Testing Services™		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 1(43)
Author Data Daoud Attayi	Dates of Test Jan. 12-19, 2011	Report No RTS-2605-1102-02B	FCC ID L6ARDH70C	'W
	April 05-06, 2011	K15-2003-1102-02D	L6ARDQ70U	• •

#### Annex B: Probe and dipole description and calibration certificates

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

Testing Services™		Aid Compatibility RF Emis Berry® Smartphone mode N		Page 2(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	
	April 05-06, 2011		L6ARDQ70U	W

DASY Dosimetric Assessment System by Schmid & Partner Engineering AG

DASY Schmid & Partner Engineering AG News Sales Contact		A CONTRACT OF A
Applications	ER3DV6 ISOTRO	PIC E-FIELD PROBE FOR GENERAL NEAR-FIELD
Support & Downloads	-	
Products	🖂 Download Produc	<u>t Flyer</u> (PDF, 192kB)
• DASY4 Packages		
EASY4     Probes     ET3DV6 - Isotropic Dos-Probe     ES3DV3 - 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	Frequency	100 MHz to > 6 GHz; Linearity: $\pm$ 0.2 dB (100 MHz to 3 GHz)
HUV4 - Universal Vector H-Probe T1V3 - Temp-Probe DP1 - Dummy-Probe	Directivity	± 0.2 dB in air (rotation around probe axis) ± 0.4 dB in air (rotation normal to probe axis)
• Data Acquisition System	Dynamic Range	2 V/m to > 1000 V/m; Linearity: $\pm$ 0.2 dB
Software     Phantoms     Robots     Validation Kits & Calibration Dipoles	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™		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 3(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	W
-	April 05-06, 2011		L6ARDQ70U	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		
EASV4     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 ± 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  SPEAG Home	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

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

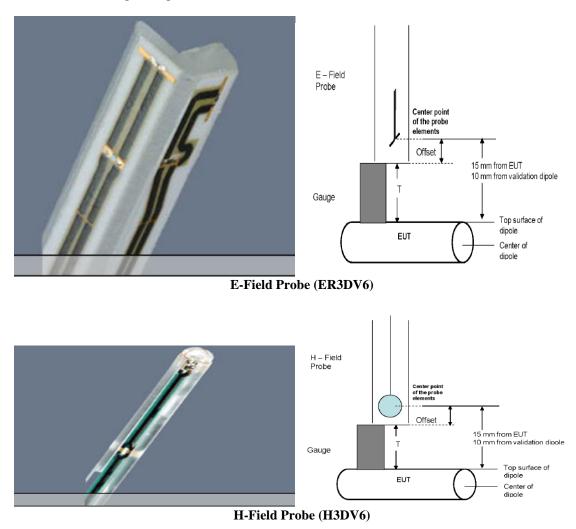
Testing Services™		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 4(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	W
	April 05-06, 2011		L6ARDQ70U	W

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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	April 05-06, 2011		L6ARDQ70U	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:

	$\mathrm{E-field probes}$ :	$E_i = \sqrt{\frac{V_i}{Norm_i \cdot Ce}}$	onvF
	${ m H}-{ m field probes}$ :	$H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f}{f}$	$f + a_{i2}f^2$
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	nnel 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):

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

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%.

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	April 05-06, 2011		L6ARDQ70U	W

March 8, 2010

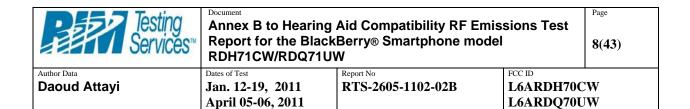
#### **Other Probe Parameters**

Sensor Arrangement	Rectangular
Connector Angle (°)	78.7
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

