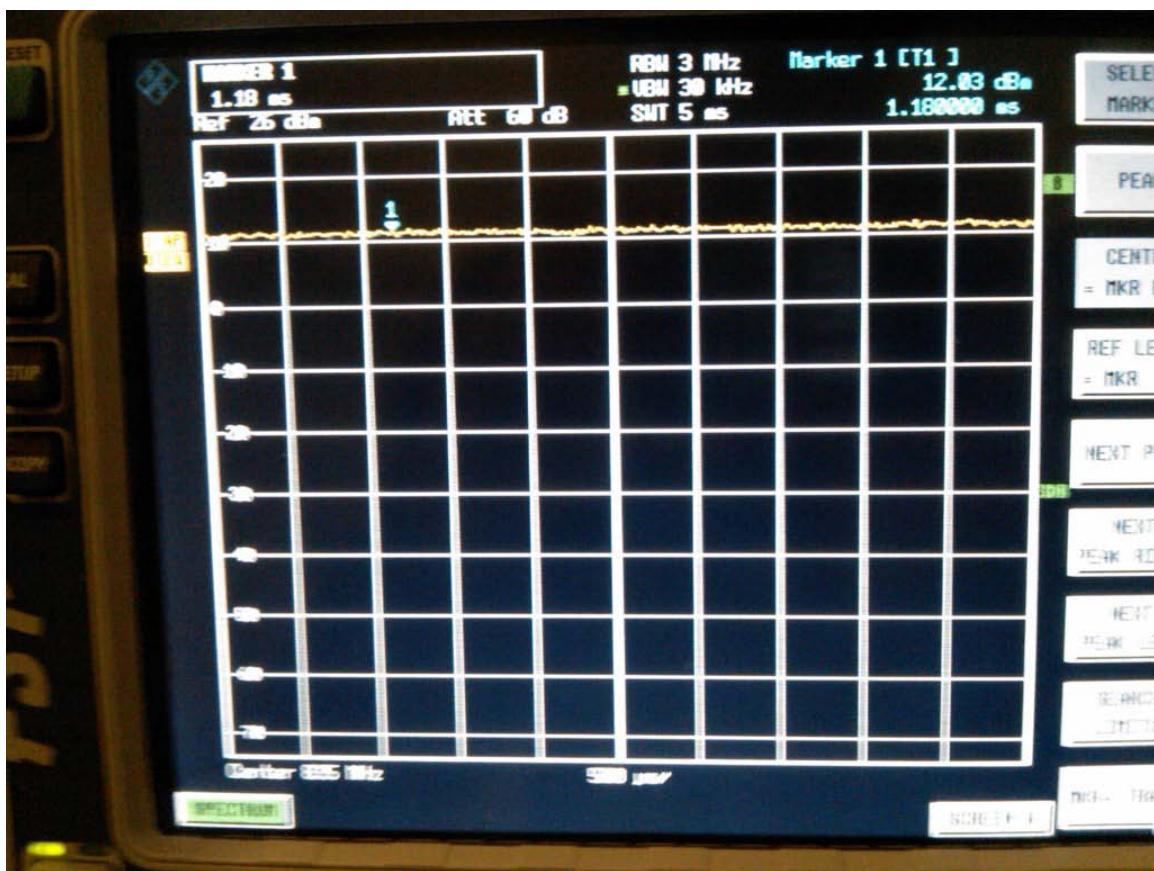


	Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDZ21CW	Page 1 (88)
Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06

Annex A: Measurement data and plots

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

Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW
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**CDMA Cell 835 MHz**

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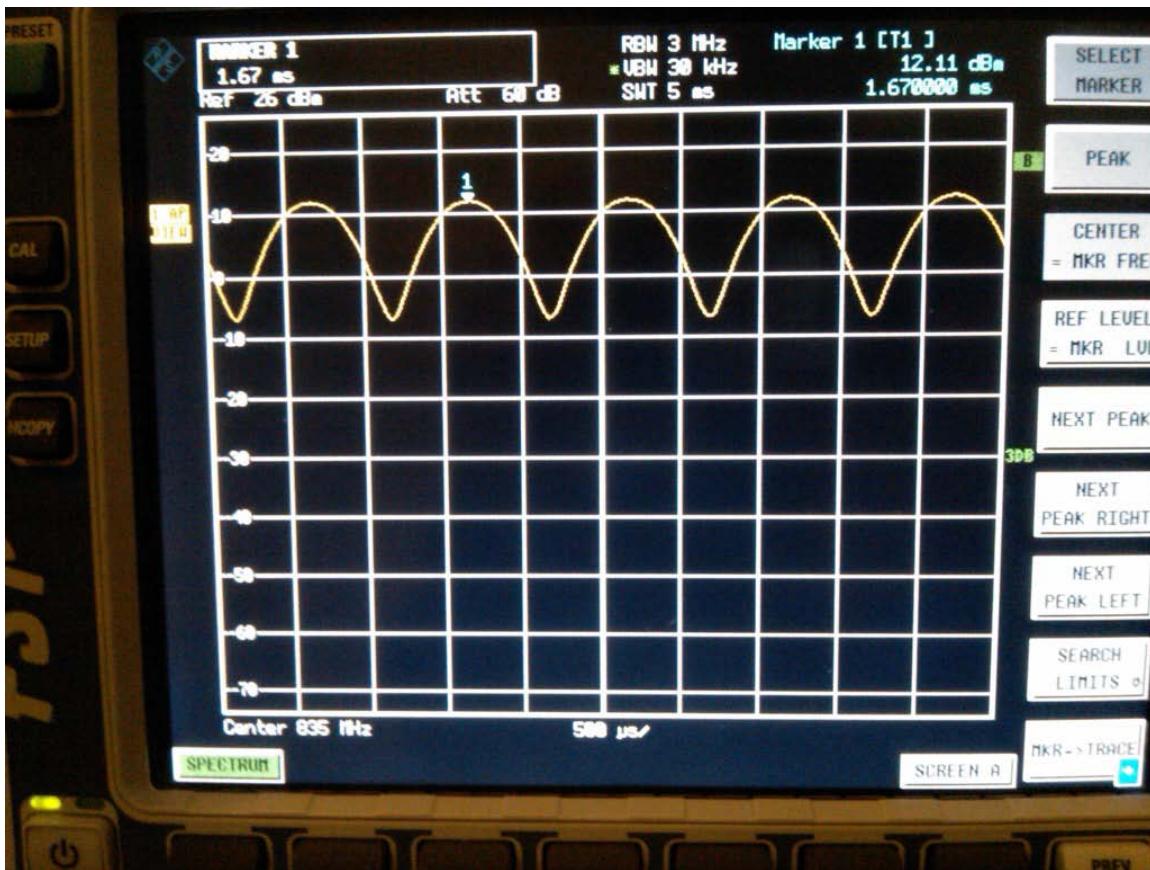


