

EXHIBIT A – Test Results (Cont.)

Radiated Measurements (Cont.) External Antenna

§15.247(b) / §15.205 & §15.209

Transfer Rate: 1 Mbps
 Distance of Measurements: 3 Meters
 Channel: 11

Frequency (MHz)	Level (dBm)	AFCL (dB)	POL (H/V)	F/S (dB μV/m)	F/S (μV/m)	Margin (dB)
4924	-101	40.7	V	46.7	216.3	-7.3
7386	-114	48.2	V	41.2	114.8	-12.8
9848	-128.1	50.4	V	29.3	29.2	-24.7
12310	-135	53.8	V	25.8	19.5	-28.2

Table A-11. Peak Radiated Measurements @ 3 meters

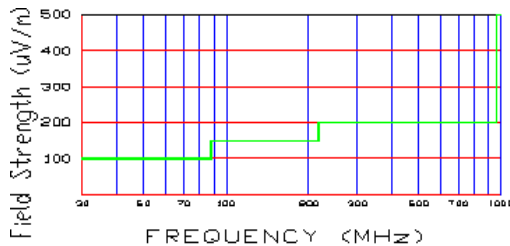


Figure A-10. Radiated limits at 3 meters.

NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in Table A-19. (Note: * = Restricted Band measured frequency)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 100kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 10 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully-recharged battery.
7. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
8. < - 135 dBm are below the analyzer floor level.
9. Above 1 GHz, the limit is 500 μV/m (54dBμ/m) at 3 meters radiated.


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EXHIBIT A – Test Results (Cont.)

Radiated Measurements (Cont.)

§15.247(b) / §15.205 & §15.209

Transfer Rate: 11 Mbps

Distance of Measurements: 3 Meters

Channel: 01

Frequency (MHz)	Level (dBm)	AFCL (dB)	POL (H/V)	F/S (dB μV/m)	F/S (μV/m)	Margin (dB)
4824	-95.5	40.4	V	51.9	393.1	-2.1
7236	-110	47.4	V	44.4	166.3	-9.6
9648	-128	50.3	V	29.3	29.2	-24.7
12060	-135	53.7	V	25.7	19.3	-28.3

Table A-9. Peak Radiated Measurements @ 3 meters

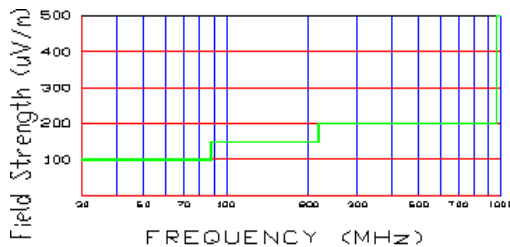


Figure A-8. Radiated limits at 3 meters.

NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in Table A-19. (Note: * = Restricted Band measured frequency)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 100kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 10 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully-recharged battery.
7. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
8. < - - 135 dBm are below the analyzer floor level.
9. Above 1 GHz, the limit is 500 μV/m (54dBμ/m) at 3 meters radiated.



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EXHIBIT A – Test Results (Cont.)

Radiated Measurements (Cont.)

§15.247(b) / §15.205 & §15.209

Transfer Rate: 11 Mbps

Distance of Measurements: 3 Meters

Channel: 06

Frequency (MHz)	Level (dBm)	AFCL (dB)	POL (H/V)	F/S (dB μV/m)	F/S (μV/m)	Margin (dB)
4874	-96.6	40.5	V	50.9	350.8	-3.1
7311	-111	48.0	V	44.0	158.5	-10.0
9748	-126.3	50.3	V	31.0	35.5	-23.0
12185	-135	53.7	V	25.7	19.3	-28.3

Table A-10. Peak Radiated Measurements @ 3 meters

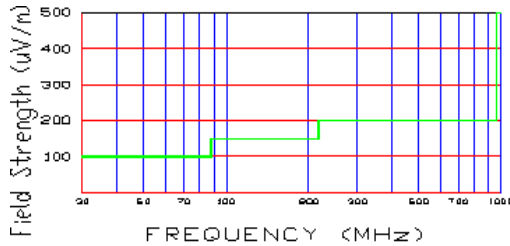


Figure A-9. Radiated limits at 3 meters.

NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in Table A-19. (Note: * = Restricted Band measured frequency)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 100kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 10 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully-recharged battery.
7. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
8. < - - 135 dBm are below the analyzer floor level.
9. Above 1 GHz, the limit is 500 μV/m (54dBμ/m) at 3 meters radiated.

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EXHIBIT A – Test Results (Cont.)

Radiated Measurements (Cont.) External Antenna

§15.247(b) / §15.205 & §15.209

Transfer Rate: 1 Mbps
 Distance of Measurements: 3 Meters
 Channel: 11

Frequency (MHz)	Level (dBm)	AFCL (dB)	POL (H/V)	F/S (dB μV/m)	F/S (μV/m)	Margin (dB)
4924	-96	40.7	V	51.7	384.6	-2.3
7386	-111.3	48.2	V	43.9	156.7	-10.1
9848	-125.1	50.4	V	32.3	41.2	-21.7
12310	-135	53.8	V	25.8	19.5	-28.2

Table A-11. Peak Radiated Measurements @ 3 meters

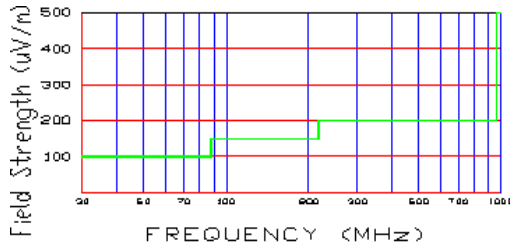


Figure A-10. Radiated limits at 3 meters.

NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in Table A-19. (Note: * = Restricted Band measured frequency)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 100kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 10 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully-recharged battery.
7. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
8. < - 135 dBm are below the analyzer floor level.
9. Above 1 GHz, the limit is 500 μV/m (54dBμ/m) at 3 meters radiated.

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EXHIBIT A – Test Results (Cont.)

Radiated Spurious Measurements

§15.205 / §15.209

Distance of Measurements: 3 Meters

FREQ (MHz)	Level (dBm)	AFCL (dB/m)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S (uV/M)	Margin (dB)
24.9	-82.5	4.0	H	2.8	30	26.7	-7.2
153.6	-84.6	13.9	H	2.5	190	65.3	-6.1
175.5	-84.5	13.5	V	2.3	190	63.3	-8.5
187.5	-86.9	15.9	H	1.6	170	63.2	-6.5
434.6	-94.8	24.5	V	1.3	180	68.4	-5.2
473.0	-97.4	25.5	H	1.1	200	56.7	-3.8

Table A-18. Radiated Measurements at 3-meters

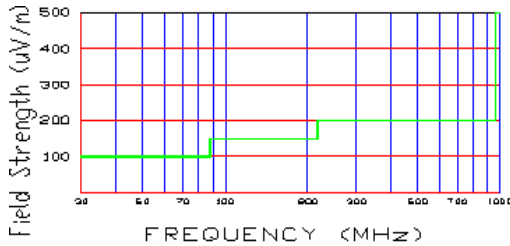


Figure A-17. Radiated limits at 3 meters

NOTES:

1. All emissions were investigated and the worst-case emissions are reported.
2. For hand-held devices, the EUT is rotated through three orthogonal axes to determine which configuration produces the maximum emissions.
3. The EUT is supplied with the minimal AC voltage or/and a new/fully re-charged battery.
4. The EUT was tested up to the 10th harmonic (25GHz) and no significant emission was found.
5. Above 1 GHz the limit is 500µV/m at 3 meters radiated.

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EXHIBIT A – Test Results (Cont.)

Radiated Restricted Band Measurements

§15.205 / §15.209

Special attention is made for the EUT’s harmonic and spurious radiated emission in the restricted bands of operations. The EUT was tested from 9kHz and up to the tenth harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHZ. Above 1 GHz, average measurement was used, using RBW 1MHz – VBW 10Hz and linearly polarized horn antennas. All harmonics/spurs are at least 20dB below the highest emission in the authorized band using RBW = 100kHz. In addition, peak measurements were taken to ensure that the peak levels are not more than 20dB above the average limit. All out of band emissions, other than those created by the spreading sequence, data sequence, and the carrier modulation must not exceed the limits show in Table G-1 per Section 15.209.

