
	Document <b>Annex A to Hearing Aid Compatibility RF Emissions Test Report  for the BlackBerry® Smartphone RHR191LW (SQW100-4)</b>		Page <b>1 (33)</b>
	Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>

## **Annex A: Measurement data and plots**

### **A.1 MIF validation plots**

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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/m<sup>3</sup>  
 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
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**L6ARHR190LW**

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



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**L6ARHR190LW**

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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)

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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/m<sup>3</sup>  
 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



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<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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)





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**L6ARHR190LW****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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
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)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11a\_Rate\_6Mbps**

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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
MIF	-10.19 dB		0.09 dB	
PMF	0.95 dB	1.116	0.05 dB	
Detector Level	2.92 dBm		0.10 dB	
RFAIP	-7.27 dBm		0.19 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11a\_Rate\_24Mbps**

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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
MIF	-7.98 dB		0.15 dB	
PMF	1.47 dB	1.184	0.02 dB	
Detector Level	1.95 dBm		0.01 dB	
RFAIP	-6.03 dBm		0.16 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11a\_Rate\_54Mbps**

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

<b>Quantity</b>	<b>Value [log]</b>	<b>[linear]</b>	<b>Fluctuation</b>	<b>Remark</b>
MIF	-8.92 dB		0.11 dB	
PMF	1.77 dB	1.227	0.02 dB	
Detector Level	-0.05 dBm		0.01 dB	
RFAIP	-8.97 dBm		0.12 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11ac\_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	-10.21 dB		0.05 dB	
PMF	0.83 dB	1.101	0.00 dB	
Detector Level	-0.89 dBm		0.02 dB	
RFAIP	-11.10 dBm		0.07 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11ac\_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	-9.59 dB		0.07 dB	
PMF	0.94 dB	1.114	0.01 dB	
Detector Level	-1.09 dBm		0.01 dB	
RFAIP	-10.68 dBm		0.08 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11ac\_Rate\_18Mbps**  
 Calibration Factors: 1.095, 1.095; MIF Scale: 0.00 dB; Coupling Factor (CF): 0.00 dB

Quantity	Value [log]	[linear]	Fluctuation	Remark
MIF	-8.23 dB		0.16 dB	
PMF	0.99 dB	1.121	0.08 dB	
Detector Level	-1.26 dBm		0.00 dB	
RFAIP	-9.50 dBm		0.17 dB	(MIF+CF+Detector Level)

**Configuration/MIF Measurements WiFi\_VoIP/MIF\_802.11ac\_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	-8.80 dB		0.16 dB	
PMF	1.94 dB	1.250	0.02 dB	
Detector Level	-2.07 dBm		0.01 dB	
RFAIP	-10.87 dBm		0.17 dB	(MIF+CF+Detector Level)

