5. Peak Power Spectrum Density

5.1. Test Equipment

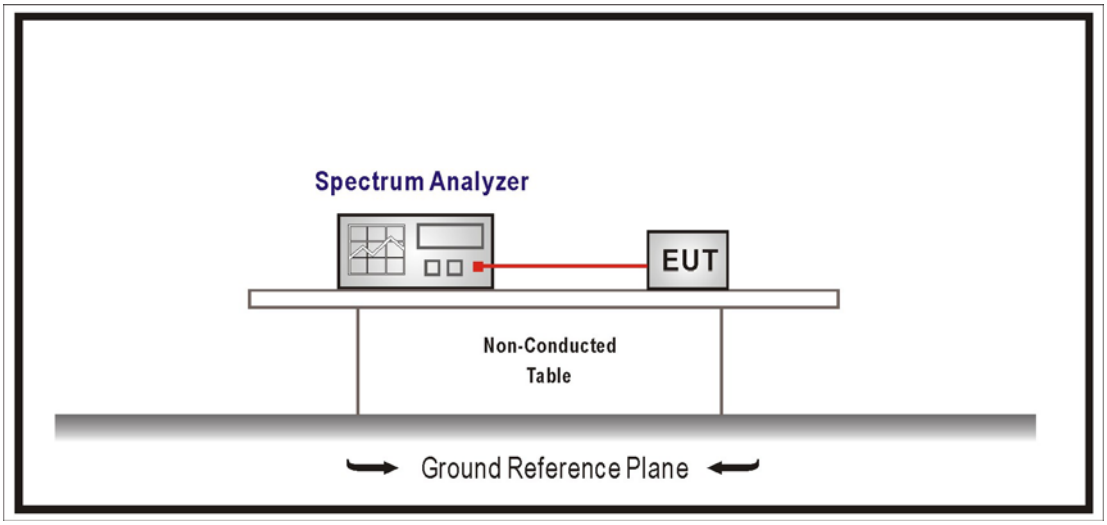
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup



5.3. Limits

1. For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

5.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to U-NII test procedure of March 2012 KDB 789033 for compliance to FCC 47CFR Subpart E requirements.

Set RBW=1MHz, VBW=3MHz with RMS detector. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging.

5.5. Uncertainty

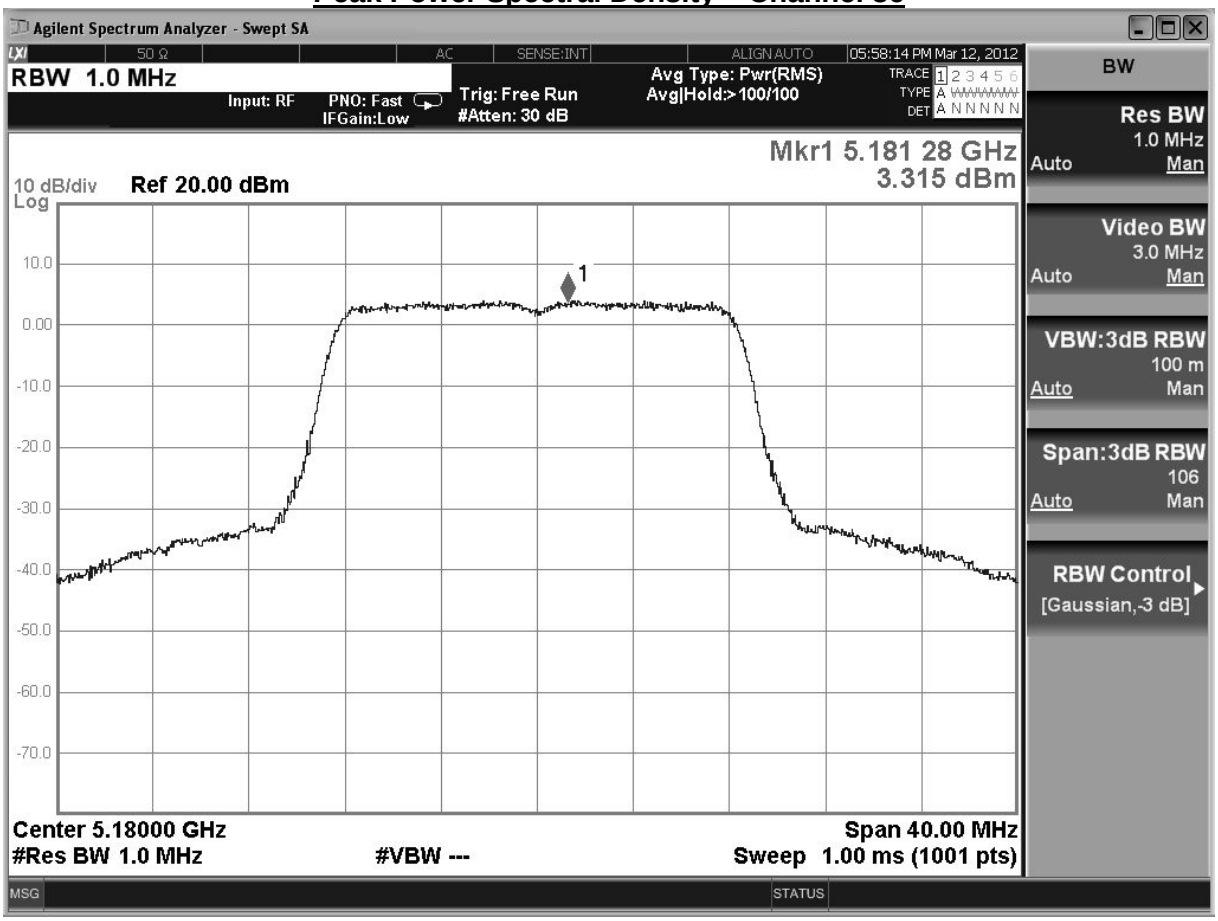
The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

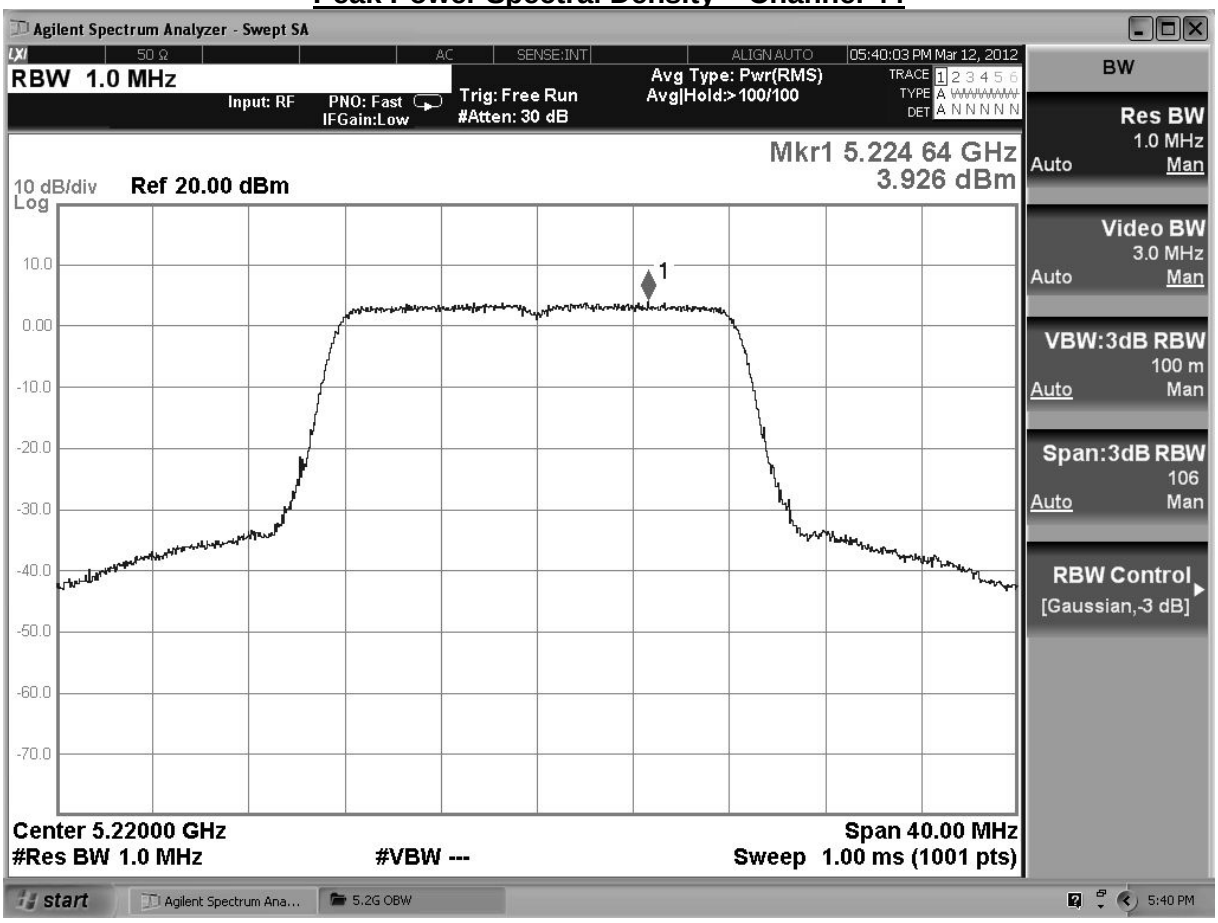
Product	Dual-band Wireless-N Adapter		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/12	Test Site	SR7

IEEE 802.11a				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	3.315	≤ 4	Pass
44	5220	3.926	≤ 4	Pass
48	5240	3.430	≤ 4	Pass

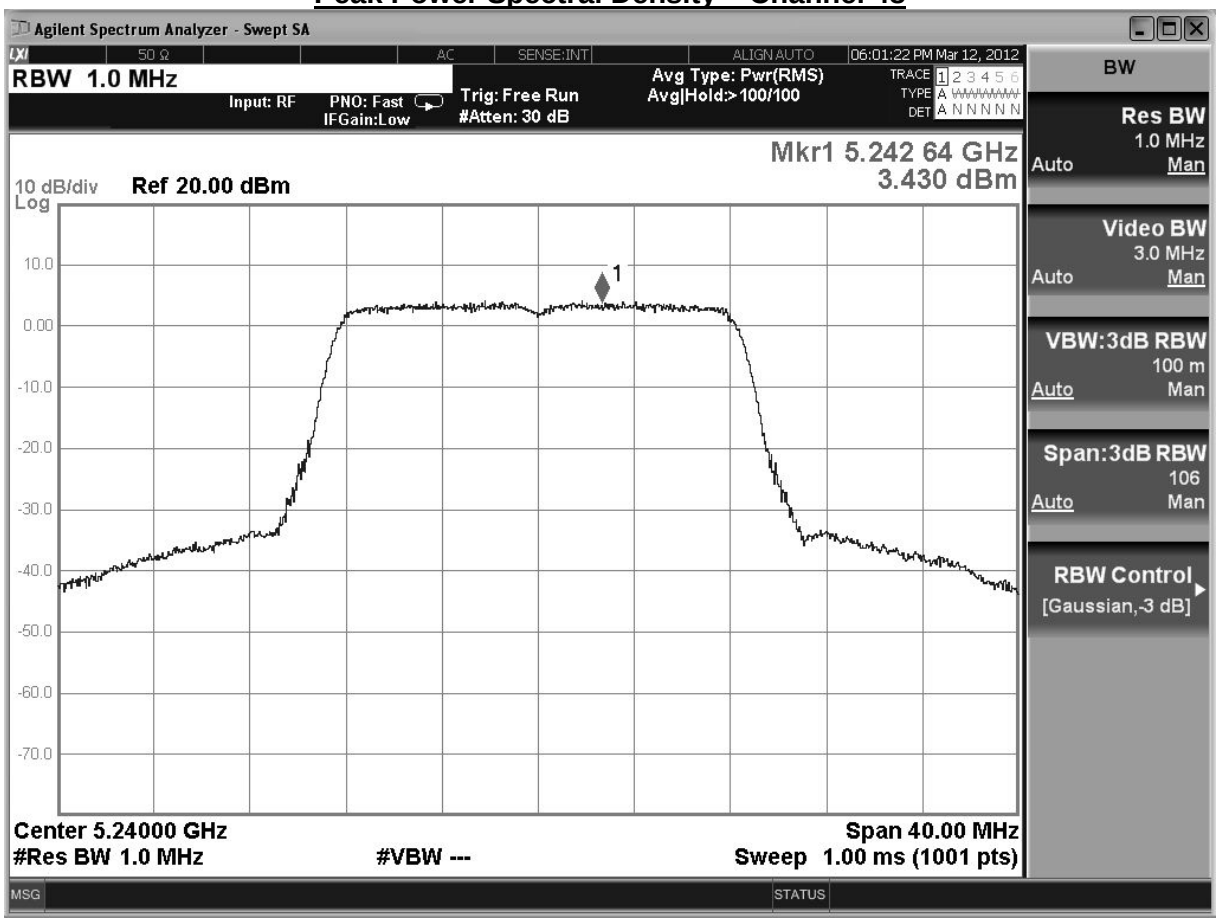
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

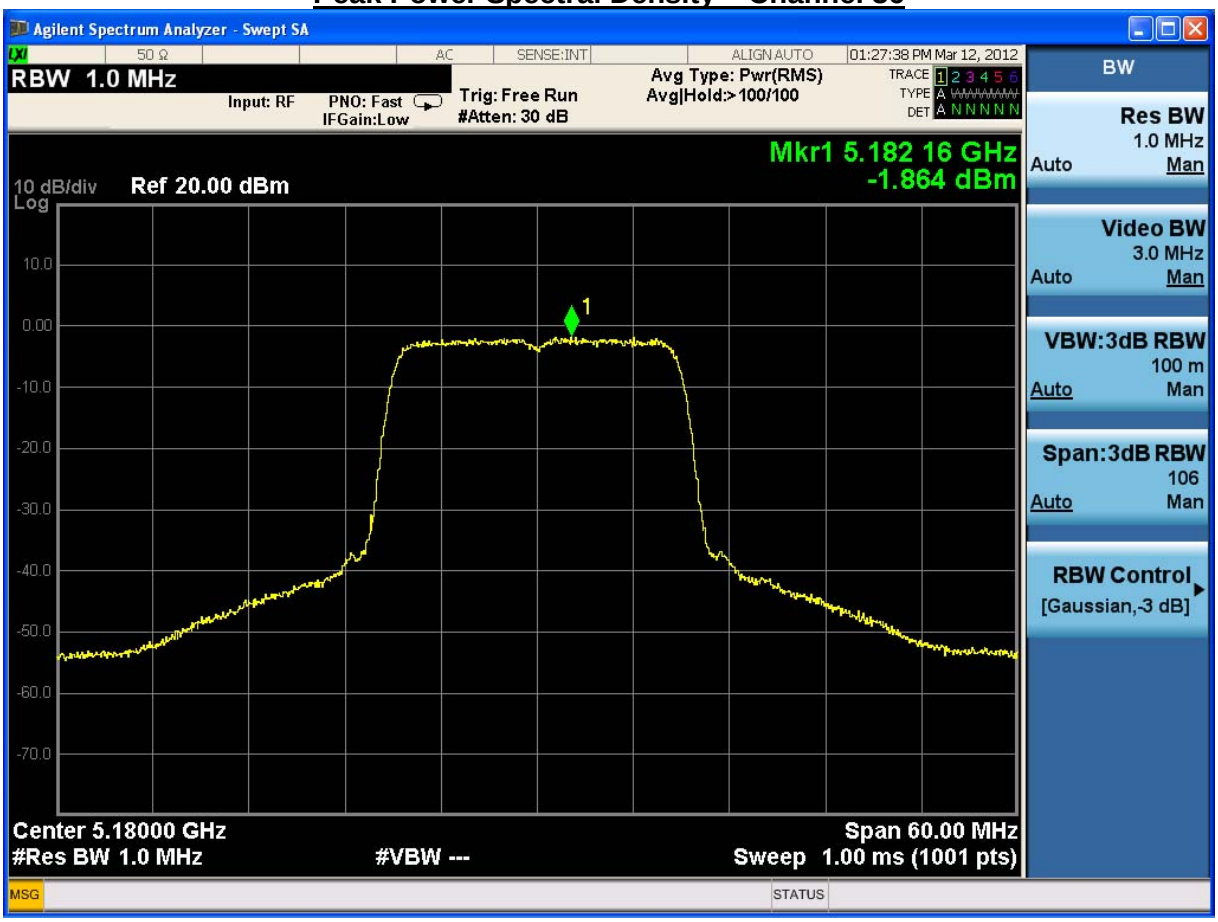


Peak Power Spectral Density – Channel 48

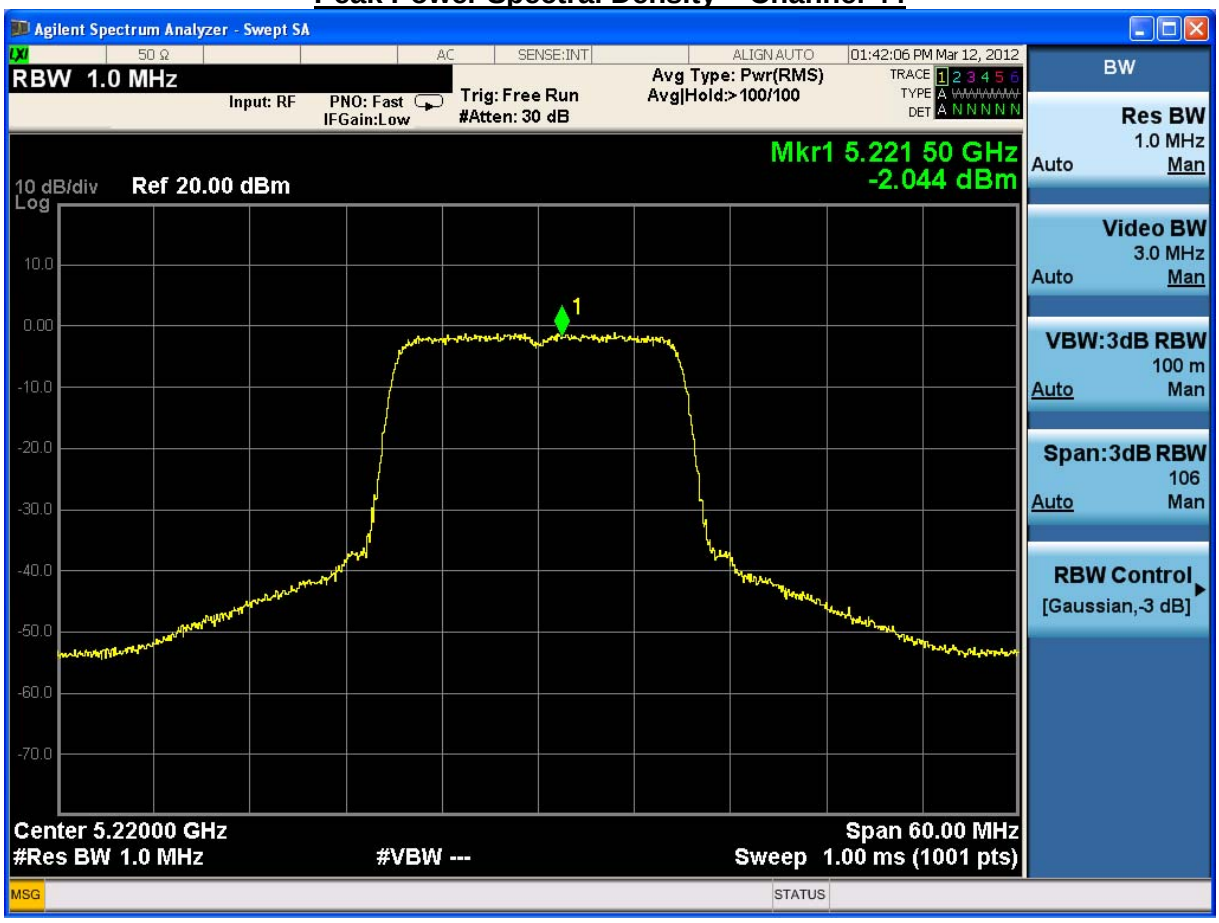


IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.864	≤ 4	Pass
44	5220	-2.044	≤ 4	Pass
48	5240	-0.681	≤ 4	Pass

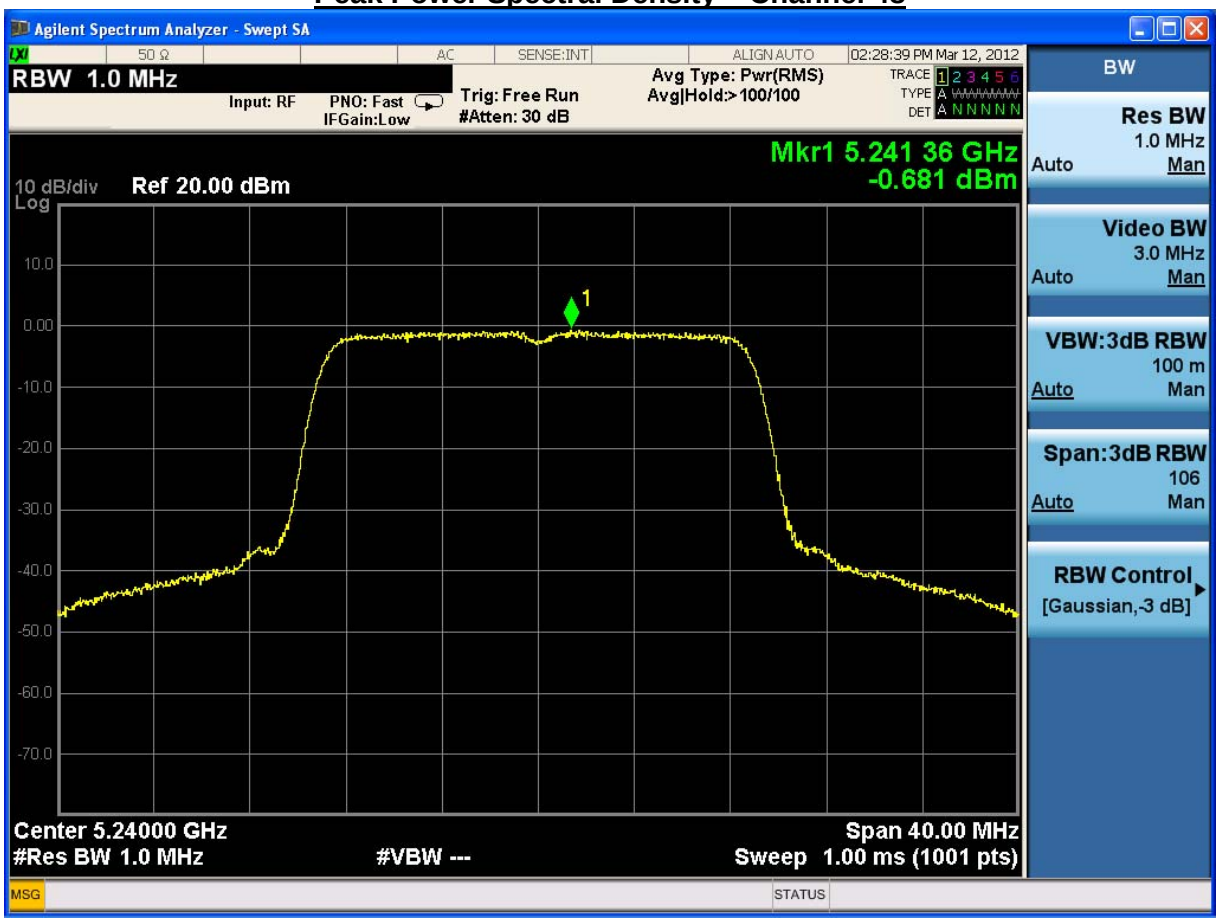
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