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Testing Services		ne BlackBe DQ71UW	erry® Smart	ility RF Emis phone mode		7(43)
d Attayi	Dates of Test Jan. 12-19, 20 April 05-06, 20	011 R	Poort No 2 <b>TS-2605-11</b>	02-02B	FCC ID L6ARDH700 L6ARDQ700	
<b>Calibration Laborato</b> Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurio			SHISS S CREATER S	Schweizerischer Kalib Service suisse d'étalo Servizio svizzero di ta Swiss Calibration Sen	nnage ratura	
Accredited by the Swiss Accredita The Swiss Accreditation Servic	e is one of the signatories to		Accreditation	No.: SCS 108		
Multilateral Agreement for the r	recognition of calibration cer ting Services)	tificates	Certificate No	: ER3-2285_Mar1	)	
CALIBRATION	ven sansaan oo oo oo oo oo oo oo oo					
Object	ER3DV6 - SN:2285	Bases (Strategy of			1	
Calibration procedure(s)	QA CAL-02.v5 and Calibration procedu evaluations in air	ire for E-field p	robes optimized			
Calibration date:	March 8, 2010		and and a second se		ng mgan Milikin	
This calibration certificate docum The measurements and the unce All calibrations have been condu	ertainties with confidence prob ucted in the closed laboratory f	ability are given on t	he following pages and	are part of the certificate		
Calibration Equipment used (M&						
	1D#	o				
Primary Standards Power meter F4419B		Cal Date (Certificate 1-Apr-09 (No. 217-0)		Scheduled Calibra	ion	
Primary Standards Power meter E4419B Power sensor E4412A	GB41293874	Cal Date (Certificate 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0	1030)	Scheduled Calibra Apr-10 Apr-10	ion	
Power meter E4419B	GB41293874 MY41495277	1-Apr-09 (No. 217-0	1030) 1030)	Apr-10	ion	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator	GB41293874 MY41495277 MY41498087 SN: S5054 (3c)	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217-	1030) 1030) 1030) 01026)	Apr-10 Apr-10 Apr-10 Mar-10	ion	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator	GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b)	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217-	1030) 1030) 1030) 01026) 01028)	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10	ion	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 30 dB Attenuator	GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b) SN: S5129 (30b)	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217-	1030) 1030) 1030) 01026) 01028) 01027)	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Mar-10	ion	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator	GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b) SN: S5129 (30b) SN: 2328	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217-	1030) 1030) 1030) 01026) 01028) 01027) 328_Oct09)	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10	lion	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 30 dB Attenuator Reference Probe ER3DV6 DAE4 Secondary Standards	GB41293874 MY41495277 MY41496087 SN: S5054 (3c) SN: S5056 (20b) SN: S5129 (30b) SN: 2328 SN: 789	1-Apr-09 (No. 217-0) 1-Apr-09 (No. 217-0) 1-Apr-09 (No. 217-0) 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 3-Oct-09 (No. ER3-2 23-Dec-09 (No. DAE Check Date (in hous	1030) 1030) 1030) 01026) 01028) 01027) 328_Oct09) :4-789_Dec09) e)	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Oct-10 Dec-10 Scheduled Check		
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 30 dB Attenuator Reference Probe ER3DV6 DAE4	GB41293874 MY41495277 MY41496087 SN: S5054 (3c) SN: S5086 (20b) SN: S5129 (30b) SN: 2328 SN: 789 ID # US3642U01700	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 3-Oct-09 (No. ER3-2 23-Dec-09 (No. DAE	1030) 1030) 1030) 01028) 01028) 01027) 328_Oct09) 34-789_Dec09) e) check Oct-09)	Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Oct-10 Dec-10	x-11	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 30 dB Attenuator Reference Probe ER3DV6 DAE4 Secondary Standards RF generator HP 8648C	GB41293874 MY41495277 MY41496087 SN: S5054 (3c) SN: S5086 (20b) SN: S5129 (30b) SN: 2328 SN: 789 ID # US3642U01700	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 3-Oct-09 (No. ER3-2 23-Dec-09 (No. 217- 1-4) (No. 217-0 (No.	1030) 1030) 1030) 01026) 01028) 01027) 328_Oct09) 4-789_Dec09) e) check Oct-09) check Oct-09)	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Mar-10 Oct-10 Dec-10 Scheduled Check In house check: O	x-11	
Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 3 dB Attenuator Reference 30 dB Attenuator Reference Probe ER3DV6 DAE4 Secondary Standards RF generator HP 8648C Network Analyzer HP 8753E	GB41293874 MY41495277 MY41496277 SN: S5054 (3c) SN: S5054 (3c) SN: S5086 (20b) SN: S5129 (30b) SN: 2328 SN: 789 ID # US3642U01700 US3642U01700 US37380585 Name Jeton Kastrati	1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 1-Apr-09 (No. 217-0 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 31-Mar-09 (No. 217- 3-Oct-09 (No. ER3-2 23-Dec-09 (No. ER3-2 23-Dec-	1030) 1030) 1030) 1030) 01026) 01028) 01027) 328_Oct09) 4-789_Dec09) e) check Oct-09) check Oct-09) check Oct-09) 1 pry Technician	Apr-10 Apr-10 Apr-10 Mar-10 Mar-10 Oct-10 Dec-10 Scheduled Check In house check: On In house check: On	x-11	



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 $\phi$	φ rotation around probe axis
Polarization 9	β 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 θ = 0 for XY sensors and θ = 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).

