Testing Services™	Annex B to Hearing Ai Report for the BlackBe	Page 1(25)		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

Annex B: Probe and dipole description and calibration certificates

B.1 Probe, measurement chain description, specification and calibration certificate

Testing Services™		Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			
Author Data	Dates of Test				
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W	

DASY Dosimetric Assessment System by Schmid & Partner Engineering AG



Applications	ER3DV6 ISOTROPIC E-FIELD PROBE FOR GENERAL NEAR-FIELD MEASUREMENTS				
Support & Downloads Products DASY4 Packages	Download Produc	<u>ct Flyer</u> (PDF, 192kB)			
EASY4 Probes ET3DV6 - Isotropic Dos-Probe ES3DV3 - Isotropic Dos-Probe EVON14 - Isotropic Dos-Probe	Construction	One dipole parallel, two dipoles normal to probe axis Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)			
EX3DV4 - Isotropic Dos-Probe ET1DV3 - D-Probe	Calibration	In air from 100 MHz to 3.0 GHz (absolute accuracy ±6.0%, k=2)			
EUV3 - Universal Vector E-Probe H3DV6 - Isotropic H-Probe HUV4 - Universal Vector H-Probe T1V3 - Temp-Probe	Frequency Directivity	100 MHz to > 6 GHz; Linearity: ± 0.2 dB (100 MHz to 3 GHz) ± 0.2 dB in air (rotation around probe axis) ± 0.4 dB in air (rotation normal to probe axis)			
DP1 - Dummy-Probe • Data Acquisition System	Dynamic Range	2 V/m to > 1000 V/m; Linearity: ± 0.2 dB			
• Software • Phantoms • Robots	Dimensions	Overall length: 330 mm (Tip: 16 mm) Tip diameter: 8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.5 mm			
Validation Kits & Calibration Dipoles Hearing Aid Compatibility (HAC) Ext Tissue Simulating Liquids	Application	General near-field measurements up to 6 GHz Field component measurements Fast automatic scanning in phantoms			
SPEAG Home					

http://www.dasy4.com/er3.htm

Testing Services™	Annex B to Hearing A Report for the BlackB	Page 3(25)		
Author Data	Dates of Test			
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

DASY Dosimetric Assessment System by Schmid & Partner Engineering AG

DASY Schmid & Partner Engineering AG News Sales Contact		
Applications	H3DV6 3-DIMENSIO APPLICATIONS	NAL H-FIELD PROBE FOR SMALL BAND
Support & Downloads	-	
Products	Download Product Fl	<u>ver</u> (PDF, 192kB)
DASV4 Packages		
EASY4 Probes ET3DV6 - Isotropic Dos-Probe ES3DV3 - Isotropic Dos-Probe EX3DV4 - Isotropic Dos-Probe	Construction	Three concentric loop sensors with 3.8 mm loop diameters Resistively loaded detector diodes for linear response Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
ET1DV3 - D-Probe ER3DV6 - Isotropic E-Probe	Frequency	200 MHz to 3 GHz (absolute accuracy \pm 6.0%, k=2); Output linearized
EUV3 - Universal Vector E-Probe	Directivity	± 0.25 dB (spherical isotropy error)
HUV4 - Universal Vector H-Probe	Dynamic Range	10 mA/m to 2 A/m at 1 GHz
T1V3 - Temp-Probe DP1 - Dummy-Probe	E-Field Interference	< 10% at 3 GHz (for plane wave)
Data Acquisition System Software	Dimensions	Overall length: 330 mm (Tip: 40 mm) Tip diameter: 6 mm (Body: 12 mm) Distance from probe tip to dipole centers: 3 mm
Phantoms Robots Validation Kits & Calibration Dipoles Hearing Aid Compatibility (HAC) Ext Tissue Simulating Liquids	Application	General magnetic near-field measurements up to 3 GHz Field component measurements Surface current measurements Measurements in air or liquids Low interaction with the measured field
SPEAG Home		

