

# EMI Test Report

Tested in accordance with  
Federal Communications Commission (FCC)  
Personal Communications Services  
CFR 47, Parts 15.107,15.109  
&  
Industry Canada (IC), ICES-003



**A division of Research In Motion Limited**

**REPORT NO.:** RTS-6026-1302-15


**PRODUCT MODEL NO.:** RFL111LW  
**TYPE NAME:** BlackBerry® smartphone  
**FCC ID:** L6ARFL110LW  
**IC:** 2503A- RFL110LW

**DATE:** February 27, 2013

**RTS is accredited  
according to  
EN ISO/IEC 17025 by:**



**592**

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10 - February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

**Statement of Performance:**

The BlackBerry® smartphone, model RFL111LW, part number CER-53012-001 Rev3-906-01 and accessories when configured and operated per RIM’s operation instructions, and performs 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:


Reviewed by:

\_\_\_\_\_  
Mahmood Ahmed  
Regulatory Compliance Specialist

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Savtej Sandhu  
Regulatory Compliance Specialist


Reviewed and Approved by:

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Masud S. Attayi, P.Eng.  
Manager, Regulatory Compliance

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## 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, October, 2012 Class B Digital Devices, Unintentional Radiators
- IC ICES-003 Issue 5, August 2012, Information Technology Equipment (ITE) – Limits and methods of measurement

## B. Associated Documents

- 1) MultiSourceDeclaration\_RFL111LW\_b3694.
- 2) MultiSourceDeclaration\_RFL111LW\_b3901.
- 3) RFL111LW\_HW\_Declaration\_CER-53012-001\_Rev3-906-01.

## 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 following locations:

### RIM Testing Services EMI test facilities

305 Phillip Street	440 Phillip Street
Waterloo, Ontario	Waterloo, Ontario
Canada, N2L 3W8	Canada, N2L 5R9
Phone: 519 888 7465	Phone: 519 888 7465
Fax: 519 888 6906	Fax: 519 888 6906

The testing was performed on December 24, 2012 and January 10 – February 14, 2013

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The sample EUT included:

SAMPLE	MODEL	CER NUMBER	PIN	Software
1a	RFL111LW	CER-53012-001 Rev2-905-00	25CF0AC4	OS Version 127.0.1.2982 Bundle: 2982
1b	RFL111LW	CER-53012-001 Rev2-905-00	25CF0AC4	OS Version 127.0.1.3123 Bundle: 3123
1c	RFL111LW	CER-53012-001 Rev2-905-00	25CF0AC4	MFIb180
2	RFL111LW	CER-53012-001 Rev2-905-01	25CF0AE1	OS Version 127.0.1.3123 Bundle: 3123
3	RFL111LW	CER-53012-001 Rev3-906-01	2668C71B	OS Version 127.0.1.3901 Bundle: 3901

AC conducted testing was performed on sample 2 and 3  
Radiated Emissions testing was performed on samples 1a, 1b, 1c


To view the differences between software bundles 2982 to 3901, see document  
MultiSourceDeclaration\_RFL111LW\_b3694 and  
MultiSourceDeclaration\_RFL111LW\_b3901 .

Only the characteristics that may have been affected by the changes from RFL111LW  
Rev2-905-00/01 to RFL111LW Rev3-906-01 were re-tested.  
For more details, refer to RFL111LW\_HW\_Declaration\_ CER-53012-001\_Rev3-906-01

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### BlackBerry® smartphone Accessories Tested

- 1) Fixed Blade Charger Rev2, part number HDW-24481-001 (model number RIM-C-4ADUUS-001 with an output voltage of 5.0 volts dc, 750mA.
- 2) Alt.1 Fixed Blade Charger Rev3, part number HDW-24481-001 (model number PSM04A-050QRIM-R), with an output voltage of 5.0 volts dc, 750mA
- 3) Alt.2 Fixed Blade Charger Rev C, part number HDW-47725-001 with an output voltage of 5.0 volts dc, 850mA
- 4) Alt.3 Fixed Blade Charger Rev A, part number HDW-46445-001 with an output voltage of 5.0 volts dc, 850mA
- 5) Folding Blade Charger Rev1, part number HDW-34724-001 with an output voltage of 5.0 volts dc and current of 1.8 Amps
- 6) World Wide Travel Charger Rev 1, part number HDW 34725-001 with an output voltage of 5.0 volts, dc, 2A
- 7) Alt.1 World Wide Travel Charger, part number HDW-34725-002 with an output voltage of 5.0 volts, dc, 2A
- 8) Wired Headset, part number HDW-44306-003, with a lead length of 1.1 metres
- 9) Alt.1 Wired Headset, part number HDW-49299-001,with a lead length of 1.1 metres
- 10) Alt.2 Wired Headset, part number HDW-44306-003, with a lead length of 1.1 metres
- 11) 12 V DC Charger, part number HDW-46705-001, with an output of 5 volts, 1A
- 12) Alt.1 12 V DC Charger, part number HDW-46706-001, with an output of 5 volts, 1.8A
- 13) USB Data Cable, part number HDW-28109-003, Rev1 1.2 metre long.
- 14) Alt.1 USB Data Cable, part number HDW-28109-003 Rev1, 1.2 metre long.
- 15) Alt.2 USB Data Cable, part number HDW-28109-005 Rev1, 1.2 metre long.
- 16) Alt.3 USB Data Cable, part number HDW-50071-001 RevB, 1.2 metre long.
- 17) Alt.4 USB Data Cable, part number HDW-50071-001 RevB, 1.2 metre long.
- 18) Alt.5 USB Data Cable, part number HDW-51800-001 RevB, 1.2 metre long
- 19) Alt.6 USB Data Cable, part number HDW-51800-001 RevB, 1.2 metre long
- 20) USB Data Cable, part number HDW-48415-001, Rev1, 1.0 metre long
- 21) Alt.1 USB Data Cable, part number HDW-48415-001, Rev1, 1.0 metre long.
- 22) USB Y-Cable, part number HDW-19137-002, lead lengths of 26 cm and 11 cm
- 23) HDMI Cable, part number HDW 29572-001, with a lead length of 1.83m
- 24) External Battery Charger, part number HDW-53182-001
- 25) Bat. NS1, part number BAT-49702-002
- 26) Bat. NS1, part number BAT-52961-001


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#### D. Support Equipment Used for the Testing of the EUT

- 1) IBM Thinkpad Lenovo T60p laptop, type 8742-C2U, product ID 8742C2U
- 2) Samsung Monitor, Model Number S22A350H, Product Number LS22A3500HS/2A
- 3) Phillips Monitor, Model Number MWE12244T, Product ID 2444E1SB/27
- 4) 12 V DC Battery, Enerwatt AhM Series, WP12-12

#### E. Summary of Results

SPECIFICATION		TEST TYPE	Meets Requirement	Test Data APPENDIX
FCC CFR 47	IC			
Part 15.107	ICES-003,6.1	Conducted AC Line Emission	Yes	1
Part 15.109	ICES-003,6.1	Radiated Unintentional Spurious Emissions	Yes	2


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a) AC CONDUCTED 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. BlackBerry® smartphone was in battery charging mode. The input voltage was 120 V, 60 Hz.

Test Configuration	Operating Mode(s)	Charger + Accessories
1	GSM 850 Idle, Charging and Audio Playback	Fixed Blade Charger + Wired Headset + 1.2m USB Cable
2	PCS 1900 Idle Charging and Video Playback	Alt.1 Fixed Blade Charger + Alt.1 Wired Headset + Alt.1 1.2m USB Cable
3	Bluetooth Tx, Charging and Audio Playback	Alt.2 Fixed Blade Charger + Alt.3 Wired Headset + Alt.2 1.2m USB cable
4	802.11b Tx, Charging and Video Playback	Alt.3 Fixed Blade Charger + Wired Headset + 1.0m USB Cable
5	802.11a Tx, Charging and Video Playback	Folding Blade Charger + Alt.1 Wired Headset
6	UMTS Band 2 idle, Charging and Audio Playback	Folding Blade Charger + Alt.2 Wired Headset + HDMI Cable + Monitor (Samsung)
7	UMTS Band 5 idle, Charging	Alt. 3Fixed Blade Charger + Alt. 2Wired Headset + Alt.1 1.0m USB Cable
8	UMTS Band 2 HSDPA+ Idle, Charging	World Wide Travel Charger + Alt.1 Wired Headset




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Test Configuration	Operating Mode(s)	Charger + Accessories
9	UMTS Band 5 HSDPA+ Idle, Charging and Video Playback	Alt.1 World Wide Travel Charger + Wired Headset
10	NFC Tx, Charging	Fixed Blade Charger + Alt.2 Wired Headset + Alt.5 1.2m USB Cable
11	LET B 2 Idle, Charging	Alt.1 Fixed Blade Charger + Alt. 2Wired Headset + Alt.4 1.2m USB Cable
12	UMTS Band 2 DC HSDPA+ Idle, Charging	Folding Blade Charger + Wired Headset + Y – Cable + EBC
13	LET B 17 Idle, Charging	Alt.2 Fixed Blade Charger + Alt.3 Wired Headset + Alt.3 1.2m USB Cable
14	802.11a Tx, Charging and Video Playback	Folding Blade Charger + Alt.1 Wired Headset

The sample EUT's conducted emissions were compared with respect to the FCC CFR 47 Part 15.107, Class B Limit, and IC ICES-003, 6.1. The sample EUT had a worst case test margin of 5.83 dB below the QP limit at 0.438 MHz using the quasi-peak detector and a test margin of 3.26 dB below the AV limit at 0.438 MHz using the average detector in Test Configuration 5.

#### **Measurement Uncertainty ±3.2 dB**

To view the test data/plots, see APPENDIX 1

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## 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 radiated emissions were measured up to the fifth harmonic of the highest frequency of the band tested. Both the horizontal and vertical polarizations of the emissions were measured.

The measurements were done in a semi-anechoic chamber. The FCC registration number is **778487** and the Industry Canada(IC) file 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 was in battery charging mode for all configurations. The ac input voltage was 120V, 60Hz.

