6.6 Conducted Emissions at the Band Edge

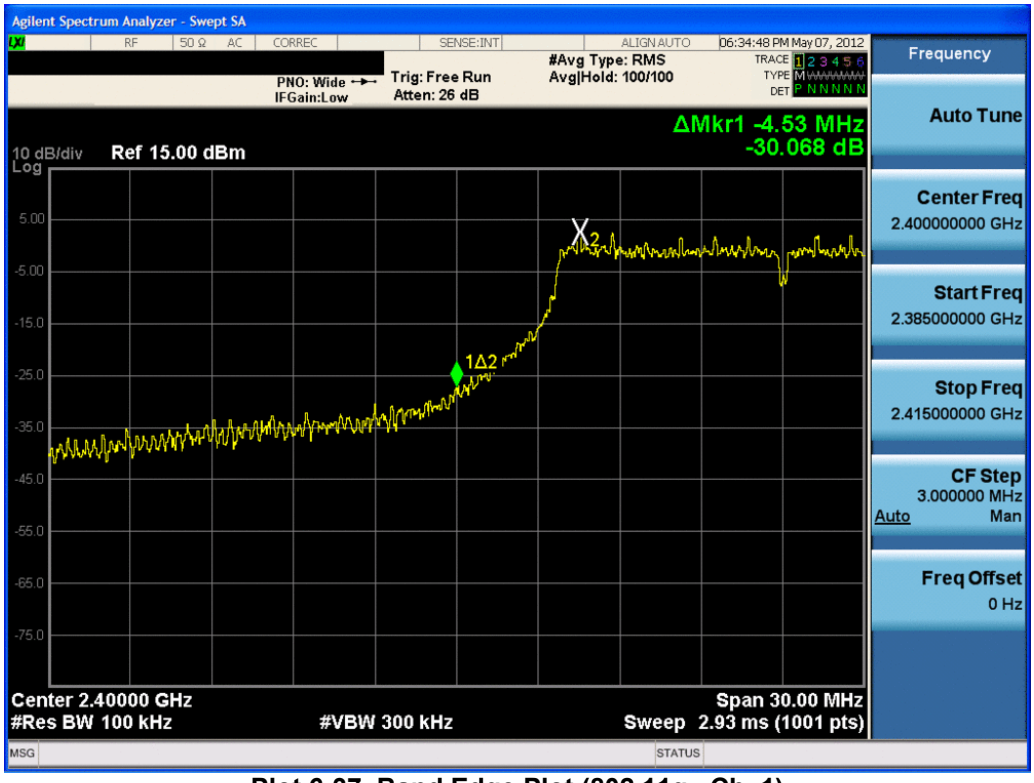
§15.247(d); RSS-210 [A8.5]

For the following out of band conducted spurious emissions plots at the band edge, the EUT was set at a data rate of 1Mbps for "b" mode, 6 Mbps for "g" mode, 6 Mbps for "a" mode, and 6.5/7.2Mbps for "n" mode. These settings produced the worst-case emissions.

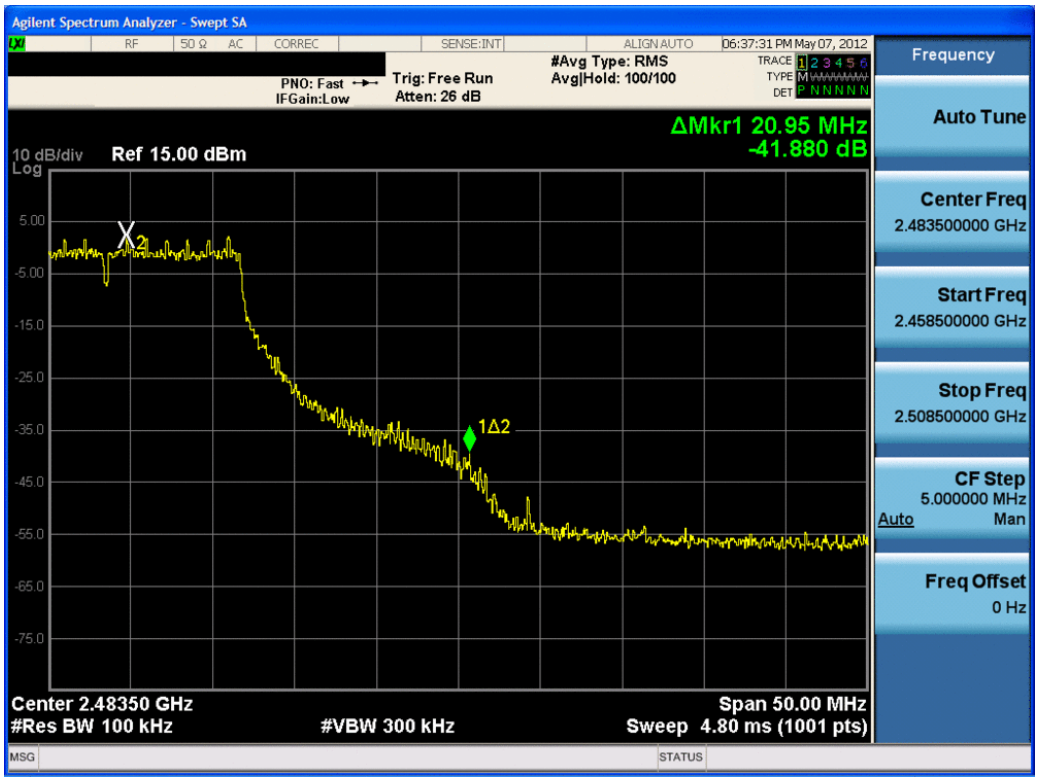
Per the guidance of KDB 558074, section 5.4.1.1, the reference level for out of band emissions is established from the plots of this section since the band edge emissions are measured with a RBW of 100kHz. This reference level is then used as the limit in subsequent plots for out of band spurious emissions shown in Section 6.7. The limit for out of band spurious emissions at the band edge is 30dB below the fundamental emission level measured in a 100kHz bandwidth.

Plot 6-35. Band Edge Plot (802.11b – Ch. 1)

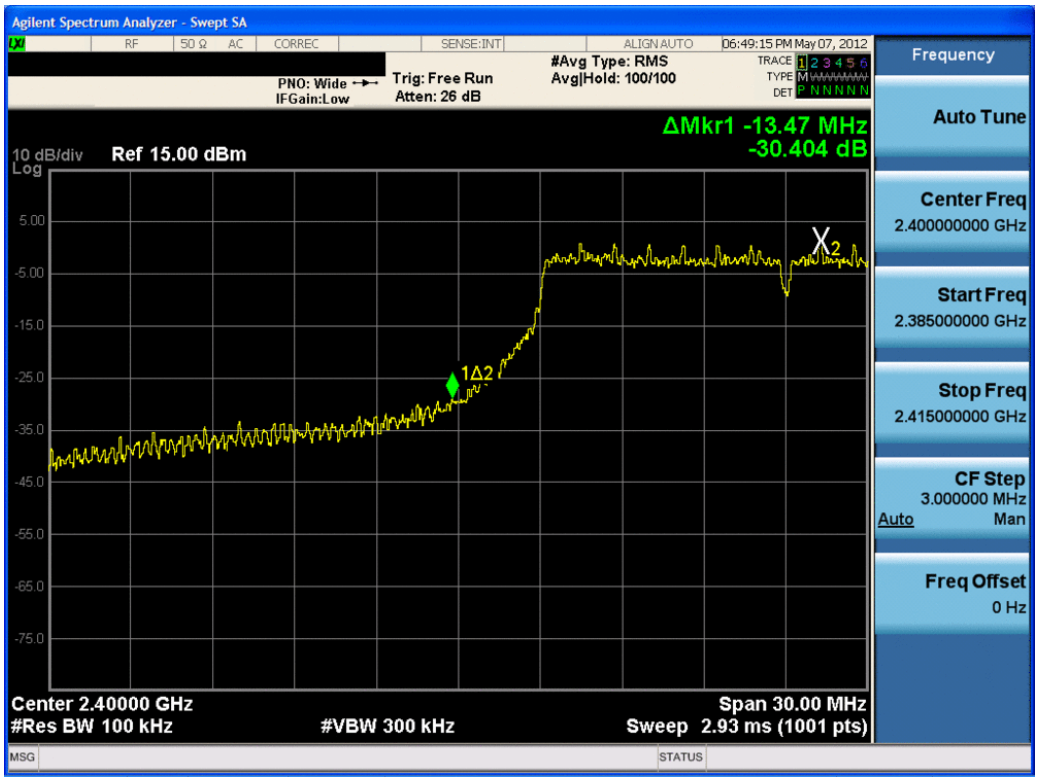
Plot 6-36. Band Edge Plot (802.11b – Ch. 11)



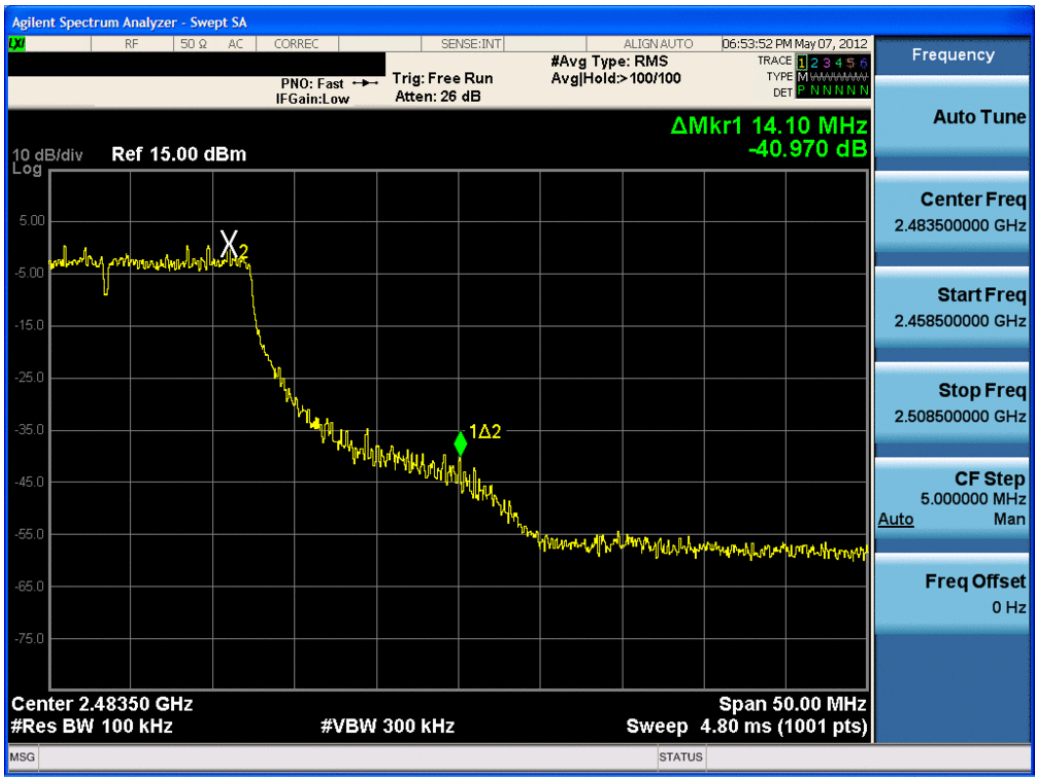
Plot 6-37. Band Edge Plot (802.11g– Ch. 1)



