Annex A: Measurement data and plots

A.1 Spectrum analyser plots: CW, 80%AM, GSM and WCDMA signals

Please refere to Annex A.1 of the report number RTS-2337-1003-22 for the plots

A.2 Dipole validation and probe modulation factor plots

Please refere to Annex A.2 of the report number RTS-2337-1003-22 for probe modulation factor plots

Date/Time: 8/11/2010 1:19:04 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m³

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 103.5 V/m; Power Drift = 0.023 dB

Maximum value of Total (measured) = 166.2 V/m

E Scan - measurement distance from the probe sensor center to CD835

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**4 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 168.7 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 103.5 V/m; Power Drift = 0.023 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
160.3 M4	**161.2 M4**	**146.0 M4**
Grid 4	Grid 5	Grid 6
91.9 M4	**91.9 M4**	**80.1 M4**
Grid 7	Grid 8	Grid 9
168.7 M4	**168.7 M4**	**146.6 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**5 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 168.7V/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**6 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 1:31:19 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 141.6 V/m; Power Drift = 0.039 dB

Maximum value of Total (measured) = 126.4 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid:

	Document	Page
R∭ Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**7 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

dx=5mm, dy=5mm

Maximum value of peak Total field = 128.9 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 141.6 V/m; Power Drift = 0.039 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m
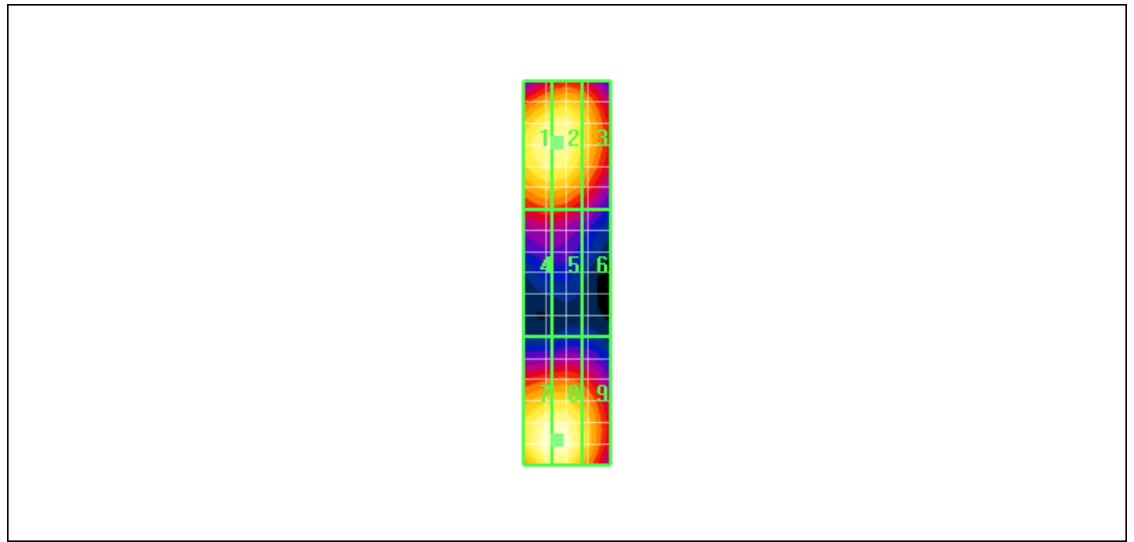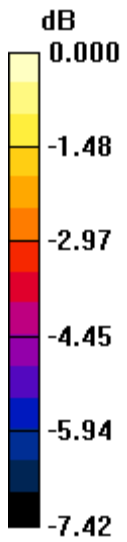
Grid 1	Grid 2	Grid 3
123.3 M2	**123.4 M2**	**112.4 M2**
Grid 4	Grid 5	Grid 6
90.8 M3	**90.7 M3**	**81.4 M3**
Grid 7	Grid 8	Grid 9
128.8 M2	**128.9 M2**	**114.0 M2**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**8 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 128.9V/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**9 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 1:50:25 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x13x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.506 A/m; Power Drift = 0.004 dB

Maximum value of Total (measured) = 0.478 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x121x1): Measurement grid:

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**10 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

dx=5mm, dy=5mm

Maximum value of peak Total field = 0.489 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.506 A/m; Power Drift = 0.004 dB

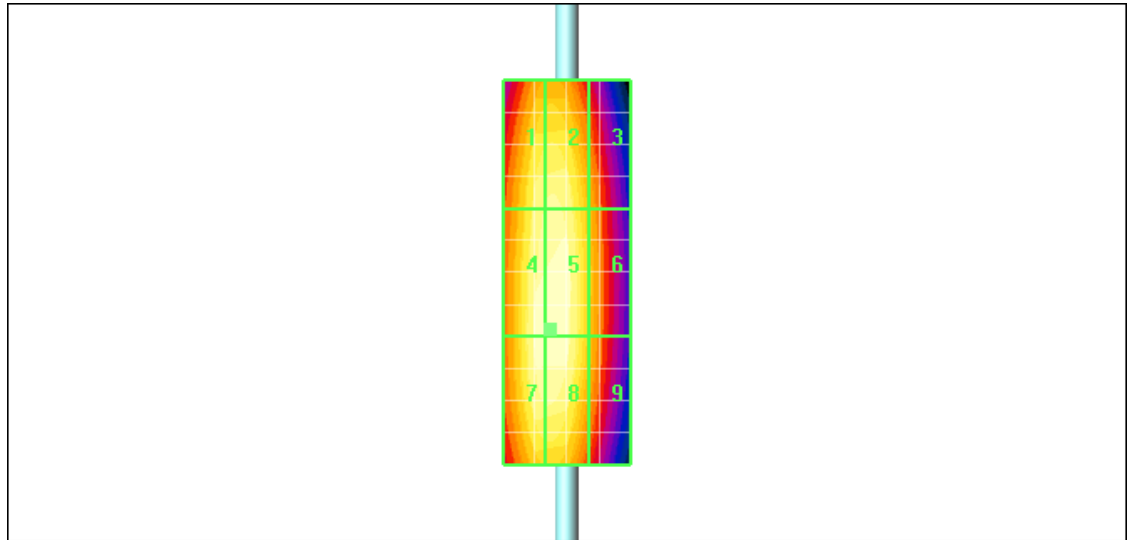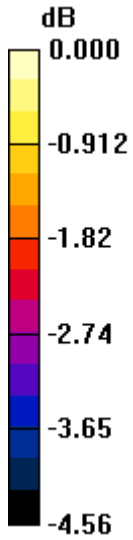## Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.473 M4	**0.476 M4**	**0.430 M4**
Grid 4	Grid 5	Grid 6
0.486 M4	**0.489 M4**	**0.438 M4**
Grid 7	Grid 8	Grid 9
0.486 M4	**0.488 M4**	**0.434 M4**

RIM Testing Services™	Document **Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	Page **11 (96)**

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

0 dB = 0.489A/m

Date/Time: 8/11/2010 1:45:33 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m³

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.476 A/m; Power Drift = 0.019 dB

Maximum value of Total (measured) = 0.450 A/m

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**13 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

dx=5mm, dy=5mm

Maximum value of peak Total field = 0.457 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.476 A/m; Power Drift = 0.019 dB

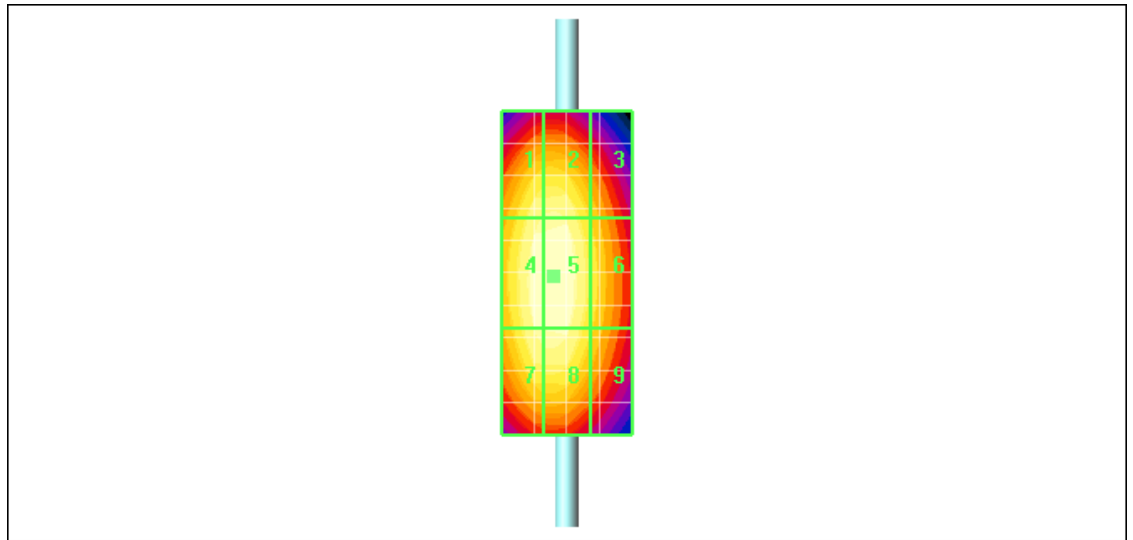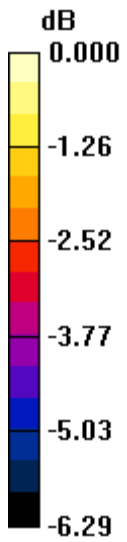**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.437 M2	**0.439 M2**	**0.397 M2**
Grid 4	Grid 5	Grid 6
0.454 M2	**0.457 M2**	**0.414 M2**
Grid 7	Grid 8	Grid 9
0.445 M2	**0.446 M2**	**0.403 M2**

