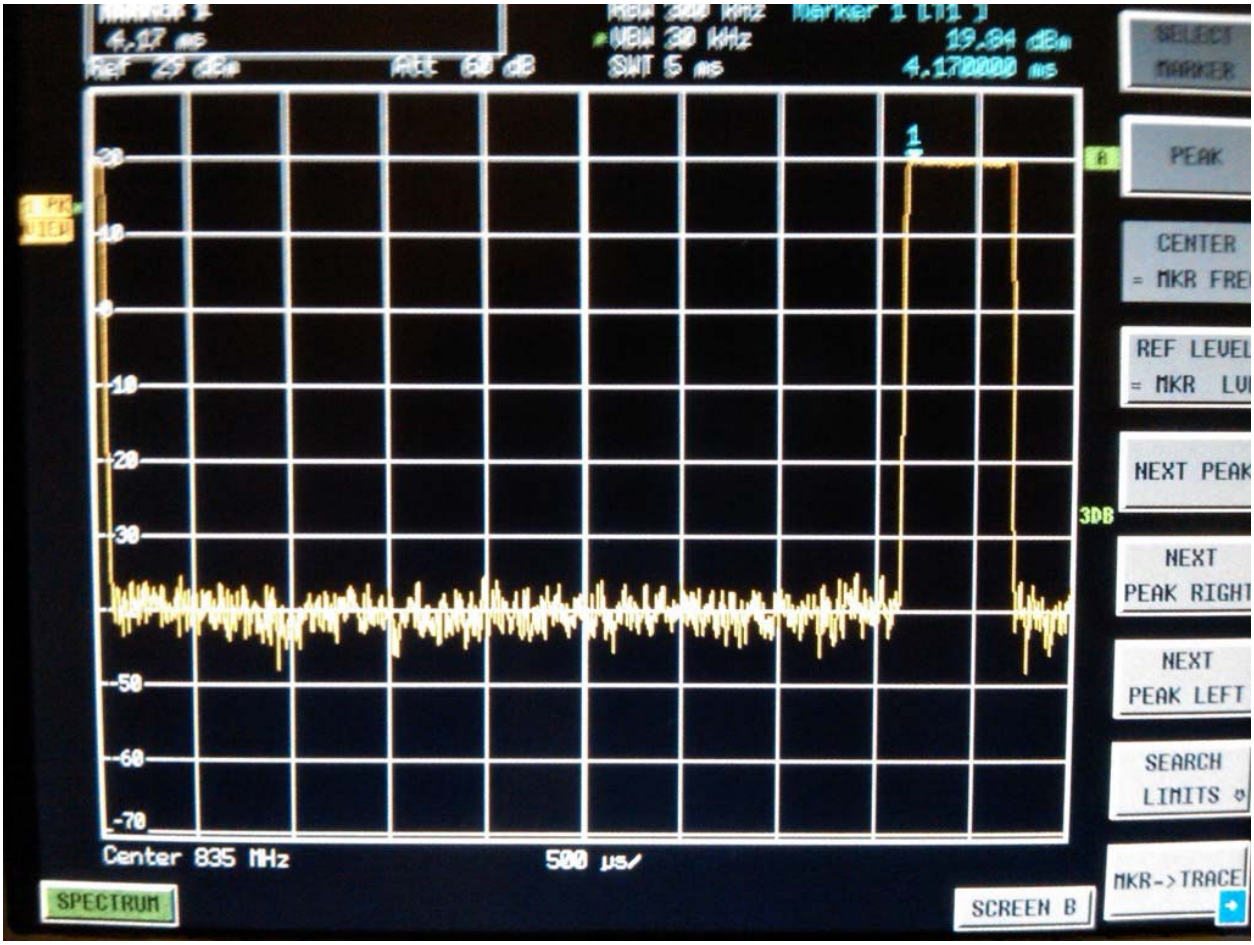
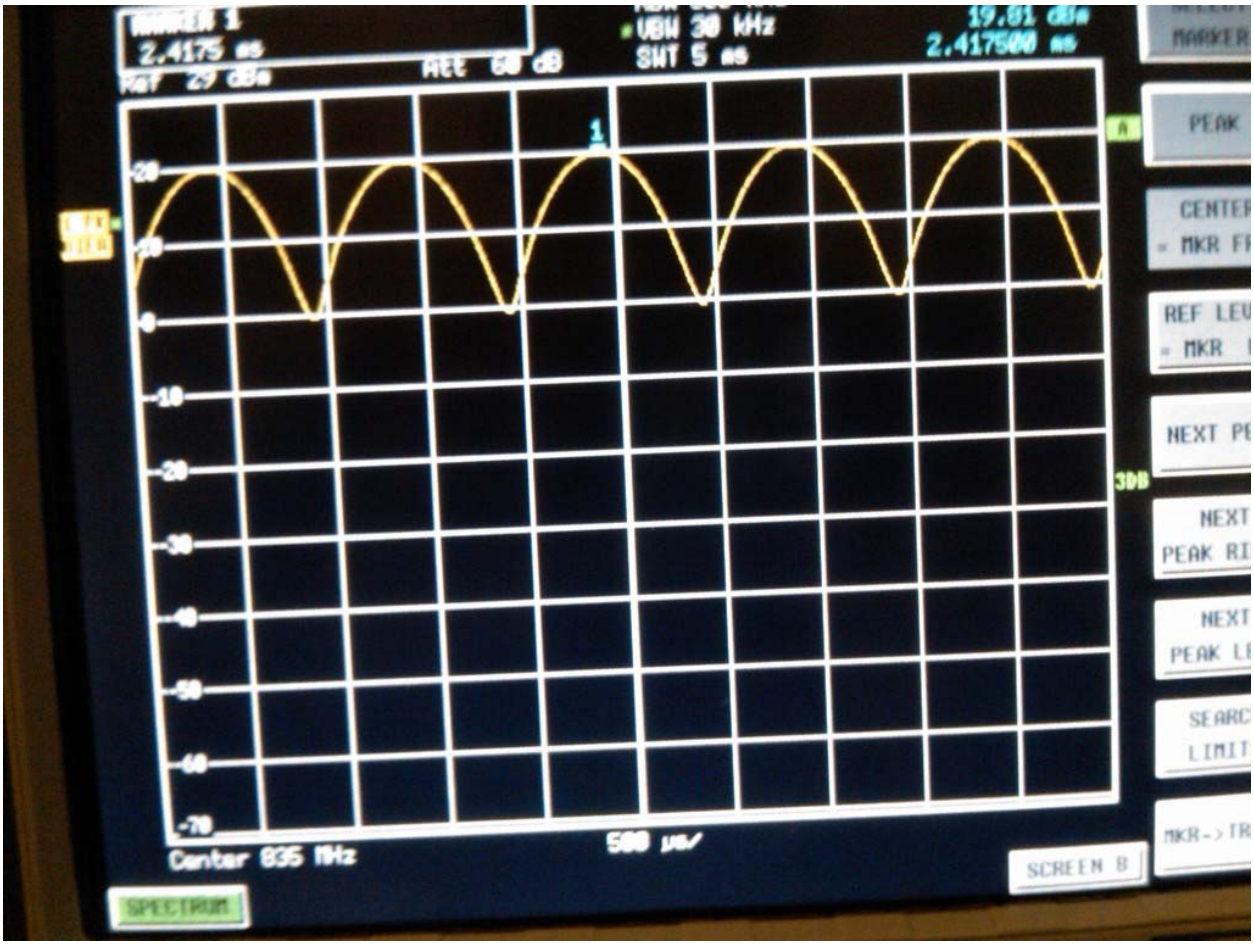
Annex A: Measurement data and plots

A.1 Spectrum analyser plots: GSM/WCDMA, CW and 80%AM signals



0 Hz Span GSM Plot (835MHz)

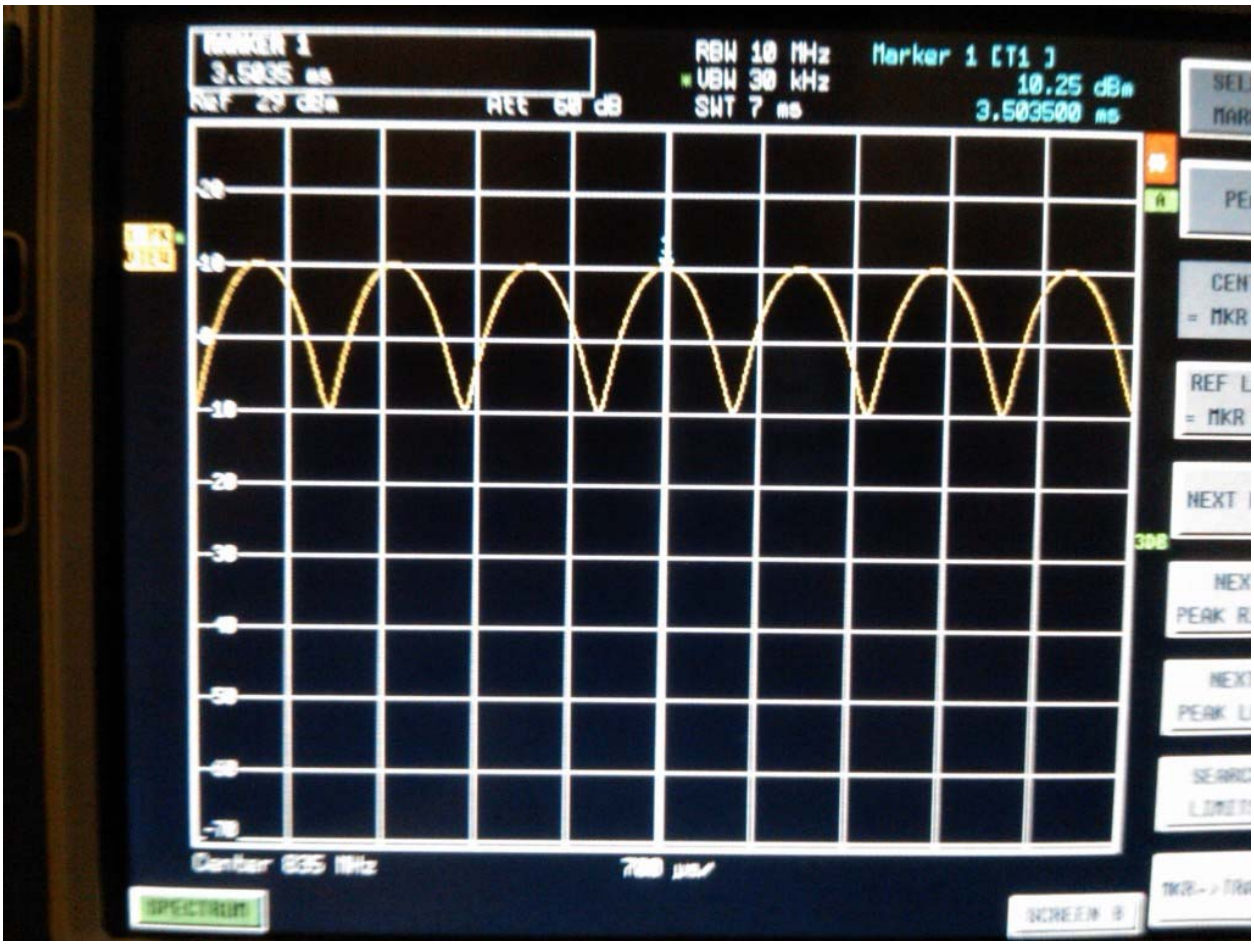
0 Hz Span CDMA Plot (835MHz)



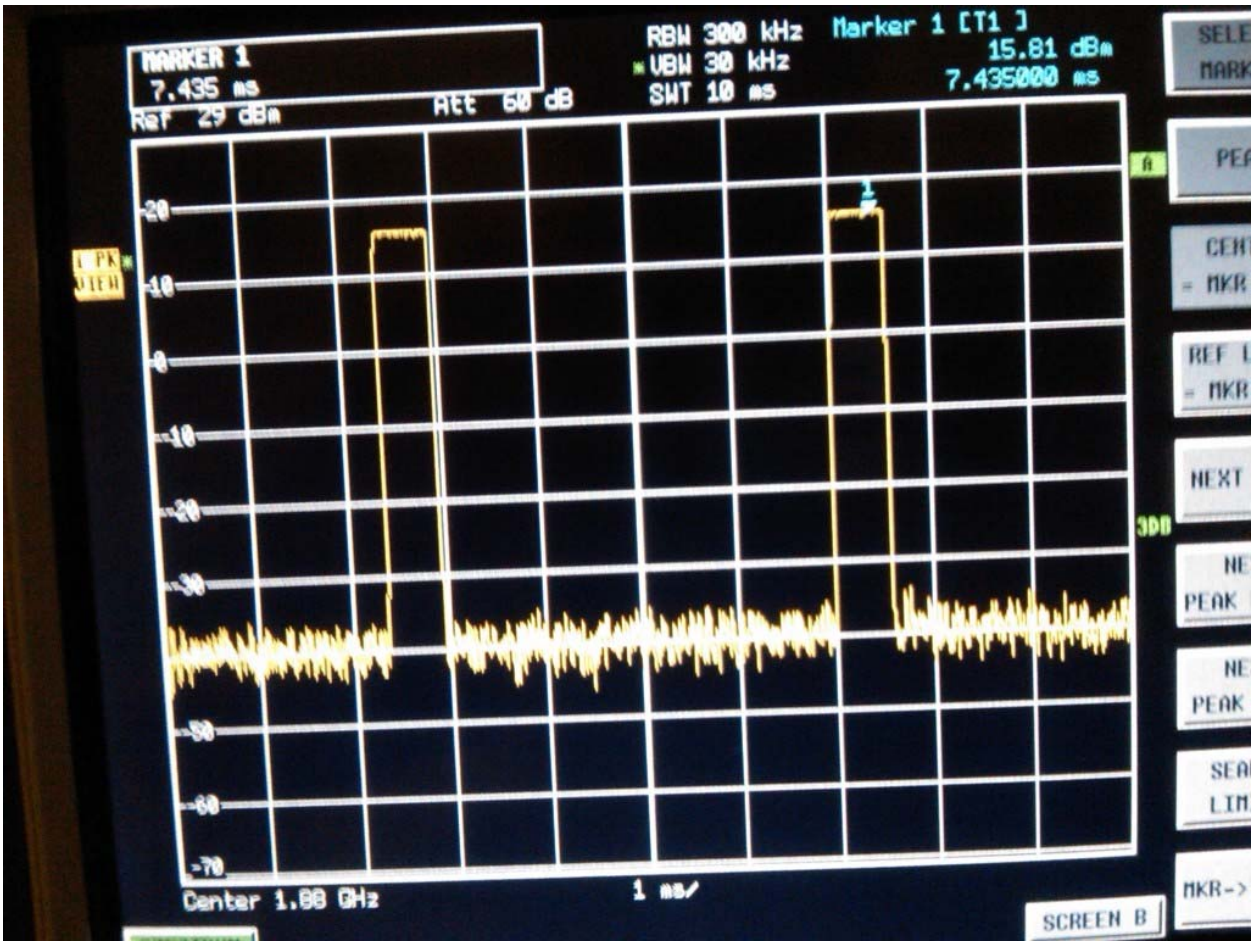
0 Hz Span AM 80% (835MHz)

0 Hz Span WCDMA Plot (835MHz)

0 Hz Span CW Plot (835MHz)



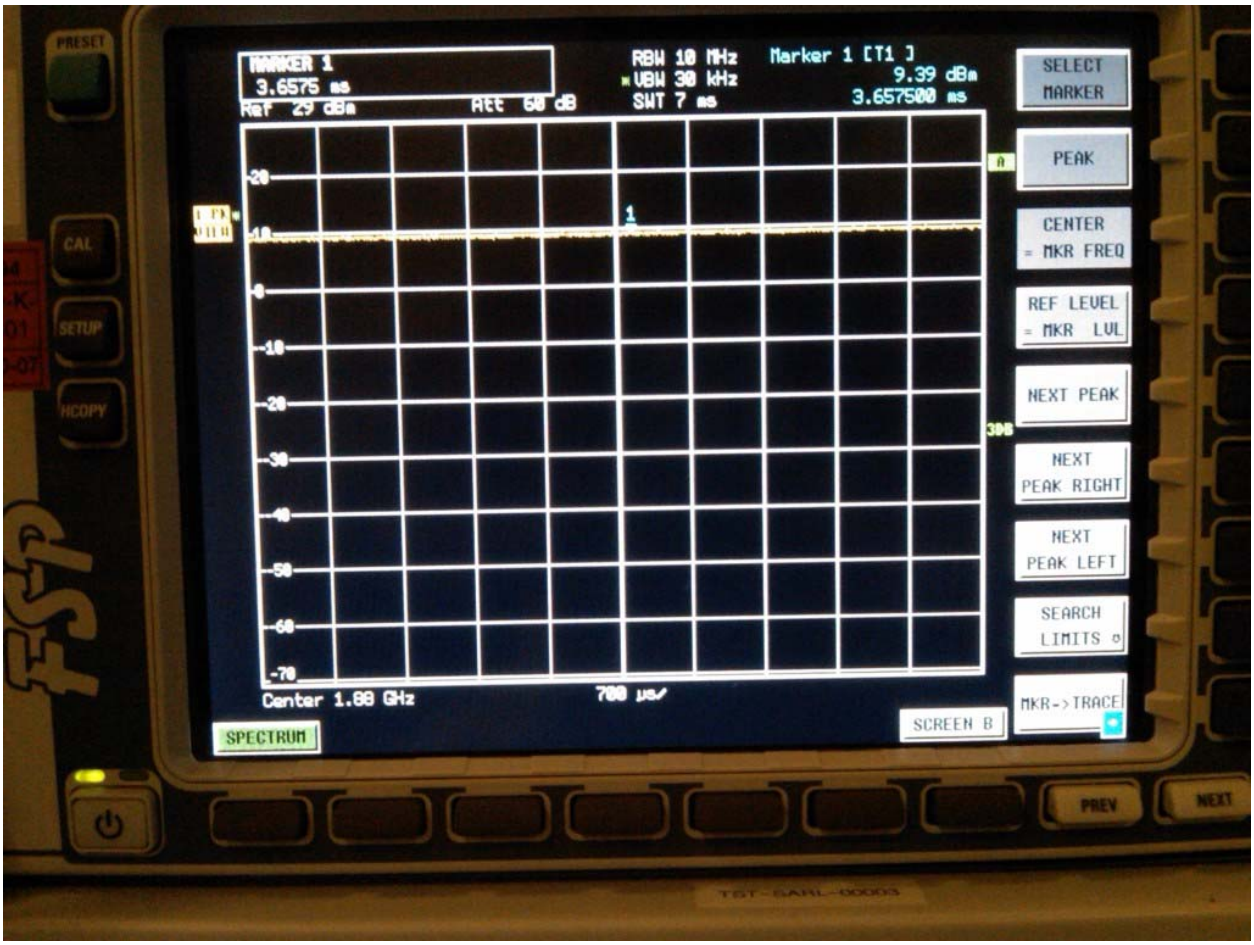
0 Hz Span AM80% (835MHz)



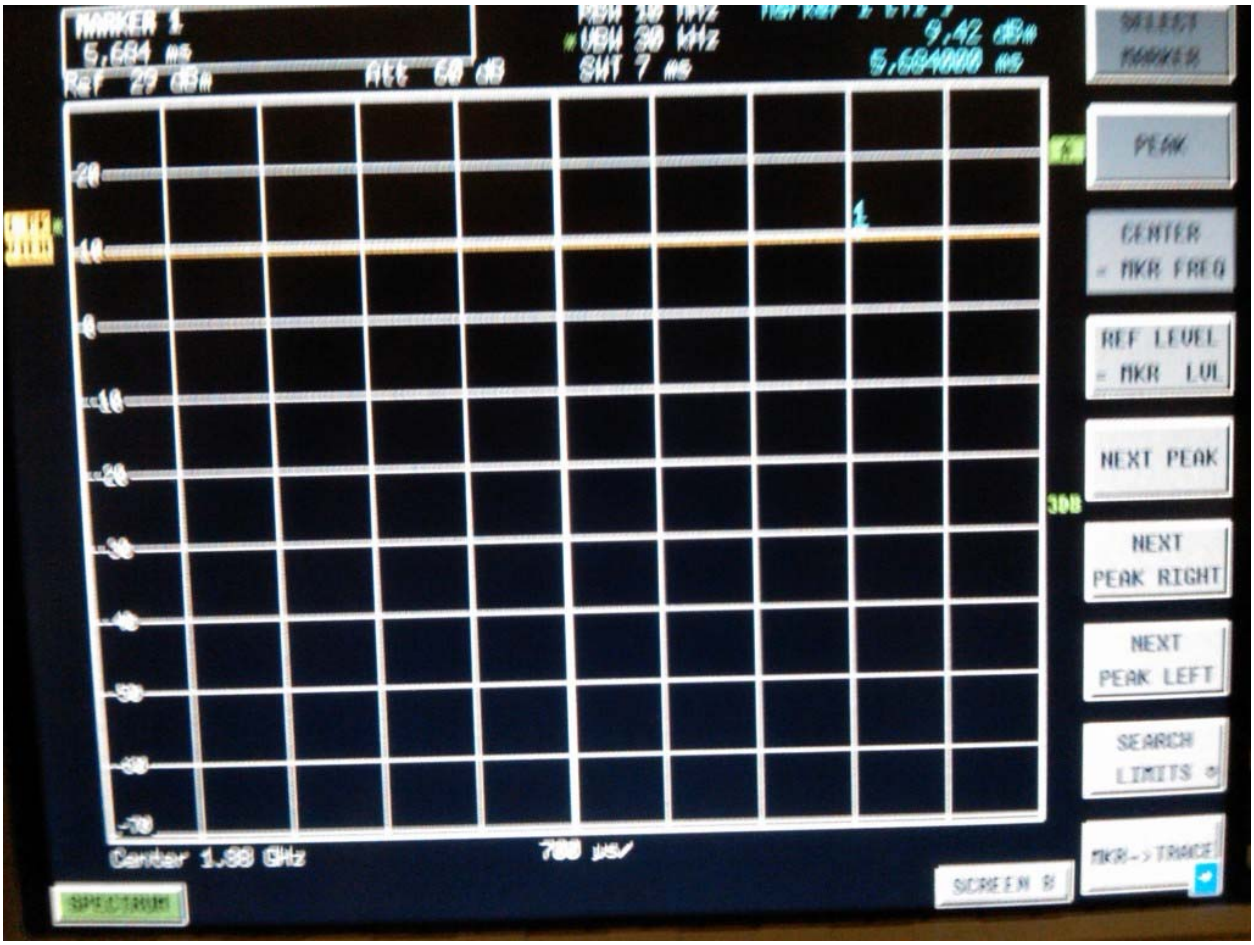
0 Hz Span GSM Plot (1880MHz)

0 Hz Span CW Plot (1880MHz)

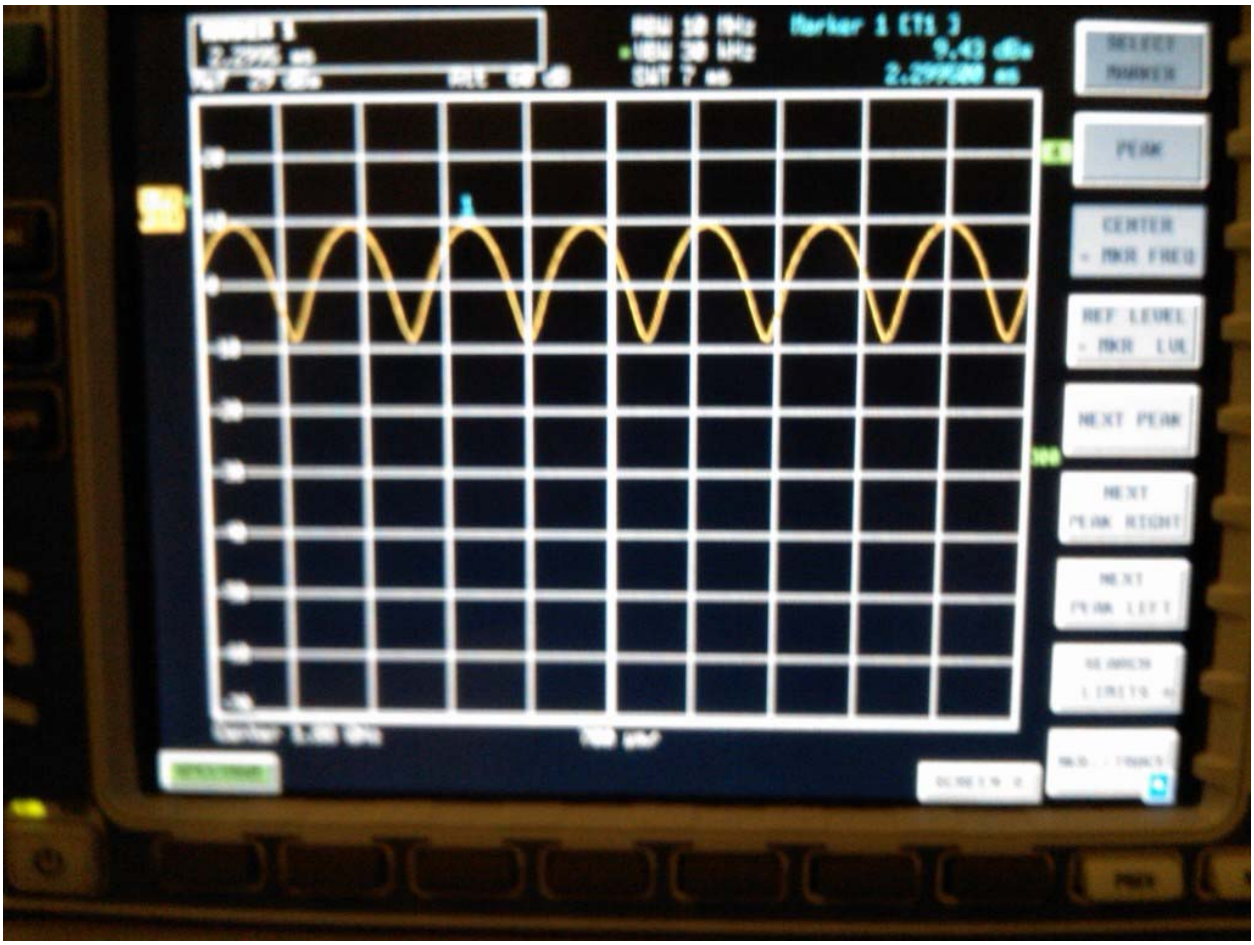
0 Hz Span AM80% (1880MHz)



0 Hz Span WCDMA Plot (1880MHz)



0 Hz Span CW Plot (1880MHz)



0 Hz Span AM80% (1880MHz)

A.2 Dipole validation and probe modulation factor plots

Date/Time: 1/12/2011 12:39:57 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x37x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 110.5 V/m; Power Drift = -0.014 dB

Maximum value of Total (measured) = 168.0 V/m

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 = 169.7 V/m

Probe Modulation Factor = 1.00

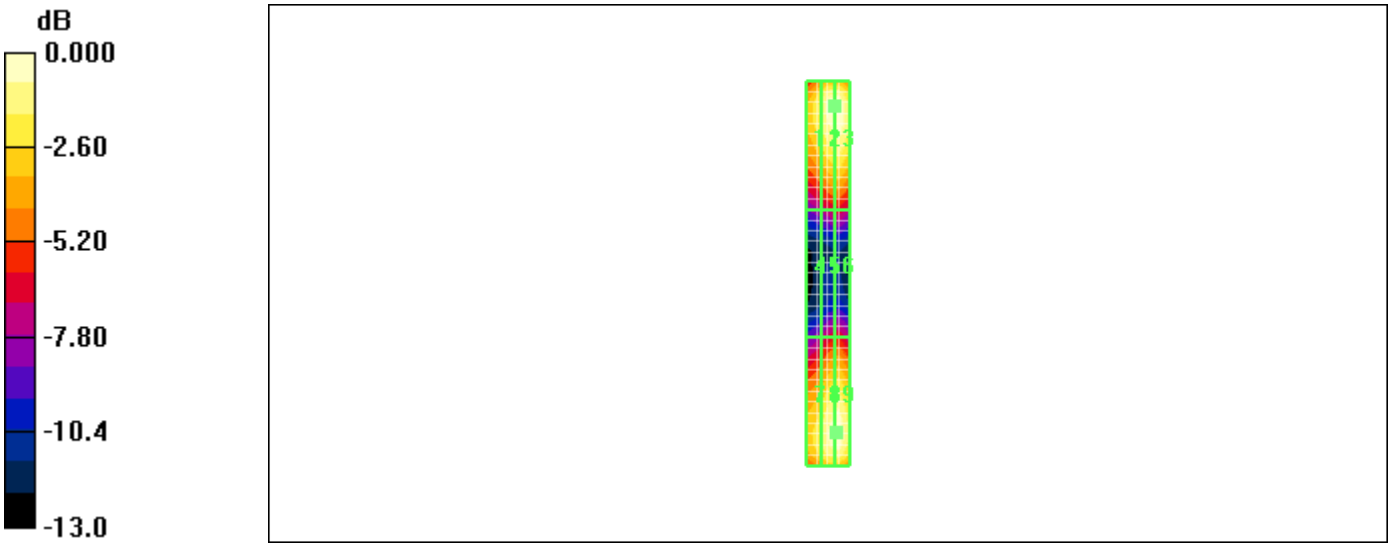
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 110.5 V/m; Power Drift = -0.014 dB

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

Peak E-field in V/m

Grid 1 **143.5 M4**	Grid 2 **169.7 M4**	Grid 3 **169.7 M4**
Grid 4 **70.5 M4**	Grid 5 **84.9 M4**	Grid 6 **85.0 M4**
Grid 7 **137.9 M4**	Grid 8 **166.2 M4**	Grid 9 **166.5 M4**



0 dB = 169.7V/m

Date/Time: 1/12/2011 1:04:20 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_GSM_mod

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

Communication System: GSM 850; Frequency: 835 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.6 V/m; Power Drift = -0.001 dB

Maximum value of Total (measured) = 42.5 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 42.6 V/m

Probe Modulation Factor = 1.00

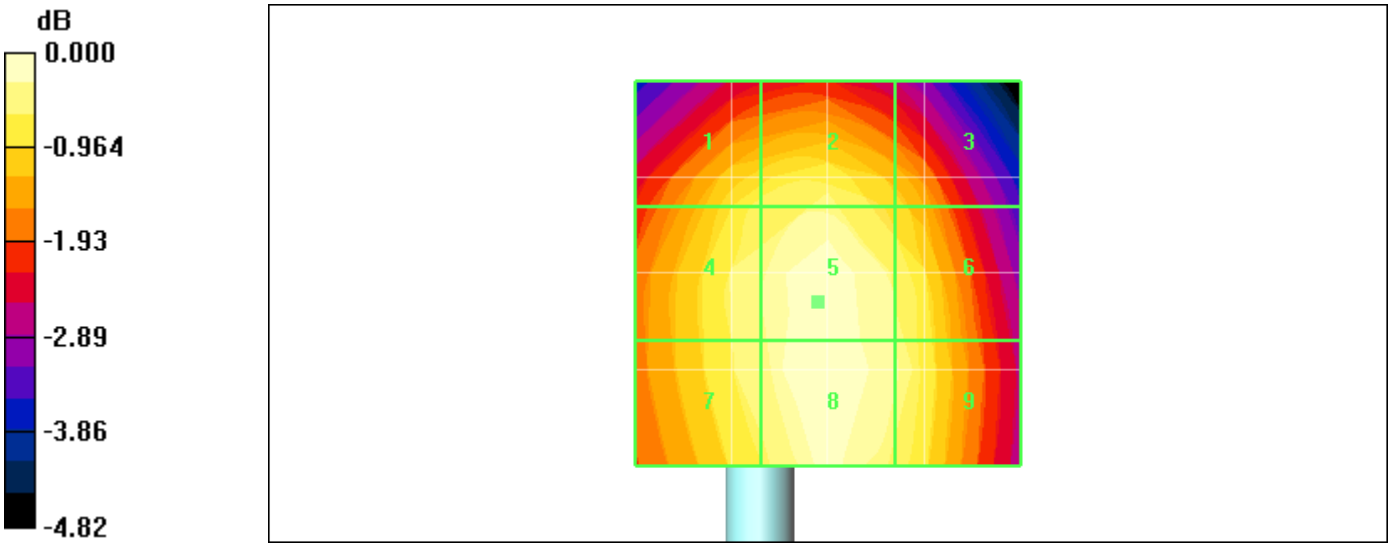
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.6 V/m; Power Drift = -0.001 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **39.9 M4**	Grid 2 **40.9 M4**	Grid 3 **39.0 M4**
Grid 4 **41.1 M4**	Grid 5 **42.6 M4**	Grid 6 **41.1 M4**
Grid 7 **40.8 M4**	Grid 8 **42.5 M4**	Grid 9 **41.2 M4**



0 dB = 42.6V/m

Date/Time: 1/12/2011 12:52:38 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_CW_GSM_mod

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 103.8 V/m; Power Drift = -0.095 dB

Maximum value of Total (measured) = 127.7 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 128.0 V/m

Probe Modulation Factor = 1.00

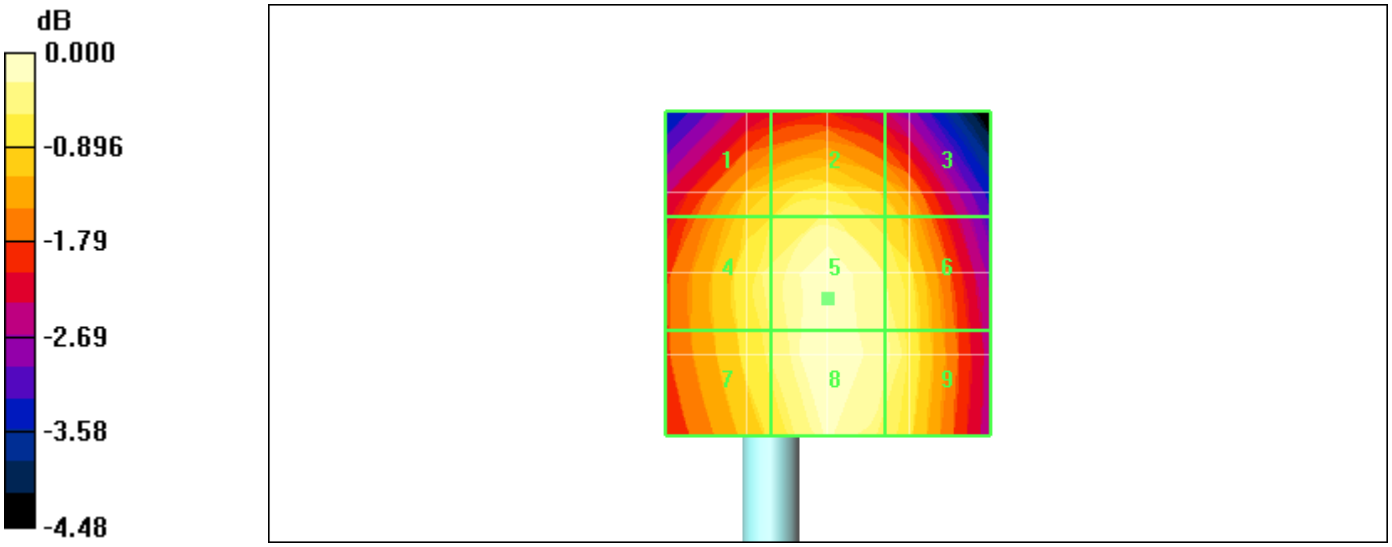
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 103.8 V/m; Power Drift = -0.095 dB

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

Peak E-field in V/m

Grid 1 **119.1 M4**	Grid 2 **122.8 M4**	Grid 3 **118.9 M4**
Grid 4 **122.2 M4**	Grid 5 **128.0 M4**	Grid 6 **124.4 M4**
Grid 7 **121.1 M4**	Grid 8 **127.8 M4**	Grid 9 **124.6 M4**



0 dB = 128.0V/m

Date/Time: 1/12/2011 1:00:12 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_AM80%_GSM_mod

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

Communication System: AM 80%; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 63.6 V/m; Power Drift = 0.052 dB

Maximum value of Total (measured) = 79.5 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 80.1 V/m

Probe Modulation Factor = 1.00

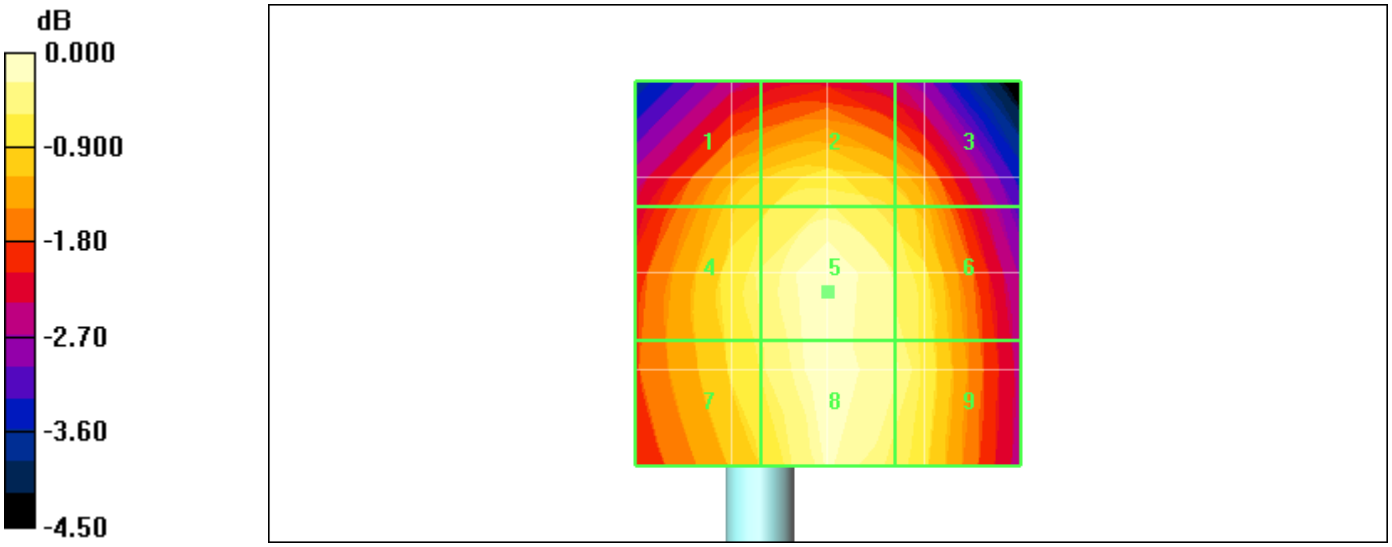
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 63.6 V/m; Power Drift = 0.052 dB

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

Peak E-field in V/m

Grid 1 **74.1 M4**	Grid 2 **76.6 M4**	Grid 3 **74.3 M4**
Grid 4 **76.1 M4**	Grid 5 **80.1 M4**	Grid 6 **77.6 M4**
Grid 7 **75.3 M4**	Grid 8 **79.2 M4**	Grid 9 **77.6 M4**



0 dB = 80.1V/m

Date/Time: 1/12/2011 2:19:32 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_WCDMA_mod

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

Communication System: WCDMA FDD V; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 36.2 V/m; Power Drift = -0.048 dB

Maximum value of Total (measured) = 44.2 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 44.5 V/m

Probe Modulation Factor = 1.00

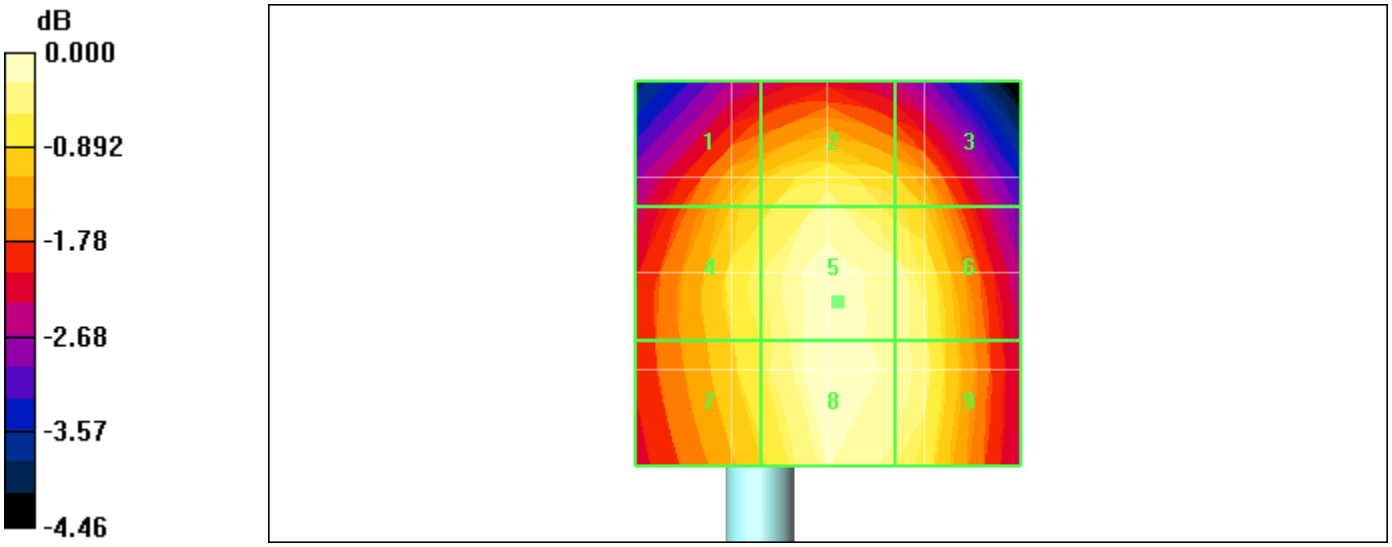
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 36.2 V/m; Power Drift = -0.048 dB

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

Peak E-field in V/m

Grid 1 **41.1 M4**	Grid 2 **43.0 M4**	Grid 3 **41.9 M4**
Grid 4 **42.2 M4**	Grid 5 **44.5 M4**	Grid 6 **43.9 M4**
Grid 7 **41.6 M4**	Grid 8 **44.3 M4**	Grid 9 **43.9 M4**



0 dB = 44.5V/m

Date/Time: 1/12/2011 1:59:34 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_CW_WCDMA_mod

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 35.4 V/m; Power Drift = -0.025 dB

Maximum value of Total (measured) = 42.1 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 42.8 V/m

Probe Modulation Factor = 1.00

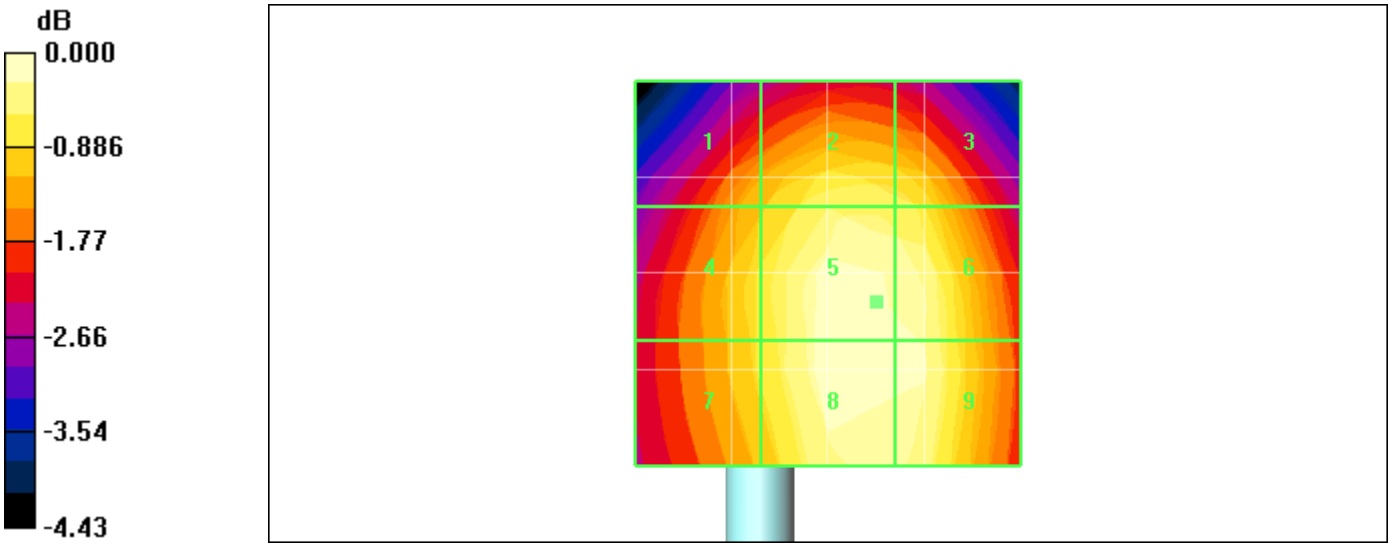
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 35.4 V/m; Power Drift = -0.025 dB

