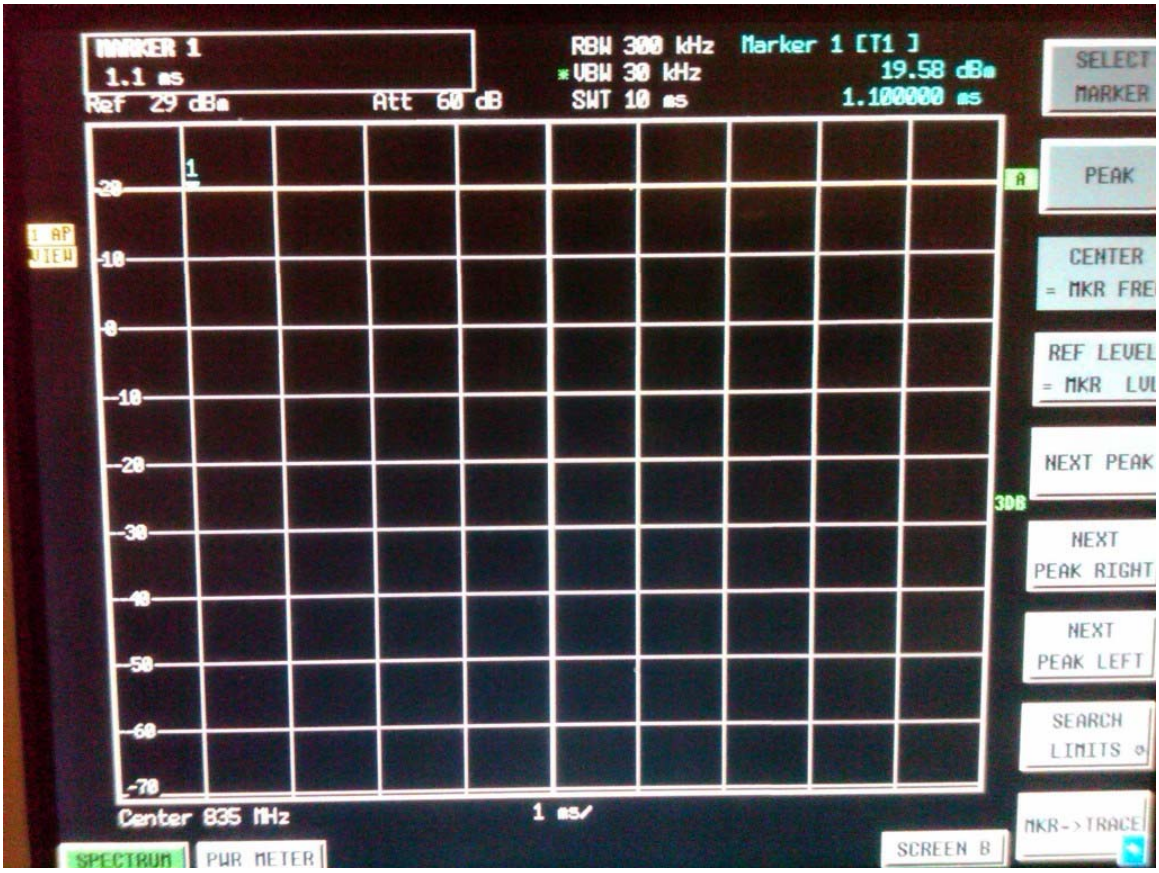
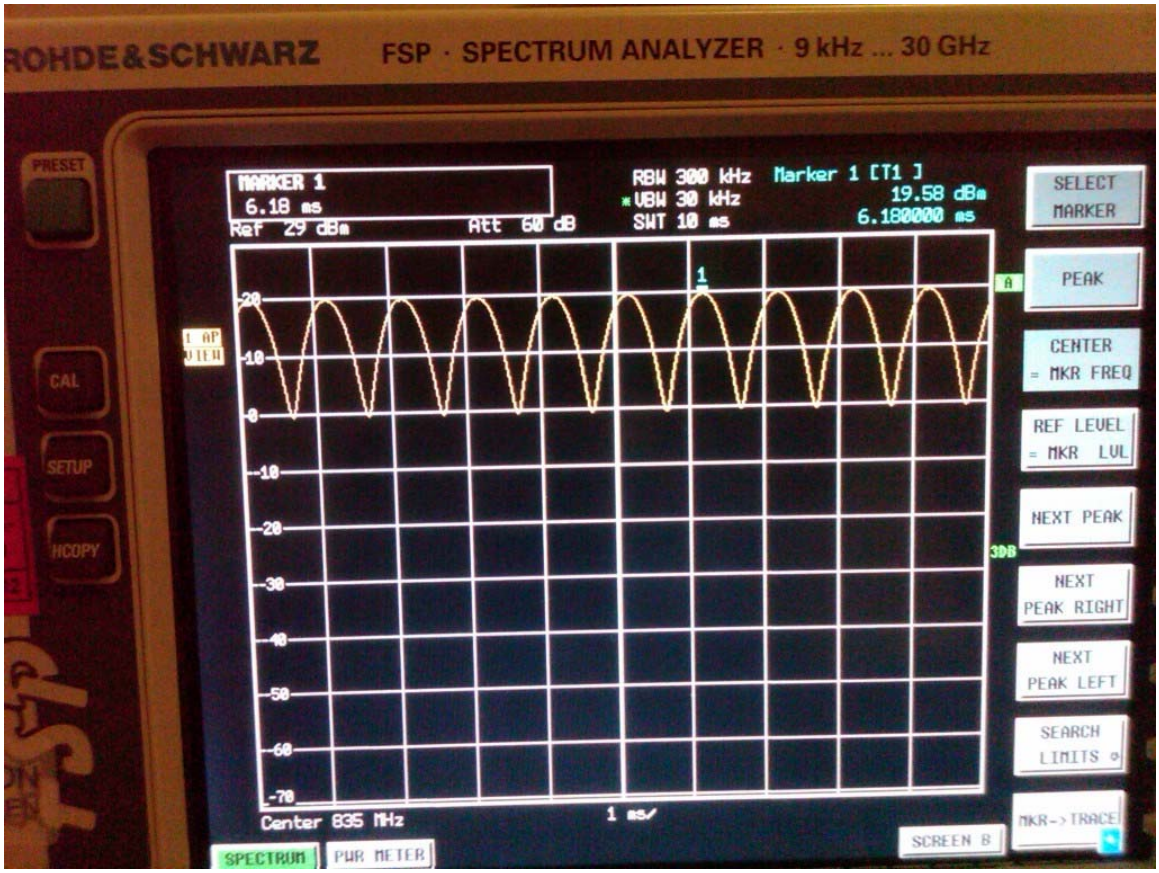
Annex A: Measurement data and plots

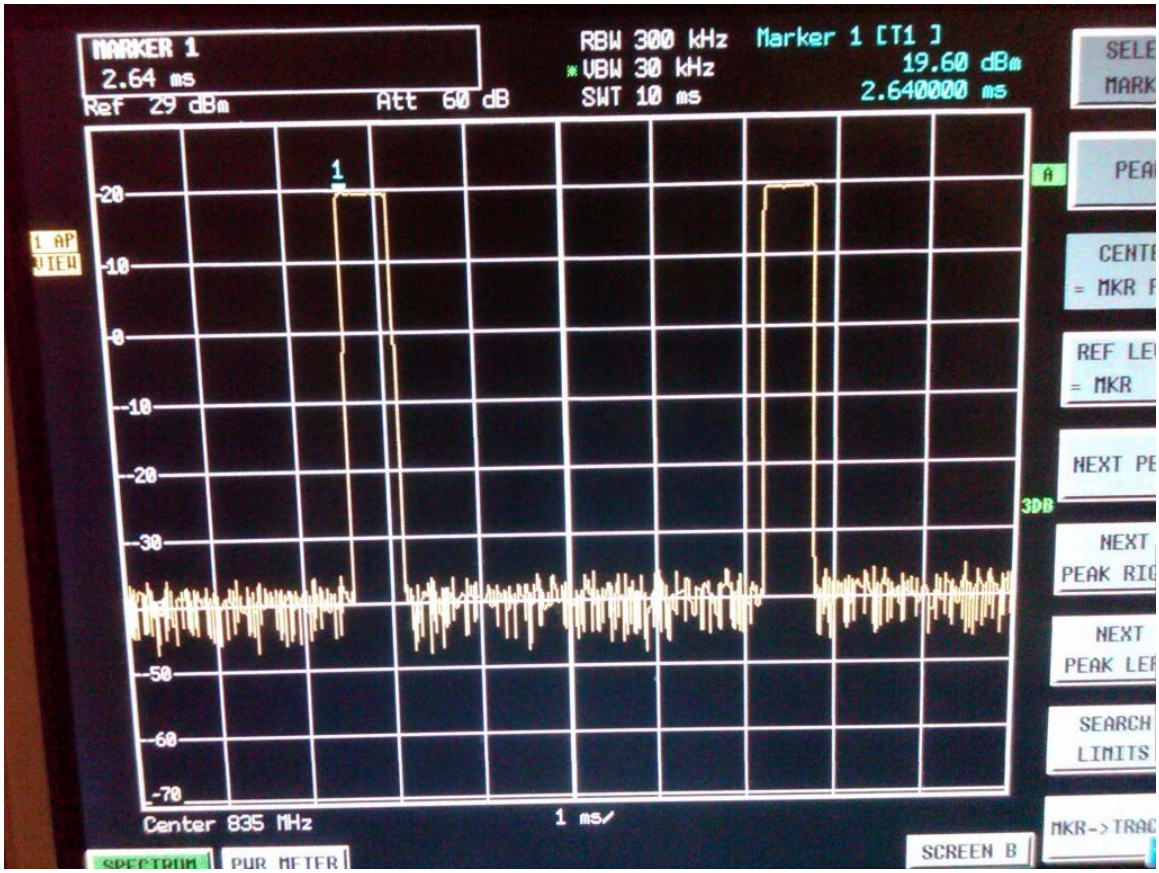
A.1 Spectrum analyser plots: CW, 80%AM, GSM and CDMA signals