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Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	W
-	April 05-06, 2011		L6ARDQ70U	W

March 8, 2010

# Probe ER3DV6

## SN:2285

Manufactured: Last calibrated: Recalibrated: September 20, 2002 March 2, 2009 March 8, 2010

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

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Author Data	Dates of Test	Report No	FCC ID	
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	April 05-06, 2011		L6ARDQ70U	W

March 8, 2010

#### DASY - Parameters of Probe: ER3DV6 SN:2285

#### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (µV/(V/m) <sup>2</sup> )	1.26	1.42	1.61	± 10.1%
DCP (mV) <sup>A</sup>	92.1	94.2	96.0	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dBuV	С	VR mV	Unc <sup>E</sup> (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

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

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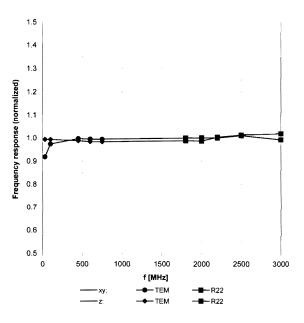
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Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	W
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#### **Frequency Response of E-Field**

(TEM-Cell:ifi110 EXX, Waveguide R22)



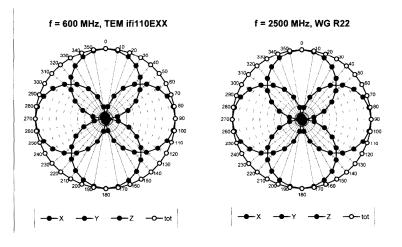
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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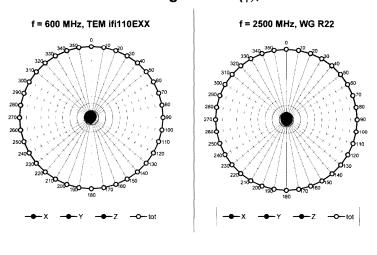
Testing Services <sup>™</sup>		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 12(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	CW
-	April 05-06, 2011		L6ARDQ70U	J <b>W</b>

March 8, 2010



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

Receiving Pattern ( $\phi$ ),  $\vartheta$  = 90°

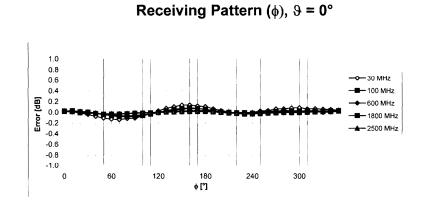


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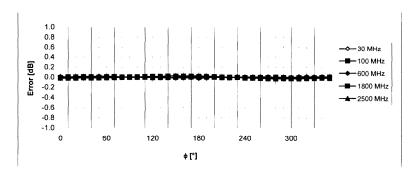
Testing Services <sup>™</sup>		Aid Compatibility RF Emis kBerry® Smartphone mode W		Page 13(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B	L6ARDH70C	CW
_	April 05-06, 2011		L6ARDQ70U	W

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

Receiving Pattern ( $\phi$ ),  $\vartheta$  = 90°



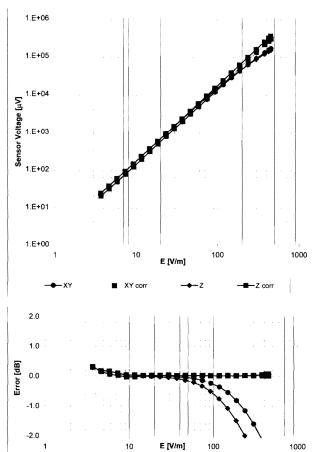
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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March 8, 2010



## Dynamic Range f(E-field) (Waveguide R22, f = 1800 MHz)

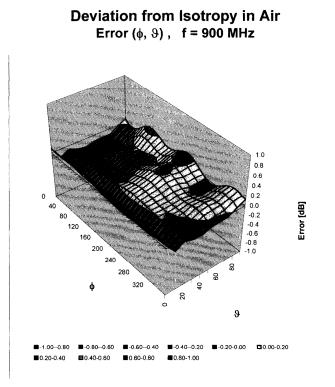
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

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Author Data Daoud Attayi	Dates of Test Jan. 12-19, 2011 April 05-06, 2011	Report No RTS-2605-1102-02B	FCC ID L6ARDH70C L6ARDQ70U	••

