5. Peak Power Spectrum Density

5.1. Test Equipment

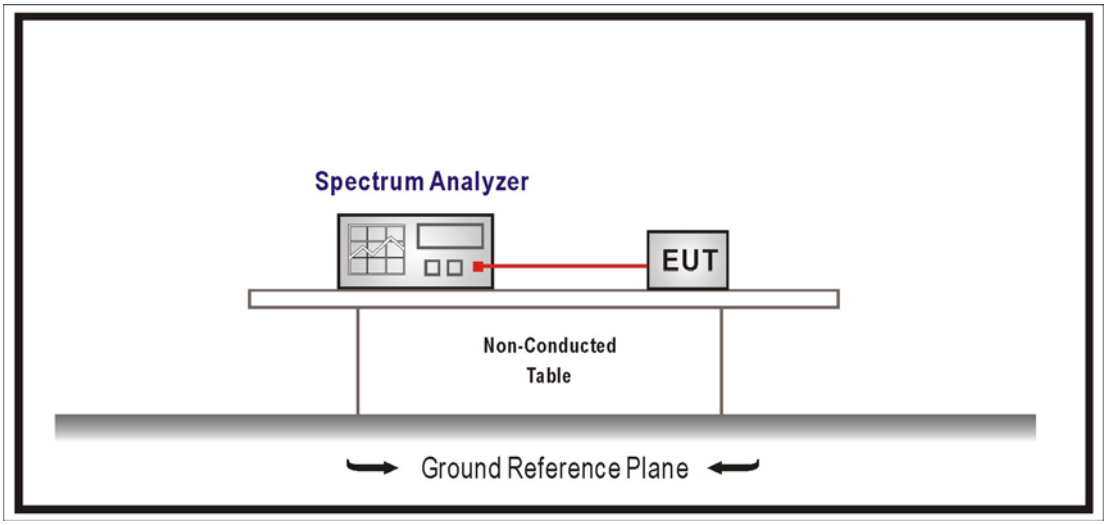
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Cal. Date	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2011/01/17	2012/01/16

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 DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements. The Method #2 of the Peak power spectral density (PPSD) was used.

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

5.5. Uncertainty

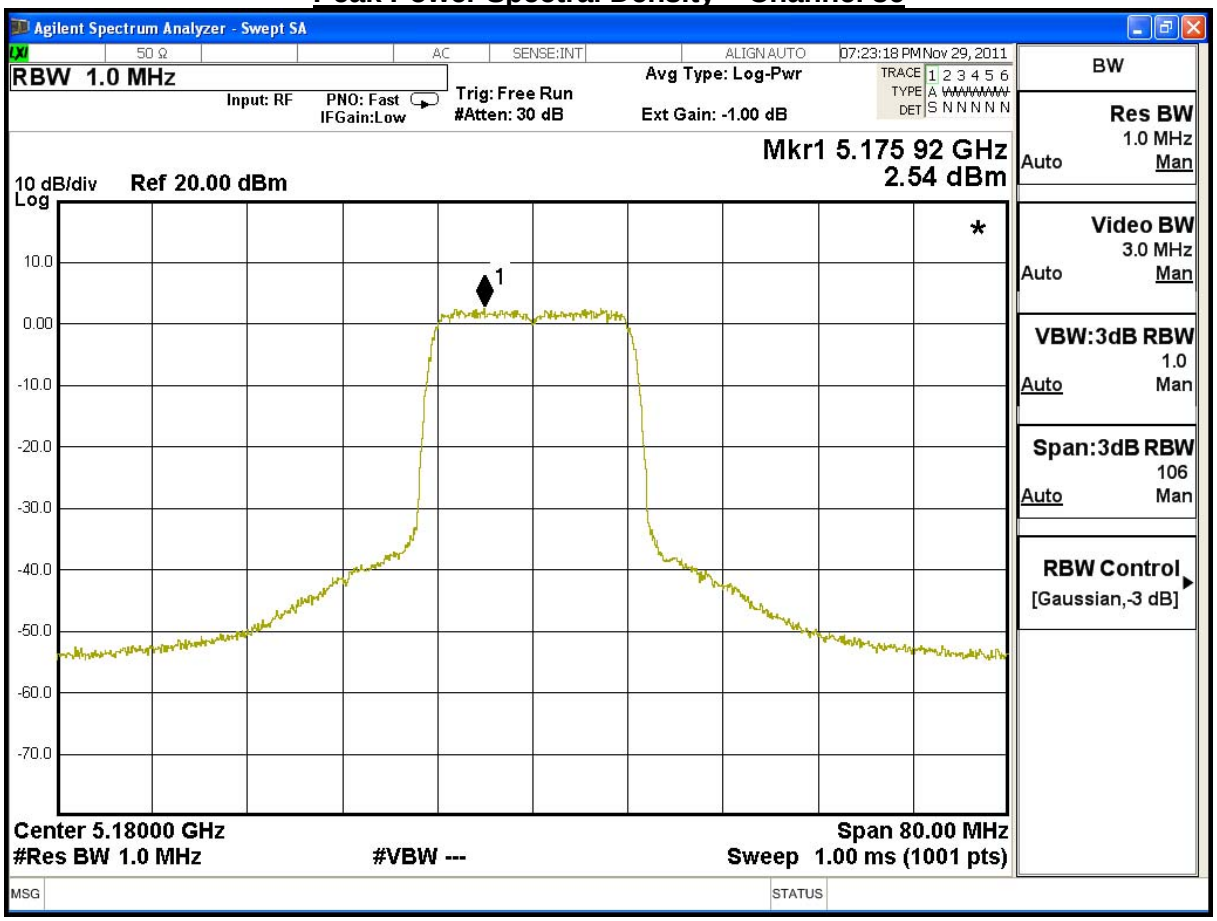
The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

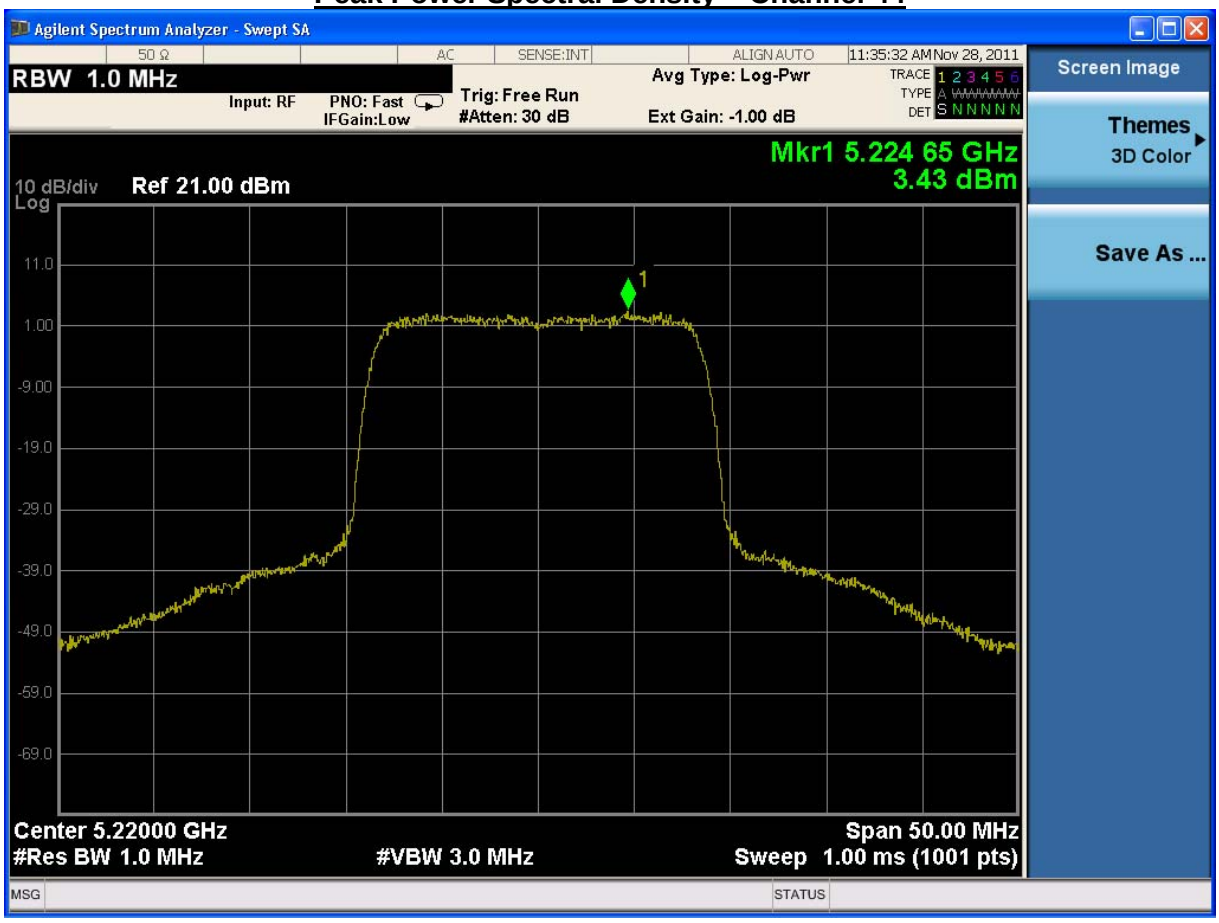
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/11/29	Test Site	SR7

IEEE 802.11a				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	2.54	≤ 4	Pass
44	5220	3.43	≤ 4	Pass
48	5240	3.55	≤ 4	Pass

Peak Power Spectral Density – Channel 36



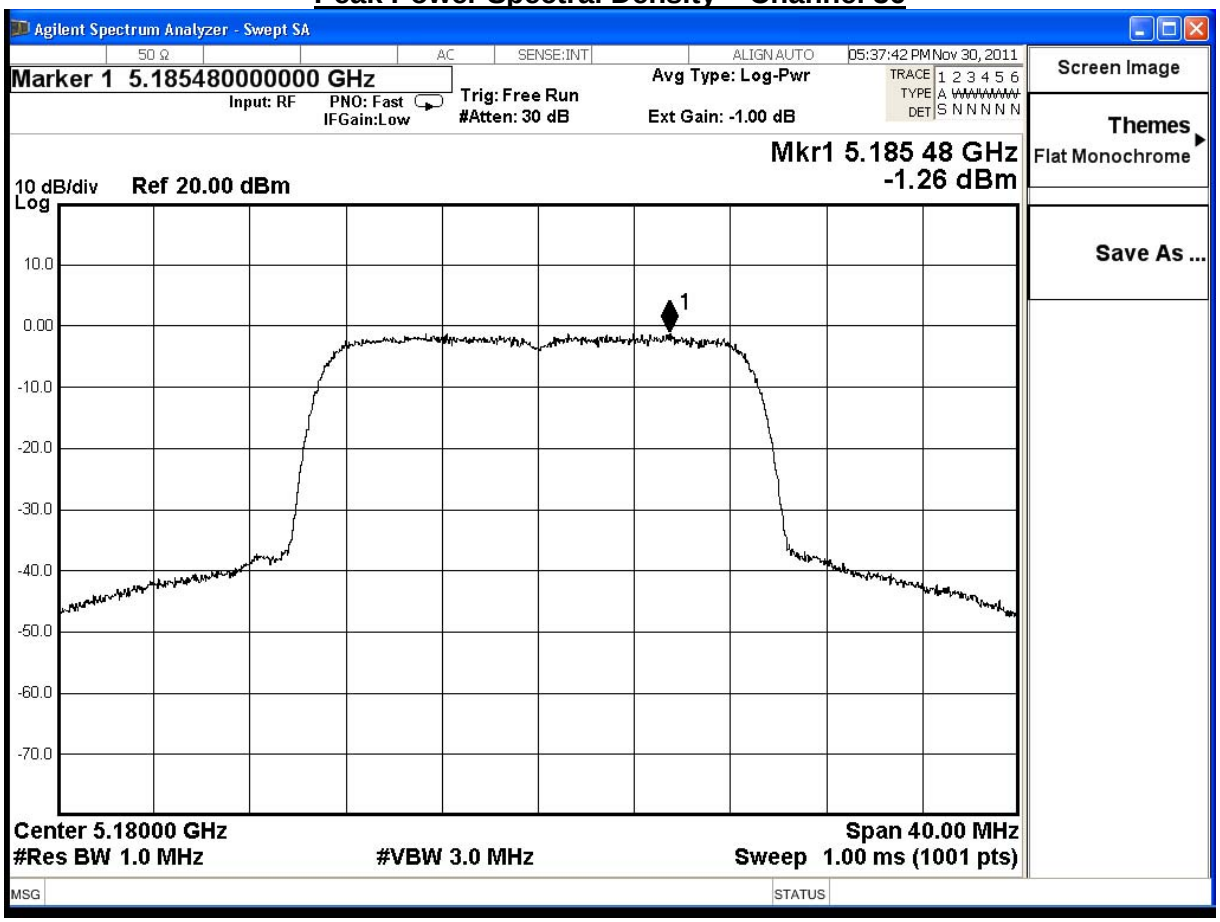
Peak Power Spectral Density – Channel 44



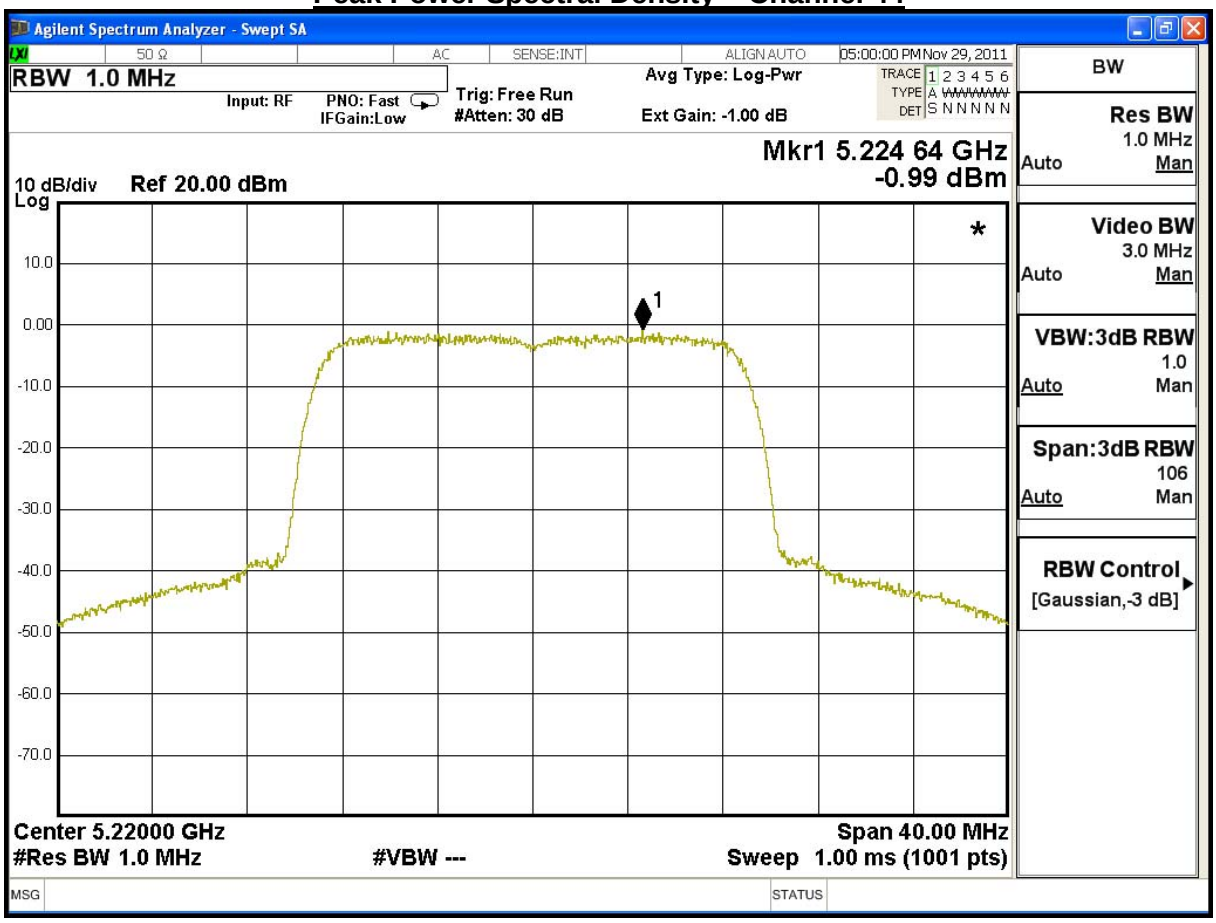
Peak Power Spectral Density – Channel 48

IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.26	≤ 4	Pass
44	5220	-0.99	≤ 4	Pass
48	5240	-1.19	≤ 4	Pass

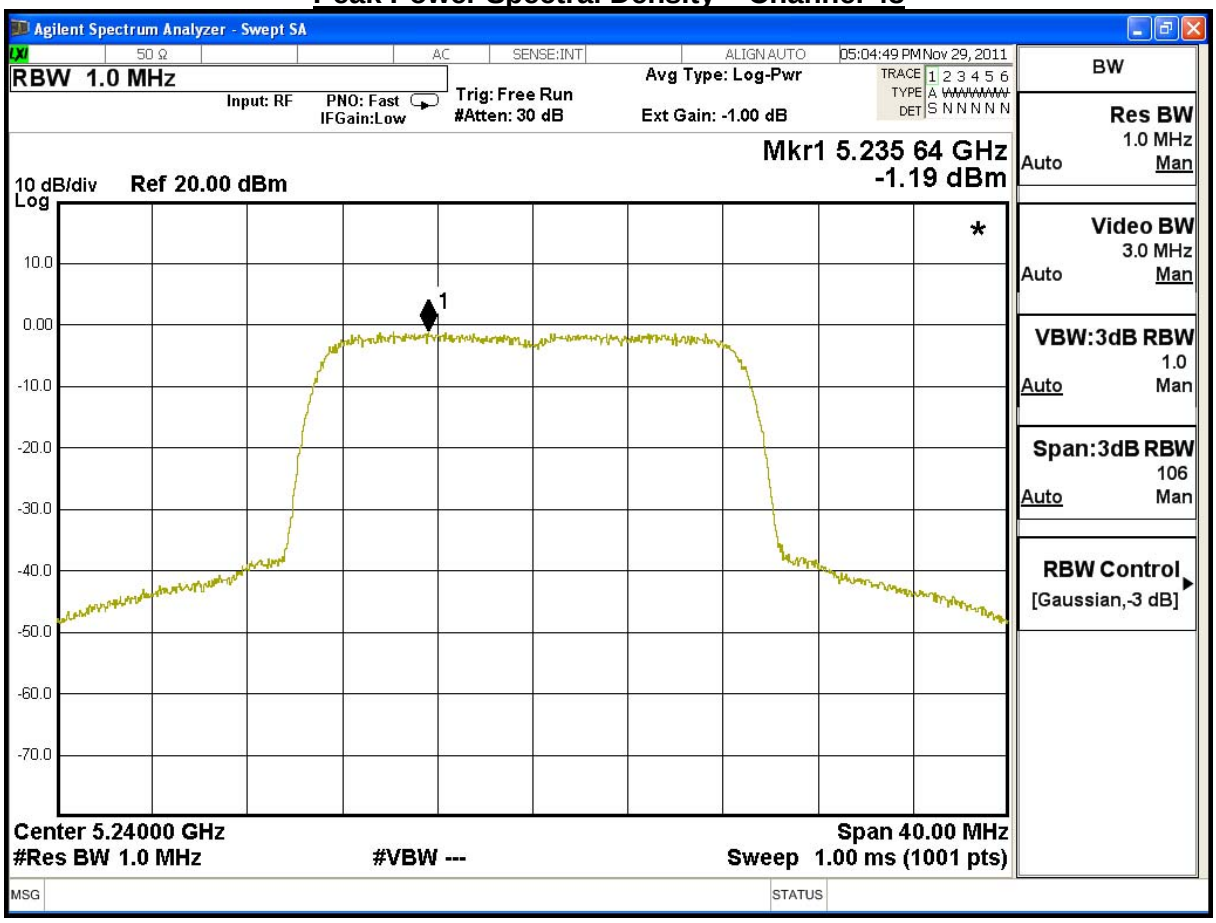
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

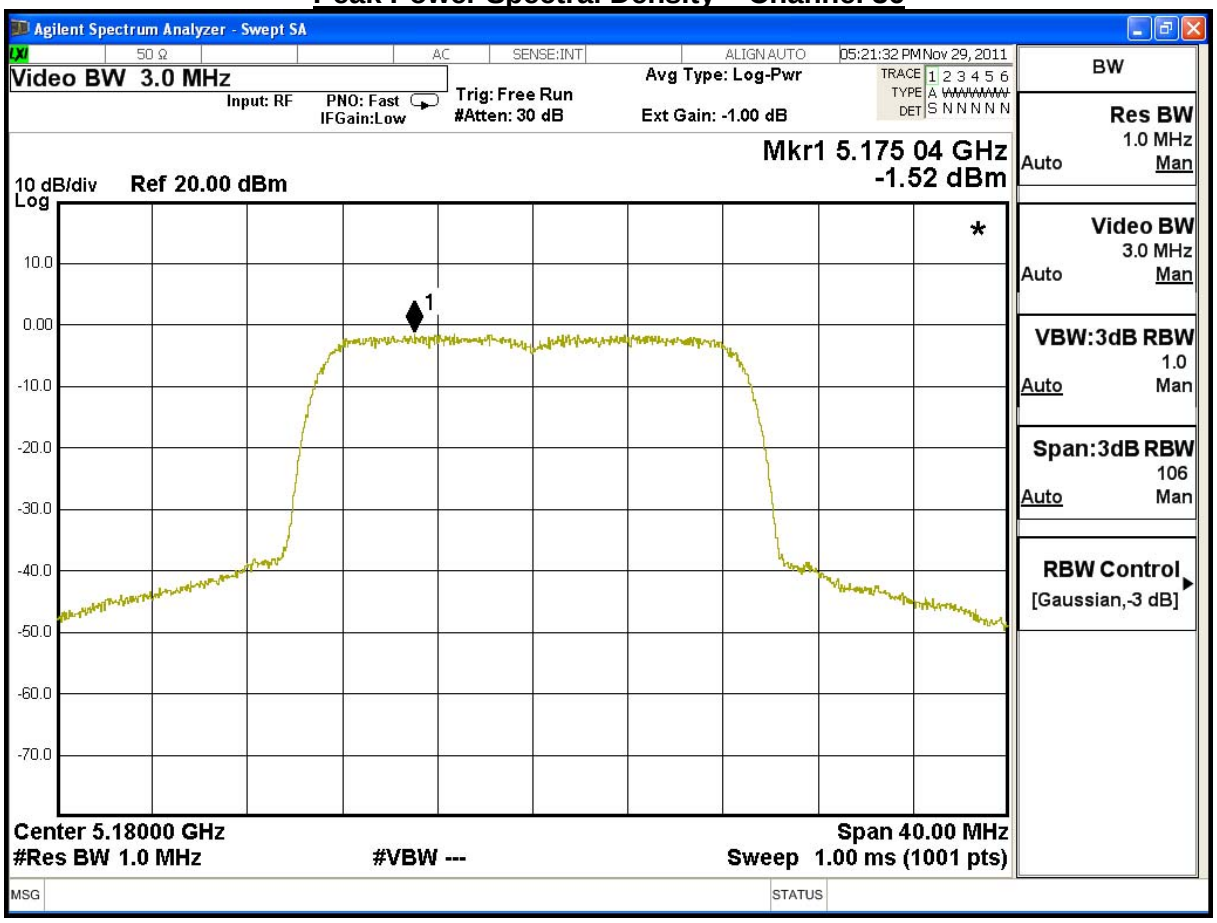


Peak Power Spectral Density – Channel 48

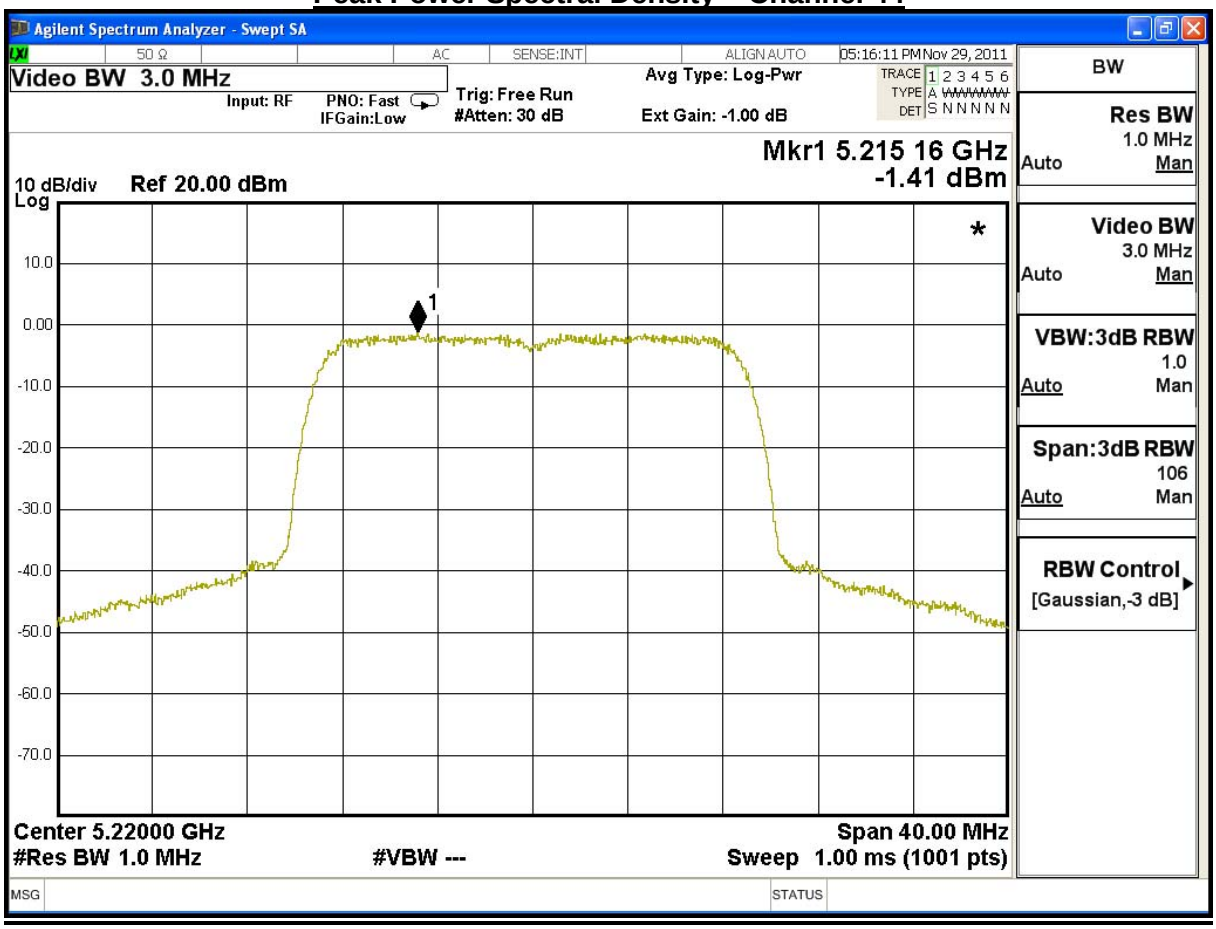


IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.52	≤ 4	Pass
44	5220	-1.41	≤ 4	Pass
48	5240	-1.89	≤ 4	Pass

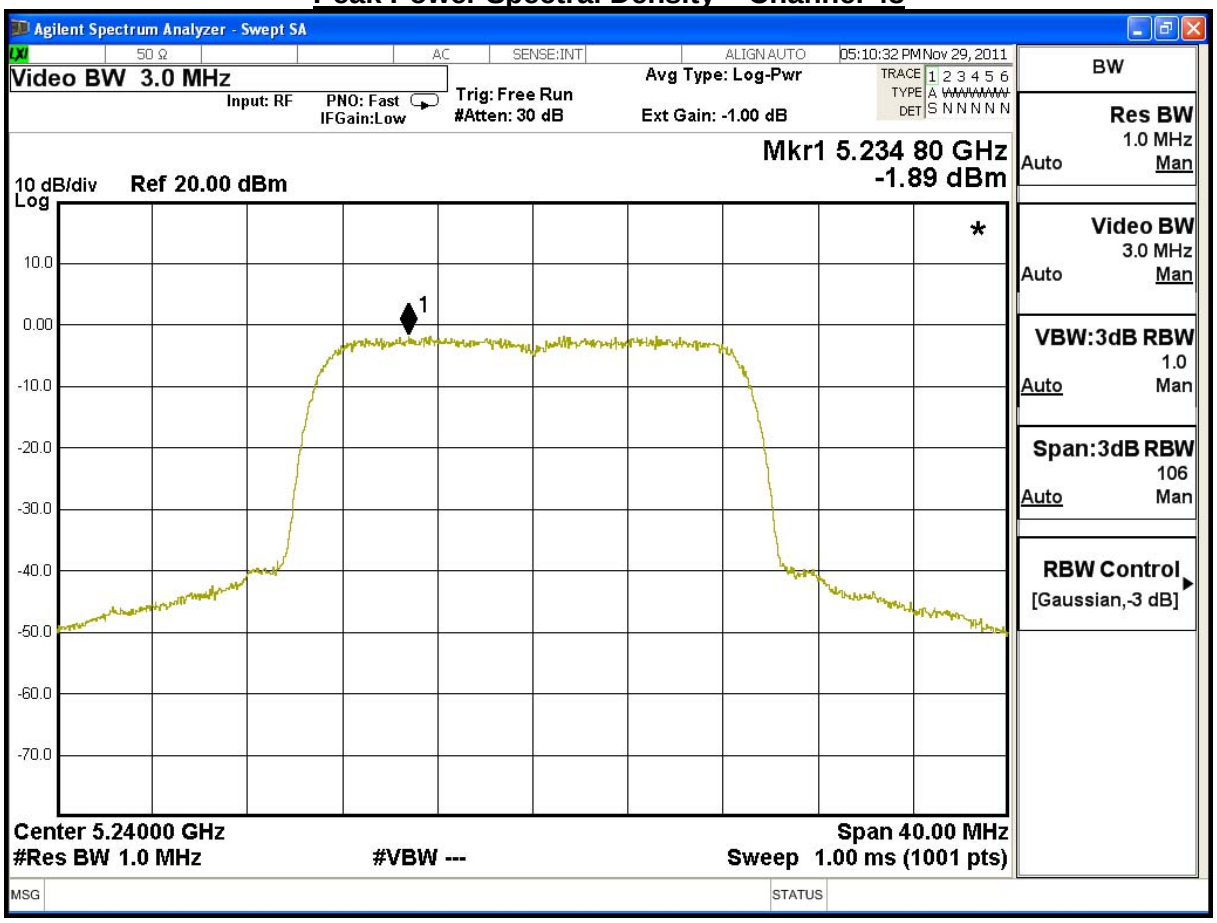
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44

