

Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFR101LW

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Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

L6ARFR100LW

Annex A: Measurement data and plots

A.1 Spectrum analyser plots: GSM/UMTS, CW, 80%AM, signals



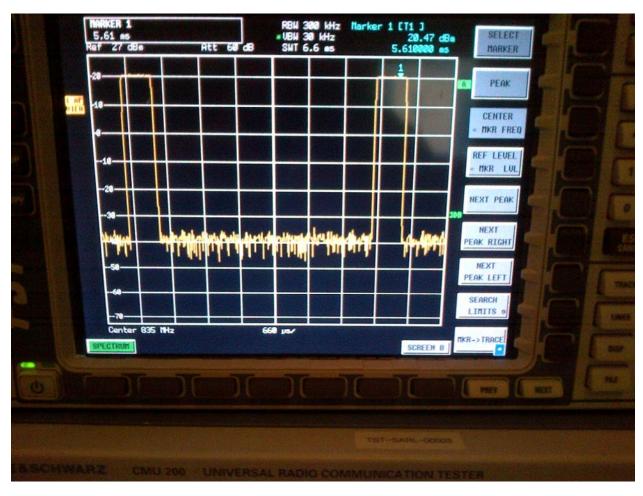
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Author Data **Daoud Attayi** Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW



GSM 835 MHz



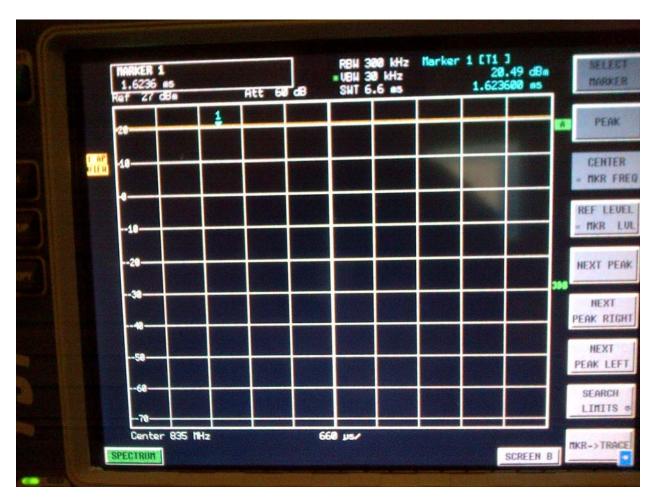
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Author Data **Daoud Attayi**

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CW 835 MHz



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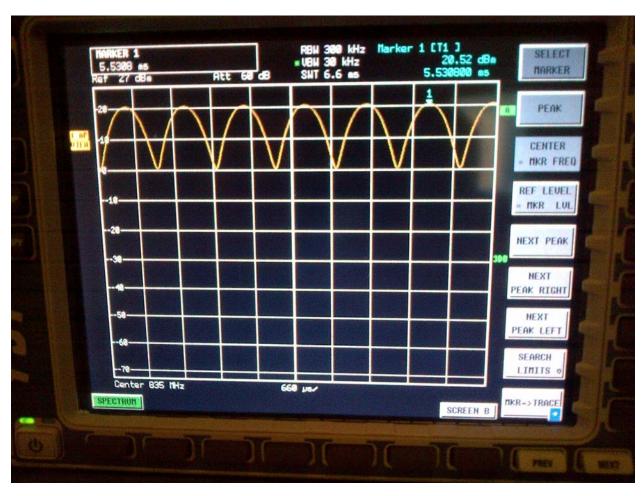
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AM 80% 835 MHz



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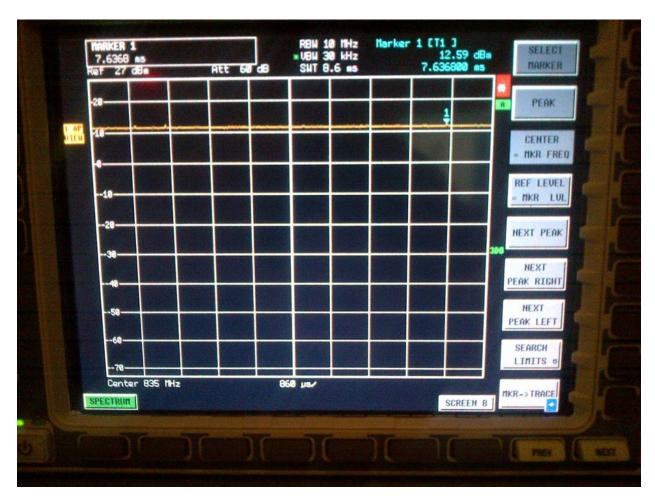
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Daoud Attayi

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UMTS 835 MHz



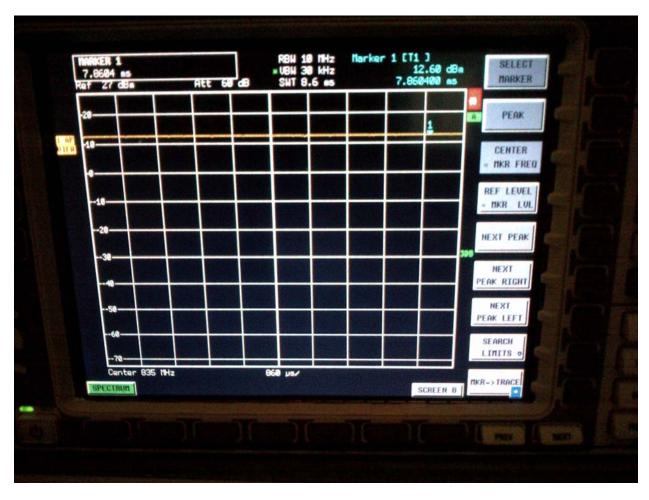
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CW 835 MHz



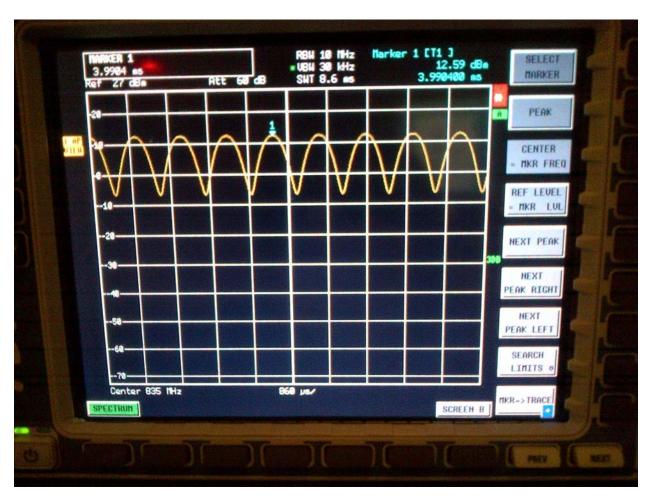
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AM 80% 835 MHz



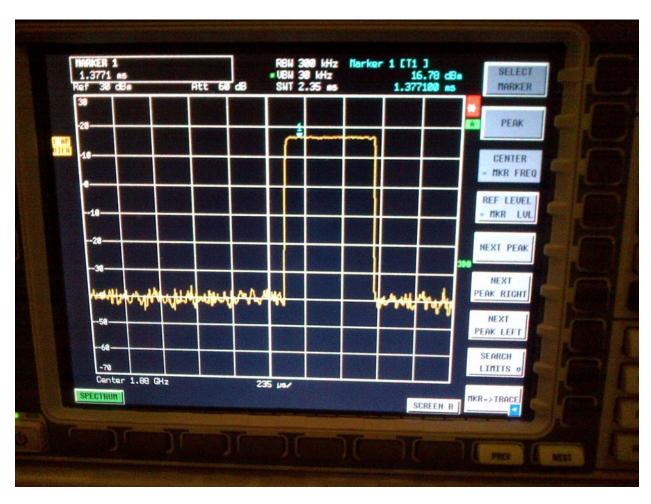
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GSM 1880 MHz



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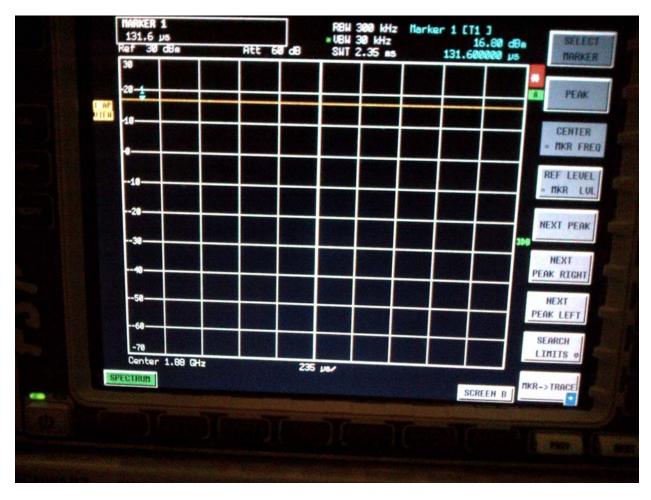
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Daoud Attayi

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CW 1880 MHz



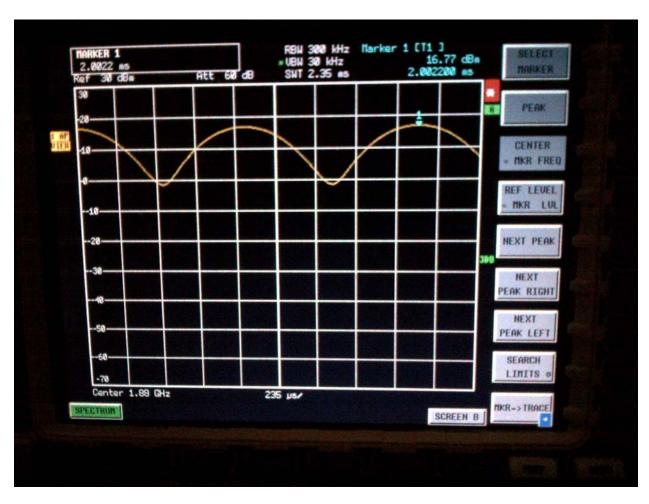
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Author Data **Daoud Attayi**

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AM 80 % 1880 MHz



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UMTS 1880 MHz



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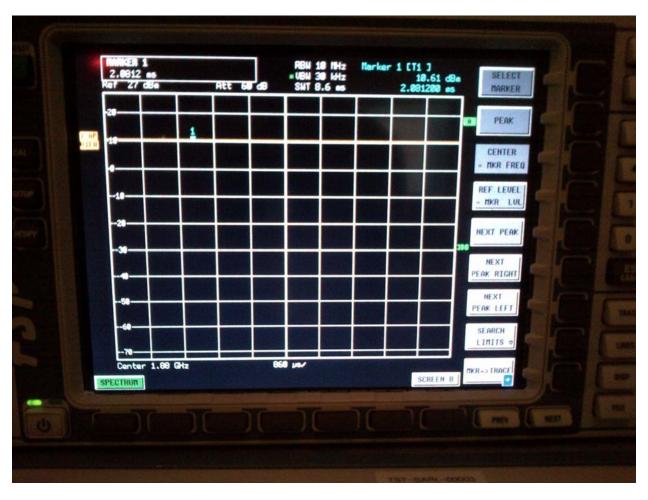
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Report No **RTS-6036-1304-53**