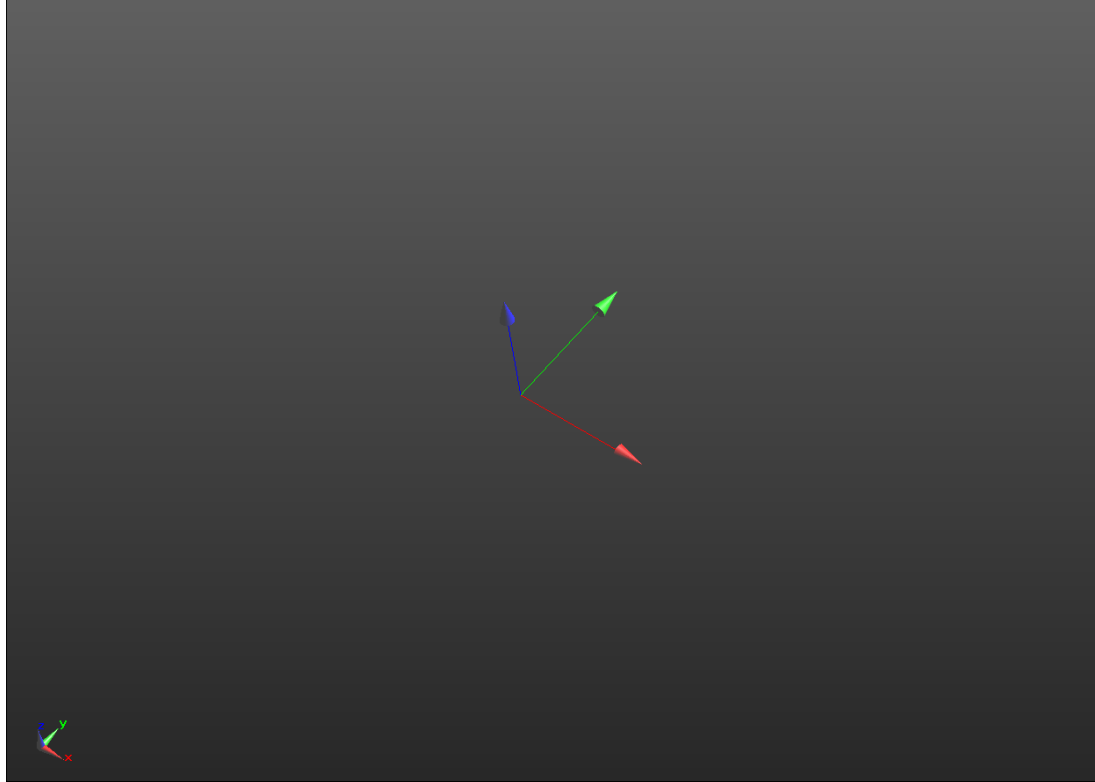


Author Data  
**Daoud Attayi**


Dates of Test  
**Feb. 04, April 17-27, May 14, 2015**

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**L6ARHR190LW**



0 dB = 1.732 {} = 4.77 dB {}

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## A.2 Dipole validation

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Date/Time: 4/17/2015 9:42:07 AM

Test Laboratory: BlackBerry RTS

**HAC RF\_E-Field\_validation\_04\_17\_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/m<sup>3</sup>

Phantom section: RF Section

Measurement Standard: DASY5 (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
- DASY52 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 = 106.8 V/m; Power Drift = 0.14 dB


PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 111.1 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>104.6 V/m</b>	Grid 2 <b>M4</b> <b>107.8 V/m</b>	Grid 3 <b>M4</b> <b>107.6 V/m</b>
Grid 4 <b>M4</b> <b>64.34 V/m</b>	Grid 5 <b>M4</b> <b>65.37 V/m</b>	Grid 6 <b>M4</b> <b>64.21 V/m</b>

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<b>Grid 7 M4</b> <b>108.6 V/m</b>	<b>Grid 8 M4</b> <b>111.1 V/m</b>	<b>Grid 9 M4</b> <b>109.5 V/m</b>
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**Cursor:**

Total = 111.1 V/m

E Category: M4

Location: -0.5, 78.5, 9.7 mm

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Date/Time: 4/17/2015 9:54:24 AM

Test Laboratory: BlackBerry RTS

**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/m<sup>3</sup>

Phantom section: RF Section

Measurement Standard: DASY5 (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
- DASY52 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 = 143.4 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.



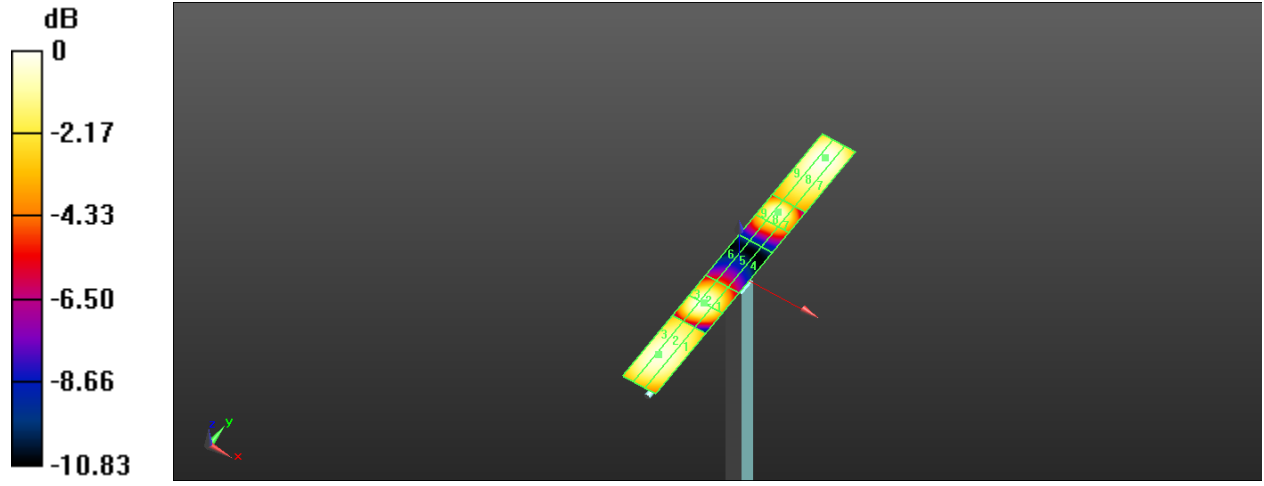
Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>	FCC ID <b>L6ARHR190LW</b>
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E-field emissions = 84.15 V/m  
Near-field category: **M3 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M3</b> <b>81.53 V/m</b>	Grid 2 <b>M3</b> <b>84.15 V/m</b>	Grid 3 <b>M3</b> <b>83.91 V/m</b>
Grid 4 <b>M3</b> <b>68.98 V/m</b>	Grid 5 <b>M3</b> <b>69.84 V/m</b>	Grid 6 <b>M3</b> <b>69.16 V/m</b>
Grid 7 <b>M3</b> <b>79.79 V/m</b>	Grid 8 <b>M3</b> <b>82.68 V/m</b>	Grid 9 <b>M3</b> <b>82.31 V/m</b>

