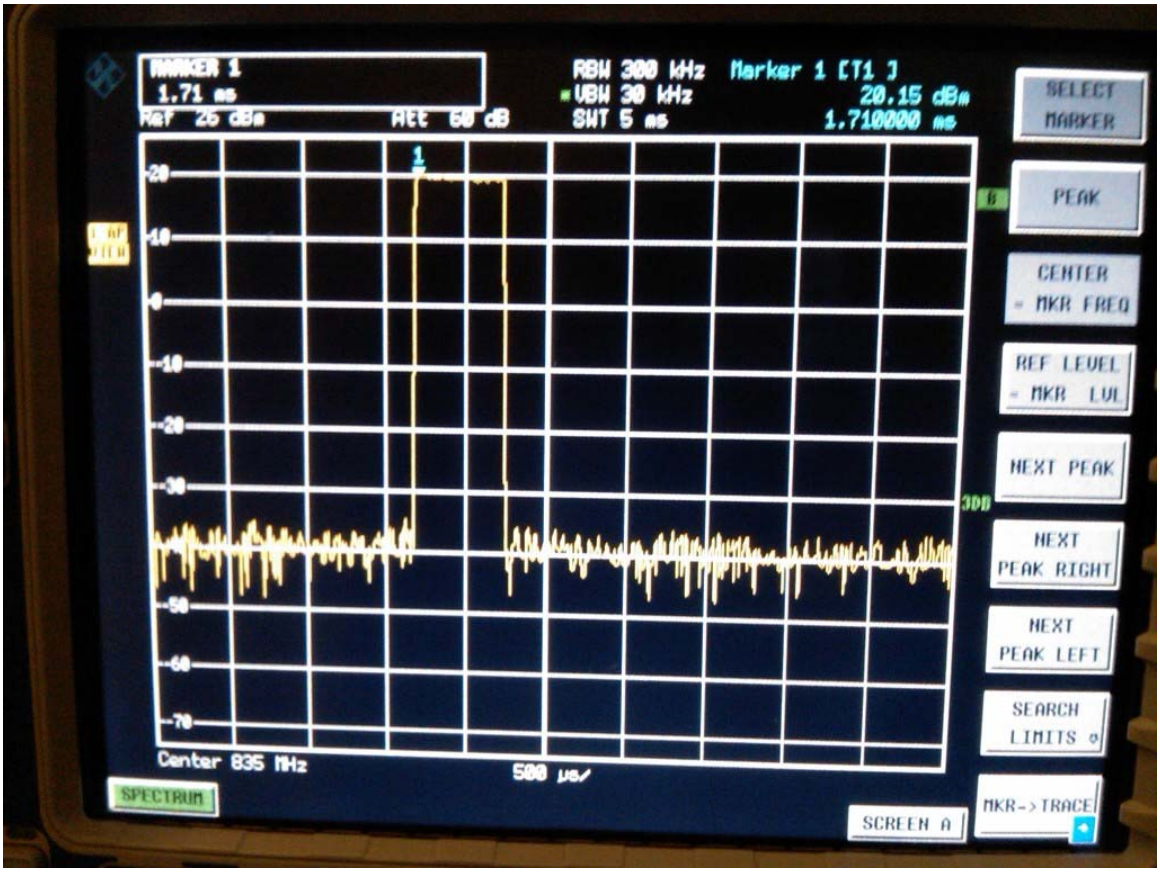
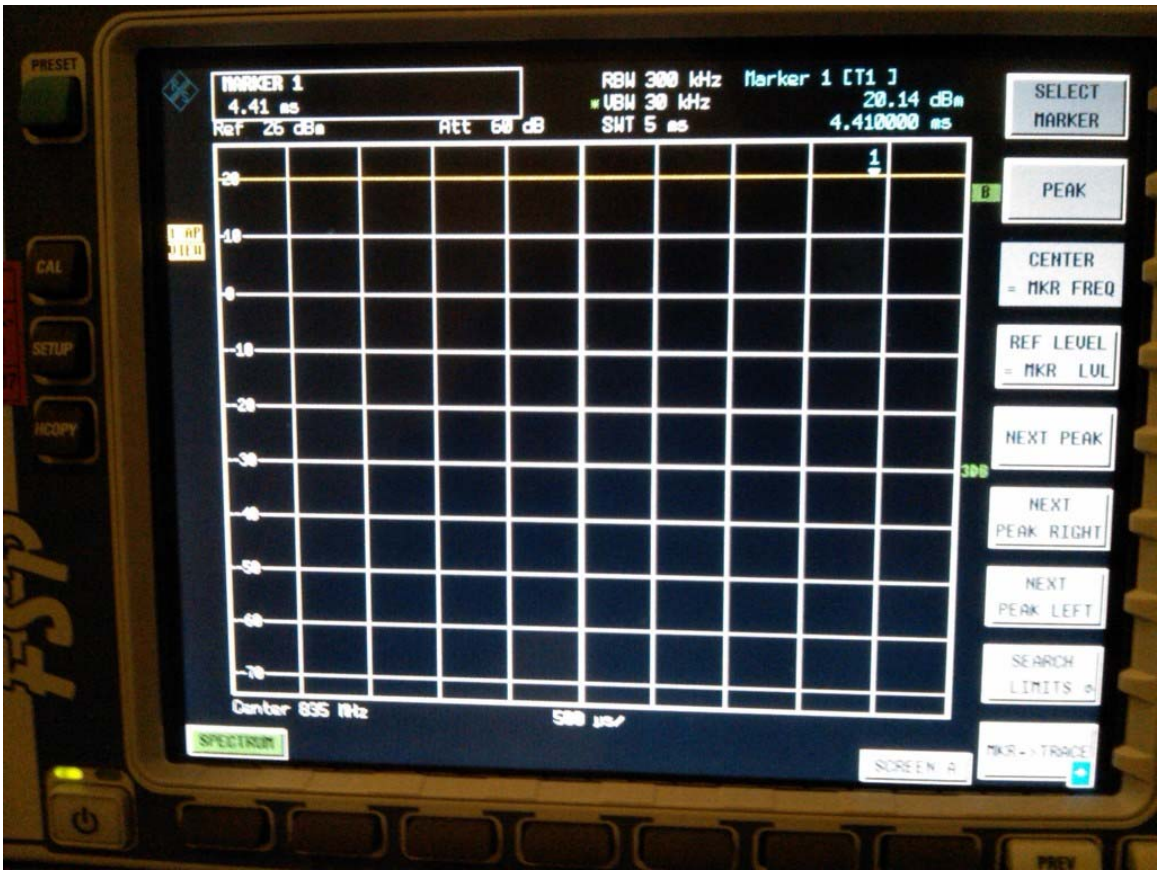
Annex A: Measurement data and plots

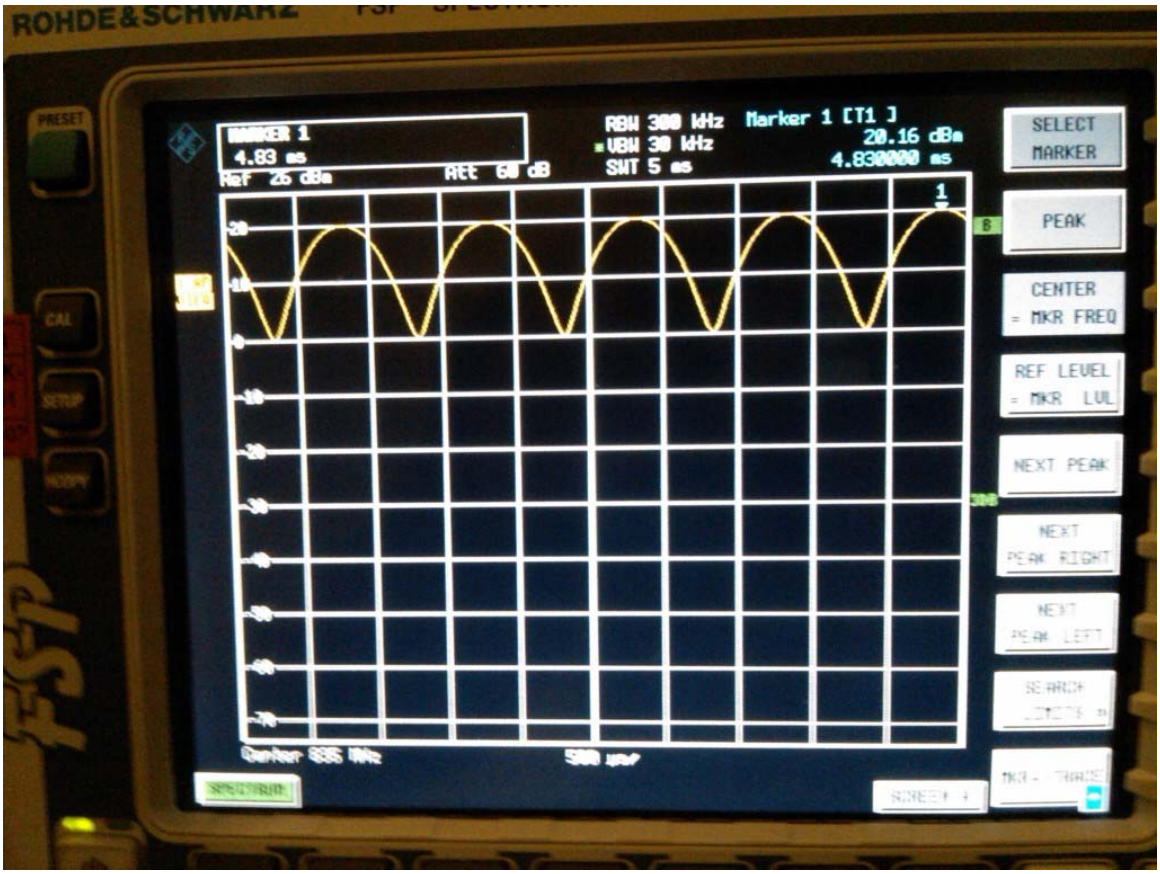
A.1 Spectrum analyser plots: GSM/CDMA/UMTS, CW, 80%AM, signals