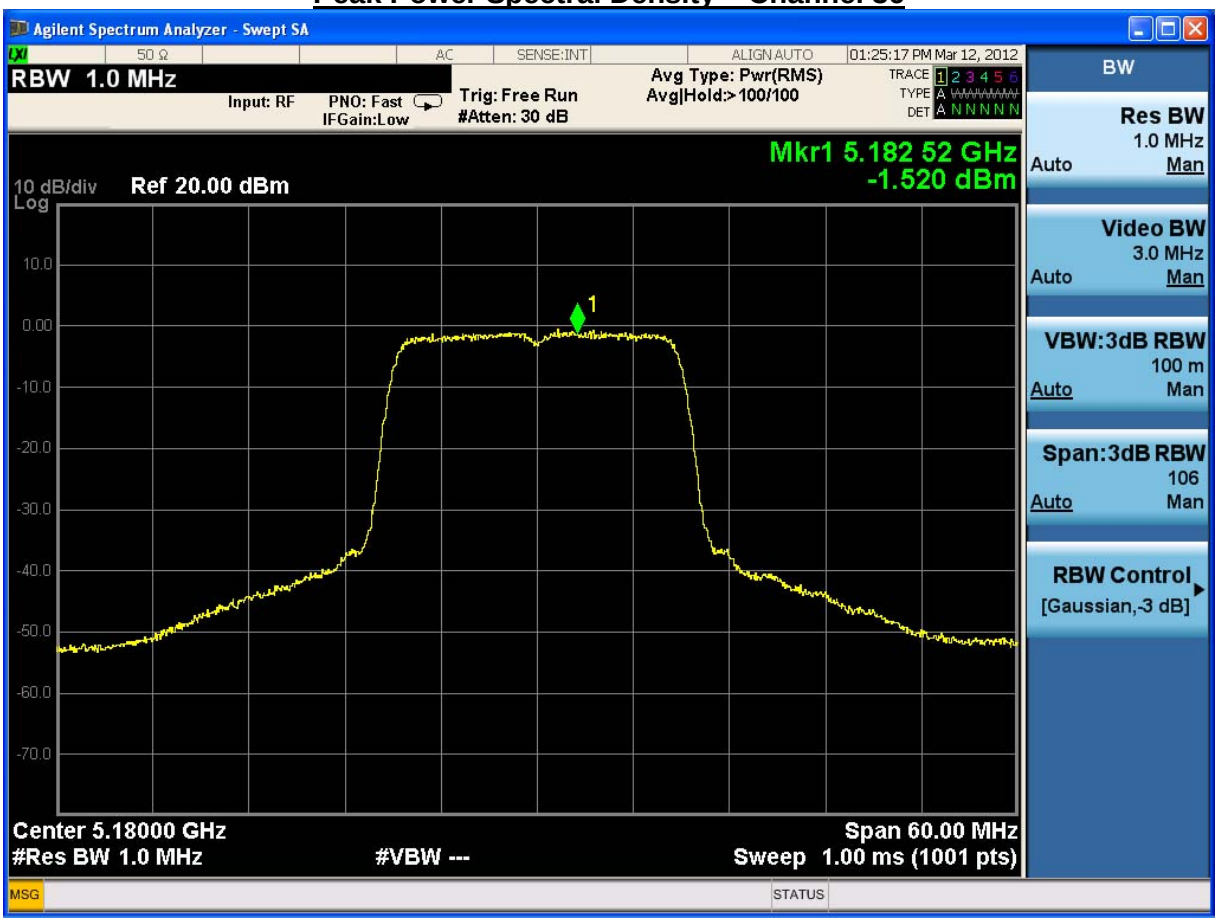


Peak Power Spectral Density – Channel 48

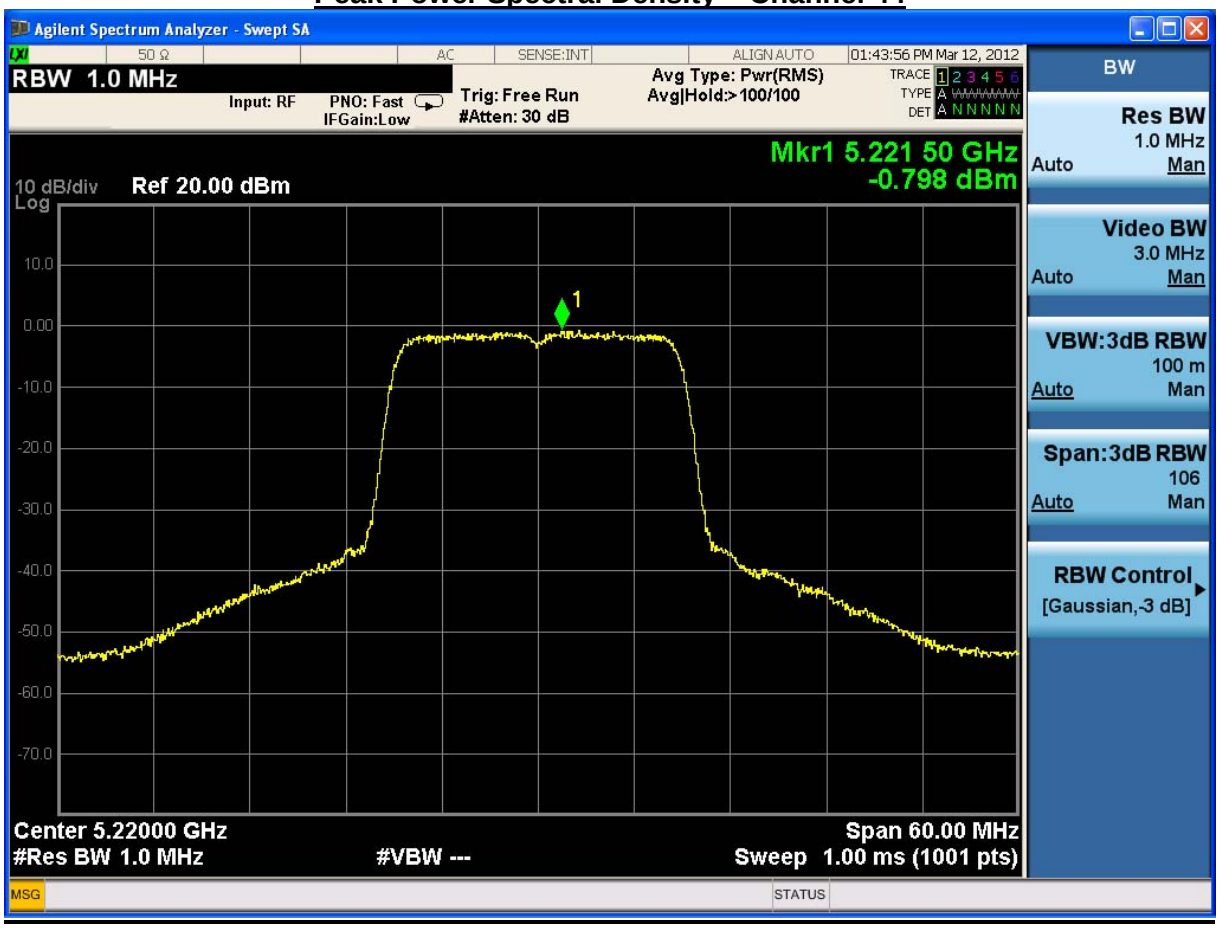


IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.520	≤ 4	Pass
44	5220	-0.798	≤ 4	Pass
48	5240	-1.504	≤ 4	Pass

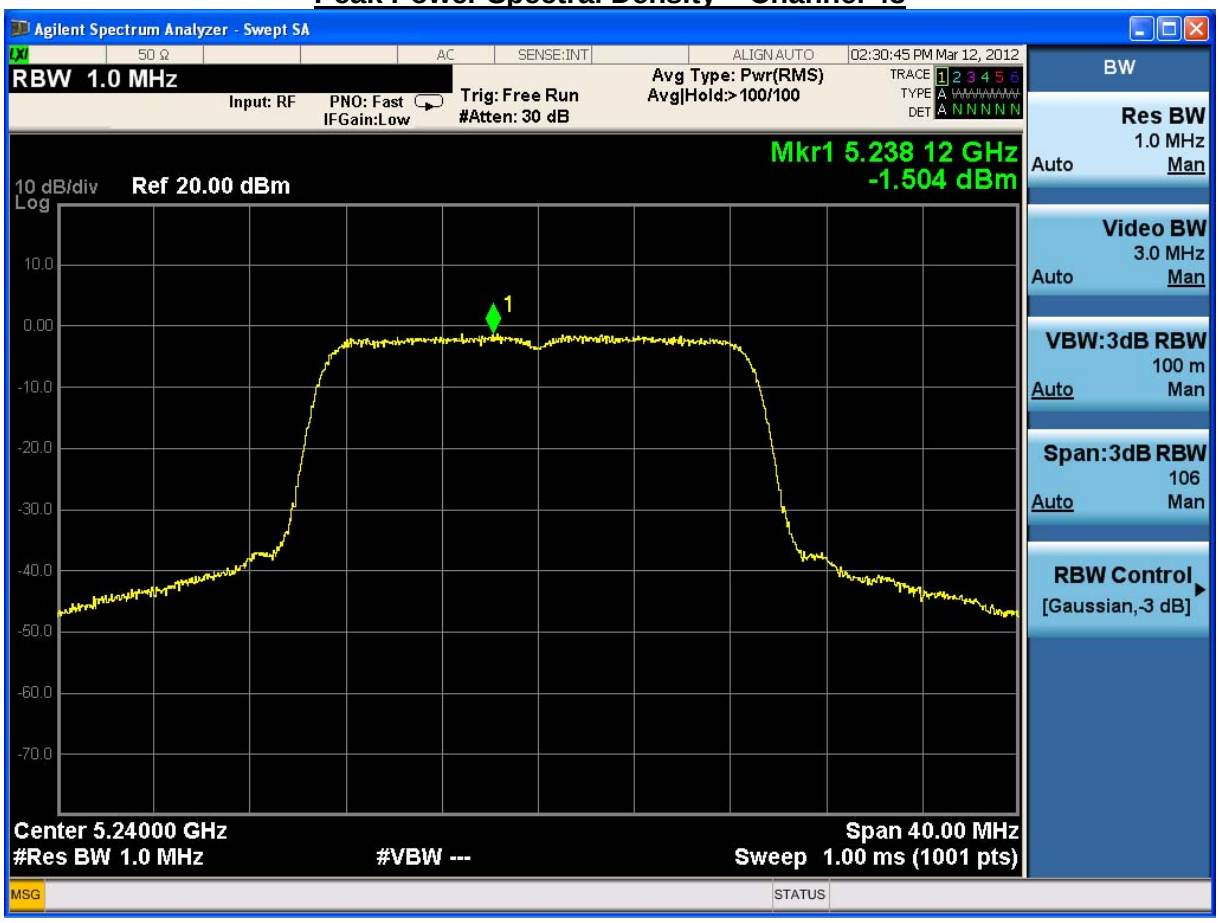
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

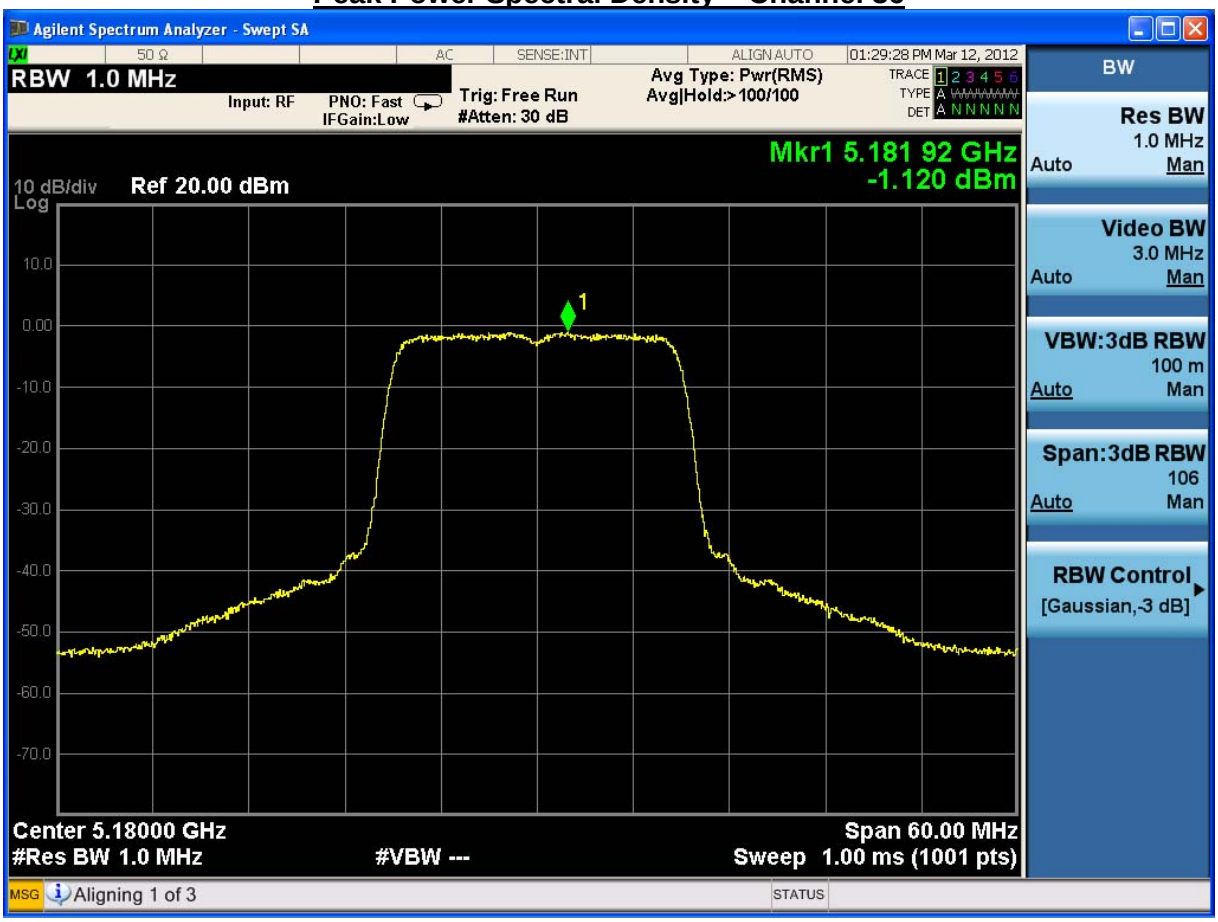


Peak Power Spectral Density – Channel 48

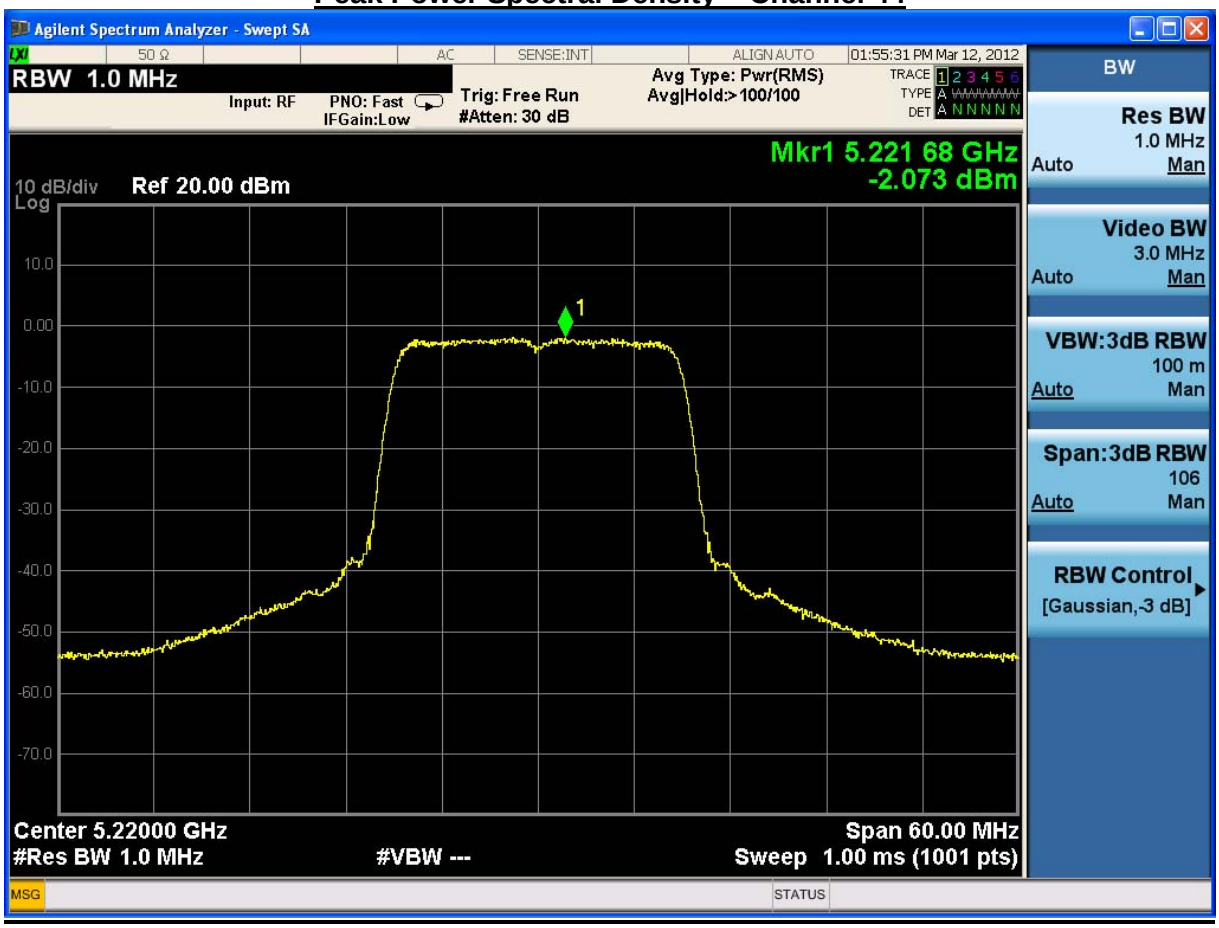


IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.120	≤ 4	Pass
44	5220	-2.073	≤ 4	Pass
48	5240	-1.263	≤ 4	Pass

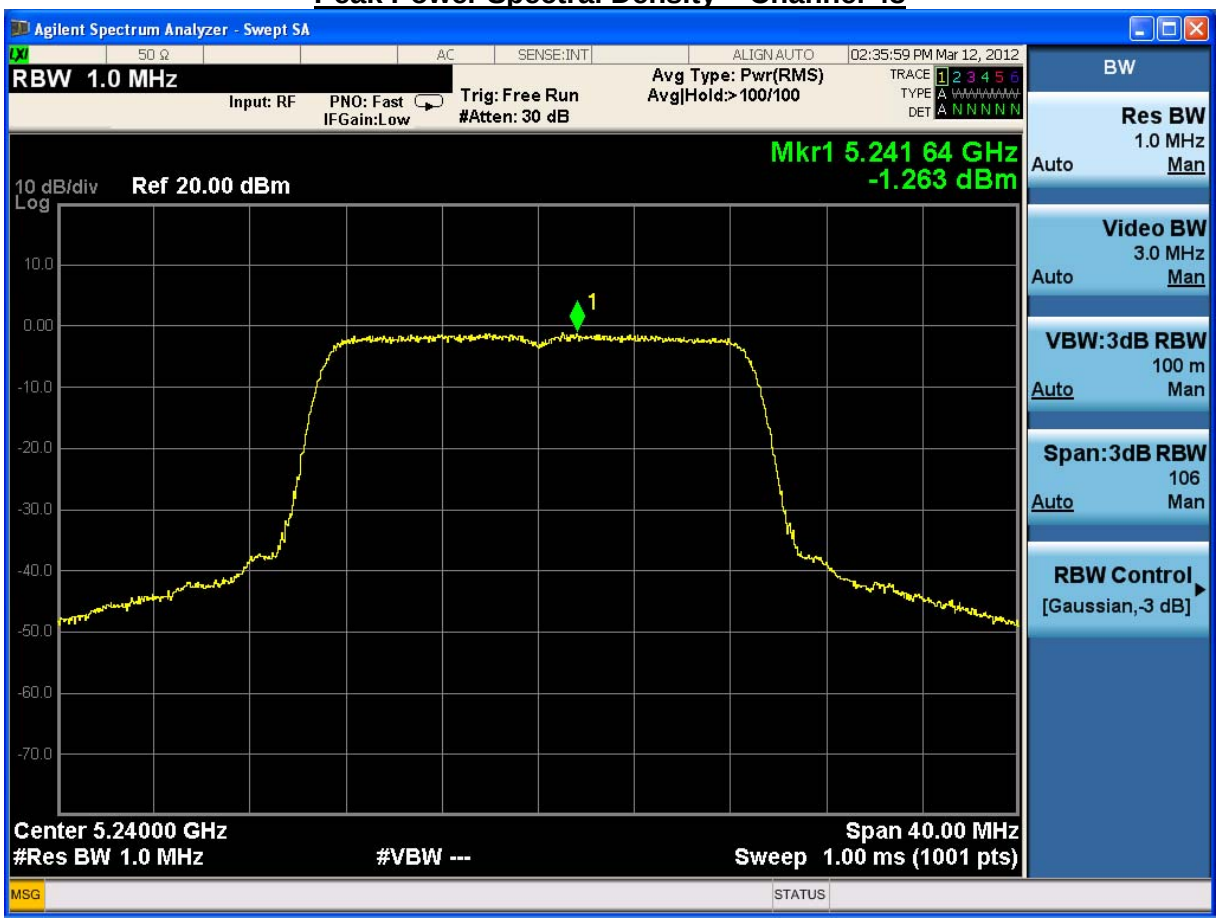
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



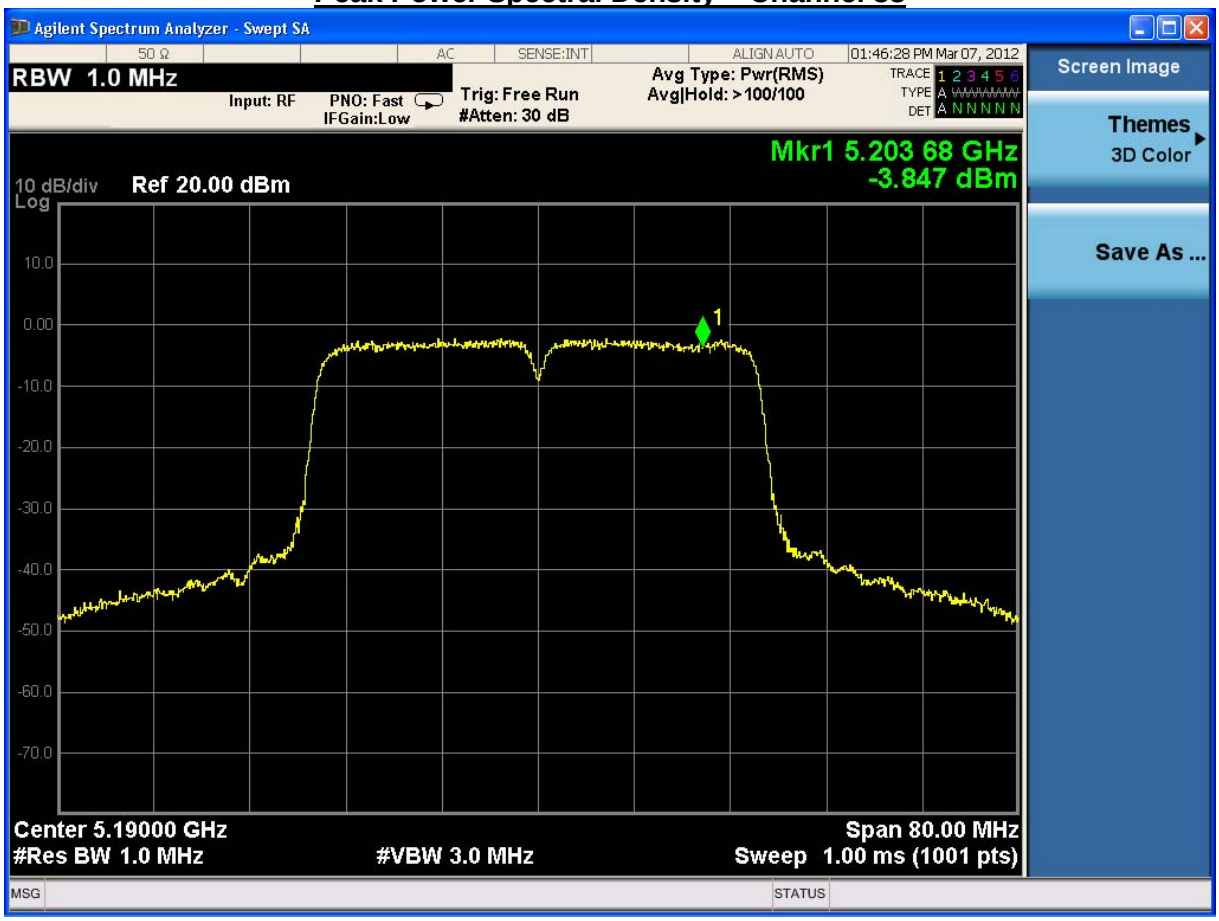
Peak Power Spectral Density – Channel 48



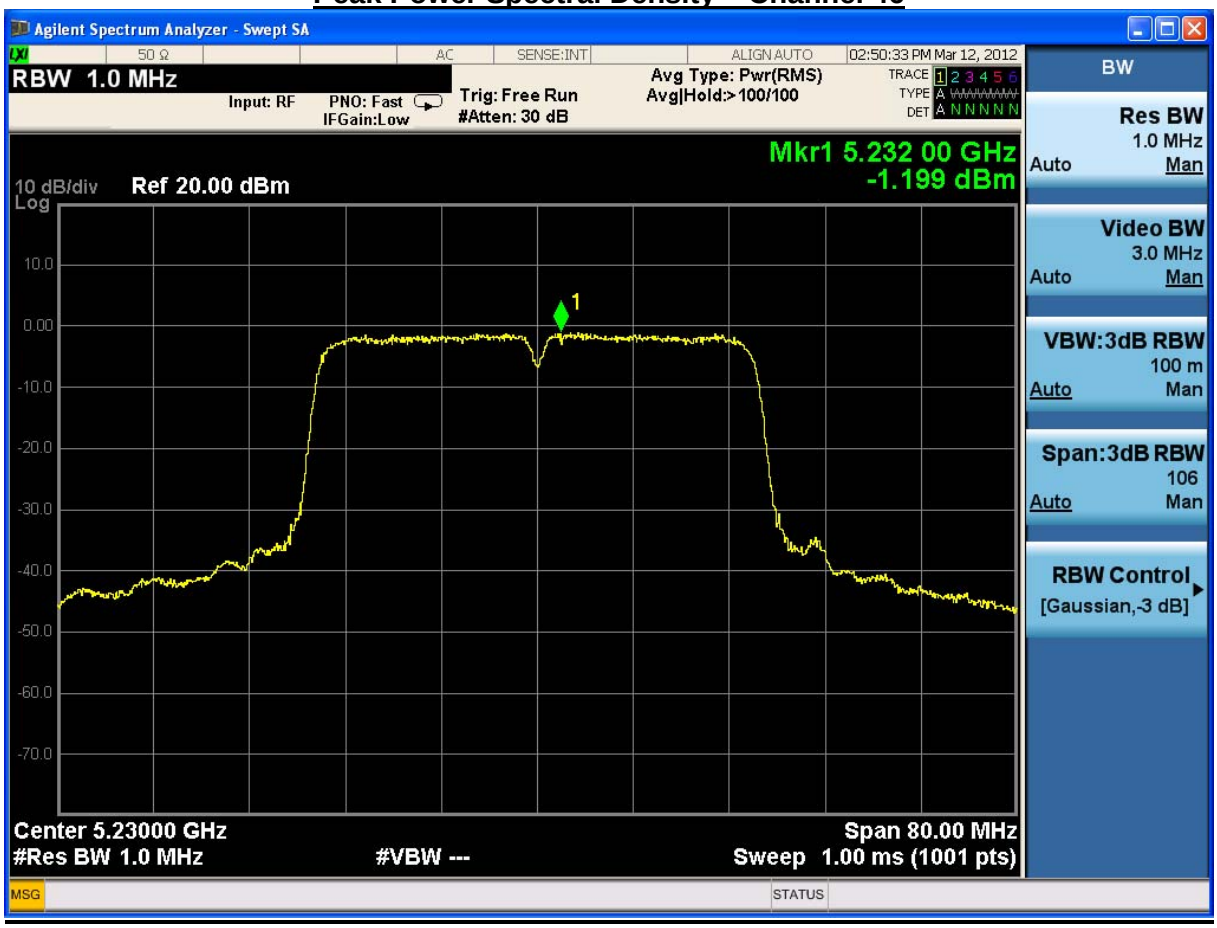
IEEE 802.11n_20M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	3.280	≤ 4	Pass
44	5220	3.170	≤ 4	Pass
48	5240	3.640	≤ 4	Pass

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-3.847	≤ 4	Pass
46	5230	-1.199	≤ 4	Pass

