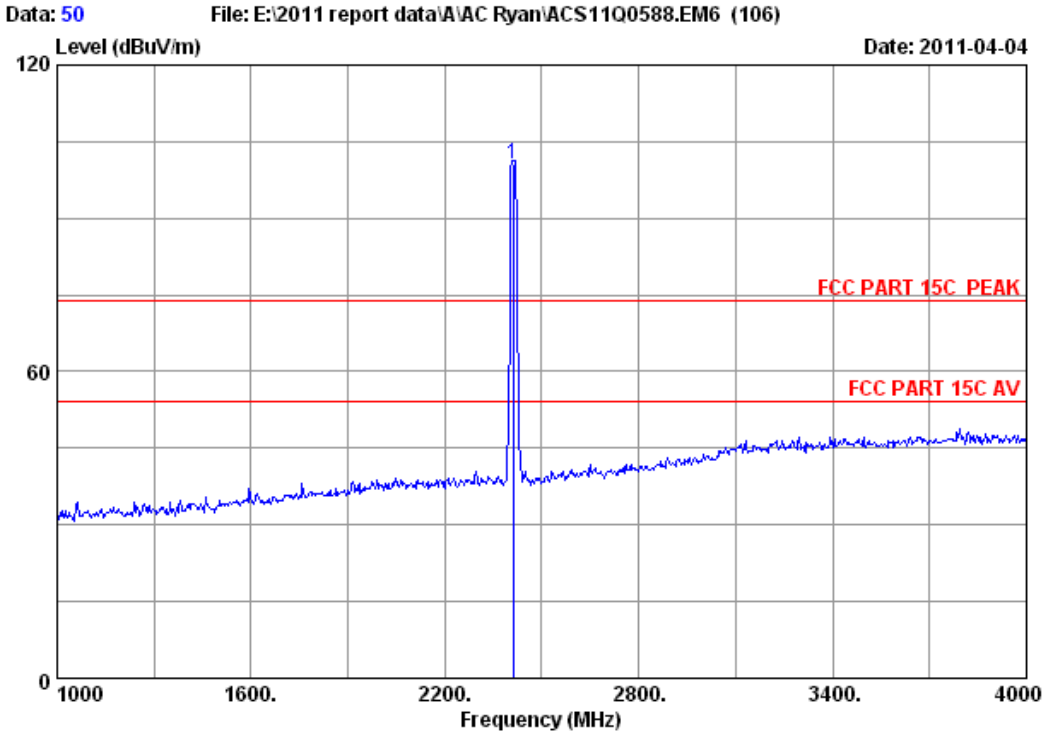



```
Site no.      : 3m Chamber                Data no. :  49
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

	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	29.45	7.43	36.62	87.60	87.86	74.00	-13.86	Peak

Remarks:

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

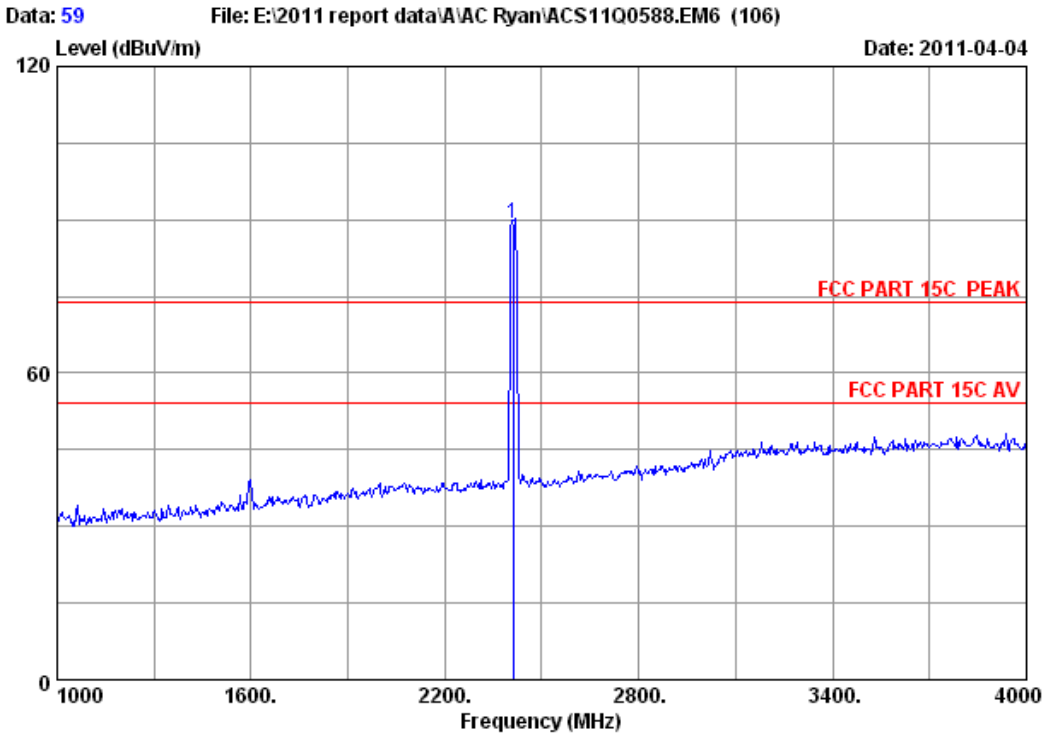



```
Site no.      : 3m Chamber                Data no. :  50
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11g CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

	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	29.45	7.43	36.62	100.38	100.64	74.00	-26.64	Peak

Remarks:

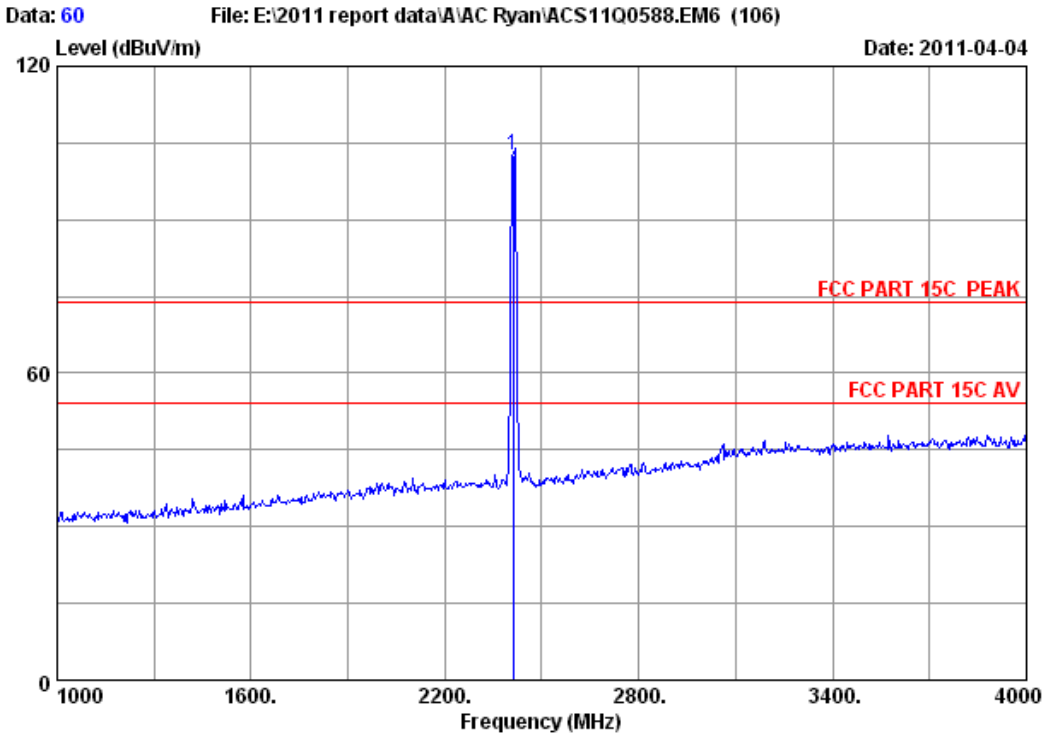
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 59
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.45	7.43	36.62	88.95	89.21	74.00	-15.21	Peak

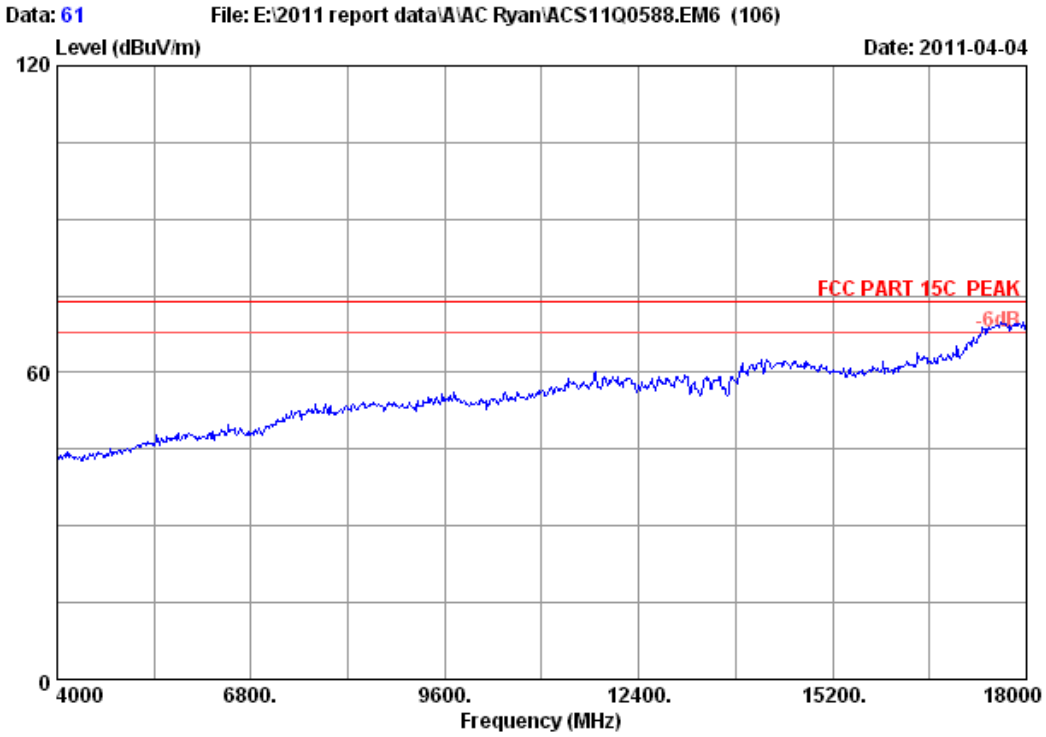
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



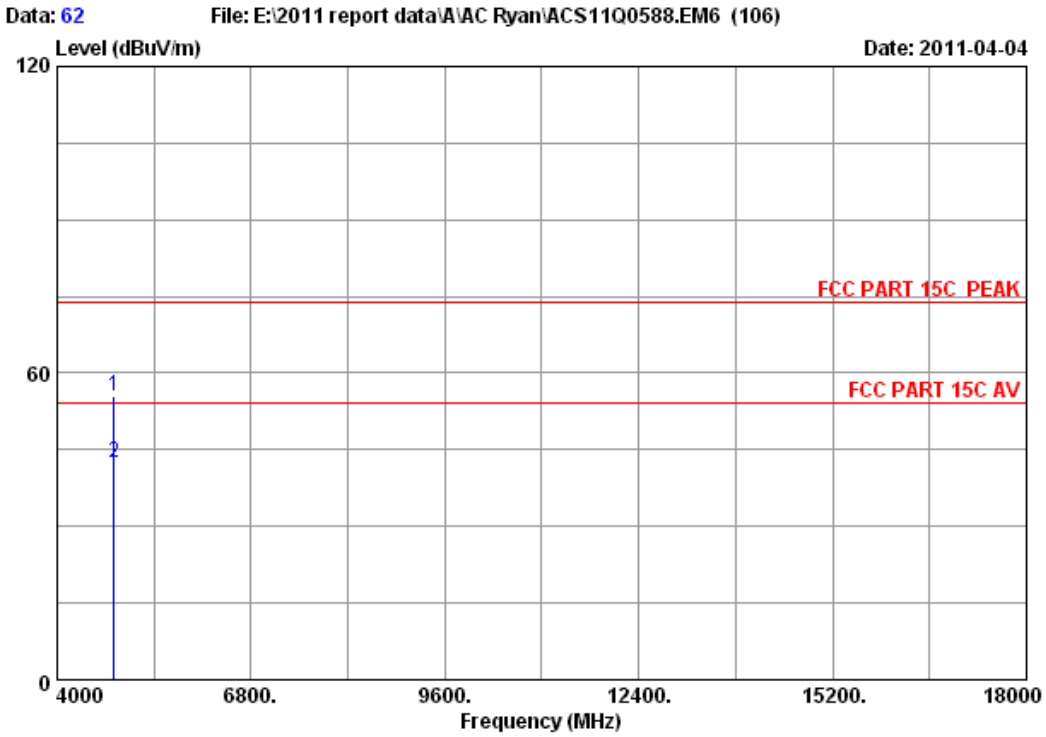
Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.45	7.43	36.62	102.34	102.60	74.00	-28.60	Peak

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



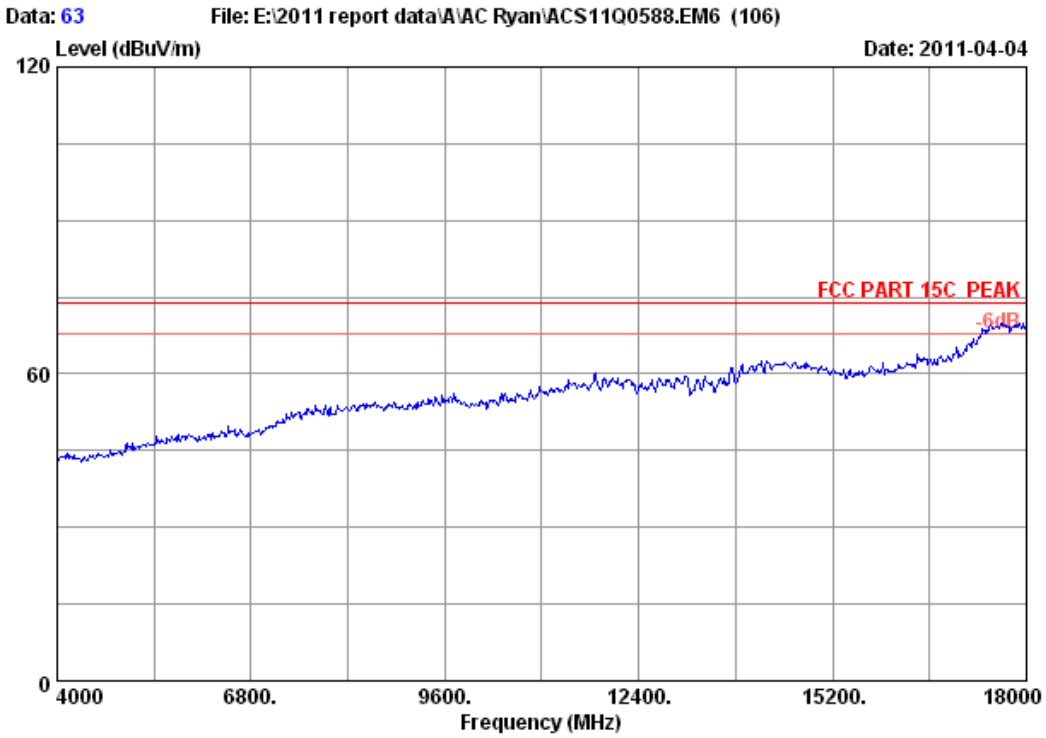

```
Site no.      : 3m Chamber                Data no. :  61
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```



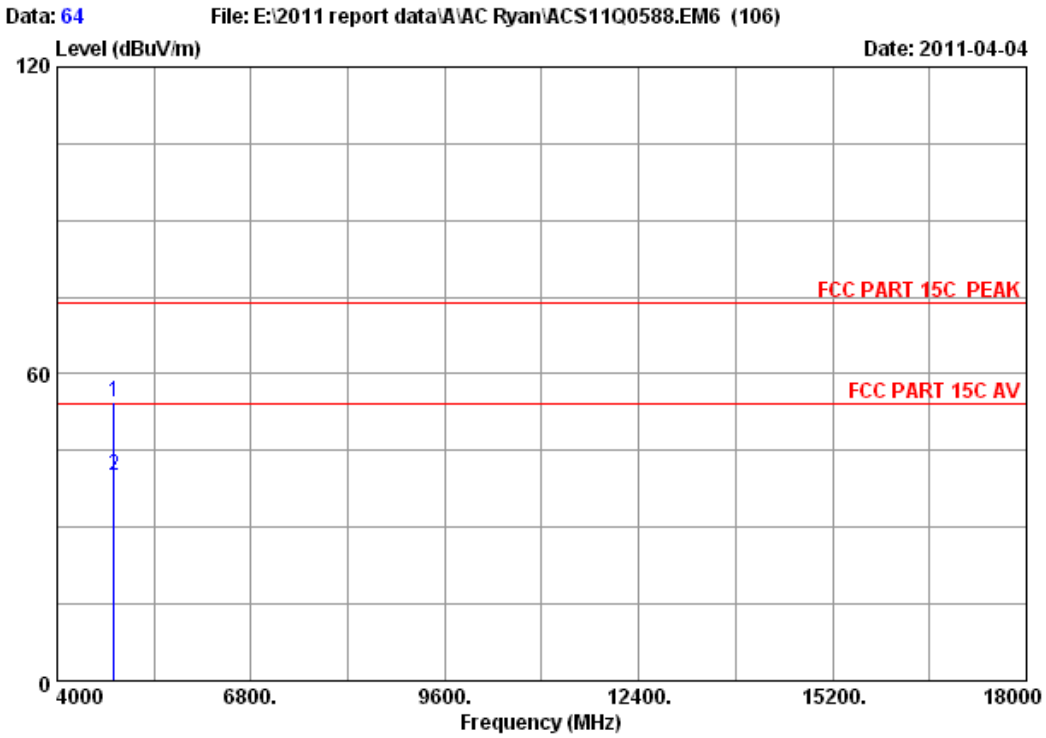
Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	4824.000	34.32	10.64	35.08	45.77	55.65	74.00	18.35	Peak
2	4824.000	34.32	10.64	35.08	32.61	42.49	54.00	11.51	Average

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




```
Site no.      : 3m Chamber                Data no. :  63
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

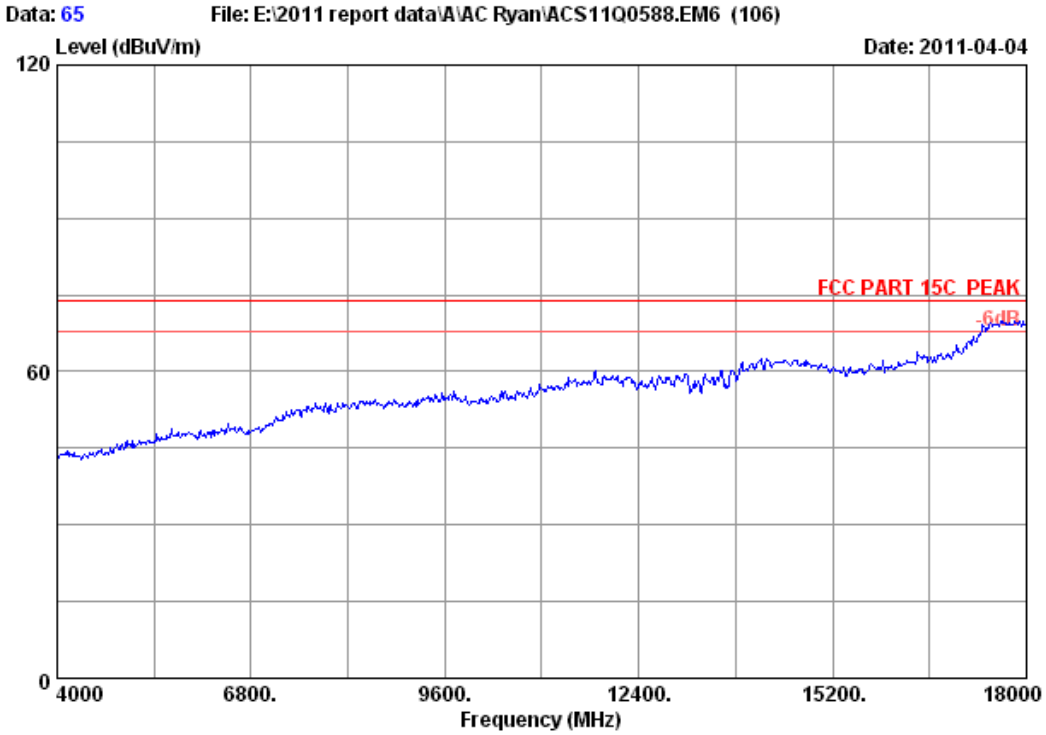



```
Site no.      : 3m Chamber                Data no. :  64
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH1 2412MHz Tx Mode
M/N           : ACR-WN10002
```

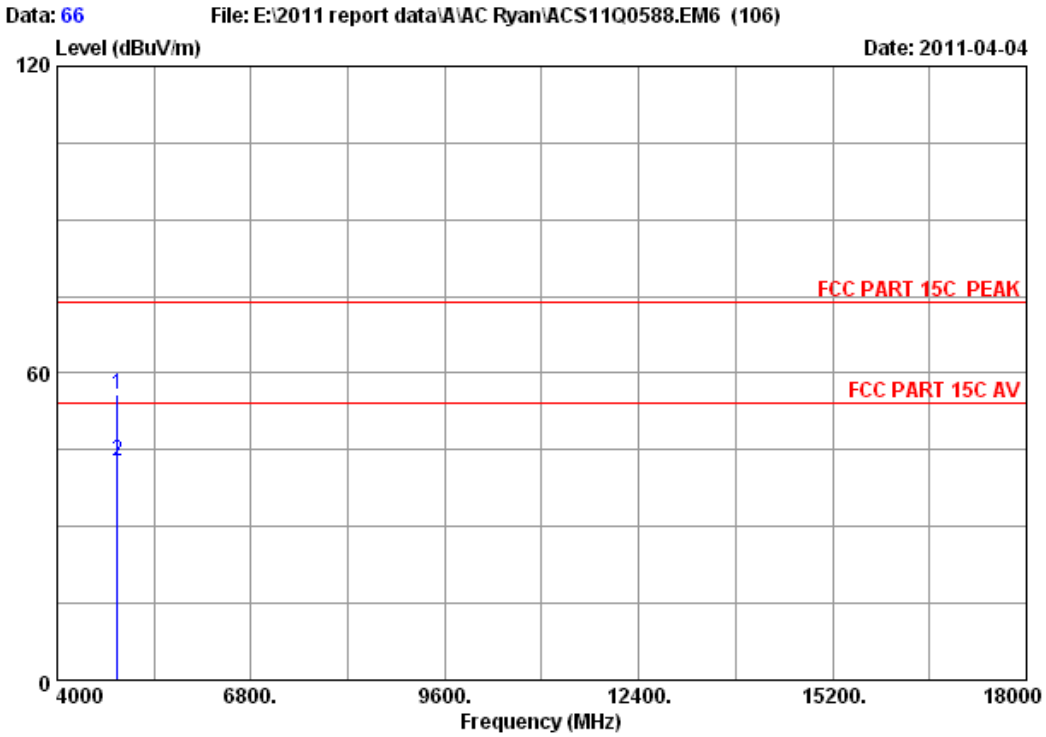
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	10.64	35.08	44.56	54.44	74.00	19.56	Peak
2	4824.000	34.32	10.64	35.08	30.39	40.27	54.00	13.73	Average

Remarks:

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



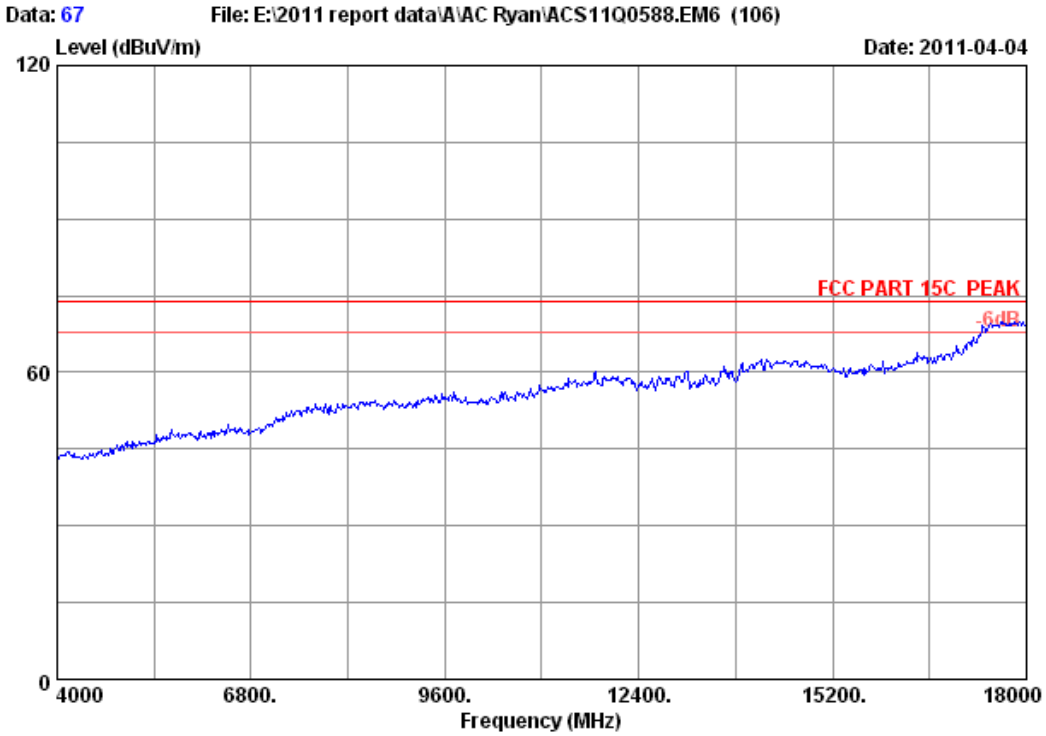

```
Site no.      : 3m Chamber                Data no. :  65
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```



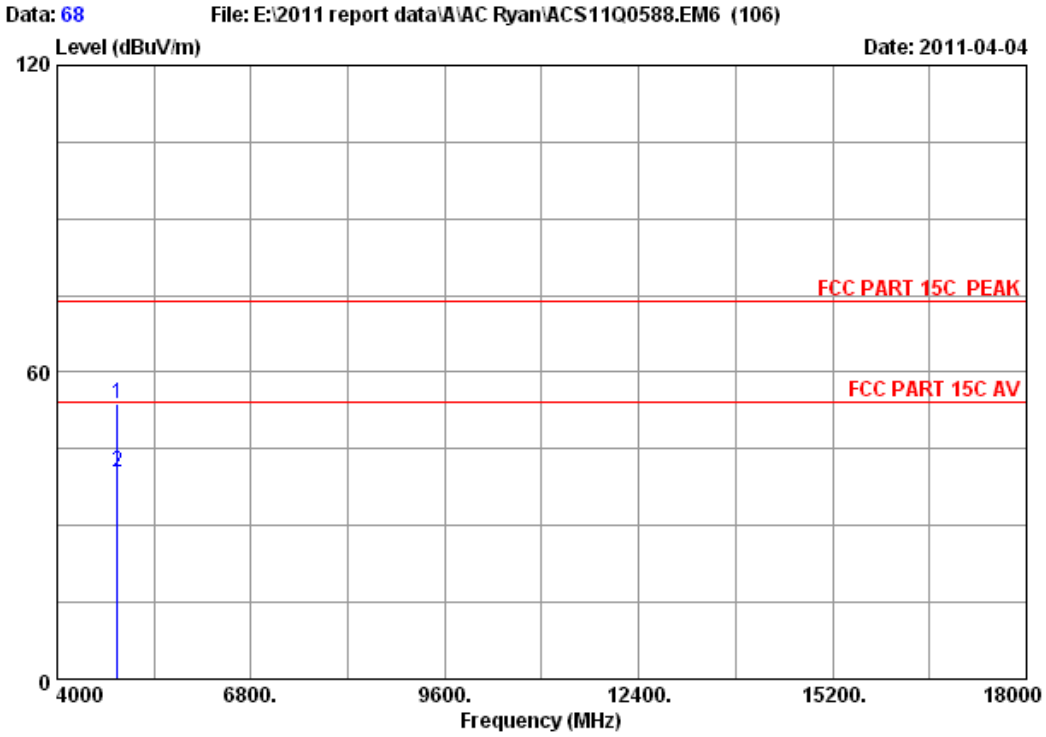
Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	45.59	55.66	74.00	18.34	Peak
2	4874.000	34.41	10.69	35.03	32.75	42.82	54.00	11.18	Average

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



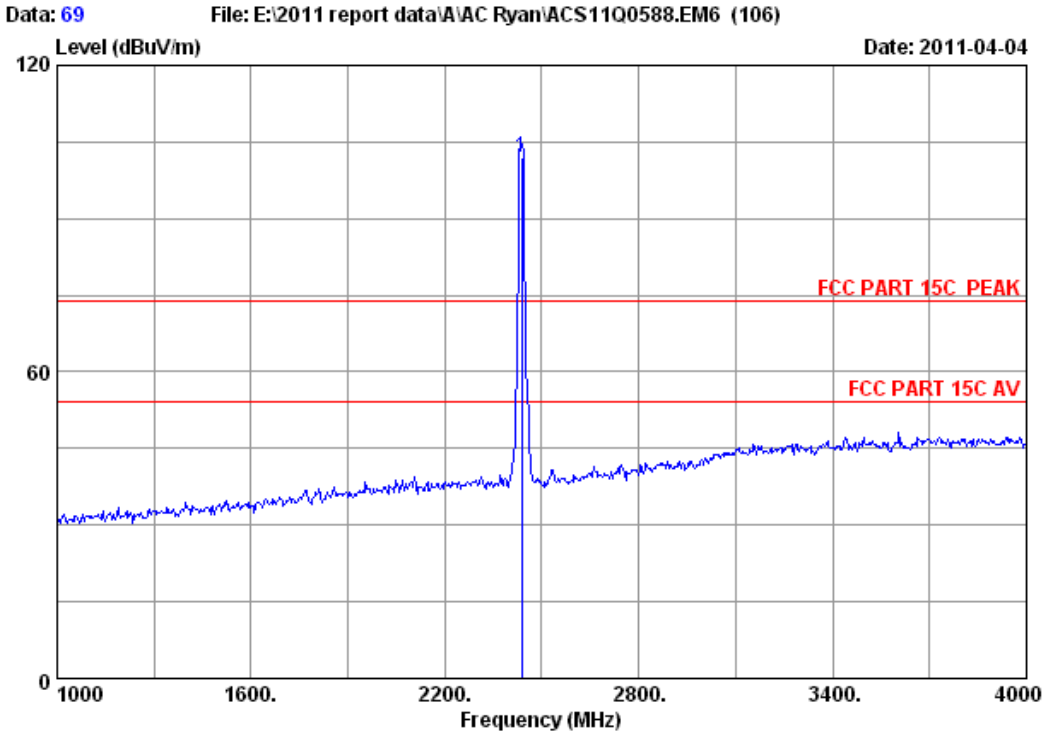

```
Site no.      : 3m Chamber                Data no. :  67
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH6 2437MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	4874.000	34.41	10.69	35.03	43.59	53.66	74.00	20.34	Peak
2	4874.000	34.41	10.69	35.03	30.41	40.48	54.00	13.52	Average

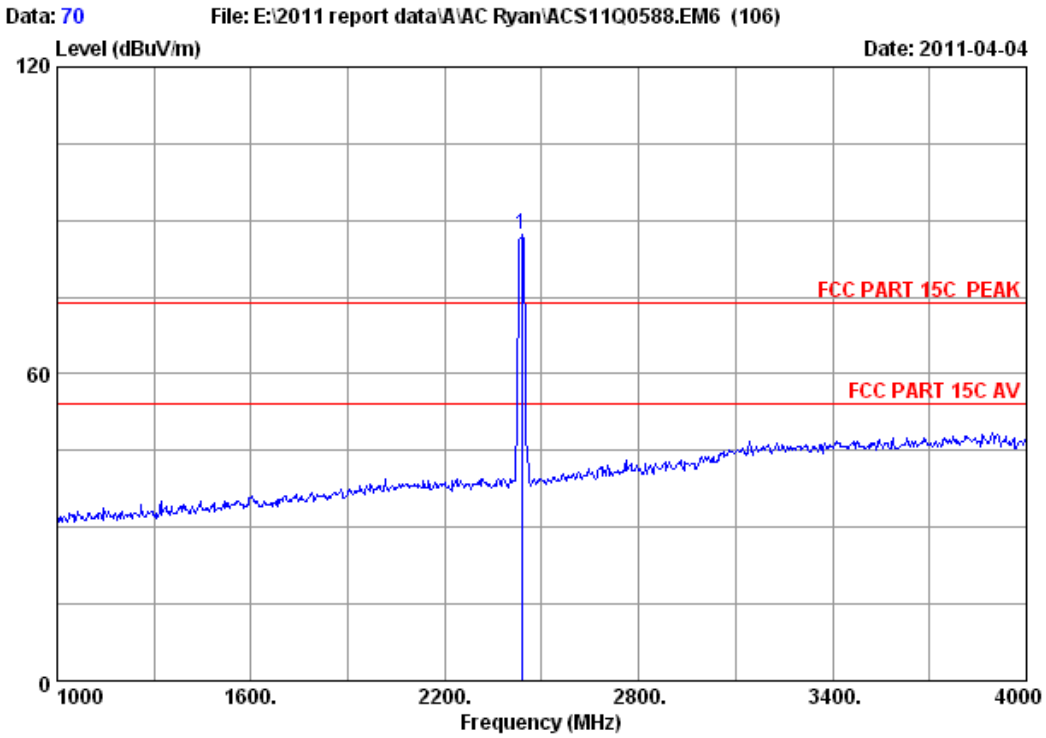
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	101.79	102.11	74.00	-28.11	Peak

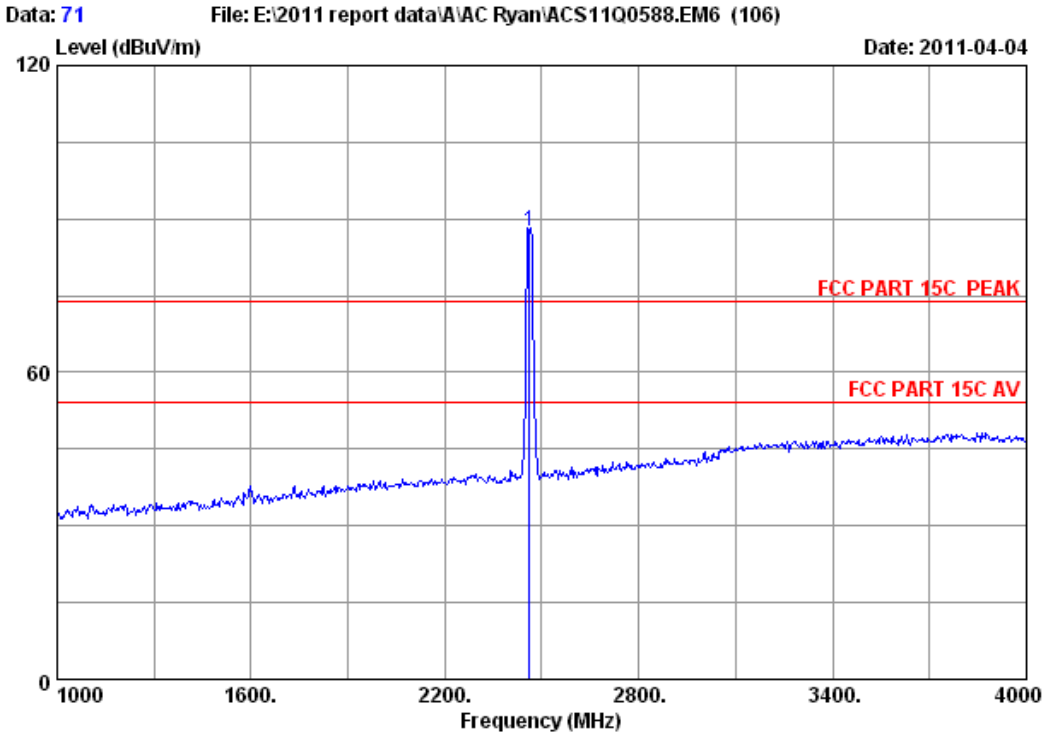
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH6 2437MHz Tx Mode
M/N : ACR-WN10002

	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	29.47	7.46	36.61	86.98	87.30	74.00	-13.30	Peak

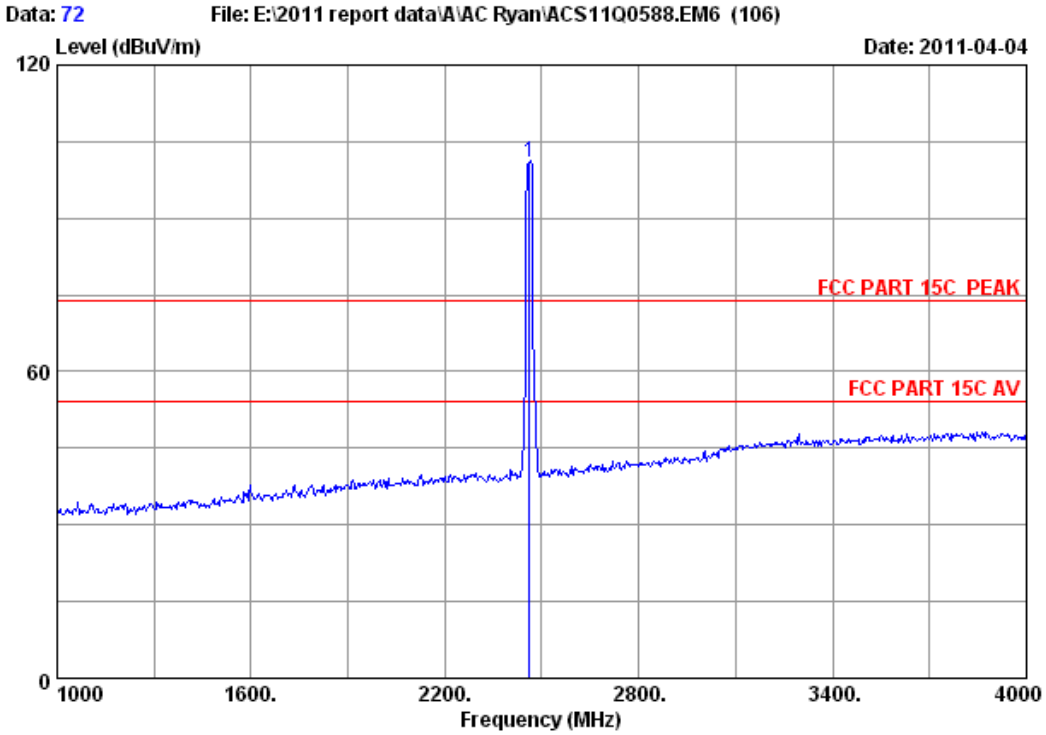
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 71
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	29.48	7.54	36.61	87.30	87.71	74.00	-13.71	Peak

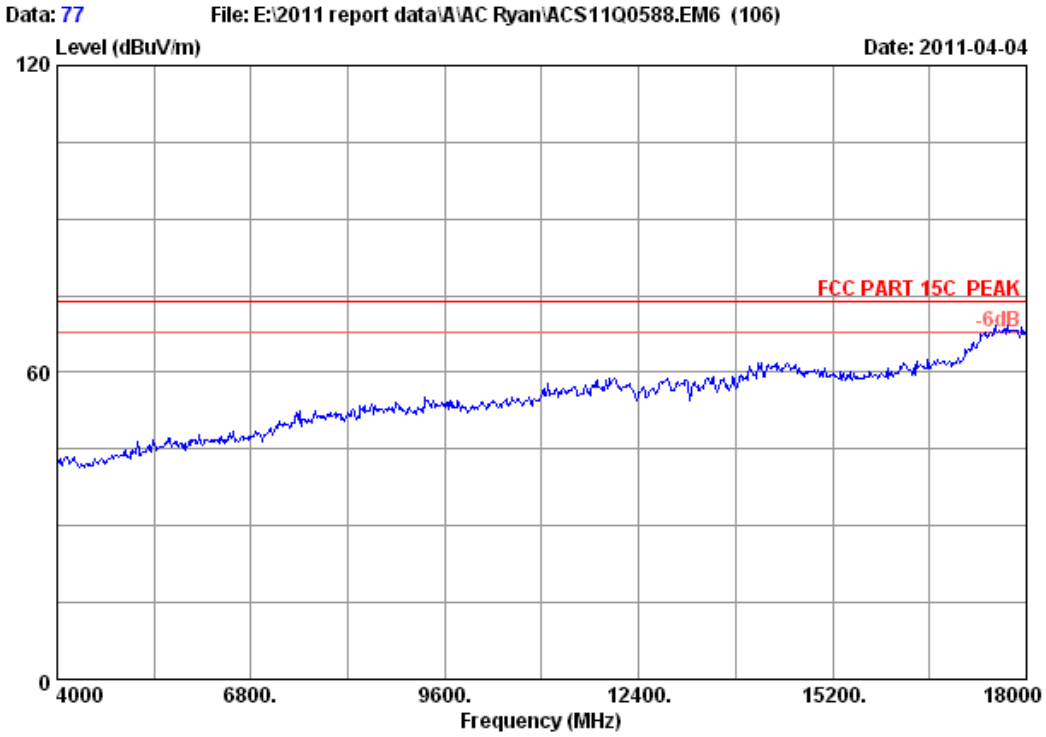
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



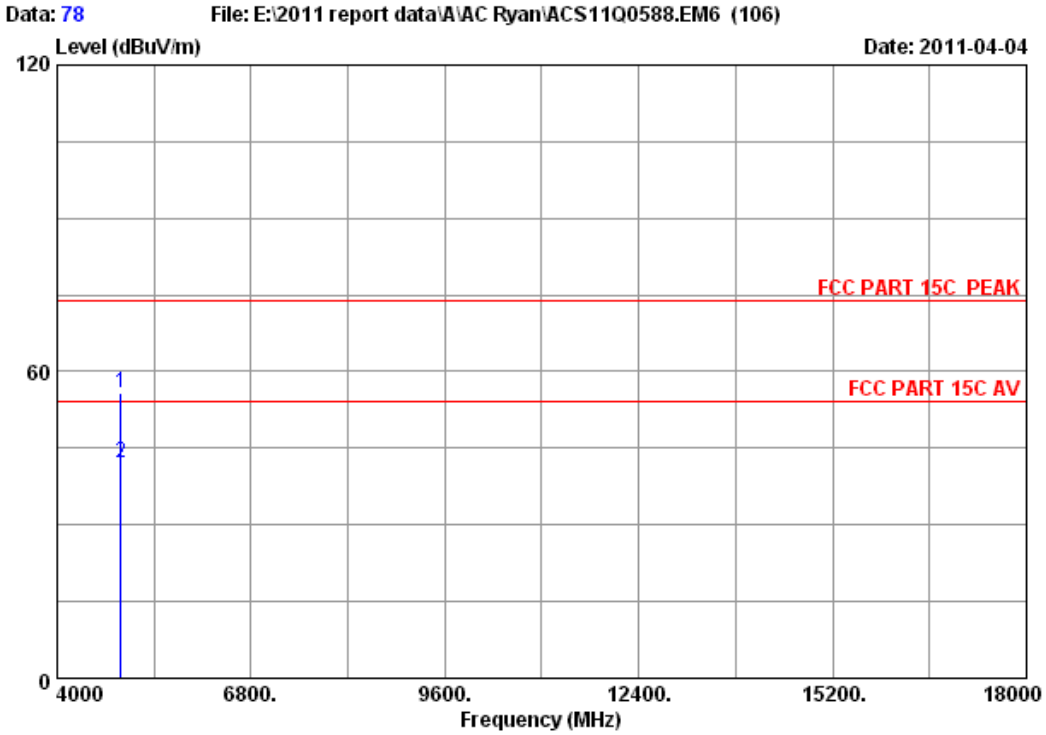
Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	29.48	7.54	36.61	100.56	100.97	74.00	-26.97	Peak

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




```
Site no.      : 3m Chamber                Data no. :  77
Dis. / Ant.   : 3m   3115(0911)           Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer  : Paul Tian
EUT           : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power         : DC 5V From PC input AC 120V/60Hz
Test mode     : 11nHT20 CH11 2462MHz Tx Mode
M/N           : ACR-WN10002
```



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	4924.000	34.49	10.76	34.98	45.43	55.70	74.00	18.30	Peak
2	4924.000	34.49	10.76	34.98	31.73	42.00	54.00	12.00	Average

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
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 Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

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.

