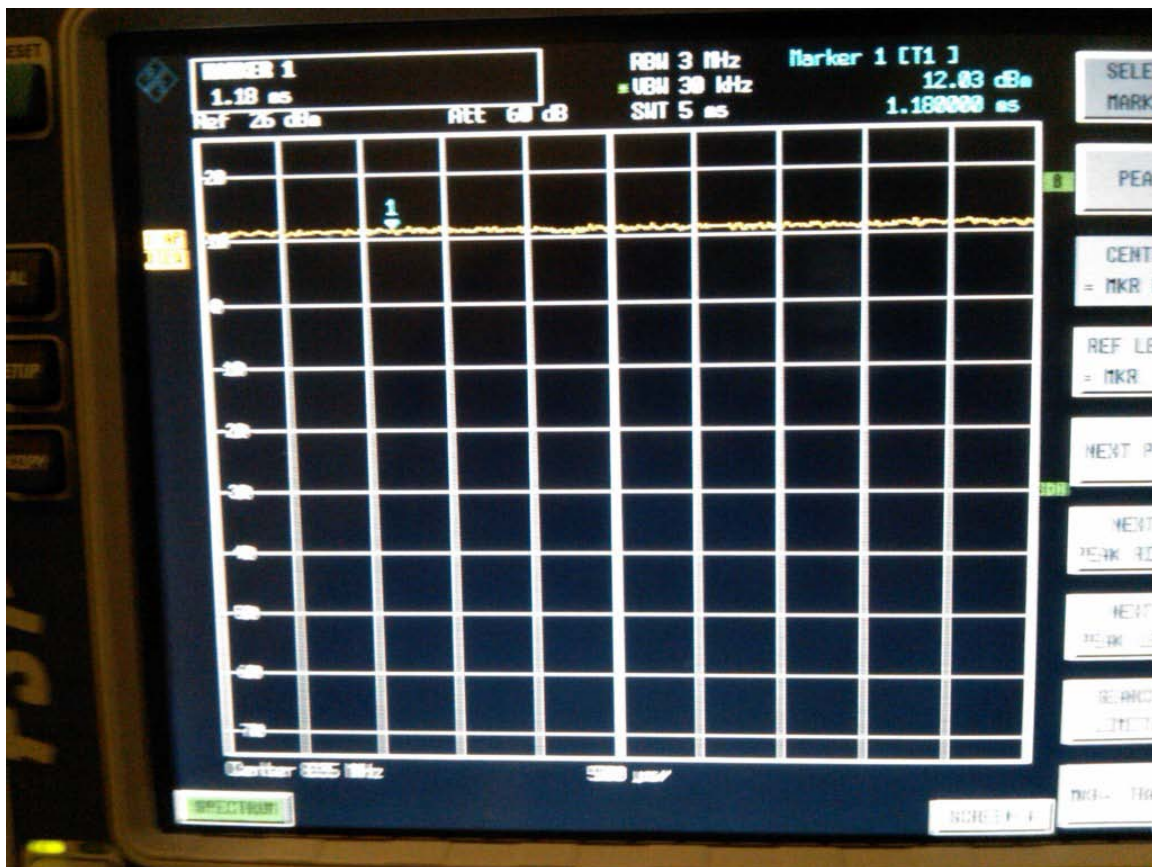


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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Annex A: Measurement data and plots

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

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CDMA Cell 835 MHz

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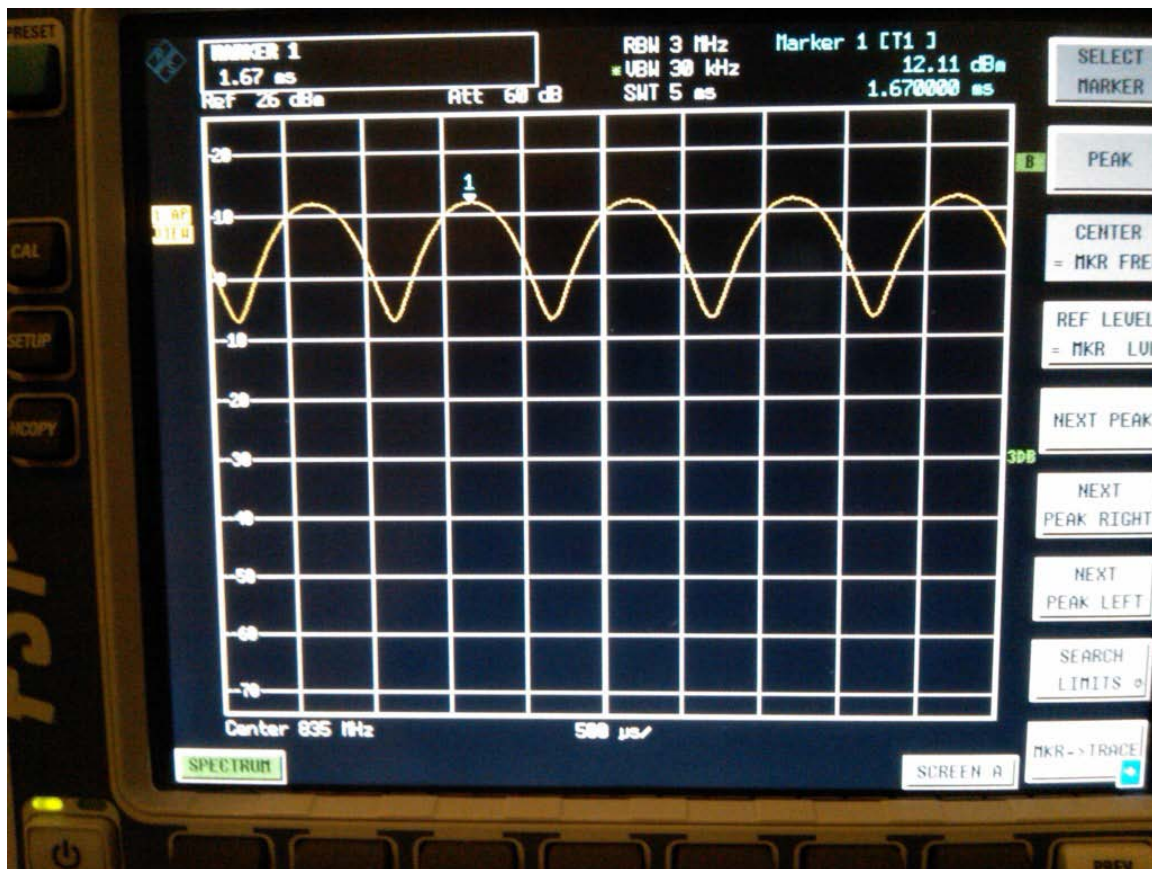
CDMA Cell 835 MHz 1/8th

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW



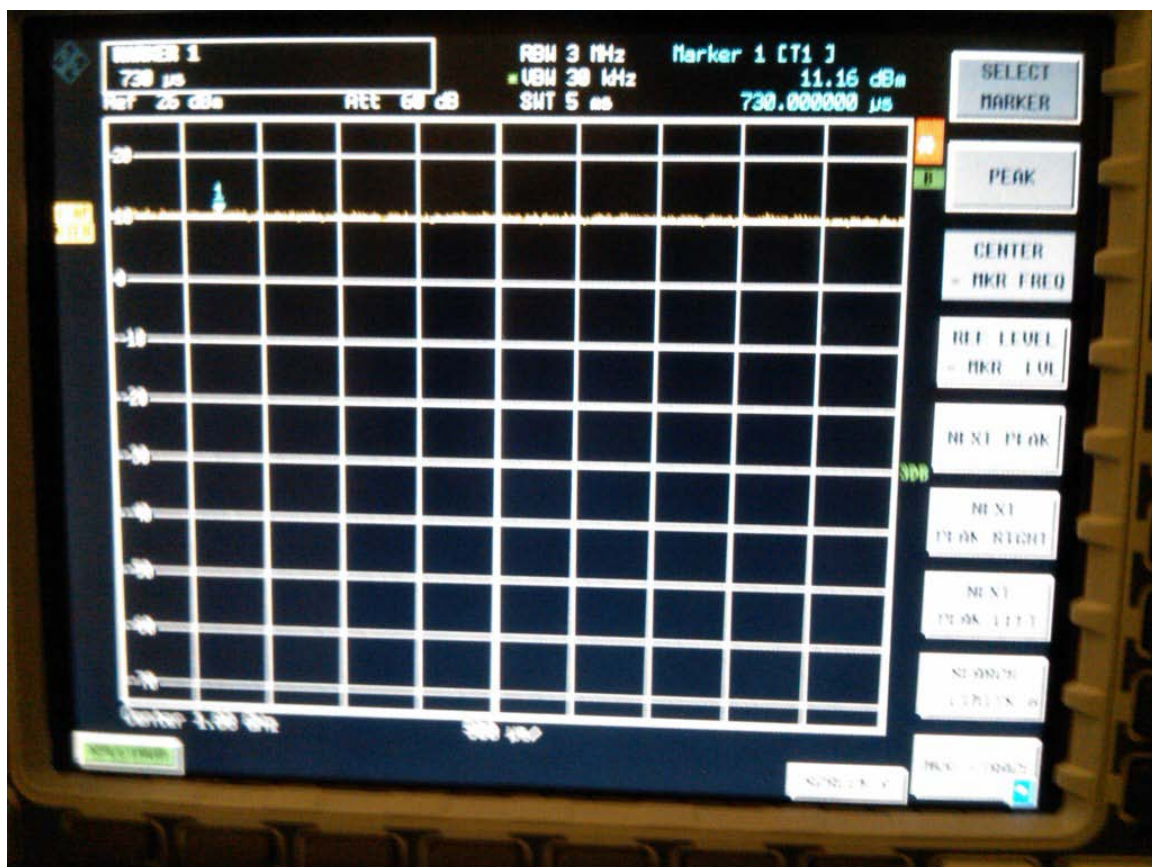
CW 835 MHz

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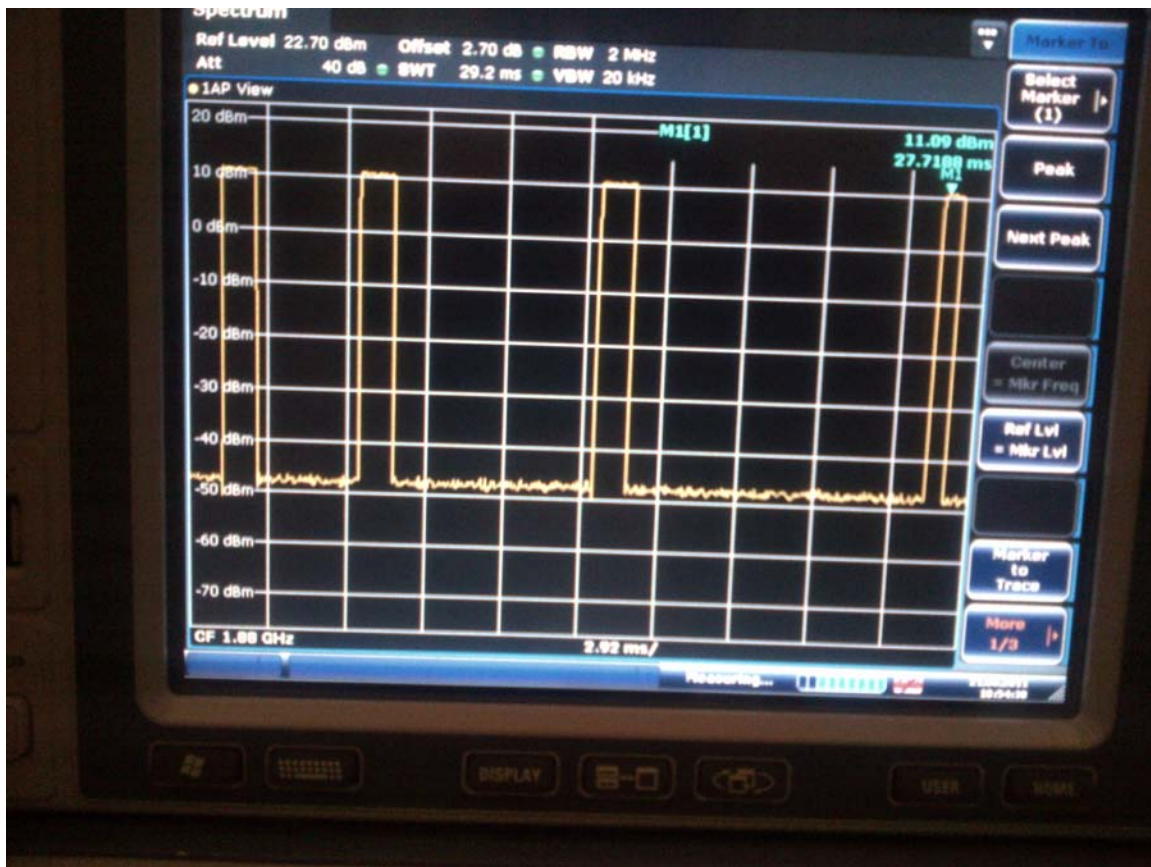
AM 80% 835 MHz