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Test Configuration	Operating Mode(s)	Charger + Accessories
1	GSM 850 Idle, Charging and Audio Playback	Alt.1 12 V DC Charger + Alt.1 Wired Headset + DC Battery
2	PCS 1900 Idle Charging and Video Playback	12 V CD Charger + Alt1. Wired Headset + 1.0m USB Cable
3	Bluetooth Tx, Charging and Audio Playback	Alt.3 Fixed Blade Charger + Alt.2 Wired Headset + Alt.2 1.2m USB Cable
4	802.11b Tx, Charging and Video Playback	Alt.3 Fixed Blade Charger + Alt1. Wired Headset + 1.0m USB Cable
5	802.11a Tx, Charging and Video Playback	Folding Blade Charger + Wired Headset
6	UMTS Band 2 idle, Charging and Audio Playback	Folding Blade Charger + Alt.2 Wired Headset + HDMI Cable + Phillips Monitor
7	UMTS Band 5 idle, Charging	Alt.3 Fixed Blade Charger + Alt. 2 Wired Headset + Alt. 1.0m USB Cable
8	UMTS Band 2 HSDPA+ Idle, Charging	World Wide Travel Charger + Alt.1 Wired Headset
9	UMTS Band 5 HSDPA+ Idle, Charging and Video Playback	Alt.1 World Wide Travel Charger + Alt.1 Wired Headset

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Test Configuration	Operating Mode(s)	Charger + Accessories
10	UMTS Band 2 DC HSDPA+ Idle, Charging	Fixed Blade Charger + Wired Headset + 1.2m USB Cable
11	UMTS Band 5 DC HSDPA+ Idle, Charging and Video Playback	Alt.1 Fixed Blade Charger + Alt.1 Wired Headset + Alt.1 1.2m USB Cable
12	NFC Tx, Charging	Fixed Blade Charger + Alt.2 Wired Headset + Alt.5 1.0m USB Cable
13	LET B 2 Idle, Charging	Alt.1 Fixed Blade Charger + Alt.2 Wired Headset + Alt.5 1.2m USB Cable
14	LET B 4 Idle, Charging and Audio Playback	Folding Blade Charger + Wired Headset + Y-Cable+EBC
15	LET B 5 Idle, Charging and Video Playback	Alt.1 Wired Headset + Alt.6 1.2m USB Cable + Laptop
16	LET B 17 Idle, Charging	Alt.2 Fixed Blade Charger + Alt.2 Wired Headset + Alt.3 1.2m USB Cable
17	GSM 850 Idle, Charging and Audio Playback	Alt. 12 V DC Charger + Alt.1 Wired Headset + Alt. DC Battery

The system's radiated emission levels were compared with respect to the FCC CFR 47 Part 15.109, Class B limit and IC ICES-003, 6.2.

The system met the requirements with a worst case emission test margin of 1.80 dB below the QP limit at 30.450 MHz using quasi-peak detector in Test Configuration 1. To view the test data see APPENDIX 2.

### **Sample Calculation:**

Field Strength (dBµV/m) is calculated as follows:

$$FS = \text{Measured Level (dB}\mu\text{V)} + \text{A.F. (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp (dB)} + \text{Filter Loss (dB)}$$

### **Measurement Uncertainty ±4.5 dB**


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### F. Compliance Test Equipment Used

<u>UNIT</u>	<u>MANUFACTURER</u>	<u>MODEL</u>	<u>SERIAL NUMBER</u>	<u>CAL DUE DATE</u> (YY MM DD)	<u>USE</u>
Preamplifier	Sonoma	310N/11909A	185831	13-10-10	Radiated Emissions
Preamplifier system	TDK RF Solutions	PA-02	080010	13-10-10	Radiated Emissions
EMI Receiver	Rohde & Schwarz	ESIB 40	100255	13-11-30	Radiated Emissions
Digital Multimeter	Hewlett Packard	34401A	US36042324	13-11-13	Conducted/Radiated Emissions
Environment Monitor	OMEGA	iTHX-SD	0380561	13-10-30	Radiated Emission
Environment Monitor	OMEGA	iTHX-SD	0380567	13-10-30	Radiated Emission
L.I.S.N.	Rohde & Schwarz	ENV216	100060	13-10-25	Conducted Emissions
Hybrid Log Antenna	EMC Automation	HLP-3003C	017401	13-08-23	Radiated Emissions
Horn Antenna	EMC Automation	HRN-0118	030101	14-07-08	Radiated Emissions
Universal Radio Communication Tester	Rohde & Schwarz	CMU 200	837493/073	13-11-26	Radiated Emissions
Universal Radio Communication Tester	Rohde & Schwarz	CMU 200	112394	13-11-24	Radiated/Conducted Emissions
EMI Test Receiver	Rohde & Schwarz	ESU 40	100162	13-11-29	Radiated/Conducted Emissions
Bluetooth Tester	Rohde & Schwarz	CBT	100368	13-12-04	Radiated Emissions
Bluetooth Tester	Rohde & Schwarz	CBT	100737	14-12-05	Radiated/Conducted Emissions


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**G. Test Software used**

<u>SOFTWARE</u>	<u>COMPANY</u>	<u>VERSION</u>	<u>USE</u>
EMC32	Rohde & Schwarz	8.52.0	Radiated Emissions
TDK Standard Emission Test	TDK RF Solutions	8.53.1.62	Radiated Emissions

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 1</b>	
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## APPENDIX 1 - AC CONDUCTED EMISSIONS TEST DATA

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
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### AC Conducted Emissions Test Results

The following tests were performed by Heng Lin and Mahmood Ahmed

#### Test Configuration 1

Date of the test: January 23, 2013

The environmental conditions were: Temperature: 24.3 °C  
Humidity: 17.4 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.168	L1	35.41	11.08	46.49	65.10	55.10	-18.61
0.614	L1	27.01	9.85	36.86	56.00	46.00	-19.14
0.839	L1	25.72	9.81	35.54	56.00	46.00	-20.46
2.013	L1	24.86	9.83	34.69	56.00	46.00	-21.31
3.980	L1	26.85	9.90	36.75	56.00	46.00	-19.25
4.200	L1	26.68	9.90	36.58	56.00	46.00	-19.42
4.259	L1	26.50	9.90	36.41	56.00	46.00	-19.59
4.317	L1	25.37	9.90	35.27	56.00	46.00	-20.73
4.421	L1	25.49	9.91	35.40	56.00	46.00	-20.60
4.529	N	21.15	9.91	31.06	56.00	46.00	-24.94
4.538	L1	26.47	9.90	36.38	56.00	46.00	-19.62

All other emissions are at least 25 dB below the limit.  
Measurements were done with the quasi-peak detector

See figure 1-1 and figure 1-2 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

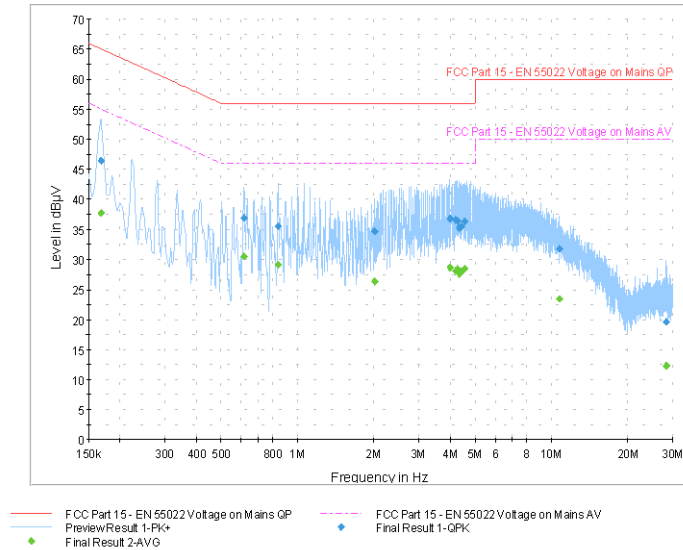


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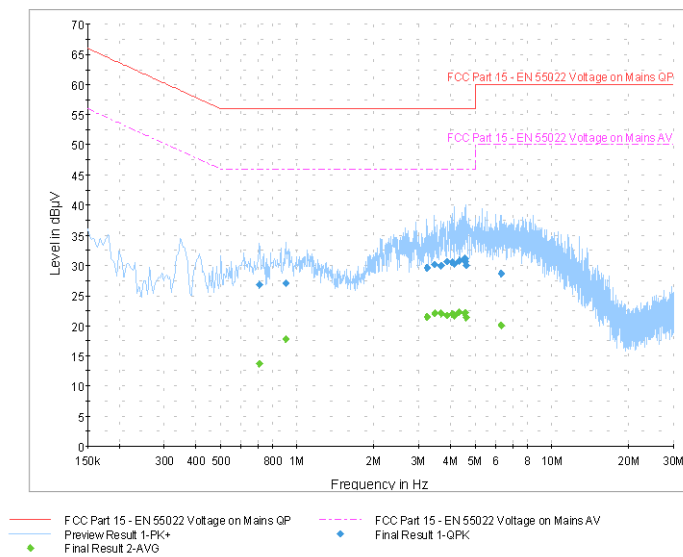
## AC Conducted Emissions Test Graphs

### Test Configuration 1

**Figure 1-1: L1 lines**



**Figure 1-2: N Lines**



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## AC Conducted Emissions Test Results cont'd

### Test Configuration 2

Date of the test: February 01, 2013

The environmental conditions were:      Temperature:    25.4 °C  
    Humidity:            17.6 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.182	L1	29.42	10.99	40.40	64.40	54.40	-24.00
10.095	L1	28.02	9.97	37.98	60.00	50.00	-22.02
10.478	L1	30.66	9.97	40.63	60.00	50.00	-19.37
10.698	L1	30.06	9.97	40.03	60.00	50.00	-19.97
10.847	L1	31.36	9.98	41.34	60.00	50.00	-18.66
11.000	L1	32.39	9.98	42.37	60.00	50.00	-17.63
11.049	N	25.49	9.99	35.49	60.00	50.00	-24.51
11.301	N	25.56	10.00	35.57	60.00	50.00	-24.44
11.378	N	26.34	10.00	36.34	60.00	50.00	-23.66
11.423	N	26.51	10.01	36.52	60.00	50.00	-23.48
11.472	N	27.28	10.01	37.29	60.00	50.00	-22.71
11.490	L1	33.83	10.00	43.83	60.00	50.00	-16.18
11.490	N	26.90	10.01	36.91	60.00	50.00	-23.09
11.594	N	27.28	10.01	37.29	60.00	50.00	-22.71
11.742	N	26.24	10.02	36.26	60.00	50.00	-23.74
11.810	N	25.92	10.02	35.95	60.00	50.00	-24.05
12.075	N	26.09	10.04	36.13	60.00	50.00	-23.87
12.080	L1	33.02	10.03	43.05	60.00	50.00	-16.95
12.327	L1	31.83	10.03	41.87	60.00	50.00	-18.13
12.489	L1	31.81	10.04	41.85	60.00	50.00	-18.15
12.768	L1	28.86	10.05	38.91	60.00	50.00	-21.09

