40 MHz BW

▣ RESULT PLOTS (5190 MHz ~5230 MHz)

Conducted Output Power (802.11n-CH 46) 13.5 Mbps

Conducted Output Power (802.11n-CH 46) 27 Mbps

Conducted Output Power (802.11n-CH 46) 40.5 Mbps

Conducted Output Power (802.11n-CH 46) 54 Mbps

Conducted Output Power (802.11n-CH 46) 81 Mbps

Conducted Output Power (802.11n-CH 46) 108 Mbps

Conducted Output Power (802.11n-CH 46) 121.5 Mbps

Conducted Output Power (802.11n-CH 46) 135 Mbps

▣ RESULT PLOTS (5270 MHz ~5310 MHz)

Conducted Output Power (802.11n-CH 62) 13.5 Mbps

Conducted Output Power (802.11n-CH 62) 27 Mbps

Conducted Output Power (802.11n-CH 62) 40.5 Mbps

Conducted Output Power (802.11n-CH 62) 54 Mbps

Conducted Output Power (802.11n-CH 62) 81 Mbps

Conducted Output Power (802.11n-CH 62) 108 Mbps

Conducted Output Power (802.11n-CH 62) 121.5 Mbps

Conducted Output Power (802.11n-CH 62) 135 Mbps

▣ RESULT PLOTS (5510 MHz ~5670 MHz)

Conducted Output Power (802.11n-CH 110) 13.5 Mbps

Conducted Output Power (802.11n-CH 110) 27 Mbps

Conducted Output Power (802.11n-CH 110) 40.5 Mbps

Conducted Output Power (802.11n-CH 110) 54 Mbps

Conducted Output Power (802.11n-CH 110) 81 Mbps

Conducted Output Power (802.11n-CH 110) 108 Mbps

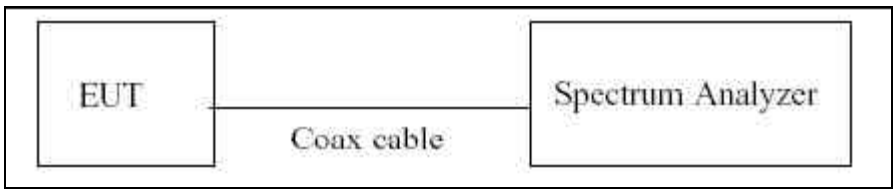
Conducted Output Power (802.11n-CH 110) 121.5 Mbps

Conducted Output Power (802.11n-CH 110) 135 Mbps

8.4 POWER SPECTRAL DENSITY

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies. The maximum permissible peak power spectral density is 4 dBm/ MHz in the 5.15 GHz – 5.25 GHz band and 11 dBm/ MHz in the 5.25 GHz – 5.35 GHz and 5.47 GHz – 5.725 GHz bands

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

We tested according to Method in KDB 789033(issued 04/08/2013).

The spectrum analyzer is set to :

1. Set span to encompass the entire emission bandwidth(EBW) of the signal.
2. RBW = 1 MHz.
3. VBW ≥ 3 MHz.
4. Number of points in sweep ≥ 2*span/RBW.
5. Sweep time = auto.
6. Detector = RMS(i.e., power averaging), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to “free run”.
8. Trace average at least 100 traces in power averaging(RMS) mode
9. Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
10. If Method SA-2 was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum.

▣ Sample Calculation

PSD = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor

Output Power = -5 dBm + 10 dB + 0.8 dB + 0.21 dB = 16.01 dBm

Note :

1. Spectrum reading values are not plot data. The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 5.2 GHz, 5.3 GHz and 5.6 GHz range that was rounded off to the closest tenth dB. Actual value of loss for the attenuator and cable combination is below table.

Band	Frequency(MHz)	Loss(dB)
UNII 1	5180	10.30
	5190	10.29
	5200	10.28
	5230	10.29
	5240	10.34
UNII 2	5260	10.37
	5270	10.38
	5300	10.40
	5310	10.39
	5320	10.39
UNII 2e	5500	10.35
	5510	10.36
	5550	10.41
	5580	10.43
	5670	10.43
	5700	10.30

(Actual value of loss for the attenuator and cable combination)

▣ TEST RESULTS

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result				
			Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail
5180	36	802.11a	-0.348	0.585	0.237	4	Pass
5200	40		-0.127	0.199	0.072	4	Pass
5240	48		0.104	0.305	0.409	4	Pass
5260	52	802.11a	0.395	0.199	0.594	11	Pass
5300	60		0.340	0.199	0.539	11	Pass
5320	64		0.497	0.199	0.696	11	Pass
5500	100	802.11a	-1.086	0.199	-0.887	11	Pass
5580	116		-0.212	0.199	-0.013	11	Pass
5700	140		-1.027	0.742	-0.285	11	Pass

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result				
			Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail
5180	36	802.11n 20MHz BW	-1.094	0.216	-0.878	4	Pass
5200	40		-1.197	0.216	-0.981	4	Pass
5240	48		-0.918	0.216	-0.702	4	Pass
5260	52	802.11n 20MHz BW	-0.790	0.216	-0.574	11	Pass
5300	60		-0.898	0.615	-0.283	11	Pass
5320	64		-0.443	0.615	0.172	11	Pass
5500	100	802.11n 20MHz BW	-2.006	0.216	-1.790	11	Pass
5580	116		-1.575	0.216	-1.359	11	Pass
5700	140		-1.735	0.615	-1.120	11	Pass

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result				
			Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail
5190	38	802.11n 40MHz BW	-3.685	0.436	-3.249	4	Pass
5230	46		-3.792	0.436	-3.356	4	Pass
5270	54	802.11n 40MHz BW	-3.507	0.436	-3.071	11	Pass
5310	62		-3.509	0.78	-2.729	11	Pass
5510	102	802.11n 40MHz BW	-4.668	0.436	-4.232	11	Pass
5550	110		-4.459	0.436	-4.023	11	Pass
5670	134		-4.640	0.436	-4.204	11	Pass

Note : In order to simplify the report, attached plots were only the highest PSD channel.

▣ RESULT PLOTS

Power Spectral Density (802.11a-CH 48)

Power Spectral Density (802.11a-CH 64)

Power Spectral Density (802.11a-CH 116)

20 MHz BW

Power Spectral Density (802.11n-CH 48)

Power Spectral Density (802.11n-CH 64)

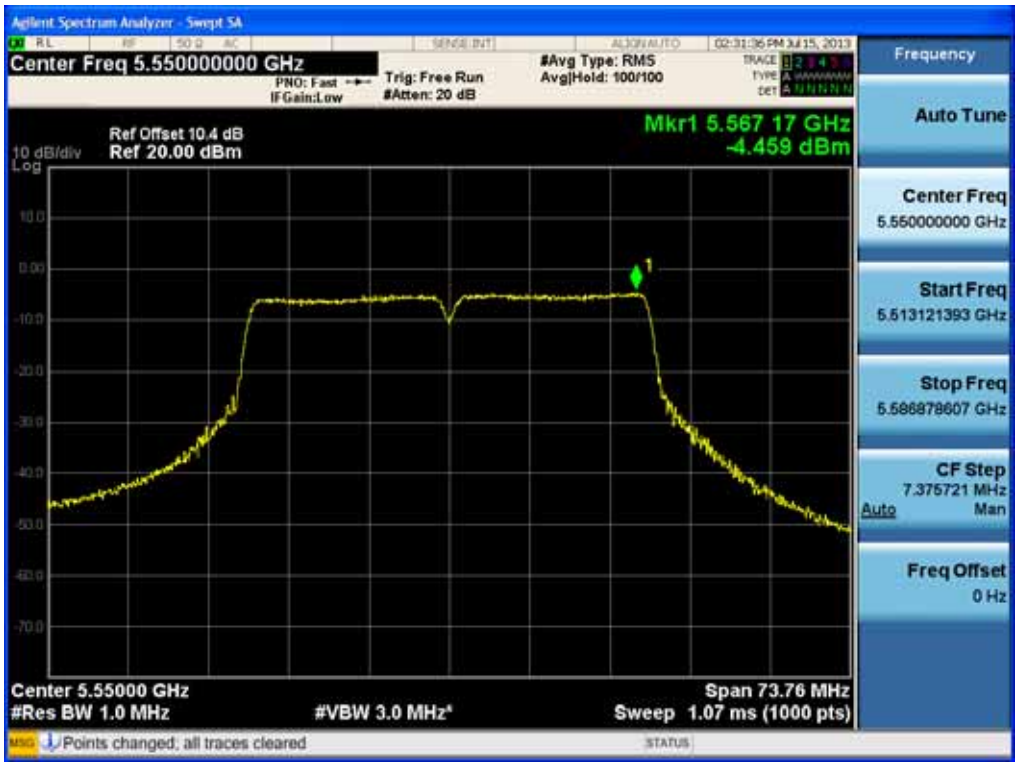
Power Spectral Density (802.11n-CH 140)

40 MHz BW

Power Spectral Density (802.11n-CH 38)

Power Spectral Density (802.11n-CH 62)

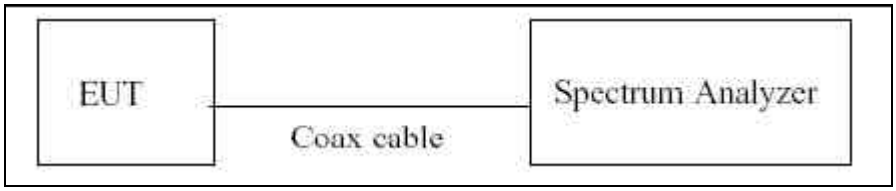
Power Spectral Density (802.11n-CH 110)



8.5 PEAK EXCURSION RATIO

The spectrum analyzer was connected to the antenna terminal while the EUT was operating in the continuous transmission mode at the appropriate center frequencies. The largest permissible difference between the modulation envelope(measured using a peak hold function) and the maximum conducted output power 13 dB/MHz.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

We tested according to KDB 789033(issued 04/08/2013).

The spectrum analyzer is set to :

1. Span = Set the span to view the entire emission bandwidth.
2. RBW = 1 MHz
3. VBW ≥ 3 MHz
4. Detector Mode = Peak
5. Trace Mode = Max hold
6. Allow the sweeps to continue until the trace stabilizes.
7. Use the peak search function to find the peak of the spectrum.
8. Use the procedure to measure the PPSD
9. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

Note :

1. The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 5.2 GHz, 5.3 GHz and 5.6 GHz range that was rounded off to the closest tenth dB. Actual value of loss for the attenuator and cable combination is below table.