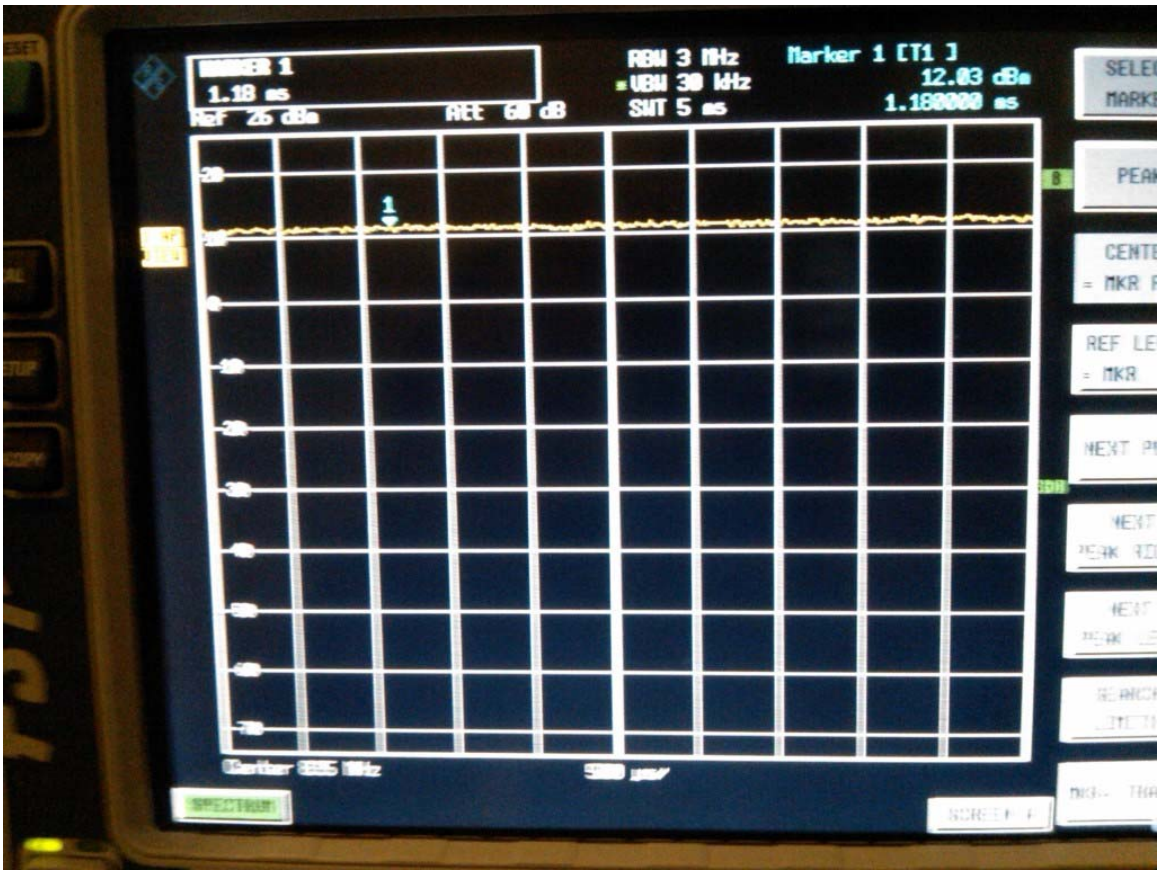
GSM 835 MHz



CW 835 MHz

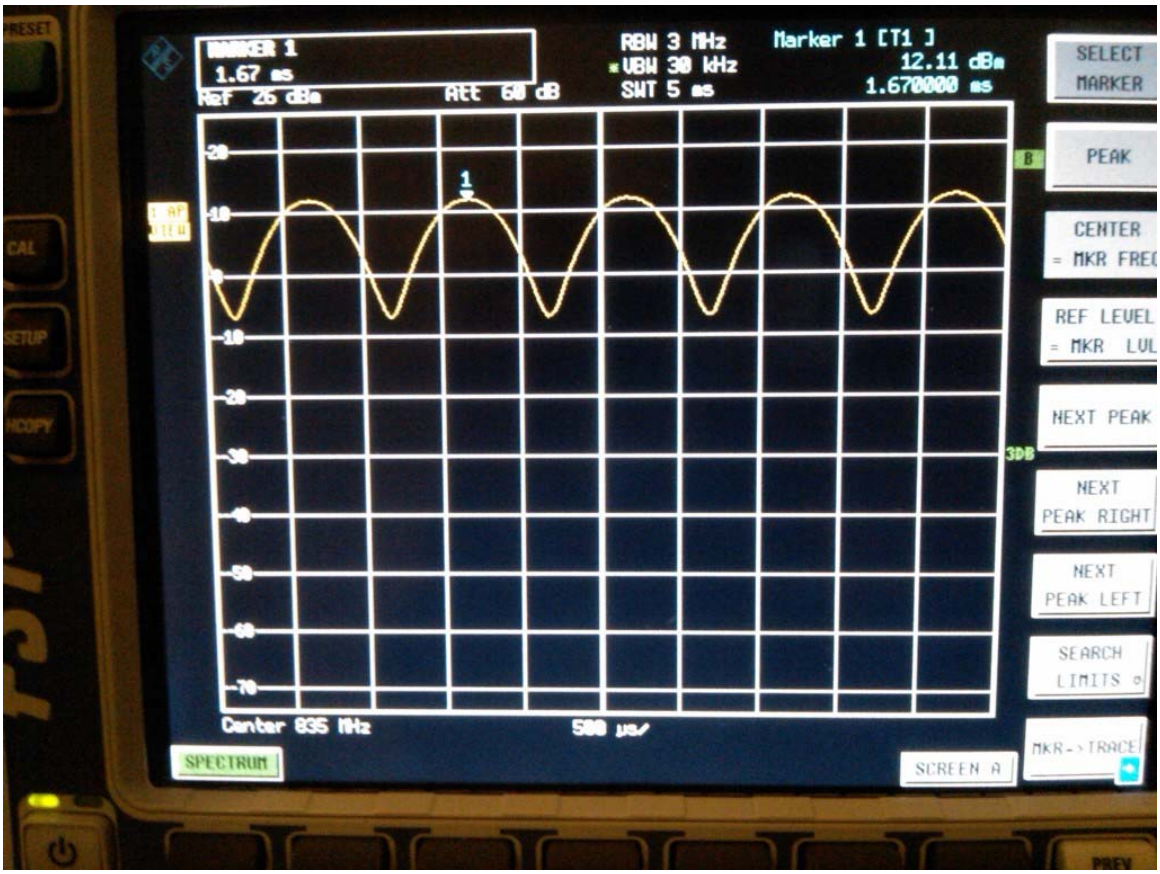


AM 80% 835 MHz

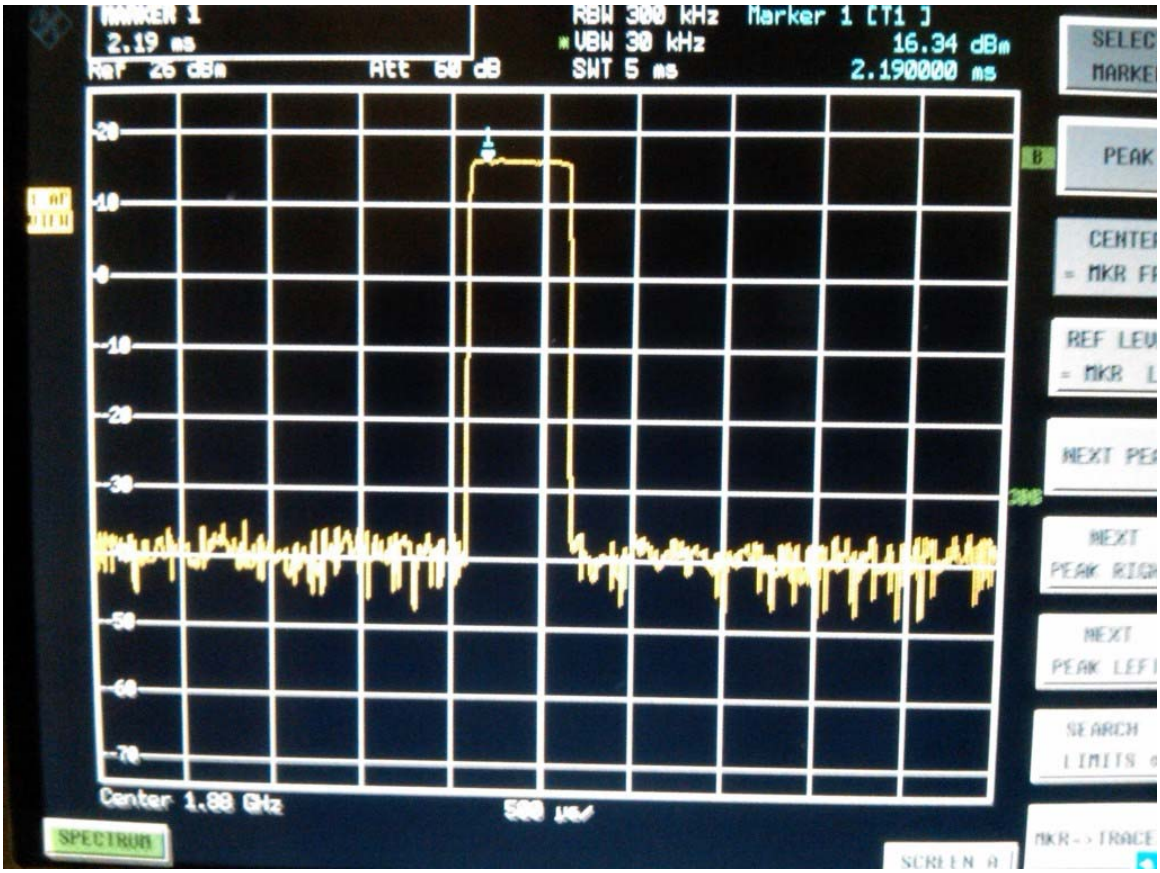


CDMA 835 MHz

CW 835 MHz

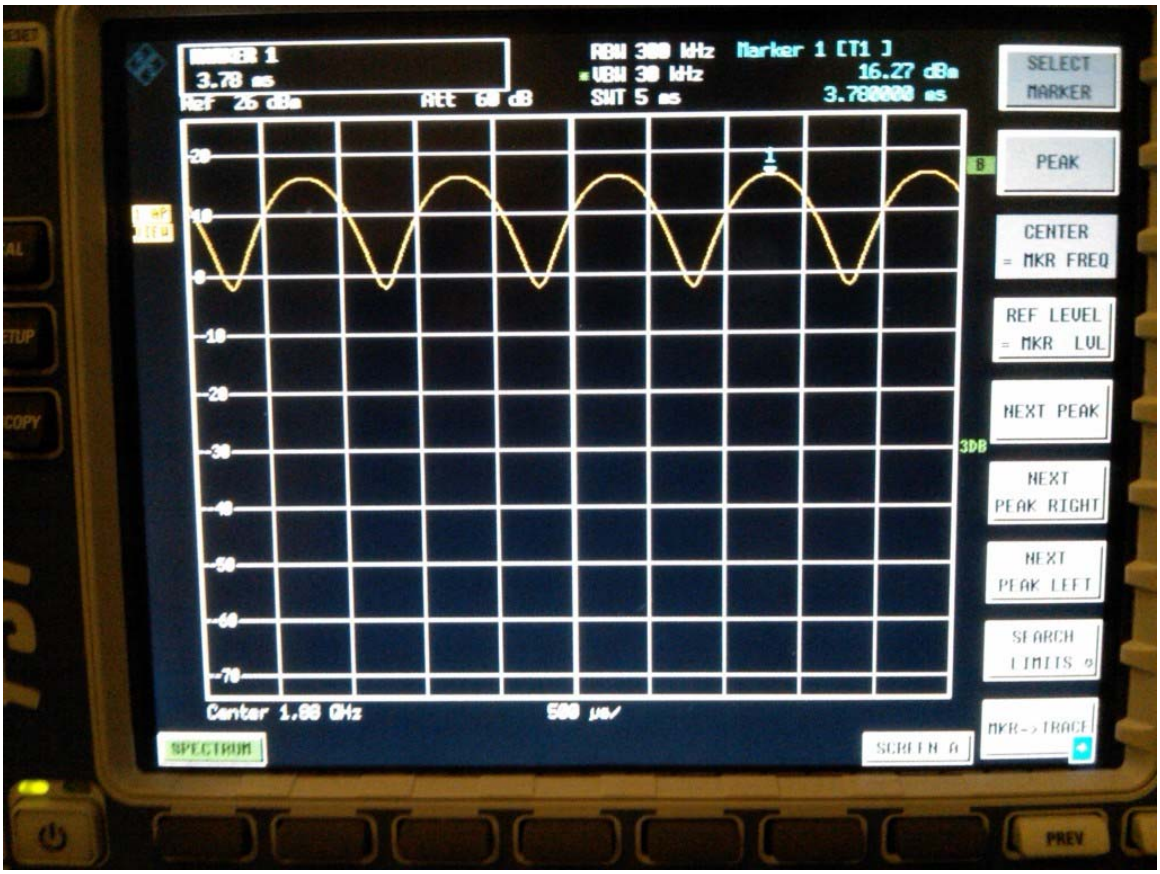


AM 80% 835 MHz



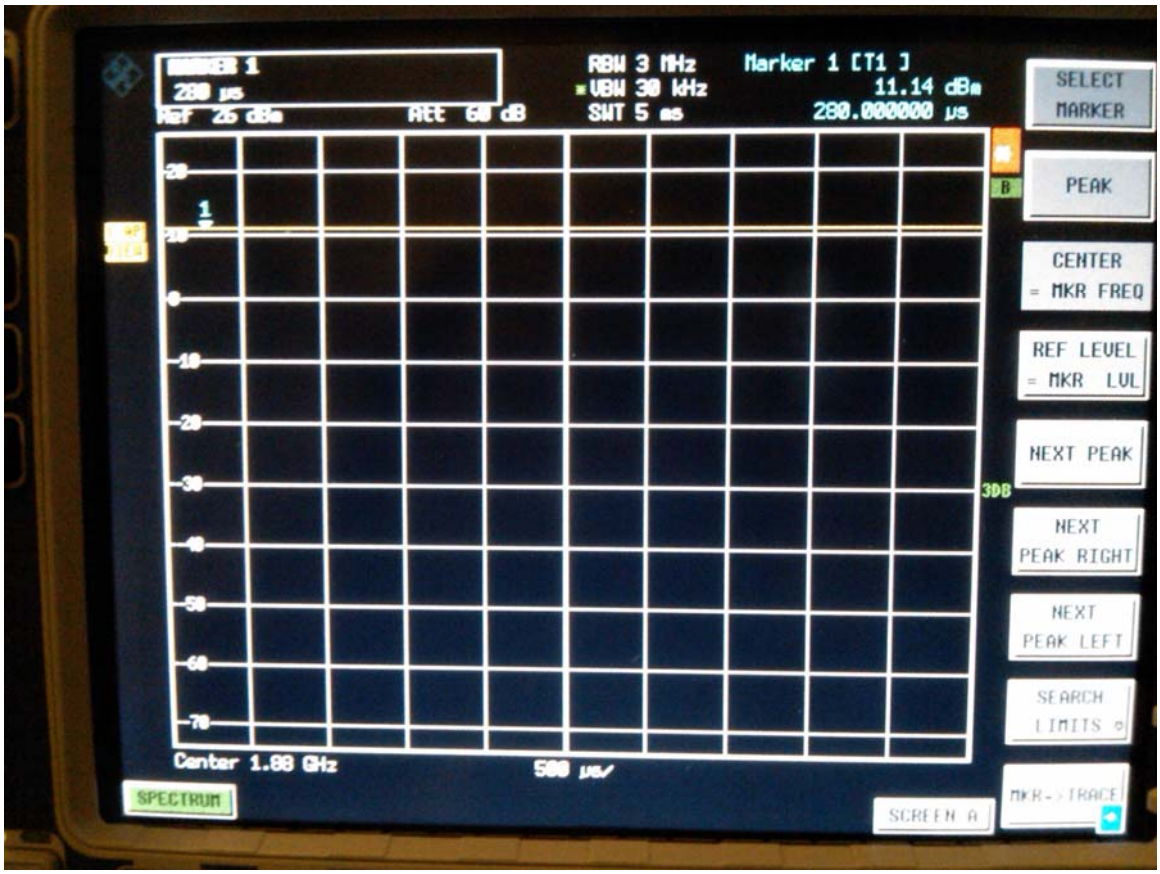
GSM 1880 MHz

CW 1880 MHz

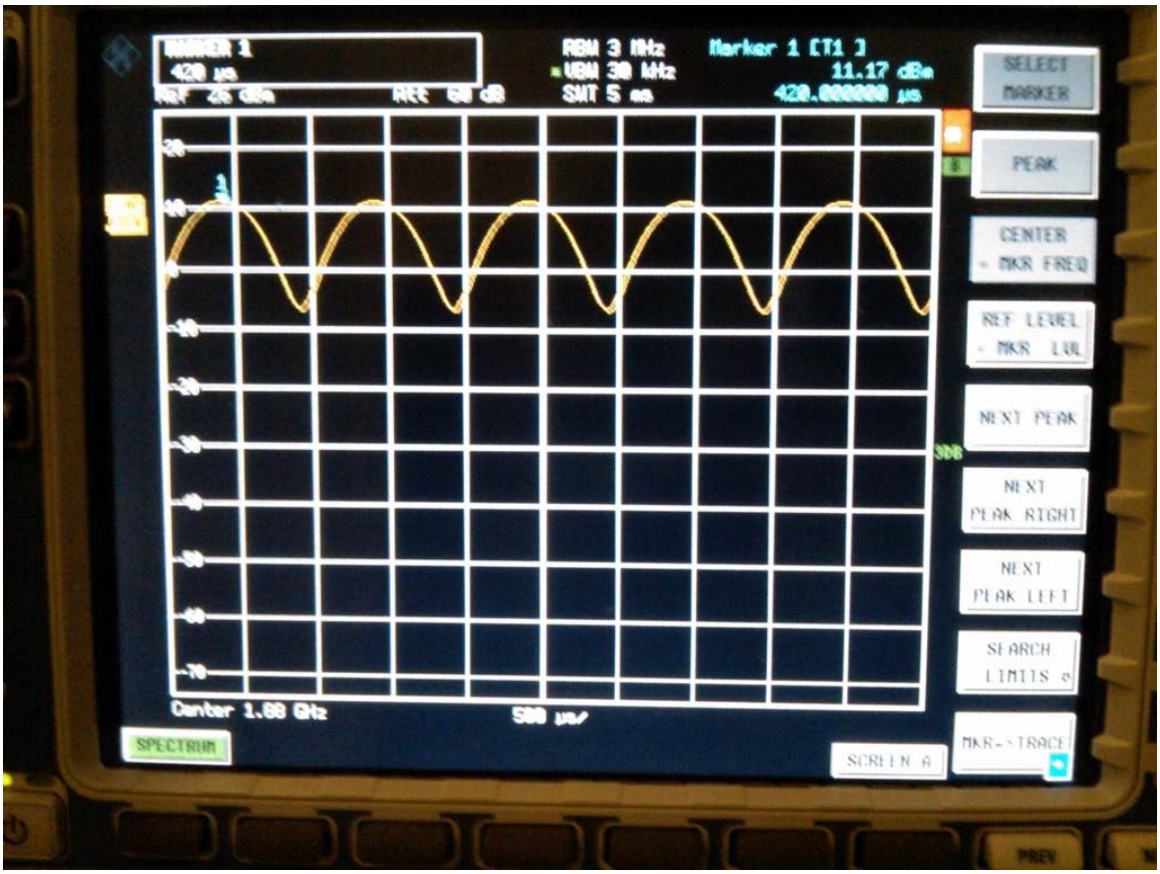


AM 80 % 1880 MHz

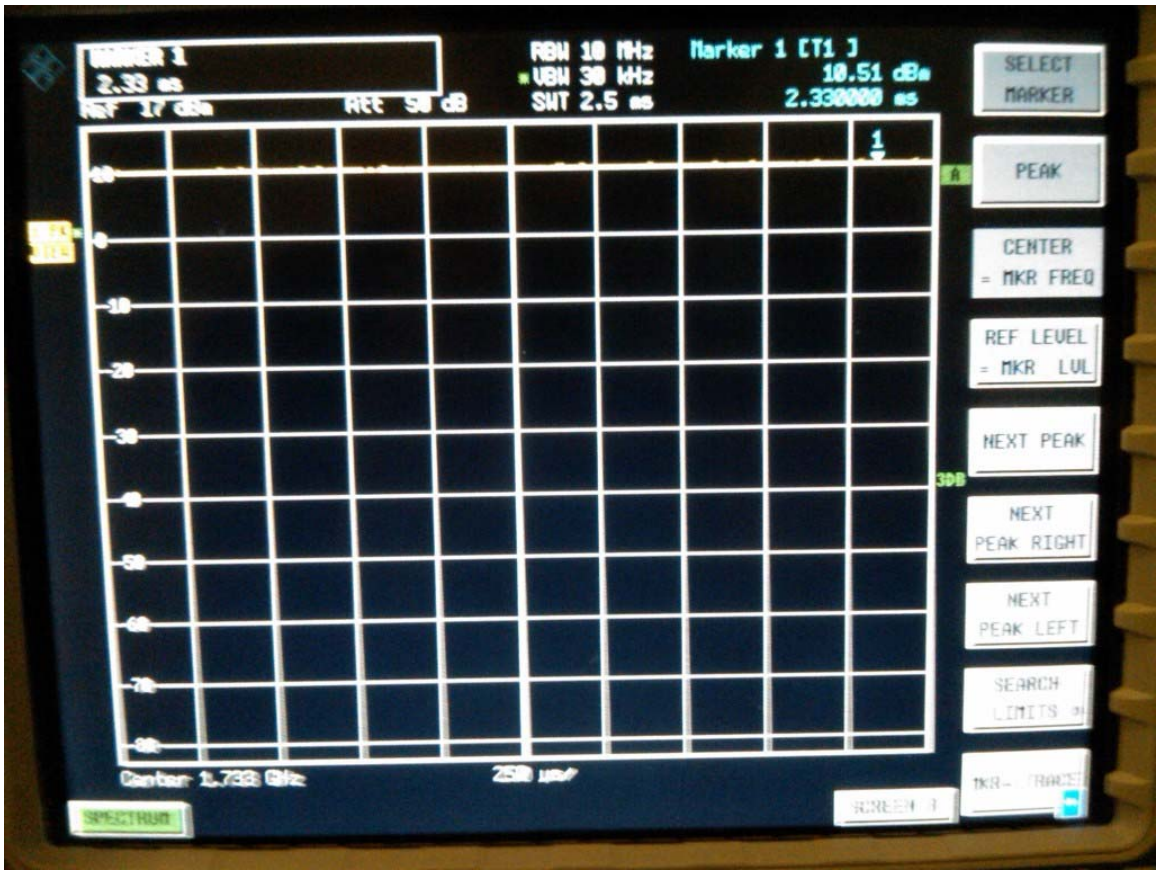
CDMA 1880 MHz



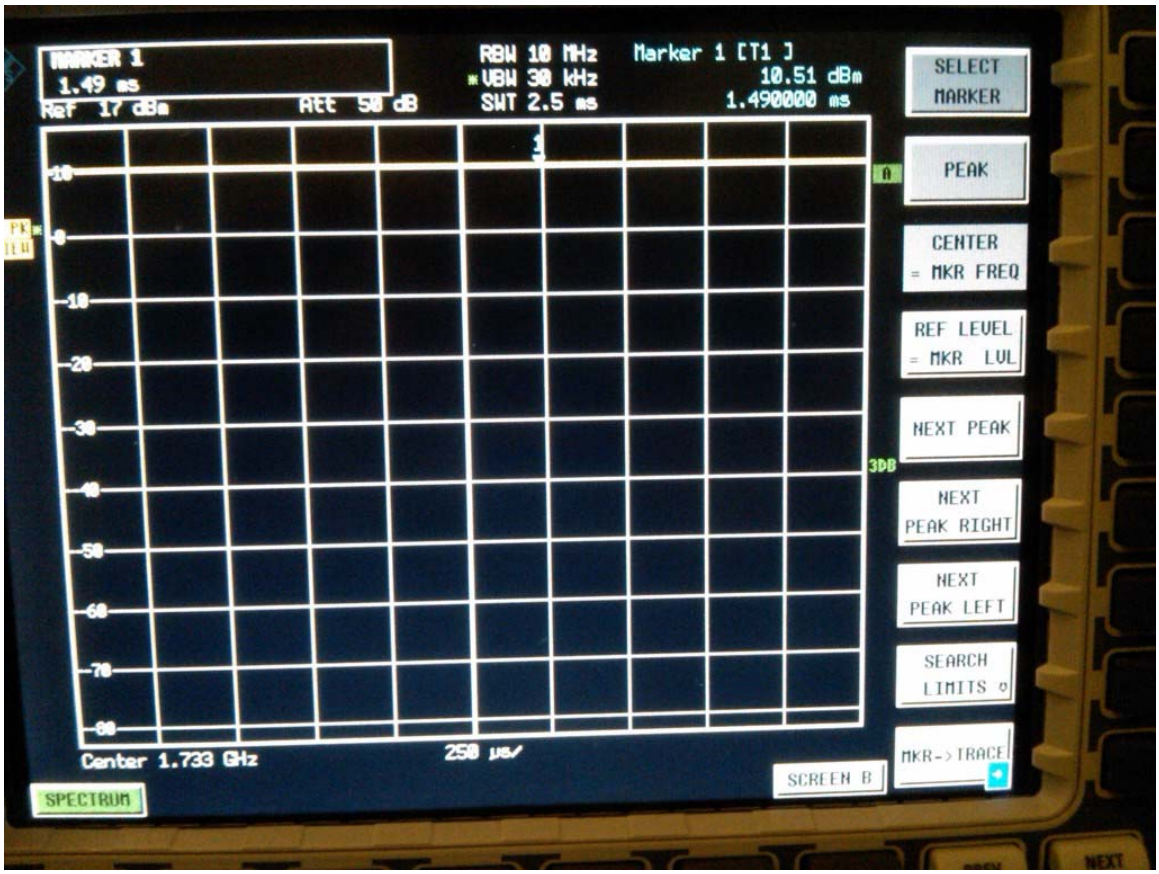
CW 1880 MHz



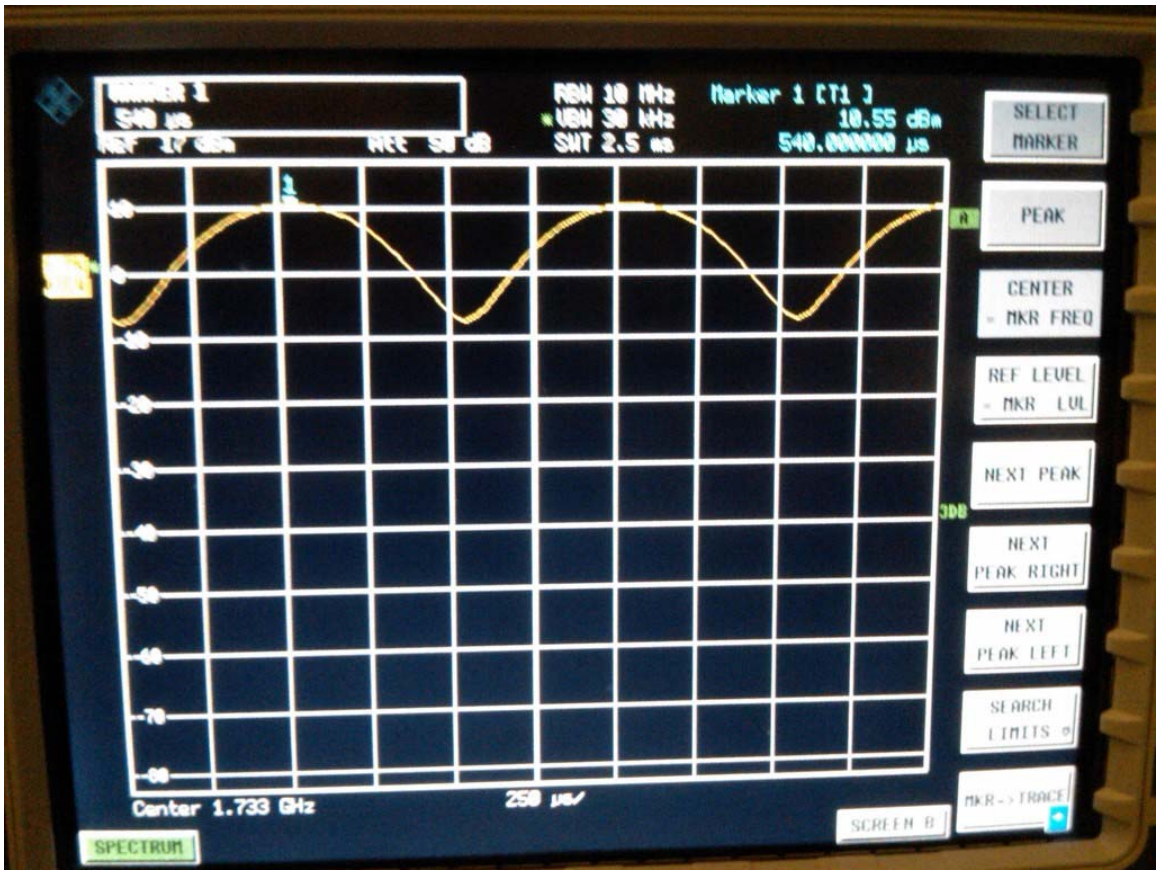
AM 80 % 1880 MHz



UMTS 1733 MHz



CW 1733 MHz



AM 80% 1733 MHz

A.2 Dipole validation and probe modulation factor plots

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz

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

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: 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)

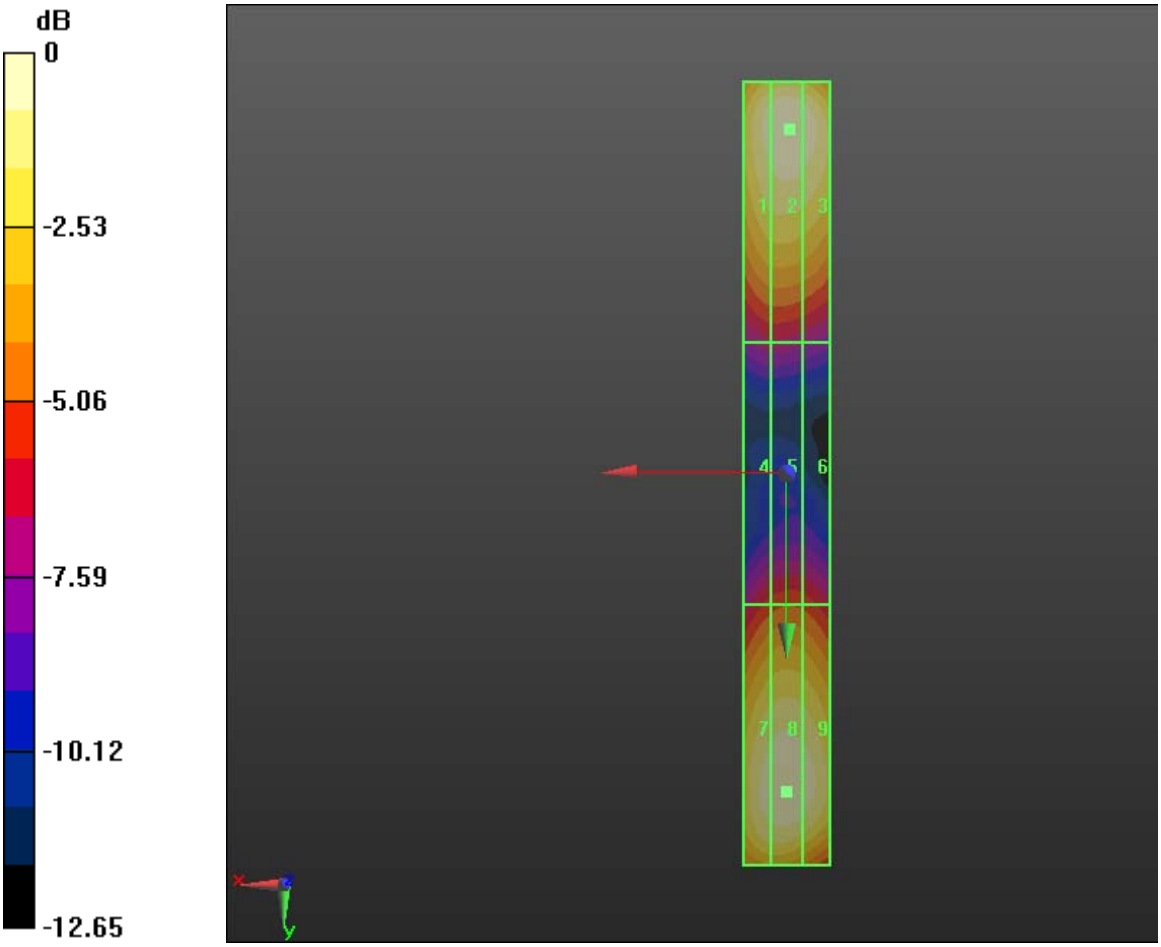
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 160.2 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 119.1 V/m; Power Drift = 0.28 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **154.3 M4**	Grid 2 **160.2 M4**	Grid 3 **156.7 M4**
Grid 4 **85.253 M4**	Grid 5 **88.903 M4**	Grid 6 **87.202 M4**
Grid 7 **155.3 M4**	Grid 8 **158.9 M4**	Grid 9 **155.3 M4**

Cursor:

Total = 160.2 V/m
E Category: M4
Location: -0.5, -79, 4.7 mm



0 dB = 160.2V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: GSM 850;; Frequency: 835 MHz;Communication System PAR: 9.191 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)

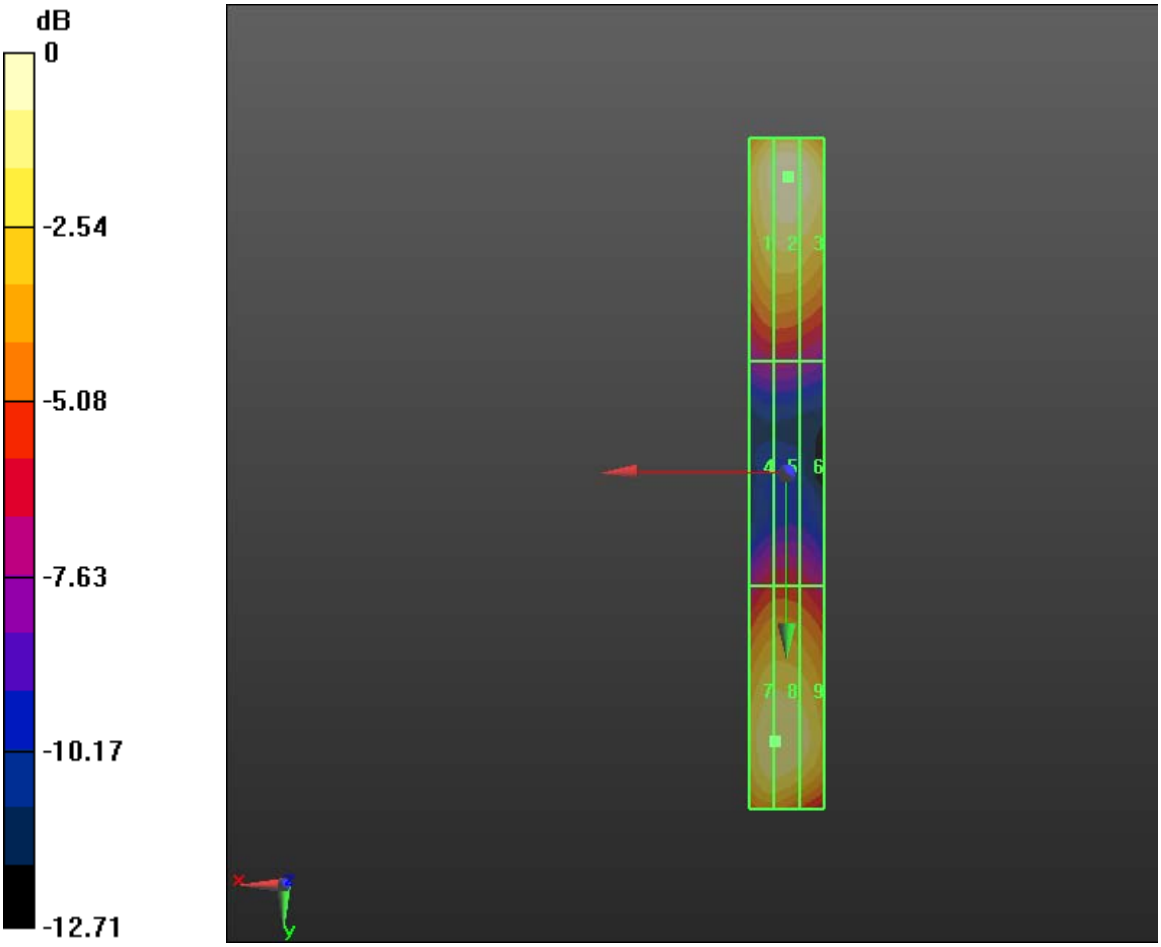
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 54.142 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 38.642 V/m; Power Drift = -0.06 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **51.408 M4**	Grid 2 **54.142 M4**	Grid 3 **52.509 M4**
Grid 4 **27.621 M4**	Grid 5 **27.841 M4**	Grid 6 **27.144 M4**
Grid 7 **49.045 M4**	Grid 8 **49.106 M4**	Grid 9 **47.011 M4**

Cursor:

Total = 54.142 V/m
E Category: M4
Location: -0.5, -79.5, 4.7 mm



0 dB = 54.140V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

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:
- 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)

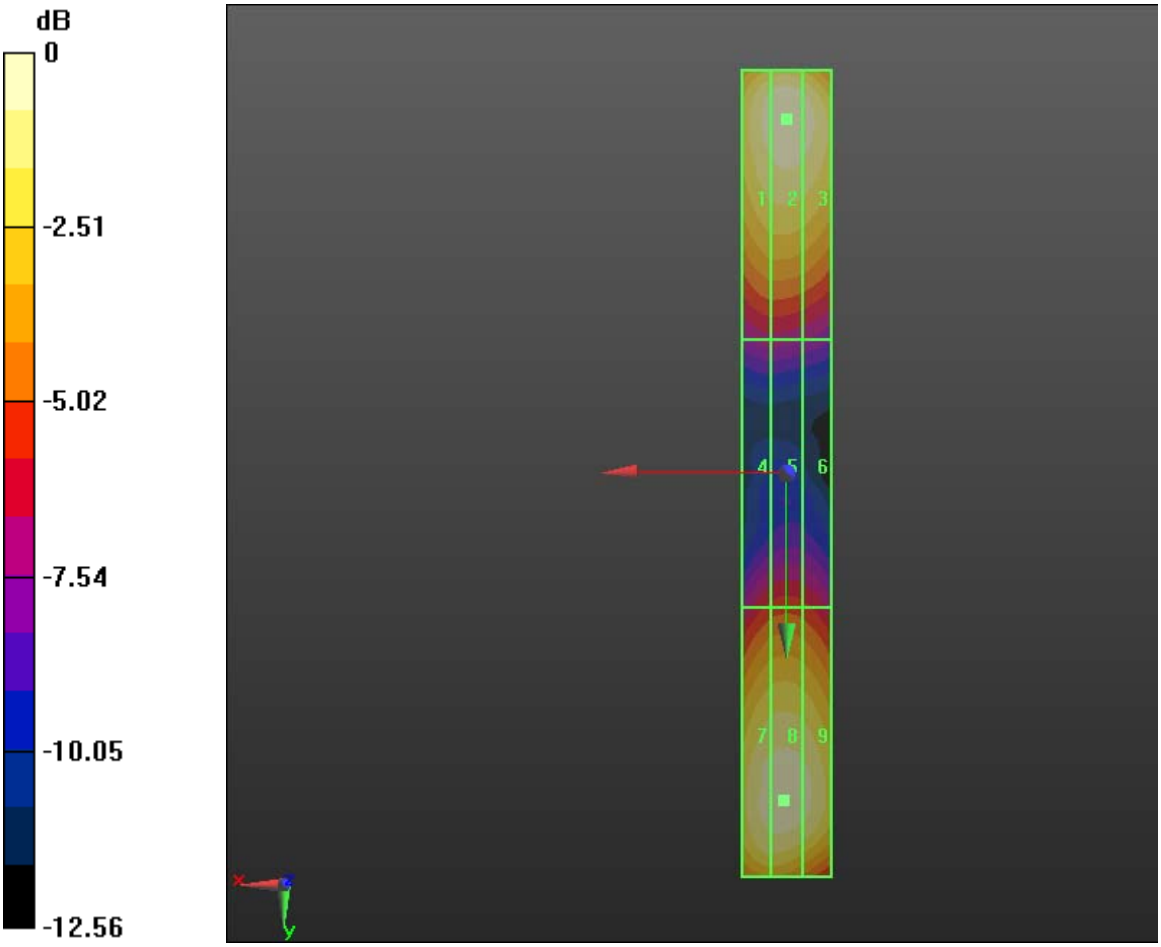
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 159.3 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 120.6 V/m; Power Drift = -0.10 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **153.1 M4**	Grid 2 **159.3 M4**	Grid 3 **154.5 M4**
Grid 4 **8066 M4**	Grid 5 **86.943 M4**	Grid 6 **84.863 M4**
Grid 7 **153.2 M4**	Grid 8 **154.9 M4**	Grid 9 **151.1 M4**

Cursor:

Total = 159.3 V/m
E Category: M4
Location: 0, -79, 4.7 mm



0 dB = 159.3V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; 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: 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)

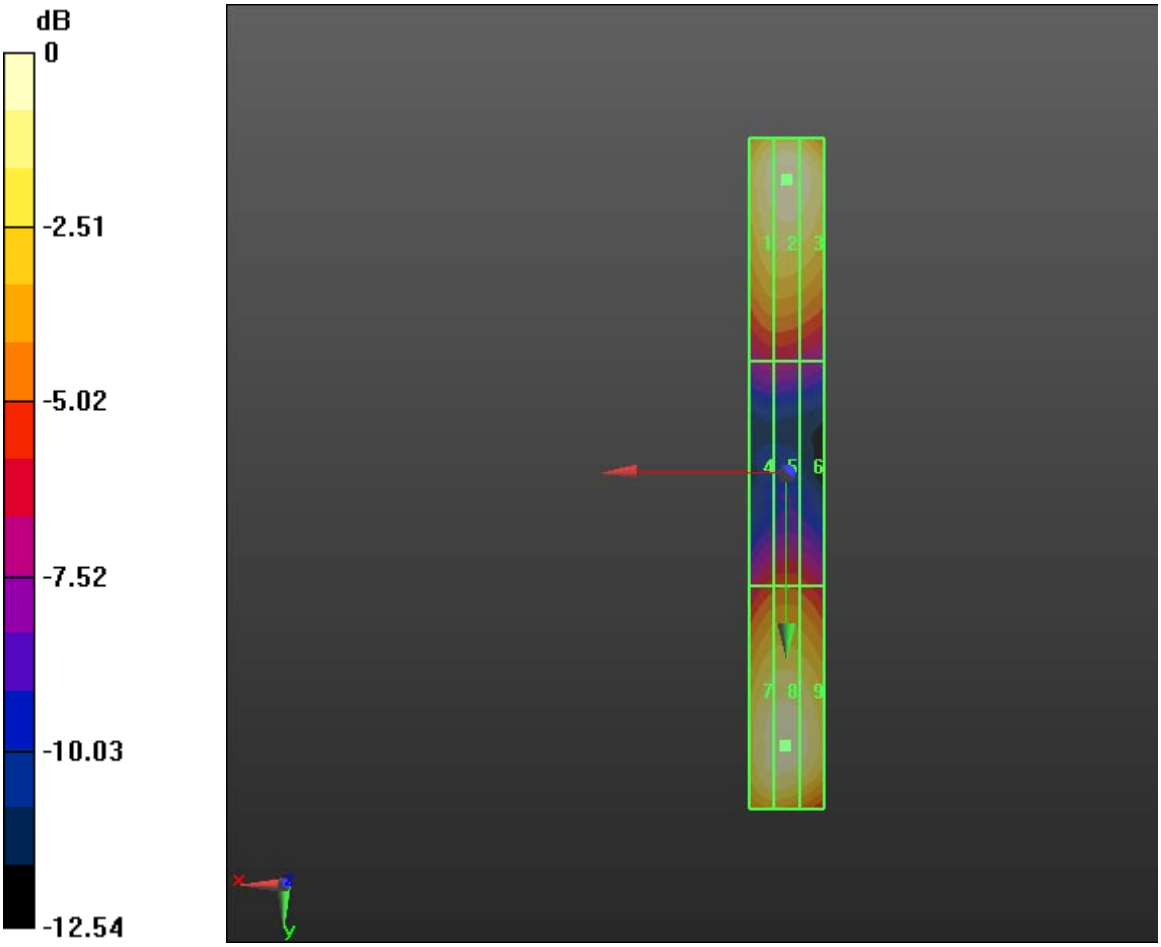
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 99.820 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 74.981 V/m; Power Drift = -0.17 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **96.553 M4**	Grid 2 **99.820 M4**	Grid 3 **97.313 M4**
Grid 4 **54.091 M4**	Grid 5 **55.431 M4**	Grid 6 **53.882 M4**
Grid 7 **95.955 M4**	Grid 8 **97.176 M4**	Grid 9 **95.117 M4**

Cursor:

Total = 99.821 V/m
E Category: M4
Location: 0, -79, 4.7 mm



0 dB = 99.820V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CDMA 800; 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)

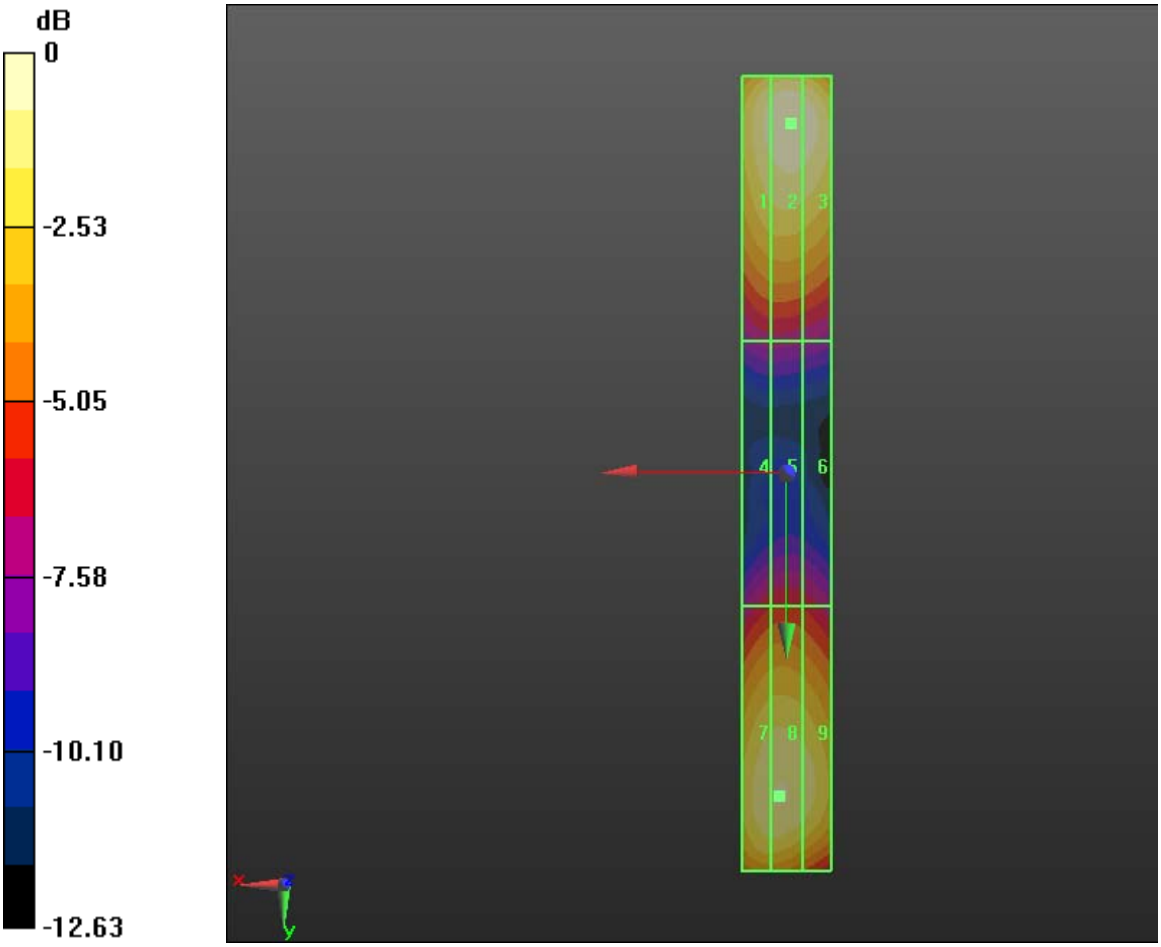
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 63.653 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
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

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

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: 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)

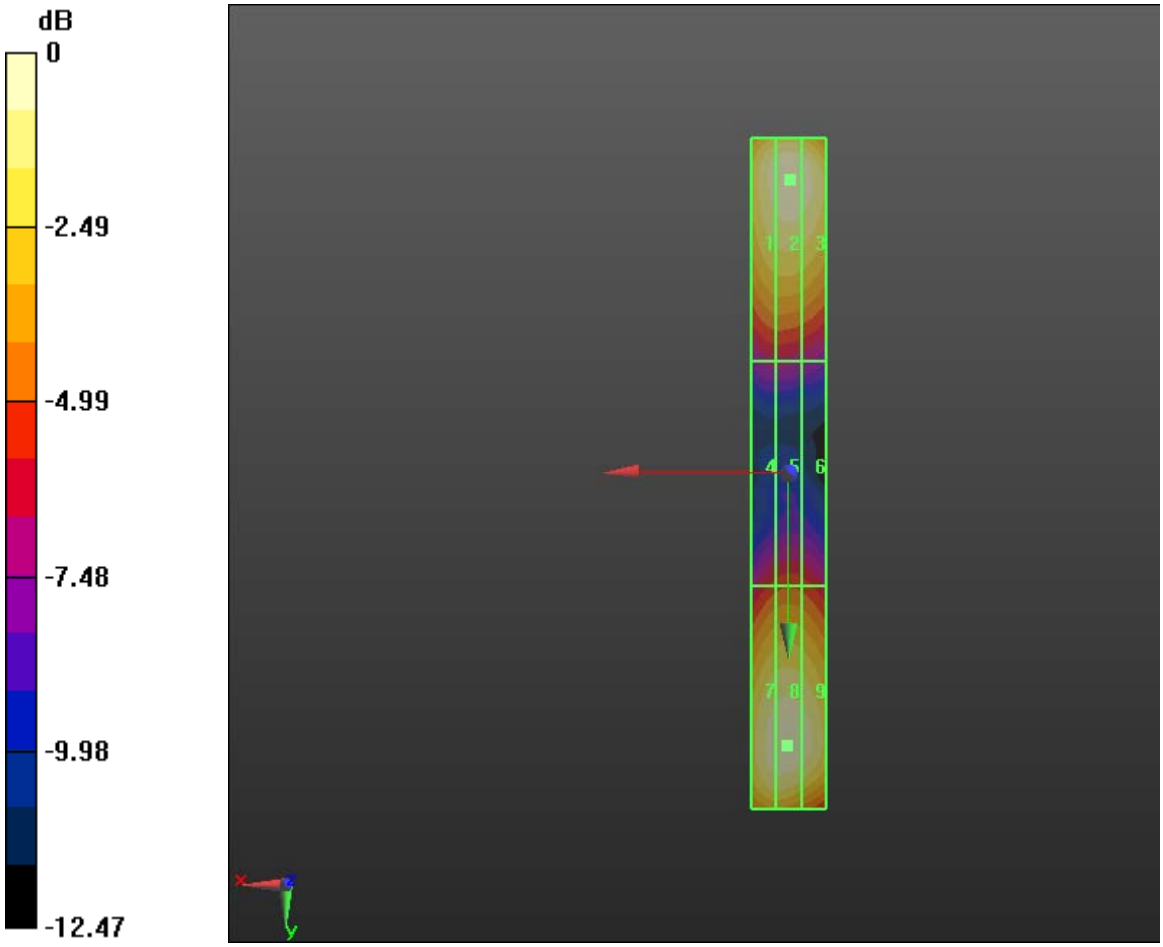
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 62.994 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 48.064 V/m; Power Drift = 0.07 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **60.423 M4**	Grid 2 **62.994 M4**	Grid 3 **61.497 M4**
Grid 4 **33.852 M4**	Grid 5 **34.972 M4**	Grid 6 **34.054 M4**
Grid 7 **60.979 M4**	Grid 8 **62.079 M4**	Grid 9 **60.453 M4**

Cursor:

Total = 62.994 V/m
E Category: M4
Location: -0.5, -79, 4.7 mm



0 dB = 62.990V/m

Date/Time: 3/22/2011 3:31:14 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; 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: 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)

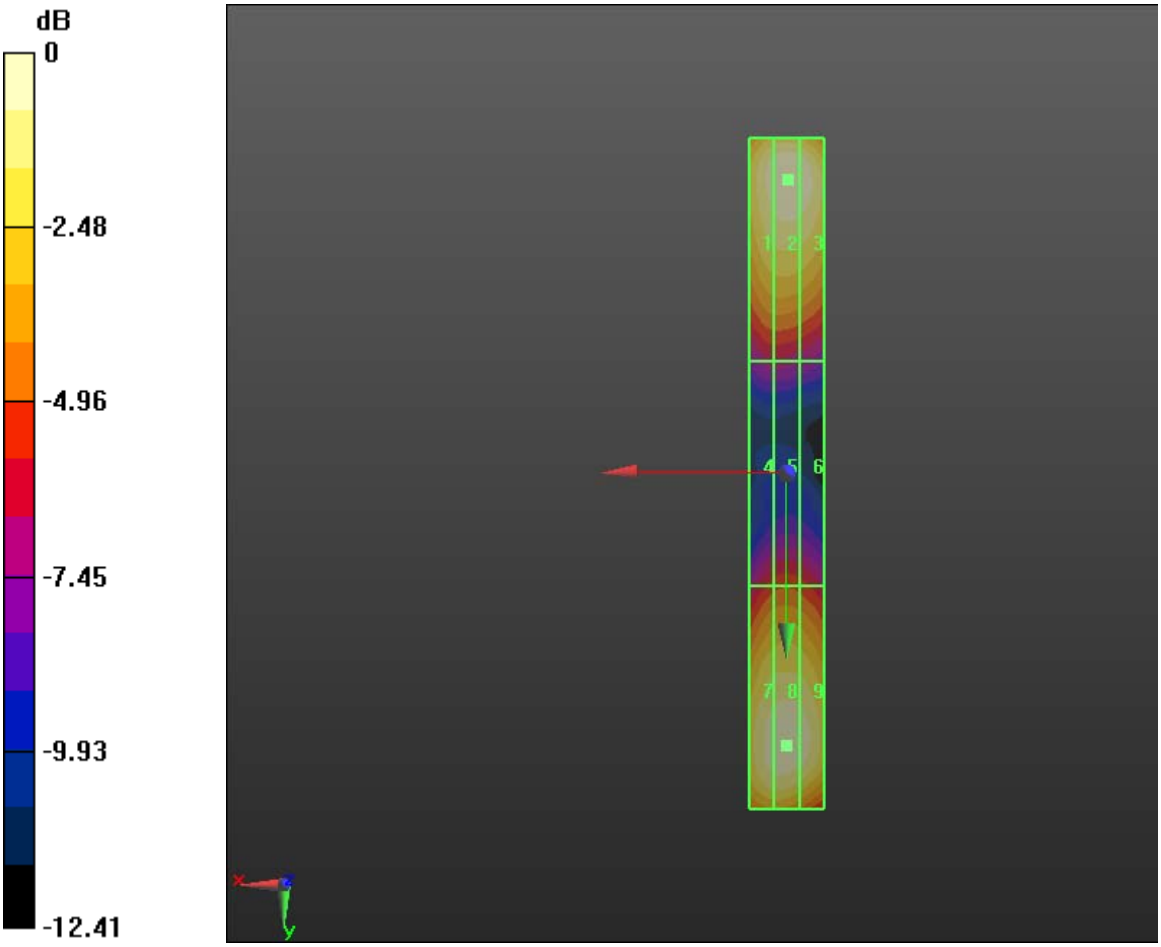
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 40.248 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 30.394 V/m; Power Drift = 0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **38.736 M4**	Grid 2 **40.248 M4**	Grid 3 **39.607 M4**
Grid 4 **21.813 M4**	Grid 5 **22.486 M4**	Grid 6 **21.734 M4**
Grid 7 **38.792 M4**	Grid 8 **39.696 M4**	Grid 9 **38.886 M4**

Cursor:

Total = 40.248 V/m
E Category: M4
Location: -0.5, -79, 4.7 mm



0 dB = 40.250V/m

Date/Time: 3/22/2011 4:50:23 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

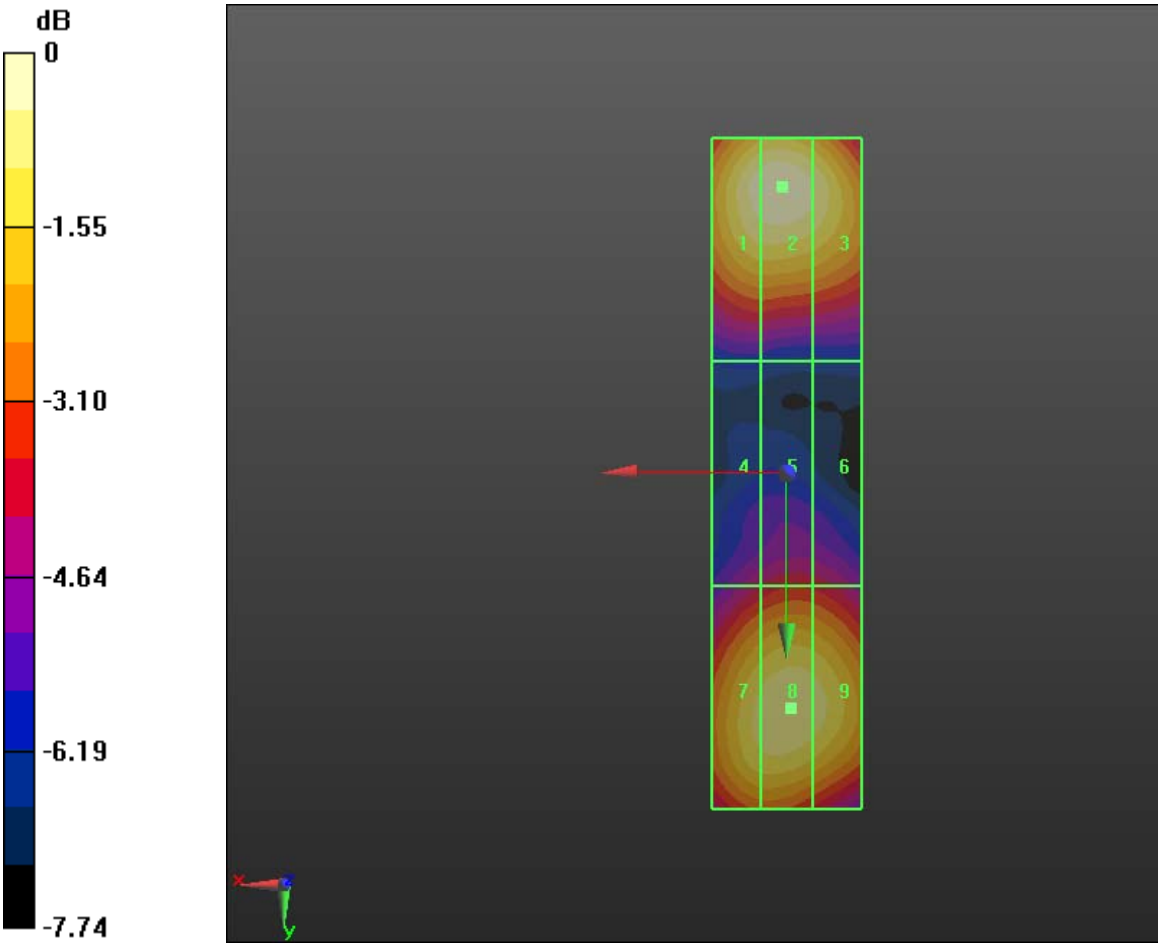
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 133.2 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 124.8 V/m; Power Drift = -0.0086 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **130.6 M2**	Grid 2 **133.2 M2**	Grid 3 **126.2 M2**
Grid 4 **83.013 M3**	Grid 5 **87.500 M3**	Grid 6 **86.528 M3**
Grid 7 **121.2 M2**	Grid 8 **124.7 M2**	Grid 9 **122.2 M2**

Cursor:

Total = 133.2 V/m
E Category: M2
Location: 0.5, -38.5, 4.7 mm



0 dB = 133.2V/m

Date/Time: 3/22/2011 4:54:49 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM_1880 MHz_R2

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: GSM 1900; Frequency: 1880 MHz;Communication System PAR: 9.191 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)

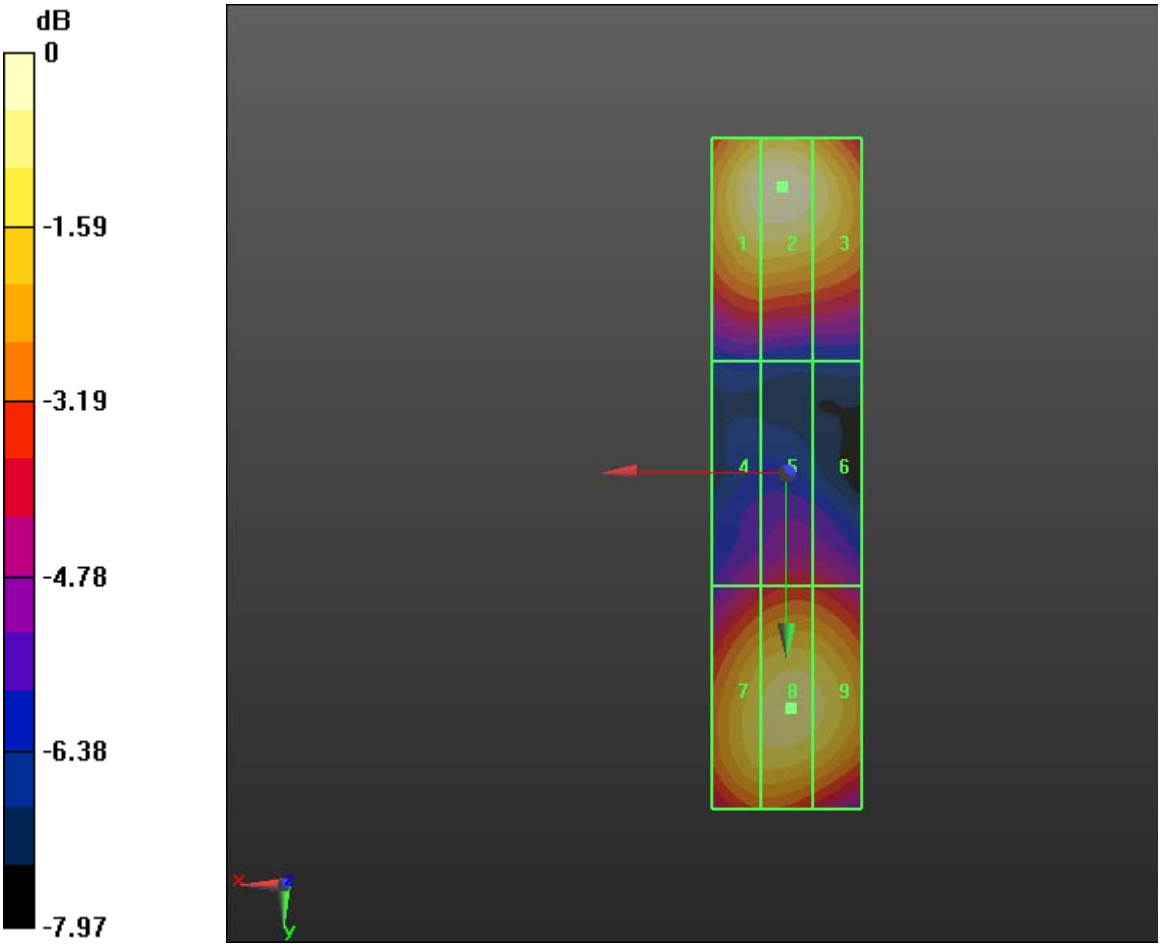
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 27.663 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 25.374 V/m; Power Drift = 0.02 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **27.050 M4**	Grid 2 **27.663 M4**	Grid 3 **26.052 M4**
Grid 4 **17.031 M4**	Grid 5 **18.013 M4**	Grid 6 **17.833 M4**
Grid 7 **2036 M4**	Grid 8 **25.539 M4**	Grid 9 **25.116 M4**

Cursor:

Total = 27.663 V/m
E Category: M4
Location: 0.5, -38.5, 4.7 mm



0 dB = 27.660V/m

Date/Time: 3/23/2011 12:08:40 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

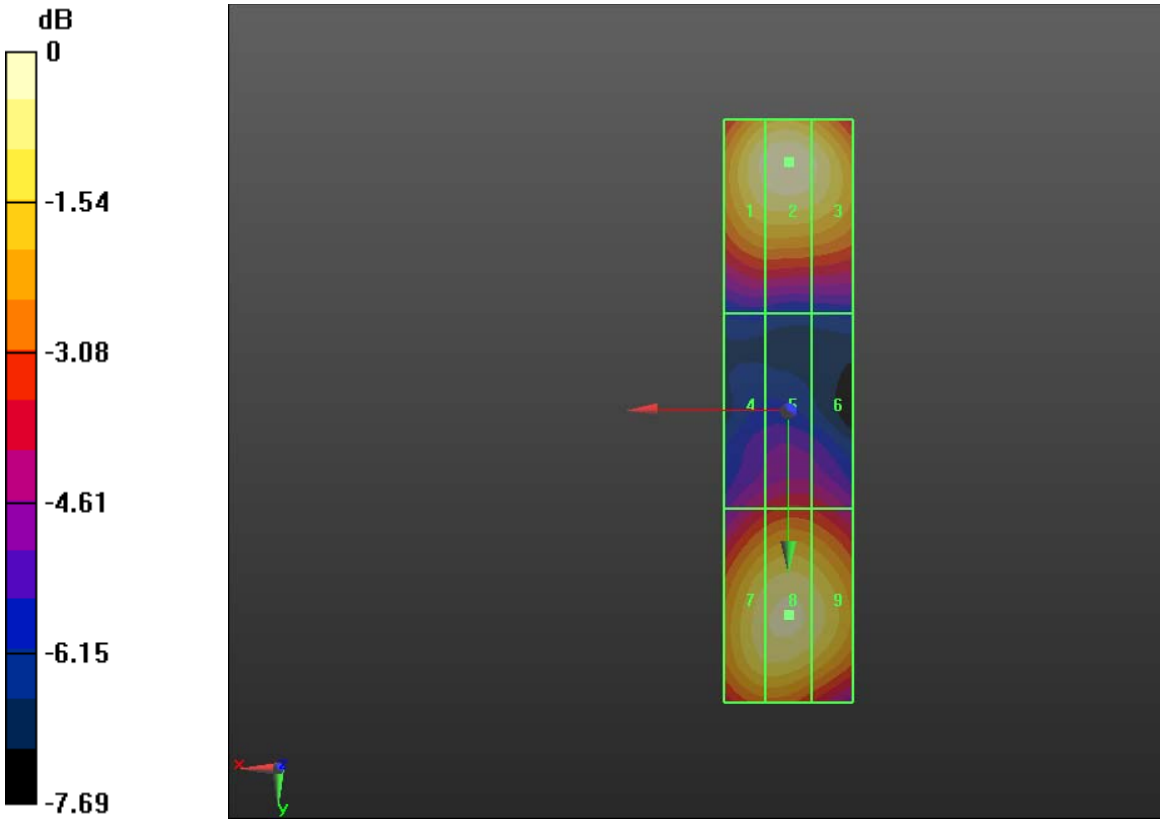
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 82.216 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 78.932 V/m; Power Drift = 0.0039 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **79.692 M3**	Grid 2 **82.216 M3**	Grid 3 **79.228 M3**
Grid 4 **52.849 M4**	Grid 5 **55.292 M4**	Grid 6 **54.232 M4**
Grid 7 **76.960 M3**	Grid 8 **78.815 M3**	Grid 9 **76.489 M3**

Cursor:

Total = 82.216 V/m
E Category: M3
Location: 0, -38.5, 4.7 mm



0 dB = 82.220V/m

Date/Time: 3/22/2011 4:12:07 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; 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
- 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)

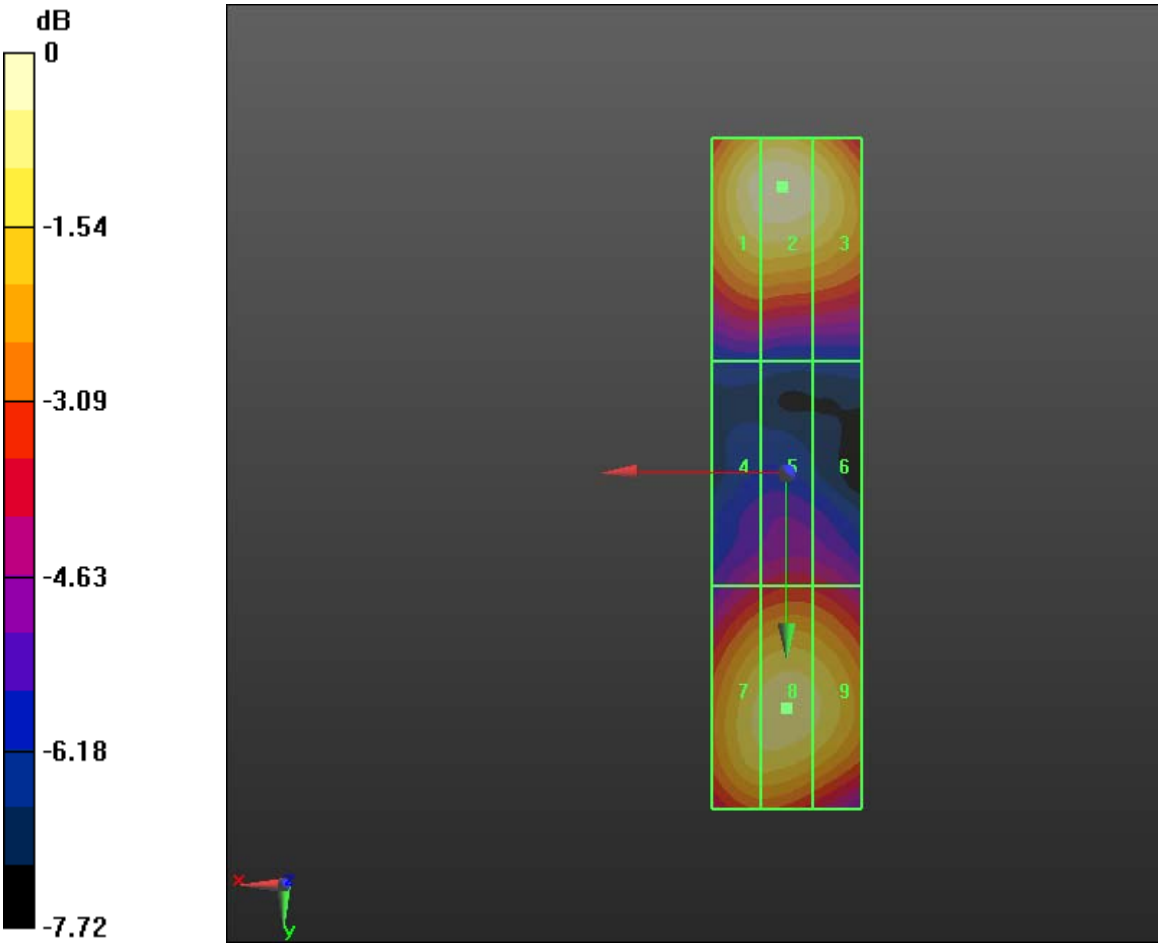
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 53.337 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 49.939 V/m; Power Drift = -0.09 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **52.377 M4**	Grid 2 **53.337 M4**	Grid 3 **50.671 M4**
Grid 4 **3062 M4**	Grid 5 **35.058 M4**	Grid 6 **3043 M4**
Grid 7 **48.429 M4**	Grid 8 **49.374 M4**	Grid 9 **48.243 M4**

Cursor:

Total = 53.337 V/m
E Category: M4
Location: 0.5, -38.5, 4.7 mm



0 dB = 53.340V/m

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

Communication System: WCDMA FDD II; 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)

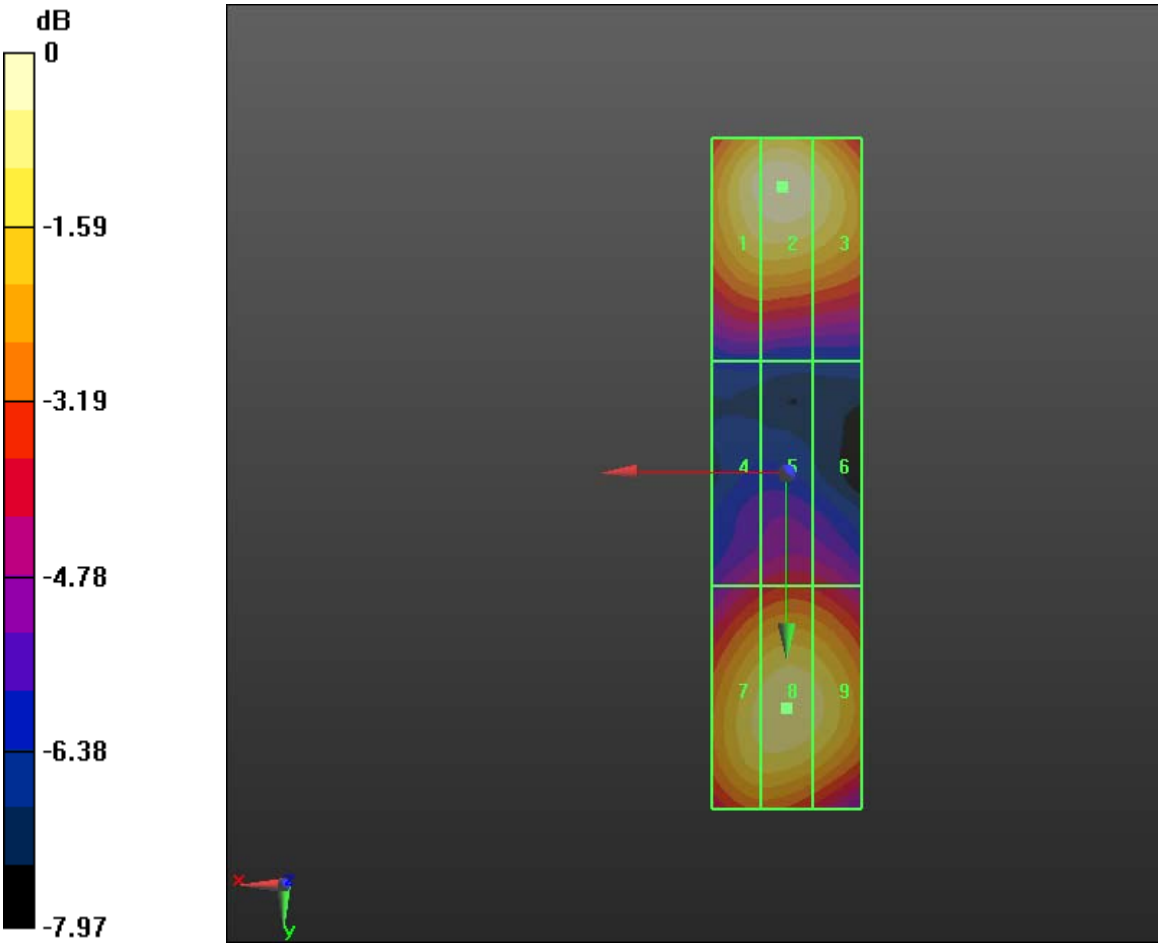
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 43.150 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
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: 3/23/2011 12:23:00 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW1880 MHz_CDMA_

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

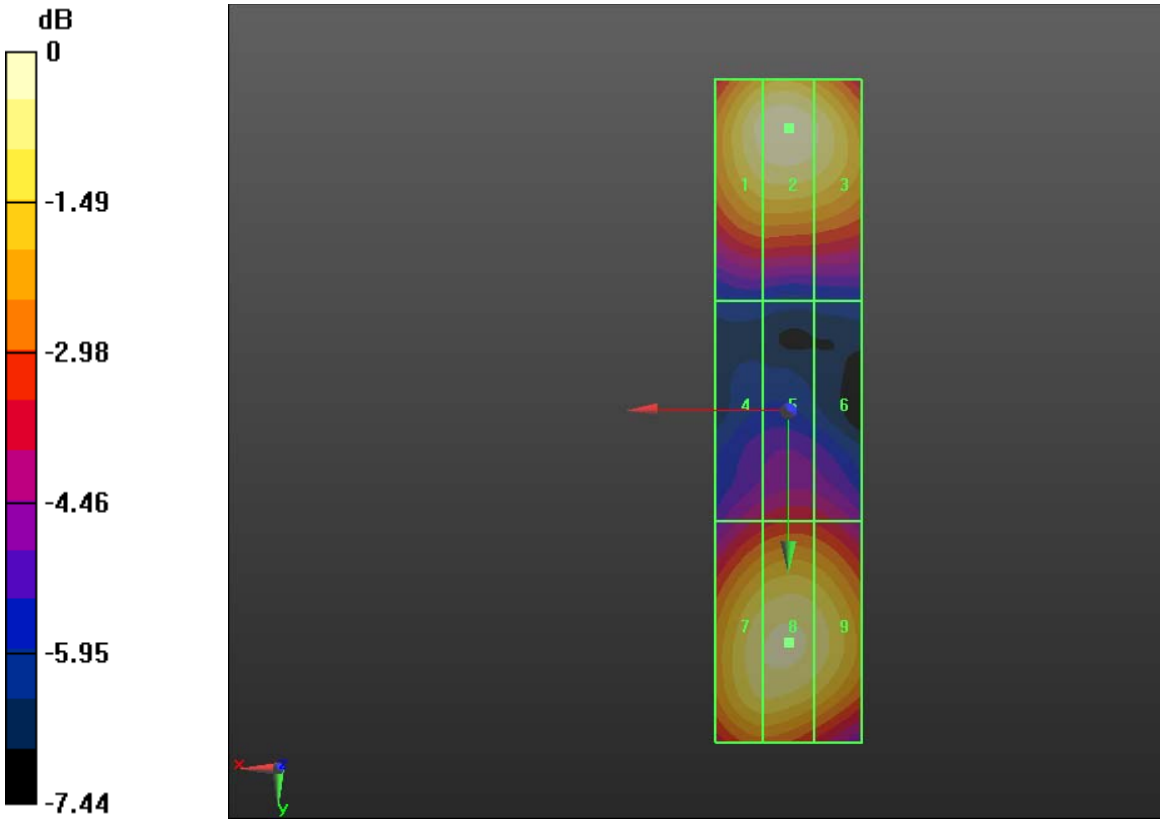
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 45.598 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 43.399 V/m; Power Drift = 0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **44.340 M4**	Grid 2 **45.598 M4**	Grid 3 **43.792 M4**
Grid 4 **29.598 M4**	Grid 5 **30.871 M4**	Grid 6 **30.339 M4**
Grid 7 **42.981 M4**	Grid 8 **43.734 M4**	Grid 9 **42.515 M4**

Cursor:

Total = 45.598 V/m
E Category: M4
Location: 0, -38.5, 4.7 mm



0 dB = 45.600V/m

Date/Time: 3/22/2011 4:34:04 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; 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
- 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)

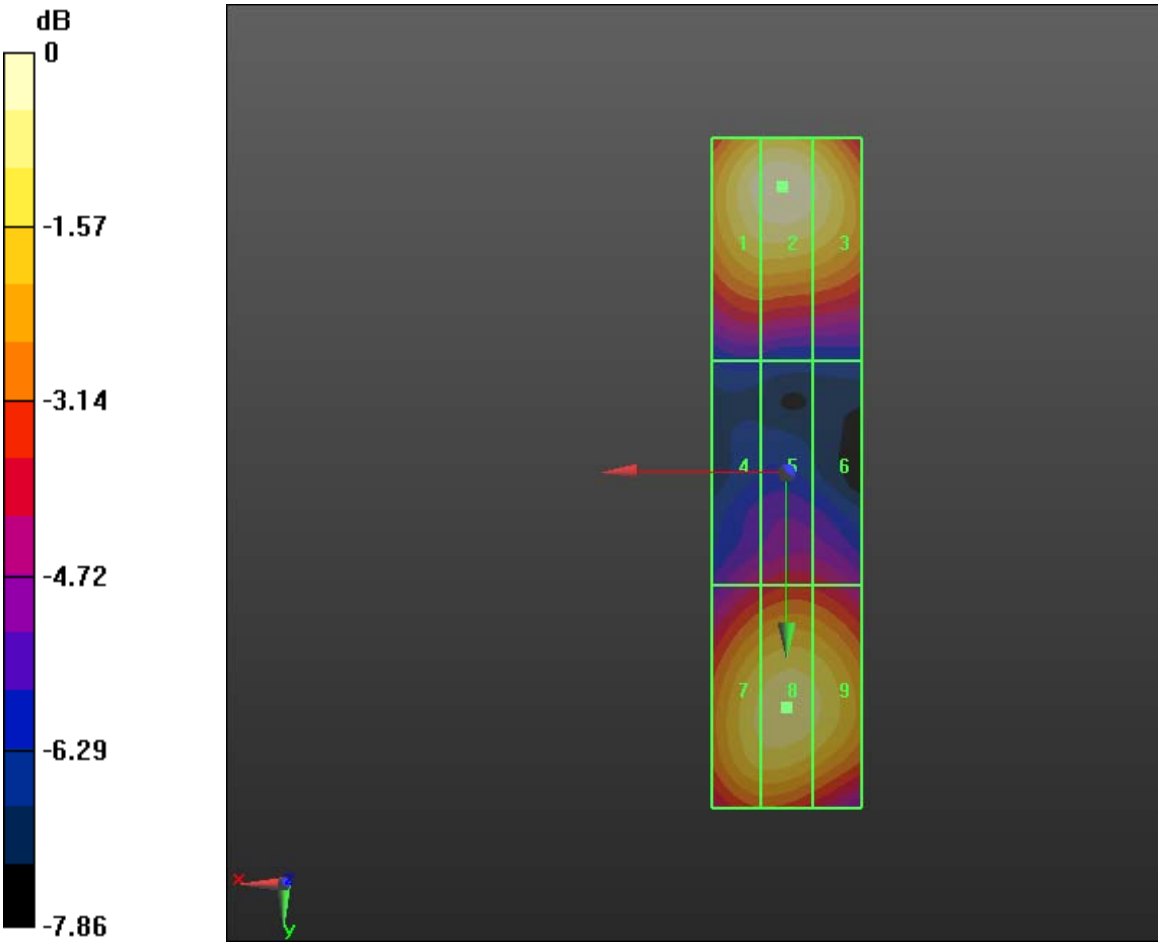
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 30.486 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 28.158 V/m; Power Drift = 0.06 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **29.713 M4**	Grid 2 **30.486 M4**	Grid 3 **29.090 M4**
Grid 4 **18.962 M4**	Grid 5 **19.986 M4**	Grid 6 **19.699 M4**
Grid 7 **27.492 M4**	Grid 8 **28.197 M4**	Grid 9 **27.513 M4**

Cursor:

Total = 30.486 V/m
E Category: M4
Location: 0.5, -38.5, 4.7 mm



0 dB = 30.490V/m

Date/Time: 3/23/2011 3:19:30 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

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
- 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)

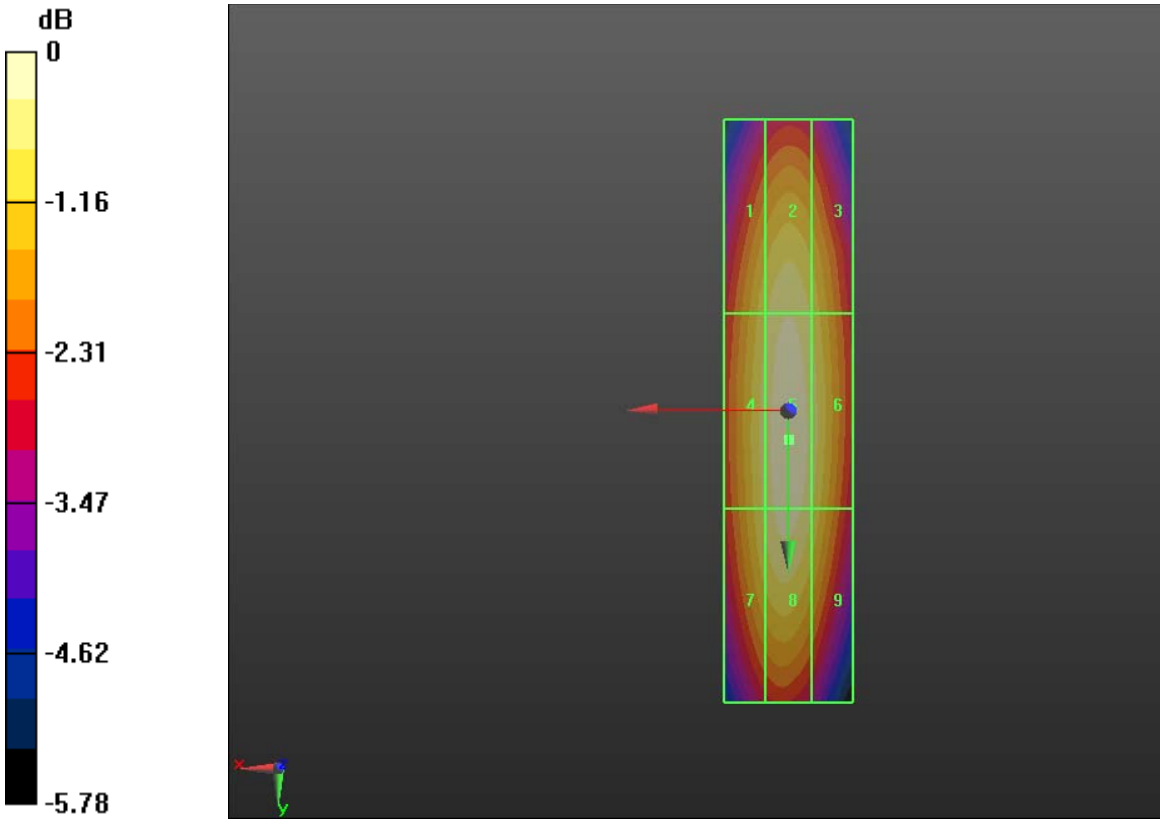
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.475 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.514 A/m; Power Drift = -0.08 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.437 M4**	Grid 2 **0.459 M4**	Grid 3 **0.437 M4**
Grid 4 **0.453 M4**	Grid 5 **0.475 M4**	Grid 6 **0.453 M4**
Grid 7 **0.447 M4**	Grid 8 **0.469 M4**	Grid 9 **0.442 M4**

Cursor:

Total = 0.475 A/m
H Category: M4
Location: 0, 4.5, 4.7 mm



0 dB = 0.480A/m

Date/Time: 3/23/2011 3:06:50 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: GSM 850; Frequency: 835 MHz;Communication System PAR: 9.191 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)

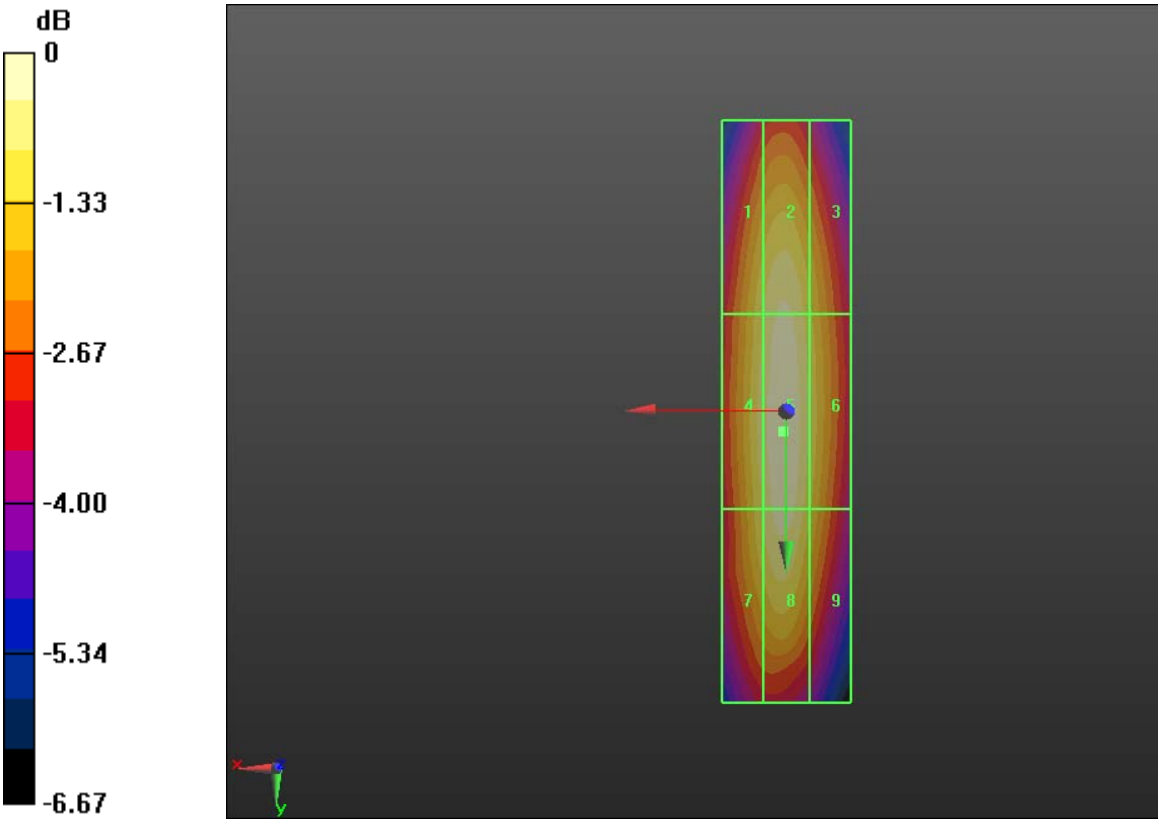
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.168 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.173 A/m; Power Drift = 0.43 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.154 M4**	Grid 2 **0.163 M4**	Grid 3 **0.148 M4**
Grid 4 **0.159 M4**	Grid 5 **0.168 M4**	Grid 6 **0.153 M4**
Grid 7 **0.155 M4**	Grid 8 **0.165 M4**	Grid 9 **0.148 M4**

