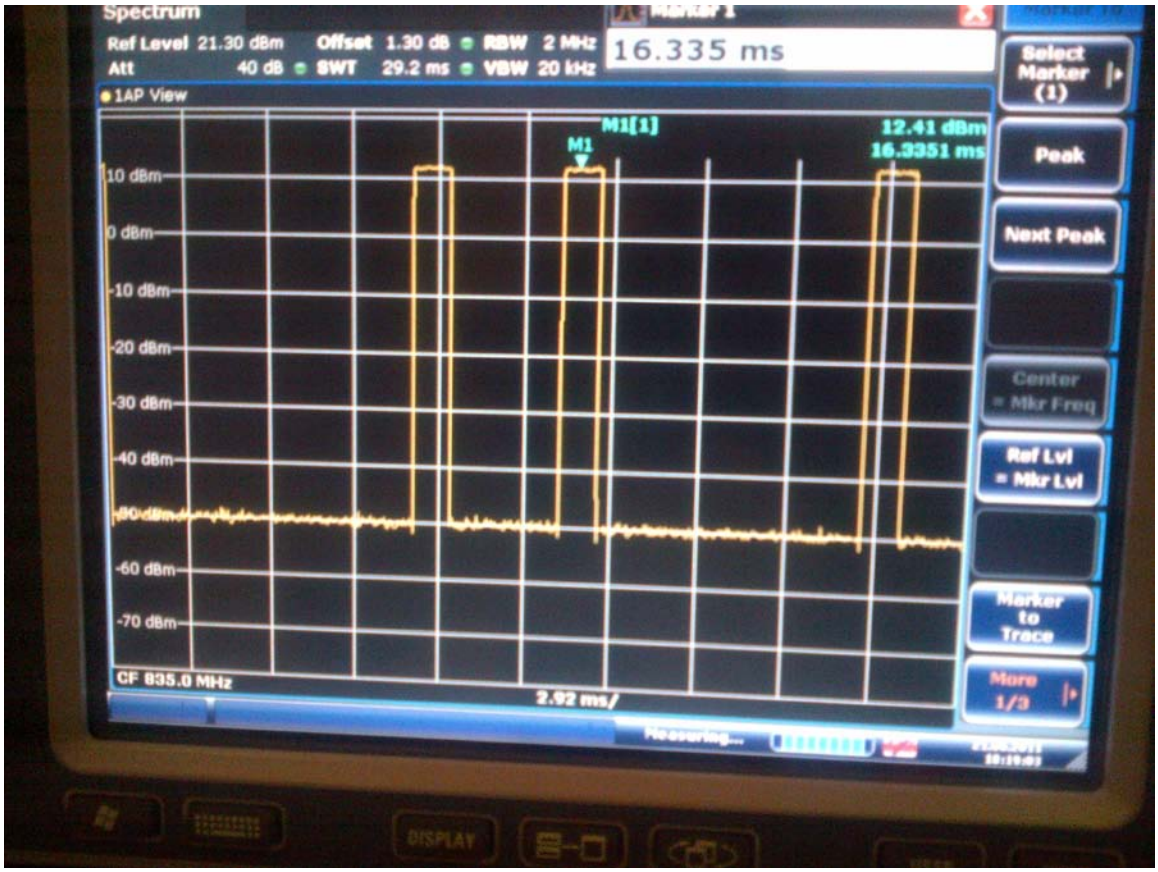
Annex A: Measurement data and plots

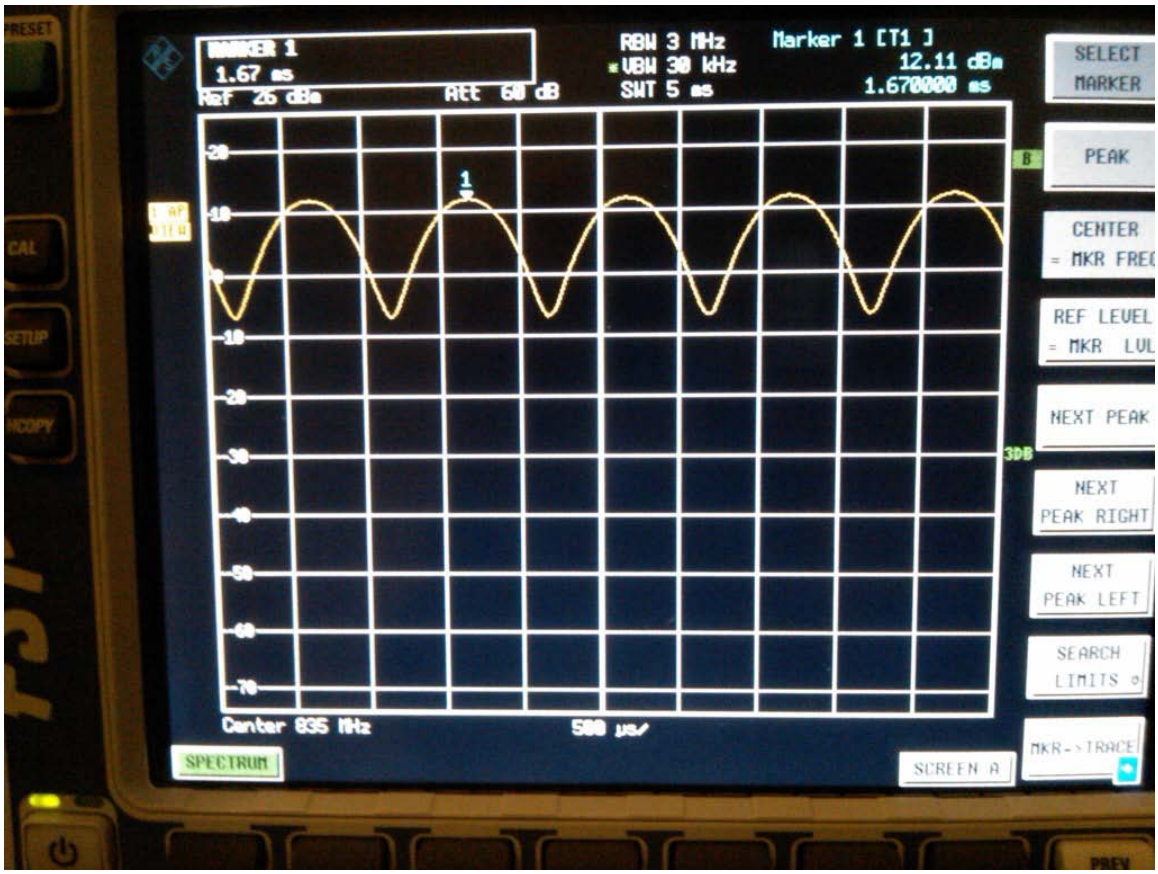
A.1 Spectrum analyser plots: CDMA, CW, 80%AM, signals

