RTS RIM Testing Services	Annex B to Hearing Aid Compatibility RF Emissions Test Report for BlackBerry® Smartphone Model RBU21CW			Page 1(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

Annex B: Probe and dipole descriptions and calibration certificates

B.2 Probe and dipole calibration certificates

Author Data Daoud Attayi		to Hearing Aid Compatibility RF r BlackBerry® Smartphone Model	RBU21CW	Page 2(13)
<u> </u>	Dates of Test 08-24 Dec.	07 and 07 Jan, 08 Report No RTS-0943-08	FCC ID 01-03 L6ARB	U20CW
				020011
alibration Labor chmid & Partner	atory of		hweizerischer Kalibrierdienst rvice suisse d'étalonnage	
Engineering AG			ervizio svizzero di taratura	
eughausstrasse 43, 8004	Zurich, Switzerland	The shall be and the state of t	viss Calibration Service	
and diand hu the Suries	Accorditation Convice (CAS)	Accreditation No.	SCS 108	
	Accreditation Service (SAS) Service is one of the signato			
ultilateral Agreement for	r the recognition of calibrati			CENTRAL
lient RIM		Certificate No: C	D835V3-1011_Nov07	
ALIBRATIO	N CERTIFICA	TE .		
Dbject	CD835V3 - SN	: 1011	Constant Spin Theory and Spin	
Calibration procedure(s)	QA CAL-20.v4			
	Calibration pro	cedure for dipoles in air		
Calibration date:	November 7, 2	007		
Condition of the calibrated	item In Tolerance			
This calibration certificate of	documents the traceability to r	national standards, which realize the physical units of atory facility: environment temperature (22 ± 3)°C and	measurements (SI).	
a calibrations have been	conducted in the closed labora	active racinty. environment temperature (22 ± 0) 0 and	indinially i to to.	
Calibration Equipment use	d (M&TE critical for calibration)		
	1		Scheduled Calibration	
Calibration Equipment use Primary Standards Power meter EPM-442A	d (M&TE critical for calibration ID # GB37480704	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736)	Scheduled Calibration Oct-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A	ID # GB37480704 US37292783	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736)	Oct-08 Oct-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6	ID # GB37480704 US37292783 SN: 2336	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06)	Oct-08 Oct-08 Dec-07	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6	ID # GB37480704 US37292783 SN: 2336 SN: 6065	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06)	Oct-08 Oct-08 Dec-07 Dec-07	
Primary Standards Power meter EPM-442A	ID # GB37480704 US37292783 SN: 2336	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06)	Oct-08 Oct-08 Dec-07	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4	ID # GB37480704 US37292783 SN: 2336 SN: 6065	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06)	Oct-08 Oct-08 Dec-07 Dec-07	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482H	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. 273-00736) 27-Dec-06 (SPEAG, No. FR3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 OAE4 Becondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482A Power sensor HP 8482A Power Sensor HP 8482A Power Sensor HP 8482A	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 3E US37390585	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. 273-00736) 27-Dec-06 (SPEAG, No. FR3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482H Network Analyzer HP 8753	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 3E US37390585	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482H Network Analyzer HP 8753	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 3E US37390585	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-08	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Becondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482A	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct -07) 22-Nov-04 (SPEAG, in house check Oct-07)	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482H Network Analyzer HP 8753	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 12-Oct-01 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Function	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Vetwork Analyzer HP 8753 RF generator E4433B	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 12-Oct-01 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Function	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power meter EPM-4419B Power sensor HP 8482A Power sensor HP 8482A Network Analyzer HP 8753 RF generator E4433B	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name Mike Meili	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Eunction	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Vetwork Analyzer HP 8753 RF generator E4433B	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name Mike Meili	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Eunction	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Vetwork Analyzer HP 8753 RF generator E4433B	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name Mike Meili	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Eunction	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09 Signature	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sen	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name Mike Meili Fin Bomholt	Cal Date (Calibrated by, Certificate No.) 04-Oct-07 (METAS, No. 217-00736) 27-Dec-06 (SPEAG, No. ER3-2336_Dec06) 27-Dec-06 (SPEAG, No. H3-6065-Dec06) 2-Oct-07 (SPEAG, No. DAE4-781_Oct07) Check Date (in house) 11-May-05 (SPEAG, in house check Oct -07) 11-May-05 (SPEAG, in house check Oct -07) 08-Jan-02 (SPEAG, in house check Oct -07) 18-Oct-01 (SPEAG, in house check Oct-07) 22-Nov-04 (SPEAG, in house check Oct-07) Eunction	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09 Signature	
Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sen	ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391 Name Mike Meili Fin Bomholt	Cal Date (Calibrated by, Certificate No.) 04-Oct-O7 (METAS, No. 217-00736) 04-Oct-O7 (METAS, No. 217-00736) 27-Dec-O6 (SPEAG, No. ER3-2336_DecO6) 27-Dec-O6 (SPEAG, No. H3-6065-DecO6) 2-Oct-O7 (SPEAG, No. DAE4-781_OctO7) Check Date (in house) 11-May-05 (SPEAG, in house check Oct-O7) 11-May-05 (SPEAG, in house check Oct-O7) 08-Jan-02 (SPEAG, in house check Oct-O7) 18-Oct-O1 (SPEAG, in house check Oct-O7) 22-Nov-04 (SPEAG, in house check Oct-O7) Elaboratory Technician	Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Check In house check: Nov-08 In house check: Nov-08 In house check: Nov-08 In house check: Nov-09 In house check: Nov-09 Signature	