CW 1880 MHz



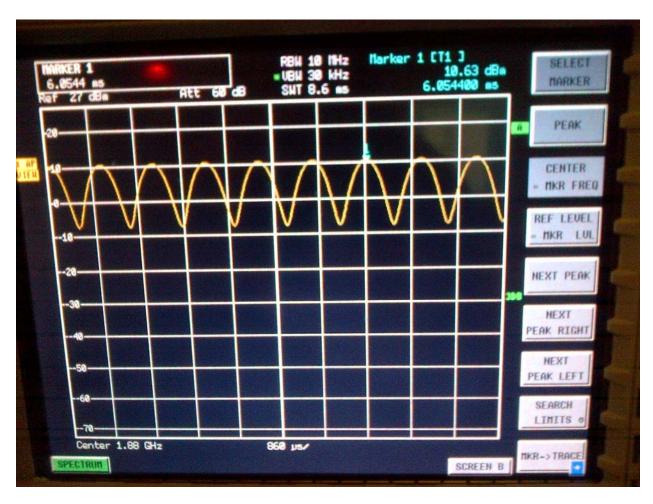
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AM 80 % 1880 MHz



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A.2 Dipole validation and probe modulation factor plots



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Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

L6ARFR100LW

Date/Time: 4/24/2013 3:48:05 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_04_24_13

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

Communication System: CW; Frequency: 835 MHz Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test

(41x361x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 106.1 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 168.2 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 153.8 V/m	Grid 2 M4 164.4 V/m	Grid 3 M4 164.1 V/m
Grid 4 M4 81.96 V/m	Grid 5 M4 85.57 V/m	Grid 6 M4
Grid 7 M4	Grid 8 M4	Grid 9 M4

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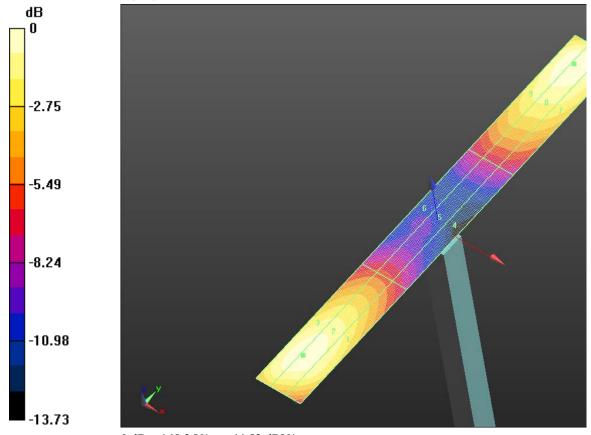
FCC ID L6ARFR100LW

154.3 V/m 168.2 V/m 167.7 V/m

Cursor:

Total = 168.2 V/m E Category: M4

Location: -2.5, 80, 4.7 mm



0 dB = 168.2 V/m = 44.52 dBV/m



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Author Data

Daoud Attayi

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L6ARFR100LW

Date/Time: 6/28/2012 1:13:34 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: GSM 835 PMF, Communication System: CW, Communication

System: AM 80%; Frequency: 835 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - GSM 835_PMF/Hearing Aid

Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 34.76 V/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 54.25 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
49.26 V/m	51.48 V/m	51.48 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
27.95 V/m	28.56 V/m	28.13 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
51.48 V/m	54.25 V/m	53.95 V/m

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Author Data

Daoud Attayi

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L6ARFR100LW

FCC ID

Cursor:

Total = 54.247 V/m E Category: M4

Location: -2.5, 80.5, 4.7 mm

Dipole E-Field measurement/E Scan - CW 835_PMF/Hearing Aid

Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 103.0 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 162.8 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
148.5 V/m	160.5 V/m	160.4 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
82.74 V/m	86.24 V/m	84.62 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
158.1 V/m	162.8 V/m	155.2 V/m

Cursor:

Total = 162.8 V/m E Category: M4

Location: 0.5, 79.5, 4.7 mm

Dipole E-Field measurement/E Scan - AM80%_ 835_PMF/Hearing

Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 64.73 V/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 102.0 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
93.30 V/m	100.3 V/m	100.3 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4



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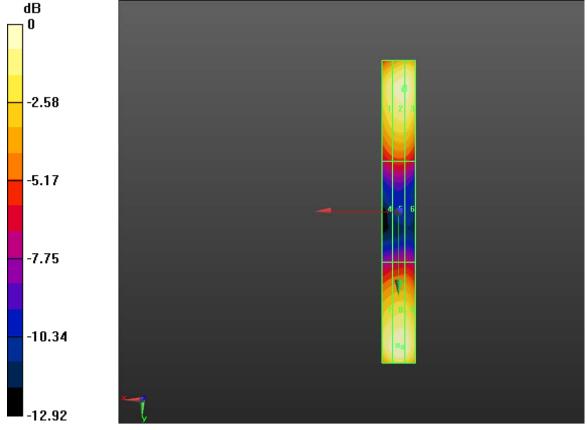
FCC ID L6ARFR100LW

52.75 V/m	54.62 V/m	53.83 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
99.38 V/m	102.0 V/m	97.92 V/m

Cursor:

Total = 102.0 V/m E Category: M4

Location: 0.5, 79.5, 4.7 mm



0 dB = 54.250 V/m = 34.69 dB V/m



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Author Data

Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

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FCC ID L6ARFR100LW

Date/Time: 2/17/2012 12:24:15 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_UMTS835 MHz_02_17_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: WCDMA FDD V, Communication System: CW, Communication

System: AM 80%; Frequency: 835 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - UMTS 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 41.08 V/m; Power Drift = 0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 64.41 V/m

Near-field category: M4 (AWF 0 dB)



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PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
53.11 V/m	55.59 V/m	55.40 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
29.72 V/m	30.66 V/m	29.79 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
61.55 V/m	64.41 V/m	63.22 V/m

Cursor:

Total = 64.412 V/m E Category: M4

Location: -0.5, 79, 4.7 mm

$\textbf{Dipole E-Field measurement/E Scan-CW 835_PMF/Hearing Aid}$

Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 43.11 V/m; Power Drift = -0.14 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 68.64 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
58.55 V/m	59.20 V/m	57.13 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
32.35 V/m	32.63 V/m	31.24 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
61.85 V/m	68.64 V/m	68.56 V/m



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FCC ID L6ARFR100LW

Cursor:

Total = 68.635 V/m E Category: M4

Location: -3, 79.5, 4.7 mm

Dipole E-Field measurement/E Scan - AM80%_835_PMF/Hearing

Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 28.41 V/m; Power Drift = 0.09 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 45.21 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
38.28 V/m	38.73 V/m	37.25 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
21.72 V/m	21.89 V/m	20.80 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
40.90 V/m	45.21 V/m	45.16 V/m

Cursor:

Total = 45.209 V/m E Category: M4

Location: -3, 79.5, 4.7 mm



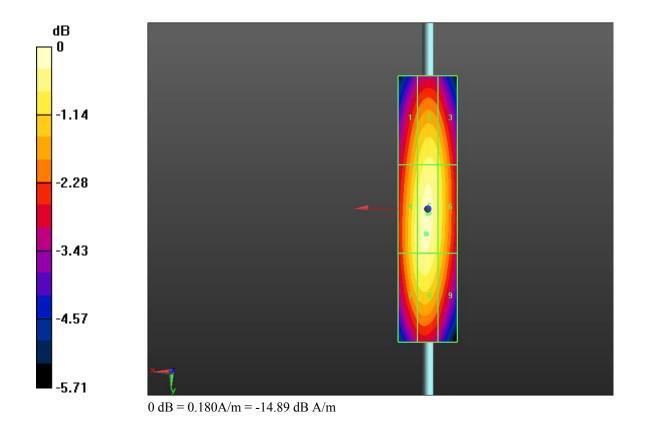
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RTS-6036-1304-53

L6ARFR100LW

Date/Time: 4/24/2013 3:08:00 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_04_24_13

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

Communication System: CW; Frequency: 1880 MHz Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test

(41x181x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 142.0 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 131.0 V/m

Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 M2 121.1 V/m	Grid 2 M2 130.6 V/m	Grid 3 M2 130.4 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
82.22 V/m	87.04 V/m	
Grid 7 M2	Grid 8 M2	Grid 9 M2

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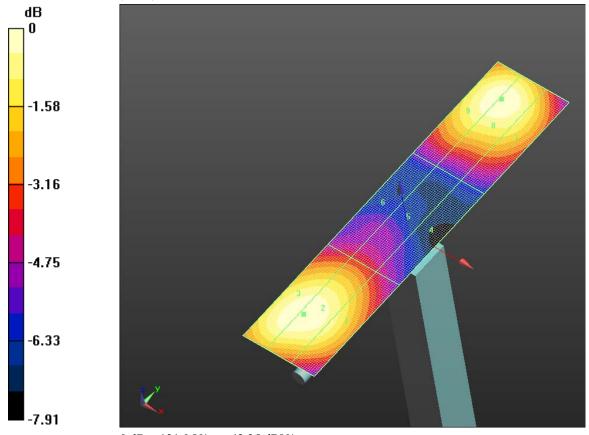
L6ARFR100LW

118.4 V/m	131.0 V/m	130.8 V/m
11001	10100 17111	1000 17111

Cursor:

Total = 131.0 V/mE Category: M2

Location: -3, 37.5, 4.7 mm



0 dB = 131.0 V/m = 42.35 dBV/m



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L6ARFR100LW

Date/Time: 6/3/2013 4:32:36 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_06_03_13

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

Communication System: UID 0 - n/a, CW; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test

(41x181x1): Interpolated grid: dx=0.5000 mm, dv=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 139.6 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 128.7 V/m

Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 M2	Grid 2 M2	Grid 3 M2
118.5 V/m	127.4 V/m	127.3 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
81.74 V/m	86.52 V/m	85.43 V/m
Grid 7 M2	Grid 8 M2	Grid 9 M2



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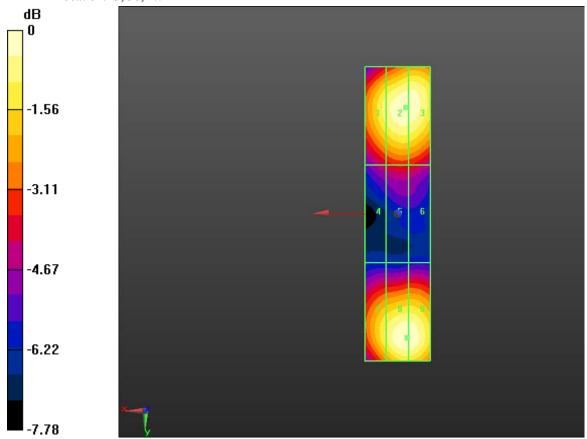
FCC ID L6ARFR100LW

115.5 V/m	128.7 V/m	128.6 V/m
115.5 V/m	128.7 V/m	128.6 V/n

Cursor:

Total = 128.7 V/m E Category: M2

Location: -3, 38, 4.7 mm



0 dB = 128.7 V/m = 42.19 dBV/m



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Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

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FCC ID L6ARFR100LW

Date/Time: 2/17/2012 3:04:25 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_UMTS1733 MHz_02_17_12