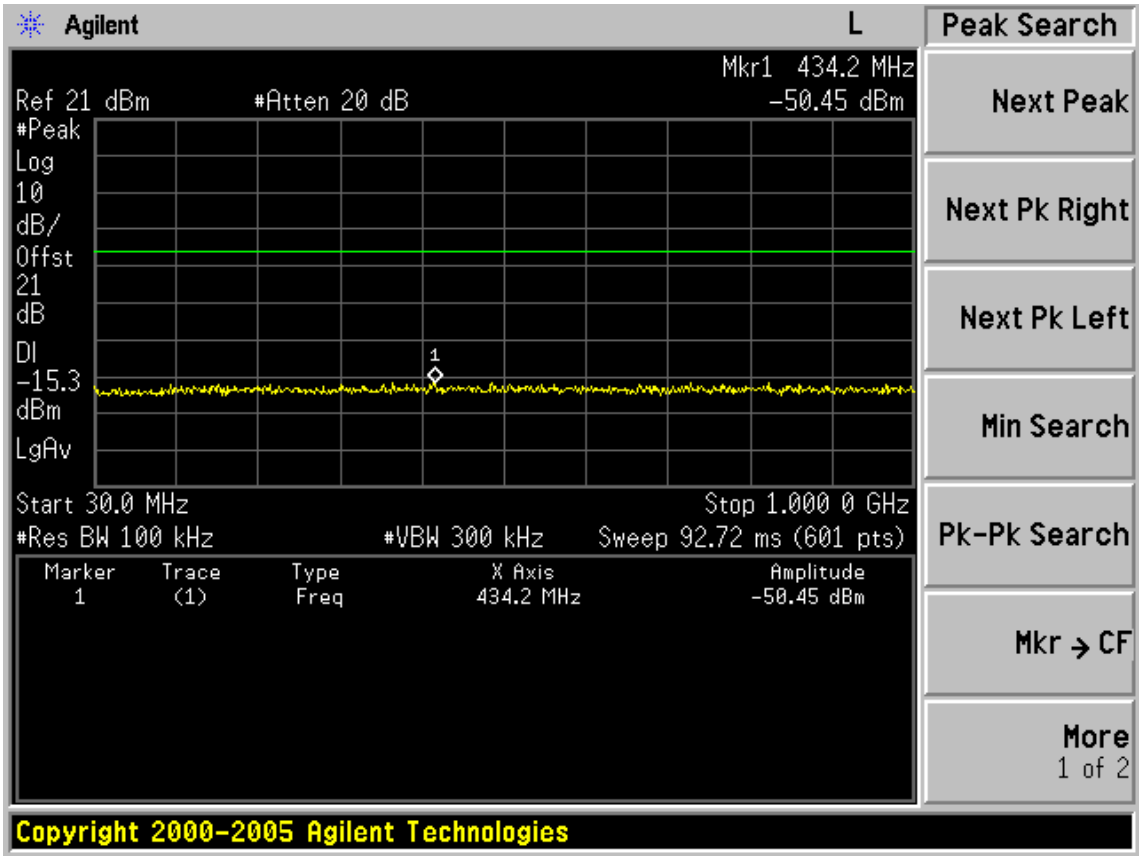
5.3.Test Procedure

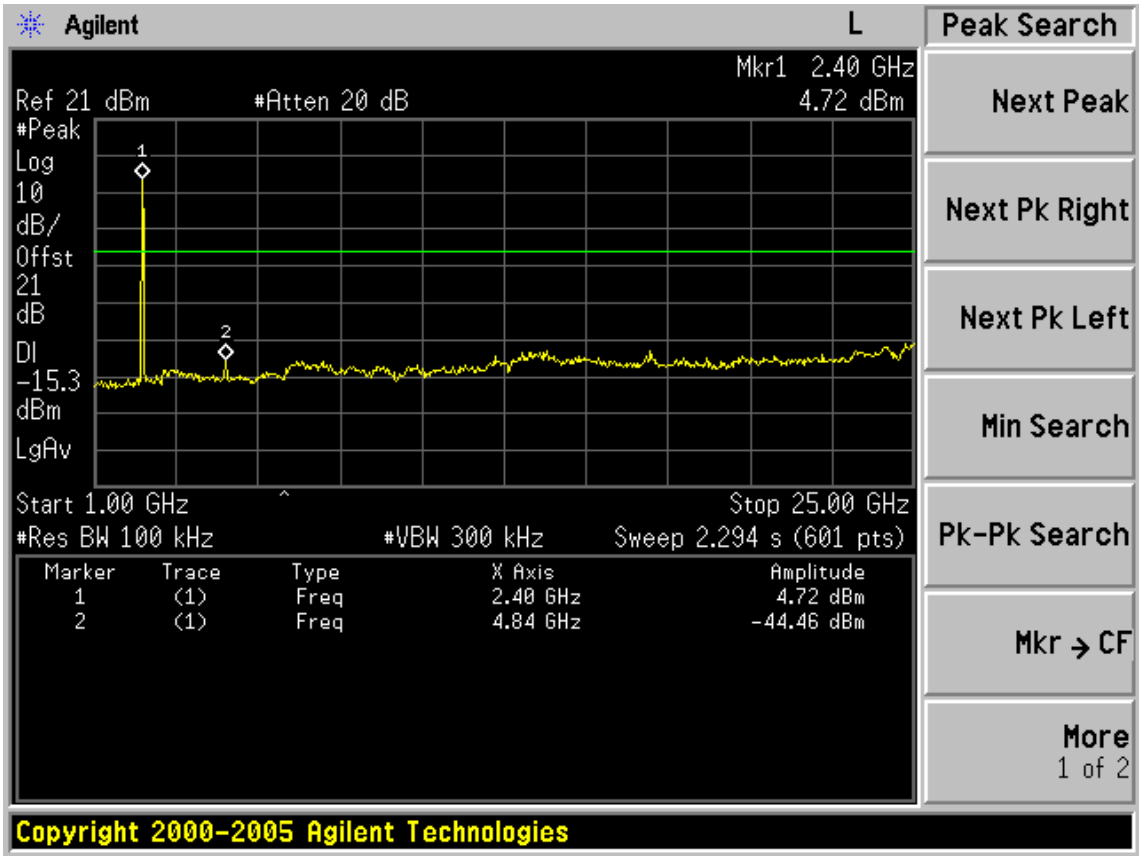
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

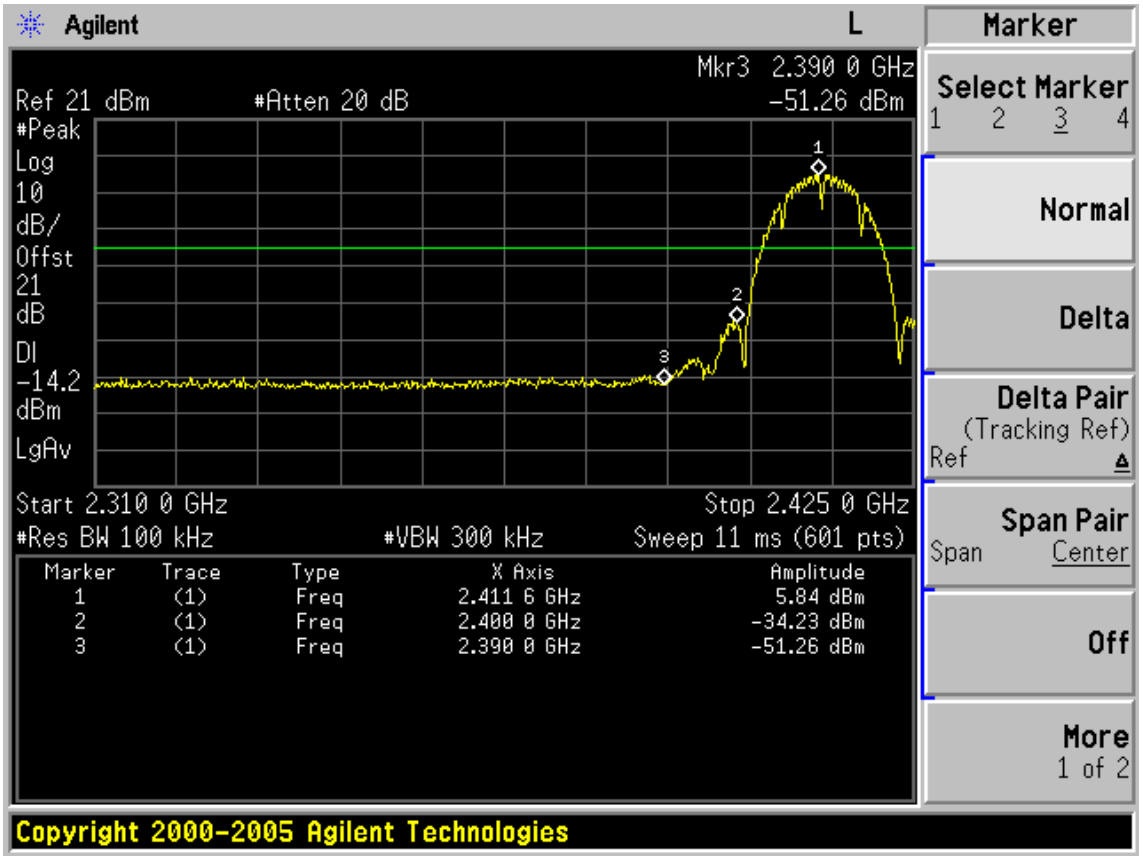
5.4.Test result

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

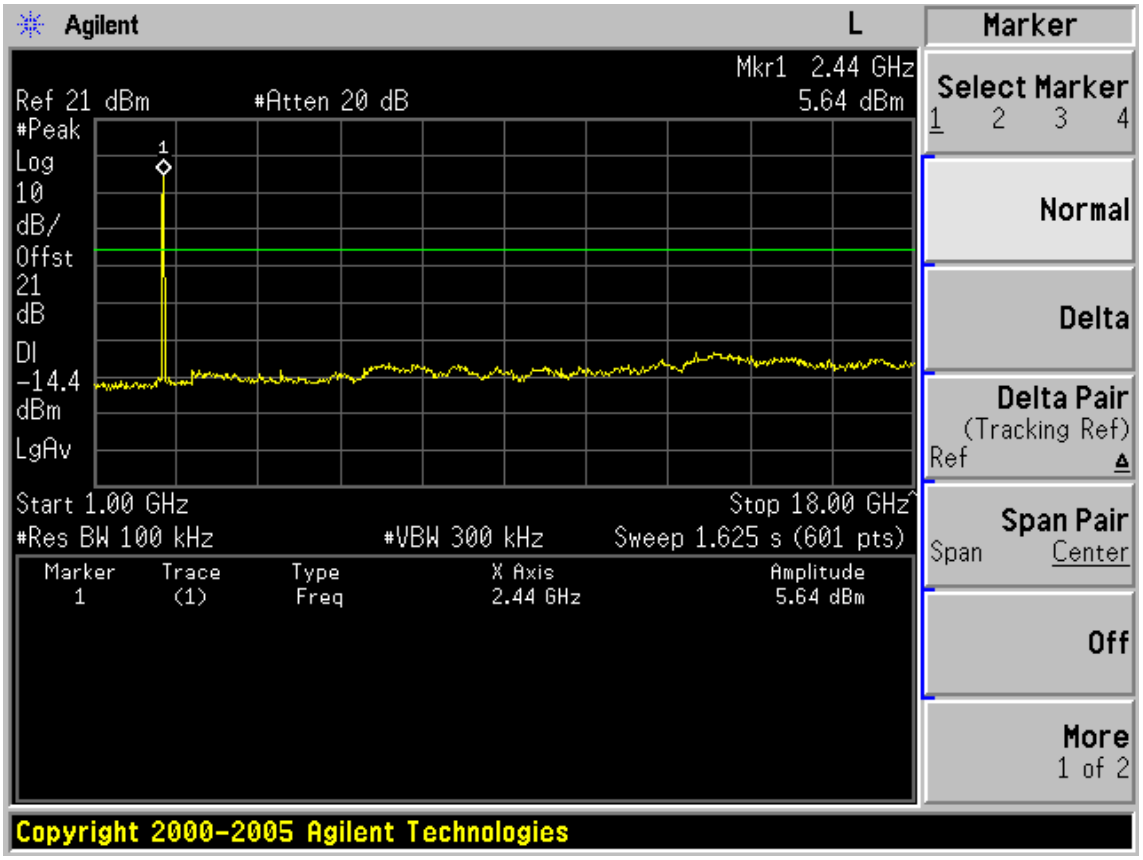
Test Mode: IEEE 802.11b TX
CH1

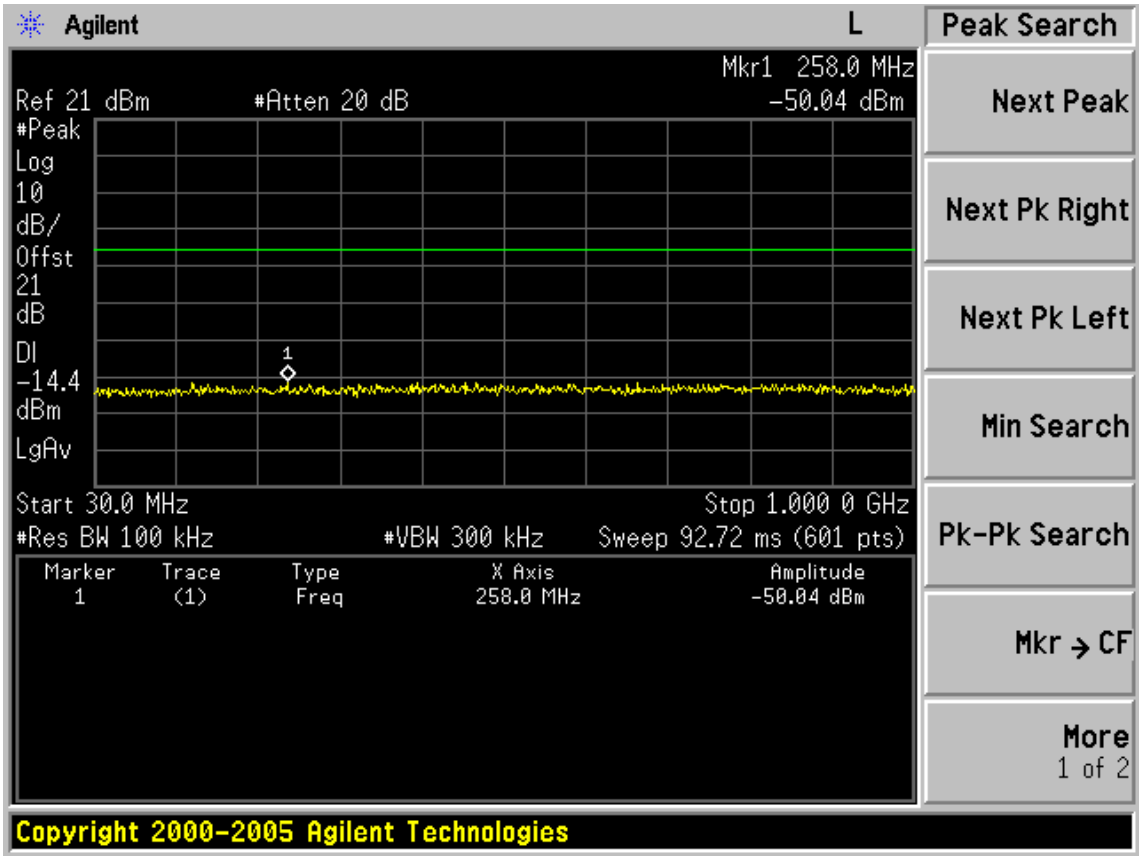




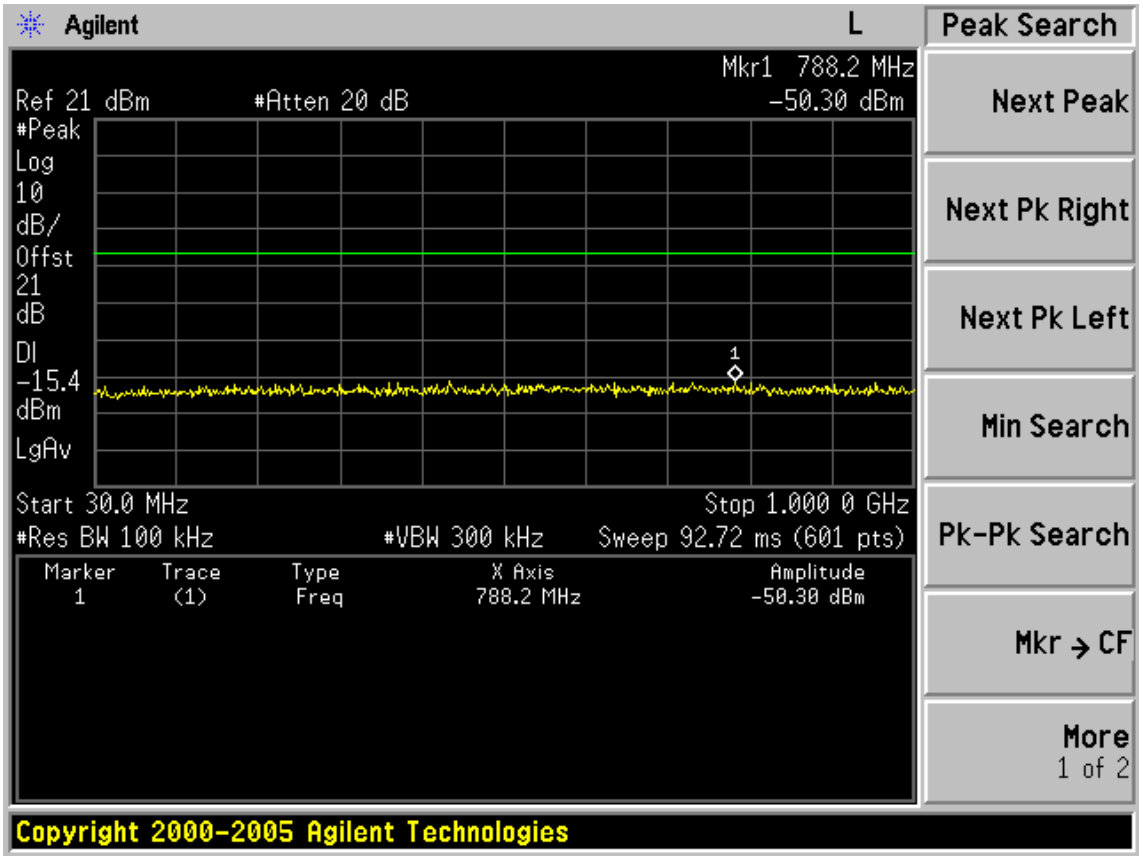

Agilent
L
Marker
Mkr3 2.390 0 GHz
Ref 21 dBm
#Atten 20 dB
-51.26 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-14.2
dBm
LgAv
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.411 6 GHz 5.84 dBm
2 (1) Freq 2.400 0 GHz -34.23 dBm
3 (1) Freq 2.390 0 GHz -51.26 dBm
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2005 Agilent Technologies

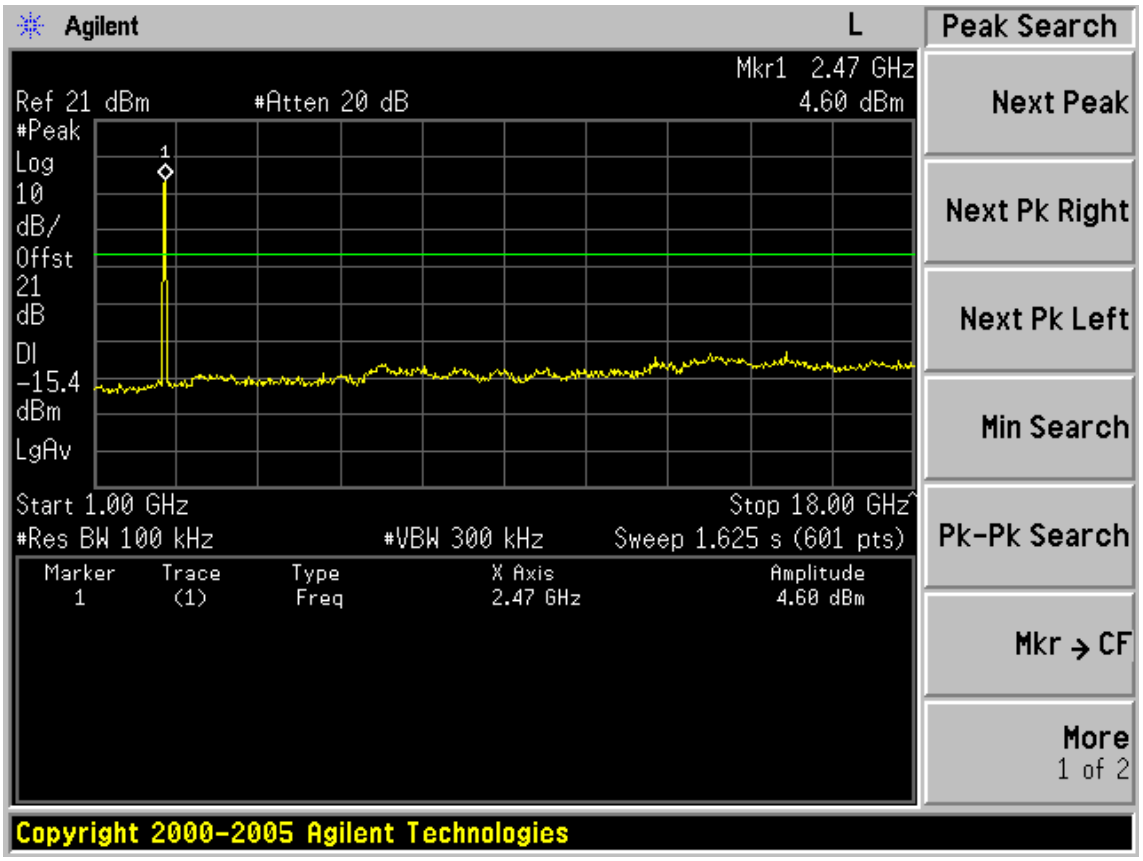
CH6

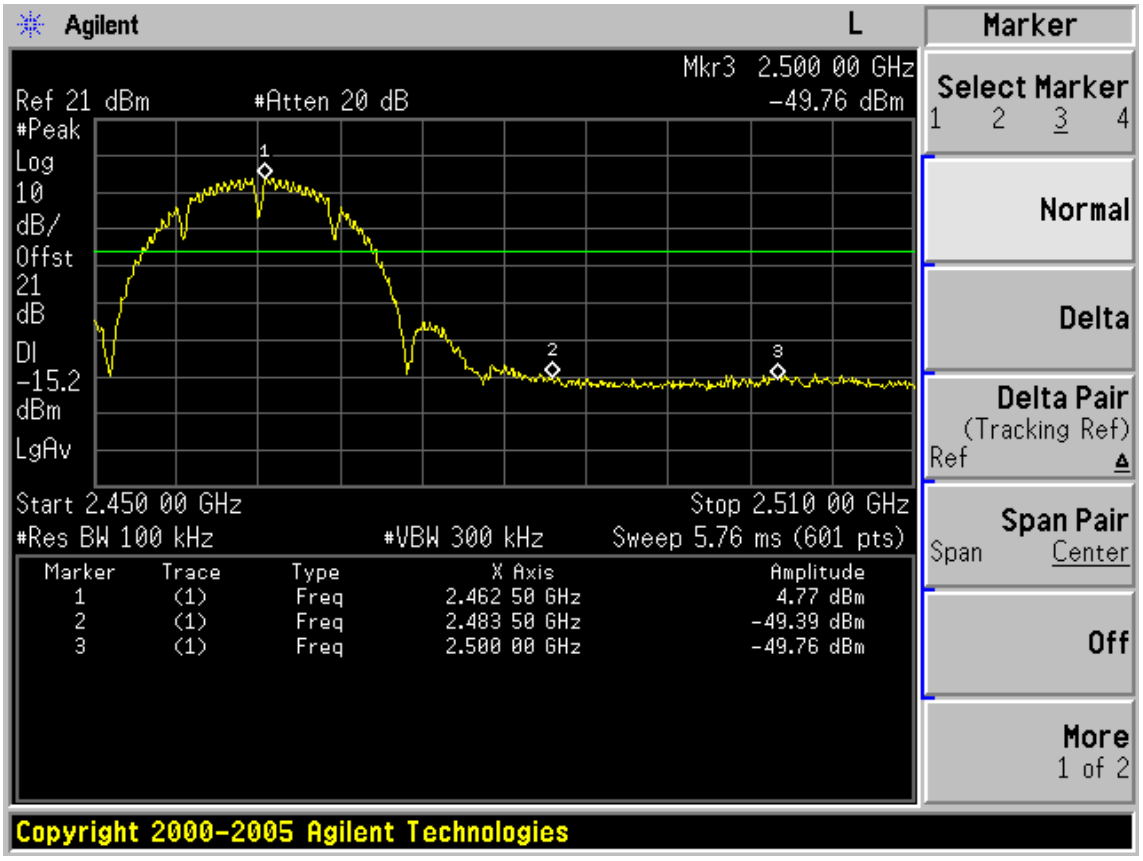

Agilent
L
Marker
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
5.64 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-14.4
dBm
LgAv
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 5.64 dBm
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 258.0 MHz
Ref 21 dBm
#Atten 20 dB
-50.04 dBm
Next Peak
#Peak
Log
10
dB/
Offst
21
dB
Next Pk Right
Dl
-14.4
dBm
Next Pk Left
LgAv
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 258.0 MHz -50.04 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

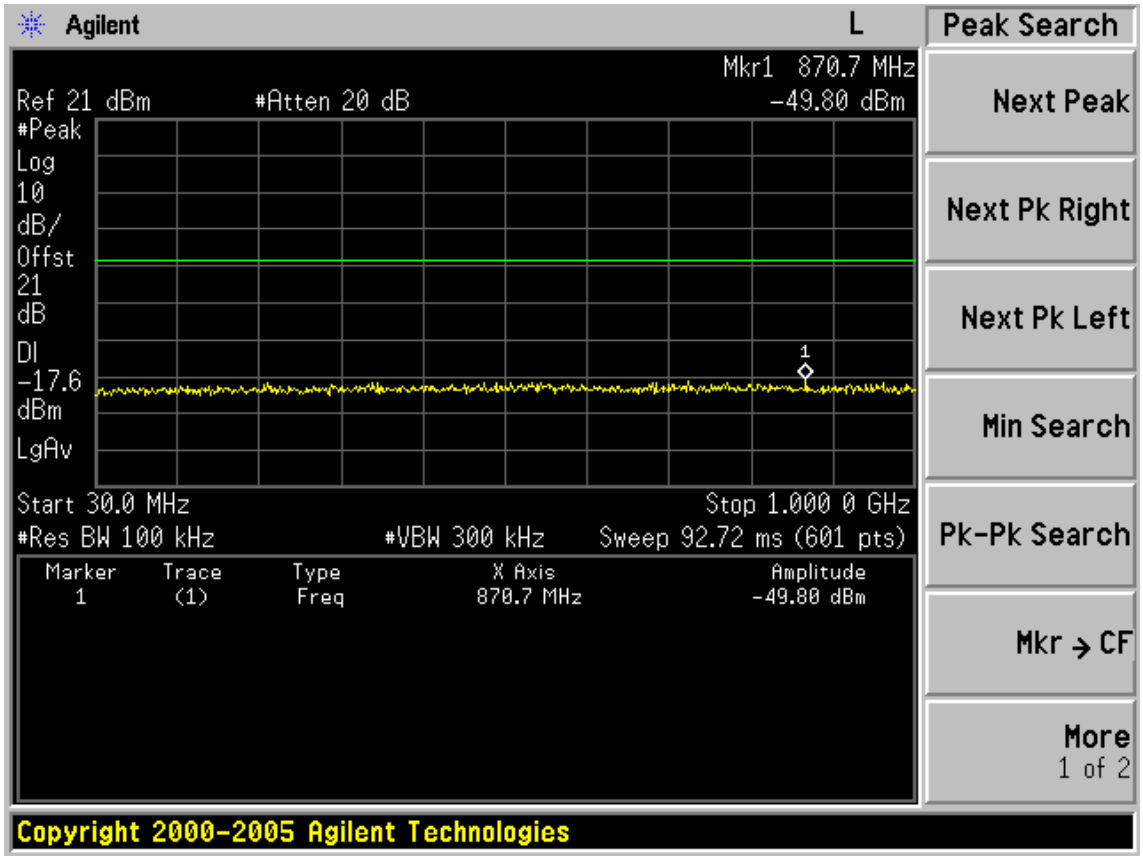
CH11

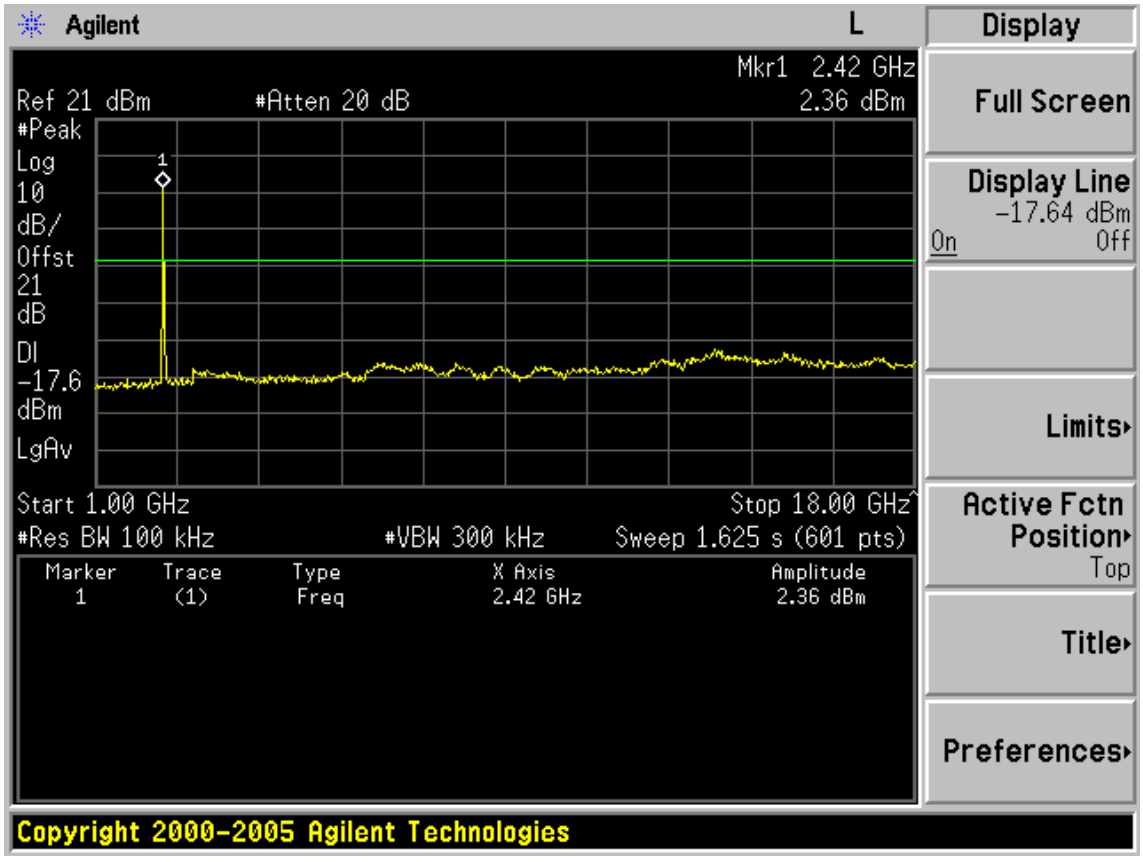

Agilent
L
Peak Search
Mkr1 788.2 MHz
Ref 21 dBm
#Atten 20 dB
-50.30 dBm
Next Peak
#Peak
Log
10
dB/
Offst
21
dB
Next Pk Right
Dl
-15.4
dBm
Next Pk Left
LgAv
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 788.2 MHz -50.30 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

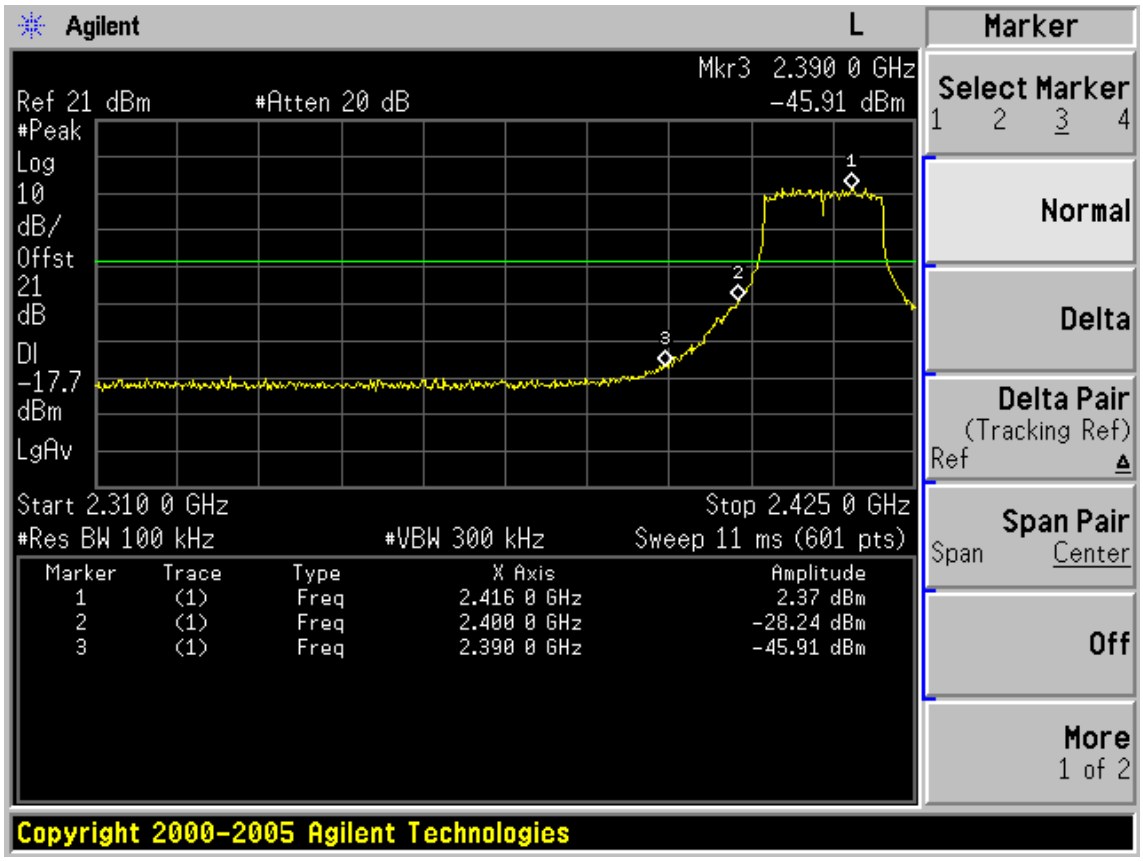

Agilent
L
Peak Search
Mkr1 2.47 GHz
Ref 21 dBm
#Atten 20 dB
4.60 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-15.4
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.47 GHz 4.60 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Marker
Mkr3 2.500 00 GHz
Ref 21 dBm
#Atten 20 dB
-49.76 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-15.2
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.450 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.76 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.462 50 GHz 4.77 dBm
2 (1) Freq 2.483 50 GHz -49.39 dBm
3 (1) Freq 2.500 00 GHz -49.76 dBm
Copyright 2000-2005 Agilent Technologies