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CDMA 1880 MHz

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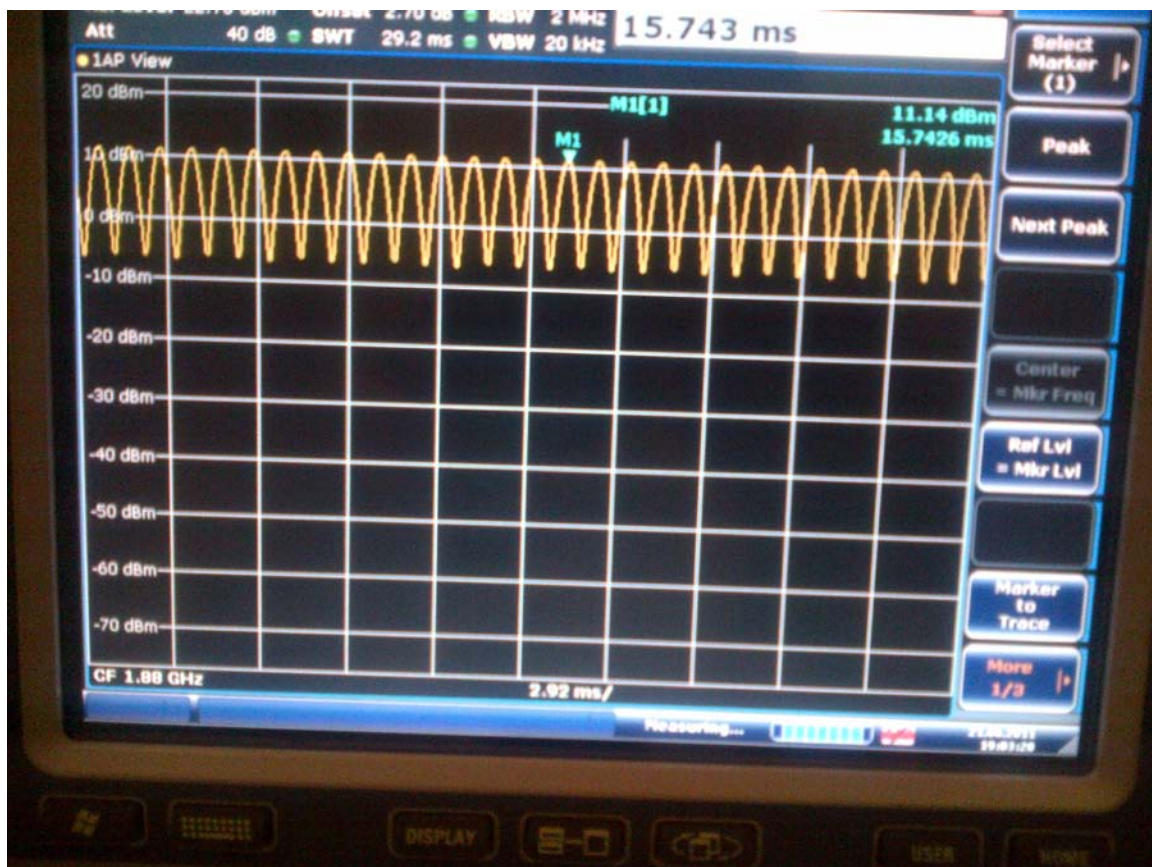
CDMA 1880 MHz 1/8 th

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CW 1880 MHz

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AM 80 % 1880 MHz

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A.2 Dipole validation and probe modulation factor plots

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Date/Time: 6/21/2011 5:10:27 PM, Date/Time: 7/28/2011 2:17:53 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_07_28_11

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 32F66A09

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 164.3 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 119.3 V/m; Power Drift = 0.03 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

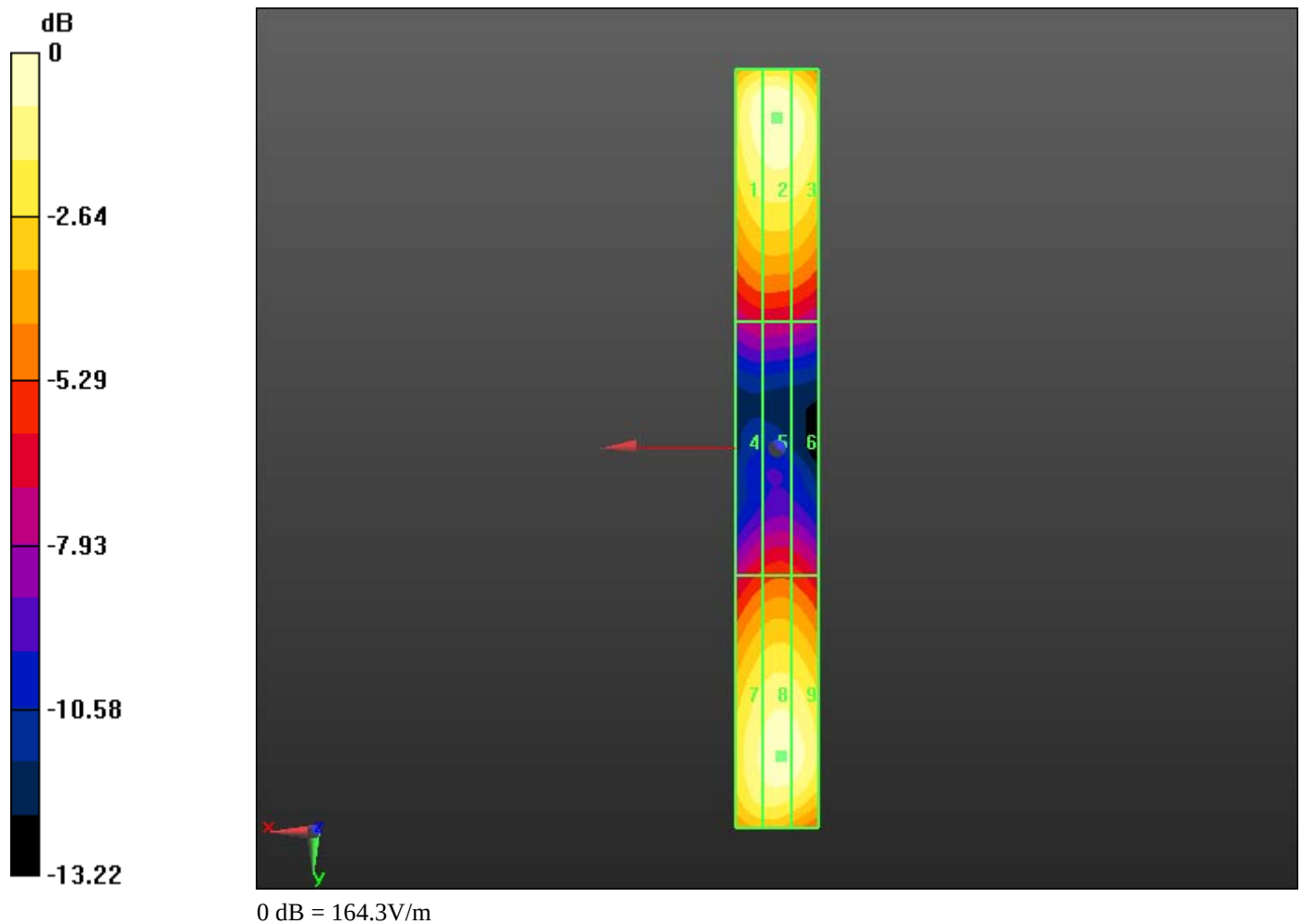
Peak E-field in V/m

Grid 1 160.2 M 4	Grid 2 164.3 M 4	Grid 3 160.1 M 4
Grid 4 83.918 M4	Grid 5 88.015 M4	Grid 6 86.156 M4
Grid 7 151.5 M 4	Grid 8 158.5 M 4	Grid 9 156.7 M 4

Cursor:

Total = 164.3 V/m
E Category: M4
Location: 0, -78.5, 4.7 mm

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Dipole E-Field measurement/E Scan _CW_CDMA835_PMF - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x361x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 60.020 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 45.311 V/m; Power Drift = -0.13 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak E-field in V/m

Grid 1 58.156 M4	Grid 2 60.020 M4	Grid 3 58.370 M4
Grid 4 31.911 M4	Grid 5 32.721 M4	Grid 6 32.052 M4
Grid 7 57.400 M4	Grid 8 58.565 M4	Grid 9 57.669 M4

Cursor:

Total = 60.020 V/m
E Category: M4
Location: 0, -79, 4.7 mm

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**Dipole E-Field measurement/E Scan _AM80%_CDMA835
_PMF - measurement distance from the probe sensor center
to CD835 Dipole = 10mm 2 2/Hearing Aid Compatibility Test**

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

Maximum value of peak Total field = 37.844 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 28.705 V/m; Power Drift = -0.04 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 36.315 M4	Grid 2 37.844 M4	Grid 3 37.101 M4
Grid 4 20.380 M4	Grid 5 21.197 M4	Grid 6 20.358 M4
Grid 7 36.696 M4	Grid 8 37.645 M4	Grid 9 36.579 M4

Cursor:

Total = 37.844 V/m

E Category: M4

Location: -0.5, -79, 4.7 mm

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**Dipole E-Field measurement/E Scan _CDMA835_1_8th_PMF
- measurement distance from the probe sensor center to
CD835 Dipole = 10mm 2 2 2/Hearing Aid Compatibility Test**

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

Maximum value of peak Total field = 23.083 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 16.053 V/m; Power Drift = 0.10 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 21.961 M4	Grid 2 22.888 M4	Grid 3 21.653 M4
Grid 4 11.102 M4	Grid 5 11.571 M4	Grid 6 11.296 M4
Grid 7 22.471 M4	Grid 8 23.083 M4	Grid 9 21.920 M4

Cursor:

Total = 23.083 V/m

E Category: M4

Location: 0, 74.5, 4.7 mm

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Date/Time: 3/22/2011 2:51:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 32E4DBBB

Communication System: CDMA 800; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 835

MHz;Communication System PAR: 0 dB

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

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 63.653 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 45.492 V/m; Power Drift = 0.04 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

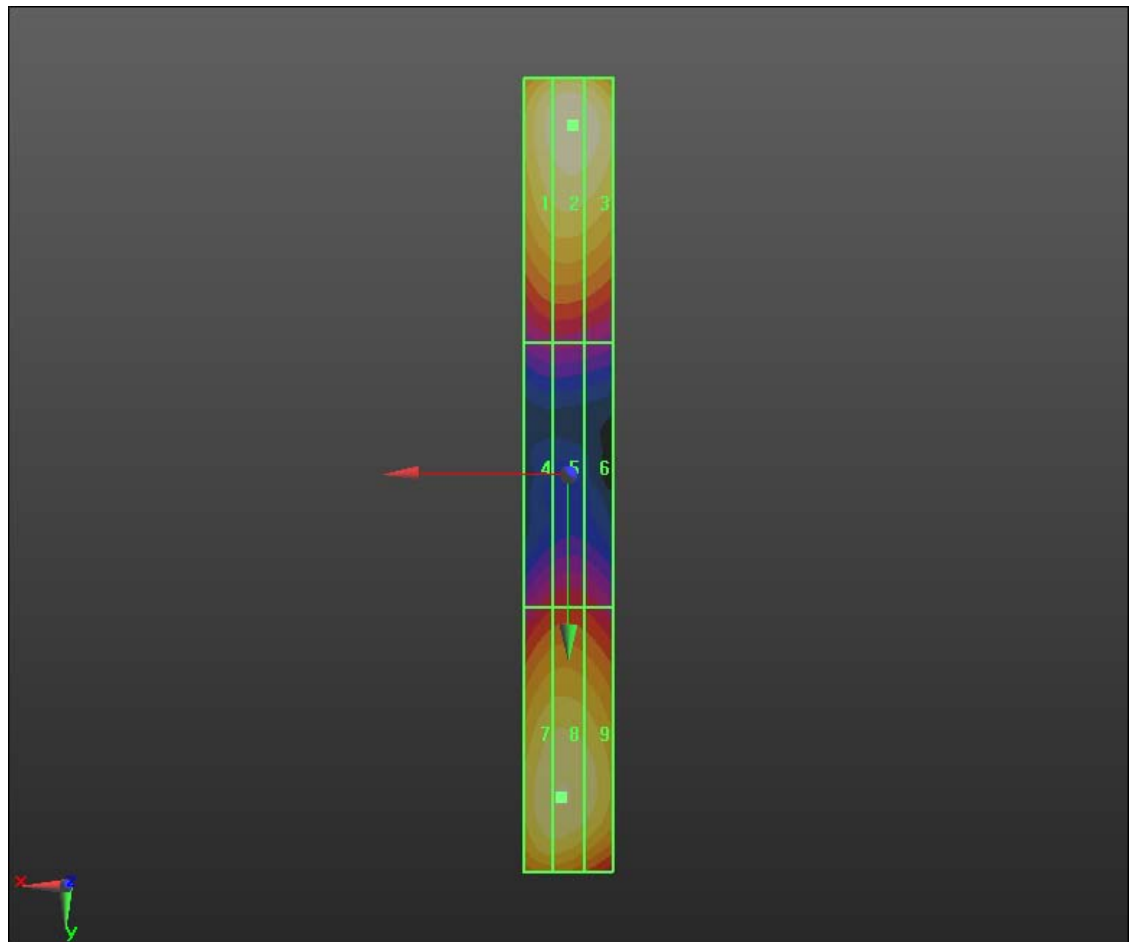
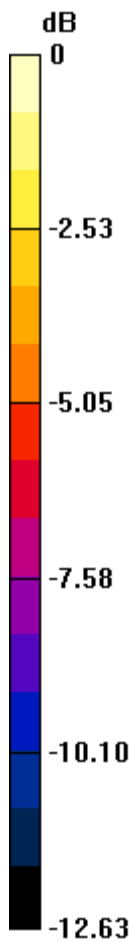
Peak E-field in V/m