Peak Power Spectral Density – Channel 38

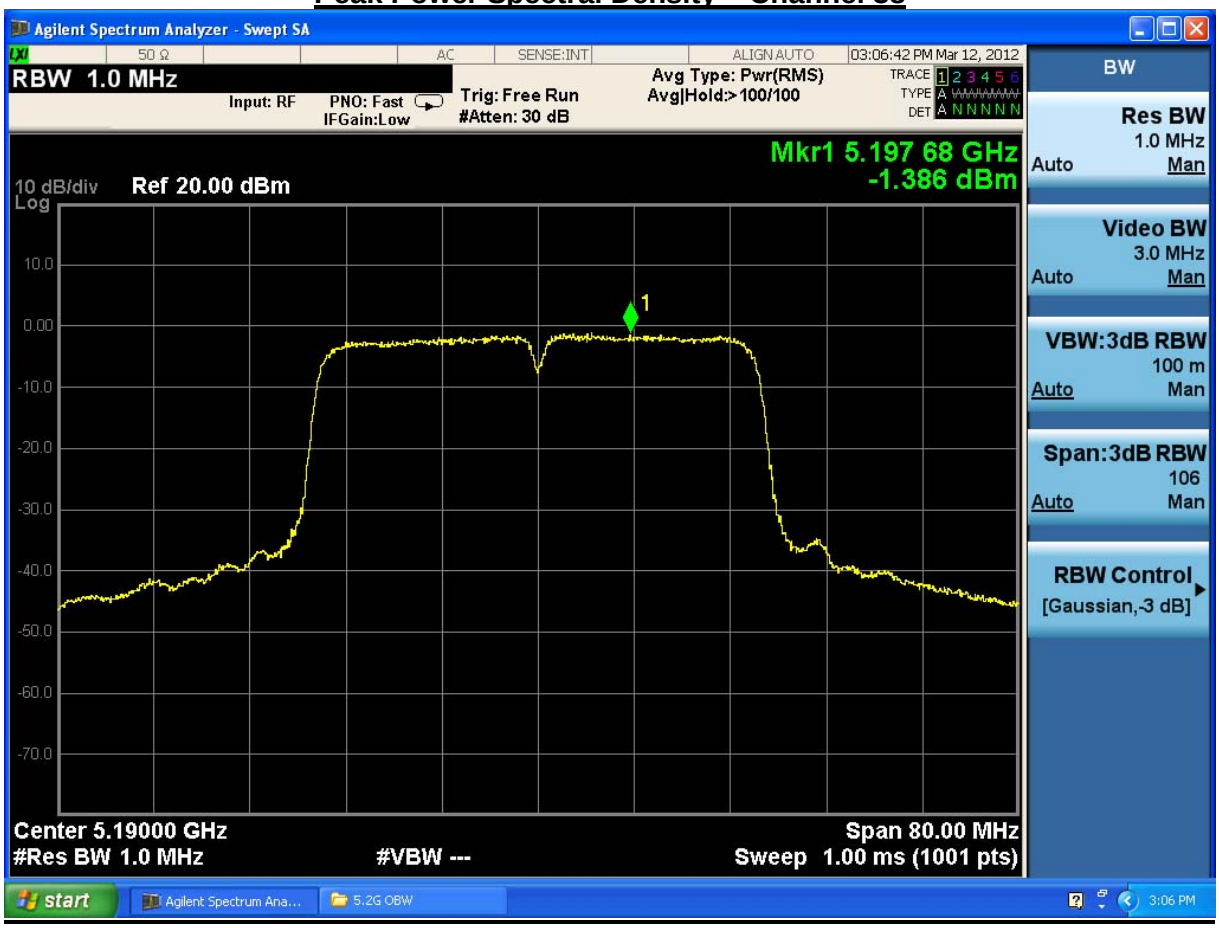


Peak Power Spectral Density – Channel 46

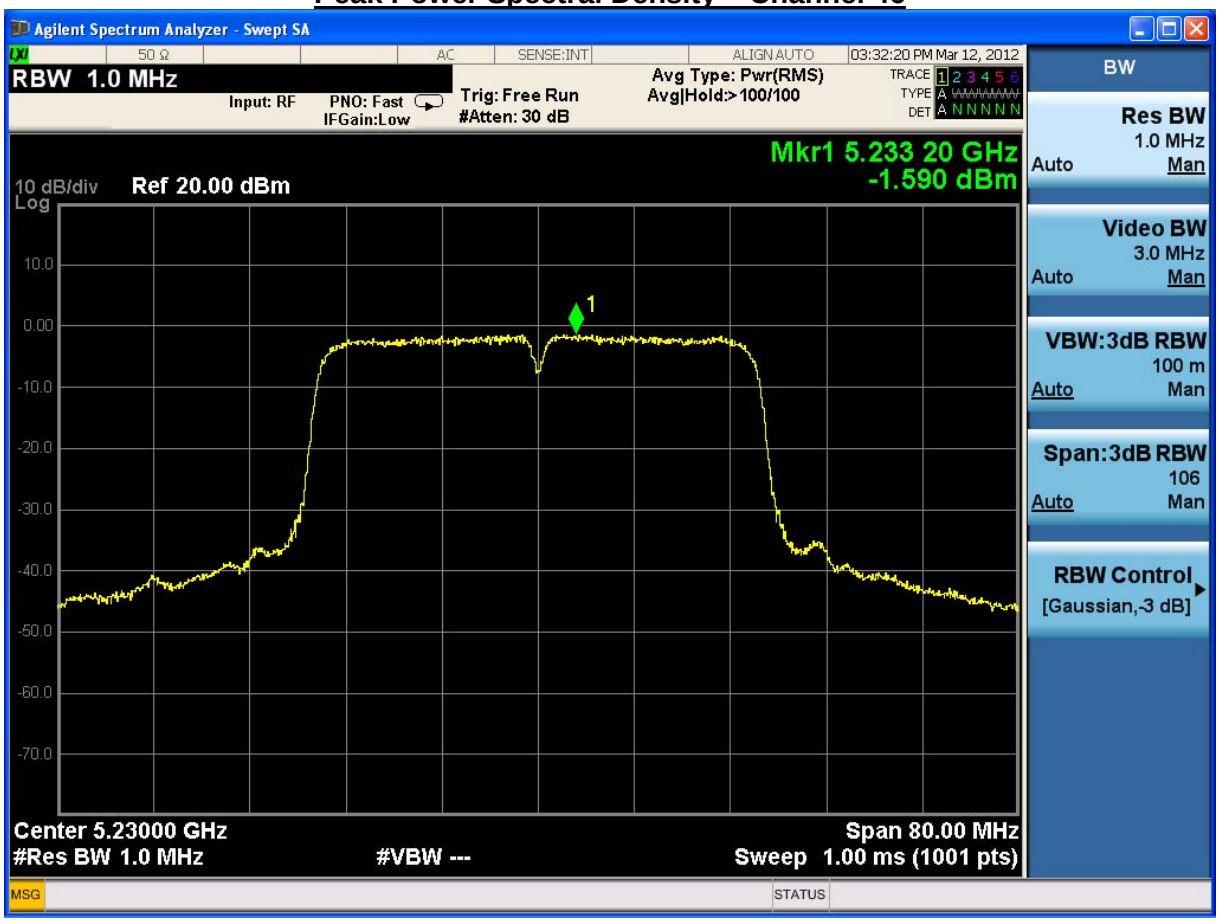


IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-1.386	≤ 4	Pass
46	5230	-1.590	≤ 4	Pass

Peak Power Spectral Density – Channel 38

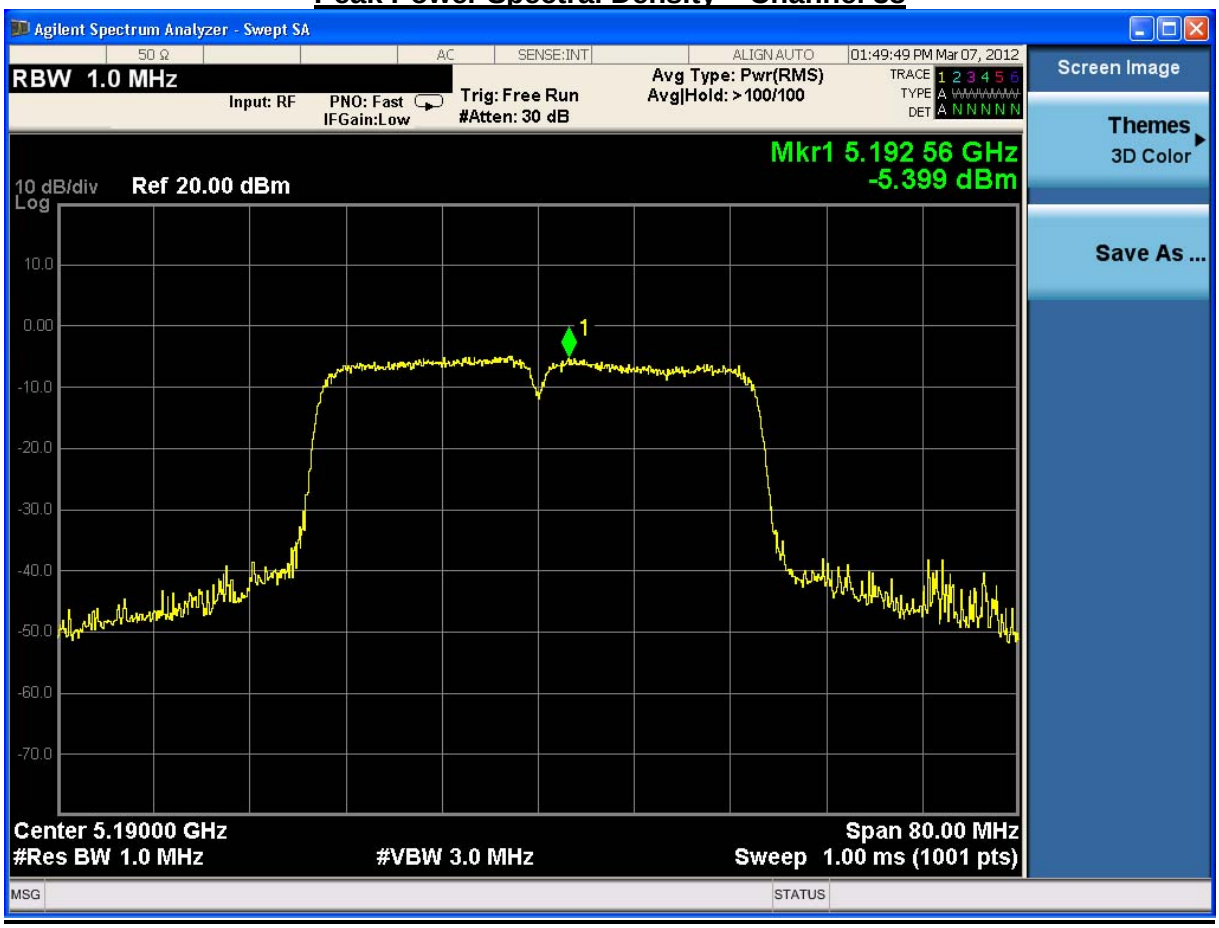


Peak Power Spectral Density – Channel 46

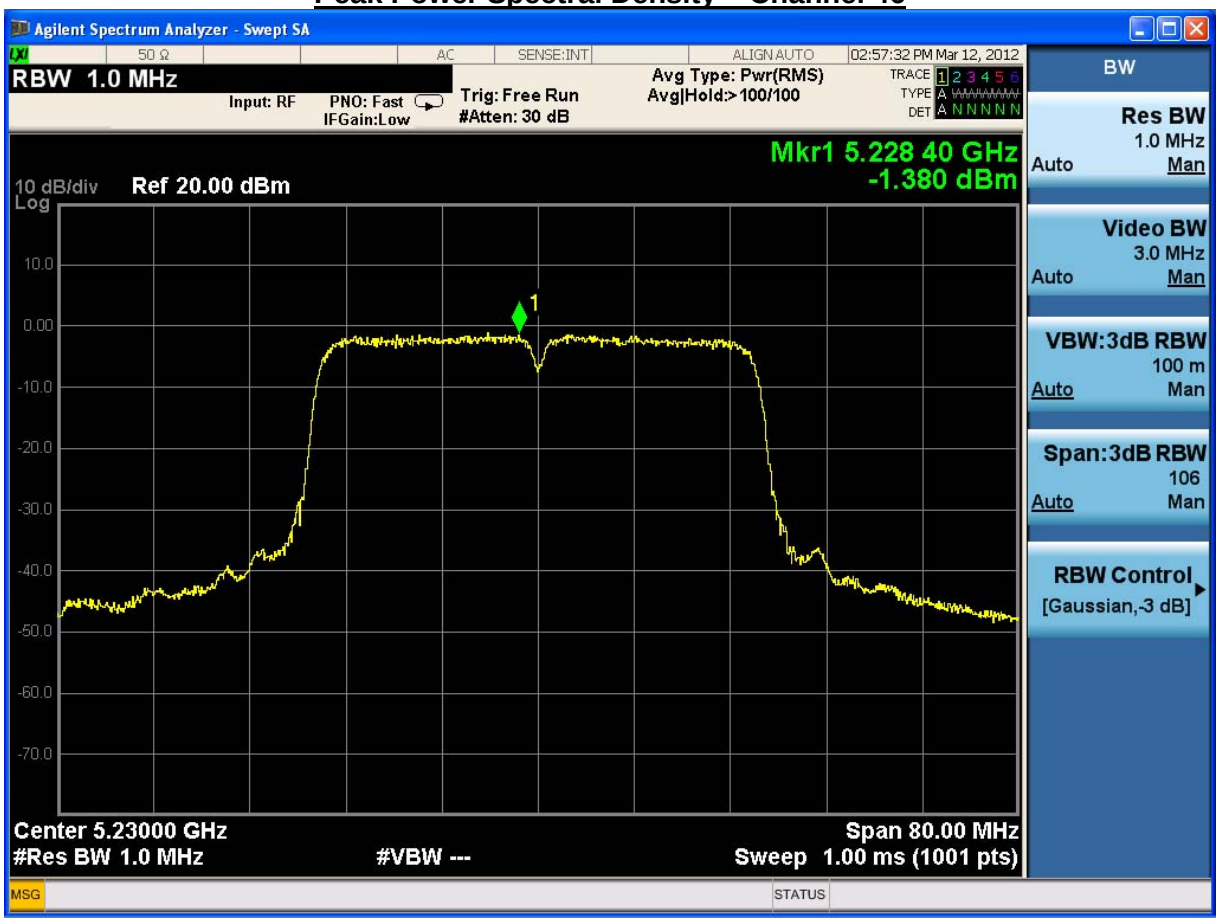


IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-5.399	≤ 4	Pass
46	5230	-1.380	≤ 4	Pass

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46



IEEE 802.11n_40M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	1.550	≤ 4	Pass
46	5230	3.390	≤ 4	Pass

6. Peak Excursion

6.1. Test Equipment

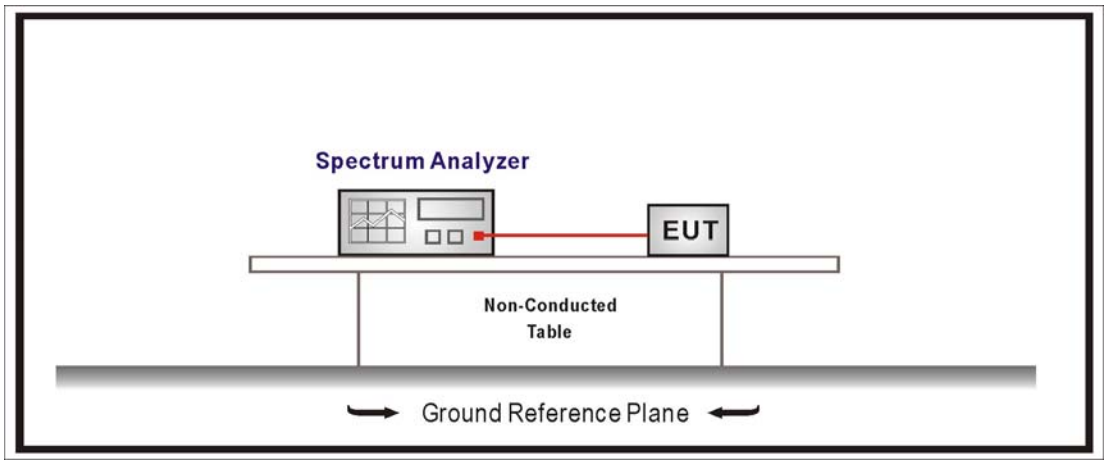
The following test equipments are used during the radiated emission tests:

Peak Excursion / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup



6.3. Limits

The ratio of the peak excursion of the modulation envelope (measured suing a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

6.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to U-NII test procedure of March 2012 KDB 789033 for compliance to FCC 47CFR Subpart E requirements.
1st Trace:
Set RBW = 1MHz, VBW = 3MHz with peak detector and max-hold settings.
2nd Trace:
Set RBW = 1MHz, VBW = 3MHz with RMS detector and trace average 100 traces in power averaging mode.

6.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

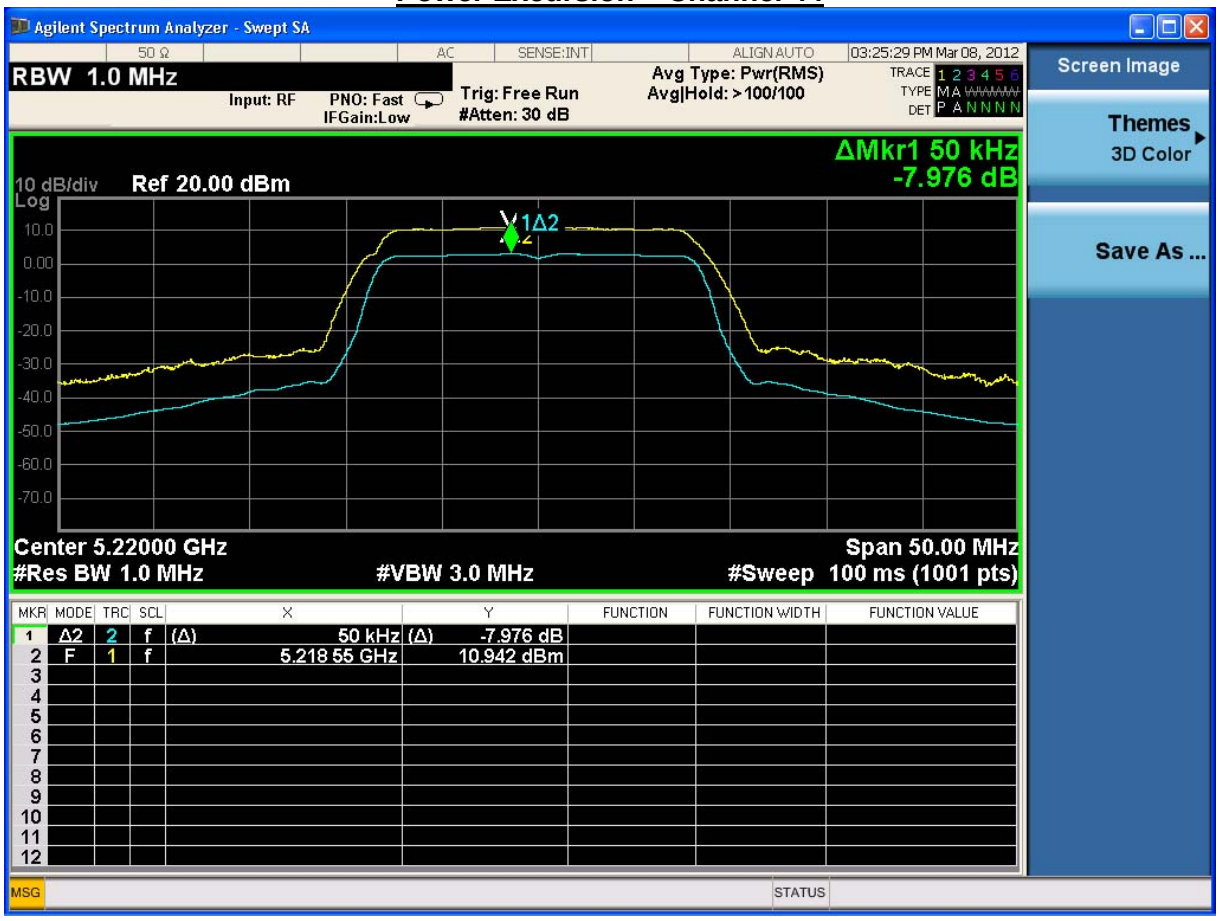
6.6. Test Result

Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

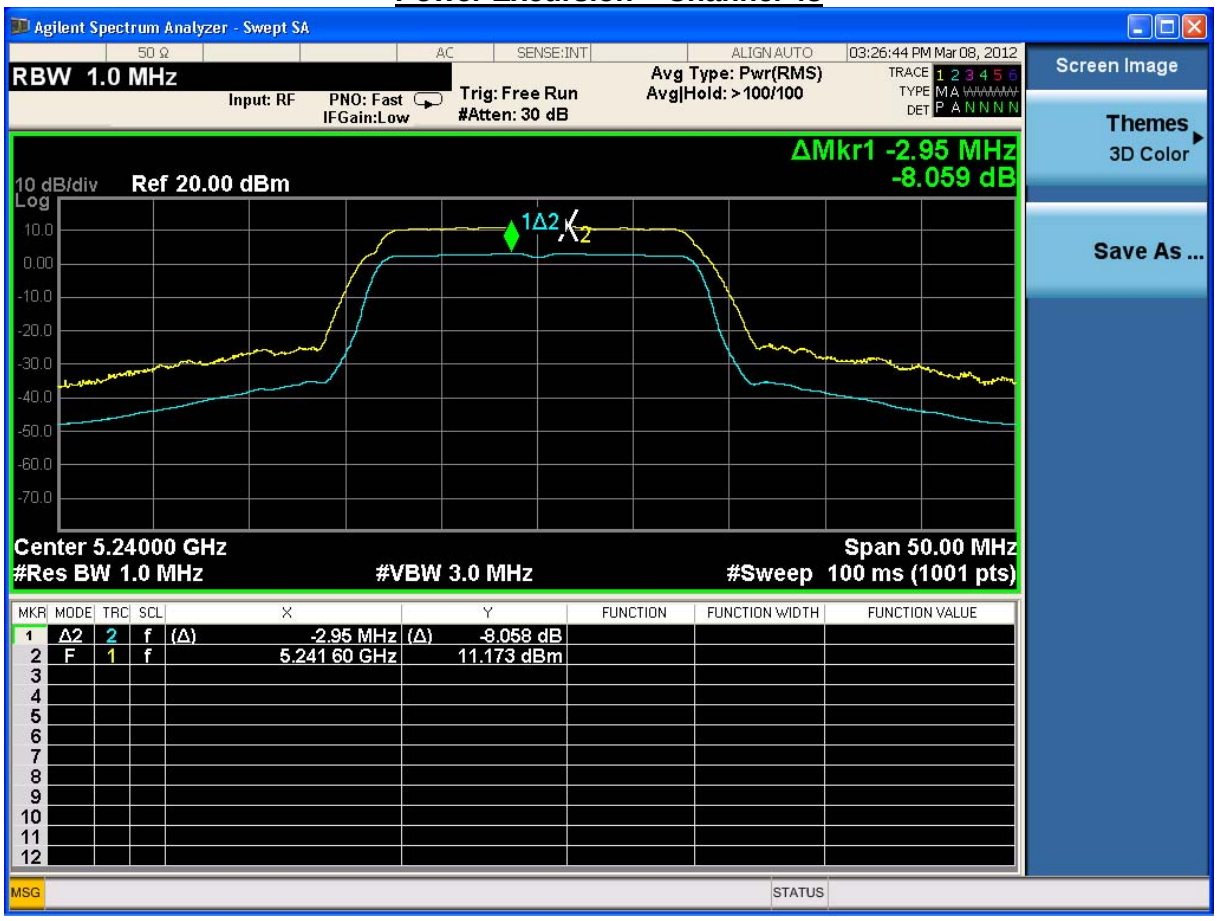
IEEE 802.11a				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	7.896	≤ 13	Pass
44	5220	7.976	≤ 13	Pass
48	5240	8.059	≤ 13	Pass

