

Annex A: Measurement data and plots

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



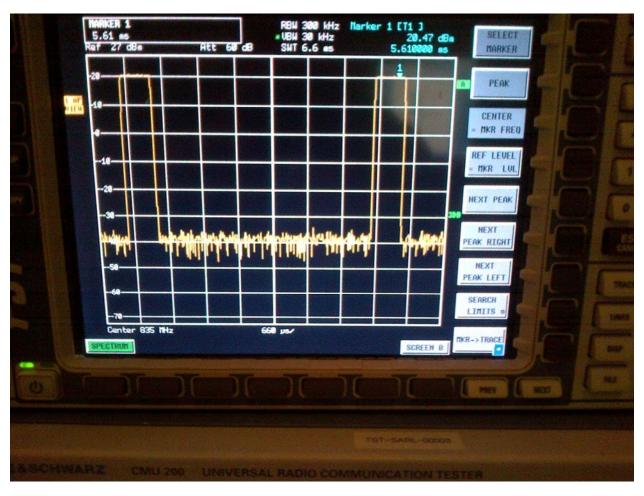
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

Report No **RTS-6026-1304-52**



GSM 835 MHz



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Daoud Attayi

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CW 835 MHz



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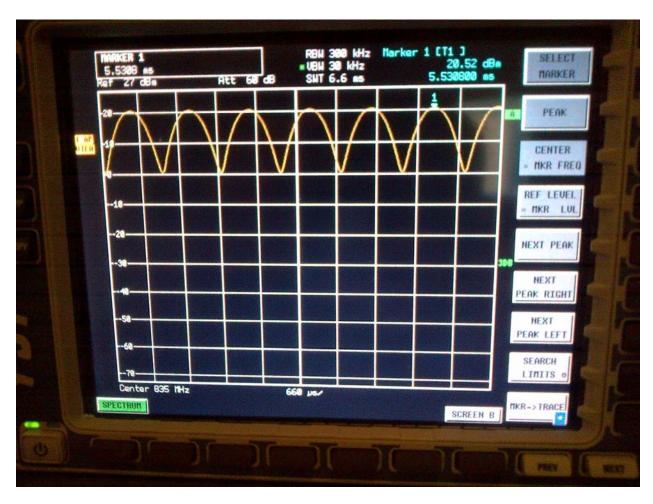
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AM 80% 835 MHz



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UMTS 835 MHz



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CW 835 MHz



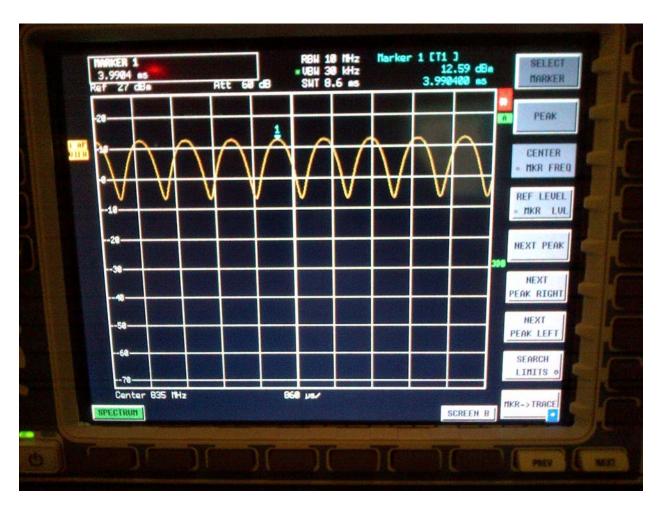
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Author Data **Daoud Attayi**

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AM 80% 835 MHz



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CDMA 835 MHz (BC0)



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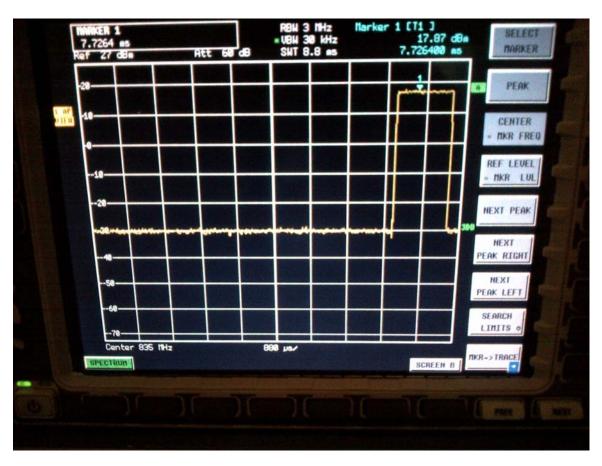
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CDMA 835 MHz (BC0) 1/8th



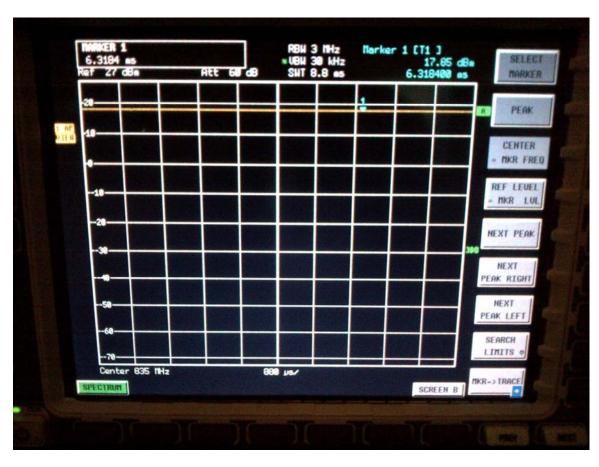
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CW 835 MHz



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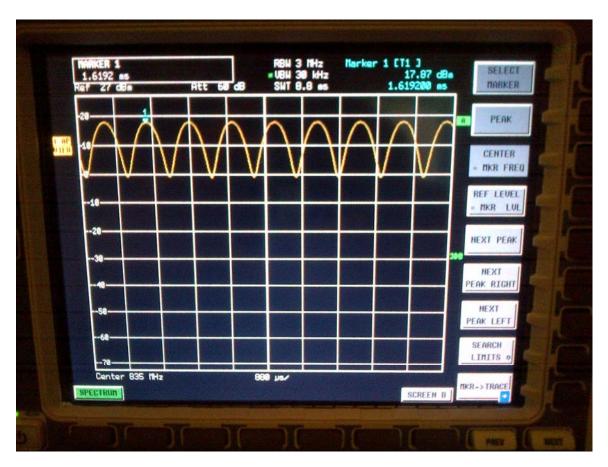
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AM 80% 835 MHz



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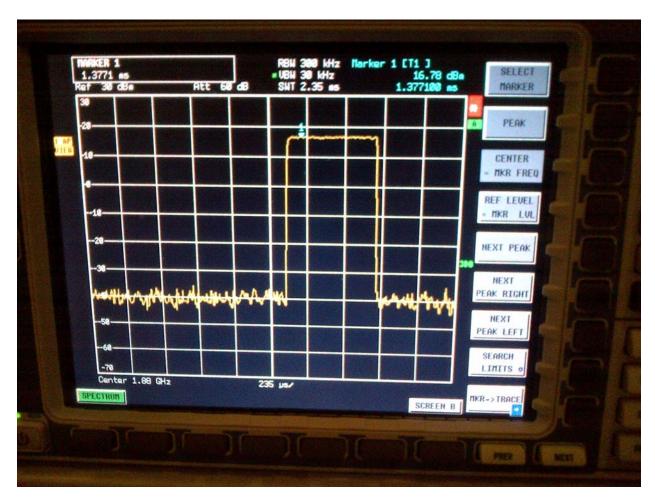
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GSM 1880 MHz



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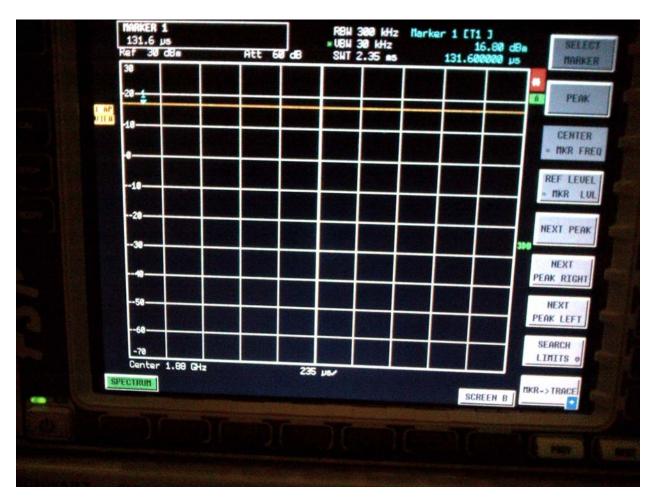
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CW 1880 MHz



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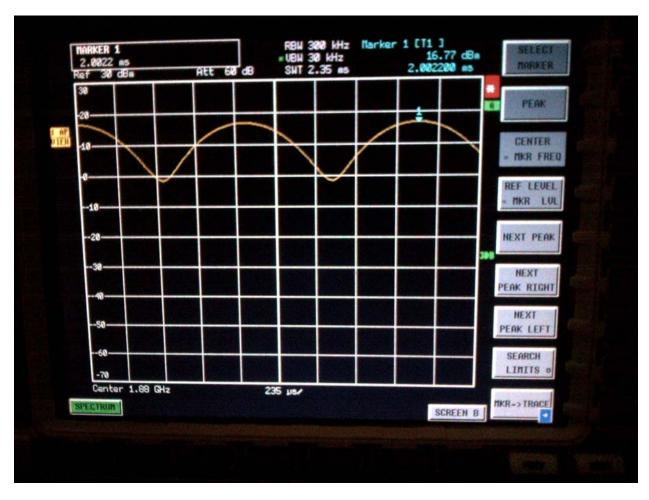
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AM 80 % 1880 MHz



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UMTS 1880 MHz



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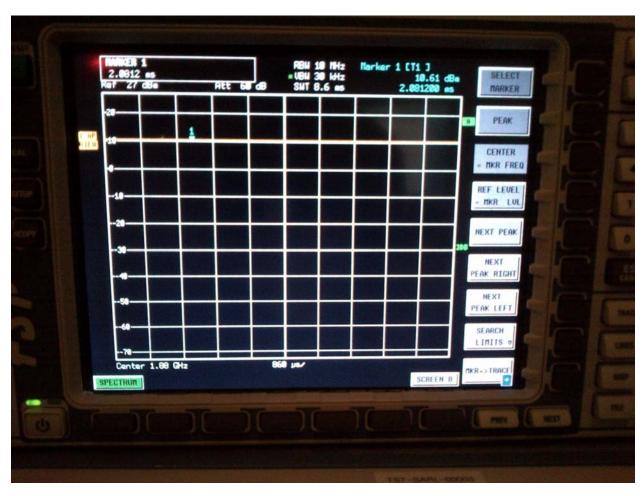
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Author Data

