

Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFM121LW

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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013 RTS-6026-1304-09

L6ARFM120LW

Annex A: Measurement data and plots

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



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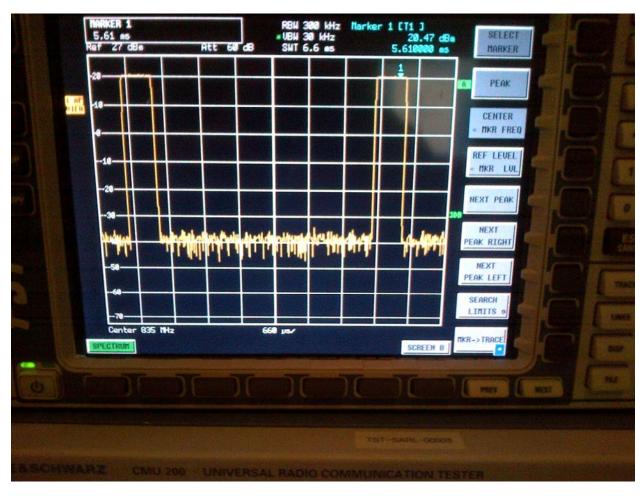
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Daoud Attayi

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GSM 835 MHz



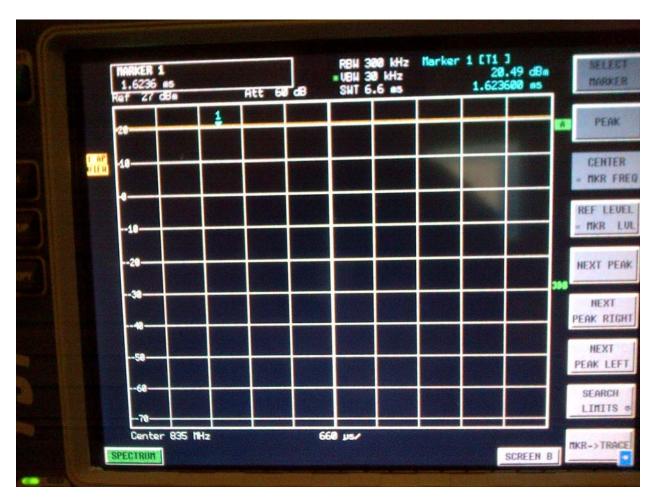
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CW 835 MHz



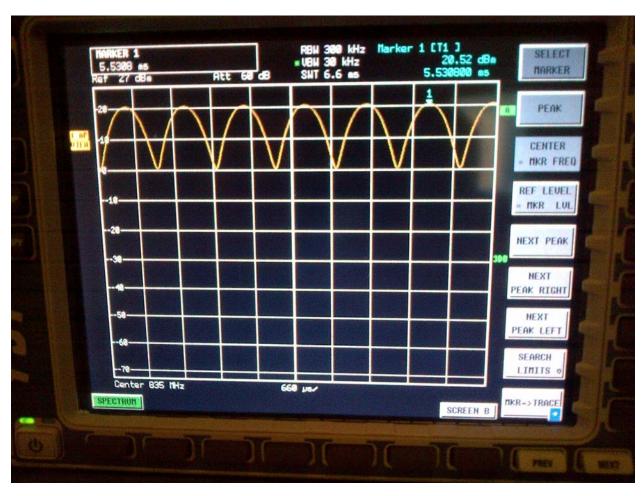
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AM 80% 835 MHz



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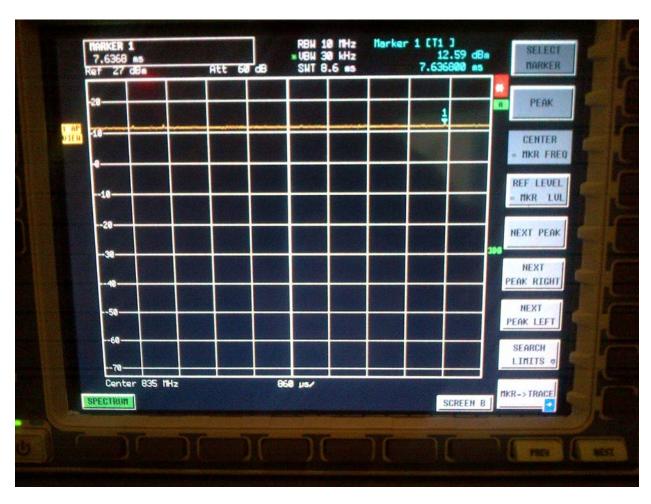
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UMTS 835 MHz



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CW 835 MHz



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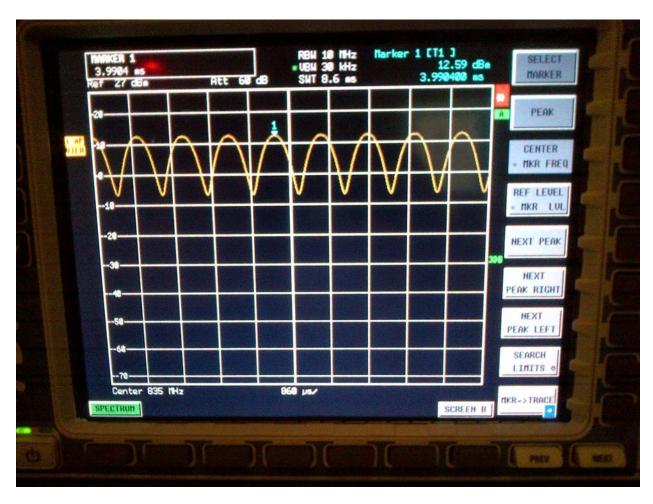
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AM 80% 835 MHz



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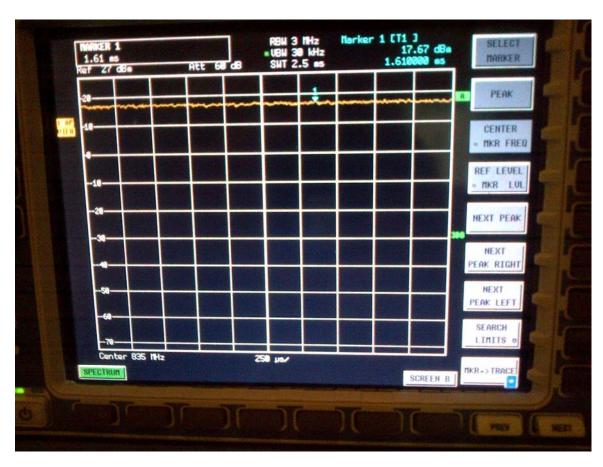
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CDMA 835 MHz (BC0)



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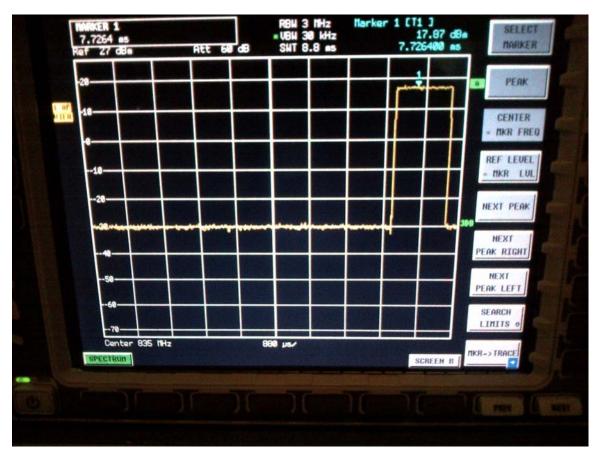
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CDMA 835 MHz (BC0) 1/8th



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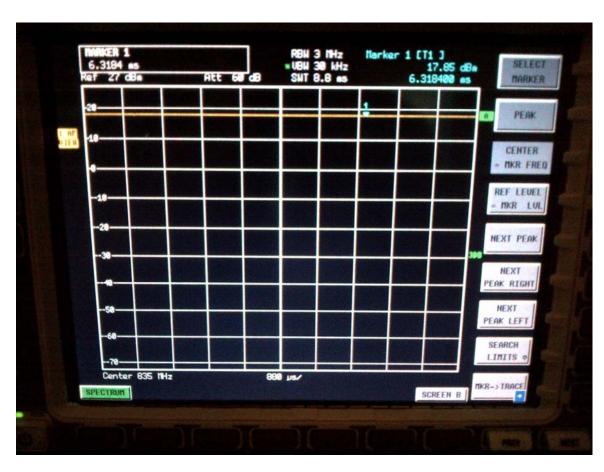
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CW 835 MHz



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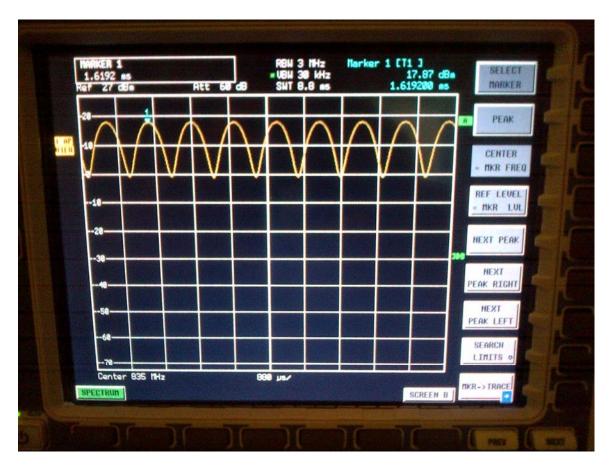
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AM 80% 835 MHz



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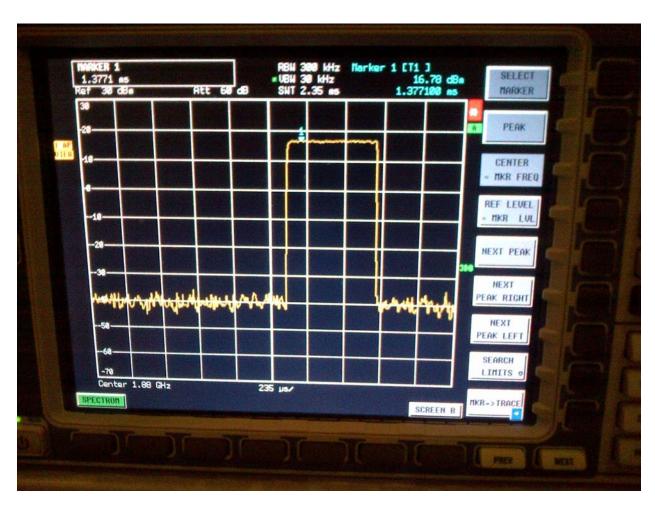
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GSM 1880 MHz



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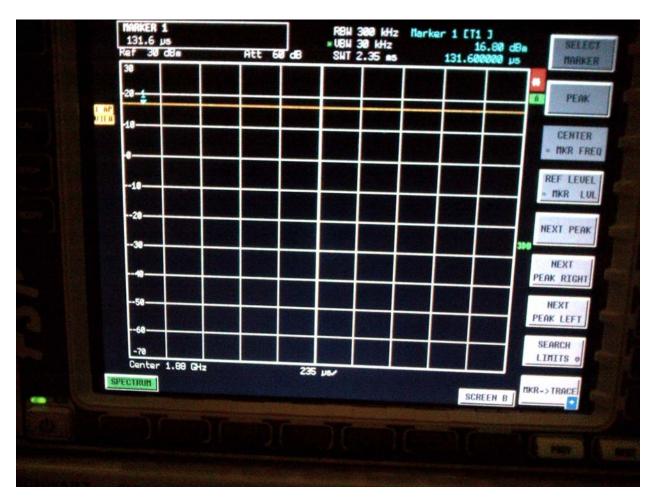
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CW 1880 MHz



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AM 80 % 1880 MHz



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UMTS 1880 MHz



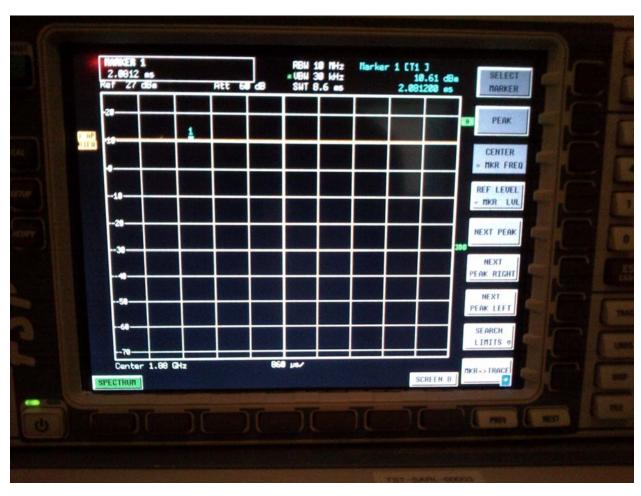
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CW 1880 MHz