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

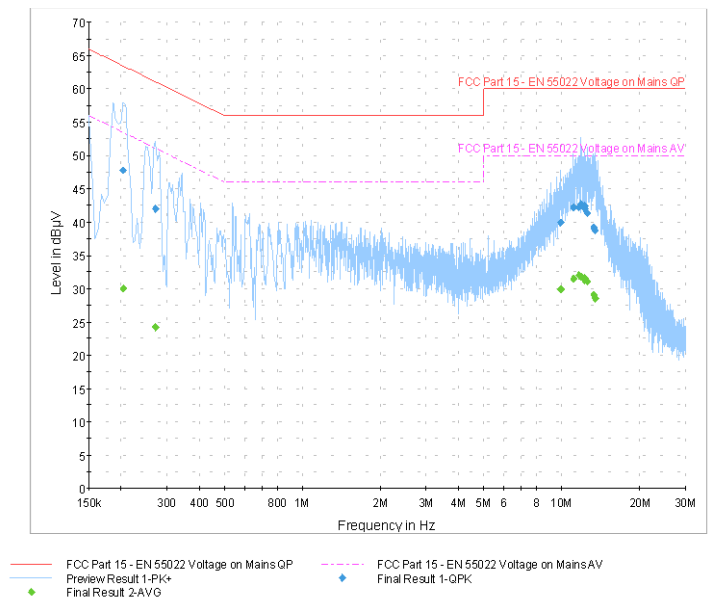
See figure 1-3 and figure 1-4 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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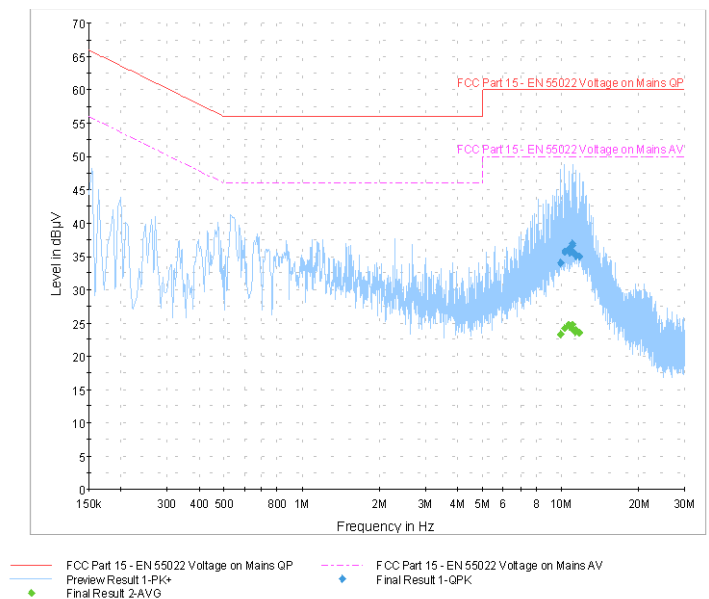
## AC Conducted Emissions Test Graphs


### Test Configuration 2

**Figure 1-3: L1 lines**



**Figure 1-4: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### AC Conducted Emissions Test Results cont'd

#### Test Configuration 3

Date of the test: January 23, 2013

The environmental conditions were: Temperature: 24.3 °C  
Humidity: 17.4 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.393	N	25.25	10.03	35.28	58.00	48.00	-22.72
0.438	L1	27.87	9.95	37.82	57.10	47.10	-19.28
0.861	L1	21.70	9.81	31.51	56.00	46.00	-24.49
2.882	L1	22.30	9.87	32.16	56.00	46.00	-23.84

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-5 and figure 1-6 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

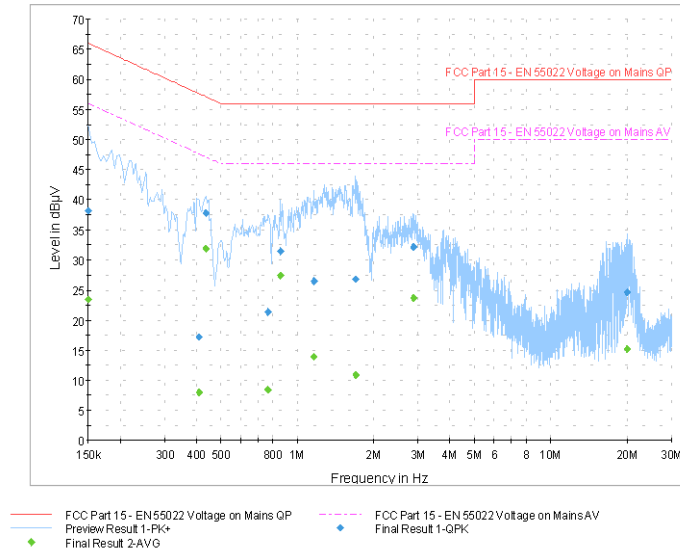
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

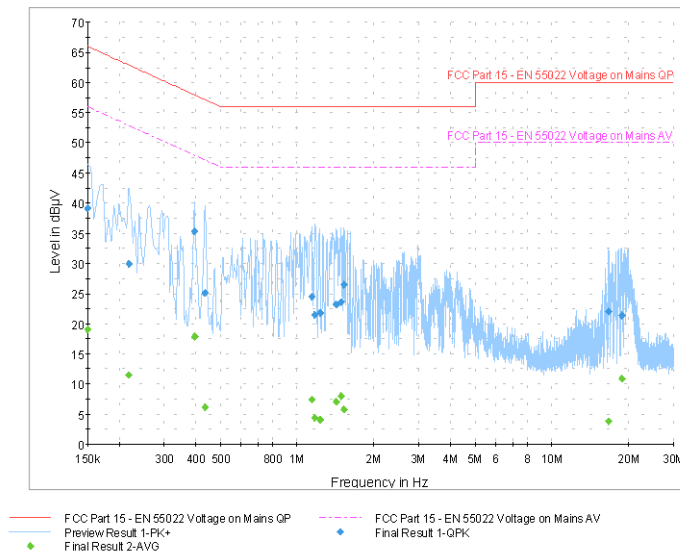
## AC Conducted Emissions Test Graphs


### Test Configuration 3

**Figure 1-5: L1 lines**



**Figure 1-6: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

AC Conducted Emissions Test Results cont'd

Test Configuration 4

Date of the test: January 31, 2013

The environmental conditions were: Temperature: 25.1 °C  
Humidity: 23.0 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	L1	33.61	11.20	44.81	66.00	56.00	-21.19
0.456	N	25.21	9.94	35.15	56.80	46.80	-21.65
0.852	N	22.04	9.82	31.86	56.00	46.00	-24.14
0.902	N	22.11	9.81	31.92	56.00	46.00	-24.08
1.208	L1	27.45	9.80	37.25	56.00	46.00	-18.75
1.406	L1	25.98	9.80	35.78	56.00	46.00	-20.22
2.108	L1	30.16	9.83	39.99	56.00	46.00	-16.02
2.292	L1	28.78	9.84	38.62	56.00	46.00	-17.38
3.413	L1	24.25	9.89	34.14	56.00	46.00	-21.86
3.638	L1	25.13	9.89	35.02	56.00	46.00	-20.98
14.942	L1	26.59	10.07	36.66	60.00	50.00	-23.34

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-7 and figure 1-8 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

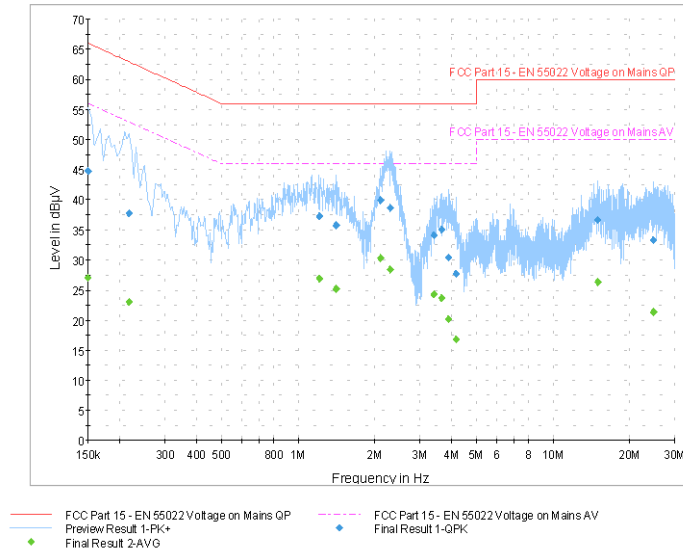
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

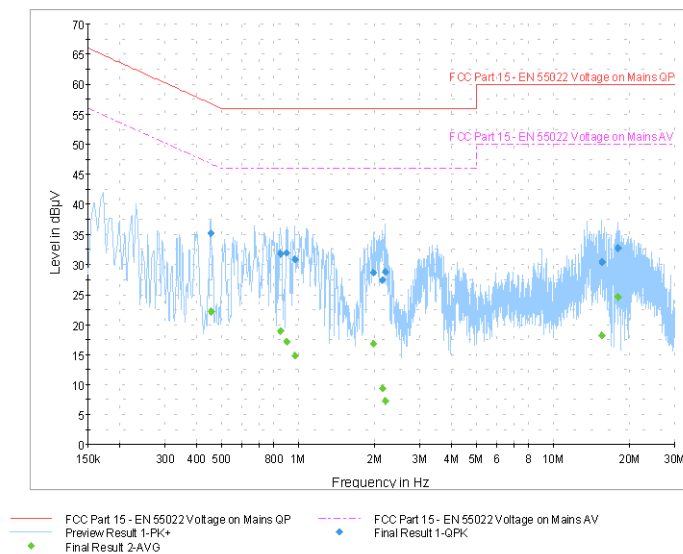
### AC Conducted Emissions Test Graphs


#### Test Configuration 4

**Figure 1-7: L1 lines**



**Figure 1-8: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

AC Conducted Emissions Test Results cont'd

Test Configuration 5

Date of the test: January 31, 2013

The environmental conditions were: Temperature: 25.1 °C  
Humidity: 23.0 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Margin (QP) Limits (dB)
0.150	N	39.53	11.23	50.76	64.00	-13.24
0.191	L1	28.45	10.92	39.38	57.40	-18.02
0.249	N	31.18	10.54	41.72	57.10	-15.38
0.308	N	30.72	10.17	40.88	56.00	-15.12
0.425	L1	22.11	9.97	32.08	56.00	-23.92
0.438	L1	40.22	9.95	50.17	56.00	<b>-5.83</b>
0.501	N	37.46	9.92	47.38	56.00	-8.62
0.960	L1	35.31	9.81	45.12	56.00	-10.88
1.118	N	33.03	9.81	42.84	61.80	-18.96
2.022	N	30.33	9.83	40.16	60.00	-19.84
2.103	L1	24.57	9.83	34.40	56.00	-21.61
3.008	N	28.36	9.88	38.24	56.00	-17.76
3.624	L1	25.26	9.89	35.15	56.00	-20.85
12.930	N	26.16	10.07	36.23	60.00	-23.77



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (AP) (dBµV)	Limit (AV) (dBµV)	Margin (AV) Limits (dB)
0.150	N	33.47	11.23	44.70	46.00	-11.30
0.191	L1	18.31	10.92	29.23	44.00	-24.77
0.249	N	23.79	10.54	34.33	41.80	-17.47
0.308	N	25.92	10.17	36.09	40.00	-13.91
0.425	L1	30.32	9.97	40.29	37.40	-7.11
0.438	L1	33.89	9.95	43.84	37.10	<b>-3.26</b>
0.501	N	32.21	9.92	42.13	36.00	-3.87
0.960	L1	28.23	9.81	38.03	36.00	-7.97
1.113	L1	22.96	9.80	32.76	36.00	-13.24
1.118	N	27.66	9.81	37.47	36.00	-8.53
2.022	N	24.93	9.83	34.76	36.00	-11.24
2.103	L1	19.21	9.83	29.04	36.00	-16.96
2.288	L1	14.57	9.84	24.40	36.00	-21.60
3.008	N	22.92	9.88	32.80	36.00	-13.20
3.624	L1	19.59	9.89	29.48	36.00	-16.52
12.930	N	20.58	10.07	30.65	40.00	-19.35

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector and the average detector.

