Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test			Page 1(13)
Author Data	Dates of Test Report No FCC ID			
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			
	April 05-06, 2011		L6ARDQ70U	W

Annex B: Probe and dipole descriptions and calibration certificates

B.2 Dipole calibration certificate

r Data		for the BlackBerry® Sn CW/RDQ71UW		2(13)
oud Attayi	Jan. 12-		605-1102-02B	L6ARDH70CW L6ARDQ70UW
Calibration Laborato Schmid & Partner Engineering AG Ieughausstrasse 43, 8004 Zuri			S Schweizerischer Kalibrie Service suisse d'étalonn Servizio svizzero di tarat S Swiss Calibration Servic	age ura
Accredited by the Swiss Accre The Swiss Accreditation Servi Multilateral Agreement for the	ce is one of the signatori	es to the EA	on No.: SCS 108	
Client RTS (RIM Tes	ting Services)	Certificate	No: CD835V3-1011_No	909
CALIBRATION	CERTIFICAT	E	 A A A 	
Object	CD835V3 - SN:	1011		R.
Calibration procedure(s)	QA CAL-20.v4 Calibration proc	edure for dipoles in air		
	AP- P			ñ
Calibration date:	November 17, 2	009	the generative sectors	R F
This calibration certificate docur	ments the traceability to na ucted in the closed laborate	tional standards, which realize the physical ory facility: environment temperature (22 \pm 0		
This calibration certificate docur All calibrations have been conde	ments the traceability to na ucted in the closed laborate	tional standards, which realize the physical ory facility: environment temperature (22 \pm)		n
This calibration certificate docur All calibrations have been cond Calibration Equipment used (Mé	ments the traceability to na ucted in the closed laborat STE critical for calibration)	tional standards, which realize the physical ory facility: environment temperature (22 \pm 0	i)°C and humidity < 70%.	n
This calibration certificate docur All calibrations have been conder Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A	ments the traceability to na ucted in the closed laborati STE critical for calibration) ID # GB37480704 US37292783	tional standards, which realize the physical ory facility: environment temperature (22 ± 3 Gal Date (Certificate No.) 06-Oct-09 (No. 217-01066) 06-Oct-09 (No. 217-01066)))°C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10	n
This calibration certificate docur All calibrations have been conde Calibration Equipment used (M8 Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6	ID # GB37480704 US37292783 SN: 2336	tional standards, which realize the physical ory facility: environment temperature (22 ± 5 Cal Date (Certificate No.) 06-Oct-09 (No. 217-01086) 06-Oct-09 (No. 217-01086) 22-Dec-08 (No. ER3-2336_Dec08))°C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Dec-09	n
This calibration certificate docur All calibrations have been conder Calibration Equipment used (M& Primary Standards Power sensor HP 8481A Probe ER3DV6 Probe H3DV6	ID # GB37480704 US37292783 SN: 2336 SN: 6065	tional standards, which realize the physical ory facility: environment temperature (22 ± 5 Cal Date (Certificate No.) 06-Oct-09 (No. 217-01066) 06-Oct-09 (No. 217-01066) 22-Dec-08 (No. ER3-2336_Dec08) 22-Dec-08 (No. H3-6065Dec08))°C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Dec-09 Dec-09	n
This calibration certificate docur All calibrations have been conde Calibration Equipment used (M8 Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6	ID # GB37480704 US37292783 SN: 2336	tional standards, which realize the physical ory facility: environment temperature (22 ± 5 Cal Date (Certificate No.) 06-Oct-09 (No. 217-01086) 06-Oct-09 (No. 217-01086) 22-Dec-08 (No. ER3-2336_Dec08))°C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Dec-09	n
This calibration certificate docur All calibrations have been conder Calibration Equipment used (M& Primary Standards Power sensor HP 8481A Probe ER3DV6 Probe H3DV6	ID # GB37480704 US37292783 SN: 2336 SN: 6065	tional standards, which realize the physical ory facility: environment temperature (22 ± 5 Cal Date (Certificate No.) 06-Oct-09 (No. 217-01066) 06-Oct-09 (No. 217-01066) 22-Dec-08 (No. ER3-2336_Dec08) 22-Dec-08 (No. H3-6065Dec08))°C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Dec-09 Dec-09	n
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Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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1	S	Swiss Calibration Service