CDMA Cell 835 MHz



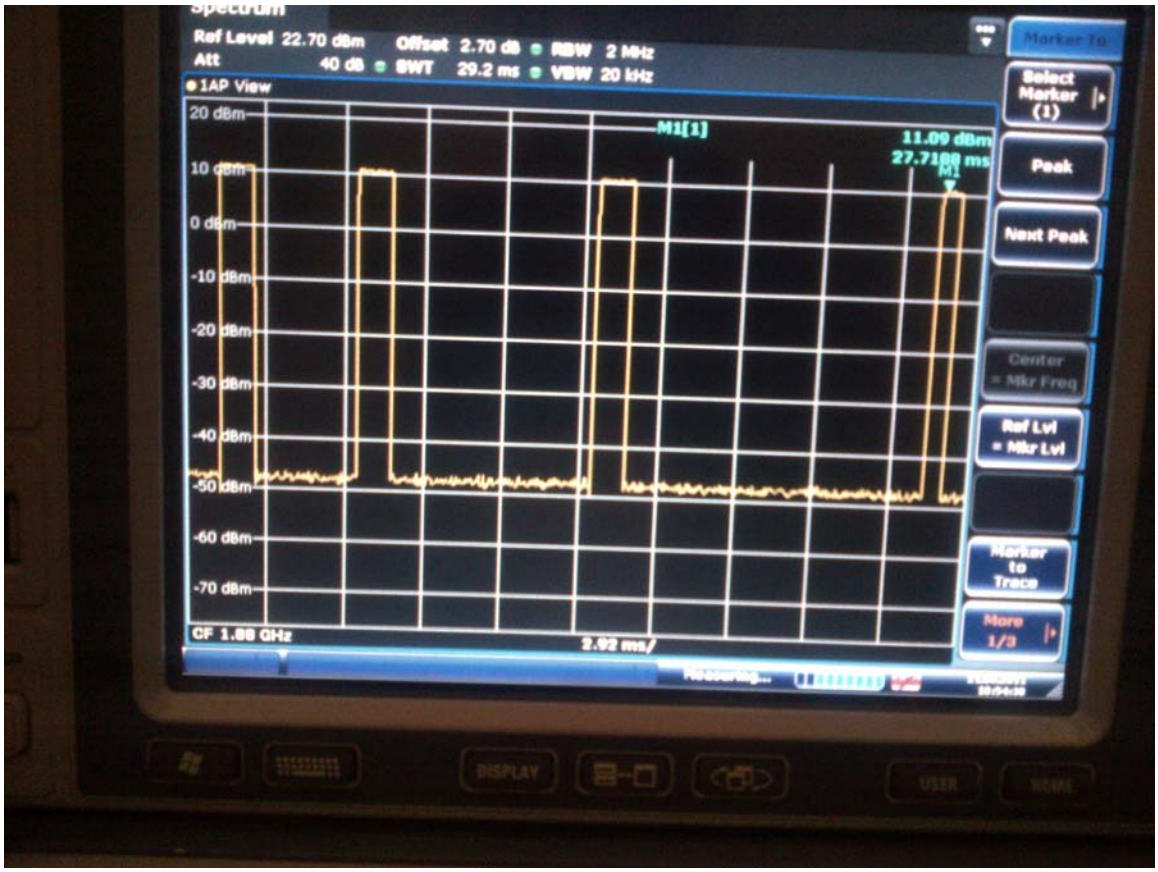
CDMA Cell 835 MHz 1/8th

CW 835 MHz

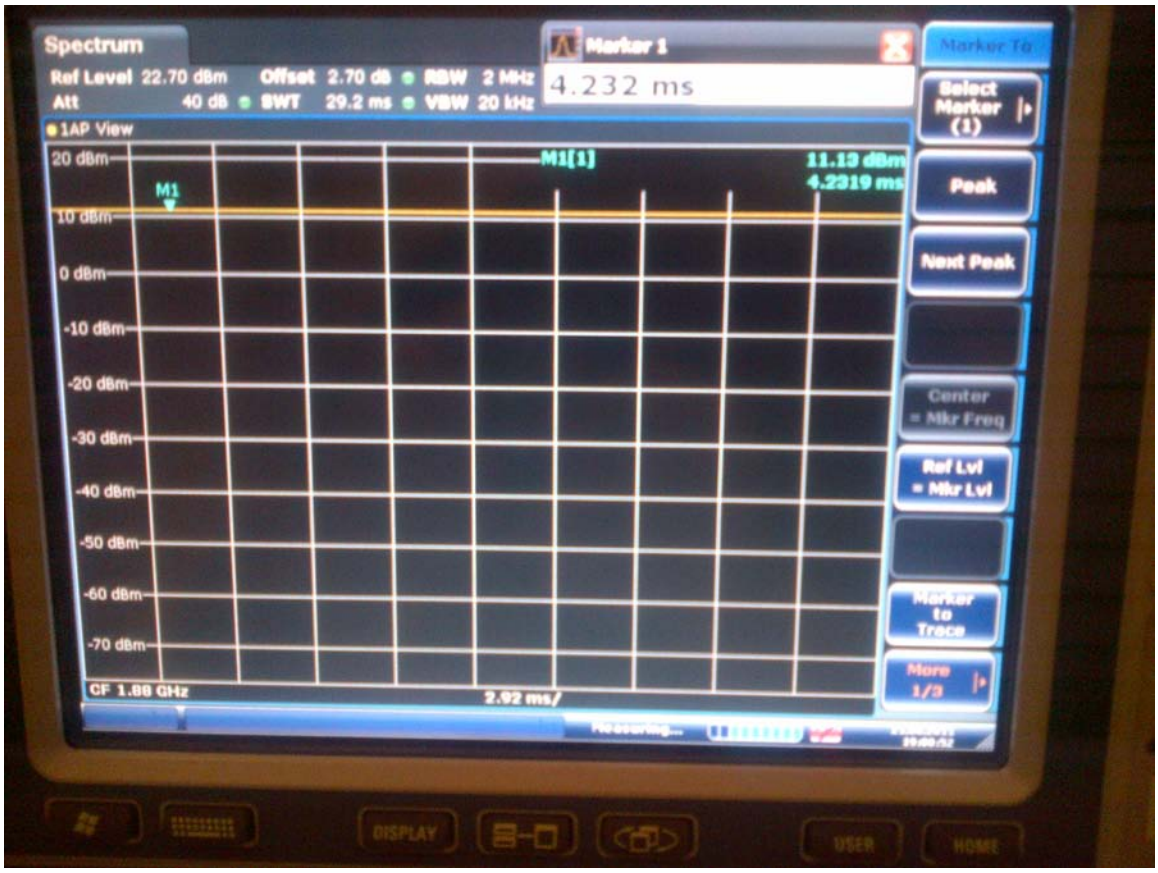


AM 80% 835 MHz

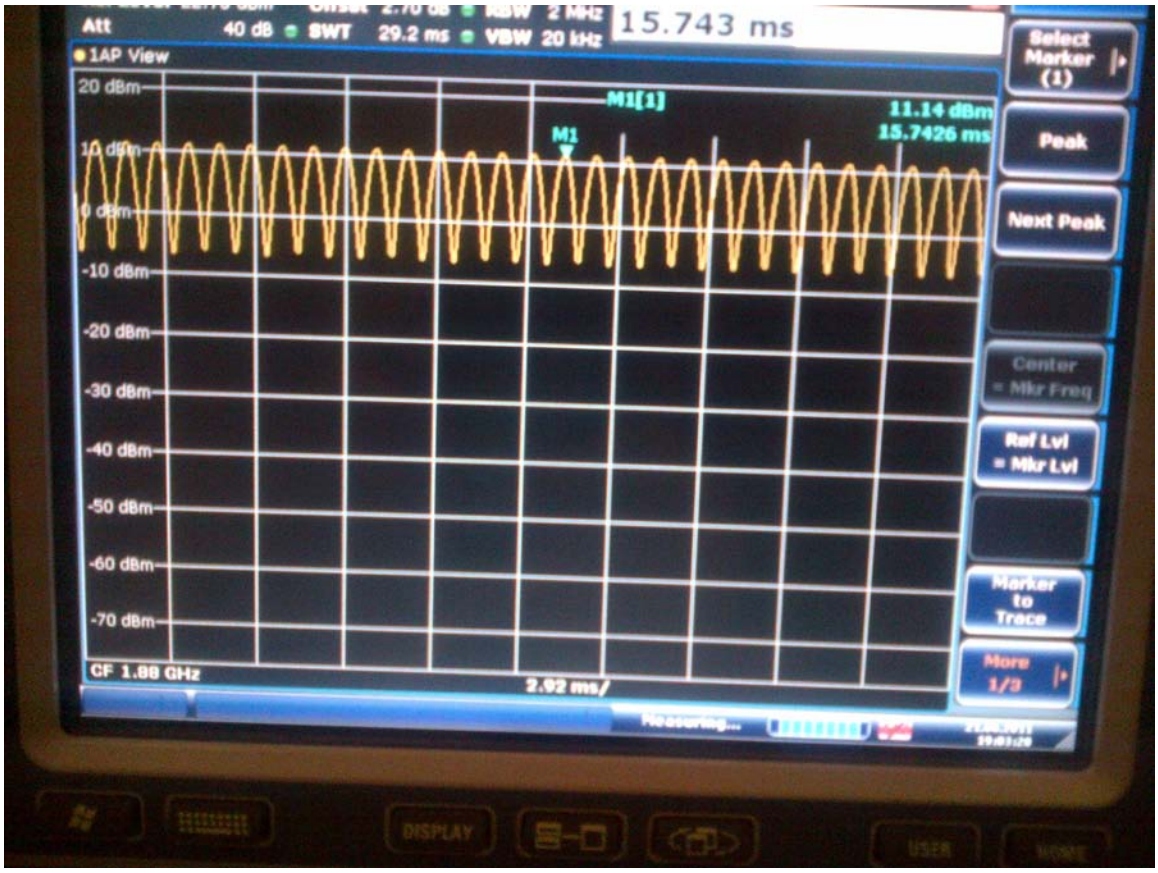
CDMA 1880 MHz



CDMA 1880 MHz 1/8 th



CW 1880 MHz



AM 80 % 1880 MHz

A.2 Dipole validation and probe modulation factor plots

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: σ = 0 mho/m, ε_r = 1; ρ = 0 kg/m^3

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

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

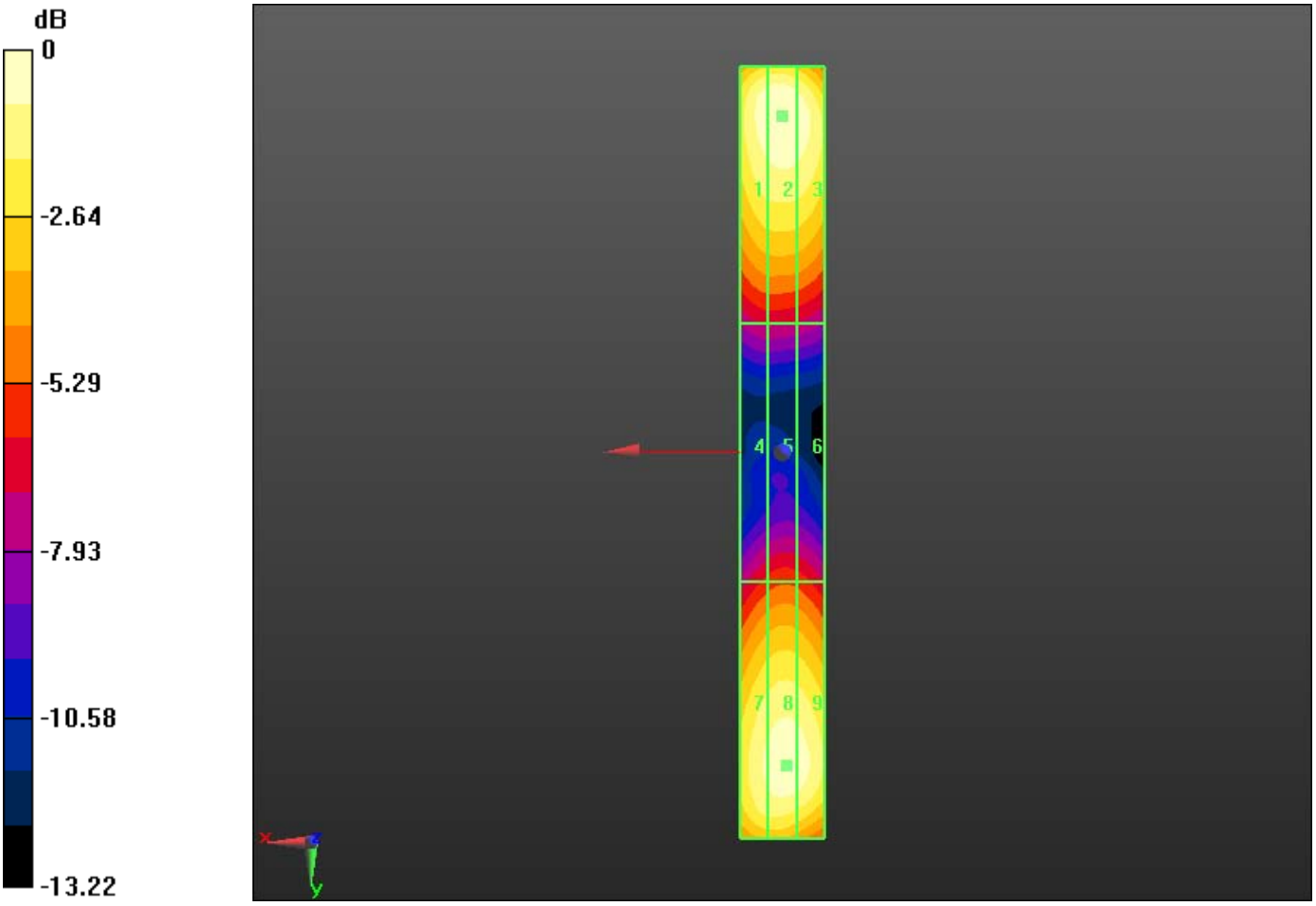
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

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

Cursor:

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



0 dB = 164.3V/m

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)

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

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

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

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, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

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

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

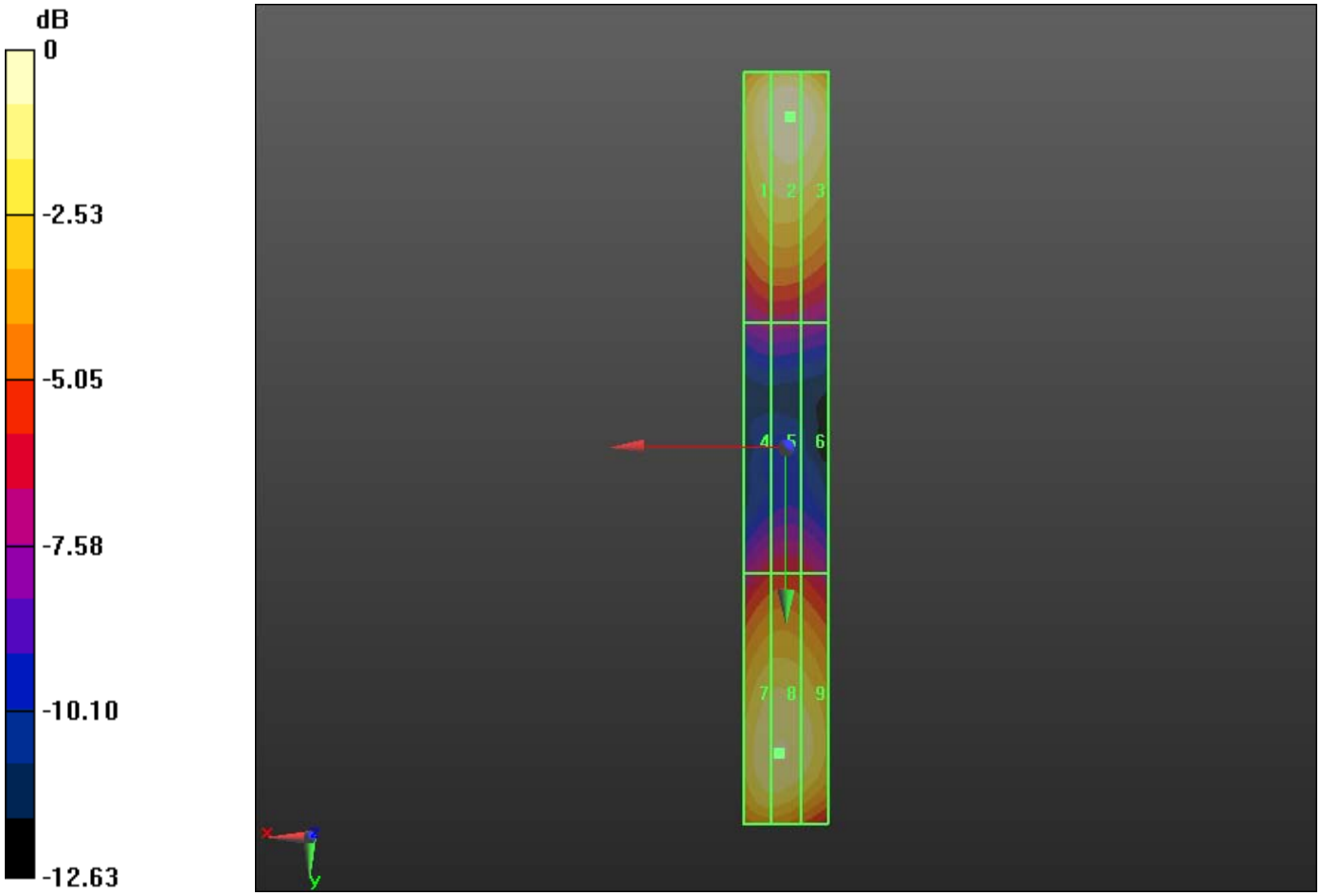
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 63.650V/m

