EMI Test Report

Tested in accordance with
Federal Communications Commission (FCC)
Personal Communications Services
CFR 47, Parts 15, Subpart B
&
Industry Canada (IC), ICES-003

RIM Testing Services (RTS)

A division of Research In Motion Limited

REPORT NO.: RTS-0943-0801-16

PRODUCT MODEL NO.: RBU21CW
TYPE NAME: BlackBerry® smartphone
FCC ID: L6ARBU20CW
IC: 2503A-RBU20CW

DATE: 31 January 2008

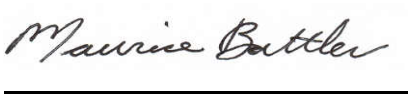
Statement of Performance:

The BlackBerry® smartphone, model RBU21CW, part number CER-16579-001 Rev. 1, and accessories when configured and operated per RIM's operation instructions, perform within the requirements of the test standards.

Declaration:

We hereby certify that:
The test data reported herein is an accurate record of the performance of the sample(s) tested.
The test results are valid for the tested unit (s) only.
The test equipment used was suitable for the tests performed and within manufacturer's published specifications and operating parameters.
The test methods were consistent with the methods described in the relevant standards.

Documented by:



Maurice Battler
Compliance Specialist
Date: 31 January, 2008

Tested by:

Vimal Olaganathan
Compliance Specialist
Date: 31 January, 2008

Reviewed by:

Masud S. Attayi, P.Eng.
Team Lead, Regulatory Compliance
Date: 03 February, 2008

Approved by:

Paul G. Cardinal, Ph.D.
Director
Date: 06 February, 2008

Table of Contents

A. Scope

This report details the results of compliance tests that were performed in accordance with the requirements of:

- FCC CFR 47 Part 15, Subpart B, May 04, 2007 Class B Digital Devices, Unintentional Radiators
- IC ICES-003 Issue 4, February 2004, Class B Digital Devices, Unintentional Radiators

B. Associated Document

1. None

C. Product Identification

Manufactured by Research In Motion Limited whose headquarters is located at:

295 Phillip Street
Waterloo, Ontario
Canada, N2L 3W8
Phone: 519 888 7465
Fax: 519 888 6906

The equipment under test (EUT) was tested at the RIM Testing Services (RTS) EMI test facility, located at:

305 Phillip Street
Waterloo, Ontario
Canada, N2L 3W8
Phone: 519 888 7465
Fax: 519 888 6906

The testing was performed on January 15 to January 31, 2008.

The sample EUT included:

SAMPLE NO.	MODEL	CER NUMBER
6	RBU21CW	CER-16597-001 Rev 1

BlackBerry® smartphone Accessories Tested

1) Folding Blade Charger, part number ASY-07040-001 with an output voltage of 5.0 volts dc, 750 mA and attached USB cable with a lead length of 1.80 metres.
2) Alternative Folding Blade Charger, part number ASY-12709-001 with an output voltage of 5.0 volts dc, 750 mA with an attached USB cable with a length of 1.80 metres.
3) Captive Cable Charger, part number ASY-07559-001 with an output voltage of 5.0 volts dc, 500 mA and attached USB cable with a lead length of 1.80 metres.
4) Alternative Captive Cable Charger part number HDW-14917-001 with an output voltage of 5.0 volts dc, 750 mA and attached USB cable with a lead length of 1.80 metres.
5) BlackBerry® Power Station, part number HDW-12736-001 Rev. 1
6) BlackBerry® Power Station, part number HDW-12736-001 Rev. 2
7) USB Data Cable, part number HDW-06610-001, 1.45 metres long.
8) Alternative USB Data Cable, part number HDW-06610-003, 1.0 metre long.
9) Mini External Battery Charger, part number HDW-12738-001
10) Bluetooth Headset including Charging Pocket, part number ASY-12747-001
11) TTY Adapter (3.5 mm plug to 2.5 mm jack), part number HDW-15306-002
12) Stereo Headset, 3.5 mm, part number HDW-14322-001, 1.3 metres long.
13) Stereo Headset, 2.5 mm, part number HDW-13019-001, 1.3 metres long
14) Alternative 3.5 mm Stereo Red Headset, part number HDW-16904-001, 1.3 metres long.
15) Alternative Stereo Headset, 3.5 mm, part number HDW-15764-001, 1.3 metres long
16) Mono Headset, part number HDW-12420-001, 1.25 metres long.