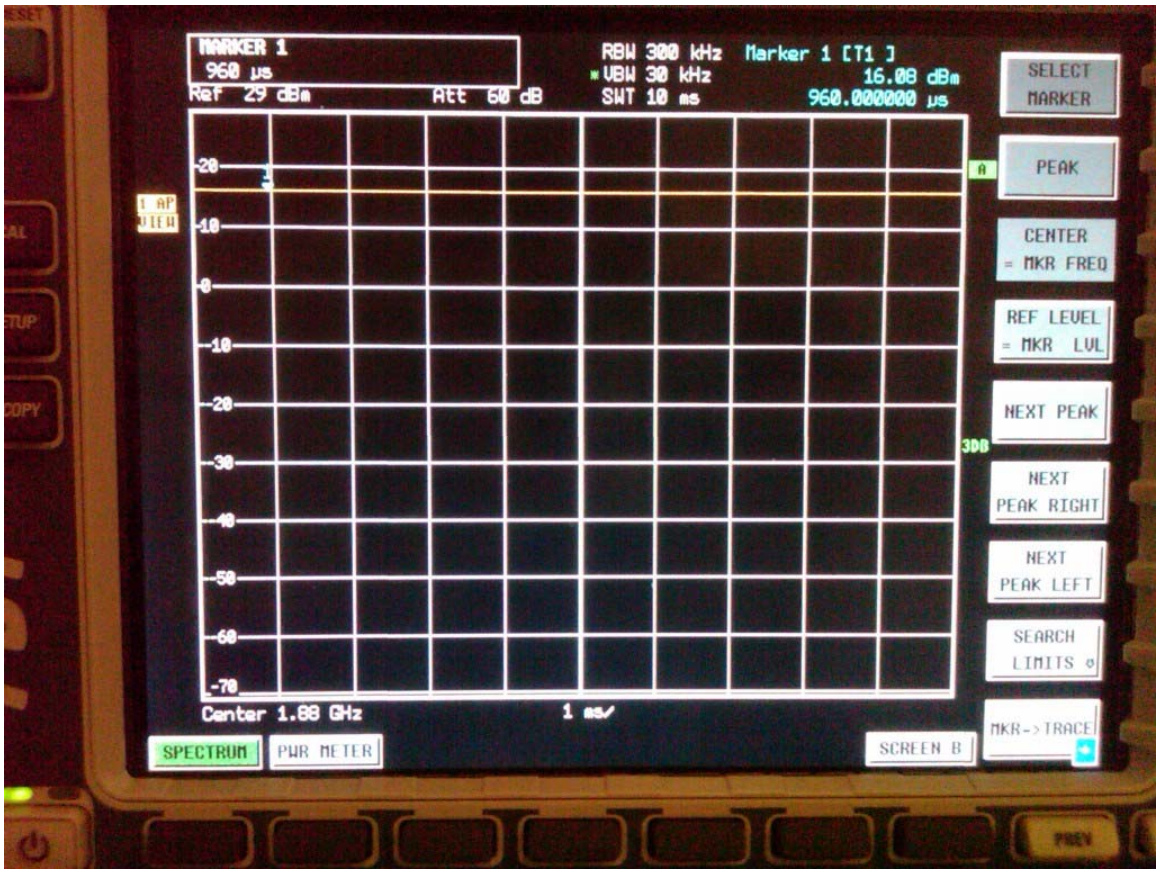
0 Hz Span CW Plot (835MHz)



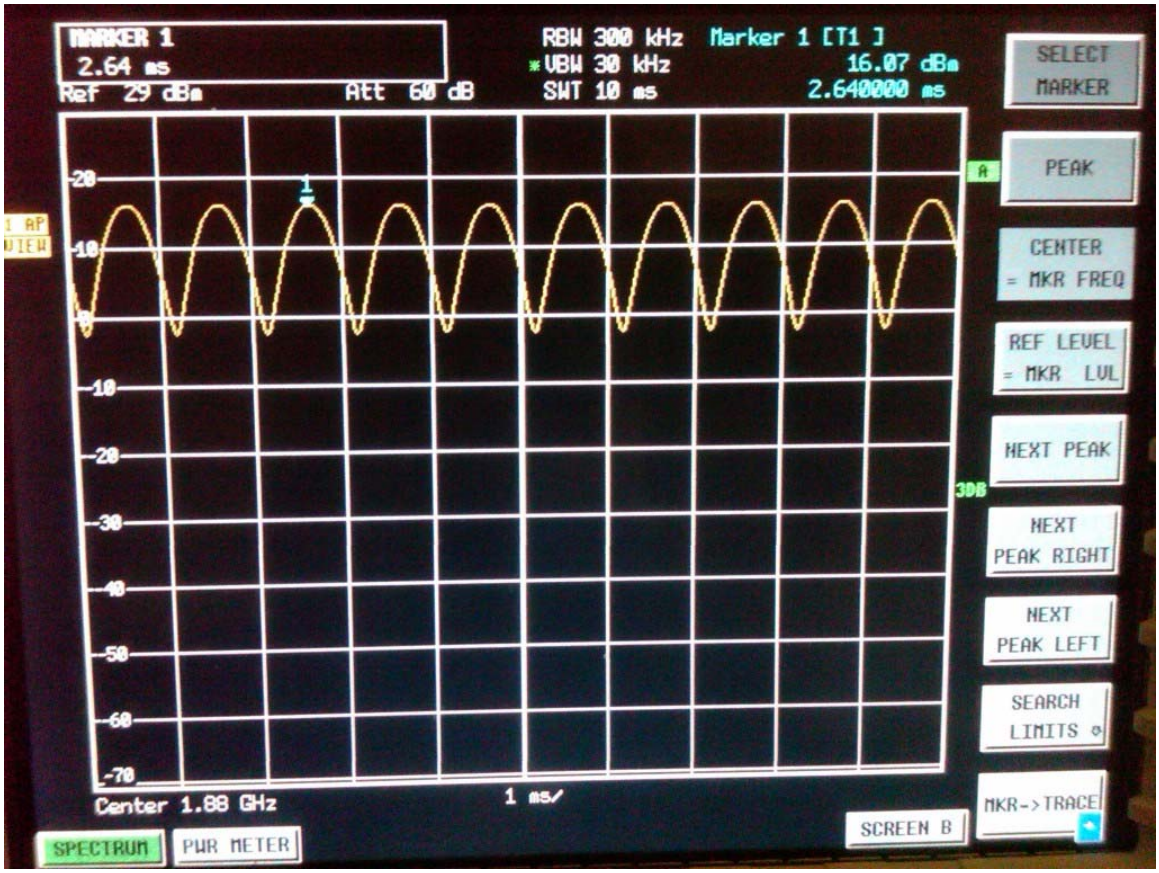
0 Hz Span 80% AM Plot (835MHz)



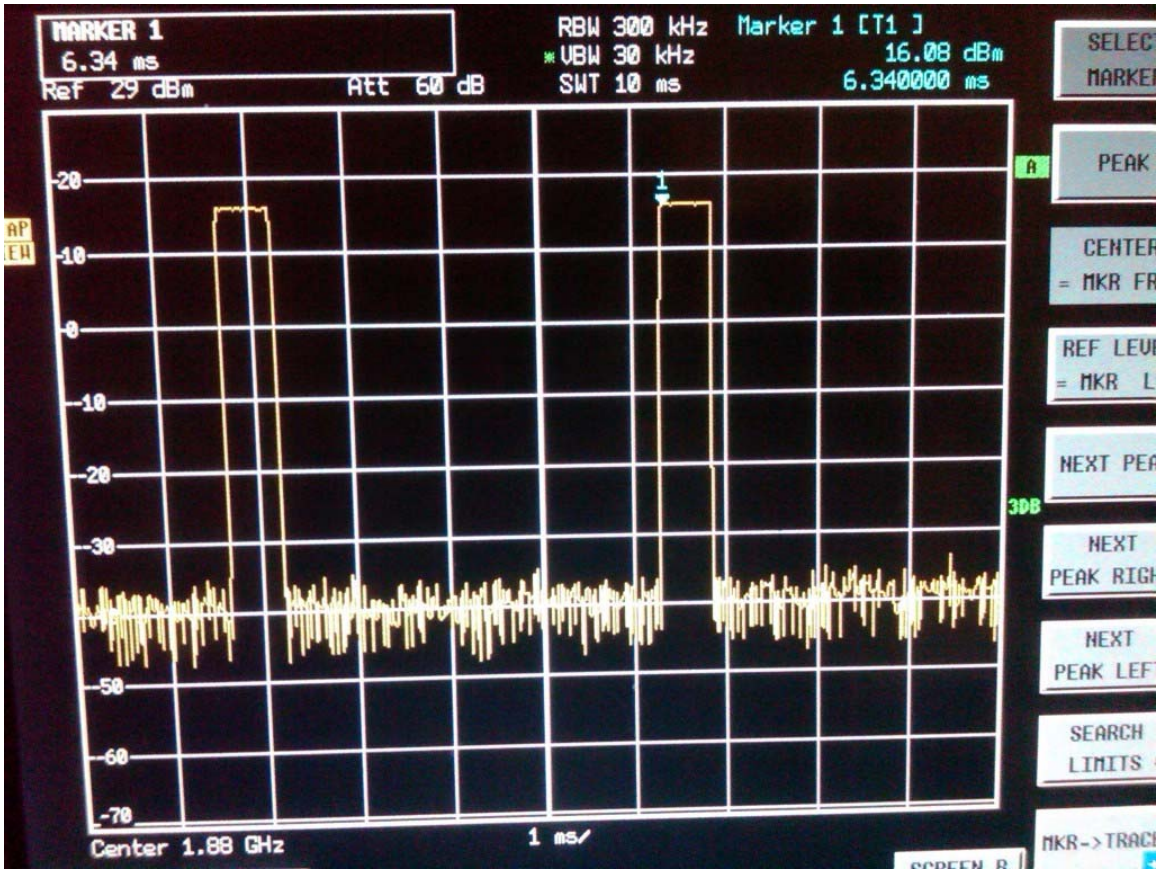
0 Hz Span GSM (835MHz)