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CW 1880 MHz



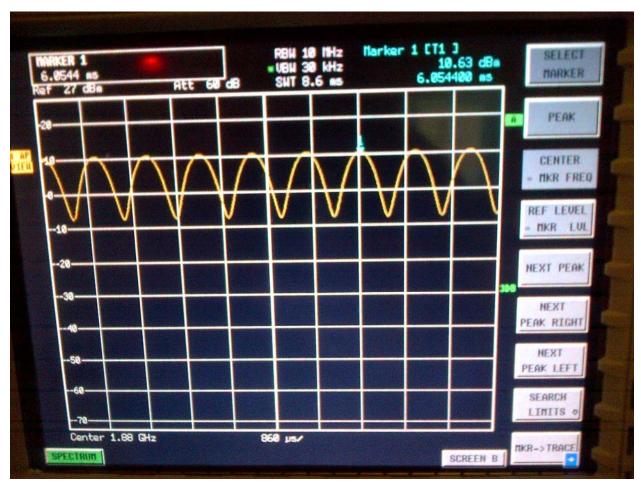
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AM 80 % 1880 MHz



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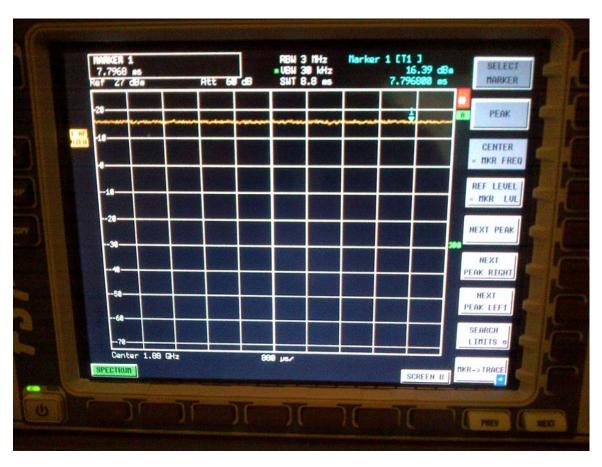
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CDMA 1880 MHz (BC1)



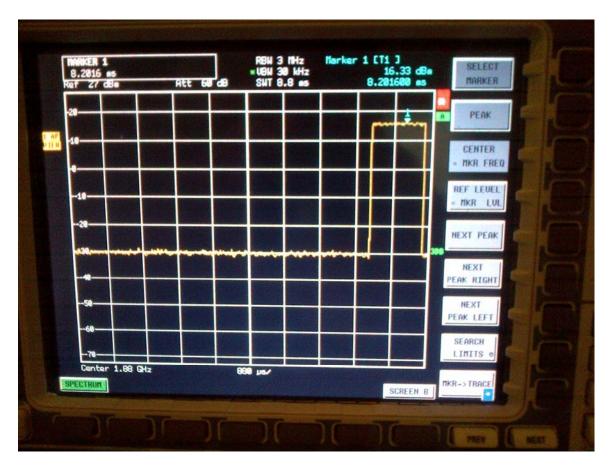
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CDMA 1880 MHz (BC1) 1/8 th



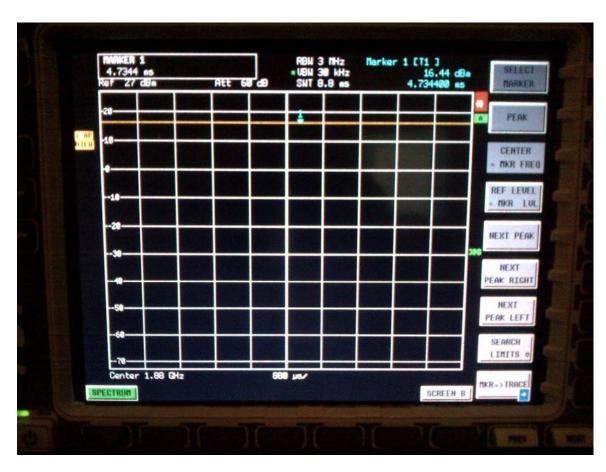
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CW 1880 MHz



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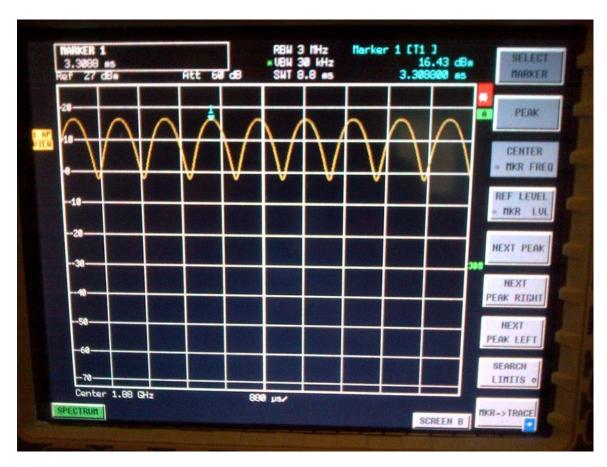
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AM 80% 1880 MHz



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L6ARFQ110LW

A.2 Dipole validation and probe modulation factor plots



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Author Data Daoud Attayi Feb. 17-29, June 28, 2012 April 24-26, 2013

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L6ARFQ110LW

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

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_04_24_13

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

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

Phantom section: RF Section

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

DASY Configuration:

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

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 168.2 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

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

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Author Data **Daoud Attayi** Dates of Test **Feb. 17-29, June 28, 2012** April 24-26, 2013

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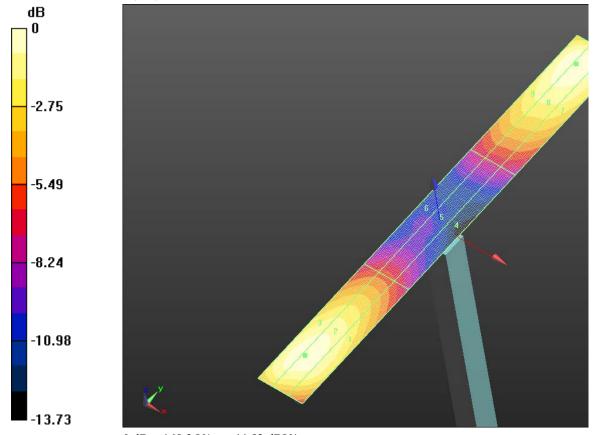
FCC ID L6ARFQ110LW

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

Cursor:

Total = 168.2 V/mE Category: M4

Location: -2.5, 80, 4.7 mm



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



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

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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Daoud Attayi

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L6ARFQ110LW

FCC ID

Cursor:

Total = 54.247 V/m E Category: M4

Location: -2.5, 80.5, 4.7 mm

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 162.8 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

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

Cursor:

Total = 162.8 V/m E Category: M4

Location: 0.5, 79.5, 4.7 mm

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 102.0 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

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



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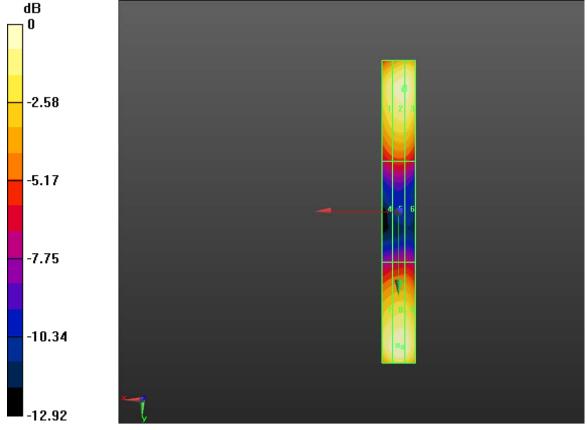
FCC ID L6ARFQ110LW

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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FCC ID L6ARFQ110LW

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



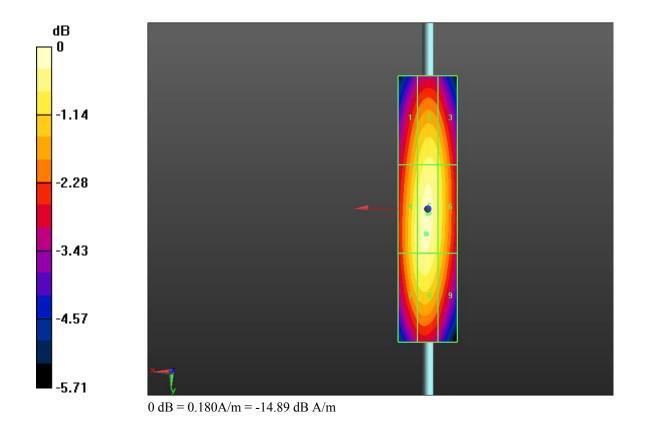
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L6ARFQ110LW

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;
- 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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FCC ID L6ARFQ110LW

PMF scaled E-field

Grid 1 M4 104.7 V/m	
Grid 4 M4 56.56 V/m	
Grid 7 M4 112.0 V/m	

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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FCC ID

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 110.7 V/m	
Grid 4 M4 60.24 V/m	
Grid 7 M4 119.5 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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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

L6ARFQ110LW

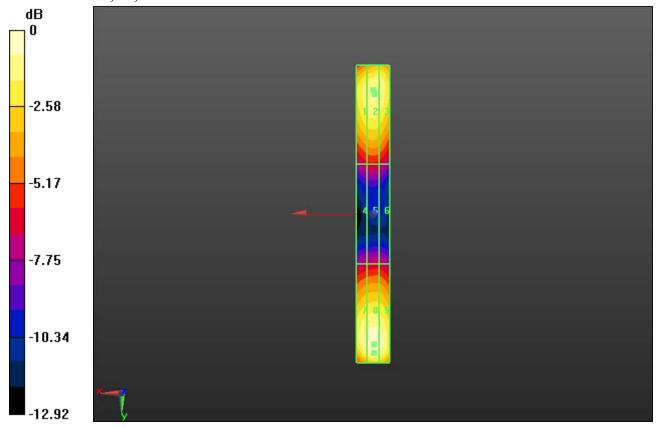
PMF scaled E-field

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

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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Author Data Daoud Attayi

Feb. 17-29, June 28, 2012 April 24-26, 2013

RTS-6026-1304-52

L6ARFQ110LW

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

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_04_24_13

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

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

Phantom section: RF Section

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

DASY Configuration:

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

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 131.0 V/m

Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 M2	Grid 2 M2	Grid 3 M2
121.1 V/m	130.6 V/m	130.4 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
82.22 V/m	87.04 V/m	85.72 V/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 24-26, 2013

