
	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 1 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Annex A: Measurement data and plots

A.1 MIF validation plots

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 2 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 12:00:00 AM

Test Laboratory: BlackBerry RTS

MIF_measurements_02_04_15

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE768F

Communication System: UID 0, CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: TCoil Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ; Calibrated: 1/19/2015
- Sensor-Surface: 0mm (Fix Surface), z = 2.5
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/MIF Measurements/MIF_AM80%_1KHz_Measurement

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-1.29 dB		0.00 dB	
PMF	3.80 dB	1.549	0.00 dB	
Detector Level	4.32 dBm		0.00 dB	
RFAIP	3.03 dBm		0.00 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements/MIF_AM10%_1KHz_Measurement

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
----------	-------------	----------	-------------	--------



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

3 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW

MIF	-9.26 dB		0.00 dB	
PMF	0.78 dB	1.094	0.00 dB	
Detector Level	4.24 dBm		0.00 dB	
RFAIP	-5.02 dBm		0.00 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements/MIF_AM1%_1KHz_Measurement

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-19.22 dB		0.01 dB	
PMF	0.09 dB	1.010	0.00 dB	
Detector Level	4.21 dBm		0.00 dB	
RFAIP	-15.01 dBm		0.01 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements/MIF_GSM_Measurement

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	3.46 dB		0.00 dB	
PMF	9.90 dB	3.124	0.01 dB	
Detector Level	-2.52 dBm		0.00 dB	
RFAIP	0.94 dBm		0.01 dB	(MIF+CF+Detector Level)

Configuration/MIF**Measurements/MIF_WCDMA_Voice_AMR12_2kps_Mute_Measurement**

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-25.78 dB		0.08 dB	MIF Low
PMF	0.06 dB	1.007	0.00 dB	
Detector Level	-1.56 dBm		0.00 dB	
RFAIP	-27.34 dBm		0.08 dB	(MIF+CF+Detector Level)

Configuration/MIF**Measurements/MIF_WCDMA_voice_AMR4_75kps_Mute_Measurement**

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

4 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No

RTS-6063-1503-09

FCC ID


L6ARHC160LW

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-25.41 dB		0.08 dB	MIF Low
PMF	0.07 dB	1.008	0.01 dB	
Detector Level	-1.49 dBm		0.07 dB	
RFAIP	-26.89 dBm		0.15 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements/MIF_WCDMA_RMC_Mute_Measurement

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-25.65 dB		0.04 dB	MIF Low
PMF	0.06 dB	1.007	0.00 dB	
Detector Level	-1.53 dBm		0.00 dB	
RFAIP	-27.18 dBm		0.05 dB	(MIF+CF+Detector Level)

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 5 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 12:00:00 AM

Test Laboratory: BlackBerry RTS

MIF_WiFi_measurements_02_04_15

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE768F

Communication System: UID 0, 802.11 b (2450) (0); Frequency: 2437 MHz
 Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: TCoil Section
 Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ; Calibrated: 1/19/2015
- Sensor-Surface: 0mm (Fix Surface), z = 2.5
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/MIF Measurements

WiFi_VoIP/MIF_AM80%_1KHz_Measurement

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-1.30 dB		0.00 dB	
PMF	3.81 dB	1.550	0.00 dB	
Detector Level	8.07 dBm		0.00 dB	
RFAIP	6.78 dBm		0.00 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements

WiFi_VoIP/MIF_AM10%_1KHz_Measurement

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

6 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-9.30 dB		0.00 dB	
PMF	0.77 dB	1.093	0.00 dB	
Detector Level	8.09 dBm		0.00 dB	
RFAIP	-1.20 dBm		0.01 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements

WiFi_VoIP/MIF_AM1%_1KHz_Measurement

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-19.26 dB		0.01 dB	
PMF	0.09 dB	1.010	0.00 dB	
Detector Level	8.06 dBm		0.00 dB	
RFAIP	-11.20 dBm		0.01 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11b_Rate_1Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-13.06 dB		0.09 dB	
PMF	0.44 dB	1.052	0.04 dB	
Detector Level	5.11 dBm		0.02 dB	
RFAIP	-7.95 dBm		0.11 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11b_Rate_2Mbps

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-12.28 dB		0.08 dB	
PMF	0.48 dB	1.056	0.03 dB	
Detector Level	5.22 dBm		0.01 dB	
RFAIP	-7.06 dBm		0.09 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11b_Rate_5.5Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-9.76 dB		0.06 dB	
PMF	0.67 dB	1.080	0.05 dB	
Detector Level	5.41 dBm		0.01 dB	
RFAIP	-4.35 dBm		0.07 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11b_Rate_11Mbps

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-8.99 dB		0.11 dB	
PMF	0.80 dB	1.096	0.04 dB	
Detector Level	5.31 dBm		0.01 dB	
RFAIP	-3.68 dBm		0.12 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11g_Rate_6Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-10.07 dB		0.04 dB	
PMF	0.89 dB	1.108	0.01 dB	
Detector Level	5.83 dBm		0.01 dB	
RFAIP	-4.24 dBm		0.05 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11g_Rate_9Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-9.40 dB		0.08 dB	
PMF	1.05 dB	1.129	0.01 dB	
Detector Level	5.70 dBm		0.01 dB	
RFAIP	-3.70 dBm		0.09 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11g_Rate_18Mbps

Calibration Factors: 1.096, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-8.13 dB		0.14 dB	
PMF	1.08 dB	1.132	0.03 dB	
Detector Level	5.52 dBm		0.00 dB	
RFAIP	-2.61 dBm		0.14 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11g_Rate_54Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-8.62 dB		0.13 dB	
PMF	1.91 dB	1.246	0.05 dB	
Detector Level	2.40 dBm		0.01 dB	
RFAIP	-6.23 dBm		0.14 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11n_Rate_6.5Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-10.94 dB		0.06 dB	
PMF	0.95 dB	1.116	0.02 dB	
Detector Level	4.13 dBm		0.01 dB	
RFAIP	-6.81 dBm		0.06 dB	(MIF+CF+Detector Level)