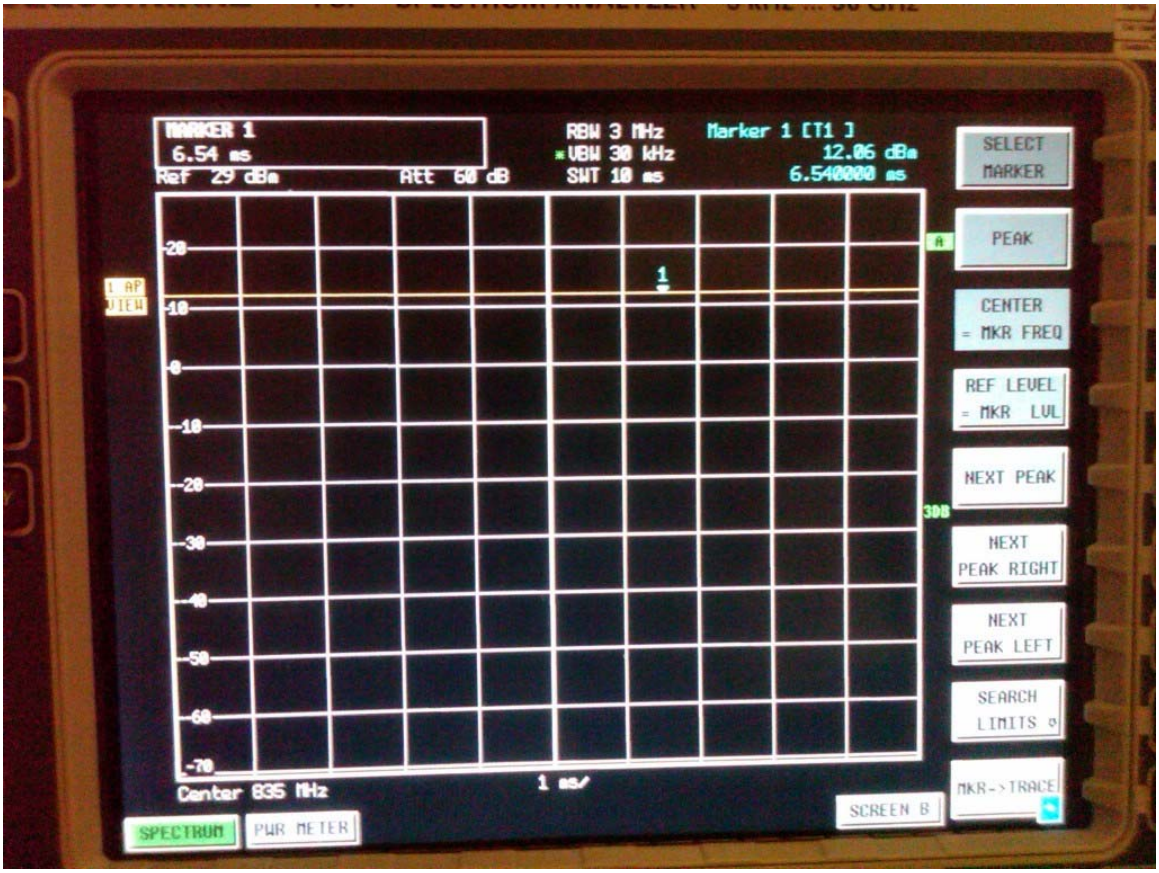
0 Hz Span CW Plot (1880MHz)



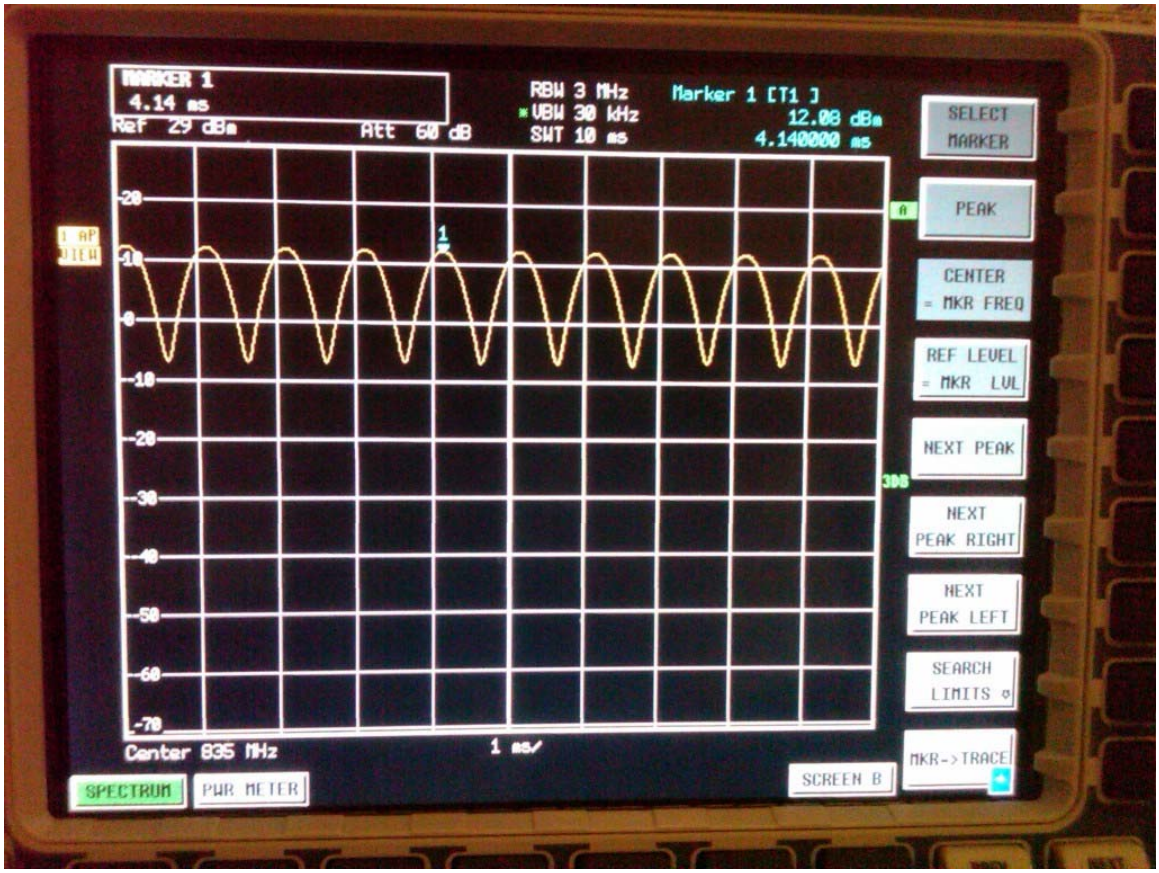
0 Hz Span 80% AM Plot (1880MHz)



0 Hz Span GSM (1880MHz)



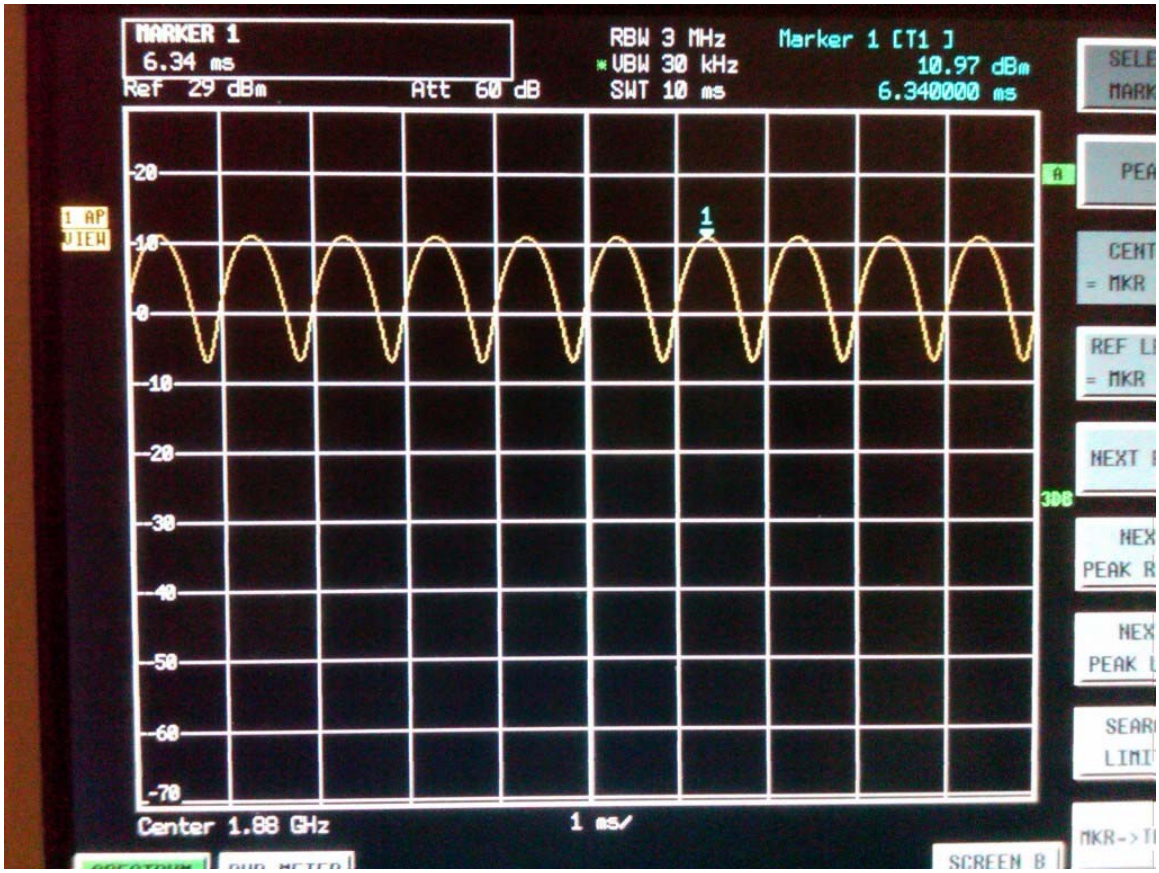
0 Hz Span CW Plot (835MHz)