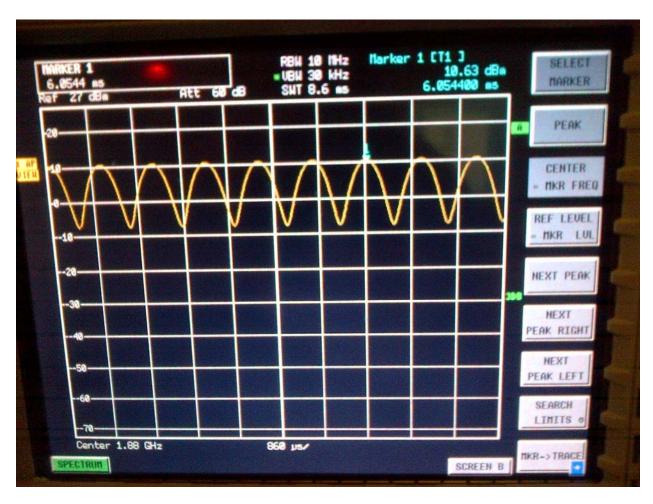
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AM 80 % 1880 MHz



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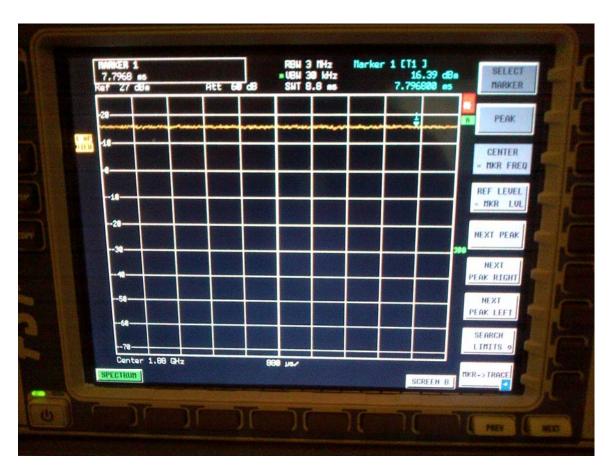
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CDMA 1880 MHz (BC1)



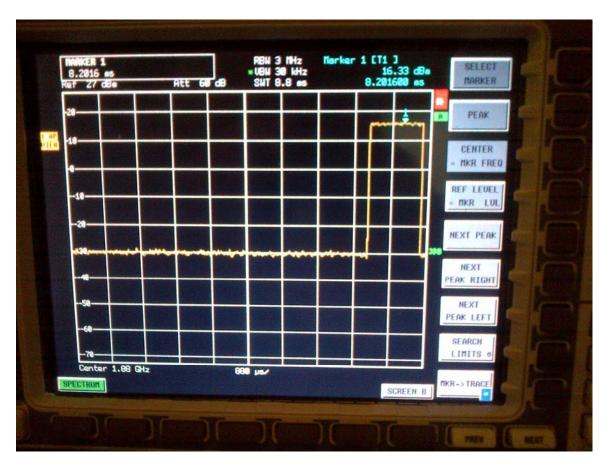
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CDMA 1880 MHz (BC1) 1/8 th



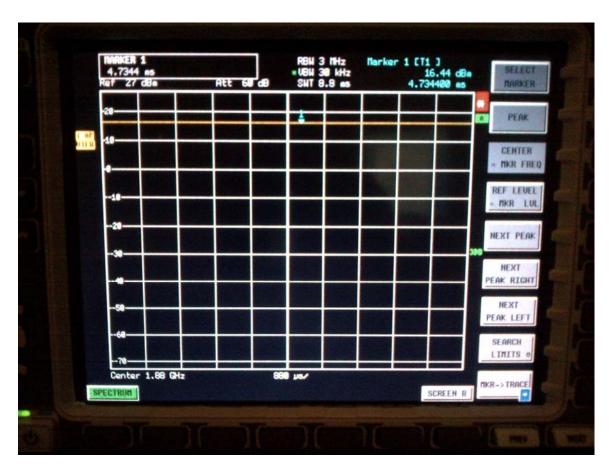
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CW 1880 MHz



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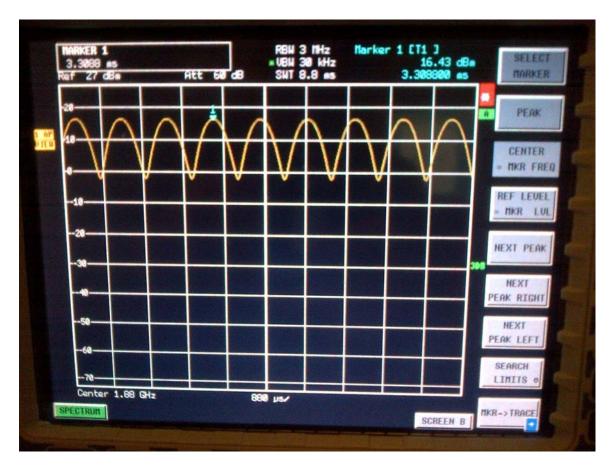
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AM 80% 1880 MHz



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A.2 Dipole validation and probe modulation factor plots



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Date/Time: 4/3/2013 3:14:37 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_04_03_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; Serial: Not Specified
- 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 = 106.4 V/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 167.6 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
159.3 V/m	167.1 V/m	166.4 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
85.12 V/m	87.66 V/m	86.00 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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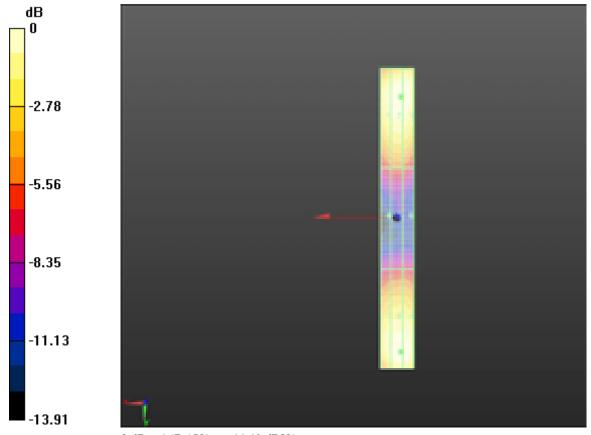
FCC ID L6ARFM120LW

154.8 V/m 167.6 V/m 167.2 V/m

Cursor:

Total = 167.6 V/m E Category: M4

Location: -2.5, 80, 4.7 mm



0 dB = 167.6 V/m = 44.49 dBV/m



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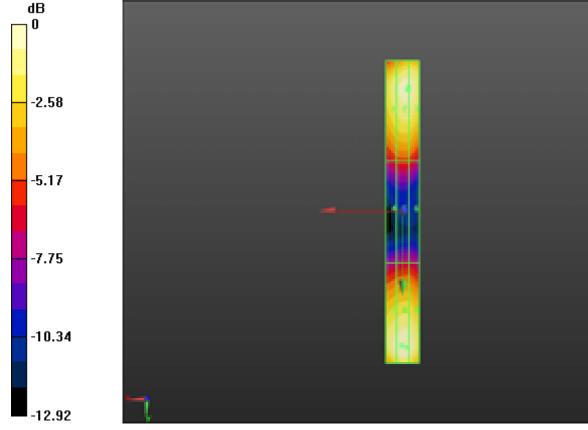
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52.75 V/m	54.62 V/m	53.83 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
99.38 V/m	102.0 V/m	97.92 V/m

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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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

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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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



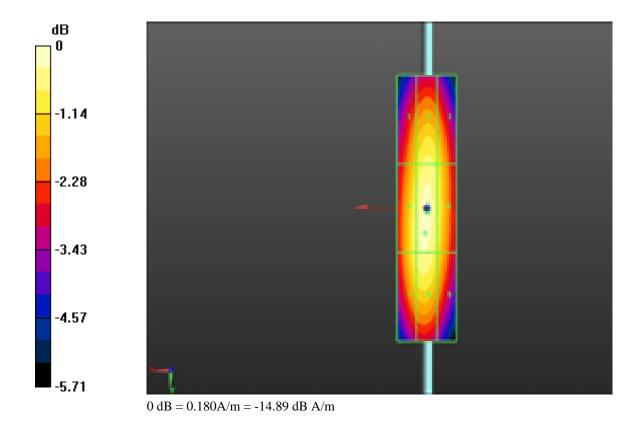
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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA835 MHz_02_29_12

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

Communication System: CDMA 850, Communication System: CDMA 850 1/8th,

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; Serial: Not Specified
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - CDMA FR 835_PMF/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 79.95 V/m; Power Drift = -0.18 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 118.9 V/m

Near-field category: M4 (AWF 0 dB)



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PMF scaled E-field

Grid 1 M4 104.7 V/m		
Grid 4 M4 56.56 V/m	Grid 5 M4	Grid 6 M4
Grid 7 M4 112.0 V/m	Grid 8 M4	Grid 9 M4

Cursor:

Total = 118.9 V/m E Category: M4

Location: -0.5, 79, 4.7 mm

Dipole E-Field measurement/E Scan - CDMA 1/8th 835_PMF 2/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.10 V/m; Power Drift = 0.23 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 43.21 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
39.00 V/m	41.81 V/m	39.31 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
20.47 V/m	22.99 V/m	20.34 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
41.05 V/m	43.21 V/m	42.62 V/m



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Dates of Test

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RTS-6026-1304-09

L6ARFM120LW

Cursor:

Total = 43.214 V/m E Category: M4

Location: -0.5, 84, 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 = 82.56 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 125.5 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
110.7 V/m	114.9 V/m	113.7 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
60.24 V/m	61.44 V/m	59.31 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
119.5 V/m	125.5 V/m	122.3 V/m

Cursor:

Total = 125.5 V/m E Category: M4

Location: -0.5, 79, 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 = 51.22 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 78.06 V/m

Near-field category: M4 (AWF 0 dB)



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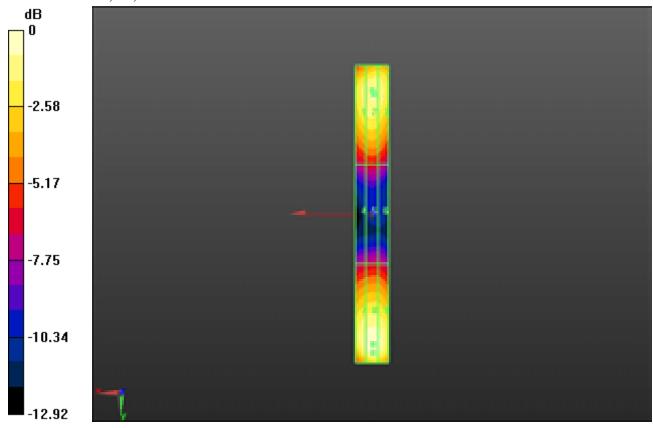
PMF scaled E-field

Grid 1 M4 69.60 V/m	
Grid 4 M4 38.16 V/m	
Grid 7 M4 74.44 V/m	Grid 9 M4 76.37 V/m

Cursor:

Total = 78.060 V/m E Category: M4

Location: -0.5, 79, 4.7 mm



0 dB = 118.9 V/m = 41.50 dB V/m



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April 03-04, 2013

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L6ARFM120LW

Date/Time: 4/3/2013 3:42:14 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_04_03_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; Serial: Not Specified
- 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 = 141.6 V/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 129.8 V/m

Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 M2	Grid 2 M2	Grid 3 M2
117.1 V/m	125.5 V/m	125.4 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
82.24 V/m	86.18 V/m	85.16 V/m
Grid 7 M2	Grid 8 M2	Grid 9 M2

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Author Data

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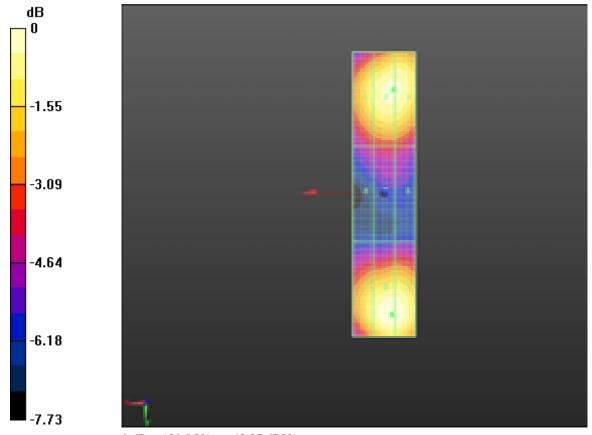
FCC ID L6ARFM120LW