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

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, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

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

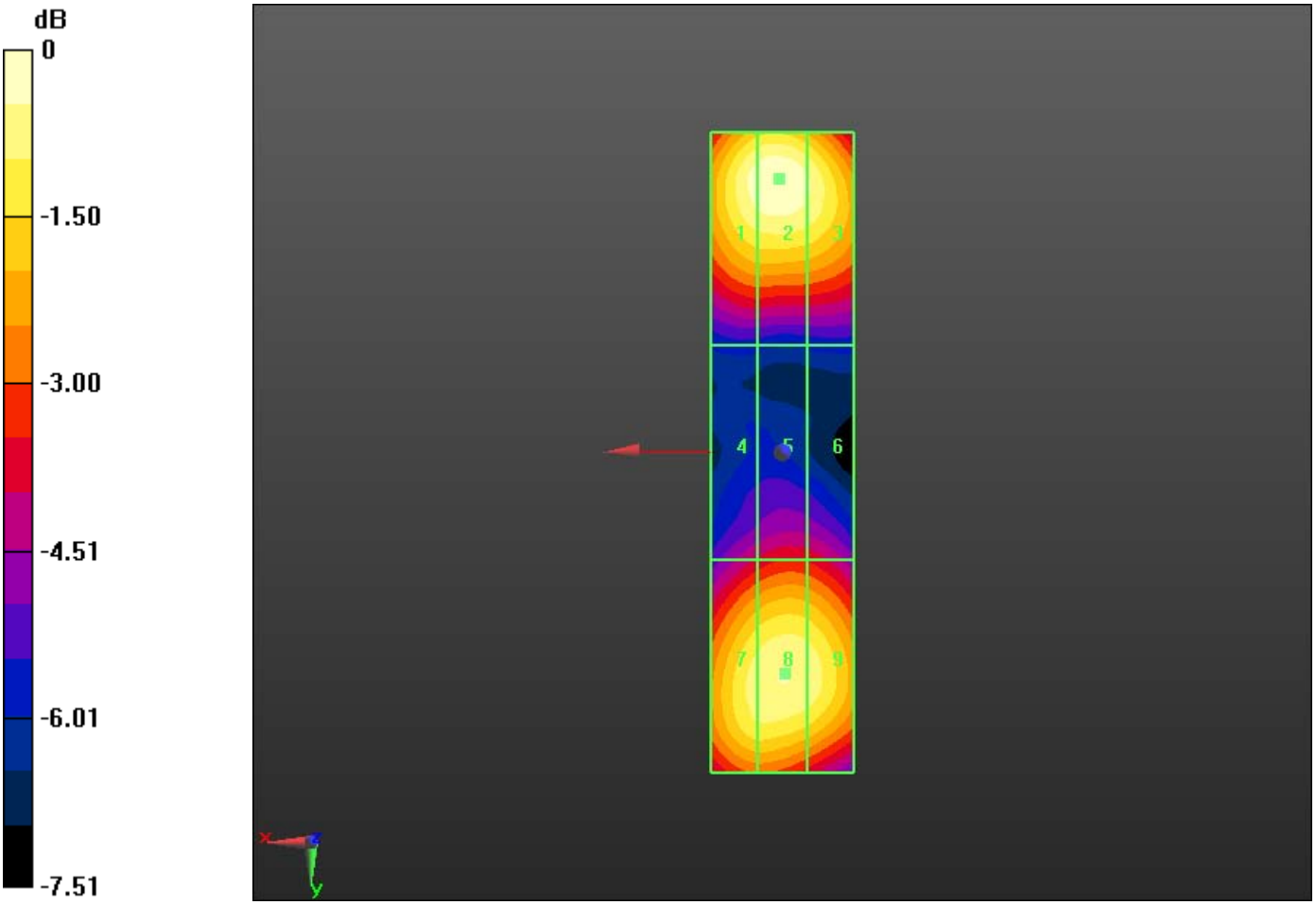
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

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



0 dB = 129.3V/m

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

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

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

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, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

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

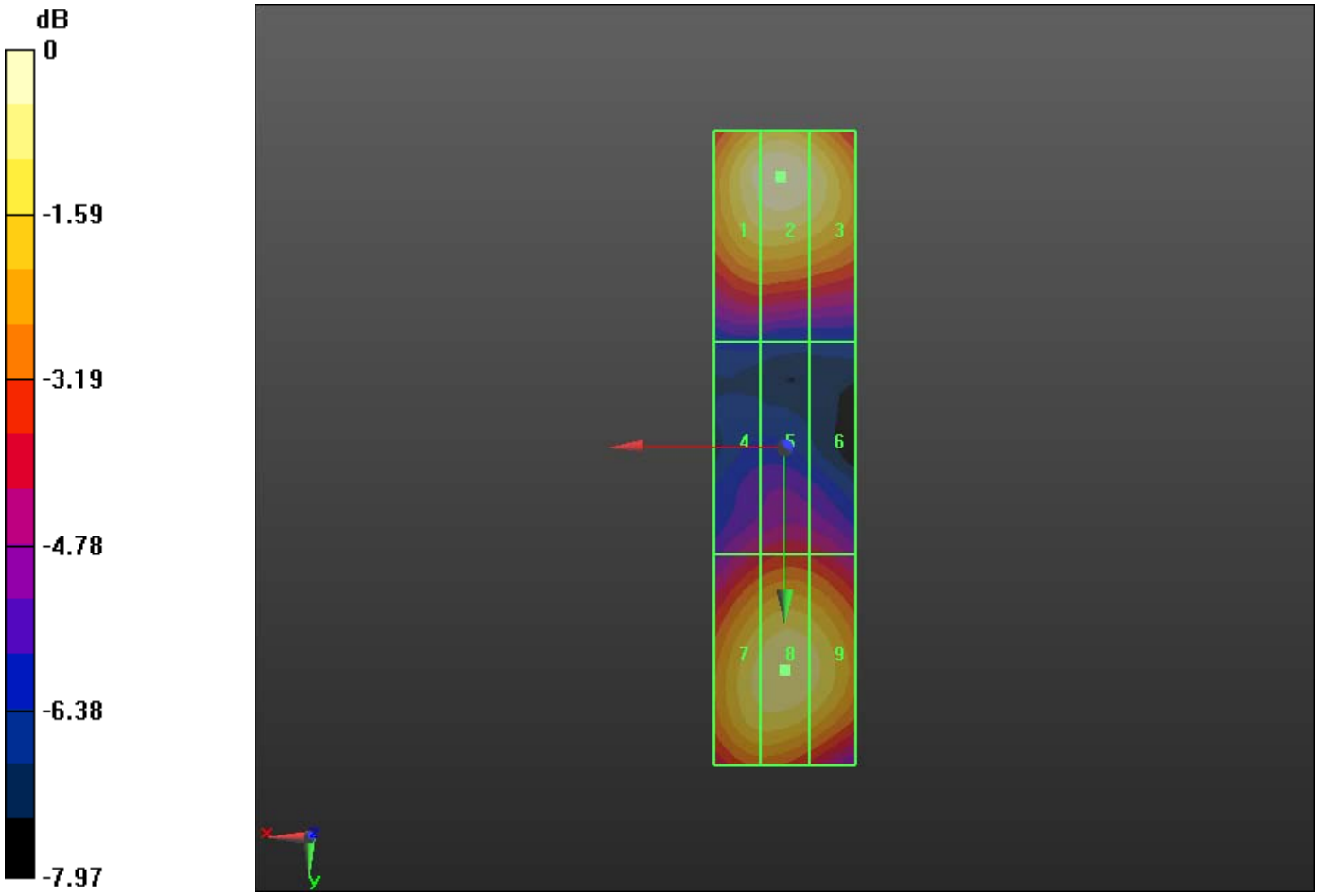
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 43.150V/m

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, $\varepsilon_r = 1$; $\rho = 0$ 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 meausrement 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

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

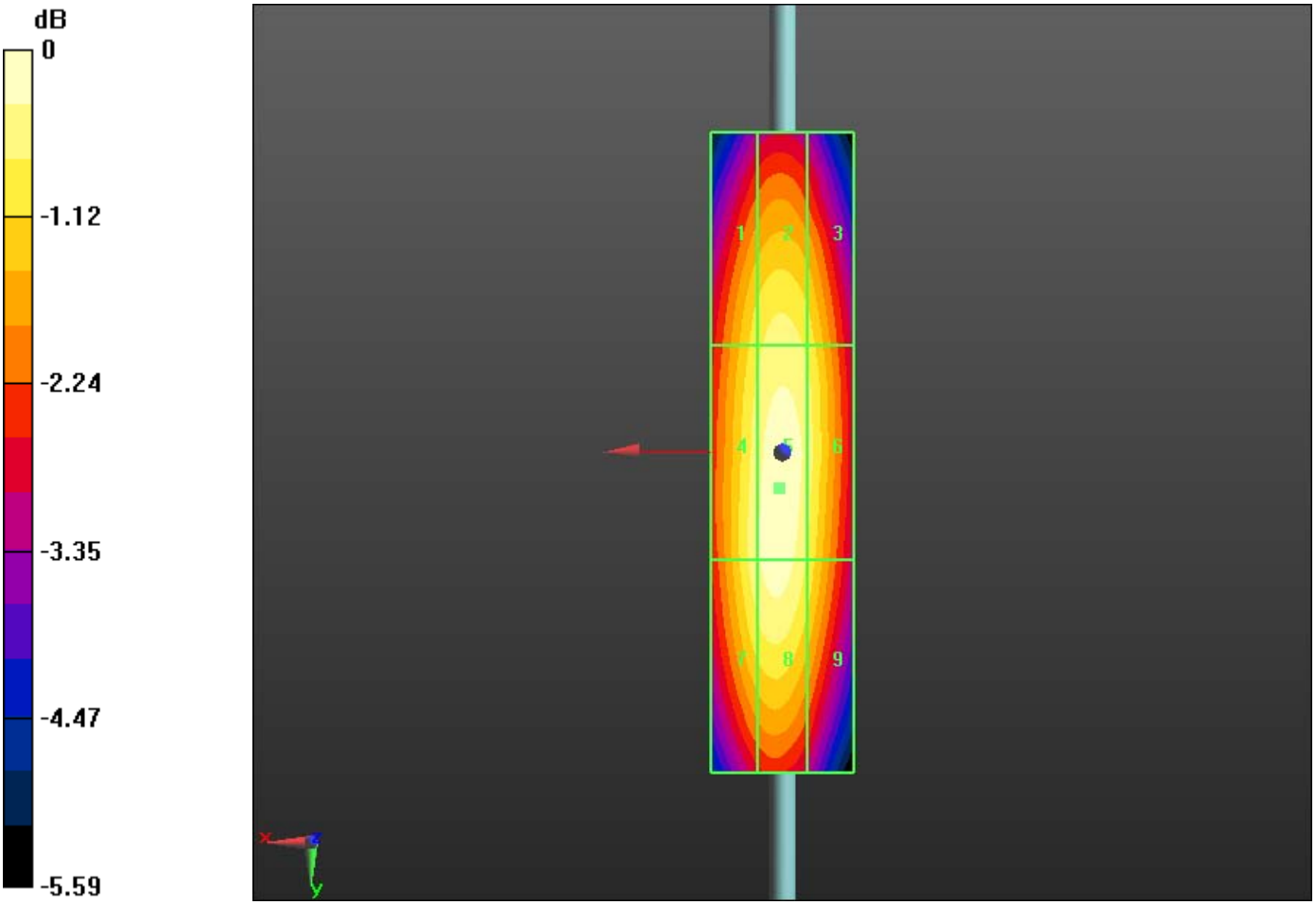
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 0.490A/m