Power Excursion – Channel 36

Power Excursion – Channel 44



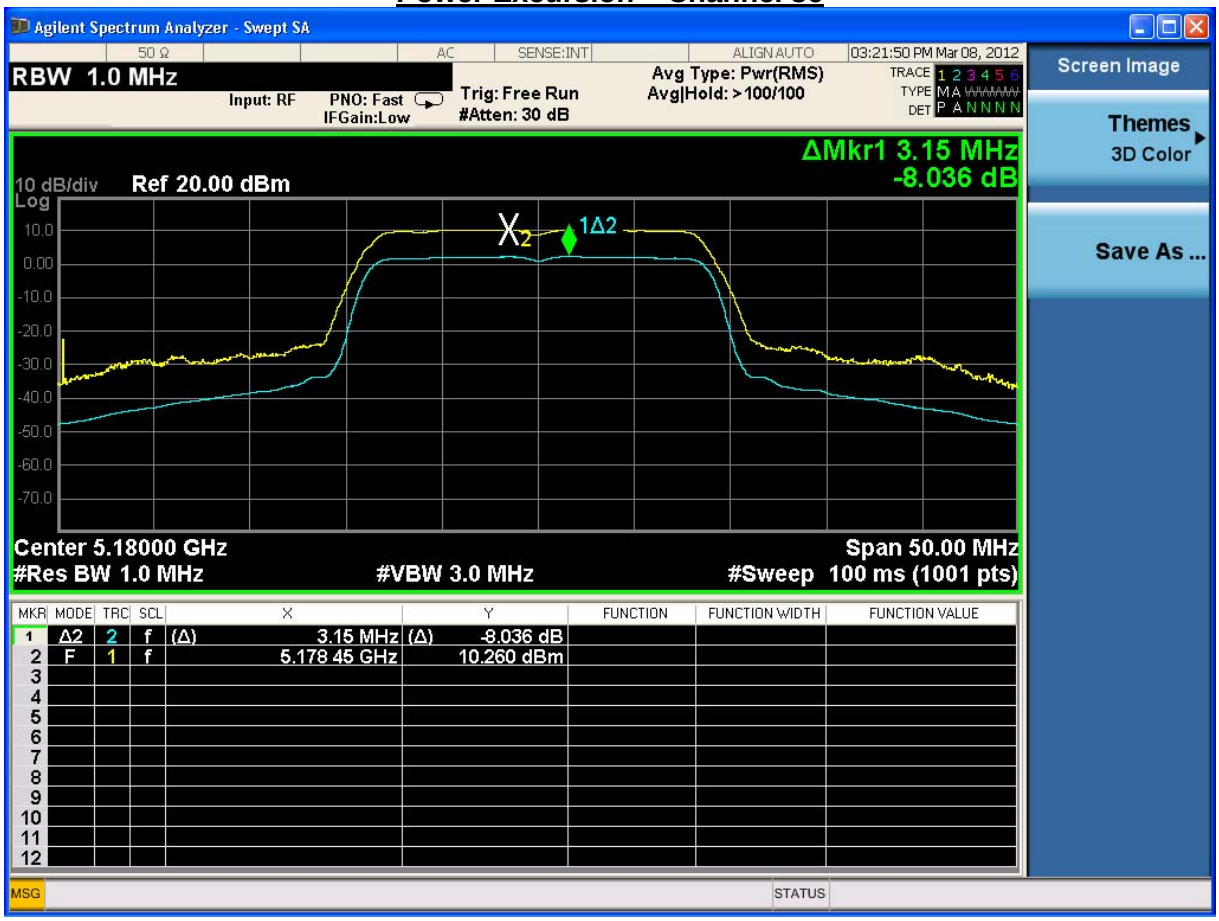
Power Excursion – Channel 48



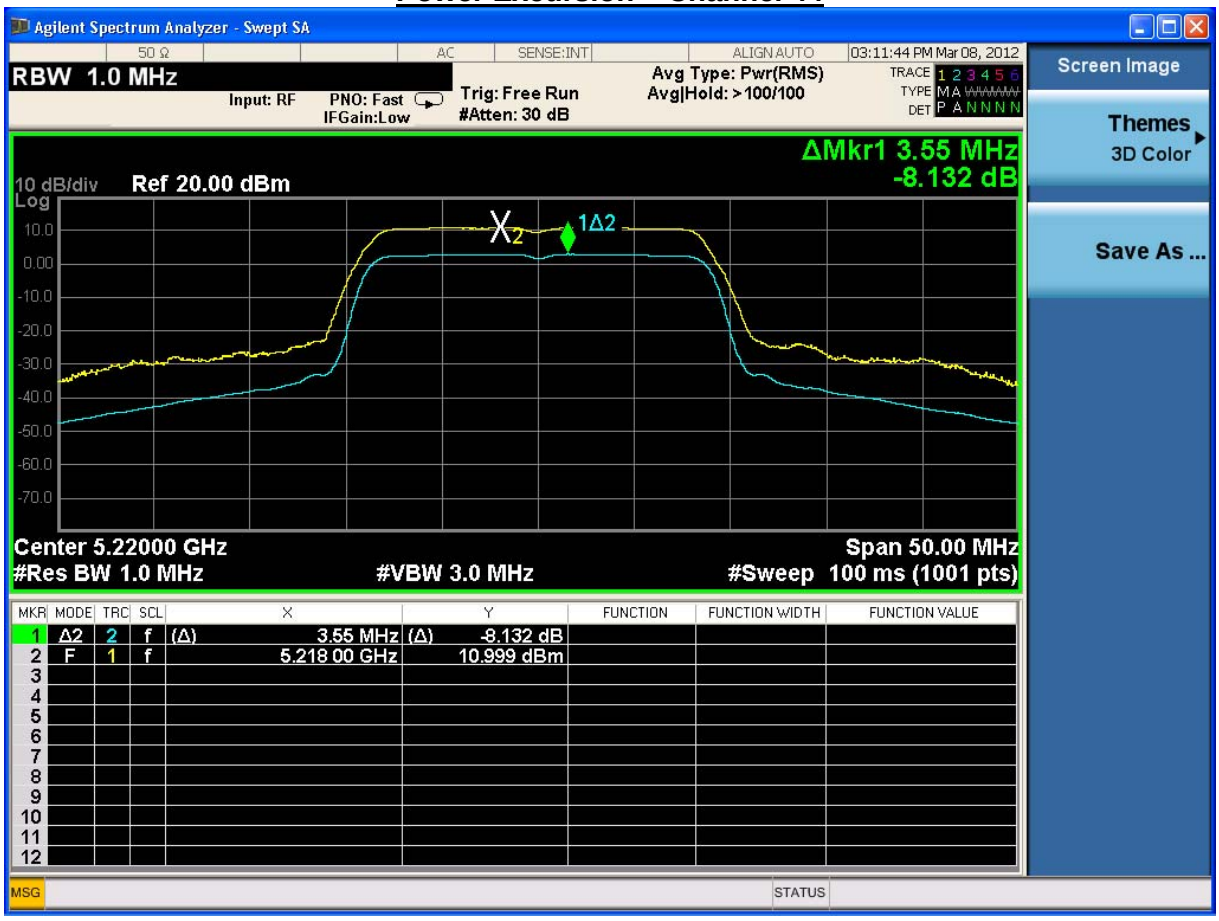
Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	8.036	≤ 13	Pass
44	5220	8.132	≤ 13	Pass
48	5240	8.096	≤ 13	Pass

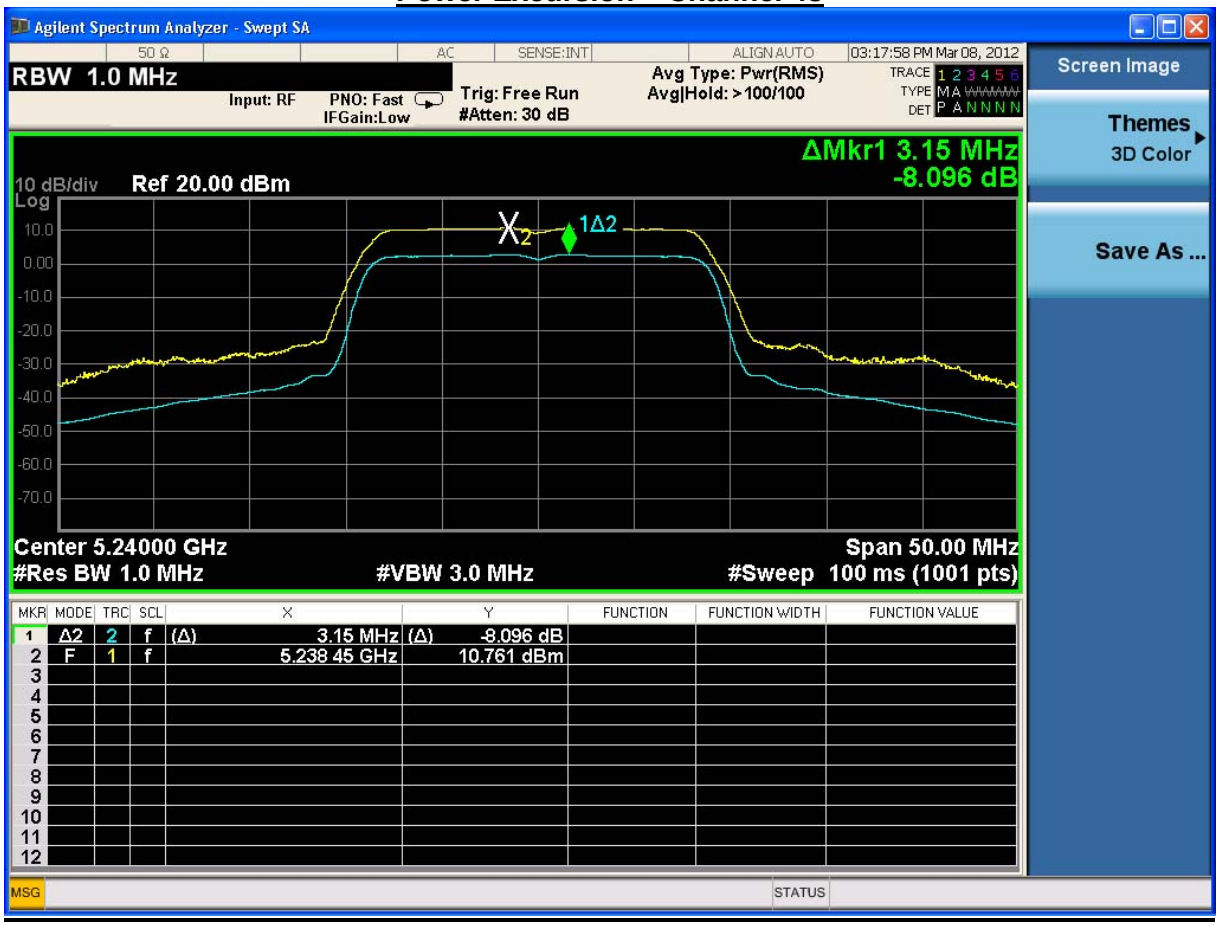
Power Excursion – Channel 36



Power Excursion – Channel 44



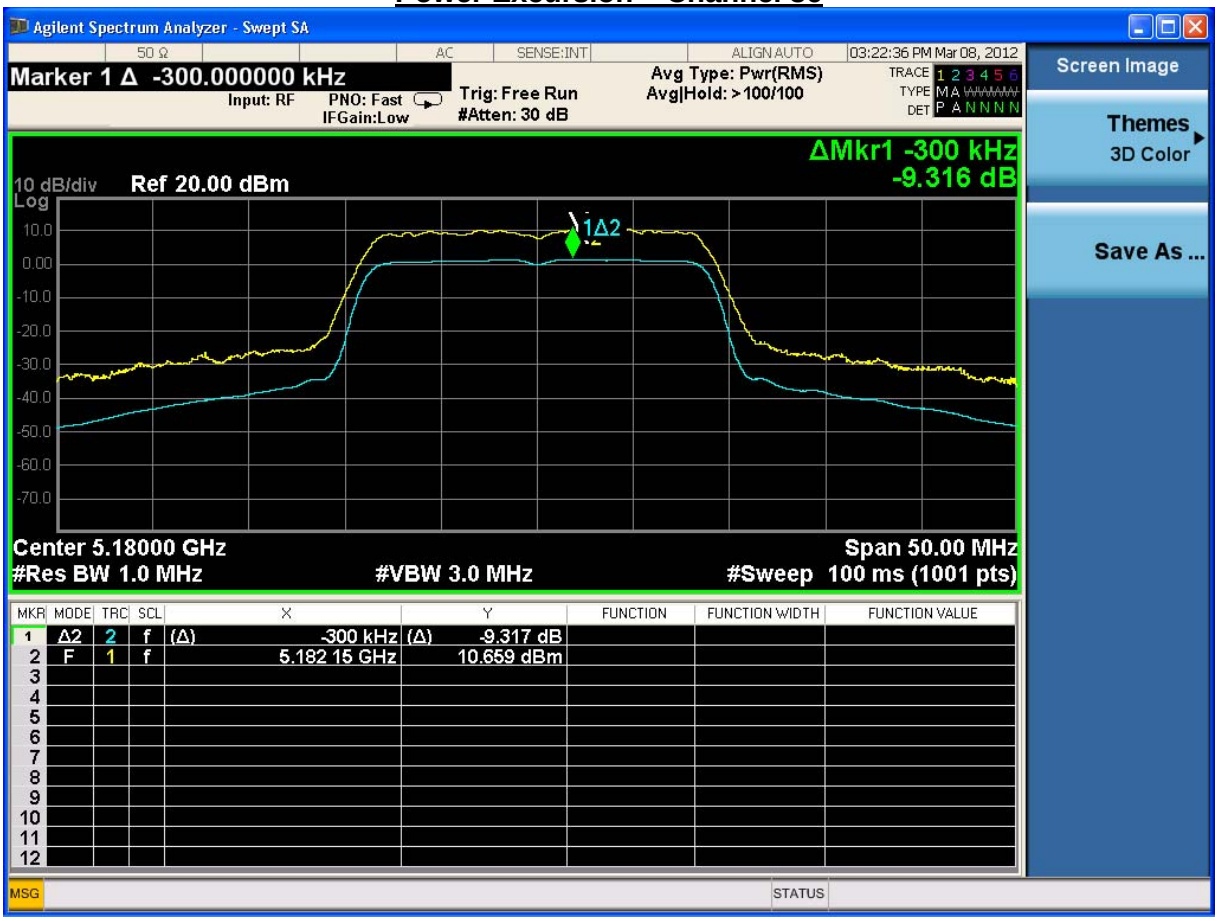
Power Excursion – Channel 48



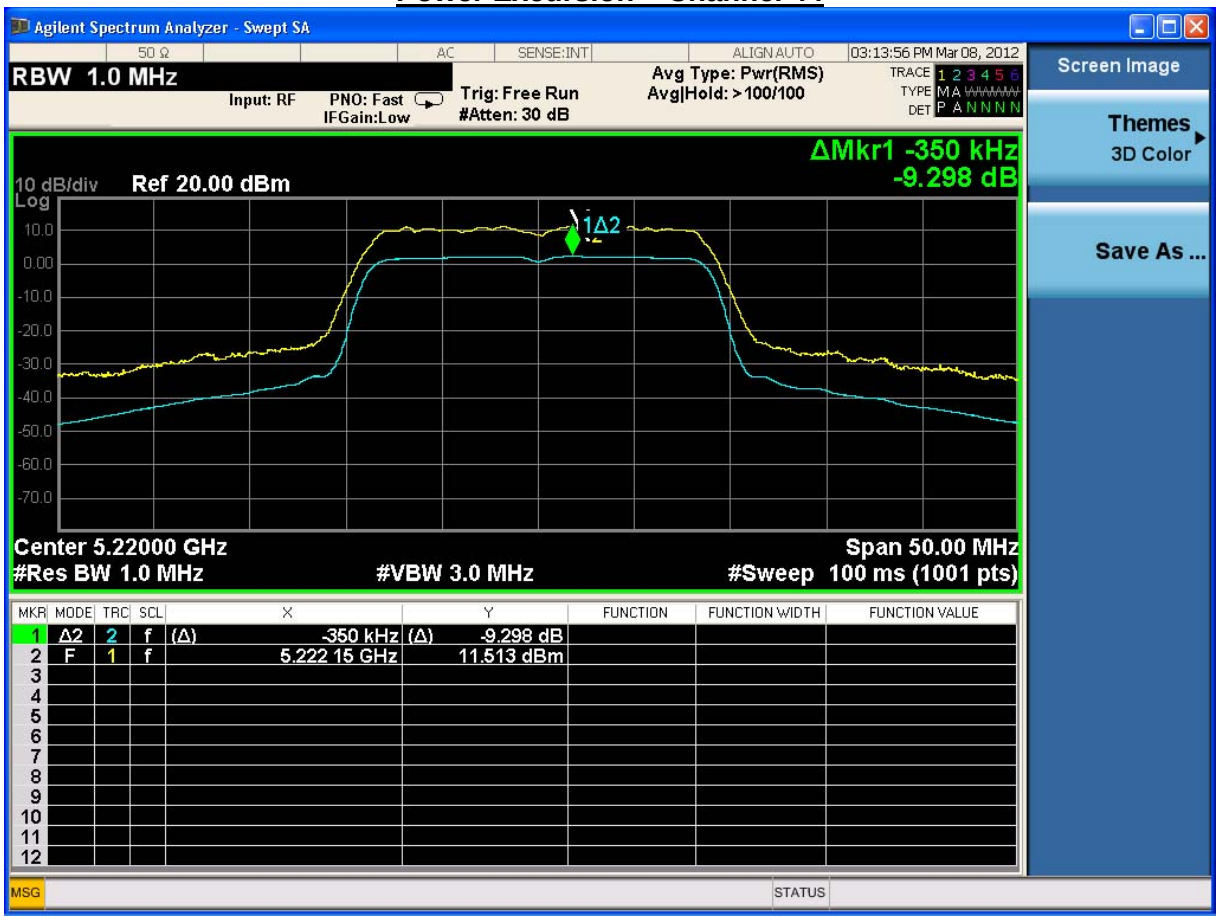
Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	9.316	≤ 13	Pass
44	5220	9.298	≤ 13	Pass
48	5240	8.035	≤ 13	Pass

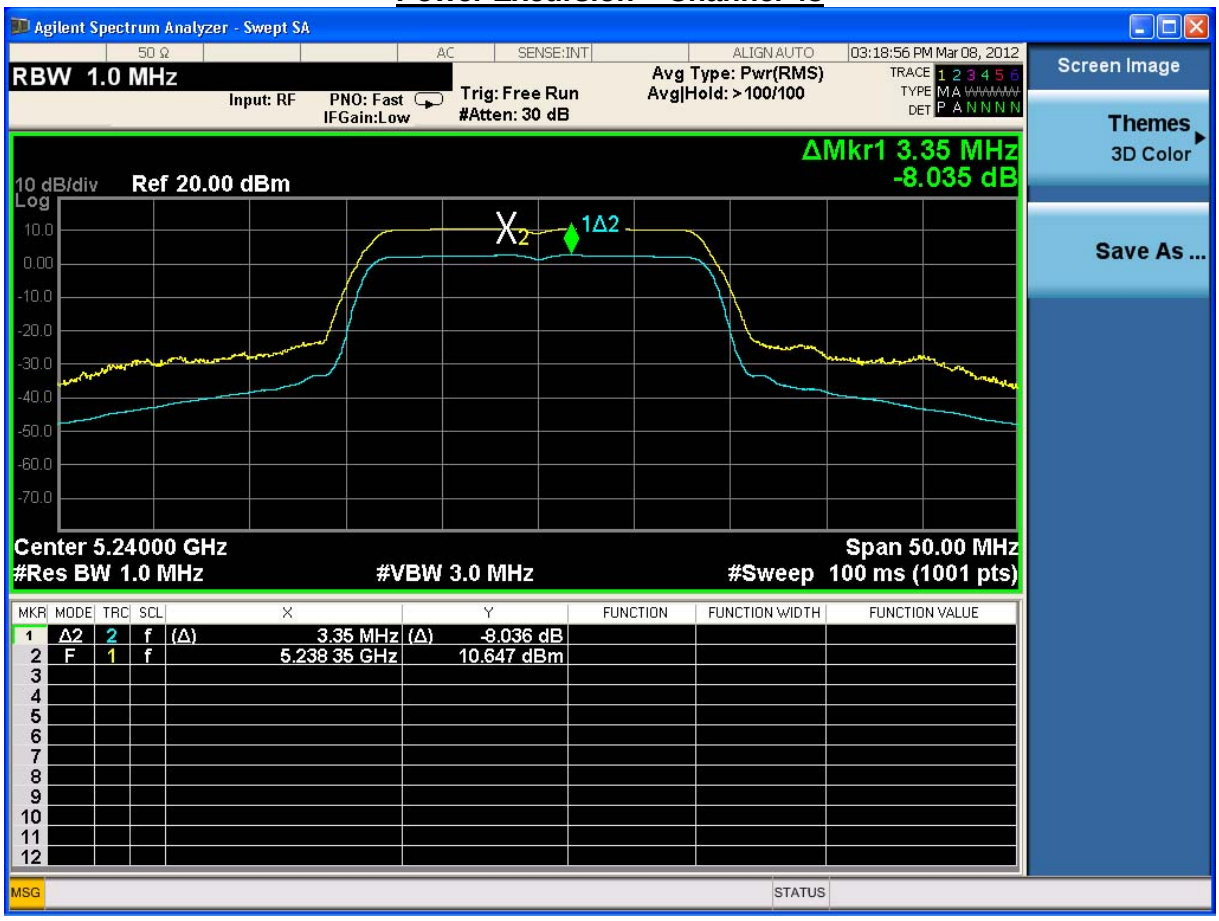
Power Excursion – Channel 36



Power Excursion – Channel 44



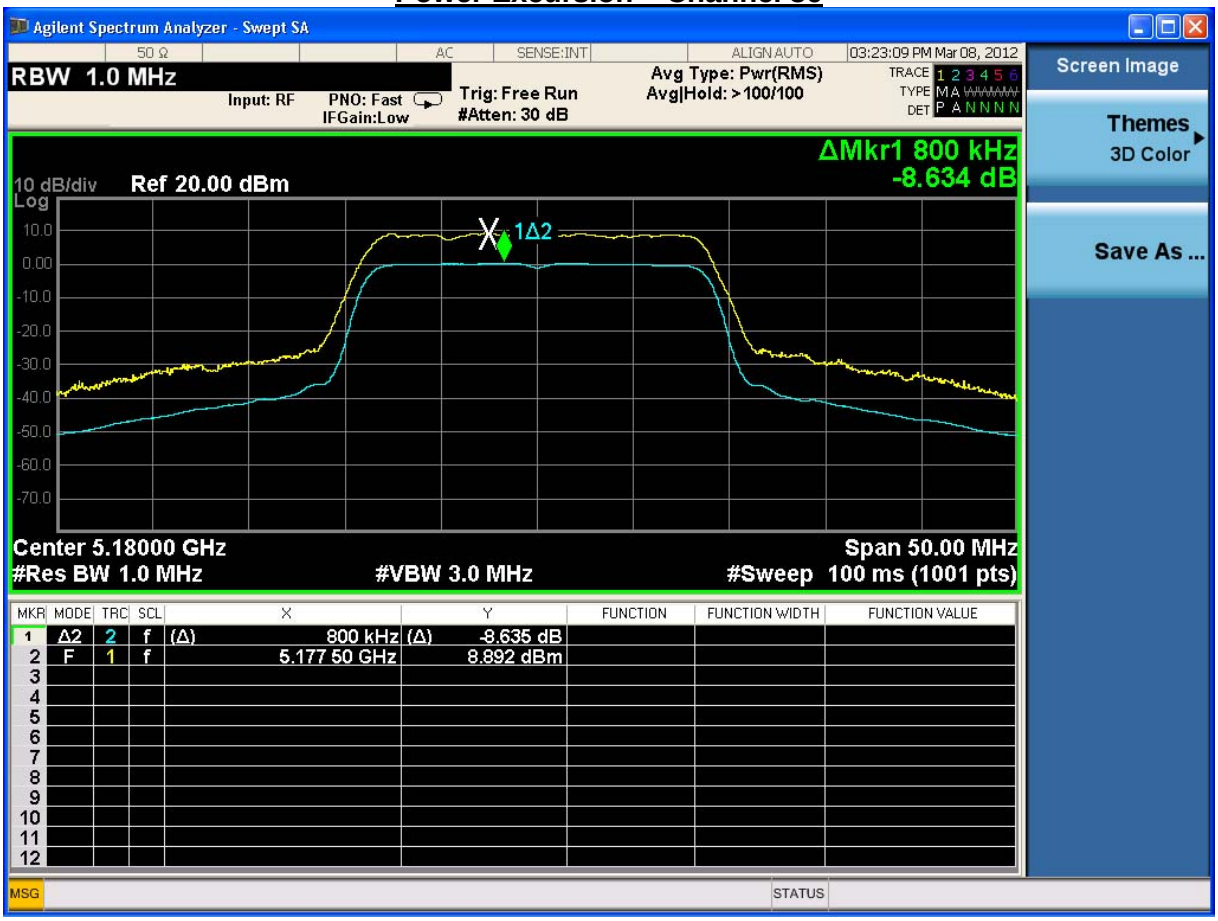
Power Excursion – Channel 48



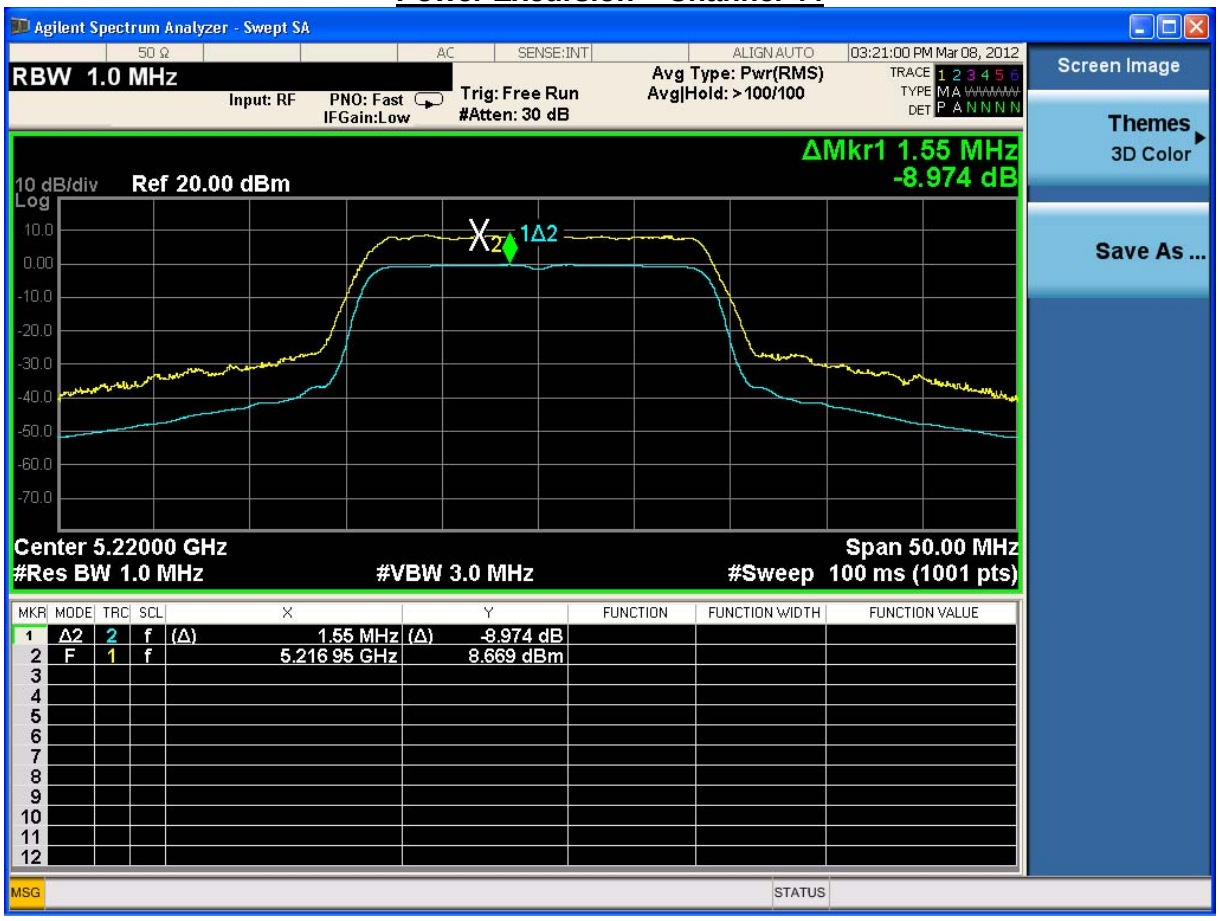
Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	8.634	≤ 13	Pass
44	5220	8.974	≤ 13	Pass
48	5240	9.123	≤ 13	Pass