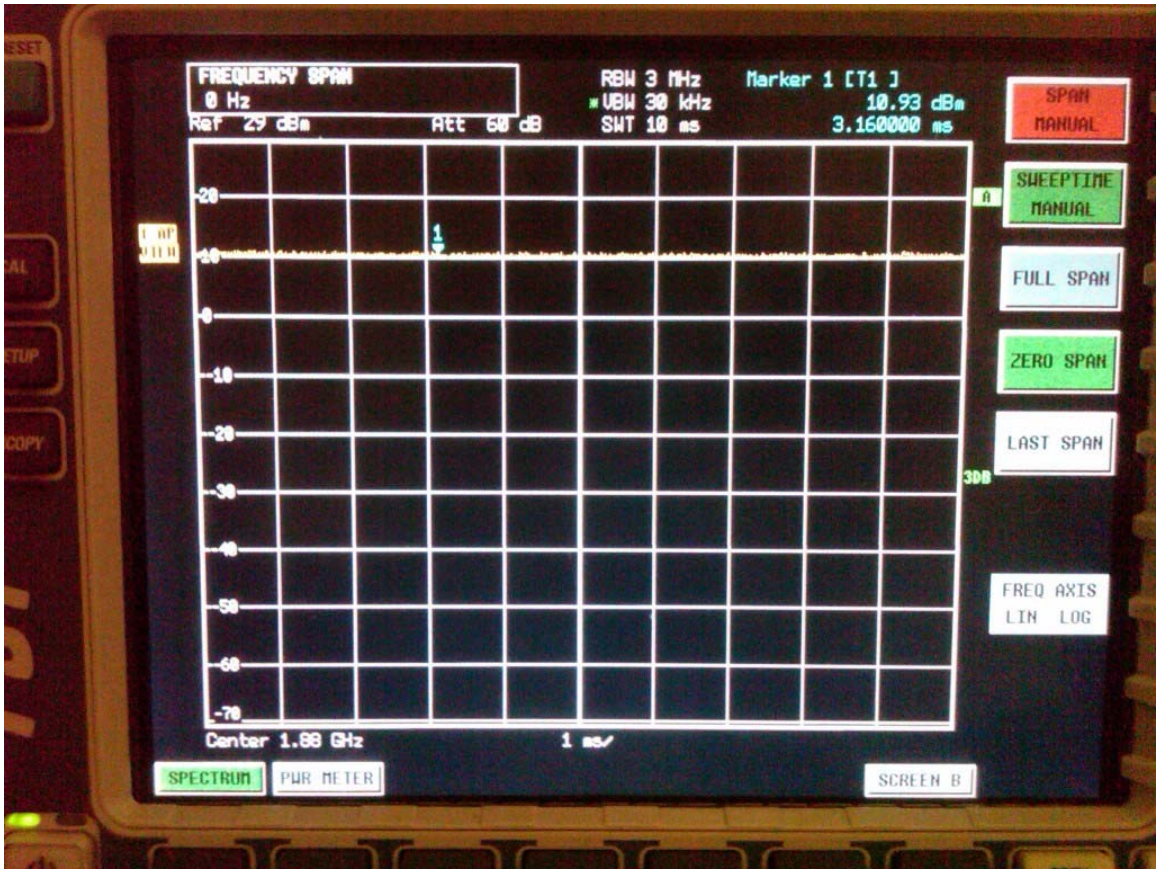
0 Hz Span 80% AM Plot (835MHz)

0 Hz Span CDMA (835MHz)

0 Hz Span CW Plot (1880MHz)



0 Hz Span 80% AM Plot (1880MHz)



0 Hz Span CDMA (1880MHz)

A.2 Dipole validation and probe modulation factor plots

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW835_20.00dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 104.6 V/m; Power Drift = 0.019 dB

Maximum value of Total (measured) = 161.6 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 = 164.1 V/m

Probe Modulation Factor = 1.00

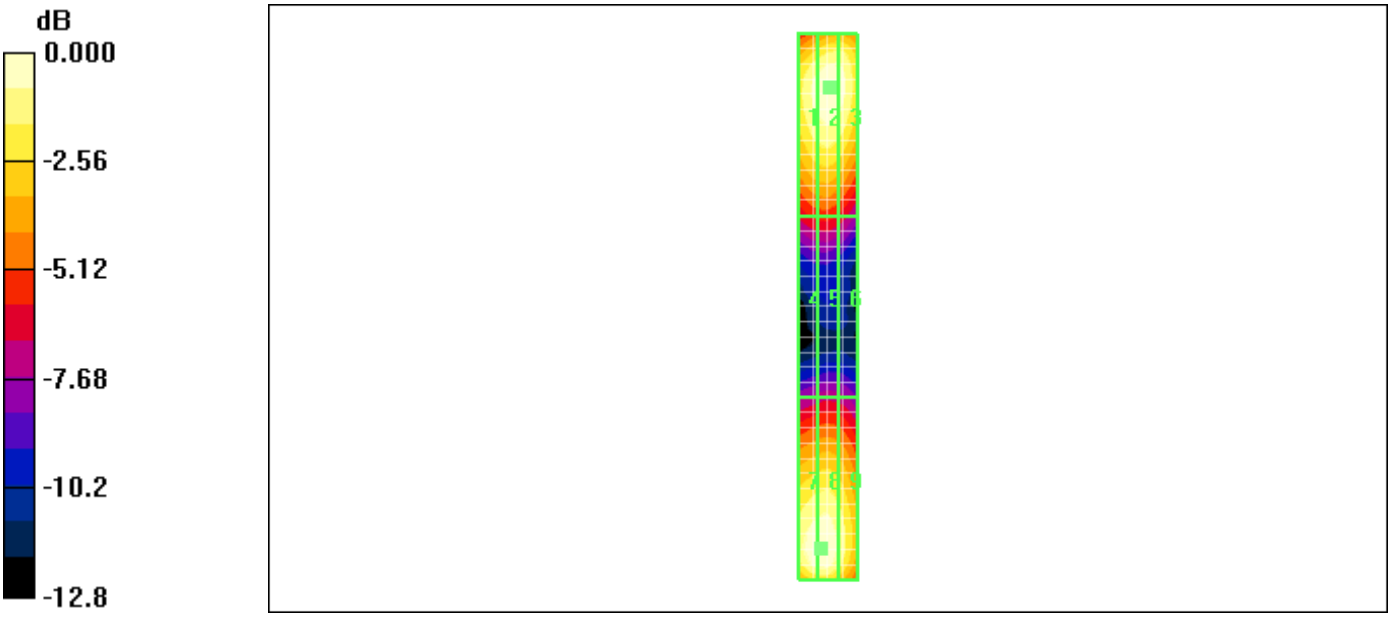
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 104.6 V/m; Power Drift = 0.019 dB

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

Peak E-field in V/m

Grid 1 **155.6 M4**	Grid 2 **161.0 M4**	Grid 3 **157.6 M4**
Grid 4 **86.3 M4**	Grid 5 **87.2 M4**	Grid 6 **82.1 M4**
Grid 7 **162.9 M4**	Grid 8 **164.1 M4**	Grid 9 **149.0 M4**



0 dB = 164.1V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW835_PMF_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 102.1 V/m; Power Drift = 0.108 dB

Maximum value of Total (measured) = 154.9 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 = 157.9 V/m

Probe Modulation Factor = 1.00

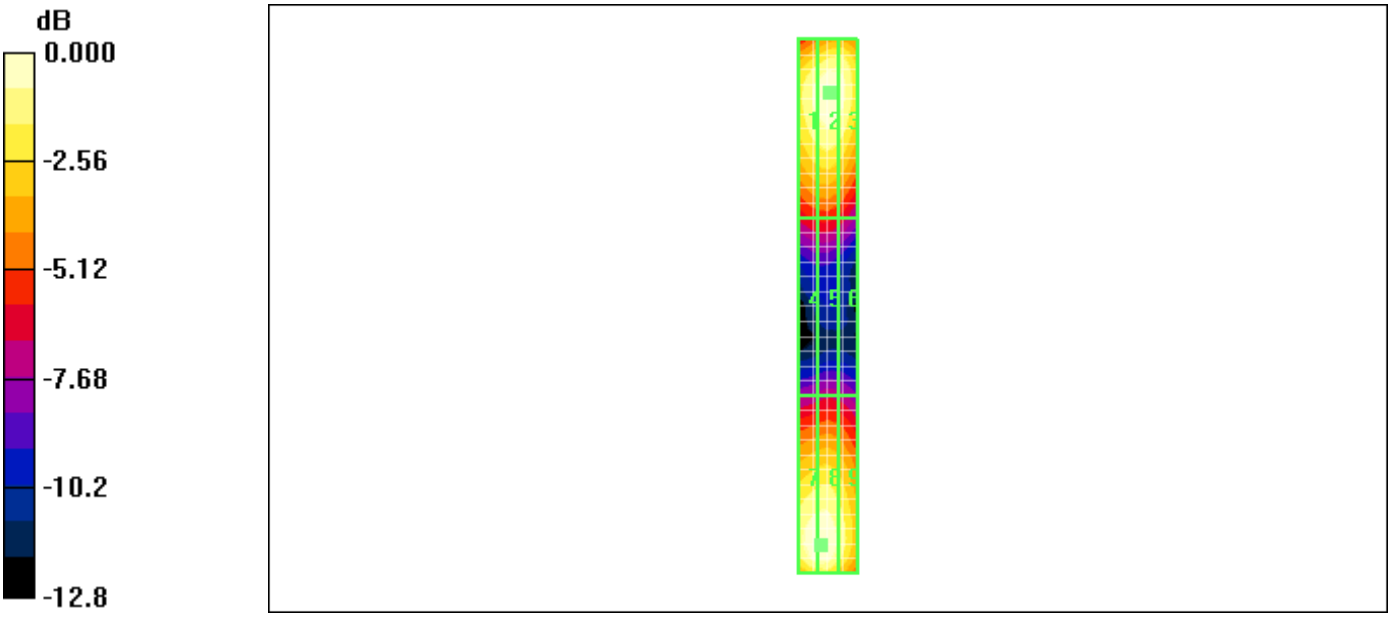
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 102.1 V/m; Power Drift = 0.108 dB

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

Peak E-field in V/m

Grid 1 **148.7 M4**	Grid 2 **154.3 M4**	Grid 3 **151.6 M4**
Grid 4 **82.4 M4**	Grid 5 **83.2 M4**	Grid 6 **78.9 M4**
Grid 7 **157.2 M4**	Grid 8 **157.9 M4**	Grid 9 **143.2 M4**



0 dB = 157.9V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM835_PMF_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 64.2 V/m; Power Drift = -0.096 dB

Maximum value of Total (measured) = 97.0 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 = 98.3 V/m