Grid 1 60.457 M4	Grid 2 63.653 M4	Grid 3 62.702 M4
Grid 4 32.119 M4	Grid 5 32.806 M4	Grid 6 32.009 M4
Grid 7 57.694 M4	Grid 8 58.081 M4	Grid 9 56.094 M4

Cursor:

Total = 63.653 V/m
E Category: M4
Location: -1, -79, 4.7 mm

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0 dB = 63.650V/m

Date/Time: 6/21/2011 5:35:48 PM

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Date/Time: 6/21/2011 6:28:10 PM, Date/Time: 7/28/2011 2:35:18 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_07_28_11

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 32F66A09

Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 129.3 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 121.3 V/m; Power Drift = 0.03 dB

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

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Peak E-field in V/m

Grid 1 126.4 M 2	Grid 2 129.3 M 2	Grid 3 123.2 M 2
Grid 4 82.402 M3	Grid 5 86.640 M3	Grid 6 85.561 M3
Grid 7 119.3 M 2	Grid 8 122.4 M 2	Grid 9 120.1 M 2

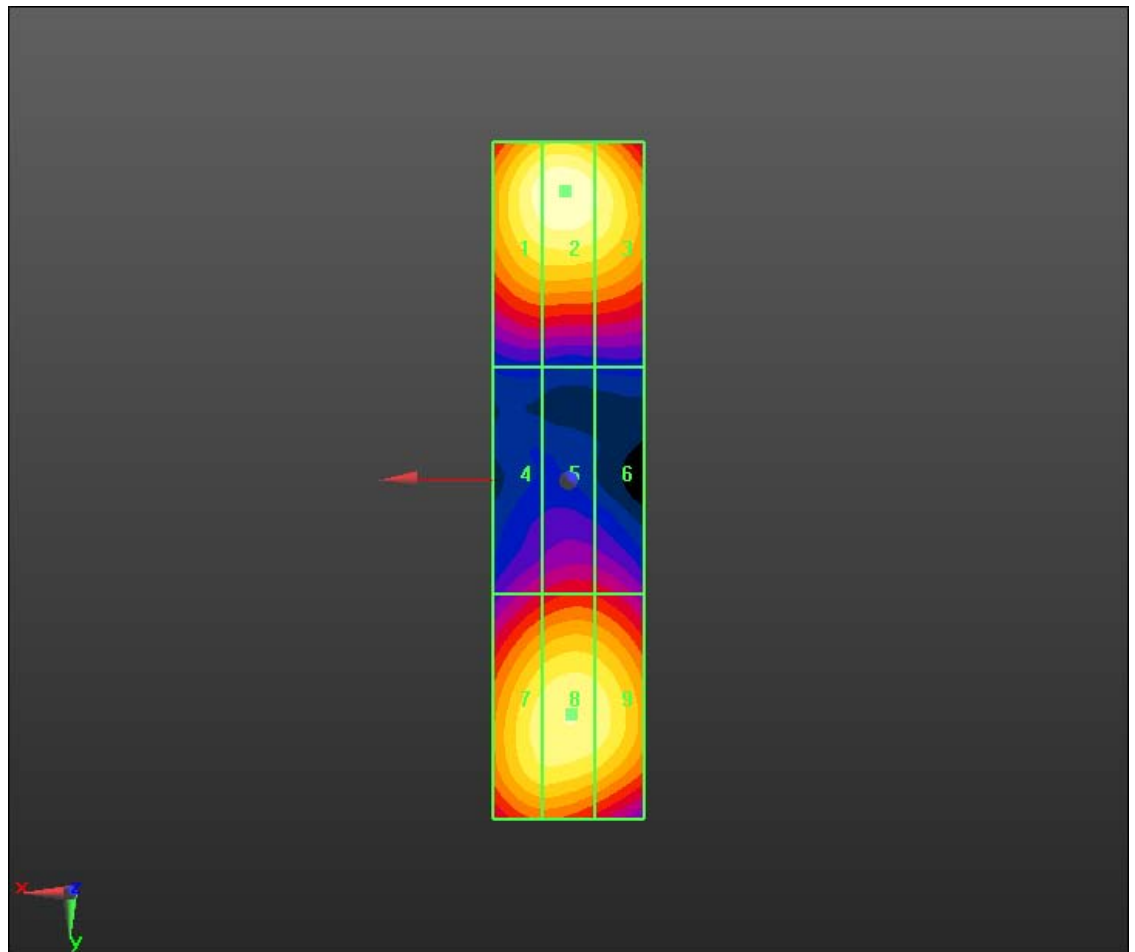
Cursor:

Total = 129.3 V/m

E Category: M2

Location: 0.5, -38.5, 4.7 mm

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0 dB = 129.3V/m

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Dipole E-Field measurement/E Scan -

CW_CDMA1900_measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid

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

Maximum value of peak Total field = 36.285 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 33.617 V/m; Power Drift = 0.04 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 34.758 M4	Grid 2 36.285 M4	Grid 3 34.848 M4
Grid 4 22.360 M4	Grid 5 23.679 M4	Grid 6 23.521 M4
Grid 7 32.897 M4	Grid 8 33.681 M4	Grid 9 33.221 M4

Cursor:

Total = 36.285 V/m

E Category: M4

Location: 0, -38.5, 4.7 mm

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**Dipole E-Field measurement/E Scan -
AM80%_CDMA1900_measurement distance from the probe
sensor center to CD1880 Dipole = 10mm 2 2/Hearing Aid**

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

Maximum value of peak Total field = 23.269 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 21.624 V/m; Power Drift = -0.02 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 22.379 M4	Grid 2 23.269 M4	Grid 3 22.386 M4
Grid 4 14.427 M4	Grid 5 15.311 M4	Grid 6 15.198 M4
Grid 7 21.091 M4	Grid 8 21.728 M4	Grid 9 21.374 M4

Cursor:

Total = 23.269 V/m

E Category: M4

Location: 0, -38.5, 4.7 mm

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**Dipole E-Field measurement/E Scan -
CDMA1900_1_8th_measurement distance from the probe
sensor center to CD1880 Dipole = 10mm 2 2 2/Hearing Aid**

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

Maximum value of peak Total field = 14.129 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 13.323 V/m; Power Drift = -0.93 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 12.459 M4	Grid 2 14.120 M4	Grid 3 14.129 M4
Grid 4 8.084 M4	Grid 5 8.555 M4	Grid 6 8.489 M4
Grid 7 13.250 M4	Grid 8 13.548 M4	Grid 9 12.104 M4

Cursor:

Total = 14.129 V/m

E Category: M4

Location: -4, -38.5, 4.7 mm

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Date/Time: 3/22/2011 3:54:49 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 32E4DBBB

Communication System: WCDMA FDD II; Communication System Band:

Exported from older format (data unavailable - please correct).; Frequency: 1880 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 43.150 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 40.108 V/m; Power Drift = -0.01 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

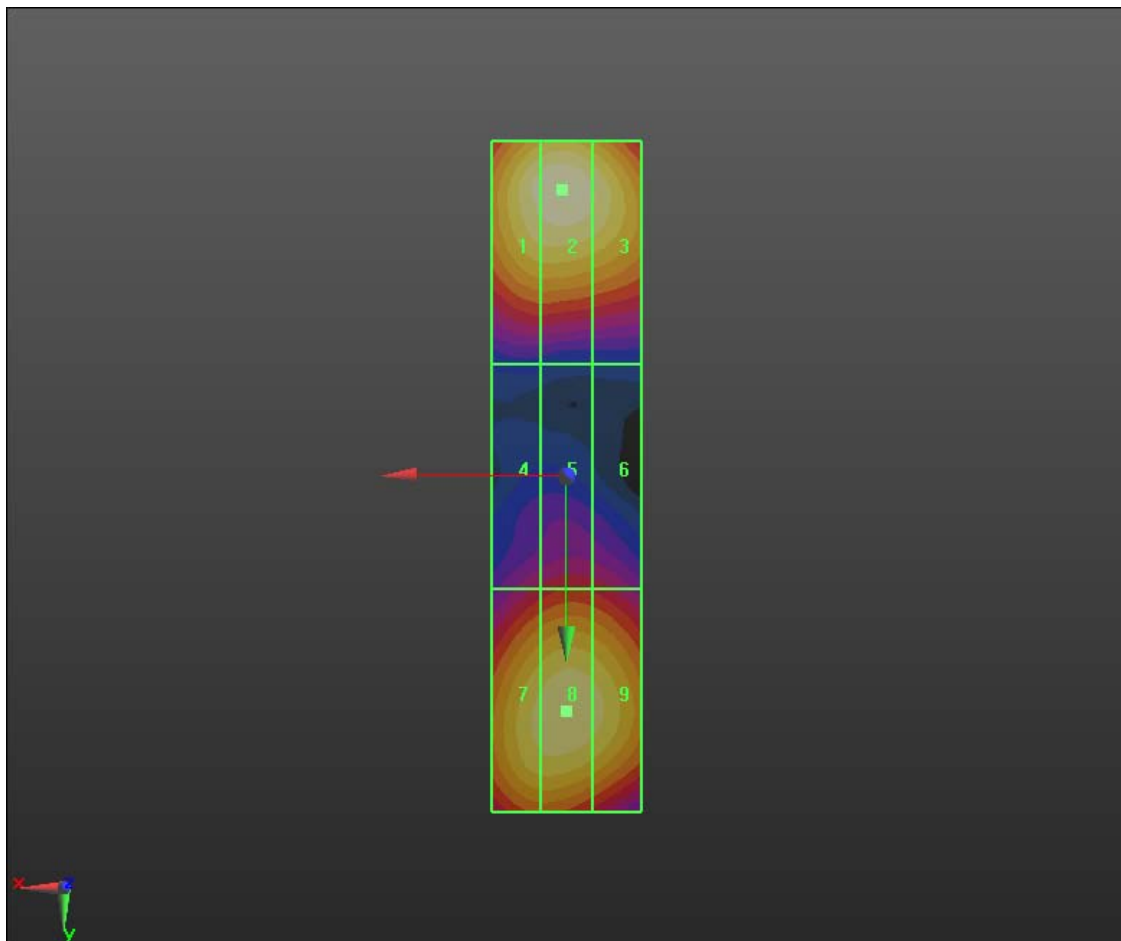
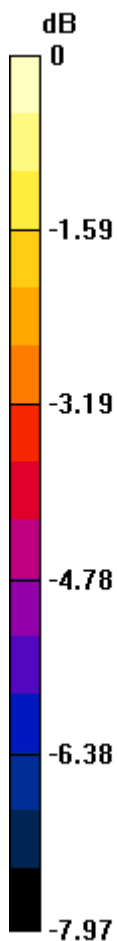
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Peak E-field in V/m

Grid 1 41.912 M4	Grid 2 43.150 M4	Grid 3 40.971 M4
Grid 4 26.905 M4	Grid 5 28.223 M4	Grid 6 27.711 M4
Grid 7 39.111 M4	Grid 8 40.205 M4	Grid 9 39.292 M4

Cursor:

Total = 43.150 V/m
E Category: M4
Location: 0.5, -38.5, 4.7 mm



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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Date/Time: 6/21/2011 9:07:05 PM, Date/Time: 7/28/2011 4:42:32 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_07_28_11

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 32F66A09

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

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

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.486 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.518 A/m; Power Drift = 0.0044 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1 0.444 M 4	Grid 2 0.460 M 4	Grid 3 0.445 M 4
Grid 4 0.467 M 4	Grid 5 0.486 M 4	Grid 6 0.462 M 4
Grid 7 0.466 M 4	Grid 8 0.481 M 4	Grid 9 0.448 M 4