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

Communication System: WCDMA FDD IV, Communication System: CW, Communication

System: AM 80%; Frequency: 1732.6 MHz, Frequency: 1733 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - UMTS 1733_PMF/Hearing Aid

Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 50.62 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 45.31 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
38.99 V/m	40.35 V/m	39.86 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
28.58 V/m	29.21 V/m	28.30 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
42.57 V/m	45.31 V/m	44.53 V/m

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Author Data

Daoud Attayi

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RTS-6036-1304-53

L6ARFR100LW

FCC ID

Cursor:

Total = 45.306 V/m E Category: M4 Location: -1, 38, 4.7 mm

Dipole E-Field measurement/E Scan- CW 1733_PMF/Hearing Aid

Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 50.63 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 46.45 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
40.60 V/m	41.81 V/m	41.04 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
29.57 V/m	30.18 V/m	29.29 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
44.02 V/m	46.45 V/m	45.54 V/m

Cursor:

Total = 46.446 V/m E Category: M4 Location: -1, 38, 4.7 mm

Dipole E-Field measurement/E Scan - AM80%_ 1733_PMF/Hearing

Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 32.26 V/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 29.45 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
25.68 V/m	26.42 V/m	25.96 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4



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Author Data

Daoud Attayi

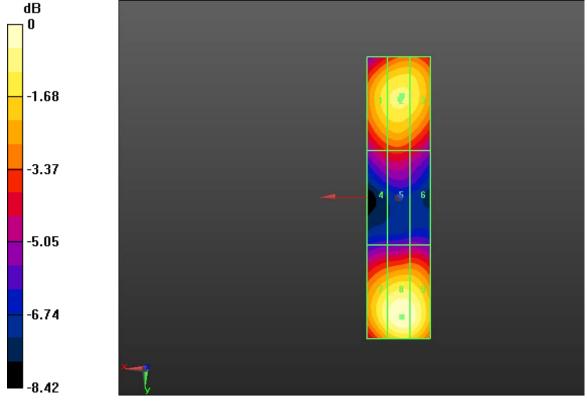
Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

18.91 V/m	19.39 V/m	18.52 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
27.45 V/m	29.45 V/m	28.94 V/m

Cursor:

Total = 29.451 V/m E Category: M4 Location: -1, 38, 4.7 mm



0 dB = 45.310V/m = 33.12 dB V/m



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Date/Time: 6/28/2012 12:54:33 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM1880 MHz_06_28_12

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

Communication System: GSM 1880, Communication System: CW, Communication System:

AM 80%; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012

• Sensor-Surface: (Fix Surface), z = 4.7

• Electronics: DAE3 Sn473; Calibrated: 1/13/2012

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA

• DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - GSM 1880_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 33.26 V/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 29.81 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
27.34 V/m	28.65 V/m	28.59 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
19.83 V/m	20.51 V/m	20.10 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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28.20 V/m 29.81 V/m 29.37 V/r

Cursor:

Total = 29.810 V/m E Category: M4

Location: -1, 38.5, 4.7 mm

Dipole E-Field measurement/E Scan- CW 1800_PMF/Hearing Aid

Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 95.34 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 84.88 V/m

Near-field category: M3 (AWF 0 dB)

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
78.80 V/m	82.95 V/m	82.43 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
56.84 V/m	58.53 V/m	56.53 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
80.11 V/m	84.88 V/m	83.31 V/m

Cursor:

Total = 84.885 V/m E Category: M3

Location: -0.5, 38.5, 4.7 mm

Dipole E-Field measurement/E Scan - AM80%_ 1880_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 60.62 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 53.60 V/m

Near-field category: M4 (AWF 0 dB)



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Author Data **Daoud Attayi**

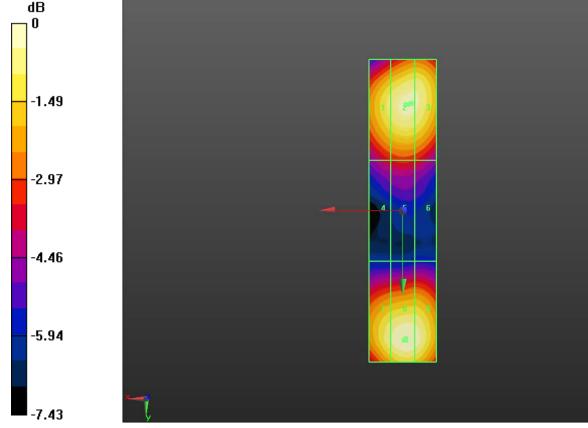
Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No RTS-6036-1304-53 FCC ID L6ARFR100LW

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
49.75 V/m	52.55 V/m	52.06 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
35.78 V/m	36.92 V/m	36.02 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
50.66 V/m	53.60 V/m	52.63 V/m

Cursor:

Total = 53.599 V/m E Category: M4 Location: -1, 38, 4.7 mm



0 dB = 29.810V/m = 29.49 dB V/m



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L6ARFR100LW

Date/Time: 2/17/2012 2:20:23 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_UMTS1880 MHz_02_17_12

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

Communication System: WCDMA FDD II, Communication System: CW, Communication

System: AM 80%; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - UMTS 1880_PMF/Hearing Aid

Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 47.02 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 42.43 V/m

Near-field category: M4 (AWF 0 dB)



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PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
37.98 V/m	39.42 V/m	39.04 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
26.86 V/m	27.50 V/m	26.70 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
39.63 V/m	42.43 V/m	41.87 V/m

Cursor:

Total = 42.427 V/m E Category: M4

Location: -1, 38, 4.7 mm

Dipole E-Field measurement/E Scan- CW 1800_PMF/Hearing Aid

Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 47.33 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 42.41 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
38.23 V/m	39.51 V/m	39.41 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
26.94 V/m	27.41 V/m	26.77 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
40.02 V/m	42.41 V/m	41.99 V/m



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Cursor:

Total = 42.409 V/m E Category: M4

Location: -1.5, 38, 4.7 mm

Dipole E-Field measurement/E Scan - AM80%_ 1880_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.18 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 27.40 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.40 V/m	25.26 V/m	24.95 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
17.20 V/m	17.65 V/m	17.12 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
25.54 V/m	27.40 V/m	27.02 V/m

Cursor:

Total = 27.402 V/m E Category: M4

Location: -1, 38, 4.7 mm



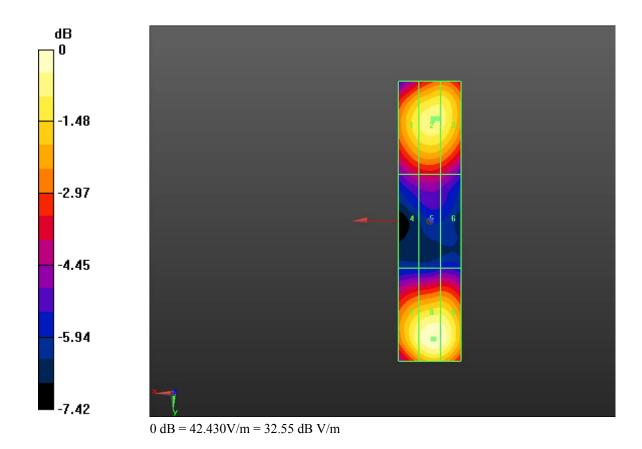
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Author Data **Daoud Attayi** Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

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Author Data

Daoud Attavi

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RTS-6036-1304-53

L6ARFR100LW

Date/Time: 4/24/2013 4:14:18 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_04_24_13

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

Communication System: CW; Frequency: 835 MHz Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 4.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid

Compatibility Test (41x181x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.5000 A/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4745 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.416 A/m	0.459 A/m	0.452 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.431 A/m	0.474 A/m	0.465 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data

Daoud Attayi

Pates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

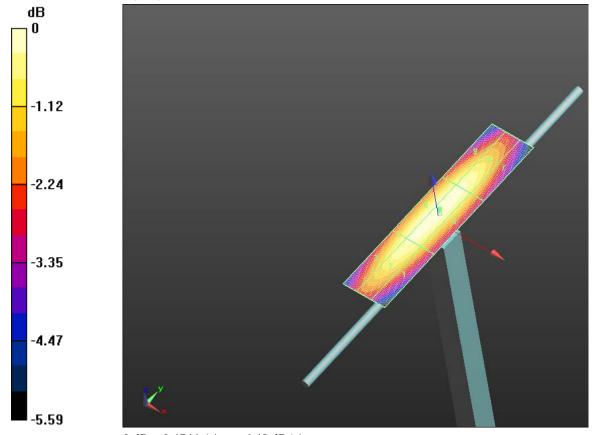
FCC ID L6ARFR100LW

	0.425 A/m	0.462 A/m	0.449 A/m
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Cursor:

Total = 0.4744 A/m H Category: M4

Location: -1.5, 2.5, 4.7 mm



0 dB = 0.4744 A/m = -6.48 dBA/m



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Author Data

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L6ARFR100LW

Date/Time: 6/28/2012 11:48:13 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: GSM 835 PMF, Communication System: CW, Communication

System: AM 80%; Frequency: 835 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan - GSM 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.16 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.15 A/m	0.16 A/m	0.15 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4



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Daoud Attayi

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0.16 A/m	0.16 A/m	0.16 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.15 A/m	0.16 A/m	0.15 A/m

Cursor:

Total = 0.163 A/m H Category: M4 Location: 0, 8.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid:

dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.28 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.47 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.44 A/m	0.46 A/m	0.44 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.45 A/m	0.47 A/m	0.45 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.45 A/m	0.47 A/m	0.44 A/m

Cursor:

Total = 0.471 A/m H Category: M4 Location: 0, 8, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_PMF/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm Device Reference Point: 0, 0, -6.3 mm Reference Value = 0.32 V/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.30 A/m

Near-field category: M4 (AWF 0 dB)



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Author Data

Daoud Attayi

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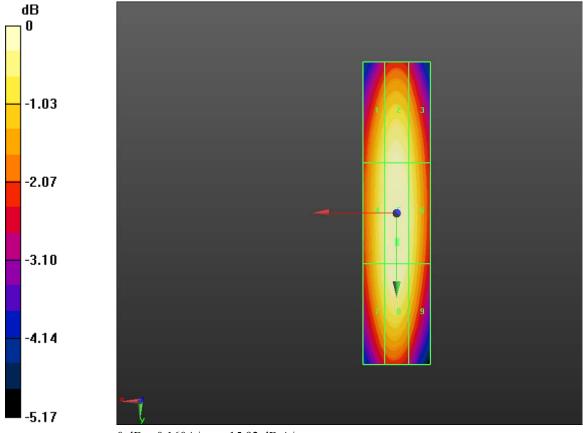
FCC ID L6ARFR100LW

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.28 A/m	0.29 A/m	0.28 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.29 A/m	0.30 A/m	0.29 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.29 A/m	0.30 A/m	0.28 A/m

Cursor:

Total = 0.304 A/m H Category: M4 Location: 0, 9, 4.7 mm



0 dB = 0.160 A/m = -15.92 dB A/m



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L6ARFR100LW

FCC ID

Date/Time: 2/17/2012 4:08:25 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_UMTS835 MHz_02_17_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: WCDMA FDD V, Communication System: CW, Communication

System: AM 80%; Frequency: 835 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011