Probe Modulation Factor = 1.00

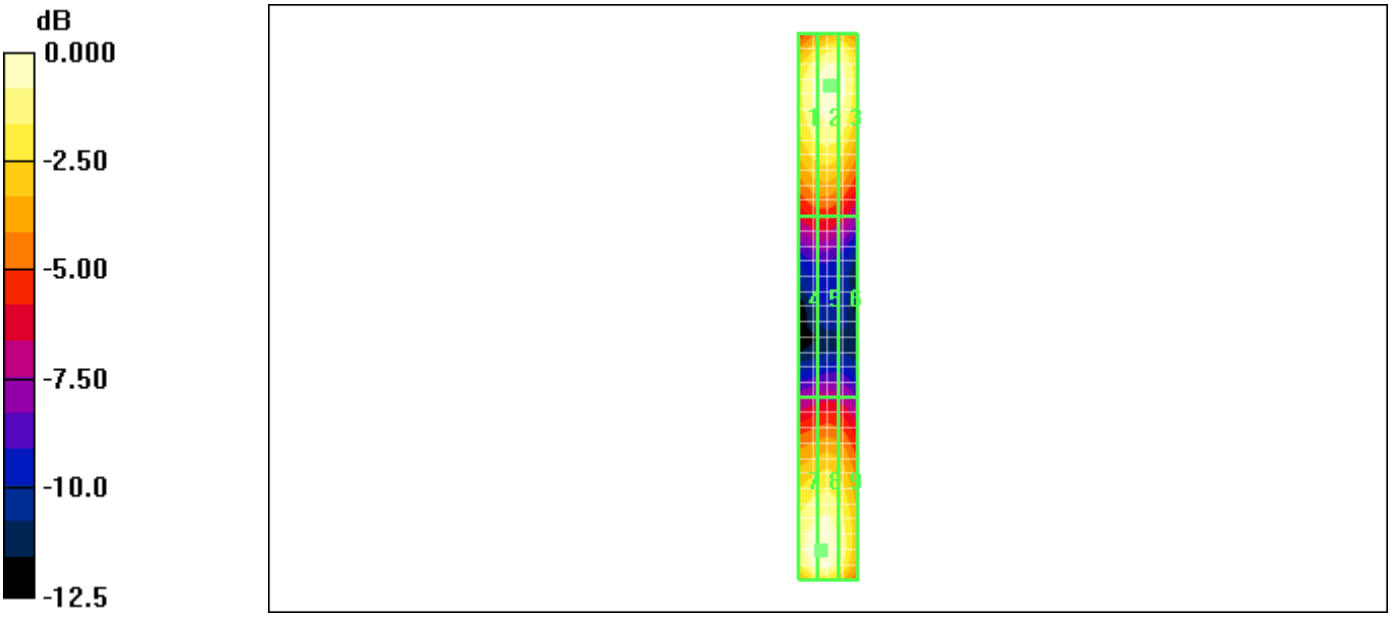
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 64.2 V/m; Power Drift = -0.096 dB

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

Peak E-field in V/m

Grid 1 **92.8 M4**	Grid 2 **95.8 M4**	Grid 3 **94.6 M4**
Grid 4 **52.2 M4**	Grid 5 **52.6 M4**	Grid 6 **49.8 M4**
Grid 7	Grid 8	Grid 9



0 dB = 98.3V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_GSM835

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: GSM 850; Frequency: 835 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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 34.9 V/m; Power Drift = -0.028 dB

Maximum value of Total (measured) = 54.7 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 = 55.6 V/m

Probe Modulation Factor = 1.00

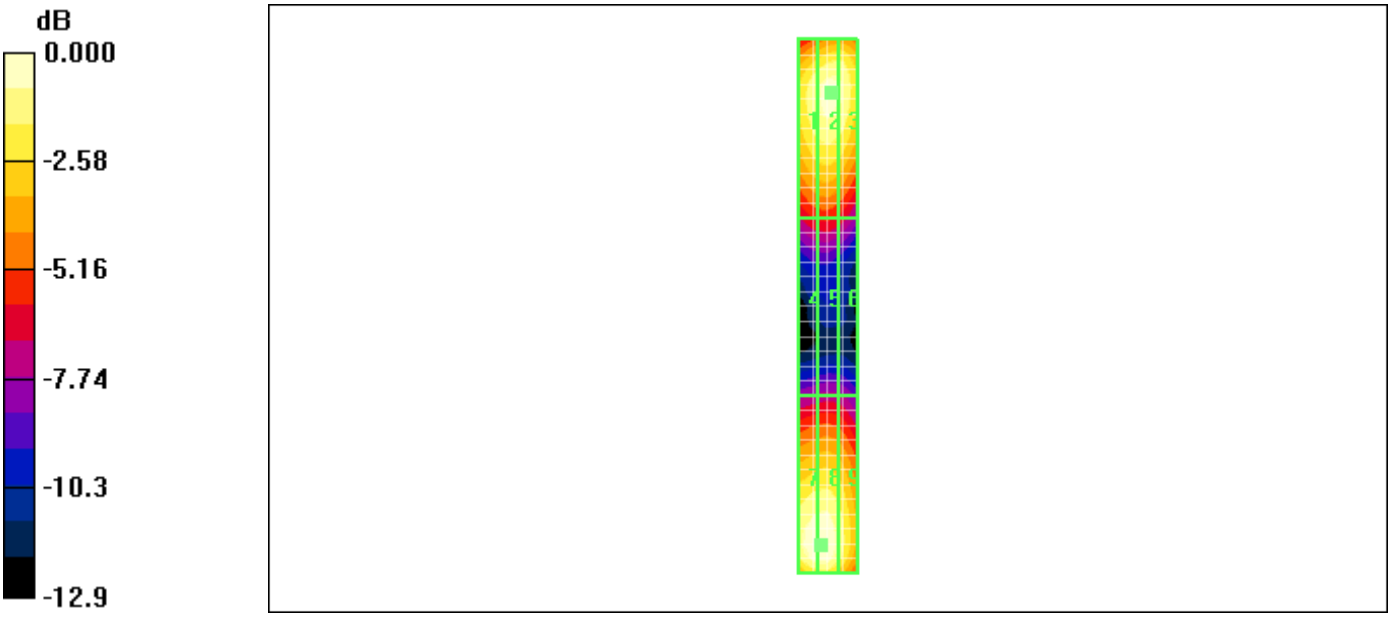
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.9 V/m; Power Drift = -0.028 dB

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

Peak E-field in V/m

Grid 1 **50.4 M4**	Grid 2 **52.4 M4**	Grid 3 **51.7 M4**
Grid 4 **28.6 M4**	Grid 5 **28.9 M4**	Grid 6 **27.5 M4**
Grid 7 **55.5 M4**	Grid 8 **55.6 M4**	Grid 9 **49.9 M4**



0 dB = 55.6V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW835_PMF_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 43.8 V/m; Power Drift = -0.111 dB

Maximum value of Total (measured) = 66.3 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 = 67.3 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

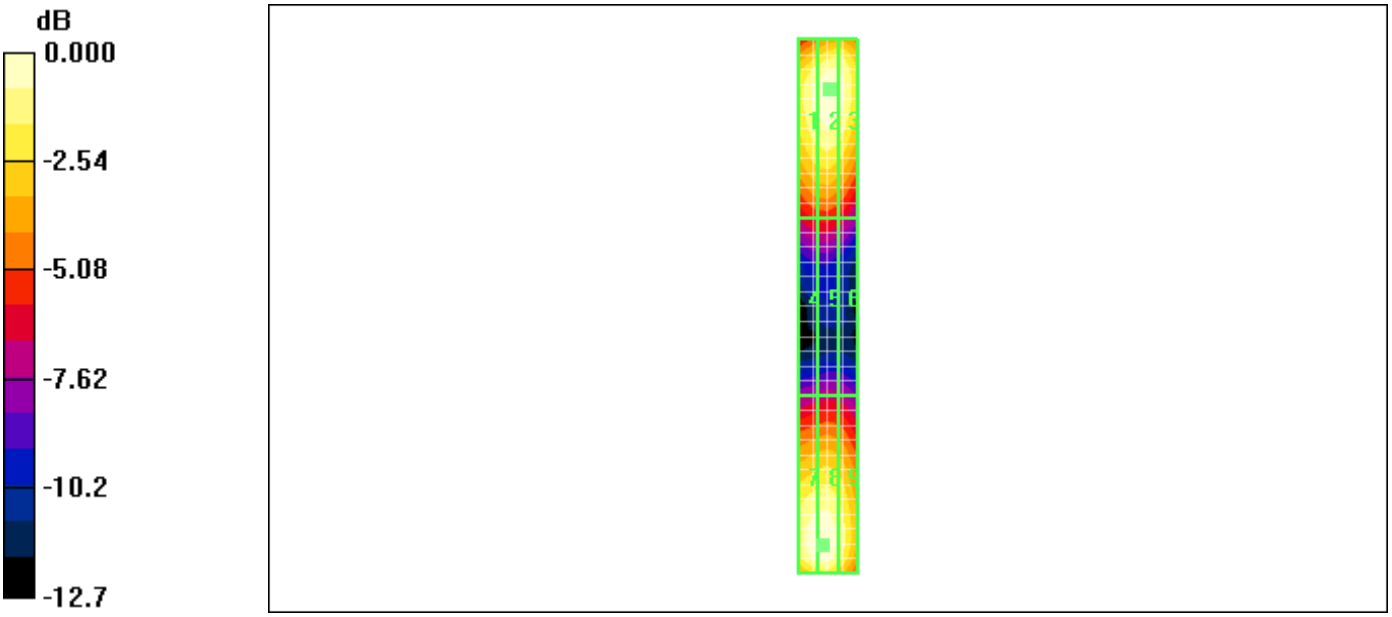
Reference Value = 43.8 V/m; Power Drift = -0.111 dB

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

Peak E-field in V/m

Grid 1 **63.6 M4**	Grid 2 **65.9 M4**	Grid 3 **64.5 M4**
Grid 4 **35.3 M4**	Grid 5 **35.6 M4**	Grid 6 **33.7 M4**
Grid 7	Grid 8	Grid 9

m



0 dB = 67.3V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM835_PMF_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 27.4 V/m; Power Drift = 0.005 dB

Maximum value of Total (measured) = 41.9 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 = 42.5 V/m