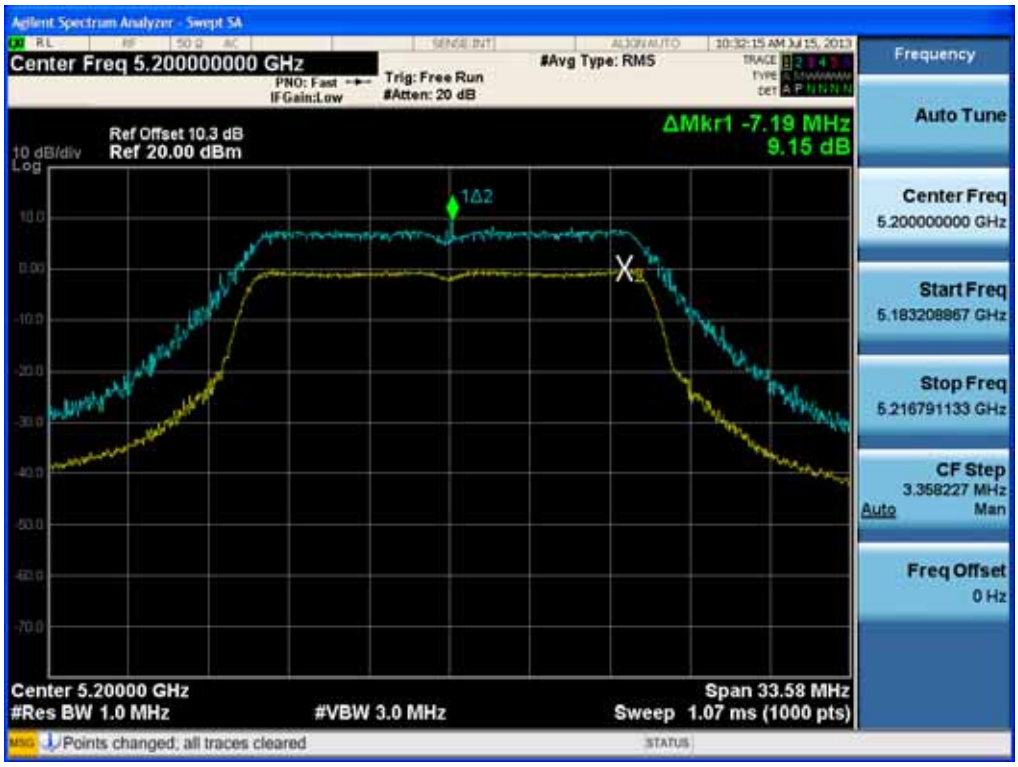
Band	Frequency(MHz)	Loss(dB)
UNII 1	5180	10.30
	5190	10.29
	5200	10.28
	5230	10.29
	5240	10.34
UNII 2	5260	10.37
	5270	10.38
	5300	10.40
	5310	10.39
	5320	10.39
UNII 2e	5500	10.35
	5510	10.36
	5550	10.41
	5580	10.43
	5670	10.43
	5700	10.30

(Actual value of loss for the attenuator and cable combination)

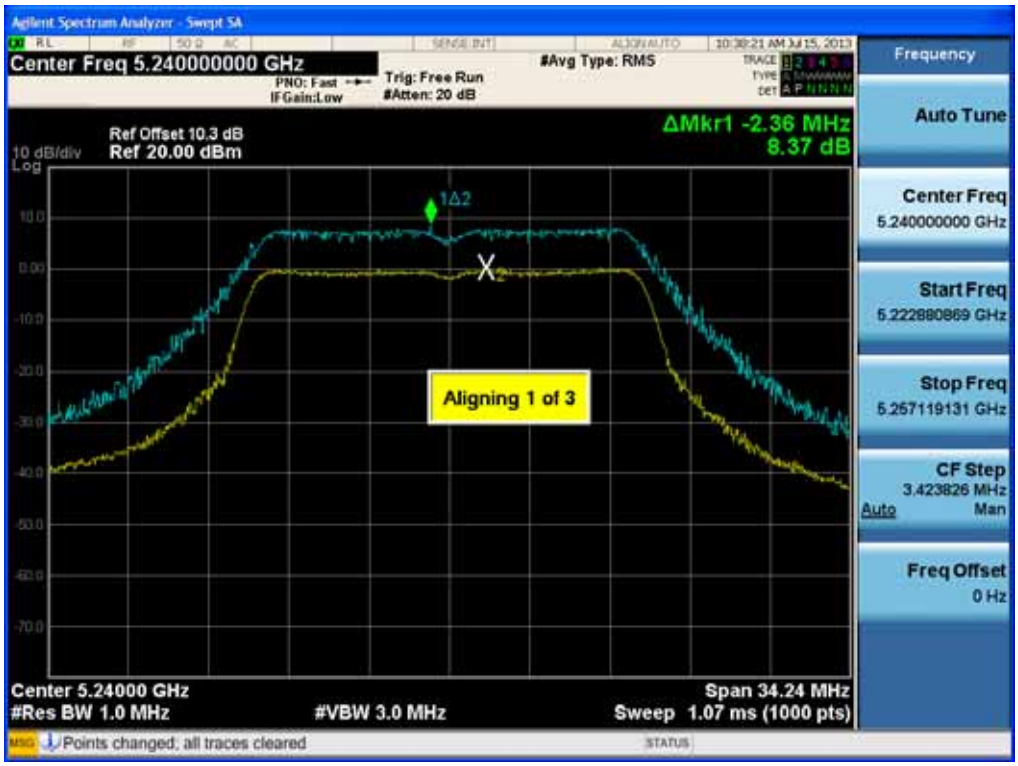
▣ RESULT PLOTS

Peak Excursion Ratio (802.11a-CH 36)

Peak Excursion Ratio (802.11a-CH 40)

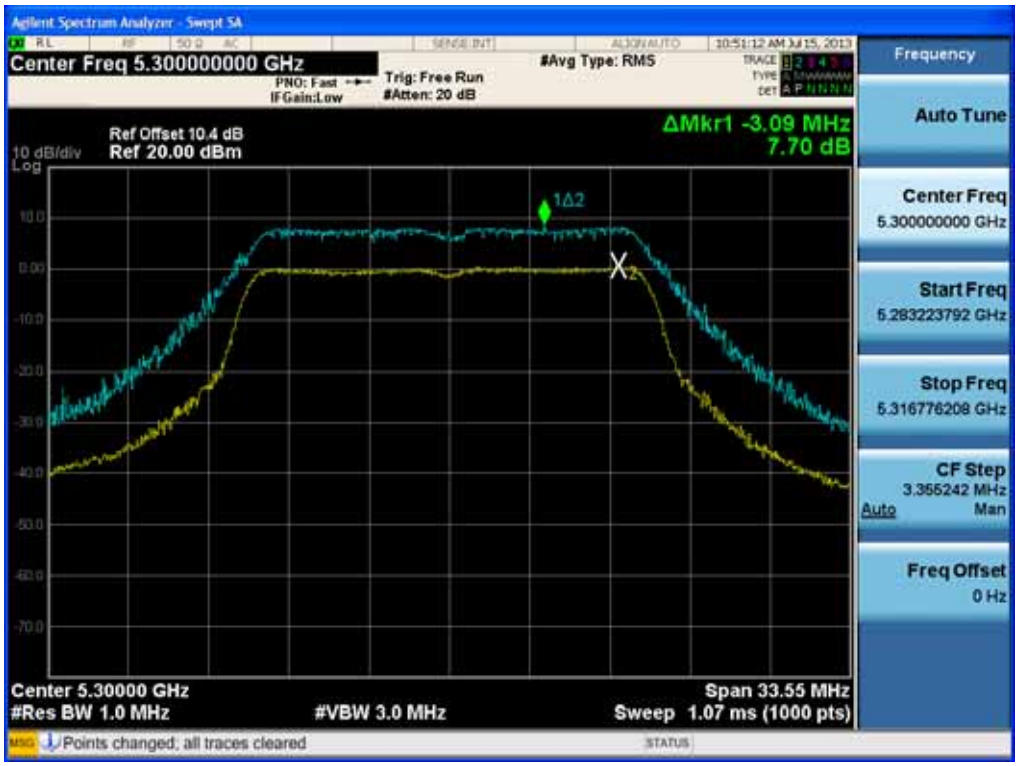


Peak Excursion Ratio (802.11a-CH 48)



Peak Excursion Ratio (802.11a-CH 52)

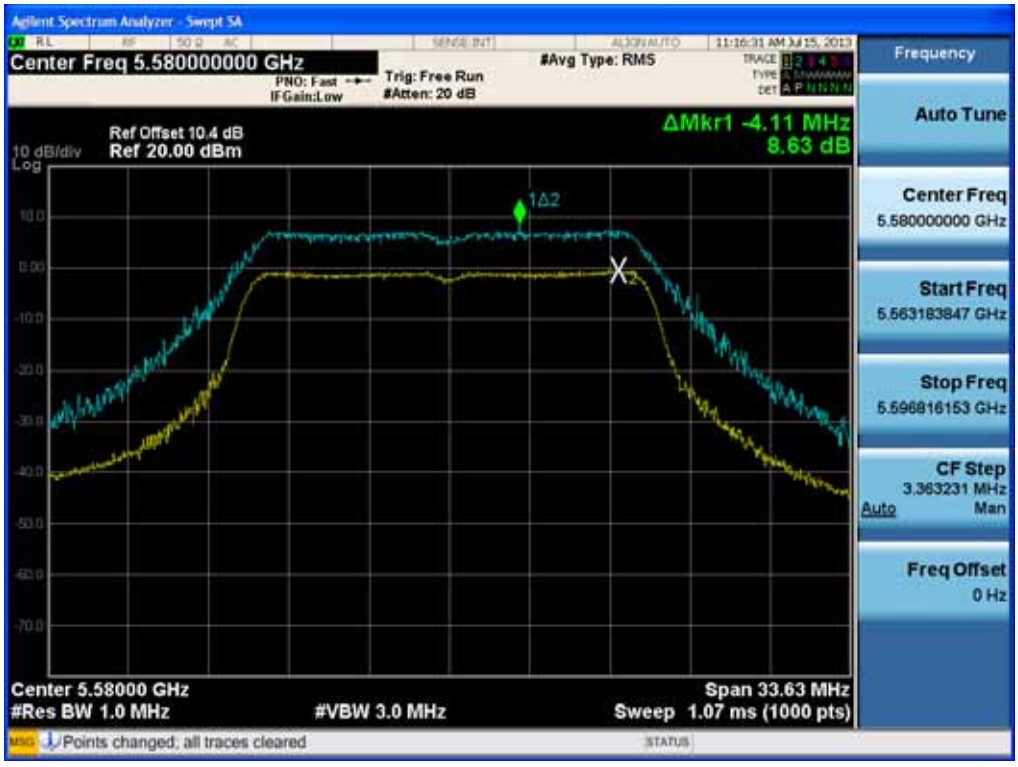
Peak Excursion Ratio (802.11a-CH 60)