March 8, 2010

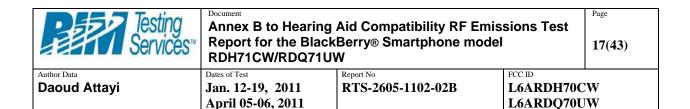


Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

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	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW Dates of Test Report No FCC ID		16(43)		
ud Attayi	Dates of Test Jan. 12-19, April 05-06,	2011 RTS-	° 2605-1102-02B	L6ARDH70 L6ARDQ70	
<b>Calibration Laborato</b> Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zuri	-	BC WEA	SS Schweizerisch C Service suisse S Servizio svizze S Swiss Calibrat	ro di taratura	
Accredited by the Swiss Accredit The Swiss Accreditation Servio Multilateral Agreement for the	ce is one of the signatories	to the EA	Accreditation No.: SCS 10	8	
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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

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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:

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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 $\phi$	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., 9 = 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:

 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 9 = 0 for XY sensors and 9 = 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).

Certificate No: ER-2286\_Jan11

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Testing Services <sup>™</sup>		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 18(43)
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

January 14, 2011

# Probe ER3DV6

# SN:2286

Manufactured: September 18, 2002 Calibrated: January 14, 2011

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

Certificate No: ER-2286\_Jan11

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Testing Services™		Aid Compatibility RF Emis Berry® Smartphone mode N		Page 19(43)
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

January 14, 2011

#### DASY/EASY - 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	1.48	1.51	± 10.1 %
DCP (mV) <sup>B</sup>	97.6	98.4	97.6	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dB	C dB	VR mV	Unc <sup>E</sup> (k=2)
10000	CW	0.00	Х	0.00	0.00	1.00	179.3	±3.0 %
			Y	0.00	0.00	1.00	145.0	
			Z	0.00	0.00	1.00	180.1	

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%.

<sup>8</sup> Numerical linearization parameter: uncertainty not required. <sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

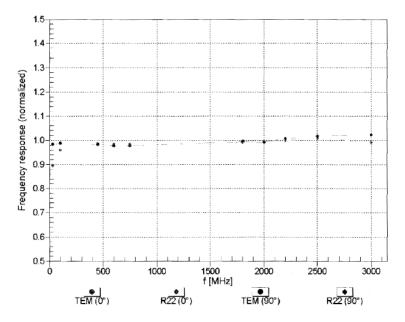
Certificate No: ER-2286\_Jan11

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Testing Services™		Aid Compatibility RF Emis Berry® Smartphone model N		Page <b>20(43)</b>
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CV		W	
	April 05-06, 2011		L6ARDQ70U	W

January 14, 2011

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



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

Certificate No: ER-2286\_Jan11

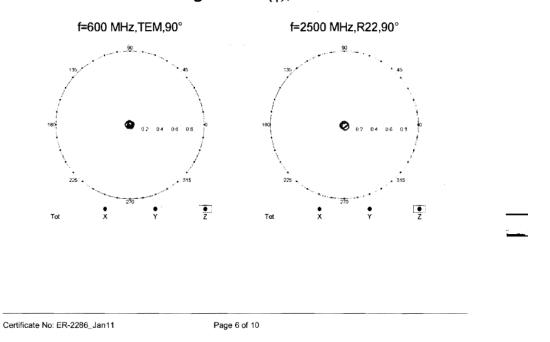
Page 5 of 10

Testing Services <sup>™</sup>		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 21(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW		CW	
	April 05-06, 2011		L6ARDQ70U	J <b>W</b>

January 14, 2011

# F=600 MHz,TEM,0° 135 65 135 135 65 135 65 12 04 06 08 0 150 1

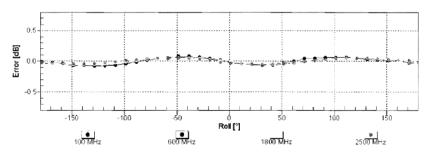
Receiving Pattern ( $\phi$ ),  $\vartheta$  = 90°



Testing Services™		I Aid Compatibility RF Er kBerry® Smartphone mo IW		Page 22(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			CW
	April 05-06, 2011		L6ARDQ70U	J <b>W</b>

