

## Partial EMI Test Report

Tested in accordance with  
Federal Communications Commission (FCC)  
Personal Communications Services  
CFR 47 Parts 2, 22, 24 and 27  
&  
Industry Canada (IC) RSS- Gen, 132, 133 and 139




**A division of Research In Motion Limited**

**REPORT NO: RTS-5316-1109-83A**

<b>PRODUCT MODEL NO:</b>	REA71UW, REB71UW
<b>TYPE NAME:</b>	BlackBerry® smartphone
<b>FCC ID:</b>	L6AREA70UW, L6AREB70UW
<b>IC:</b>	2503A-REA70UW, 2503A-REB70UW
<b>EMISSION DESIGNATOR (GSM):</b>	244KGXW
<b>EMISSION DESIGNATOR (EDGE):</b>	250KG7W
<b>EMISSION DESIGNATOR (WCDMA):</b>	4M11F9W

**DATE:** October 6, 2011

	EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW	
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW

**Statement of Performance:**

The BlackBerry® smartphone, model REA71UW, part number CER-41251-001 Rev2 and accessories performs within the requirements of the test standards when configured and operated per RIM's instructions.

The BlackBerry® smartphone, model REB71UW, part number CER-41250-001 Rev2 and accessories performs within the requirements of the test standards when configured and operated per RIM's instructions.

**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:



Nielven Olis  
Regulatory Compliance Associate  
Date: October 13, 2011

Reviewed by:




Savtej S. Sandhu  
Regulatory Compliance Specialist  
Date: October 14, 2011

Reviewed and Approved by:




Masud S. Attayi, P.Eng.  
Manager, Regulatory Compliance  
Date: October 14, 2011

	EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW	
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW

## Table of Contents

A)	Scope .....	4
B)	Associated Documents .....	4
C)	Product Identification .....	5
D)	Support Equipment Used for the Testing of the EUT .....	6
E)	Test Voltage .....	6
F)	Test Results Chart.....	7
G)	Summary of Results .....	8
APPENDIX 1 – GSM CONDUCTED RF OUTPUT POWER TEST DATA .....		10
APPENDIX 2 – UMTS Band 2/5 CONDUCTED RF OUTPUT POWER TEST DATA .....		12
APPENDIX 3 – UMTS Band 4 CONDUCTED RF OUTPUT POWER TEST DATA .....		14

	EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW	
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW


## A) Scope

This report details the results of compliance tests which were performed in accordance to the requirements of:

- FCC CFR 47 Part 2, Oct, 2010
- FCC CFR 47 Part 22, Subpart H, Cellular Radiotelephone Services, Oct., 2010
- FCC CFR 47 Part 24 Subpart E, Broadband PCS, Oct., 2010
- FCC CFR 47 Part 27, Subpart C, Technical Standards, Oct, 2010 (Model: REB71UW only)
- Industry Canada, RSS-132 Issue 2, September 2005, Cellular Telephones Employing New Technologies Operating in the Bands 824-849 MHz and 869-894 MHz.
- Industry Canada, RSS-133 Issue 5, February 2009, 2 GHz Personal Communications Services.
- Industry Canada, RSS-GEN Issue 3, December 2010, General Requirements and Information for the Certification of Radiocommunication Equipment
- Industry Canada, RSS-139 Issue 2, February 2009, Advanced Wireless Services Equipment Operating in the Bands 1710-1755 MHz and 2110-2155 MHz. (Model: REB71UW only)

## B) Associated Documents

1. REB71UW-HW\_Declaration\_CER-41250-001-Rev2
2. REA71UW-HW\_Declaration\_CER-41251-001-Rev2
3. MultiSourceDeclaration\_REA71UW\_7.0.0\_b1755
4. BlackBerrySystemSimilarity\_REA71UW\_REB71UW
5. Test Report: 2-0023-11-1-6a
6. Test Report: 2-0023-11-1-6b
7. Test Report: 2-0023-11-1-6a-A1
8. Test Report: 2-0023-11-1-6b-A1

	EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW	
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW


**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 September 8, 2011.

		EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW

The sample EUT included:

Sample	Model	CER NUMBER	PIN	Software Information
1	REA71UW	CER-41251-001 Rev1	27EB7986	v7.0.0.300 Plat. 9.0.0.190 Bundle 1482
2	REA71UW	CER-41251-001 Rev2	2830208A	v7.0.0.378 Plat. 9.32.0.14 Bundle 1755
3	REB71UW	CER-41250-001 Rev2	28306B42	v7.0.0.378 Plat. 9.32.0.14 Bundle 1755

RF Conducted Emissions testing was performed on samples 1, 2 and 3.

Only the characteristics that have been affected by the changes from Model REA71UW Rev1 to REA71UW Rev2 were retested. For more information see document: REA71UW-HW\_Declaration\_CER-41251-001-Rev2

Only the characteristics that have been affected by the changes from Model REA71UW to REB71UW were retested. For more information see document: BlackBerrySystemSimilarity\_REA71UW\_REB71UW

To view the differences between Bundle 1482 to 1755, see document: MultiSourceDeclaration\_REA71UW\_b1755

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

No support equipment required; for list of equipment refer to section H, Compliance Test Equipment Used.

#### E) Test Voltage

The ac input voltage was 120 volts, 60 Hz where applicable. This configuration was per RIM's specifications.



**Test Report No.**  
RTS-5316-1109-83A

**Dates of Test**  
September 8, 2011

FCC ID: L6AREA70UW IC: 2503A-REA70UW  
FCC ID: L6AREB70UW IC: 2503A-REB70UW

## F) Test Results Chart

SPECIFICATION		TEST TYPE	RESULT	TEST DATA APPENDIX
FCC CFR 47	IC			
Part 2.1051 Part 22.917 Part 22.901	RSS-GEN, 4.9	GSM 850 Conducted Spurious Emissions	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.1051 Part 24.238(a)	RSS-GEN, 4.9	PCS 1900 Conducted Spurious Emissions	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.202 Part 22.917	RSS-GEN, 4.6	GSM 850 Occupied Bandwidth and Channel Mask	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.202 Part 24.238	RSS-GEN, 4.6	PCS 1900 Occupied Bandwidth and Channel Mask	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.1046(a)	RSS-133, 6.4 RSS-132, 4.4	GSM Conducted RF Output Power	Pass	1
Part 2.1055(a)(d) Part 22.917	RSS-132, 4.3	GSM 850 Frequency Stability vs. Temperature and Voltage	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.1055(a)(d) Part 24.235	RSS-132, 4.3	PCS 1900 Frequency Stability vs. Temperature and Voltage	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 22, Subpart H, Part 24, Subpart E	RSS-GEN, 4.9	GSM ERP, EIRP	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 22, Subpart H Part 24, Subpart E	RSS-GEN, 4.9	GSM Radiated Spurious/Harmonic Emissions	See test report: 2-0023-11-1-6a and 2-0023-11-1-6a-A1	-
Part 2.1051 Part 22.917 Part 22.901(d)	RSS-GEN, 4.9	UMTS Band 5 Conducted Spurious Emissions	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.1051 Part 24.238(a)	RSS-GEN, 4.9	UMTS Band 2 Conducted Spurious Emissions	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.202 Part 22.917	RSS-GEN, 4.6	UMTS Band 5 Occupied Bandwidth and Channel Mask	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.202 Part 24.238	RSS-GEN, 4.6	UMTS Band 2 Occupied Bandwidth and Channel Mask	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.1046(a)	RSS-133, 6.4 RSS-132, 4.4	UMTS Band 2 and 5 Conducted RF Output Power	Pass	2