Dipole H-Field meausrement 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

Dipole H-Field meausrement 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

Dipole H-Field meausrement 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

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, $\varepsilon_r = 1$; $\rho = 0$ 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
- 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 meausrement 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

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

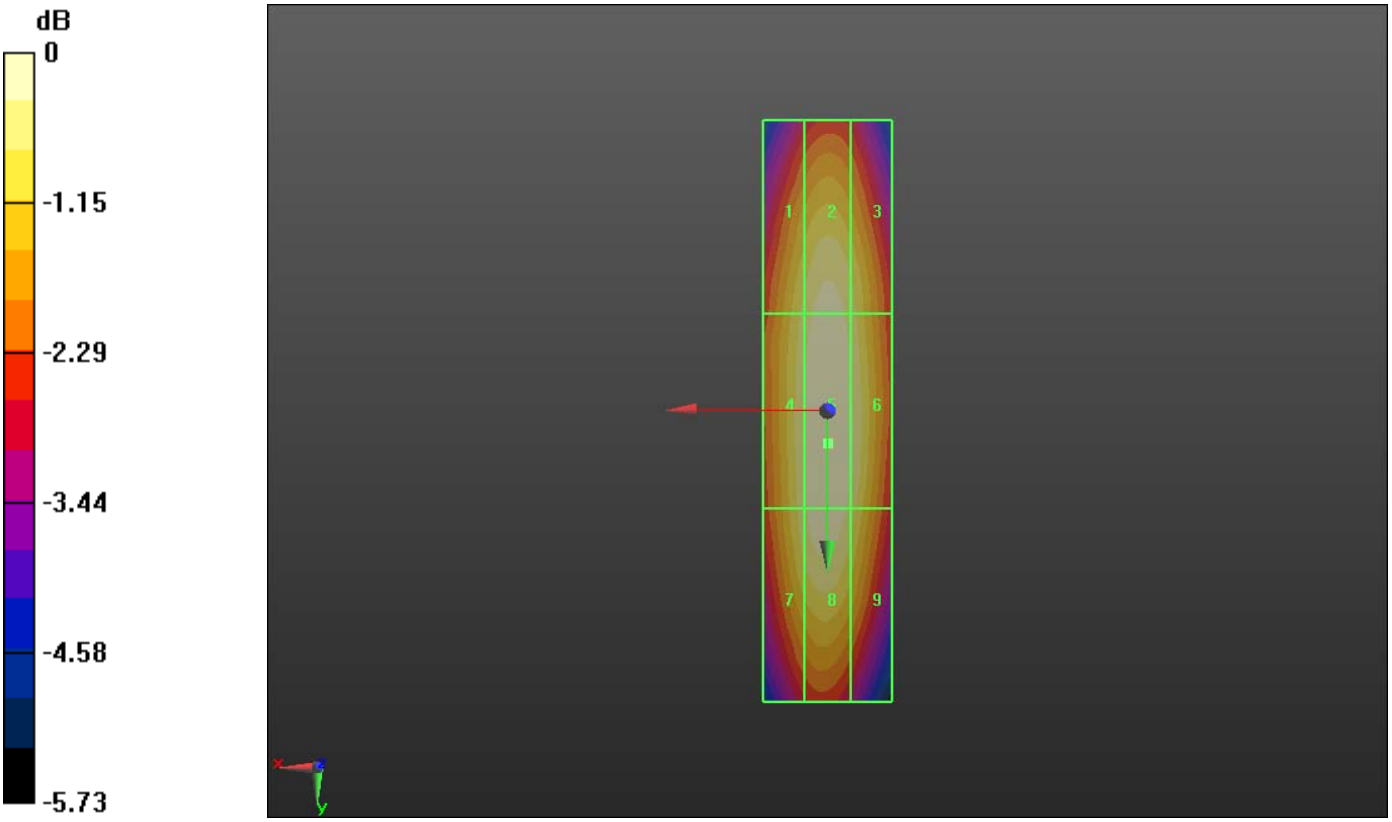
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 0.180A/m

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, $\varepsilon_r = 1$; $\rho = 0$ 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 meausrement 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

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

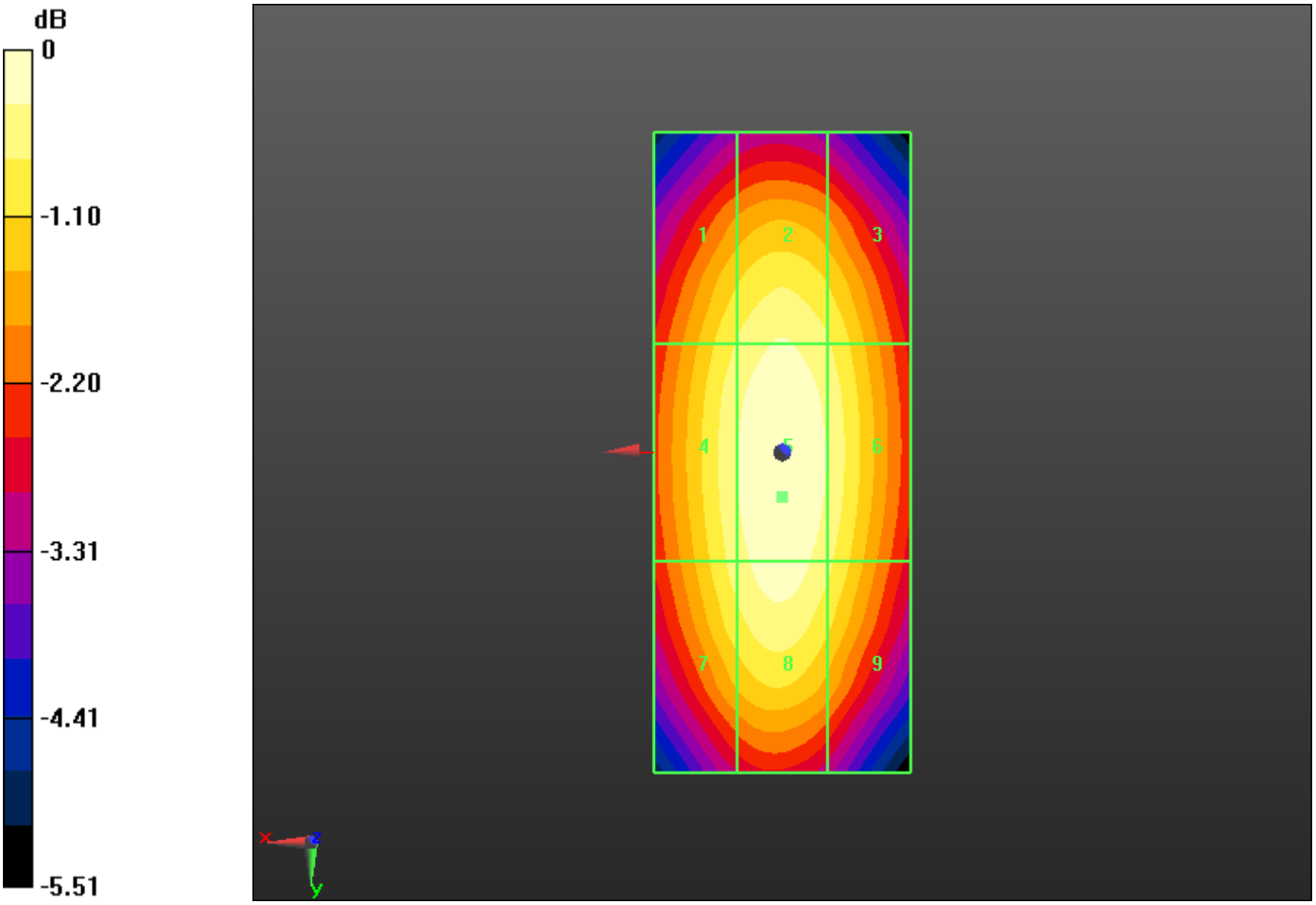
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.425** **M2**	Grid 2 **0.442** **M2**	Grid 3 **0.425** **M2**
Grid 4 **0.441** **M2**	Grid 5 **0.461** **M2**	Grid 6 **0.440** **M2**
Grid 7 **0.432** **M2**	Grid 8 **0.453** **M2**	Grid 9 **0.428** **M2**

Cursor:

Total = 0.461 A/m
H Category: M2
Location: 0, 3.5, 4.7 mm



0 dB = 0.460A/m

Dipole H-Field meausrement 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

Dipole H-Field meausrement 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**

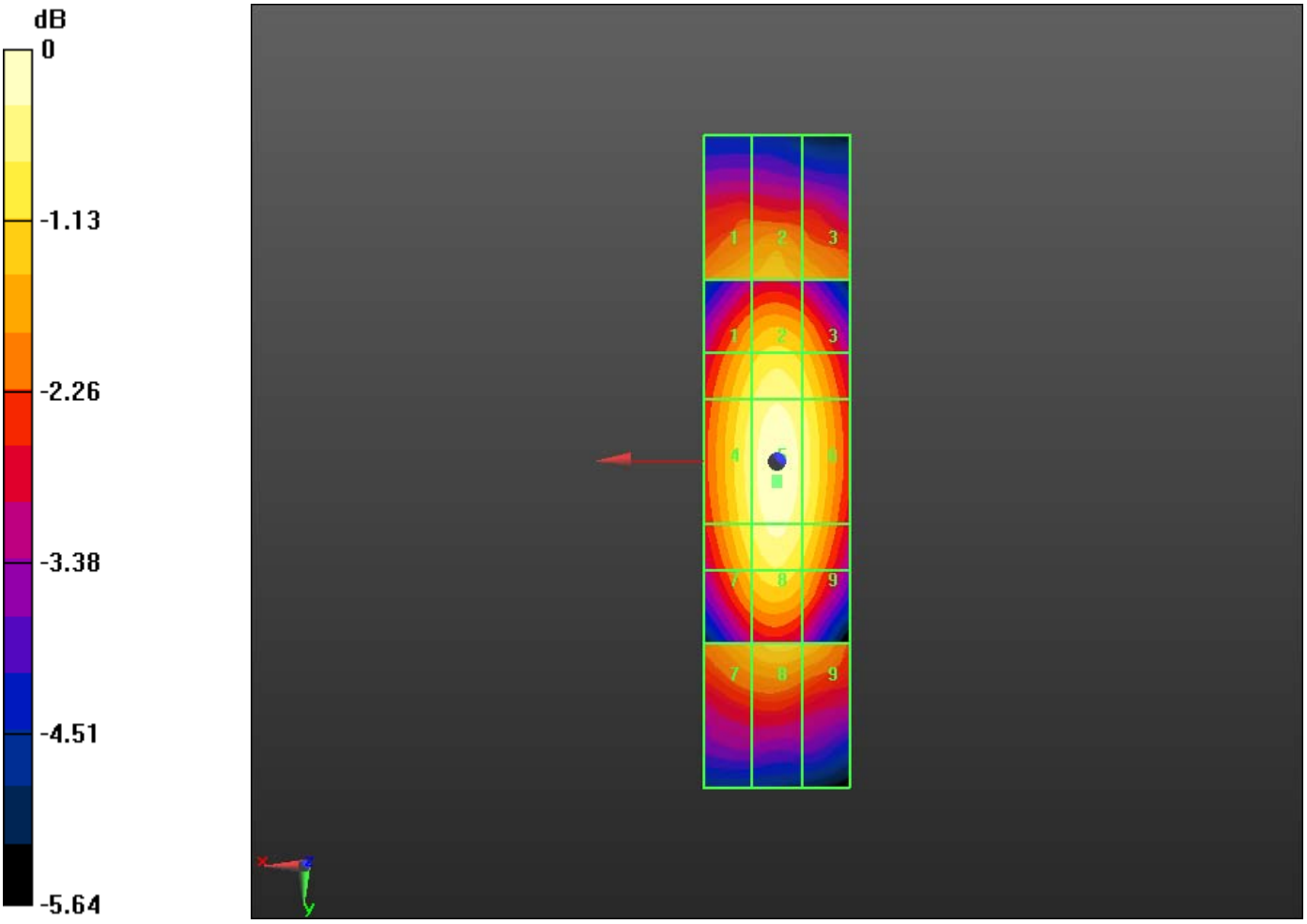
Cursor:
Total = 0.081 A/m
H Category: M4
Location: 0, 3, 4.7 mm