Frequency	F/S (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 A-19. Restricted Band Limits

TEST MEASUREMENT EQUIPMENT

Agilent E4448A	PSA Spectrum Analyzer 3 Hz - 50GHz
HP 8566B	Spectrum Analyzer 100Hz – 22GHz
HP 83017A	Microwave Analyzer 40dB Gain (0.5 – 26.5GHz)
HP 3784A	Digital Transmission Analyzer
EMCO 3115	Horn Antenna (1 – 18GHz)
HP 8495A	20dB Attenuator (DC-40GHz) 0 –70dB
HP 8493B	10dB Attenuator
MicroCoax Cables	Low Loss Microwave Cables (1 – 26.5GHz)
CDI Dipoles	Dipole Antennas (30 – 1000MHz)
EMCO 3116	Horn Antenna (18 – 40GHz)


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EXHIBIT A – Test Results (Cont.)

Radiated Restricted Band Measurements (Cont.)

§15.205 /§15.209 courtesy

Operating Frequency: 2462 MHz

Distance of Measurements: 3 Meters

FREQ (MHz)	Level (dBm)	AFCL (dB/m)	POL (H/V)	F/S (dBµV/m)	F/S (uV/M)	Margin (dB)
2483.7	-98.3	33.0	V	41.7	121.6	-12.3
2484.0	-95.4	33.0	V	44.6	169.8	-9.4
2484.2	-96.0	33.1	V	44.1	160.3	-9.9
2485.1	-95.3	33.1	V	44.8	173.8	-9.2
2493.0	-99.2	33.2	V	41.0	112.2	-13.0
2493.5	-96.0	33.2	V	44.2	162.2	-9.8

Table A-20. Radiated Restricted Band Measurements at 3-meters

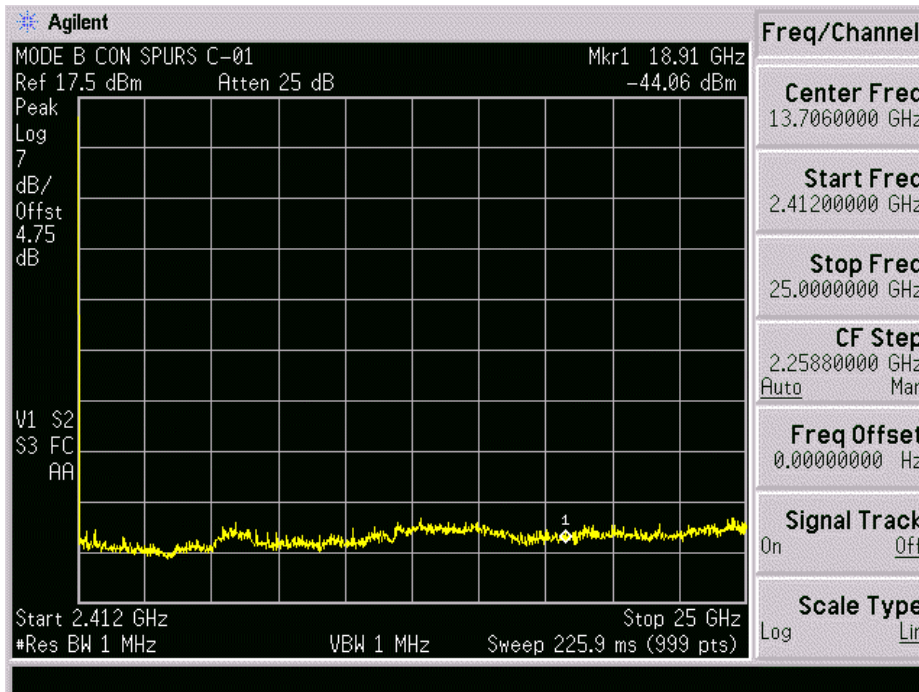
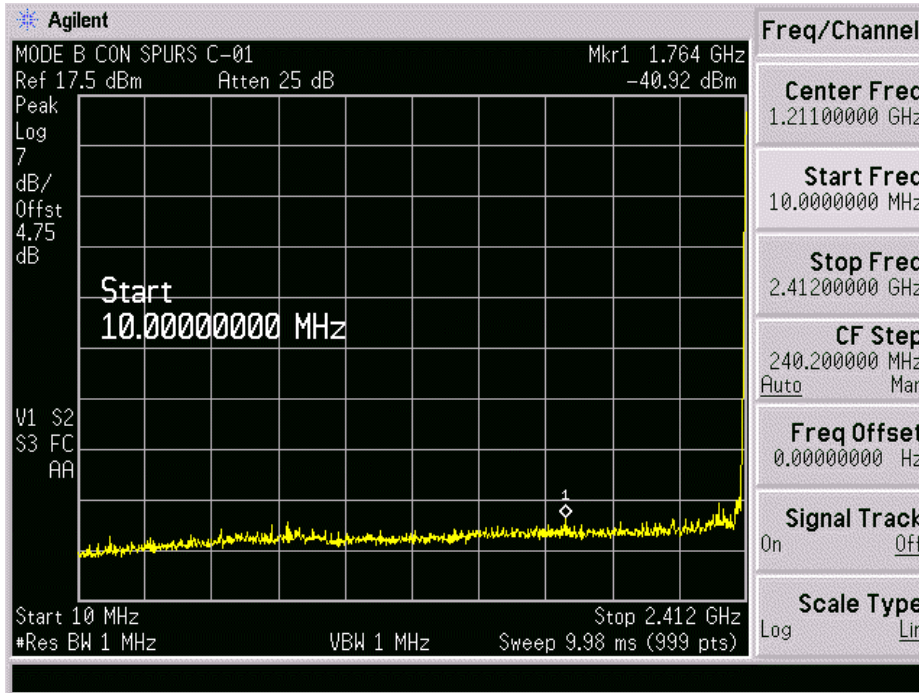
NOTES:

1. The antenna is manipulated through typical positions, polarity and length during the testing.
2. The EUT is supplied with the minimal AC voltage or/and a new/fully re-charged battery.
3. The spectrum is measured from 9kHz up to the 10th harmonic and the worst-case emissions are reported.
4. The conducted limits are shown on Figure A-14. Above 1 GHz the limit is 500µV/m.
5. < -135 dBm is below the analyzer measurement floor level.
6. Average Measurements > 1GHz using RBW = 1 MHz VBW = 10 Hz
7. The peak emission levels are less than 20 dB above the average limit.

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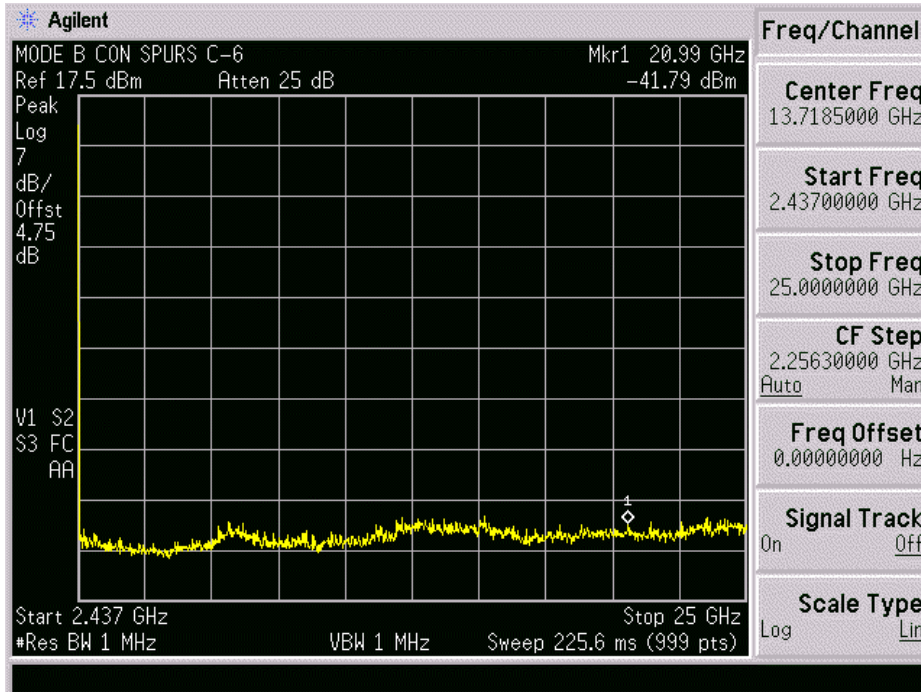
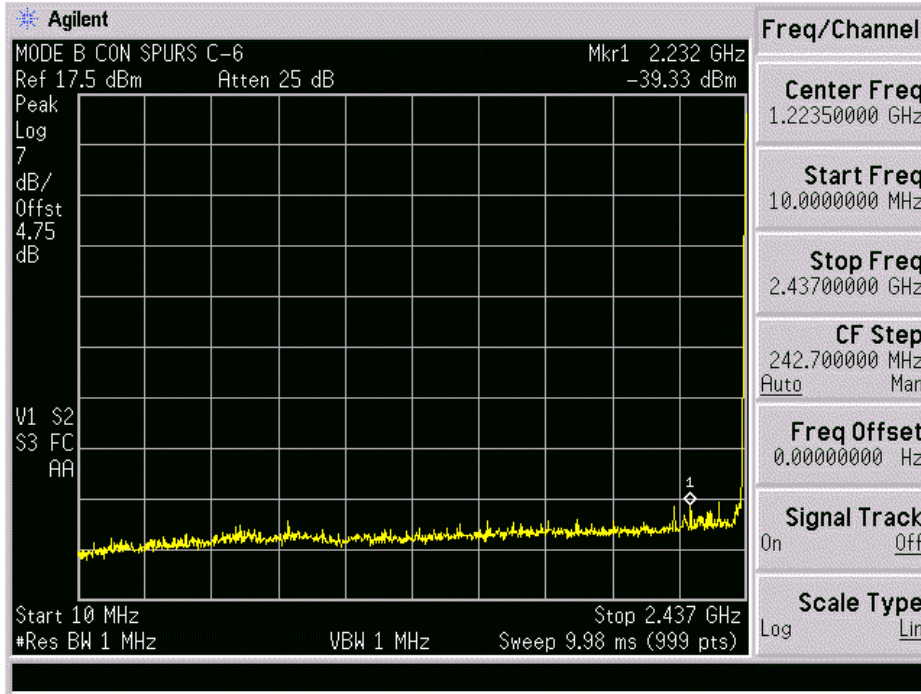
Conducted Spurious Data (802.11 B)



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Conducted Spurious Data (802.11 B)