• Sensor-Surface: (Fix Surface), z = 4.7

• Electronics: DAE3 Sn472; Calibrated: 3/7/2011

• Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA

• DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan - UMTS 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.19 V/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.18 A/m

Near-field category: M4 (AWF 0 dB)



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PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.16 A/m	0.17 A/m	0.16 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.17 A/m	0.18 A/m	0.17 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.17 A/m	0.18 A/m	0.17 A/m

Cursor:

Total = 0.181 A/m H Category: M4

Location: 0.5, 8.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid:

dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.11 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.20 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.17 A/m	0.19 A/m	0.18 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.18 A/m	0.20 A/m	0.19 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.18 A/m	0.19 A/m	0.18 A/m



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Author Data

Daoud Attayi

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Cursor:

Total = 0.197 A/m H Category: M4

Location: -0.5, 1, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_PMF/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.14 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.13 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.11 A/m	0.12 A/m	0.12 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.12 A/m	0.13 A/m	0.12 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.12 A/m	0.12 A/m	0.12 A/m

Cursor:

Total = 0.127 A/m H Category: M4

Location: 0, 1.5, 4.7 mm



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFR101LW Page

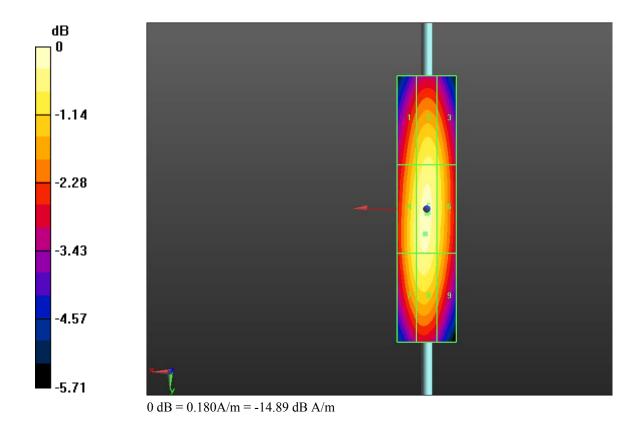
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Author Data **Daoud Attayi**

Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW





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Author Data

Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

L6ARFR100LW

Date/Time: 4/24/2013 4:30:53 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_04_24_13

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

Communication System: CW; Frequency: 1880 MHz Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 4.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid

Compatibility Test (41x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.5110 A/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4847 A/m

Near-field category: M2 (AWF 0 dB)

Grid 1 M2	Grid 2 M2	Grid 3 M2
0.427 A/m	0.473 A/m	0.467 A/m
Grid 4 M2	Grid 5 M2	Grid 6 M2
0.438 A/m	0.485 A/m	0.479 A/m
Grid 7 M2	Grid 8 M2	Grid 9 M2



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FCC ID L6ARFR100LW

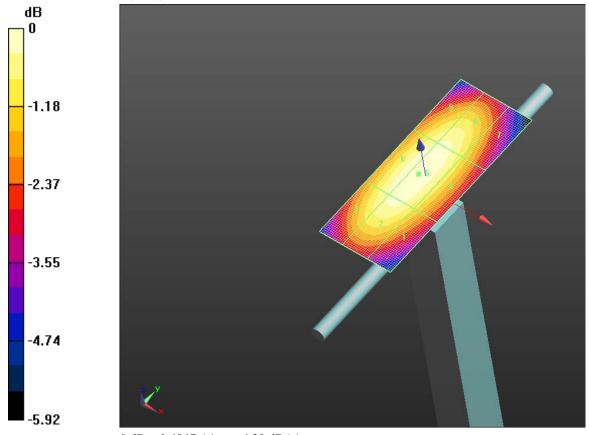
Report No **RTS-6036-1304-53**

0.427 A/m 0.470 A/m 0.463 A/m

Cursor:

Total = 0.4847 A/mH Category: M2

Location: -1.5, -0.5, 4.7 mm



0 dB = 0.4847 A/m = -6.29 dBA/m



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Author Data

Daoud Attayi

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L6ARFR100LW

Date/Time: 6/3/2013 4:49:38 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_06_03_13

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

Communication System: UID 0 - n/a, CW; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 11/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid

Compatibility Test (41x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.4670 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4465 A/m

Near-field category: M2 (AWF 0 dB)

Grid 1 M2	Grid 2 M2	Grid 3 M2
0.397 A/m	0.436 A/m	0.433 A/m
Grid 4 M2	Grid 5 M2	Grid 6 M2
0.406 A/m	0.447 A/m	0.443 A/m
Grid 7 M2	Grid 8 M2	Grid 9 M2



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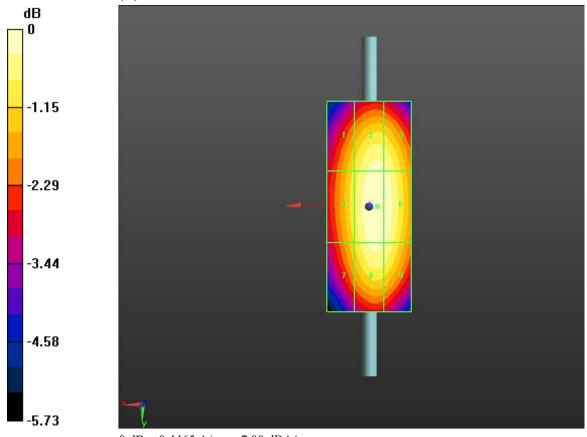
Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

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Cursor:

Total = 0.4465 A/m H Category: M2 Location: -2, 0, 4.7 mm



0 dB = 0.4465 A/m = -7.00 dBA/m



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Author Data

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Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

L6ARFR100LW

Date/Time: 2/17/2012 3:27:55 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_UMTS1733 MHz_02_17_12

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

Communication System: WCDMA FDD IV, Communication System: CW, Communication

System: AM 80%; Frequency: 1732.6 MHz, Frequency: 1733 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan -UMTS 1733_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m: Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.16 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.14 A/m	0.15 A/m	0.14 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.15 A/m	0.16 A/m	0.15 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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FCC ID L6ARFR100LW

0.14 A/m	0.15 A/m	0.14 A/m
----------	----------	----------

Cursor:

Total = 0.157 A/m H Category: M4 Location: 0, 0, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 1733_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement

grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m; Power Drift = -0.16 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.16 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.14 A/m	0.15 A/m	0.14 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.15 A/m	0.16 A/m	0.15 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.14 A/m	0.15 A/m	0.14 A/m

Cursor:

Total = 0.157 A/m H Category: M4

Location: -0.5, 0.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_1733_PMF/Hearing Aid Compatibility Test (41x101x1):

Measurement grid: dx=5mm, dy=5mm Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.11 V/m; Power Drift = -0.14 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.10 A/m

Near-field category: M4 (AWF 0 dB)



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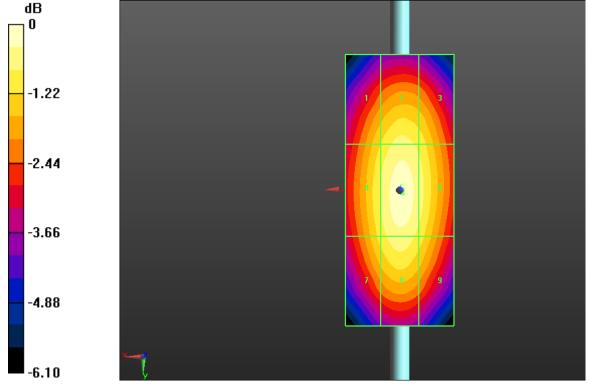
FCC ID L6ARFR100LW

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.09 A/m	0.10 A/m	0.09 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.09 A/m	0.10 A/m	0.10 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.09 A/m	0.10 A/m	0.09 A/m

Cursor:

Total = 0.100 A/m H Category: M4

Location: -0.5, 0, 4.7 mm



0 dB = 0.160 A/m = -15.92 dB A/m



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Author Data

Daoud Attayi

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Date/Time: 6/28/2012 12:25:06 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM1880 MHz_06_28_12

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

Communication System: GSM 1880 PMF, Communication System: CW, Communication

System: AM 80%; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan -GSM 1880_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.11 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.10 A/m	0.10 A/m	0.10 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4



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L6ARFR100LW

0.10 A/m	0.11 A/m	0.10 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.10 A/m	0.10 A/m	0.10 A/m

Cursor:

Total = 0.105 A/m H Category: M4 Location: 0, 0.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 1800_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement

grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.32 V/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.30 A/m

Near-field category: M3 (AWF 0 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.28 A/m	0.29 A/m	0.28 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.29 A/m	0.30 A/m	0.29 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.28 A/m	0.29 A/m	0.28 A/m

Cursor:

Total = 0.300 A/m H Category: M3 Location: 0, 1, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_1880_PMF/Hearing Aid Compatibility Test (41x101x1):

Measurement grid: dx=5mm, dy=5mm Device Reference Point: 0, 0, -6.3 mm Reference Value = 0.21 V/m; Power Drift = 0.02 dB PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.19 A/m

Near-field category: M3 (AWF 0 dB)



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Daoud Attayi

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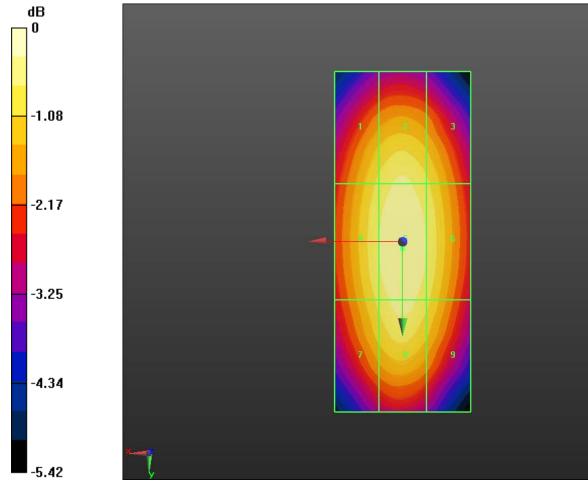
PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.18 A/m	0.19 A/m	0.18 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M4
0.19 A/m	0.19 A/m	0.19 A/m
Grid 7 M4	Grid 8 M3	Grid 9 M4
0.18 A/m	0.19 A/m	0.18 A/m

Cursor:

Total = 0.194 A/m H Category: M3

Location: 0, 0.5, 4.7 mm



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L6ARFR100LW

0 dB = 0.110 A/m = -19.17 dB A/m

Date/Time: 2/17/2012 3:56:44 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_UMTS1880 MHz_02_17_12

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

Communication System: WCDMA FDD II, Communication System: CW, Communication

System: AM 80%; Frequency: 1880 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan -UMTS 1880_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.16 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.15 A/m

Near-field category: M4 (AWF 0 dB)



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PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.14 A/m	0.14 A/m	0.14 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.14 A/m	0.15 A/m	0.14 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.14 A/m	0.15 A/m	0.14 A/m

Cursor:

Total = 0.150 A/m H Category: M4 Location: 0, 0.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 1880_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement

grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.16 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.15 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.14 A/m	0.14 A/m	0.14 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.14 A/m	0.15 A/m	0.14 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.14 A/m	0.15 A/m	0.14 A/m



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Daoud Attayi

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Cursor:

Total = 0.149 A/m H Category: M4 Location: 0, 0.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_1880_PMF/Hearing Aid Compatibility Test (41x101x1):