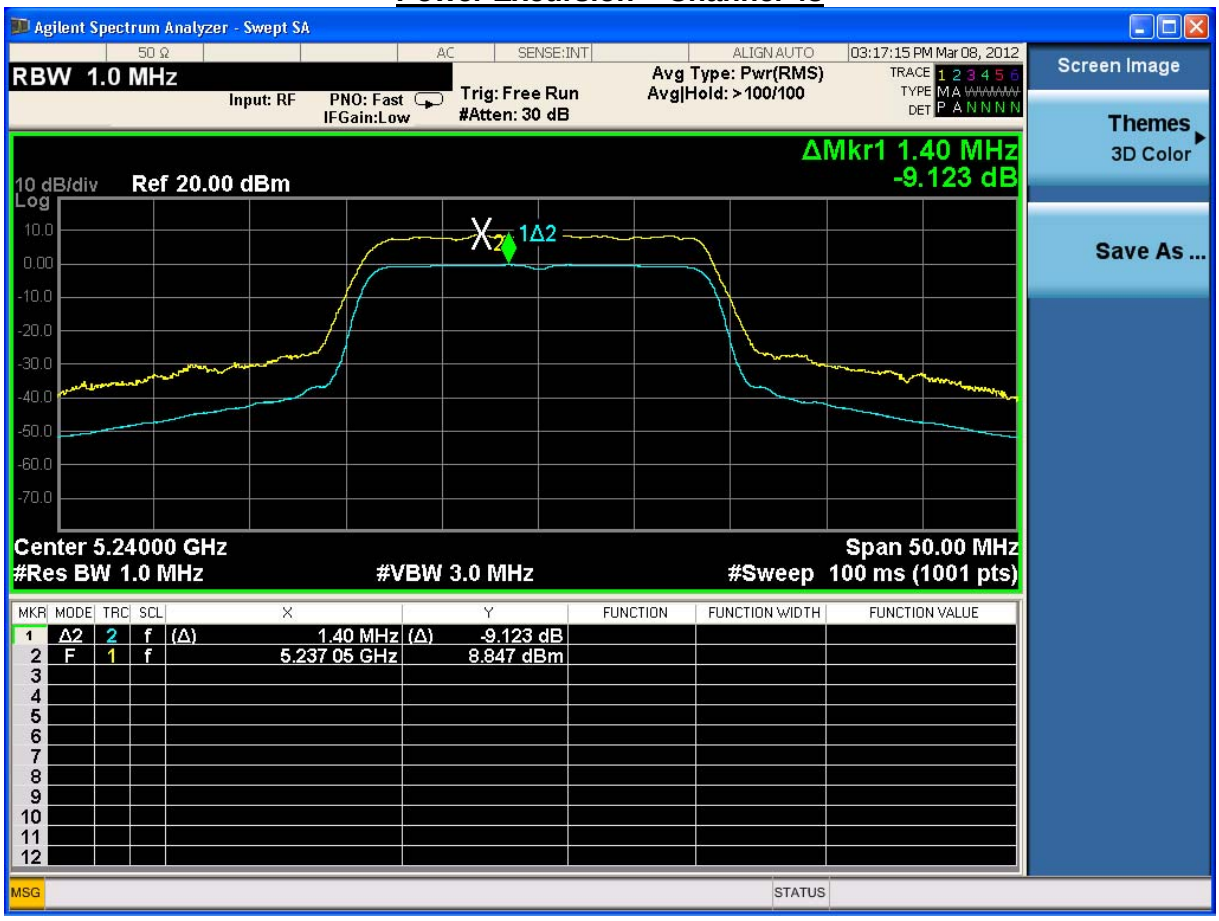
Power Excursion – Channel 36



Power Excursion – Channel 44



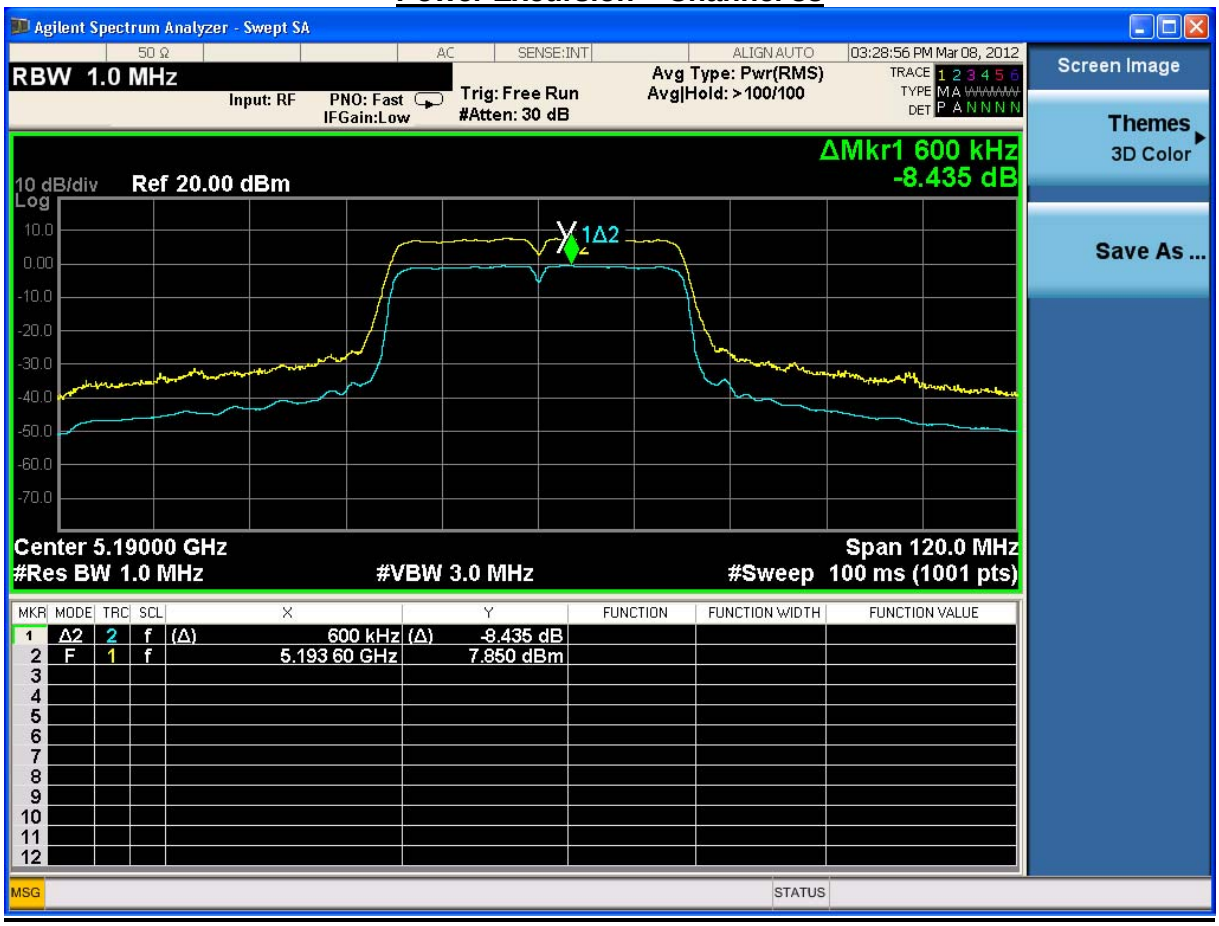
Power Excursion – Channel 48



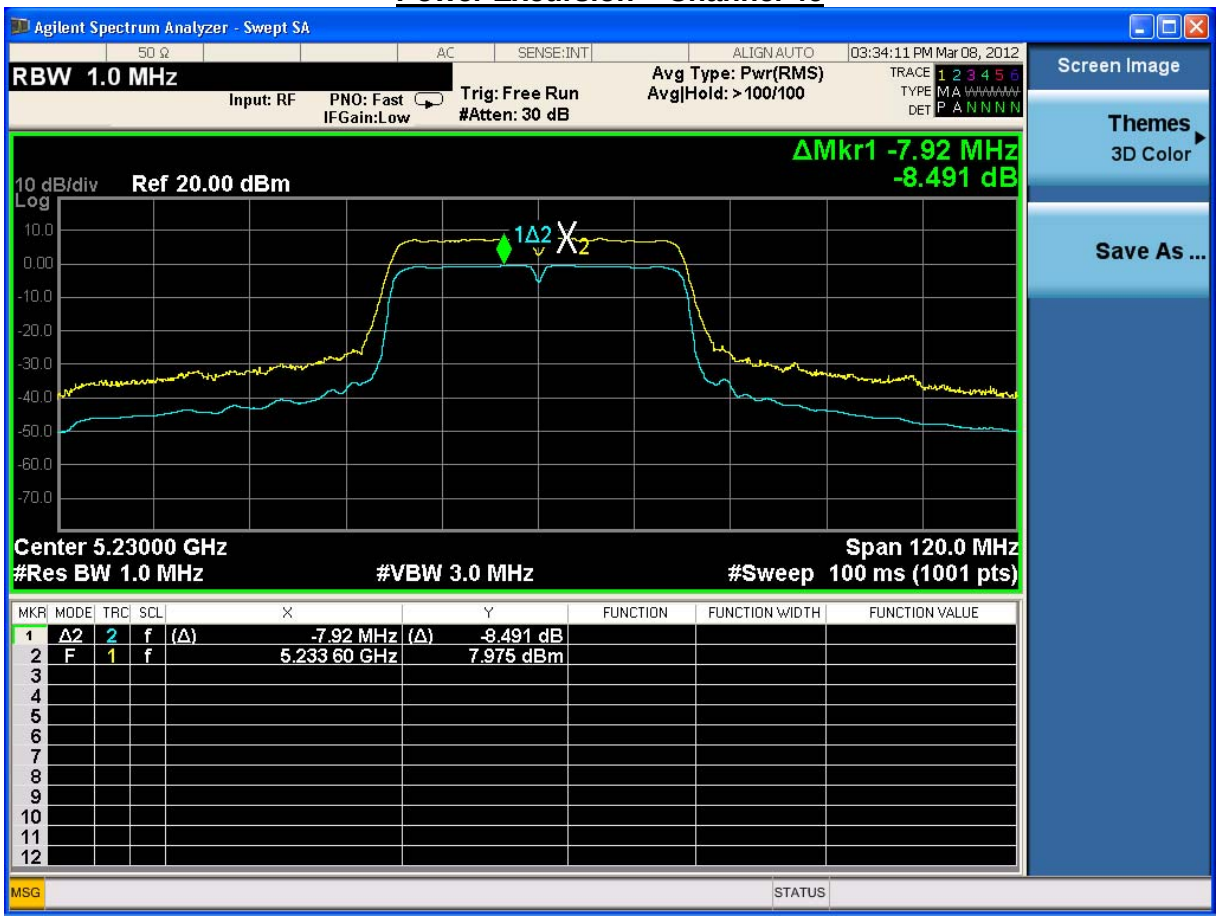
Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	8.435	≤ 13	Pass
46	5230	8.491	≤ 13	Pass

Power Excursion – Channel 38



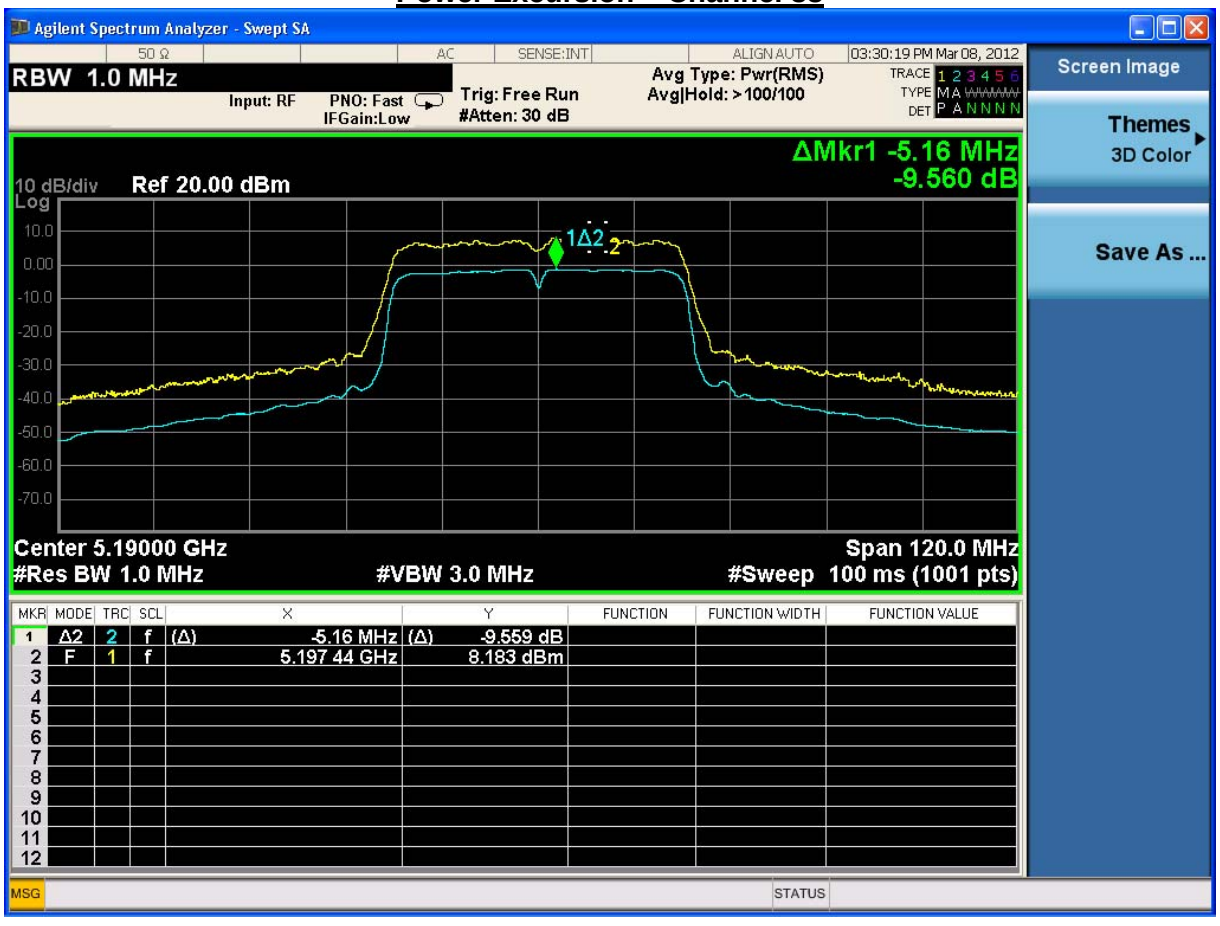
Power Excursion – Channel 46



Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	9.560	≤ 13	Pass
46	5230	9.358	≤ 13	Pass

Power Excursion – Channel 38



Power Excursion – Channel 46

Product	Dual-band Wireless-N Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit		
Date of Test	2012/03/08	Test Site	SR7

IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	9.521	≤ 13	Pass
46	5230	9.282	≤ 13	Pass

Power Excursion – Channel 38

Power Excursion – Channel 46

7. Radiated Emission

7.1. Test Equipment

The following test equipments are used during the radiated emission test:

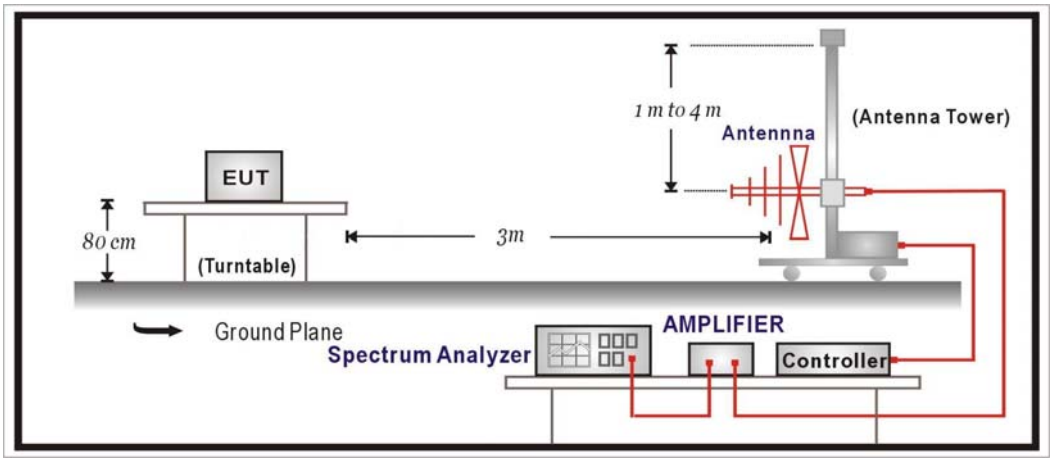
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2012/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2012/12/05
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2013/02/02
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

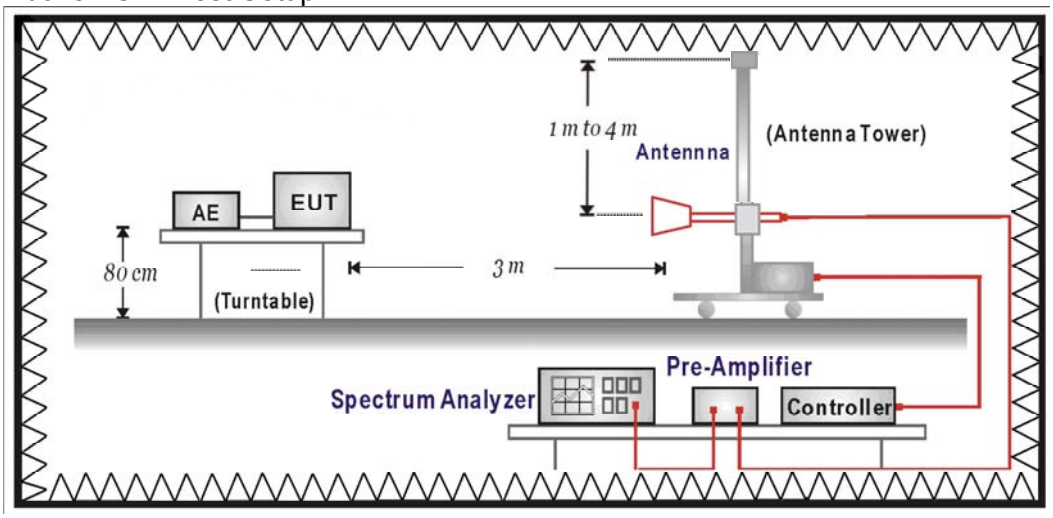
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



7.3. Limits

➢ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➢ Unwanted Emission out of the restricted bands Limits

FCC Part 15 Subpart C Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.
3. uV/m = $\frac{1000000\sqrt{30 \times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

7.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 KHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

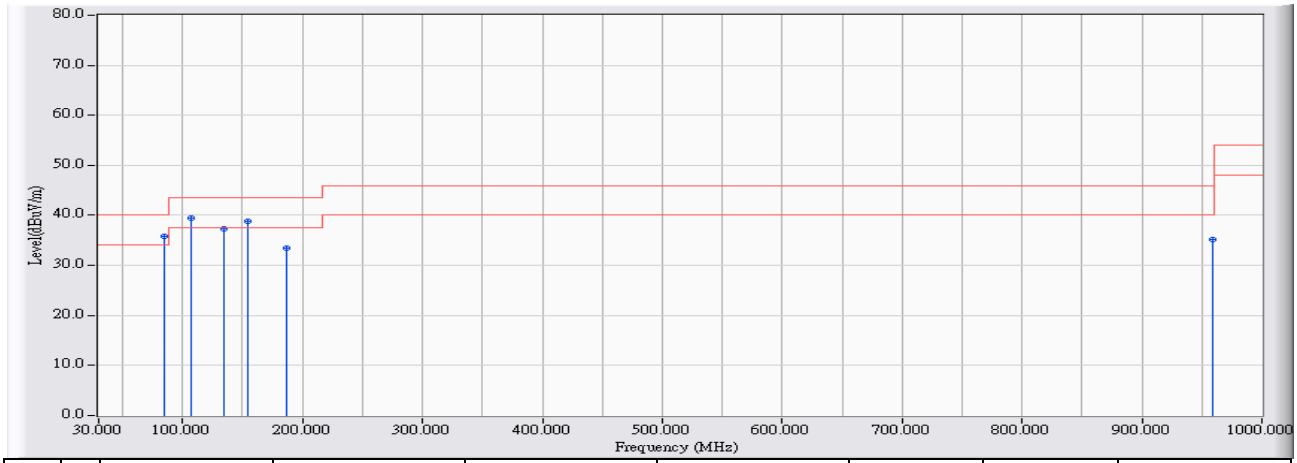
7.5. Uncertainty

The measurement uncertainty
30MHz～1GHz as ±3.43dB
1GHz～26.5Ghz as ±3.65dB

7.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2012/02/29 - 14:35**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_ 5180MHz**

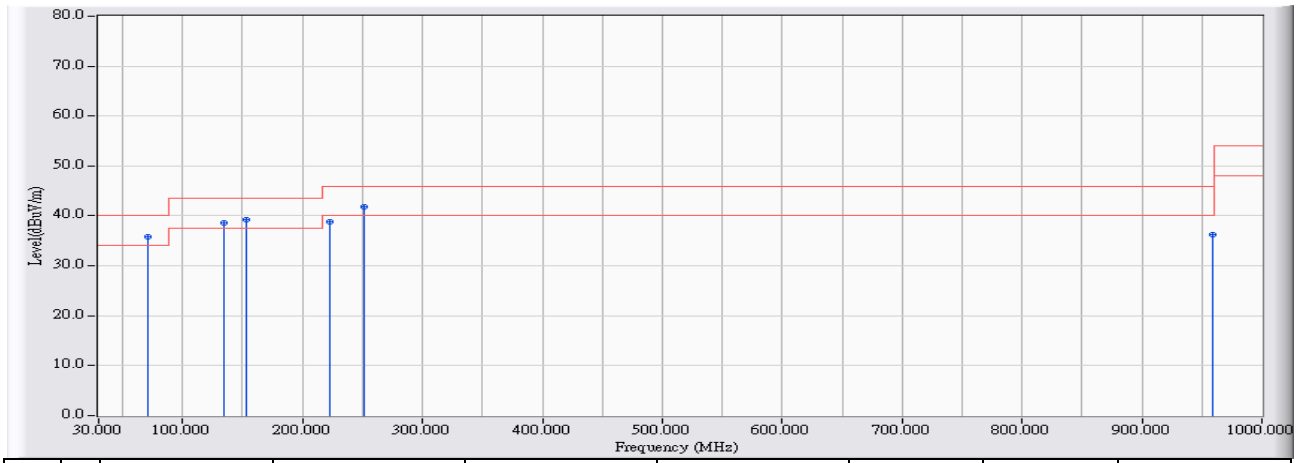


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		84.967	-16.358	52.160	35.801	-4.199	40.000	QUASIPEAK
2	*	107.600	-12.864	52.236	39.372	-4.128	43.500	QUASIPEAK
3		135.083	-12.662	49.981	37.320	-6.180	43.500	QUASIPEAK
4		154.483	-13.667	52.385	38.718	-4.782	43.500	QUASIPEAK
5		186.817	-14.714	48.262	33.547	-9.953	43.500	QUASIPEAK
6		959.583	-1.348	36.597	35.249	-10.751	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	**Time : 2012/02/29 - 14:35**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_ 5180MHz**

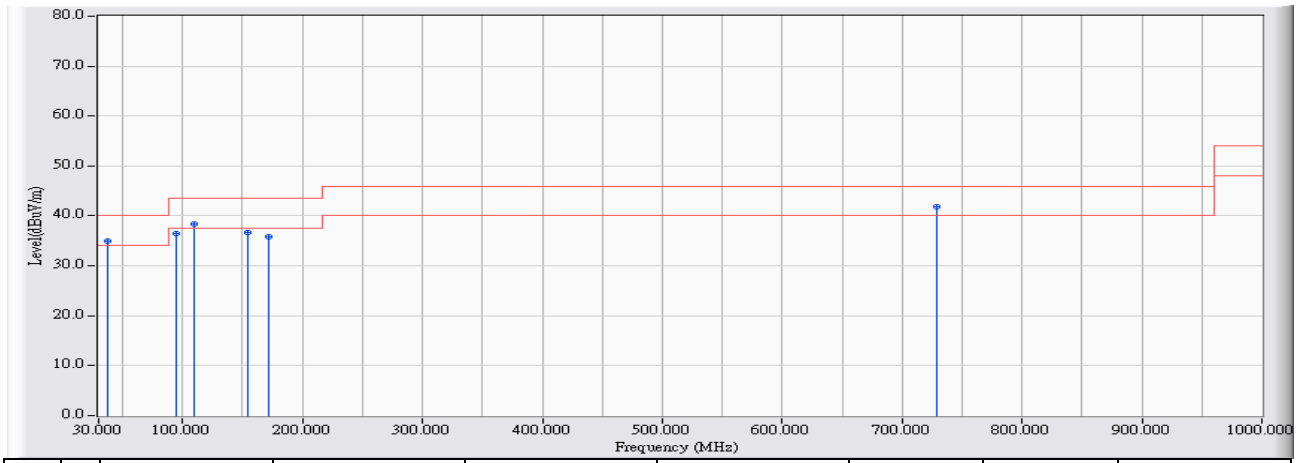


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.417	-17.720	53.604	35.884	-4.116	40.000	QUASIPEAK
2		135.083	-12.662	51.252	38.591	-4.909	43.500	QUASIPEAK
3		152.867	-13.588	52.864	39.276	-4.224	43.500	QUASIPEAK
4		222.383	-13.082	51.960	38.878	-7.122	46.000	QUASIPEAK
5	*	251.483	-11.043	52.932	41.889	-4.111	46.000	QUASIPEAK
6		959.583	-1.348	37.540	36.192	-9.808	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	**Time : 2012/02/29 - 14:36**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11 n(20MHz)_ 5180MHz**