Accreditation No.: SCS 108

librierdienst

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

References

[1]

ANSI-C63.19-2006 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

ANSI-C63.19-2007 [2] American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

Methods Applied and Interpretation of Parameters:

- Coordinate System: y-axis is in the direction of the dipole arms. z-axis is from the basis of the antenna (mounted on the table) towards its feed point between the two dipole arms. x-axis is normal to the other axes. In coincidence with the standards [1, 2], the measurement planes (probe sensor center) are selected to be at a distance of 10 mm above the top edge of the dipole arms.
- Measurement Conditions: Further details are available from the hardcopies at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated. The forward power to the dipole connector is set with a calibrated power meter connected and monitored with an auxiliary power meter connected to a directional coupler. While the dipole under test is connected, the forward power is adjusted to the same level.
- Antenna Positioning: The dipole is mounted on a HAC Test Arch phantom using the matching dipole positioner with the arms horizontal and the feeding cable coming from the floor. The measurements are performed in a shielded room with absorbers around the setup to reduce the reflections. It is verified before the mounting of the dipole under the Test Arch phantom, that its arms are perfectly in a line. It is installed on the HAC dipole positioner with its arms parallel below the dielectric reference wire and able to move elastically in vertical direction without changing its relative position to the top center of the Test Arch phantom. The vertical distance to the probe is adjusted after dipole mounting with a DASY5 Surface Check job. Before the measurement, the distance between phantom surface and probe tip is verified. The proper measurement distance is selected by choosing the matching section of the HAC Test Arch phantom with the proper device reference point (upper surface of the dipole) and the matching grid reference point (tip of the probe) considering the probe sensor offset. The vertical distance to the probe is essential for the accuracy.
- Feed Point Impedance and Return Loss: These parameters are measured using a HP 8753E Vector Network Analyzer. The impedance is specified at the SMA connector of the dipole. The influence of reflections was eliminating by applying the averaging function while moving the dipole in the air, at least 70cm away from any obstacles.
- E- field distribution: E field is measured in the x-y-plane with an isotropic ER3D-field probe with 100 mW forward power to the antenna feed point. In accordance with [1, 2], the scan area is 20mm wide, its length exceeds the dipole arm length (180 or 90mm). The sensor center is 10 mm (in z) above the top of the dipole arms. Two 3D maxima are available near the end of the dipole arms. Assuming the dipole arms are perfectly in one line, the average of these two maxima (in subgrid 2 and subgrid 8) is determined to compensate for any non-parallelity to the measurement plane as well as the sensor displacement. The E-field value stated as calibration value represents the maximum of the interpolated 3D-E-field, 10mm above the dipole surface.
- H-field distribution: H-field is measured with an isotropic H-field probe with 100mW forward power to the antenna feed point, in the x-y-plane. The scan area and sensor distance is equivalent to the E-field scan. The maximum of the field is available at the center (subgrid 5) above the feed point. The H-field value stated as calibration value represents the maximum of the interpolated H-field, 10mm above the dipole surface at the feed point.