Measurement grid: dx=5mm, dy=5mm Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.10 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.10 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.09 A/m	0.09 A/m	0.09 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.09 A/m	0.10 A/m	0.09 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.09 A/m	0.09 A/m	0.09 A/m

Cursor:

Total = 0.096 A/m H Category: M4 Location: 0, 0, 4.7 mm



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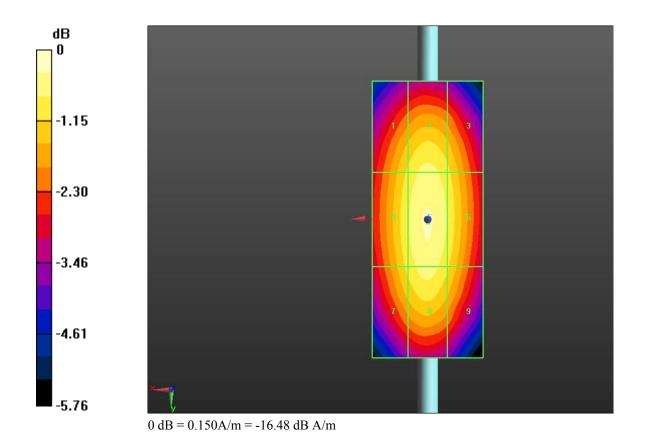
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Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

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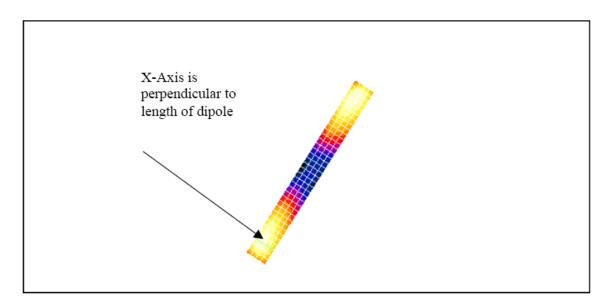
Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013

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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.



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Report No

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FCC ID

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: σ = 0 mho/m, $\varepsilon_{\rm f}$ = 1; ρ = 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 7		
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
М3	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



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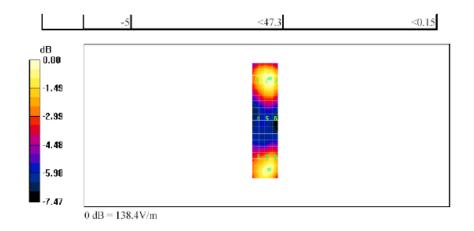
Daoud Attayi

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FCC ID L6ARFR100LW

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

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Author Data Daoud Attavi Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

Report No

L6ARFR100LW

FCC ID

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, $\epsilon_c = 1$; $\rho = 1000 \text{ kg/m}^3$ 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 6	Grid 4	Grid 5	Grid 6
81.4	92.1	91.6	81.4	92.1	91.6
		Grid 9	Grid 7		
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



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Author Data

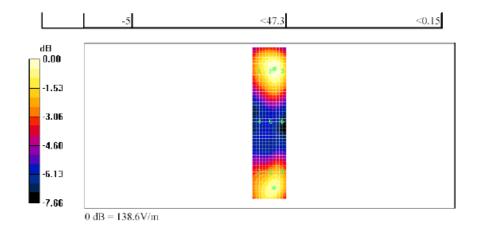
Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

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

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Author Data Daoud Attayi Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013

Report No RTS-6036-1304-53

FCC ID L6ARFR100LW

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Date/Time: 14/07/2005 12:43:02 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_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, $\varepsilon_r = 1$; $\rho = 1$ kg/m³

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 SN6105; ; 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

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

Measurement grid: dx=5mm, dy=5mm

Maximum value of Total (measured) = 0.406 A/m

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

Measurement grid: dx=5mm, dy=5mm

Maximum value of Total field (slot averaged) = 0.406 A/m Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged) H in A/m (Slot averaged)

Grid 2 0.359		Grid 1 0.342	
Grid 5 0.406		Grid 4 0.389	
Grid 8 0.378		Grid 7 0.363	

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
М3	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

Daoud Attayi

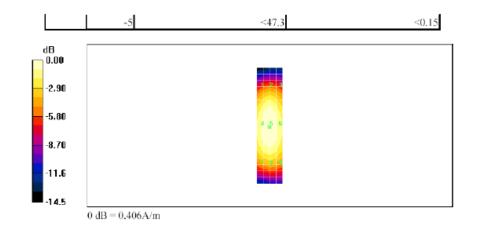
Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

L6ARFR100LW

FCC ID

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Author Data

Daoud Attayi

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Report No

L6ARFR100LW

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Date/Time: 14/07/2005 12:53:40 PM Page 1 of 2

Date/Time: 14/07/2005 12:53:40 PM

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_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, $\varepsilon_{\rm r} = 1$; $\rho = 1$ kg/m³

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 SN6105; ; 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

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

Measurement grid: dx=2mm, dy=2mm

Maximum value of Total (measured) = 0.406 A/m

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

Measurement grid: dx=2mm, dy=2mm

Maximum value of Total field (slot averaged) = 0.406 A/m

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

H in A/m (Time averaged) H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3
0.347	0.361	0.348
Grid 4	Grid 5	Grid 6
0.394	0.406	0.391
Grid 7	Grid 8	Grid 9
0.367	0.380	0.365

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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69 (125)

Author Data

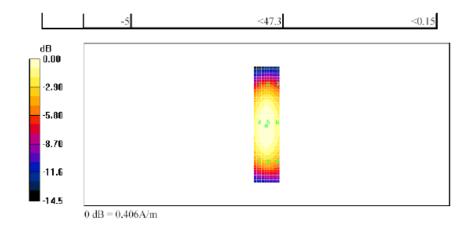
Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

Date/Time: 14/07/2005 12:53:40 PM

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A.3 RF emission field plots



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Author Data

Daoud Attavi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/22/2013 3:15:45 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8

MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to 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 = 75.81 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 194.1 V/m

Near-field category: M3 (AWF -5 dB)

Grid 1 M4	Grid 2 M3	Grid 3 M3
149.1 V/m	177.3 V/m	177.3 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
163.3 V/m	194.1 V/m	194.0 V/m



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Grid 7 M3	Grid 8 M3	Grid 9 M3
175.2 V/m	195.9 V/m	195.6 V/m

Cursor:

Total = 195.9 V/m E Category: M3

Location: -7, 16, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 84.05 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 222.8 V/m

Near-field category: M3 (AWF -5 dB)

Grid 1 M3 159.3 V/m	Grid 2 M3 197.4 V/m	Grid 3 M3 197.6 V/m
Grid 4 M3 181.1 V/m	Grid 5 M3 222.8 V/m	Grid 6 M3 222.8 V/m
Grid 7 M3 198.7 V/m	Grid 8 M3 227.1 V/m	Grid 9 M3 227.0 V/m



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Cursor:

Total = 227.1 V/m E Category: M3 Location: -8, 16, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 83.08 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 220.8 V/m

Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
162.3 V/m	199.6 V/m	199.8 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
178.2 V/m	220.8 V/m	220.8 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
187.8 V/m	223.1 V/m	223.1 V/m

Cursor:

Total = 223.1 V/m E Category: M3

Location: -9, 15, 8.7 mm



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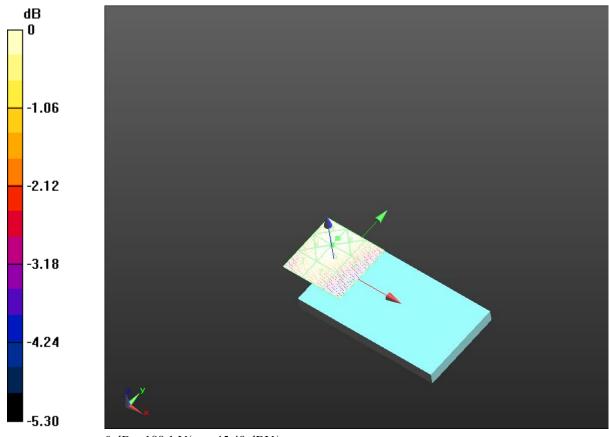
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Author Data **Daoud Attayi**

Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

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0 dB = 188.1 V/m = 45.49 dBV/m



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Author Data

Daoud Attavi

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L6ARFR100LW

Date/Time: 3/22/2013 3:28:10 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: GSM 850; Frequency: 836.8 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 83.22 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 191.6 V/m

Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
131.6 V/m	156.3 V/m	156.2 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
153.3 V/m	191.6 V/m	191.6 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
176.3 V/m	220.1 V/m	220.1 V/m

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Author Data **Daoud Attayi**

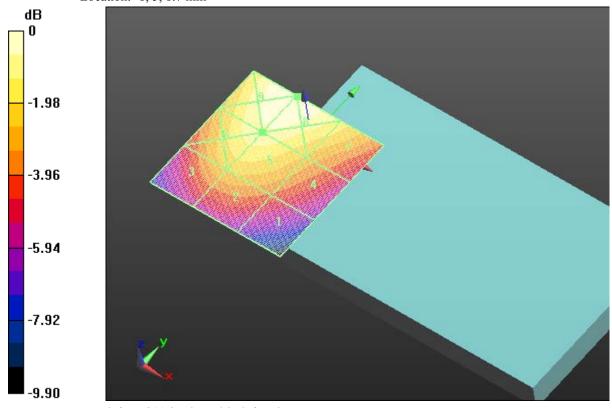
Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

Report No **RTS-6036-1304-53**

L6ARFR100LW

Cursor:

Total = 220.1 V/mE Category: M3 Location: -8, 5, 8.7 mm



0 dB = 211.3 V/m = 46.50 dBV/m



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Daoud Attayi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/22/2013 3:44:10 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD V; Frequency: 826.4 MHz, Frequency: 836.4 MHz, Frequency:

846.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to 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 = 72.64 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 67.52 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
51.25 V/m	61.02 V/m	61.01 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
57.57 V/m	67.52 V/m	67.43 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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FCC ID

62.24 V/m 68.82 V/m 68.46 V/m

Cursor:

Total = 68.82 V/m E Category: M4

Location: -6.5, 18, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 78.87 V/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 73.49 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
53.70 V/m	65.78 V/m	65.80 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
60.84 V/m	73.49 V/m	73.48 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
66.84 V/m	75.40 V/m	75.17 V/m

Cursor:

Total = 75.40 V/m E Category: M4

Location: -6.5, 19.5, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 78.41 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 73.36 V/m

Near-field category: M4 (AWF 0 dB)



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Author Data

Daoud Attayi

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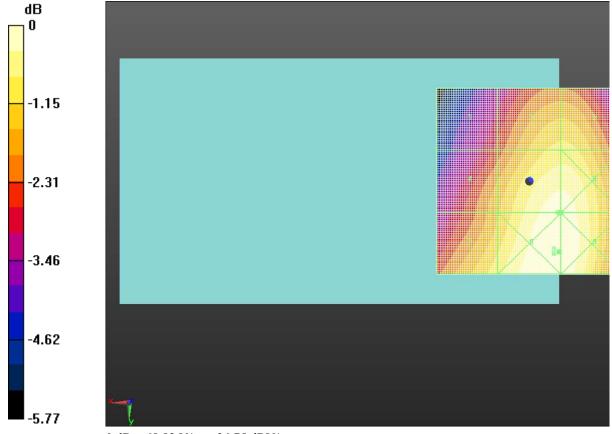
L6ARFR100LW