CDMA Cell 835 MHz 1/8th

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

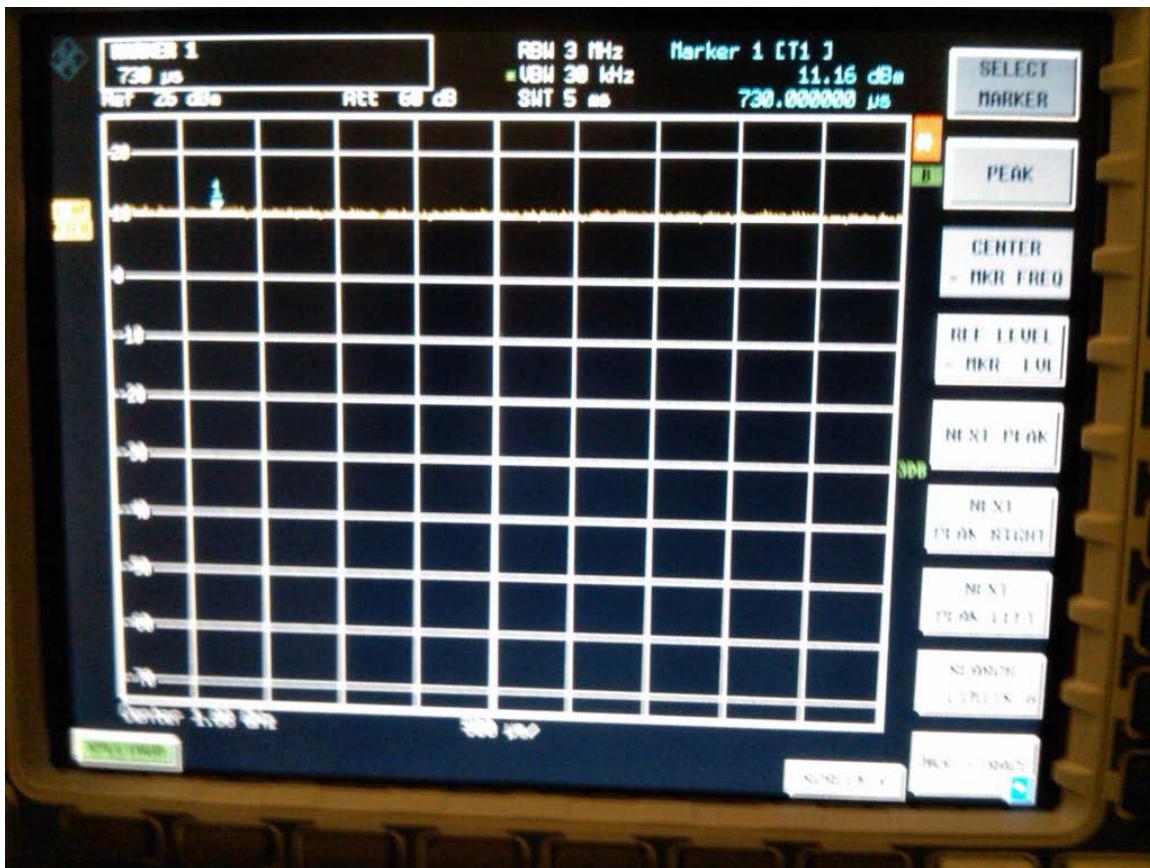
**CW 835 MHz**

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

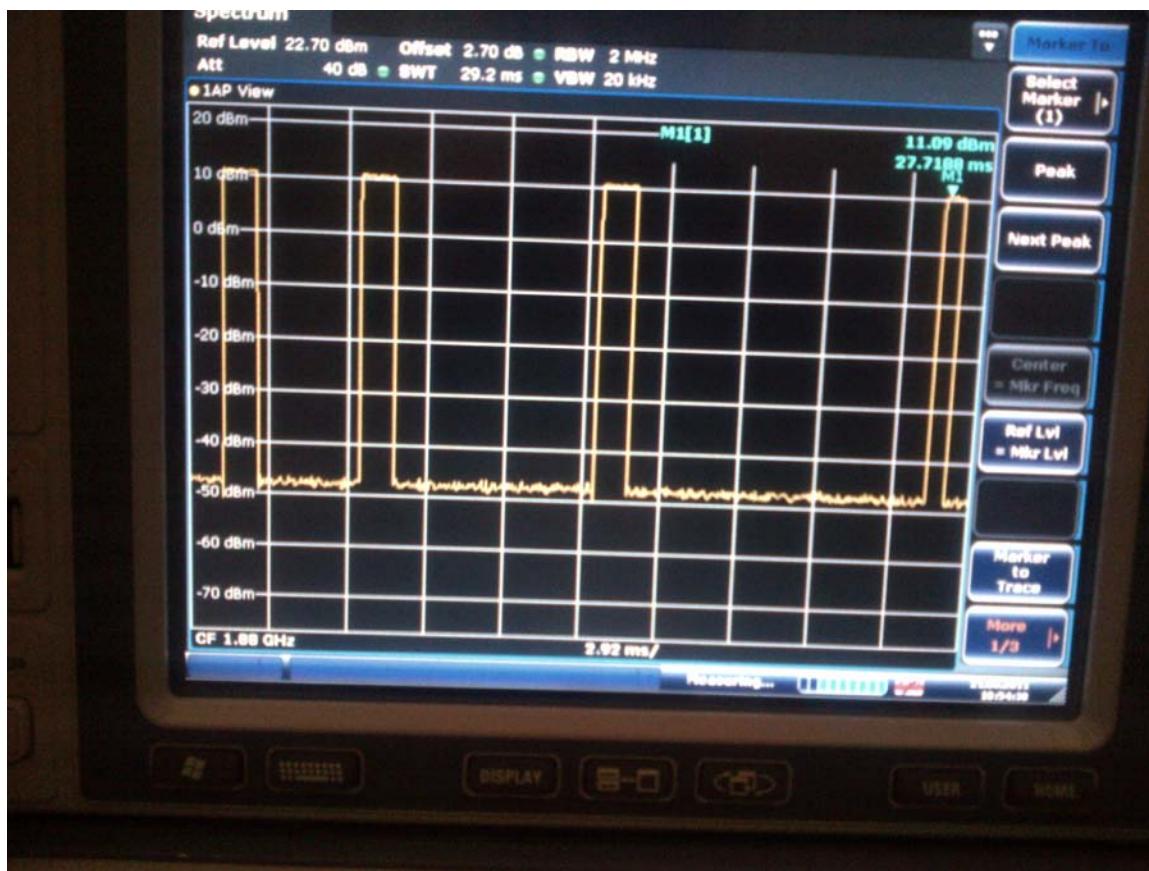


AM 80% 835 MHz

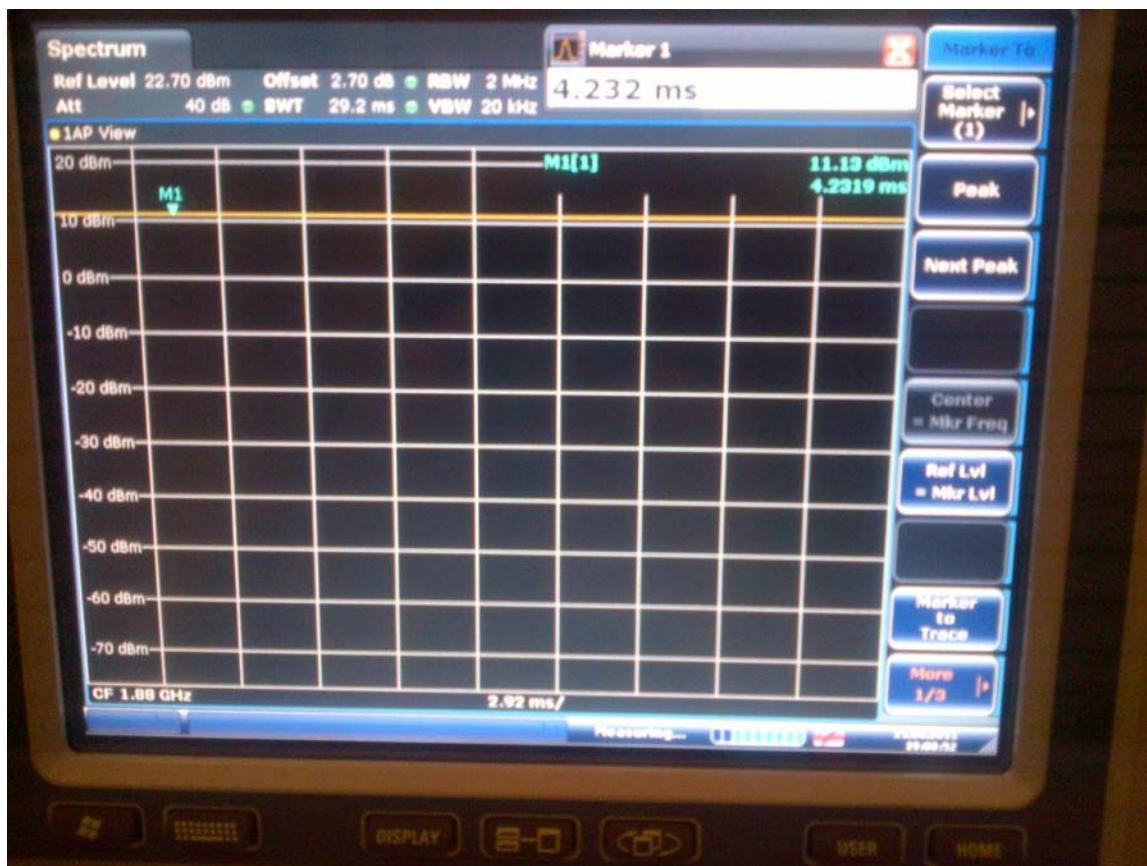
Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW
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**CDMA 1880 MHz**

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

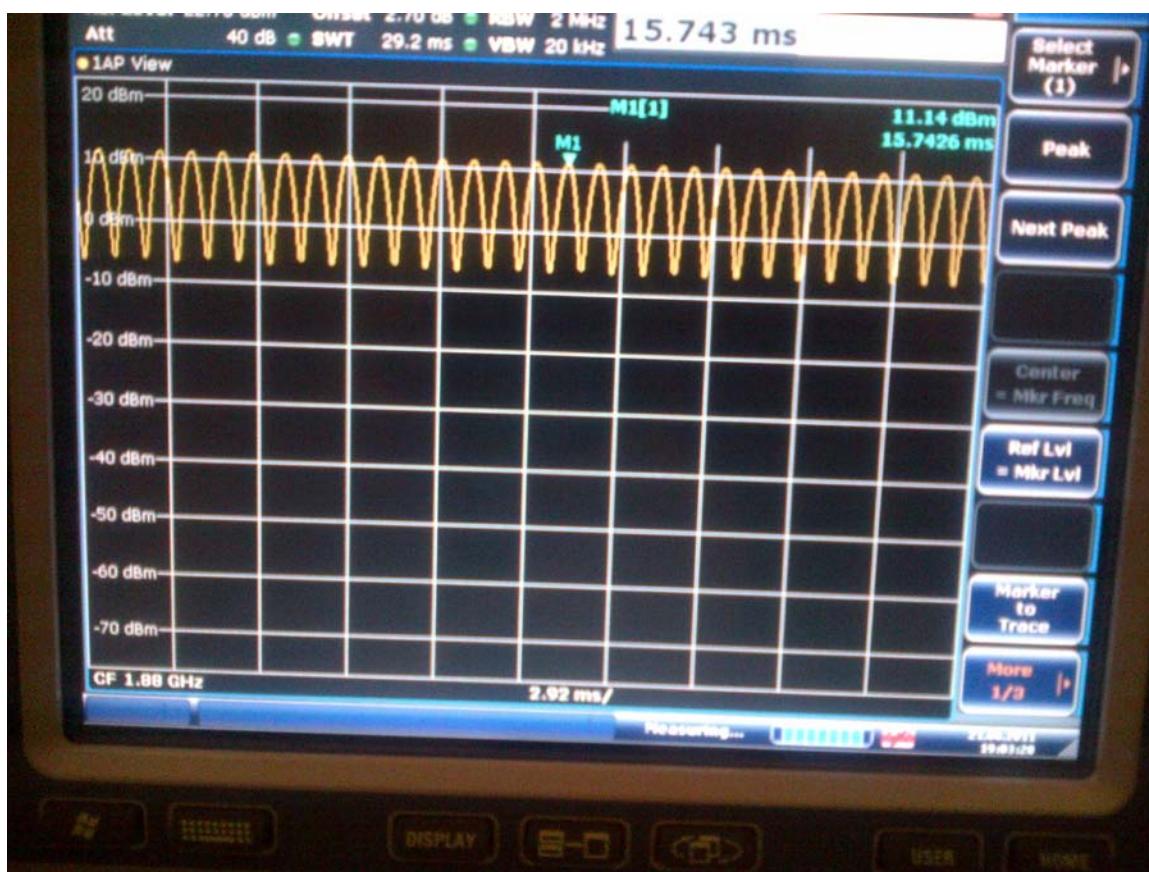
**CDMA 1880 MHz 1/8 th**

Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW
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CW 1880 MHz

Author Data Hang Wang	Dates of Test July 28, Aug 4, 2011	Report No RTS-2604-1108-06	FCC ID L6ARDZ20CW
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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: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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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Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDZ21CW

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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
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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