Configuration/MIF Measurements WiFi_VoIP/MIF_802.11n_Rate_39Mbps

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-7.94 dB		0.14 dB	
PMF	1.32 dB	1.164	0.01 dB	
Detector Level	2.02 dBm		0.01 dB	
RFAIP	-5.93 dBm		0.15 dB	(MIF+CF+Detector Level)



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

9 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No


RTS-6063-1503-09

FCC ID


L6ARHC160LW**Configuration/MIF Measurements WiFi_VoIP/MIF_802.11n_Rate_65Mbps**

Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-7.91 dB		0.13 dB	
PMF	1.63 dB	1.206	0.01 dB	
Detector Level	0.90 dBm		0.01 dB	
RFAIP	-7.01 dBm		0.14 dB	(MIF+CF+Detector Level)

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 10 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

A.2 Dipole validation

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 11 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/4/2015 5:04:40 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_835 MHz_validation_02_04_15

DUT: HAC-Dipole 835 MHz; Type: CD835V3; Serial: 1011

Communication System: UID 0, CW For MIF; Frequency: 835 MHz

Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), $z = 9.7$
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS2 52.8.8(1222); SEMCAD X 14.6.10(7331)

CD835 Dipole E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - measurement distance from the probe sensor center to CD835 = 15mm/Hearing Aid Compatibility Test at 15mm distance (41x361x1):

Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 103.1 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 106.8 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 102.3 V/m	Grid 2 M4 104.3 V/m	Grid 3 M4 103.6 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4



Author Data
Daoud Attayi

Dates of Test
Feb. 02-17, 2015

Report No
RTS-6063-1503-09

FCC ID
L6ARHC160LW

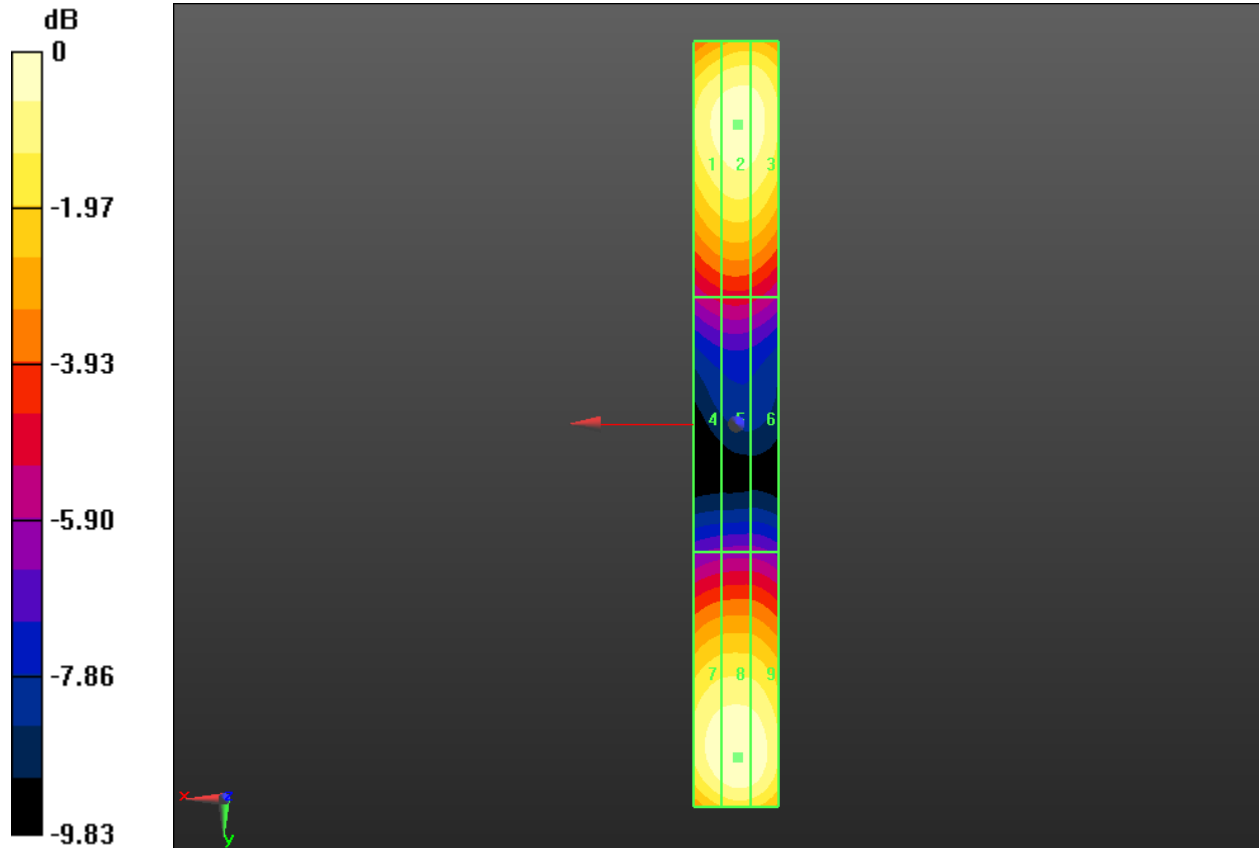
60.51 V/m	61.37 V/m	60.38 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
104.7 V/m	106.8 V/m	105.5 V/m

Cursor:


Total = 106.8 V/m

E Category: M4

Location: -0.5, 78.5, 9.7 mm



0 dB = 106.8 V/m = 40.57 dBV/m

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 13 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/4/2015 5:48:21 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_1880 MHz_validation_02_04_15

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: UID 0, CW For MIF; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), z = 9.7
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

CD1880 Dipole E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - measurement distance from the probe sensor center to CD1880 = 15mm/Hearing Aid Compatibility Test at 15mm distance (41x181x1):

Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 143.7 V/m; Power Drift = -0.00 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 84.62 V/m