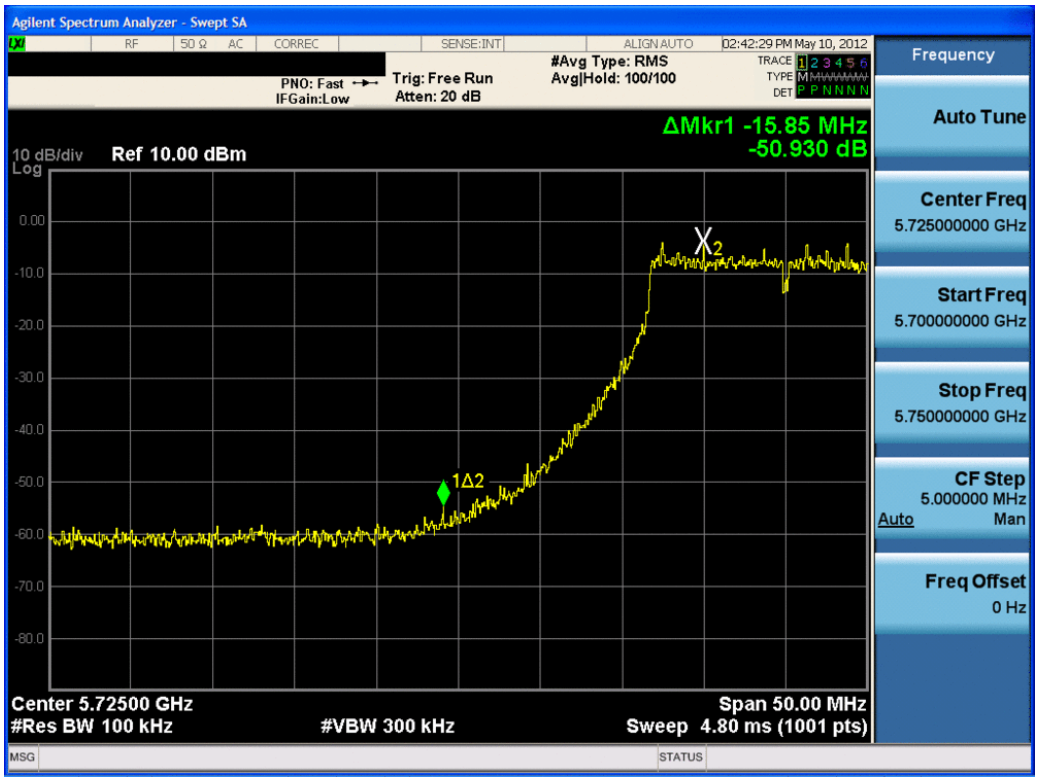
Plot 6-38. Band Edge Plot (802.11g – Ch. 11)



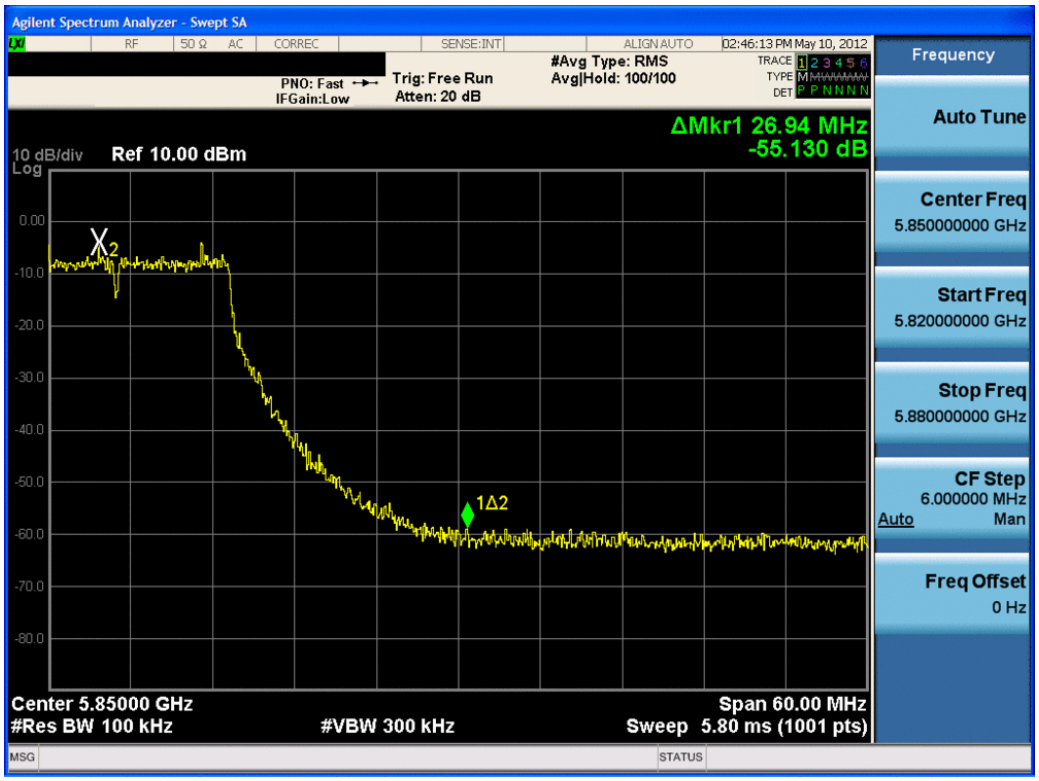
Plot 6-39. Band Edge Plot (802.11n (2.4GHz) – Ch. 1)



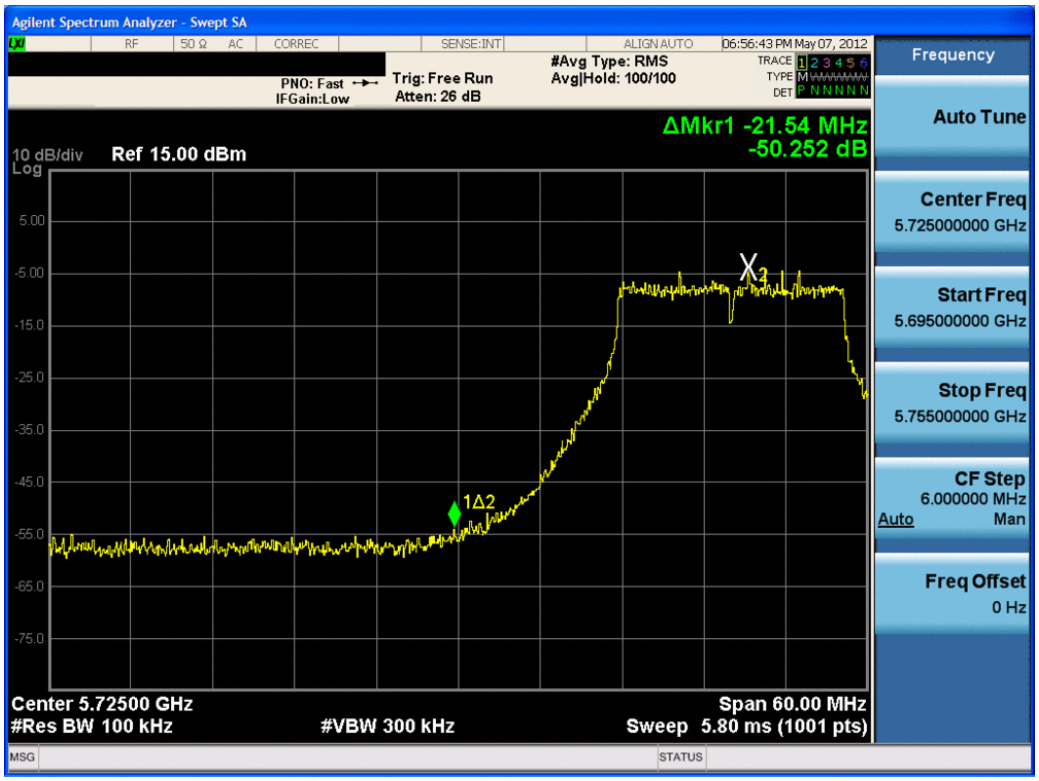
Plot 6-40. Band Edge Plot (802.11n (2.4GHz) – Ch. 11)



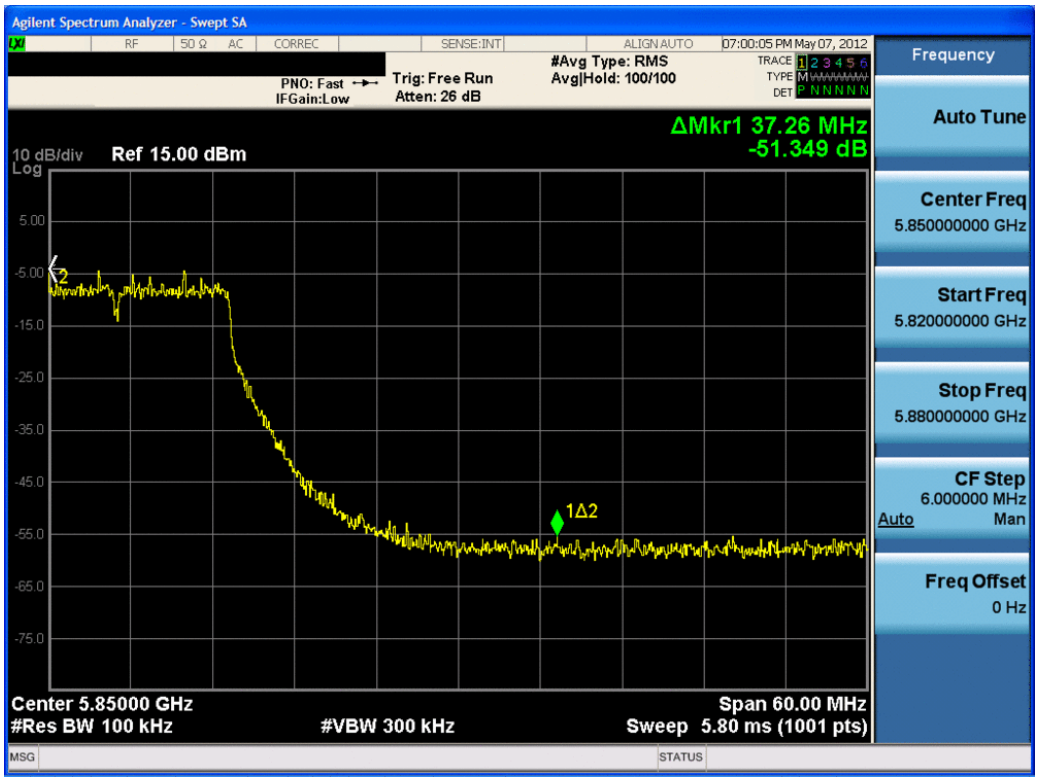
Plot 6-41. Band Edge Plot (802.11a – Ch. 149)