RTS RIM Testing Services	Annex B to Hearing Aid Co Report for BlackBerry® Sma		Test	Page 3(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

NIS

S

С

s

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



Schweizerischer Kalibrierdlenst 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.

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 standard [1], 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 DASY4 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], 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_Nov07

Page 2 of 6

RTS RIM Testing Services	Annex B to Hearing Aid Con Report for BlackBerry® Sma			Page 4(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

mere an an inclusion and an and an

1 Measurement Conditions

DASY Version	DASY4	V4.7 B55
DASY PP Version	SEMCAD	V1.8 B176
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	0.458 A/m
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	167.1 V/m
Maximum measured above low end	100 mW forward power	160.1 V/m
Averaged maximum above arm	100 mW forward power	163.6 V/m

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

3 Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
800 MHz	16.2 dB	(42.9 – j12.6) Ohm
835 MHz	26.3 dB	(51.2 + j4.8) Ohm
900 MHz	16.5 dB	(56.7 - j14.6) Ohm
950 MHz	19.8 dB	(43.9 + j7.4) Ohm
960 MHz	16.3 dB	(50.3 + j15.5) 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.

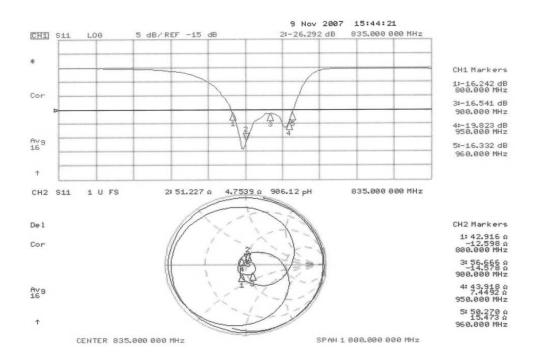
Certificate No: CD835V3-1011_Nov07

Page 3 of 6

RTS RIM Testing Services	Annex B to Hearing Aid Compatibility RF Emissions Test Report for BlackBerry® Smartphone Model RBU21CW			Page 5(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



Certificate No: CD835V3-1011_Nov07

Page 4 of 6

RTS RIM Testing Services		Annex B to Hearing Aid Compatibility RF Emissions Test Report for BlackBerry® Smartphone Model RBU21CW		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	DCW

3.3.2 DASY4 H-field result

Date/Time: 07.11.2007 12:08:55

Test Laboratory: SPEAG Lab 2

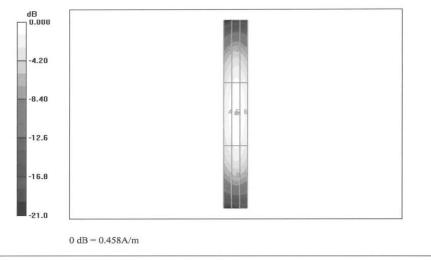
DUT: HAC-Dipole 835 MHz; Type: CD835V3; Serial: 1011 Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1 Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m³ Phantom section: H Dipole Section Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 SN6065; Calibrated: 27.12.2006
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 02.10.2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 1070
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

H Scan - Sensor Center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm Maximum value of peak Total field = 0.458 A/m Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 0.484 A/m; Power Drift = 0.007 dB Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-fiel	d in A/m	
Grid 1	Grid 2	Grid 3
0.378 M4	0.409 M4	0.394 M4
Grid 4	Grid 5	Grid 6
0.424 M4	0.458 M4	0.442 M4
Grid 7	Grid 8	Grid 9
0.373 M4	0.401 M4	0.386 M4