D. Support Equipment Used for the Testing of the EUT

1) IBM Thinkpad Lenovo T60p laptop, type 8742, product ID 8742C2U

E. Modifications to EUT

No modifications were required on the EUT.

F. Summary of Results

SPECIFICATION		TEST TYPE	Meets Requirement	TEST DATA APPENDIX
FCC CFR 47	IC			
Part 15, Subpart B	ICES-003	Conducted AC Line Emission	Yes	1
Part 15, Subpart B	ICES-003	Radiated Unintentional Spurious Emissions	Yes	2

a) CONDUCTED AC LINE EMISSIONS

The conducted emissions were measured using the test procedure outlined in CISPR Recommendation 22 through a 50 Ohm Line Impedance Stabilization Network (LISN), which was inserted in the power line to the equipment to provide the specified impedance for measurements. The EUT was placed on a nonconductive wooden table, 80 cm high that was positioned 40 cm from a vertical ground plane. The RF output of the network was connected to an EMI receiver system with characteristics that duplicate those of the receiver specified in CISPR Publication 16.
The input voltage was 120 V, 60 Hz. The following test configurations were measured using Sample 6:

1. The BlackBerry® smartphone with the 3.5 mm Stereo Headset connected in PCS idle/battery charging mode was connected to the Alternative Folding Blade Charger.
2. The BlackBerry® smartphone with the 3.5 mm Alternative Stereo Headset connected in Cellular idle/battery charging mode was connected to the Captive Cable Charger.
3. The BlackBerry® smartphone was connected to the BlackBerry® Power Station Rev. 1, which was connected to the Mini External Battery Charger through the Alternative USB Data Cable. The BlackBerry® smartphone was in Cellular idle/battery charging mode.
4. The BlackBerry® smartphone with the 3.5 mm Alternative Stereo Headset was connected to the BlackBerry® Power Station Rev. 2 which was connected to the Extra Bluetooth Headset and Mini External Battery Charger. The BlackBerry® smartphone was in PCS idle/battery charging mode.

The sample EUT's conducted emissions were compared with respect to the FCC CFR 47 Part 15, Subpart B, and IC ICES-003, Class B limit. The sample EUT had a worse case test margin of 4.88 dB below the QP limit at 0.166 MHz using the quasi-peak detector and 7.44 dB below the AV limit at 0.164 MHz using the Average detector for the BlackBerry® Power Station Rev. 1, test configuration 3.

Measurement Uncertainty ±2.0 dB

To view the test data/plots, see APPENDIX 1.

b) RADIATED EMISSIONS

The radiated emissions from the EUT were measured using the methods outlined in CISPR Recommendation 22. The EUT was placed on a nonconductive styrofoam table, 80 cm high that was positioned on a remote controlled turntable. The test distance used between the EUT and the receiving antenna was three metres. The turntable was rotated to determine the azimuth of the peak emissions. Then the emissions were maximized by elevating the antenna in the range of 1 to 4 metres. The maximum emission level was recorded. The frequency range measured was from 30 MHz to 2.0 GHz and 30 MHz to 5.0 GHz in high speed USB configuration 7. Both the horizontal and vertical polarisations of the emissions were measured.
The measurements were done in a semi-anechoic chamber. The semi-anechoic chamber FCC registration number is **778487** and the Industry Canada site number is **2503B-1**.
The EUT was configured and operated to produce the maximum radiated emissions while still keeping within RIM's specifications.
The BlackBerry® smartphone sample 6 was in battery charging mode. The ac input voltage was 120V, 60Hz.
The following test configurations were measured:

1. The BlackBerry® smartphone in Cellular idle mode with the 3.5 mm Stereo Headset was connected to the Folding Blade Charger.
2. The BlackBerry® smartphone in PCS idle mode with the Alternative Stereo Headset was connected to the Alternative Folding Blade Charger.
3. The BlackBerry® smartphone in Bluetooth Tx mode with the Bluetooth Headset including Charging Pocket was connected to the Captive Cable Charger.
4. The BlackBerry® smartphone in PCS idle mode with the Alternative Stereo Headset was connected to the Alternative Captive Cable Charger.
5. The BlackBerry® smartphone in PCS idle mode with the Alternative Stereo red Headset and the TTY Adapter was connected to the BlackBerry® Power Station Rev1.