Report No **RTS-6026-1304-52**

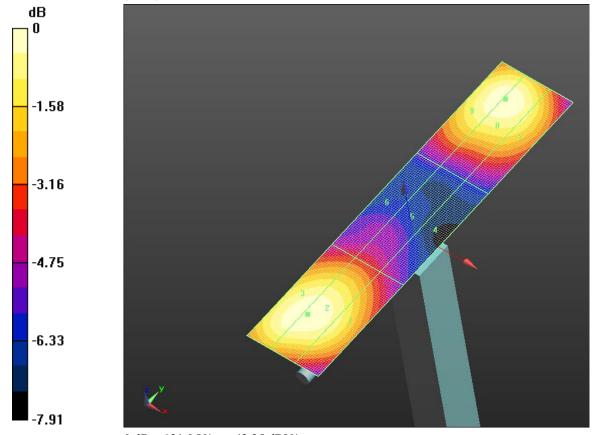
FCC ID L6ARFQ110LW

118.4 V/m 131.0 V/m 130.8 V/m

Cursor:

Total = 131.0 V/mE Category: M2

Location: -3, 37.5, 4.7 mm



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



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Daoud Attayi

Dates of Test

Feb. 17-29, June 28, 2012 April 24-26, 2013 RTS-6026-1304-52

L6ARFQ110LW

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

FCC ID

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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FCC ID

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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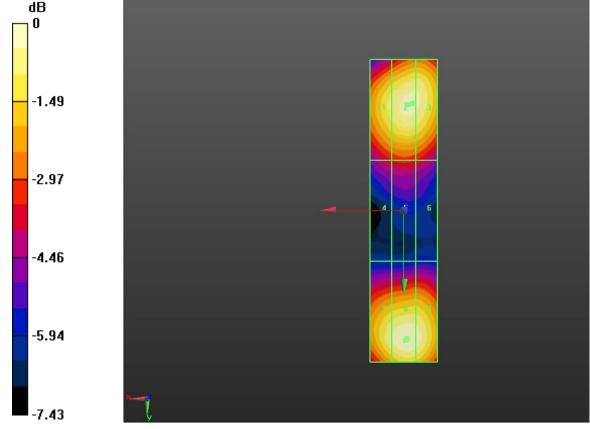
Report No RTS-6026-1304-52 FCC ID L6ARFQ110LW

PMF scaled E-field

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

Cursor:

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



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



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RTS-6026-1304-52

L6ARFQ110LW

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	17.65 V/m	17.12 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
25.54 V/m	27.40 V/m	27.02 V/m

Cursor:

Total = 27.402 V/m E Category: M4

Location: -1, 38, 4.7 mm



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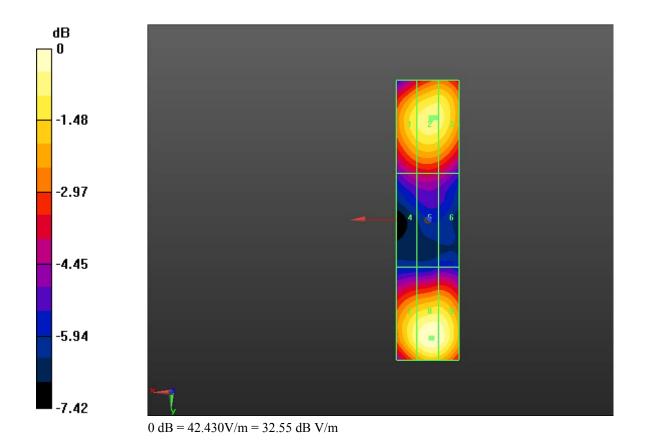
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Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

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Daoud Attayi

Feb. 17-29, June 28, 2012 April 24-26, 2013

RTS-6026-1304-52

L6ARFQ110LW

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;
- 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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RTS-6026-1304-52

L6ARFQ110LW

FCC ID

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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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

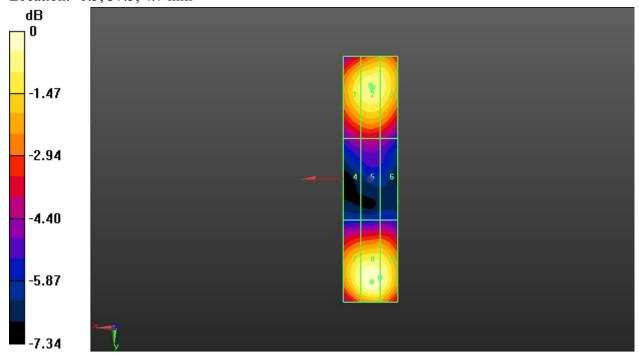
PMF scaled E-field

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/m E 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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L6ARFQ110LW

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

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_04_24_13

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

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

Phantom section: RF Section

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

DASY Configuration:

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

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

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

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

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

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4745 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

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



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Author Data **Daoud Attayi**

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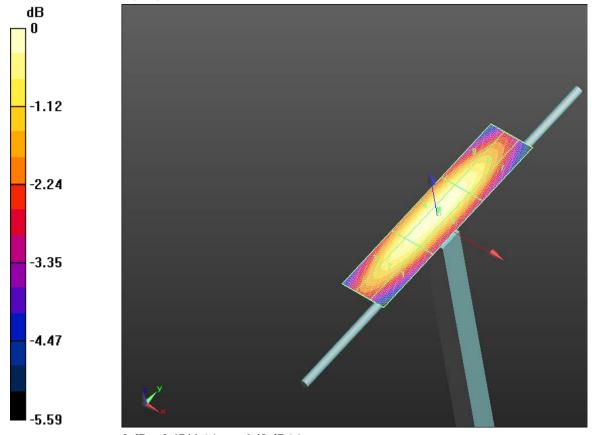
FCC ID L6ARFQ110LW

0.425 A/m 0.462 A/m 0.449 A/m

Cursor:

Total = 0.4744 A/mH Category: M4

Location: -1.5, 2.5, 4.7 mm



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



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L6ARFQ110LW

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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L6ARFQ110LW

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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Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

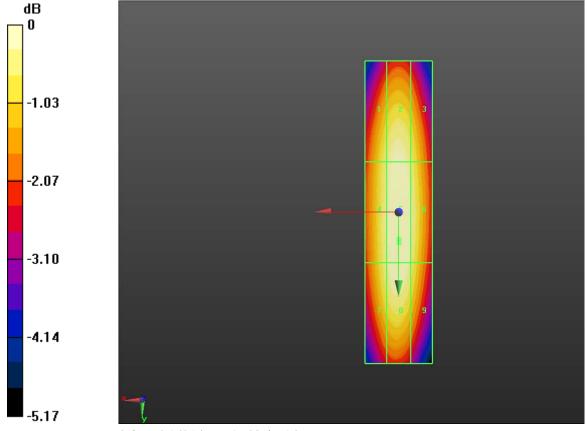
FCC ID L6ARFQ110LW

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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RTS-6026-1304-52

L6ARFQ110LW

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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FCC ID L6ARFQ110LW

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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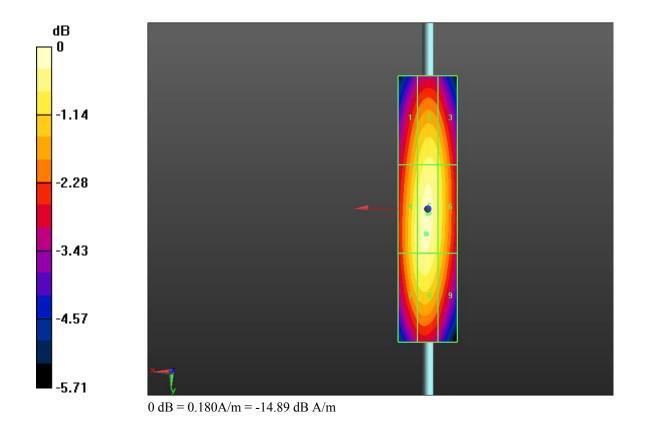
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

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Author Data **Daoud Attayi**

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RTS-6026-1304-52

L6ARFQ110LW

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

Dipole H-Field measurement 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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L6ARFQ110LW

FCC ID

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 measurement 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,

dy=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 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 = 0.24 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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FCC ID L6ARFQ110LW

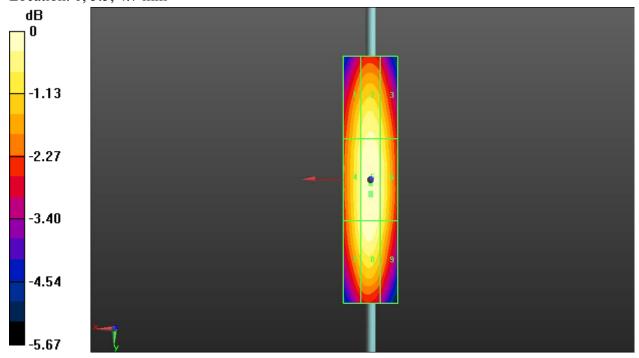
PMF scaled H-field

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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L6ARFQ110LW

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

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_04_24_13

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

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

Phantom section: RF Section

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

DASY Configuration:

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

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

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

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

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

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

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

Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.4847 A/m

Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

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

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FCC ID L6ARFQ110LW

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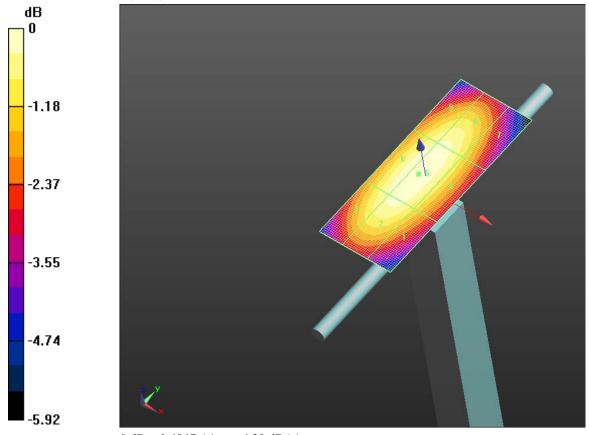
K13-0020-1304-3

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

Cursor:

Total = 0.4847 A/m H Category: M2

Location: -1.5, -0.5, 4.7 mm



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



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Daoud Attayi

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L6ARFQ110LW

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 L6ARFQ110LW

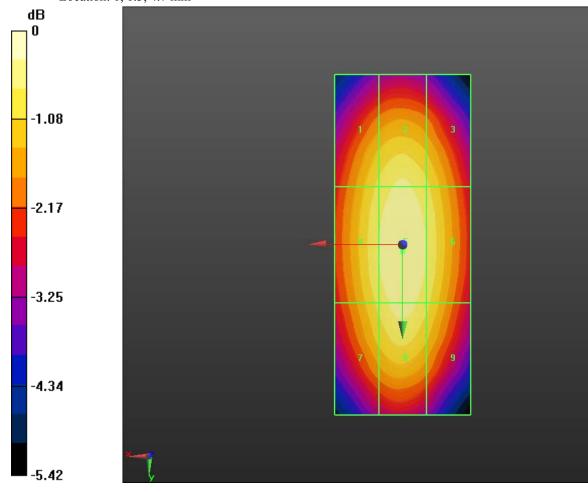
PMF scaled H-field

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

Cursor:

Total = 0.194 A/m H Category: M3

Location: 0, 0.5, 4.7 mm



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L6ARFQ110LW

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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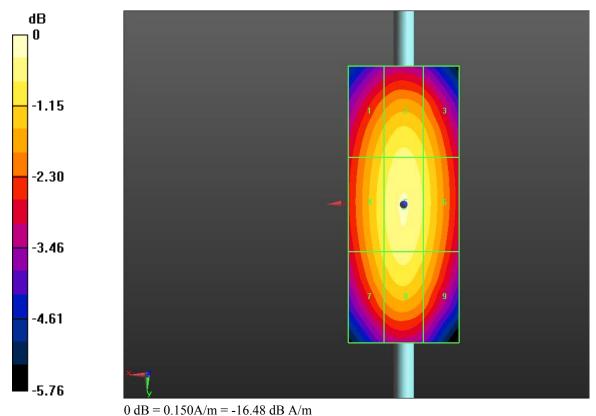
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Author Data **Daoud Attayi**

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L6ARFQ110LW

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

Dipole H-Field measurement 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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RTS-6026-1304-52

L6ARFQ110LW

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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 measurement 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 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 = 0.31 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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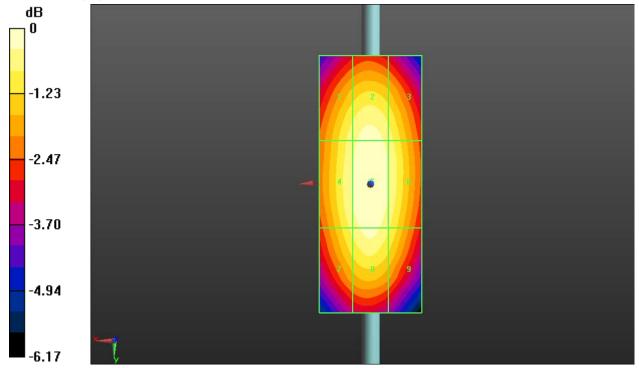
FCC ID L6ARFQ110LW

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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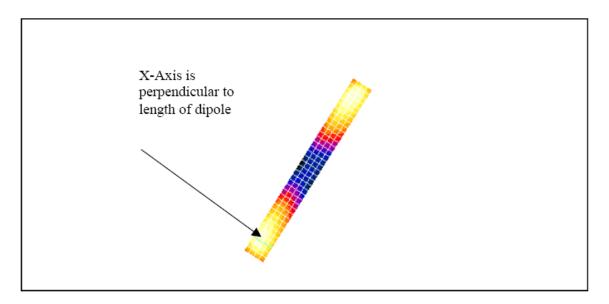
Author Data

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L6ARFQ110LW



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

Comparison of 5mm and 2mm step sizes

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



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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System; CW; Frequency: 1880 MHz; Duty Cycle: 1:1 Medium: Air Medium parameters used: σ = 0 mho/m, $\varepsilon_{\rm f}$ = 1; ρ = 1000 kg/m³

Phantom section: H Device Section

DASY4 Configuration:

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

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

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

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

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

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

Maximum value of Total field (slot averaged) = 131.0 V/m

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

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

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

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
М3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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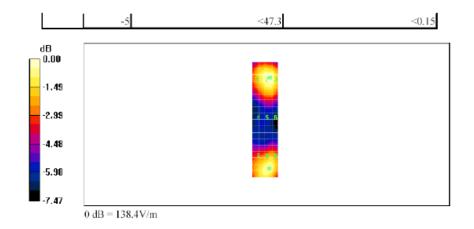
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Date/Time: 14/07/2005 11:44:51 AM

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System; CW; Frequency: 1880 MHz; Duty Cycle: 1:1 Medium: Air Medium parameters used: σ = 0 mho/m, $\varepsilon_{\rm f}$ = 1; ρ = 1000 kg/m³

Phantom section: H Device Section

DASY4 Configuration:

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

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

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

Maximum value of Total (measured) = 138.0 V/m

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

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

Maximum value of Total field (slot averaged) = 131.2 V/m

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

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

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
123.1	138.6	138.6	123.1	138.6	138.6
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
81.4	92.1	91.6	81.4	92.1	91.6
		Grid 9	Grid 7		
121.3	131.2	131.0	121.3	131.2	131.0

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

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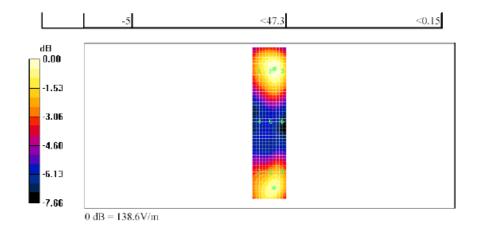
Daoud Attayi

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

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

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

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

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

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

	((
		Grid 3	Grid 1		
0.342	0.359	0.344	0.342	0.359	0.344
		Grid 6	Grid 4		
0.389	0.406	0.389	0.389	0.406	0.389
		Grid 9	 Grid 7		
0.363	0.378	0.363	0.363	0.378	0.363

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112,2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19



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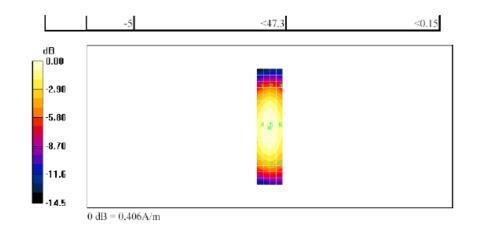
Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

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Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

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

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

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

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

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

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

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

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

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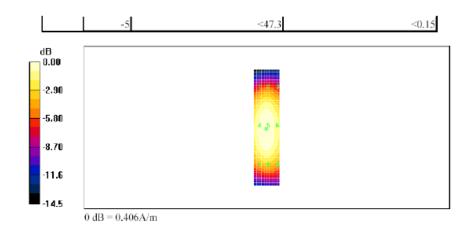
Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

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A.3 RF emission field plots



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L6ARFQ110LW

Date/Time: 4/26/2013 3:29:20 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

• 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 = 67.32 V/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 174.1 V/m

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

PMF scaled E-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
144.3 V/m	170.0 V/m	170.2 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
142.8 V/m	174.1 V/m	174.3 V/m



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Grid 7 M4	Grid 8 M3	Grid 9 M3
142.2 V/m	171.3 V/m	171.4 V/m

Cursor:

Total = 174.3 V/m E Category: M3

Location: -9, 0.5, 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 = 73.61 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 196.9 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
156.7 V/m	192.3 V/m	193.4 V/m
Grid 4 M3	Grid 5 M3	Grid 6 M3
153.9 V/m	196.9 V/m	197.7 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
151.8 V/m	193.9 V/m	194.3 V/m

Cursor:

Total = 197.7 V/m E Category: M3

Location: -10, 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/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 = 69.50 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 187.2 V/m

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

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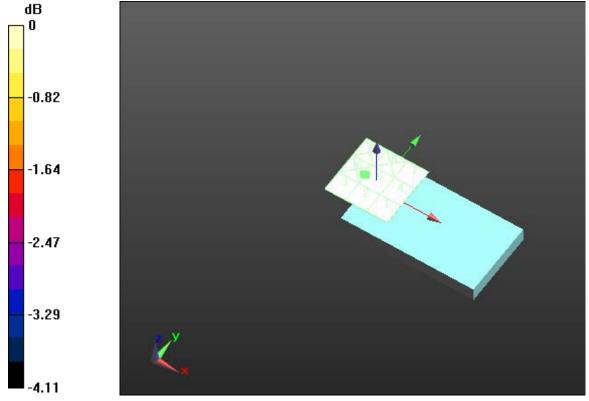
PMF scaled E-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
149.4 V/m	184.6 V/m	185.4 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
144.5 V/m	187.2 V/m	188.1 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
139.0 V/m	182.6 V/m	183.2 V/m

Cursor:

Total = 188.1 V/m E Category: M3

Location: -10, -0.5, 8.7 mm



0 dB = 167.4 V/m = 44.48 dBV/m



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L6ARFQ110LW

Date/Time: 4/26/2013 3:54:49 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: GSM 850; Frequency: 836.8 MHz Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- 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 = 73.03 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 3.000 is applied.

E-field emissions = 187.7 V/m

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

PMF scaled E-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
146.7 V/m	182.7 V/m	188.6 V/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
142.4 V/m	187.7 V/m	194.2 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
141.6 V/m	187.6 V/m	194.0 V/m

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Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFQ111LW Page

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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

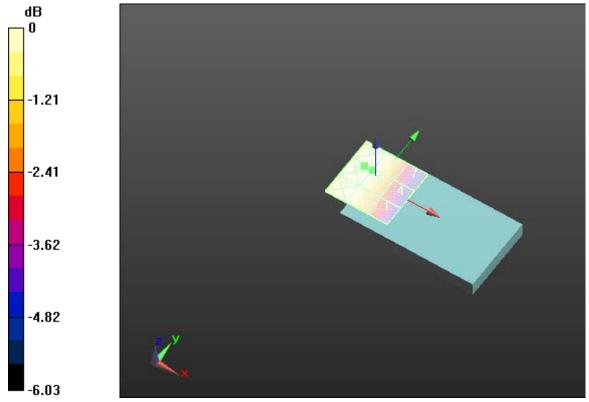
Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

Cursor:

Total = 194.2 V/mE Category: M3

Location: -10.5, 2, 8.7 mm



0 dB = 186.5 V/m = 45.41 dBV/m



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Author Data

Daoud Attayi

Pages of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

RTS-6026-1304-52

L6ARFQ110LW

Date/Time: 4/26/2013 5:29:13 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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
- 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 = 64.33 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 59.88 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
49.13 V/m	58.38 V/m	58.43 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
49.02 V/m	59.88 V/m	59.94 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

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FCC ID L6ARFQ110LW

48.81 V/m	58.97 V/m	59.00 V/m
-----------	-----------	-----------

Cursor:

Total = 59.94 V/m E Category: M4

Location: -9.5, 1, 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 = 80.62 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 76.92 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
61.03 V/m	75.11 V/m	75.43 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
60.36 V/m	76.92 V/m	77.21 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
59.88 V/m	75.85 V/m	76.00 V/m

Cursor:

Total = 77.21 V/m E Category: M4

Location: -10, 1.5, 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 = 77.75 V/m; Power Drift = 0.14 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 74.61 V/m

Near-field category: M4 (AWF 0 dB)



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Daoud Attayi

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PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
61.15 V/m	73.29 V/m	73.67 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
58.84 V/m	74.61 V/m	75.09 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
56.67 V/m	72.56 V/m	72.90 V/m

Cursor:

Total = 75.09 V/m E Category: M4

Location: -10, 0, 8.7 mm



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFQ111LW Page

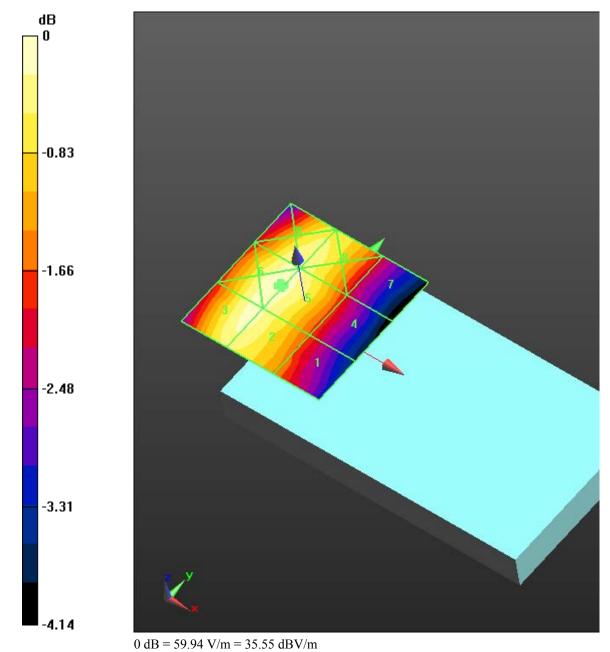
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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

Report No **RTS-6026-1304-52**

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Author Data

Daoud Attayi

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L6ARFQ110LW

Date/Time: 4/26/2013 5:33:49 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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 = 80.99 V/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.070 is applied.

E-field emissions = 74.64 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 57.77 V/m	Grid 2 M4 72.23 V/m	Grid 3 M4 74.67 V/m
Grid 4 M4 56.45 V/m	Grid 5 M4	Grid 6 M4
Grid 7 M4 56.24 V/m	Grid 8 M4	Grid 9 M4

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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

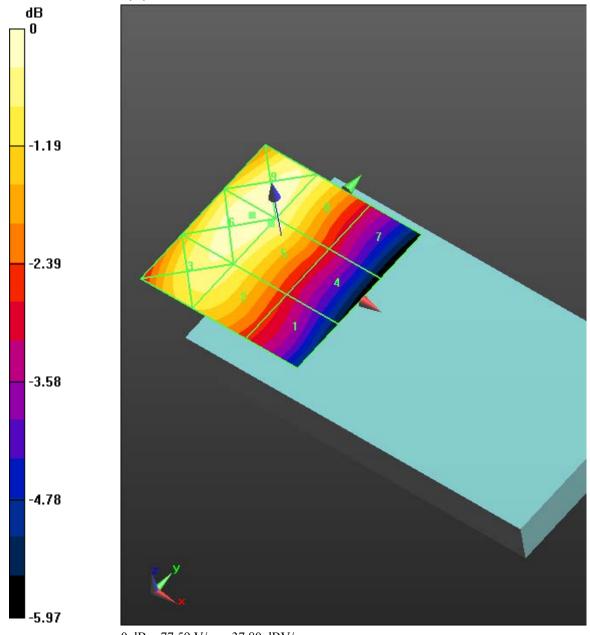
Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

Cursor:

Total = 77.59 V/mE Category: M4

Location: -10, 1, 8.7 mm



0 dB = 77.59 V/m = 37.80 dBV/m



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FCC ID L6ARFQ110LW

Date/Time: 4/26/2013 4:05:12 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

• 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 = 11.05 V/m; Power Drift = 0.11 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 53.51 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
48.50 V/m	53.51 V/m	52.34 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
30.61 V/m	44.75 V/m	45.14 V/m



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Grid 7 M3	Grid 8 M3	Grid 9 M3
55.63 V/m	69.11 V/m	68.44 V/m

Cursor:

Total = 69.11 V/m E Category: M3

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/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 8.576 V/m; Power Drift = 0.15 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 54.98 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
49.69 V/m	54.98 V/m	54.48 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
27.48 V/m	42.90 V/m	44.27 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
54.60 V/m	71.25 V/m	71.00 V/m



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Cursor:

Total = 71.25 V/m E Category: M3

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_High_Chan/Hearing Aid

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 7.786 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 50.67 V/m

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

PMF scaled E-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
40.87 V/m	50.67 V/m	50.64 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
22.34 V/m	38.28 V/m	39.79 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
47.07 V/m	64.14 V/m	64.14 V/m

Cursor:

Total = 64.14 V/m E Category: M3

Location: -8, 25, 8.7 mm



Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RFQ111LW Page

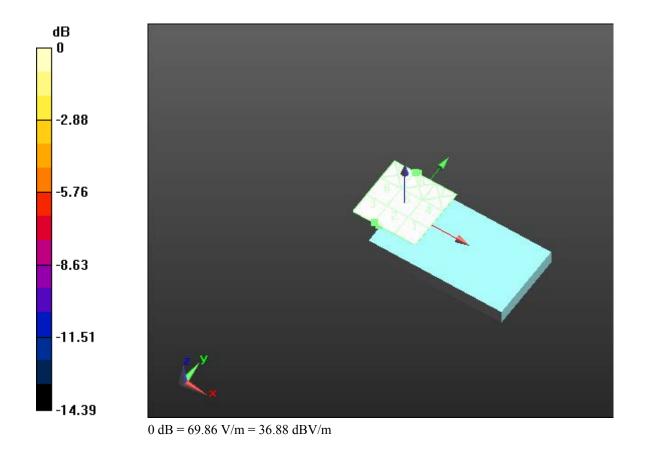
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Author Data Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

Report No **RTS-6026-1304-52**

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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 24-26, 2013

RTS-6026-1304-52

L6ARFQ110LW

Date/Time: 4/26/2013 4:38:11 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: GSM 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: 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
- 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 = 8.846 V/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 57.92 V/m

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

PMF scaled E-field

Grid 1 M3	Grid 2 M3	Grid 3 M3
50.67 V/m	57.92 V/m	57.92 V/m
Grid 4 M4 28.11 V/m	Grid 5 M4 36.67 V/m	Grid 6 M4 37.99 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3
38.79 V/m	60.40 V/m	61.69 V/m

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Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

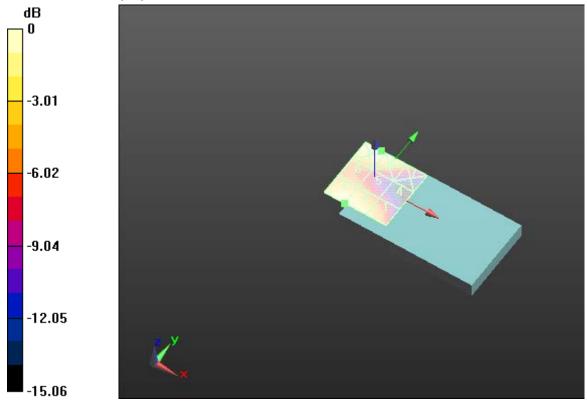
Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

Cursor:

Total = 61.69 V/mE Category: M3

Location: -8, 20, 8.7 mm



0 dB = 62.36 V/m = 35.90 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 24-26, 2013

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Date/Time: 4/26/2013 4:56:24 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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;
- 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 = 16.55 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 28.77 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 26.07 V/m	Grid 2 M4 28.77 V/m	Grid 3 M4 28.15 V/m
Grid 4 M4 16.74 V/m	Grid 5 M4 23.35 V/m	Grid 6 M4 23.61 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

Daoud Attayi

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L6ARFQ110LW

FCC ID

29.16 V/m 35.61 V/m 35.44 V/m

Cursor:

Total = 35.61 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/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 = 14.60 V/m; Power Drift = -0.15 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 28.01 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.97 V/m	28.01 V/m	27.83 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
14.93 V/m	22.90 V/m	23.39 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
28.44 V/m	37.03 V/m	36.96 V/m

Cursor:

Total = 37.03 V/m E Category: M4

Location: -7.5, 25, 8.7 mm

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

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 13.13 V/m; Power Drift = -0.09 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 26.13 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 24-26, 2013 Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

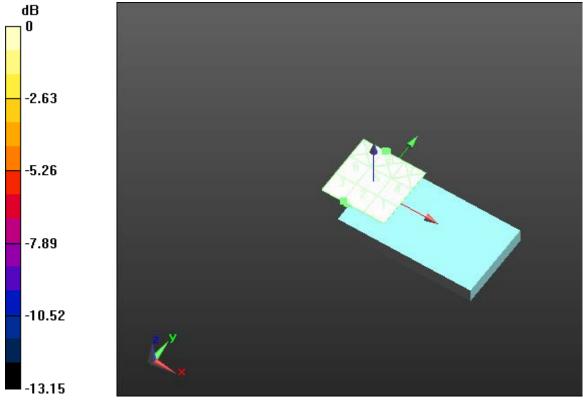
PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
21.80 V/m	26.13 V/m	26.11 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
12.66 V/m	20.16 V/m	20.67 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
24.70 V/m	32.81 V/m	32.75 V/m

Cursor:

Total = 32.81 V/m E Category: M4

Location: -7.5, 25, 8.7 mm



0 dB = 35.61 V/m = 31.03 dBV/m



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Author Data

Daoud Attayi

Feb. 17-29, June 28, 2012 April 24-26, 2013

RTS-6026-1304-52

L6ARFQ110LW

Date/Time: 4/26/2013 11:38:47 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 SN2286; ConvF(1, 1, 1); Calibrated: 1/11/2013;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- 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 = -0.18 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 29.49 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
27.03 V/m	29.49 V/m	29.40 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
15.14 V/m	19.57 V/m	20.02 V/m
Grid 7 M4 22.33 V/m	Grid 8 M4 31.12 V/m	Grid 9 M4 31.36 V/m

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Author Data Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