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
55.22 V/m	66.59 V/m	66.63 V/m
Grid 4 M4 61.14 V/m	Grid 5 M4 73.36 V/m	Grid 6 M4 73.36 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
65.83 V/m	74.52 V/m	74.51 V/m

Cursor:

Total = 74.52 V/m E Category: M4 Location: -8, 19, 8.7 mm



0 dB = 68.82 V/m = 36.75 dBV/m



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Author Data

Daoud Attavi

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RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/22/2013 4:02:20 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD V; Frequency: 836.4 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 77.75 V/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 63.99 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 44.49 V/m	Grid 2 M4 52.28 V/m	Grid 3 M4 52.28 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
51.78 V/m	63.99 V/m	63.99 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data

Daoud Attayi

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L6ARFR100LW

FCC ID

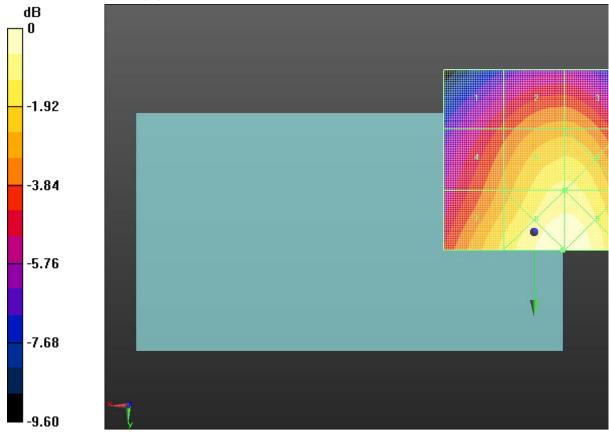
59.38 V/m

72.39 V/m

72.37 V/m

Cursor:

Total = 72.39 V/m E Category: M4 Location: -8, 5, 8.7 mm



0 dB = 72.39 V/m = 37.19 dBV/m



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Daoud Attavi

Dates of Tes

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L6ARFR100LW

Date/Time: 6/4/2013 9:03:57 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_IV-

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB035D0

Communication System: UID 0 - n/a, WCDMA FDD IV; Frequency: 1712.4 MHz, Frequency: 1732.6

MHz, Frequency: 1752.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to 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 = 13.82 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 16.49 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
15.96 V/m	14.36 V/m	11.61 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
12.75 V/m	16.49 V/m	16.77 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

Daoud Attavi

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

FCC ID

15.28 V/m 20.85 V/m 20.85 V/m

Cursor:

Total = 20.85 V/m E Category: M4

Location: -9, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 13.89 V/m; Power Drift = -0.10 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 16.36 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
15.84 V/m	14.40 V/m	11.55 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
12.68 V/m	16.36 V/m	16.62 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
15.23 V/m	20.82 V/m	20.82 V/m

Cursor:

Total = 20.82 V/m E Category: M4

Location: -8, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 13.28 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 17.20 V/m

Near-field category: M4 (AWF 0 dB)



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Daoud Attayi

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FCC ID L6ARFR100LW

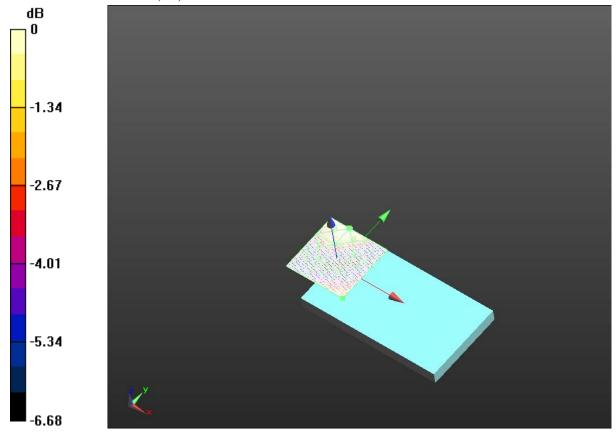
PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
17.20 V/m	15.34 V/m	12.48 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
13.72 V/m	16.79 V/m	17.28 V/m
Grid 7 M4 15.60 V/m	Grid 8 M4 22.24 V/m	Grid 9 M4 22.27 V/m

Cursor:

Total = 22.27 V/m E Category: M4

Location: -9.5, 25, 8.7 mm



0 dB = 20.85 V/m = 26.38 dBV/m



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RTS-6036-1304-53

L6ARFR100LW

Date/Time: 6/4/2013 9:14:58 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_IV-_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB035D0

Communication System: UID 0 - n/a, WCDMA FDD IV; Frequency: 1752.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 13.24 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 16.38 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
18.02 V/m	17.43 V/m	14.27 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
17.62 V/m	16.38 V/m	13.23 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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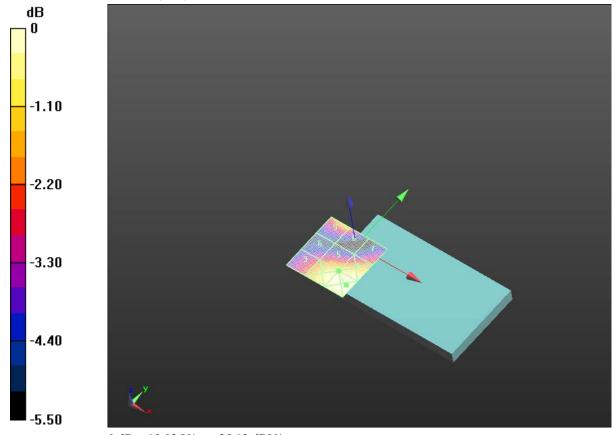
FCC ID L6ARFR100LW

14.21 V/m 15.26 V/m 15.72 V/m

Cursor:

Total = 18.02 V/m E Category: M4

Location: 20.5, -35, 8.7 mm



0 dB = 18.02 V/m = 25.12 dBV/m



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L6ARFR100LW

Date/Time: 6/3/2013 5:56:09 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900-Rev 2-05

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2FFFB6AF

Communication System: UID 0 - n/a, GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz,

Frequency: 1909.8 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to 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 = 12.46 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 57.93 V/m

Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M4
57.93 V/m	57.17 V/m	43.51 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
43.62 V/m	53.91 V/m	56.97 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3

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FCC ID L6ARFR100LW

43.82 V/m 72.77 V/m 73.32 V/m

Cursor:

Total = 73.32 V/m E Category: M3

Location: -10.5, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 13.02 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 56.98 V/m

Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M4
56.98 V/m	56.63 V/m	45.21 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
42.66 V/m	52.30 V/m	55.17 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
41.96 V/m	69.35 V/m	69.68 V/m

Cursor:

Total = 69.68 V/m E Category: M3

Location: -10, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 12.61 V/m; Power Drift = -0.17 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 61.05 V/m

Near-field category: M3 (AWF -5 dB)



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FCC ID L6ARFR100LW

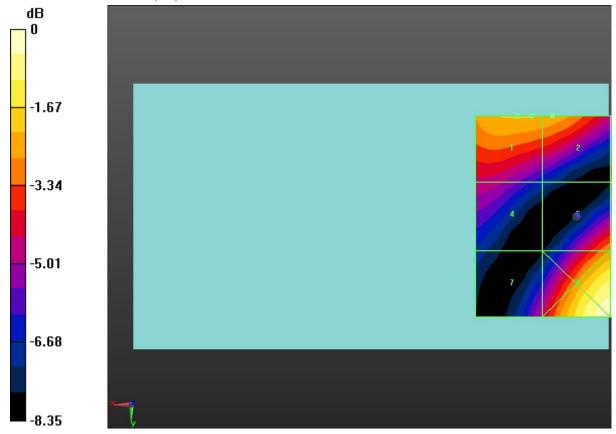
PMF scaled E-field

Grid 1 M3 60.83 V/m	Grid 2 M3 61.05 V/m	Grid 3 M3 52.29 V/m
Grid 4 M4 45.97 V/m	Grid 5 M3 51.96 V/m	Grid 6 M3 55.69 V/m
Grid 7 M4 39.24 V/m	Grid 8 M3 72.73 V/m	Grid 9 M3 73.52 V/m

Cursor:

Total = 73.52 V/m E Category: M3

Location: -11, 25, 8.7 mm



0 dB = 74.12 V/m = 37.40 dBV/m



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L6ARFR100LW

Date/Time: 6/3/2013 6:08:17 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900-Rev 2-05

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2FFFB6AF

Communication System: UID 0 - n/a, GSM 1900; Frequency: 1850.2 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 12.57 V/m; Power Drift = -0.31 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 62.98 V/m

Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
62.98 V/m	62.47 V/m	47.76 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M4
61.71 V/m	61.32 V/m	45.03 V/m
Grid 7 M3	Grid 8 M4	Grid 9 M3

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March 22-June 04, 2013

Report No **RTS-6036-1304-53**

L6ARFR100LW

FCC ID

48.19 V/m

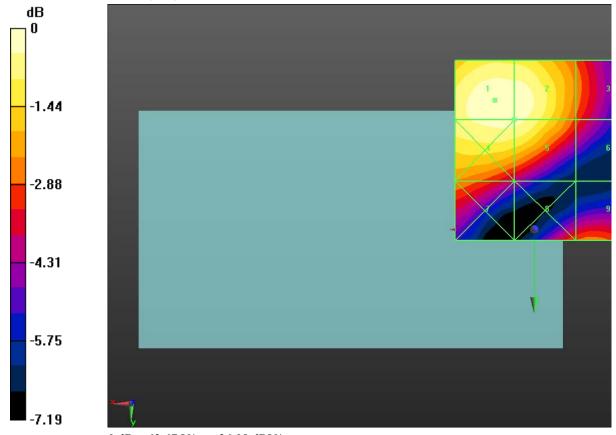
45.89 V/m

47.37 V/m

Cursor:

Total = 62.98 V/m E Category: M3

Location: 11, -36, 8.7 mm



0 dB = 63.67 V/m = 36.08 dBV/m



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Date/Time: 3/22/2013 4:17:46 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz, Frequency: 1880 MHz, Frequency:

1907.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to 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 = 22.94 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 35.99 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 34.11 V/m	Grid 2 M4 34.40 V/m	Grid 3 M4 30.98 V/m
Grid 4 M4 23.65 V/m	Grid 5 M4 35.99 V/m	Grid 6 M4 38.49 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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FCC ID L6ARFR100LW

27.94 V/m 48.61 V/m 49.13 V/m

Cursor:

Total = 49.12 V/m E Category: M4

Location: -11, 24.5, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 24.24 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 32.50 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
31.25 V/m	32.50 V/m	30.83 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
21.44 V/m	32.32 V/m	35.14 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
24.28 V/m	43.21 V/m	44.02 V/m

Cursor:

Total = 44.02 V/m E Category: M4

Location: -11.5, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 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 = 25.41 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 33.47 V/m

Near-field category: M4 (AWF 0 dB)