See figure 1-9 and figure 1-10 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

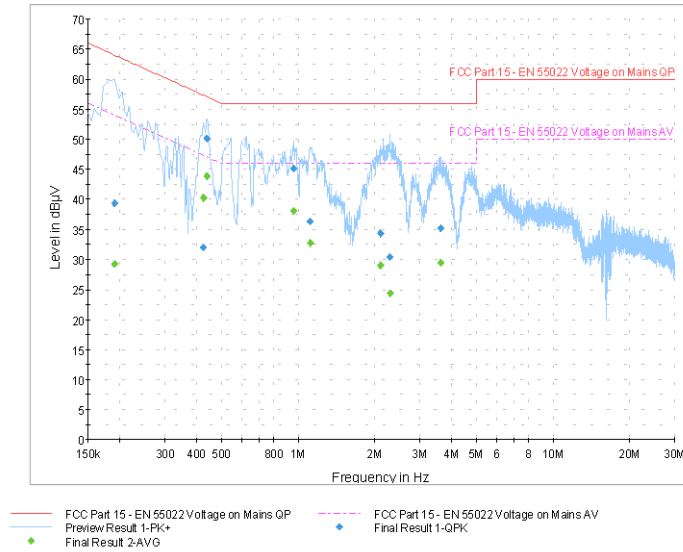
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

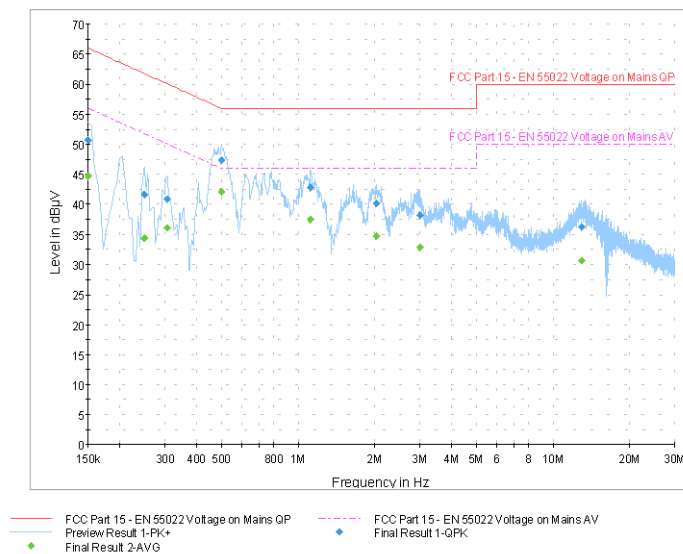
## AC Conducted Emissions Test Graphs

### Test Configuration 5

**Figure 1-9: L1 lines**



**Figure 1-10: N Lines**



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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### Test Configuration 6

Date of the test: February 01, 2013

The environmental conditions were: Temperature: 25.8 °C  
Humidity: 17.0 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Margin (QP) Limits (dB)
0.182	L1	43.41	10.99	54.40	64.40	-10.01
0.182	N	38.09	11.01	49.10	64.40	-15.30
0.263	L1	34.52	10.42	44.94	61.40	-16.46
0.429	L1	33.09	9.97	43.06	57.30	-14.24
0.429	N	37.50	9.98	47.48	57.30	-9.82
0.438	N	36.25	9.96	46.22	57.10	-10.88
0.492	L1	34.11	9.91	44.03	56.10	-12.08
0.515	N	35.31	9.91	45.22	56.00	-10.78
0.587	N	34.03	9.87	43.90	56.00	-12.10
0.704	L1	32.39	9.83	42.23	56.00	-13.77
1.050	L1	33.80	9.80	43.60	56.00	-12.40
1.185	N	32.25	9.80	42.05	56.00	-13.95
1.505	L1	30.95	9.80	40.75	56.00	-15.25
2.085	N	33.22	9.83	43.06	56.00	-12.95
2.202	L1	32.67	9.83	42.50	56.00	-13.50
2.639	N	32.48	9.86	42.34	56.00	-13.66
2.679	N	33.11	9.87	42.97	56.00	-13.03
2.877	N	32.52	9.87	42.40	56.00	-13.60
3.278	N	33.73	9.89	43.62	56.00	-12.38
3.507	L1	32.42	9.89	42.31	56.00	-13.69
4.214	N	31.95	9.91	41.86	56.00	-14.14
9.155	N	34.96	9.98	44.95	60.00	-15.05
10.271	L1	32.79	9.97	42.76	60.00	-17.25
10.469	N	33.72	9.98	43.69	60.00	-16.31

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (AV) (dBµV)	Limit (AV) (dBµV)	Margin (AV) Limits (dB)
0.182	L1	30.94	10.99	41.93	44.40	-12.47
0.182	N	31.27	11.01	42.29	44.40	-12.11
0.263	L1	25.10	10.42	35.52	41.40	-15.88
0.429	L1	26.79	9.97	36.76	37.30	-10.54
0.429	N	30.71	9.98	40.69	37.30	-6.61
0.438	N	27.56	9.96	37.52	37.10	-9.58
0.492	L1	23.87	9.91	33.78	36.10	-12.32
0.515	N	28.14	9.91	38.05	36.00	-7.95
0.587	N	25.65	9.87	35.52	36.00	-10.48
0.704	L1	25.45	9.83	35.28	36.00	-10.72
1.050	L1	23.52	9.80	33.33	36.00	-12.67
1.185	N	24.41	9.80	34.21	36.00	-11.79
1.505	L1	23.76	9.80	33.56	36.00	-12.44
2.085	N	26.88	9.83	36.71	36.00	-9.29
2.202	L1	26.13	9.83	35.96	36.00	-10.04
2.639	N	23.86	9.86	33.72	36.00	-12.28
2.679	N	25.42	9.87	35.29	36.00	-10.71
2.877	N	24.65	9.87	34.53	36.00	-11.47
3.278	N	27.05	9.89	36.94	36.00	-9.06
3.507	L1	24.85	9.89	34.74	36.00	-11.26
4.214	N	25.75	9.91	35.65	36.00	-10.35
9.155	N	27.48	9.98	37.46	40.00	-12.54
10.271	L1	25.86	9.97	35.83	40.00	-14.17
10.469	N	27.62	9.98	37.60	40.00	-12.40

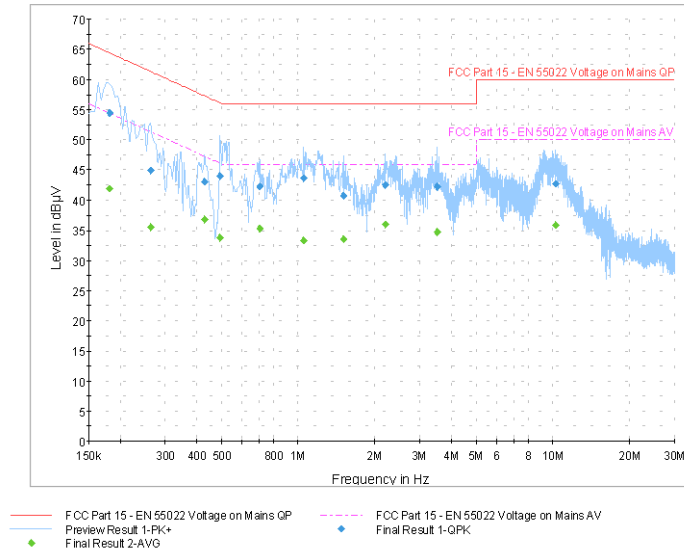
All other emissions are at least 25 dB below the limit.  
 Measurements were done with the quasi-peak detector and the average detector.  
 See figure 1-11 and figure 1-12 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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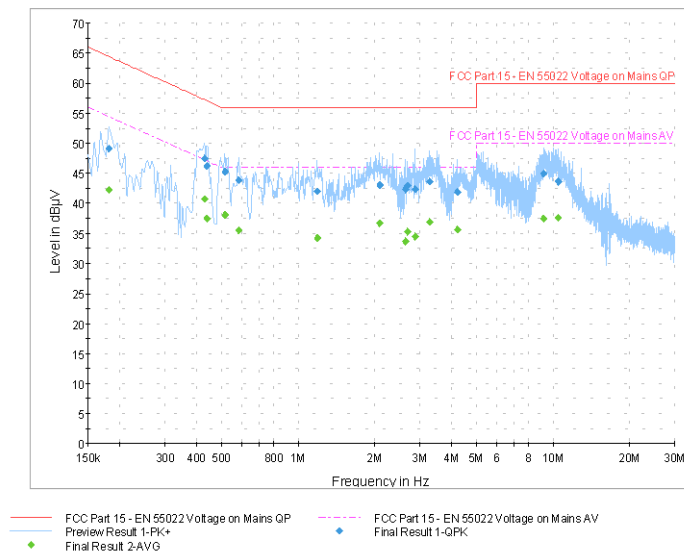
## AC Conducted Emissions Test Graphs


### Test Configuration 6

**Figure 1-11: L1 lines**



**Figure 1-12: N Lines**



 RIM Testing Services	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

Test Configuration 7

Date of the test: February 13, 2013

The environmental conditions were: Temperature: 25.3 °C  
Humidity: 18.5 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
2.108	L1	29.64	9.83	39.47	56.00	46.00	-16.53
2.211	L1	28.78	9.83	38.62	56.00	46.00	-17.38
15.275	L1	32.44	10.07	42.51	60.00	50.00	-17.50

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-13 and figure 1-14 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

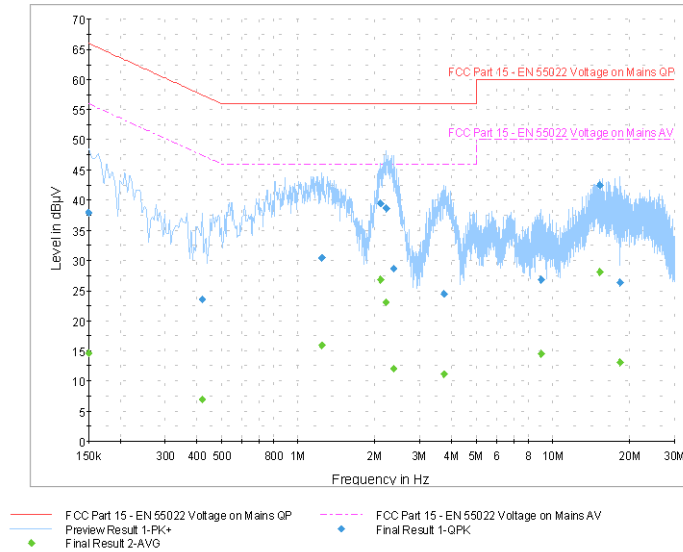
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

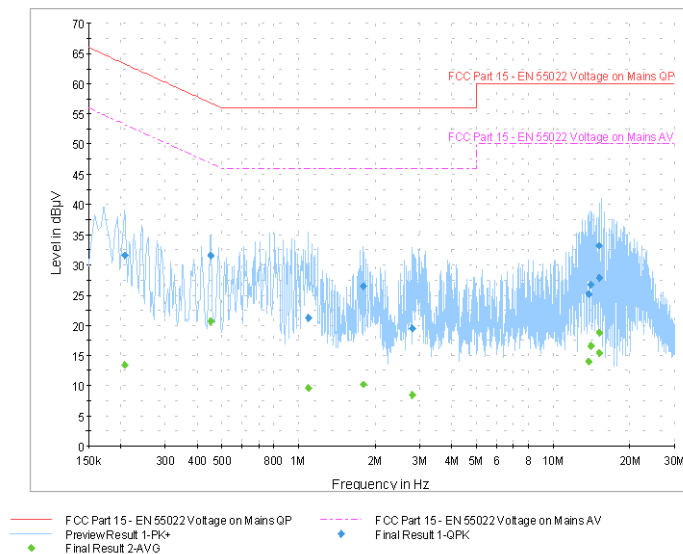
## AC Conducted Emissions Test Graphs


### Test Configuration 7

**Figure 1-13: L1 lines**



**Figure 1-14: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Test Configuration 8

Date of the test: January 23, 2013

The environmental conditions were: Temperature: 24.3 °C  
Humidity: 17.4 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	L1	30.18	11.20	41.38	66.00	56.00	-24.62
0.429	L1	29.24	9.97	39.20	57.30	47.30	-18.10
0.429	N	26.80	9.98	36.78	57.30	47.30	-20.52
0.434	L1	29.44	9.96	39.40	57.20	47.20	-17.80
0.443	N	27.21	9.96	37.16	57.00	47.00	-19.84

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-15 and figure 1-16 for the measurement plot of the L1 and N lines of AC power line conducted emissions.