http://www.dasy4.com/h3d.htm

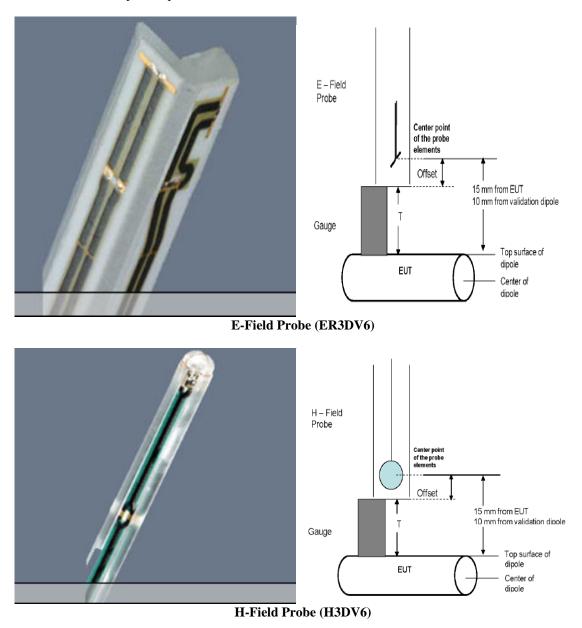
Testing Services™		Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			
Author Data	Dates of Test				
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W	

All measurements were performed to the nearest element point as per the C63.19 standard. Offset distances were entered in the DASY4 software so that the measurement was to the nearest element.

Figures 1 and 2, provided by the manufacturer, illustrate detail of the probe tip and its dimensions.

ER3DV6 E-Field probe: The distances from the probe tip to the closest points on the dipole sensors are 1.45mm for X and Y and 1.25mm for Z. From the probe tip to the center of the sensors is 2.5mm.

H3DV6 H-Field probe: The distance from the probe tip to the closest point of the X, Y and Z loop sensors is 1.1mm. From the probe tip to the center of the sensor is 3.00mm.



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Testing Services™	Annex B to Hearing Aid Report for the BlackBerr	Page 5(25)		
Author Data	Dates of Test			
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

The following information is from the system manufacturer user manual describing the process chain:

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$
(20.1)

with	V_i	= compensated signal of channel i	(i = x, y, z)
	U_i	= input signal of channel i	(i = x, y, z)
	cf	= crest factor of exciting field	(DASY parameter)
	dcp_i	= diode compression point	(DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

	$\mathrm{E-field probes}$:	$E_i = \sqrt{\frac{V_i}{Norm_i \cdot C}}$	onvF
	$\mathbf{H}-\mathbf{fieldprobes}$:	$H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} j}{f}$	$\frac{f + a_{i2}f^2}{r}$
with	= compensated signal of c = sensor sensitivity of cha $\mu V/(V/m)^2$ for E-field = sensitivity enhancement = sensor sensitivity factor = carrier frequency [GHz] = electric field strength of = magnetic field strength	unnel i 1 Probes t in solution rs for H-field probes f channel i in V/m	$\begin{array}{l} (i=x,y,z) \\ (i=x,y,z) \end{array}$

The RSS value of the field components gives the total field strength (Hermitian magnitude):

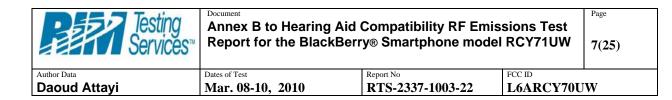
$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$
(20.2)

The measurement / integration time per point is > 500 ms, as per the system manufacturer:

The time response of the field probes has been assessed by exposing the probe to a well-controlled field producing signals larger than HAC E- and H-fields of class M4. The signal response time is evaluated as the time required by the system to reach 90% of the expected final value after an on/off switch of the power source with an integration time of 500 ms and a probe response time of <5 ms. In the current implementation, DASY4 waits longer than 100 ms after having reached the grid point before starting a measurement, i.e., the response time uncertainty is negligible.

If the device under test does not emit a CW signal, the integration time applied to measure the electric field at a specific point may introduce additional uncertainties due to the discretization. The tolerances for the different systems had the worst-case of 2.6%.