2.8 V/m 1	129.4 V/m
)	0.8 V/m

Cursor:

Total = 129.8 V/m E Category: M2

Location: -2.5, 38, 4.7 mm



0 dB = 129.8 V/m = 42.27 dBV/m



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FCC ID L6ARFM120LW

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

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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



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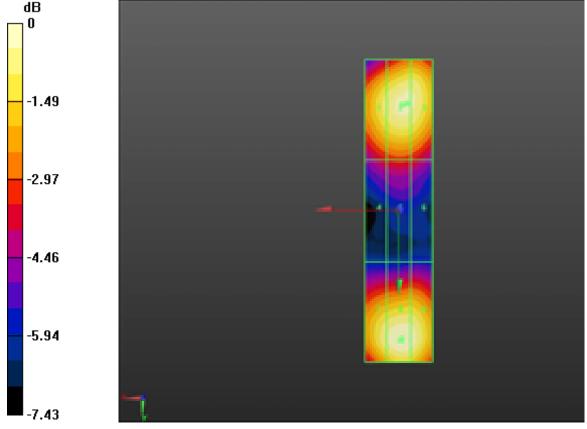
FCC ID L6ARFM120LW

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 = 29.810 V/m = 29.49 dB V/m



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L6ARFM120LW

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



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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	1 7.65 V/m	1 7.12 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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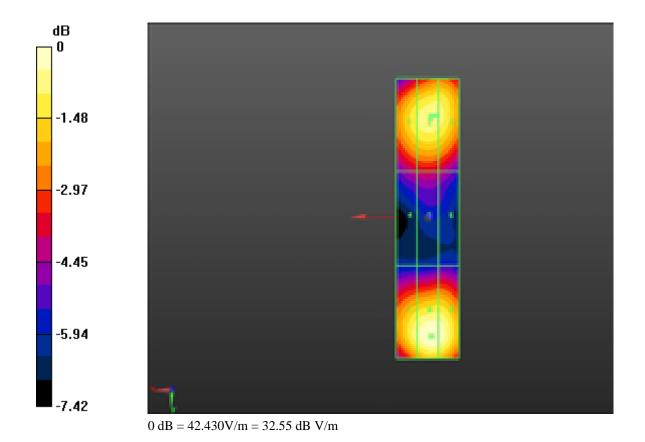
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

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L6ARFM120LW

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA1880 MHz_02_29_12

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

Communication System: CDMA 1900, Communication System: CDMA 1900 1/8th,

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; Serial: Not Specified
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - CDMA FR 1880_PMF/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 87.80 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 80.60 V/m



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PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
73.45 V/m	76.11 V/m	74.97 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
50.62 V/m	51.75 V/m	50.16 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
76.91 V/m	80.60 V/m	78.58 V/m

Cursor:

Total = 80.601 V/m E Category: M3

Location: -0.5, 37.5, 4.7 mm

Dipole E-Field measurement/E Scan - CDMA 1/8th 1880_PMF 2/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.81 V/m; Power Drift = 0.09 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 30.61 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
28.31 V/m	30.22 V/m	28.54 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
18.23 V/m	20.72 V/m	18.32 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
26.79 V/m	30.61 V/m	30.61 V/m



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Cursor:

Total = 30.614 V/m E Category: M4

Location: -3.5, 36, 4.7 mm

Dipole E-Field measurement/E Scan- CW 1880_PMF/Hearing Aid Compatibility

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 90.26 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 81.58 V/m

Near-field category: M3 (AWF 0 dB)

PMF scaled E-field

Grid 1 M3 75.79 V/m	
Grid 4 M4 52.44 V/m	
Grid 7 M3 78.00 V/m	

Cursor:

Total = 81.580 V/m E Category: M3

Location: -0.5, 37.5, 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 = 56.79 V/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 52.04 V/m



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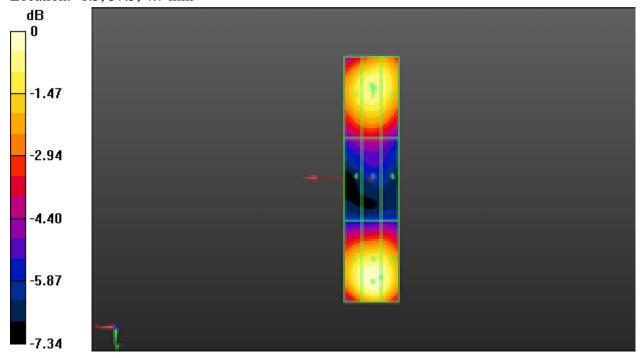
PMF scaled E-field

Grid 1 M4 47.54 V/m	
Grid 4 M4 33.05 V/m	
Grid 7 M4 49.67 V/m	

Cursor:

Total = 52.041 V/mE Category: M4

Location: -0.5, 37.5, 4.7 mm



0 dB = 80.600 V/m = 38.13 dB V/m



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L6ARFM120LW

Date/Time: 4/4/2013 2:08:45 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_04_04_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: Not Specified

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

Dipole H-Field meausrement 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 = 0.4930 A/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4665 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.417 A/m	0.450 A/m	0.442 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.429 A/m	0.466 A/m	0.456 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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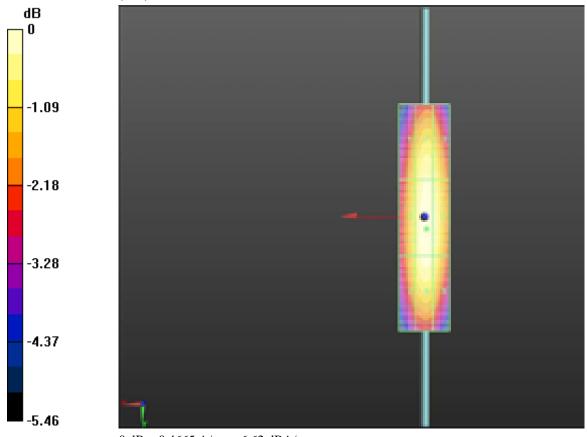
Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

Cursor:

Total = 0.4665 A/m H Category: M4

Location: -1, 4.5, 4.7 mm



0 dB = 0.4665 A/m = -6.62 dBA/m



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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)

PMF scaled H-field

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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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

FCC ID

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



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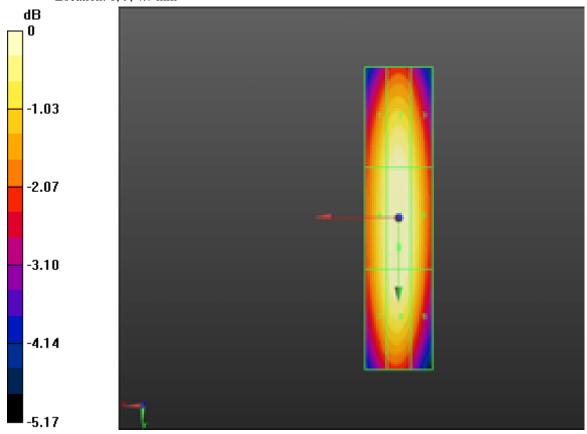
FCC ID L6ARFM120LW

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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Author Data Daoud Attayi

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RTS-6026-1304-09

L6ARFM120LW

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



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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)

PMF scaled H-field

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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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



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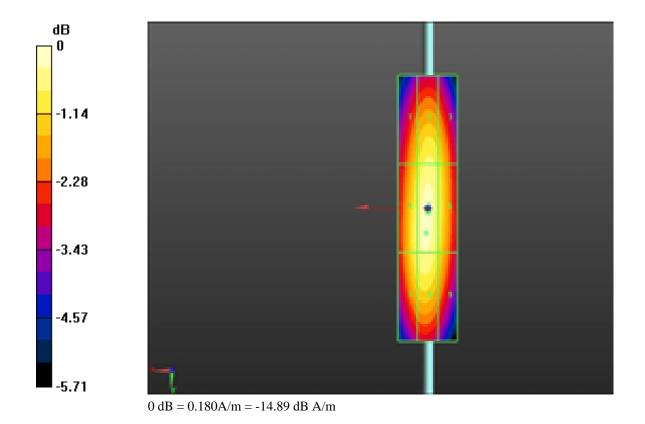
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA835 MHz_02_29_12

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

Communication System: CDMA 850, Communication System: CDMA 850 1/8th,

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; Serial: Not Specified
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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

dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.37 V/m; Power Drift = 0.11 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.34 A/m



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L6ARFM120LW

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.32 A/m	0.33 A/m	0.32 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.33 A/m	0.34 A/m	0.33 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.32 A/m	0.34 A/m	0.32 A/m

Cursor:

Total = 0.344 A/m H Category: M4 Location: 0, 1.5, 4.7 mm

Dipole H-Field meausrement with H3DV6 probe/H Scan - CDMA 1/8th 835_PMF 2/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.13 V/m; Power Drift = 0.09 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 0.12 A/m	
Grid 4 M4 0.13 A/m	
Grid 7 M4 0.12 A/m	



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Cursor:

Total = 0.134 A/m H Category: M4 Location: 0, 0, 4.7 mm

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

dv=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.39 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.35 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.32 A/m	0.34 A/m	0.32 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.34 A/m	0.35 A/m	0.33 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.33 A/m	0.35 A/m	0.33 A/m

Cursor:

Total = 0.355 A/m H Category: M4 Location: 0, 5, 4.7 mm

Dipole H-Field meausrement 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 = 0.24 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.23 A/m



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Author Data **Daoud Attayi**

Dates of Test **Feb. 17-29, June 28, 2012** April 03-04, 2013

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L6ARFM120LW

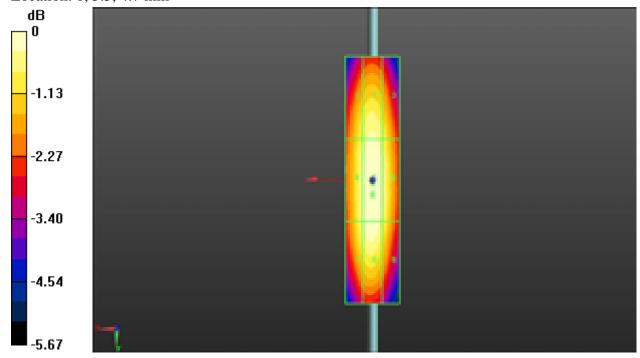
PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.20 A/m	0.21 A/m	0.20 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.21 A/m	0.23 A/m	0.22 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.21 A/m	0.22 A/m	0.21 A/m

Cursor:

Total = 0.227 A/mH Category: M4

Location: 0, 5.5, 4.7 mm



0 dB = 0.340 A/m = -9.37 dB A/m



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L6ARFM120LW

Date/Time: 4/4/2013 2:39:32 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_04_04_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; Serial: Not Specified
- DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Dipole H-Field meausrement 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 = 0.4630 A/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4393 A/m

Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

Grid 1 M2 0.399 A/m	Grid 2 M2 0.429 A/m	Grid 3 M2 0.424 A/m
Grid 4 M2	Grid 5 M2	Grid 6 M2
0.407 A/m	0.439 A/m	0.434 A/m
Grid 7 M2	Grid 8 M2	Grid 9 M2

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Author Data **Daoud Attayi**

Dates of Test **Feb. 17-29, June 28, 2012** April 03-04, 2013

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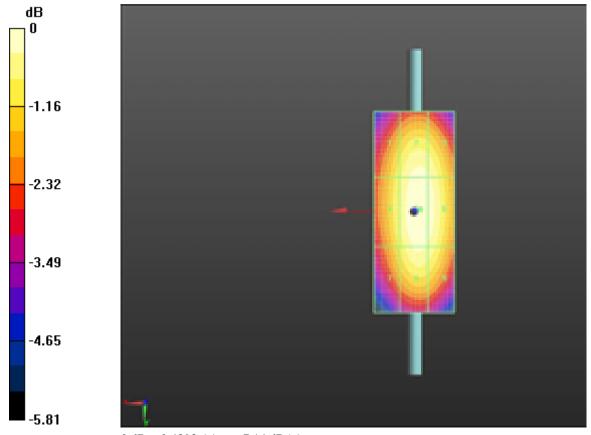
FCC ID L6ARFM120LW