Dipole H-Field meausrement 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



0 dB = 0.470A/m

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, $\varepsilon_r = 1$; $\rho = 0$ 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
- 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 meausrement 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

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

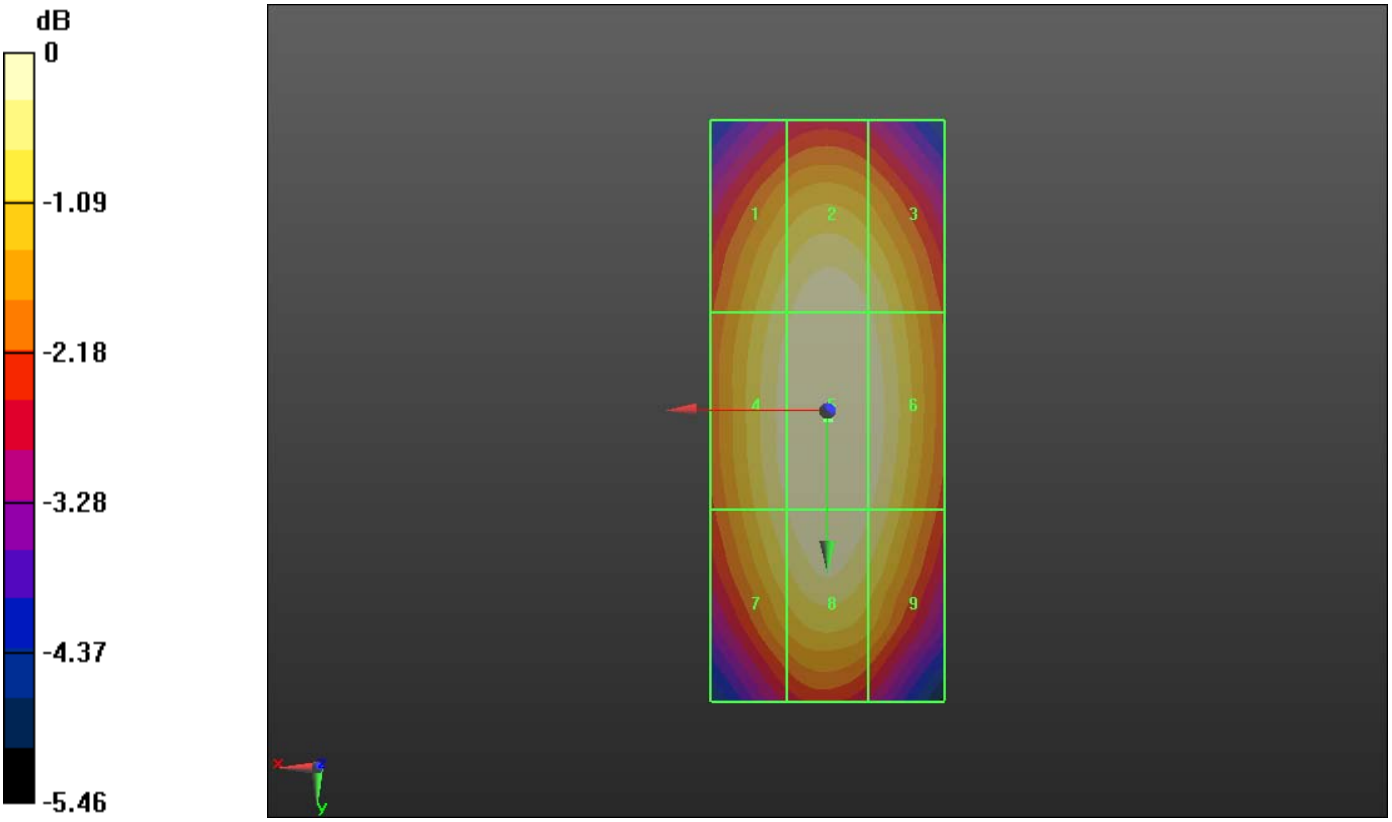
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

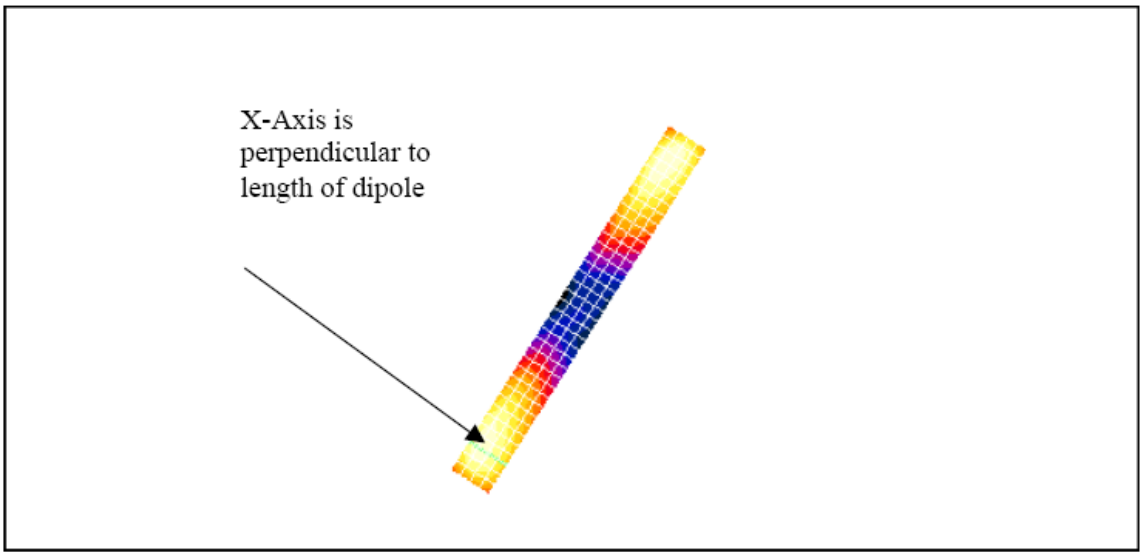
Grid 1 **0.143** **M4**	Grid 2 **0.150** **M4**	Grid 3 **0.145** **M4**
Grid 4 **0.147** **M4**	Grid 5 **0.154** **M4**	Grid 6 **0.149** **M4**
Grid 7 **0.144** **M4**	Grid 8 **0.152** **M4**	Grid 9 **0.145** **M4**

Cursor:

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



0 dB = 0.150A/m



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.

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
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)

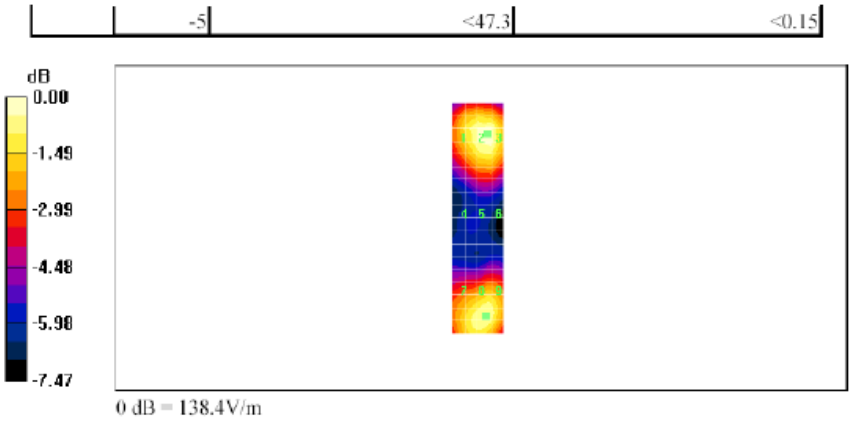
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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



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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
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)

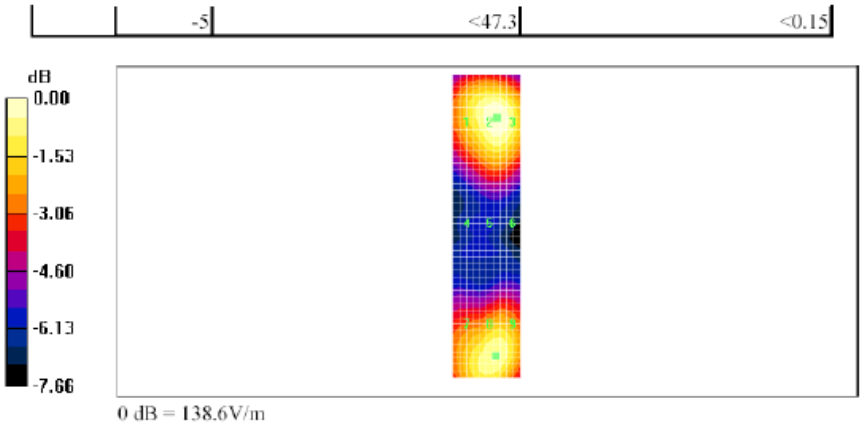
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3
123.1	**138.6**	**138.6**
Grid 4	Grid 5	Grid 6
81.4	**92.1**	**91.6**
Grid 7	Grid 8	Grid 9
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



0 dB = 138.6V/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
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)

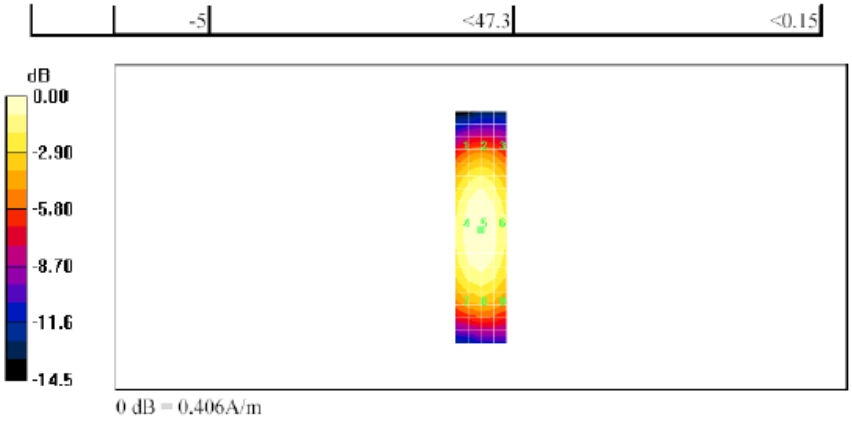
H in A/m (Time averaged)

Grid 1	Grid 2	Grid 3
0.342	**0.359**	**0.344**
Grid 4	Grid 5	Grid 6
0.389	**0.406**	**0.389**
Grid 7	Grid 8	Grid 9
0.363	**0.378**	**0.363**