Certificate No: CD835V3-1011_Nov07

Page 5 of 6

RTS RIM Testing Services	Report for BlackBerry® Sma	Annex B to Hearing Aid Compatibility RF Emissions Test Report for BlackBerry® Smartphone Model RBU21CW		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec. 07 and 07 Jan. 08	RTS-0943-0801-03	L6ARBU2	0CW

3.3.3 DASY4 E-Field result

Date/Time: 07.11.2007 14:04:24

Test Laboratory: SPEAG Lab 2

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011 Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1 Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: E Dipole Section Measurement Standard: DASY4 (High Precision Assessment)

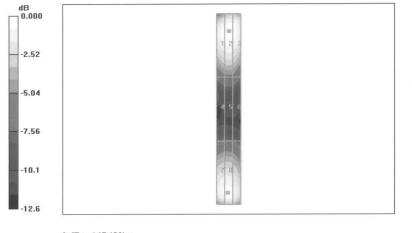
DASY4 Configuration:
Probe: ER3DV6 - SN2336; ConvF(1, 1, 1); Calibrated: 27.12.2006

- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 02.10.2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 1070
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

E Scan - Sensor Center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: dx=5mm, dy=5mm Maximum value of peak Total field = 167.1 V/m Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 103.6 V/m; Power Drift = 0.012 dB Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Grid 1 162.5 M4	Grid 2 167.1 M4	Grid 3 163.4 M4
Grid 4	Grid 5	Grid 6
87.2 M4	89.4 M4	87.1 M4
Grid 7	Grid 8	Grid 9
156.2 M4	160.1 M4	152.8 M4