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

Peak E-field in V/m

Grid 1 **38.5 M4**	Grid 2 **41.1 M4**	Grid 3 **40.8 M4**
Grid 4 **39.5 M4**	Grid 5 **42.8 M4**	Grid 6 **42.7 M4**
Grid 7 **39.2 M4**	Grid 8 **42.8 M4**	Grid 9 **42.7 M4**



0 dB = 42.8V/m

Date/Time: 1/12/2011 2:06:22 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_835MHz_AM80%_WCDMA

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

Communication System: AM 80%; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.6 V/m; Power Drift = -0.033 dB

Maximum value of Total (measured) = 26.8 V/m

E Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 27.2 V/m

Probe Modulation Factor = 1.00

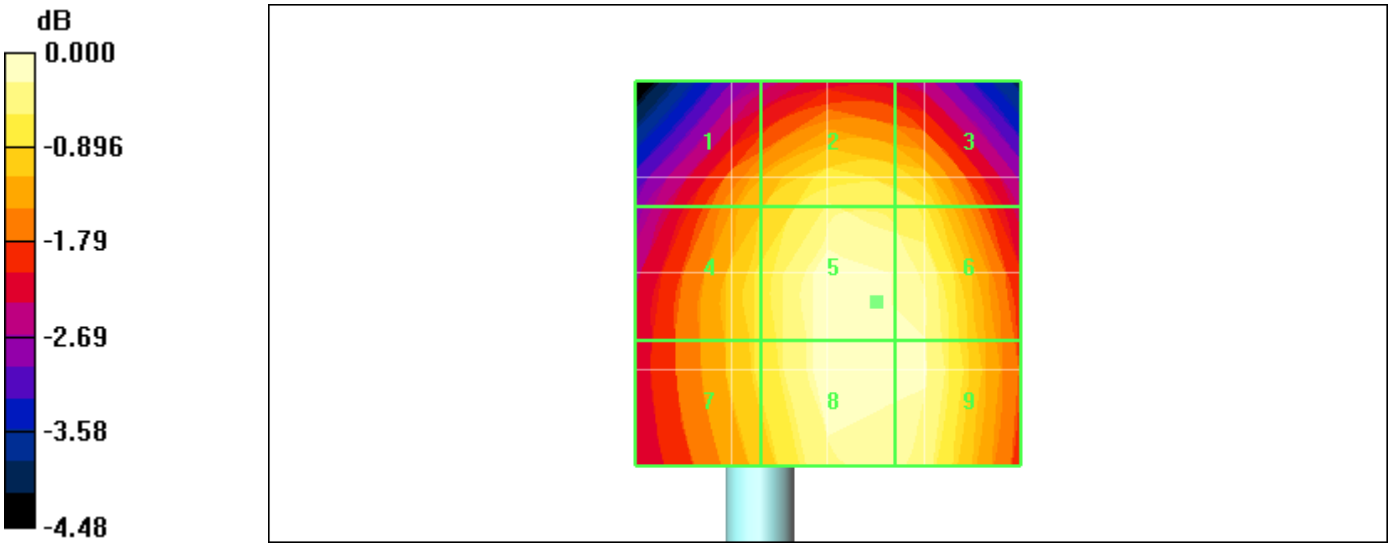
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.6 V/m; Power Drift = -0.033 dB

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

Peak E-field in V/m

Grid 1 **24.5 M4**	Grid 2 **26.2 M4**	Grid 3 **26.0 M4**
Grid 4 **25.1 M4**	Grid 5 **27.2 M4**	Grid 6 **27.1 M4**
Grid 7 **24.9 M4**	Grid 8 **27.2 M4**	Grid 9 **27.1 M4**



0 dB = 27.2V/m

Date/Time: 1/12/2011 2:35:41 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x19x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 128.4 V/m; Power Drift = -0.030 dB

Maximum value of Total (measured) = 126.3 V/m

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 = 127.8 V/m

Probe Modulation Factor = 1.00

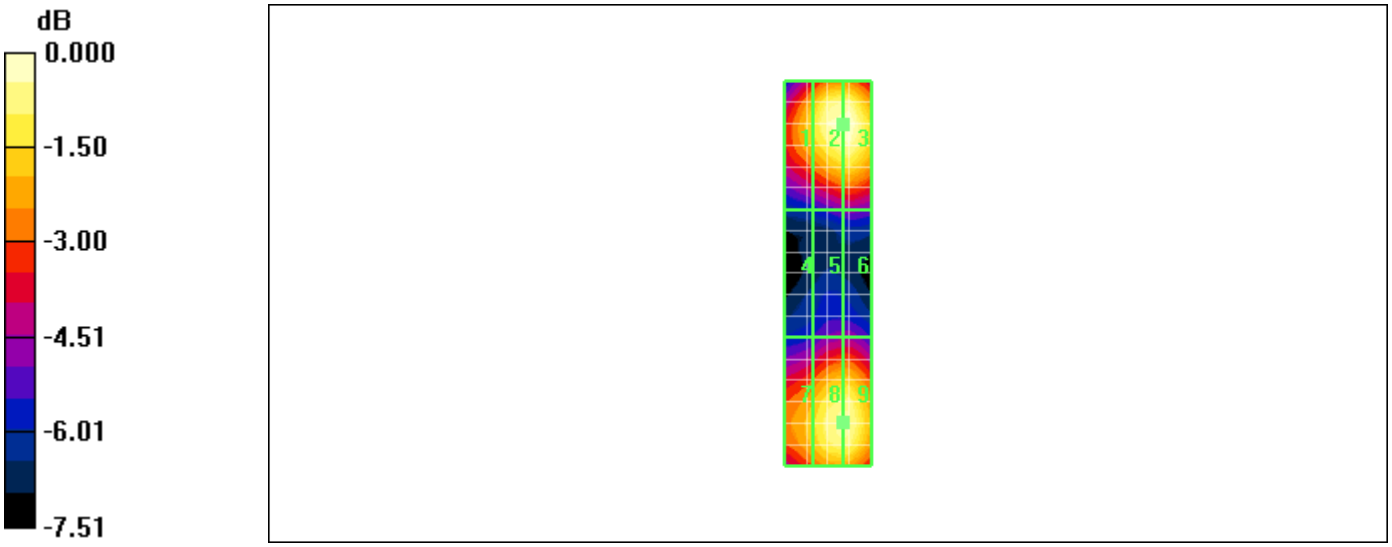
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 128.4 V/m; Power Drift = -0.030 dB

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

Peak E-field in V/m

Grid 1 **109.1 M3**	Grid 2 **127.8 M2**	Grid 3 **127.8 M2**
Grid 4 **68.3 M3**	Grid 5 **75.8 M3**	Grid 6 **75.8 M3**
Grid 7 **106.5 M3**	Grid 8 **123.0 M2**	Grid 9 **123.0 M2**



0 dB = 127.8V/m

Date/Time: 1/12/2011 2:55:50 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_GSM_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 28.5 V/m; Power Drift = -0.028 dB

Maximum value of Total (measured) = 23.2 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 23.3 V/m

Probe Modulation Factor = 1.00

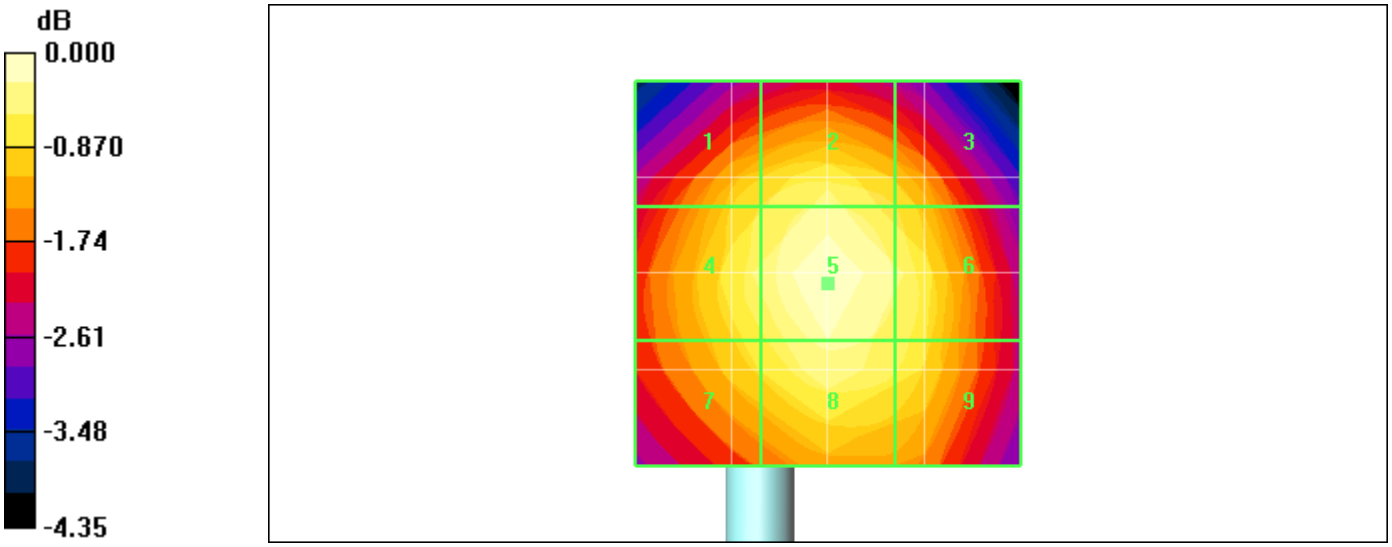
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 28.5 V/m; Power Drift = -0.028 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **21.8 M4**	Grid 2 **22.6 M4**	Grid 3 **21.8 M4**
Grid 4 **22.2 M4**	Grid 5 **23.3 M4**	Grid 6 **22.6 M4**
Grid 7 **21.7 M4**	Grid 8 **22.7 M4**	Grid 9 **22.2 M4**



0 dB = 23.3V/m

Date/Time: 1/12/2011 2:41:36 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_CW_GSM_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 73.4 V/m; Power Drift = 0.047 dB

Maximum value of Total (measured) = 60.8 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 60.9 V/m

Probe Modulation Factor = 1.00

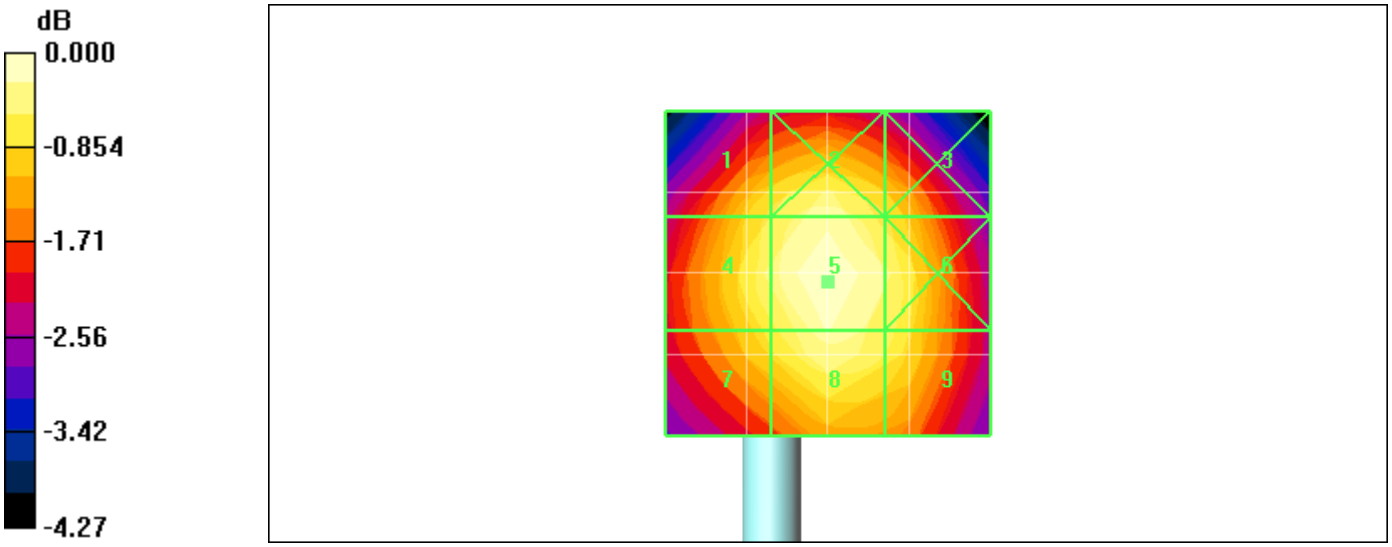
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 73.4 V/m; Power Drift = 0.047 dB

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

Peak E-field in V/m

Grid 1 **57.6 M4**	Grid 2 **59.9 M4**	Grid 3 **57.3 M4**
Grid 4 **58.4 M4**	Grid 5 **60.9 M4**	Grid 6 **58.9 M4**
Grid 7 **56.6 M4**	Grid 8 **59.5 M4**	Grid 9 **57.8 M4**



0 dB = 60.9V/m

Date/Time: 1/12/2011 2:45:33 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_AM80%_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: AM 80%; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 46.8 V/m; Power Drift = 0.052 dB

Maximum value of Total (measured) = 38.6 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 38.6 V/m

Probe Modulation Factor = 1.00

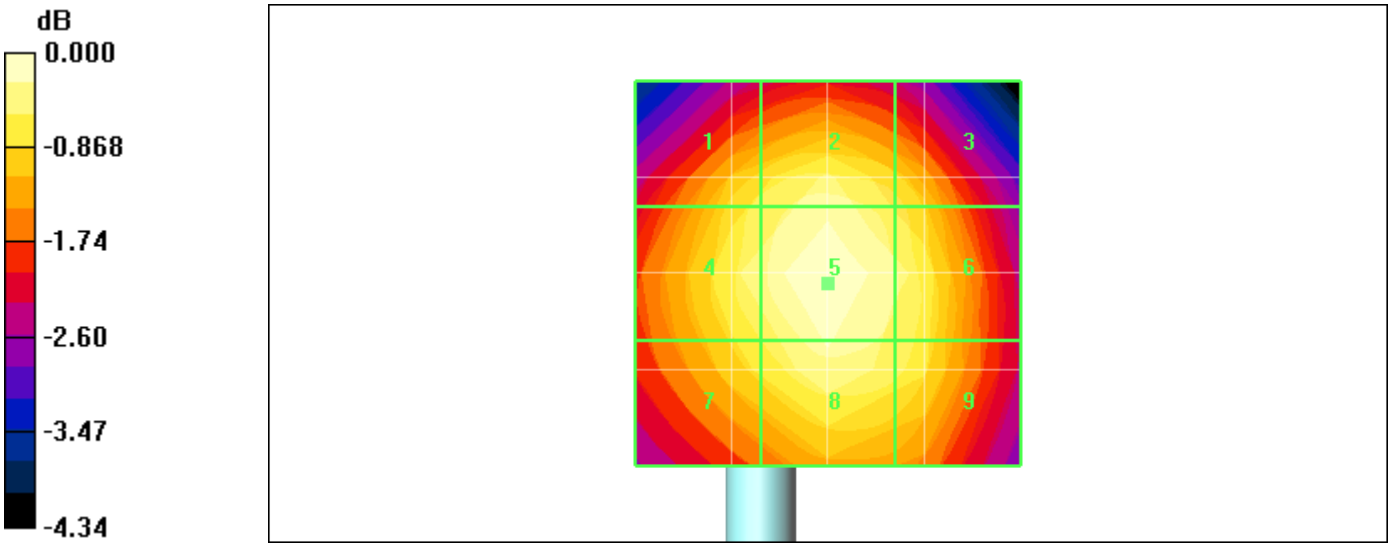
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 46.8 V/m; Power Drift = 0.052 dB

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

Peak E-field in V/m

Grid 1 **36.5 M4**	Grid 2 **37.9 M4**	Grid 3 **36.6 M4**
Grid 4 **37.1 M4**	Grid 5 **38.6 M4**	Grid 6 **37.5 M4**
Grid 7 **36.1 M4**	Grid 8 **37.7 M4**	Grid 9 **36.9 M4**



0 dB = 38.6V/m

Date/Time: 1/12/2011 3:05:57 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_WCDMA_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 39.2 V/m; Power Drift = -0.172 dB

Maximum value of Total (measured) = 31.3 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 31.4 V/m

Probe Modulation Factor = 1.00

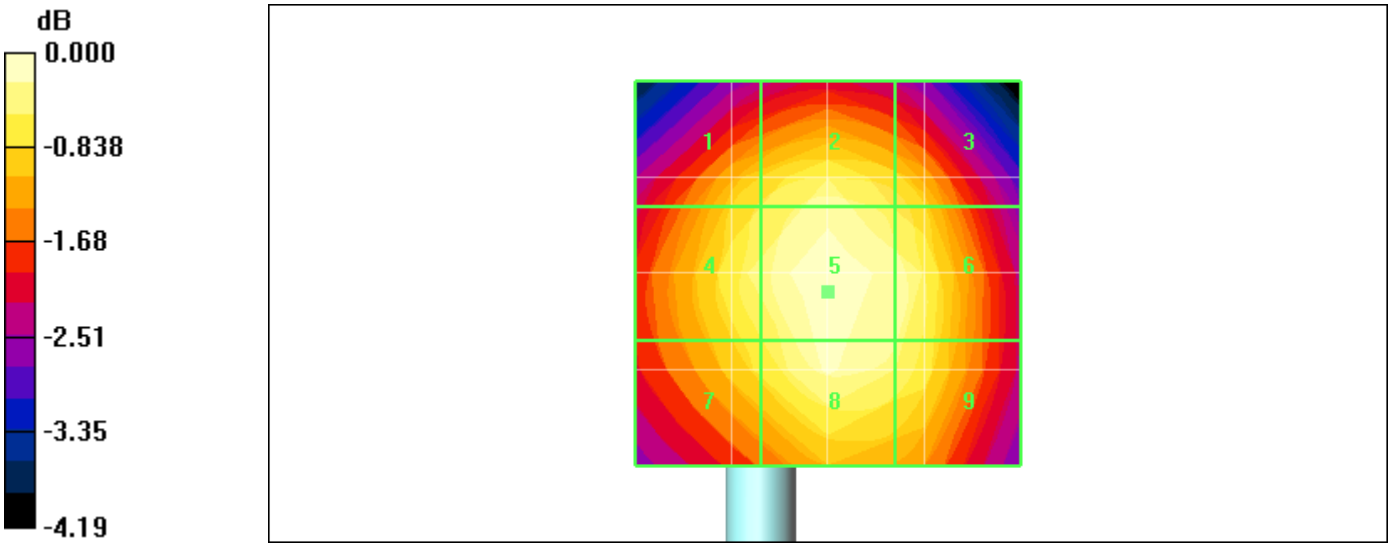
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 39.2 V/m; Power Drift = -0.172 dB

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

Peak E-field in V/m

Grid 1 **29.6 M4**	Grid 2 **30.8 M4**	Grid 3 **30.0 M4**
Grid 4 **30.1 M4**	Grid 5 **31.4 M4**	Grid 6 **30.9 M4**
Grid 7 **29.4 M4**	Grid 8 **31.1 M4**	Grid 9 **30.5 M4**



0 dB = 31.4V/m

Date/Time: 1/12/2011 2:51:24 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_CW_WCDMA_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.7 V/m; Power Drift = -0.060 dB

Maximum value of Total (measured) = 28.3 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 28.3 V/m

Probe Modulation Factor = 1.00

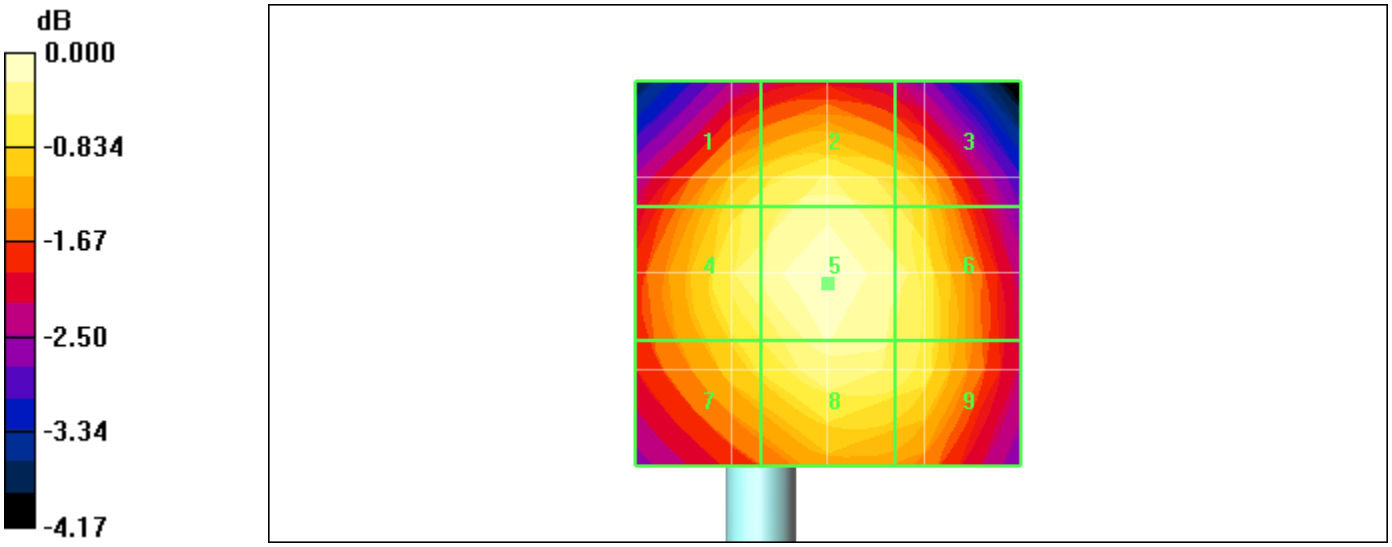
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.7 V/m; Power Drift = -0.060 dB

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

Peak E-field in V/m

Grid 1 **26.9 M4**	Grid 2 **27.8 M4**	Grid 3 **27.1 M4**
Grid 4 **27.4 M4**	Grid 5 **28.3 M4**	Grid 6 **27.6 M4**
Grid 7 **26.5 M4**	Grid 8 **27.7 M4**	Grid 9 **27.3 M4**



0 dB = 28.3V/m

Date/Time: 1/12/2011 2:48:40 PM

Test Laboratory: RIM Testing Services

HAC_E_Dipole_1880MHz_AM80%_WCDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: AM 80%; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm 2/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.1 V/m; Power Drift = 0.021 dB

Maximum value of Total (measured) = 18.0 V/m

E Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm 2/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 18.0 V/m

Probe Modulation Factor = 1.00

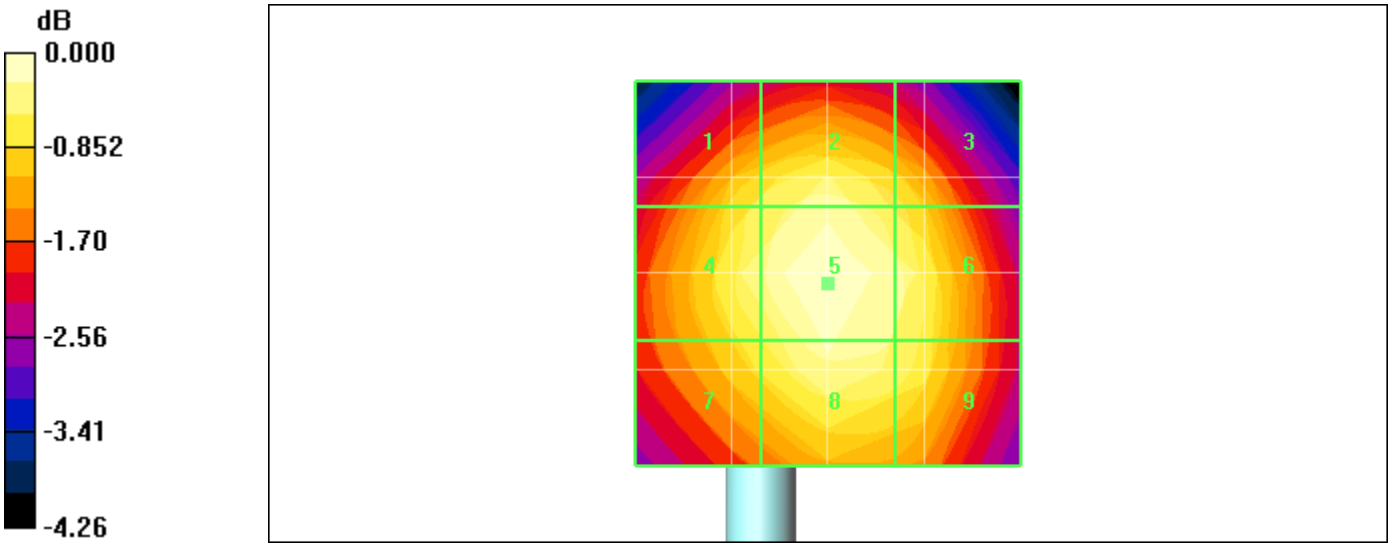
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.1 V/m; Power Drift = 0.021 dB

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

Peak E-field in V/m

Grid 1 **17.0 M4**	Grid 2 **17.7 M4**	Grid 3 **17.1 M4**
Grid 4 **17.3 M4**	Grid 5 **18.0 M4**	Grid 6 **17.6 M4**
Grid 7 **16.8 M4**	Grid 8 **17.6 M4**	Grid 9 **17.4 M4**



0 dB = 18.0V/m

Date/Time: 1/12/2011 3:55:25 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.497 A/m; Power Drift = -0.014 dB

Maximum value of Total (measured) = 0.466 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.467 A/m

Probe Modulation Factor = 1.00

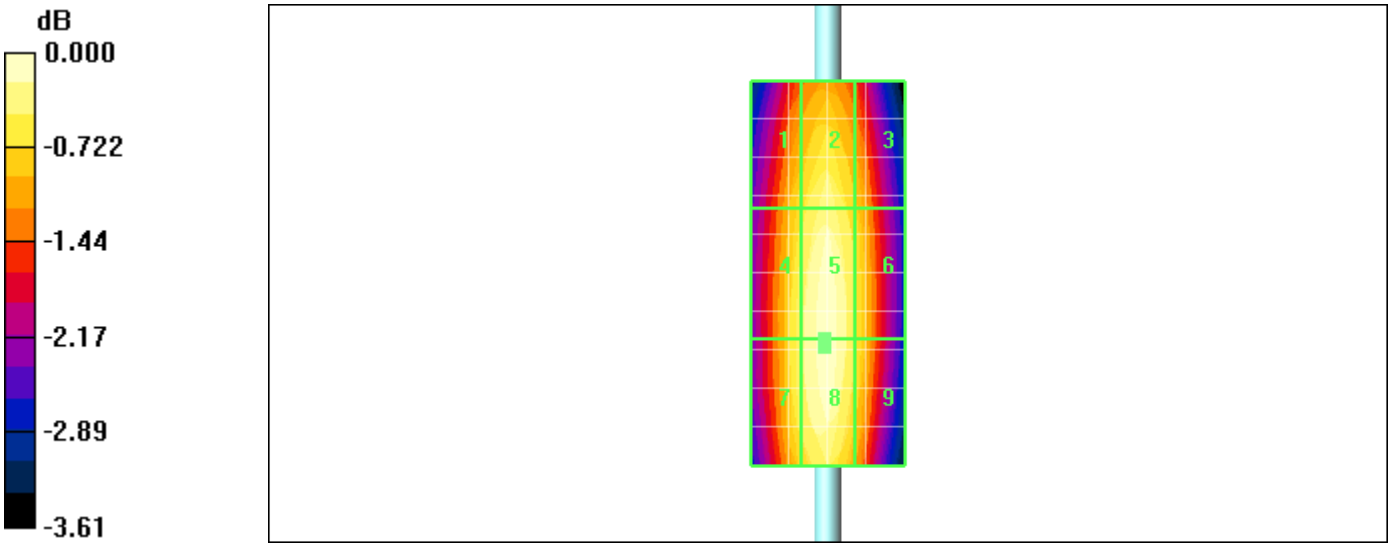
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.497 A/m; Power Drift = -0.014 dB

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

Peak H-field in A/m

Grid 1 **0.437 M4**	Grid 2 **0.450 M4**	Grid 3 **0.432 M4**
Grid 4 **0.450 M4**	Grid 5 **0.467 M4**	Grid 6 **0.444 M4**
Grid 7 **0.450 M4**	Grid 8 **0.467 M4**	Grid 9 **0.443 M4**



0 dB = 0.467A/m

Date/Time: 1/12/2011 4:23:11 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_GSM_mod

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

Communication System: GSM 850; Frequency: 835 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.162 A/m; Power Drift = -0.057 dB

Maximum value of Total (measured) = 0.153 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.153 A/m

Probe Modulation Factor = 1.00

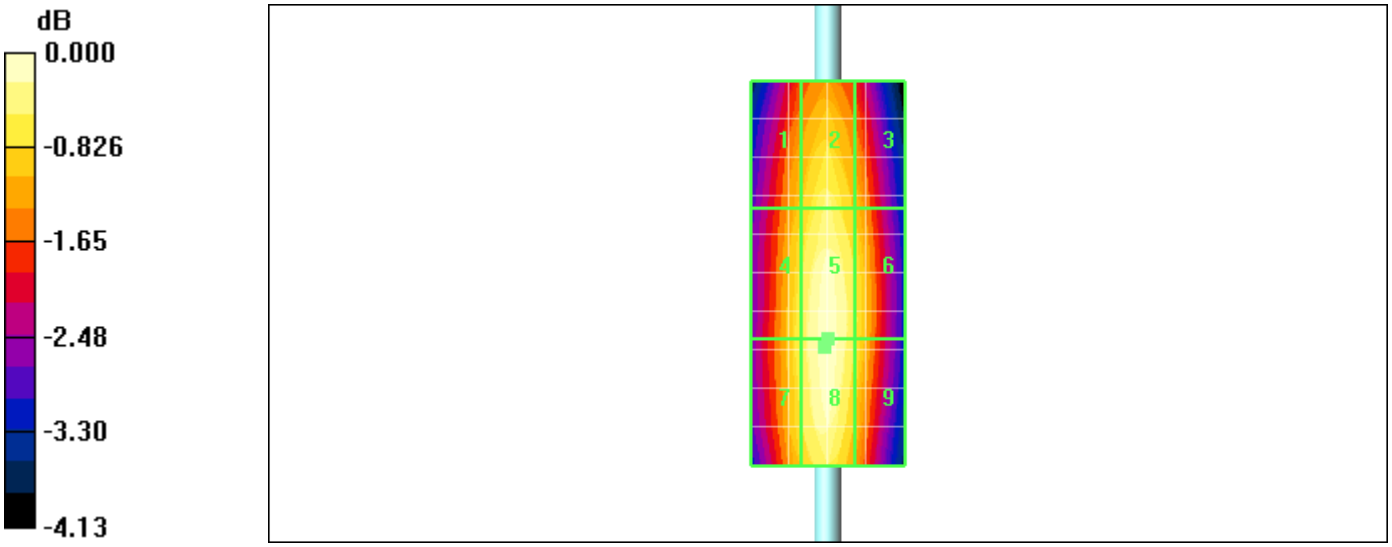
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.162 A/m; Power Drift = -0.057 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.139 M4**	Grid 2 **0.145 M4**	Grid 3 **0.138 M4**
Grid 4 **0.145 M4**	Grid 5 **0.153 M4**	Grid 6 **0.145 M4**
Grid 7 **0.145 M4**	Grid 8 **0.153 M4**	Grid 9 **0.143 M4**



0 dB = 0.153A/m

Date/Time: 1/12/2011 4:05:24 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_CW_GSM_mod

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x9x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.466 A/m; Power Drift = -0.033 dB

Maximum value of Total (measured) = 0.439 A/m

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x81x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.439 A/m

Probe Modulation Factor = 1.00

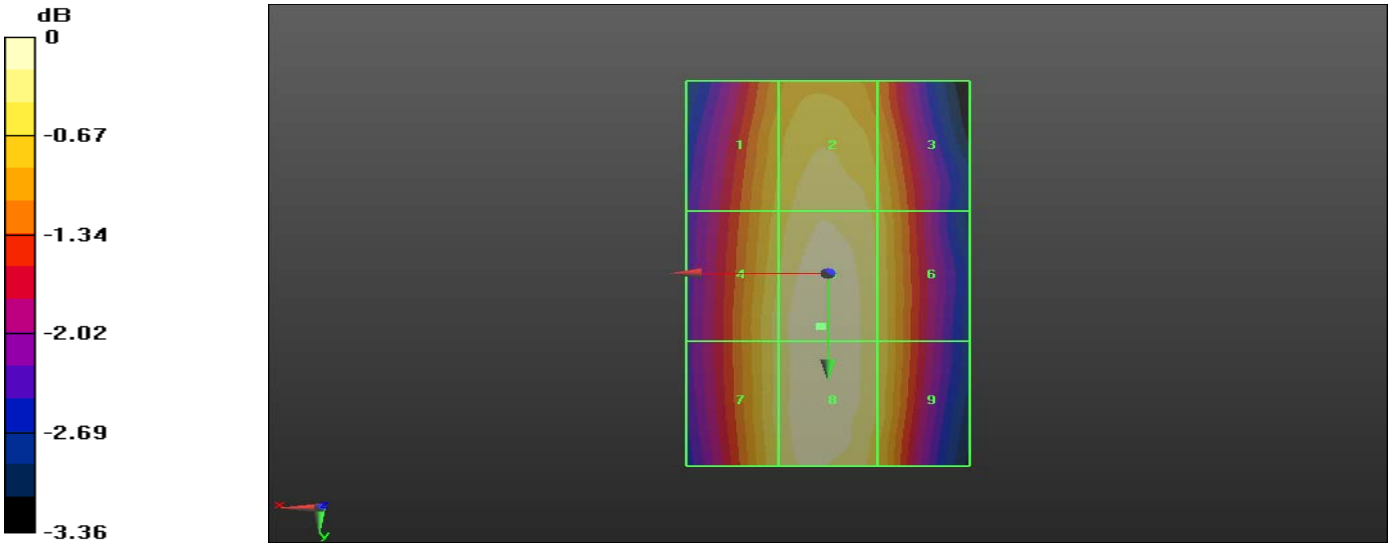
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.466 A/m; Power Drift = -0.033 dB

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

Peak H-field in A/m

Grid 1 **0.412 M4**	Grid 2 **0.427 M4**	Grid 3 **0.413 M4**
Grid 4 **0.423 M4**	Grid 5 **0.439 M4**	Grid 6 **0.419 M4**
Grid 7 **0.423 M4**	Grid 8 **0.438 M4**	Grid 9 **0.419 M4**



0 dB = 0.439A/m

Date/Time: 10/25/2010 5:26:25 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_AM80%_GSM_mod

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%

Frequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: RF Section

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

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, Version 4.7 (80); SEMCAD X Version 14.4.4 (2829)

Configuration/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x121x1):

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

Maximum value of peak Total field = 0.263 A/m

Probe Modulation Factor = 1.000

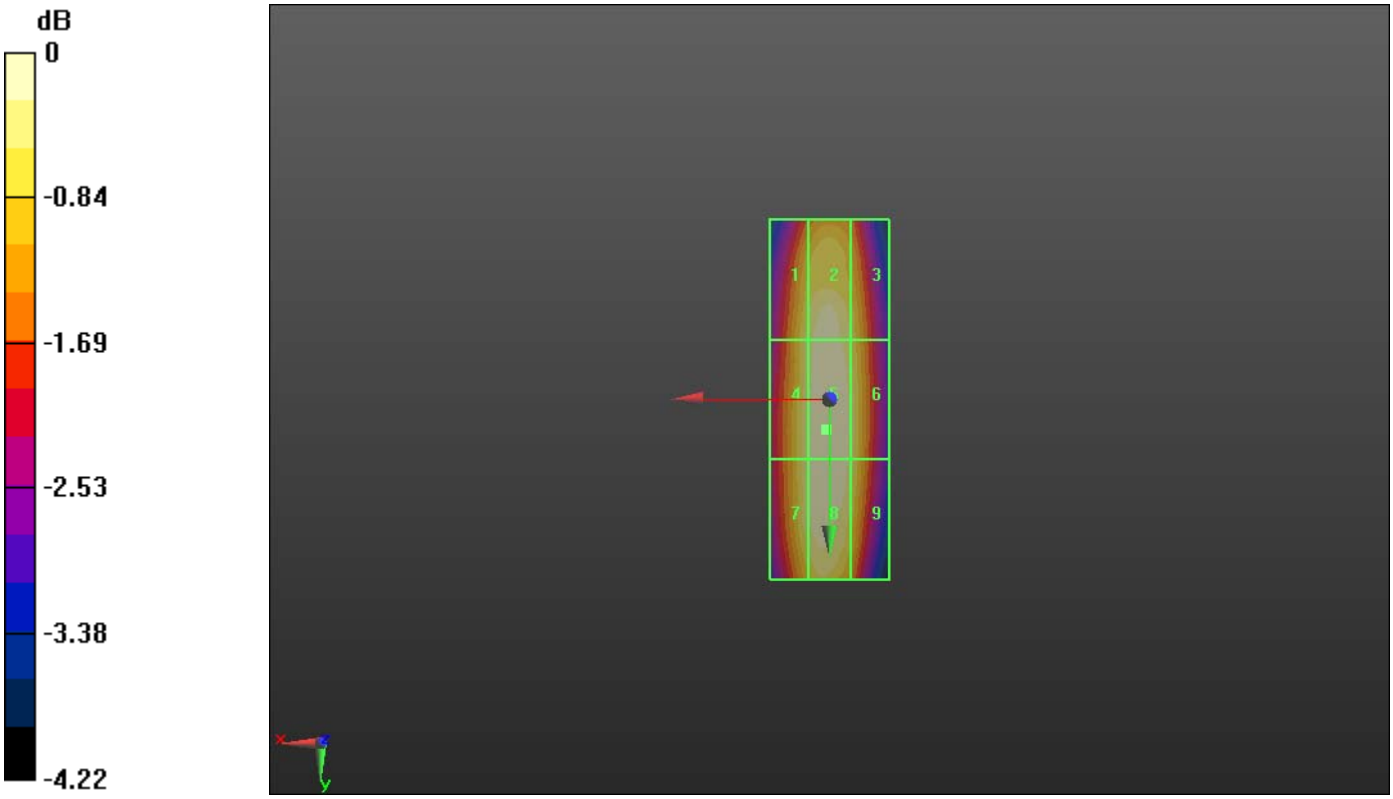
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.280 A/m; Power Drift = -0.07 dB

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

Peak H-field in A/m

Grid 1 **0.249 M4**	Grid 2 **0.256 M4**	Grid 3 **0.244 M4**
Grid 4 **0.252 M4**	Grid 5 **0.263 M4**	Grid 6 **0.250 M4**
Grid 7 **0.252 M4**	Grid 8 **0.262 M4**	Grid 9 **0.249 M4**



0 dB = 0.260A/m

Date/Time: 1/12/2011 4:42:42 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_WCDMA_mod

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

Communication System: WCDMA FDD V; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.157 A/m; Power Drift = -0.007 dB

Maximum value of Total (measured) = 0.149 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.149 A/m

Probe Modulation Factor = 1.00

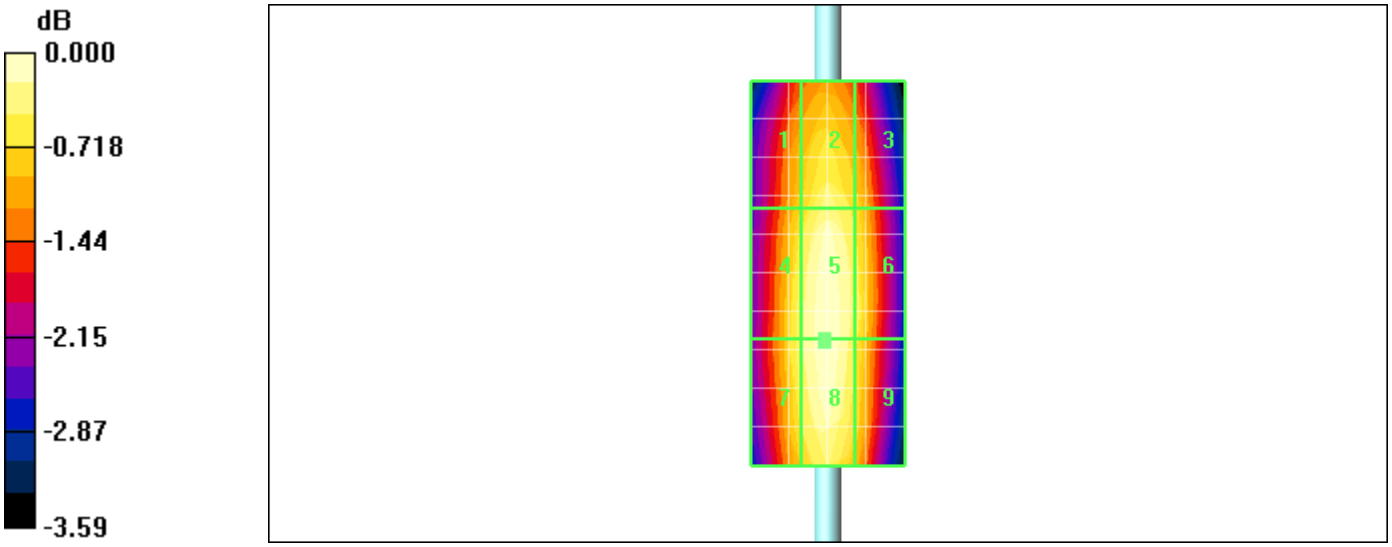
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.157 A/m; Power Drift = -0.007 dB

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

Peak H-field in A/m

Grid 1 **0.138 M4**	Grid 2 **0.143 M4**	Grid 3 **0.139 M4**
Grid 4 **0.144 M4**	Grid 5 **0.149 M4**	Grid 6 **0.144 M4**
Grid 7 **0.144 M4**	Grid 8 **0.149 M4**	Grid 9 **0.142 M4**



0 dB = 0.149A/m

Date/Time: 1/12/2011 4:11:32 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_CW_WCDMA_mod

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

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x9x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.154 A/m; Power Drift = -0.047 dB

Maximum value of Total (measured) = 0.146 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x81x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.146 A/m