Near-field category: M3 (AWF 0 dB)

PMF scaled E-field

Grid 1 M3 82.45 V/m	Grid 2 M3 84.62 V/m	Grid 3 M3 84.19 V/m
Grid 4 M3 68.51 V/m	Grid 5 M3 69.18 V/m	Grid 6 M3 68.23 V/m



Author Data
Daoud Attayi

Dates of Test
Feb. 02-17, 2015

Report No
RTS-6063-1503-09

FCC ID
L6ARHC160LW

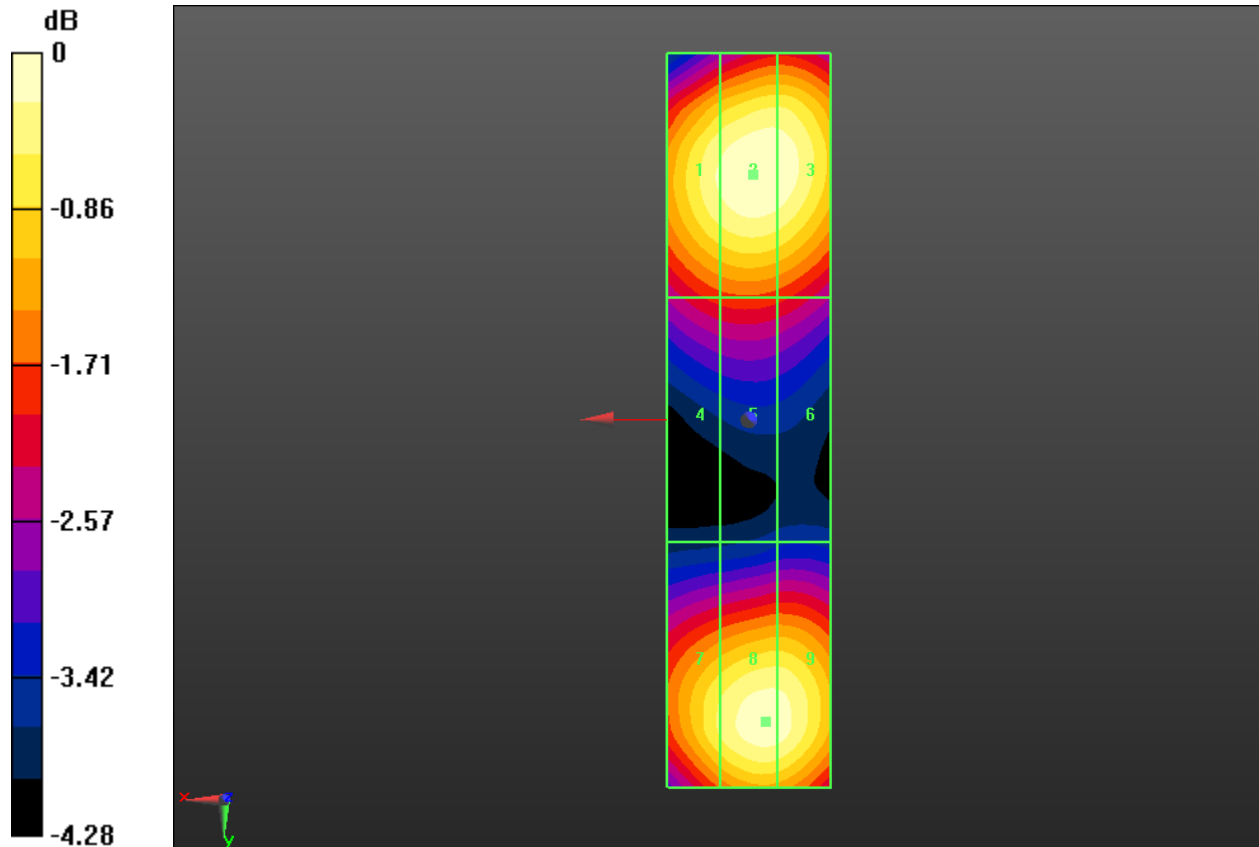
Grid 7 M3 79.92 V/m	Grid 8 M3 83.61 V/m	Grid 9 M3 83.31 V/m
-------------------------------	-------------------------------	-------------------------------

Cursor:

Total = 84.62 V/m

E Category: M3

Location: -0.5, -30, 9.7 mm



0 dB = 84.62 V/m = 38.55 dBV/m



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

15 (40)

Author Data

Daoud Attayi

Dates of Test

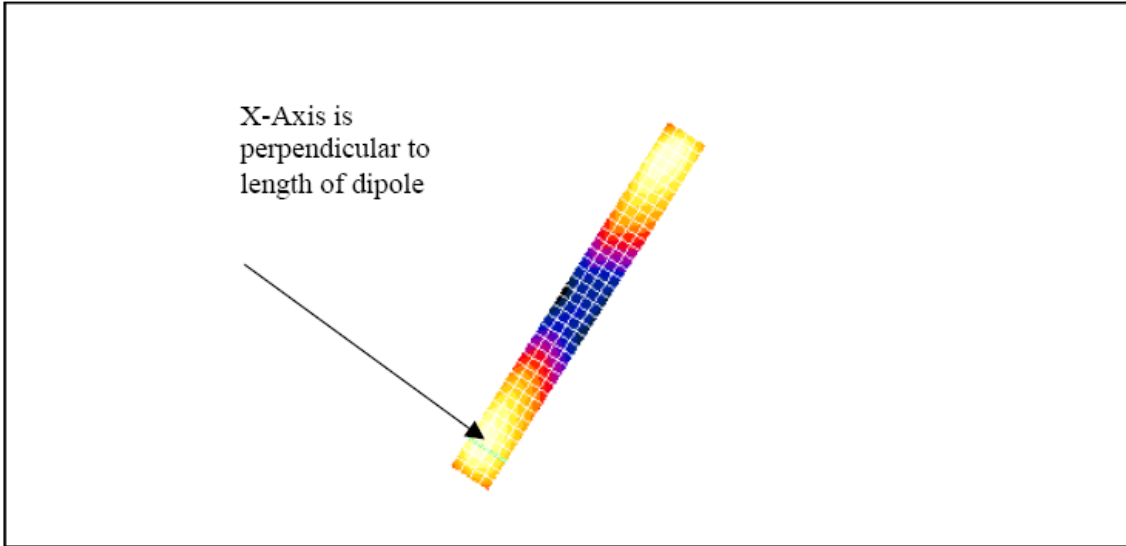
Feb. 02-17, 2015

Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW



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

Comparison of 5mm and 2mm step sizes

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



Document

Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)