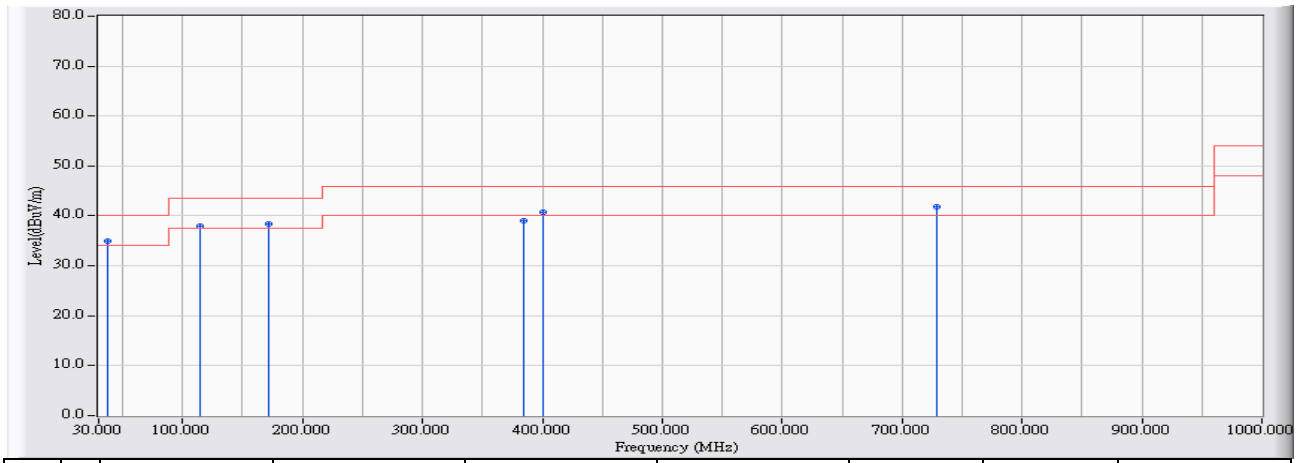


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		38.083	-11.772	46.657	34.886	-5.114	40.000	QUASIPEAK
2		94.667	-14.668	51.028	36.360	-7.140	43.500	QUASIPEAK
3		109.217	-12.724	51.042	38.318	-5.182	43.500	QUASIPEAK
4		154.483	-13.667	50.372	36.705	-6.795	43.500	QUASIPEAK
5		172.267	-14.414	50.278	35.865	-7.635	43.500	QUASIPEAK
6	*	728.400	-3.569	45.291	41.722	-4.278	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	**Time : 2012/02/29 - 14:36**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11 n(20MHz)_ 5180MHz**

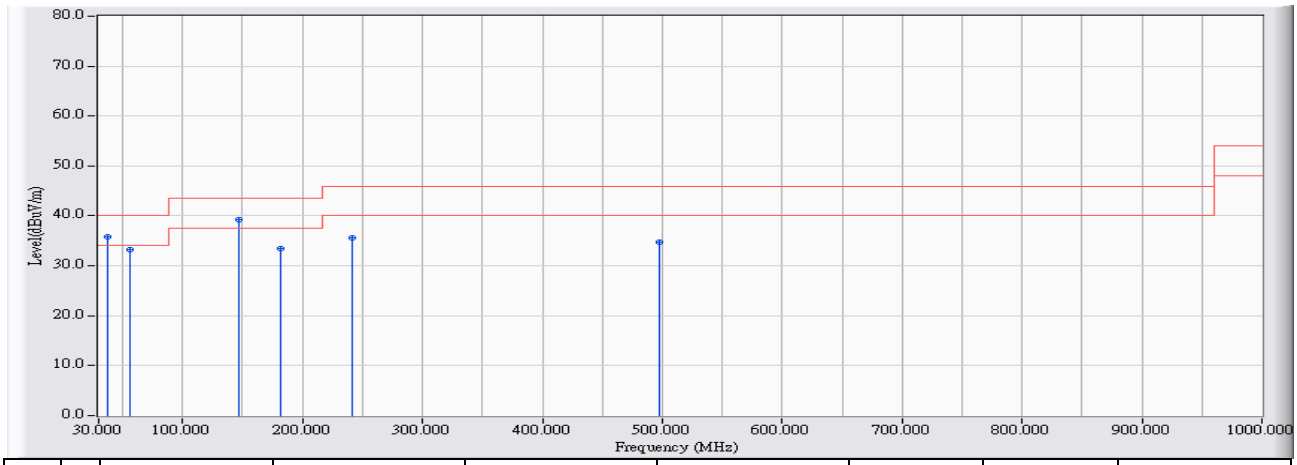


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		38.083	-11.772	46.715	34.944	-5.056	40.000	QUASIPEAK
2		114.067	-12.303	50.270	37.966	-5.534	43.500	QUASIPEAK
3		172.267	-14.414	52.778	38.365	-5.135	43.500	QUASIPEAK
4		384.050	-7.831	46.827	38.996	-7.004	46.000	QUASIPEAK
5		400.217	-7.367	48.219	40.853	-5.147	46.000	QUASIPEAK
6	*	728.400	-3.569	45.391	41.822	-4.178	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	**Time : 2012/02/29 - 14:36**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11 n(40MHz)_ 5190MHz**

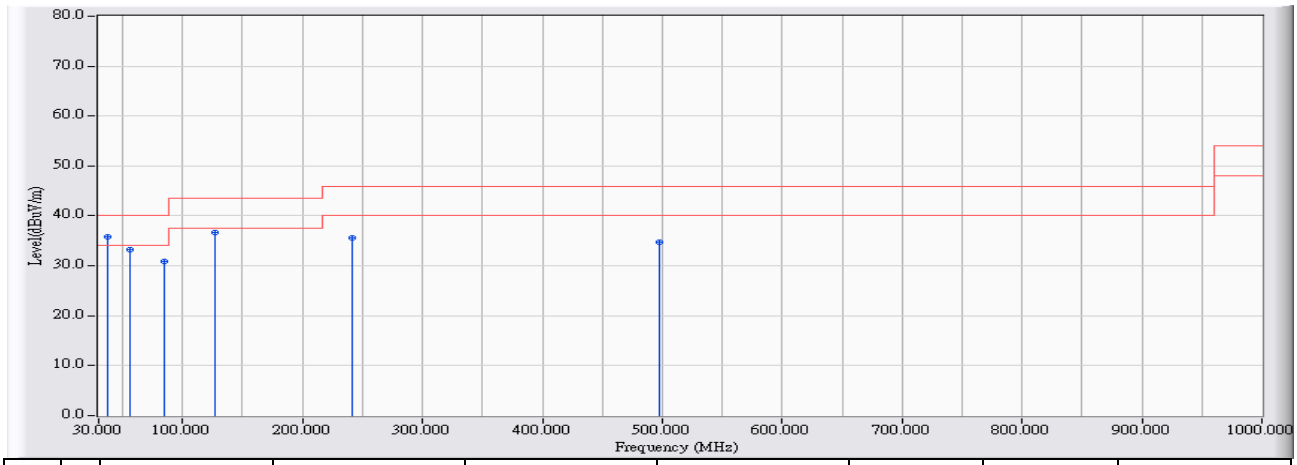


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-11.772	47.571	35.800	-4.200	40.000	QUASIPEAK
2		55.867	-17.197	50.503	33.307	-6.693	40.000	QUASIPEAK
3		146.400	-13.268	52.430	39.162	-4.338	43.500	QUASIPEAK
4		181.967	-14.715	48.161	33.446	-10.054	43.500	QUASIPEAK
5		241.783	-11.665	47.328	35.662	-10.338	46.000	QUASIPEAK
6		497.217	-5.430	40.077	34.647	-11.353	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	**Time : 2012/02/29 - 14:37**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11 n(40MHz)_ 5190MHz**



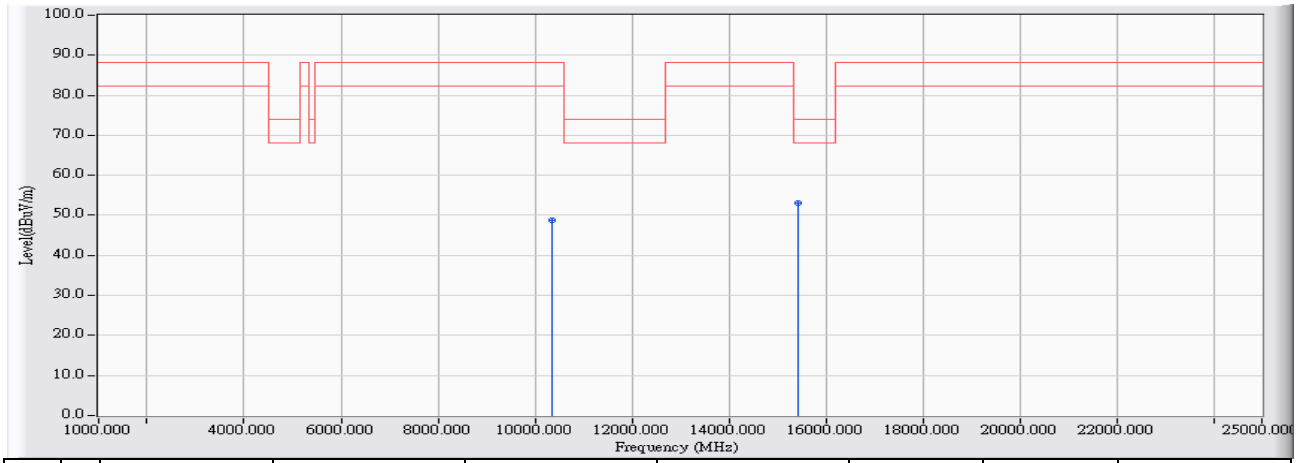
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-11.772	47.671	35.900	-4.100	40.000	QUASIPEAK
2		55.867	-17.197	50.503	33.307	-6.693	40.000	QUASIPEAK
3		84.967	-16.358	47.162	30.803	-9.197	40.000	QUASIPEAK
4		127.000	-12.194	48.856	36.662	-6.838	43.500	QUASIPEAK
5		241.783	-11.665	47.328	35.662	-10.338	46.000	QUASIPEAK
6		497.217	-5.430	40.077	34.647	-11.353	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Harmonic & Spurious:

Site : CB1	**Time : 2012/03/06 - 17:44**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5180MHz**

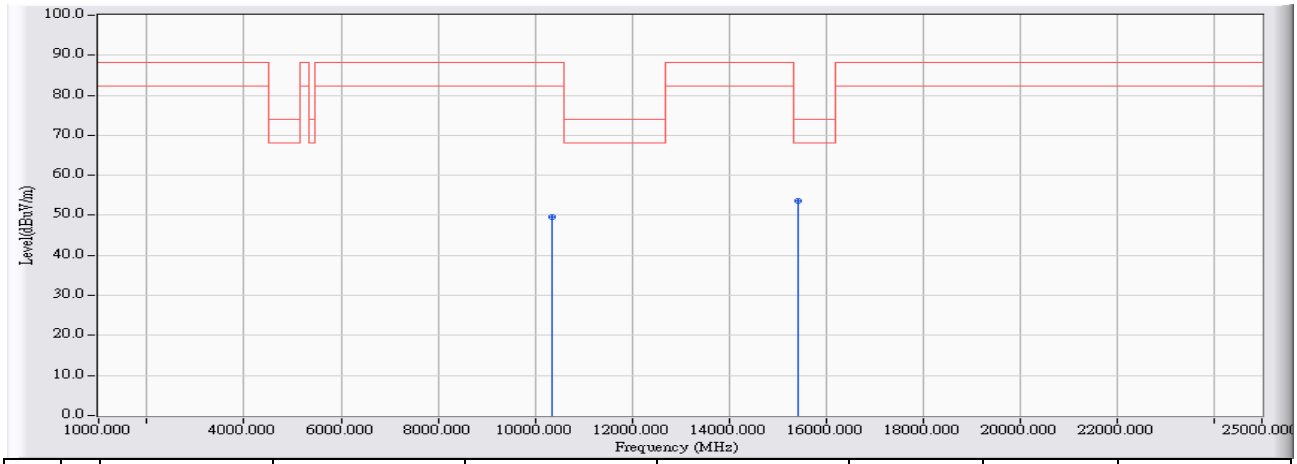


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	11.473	37.228	48.701	-39.599	88.300	PEAK
2	*	15440.000	17.797	34.212	52.009	-21.991	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 17:45**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5180MHz**

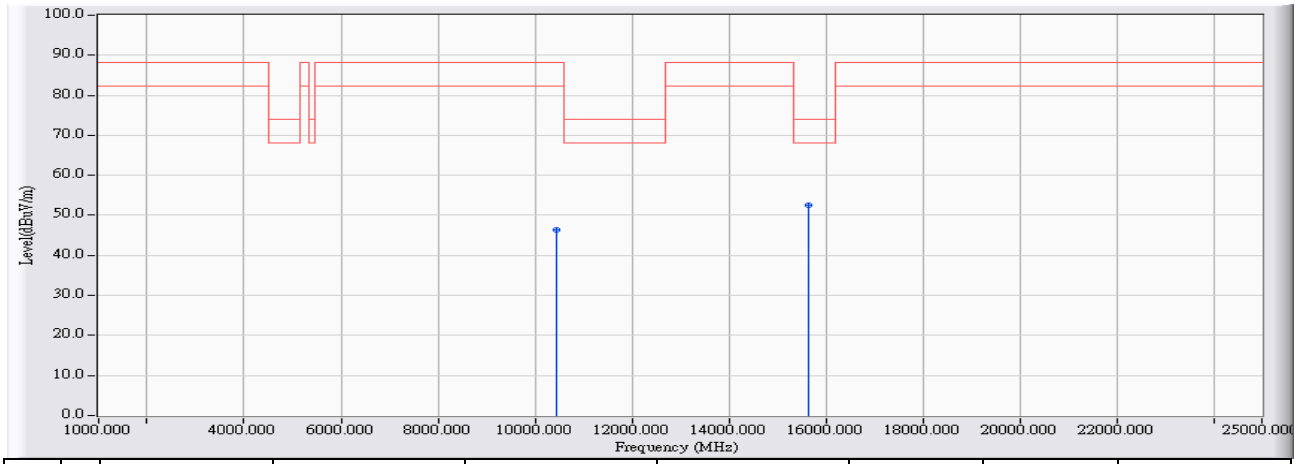


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	11.473	38.246	49.719	-38.581	88.300	PEAK
2	*	15440.000	17.797	34.729	52.526	-21.474	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 17:49**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5220MHz**

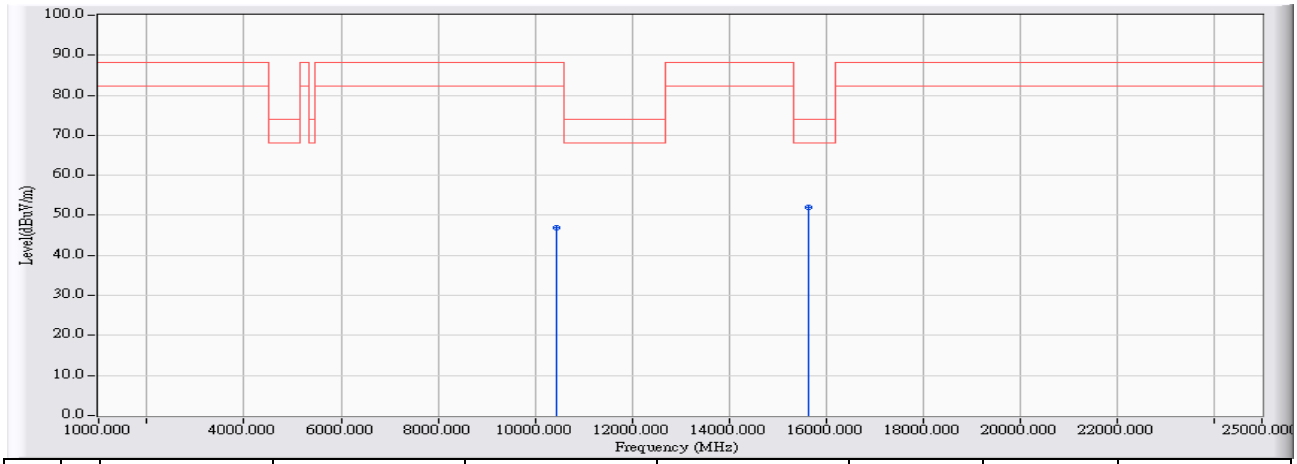


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	34.769	46.378	-41.922	88.300	PEAK
2	*	15660.000	17.608	35.014	52.623	-21.377	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 17:50**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5220MHz**

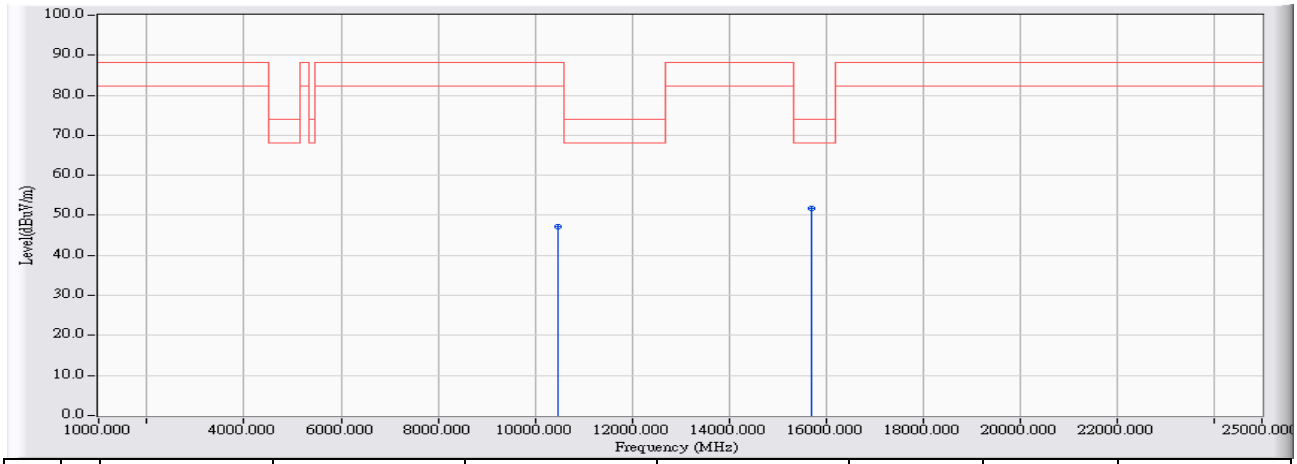


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	35.306	46.915	-41.385	88.300	PEAK
2	*	15660.000	17.608	34.375	51.984	-22.016	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 17:53**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5240MHz**

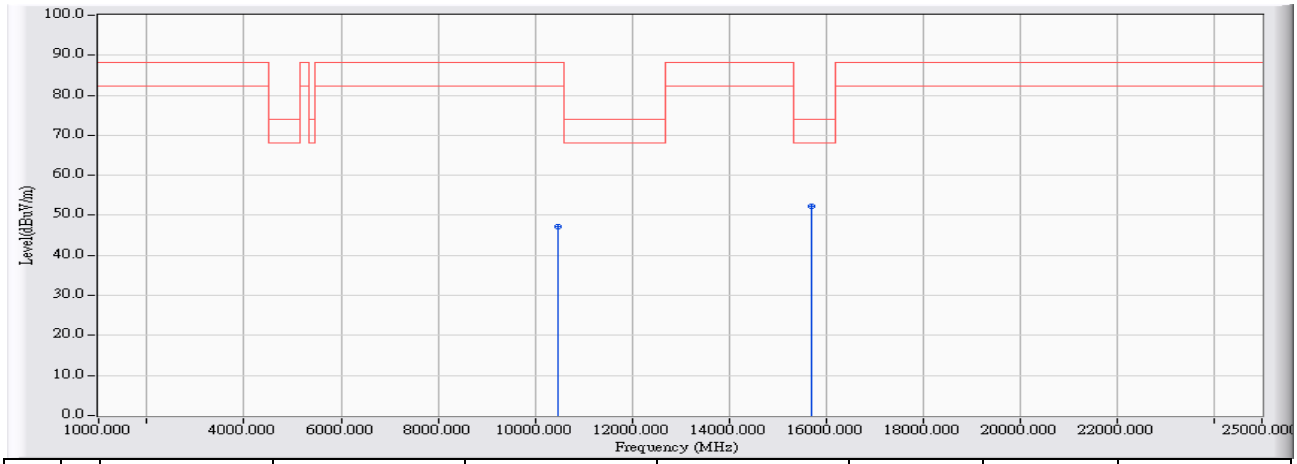


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	11.677	35.485	47.163	-41.137	88.300	PEAK
2	*	15720.000	17.535	34.272	51.807	-22.193	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 17:58**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_a_ 5240MHz**

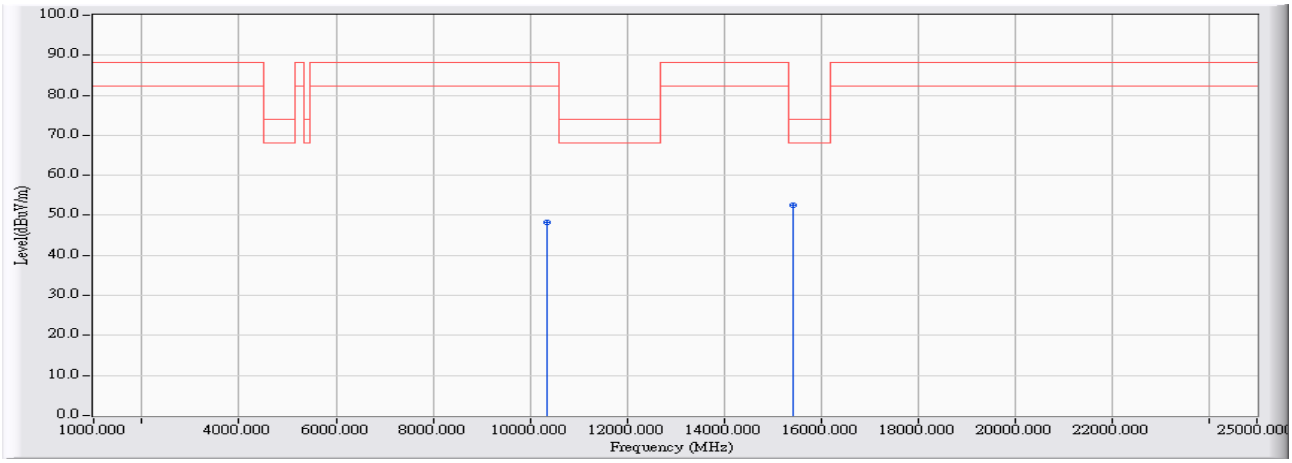


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	11.677	35.429	47.107	-41.193	88.300	PEAK
2	*	15720.000	17.535	34.772	52.307	-21.693	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:01**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5180MHz**

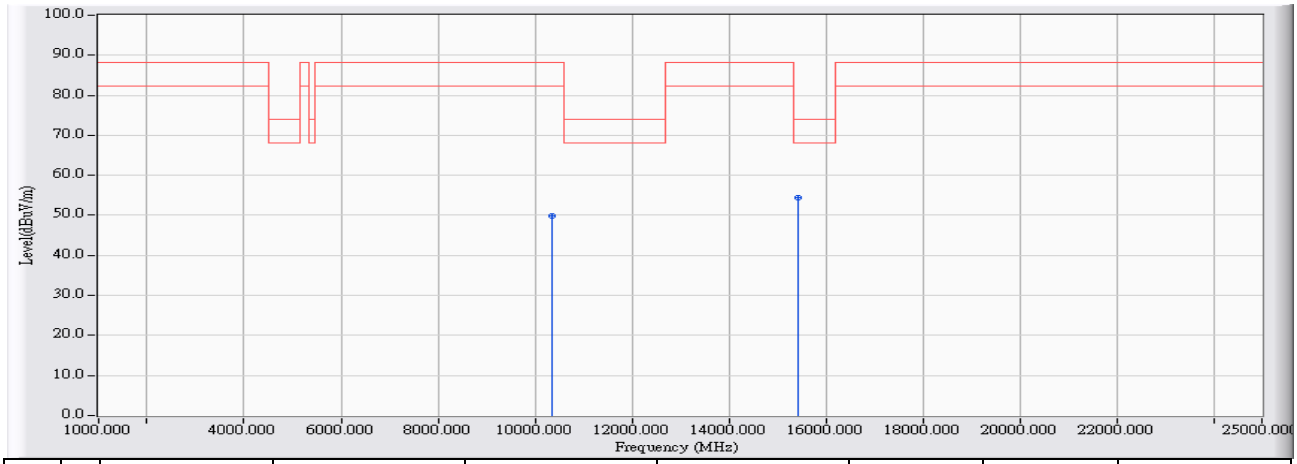


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	11.473	36.657	48.130	-40.170	88.300	PEAK
2	*	15440.000	17.797	34.812	52.609	-21.391	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:27**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5180MHz**

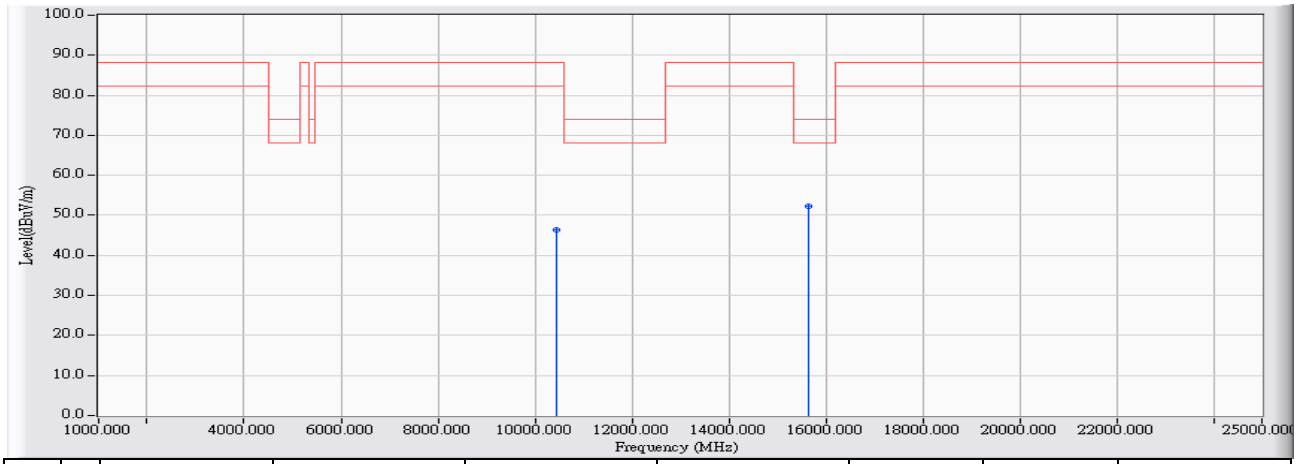


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	11.473	38.300	49.773	-38.527	88.300	PEAK
2	*	15440.000	17.797	35.157	52.954	-21.046	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:31**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5220MHz**