Probe Modulation Factor = 1.00

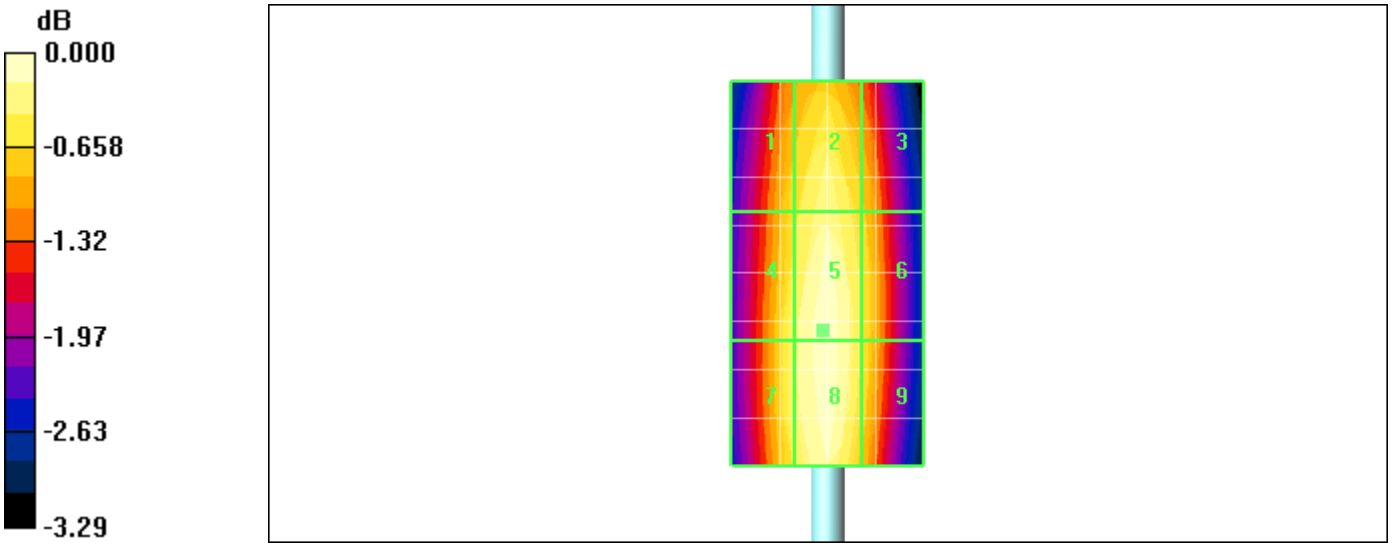
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.154 A/m; Power Drift = -0.047 dB

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

Peak H-field in A/m

Grid 1 **0.137 M4**	Grid 2 **0.142 M4**	Grid 3 **0.137 M4**
Grid 4 **0.141 M4**	Grid 5 **0.146 M4**	Grid 6 **0.140 M4**
Grid 7 **0.142 M4**	Grid 8 **0.146 M4**	Grid 9 **0.139 M4**



0 dB = 0.146A/m

Date/Time: 1/12/2011 4:15:42 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_835MHz_AM80%_WCDMA_mod

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

Communication System: AM 80%; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (5x9x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.099 A/m; Power Drift = -0.003 dB

Maximum value of Total (measured) = 0.093 A/m

H Scan - measurement distance from the probe sensor center to CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x81x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.094 A/m

Probe Modulation Factor = 1.00

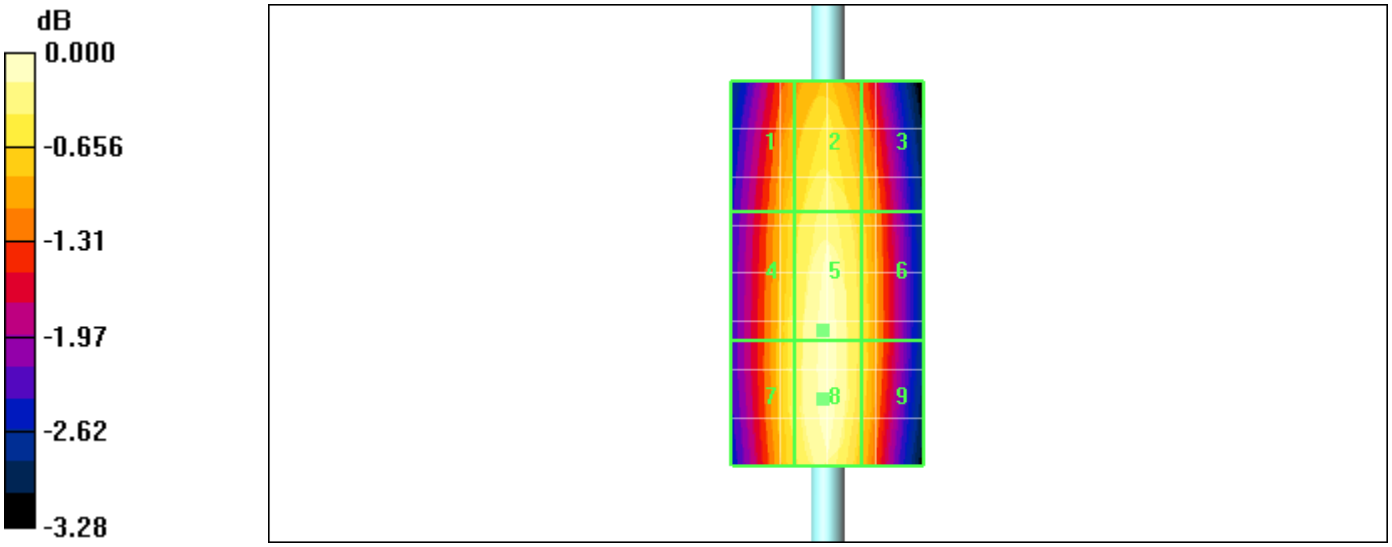
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.099 A/m; Power Drift = -0.003 dB

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

Peak H-field in A/m

Grid 1 **0.088 M4**	Grid 2 **0.091 M4**	Grid 3 **0.088 M4**
Grid 4 **0.090 M4**	Grid 5 **0.093 M4**	Grid 6 **0.089 M4**
Grid 7 **0.090 M4**	Grid 8 **0.094 M4**	Grid 9 **0.089 M4**



0 dB = 0.094A/m

Date/Time: 1/13/2011 2:49:30 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.478 A/m; Power Drift = 0.007 dB

Maximum value of Total (measured) = 0.449 A/m

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 = 0.450 A/m

Probe Modulation Factor = 1.00

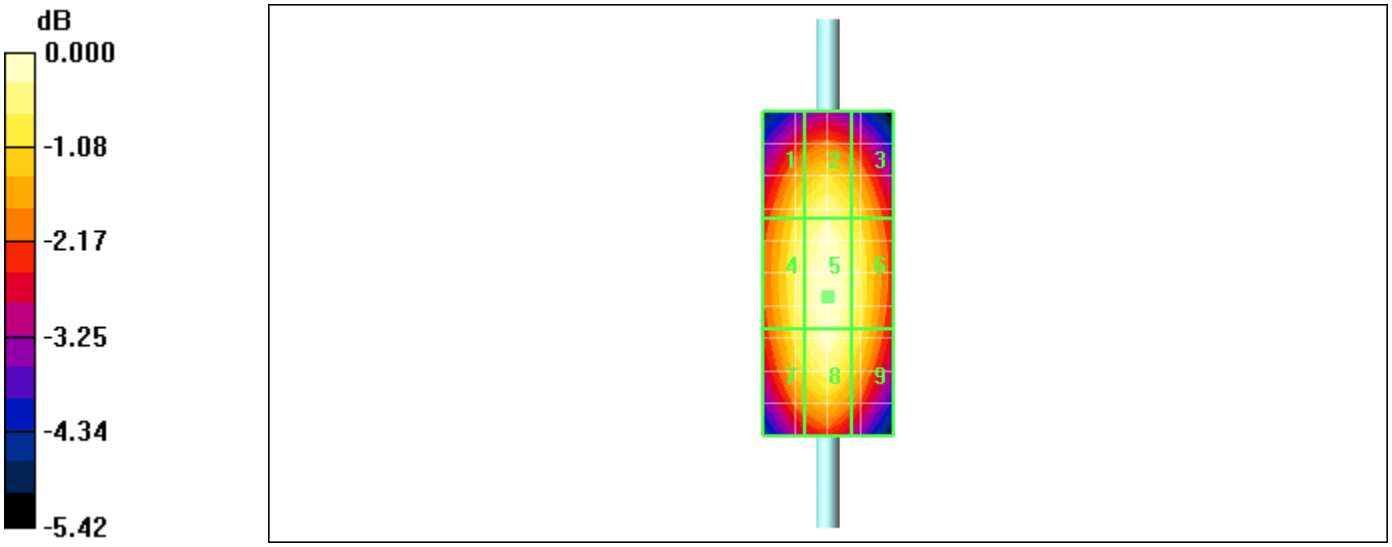
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.478 A/m; Power Drift = 0.007 dB

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

Peak H-field in A/m

Grid 1 **0.416 M2**	Grid 2 **0.432 M2**	Grid 3 **0.413 M2**
Grid 4 **0.433 M2**	Grid 5 **0.450 M2**	Grid 6 **0.430 M2**
Grid 7 **0.425 M2**	Grid 8 **0.444 M2**	Grid 9 **0.422 M2**



0 dB = 0.450A/m

Date/Time: 1/12/2011 3:23:31 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_GSM_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.091 A/m; Power Drift = 0.116 dB

Maximum value of Total (measured) = 0.085 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.086 A/m

Probe Modulation Factor = 1.00

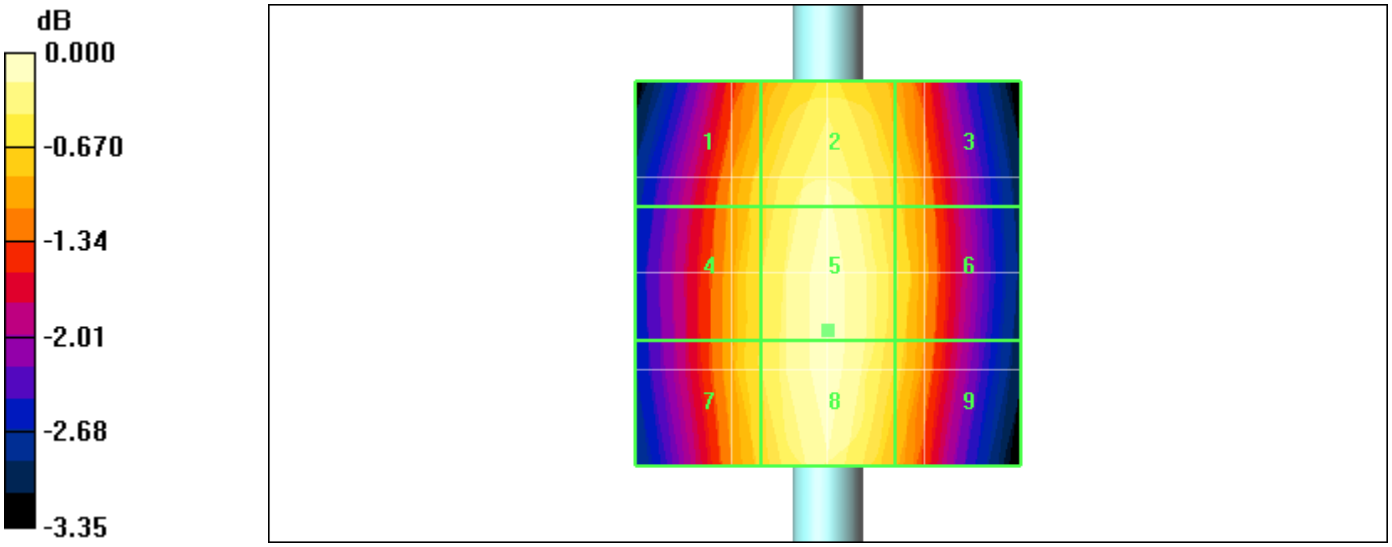
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.091 A/m; Power Drift = 0.116 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.081 M4**	Grid 2 **0.085 M4**	Grid 3 **0.081 M4**
Grid 4 **0.082 M4**	Grid 5 **0.086 M4**	Grid 6 **0.082 M4**
Grid 7 **0.082 M4**	Grid 8 **0.086 M4**	Grid 9 **0.082 M4**



0 dB = 0.086A/m

Date/Time: 1/12/2011 3:32:55 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_CW_GSM_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.250 A/m; Power Drift = 0.055 dB

Maximum value of Total (measured) = 0.236 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.237 A/m

Probe Modulation Factor = 1.00

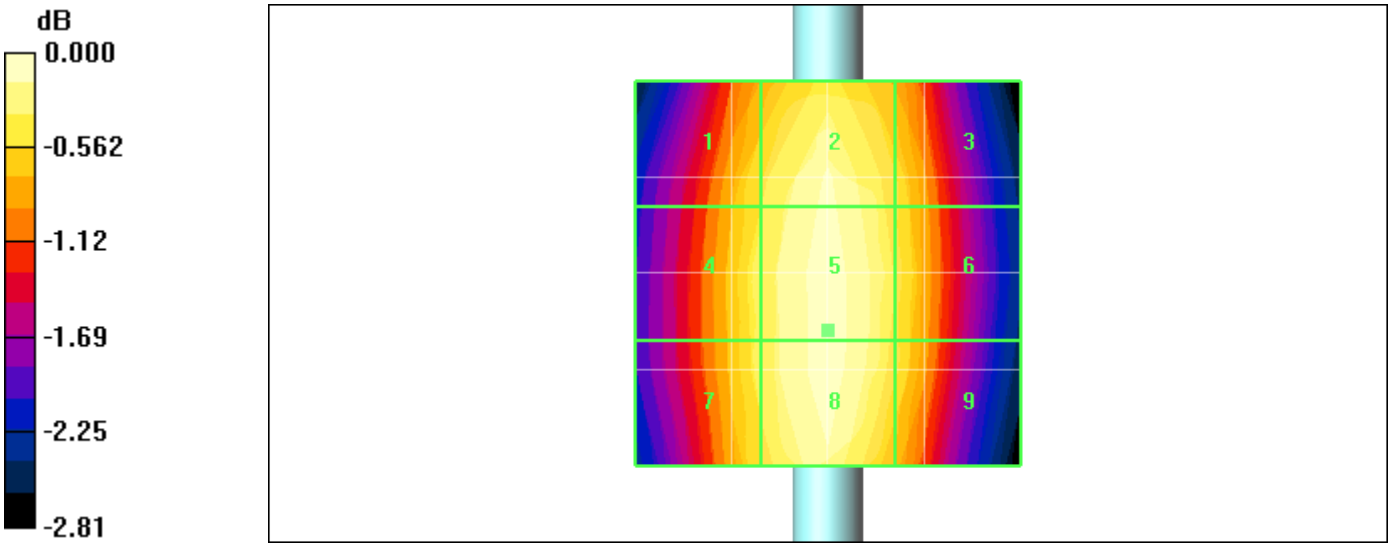
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.250 A/m; Power Drift = 0.055 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.227 M3**	Grid 2 **0.235 M3**	Grid 3 **0.228 M3**
Grid 4 **0.229 M3**	Grid 5 **0.237 M3**	Grid 6 **0.230 M3**
Grid 7 **0.229 M3**	Grid 8 **0.237 M3**	Grid 9 **0.229 M3**



0 dB = 0.237A/m

Date/Time: 1/12/2011 3:36:08 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_AM80%_GSM_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: AM 80%; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.163 A/m; Power Drift = -0.022 dB

Maximum value of Total (measured) = 0.153 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.154 A/m

Probe Modulation Factor = 1.00

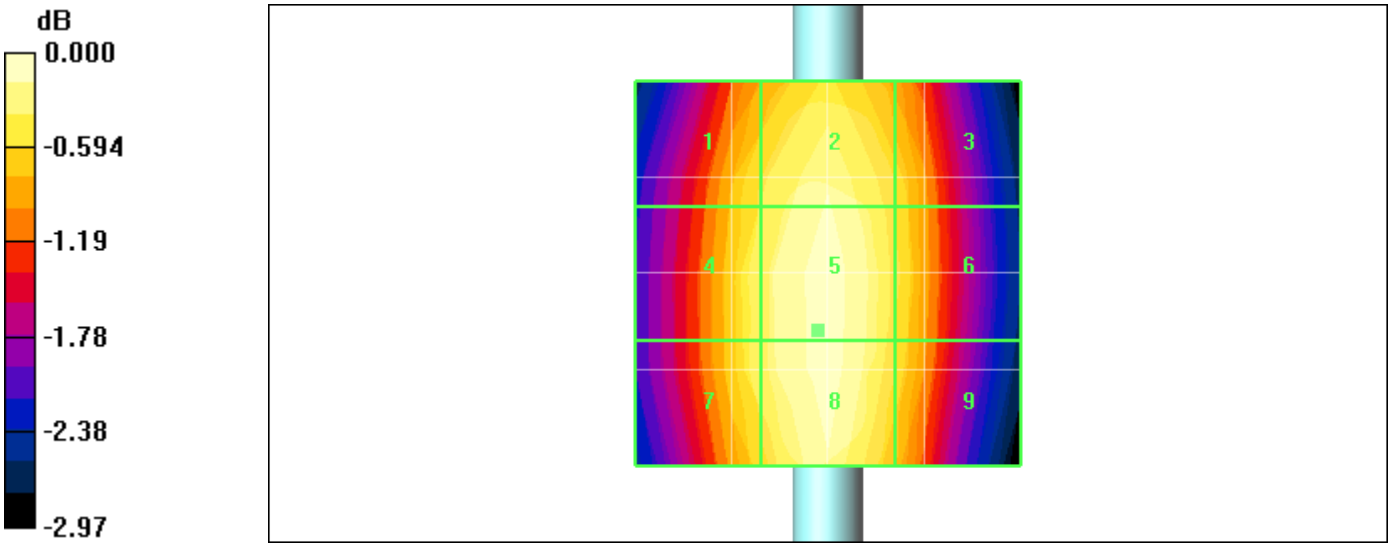
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.163 A/m; Power Drift = -0.022 dB

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

Peak H-field in A/m

Grid 1 **0.148 M4**	Grid 2 **0.152 M4**	Grid 3 **0.147 M4**
Grid 4 **0.150 M4**	Grid 5 **0.154 M4**	Grid 6 **0.148 M4**
Grid 7 **0.150 M4**	Grid 8 **0.154 M4**	Grid 9 **0.148 M4**



0 dB = 0.154A/m

Date/Time: 1/12/2011 3:20:17 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_WCDMA_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid:

dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.139 A/m; Power Drift = -0.064 dB

Maximum value of Total (measured) = 0.130 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.131 A/m

Probe Modulation Factor = 1.00

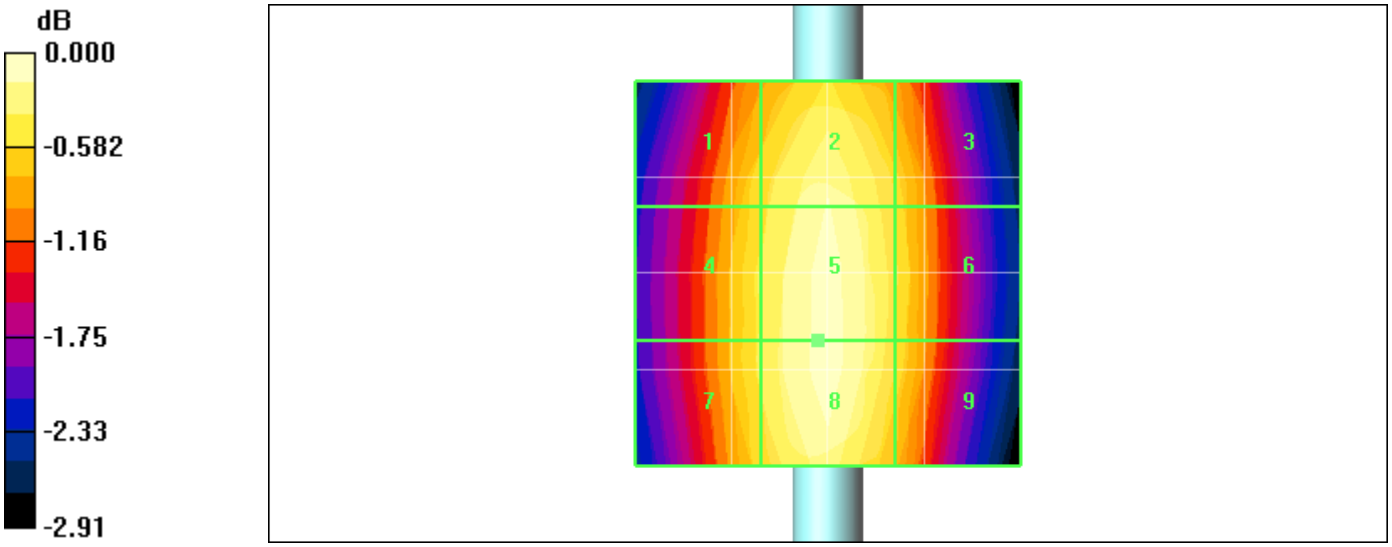
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.139 A/m; Power Drift = -0.064 dB

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

Peak H-field in A/m

Grid 1 **0.124 M4**	Grid 2 **0.129 M4**	Grid 3 **0.125 M4**
Grid 4 **0.126 M4**	Grid 5 **0.131 M4**	Grid 6 **0.126 M4**
Grid 7 **0.126 M4**	Grid 8 **0.131 M4**	Grid 9 **0.126 M4**



0 dB = 0.131A/m

Date/Time: 1/12/2011 3:41:59 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_CW_WCDMA_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.121 A/m; Power Drift = 0.104 dB

Maximum value of Total (measured) = 0.115 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.116 A/m

Probe Modulation Factor = 1.00

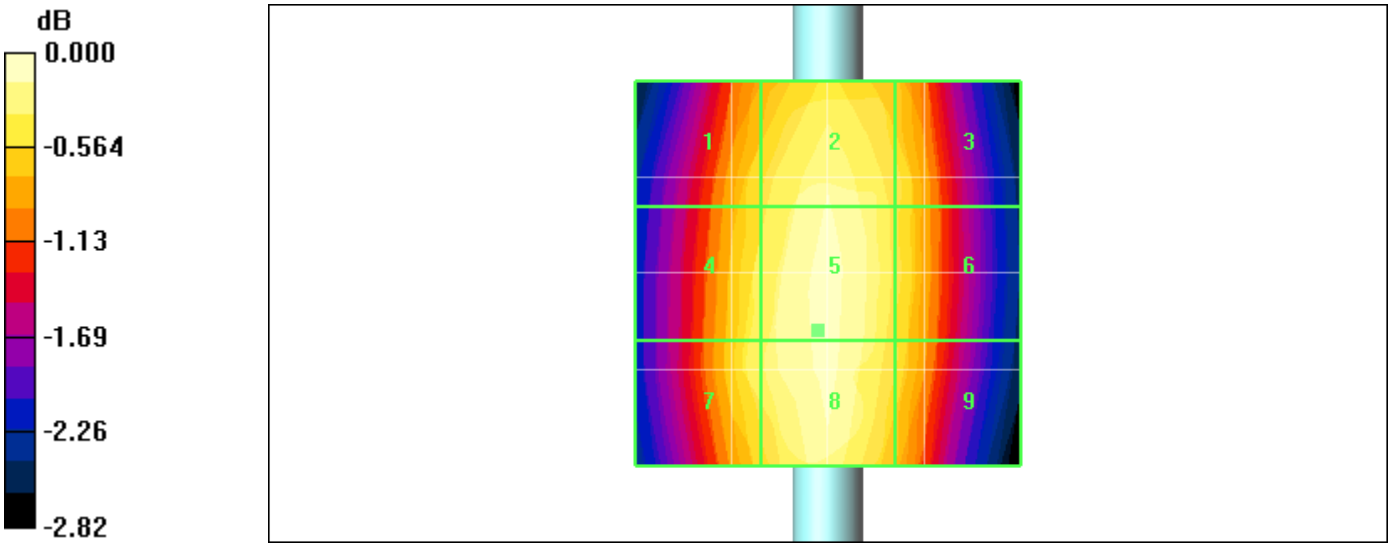
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.121 A/m; Power Drift = 0.104 dB

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

Peak H-field in A/m

Grid 1 **0.111 M4**	Grid 2 **0.115 M4**	Grid 3 **0.112 M4**
Grid 4 **0.113 M4**	Grid 5 **0.116 M4**	Grid 6 **0.112 M4**
Grid 7 **0.113 M4**	Grid 8 **0.116 M4**	Grid 9 **0.112 M4**



0 dB = 0.116A/m

Date/Time: 1/12/2011 3:38:32 PM

Test Laboratory: RIM Testing Services

HAC_H_Dipole_1880MHz_AM80%_WCDMA_mod

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: AM 80%; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (5x5x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.080 A/m; Power Drift = 0.010 dB

Maximum value of Total (measured) = 0.075 A/m

H Scan - measurement distance from the probe sensor center to CD1880

Dipole = 10mm/Hearing Aid Compatibility Test (41x41x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.075 A/m

Probe Modulation Factor = 1.00

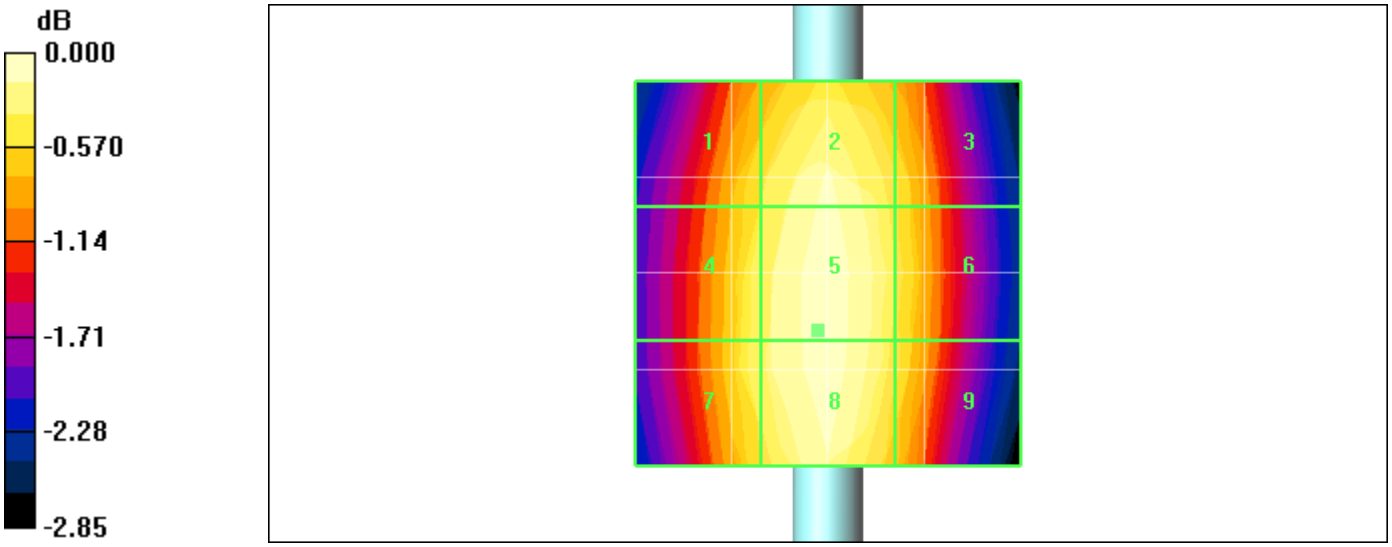
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.080 A/m; Power Drift = 0.010 dB

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

Peak H-field in A/m

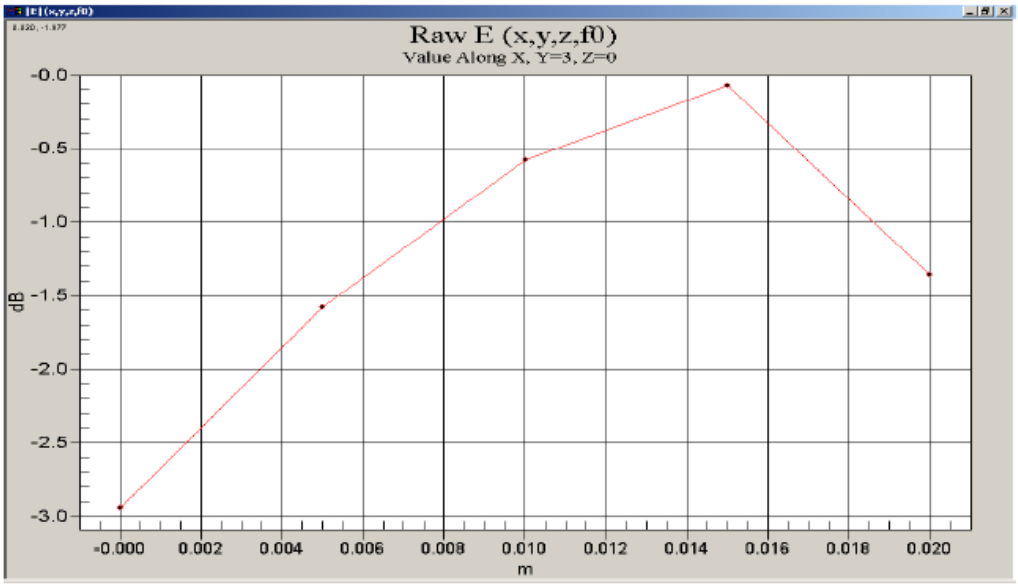
Grid 1 **0.072 M4**	Grid 2 **0.074 M4**	Grid 3 **0.072 M4**
Grid 4 **0.073 M4**	Grid 5 **0.075 M4**	Grid 6 **0.073 M4**
Grid 7 **0.073 M4**	Grid 8 **0.075 M4**	Grid 9 **0.072 M4**



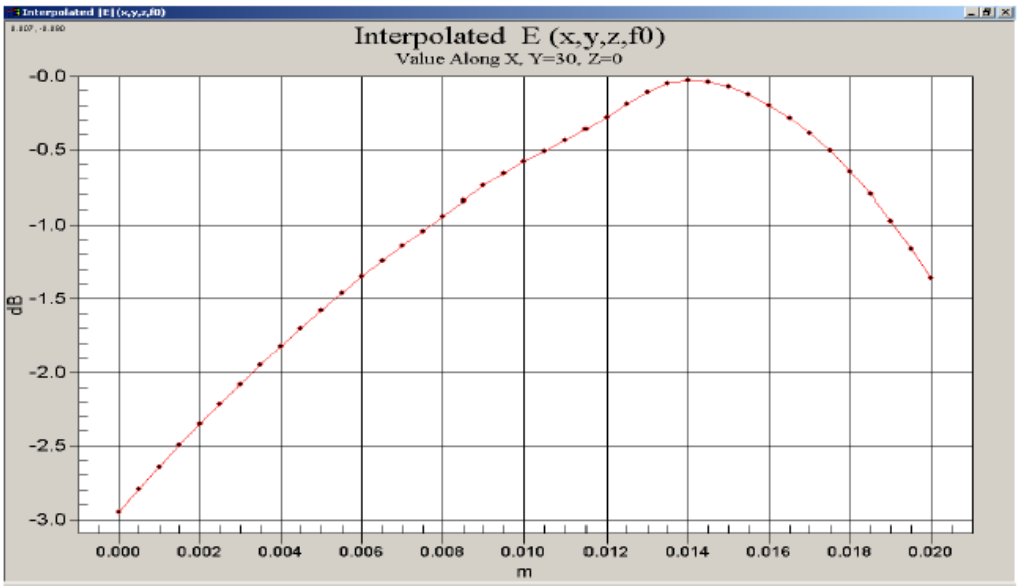
0 dB = 0.075A/m

Justification of Step Size and Interpolation

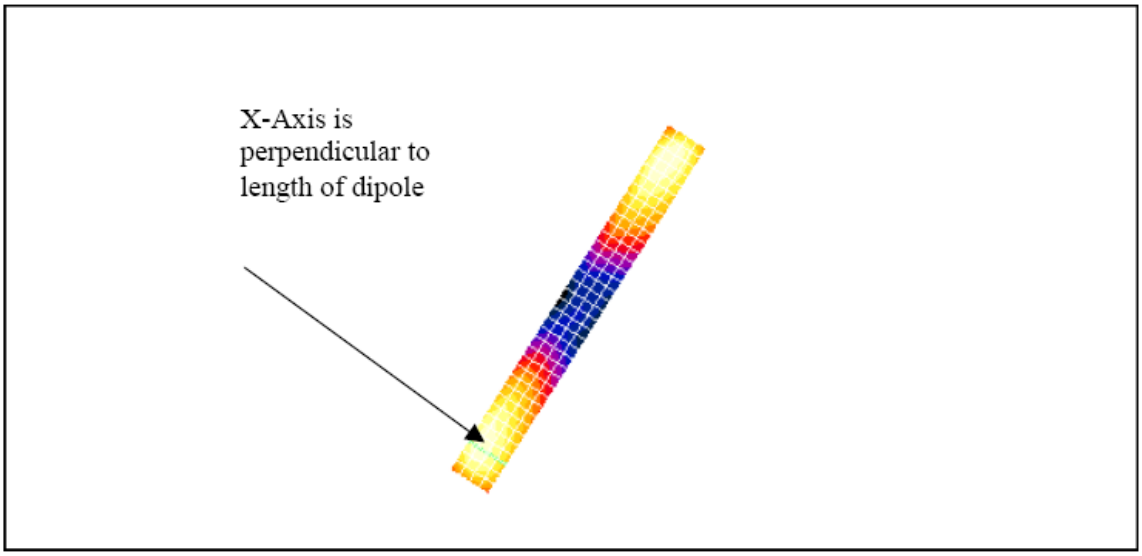
This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.



The figure above shows the raw measured field strength perpendicular to the length of the validation dipole. The TCB guidance slides require the 3dB width to be much larger than the step size. The width between -3dB points is > 21mm, at least 4 times the step size.



This figure shows the interpolated field strength perpendicular to the dipole. The interpolated points follow the raw points with no inconsistencies.



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)

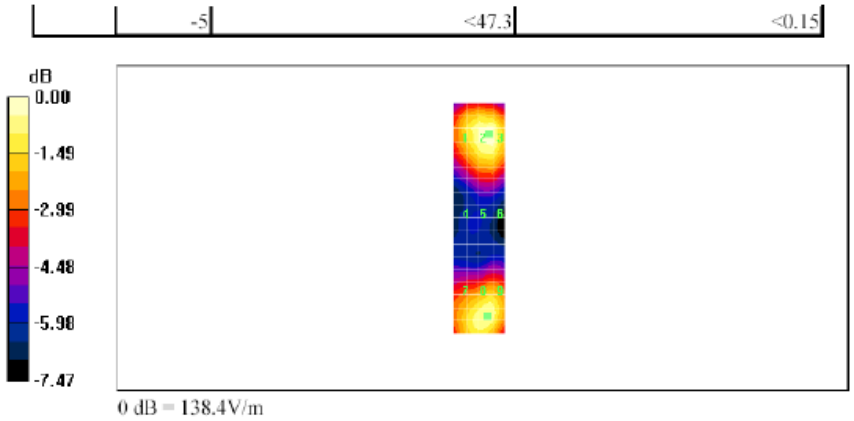
Grid 1 **123.2**	Grid 2 **138.1**	Grid 3 **138.4**
Grid 4 **80.9**	Grid 5 **92.3**	Grid 6 **92.2**
Grid 7 **119.8**	Grid 8 **131.0**	Grid 9 **130.7**

E in V/m (Slot averaged)

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

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

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



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)

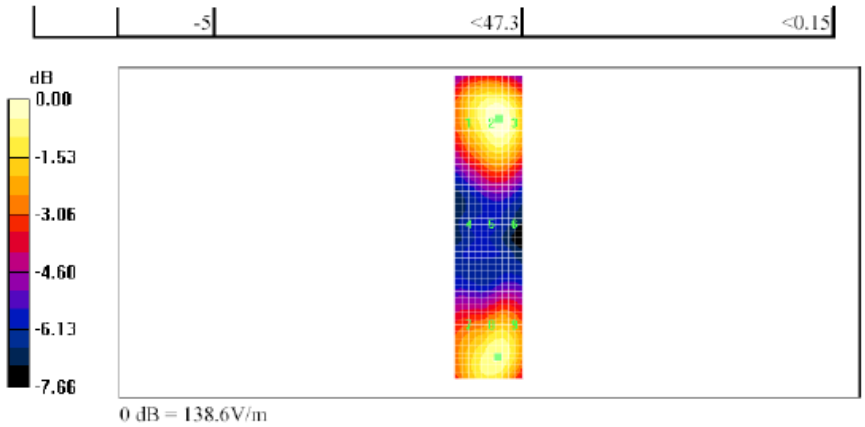
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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

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



0 dB = 138.6V/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

DASY4 Configuration:
- Probe: H3DV6 - SN6105; ; Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

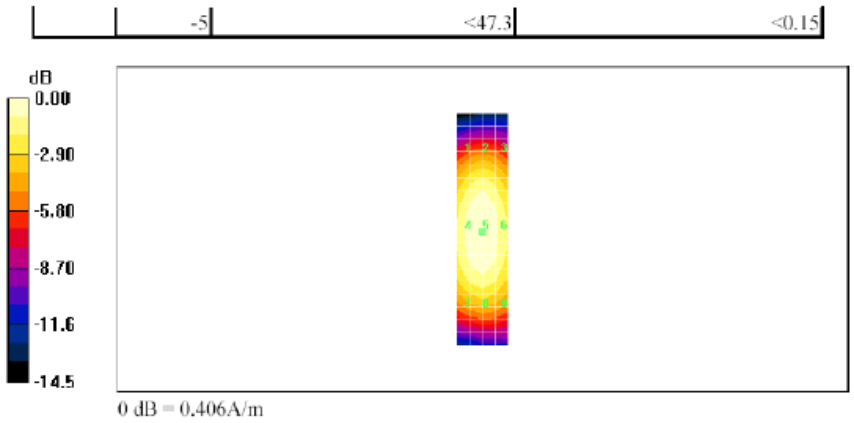
Grid 1	Grid 2	Grid 3
0.342	**0.359**	**0.344**
Grid 4	Grid 5	Grid 6
0.389	**0.406**	**0.389**
Grid 7	Grid 8	Grid 9
0.363	**0.378**	**0.363**

H in A/m (Slot averaged)

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

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

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



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)

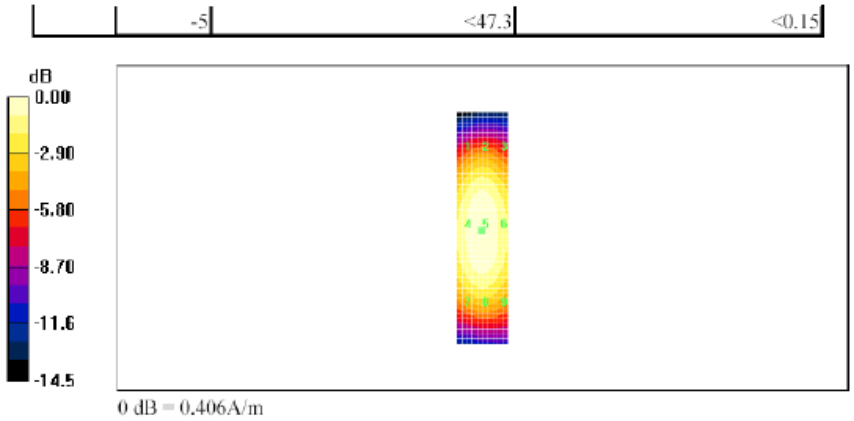
H in A/m (Time averaged)

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

H in A/m (Slot averaged)

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

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



A.3 RF emissions plots

Date/Time: 1/13/2011 3:24:09 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_low_chan

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 60.9 V/m; Power Drift = -0.144 dB

Maximum value of Total (measured) = 49.8 V/m

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 = 150.2 V/m

Probe Modulation Factor = 3.00

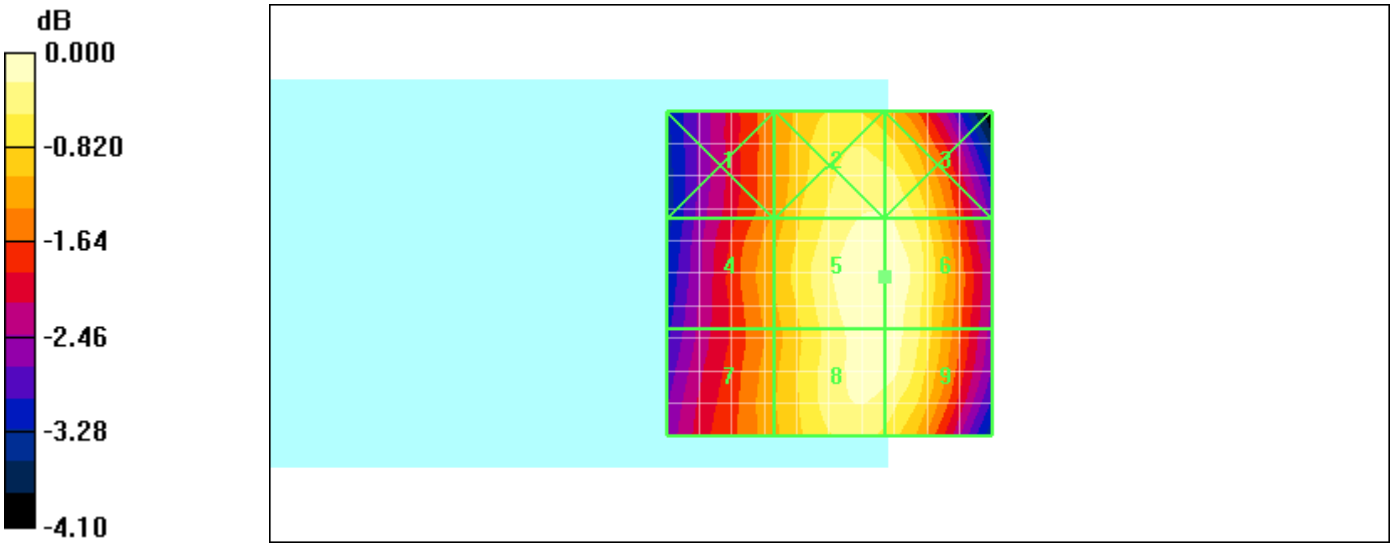
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 60.9 V/m; Power Drift = -0.144 dB

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

Peak E-field in V/m

Grid 1 **129.6 M4**	Grid 2 **146.3 M4**	Grid 3 **146.2 M4**
Grid 4 **133.0 M4**	Grid 5 **150.2 M3**	Grid 6 **150.2 M3**
Grid 7 **132.2 M4**	Grid 8 **148.4 M4**	Grid 9 **148.4 M4**



0 dB = 150.2V/m

Date/Time: 1/13/2011 3:30:17 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_mid_chan

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 71.3 V/m; Power Drift = 0.066 dB