	Dates of Test	Repor	t No	FCC ID
Attayi	Mar. 08-10, 2		S-2337-1003-22	L6ARCY70UW
Calibration Laborato Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurk	-		S Schweizerische C Service suisse Servizio svizzer S Swiss Calibrati	ro di taratura
Accredited by the Swiss Accredit The Swiss Accreditation Servic Multilateral Agreement for the	ce is one of the signatorie recognition of calibration	es to the EA certificates	Accreditation No.: SCS 108	
Client RTS (RIM Test	ting Services)	9946., (A.986), (A.986), (A.976), (A.97	Certificate No: ERJ-2200_	Janiy
CALIBRATION				
Object	ER3DV6 - SN:2	286		
	Andre an andre an differencement differen	and the same attraction on the color of second result of the	ula contributiva variandina actualmente actualmente	
Calibration procedure(s)		ind QA CAL-25.v2 edure for E-field probes r	optimized for close nea	r field
Calibration procedure(s)	Calibration proc evaluations in ai	edure for E-field probes		r field
Calibration date: This calibration certificate docur The measurements and the unc	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence	adure for E-field probes r	e physical units of measurement	s (SI). rtificate.
Calibration date: This calibration certificate docur The measurements and the unc	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence ucted in the closed laborate	edure for E-field probes f	e physical units of measurement	s (SI). rtificate.
Calibration date: This calibration certificate docur The measurements and the unc All calibrations have been condu	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence ucted in the closed laborate	edure for E-field probes f	e physical units of measurement	s (SI). rivficate. 196.
Calibration date: This calibration certificate docur The measurements and the unc All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence ucted in the closed laborate STE critical for calibration) ID # GB41293874 MY41495277	edure for E-field probes f ional standards, which realize the probability are given on the follow pry facility: environment temperat Cal Date (Certificate No.) 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030)	e physical units of measurement ring pages and are part of the ce ure (22 ± 3)°C and humidity < 70 Scheduled Apr-10 Apr-10	s (SI). rivficate. 196.
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Calibration date: This calibration certificate docur The measurements and the unc All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator	Calibration proc evaluations in al January 8, 2010 ments the traceability to na vertainties with confidence of ucted in the closed laborator BTE critical for calibration) ID # GB41293874 MY41495277 MY41495277 MY41496277 SN: S5054 (3c)	edure for E-field probes f tional standards, which realize the probability are given on the follow pry facility: environment temperat Cal Date (Certificate No.) 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030) 31-Mar-09 (No. 217-01030) 31-Mar-09 (No. 217-01030)	e physical units of measurement ing pages and are part of the ce ure (22 ± 3)*C and humidity < 70 Scheduled Apr-10 Apr-10 Mar-10	s (SI). rivficate. 196.
Calibration date: This calibration certificate docur The measurements and the unc All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence succed in the closed laboratu BTE critical for calibration) ID # GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b)	edure for E-field probes f tional standards, which realize the probability are given on the follow pry facility: environment temperativ Cal Date (Certificate No.) 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030) 31-Mar-09 (No. 217-01028) 31-Mar-09 (No. 217-01028)	e physical units of measurement ring pages and are part of the ce ure (22 ± 3)°C and humidity < 70 Scheduled Apr-10 Apr-10 Apr-10 Apr-10	s (SI). rivficate. 196.
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Calibration date: This calibration certificate docur The measurements and the uno All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 30 dB Attenuator	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence p ucted in the closed laborate BTE critical for calibration) ID # GB41293874 MY41495277 MY414950877 SN: S5054 (3c) SN: S5054 (3c) SN: S5054 (3c) SN: S5059 (30b)	edure for E-field probes r tional standards, which realize the probability are given on the follow bry facility: environment temperat <u>Cal Date (Certificate No.)</u> 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01026) 31-Mar-09 (No. 217-01028) 31-Mar-09 (No. 217-01027)	e physical units of measurement ring pages and are part of the ce ure (22 ± 3)°C and humidity < 70 Scheduled Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10	s (SI). rivficate. 196.
Calibration date: This calibration certificate docur The measurements and the unc All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 3 dB Attenuator Reference 30 dB Attenuator Reference Probe ER3DV6 DAE4 Secondary Standards	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence ucted in the closed laboratu BTE critical for calibration) ID # GB41293874 MY41496277 MY41496277 MY41496277 SN: S5054 (3c) SN: S5086 (20b) SN: S5086 (20b) SN: S5129 (30b) SN: S5129 (30b) SN: 2328 SN: 789 ID #	edure for E-field probes r tional standards, which realize the probability are given on the follow by facility: environment temperat <u>Cal Date (Certificate No.)</u> 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030) 31-Mar-09 (No. 217-01026) 31-Mar-09 (No. 217-01026) 31-Mar-09 (No. 217-01027) 3-Oct-09 (No. ER3-2328_Oct 23-Dec-09 (No. DAE4-769_D Check Date (in house)	e physical units of measurement ving pages and are part of the ce ure (22 ± 3)*C and humidity < 70 Scheduled Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10 Dec09) Dec-10 Scheduled	s (SI). rt/ficate. 19%. Calibration
Calibration date: This calibration certificate docur The measurements and the uno All calibrations have been condu Calibration Equipment used (M& Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Power sensor E4412A Power sensor E4412A Reference 20 dB Attenuator Reference 20 dB Attenuator Reference Probe ER3DV6 DAE4 Secondary Standards RF generator HP 8648C	Calibration proc evaluations in al January 8, 2010 ments the traceability to na ertainties with confidence ucted in the closed laborate BTE critical for calibration) ID # GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b) SN: S5029 (30b) SN: S5129 (30b) SN: 2328 SN: 789 ID # US3642U01700	edure for E-field probes r tional standards, which realize the probability are given on the follow bry facility: environment temperat <u>Cal Date (Certificate No.)</u> 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01030) 1-Apr-09 (No. 217-01026) 31-Mar-09 (No. 217-01026) 31-Mar-09 (No. 217-01027) 3-Oct-09 (No. ER3-2328_Oct 23-Dec-09 (No. DAE4-789_D <u>Check Date (in house)</u> 4-Aug-99 (in house check Oct	e physical units of measurement ring pages and are part of the ce ure (22 ± 3)°C and humidity < 70 Scheduled Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Mar-10 Mar-10 Dec09) Dec-10 Scheduled ct-09) In house cl	s (SI). rtificate. 1%. Calibration
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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