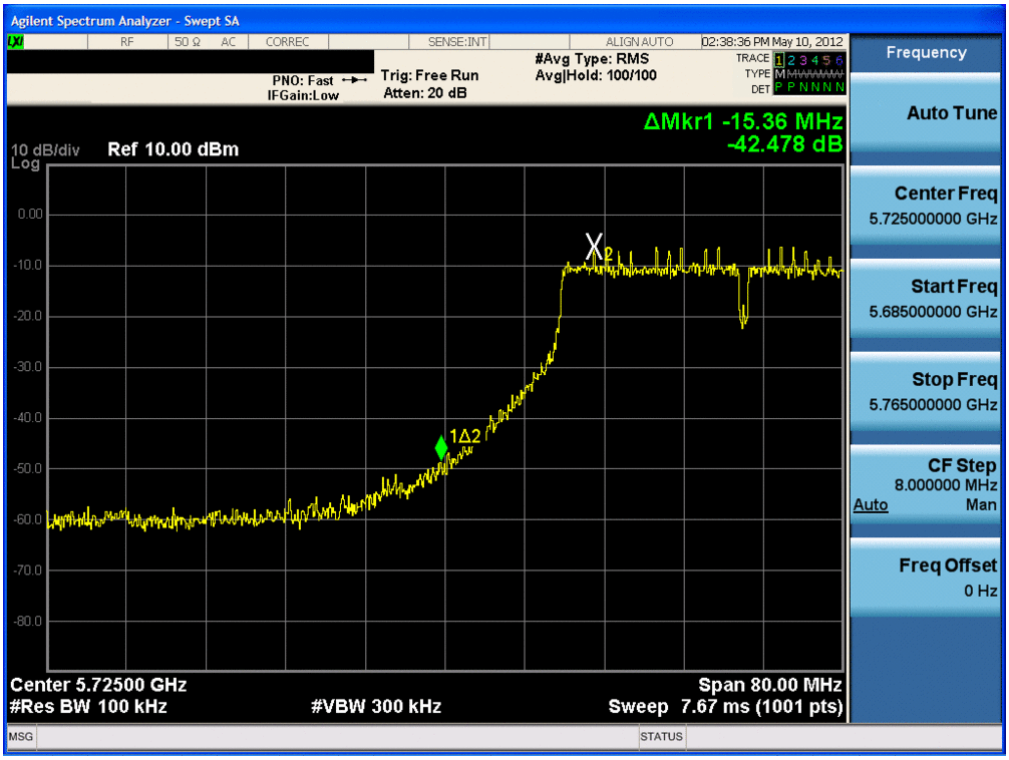
Plot 6-42. Band Edge Plot (802.11a – Ch. 165)



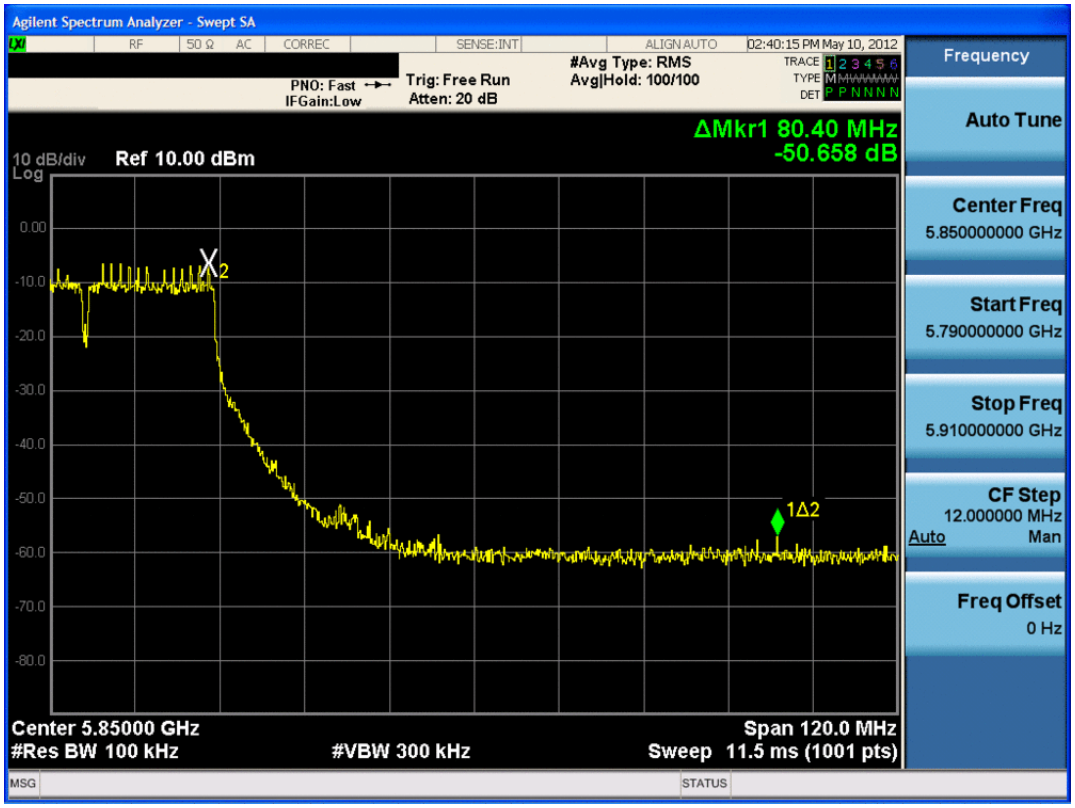
Plot 6-43. Band Edge Plot (802.11n (5.8GHz – 20MHz) – Ch. 149)



Plot 6-44. Band Edge Plot (802.11n (5.8GHz – 20MHz) – Ch. 165)



Plot 6-45. Band Edge Plot (802.11n (5.8GHz – 40MHz) – Ch. 149)



Plot 6-46. Band Edge Plot (802.11n (5.8GHz – 40MHz) – Ch. 165)

6.7 Conducted Spurious Emissions

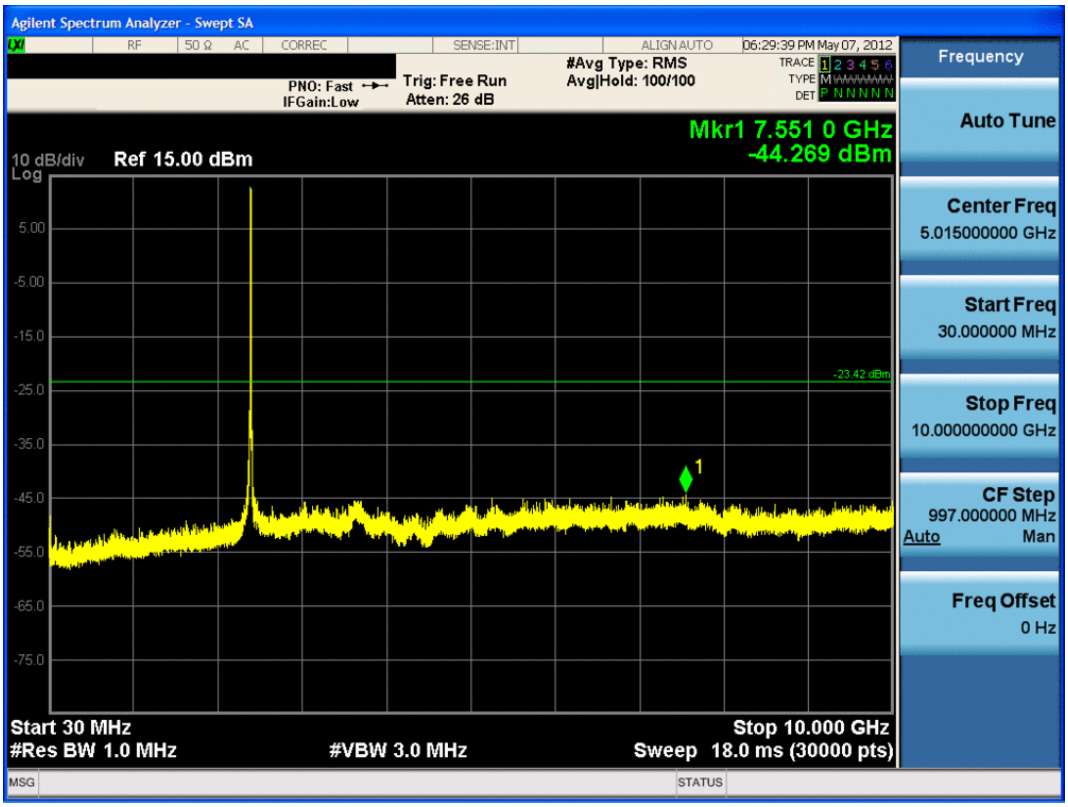
§15.247(d); RSS-210 [A8.5]

For the following out of band conducted spurious emissions plots, the EUT was investigated in all available data rates for “b”, “g”, “a”, and “n” modes. The worst case spurious emissions for the 2.4GHz band were found while transmitting in “b” mode at 1 Mbps and are shown in the plots below. The worst case spurious emissions for the 5.8GHz band were found while transmitting in “a” mode at 6 Mbps and are shown in the plots below.