Cursor:

Total = 0.168 A/m
H Category: M4
Location: 0.5, 3, 4.7 mm



0 dB = 0.170A/m

Date/Time: 3/23/2011 3:23:34 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

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
- 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)

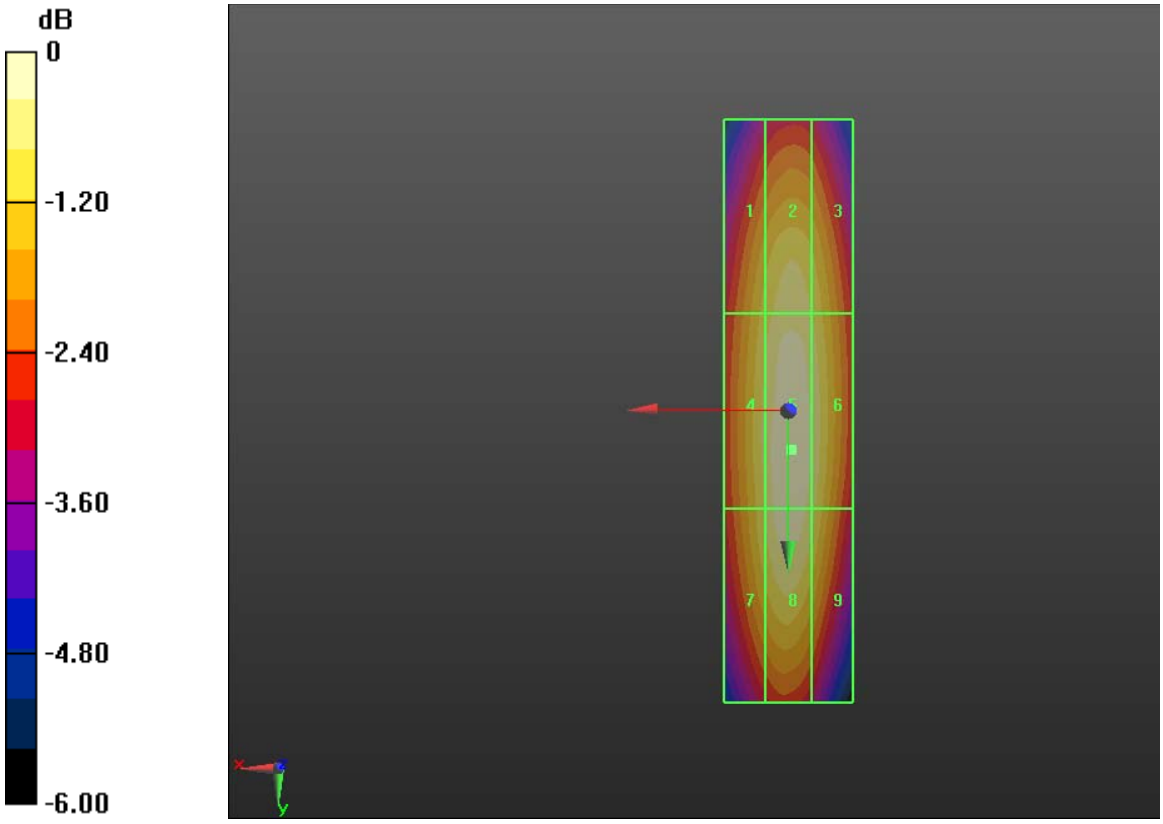
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.482 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.503 A/m; Power Drift = -0.00099 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.429 M4**	Grid 2 **0.450 M4**	Grid 3 **0.439 M4**
Grid 4 **0.449 M4**	Grid 5 **0.482 M4**	Grid 6 **0.458 M4**
Grid 7 **0.441 M4**	Grid 8 **0.475 M4**	Grid 9 **0.448 M4**

Cursor:

Total = 0.482 A/m
H Category: M4
Location: -0.5, 6, 4.7 mm



0 dB = 0.480A/m

Date/Time: 3/23/2011 3:34:08 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; 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
- 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)

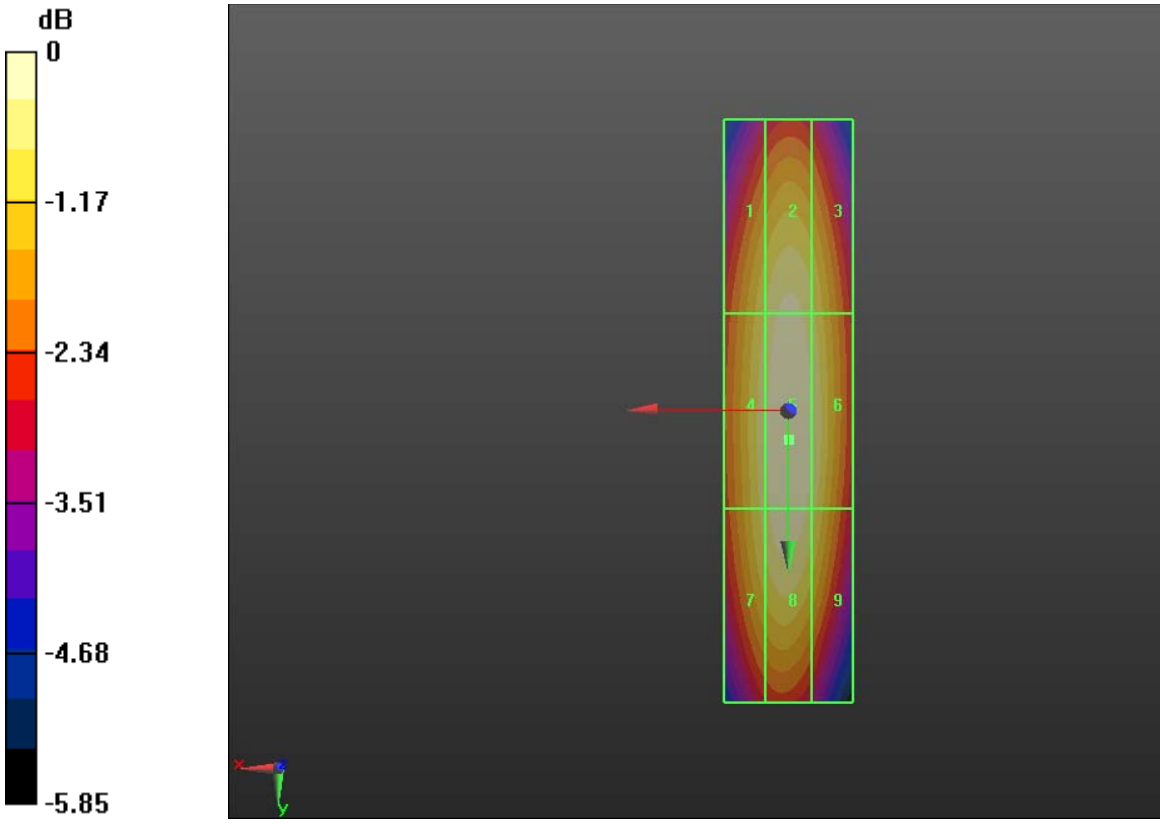
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.302 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.326 A/m; Power Drift = -0.16 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.276 M4**	Grid 2 **0.292 M4**	Grid 3 **0.279 M4**
Grid 4 **0.286 M4**	Grid 5 **0.302 M4**	Grid 6 **0.289 M4**
Grid 7 **0.283 M4**	Grid 8 **0.299 M4**	Grid 9 **0.281 M4**

Cursor:

Total = 0.302 A/m
H Category: M4
Location: 0, 4.5, 4.7 mm



0 dB = 0.300A/m

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

Communication System: CDMA 800;; 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)

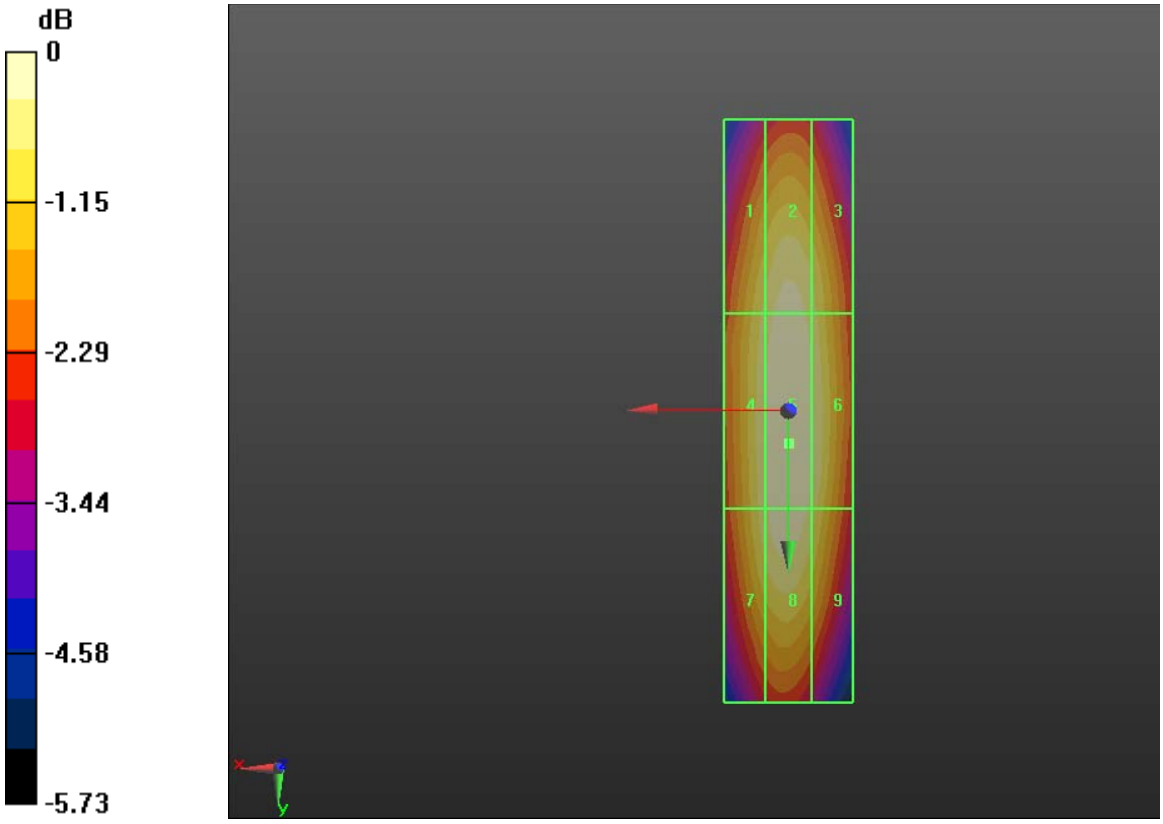
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.183 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
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: 3/23/2011 3:28:48 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

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
- 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)

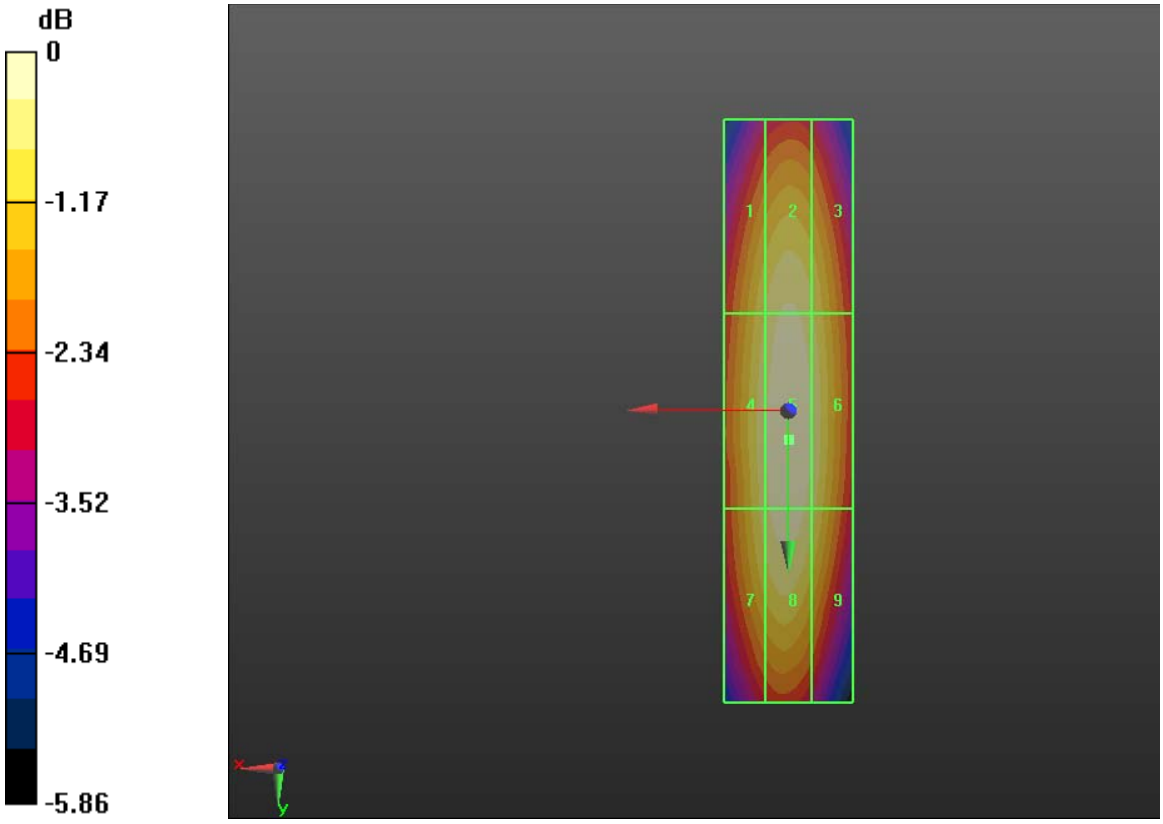
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.191 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.202 A/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.175 M4**	Grid 2 **0.183 M4**	Grid 3 **0.176 M4**
Grid 4 **0.182 M4**	Grid 5 **0.191 M4**	Grid 6 **0.182 M4**
Grid 7 **0.179 M4**	Grid 8 **0.187 M4**	Grid 9 **0.178 M4**

Cursor:

Total = 0.191 A/m
H Category: M4
Location: 0, 4.5, 4.7 mm



0 dB = 0.190A/m

Date/Time: 3/23/2011 3:38:43 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; 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
- 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)

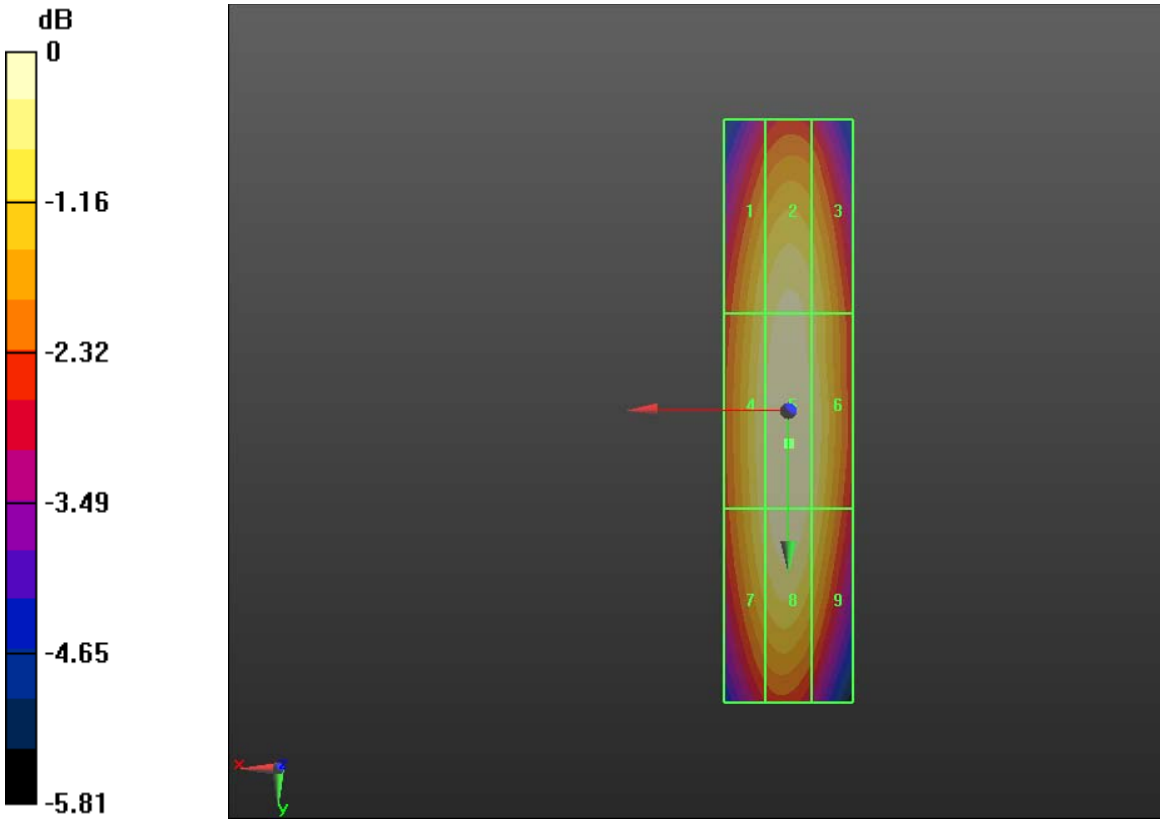
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.121 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.129 A/m; Power Drift = -0.09 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.111 M4**	Grid 2 **0.117 M4**	Grid 3 **0.113 M4**
Grid 4 **0.115 M4**	Grid 5 **0.121 M4**	Grid 6 **0.116 M4**
Grid 7 **0.114 M4**	Grid 8 **0.120 M4**	Grid 9 **0.113 M4**

Cursor:

Total = 0.121 A/m
H Category: M4
Location: 0, 5, 4.7 mm



0 dB = 0.120A/m

Date/Time: 3/23/2011 12:47:34 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

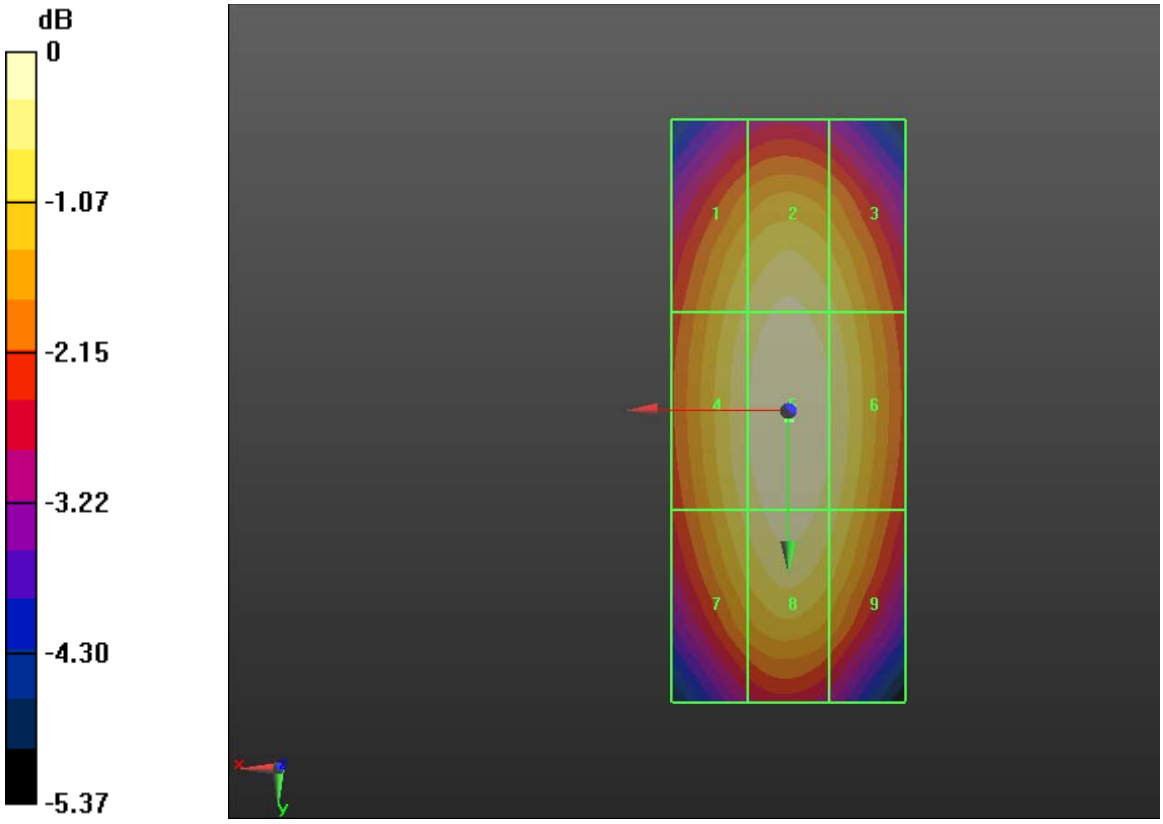
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.451 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.479 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.419 M2**	Grid 2 **0.436 M2**	Grid 3 **0.420 M2**
Grid 4 **0.432 M2**	Grid 5 **0.451 M2**	Grid 6 **0.434 M2**
Grid 7 **0.421 M2**	Grid 8 **0.442 M2**	Grid 9 **0.423 M2**

Cursor:

Total = 0.451 A/m
H Category: M2
Location: 0, 0.5, 4.7 mm



0 dB = 0.450A/m

Date/Time: 3/23/2011 1:03:25 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: GSM 1900; Frequency: 1880 MHz;Communication System PAR: 9.191 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)

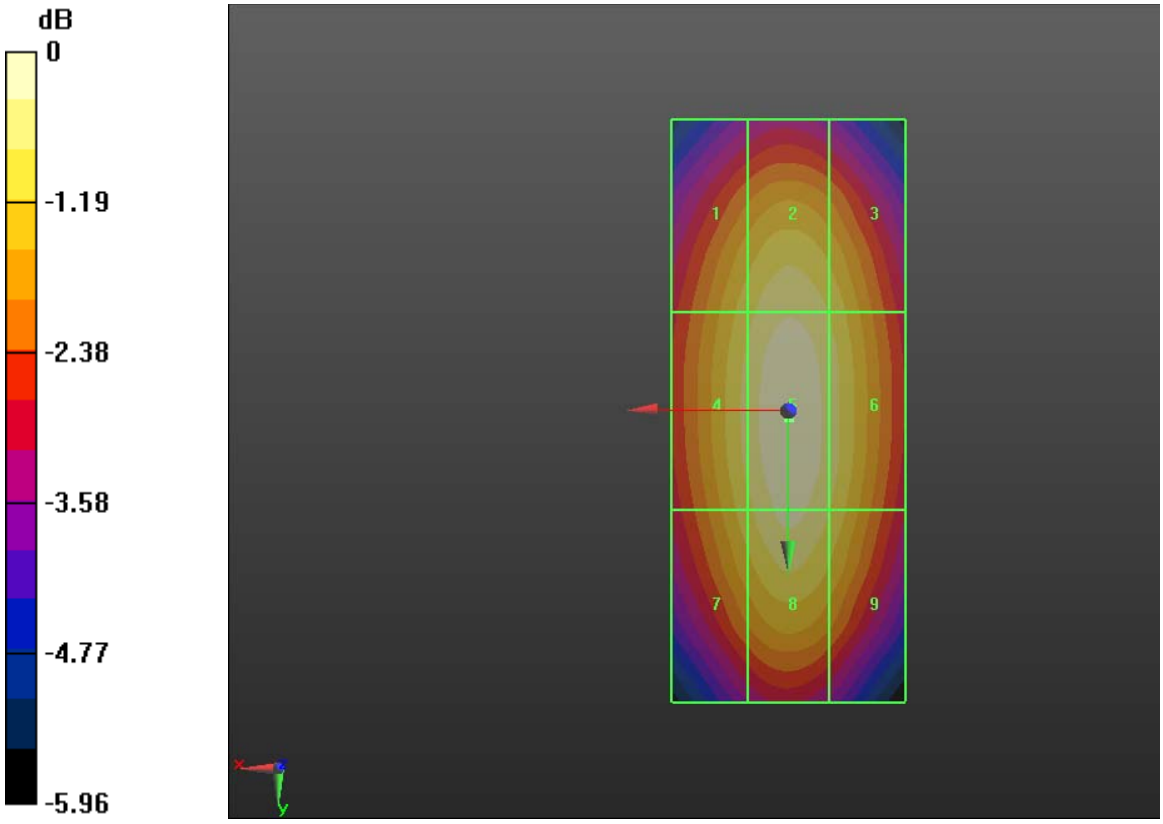
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.099 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.105 A/m; Power Drift = 0.04 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.090 M4**	Grid 2 **0.095 M4**	Grid 3 **0.091 M4**
Grid 4 **0.093 M4**	Grid 5 **0.099 M4**	Grid 6 **0.094 M4**
Grid 7 **0.090 M4**	Grid 8 **0.097 M4**	Grid 9 **0.091 M4**

Cursor:

Total = 0.099 A/m
H Category: M4
Location: 0, 0.5, 4.7 mm



0 dB = 0.100A/m

Date/Time: 3/23/2011 12:41:56 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

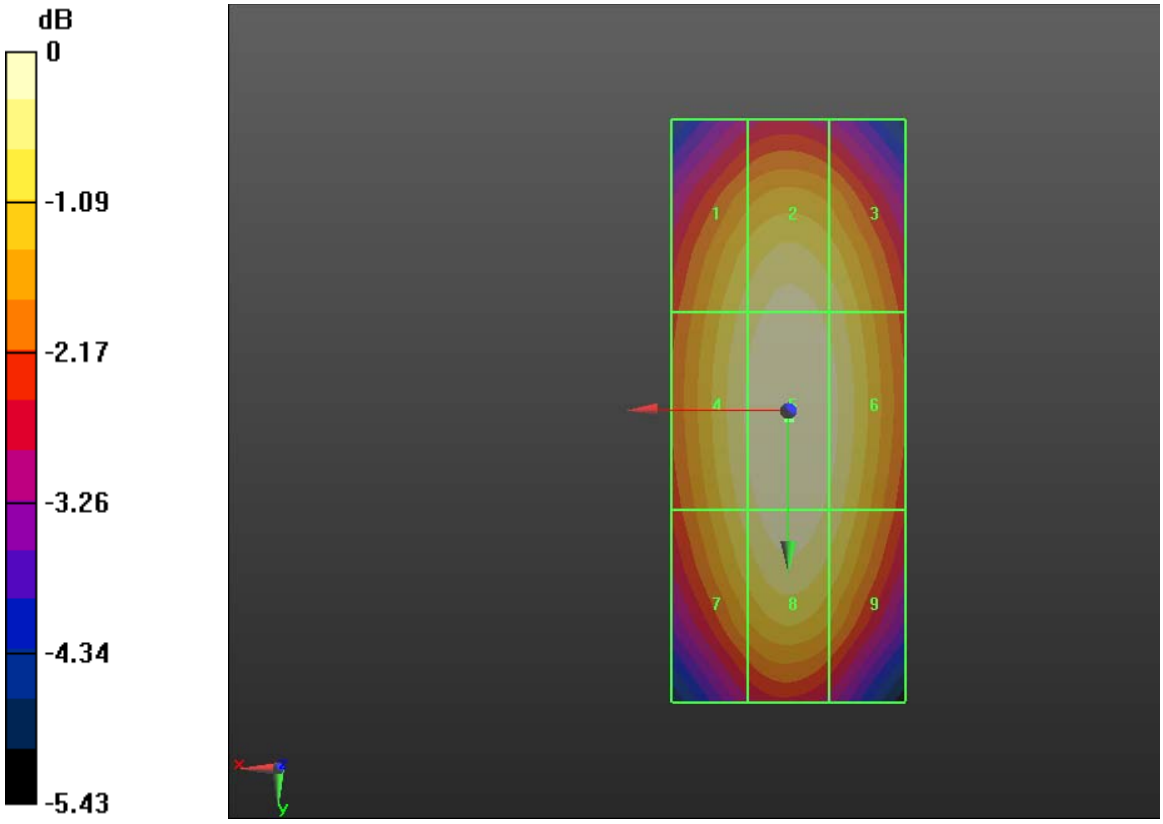
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.284 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.302 A/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.263 M3**	Grid 2 **0.274 M3**	Grid 3 **0.265 M3**
Grid 4 **0.271 M3**	Grid 5 **0.284 M3**	Grid 6 **0.274 M3**
Grid 7 **0.263 M3**	Grid 8 **0.278 M3**	Grid 9 **0.266 M3**

Cursor:

Total = 0.284 A/m
H Category: M3
Location: 0, 0.5, 4.7 mm



0 dB = 0.280A/m

Date/Time: 3/23/2011 12:51:39 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; 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: TCoil Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

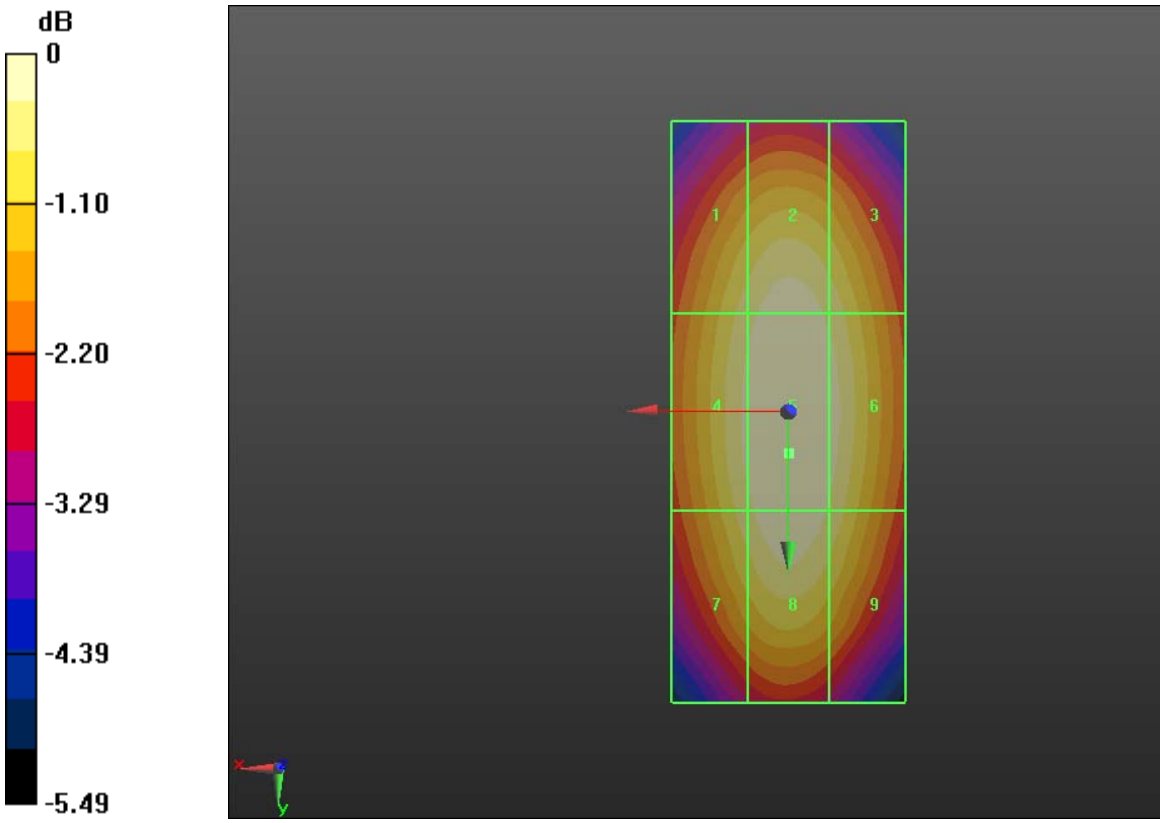
DASY5 Configuration:

- 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 = 0.184 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.196 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.170 M4**	Grid 2 **0.178 M4**	Grid 3 **0.171 M4**
Grid 4 **0.175 M4**	Grid 5 **0.184 M4**	Grid 6 **0.177 M4**
Grid 7 **0.170 M4**	Grid 8 **0.180 M4**	Grid 9 **0.172 M4**



0 dB = 0.180A/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

Communication System: CDMA 1900; 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)