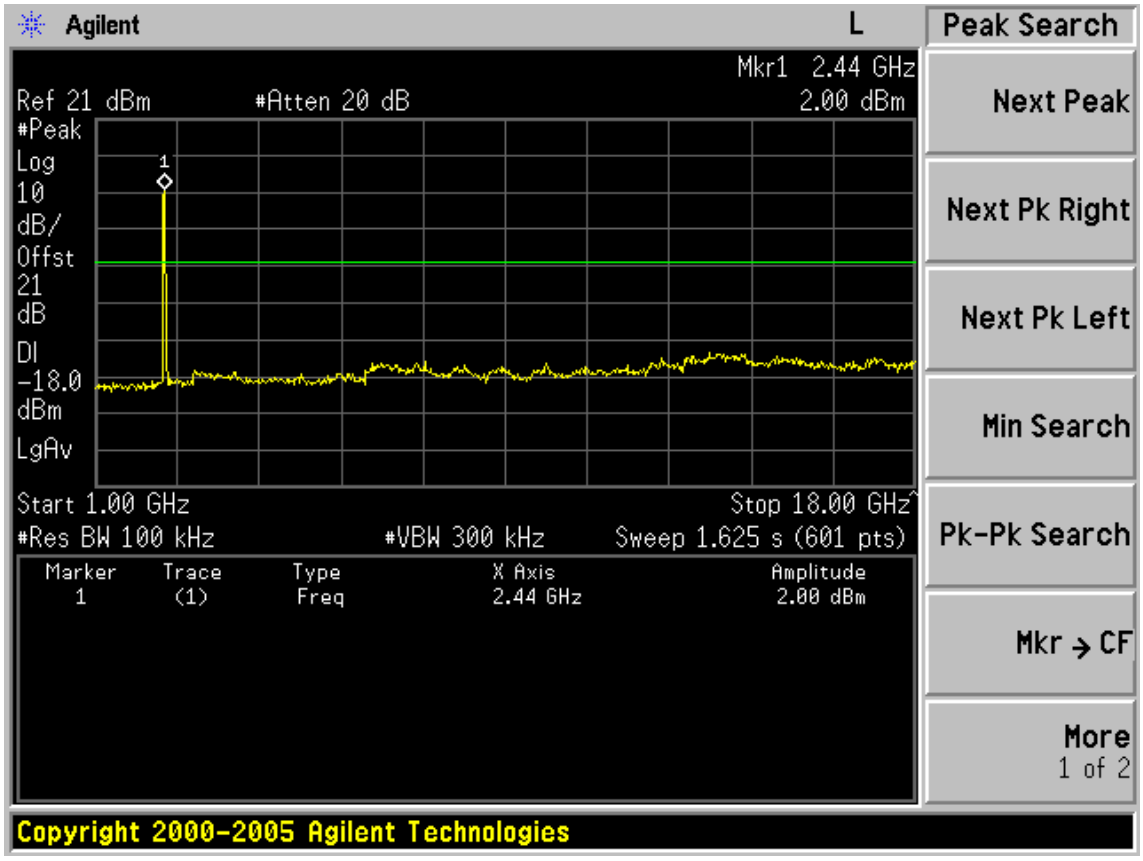
Test Mode: IEEE 802.11g TX
CH1

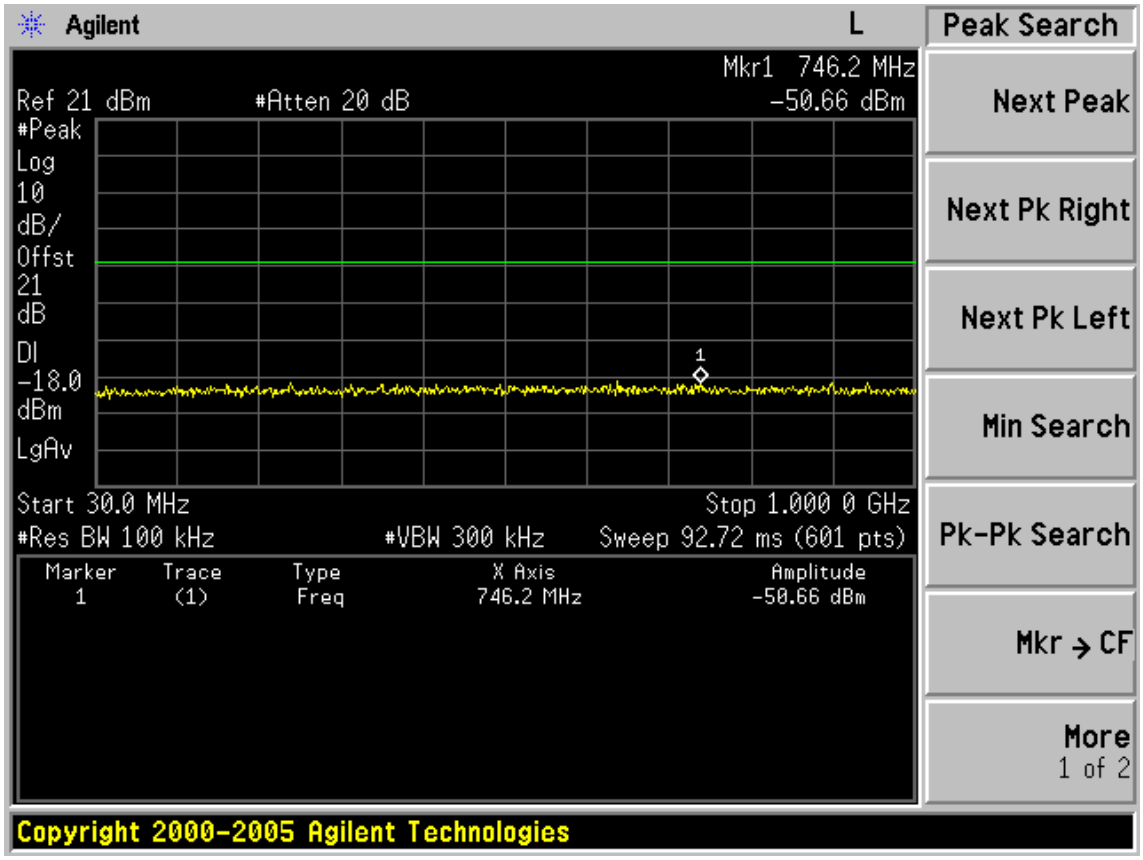




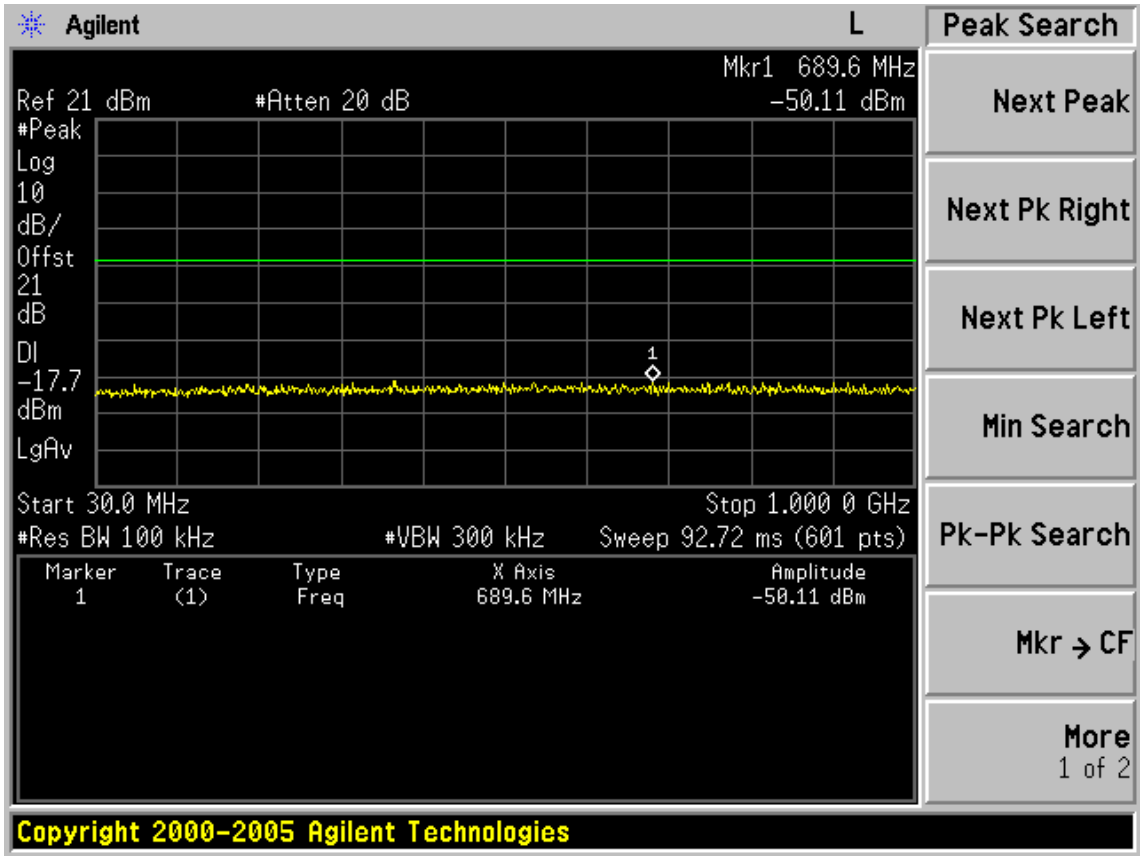

Agilent
L
Marker
Mkr3 2.390 0 GHz
Ref 21 dBm
#Atten 20 dB
-45.91 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.7
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.416 0 GHz 2.37 dBm
2 (1) Freq 2.400 0 GHz -28.24 dBm
3 (1) Freq 2.390 0 GHz -45.91 dBm
Copyright 2000-2005 Agilent Technologies

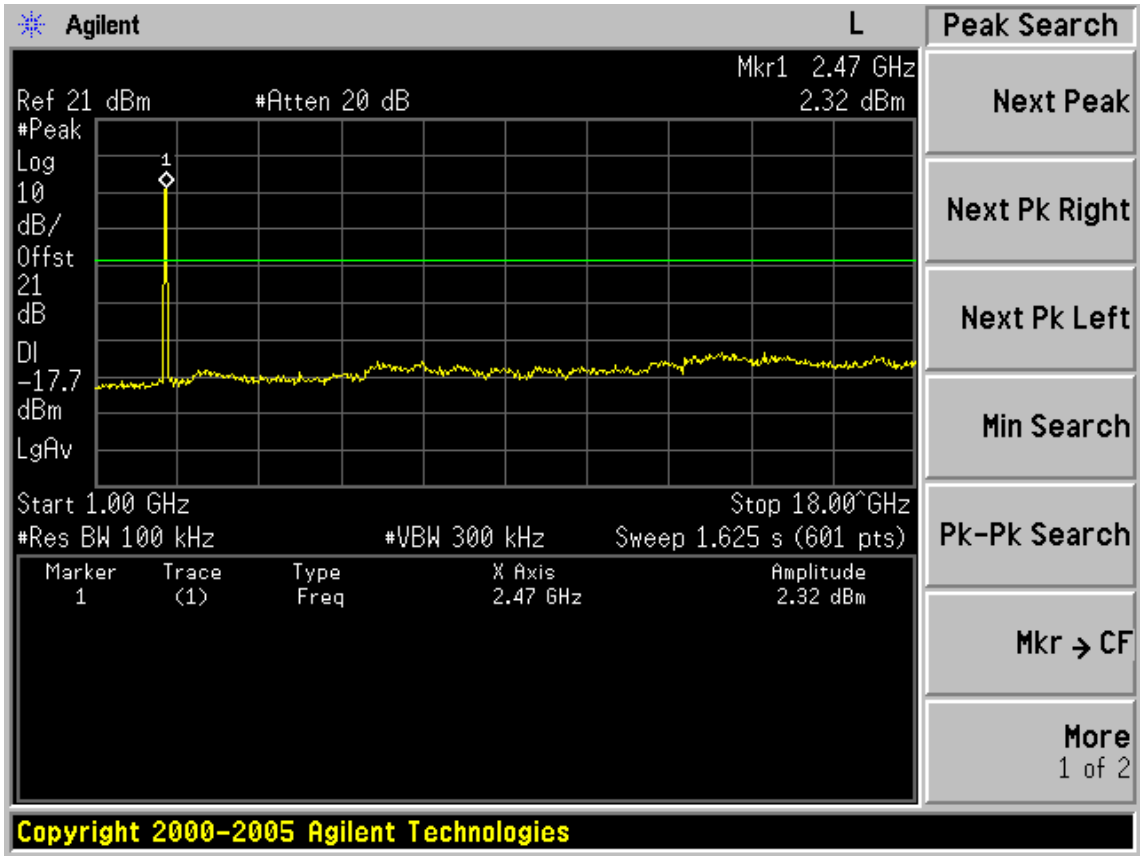
CH6

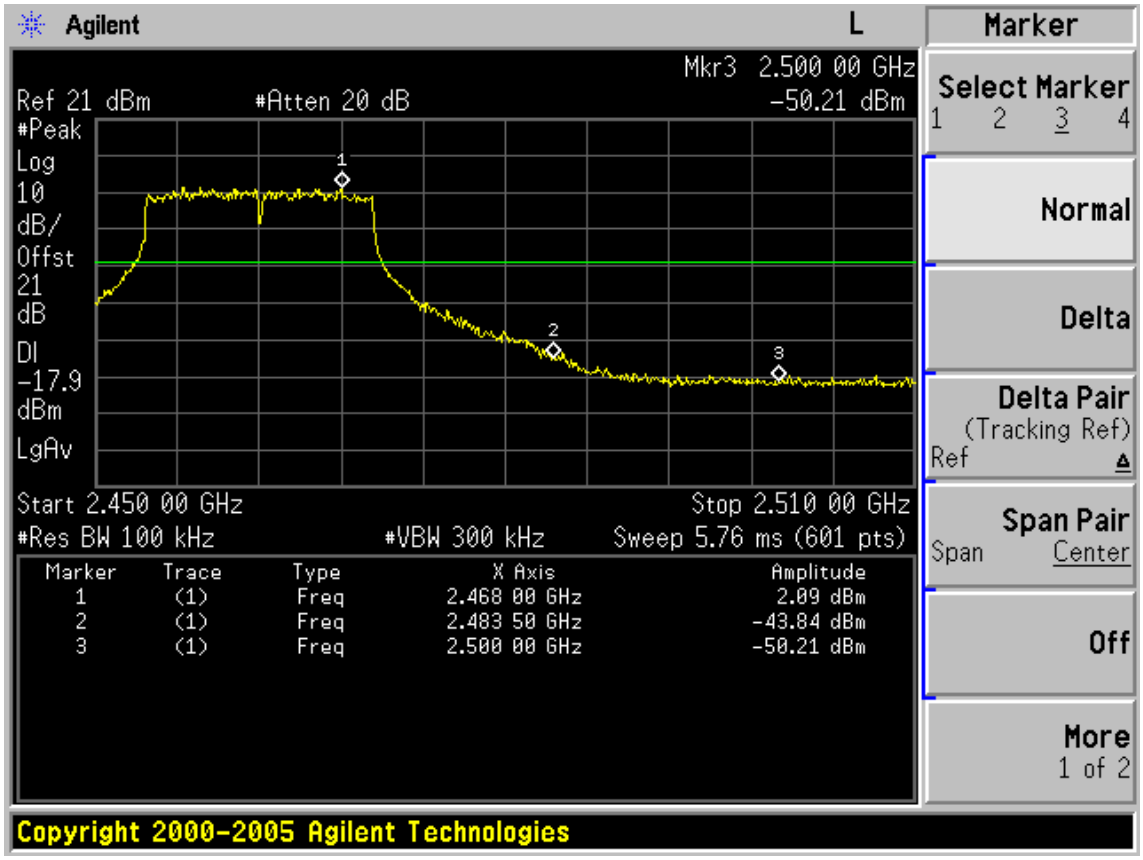

Agilent
L
Peak Search
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
2.00 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.0
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 2.00 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 746.2 MHz
Ref 21 dBm
#Atten 20 dB
-50.66 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.0
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 746.2 MHz -50.66 dBm
Copyright 2000-2005 Agilent Technologies

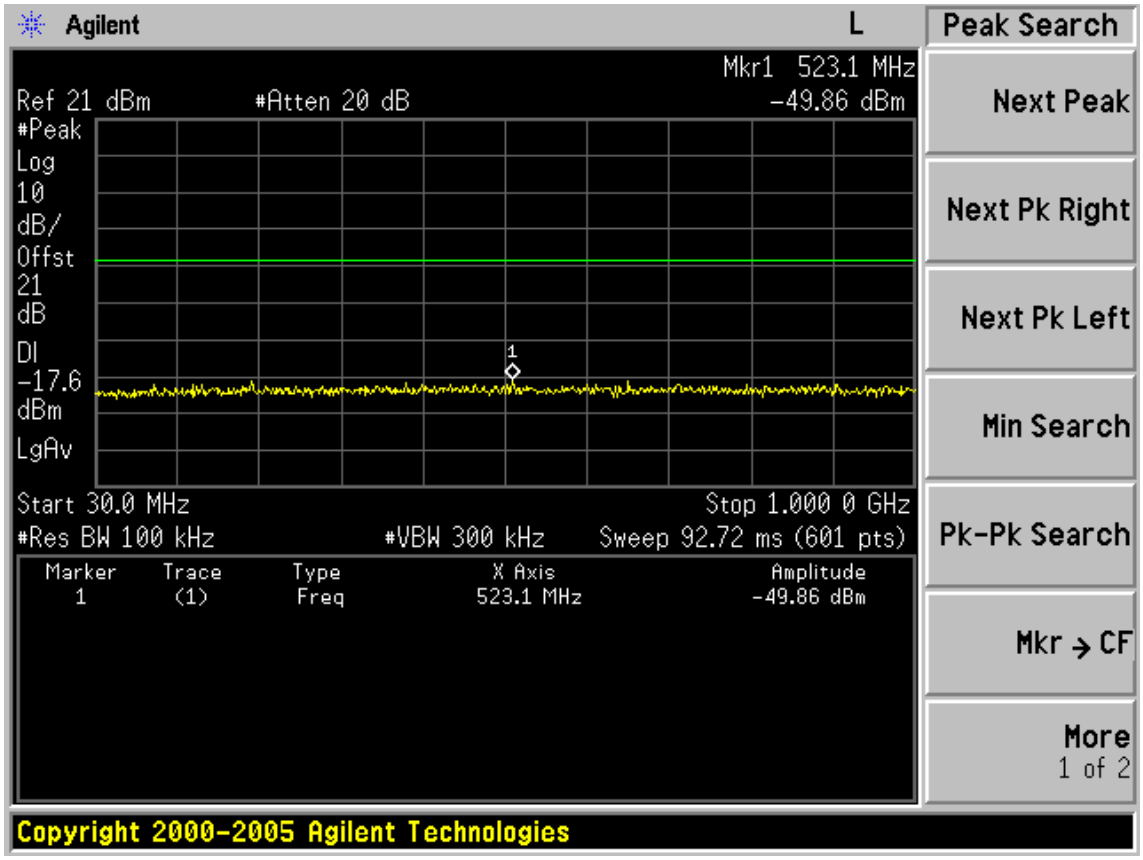
CH11

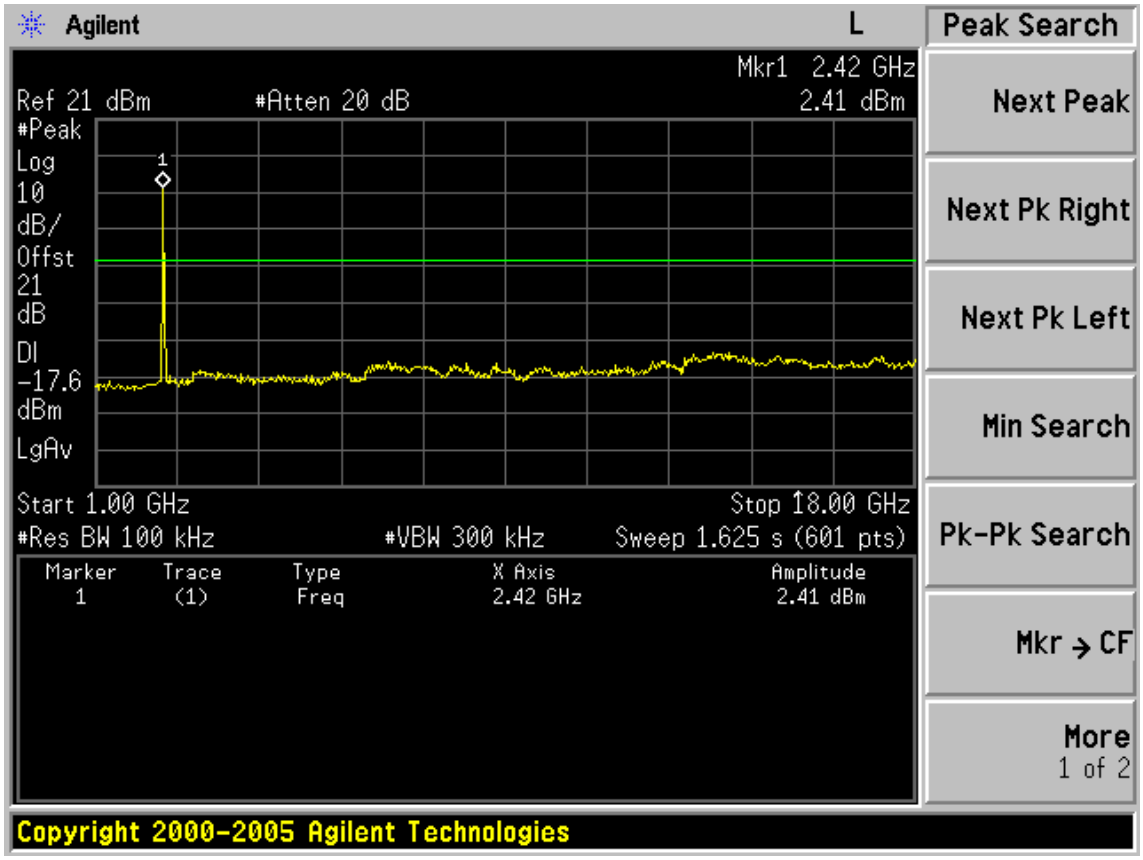

Agilent
L
Peak Search
Mkr1 689.6 MHz
Ref 21 dBm
#Atten 20 dB
-50.11 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.7
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 689.6 MHz -50.11 dBm
Copyright 2000-2005 Agilent Technologies

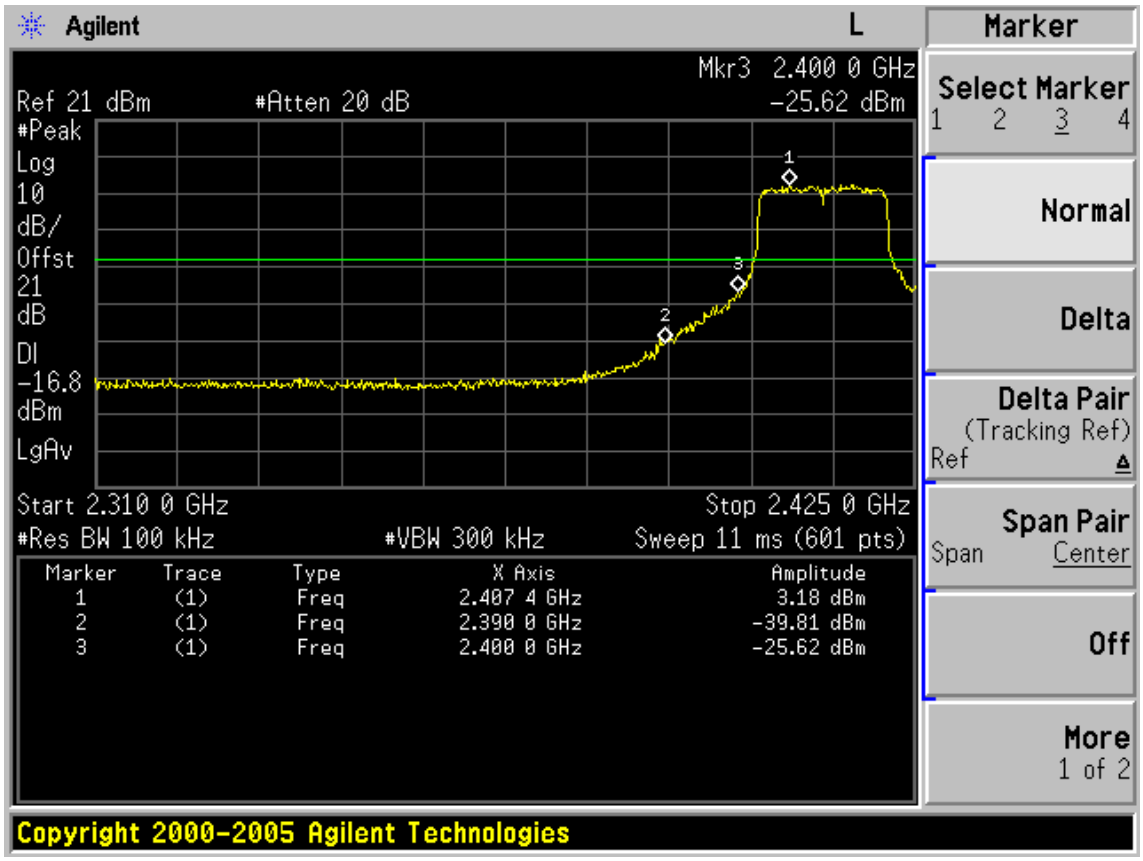

Agilent
L
Peak Search
Mkr1 2.47 GHz
Ref 21 dBm
#Atten 20 dB
2.32 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.7
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.47 GHz 2.32 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Marker
Mkr3 2.500 00 GHz
Ref 21 dBm
#Atten 20 dB
-50.21 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.9
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.450 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.76 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.468 00 GHz 2.09 dBm
2 (1) Freq 2.483 50 GHz -43.84 dBm
3 (1) Freq 2.500 00 GHz -50.21 dBm
Copyright 2000-2005 Agilent Technologies

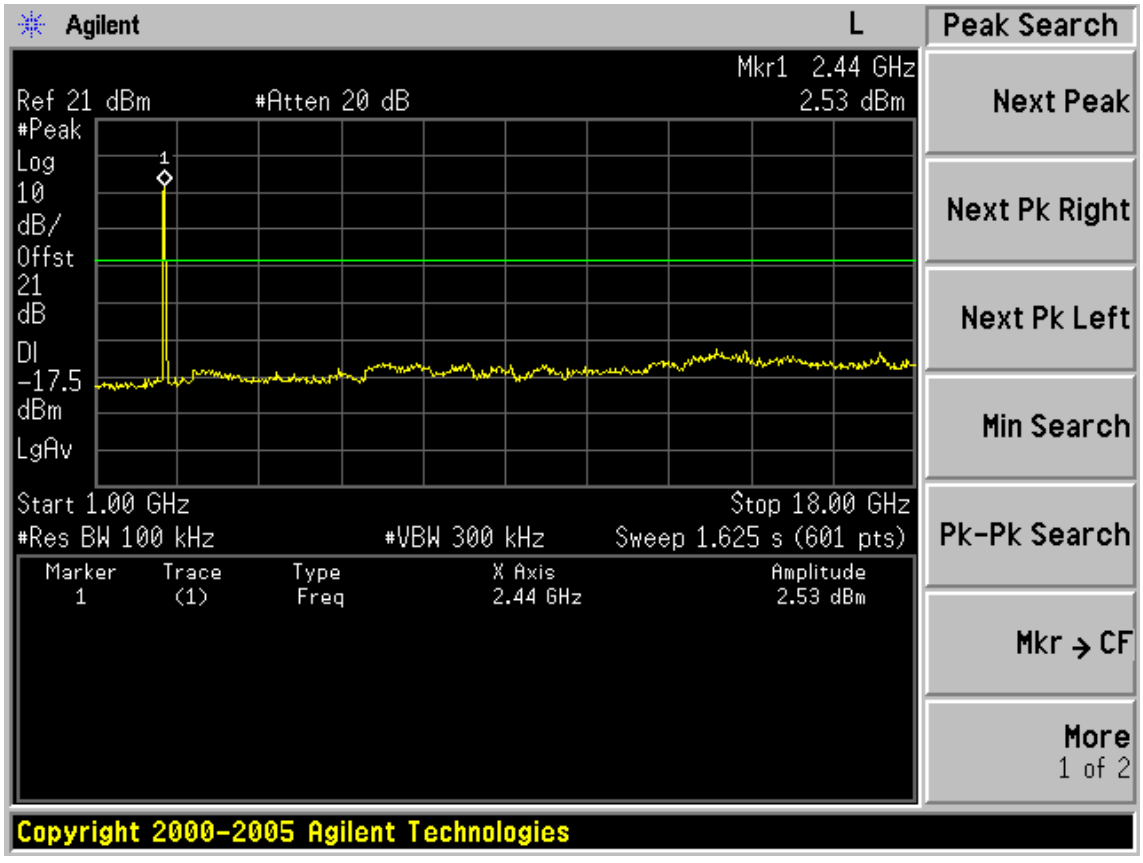
Test Mode: IEEE 802. 11n HT20 TX
CH1

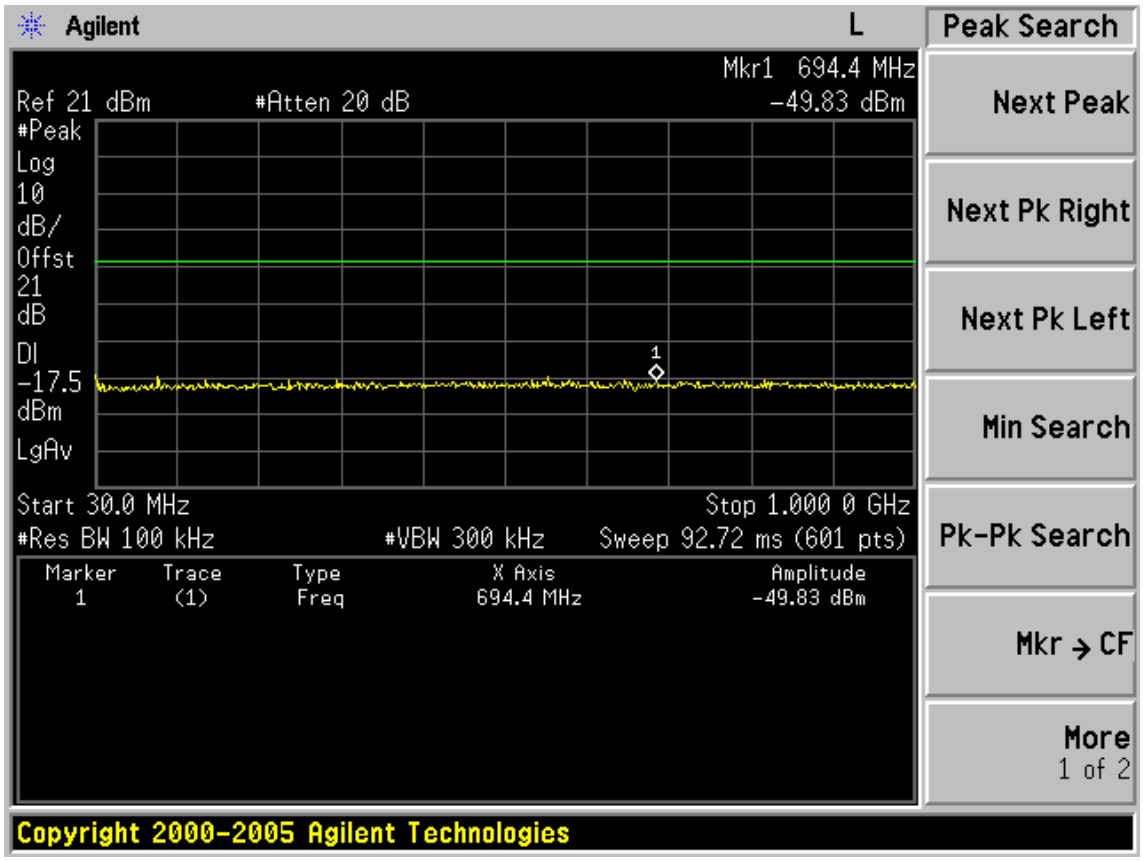




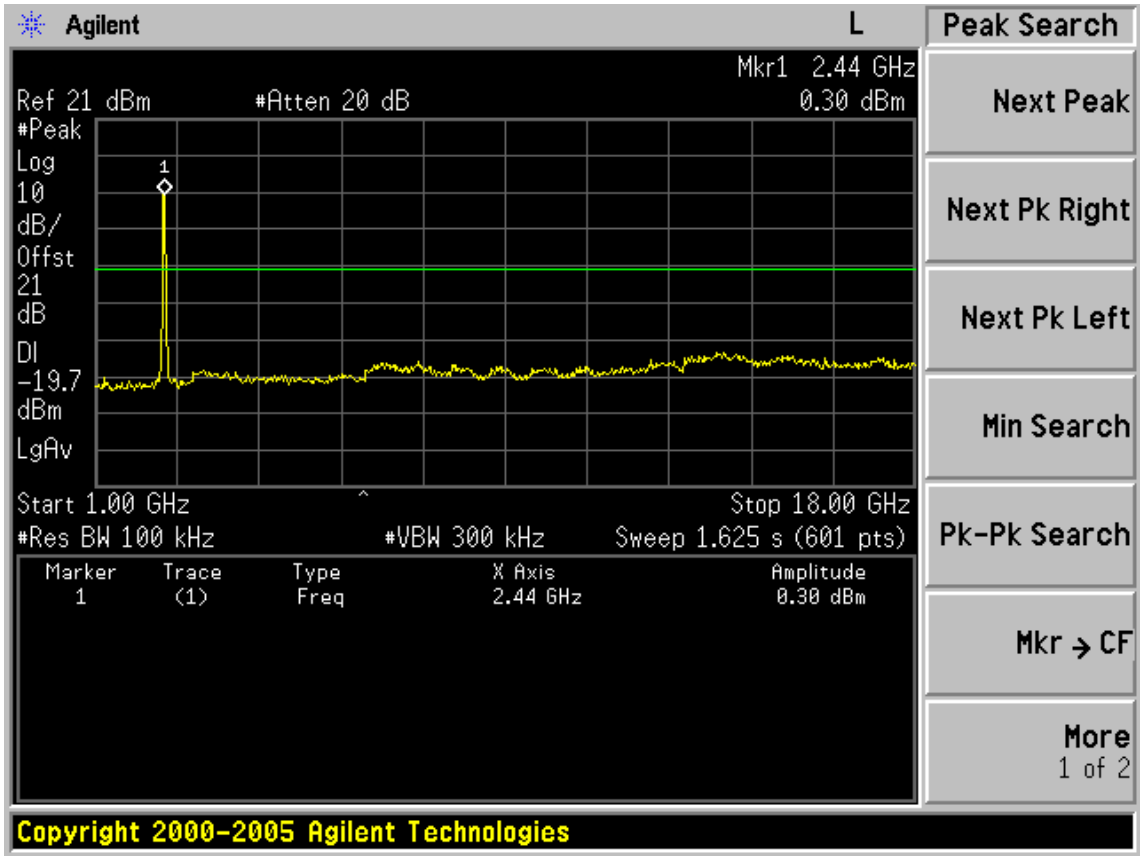

Agilent
L
Marker
Mkr3 2.400 0 GHz
Ref 21 dBm
#Atten 20 dB
-25.62 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-16.8
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.407 4 GHz 3.18 dBm
2 (1) Freq 2.390 0 GHz -39.81 dBm
3 (1) Freq 2.400 0 GHz -25.62 dBm
Copyright 2000-2005 Agilent Technologies

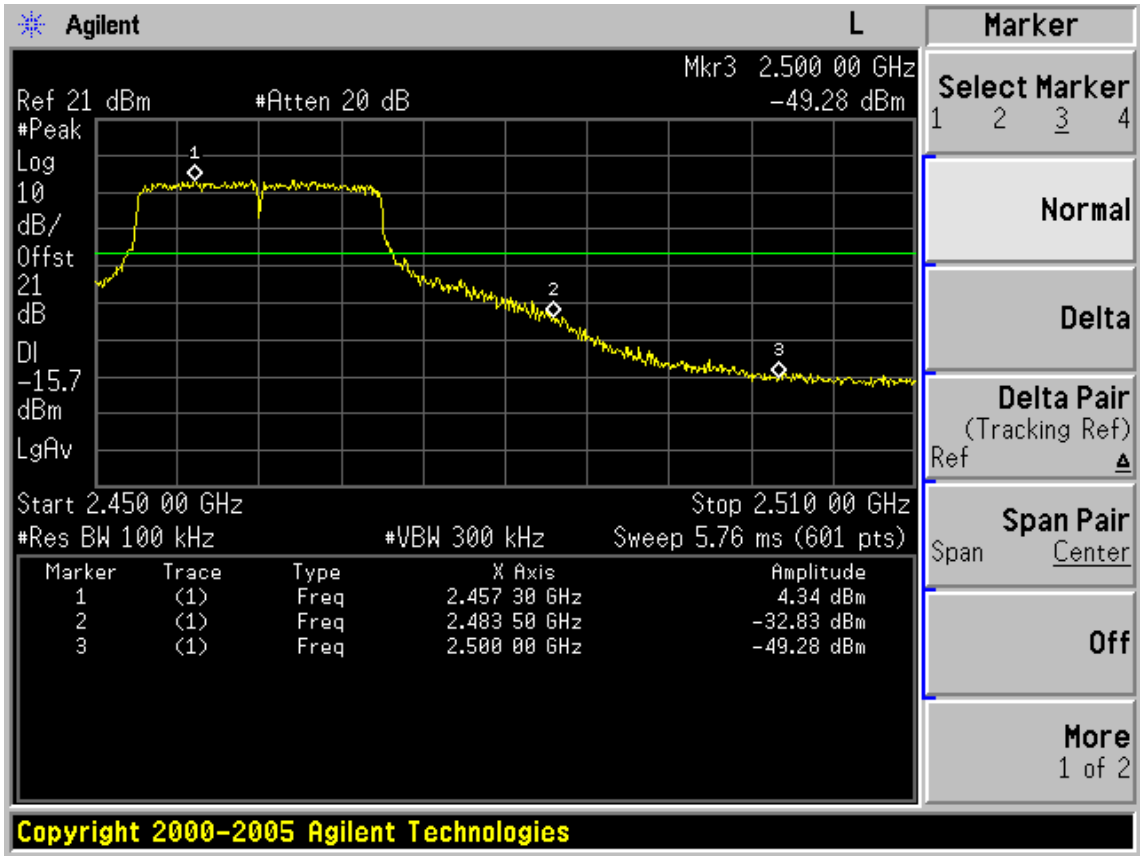
CH6

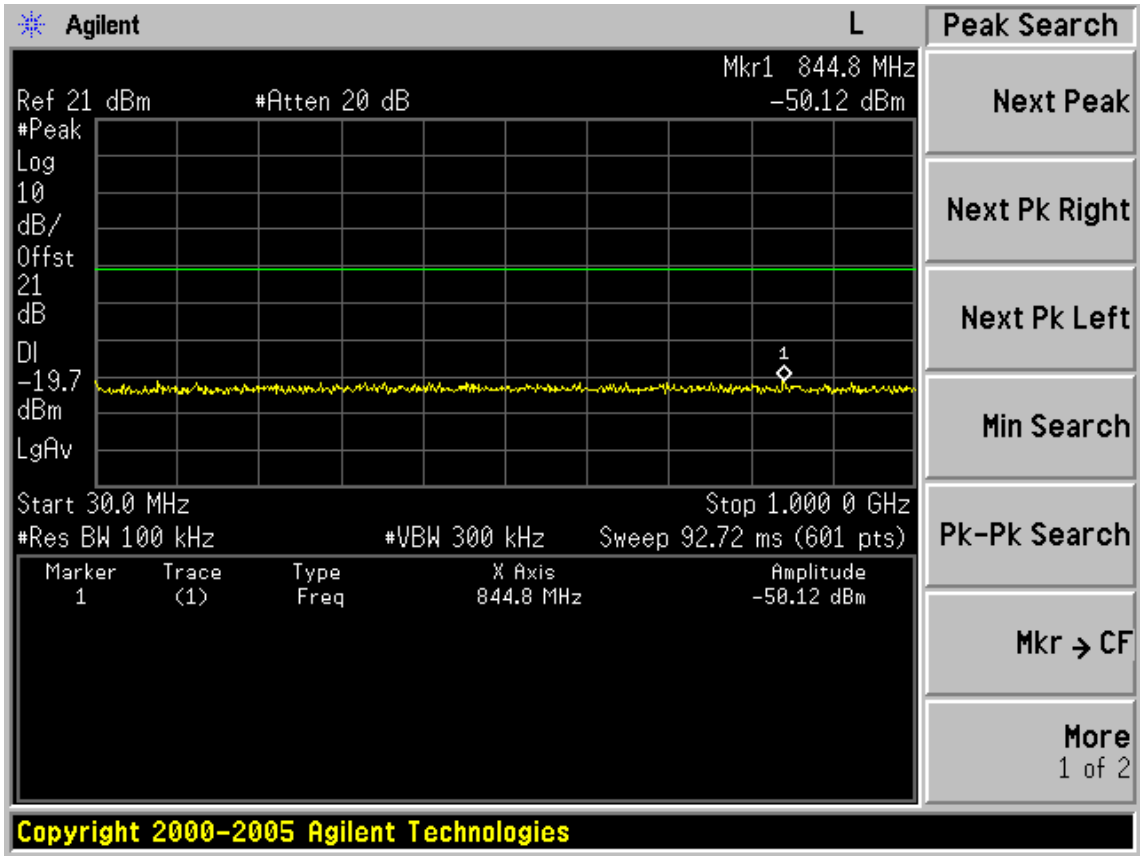

Agilent
L
Peak Search
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
2.53 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.5
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 2.53 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 694.4 MHz
Ref 21 dBm
#Atten 20 dB
-49.83 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.5
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 694.4 MHz -49.83 dBm
Copyright 2000-2005 Agilent Technologies