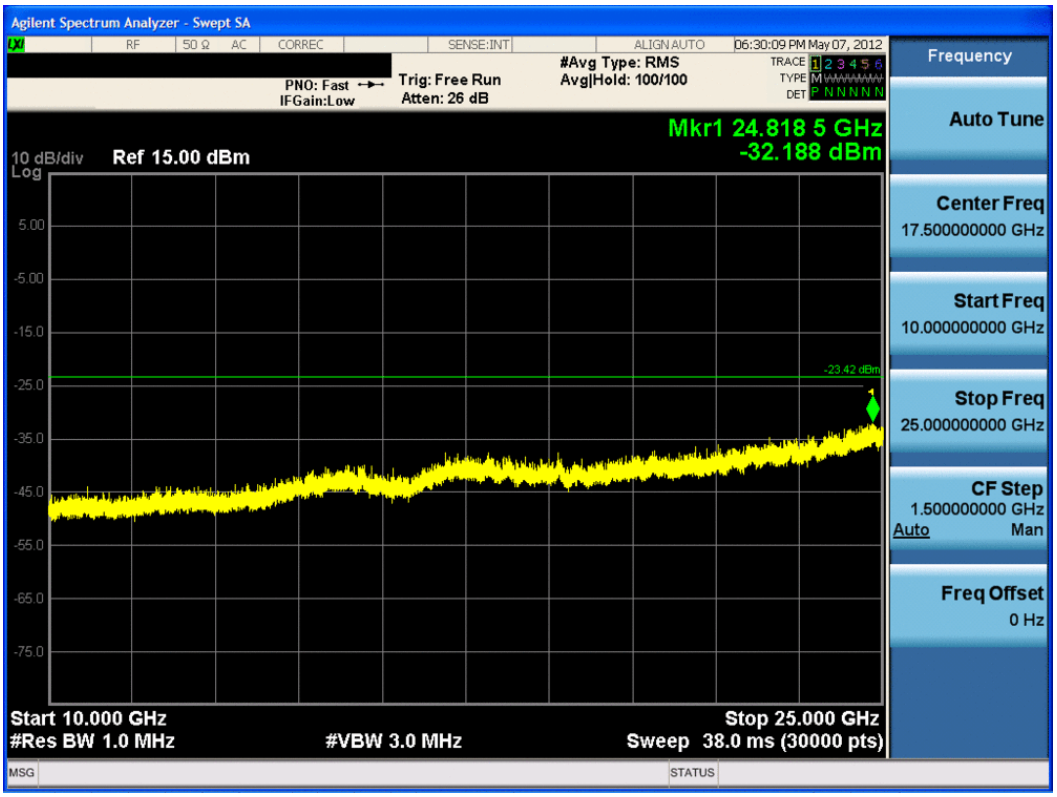
The display line shown in the following plots denotes the limit at 30dB below the fundamental emission level measured in a 100kHz bandwidth, as determined in Section 6.6 of this report. However, since the traces in the following plots are measured with a 1MHz RBW, the display line may not necessarily appear to be 30dB below the level of the fundamental in a 1MHz bandwidth.

The 802.11a conducted spurious emissions plots are generated based on trace data from the Agilent PSA Spectrum Analyzer. Measuring 4GHz at a time and utilizing 8192 sweep points (maximum number of sweep points allowed on Agilent PSA) per each 4GHz, the Agilent PSA measured conducted spurious emissions up to 40GHz. Measurement were made using peak detector, RBW = 1MHz, and VBW = 3MHz. The display line shown on the 802.11a conducted spurious emissions plots denotes the limit at «CSE_Limit»dB below the corresponding Power Spectral Density measured in Section 6.5. Trace data was imported into Excel to produce the plots reported below using PCTEST 40GHz CSE software, Version 1.0.

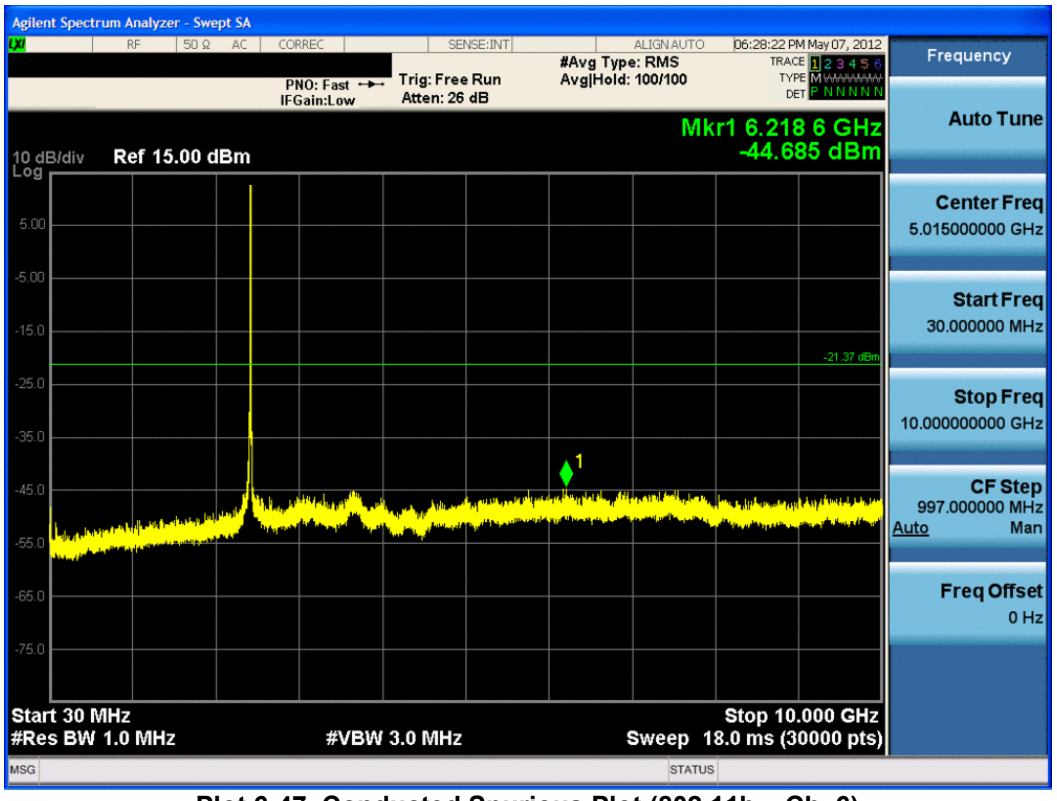
For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.



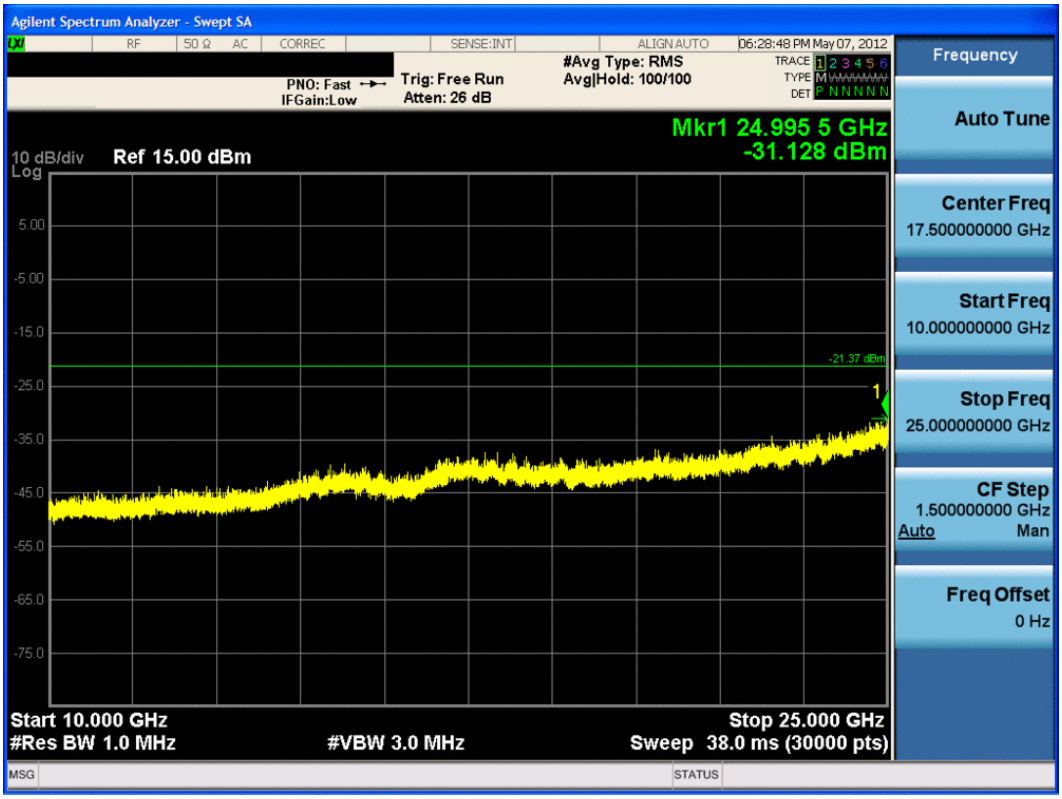
Plot 6-45. Conducted Spurious Plot (802.11b – Ch. 1)



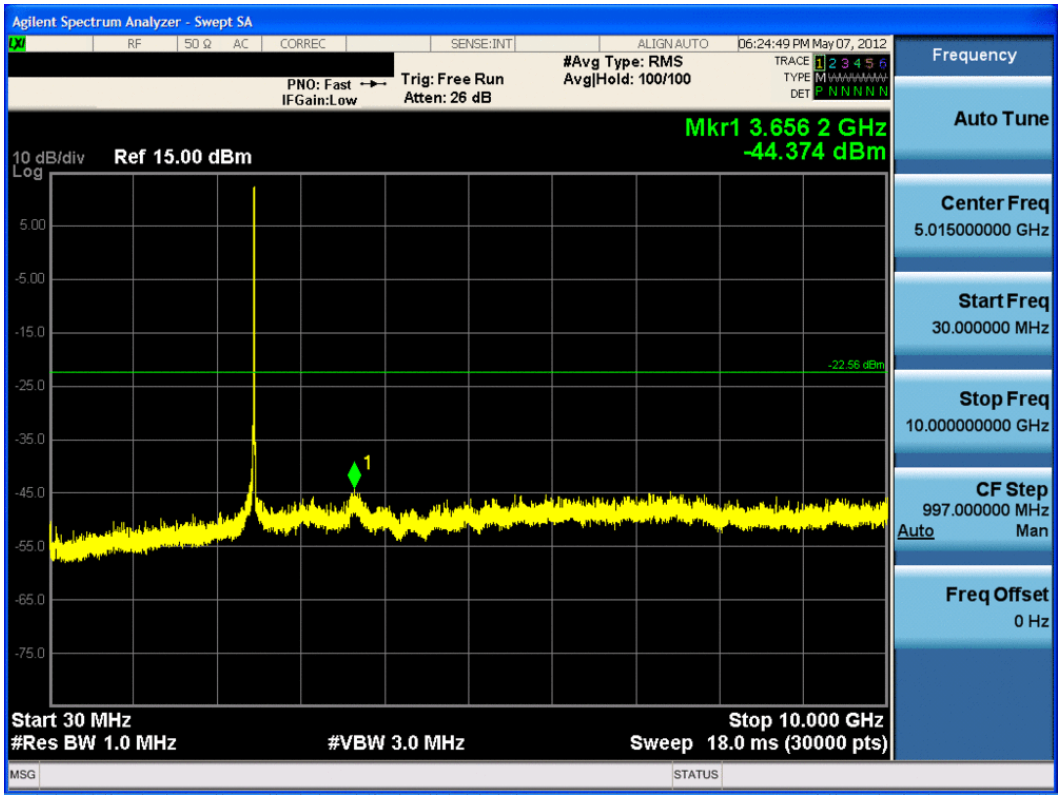
Plot 6-46. Conducted Spurious Plot (802.11b – Ch. 1)