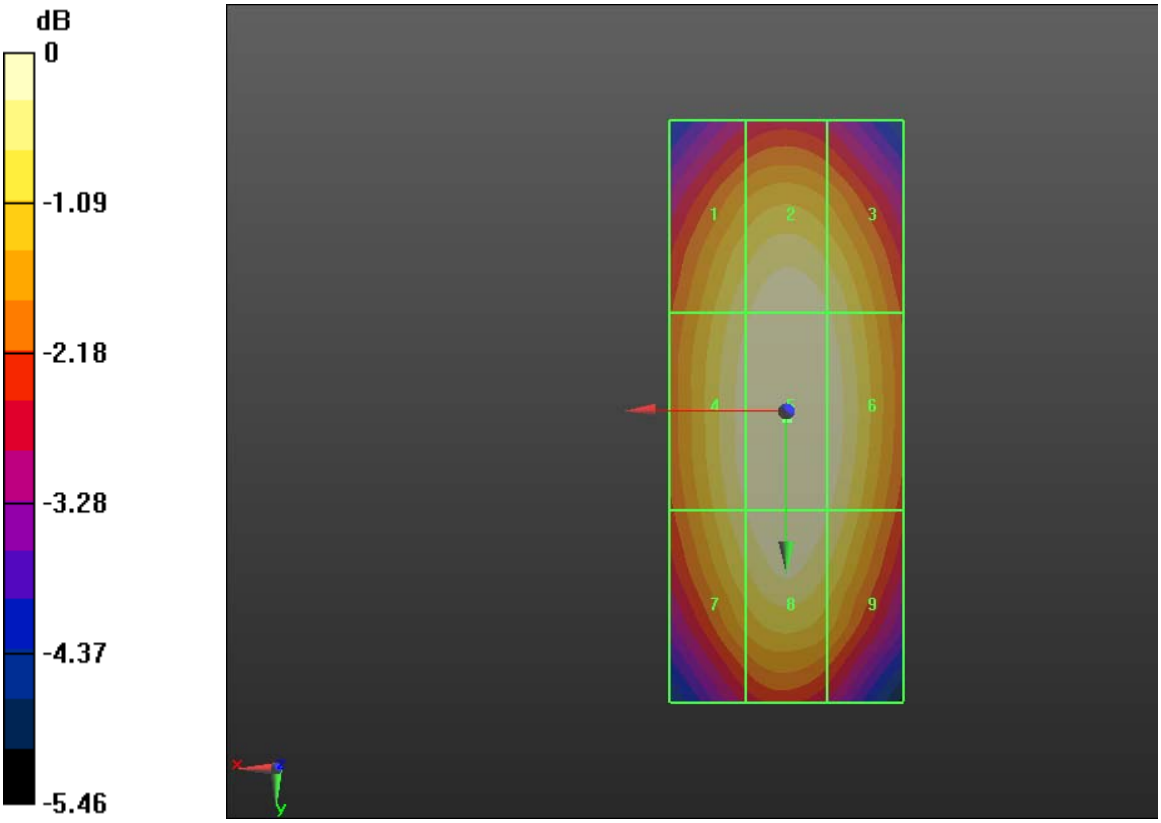
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.154 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
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

Date/Time: 3/23/2011 12:37:44 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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
- 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)

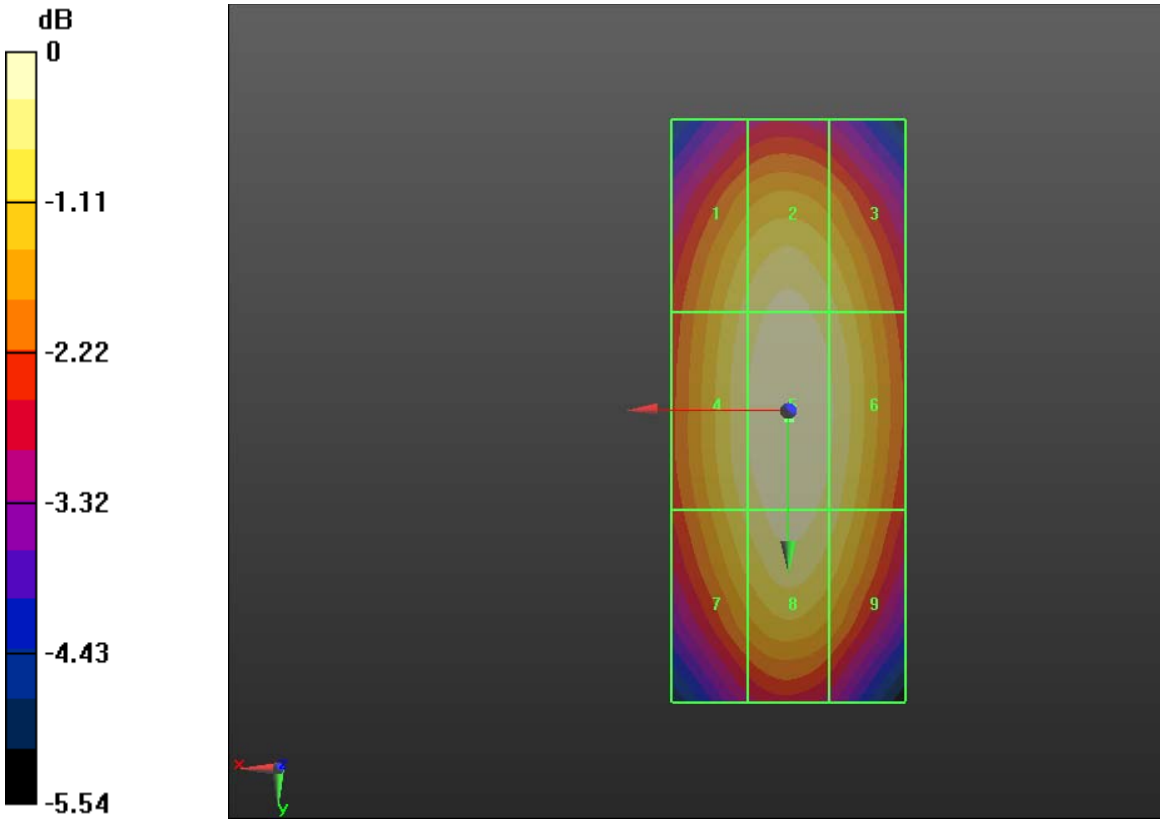
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.161 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.170 A/m; Power Drift = 0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.149 M4**	Grid 2 **0.156 M4**	Grid 3 **0.149 M4**
Grid 4 **0.153 M4**	Grid 5 **0.161 M4**	Grid 6 **0.155 M4**
Grid 7 **0.149 M4**	Grid 8 **0.157 M4**	Grid 9 **0.150 M4**

Cursor:

Total = 0.161 A/m
H Category: M4
Location: 0, 0.5, 4.7 mm



0 dB = 0.160A/m

Date/Time: 3/23/2011 12:55:35 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; 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: TCoil 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)

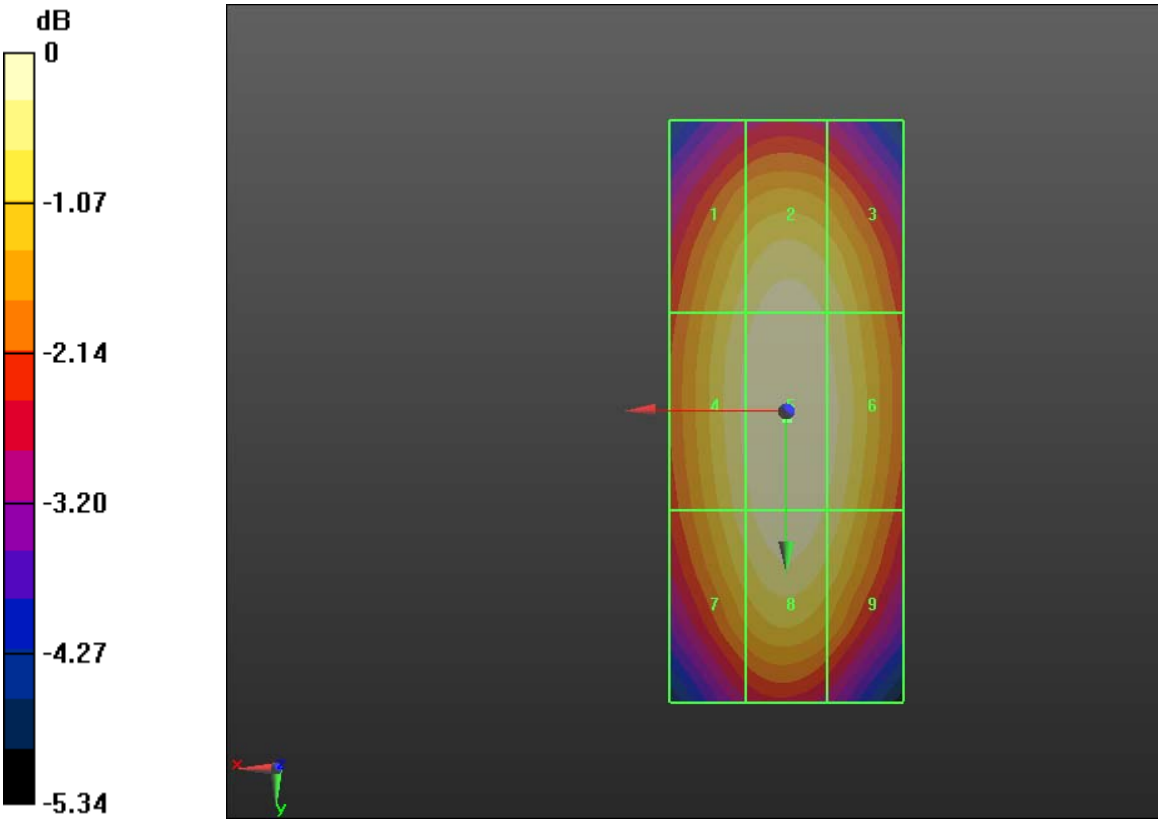
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.102 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.108 A/m; Power Drift = 0.06 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.094 M4**	Grid 2 **0.099 M4**	Grid 3 **0.095 M4**
Grid 4 **0.097 M4**	Grid 5 **0.102 M4**	Grid 6 **0.098 M4**
Grid 7 **0.095 M4**	Grid 8 **0.100 M4**	Grid 9 **0.095 M4**

Cursor:

Total = 0.102 A/m
H Category: M4
Location: 0, 0.5, 4.7 mm



0 dB = 0.100A/m

Date/Time: 4/5/2011 4:01:05 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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)

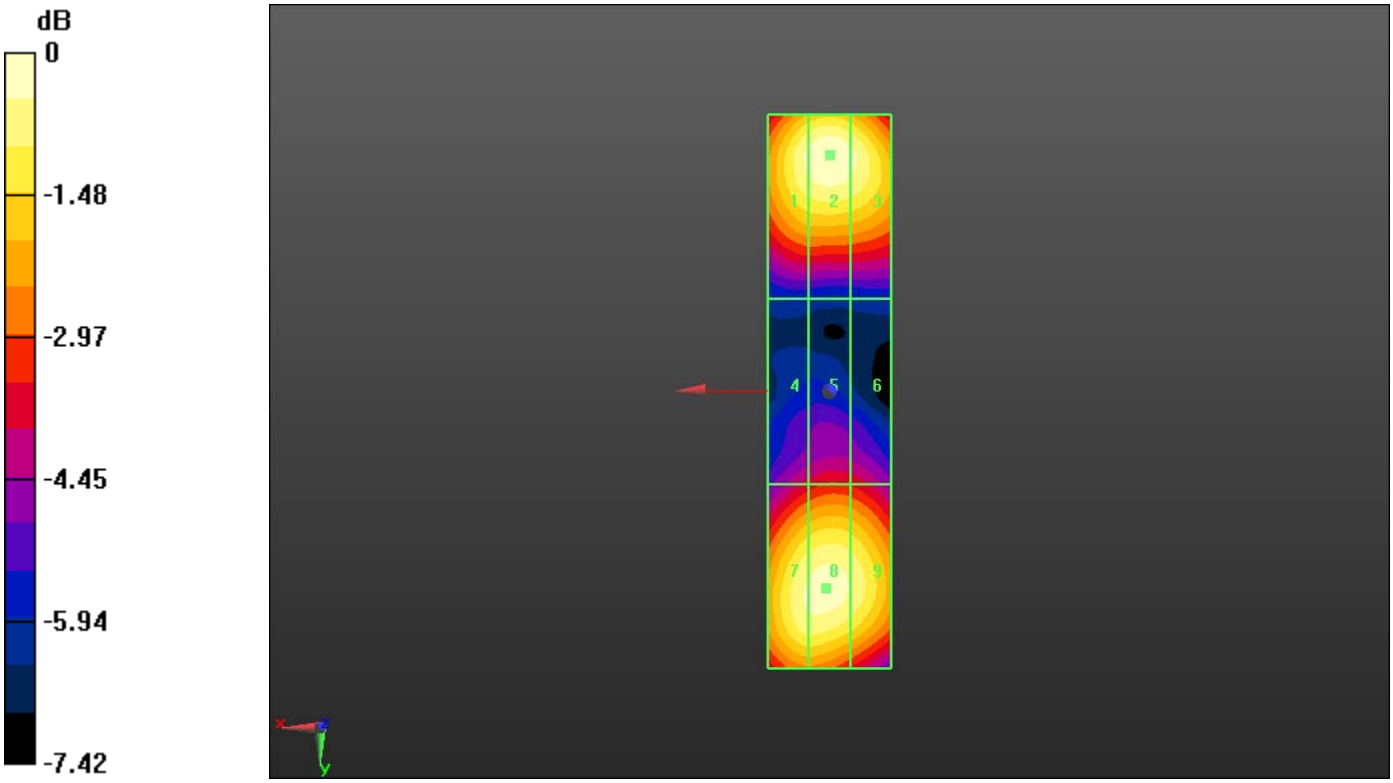
DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/21/2011
- 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 = 133.4 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 128.7 V/m; Power Drift = 0.02 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **128.3 M2**	Grid 2 **133.4 M2**	Grid 3 **128.8 M2**
Grid 4 **86.427 M3**	Grid 5 **90.378 M3**	Grid 6 **88.820 M3**
Grid 7 **127.6 M2**	Grid 8 **129.5 M2**	Grid 9 **125.5 M2**



0 dB = 133.4V/m

Date/Time: 4/5/2011 3:15:31 PM, Date/Time: 4/5/2011 3:35:37 PM, Date/Time: 4/5/2011 3:50:05 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_1733 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: WCDMA FDD IV, Communication System: CW, Communication System: AM80%; Communication System Band: 1733; Frequency: 1732.6 MHz, Frequency: 1733 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 WCDMA 1733 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 = 45.953 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 45.671 V/m; Power Drift = 0.0022 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **44.309 M4**	Grid 2 **45.897 M4**	Grid 3 **43.942 M4**
Grid 4 **32.194 M4**	Grid 5 **33.381 M4**	Grid 6 **32.650 M4**
Grid 7 **45.541 M4**	Grid 8 **45.953 M4**	Grid 9 **44.163 M4**

Dipole E-Field CW 1733 MHz_PMF measurement/E Scan - 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 = 44.684 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 44.777 V/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **42.576 M4**	Grid 2 **44.154 M4**	Grid 3 **42.558 M4**
Grid 4 **31.220 M4**	Grid 5 **32.494 M4**	Grid 6 **31.749 M4**
Grid 7 **44.140 M4**	Grid 8 **44.684 M4**	Grid 9 **42.994 M4**

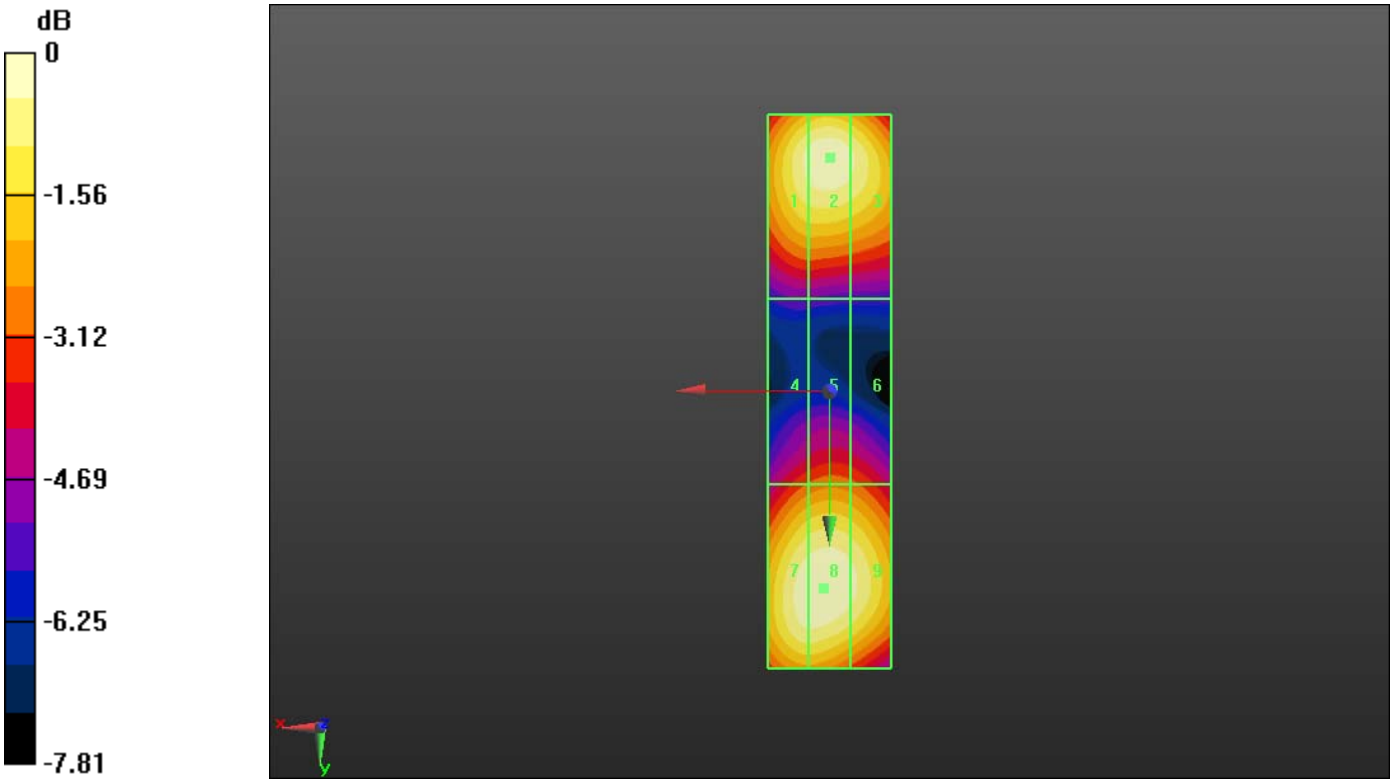
Dipole AM80%_1733 MHz_E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2 2/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 28.697 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 28.666 V/m; Power Drift = -0.03 dB

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

Peak E-field in V/m

Grid 1 **27.579 M4**	Grid 2 **28.576 M4**	Grid 3 **27.503 M4**
Grid 4 **20.034 M4**	Grid 5 **20.866 M4**	Grid 6 **20.402 M4**
Grid 7 **28.387 M4**	Grid 8 **28.697 M4**	Grid 9 **27.712 M4**



0 dB = 45.950V/m

Date/Time: 4/5/2011 4:45:41 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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)

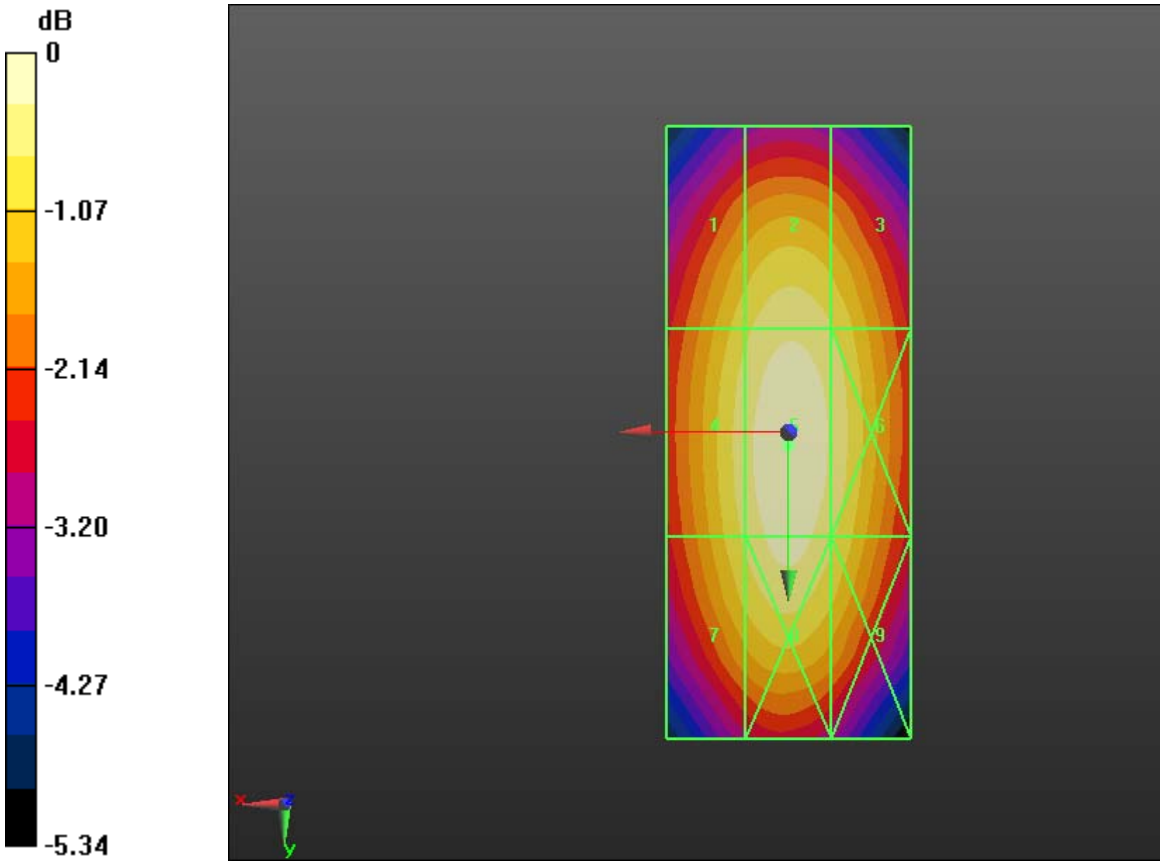
DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/21/2011
- 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 = 0.476 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.502 A/m; Power Drift = 0.04 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.438 M2**	Grid 2 **0.458 M2**	Grid 3 **0.443 M2**
Grid 4 **0.455 M2**	Grid 5 **0.476 M2**	Grid 6 **0.458 M2**
Grid 7 **0.447 M2**	Grid 8 **0.469 M2**	Grid 9 **0.447 M2**



0 dB = 0.480A/m

Date/Time: 4/5/2011 4:22:30 PM, Date/Time: 4/5/2011 4:37:10 PM, Date/Time: 4/5/2011 4:40:56 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_1733 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: WCDMA FDD IV, Communication System: CW, Communication System: AM80%; Communication System Band: Exported from older format (data unavailable - please correct)., Communication System Band: D1800 (1800.0 MHz); Frequency: 1732.6 MHz, Frequency: 1733 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 WCDMA 1733 MHz_PMF_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 = 0.165 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.175 A/m; Power Drift = -0.0064 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.148 M4**	Grid 2 **0.156 M4**	Grid 3 **0.151 M4**
Grid 4 **0.156 M4**	Grid 5 **0.165 M4**	Grid 6 **0.159 M4**
Grid 7 **0.151 M4**	Grid 8 **0.160 M4**	Grid 9 **0.153 M4**

Dipole CW 1733_PMF_H-Field meausrement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.160 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.172 A/m; Power Drift = -0.08 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

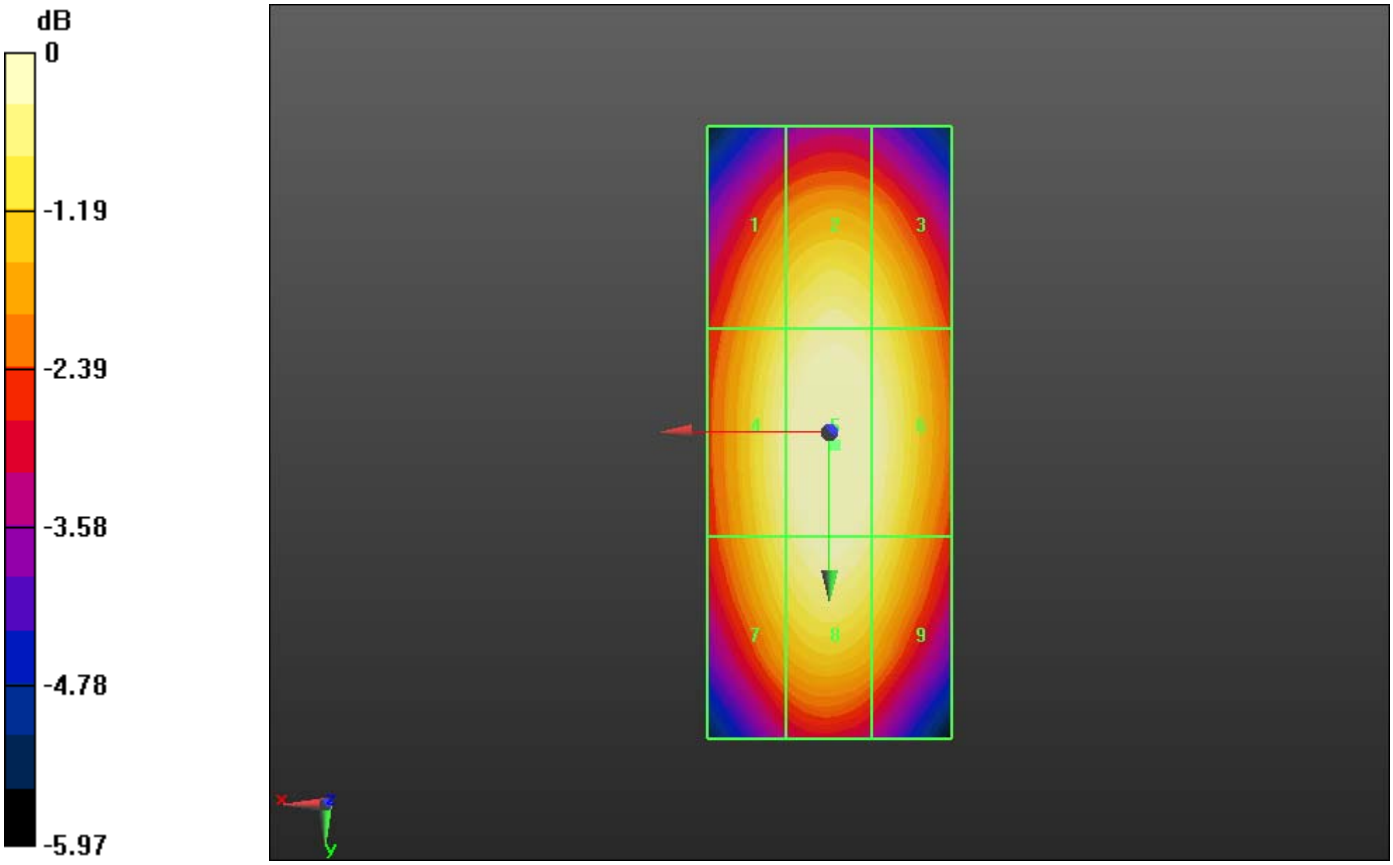
Peak H-field in A/m

Grid 1 **0.144 M4**	Grid 2 **0.151 M4**	Grid 3 **0.147 M4**
Grid 4 **0.152 M4**	Grid 5 **0.160 M4**	Grid 6 **0.155 M4**
Grid 7 **0.148 M4**	Grid 8 **0.156 M4**	Grid 9 **0.149 M4**

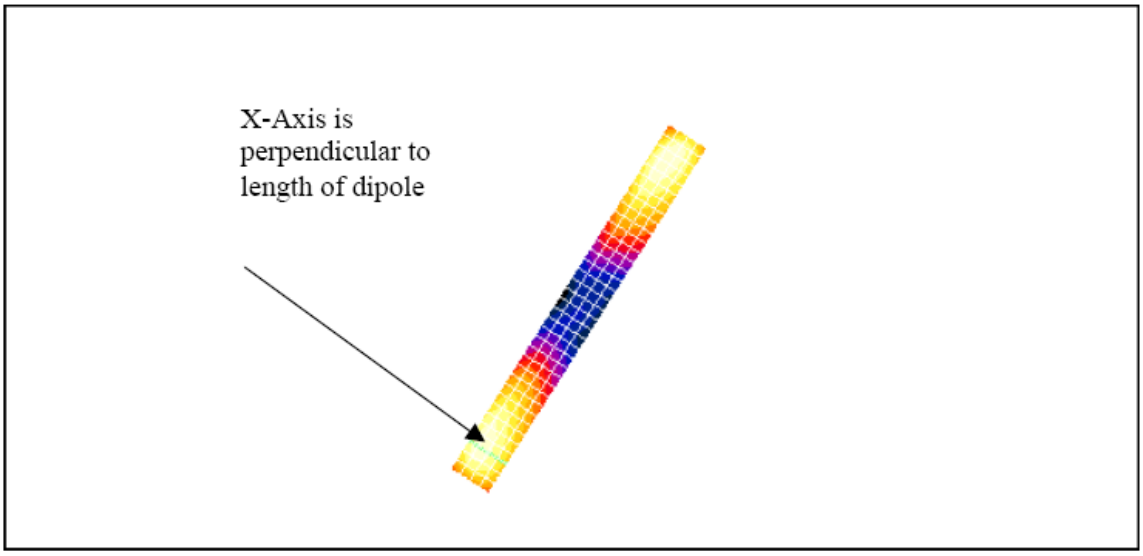
Dipole AM80% 1733_PMF_H-Field meausrement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2 2/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.102 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.110 A/m; Power Drift = -0.04 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.091 M4**	Grid 2 **0.097 M4**	Grid 3 **0.093 M4**
Grid 4 **0.096 M4**	Grid 5 **0.102 M4**	Grid 6 **0.098 M4**
Grid 7 **0.093 M4**	Grid 8 **0.099 M4**	Grid 9 **0.094 M4**



0 dB = 0.160A/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: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ 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)

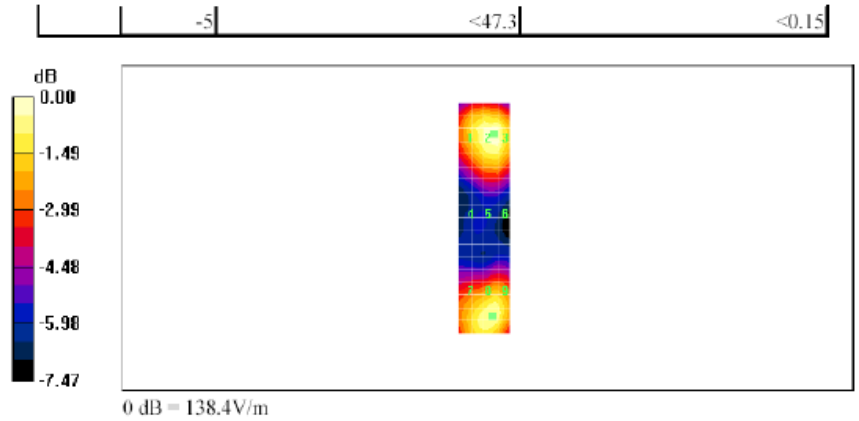
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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



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, $\varepsilon_r = 1$; $\rho = 1000$ 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)

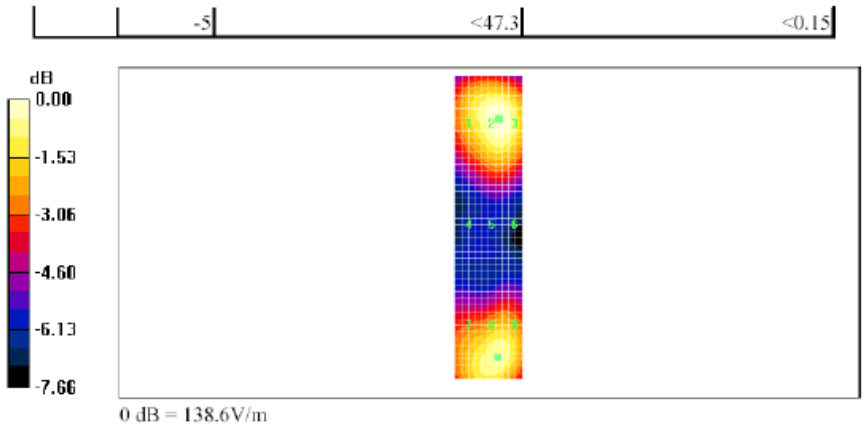
E in V/m (Time averaged)

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



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)

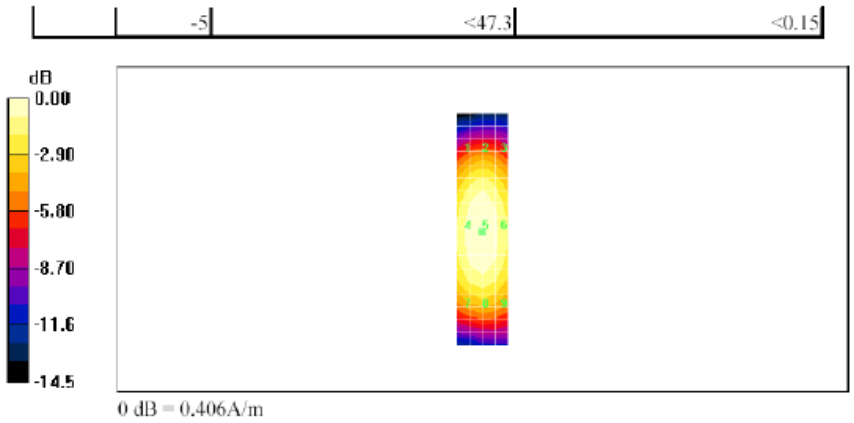
H in A/m (Time averaged)

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

H in A/m (Slot averaged)

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



0 dB = 0.406A/m

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)