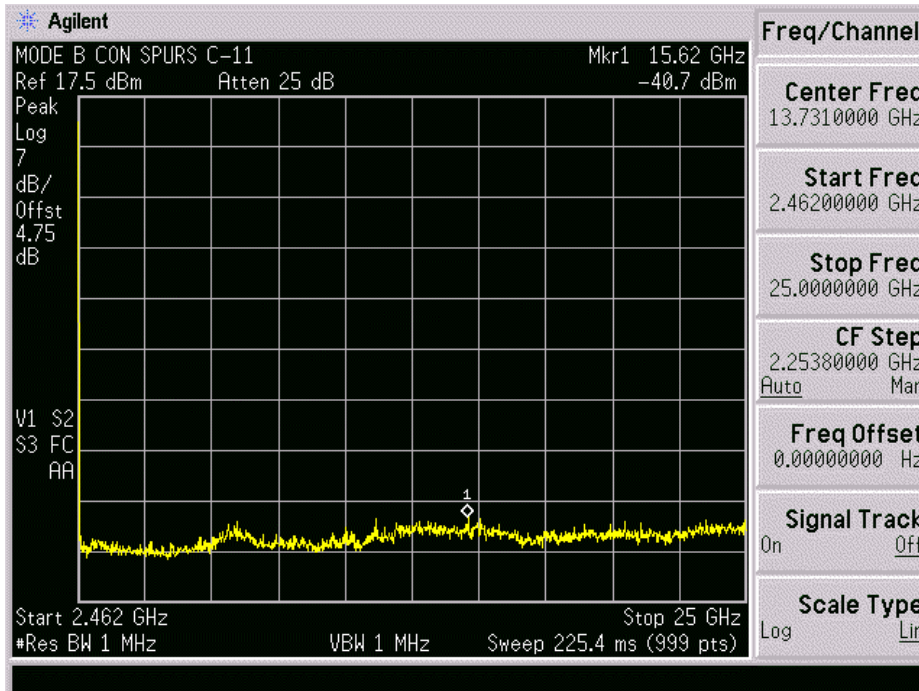
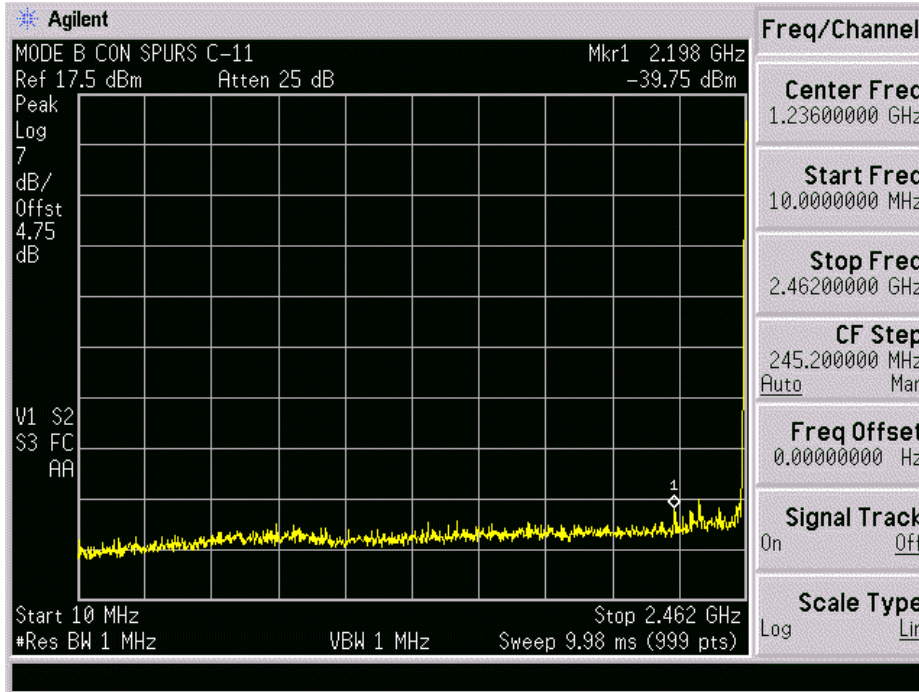
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Conducted Spurious Data (802.11 B)