0 dB = 0.457A/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**15 (96)**

| Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

## Justification of Step Size and Interpolation

This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.
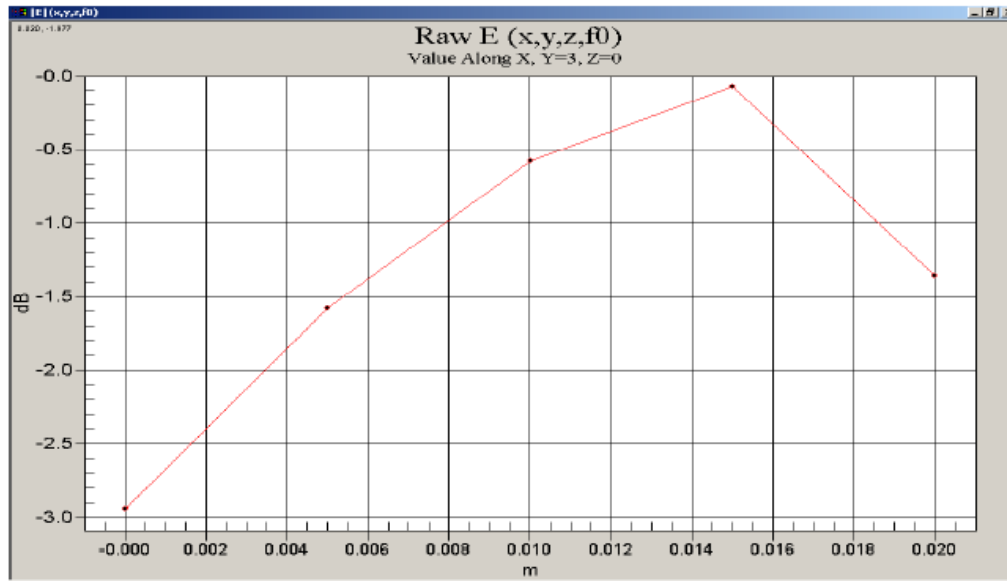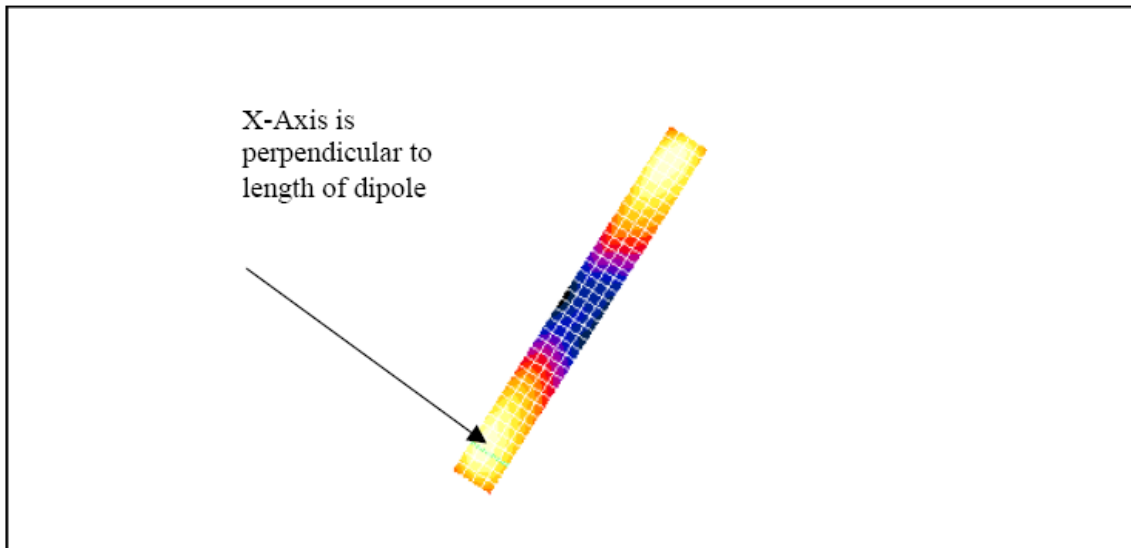

The figure above shows the raw measured field strength perpendicular to the length of the validation dipole. The TCB guidance slides require the 3dB width to be much larger than the step size. The width between -3dB points is > 21mm, at least 4 times the step size.
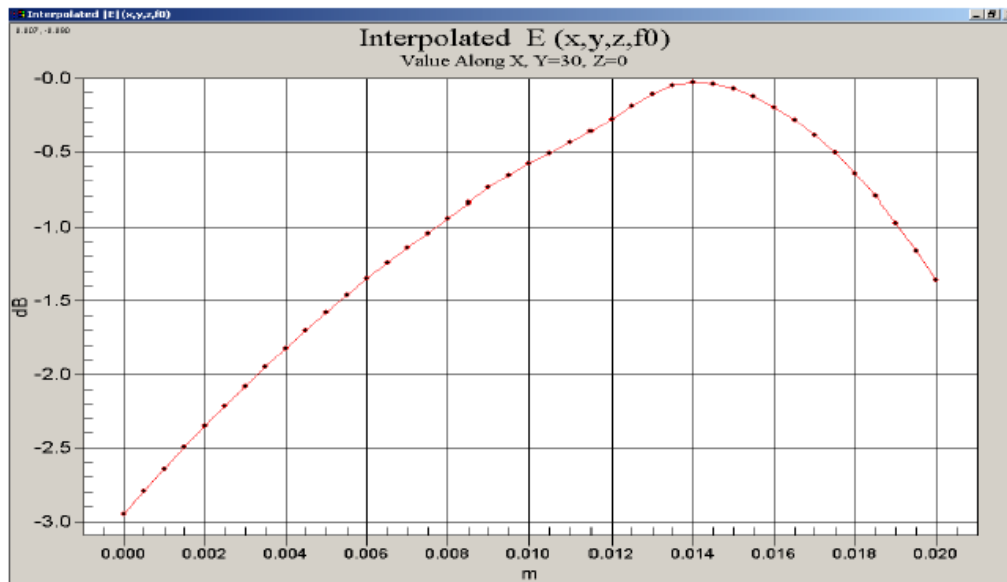
This figure shows the interpolated field strength perpendicular to the dipole. The interpolated points follow the raw points with no inconsistencies.

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**16 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

The green line in this figure shows the axis along which the points lie.

Comparison of 5mm and 2mm step sizes

An additional set of measurements was taken: dipole validations were performed using 5mm and 2mm step sizes. The delta between the two readings is insignificant for both field types (< 0.4% for E and 0% for H), demonstrating that 5mm is sufficient. The plots follow.

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**17 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 11:35:24 AM   Page 1 of 2

Date/Time: 14/07/2005 11:35:24 AM

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface) Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 134.8 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 131.0 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

E in V/m (Time averaged)

Grid 1	Grid 2	Grid 3
123.2	138.1	138.4
Grid 4	**Grid 5**	**Grid 6**
80.9	92.3	92.2
Grid 7	**Grid 8**	**Grid 9**
119.8	131.0	130.7

E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3
123.2	138.1	138.4
Grid 4	**Grid 5**	**Grid 6**
80.9	92.3	92.2
Grid 7	**Grid 8**	**Grid 9**
119.8	131.0	130.7

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20...   14/07/2005

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 11:35:24 AM   Page 2 of 2

0 dB = 138.4V/m

file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20...   14/07/2005

	Document	Page
R/M Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**19** (96)

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 11:44:51 AM   Page 1 of 2

Date/Time: 14/07/2005 11:44:51 AM

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface) Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 138.0 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 131.2 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

E in V/m (Time averaged)

Grid 1	Grid 2	Grid 3
123.1	138.6	138.6
Grid 4	Grid 5	Grid 6
81.4	92.1	91.6
Grid 7	Grid 8	Grid 9
121.3	131.2	131.0

E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3
123.1	138.6	138.6
Grid 4	Grid 5	Grid 6
81.4	92.1	91.6
Grid 7	Grid 8	Grid 9
121.3	131.2	131.0

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

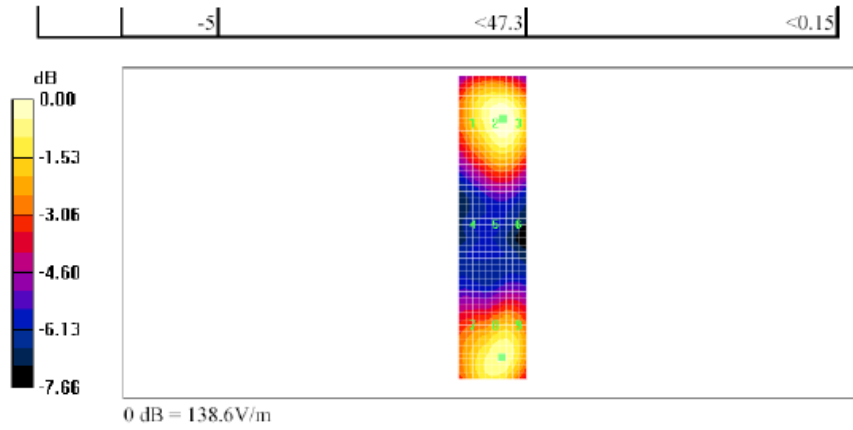file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20...   14/07/2005

Date/Time: 14/07/2005 11:44:51 AM   Page 2 of 2

0 dB = 138.6V/m

file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20...   14/07/2005

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**21 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 12:43:02 PM   Page 1 of 2

Date/Time: 14/07/2005 12:43:02 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:
- Probe: H3DV6 - SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

Grid 1	Grid 2	Grid 3
0.342	0.359	0.344
Grid 4	**Grid 5**	**Grid 6**
0.389	0.406	0.389
Grid 7	**Grid 8**	**Grid 9**
0.363	0.378	0.363

H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3
0.342	0.359	0.344
Grid 4	**Grid 5**	**Grid 6**
0.389	0.406	0.389
Grid 7	**Grid 8**	**Grid 9**
0.363	0.378	0.363

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

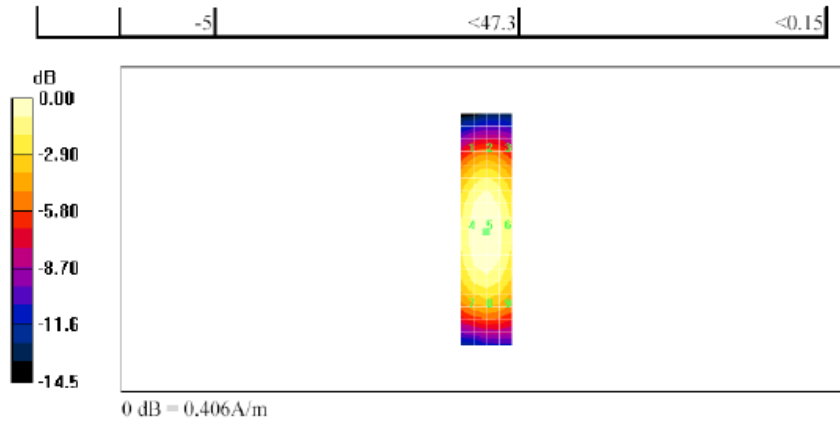file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_5%...   14/07/2005

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**22 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 12:43:02 PM   Page 2 of 2

0 dB = 0.406A/m

file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_5%...   14/07/2005

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**23 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 12:53:40 PM   Page 1 of 2