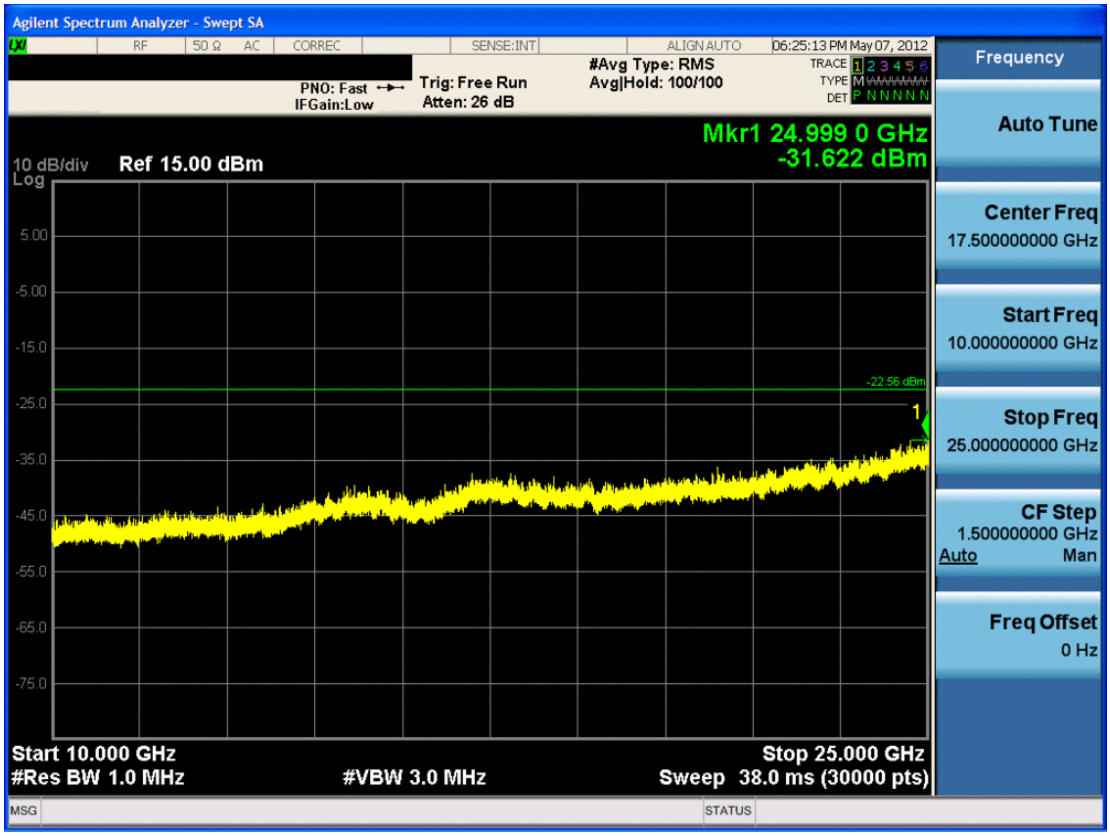
Plot 6-47. Conducted Spurious Plot (802.11b – Ch. 6)



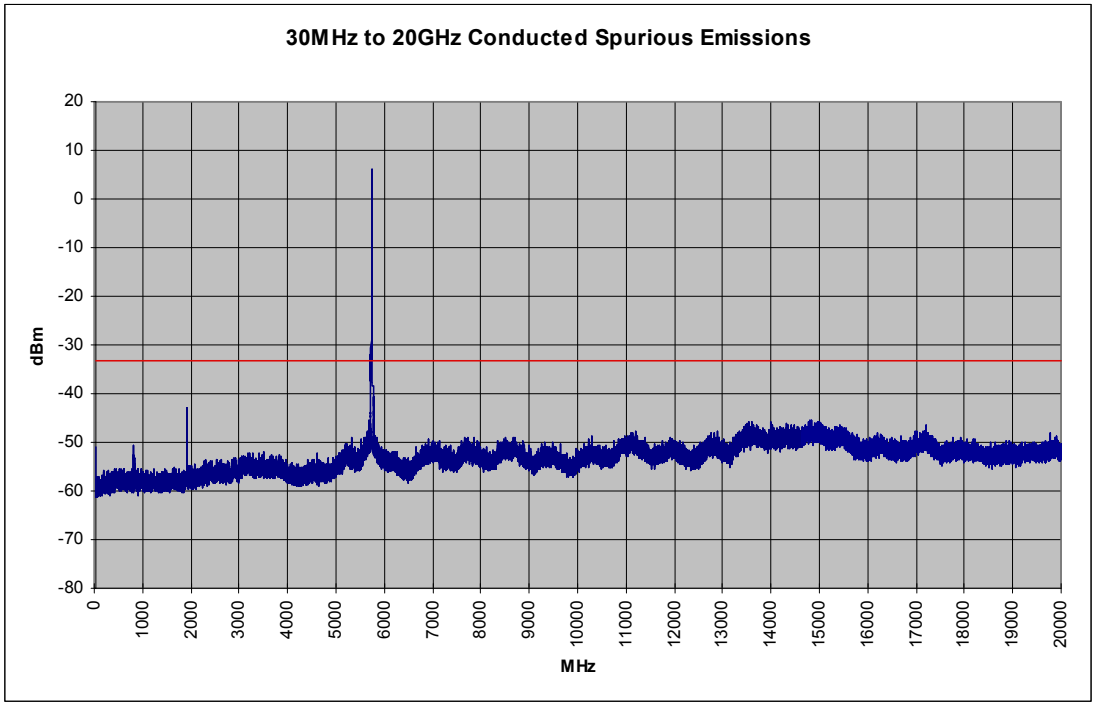
Plot 6-48. Conducted Spurious Plot (802.11b – Ch. 6)



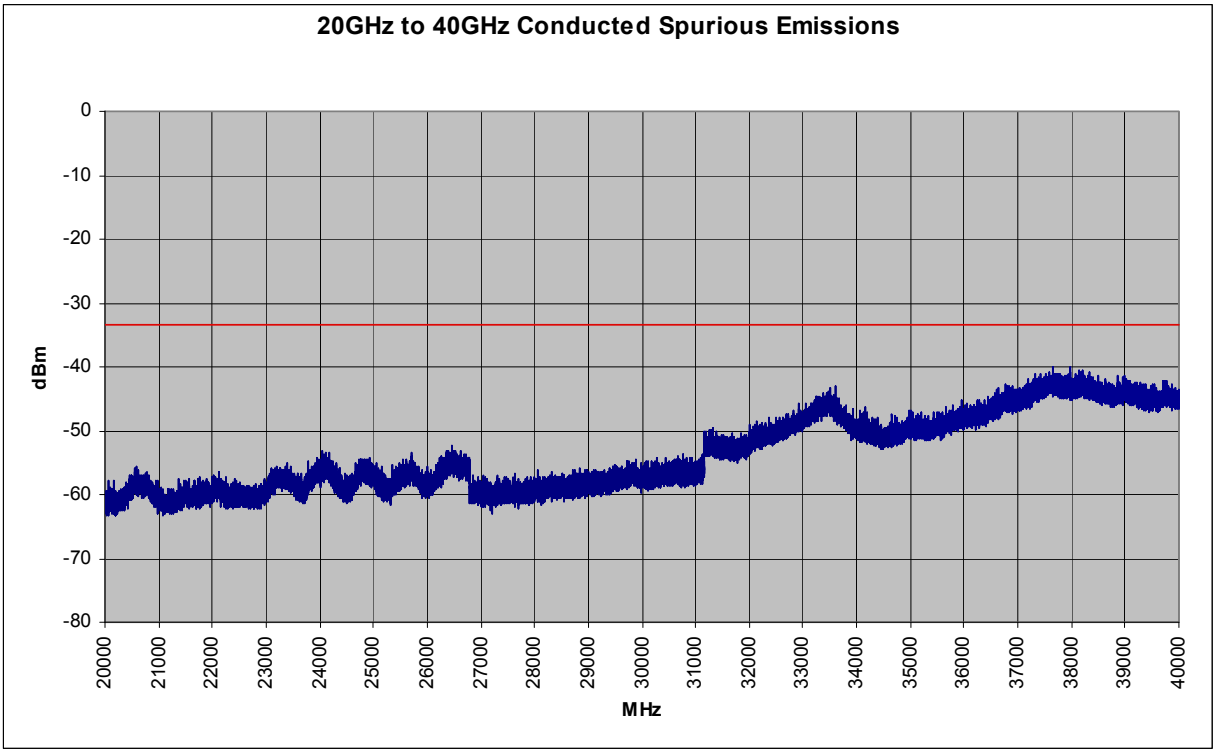
Plot 6-49. Conducted Spurious Plot (802.11b – Ch. 11)



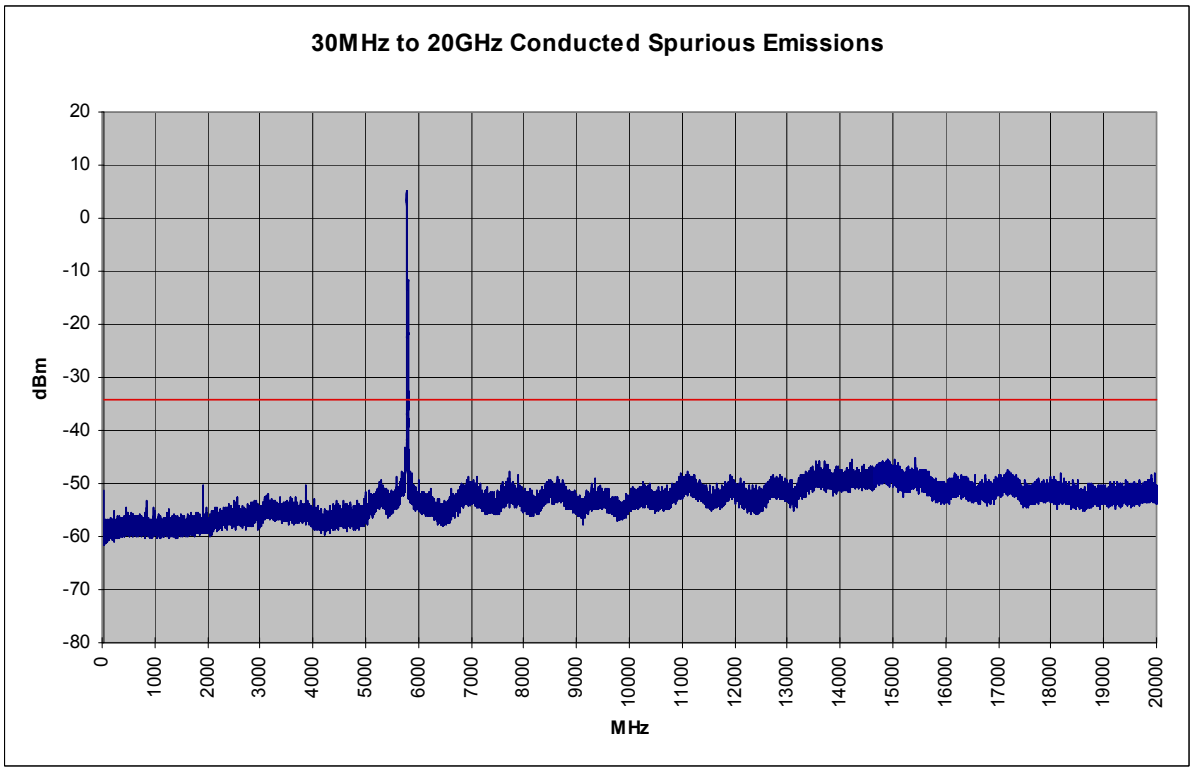
Plot 6-50. Conducted Spurious Plot (802.11b – Ch. 11)