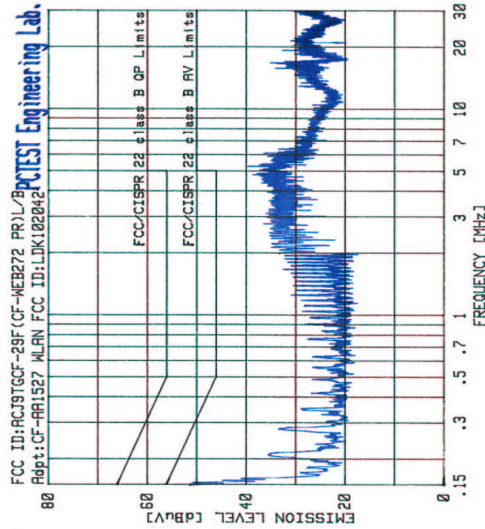


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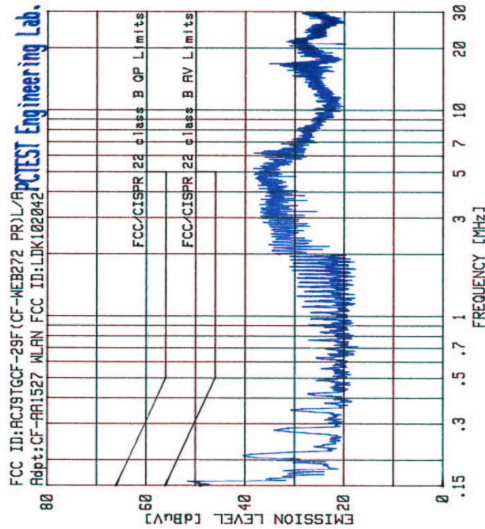
EXHIBIT A – Test Results (Cont.)