**Test Report No.**  
 RTS-6026-1302-15

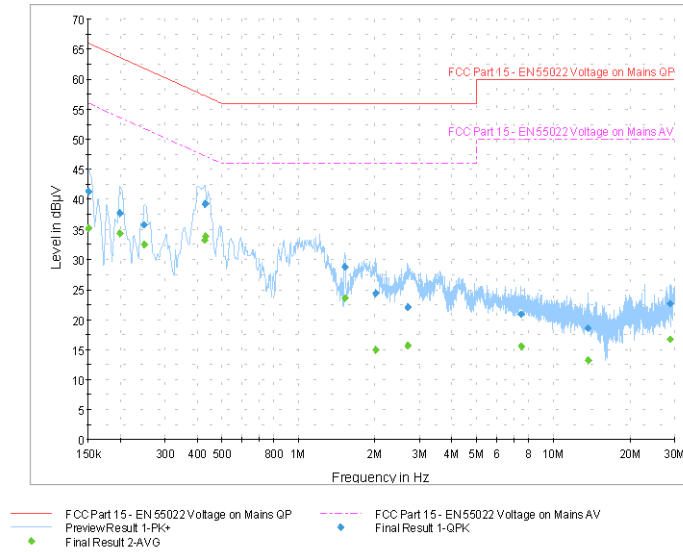
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

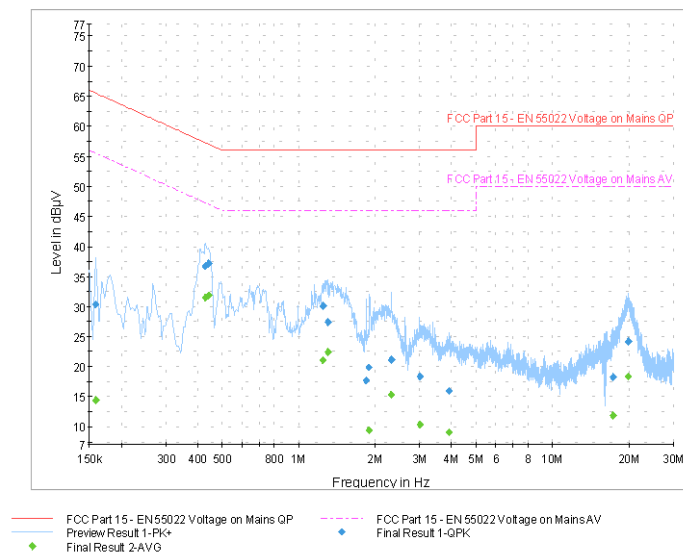
## AC Conducted Emissions Test Graphs


### Test Configuration 8

**Figure 1-15: L1 lines**



**Figure 1-16: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Test Configuration 9

Date of the test: January 23, 2013

The environmental conditions were: Temperature: 24.3 °C  
Humidity: 17.4 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	N	37.48	11.23	48.71	66.00	56.00	-17.29
0.155	L1	36.81	11.17	47.99	65.80	55.80	-17.82
0.213	L1	28.93	10.77	39.70	63.10	53.10	-23.40
0.240	L1	28.58	10.58	39.16	62.10	52.10	-22.95
0.380	L1	26.87	10.04	36.91	58.30	48.30	-21.39
0.465	L1	22.81	9.93	32.74	56.60	46.60	-23.87
0.834	N	22.37	9.82	32.20	56.00	46.00	-23.81
1.248	N	22.43	9.80	32.23	56.00	46.00	-23.77
1.595	N	22.12	9.81	31.94	56.00	46.00	-24.06
15.999	N	30.34	10.11	40.45	60.00	50.00	-19.56

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

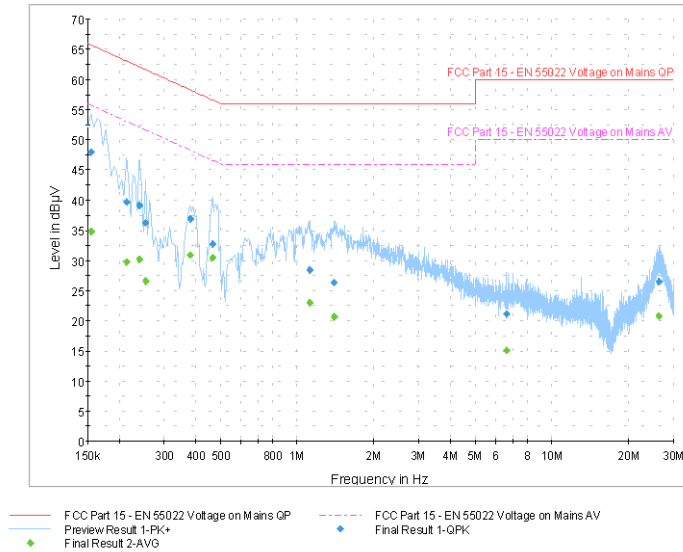
See figure 1-17 and figure 1-18 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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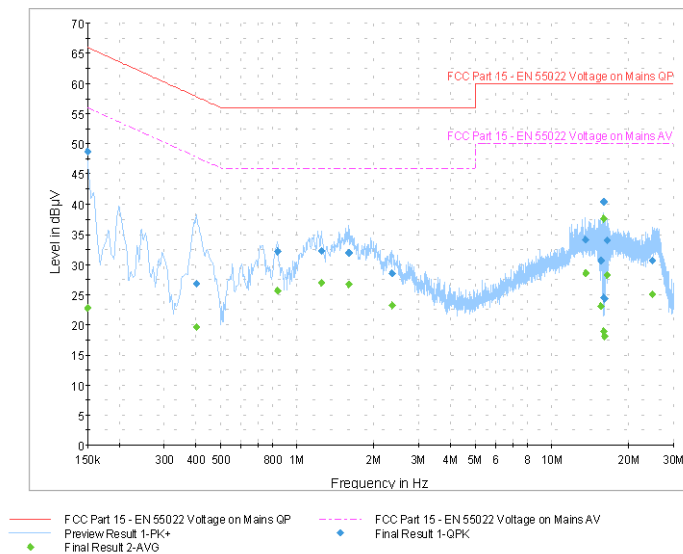
## AC Conducted Emissions Test Graphs


### Test Configuration 9

**Figure 1-17: L1 lines**



**Figure 1-18: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Test Configuration 10

Date of the test: February 13, 2013

The environmental conditions were: Temperature: 25.0 °C  
Humidity: 19.0 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	L1	33.92	11.20	45.13	66.00	56.00	-20.87
0.362	L1	24.43	10.07	34.50	58.70	48.70	-24.20
0.915	L1	21.95	9.81	31.76	56.00	46.00	-24.24
4.196	L1	21.90	9.90	31.80	56.00	46.00	-24.21

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-19 and figure 1-20 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

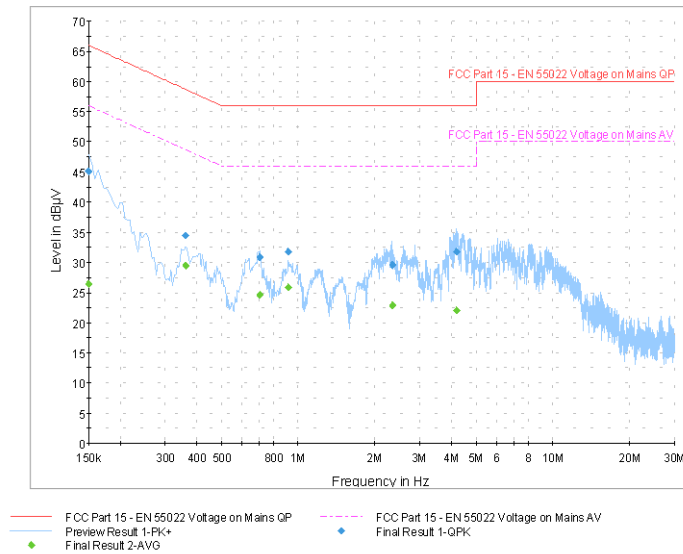
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

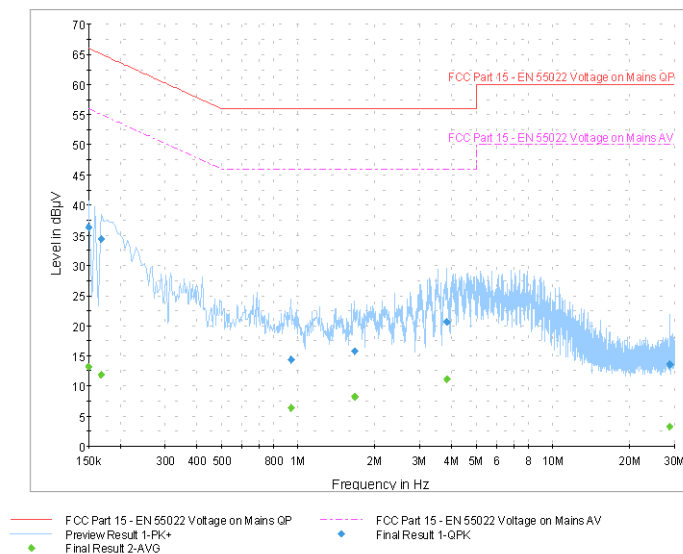
### AC Conducted Emissions Test Graphs


#### Test Configuration 10

**Figure 1-19: L1 lines**



**Figure 1-20: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Test Configuration 11

Date of the test: February 01, 2013

The environmental conditions were: Temperature: 25.4 °C  
Humidity: 17.6 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.150	L1	42.97	11.20	54.18	66.00	56.00	-11.82
0.204	N	28.12	10.85	38.97	63.40	53.40	-24.43
0.285	L1	26.77	10.26	37.04	60.70	50.70	-23.66
0.573	N	21.89	9.88	31.77	56.00	46.00	-24.23
0.708	L1	28.29	9.83	38.12	56.00	46.00	-17.88
0.924	L1	26.40	9.81	36.21	56.00	46.00	-19.79
1.685	L1	22.53	9.81	32.34	56.00	46.00	-23.66
10.730	L1	32.65	9.97	42.63	60.00	50.00	-17.37
10.802	L1	32.91	9.97	42.89	60.00	50.00	-17.12
11.031	N	25.22	9.99	35.22	60.00	50.00	-24.78
11.076	N	25.06	9.99	35.06	60.00	50.00	-24.94
11.094	L1	32.69	9.99	42.67	60.00	50.00	-17.33
11.153	N	25.46	10.00	35.46	60.00	50.00	-24.54
11.463	L1	34.13	10.00	44.13	60.00	50.00	-15.87
11.607	L1	33.75	10.00	43.75	60.00	50.00	-16.25
11.702	L1	33.58	10.01	43.58	60.00	50.00	-16.42
11.783	L1	31.05	10.01	41.06	63.40	53.40	-22.35
11.886	L1	30.98	10.01	40.99	60.70	50.70	-19.71
11.936	N	24.38	10.03	34.41	59.10	49.10	-24.69
12.102	L1	29.72	10.03	39.75	56.00	46.00	-16.25