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: H Dipole Section

DASY4 Configuration:
- Probe: H3DV6 - SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

Grid 1	Grid 2	Grid 3
0.347	0.361	0.348
Grid 4	Grid 5	Grid 6
0.394	0.406	0.391
Grid 7	Grid 8	Grid 9
0.367	0.380	0.365

H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3
0.347	0.361	0.348
Grid 4	Grid 5	Grid 6
0.394	0.406	0.391
Grid 7	Grid 8	Grid 9
0.367	0.380	0.365

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

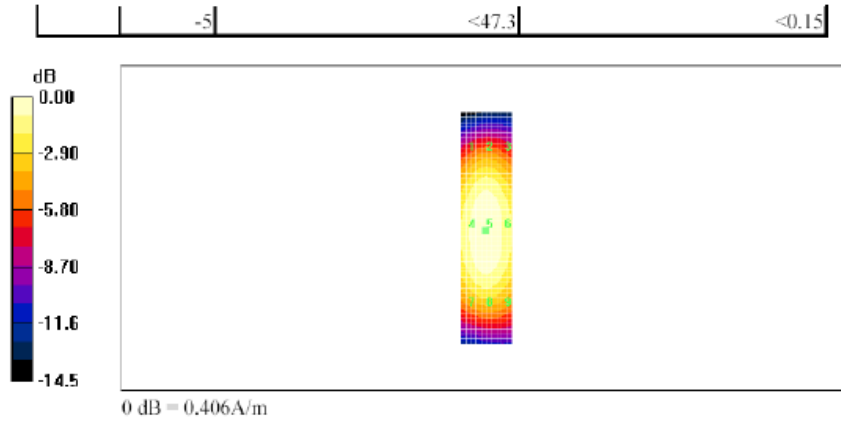file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_2%...   14/07/2005

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**24 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 14/07/2005 12:53:40 PM   Page 2 of 2

0 dB = 0.406A/m

file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_2%...   14/07/2005

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**25 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 4:53:50 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_850_low_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 59.0 V/m; Power Drift = 0.058 dB

Maximum value of Total (measured) = 48.3 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 137.3 V/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**26 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Probe Modulation Factor = 2.84

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 59.0 V/m; Power Drift = 0.058 dB

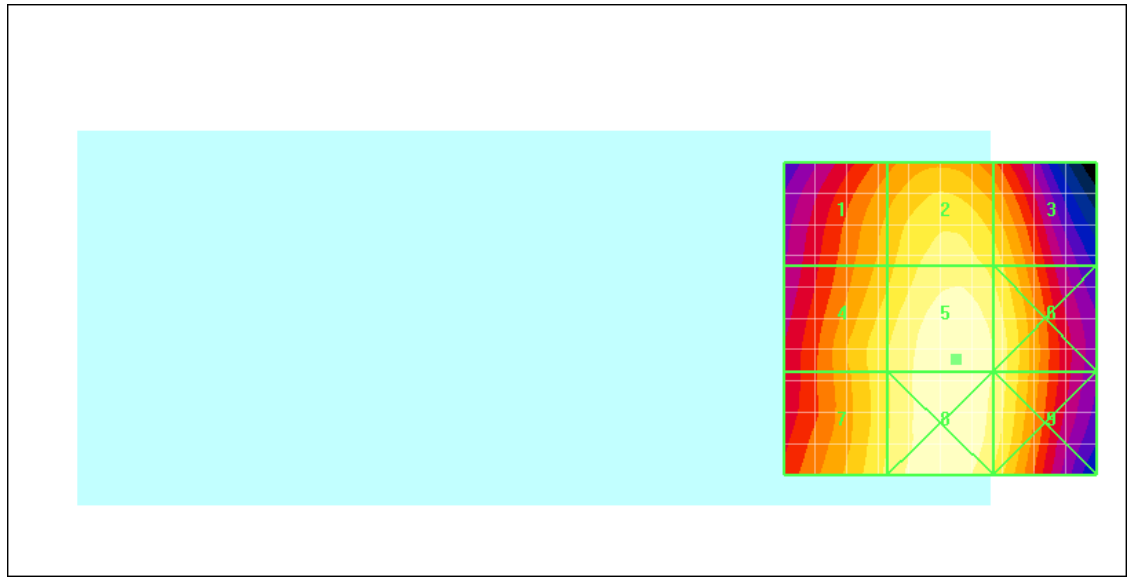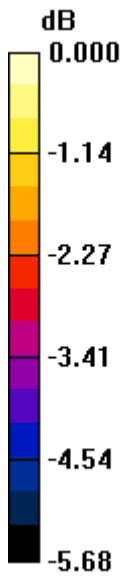## Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
124.8 M4	**130.4 M4**	**123.2 M4**
Grid 4	Grid 5	Grid 6
130.1 M4	**137.3 M4**	**129.8 M4**
Grid 7	Grid 8	Grid 9
129.1 M4	**136.8 M4**	**128.9 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**27 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 137.3V/m

	Document	Page
![RIM Testing Services logo]	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**28 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 5:12:10 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_850_mid_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 59.1 V/m; Power Drift = -0.287 dB

Maximum value of Total (measured) = 45.8 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 130.9 V/m

Probe Modulation Factor = 2.84

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 59.1 V/m; Power Drift = -0.287 dB

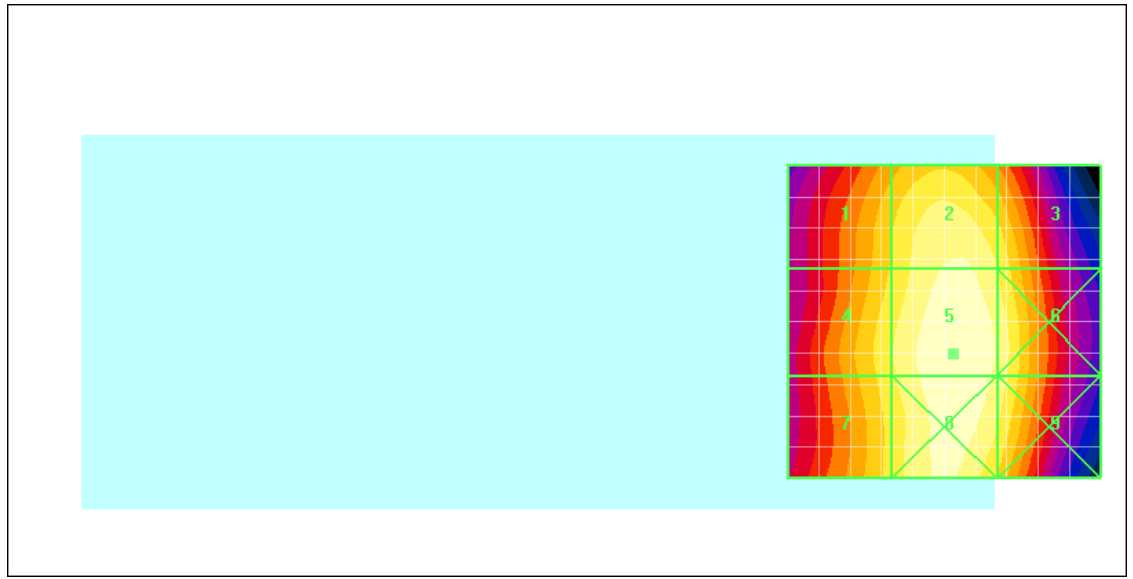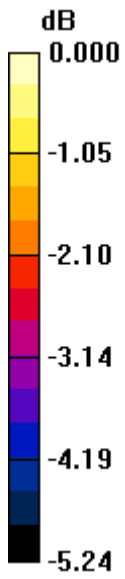## Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
113.1 M4	**122.9 M4**	**118.0 M4**
Grid 4	Grid 5	Grid 6
119.9 M4	**130.9 M4**	**125.1 M4**
Grid 7	Grid 8	Grid 9
121.3 M4	**130.7 M4**	**124.7 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**30 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 130.9V/m

	Document	Page
R/M Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**31 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 5:24:44 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_850_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m³

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 55.5 V/m; Power Drift = -0.017 dB

Maximum value of Total (measured) = 43.5 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**32 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 123.9 V/m

Probe Modulation Factor = 2.84

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 55.5 V/m; Power Drift = -0.017 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)
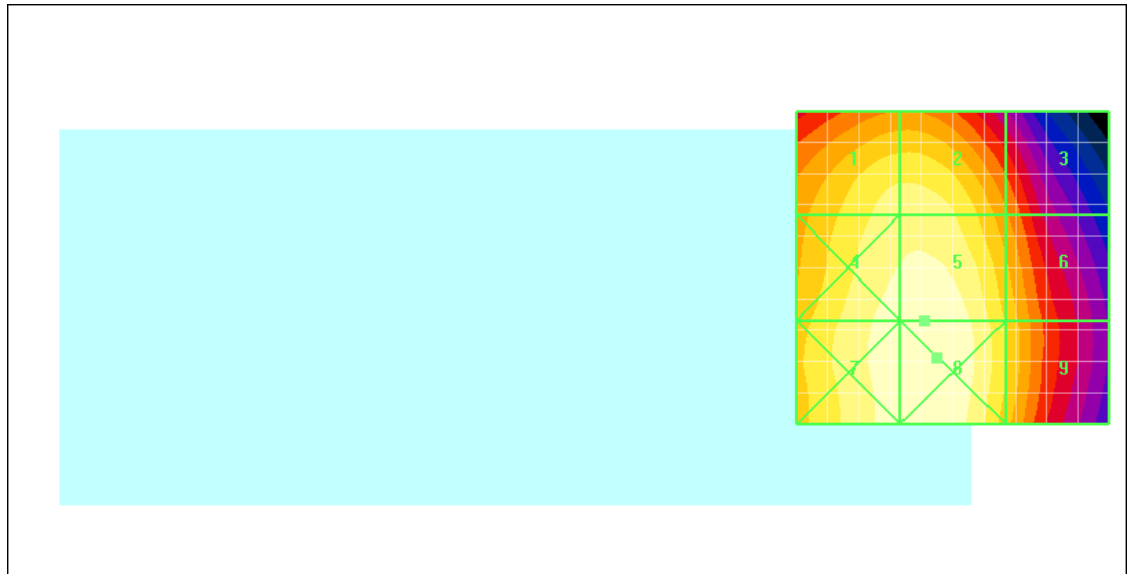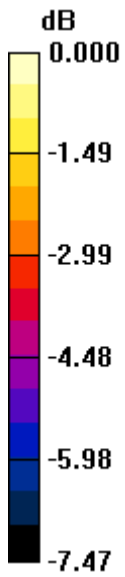
Peak E-field in V/m