Author Data

Hang Wang

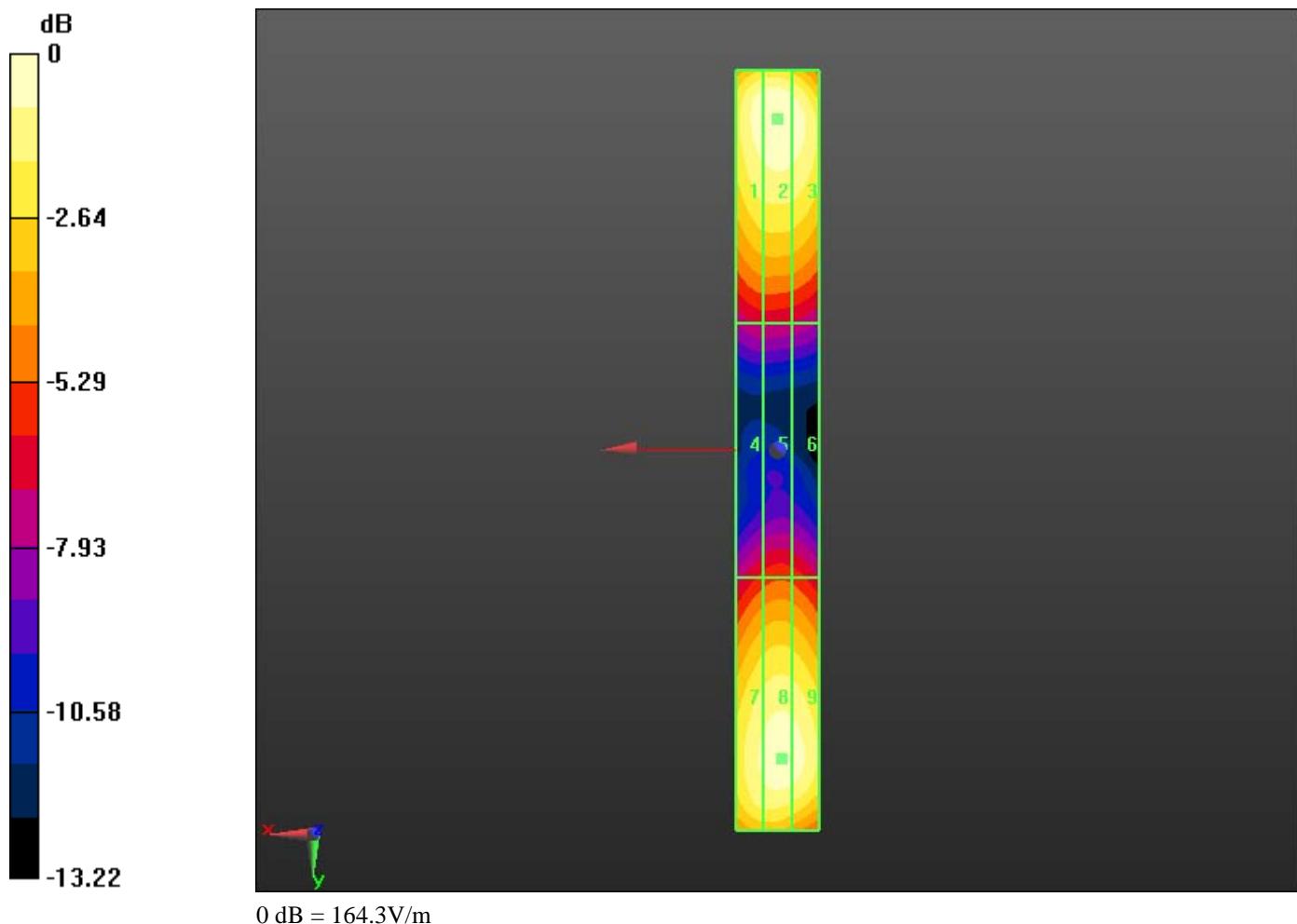
Dates of Test

July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW

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

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

Author Data

Hang Wang

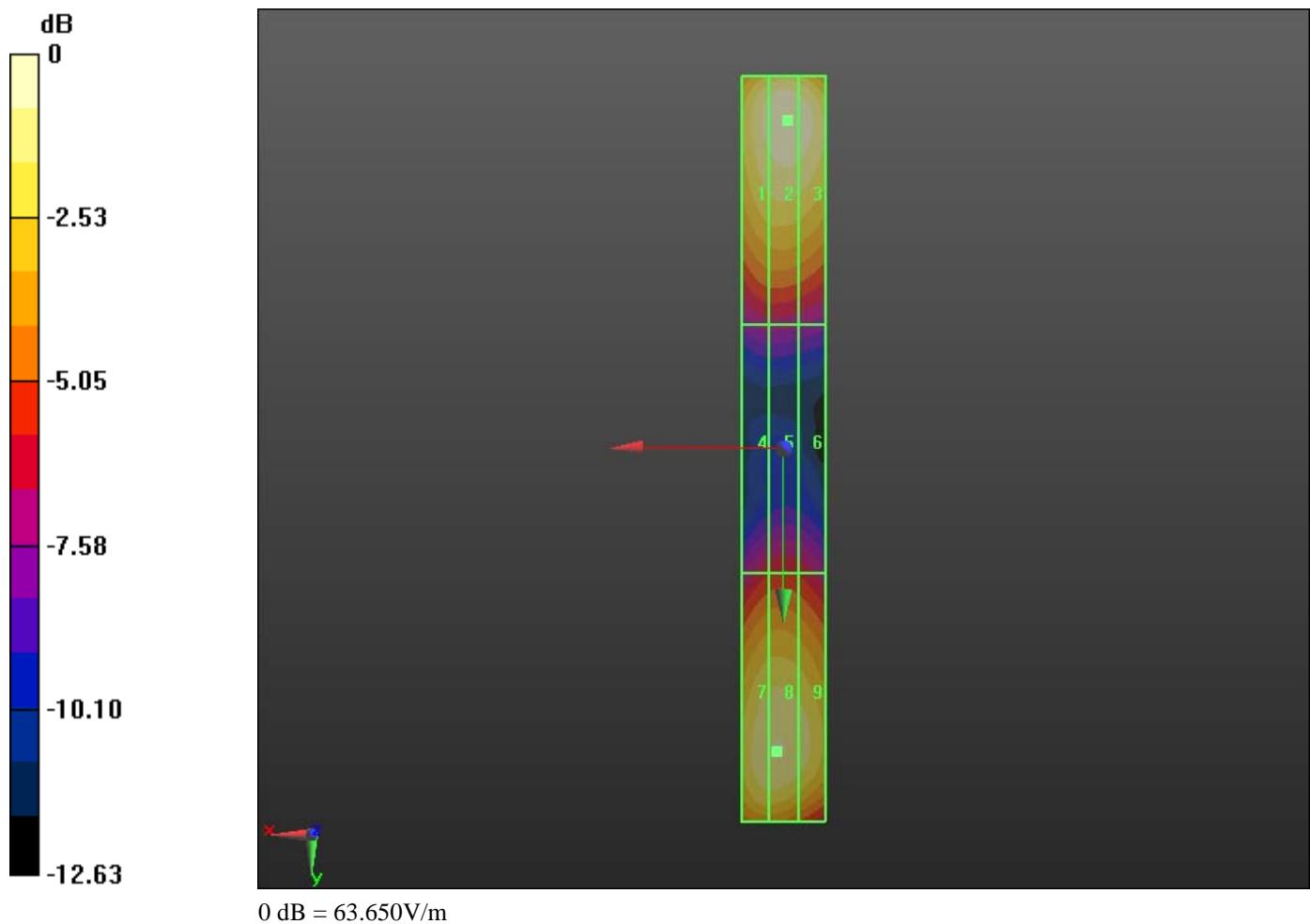
Dates of Test

July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW

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

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

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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
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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

Author Data

Hang Wang

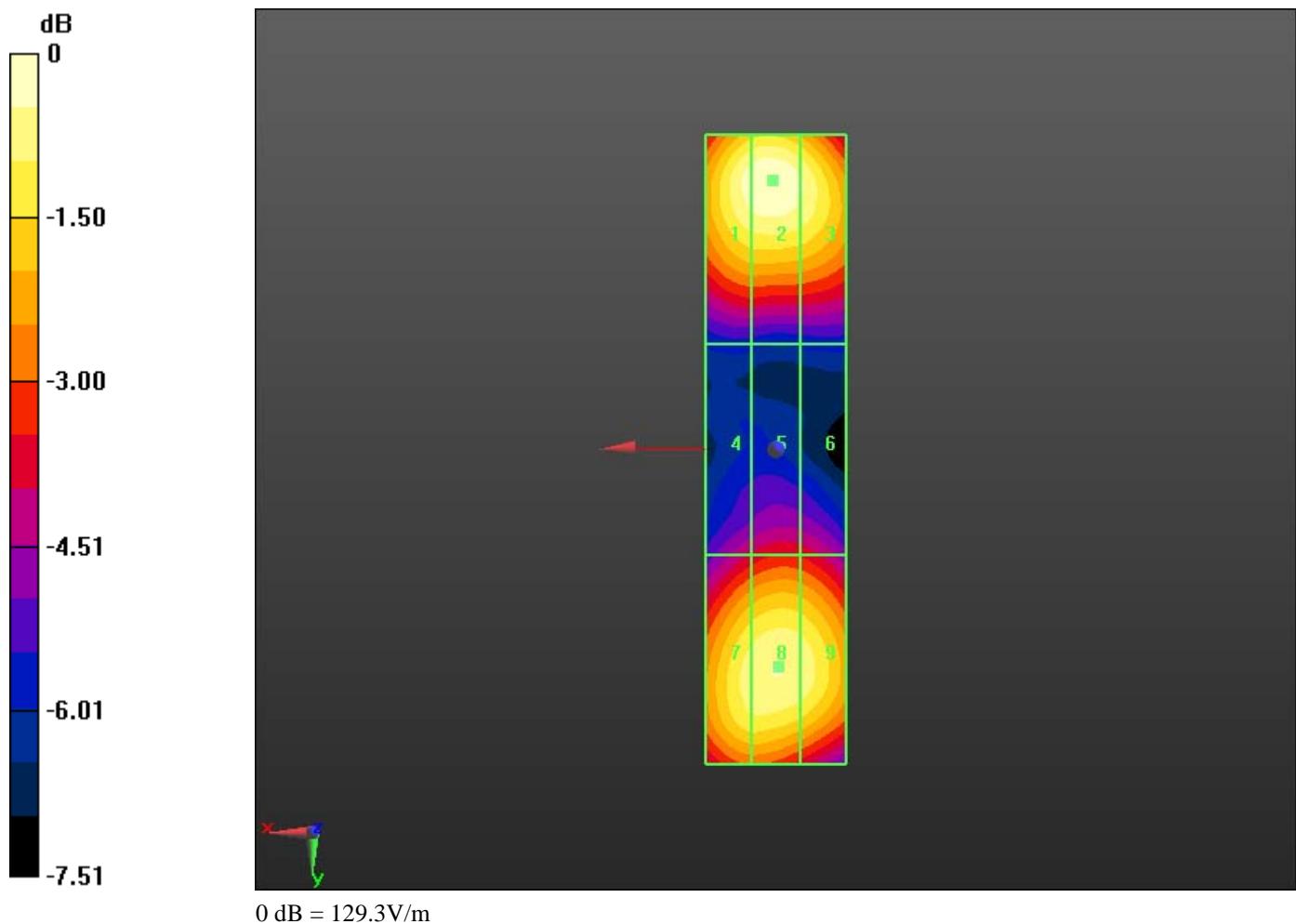
Dates of Test

July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW

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

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: 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 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)

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

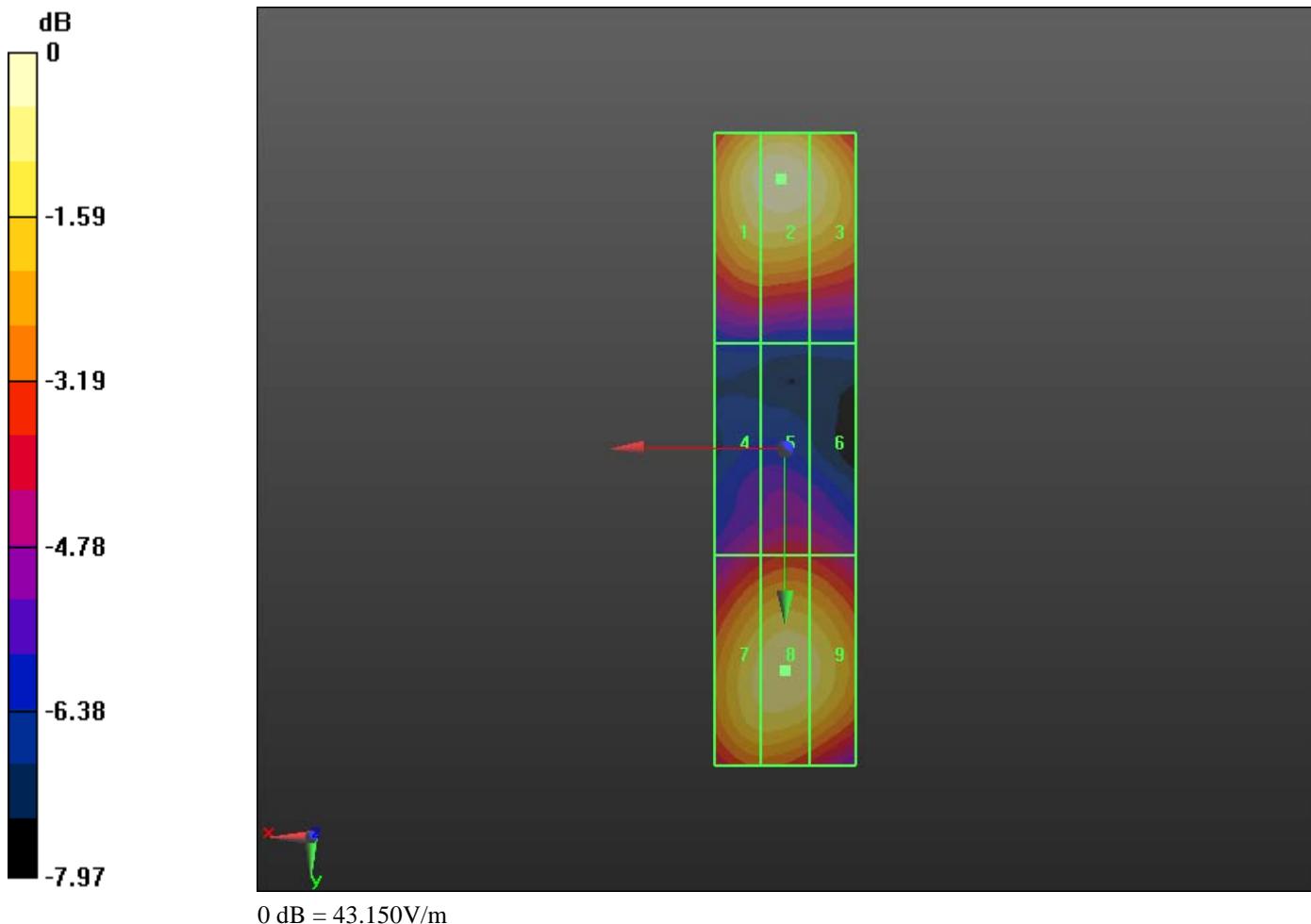
Grid 1 41.912 M4	Grid 2 43.150 M4	Grid 3 40.971 M4
Grid 4 26.905 M4	Grid 5 28.223 M4	Grid 6 27.711 M4
Grid 7 39.111 M4	Grid 8 40.205 M4	Grid 9 39.292 M4