Line-Conducted Test Data

S15.207



No.	Freq. [MHz]	Quasi-Pk [dBuV]	Limit [dBuV]	Margin [dB]	Average [dBuV]	Limit [dBuV]	Margin [dB]
1	.150	31.99	65.98	-33.99	21.48	56.00	-34.52
2	4.800	30.98	56.00	-25.02	25.16	46.00	-20.84
3	4.868	31.61	56.00	-24.39	24.96	46.00	-21.04
4	4.991	30.51	56.00	-25.49	25.24	46.00	-20.76
5	4.983	29.66	56.00	-26.34	24.64	46.00	-21.36
6	4.522	30.32	56.00	-25.68	24.69	46.00	-21.31
7	2.784	28.35	56.00	-27.65	25.42	46.00	-20.58
8	3.131	28.86	56.00	-27.14	25.76	46.00	-20.24
9	2.993	28.99	56.00	-27.01	25.70	46.00	-20.30
10	3.966	29.30	56.00	-26.70	26.07	46.00	-19.93



No.	Freq. [MHz]	Quasi-Pk [dBuV]	Limit [dBuV]	Margin [dB]	Average [dBuV]	Limit [dBuV]	Margin [dB]
1	.150	37.23	65.98	-28.75	21.63	56.00	-34.37
2	4.871	32.86	56.00	-23.14	26.41	46.00	-19.59
3	4.661	31.83	56.00	-24.17	26.56	46.00	-19.44
4	4.940	32.44	56.00	-23.56	26.40	46.00	-19.60
5	4.314	31.17	56.00	-24.83	26.38	46.00	-19.62
6	4.591	31.43	56.00	-24.57	27.47	46.00	-18.53
7	4.175	30.92	56.00	-25.08	27.33	46.00	-18.67
8	4.522	31.53	56.00	-24.47	26.42	46.00	-19.58
9	3.479	30.63	56.00	-25.37	26.94	46.00	-19.06
10	3.201	30.10	56.00	-25.90	26.61	46.00	-19.39

Notes:

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are Specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: *None*.


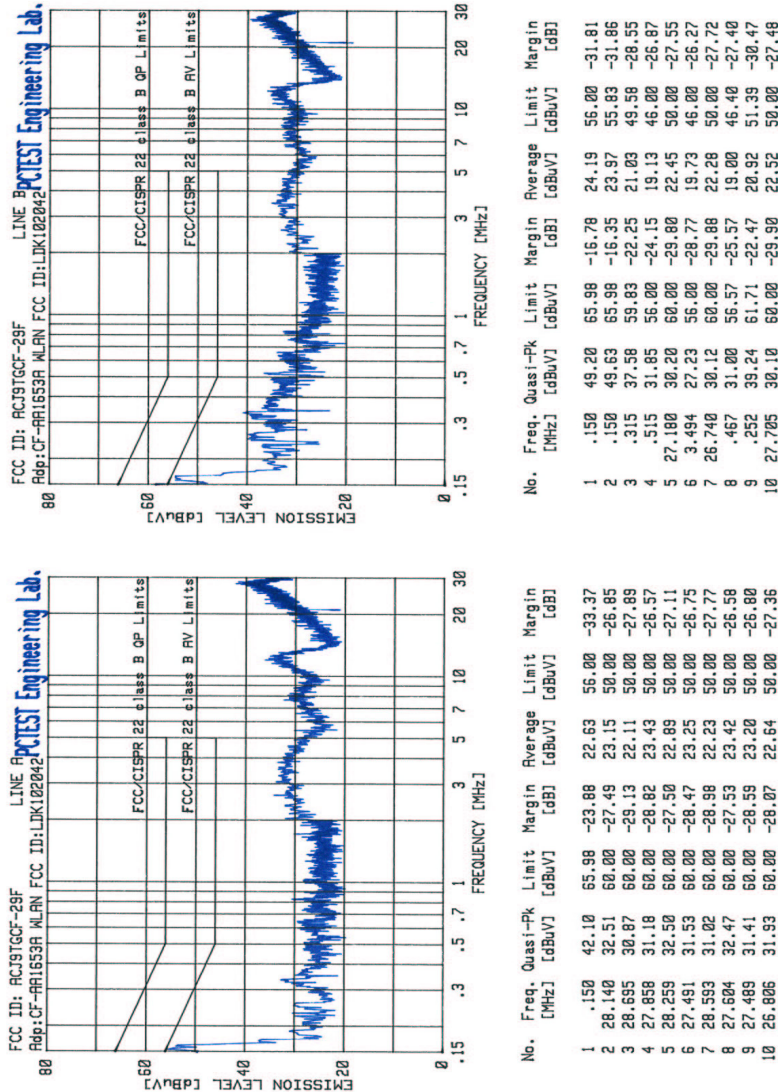
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EXHIBIT A – Test Results (Cont.)