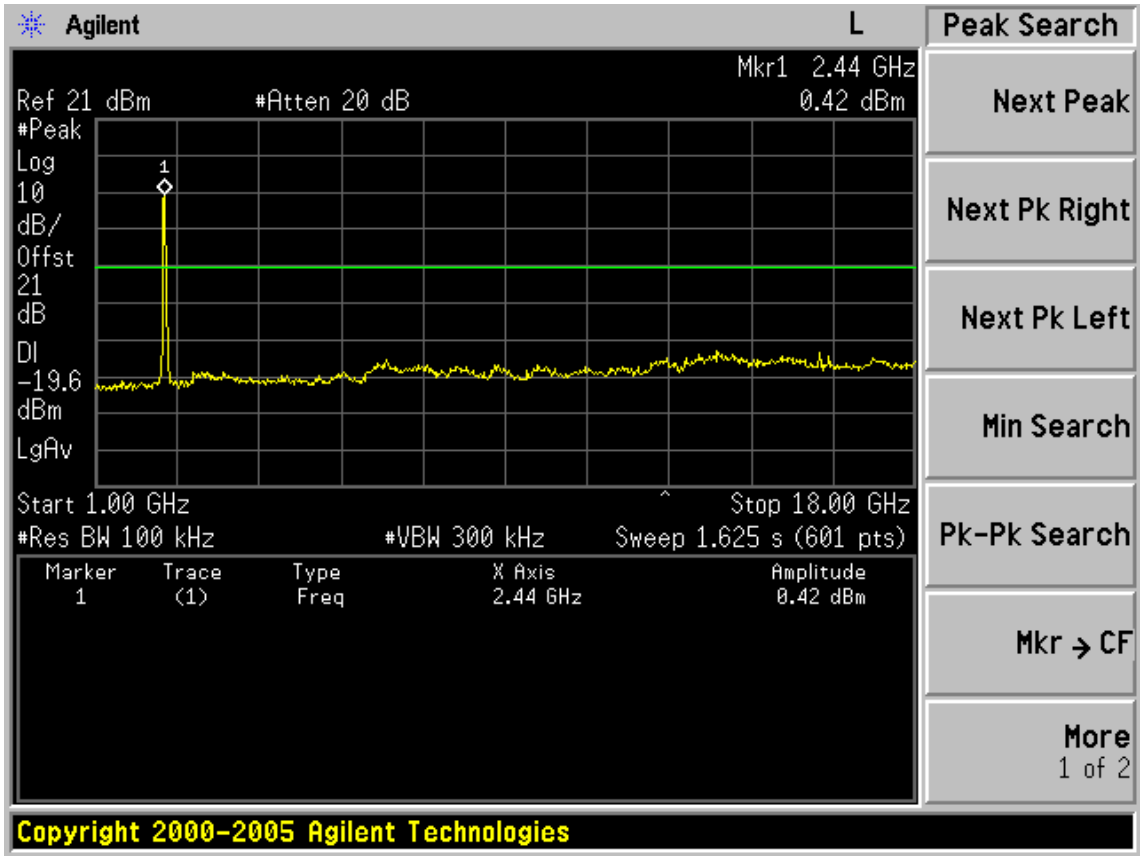
CH11

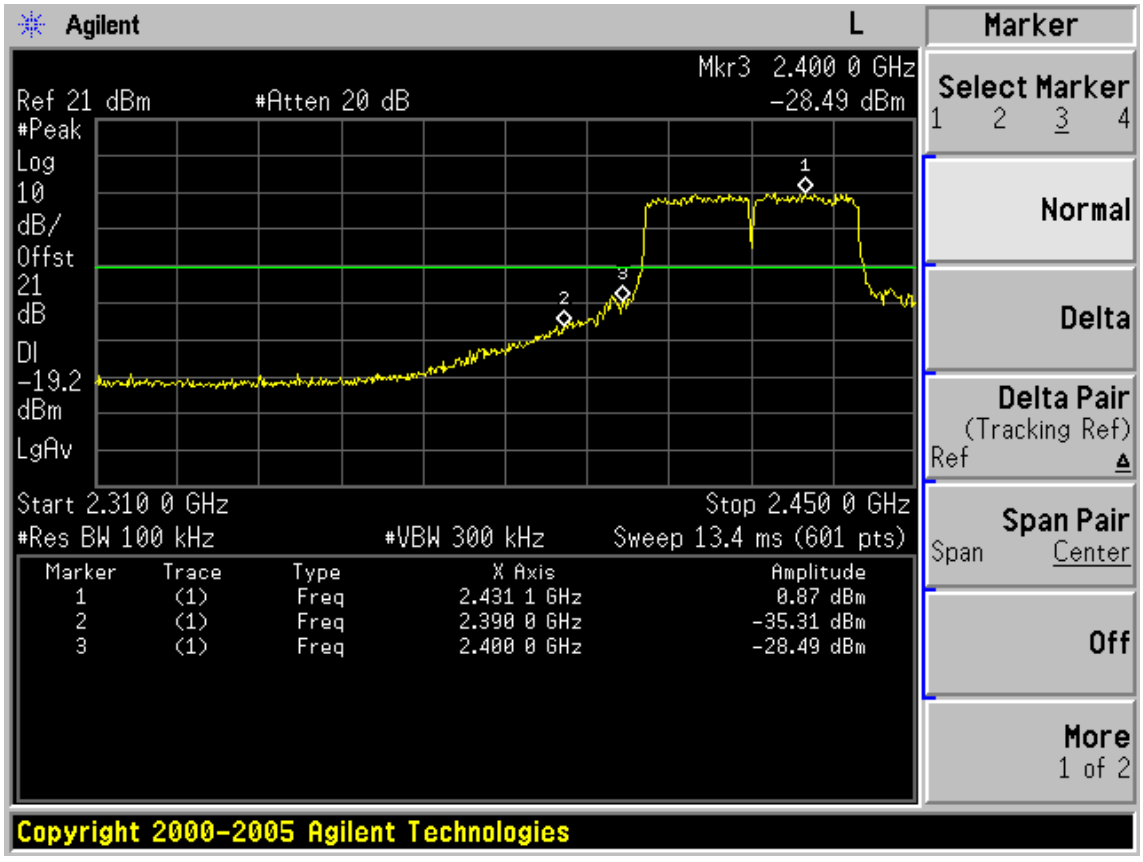

Agilent
L
Peak Search
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
0.30 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.7
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 0.30 dBm
Copyright 2000-2005 Agilent Technologies

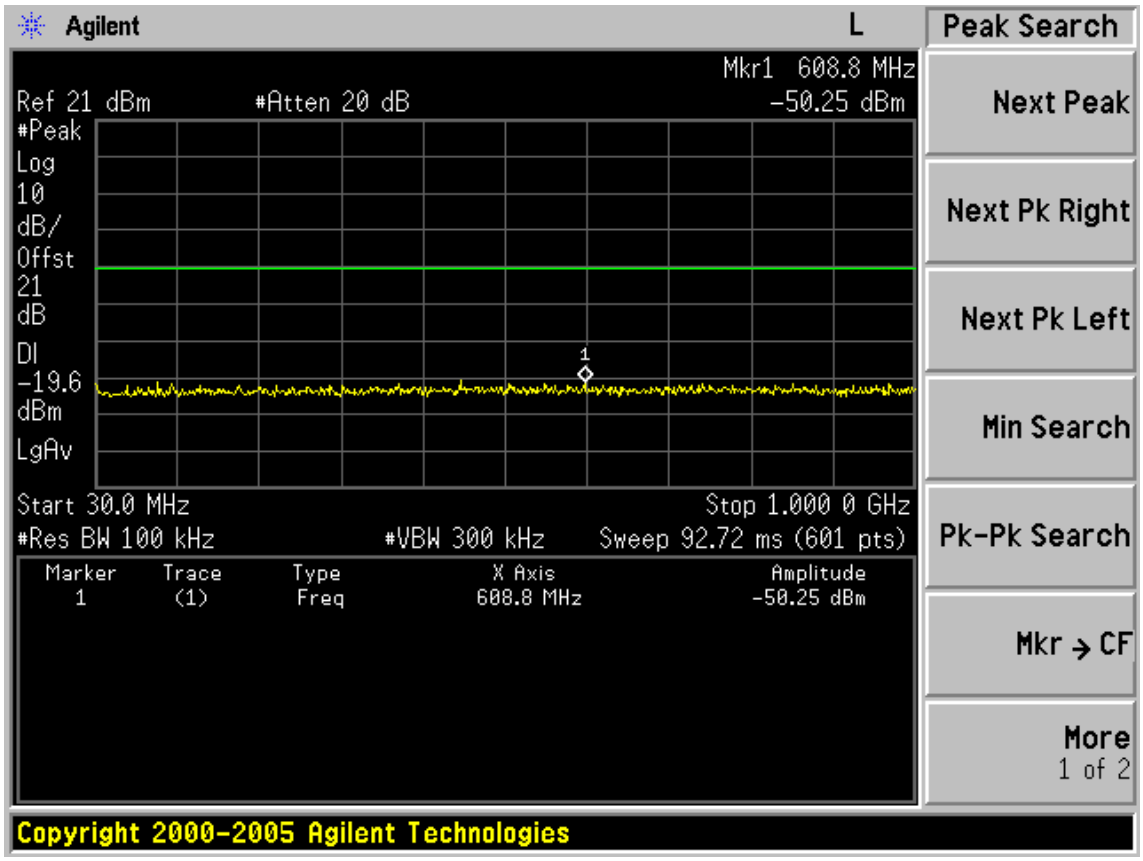

Agilent
L
Marker
Mkr3 2.500 00 GHz
Ref 21 dBm
#Atten 20 dB
-49.28 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-15.7
dBm
LgAv
Start 2.450 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.76 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.457 30 GHz 4.34 dBm
2 (1) Freq 2.483 50 GHz -32.83 dBm
3 (1) Freq 2.500 00 GHz -49.28 dBm
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 844.8 MHz
Ref 21 dBm
#Atten 20 dB
-50.12 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.7
dBm
LgAv
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 844.8 MHz -50.12 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

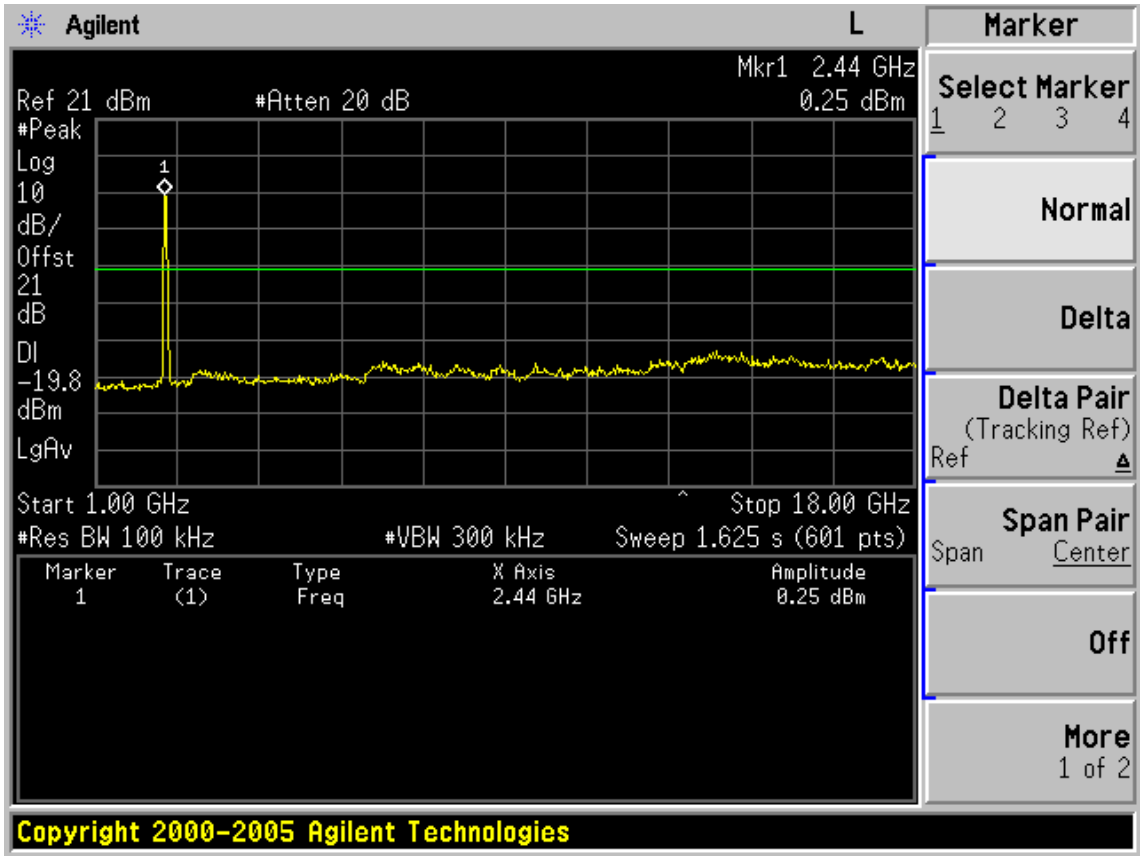
Test Mode: IEEE 802. 11n HT40TX
CH1

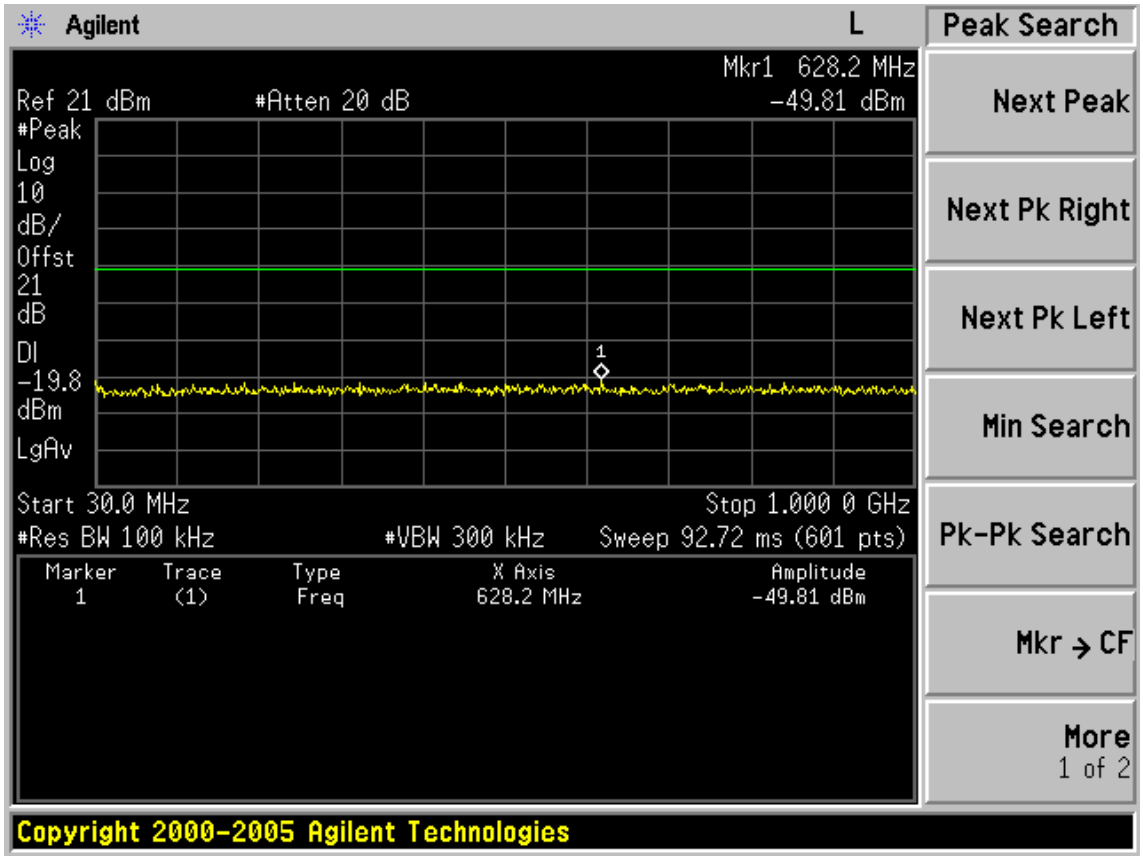




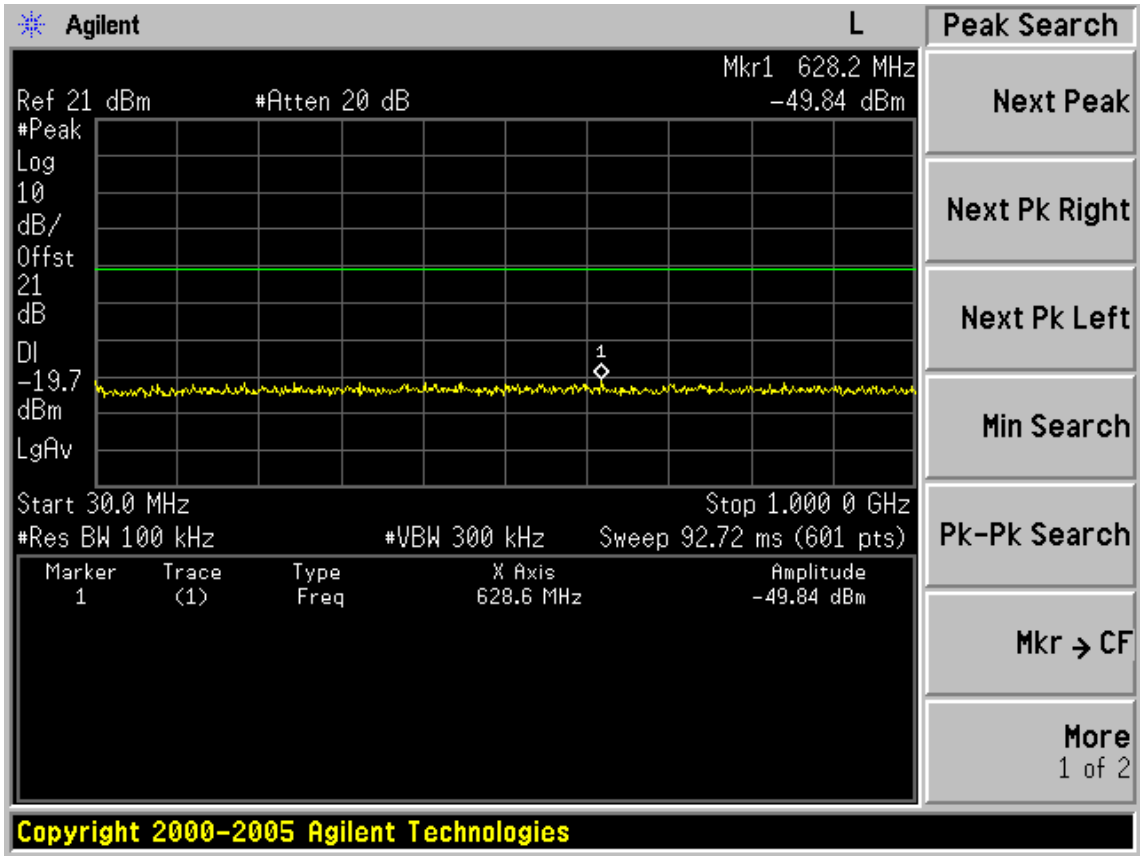

Agilent
L
Peak Search
Mkr1 608.8 MHz
Ref 21 dBm
#Atten 20 dB
-50.25 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.6
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 608.8 MHz -50.25 dBm
Copyright 2000-2005 Agilent Technologies

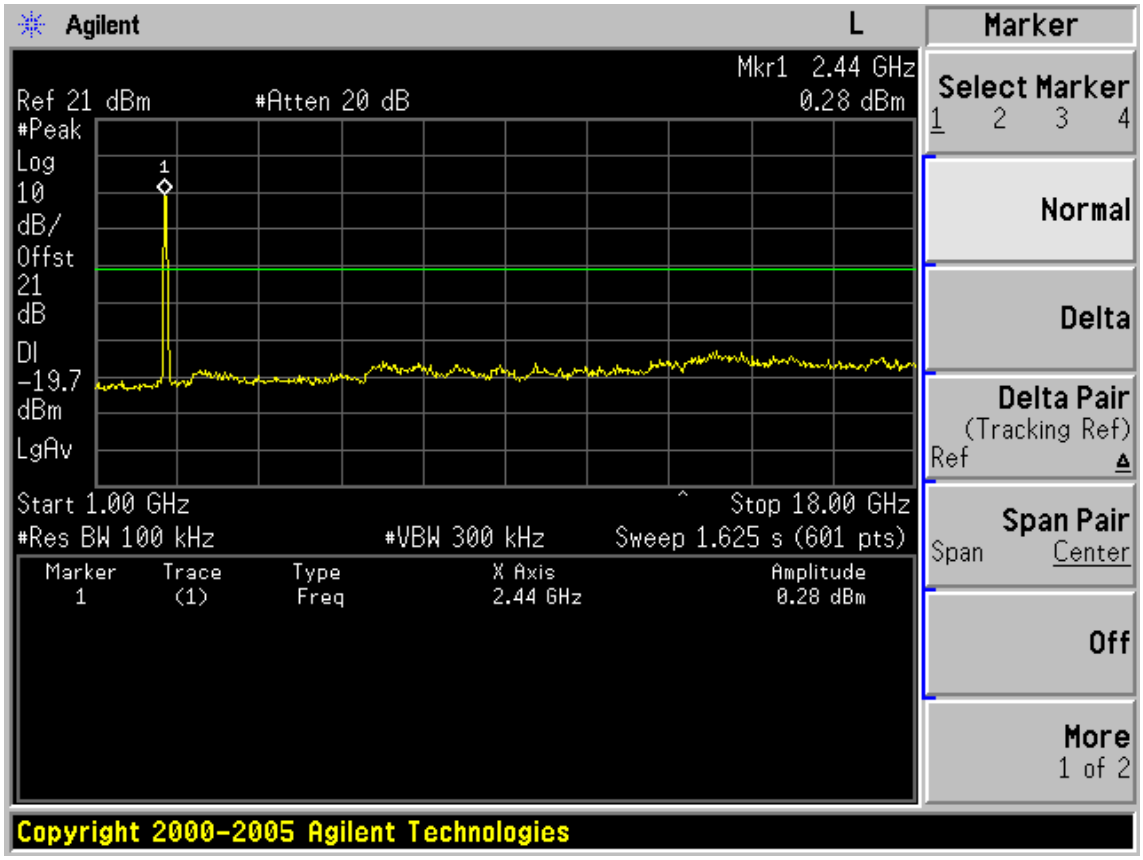
CH4

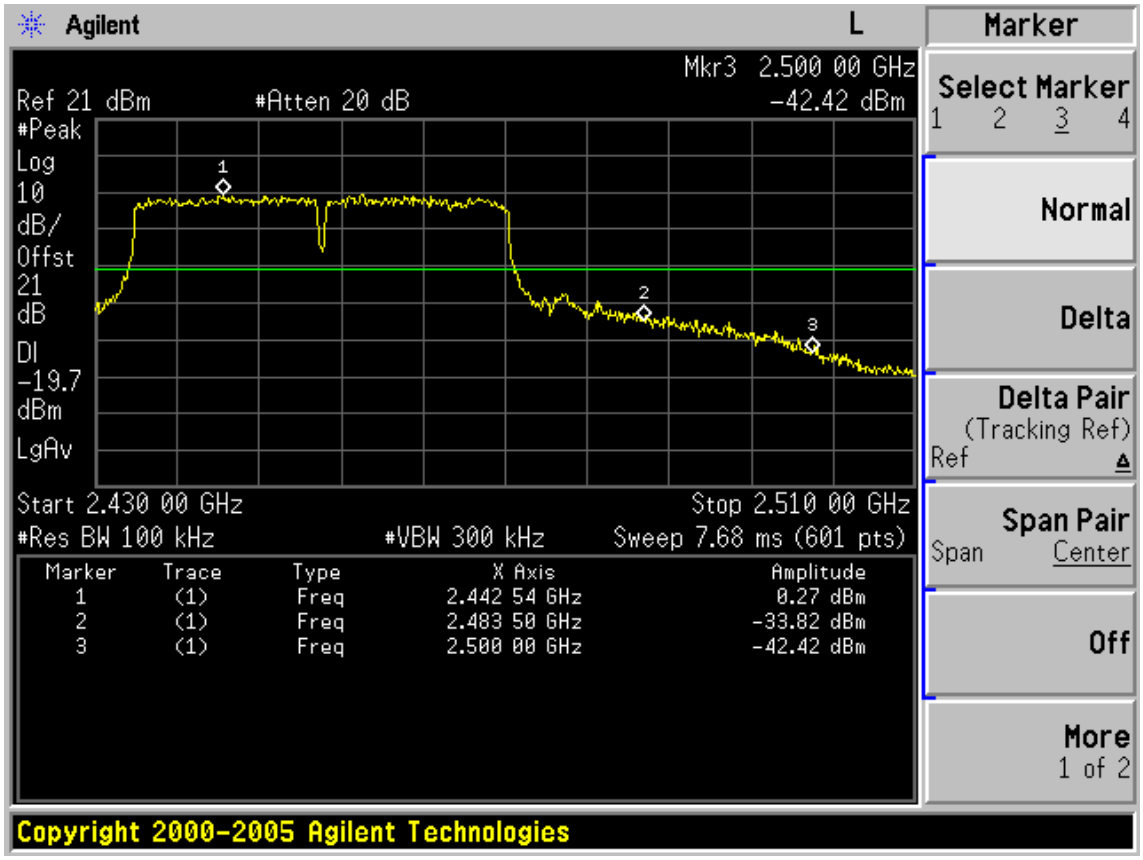

Agilent
L
Marker
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
0.25 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.8
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 0.25 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 628.2 MHz
Ref 21 dBm
#Atten 20 dB
-49.81 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.8
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 628.2 MHz -49.81 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

CH7


Agilent
L
Peak Search
Mkr1 628.2 MHz
Ref 21 dBm
#Atten 20 dB
-49.84 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.7
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 628.6 MHz -49.84 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
L
Marker
Mkr1 2.44 GHz
Ref 21 dBm
#Atten 20 dB
0.28 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.7
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 1.00 GHz
Stop 18.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.625 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 0.28 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Marker
Mkr3 2.500 00 GHz
Ref 21 dBm
#Atten 20 dB
-42.42 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.7
dBm
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.430 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 7.68 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.442 54 GHz 0.27 dBm
2 (1) Freq 2.483 50 GHz -33.82 dBm
3 (1) Freq 2.500 00 GHz -42.42 dBm
Copyright 2000-2005 Agilent Technologies

6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 10	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08,10	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	May.08,10	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 0.8m 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.

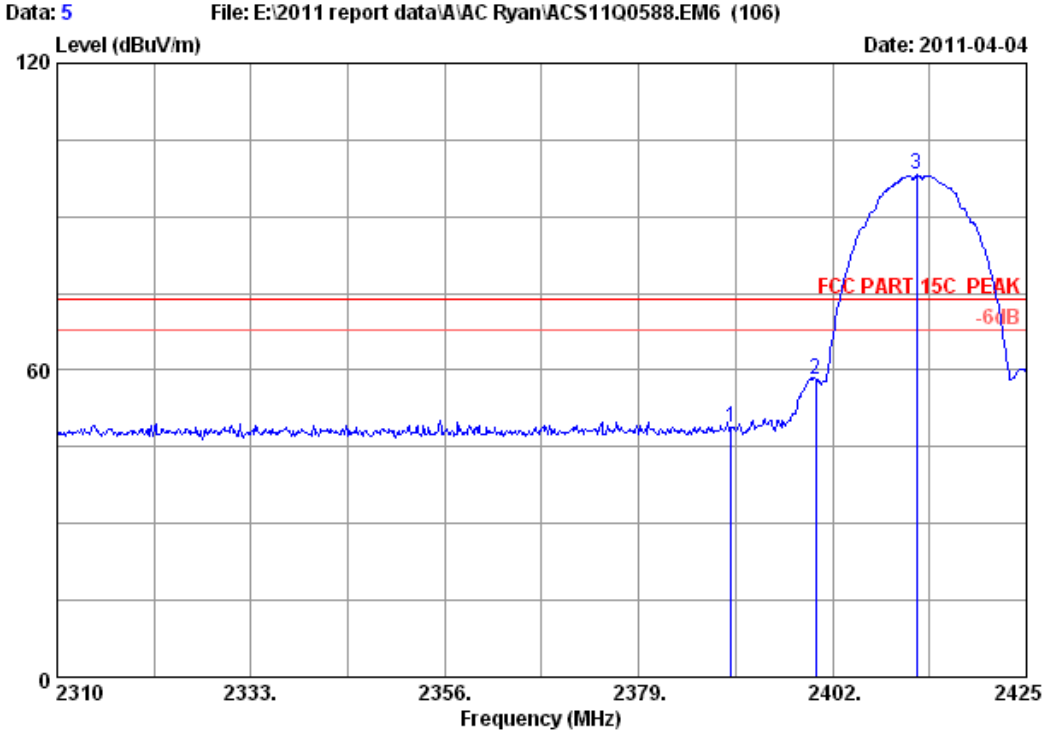
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

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

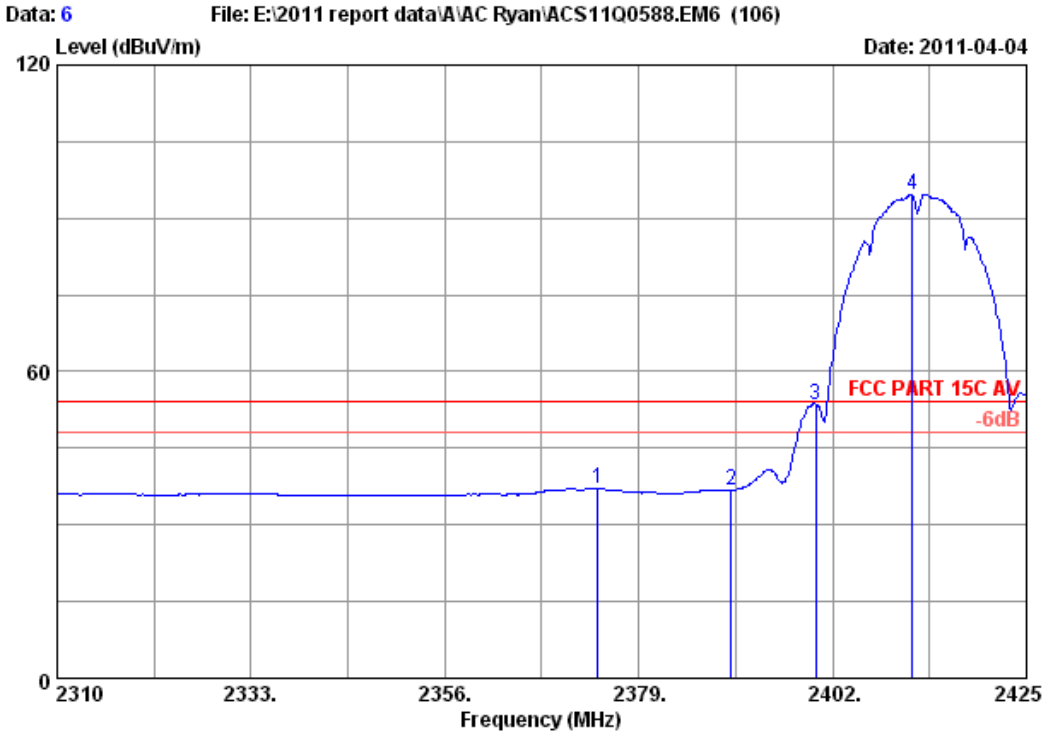
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	48.49	48.70	74.00	25.30	Peak
2	2400.000	29.44	7.43	36.62	57.84	58.09	74.00	15.91	Peak
3	2412.005	29.45	7.43	36.62	98.08	98.34	74.00	-24.34	Peak

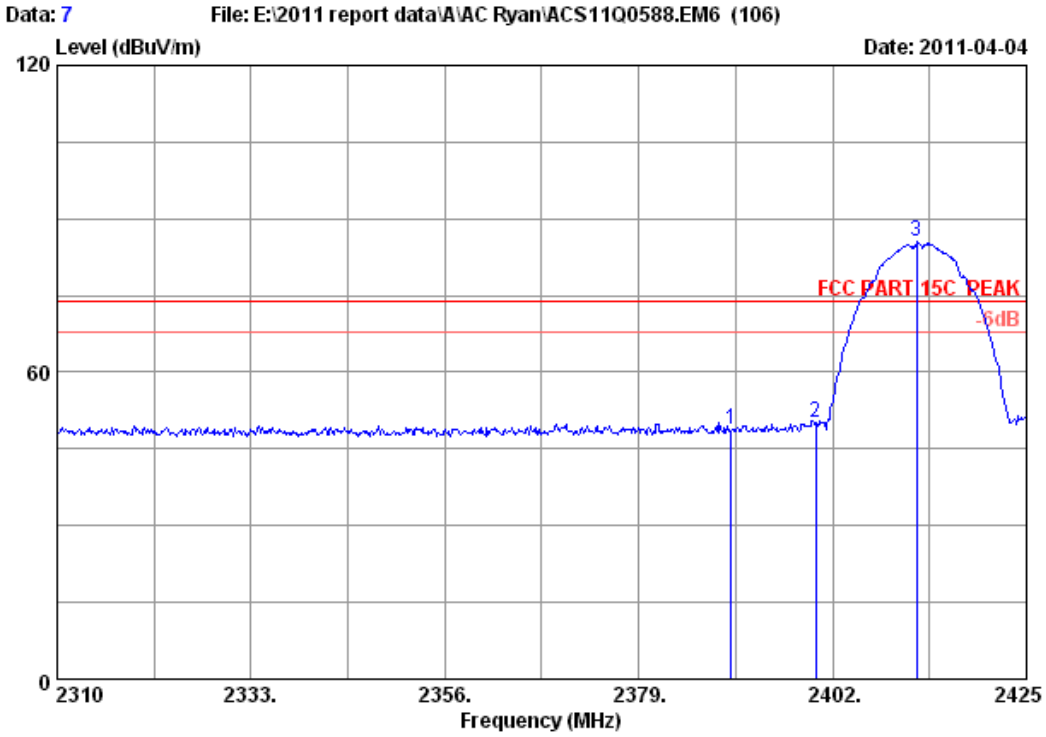
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2374.170	29.43	7.35	36.62	36.95	37.11	54.00	16.89	Average
2	2390.000	29.44	7.39	36.62	36.45	36.66	54.00	17.34	Average
3	2400.000	29.44	7.43	36.62	53.25	53.50	54.00	0.50	Average
4	2411.430	29.45	7.43	36.62	94.44	94.70	54.00	-40.70	Average

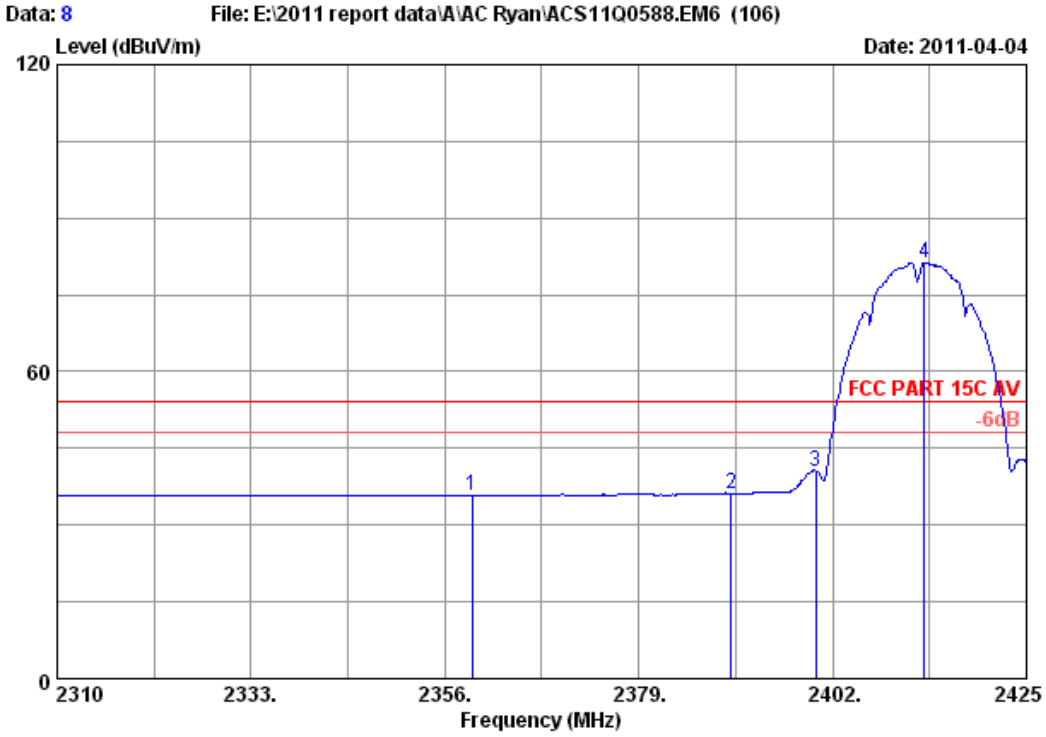
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	48.56	48.77	74.00	25.23	Peak
2	2400.000	29.44	7.43	36.62	50.03	50.28	74.00	23.72	Peak
3	2412.000	29.45	7.43	36.62	85.19	85.45	74.00	-11.45	Peak

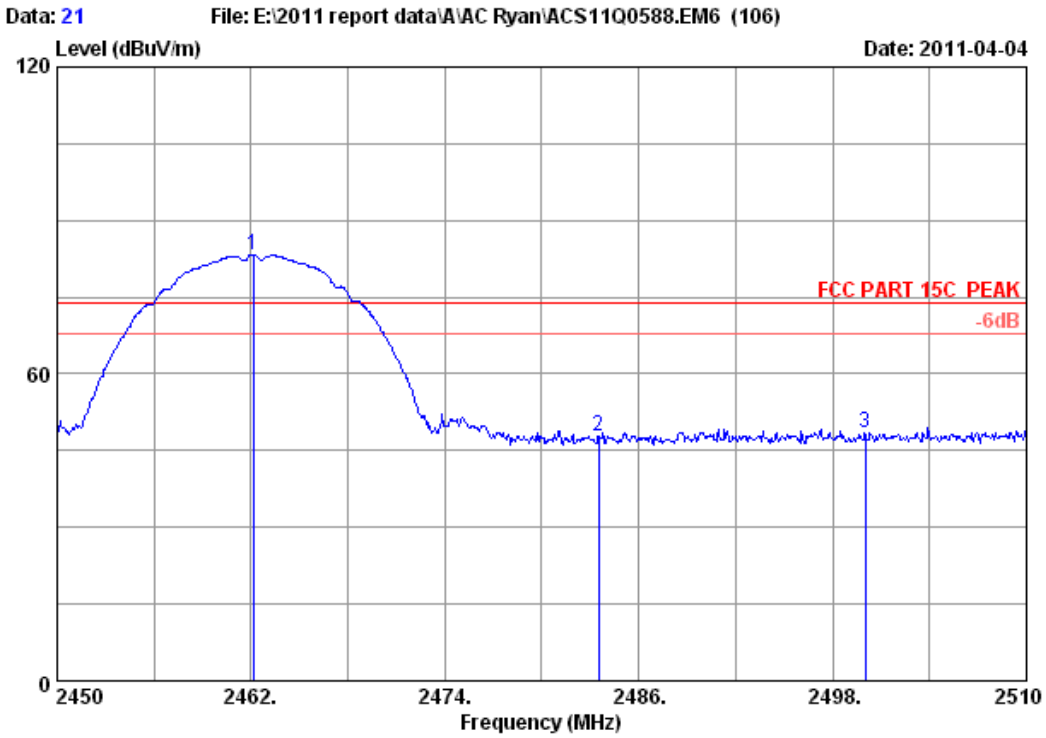
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2359.220	29.42	7.35	36.63	35.68	35.82	54.00	18.18	Average
2	2390.000	29.44	7.39	36.62	36.04	36.25	54.00	17.75	Average
3	2400.000	29.44	7.43	36.62	40.35	40.60	54.00	13.40	Average
4	2412.925	29.45	7.43	36.62	81.08	81.34	54.00	-27.34	Average