H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3
0.342	**0.359**	**0.344**
Grid 4	Grid 5	Grid 6
0.389	**0.406**	**0.389**
Grid 7	Grid 8	Grid 9
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



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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
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)

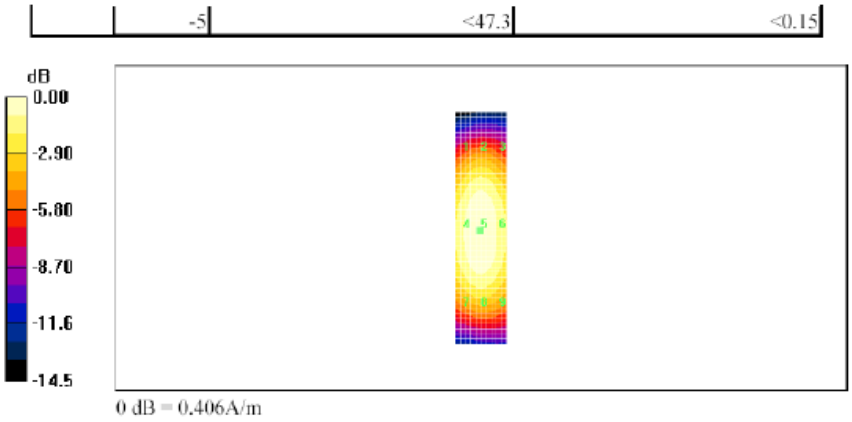
H in A/m (Time averaged)

Grid 1	Grid 2	Grid 3
0.347	**0.361**	**0.348**
Grid 4	Grid 5	Grid 6
0.394	**0.406**	**0.391**
Grid 7	Grid 8	Grid 9
0.367	**0.380**	**0.365**

H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3
0.347	**0.361**	**0.348**
Grid 4	Grid 5	Grid 6
0.394	**0.406**	**0.391**
Grid 7	Grid 8	Grid 9
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



A.3 RF emissions plots

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: σ = 0 mho/m, ε_r = 1; ρ = 0 kg/m^3

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

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**

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

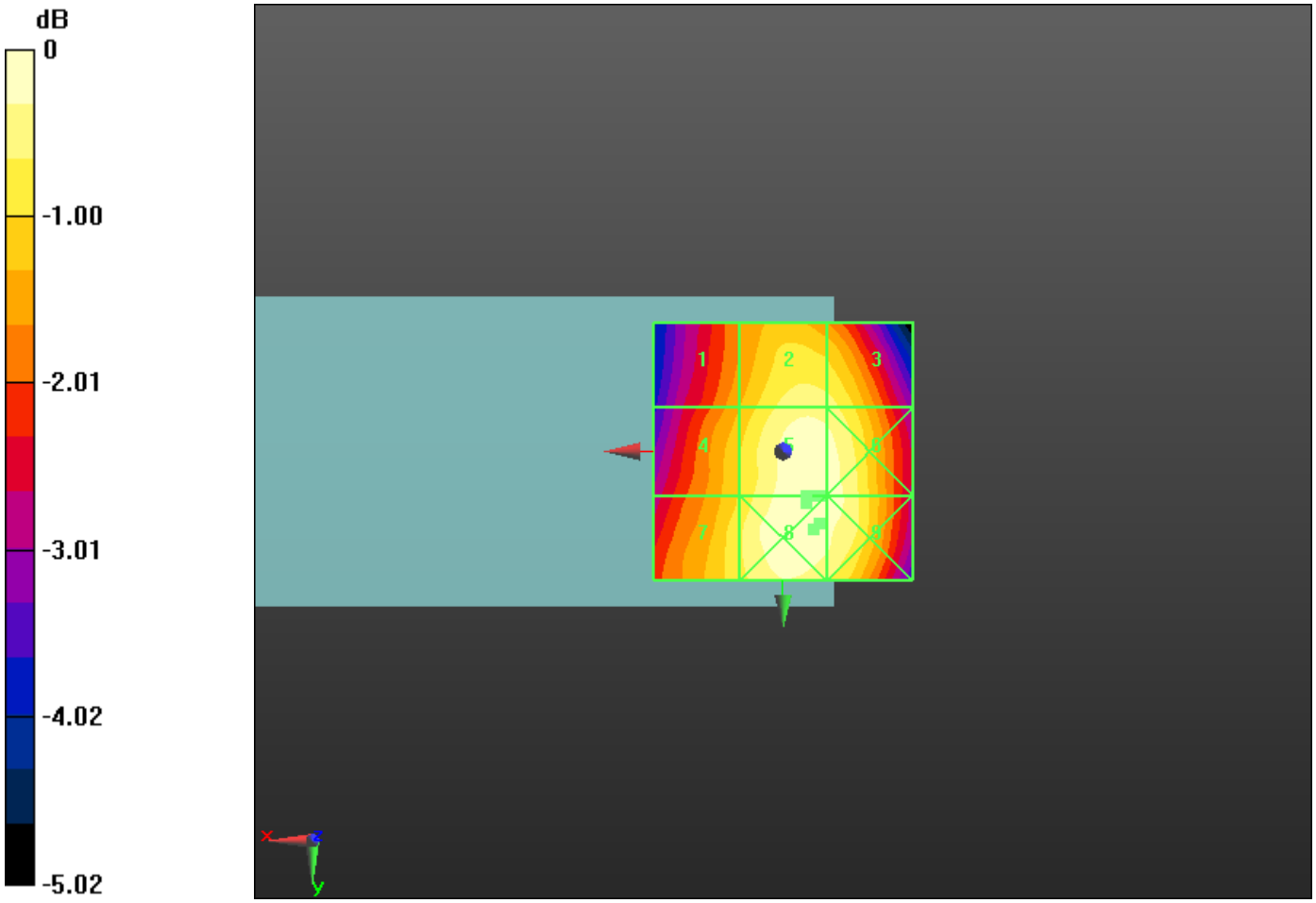
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



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, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

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

Device Reference Point: 0, 0, -6.3 mm

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

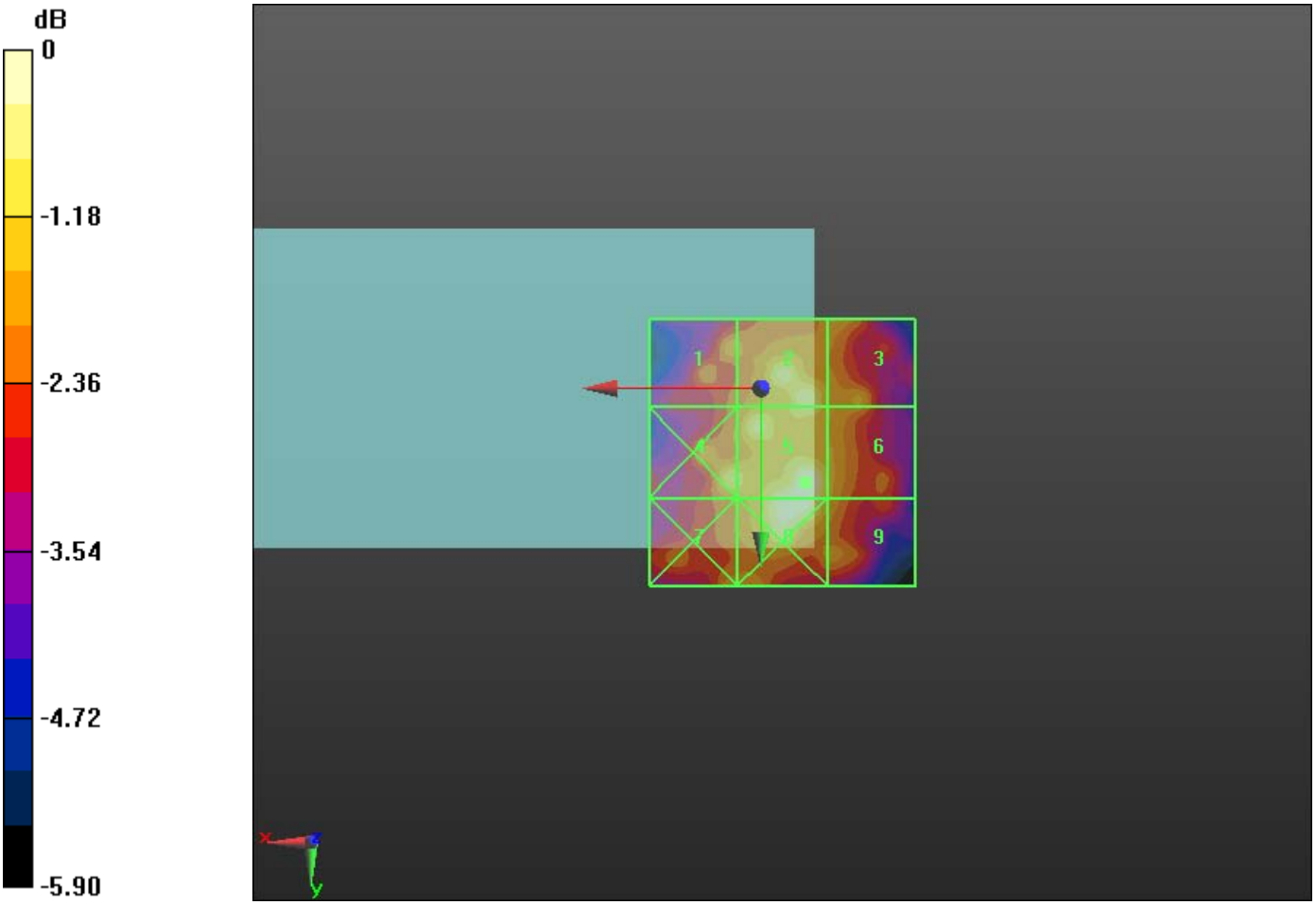
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 79.890V/m

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: σ = 0 mho/m, ε_r = 1; ρ = 0 kg/m^3

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

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**

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

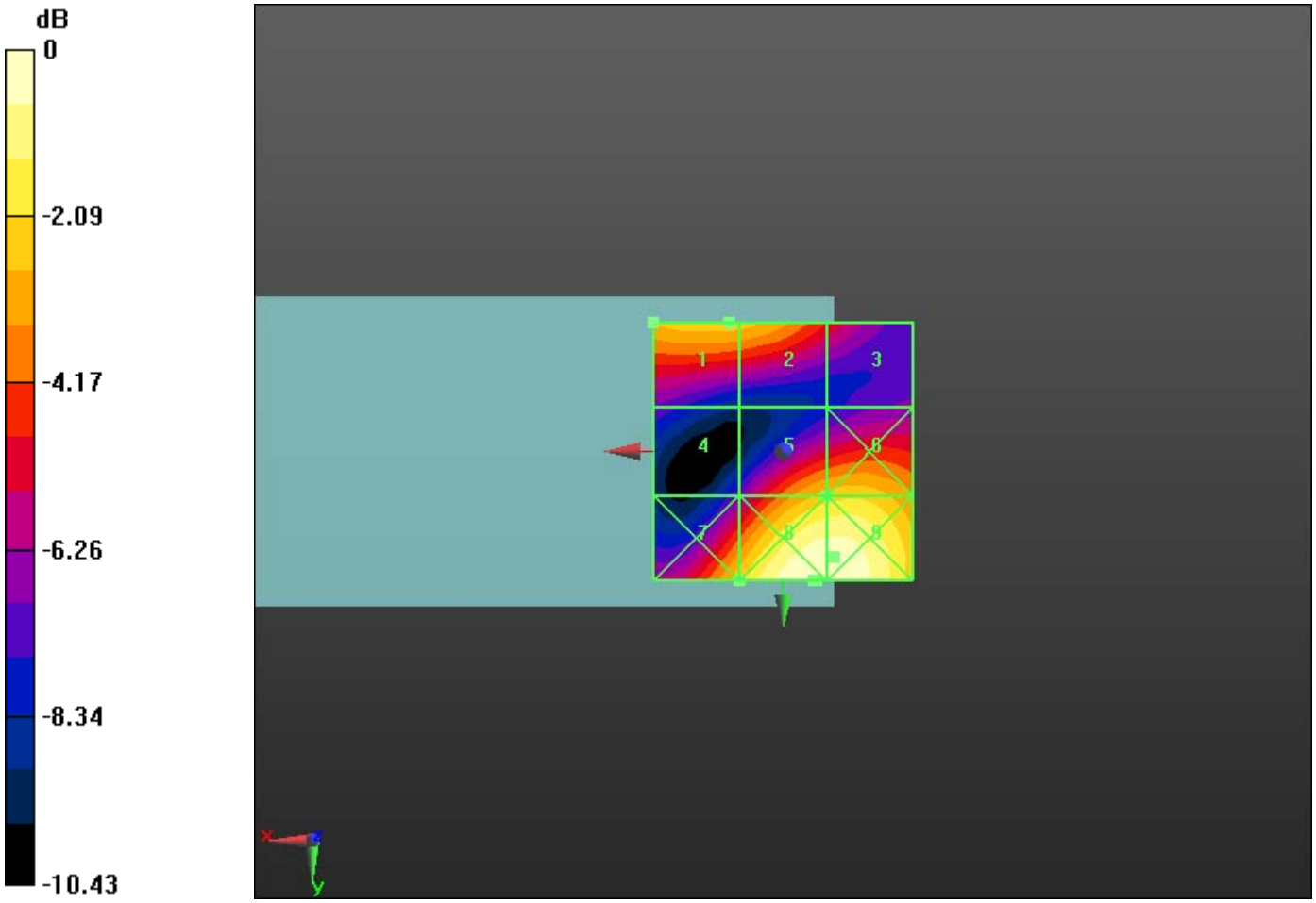
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