Line-Conducted Test Data



§15.207



Notes:

- All Modes of operation were investigated and the worst-case emissions are reported.
- The limit for Class B device(s) from 150kHz to 30MHz are Specified in EN55022.
- Line A = Phase; Line B = Neutral
- Deviations to the Specifications: *None.*

EXHIBIT B – Labeling Requirements

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Sample Label & Location

New Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The sample label shown below shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name, FCC ID, and the FCC logo must be displayed on the device per Section 15.19 (b)(2).

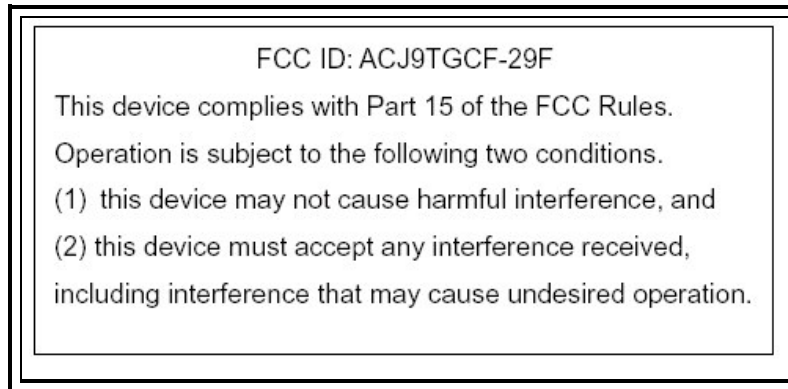
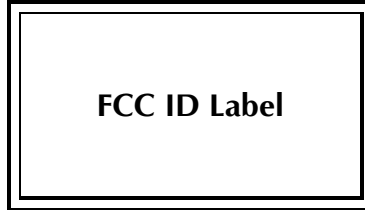


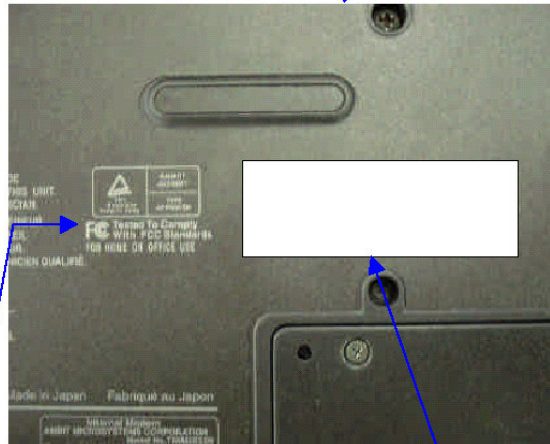
EXHIBIT B – Labeling Requirements (Cont.)

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Sample Label & Location



Magnified View



FCC DoC LABEL

FCC ID LABEL


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EXHIBIT C – Block Diagram/Schematics


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EXHIBIT D – Operational Description

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EXHIBIT E – Test Setup Photographs

The Line-Conducted and Radiated Test Pictures show the worst-case configuration and cable placement with a minimum margin to the specifications.

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EXHIBIT F – EUT External/Internal Photographs


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EXHIBIT G – User’s Manual

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EXHIBIT H – SAR Measurement Report

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