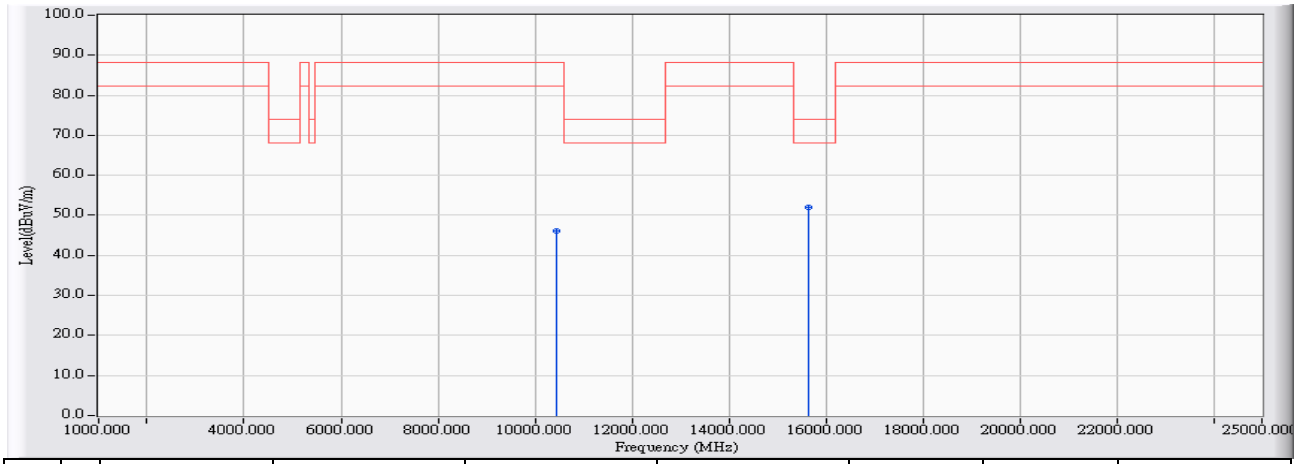


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	34.731	46.340	-41.960	88.300	PEAK
2	*	15660.000	17.608	34.690	52.299	-21.701	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:35**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5220MHz**

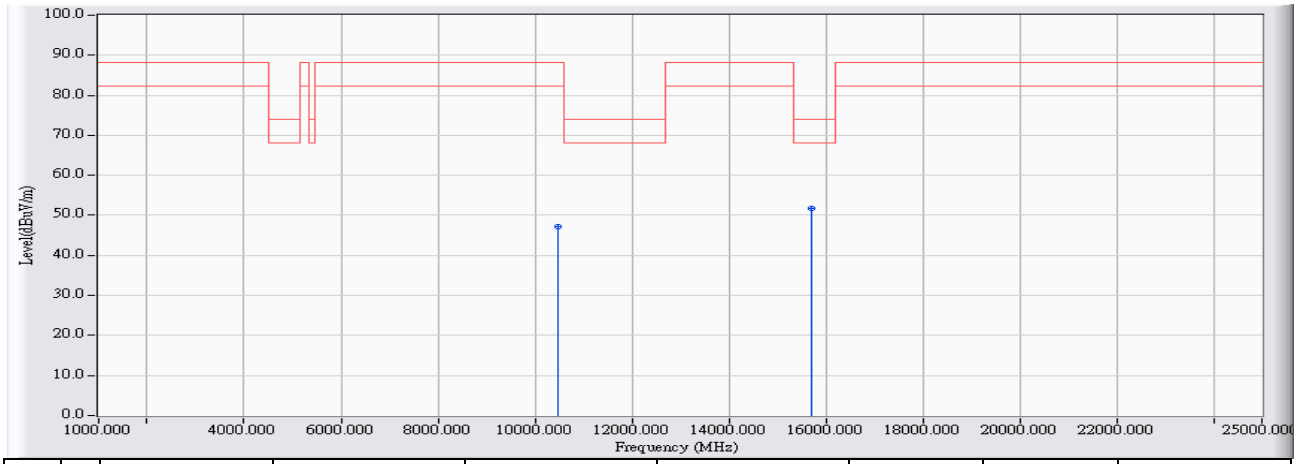


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	34.517	46.126	-42.174	88.300	PEAK
2	*	15660.000	17.608	34.363	51.972	-22.028	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:39**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5240MHz**

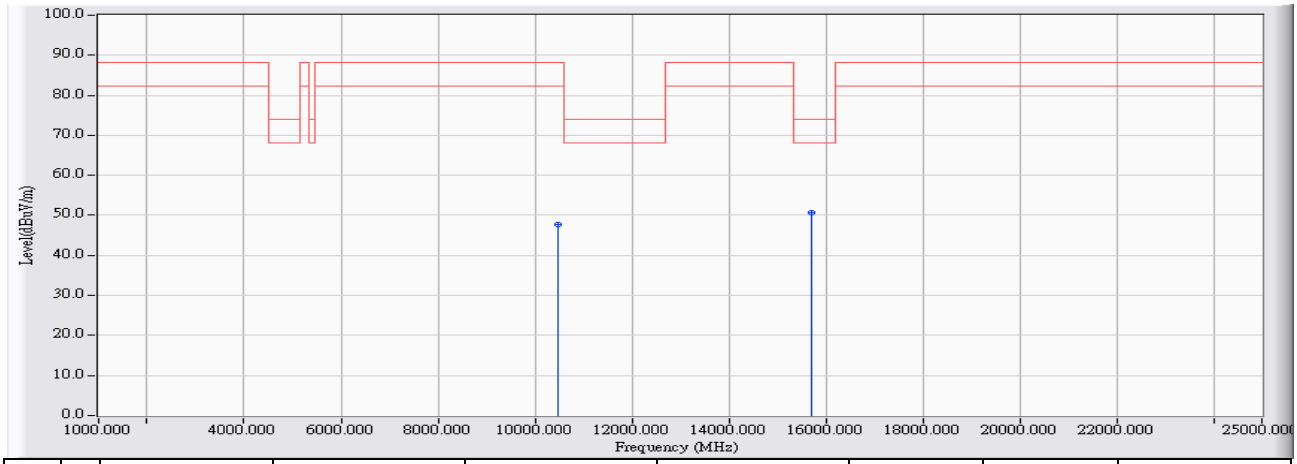


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	11.677	35.585	47.263	-41.037	88.300	PEAK
2	*	15720.000	17.535	34.216	51.751	-22.249	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:42**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(20MHz)_ 5240MHz**

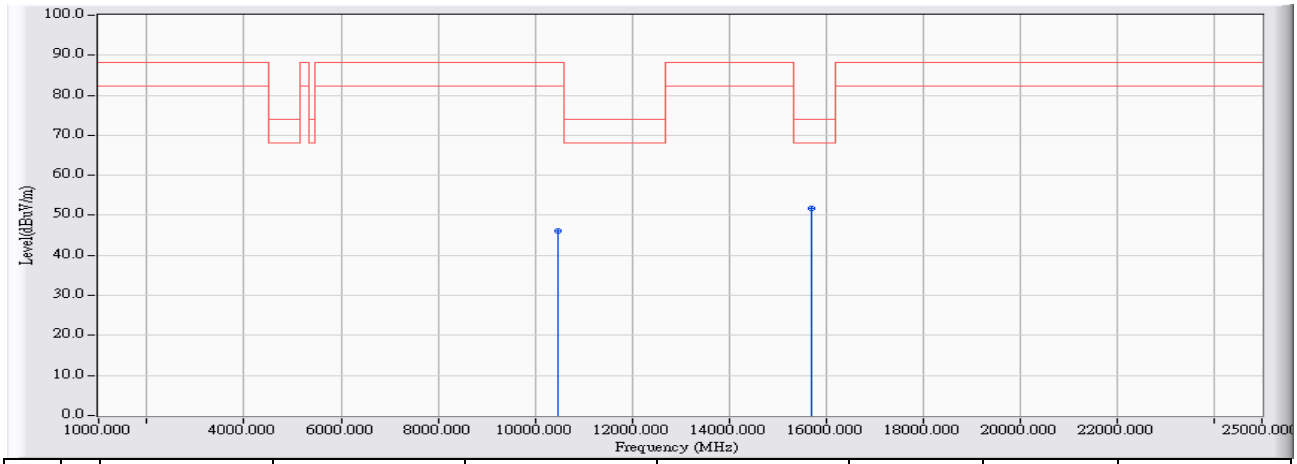


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	11.677	36.096	47.774	-40.526	88.300	PEAK
2	*	15720.000	17.535	33.147	50.682	-23.318	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:45**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5190MHz**

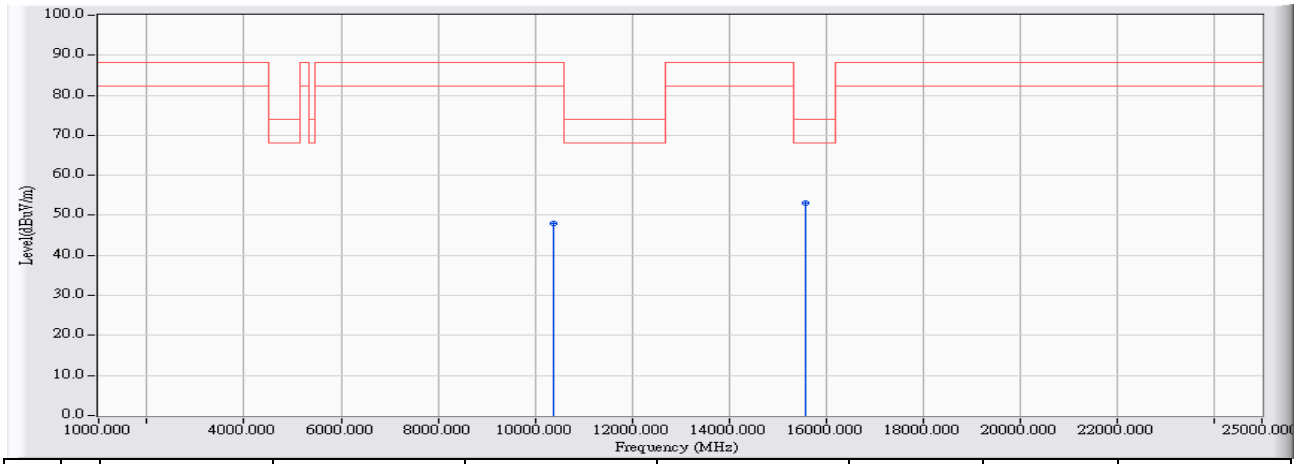


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	11.677	34.410	46.088	-42.212	88.300	PEAK
2	*	15720.000	17.535	34.087	51.622	-22.378	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:49**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5190MHz**

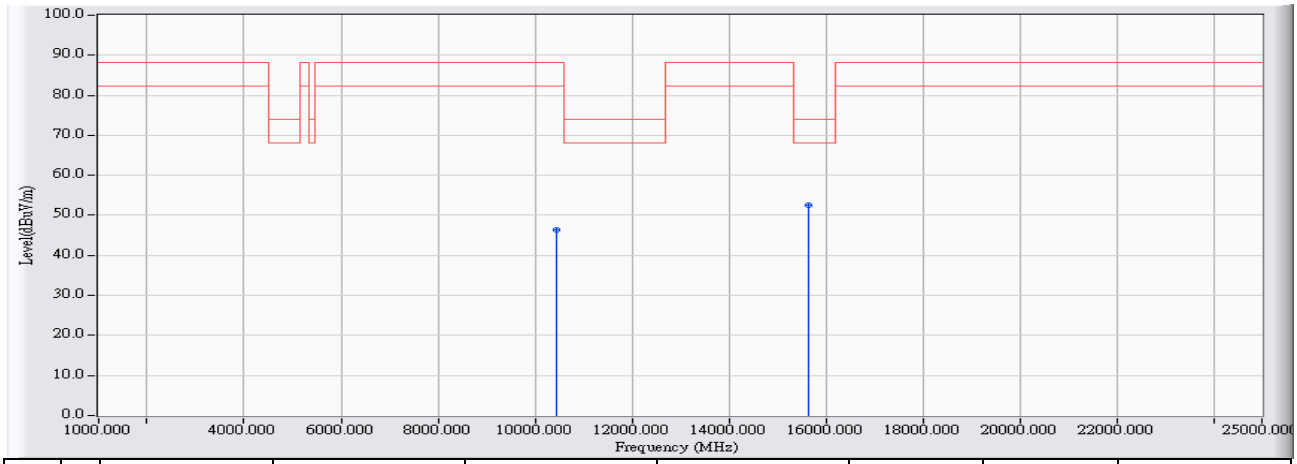


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10380.000	11.507	36.552	48.059	-40.241	88.300	PEAK
2	*	15570.000	17.720	35.400	53.120	-20.880	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. “ # ”, means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:53**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5220MHz**

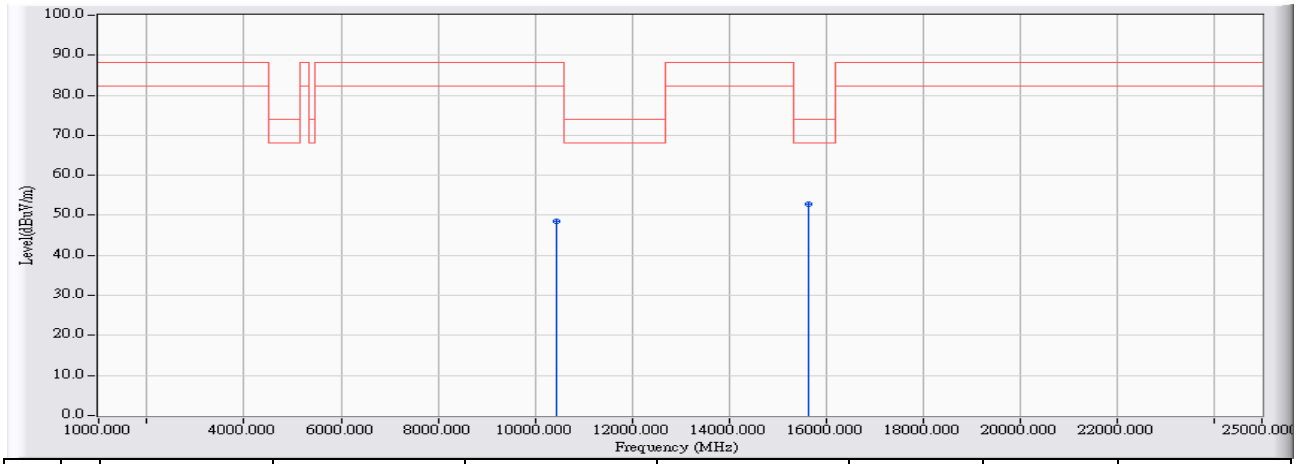


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	34.840	46.449	-41.851	88.300	PEAK
2	*	15660.000	17.608	35.035	52.644	-21.356	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 18:59**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5220MHz**

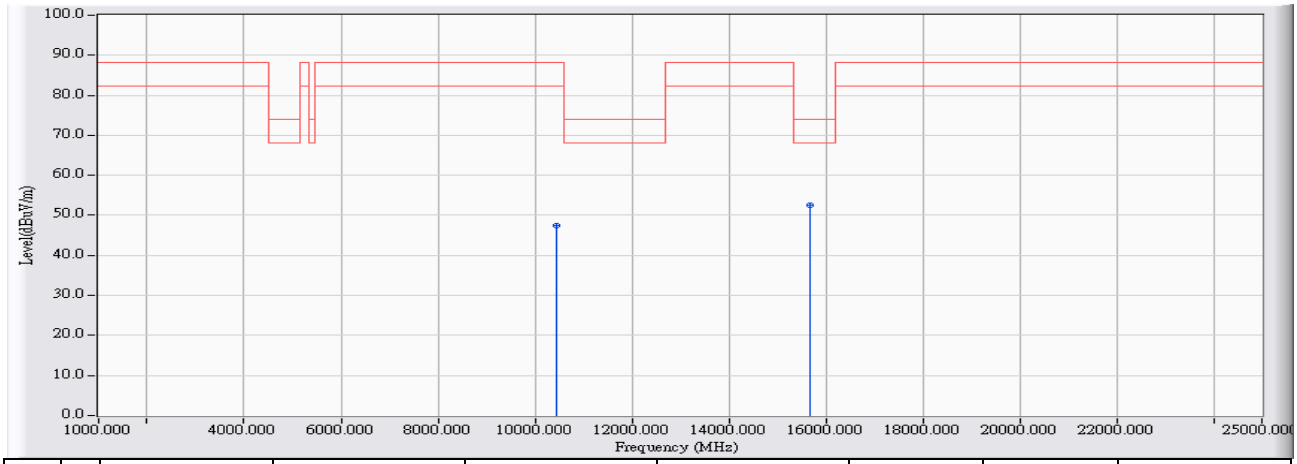


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	11.610	36.904	48.513	-39.787	88.300	PEAK
2	*	15660.000	17.608	35.115	52.724	-21.276	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 19:05**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5230MHz**

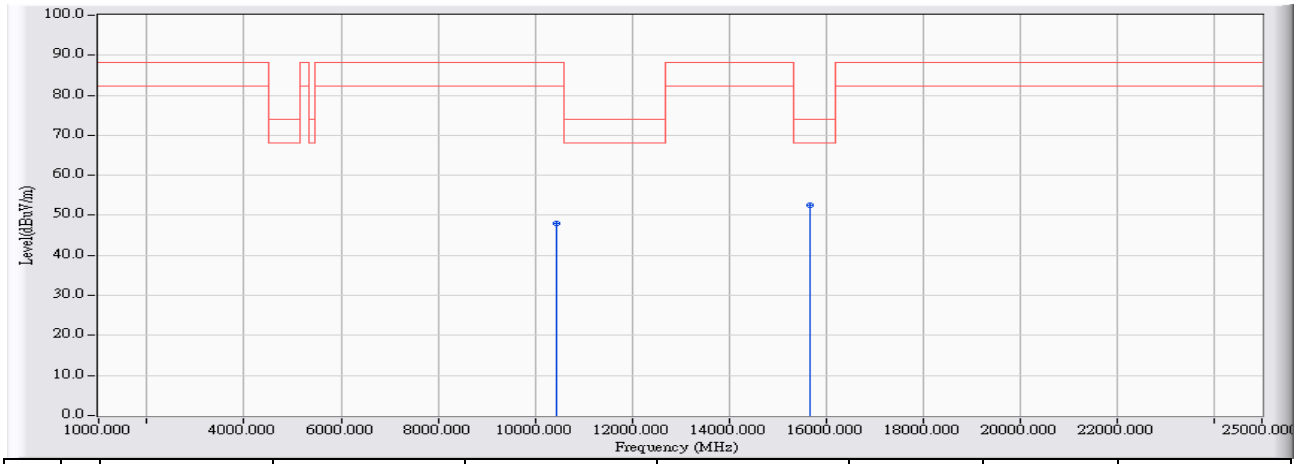


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	11.643	35.843	47.486	-40.814	88.300	PEAK
2	*	15690.000	17.572	34.863	52.435	-21.565	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/03/06 - 19:09**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/ 60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11_n(40MHz)_ 5230MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	11.643	36.255	47.898	-40.402	88.300	PEAK
2	*	15690.000	17.572	35.010	52.582	-21.418	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

8. Band Edge

8.1. Test Equipment

The following test equipments are used during the band edge tests:

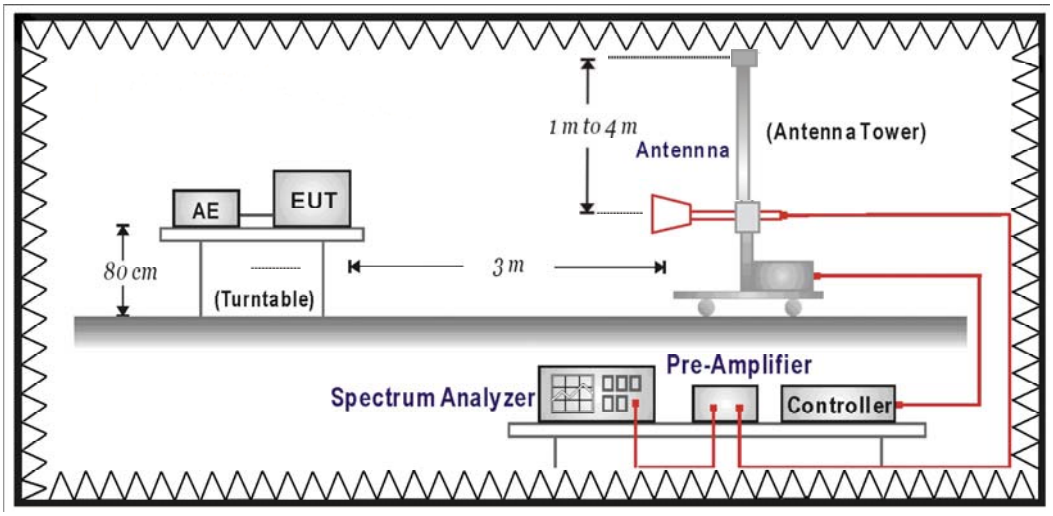
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup

RF Radiated Measurement:



8.3. Limits

➢ **General Radiated Emission Limits**

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

4. RF Voltage (dBuV) = 20 log RF Voltage (uV)
5. In the Above Table, the tighter limit applies at the band edges.
6. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➢ **Unwanted Emission out of the restricted bands Limits**

FCC Part 15 Subpart C Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

4. For frequencies more than 10 MHz above or below the band edges.
5. For frequency range from the band edges to 10 MHz above or below the band edges.
6. uV/m = $\frac{1000000\sqrt{30 \times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

8.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 KHz, above 1GHz are 1 MHz.

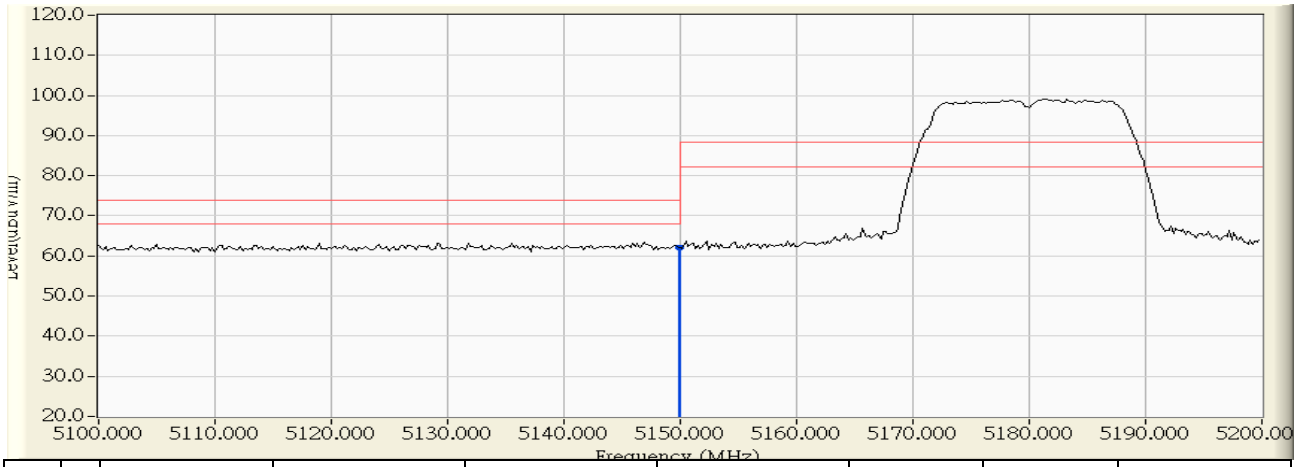
8.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

8.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2012/02/24 - 17:14**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_5180MHz**

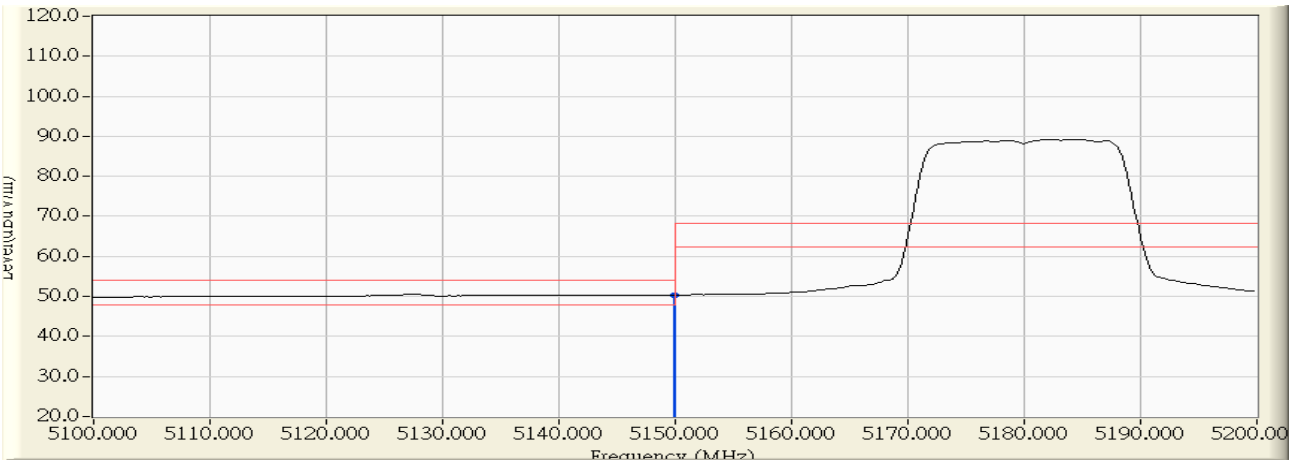


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	26.710	62.070	-11.930	74.000	PEAK
2		5150.000	35.361	26.633	61.994	-12.006	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:15**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_5180MHz**

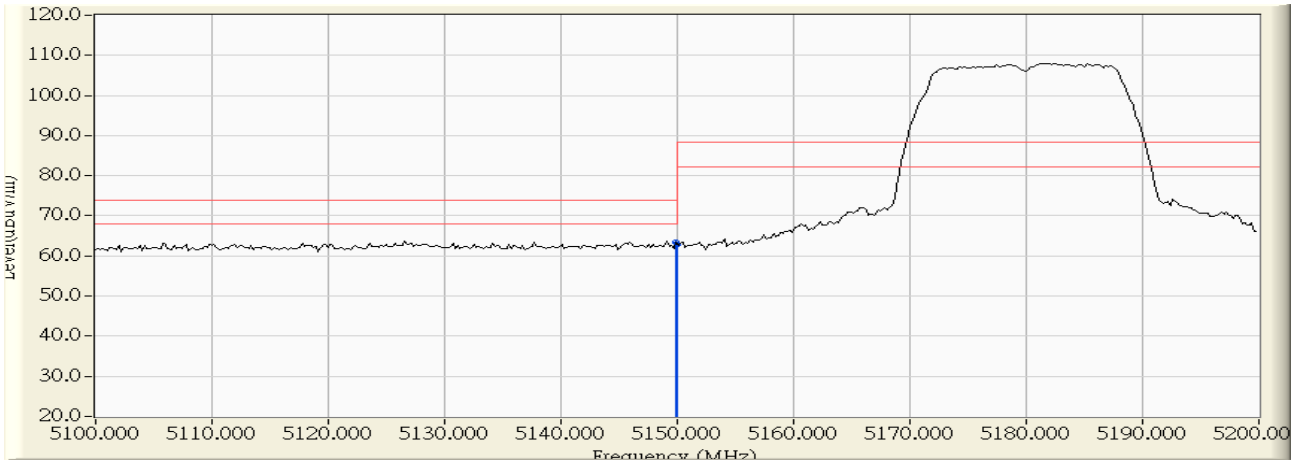


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.900	35.360	15.039	50.399	-3.601	54.000	AVERAGE
2	*	5150.000	35.361	15.048	50.409	-3.591	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:19**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_5180MHz**