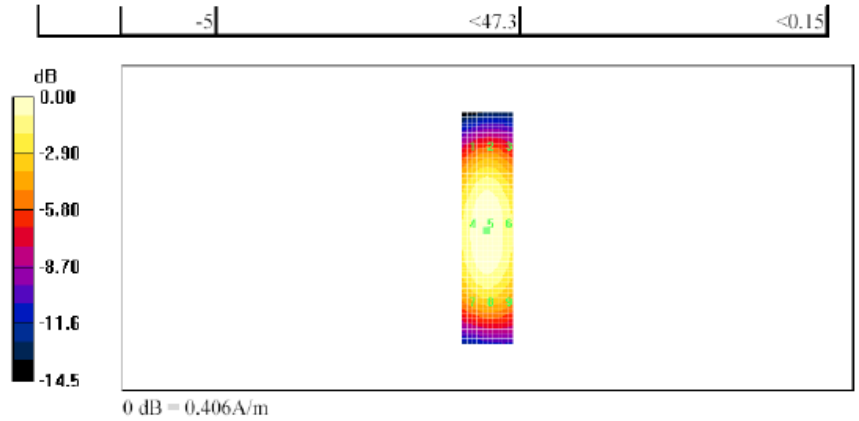
H in A/m (Time averaged)

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 emission field plots

Date/Time: 3/23/2011 4:33:26 PM, Date/Time: 3/23/2011 4:38:37 PM, Date/Time: 3/23/2011 4:43:10 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM 850

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; .; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz;Communication System PAR: 9.191 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)

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 = 140.3 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 53.962 V/m; Power Drift = -0.12 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **118.0 M4**	Grid 2 **136.7 M4**	Grid 3 **131.6 M4**
Grid 4 **121.5 M4**	Grid 5 **140.3 M4**	Grid 6 **134.4 M4**
Grid 7 **122.9 M4**	Grid 8 **139.4 M4**	Grid 9 **133.1 M4**

Cursor:

Total = 140.3 V/m
E Category: M4
Location: -3, -2.5, 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 = 154.3 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 59.107 V/m; Power Drift = 0.19 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **116.8 M4**	Grid 2 **150.4 M3**	Grid 3 **150.5 M3**
Grid 4 **121.9 M4**	Grid 5 **154.3 M3**	Grid 6 **154.3 M3**
Grid 7 **128.6 M4**	Grid 8 **154.4 M3**	Grid 9 **154.4 M3**

Cursor:

Total = 154.4 V/m
E Category: M3
Location: -8.5, 13.5, 8.7 mm

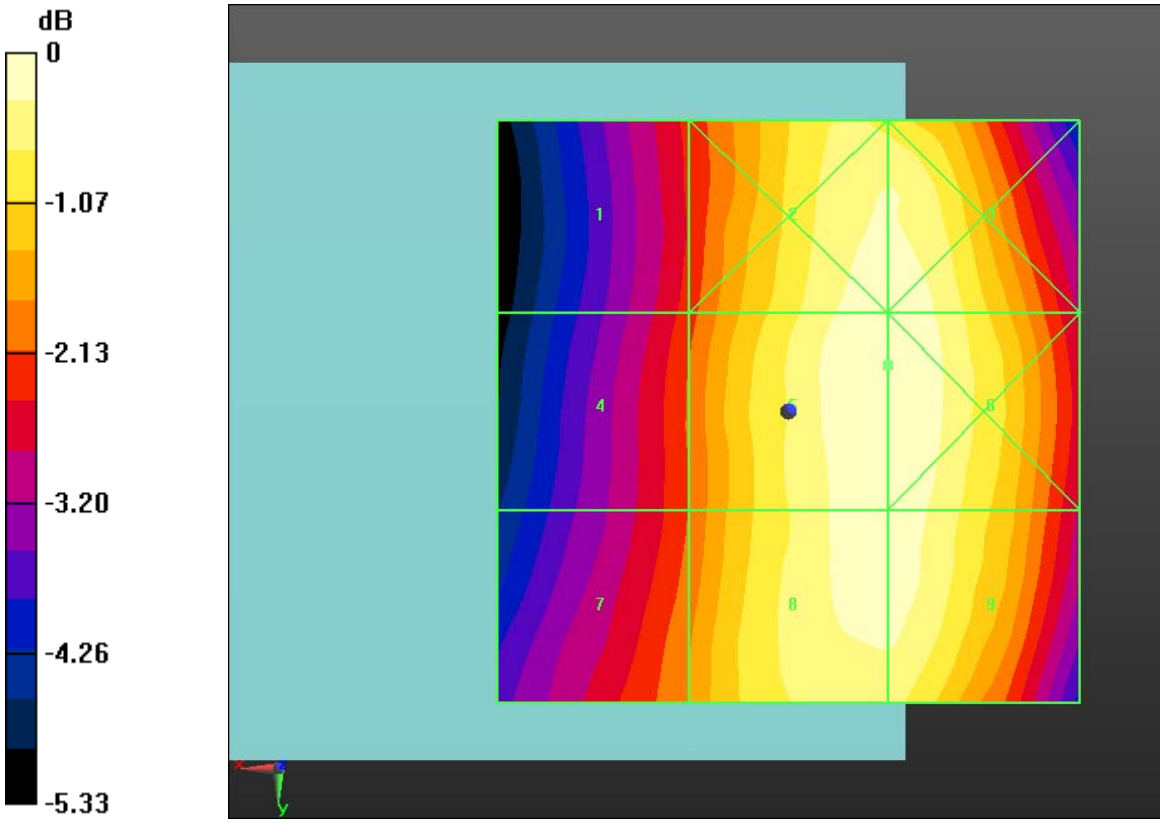
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 165.7 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 64.371 V/m; Power Drift = -0.34 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **127.5 M4**	Grid 2 **164.1 M3**	Grid 3 **164.1 M3**
Grid 4 **130.7 M4**	Grid 5 **165.7 M3**	Grid 6 **165.7 M3**
Grid 7 **135.6 M4**	Grid 8 **162.9 M3**	Grid 9 **162.9 M3**

Cursor:

Total = 165.7 V/m
E Category: M3
Location: -8.5, -4, 8.7 mm



0 dB = 165.7V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM 850_high_chan_Telecoil

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; .; Frequency: 848.8 MHz;Communication System PAR: 9.191 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)

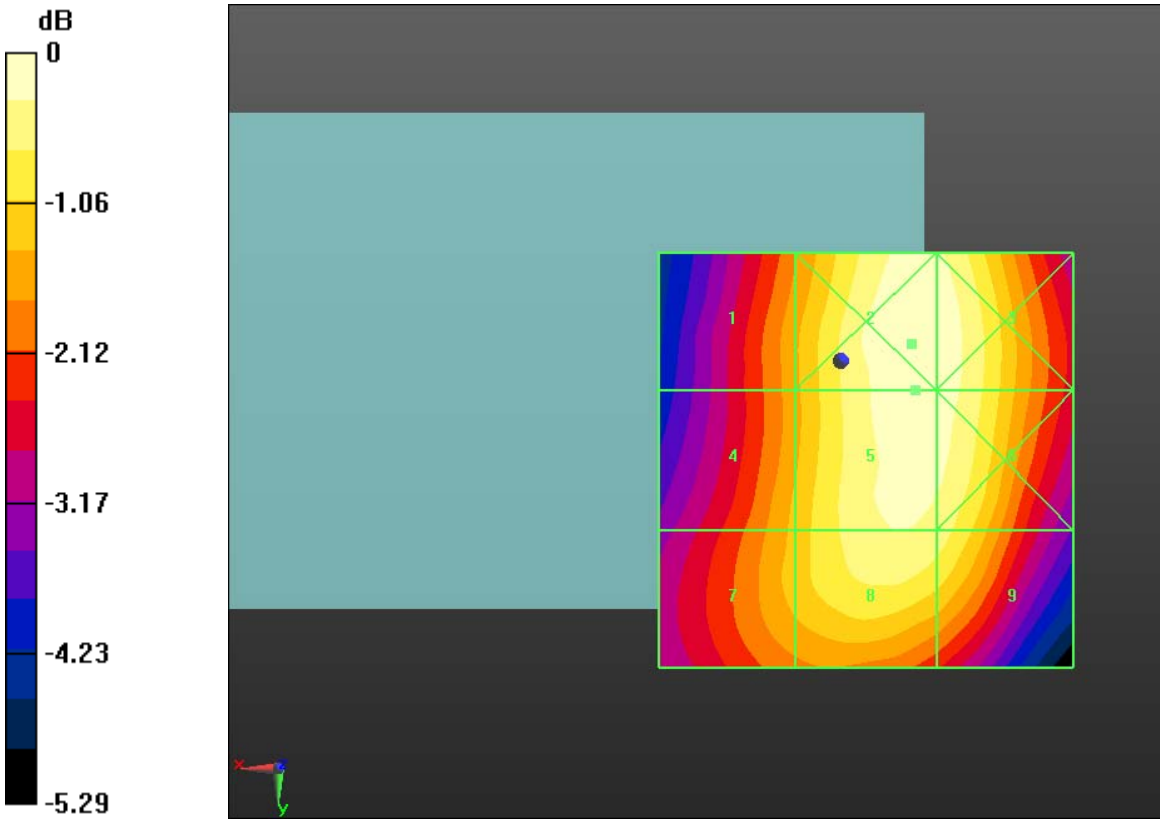
DASY5 Configuration:

- 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)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Telecoil cent/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 159.4 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 64.183 V/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **135.7 M4**	Grid 2 **160.6 M3**	Grid 3 **159.1 M3**
Grid 4 **138.5 M4**	Grid 5 **159.4 M3**	Grid 6 **158.3 M3**
Grid 7 **139.4 M4**	Grid 8 **154.3 M3**	Grid 9 **151.6 M3**



0 dB = 160.6V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; .; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz;Communication System PAR: 9.191 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)

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 = 73.806 V/m
Probe Modulation Factor = 2.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 19.960 V/m; Power Drift = 0.19 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **71.549 M3**	Grid 2 **58.794 M3**	Grid 3 **62.906 M3**
Grid 4 **63.524 M3**	Grid 5 **73.806 M3**	Grid 6 **77.966 M3**
Grid 7 **60.542 M3**	Grid 8 **83.257 M3**	Grid 9 **84.405 M2**

Cursor:

Total = 84.405 V/m
E Category: M2
Location: -12.5, 22.5, 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 = 81.563 V/m
Probe Modulation Factor = 2.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 21.360 V/m; Power Drift = 0.06 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **68.321 M3**	Grid 2 **62.046 M3**	Grid 3 **66.802 M3**
Grid 4 **59.229 M3**	Grid 5 **81.563 M3**	Grid 6 **82.987 M3**
Grid 7 **64.252 M3**	Grid 8 **91.201 M2**	Grid 9 **91.215 M2**

Cursor:

Total = 91.214 V/m
E Category: M2
Location: -9, 23.5, 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 = 76.911 V/m
Probe Modulation Factor = 2.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 22.361 V/m; Power Drift = 0.27 dB

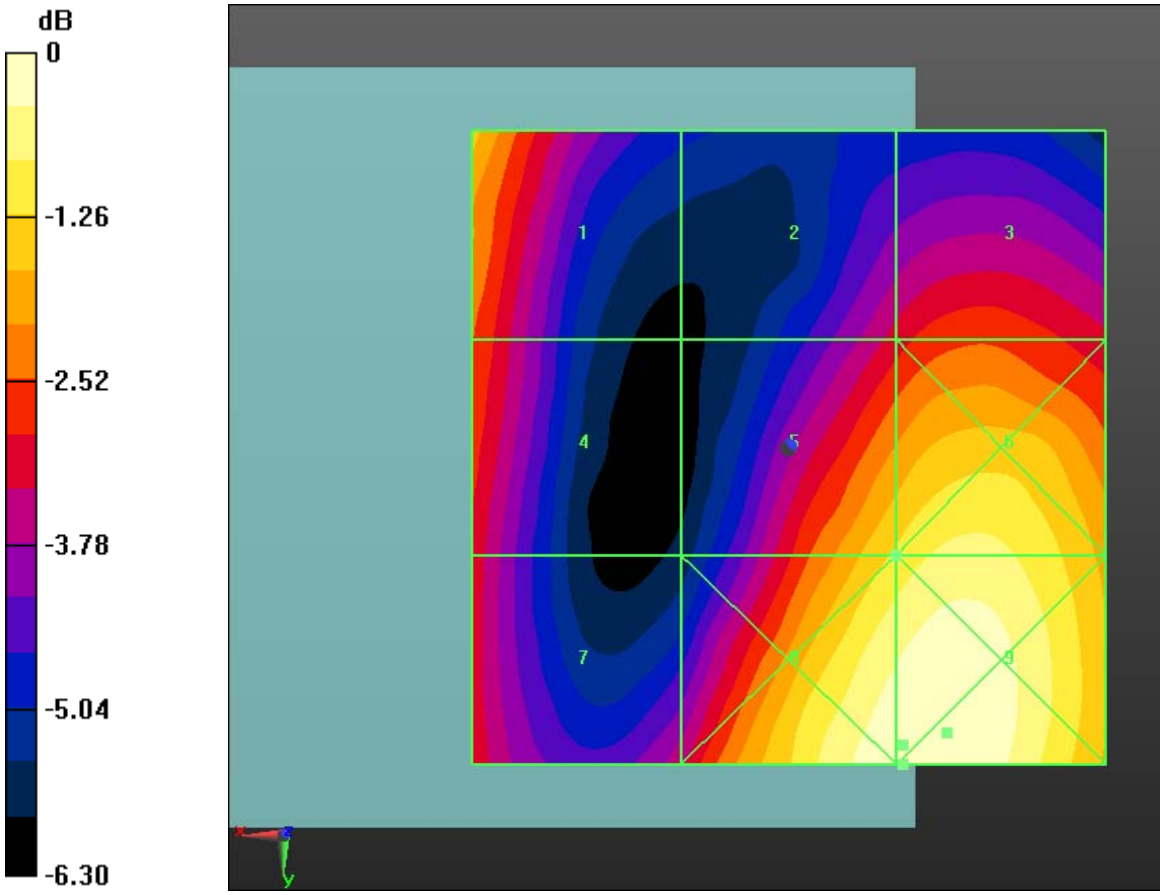
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **63.086 M3**	Grid 2 **55.906 M3**	Grid 3 **58.028 M3**
Grid 4 **59.991 M3**	Grid 5 **76.911 M3**	Grid 6 **79.327 M3**
Grid 7 **68.615 M3**	Grid 8 **90.494 M2**	Grid 9 **90.499 M2**

Cursor:

Total = 90.499 V/m
E Category: M2
Location: -9, 25, 8.7 mm



0 dB = 84.400V/m

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900_telecoil

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; .; Frequency: 1880 MHz;Communication System PAR: 9.191 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 cent/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 81.717 V/m
Probe Modulation Factor = 2.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 16.233 V/m; Power Drift = 0.73 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

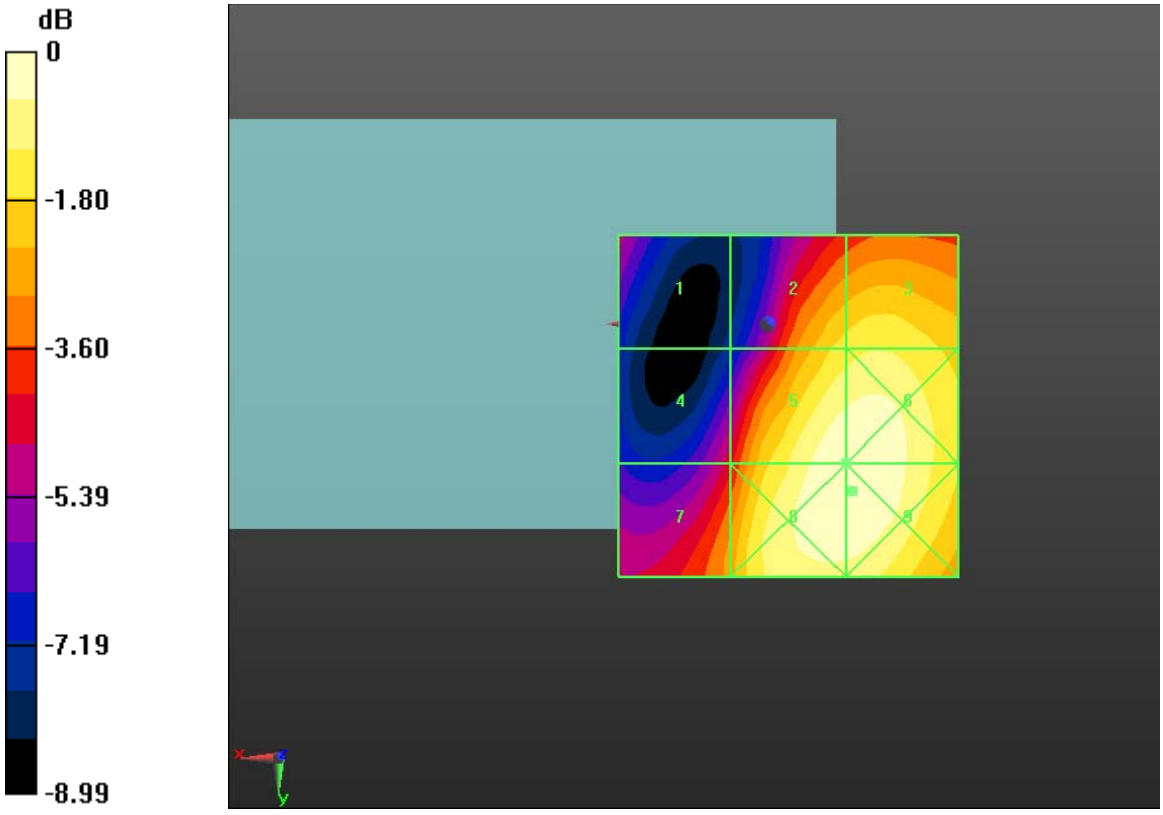
Peak E-field in V/m

Grid 1 **46.664 M4**	Grid 2 **69.198 M3**	Grid 3 **71.497 M3**
Grid 4 **50.027 M3**	Grid 5 **81.717 M3**	Grid 6 **82.056 M3**
Grid 7 **60.503 M3**	Grid 8 **82.292 M3**	Grid 9 **82.376 M3**

-5	<149.6	<0.45

Cursor:

Total = 82.376 V/m
E Category: M3
Location: -12.5, 24.5, 8.7 mm



0 dB = 82.380V/m

Date/Time: 3/23/2011 5:31:24 PM, Date/Time: 3/23/2011 5:34:58 PM, Date/Time: 3/23/2011 5:38:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA800

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; .; Frequency: 824.7 MHz, Frequency: 836.52 MHz, 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
- 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)

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 = 58.257 V/m
Probe Modulation Factor = 0.990
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 70.405 V/m; Power Drift = 0.08 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **48.315 M4**	Grid 2 **57.299 M4**	Grid 3 **57.331 M4**
Grid 4 **49.702 M4**	Grid 5 **58.257 M4**	Grid 6 **58.257 M4**
Grid 7 **51.212 M4**	Grid 8 **57.631 M4**	Grid 9 **57.676 M4**

Cursor:

Total = 58.257 V/m
E Category: M4
Location: -8.5, -0.5, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 65.799 V/m
Probe Modulation Factor = 0.990
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 78.501 V/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **50.455 M4**	Grid 2 **63.980 M4**	Grid 3 **64.048 M4**
Grid 4 **52.894 M4**	Grid 5 **65.799 M4**	Grid 6 **65.842 M4**
Grid 7 **56.196 M4**	Grid 8 **65.900 M4**	Grid 9 **65.942 M4**

Cursor:

Total = 65.942 V/m
E Category: M4
Location: -9, 10, 8.7 mm

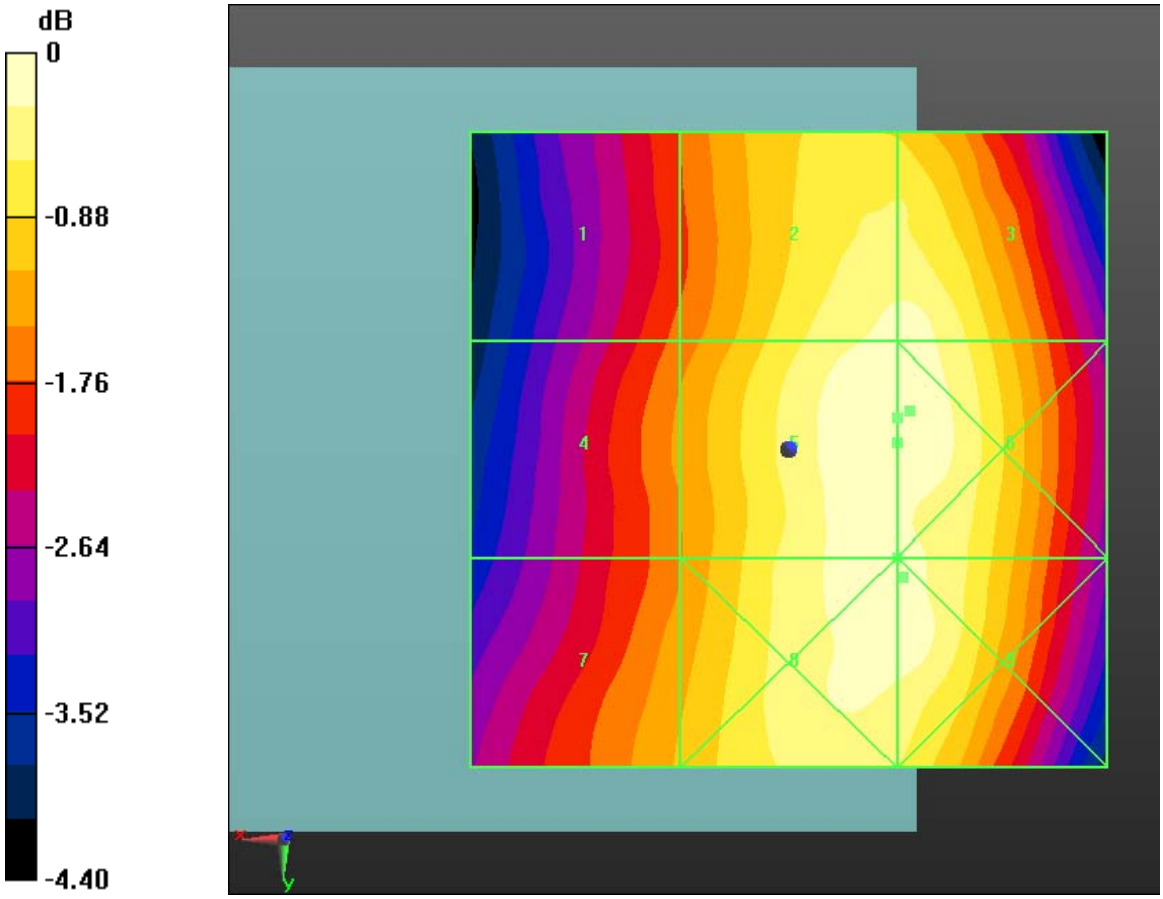
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 66.716 V/m
Probe Modulation Factor = 0.990
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 82.434 V/m; Power Drift = -0.11 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **53.873 M4**	Grid 2 **65.647 M4**	Grid 3 **65.743 M4**
Grid 4 **55.139 M4**	Grid 5 **66.716 M4**	Grid 6 **66.755 M4**
Grid 7 **56.044 M4**	Grid 8 **65.974 M4**	Grid 9 **65.987 M4**

Cursor:

Total = 66.755 V/m
E Category: M4
Location: -9.5, -3, 8.7 mm



0 dB = 58.260V/m

Date/Time: 3/23/2011 5:43:48 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA800_high_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; .; 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
- 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)

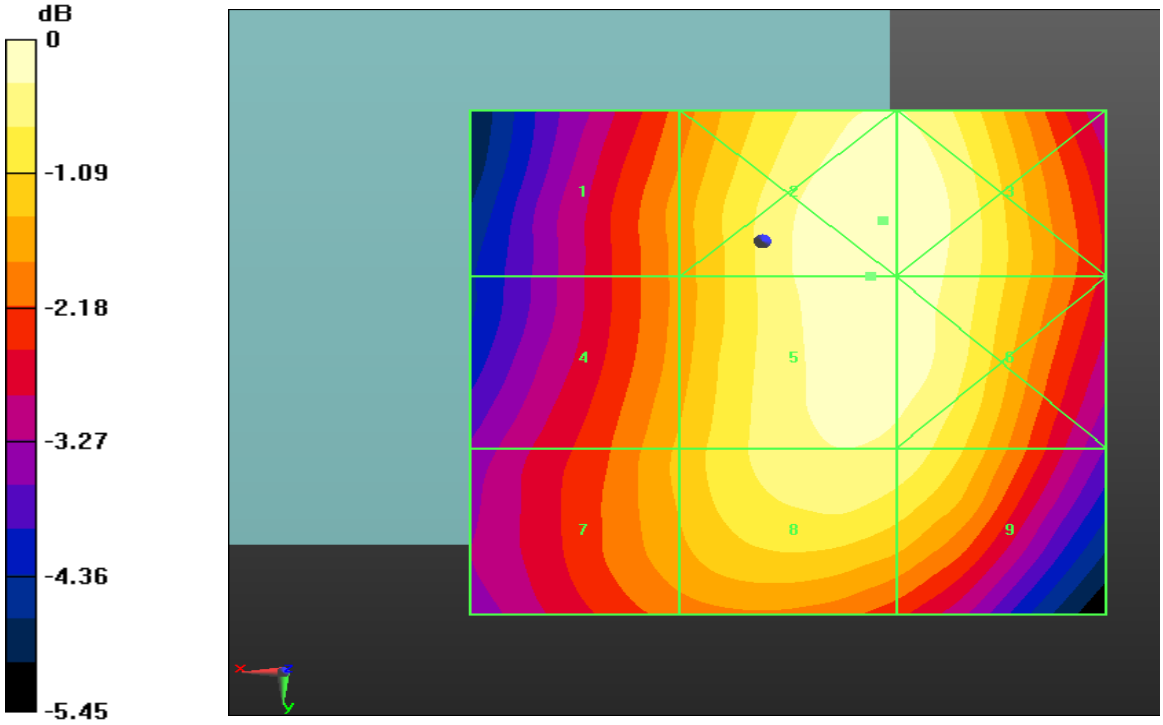
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Telecoil cent/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 68.338 V/m
Probe Modulation Factor = 0.990
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 81.494 V/m; Power Drift = 0.08 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **57.179 M4**	Grid 2 **68.919 M4**	Grid 3 **68.863 M4**
Grid 4 **58.849 M4**	Grid 5 **68.338 M4**	Grid 6 **68.100 M4**
Grid 7 **59.002 M4**	Grid 8 **66.118 M4**	Grid 9 **65.449 M4**

Cursor:

Total = 68.919 V/m
E Category: M4
Location: -9.5, -2, 8.7 mm



0 dB = 68.920V/m

Date/Time: 3/23/2011 6:02:17 PM, Date/Time: 3/23/2011 6:10:14 PM, Date/Time: 3/23/2011 6:26:17 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample

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

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 = 38.833 V/m
Probe Modulation Factor = 1.060
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 31.653 V/m; Power Drift = -0.27 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **34.416 M4**	Grid 2 **31.153 M4**	Grid 3 **33.214 M4**
Grid 4 **31.627 M4**	Grid 5 **38.833 M4**	Grid 6 **40.747 M4**
Grid 7 **32.684 M4**	Grid 8 **43.564 M4**	Grid 9 **43.739 M4**

Cursor:

Total = 43.738 V/m
E Category: M4
Location: -10.5, 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 = 39.926 V/m
Probe Modulation Factor = 1.060
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 30.557 V/m; Power Drift = 0.03 dB

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

Peak E-field in V/m

Grid 1 **34.963 M4**	Grid 2 **29.889 M4**	Grid 3 **32.594 M4**
Grid 4 **29.385 M4**	Grid 5 **39.926 M4**	Grid 6 **41.342 M4**
Grid 7 **32.233 M4**	Grid 8 **45.424 M4**	Grid 9 **45.533 M4**

Cursor:

Total = 45.533 V/m
E Category: M4
Location: -10, 24, 8.7 mm

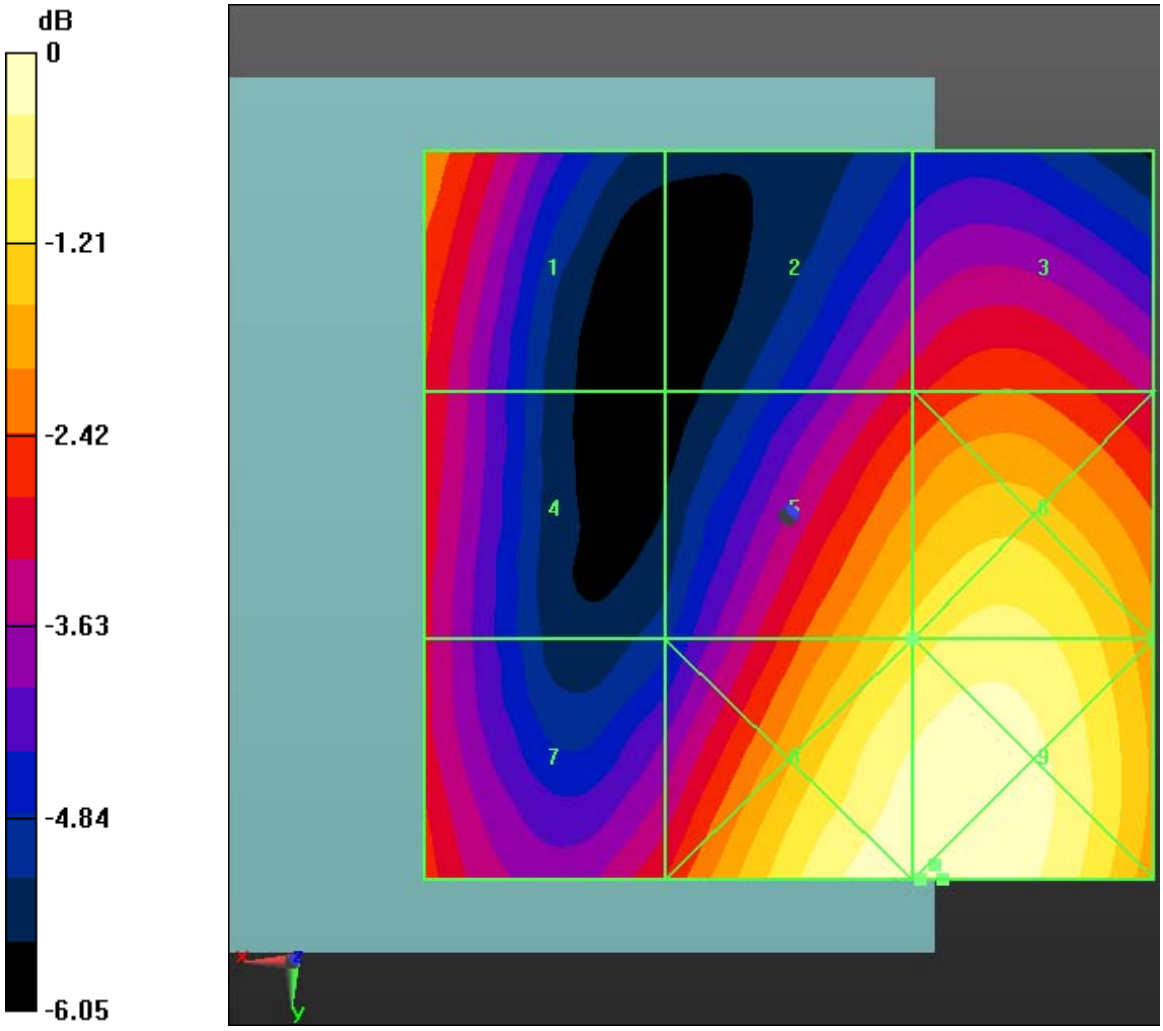
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 38.945 V/m
Probe Modulation Factor = 1.060
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 30.729 V/m; Power Drift = 0.28 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **34.127 M4**	Grid 2 **28.319 M4**	Grid 3 **28.934 M4**
Grid 4 **32.603 M4**	Grid 5 **38.945 M4**	Grid 6 **39.630 M4**
Grid 7 **33.799 M4**	Grid 8 **45.132 M4**	Grid 9 **45.137 M4**

Cursor:

Total = 45.137 V/m
E Category: M4
Location: -9, 25, 8.7 mm



0 dB = 43.740V/m

Date/Time: 3/23/2011 6:37:00 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; 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)