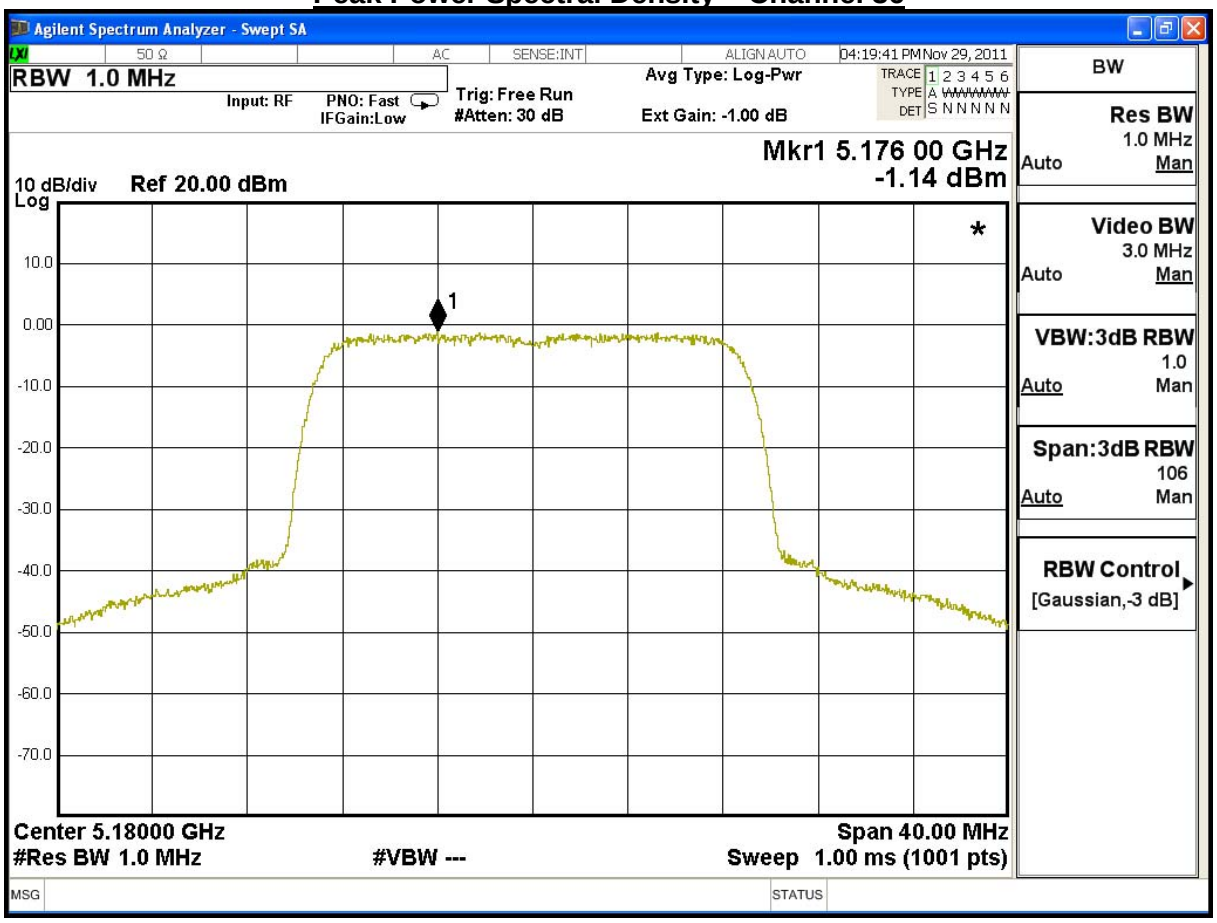


Peak Power Spectral Density – Channel 48

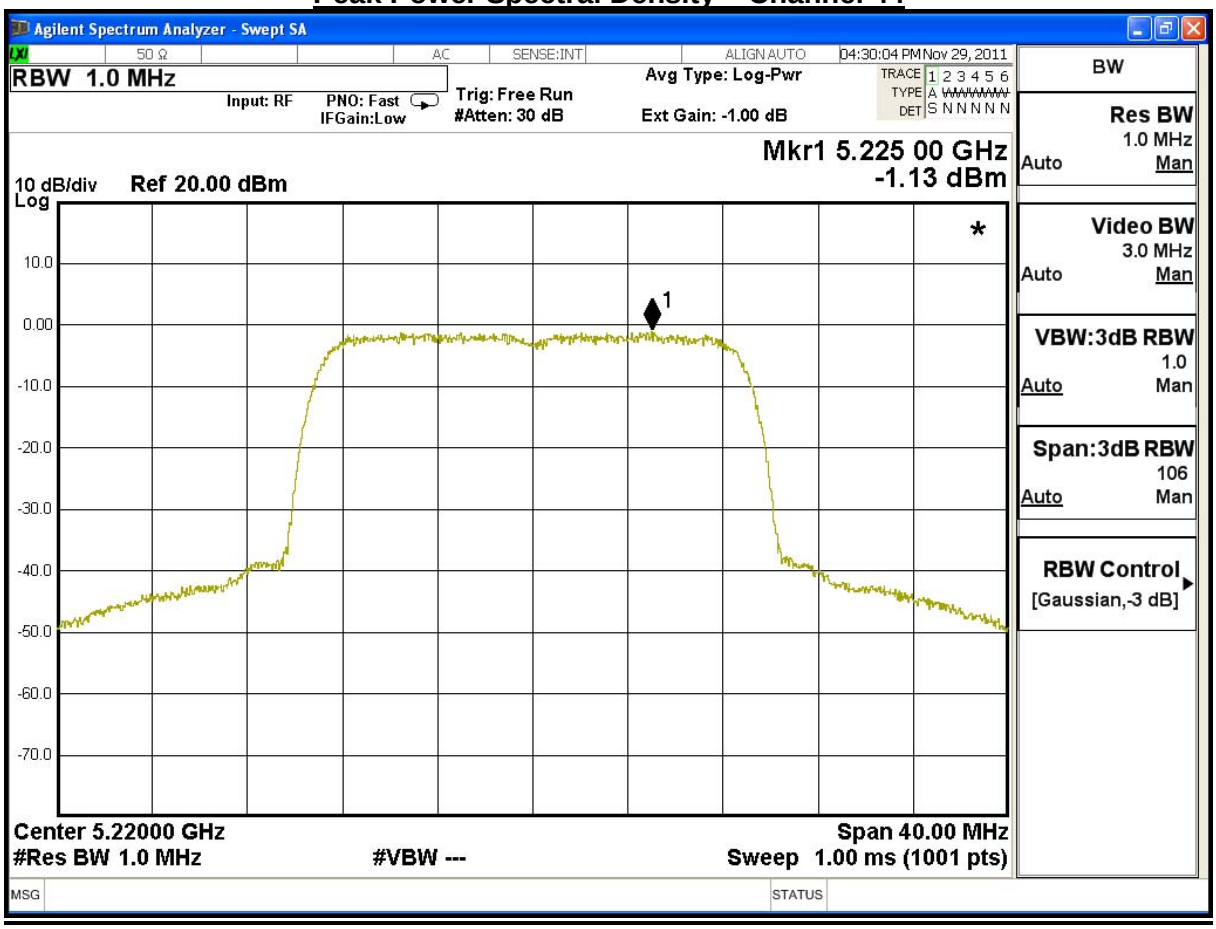


IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	-1.14	≤ 4	Pass
44	5220	-1.13	≤ 4	Pass
48	5240	-1.15	≤ 4	Pass

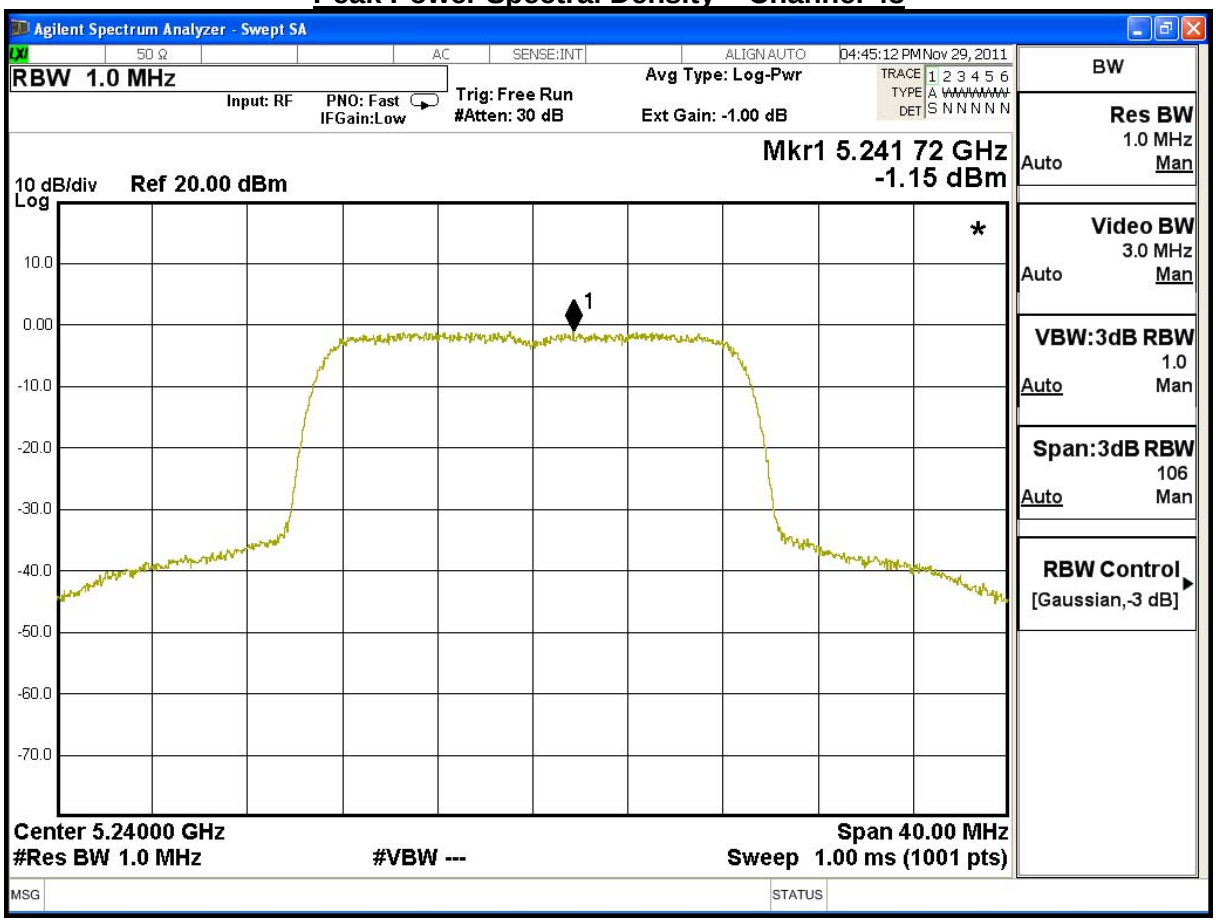
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



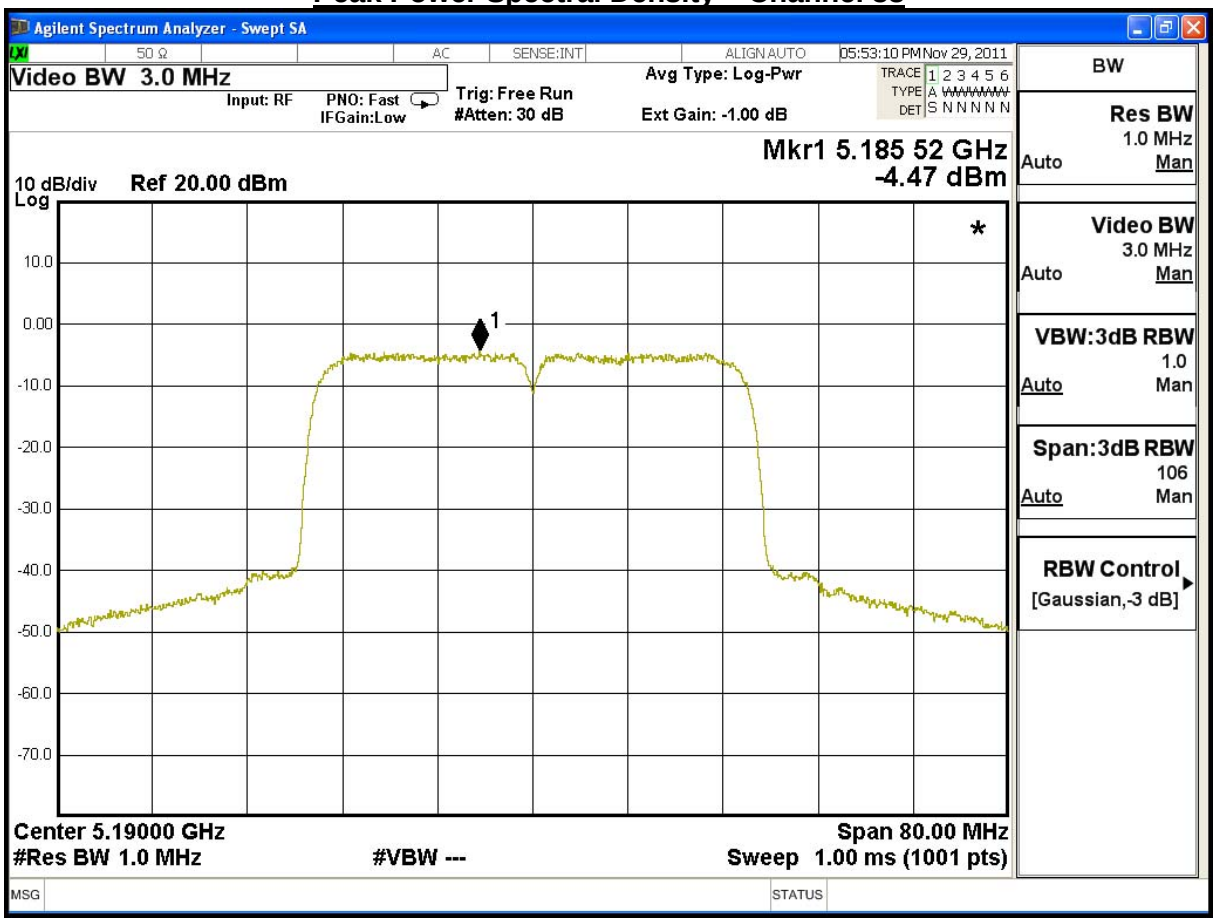
Peak Power Spectral Density – Channel 48



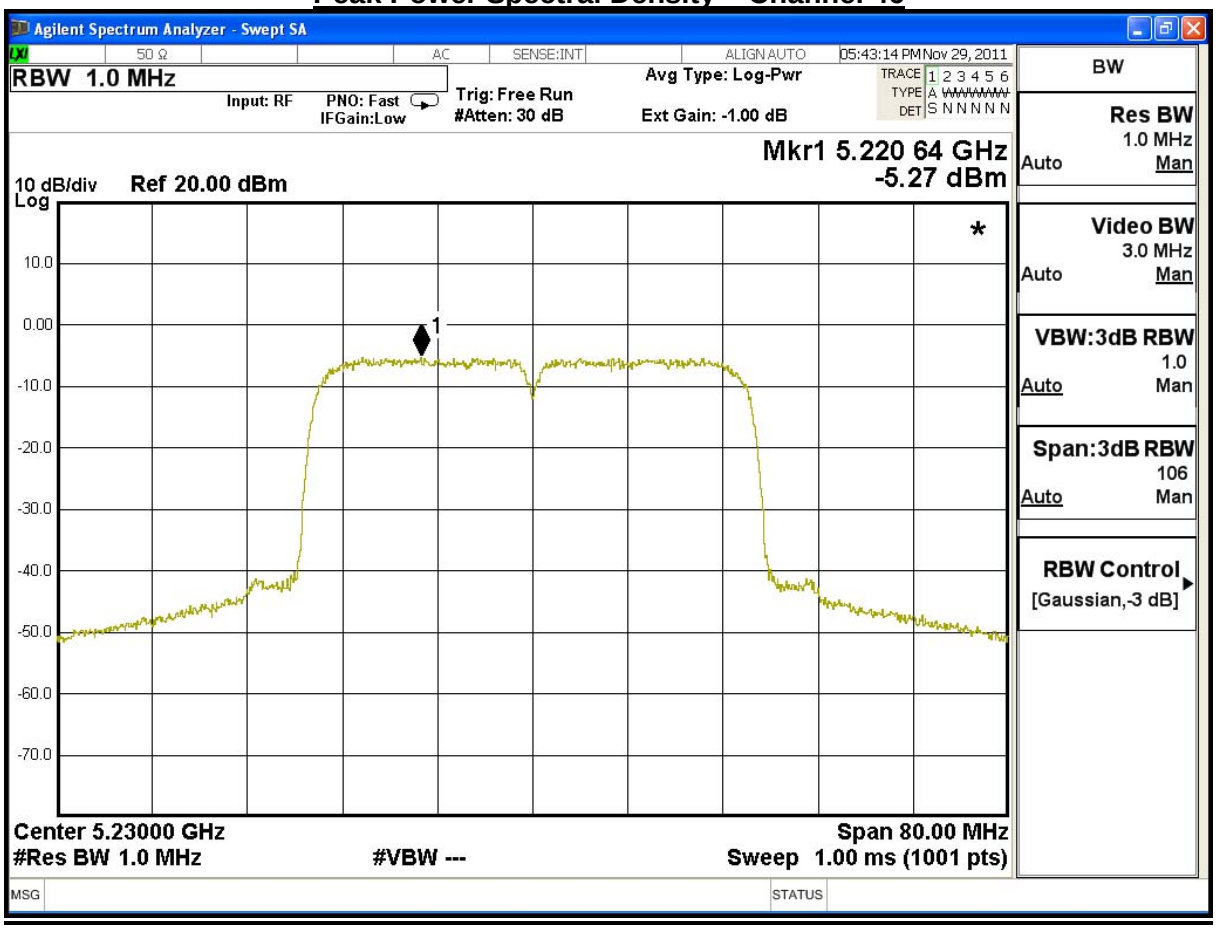
IEEE 802.11n_20M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	3.32	≤ 4	Pass
44	5220	3.60	≤ 4	Pass
48	5240	3.37	≤ 4	Pass

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-4.47	≤ 4	Pass
46	5230	-5.27	≤ 4	Pass

Peak Power Spectral Density – Channel 38

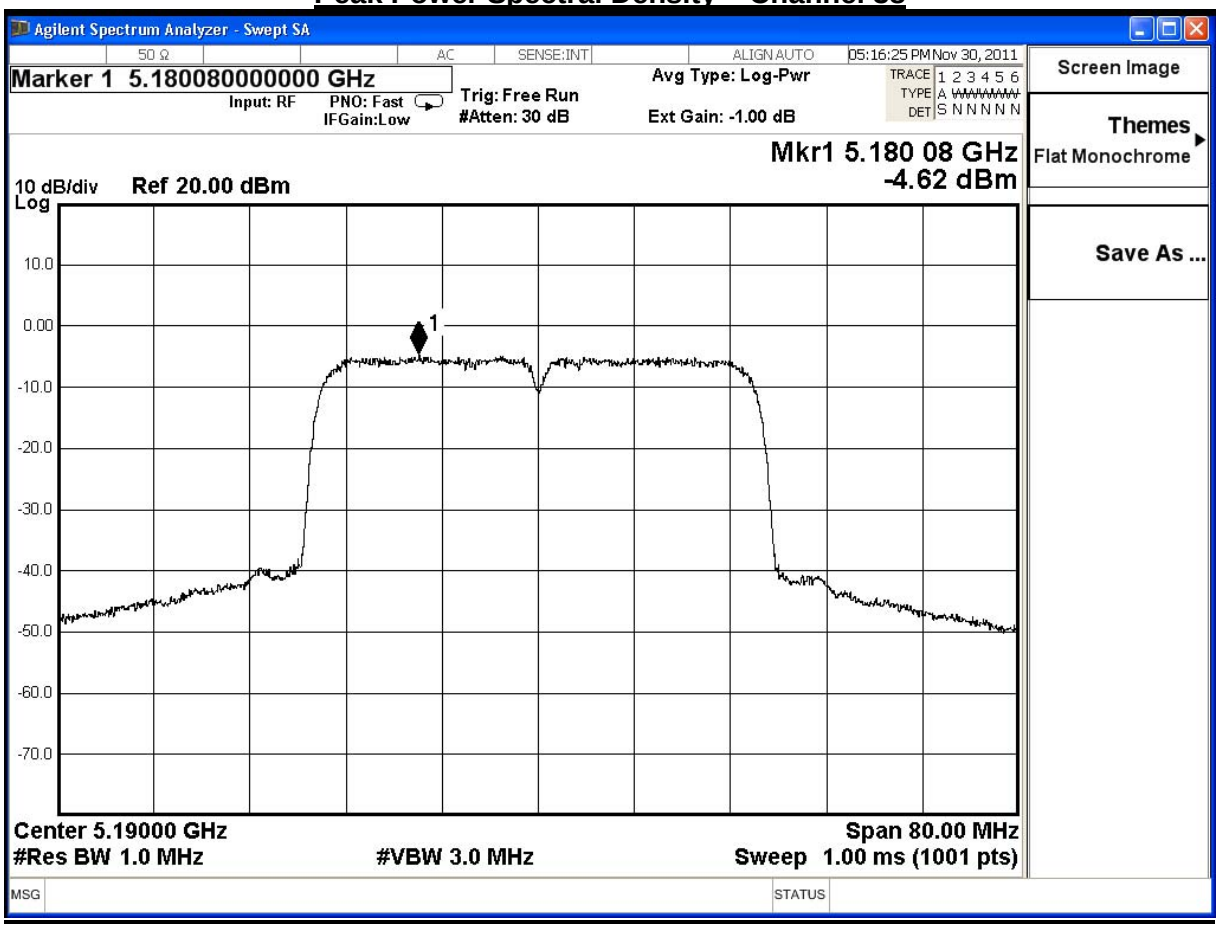


Peak Power Spectral Density – Channel 46

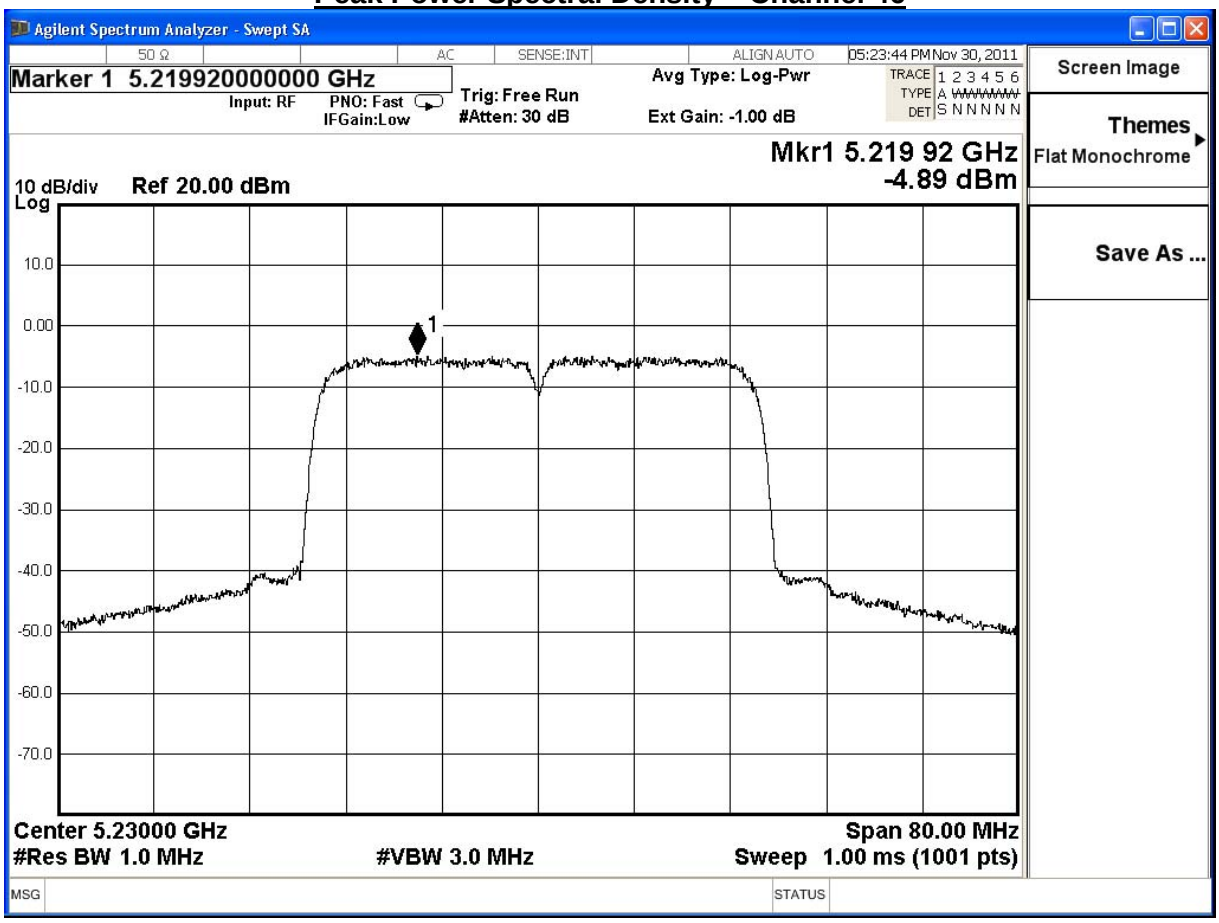


IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-4.62	≤ 4	Pass
46	5230	-4.89	≤ 4	Pass