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

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

Author Data

Hang Wang

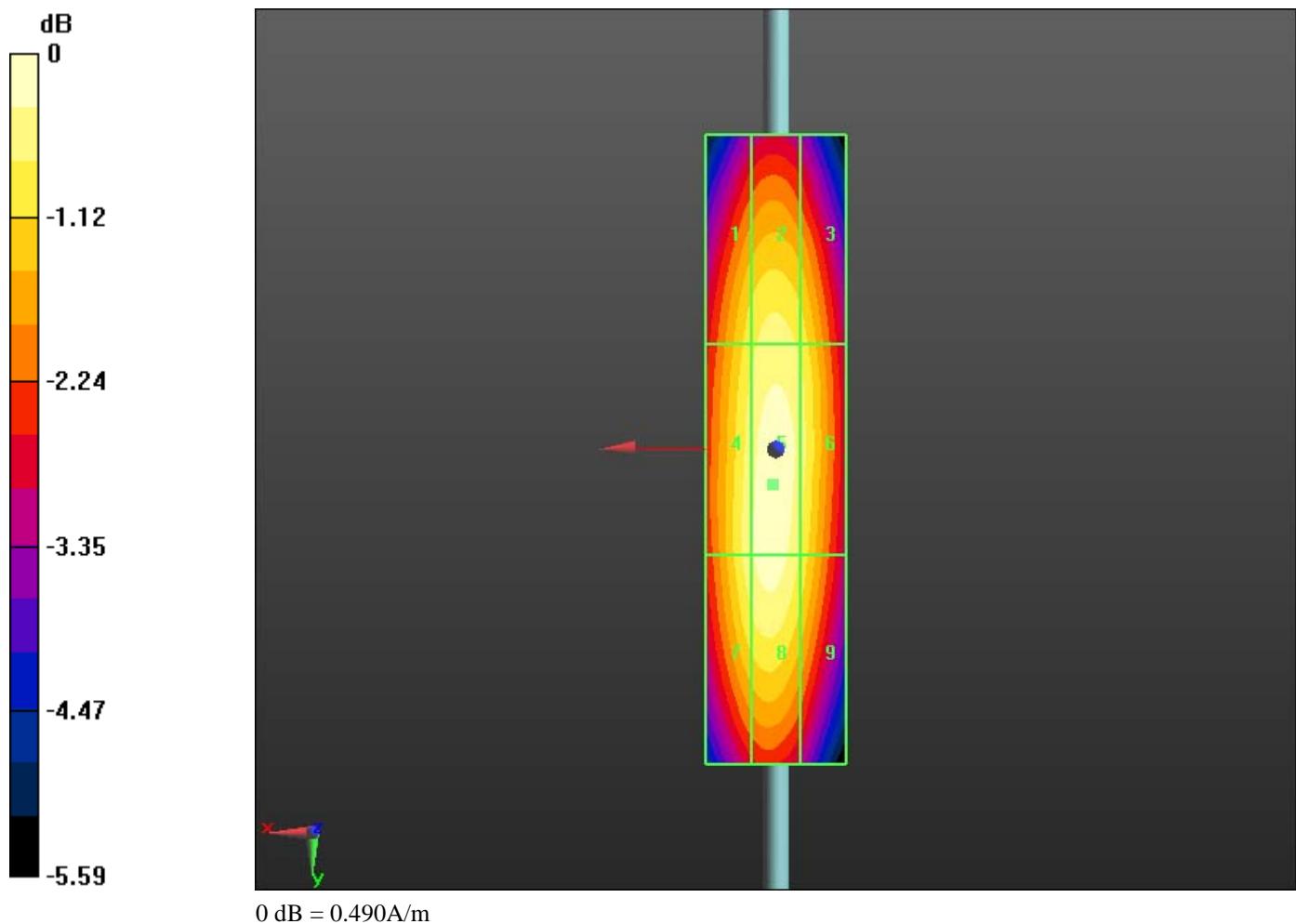
Dates of Test

July 28, Aug 4, 2011

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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

**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

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

**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

Author Data

Hang Wang

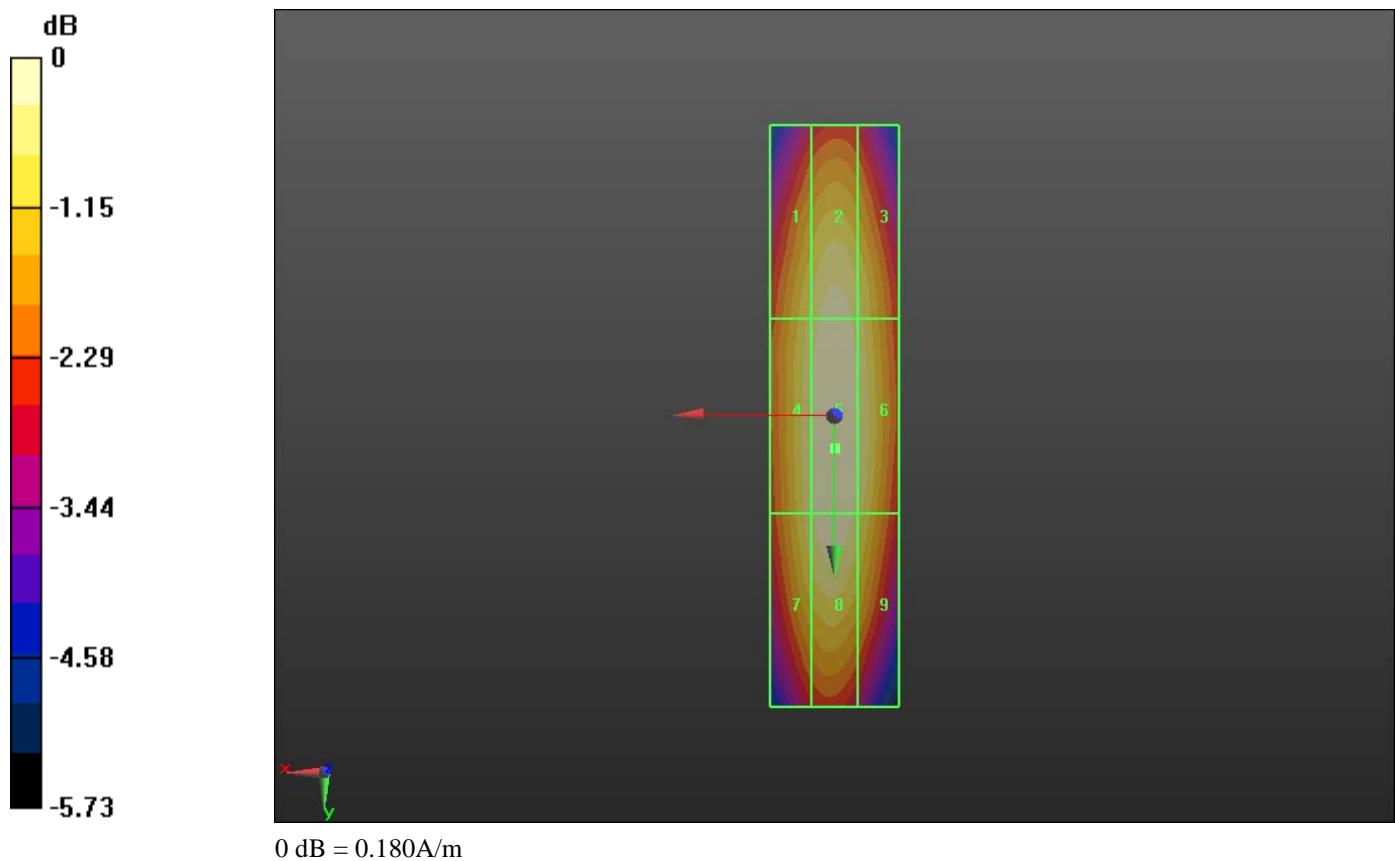
Dates of Test

July 28, Aug 4, 2011

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FCC ID

L6ARDZ20CW

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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: $\sigma = 0 \text{ mho/m}$, $\epsilon_r = 1$; $\rho = 0 \text{ kg/m}^3$

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - 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