6. The BlackBerry® smartphone in Bluetooth transmit mode was connected to the BlackBerry® Power Station Rev. 1.
7. The BlackBerry® smartphone in Bluetooth transmit mode with the Alternative 3.5 mm Stereo Headset was connected to the BlackBerry® Power Station Rev. 2 and with a high speed USB data link to the IBM Thinkpad Lenovo T60p laptop through the Alternative USB Data Cable.

The system's radiated emission levels were compared with respect to the FCC CFR 47 Part 15, Subpart B, and IC ICES-003, Class B limit.
The system met the requirements with a worse case emission test margin of 8.85 dB at 429.95 MHz using test configuration 7.

Sample Calculation:

Field Strength (dBµV/m) is calculated as follows:
FS = Measured Level (dBµV) + A.F. (dB/m) + Cable Loss (dB) - Preamp (dB) + Filter Loss (dB)

Measurement Uncertainty ±4.0 dB

To view the test data see APPENDIX 2.

G. Compliance Test Equipment Used

UNIT	MANUFACTURER	MODEL	SERIAL NUMBER	CAL DUE DATE (YY MM DD)	USE
Preamplifier	Sonoma	310N/11909A	185831	08-11-21	Radiated Emissions
Preamplifier system	TDK RF Solutions	PA-02	080010	08-11-16	Radiated Emissions
EMC Analyzer	Aglient	E7405A	US40240226	08-10-01	Radiated Emissions
Digital Multimeter	Hewlett Packard	34401A	US36042324	08-09-28	Conducted/Radiated Emissions
Environment Monitor	Control Company	1870	230355190	08-12-11	Conducted/Radiated Emissions
L.I.S.N.	Emco	3816/2	1120	08-08-28	Conducted Emissions
Impulse Limiter	Rohde & Schwarz	ESHS-Z2	100786	08-09-11	Conducted Emissions
Hybrid Log Antenna	TDK	HLP-3003C	17401	08-08-04	Radiated Emissions
Horn Antenna	TDK	HRN-0118	030101	08-07-26	Radiated Emissions
Universal Radio Communication Tester	R&S	CMU 200	837493/073	08-12-06	Radiated/Conducted Emission
EMI Receiver	Agilent	8546A	3942A00517	08-11-19	Conducted/Radiated Emissions
RF Filter Section	Agilent	85460A	3704A00481	08-11-19	Conducted/Radiated Emissions

APPENDIX 1 - AC LINE CONDUCTED EMISSIONS TEST DATA

AC Conducted Emissions Test Results

The measurements were performed by Vimal Olaganathan.

Test Configuration 1

The environmental test conditions were:

Temperature	23ºC
Pressure	1012 mb
Relative Humidity	23%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