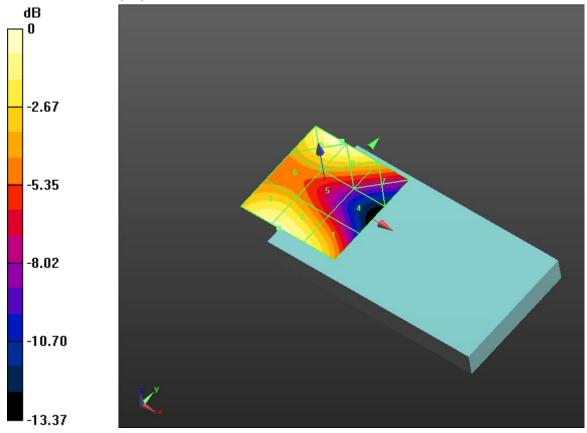
Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW

Cursor:

Total = 31.36 V/mE Category: M4

Location: -7, 20, 8.7 mm



0 dB = 31.36 V/m = 29.93 dBV/m



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L6ARFQ110LW

Date/Time: 4/26/2013 10:18:46 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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
- 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 = 55.05 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 49.89 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
44.38 V/m	49.40 V/m	49.28 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
42.34 V/m	49.89 V/m	49.89 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Author Data

Daoud Attayi

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FCC ID L6ARFQ110LW

41.10 V/m 48.62 V/m 48.62 V/m

Cursor:

Total = 49.89 V/m E Category: M4

Location: -8, -0.5, 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 = 60.95 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 56.99 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
46.57 V/m	55.15 V/m	55.17 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
45.55 V/m	56.99 V/m	57.14 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
44.95 V/m	56.26 V/m	56.35 V/m



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L6ARFQ110LW

Cursor:

Total = 57.14 V/m E Category: M4

Location: -9.5, 1, 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 = 72.50 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 67.18 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
55.38 V/m	65.92 V/m	66.03 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
53.74 V/m	67.18 V/m	67.30 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
52.26 V/m	66.51 V/m	66.69 V/m

Cursor:

Total = 67.30 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_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 = 25.80 V/m; Power Drift = 0.24 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 74.78 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
61.33 V/m	73.02 V/m	67.44 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
60.26 V/m	74.78 V/m	76.77 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
56.97 V/m	73.83 V/m	73.67 V/m

Cursor:

Total = 76.77 V/m E Category: M4

Location: -10, -0.5, 8.7 mm



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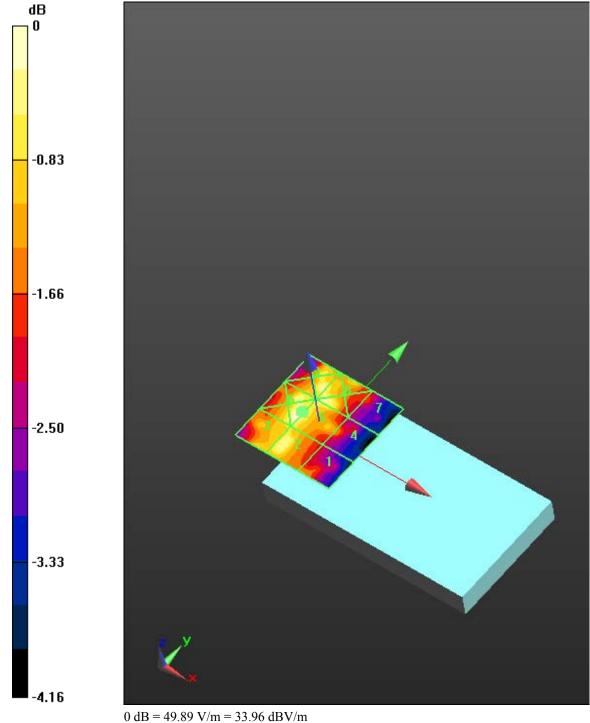
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L6ARFQ110LW

Date/Time: 4/26/2013 11:21:31 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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
- 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 = 30.68 V/m; Power Drift = -1.10 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 72.82 V/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
60.59 V/m	72.61 V/m	68.83 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
57.06 V/m	72.81 V/m	77.14 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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51.08 V/m

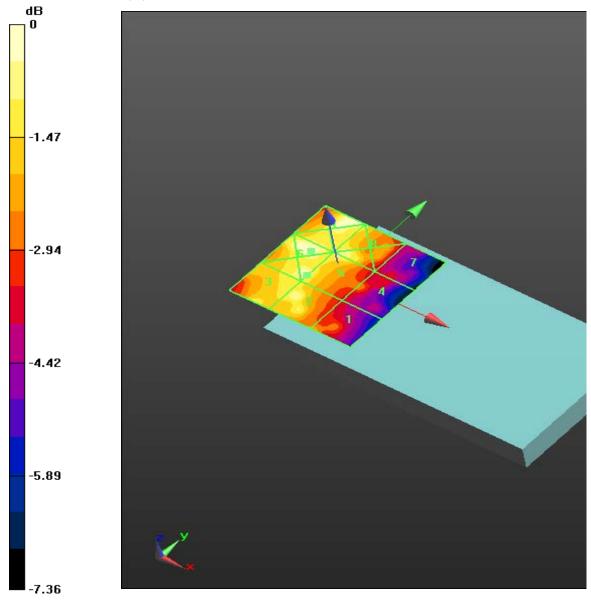
72.56 V/m

76.02 V/m

Cursor:

Total = 77.14 V/mE Category: M4

Location: -11, 0, 8.7 mm



0 dB = 77.13 V/m = 37.74 dBV/m

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L6ARFQ110LW

Date/Time: 4/26/2013 5:50:59 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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
- 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 = 20.20 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 24.64 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
22.84 V/m	24.64 V/m	23.92 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
15.48 V/m	22.32 V/m	22.85 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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19.39 V/m 28.55 V/m 28.54 V/m

Cursor:

Total = 28.55 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_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 = 18.42 V/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 23.42 V/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
22.23 V/m	23.42 V/m	22.95 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
13.70 V/m	21.97 V/m	22.88 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
19.17 V/m	29.15 V/m	29.20 V/m



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Cursor:

Total = 29.20 V/m E Category: M4

Location: -9.5, 25, 8.7 mm

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

Device_High_Chan_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 = 19.76 V/m; Power Drift = -0.20 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 28.70 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
26.31 V/m	28.70 V/m	28.23 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
16.59 V/m	23.15 V/m	24.03 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
20.91 V/m	32.82 V/m	32.91 V/m

Cursor:

Total = 32.91 V/m E Category: M4

Location: -9.5, 25, 8.7 mm

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

Device_High_Chan_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 = 6.951 V/m; Power Drift = -0.28 dB

PMR not calibrated. PMF = 2.670 is applied.

E-field emissions = 26.31 V/m

Near-field category: M4 (AWF 0 dB)



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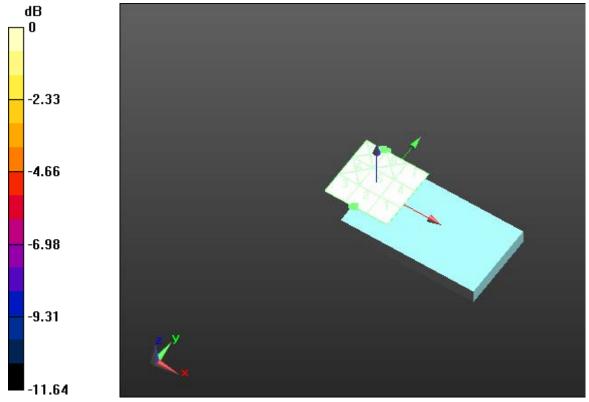
Daoud Attayi

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PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
24.31 V/m	26.31 V/m	26.12 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
15.49 V/m	20.76 V/m	21.89 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
18.52 V/m	32.51 V/m	33.86 V/m



0 dB = 28.26 V/m = 29.02 dBV/m



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L6ARFQ110LW

Date/Time: 4/26/2013 6:14:05 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: CDMA 1900; 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
- 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_Full_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 = 19.23 V/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 30.45 V/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
27.33 V/m	30.70 V/m	30.71 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
17.91 V/m	22.05 V/m	22.23 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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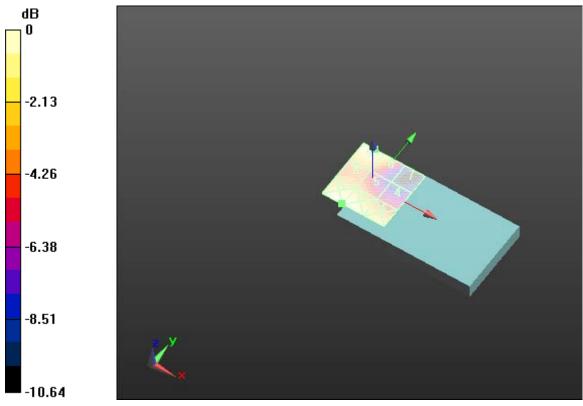
Author Data **Daoud Attayi**

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14.08 V/m 28.18 V/m 30.45 V/m



0 dB = 30.40 V/m = 29.66 dBV/m



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Date/Time: 4/26/2013 12:02:31 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900_2100mA_Battery

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: GSM 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: 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
- 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_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 = 7.944 V/m; Power Drift = 0.53 dB

PMR not calibrated. PMF = 2.850 is applied.

E-field emissions = 57.05 V/m

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

Grid 1 M3	Grid 2 M3	Grid 3 M3
49.23 V/m	57.05 V/m	56.95 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
27.25 V/m	36.45 V/m	37.20 V/m
Grid 7 M4	Grid 8 M3	Grid 9 M3



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FCC ID L6ARFQ110LW

39.03 V/m

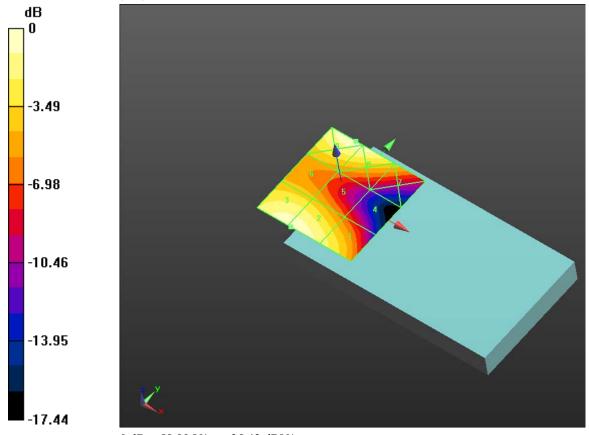
57.46 V/m

58.35 V/m

Cursor:

Total = 58.35 V/mE Category: M3

Location: -8, 20, 8.7 mm



0 dB = 58.99 V/m = 35.42 dBV/m



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FCC ID L6ARFQ110LW

Date/Time: 4/28/2013 1:54:21 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.06800 A/m; Power Drift = -0.02 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.3059 A/m