0.425 A/m 0.390 A/m 0.418 A/m

Cursor:

 $Total = 0.4393 \ A/m$ H Category: M2

Location: -1.5, -0.5, 4.7 mm



0 dB = 0.4393 A/m = -7.14 dBA/m



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L6ARFM120LW

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)

PMF scaled H-field

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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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



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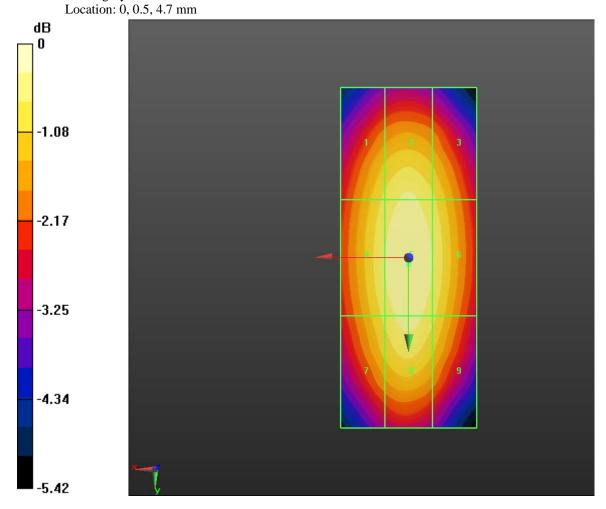
FCC ID L6ARFM120LW

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



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Dates of Test

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L6ARFM120LW

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



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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)

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



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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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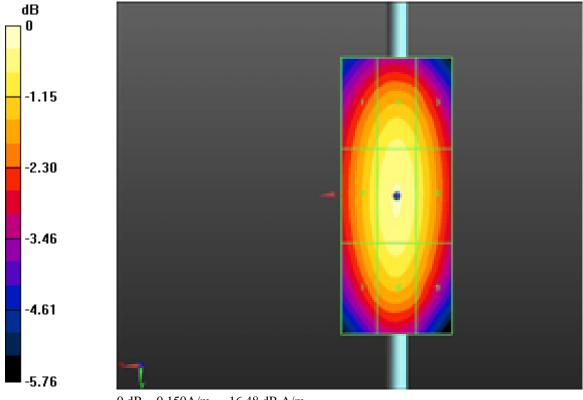
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

Report No **RTS-6026-1304-09**

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0 dB = 0.150 A/m = -16.48 dB A/m



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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA1880 MHz_02_29_12

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

Communication System: CDMA 1900, Communication System: CDMA 1900 1/8th,

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; Serial: Not Specified
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field meausrement with H3DV6 probe/H Scan -CDMA FR 1880_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid:

dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.31 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.29 A/m



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PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.27 A/m	0.28 A/m	0.27 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.28 A/m	0.29 A/m	0.28 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.27 A/m	0.28 A/m	0.27 A/m

Cursor:

Total = 0.293 A/m H Category: M3

Location: 0, -0.5, 4.7 mm

Dipole H-Field meausrement with H3DV6 probe/H Scan -CDMA 1/8th 1880_PMF 2/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm,

dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.12 V/m; Power Drift = -0.90 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.10 A/m	
Grid 4 M4 0.10 A/m	
Grid 7 M4 0.09 A/m	



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Cursor:

Total = 0.111 A/m H Category: M4 Location: 0, 0, 4.7 mm

Dipole H-Field meausrement 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 = 0.31 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.29 A/m

Near-field category: M3 (AWF 0 dB)

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.27 A/m	0.28 A/m	0.27 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.28 A/m	0.29 A/m	0.28 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.27 A/m	0.28 A/m	0.26 A/m

Cursor:

Total = 0.289 A/m H Category: M3 Location: 0, 0, 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 = 0.20 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.19 A/m

Near-field category: M4 (AWF 0 dB)



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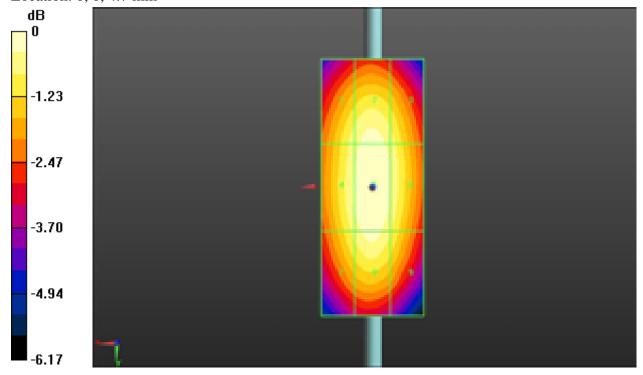
L6ARFM120LW

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.17 A/m	0.18 A/m	0.17 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.18 A/m	0.19 A/m	0.18 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 = 0.187 A/m H Category: M4 Location: 0, 0, 4.7 mm



0 dB = 0.290 A/m = -10.75 dB A/m



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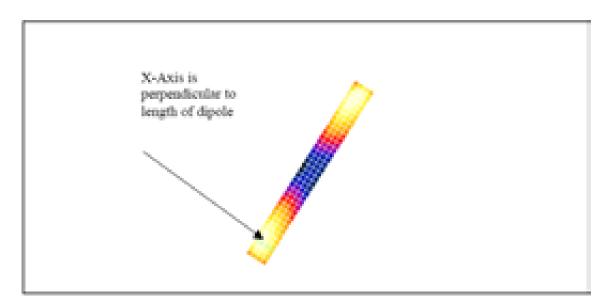
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Daoud Attayi

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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 debts 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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Data/Time: 14/10/2005 11:05:24 AM

Late RIM Testing Services (RTS)

Dipole Validation 1880 MHz. E-Field 07, 14, 05

DUT: HAC Dipole 1880 MHz; Type: CD18803-3

Communication System; CW; Frequency; 1880 NBIz;Daty Cycle; 1; 1 Medium; Air Medium parameters used: e =0 mbo'm, e_p = 1; p = 1000 kg/m² Prantom section; II Device Section

DASY I Configuration

- Proba: ER30V4 SN22R5; Gwod (1, 1, 1); Calibrated: 10 (2/2001
- Sensor-Surface: from (Fix Surface)Sensor-Surface (Fix Surface)
- Electronics: DALS Sn472: Calibrated: 03/01/2005
- Phonton: HAC Test Andr: Type: SD HAC P01 BA;
- Measurement SW: DASF4, V4.5 Build PP, Postposcoving SW: SEMCAD, V1.8 Build 146.

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

Monoranani grid: dx-5mm, dy-5mm

Maximum value of Total (measured) = 134.8 Y/m

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

Memorement 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)

				 100			
П	The second of	1000	11/00/06/05	 100.00	 Territoria.	The second second	
			A CONTRACTOR OF THE		10000		-

Grid 1	G48.2	OM/3	
123.2	0.88.1	138.4	
Cold 6	Corial (6	0.050 to	
86.9	1902.)	903.2	
GMIT	Codd 10	Cold 9	
11938	8.31.00	130.7	

GMT 1	0/4/2	GS/3
123.2	138.1	138.4
Crid 6	0.000 N	Gend +
NO.9	903.3	92.2
OH4.2	Orio 6	Gand 9
119.8	1311.0	1366.7

Canagory	AWE (dB)	Limits for E-Figh Emissions (Viru)	Limits for H-Field Emissions (Arm)
5/11		199.5 - 351.6	8.6 - 1.67
	5	1856-2661	0.45 - 0.8
NO.	- 0	112.2 - 199.5	434.46
	- 4	84.1-119.5	9.25 - 0.45
43	- 0	63.1-112.2	9,19 - 0,34
	5	(7.3 - 84.1	0.15 - 0.25
NAME OF THE PARTY.	- 0	<50.1	10.19

Block Program 2018 of DASY EPrint, Templated Dipole 2019 of dation 1,29180 h29... 1497 2007



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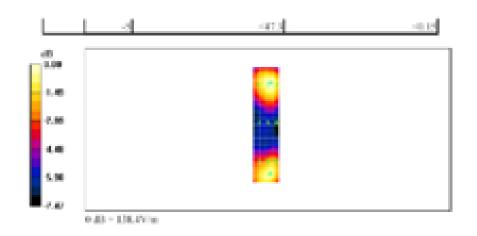
Daoud Attayi

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Date/Time: 14/17/2005 11:34:51 AM

Late RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD18803-3

Communication Systems CW; Frequency: 1880 MBIg/Daty Cycle: 1:1 Medium: Air Medium purameters used: e =0 mbo/m, e_c = 1; p = 1000 kg/m³ Plantom section: H Device Section

DON'S I Configuration:

- Proba: ER30V4 SN22R5; Gwod (1, 1, 1); Calibrated: 10 (2/2001
- Sensor-Surface: from (Fix Surface)Sensor-Surface (Fix Surface)
- Electronics: DALS Sol72: Calibrated: 03/01/2005
- Phonton: HAC Test Andr: Type: SD HAC P01 BA;
- Measurement SW: DASYA, VAS Build PR Postposcoving SW: SEMCAD, V1.8 Build 146.

E Scan 16mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x86x1):

Mosseroment grid: dx-2mm, dy-2mm

Maximum value of Total (measured) = 138.0 Vin

E Sean 10mm above CD 1890 MHz/Hearing Aid Compatibility Test (101x451x1):

Messanement 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 Yim (Time anotaged): E in Yim (Net average				
The first territory and the second se	E in You Clience	enormouth I	Lin Willes I	Niet restanding

	Grid I 123.1	G48.2 138.6	OAL) 138.6	(3d 1(2)
ı	Grid 6 81.4	Codd (6 90.8	0,050 to 191,46	Cod NB
	Get 17 121.34	0.044 B 0.34.2	Caridan 1241.0	Cel 12

G48 1	GM 2	GM3.3
123.1	138.4	138.6
Orid 4	0.000 N	Gm2+
88.4	902. I	91.6
Celd 7	Corld K	Cand 9

Canquery	AWTOR	Limits for E-Fight Emissions (Vinc)	Limits for H-Field Emboloms (Atm)
341	- 0	P95.5 - 354.6	8.6 - 1.07
	-8	145.6 - 266.1	4,45 - 43
140	- 0	112.2 - 199.5	0,31.04
	- 3	84.1 - 189.5	425-045
543		63.1-112.2	9,19 - 0,34
	- 45	47.3 - 84.1	0.15 - 0.25
SAH	- 0	<50.1	10.19

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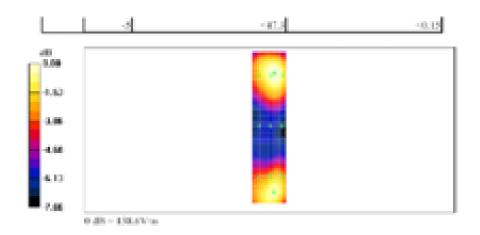
Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

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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_97_14_05

BUT: HAC Dipole 1880 Nille; Type: CD4884V3-

Communication System; CW; Frequency: BB0 MHz;Duty Cycle: 1:1 Medium; Air Medium parameters used: $\sigma=0$ mbe/m, $e_{c}=1$; $\rho=1$ kg/m²

Phantom section: III Dipole Section

DASSET Configurations

- Probe: IEEE/6 SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface from (Fix Surface)Sensor-Surface (Fix Surface)
- Electronics: DAID SwiT2: Calibrated: 05/01/2005
- Phanton: HAC Test Andr. Type: SD HAC POLBA;
- Measurement SW: DANYA, VA.5 Build Ht; Postprocessing SW: SEMCAD, VLS Build 146

II Scan 19mm above CD 1880 MHz/Hearing Aid Compatibility Test (5s19s1):

Memorament grid: dx-Smm, dy-Smm

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

H Scan Dimm above CD 1880 MHz/Hearing Aid Compatibility Test (#IsISIsI):

Manuscrament grid: dv-Smm, dy-Smm

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

Bearing Aid Near-Field Category: M2 (AWF 8 dB)

H in Alm (Time averaged): H in Alm (Slot averaged)

0.342	G/4/2	0613
0.342	4,39 9	6344
Grid 4 0_399	Carlot 2 80,4886	60 60 60 60 60 60 60 60 60 60 60 60 60 6
Grid 7	Graph	GM19
0.363	6.37%	0.363