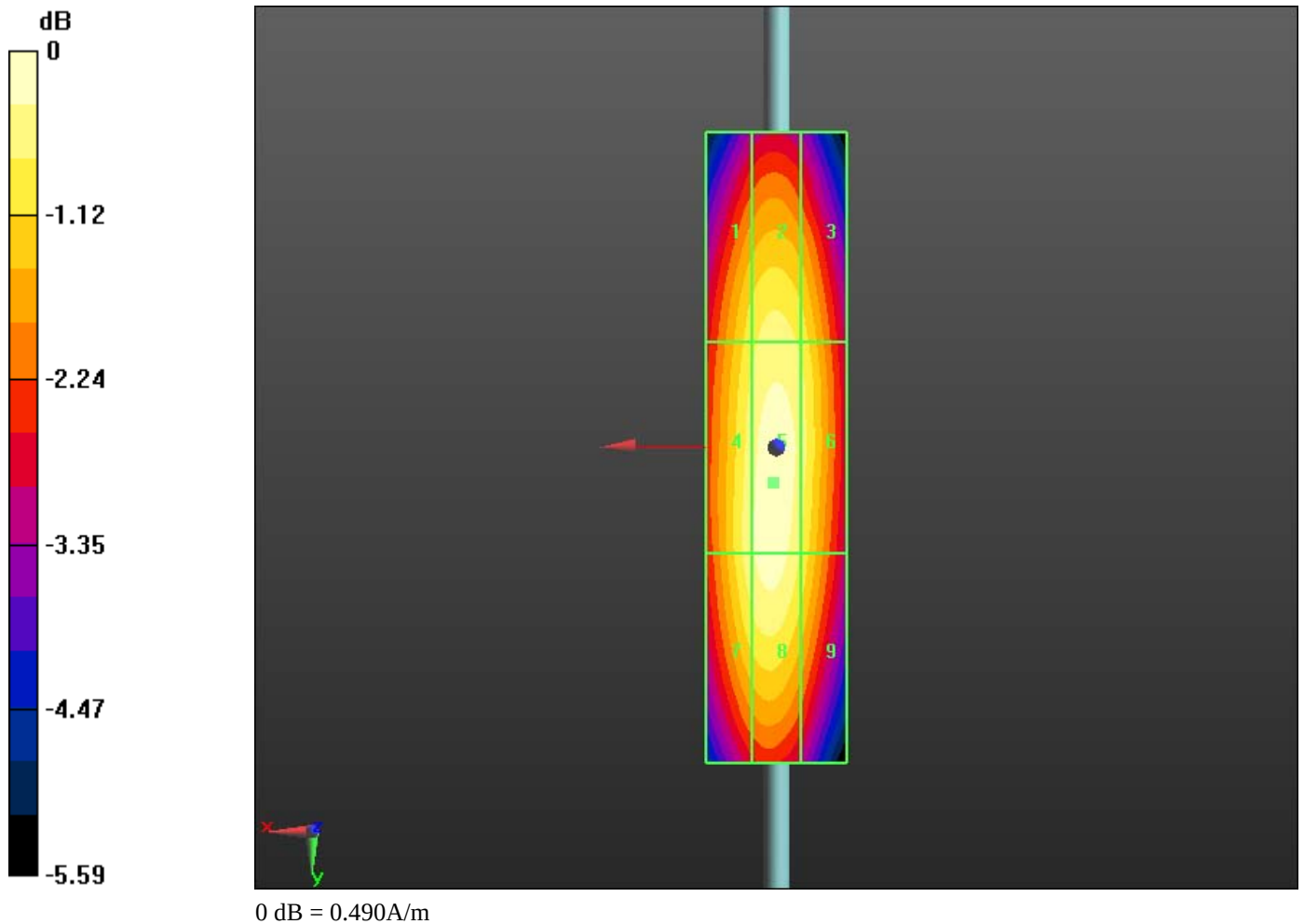
Cursor:

Total = 0.486 A/m

H Category: M4

Location: 0.5, 5, 4.7 mm

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Dipole H-Field measurement with H3DV6 probe/H Scan - CDMA835_1_8th_measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.064 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.067 A/m; Power Drift = -0.08 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.052 M4	Grid 2 0.055 M4	Grid 3 0.052 M4
Grid 4 0.060 M4	Grid 5 0.064 M4	Grid 6 0.060 M4
Grid 7 0.055 M4	Grid 8 0.056 M4	Grid 9 0.052 M4

Cursor:

Total = 0.064 A/m

H Category: M4

Location: 0, 1, 4.7 mm

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Dipole H-Field measurement with H3DV6 probe/H Scan - CW_CDMA835_measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.177 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.191 A/m; Power Drift = 0.0078 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.145 M4	Grid 2 0.151 M4	Grid 3 0.144 M4
Grid 4 0.169 M4	Grid 5 0.177 M4	Grid 6 0.167 M4
Grid 7 0.154 M4	Grid 8 0.159 M4	Grid 9 0.146 M4

Cursor:

Total = 0.177 A/m

H Category: M4

Location: 0, 6, 4.7 mm

	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDZ21CW		Page 33 (88)
Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_CDMA835_measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.114 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.120 A/m; Power Drift = 0.10 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.093 M4	Grid 2 0.097 M4	Grid 3 0.092 M4
Grid 4 0.109 M4	Grid 5 0.114 M4	Grid 6 0.108 M4
Grid 7 0.100 M4	Grid 8 0.103 M4	Grid 9 0.095 M4

Cursor:

Total = 0.114 A/m

H Category: M4

Location: 0, 7, 4.7 mm

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Date/Time: 3/23/2011 3:11:51 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 32E4DBBB

Communication System: CDMA 800; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 835

MHz;Communication System PAR: 0 dB

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

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.183 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.196 A/m; Power Drift = 0.01 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1 0.168 M4	Grid 2 0.176 M4	Grid 3 0.169 M4
Grid 4 0.173 M4	Grid 5 0.183 M4	Grid 6 0.175 M4
Grid 7 0.171 M4	Grid 8 0.180 M4	Grid 9 0.169 M4

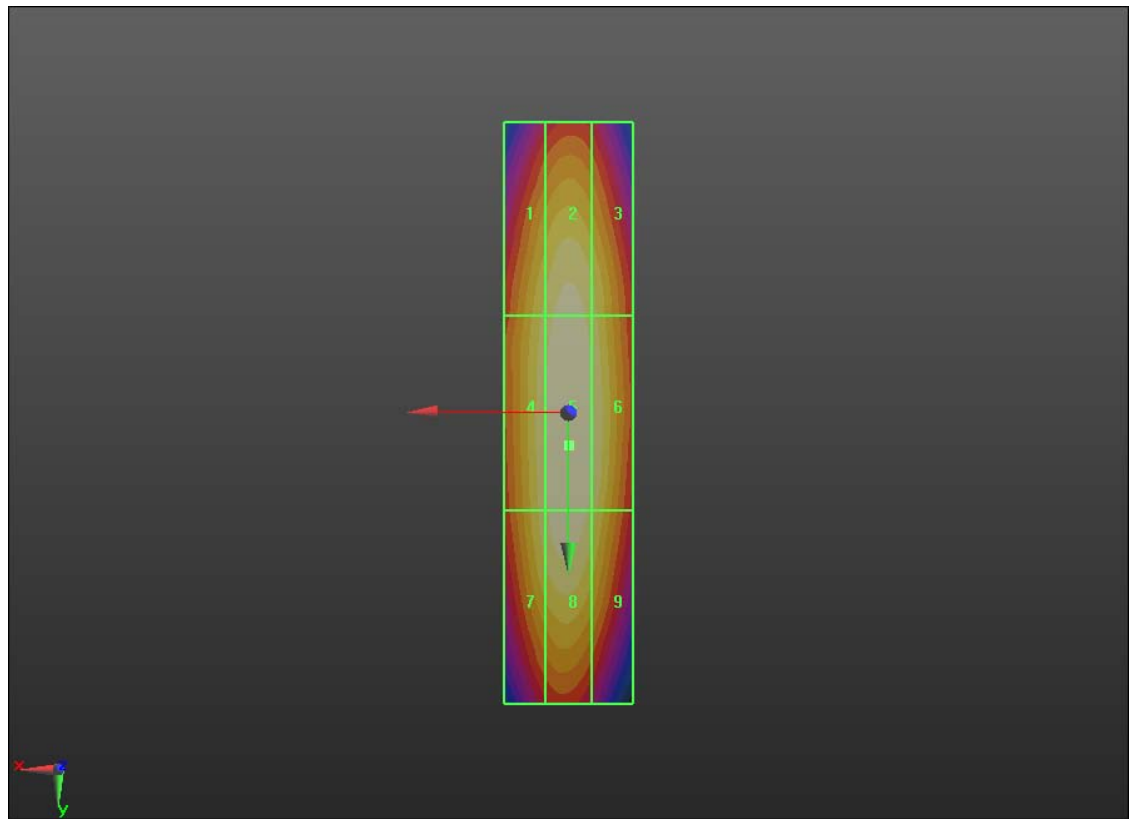
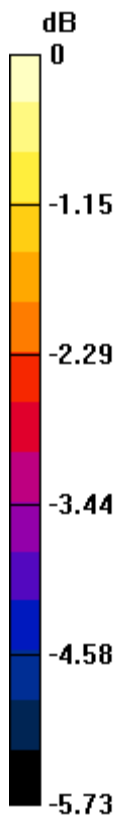
Cursor:

Total = 0.183 A/m

H Category: M4

Location: 0, 5, 4.7 mm

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0 dB = 0.180A/m

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Date/Time: 6/21/2011 7:37:59 PM, Date/Time: 7/28/2011 4:53:10 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_07_28_11

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 32F66A09

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

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

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

**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=5mm, dy=5mm

Maximum value of peak Total field = 0.461 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.489 A/m; Power Drift = 0.04 dB

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

Peak H-field in A/m

Grid 1 0.425 M 2	Grid 2 0.442 M 2	Grid 3 0.425 M 2
Grid 4 0.441 M 2	Grid 5 0.461 M 2	Grid 6 0.440 M 2
Grid 7 0.432 M 2	Grid 8 0.453 M 2	Grid 9 0.428 M 2

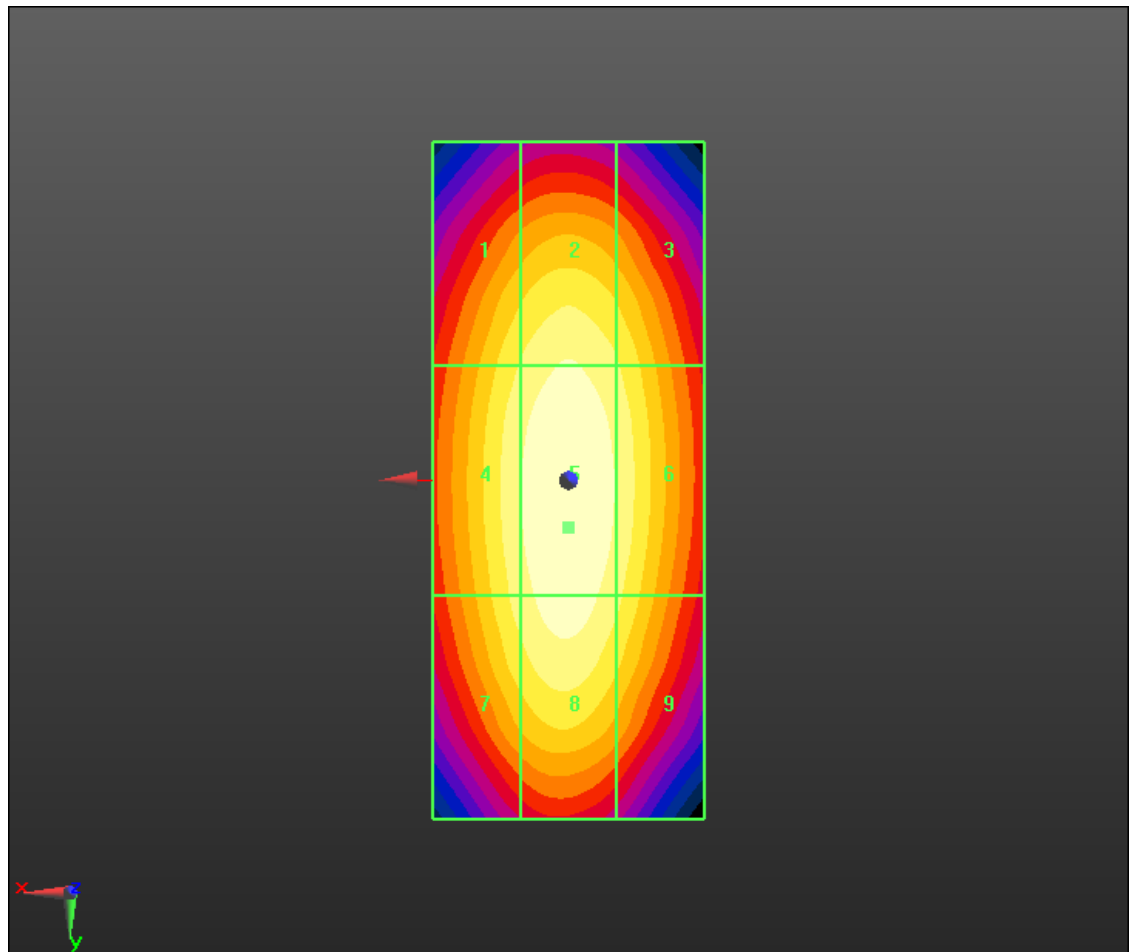
Cursor:

Total = 0.461 A/m

H Category: M2

Location: 0, 3.5, 4.7 mm

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0 dB = 0.460A/m

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Dipole H-Field measurement with H3DV6 probe/H Scan - CW_CDMA1900_measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.126 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.135 A/m; Power Drift = -0.02 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.109 M4	Grid 2 0.113 M4	Grid 3 0.108 M4
Grid 4 0.121 M4	Grid 5 0.126 M4	Grid 6 0.120 M4
Grid 7 0.110 M4	Grid 8 0.116 M4	Grid 9 0.109 M4

Cursor:

Total = 0.126 A/m

H Category: M4

Location: 0, 2.5, 4.7 mm

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Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_CDMA1900_measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.081 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.086 A/m; Power Drift = -0.0042 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.070 M4	Grid 2 0.073 M4	Grid 3 0.070 M4
Grid 4 0.077 M4	Grid 5 0.081 M4	Grid 6 0.077 M4
Grid 7 0.070 M4	Grid 8 0.074 M4	Grid 9 0.069 M4

Cursor:

Total = 0.081 A/m

H Category: M4

Location: 0, 3, 4.7 mm

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Dipole H-Field measurement with H3DV6 probe/H Scan - CDMA1900_1_8th_measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid

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

Maximum value of peak Total field = 0.051 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.050 A/m; Power Drift = -0.17 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.040 M4	Grid 2 0.041 M4	Grid 3 0.038 M4
Grid 4 0.047 M4	Grid 5 0.051 M4	Grid 6 0.048 M4
Grid 7 0.040 M4	Grid 8 0.042 M4	Grid 9 0.040 M4

Cursor:

Total = 0.051 A/m

H Category: M4

Location: 0, 0, 4.7 mm

Author Data

Hang Wang

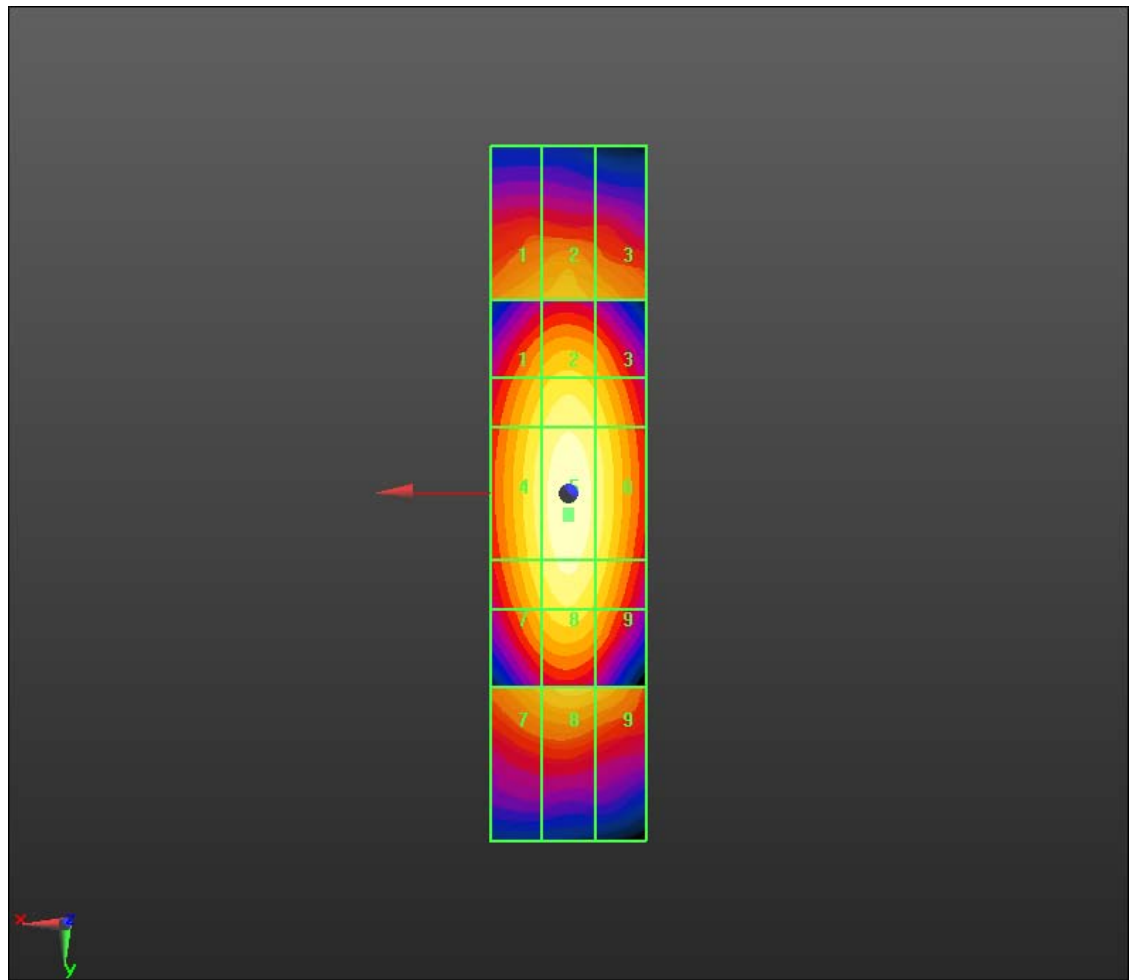
Dates of Test

July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW


0 dB = 0.470A/m

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Date/Time: 3/23/2011 1:10:44 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 32E4DBBB

Communication System: CDMA 1900; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 1880

MHz;Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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=5mm, dy=5mm

Maximum value of peak Total field = 0.154 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.165 A/m; Power Drift = -0.02 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1 0.143 M4	Grid 2 0.150 M4	Grid 3 0.145 M4
Grid 4 0.147 M4	Grid 5 0.154 M4	Grid 6 0.149 M4
Grid 7 0.144 M4	Grid 8 0.152 M4	Grid 9 0.145 M4

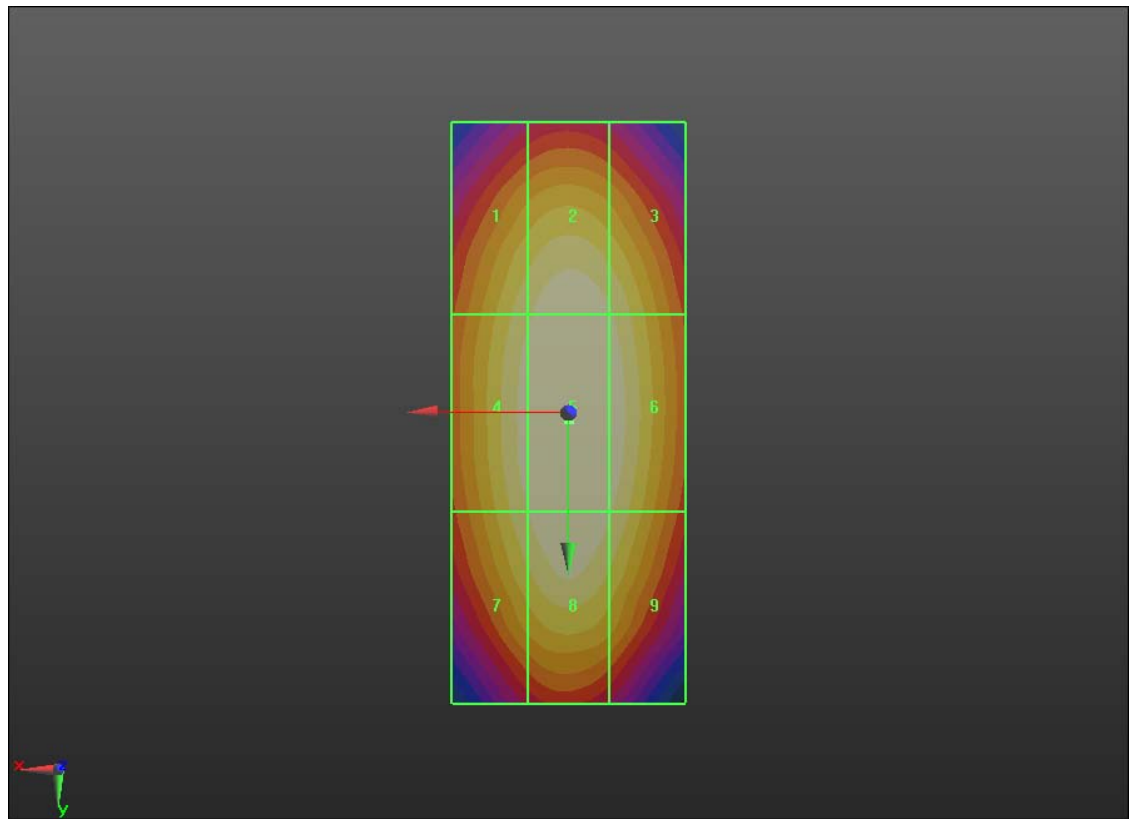
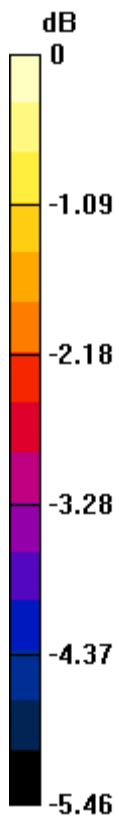
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Total = 0.154 A/m

H Category: M4

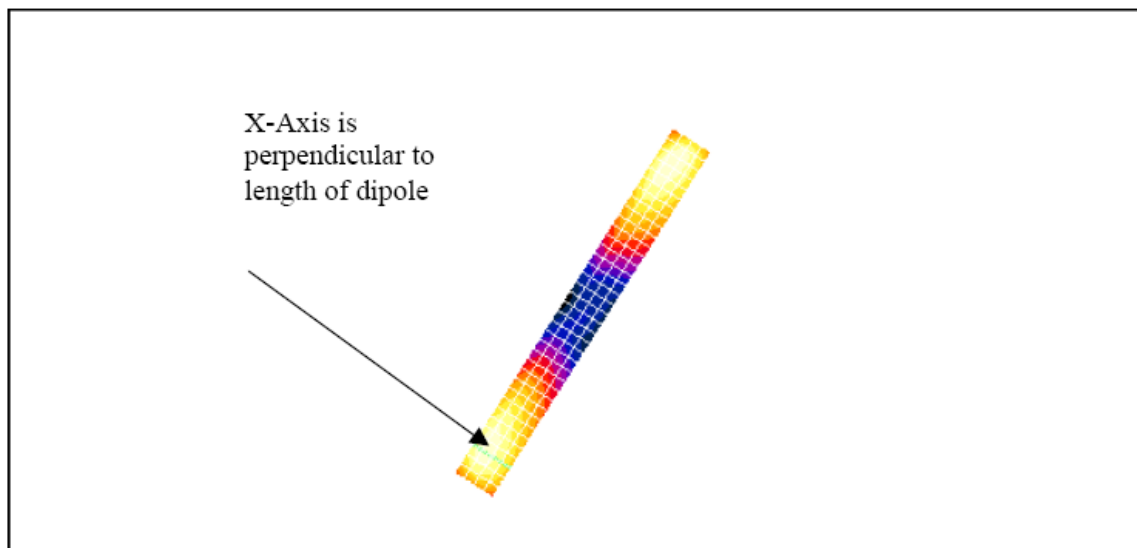
Location: 0, 0.5, 4.7 mm

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0 dB = 0.150A/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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Date/Time: 14/07/2005 11:35:24 AM

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/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

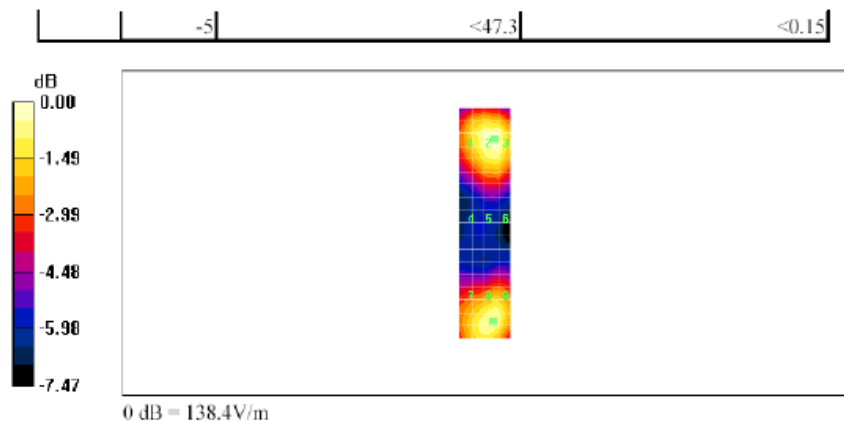
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20... 14/07/2005

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

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Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW

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

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/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

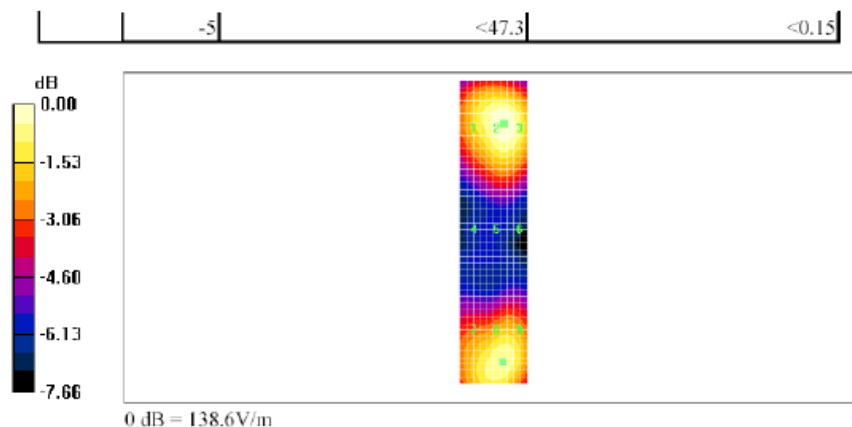
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

file://C:\Program%20Files\DASY4\Print_Templates\Dipole%20Validation%201880%20... 14/07/2005

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

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

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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, $\epsilon_r = 1$; $\rho = 1$ 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

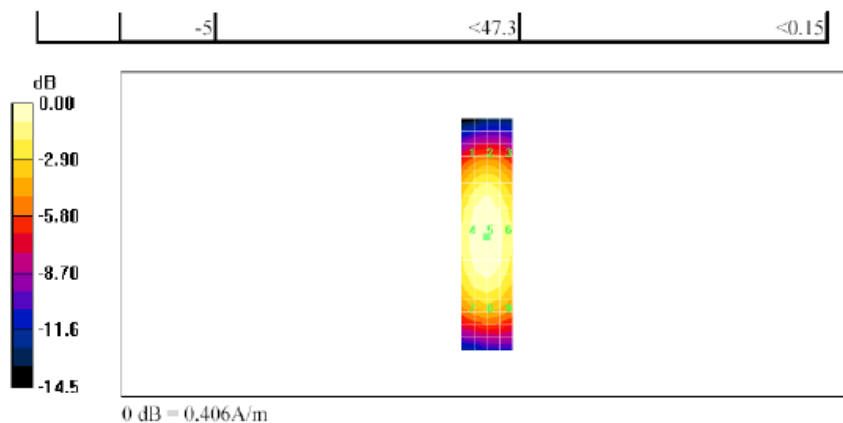
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

file://C:\Program%20Files\DASY4\Print_Templates\HAC_H_Dipole_CW%201880_5%... 14/07/2005