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

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.306 A/m	0.226 A/m	0.145 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.336 A/m	0.249 A/m	0.173 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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0.399 A/m	0.296 A/m	0.204 A/m
0.399 A/m	0.296 A/m	0.204 A/m

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

mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.07300 A/m; Power Drift = 0.13 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.3397 A/m

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

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.340 A/m	0.249 A/m	0.154 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.367 A/m	0.274 A/m	0.184 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.440 A/m	0.326 A/m	0.222 A/m

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

mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.07800 A/m; Power Drift = 0.09 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.3347 A/m

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

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.335 A/m	0.259 A/m	0.178 A/m



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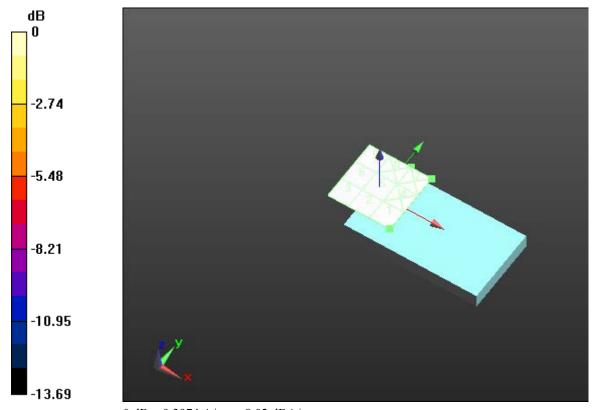
Author Data

Daoud Attayi

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FCC ID L6ARFQ110LW

Grid 4 M4 0.362 A/m	Grid 5 M4 0.285 A/m	Grid 6 M4 0.206 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.431 A/m	0.336 A/m	0.246 A/m



0 dB = 0.3974 A/m = -8.02 dBA/m



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Date/Time: 4/28/2013 2:13:10 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: GSM 850; Frequency: 836.8 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: 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

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.07200 A/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 2.890 is applied.

H-field emissions = 0.3672 A/m

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

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.367 A/m	0.277 A/m	0.179 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.366 A/m	0.282 A/m	0.190 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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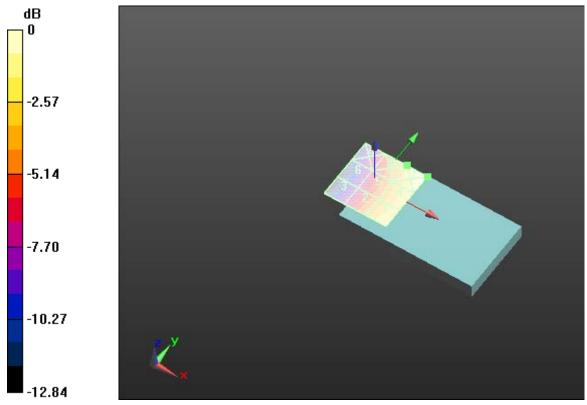
Author Data **Daoud Attayi**

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013

Report No **RTS-6026-1304-52**

FCC ID L6ARFQ110LW





0 dB = 0.4267 A/m = -7.40 dBA/m



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Daoud Attayi

Dates of Test

Feb. 17-29, June 28, 2012 April 24-26, 2013 RTS-6026-1304-52

FCC ID L6ARFQ110LW

Date/Time: 4/28/2013 1:16:48 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.06700 A/m; Power Drift = 0.13 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1128 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.113 A/m	0.084 A/m	0.055 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.126 A/m	0.094 A/m	0.066 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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0.152 A/m 0.113 A/m 0.079 A/m

Cursor:

Total = 0.1521 A/m H Category: M4 Location: 25, 25, 8.7 mm

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

mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08000 A/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1420 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.142 A/m	0.105 A/m	0.065 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.150 A/m	0.113 A/m	0.076 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.180 A/m	0.134 A/m	0.092 A/m



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Cursor:

Total = 0.1799 A/m H Category: M4

Location: 25, 25, 8.7 mm

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

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08800 A/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1408 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.141 A/m	0.109 A/m	0.073 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.156 A/m	0.122 A/m	0.086 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.187 A/m	0.145 A/m	0.103 A/m

Cursor:

Total = 0.1873 A/m H Category: M4

Location: 25, 25, 8.7 mm



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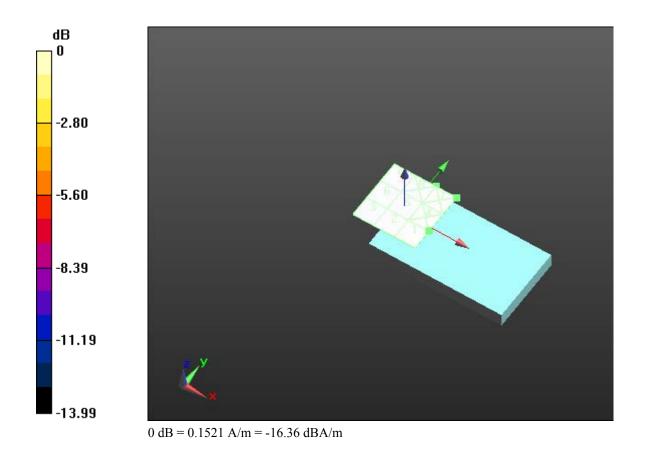
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Author Data

Daoud Attayi

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Date/Time: 4/28/2013 1:30:12 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08000 A/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.090 is applied.

H-field emissions = 0.1533 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.153 A/m	0.116 A/m	0.075 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.153 A/m	0.119 A/m	0.080 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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0.180 A/m

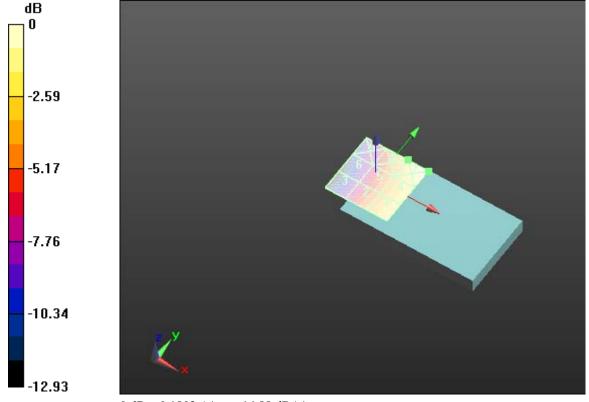
0.138 A/m

0.095 A/m

Cursor:

Total = 0.1802 A/mH Category: M4

Location: 29, 20, 8.7 mm



0 dB = 0.1802 A/m = -14.88 dBA/m



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Date/Time: 4/28/2013 1:35:31 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05100 A/m; Power Drift = -0.10 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1488 A/m

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

PMF scaled H-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
0.105 A/m	0.144 A/m	0.145 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.116 A/m	0.148 A/m	0.149 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3

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0.169 A/m 0.141 A/m 0.142 A/m

Cursor:

Total = 0.1685 A/m H Category: M3

Location: 25, 25, 8.7 mm

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

mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05300 A/m; Power Drift = 0.19 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1602 A/m

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

PMF scaled H-field

Grid 1 M4	Grid 2 M3	Grid 3 M3
0.105 A/m	0.152 A/m	0.153 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.119 A/m	0.159 A/m	0.160 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.163 A/m	0.154 A/m	0.155 A/m

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

mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05500 A/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1635 A/m

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



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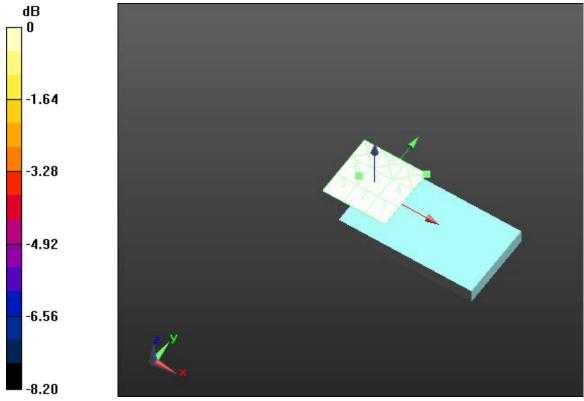
Author Data

Daoud Attayi

Dates of Test Feb. 17-29, June 28, 2012 April 24-26, 2013 Report No **RTS-6026-1304-52**

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Grid 1 M4	Grid 2 M3	Grid 3 M3
0.108 A/m	0.156 A/m	0.159 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.126 A/m	0.161 A/m	0.163 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.175 A/m	0.156 A/m	0.157 A/m



0 dB = 0.1697 A/m = -15.41 dBA/m



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FCC ID L6ARFQ110LW

Date/Time: 4/28/2013 1:48:38 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05400 A/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1545 A/m

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

Grid 1 M4	Grid 2 M4	Grid 3 M3
0.127 A/m	0.138 A/m	0.148 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.108 A/m	0.151 A/m	0.160 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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0.155 A/m

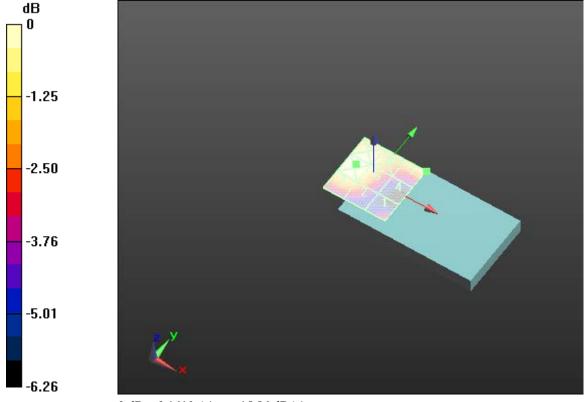
0.150 A/m

0.158 A/m

Cursor:

Total = 0.1599 A/m H Category: M3

Location: -13, -1.5, 8.7 mm



0 dB = 0.1610 A/m = -15.86 dBA/m



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FCC ID

Date/Time: 4/28/2013 12:56:43 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band II

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device low chan/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.07900 A/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.08345 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.058 A/m	0.081 A/m	0.082 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.060 A/m	0.083 A/m	0.083 A/m



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Grid 7 M4	Grid 8 M4	Grid 9 M4
0.085 A/m	0.079 A/m	0.079 A/m

Cursor:

Total = 0.08488 A/m H Category: M4

Location: 25, 25, 8.7 mm

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

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.07900 A/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.08192 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.054 A/m	0.078 A/m	0.079 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.062 A/m	0.081 A/m	0.082 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.089 A/m	0.079 A/m	0.080 A/m



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Cursor:

Total = 0.08854 A/m H Category: M4

Location: 25, 25, 8.7 mm

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

mn

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08000 A/m; Power Drift = 0.11 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.08486 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.054 A/m	0.081 A/m	0.083 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.065 A/m	0.083 A/m	0.085 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.091 A/m	0.081 A/m	0.081 A/m