11 11 15	110,700	British A
Califol 1	CHAIR S	GMJ 3
0.342	0.359	0.344
Cold 6	Lord S	Carlot 6
0.389	0.406	0.589
California 7	Court N	Gend 9
0.363	0.378	0.363

Congress	AWYORK	Limits for E-Field Emissions (Vinc	Limits for H-Field Emissions (Alm)
MI	- 0	1963 - 3543	0.6 - 1.07
	-3	(48ca - 256.)	0.45 - 0.9
940	- 0	112.2 - 199.5	934 - 0.6
	-5	8L1-109.6	625-645
243	- 0	63.1-112.2	0.39 - 0.34
	- 4	47.3 - 84.0	0.15 - 0.25
MH	- 0	483.1	-0.19



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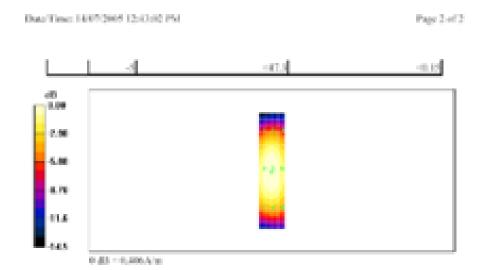
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Date/Time: 14/01/2005 12:53:40 PM

Late RIM Testing Services (RTS)

HAC H Dipole CW 1880 2 mm step 07 14 05

BUT: HAC Dipole 1980 MHz; Type: CD19803-3

Communication System; CW; Frequency: 1880 MHz/Daty Cycle: 1:1 Medium: Air Medium parameters used: e = 0 mbo/m; $e_i = 1$; p = 1 kg/m³ Plantom section: II Diovle Section

DASY I Configuration:

- Proba: HDBN6 SN6105; ; Calibrated: HV12/2004
- Sensor-Surface: from (Fix Surface)Sensor-Surface; (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phonton: HAC Test Andr: Type: SD HAC P01 BA;
- Measurement SW: DASCA, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.6 Build 186.

H Scan 19mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):

Monocramoni grid: dx-2mm, dy-2mm

Maximum value of Total (measureds = 0.406 A/m

H Scan Dhum above CD 1880 MHz/Hearing Aid Compatibility Test (101s451s.1):

Memorement grid: dx-2mm, dy-2mm

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

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

II in A/m (Time avoraged). If in A/m (Slot avoraged).

CALL	G63 2	Crist 3
0.347	0.361	0.348
Cold 4	Cond 3	Cold to
0.394	0.406	0.391
Cold 7	Catal 8	Cold 9
0.367	0.590	0.365

G441	GM 2	G(521)
6.347	8JM I	0.348
Orid 6	CHIA 2	Gendre
0.394	01.404	0.390
OH4 7	Carlo 6	Garul 19
6,347	0.380	0.3465

Canquey	VWF (dB)	Limits for E-Figh! Emissions (Virol	Limits for H-Field Embalons (Actu)
531	- 0	199.5 - 354.6	8.6 - 1.05
	5	125.6 - 256.1	0.45 - 0.8
MO	- 0	112.2 - 199.5	0,31.04
	- 3	84.1-119.5	9.25 - 0.45
540	- 0	63.1-112.2	9,19 - 0,34
	5	(7.3 - 81.1	0.15 - 0.25
NAH.	- 0	<50.1	10.79

Elect CoProgram N20 Files DASY EPrint, Templates UAC JL Digolo, CWN201889, 2%... 144/02005



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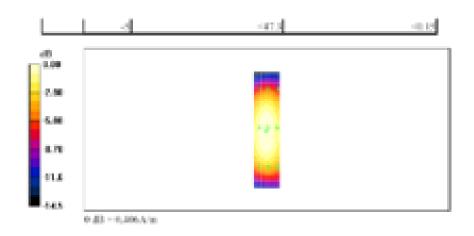
Daoud Attayi

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A.3 RF emission field plots



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Date/Time: 4/4/2013 12:27:38 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 = 47.33 V/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 120.4 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
101.8 V/m	116.8 V/m	116.8 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
101.9 V/m	120.4 V/m	120.4 V/m



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Grid 7 M4	Grid 8 M4	Grid 9 M4
103.8 V/m	119.4 V/m	119.3 V/m

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 = 45.47 V/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 120.8 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
90.83 V/m	113.4 V/m	113.4 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
96.15 V/m	120.8 V/m	120.9 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
103.0 V/m	121.7 V/m	121.7 V/m

Cursor:

Total = 121.7 V/m E Category: M4

Location: -8.5, 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 = 50.15 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 133.8 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field



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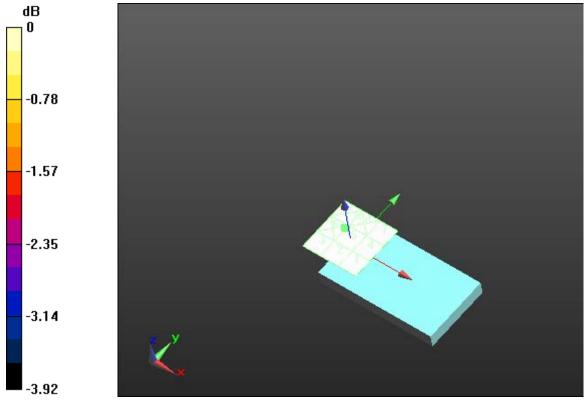
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Grid 1 M4	Grid 2 M4	Grid 3 M4
101.2 V/m	127.5 V/m	127.6 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
105.9 V/m	133.8 V/m	134.0 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
111.3 V/m	133.7 V/m	133.8 V/m



0 dB = 115.7 V/m = 41.27 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 12:41:27 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850-Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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: 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 = 49.68 V/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 129.0 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
95.92 V/m	120.5 V/m	121.2 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
99.56 V/m	129.0 V/m	130.2 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
101.5 V/m	129.5 V/m	130.6 V/m



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFM121LW Page

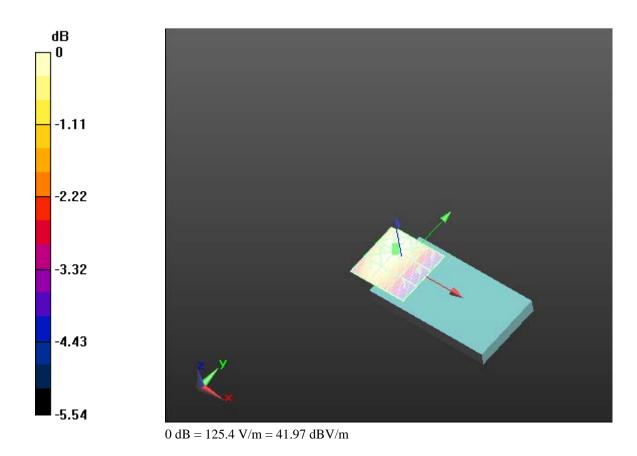
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW





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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 1:27:02 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 = 55.00 V/m; Power Drift = -0.11 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 50.73 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
41.04 V/m	48.82 V/m	48.56 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
42.29 V/m	50.73 V/m	50.40 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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L6ARFM120LW

FCC ID

42.64 V/m	50.39 V/m	50.12 V/m
-----------	-----------	-----------

Cursor:

Total = 50.73 V/m E Category: M4 Location: -6, 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 = 54.74 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 52.15 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
39.36 V/m	49.28 V/m	49.34 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
41.53 V/m	52.15 V/m	52.17 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
44.29 V/m	52.39 V/m	52.37 V/m

Cursor:

Total = 52.39 V/m E Category: M4

Location: -8, 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 = 53.14 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 50.03 V/m

Near-field category: M4 (AWF 0 dB)



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Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

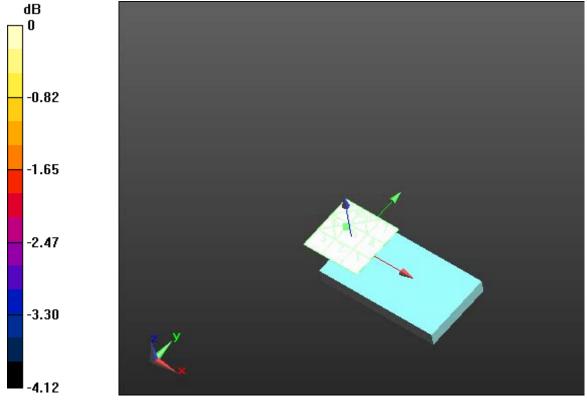
L6ARFM120LW

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
39.02 V/m	47.71 V/m	47.73 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
40.53 V/m	50.03 V/m	50.04 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
42.40 V/m	49.82 V/m	49.82 V/m

Cursor:

Total = 50.04 V/m E Category: M4 Location: -9, 5, 8.7 mm



0 dB = 50.73 V/m = 34.11 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 1:57:49 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V-Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 = 55.39 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 51.04 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
37.65 V/m	46.99 V/m	47.22 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
39.74 V/m	51.04 V/m	51.57 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
41.02 V/m	52.15 V/m	52.36 V/m



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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

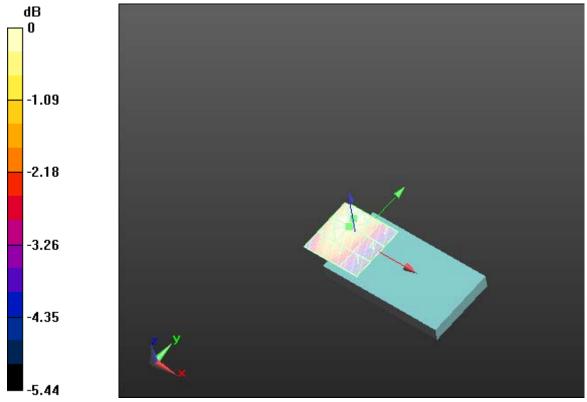
Report No **RTS-6026-1304-09**

L6ARFM120LW

Cursor:

 $Total = 52.36 \ V/m$ E Category: M4

Location: -8.5, 8.5, 8.7 mm



0 dB = 52.36 V/m = 34.38 dBV/m



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Daoud Attayi

Dates of Test

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L6ARFM120LW

Date/Time: 4/4/2013 12:51:40 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: 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 52.8.4(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 = 19.36 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 57.97 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
55.60 V/m	57.97 V/m	55.05 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
40.72 V/m	50.10 V/m	50.21 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3



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RTS-6026-1304-09

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43.87 V/m	60.05 V/m	60.06 V/m
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Cursor:

Total = 60.06 V/m E Category: M3 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 = 19.21 V/m; Power Drift = 0.21 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 58.41 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
51.22 V/m	53.98 V/m	53.21 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
36.12 V/m	58.41 V/m	58.88 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
50.86 V/m	71.66 V/m	71.59 V/m

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 = 18.00 V/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 68.61 V/m

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

PMF scaled E-field

	1	
Grid 1 M3	Grid 2 M3	Grid 3 M3



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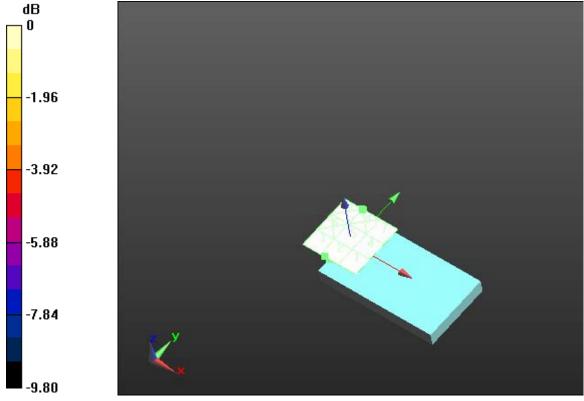
Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

63.09 V/m	68.61 V/m	68.46 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
41.18 V/m	54.45 V/m	55.54 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
52.32 V/m	74.57 V/m	74.56 V/m



0 dB = 60.72 V/m = 35.67 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

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L6ARFM120LW

Date/Time: 4/4/2013 3:04:32 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900-Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: GSM 1900; Frequency: 1909.8 MHz Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ 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 = 17.27 V/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 65.40 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
65.60 V/m	70.55 V/m	69.61 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
46.02 V/m	52.74 V/m	52.67 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
38.42 V/m	64.21 V/m	65.40 V/m



