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Annex A: Measurement data and plots

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

Author Data
Andrew Becker

Dates of Test
Feb. 29 & March 1-2, 2012

Report No
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L6AREY20CW



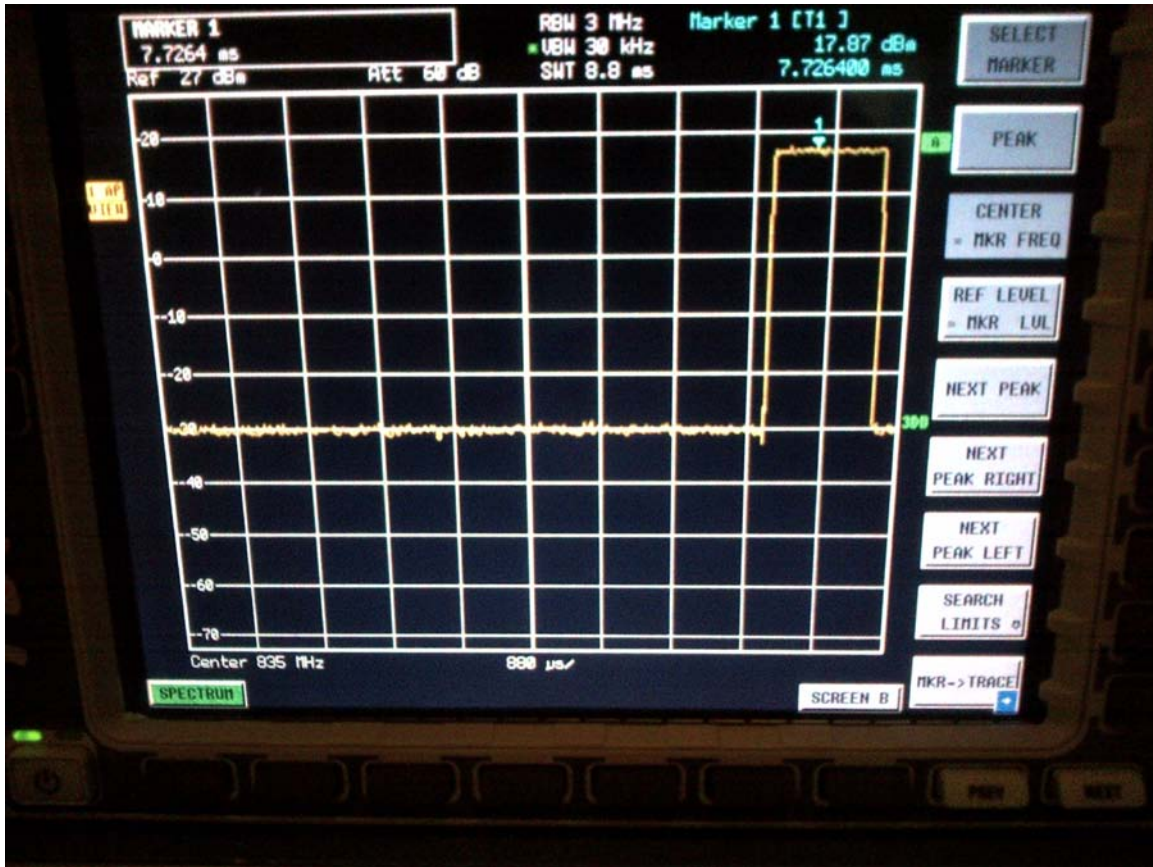
CDMA 835 MHz (BC0)

Author Data
Andrew Becker

Dates of Test
Feb. 29 & March 1-2, 2012

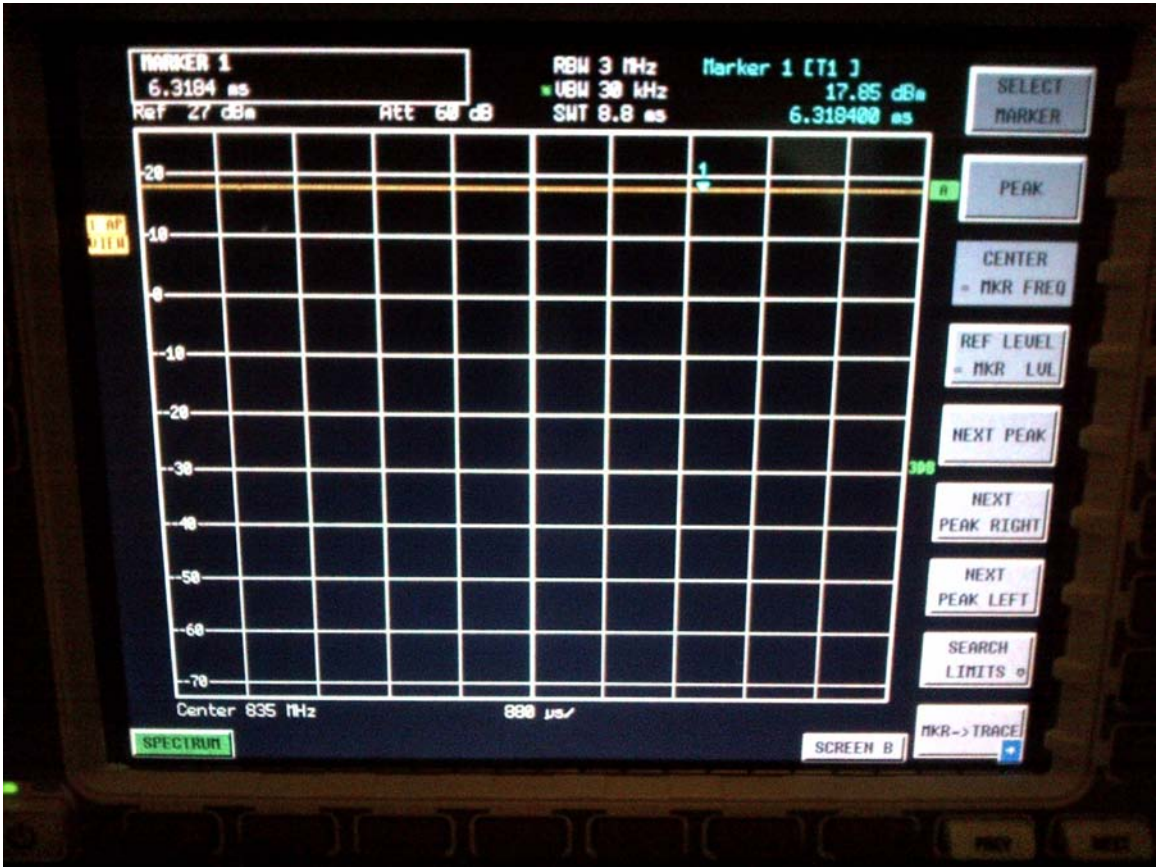
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CDMA 835 MHz (BC0) 1/8th

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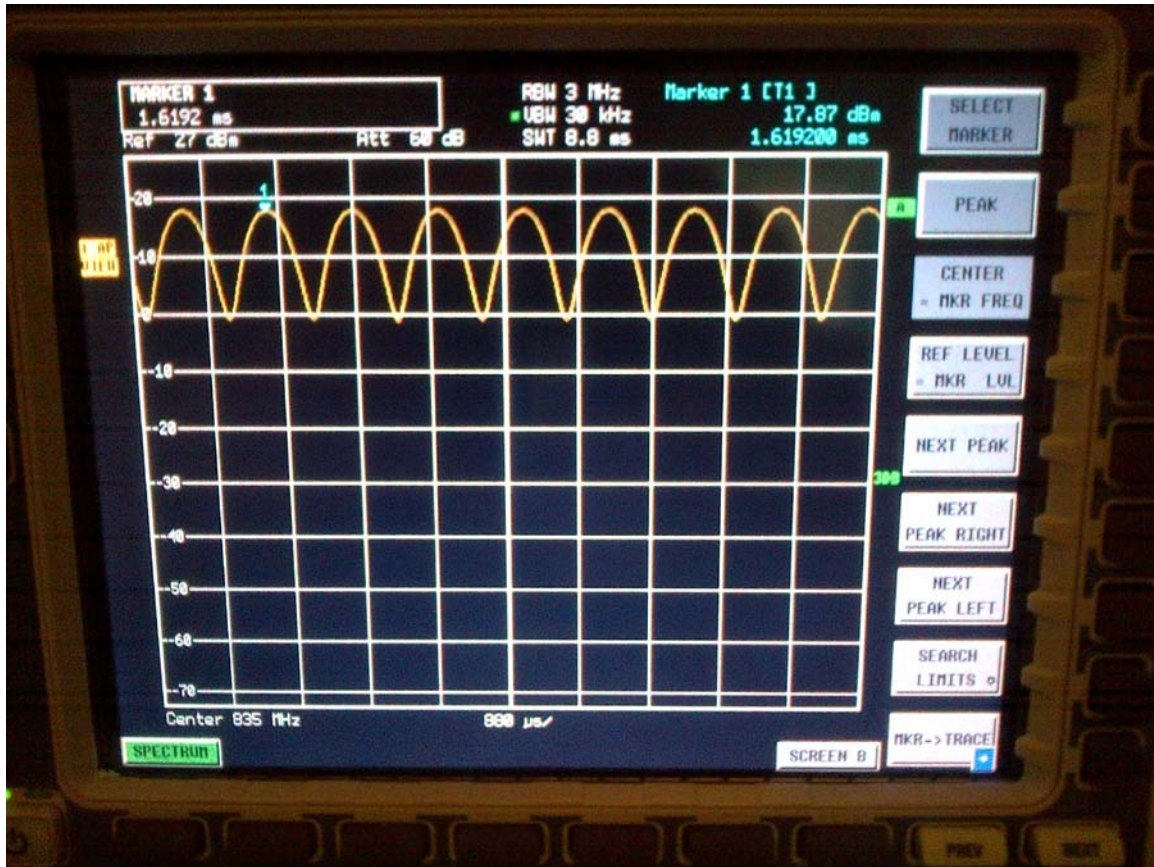
CW 835 MHz

Author Data
Andrew Becker

Dates of Test
Feb. 29 & March 1-2, 2012

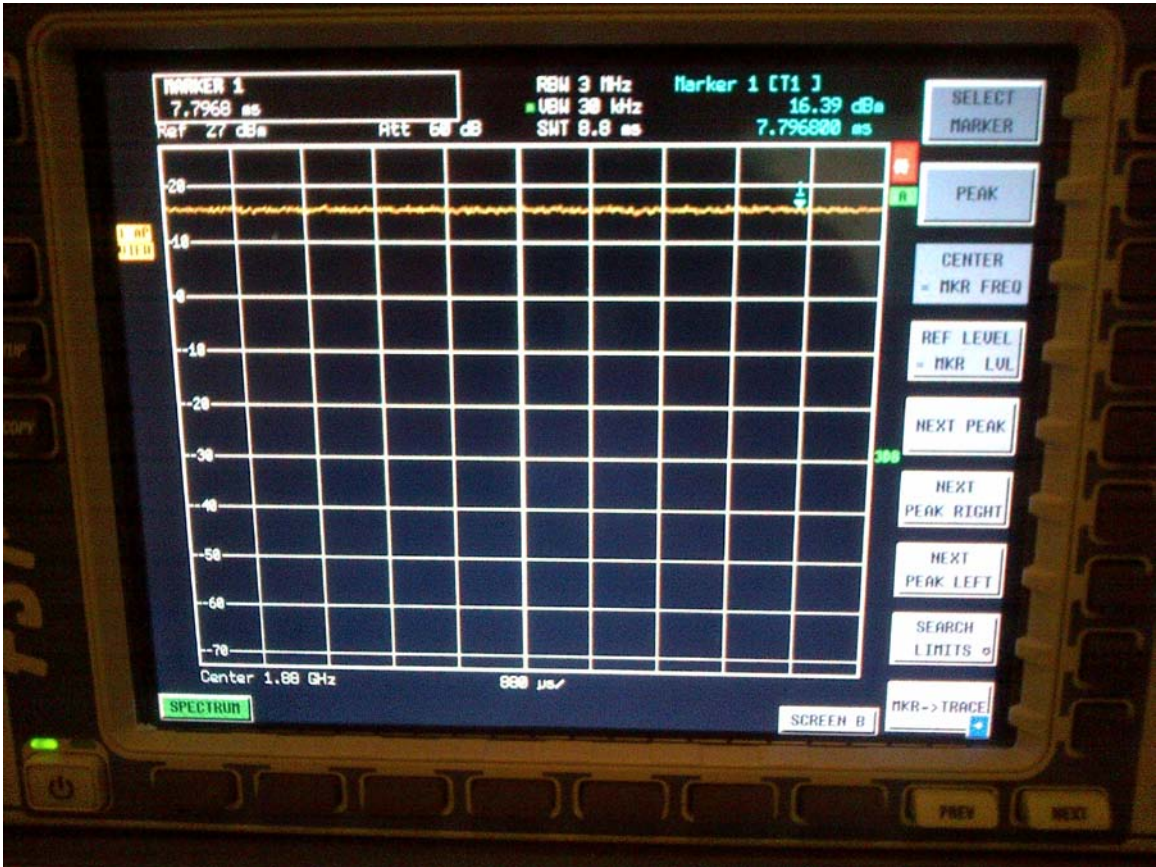
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AM 80% 835 MHz