Page

16 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW

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

Page 1 of 2

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

Lab: RIM Testing Services (RTS)**Dipole Validation 1880 MHz_E-Field 07_14_05****DUT: HAC Dipole 1880 MHz; Type: CD1880V3**

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: H Device Section

DASY4 Configuration:

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

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):

Measurement grid: dx=5mm, dy=5mm
 Maximum value of Total (measured) = 134.8 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm
 Maximum value of Total field (slot averaged) = 131.0 V/m

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

E in V/m (Time averaged) E in V/m (Slot averaged)

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

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

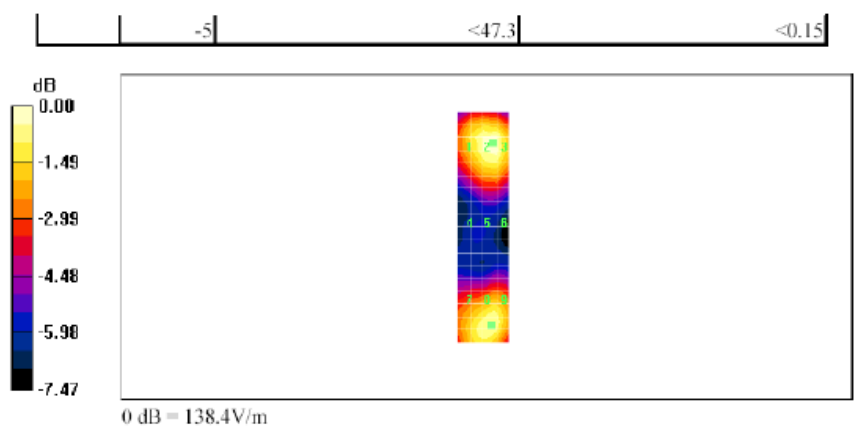
file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20... 14/07/2005



Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09	FCC ID L6ARHC160LW
------------------------------------	--	--------------------------------------	------------------------------

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

Page 2 of 2



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



Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09	FCC ID L6ARHC160LW
------------------------------------	--	--------------------------------------	------------------------------

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

Page 1 of 2

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: H Device Section

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

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):

Measurement grid: dx=2mm, dy=2mm
 Maximum value of Total (measured) = 138.0 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):

Measurement grid: dx=2mm, dy=2mm
 Maximum value of Total field (slot averaged) = 131.2 V/m

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

E in V/m (Time averaged)			E in V/m (Slot averaged)		
Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
123.1	138.6	138.6	123.1	138.6	138.6
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
81.4	92.1	91.6	81.4	92.1	91.6
Grid 7	Grid 8	Grid 9	Grid 7	Grid 8	Grid 9
121.3	131.2	131.0	121.3	131.2	131.0

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

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



Author Data
Daoud Attayi

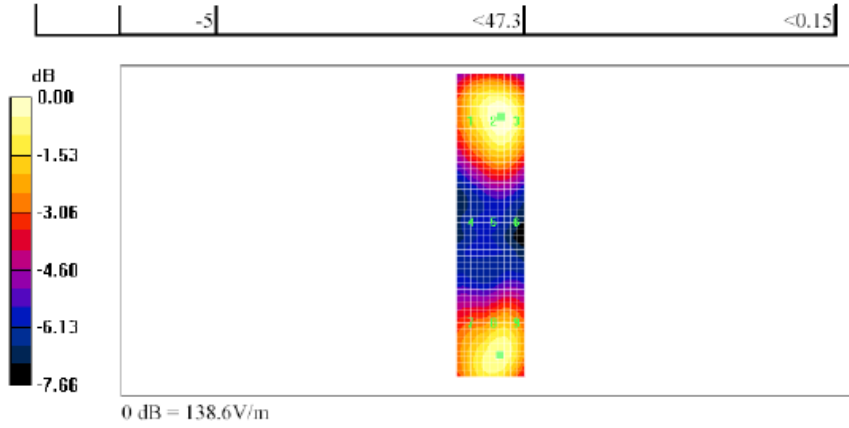
Dates of Test
Feb. 02-17, 2015

Report No
RTS-6063-1503-09


FCC ID
L6ARHC160LW

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


Page 2 of 2



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

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 20 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

A.3 RF emission field plots

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 21 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/17/2015 2:25:05 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_GSM 850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE780C

Communication System: UID 0, GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz,
Frequency: 848.8 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field GSM850 measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Low_Chan/Hearing Aid Compatibility

Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 74.82 V/m; Power Drift = 0.14 dB
Applied MIF = 3.46 dB
RF audio interference level = 39.50 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 37.83 dBV/m	Grid 2 M4 39.19 dBV/m	Grid 3 M4 39.13 dBV/m
Grid 4 M4	Grid 5 M4	Grid 6 M4

38.24 dBV/m	39.5 dBV/m	39.42 dBV/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
38.49 dBV/m	39.77 dBV/m	39.58 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 39.77 dBV/m
 E Category: M4
 Location: -5, 25, 8.7 mm

Device E-Field GSM850 measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid Compatibility

Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 79.26 V/m; Power Drift = 0.01 dB
 Applied MIF = 3.46 dB
 RF audio interference level = 40.17 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
38.11 dBV/m	39.58 dBV/m	39.56 dBV/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
38.73 dBV/m	40.17 dBV/m	40.13 dBV/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
39.21 dBV/m	40.6 dBV/m	40.46 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m