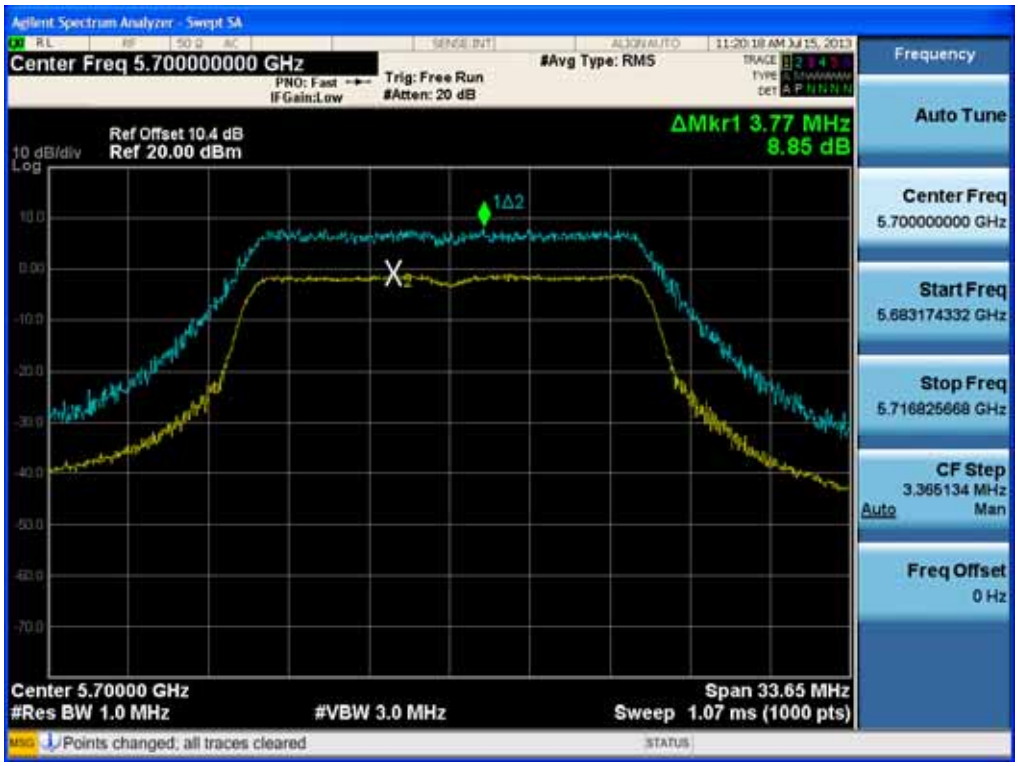
Peak Excursion Ratio (802.11a-CH 64)

Peak Excursion Ratio (802.11a-CH 100)

Peak Excursion Ratio (802.11a-CH 116)

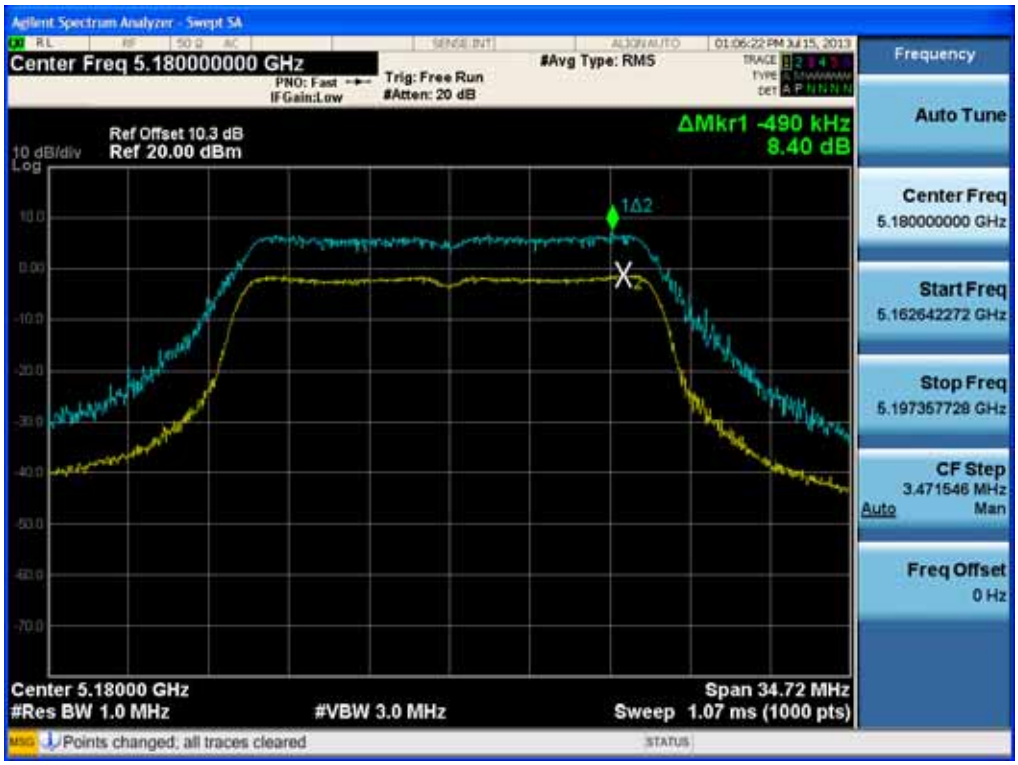


Peak Excursion Ratio (802.11a-CH 140)



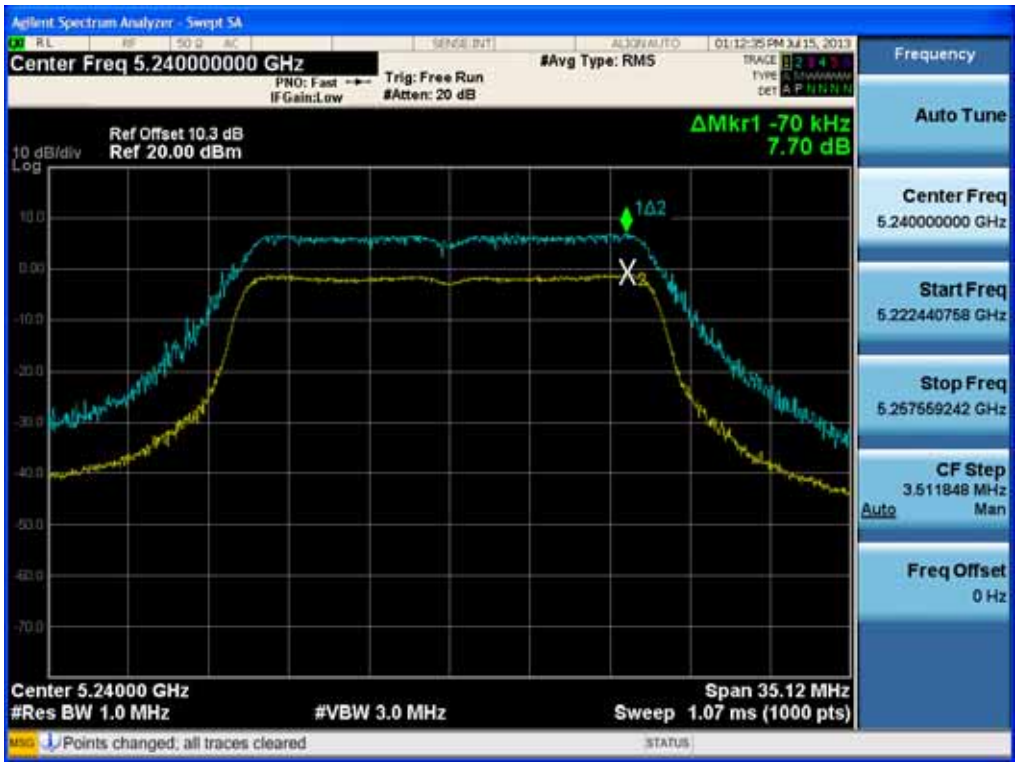
20 MHz BW

Peak Excursion Ratio (802.11n-CH 36)



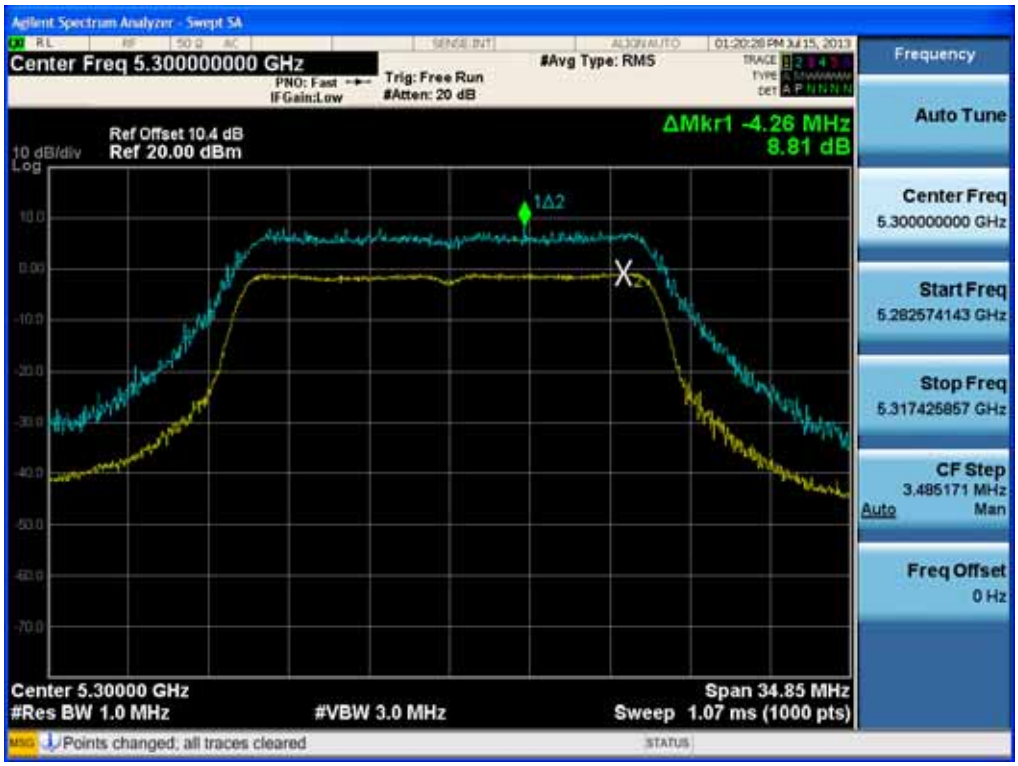
Peak Excursion Ratio (802.11n-CH 40)

Peak Excursion Ratio (802.11n-CH 48)



Peak Excursion Ratio (802.11n-CH 52)