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

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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

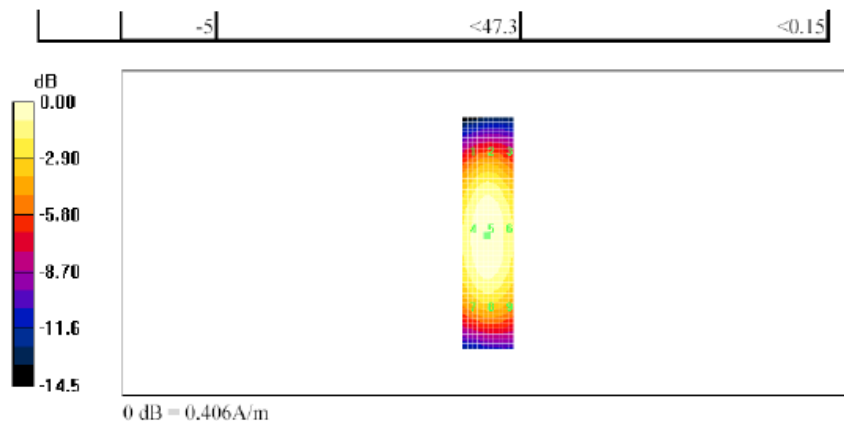
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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A.3 RF emissions plots

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Date/Time: 7/28/2011 3:00:54 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 850; Communication System Band: CDMA 2000

Cellular; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52

MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

15 mm from Probe Center to the Device/Hearing Aid Compatibility

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

Maximum value of peak Total field = 65.139 V/m

Probe Modulation Factor = 0.940

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 85.715 V/m; Power Drift = -0.03 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 55.867 M4	Grid 2 61.981 M4	Grid 3 61.540 M4
Grid 4 58.350 M4	Grid 5 65.139 M4	Grid 6 64.542 M4
Grid 7 59.989 M4	Grid 8 65.225 M4	Grid 9 64.595 M4

Cursor:

Total = 65.225 V/m

E Category: M4

Location: -4.5, 10, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 70.350 V/m

Probe Modulation Factor = 0.940

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 90.637 V/m; Power Drift = 0.12 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 56.538 M4	Grid 2 65.553 M4	Grid 3 65.423 M4
Grid 4 60.935 M4	Grid 5 70.350 M4	Grid 6 69.864 M4
Grid 7 63.602 M4	Grid 8 71.311 M4	Grid 9 71.087 M4

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Cursor:

Total = 71.311 V/m
E Category: M4
Location: -6, 15, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 69.254 V/m
Probe Modulation Factor = 0.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 89.096 V/m; Power Drift = 0.03 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 56.213 M4	Grid 2 66.620 M4	Grid 3 66.434 M4
Grid 4 58.169 M4	Grid 5 69.254 M4	Grid 6 69.153 M4
Grid 7 59.132 M4	Grid 8 69.568 M4	Grid 9 69.439 M4

Cursor:

Total = 69.568 V/m
E Category: M4
Location: -7, 14, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_1/8/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 78.330 V/m
Probe Modulation Factor = 2.600
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 36.261 V/m; Power Drift = 0.12 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

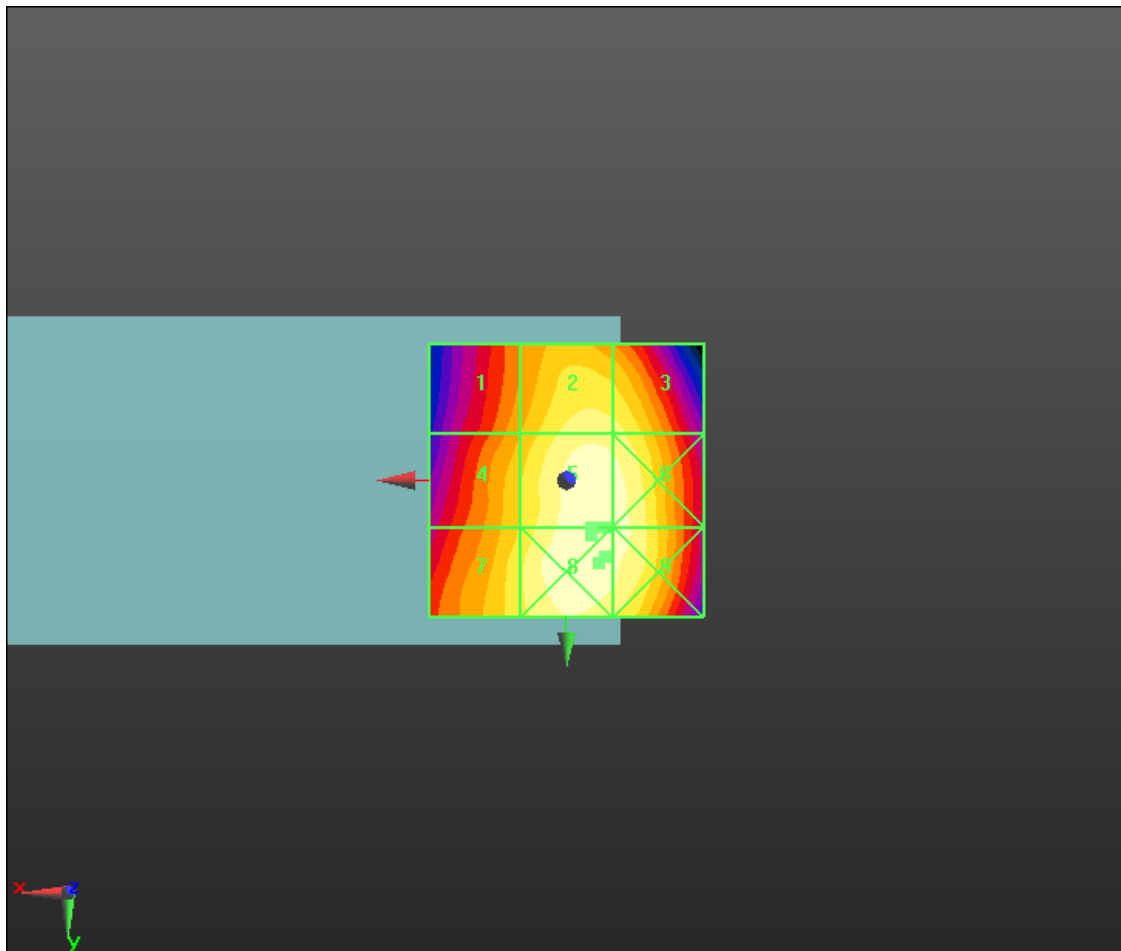
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Peak E-field in V/m

Grid 1 59.862 M4	Grid 2 68.661 M4	Grid 3 69.916 M4
Grid 4 64.634 M4	Grid 5 78.330 M4	Grid 6 76.225 M4
Grid 7 70.990 M4	Grid 8 79.106 M4	Grid 9 77.712 M4

Cursor:

Total = 79.106 V/m
E Category: M4
Location: -4.5, 10, 8.7 mm



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0 dB = 65.220V/m

Date/Time: 7/28/2011 3:25:23 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA850_telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 850; Communication System Band: CDMA 2000

Cellular; Frequency: 848.52 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 79.886 V/m

Probe Modulation Factor = 2.600

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Device Reference Point: 0, 0, -6.3 mm

Reference Value = 32.726 V/m; Power Drift = 0.89 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 65.825 M4	Grid 2 76.418 M4	Grid 3 67.521 M4
Grid 4 73.135 M4	Grid 5 79.886 M4	Grid 6 69.191 M4
Grid 7 67.207 M4	Grid 8 78.816 M4	Grid 9 68.085 M4

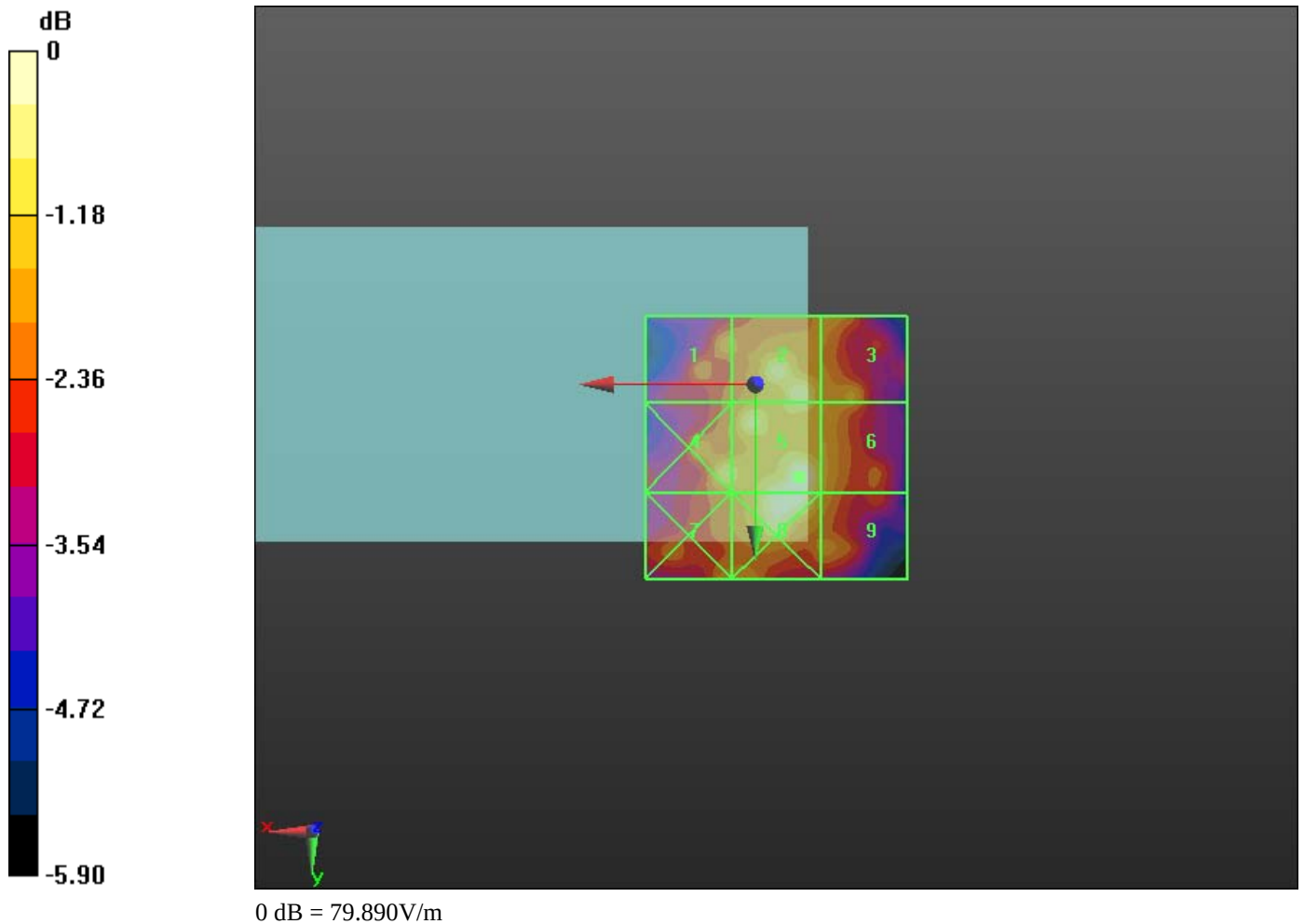
Cursor:

Total = 79.886 V/m

E Category: M4

Location: -8.5, 17.5, 8.7 mm

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Date/Time: 7/28/2011 3:51:31 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 1900; Communication System Band: CDMA 2000 PCS; Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

15 mm from Probe Center to the Device/Hearing Aid Compatibility

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

Maximum value of peak Total field = 34.464 V/m

Probe Modulation Factor = 0.940

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 25.058 V/m; Power Drift = 0.04 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 34.357 M4	Grid 2 33.904 M4	Grid 3 25.551 M4
Grid 4 20.157 M4	Grid 5 33.560 M4	Grid 6 34.515 M4
Grid 7 34.464 M4	Grid 8 44.662 M4	Grid 9 44.493 M4

Cursor:

Total = 44.662 V/m

E Category: M4

Location: -6.5, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 31.873 V/m

Probe Modulation Factor = 0.940

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 26.421 V/m; Power Drift = -0.12 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 31.360 M4	Grid 2 31.137 M4	Grid 3 25.599 M4
Grid 4 18.652 M4	Grid 5 31.873 M4	Grid 6 32.365 M4
Grid 7 30.255 M4	Grid 8 40.998 M4	Grid 9 40.890 M4

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Cursor:

Total = 40.998 V/m
E Category: M4
Location: -6.5, 25, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 31.757 V/m
Probe Modulation Factor = 0.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 25.480 V/m; Power Drift = 0.02 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 31.757 M4	Grid 2 31.733 M4	Grid 3 27.180 M4
Grid 4 18.675 M4	Grid 5 30.423 M4	Grid 6 30.808 M4
Grid 7 30.578 M4	Grid 8 39.056 M4	Grid 9 38.853 M4