Peak Power Spectral Density – Channel 38

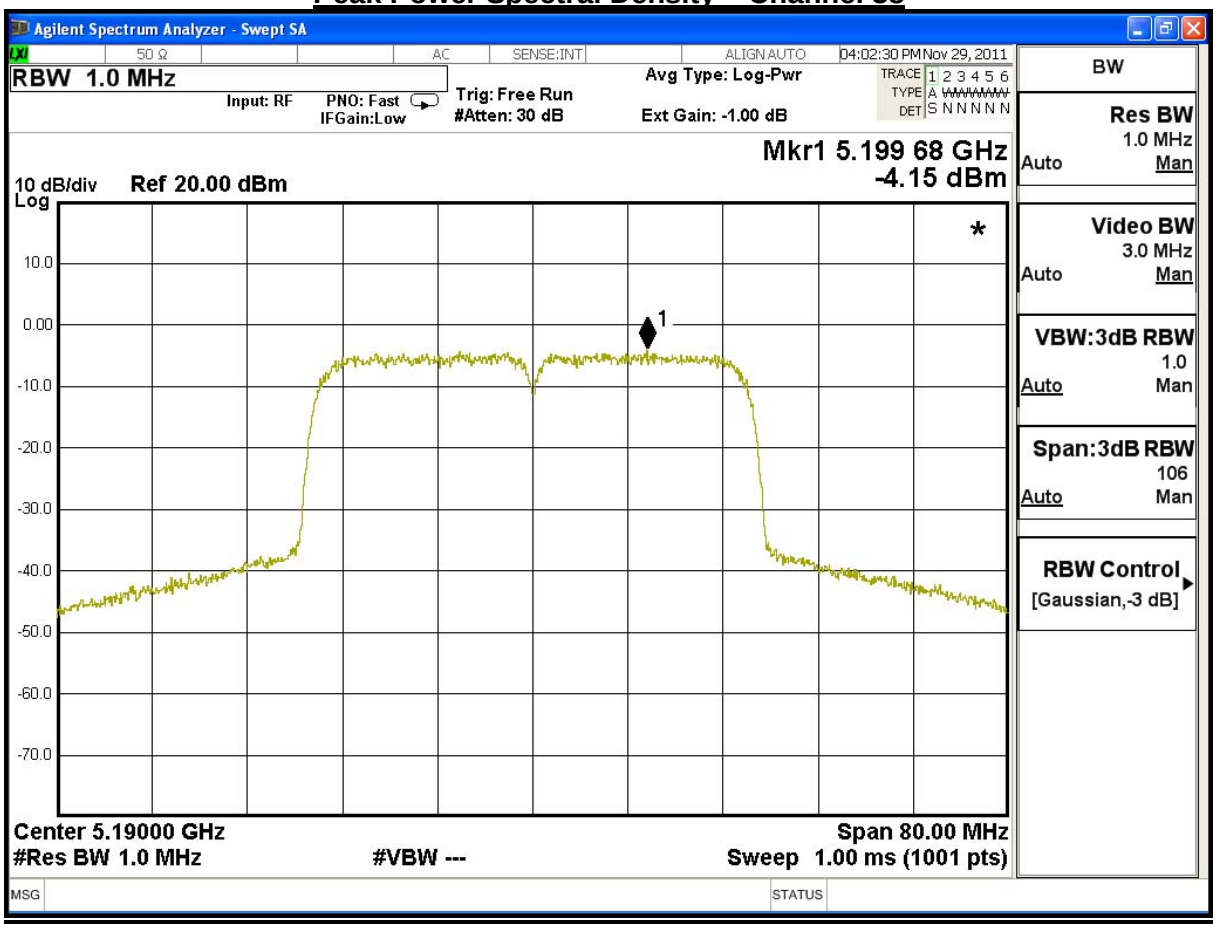


Peak Power Spectral Density – Channel 46

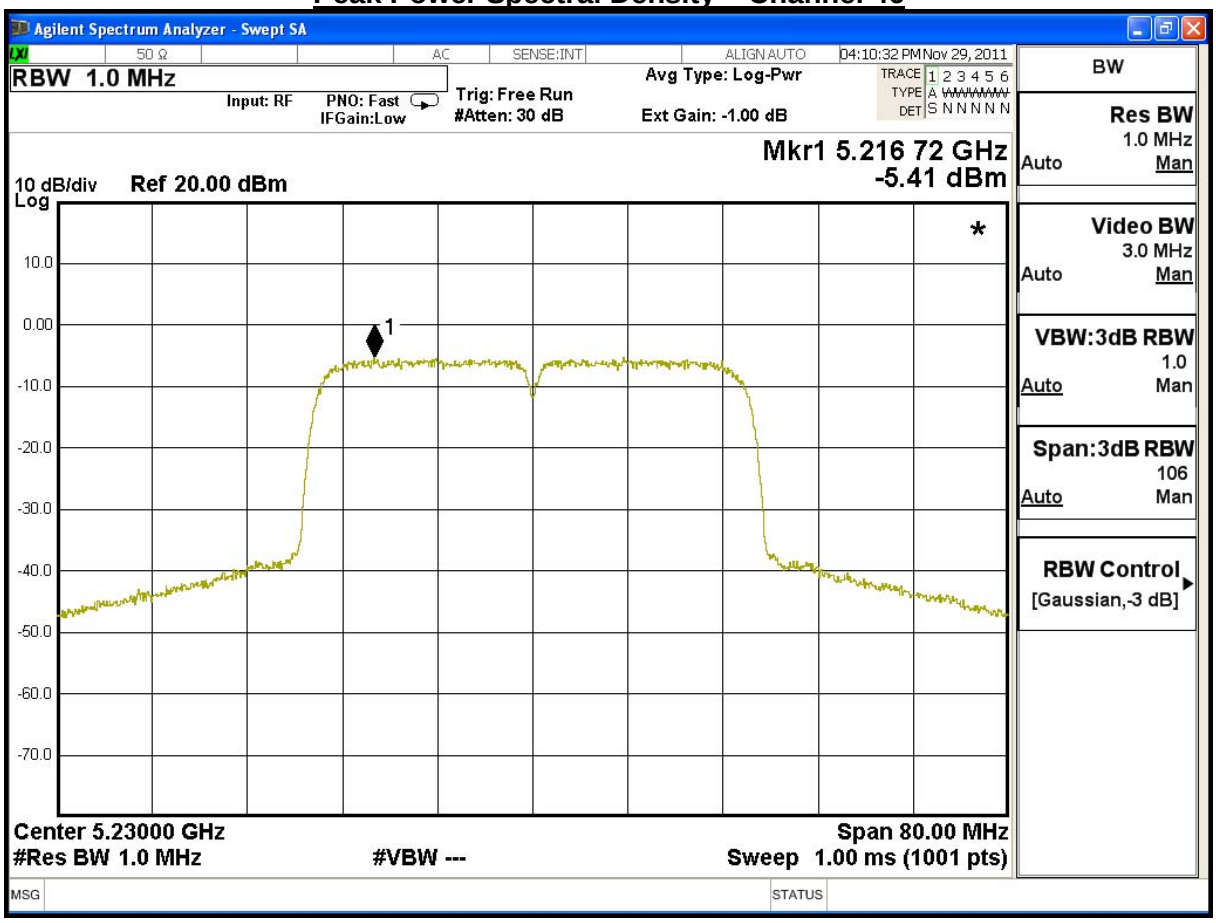


IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	-4.15	≤ 4	Pass
46	5230	-5.41	≤ 4	Pass

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	0.36	≤ 4	Pass
46	5230	-0.20	≤ 4	Pass

6. Peak Excursion

6.1. Test Equipment

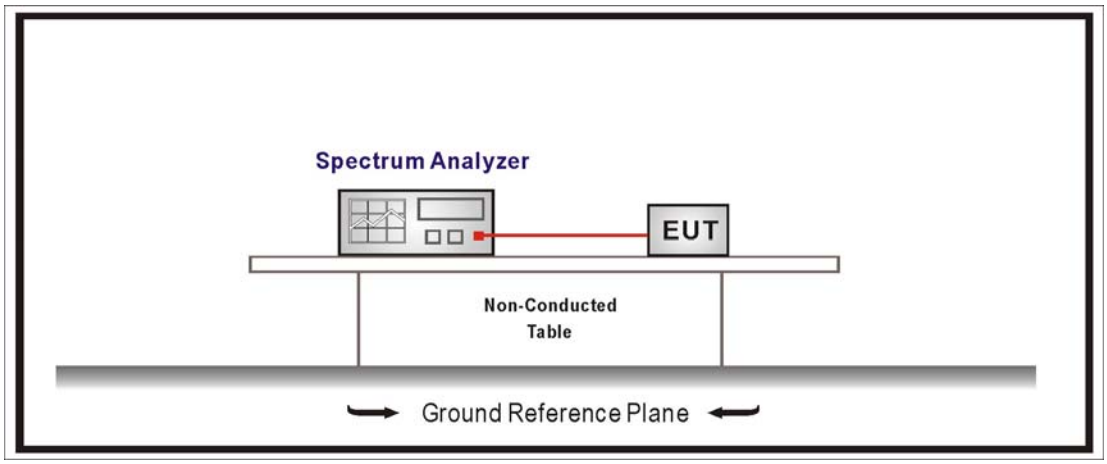
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Cal. Date	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2011/01/17	2012/01/16

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 DTS test procedure of Aug 2002 DA 02-2138 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 sample detector and trace average 100 traces in power averaging mode.

6.5. Uncertainty

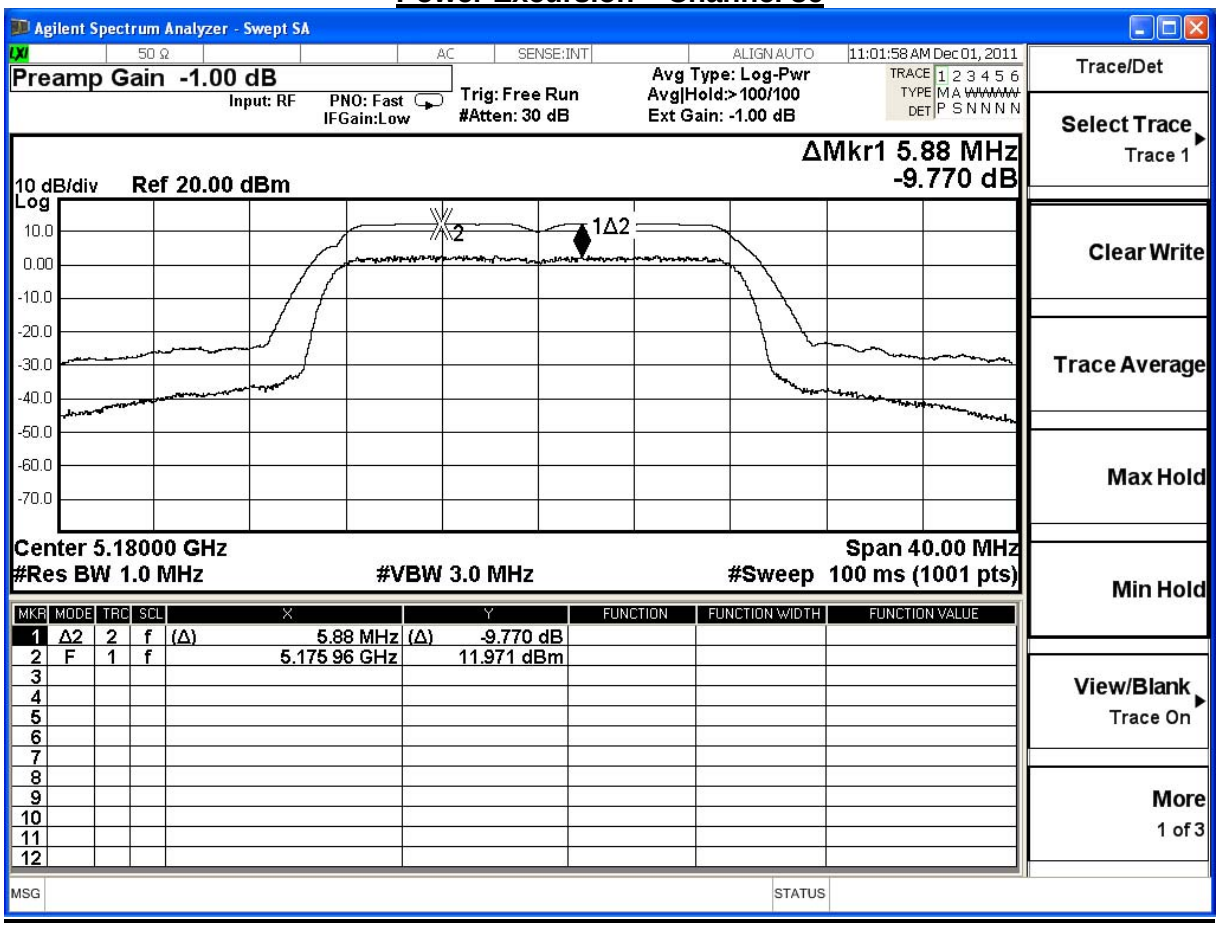
The measurement uncertainty is defined as ± 1.27 dB

6.6. Test Result

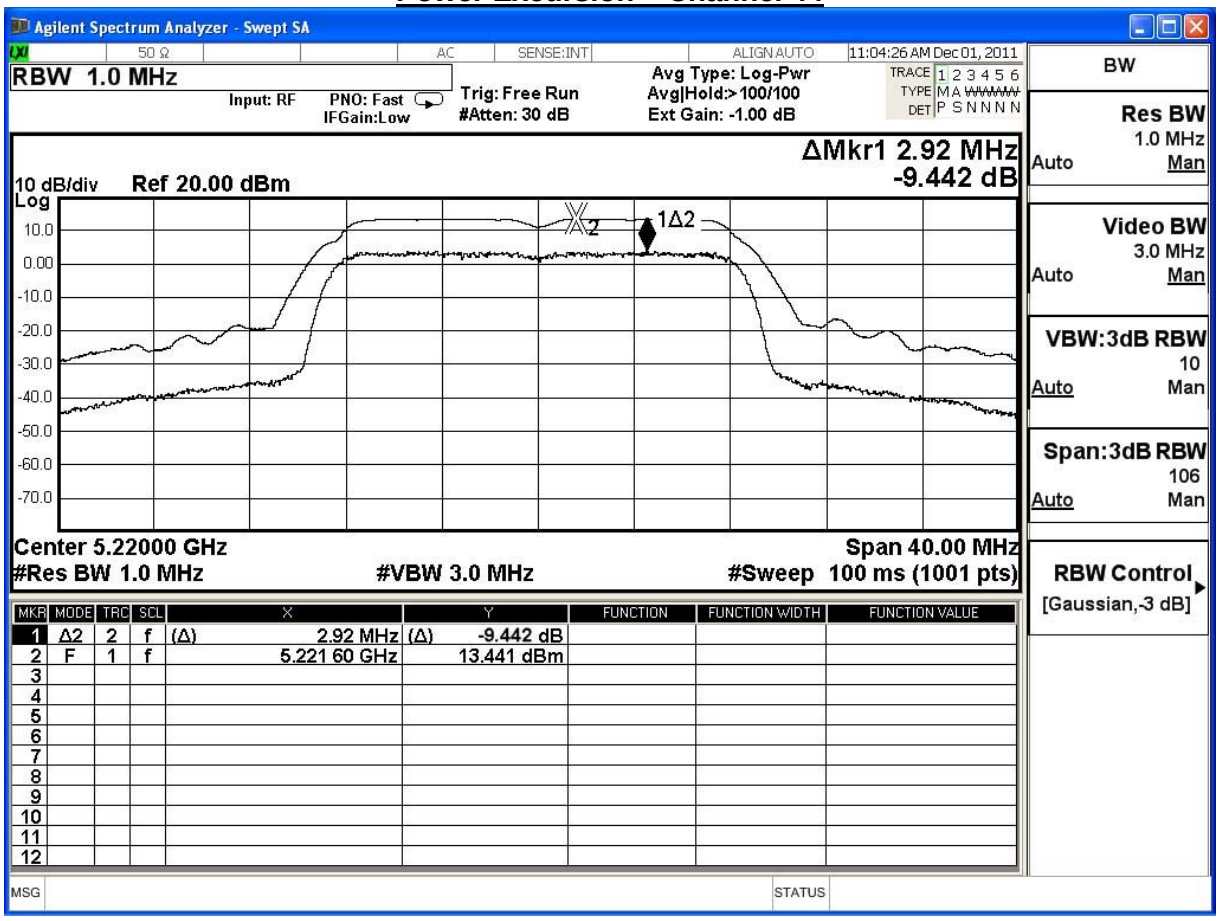
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11a				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	9.77	≤ 13	Pass
44	5220	9.44	≤ 13	Pass
48	5240	9.44	≤ 13	Pass

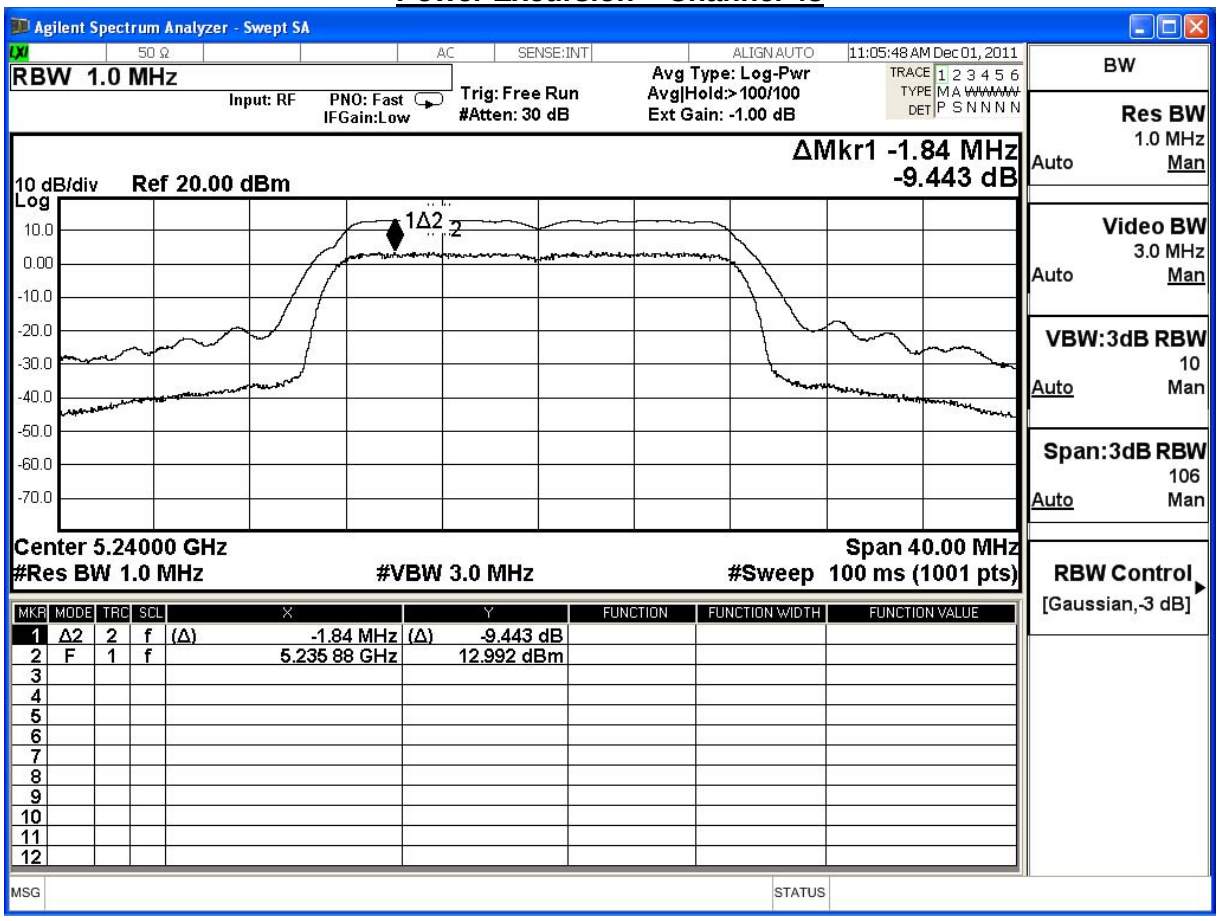
Power Excursion – Channel 36



Power Excursion – Channel 44



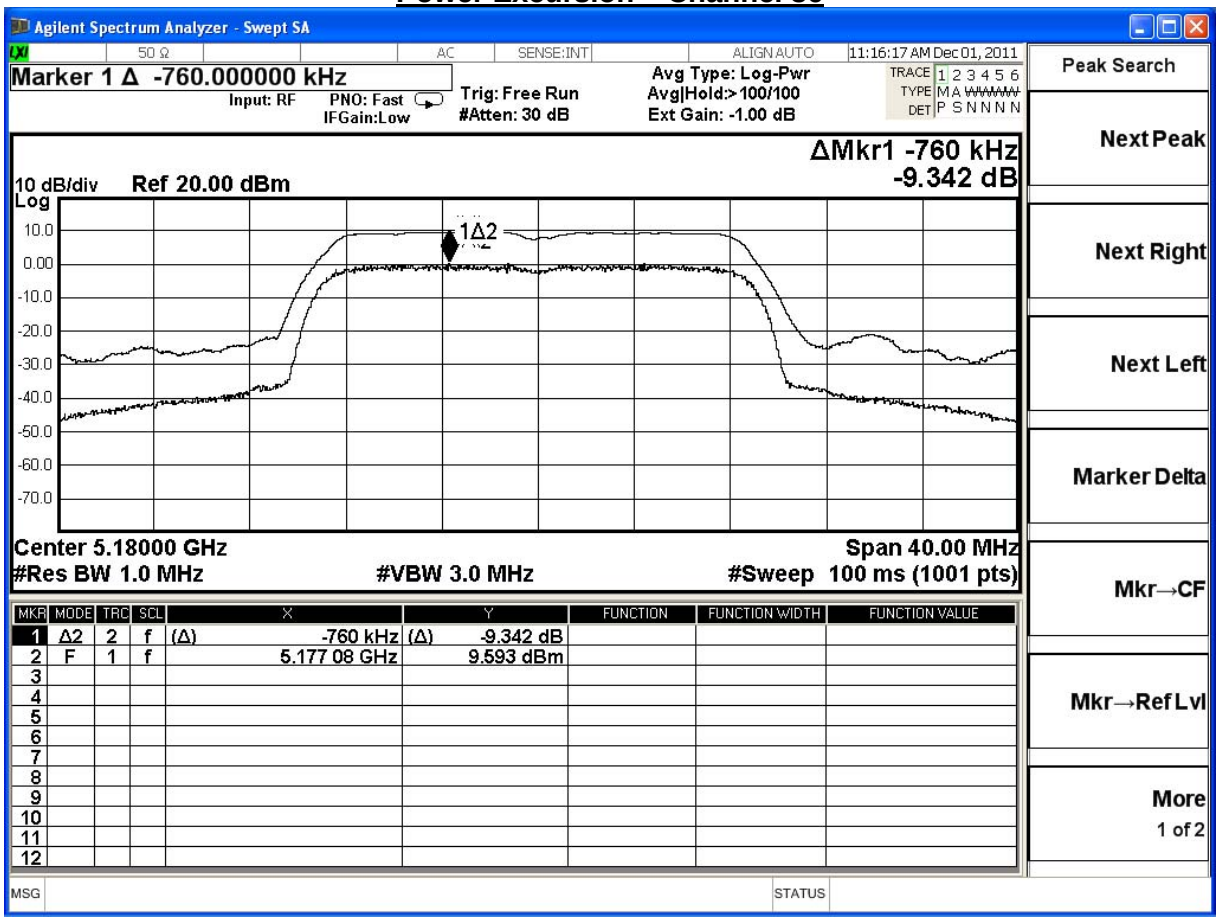
Power Excursion – Channel 48



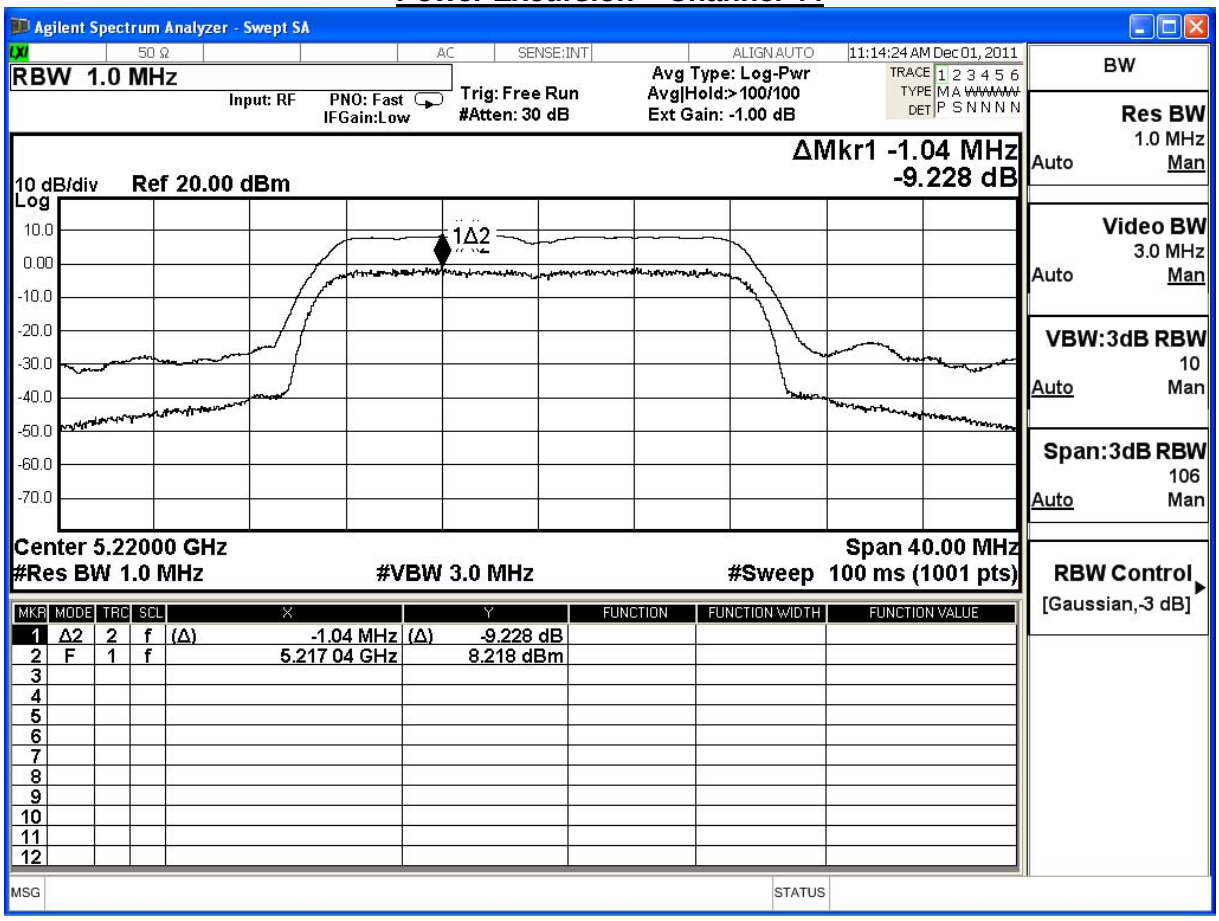
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	9.34	≤ 13	Pass
44	5220	9.22	≤ 13	Pass
48	5240	10.52	≤ 13	Pass