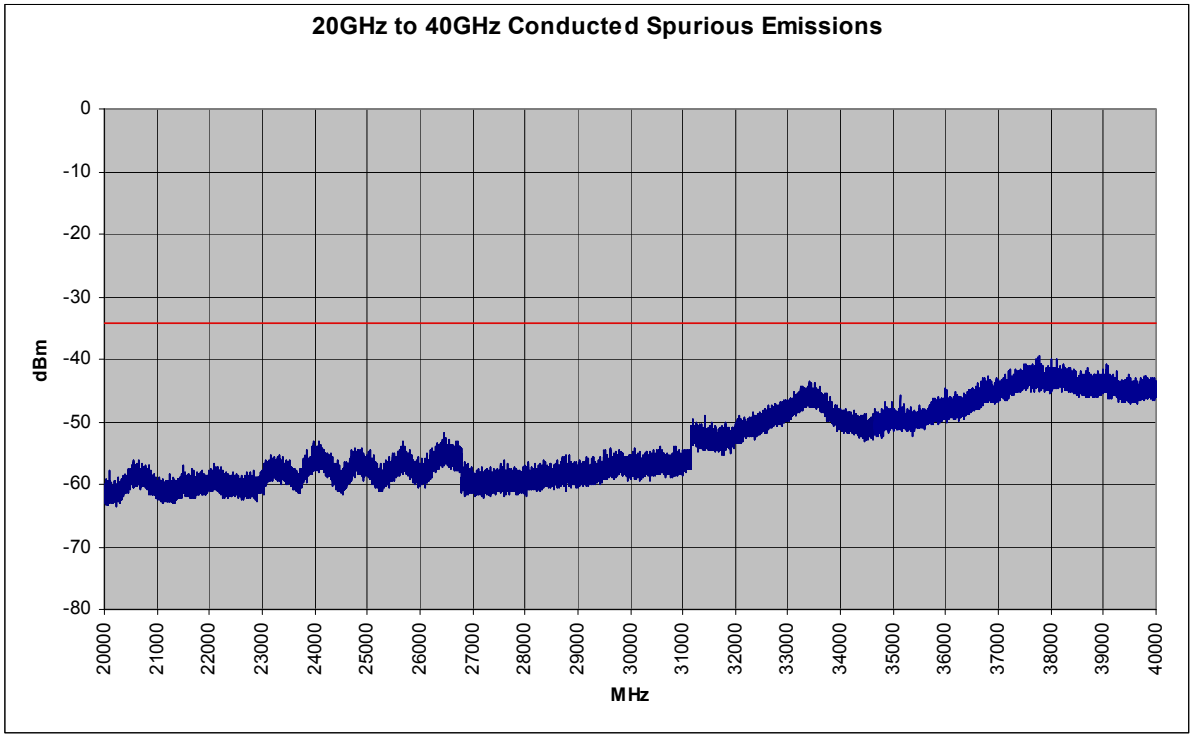
Plot 6-51. Conducted Spurious Plot (802.11a – Ch. 149)



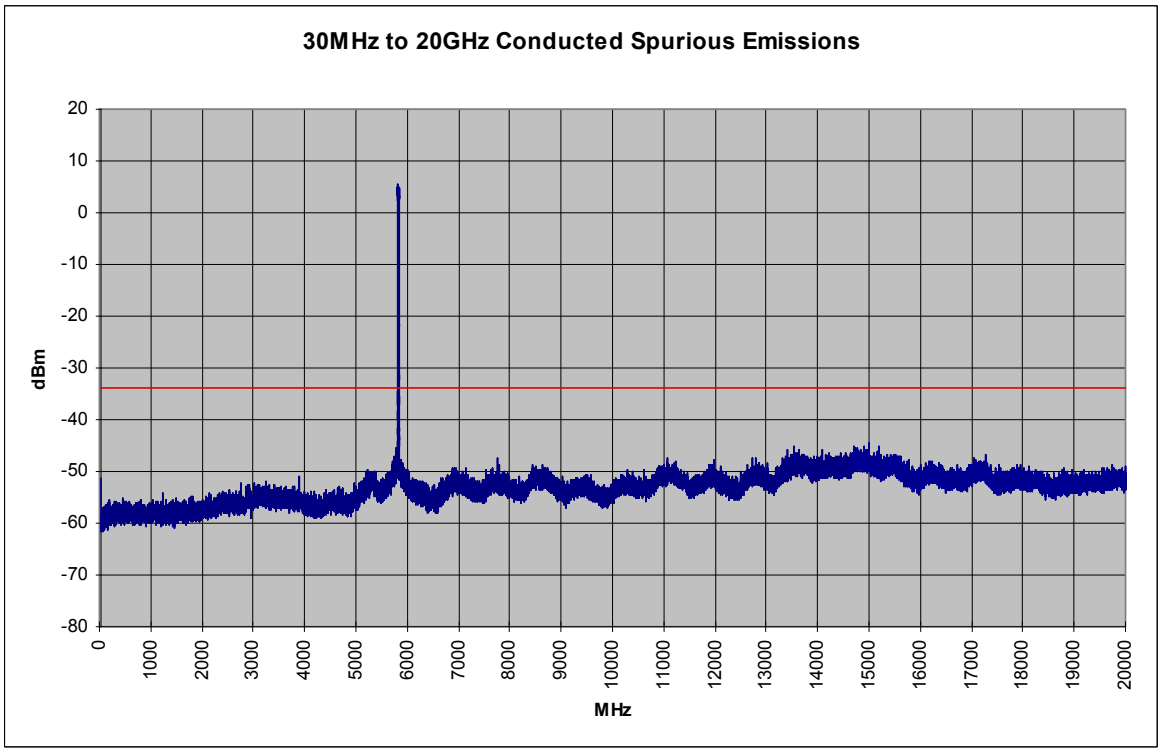
Plot 6-52. Conducted Spurious Plot (802.11a – Ch. 149)



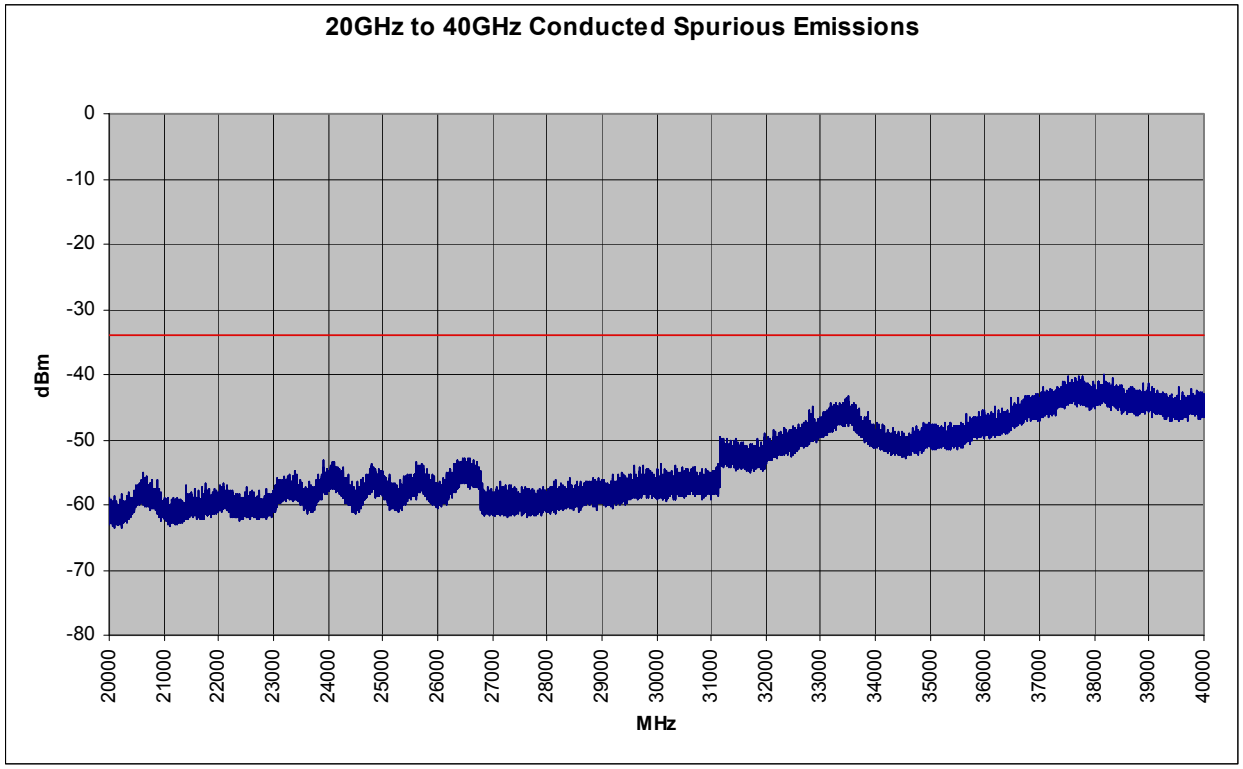
Plot 6-53. Conducted Spurious Plot (802.11a – Ch. 157)



Plot 6-54. Conducted Spurious Plot (802.11a – Ch. 157)



Plot 6-55. Conducted Spurious Plot (802.11a – Ch. 165)



Plot 6-56. Conducted Spurious Plot (802.11a – Ch. 165)

6.8 Radiated Spurious Emission Measurements

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

The EUT was tested from 9kHz up to the tenth harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table 6-10 per Section 15.209.

All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section. All measurements shown in this section were obtained using traditional radiated test methods as defined in C63.10-2009. The optional test procedures for antenna port conducted measurements of unwanted emissions per the guidance of KDB 558074 were not used to evaluate this device.