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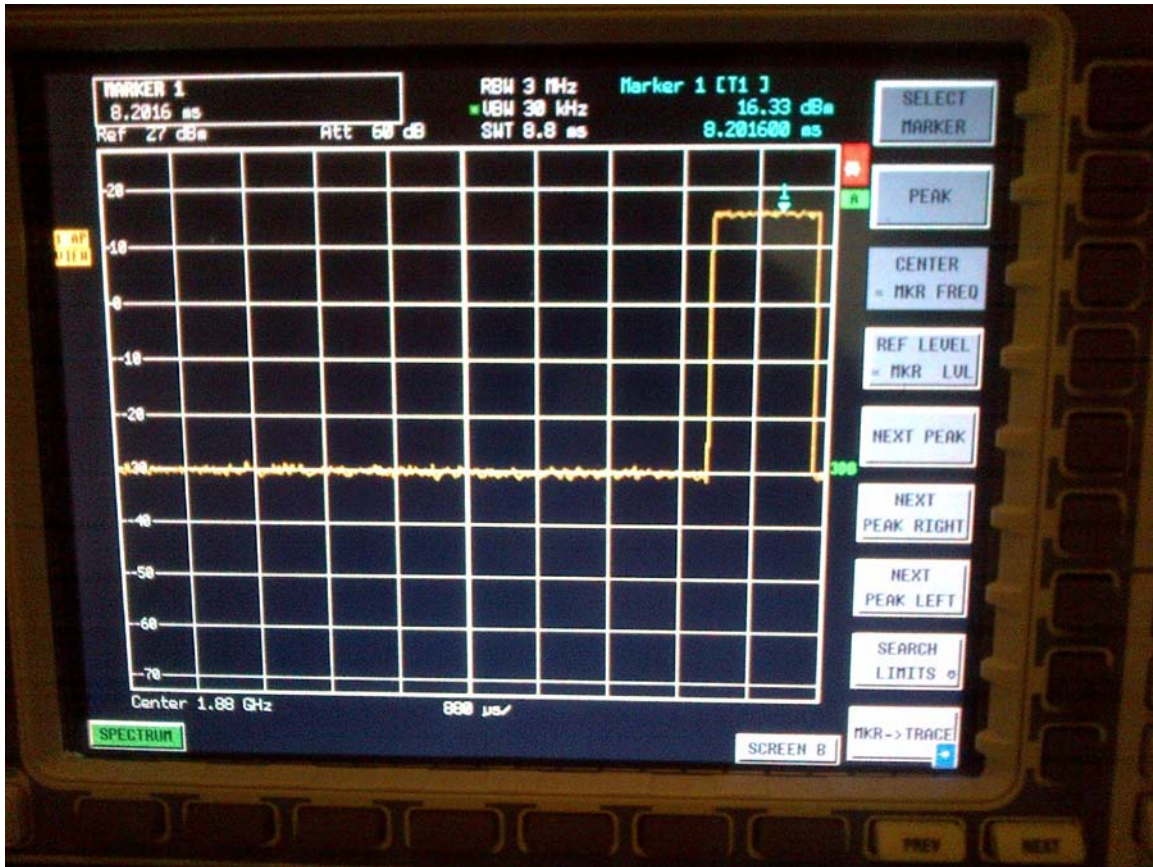
CDMA 1880 MHz (BC1)

Author Data
Andrew Becker

Dates of Test
Feb. 29 & March 1-2, 2012

Report No
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FCC ID
L6AREY20CW



CDMA 1880 MHz (BC1) 1/8 th

Author Data
Andrew Becker

Dates of Test
Feb. 29 & March 1-2, 2012

Report No
RTS-5994-1203-49

FCC ID
L6AREY20CW



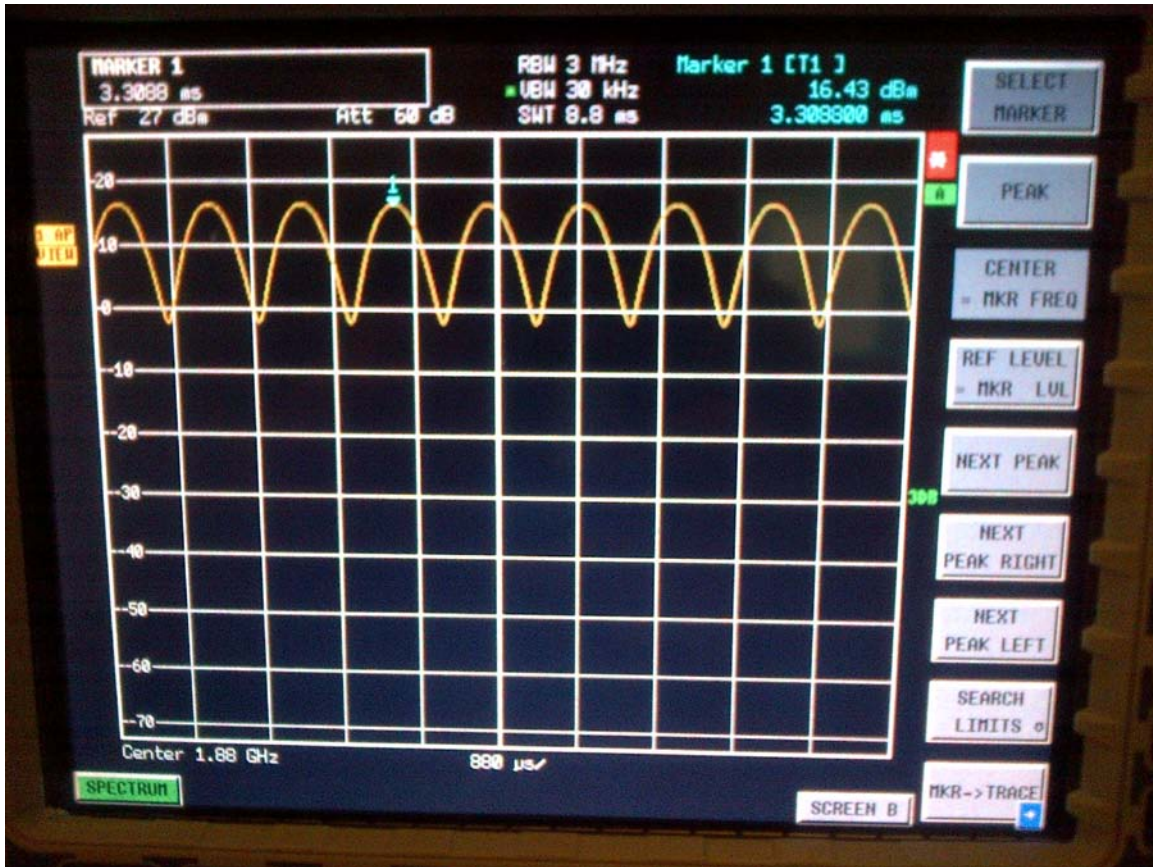
CW 1880 MHz

Author Data
Andrew Becker


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AM 80% 1880 MHz

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A.2 Dipole validation and probe modulation factor plots

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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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 118.9 V/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled E-field

Grid 1 M4 104.7 V/m	Grid 2 M4 108.7 V/m	Grid 3 M4 107.6 V/m
Grid 4 M4 56.56 V/m	Grid 5 M4 57.99 V/m	Grid 6 M4 56.06 V/m
Grid 7 M4 112.0 V/m	Grid 8 M4 118.9 V/m	Grid 9 M4 116.1 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 39.00 V/m	Grid 2 M4 41.81 V/m	Grid 3 M4 39.31 V/m
Grid 4 M4 20.47 V/m	Grid 5 M4 22.99 V/m	Grid 6 M4 20.34 V/m
Grid 7 M4 41.05 V/m	Grid 8 M4 43.21 V/m	Grid 9 M4 42.62 V/m

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

Cursor:

Total = 125.5 V/m

E Category: M4

Location: -0.5, 79, 4.7 mm

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

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 51.22 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 78.06 V/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled E-field

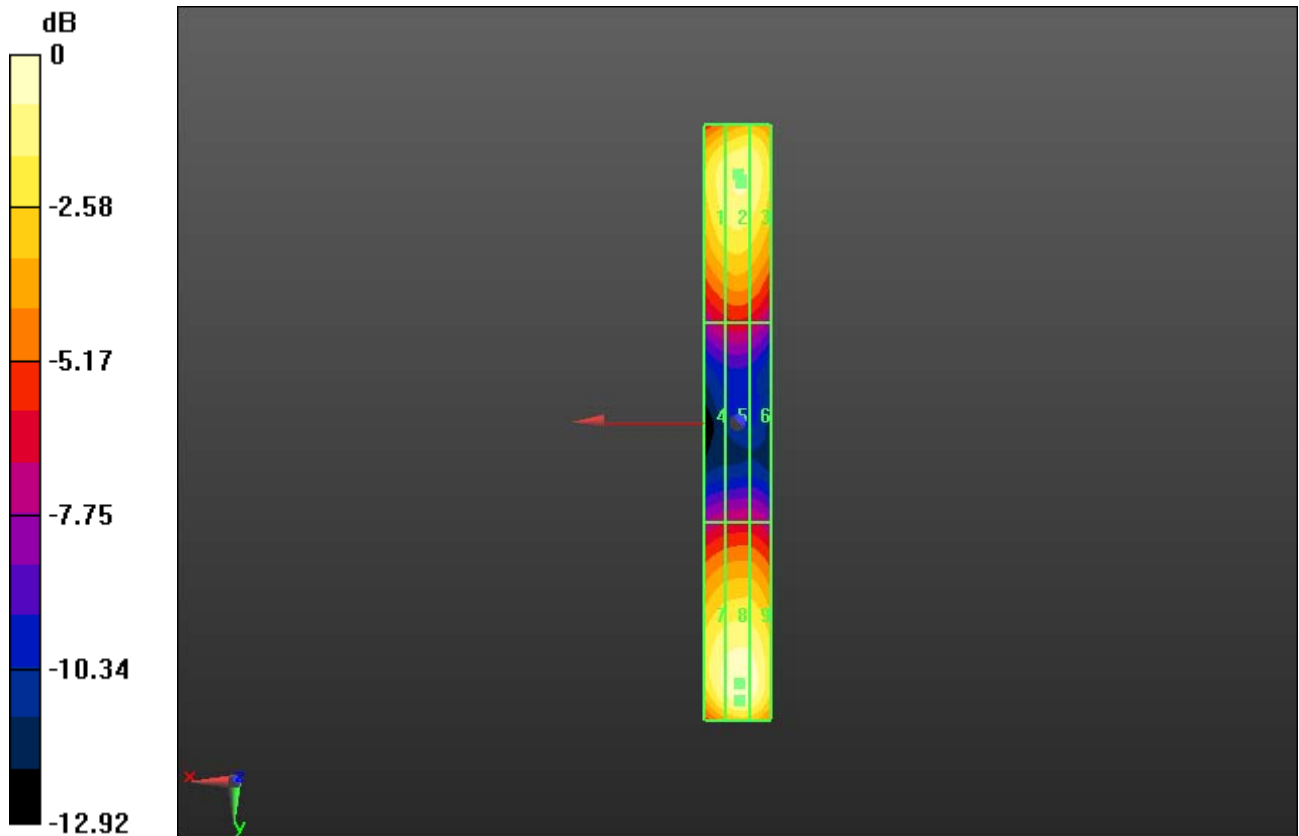
Grid 1 M4 69.60 V/m	Grid 2 M4 71.98 V/m	Grid 3 M4 71.35 V/m
Grid 4 M4 38.16 V/m	Grid 5 M4 38.79 V/m	Grid 6 M4 37.51 V/m
Grid 7 M4 74.44 V/m	Grid 8 M4 78.06 V/m	Grid 9 M4 76.37 V/m

Cursor:


Total = 78.060 V/m

E Category: M4

Location: -0.5, 79, 4.7 mm



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

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_02_29_12

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

Communication System: CW; Frequency: 835 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 116.9 V/m; Power Drift = -0.40 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 170.2 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

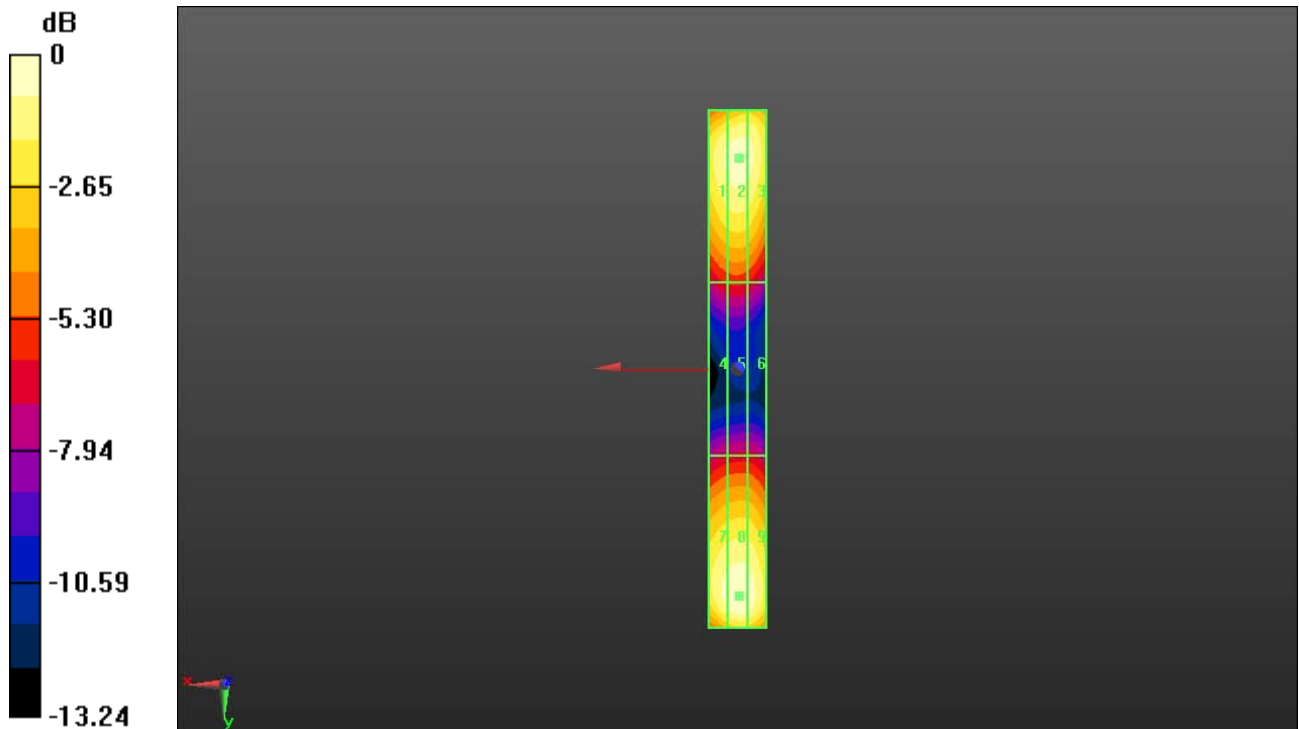
Grid 1 M4 157.8 V/m	Grid 2 M4 162.9 V/m	Grid 3 M4 160.4 V/m
Grid 4 M4 85.01 V/m	Grid 5 M4 86.87 V/m	Grid 6 M4 83.55 V/m
Grid 7 M4 162.0 V/m	Grid 8 M4 170.2 V/m	Grid 9 M4 166.3 V/m