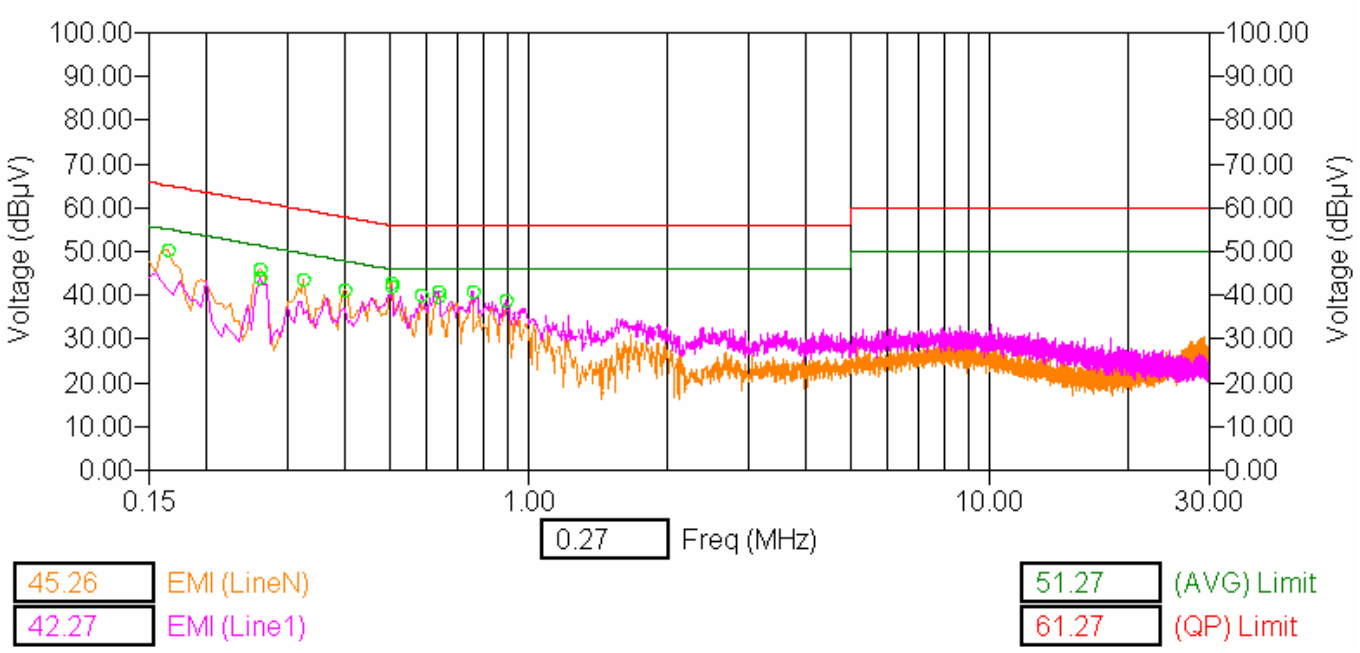
Date of test: January 16, 2008

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dB)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.167	N	33.80	9.87	43.67	65.21	55.21	-21.54
0.261	N	36.65	9.88	46.53	61.43	51.43	-14.90
0.267	L1	27.22	9.88	37.10	61.43	51.43	-24.33
0.318	N	28.41	9.89	38.30	59.58	49.58	-21.27
0.394	N	28.85	9.89	38.74	57.85	47.85	-19.11
0.493	N	29.45	9.90	39.35	56.00	46.00	-16.65
0.489	L1	27.29	9.90	37.19	56.00	46.00	-18.81
0.573	L1	23.77	9.91	33.68	56.00	46.00	-22.32
0.627	N	26.50	9.93	36.43	56.00	46.00	-19.57
0.632	L1	25.96	9.93	35.89	56.00	46.00	-20.11
0.747	L1	26.09	9.94	36.03	56.00	46.00	-19.97
0.880	L1	22.62	9.95	32.57	56.00	46.00	-23.43

All other emission levels had a test margin of greater than 25 dB.

See graph 1 for the measurement plot.

AC Conducted Emissions Test Graph 1



Test Configuration 1

AC Conducted Emissions Test Results

Test Configuration 2

The environmental test conditions were:

Temperature	24ºC
Pressure	1018 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 16, 2008

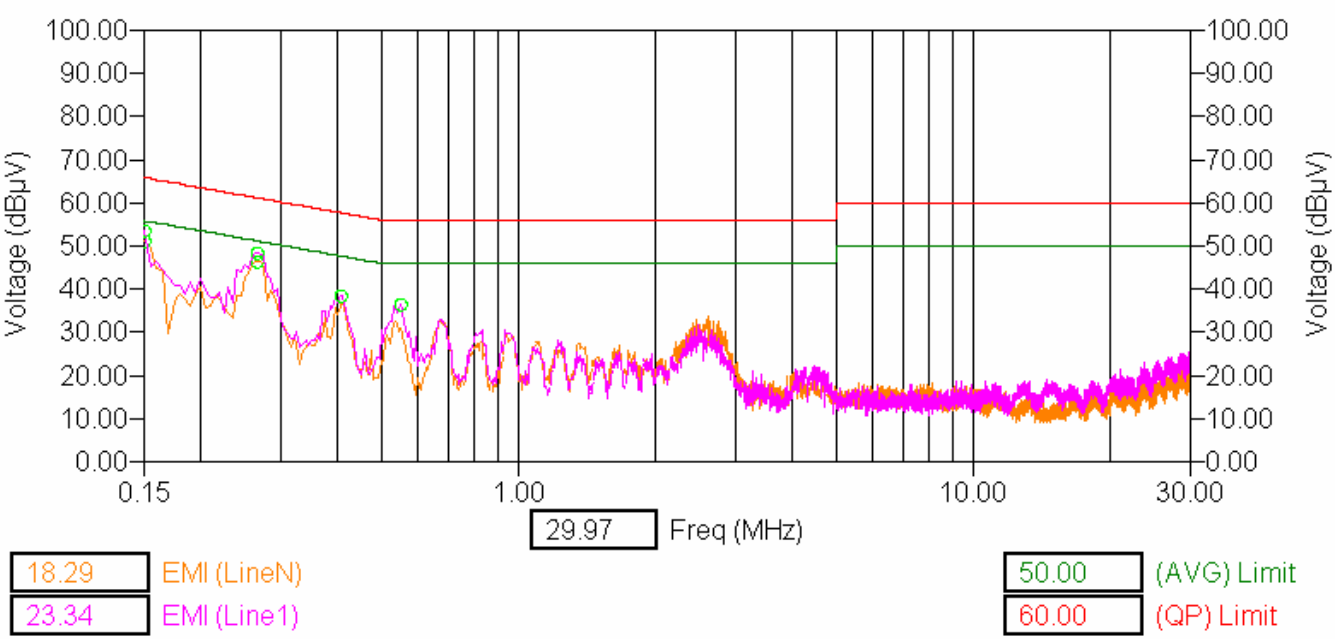
Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dB)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	N	42.26	9.87	52.13	66.00	56.00	-13.87
0.151	L1	44.30	9.87	54.17	66.00	56.00	-11.83
0.271	N	35.50	9.88	45.38	61.27	51.27	-15.89
0.266	L1	36.83	9.88	46.71	61.27	51.27	-14.56
0.401	L1	26.75	9.89	36.64	57.75	47.75	-21.11
0.544	L1	24.06	9.91	33.97	56.00	46.00	-22.03