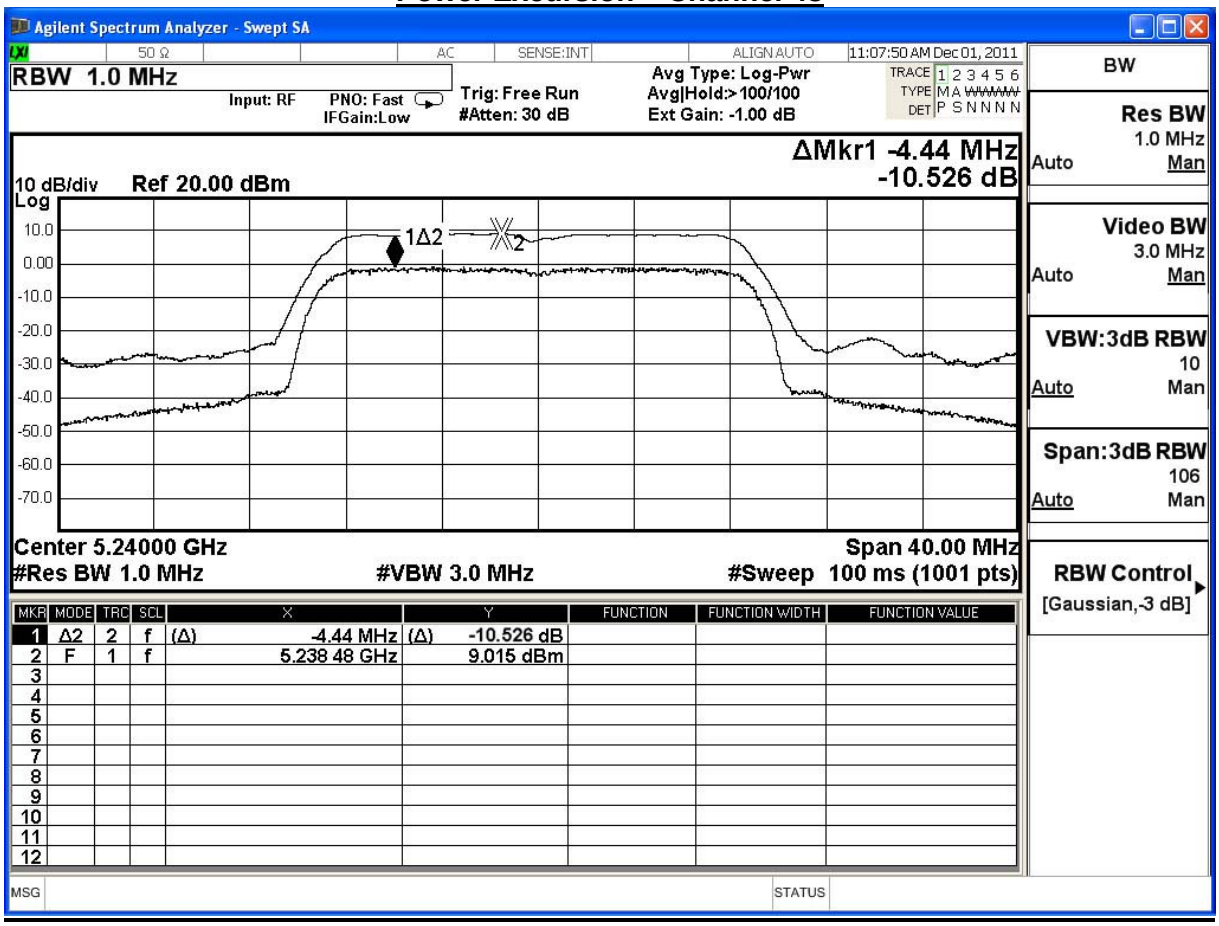
Power Excursion – Channel 36



Power Excursion – Channel 44



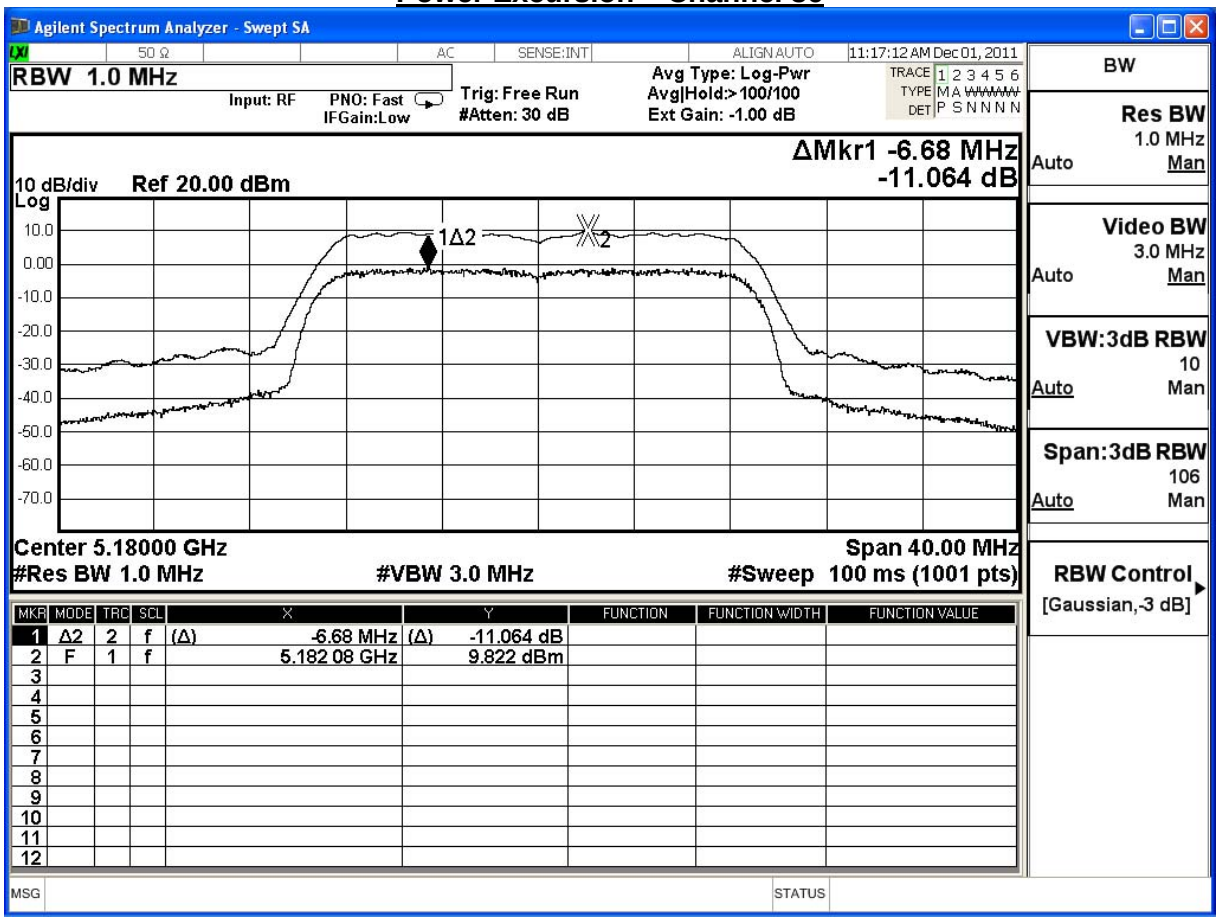
Power Excursion – Channel 48



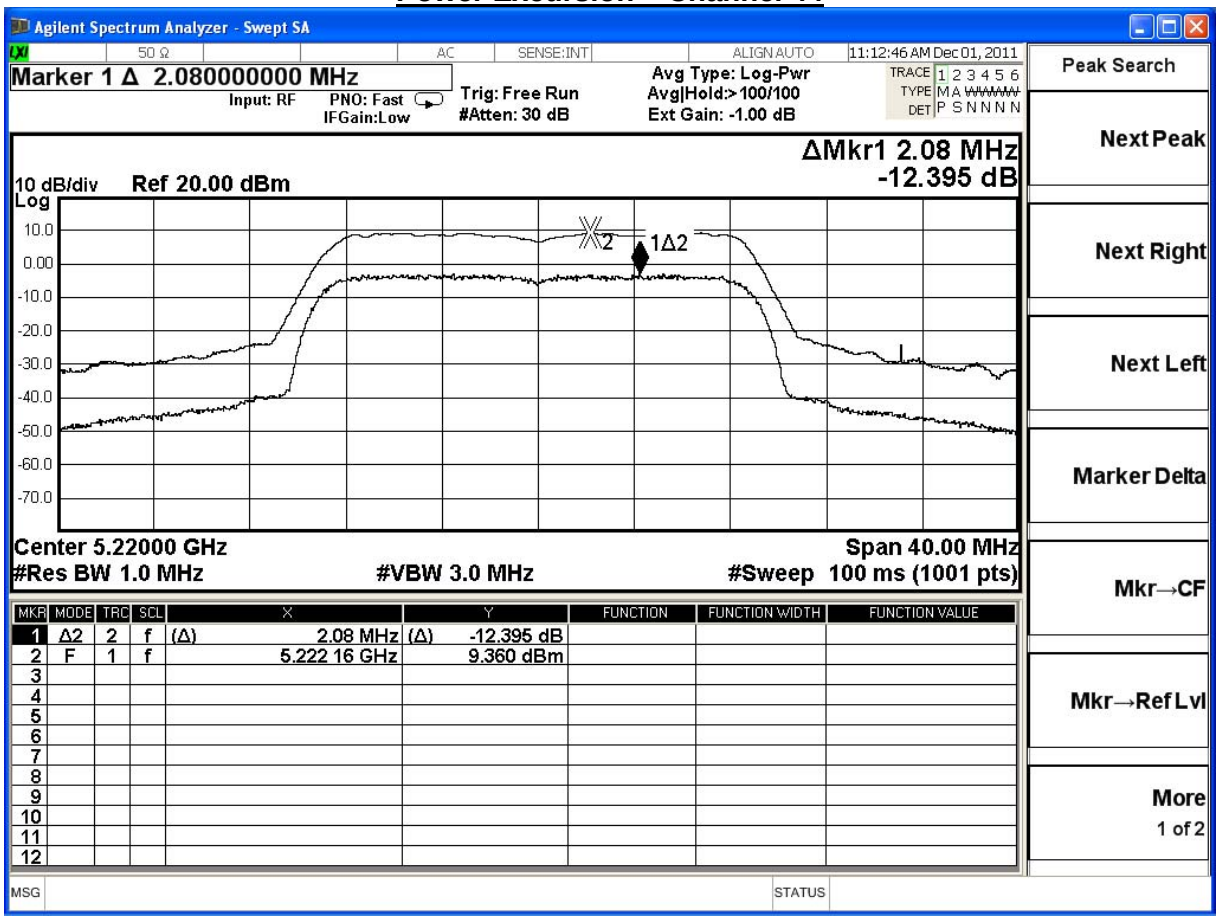
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	11.06	≤ 13	Pass
44	5220	12.39	≤ 13	Pass
48	5240	10.87	≤ 13	Pass

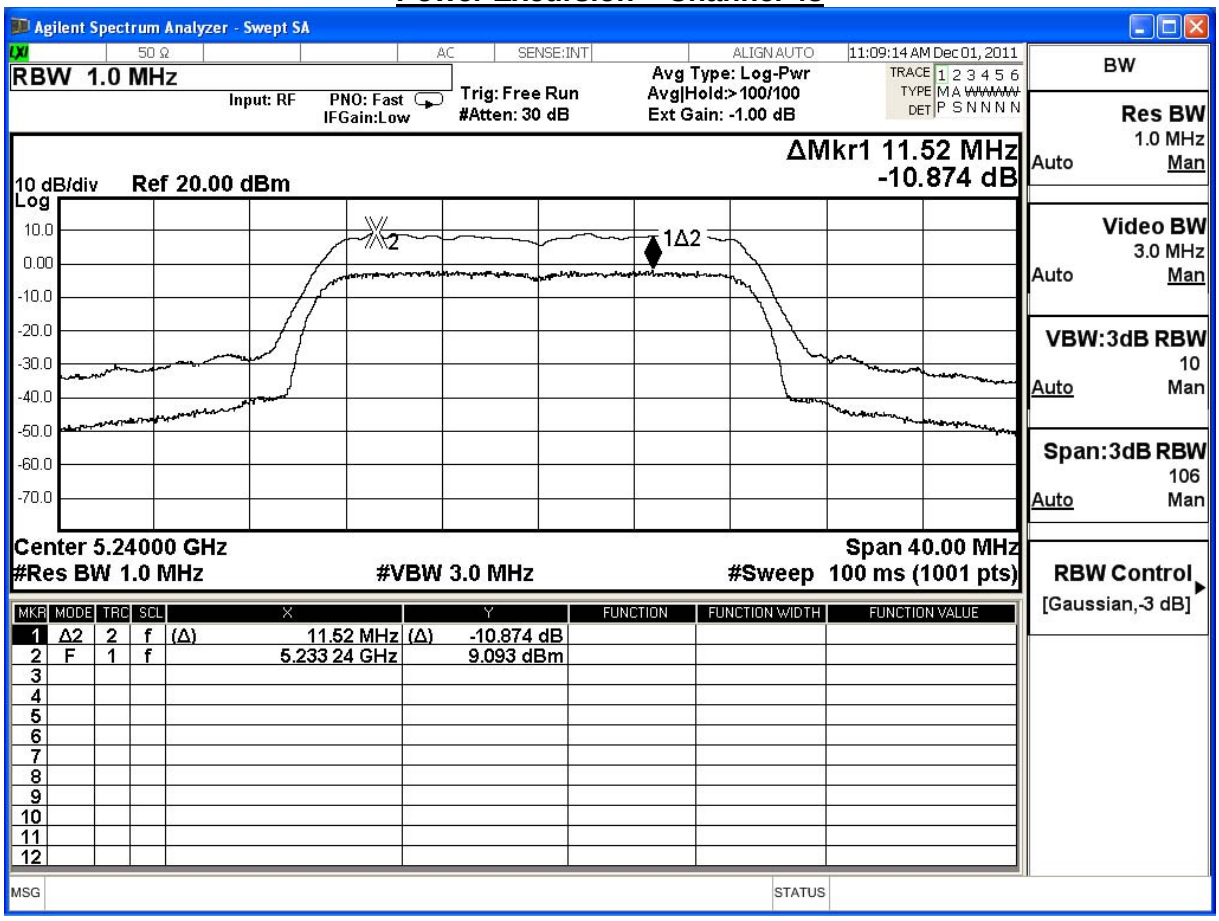
Power Excursion – Channel 36



Power Excursion – Channel 44



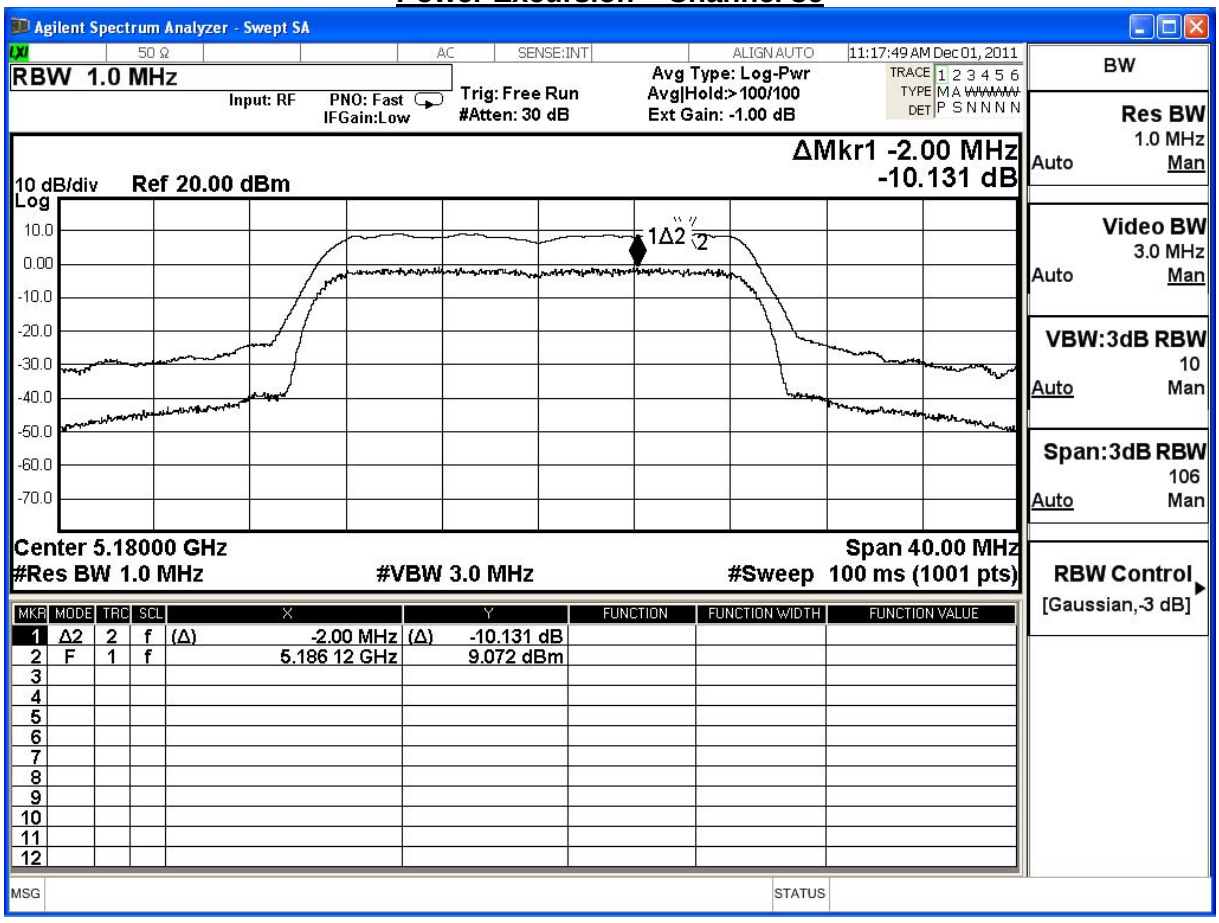
Power Excursion – Channel 48



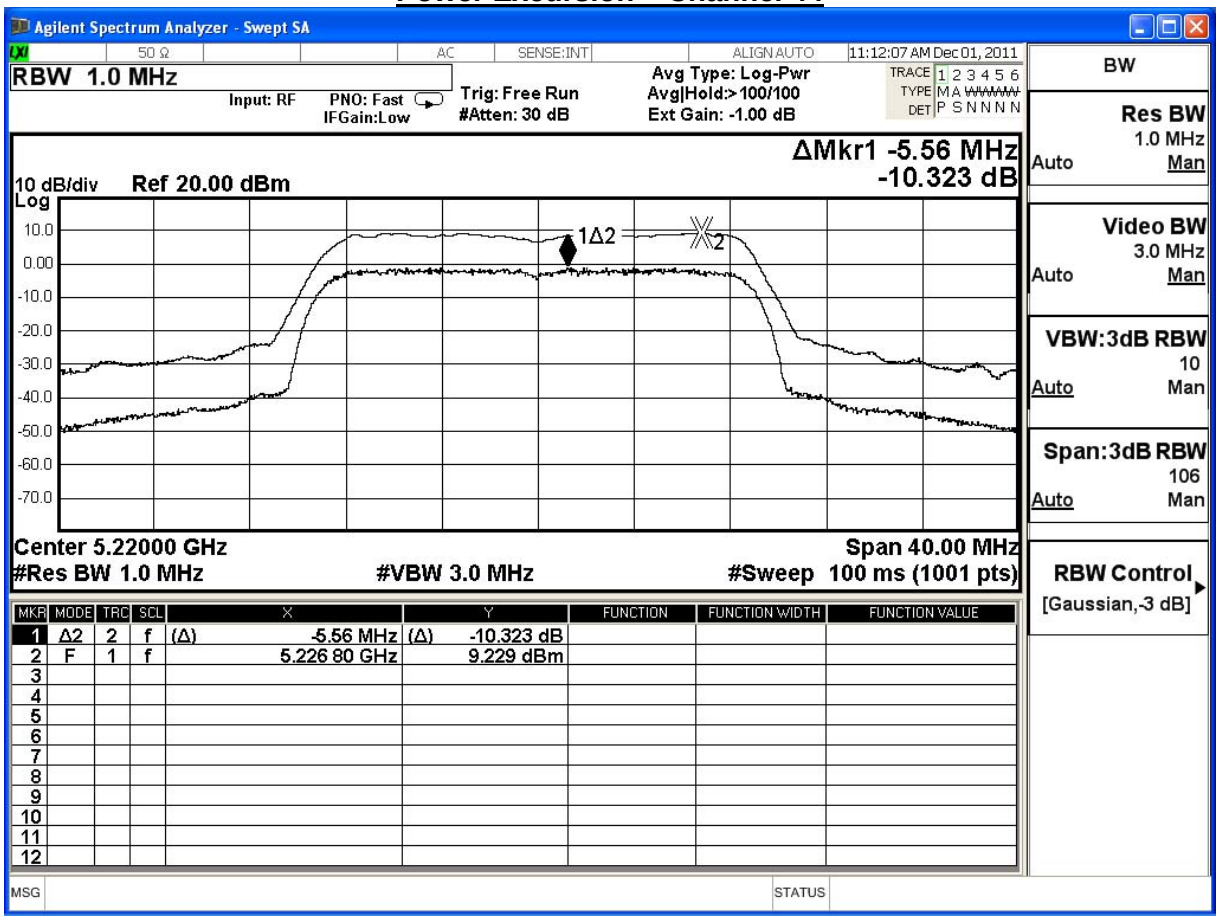
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
36	5180	10.13	≤ 13	Pass
44	5220	10.32	≤ 13	Pass
48	5240	11.08	≤ 13	Pass

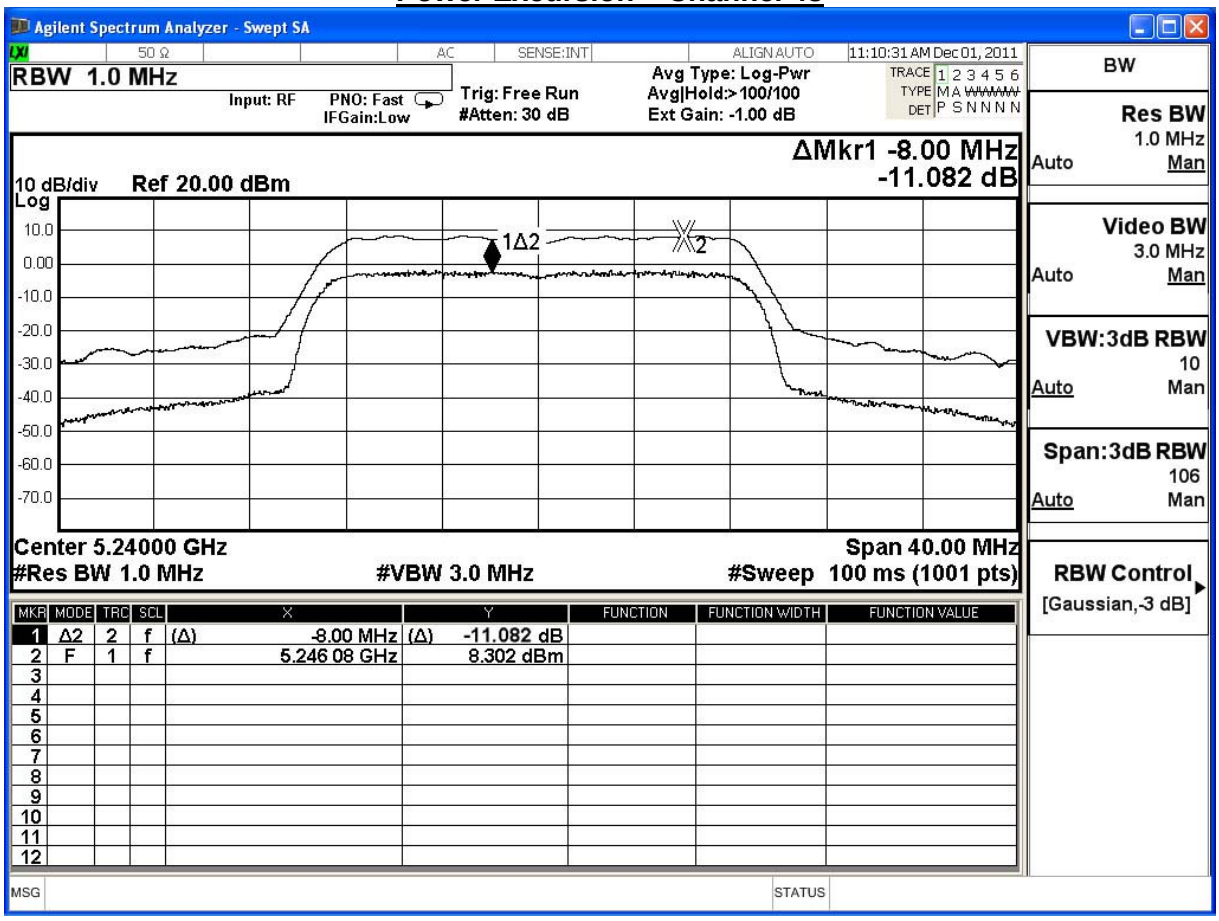
Power Excursion – Channel 36



Power Excursion – Channel 44



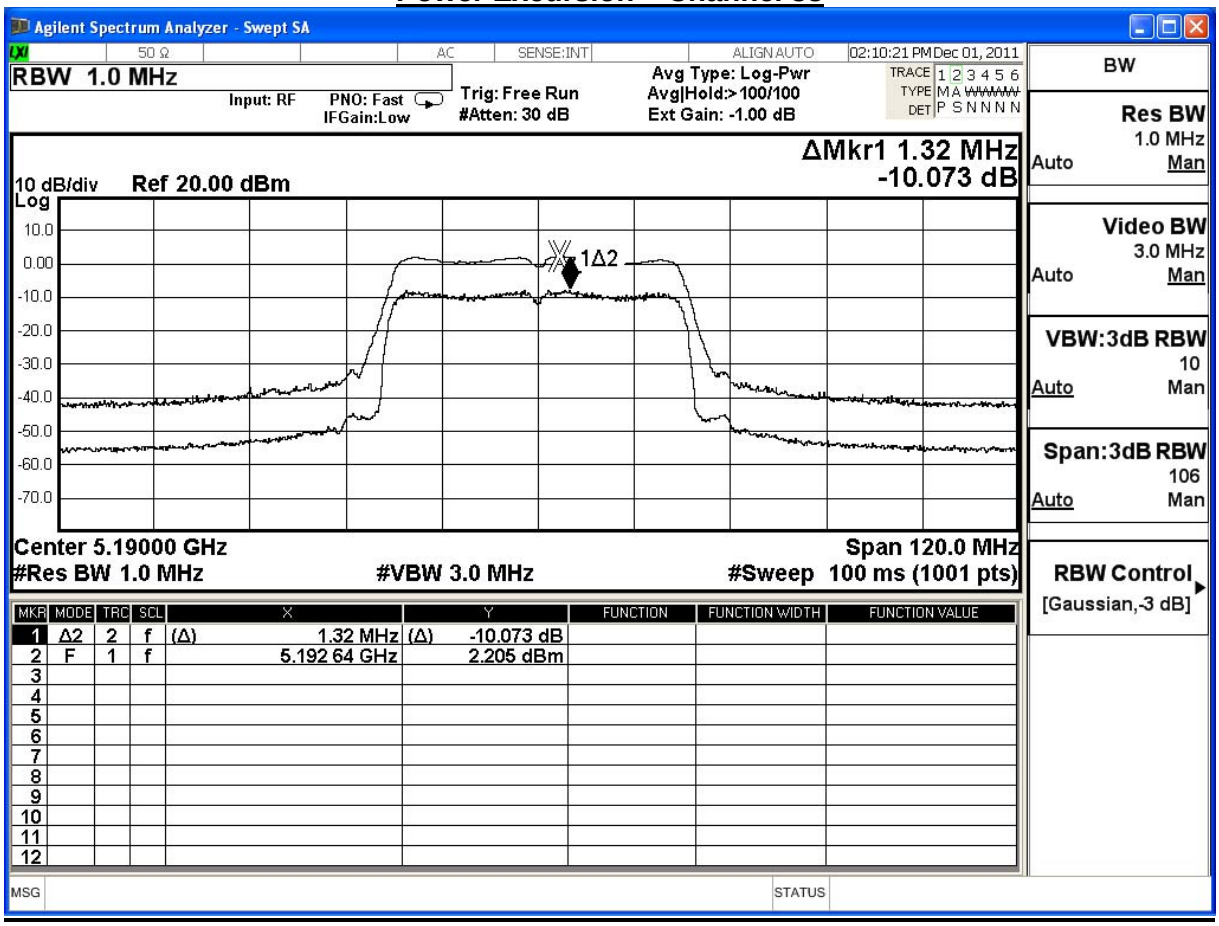
Power Excursion – Channel 48



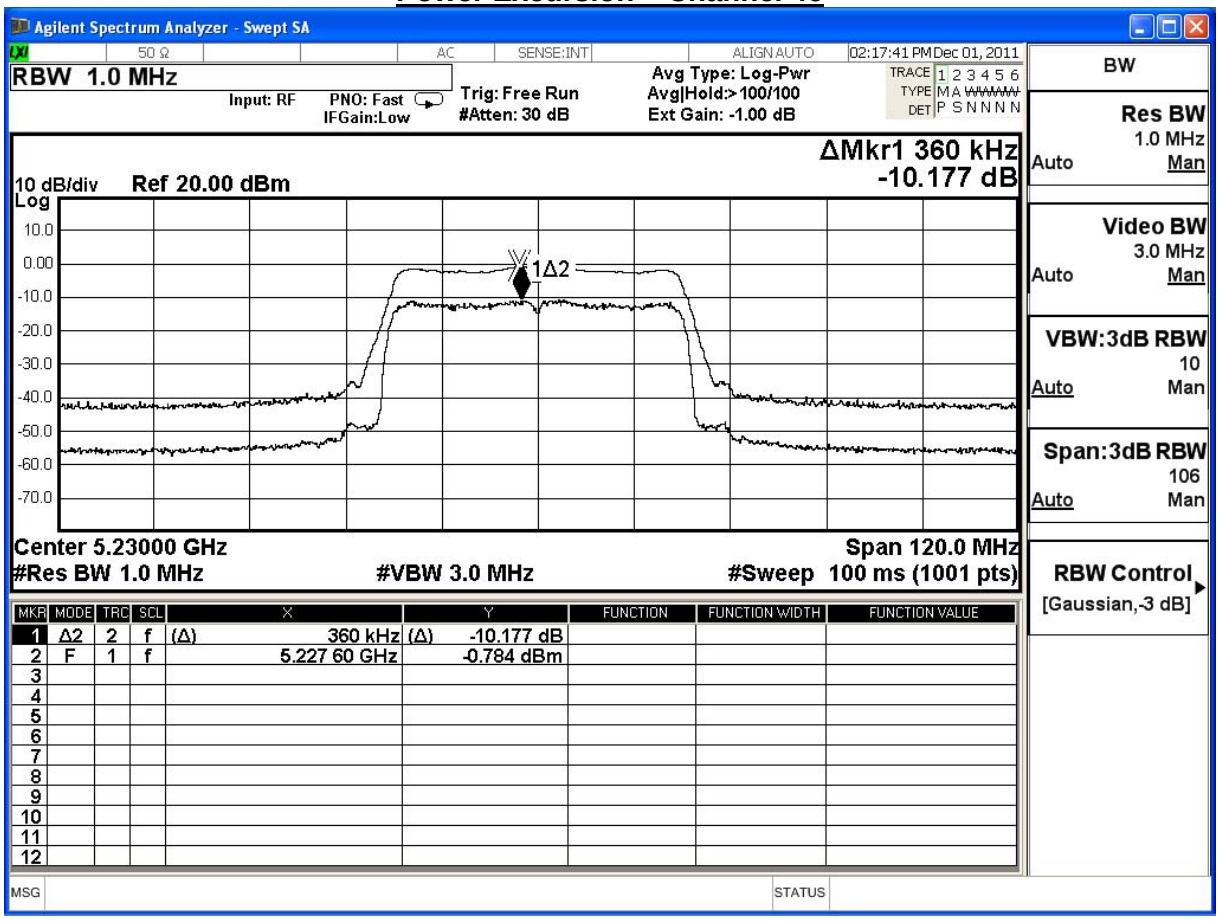
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	10.07	≤ 13	Pass
46	5230	10.17	≤ 13	Pass