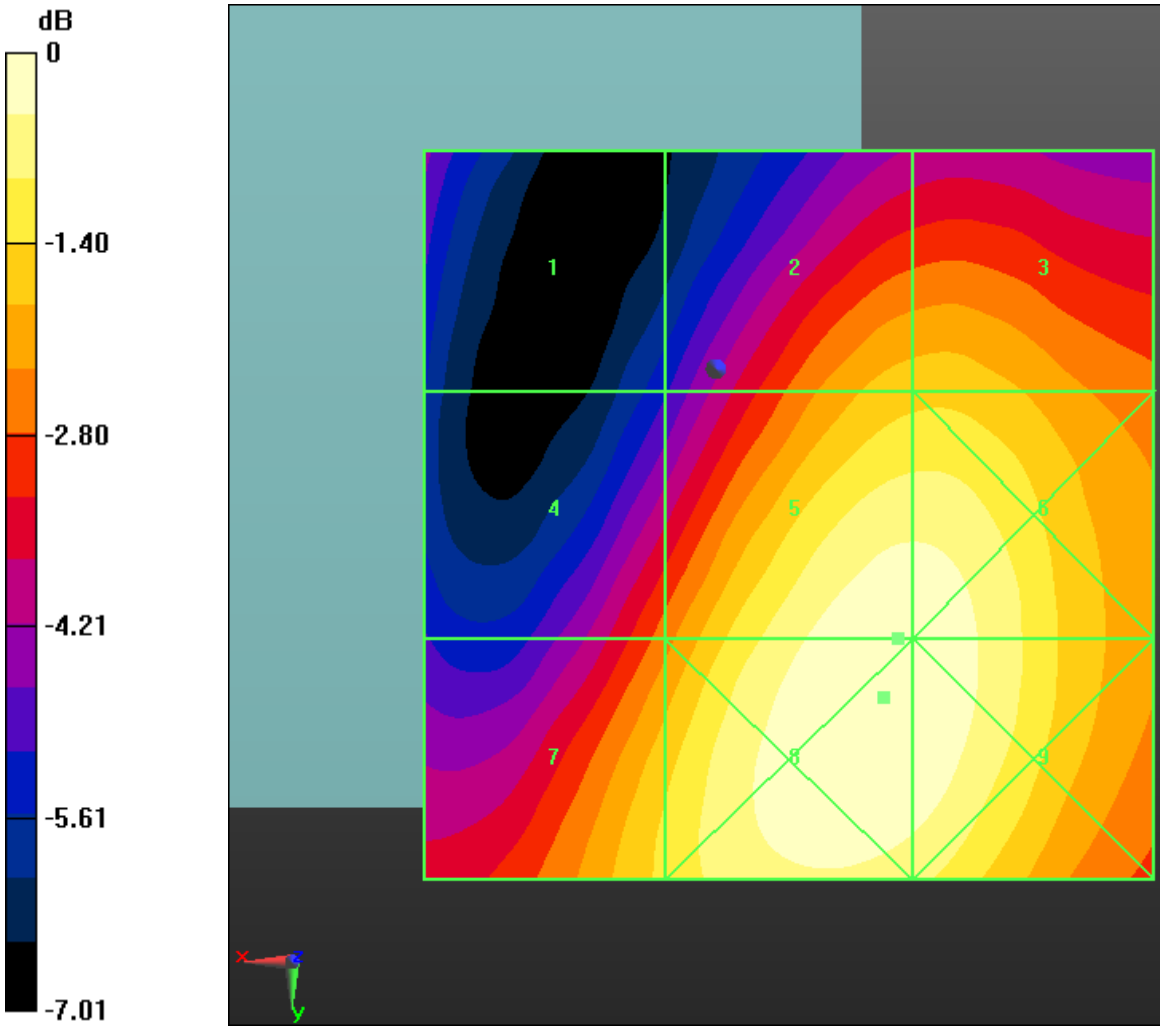
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Telecoil cent/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 46.042 V/m
Probe Modulation Factor = 1.060
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 30.894 V/m; Power Drift = -0.06 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **27.846 M4**	Grid 2 **38.794 M4**	Grid 3 **39.000 M4**
Grid 4 **34.722 M4**	Grid 5 **46.042 M4**	Grid 6 **45.978 M4**
Grid 7 **40.119 M4**	Grid 8 **46.442 M4**	Grid 9 **46.234 M4**

Cursor:

Total = 46.442 V/m
E Category: M4
Location: -11.5, 22.5, 8.7 mm



0 dB = 46.440V/m

Date/Time: 3/23/2011 10:52:43 PM, Date/Time: 3/23/2011 10:56:48 PM, Date/Time: 3/23/2011 11:00:47 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample ;

Communication System: GSM 850; .; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz;Communication System PAR: 9.191 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)

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 = 0.278 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.046 A/m; Power Drift = 0.21 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.278 M4**	Grid 2 **0.200 M4**	Grid 3 **0.129 M4**
Grid 4 **0.238 M4**	Grid 5 **0.173 M4**	Grid 6 **0.106 M4**
Grid 7 **0.255 M4**	Grid 8 **0.183 M4**	Grid 9 **0.114 M4**

Cursor:

Total = 0.278 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 = 0.332 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.058 A/m; Power Drift = 0.28 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.332 M4**	Grid 2 **0.252 M4**	Grid 3 **0.167 M4**
Grid 4 **0.286 M4**	Grid 5 **0.220 M4**	Grid 6 **0.141 M4**
Grid 7 **0.310 M4**	Grid 8 **0.233 M4**	Grid 9 **0.146 M4**

Cursor:

Total = 0.332 A/m
H Category: M4
Location: 25, -25, 8.7 mm

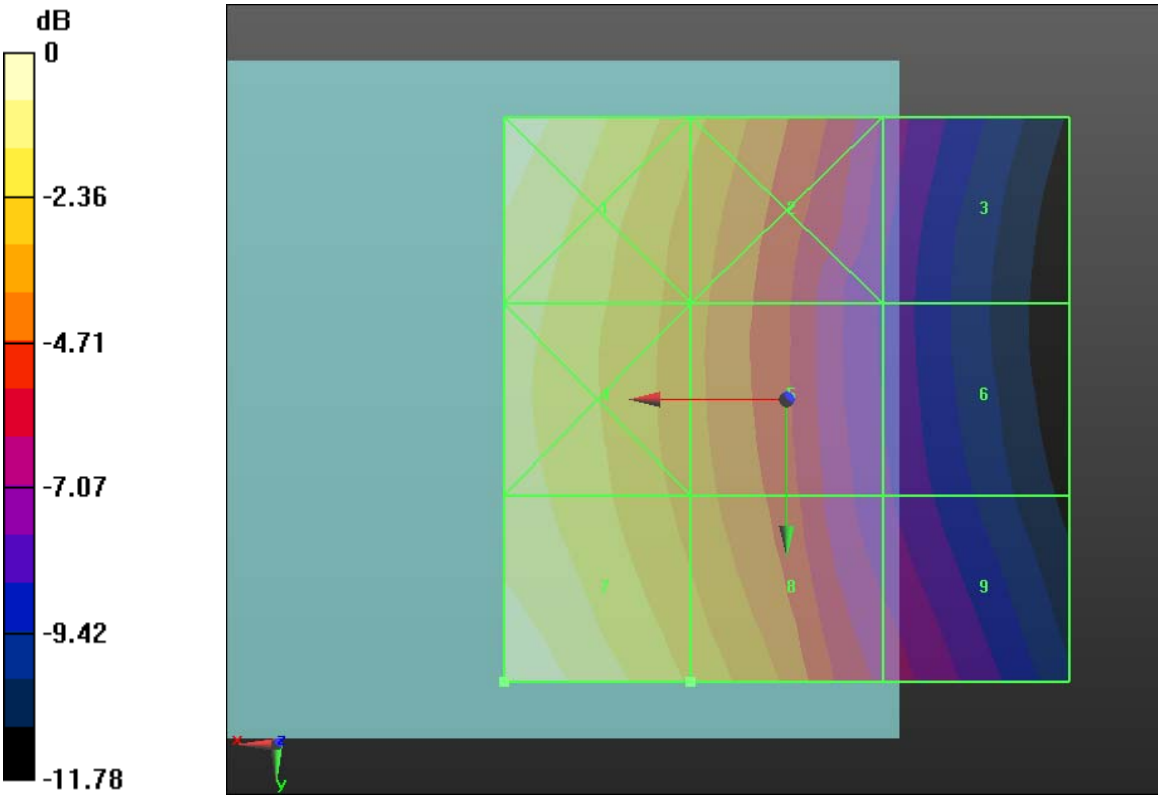
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.387 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.071 A/m; Power Drift = -0.35 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.377 M4**	Grid 2 **0.281 M4**	Grid 3 **0.171 M4**
Grid 4 **0.342 M4**	Grid 5 **0.262 M4**	Grid 6 **0.162 M4**
Grid 7 **0.387 M4**	Grid 8 **0.294 M4**	Grid 9 **0.186 M4**

Cursor:

Total = 0.387 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.390A/m

Date/Time: 3/23/2011 11:06:16 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM850_high_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; .; Frequency: 848.8 MHz;Communication System PAR: 9.191 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)

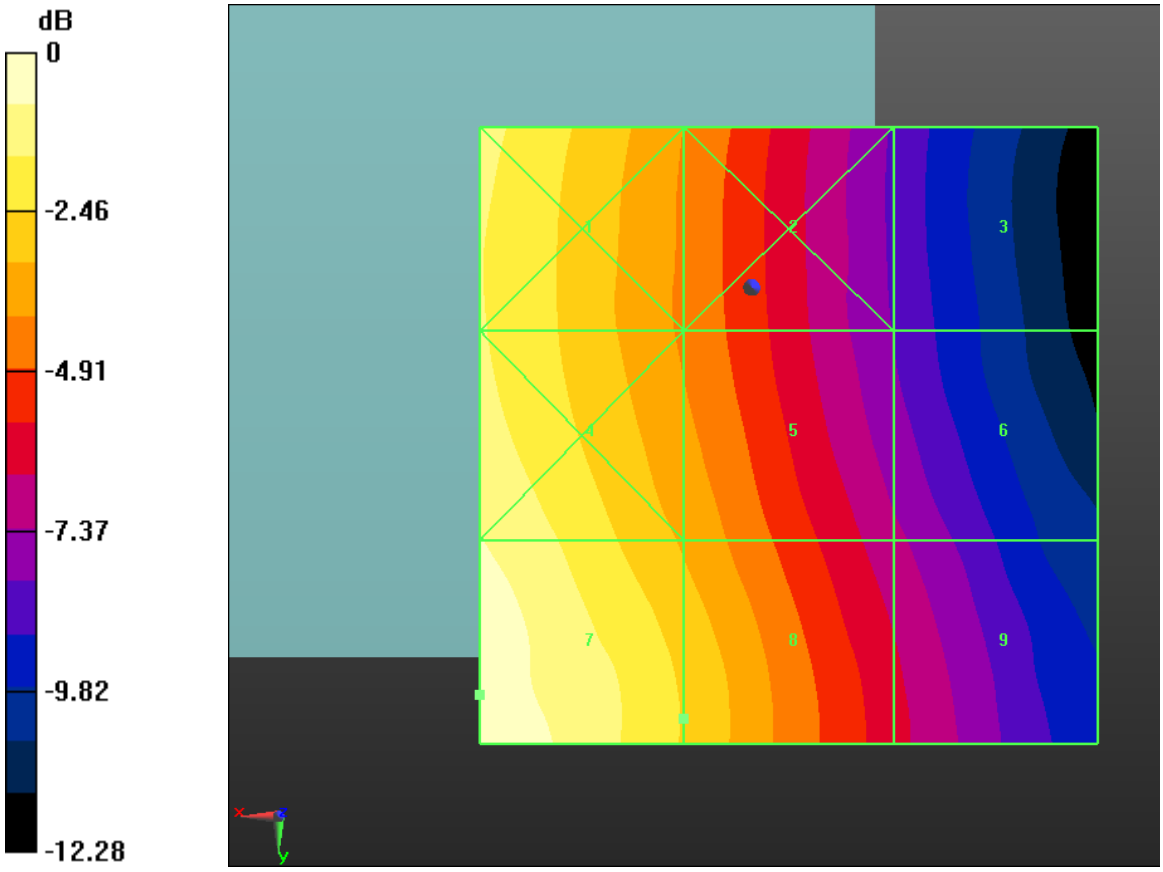
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.374 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.068 A/m; Power Drift = 0.17 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.318 M4**	Grid 2 **0.231 M4**	Grid 3 **0.144 M4**
Grid 4 **0.338 M4**	Grid 5 **0.251 M4**	Grid 6 **0.163 M4**
Grid 7 **0.374 M4**	Grid 8 **0.277 M4**	Grid 9 **0.181 M4**

Cursor:

Total = 0.374 A/m
H Category: M4
Location: 22, 33, 8.7 mm



0 dB = 0.370A/m

Date/Time: 3/23/2011 11:13:00 PM, Date/Time: 3/23/2011 11:16:23 PM, Date/Time: 3/23/2011 11:19:51 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; .; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz;Communication System PAR: 9.191 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)

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 = 0.200 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.061 A/m; Power Drift = 0.63 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.197 M3**	Grid 2 **0.186 M3**	Grid 3 **0.163 M3**
Grid 4 **0.221 M3**	Grid 5 **0.200 M3**	Grid 6 **0.157 M3**
Grid 7 **0.261 M2**	Grid 8 **0.226 M3**	Grid 9 **0.160 M3**

Cursor:

Total = 0.261 A/m
H Category: M2
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 = 0.242 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.075 A/m; Power Drift = 0.15 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.223 M3**	Grid 2 **0.218 M3**	Grid 3 **0.193 M3**
Grid 4 **0.259 M2**	Grid 5 **0.242 M3**	Grid 6 **0.194 M3**
Grid 7 **0.306 M2**	Grid 8 **0.272 M2**	Grid 9 **0.197 M3**

Cursor:

Total = 0.306 A/m
H Category: M2
Location: 24.5, 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 = 0.226 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.073 A/m; Power Drift = -0.14 dB

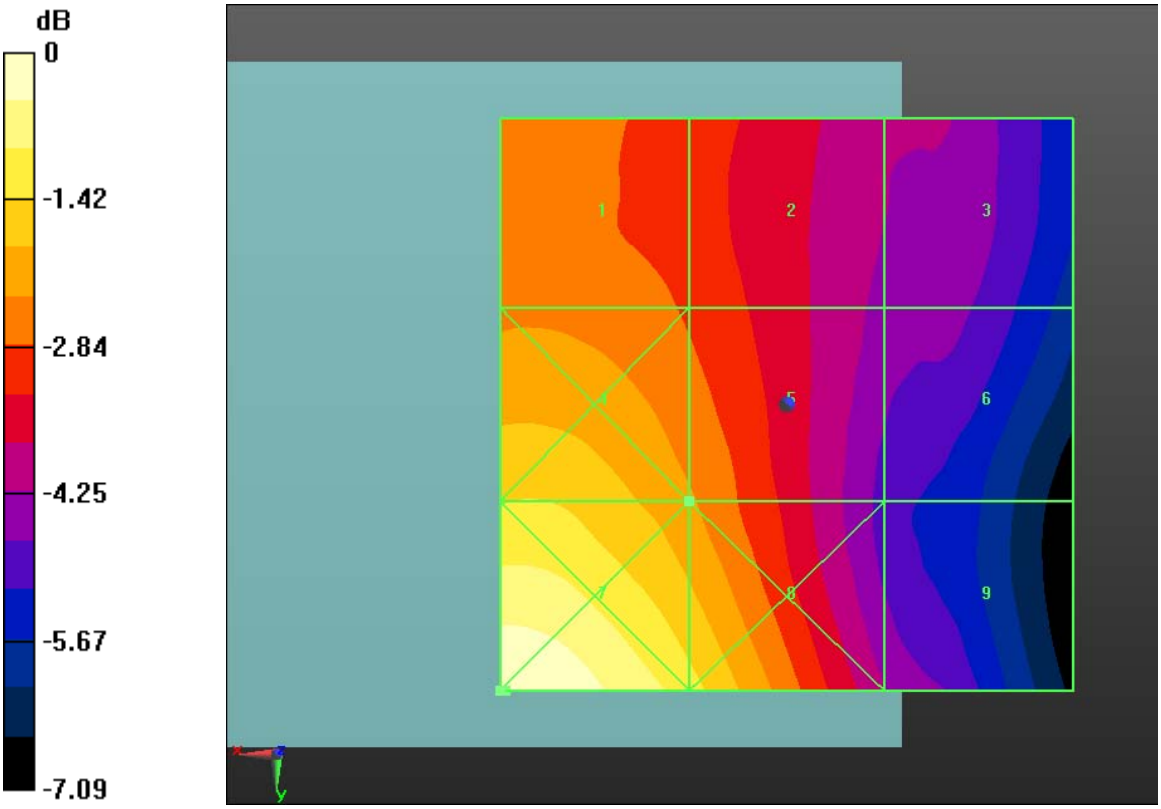
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.200 M3**	Grid 2 **0.197 M3**	Grid 3 **0.170 M3**
Grid 4 **0.240 M3**	Grid 5 **0.226 M3**	Grid 6 **0.172 M3**
Grid 7 **0.299 M2**	Grid 8 **0.264 M2**	Grid 9 **0.181 M3**

Cursor:

Total = 0.299 A/m
H Category: M2
Location: 25, 25, 8.7 mm



0 dB = 0.260A/m

Date/Time: 4/27/2011 3:05:33 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM1900_telecoil

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; .; Frequency: 1880 MHz;Communication System PAR: 9.191 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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)

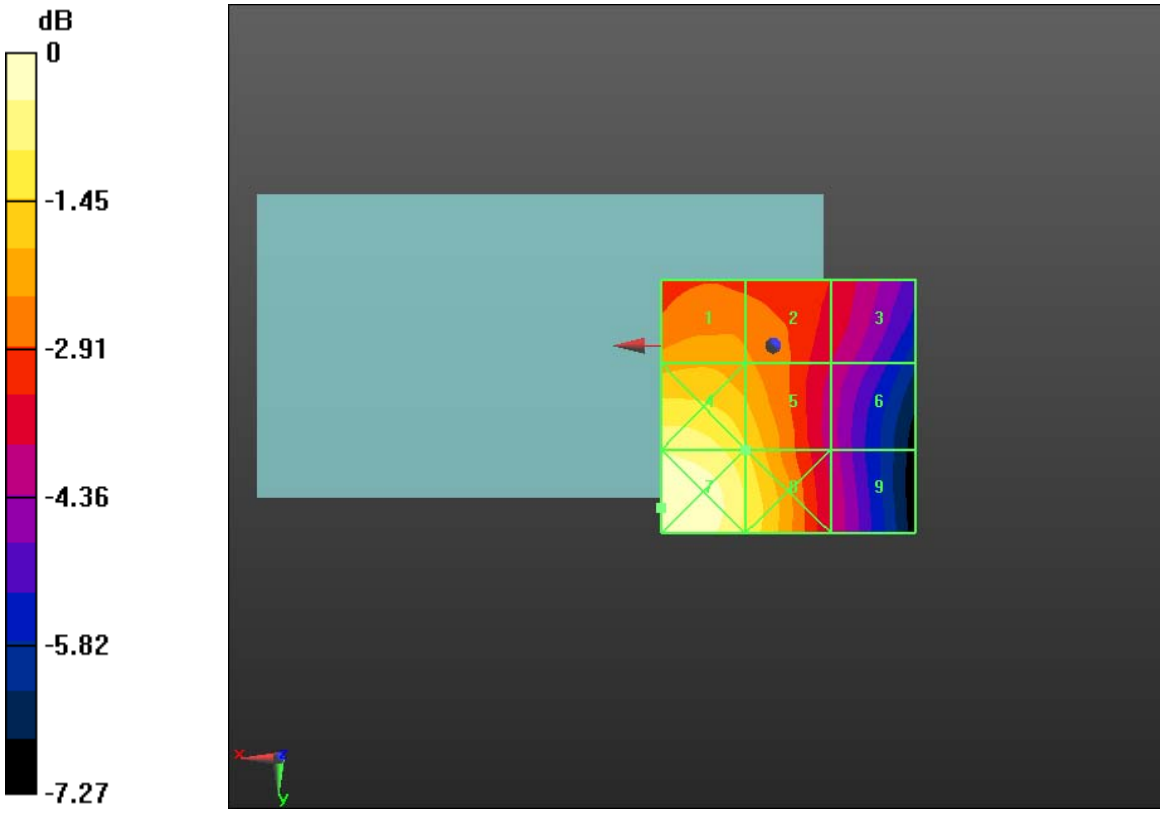
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.213 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.065 A/m; Power Drift = 0.10 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.199 M3**	Grid 2 **0.192 M3**	Grid 3 **0.169 M3**
Grid 4 **0.234 M3**	Grid 5 **0.213 M3**	Grid 6 **0.160 M3**
Grid 7 **0.254 M2**	Grid 8 **0.223 M3**	Grid 9 **0.161 M3**

Cursor:

Total = 0.254 A/m
H Category: M2
Location: 22, 32, 8.7 mm



0 dB = 0.250A/m

Date/Time: 3/23/2011 9:54:08 PM, Date/Time: 3/23/2011 9:58:10 PM, Date/Time: 3/23/2011 10:01:52 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA800

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; Frequency: 824.7 MHz, Frequency: 836.52 MHz, 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
- 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)

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 = 0.049 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.019 A/m; Power Drift = 1.06 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.049 M4**	Grid 2 **0.034 M4**	Grid 3 **0.019 M4**
Grid 4 **0.041 M4**	Grid 5 **0.028 M4**	Grid 6 **0.017 M4**
Grid 7 **0.040 M4**	Grid 8 **0.030 M4**	Grid 9 **0.018 M4**

Cursor:

Total = 0.049 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 = 0.051 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.025 A/m; Power Drift = -0.16 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.051 M4**	Grid 2 **0.041 M4**	Grid 3 **0.025 M4**
Grid 4 **0.050 M4**	Grid 5 **0.036 M4**	Grid 6 **0.024 M4**
Grid 7 **0.050 M4**	Grid 8 **0.037 M4**	Grid 9 **0.025 M4**

Cursor:

Total = 0.051 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 = 0.047 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.030 A/m; Power Drift = 0.99 dB

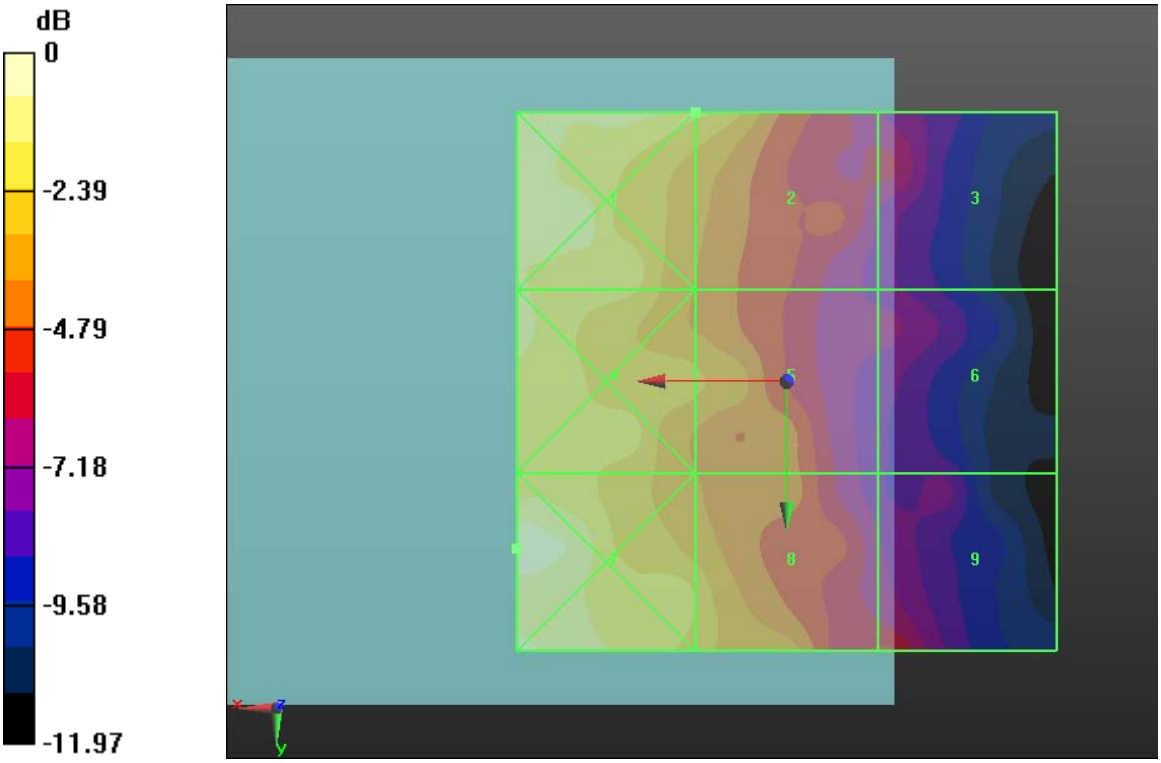
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.055 M4**	Grid 2 **0.047 M4**	Grid 3 **0.030 M4**
Grid 4 **0.052 M4**	Grid 5 **0.042 M4**	Grid 6 **0.027 M4**
Grid 7 **0.058 M4**	Grid 8 **0.046 M4**	Grid 9 **0.033 M4**

Cursor:

Total = 0.058 A/m
H Category: M4
Location: 25, 15.5, 8.7 mm



0 dB = 0.060A/m

Date/Time: 3/23/2011 10:07:55 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA800_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; Communication System Band:; Frequency: 836.52 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
- 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)

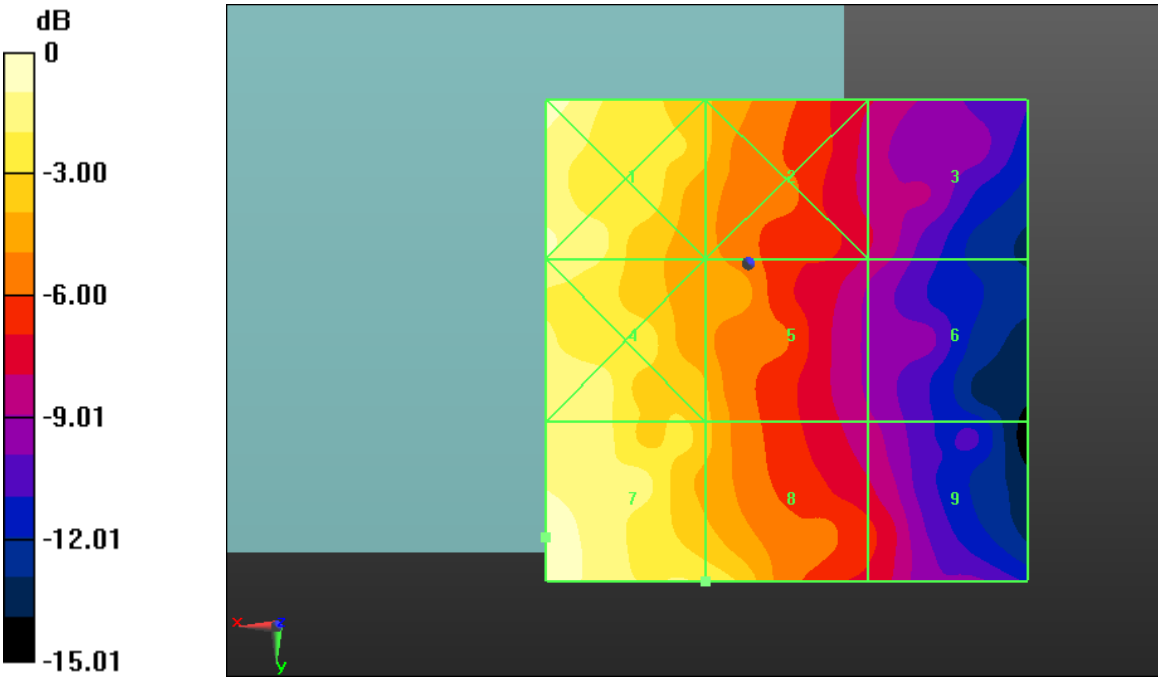
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.052 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.024 A/m; Power Drift = 1.07 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.050 M4**	Grid 2 **0.033 M4**	Grid 3 **0.020 M4**
Grid 4 **0.044 M4**	Grid 5 **0.033 M4**	Grid 6 **0.020 M4**
Grid 7 **0.052 M4**	Grid 8 **0.039 M4**	Grid 9 **0.023 M4**

Cursor:

Total = 0.052 A/m
H Category: M4
Location: 21, 28.5, 8.7 mm



0 dB = 0.050A/m

Date/Time: 3/23/2011 10:15:39 PM, Date/Time: 3/23/2011 10:28:50 PM, Date/Time: 3/23/2011 10:34:20 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample

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

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 = 0.037 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.031 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.036 M4**	Grid 2 **0.035 M4**	Grid 3 **0.031 M4**
Grid 4 **0.041 M4**	Grid 5 **0.037 M4**	Grid 6 **0.030 M4**
Grid 7 **0.047 M4**	Grid 8 **0.042 M4**	Grid 9 **0.029 M4**

Cursor:

Total = 0.047 A/m
H Category: M4
Location: 22.5, 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 = 0.121 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.105 A/m; Power Drift = -0.02 dB

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

Peak H-field in A/m

Grid 1 **0.111 M4**	Grid 2 **0.108 M4**	Grid 3 **0.094 M4**
Grid 4 **0.130 M4**	Grid 5 **0.121 M4**	Grid 6 **0.094 M4**
Grid 7 **0.152 M4**	Grid 8 **0.135 M4**	Grid 9 **0.096 M4**

Cursor:

Total = 0.152 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 = 0.120 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.104 A/m; Power Drift = 0.03 dB

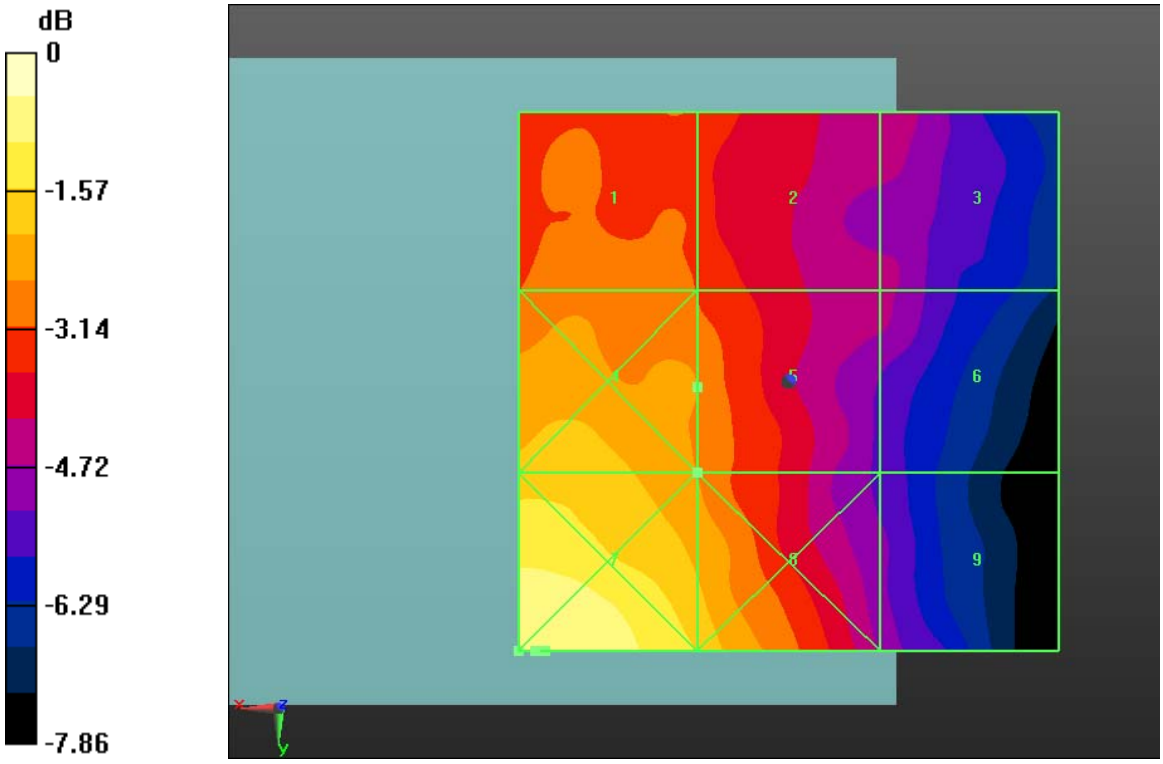
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.103 M4**	Grid 2 **0.103 M4**	Grid 3 **0.092 M4**
Grid 4 **0.127 M4**	Grid 5 **0.120 M4**	Grid 6 **0.094 M4**
Grid 7 **0.156 M4**	Grid 8 **0.139 M4**	Grid 9 **0.097 M4**

Cursor:

Total = 0.156 A/m
H Category: M4
Location: 23.5, 25, 8.7 mm



0 dB = 0.050A/m

Date/Time: 3/23/2011 10:40:20 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; 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)

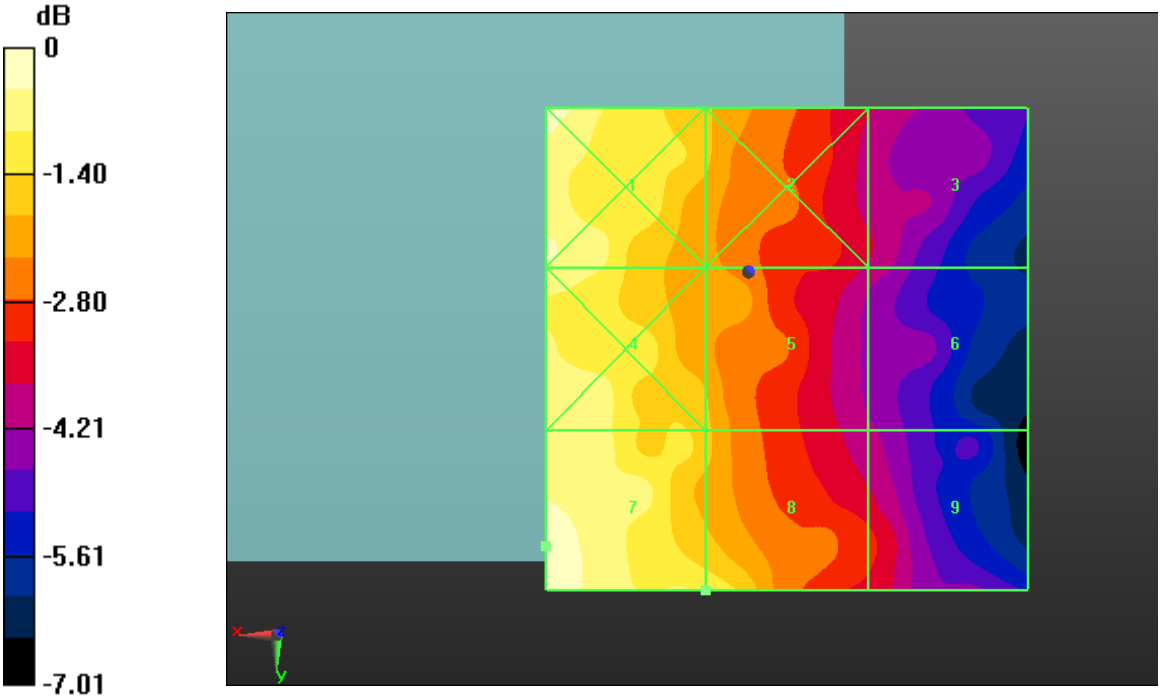
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.105 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.100 A/m; Power Drift = 0.08 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.100 M4**	Grid 2 **0.097 M4**	Grid 3 **0.086 M4**
Grid 4 **0.113 M4**	Grid 5 **0.105 M4**	Grid 6 **0.087 M4**
Grid 7 **0.131 M4**	Grid 8 **0.113 M4**	Grid 9 **0.086 M4**