Cursor:


Total = 170.2 V/m

E Category: M4

Location: -0.5, 79, 4.7 mm



0 dB = 170.2V/m = 44.62 dB V/m

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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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 80.60 V/m

Near-field category: M3 (AWF 0 dB)

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PMF scaled E-field

Grid 1 M3 73.45 V/m	Grid 2 M3 76.11 V/m	Grid 3 M3 74.97 V/m
Grid 4 M4 50.62 V/m	Grid 5 M4 51.75 V/m	Grid 6 M4 50.16 V/m
Grid 7 M3 76.91 V/m	Grid 8 M3 80.60 V/m	Grid 9 M3 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 28.31 V/m	Grid 2 M4 30.22 V/m	Grid 3 M4 28.54 V/m
Grid 4 M4 18.23 V/m	Grid 5 M4 20.72 V/m	Grid 6 M4 18.32 V/m
Grid 7 M4 26.79 V/m	Grid 8 M4 30.61 V/m	Grid 9 M4 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 2 M3 78.08 V/m	Grid 3 M3 77.27 V/m
Grid 4 M4 52.44 V/m	Grid 5 M4 53.31 V/m	Grid 6 M4 51.71 V/m
Grid 7 M3 78.00 V/m	Grid 8 M3 81.58 V/m	Grid 9 M3 79.79 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

Near-field category: M4 (AWF 0 dB)

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PMF scaled E-field

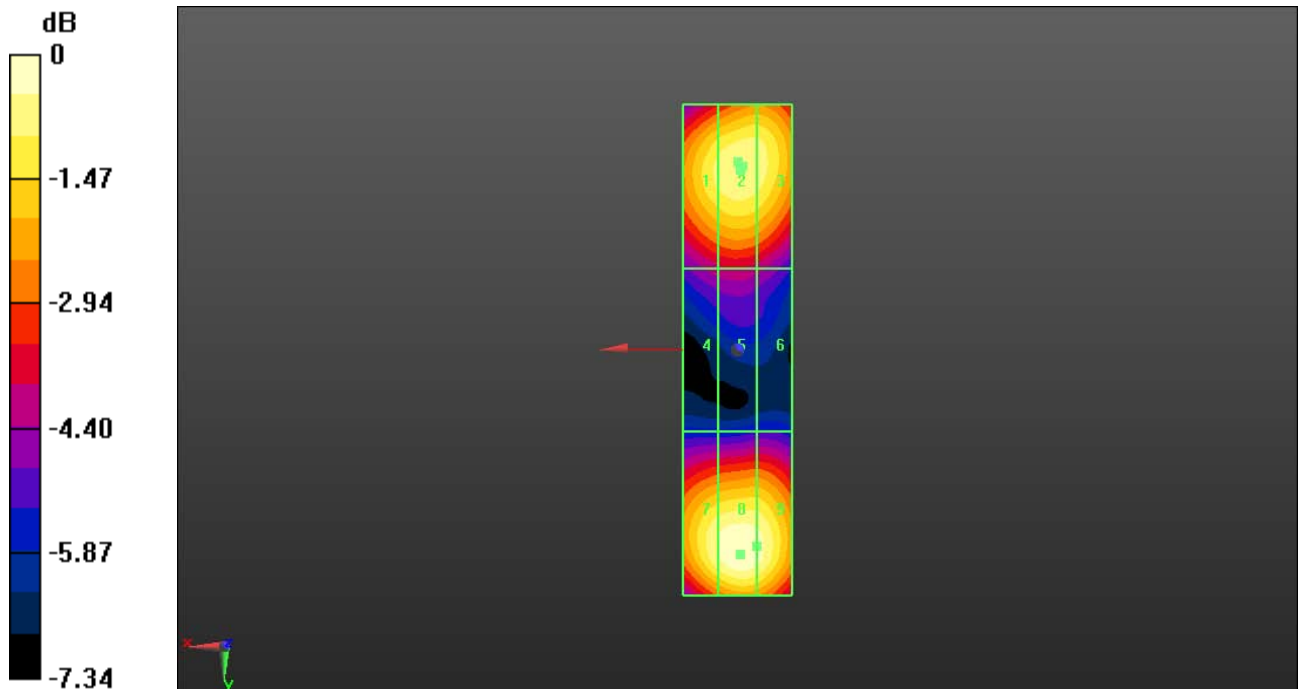
Grid 1 M4 47.54 V/m	Grid 2 M4 49.44 V/m	Grid 3 M4 48.95 V/m
Grid 4 M4 33.05 V/m	Grid 5 M4 33.87 V/m	Grid 6 M4 32.89 V/m
Grid 7 M4 49.67 V/m	Grid 8 M4 52.04 V/m	Grid 9 M4 50.92 V/m

Cursor:


Total = 52.041 V/m

E Category: M4

Location: -0.5, 37.5, 4.7 mm



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

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_02_29_12

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

Communication System: CW; Frequency: 1880 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 142.2 V/m; Power Drift = 0.02 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 130.3 V/m

Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

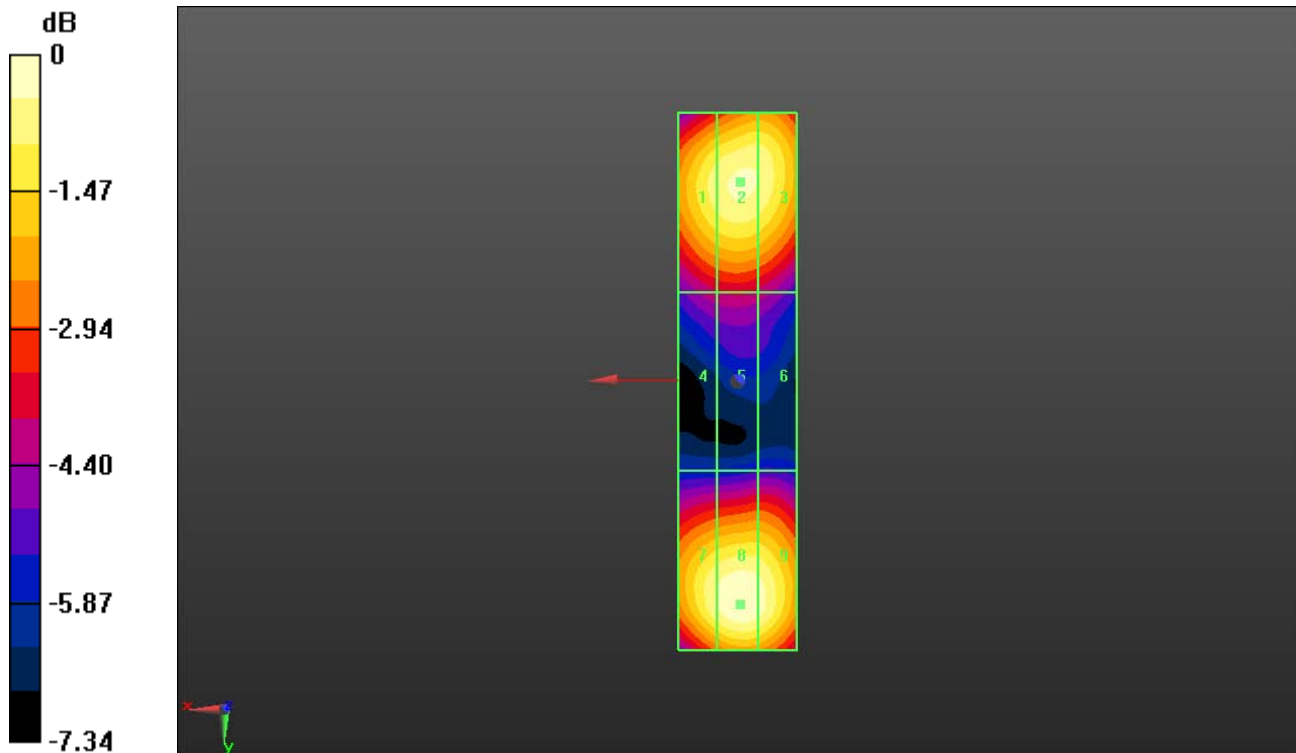
Grid 1 M2 120.3 V/m	Grid 2 M2 124.7 V/m	Grid 3 M2 123.0 V/m
Grid 4 M3 82.70 V/m	Grid 5 M3 84.36 V/m	Grid 6 M3 81.81 V/m
Grid 7 M2 123.8 V/m	Grid 8 M2 130.3 V/m	Grid 9 M2 126.9 V/m

Cursor:


Total = 130.3 V/m

E Category: M2

Location: -0.5, 37.5, 4.7 mm



0 dB = 130.3V/m = 42.30 dB V/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA835 MHz_02_29_12

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

Communication System: CDMA 850, Communication System: CDMA 850 1/8th,
Communication System: CW, Communication System: AM 80%; Frequency: 835 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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

$dx=5\text{mm}$, $dy=5\text{mm}$


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

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M4 0.32 A/m	Grid 2 M4 0.33 A/m	Grid 3 M4 0.32 A/m
Grid 4 M4 0.33 A/m	Grid 5 M4 0.34 A/m	Grid 6 M4 0.33 A/m
Grid 7 M4 0.32 A/m	Grid 8 M4 0.34 A/m	Grid 9 M4 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 2 M4 0.12 A/m	Grid 3 M4 0.12 A/m
Grid 4 M4 0.13 A/m	Grid 5 M4 0.13 A/m	Grid 6 M4 0.12 A/m
Grid 7 M4 0.12 A/m	Grid 8 M4 0.13 A/m	Grid 9 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 0.32 A/m	Grid 2 M4 0.34 A/m	Grid 3 M4 0.32 A/m
Grid 4 M4 0.34 A/m	Grid 5 M4 0.35 A/m	Grid 6 M4 0.33 A/m
Grid 7 M4 0.33 A/m	Grid 8 M4 0.35 A/m	Grid 9 M4 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

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

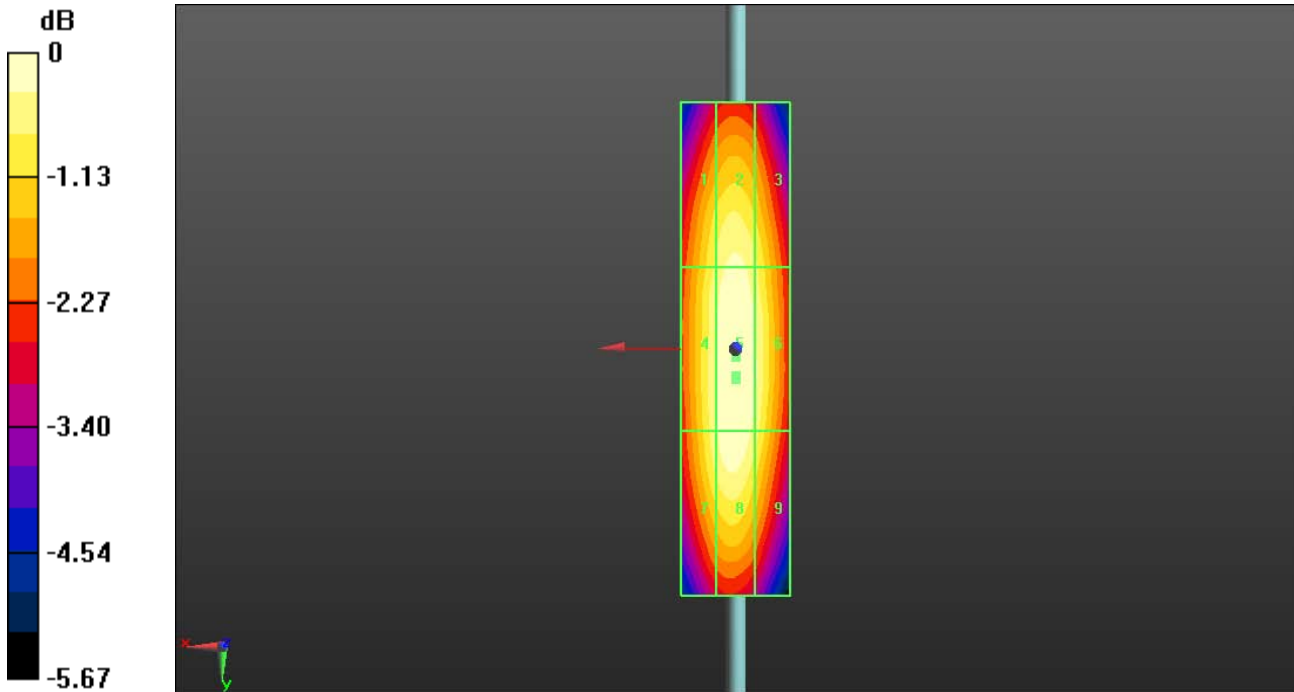
Grid 1 M4 0.20 A/m	Grid 2 M4 0.21 A/m	Grid 3 M4 0.20 A/m
Grid 4 M4 0.21 A/m	Grid 5 M4 0.23 A/m	Grid 6 M4 0.22 A/m
Grid 7 M4 0.21 A/m	Grid 8 M4 0.22 A/m	Grid 9 M4 0.21 A/m

Cursor:


Total = 0.227 A/m

H Category: M4

Location: 0, 5.5, 4.7 mm



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

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Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_02_29_12

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

Communication System: CW; Frequency: 835 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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): Measurement grid:

$dx=5mm, dy=5mm$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.50 V/m; Power Drift = 0.20 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

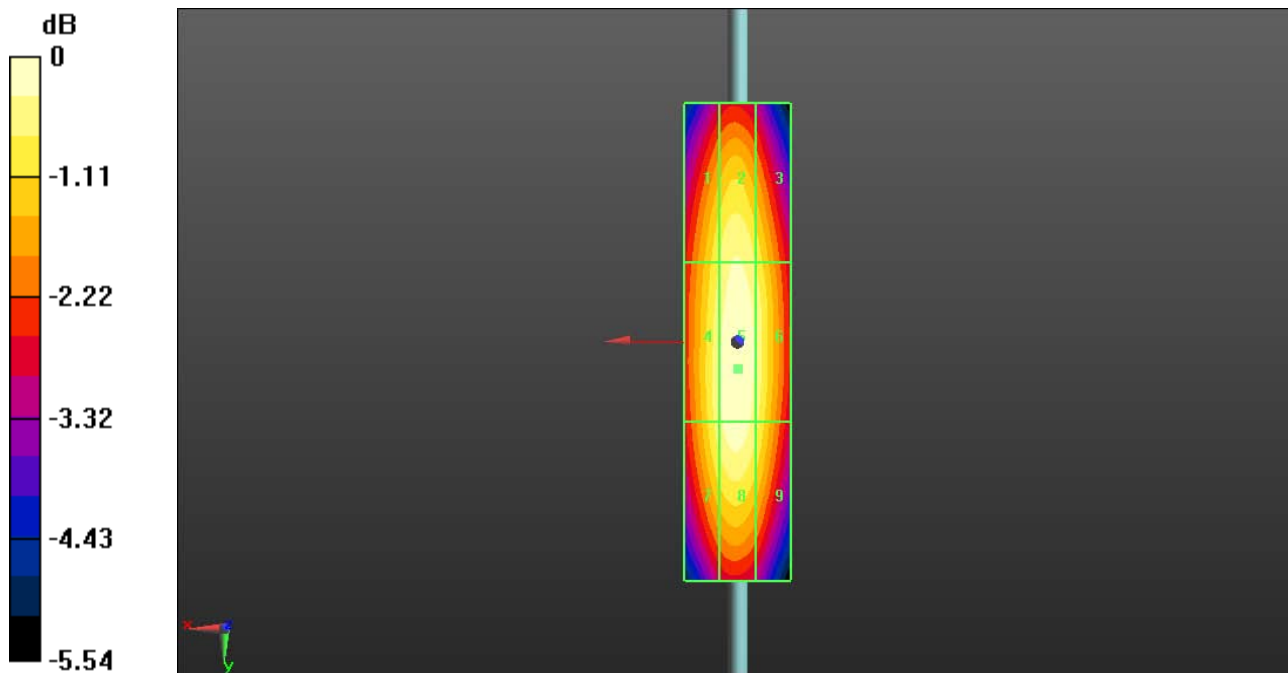
Grid 1 M4 0.43 A/m	Grid 2 M4 0.45 A/m	Grid 3 M4 0.43 A/m
Grid 4 M4 0.45 A/m	Grid 5 M4 0.47 A/m	Grid 6 M4 0.45 A/m
Grid 7 M4 0.44 A/m	Grid 8 M4 0.46 A/m	Grid 9 M4 0.44 A/m

Cursor:


Total = 0.471 A/m

H Category: M4

Location: 0, 5, 4.7 mm



0 dB = 0.470A/m = -6.56 dB A/m

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field 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

Near-field category: M3 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M3 0.27 A/m	Grid 2 M3 0.28 A/m	Grid 3 M3 0.27 A/m
Grid 4 M3 0.28 A/m	Grid 5 M3 0.29 A/m	Grid 6 M3 0.28 A/m
Grid 7 M3 0.27 A/m	Grid 8 M3 0.28 A/m	Grid 9 M3 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 2 M4 0.10 A/m	Grid 3 M4 0.09 A/m
Grid 4 M4 0.10 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.10 A/m
Grid 7 M4 0.09 A/m	Grid 8 M4 0.11 A/m	Grid 9 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 0.27 A/m	Grid 2 M3 0.28 A/m	Grid 3 M3 0.27 A/m
Grid 4 M3 0.28 A/m	Grid 5 M3 0.29 A/m	Grid 6 M3 0.28 A/m
Grid 7 M3 0.27 A/m	Grid 8 M3 0.28 A/m	Grid 9 M3 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)

PMF scaled H-field

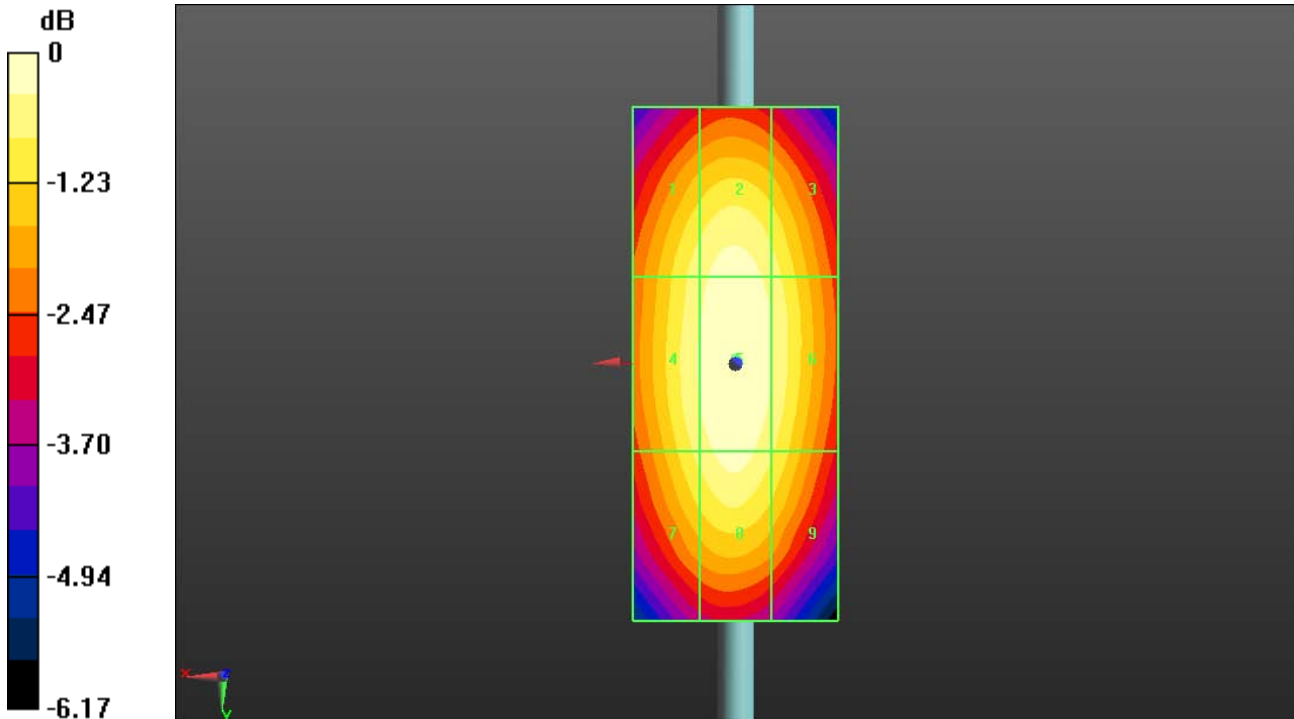
Grid 1 M4 0.17 A/m	Grid 2 M4 0.18 A/m	Grid 3 M4 0.17 A/m
Grid 4 M4 0.18 A/m	Grid 5 M4 0.19 A/m	Grid 6 M4 0.18 A/m
Grid 7 M4 0.17 A/m	Grid 8 M4 0.18 A/m	Grid 9 M4 0.17 A/m

Cursor:


Total = 0.187 A/m

H Category: M4

Location: 0, 0, 4.7 mm



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

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_02_29_12

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

Communication System: CW; Frequency: 1880 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), $z = 4.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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):

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.48 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.45 A/m

Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

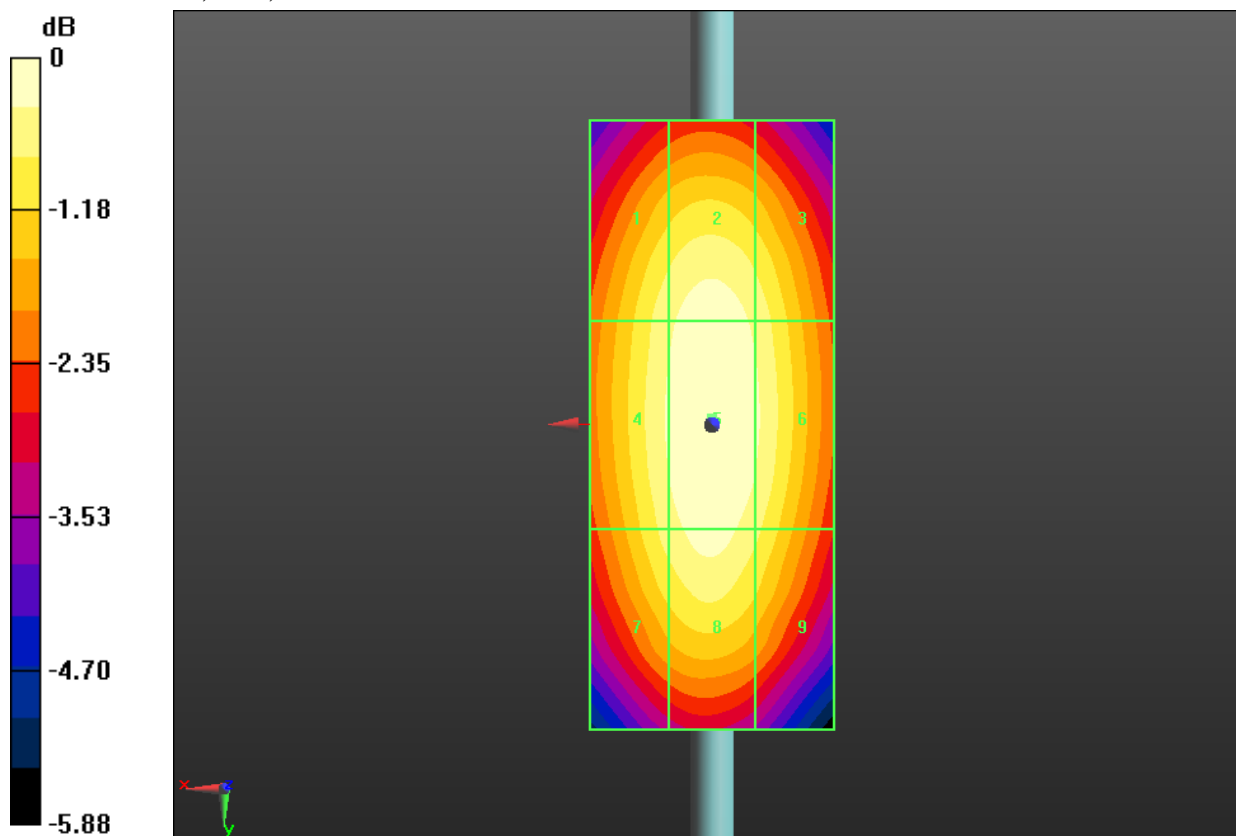
Grid 1 M2 0.43 A/m	Grid 2 M2 0.44 A/m	Grid 3 M2 0.43 A/m
Grid 4 M2 0.43 A/m	Grid 5 M2 0.45 A/m	Grid 6 M2 0.43 A/m
Grid 7 M2 0.42 A/m	Grid 8 M2 0.44 A/m	Grid 9 M2 0.42 A/m

Cursor:

Total = 0.455 A/m

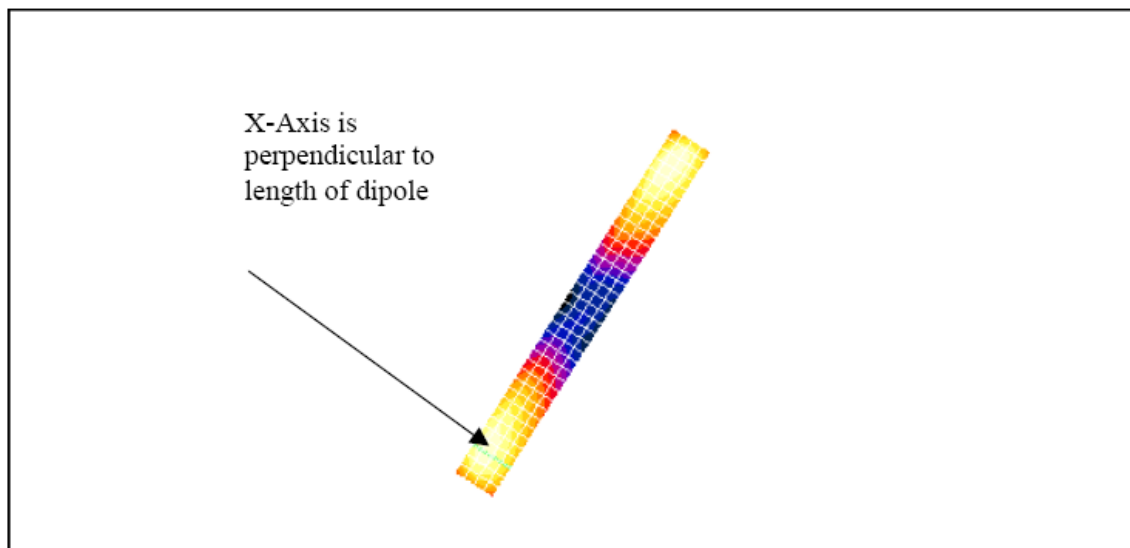
H Category: M2

Location: 0, -0.5, 4.7 mm



0 dB = 0.450A/m = -6.94 dB A/m


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

Comparison of 5mm and 2mm step sizes

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

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Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

DASY4 Configuration:

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

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

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

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

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

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

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

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

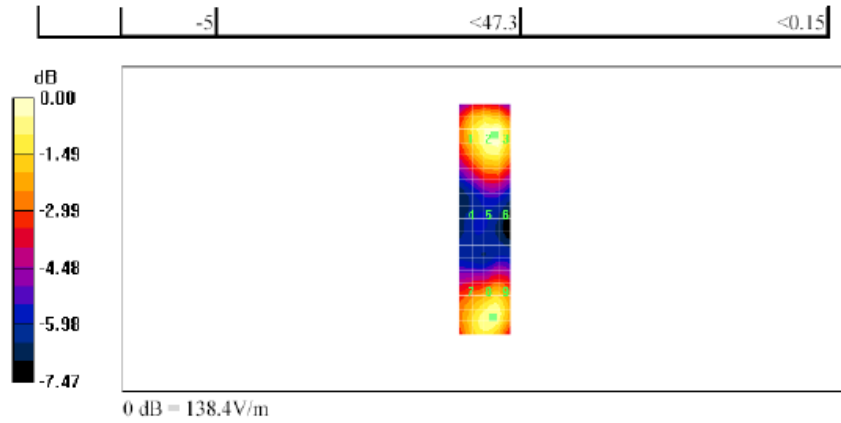
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

DASY4 Configuration:

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

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

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

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


Measurement grid: dx=2mm, dy=2mm
 Maximum value of Total field (slot averaged) = 131.2 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

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

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
123.1	138.6	138.6	123.1	138.6	138.6
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
81.4	92.1	91.6	81.4	92.1	91.6
Grid 7	Grid 8	Grid 9	Grid 7	Grid 8	Grid 9
121.3	131.2	131.0	121.3	131.2	131.0

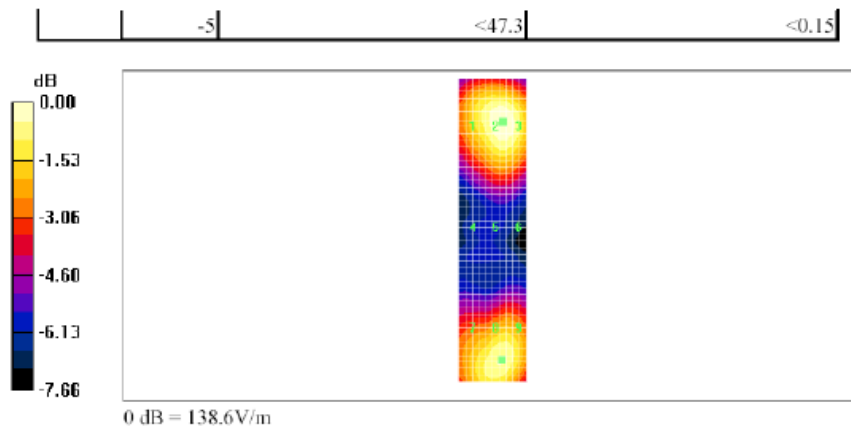
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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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, $\epsilon_r = 1$; $\rho = 1$ 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 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
0.342	0.359	0.344	0.342	0.359	0.344
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
0.389	0.406	0.389	0.389	0.406	0.389
Grid 7	Grid 8	Grid 9	Grid 7	Grid 8	Grid 9
0.363	0.378	0.363	0.363	0.378	0.363

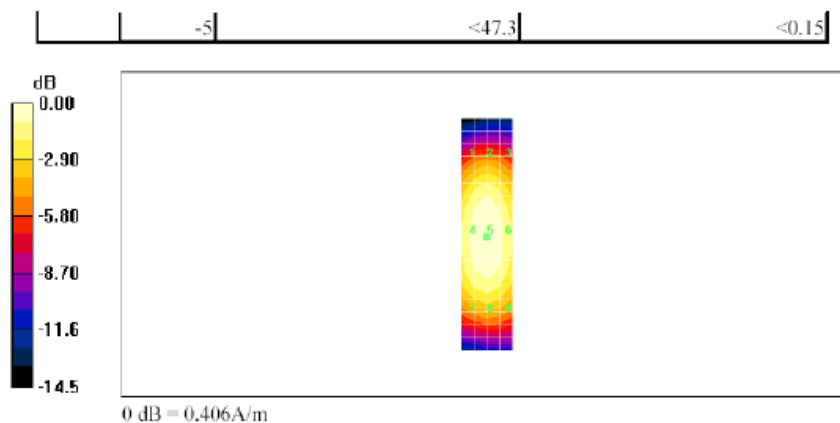
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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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, $\epsilon_r = 1$; $\rho = 1$ 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	Grid 2	Grid 3
0.347	0.361	0.348	0.347	0.361	0.348
Grid 4	Grid 5	Grid 6	Grid 4	Grid 5	Grid 6
0.394	0.406	0.391	0.394	0.406	0.391
Grid 7	Grid 8	Grid 9	Grid 7	Grid 8	Grid 9
0.367	0.380	0.365	0.367	0.380	0.365

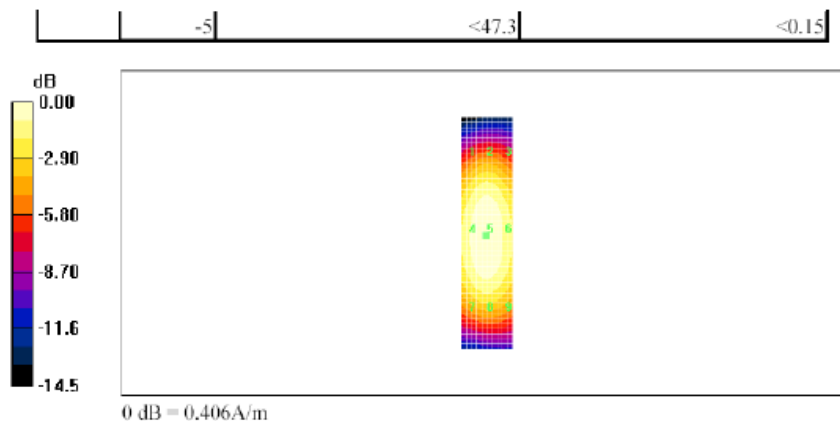
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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A.3 RF emissions plots

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	Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model REY21CW		45 (76)
Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/1/2012 12:09:24 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 91.46 V/m; Power Drift = 0.14 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 76.87 V/m

Near-field category: M4 (AWF 0 dB)

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	Author Data Andrew Becker	Dates of Test Feb. 29 & March 1-2, 2012	Report No RTS-5994-1203-49

PMF scaled E-field

Grid 1 M4 64.95 V/m	Grid 2 M4 73.86 V/m	Grid 3 M4 73.00 V/m
Grid 4 M4 67.96 V/m	Grid 5 M4 76.87 V/m	Grid 6 M4 75.73 V/m
Grid 7 M4 69.35 V/m	Grid 8 M4 76.42 V/m	Grid 9 M4 75.74 V/m

Cursor:

Total = 76.870 V/m

E Category: M4

Location: -4.5, 5.5, 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): Measurement grid: dx=5mm, dy=5mm


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 104.2 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 88.96 V/m

Near-field category: M4 (AWF 0 dB)

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

PMF scaled E-field

Grid 1 M4 72.51 V/m	Grid 2 M4 85.41 V/m	Grid 3 M4 85.38 V/m
Grid 4 M4 75.20 V/m	Grid 5 M4 88.96 V/m	Grid 6 M4 88.75 V/m
Grid 7 M4 76.42 V/m	Grid 8 M4 88.48 V/m	Grid 9 M4 88.30 V/m

Cursor:

Total = 88.961 V/m

E Category: M4

Location: -7, 4, 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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 104.5 V/m; Power Drift = 0.08 dB

PMR not calibrated. PMF = 1.060 is applied.

E-field emissions = 88.89 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

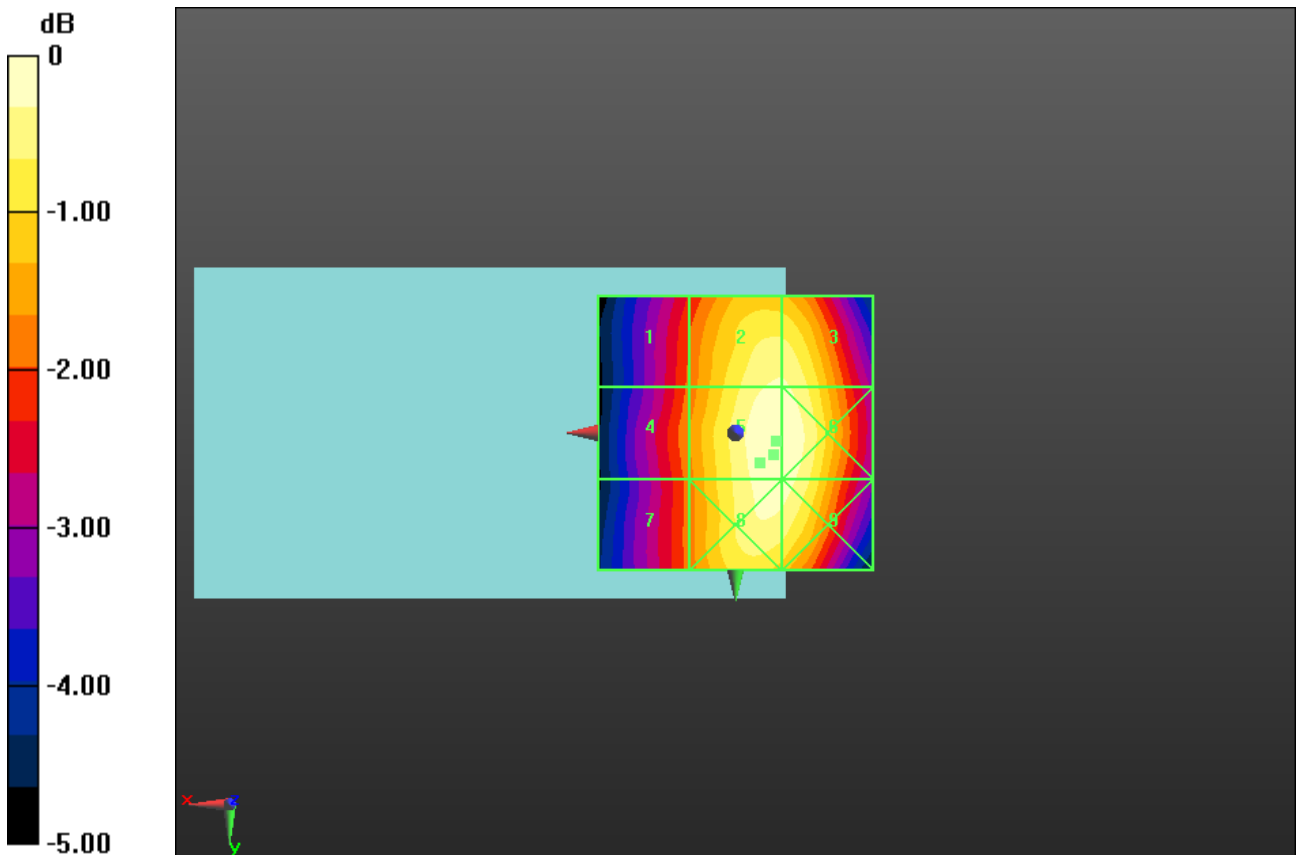
Grid 1 M4 72.32 V/m	Grid 2 M4 86.30 V/m	Grid 3 M4 86.25 V/m
Grid 4 M4 74.18 V/m	Grid 5 M4 88.89 V/m	Grid 6 M4 88.77 V/m
Grid 7 M4 72.88 V/m	Grid 8 M4 87.52 V/m	Grid 9 M4 87.39 V/m

Cursor:


Total = 88.892 V/m

E Category: M4

Location: -7.5, 1.5, 8.7 mm



0 dB = 76.870V/m = 37.72 dB V/m

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/1/2012 4:56:04 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850_1/8th_Rate

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850 1/8th; Frequency: 836.52 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 8.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 38.38 V/m; Power Drift = 0.14 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 96.45 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

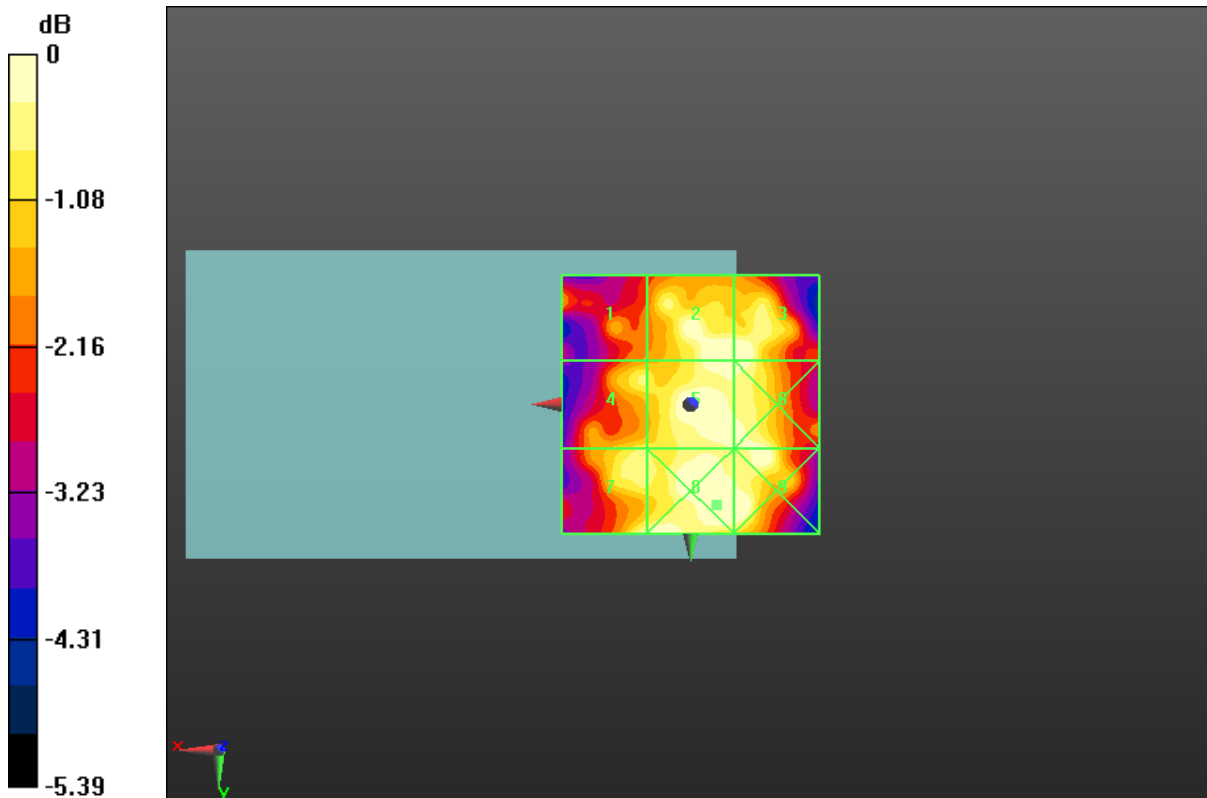
Grid 1 M4 74.87 V/m	Grid 2 M4 95.40 V/m	Grid 3 M4 94.54 V/m
Grid 4 M4 83.43 V/m	Grid 5 M4 96.45 V/m	Grid 6 M4 93.23 V/m
Grid 7 M4 88.93 V/m	Grid 8 M4 98.09 V/m	Grid 9 M4 96.18 V/m

Cursor:


Total = 98.092 V/m

E Category: M4

Location: -5, 19.5, 8.7 mm



0 dB = 89.640V/m = 39.05 dB V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850_1/8th_Rate_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850 1/8 th; Frequency: 836.52 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 8.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 42.11 V/m; Power Drift = -0.79 dB

PMR not calibrated. PMF = 2.900 is applied.