Power Excursion – Channel 38



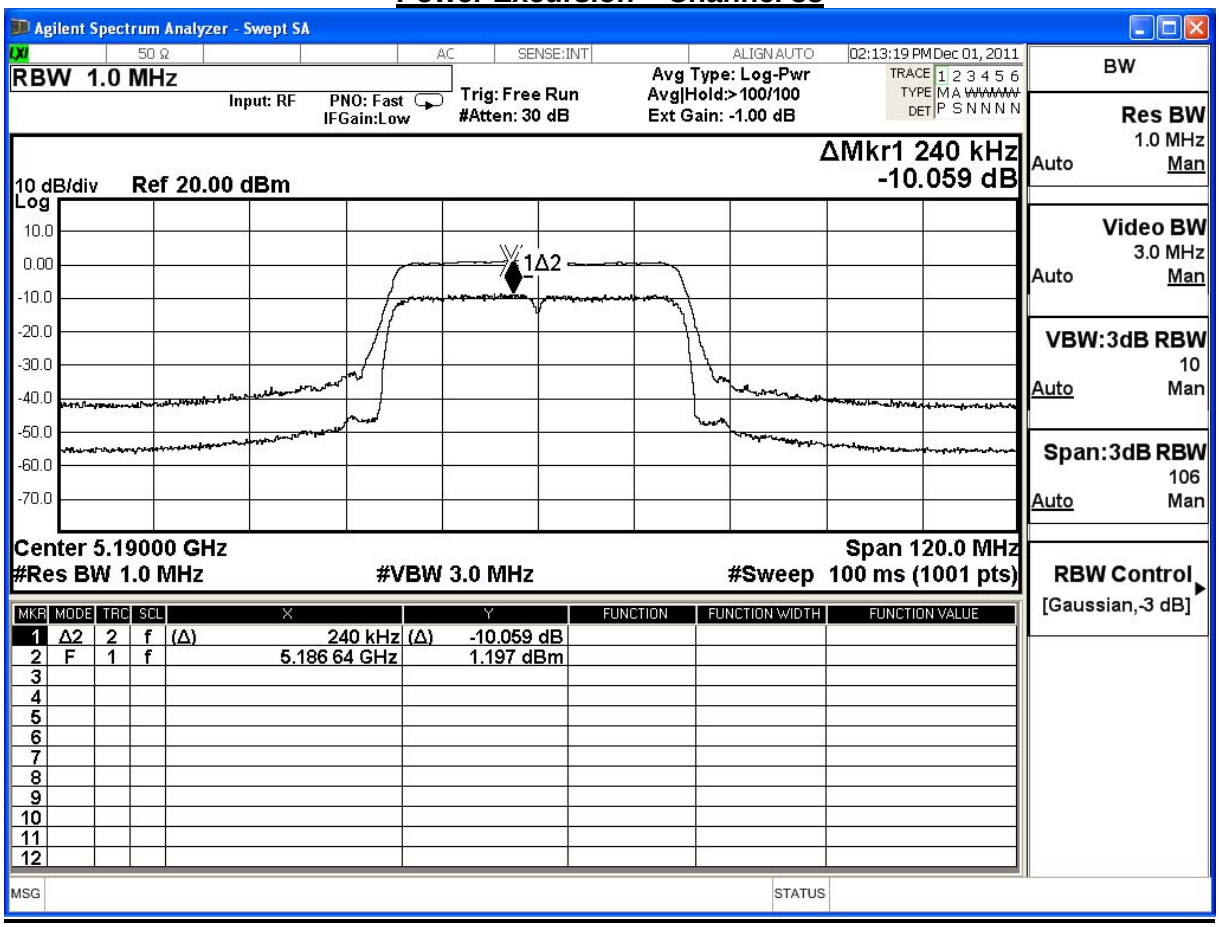
Power Excursion – Channel 46



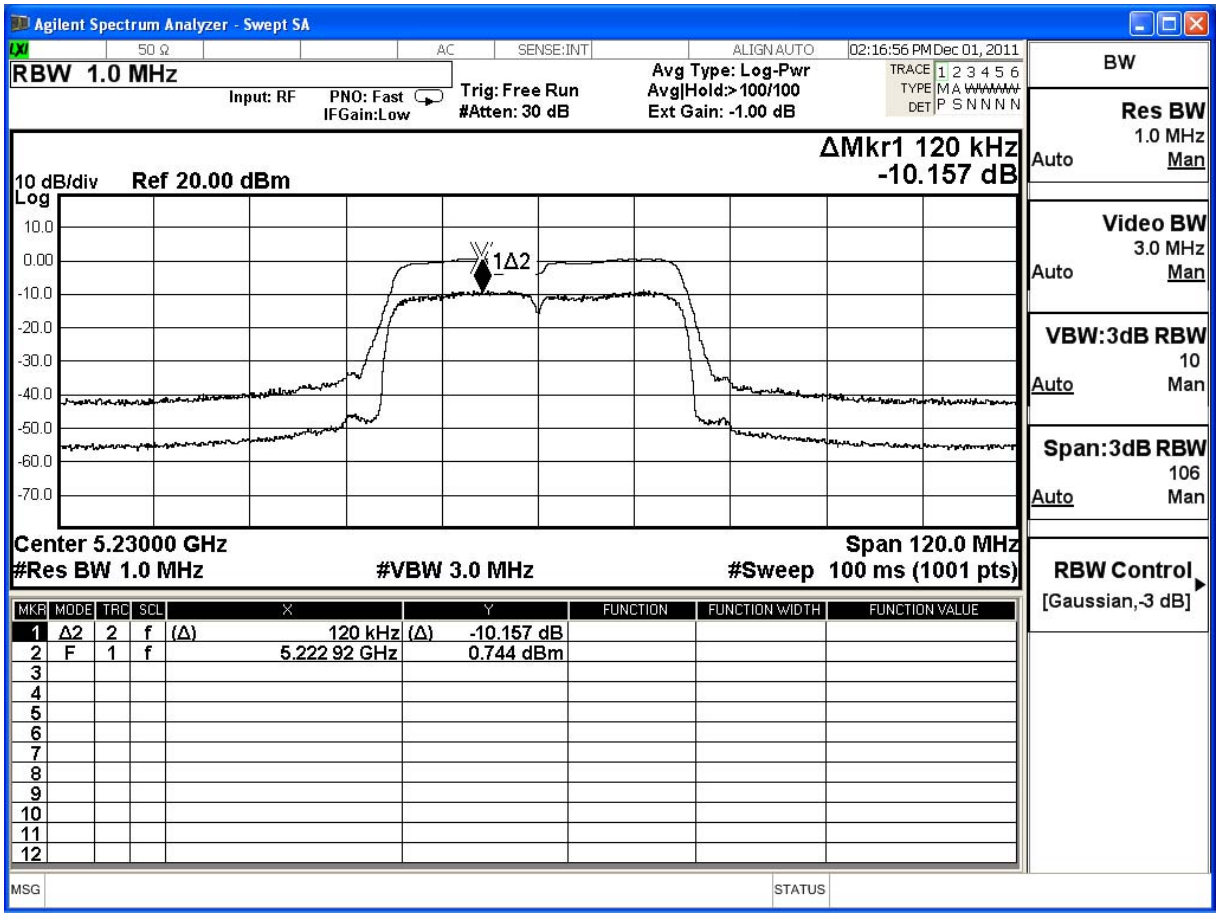
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	10.05	≤ 13	Pass
46	5230	10.15	≤ 13	Pass

Power Excursion – Channel 38



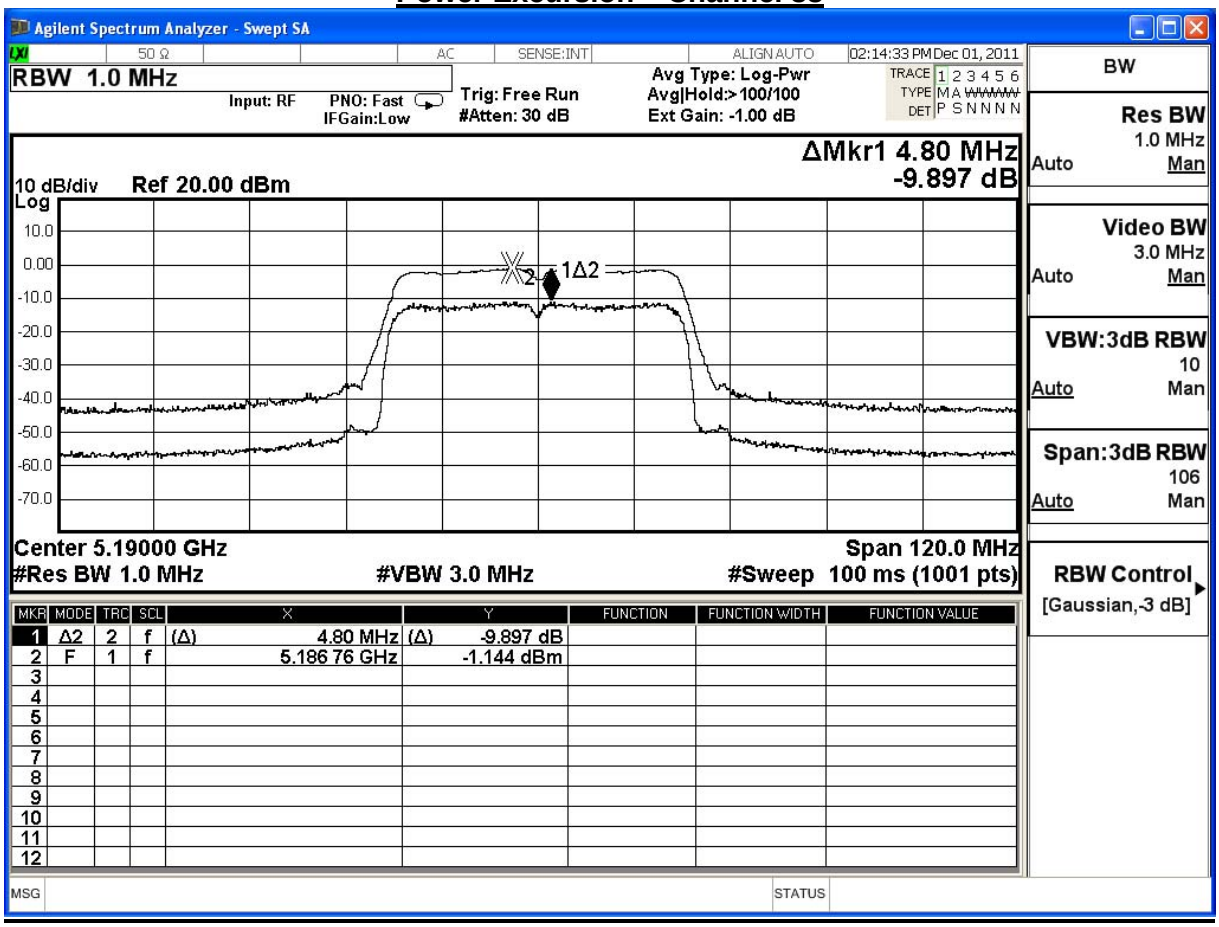
Power Excursion – Channel 46



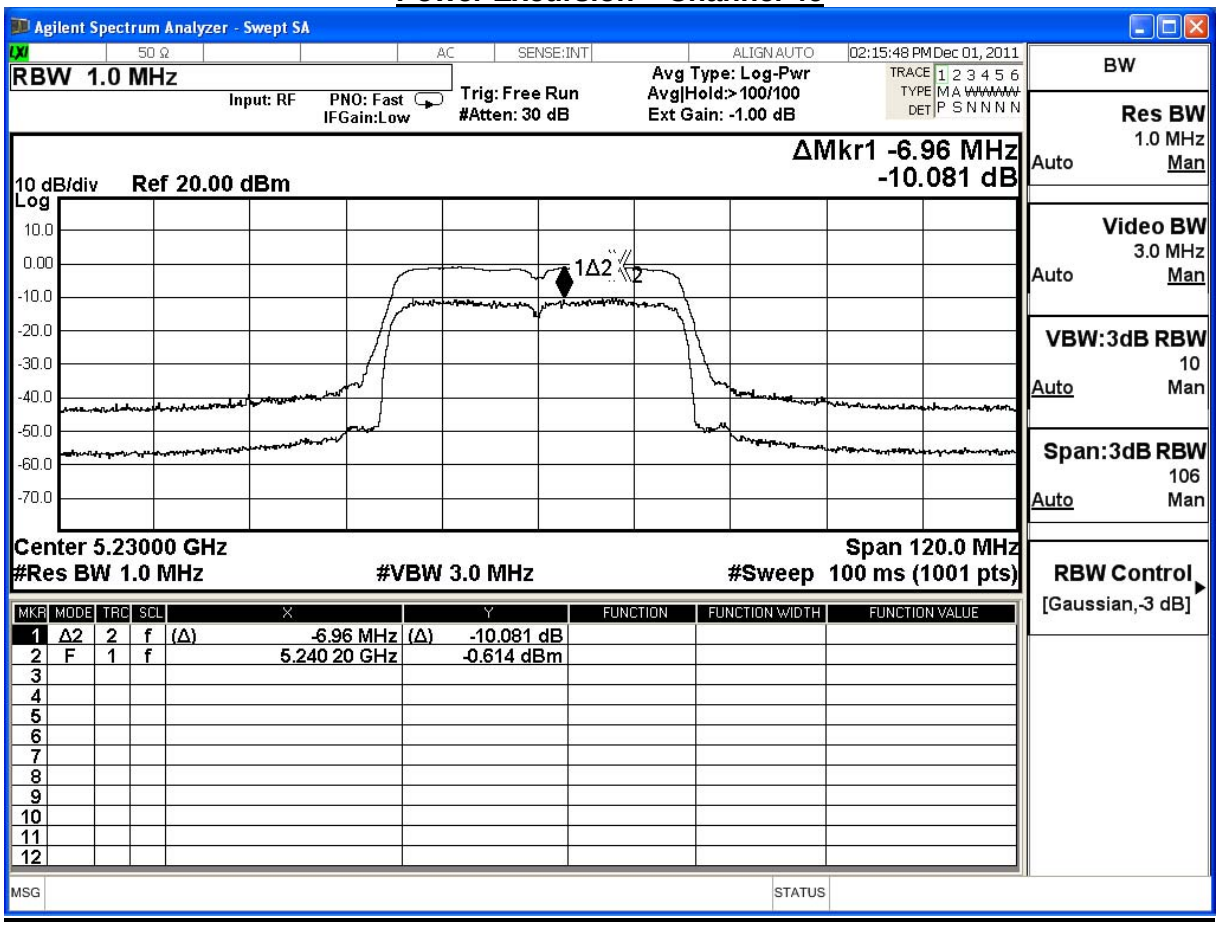
Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Peak Excursion		
Test Mode	Mode 1: Transmit (Adapter: DVE)		
Date of Test	2011/12/01	Test Site	SR7

IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dB)	Required Limit (dB)	Result
38	5190	9.89	≤ 13	Pass
46	5230	10.08	≤ 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:

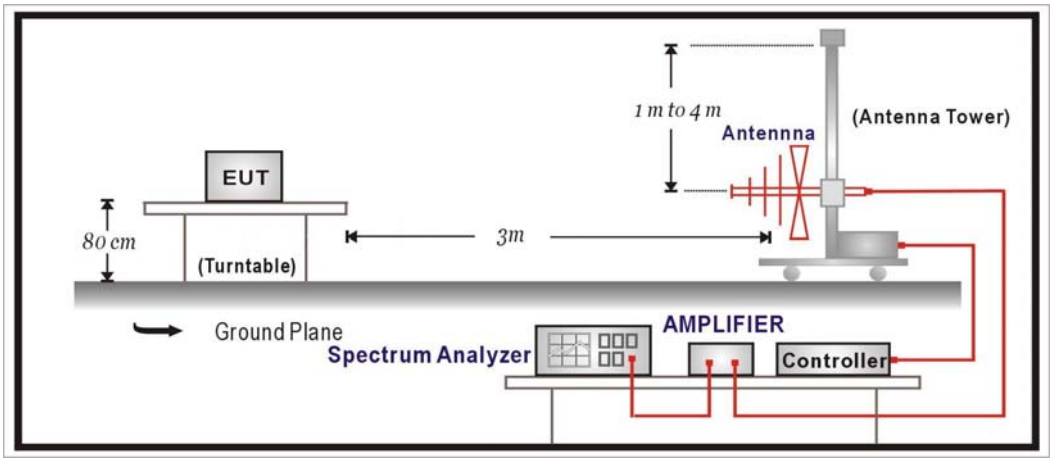
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Cal. Date	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2011/08/15	2012/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2011/02/25	2012/02/24
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2010/12/17	2011/12/16
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2011/03/11	2012/03/10
Spectrum Analyzer	Agilent	E4440A	MY46187335	2011/01/07	2012/01/06
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2011/03/22	2012/03/21

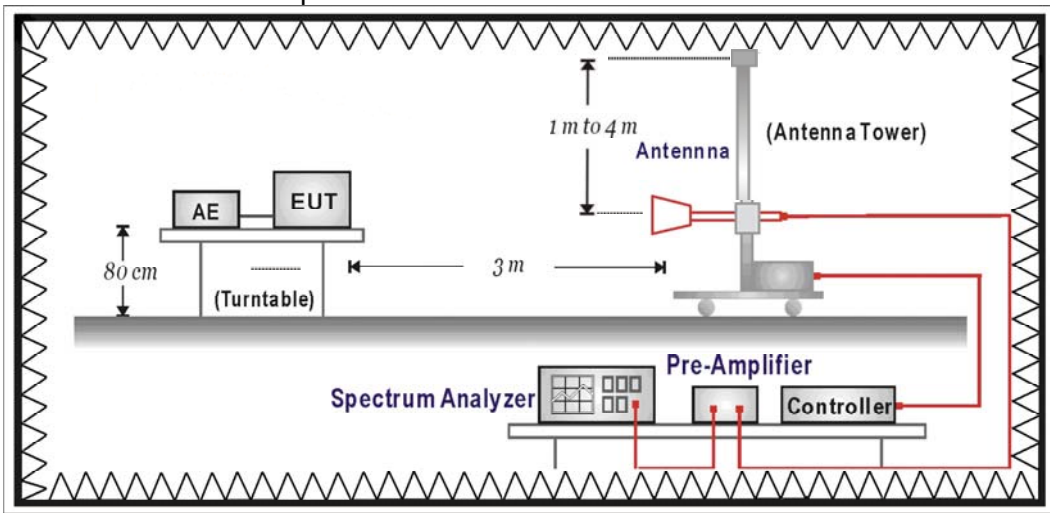
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

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.

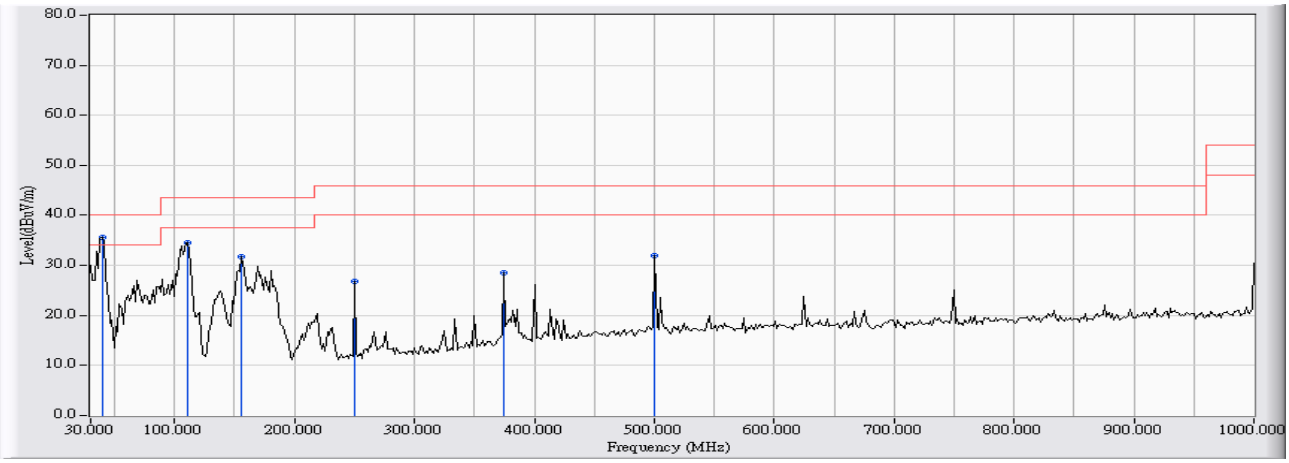
7.5. Uncertainty

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

7.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2011/11/24 - 20:19**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11a**

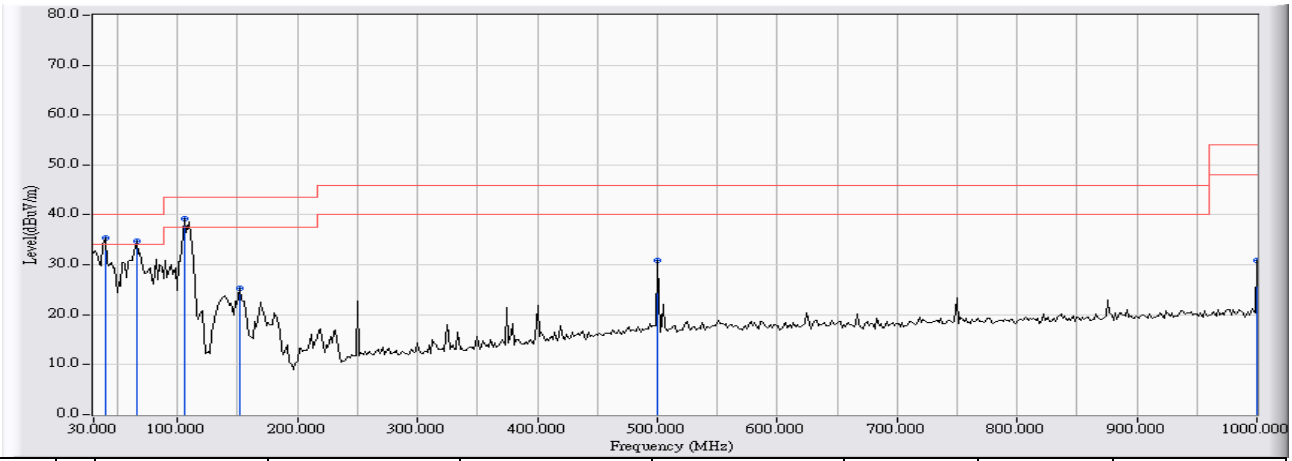


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.700	-12.268	47.903	35.635	-4.365	40.000	QUASIPEAK
2		110.833	-12.584	47.143	34.559	-8.941	43.500	QUASIPEAK
3		156.100	-13.745	45.538	31.793	-11.707	43.500	QUASIPEAK
4		249.867	-11.083	37.977	26.894	-19.106	46.000	QUASIPEAK
5		374.350	-8.111	36.643	28.532	-17.468	46.000	QUASIPEAK
6		500.450	-5.372	37.368	31.997	-14.003	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 : 2011/11/24 - 20:22**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11a**

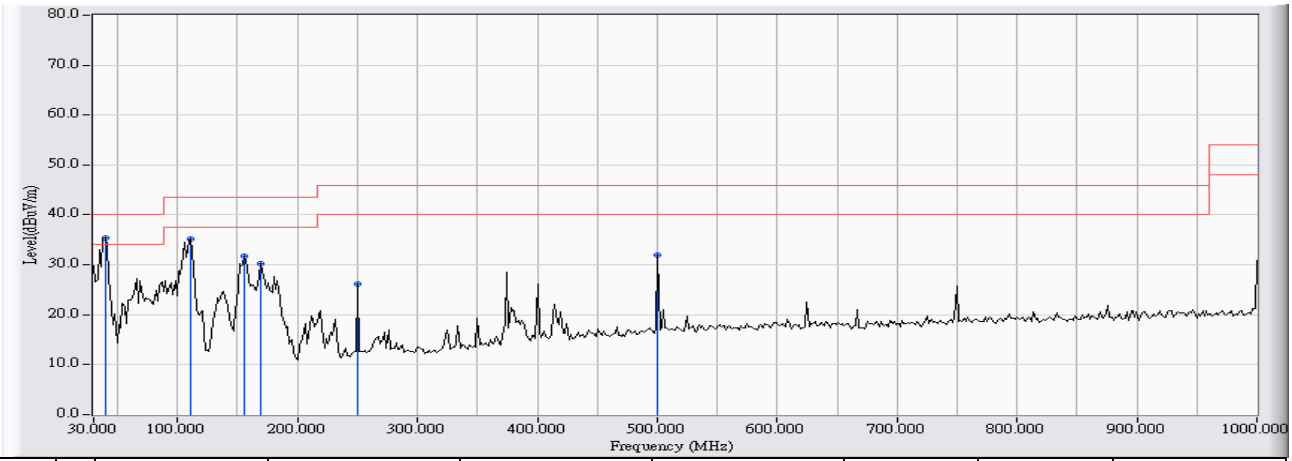


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		39.700	-12.268	47.730	35.462	-4.538	40.000	QUASIPEAK
2		65.567	-17.772	52.487	34.715	-5.285	40.000	QUASIPEAK
3	*	105.983	-13.004	52.333	39.329	-4.171	43.500	QUASIPEAK
4		151.250	-13.510	38.761	25.251	-18.249	43.500	QUASIPEAK
5		500.450	-5.372	36.200	30.829	-15.171	46.000	QUASIPEAK
6		1000.000	-0.931	31.860	30.929	-23.071	54.000	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 : 2011/11/24 - 20:36**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11n20**

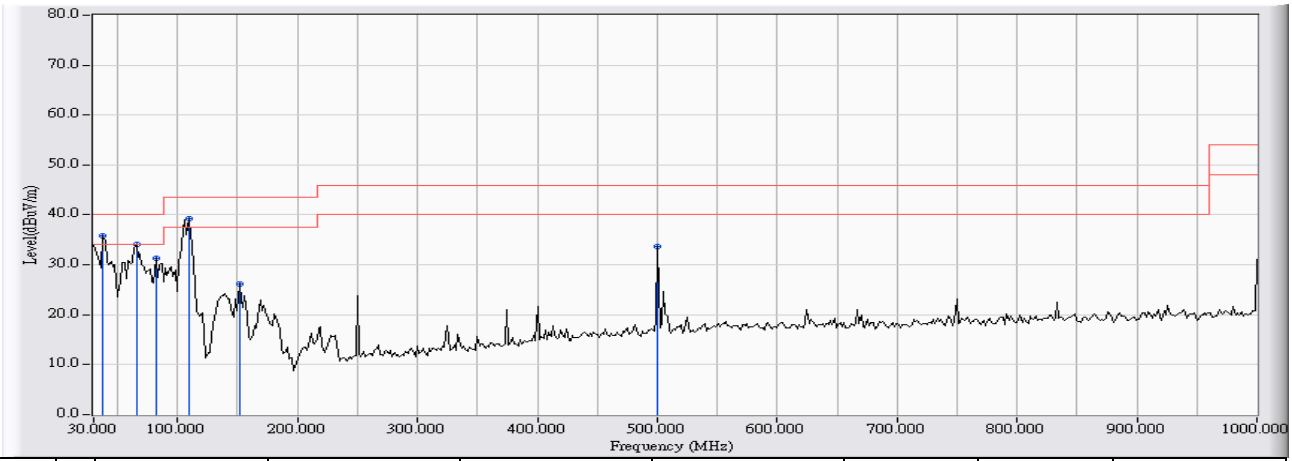


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.700	-12.268	47.567	35.299	-4.701	40.000	QUASIPEAK
2		110.833	-12.584	47.718	35.134	-8.366	43.500	QUASIPEAK
3		156.100	-13.745	45.402	31.657	-11.843	43.500	QUASIPEAK
4		169.033	-14.286	44.473	30.186	-13.314	43.500	QUASIPEAK
5		249.867	-11.083	37.288	26.205	-19.795	46.000	QUASIPEAK
6		500.450	-5.372	37.272	31.901	-14.099	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 : 2011/11/24 - 20:40**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11n20**

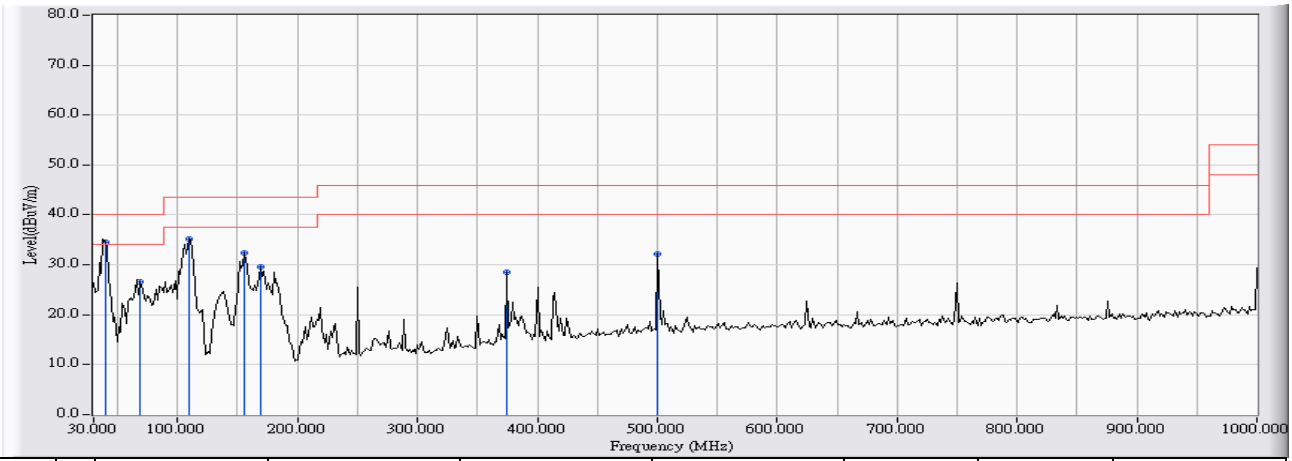


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-11.772	47.664	35.893	-4.107	40.000	QUASIPEAK
2		65.567	-17.772	51.899	34.127	-5.873	40.000	QUASIPEAK
3		81.733	-16.801	48.036	31.235	-8.765	40.000	QUASIPEAK
4		109.217	-12.724	51.875	39.151	-4.349	43.500	QUASIPEAK
5		151.250	-13.510	39.777	26.267	-17.233	43.500	QUASIPEAK
6		500.450	-5.372	39.083	33.712	-12.288	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 : 2011/11/24 - 20:54**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11n40**