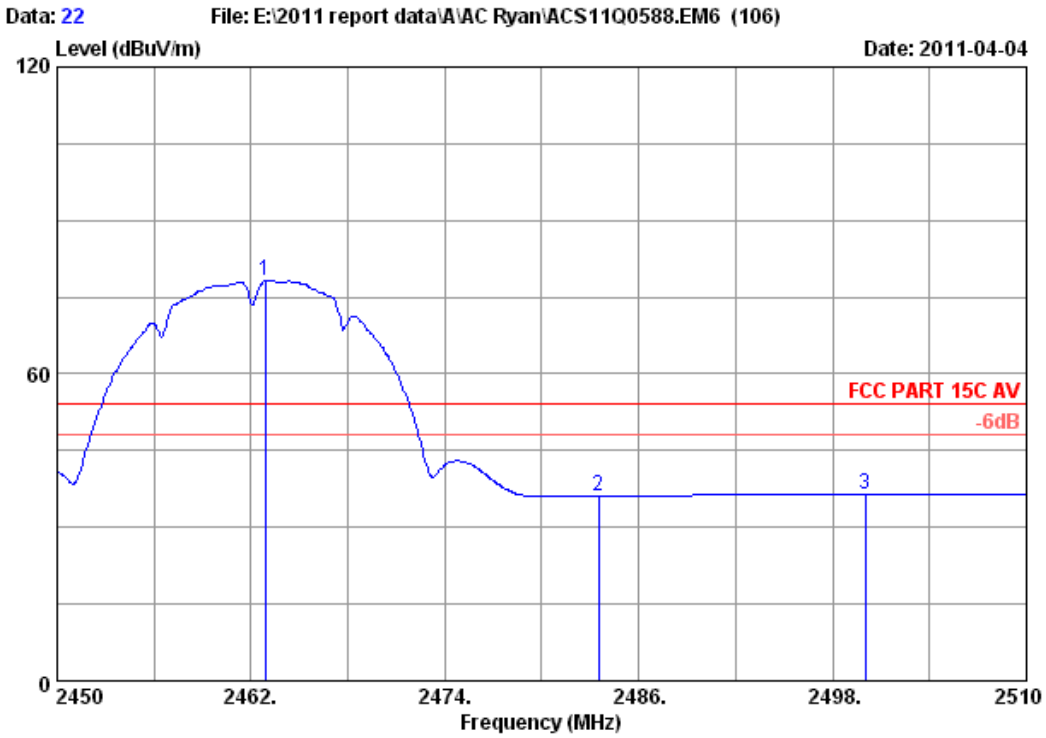
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2462.120	29.48	7.54	36.61	82.94	83.35	74.00	-9.35	Peak
2	2483.500	29.49	7.58	36.60	47.49	47.96	74.00	26.04	Peak
3	2500.000	29.50	7.62	36.60	47.81	48.33	74.00	25.67	Peak

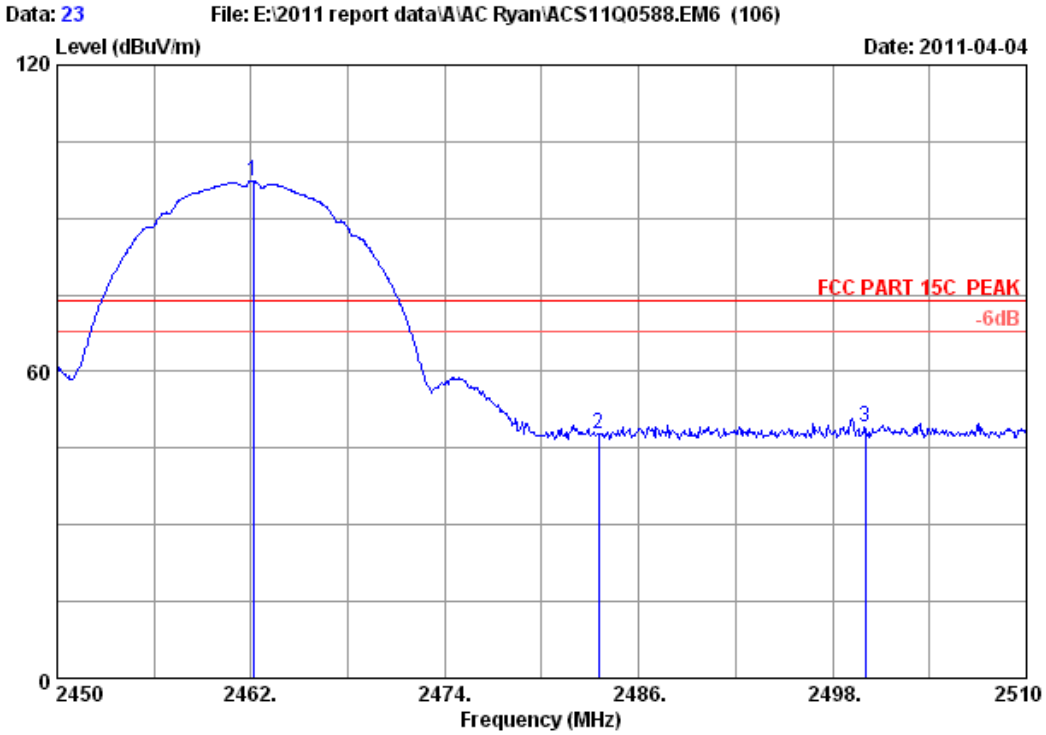
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2462.900	29.48	7.54	36.61	77.82	78.23	54.00	-24.23	Average
2	2483.500	29.49	7.58	36.60	35.74	36.21	54.00	17.79	Average
3	2500.000	29.50	7.62	36.60	35.88	36.40	54.00	17.60	Average

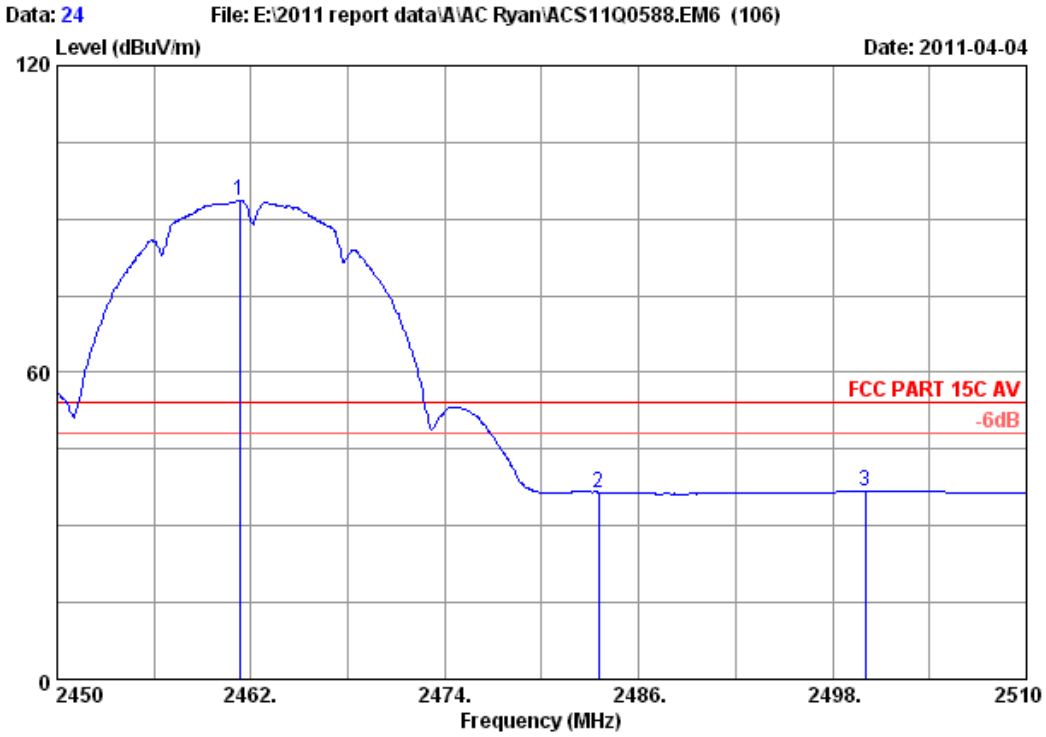
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2462.120	29.48	7.54	36.61	96.86	97.27	74.00	-23.27	Peak
2	2483.500	29.49	7.58	36.60	47.34	47.81	74.00	26.19	Peak
3	2500.000	29.50	7.62	36.60	48.60	49.12	74.00	24.88	Peak

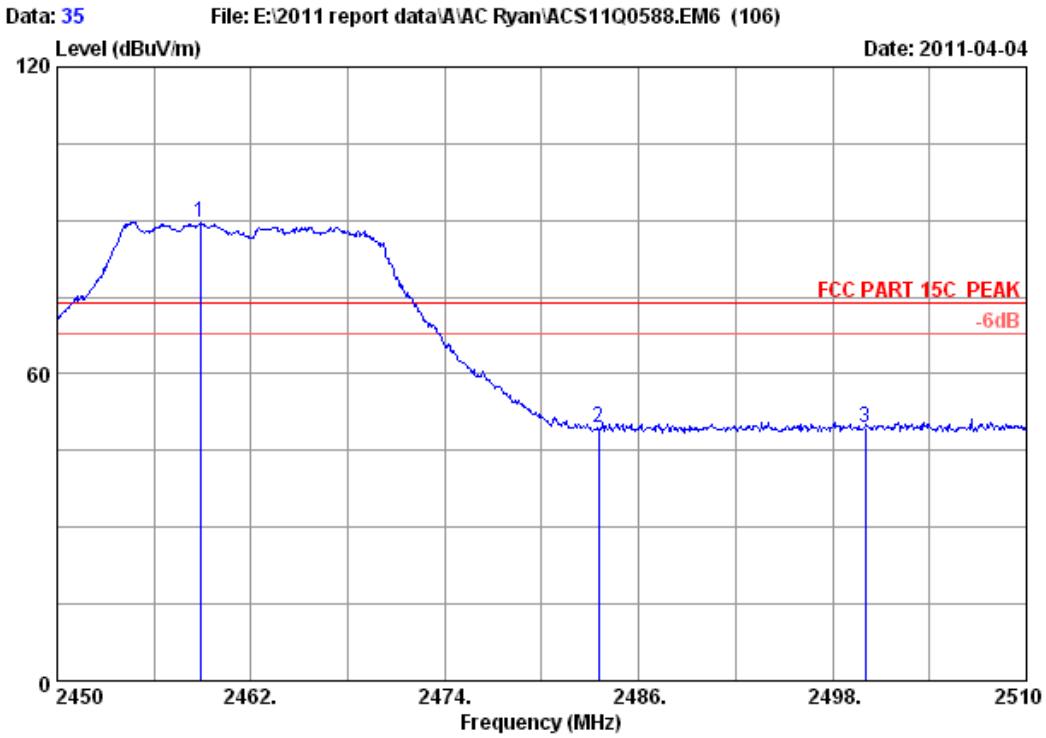
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11b CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2461.280	29.48	7.54	36.61	93.27	93.68	54.00	-39.68	Average
2	2483.500	29.49	7.58	36.60	36.13	36.60	54.00	17.40	Average
3	2500.000	29.50	7.62	36.60	36.21	36.73	54.00	17.27	Average

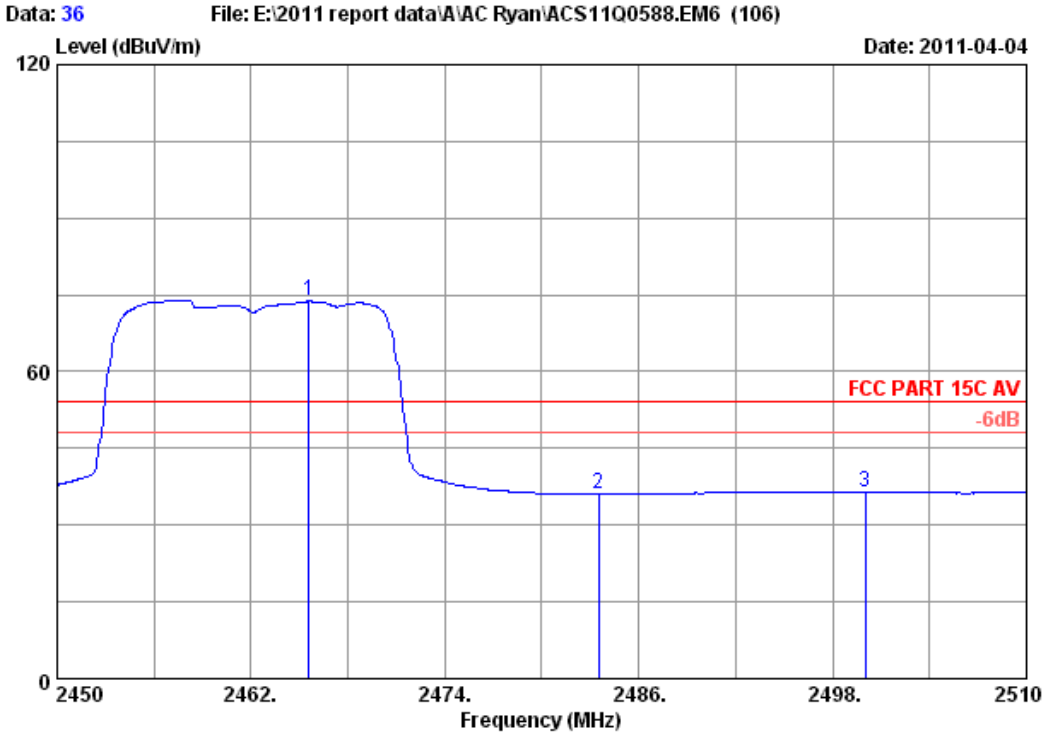
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 35
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2458.880	29.48	7.54	36.61	89.07	89.48	74.00	-15.48	Peak
2	2483.500	29.49	7.58	36.60	48.89	49.36	74.00	24.64	Peak
3	2500.000	29.50	7.62	36.60	48.91	49.43	74.00	24.57	Peak

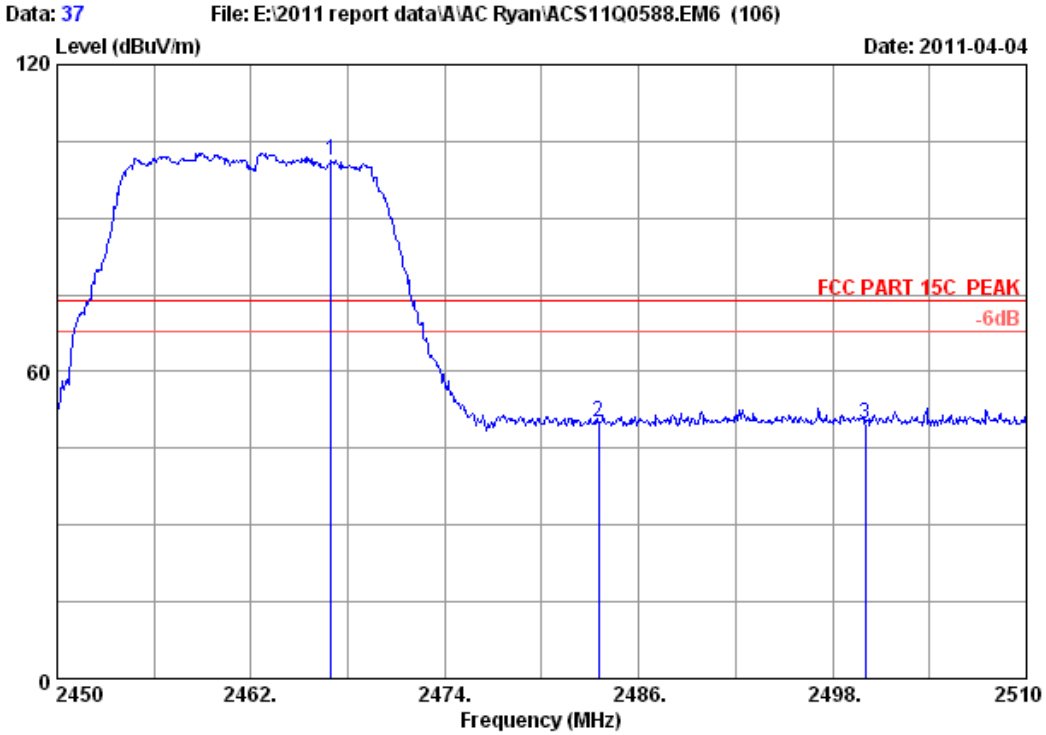
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2465.600	29.48	7.54	36.61	73.32	73.73	54.00	-19.73	Average
2	2483.500	29.49	7.58	36.60	35.71	36.18	54.00	17.82	Average
3	2500.000	29.50	7.62	36.60	35.80	36.32	54.00	17.68	Average

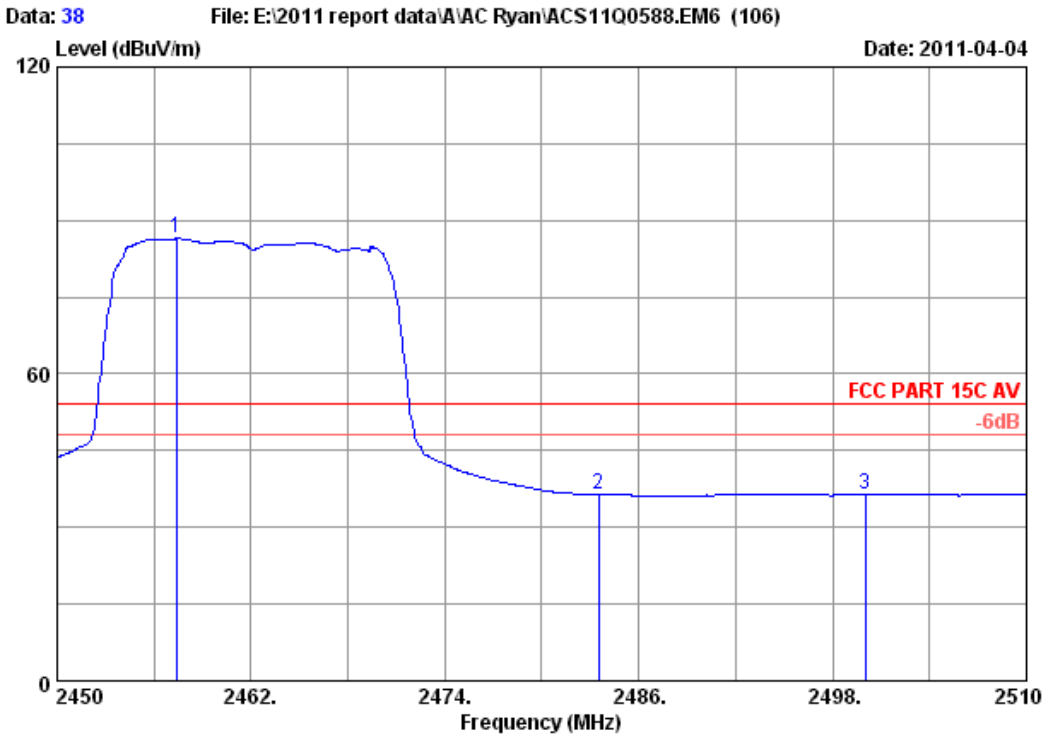
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2466.980	29.48	7.54	36.60	100.86	101.28	74.00	-27.28	Peak
2	2483.500	29.49	7.58	36.60	49.54	50.01	74.00	23.99	Peak
3	2500.000	29.50	7.62	36.60	49.30	49.82	74.00	24.18	Peak

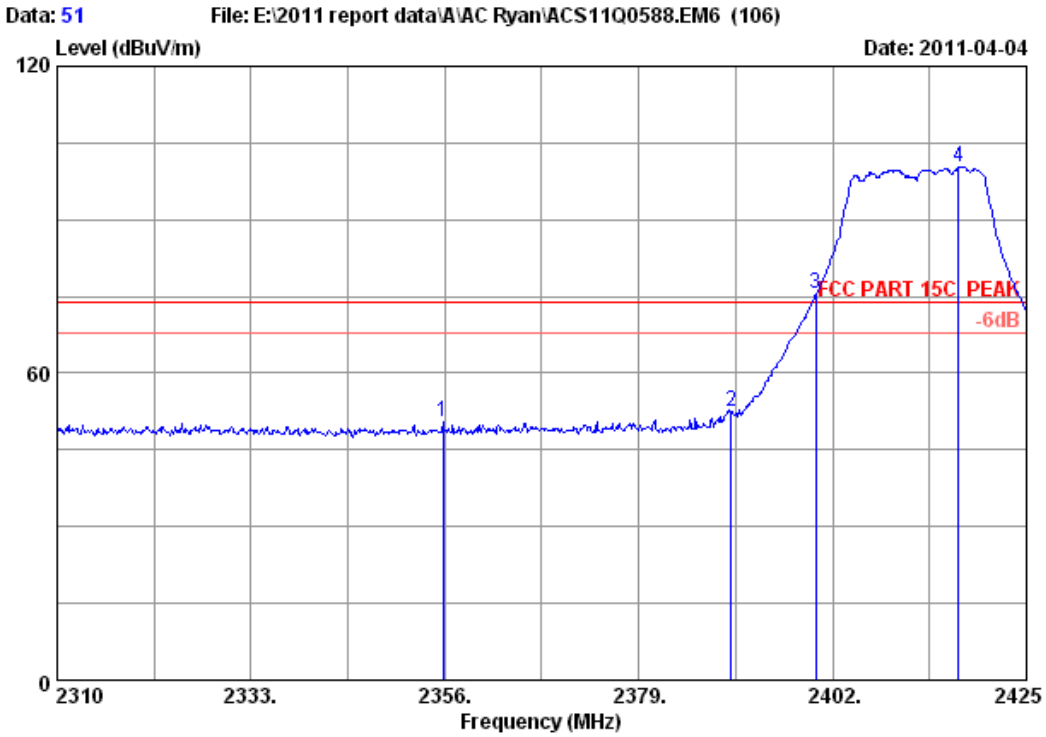
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2457.380	29.48	7.50	36.61	86.06	86.43	54.00	-32.43	Average
2	2483.500	29.49	7.58	36.60	35.93	36.40	54.00	17.60	Average
3	2500.000	29.50	7.62	36.60	35.89	36.41	54.00	17.59	Average

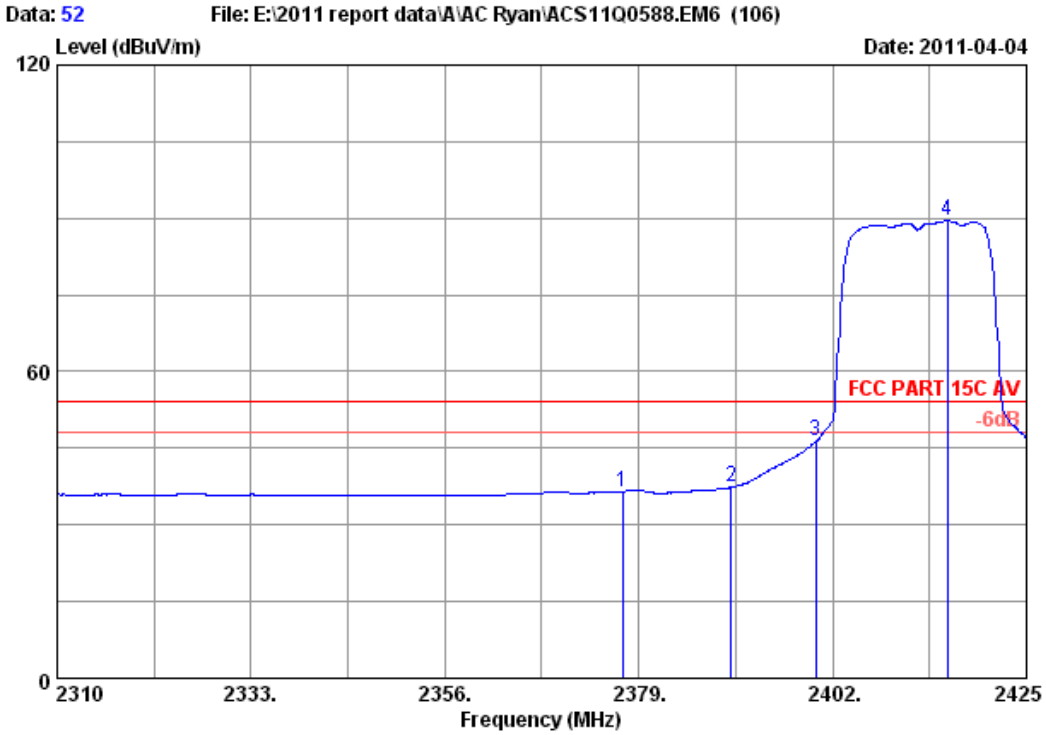
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 51
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2355.770	29.42	7.31	36.63	50.34	50.44	74.00	23.56	Peak
2	2390.000	29.44	7.39	36.62	52.34	52.55	74.00	21.45	Peak
3	2400.000	29.44	7.43	36.62	75.33	75.58	74.00	-1.58	Peak
4	2416.950	29.45	7.43	36.61	100.01	100.28	74.00	-26.28	Peak

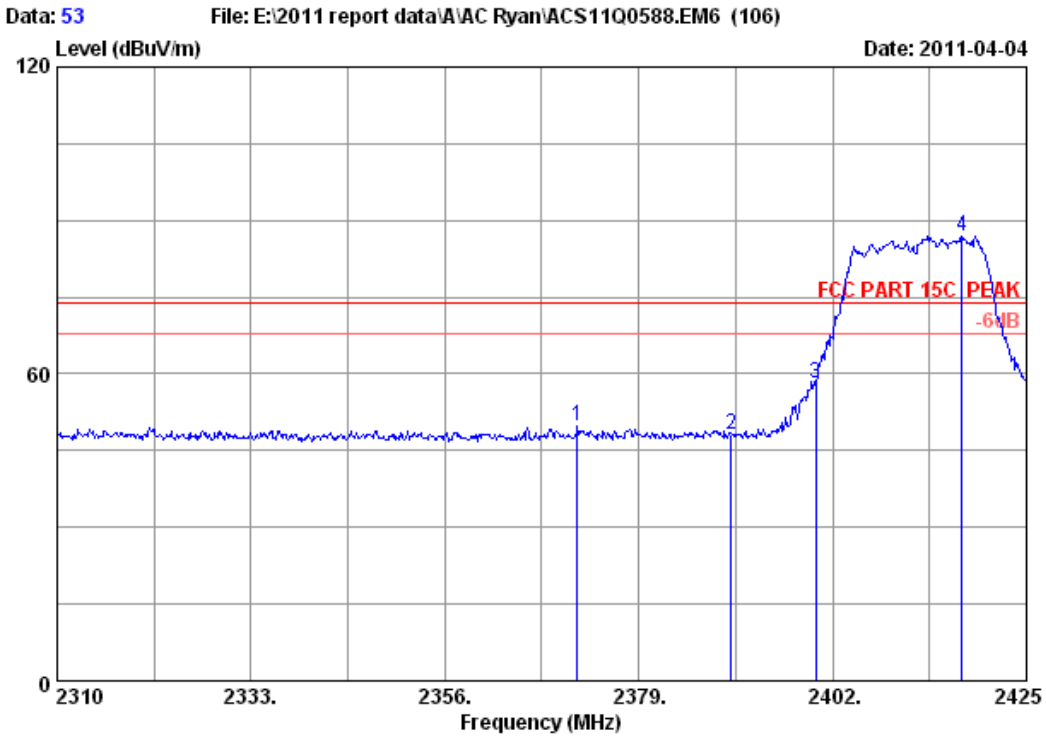
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2377.045	29.43	7.35	36.62	36.43	36.59	54.00	17.41	Average
2	2390.000	29.44	7.39	36.62	37.13	37.34	54.00	16.66	Average
3	2400.000	29.44	7.43	36.62	46.22	46.47	54.00	7.53	Average
4	2415.570	29.45	7.43	36.61	89.22	89.49	54.00	-35.49	Average

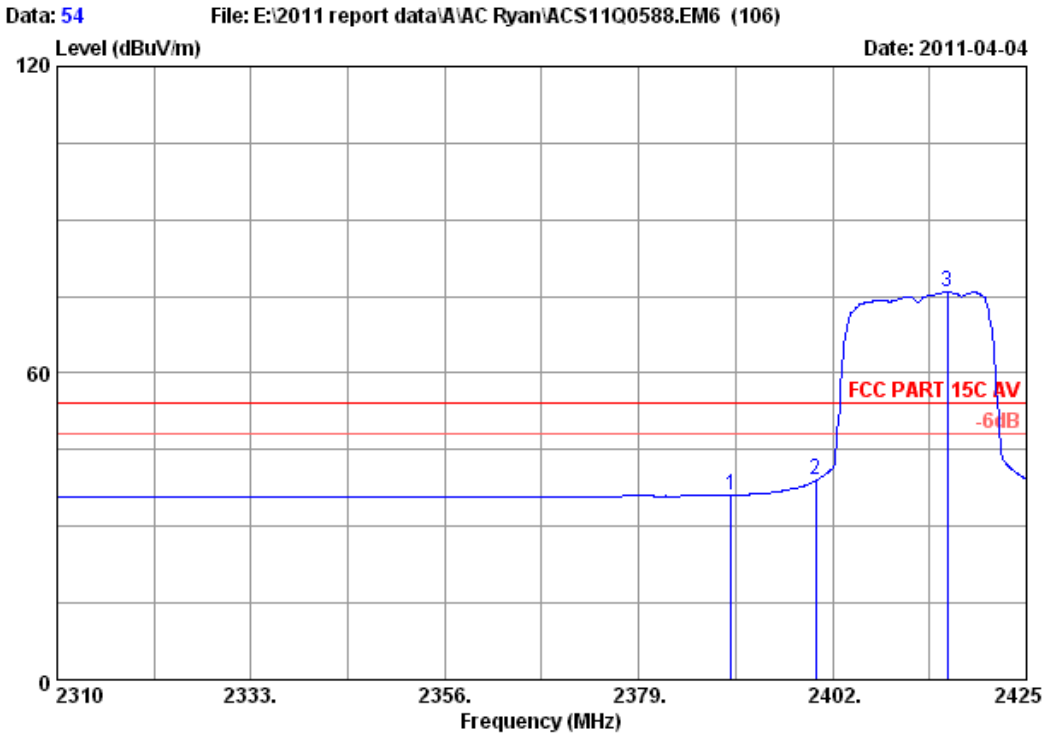
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2371.755	29.43	7.35	36.62	49.72	49.88	74.00	24.12	Peak
2	2390.000	29.44	7.39	36.62	48.09	48.30	74.00	25.70	Peak
3	2400.000	29.44	7.43	36.62	57.77	58.02	74.00	15.98	Peak
4	2417.295	29.45	7.43	36.61	86.73	87.00	74.00	-13.00	Peak

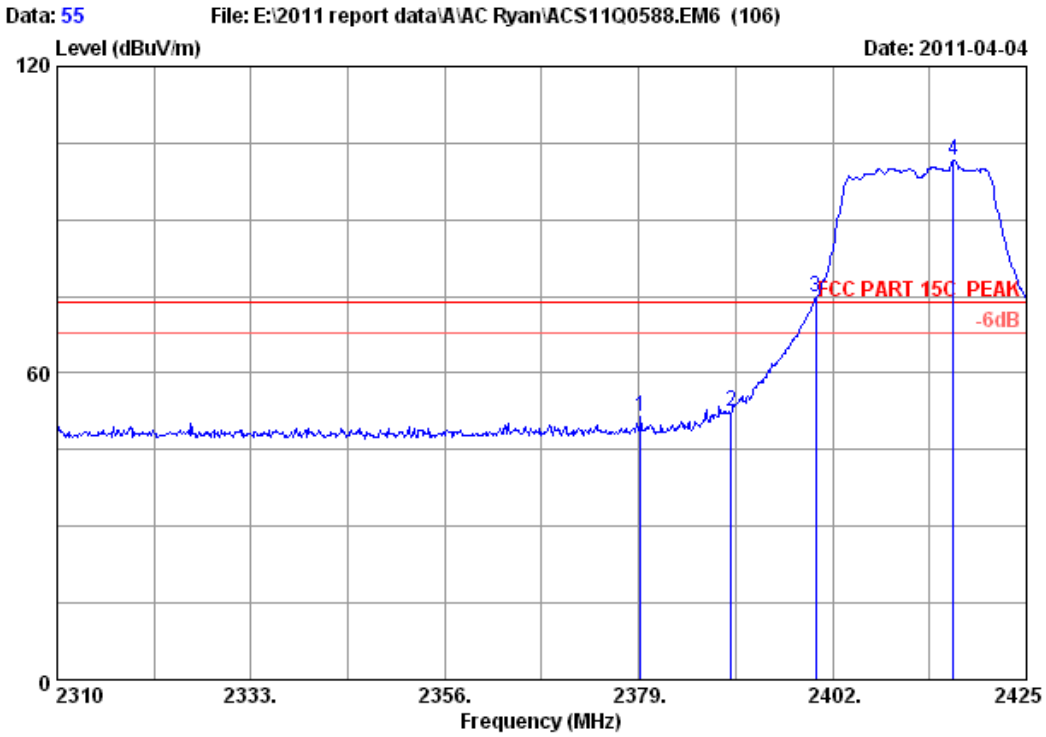
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11g CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	36.01	36.22	54.00	17.78	Average
2	2400.000	29.44	7.43	36.62	38.77	39.02	54.00	14.98	Average
3	2415.570	29.45	7.43	36.61	75.65	75.92	54.00	-21.92	Average

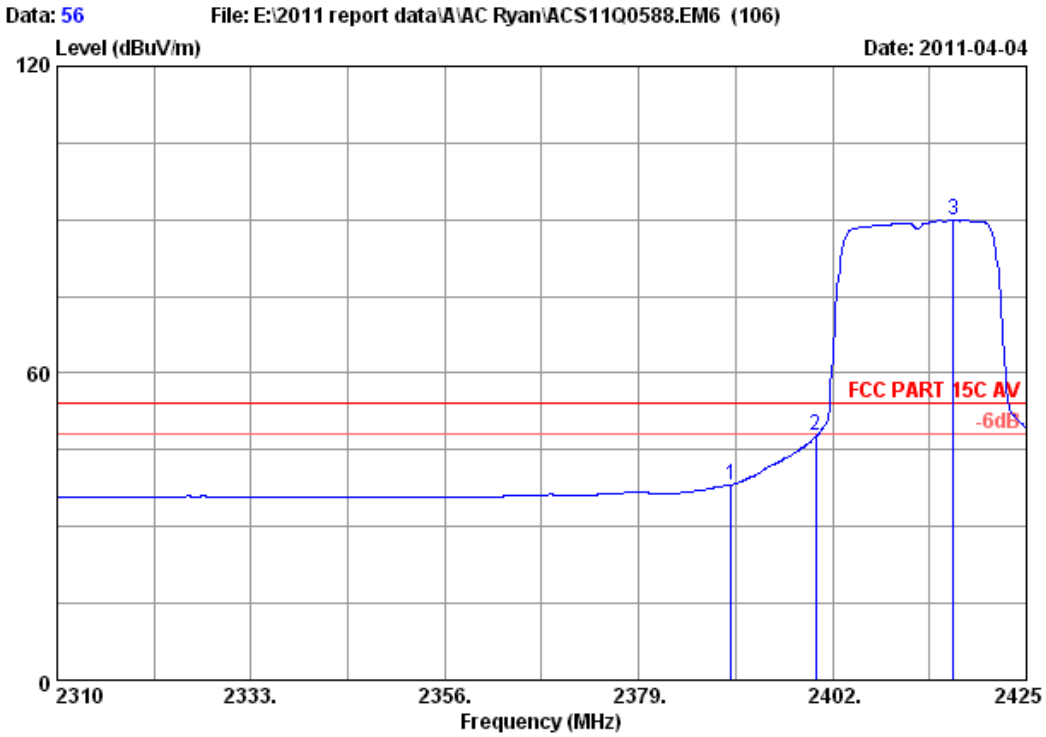
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2379.230	29.43	7.39	36.62	51.31	51.51	74.00	22.49	Peak
2	2390.000	29.44	7.39	36.62	52.36	52.57	74.00	21.43	Peak
3	2400.000	29.44	7.43	36.62	74.72	74.97	74.00	-0.97	Peak
4	2416.375	29.45	7.43	36.61	101.23	101.50	74.00	-27.50	Peak

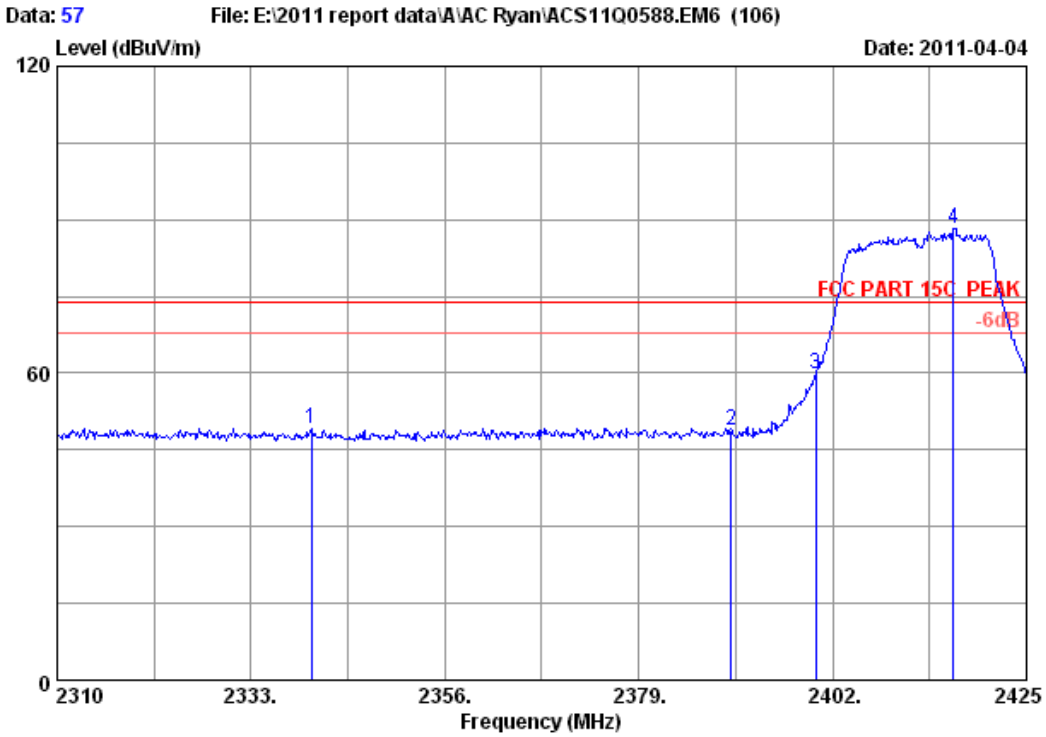
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	38.01	38.22	54.00	15.78	Average
2	2400.000	29.44	7.43	36.62	47.53	47.78	54.00	6.22	Average
3	2416.375	29.45	7.43	36.61	89.59	89.86	54.00	-35.86	Average

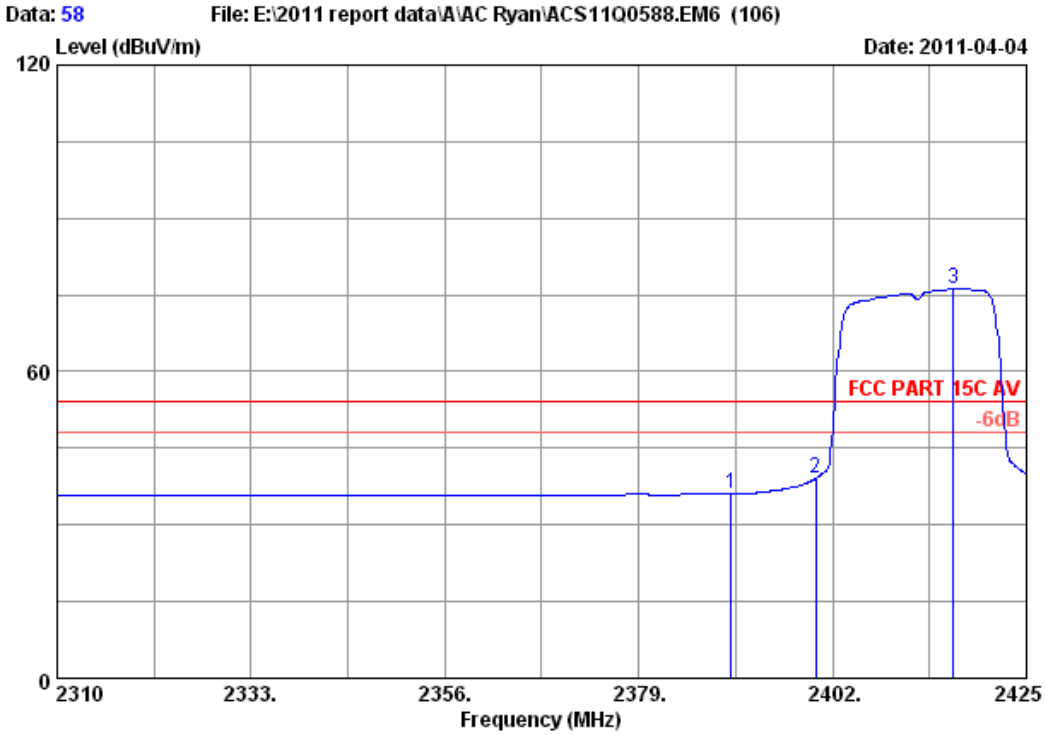
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	2340.130	29.41	7.31	36.63	49.04	49.13	74.00	24.87	Peak
2	2390.000	29.44	7.39	36.62	48.61	48.82	74.00	25.18	Peak
3	2400.000	29.44	7.43	36.62	59.46	59.71	74.00	14.29	Peak
4	2416.375	29.45	7.43	36.61	87.95	88.22	74.00	-14.22	Peak