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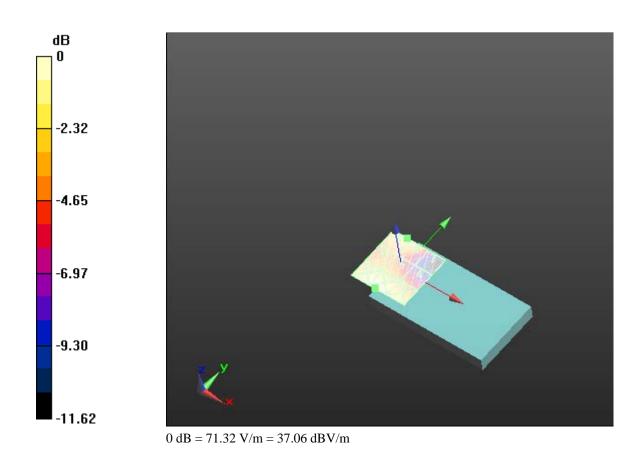
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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 3:09:14 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900_2100mA_Battery

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: 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: 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_High_Chan_2100mA_Battery/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 = 16.31 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 66.49 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
61.72 V/m	66.49 V/m	65.14 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
40.05 V/m	49.83 V/m	50.90 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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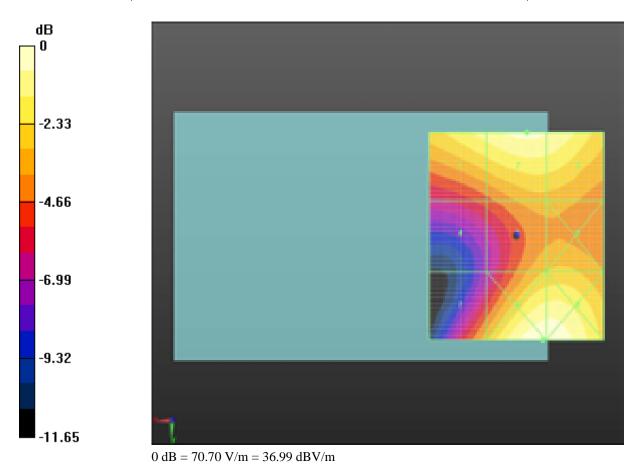
Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

49.01 V/m 69.93 V/m 69.89 V/m





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Author Data Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 2:13:24 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 = 29.03 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 28.91 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
27.31 V/m	28.91 V/m	28.55 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
19.63 V/m	27.55 V/m	27.56 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Daoud Attavi

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FCC ID L6ARFM120LW

26.66 V/m 34.86 V/m 34.77 V/m

Cursor:

Total = 34.86 V/m E Category: M4

Location: -7, 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 = 28.84 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 30.70 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
26.67 V/m	28.65 V/m	28.15 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
19.03 V/m	30.70 V/m	30.76 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
27.41 V/m	38.06 V/m	38.05 V/m

Cursor:

Total = 38.06 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 = 23.51 V/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 33.39 V/m

Near-field category: M4 (AWF 0 dB)



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Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

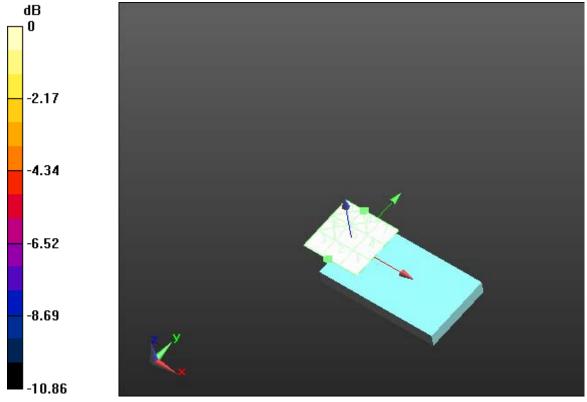
FCC ID L6ARFM120LW

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
31.58 V/m	33.39 V/m	32.54 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
19.34 V/m	26.91 V/m	27.30 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
25.79 V/m	37.66 V/m	37.66 V/m

Cursor:

Total = 37.66 V/m E Category: M4 Location: -8, 25, 8.7 mm



0 dB = 34.86 V/m = 30.85 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 03-04, 2013

RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 3:34:32 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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: 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 = 23.26 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 35.23 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
34.08 V/m	36.29 V/m	35.66 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
22.33 V/m	25.73 V/m	25.73 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
21.74 V/m	34.83 V/m	35.23 V/m



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFM121LW Page

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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

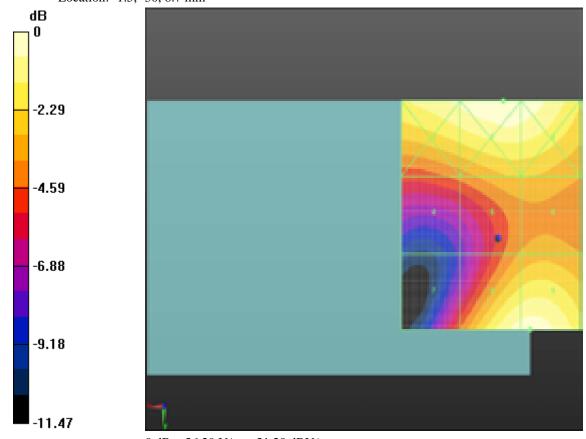
Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

Cursor:

 $Total = 36.29 \ V/m$ E Category: M4

Location: -1.5, -30, 8.7 mm



0 dB = 36.29 V/m = 31.20 dBV/m



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Daoud Attayi

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RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/3/2013 4:55:51 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 850, Communication System: CDMA 850 1/8th Rate;

Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 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_Full_Rate/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 = 71.27 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 64.86 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
53.92 V/m	62.40 V/m	62.36 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
55.29 V/m	64.86 V/m	64.86 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Daoud Attayi

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RTS-6026-1304-09

FCC ID L6ARFM120LW

56.27 V/m 64.27 V/m 64.23 V/m

Cursor:

Total = 64.86 V/m E Category: M4

Location: -8.5, 4.5, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device_Mid_Chan_Full_Rate/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 = 73.04 V/m; Power Drift = -0.16 dB

PMR not calibrated. PMF = 1.060 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
53.81 V/m	65.61 V/m	65.69 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
54.13 V/m	67.52 V/m	67.71 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
53.52 V/m	66.51 V/m	66.63 V/m



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L6ARFM120LW

Cursor:

Total = 67.71 V/m E Category: M4

Location: -9.5, 0.5, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device_High_Chan_Full_Rate/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 = 81.16 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 76.00 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
62.54 V/m	74.66 V/m	74.66 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
60.89 V/m	76.00 V/m	76.04 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
58.67 V/m	74.18 V/m	74.20 V/m

Cursor:

Total = 76.04 V/m E Category: M4 Location: -9, 0, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device_High_Chan_1/8th_Rate/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 28.93 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 83.19 V/m

Near-field category: M4 (AWF 0 dB)

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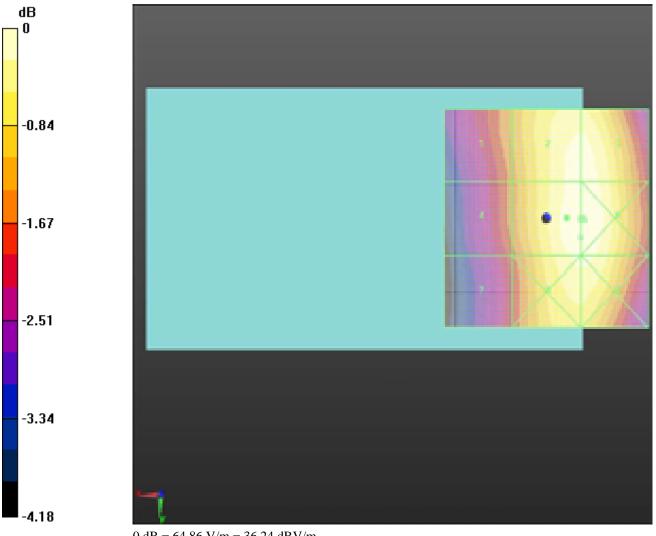
Author Data **Daoud Attayi** Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
67.57 V/m	77.76 V/m	79.08 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
59.94 V/m	83.19 V/m	81.99 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
62.77 V/m	79.52 V/m	81.55 V/m



0 dB = 64.86 V/m = 36.24 dBV/m

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Author Data

Daoud Attayi

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RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/3/2013 5:31:38 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 850 1/8th Rate; Frequency: 848.52 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_High_Chan_1/8th_Rate_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 = 29.67 V/m; Power Drift = -0.10 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 82.20 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
63.22 V/m	82.44 V/m	83.11 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
65.71 V/m	82.20 V/m	85.26 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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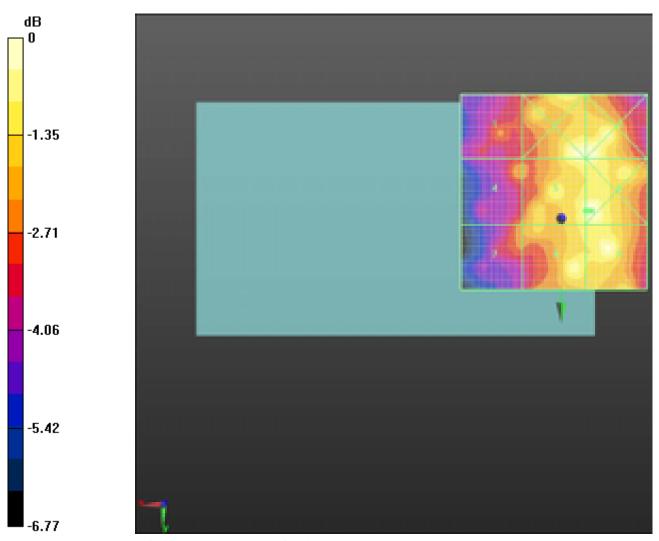
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

65.51 V/m 79.32 V/m 82.12 V/m



0 dB = 85.26 V/m = 38.61 dBV/m



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Date/Time: 4/3/2013 5:55:41 PM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 1900, Communication System: CDMA 1900 1/8th Rate;

Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 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_Full_Rate/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 = 15.97 V/m; Power Drift = 0.27 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 26.17 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.55 V/m	26.17 V/m	26.00 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
17.88 V/m	24.34 V/m	24.42 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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29.98 V/m	36.60 V/m	36.22 V/m
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Cursor:

Total = 36.60 V/m E Category: M4 Location: -6, 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_Full_Rate/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 = 12.87 V/m; Power Drift = 0.33 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 28.23 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
26.51 V/m	28.23 V/m	27.53 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
15.45 V/m	23.84 V/m	24.34 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
30.02 V/m	39.20 V/m	39.00 V/m

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device_High_Chan_Full_Rate/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 = 11.38 V/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 26.36 V/m

Near-field category: M4 (AWF 0 dB)



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Daoud Attavi

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PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.77 V/m	26.36 V/m	26.03 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
13.35 V/m	20.56 V/m	21.03 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
27.54 V/m	35.07 V/m	34.77 V/m

Cursor:

Total = 35.07 V/m E Category: M4

Location: -6, 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_1/8th_Rate/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 = 4.858 V/m; Power Drift = -0.35 dB

PMR not calibrated. PMF = 2.670 is applied.

E-field emissions = 28.19 V/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.55 V/m	28.19 V/m	25.60 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
14.53 V/m	24.38 V/m	25.99 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
27.19 V/m	39.17 V/m	39.67 V/m



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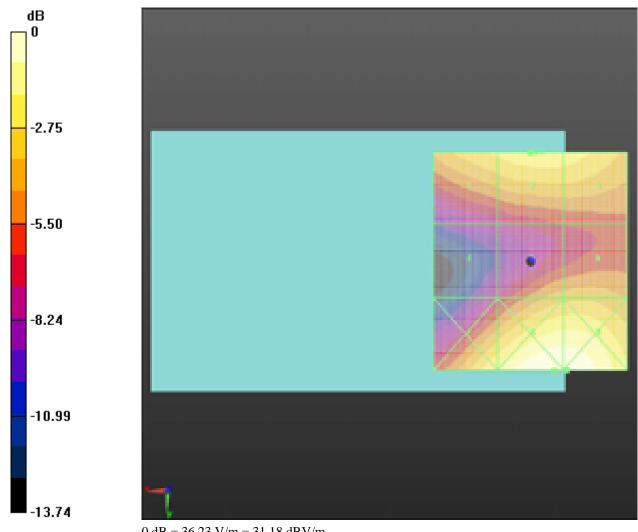
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Author Data **Daoud Attayi**

Dates of Test **Feb. 17-29, June 28, 2012** April 03-04, 2013

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Author Data

Daoud Attayi

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L6ARFM120LW

Date/Time: 4/3/2013 6:52:47 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 1900 1/8th Rate; 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 = 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_Mid_Chan_1/8th_Rate_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 = 4.649 V/m; Power Drift = -0.12 dB

PMR not calibrated. PMF = 2.670 is applied.