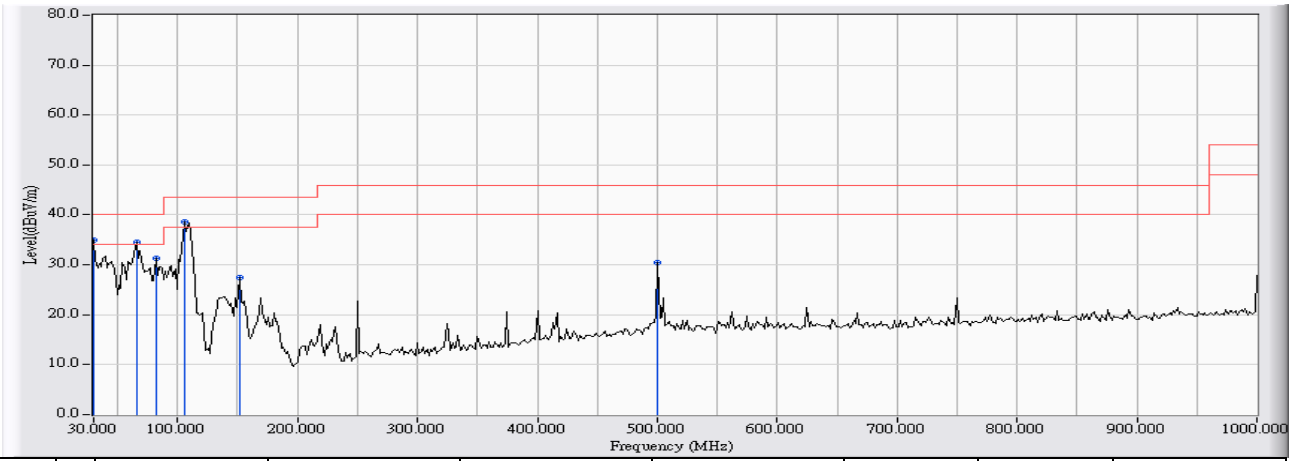


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.700	-12.268	46.733	34.465	-5.535	40.000	QUASIPEAK
2		68.800	-17.759	44.331	26.571	-13.429	40.000	QUASIPEAK
3		109.217	-12.724	47.821	35.097	-8.403	43.500	QUASIPEAK
4		156.100	-13.745	46.147	32.402	-11.098	43.500	QUASIPEAK
5		169.033	-14.286	43.955	29.668	-13.832	43.500	QUASIPEAK
6		374.350	-8.111	36.595	28.484	-17.516	46.000	QUASIPEAK
7		500.450	-5.372	37.646	32.275	-13.725	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 : 2011/11/24 - 20:57**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11n40**

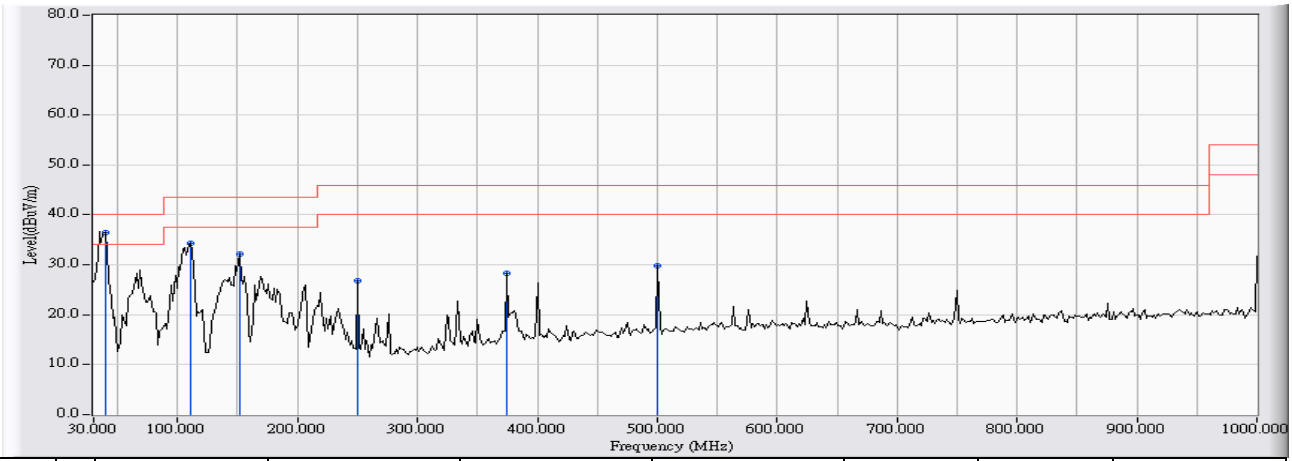


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		30.000	-9.920	44.874	34.954	-5.046	40.000	QUASIPEAK
2		65.567	-17.772	52.408	34.636	-5.364	40.000	QUASIPEAK
3		81.733	-16.801	48.041	31.240	-8.760	40.000	QUASIPEAK
4	*	105.983	-13.004	51.631	38.627	-4.873	43.500	QUASIPEAK
5		151.250	-13.510	40.960	27.450	-16.050	43.500	QUASIPEAK
6		500.450	-5.372	35.796	30.425	-15.575	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 : 2011/11/24 - 17:21**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5220MHz_802.11a**

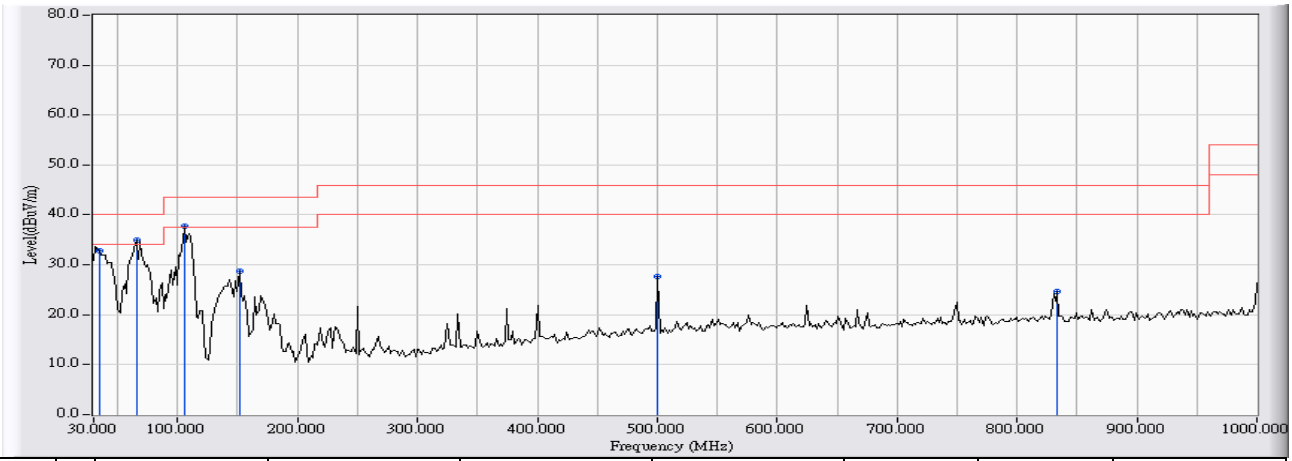


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.700	-12.268	48.766	35.498	-4.502	40.000	QUASIPEAK
2		110.833	-12.584	46.992	34.408	-9.092	43.500	QUASIPEAK
3		151.250	-13.510	45.727	32.217	-11.283	43.500	QUASIPEAK
4		249.867	-11.083	37.786	26.703	-19.297	46.000	QUASIPEAK
5		374.350	-8.111	36.324	28.213	-17.787	46.000	QUASIPEAK
6		500.450	-5.372	35.219	29.848	-16.152	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 : 2011/11/24 - 17:24**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5220MHz_802.11a**

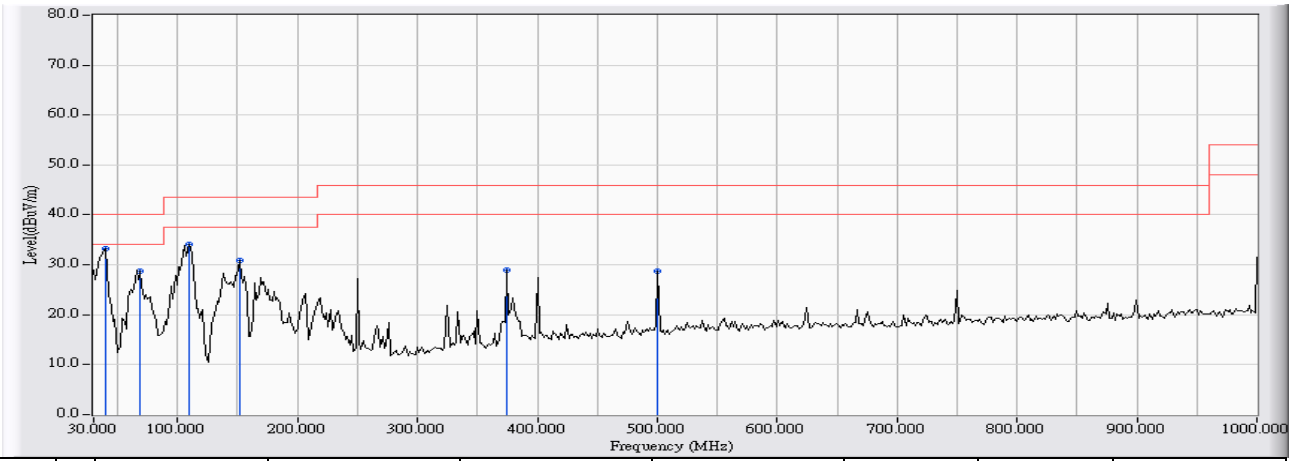


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		34.850	-10.798	43.573	32.775	-7.225	40.000	QUASIPEAK
2	*	65.567	-17.772	52.702	34.930	-5.070	40.000	QUASIPEAK
3		105.983	-13.004	50.772	37.768	-5.732	43.500	QUASIPEAK
4		151.250	-13.510	42.160	28.650	-14.850	43.500	QUASIPEAK
5		500.450	-5.372	33.015	27.644	-18.356	46.000	QUASIPEAK
6		833.483	-2.431	27.175	24.744	-21.256	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 : 2011/11/24 - 17:39**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5220MHz_802.11n20**

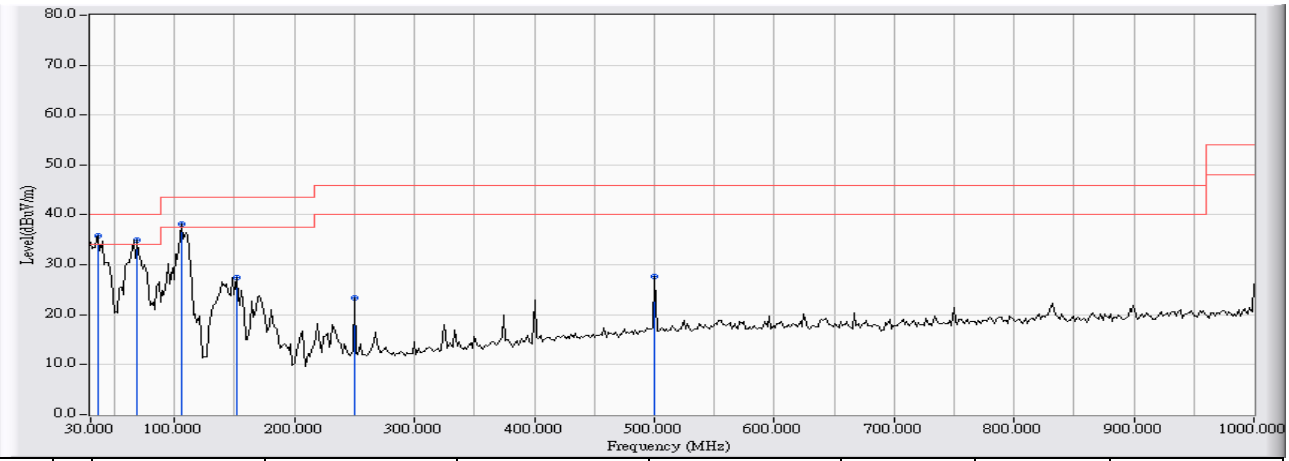


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	39.700	-12.268	45.553	33.285	-6.715	40.000	QUASIPEAK
2		68.800	-17.759	46.477	28.717	-11.283	40.000	QUASIPEAK
3		109.217	-12.724	46.880	34.156	-9.344	43.500	QUASIPEAK
4		151.250	-13.510	44.335	30.825	-12.675	43.500	QUASIPEAK
5		374.350	-8.111	36.962	28.851	-17.149	46.000	QUASIPEAK
6		500.450	-5.372	34.110	28.739	-17.261	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 : 2011/11/24 - 17:43**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5220MHz_802.11n20**

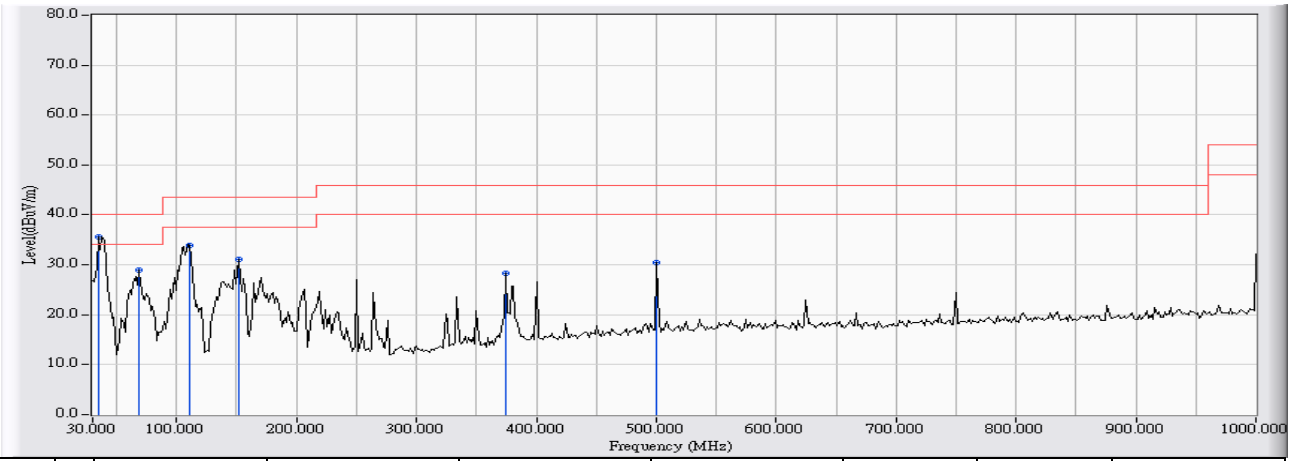


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	36.467	-11.275	47.072	35.797	-4.203	40.000	QUASIPEAK
2		68.800	-17.759	52.815	35.055	-4.945	40.000	QUASIPEAK
3		105.983	-13.004	51.087	38.083	-5.417	43.500	QUASIPEAK
4		151.250	-13.510	40.873	27.363	-16.137	43.500	QUASIPEAK
5		249.867	-11.083	34.549	23.466	-22.534	46.000	QUASIPEAK
6		500.450	-5.372	33.137	27.766	-18.234	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 : 2011/11/24 - 17:56**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5190MHz_802.11n40**

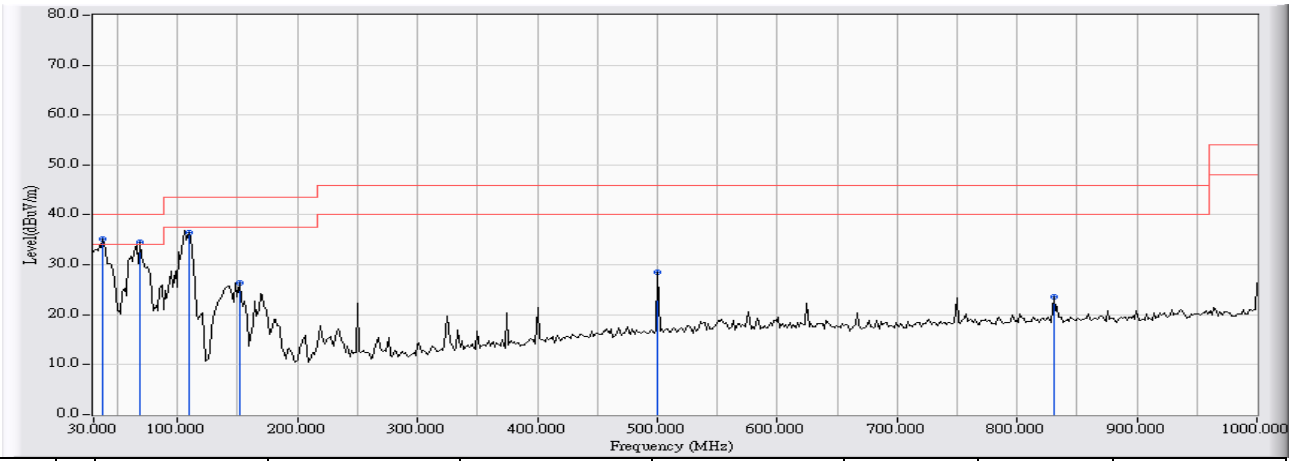


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	34.850	-10.798	46.489	35.691	-4.309	40.000	QUASIPEAK
2		68.800	-17.759	46.637	28.877	-11.123	40.000	QUASIPEAK
3		110.833	-12.584	46.433	33.849	-9.651	43.500	QUASIPEAK
4		151.250	-13.510	44.667	31.157	-12.343	43.500	QUASIPEAK
5		374.350	-8.111	36.426	28.315	-17.685	46.000	QUASIPEAK
6		500.450	-5.372	35.773	30.402	-15.598	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 : 2011/11/24 - 17:59**
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 Ethernet Adapter	**Note : Mode 2: Transmit (Adapter: PHIHONG) 5190MHz_802.11n40**



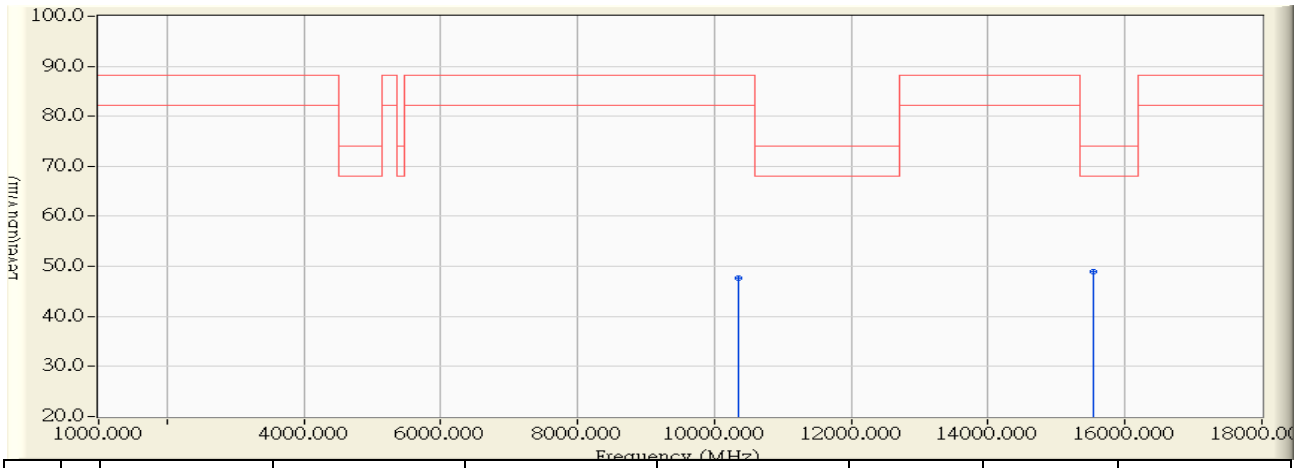
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-11.772	46.887	35.116	-4.884	40.000	QUASIPEAK
2		68.800	-17.759	52.336	34.576	-5.424	40.000	QUASIPEAK
3		109.217	-12.724	49.226	36.502	-6.998	43.500	QUASIPEAK
4		151.250	-13.510	39.860	26.350	-17.150	43.500	QUASIPEAK
5		500.450	-5.372	33.856	28.485	-17.515	46.000	QUASIPEAK
6		830.250	-2.453	25.942	23.490	-22.510	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 : 2011/11/30 - 21:15**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11a**

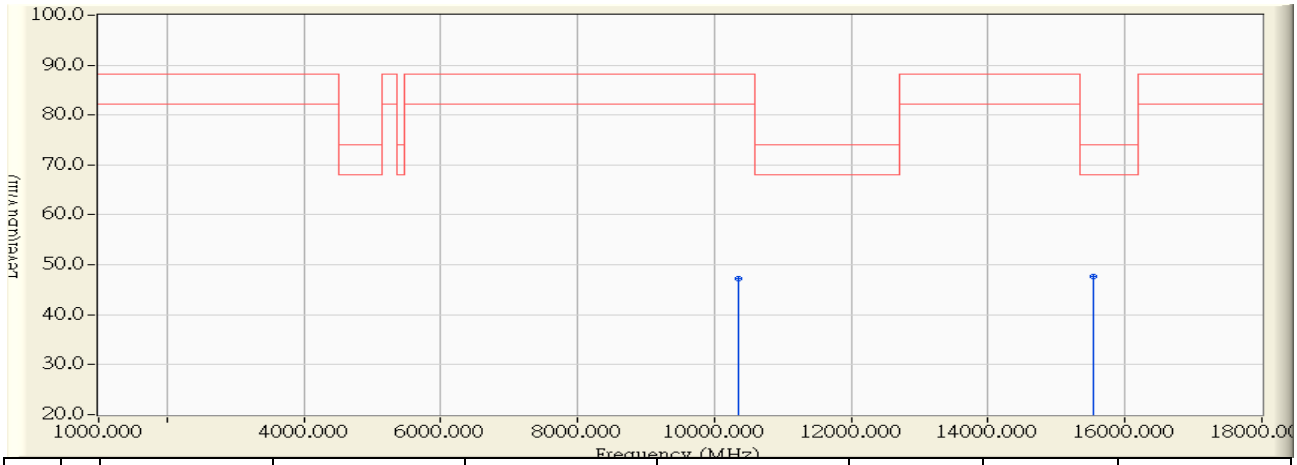


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.794	36.938	47.732	-40.568	88.300	PEAK
2	*	15540.000	11.404	37.562	48.966	-25.034	74.000	PEAK

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 : 2011/11/30 - 21:28**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11a**

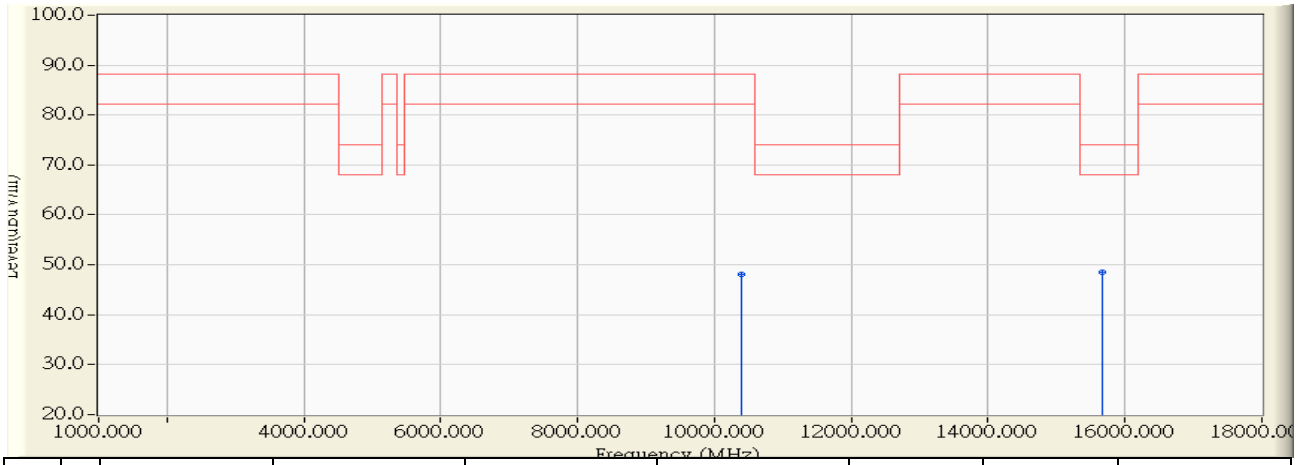


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.794	36.452	47.246	-41.054	88.300	PEAK
2	*	15540.000	11.404	36.244	47.648	-26.352	74.000	PEAK

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 : 2011/11/30 - 21:30**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11a**

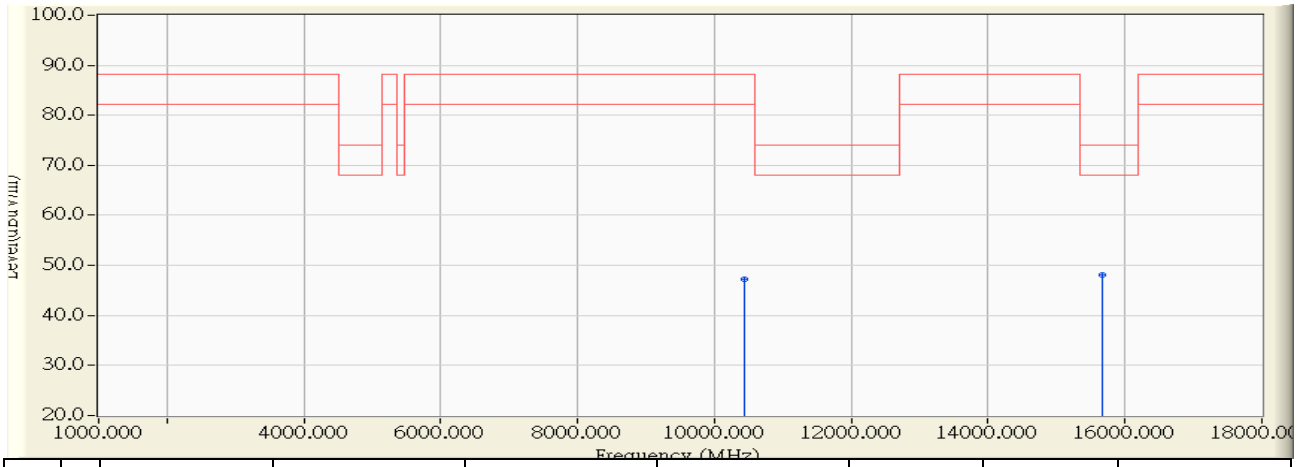


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10394.000	10.700	37.324	48.024	-40.276	88.300	PEAK
2	*	15660.000	11.322	37.165	48.487	-25.513	74.000	PEAK

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 : 2011/11/30 - 21:33**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11a**

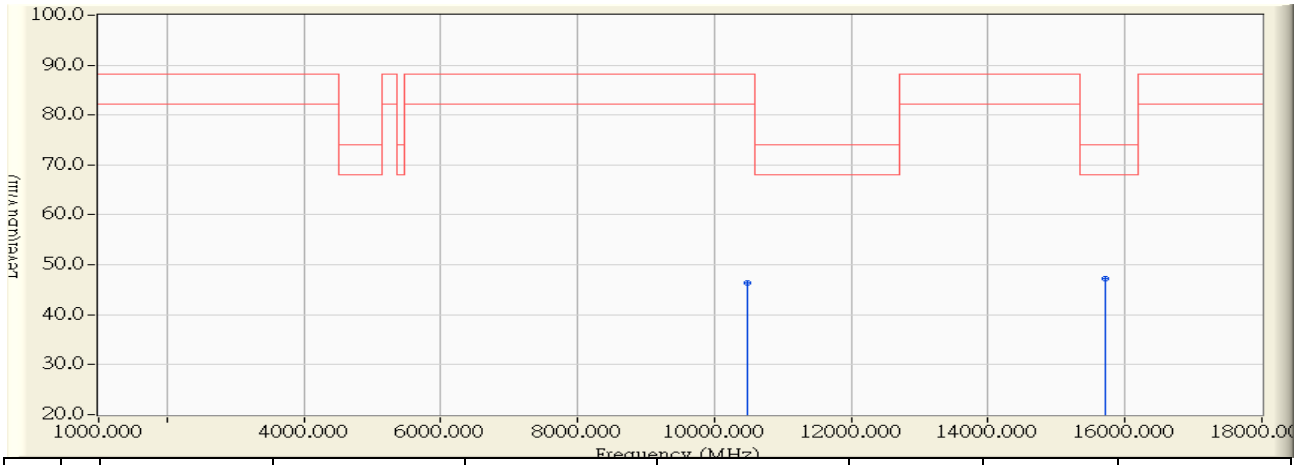


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	10.573	36.600	47.173	-41.127	88.300	PEAK
2	*	15660.000	11.322	36.733	48.055	-25.945	74.000	PEAK