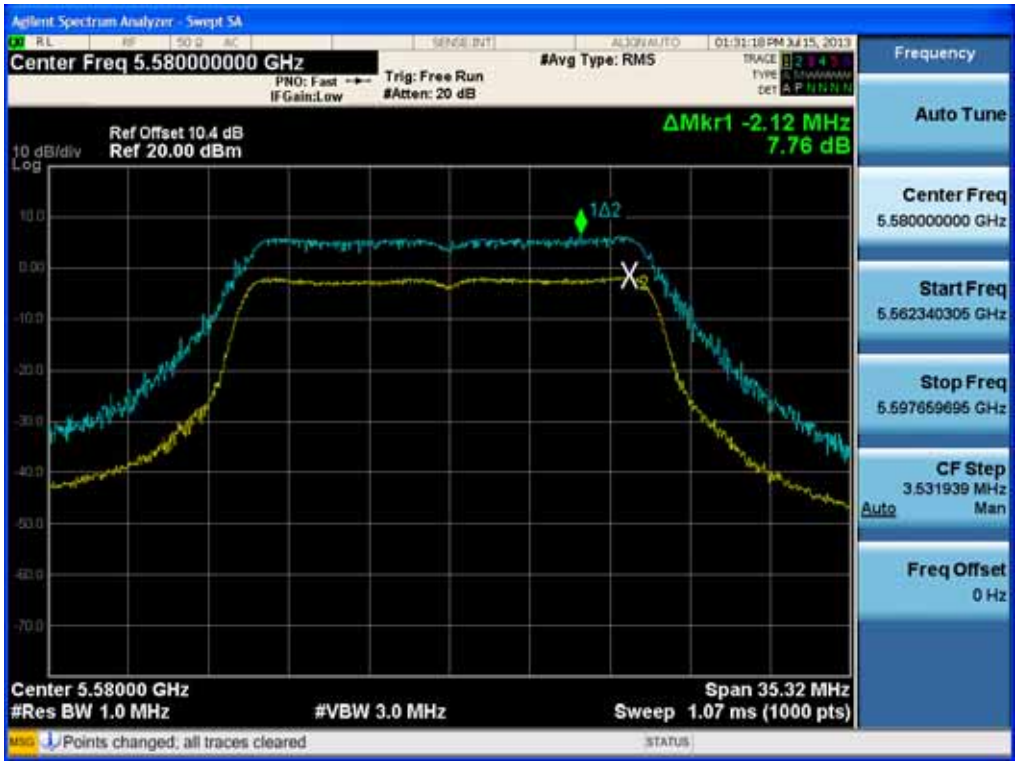
Peak Excursion Ratio (802.11n-CH 60)



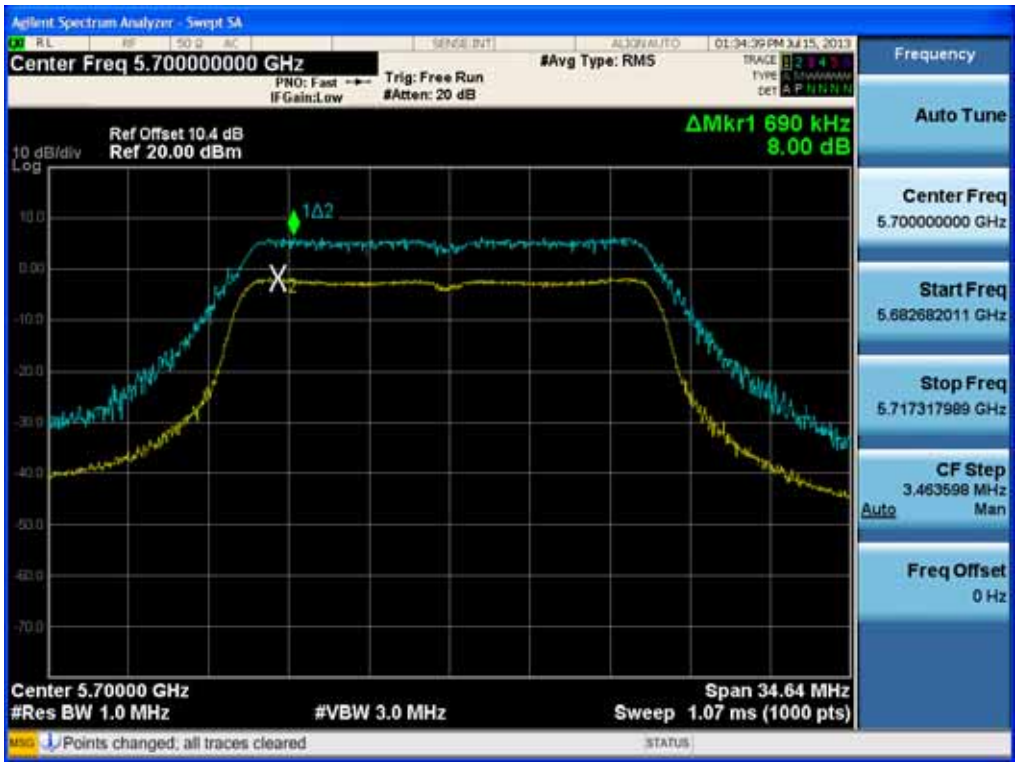
Peak Excursion Ratio (802.11n-CH 64)

Peak Excursion Ratio (802.11n-CH 100)

Peak Excursion Ratio (802.11n-CH 116)



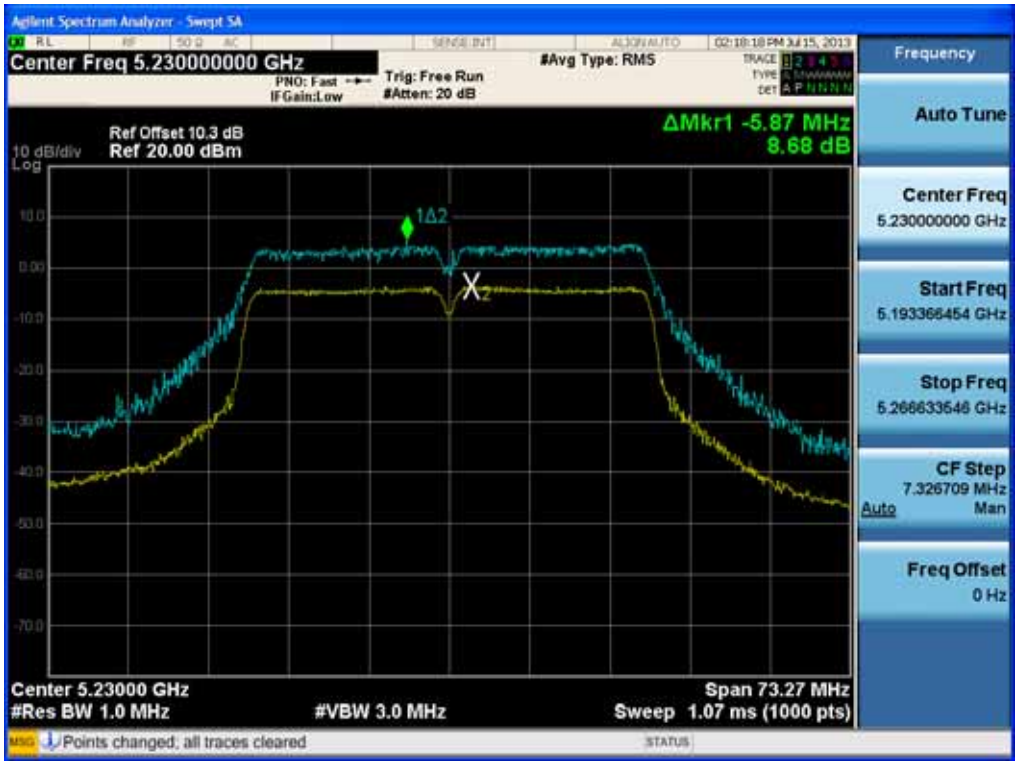
Peak Excursion Ratio (802.11n-CH 140)



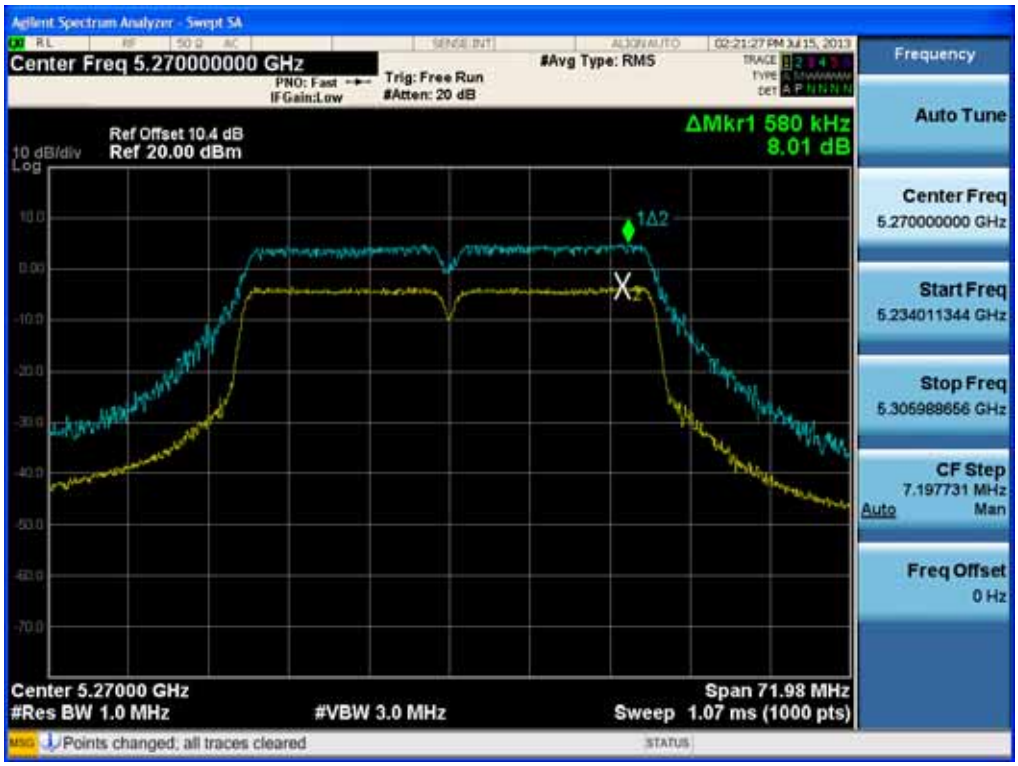
40 MHz BW

Peak Excursion Ratio (802.11n-CH 38)