Author Data

Hang Wang

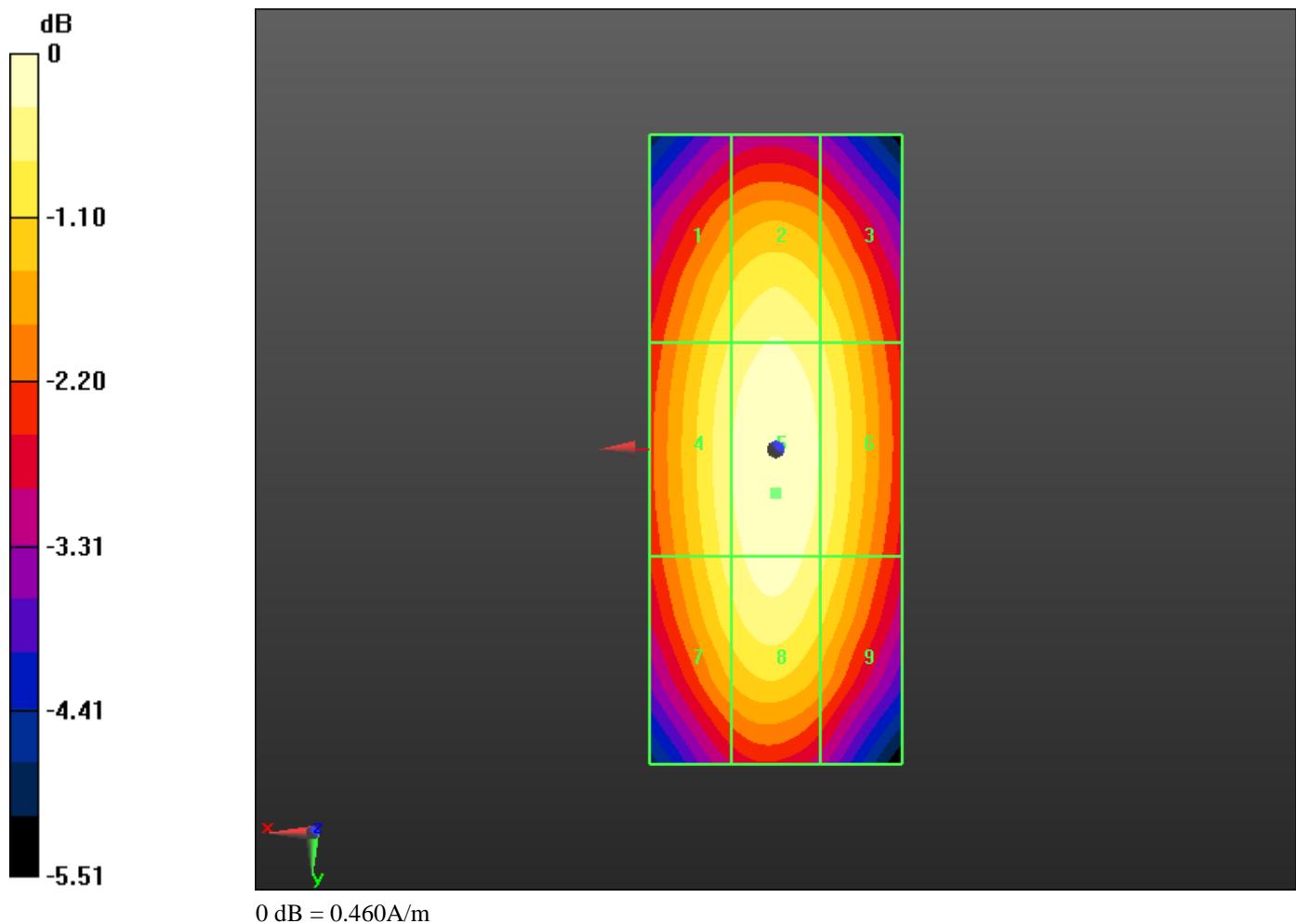
Dates of Test

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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

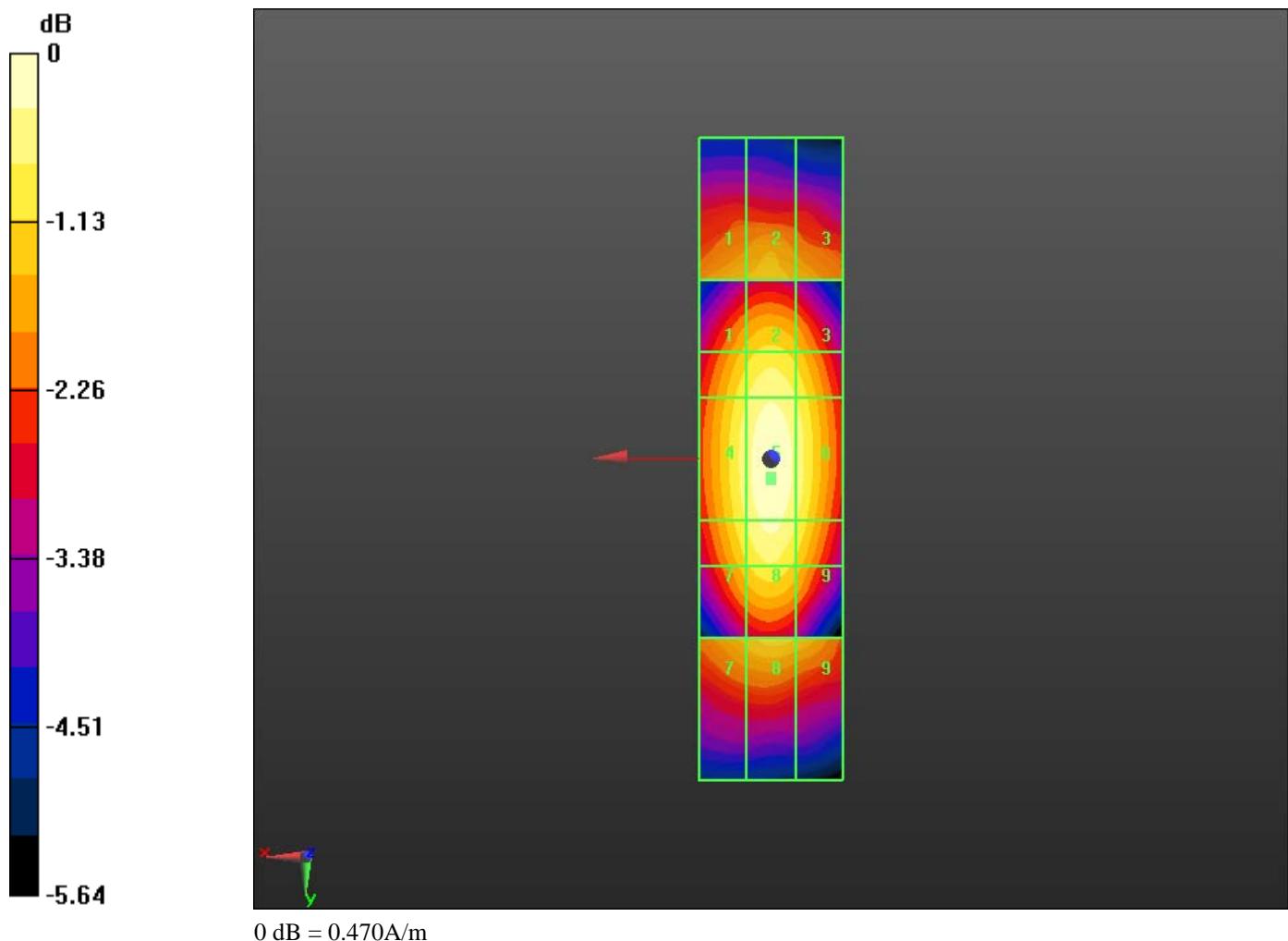
Dates of Test

July 28, Aug 4, 2011

Report No

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FCC ID

L6ARDZ20CW

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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: 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 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

Cursor:

Total = 0.154 A/m
H Category: M4
Location: 0, 0.5, 4.7 mm

Author Data

Hang Wang

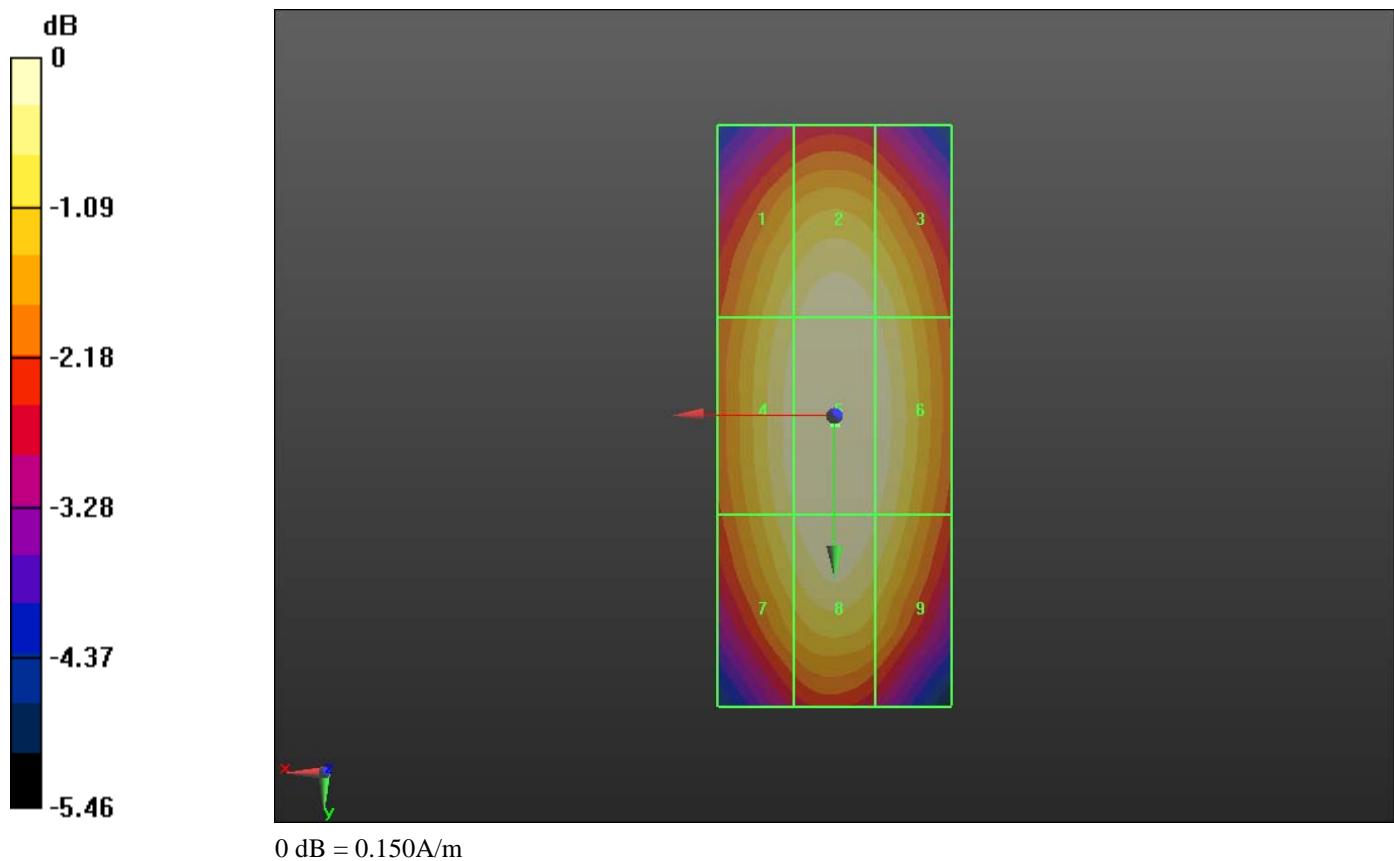
Dates of Test

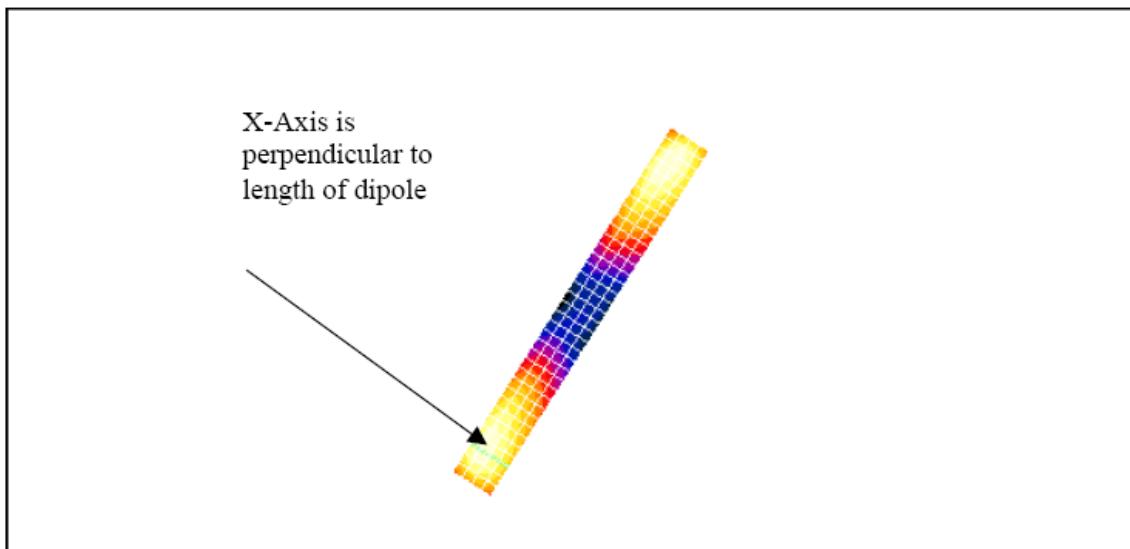
July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW



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

Comparison of 5mm and 2mm step sizes

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

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

Medium: Air Medium parameters used: $\sigma = 0$ 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
80.9	92.3	92.2	80.9	92.3	92.2
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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Hang Wang

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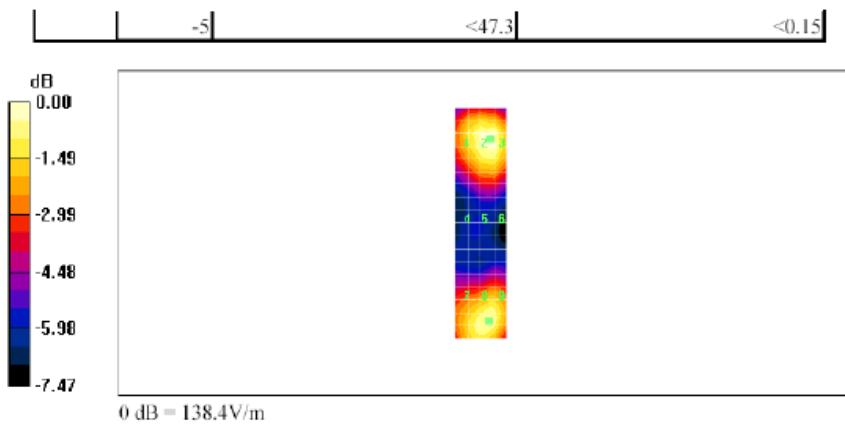
RTS-2604-1108-06

FCC ID

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

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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
81.4	92.1	91.6	81.4	92.1	91.6
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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Hang Wang

Dates of Test

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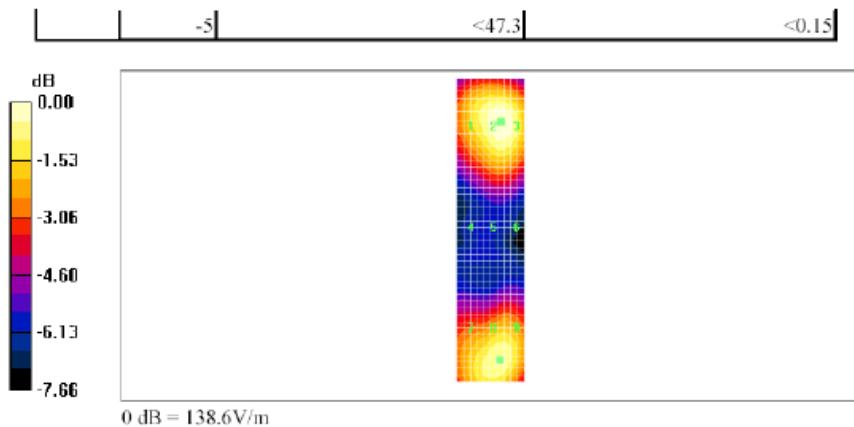
RTS-2604-1108-06

FCC ID

L6ARDZ20CW

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

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Date/Time: 14/07/2005 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
0.389	0.406	0.389	0.389	0.406	0.389
0.363	0.378	0.363	0.363	0.378	0.363

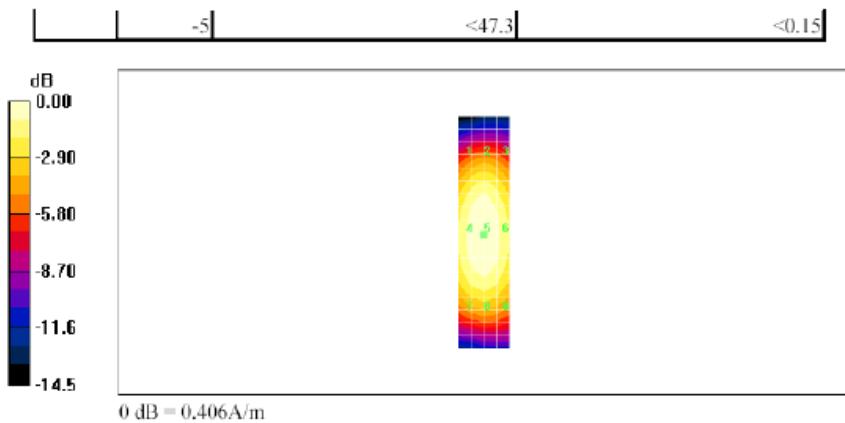
Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19

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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
0.394	0.406	0.391	0.394	0.406	0.391
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

file:///C:/Program%20Files/DASY4/Print_Templates/HAC_H_Dipole_CW%201880_2%... 14/07/2005



Document

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Hang Wang

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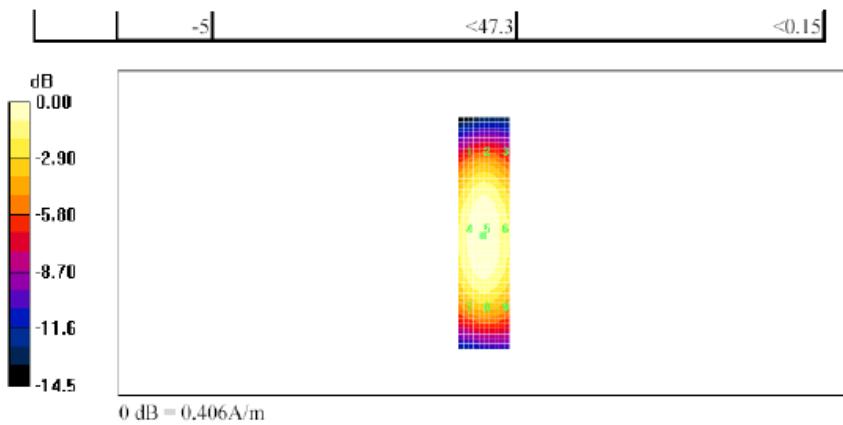
RTS-2604-1108-06

FCC ID

L6ARDZ20CW

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

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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 = 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)

Author Data

Hang Wang

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Peak E-field in V/m

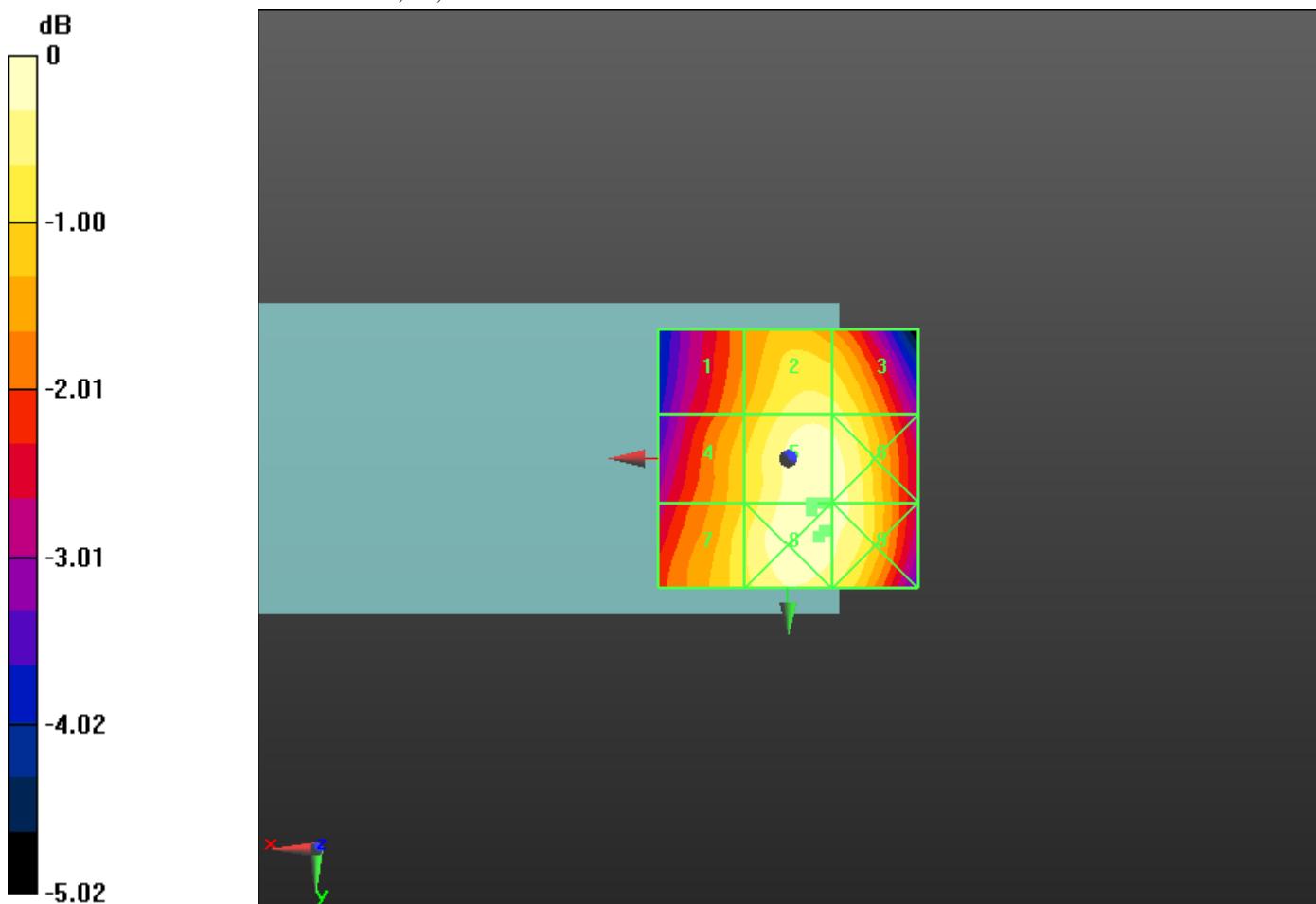
Grid 1 59.862 M4	Grid 2 68.661 M4	Grid 3 69.916 M4
Grid 4 64.634 M4	Grid 5 78.330 M4	Grid 6 76.225 M4
Grid 7 70.990 M4	Grid 8 79.106 M4	Grid 9 77.712 M4

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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