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FCC ID L6ARFR100LW

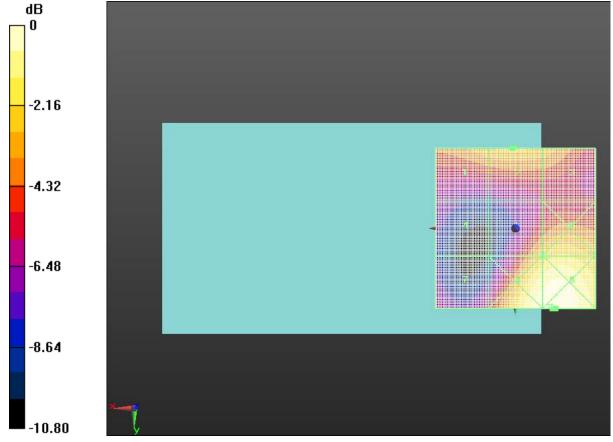
PMF scaled E-field

Grid 1 M4 32.36 V/m	Grid 2 M4 33.47 V/m	Grid 3 M4 32.17 V/m
Grid 4 M4 22.35 V/m	Grid 5 M4 32.96 V/m	Grid 6 M4 35.49 V/m
Grid 7 M4 24.87 V/m	Grid 8 M4 42.47 V/m	Grid 9 M4 43.42 V/m

Cursor:

Total = 43.42 V/m E Category: M4

Location: -12.5, 25, 8.7 mm



0 dB = 49.12 V/m = 33.83 dBV/m



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Date/Time: 3/22/2013 4:37:58 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 23.09 V/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 37.35 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
39.50 V/m	39.99 V/m	35.82 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
37.03 V/m	37.35 V/m	33.38 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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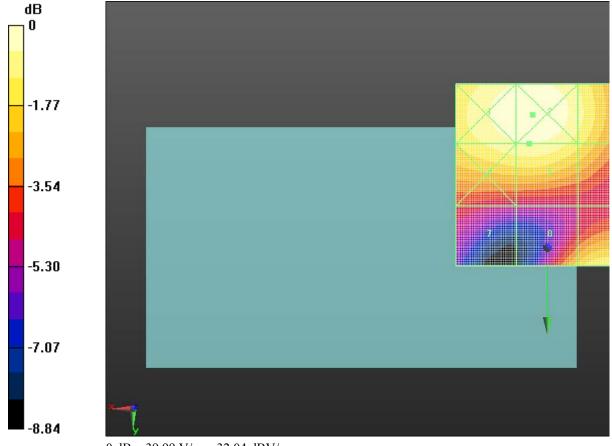
FCC ID L6ARFR100LW

25.00 V/m 31.95 V/m 35.14 V/m

Cursor:

Total = 39.99 V/m E Category: M4

Location: 4, -36.5, 8.7 mm



0 dB = 39.99 V/m = 32.04 dBV/m



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Date/Time: 3/22/2013 5:41:34 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8

MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1610 A/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.4894 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M4	Grid 3 M4
0.455 A/m	0.367 A/m	0.334 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.473 A/m	0.489 A/m	0.464 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3

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FCC ID L6ARFR100LW

0.627 A/m 0.654 A/m 0.592 A/m

Cursor:

Total = 0.6540 A/m H Category: M3 Location: 1, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1670 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.4962 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M4	Grid 3 M4
0.491 A/m	0.394 A/m	0.346 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.488 A/m	0.496 A/m	0.464 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.639 A/m	0.653 A/m	0.585 A/m



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Author Data

Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

FCC ID L6ARFR100LW

Cursor:

Total = 0.6529 A/m H Category: M3

Location: 1.5, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1670 A/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.5164 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M4	Grid 3 M4
0.490 A/m	0.398 A/m	0.347 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.510 A/m	0.516 A/m	0.475 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.670 A/m	0.678 A/m	0.604 A/m

Cursor:

Total = 0.6784 A/m H Category: M3

Location: 1.5, 25, 8.7 mm



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFR101LW Page

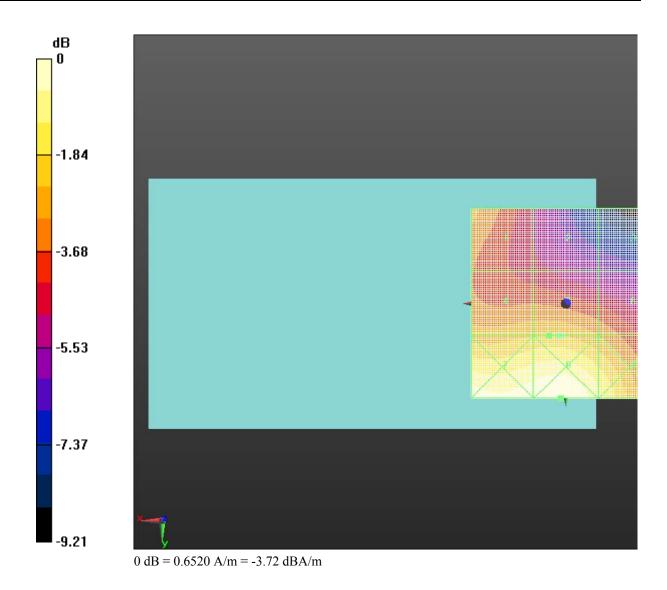
100 (125)

Author Data **Daoud Attayi**

Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW





Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFR101LW

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Author Data

Daoud Attavi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/22/2013 5:53:04 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: GSM 850; Frequency: 848.8 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 0.1670 A/m; Power Drift = 0.03 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.4964 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M4	Grid 3 M4
0.496 A/m	0.376 A/m	0.254 A/m
Grid 4 M3	Grid 5 M4	Grid 6 M4
0.494 A/m	0.386 A/m	0.327 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M4



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Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

0.477 A/m

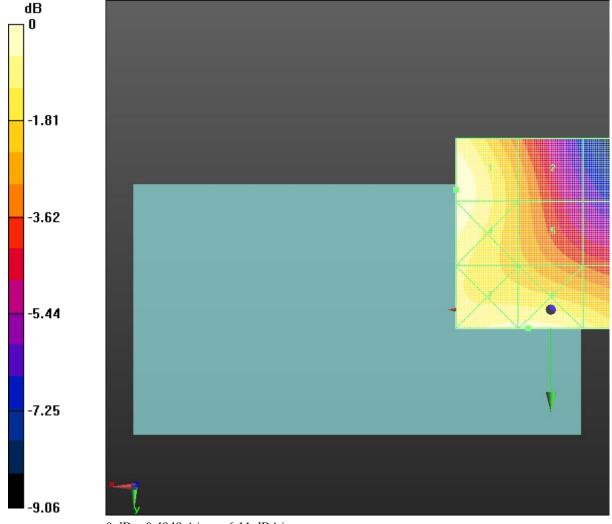
0.478 A/m

0.447 A/m

Cursor:

Total = 0.4964 A/m H Category: M3

Location: 25, -31.5, 8.7 mm





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Author Data

Daoud Attayi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/22/2013 6:04:45 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD V; Frequency: 826.4 MHz, Frequency: 836.4 MHz, Frequency:

846.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1540 A/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1770 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.166 A/m	0.136 A/m	0.124 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.174 A/m	0.177 A/m	0.169 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

Daoud Attayi

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RTS-6036-1304-53

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0.228 A/m | 0.229 A/m | 0.209 A/m

Cursor:

Total = 0.2293 A/m H Category: M4

Location: 2.5, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_mid_chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.1560 A/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1792 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.176 A/m	0.141 A/m	0.124 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.179 A/m	0.171 A/m	0.160 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.248 A/m	0.216 A/m	0.184 A/m



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Author Data

Daoud Attayi

Feb. 17, June 28, 2012

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RTS-6036-1304-53

FCC ID L6ARFR100LW

Cursor:

Total = 0.2479 A/m H Category: M4

Location: 25, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_high_chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.1540 A/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1864 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.186 A/m	0.145 A/m	0.123 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.186 A/m	0.170 A/m	0.159 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.255 A/m	0.217 A/m	0.182 A/m

Cursor:

Total = 0.2546 A/m H Category: M4

Location: 25, 25, 8.7 mm



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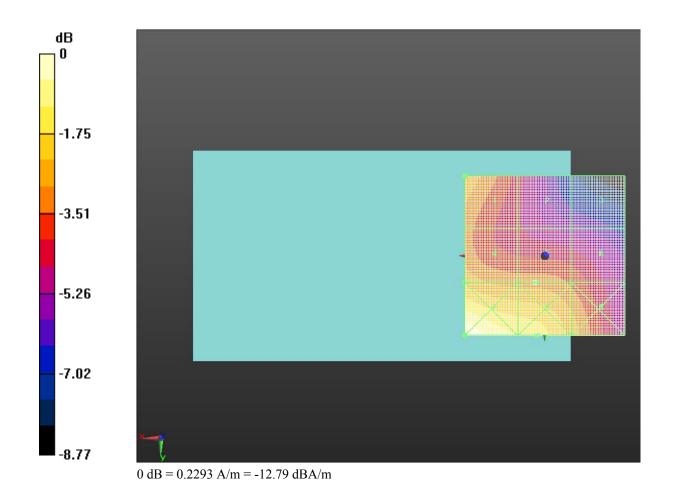
106 (125)

Author Data **Daoud Attayi** Dates of Test **Feb. 17, June 28, 2012**

March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW





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Author Data

Daoud Attavi

Feb. 17, June 28, 2012 March 22-June 04, 2013

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L6ARFR100LW

Date/Time: 3/22/2013 6:19:47 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD V; Frequency: 846.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 0.1540 A/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1894 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.189 A/m	0.146 A/m	0.095 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.188 A/m	0.146 A/m	0.116 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

0.176 A/m

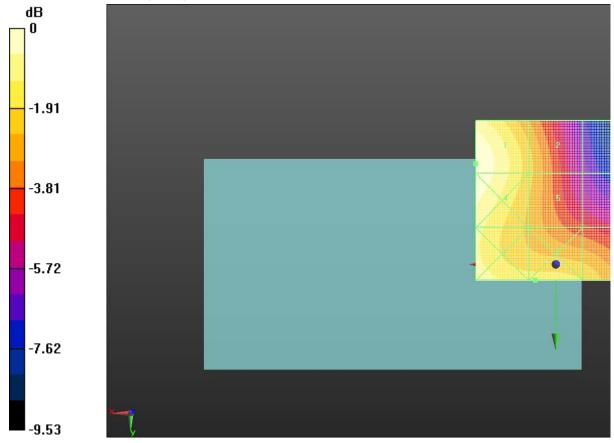
0.159 A/m

0.152 A/m

Cursor:

Total = 0.1894 A/m H Category: M4

Location: 25, -31.5, 8.7 mm



0 dB = 0.1894 A/m = -14.45 dBA/m



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Author Data

Daoud Attayi

Dates of Tes

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 6/4/2013 9:27:21 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_IV

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB035D0

Communication System: UID 0 - n/a, WCDMA FDD IV; Frequency: 1712.4 MHz, Frequency: 1732.6

MHz, Frequency: 1752.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.04000 A/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.03908 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.039 A/m	0.038 A/m	0.036 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.036 A/m	0.037 A/m	0.036 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data

Daoud Attayi

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RTS-6036-1304-53

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0.041 A/m | 0.037 A/m | 0.030 A/m

Cursor:

Total = 0.04150 A/m H Category: M4 Location: 25, 25, 8.7 mm

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.05200 A/m; Power Drift = -0.16 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.04848 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.047 A/m	0.048 A/m	0.047 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.045 A/m	0.048 A/m	0.046 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.050 A/m	0.044 A/m	0.039 A/m



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Author Data

Daoud Attayi

Feb. 17, June 28, 2012 March 22-June 04, 2013

RTS-6036-1304-53

FCC ID L6ARFR100LW

Cursor:

Total = 0.05032 A/m H Category: M4

Location: 25, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_high_chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.06000 A/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.05522 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.052 A/m	0.055 A/m	0.054 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.051 A/m	0.055 A/m	0.054 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.056 A/m	0.051 A/m	0.047 A/m

Cursor:

Total = 0.05611 A/m H Category: M4

Location: 25, 25, 8.7 mm



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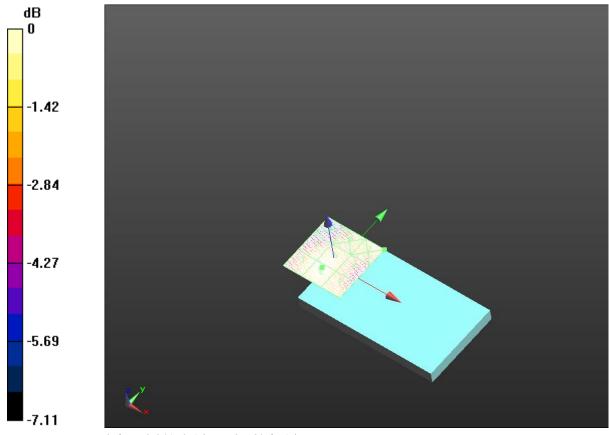
112 (125)

Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

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0 dB = 0.04150 A/m = -27.64 dBA/m



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Author Data

Daoud Attavi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 6/4/2013 9:45:08 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_IV_telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB035D0

Communication System: UID 0 - n/a, WCDMA FDD IV; Frequency: 1752.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 0.05900 A/m; Power Drift = 0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.05454 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.053 A/m	0.050 A/m	0.046 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.052 A/m	0.055 A/m	0.052 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data **Daoud Attayi**

Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

0.051 A/m

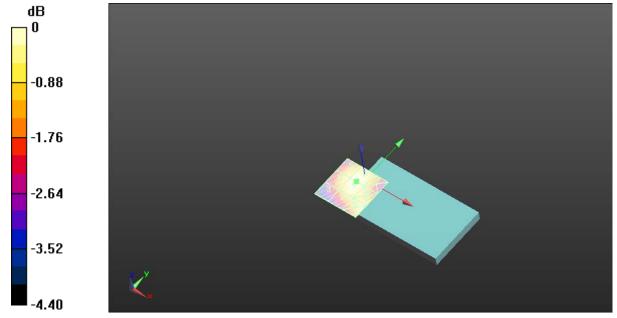
0.055 A/m

0.052 A/m

Cursor:

Total = 0.05454 A/mH Category: M4

Location: -1, -11, 8.7 mm





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Author Data

Daoud Attavi

Dates of Tes

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 6/3/2013 5:10:33 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900-Rev 2-05

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2FFFB6AF

Communication System: UID 0 - n/a, GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz,

Frequency: 1909.8 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

• Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.06700 A/m; Power Drift = -0.11 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1706 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.160 A/m	0.171 A/m	0.169 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.144 A/m	0.170 A/m	0.168 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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Author Data

Daoud Attayi

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RTS-6036-1304-53

L6ARFR100LW

FCC ID

0.184 A/m 0.176 A/m 0.146 A/m

Cursor:

Total = 0.1836 A/m H Category: M3

Location: 16, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.07000 A/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1759 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.176 A/m	0.176 A/m	0.171 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.156 A/m	0.176 A/m	0.171 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.188 A/m	0.180 A/m	0.154 A/m

Cursor:

Total = 0.1878 A/m H Category: M3

Location: 20, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.08000 A/m; Power Drift = 0.11 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1978 A/m

Near-field category: M3 (AWF -5 dB)



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Author Data

Daoud Attayi

Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

L6ARFR100LW

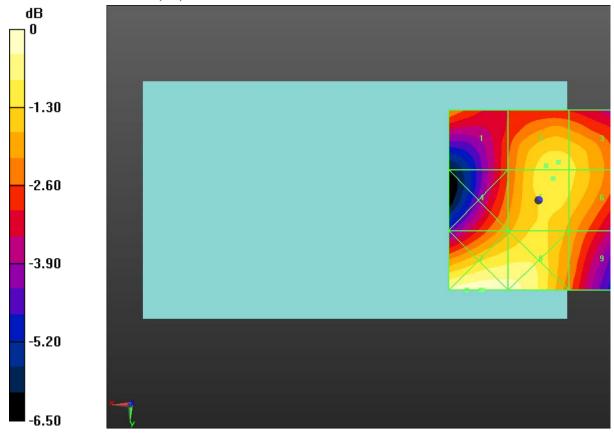
PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.171 A/m	0.197 A/m	0.193 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.178 A/m	0.198 A/m	0.193 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.218 A/m	0.214 A/m	0.177 A/m

Cursor:

Total = 0.2184 A/m H Category: M3

Location: 15.5, 25, 8.7 mm



0 dB = 0.1849 A/m = -14.66 dBA/m



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Author Data

Daoud Attayi

Dates of Tes

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 6/3/2013 5:31:04 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900-Rev 2-05_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2FFFB6AF

Communication System: UID 0 - n/a, GSM 1900; Frequency: 1909.8 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 0.08100 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1928 A/m

Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M4
0.193 A/m	0.148 A/m	0.133 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.186 A/m	0.189 A/m	0.181 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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Author Data **Daoud Attayi** Dates of Test **Feb. 17, June 28, 2012**

March 22-June 04, 2013

Report No **RTS-6036-1304-53**

FCC ID L6ARFR100LW

0.180 A/m

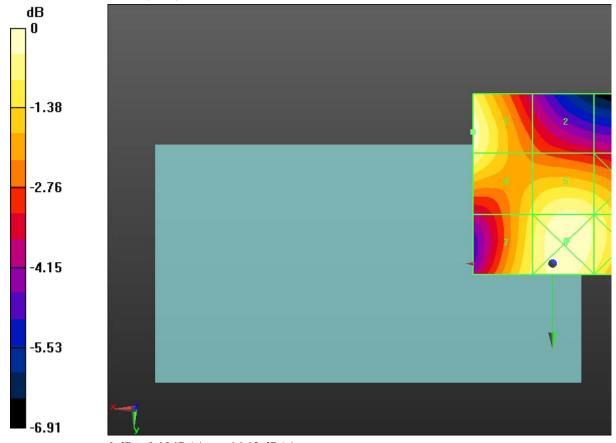
0.195 A/m

0.185 A/m

Cursor:

Total = 0.1953 A/mH Category: M3

Location: -4, -6.5, 8.7 mm



0 dB = 0.1967 A/m = -14.12 dBA/m



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Author Data

Daoud Attavi

Dates of Tes

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/23/2013 12:24:38 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz, Frequency: 1880 MHz, Frequency:

1907.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1200 A/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.1079 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.108 A/m	0.105 A/m	0.103 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.093 A/m	0.105 A/m	0.103 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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RTS-6036-1304-53

FCC ID L6ARFR100LW

Cursor:

Total = 0.1079 A/m H Category: M4

Location: 25, -25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 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 = 0.1070 A/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.1020 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.101 A/m	0.092 A/m	0.090 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.082 A/m	0.092 A/m	0.090 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.102 A/m	0.099 A/m	0.082 A/m



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Author Data

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Dates of Test **Feb. 17, June 28, 2012**

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FCC ID L6ARFR100LW

Cursor:

Total = 0.1020 A/m H Category: M4

Location: 19.5, 25, 8.7 mm

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_high_chan/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.1120 A/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.1070 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.107 A/m	0.099 A/m	0.096 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.089 A/m	0.098 A/m	0.096 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.105 A/m	0.100 A/m	0.086 A/m

Cursor:

Total = 0.1070 A/m H Category: M4

Location: 25, -25, 8.7 mm



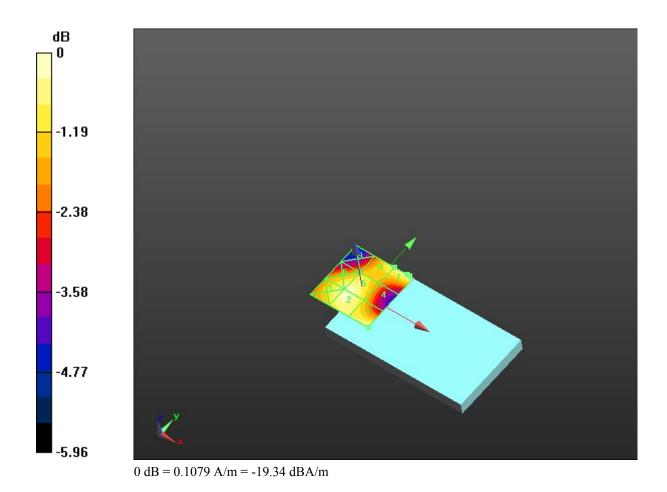
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Author Data **Daoud Attayi**

Dates of Test **Feb. 17, June 28, 2012** March 22-June 04, 2013 Report No **RTS-6036-1304-53**

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Author Data

Daoud Attavi

Dates of Test

Feb. 17, June 28, 2012 March 22-June 04, 2013 RTS-6036-1304-53

L6ARFR100LW

Date/Time: 3/23/2013 12:56:54 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2AB04D29

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz

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

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

Probe: H3DV6 - SN6105; ; Calibrated: 11/9/2012

• Sensor-Surface: (Fix Surface), z = 8.7

• Electronics: DAE4 Sn881; Calibrated: 1/14/2013

Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: Not Specified

• DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/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 = 0.1130 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.1003 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.118 A/m	0.100 A/m	0.086 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.114 A/m	0.100 A/m	0.098 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Dates of Test Feb. 17, June 28, 2012 March 22-June 04, 2013 Report No **RTS-6036-1304-53**

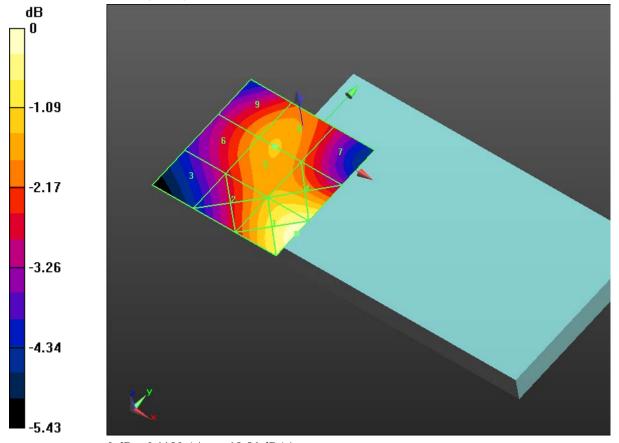
FCC ID L6ARFR100LW

0.093 A/m | 0.100 A/m | 0.098 A/m

Cursor:

Total = 0.1180 A/m H Category: M4

Location: 25, -34.5, 8.7 mm



0 dB = 0.1180 A/m = -18.56 dBA/m