Grid 1	Grid 2	Grid 3
110.4 M4	**119.8 M4**	**114.3 M4**
Grid 4	Grid 5	Grid 6
114.0 M4	**123.9 M4**	**118.5 M4**
Grid 7	Grid 8	Grid 9
113.3 M4	**123.3 M4**	**117.6 M4**

0 dB = 123.9V/m

Date/Time: 8/11/2010 7:11:59 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_850_low_chan_Telecoil.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 58.9 V/m; Power Drift = -0.043 dB

Maximum value of Total (measured) = 46.4 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 130.8 V/m

Probe Modulation Factor = 2.84

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 58.9 V/m; Power Drift = -0.043 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m
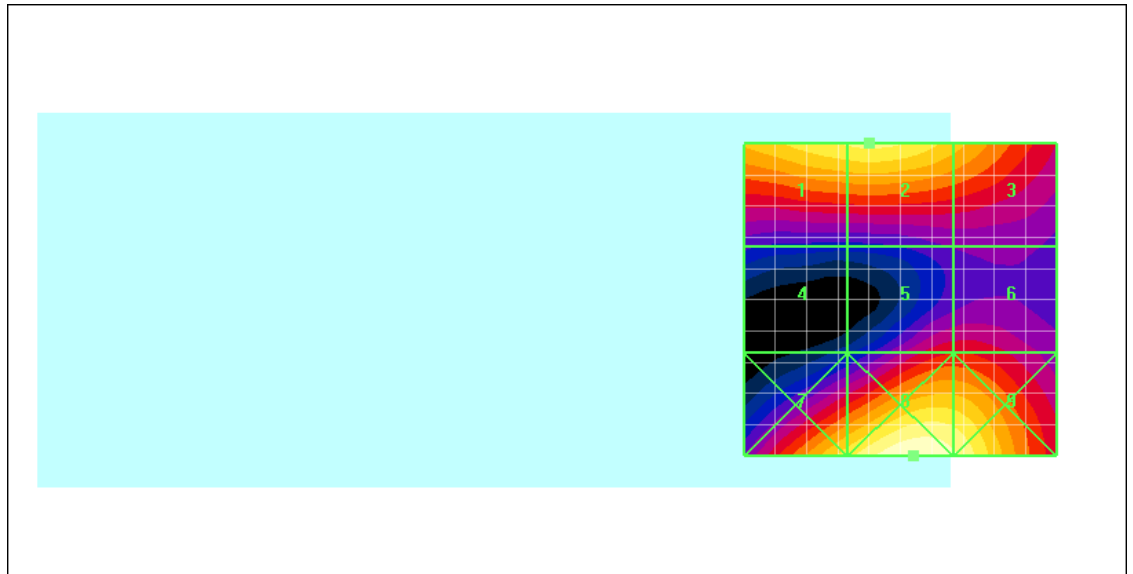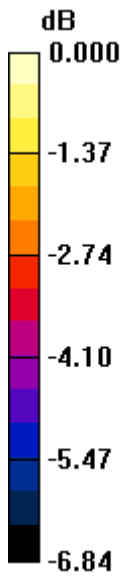
Grid 1	Grid 2	Grid 3
121.7 M4	**121.9 M4**	**100.3 M4**
Grid 4	Grid 5	Grid 6
129.2 M4	**130.8 M4**	**110.6 M4**
Grid 7	Grid 8	Grid 9
130.3 M4	**132.1 M4**	**111.9 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**36 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 132.1V/m

Date/Time: 8/11/2010 5:43:46 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_1900_low_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.5 V/m; Power Drift = -0.047 dB

Maximum value of Total (measured) = 25.7 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Document **Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	Page **38 (96)**

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

Maximum value of peak Total field = 62.8 V/m

Probe Modulation Factor = 2.66

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.5 V/m; Power Drift = -0.047 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

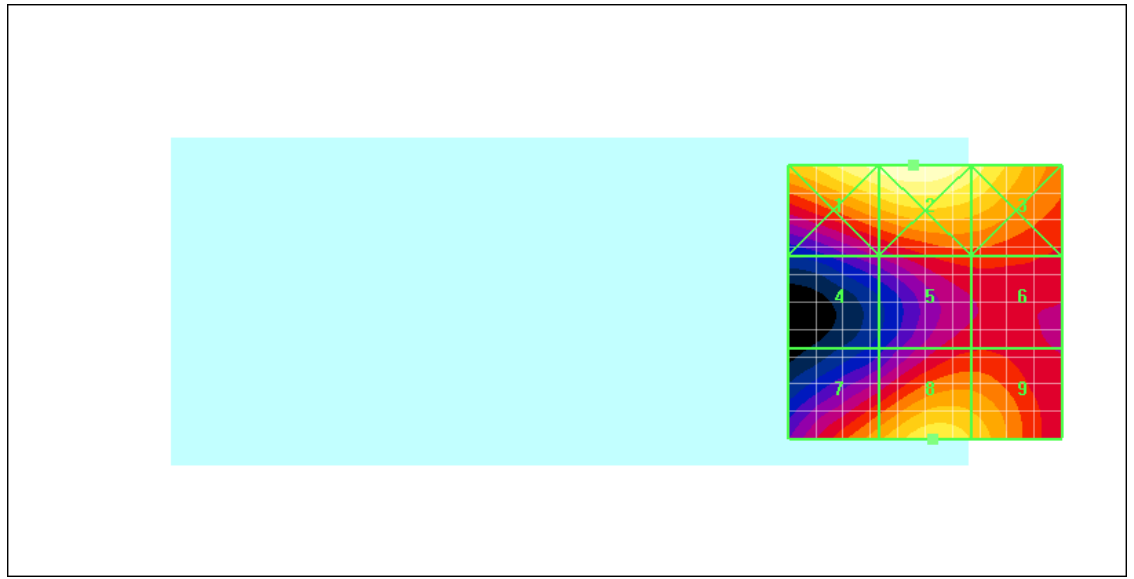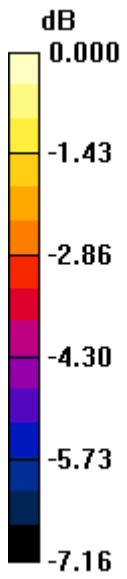Peak E-field in V/m

Grid 1	Grid 2	Grid 3
62.3 M3	**62.8 M3**	**57.3 M3**
Grid 4	Grid 5	Grid 6
39.3 M4	**47.5 M3**	**47.6 M3**
Grid 7	Grid 8	Grid 9
61.0 M3	**68.7 M3**	**65.9 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**39** (96)

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 68.7V/m

Date/Time: 8/11/2010 5:54:41 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_1900_mid_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m³

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 17.8 V/m; Power Drift = 0.003 dB

Maximum value of Total (measured) = 26.6 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 62.7 V/m

Probe Modulation Factor = 2.66

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 17.8 V/m; Power Drift = 0.003 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **68.7 M3**	Grid 2 **70.8 M3**	Grid 3 **65.7 M3**
Grid 4 **43.7 M4**	Grid 5 **49.9 M3**	Grid 6 **49.9 M3**
Grid 7 **56.2 M3**	Grid 8 **62.7 M3**	Grid 9 **59.9 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**42 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 70.8V/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**43 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 6:01:06 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_1900_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.1 V/m; Power Drift = -0.155 dB

Maximum value of Total (measured) = 26.3 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**44 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 55.9 V/m

Probe Modulation Factor = 2.66

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.1 V/m; Power Drift = -0.155 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **64.5 M3**	Grid 2 **70.3 M3**	Grid 3 **68.5 M3**
Grid 4 **44.1 M4**	Grid 5 **55.6 M3**	Grid 6 **55.9 M3**
Grid 7 **45.7 M4**	Grid 8 **52.9 M3**	Grid 9 **52.2 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**45 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 70.3V/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**46 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 6:15:30 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_GSM_1900_low_chan_Telecoil.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.4 V/m; Power Drift = -0.035 dB

Maximum value of Total (measured) = 26.8 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**47 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 58.3 V/m

Probe Modulation Factor = 2.66

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.4 V/m; Power Drift = -0.035 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)
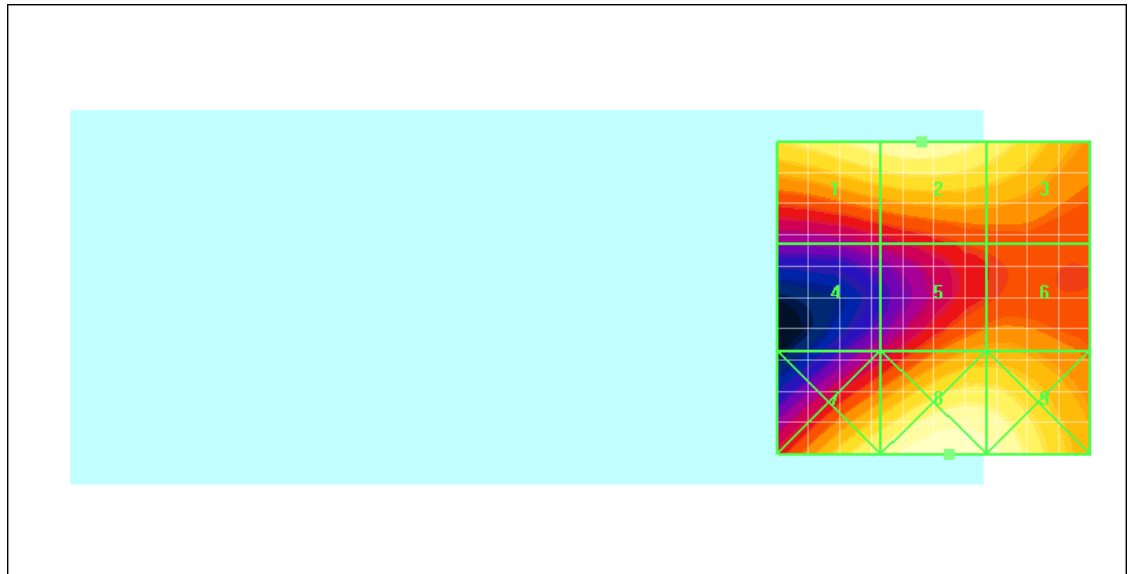
Peak E-field in V/m