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 6-10. Radiated Limits

Sample Calculation

- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11b

Worst Case Transfer Rate: 1 Mbps

Distance of Measurements: 3 Meters

Operating Frequency: 2412MHz

Channel: 01

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4824.00	-115.34	Avg	H	39.22	30.88	53.98	-23.10
4824.00	-98.93	Peak	H	39.22	47.29	73.98	-26.69
12060.00	-135.00	Avg	H	49.29	21.29	53.98	-32.69
12060.00	-125.00	Peak	H	49.29	31.29	73.98	-42.69

Table 6-11. Radiated Measurements @ 3 meters

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11b

Worst Case Transfer Rate: 1 Mbps

Distance of Measurements: 3 Meters

Operating Frequency: 2437MHz

Channel: 06

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4874.00	-113.76	Avg	H	39.27	32.51	53.98	-21.47
4874.00	-96.13	Peak	H	39.27	50.14	73.98	-23.84
7311.00	-112.06	Avg	H	42.33	37.27	53.98	-16.71
7311.00	-99.59	Peak	H	42.33	49.74	73.98	-24.24
12185.00	-135.00	Avg	H	49.68	21.68	53.98	-32.30
12185.00	-125.00	Peak	H	49.68	31.68	73.98	-42.30

Table 6-12. Radiated Measurements @ 3 meters

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11b

Worst Case Transfer Rate: 1 Mbps

Distance of Measurements: 3 Meters

Operating Frequency: 2462MHz

Channel: 11

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4924.00	-113.24	Avg	H	39.28	33.04	53.98	-20.94
4924.00	-99.47	Peak	H	39.28	46.81	73.98	-27.17
7386.00	-111.21	Avg	H	42.44	38.23	53.98	-15.75
7386.00	-99.10	Peak	H	42.44	50.34	73.98	-23.64
12310.00	-135.00	Avg	H	50.00	22.00	53.98	-31.98
12310.00	-125.00	Peak	H	50.00	32.00	73.98	-41.98

Table 6-13. Radiated Measurements @ 3 meters

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6 Mbps

Distance of Measurements: 3 Meter

Operating Frequency: 5745MHz

Channel: 149

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11490.00	-114.21	Avg	H	46.63	39.4	53.98	-14.57
11490.00	-99.06	Peak	H	46.63	54.6	73.98	-19.42
22980.00	-135.00	Avg	H	42.61	14.6	53.98	-39.37
22980.00	-125.00	Peak	H	42.61	24.6	73.98	-49.37

Table 6-14. Radiated Measurements @ 3 Meter

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11a

Worst Case Transfer Rate: 6 Mbps

Distance of Measurements: 3 Meter

Operating Frequency: 5785MHz

Channel: 157

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11570.00	-114.41	Avg	H	46.79	39.4	53.98	-14.60
11570.00	-99.26	Peak	H	46.79	54.5	73.98	-19.45

Table 6-15. Radiated Measurements @ 3 Meter

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

Radiated Spurious Emission Measurements (Cont'd)

§15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	3 Meter
Operating Frequency:	5825MHz
Channel:	165

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11650.00	-113.91	Avg	H	46.89	40.0	53.98	-13.99
11650.00	-99.78	Peak	H	46.89	54.1	73.98	-19.86

Table 6-16. Radiated Measurements @ 3 Meter

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµ/m) at 3 meters radiated.

6.9 Radiated Restricted Band Edge Measurements

§15.205 / §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11g

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 3 Meters

Operating Frequency: 2412MHz

Channel: 1

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
2357.18	-104.72	Avg	H	35.13	37.41	53.98	-16.57
2357.18	-80.78	Peak	H	35.13	61.35	73.98	-12.63
2375.51	-94.48	Avg	H	35.33	47.85	53.98	-6.13
2375.51	-68.76	Peak	H	35.33	73.57	73.98	-0.41
2390.00	-92.80	Avg	H	35.47	49.67	53.98	-4.31
2390.00	-72.10	Peak	H	35.47	70.37	73.98	-3.61

Table 6-17. Radiated Restricted Band Measurements at 3-meters

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

5. The spectrum is measured from 9kHz to the 10^{th} harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµV/m) at 3 meters radiated.

Radiated Restricted Band Edge Measurements (Cont'd)

§15.205 / §15.209; RSS-210 [A8.5]

Worst Case Mode: 802.11g

Worst Case Transfer Rate: 6Mbps

Distance of Measurements: 3 Meters

Operating Frequency: 2462MHz

Channel: 11

Frequency [MHz]	Analyzer Level [dBm]	Detector	Pol. [H/V]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
2483.71	-96.80	Avg	H	36.39	46.59	53.98	-7.39
2483.71	-70.82	Peak	H	36.39	72.57	73.98	-1.41
2486.51	-93.70	Avg	H	36.42	49.72	53.98	-4.26
2486.51	-69.49	Peak	H	36.42	73.93	73.98	-0.05
2492.04	-99.31	Avg	H	36.47	44.16	53.98	-9.82
2492.04	-76.70	Peak	H	36.47	66.77	73.98	-7.21

Table 6-18. Radiated Restricted Band Measurements at 3-meters

NOTES:

1. All emissions shown lie in the restricted bands specified in §15.205 are below the limit shown in Table 6-10.

2. For frequencies > 1GHz, average measurements are recorded using the RBAVG1 measurement procedure of KDB 558074. Peak measurements are recorded using RBW = 1MHz, VBW = 3MHz.

3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

4. The EUT is supplied with nominal AC voltage and/or a new/fully-recharged battery.

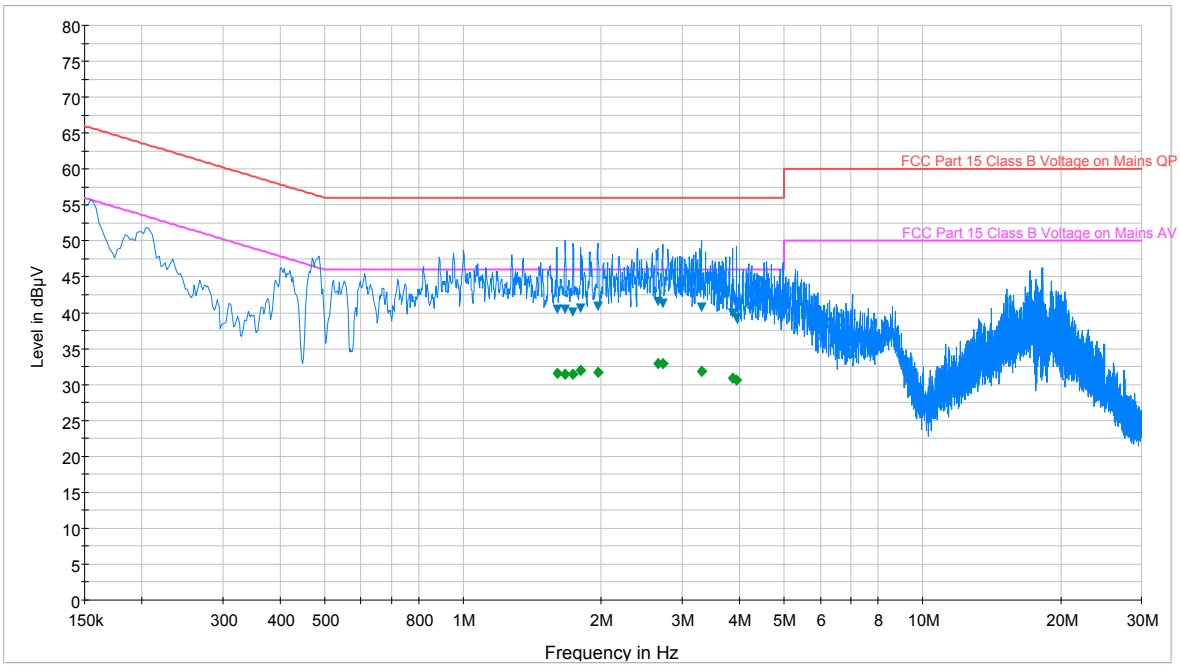
5. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported. No significant emissions were found beyond the fifth harmonic for this device.

6. Levels at - 135 dBm represent the analyzer noise floor and signify that no emission was detected.

7. Above 960MHz the limit is 500 µV/m (54dBµV/m) at 3 meters radiated.

6.10 Line-Conducted Test Data

§15.207; RSS-Gen [7.2.2]



Plot 6-57. Line Conducted Plot with 802.11b (L1)

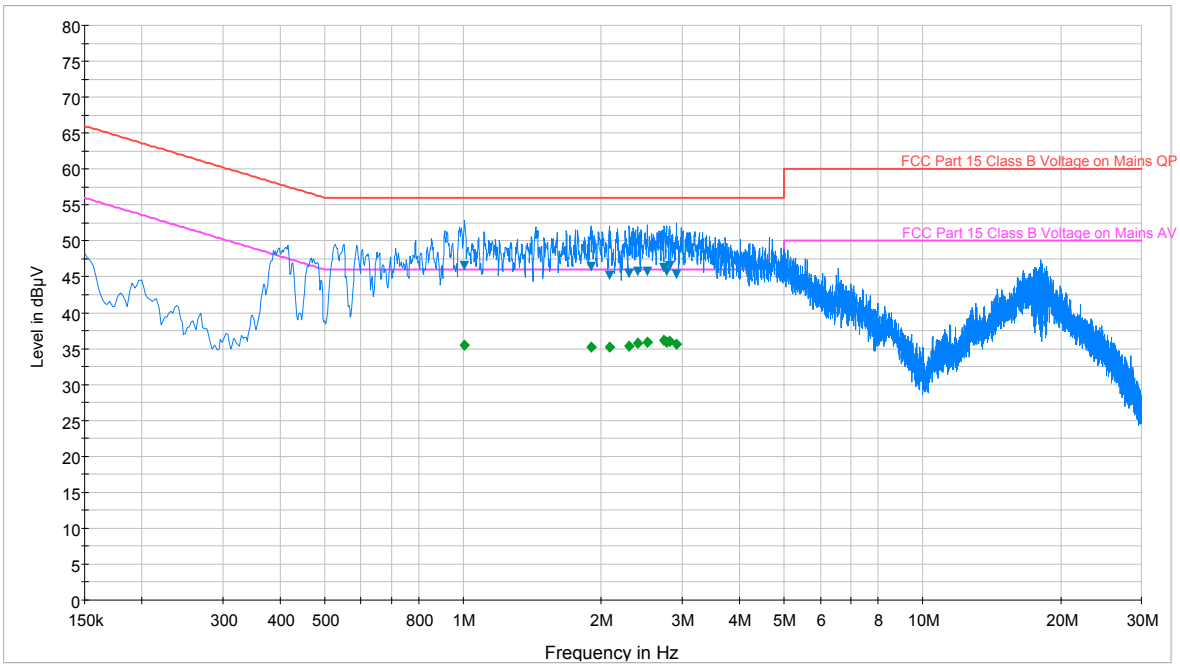
Frequency MHz	Line	QuasiPeak dBµV	Limit dBµV	Margin dB	Average dBµV	Limit dBµV	Margin dB
1.601	L1	40.50	56.00	15.50	31.60	46.00	14.40
1.669	L1	40.40	56.00	15.60	31.40	46.00	14.60
1.736	L1	40.10	56.00	15.90	31.40	46.00	14.60
1.804	L1	40.60	56.00	15.40	31.90	46.00	14.10
1.966	L1	40.90	56.00	15.10	31.70	46.00	14.30
2.654	L1	41.50	56.00	14.50	32.90	46.00	13.10
2.724	L1	41.30	56.00	14.70	32.90	46.00	13.10
3.305	L1	40.70	56.00	15.30	31.90	46.00	14.10
3.869	L1	39.90	56.00	16.10	30.90	46.00	15.10
3.939	L1	39.30	56.00	16.70	30.60	46.00	15.40

Table 6-19. Line Conducted Data with 802.11b (L1)

Notes:

1. All modes of operation, data rates, and test channels were investigated and the worst-case emissions are reported in 802.11b mode using 1Mbps on Channel 6. The emissions found were not affected by the choice of channel used during testing.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in Section 15.207 of the Title 47 CFR.
3. Line 1 = Phase; Line N = Neutral
4. Factor (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBµV) = QP/AV Analyzer/Receiver Level (dBµV) + Factor (dB)
6. Margin (dB) = QP/AV Limit (dBµV) - QP/AV Level (dBµV)
7. Traces shown in plot are made using a peak detector.
8. Deviations to the Specifications: None.