**Cursor:**  
Total = 84.15 V/m  
E Category: M3  
Location: -1, -30, 9.7 mm



0 dB = 111.1 V/m = 40.91 dBV/m



Document

**Annex A to Hearing Aid Compatibility RF Emissions Test Report  
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Author Data

**Daoud Attayi**

Dates of Test

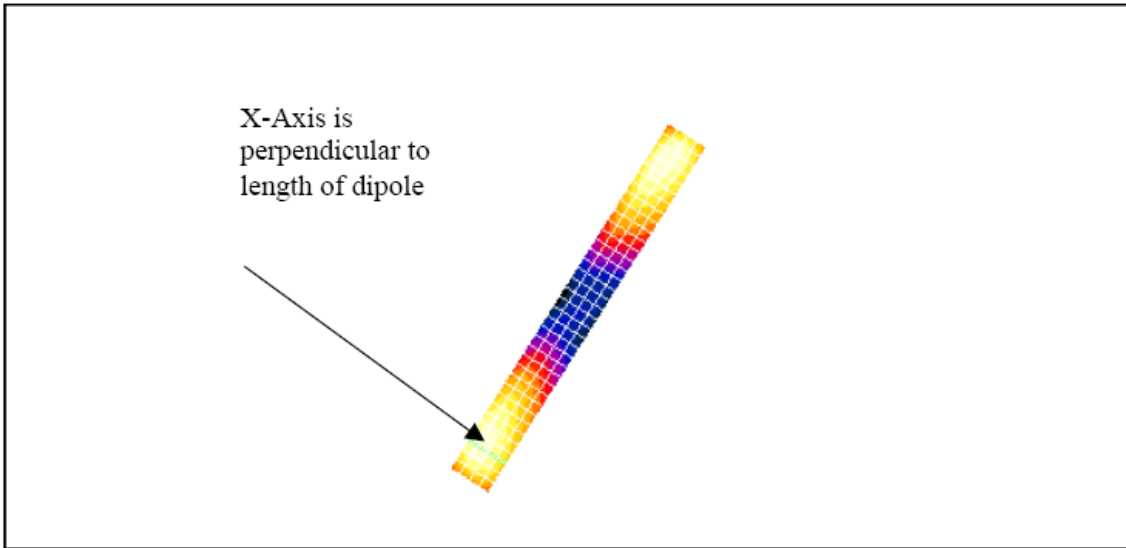
**Feb. 04, April 17-27, May 14, 2015**

Report No

**RTS-6067-1505-04**

FCC ID

**L6ARHR190LW**



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

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Author Data

**Daoud Attayi**

Dates of Test

**Feb. 04, April 17-27, May 14, 2015**

Report No

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**L6ARHR190LW**

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

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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/m<sup>3</sup>  
 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**