Certificate No: CD835V3-1011_Nov09

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1 Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2 B157
DASY PP Version	SEMCAD X	V14.0 B57
Phantom	HAC Test Arch	SD HAC P01 BA, #1070
Distance Dipole Top - Probe Center	10 mm	
Scan resolution	dx, dy = 5 mm	area = 20 x 180 mm
Frequency	835 MHz ± 1 MHz	
Forward power at dipole connector	20.0 dBm = 100mW	
Input power drift	< 0.05 dB	

2 Maximum Field values

H-field 10 mm above dipole surface	condition	interpolated maximum
Maximum measured	100 mW forward power	0.464 A/m
Incertainty for H-field measurement: 8 2% (k=2)		

Jncertainty for H-field measurement: 8.2% (k=2)

E-field 10 mm above dipole surface	condition	Interpolated maximum
Maximum measured above high end-	100 mW forward power	168.6 V/m
Maximum measured above low end	100 mW forward power	157.4 V/m
Averaged maximum above arm	100 mW forward power	163.0 V/m

Uncertainty for E-field measurement: 12.8% (k=2)

3 Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
800 MHz	15.7 dB	(44.8 – j14.9) Ohm
835 MHz	31.8 dB	(48.5 + j2.0) Ohm
900 MHz	17.7 dB	(54.3 – j12.9) Ohm
950 MHz	20.5 dB	(44.7 + j7.2) Ohm
960 MHz	16.3 dB	(51.0 + j15.7) Ohm

3.2 Antenna Design and Handling

The calibration dipole has a symmetric geometry with a built-in two stub matching network, which leads to the enhanced bandwidth.

The dipole is built of standard semirigid coaxial cable. The internal matching line is open ended. The antenna is therefore open for DC signals.

Do not apply force to dipole arms, as they are liable to bend. The soldered connections near the feedpoint may be damaged. After excessive mechanical stress or overheating, check the impedance characteristics to ensure that the internal matching network is not affected.

After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

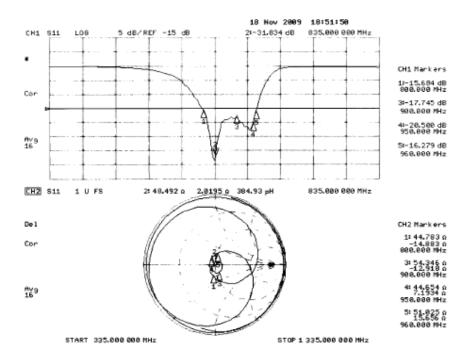
Certificate No: CD835V3-1011_Nov09

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Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test		Page 5(13)	
Author Data	Dates of Test Report No FCC ID			
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			
	April 05-06, 2011			

3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



Certificate No: CD835V3-1011_Nov09

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Document Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW

Author Data	Dates of Test	Report No	FCC ID
Daoud Attayi	Jan. 12-19, 2011 April 05-06, 2011	RTS-2605-1102-02B	L6ARDH70CW L6ARDQ70UW
	April 05-00, 2011		LUARDQ/UUW

3.3.2 DASY4 H-field Result

Date/Time: 17.11.2009 15:02:26

Test Laboratory: SPEAG Lab2

HAC RF_CD835_1011_091117_H_MM DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011 Communication System: CW; Frequency: 835 MHz Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m³ Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5 Configuration:

- Probe: H3DV6 SN6065; ; Calibrated: 22.12.2008 •
- Sensor-Surface: (Fix Surface) ٠
- Electronics: DAE4 Sn781; Calibrated: 20.02.2009 ٠
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1070
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Dipole H-Field measurement @ 835MHz/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.464 A/m

Probe Modulation Factor = 1

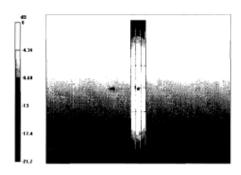
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.494 A/m; Power Drift = -0.00467 dB

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

Peak	H-field	in A/m

Grid 1	Grid 2	Grid 3
0.384	0.405	0.386
M4	M4	M4
Grid 4	Grid 5	Grid 6
0.441	0.464	0.439
M4	M4	M4
Grid 7	Grid 8	Grid 9
0.390	0.409	0.382
M4	M4	M4



0 dB = 0.464A/m

Certificate No: CD835V3-1011_Nov09

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Document Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW

Page

Author Data **Daoud Attayi**

April 05-06, 2011

L6ARDQ70UW

3.3.3 DASY4 E-field Result

Date/Time: 17.11.2009 11:56:37

Test Laboratory: SPEAG Lab2

HAC RF_CD835_1011_091117_E_MM DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011 Communication System: CW; Frequency: 835 MHz Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5 Configuration:

Probe: ER3DV6 - SN2336; ConvF(1, 1, 1); Calibrated: 22.12.2008

- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 20.02.2009 ٠
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1070 Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Dipole E-Field measurement @ 835MHz/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 168.6 V/m

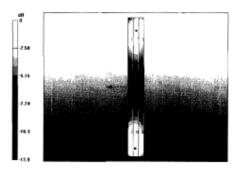
Probe Modulation Factor = 1

Device Reference Point: 0, 0, -6.3 mm Reference Value = 109.2 V/m; Power Drift = -0.023 dB

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

Peak E-field in V/m

Grid I	Grid 2	Grid 3
152.1	157.4	154.5
M4	M4	M4
Grid 4	Grid 5	Grid 6
84.1	86.8	84.5
M4	M4	M4
Grid 7	Grid 8	Grid 9
165.5	168.6	158.2
M4	M4	M4

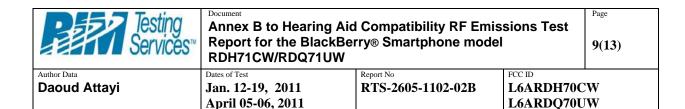


0 dB = 168.6V/m

Certificate No: CD835V3-1011_Nov09

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Data	Dates of Test	CW/RDQ71UW	port No	FCC ID	8(13)
oud Attayi	Jan. 12- April 05		TS-2605-1102-02B	L6ARDH7(L6ARDQ7(
Calibration Laborato Schmid & Partner Engineering AG Zeughausstrasse 43, 6004 Zuri			S Schweizerischer Ka Service sulsse d'éta Servizio svizzero di S Swiss Calibration S	lonnage taratura	
Accredited by the Swiss Accre			creditation No.: SCS 108		
The Swiss Accreditation Servio Multilateral Agreement for the	-				
Client RTS (RIM Tes	ting Services)	•	ntificate No: CD1880V3-100	8_Nov09	
CALIBRATION	CERTIFICAT	B of all all all			
Object	CD1880V3 - SN	: 1008	n an	6 ²⁰	
Calibration procedure(s)	QA CAL-20.v4 Calibration proc	edure for dipoles in air			
	GREAKEL COMPARATION	The state when the second second		(1997年) 1997年 1997 1997	
Calibration date:	November 18, 2	009		997°.	
This calibration certificate docur	nents the traceability to na	топорального — оралог з даврагониядангого	physical units of measurements (Si	ŋ.	
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Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kallbrierdienst C Service suisse d'étalonnage Servizio svizzero di taratura

Swiss Calibration Service

Accreditation No.: SCS 108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

References

 ANSI-C63.19-2006 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

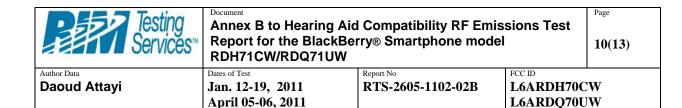
ANSI-C63.19-2007 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

Methods Applied and Interpretation of Parameters:

- Coordinate System: y-axis is in the direction of the dipole arms. z-axis is from the basis of the antenna (mounted on the table) towards its feed point between the two dipole arms. x-axis is normal to the other axes. In coincidence with the standards [1, 2], the measurement planes (probe sensor center) are selected to be at a distance of 10 mm above the top edge of the dipole arms.
- Measurement Conditions: Further details are available from the hardcopies at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated. The forward power to the dipole connector is set with a calibrated power meter connected and monitored with an auxiliary power meter connected to a directional coupler. While the dipole under test is connected, the forward power is adjusted to the same level.
- Antenna Positioning: The dipole is mounted on a HAC Test Arch phantom using the matching dipole positioner with the arms horizontal and the feeding cable coming from the floor. The measurements are performed in a shielded room with absorbers around the setup to reduce the reflections. It is verified before the mounting of the dipole under the Test Arch phantom, that its arms are perfectly in a line. It is installed on the HAC dipole positioner with its arms parallel below the dielectric reference wire and able to move elastically in vertical direction without changing its relative position to the top center of the Test Arch phantom. The vertical distance to the probe is adjusted after dipole mounting with a DASY5 Surface Check job. Before the measurement, the distance between phantom surface and probe tip is verified. The proper measurement distance is selected by choosing the matching section of the HAC Test Arch phantom with the proper device reference point (upper surface of the dipole) and the matching grid reference point (tip of the probe) considering the probe sensor offset. The vertical distance to the probe is a sential for the accuracy.
- Feed Point Impedance and Return Loss: These parameters are measured using a HP 8753E Vector Network Analyzer. The impedance is specified at the SMA connector of the dipole. The influence of reflections was eliminating by applying the averaging function while moving the dipole in the air, at least 70cm away from any obstacles.
- E- field distribution: E field is measured in the x-y-plane with an isotropic ER3D-field probe with 100 mW forward power to the antenna feed point. In accordance with [1, 2], the scan area is 20mm wide, its length exceeds the dipole arm length (180 or 90mm). The sensor center is 10 mm (in z) above the top of the dipole arms. Two 3D maxima are available near the end of the dipole arms. Assuming the dipole arms are perfectly in one line, the average of these two maxima (in subgrid 2 and subgrid 8) is determined to compensate for any non-parallelity to the measurement plane as well as the sensor displacement. The E-field value stated as calibration value represents the maximum of the interpolated 3D-E-field, 10mm above the dipole surface.
- H-field distribution: H-field is measured with an isotropic H-field probe with 100mW forward power to the
 antenna feed point, in the x-y-plane. The scan area and sensor distance is equivalent to the E-field
 scan. The maximum of the field is available at the center (subgrid 5) above the feed point. The H-field
 value stated as calibration value represents the maximum of the interpolated H-field, 10mm above the
 dipole surface at the feed point.

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1. Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2 B157
DASY PP Version	SEMCAD X	V14.0 B57
Phantom	HAC Test Arch	SD HAC P01 BA, #1070
Distance Dipole Top - Probe Center	10 mm	
Scan resolution	dx, dy = 5 mm	area = 20 x 90 mm
Frequency	1880 MHz ± 1 MHz	
Forward power at dipole connector	20.0 dBm = 100mW	
Input power drift	< 0.05 dB	

2. Maximum Field values

	H-field 10 mm above dipole surface	condition	Interpolated maximum
	Maximum measured	100 mW forward power	0.471 A/m
- t	Incertainty for H-field measurement: 8.2% (k=2)		

E-field 10 mm above dipole surface	condition	Interpolated maximum
Maximum measured above high end	100 mW forward power	136.2 V/m
Maximum measured above low end	100 mW forward power	132.1 V/m
Averaged maximum above arm	100 mW forward power	134.2 V/m

Uncertainty for E-field measurement: 12.8% (k=2)

3. Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
1710 MHz	22.8 dB	(52.2 + j7.1) Ohm
1880 MHz	20.0 dB	(50.5 + j10.1) Ohm
1900 MHz	20.9 dB	(53.2 + j8.8) Ohm
1950 MHz	29.5 dB	(52.3 + 2.6) Ohm
2000 MHz	18.7 dB	(43.2 + j8.4) Ohm

3.2 Antenna Design and Handling

The calibration dipole has a symmetric geometry with a built-in two stub matching network, which leads to the enhanced bandwidth.