Probe Modulation Factor = 1.00

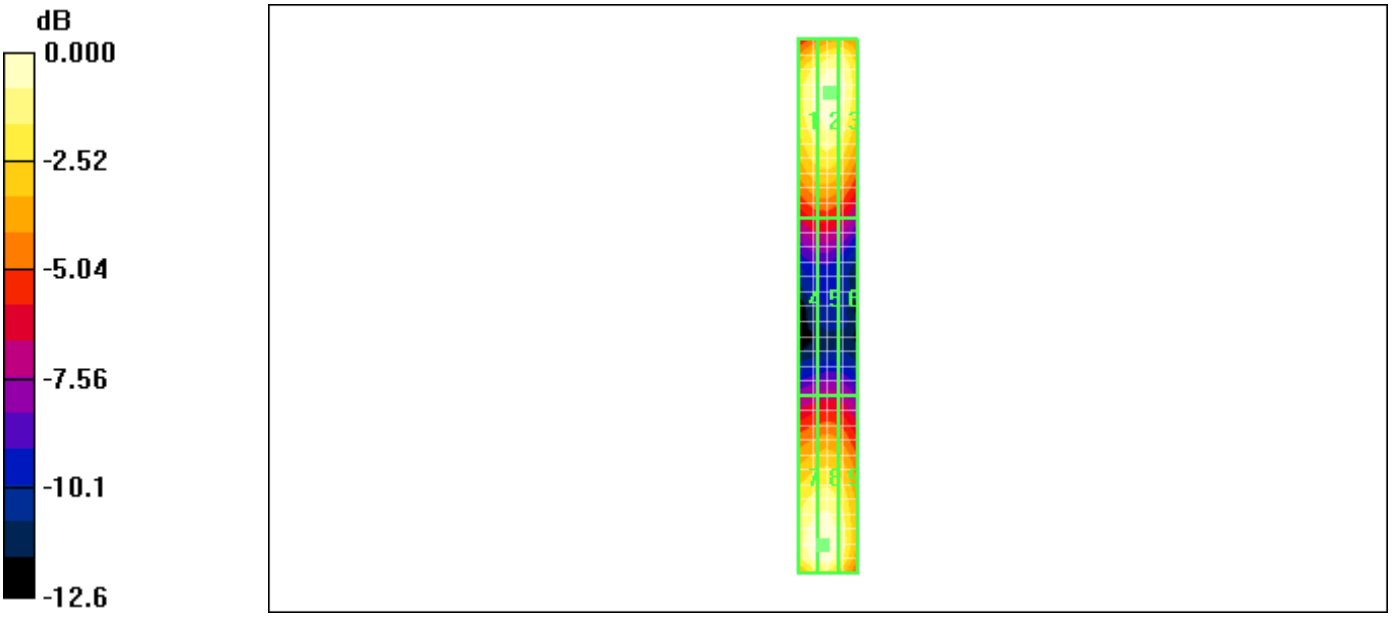
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 27.4 V/m; Power Drift = 0.005 dB

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

Peak E-field in V/m

Grid 1 **40.2 M4**	Grid 2 **41.6 M4**	Grid 3 **40.9 M4**
Grid 4 **22.5 M4**	Grid 5 **22.6 M4**	Grid 6 **21.5 M4**
Grid 7 **42.2 M4**	Grid 8 **42.5 M4**	Grid 9 **39.0 M4**



0 dB = 42.5V/m

Date/Time: 31/10/2009 2:34:41 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA835

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: CDMA 800; Frequency: 835 MHz;Duty Cycle: 1:1

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 40.6 V/m; Power Drift = 0.130 dB

Maximum value of Total (measured) = 64.3 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 = 65.3 V/m

Probe Modulation Factor = 1.00

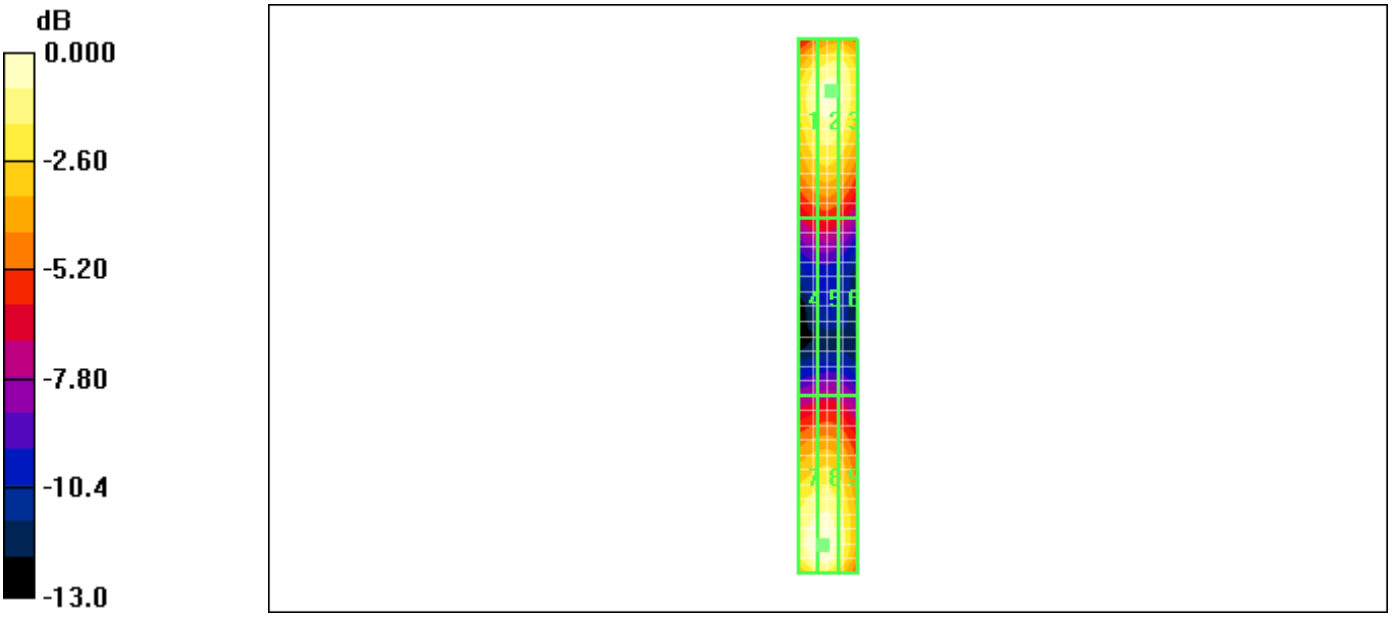
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 40.6 V/m; Power Drift = 0.130 dB

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

Peak E-field in V/m

Grid 1 **59.4 M4**	Grid 2 **61.7 M4**	Grid 3 **60.8 M4**
Grid 4 **33.5 M4**	Grid 5 **33.9 M4**	Grid 6 **32.3 M4**
Grid 7 **64.6 M4**	Grid 8 **65.3 M4**	Grid 9 **59.1 M4**



0 dB = 65.3V/m

Date/Time: 31/10/2009 3:05:31 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW1880_20.00dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 146.4 V/m; Power Drift = 0.029 dB

Maximum value of Total (measured) = 129.4 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 = 131.8 V/m

Probe Modulation Factor = 1.00

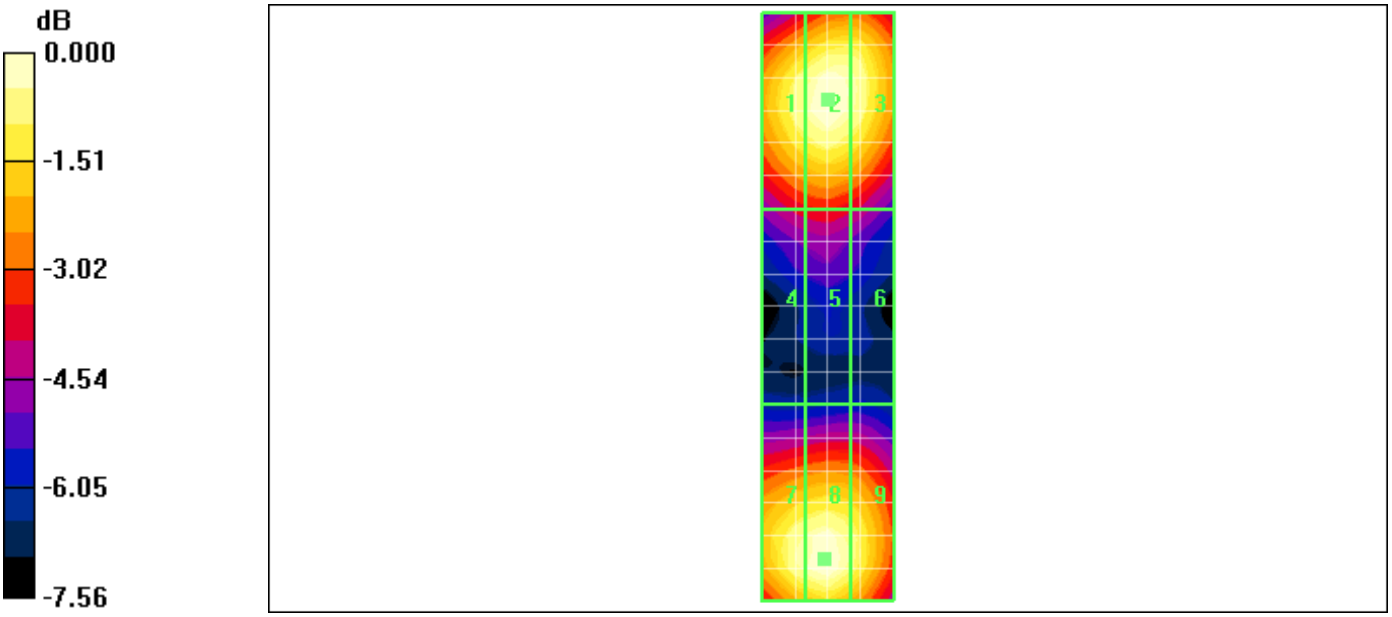
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 146.4 V/m; Power Drift = 0.029 dB

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

Peak E-field in V/m

Grid 1 **125.0 M2**	Grid 2 **129.7 M2**	Grid 3 **126.7 M2**
Grid 4 **86.8 M3**	Grid 5 **89.1 M3**	Grid 6 **84.9 M3**
Grid 7 **128.2 M2**	Grid 8 **131.8 M2**	Grid 9 **123.6 M2**



0 dB = 131.8V/m

Date/Time: 31/10/2009 3:21:37 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW1880_PMF_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 90.0 V/m; Power Drift = 0.028 dB

Maximum value of Total (measured) = 79.8 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 = 80.1 V/m