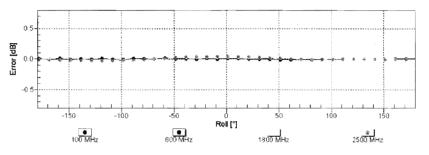
January 14, 2011

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



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

Receiving Pattern ( $\phi$ ),  $\vartheta = 90^{\circ}$ 



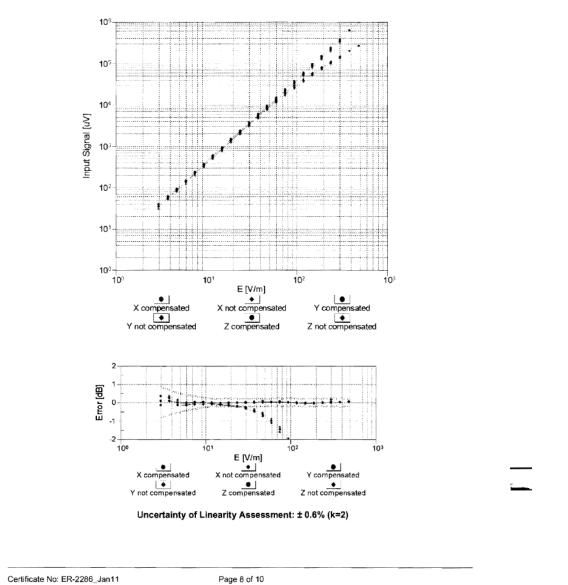
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: ER-2286\_Jan11

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Testing Services <sup>™</sup>		g Aid Compatibility RF En ckBerry® Smartphone mod UW		Page 23(43)
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			CW
-	April 05-06, 2011		L6ARDQ70U	JW

January 14, 2011

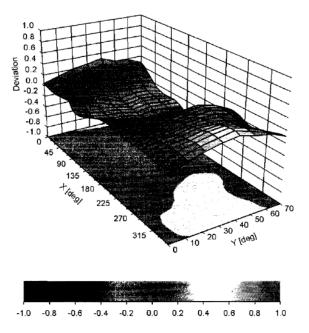


### Dynamic Range f(E-field) (TEM cell , f = 900 MHz)

Testing Services™		Aid Compatibility RF Emis Berry® Smartphone mode W		Page 24(43)
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

January 14, 2011

#### Deviation from Isotropy in Air Error (\, 3), f = 900 MHz



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

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	Dates of Test	RDQ71U	Report No		FCC ID	
Attayi	Jan. 12-19, 2	2011	RTS-2605-1	102-02B	L6ARDH70	OCW
····· <b>·</b>	April 05-06,				L6ARDQ70UW	
Calibration Laborator Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zuric Accredited by the Swiss Accredita The Swiss Accreditation Service	h, Switzerland Ition Service (SAS) e is one of the signatoric		SNISS C. C. Z. R. BRATO Accredit	S Schweizerischer K C Service suisse d'ét Servizio svizzero d S Swiss Calibration s ation No.: SCS 108	talonnage Ii taratura	
Multilateral Agreement for the m Client <b>RTS (RIM Test</b>	-	i certificates	Certificat	to No: H3-6168_Mar	10	
CALIBRATION		E				
Object	H3DV6 - SN:610		in the states	· 化传输器输送器 · " · · · ·	, thereing of	
Calibration procedure(s)	QA CAL-03.v5 a				and a state of the	
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Testing Services™		Aid Compatibility RF Emis Berry® Smartphone model N		Page 26(43)
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

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





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Swiss Calibration Service

Accreditation No.: SCS 108

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#### 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 $\phi$	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).
- 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.
- ٠ Connector Angle: The angle is assessed using the information gained by determining the X\_a0a1a2 (no uncertainty required).

Certificate No: H3-6168\_Mar10

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Testing Services <sup>™</sup>	Report for the Blac	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	RTS-2605-1102-02B	L6ARDH700	CW
_	April 05-06, 2011		L6ARDQ70U	JW

March 12, 2010

# Probe H3DV6

## SN:6168

Manufactured: Last calibrated: Recalibrated: July 9, 2003 March 3, 2009 March 12, 2010

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: H3-6168\_Mar10

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Testing Services™	Report for the Black	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 RTS-2605-1102-02B L6ARDH70CV			CW
	April 05-06, 2011		L6ARDQ70U	W

#### March 12, 2010

#### DASY - Parameters of Probe: H3DV6 SN:6168

#### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (A/m / √(µV)) a0	2.76E-3	2.64E-3	3.14E-3	± 5.1%
Norm (A/m / √(μV)) a1	-1.81E-4	-8.57E-5	-2.18E-4	± 5.1%
Norm (A/m / √(μV)) a2	-2.18E-5	-3.81E-5	3.05E-5	± 5.1%
DCP (mV) <sup>A</sup>	81.4	94.7	83.2	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dBuV	с	VR mV	Unc <sup>e</sup> (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