Grid 1	Grid 2	Grid 3
71.4 M3	**70.8 M3**	**57.4 M3**
Grid 4	Grid 5	Grid 6
49.7 M3	**49.7 M3**	**47.3 M3**
Grid 7	Grid 8	Grid 9
53.0 M3	**58.3 M3**	**54.4 M3**

0 dB = 71.4V/m

Date/Time: 8/11/2010 6:35:53 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_UMTS_band_II_low_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.9 V/m; Power Drift = -0.223 dB

Maximum value of Total (measured) = 42.1 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 35.2 V/m

Probe Modulation Factor = 0.910

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.9 V/m; Power Drift = -0.223 dB

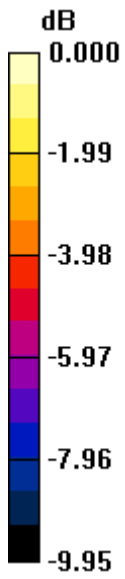### Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **34.6 M4**	Grid 2 **35.2 M4**	Grid 3 **32.5 M4**
Grid 4 **19.6 M4**	Grid 5 **26.6 M4**	Grid 6 **26.6 M4**
Grid 7 **33.9 M4**	Grid 8 **38.5 M4**	Grid 9 **36.9 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**51 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 38.5V/m

Date/Time: 8/11/2010 6:45:57 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_UMTS_band_II_mid_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.4 V/m; Power Drift = -0.044 dB

Maximum value of Total (measured) = 37.0 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**53 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 31.4 V/m

Probe Modulation Factor = 0.910

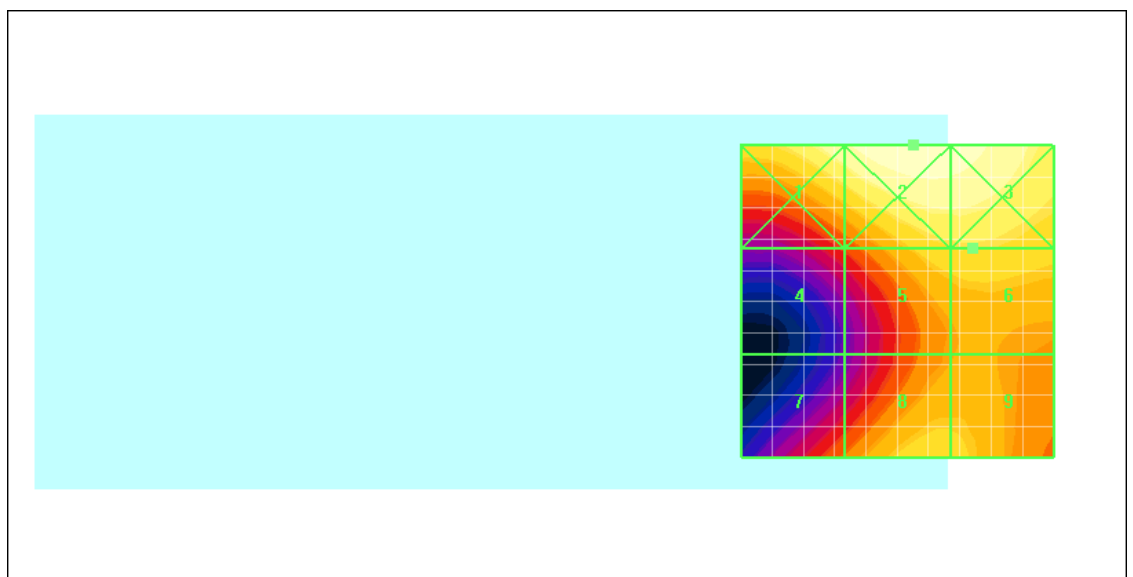Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.4 V/m; Power Drift = -0.044 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
32.0 M4	**33.7 M4**	**32.3 M4**
Grid 4	Grid 5	Grid 6
19.8 M4	**24.9 M4**	**25.1 M4**
Grid 7	Grid 8	Grid 9
27.5 M4	**31.4 M4**	**30.3 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**54 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 33.7V/m

Date/Time: 8/11/2010 6:51:58 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_UMTS_band_II_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 28.8 V/m; Power Drift = -0.126 dB

Maximum value of Total (measured) = 40.2 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**56 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

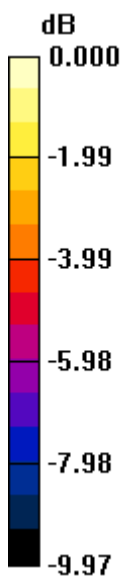Maximum value of peak Total field = 28.9 V/m

Probe Modulation Factor = 0.910

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 28.8 V/m; Power Drift = -0.126 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
33.5 M4	**36.7 M4**	**35.9 M4**
Grid 4	Grid 5	Grid 6
21.6 M4	**28.6 M4**	**28.9 M4**
Grid 7	Grid 8	Grid 9
23.4 M4	**28.1 M4**	**27.8 M4**

dB
0.000
-1.99
-3.99
-5.98
-7.98
-9.97

0 dB = 36.7V/m

	Document **Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	Page **58 (96)**

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

Date/Time: 8/11/2010 7:00:04 PM

Test Laboratory: RIM Testing Services

File Name: HAC_E_UMTS_band_II_low_chan_Telecoil.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF ER3D Device

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 21.8 V/m; Power Drift = 0.083 dB

Maximum value of Total (measured) = 42.1 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
R/M Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**59 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 31.2 V/m

Probe Modulation Factor = 0.910

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 21.8 V/m; Power Drift = 0.083 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

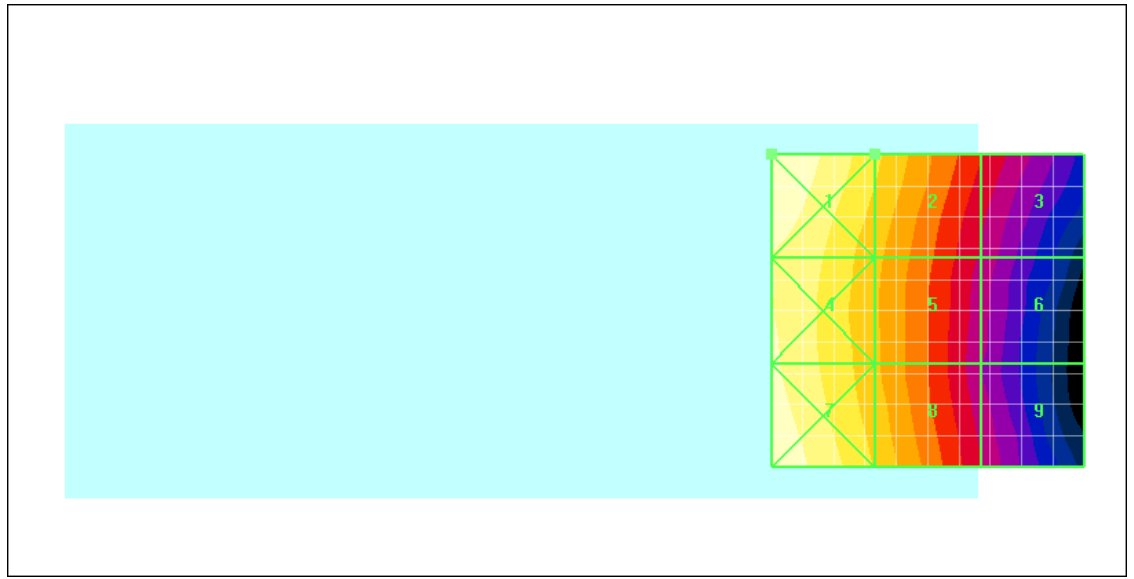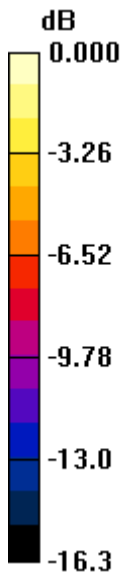| Grid 1	Grid 2	Grid 3
38.4 M4	**38.2 M4**	**31.5 M4**
Grid 4	Grid 5	Grid 6
28.4 M4	**28.5 M4**	**26.5 M4**
Grid 7	Grid 8	Grid 9
27.5 M4	**31.2 M4**	**29.5 M4**

0 dB = 38.4V/m

Date/Time: 8/11/2010 8:26:28 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM850_low_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m³

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.038 A/m; Power Drift = -0.072 dB

Maximum value of Total (measured) = 0.080 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**62 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 0.158 A/m

Probe Modulation Factor = 2.79

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.038 A/m; Power Drift = -0.072 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.223 M4	**0.158 M4**	**0.094 M4**
Grid 4	Grid 5	Grid 6
0.201 M4	**0.141 M4**	**0.081 M4**
Grid 7	Grid 8	Grid 9
0.222 M4	**0.152 M4**	**0.083 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**63 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.223A/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**64 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 8:33:45 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM850_mid_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.040 A/m; Power Drift = -0.042 dB

Maximum value of Total (measured) = 0.082 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.230 A/m

Probe Modulation Factor = 2.79

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.040 A/m; Power Drift = -0.042 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)
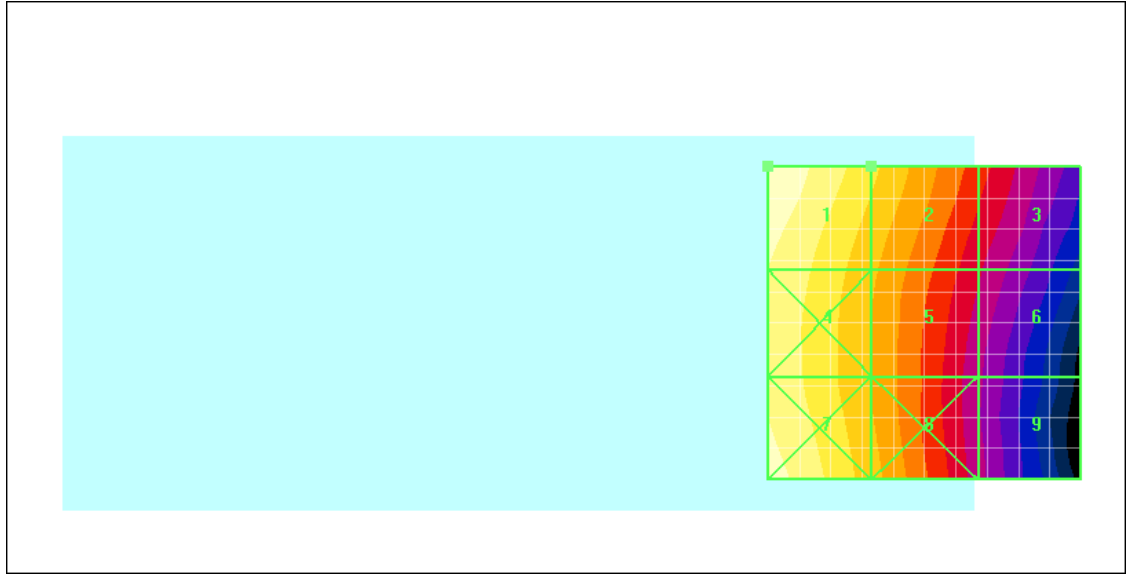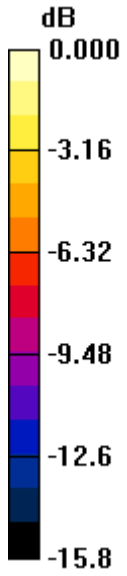
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.230 M4	**0.165 M4**	**0.105 M4**
Grid 4	Grid 5	Grid 6
0.203 M4	**0.146 M4**	**0.089 M4**
Grid 7	Grid 8	Grid 9
0.216 M4	**0.149 M4**	**0.082 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**66 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.230A/m