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-21 and figure 1-22 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

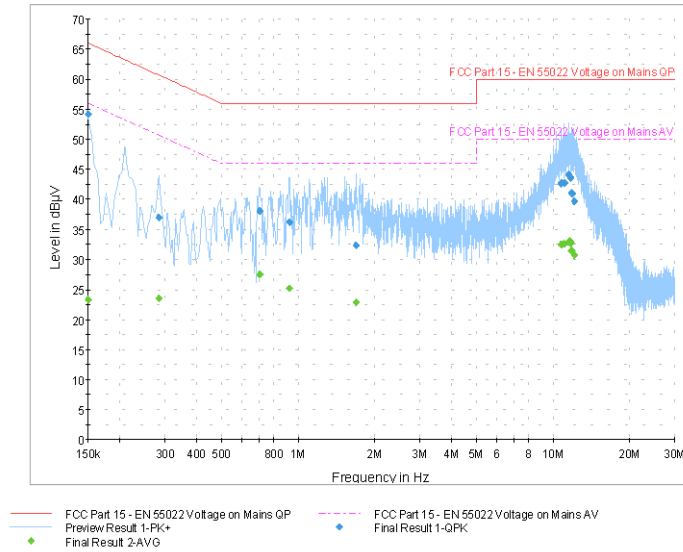
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

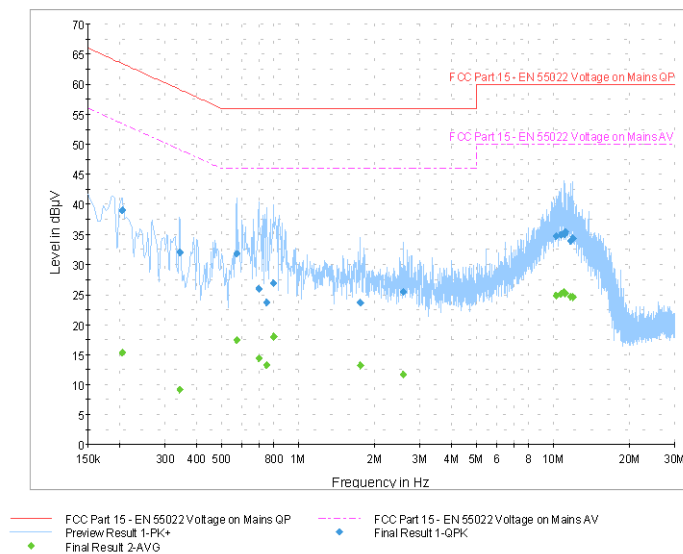
## AC Conducted Emissions Test Graphs


### Test Configuration 11

**Figure 1-21: L1 lines**



**Figure 1-22: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 1</b>	
	<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013

### Test Configuration 12

Date of the test: February 01, 2013

The environmental conditions were: Temperature: 25.4 °C  
 Humidity: 17.6 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Margin (QP) Limits (dB)
0.173	L1	46.90	11.05	57.95	64.80	-6.85
0.186	N	39.44	10.98	50.42	64.20	-13.78
0.267	L1	38.83	10.39	49.22	61.20	-11.98
0.362	N	37.95	10.08	48.03	58.70	-10.67
0.443	L1	33.84	9.95	43.79	57.00	-13.21
0.470	N	35.17	9.93	45.10	56.50	-11.40
0.542	L1	32.92	9.89	42.81	56.00	-13.19
0.546	N	34.48	9.89	44.37	56.00	-11.63
0.618	N	34.64	9.86	44.50	56.00	-11.50
0.627	L1	34.42	9.85	44.27	56.00	-11.73
0.722	L1	33.88	9.83	43.71	56.00	-12.29
0.807	L1	36.70	9.82	46.51	56.00	-9.49
0.834	N	36.75	9.82	46.57	56.00	-9.43
1.077	L1	38.20	9.80	48.00	56.00	-8.00
1.113	N	36.01	9.81	45.82	56.00	-10.18
1.199	N	33.58	9.80	43.38	56.00	-12.62
1.316	L1	36.32	9.80	46.12	56.00	-9.88
2.103	N	35.64	9.83	45.48	56.00	-10.53
2.265	N	34.42	9.84	44.26	56.00	-11.74
2.315	L1	34.74	9.84	44.58	56.00	-11.42
3.534	N	32.44	9.90	42.34	56.00	-13.66
3.669	L1	30.23	9.89	40.12	56.00	-15.88
4.466	N	32.90	9.91	42.81	56.00	-13.19



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (AV) (dBµV)	Limit (AV) (dBµV)	Margin (AV) Limits (dB)
0.173	L1	32.59	11.05	43.63	44.80	-11.17
0.186	N	29.38	10.98	40.36	41.20	-10.84
0.267	L1	23.48	10.39	33.87	37.00	-13.13
0.362	N	29.79	10.08	39.87	36.00	-6.13
0.443	L1	23.86	9.95	33.81	36.00	-12.19
0.470	N	18.53	9.93	28.46	36.00	-17.54
0.542	L1	19.03	9.89	28.92	36.00	-17.08
0.546	N	24.52	9.89	34.41	36.00	-11.59
0.618	N	22.76	9.86	32.62	36.00	-13.38
0.627	L1	23.45	9.85	33.30	36.00	-12.70
0.722	L1	22.03	9.83	31.86	36.00	-14.14
0.807	L1	24.51	9.82	34.33	44.20	-19.88
0.834	N	23.42	9.82	33.25	38.70	-15.46
1.077	L1	27.15	9.80	36.95	36.50	-9.55
1.113	N	23.13	9.81	32.93	36.00	-13.07
1.199	N	21.76	9.80	31.57	36.00	-14.44
1.316	L1	23.63	9.80	33.44	36.00	-12.57
2.103	N	28.18	9.83	38.01	36.00	-7.99
2.265	N	26.50	9.84	36.34	36.00	-9.66
2.315	L1	26.74	9.84	36.58	36.00	-9.42
3.534	N	26.63	9.90	36.53	36.00	-9.48
3.669	L1	24.11	9.89	34.01	36.00	-12.00
4.466	N	27.05	9.91	36.97	36.00	-9.04

All other emissions are at least 25 dB below the limit.  
 Measurements were done with the quasi-peak detector and the average detector.  
 See figure 1-23 and figure 1-24 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

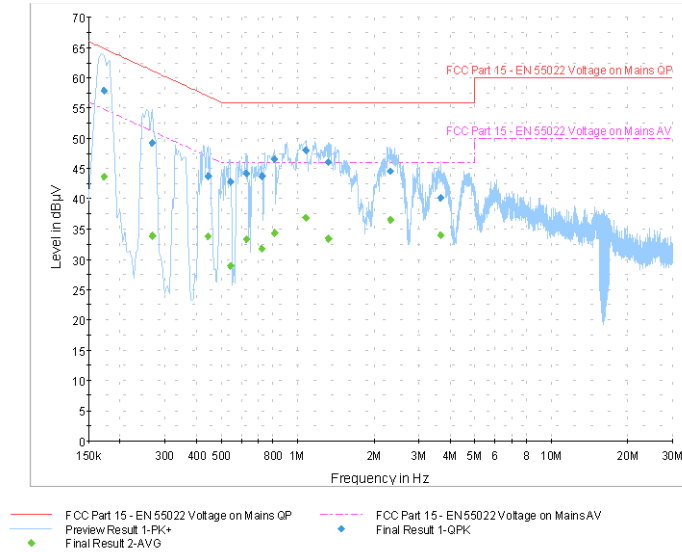
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

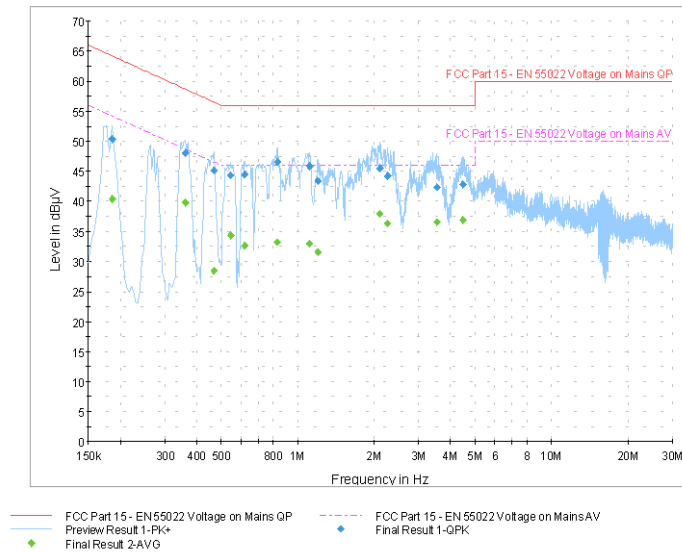
## AC Conducted Emissions Test Graphs


### Test Configuration 12

**Figure 1-23: L1 lines**



**Figure 1-24: N Lines**



	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 1</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Test Configuration 13

Date of the test: February 01, 2013

The environmental conditions were: Temperature: 25.4 °C  
Humidity: 17.6 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Limit (AV) (dBµV)	Margin (QP) Limits (dB)
0.195	L1	30.50	10.89	41.39	63.80	53.80	-22.41
0.371	N	23.98	10.07	34.05	58.50	48.50	-24.45
0.375	L1	26.34	10.05	36.38	58.40	48.40	-22.02
0.438	L1	29.66	9.95	39.61	57.10	47.10	-17.49
0.438	N	26.71	9.96	36.67	57.10	47.10	-20.43
0.821	N	21.54	9.82	31.36	56.00	46.00	-24.64
1.055	N	21.67	9.81	31.48	56.00	46.00	-24.52
1.185	N	23.10	9.80	32.91	56.00	46.00	-23.09
1.221	L1	27.13	9.80	36.93	56.00	46.00	-19.07
1.397	N	21.95	9.81	31.75	56.00	46.00	-24.25
1.437	L1	28.92	9.80	38.72	56.00	46.00	-17.28
1.496	N	23.23	9.81	33.04	56.00	46.00	-22.96
2.747	L1	23.55	9.86	33.41	56.00	46.00	-22.59

All other emissions are at least 25 dB below the limit.

Measurements were done with the quasi-peak detector.