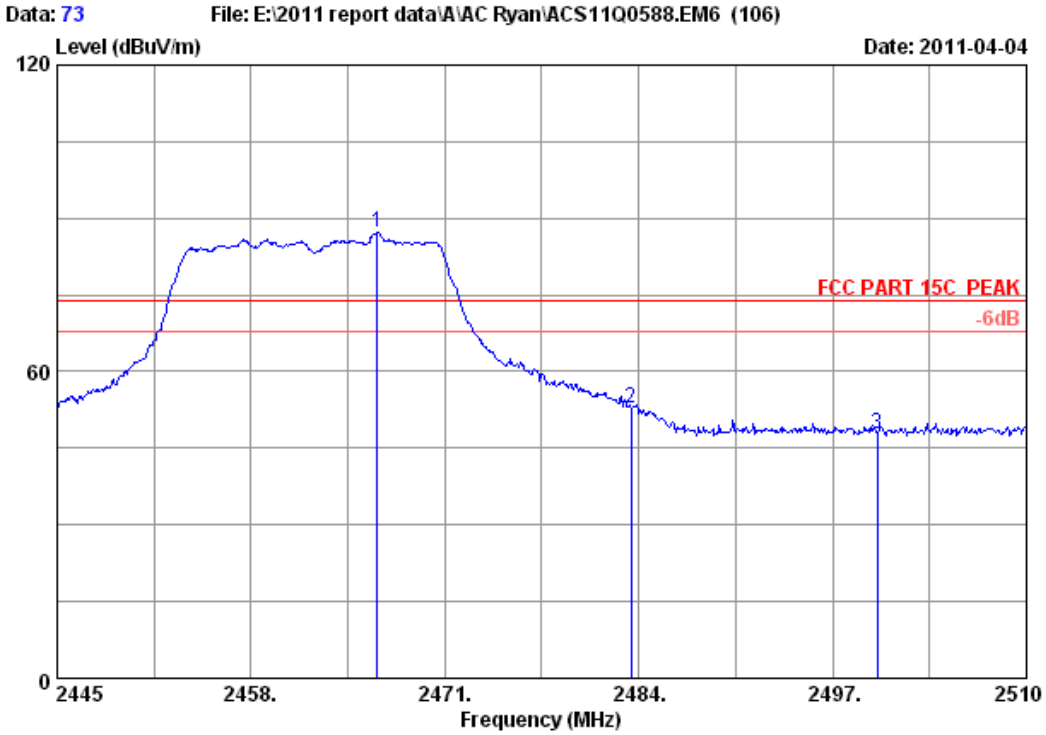
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 58
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH1 2412MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	35.98	36.19	54.00	17.81	Average
2	2400.000	29.44	7.43	36.62	38.97	39.22	54.00	14.78	Average
3	2416.375	29.45	7.43	36.61	75.90	76.17	54.00	-22.17	Average

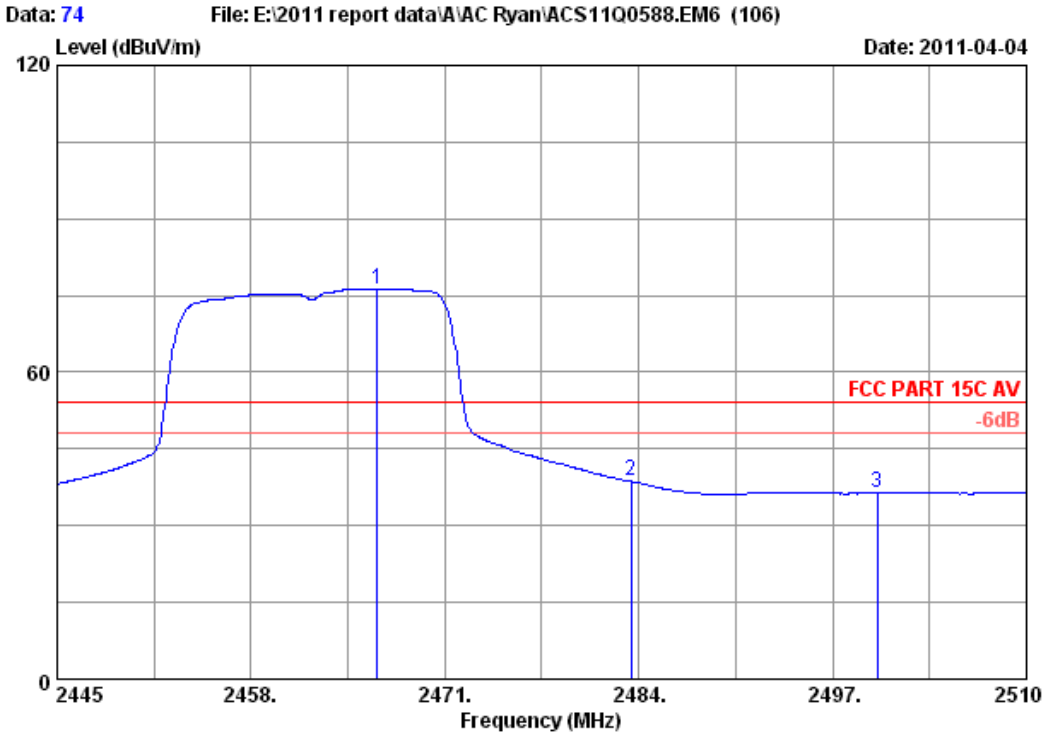
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2466.450	29.48	7.54	36.60	86.76	87.18	74.00	-13.18	Peak
2	2483.500	29.49	7.58	36.60	52.34	52.81	74.00	21.19	Peak
3	2500.000	29.50	7.62	36.60	47.39	47.91	74.00	26.09	Peak

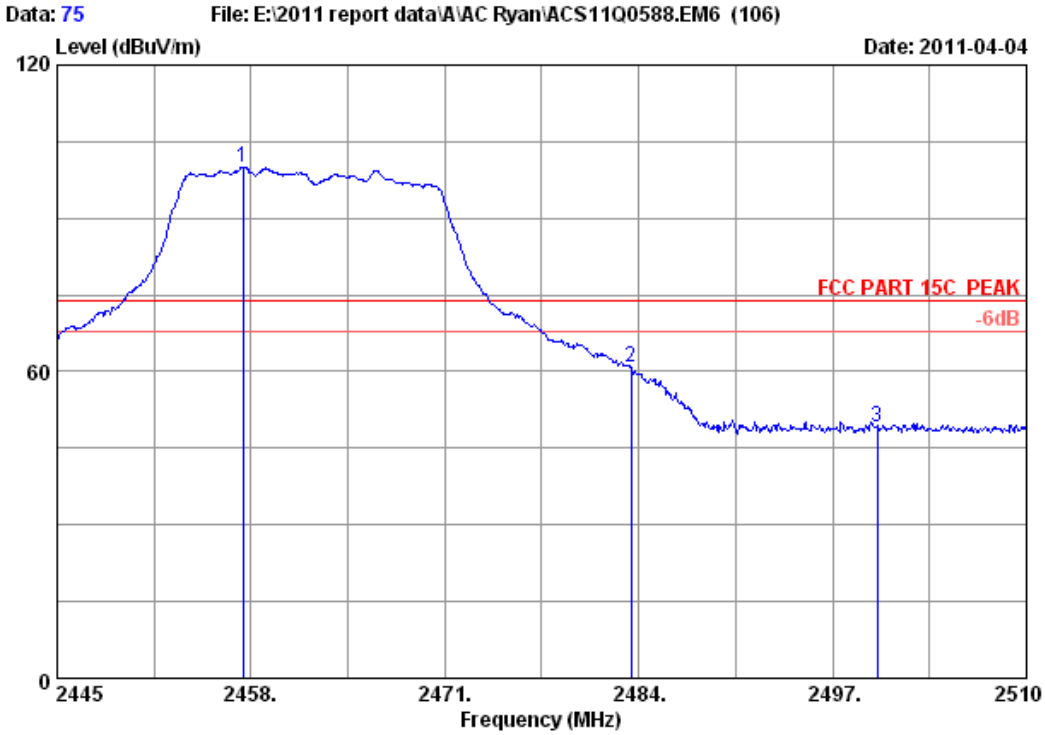
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2466.450	29.48	7.54	36.60	75.94	76.36	54.00	-22.36	Average
2	2483.500	29.49	7.58	36.60	38.18	38.65	54.00	15.35	Average
3	2500.000	29.50	7.62	36.60	35.86	36.38	54.00	17.62	Average

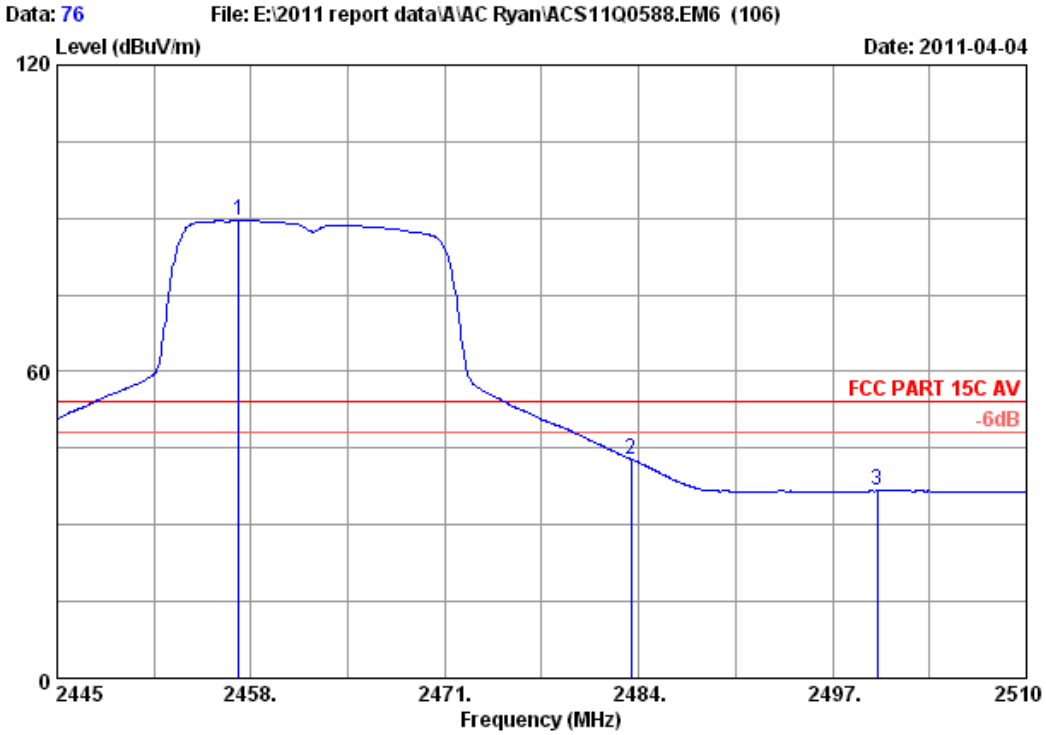
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 75
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2457.480	29.48	7.50	36.61	99.64	100.01	74.00	-26.01	Peak
2	2483.500	29.49	7.58	36.60	60.34	60.81	74.00	13.19	Peak
3	2500.000	29.50	7.62	36.60	48.69	49.21	74.00	24.79	Peak

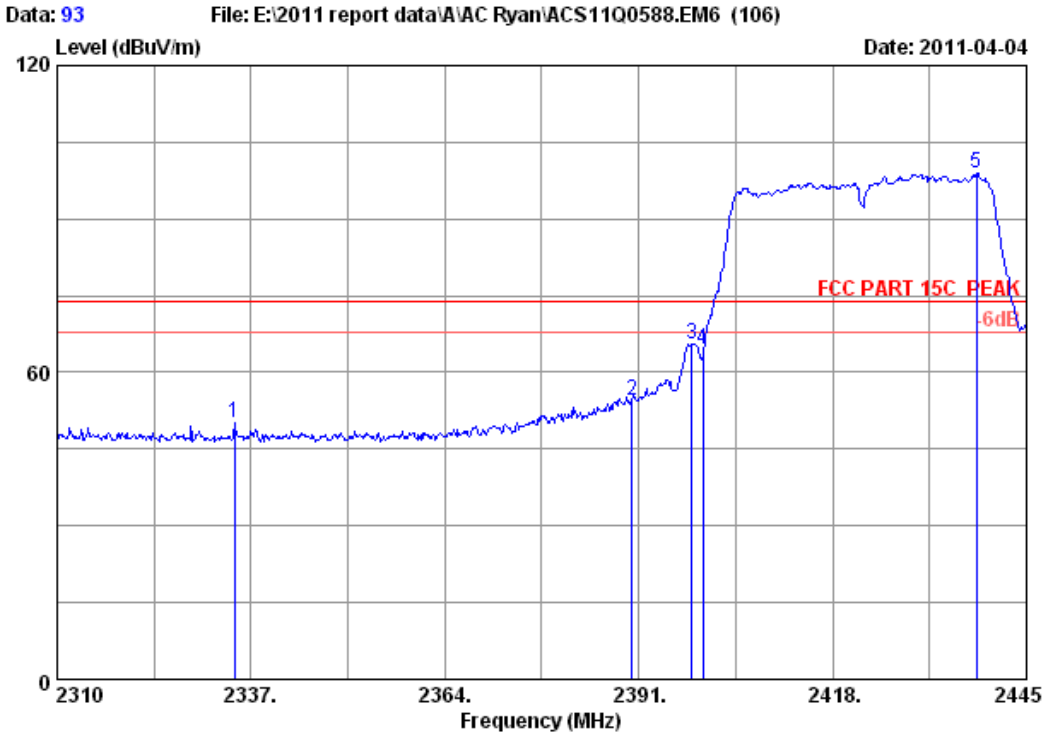
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT20 CH11 2462MHz Tx Mode
M/N : ACR-WN10002

	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	2457.155	29.48	7.50	36.61	89.18	89.55	54.00	-35.55	Average
2	2483.500	29.49	7.58	36.60	42.40	42.87	54.00	11.13	Average
3	2500.000	29.50	7.62	36.60	36.10	36.62	54.00	17.38	Average

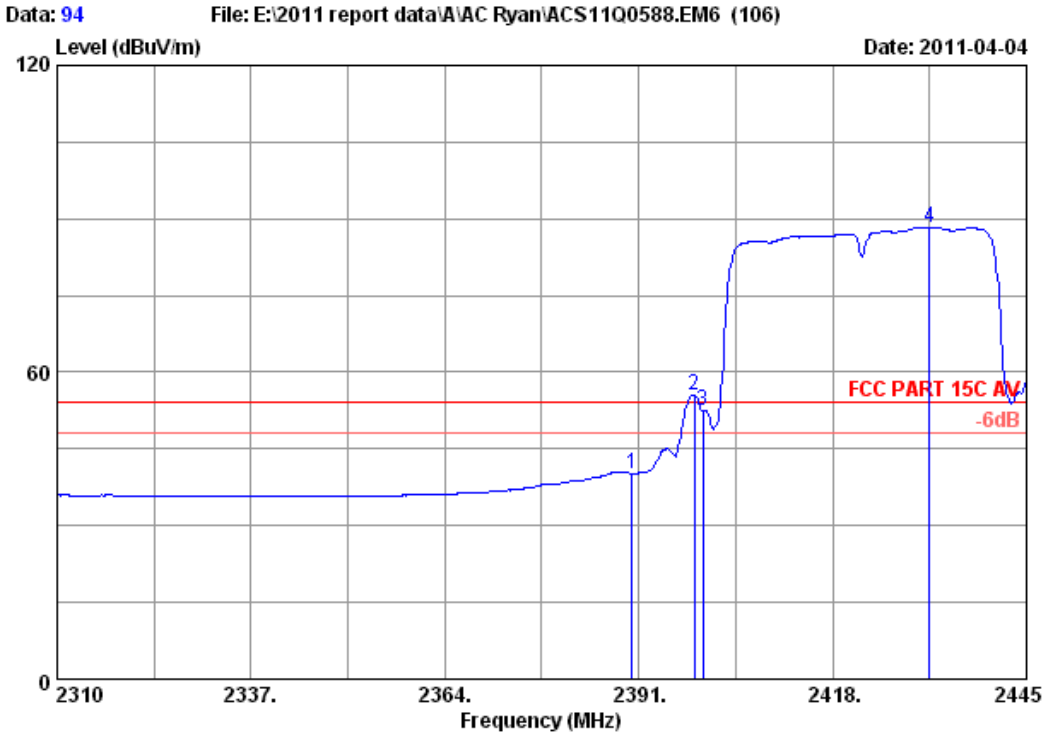
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 93
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	2334.705	29.41	7.27	36.63	50.07	50.12	74.00	23.88	Peak
2	2390.000	29.44	7.39	36.62	54.29	54.50	74.00	19.50	Peak
3	2398.425	29.44	7.39	36.62	65.37	65.58	74.00	8.42	Peak
4	2400.000	29.44	7.43	36.62	64.18	64.43	74.00	9.57	Peak
5	2437.980	29.47	7.46	36.61	98.59	98.91	74.00	-24.91	Peak

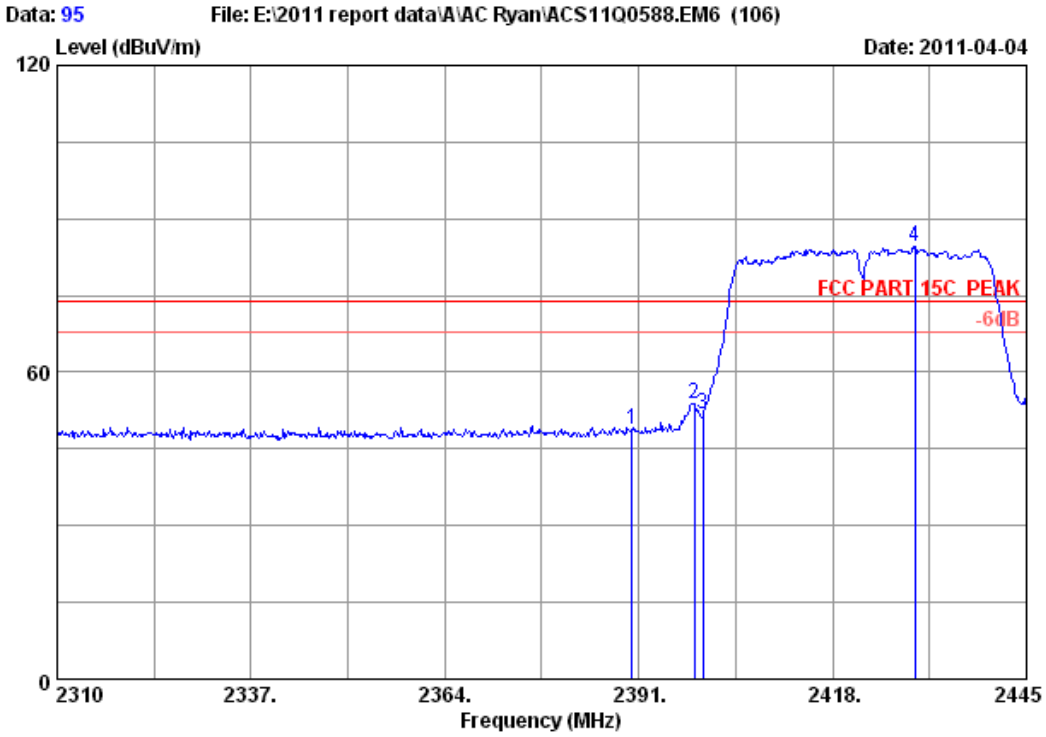
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 94
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	40.01	40.22	54.00	13.78	Average
2	2398.695	29.44	7.39	36.62	55.43	55.64	54.00	-1.64	Average
3	2400.000	29.44	7.43	36.62	52.09	52.34	54.00	1.66	Average
4	2431.500	29.46	7.46	36.61	87.97	88.28	54.00	-34.28	Average

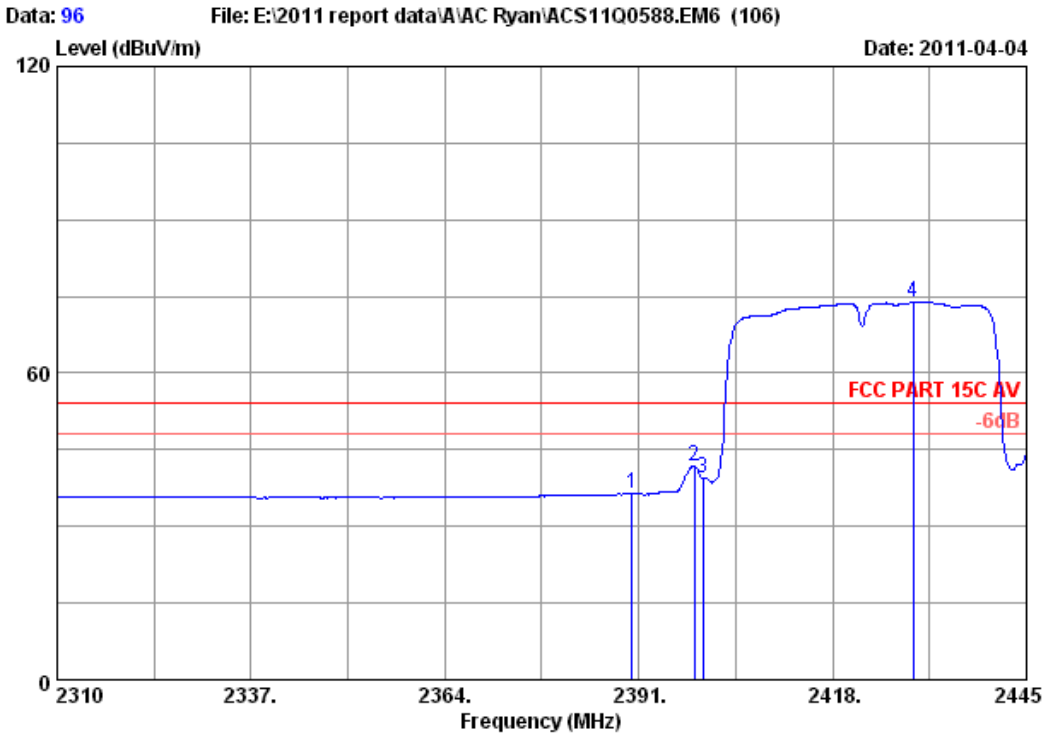
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 95
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	48.61	48.82	74.00	25.18	Peak
2	2398.695	29.44	7.39	36.62	53.75	53.96	74.00	20.04	Peak
3	2400.000	29.44	7.43	36.62	51.49	51.74	74.00	22.26	Peak
4	2429.475	29.46	7.46	36.61	84.25	84.56	74.00	-10.56	Peak

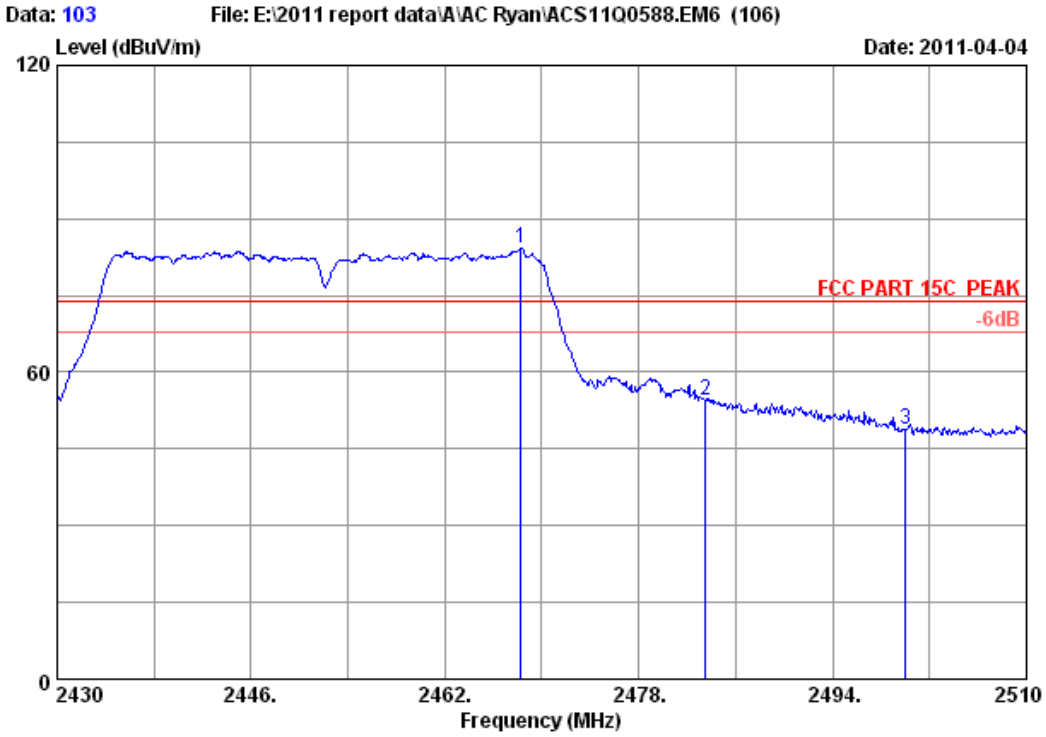
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 96
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH3 2422MHz Tx Mode
M/N : ACR-WN10002

	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	29.44	7.39	36.62	36.06	36.27	54.00	17.73	Average
2	2398.695	29.44	7.39	36.62	41.47	41.68	54.00	12.32	Average
3	2400.000	29.44	7.43	36.62	39.19	39.44	54.00	14.56	Average
4	2429.205	29.46	7.46	36.61	73.50	73.81	54.00	-19.81	Average

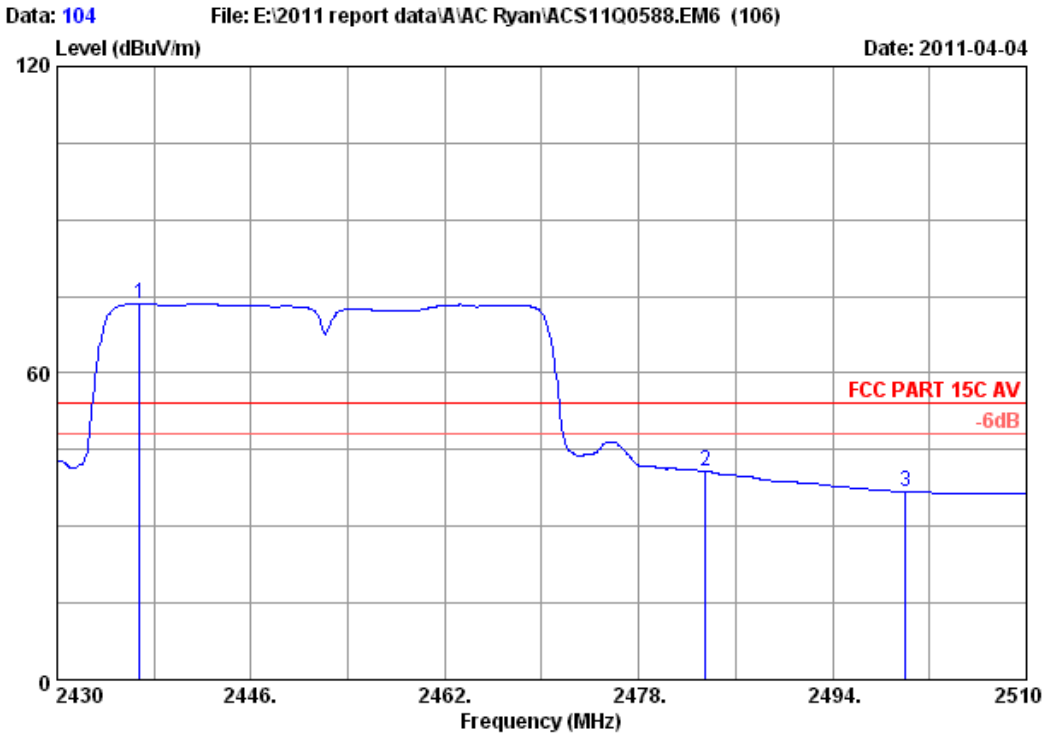
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 103
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2468.240	29.48	7.54	36.60	83.72	84.14	74.00	-10.14	Peak
2	2483.500	29.49	7.58	36.60	53.99	54.46	74.00	19.54	Peak
3	2500.000	29.50	7.62	36.60	48.16	48.68	74.00	25.32	Peak

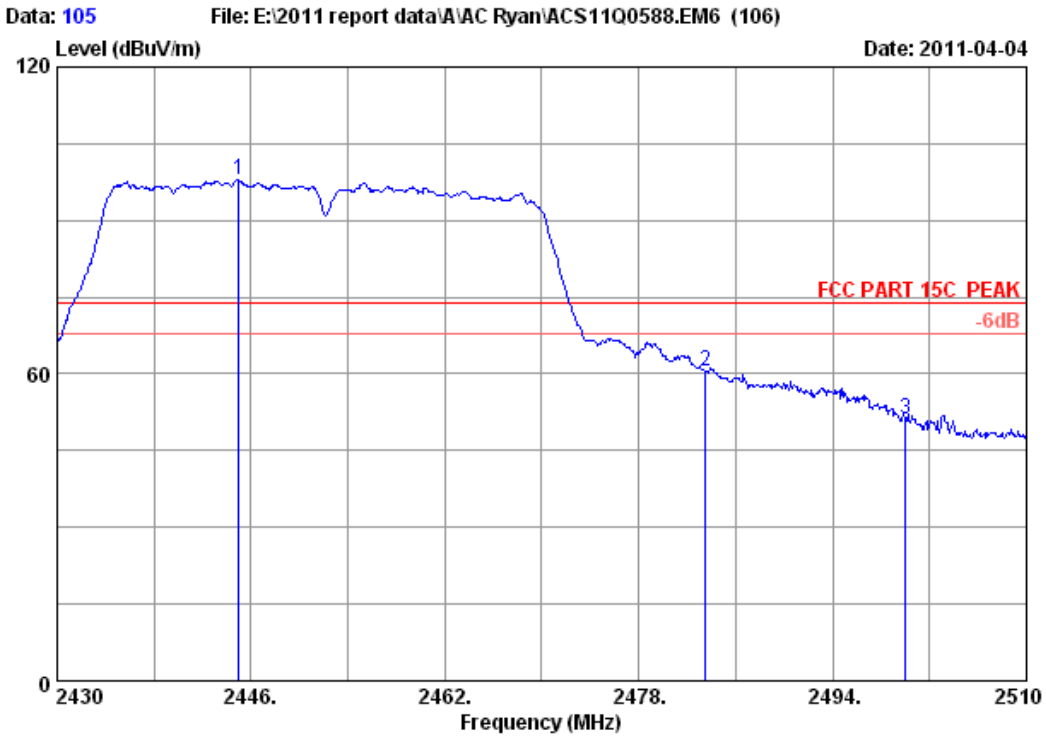
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 104
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2436.800	29.47	7.46	36.61	73.29	73.61	54.00	-19.61	Average
2	2483.500	29.49	7.58	36.60	40.28	40.75	54.00	13.25	Average
3	2500.000	29.50	7.62	36.60	36.30	36.82	54.00	17.18	Average

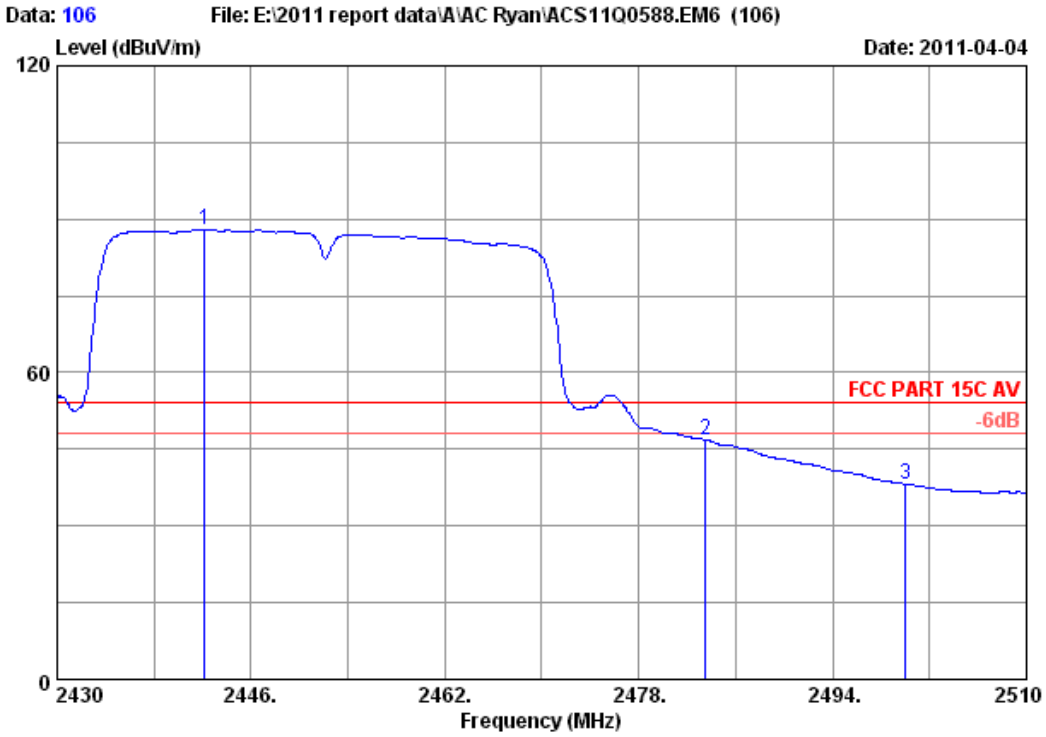
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 105
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2444.960	29.47	7.50	36.61	97.45	97.81	74.00	-23.81	Peak
2	2483.500	29.49	7.58	36.60	60.07	60.54	74.00	13.46	Peak
3	2500.000	29.50	7.62	36.60	50.53	51.05	74.00	22.95	Peak

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



Site no. : 3m Chamber Data no. : 106
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : A.C.Ryan PLAYON!Essential Wireless-N 300mbps USB Adapter
Power : DC 5V From PC input AC 120V/60Hz
Test mode : 11nHT40 CH9 2452MHz Tx Mode
M/N : ACR-WN10002

	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	2442.160	29.47	7.50	36.61	87.54	87.90	54.00	-33.90	Average
2	2483.500	29.49	7.58	36.60	46.34	46.81	54.00	7.19	Average
3	2500.000	29.50	7.62	36.60	37.70	38.22	54.00	15.78	Average

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
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 Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

7.2.Limit

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

7.3.Test Procedure

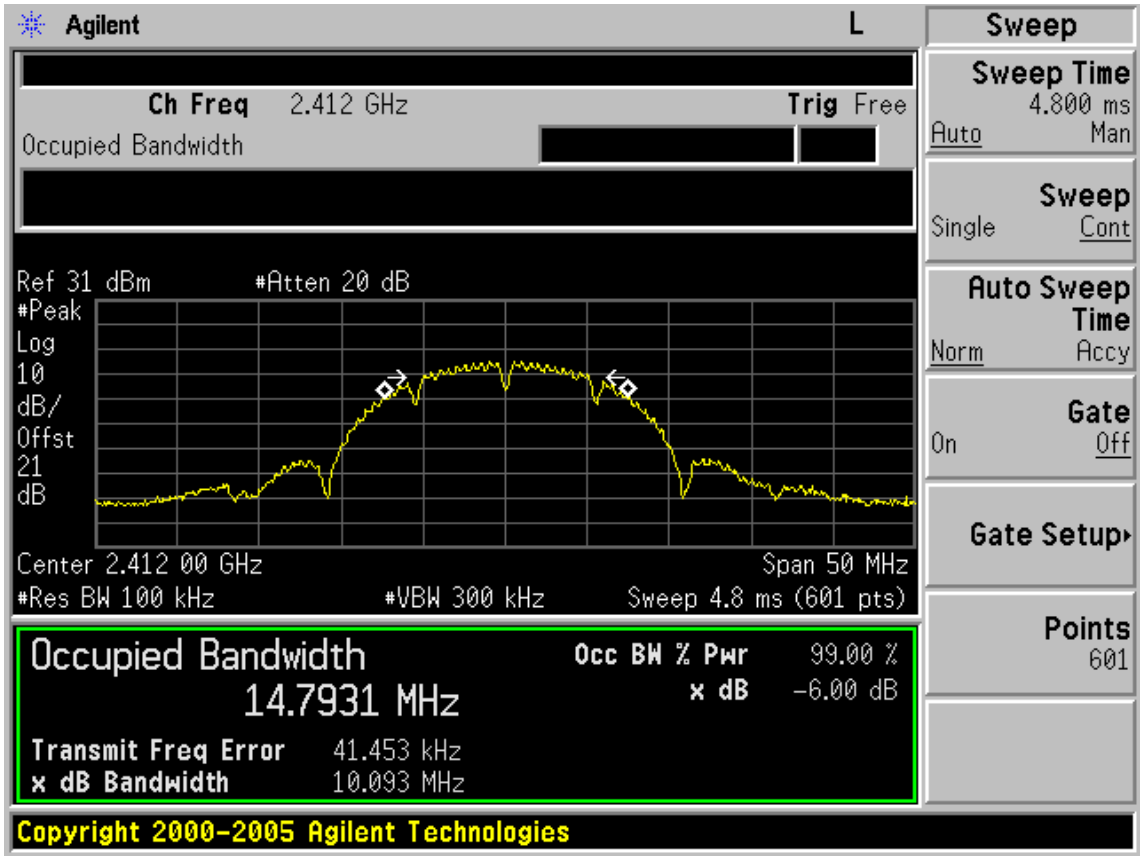
The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4.Test Results

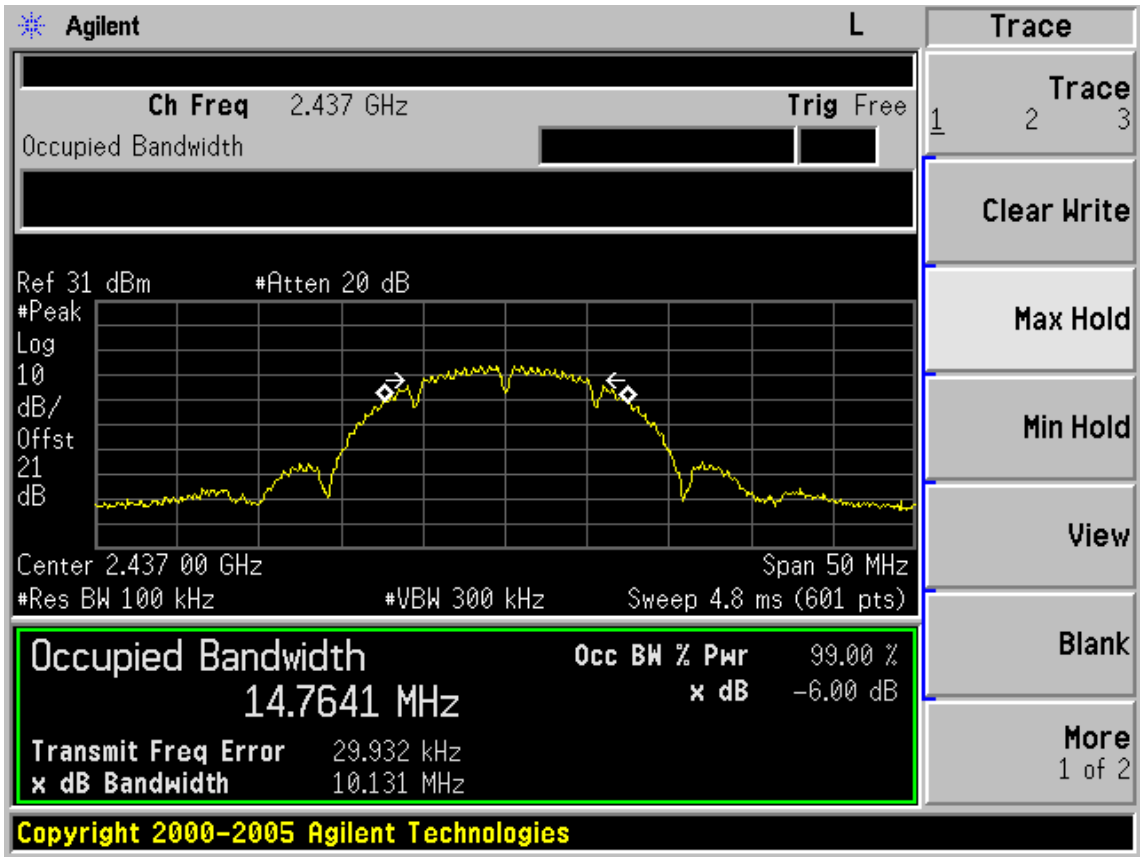
EUT: A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter		
M/N: ACR-WN10002		
Test date:2011-02-27	Pressure: 100.6 kpa	Humidity: 45%
Tested by: Paul Tian	Test site: RF Site	Temperature：25 ℃