Maximum value of Total (measured) = 61.1 V/m

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 = 184.0 V/m

Probe Modulation Factor = 3.00

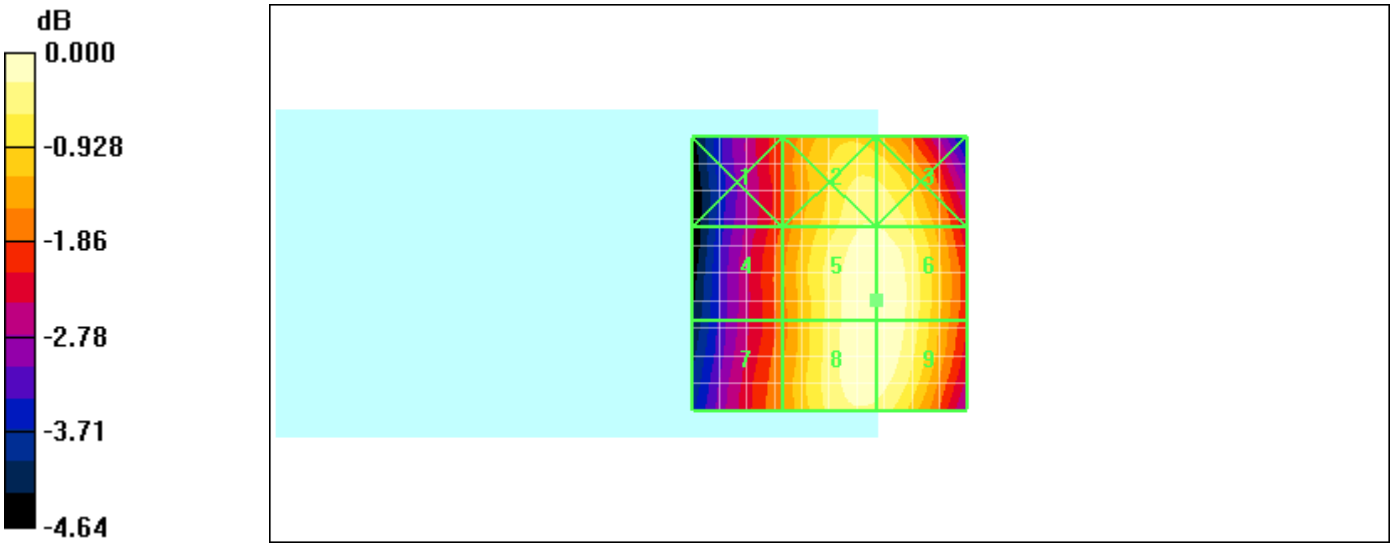
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 71.3 V/m; Power Drift = 0.066 dB

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

Peak E-field in V/m

Grid 1 **149.8 M3**	Grid 2 **178.1 M3**	Grid 3 **177.9 M3**
Grid 4 **153.3 M3**	Grid 5 **184.0 M3**	Grid 6 **184.0 M3**
Grid 7 **155.1 M3**	Grid 8 **183.5 M3**	Grid 9 **183.5 M3**



0 dB = 184.0V/m

Date/Time: 1/13/2011 3:41:04 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_high_chan

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 77.0 V/m; Power Drift = -0.133 dB

Maximum value of Total (measured) = 64.8 V/m

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 = 195.1 V/m

Probe Modulation Factor = 3.00

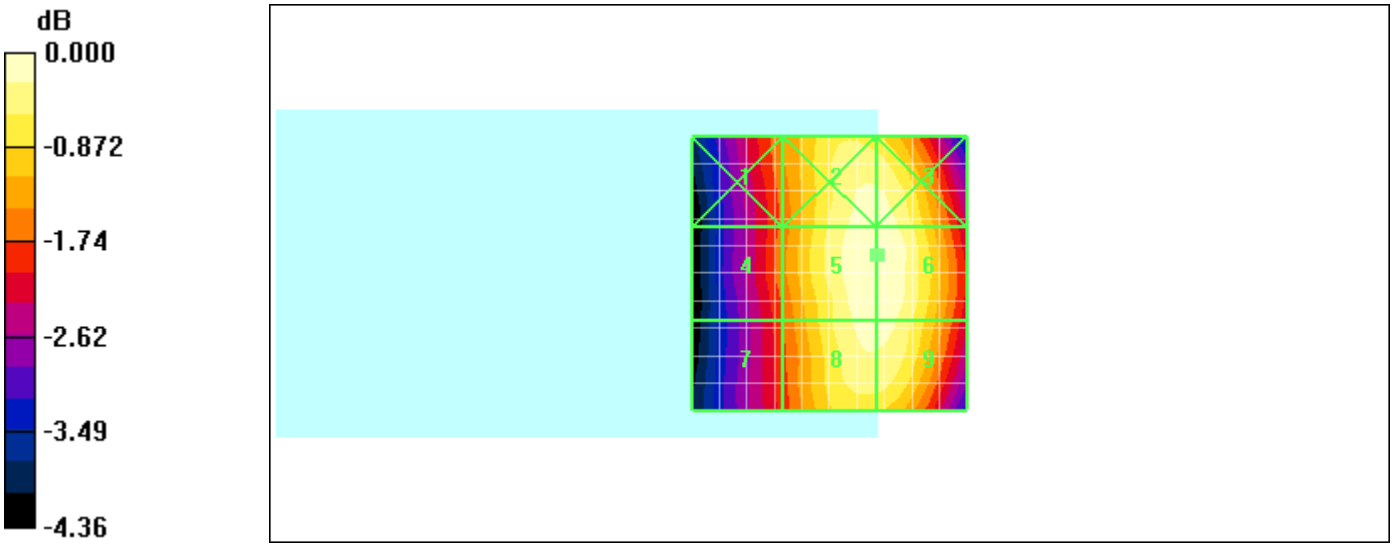
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 77.0 V/m; Power Drift = -0.133 dB

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

Peak E-field in V/m

Grid 1 **164.5 M3**	Grid 2 **193.0 M3**	Grid 3 **193.0 M3**
Grid 4 **163.7 M3**	Grid 5 **195.1 M3**	Grid 6 **195.1 M3**
Grid 7 **159.6 M3**	Grid 8 **192.0 M3**	Grid 9 **192.0 M3**



0 dB = 195.1V/m

Date/Time: 1/13/2011 3:47:50 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_high_chan_Telecoil

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 76.3 V/m; Power Drift = -0.158 dB

Maximum value of Total (measured) = 63.4 V/m

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 = 190.6 V/m

Probe Modulation Factor = 3.00

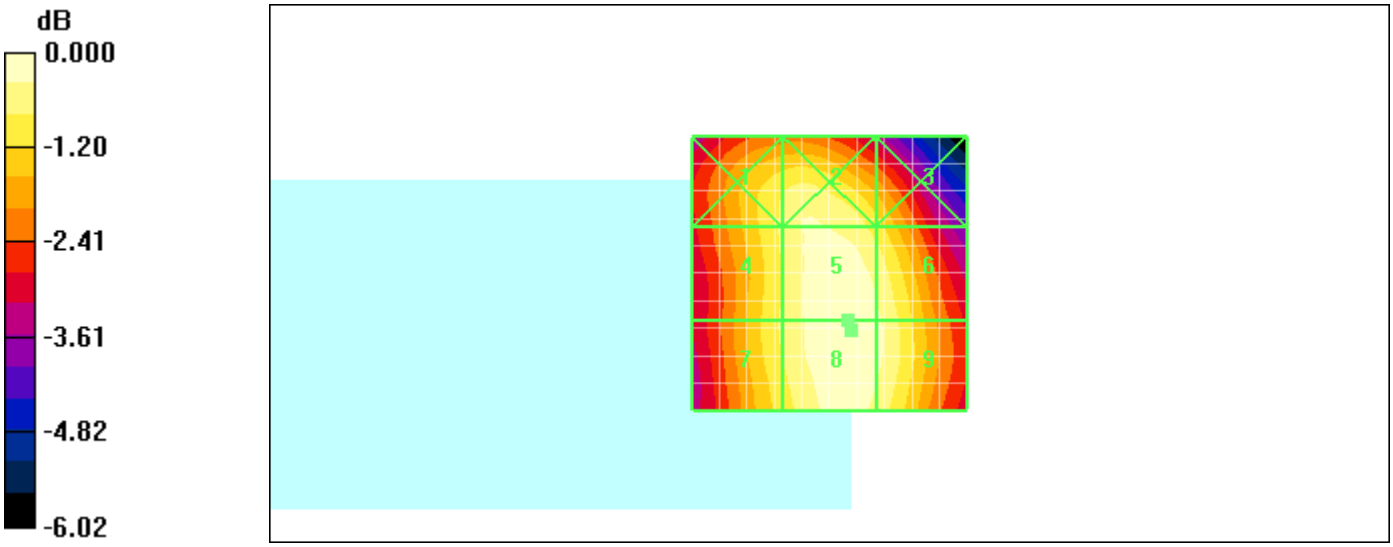
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 76.3 V/m; Power Drift = -0.158 dB

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

Peak E-field in V/m

Grid 1 **175.8 M3**	Grid 2 **182.9 M3**	Grid 3 **170.0 M3**
Grid 4 **175.8 M3**	Grid 5 **190.2 M3**	Grid 6 **184.3 M3**
Grid 7 **175.6 M3**	Grid 8 **190.6 M3**	Grid 9 **185.0 M3**



0 dB = 190.6V/m

Date/Time: 1/13/2011 12:11:39 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_low_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 61.5 V/m; Power Drift = -0.043 dB

Maximum value of Total (measured) = 49.1 V/m

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 = 47.2 V/m

Probe Modulation Factor = 0.960

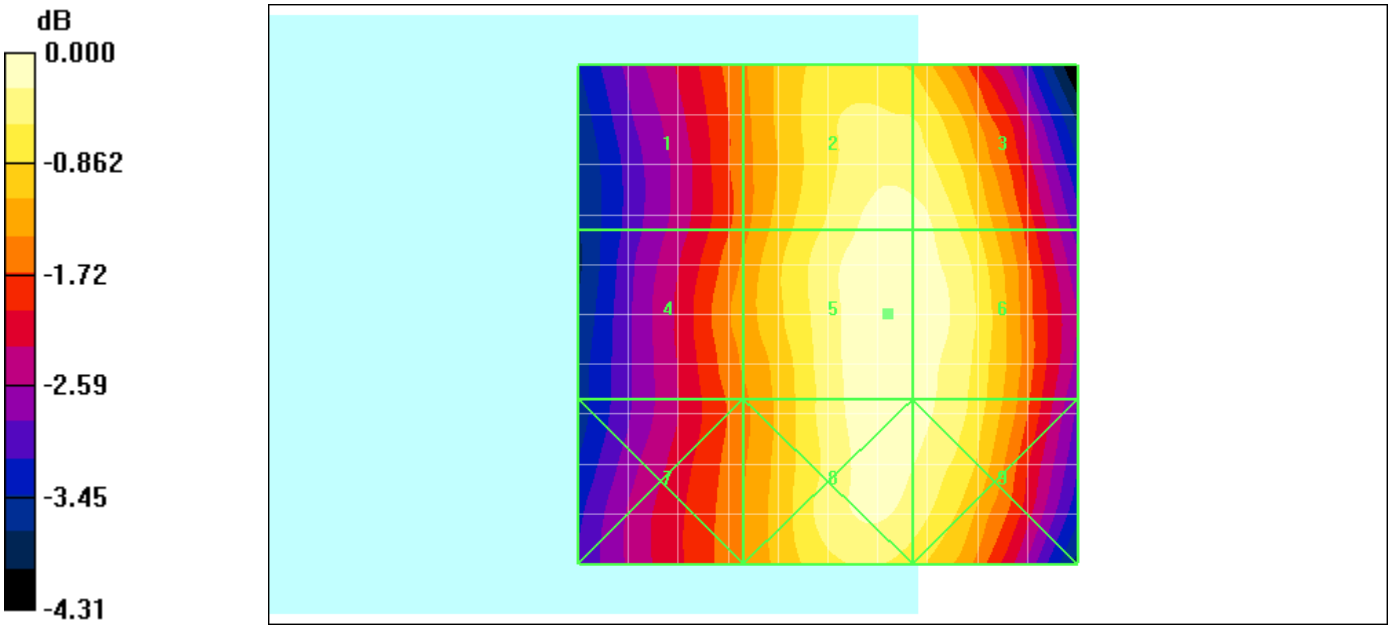
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 61.5 V/m; Power Drift = -0.043 dB

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

Peak E-field in V/m

Grid 1 **39.9 M4**	Grid 2 **46.4 M4**	Grid 3 **46.3 M4**
Grid 4 **40.8 M4**	Grid 5 **47.2 M4**	Grid 6 **46.9 M4**
Grid 7 **40.1 M4**	Grid 8 **46.6 M4**	Grid 9 **46.4 M4**



0 dB = 47.2V/m

Date/Time: 1/13/2011 12:17:05 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_mid_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 62.8 V/m; Power Drift = -0.165 dB

Maximum value of Total (measured) = 50.6 V/m

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 = 48.8 V/m

Probe Modulation Factor = 0.960

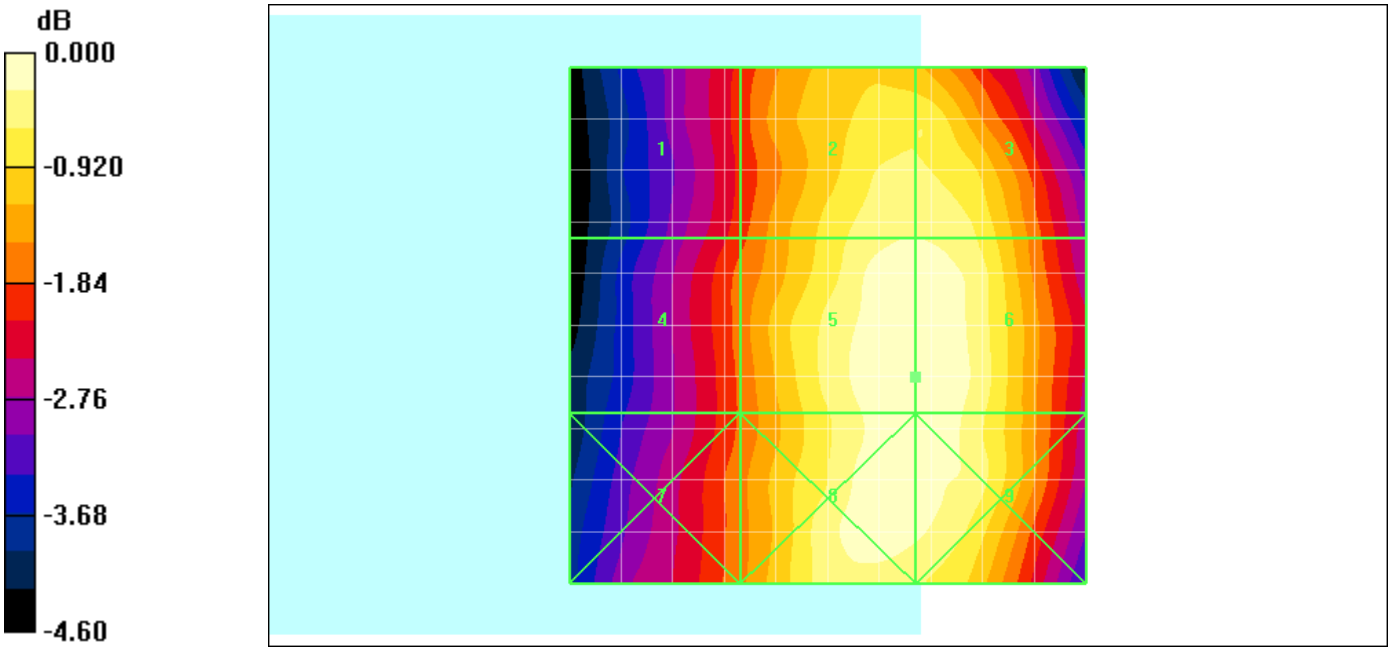
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 62.8 V/m; Power Drift = -0.165 dB

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

Peak E-field in V/m

Grid 1 **39.1 M4**	Grid 2 **47.1 M4**	Grid 3 **47.1 M4**
Grid 4 **40.1 M4**	Grid 5 **48.8 M4**	Grid 6 **48.8 M4**
Grid 7 **40.6 M4**	Grid 8 **48.7 M4**	Grid 9 **48.5 M4**



0 dB = 48.8V/m

Date/Time: 1/13/2011 12:22:07 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_high_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.5 V/m; Power Drift = 0.114 dB

Maximum value of Total (measured) = 64.2 V/m

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 = 60.4 V/m

Probe Modulation Factor = 0.960

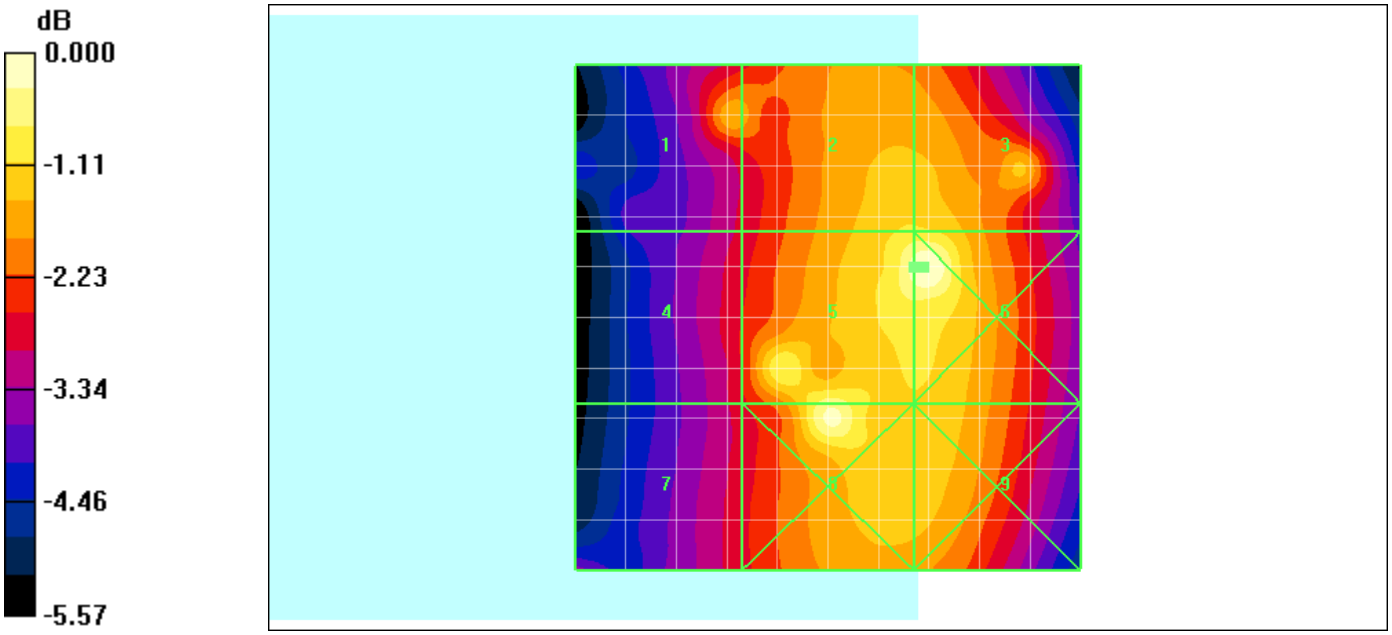
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.5 V/m; Power Drift = 0.114 dB

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

Peak E-field in V/m

Grid 1 **51.7 M4**	Grid 2 **55.0 M4**	Grid 3 **55.0 M4**
Grid 4 **46.3 M4**	Grid 5 **60.4 M4**	Grid 6 **61.7 M4**
Grid 7 **45.3 M4**	Grid 8 **60.0 M4**	Grid 9 **54.3 M4**



0 dB = 61.7V/m

Date/Time: 1/13/2011 12:27:05 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_high_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 70.6 V/m; Power Drift = -0.034 dB

Maximum value of Total (measured) = 63.4 V/m

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 = 60.4 V/m

Probe Modulation Factor = 0.960

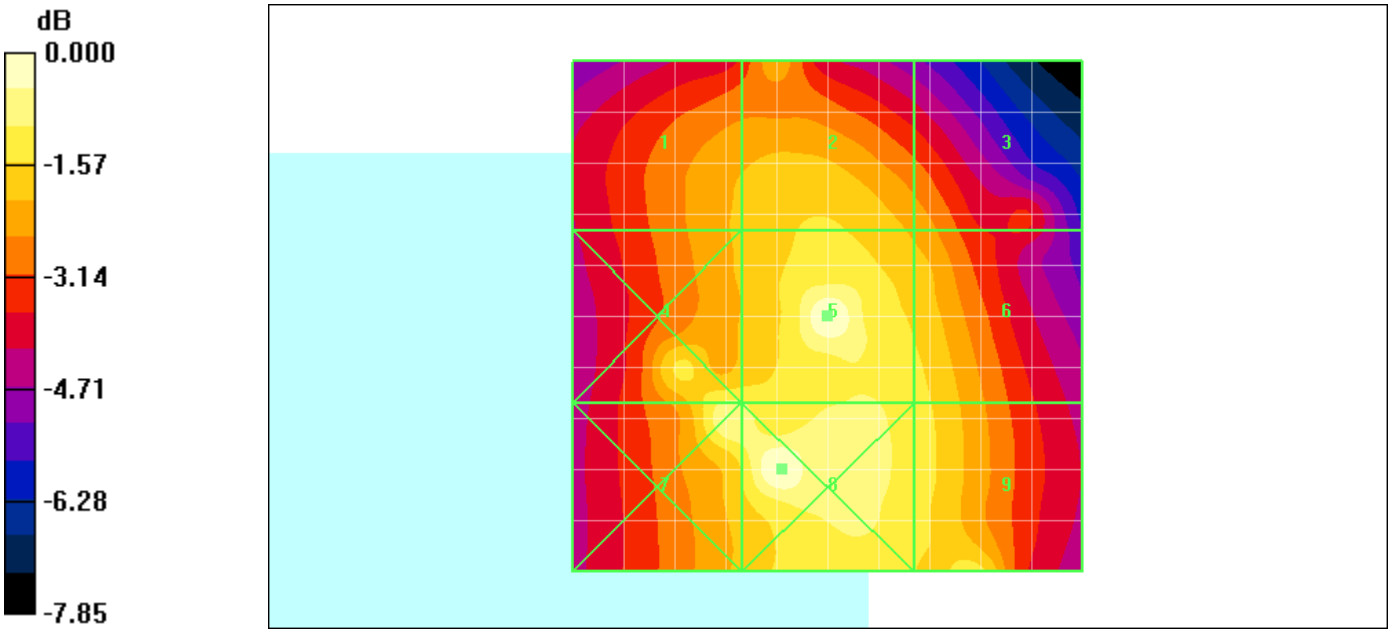
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 70.6 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

Grid 1 **48.6 M4**	Grid 2 **51.3 M4**	Grid 3 **47.3 M4**
Grid 4 **55.2 M4**	Grid 5 **60.4 M4**	Grid 6 **52.3 M4**
Grid 7 **57.4 M4**	Grid 8 **61.0 M4**	Grid 9 **53.0 M4**



0 dB = 61.0V/m

Date/Time: 1/13/2011 5:20:58 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_low_chan

DUT: BlackBerry Smartphone

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.6 V/m; Power Drift = -0.256 dB

Maximum value of Total (measured) = 33.9 V/m

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 = 77.6 V/m

Probe Modulation Factor = 2.61

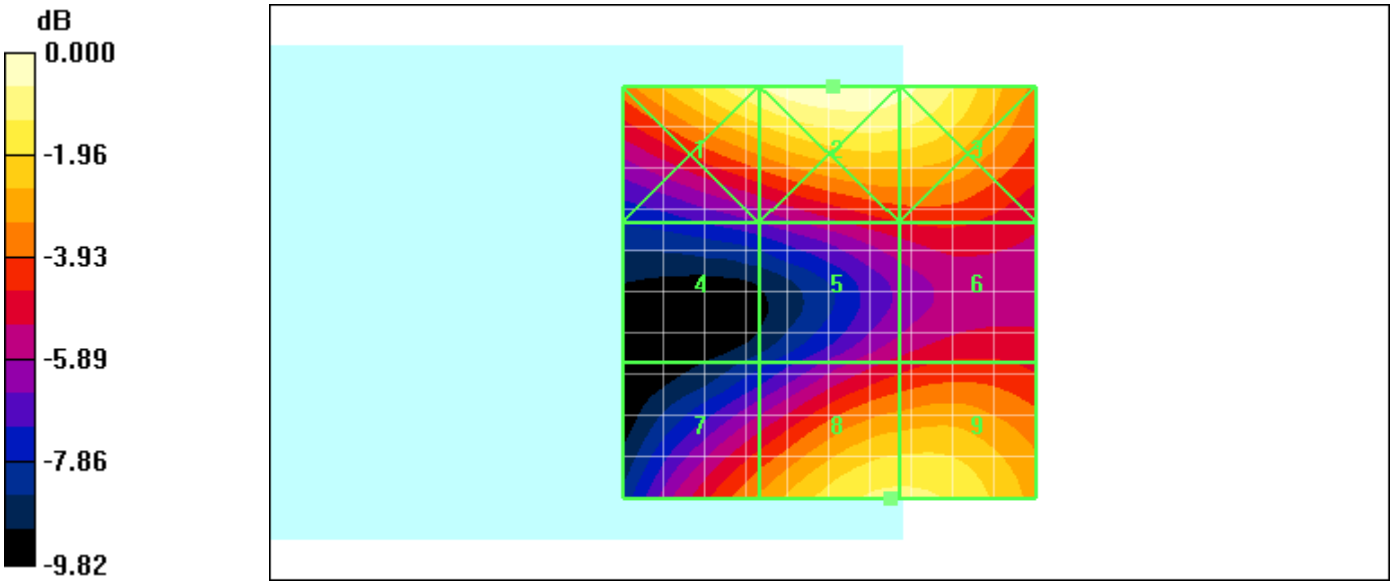
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 13.6 V/m; Power Drift = -0.256 dB

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

Peak E-field in V/m

Grid 1 **82.1 M3**	Grid 2 **88.5 M2**	Grid 3 **84.6 M2**
Grid 4 **41.8 M4**	Grid 5 **52.2 M3**	Grid 6 **53.3 M3**
Grid 7 **61.7 M3**	Grid 8 **77.6 M3**	Grid 9 **77.6 M3**



0 dB = 88.5V/m

Date/Time: 1/13/2011 5:26:03 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_mid_chan

DUT: BlackBerry Smartphone

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.1 V/m; Power Drift = -0.285 dB

Maximum value of Total (measured) = 32.1 V/m

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 = 63.4 V/m

Probe Modulation Factor = 2.61

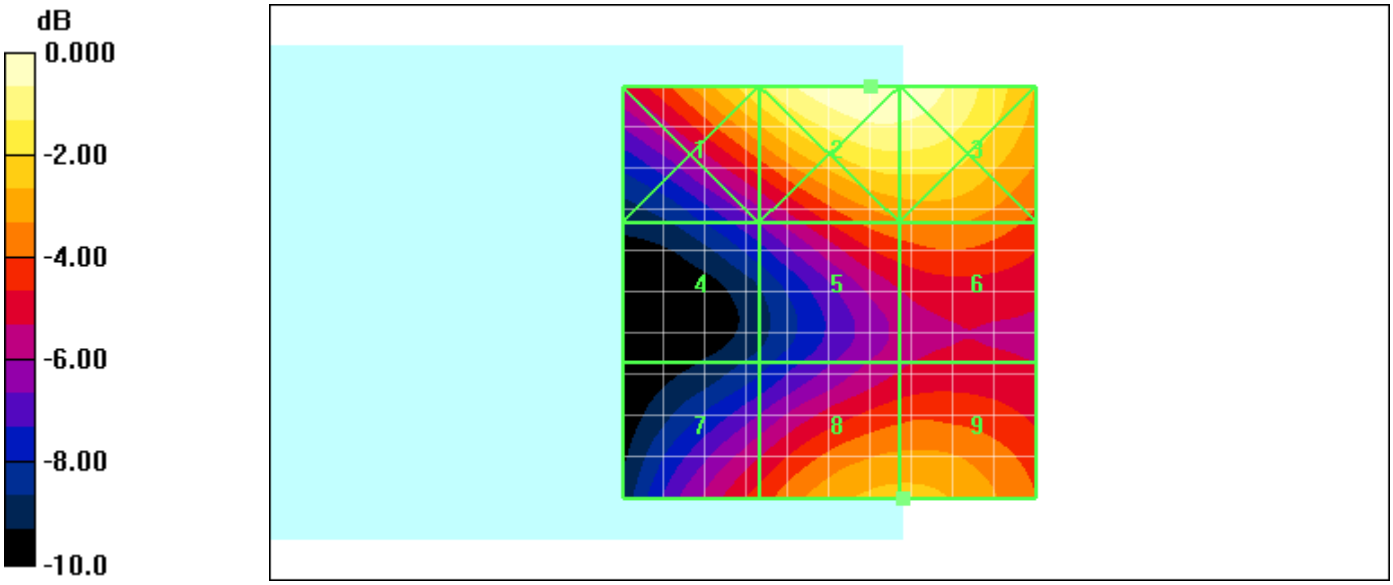
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.1 V/m; Power Drift = -0.285 dB

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

Peak E-field in V/m

Grid 1 **71.2 M3**	Grid 2 **83.7 M3**	Grid 3 **82.6 M3**
Grid 4 **39.4 M4**	Grid 5 **56.4 M3**	Grid 6 **57.6 M3**
Grid 7 **51.1 M3**	Grid 8 **63.4 M3**	Grid 9 **63.4 M3**



0 dB = 83.7V/m

Date/Time: 1/13/2011 5:31:00 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_high_chan

DUT: BlackBerry Smartphone

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 15.7 V/m; Power Drift = -0.174 dB

Maximum value of Total (measured) = 30.1 V/m

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 = 59.0 V/m

Probe Modulation Factor = 2.61

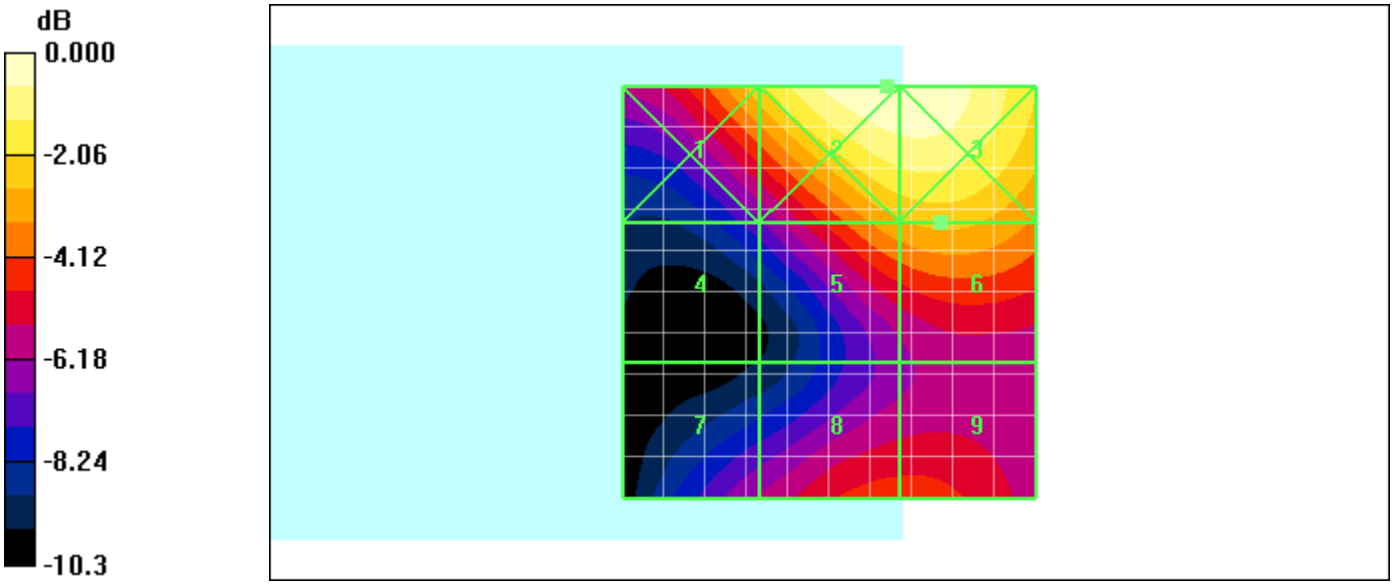
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 15.7 V/m; Power Drift = -0.174 dB

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

Peak E-field in V/m

Grid 1 **61.2 M3**	Grid 2 **79.1 M3**	Grid 3 **79.0 M3**
Grid 4 **35.7 M4**	Grid 5 **56.9 M3**	Grid 6 **59.0 M3**
Grid 7 **39.4 M4**	Grid 8 **47.6 M3**	Grid 9 **47.6 M3**



0 dB = 79.1V/m

Date/Time: 1/13/2011 5:37:55 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_low_chan_Telecoil

DUT: BlackBerry Smartphone

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 12.8 V/m; Power Drift = -0.080 dB

Maximum value of Total (measured) = 35.5 V/m

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 = 66.4 V/m

Probe Modulation Factor = 2.61

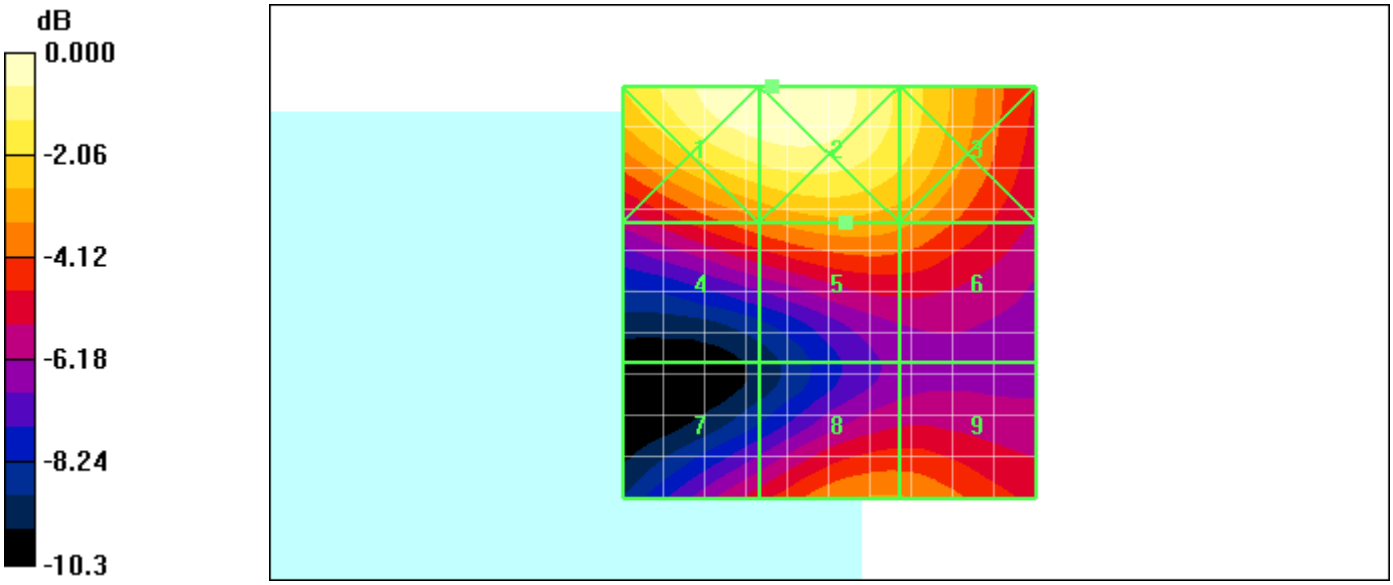
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 12.8 V/m; Power Drift = -0.080 dB

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

Peak E-field in V/m

Grid 1 **92.8 M2**	Grid 2 **92.9 M2**	Grid 3 **78.0 M3**
Grid 4 **61.4 M3**	Grid 5 **66.4 M3**	Grid 6 **64.1 M3**
Grid 7 **52.1 M3**	Grid 8 **63.4 M3**	Grid 9 **63.3 M3**



0 dB = 92.9V/m

Date/Time: 1/13/2011 12:40:26 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_low_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.2 V/m; Power Drift = -0.831 dB

Maximum value of Total (measured) = 37.1 V/m

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 = 31.6 V/m

Probe Modulation Factor = 0.900

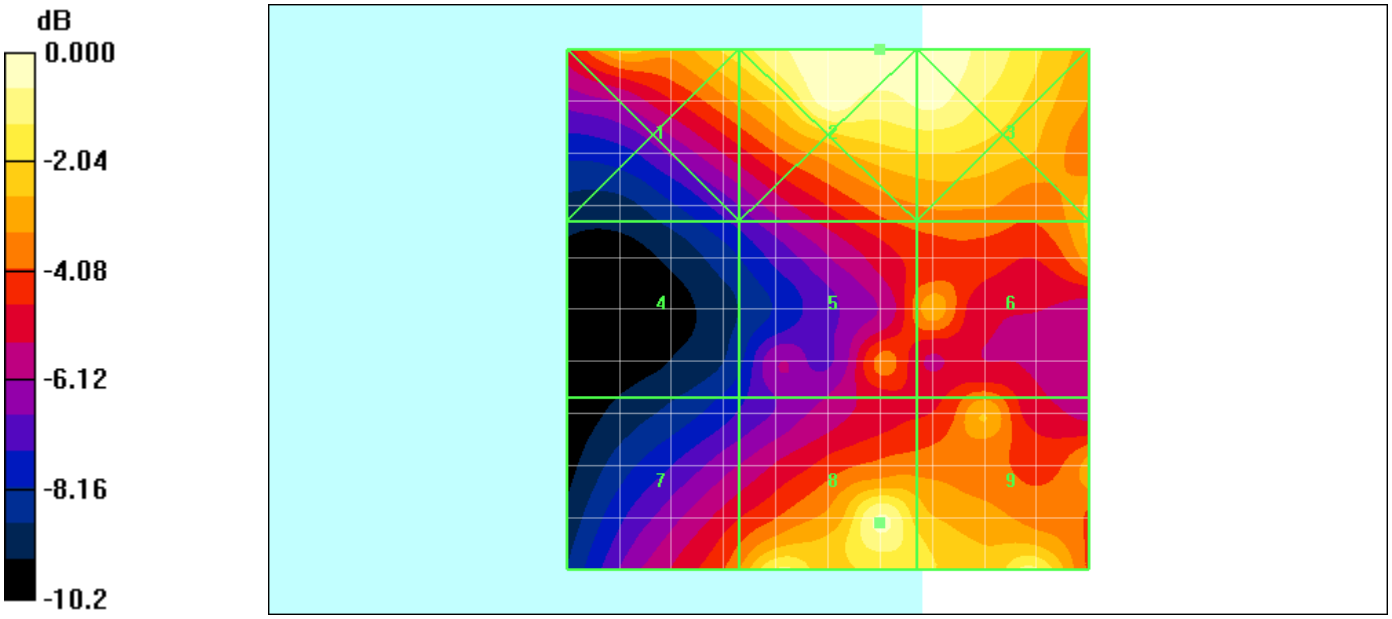
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.2 V/m; Power Drift = -0.831 dB

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

Peak E-field in V/m

Grid 1 **27.8 M4**	Grid 2 **33.4 M4**	Grid 3 **33.0 M4**
Grid 4 **14.6 M4**	Grid 5 **21.9 M4**	Grid 6 **25.1 M4**
Grid 7 **22.6 M4**	Grid 8 **31.6 M4**	Grid 9 **29.5 M4**



0 dB = 33.4V/m

Date/Time: 1/13/2011 12:50:24 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_mid_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 23.9 V/m; Power Drift = 0.122 dB

Maximum value of Total (measured) = 42.1 V/m

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 = 28.6 V/m

Probe Modulation Factor = 0.900

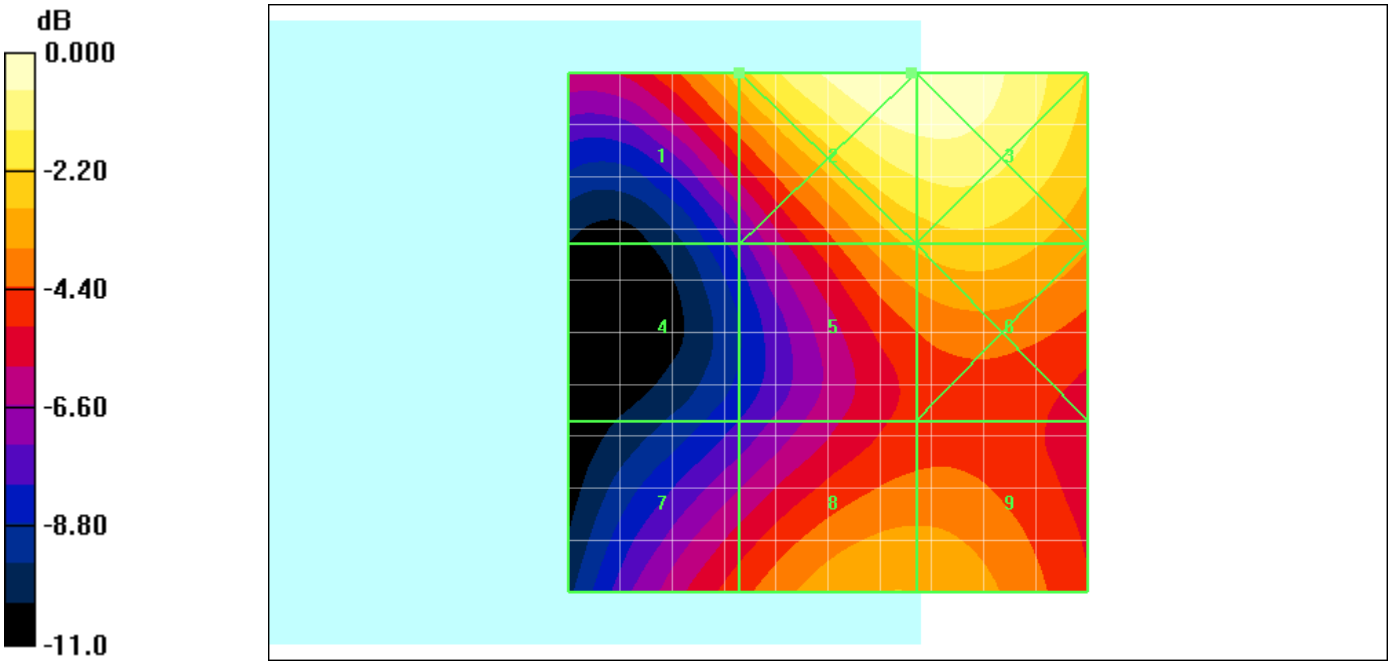
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 23.9 V/m; Power Drift = 0.122 dB

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

Peak E-field in V/m

Grid 1 **28.6 M4**	Grid 2 **38.0 M4**	Grid 3 **38.0 M4**
Grid 4 **15.8 M4**	Grid 5 **27.6 M4**	Grid 6 **28.7 M4**
Grid 7 **22.3 M4**	Grid 8 **27.2 M4**	Grid 9 **27.1 M4**



0 dB = 38.0V/m

Date/Time: 1/13/2011 12:55:12 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_high_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.9 V/m; Power Drift = -0.487 dB

Maximum value of Total (measured) = 48.2 V/m

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 = 31.6 V/m

Probe Modulation Factor = 0.900

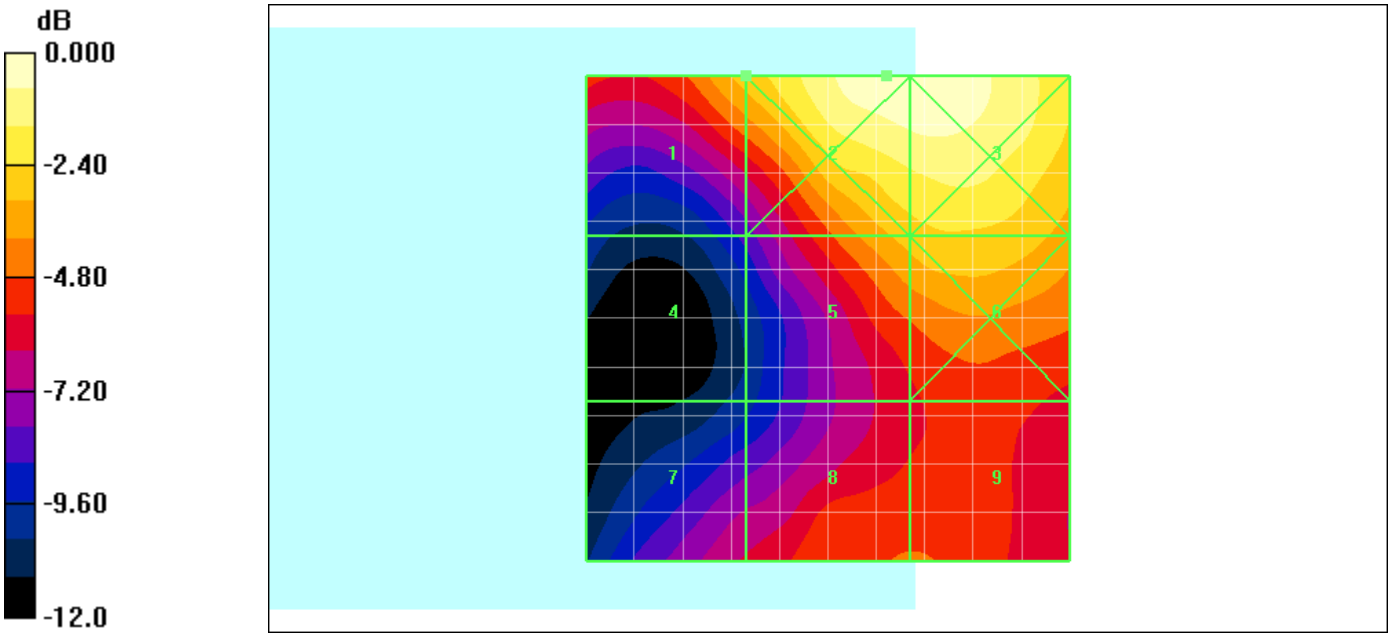
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.9 V/m; Power Drift = -0.487 dB