Line-Conducted Test Data (Cont'd)
§15.207; RSS-Gen [7.2.2]



Plot 6-61. Line Conducted Plot with 802.11b (N)

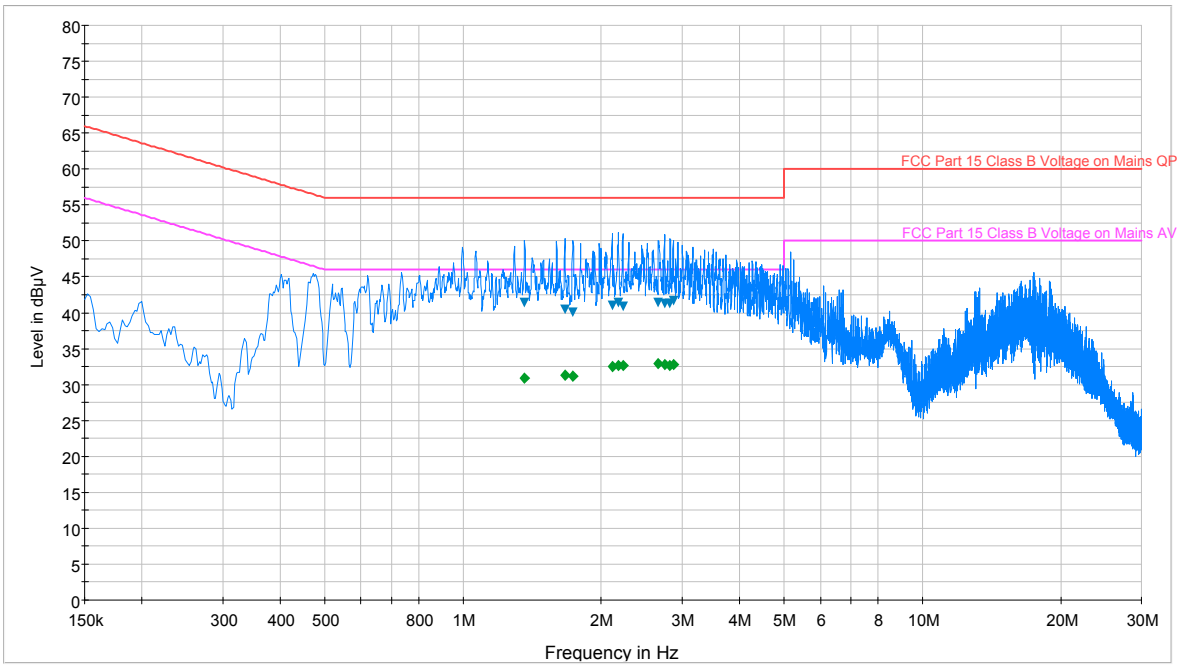
Frequency MHz	Line	QuasiPeak dBµV	Limit dBµV	Margin dB	Average dBµV	Limit dBµV	Margin dB
1.007	N	46.60	56.00	9.40	35.50	46.00	10.50
1.898	N	46.40	56.00	9.60	35.20	46.00	10.80
2.083	N	45.20	56.00	10.80	35.10	46.00	10.90
2.301	N	45.40	56.00	10.60	35.40	46.00	10.60
2.402	N	45.70	56.00	10.30	35.70	46.00	10.30
2.522	N	45.70	56.00	10.30	35.90	46.00	10.10
2.742	N	46.30	56.00	9.70	36.10	46.00	9.90
2.774	N	45.70	56.00	10.30	35.90	46.00	10.10
2.812	N	46.60	56.00	9.40	36.10	46.00	9.90
2.913	N	45.40	56.00	10.60	35.60	46.00	10.40

Table 6-20. Line Conducted Data with 802.11b (N)

Notes:
1. All modes of operation, data rates, and test channels were investigated and the worst-case emissions are reported in 802.11b mode using 1Mbps on Channel 6. The emissions found were not affected by the choice of channel used during testing.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in Section 15.207 of the Title 47 CFR.
3. Line 1 = Phase; Line N = Neutral
4. Factor (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBµV) = QP/AV Analyzer/Receiver Level (dBµV) + Factor (dB)
6. Margin (dB) = QP/AV Limit (dBµV) - QP/AV Level (dBµV)
7. Traces shown in plot are made using a peak detector.
8. Deviations to the Specifications: None.

Line-Conducted Test Data (Cont'd)

§15.207; RSS-Gen [7.2.2]



Plot 6-62. Line Conducted Plot with 802.11a (L1)

Frequency MHz	Line	QuasiPeak dBµV	Limit dBµV	Margin dB	Average dBµV	Limit dBµV	Margin dB
1.363	L1	41.40	56.00	14.60	30.90	46.00	15.10
1.667	L1	40.40	56.00	15.60	31.30	46.00	14.70
1.736	L1	40.00	56.00	16.00	31.20	46.00	14.80
2.114	L1	41.00	56.00	15.00	32.50	46.00	13.50
2.180	L1	41.40	56.00	14.60	32.70	46.00	13.30
2.229	L1	40.90	56.00	15.10	32.70	46.00	13.30
2.663	L1	41.40	56.00	14.60	32.90	46.00	13.10
2.747	L1	41.30	56.00	14.70	32.80	46.00	13.20
2.823	L1	41.20	56.00	14.80	32.60	46.00	13.40
2.870	L1	41.70	56.00	14.30	32.80	46.00	13.20

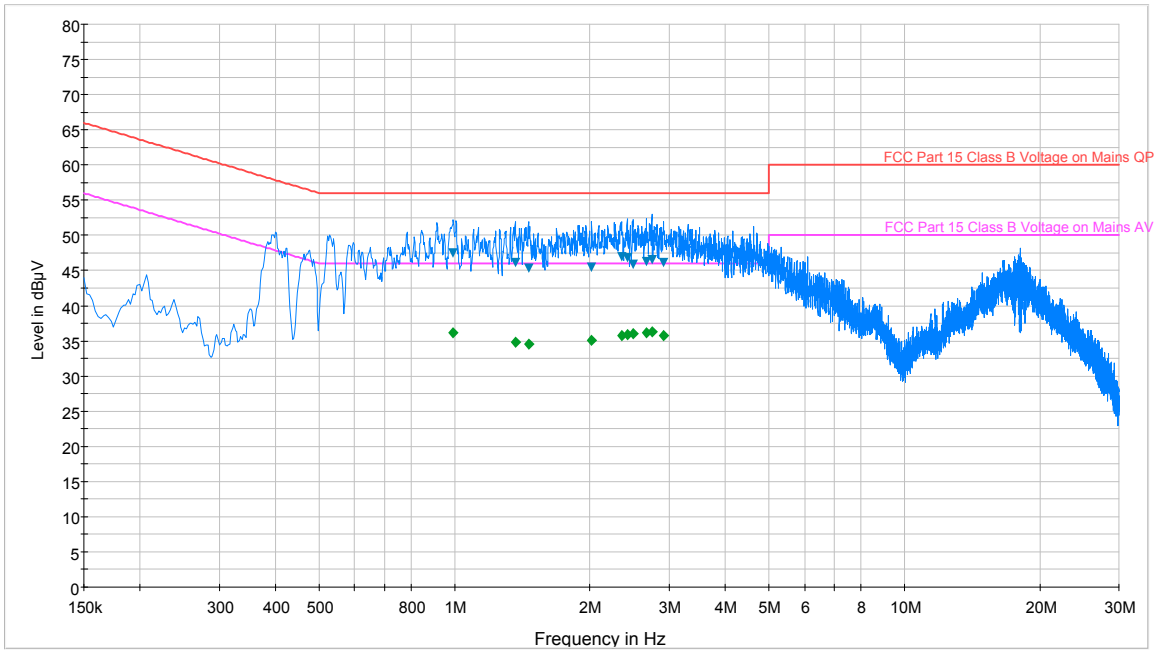
Table 6-21. Line Conducted Data with 802.11a (L1)

Notes:

1. All modes of operation, data rates, and test channels were investigated and the worst-case emissions are reported in 802.11b mode using 1Mbps on Channel 6. The emissions found were not affected by the choice of channel used during testing.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in Section 15.207 of the Title 47 CFR.
3. Line 1 = Phase; Line N = Neutral
4. Factor (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBµV) = QP/AV Analyzer/Receiver Level (dBµV) + Factor (dB)
6. Margin (dB) = QP/AV Limit (dBµV) - QP/AV Level (dBµV)
7. Traces shown in plot are made using a peak detector.
8. Deviations to the Specifications: None.

Line-Conducted Test Data (Cont'd)

§15.207; RSS-Gen [7.2.2]



Plot 6-63. Line Conducted Plot with 802.11a (N)

Frequency MHz	Line	QuasiPeak dBµV	Limit dBµV	Margin dB	Average dBµV	Limit dBµV	Margin dB
0.994	N	47.50	56.00	8.50	36.20	46.00	9.80
1.367	N	46.20	56.00	9.80	34.80	46.00	11.20
1.462	N	45.30	56.00	10.70	34.60	46.00	11.40
2.018	N	45.50	56.00	10.50	35.10	46.00	10.90
2.351	N	47.00	56.00	9.00	35.70	46.00	10.30
2.420	N	46.90	56.00	9.10	36.00	46.00	10.00
2.497	N	45.80	56.00	10.20	36.00	46.00	10.00
2.672	N	46.30	56.00	9.70	36.10	46.00	9.90
2.744	N	46.60	56.00	9.40	36.20	46.00	9.80
2.918	N	46.10	56.00	9.90	35.70	46.00	10.30

Table 6-22. Line Conducted Data with 802.11a (N)

Notes:

1. All modes of operation, data rates, and test channels were investigated and the worst-case emissions are reported in 802.11b mode using 1Mbps on Channel 6. The emissions found were not affected by the choice of channel used during testing.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in Section 15.207 of the Title 47 CFR.
3. Line 1 = Phase; Line N = Neutral
4. Factor (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBµV) = QP/AV Analyzer/Receiver Level (dBµV) + Factor (dB)
6. Margin (dB) = QP/AV Limit (dBµV) - QP/AV Level (dBµV)
7. Traces shown in plot are made using a peak detector.
8. Deviations to the Specifications: None.

7.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSWDSC06D** is in compliance with Part 15C of the FCC Rules and RSS-210 of the Industry Canada Rules.