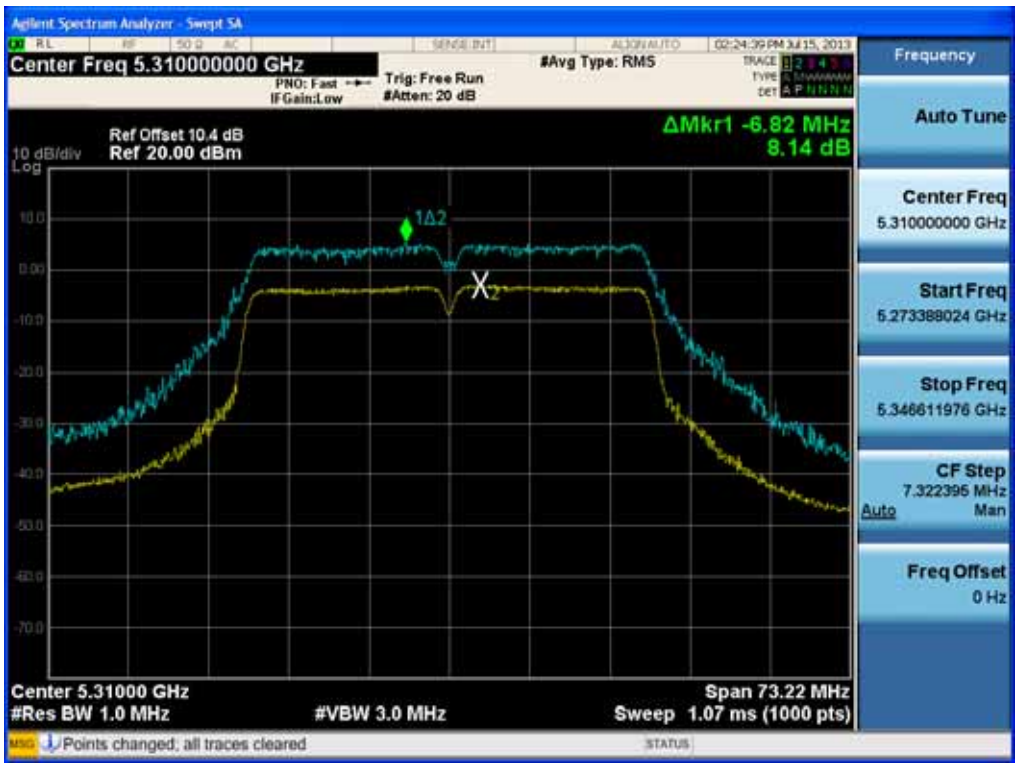
Peak Excursion Ratio (802.11n-CH 46)



Peak Excursion Ratio (802.11n-CH 54)

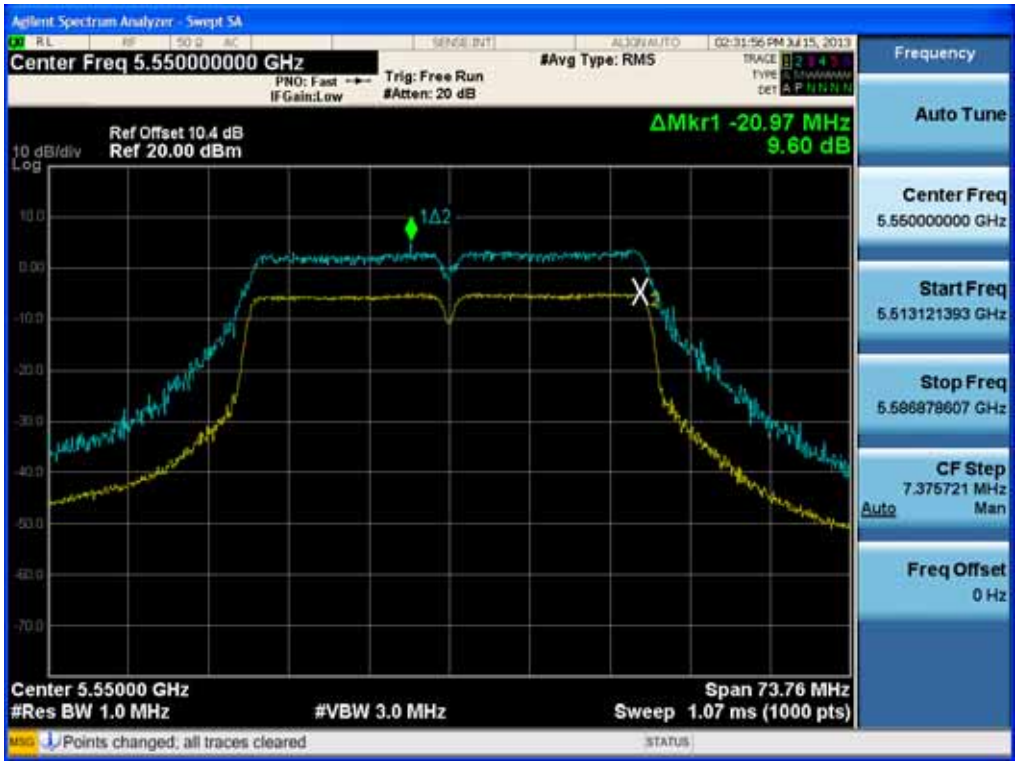


Peak Excursion Ratio (802.11n-CH 62)



Peak Excursion Ratio (802.11n-CH 102)

Peak Excursion Ratio (802.11n-CH 110)



Peak Excursion Ratio (802.11n-CH 134)

8.6 FREQUENCY STABILITY.

The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -30 °C and 50 °C. The temperature was incremented by 10 °C intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

20 MHz BW

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,200,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 199 956.00	-44.00
100%		-30	5 200 010.38	10.38
100%		-20	5 200 000.89	0.89
100%		-10	5 199 984.73	-15.27
100%		0	5 199 975.78	-24.22
100%		+10	5 199 961.86	-38.14
100%		+30	5 199 965.30	-34.7
100%		+40	5 199 960.56	-39.44
100%		+50	5 199 956.75	-43.25
115%	4.370	+20	5 199 955.77	-44.23
Batt. Endpoint	3.500	+20	5 199 955.64	-44.36

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2

OPERATING FREQUENCY: 5,300,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 299 952.00	-48.00
100%		-30	5 300 006.48	6.48
100%		-20	5 299 998.51	-1.49
100%		-10	5 299 980.45	-19.55
100%		0	5 299 971.68	-28.32
100%		+10	5 299 957.89	-42.11
100%		+30	5 299 949.62	-50.38
100%		+40	5 299 944.23	-55.77
100%		+50	5 299 939.35	-60.65
115%	4.370	+20	5 299 951.22	-48.78
Batt. Endpoint	3.500	+20	5 299 952.15	-47.85

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,580,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 579 946.00	-54.00
100%		-30	5 299 996.46	-3.54
100%		-20	5 299 991.53	-8.47
100%		-10	5 299 982.34	-17.66
100%		0	5 299 973.22	-26.78
100%		+10	5 299 959.59	-40.41
100%		+30	5 299 951.17	-48.83
100%		+40	5 299 946.33	-53.67
100%		+50	5 299 941.44	-58.56
115%	4.370	+20	5 299 945.71	-54.29
Batt. Endpoint	3.500	+20	5 299 946.21	-53.79

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

40 MHz BW

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 189 950.00	-50.00
100%		-30	5 190 004.38	4.38
100%		-20	5 189 993.11	-6.89
100%		-10	5 189 978.72	-21.28
100%		0	5 189 969.67	-30.33
100%		+10	5 189 956.83	-43.17
100%		+30	5 189 959.72	-40.28
100%		+40	5 189 954.34	-45.66
100%		+50	5 189 950.22	-49.78
115%	4.370	+20	5 189 949.40	-50.6
Batt. Endpoint	3.500	+20	5 189 950.27	-49.73

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2

OPERATING FREQUENCY: 5,310,000,000 Hz

CHANNEL: 62

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 309 950.00	-50.00
100%		-30	5 310 004.28	4.28
100%		-20	5 309 993.02	-6.98
100%		-10	5 309 978.18	-21.82
100%		0	5 309 969.72	-30.28
100%		+10	5 309 956.83	-43.17
100%		+30	5 309 959.15	-40.85
100%		+40	5 309 954.23	-45.77
100%		+50	5 309 950.13	-49.87
115%	4.370	+20	5 309 949.36	-50.64
Batt. Endpoint	3.500	+20	5 309 950.29	-49.71

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.8 VDC

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (kHz)	Frequency Error (kHz)
100%	3.800	+20(Ref)	5 509 948.00	-52.00
100%		-30	5 509 997.18	-2.82
100%		-20	5 509 991.11	-8.89
100%		-10	5 509 981.88	-18.12
100%		0	5 509 971.58	-28.42
100%		+10	5 509 959.79	-40.21
100%		+30	5 509 951.45	-48.55
100%		+40	5 509 947.88	-52.12
100%		+50	5 509 943.46	-56.54
115%	4.370	+20	5 509 947.88	-52.12
Batt. Endpoint	3.500	+20	5 509 948.13	-51.87

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

8.7 RADIATED MEASUREMENT.

8.7.1 RADIATED SPURIOUS EMISSIONS.

Test Requirements and limit, §15.205, §15.209, §15.407

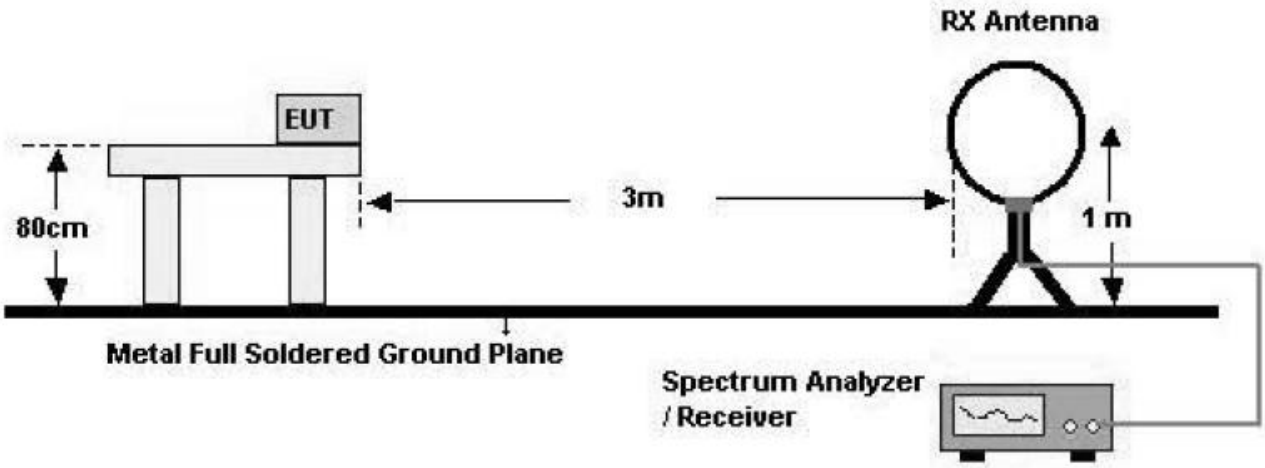
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