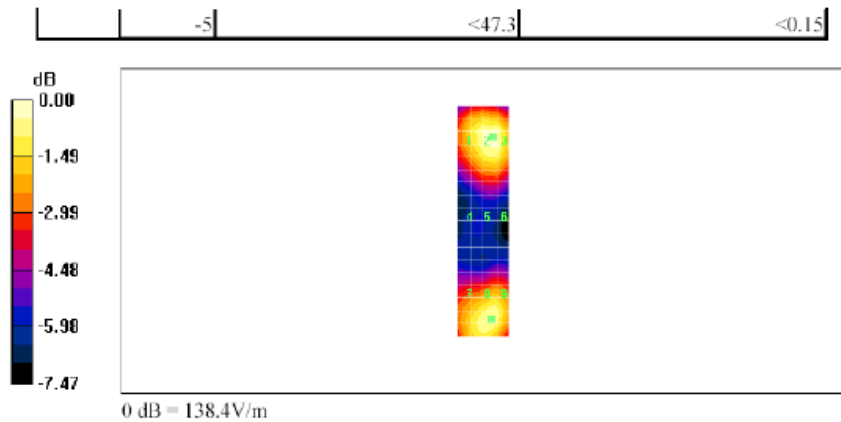
Dates of Test  
**Feb. 04, April 17-27, May 14, 2015**

Report No  
**RTS-6067-1505-04**

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

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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/m<sup>3</sup>  
 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
<b>123.1</b>	<b>138.6</b>	<b>138.6</b>	<b>123.1</b>	<b>138.6</b>	<b>138.6</b>
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
<b>81.4</b>	<b>92.1</b>	<b>91.6</b>	<b>81.4</b>	<b>92.1</b>	<b>91.6</b>
Grid 7	Grid 8	Grid 9	Grid 7	Grid 8	Grid 9
<b>121.3</b>	<b>131.2</b>	<b>131.0</b>	<b>121.3</b>	<b>131.2</b>	<b>131.0</b>

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

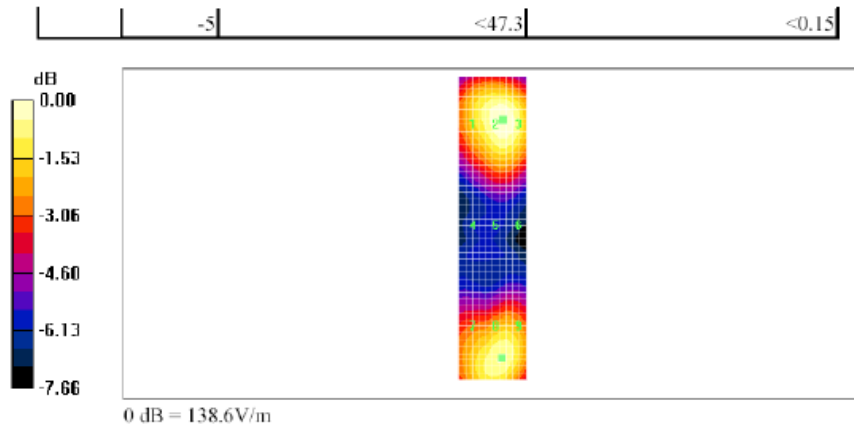
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Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>	FCC ID <b>L6ARHR190LW</b>
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Date/Time: 14/07/2005 11:44:51 AM


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### A.3 RF emission field plots

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Date/Time: 4/17/2015 10:17:22 AM

Test Laboratory: BlackBerry RTS

**HAC RF\_E-Field\_GSM 850**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 1160701958**

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/m<sup>3</sup>  
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 = 35.72 V/m; Power Drift = 0.04 dB  
Applied MIF = 3.46 dB  
RF audio interference level = 33.26 dBV/m

**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b> <b>33.7 dBV/m</b>	<b>Grid 2 M4</b> <b>34.47 dBV/m</b>	<b>Grid 3 M4</b> <b>34.17 dBV/m</b>
<b>Grid 4 M4</b>	<b>Grid 5 M4</b>	<b>Grid 6 M4</b>

<b>32.25 dBV/m</b>	<b>33.26 dBV/m</b>	<b>33.1 dBV/m</b>
Grid 7 M4	Grid 8 M4	Grid 9 M4
<b>31.02 dBV/m</b>	<b>32.1 dBV/m</b>	<b>31.99 dBV/m</b>

**Cursor:**  
Total = 34.47 dBV/m  
E Category: M4  
Location: -3, -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 = 42.01 V/m; Power Drift = -0.13 dB  
Applied MIF = 3.46 dB  
RF audio interference level = 34.79 dBV/m  
**Emission category: M4**

MIF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
<b>35.06 dBV/m</b>	<b>35.81 dBV/m</b>	<b>35.55 dBV/m</b>
Grid 4 M4	Grid 5 M4	Grid 6 M4
<b>33.81 dBV/m</b>	<b>34.79 dBV/m</b>	<b>34.7 dBV/m</b>
Grid 7 M4	Grid 8 M4	Grid 9 M4
<b>32.3 dBV/m</b>	<b>33.7 dBV/m</b>	<b>33.65 dBV/m</b>