0 dB = 167.1 V/m

Certificate No: CD835V3-1011_Nov07

Page 6 of 6

RTS RIM Testing Service					
Nuthor Data Daoud Attayi	Dates of Test 08-24 Dec, 0	07 and 07 Jan, 08	Report No RTS-0943-08	801-03	FCC ID L6ARBU20CW
Engineering AG Jeughausstrasse 43, 8004 Zuric	h, Switzerland	Hac mga	SNISS SP NO S	Schweizerischer Ka Service suisse d'ét Servizio svizzero d	alonnage taratura
Accredited by the Swiss Accred The Swiss Accreditation Servic Multilateral Agreement for the re	e is one of the signato		. akk.	Swiss Calibration S	
Client RIM			Certificate No:	CD1880V3-10	08_Nov07
CALIBRATION C					
Object	CD1880V3 - S	N: 1008			
Calibration procedure(s)	QA CAL-20.v4 Calibration pro	cedure for dipoles ir	ı air		
Calibration date:	November 8, 2	007			
Condition of the calibrated item	In Tolerance				
This calibration certificate docum All calibrations have been conduc	ents the traceability to r cted in the closed labora	national standards, which re atory facility: environment te	alize the physical units mperature (22 ± 3)°C	of measurements (S and humidity < 70%.	1).
This calibration certificate docum All calibrations have been conduc Calibration Equipment used (M&	cted in the closed labora	atory facility: environment te	alize the physical units mperature (22 ± 3)°C	of measurements (S and humidity < 70%.	1).
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6	TE critical for calibration ID # GB37480704 US37292783 SN: 2336 SN: 6065	Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N	mperature (22 ± 3)°C by, Certificate No.) lo. 217-00736) lo. 217-00736) No. ER3-2336_Dec06) No. H3-6065_Dec06)	Scheduled Cali Oct-08 Oct-08 Dec-07 Dec-07	
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4	TE critical for calibration ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781	Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N 2-Oct-07 (SPEAG, N	mperature (22 ± 3)°C by, Certificate No.) lo. 217-00736) lo. 217-00736) No. E3-2336_Dec06) No. H3-6065_Dec06) No. H3-6065_Dec06) No. DAE4-781_Oct07)	Scheduled Cali Oct-08 Oct-08 Dec-07 Dec-07 Oct-08	bration
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6	TE critical for calibration ID # GB37480704 US37292783 SN: 2336 SN: 6065	Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N 2-Oct-07 (SPEAG, I Check Date (in house 11-May-05 (SPEAG, i 18-Jan-02 (SPEAG, i 18-Oct-01 (SPEAG, i	mperature (22 ± 3)°C by, Certificate No.) lo. 217-00736) lo. 217-00736) No. E3-2336_Dec06) No. H3-6065_Dec06) No. H3-6065_Dec06) No. DAE4-781_Oct07)	Scheduled Cali Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Che In house check In house check In house check In house check	ck : Nov-08 : Nov-08 : Nov-08 : Nov-09
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Network Analyzer HP 8753E RF generator E4433B	in the closed labora ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391	atory facility: environment te Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N 2-Oct-07 (SPEAG, I Check Date (in house 11-May-05 (SPEAG, i 08-Jan-02 (SPEAG, i 18-Oct-01 (SPEAG, i 22-Nov-04 (SPEAG, i 22-Nov-04 (SPEAG, i	mperature (22 ± 3)°C by, Certificate No.) lo. 217-00736) lo. 217-00736) lo. 217-00736) lo. 217-00736) lo. 83-2336_Dec06) lo. H3-6065_Dec06) lo. DAE4-781_Oct07)) n house check Oct-07 n house check Oct-07 in house check Oct-07 in house check Oct-07	and humidity < 70%. Scheduled Cali Oct-08 Oct-08 Dec-07 Oct-08 Scheduled Che) In house check) In house check	ck : Nov-08 : Nov-08 : Nov-08 : Nov-08 : Nov-09 : Nov-09
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Network Analyzer HP 8753E	in the closed labora ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391	atory facility: environment te Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N 2-Oct-07 (SPEAG, I Check Date (in house 11-May-05 (SPEAG, i 08-Jan-02 (SPEAG, i 18-Oct-01 (SPEAG, i 22-Nov-04 (SPEAG, i 22-Nov-04 (SPEAG, i	mperature (22 ± 3)°C by, Certificate No.) lo. 217-00736) lo. 217-00736) lo. 217-00736) lo. 217-00736) lo. 343-2336_Dec06) lo. H3-6065_Dec06) lo. DAE4-781_Oct07) n house check Oct-07 n house check Oct-07 n house check Oct-07	And humidity < 70%. Scheduled Cali Oct-08 Oct-08 Dec-07 Dec-07 Oct-08 Scheduled Che In house check In house check In house check In house check In house check In house check	ck : Nov-08 : Nov-08 : Nov-08 : Nov-08 : Nov-09 : Nov-09
All calibrations have been conduc Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Probe ER3DV6 Probe H3DV6 DAE4 Secondary Standards Power sensor HP 8482A Power sensor HP 8482A Network Analyzer HP 8753E RF generator E4433B	in the closed labora ID # GB37480704 US37292783 SN: 2336 SN: 6065 SN: 781 ID # GB42420191 US37295597 3318A09450 US37390585 MY 41310391	atory facility: environment te Cal Date (Calibrated I 04-Oct-07 (METAS, N 04-Oct-07 (METAS, N 27-Dec-06 (SPEAG, N 27-Dec-06 (SPEAG, N 2-Oct-07 (SPEAG, I Check Date (in house 11-May-05 (SPEAG, i 08-Jan-02 (SPEAG, i 18-Oct-01 (SPEAG, i 22-Nov-04 (SPEAG, i 22-Nov-04 (SPEAG, i	mperature (22 ± 3)°C by, Certificate No.) to. 217-00736) to. 217-00736) to. 217-00736) to. ER3-2336_Dec06) to. H3-6065_Dec06) to. H3-6065_Dec06) to. DAE4-781_Oct07) n house check Oct-07 n house check Oct-07 n house check Oct-07 in house che	and humidity < 70%. Scheduled Cali Oct-08 Oct-08 Dec-07 Oct-08 Scheduled Che) In house check) In house check	ck : Nov-08 : Nov-08 : Nov-08 : Nov-08 : Nov-09 : Nov-09

Certificate No: CD1880V3-1008_Nov07

Page 1 of 6

RTS RIM Testing Services	Annex B to Hearing Aid Co Report for BlackBerry® Sma			Page 9(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst 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

- [1] ANSI-C63.19-2006
 - 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 standard [1], 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 DASY4 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 easier 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], 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: CD1880V3-1008_Nov07

Page 2 of 6

RTS RIM Testing Services	Annex B to Hearing Aid Con Report for BlackBerry® Sma		Test	Page 10(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

1 Measurement Conditions

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

DASY Version	DASY4	V4.7 B55
DASY PP Version	SEMCAD	V1.8 B176
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	0.465 A/m
Incertainty for H-field measurement: 8 2% (k=	2)	

ncertainty 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	133.7 V/m
Maximum measured above low end	100 mW forward power	133.5 V/m
Averaged maximum above arm	100 mW forward power	133.6 V/m

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

3 Appendix

3.1 Antenna Parameters

Frequency	Return Loss	Impedance
1710 MHz	22.2 dB	(52.3 + j7.6) Ohm
1880 MHz	20.5 dB	(49.7 + j9.4) Ohm
1900 MHz	20.7 dB	(52.2 + j9.2) Ohm
1950 MHz	27.8 dB	(52.4 + j3.4) Ohm
2000 MHz	19.2 dB	(43.7 + j8.2) 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.