Cursor:

Total = 0.09057 A/m H Category: M4

Location: 25, 25, 8.7 mm



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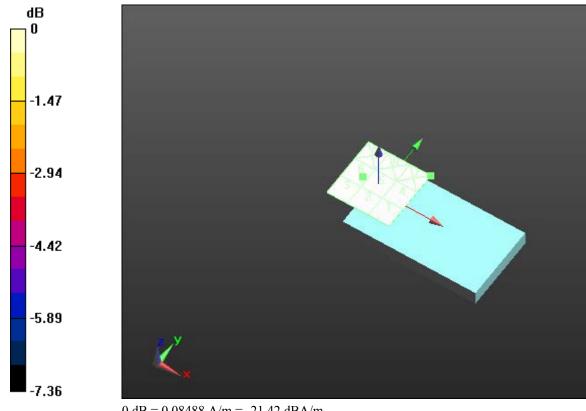
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Author Data Daoud Attayi

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Date/Time: 4/28/2013 1:12:09 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_II_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil/Hearing Aid Compatibility Test

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08100 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.08220 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.063 A/m	0.072 A/m	0.078 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.057 A/m	0.079 A/m	0.084 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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0.082 A/m

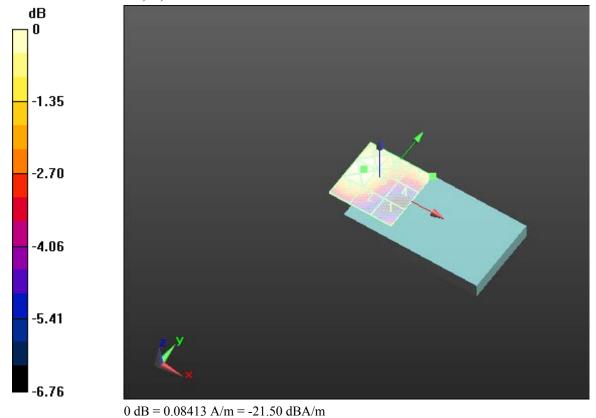
0.079 A/m

0.083 A/m

Cursor:

Total = 0.08413 A/m H Category: M4

Location: -12.5, -1, 8.7 mm





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Date/Time: 4/28/2013 2:51:43 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan_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 = 0.05500 A/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1231 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.123 A/m	Grid 2 M4 0.089 A/m	Grid 3 M4 0.062 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.101 A/m	0.074 A/m	0.051 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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0.088 A/m	0.065 A/m	0.042 A/m
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Cursor:

Total = 0.1231 A/m H Category: M4

Location: 25, -25, 8.7 mm

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

2007: 15 mm from Probe Center to the

Device_mid_chan_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 = 0.06500 A/m; Power Drift = -0.12 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1304 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.130 A/m	0.097 A/m	0.069 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.109 A/m	0.083 A/m	0.057 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.100 A/m	0.076 A/m	0.049 A/m



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Cursor:

Total = 0.1304 A/m H Category: M4

Location: 25, -25, 8.7 mm

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

2007: 15 mm from Probe Center to the

Device_high_chan_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 = 0.08200 A/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.1551 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.155 A/m	0.120 A/m	0.084 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.135 A/m	0.106 A/m	0.074 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.131 A/m	0.102 A/m	0.072 A/m

Cursor:

Total = 0.1551 A/m H Category: M4

Location: 25, -25, 8.7 mm

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

2007: 15 mm from Probe Center to the

Device_high_chan_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 = 0.03000 A/m; Power Drift = 0.19 dB

PMR not calibrated. PMF = 2.650 is applied.

H-field emissions = 0.1488 A/m

Near-field category: M4 (AWF 0 dB)



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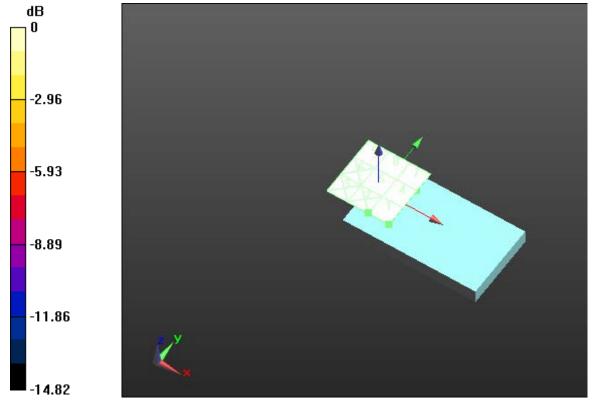
Author Data

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PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.149 A/m	0.111 A/m	0.079 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.128 A/m	0.099 A/m	0.068 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.122 A/m	0.096 A/m	0.067 A/m



0 dB = 0.1231 A/m = -18.19 dBA/m



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L6ARFQ110LW

Date/Time: 4/28/2013 3:10:29 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

Communication System: CDMA 850; 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
- DASY52 52.8.4(1052); SEMCAD X 14.6.8(7028)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_telecoil_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 = -0.18 dB

PMR not calibrated. PMF = 1.060 is applied.

H-field emissions = 0.1793 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.179 A/m	0.141 A/m	0.098 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.156 A/m	0.122 A/m	0.086 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4



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0.142 A/m

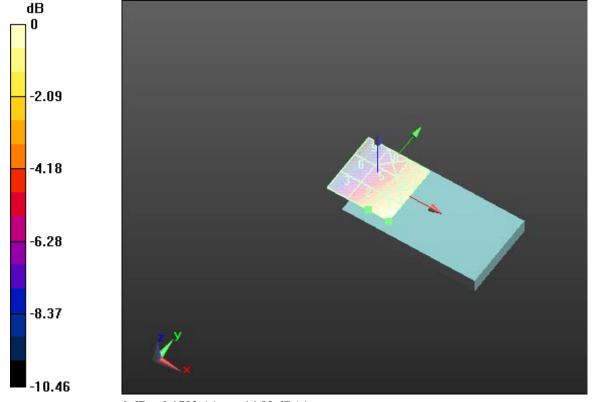
0.112 A/m

0.080 A/m

Cursor:

Total = 0.1793 A/mH Category: M4

Location: 29, -30, 8.7 mm



0 dB = 0.1793 A/m = -14.93 dBA/m



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Date/Time: 4/28/2013 2:21:18 AM

FCC ID

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan_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 = 0.06000 A/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.07762 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.078 A/m	Grid 2 M4 0.061 A/m	Grid 3 M4 0.061 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.055 A/m	0.060 A/m	0.061 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4

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Device H-Field measurement 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 = 0.06800 A/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.07666 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.077 A/m	0.065 A/m	0.065 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.056 A/m	0.065 A/m	0.065 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.067 A/m	0.058 A/m	0.058 A/m

Device H-Field measurement 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 = 0.08400 A/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.08337 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.079 A/m	0.082 A/m	0.083 A/m



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Grid 4 M4	Grid 5 M4	Grid 6 M4
0.066 A/m	0.082 A/m	0.083 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.083 A/m	0.076 A/m	0.076 A/m

Device H-Field measurement 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 = 0.02600 A/m; Power Drift = 0.18 dB

PMR not calibrated. PMF = 2.600 is applied.

H-field emissions = 0.07824 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.069 A/m	0.069 A/m	0.078 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.059 A/m	0.076 A/m	0.079 A/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
0.078 A/m	0.072 A/m	0.067 A/m



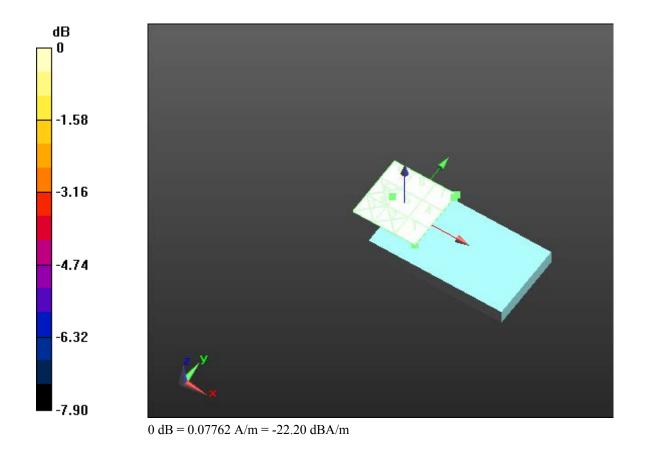
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FCC ID

Date/Time: 4/28/2013 2:45:59 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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 BADASY52 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 = 0.08000 A/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 0.9900 is applied.

H-field emissions = 0.07927 A/m

Near-field category: M4 (AWF 0 dB)

Grid 1 M4	Grid 2 M4	Grid 3 M4
0.082 A/m	0.074 A/m	0.077 A/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
0.059 A/m	0.076 A/m	0.079 A/m



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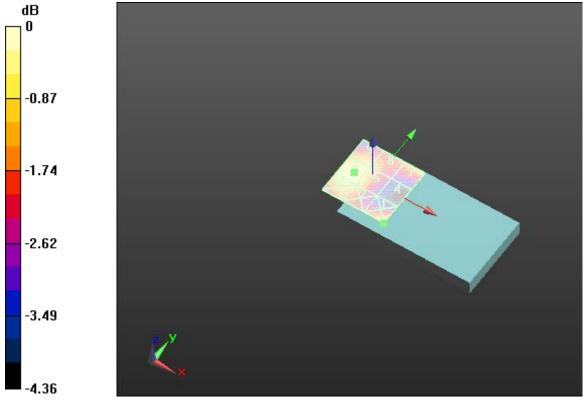
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Grid 7 M4	Grid 8 M4	Grid 9 M4
0.074 A/m	0.073 A/m	0.074 A/m



0 dB = 0.08178 A/m = -21.75 dBA/m



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Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900_2100mA

DUT: BlackBerry Smartphone; Type: Sample; Serial: 333CB445

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

• 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 = 0.05500 A/m: Power Drift = 0.03 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1522 A/m

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

Grid 1 M4 0.133 A/m	Grid 2 M4 0.140 A/m	Grid 3 M3 0.147 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.108 A/m	0.152 A/m	0.159 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3



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0.152 A/m	0.151 A/m	0.158 A/m
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Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 -

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 = 0.05500 A/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 2.860 is applied.

H-field emissions = 0.1597 A/m

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

Grid 1 M4	Grid 2 M3	Grid 3 M3
0.108 A/m	0.154 A/m	0.156 A/m
Grid 4 M4	Grid 5 M3	Grid 6 M3
0.122 A/m	0.158 A/m	0.160 A/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
0.170 A/m	0.153 A/m	0.153 A/m



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