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, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

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

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

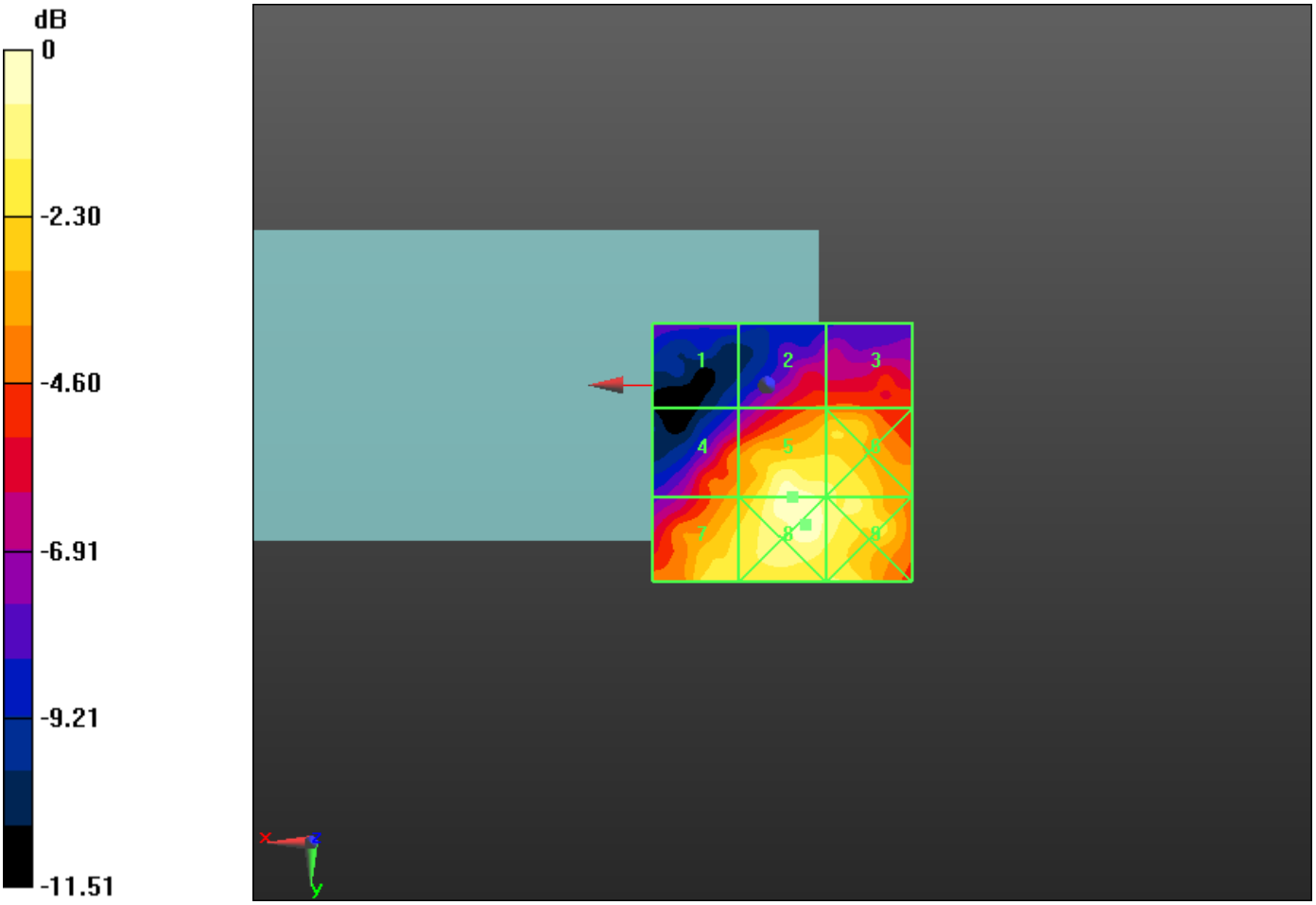
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 49.230V/m

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: σ = 0 mho/m, ε_r = 1; ρ = 0 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)

Device H-Field meausrement 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

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** **M4**	Grid 2 **0.103** **M4**	Grid 3 **0.064** **M4**
Grid 4 **0.137** **M4**	Grid 5 **0.099** **M4**	Grid 6 **0.062** **M4**
Grid 7 **0.147** **M4**	Grid 8 **0.107** **M4**	Grid 9 **0.067** **M4**

Cursor:

Total = 0.147 A/m
H Category: M4
Location: 25, 25, 8.7 mm

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

Peak H-field in A/m

Grid 1 **0.159** **M4**	Grid 2 **0.116** **M4**	Grid 3 **0.077** **M4**
Grid 4 **0.150** **M4**	Grid 5 **0.116** **M4**	Grid 6 **0.078** **M4**
Grid 7 **0.168** **M4**	Grid 8 **0.127** **M4**	Grid 9 **0.082** **M4**

Cursor:

Total = 0.168 A/m
H Category: M4
Location: 25, 25, 8.7 mm

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

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

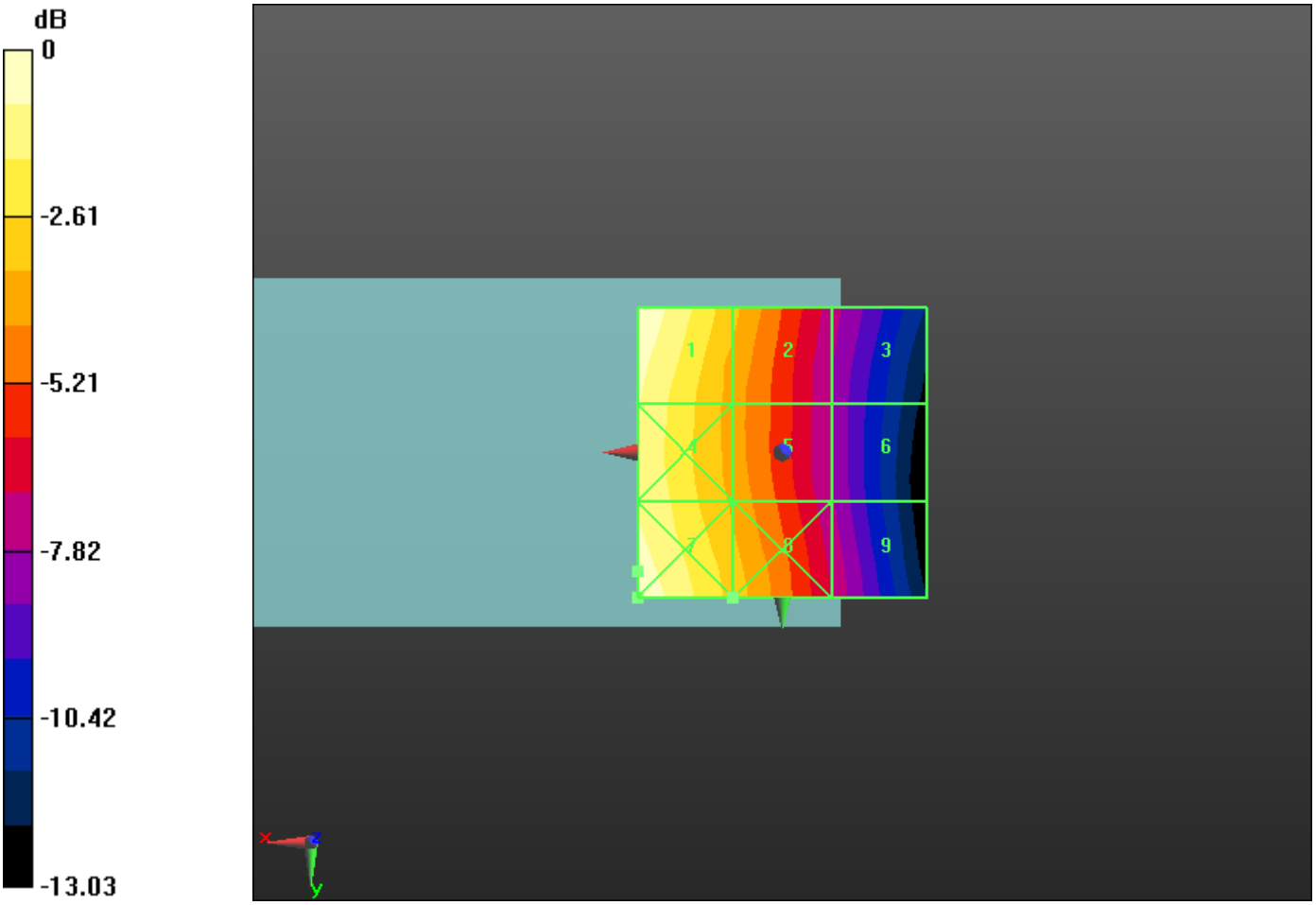
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 1/8/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.170 A/m
Probe Modulation Factor = 2.760
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.039 A/m; Power Drift = 0.14 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 0.150A/m

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, $\varepsilon_r = 1$; $\rho = 0$ 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)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Telecoil/Hearing Aid Compatibility Test (101x101x1): 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