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

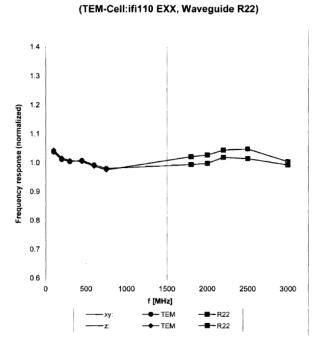
Certificate No: H3-6168\_Mar10

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Testing Services <sup>™</sup>	Report for the Blac	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	Daoud Attayi Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70C			CW
_	April 05-06, 2011		L6ARDQ70U	JW

#### March 12, 2010

#### **Frequency Response of H-Field**



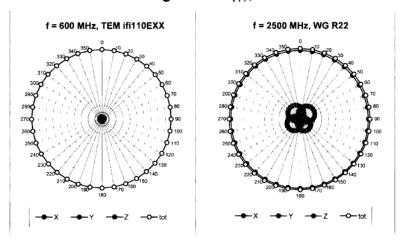
Uncertainty of Frequency Response of H-field: ± 6.3% (k=2)

Certificate No: H3-6168\_Mar10

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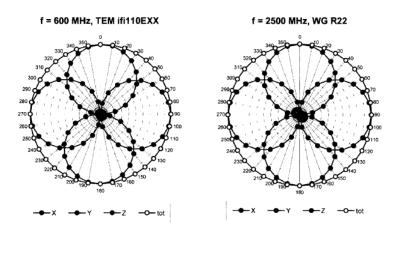
Testing Services <sup>™</sup>	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			Page <b>30(43)</b>
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			CW
_	April 05-06, 2011		L6ARDQ70U	JW

#### March 12, 2010



#### Receiving Pattern ( $\phi$ ), $\vartheta$ = 90°

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

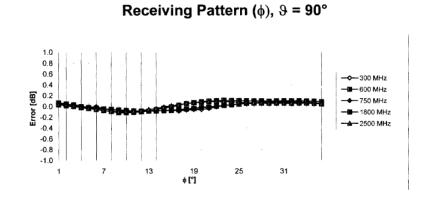


Certificate No: H3-6168\_Mar10

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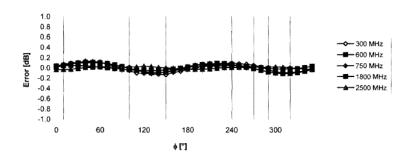
Testing Services <sup>™</sup>	Report for the Black	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW		
Author Data	Dates of Test	Report No	FCC ID	
Daoud Attayi	Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW			CW
-	April 05-06, 2011		L6ARDQ70U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

March 12, 2010



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

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



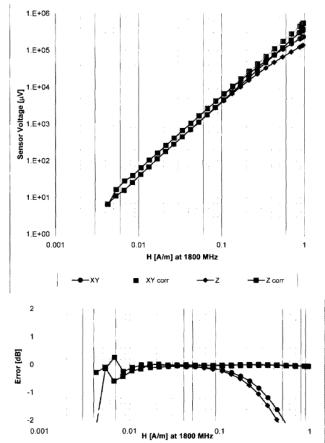
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: H3-6168\_Mar10

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Testing Services™	Report for the Blac	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			
Author Data Daoud Attayi	Dates of Test Jan. 12-19, 2011	Report No RTS-2605-1102-02B	FCC ID L6ARDH700	W	
	April 05-06, 2011	K15-2005-1102-02B	L6ARDQ70U		

March 12, 2010



## Dynamic Range f(H-field) (Waveguide R22, f = 1800 MHz)

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

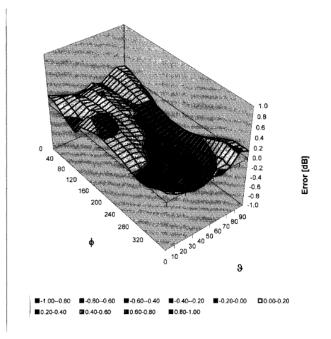
Certificate No: H3-6168\_Mar10

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Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			
Test	Report No	FCC ID	***
	Test	Test         Report No           12-19, 2011         RTS-2605-1102-02B	Test         Report No         FCC ID           12-19, 2011         RTS-2605-1102-02B         L6ARDH70C

March 12, 2010

# Deviation from Isotropy in Air Error ( $\phi$ , $\vartheta$ ), f = 900 MHz



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

Certificate No: H3-6168\_Mar10

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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	RTS-2605-1102-02B	L6ARDH70CW	
	April 05-06, 2011		L6ARDQ70UW	

Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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 Servizio svizzero di taratura
 Swiss Calibration Service

Accreditation No.: SCS 108

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Client Rim

Certificate No: H3-6105\_Nov10

Object	H3DV6 - SN:6105
Calibration procedure(s)	QA CAL-03.v5, QA CAL-25.v2 Calibration procedure for H-field probes optimized for close near field evaluations in air
Calibration date:	November 18, 2010
	uments the traceability to national standards, which realize the physical units of measurements (SI). neertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been con	ducted in the closed laboratory facility: environment temperature (22 $\pm$ 3) °C and humidity < 70%
Calibration Equipment used (#	A&TE critical for calibration)

Primary Standards	D	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E44198	GB41293874	10-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	10-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	10-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 d6 Allenuator	SN: \$5086 (20b)	3D-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Altenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe H3OV6	SN: 6182	4-Oct-10 (No. H3-6182_Oct10)	Oct-11
DAE4	<u>5N: 769</u>	31-Aug-10 (No. DAE4-789_Aug10)	Aug-11
Secondary Standarda	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check. Oct-11

			-
_	Name	Function	Signature
Calibrated by:	Jeoin Kestati	Laboratory Technician	r 19
			felle
Approved by:	Katje Pokovic	Technical Manager	6/10
			- ag
			Issued: November 19, 2010
This calibration certificate	shall not be reproduced except in full	without written approval of the laborato	-
			<u></u>

Certificate No: H3-6105\_Nov10



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

Page

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

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



- S Schweizerischer Kalibrierdienst
- C Service sulsse d'étalonnage
- S Servizio svizzero di taratura

Accreditation No.: SCS 108

Swiss Calibration Service

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Document

#### Glossary:

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NORMx.y.z	sensitivity in free space
DCP	diode compression point
ÇF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization o	o rotation around probe axis
Polarization 3	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $9 = 0$ 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 9 = 0 for XY sensors and 9 = 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).
- 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 X\_a0a1a2 (no uncertainty required).

Testing Services <sup>™</sup>	Report for the Blac	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	RTS-2605-1102-02B	L6ARDH70CW		
_	April 05-06, 2011				

H3DV6 - SN:6105

November 16, 2010

# Probe H3DV6

# SN:6105

Manufactured: January 5, 2002 Calibrated: November 18, 2010

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

Testing Services™	Report for the Black	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	RTS-2605-1102-02B	L6ARDH70C	W	
-	April 05-06, 2011 L6ARDQ70UV				

H30V6- SN:6105

November 18, 2010

#### DASY/EASY - Parameters of Probe: H3DV6 - SN:6105

#### **Basic Calibration Parameters**

		Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (A/m / √(mV))	a0	2.94E-003	2.71E-003	3.01E-003	± 5.1 %
Norm (A/m / √(mV))	a1	2.83E-005	2.25E-005	-8.45E-005	± 5.1 %
Norm (A/m / $\sqrt{(mV)}$ )	a2	-1.08E-005	2.19E-006	5.51E-005	±5.1%
DCP (mV) <sup>e</sup>		90.4	91.6	92.6	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR	ļ	A dB	BdB	C dB	VR mV	Unc <sup>E</sup> (k=2)
10000	CW	0.00	x	0.00	0.00	1.00	211.2	±2.96 %
			Y	0.00	0.00	1.00	233.0	
			ίz	0.00	0.00	1.00	239.4	

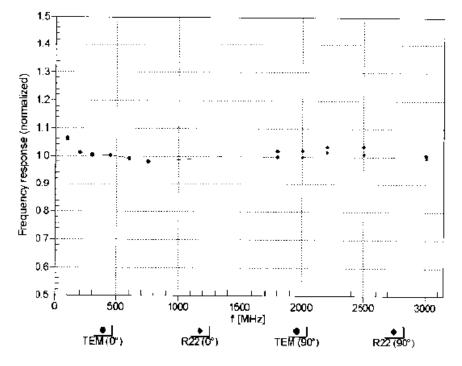
<sup>E</sup> Numerical linearization parameter, uncertainty not required <sup>E</sup> Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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%.