**Cursor:**  
Total = 35.81 dBV/m  
E Category: M4  
Location: -4, -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**



Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>	FCC ID <b>L6ARHR190LW</b>
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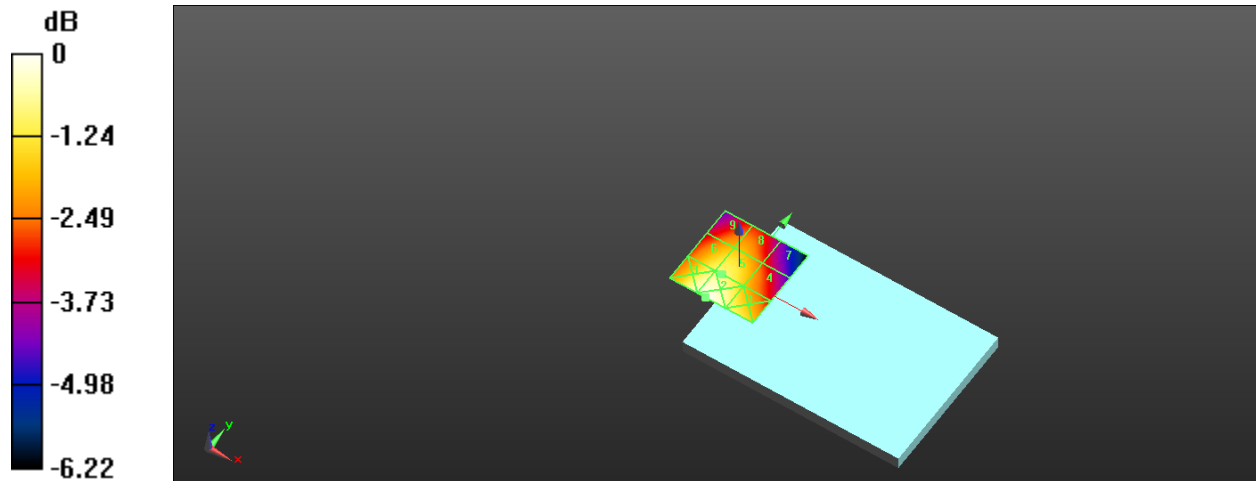
**Test (101x101x1):** Interpolated grid: dx=0.5000 mm, dy=0.5000 mm  
 Device Reference Point: 0, 0, -6.3 mm  
 Reference Value = 38.03 V/m; Power Drift = -0.10 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 33.85 dBV/m  
**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b> <b>34.04 dBV/m</b>	<b>Grid 2 M4</b> <b>35.01 dBV/m</b>	<b>Grid 3 M4</b> <b>34.71 dBV/m</b>
<b>Grid 4 M4</b> <b>32.61 dBV/m</b>	<b>Grid 5 M4</b> <b>33.85 dBV/m</b>	<b>Grid 6 M4</b> <b>33.73 dBV/m</b>
<b>Grid 7 M4</b> <b>31.09 dBV/m</b>	<b>Grid 8 M4</b> <b>32.52 dBV/m</b>	<b>Grid 9 M4</b> <b>32.39 dBV/m</b>


**Cursor:**

Total = 35.01 dBV/m  
 E Category: M4  
 Location: -3.5, -25, 8.7 mm



0 dB = 52.76 V/m = 34.45 dBV/m



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		Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>

Date/Time: 4/17/2015 10:38:02 AM

Test Laboratory: BlackBerry RTS

**HAC RF\_E-Field\_GSM 1900**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 1160701958**

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/m<sup>3</sup>  
 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 = 6.534 V/m; Power Drift = 0.03 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 25.55 dBV/m

**Emission category: M4**

MIF scaled E-field

Grid 1 <b>M4</b> <b>21.75 dBV/m</b>	Grid 2 <b>M4</b> <b>25.55 dBV/m</b>	Grid 3 <b>M4</b> <b>25.46 dBV/m</b>
Grid 4 <b>M4</b> <b>22.62 dBV/m</b>	Grid 5 <b>M4</b> <b>24.78 dBV/m</b>	Grid 6 <b>M4</b> <b>24.77 dBV/m</b>