	Document	Page
Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**67 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 8:40:03 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM850_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.045 A/m; Power Drift = 0.225 dB

Maximum value of Total (measured) = 0.085 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.233 A/m

Probe Modulation Factor = 2.79

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.045 A/m; Power Drift = 0.225 dB

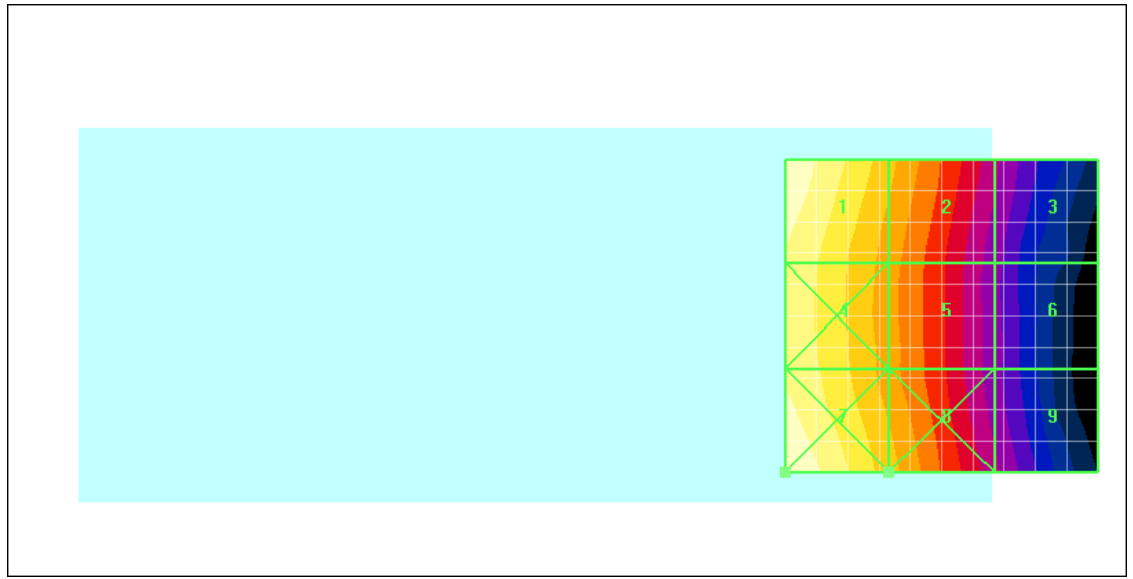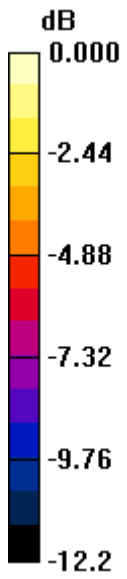## Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.233 M4	**0.168 M4**	**0.105 M4**
Grid 4	Grid 5	Grid 6
0.213 M4	**0.155 M4**	**0.097 M4**
Grid 7	Grid 8	Grid 9
0.236 M4	**0.169 M4**	**0.105 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**69 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.236A/m

Date/Time: 8/11/2010 8:48:54 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM850_high_chan_Telecoil.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.045 A/m; Power Drift = -0.086 dB

Maximum value of Total (measured) = 0.076 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.213 A/m

Probe Modulation Factor = 2.79

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.045 A/m; Power Drift = -0.086 dB

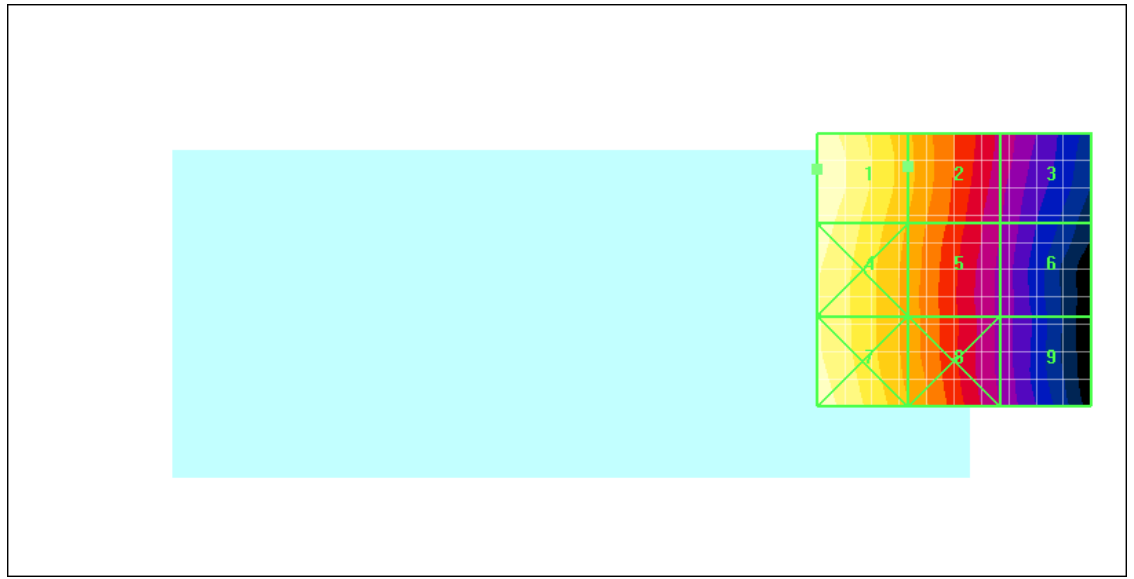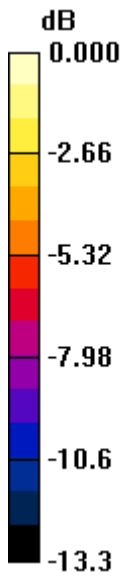## Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.213 M4**	Grid 2 **0.147 M4**	Grid 3 **0.092 M4**
Grid 4 **0.203 M4**	Grid 5 **0.141 M4**	Grid 6 **0.086 M4**
Grid 7 **0.206 M4**	Grid 8 **0.143 M4**	Grid 9 **0.085 M4**

0 dB = 0.213A/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**73 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 8:56:39 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM1900_low_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.067 A/m; Power Drift = 0.160 dB

Maximum value of Total (measured) = 0.066 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.160 A/m

Probe Modulation Factor = 2.42

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.067 A/m; Power Drift = 0.160 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)
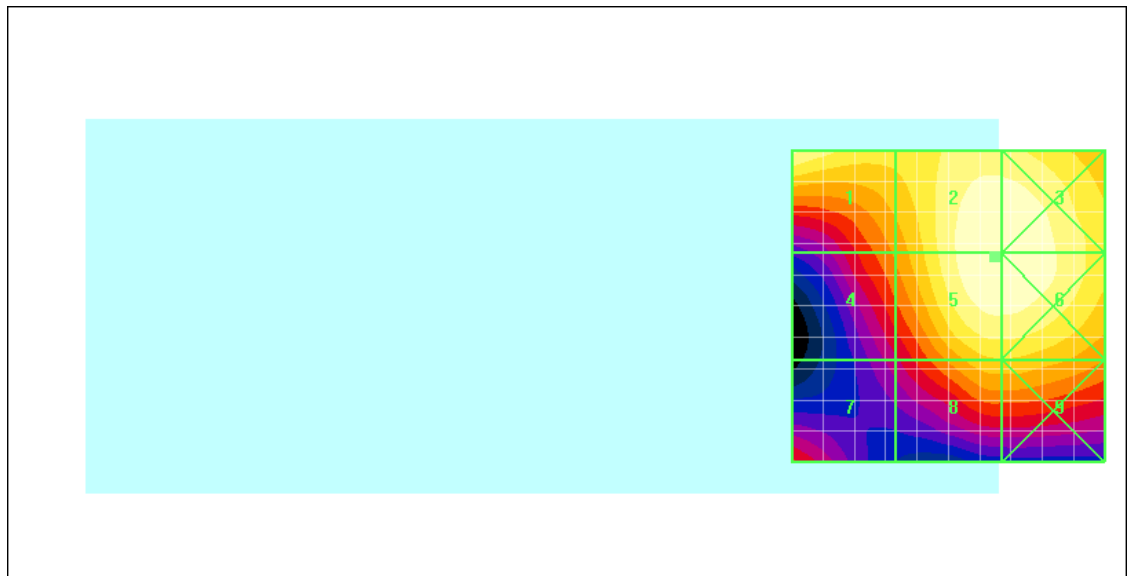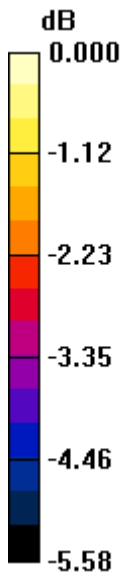
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.156 M3	**0.160 M3**	**0.160 M3**
Grid 4	Grid 5	Grid 6
0.130 M4	**0.160 M3**	**0.160 M3**
Grid 7	Grid 8	Grid 9
0.121 M4	**0.140 M3**	**0.140 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**75 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.160A/m

Date/Time: 8/11/2010 9:04:47 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM1900_mid_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m³

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.073 A/m; Power Drift = -0.079 dB

Maximum value of Total (measured) = 0.083 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.173 A/m

Probe Modulation Factor = 2.42

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.073 A/m; Power Drift = -0.079 dB