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

Peak E-field in V/m

Grid 1 **31.6 M4**	Grid 2 **43.5 M4**	Grid 3 **42.4 M4**
Grid 4 **16.5 M4**	Grid 5 **31.4 M4**	Grid 6 **32.7 M4**
Grid 7 **21.1 M4**	Grid 8 **25.3 M4**	Grid 9 **25.3 M4**



0 dB = 43.5V/m

Date/Time: 1/13/2011 1:00:42 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_high_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.1 V/m; Power Drift = -0.076 dB

Maximum value of Total (measured) = 48.9 V/m

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 = 41.6 V/m

Probe Modulation Factor = 0.900

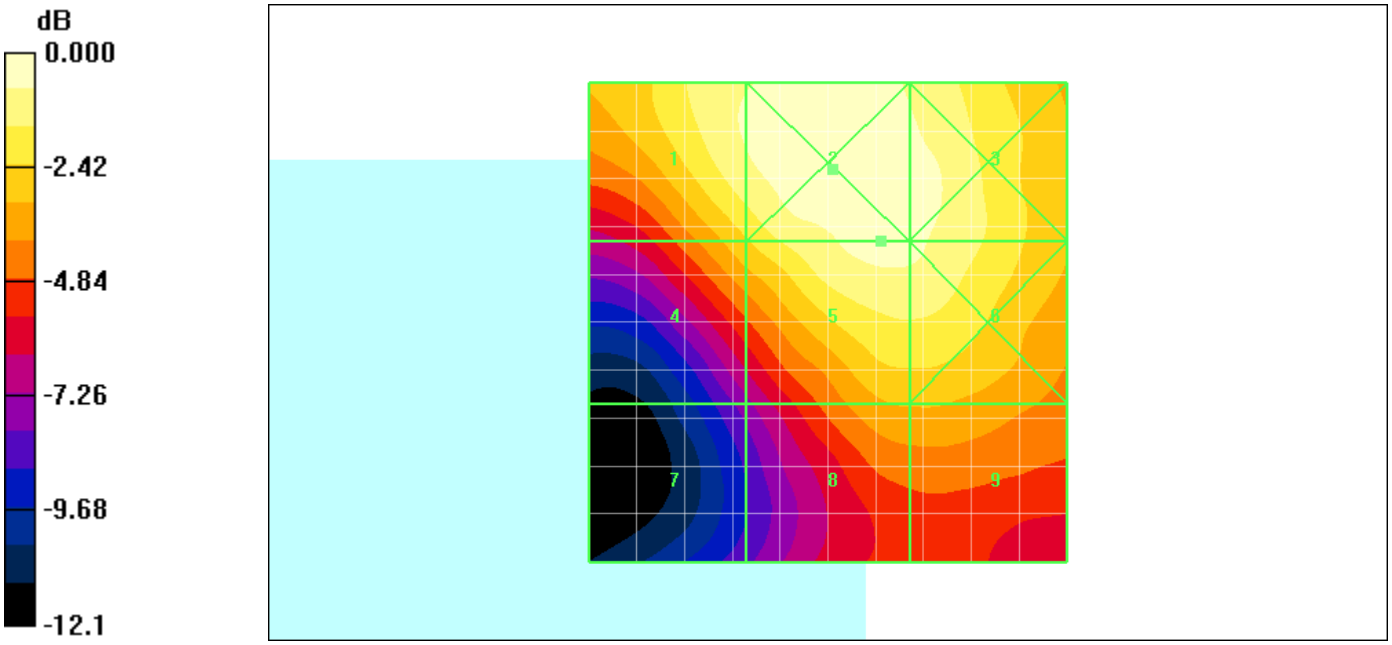
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.1 V/m; Power Drift = -0.076 dB

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

Peak E-field in V/m

Grid 1 **40.8 M4**	Grid 2 **44.2 M4**	Grid 3 **42.4 M4**
Grid 4 **33.2 M4**	Grid 5 **41.6 M4**	Grid 6 **41.1 M4**
Grid 7 **18.7 M4**	Grid 8 **30.8 M4**	Grid 9 **30.8 M4**



0 dB = 44.2V/m

Date/Time: 1/12/2011 10:34:16 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_low_chan_Slide_Open

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 71.8 V/m; Power Drift = 0.131 dB

Maximum value of Total (measured) = 57.5 V/m

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 = 172.7 V/m

Probe Modulation Factor = 3.00

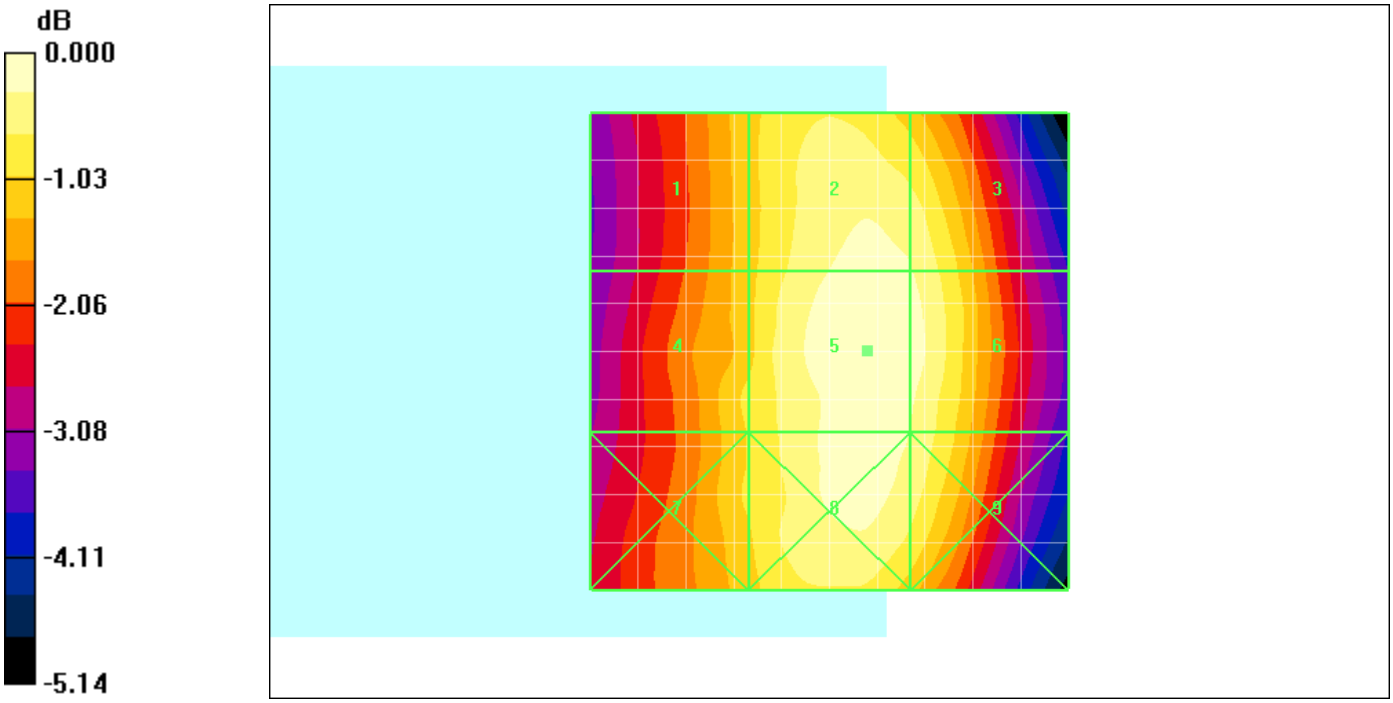
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 71.8 V/m; Power Drift = 0.131 dB

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

Peak E-field in V/m

Grid 1 **151.5 M3**	Grid 2 **168.7 M3**	Grid 3 **166.4 M3**
Grid 4 **154.9 M3**	Grid 5 **172.7 M3**	Grid 6 **169.3 M3**
Grid 7 **154.6 M3**	Grid 8 **169.6 M3**	Grid 9 **165.8 M3**



0 dB = 172.7V/m

Date/Time: 1/12/2011 10:40:53 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_mid_chan_Slide_Open

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 84.6 V/m; Power Drift = -0.305 dB

Maximum value of Total (measured) = 65.1 V/m

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 = 195.3 V/m

Probe Modulation Factor = 3.00

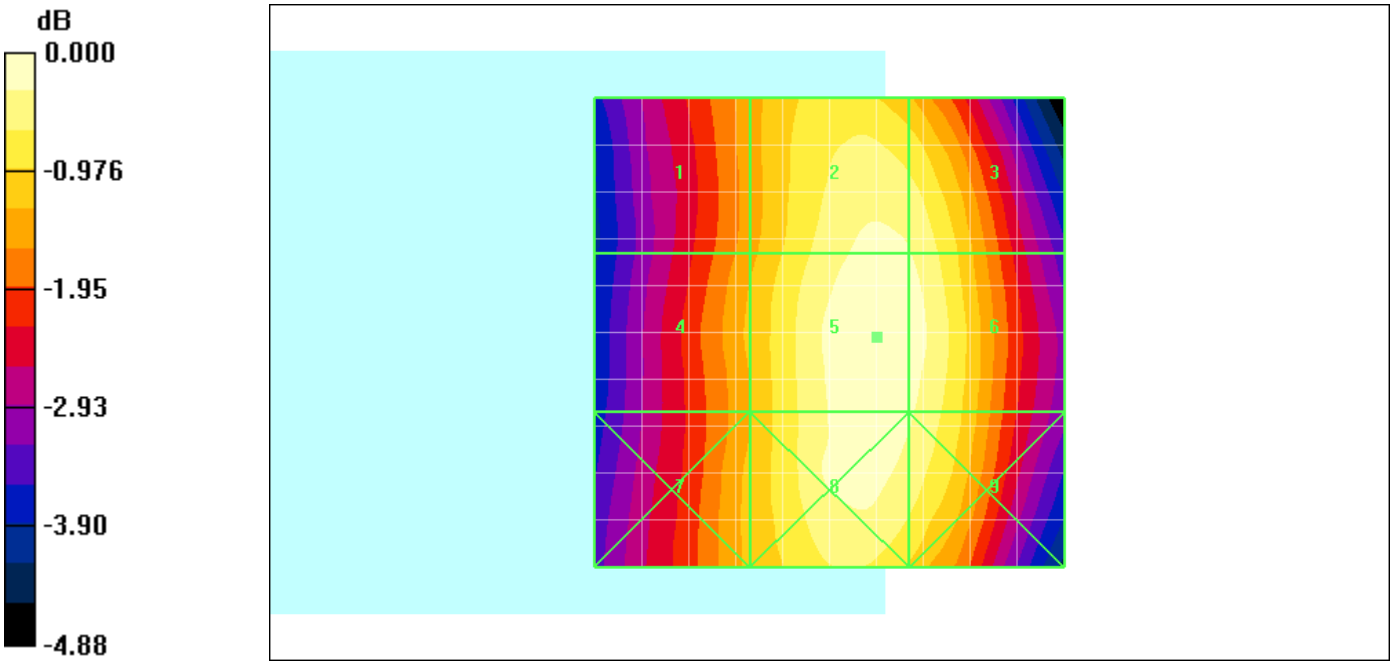
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 84.6 V/m; Power Drift = -0.305 dB

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

Peak E-field in V/m

Grid 1 **166.1 M3**	Grid 2 **190.4 M3**	Grid 3 **188.5 M3**
Grid 4 **169.7 M3**	Grid 5 **195.3 M3**	Grid 6 **192.2 M3**
Grid 7 **170.4 M3**	Grid 8 **192.3 M3**	Grid 9 **189.1 M3**



0 dB = 195.3V/m

Date/Time: 1/12/2011 10:45:44 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_high_chan_Slide_Open

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 85.3 V/m; Power Drift = -0.041 dB

Maximum value of Total (measured) = 67.2 V/m

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 = 201.6 V/m

Probe Modulation Factor = 3.00

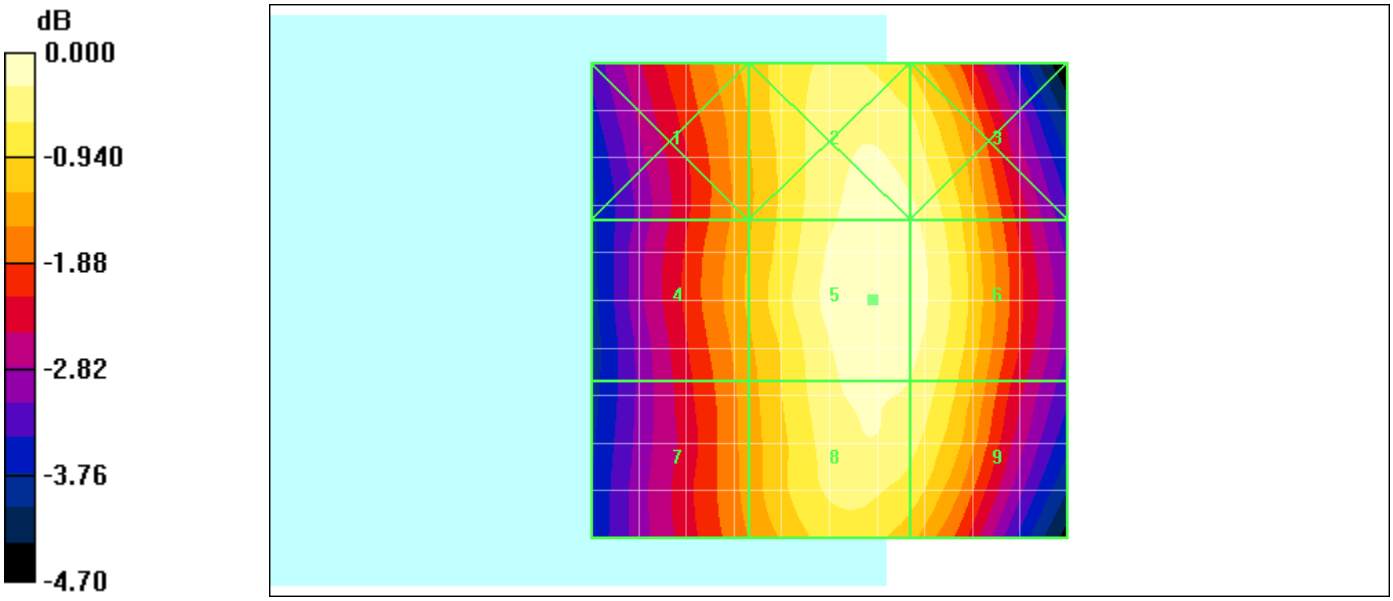
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 85.3 V/m; Power Drift = -0.041 dB

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

Peak E-field in V/m

Grid 1 **176.8 M3**	Grid 2 **198.4 M3**	Grid 3 **196.1 M3**
Grid 4 **175.8 M3**	Grid 5 **201.6 M3**	Grid 6 **198.6 M3**
Grid 7 **172.0 M3**	Grid 8 **196.4 M3**	Grid 9 **194.2 M3**



0 dB = 201.6V/m

Date/Time: 1/12/2011 10:50:20 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM850_high_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 84.0 V/m; Power Drift = 0.049 dB

Maximum value of Total (measured) = 65.9 V/m

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 = 198.4 V/m

Probe Modulation Factor = 3.00

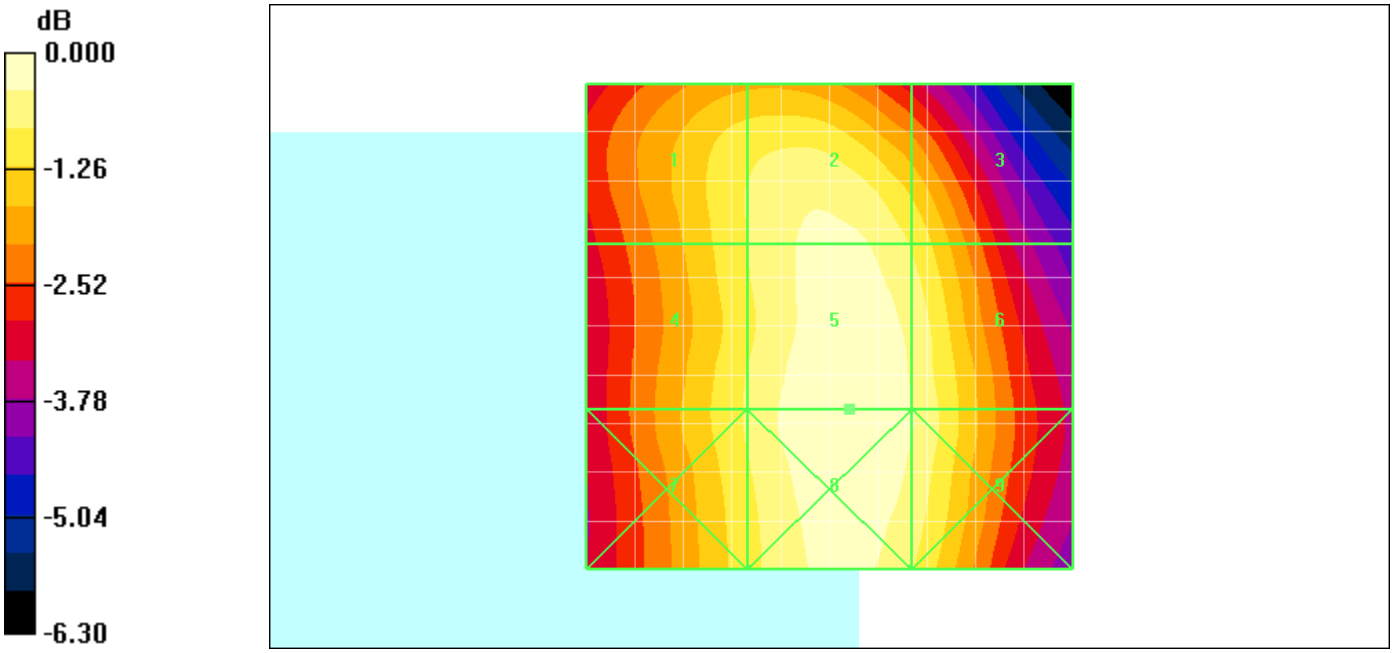
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 84.0 V/m; Power Drift = 0.049 dB

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

Peak E-field in V/m

Grid 1 **180.7 M3**	Grid 2 **191.5 M3**	Grid 3 **179.3 M3**
Grid 4 **181.2 M3**	Grid 5 **198.4 M3**	Grid 6 **189.4 M3**
Grid 7 **181.2 M3**	Grid 8 **198.4 M3**	Grid 9 **189.6 M3**



0 dB = 198.4V/m

Date/Time: 1/12/2011 11:50:16 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 72.0 V/m; Power Drift = -0.132 dB

Maximum value of Total (measured) = 57.3 V/m

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 = 55.2 V/m

Probe Modulation Factor = 0.960

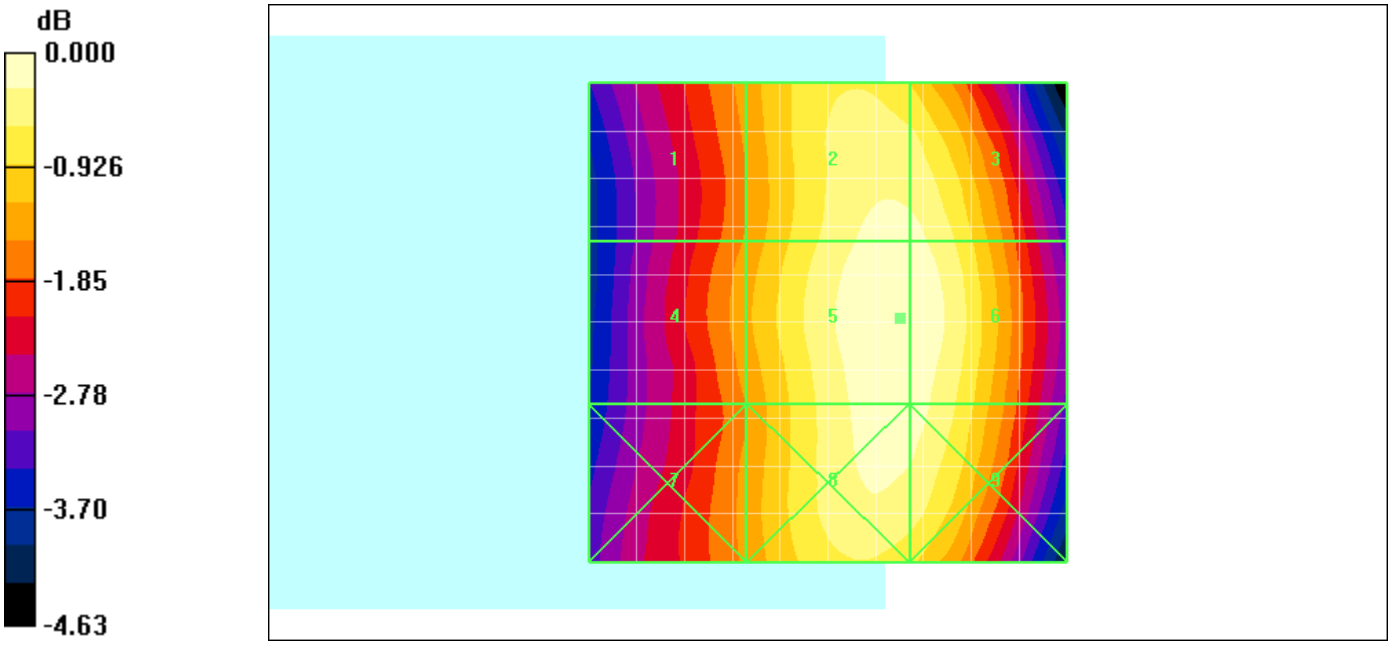
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 72.0 V/m; Power Drift = -0.132 dB

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

Peak E-field in V/m

Grid 1 **47.0 M4**	Grid 2 **54.1 M4**	Grid 3 **54.0 M4**
Grid 4 **47.5 M4**	Grid 5 **55.2 M4**	Grid 6 **55.1 M4**
Grid 7 **46.9 M4**	Grid 8 **54.3 M4**	Grid 9 **54.2 M4**



0 dB = 55.2V/m

Date/Time: 1/12/2011 11:56:17 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.6 V/m; Power Drift = -0.167 dB

Maximum value of Total (measured) = 56.4 V/m

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 = 54.6 V/m

Probe Modulation Factor = 0.960

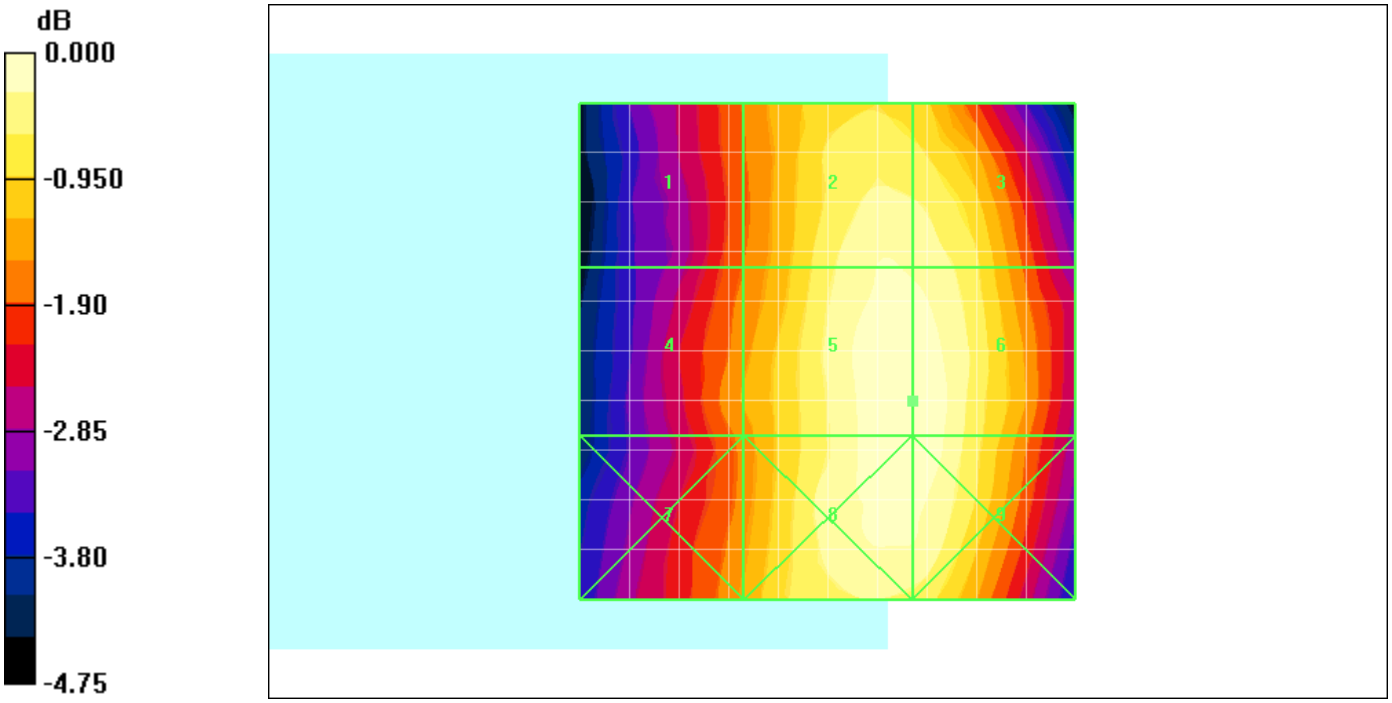
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 69.6 V/m; Power Drift = -0.167 dB

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

Peak E-field in V/m

Grid 1 **43.9 M4**	Grid 2 **52.8 M4**	Grid 3 **52.4 M4**
Grid 4 **45.7 M4**	Grid 5 **54.6 M4**	Grid 6 **54.6 M4**
Grid 7 **45.7 M4**	Grid 8 **54.3 M4**	Grid 9 **54.3 M4**



0 dB = 54.6V/m

Date/Time: 1/13/2011 12:00:49 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 78.2 V/m; Power Drift = 0.049 dB

Maximum value of Total (measured) = 63.6 V/m

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 = 61.3 V/m

Probe Modulation Factor = 0.960

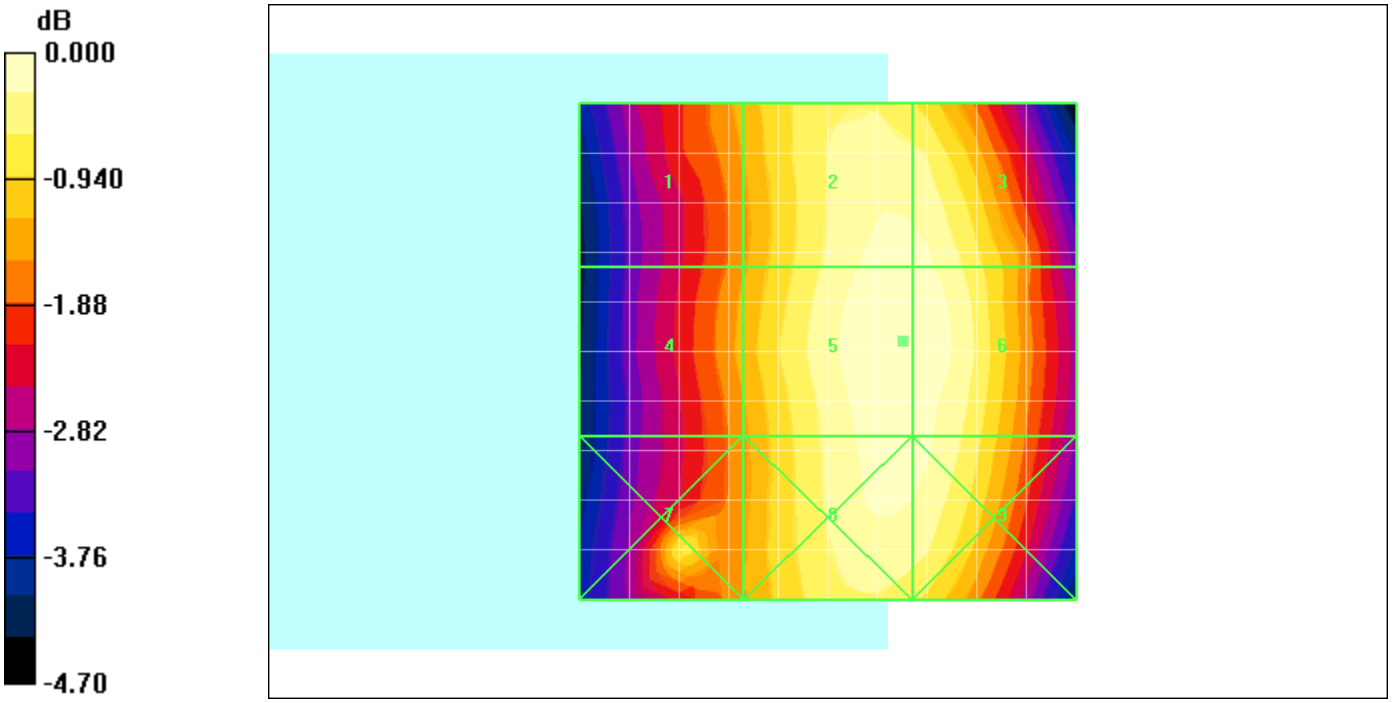
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 78.2 V/m; Power Drift = 0.049 dB

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

Peak E-field in V/m

Grid 1 **51.9 M4**	Grid 2 **60.2 M4**	Grid 3 **60.1 M4**
Grid 4 **51.9 M4**	Grid 5 **61.3 M4**	Grid 6 **61.3 M4**
Grid 7 **55.4 M4**	Grid 8 **60.2 M4**	Grid 9 **60.1 M4**



0 dB = 61.3V/m

Date/Time: 1/13/2011 12:06:02 AM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_V_high_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 79.4 V/m; Power Drift = 0.014 dB

Maximum value of Total (measured) = 72.6 V/m

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 = 69.7 V/m

Probe Modulation Factor = 0.960

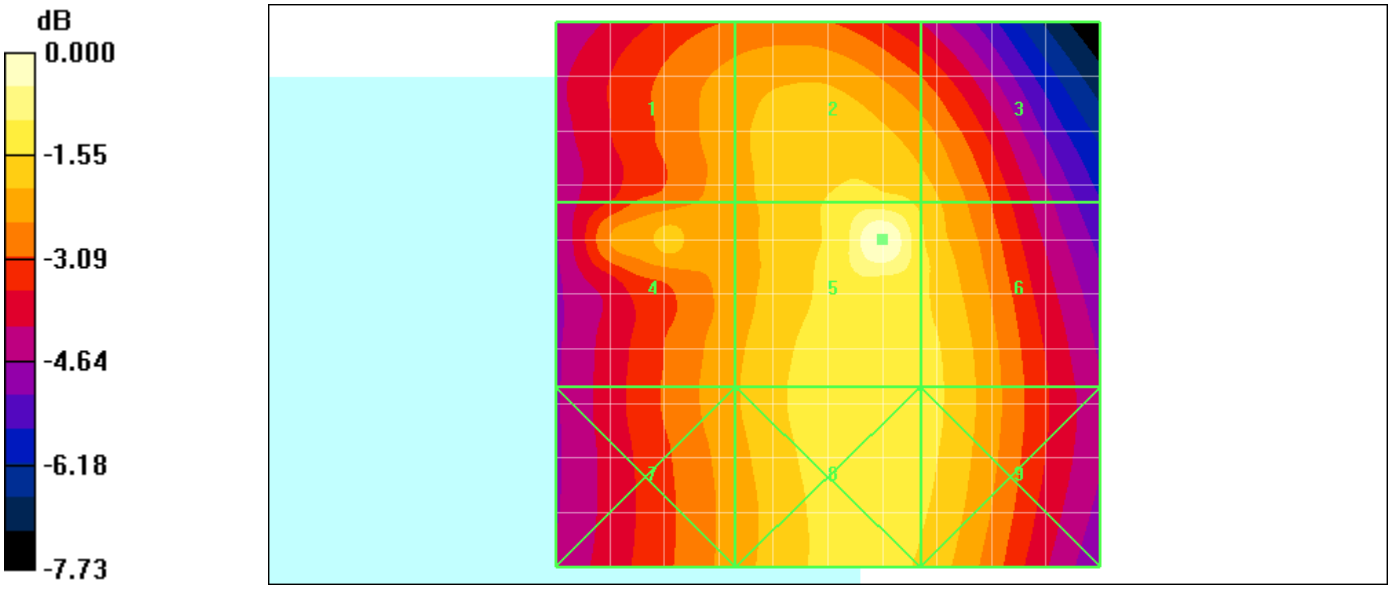
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 79.4 V/m; Power Drift = 0.014 dB

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

Peak E-field in V/m

Grid 1 **54.1 M4**	Grid 2 **60.5 M4**	Grid 3 **57.4 M4**
Grid 4 **56.3 M4**	Grid 5 **69.7 M4**	Grid 6 **60.2 M4**
Grid 7 **54.6 M4**	Grid 8 **61.6 M4**	Grid 9 **60.2 M4**



0 dB = 69.7V/m

Date/Time: 1/12/2011 11:07:21 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.0 V/m; Power Drift = 0.004 dB

Maximum value of Total (measured) = 32.1 V/m

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 = 71.5 V/m

Probe Modulation Factor = 2.61

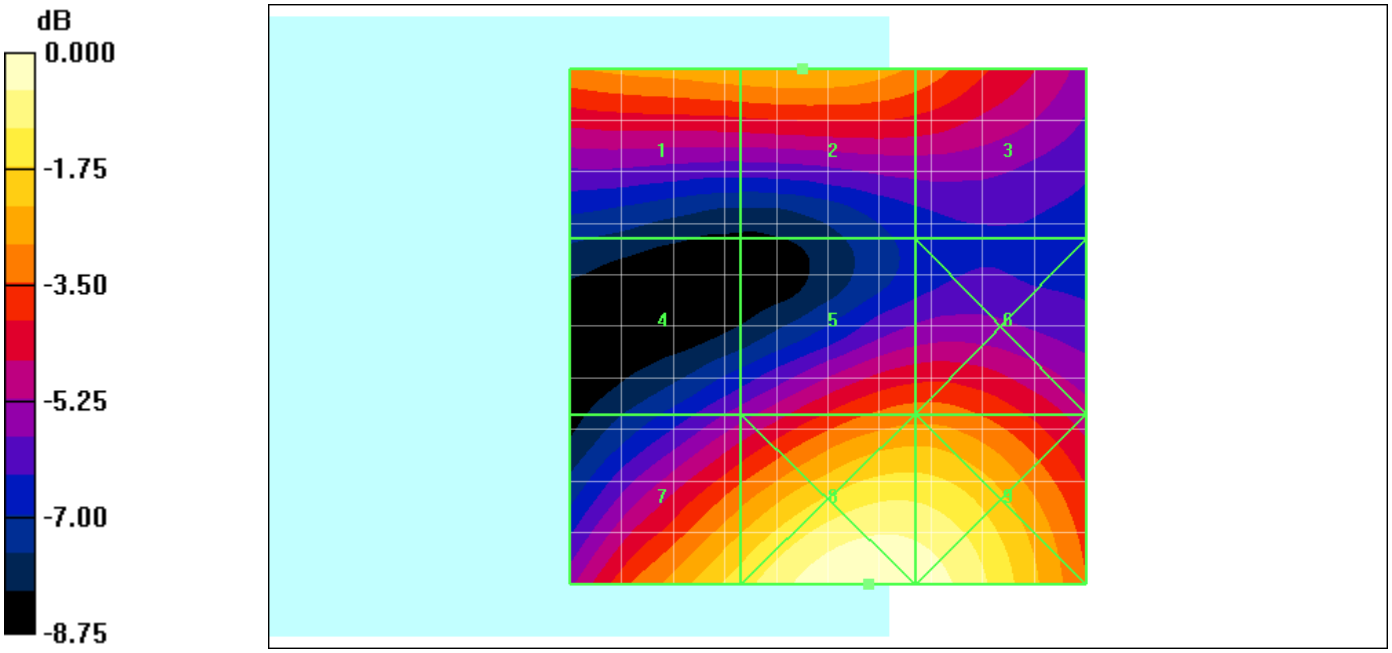
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.0 V/m; Power Drift = 0.004 dB

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

Peak E-field in V/m

Grid 1 **63.7 M3**	Grid 2 **64.3 M3**	Grid 3 **59.4 M3**
Grid 4 **44.5 M4**	Grid 5 **58.3 M3**	Grid 6 **58.3 M3**
Grid 7 **71.5 M3**	Grid 8 **84.0 M3**	Grid 9 **82.4 M3**



0 dB = 84.0V/m

Date/Time: 1/12/2011 11:13:03 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 18.5 V/m; Power Drift = -0.287 dB

Maximum value of Total (measured) = 27.7 V/m

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 = 72.3 V/m

Probe Modulation Factor = 2.61

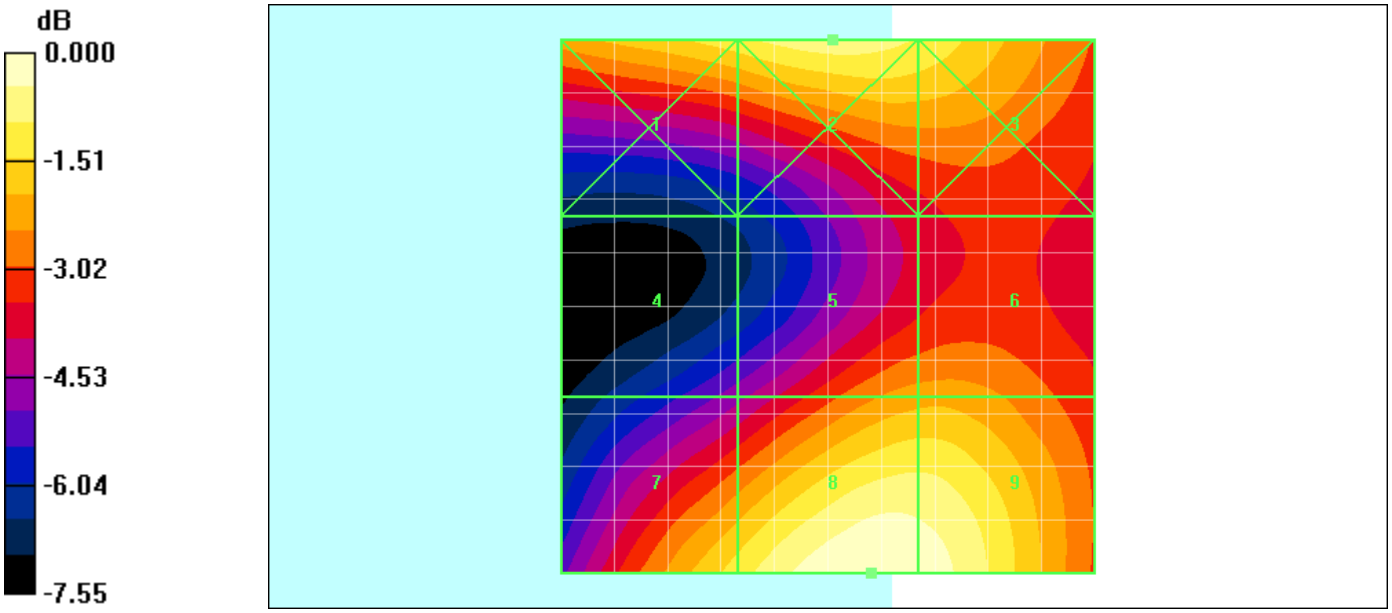
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 18.5 V/m; Power Drift = -0.287 dB

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

Peak E-field in V/m

Grid 1 **63.4 M3**	Grid 2 **67.0 M3**	Grid 3 **64.1 M3**
Grid 4 **42.2 M4**	Grid 5 **56.0 M3**	Grid 6 **56.3 M3**
Grid 7 **62.6 M3**	Grid 8 **72.3 M3**	Grid 9 **71.1 M3**



0 dB = 72.3V/m

Date/Time: 1/12/2011 11:18:03 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 14.3 V/m; Power Drift = 0.027 dB

Maximum value of Total (measured) = 27.2 V/m

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 = 59.6 V/m

Probe Modulation Factor = 2.61

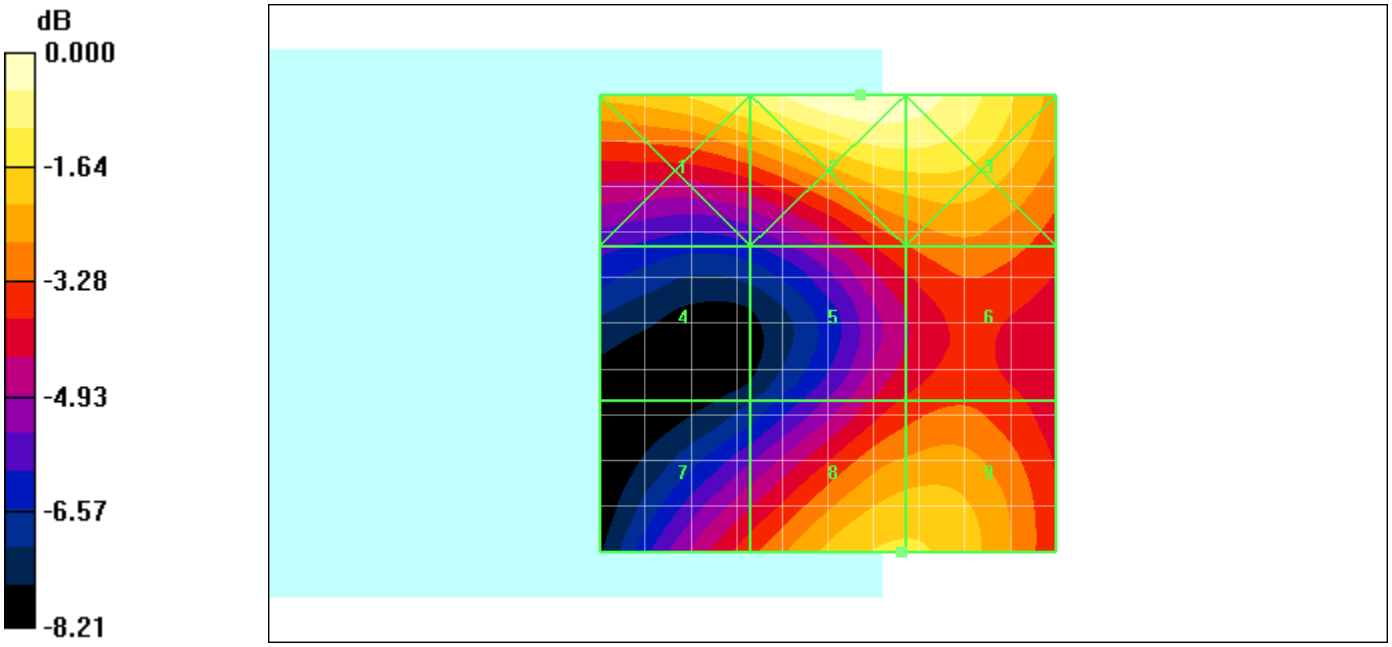
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 14.3 V/m; Power Drift = 0.027 dB