E-field emissions = 94.76 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

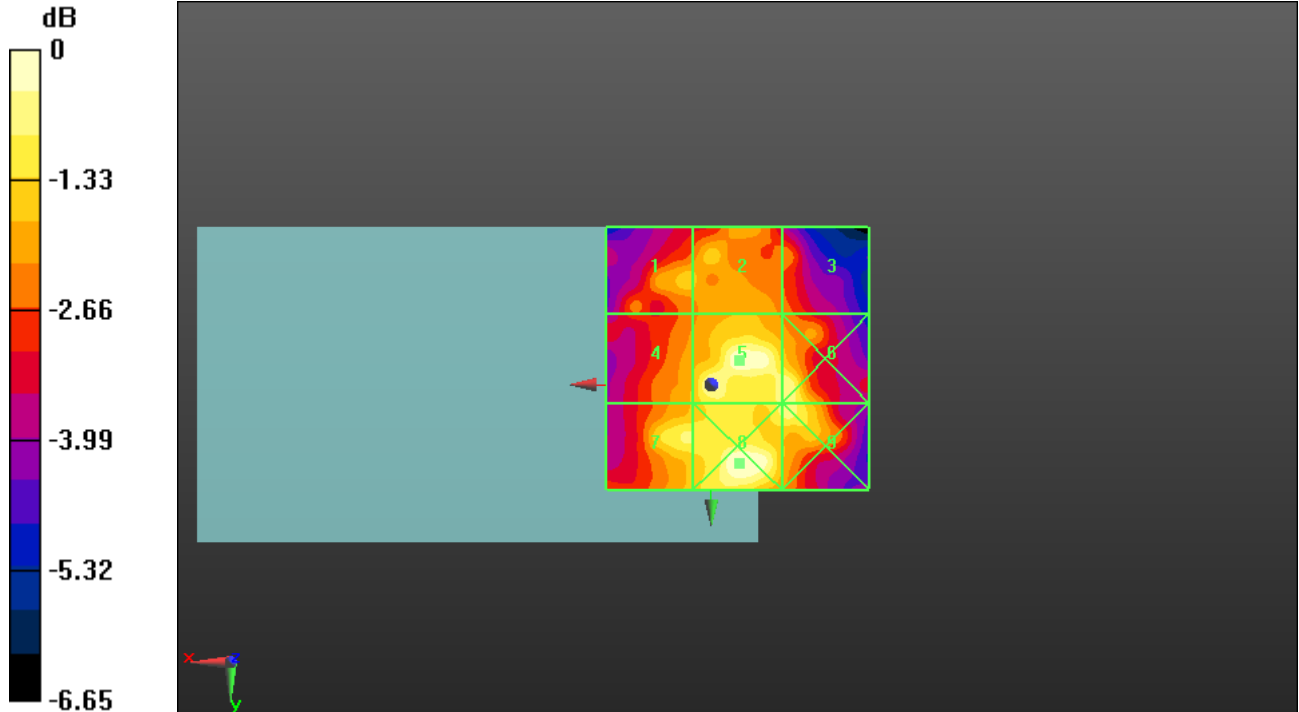
Grid 1 M4 80.58 V/m	Grid 2 M4 80.53 V/m	Grid 3 M4 73.99 V/m
Grid 4 M4 79.20 V/m	Grid 5 M4 94.76 V/m	Grid 6 M4 90.84 V/m
Grid 7 M4 87.67 V/m	Grid 8 M4 96.18 V/m	Grid 9 M4 89.07 V/m

Cursor:


Total = 96.177 V/m

E Category: M4

Location: -5.5, 15, 8.7 mm



0 dB = 95.550V/m = 39.60 dB V/m

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900; Frequency: 1851.25 MHz, Frequency:

1880 MHz, Frequency: 1908.5 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 42.85 V/m; Power Drift = 0.22 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 48.71 V/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled E-field

Grid 1 M4 25.40 V/m	Grid 2 M4 36.30 V/m	Grid 3 M4 37.34 V/m
Grid 4 M4 28.76 V/m	Grid 5 M4 48.71 V/m	Grid 6 M4 49.13 V/m
Grid 7 M4 36.81 V/m	Grid 8 M4 50.73 V/m	Grid 9 M4 50.73 V/m

Cursor:

Total = 50.730 V/m

E Category: M4

Location: -8.5, 18, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007:

15 mm from Probe Center to the Device_Mid_Chan/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 39.73 V/m; Power Drift = -0.06 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 45.83 V/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled E-field

Grid 1 M4 25.89 V/m	Grid 2 M4 32.89 V/m	Grid 3 M4 34.37 V/m
Grid 4 M4 26.93 V/m	Grid 5 M4 45.83 V/m	Grid 6 M4 46.24 V/m
Grid 7 M4 36.75 V/m	Grid 8 M4 49.70 V/m	Grid 9 M4 49.48 V/m

Cursor:

Total = 49.698 V/m

E Category: M4

Location: -7, 21.5, 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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 40.71 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 45.61 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

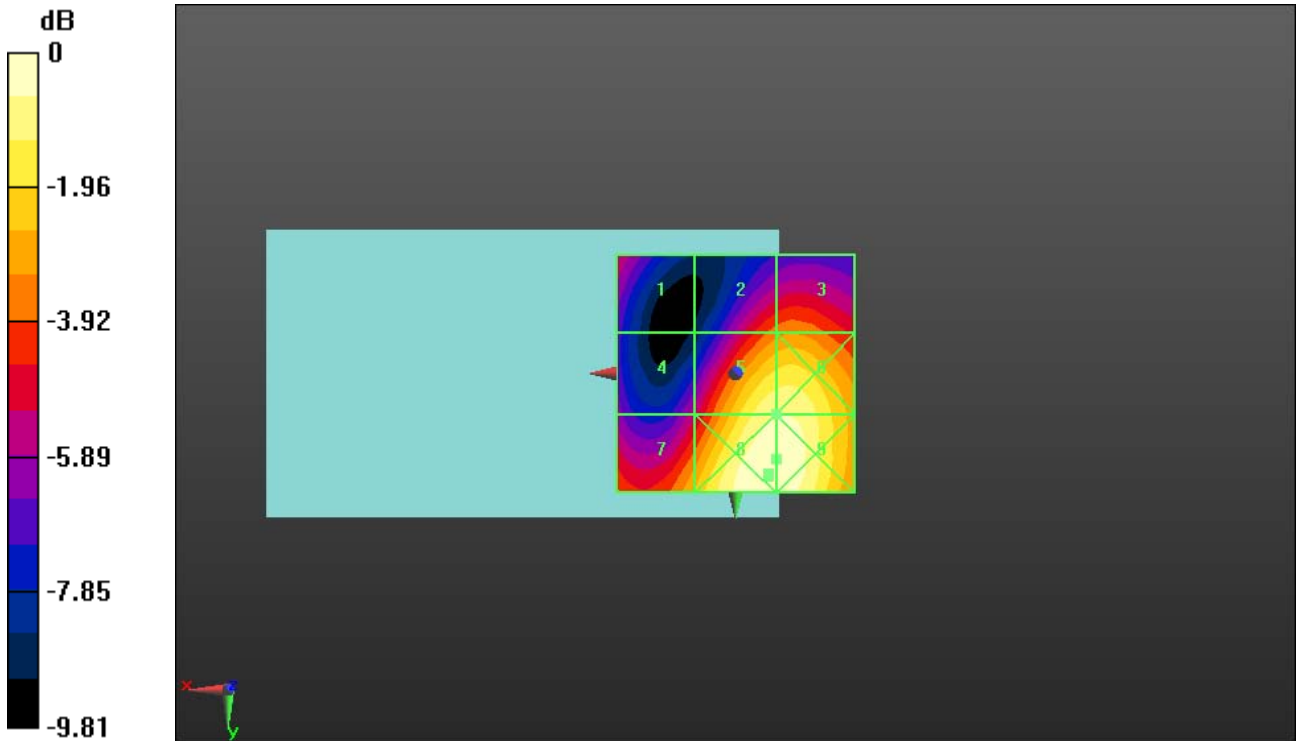
Grid 1 M4 28.81 V/m	Grid 2 M4 33.69 V/m	Grid 3 M4 34.63 V/m
Grid 4 M4 27.60 V/m	Grid 5 M4 45.61 V/m	Grid 6 M4 45.76 V/m
Grid 7 M4 37.41 V/m	Grid 8 M4 49.15 V/m	Grid 9 M4 48.95 V/m

Cursor:


Total = 49.145 V/m

E Category: M4

Location: -7, 21, 8.7 mm



0 dB = 50.730V/m = 34.11 dB V/m

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Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/1/2012 5:08:39 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_1/8th_Rate

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900 1/8 th; Frequency: 1851.25 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 17.91 V/m; Power Drift = -1.22 dB

PMR not calibrated. PMF = 2.670 is applied.

E-field emissions = 45.02 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

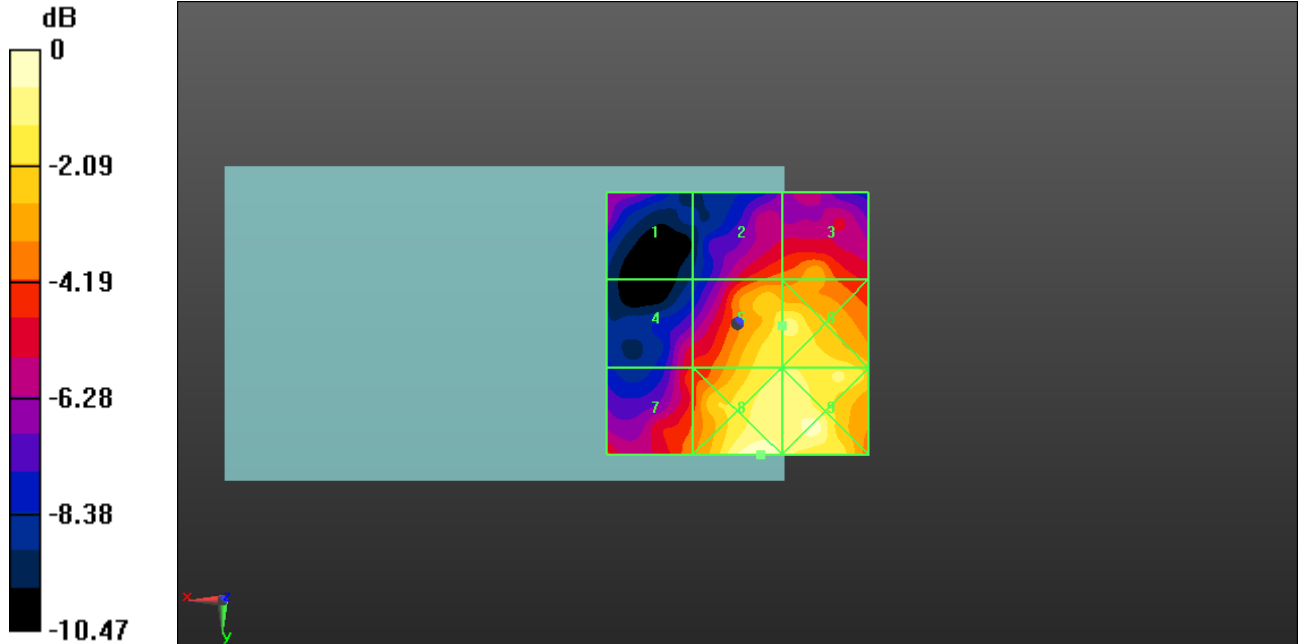
Grid 1 M4 25.26 V/m	Grid 2 M4 33.86 V/m	Grid 3 M4 37.35 V/m
Grid 4 M4 30.75 V/m	Grid 5 M4 45.02 V/m	Grid 6 M4 46.51 V/m
Grid 7 M4 34.75 V/m	Grid 8 M4 52.60 V/m	Grid 9 M4 50.44 V/m

Cursor:


Total = 52.596 V/m

E Category: M4

Location: -4.5, 25, 8.7 mm



0 dB = 52.590V/m = 34.42 dB V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900; Frequency: 1851.25 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), $z = 8.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 44.20 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 1.010 is applied.