Cable loss: 1dB		Attenuator loss: 20 dB	Antenna Gain: 0 dBi
Test Mode	CH	6dB bandwidth （MHz）	Limit (KHz)
11b	CH1	10.093	>500
	CH6	10.131	>500
	CH11	10.139	>500
11g	CH1	16.573	>500
	CH6	16.606	>500
	CH11	16.607	>500
11n HT20	CH1	17.828	>500
	CH6	17.836	>500
	CH11	17.834	>500
11n HT40	CH1	36.459	>500
	CH4	36.478	>500
	CH7	36.482	>500
Conclusion：PASS			

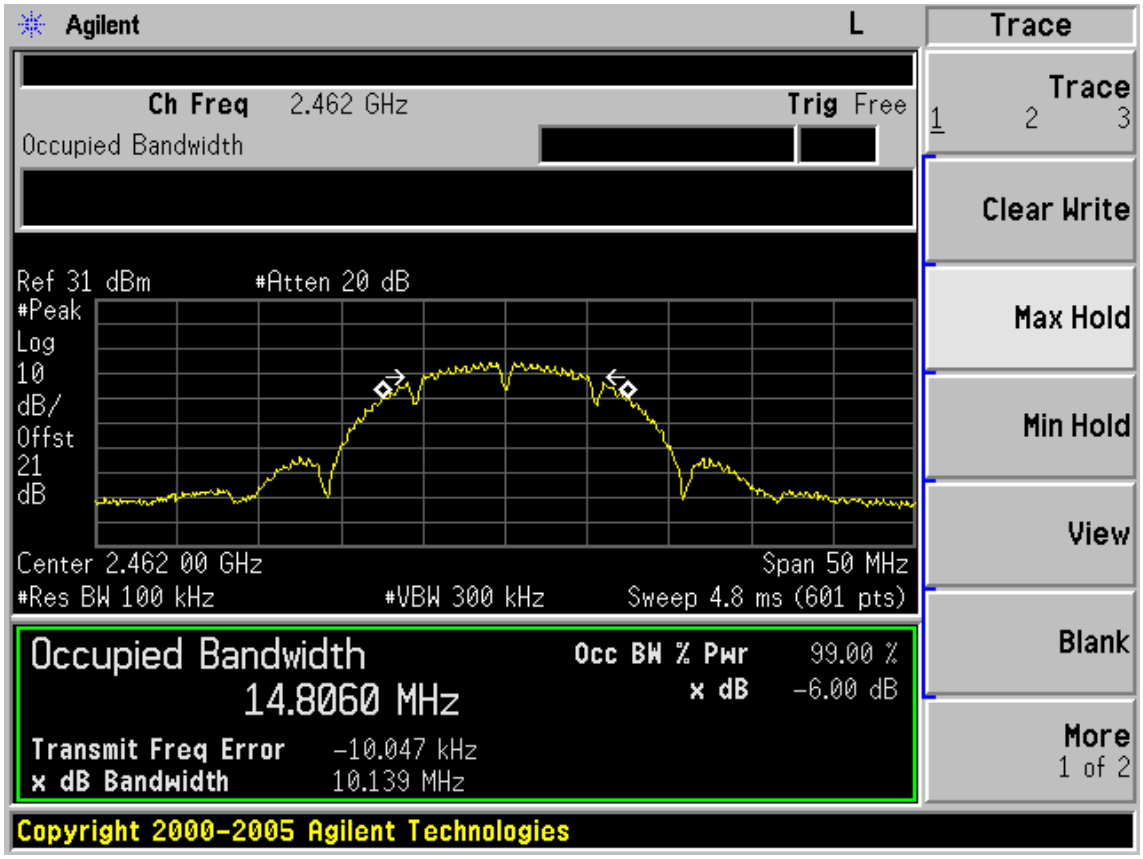
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



Test CH6: 2437MHz

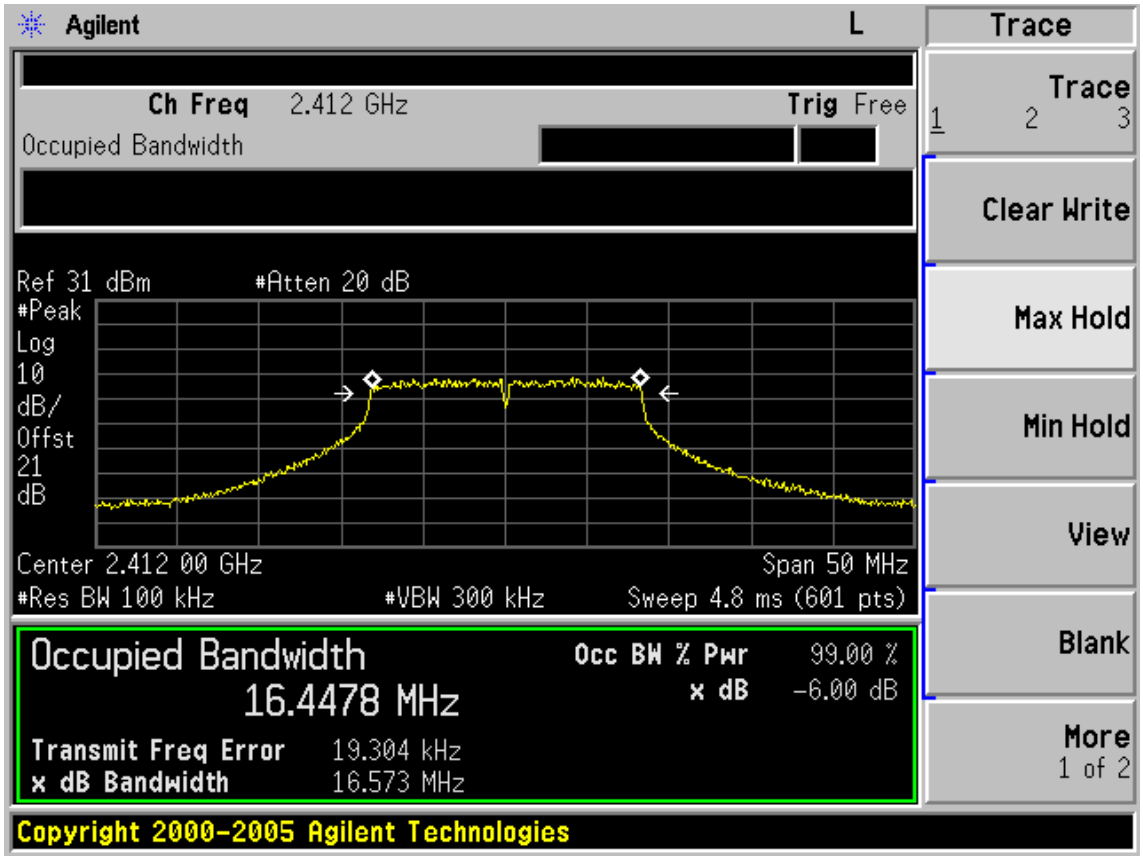


Test CH11: 2462MHz

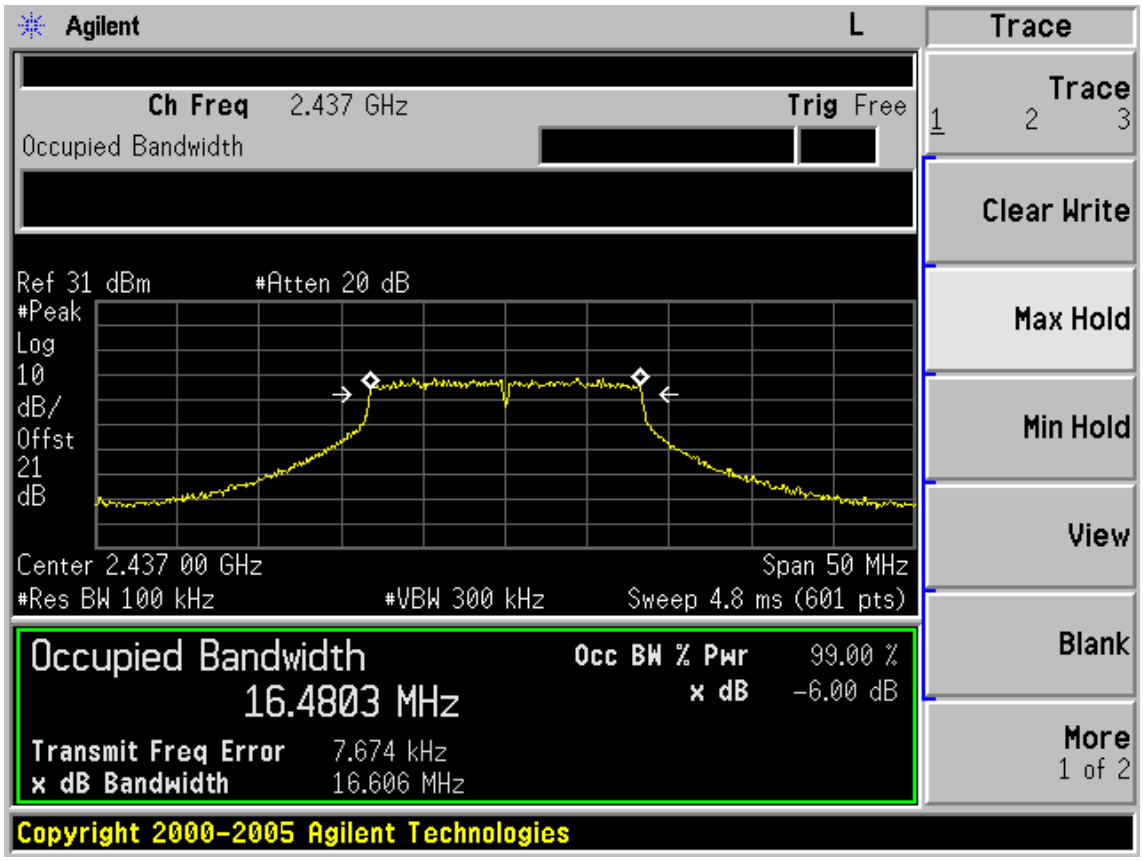


Test Mode: IEEE 802.11g TX

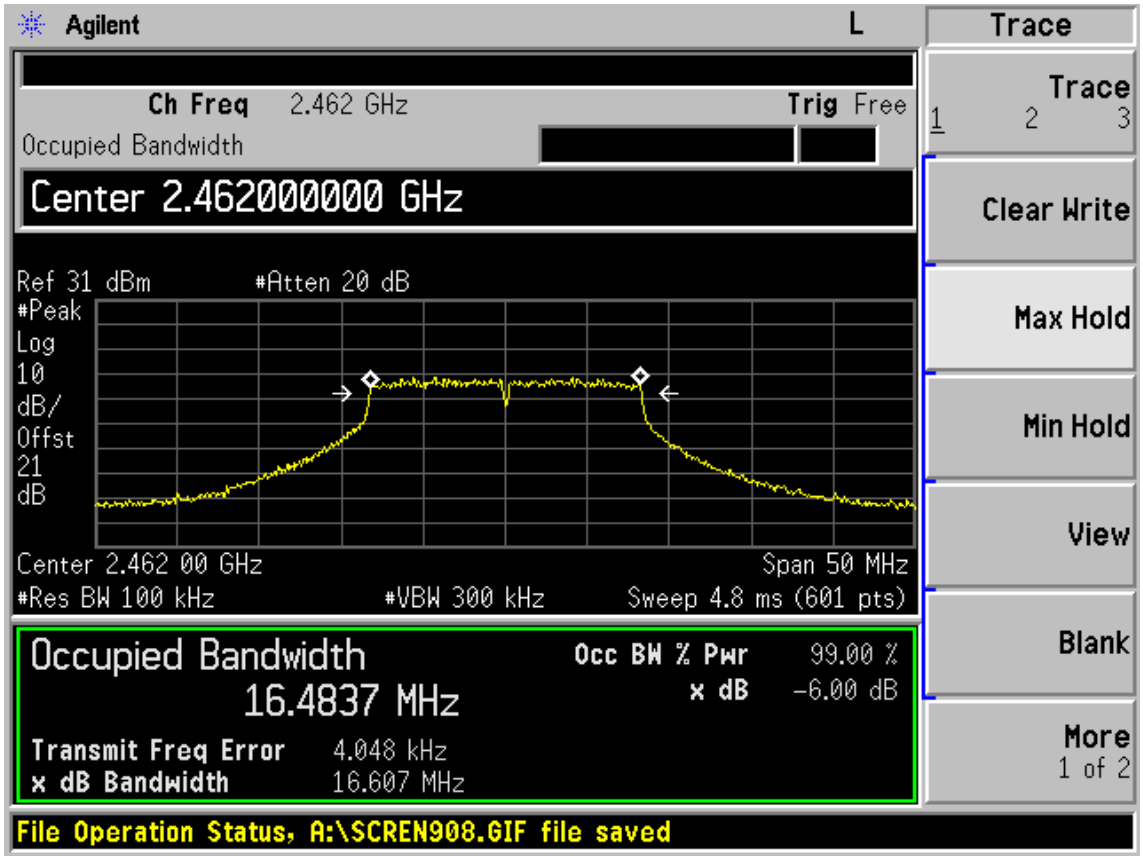
Test CH1: 2412MHz



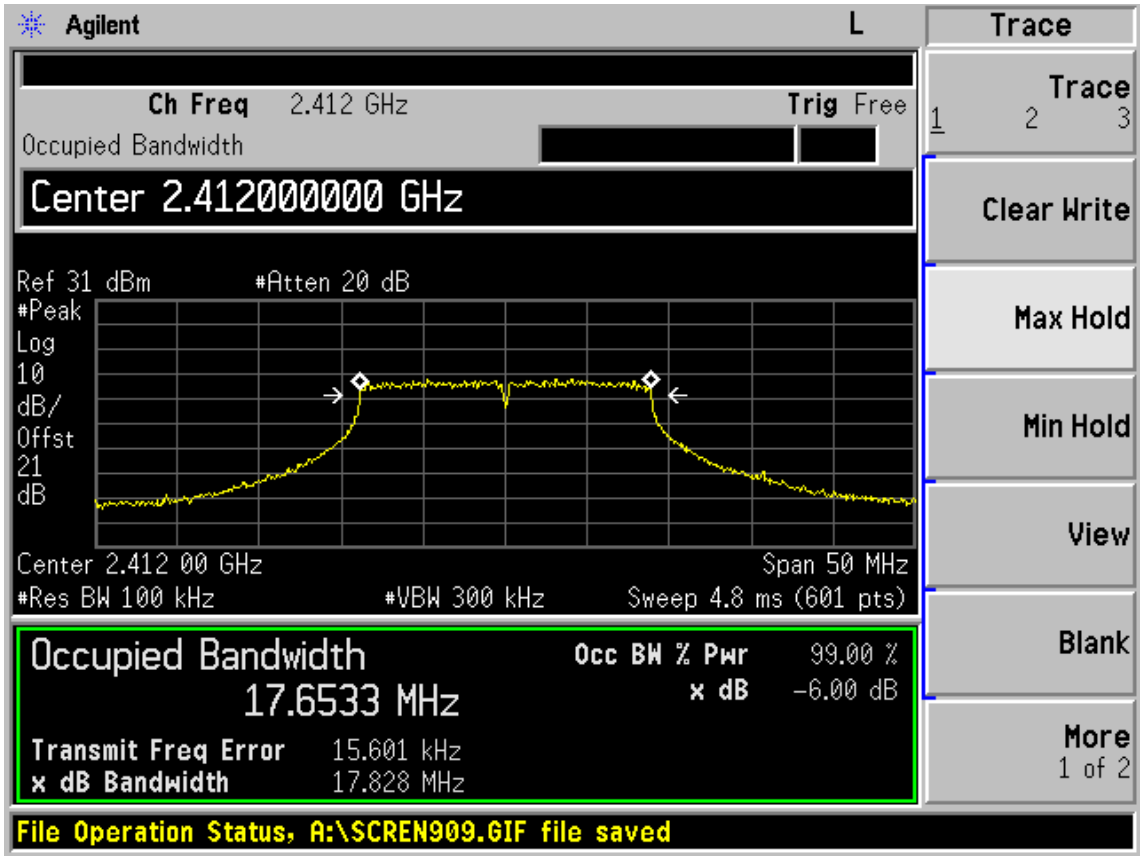
Test CH6: 2437MHz



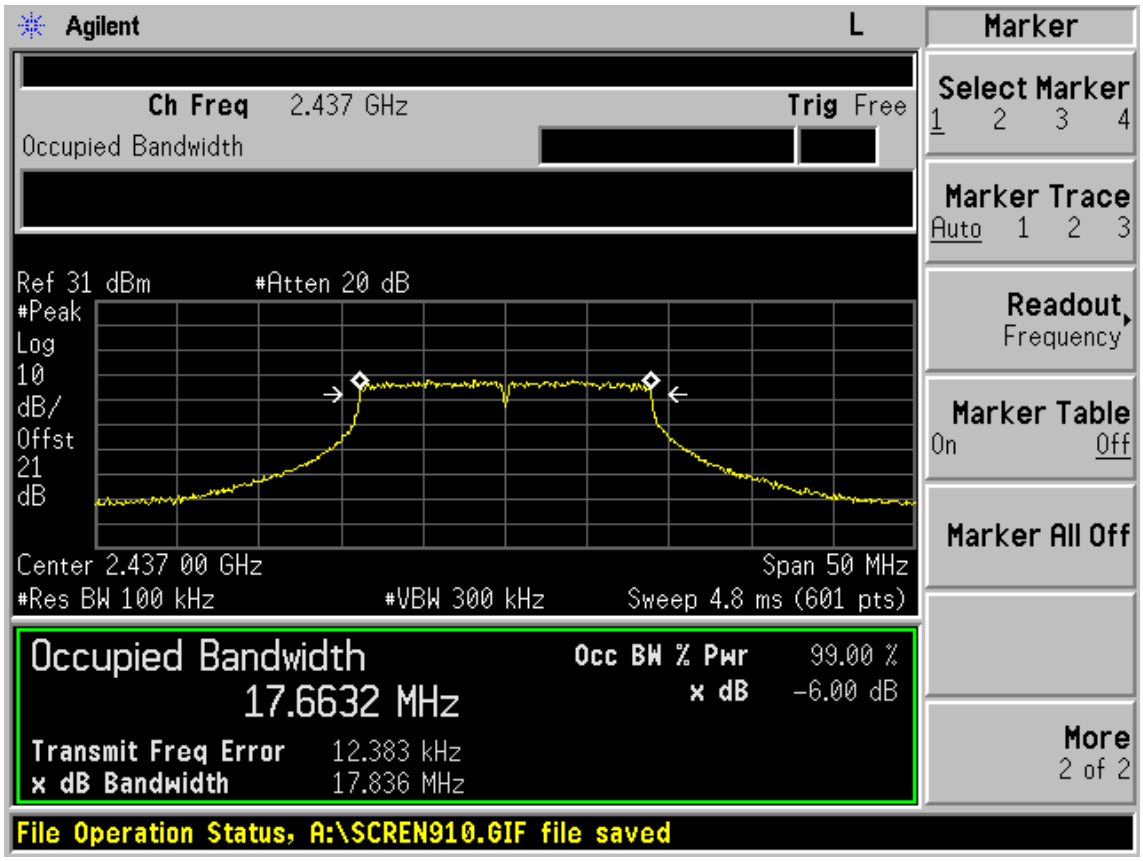
Test CH11: 2462MHz



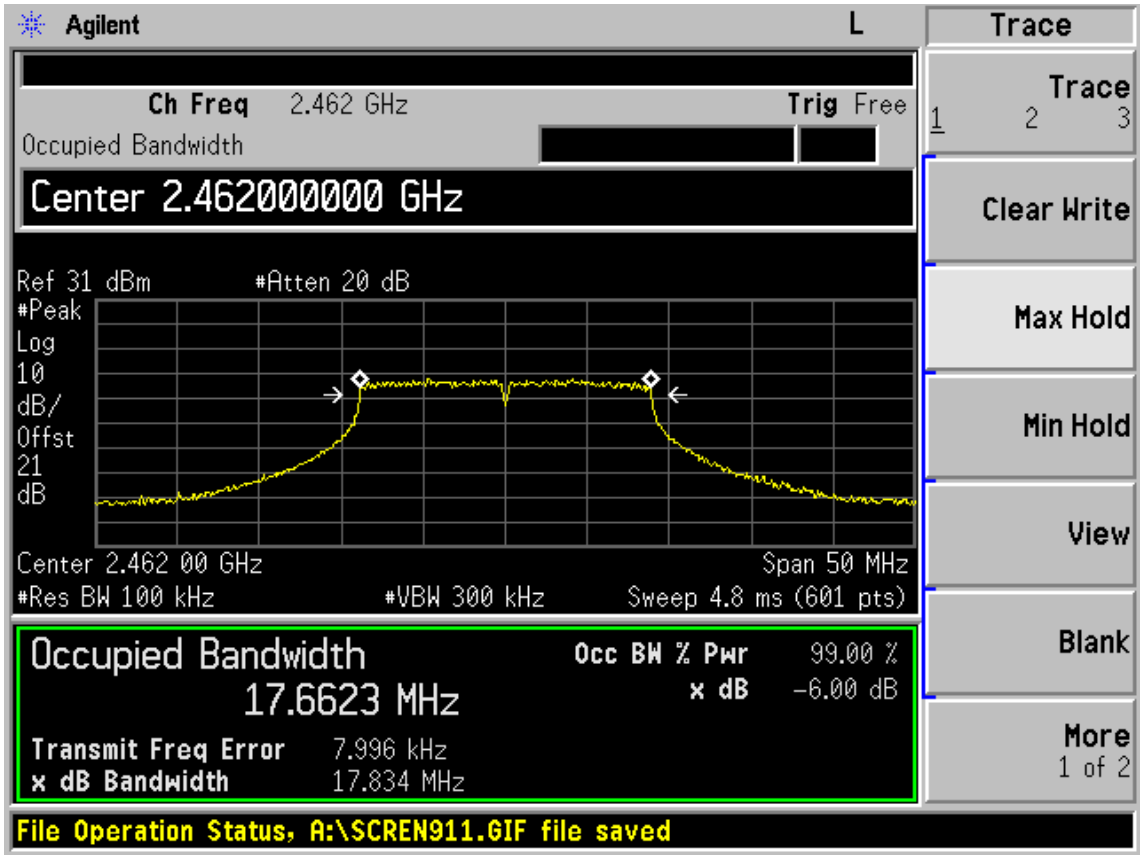
Test Mode: IEEE 802. 11n HT20TX
Test CH1: 2412MHz



Test CH6: 2437MHz

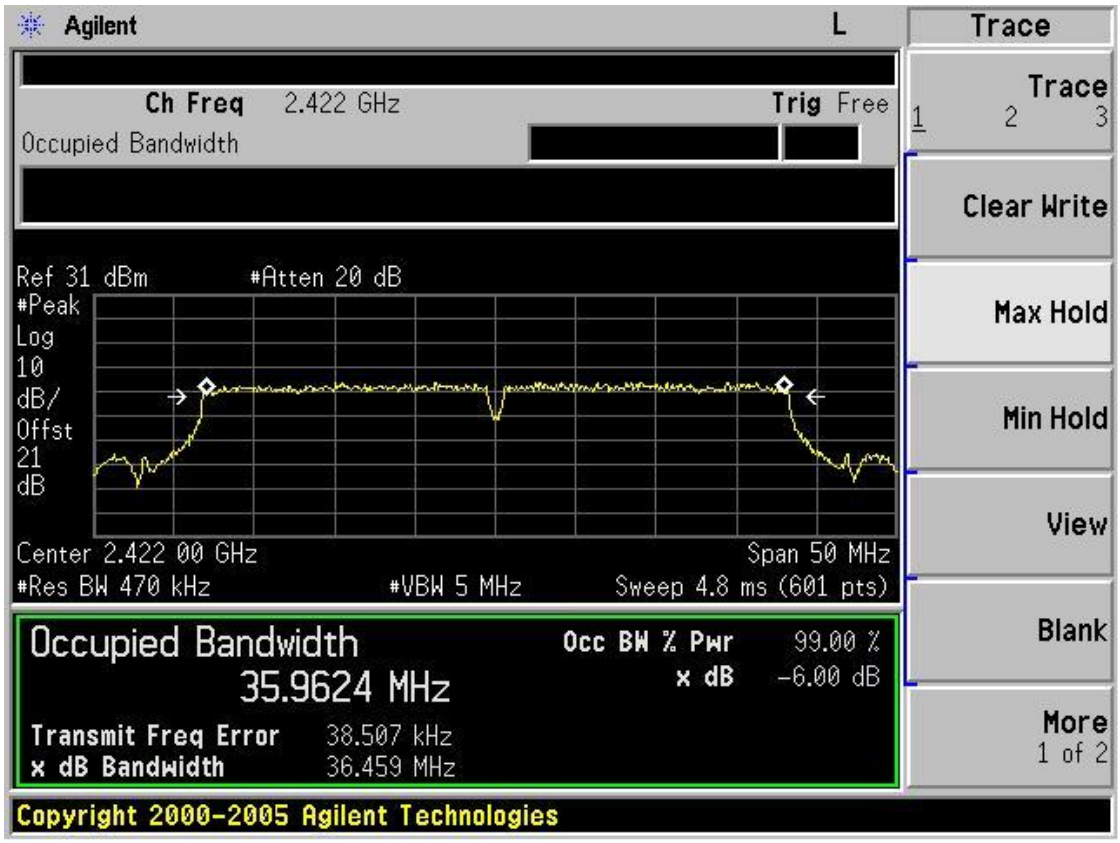


Test CH11: 2462MHz

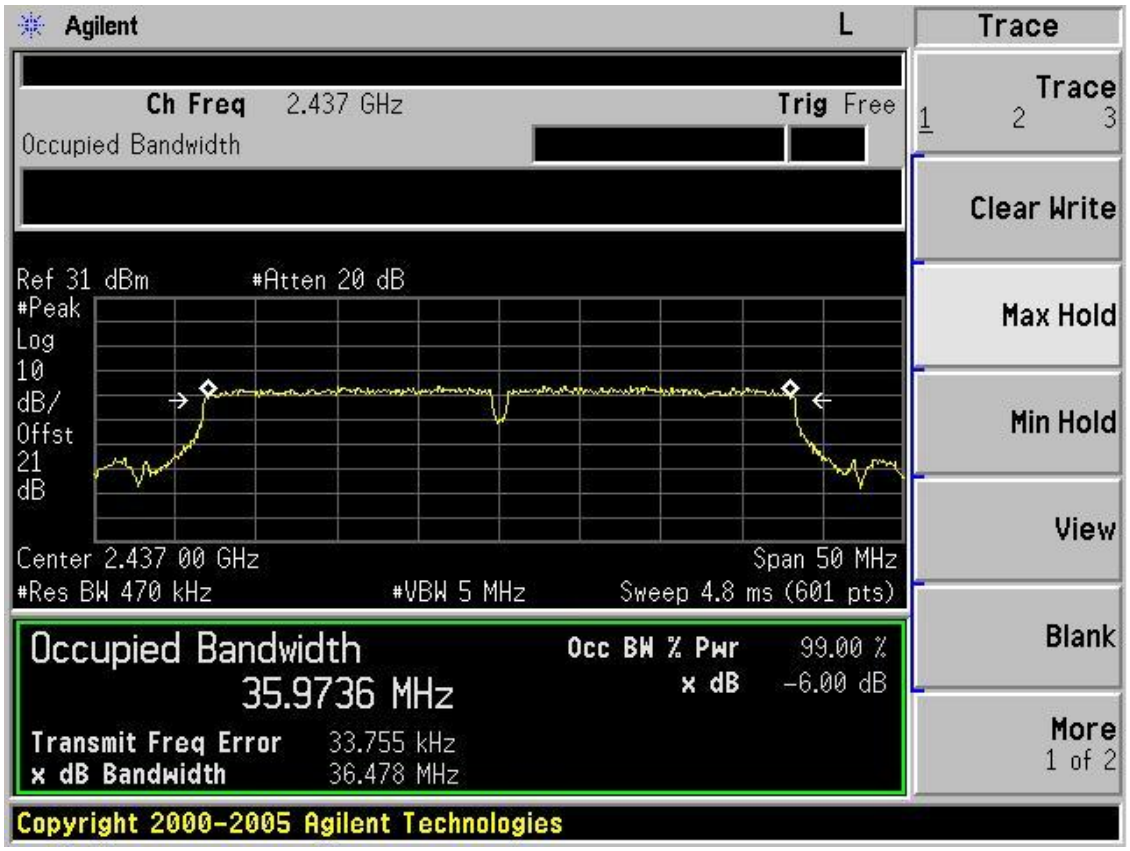


Test Mode: IEEE 802. 11n HT40TX

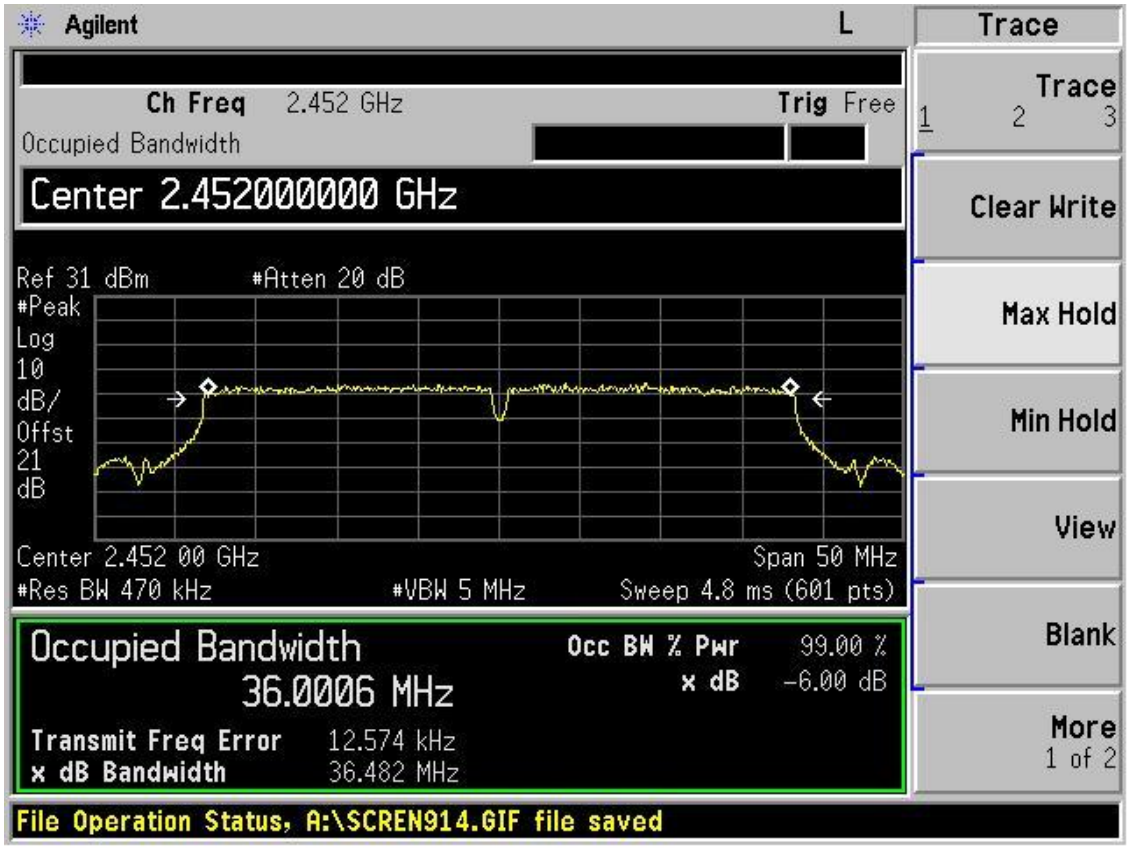
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power meter	Anritsu	ML2487A	6K00002472	May.08,10	1Year
2.	Power sensor	Anritsu	MA2491A	0033005	May.08,10	1Year
3	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
4	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

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

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3.Test Procedure

1, Connected the EUT's antenna port to measure device by 20dB attenuator.

2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 6dB bandwidth of signal to measure out each test modes' PK output power.

3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:

1) Set the RBW=3MHz and VBW =8MHz
2) Turn averaging off
3) Set sweep to automatic
4) Set the span just large enough to capture the emission
5) Use a peak detector on max hold
6) Record the measured power
7) Calculate Output power of EUT use the formula:

Peak output power =measured power+ 10log[(6dB bandwidth of emission)/(analyzer RBW)]

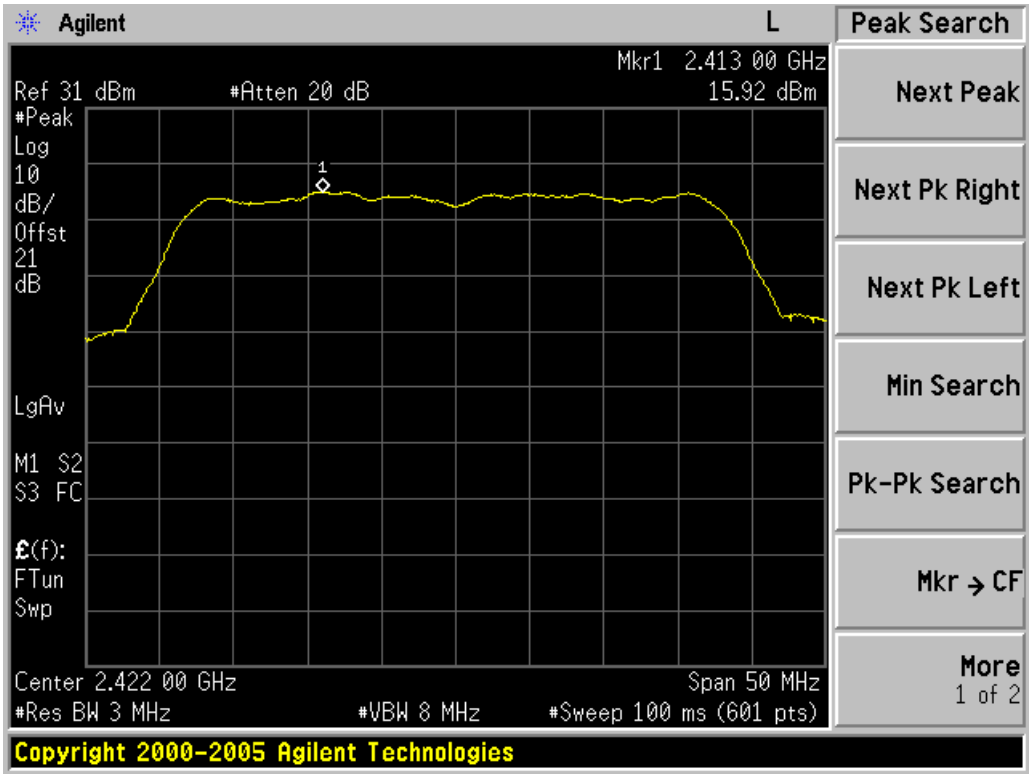
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

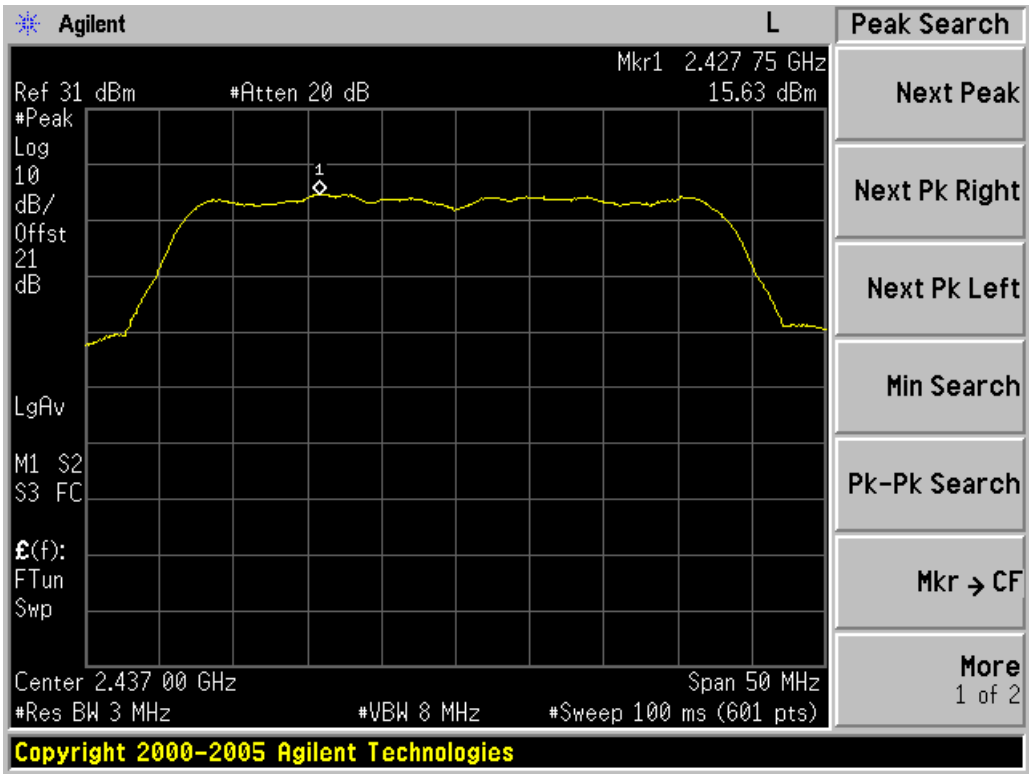
8.4.Test Results

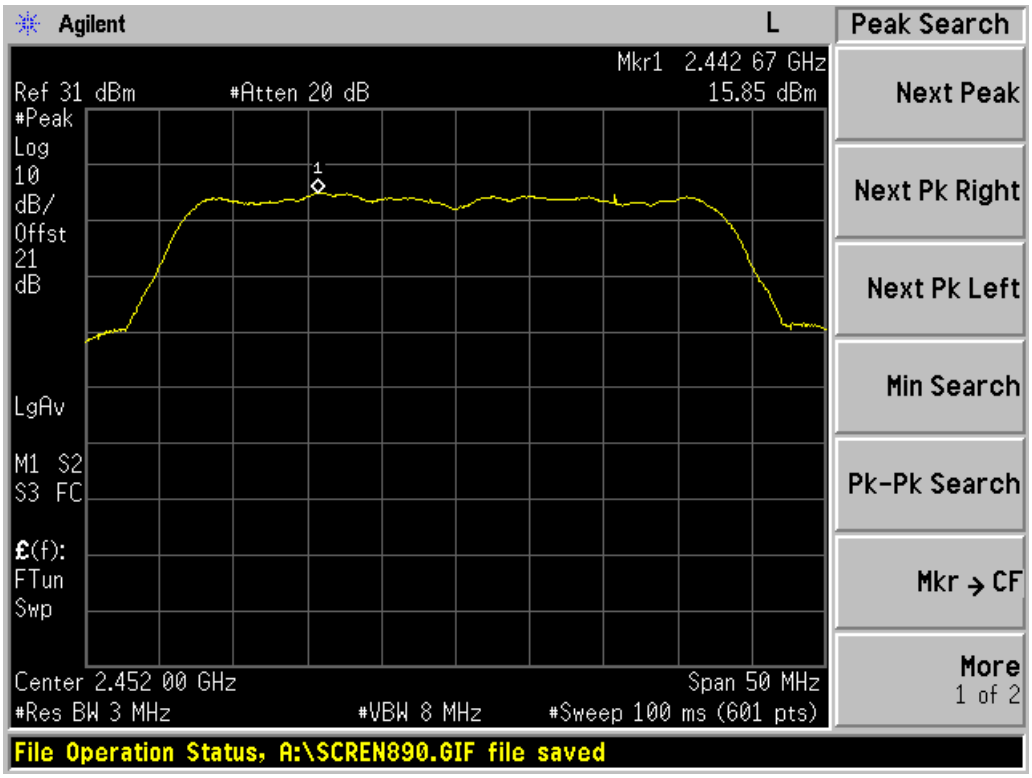
EUT: A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter		
M/N: ACR-WN10002		
Test date:2011-02-27	Pressure: 100.6 kpa	Humidity: 45 %
Tested by: Paul Tian	Test site: RF Site	Temperature：25 ℃

Cable loss: 1dB		Attenuator loss: 20 dB	Antenna Gain: 0 dBi
Test Mode	CH	Peak output Power（dBm）	Limit (dBm)
11b	CH1	19.41	30
	CH6	19.10	30
	CH11	19.06	30
11g	CH1	24.68	30
	CH6	24.55	30
	CH11	24.58	30
11n HT20	CH1	25.31	30
	CH6	25.33	30
	CH11	25.42	30

Mode	CH	Result		Limit
		Measured power(dBm)/3MHz	PK Output power (dBm)	(dBm)
11n HT40	CH1	15.92	26.77	30
	CH4	15.63	26.48	30
	CH7	15.85	26.70	30
6dB Bandwidth for 11n HT40: 36.5MHz				
BW correction factor = 10log[(36.5MHz)/(3MHz)] = 10.85dB				
Conclusion: PASS				


Agilent
L
Peak Search
Mkr1 2.413 00 GHz
Ref 31 dBm
#Atten 20 dB
15.92 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 2.422 00 GHz
Span 50 MHz
#Res BW 3 MHz
#VBW 8 MHz
#Sweep 100 ms (601 pts)
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 2.427 75 GHz
Ref 31 dBm
#Atten 20 dB
15.63 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 2.437 00 GHz
Span 50 MHz
#Res BW 3 MHz
#VBW 8 MHz
#Sweep 100 ms (601 pts)
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 2.442 67 GHz
Ref 31 dBm
#Atten 20 dB
15.85 dBm
#Peak
Log
10
dB/
Offst
21
dB
1
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center 2.452 00 GHz
Span 50 MHz
#Res BW 3 MHz
#VBW 8 MHz
#Sweep 100 ms (601 pts)
File Operation Status, A:\SCREN890.GIF file saved

9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 10	1Year

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.