<b>Grid 7 M4</b>	<b>Grid 8 M4</b>	<b>Grid 9 M4</b>
<b>27.84 dBV/m</b>	<b>29.98 dBV/m</b>	<b>29.9 dBV/m</b>

**Cursor:**  
 Total = 29.98 dBV/m  
 E Category: M4  
 Location: -6, 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 = 7.066 V/m; Power Drift = 0.58 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 24.52 dBV/m

**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b>	<b>Grid 2 M4</b>	<b>Grid 3 M4</b>
<b>19.42 dBV/m</b>	<b>22.84 dBV/m</b>	<b>22.62 dBV/m</b>
<b>Grid 4 M4</b>	<b>Grid 5 M4</b>	<b>Grid 6 M4</b>
<b>22.2 dBV/m</b>	<b>24.52 dBV/m</b>	<b>24.46 dBV/m</b>
<b>Grid 7 M4</b>	<b>Grid 8 M4</b>	<b>Grid 9 M4</b>
<b>26.42 dBV/m</b>	<b>28.81 dBV/m</b>	<b>28.66 dBV/m</b>

**Cursor:**  
 Total = 28.81 dBV/m  
 E Category: M4  
 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



Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>	FCC ID <b>L6ARHR190LW</b>
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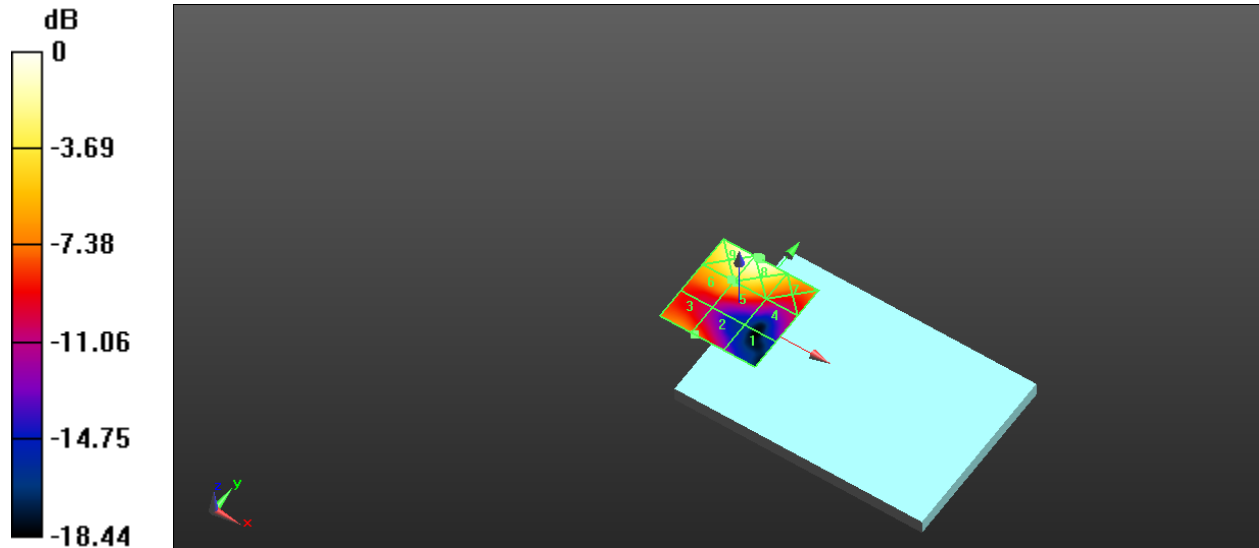
Device Reference Point: 0, 0, -6.3 mm  
 Reference Value = 6.656 V/m; Power Drift = -0.04 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 23.81 dBV/m  
**Emission category: M4**

MIF scaled E-field


Grid 1 <b>M4</b> <b>17.32 dBV/m</b>	Grid 2 <b>M4</b> <b>21.29 dBV/m</b>	Grid 3 <b>M4</b> <b>21.62 dBV/m</b>
Grid 4 <b>M4</b> <b>19.89 dBV/m</b>	Grid 5 <b>M4</b> <b>23.77 dBV/m</b>	Grid 6 <b>M4</b> <b>23.81 dBV/m</b>
Grid 7 <b>M4</b> <b>24.6 dBV/m</b>	Grid 8 <b>M4</b> <b>27.82 dBV/m</b>	Grid 9 <b>M4</b> <b>27.78 dBV/m</b>

**Cursor:**

Total = 27.82 dBV/m  
 E Category: M4  
 Location: -7, 25, 8.7 mm



0 dB = 31.49 V/m = 29.96 dBV/m

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Date/Time: 4/27/2015 3:21:44 PM