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 : 2011/11/30 - 21:36**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5240MHz_802.11a**

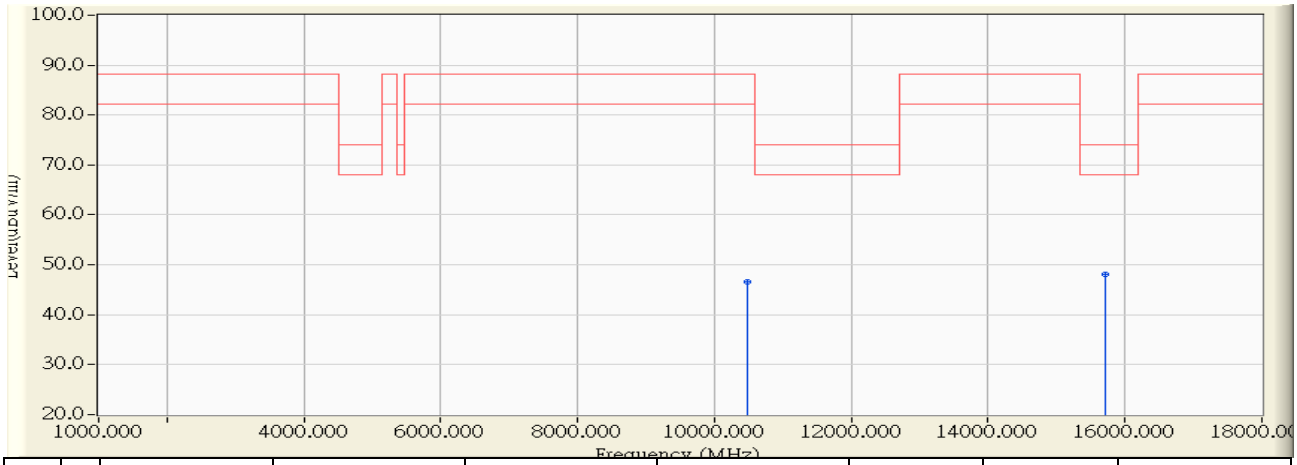


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	10.463	35.965	46.428	-41.872	88.300	PEAK
2	*	15720.000	11.281	36.000	47.281	-26.719	74.000	PEAK

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 : 2011/11/30 - 21:39**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5240MHz_802.11a**

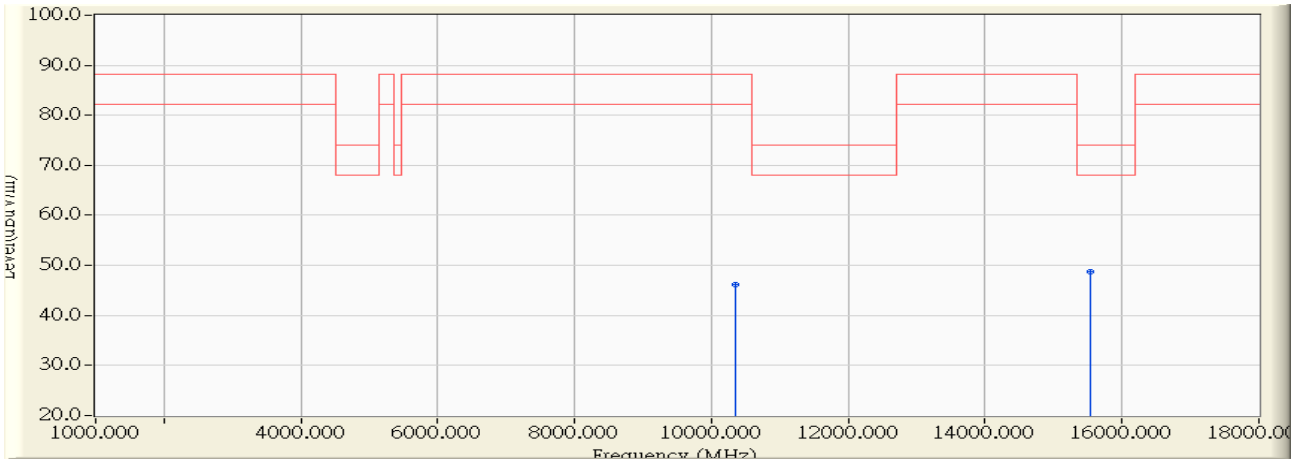


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	10.463	36.169	46.632	-41.668	88.300	PEAK
2	*	15720.000	11.281	36.831	48.112	-25.888	74.000	PEAK

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 : 2011/11/30 - 21:46**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_n(20MHz)**

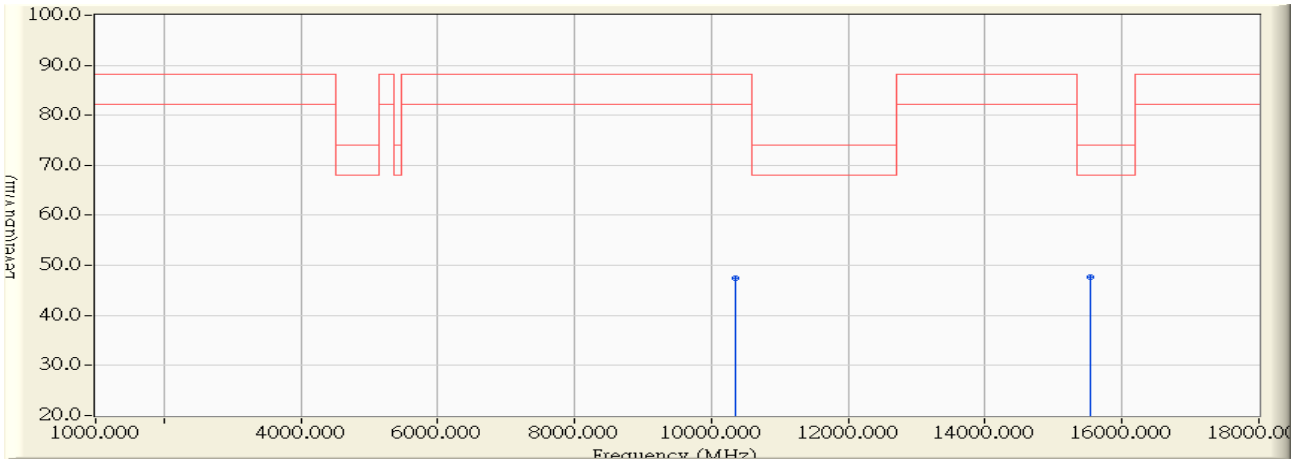


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.794	35.405	46.199	-42.101	88.300	PEAK
2	*	15540.000	11.404	37.323	48.727	-25.273	74.000	PEAK

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 : 2011/11/30 - 21:48**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_n(20MHz)**

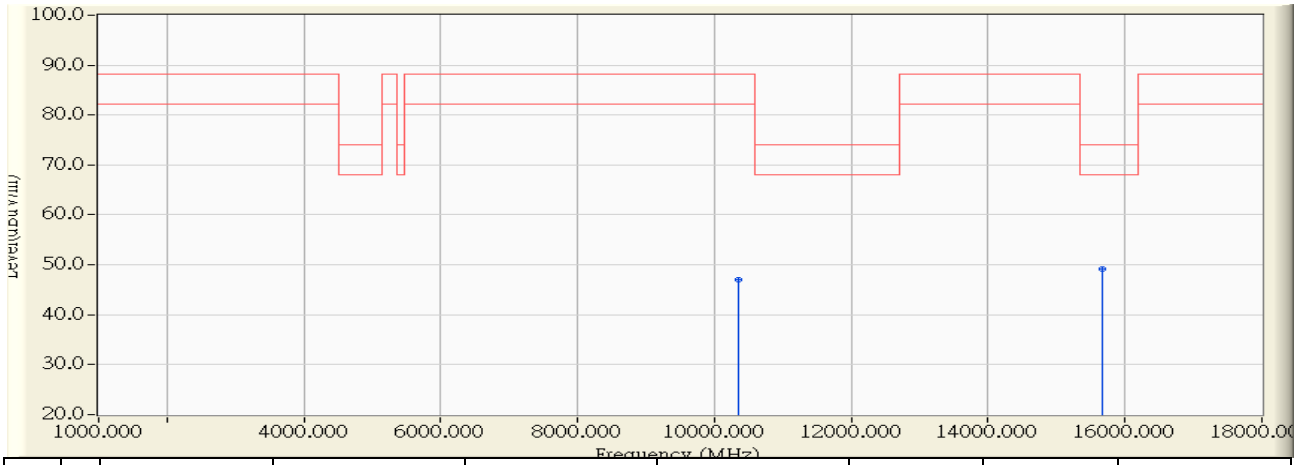


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.794	36.678	47.472	-40.828	88.300	PEAK
2	*	15540.000	11.404	36.308	47.712	-26.288	74.000	PEAK

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 : 2011/11/30 - 21:51**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11_n(20MHz)**

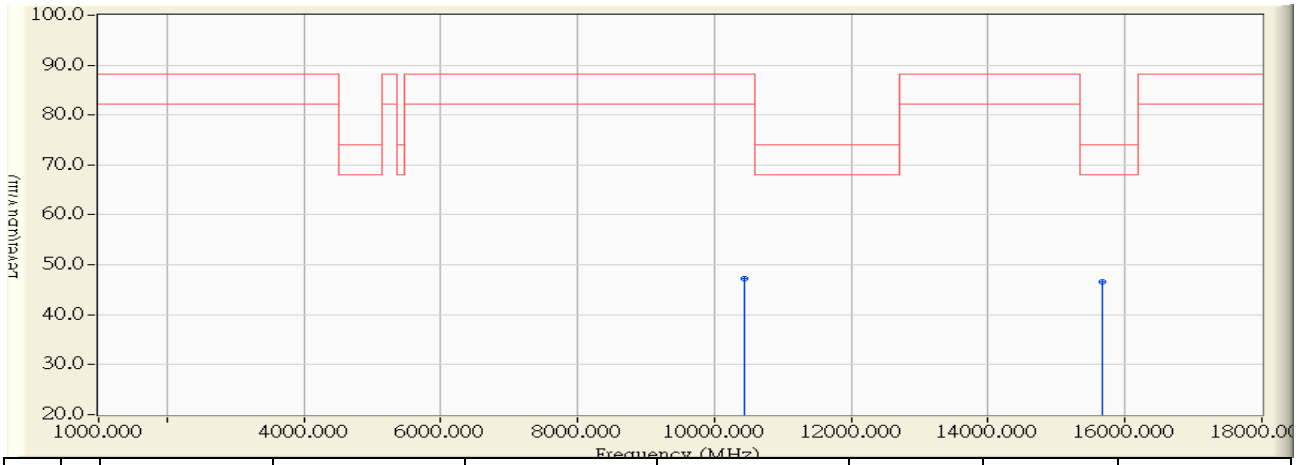


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.794	36.243	47.037	-41.263	88.300	PEAK
2	*	15660.000	11.322	37.755	49.077	-24.923	74.000	PEAK

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 : 2011/11/30 - 21:53**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5220MHz_802.11_n(20MHz)**

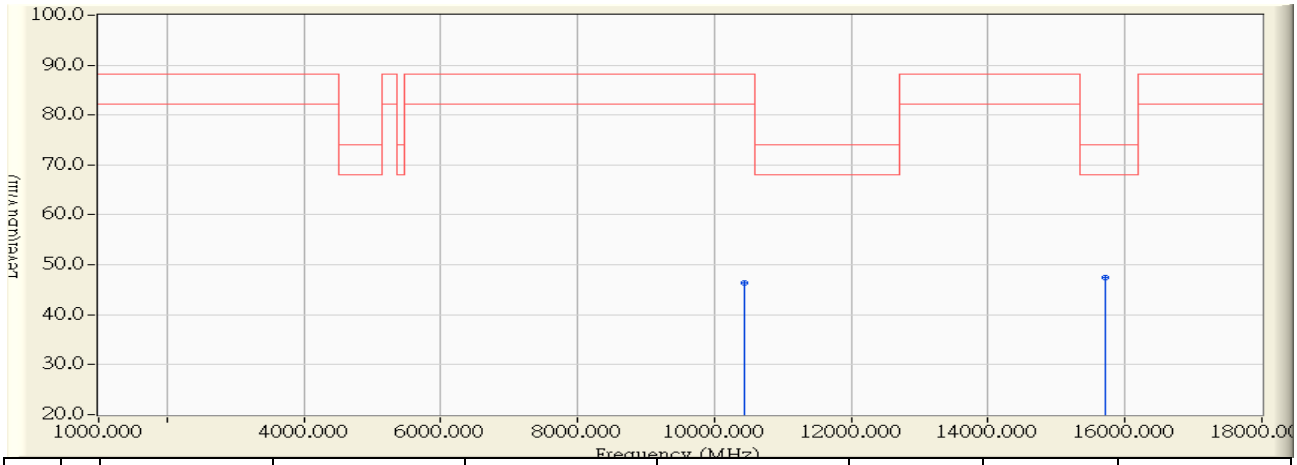


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	10.573	36.770	47.343	-40.957	88.300	PEAK
2	*	15660.000	11.322	35.259	46.581	-27.419	74.000	PEAK

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 : 2011/11/30 - 21:57**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE) 5240MHz_802.11_n(20MHz)**

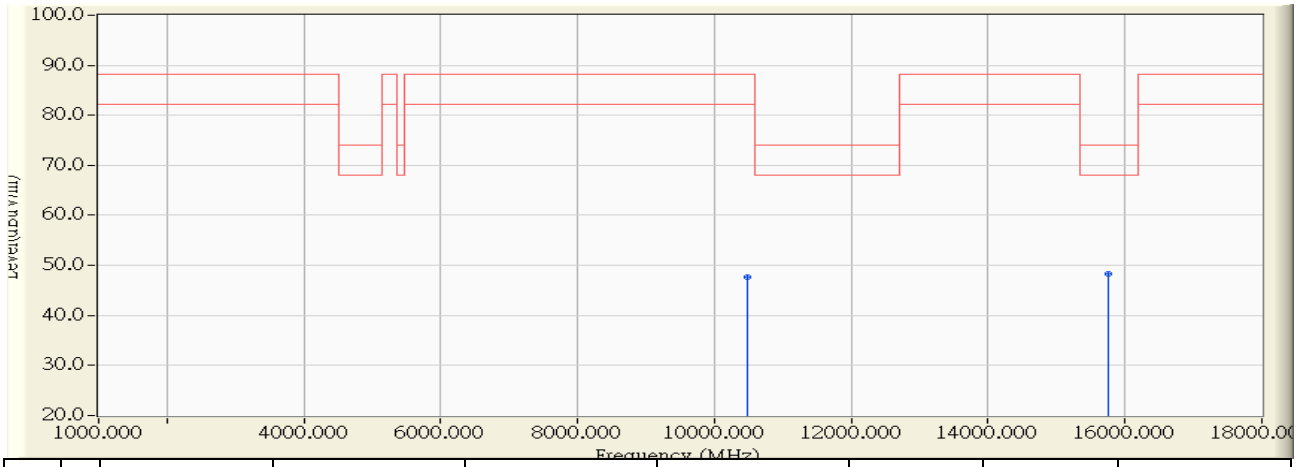


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10440.000	10.573	35.836	46.409	-41.891	88.300	PEAK
2	*	15720.000	11.281	36.210	47.491	-26.509	74.000	PEAK

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 : 2011/11/30 - 21:59**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5240MHz_802.11_n(20MHz)**

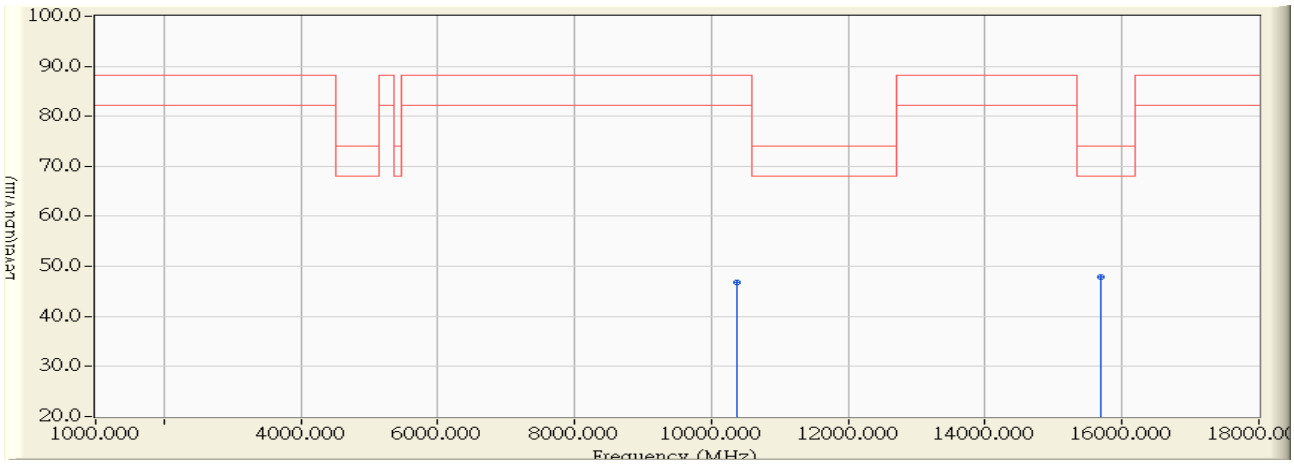


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10480.000	10.463	37.242	47.705	-40.595	88.300	PEAK
2	*	15754.000	11.257	37.002	48.259	-25.741	74.000	PEAK

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 : 2011/11/30 - 22:03**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11_n(40MHz)**

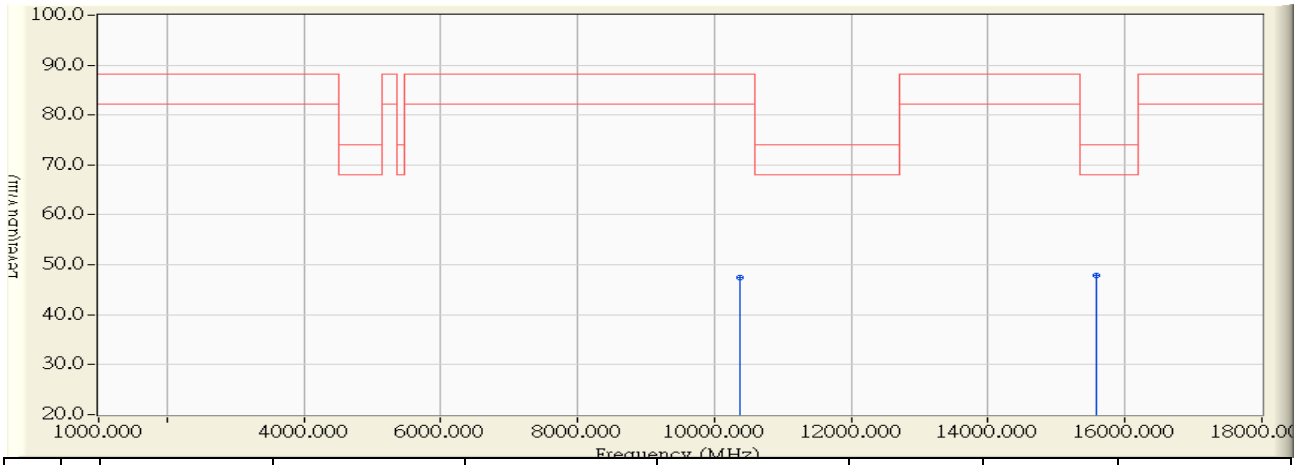


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10380.000	10.739	35.975	46.714	-41.586	88.300	PEAK
2	*	15690.000	11.301	36.563	47.864	-26.136	74.000	PEAK

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 : 2011/11/30 - 22:05**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11_n(40MHz)**

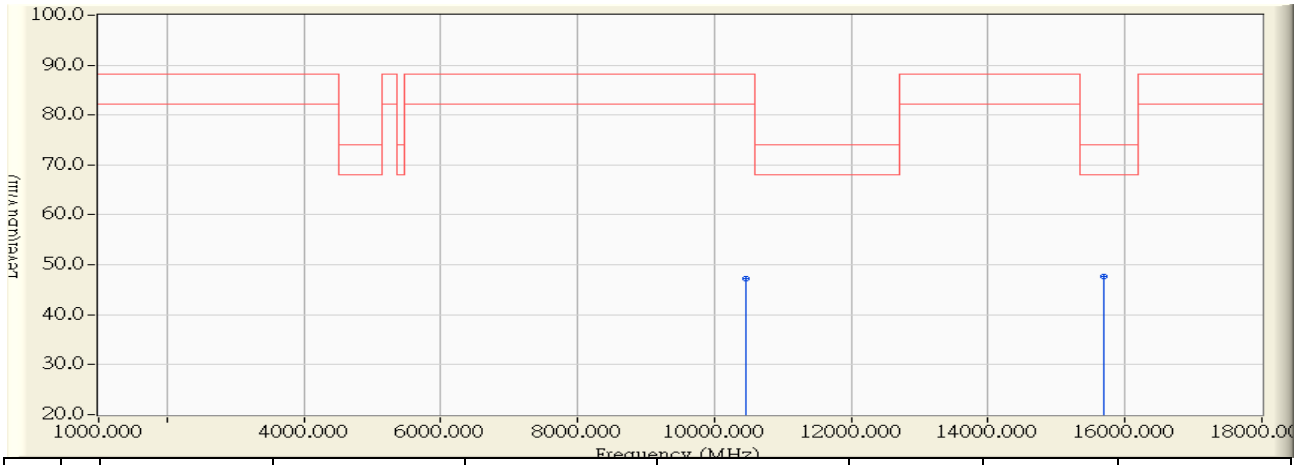


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10380.000	10.739	36.818	47.557	-40.743	88.300	PEAK
2	*	15590.000	11.370	36.482	47.852	-26.148	74.000	PEAK

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 : 2011/11/30 - 22:08**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE) 5230MHz_802.11_n(40MHz)**

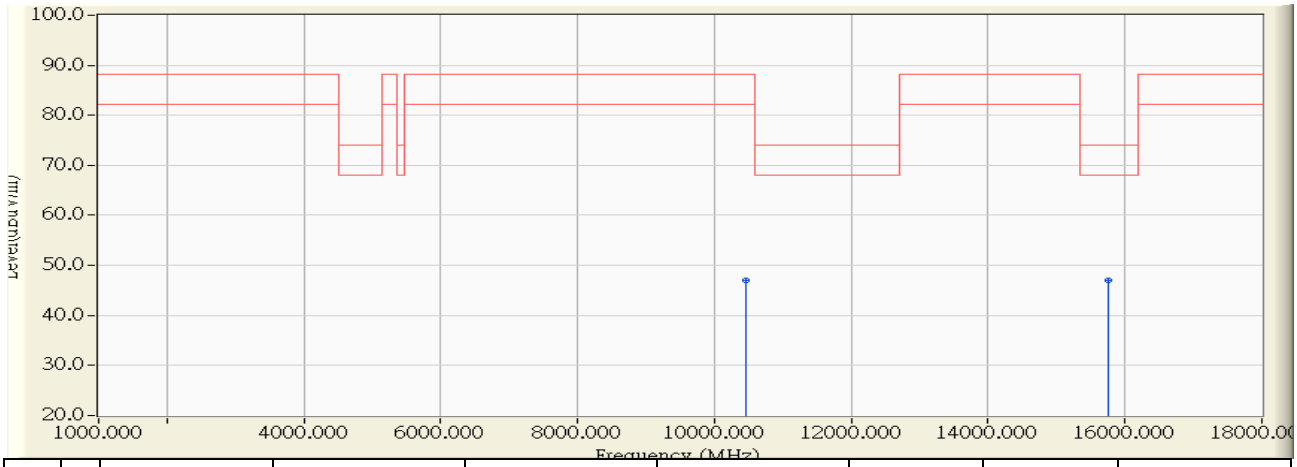


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	10.518	36.779	47.297	-41.003	88.300	PEAK
2	*	15690.000	11.301	36.338	47.639	-26.361	74.000	PEAK

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 : 2011/11/30 - 22:11**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5230MHz_802.11_n(40MHz)**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	10.518	36.550	47.068	-41.232	88.300	PEAK
2	*	15758.000	11.255	35.832	47.087	-26.913	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:

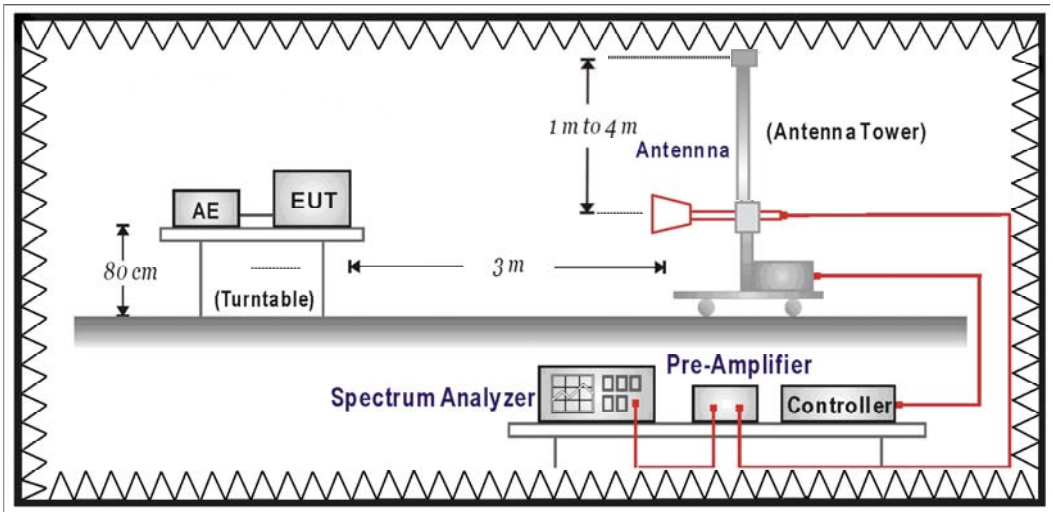
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Cal. Date	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2011/02/25	2012/02/24
Spectrum Analyzer	Agilent	E4440A	MY46187335	2011/01/07	2012/01/06
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2011/03/22	2012/03/21

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.