▣ §15.407, KDB 789033

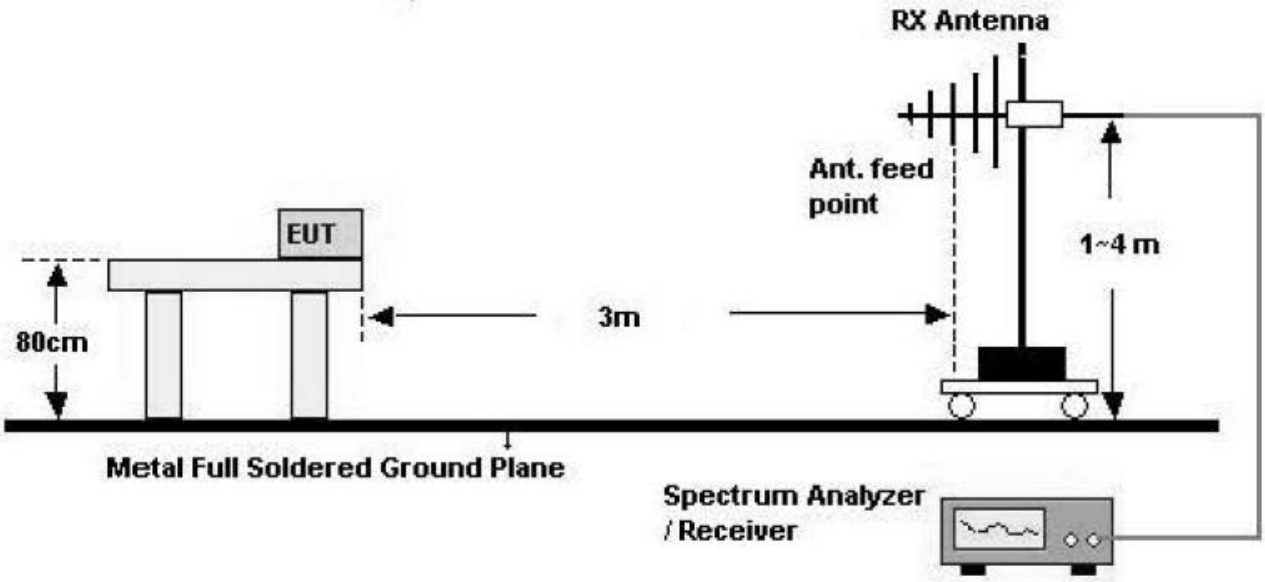
All harmonics that do not lie in a restricted band are subject to a peak limit of -27 dBm/MHz. At a distance of 3 meters the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2 dB to the EIRP limit of -27 dBm/MHz to obtain the limit for out of band spurious emissions of 68.2 dBμV/m.

Test Configuration

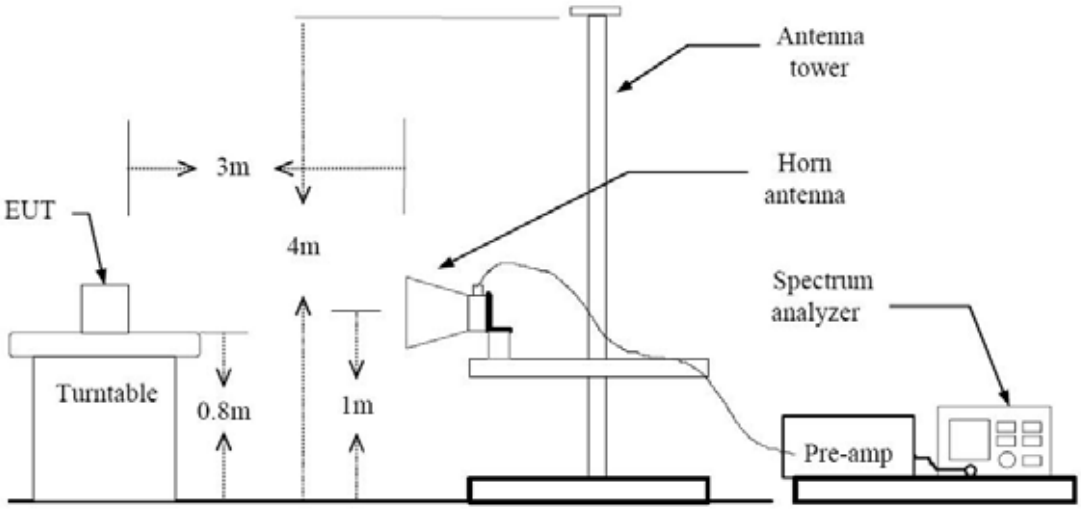
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



TEST PROCEDURE USED

ANSI C63.4(2003)

Method H)5) in KDB 789033, issued 04/08/2013 (Peak)

Method H)6)d) in KDB 789033, issued 04/08/2013 (Average)

. Spectrum setting:

- Peak.

1. RBW = 1 MHz
2. VBW ≥ 3 MHz
3. Detector = Peak
4. Sweep Time = auto
5. Trace mode = max hold
6. Allow sweeps to continue until the trace stabilizes.
7. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.

- Average (Method VB :Averaging using reduced video bandwidth)

1. RBW = 1 MHz
2. VBW
   2.1. If the EUT is configured to transmit with duty cycle ≥ 98 percent, set VBW ≤ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
   2.2. If the EUT duty cycle is < 98 percent, set VBW ≥ 1/T, where T is the minimum transmission duration.
3. The analyzer is set to linear detector mode.

4. Detector = Peak.
5. Sweep time = auto.
6. Trace mode = max hold.
7. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimym number of traces by a factor of 1/x, where x is the duty cycle.

Note :

1. We used the case 2 for802.11a/g/n_20/n_40 mode to perform the average filed strength measurements.
2. The actual setting value of VBW for 802.11a/g/n_20/n_40

Mode	Worst Data rate (Mbps)	T_{on} (ms)	T_{total} (ms)	Duty Cycle (%)	VBW(1/T) (Hz)	The actual setting value of VBW (Hz)
a	6	2.070	2.167	95.5	483.1	1000
n_20	6.5	1.919	2.017	95.1	521.1	1000
n_40	13.5	0.943	1.043	90.5	1060.4	3000

TEST RESULTS

9 kHz – 30MHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
㎒	dBμV	dB /m	dB	(H/V)	dBμV/m	dBμV/m	dB
No Critical peaks found							

Notes:

1. Measuring frequencies from 9 kHz to the 30MHz.
2. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
4. Limit line = specific Limits (dBuV) + Distance extrapolation factor
5. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

TEST RESULTS

Below 1 GHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
㎒	dBμV	dB /m	dB	(H/V)	dBμV/m	dBμV/m	dB
No Critical peaks found							

Notes:

1. Measuring frequencies from 30 MHz to the 1 GHz.
2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Above 1 GHz

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10360	51.88	9.33	V	61.21	68.20	6.99	PK
15540	44.63	14.61	V	59.24	73.98	14.74	PK
15540	31.46	14.61	V	46.07	53.98	7.91	AV
10360	51.44	9.33	H	60.77	68.20	7.43	PK
15540	44.30	14.61	H	58.91	73.98	15.07	PK
15540	31.49	14.61	H	46.10	53.98	7.88	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10400	50.99	10.13	V	61.12	68.20	7.08	PK
15600	44.64	14.60	V	59.24	73.98	14.74	PK
15600	31.55	14.60	V	46.15	53.98	7.83	AV
10400	50.47	10.13	H	60.60	68.20	7.60	PK
15600	45.23	14.60	H	59.83	73.98	14.15	PK
15600	31.49	14.60	H	46.09	53.98	7.89	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10480	50.75	10.20	V	60.95	68.20	7.25	PK
15720	46.11	13.47	V	59.58	73.98	14.40	PK
15720	32.61	13.47	V	46.08	53.98	7.90	AV
10480	51.20	10.20	H	61.40	68.20	6.80	PK
15720	46.01	13.47	H	59.48	73.98	14.50	PK
15720	32.55	13.47	H	46.02	53.98	7.96	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10360	50.43	9.33	V	59.76	68.20	8.44	PK
15540	44.99	14.61	V	59.60	73.98	14.38	PK
15540	31.27	14.61	V	45.88	53.98	8.10	AV
10360	50.37	9.33	H	59.70	68.20	8.50	PK
15540	44.45	14.61	H	59.06	73.98	14.92	PK
15540	31.19	14.61	H	45.80	53.98	8.18	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10400	49.84	10.13	V	59.97	68.20	8.23	PK
15600	44.77	14.60	V	59.37	73.98	14.61	PK
15600	31.57	14.60	V	46.17	53.98	7.81	AV
10400	49.38	10.13	H	59.51	68.20	8.69	PK
15600	44.96	14.60	H	59.56	73.98	14.42	PK
15600	31.55	14.60	H	46.15	53.98	7.83	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10480	50.56	10.20	V	60.76	68.20	7.44	PK
15720	46.12	13.47	V	59.59	73.98	14.39	PK
15720	32.47	13.47	V	45.94	53.98	8.04	AV
10480	50.44	10.20	H	60.64	68.20	7.56	PK
15720	46.84	13.47	H	60.31	73.98	13.67	PK
15720	32.54	13.47	H	46.01	53.98	7.97	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10380	49.46	9.70	V	59.16	68.20	9.04	PK
15570	45.41	14.62	V	60.03	73.98	13.95	PK
15570	32.22	14.62	V	46.84	53.98	7.14	AV
10380	48.48	9.70	H	58.18	68.20	10.02	PK
15570	45.11	14.62	H	59.73	73.98	14.25	PK
15570	32.19	14.62	H	46.81	53.98	7.17	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 1
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5230 MHz
Channel No.	46 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10460	49.46	10.26	V	59.72	68.20	8.48	PK
15690	45.86	14.33	V	60.19	73.98	13.79	PK
15690	33.20	14.33	V	47.53	53.98	6.45	AV
10460	49.01	10.26	H	59.27	68.20	8.93	PK
15690	45.74	14.33	H	60.07	73.98	13.91	PK
15690	33.10	14.33	H	47.43	53.98	6.55	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5260 MHz
Channel No.	52 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10520	50.96	10.38	V	61.34	68.20	6.86	PK
15780	47.48	14.38	V	61.86	73.98	12.12	PK
15780	32.46	14.38	V	46.84	53.98	7.14	AV
10520	50.65	10.38	H	61.03	68.20	7.17	PK
15780	45.78	14.38	H	60.16	73.98	13.82	PK
15780	32.41	14.38	H	46.79	53.98	7.19	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5300 MHz
Channel No.	60 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10600	49.86	10.39	V	60.25	73.98	13.73	PK
10600	35.68	10.39	V	46.07	53.98	7.91	AV
15900	44.36	14.00	V	58.36	73.98	15.62	PK
15900	31.05	14.00	V	45.05	53.98	8.93	AV
10600	49.96	10.39	H	60.35	73.98	13.63	PK
10600	35.42	10.39	H	45.81	53.98	8.17	AV
15900	44.59	14.00	H	58.59	73.98	15.39	PK
15900	31.09	14.00	H	45.09	53.98	8.89	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5320 MHz
Channel No.	64 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10640	49.94	10.50	V	60.44	73.98	13.54	PK
10640	35.65	10.50	V	46.15	53.98	7.83	AV
15960	44.98	14.27	V	59.25	73.98	14.73	PK
15960	30.80	14.27	V	45.07	53.98	8.91	AV
10640	49.72	10.50	H	60.22	73.98	13.76	PK
10640	35.48	10.50	H	45.98	53.98	8.00	AV
15960	44.45	14.27	H	58.72	73.98	15.26	PK
15960	30.71	14.27	H	44.98	53.98	9.00	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5260 MHz
Channel No.	52 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10520	49.94	10.38	V	60.32	68.20	7.88	PK
15780	45.99	14.38	V	60.37	73.98	13.61	PK
15780	32.45	14.38	V	46.83	53.98	7.15	AV
10520	50.14	10.38	H	60.52	68.20	7.68	PK
15780	45.76	14.38	H	60.14	73.98	13.84	PK
15780	32.42	14.38	H	46.80	53.98	7.18	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5300 MHz
Channel No.	60 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10600	49.24	10.39	V	59.63	73.98	14.35	PK
10600	34.31	10.39	V	44.70	53.98	9.28	AV
15900	44.57	14.00	V	58.57	73.98	15.41	PK
15900	31.09	14.00	V	45.09	53.98	8.89	AV
10600	48.79	10.39	H	59.18	73.98	14.80	PK
10600	34.12	10.39	H	44.51	53.98	9.47	AV
15900	44.66	14.00	H	58.66	73.98	15.32	PK
15900	31.11	14.00	H	45.11	53.98	8.87	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5320 MHz
Channel No.	64 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10640	49.40	10.50	V	59.90	73.98	14.08	PK
10640	34.33	10.50	V	44.83	53.98	9.15	AV
15960	44.60	14.27	V	58.87	73.98	15.11	PK
15960	30.72	14.27	V	44.99	53.98	8.99	AV
10640	49.55	10.50	H	60.05	73.98	13.93	PK
10640	34.22	10.50	H	44.72	53.98	9.26	AV
15960	45.19	14.27	H	59.46	73.98	14.52	PK
15960	30.77	14.27	H	45.04	53.98	8.94	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5270 MHz
Channel No.	54 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10540	49.33	10.55	V	59.88	68.20	8.32	PK
15810	45.76	14.26	V	60.02	73.98	13.96	PK
15810	32.93	14.26	V	47.19	53.98	6.79	AV
10540	49.00	10.55	H	59.55	68.20	8.65	PK
15810	45.66	14.26	H	59.92	73.98	14.06	PK
15810	32.91	14.26	H	47.17	53.98	6.81	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5310 MHz
Channel No.	62 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10620	47.27	10.25	V	57.52	73.98	16.46	PK
10620	33.80	10.25	V	44.05	53.98	9.93	AV
15930	44.08	13.62	V	57.70	73.98	16.28	PK
15930	31.66	13.62	V	45.28	53.98	8.70	AV
10620	47.20	10.25	H	57.45	73.98	16.53	PK
10620	33.69	10.25	H	43.94	53.98	10.04	AV
15930	44.25	13.62	H	57.87	73.98	16.11	PK
15930	31.61	13.62	H	45.23	53.98	8.75	AV