	RDH70CW RDQ70UW
•	

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



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

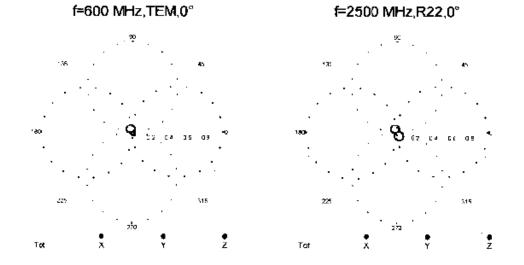
Certificate No: H3-6105 Nov10

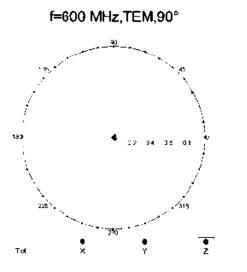
Testing Services™	Report for the Black	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			
Author Data	Dates of Test	Report No	FCC ID		
Daoud Attayi	ayi Jan. 12-19, 2011 RTS-2605-1102-02B L6ARDH70CW		W		
	April 05-06, 2011		L6ARDQ70U	W	

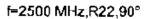
H3DV6-- SN:6105

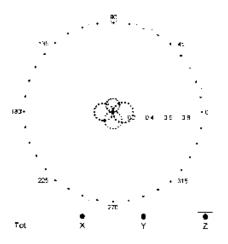
November 18, 2010

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





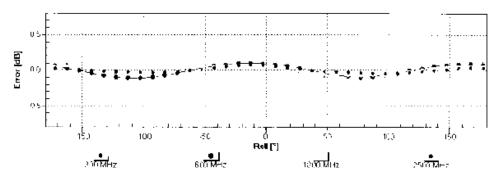




Testing Services™	Report for the Black	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW				
Author Data Daoud Attayi	Dates of Test Jan. 12-19, 2011	Report No RTS-2605-1102-02B	FCC ID L6ARDH70C	W		
	April 05-06, 2011		L6ARDQ70U	W		

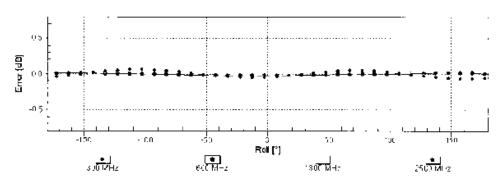
November 18, 2010

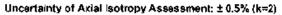
## Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$



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

## Receiving Pattern ( $\phi$ ), $\vartheta$ = 90°



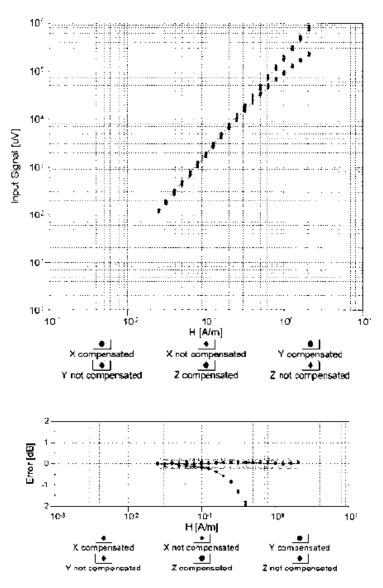


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Testing Services™	Report for the Black	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			
Author Data	Dates of Test	Report No	FCC ID		
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B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

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#### Dynamic Range f(H-field) (TEM cell, f = 900 MHz)



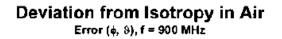
Uncertainty of Linearity Assessment: ±0.6% (k=2)

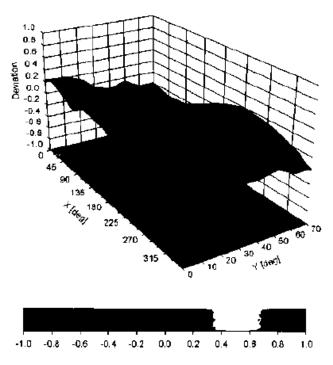
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Testing Services™	Report for the Black	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			
Author Data	Dates of Test	Report No	FCC ID		
Daoud Attayi	Jan. 12-19, 2011	RTS-2605-1102-02B L6ARDH70CV		W	
_	April 05-06, 2011				

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Uncertainty of Spherical Isotropy Assessment: ± 2.5% (k=2)

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Testing Services <sup>™</sup>	Annex B to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDH71CW/RDQ71UW			Page <b>43(43)</b>
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

H3DV6-- SN:6105

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## DASY/EASY - Parameters of Probe: H3DV6 - SN:6105

#### Other Probe Parameters

Sensor Arrangement	Rectangular
Connector Angle (*)	-62.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	
Probe Body Diameter	10 mm
Tip Length	20 mm
Tip Diameter	- 6 mm
Probe Tip to Sensor X Calibration Point	3 mm
Probe Tip to Sensor Y Calibration Point	
Probe Tip to Sensor Z Calibration Point	3 mm