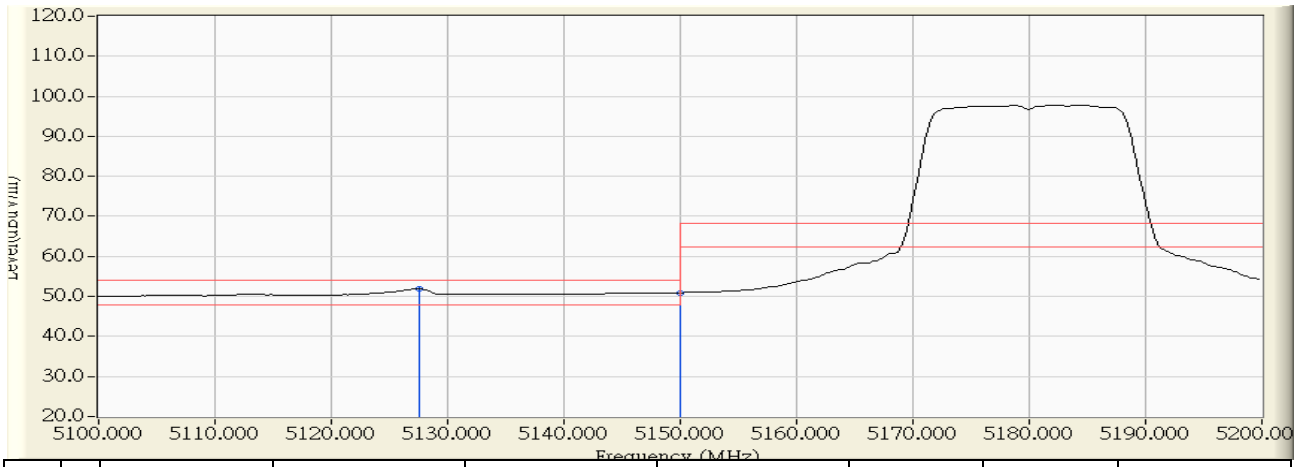


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	27.985	63.345	-10.655	74.000	PEAK
2		5150.000	35.361	27.623	62.984	-11.016	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:20**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11a_5180MHz**

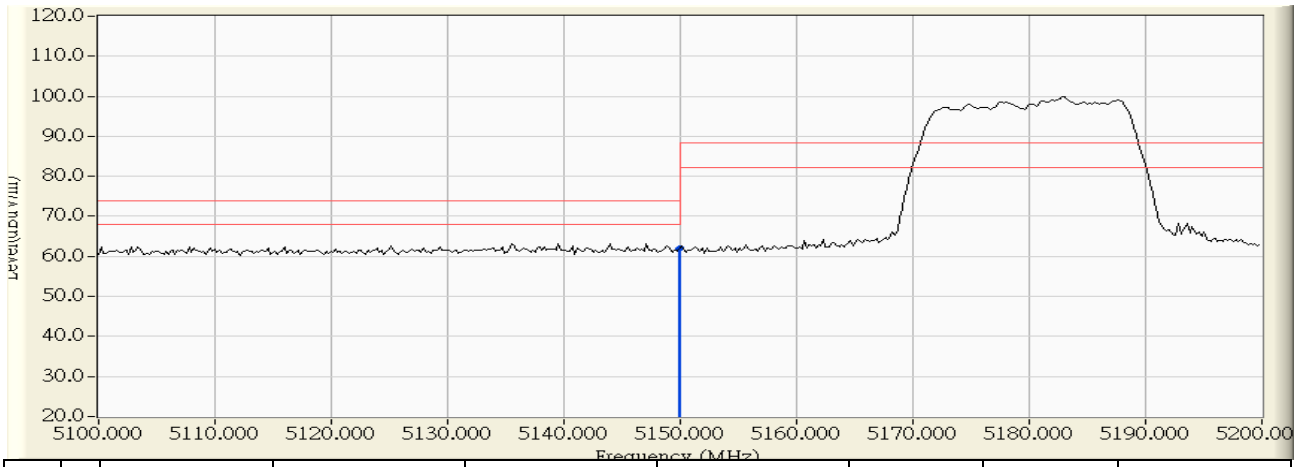


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5127.545	35.181	16.752	51.933	-2.067	54.000	AVERAGE
2		5150.000	35.361	15.565	50.926	-3.074	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:06**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(20MHz)_5180MHz**

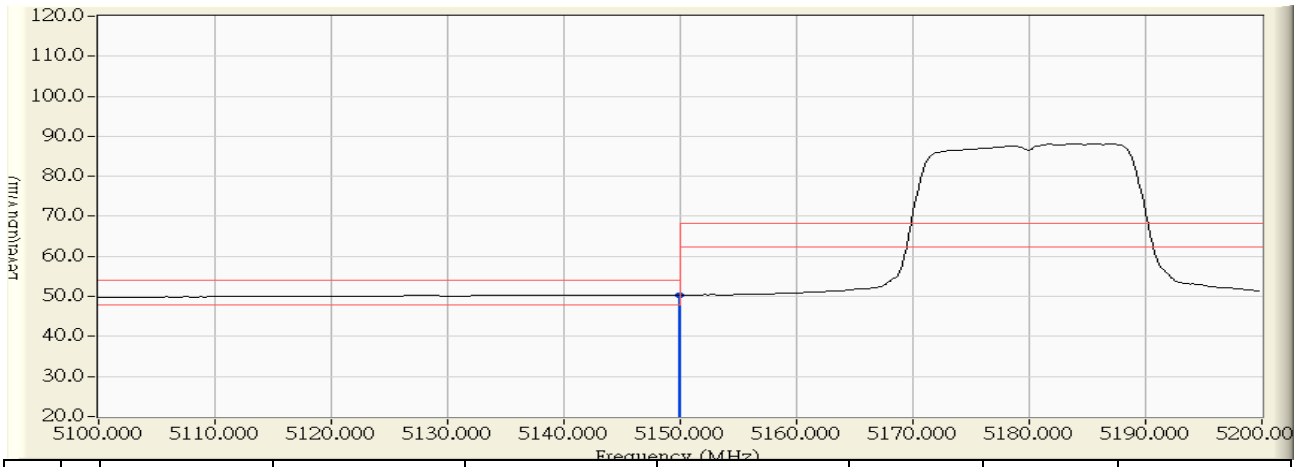


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.900	35.360	26.456	61.816	-12.184	74.000	PEAK
2	*	5150.000	35.361	26.795	62.156	-11.844	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:06**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(20MHz)_5180MHz**

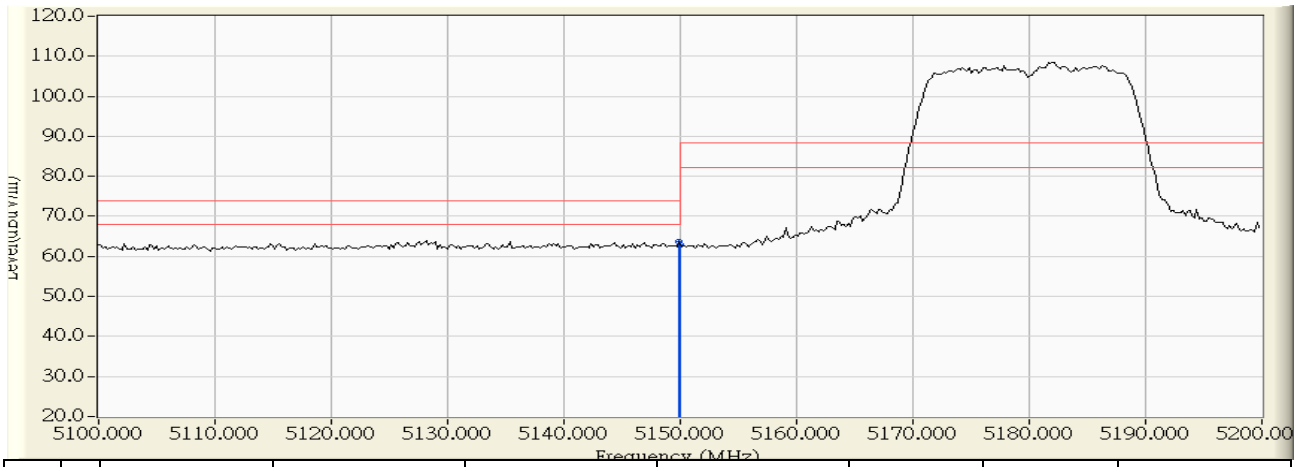


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.900	35.360	15.035	50.395	-3.605	54.000	AVERAGE
2	*	5150.000	35.361	15.042	50.403	-3.597	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:09**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(20MHz)_5180MHz**

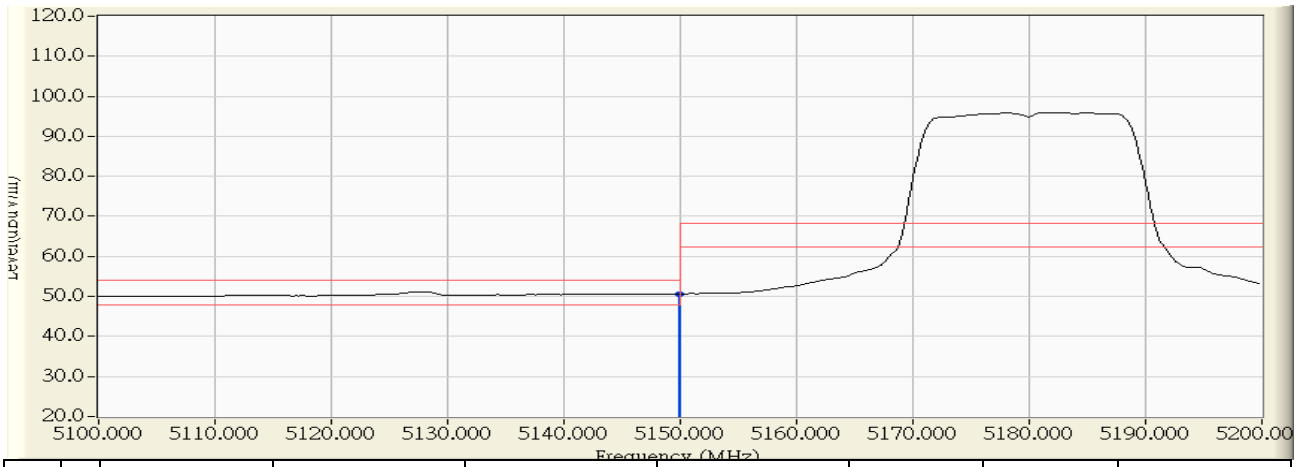


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	28.282	63.642	-10.358	74.000	PEAK
2		5150.000	35.361	27.614	62.975	-11.025	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 17:09**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(20MHz)_5180MHz**

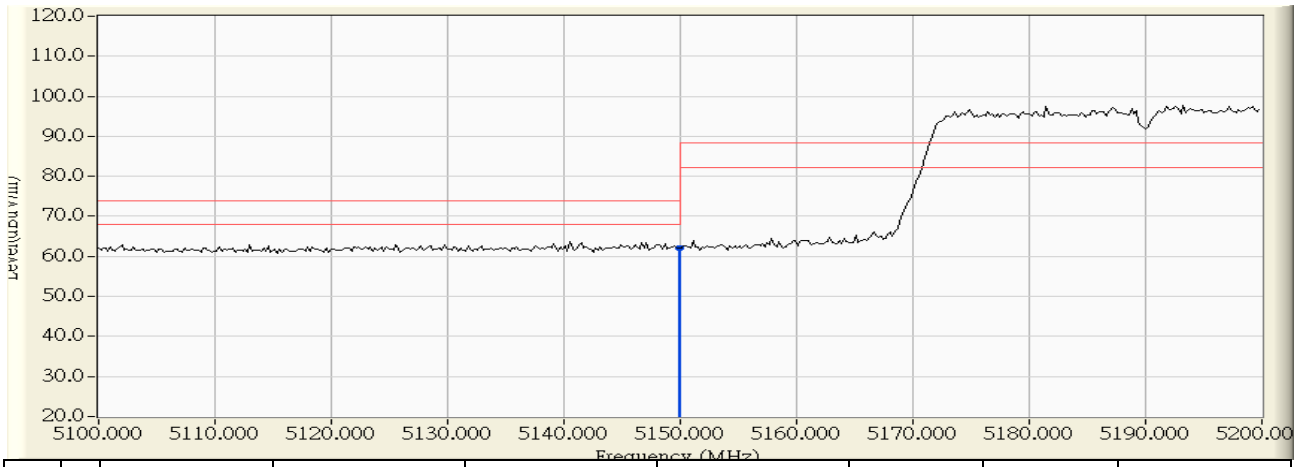


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	15.300	50.660	-3.340	54.000	AVERAGE
2		5150.000	35.361	15.293	50.654	-3.346	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 16:56**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(40MHz)_5190MHz**

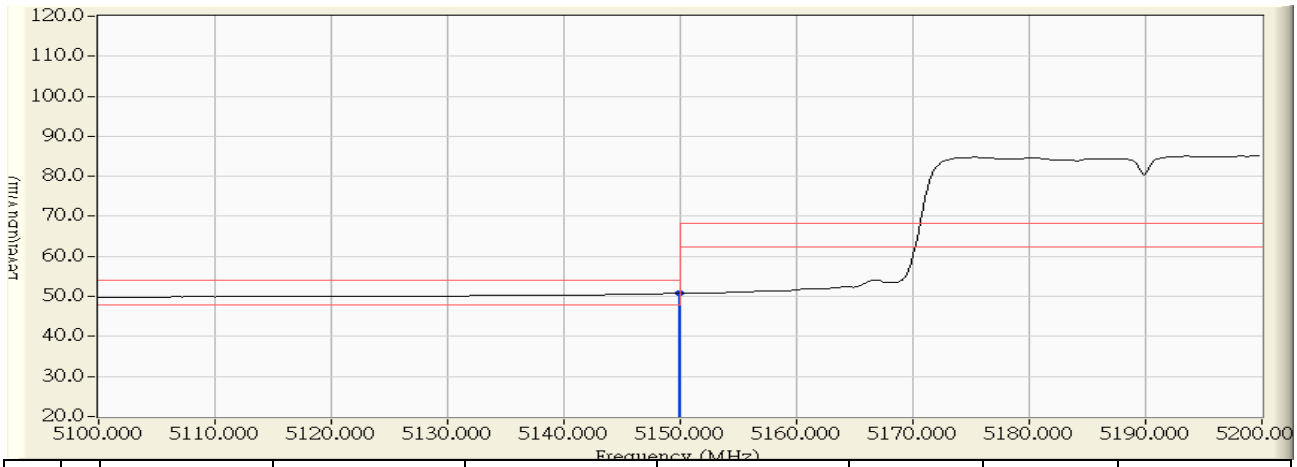


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.900	35.360	26.729	62.089	-11.911	74.000	PEAK
2	*	5150.000	35.361	26.733	62.094	-11.906	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 16:57**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(40MHz)_5190MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	15.381	50.741	-3.259	54.000	AVERAGE
2		5150.000	35.361	15.374	50.735	-3.265	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

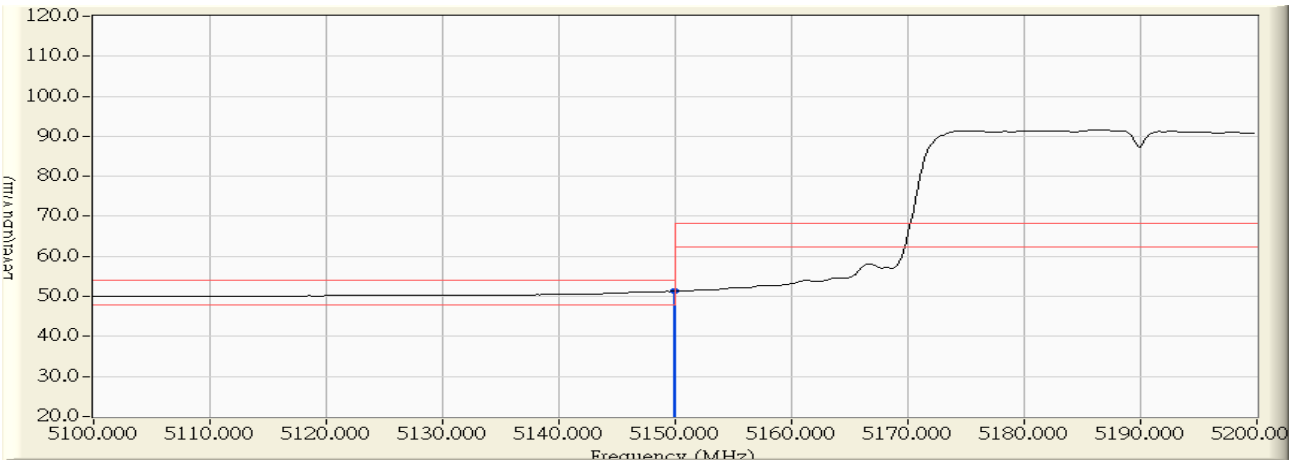
Site : CB1	**Time : 2012/02/24 - 16:59**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(40MHz)_5190MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.900	35.360	27.722	63.082	-10.918	74.000	PEAK
2		5150.000	35.361	27.253	62.614	-11.386	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2012/02/24 - 16:59**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-band Wireless-N Adapter	**Note : 802.11n(40MHz)_5190MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.900	35.360	15.906	51.266	-2.734	54.000	AVERAGE
2	*	5150.000	35.361	15.918	51.279	-2.721	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

9. Frequency Stability

9.1. Test Equipment

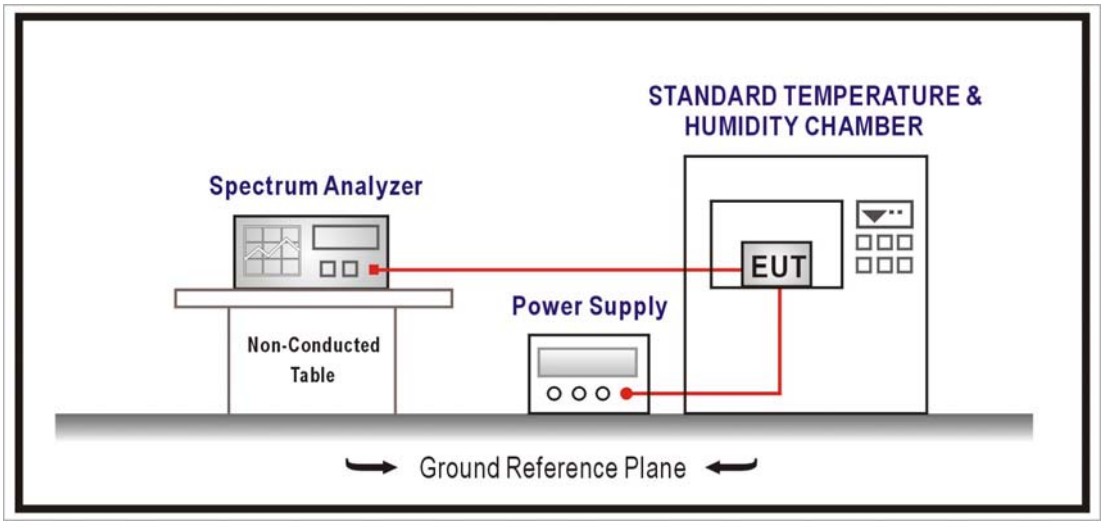
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19
Standard Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2013/01/29

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

9.2. Test Setup



9.3. Limits

Manufactures of all devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

9.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to U-NII test procedure of March 2012 KDB 789033 for compliance to FCC 47CFR Subpart E requirements.

9.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

9.6. Test Result

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5180MHz		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.7211	139.2085	PASS
-10		5180.3854	74.4015	PASS
0		5180.5565	107.4324	PASS
10		5180.7677	148.2046	PASS
20		5180.3795	73.2625	PASS
30		5180.5098	98.4170	PASS
40		5180.1776	34.2857	PASS
50		5180.3214	62.0463	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5180.5648	109.0347	PASS
	120	5180.7345	141.7954	PASS
	138	5180.4648	89.7297	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5240MHz		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.8786	167.6685	PASS
-10		5240.5205	99.3231	PASS
0		5240.2748	52.4486	PASS
10		5240.7902	150.8025	PASS
20		5240.6649	126.8876	PASS
30		5240.1380	26.3430	PASS
40		5240.0034	0.6488	PASS
50		5240.3993	76.2116	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5240.6847	130.6624	PASS
	120	5240.4875	93.0263	PASS
	138	5240.1921	36.6643	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 0)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.3532	68.1936	PASS
-10		5180.0496	9.5841	PASS
0		5180.8362	161.4261	PASS
10		5180.2036	39.3114	PASS
20		5180.1591	30.7201	PASS
30		5180.8741	168.7534	PASS
40		5180.4008	77.3838	PASS
50		5180.6589	127.1993	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5180.3914	75.5547	PASS
	120	5180.0413	7.9802	PASS
	138	5180.2294	44.2837	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 0)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.5324	101.6030	PASS
-10		5240.4323	82.5047	PASS
0		5240.8083	154.2575	PASS
10		5240.1775	33.8710	PASS
20		5240.1987	37.9211	PASS
30		5240.5705	108.8645	PASS
40		5240.4667	89.0565	PASS
50		5240.3590	68.5192	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5240.3567	68.0726	PASS
	120	5240.8419	160.6758	PASS
	138	5240.8210	156.6854	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 1)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.0742	14.3314	PASS
-10		5180.5414	104.5188	PASS
0		5180.1539	29.7139	PASS
10		5180.7166	138.3361	PASS
20		5180.6307	121.7573	PASS
30		5180.5211	100.5928	PASS
40		5180.2260	43.6235	PASS
50		5180.0393	7.5884	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5180.1328	25.6323	PASS
	120	5180.5325	102.8054	PASS
	138	5180.2881	55.6103	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 1)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.8940	170.6157	PASS
-10		5240.3744	71.4537	PASS
0		5240.4973	94.9110	PASS
10		5240.4879	93.1185	PASS
20		5240.8921	170.2404	PASS
30		5240.1075	20.5225	PASS
40		5240.5163	98.5299	PASS
50		5240.4002	76.3762	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5240.3412	65.1116	PASS
	120	5240.5605	106.9566	PASS
	138	5240.7040	134.3452	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz (ANT 2)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.2213	42.7238	PASS
-10		5180.2503	48.3260	PASS
0		5180.7685	148.3659	PASS
10		5180.5766	111.3079	PASS
20		5180.8321	160.6385	PASS
30		5180.3162	61.0439	PASS
40		5180.6619	127.7785	PASS
50		5180.8358	161.3443	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5180.1437	27.7410	PASS
	120	5180.4327	83.5410	PASS
	138	5180.3541	68.3578	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz (ANT 2)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.6962	132.8660	PASS
-10		5240.7275	138.8338	PASS
0		5240.2392	45.6473	PASS
10		5240.1850	35.3025	PASS
20		5240.8900	169.8558	PASS
30		5240.8413	160.5578	PASS
40		5240.6468	123.4308	PASS
50		5240.7886	150.5005	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5240.2682	51.1744	PASS
	120	5240.6968	132.9731	PASS
	138	5240.2554	48.7406	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 0)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.2826	54.4565	PASS
-10		5190.6837	131.7252	PASS
0		5190.3526	67.9454	PASS
10		5190.2329	44.8837	PASS
20		5190.1544	29.7503	PASS
30		5190.0935	18.0121	PASS
40		5190.2860	55.1129	PASS
50		5190.4499	86.6805	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5190.0041	0.7866	PASS
	120	5190.2047	39.4362	PASS
	138	5190.5911	113.8847	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 0)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.0024	0.4677	PASS
-10		5230.7595	145.2256	PASS
0		5230.1923	36.7777	PASS
10		5230.7354	140.6141	PASS
20		5230.8887	169.9164	PASS
30		5230.2843	54.3610	PASS
40		5230.8840	169.0290	PASS
50		5230.0368	7.0278	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5230.7637	146.0149	PASS
	120	5230.1646	31.4696	PASS
	138	5230.7999	152.9534	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 1)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.1128	21.7390	PASS
-10		5190.3379	65.1071	PASS
0		5190.4638	89.3548	PASS
10		5190.6922	133.3694	PASS
20		5190.4631	89.2214	PASS
30		5190.1922	37.0295	PASS
40		5190.3187	61.4078	PASS
50		5190.0046	0.8813	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5190.5736	110.5187	PASS
	120	5190.7820	150.6749	PASS
	138	5190.5393	103.9196	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 1)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7162	136.9360	PASS
-10		5230.4984	95.2918	PASS
0		5230.7357	140.6721	PASS
10		5230.0704	13.4683	PASS
20		5230.0711	13.5947	PASS
30		5230.6016	115.0341	PASS
40		5230.7746	148.1124	PASS
50		5230.7230	138.2434	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5230.3455	66.0661	PASS
	120	5230.3459	66.1416	PASS
	138	5230.6723	128.5468	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 2)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.2041	39.3344	PASS
-10		5190.7208	138.8860	PASS
0		5190.8467	163.1377	PASS
10		5190.3785	72.9299	PASS
20		5190.5018	96.6879	PASS
30		5190.0661	12.7340	PASS
40		5190.3529	68.0056	PASS
50		5190.6034	116.2546	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5190.1275	24.5714	PASS
	120	5190.5478	105.5411	PASS
	138	5190.4232	81.5393	PASS

Product	Dual-band Wireless-N Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M -5230MHz(ANT 2)		
Date of Test	2012/03/01	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.4856	92.8503	PASS
-10		5230.5609	107.2462	PASS
0		5230.7593	145.1909	PASS
10		5230.8946	171.0423	PASS
20		5230.4051	77.4484	PASS
30		5230.4847	92.6852	PASS
40		5230.5647	107.9723	PASS
50		5230.7511	143.6220	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	PASS
25	102	5230.2493	47.6760	PASS
	120	5230.0278	5.3242	PASS
	138	5230.0808	15.4398	PASS