Test Laboratory: BlackBerry RTS

**HAC RF\_E-Field\_Rev 2-02\_GSM 850**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 1160701958**

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/m<sup>3</sup>  
 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 = 38.99 V/m; Power Drift = 0.05 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 33.72 dBV/m

**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b> <b>34.16 dBV/m</b>	<b>Grid 2 M4</b> <b>34.78 dBV/m</b>	<b>Grid 3 M4</b> <b>34.2 dBV/m</b>
<b>Grid 4 M4</b> <b>33.04 dBV/m</b>	<b>Grid 5 M4</b> <b>33.72 dBV/m</b>	<b>Grid 6 M4</b> <b>33.42 dBV/m</b>

<b>Grid 7 M4</b>	<b>Grid 8 M4</b>	<b>Grid 9 M4</b>
<b>32.26 dBV/m</b>	<b>32.98 dBV/m</b>	<b>32.62 dBV/m</b>

**Cursor:**  
Total = 34.78 dBV/m  
E Category: M4  
Location: -0.5, -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 = 45.55 V/m; Power Drift = 0.01 dB  
Applied MIF = 3.46 dB  
RF audio interference level = 35.13 dBV/m  
**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b>	<b>Grid 2 M4</b>	<b>Grid 3 M4</b>
<b>35.47 dBV/m</b>	<b>36.15 dBV/m</b>	<b>35.78 dBV/m</b>
<b>Grid 4 M4</b>	<b>Grid 5 M4</b>	<b>Grid 6 M4</b>
<b>34.19 dBV/m</b>	<b>35.13 dBV/m</b>	<b>34.91 dBV/m</b>
<b>Grid 7 M4</b>	<b>Grid 8 M4</b>	<b>Grid 9 M4</b>
<b>32.82 dBV/m</b>	<b>34.04 dBV/m</b>	<b>33.89 dBV/m</b>

**Cursor:**  
Total = 36.15 dBV/m  
E Category: M4  
Location: -2, -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

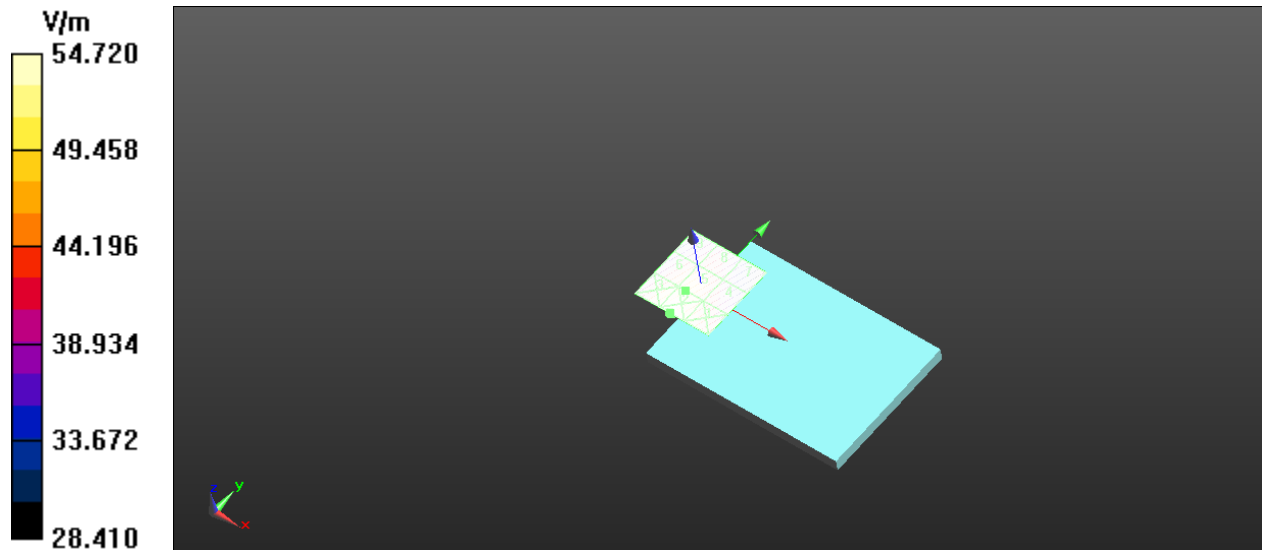
Device Reference Point: 0, 0, -6.3 mm  
 Reference Value = 42.21 V/m; Power Drift = -0.01 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 34.40 dBV/m  
**Emission category: M4**