All other emission levels had a test margin of greater than 25 dB.

Measurements were done with the quasi-peak detector.

See graph 2 for the measurement plot.

AC Conducted Emissions Test Graph 2



Test Configuration 2

AC Conducted Emissions Test Results

Test Configuration 3

The environmental test conditions were:

Temperature	24ºC
Pressure	1018 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 16, 2008

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dB)	Limit (QP) (dBµV)	Margin (QP) Limits (dB)
0.170	N	49.15	9.87	59.02	65.46	-6.44
0.166	L1	50.71	9.87	60.58	65.46	**-4.88**
0.188	L1	42.24	9.87	52.11	63.61	-11.50
0.194	L1	43.09	9.87	52.96	63.21	-10.25
0.259	N	43.21	9.88	53.09	61.43	-8.34
0.276	L1	27.70	9.89	37.59	60.67	-23.08
0.298	N	36.09	9.90	45.99	60.24	-14.25
0.327	L1	35.23	9.89	45.12	59.33	-14.20
0.364	L1	31.56	9.89	41.45	58.61	-17.16
0.398	N	25.82	9.89	35.71	57.85	-22.14
0.420	N	22.70	9.90	32.60	57.45	-24.85
0.483	N	25.94	9.91	35.85	56.51	-20.66

All other emission levels had a test margin of greater than 25 dB.

Measurements were done with the quasi-peak detector.

See graph 3 for the measurement plot.