E-field emissions = 30.82 V/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
28.03 V/m	33.53 V/m	30.41 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
17.34 V/m	19.59 V/m	21.52 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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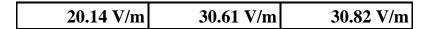
118 (154)

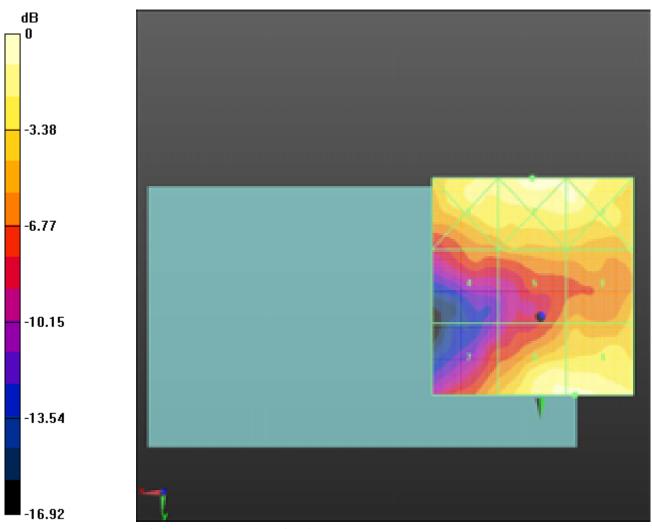
Author Data

Daoud Attayi

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0 dB = 33.53 V/m = 30.51 dBV/m



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Date/Time: 4/4/2013 4:57:29 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 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 = 0.04500 A/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.2785 A/m

Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.279 A/m	0.198 A/m	0.133 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.235 A/m	0.170 A/m	0.111 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Daoud Attavi

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FCC ID

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 = 0.04600 A/m; Power Drift = -0.08 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.2667 A/m

Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.267 A/m	0.199 A/m	0.139 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.227 A/m	0.170 A/m	0.116 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.217 A/m	0.159 A/m	0.097 A/m

Device H-Field meausrement 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 = 0.05500 A/m; Power Drift = -0.18 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.2981 A/m

Near-field category: M4 (AWF -5 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.298 A/m	0.224 A/m	0.153 A/m



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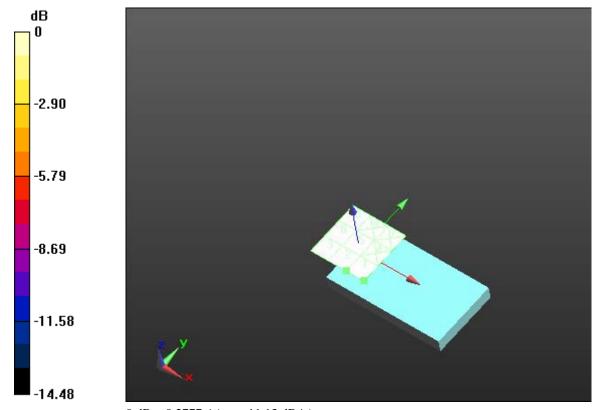
Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

Grid 4 M4	Grid 5 M4	Grid 6 M4
0.257 A/m	0.196 A/m	0.132 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.253 A/m	0.192 A/m	0.126 A/m



0 dB = 0.2777 A/m = -11.13 dBA/m



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Author Data Daoud Attayi

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L6ARFM120LW

Date/Time: 4/4/2013 5:08:10 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850-Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 meausrement 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 = 0.05400 A/m: Power Drift = 0.05 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.3164 A/m

Near-field category: M4 (AWF -5 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.316 A/m	0.242 A/m	0.169 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.276 A/m	0.212 A/m	0.148 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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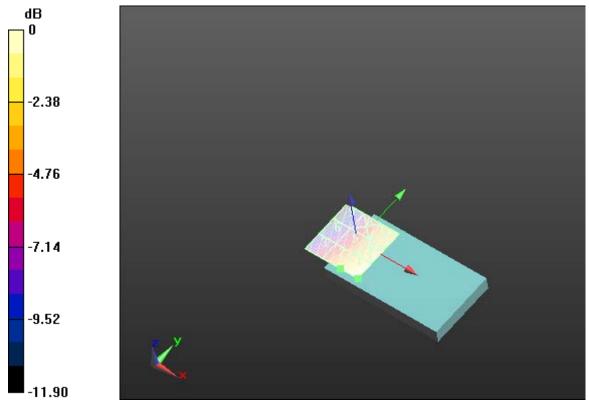
Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

0.248 A/m 0.193 A/m 0.131 A/m



0 dB = 0.3154 A/m = -10.02 dBA/m



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Author Data

Daoud Attayi

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RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 5:15:54 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 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 = 0.05300 A/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1184 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.118 A/m	0.087 A/m	0.059 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.100 A/m	0.075 A/m	0.049 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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0.096 A/m 0.070 A/m 0.043 A/m

Cursor:

Total = 0.1184 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 = 0.05500 A/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1207 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.121 A/m	0.090 A/m	0.064 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.102 A/m	0.076 A/m	0.053 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.096 A/m	0.070 A/m	0.044 A/m



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Cursor:

Total = 0.1207 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_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 = 0.05600 A/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1154 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.115 A/m	0.089 A/m	0.060 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.100 A/m	0.079 A/m	0.053 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.100 A/m	0.077 A/m	0.050 A/m

Cursor:

Total = 0.1154 A/m H Category: M4

Location: 25, -25, 8.7 mm



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFM121LW Page

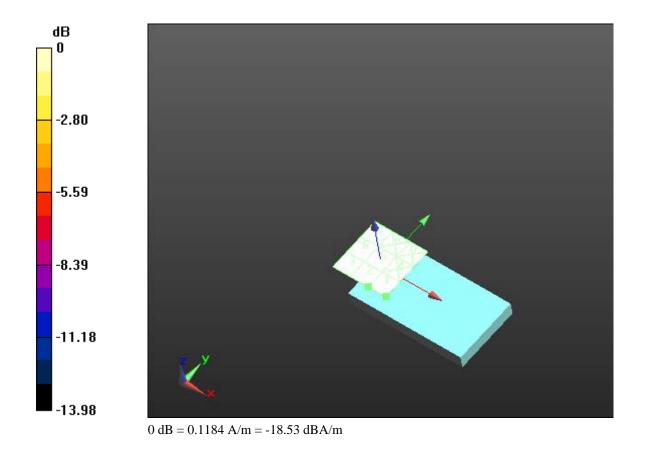
127 (154)

Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013

Report No **RTS-6026-1304-09**

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Daoud Attayi

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RTS-6026-1304-09

L6ARFM120LW

Date/Time: 4/4/2013 5:22:57 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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: 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_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 = 0.05500 A/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1300 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.130 A/m	0.100 A/m	0.070 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.110 A/m	0.085 A/m	0.060 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data **Daoud Attayi**

Dates of Test **Feb. 17-29, June 28, 2012** April 03-04, 2013

Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

0.099 A/m

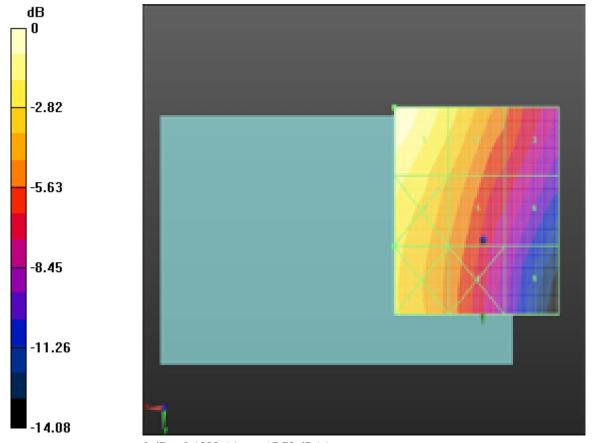
0.076 A/m

0.050 A/m

Cursor:

 $Total = 0.1300 \; A/m$ H Category: M4

Location: 27, -32, 8.7 mm



0 dB = 0.1300 A/m = -17.72 dBA/m



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Daoud Attayi

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L6ARFM120LW

Date/Time: 4/4/2013 4:42:51 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: 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 52.8.4(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 = 0.05000 A/m; Power Drift = 0.15 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1844 A/m

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

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.184 A/m	0.140 A/m	0.140 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.129 A/m	0.141 A/m	0.141 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

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L6ARFM120LW

FCC ID

0.123 A/m 0.125 A/m 0.125 A/m

Cursor:

Total = 0.1844 A/m H Category: M3

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 = 0.06200 A/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1797 A/m

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

PMF scaled H-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.180 A/m	0.166 A/m	0.166 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.151 A/m	0.166 A/m	0.166 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.169 A/m	0.149 A/m	0.144 A/m

Device H-Field meausrement 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 = 0.06900 A/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1959 A/m

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



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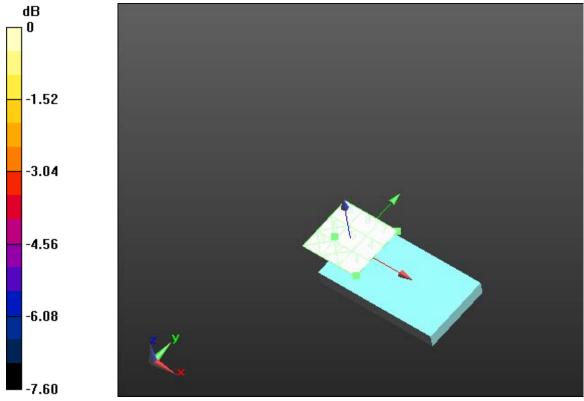
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Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

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Grid 1 M3	Grid 2 M3	Grid 3 M3
0.196 A/m	0.192 A/m	0.193 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.151 A/m	0.193 A/m	0.194 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.182 A/m	0.179 A/m	0.179 A/m



0 dB = 0.1858 A/m = -14.62 dBA/m



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Daoud Attayi

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L6ARFM120LW

Date/Time: 4/4/2013 4:53:26 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900-Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: 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 52.8.4(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_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 = 0.06900 A/m; Power Drift = 0.18 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1965 A/m

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

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.226 A/m	0.185 A/m	0.188 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.151 A/m	0.193 A/m	0.196 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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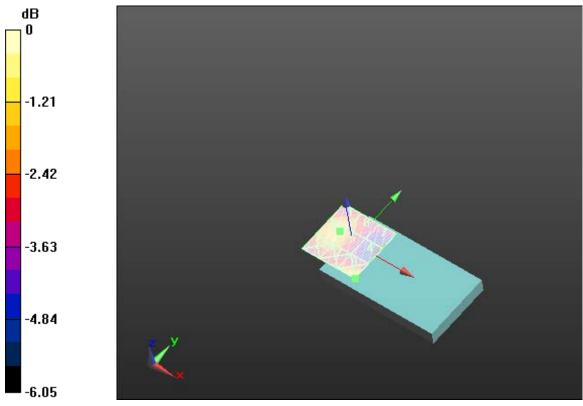
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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

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0 dB = 0.2281 A/m = -12.84 dBA/m



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Author Data

Daoud Attayi

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L6ARFM120LW

Date/Time: 4/4/2013 1:24:24 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900_Telecoil_2100mA_Battery

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: 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 52.8.4(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_telecoil_2100mA_Battery/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 = 0.02 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1953 A/m

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

Grid 1 M3	Grid 2 M3	Grid 3 M3
0.226 A/m	0.183 A/m	0.187 A/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
0.150 A/m	0.192 A/m	0.195 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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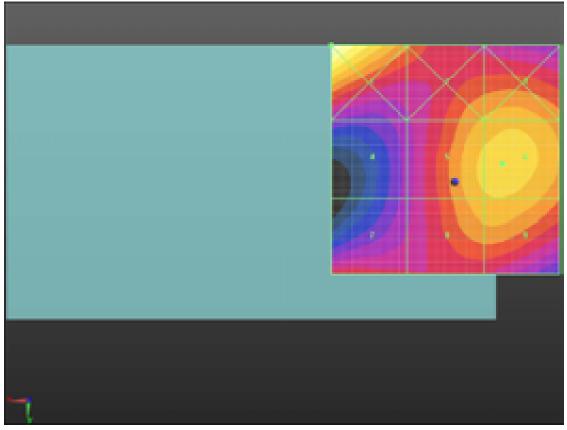
Author Data **Daoud Attayi**