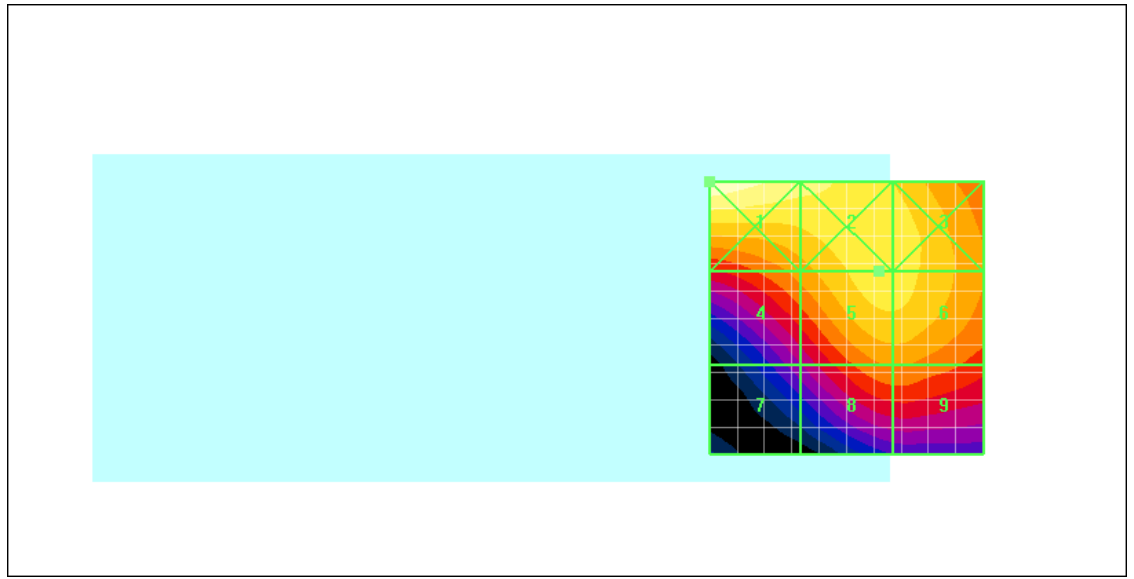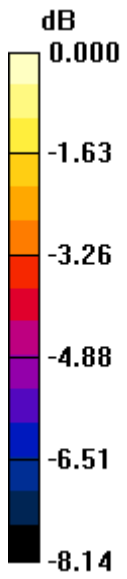**Hearing Aid Near-Field Category: M3 (AWF -5 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.201 M3	**0.181 M3**	**0.173 M3**
Grid 4	Grid 5	Grid 6
0.151 M3	**0.173 M3**	**0.172 M3**
Grid 7	Grid 8	Grid 9
0.114 M4	**0.148 M3**	**0.148 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**78 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.201A/m

Date/Time: 8/11/2010 9:13:11 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM1900_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.073 A/m; Power Drift = -0.180 dB

Maximum value of Total (measured) = 0.092 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**80 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 0.166 A/m

Probe Modulation Factor = 2.42

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.073 A/m; Power Drift = -0.180 dB

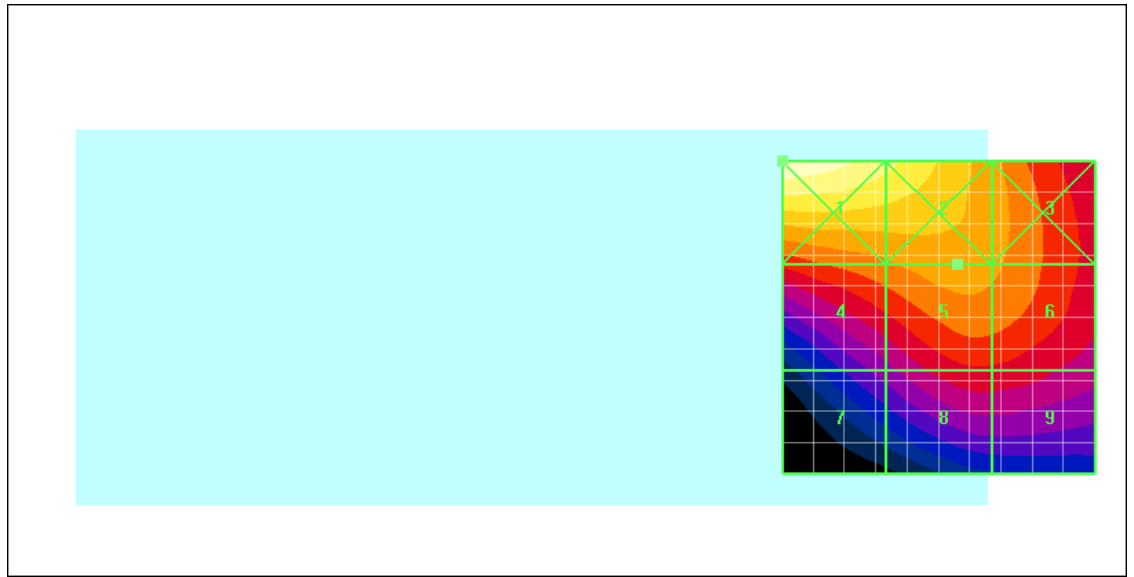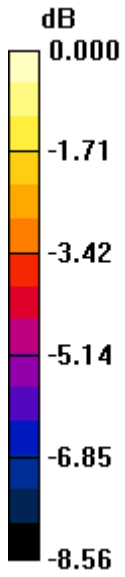## Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.223 M3	**0.200 M3**	**0.166 M3**
Grid 4	Grid 5	Grid 6
0.159 M3	**0.166 M3**	**0.163 M3**
Grid 7	Grid 8	Grid 9
0.120 M4	**0.140 M4**	**0.139 M4**

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

0 dB = 0.223A/m

	Document	Page
Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**82 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Date/Time: 8/11/2010 9:22:31 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_GSM1900_mid_chan_Telecoil.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.072 A/m; Power Drift = 0.222 dB

Maximum value of Total (measured) = 0.086 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

Maximum value of peak Total field = 0.176 A/m

Probe Modulation Factor = 2.42

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.072 A/m; Power Drift = 0.222 dB

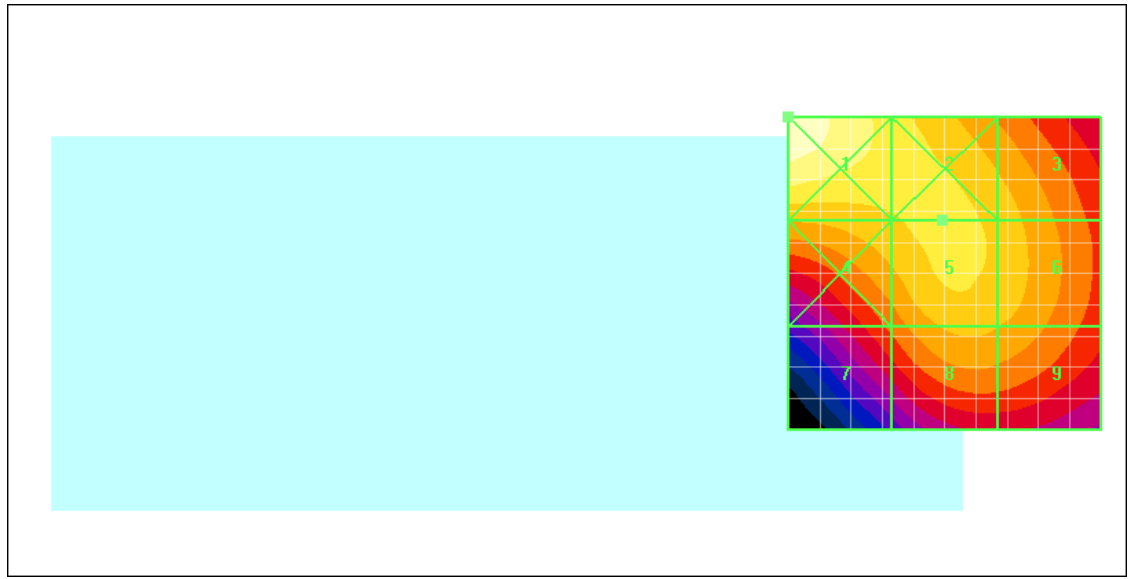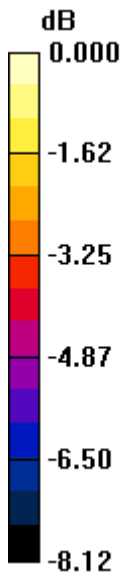## Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.208 M3	**0.180 M3**	**0.169 M3**
Grid 4	Grid 5	Grid 6
0.171 M3	**0.176 M3**	**0.170 M3**
Grid 7	Grid 8	Grid 9
0.146 M3	**0.165 M3**	**0.162 M3**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**84 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.208A/m

Date/Time: 8/11/2010 9:35:27 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_II_low_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.111 A/m; Power Drift = -0.004 dB

Maximum value of Total (measured) = 0.106 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**86 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 0.104 A/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.111 A/m; Power Drift = -0.004 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)
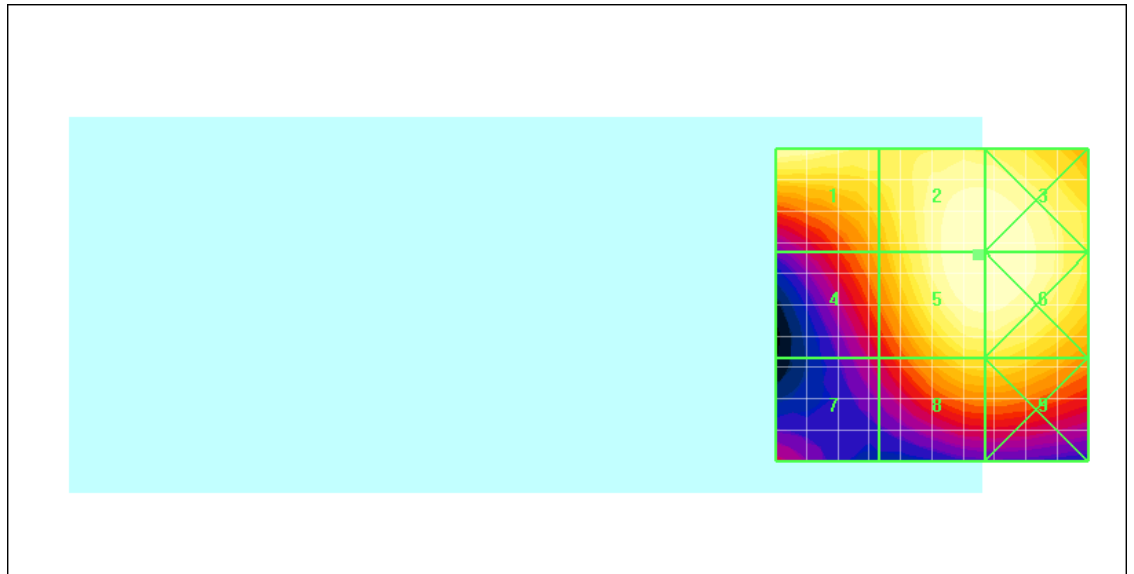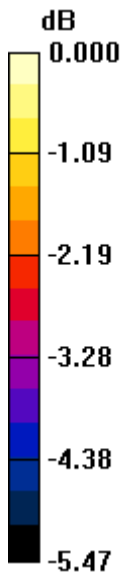
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.100 M4	**0.103 M4**	**0.103 M4**
Grid 4	Grid 5	Grid 6
0.086 M4	**0.104 M4**	**0.103 M4**
Grid 7	Grid 8	Grid 9
0.074 M4	**0.092 M4**	**0.092 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**87 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.104A/m