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11000	44.99	11.28	V	56.27	73.98	17.71	PK
11000	30.84	11.28	V	42.12	53.98	11.86	AV
16500	45.30	14.19	V	59.49	68.20	8.71	PK
11000	43.57	11.28	H	54.85	73.98	19.13	PK
11000	29.77	11.28	H	41.05	53.98	12.93	AV
16500	45.21	14.19	H	59.40	68.20	8.80	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5580 MHz
Channel No.	116 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11160	44.84	11.10	V	55.94	73.98	18.04	PK
11160	30.56	11.10	V	41.66	53.98	12.32	AV
16740	44.86	15.70	V	60.56	68.20	7.64	PK
11160	45.01	11.10	H	56.11	73.98	17.87	PK
11160	30.50	11.10	H	41.60	53.98	12.38	AV
16740	45.81	15.70	H	61.51	68.20	6.69	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5700 MHz
Channel No.	140 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11400	52.03	10.97	V	63.00	73.98	10.98	PK
11400	37.73	10.97	V	48.70	53.98	5.28	AV
17100	46.26	17.82	V	64.08	68.20	4.12	PK
11400	51.43	10.97	H	62.40	73.98	11.58	PK
11400	36.78	10.97	H	47.75	53.98	6.23	AV
17100	45.34	17.82	H	63.16	68.20	5.04	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11a. Worst case is 6 Mbps in 802.11a.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11000	42.71	11.28	V	53.99	73.98	19.99	PK
11000	29.21	11.28	V	40.49	53.98	13.49	AV
16500	45.23	14.19	V	59.42	68.20	8.78	PK
11000	43.60	11.28	H	54.88	73.98	19.10	PK
11000	30.10	11.28	H	41.38	53.98	12.60	AV
16500	45.20	14.19	H	59.39	68.20	8.81	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5580 MHz
Channel No.	116 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11160	42.52	11.10	V	53.62	73.98	20.36	PK
11160	28.99	11.10	V	40.09	53.98	13.89	AV
16740	45.13	15.70	V	60.83	68.20	7.37	PK
11160	42.36	11.10	H	53.46	73.98	20.52	PK
11160	28.83	11.10	H	39.93	53.98	14.05	AV
16740	45.26	15.70	H	60.96	68.20	7.24	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5700 MHz
Channel No.	140 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11400	50.00	10.97	V	60.97	73.98	13.01	PK
11400	34.70	10.97	V	45.67	53.98	8.31	AV
17100	45.04	17.82	V	62.86	68.20	5.34	PK
11400	50.86	10.97	H	61.83	73.98	12.15	PK
11400	34.74	10.97	H	45.71	53.98	8.27	AV
17100	45.89	17.82	H	63.71	68.20	4.49	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_20 MHz BW. Worst case is 6.5 Mbps in 802.11n_20 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5510 MHz
Channel No.	102 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11020	42.59	11.28	V	53.87	73.98	20.11	PK
11020	29.13	11.28	V	40.41	53.98	13.57	AV
16530	45.13	14.83	V	59.96	68.20	8.24	PK
11020	42.01	11.28	H	53.29	73.98	20.69	PK
11020	29.00	11.28	H	40.28	53.98	13.70	AV
16530	45.09	14.83	H	59.92	68.20	8.28	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5550 MHz
Channel No.	110 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11100	42.01	11.09	V	53.10	73.98	20.88	PK
11100	29.12	11.09	V	40.21	53.98	13.77	AV
16650	45.02	14.98	V	60.00	68.20	8.20	PK
11100	41.43	11.09	H	52.52	73.98	21.46	PK
11100	28.97	11.09	H	40.06	53.98	13.92	AV
16650	44.92	14.98	H	59.90	68.20	8.30	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

Band :	UNII 2e
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5670 MHz
Channel No.	134 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-Amp G. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11340	47.66	10.86	V	58.52	73.98	15.46	PK
11340	33.52	10.86	V	44.38	53.98	9.60	AV
17010	45.32	18.15	V	63.47	68.20	4.73	PK
11340	47.14	10.86	H	58.00	73.98	15.98	PK
11340	33.12	10.86	H	43.98	53.98	10.00	AV
17010	45.20	18.15	H	63.35	68.20	4.85	PK

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain
5. We have done all data rate in 802.11n_40 MHz BW. Worst case is 13.5 Mbps in 802.11n_40 MHz BW.
6. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

8.7.2 RADIATED RESTRICTED BAND EDGE MEASUREMENTS

Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	56.54	3.63	H	60.17	73.98	13.81	PK
5150	39.70	3.63	H	43.33	53.98	10.65	AV
5150	56.05	3.63	V	59.68	73.98	14.30	PK
5150	39.90	3.63	V	43.53	53.98	10.45	AV

Band :	UNII 1
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	56.98	3.63	H	60.61	73.98	13.37	PK
5150	39.45	3.63	H	43.08	53.98	10.90	AV
5150	56.84	3.63	V	60.47	73.98	13.51	PK
5150	39.23	3.63	V	42.86	53.98	11.12	AV

Band :	UNII 1
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	65.27	3.63	H	68.90	73.98	5.08	PK
5150	46.89	3.63	H	50.52	53.98	3.46	AV
5150	63.18	3.63	V	66.81	73.98	7.17	PK
5150	46.02	3.63	V	49.65	53.98	4.33	AV

Band :	UNII 2
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5320 MHz
Channel No.	64 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	53.12	4.45	H	57.57	73.98	16.41	PK
5350	38.03	4.45	H	42.48	53.98	11.50	AV
5350	53.42	4.45	V	57.87	73.98	16.11	PK
5350	38.25	4.45	V	42.7	53.98	11.28	AV

Band :	UNII 2
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6 Mbps
Operating Frequency	5320 MHz
Channel No.	64 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	53.98	4.45	H	58.43	73.98	15.55	PK
5350	38.12	4.45	H	42.57	53.98	11.41	AV
5350	53.62	4.45	V	58.07	73.98	15.91	PK
5350	38.00	4.45	V	42.45	53.98	11.53	AV

Band :	UNII 2
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5310 MHz
Channel No.	62 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	59.00	4.45	H	63.45	73.98	10.53	PK
5350	41.88	4.45	H	46.33	53.98	7.65	AV
5350	57.48	4.45	V	61.93	73.98	12.05	PK
5350	41.68	4.45	V	46.13	53.98	7.85	AV

Band :	UNII 2e
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading DBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	52.91	5.54	H	58.45	73.98	15.53	PK
5460	37.56	5.54	H	43.1	53.98	10.88	AV
5470	54.63	5.44	H	60.07	68.20	8.13	PK
5460	52.88	5.54	V	58.42	73.98	15.56	PK
5460	37.22	5.54	V	42.76	53.98	11.22	AV
5470	54.35	5.44	V	59.79	68.20	8.41	PK

Band :	UNII 2e
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5700 MHz
Channel No.	140 Ch

Frequency [MHz]	Reading DBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5725	56.55	6.80	H	63.35	68.20	4.85	PK
5725	56.78	6.80	V	63.58	68.20	4.62	PK

Band :	UNII 2e
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6 Mbps
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading DBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	53.02	5.54	H	58.56	73.98	15.42	PK
5460	37.01	5.54	H	42.55	53.98	11.43	AV
5470	54.62	5.44	H	60.06	68.20	8.14	PK
5460	53.23	5.54	V	58.77	73.98	15.21	PK
5460	36.78	5.54	V	42.32	53.98	11.66	AV
5470	54.99	5.44	V	60.43	68.20	7.77	PK

Band :	UNII 2e
Operation Mode:	802.11 n_20 MHz BW
Transfer Rate:	6.5 Mbps
Operating Frequency	5700 MHz
Channel No.	140 Ch

Frequency [MHz]	Reading DBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5725	57.23	6.80	H	64.03	68.20	4.17	PK
5725	57.00	6.80	V	63.80	68.20	4.40	AV

Band :	UNII 2e
Operation Mode:	802.11n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5510 MHz
Channel No.	102 Ch

Frequency [MHz]	Reading dBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	54.96	5.54	H	60.50	73.98	13.48	PK
5460	40.58	5.54	H	46.12	53.98	7.86	AV
5470	55.79	5.44	H	61.23	68.20	6.97	PK
5460	54.69	5.54	V	60.23	73.98	13.75	PK
5460	40.23	5.54	V	45.77	53.98	8.21	AV
5470	54.61	5.44	V	60.05	68.20	8.15	PK

Band :	UNII 2e
Operation Mode:	802.11 n_40 MHz BW
Transfer Rate:	13.5 Mbps
Operating Frequency	5670 MHz
Channel No.	134 Ch

Frequency [MHz]	Reading DBuV	AN.+CL+AMP+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5725	56.34	6.80	H	63.14	68.20	5.06	PK
5725	56.57	6.80	V	63.37	68.20	4.83	AV

8.8 POWERLINE CONDUCTED EMISSIONS

Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.
5. We are performed the AC Power Line Conducted Emission test for 6 Mbps, Ch.60 and 802.11a mode in UNII 2. Because 802.11a mode in UNII 2 is worst case.