Glossary:	
NORMx,y,z	sensitivity in free space
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization ϕ	φ rotation around probe axis
Polarization 9	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

 a) IEEE Std 1309-2005, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", December 2005.

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization ∂ = 0 for XY sensors and ∂ = 90 for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart).
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z: A, B, C are numerical linearization parameters assessed based on the data of
 power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the
 maximum calibration range expressed in RMS voltage across the diode.
- Spherical isotropy (3D deviation from isotropy): in a locally homogeneous field realized using an open waveguide setup.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Page 2 of 10

Testing Services™		Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			
Author Data	Dates of Test	Report No	FCC ID		
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W	

January 8, 2010

Probe ER3DV6

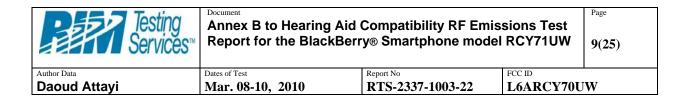
SN:2286

Manufactured: Last calibrated: Recalibrated: September 18, 2002 January 8, 2009 January 8, 2010

Calibrated for DASY Systems (Note: non-compatible with DASY2 system!)

Certificate No: ER3-2286_Jan10

Page 3 of 10



January 8, 2010

DASY - Parameters of Probe: ER3DV6 SN:2286

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)$	2.23	1.50	1.54	± 10.1%
DCP (mV) ^A	94.9	94.8	95.7	

Modulation Calibration Parameters

VID	Communication System Name	PAR		A dB	B dBuV	с	VR mV	Unc ^e (k=2)
10000	cw	0.00	x	0.00	0.00	1.00	300	± 1.5 %
			Y	0.00	0.00	1.00	300	
			z	0.00	0.00	1.00	300	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