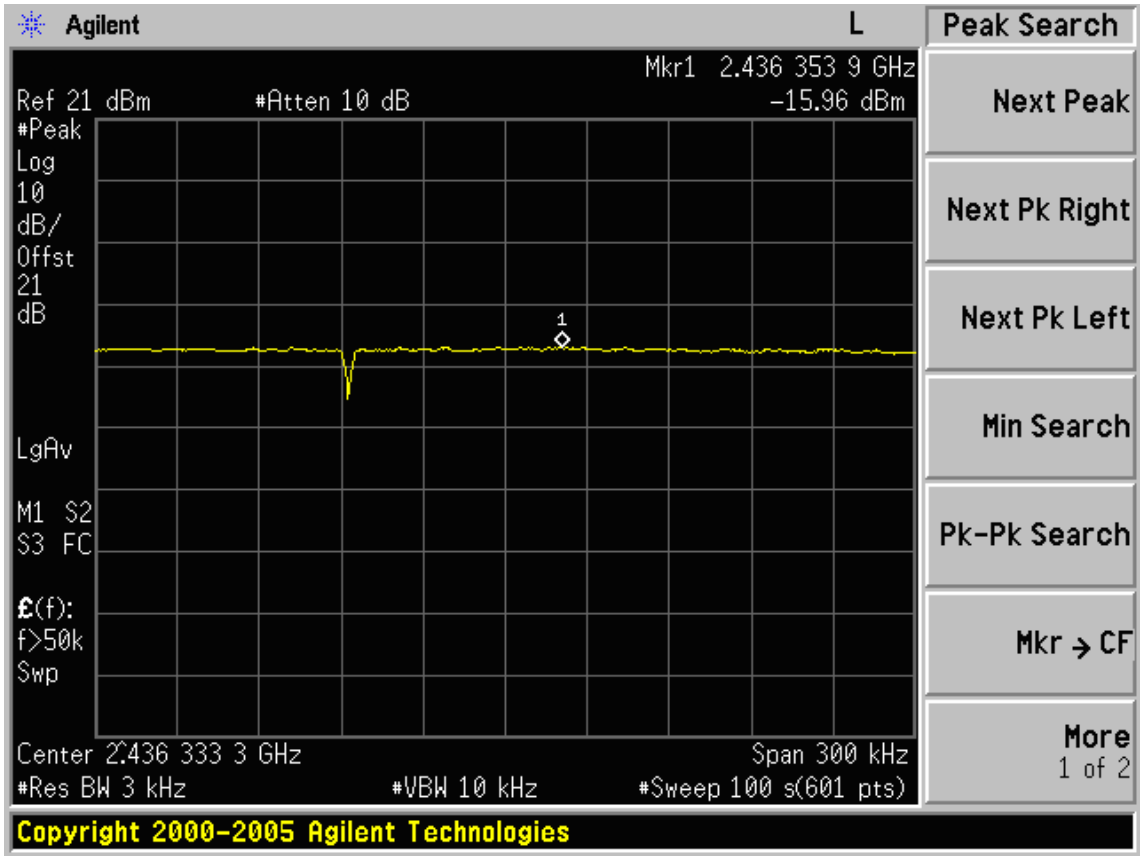
2, Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.

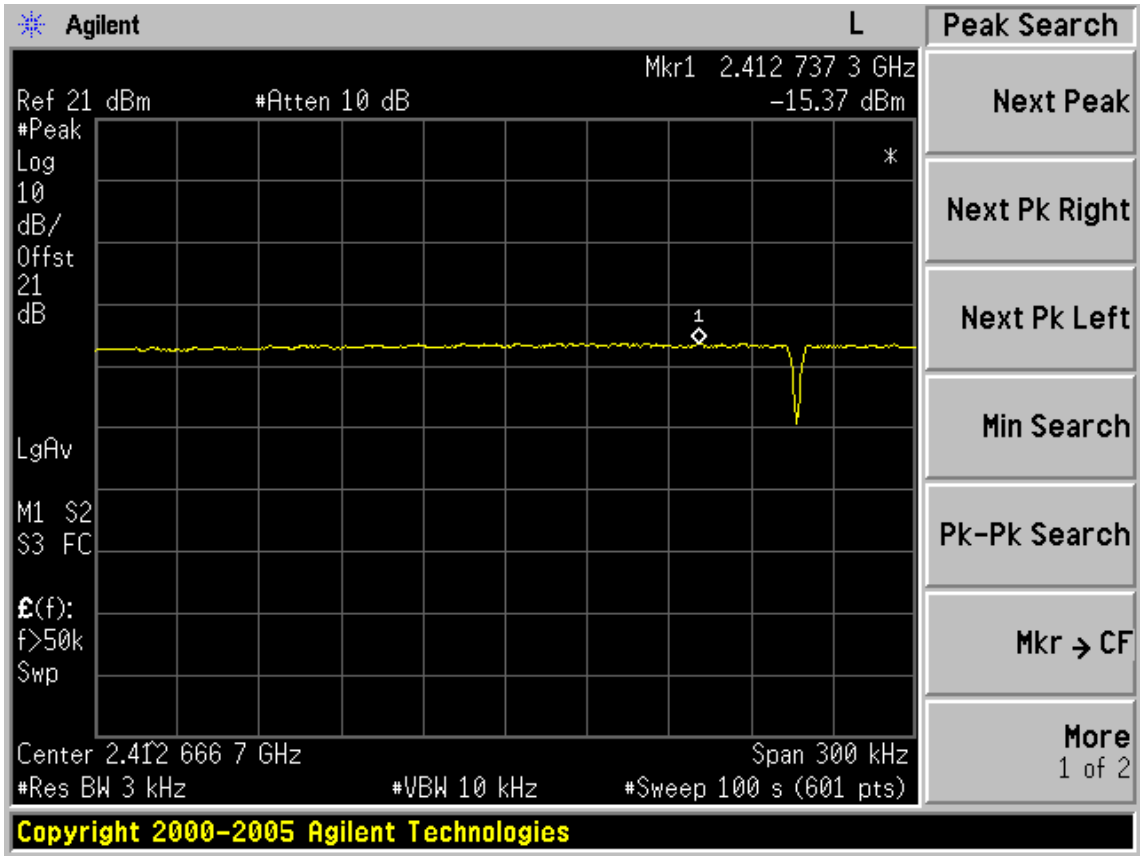
9.4.Test Results

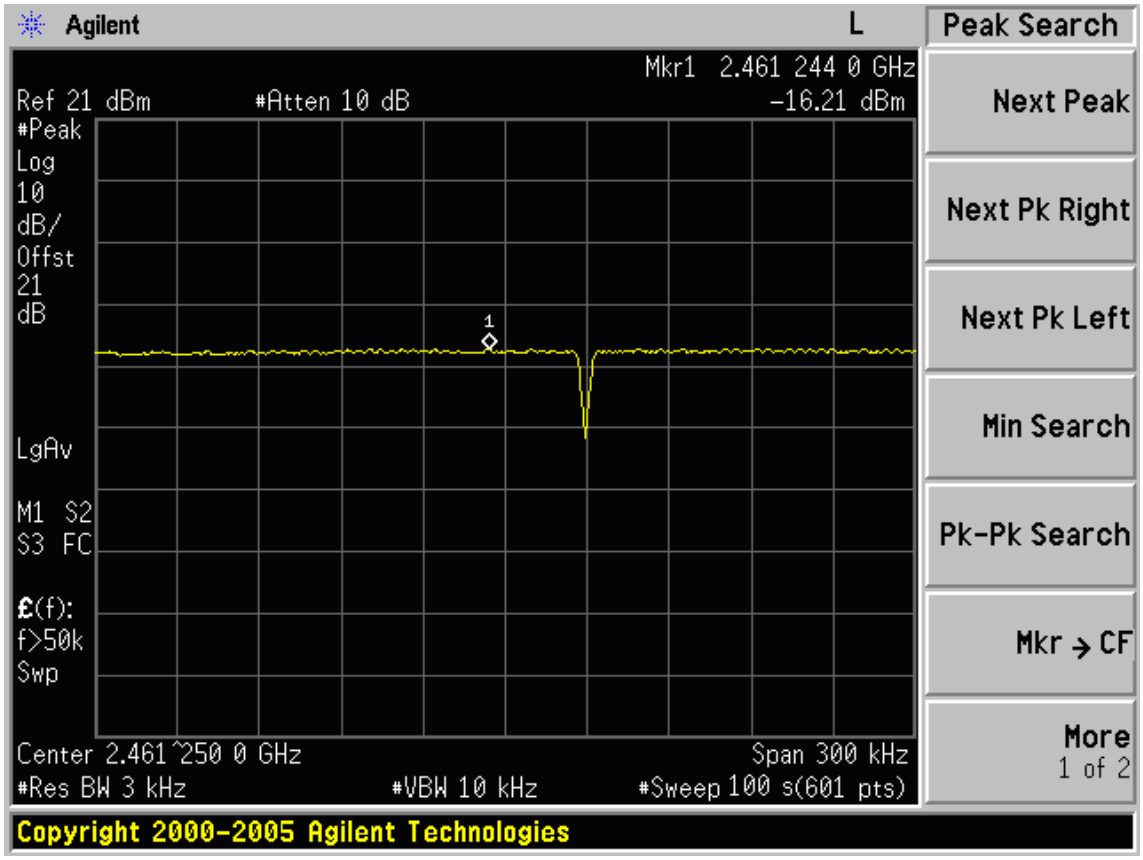
EUT: A.C. Ryan PLAYON! Essential Wireless-N 300mbps USB Adapter		
M/N: ACR-WN10002		
Test date:2011-02-27	Pressure: 100.6 kpa	Humidity: 45 %
Tested by: Paul Tian	Test site: RF Site	Temperature：25℃

Cable loss: 1 dB		Attenuator loss: 20 dB	Antenna Gain: 0 dBi
Test Mode	CH	Power density（dBm/3KHz）	Limit (dBm/3KHz)
11b	CH1	-15.37	8
	CH6	-15.96	8
	CH11	-16.21	8
11g	CH1	-12.11	8
	CH6	-11.05	8
	CH11	-12.33	8
11n HT20	CH1	-10.70	8
	CH6	-10.74	8
	CH11	-11.42	8
11n HT40	CH1	-12.21	8
	CH4	-12.08	8
	CH7	-12.32	8
Conclusion：PASS			

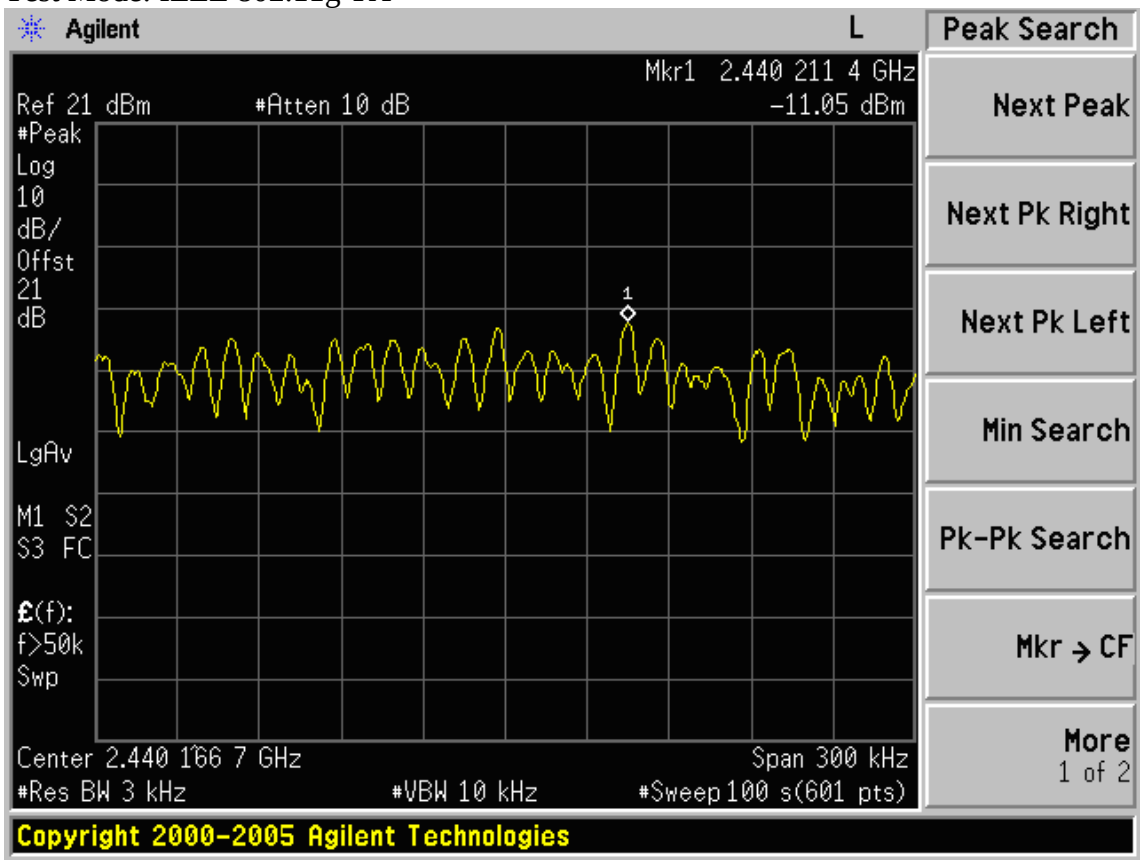
Test Mode: IEEE 802.11b TX

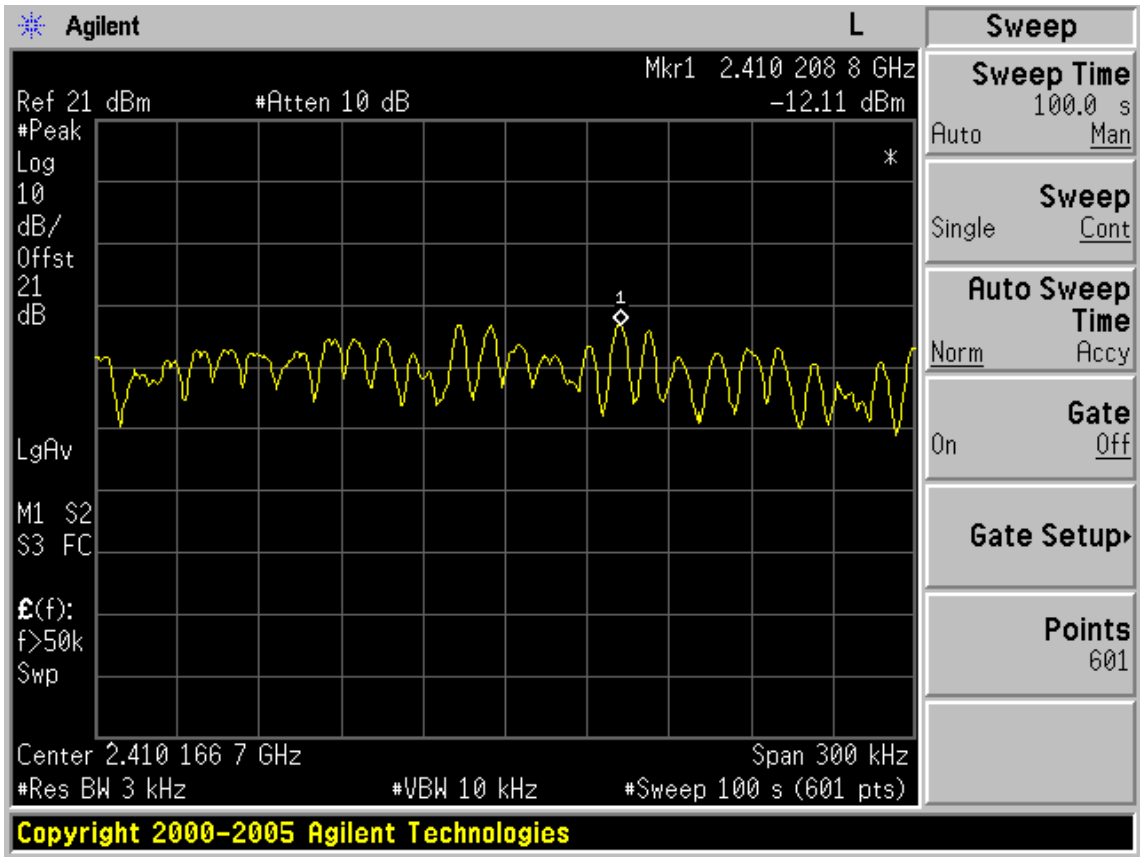


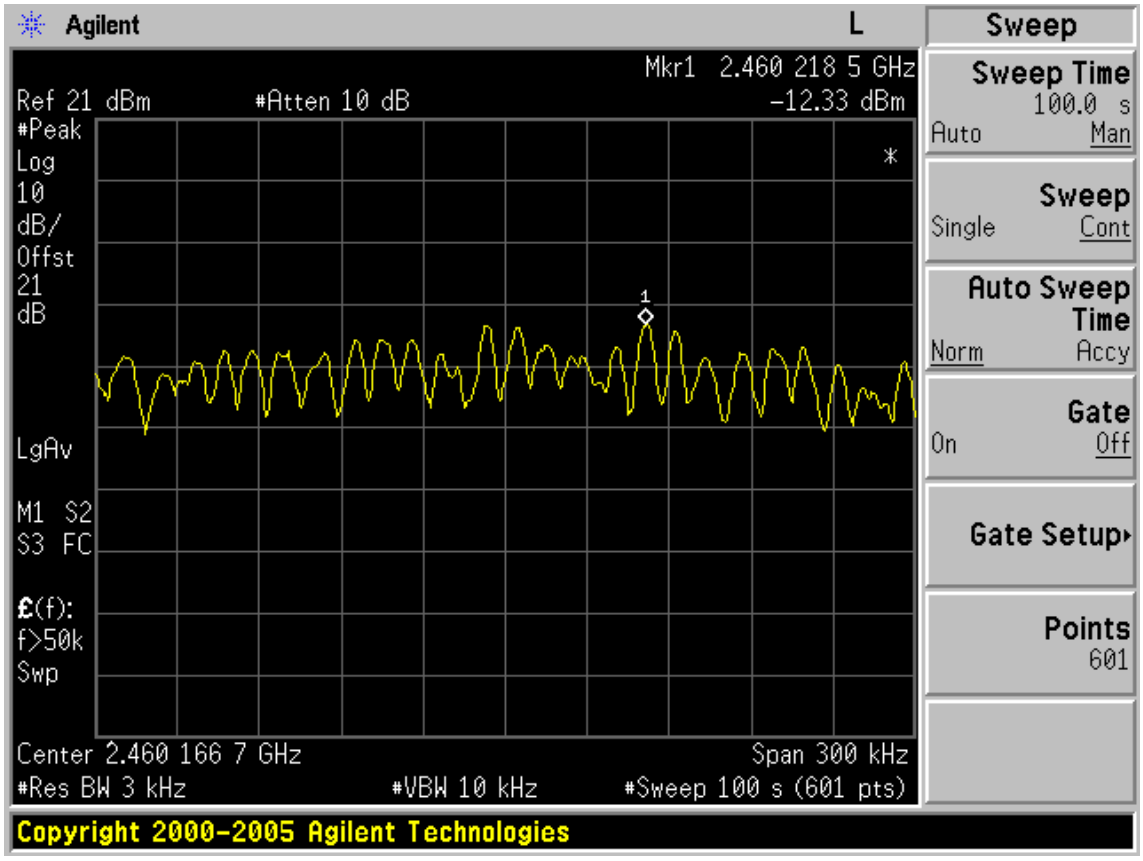




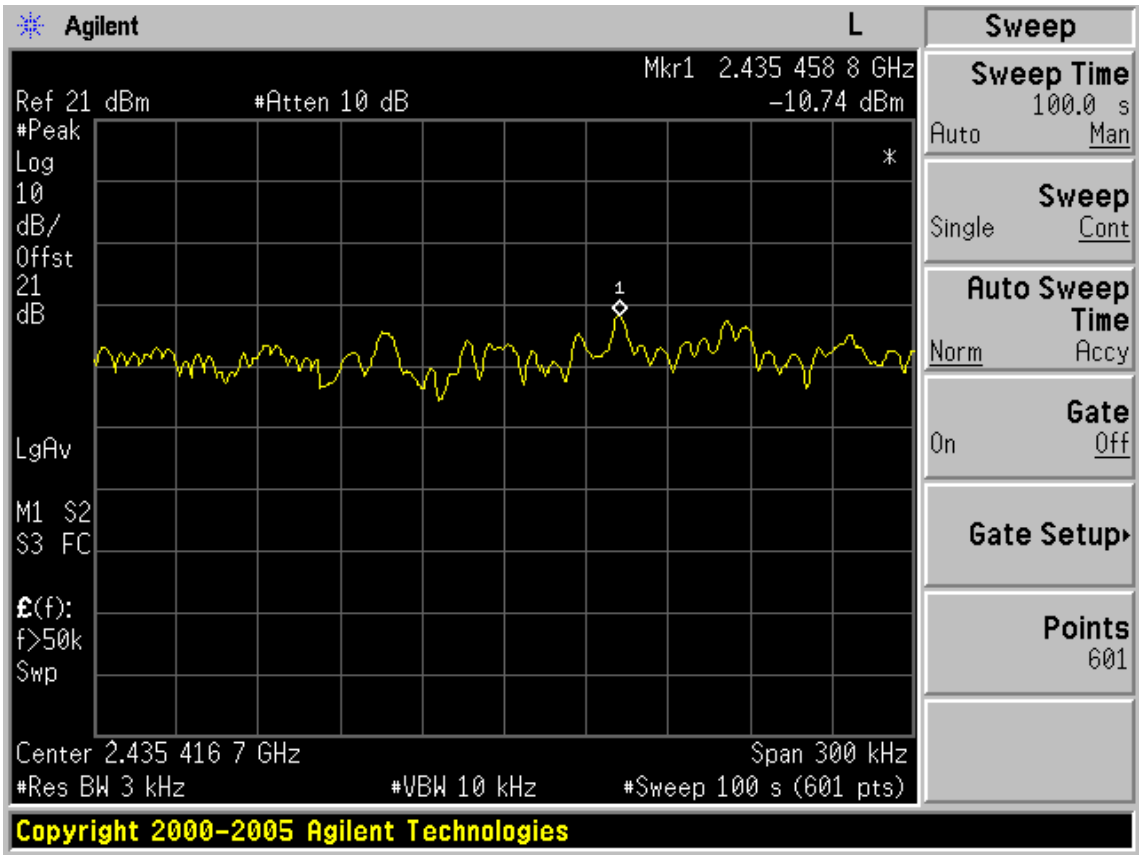
Test Mode: IEEE 802.11g TX

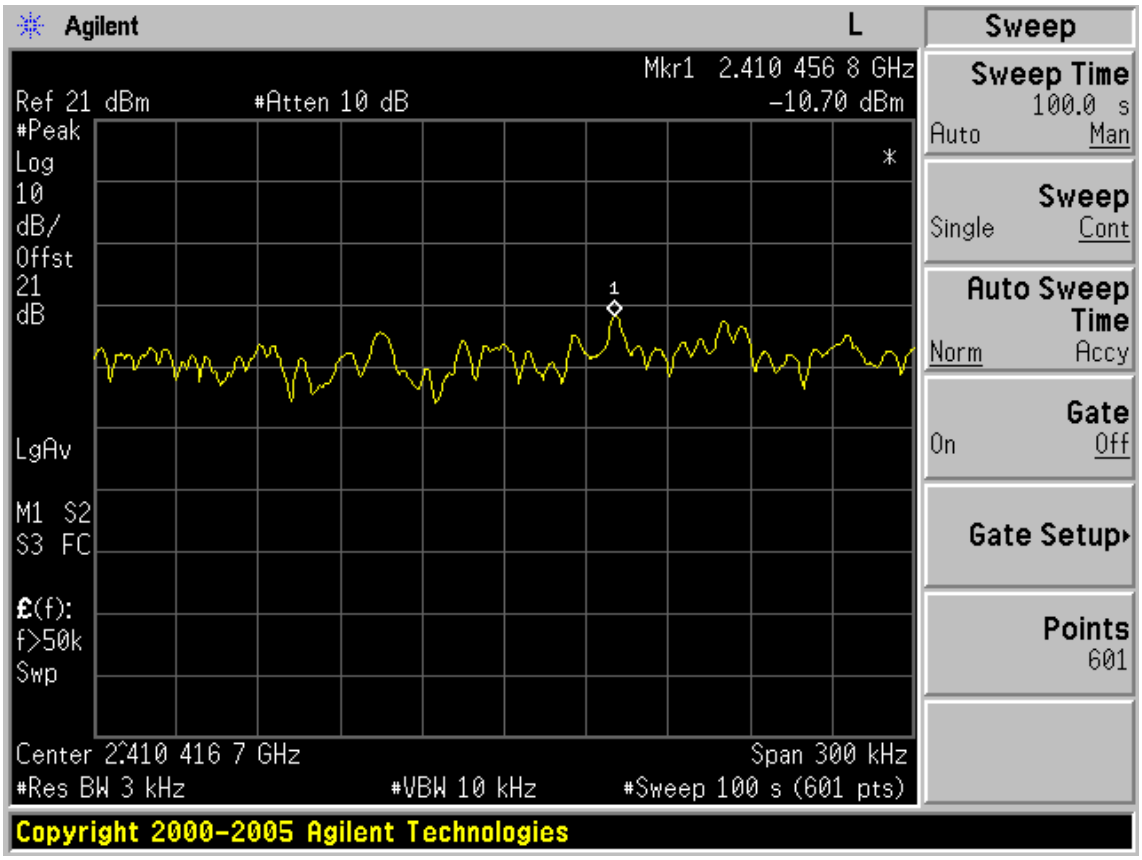


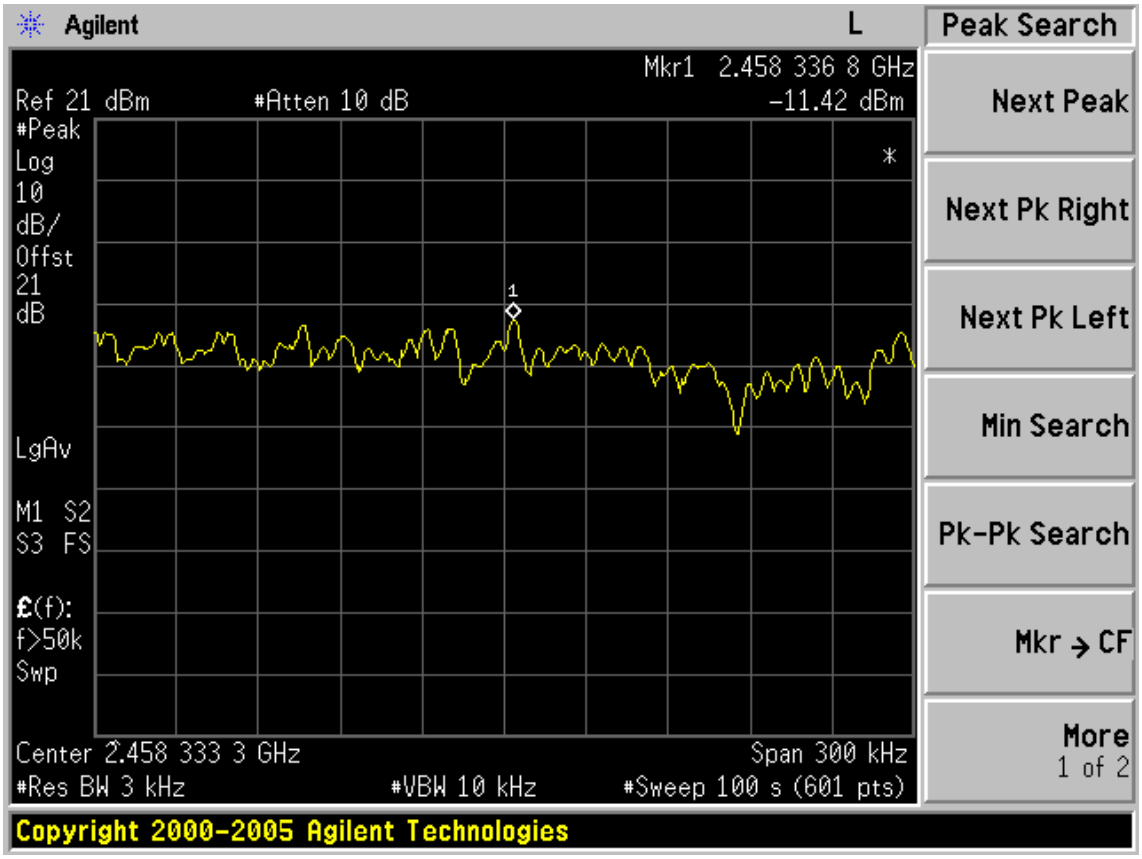

Agilent
L
Sweep
Mkr1 2.410 208 8 GHz
Ref 21 dBm
#Atten 10 dB
-12.11 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
f>50k
Swp
Sweep Time
100.0 s
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Center 2.410 166 7 GHz
Span 300 kHz
#Res BW 3 kHz
#VBW 10 kHz
#Sweep 100 s (601 pts)
Copyright 2000-2005 Agilent Technologies


Agilent
L
Sweep
Mkr1 2.460 218 5 GHz
Ref 21 dBm
#Atten 10 dB
-12.33 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
f>50k
Swp
Sweep Time
100.0 s
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Center 2.460 166 7 GHz
Span 300 kHz
#Res BW 3 kHz
#VBW 10 kHz
#Sweep 100 s (601 pts)
Copyright 2000-2005 Agilent Technologies

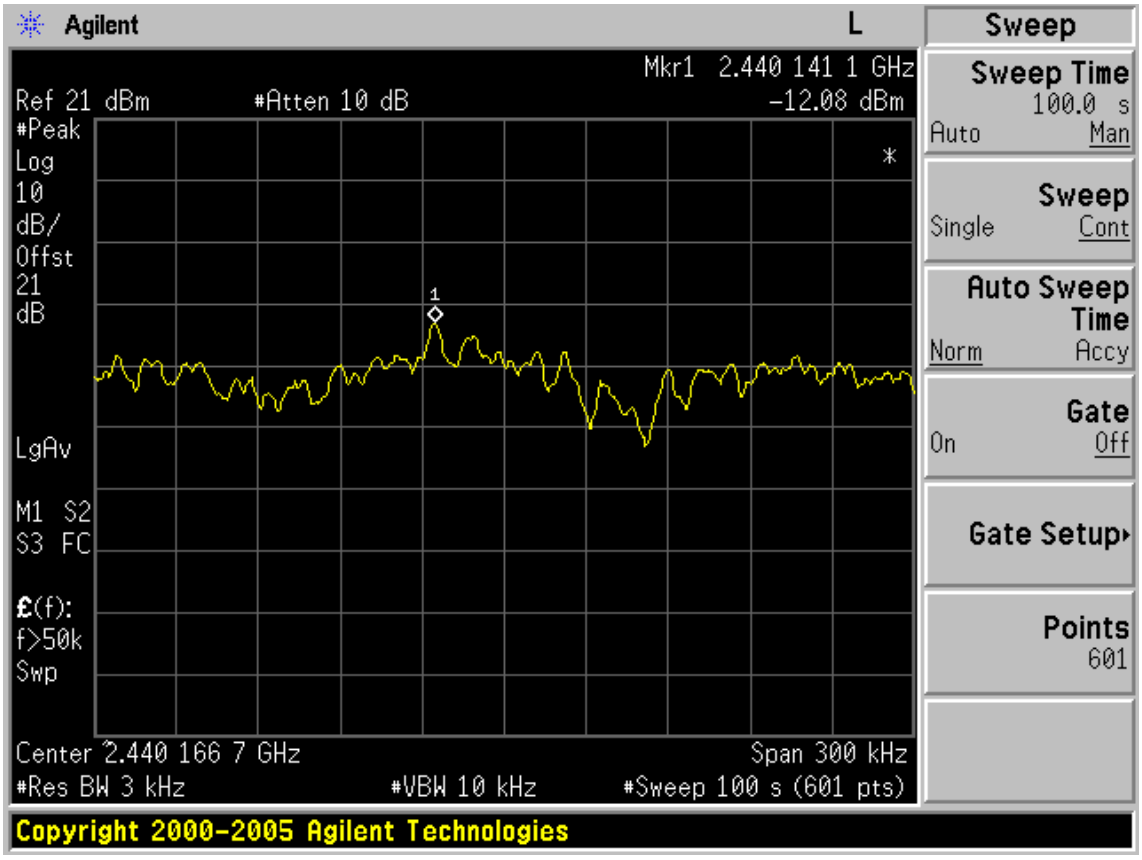
Test Mode: IEEE 802.11n HT20 TX

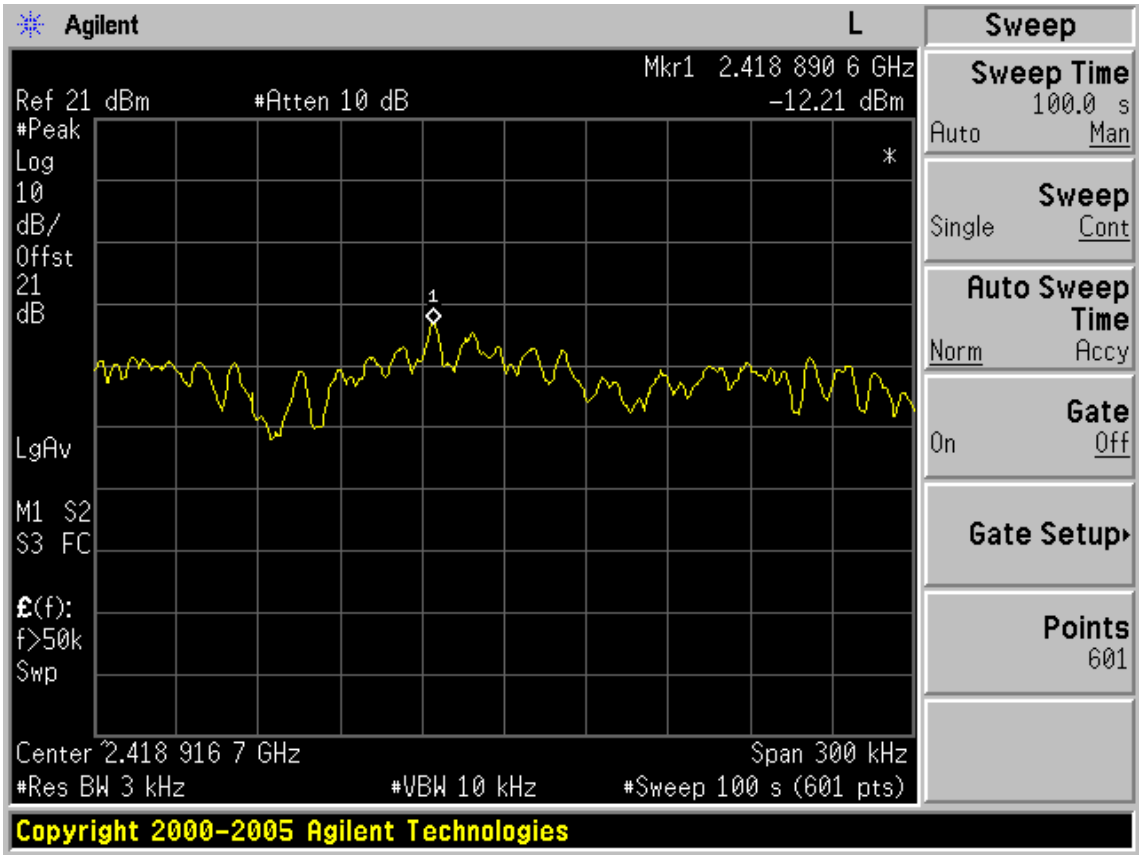


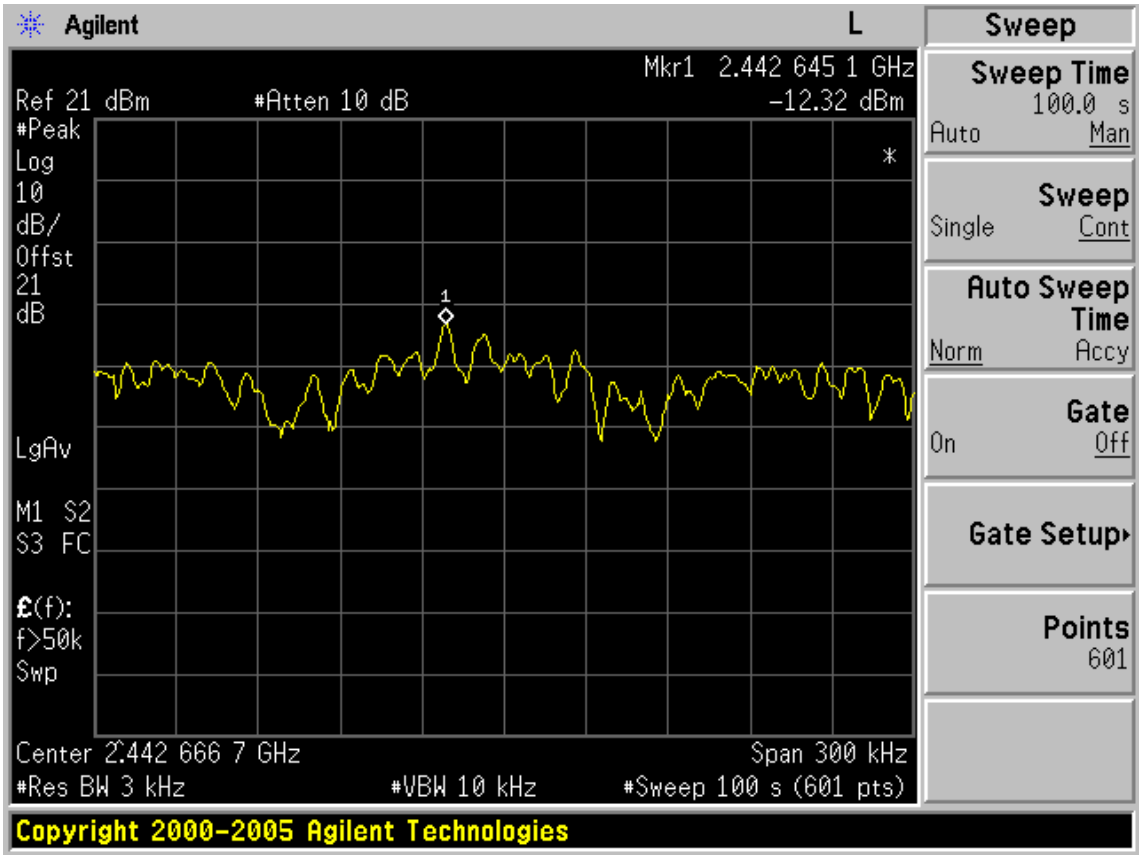




Test Mode: IEEE 802. 11n HT40 TX




Agilent
L
Sweep
Mkr1 2.418 890 6 GHz
Ref 21 dBm
#Atten 10 dB
-12.21 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
f>50k
Swp
Center 2.418 916 7 GHz
Span 300 kHz
#Res BW 3 kHz
#VBW 10 kHz
#Sweep 100 s (601 pts)
Sweep Time
100.0 s
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Copyright 2000-2005 Agilent Technologies


Agilent
L
Sweep
Mkr1 2.442 645 1 GHz
Ref 21 dBm
#Atten 10 dB
-12.32 dBm
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
f>50k
Swp
Center 2.442 666 7 GHz
Span 300 kHz
#Res BW 3 kHz
#VBW 10 kHz
#Sweep 100 s (601 pts)
Sweep Time
100.0 s
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Copyright 2000-2005 Agilent Technologies

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 integrated patch MIMO 1TX2R and 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 0dBi.

11.DEVIATION TO TEST SPECIFICATIONS

[NONE]

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]