Author Data

Hang Wang

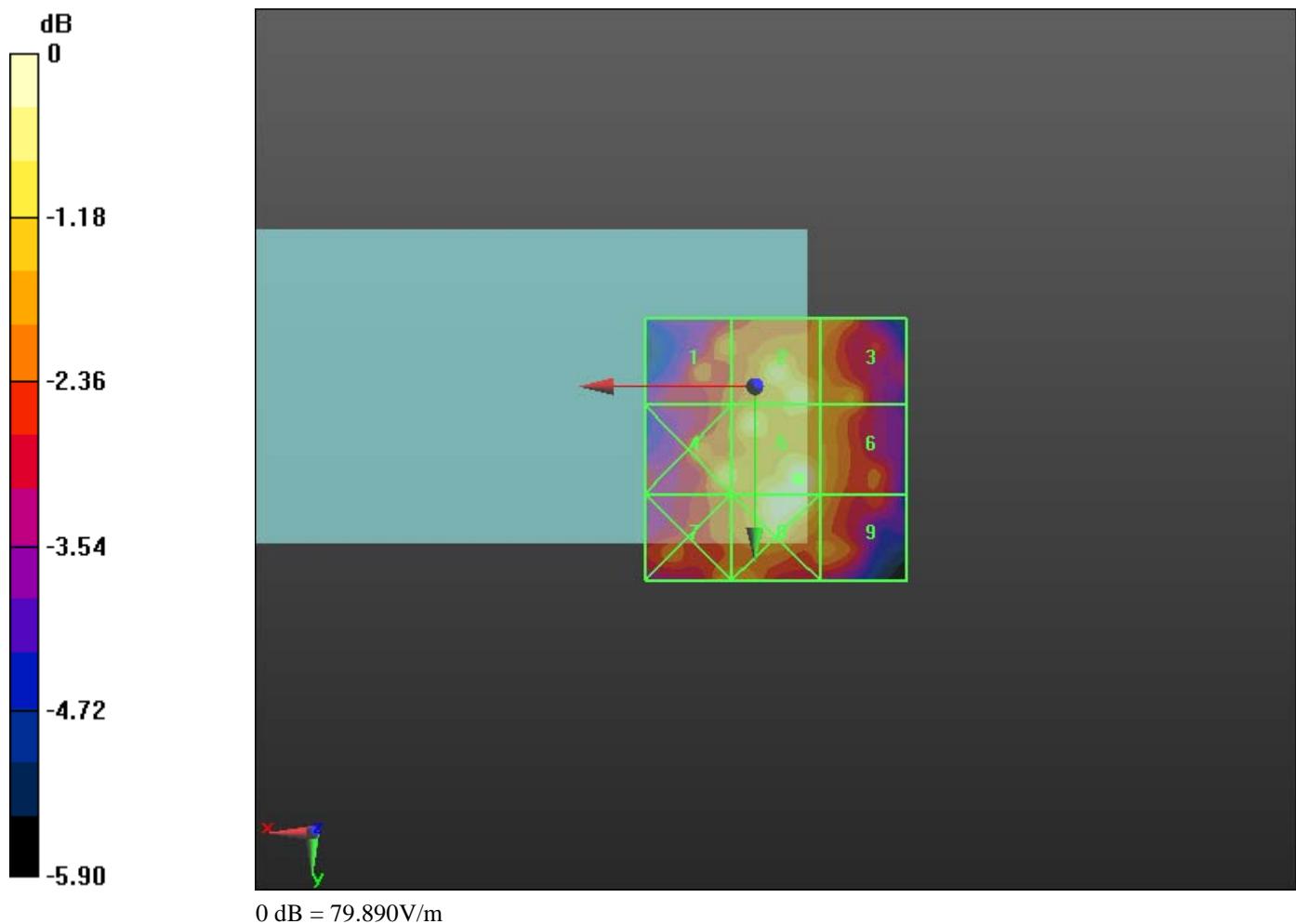
Dates of Test

July 28, Aug 4, 2011

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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)

Author Data

Hang Wang

Dates of Test

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Peak E-field in V/m

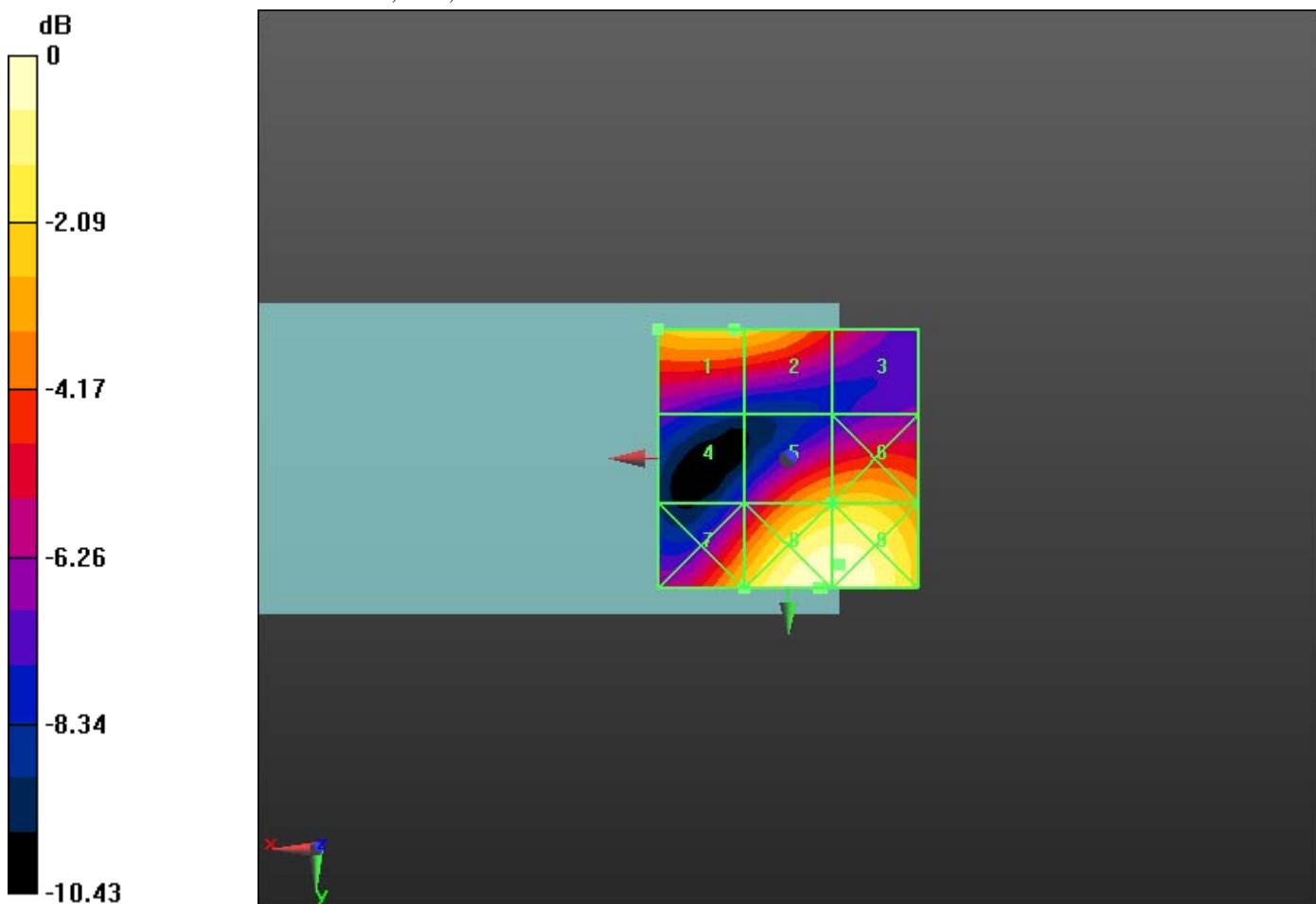
Grid 1 37.367 M4	Grid 2 35.851 M4	Grid 3 23.957 M4
Grid 4 20.213 M4	Grid 5 32.764 M4	Grid 6 33.806 M4
Grid 7 34.189 M4	Grid 8 45.493 M4	Grid 9 46.550 M4

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

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
 - 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

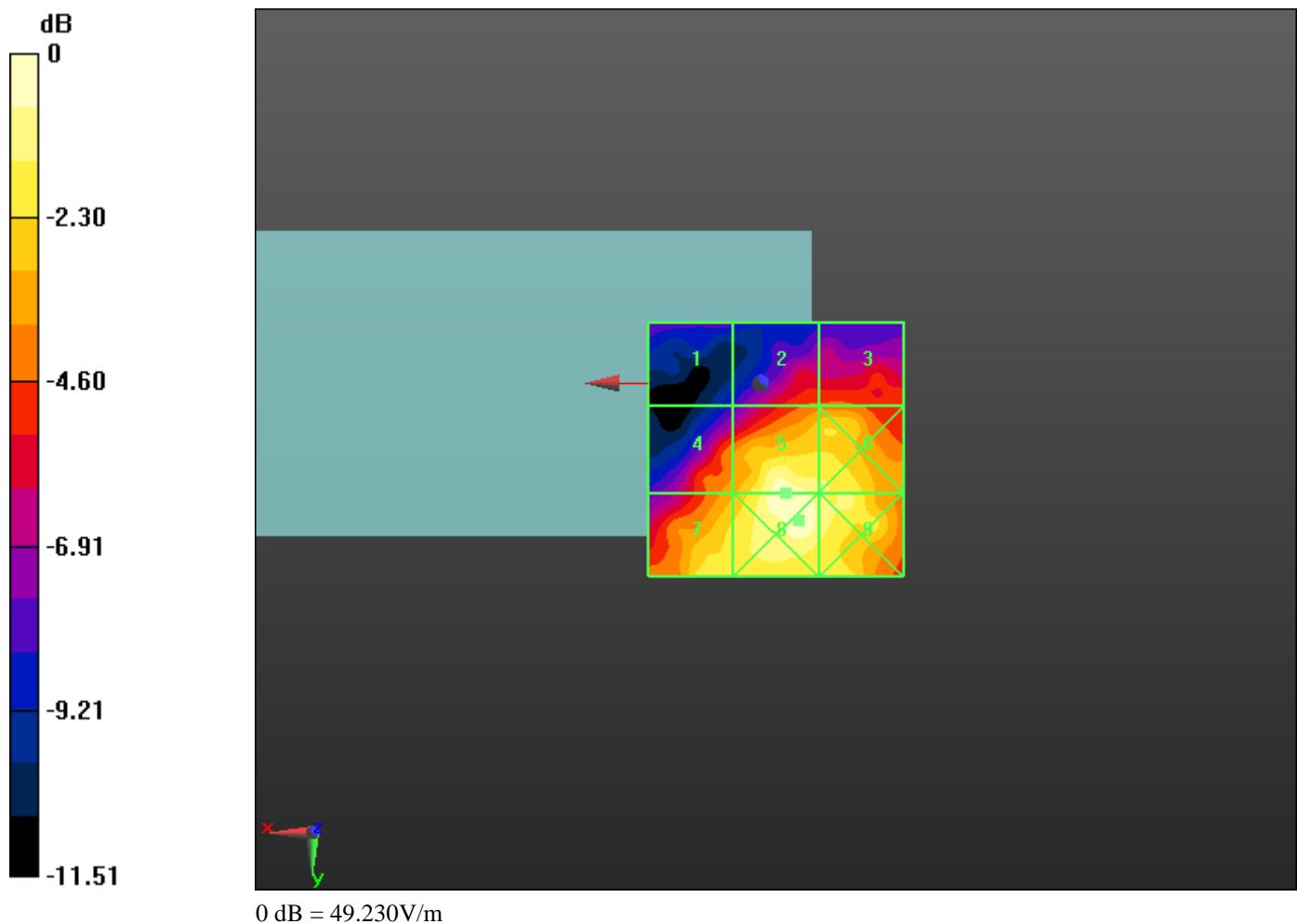
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Test Laboratory: RIM Testing Services

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - 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/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