M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 40.60 dBV/m

E Category: M3

Location: -4.5, 25, 8.7 mm

Device E-Field GSM850 measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility

Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 78.76 V/m; Power Drift = -0.25 dB

Applied MIF = 3.46 dB

RF audio interference level = 39.83 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 37.74 dBV/m	Grid 2 M4 39.38 dBV/m	Grid 3 M4 39.37 dBV/m
Grid 4 M4 38.25 dBV/m	Grid 5 M4 39.83 dBV/m	Grid 6 M4 39.81 dBV/m
Grid 7 M4 38.76 dBV/m	Grid 8 M3 40.15 dBV/m	Grid 9 M3 40.06 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 40.15 dBV/m



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

24 (40)

Author Data

Daoud Attayi

Dates of Test

Feb. 02-17, 2015

Report No

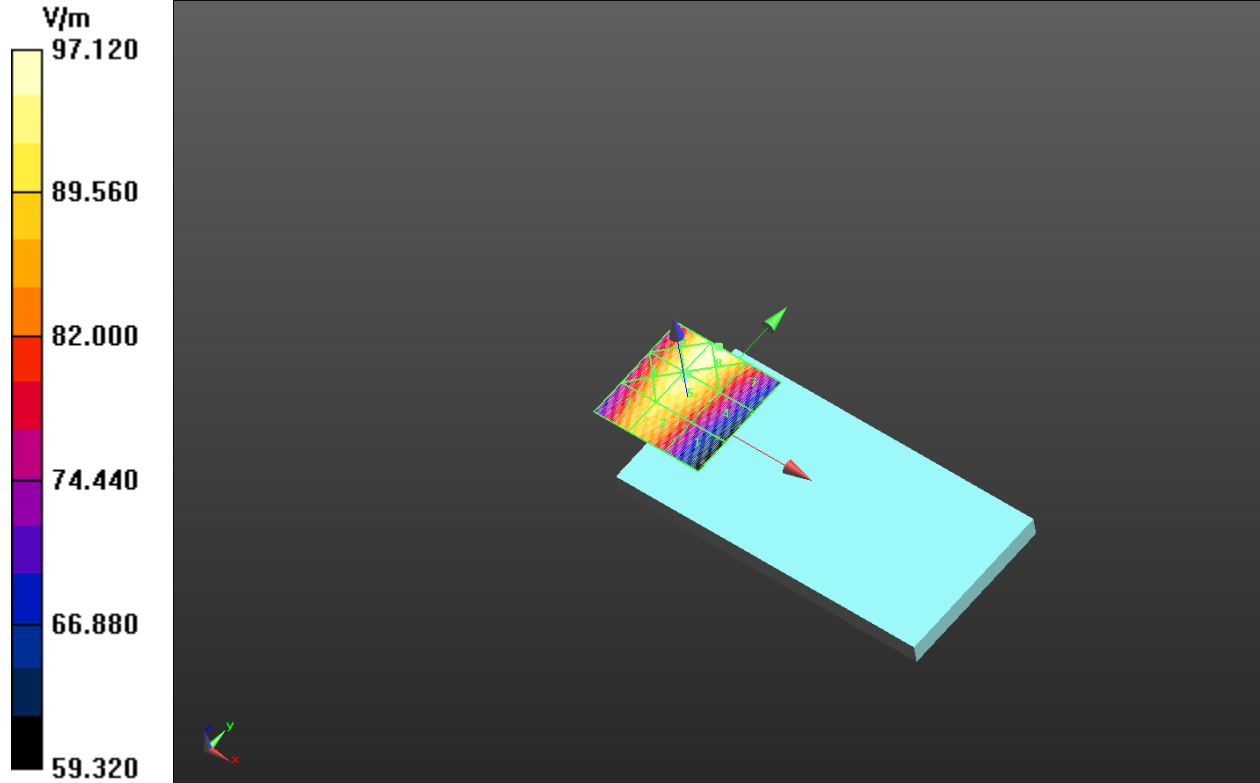
RTS-6063-1503-09


FCC ID

L6ARHC160LW

E Category: M3

Location: -5, 25, 8.7 mm



	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 25 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/17/2015 4:01:43 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_GSM 1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE780C

Communication System: UID 0, GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field GSM 1900 measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Low_Chan/Hearing Aid Compatibility

Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 27.07 V/m; Power Drift = 0.03 dB
Applied MIF = 3.46 dB
RF audio interference level = 33.83 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 33.83 dBV/m	Grid 2 M3 33.79 dBV/m	Grid 3 M3 32.71 dBV/m
Grid 4 M3 31.12 dBV/m	Grid 5 M3 32.31 dBV/m	Grid 6 M3 32.55 dBV/m

Grid 7 M4 27.97 dBV/m	Grid 8 M3 34.55 dBV/m	Grid 9 M3 34.67 dBV/m
--	--	--

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:
 Total = 34.67 dBV/m
 E Category: M3
 Location: -11, 25, 8.7 mm

Device E-Field GSM 1900 measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 32.10 V/m; Power Drift = -0.05 dB
 Applied MIF = 3.46 dB
 RF audio interference level = 34.61 dBV/m
Emission category: M3

MIF scaled E-field

Grid 1 M2 35.01 dBV/m	Grid 2 M2 35.03 dBV/m	Grid 3 M3 34.59 dBV/m
Grid 4 M3 32.47 dBV/m	Grid 5 M3 33.35 dBV/m	Grid 6 M3 33.3 dBV/m
Grid 7 M4 28.02 dBV/m	Grid 8 M3 34.43 dBV/m	Grid 9 M3 34.61 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m

M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 35.03 dBV/m

E Category: M2

Location: 5.5, -25, 8.7 mm

**Device E-Field GSM 1900 measurement with ER probe/E Scan - ER3D - 2011:
15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility
Test (101x101x1):** Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 33.11 V/m; Power Drift = -0.04 dB