A numerical linearization parameter: uncertainty not required

⁶ Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value

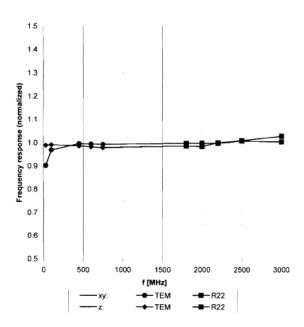
Certificate No: ER3-2286_Jan10

Page 4 of 10

Testing Services™	Annex B to Hearing Aid Report for the BlackBerr		Page 10(25)
Author Data	Dates of Test		
Daoud Attayi	Mar. 08-10, 2010	W	

January 8, 2010

Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide R22)



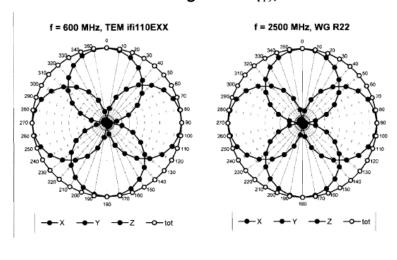
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Certificate No: ER3-2286_Jan10

Page 5 of 10

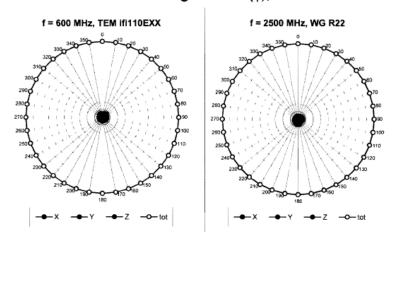
Testing Services™	Annex B to Hearing Aid Report for the BlackBer			Page 11(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	W		

January 8, 2010



Receiving Pattern (ϕ), ϑ = 0°

Receiving Pattern (ϕ), ϑ = 90°

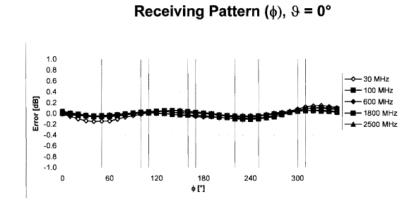


Certificate No: ER3-2286_Jan10

Page 6 of 10

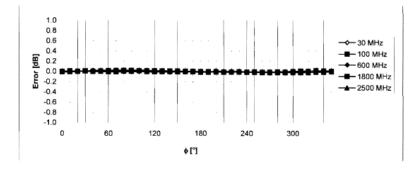
Testing Services™	Annex B to Hearing Aid Report for the BlackBerr			Page 12(25)
Author Data	Dates of Test			
Daoud Attayi	Mar. 08-10, 2010	W		

January 8, 2010



Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Receiving Pattern (ϕ), ϑ = 90°



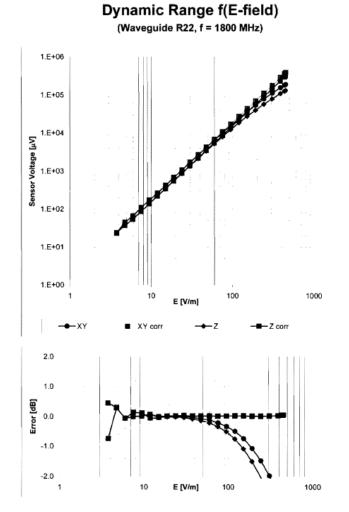
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: ER3-2286_Jan10

Page 7 of 10

Testing Services™	Annex B to Hearing Aid Report for the BlackBerr			Page 13(25)
Author Data	Dates of Test			
Daoud Attayi	Nates of Test Report No FCC ID Mar. 08-10, 2010 RTS-2337-1003-22 L6ARCY70U			W

January 8, 2010



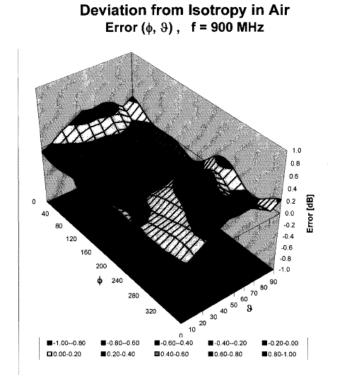
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