Author Data

Hang Wang

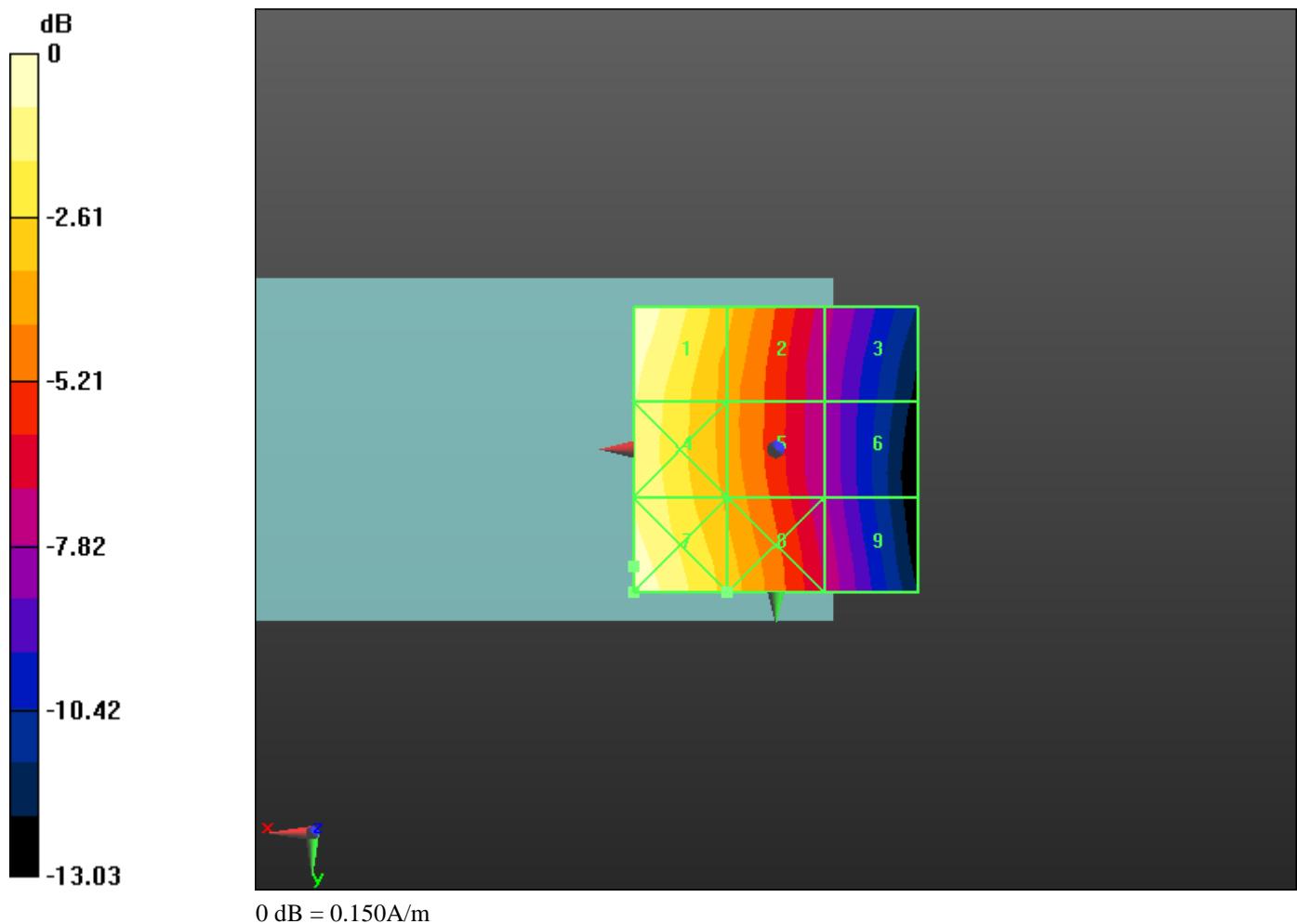
Dates of Test

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - 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

Author Data

Hang Wang

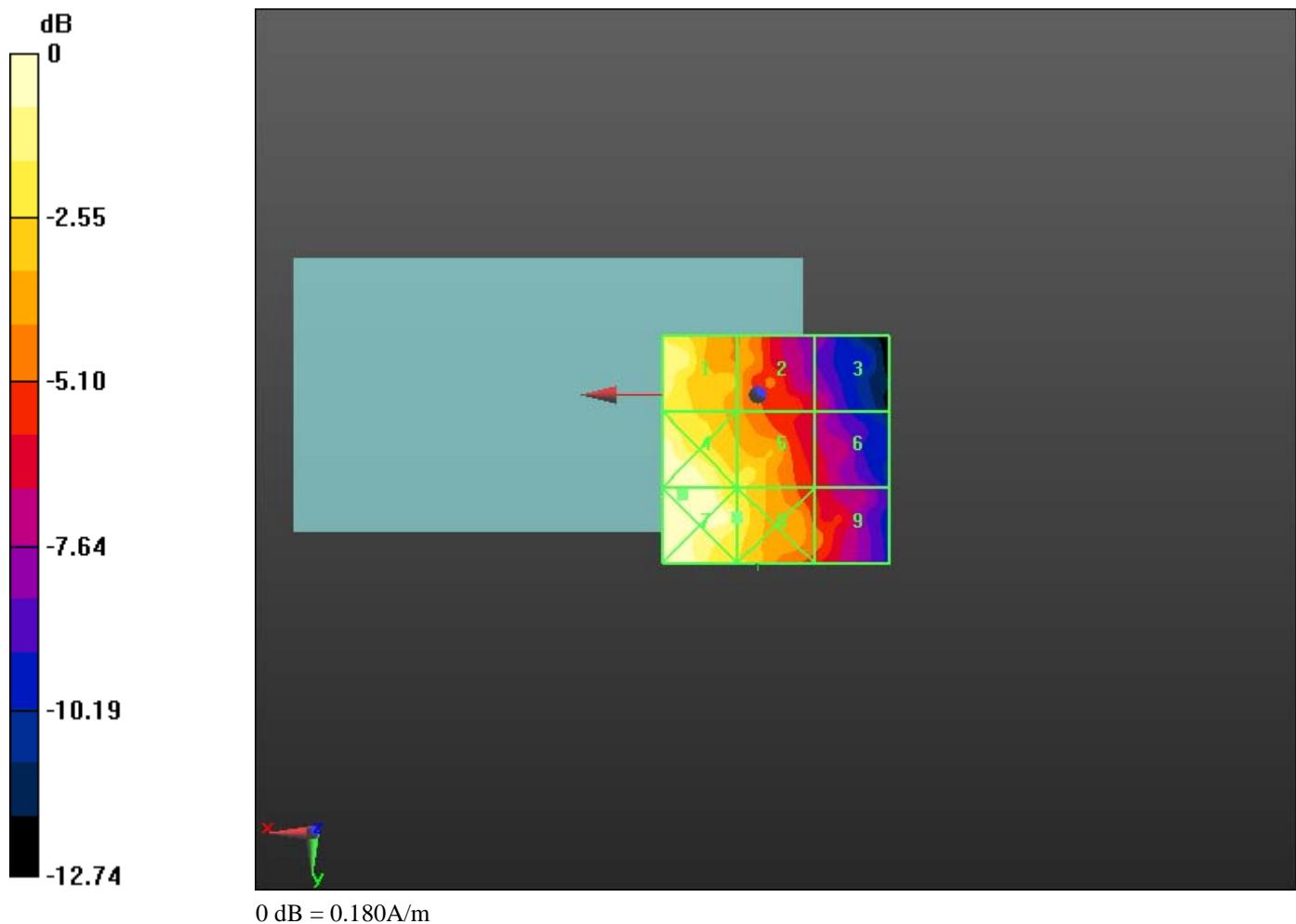
Dates of Test

July 28, Aug 4, 2011

Report No

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L6ARDZ20CW

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - 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/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

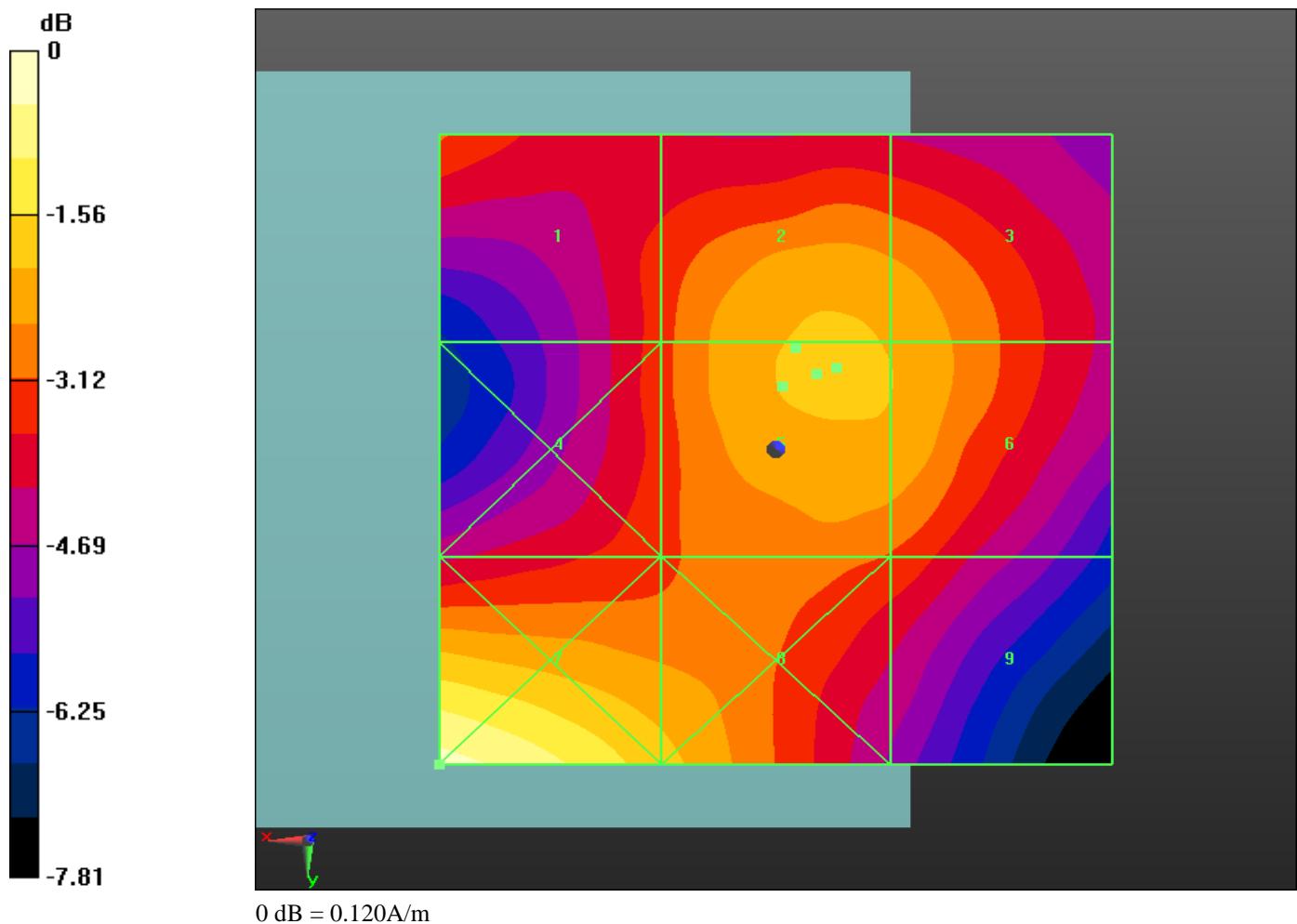
Dates of Test

July 28, Aug 4, 2011

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FCC ID

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
 - 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 = 0.125 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

Author Data

Hang Wang

Dates of Test

July 28, Aug 4, 2011

Report No

RTS-2604-1108-06

FCC ID

L6ARDZ20CW