Applied MIF = 3.46 dB

RF audio interference level = 34.46 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 34.66 dBV/m	Grid 2 M3 34.9 dBV/m	Grid 3 M3 34.76 dBV/m
Grid 4 M3 32.56 dBV/m	Grid 5 M3 33.64 dBV/m	Grid 6 M3 33.62 dBV/m
Grid 7 M4 29.09 dBV/m	Grid 8 M3 34.21 dBV/m	Grid 9 M3 34.46 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 34.90 dBV/m

E Category: M3

Location: -4, -25, 8.7 mm



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

28 (40)

Author Data

Daoud Attayi

Dates of Test

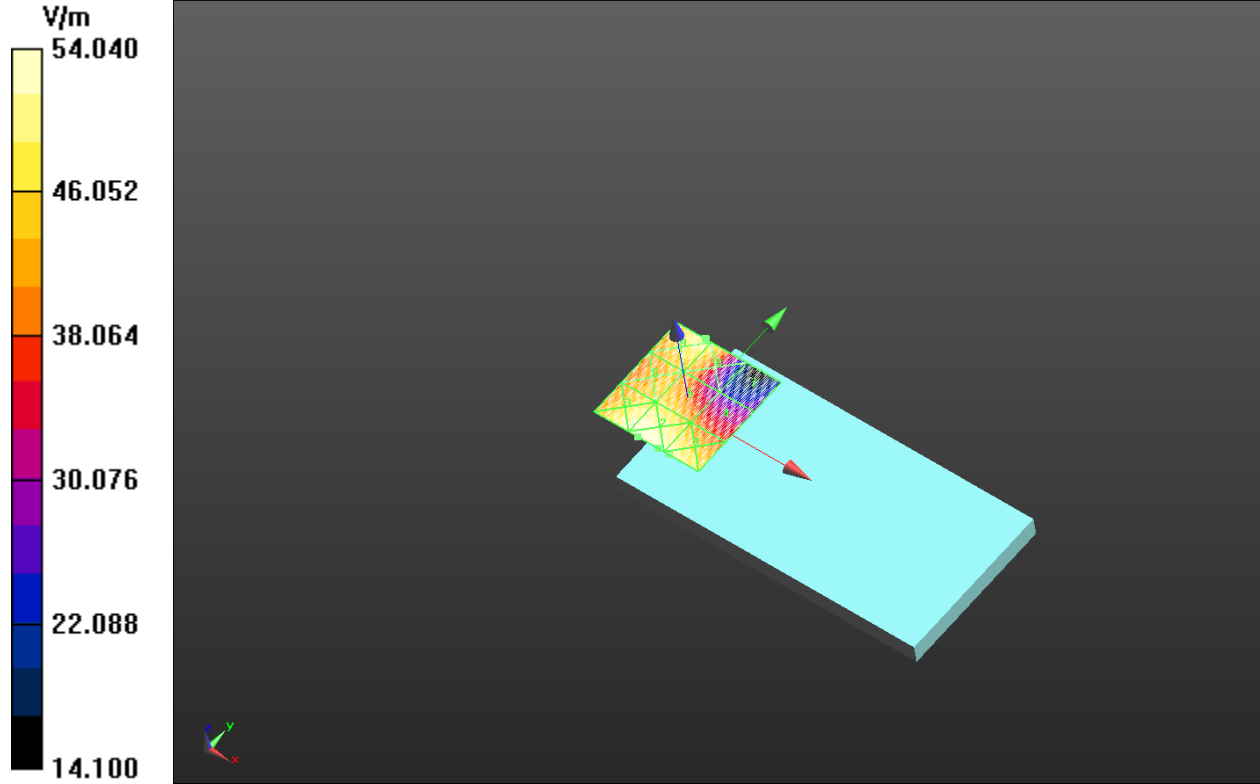
Feb. 02-17, 2015


Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW



	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 29 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/17/2015 3:03:13 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_UMTS V

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE780C

Communication System: UID 0, WCDMA FDD V; Frequency: 826.4 MHz, Frequency: 836.4 MHz, Frequency: 846.6 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BADASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field UMTS band V measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 55.24 V/m; Power Drift = -0.03 dB
Applied MIF = -25.78 dB
RF audio interference level = 7.77 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 5.46 dBV/m	Grid 2 M4 6.92 dBV/m	Grid 3 M4 6.87 dBV/m
Grid 4 M4 6.47 dBV/m	Grid 5 M4 7.77 dBV/m	Grid 6 M4 7.7 dBV/m

Grid 7 M4	Grid 8 M4	Grid 9 M4
7.47 dBV/m	8.52 dBV/m	8.33 dBV/m

Cursor:
 Total = 8.52 dBV/m
 E Category: M4
 Location: -4, 25, 8.7 mm


Device E-Field UMTS band V measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 61.66 V/m; Power Drift = -0.01 dB
 Applied MIF = -25.78 dB
 RF audio interference level = 8.97 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
6.22 dBV/m	7.94 dBV/m	7.93 dBV/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
7.5 dBV/m	8.97 dBV/m	8.95 dBV/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
8.68 dBV/m	9.84 dBV/m	9.7 dBV/m

Cursor:
 Total = 9.84 dBV/m
 E Category: M4
 Location: -4.5, 25, 8.7 mm

Device E-Field UMTS band V measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 31 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 52.38 V/m; Power Drift = 0.07 dB
Applied MIF = -25.78 dB
RF audio interference level = 7.60 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 4.82 dBV/m	Grid 2 M4 6.55 dBV/m	Grid 3 M4 6.54 dBV/m
Grid 4 M4 6.02 dBV/m	Grid 5 M4 7.6 dBV/m	Grid 6 M4 7.57 dBV/m
Grid 7 M4 7.29 dBV/m	Grid 8 M4 8.49 dBV/m	Grid 9 M4 8.35 dBV/m

Cursor:

Total = 8.49 dBV/m

E Category: M4

Location: -4.5, 25, 8.7 mm

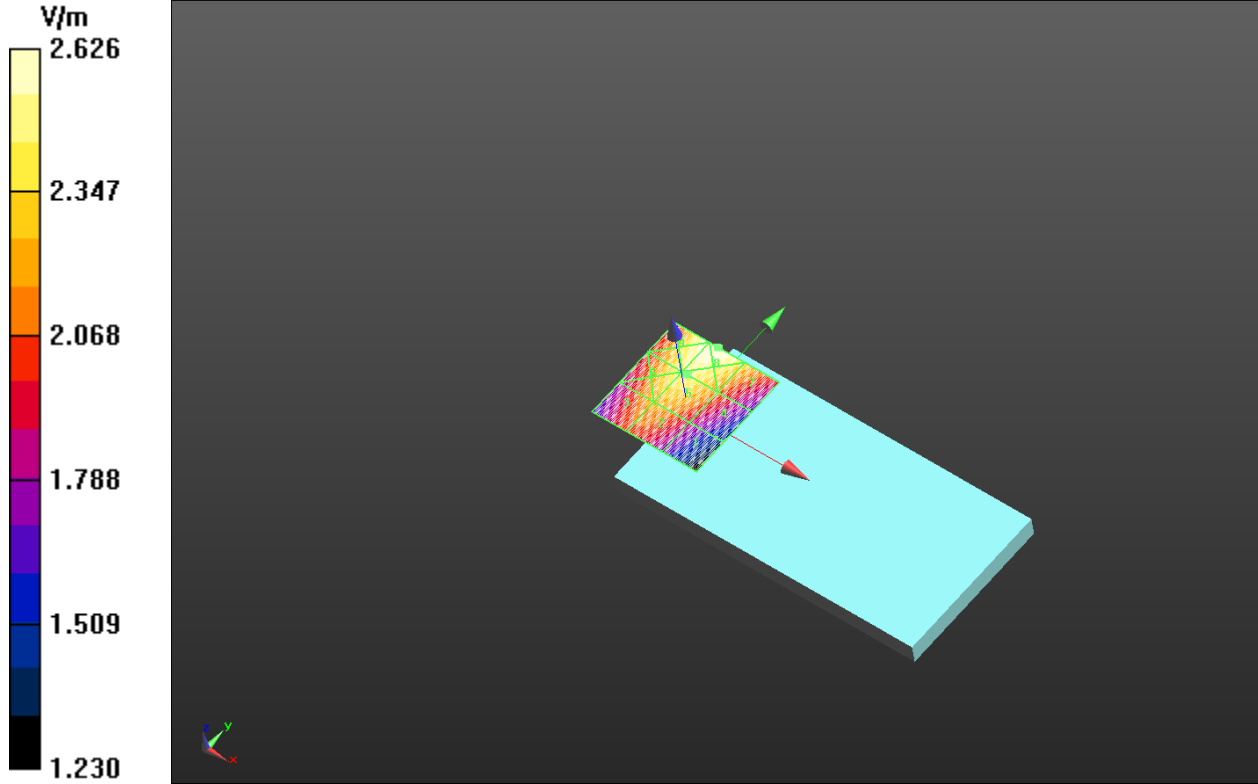



Author Data
Daoud Attayi

Dates of Test
Feb. 02-17, 2015

Report No
RTS-6063-1503-09

FCC ID
L6ARHC160LW



	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 33 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/17/2015 3:16:41 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_UMTS IV

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE780C

Communication System: UID 0, WCDMA FDD IV; Frequency: 1712.4 MHz, Frequency: 1732.6 MHz, Frequency: 1752.6 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BADASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field UMTS band IV measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Low_Chan/Hearing Aid

Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 31.55 V/m; Power Drift = 0.11 dB
Applied MIF = -25.78 dB
RF audio interference level = 7.81 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 7.81 dBV/m	Grid 2 M4 5.67 dBV/m	Grid 3 M4 4.53 dBV/m
Grid 4 M4 4.74 dBV/m	Grid 5 M4 5.84 dBV/m	Grid 6 M4 6.08 dBV/m

Grid 7 M4	Grid 8 M4	Grid 9 M4
4.08 dBV/m	8.34 dBV/m	8.36 dBV/m

Cursor:
 Total = 8.36 dBV/m
 E Category: M4
 Location: -10, 25, 8.7 mm

Device E-Field UMTS band IV measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 28.57 V/m; Power Drift = -0.10 dB
 Applied MIF = -25.78 dB
 RF audio interference level = 6.25 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
7.03 dBV/m	5.08 dBV/m	3.31 dBV/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
4.01 dBV/m	4.05 dBV/m	4.26 dBV/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.94 dBV/m	6.22 dBV/m	6.25 dBV/m

Cursor:
 Total = 7.03 dBV/m
 E Category: M4
 Location: 25, -25, 8.7 mm

Device E-Field UMTS band IV measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 28.94 V/m; Power Drift = -0.01 dB
 Applied MIF = -25.78 dB
 RF audio interference level = 7.29 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 M4 7.72 dBV/m	Grid 2 M4 6.23 dBV/m	Grid 3 M4 4.43 dBV/m
Grid 4 M4 4.81 dBV/m	Grid 5 M4 4.5 dBV/m	Grid 6 M4 4.77 dBV/m
Grid 7 M4 1.91 dBV/m	Grid 8 M4 7.25 dBV/m	Grid 9 M4 7.29 dBV/m

Cursor:
 Total = 7.72 dBV/m
 E Category: M4
 Location: 25, -25, 8.7 mm



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report
for the BlackBerry® Smartphone RHC161LW (STR100-2)**

Page

36 (40)