Cursor:

Total = 39.056 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_1/8/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 37.367 V/m
Probe Modulation Factor = 2.570
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 9.391 V/m; Power Drift = 0.65 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

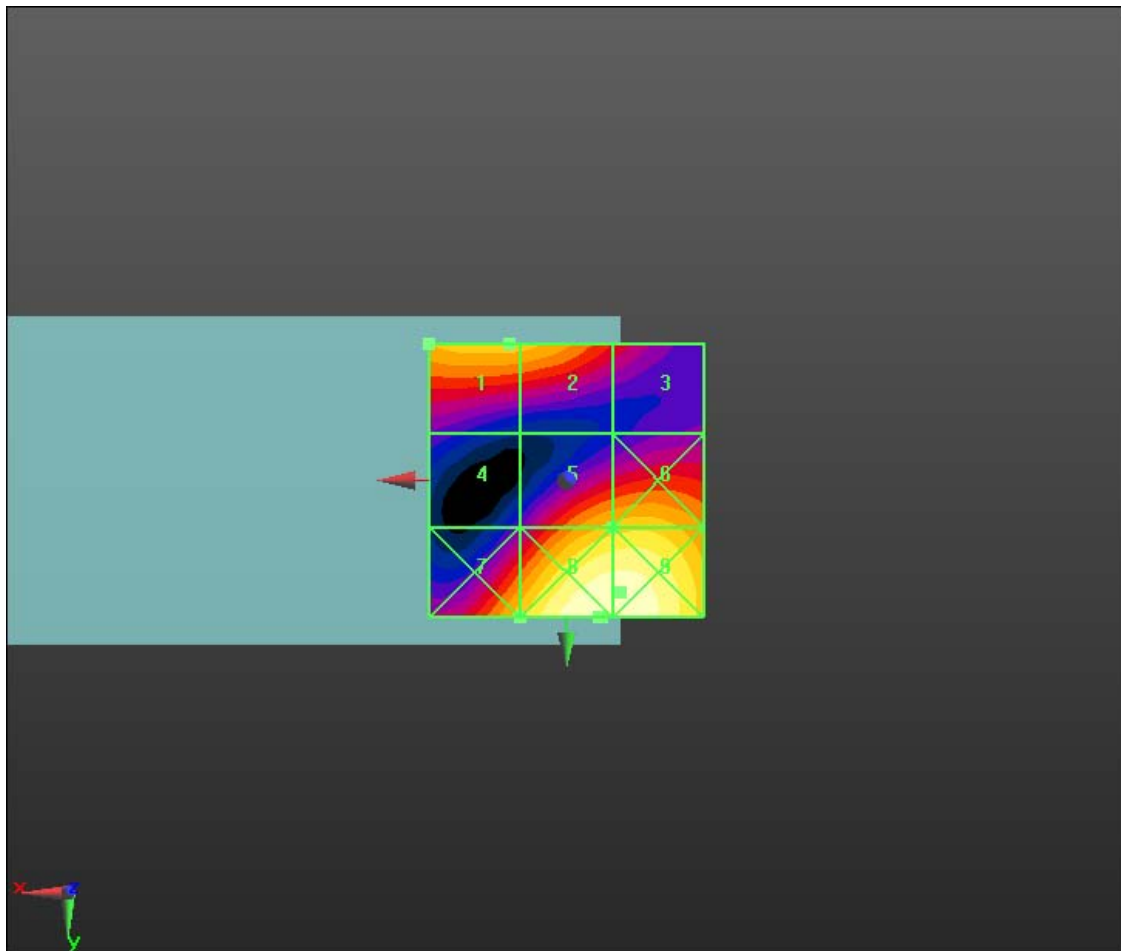
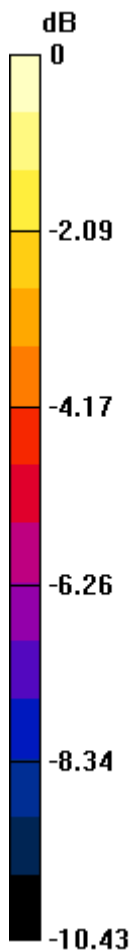
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Peak E-field in V/m

Grid 1 37.367 M4	Grid 2 35.851 M4	Grid 3 23.957 M4
Grid 4 20.213 M4	Grid 5 32.764 M4	Grid 6 33.806 M4
Grid 7 34.189 M4	Grid 8 45.493 M4	Grid 9 46.550 M4

Cursor:

Total = 46.550 V/m
E Category: M4
Location: -10, 20.5, 8.7 mm



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0 dB = 44.660V/m

Date/Time: 7/28/2011 4:14:41 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 1900; Communication System Band: CDMA 2000 PCS; Frequency: 1851.25 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 47.657 V/m

Probe Modulation Factor = 2.570

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 9.172 V/m; Power Drift = -0.31 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1 21.170 M4	Grid 2 30.097 M4	Grid 3 30.501 M4
Grid 4 33.987 M4	Grid 5 47.657 M4	Grid 6 42.628 M4
Grid 7 39.717 M4	Grid 8 49.226 M4	Grid 9 43.983 M4

Cursor:

Total = 49.226 V/m

E Category: M4

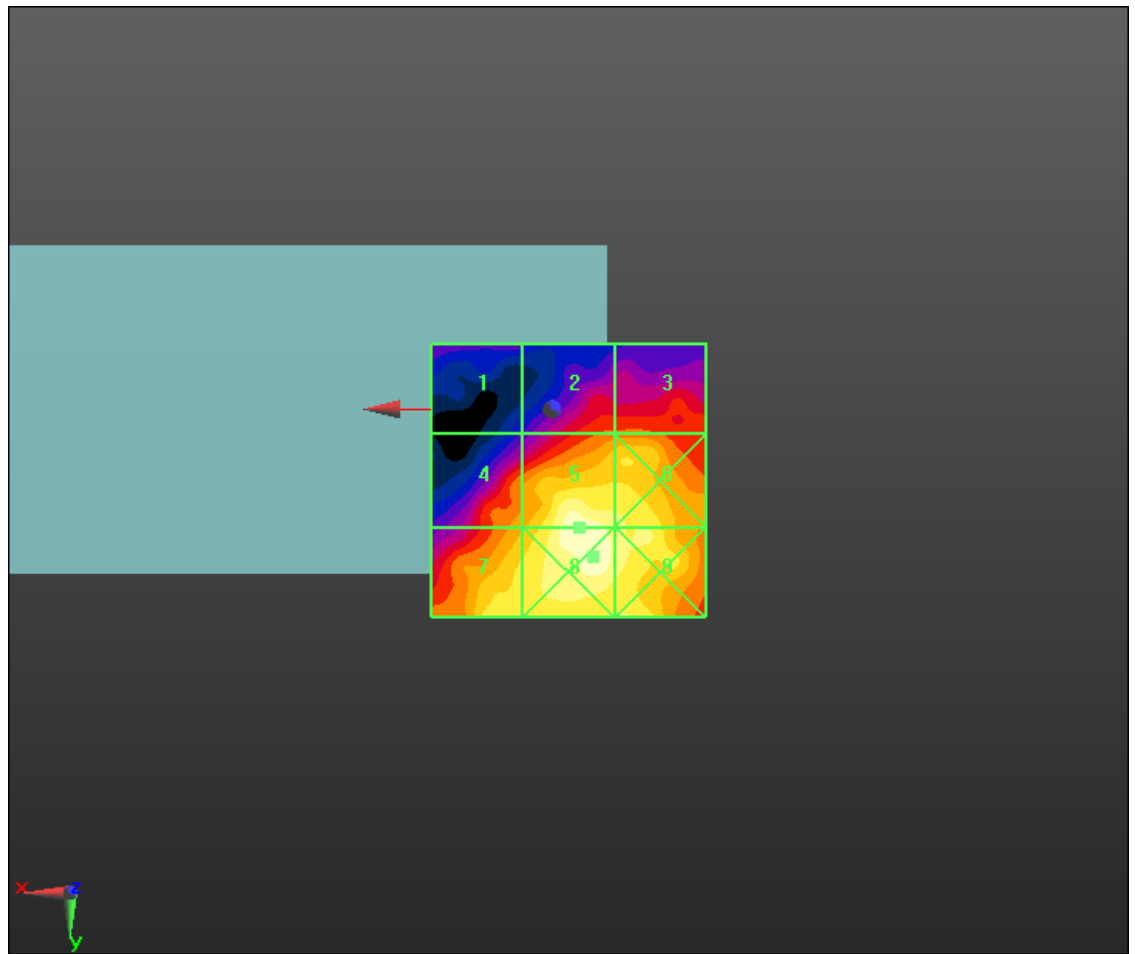
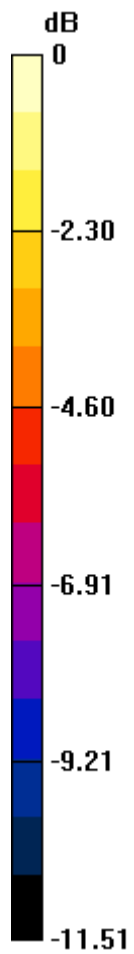
Location: -7.5, 27, 8.7 mm

Author Data
Hang Wang

Dates of Test
July 28, Aug 4, 2011

Report No
RTS-2604-1108-06

FCC ID
L6ARDZ20CW



0 dB = 49.230V/m

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Date/Time: 7/28/2011 5:31:01 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 850; Communication System Band: CDMA 2000

Cellular; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52

MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

2007: 15 mm from Probe Center to the Device/Hearing Aid

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

Maximum value of peak Total field = 0.146 A/m

Probe Modulation Factor = 0.970

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.086 A/m; Power Drift = 0.09 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.146 M 4	Grid 2 0.103 M 4	Grid 3 0.064 M 4
Grid 4 0.137 M 4	Grid 5 0.099 M 4	Grid 6 0.062 M 4
Grid 7 0.147 M 4	Grid 8 0.107 M 4	Grid 9 0.067 M 4

Cursor:

Total = 0.147 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 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.159 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.107 A/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

Grid 1 0.159 M 4	Grid 2 0.116 M 4	Grid 3 0.077 M 4
Grid 4 0.150 M 4	Grid 5 0.116 M 4	Grid 6 0.078 M 4
Grid 7 0.168 M 4	Grid 8 0.127 M 4	Grid 9 0.082 M 4

Cursor:

Total = 0.168 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 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.157 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.106 A/m; Power Drift = -0.05 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

Grid 1 0.157 M 4	Grid 2 0.113 M 4	Grid 3 0.073 M 4
Grid 4 0.156 M 4	Grid 5 0.122 M 4	Grid 6 0.085 M 4
Grid 7 0.177 M 4	Grid 8 0.141 M 4	Grid 9 0.098 M 4

Cursor:

Total = 0.177 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
1/8/Hearing Aid Compatibility Test (101x101x1): Measurement
grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.170 A/m
Probe Modulation Factor = 2.760
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.039 A/m; Power Drift = 0.14 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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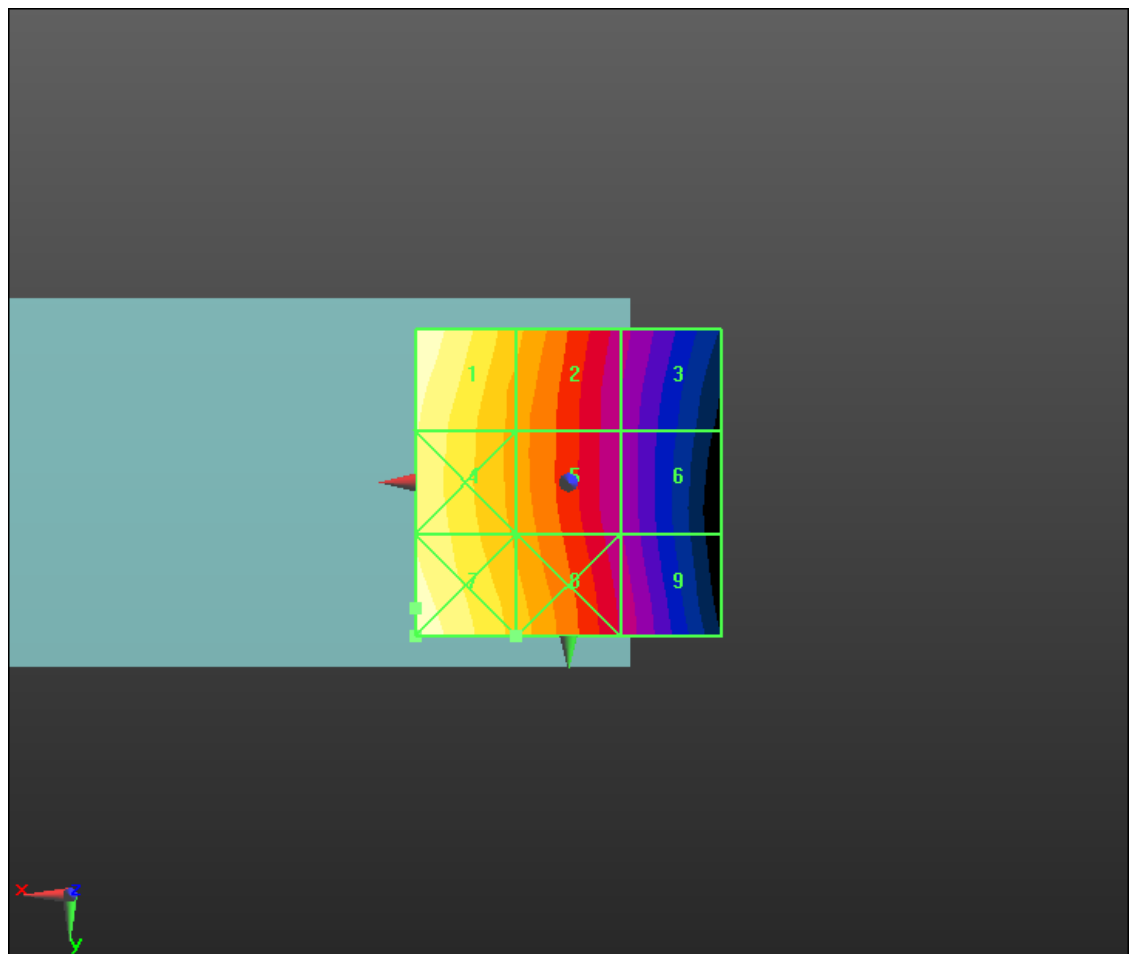
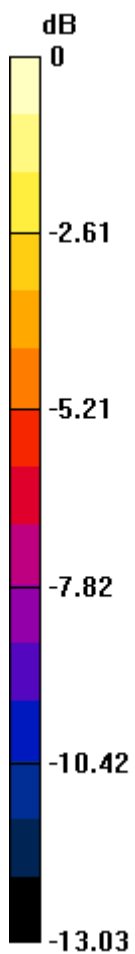
Peak H-field in A/m