Probe Modulation Factor = 1.00

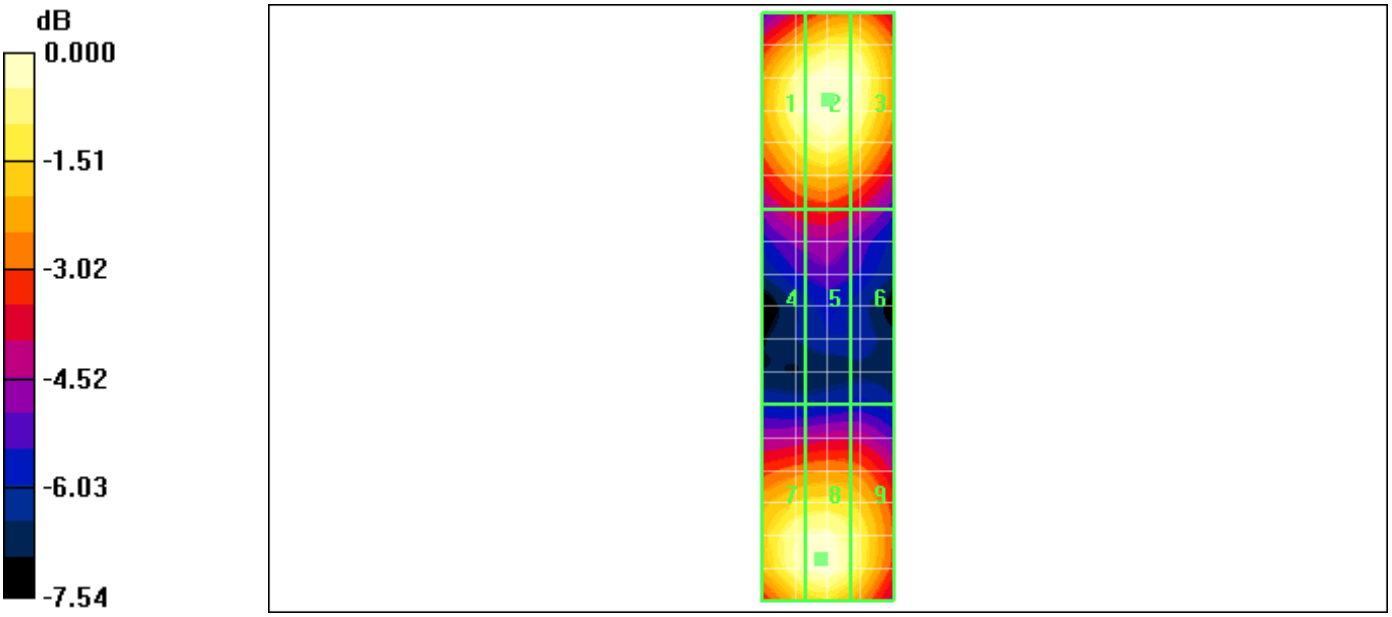
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 90.0 V/m; Power Drift = 0.028 dB

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

Peak E-field in V/m

Grid 1 **77.9 M3**	Grid 2 **80.1 M3**	Grid 3 **78.4 M3**
Grid 4 **54.0 M4**	Grid 5 **55.1 M4**	Grid 6 **52.4 M4**
Grid 7 **78.6 M3**	Grid 8 **79.9 M3**	Grid 9 **75.3 M3**



0 dB = 80.1V/m

Date/Time: 31/10/2009 3:27:32 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM_1880_PMF_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 57.5 V/m; Power Drift = -0.042 dB

Maximum value of Total (measured) = 50.3 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 = 50.9 V/m

Probe Modulation Factor = 1.00

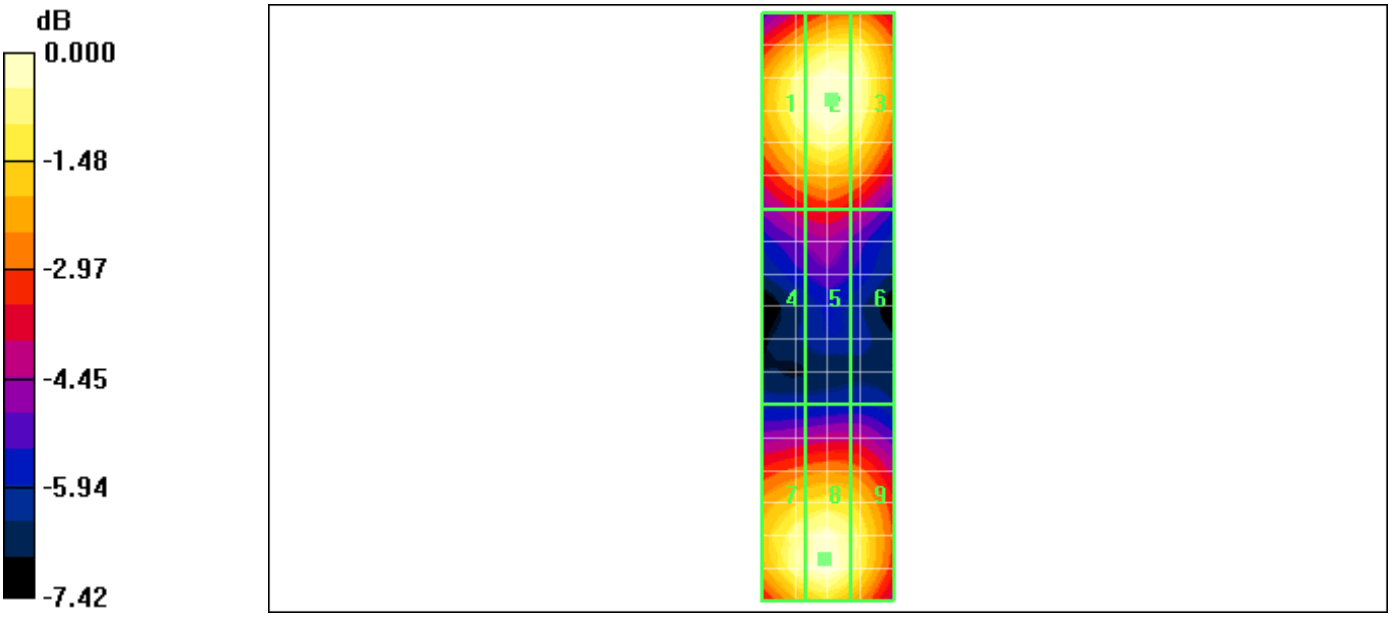
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 57.5 V/m; Power Drift = -0.042 dB

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

Peak E-field in V/m

Grid 1 **48.7 M4**	Grid 2 **50.5 M4**	Grid 3 **49.6 M4**
Grid 4 **33.7 M4**	Grid 5 **35.0 M4**	Grid 6 **33.1 M4**
Grid 7 **49.4 M4**	Grid 8 **50.9 M4**	Grid 9 **48.0 M4**



0 dB = 50.9V/m

Date/Time: 31/10/2009 2:51:25 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_GSM1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: TCoil Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 30.9 V/m; Power Drift = -0.040 dB

Maximum value of Total (measured) = 27.1 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 = 27.2 V/m

Probe Modulation Factor = 1.00

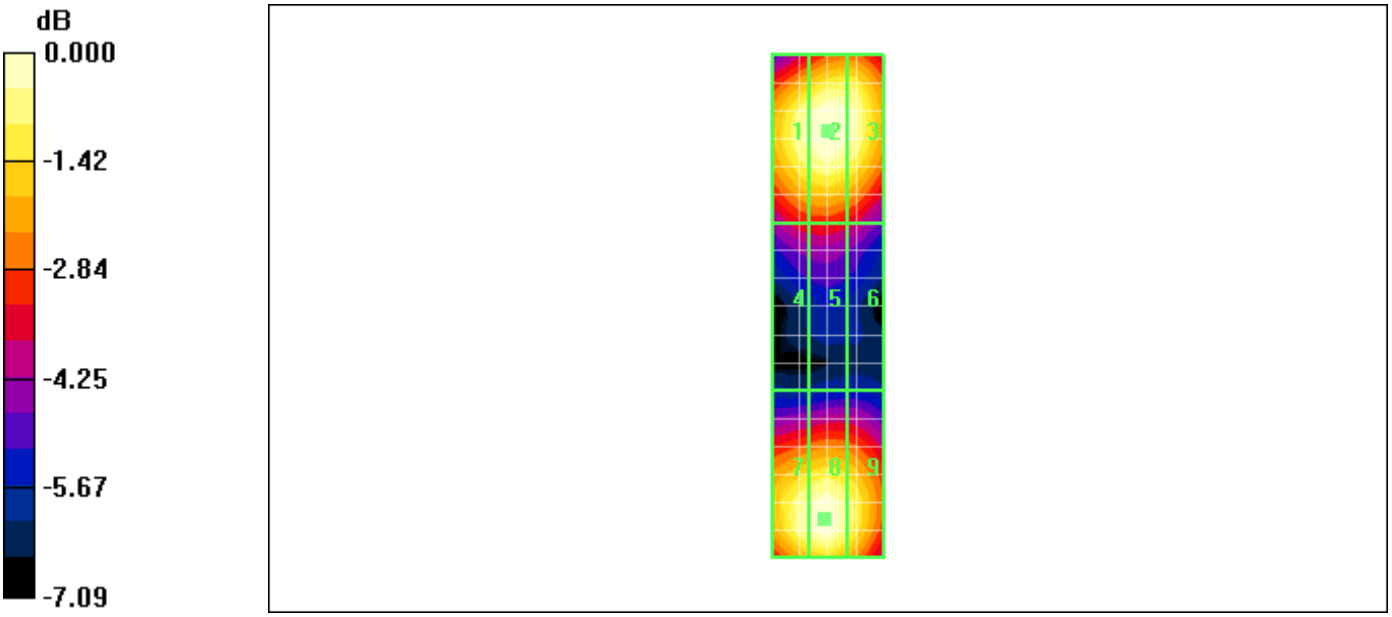
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 30.9 V/m; Power Drift = -0.040 dB

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

Peak E-field in V/m

Grid 1 **26.4 M4**	Grid 2 **27.2 M4**	Grid 3 **26.7 M4**
Grid 4 **18.7 M4**	Grid 5 **19.0 M4**	Grid 6 **18.2 M4**
Grid 7 **26.6 M4**	Grid 8 **27.2 M4**	Grid 9 **25.6 M4**



0 dB = 27.2V/m

Date/Time: 31/10/2009 3:16:25 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 52.1 V/m; Power Drift = -0.007 dB

Maximum value of Total (measured) = 45.5 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 = 46.3 V/m