MIF scaled E-field

Grid 1 <b>M4</b> <b>34.66 dBV/m</b>	Grid 2 <b>M4</b> <b>35.44 dBV/m</b>	Grid 3 <b>M4</b> <b>35.02 dBV/m</b>
Grid 4 <b>M4</b> <b>33.39 dBV/m</b>	Grid 5 <b>M4</b> <b>34.4 dBV/m</b>	Grid 6 <b>M4</b> <b>34.16 dBV/m</b>
Grid 7 <b>M4</b> <b>32.04 dBV/m</b>	Grid 8 <b>M4</b> <b>33.23 dBV/m</b>	Grid 9 <b>M4</b> <b>33.08 dBV/m</b>

**Cursor:**

Total = 35.44 dBV/m  
 E Category: M4  
 Location: -1, -25, 8.7 mm



	Document <b>Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone RHR191LW (SQW100-4)</b>		Page <b>31 (33)</b>
	Author Data <b>Daoud Attayi</b>	Dates of Test <b>Feb. 04, April 17-27, May 14, 2015</b>	Report No <b>RTS-6067-1505-04</b>

Date/Time: 4/27/2015 3:52:05 PM

Test Laboratory: BlackBerry RTS

**HAC RF\_E-Field\_Rev 2-02\_GSM 1900**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 1160701958**

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/m<sup>3</sup>  
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 = 8.591 V/m; Power Drift = 0.56 dB  
Applied MIF = 3.46 dB  
RF audio interference level = 26.76 dBV/m

**Emission category: M4**

MIF scaled E-field

Grid 1 <b>M4</b> <b>24.05 dBV/m</b>	Grid 2 <b>M4</b> <b>26.76 dBV/m</b>	Grid 3 <b>M4</b> <b>26.75 dBV/m</b>
Grid 4 <b>M4</b> <b>24.32 dBV/m</b>	Grid 5 <b>M4</b> <b>26.44 dBV/m</b>	Grid 6 <b>M4</b> <b>26.43 dBV/m</b>

<b>Grid 7 M4</b> <b>29.66 dBV/m</b>	<b>Grid 8 M3</b> <b>31.34 dBV/m</b>	<b>Grid 9 M3</b> <b>31.06 dBV/m</b>
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**Cursor:**  
 Total = 31.34 dBV/m  
 E Category: M3  
 Location: -4, 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 = 8.080 V/m; Power Drift = 0.35 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 25.60 dBV/m

**Emission category: M4**

MIF scaled E-field

<b>Grid 1 M4</b> <b>21.34 dBV/m</b>	<b>Grid 2 M4</b> <b>24.26 dBV/m</b>	<b>Grid 3 M4</b> <b>24.3 dBV/m</b>
<b>Grid 4 M4</b> <b>23.29 dBV/m</b>	<b>Grid 5 M4</b> <b>25.6 dBV/m</b>	<b>Grid 6 M4</b> <b>25.59 dBV/m</b>
<b>Grid 7 M4</b> <b>28.04 dBV/m</b>	<b>Grid 8 M4</b> <b>29.99 dBV/m</b>	<b>Grid 9 M4</b> <b>29.8 dBV/m</b>

**Cursor:**  
 Total = 29.99 dBV/m  
 E Category: M4  
 Location: -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 = 7.701 V/m; Power Drift = -0.02 dB  
 Applied MIF = 3.46 dB  
 RF audio interference level = 24.85 dBV/m  
**Emission category: M4**

MIF scaled E-field

Grid 1 <b>M4</b> <b>19.31 dBV/m</b>	Grid 2 <b>M4</b> <b>22.88 dBV/m</b>	Grid 3 <b>M4</b> <b>22.97 dBV/m</b>
Grid 4 <b>M4</b> <b>21.74 dBV/m</b>	Grid 5 <b>M4</b> <b>24.85 dBV/m</b>	Grid 6 <b>M4</b> <b>24.85 dBV/m</b>
Grid 7 <b>M4</b> <b>26.7 dBV/m</b>	Grid 8 <b>M4</b> <b>29.31 dBV/m</b>	Grid 9 <b>M4</b> <b>29.16 dBV/m</b>

**Cursor:**  
 Total = 29.31 dBV/m  
 E Category: M4  
 Location: -5.5, 25, 8.7 mm