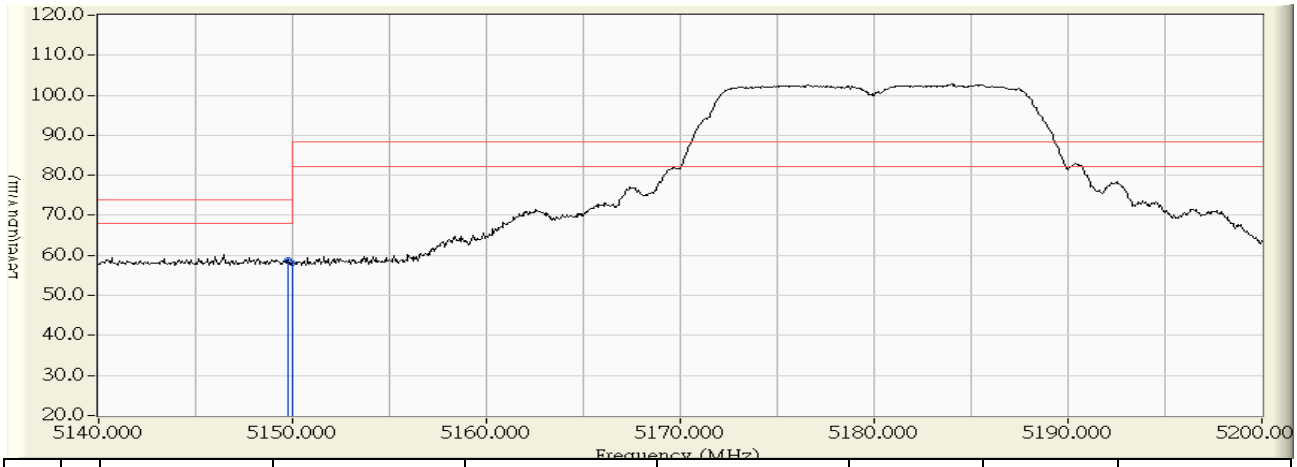
8.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

8.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2011/11/30 - 23:35**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_a**

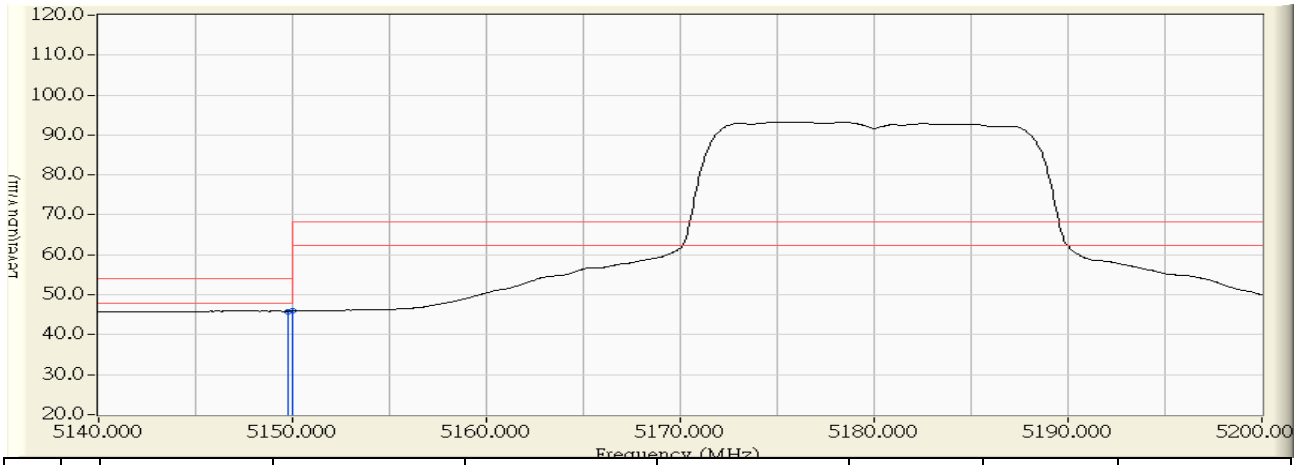


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.780	0.829	57.989	58.818	-15.182	74.000	PEAK
2		5150.000	0.831	57.333	58.164	-15.836	74.000	PEAK

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 : 2011/11/30 - 23:36**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_a**

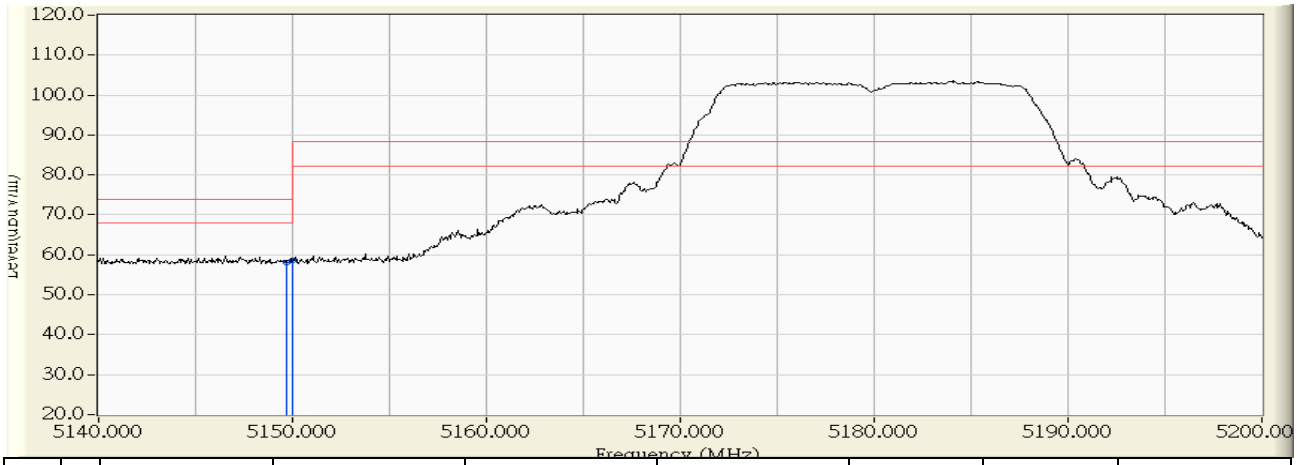


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.780	0.829	45.041	45.870	-8.130	54.000	AVERAGE
2	*	5150.000	0.831	45.066	45.897	-8.103	54.000	AVERAGE

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 : 2011/11/30 - 23:39**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_a**

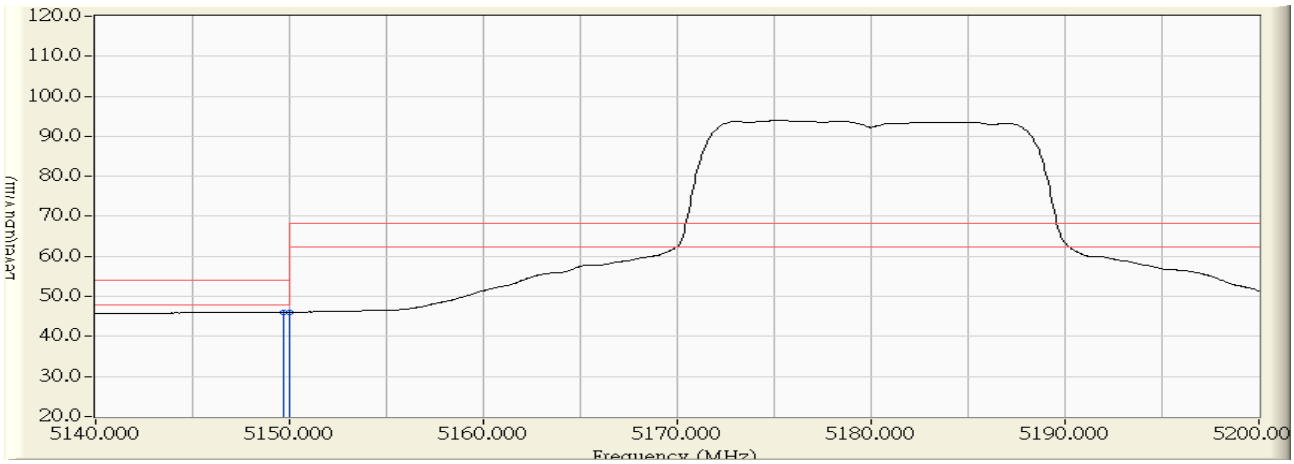


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.660	0.828	57.230	58.058	-15.942	74.000	PEAK
2	*	5150.000	0.831	57.694	58.525	-15.475	74.000	PEAK

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 : 2011/11/30 - 23:39**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_a**

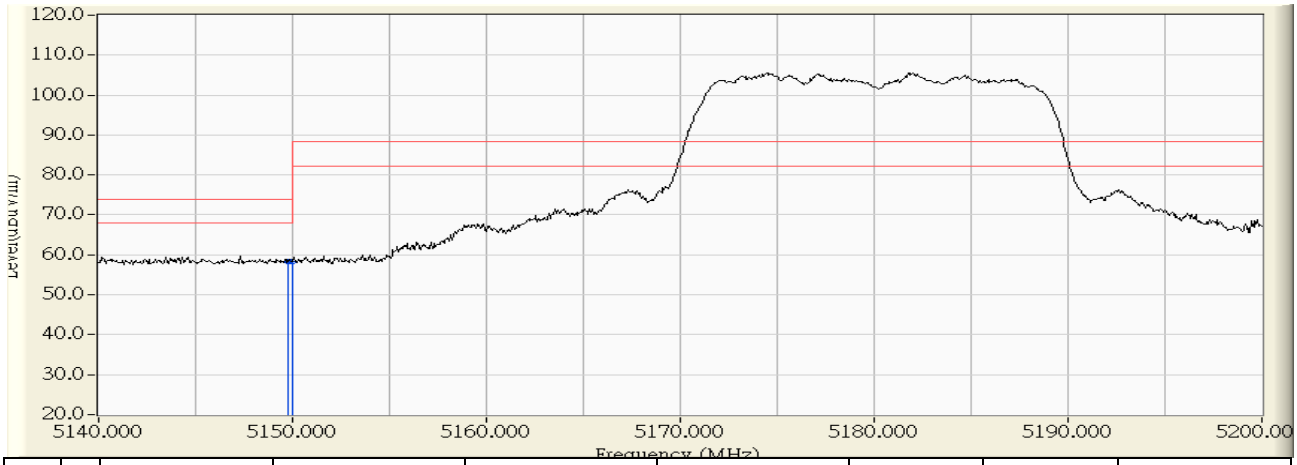


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.660	0.828	45.210	46.038	-7.962	54.000	AVERAGE
2	*	5150.000	0.831	45.225	46.056	-7.944	54.000	AVERAGE

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 : 2011/11/30 - 23:24**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE) 5180MHz_802.11_n(20MHz)**

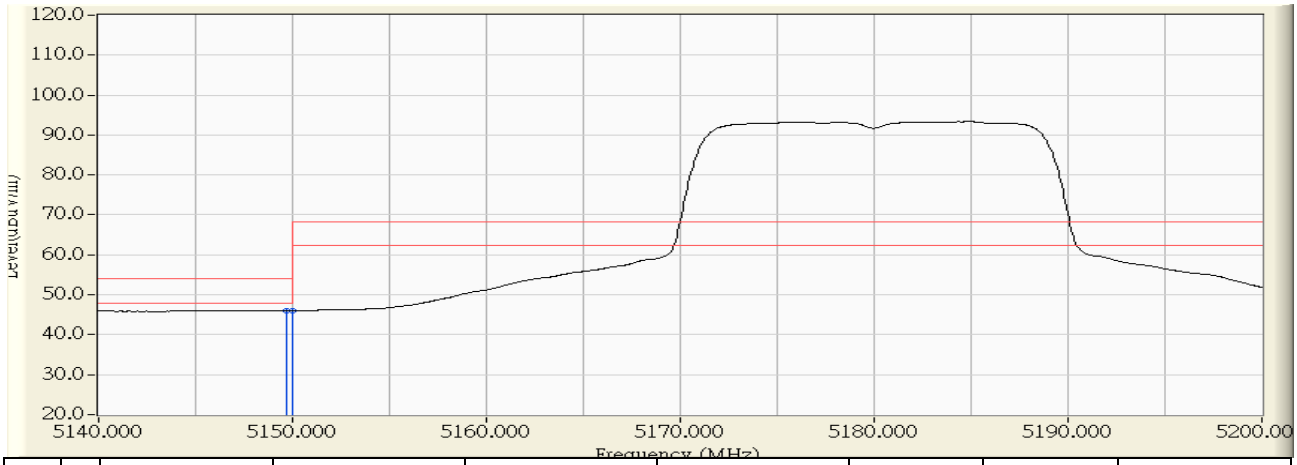


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.780	0.829	57.509	58.338	-15.662	74.000	PEAK
2		5150.000	0.831	57.501	58.332	-15.668	74.000	PEAK

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 : 2011/11/30 - 23:25**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_n(20MHz)**

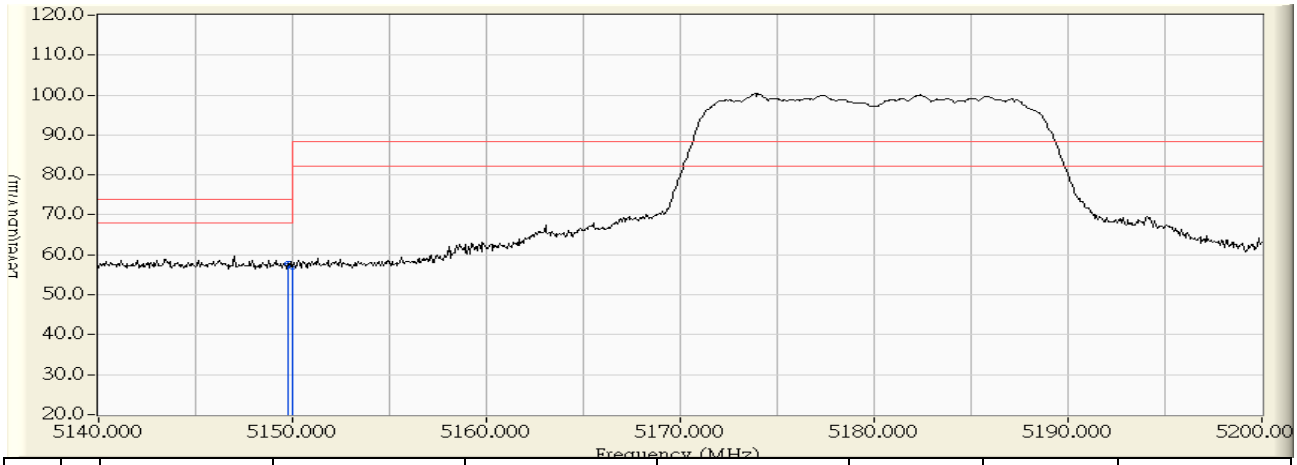


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.660	0.828	45.251	46.079	-7.921	54.000	AVERAGE
2	*	5150.000	0.831	45.270	46.101	-7.899	54.000	AVERAGE

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 : 2011/11/30 - 23:31**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_n(20MHz)**

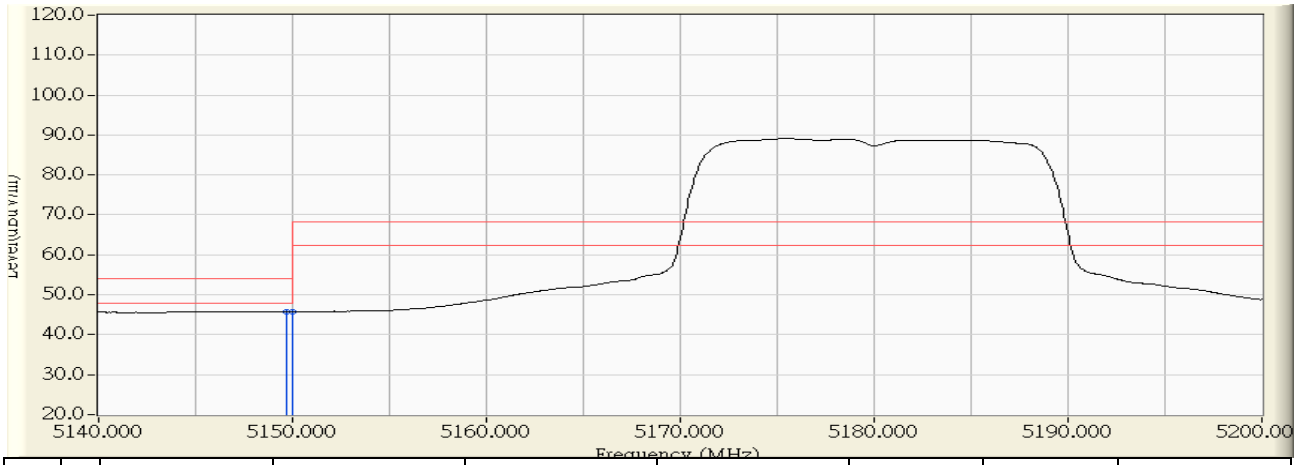


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.780	0.829	56.988	57.817	-16.183	74.000	PEAK
2		5150.000	0.831	56.126	56.957	-17.043	74.000	PEAK

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 : 2011/11/30 - 23:32**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5180MHz_802.11_n(20MHz)**

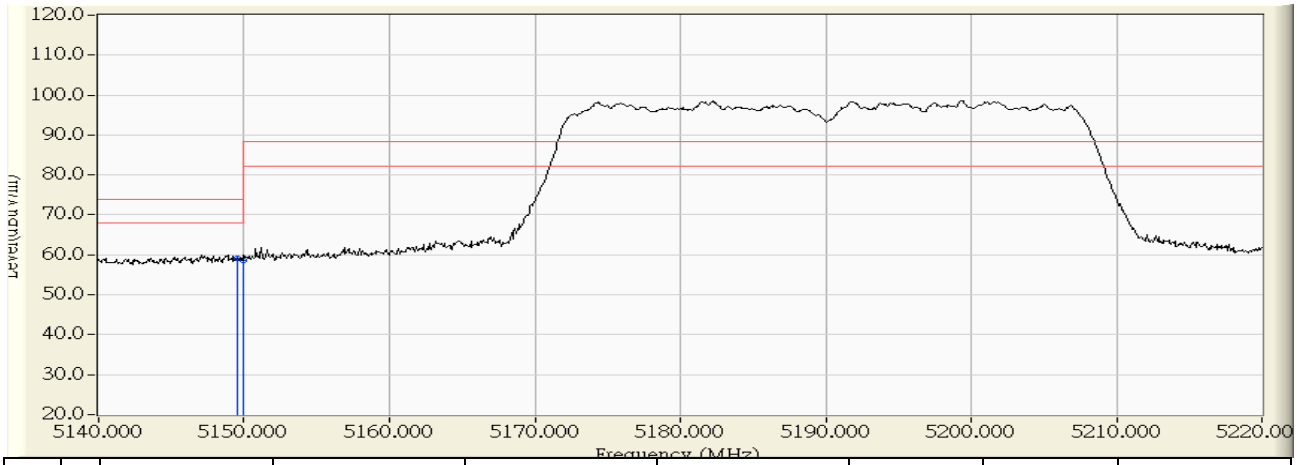


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.660	0.828	44.918	45.746	-8.254	54.000	AVERAGE
2		5150.000	0.831	44.905	45.736	-8.264	54.000	AVERAGE

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 : 2011/11/30 - 23:43**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11_n(40MHz)**

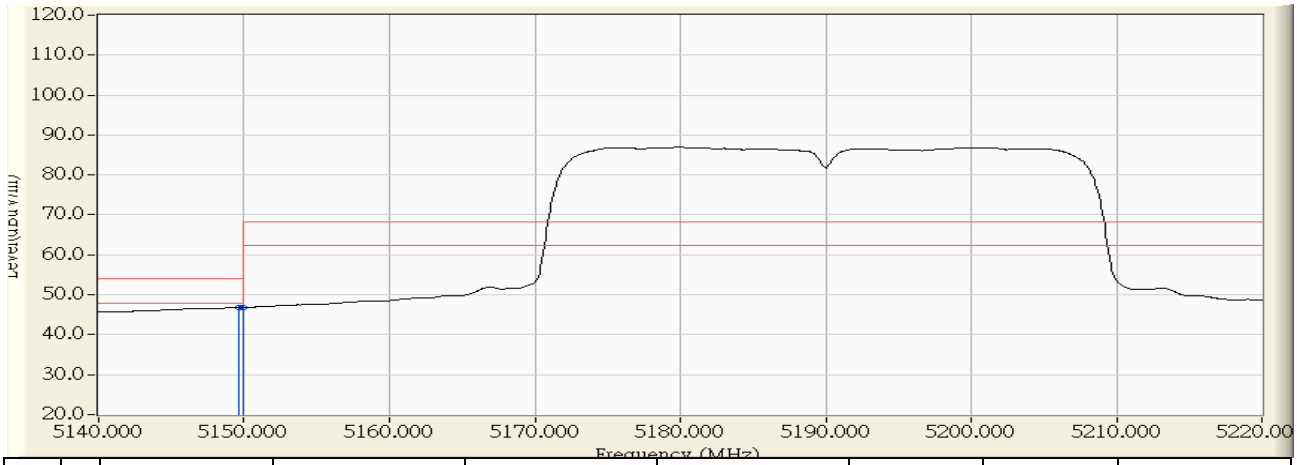


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.520	0.826	58.359	59.186	-14.814	74.000	PEAK
2		5150.000	0.831	57.897	58.728	-15.272	74.000	PEAK

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 : 2011/11/30 - 23:43**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE) 5190MHz_802.11_n(40MHz)**

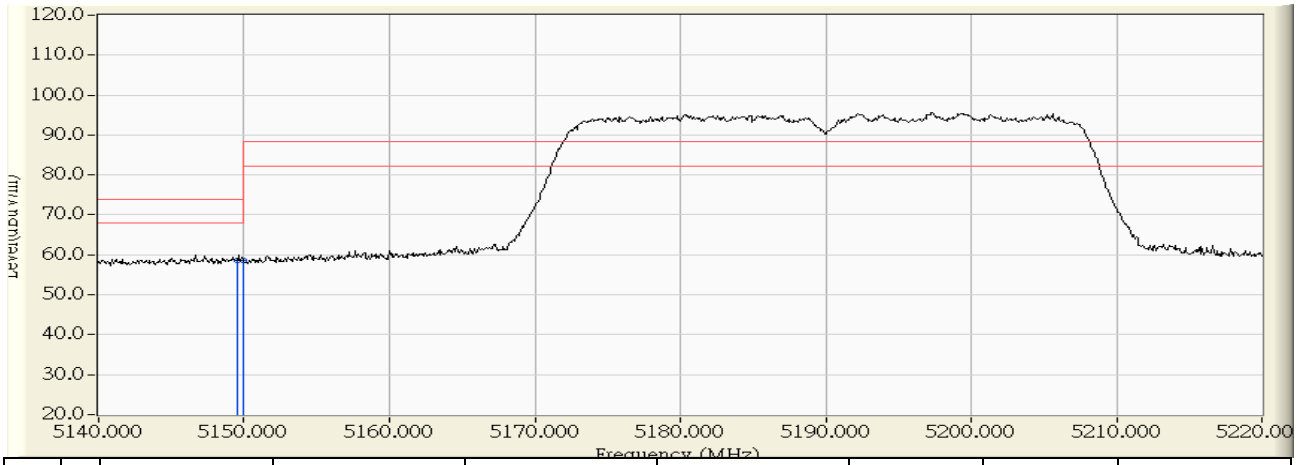


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.600	0.827	45.946	46.774	-7.226	54.000	AVERAGE
2	*	5150.000	0.831	45.960	46.791	-7.209	54.000	AVERAGE

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 : 2011/11/30 - 23:47**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11_n(40MHz)**

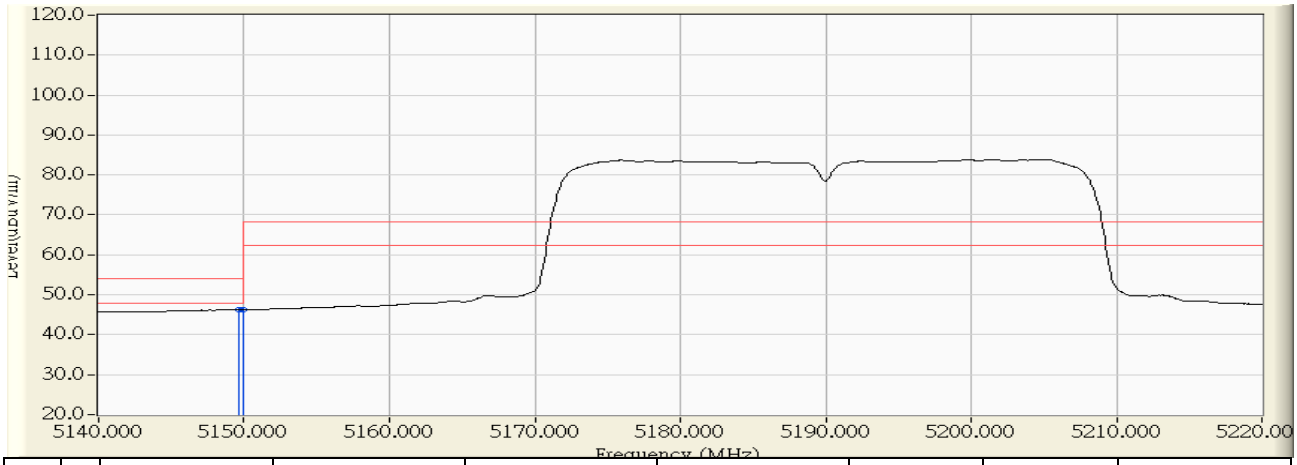


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.520	0.826	57.652	58.479	-15.521	74.000	PEAK
2	*	5150.000	0.831	57.825	58.656	-15.344	74.000	PEAK

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 : 2011/11/30 - 23:48**
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 Ethernet Adapter	**Note : Mode 1: Transmit (Adapter: DVE)** **5190MHz_802.11_n(40MHz)**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5149.600	0.827	45.430	46.258	-7.742	54.000	AVERAGE
2		5150.000	0.831	45.409	46.240	-7.760	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

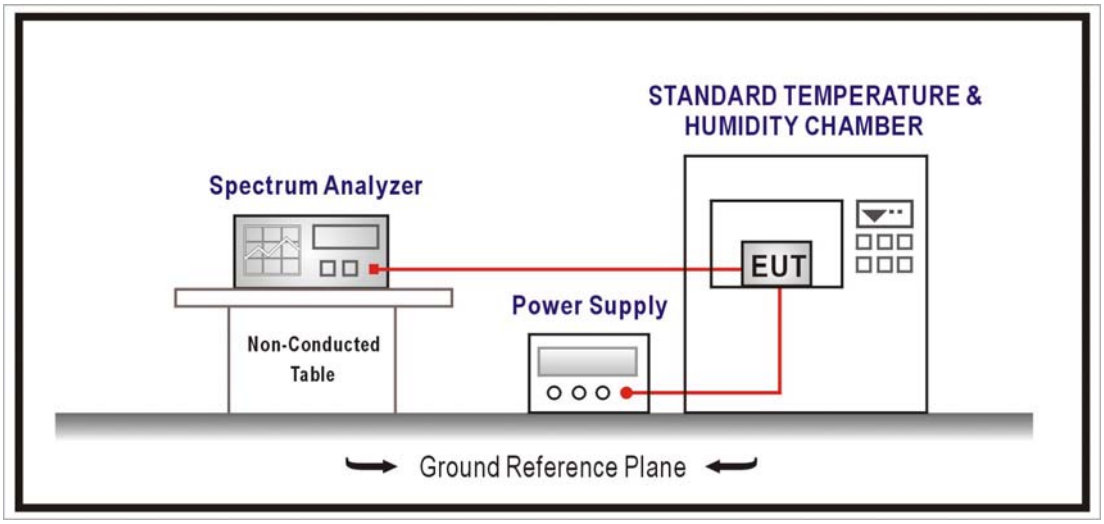
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Cal. Date	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2011/01/17	2012/01/16
Standard Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2011/01/31	2012/01/30

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 DTS test procedure of Aug 2002 DA 02-2138 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 Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11a - 5180MHz		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3107	59.4094	PASS
-10		5230.2423	46.3323	PASS
0		5230.6015	115.0026	PASS
10		5230.5047	96.4981	PASS
20		5230.5815	111.1856	PASS
30		5230.4282	81.8722	PASS
40		5230.1192	22.8003	PASS
50		5230.4341	83.0050	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3899	74.55210	PASS
	120	5230.8098	154.8406	PASS
	138	5230.7236	138.3481	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11a - 5240MHz		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5180MHz(ANT 0)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3107	59.4094	PASS
-10		5230.2423	46.3323	PASS
0		5230.6015	115.0026	PASS
10		5230.5047	96.4981	PASS
20		5230.5815	111.1856	PASS
30		5230.4282	81.8722	PASS
40		5230.1192	22.8003	PASS
50		5230.4341	83.0050	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3899	74.5521	PASS
	120	5230.8098	154.8406	PASS
	138	5230.7236	138.3481	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5240MHz(ANT 0)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5180MHz(ANT 1)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3107	59.4094	PASS
-10		5230.2423	46.3323	PASS
0		5230.6015	115.0026	PASS
10		5230.5047	96.4981	PASS
20		5230.5815	111.1856	PASS
30		5230.4282	81.8722	PASS
40		5230.1192	22.8003	PASS
50		5230.4341	83.0050	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3899	74.5521	PASS
	120	5230.8098	154.8406	PASS
	138	5230.7236	138.3481	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5240MHz(ANT 1)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5180MHz (ANT 2)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3107	59.4094	PASS
-10		5230.2423	46.3323	PASS
0		5230.6015	115.0026	PASS
10		5230.5047	96.4981	PASS
20		5230.5815	111.1856	PASS
30		5230.4282	81.8722	PASS
40		5230.1192	22.8003	PASS
50		5230.4341	83.0050	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3899	74.5521	PASS
	120	5230.8098	154.8406	PASS
	138	5230.7236	138.3481	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_20M - 5240MHz (ANT 2)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.7049	134.5247	PASS
-10		5240.4988	95.1994	PASS
0		5240.2155	41.1258	PASS
10		5240.7193	137.2709	PASS
20		5240.4371	83.4203	PASS
30		5240.5265	100.4809	PASS
40		5240.2347	44.7967	PASS
50		5240.1145	21.8477	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.4173	79.6448	PASS
	120	5240.6479	123.6420	PASS
	138	5240.5453	104.0620	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M - 5190MHz(ANT 0)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.8355	159.7530	PASS
-10		5230.0850	16.2555	PASS
0		5230.4148	79.3090	PASS
10		5230.3296	63.0179	PASS
20		5230.2056	39.3070	PASS
30		5230.1780	34.0383	PASS
40		5230.0028	0.5383	PASS
50		5230.3780	72.2766	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.8328	159.2260	PASS
	120	5230.8143	155.7004	PASS
	138	5230.3810	72.8551	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M - 5230MHz(ANT 0)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M - 5190MHz(ANT 1)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.8355	159.7530	PASS
-10		5230.0850	16.2555	PASS
0		5230.4148	79.3090	PASS
10		5230.3296	63.0179	PASS
20		5230.2056	39.3070	PASS
30		5230.1780	34.0383	PASS
40		5230.0028	0.5383	PASS
50		5230.3780	72.2766	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.8328	159.2260	PASS
	120	5230.8143	155.7004	PASS
	138	5230.3810	72.8551	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M - 5230MHz(ANT 1)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M - 5190MHz(ANT 2)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.8355	159.7530	PASS
-10		5230.0850	16.2555	PASS
0		5230.4148	79.3090	PASS
10		5230.3296	63.0179	PASS
20		5230.2056	39.3070	PASS
30		5230.1780	34.0383	PASS
40		5230.0028	0.5383	PASS
50		5230.3780	72.2766	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.8328	159.2260	PASS
	120	5230.8143	155.7004	PASS
	138	5230.3810	72.8551	PASS

Product	Dual-band Wireless-N Ethernet Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (Adapter: DVE) - 802.11n_40M -5230MHz(ANT 2)		
Date of Test	2011/12/05	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.7124	136.2134	PASS
-10		5230.7585	145.0245	PASS
0		5230.3706	70.8691	PASS
10		5230.6896	131.8486	PASS
20		5230.7814	149.4053	PASS
30		5230.3955	75.6272	PASS
40		5230.2566	49.0633	PASS
50		5230.5120	97.9059	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.1830	34.9941	PASS
	120	5230.0795	15.2011	PASS
	138	5230.5951	113.7896	PASS