See figure 1-25 and figure 1-26 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

**Test Report No.**  
 RTS-6026-1302-15

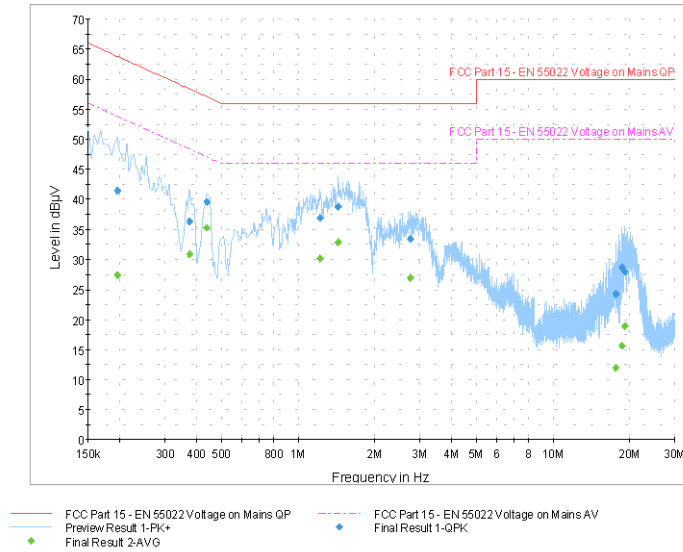
**Date of Test**  
 December 24, 2012 and January  
 10, 2013 – February 14, 2013

**FCC ID:** L6ARFL110LW  
**IC :** 2503A-RFL110LW

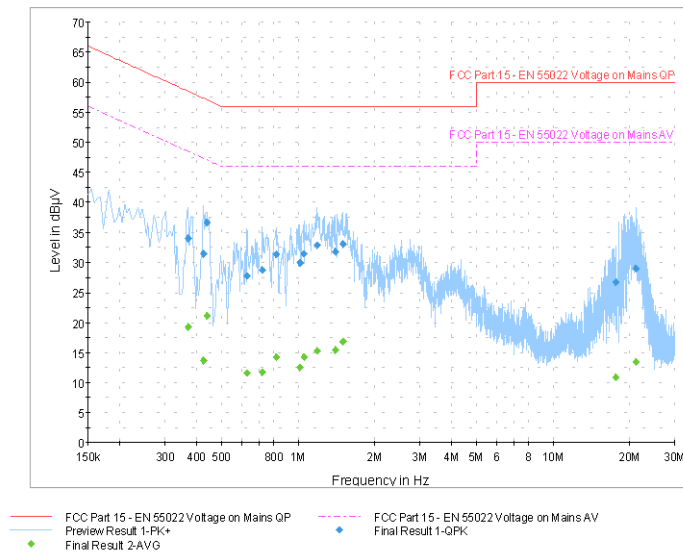
## AC Conducted Emissions Test Graphs

### Test Configuration 13

**Figure 1-25: L1 lines**



**Figure 1-26: N Lines**



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Test Configuration 14

The Wifi 802.11a configuration was also tested with high capacity battery, Bat. NS1, part number BAT-52961-001. as this was the worst case test configuration.

Date of the test: February 07, 2013

The environmental conditions were: Temperature: 24.9 °C  
Humidity: 19.8 %

Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (QP) (dBµV)	Limit (QP) (dBµV)	Margin (QP) Limits (dB)
0.150	N	38.57	11.23	49.81	66.00	-16.20
0.186	L1	45.90	10.95	56.86	64.20	-7.35
0.200	N	32.19	10.89	43.07	63.60	-20.53
0.254	N	32.66	10.50	43.16	61.60	-18.44
0.303	N	31.35	10.17	41.52	60.20	-18.68
0.425	L1	39.45	9.97	49.42	57.40	-7.98
0.447	L1	39.17	9.94	49.11	56.90	-7.79
0.497	N	36.99	9.92	46.91	56.10	-9.19
0.542	L1	37.98	9.89	47.87	56.00	-8.13
0.623	L1	37.81	9.85	47.66	56.00	-8.34
0.717	L1	36.55	9.83	46.38	56.00	-9.62
0.794	N	32.35	9.82	42.18	56.00	-13.82
0.803	L1	34.96	9.82	44.78	56.00	-11.23
1.059	N	37.31	9.81	47.12	56.00	-8.88
1.154	L1	35.25	9.80	45.05	56.00	-10.95
1.280	L1	32.31	9.80	42.11	56.00	-13.89
1.649	N	32.05	9.82	41.87	56.00	-14.13
2.013	N	27.77	9.83	37.61	56.00	-18.40
2.364	L1	34.77	9.84	44.62	56.00	-11.38
2.882	N	28.55	9.87	38.42	56.00	-17.58
3.683	L1	32.04	9.89	41.94	56.00	-14.06
3.858	N	26.98	9.90	36.88	56.00	-19.12

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Frequency (MHz)	Line	Reading (QP) (dBµV)	Correction Factor (dB)	Corrected Reading (AV) (dBµV)	Limit (AV) (dBµV)	Margin (AV) Limits (dB)
0.150	N	33.09	11.23	44.33	46.00	-11.68
0.186	L1	32.76	10.95	43.72	44.20	-10.49
0.200	N	21.61	10.89	32.50	43.60	-21.10
0.254	N	26.59	10.50	37.09	41.60	-14.51
0.303	N	27.22	10.17	37.39	40.20	-12.81
0.425	L1	32.88	9.97	42.85	37.40	-4.55
0.447	L1	31.40	9.94	41.34	36.90	-5.57
0.497	N	31.99	9.92	41.91	36.10	-4.19
0.542	L1	27.18	9.89	37.06	36.00	-8.94
0.623	L1	29.82	9.85	39.67	36.00	-6.33
0.717	L1	29.85	9.83	39.68	36.00	-6.32
0.794	N	26.76	9.82	36.58	36.00	-9.42
0.803	L1	29.40	9.82	39.22	36.00	-6.78
1.059	N	29.41	9.81	39.22	36.00	-6.78
1.154	L1	26.94	9.80	36.74	36.00	-9.26
1.280	L1	23.25	9.80	33.06	36.00	-12.94
1.649	N	25.60	9.82	35.42	36.00	-10.58
2.013	N	24.89	9.83	34.72	36.00	-11.28
2.364	L1	28.77	9.84	38.61	36.00	-7.39
2.882	N	22.93	9.87	32.80	36.00	-13.20
3.683	L1	26.37	9.89	36.26	36.00	-9.74
3.858	N	21.58	9.90	31.48	36.00	-14.52
0.150	N	33.09	11.23	44.33	46.00	-11.68
0.186	L1	32.76	10.95	43.72	44.20	-10.49
0.200	N	21.61	10.89	32.50	43.60	-21.10
0.254	N	26.59	10.50	37.09	41.60	-14.51

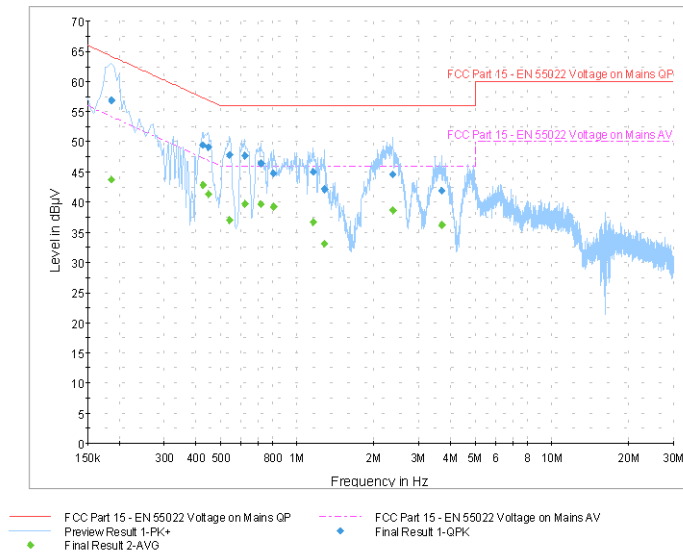
All other emissions are at least 25 dB below the limit.  
 Measurements were done with the quasi-peak detector and the average detector.  
 See figure 1-25 and figure 1-26 for the measurement plot of the L1 and N lines of AC power line conducted emissions.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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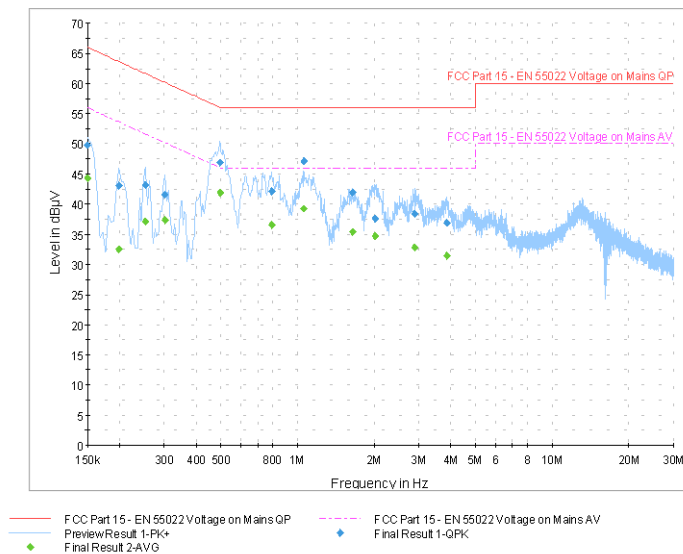
## AC Conducted Emissions Test Graphs


### Test Configuration 14

**Figure 1-27: L1 lines**



**Figure 1-28: N Lines**




	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 2</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

## APPENDIX 2 - RADIATED EMISSIONS TEST DATA





	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 2</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

Radiated Emissions Test Results cont'd


Test Configuration 2

Date of the test: January 22, 2013

The environmental conditions were: Temperature: 25.9 °C  
Humidity: 11.8 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
38.450	V	2.39	126.00	Q.P.	50.38	-14.29	36.09	40.00	-3.91
89.450	V	1.69	174.00	Q.P.	37.33	-13.26	24.07	43.50	-19.43
141.500	V	2.27	168.00	Q.P.	38.51	-11.82	26.69	43.50	-16.81
161.000	H	1.73	354.00	Q.P.	32.28	-11.50	20.78	43.50	-22.72
196.150	H	1.61	41.00	Q.P.	26.97	-8.45	18.52	43.50	-24.98

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 2</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Radiated Emissions Test Results cont'd


#### Test Configuration 3

Date of the test: January 10, 2013

The environmental conditions were: Temperature: 25.1 °C  
Humidity: 16.2 %

Frequency (MHz)	Antenna		Test Angle (Deg.)	Detect or (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)
	Pol. (V/H)	Height (metres)							
42.000	V	1.48	337.00	Q.P.	30.50	-15.16	15.34	40.00	-24.66
56.200	V	1.44	36.00	Q.P.	42.67	-17.06	25.61	40.00	-14.39
74.000	V	3.06	92.00	Q.P.	32.60	-15.17	17.43	40.00	-22.57
96.150	H	2.22	171.00	Q.P.	32.64	-12.45	20.19	43.50	-23.31

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry <sup>®</sup> smartphone Model RFL111LW <b>Appendix 2</b>	
	<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013

**Radiated Emissions Test Results cont'd**


**Test Configuration 4**

Date of the test: January 22, 2013

The environmental conditions were:   Temperature:   25.1 °C  
  Humidity:            16.2 %