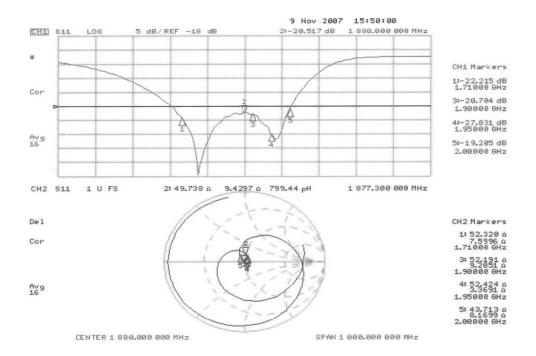
Certificate No: CD1880V3-1008_Nov07

Page 3 of 6

RTS RIM Testing Services	Annex B to Hearing Aid Co Report for BlackBerry® Sma		Test	Page 11(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

3.3 Measurement Sheets

3.3.1 Return Loss and Smith Chart



Certificate No: CD1880V3-1008_Nov07

Page 4 of 6

RTS RIM Testing Services	Document Annex B to Hearing Aid Co Report for BlackBerry® Sma			Page 12(13)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attavi	08-24 Dec. 07 and 07 Jan. 08	RTS-0943-0801-03	L6ARBU2	DCW

3.3.2 DASY4 H-Field Result

Date/Time: 08.11.2007 11:15:44

Test Laboratory: SPEAG Lab 2

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008 Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m³ Phantom section: H Dipole Section Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 SN6065; Calibrated: 27.12.2006
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 02.10.2007

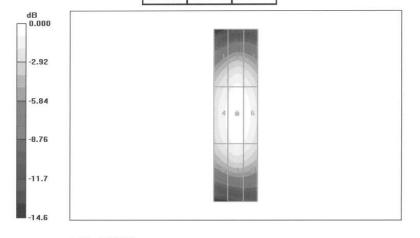
Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 1070

• Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

H Scan - Sensor Center 10mm above CD1880V3 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.465 A/m Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 0.490 A/m; Power Drift = -0.001 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-fiel	d in A/m	
Grid 1	Grid 2	Grid 3
0.395 M2	0.428 M2	0.415 M2
Grid 4	Grid 5	Grid 6
0.434 M2	0.465 M2	0.451 M2
Grid 7	Grid 8	Grid 9
0.394 M2	0.423 M2	0.409 M2



 $0 \, dB = 0.465 \, A/m$

Certificate No: CD1880V3-1008_Nov07

Page 5 of 6

RTS RIM Testing Services		Annex B to Hearing Aid Compatibility RF Emissions Test Report for BlackBerry® Smartphone Model RBU21CW		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	08-24 Dec, 07 and 07 Jan, 08	RTS-0943-0801-03	L6ARBU2	0CW

3.3.2 DASY4 E-Field Result

Date/Time: 07.11.2007 15:57:04

Test Laboratory: SPEAG Lab 2

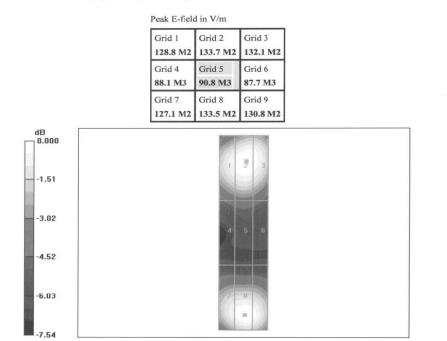
DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008 Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m³ Phantom section: E Dipole Section Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 SN2336; ConvF(1, 1, 1); Calibrated: 27.12.2006
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn781; Calibrated: 02.10.2007
- Phantom: HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 1070
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

E Scan - Sensor Center 10mm above CD1880V3 Dipole/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm Maximum value of peak Total field = 133.7 V/m

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 149.2 V/m; Power Drift = 0.031 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)



0 dB = 133.7 V/m

Certificate No: CD1880V3-1008_Nov07

Page 6 of 6