**Test Report No.**  
RTS-5316-1109-83A

**Dates of Test**  
September 8, 2011

FCC ID: L6AREA70UW IC: 2503A-REA70UW  
FCC ID: L6AREB70UW IC: 2503A-REB70UW

## Test Results Chart cont'd

Part 2.1055(a)(d) Part 22.917	RSS-132, 4.3	UMTS Band 5 Frequency Stability vs. Temperature and Voltage	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.1055(a)(d) Part 24.235	RSS-GEN, 4.7	UMTS Band 2 Frequency Stability vs. Temperature and Voltage	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 22, Subpart H	RSS-GEN, 4.9	UMTS Band 5 Radiated Spurious/Harmonic Emissions, ERP	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 24, Subpart E	RSS-GEN, 4.9	UMTS Band 2 Radiated Spurious/Harmonic Emissions, EIRP	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 27.53	RSS-139, 6.5	WCDMA UMTS Band 4 Conducted Spurious Emissions	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.202 Part 27.53	RSS-GEN, 2.3	WCDMA UMTS Band 4 Occupied Bandwidth and Channel Mask	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 2.1046(a)	RSS-139, 6.4	WCDMA UMTS Band 4 Conducted RF Output Power	Pass	3
Part 2.1055(a)(d) Part 27.54	RSS-139, 6.3	WCDMA UMTS Band 4 Frequency Stability vs. Temperature and Voltage	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 27.53	RSS-139, 6.5	WCDMA UMTS Band 4 Radiated Spurious/Harmonic Emissions	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-
Part 27.50	RSS-139, 6.4	WCDMA UMTS Band 4 EIRP	See test report: 2-0023-11-1-6b and 2-0023-11-1-6b-A1	-


## G) Summary of Results

### 1) Conducted Emission Measurements

The following test configurations were measured for model REA71UW:

- a) The BlackBerry® smartphone met the requirements of the Tx Conducted RF output Power requirements in the GSM850 as per 47 CFR 2.1046, and RSS-GEN, 4.4. The EUT was measured on the low, middle and high channels. See APPENDIX 1 for test data.



		EMI Test Report for the BlackBerry® smartphone Model REA71UW, REB71UW
<b>Test Report No.</b> RTS-5316-1109-83A	<b>Dates of Test</b> September 8, 2011	FCC ID: L6AREA70UW IC: 2503A-REA70UW FCC ID: L6AREB70UW IC: 2503A-REB70UW

The BlackBerry® smartphone met the requirements of the Tx Conducted RF output Power requirements in the PCS1900 as per 47 CFR 2.1046, and RSS-GEN, 6.4. The EUT was on the low, middle and high channels.  
See APPENDIX 1 for test data

b) The BlackBerry® smartphone met the requirements of the Tx Conducted RF output Power requirements in the UMTS band 5 as per 47 CFR 2.1046, and RSS-GEN, 4.4. The EUT was measured on the low, middle and high channels.  
See APPENDIX 2 for test data.

The BlackBerry® smartphone met the requirements of the Tx Conducted RF output Power requirements in the UMTS band 2 as per 47 CFR 2.1046, and RSS-GEN, 6.4. The EUT was on the low, middle and high channels.  
See APPENDIX 2 for test data

The following test configurations were measured for model REB71UW:

c) The BlackBerry® smartphone met the requirements of the Tx Conducted RF output Power requirements in the UMTS band 4 as per 47 CFR 2.1046(a), RSS-139, 6.4 and RSS-132, 4.4. The EUT was measured on the low, middle and high channels.  
See APPENDIX 3 for test data.

## H) 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>
Universal Radio Communication Tester	Rohde & Schwarz	CMU 200	102204	11-11-30	RF Conducted Emissions

## APPENDIX 1 – GSM CONDUCTED RF OUTPUT POWER TEST DATA



## APPENDIX 2 – UMTS Band 2/5 CONDUCTED RF OUTPUT POWER TEST DATA



## APPENDIX 3 – UMTS Band 4 CONDUCTED RF OUTPUT POWER TEST DATA