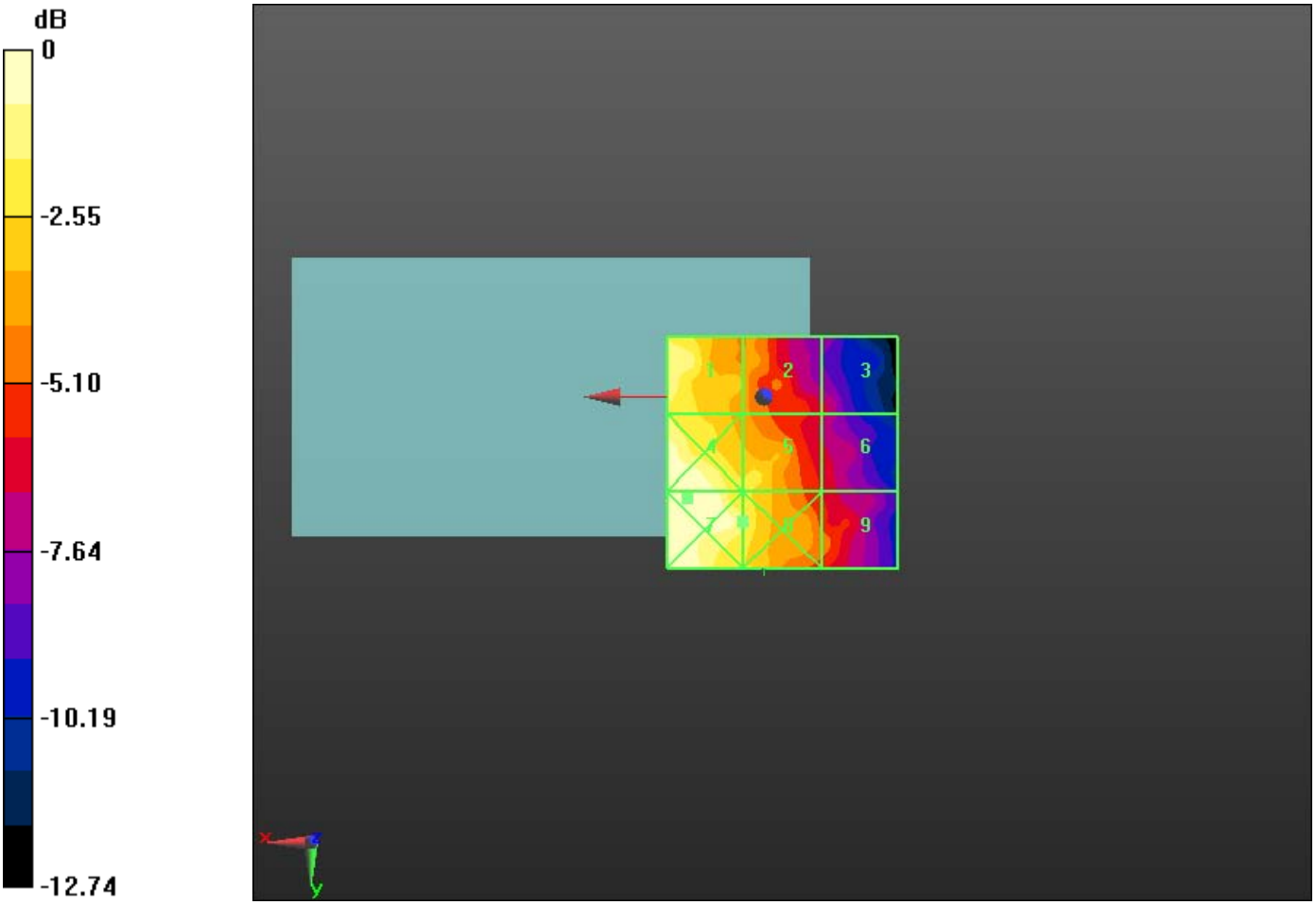
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.165** **M4**	Grid 2 **0.121** **M4**	Grid 3 **0.085** **M4**
Grid 4 **0.182** **M4**	Grid 5 **0.138** **M4**	Grid 6 **0.091** **M4**
Grid 7 **0.183** **M4**	Grid 8 **0.153** **M4**	Grid 9 **0.106** **M4**

Cursor:

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



0 dB = 0.180A/m

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: σ = 0 mho/m, ε_r = 1; ρ = 0 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)

Device H-Field meausrement 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

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 meausrement 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)

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 meausrement 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)

Peak H-field in A/m

Grid 1 **0.084** **M4**	Grid 2 **0.088** **M4**	Grid 3 **0.084** **M4**
Grid 4 **0.080** **M4**	Grid 5 **0.088** **M4**	Grid 6 **0.085** **M4**
Grid 7 **0.110** **M4**	Grid 8 **0.092** **M4**	Grid 9 **0.073** **M4**

Cursor:

Total = 0.110 A/m
H Category: M4
Location: 25, 25, 8.7 mm

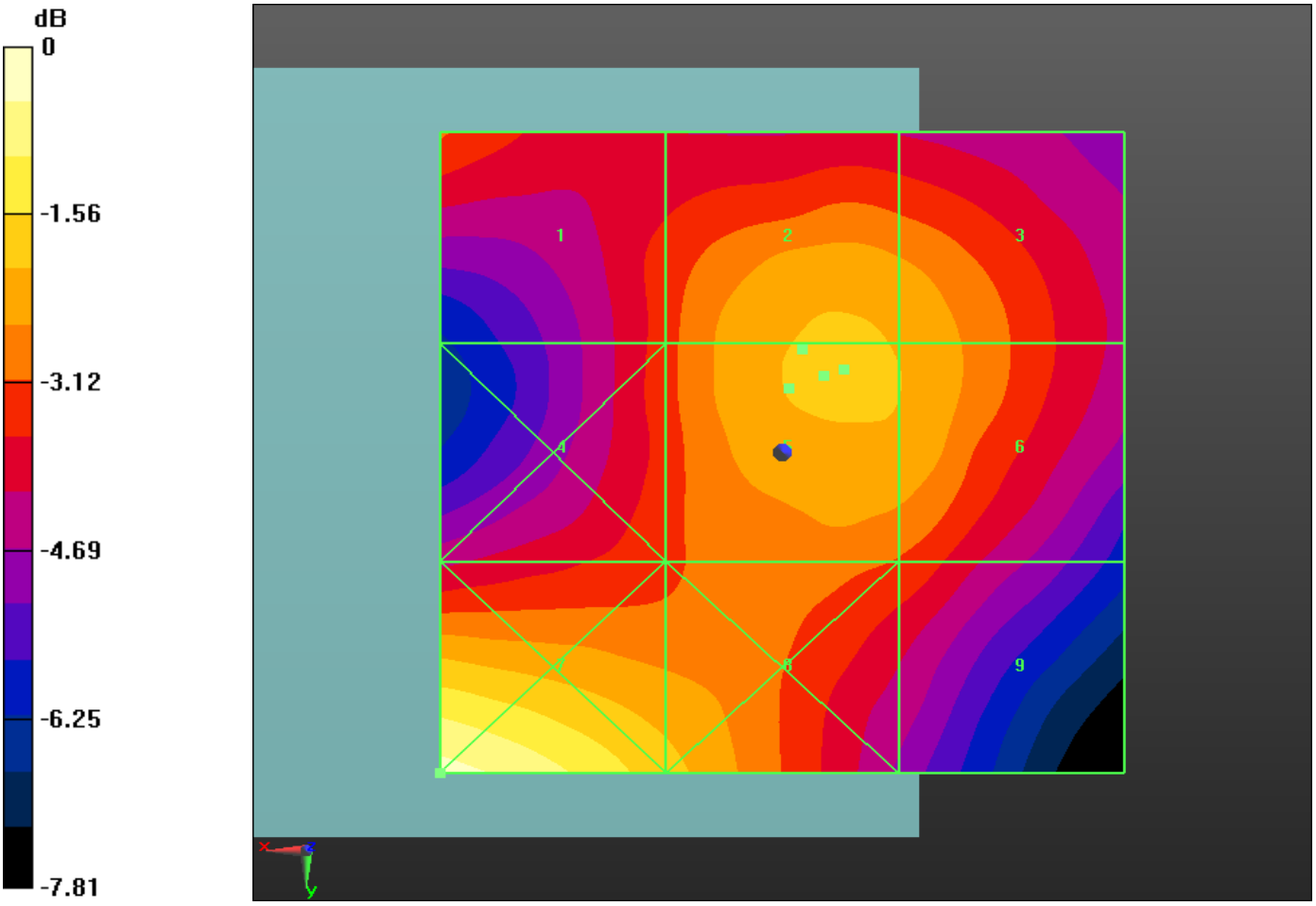
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 1/8/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.117 A/m
Probe Modulation Factor = 2.470
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.050 A/m; Power Drift = 6.27 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 0.120A/m

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, $\varepsilon_r = 1$; $\rho = 0$ 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)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Telecoil/Hearing Aid Compatibility Test (101x101x1): 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

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

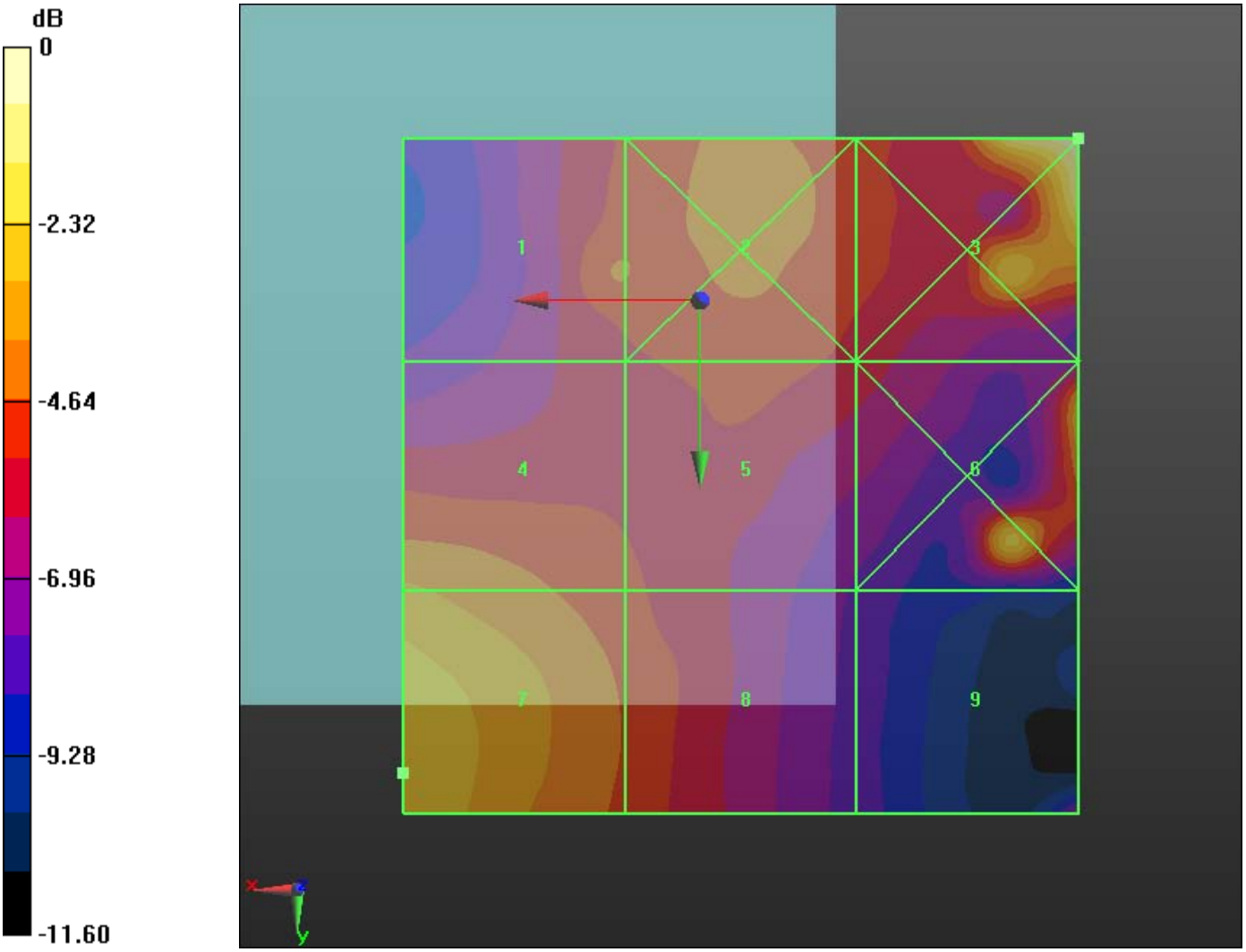
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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



0 dB = 0.170A/m