AC Conducted Emission Test Results cont'd

Test Configuration 3 cont'd

Date of test: January 16, 2008

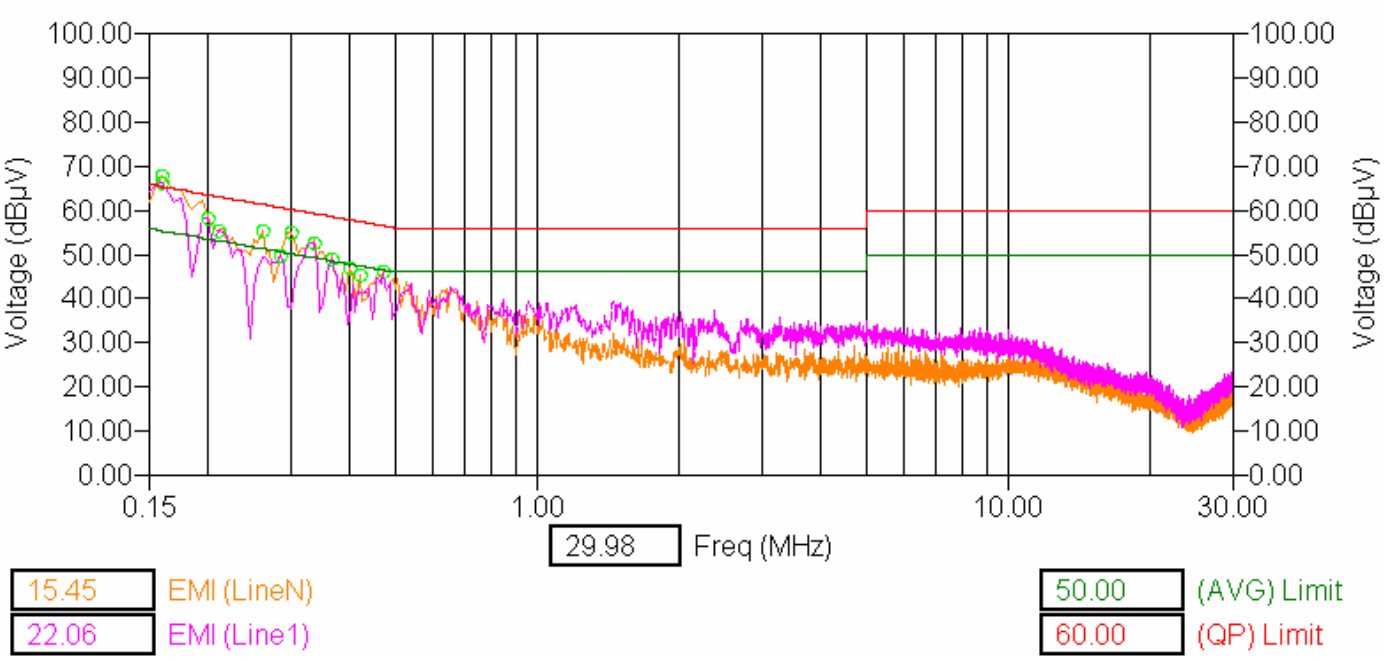
Frequency (MHz)	Line	Reading (AV) (dBµV)	Correction Factor (dB)	Corrected Reading (AV) (dB)	Limit (AV) (dBµV)	Margin (AV) Limits (dB)
0.162	N	37.61	9.87	47.48	55.46	-7.98
0.164	L1	38.15	9.87	48.02	55.46	**-7.44**
0.185	L1	29.74	9.87	39.61	53.61	-14.00
0.198	L1	31.52	9.87	41.39	53.21	-11.82
0.259	N	23.39	9.88	33.27	51.43	-18.16
0.295	L1	25.21	9.89	35.10	50.67	-15.57
0.290	N	24.58	9.90	34.48	50.24	-15.76
0.329	L1	23.74	9.89	33.63	49.33	-15.69
0.366	L1	21.24	9.89	31.13	48.61	-17.48
0.387	N	15.02	9.89	24.91	47.85	-22.94
0.425	N	18.49	9.90	28.39	47.45	-19.06
0.461	N	19.63	9.91	29.54	46.51	-16.97

All other emission levels had a test margin of greater than 25 dB.

Measurements were done with the average detector.

See graph 3 for the measurement plot.

AC Conducted Emissions Test Graph 3



Test Configuration 3

AC Conducted Emissions Test Results

Test Configuration 4

The environmental test conditions were:

Temperature	24ºC
Pressure	1012 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