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Certificate No: ER3-2286_Jan10
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Page 8 of 10

Testing Services™	Annex B to Hearing Aid Report for the BlackBer			Page 14(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	W		

January 8, 2010



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: ER3-2286_Jan10

Page 9 of 10

Testing Services™	Annex B to Hearing Aid Report for the BlackBerr	Page 15(25)		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	W		

January 8, 2010

Other Probe Parameters

Sensor Arrangement	Rectangular
Connector Angle (°)	-9.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	8.0 mm
Probe Tip to Sensor X Calibration Point	2.5 mm
Probe Tip to Sensor Y Calibration Point	2.5 mm
Probe Tip to Sensor Z Calibration Point	2.5 mm

Certificate No: ER3-2286_Jan10

Page 10 of 10

			ompatibility RF En Smartphone mod		Page 16(25)
or Data	Dates of Test		eport No		
oud Attayi	Mar. 08-10, 2	2010 R	TS-2337-1003-22	L6ARCY70U	J VV
-	ner AG , 8004 Zurich, Switzerland		S Schweizerischer Kal Service suisse d'étal Servizio svizzero di I S Swiss Calibration Se Accreditation No.: SCS 108	lonnage taratura	
The Swiss Accredita	iss Accreditation Service (SAS) ation Service is one of the signator ent for the recognition of calibratic		Accreditation No., 505 100		
Client RTS (F	RIM Testing Services)	and the second	Certificate No: H3-6105_Nov0	9	
CALIBRAT	TION CERTIFICAT	re de la dela			
Object	H3DV6 - SN:61	105	and and and and	juntă	
Calibration procedure			s optimized for close near fie	G	
Calibration date:	November 13,	2009			
The measurements a	and the uncertainties with confidence	e probability are given on the folio	he physical units of measurements (SI) wing pages and are part of the certifica sture (22 + 3) $^{\circ}$ C and humidity < 70%		
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The measurements a All calibrations have	and the uncertainties with confidence been conducted in the closed labora	e probability are given on the follo atory facility: environment tempera	wing pages and are part of the certifica	te.	
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Daoud Attayi

Mar. 08-10, 2010

RTS-2337-1003-22

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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

Glossary:

NORMx,y,z	sensitivity in free space
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization ϕ	φ rotation around probe axis
Polarization 9	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards: a) IEEE Std 1309-2005, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz*, December 2005.

Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization $\vartheta = 0$ for XY sensors and $\vartheta = 90$ for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide).
- X, Y,Z(f)_a0a1a2= X, Y,Z_a0a1a2* frequency_response (see Frequency Response Chart). ٠
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW ٠ signal (no uncertainty required). DCP does not depend on frequency nor media.
- Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z: A, B, C are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- Spherical isotropy (3D deviation from isotropy): in a locally homogeneous field realized using an open waveguide setup.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the X_a0a1a2 (no uncertainty required).

Certificate No: H3-6105_Nov09

Page 2 of 10

Testing Services™		Aid Compatibility RF Em Berry® Smartphone mod		Page 18(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	W		

November 13, 2009

Probe H3DV6

SN:6105

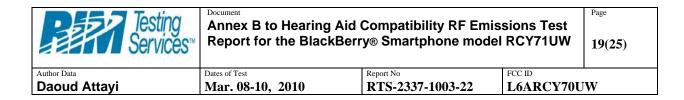
Manufactured: Last calibrated: Recalibrated: January 5, 2002 November 10, 2008 November 13, 2009

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: H3-6105_Nov09

Page 3 of 10



November 13, 2009

DASY - Parameters of Probe: H3DV6 SN:6105

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (A/m / √(µV)) a0	2.89E-3	2.67E-3	3.00E-3	± 5.1%
Norm (A/m / √(μV)) a1	6.03E-5	3.03E-5	-9.91E-5	± 5.1%
Norm (A/m / √(μV)) a2	-1.23E-5	3.46E-6	1.02E-5	± 5.1%
DCP (mV) ^A	89.5	84.4	83.4	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	с	VR mV	Unc ^E (k=2)
10000	cw	0.00	х	0.00	0.00	1.00	300	± 1.5%
			Y	0.00	0.00	1.00	300	
			Z	0.00	0.00	1.00	300	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