E-field emissions = 45.90 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

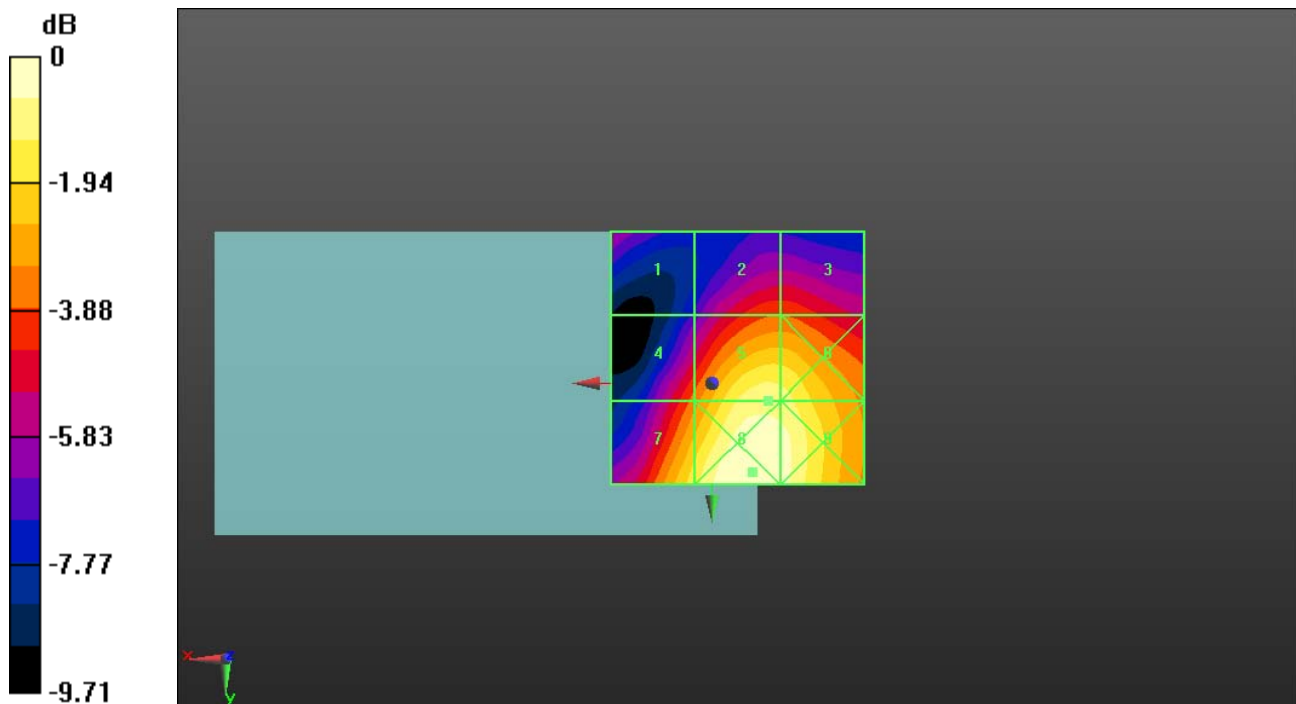
Grid 1 M4 26.65 V/m	Grid 2 M4 32.50 V/m	Grid 3 M4 32.49 V/m
Grid 4 M4 33.89 V/m	Grid 5 M4 45.90 V/m	Grid 6 M4 45.30 V/m
Grid 7 M4 42.83 V/m	Grid 8 M4 50.89 V/m	Grid 9 M4 48.95 V/m

Cursor:


Total = 50.890 V/m

E Category: M4

Location: -8, 17.5, 8.7 mm



0 dB = 50.890V/m = 34.13 dB V/m

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Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/1/2012 2:36:24 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.08 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.15 A/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M4 0.15 A/m	Grid 2 M4 0.11 A/m	Grid 3 M4 0.07 A/m
Grid 4 M4 0.15 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.06 A/m
Grid 7 M4 0.16 A/m	Grid 8 M4 0.11 A/m	Grid 9 M4 0.07 A/m

Cursor:

Total = 0.160 A/m

H Category: M4

Location: 25, 24.5, 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): Measurement grid: dx=5mm, dy=5mm


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.10 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.17 A/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M4 0.17 A/m	Grid 2 M4 0.13 A/m	Grid 3 M4 0.08 A/m
Grid 4 M4 0.17 A/m	Grid 5 M4 0.12 A/m	Grid 6 M4 0.07 A/m
Grid 7 M4 0.18 A/m	Grid 8 M4 0.13 A/m	Grid 9 M4 0.08 A/m

Cursor:

Total = 0.184 A/m

H Category: M4

Location: 25, 22, 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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.10 V/m; Power Drift = 0.36 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.17 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

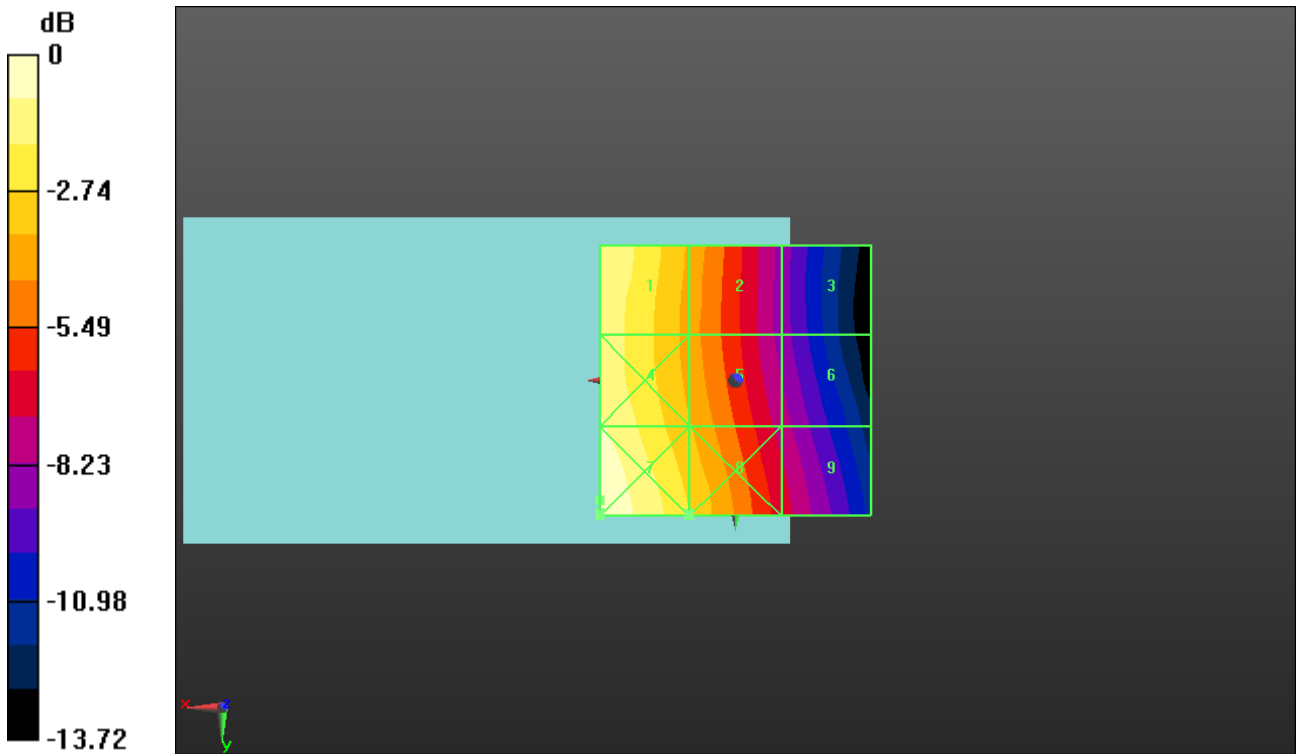
Grid 1 M4 0.17 A/m	Grid 2 M4 0.13 A/m	Grid 3 M4 0.08 A/m
Grid 4 M4 0.18 A/m	Grid 5 M4 0.13 A/m	Grid 6 M4 0.09 A/m
Grid 7 M4 0.19 A/m	Grid 8 M4 0.14 A/m	Grid 9 M4 0.10 A/m


Cursor:

Total = 0.190 A/m

H Category: M4

Location: 25, 25, 8.7 mm



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Date/Time: 3/1/2012 4:38:58 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850_1/8th_Rate

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850 1/8 th; Frequency: 848.52 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.04 V/m; Power Drift = 0.30 dB

PMR not calibrated. PMF = 2.650 is applied.

H-field emissions = 0.17 A/m

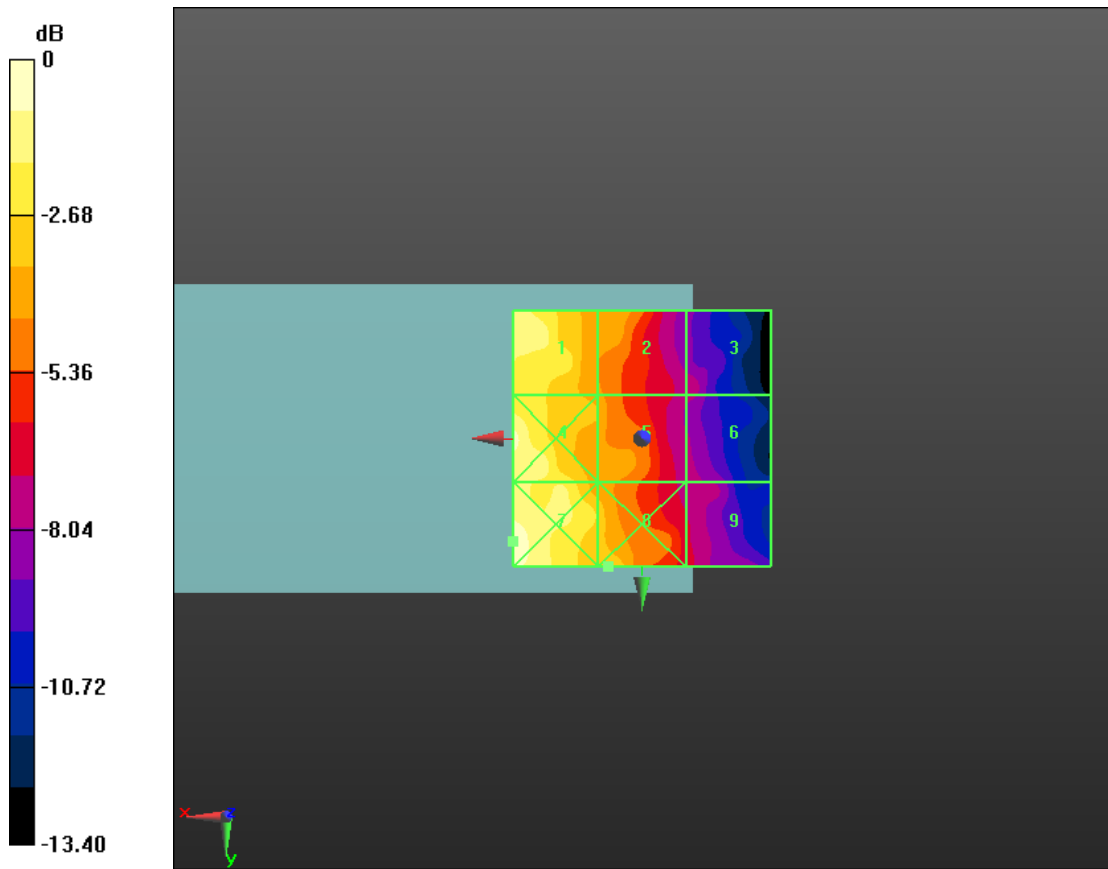
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field


Grid 1 M4 0.17 A/m	Grid 2 M4 0.12 A/m	Grid 3 M4 0.08 A/m
Grid 4 M4 0.18 A/m	Grid 5 M4 0.13 A/m	Grid 6 M4 0.08 A/m
Grid 7 M4 0.20 A/m	Grid 8 M4 0.14 A/m	Grid 9 M4 0.09 A/m

Cursor:

Total = 0.197 A/m
H Category: M4
Location: 25, 20, 8.7 mm



0 dB = 0.190A/m = -14.42 dB A/m

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/2/2012 10:52:06 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 850; Frequency: 848.52 MHz

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

Phantom section: RF Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS5 52.8.0(692); SEMCAD X 14.6.4(4989)

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

2007: 15 mm from Probe Center to the

Device_Centre_Telecoil/Hearing Aid Compatibility Test (101x101x1):

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.10 V/m; Power Drift = 0.18 dB

PMR not calibrated. PMF = 1.030 is applied.