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

Peak E-field in V/m

Grid 1 **64.3 M3**	Grid 2 **71.2 M3**	Grid 3 **69.9 M3**
Grid 4 **36.5 M4**	Grid 5 **48.6 M3**	Grid 6 **51.3 M3**
Grid 7 **48.0 M3**	Grid 8 **59.6 M3**	Grid 9 **59.6 M3**



0 dB = 71.2V/m

Date/Time: 1/12/2011 11:23:16 PM

Test Laboratory: RIM Testing Services

HAC_E_GSM1900_mid_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 18.0 V/m; Power Drift = -0.179 dB

Maximum value of Total (measured) = 28.9 V/m

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 = 64.1 V/m

Probe Modulation Factor = 2.61

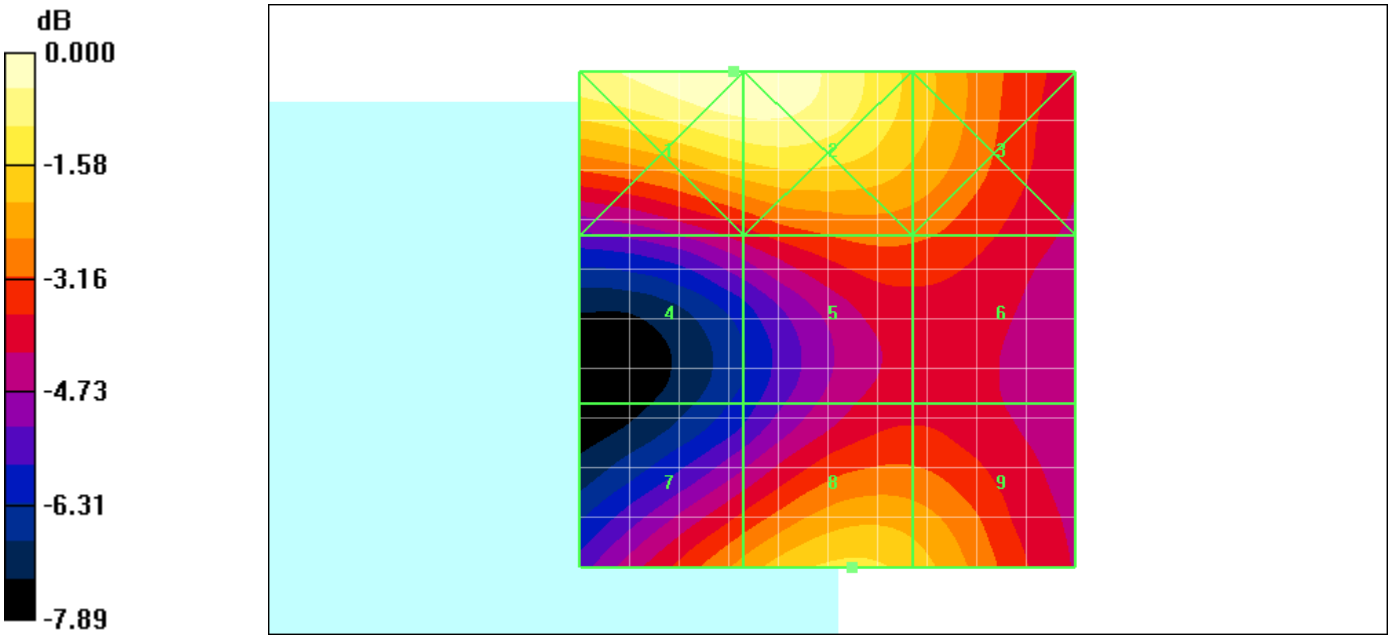
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 18.0 V/m; Power Drift = -0.179 dB

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

Peak E-field in V/m

Grid 1 **75.6 M3**	Grid 2 **75.5 M3**	Grid 3 **61.9 M3**
Grid 4 **48.1 M3**	Grid 5 **53.7 M3**	Grid 6 **53.3 M3**
Grid 7 **57.4 M3**	Grid 8 **64.1 M3**	Grid 9 **61.5 M3**



0 dB = 75.6V/m

Date/Time: 1/12/2011 11:29:21 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.3 V/m; Power Drift = -0.609 dB

Maximum value of Total (measured) = 38.6 V/m

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 = 31.4 V/m

Probe Modulation Factor = 0.900

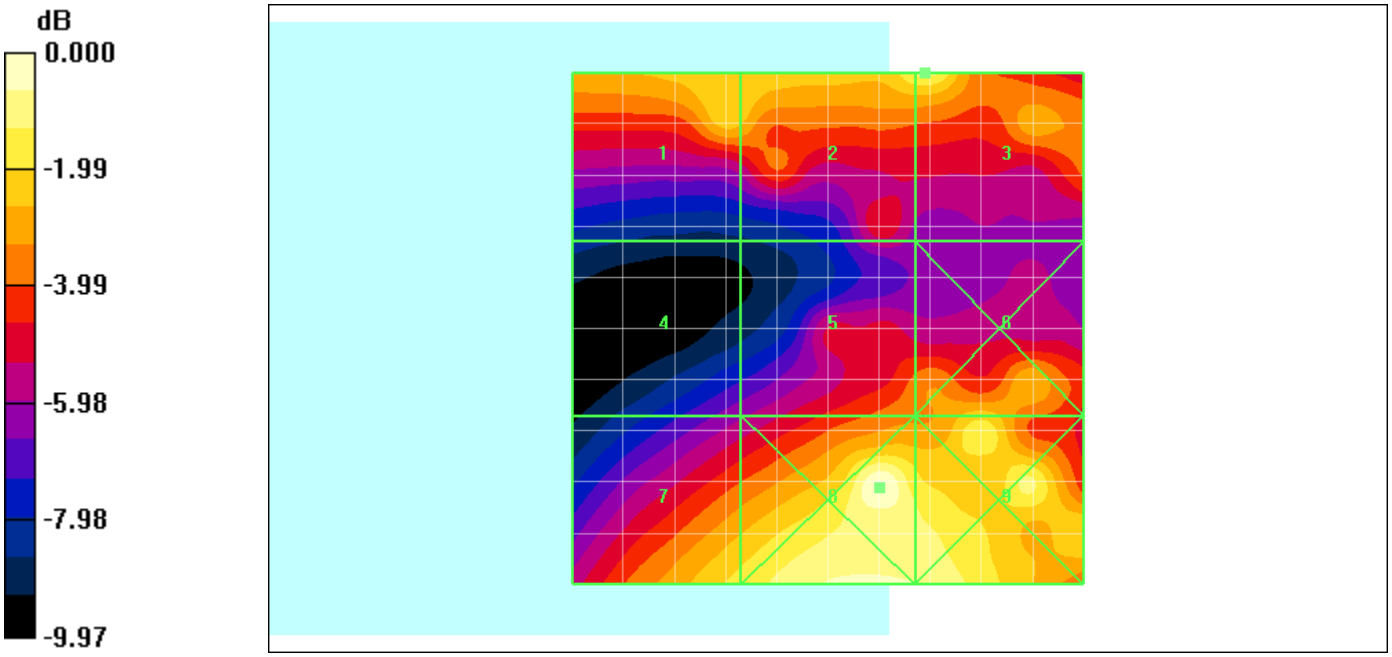
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.3 V/m; Power Drift = -0.609 dB

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

Peak E-field in V/m

Grid 1 **27.8 M4**	Grid 2 **30.9 M4**	Grid 3 **31.4 M4**
Grid 4 **17.5 M4**	Grid 5 **23.7 M4**	Grid 6 **27.1 M4**
Grid 7 **29.0 M4**	Grid 8 **35.2 M4**	Grid 9 **32.7 M4**



0 dB = 35.2V/m

Date/Time: 1/12/2011 11:34:33 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.2 V/m; Power Drift = -0.027 dB

Maximum value of Total (measured) = 36.4 V/m

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 = 32.7 V/m

Probe Modulation Factor = 0.900

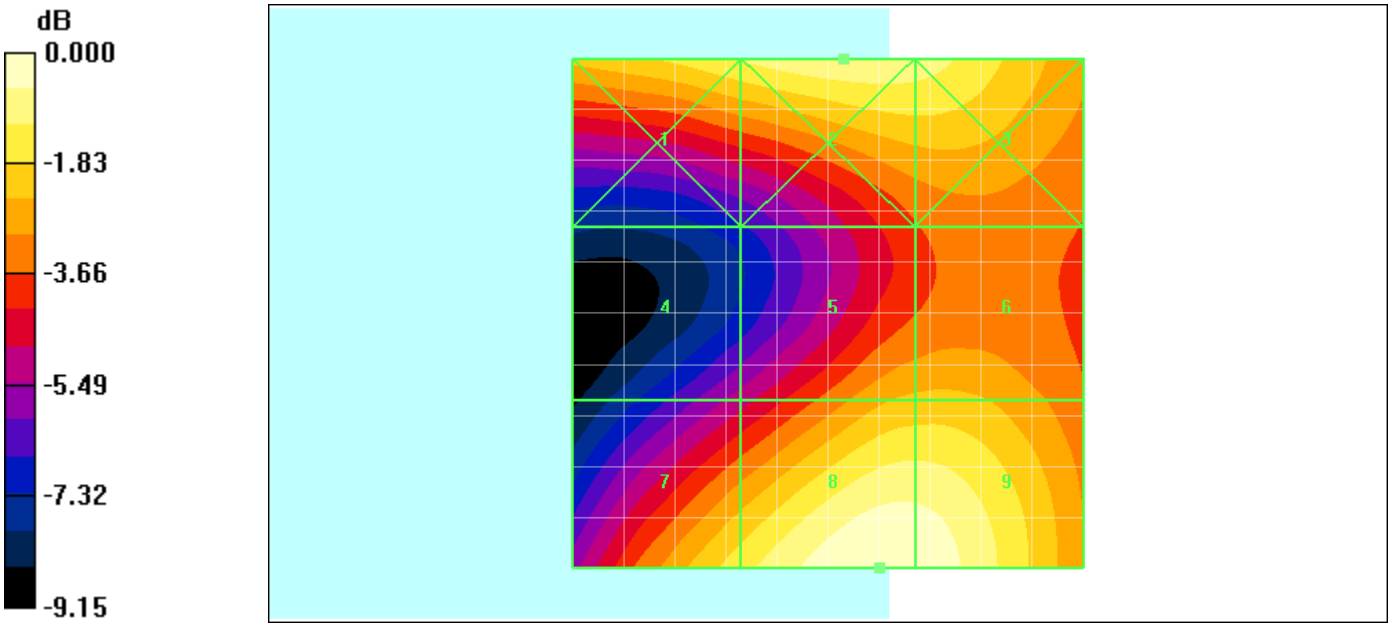
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.2 V/m; Power Drift = -0.027 dB

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

Peak E-field in V/m

Grid 1 **28.6 M4**	Grid 2 **30.3 M4**	Grid 3 **29.6 M4**
Grid 4 **18.1 M4**	Grid 5 **25.1 M4**	Grid 6 **25.3 M4**
Grid 7 **27.7 M4**	Grid 8 **32.7 M4**	Grid 9 **32.3 M4**



0 dB = 32.7V/m

Date/Time: 1/12/2011 11:39:34 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.9 V/m; Power Drift = 0.082 dB

Maximum value of Total (measured) = 40.1 V/m

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 = 31.6 V/m

Probe Modulation Factor = 0.900

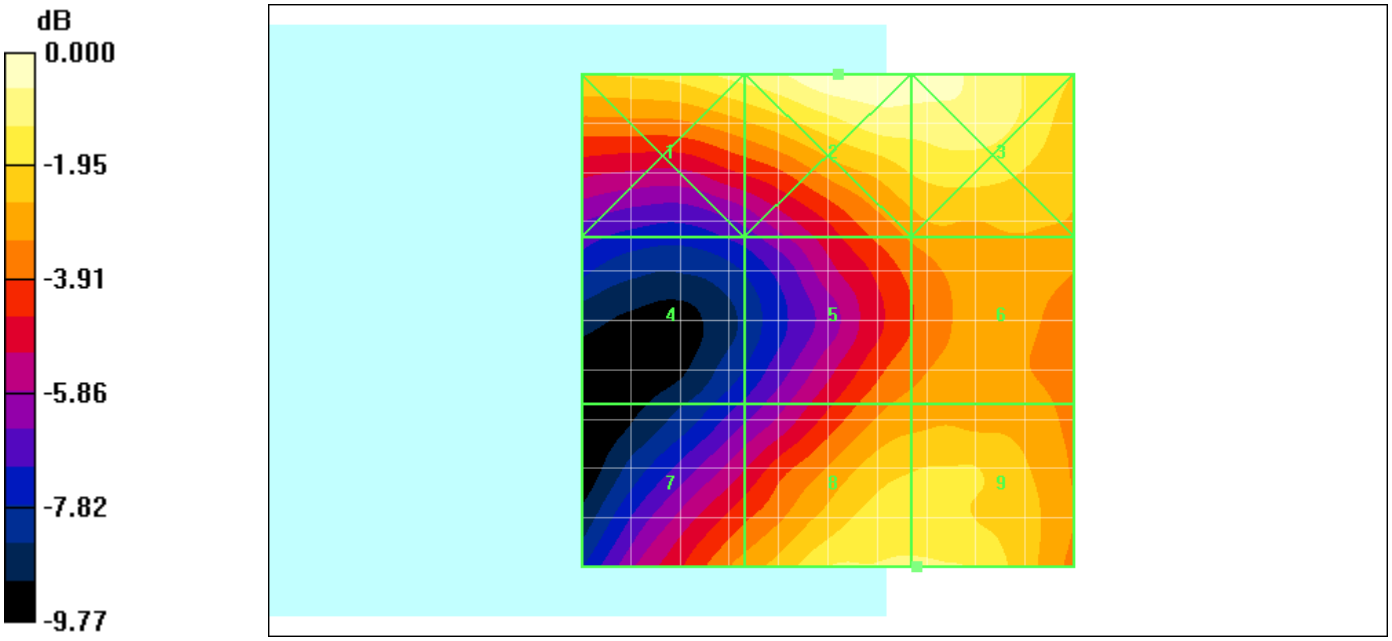
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 20.9 V/m; Power Drift = 0.082 dB

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

Peak E-field in V/m

Grid 1 **32.4 M4**	Grid 2 **36.2 M4**	Grid 3 **35.5 M4**
Grid 4 **16.5 M4**	Grid 5 **25.5 M4**	Grid 6 **26.7 M4**
Grid 7 **25.9 M4**	Grid 8 **31.6 M4**	Grid 9 **31.6 M4**



0 dB = 36.2V/m

Date/Time: 1/12/2011 11:44:53 PM

Test Laboratory: RIM Testing Services

HAC_E_UMTS_band_II_mid_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 3/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 23.8 V/m; Power Drift = -0.628 dB

Maximum value of Total (measured) = 39.7 V/m

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 = 29.7 V/m

Probe Modulation Factor = 0.900

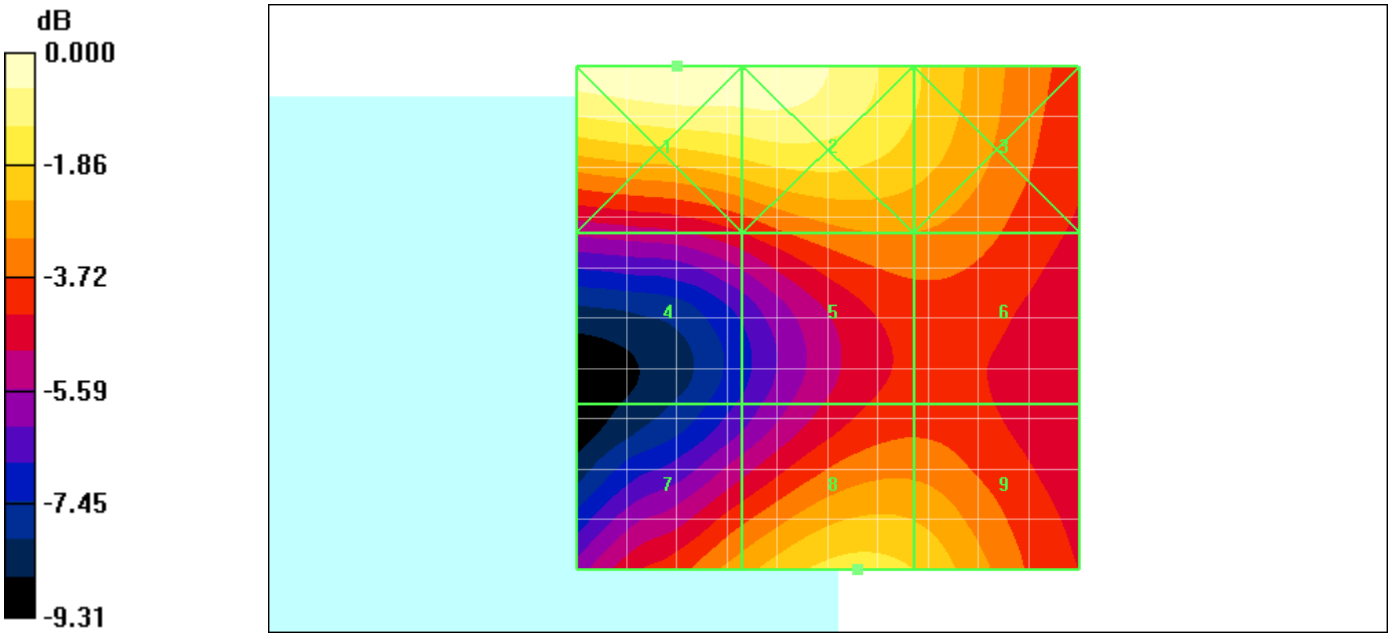
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 23.8 V/m; Power Drift = -0.628 dB

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

Peak E-field in V/m

Grid 1 **35.7 M4**	Grid 2 **35.0 M4**	Grid 3 **29.2 M4**
Grid 4 **21.7 M4**	Grid 5 **25.1 M4**	Grid 6 **25.0 M4**
Grid 7 **26.2 M4**	Grid 8 **29.7 M4**	Grid 9 **28.9 M4**



0 dB = 35.7V/m

Date/Time: 1/12/2011 9:59:22 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_low_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.053 A/m; Power Drift = 0.017 dB

Maximum value of Total (measured) = 0.106 A/m

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 = 0.222 A/m

Probe Modulation Factor = 2.87

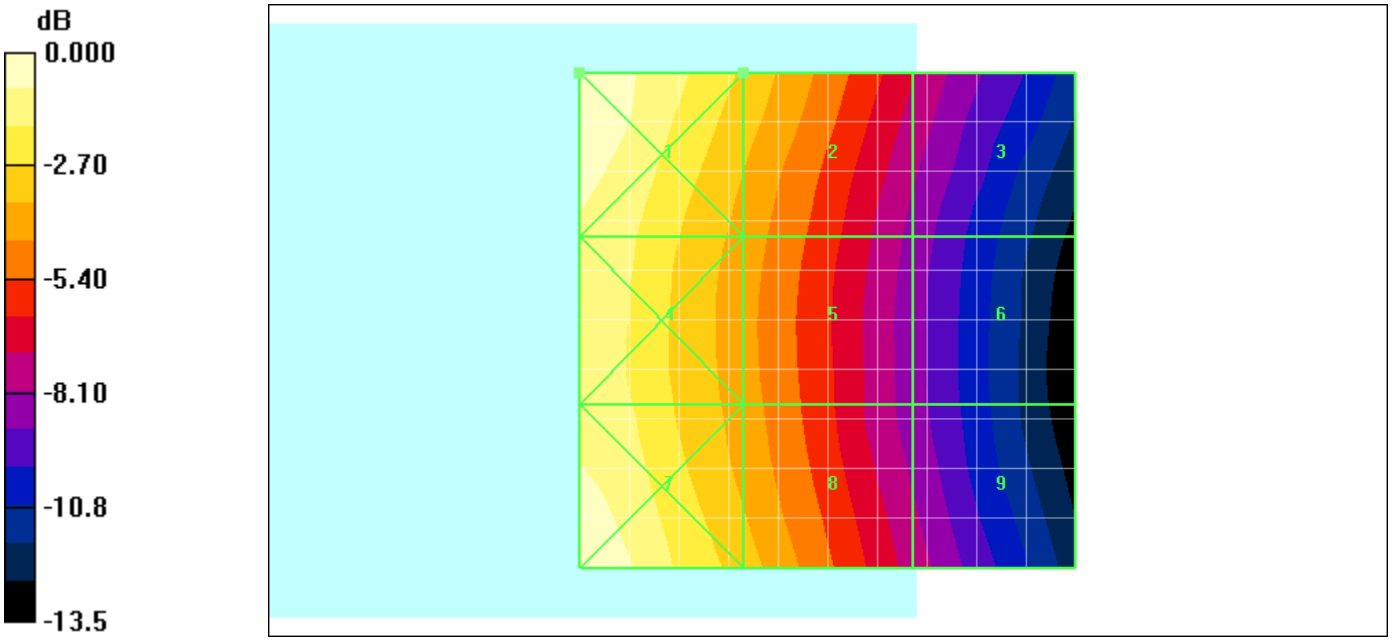
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.053 A/m; Power Drift = 0.017 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.308 M4**	Grid 2 **0.222 M4**	Grid 3 **0.136 M4**
Grid 4 **0.274 M4**	Grid 5 **0.195 M4**	Grid 6 **0.118 M4**
Grid 7 **0.304 M4**	Grid 8 **0.214 M4**	Grid 9 **0.130 M4**



0 dB = 0.308A/m

Date/Time: 1/12/2011 10:05:15 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_mid_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.067 A/m; Power Drift = 0.033 dB

Maximum value of Total (measured) = 0.129 A/m

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 = 0.270 A/m

Probe Modulation Factor = 2.87

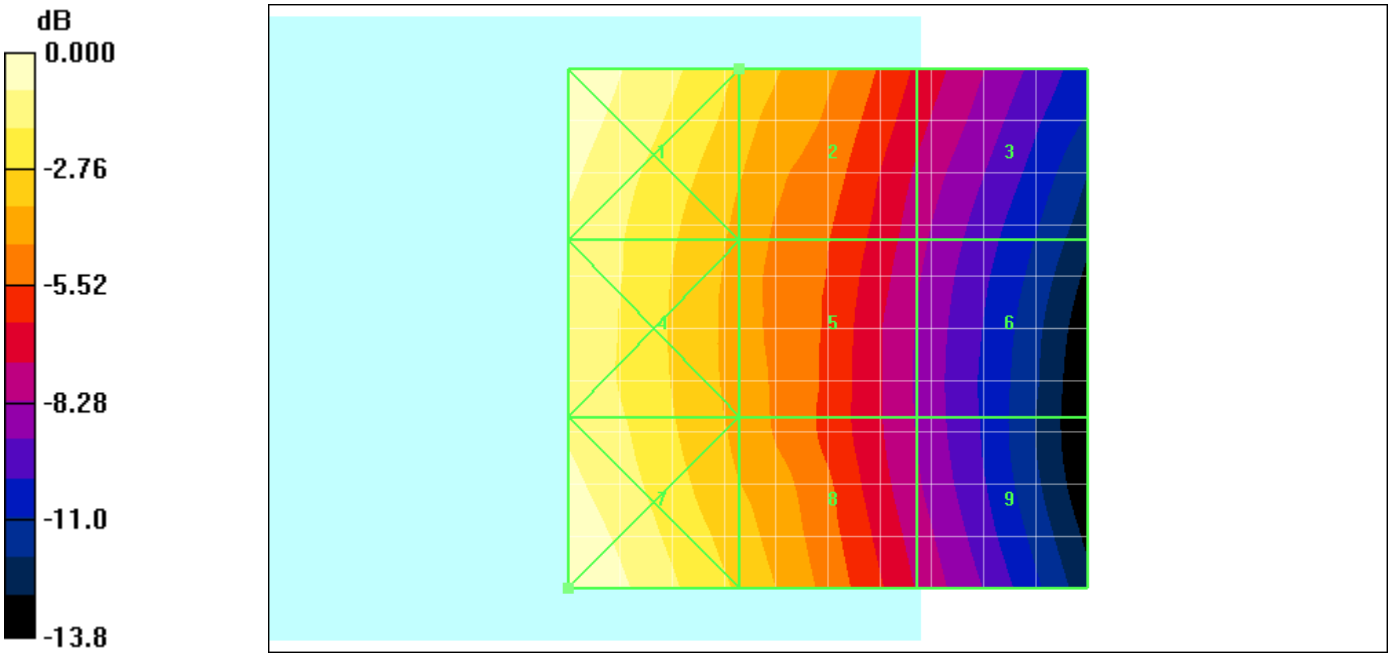
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.067 A/m; Power Drift = 0.033 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.371 M4**	Grid 2 **0.270 M4**	Grid 3 **0.176 M4**
Grid 4 **0.333 M4**	Grid 5 **0.238 M4**	Grid 6 **0.151 M4**
Grid 7 **0.375 M4**	Grid 8 **0.268 M4**	Grid 9 **0.160 M4**



0 dB = 0.375A/m

Date/Time: 1/12/2011 10:10:29 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_high_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.085 A/m; Power Drift = -0.069 dB

Maximum value of Total (measured) = 0.157 A/m

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 = 0.347 A/m

Probe Modulation Factor = 2.87

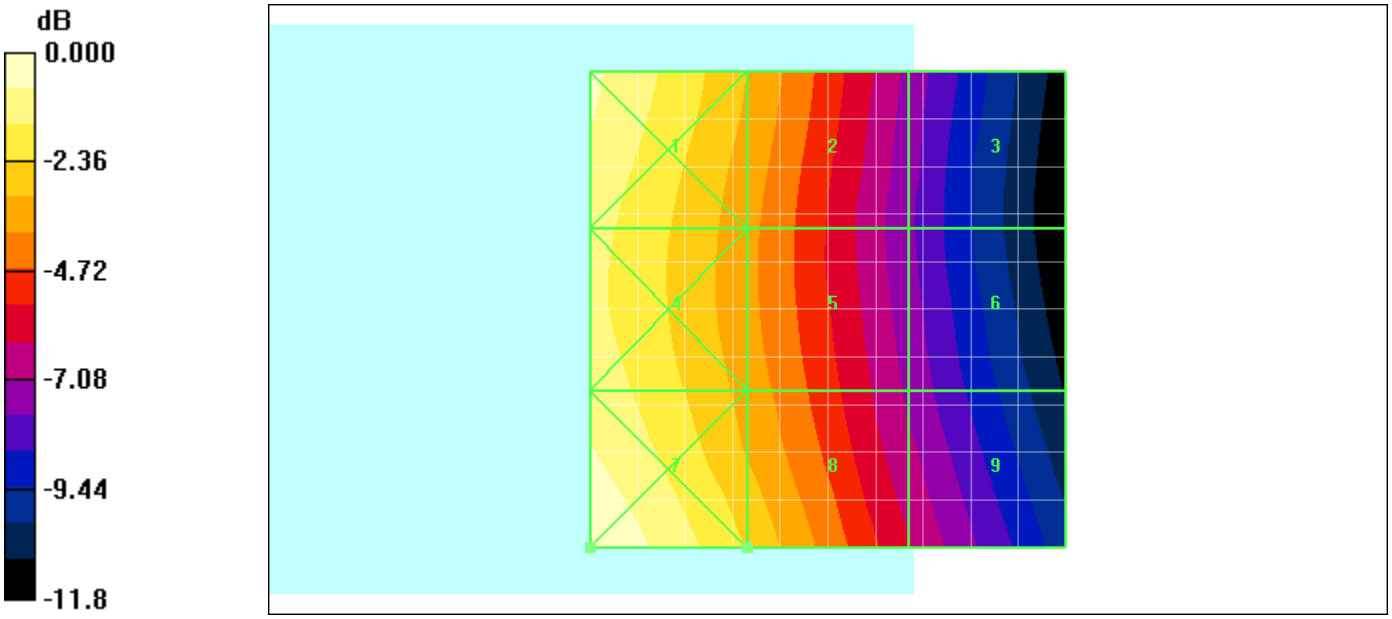
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.085 A/m; Power Drift = -0.069 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.428 M4**	Grid 2 **0.319 M4**	Grid 3 **0.198 M4**
Grid 4 **0.405 M4**	Grid 5 **0.308 M4**	Grid 6 **0.200 M4**
Grid 7 **0.458 M3**	Grid 8 **0.347 M4**	Grid 9 **0.225 M4**



0 dB = 0.458A/m

Date/Time: 1/12/2011 10:17:36 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_high_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.084 A/m; Power Drift = -0.045 dB

Maximum value of Total (measured) = 0.134 A/m

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 = 0.284 A/m

Probe Modulation Factor = 2.87

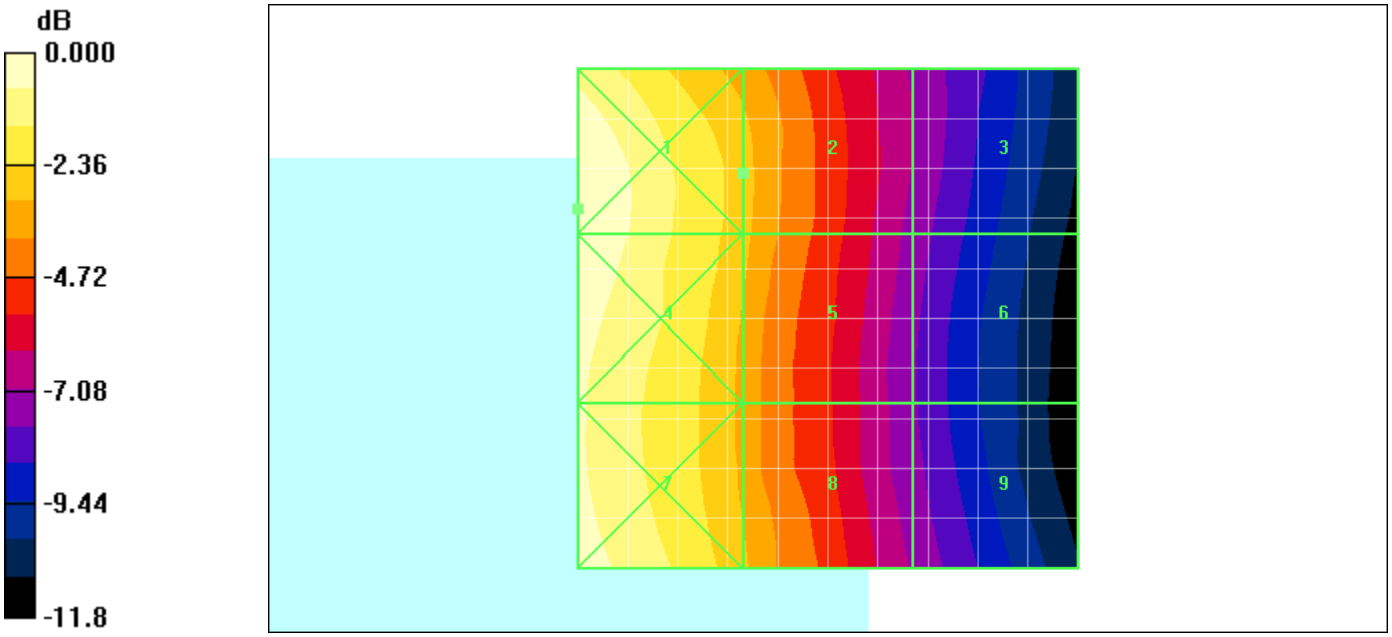
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.084 A/m; Power Drift = -0.045 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.392 M4**	Grid 2 **0.284 M4**	Grid 3 **0.174 M4**
Grid 4 **0.390 M4**	Grid 5 **0.281 M4**	Grid 6 **0.168 M4**
Grid 7 **0.379 M4**	Grid 8 **0.279 M4**	Grid 9 **0.172 M4**



0 dB = 0.392A/m

Date/Time: 1/12/2011 8:34:54 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_low_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = 0.024 dB

Maximum value of Total (measured) = 0.100 A/m

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 = 0.071 A/m

Probe Modulation Factor = 0.980

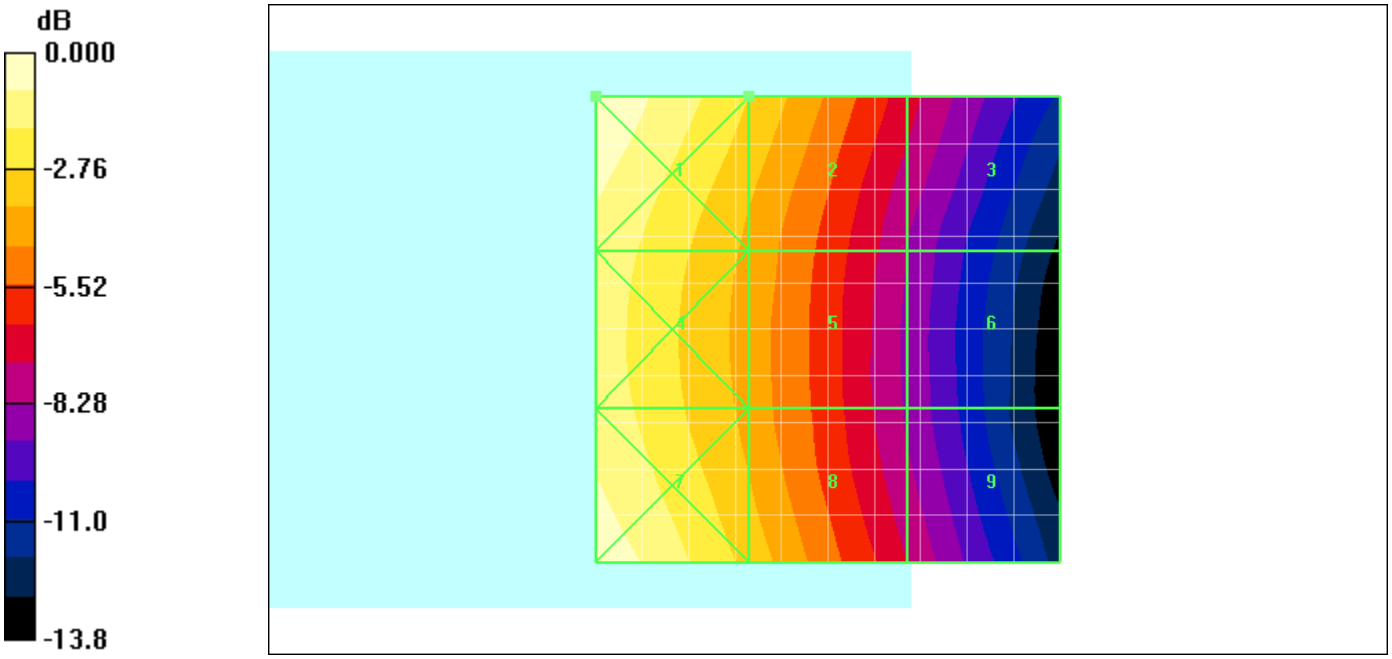
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = 0.024 dB

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

Peak H-field in A/m

Grid 1 **0.098 M4**	Grid 2 **0.071 M4**	Grid 3 **0.044 M4**
Grid 4 **0.085 M4**	Grid 5 **0.063 M4**	Grid 6 **0.038 M4**
Grid 7 **0.095 M4**	Grid 8 **0.069 M4**	Grid 9 **0.042 M4**



0 dB = 0.098A/m

Date/Time: 1/12/2011 8:40:35 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_mid_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.054 A/m; Power Drift = 0.242 dB

Maximum value of Total (measured) = 0.105 A/m

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 = 0.076 A/m

Probe Modulation Factor = 0.980

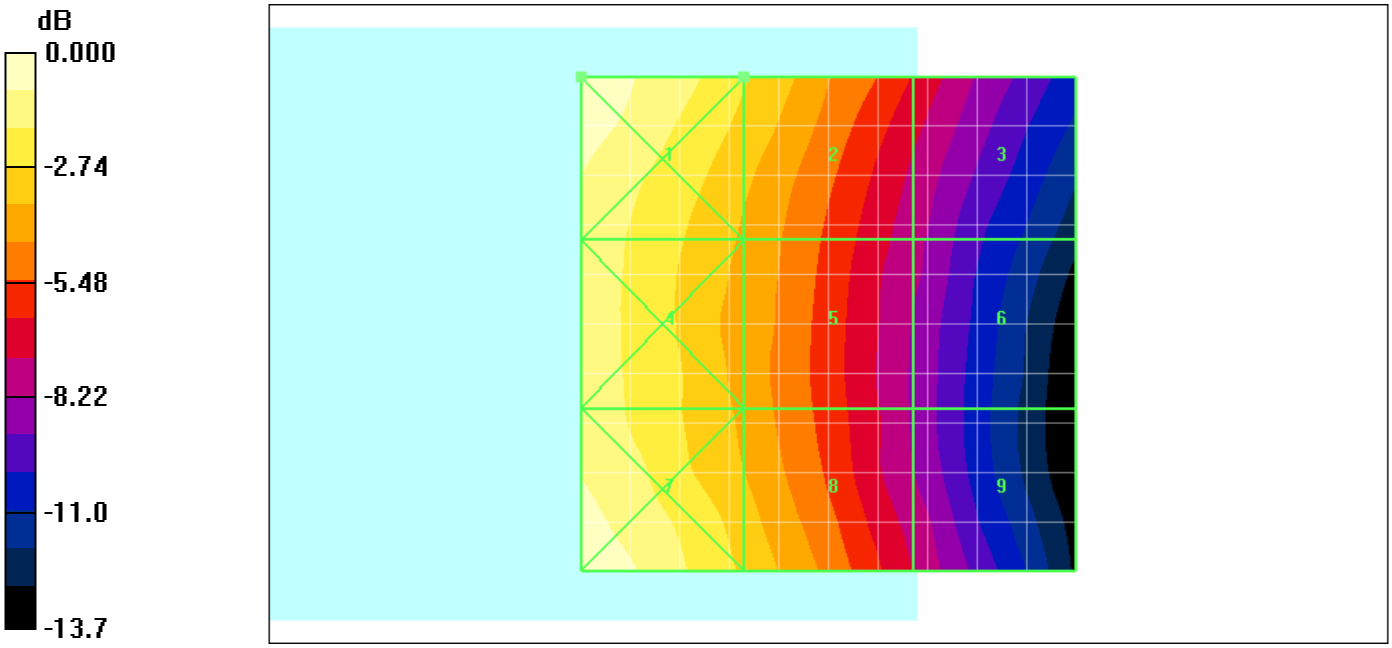
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.054 A/m; Power Drift = 0.242 dB

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

Peak H-field in A/m

Grid 1 **0.103 M4**	Grid 2 **0.076 M4**	Grid 3 **0.049 M4**
Grid 4 **0.089 M4**	Grid 5 **0.067 M4**	Grid 6 **0.042 M4**
Grid 7 **0.102 M4**	Grid 8 **0.074 M4**	Grid 9 **0.045 M4**



0 dB = 0.103A/m

Date/Time: 1/12/2011 8:45:24 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_high_chan

DUT: BlackBerry Smartphone

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = 0.058 dB

Maximum value of Total (measured) = 0.126 A/m

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 = 0.094 A/m

Probe Modulation Factor = 0.980

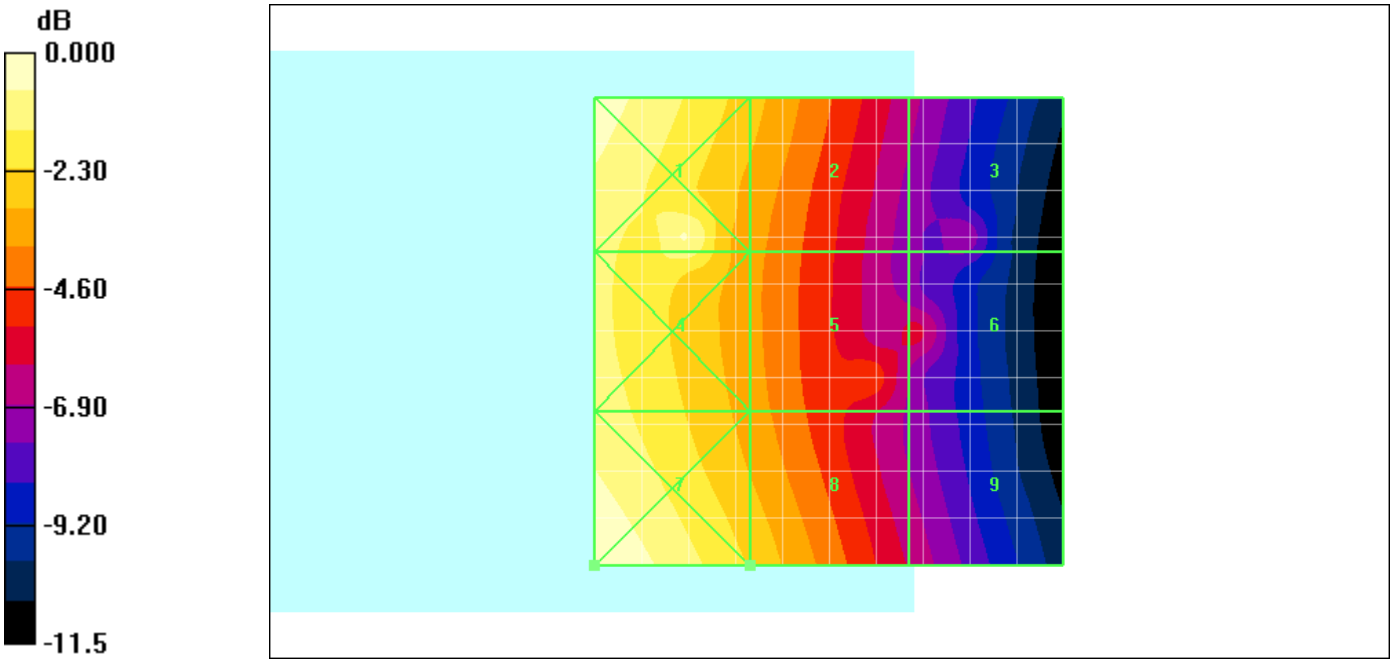
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = 0.058 dB

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

Peak H-field in A/m

Grid 1 **0.118 M4**	Grid 2 **0.090 M4**	Grid 3 **0.058 M4**
Grid 4 **0.108 M4**	Grid 5 **0.083 M4**	Grid 6 **0.062 M4**
Grid 7 **0.123 M4**	Grid 8 **0.094 M4**	Grid 9 **0.060 M4**



0 dB = 0.123A/m

Date/Time: 1/12/2011 8:53:19 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_high_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = 0.052 dB