A numerical linearization parameter: uncertainty not required

^E Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

Certificate No: H3-6105_Nov09

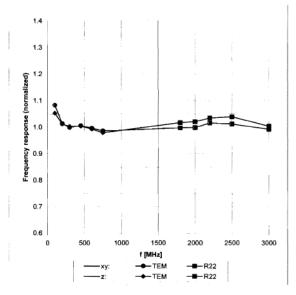
Page 4 of 10

Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			Page 20(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

November 13, 2009

Frequency Response of H-Field

(TEM-Cell:ifi110 EXX, Waveguide R22)



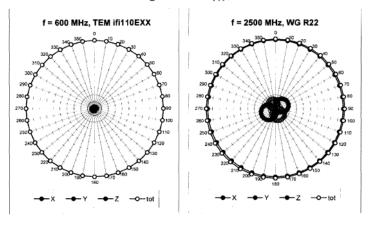
Uncertainty of Frequency Response of H-field: ± 6.3% (k=2)

Certificate No: H3-6105_Nov09

Page 5 of 10

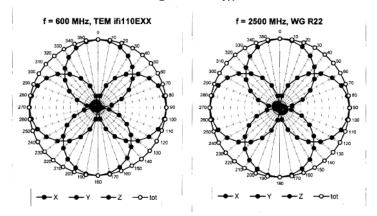
Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			Page 21(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

November 13, 2009



Receiving Pattern (ϕ), ϑ = 90°

Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$



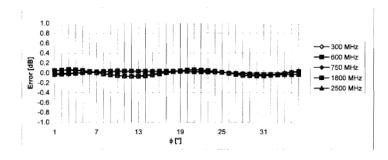
Certificate No: H3-6105_Nov09

Page 6 of 10

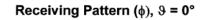
Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			Page 22(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

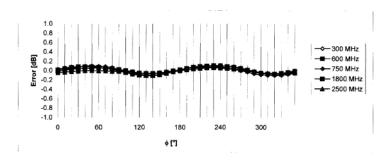
November 13, 2009

Receiving Pattern (ϕ), ϑ = 90°



Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)





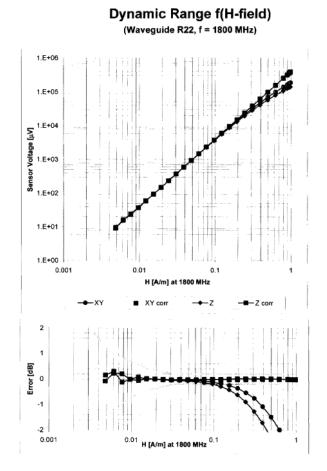
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: H3-6105_Nov09

Page 7 of 10

Testing Services™	Annex B to Hearing Aid Report for the BlackBerr	Page 23(25)		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

November 13, 2009



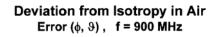
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

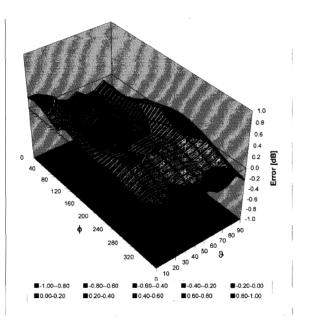
Certificate No: H3-6105_Nov09

Page 8 of 10

Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			Page 24(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

November 13, 2009





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: H3-6105_Nov09

Page 9 of 10

Testing Services™	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RCY71UW			Page 25(25)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Mar. 08-10, 2010	RTS-2337-1003-22	L6ARCY70U	W

November 13, 2009

Other Probe Parameters

Sensor Arrangement	Rectangular
Connector Angle (°)	-243.0
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	20 mm
Tip Diameter	6.0 mm
Probe Tip to Sensor X Calibration Point	3 mm
Probe Tip to Sensor Y Calibration Point	3 mm
Probe Tip to Sensor Z Calibration Point	3 mm

Certificate No: H3-6105_Nov09

Page	10	of	10	