H-field emissions = 0.16 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

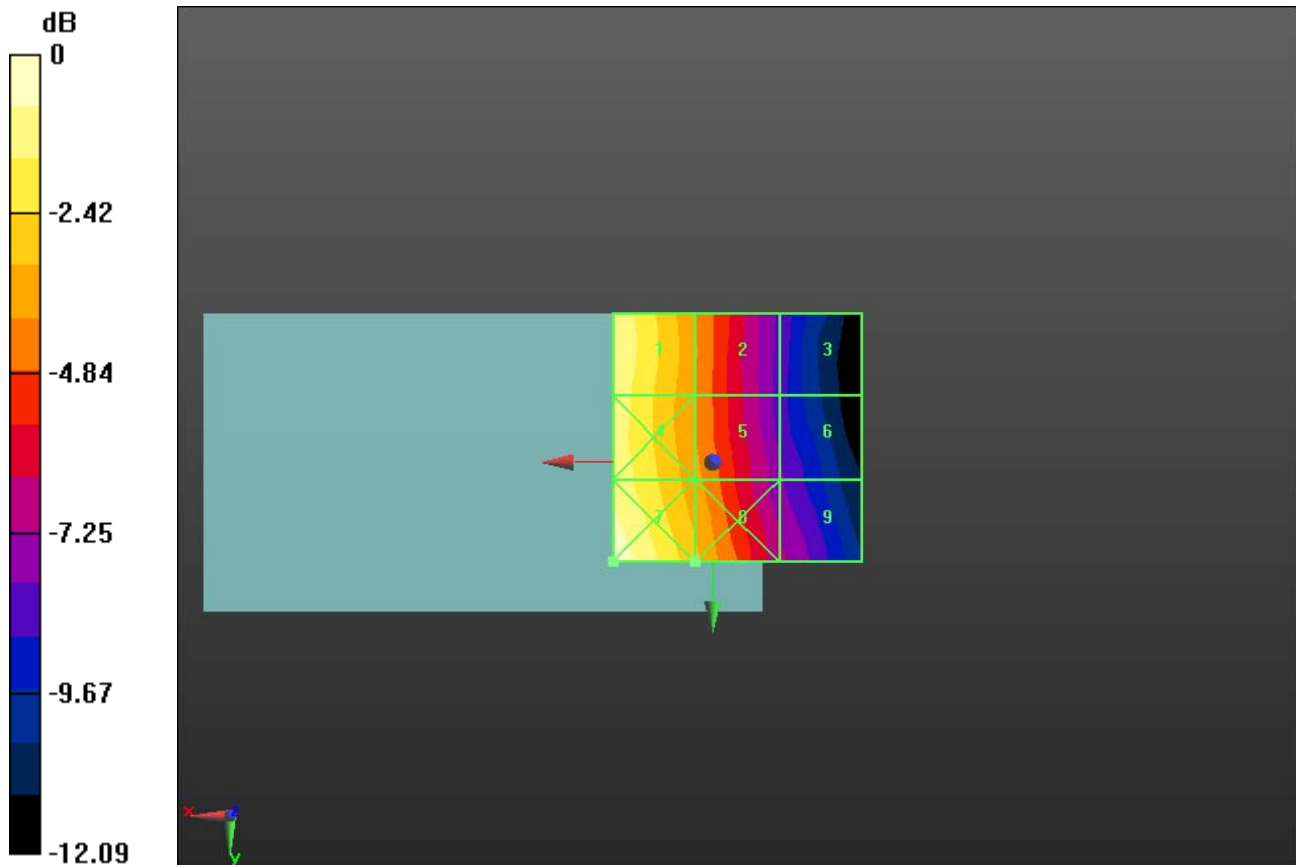
Grid 1 M4 0.16 A/m	Grid 2 M4 0.11 A/m	Grid 3 M4 0.07 A/m
Grid 4 M4 0.16 A/m	Grid 5 M4 0.12 A/m	Grid 6 M4 0.07 A/m
Grid 7 M4 0.18 A/m	Grid 8 M4 0.13 A/m	Grid 9 M4 0.08 A/m

Cursor:


Total = 0.175 A/m

H Category: M4

Location: 20, 20, 8.7 mm



0 dB = 0.180A/m = -14.89 dB A/m

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Date/Time: 3/1/2012 3:22:33 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900; Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.10 V/m; Power Drift = -0.16 dB

PMR not calibrated. PMF = 0.990 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M4 0.10 A/m	Grid 2 M4 0.10 A/m	Grid 3 M4 0.09 A/m
Grid 4 M4 0.13 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.09 A/m
Grid 7 M4 0.15 A/m	Grid 8 M4 0.12 A/m	Grid 9 M4 0.08 A/m

Cursor:

Total = 0.145 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): Measurement grid: dx=5mm, dy=5mm


Device Reference Point: 0, 0, -6.3 mm

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

PMR not calibrated. PMF = 0.990 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

Grid 1 M4 0.10 A/m	Grid 2 M4 0.10 A/m	Grid 3 M4 0.09 A/m
Grid 4 M4 0.12 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.09 A/m
Grid 7 M4 0.14 A/m	Grid 8 M4 0.13 A/m	Grid 9 M4 0.09 A/m

Cursor:

Total = 0.144 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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.12 V/m; Power Drift = 0.20 dB

PMR not calibrated. PMF = 0.990 is applied.

H-field emissions = 0.12 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

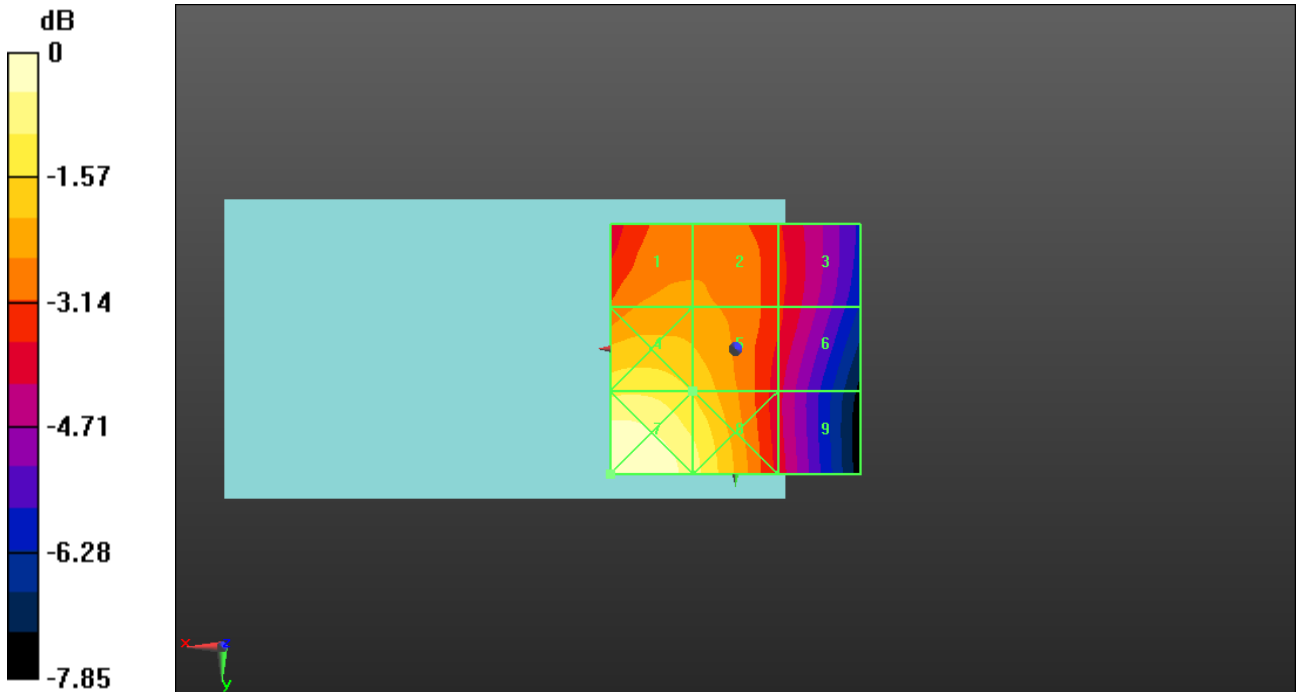
Grid 1 M4 0.11 A/m	Grid 2 M4 0.11 A/m	Grid 3 M4 0.10 A/m
Grid 4 M4 0.13 A/m	Grid 5 M4 0.12 A/m	Grid 6 M4 0.10 A/m
Grid 7 M4 0.15 A/m	Grid 8 M4 0.14 A/m	Grid 9 M4 0.10 A/m

Cursor:


Total = 0.153 A/m

H Category: M4

Location: 25, 25, 8.7 mm



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

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/1/2012 4:27:03 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_1/8th_Rate

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900 1/8 th; Frequency: 1908.5 MHz

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

Phantom section: RF Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS5 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.04 V/m; Power Drift = 0.19 dB

PMR not calibrated. PMF = 2.600 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

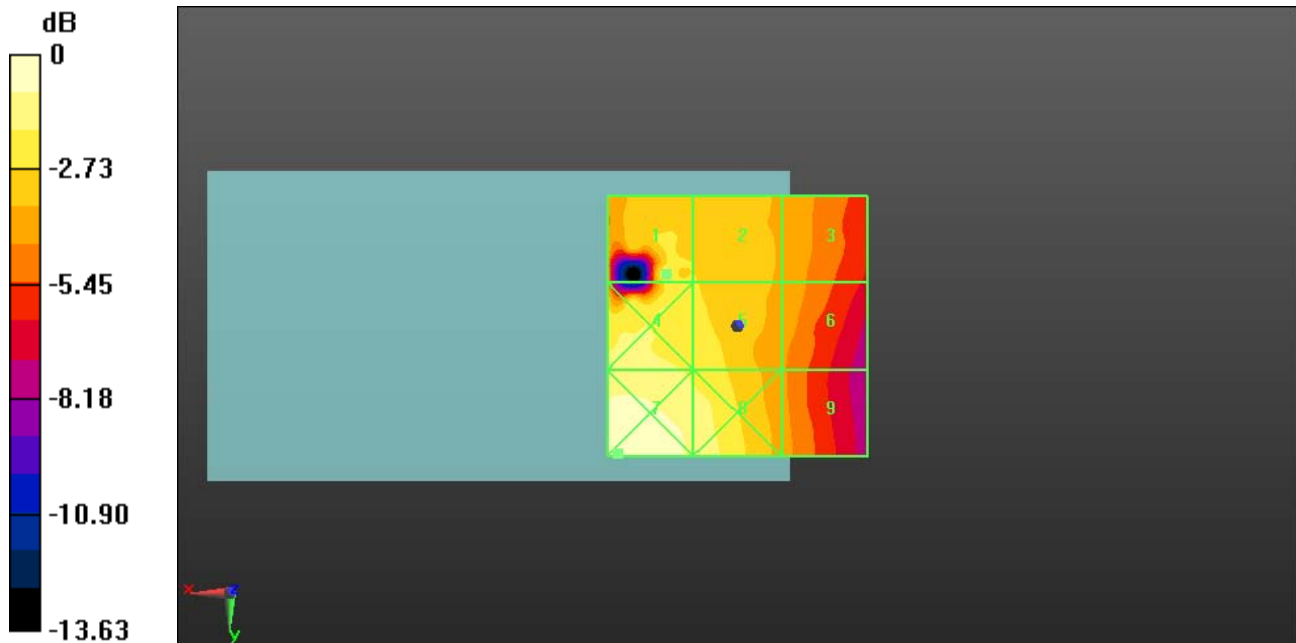
Grid 1 M4 0.11 A/m	Grid 2 M4 0.10 A/m	Grid 3 M4 0.09 A/m
Grid 4 M4 0.12 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.09 A/m
Grid 7 M4 0.14 A/m	Grid 8 M4 0.12 A/m	Grid 9 M4 0.09 A/m

Cursor:


Total = 0.139 A/m

H Category: M4

Location: 23, 24.5, 8.7 mm



0 dB = 0.140A/m = -17.08 dB A/m

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Author Data	Dates of Test	Report No	FCC ID
Andrew Becker	Feb. 29 & March 1-2, 2012	RTS-5994-1203-49	L6AREY20CW

Date/Time: 3/2/2012 11:22:13 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: CDMA 1900; Frequency: 1908.5 MHz

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

Phantom section: RF Section

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

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA; Serial: **Not Specified**
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

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

2007: 15 mm from Probe Center to the

Device_Centre_Telecoil/Hearing Aid Compatibility Test (101x101x1):

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


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.11 V/m; Power Drift = 0.10 dB

PMR not calibrated. PMF = 0.990 is applied.

H-field emissions = 0.11 A/m

Near-field category: M4 (AWF 0 dB)

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PMF scaled H-field

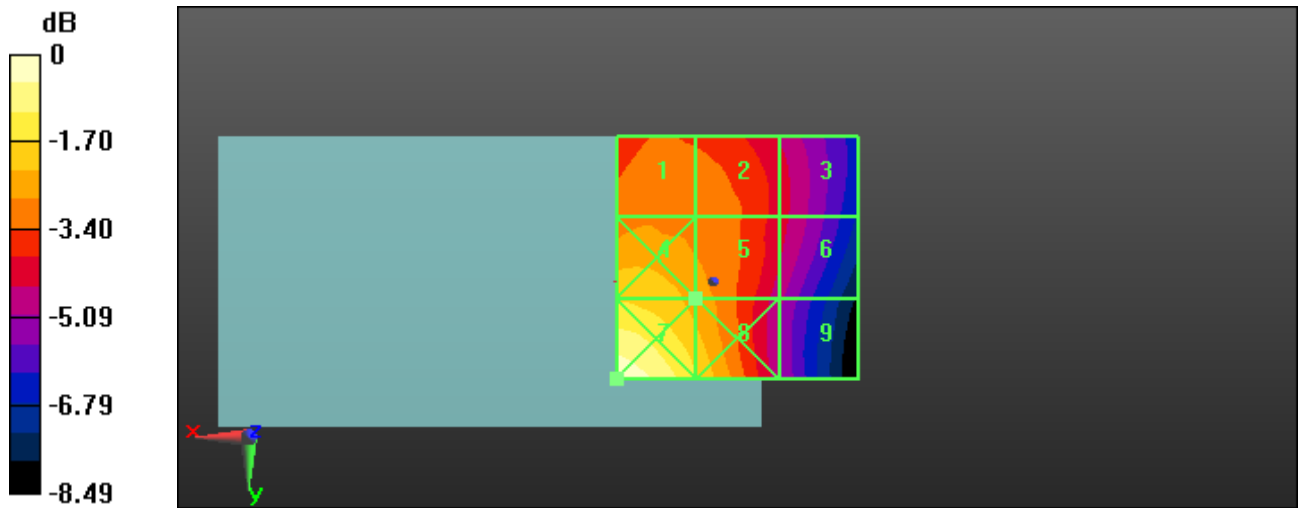
Grid 1 M4 0.11 A/m	Grid 2 M4 0.11 A/m	Grid 3 M4 0.09 A/m
Grid 4 M4 0.12 A/m	Grid 5 M4 0.11 A/m	Grid 6 M4 0.09 A/m
Grid 7 M4 0.15 A/m	Grid 8 M4 0.12 A/m	Grid 9 M4 0.09 A/m

Cursor:

Total = 0.147 A/m

H Category: M4

Location: 20, 20, 8.7 mm



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