▣ RESULT PLOTS

Conducted Emissions (Line 1)

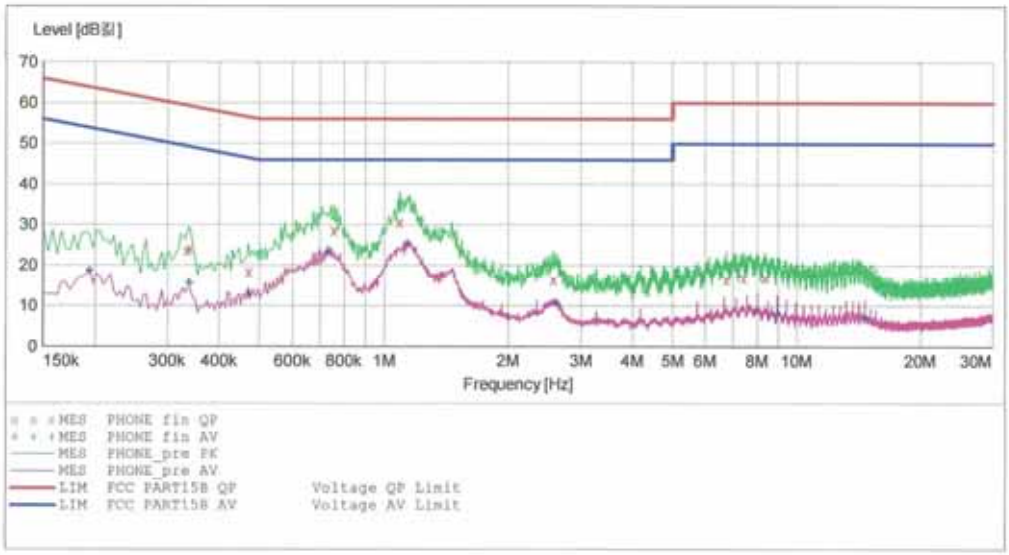
HCT

EMC

```
EUT:                    LG-D605
Manufacturer:           LG
Operating Condition:    WLAN(UNII) MODE
Test Site:              SHIELD ROOM
Operator:               KH SEO
Test Specification:     FCC PART15 B
Comment:                H
```

SCAN TABLE: "FCC CLASS B(H)"

```
Short Description:                  KN22 CLASS B
Start       Stop        Step        Detector    Meas.     IF       Transducer
Frequency   Frequency   Width                   Time      Bandw.
150.0 kHz   500.0 kHz   4.0 kHz     MaxPeak     10.0 ms   9 kHz    None
                                    Average
500.0 kHz   5.0 MHz     4.0 kHz     MaxPeak     10.0 ms   9 kHz    None
                                    Average
5.0 MHz     30.0 MHz    4.0 kHz     MaxPeak     10.0 ms   9 kHz    None
                                    Average
```



MEASUREMENT RESULT: "PHONE_fin QP"

2013-07-15 4:53오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.334001	23.60	9.8	59	35.7	---	---
0.338001	24.20	9.8	59	35.1	---	---
0.470001	18.50	9.8	57	38.1	---	---
0.756000	28.70	9.8	56	27.3	---	---
1.092000	30.70	9.9	56	25.3	---	---
2.576000	16.40	10.0	56	39.6	---	---
6.748000	16.50	10.3	60	43.5	---	---
7.416000	17.00	10.3	60	43.0	---	---
8.364000	16.90	10.4	60	43.1	---	---

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MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-15 4:53오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.194001	18.70	9.8	54	35.2	---	---
0.338001	15.70	9.8	49	33.6	---	---
0.470001	12.90	9.8	47	33.6	---	---
0.732000	23.50	9.8	46	22.5	---	---
1.140000	25.50	9.9	46	20.5	---	---
2.612000	10.60	10.0	46	35.4	---	---
8.024000	9.20	10.3	50	40.8	---	---
8.968000	7.90	10.4	50	42.1	---	---
14.620000	7.20	10.7	50	42.8	---	---

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Conducted Emissions (Line 2)

HCT

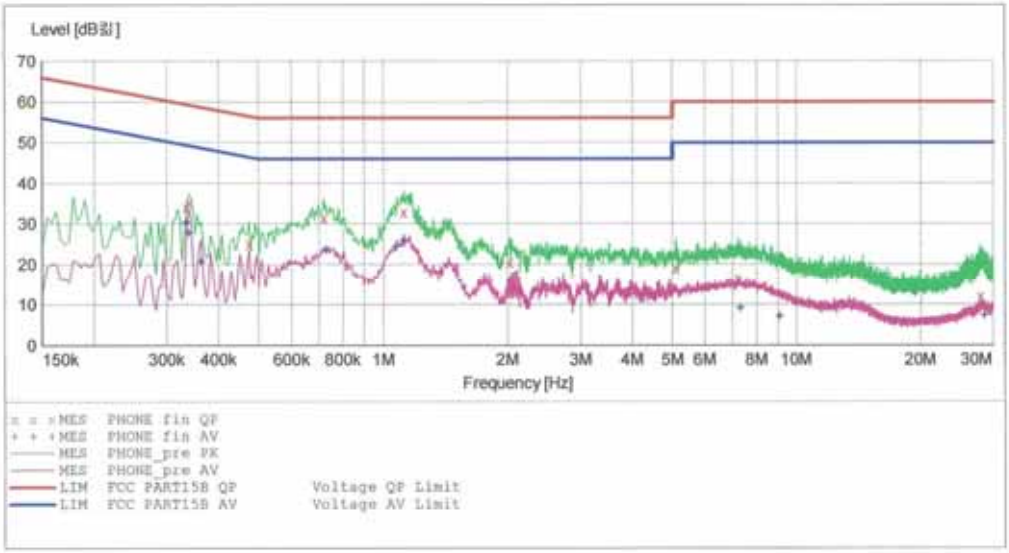
EMC

```
EUT:                  LG-D605
Manufacturer:         LG
Operating Condition:  WLAN(UNII) MODE
Test Site:            SHIELD ROOM
Operator:             KH SEO
Test Specification:   FCC PART15 B
Comment:              N
```

SCAN TABLE: "FCC CLASS B(N)"

Short Description: KN22 CLASS B

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE_fin QP"

2013-07-15 4:04오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.334001	34.10	10.0	59	25.3	---	---
0.338001	35.10	10.0	59	24.1	---	---
0.474001	25.10	10.0	56	31.3	---	---
0.720000	31.50	10.0	56	24.5	---	---
1.124000	32.90	10.1	56	23.1	---	---
2.024000	20.50	10.1	56	35.5	---	---
5.096000	19.00	10.4	60	41.0	---	---
7.208000	16.60	10.5	60	43.4	---	---
27.896000	12.10	11.7	60	47.9	---	---

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MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-15 4:04오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.334001	30.30	10.0	49	19.0	---	---
0.338001	27.70	10.0	49	21.5	---	---
0.362001	20.80	10.0	49	27.9	---	---
0.728000	23.70	10.0	46	22.3	---	---
1.076000	24.40	10.1	46	21.6	---	---
1.124000	25.90	10.1	46	20.1	---	---
7.312000	9.10	10.5	50	40.9	---	---
9.116000	7.10	10.6	50	42.9	---	---
28.632000	7.40	11.8	50	42.6	---	---

9. LIST OF TEST EQUIPMENT

Manufacturer	Model / Equipment	Calibration Interval	Calibration Due	Serial No.
Rohde & Schwarz	ENV216/ LISN	Annual	02/06/2014	100073
Schwarzbeck	VULB 9160/ TRILOG Antenna	Biennial	12/17/2014	3150
Rohde & Schwarz	ESI 40 / EMI TEST RECEIVER	Annual	04/16/2014	831564103
Agilent	E4440A/ Spectrum Analyzer	Annual	04/25/2014	US45303008
Agilent	N9020A/ SIGNAL ANALYZER	Annual	05/14/2014	MY51110063
HD	MA240/ Antenna Position Tower	N/A	N/A	556
EMCO	1050/ Turn Table	N/A	N/A	114
HD GmbH	HD 100/ Controller	N/A	N/A	13
HD GmbH	KMS 560/ SlideBar	N/A	N/A	12
Rohde & Schwarz	SCU-18/ Signal Conditioning Unit	Annual	09/11/2013	10094
MITEQ	AMF-6B-180265-35-10P / POWER AMP	Annual	04/16/2014	667624
CERNEX	CBL26405040 / POWER AMP	Annual	04/16/2014	19660
Schwarzbeck	BBHA 9120D/ Horn Antenna	Biennial	10/17/2013	937
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	Biennial	10/30/2014	BBHA9170124
Rohde & Schwarz	FSP / Spectrum Analyzer	Annual	02/08/2014	839117/011
Agilent	E4416A /Power Meter	Annual	11/07/2013	GB41291412
Agilent	E9327A /POWER SENSOR	Annual	04/16/2014	MY4442009
Wainwright Instrument	WHF3.0/18G-10EF / High Pass Filter	Annual	02/08/2014	F6
Wainwright Instrument	WHNX6.0/26.5G-6SS / High Pass Filter	Annual	04/16/2014	1
Wainwright Instrument	WHNX7.0/18G-8SS / High Pass Filter	Annual	04/16/2014	29
Wainwright Instrument	WRCJ2400/2483.5-2370/2520-60/14SS / Band Reject Filter	Annual	03/19/2014	1
Hewlett Packard	11636B/Power Divider	Annual	11/07/2013	11377
Agilent	87300B/Directional Coupler	Annual	12/24/2013	3116A03621
Hewlett Packard	11667B / Power Splitter	Annual	05/29/2014	05001
DIGITAL	EP-3010 /DC POWER SUPPLY	Annual	11/07/2013	3110117
ITECH	IT6720 / DC POWER SUPPLY	Annual	11/07/2013	010002156287001199
TESCOM	TC-3000C / BLUETOOTH TESTER	Annual	04/24/2014	3000C000276
Rohde & Schwarz	CBT / BLUETOOTH TESTER	Annual	04/25/2014	100422
EMCO	6502.LOOP ANTENNA	Biennial	01/11/2014	9009-2536
CERNEX	CBLU1183540 / POWER AMP	Annual	07/27/2013	21691
Agilent	8493C / Attenuator(10 dB)	Annual	07/30/2013	76649
WEINSCHEL	2-3 / Attenuator(3 dB)	Annual	11/07/2013	BR0617