Date/Time: 8/11/2010 9:57:25 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_II_mid_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.101 A/m; Power Drift = -0.017 dB

Maximum value of Total (measured) = 0.114 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.096 A/m

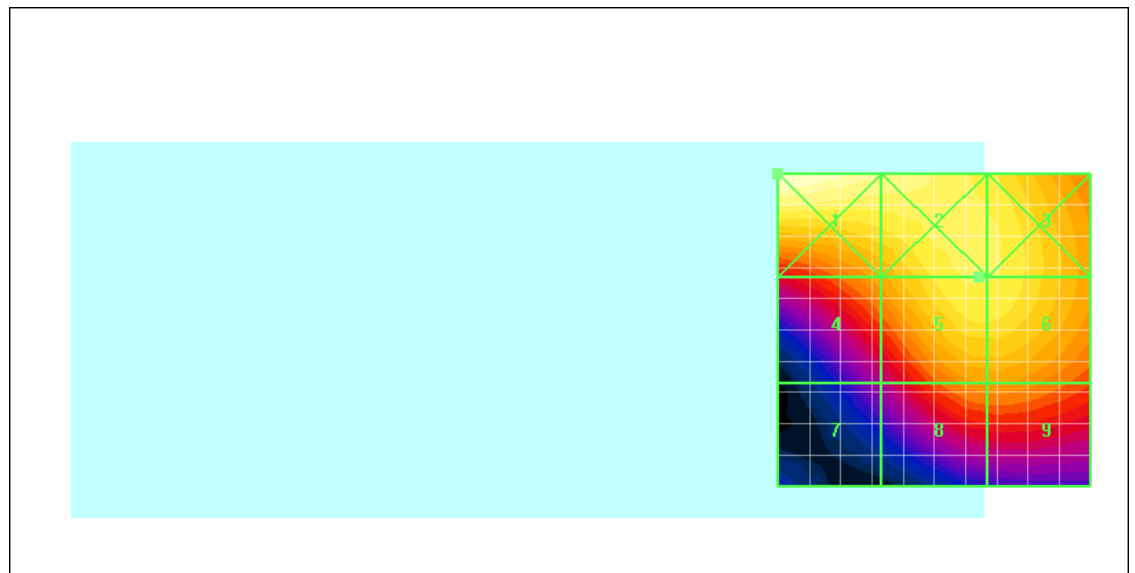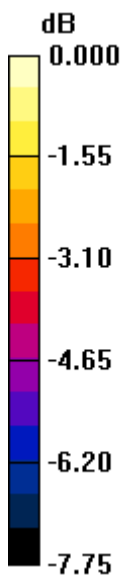Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.101 A/m; Power Drift = -0.017 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.110 M4	**0.101 M4**	**0.096 M4**
Grid 4	Grid 5	Grid 6
0.084 M4	**0.096 M4**	**0.096 M4**
Grid 7	Grid 8	Grid 9
0.064 M4	**0.082 M4**	**0.082 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**90 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.110A/m

	Document **Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	Page **91 (96)**

Author Data **Daoud Attayi**	Dates of Test **August 09-11, 2010**	Report No **RTS-2337-1008-32**	FCC ID **L6ARDG70UW**

Date/Time: 8/11/2010 10:04:20 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_II_low_chan_Telecoil.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.110 A/m; Power Drift = -0.044 dB

Maximum value of Total (measured) = 0.106 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**92 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Maximum value of peak Total field = 0.101 A/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.110 A/m; Power Drift = -0.044 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)
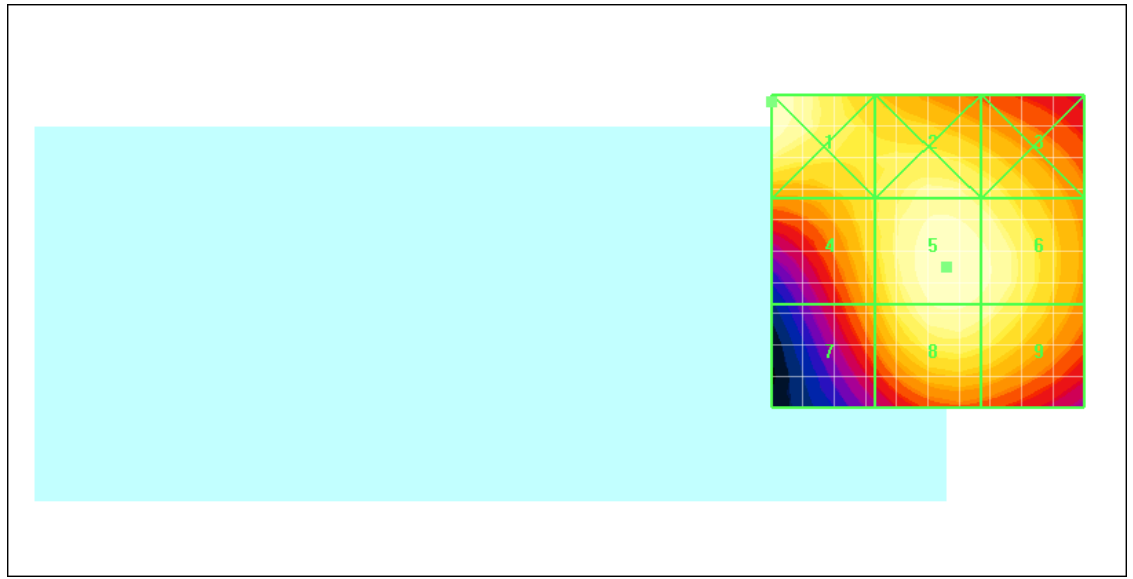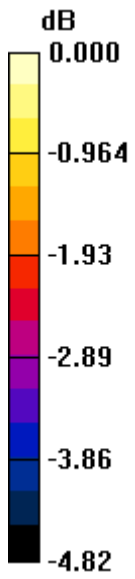
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.103 M4	**0.098 M4**	**0.096 M4**
Grid 4	Grid 5	Grid 6
0.093 M4	**0.101 M4**	**0.100 M4**
Grid 7	Grid 8	Grid 9
0.088 M4	**0.100 M4**	**0.098 M4**

	Document		Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**		**93 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.103A/m

Date/Time: 8/11/2010 9:50:22 PM

Test Laboratory: RIM Testing Services

File Name: HAC_H_UMTS_band_II_high_chan.da4

DUT: BlackBerry Smartphone

Program Name: HAC RF H3DV6 Device

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009

- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn473; Calibrated: 1/4/2010

- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.101 A/m; Power Drift = 0.001 dB

Maximum value of Total (measured) = 0.128 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.095 A/m

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**95 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.101 A/m; Power Drift = 0.001 dB

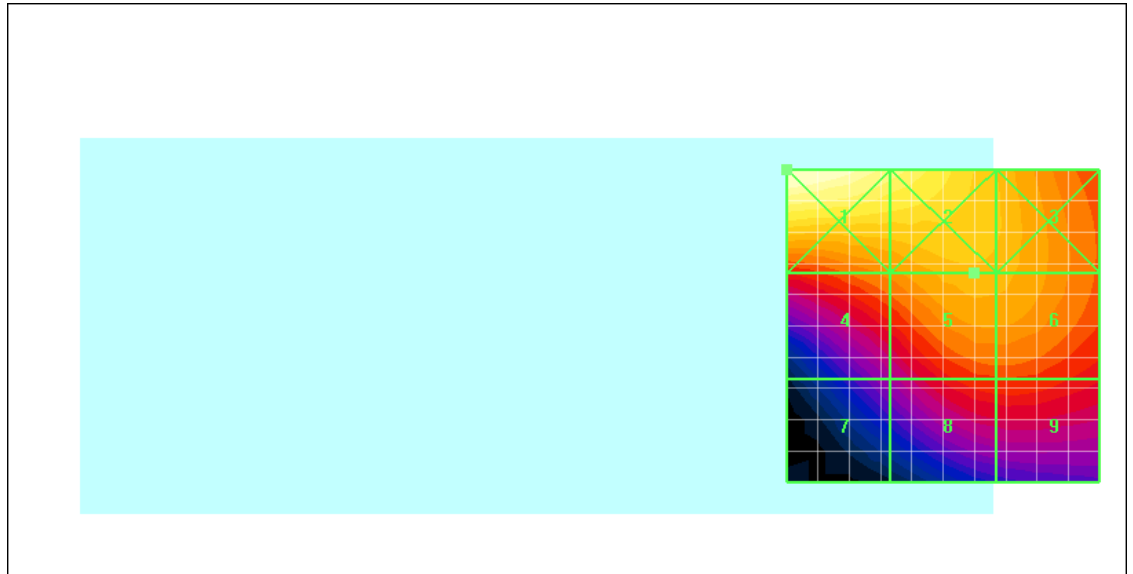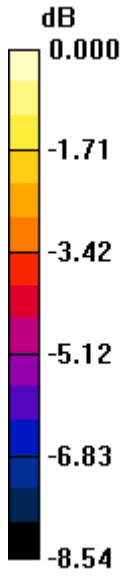## Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.124 M4	**0.111 M4**	**0.096 M4**
Grid 4	Grid 5	Grid 6
0.088 M4	**0.095 M4**	**0.094 M4**
Grid 7	Grid 8	Grid 9
0.067 M4	**0.081 M4**	**0.082 M4**

	Document	Page
RIM Testing Services™	**Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDG71UW**	**96 (96)**

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	**August 09-11, 2010**	**RTS-2337-1008-32**	**L6ARDG70UW**

0 dB = 0.124A/m