Frequency  (MHz)	Antenna		Test Angle  (Deg.)	Detect or  (Q.P. or Peak)	Measured Level  (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+c orr)  (dBµV/m)	Limit @ 3.0 m  (dBµV/m)	Test Margin  (dB)
	Pol.  (V/H)	Height  (metres)							
40.950	V	1.43	267.00	Q.P.	35.10	-15.00	20.10	40.00	-19.90
56.750	V	2.94	159.00	Q.P.	37.16	-16.96	20.20	40.00	-19.80
71.050	V	1.69	92.00	Q.P.	32.38	-15.73	16.65	40.00	-23.35
81.200	V	1.80	238.00	Q.P.	29.64	-14.26	15.38	40.00	-24.62

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 2</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

### Radiated Emissions Test Results cont'd

#### Test Configuration 5

Date of the test: January 22, 2013

The environmental conditions were:    Temperature:    25.1 °C  
    Humidity:            16.2 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
32.800	V	1.70	268.00	Q.P.	36.69	-12.63	24.06	40.00	-15.94
60.650	V	2.87	93.00	Q.P.	39.83	-16.77	23.06	40.00	-16.94
81.150	V	1.51	307.00	Q.P.	32.53	-14.27	18.26	40.00	-21.74
208.000	H	1.52	230.00	Q.P.	27.54	-7.88	19.66	43.50	-23.84
345.300	H	1.04	277.00	Q.P.	23.02	-1.90	21.12	46.00	-24.88
454.450	H	2.04	320.00	Q.P.	29.29	-1.29	28.00	46.00	-18.00

All other emissions are at least 25 dB below the limit.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Radiated Emissions Test Results cont'd

Test Configuration 6

Date of the test: January 11, 2013

The environmental conditions were: Temperature: 24.5 °C

Humidity: 17.2 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
30.950	H	3.96	159.00	Q.P.	31.49	-12.08	19.41	40.00	-20.59
86.750	H	2.24	177.00	Q.P.	42.36	-13.59	28.77	40.00	-11.23
103.900	H	2.74	17.00	Q.P.	45.33	-11.89	33.44	43.50	-10.06
245.000	H	1.00	137.00	Q.P.	42.43	-9.56	32.87	46.00	-13.13
742.550	H	1.01	23.00	Q.P.	36.75	4.10	40.85	46.00	-5.15
955.300	V	1.97	212.00	Q.P.	30.67	8.77	39.44	46.00	-6.56

All other emissions are at least 25 dB below the limit.



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Radiated Emissions Test Results cont'd

Test Configuration 7

Date of the test: January 17, 2013

The environmental conditions were: Temperature: 26.0 °C  
Humidity: 35.8 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
33.200	V	3.06	334.00	Q.P.	28.47	-12.78	15.69	40.00	-24.31
37.300	V	2.44	93.00	Q.P.	30.59	-13.99	16.60	40.00	-23.40
41.900	V	1.82	328.00	Q.P.	31.40	-15.14	16.26	40.00	-23.74
57.300	V	1.49	140.00	Q.P.	43.14	-16.96	26.18	40.00	-13.82
73.850	V	2.65	58.00	Q.P.	33.06	-15.20	17.86	40.00	-22.14

All other emissions are at least 25 dB below the limit.



<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Radiated Emissions Test Results cont'd

Test Configuration 8


Date of the test: January 18, 2013

The environmental conditions were: Temperature: 26.1 °C  
Humidity: 12.1 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
37.050	V	3.95	354.00	Q.P.	30.41	-13.93	16.48	40.00	-23.52
131.050	V	1.45	269.00	Q.P.	30.79	-11.87	18.92	43.50	-24.58
486.400	H	2.19	102.00	Q.P.	27.42	-0.61	26.81	46.00	-19.19
611.200	H	2.13	320.00	Q.P.	31.12	2.77	33.89	46.00	-12.11

All other emissions are at least 25 dB below the limit.



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	<b>Appendix 2</b>	
<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW

Radiated Emissions Test Results cont'd


Test Configuration 9

Date of the test: January 23, 2013

The environmental conditions were: Temperature: 25.6 °C  
Humidity: 13.8 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
49.250	V	1.54	93.00	Q.P.	36.48	-16.44	20.04	40.00	-19.96
384.000	H	2.17	5.00	Q.P.	28.24	-4.14	24.10	46.00	-21.90

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 2</b>	
	<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24,2012 and January 10,2013 – February 14,2013

Radiated Emissions Test Results cont'd

Test Configuration 10

Date of the test: January 24, 2013

The environmental conditions were: Temperature: 25.5 °C  
Humidity: 12.9 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
48.200	V	2.27	342.00	Q.P.	36.67	-16.35	20.32	40.00	-19.68
73.700	V	1.68	254.00	Q.P.	34.26	-15.23	19.03	40.00	-20.97
81.500	V	1.57	234.00	Q.P.	35.74	-14.20	21.54	40.00	-18.46
85.250	V	1.46	269.00	Q.P.	32.39	-13.86	18.53	40.00	-21.47

All other emissions are at least 25 dB below the limit.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Radiated Emissions Test Results cont'd


Test Configuration 11

Date of the test: January 24, 2013

The environmental conditions were: Temperature: 25.5 °C  
Humidity: 12.9 %

Frequency (MHz)	Antenna		Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+c orr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
	Pol. (V/H)	Height (metres)							
42.900	V	2.17	145.00	Q.P.	30.58	-15.32	15.26	40.00	-24.74
52.200	V	2.68	29.00	Q.P.	32.57	-16.97	15.60	40.00	-24.40
74.800	V	2.93	264.00	Q.P.	38.96	-15.12	23.84	40.00	-16.16
80.750	V	1.51	269.00	Q.P.	36.96	-14.33	22.63	40.00	-17.37
89.500	V	1.47	287.00	Q.P.	34.01	-13.25	20.76	43.50	-22.74

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW <b>Appendix 2</b>	
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Radiated Emissions Test Results cont'd


Test Configuration 12

Date of the test: January 15, 2013

The environmental conditions were:    Temperature:    26.1 °C  
   Humidity:            12.1 %

Frequency (MHz)	Antenna		Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+c orr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
	Pol. (V/H)	Height (metres)							
56.850	V	1.91	135.00	Q.P.	46.64	-16.94	29.70	40.00	-10.30

All other emissions are at least 25 dB below the limit.

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Radiated Emissions Test Results cont'd


Test Configuration 13

Date of the test: January 24, 2013

The environmental conditions were: Temperature: 26.1 °C  
Humidity: 11.7 %

Frequency (MHz)	Antenna		Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBμV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+c orr) (dBμV/m)	Limit @ 3.0 m (dBμV/m)	Test Margin (dB)
	Pol. (V/H)	Height (metres)							
54.900	V	3.35	158.00	Q.P.	37.09	-16.85	20.24	40.00	-19.76
71.350	H	2.16	12.00	Q.P.	36.02	-15.63	20.39	40.00	-19.61

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 2</b>	
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### Radiated Emissions Test Results cont'd

#### Test Configuration 14

Date of the test: January 24, 2013

The environmental conditions were:    Temperature:    26.1 °C  
    Humidity:            11.7 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
33.800	V	1.48	179.00	Q.P.	33.44	-12.92	20.52	40.00	-19.48
66.150	V	1.56	160.00	Q.P.	44.08	-16.30	27.78	40.00	-12.22
66.200	V	1.70	124.00	Q.P.	47.37	-16.30	31.07	40.00	-8.93
81.500	V	3.67	349.00	Q.P.	32.35	-14.08	18.27	40.00	-21.73

All other emissions are at least 25 dB below the limit.

<b>Test Report No.</b> RTS-6026-1302-15	<b>Date of Test</b> December 24, 2012 and January 10, 2013 – February 14, 2013	<b>FCC ID:</b> L6ARFL110LW <b>IC :</b> 2503A-RFL110LW
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Radiated Emissions Test Results cont'd


Test Configuration 15

Date of the test: January 22, 2013

The environmental conditions were: Temperature: 25.4 °C  
 Humidity: 13.4 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
38.250	V	3.26	174.00	Q.P.	32.73	-14.26	18.47	40.00	-21.53
53.300	V	1.78	83.00	Q.P.	41.07	-16.96	24.11	40.00	-15.89
149.650	V	1.76	101.00	Q.P.	37.88	-11.59	26.29	43.50	-17.21
184.400	H	1.54	293.00	Q.P.	31.45	-10.46	20.99	43.50	-22.51
216.050	H	3.16	268.00	Q.P.	36.20	-8.88	27.32	46.00	-18.68
432.000	V	1.69	169.00	Q.P.	40.97	-2.78	38.19	46.00	-7.81
123.450	H	1.34	276.00	Q.P.	32.42	-11.49	20.93	43.50	-22.57
143.500	V	1.49	183.00	Q.P.	34.83	-11.74	23.09	43.50	-20.41
184.400	H	1.79	36.00	Q.P.	34.46	-10.57	23.89	43.50	-19.61
216.000	H	1.93	92.00	Q.P.	40.75	-8.81	31.94	43.50	-11.56
244.200	H	1.33	125.00	Q.P.	33.44	-9.48	23.96	46.00	-22.04
432.000	H	1.44	273.00	Q.P.	38.55	-2.65	35.90	46.00	-10.10
528.000	H	3.12	284.00	Q.P.	31.48	1.16	32.64	46.00	-13.36

All other emissions are at least 25 dB below the limit.

	EMI Test Report for the BlackBerry® smartphone Model RFL111LW	
	<b>Appendix 2</b>	
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Radiated Emissions Test Results cont'd

Test Configuration 16


Date of the test: January 18, 2013

The environmental conditions were: Temperature: 26.1 °C  
Humidity: 11.7 %

Frequency (MHz)	Antenna		Test Angle (Deg.)	Detector (Q.P. or Peak)	Measured Level (dBµV)	Correction Factor for preamp/antenna / cables/ filter (dB/m)	Field Strength Level (reading+c orr) (dBµV/m)	Limit @ 3.0 m (dBµV/m)	Test Margin (dB)
	Pol. (V/H)	Height (metres)							
41.150	V	1.48	31.00	Q.P.	37.60	-15.03	22.57	40.00	-17.43
51.300	V	1.48	296.00	Q.P.	40.14	-16.81	23.33	40.00	-16.67
140.050	V	1.49	129.00	Q.P.	35.36	-11.78	23.58	43.50	-19.92

All other emissions are at least 25 dB below the limit.



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Radiated Emissions Test Results cont'd

Test Configuration 17

The GSM 850 configuration was also tested with high capacity battery, Bat. NS1, part number BAT-52961-001. as this was the worst case test configuration.

Date of the test: February 14, 2013

The environmental conditions were: Temperature: 25.9 °C  
 Humidity: 11.8 %

Frequency (MHz)	Antenna		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)
	Pol. (V/H)	Height (metres)							
30.200	H	2.01	116.00	Q.P.	32.57	-11.73	20.84	40.00	-19.16
32.150	H	3.22	130.00	Q.P.	42.85	-12.30	30.55	40.00	-9.45
33.050	H	1.60	150.00	Q.P.	45.50	-12.75	32.75	40.00	-7.25
33.050	V	1.91	221.00	Q.P.	40.74	-12.75	27.99	40.00	-12.01
68.200	V	1.91	150.00	Q.P.	33.10	-16.09	17.01	40.00	-22.99
91.200	V	1.51	160.00	Q.P.	35.70	-13.11	22.59	43.50	-20.91
150.950	V	1.40	117.00	Q.P.	40.02	-11.68	28.34	43.50	-15.16

All other emissions are at least 25 dB below the limit.