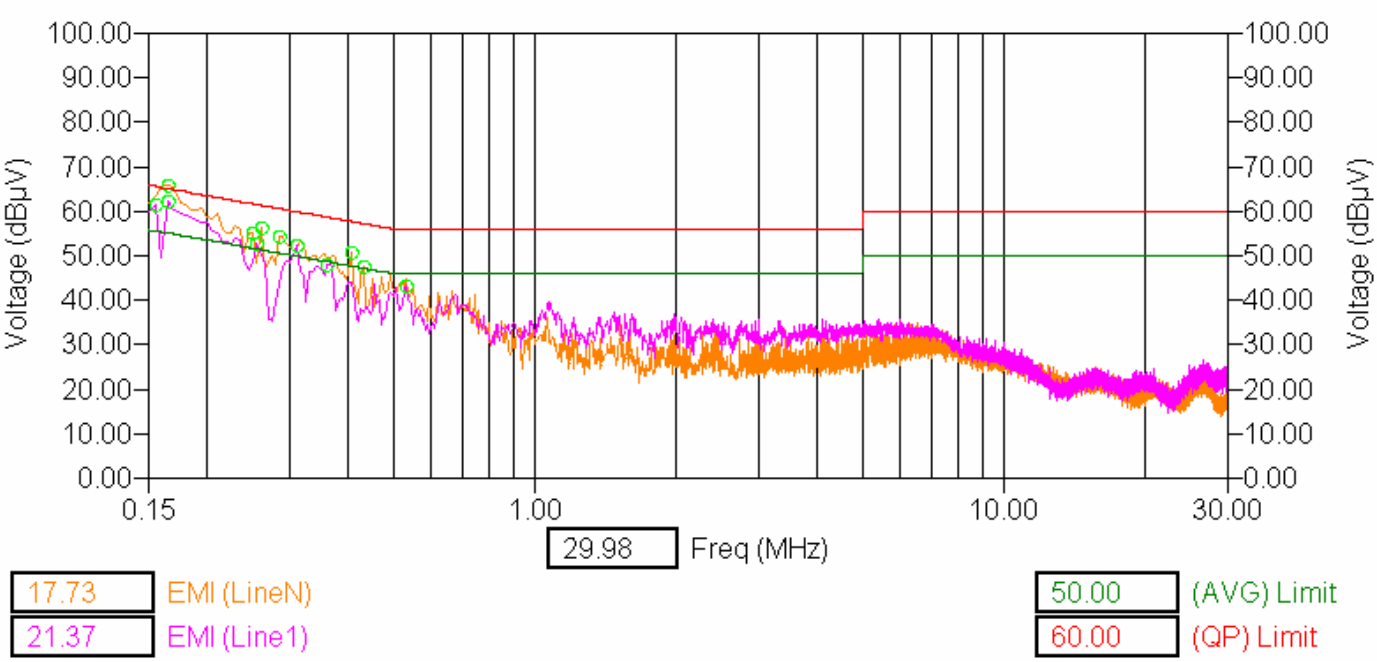
Date of test: January 17, 2008

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dB)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)	Margin (AV) Limits (dB)
0.155	L1	40.31	9.87	50.18	65.73	55.73	-15.55	-5.55
0.170	N	42.44	9.87	52.31	65.21	55.21	-12.90	-2.90
0.165	L1	39.92	9.87	49.79	65.21	55.21	-15.42	-5.42
0.251	N	28.84	9.87	38.71	61.76	51.76	-23.05	-13.05
0.256	L1	28.89	9.87	38.76	61.59	51.59	-22.83	-12.83
0.266	N	28.07	9.88	37.95	61.43	51.43	-23.48	-13.48
0.282	N	27.09	9.89	36.98	60.67	50.67	-23.69	-13.69
0.317	L1	28.64	9.90	38.54	59.97	49.97	-21.43	-11.43
0.347	L1	27.82	9.89	37.71	58.73	48.73	-21.02	-11.02
0.400	N	22.06	9.89	31.95	57.75	47.75	-25.80	-15.80
0.422	N	18.57	9.91	28.48	57.25	47.25	-28.77	-18.77
0.531	L1	25.99	9.91	35.90	56.00	46.00	-20.10	-10.10

All other emission levels had a test margin of greater than 25 dB.

See graph 1 for the measurement plot.

AC Conducted Emissions Test Graph 4



APPENDIX 2 - RADIATED EMMISIONS TEST DATA

Radiated Emissions Test Results

The measurements were performed by Vimal Olaganathan

Test Configuration 1

The environmental test conditions were:

Temperature	23ºC
Pressure	1004 mb
Relative Humidity	23%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 15, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
172.813	H	1.00	132	Q.P.	37.39	-17.22	20.17	43.50	-20.28
172.830	V	2.27	231	Q.P.	33.91	-17.22	16.69	43.50	-23.76
192.035	H	1.33	131	Q.P.	33.34	-15.52	17.82	43.50	-22.63
192.027	V	2.73	223	Q.P.	31.38	-15.52	15.86	43.50	-24.59

All emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 2

The environmental test conditions were:

Temperature	24ºC
Pressure	1006 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 15, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
42.071	V	1.71	176	Q.P.	38.34	-21.34	17.00	40.00	-23.00
172.839	H	1.00	146	Q.P.	36.63	-17.22	19.41	43.50	-24.09

All other emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 3

The environmental test conditions were:

Temperature	24ºC
Pressure	1006 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 15, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
35.660	H	2.05	239	Q.P.	41.67	-19.69	21.98	40.00	-18.02
35.669	V	2.14	323	Q.P.	38.63	-19.71	18.92	40.00	-21.08
39.027	V	1.48	314	Q.P.	35.79	-20.65	15.14	40.00	-24.86
47.581	V	2.34	126	Q.P.	45.35	-22.32	23.03	40.00	-16.97
47.771	H	3.05	200	Q.P.	47.79	-22.36	25.43	40.00	-14.57
75.167	V	2.02	333	Q.P	46.36	-21.82	24.54	40.00	-15.46
77.327	H	2.52	98	Q.P	42.52	-21.83	20.69	40.00	-19.31
120.734	V	2.14	202	Q.P	41.60	-18.06	23.54	43.50	-19.96
164.156	H	1.90	107	Q.P	44.51	-17.90	26.61	43.50	-16.89
193.851	H	1.00	112	Q.P	34.29	-15.06	19.23	43.50	-24.27

All other emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 4

The environmental test conditions were:

Temperature	24ºC
Pressure	1008 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 15, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
43.133	V	2.30	135	Q.P.	38.96	-21.60	17.36	40.00	-22.64
44.384	H	2.44	245	Q.P.	38.72	-21.74	16.98	40.00	-23.02
44.809	V	2.00	146	Q.P.	40.19	-21.87	18.32	40.00	-21.68
85.628	H	2.03	289	Q.P.	39.47	-21.58	17.89	40.00	-22.11
86.825	V	1.53	230	Q.P.	39.09	-21.58	17.51	40.00	-22.49

All other emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 5

The environmental test conditions were: Temperature 24ºC
Pressure 1013 mb
Relative Humidity 22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 16, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
82.548	V	1.94	338	Q.P.	50.30	-21.69	28.61	40.00	-11.39
83.848	H	2.24	294	Q.P.	49.85	-21.61	28.24	40.00	-11.76
132.706	V	1.48	196	Q.P.	41.45	-18.11	23.34	43.50	-20.16
136.600	H	2.13	134	Q.P.	40.30	-18.06	22.24	43.50	-21.26

All other emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 6

The environmental test conditions were:

Temperature	24ºC
Pressure	1011 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 15, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
74.382	V	1.54	343	Q.P	45.25	-21.59	23.66	40.00	-16.34
77.794	H	2.24	283	Q.P	41.56	-21.84	19.72	40.00	-20.28
91.583	V	2.04	156	Q.P	40.91	-21.46	19.45	43.50	-24.05
113.384	H	2.91	141	Q.P	36.76	-18.21	18.55	43.50	-24.95

All other emission levels had a test margin of greater than 25 dB.

Radiated Emissions Test Results cont'd

Test Configuration 7

The environmental test conditions were:

Temperature	24ºC
Pressure	1019 mb
Relative Humidity	22%

FCC CFR 47 Part 15, Subpart B and IC ICES-003, Class B

Date of test: January 16, 2008

Test Distance was 3.0 metres.

Frequency (MHz)	Antenna Pol. (V/H)	Antenna Height (metres)	Test Angle (Deg.)	Detector (Q.P. or AVE.)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+corr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
57.612	H	3.66	126	Q.P.	41.37	-22.71	18.66	40.00	-21.34
96.179	H	2.17	215	Q.P.	53.17	-20.86	32.31	43.50	-11.19
96.174	V	1.41	151	Q.P.	51.43	-20.86	30.57	43.50	-12.93
216.002	H	1.29	122	Q.P.	50.83	-15.15	35.68	46.00	-10.32
244.631	H	1.27	111	Q.P.	43.20	-16.08	27.12	46.00	-18.88
244.876	V	2.16	330	Q.P.	38.39	-16.07	22.32	46.00	-23.68
323.693	H	1.03	181	Q.P.	39.00	-11.58	27.42	46.00	-18.58
336.582	V	1.49	165	Q.P.	37.37	-10.73	26.64	46.00	-19.36
429.95	V	1.56	22	Q.P.	46.72	-9.57	37.15	46.00	**-8.85**
430.321	H	2.23	112	Q.P.	44.13	-9.55	34.58	46.00	-11.42
480.012	H	2.41	76	Q.P.	42.72	-7.68	35.04	46.00	-10.96
480.018	V	2.02	181	Q.P.	35.39	-7.68	27.71	46.00	-18.29
1332.381	V	2.00	188	AVE.	32.62	-2.22	30.40	54.00	-23.60
1600.357	H	1.00	79	AVE.	29.89	0.07	29.96	54.00	-24.04
1600.492	V	1.40	354	AVE.	29.97	0.07	30.04	54.00	-23.96

All other emission levels had a test margin of greater than 25 dB.