Maximum value of Total (measured) = 0.112 A/m

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 = 0.080 A/m

Probe Modulation Factor = 0.980

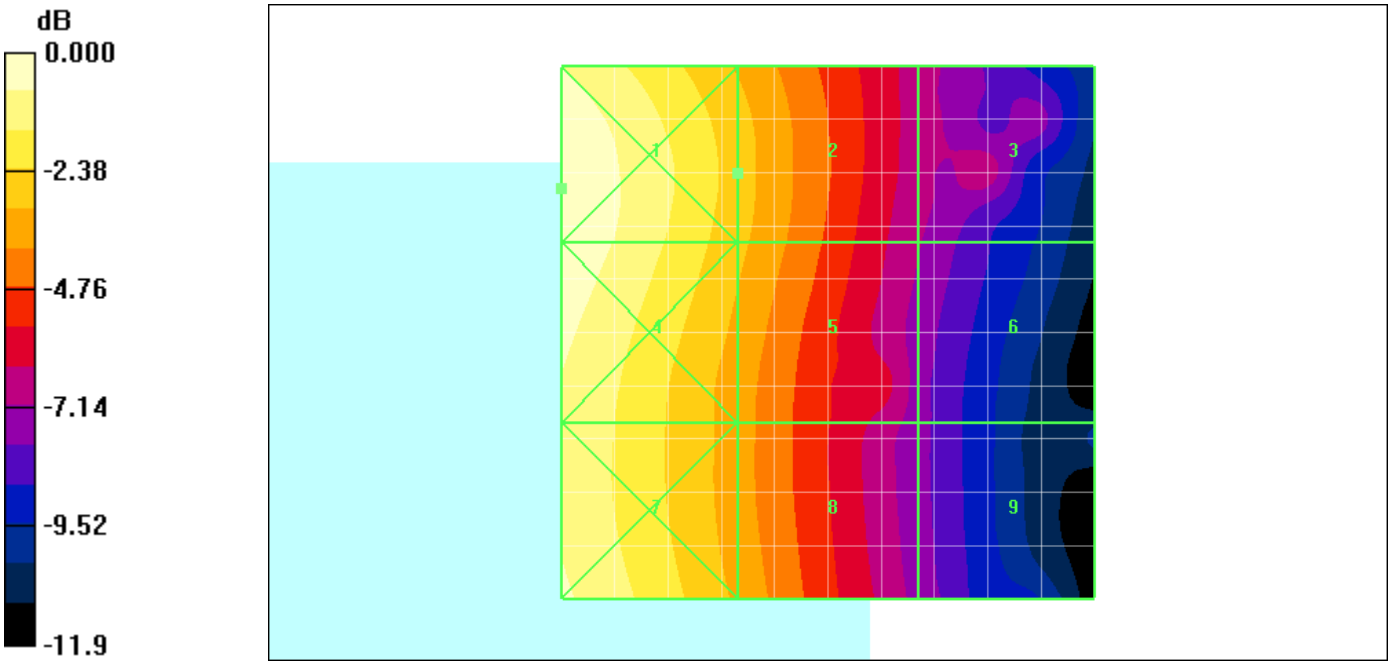
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = 0.052 dB

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

Peak H-field in A/m

Grid 1 **0.110 M4**	Grid 2 **0.080 M4**	Grid 3 **0.051 M4**
Grid 4 **0.108 M4**	Grid 5 **0.078 M4**	Grid 6 **0.049 M4**
Grid 7 **0.102 M4**	Grid 8 **0.075 M4**	Grid 9 **0.047 M4**



0 dB = 0.110A/m

Date/Time: 1/12/2011 9:29:57 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_low_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.095 A/m; Power Drift = -0.072 dB

Maximum value of Total (measured) = 0.093 A/m

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 = 0.240 A/m

Probe Modulation Factor = 2.76

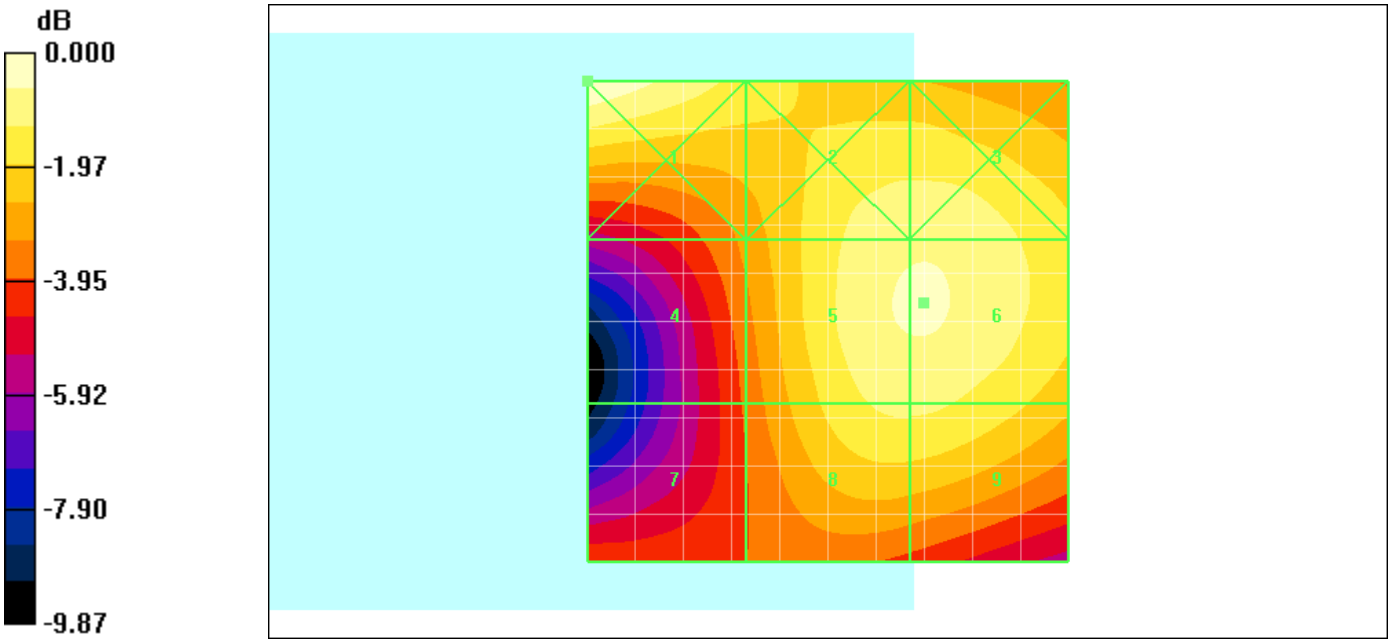
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.095 A/m; Power Drift = -0.072 dB

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

Peak H-field in A/m

Grid 1 **0.256 M2**	Grid 2 **0.234 M3**	Grid 3 **0.235 M3**
Grid 4 **0.180 M3**	Grid 5 **0.239 M3**	Grid 6 **0.240 M3**
Grid 7 **0.165 M3**	Grid 8 **0.224 M3**	Grid 9 **0.224 M3**



0 dB = 0.256A/m

Date/Time: 1/12/2011 9:35:22 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_mid_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.089 A/m; Power Drift = -0.113 dB

Maximum value of Total (measured) = 0.094 A/m

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 = 0.221 A/m

Probe Modulation Factor = 2.76

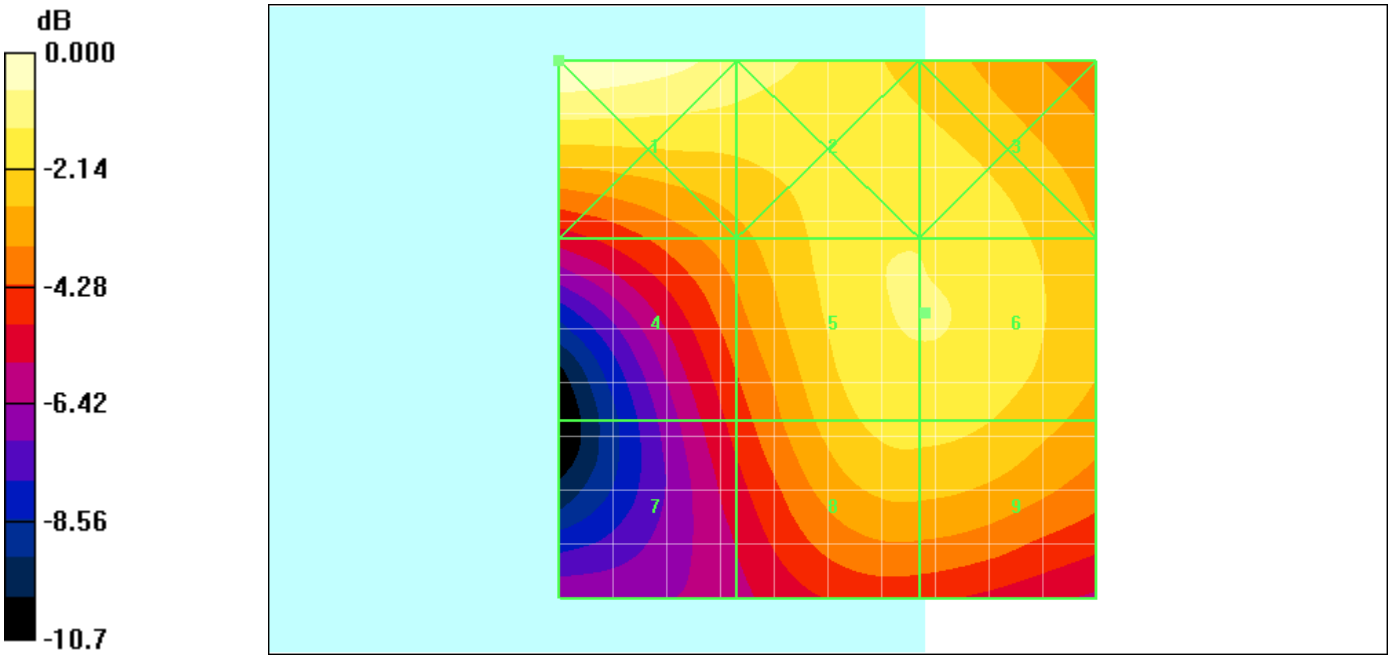
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.089 A/m; Power Drift = -0.113 dB

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

Peak H-field in A/m

Grid 1 **0.259 M2**	Grid 2 **0.232 M3**	Grid 3 **0.219 M3**
Grid 4 **0.182 M3**	Grid 5 **0.221 M3**	Grid 6 **0.221 M3**
Grid 7 **0.151 M3**	Grid 8 **0.209 M3**	Grid 9 **0.209 M3**



0 dB = 0.259A/m

Date/Time: 1/12/2011 9:47:45 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_high_chan

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = -0.481 dB

Maximum value of Total (measured) = 0.098 A/m

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 = 0.190 A/m

Probe Modulation Factor = 2.76

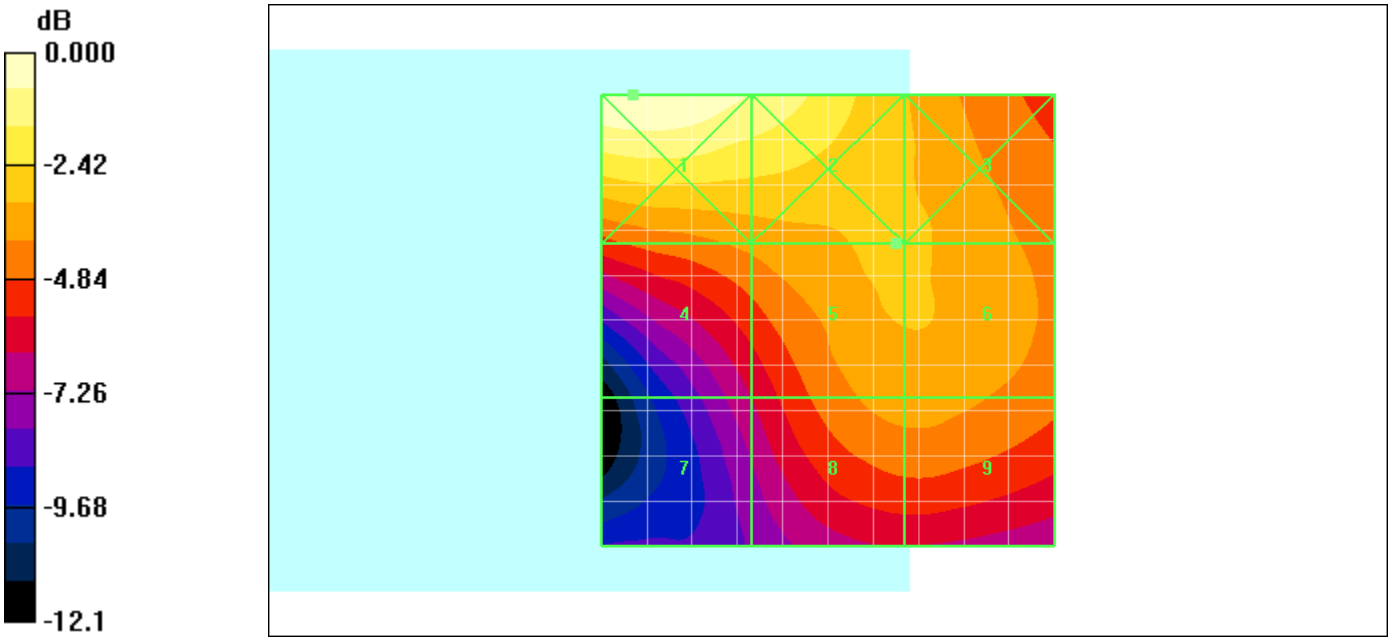
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = -0.481 dB

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

Peak H-field in A/m

Grid 1 **0.271 M2**	Grid 2 **0.246 M3**	Grid 3 **0.190 M3**
Grid 4 **0.175 M3**	Grid 5 **0.190 M3**	Grid 6 **0.190 M3**
Grid 7 **0.129 M4**	Grid 8 **0.178 M3**	Grid 9 **0.178 M3**



0 dB = 0.271A/m

Date/Time: 1/12/2011 9:52:49 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_low_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.096 A/m; Power Drift = 0.026 dB

Maximum value of Total (measured) = 0.099 A/m

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 = 0.241 A/m

Probe Modulation Factor = 2.76

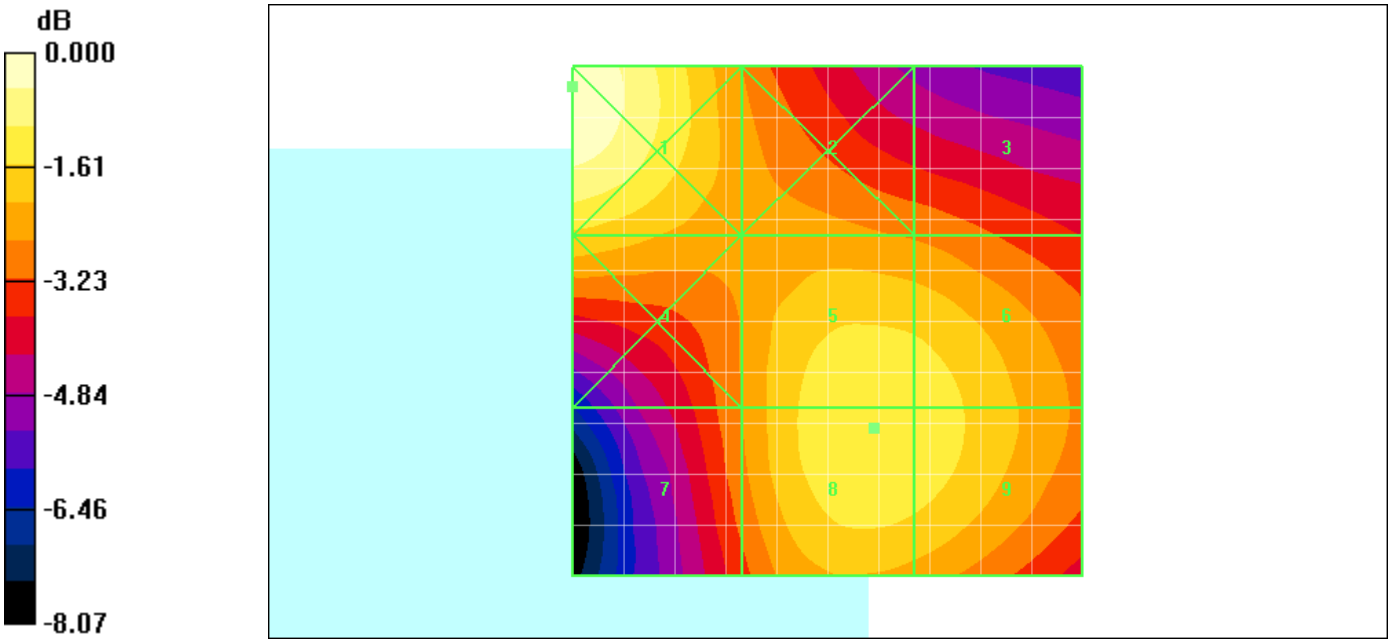
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.096 A/m; Power Drift = 0.026 dB

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

Peak H-field in A/m

Grid 1 **0.275 M2**	Grid 2 **0.209 M3**	Grid 3 **0.200 M3**
Grid 4 **0.226 M3**	Grid 5 **0.241 M3**	Grid 6 **0.238 M3**
Grid 7 **0.202 M3**	Grid 8 **0.241 M3**	Grid 9 **0.239 M3**



0 dB = 0.275A/m

Date/Time: 1/12/2011 9:00:01 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_low_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.113 A/m; Power Drift = -0.270 dB

Maximum value of Total (measured) = 0.140 A/m

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 = 0.099 A/m

Probe Modulation Factor = 0.890

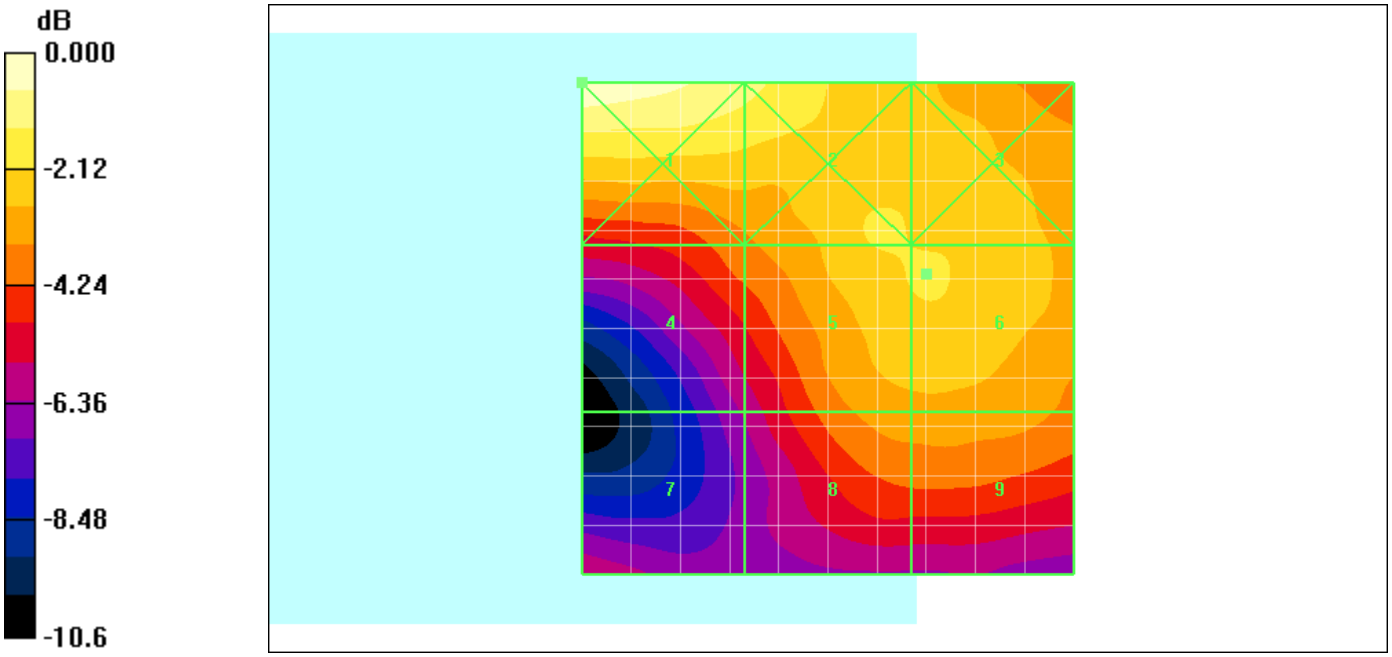
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.113 A/m; Power Drift = -0.270 dB

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

Peak H-field in A/m

Grid 1 **0.124 M4**	Grid 2 **0.109 M4**	Grid 3 **0.097 M4**
Grid 4 **0.081 M4**	Grid 5 **0.098 M4**	Grid 6 **0.099 M4**
Grid 7 **0.065 M4**	Grid 8 **0.087 M4**	Grid 9 **0.087 M4**



0 dB = 0.124A/m

Date/Time: 1/12/2011 9:05:18 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_mid_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.097 A/m; Power Drift = -0.054 dB

Maximum value of Total (measured) = 0.129 A/m

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 = 0.087 A/m

Probe Modulation Factor = 0.890

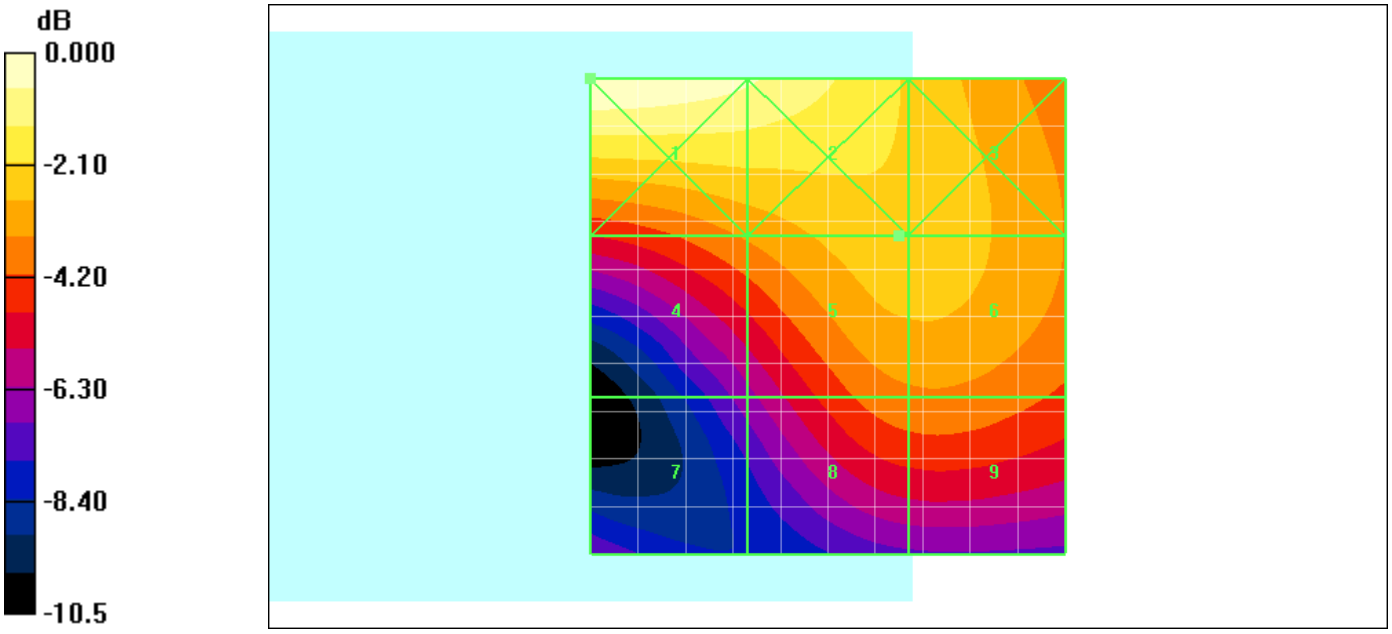
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.097 A/m; Power Drift = -0.054 dB

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

Peak H-field in A/m

Grid 1 **0.114 M4**	Grid 2 **0.107 M4**	Grid 3 **0.089 M4**
Grid 4 **0.077 M4**	Grid 5 **0.087 M4**	Grid 6 **0.087 M4**
Grid 7 **0.054 M4**	Grid 8 **0.075 M4**	Grid 9 **0.075 M4**



0 dB = 0.114A/m

Date/Time: 1/12/2011 9:12:19 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_high_chan

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.106 A/m; Power Drift = 0.053 dB

Maximum value of Total (measured) = 0.148 A/m

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 = 0.092 A/m

Probe Modulation Factor = 0.890

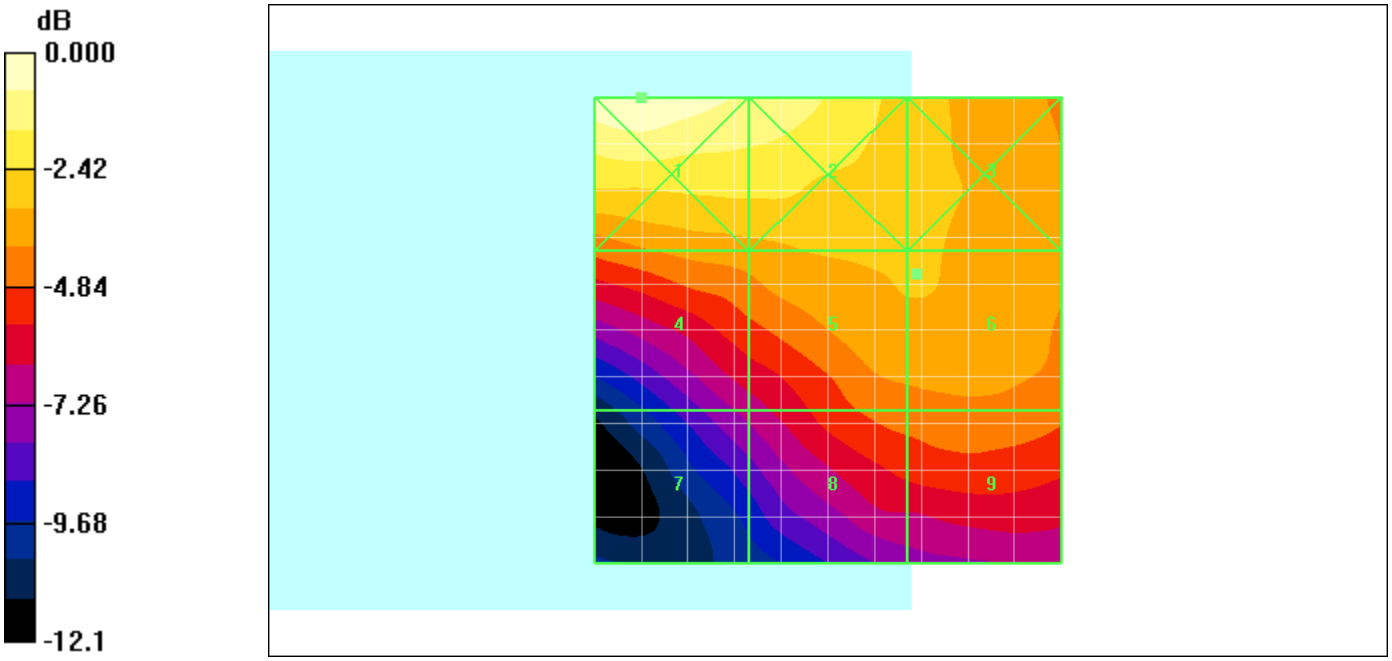
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.106 A/m; Power Drift = 0.053 dB

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

Peak H-field in A/m

Grid 1 **0.131 M4**	Grid 2 **0.118 M4**	Grid 3 **0.096 M4**
Grid 4 **0.087 M4**	Grid 5 **0.092 M4**	Grid 6 **0.092 M4**
Grid 7 **0.059 M4**	Grid 8 **0.079 M4**	Grid 9 **0.081 M4**



0 dB = 0.131A/m

Date/Time: 1/12/2011 9:18:49 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_low_chan_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.109 A/m; Power Drift = 0.083 dB

Maximum value of Total (measured) = 0.151 A/m

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 = 0.099 A/m

Probe Modulation Factor = 0.890

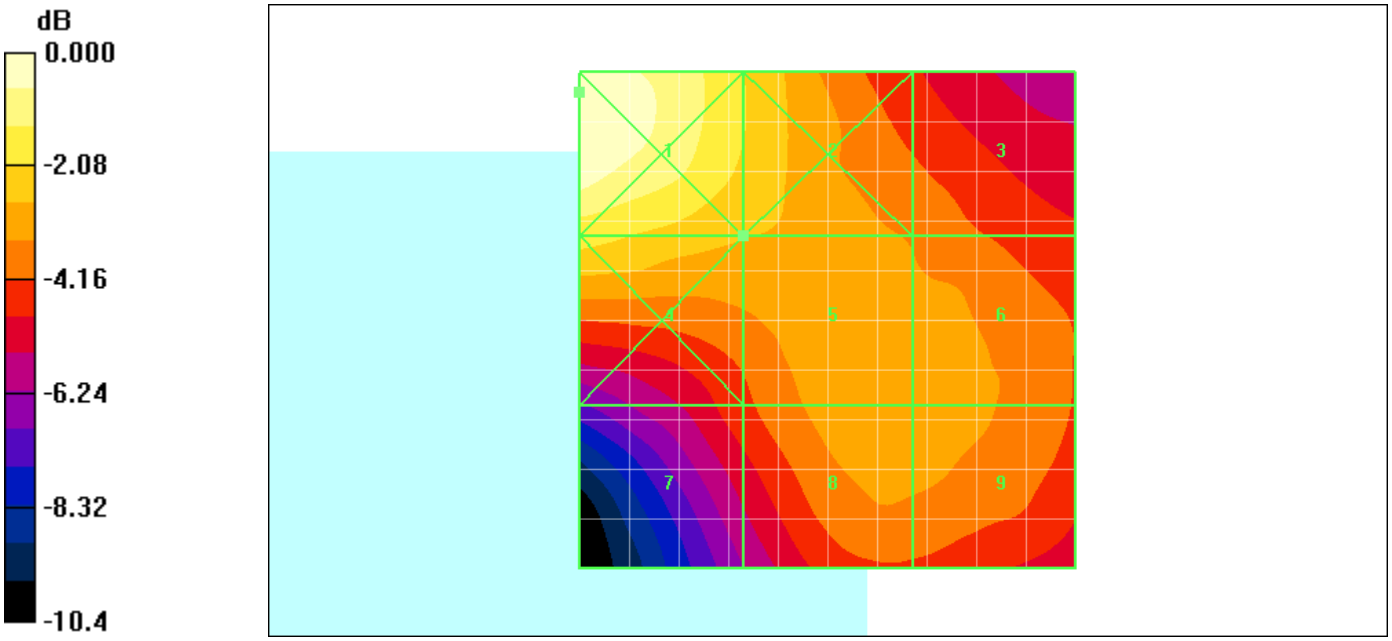
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.109 A/m; Power Drift = 0.083 dB

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

Peak H-field in A/m

Grid 1 **0.135 M4**	Grid 2 **0.107 M4**	Grid 3 **0.090 M4**
Grid 4 **0.110 M4**	Grid 5 **0.099 M4**	Grid 6 **0.096 M4**
Grid 7 **0.082 M4**	Grid 8 **0.097 M4**	Grid 9 **0.096 M4**



0 dB = 0.135A/m

Date/Time: 1/12/2011 5:23:33 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.053 A/m; Power Drift = -0.101 dB

Maximum value of Total (measured) = 0.108 A/m

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 = 0.229 A/m

Probe Modulation Factor = 2.87

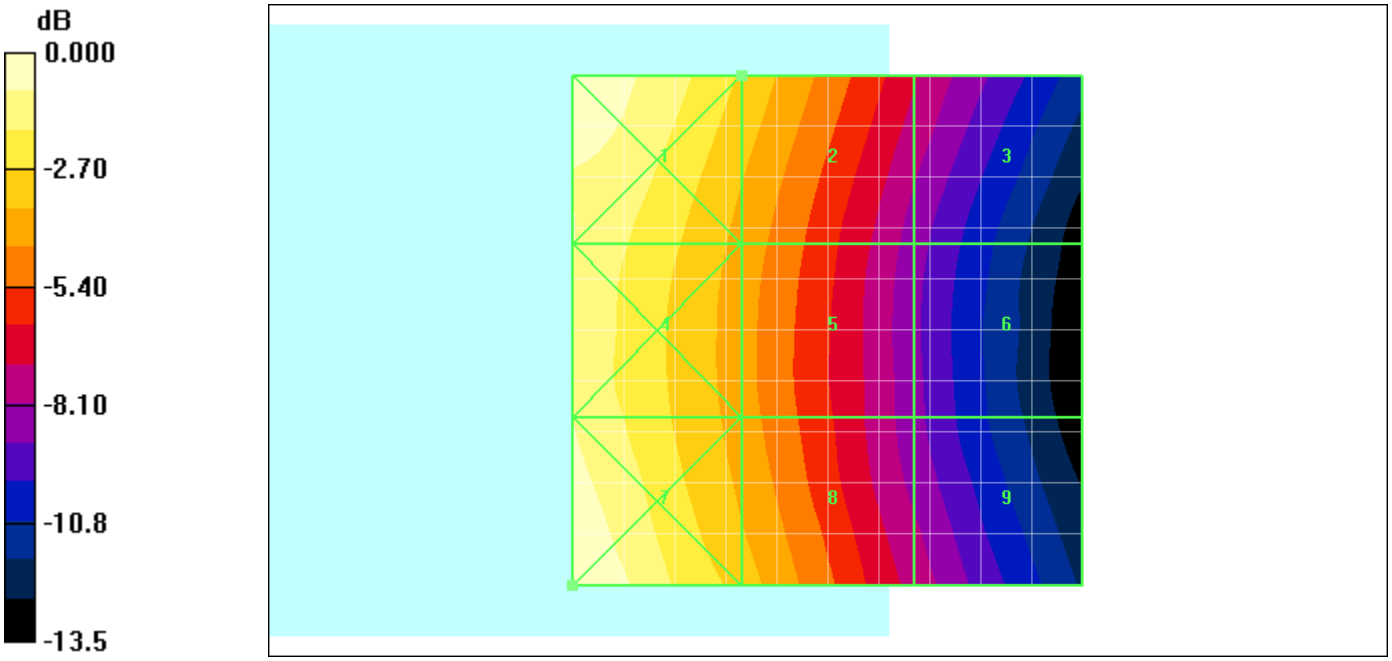
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.053 A/m; Power Drift = -0.101 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.305 M4**	Grid 2 **0.229 M4**	Grid 3 **0.140 M4**
Grid 4 **0.286 M4**	Grid 5 **0.202 M4**	Grid 6 **0.118 M4**
Grid 7 **0.316 M4**	Grid 8 **0.222 M4**	Grid 9 **0.133 M4**



0 dB = 0.316A/m

Date/Time: 1/12/2011 5:29:58 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.060 A/m; Power Drift = -0.414 dB

Maximum value of Total (measured) = 0.123 A/m

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 = 0.255 A/m

Probe Modulation Factor = 2.87

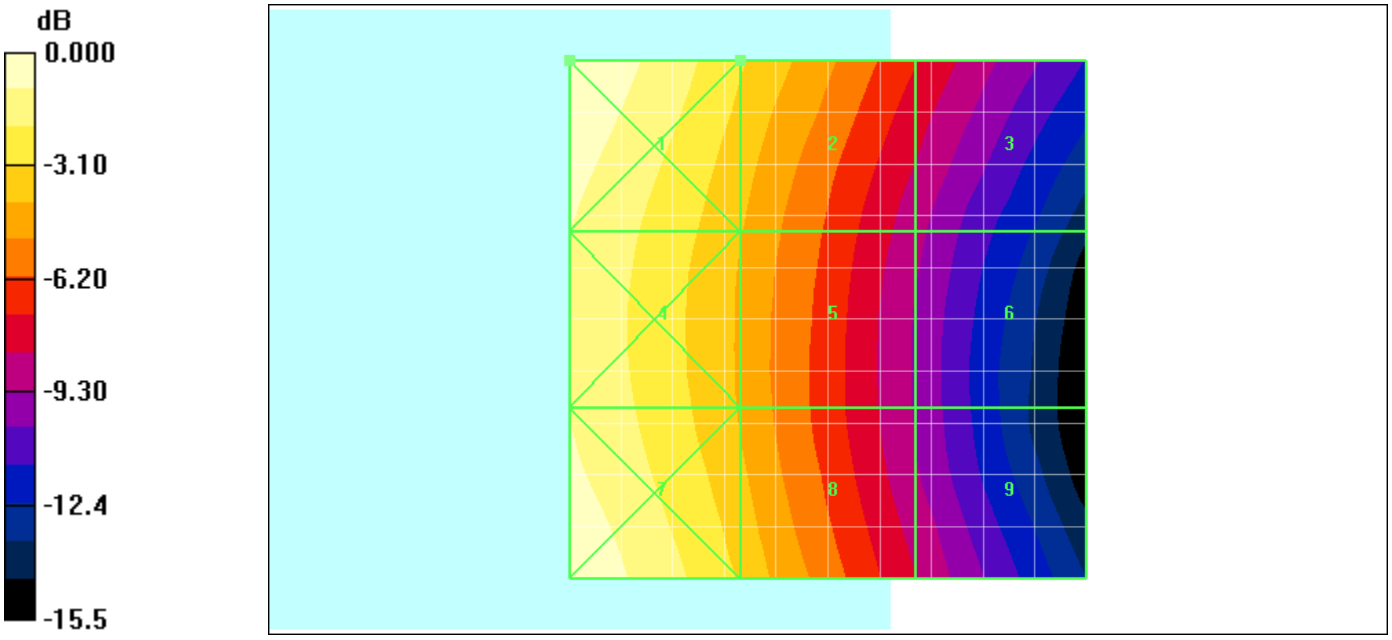
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.060 A/m; Power Drift = -0.414 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.359 M4**	Grid 2 **0.255 M4**	Grid 3 **0.158 M4**
Grid 4 **0.319 M4**	Grid 5 **0.225 M4**	Grid 6 **0.128 M4**
Grid 7 **0.354 M4**	Grid 8 **0.248 M4**	Grid 9 **0.139 M4**



0 dB = 0.359A/m

Date/Time: 1/12/2011 5:34:59 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = -0.119 dB

Maximum value of Total (measured) = 0.148 A/m

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 = 0.317 A/m

Probe Modulation Factor = 2.87

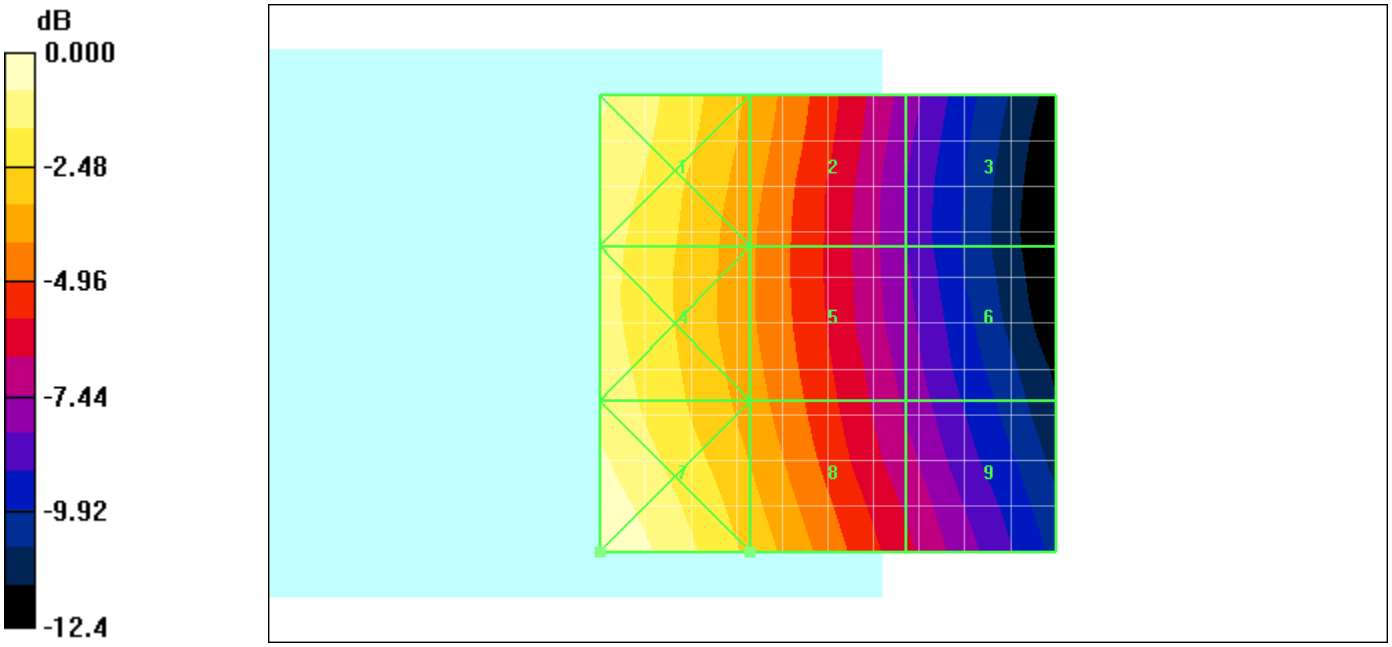
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = -0.119 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.399 M4**	Grid 2 **0.290 M4**	Grid 3 **0.177 M4**
Grid 4 **0.382 M4**	Grid 5 **0.282 M4**	Grid 6 **0.181 M4**
Grid 7 **0.432 M4**	Grid 8 **0.317 M4**	Grid 9 **0.208 M4**



0 dB = 0.432A/m

Date/Time: 1/12/2011 5:40:25 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM850_high_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.074 A/m; Power Drift = -0.077 dB

Maximum value of Total (measured) = 0.130 A/m

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 = 0.268 A/m

Probe Modulation Factor = 2.87

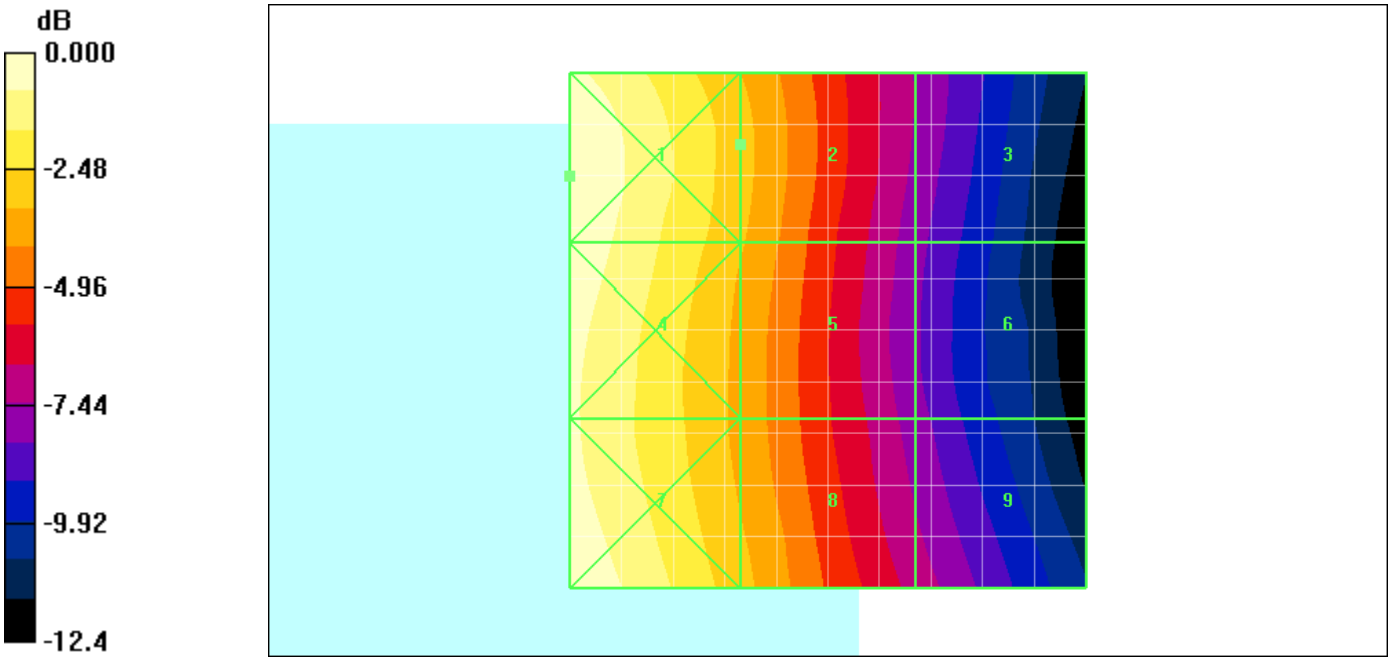
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.074 A/m; Power Drift = -0.077 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.378 M4**	Grid 2 **0.268 M4**	Grid 3 **0.160 M4**
Grid 4 **0.369 M4**	Grid 5 **0.262 M4**	Grid 6 **0.153 M4**
Grid 7 **0.372 M4**	Grid 8 **0.268 M4**	Grid 9 **0.171 M4**