Dates of Test **Feb. 17-29, June 28, 2012** April 03-04, 2013

Report No **RTS-6026-1304-09**

FCC ID L6ARFM120LW

0.165 A/m 0.188 A/m 0.190 A/m



0 dB = 0.2272 A/m = -12.87 dBA/m



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Date/Time: 4/4/2013 5:52:03 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 = 0.08200 A/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.09032 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.090 A/m	0.079 A/m	0.079 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.071 A/m	0.079 A/m	0.079 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Cursor:

Total = 0.09032 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 = 0.09200 A/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.09346 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.093 A/m	0.087 A/m	0.086 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.080 A/m	0.087 A/m	0.086 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.093 A/m	0.079 A/m	0.077 A/m



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Daoud Attayi

Dates of Test

Feb. 17-29, June 28, 2012 April 03-04, 2013 RTS-6026-1304-09

L6ARFM120LW

Cursor:

Total = 0.09346 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_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 = 0.1020 A/m; Power Drift = 0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.09856 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.097 A/m	0.098 A/m	0.098 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.080 A/m	0.099 A/m	0.099 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.091 A/m	0.091 A/m	0.091 A/m

Cursor:

Total = 0.09871 A/m H Category: M4

Location: -10, -5.5, 8.7 mm



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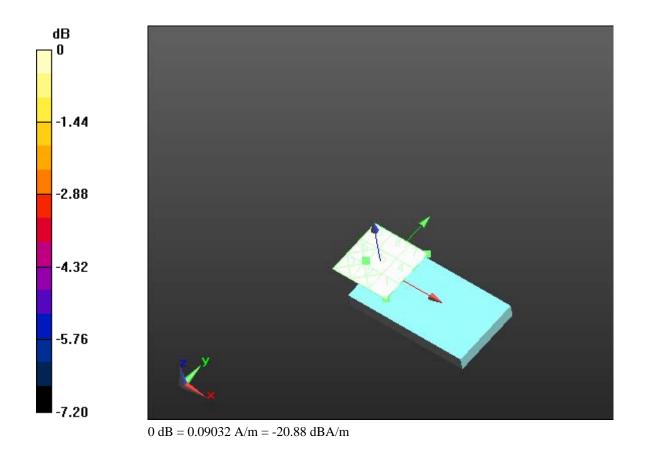
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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 03-04, 2013 Report No **RTS-6026-1304-09**

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Author Data

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L6ARFM120LW

Date/Time: 4/4/2013 9:30:08 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

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 meausrement 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 = 0.09800 A/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.1080 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.108 A/m	0.092 A/m	0.093 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.077 A/m	0.095 A/m	0.096 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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Author Data

Daoud Attayi

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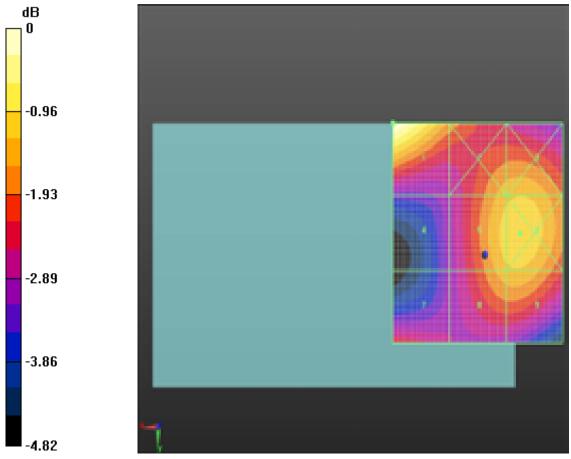
L6ARFM120LW

0.083 A/m	0.092 A/m	0.093 A/m
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Cursor:

Total = 0.1080 A/m H Category: M4

Location: 27, -30, 8.7 mm



0 dB = 0.1080 A/m = -19.33 dBA/m



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L6ARFM120LW

Date/Time: 4/4/2013 10:08:26 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 850, Communication System: CDMA 850 1/8th Rate;

Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 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_Full_Rate/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 = 0.07500 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1220 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.122 A/m	0.090 A/m	0.058 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.130 A/m	0.097 A/m	0.066 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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0.154 A/m 0.113 A/m 0.078 A/m

Cursor:

Total = 0.1541 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_Full_Rate/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 = 0.07100 A/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1225 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.123 A/m	0.089 A/m	0.055 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.127 A/m	0.095 A/m	0.064 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.150 A/m	0.111 A/m	0.077 A/m



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Cursor:

Total = 0.1500 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_high_chan_Full_Rate/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 = 0.09500 A/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1434 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.143 A/m	0.111 A/m	0.076 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.153 A/m	0.121 A/m	0.089 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.180 A/m	0.141 A/m	0.105 A/m

Cursor:

Total = 0.1804 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_high_chan_1/8th_Rate/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 = 0.03900 A/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 2.650 is applied.

H-field emissions = 0.1511 A/m

Near-field category: M4 (AWF 0 dB)



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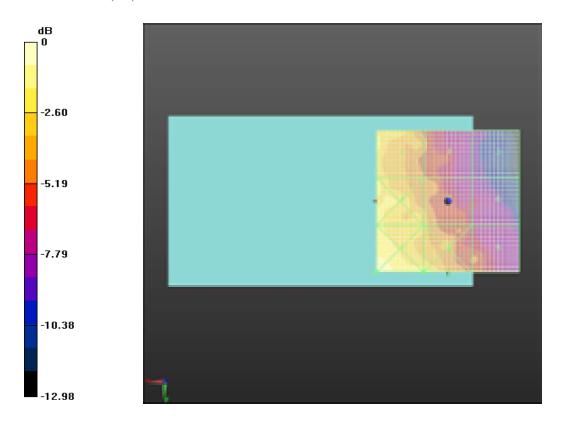
PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.151 A/m	0.111 A/m	0.073 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.158 A/m	0.125 A/m	0.087 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.191 A/m	0.151 A/m	0.105 A/m

Cursor:

Total = 0.1913 A/m H Category: M4

Location: 25, 25, 8.7 mm



0 dB = 0.1541 A/m = -16.24 dBA/m



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Date/Time: 4/4/2013 11:58:51 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 850 1/8th Rate; Frequency: 848.52 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_telecoil_1/8th Rate/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 = 0.03400 A/m; Power Drift = 0.27 dB

PMR not calibrated. PMF = 2.650 is applied.

H-field emissions = 0.1626 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.137 A/m	0.108 A/m	0.073 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.142 A/m	0.114 A/m	0.084 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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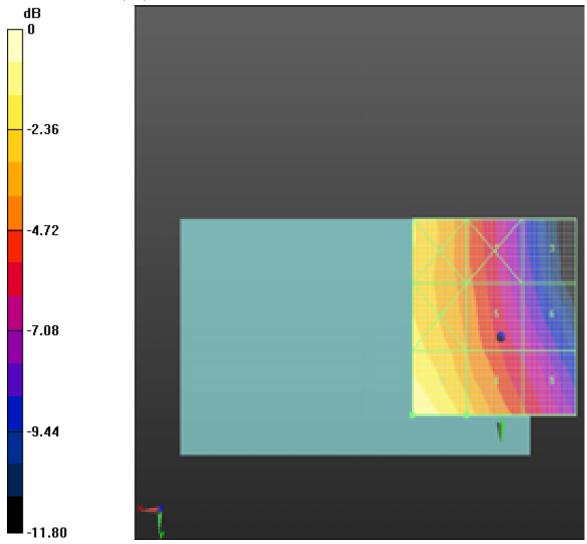
FCC ID L6ARFM120LW

0.163 A/m 0.131 A/m 0.098 A/m

Cursor:

Total = 0.1626 A/m H Category: M4

Location: 27, 20, 8.7 mm



0 dB = 0.1779 A/m = -15.00 dBA/m



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Date/Time: 4/4/2013 11:07:00 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 1900, Communication System: CDMA 1900 1/8th Rate;

Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 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_Full_Rate/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 = 0.08400 A/m; Power Drift = -0.13 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.08507 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.059 A/m	0.083 A/m	0.084 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.062 A/m	0.084 A/m	0.085 A/m

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Grid 7 M4	Grid 8 M4	Grid 9 M4
0.086 A/m	0.080 A/m	0.080 A/m

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the

Device_mid_chan_Full_Rate/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 = 0.09100 A/m; Power Drift = 0.17 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.09190 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.065 A/m	0.089 A/m	0.089 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.071 A/m	0.091 A/m	0.092 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.096 A/m	0.088 A/m	0.088 A/m

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the

Device_high_chan_Full_Rate/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 = 0.08500 A/m; Power Drift = 0.19 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.08743 A/m

Near-field category: M4 (AWF 0 dB)



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0.059 A/m	0.084 A/m	0.085 A/m
Grid 4 M4 0.069 A/m	Grid 5 M4 0.087 A/m	Grid 6 M4 0.087 A/m
Grid 7 M4 0.095 A/m	Grid 8 M4	Grid 9 M4

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the $\,$

Device_mid_chan_1/8th_Rate/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 = 0.03200 A/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 2.600 is applied.

H-field emissions = 0.08217 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.059 A/m	0.080 A/m	0.080 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.065 A/m	0.082 A/m	0.082 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.090 A/m	0.080 A/m	0.080 A/m



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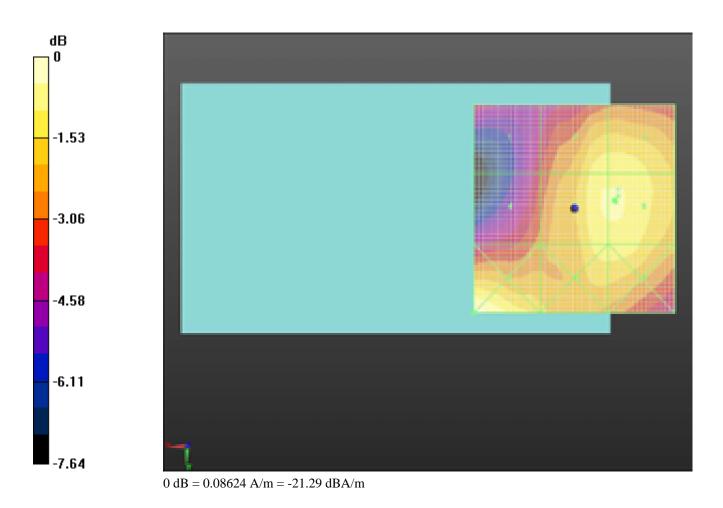
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Author Data

Daoud Attayi

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Date/Time: 4/4/2013 11:52:41 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 303E5577

Communication System: CDMA 1900; 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 = 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_telecoil_Full_Rate/Hearing Aid Compatibility

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

Device Reference Point: 0, 0, -6.3 mm

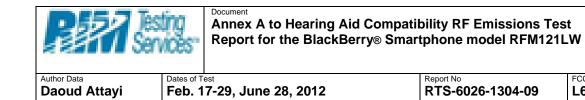
Reference Value = 0.09200 A/m; Power Drift = -0.00 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.08692 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.080 A/m	0.080 A/m	0.083 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.066 A/m	0.087 A/m	0.089 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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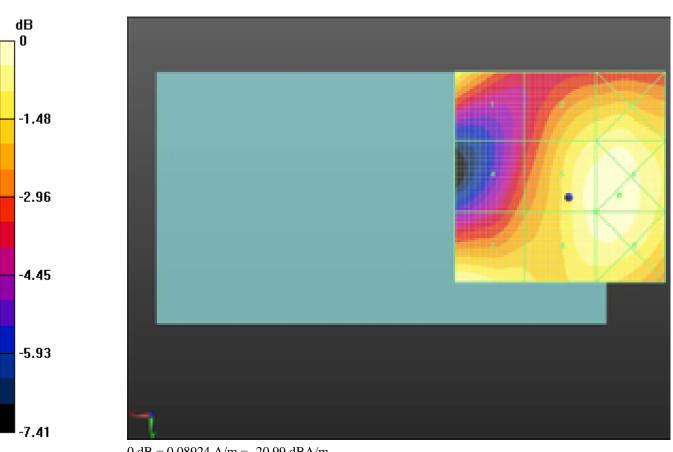
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0.086 A/m 0.087 A/m 0.088 A/m



0 dB = 0.08924 A/m = -20.99 dBA/m