The dipole is built of standard semirigid coaxial cable. The internal matching line is open ended. The antenna is therefore open for DC signals.

Do not apply force to dipole arms, as they are liable to bend. The soldered connections near the feedpoint may be damaged. After excessive mechanical stress or overheating, check the impedance characteristics to ensure that the internal matching network is not affected.

After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

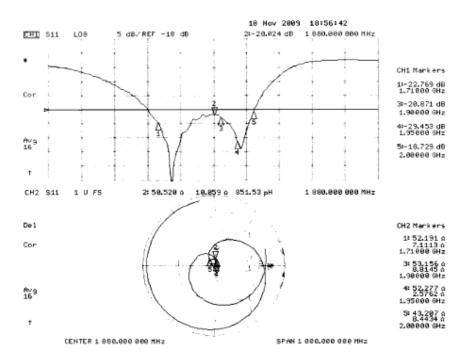
Certificate No: CD1880V3-1008_Nov09

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Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			Page 11(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 April 05-06, 2011	RTS-2605-1102-02B	L6ARDH70CW L6ARDQ70UW	

3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



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Testing Services™	Document Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			Page 12(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW		W	
	April 05-06, 2011		L6ARDQ70U	W

3.3.2 DASY4 H-Field Result

Date/Time: 18.11.2009 12:32:23

Test Laboratory: SPEAG Lab2

HAC_RF_CD1880_1008_091118_H_CL DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008 Communication System: CW; Frequency: 1880 MHz Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

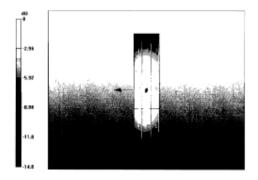
- DASY5 Configuration:
 Probe: H3DV6 SN6065; ; Calibrated: 22.12.2008
 - Sensor-Surface: (Fix Surface)
 - Electronics: DAE4 Sn781; Calibrated: 20.02.2009
 - · Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1070
 - Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Dipole H-Field measurement @ 1880MHz/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm Maximum value of peak Total field = 0.471 A/m Probe Modulation Factor = 1 Device Reference Point: 0, 0, -6.3 mm Reference Value = 0.499 A/m; Power Drift = 0.00498 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid I	Grid 2	Grid 3
0.408	0.423	0.398
M2	M2	M2
Grid 4	Grid 5	Grid 6
0.456	0.471	0.439
M2	M2	M2
Grid 7	Grid 8	Grid 9
0.420	0.435	0.400
M2	M2	M2



0 dB = 0.471A/m

Certificate No: CD1880V3-1008_Nov09

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Testing Services™	Document Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			Page 13(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW		W	
	April 05-06, 2011		L6ARDQ70U	W

3.3.3 DASY4 E-Field Result

Date/Time: 18.11.2009 17:16:43

Test Laboratory: SPEAG Lab2

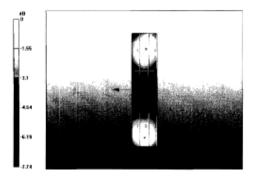
HAC_RF_CD1880_1008_091118_E_CL DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008 Communication System: CW: Frequency: 1880 MHz Medium parameters used: $\sigma = 0$ mbo/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5 Configuration:

- Probe: ER3DV6 SN2336; ConvF(1, 1, 1); Calibrated: 22.12.2008
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 20.02.2009
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1070
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Dipole E-Field measurement @ 1880MHz/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm Maximum value of peak Total field = 136.2 V/m Probe Modulation Factor = 1 Device Reference Point: 0, 0, -6.3 mm Reference Value = 152.3 V/m; Power Drift = -0.00386 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)

> Peak E-field in V/m Grid 1 Grid 2 Grid 3 124.7 132.1 131.1 M2 M2 M2 Grid 4 Grid 5 Grid 6 87.7 90.1 86.6 M3 M3 M3 Grid 7 Grid 8 Grid 9 130.7 136.2 132.2 M2 M2 M2





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