Grid 1 0.170 M 4	Grid 2 0.121 M 4	Grid 3 0.087 M 4
Grid 4 0.166 M 4	Grid 5 0.139 M 4	Grid 6 0.091 M 4
Grid 7 0.196 M 4	Grid 8 0.162 M 4	Grid 9 0.116 M 4

Cursor:

Total = 0.196 A/m
H Category: M4
Location: 25, 20.5, 8.7 mm

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0 dB = 0.150A/m

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Date/Time: 7/28/2011 5:39:42 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA850_telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 850; Communication System Band: CDMA 2000

Cellular; Frequency: 848.52 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.165 A/m

Probe Modulation Factor = 2.760

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.039 A/m; Power Drift = 0.37 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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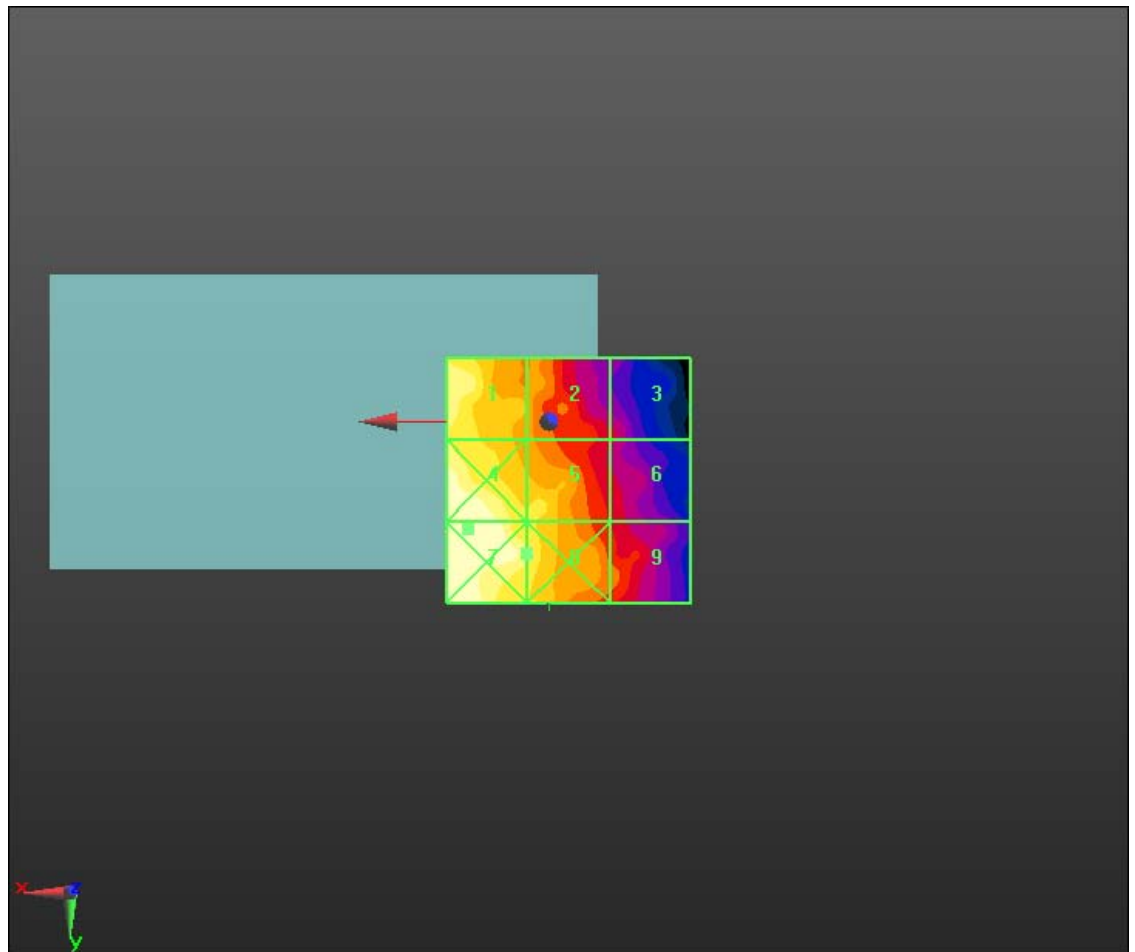
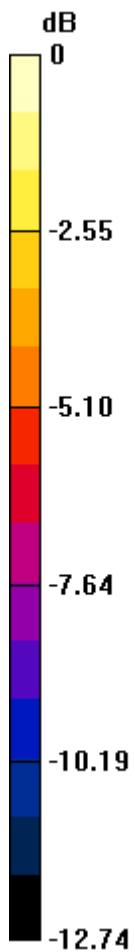
Peak H-field in A/m

Grid 1 0.165 M 4	Grid 2 0.121 M 4	Grid 3 0.085 M 4
Grid 4 0.182 M 4	Grid 5 0.138 M 4	Grid 6 0.091 M 4
Grid 7 0.183 M 4	Grid 8 0.153 M 4	Grid 9 0.106 M 4

Cursor:

Total = 0.183 A/m
H Category: M4
Location: 16.5, 22, 8.7 mm

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0 dB = 0.180A/m

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Date/Time: 8/4/2011 11:42:01 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 1900; Communication System Band: CDMA 2000 PCS; Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

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

Maximum value of peak Total field = 0.096 A/m

Probe Modulation Factor = 0.820

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.137 A/m; Power Drift = -0.08 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.085 M 4	Grid 2 0.096 M 4	Grid 3 0.094 M 4
Grid 4 0.083 M 4	Grid 5 0.096 M 4	Grid 6 0.095 M 4
Grid 7 0.115 M 4	Grid 8 0.097 M 4	Grid 9 0.083 M 4

Cursor:

Total = 0.115 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 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.088 A/m
Probe Modulation Factor = 0.820
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.122 A/m; Power Drift = 0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

Grid 1 0.087 M 4	Grid 2 0.088 M 4	Grid 3 0.084 M 4
Grid 4 0.079 M 4	Grid 5 0.088 M 4	Grid 6 0.085 M 4
Grid 7 0.109 M 4	Grid 8 0.095 M 4	Grid 9 0.076 M 4

Cursor:

Total = 0.109 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 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.088 A/m
Probe Modulation Factor = 0.820
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.123 A/m; Power Drift = -0.07 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

Grid 1 0.084 M 4	Grid 2 0.088 M 4	Grid 3 0.084 M 4
Grid 4 0.080 M 4	Grid 5 0.088 M 4	Grid 6 0.085 M 4
Grid 7 0.110 M 4	Grid 8 0.092 M 4	Grid 9 0.073 M 4

Cursor:

Total = 0.110 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 1/8/Hearing Aid Compatibility Test (101x101x1): Measurement
grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.117 A/m
Probe Modulation Factor = 2.470
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.050 A/m; Power Drift = 6.27 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

Grid 1 0.094 M 4	Grid 2 0.109 M 4	Grid 3 0.111 M 4
Grid 4 0.100 M 4	Grid 5 0.117 M 4	Grid 6 0.112 M 4
Grid 7 0.135 M 4	Grid 8 0.109 M 4	Grid 9 0.091 M 4

Cursor:

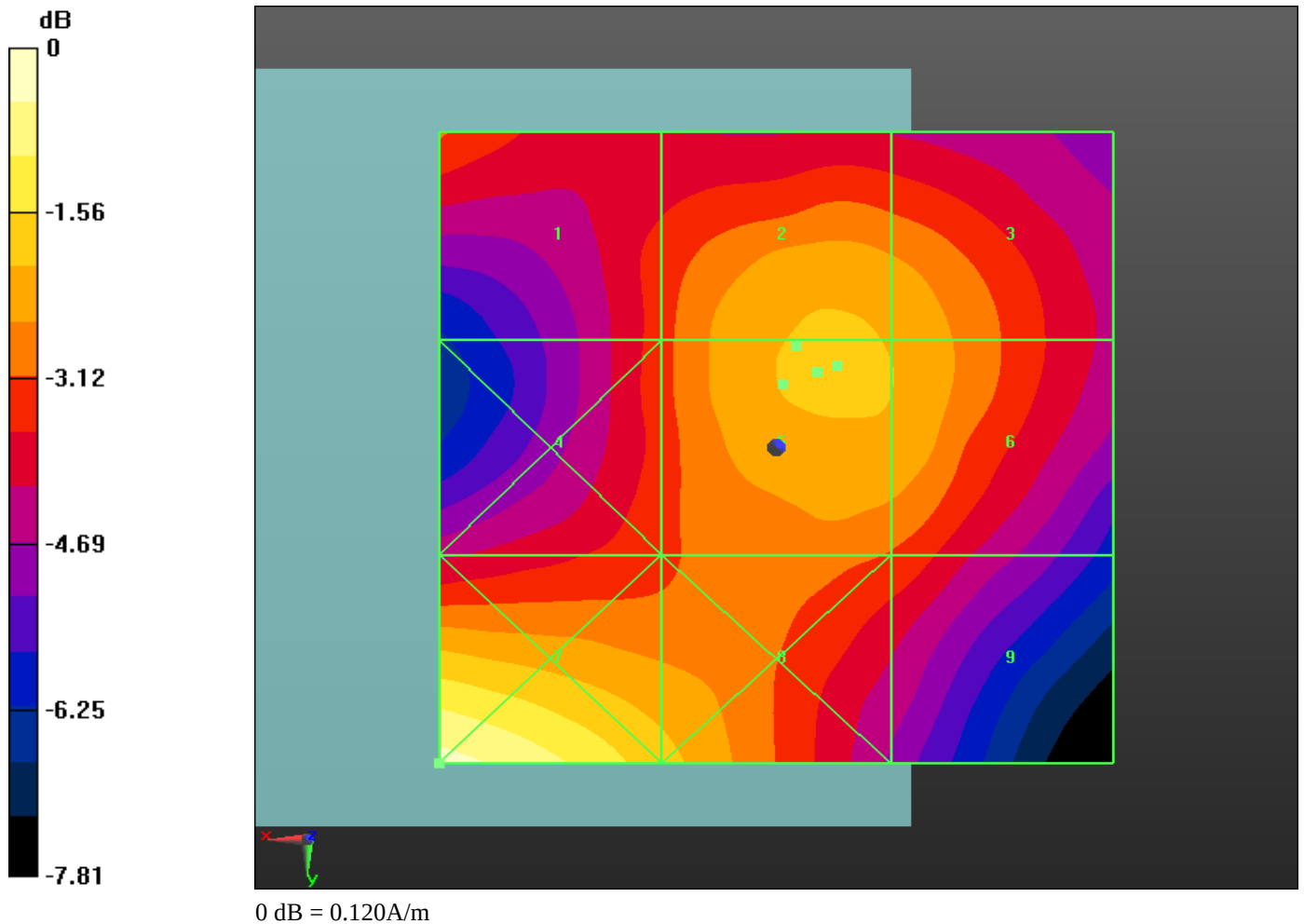
Total = 0.135 A/m
H Category: M4
Location: 25, 25, 8.7 mm

Author Data
Hang Wang

Dates of Test
July 28, Aug 4, 2011

Report No
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FCC ID
L6ARDZ20CW



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Date/Time: 7/28/2011 6:07:29 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 32F66A09

Communication System: CDMA 1900; Communication System Band: CDMA

2000 PCS; Frequency: 1851.25 MHz; Communication System PAR: 0 dB

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)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - o Modulation Compensation: **Not calibrated**
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.125 A/m

Probe Modulation Factor = 2.470

Device Reference Point: 0, 0, -6.3 mm

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Reference Value = 0.048 A/m; Power Drift = 7.44 dB

Hearing Aid Near-Field Category: **M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1 0.100 M 4	Grid 2 0.102 M 4	Grid 3 0.168 M 4
Grid 4 0.111 M 4	Grid 5 0.096 M 4	Grid 6 0.134 M 4
Grid 7 0.125 M 4	Grid 8 0.099 M 4	Grid 9 0.078 M 4

Cursor:

Total = 0.168 A/m

H Category: M4

Location: -28, -12, 8.7 mm

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