Author Data

Daoud Attayi

Dates of Test

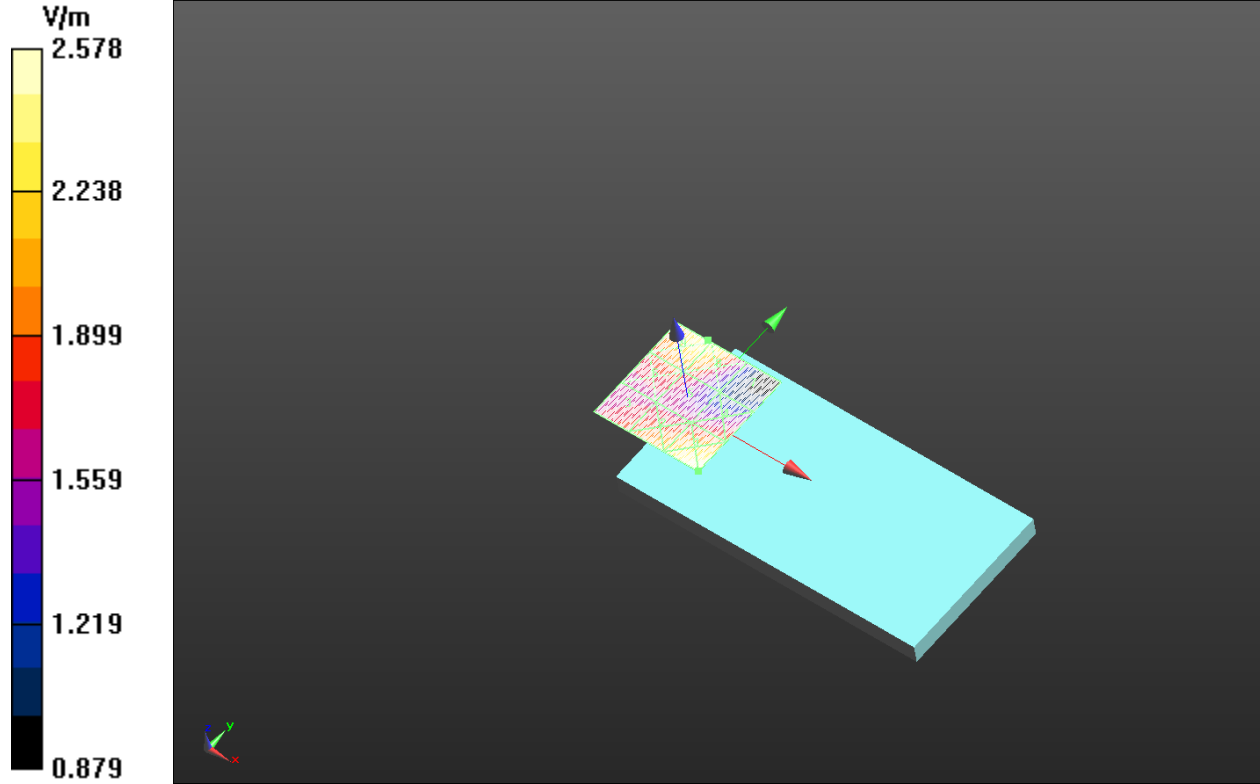
Feb. 02-17, 2015


Report No

RTS-6063-1503-09

FCC ID

L6ARHC160LW



	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHC161LW (STR100-2)		Page 37 (40)
	Author Data Daoud Attayi	Dates of Test Feb. 02-17, 2015	Report No RTS-6063-1503-09

Date/Time: 2/17/2015 3:30:13 PM

Test Laboratory: BlackBerry RTS

HAC RF_E-Field_UMTS II

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2FFE780C

Communication System: UID 0, WCDMA FDD II; Frequency: 1852.4 MHz, Frequency: 1880 MHz, Frequency: 1907.6 MHz
Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
Phantom section: RF Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/19/2015;
- Sensor-Surface: (Fix Surface), $z = 8.7$
- Electronics: DAE4 Sn881; Calibrated: 1/13/2015
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BADASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field UMTS band II measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 41.23 V/m; Power Drift = 0.12 dB
Applied MIF = -25.78 dB
RF audio interference level = 7.02 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 7.02 dBV/m	Grid 2 M4 6.67 dBV/m	Grid 3 M4 6.11 dBV/m
Grid 4 M4 4.57 dBV/m	Grid 5 M4 6.75 dBV/m	Grid 6 M4 6.94 dBV/m

Grid 7 M4	Grid 8 M4	Grid 9 M4
1.73 dBV/m	8.31 dBV/m	8.44 dBV/m

Cursor:
 Total = 8.44 dBV/m
 E Category: M4
 Location: -11, 25, 8.7 mm

Device E-Field UMTS band II measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 41.34 V/m; Power Drift = -0.00 dB
 Applied MIF = -25.78 dB
 RF audio interference level = 7.32 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
7.29 dBV/m	7.32 dBV/m	6.99 dBV/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
4.86 dBV/m	6.31 dBV/m	6.5 dBV/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
1.4 dBV/m	7.92 dBV/m	8.07 dBV/m

Cursor:
 Total = 8.07 dBV/m
 E Category: M4
 Location: -11, 25, 8.7 mm

Device E-Field UMTS band II measurement with ER probe/E Scan - ER3D - 2011: 15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 38.28 V/m; Power Drift = 0.06 dB
Applied MIF = -25.78 dB
RF audio interference level = 6.58 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 M4 6.45 dBV/m	Grid 2 M4 6.58 dBV/m	Grid 3 M4 6.39 dBV/m
Grid 4 M4 4.21 dBV/m	Grid 5 M4 5.87 dBV/m	Grid 6 M4 6.13 dBV/m
Grid 7 M4 1.93 dBV/m	Grid 8 M4 7.28 dBV/m	Grid 9 M4 7.53 dBV/m

Cursor:
Total = 7.53 dBV/m
E Category: M4
Location: -12, 25, 8.7 mm



Author Data
Daoud Attayi

Dates of Test
Feb. 02-17, 2015

Report No
RTS-6063-1503-09

FCC ID
L6ARHC160LW