0 dB = 0.378A/m

Date/Time: 1/12/2011 8:13:07 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = 0.212 dB

Maximum value of Total (measured) = 0.103 A/m

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 = 0.073 A/m

Probe Modulation Factor = 0.980

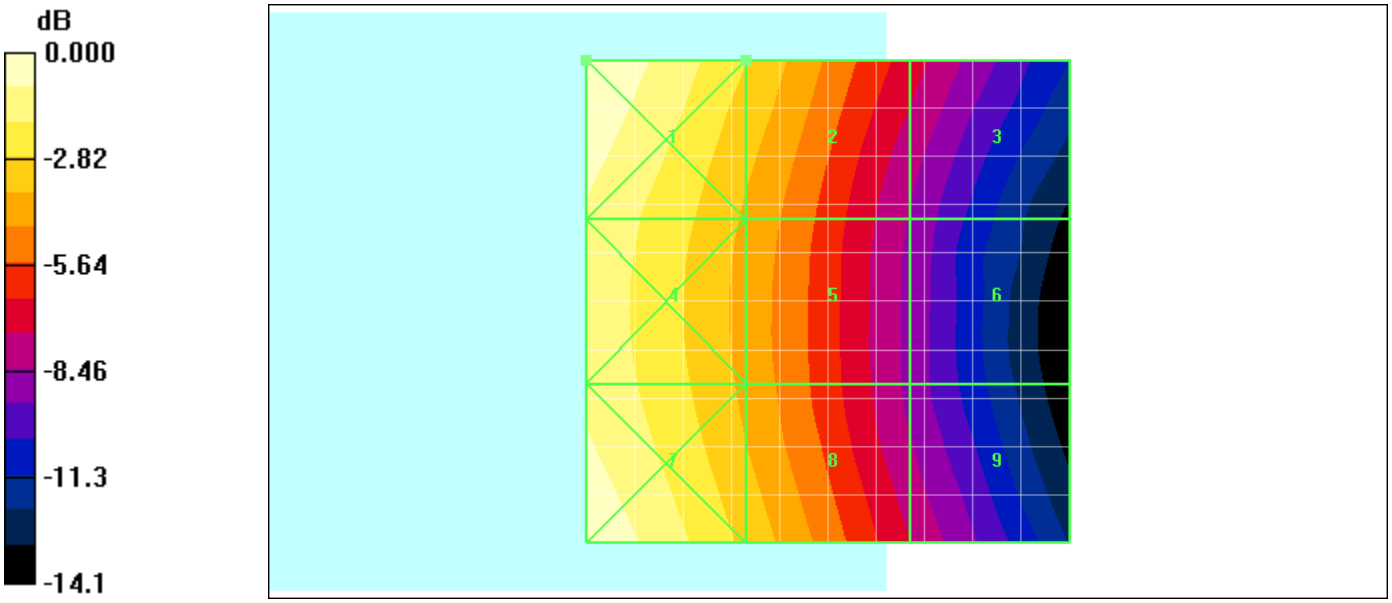
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = 0.212 dB

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

Peak H-field in A/m

Grid 1 **0.101 M4**	Grid 2 **0.073 M4**	Grid 3 **0.045 M4**
Grid 4 **0.090 M4**	Grid 5 **0.065 M4**	Grid 6 **0.038 M4**
Grid 7 **0.100 M4**	Grid 8 **0.071 M4**	Grid 9 **0.043 M4**



0 dB = 0.101A/m

Date/Time: 1/12/2011 8:18:39 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 836.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = -0.037 dB

Maximum value of Total (measured) = 0.103 A/m

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 = 0.074 A/m

Probe Modulation Factor = 0.980

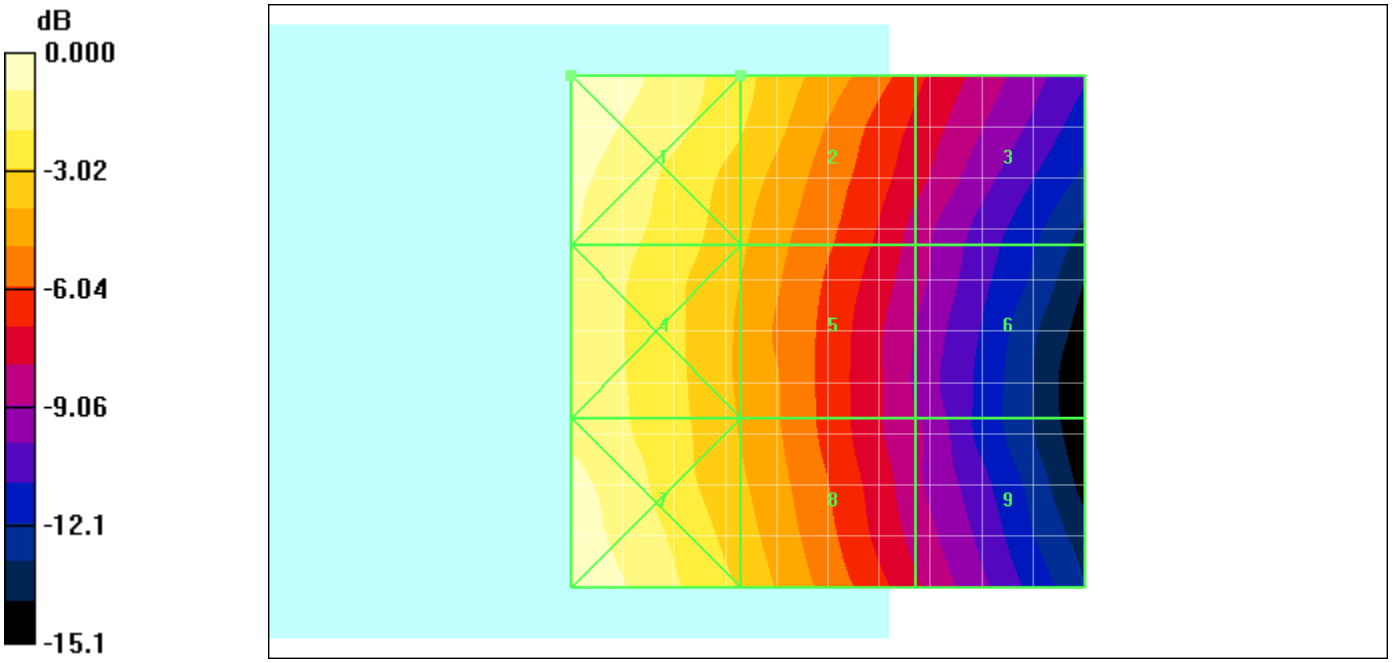
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = -0.037 dB

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

Peak H-field in A/m

Grid 1 **0.101 M4**	Grid 2 **0.074 M4**	Grid 3 **0.047 M4**
Grid 4 **0.090 M4**	Grid 5 **0.065 M4**	Grid 6 **0.038 M4**
Grid 7 **0.100 M4**	Grid 8 **0.070 M4**	Grid 9 **0.041 M4**



0 dB = 0.101A/m

Date/Time: 1/12/2011 8:23:21 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.065 A/m; Power Drift = 0.173 dB

Maximum value of Total (measured) = 0.129 A/m

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 = 0.095 A/m

Probe Modulation Factor = 0.980

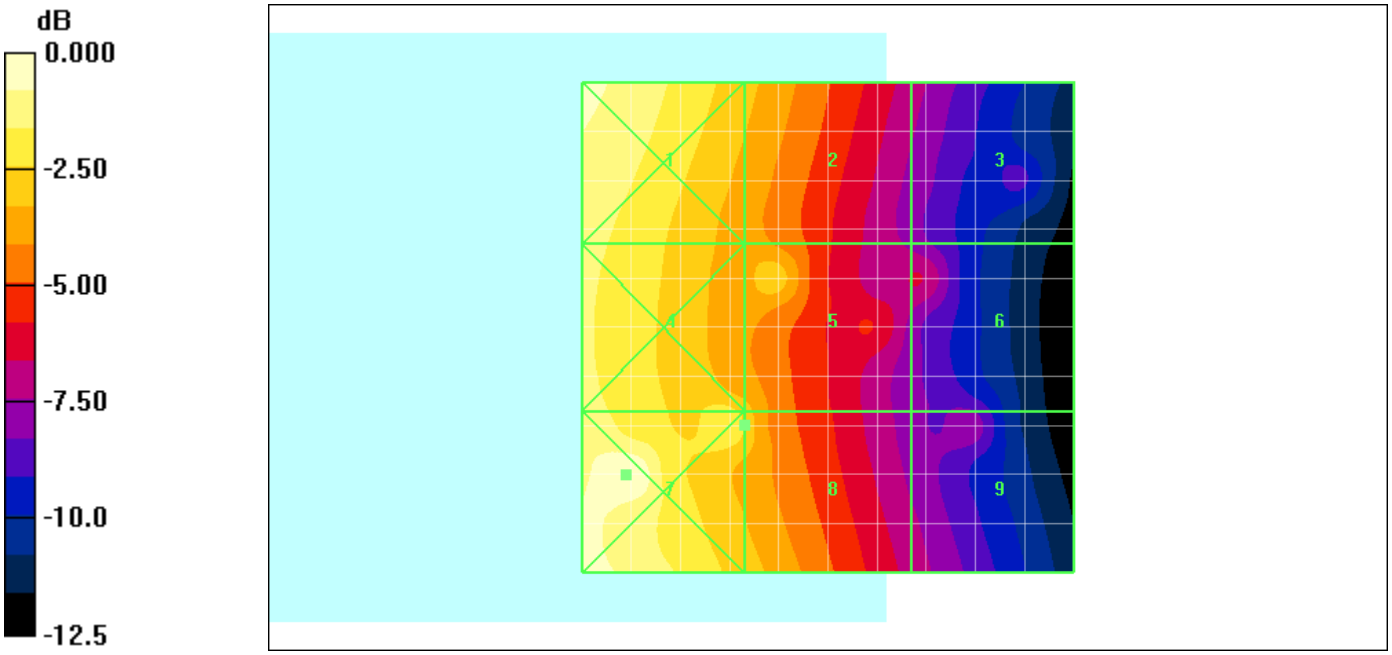
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.065 A/m; Power Drift = 0.173 dB

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

Peak H-field in A/m

Grid 1 **0.119 M4**	Grid 2 **0.090 M4**	Grid 3 **0.056 M4**
Grid 4 **0.108 M4**	Grid 5 **0.091 M4**	Grid 6 **0.060 M4**
Grid 7 **0.127 M4**	Grid 8 **0.095 M4**	Grid 9 **0.057 M4**



0 dB = 0.127A/m

Date/Time: 1/12/2011 8:28:14 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_V_high_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.066 A/m; Power Drift = -0.054 dB

Maximum value of Total (measured) = 0.117 A/m

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 = 0.084 A/m

Probe Modulation Factor = 0.980

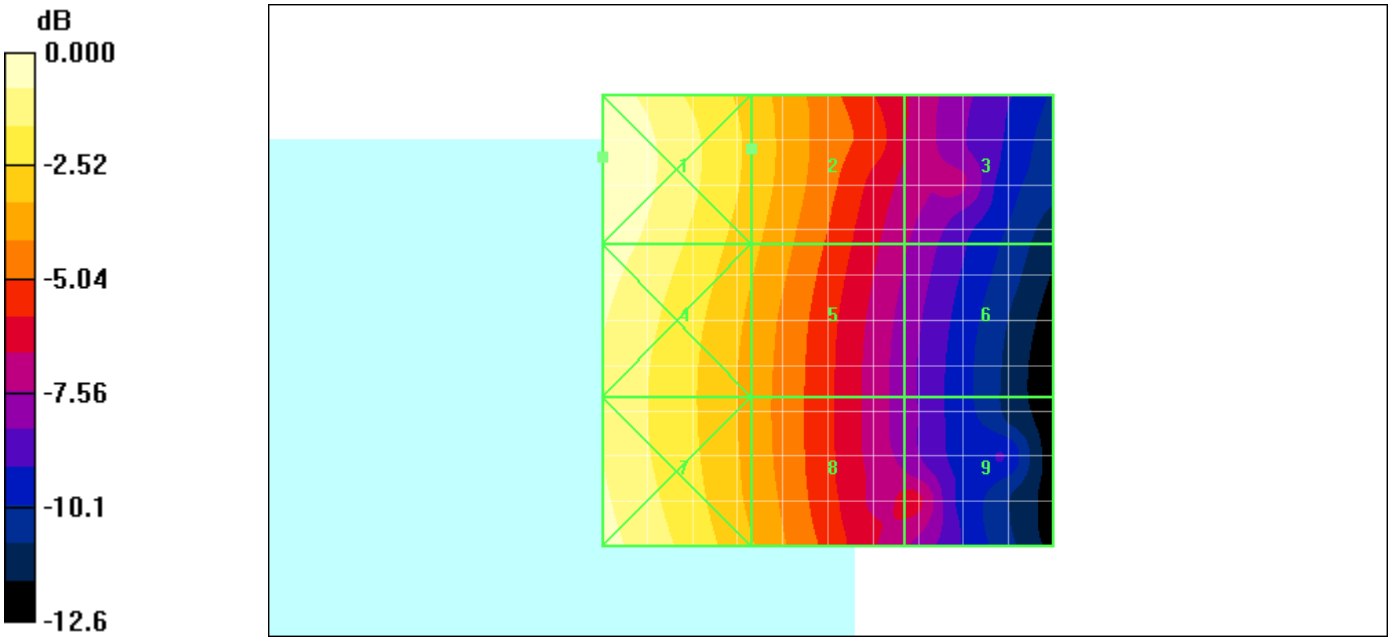
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.066 A/m; Power Drift = -0.054 dB

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

Peak H-field in A/m

Grid 1 **0.115 M4**	Grid 2 **0.084 M4**	Grid 3 **0.054 M4**
Grid 4 **0.111 M4**	Grid 5 **0.080 M4**	Grid 6 **0.049 M4**
Grid 7 **0.109 M4**	Grid 8 **0.079 M4**	Grid 9 **0.056 M4**



0 dB = 0.115A/m

Date/Time: 1/12/2011 5:53:57 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = -0.029 dB

Maximum value of Total (measured) = 0.066 A/m

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 = 0.179 A/m

Probe Modulation Factor = 2.76

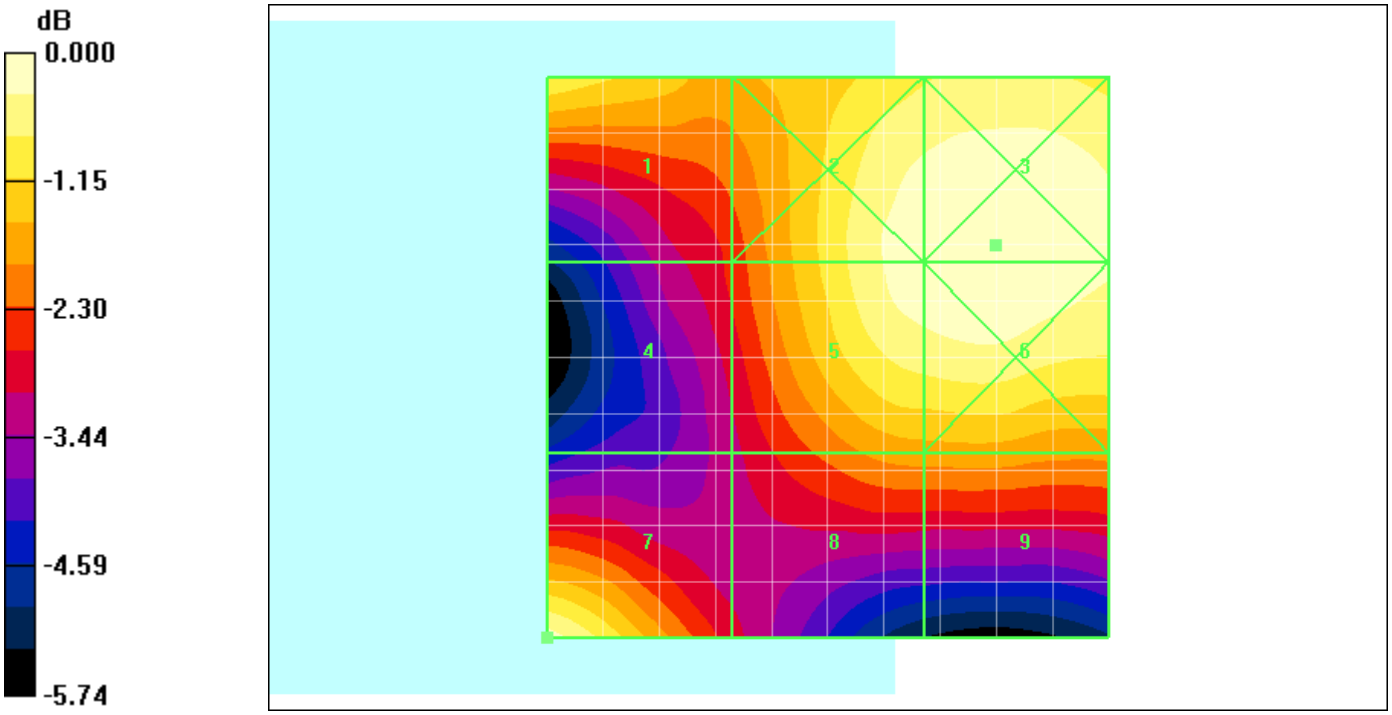
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.069 A/m; Power Drift = -0.029 dB

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

Peak H-field in A/m

Grid 1 **0.168 M3**	Grid 2 **0.179 M3**	Grid 3 **0.183 M3**
Grid 4 **0.137 M4**	Grid 5 **0.179 M3**	Grid 6 **0.182 M3**
Grid 7 **0.179 M3**	Grid 8 **0.150 M3**	Grid 9 **0.151 M3**



0 dB = 0.183A/m

Date/Time: 1/12/2011 5:59:28 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.075 A/m; Power Drift = 0.009 dB

Maximum value of Total (measured) = 0.075 A/m

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 = 0.196 A/m

Probe Modulation Factor = 2.76

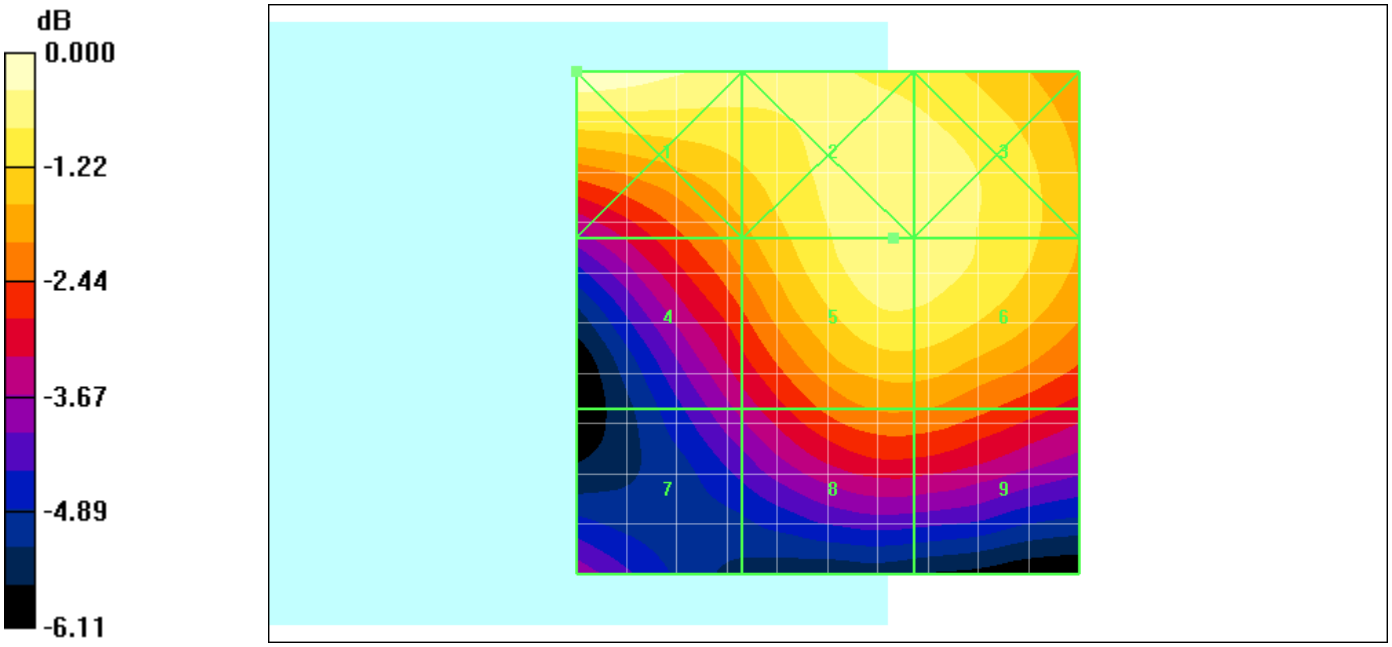
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.075 A/m; Power Drift = 0.009 dB

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

Peak H-field in A/m

Grid 1 **0.207 M3**	Grid 2 **0.197 M3**	Grid 3 **0.196 M3**
Grid 4 **0.169 M3**	Grid 5 **0.196 M3**	Grid 6 **0.195 M3**
Grid 7 **0.138 M4**	Grid 8 **0.165 M3**	Grid 9 **0.164 M3**



0 dB = 0.207A/m

Date/Time: 1/12/2011 6:04:30 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.071 A/m; Power Drift = -0.056 dB

Maximum value of Total (measured) = 0.081 A/m

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 = 0.185 A/m

Probe Modulation Factor = 2.76

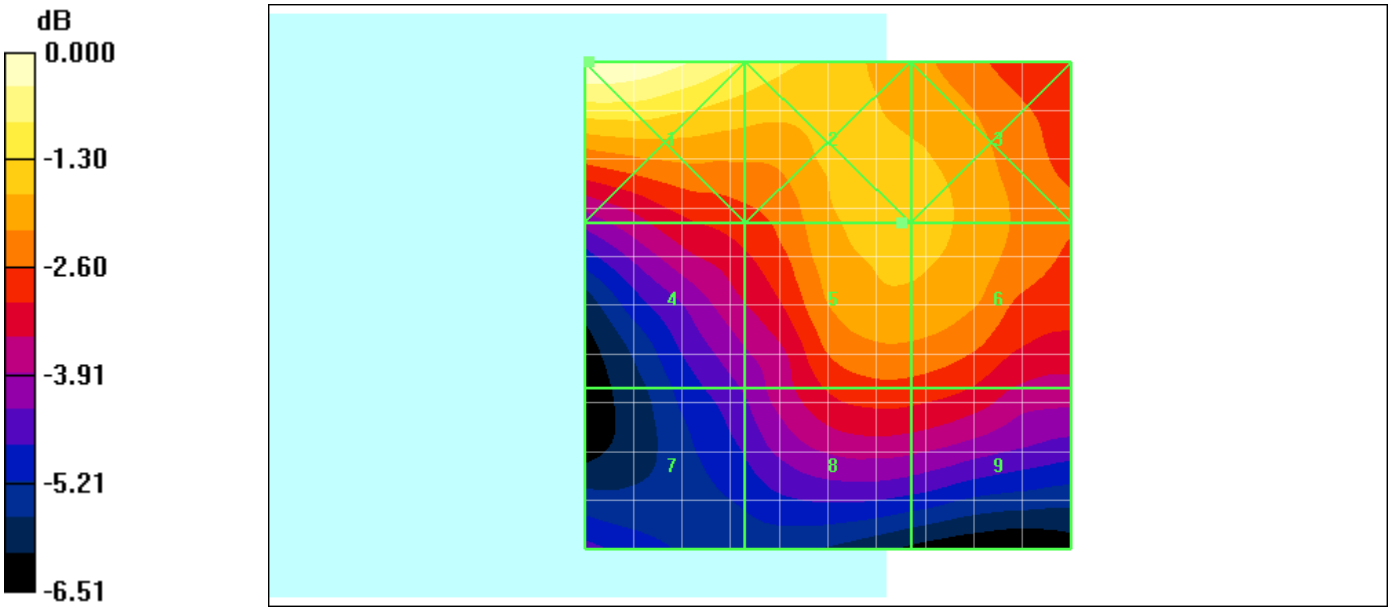
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.071 A/m; Power Drift = -0.056 dB

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

Peak H-field in A/m

Grid 1 **0.222 M3**	Grid 2 **0.200 M3**	Grid 3 **0.185 M3**
Grid 4 **0.161 M3**	Grid 5 **0.185 M3**	Grid 6 **0.184 M3**
Grid 7 **0.136 M4**	Grid 8 **0.163 M3**	Grid 9 **0.162 M3**



0 dB = 0.222A/m

Date/Time: 1/12/2011 6:11:38 PM

Test Laboratory: RIM Testing Services

HAC_H_GSM1900_mid_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.074 A/m; Power Drift = 0.034 dB

Maximum value of Total (measured) = 0.081 A/m

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 = 0.195 A/m

Probe Modulation Factor = 2.76

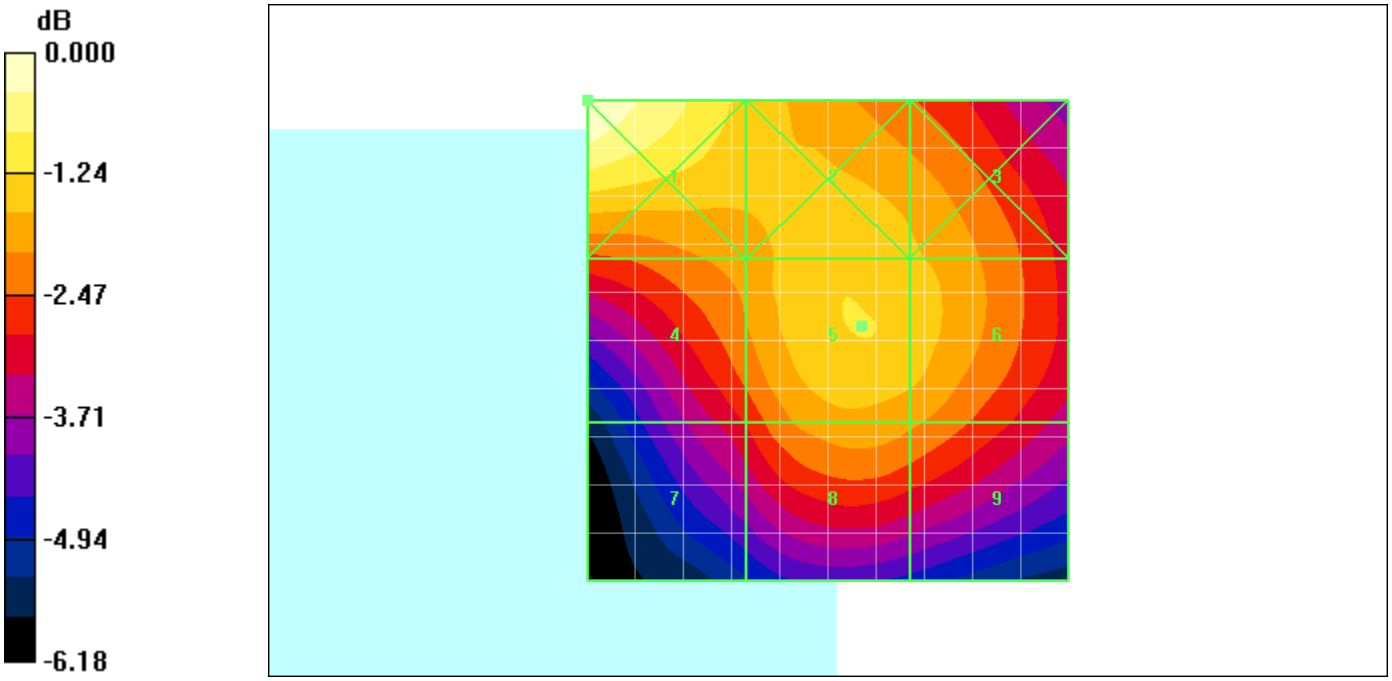
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.074 A/m; Power Drift = 0.034 dB

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

Peak H-field in A/m

Grid 1 **0.224 M3**	Grid 2 **0.193 M3**	Grid 3 **0.188 M3**
Grid 4 **0.181 M3**	Grid 5 **0.195 M3**	Grid 6 **0.191 M3**
Grid 7 **0.162 M3**	Grid 8 **0.183 M3**	Grid 9 **0.179 M3**



0 dB = 0.224A/m

Date/Time: 1/12/2011 6:32:01 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_low_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.098 A/m; Power Drift = -0.696 dB

Maximum value of Total (measured) = 0.109 A/m

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 = 0.089 A/m

Probe Modulation Factor = 0.890

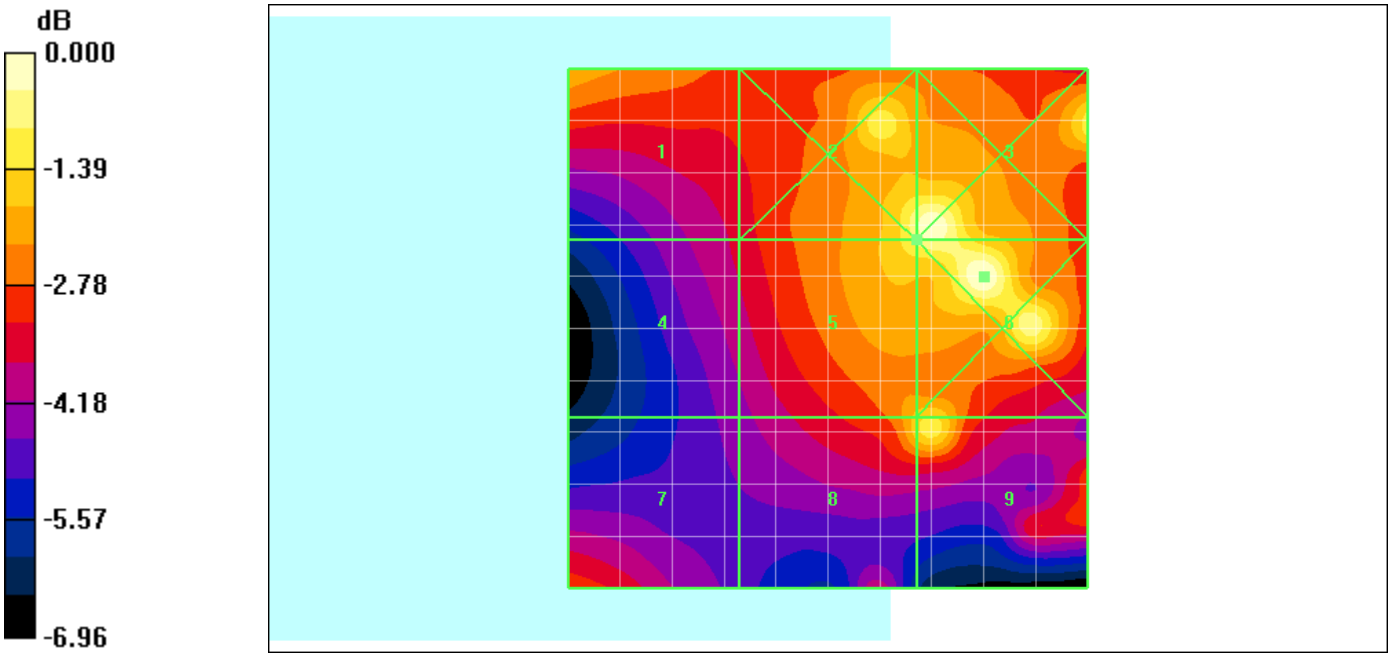
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.098 A/m; Power Drift = -0.696 dB

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

Peak H-field in A/m

Grid 1 **0.078 M4**	Grid 2 **0.091 M4**	Grid 3 **0.096 M4**
Grid 4 **0.065 M4**	Grid 5 **0.089 M4**	Grid 6 **0.097 M4**
Grid 7 **0.070 M4**	Grid 8 **0.081 M4**	Grid 9 **0.085 M4**



0 dB = 0.097A/m

Date/Time: 1/12/2011 6:39:09 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_mid_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.093 A/m; Power Drift = -0.100 dB

Maximum value of Total (measured) = 0.099 A/m

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 = 0.081 A/m

Probe Modulation Factor = 0.890

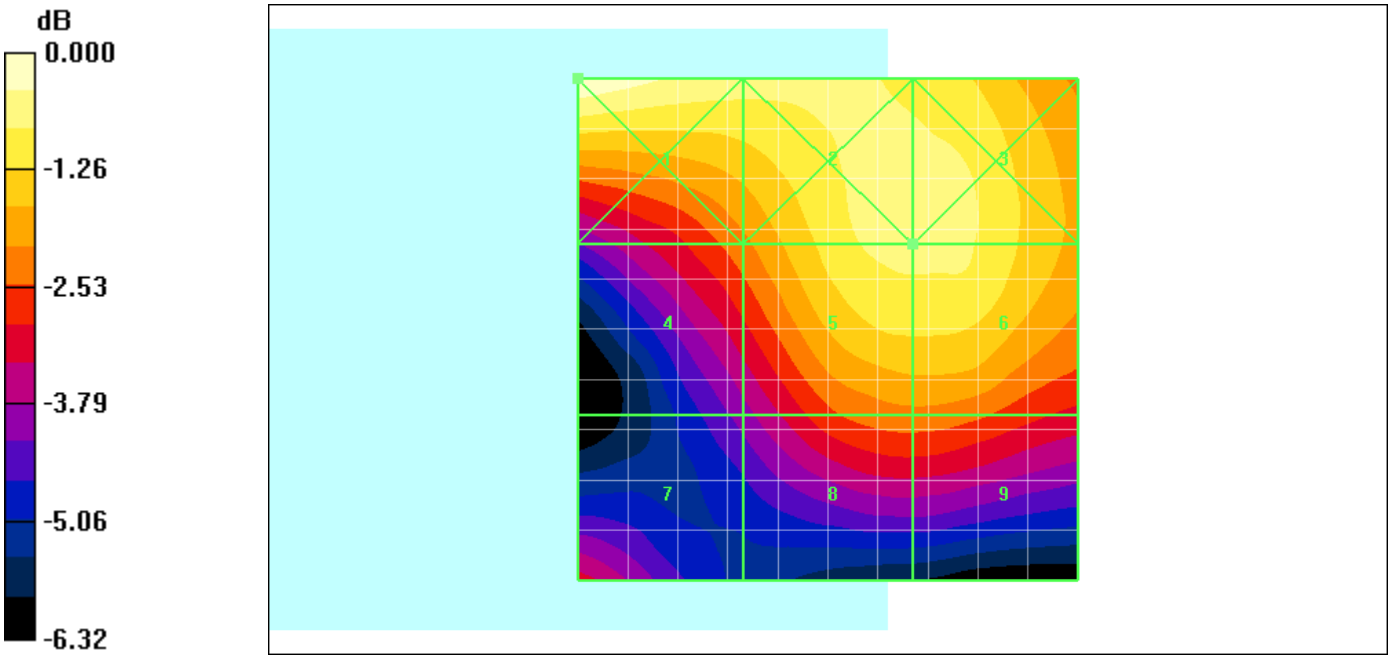
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.093 A/m; Power Drift = -0.100 dB

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

Peak H-field in A/m

Grid 1 **0.088 M4**	Grid 2 **0.082 M4**	Grid 3 **0.082 M4**
Grid 4 **0.068 M4**	Grid 5 **0.081 M4**	Grid 6 **0.081 M4**
Grid 7 **0.061 M4**	Grid 8 **0.068 M4**	Grid 9 **0.068 M4**



0 dB = 0.088A/m

Date/Time: 1/12/2011 7:54:51 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_high_chan_Slide_Open

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.083 A/m; Power Drift = -0.719 dB

Maximum value of Total (measured) = 0.101 A/m

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 = 0.081 A/m

Probe Modulation Factor = 0.890

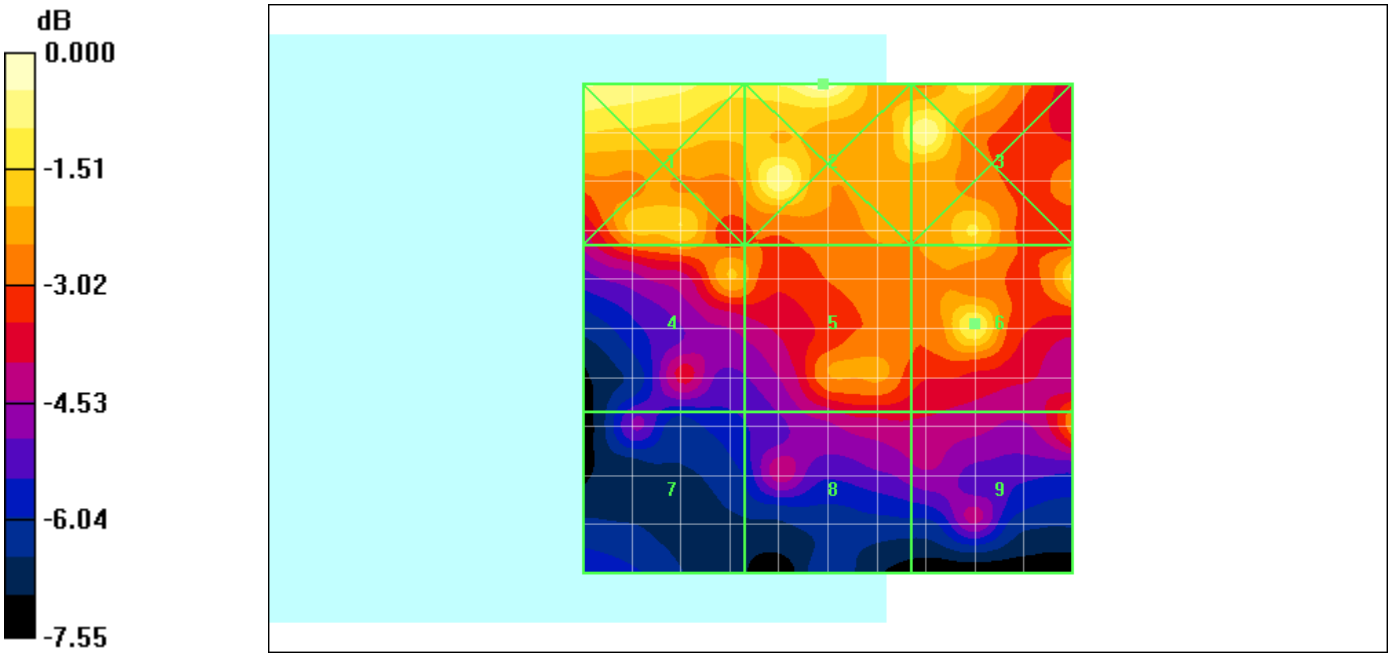
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.083 A/m; Power Drift = -0.719 dB

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

Peak H-field in A/m

Grid 1 **0.087 M4**	Grid 2 **0.091 M4**	Grid 3 **0.085 M4**
Grid 4 **0.073 M4**	Grid 5 **0.070 M4**	Grid 6 **0.081 M4**
Grid 7 **0.052 M4**	Grid 8 **0.059 M4**	Grid 9 **0.068 M4**



0 dB = 0.091A/m

Date/Time: 1/12/2011 8:07:32 PM

Test Laboratory: RIM Testing Services

HAC_H_UMTS_band_II_low_chan_Slide_Open_Telecoil

DUT: BlackBerry Smartphone;

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz;Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3

Phantom section: RF Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/12/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (11x11x1): Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.092 A/m; Power Drift = -0.583 dB

Maximum value of Total (measured) = 0.099 A/m

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 = 0.088 A/m

Probe Modulation Factor = 0.890

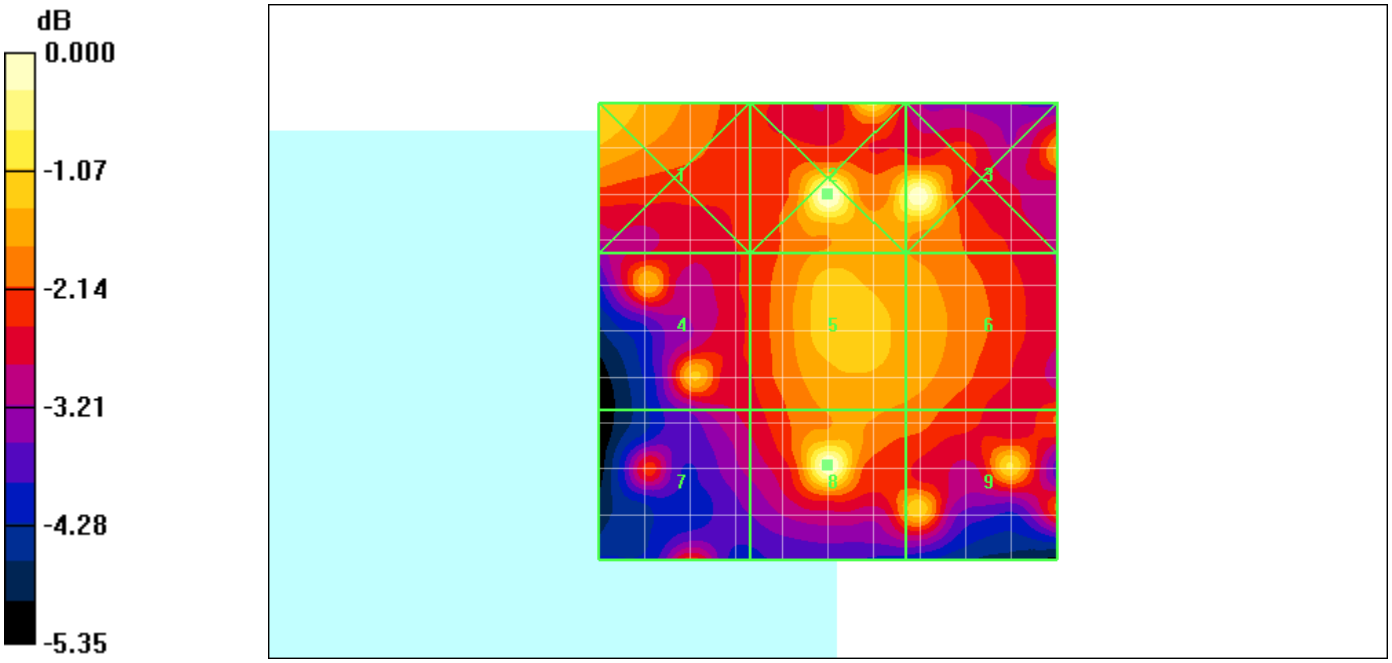
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.092 A/m; Power Drift = -0.583 dB

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

Peak H-field in A/m

Grid 1 **0.078 M4**	Grid 2 **0.088 M4**	Grid 3 **0.087 M4**
Grid 4 **0.076 M4**	Grid 5 **0.077 M4**	Grid 6 **0.074 M4**
Grid 7 **0.068 M4**	Grid 8 **0.088 M4**	Grid 9 **0.078 M4**



0 dB = 0.088A/m