Cursor:

Total = 0.131 A/m
H Category: M4
Location: 20, 15, 8.7 mm



0 dB = 0.130A/m

Date/Time: 4/28/2011 5:32:14 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_band_IV_low_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1712.4 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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):

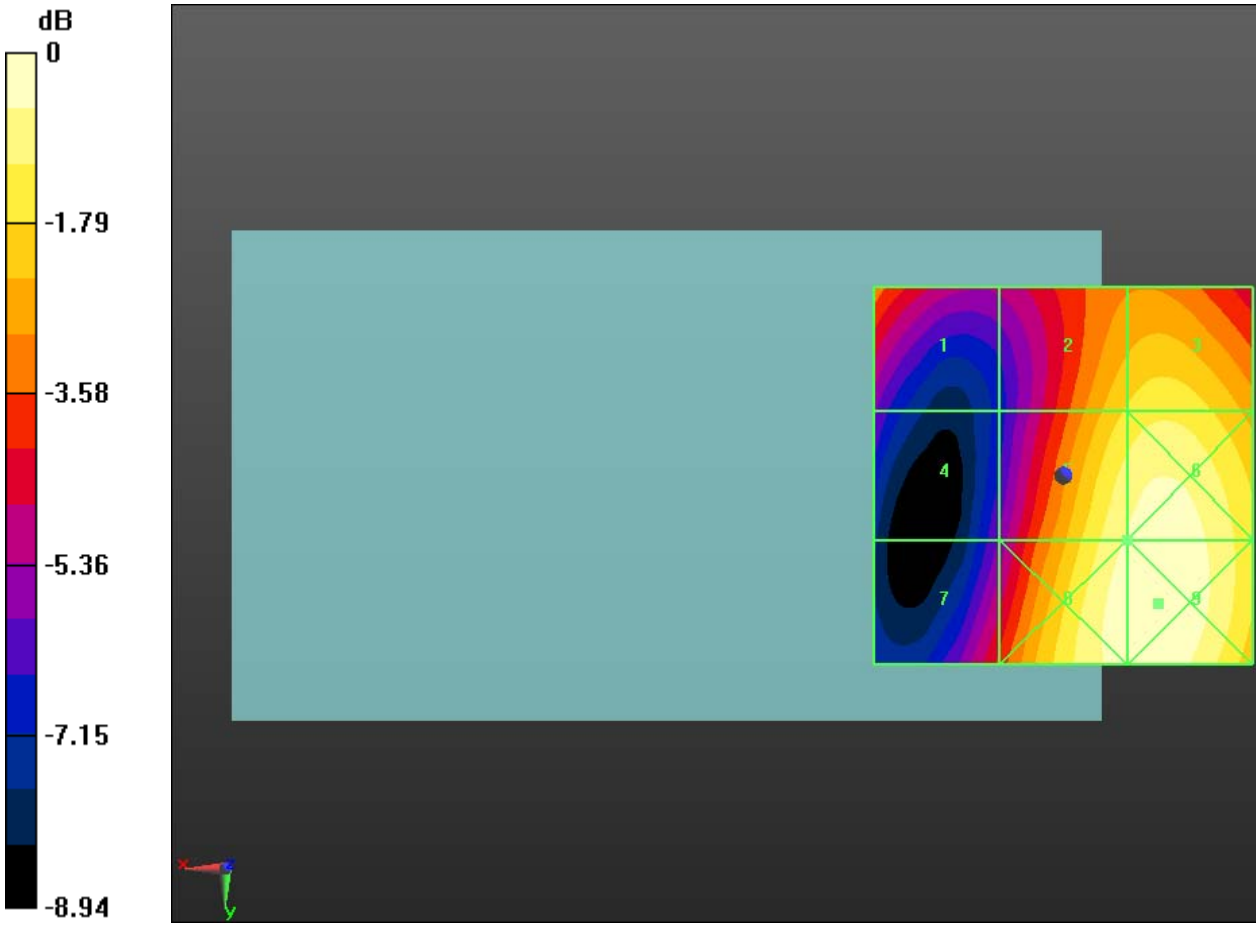
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 44.032 V/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 40.626 V/m; Power Drift = 0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **32.482 M4**	Grid 2 **38.430 M4**	Grid 3 **40.139 M4**
Grid 4 **23.927 M4**	Grid 5 **44.032 M4**	Grid 6 **45.660 M4**
Grid 7 **29.628 M4**	Grid 8 **45.674 M4**	Grid 9 **46.660 M4**

Cursor:

Total = 46.660 V/m
E Category: M4
Location: -12.5, 17, 8.7 mm



0 dB = 46.660V/m

Date/Time: 4/28/2011 5:35:37 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_band_IV_mid_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1732.6 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 2/Hearing Aid Compatibility Test (101x101x1):

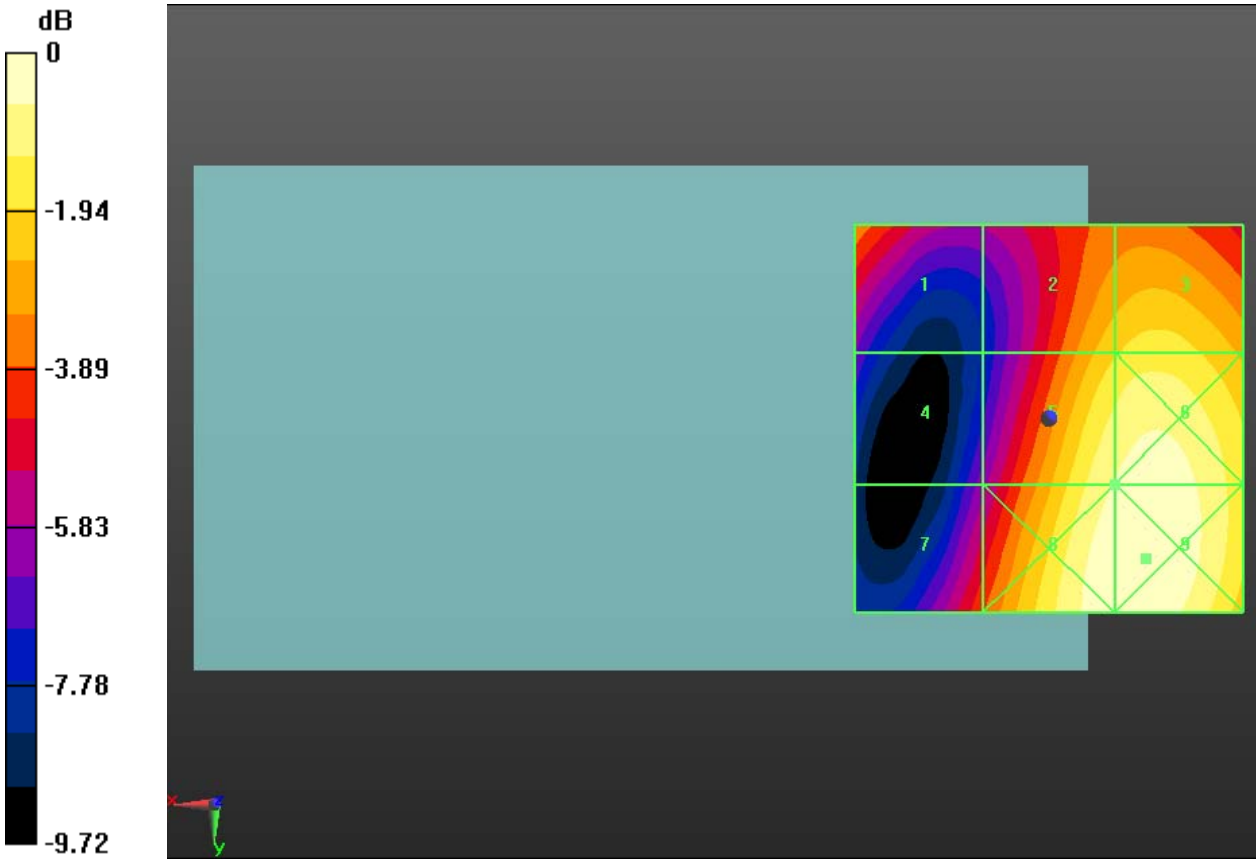
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 44.356 V/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 39.602 V/m; Power Drift = -0.00025 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **32.561 M4**	Grid 2 **37.634 M4**	Grid 3 **39.688 M4**
Grid 4 **23.616 M4**	Grid 5 **44.356 M4**	Grid 6 **46.188 M4**
Grid 7 **30.272 M4**	Grid 8 **46.710 M4**	Grid 9 **47.573 M4**

Cursor:

Total = 47.573 V/m
E Category: M4
Location: -12.5, 18, 8.7 mm



0 dB = 47.570V/m

Date/Time: 4/28/2011 5:39:10 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_band_IV_high_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1752.6 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 2 2/Hearing Aid Compatibility Test (101x101x1):

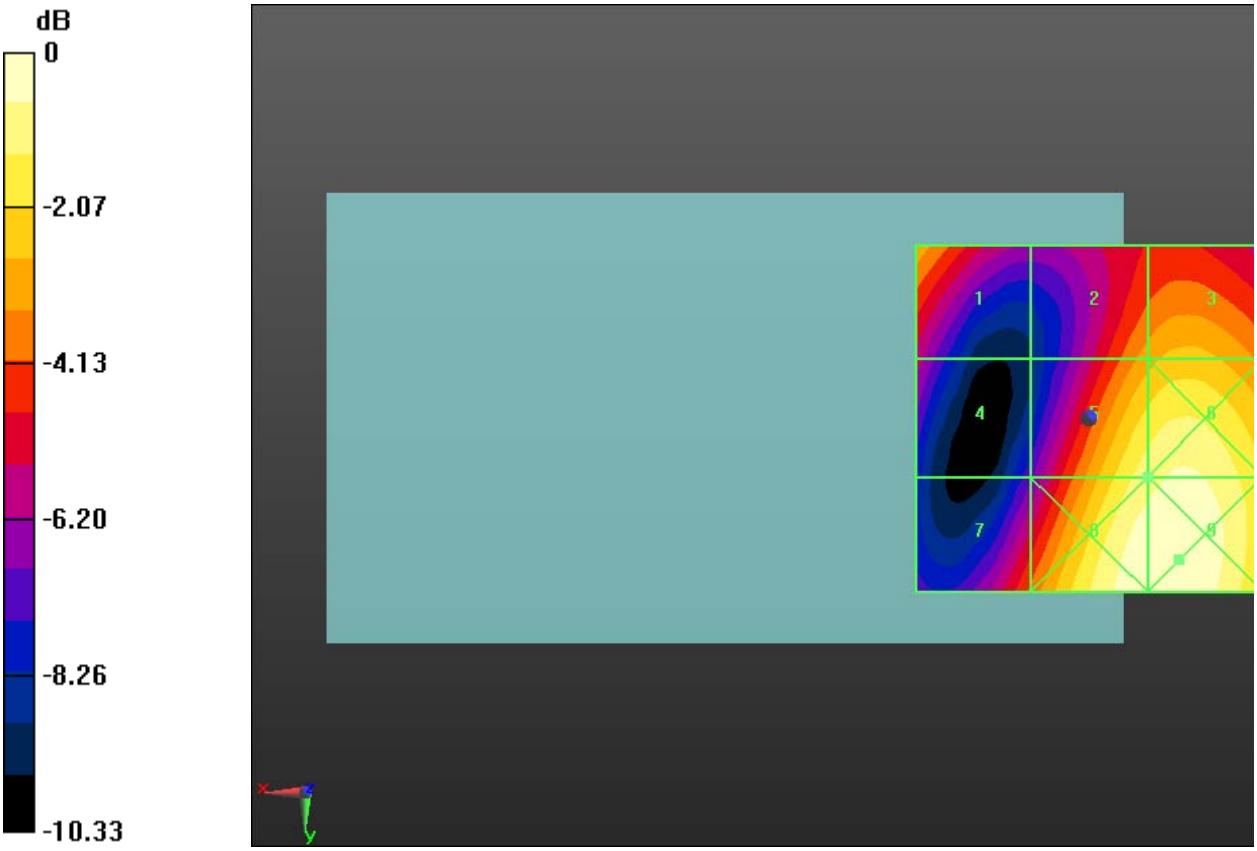
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 40.053 V/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 33.539 V/m; Power Drift = 0.04 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **32.223 M4**	Grid 2 **31.643 M4**	Grid 3 **33.764 M4**
Grid 4 **23.273 M4**	Grid 5 **40.053 M4**	Grid 6 **42.023 M4**
Grid 7 **28.402 M4**	Grid 8 **44.100 M4**	Grid 9 **44.868 M4**

Cursor:

Total = 44.869 V/m
E Category: M4
Location: -13, 20.5, 8.7 mm



0 dB = 44.870V/m

Date/Time: 4/28/2011 7:05:16 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_band_IV_mid_chan_telecoil_center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1732.6 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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)

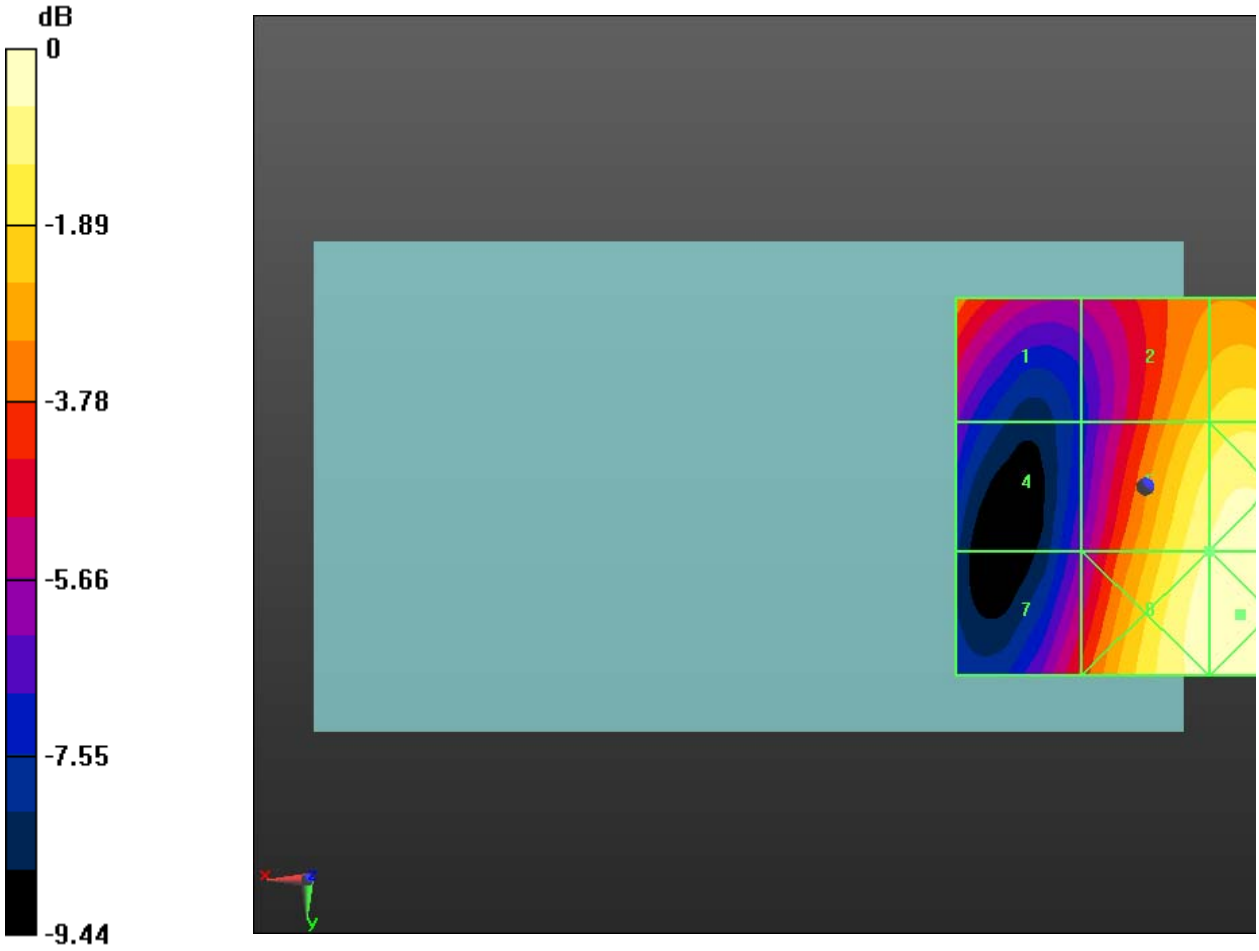
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Telecoil cent/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 44.572 V/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 42.031 V/m; Power Drift = -0.12 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **38.261 M4**	Grid 2 **36.861 M4**	Grid 3 **37.303 M4**
Grid 4 **26.041 M4**	Grid 5 **44.572 M4**	Grid 6 **45.265 M4**
Grid 7 **31.557 M4**	Grid 8 **48.300 M4**	Grid 9 **48.420 M4**

Cursor:

Total = 48.420 V/m
E Category: M4
Location: -12, 18, 8.7 mm



0 dB = 48.420V/m

Date/Time: 4/28/2011 7:15:55 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_band IV_low_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1712.4 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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):

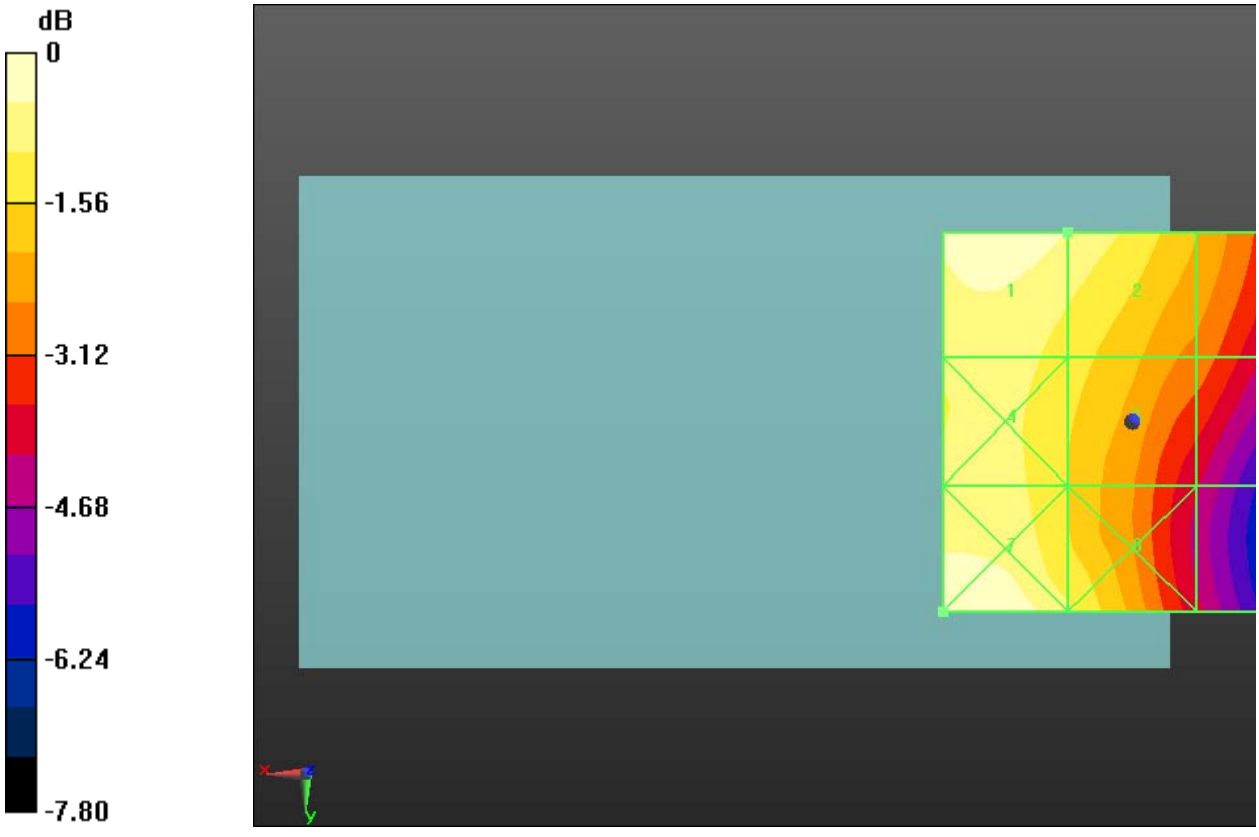
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.128 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.103 A/m; Power Drift = 0.18 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.128 M4**	Grid 2 **0.122 M4**	Grid 3 **0.102 M4**
Grid 4 **0.118 M4**	Grid 5 **0.112 M4**	Grid 6 **0.094 M4**
Grid 7 **0.129 M4**	Grid 8 **0.117 M4**	Grid 9 **0.082 M4**

Cursor:

Total = 0.129 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.130A/m

Date/Time: 4/28/2011 7:21:18 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_band IV_mid_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1732.6 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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 2/Hearing Aid Compatibility Test (101x101x1):

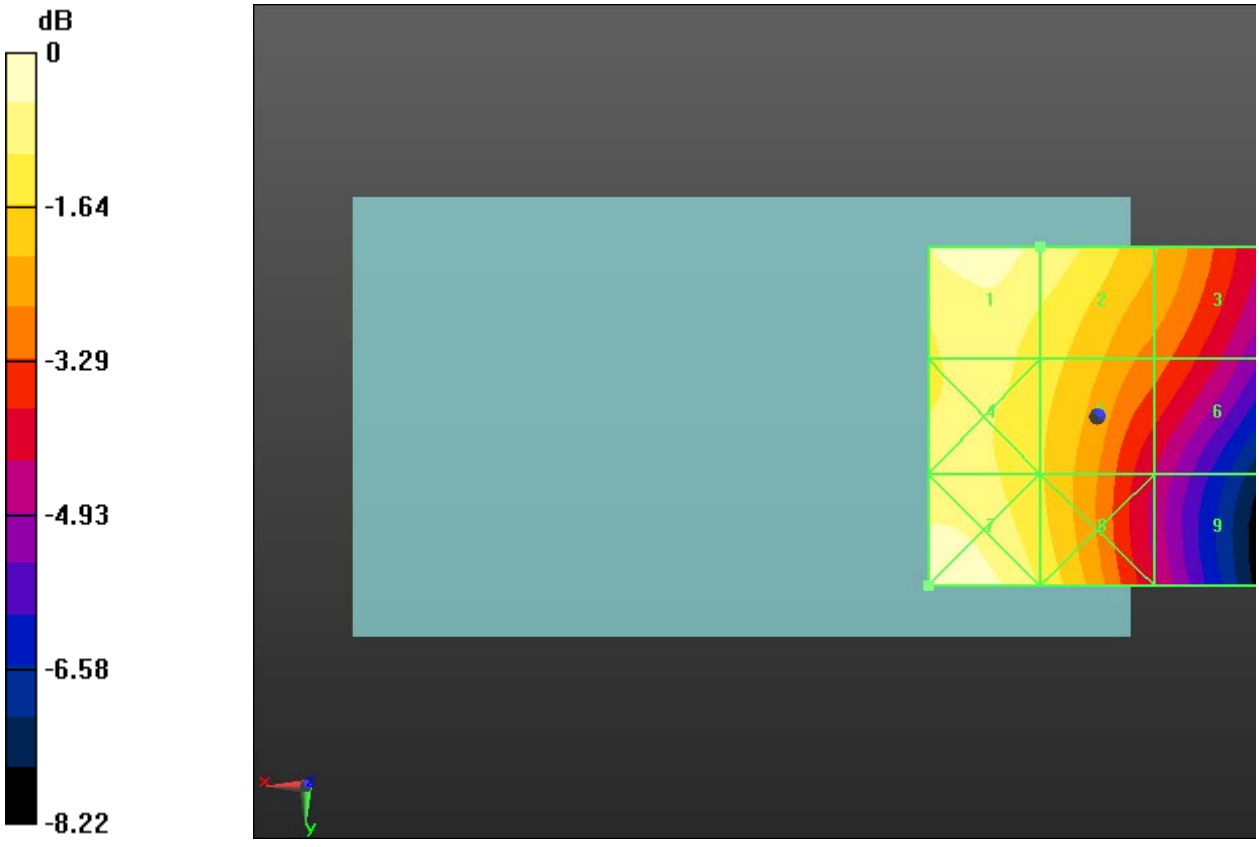
Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.125 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.102 A/m; Power Drift = 0.00037 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.125 M4**	Grid 2 **0.121 M4**	Grid 3 **0.102 M4**
Grid 4 **0.118 M4**	Grid 5 **0.111 M4**	Grid 6 **0.092 M4**
Grid 7 **0.130 M4**	Grid 8 **0.114 M4**	Grid 9 **0.080 M4**

Cursor:

Total = 0.130 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.130A/m

Date/Time: 4/28/2011 7:24:37 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_band IV_high_chan

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1752.6 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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)

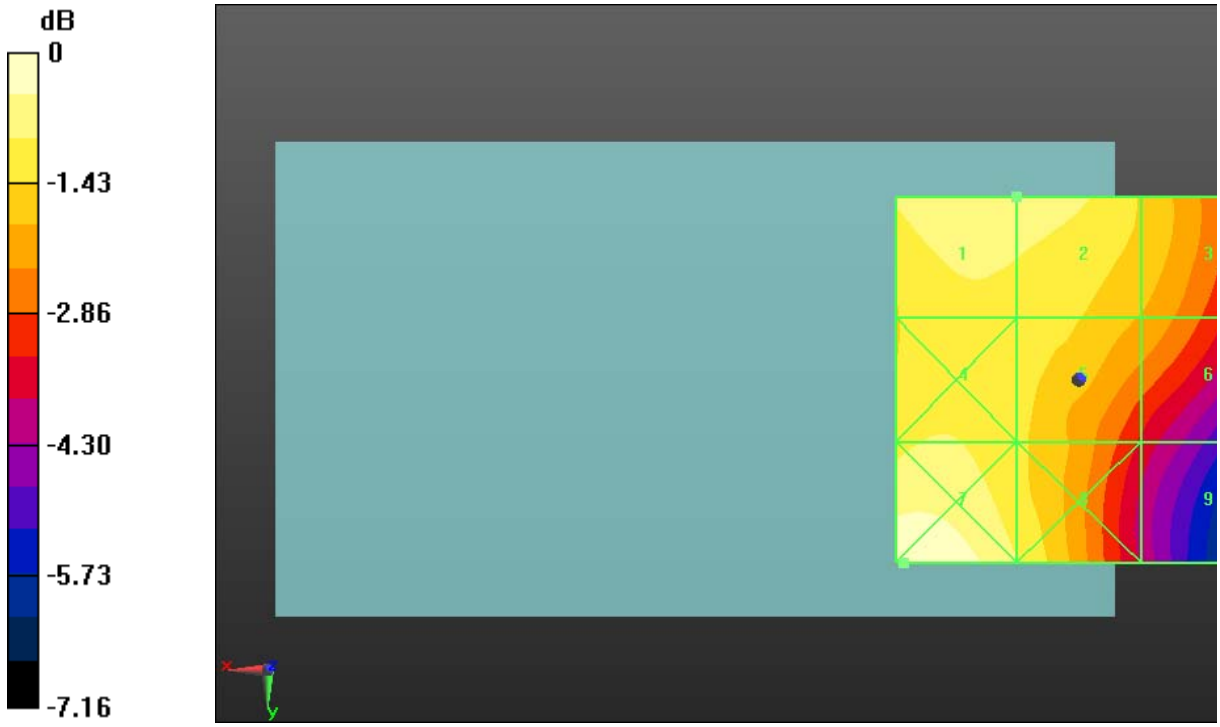
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.113 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.103 A/m; Power Drift = 0.06 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.113 M4**	Grid 2 **0.112 M4**	Grid 3 **0.101 M4**
Grid 4 **0.108 M4**	Grid 5 **0.105 M4**	Grid 6 **0.096 M4**
Grid 7 **0.120 M4**	Grid 8 **0.108 M4**	Grid 9 **0.081 M4**

Cursor:

Total = 0.120 A/m
H Category: M4
Location: 24, 25, 8.7 mm



0 dB = 0.120A/m

Date/Time: 4/28/2011 7:30:55 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_band IV_low_chan_telecoil_center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: WCDMA FDD IV; Communication System Band: Frequency: 1712.4 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: DAE3 Sn473; Calibrated: 1/21/2011
- 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)

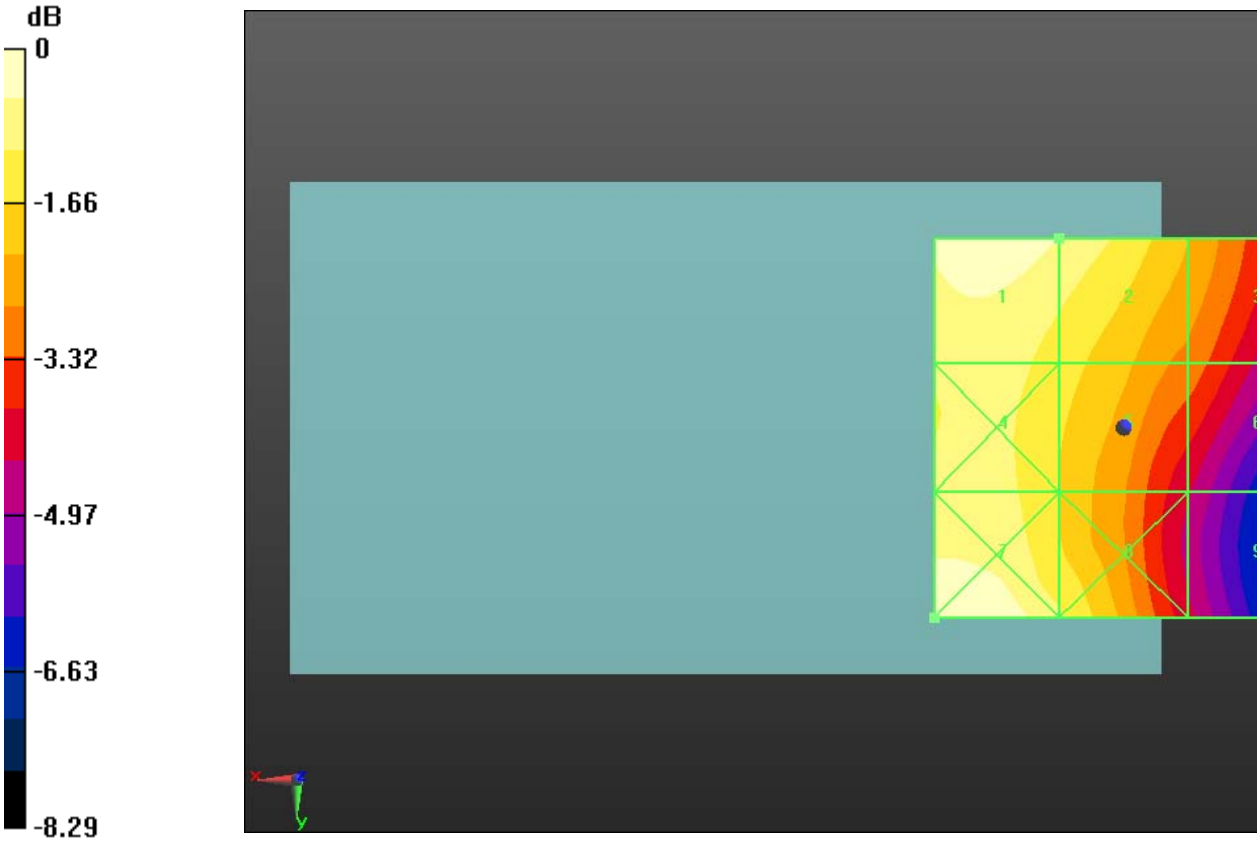
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.129 A/m
Probe Modulation Factor = 0.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.103 A/m; Power Drift = 0.05 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.129 M4**	Grid 2 **0.122 M4**	Grid 3 **0.100 M4**
Grid 4 **0.120 M4**	Grid 5 **0.113 M4**	Grid 6 **0.096 M4**
Grid 7 **0.122 M4**	Grid 8 **0.109 M4**	Grid 9 **0.082 M4**

Cursor:

Total = 0.129 A/m
H Category: M4
Location: 17.5, -31, 8.7 mm



0 dB = 0.130A/m