Probe Modulation Factor = 1.00

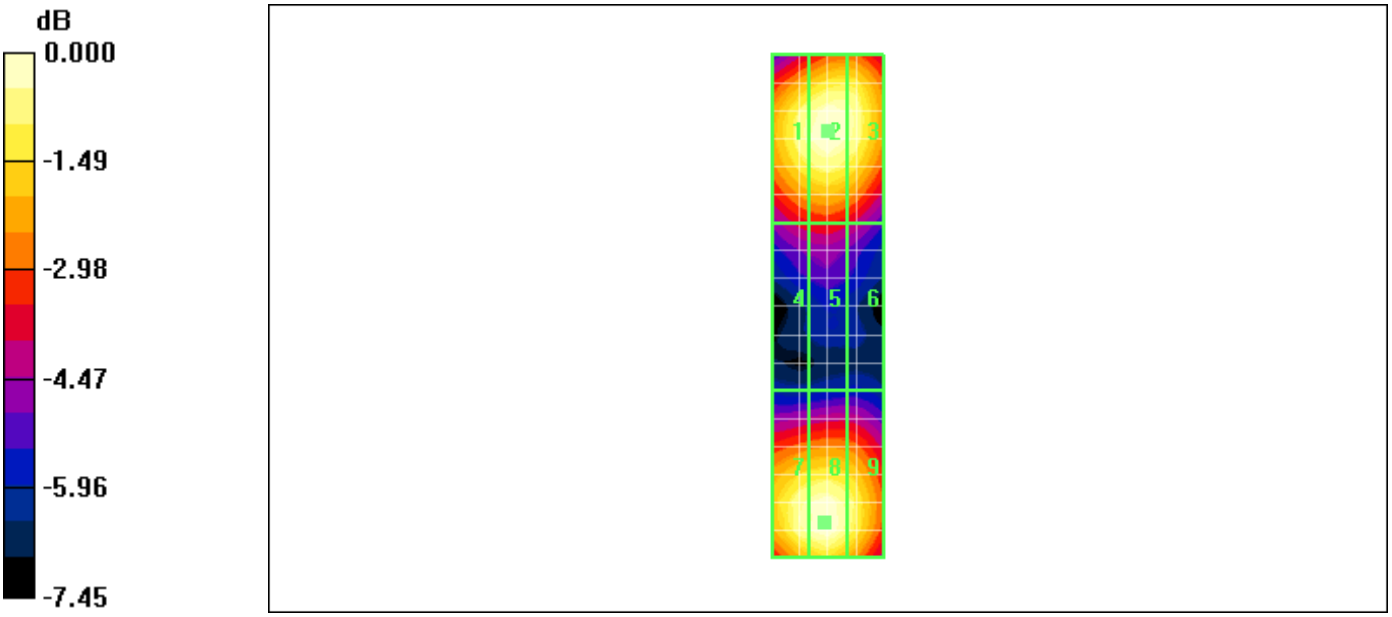
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 52.1 V/m; Power Drift = -0.007 dB

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

Peak E-field in V/m

Grid 1 **44.3 M4**	Grid 2 **45.7 M4**	Grid 3 **44.7 M4**
Grid 4 **30.8 M4**	Grid 5 **31.5 M4**	Grid 6 **30.0 M4**
Grid 7 **45.2 M4**	Grid 8 **46.3 M4**	Grid 9 **43.6 M4**



0 dB = 46.3V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM_1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 33.4 V/m; Power Drift = -0.006 dB

Maximum value of Total (measured) = 29.4 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 = 29.9 V/m

Probe Modulation Factor = 1.00

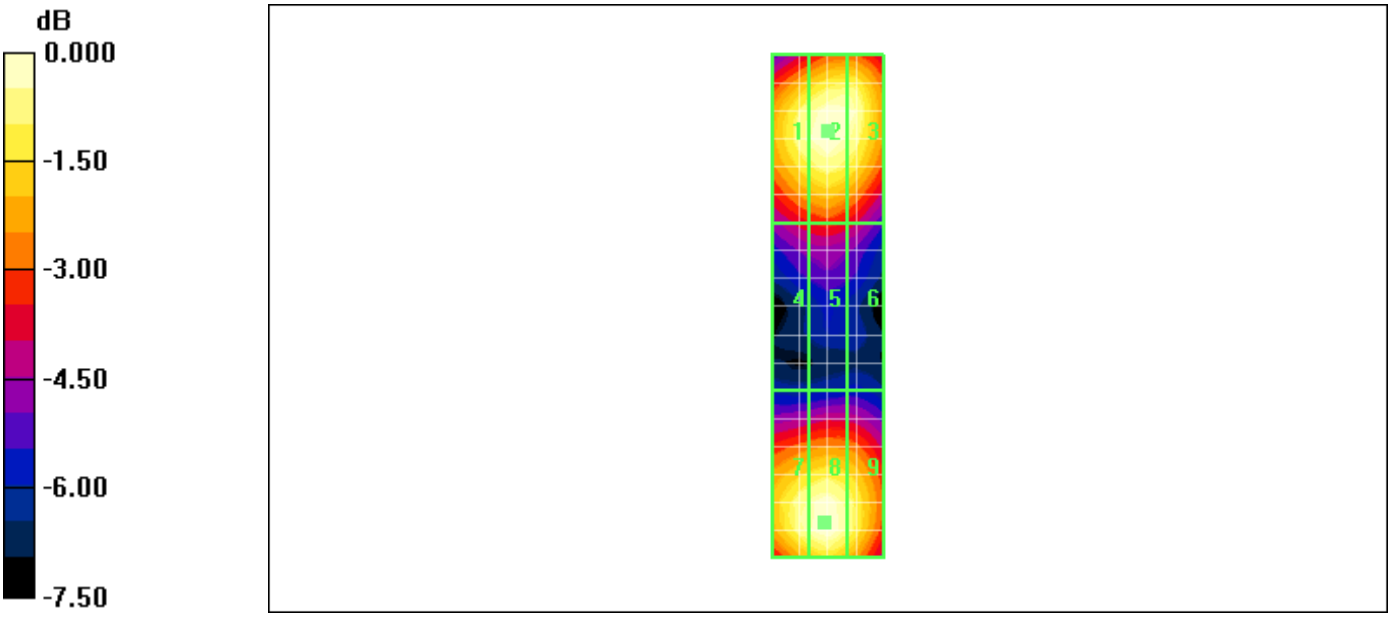
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 33.4 V/m; Power Drift = -0.006 dB

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

Peak E-field in V/m

Grid 1 **28.6 M4**	Grid 2 **29.5 M4**	Grid 3 **29.2 M4**
Grid 4 **19.9 M4**	Grid 5 **20.6 M4**	Grid 6 **19.7 M4**
Grid 7 **29.1 M4**	Grid 8 **29.9 M4**	Grid 9 **28.2 M4**



0 dB = 29.9V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 50.6 V/m; Power Drift = 0.182 dB

Maximum value of Total (measured) = 45.2 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 = 45.9 V/m

Probe Modulation Factor = 1.00

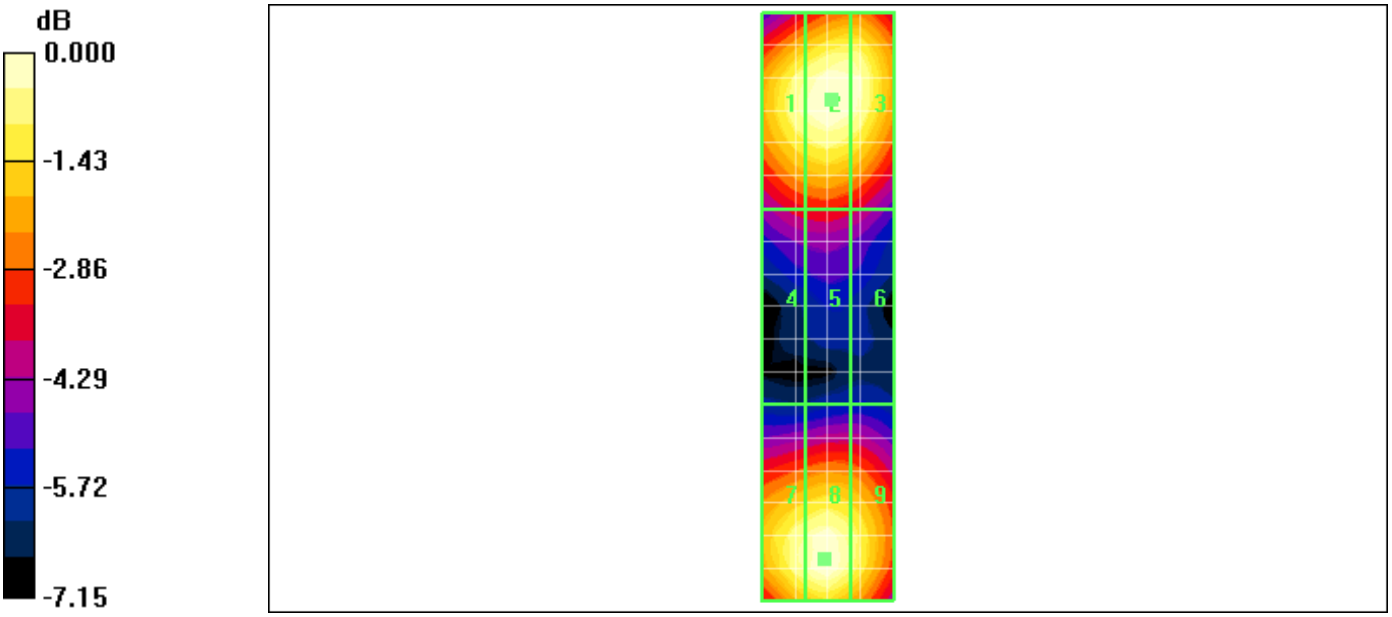
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 50.6 V/m; Power Drift = 0.182 dB

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

Peak E-field in V/m

Grid 1 **44.2 M4**	Grid 2 **45.4 M4**	Grid 3 **45.1 M4**
Grid 4 **31.2 M4**	Grid 5 **31.7 M4**	Grid 6 **30.6 M4**
Grid 7 **44.4 M4**	Grid 8 **45.9 M4**	Grid 9 **43.2 M4**



0 dB = 45.9V/m

Date/Time: 31/10/2009 4:46:09 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW835_20.00dBm

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.488 A/m; Power Drift = -0.126 dB

Maximum value of Total (measured) = 0.456 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 = 0.457 A/m

Probe Modulation Factor = 1.00

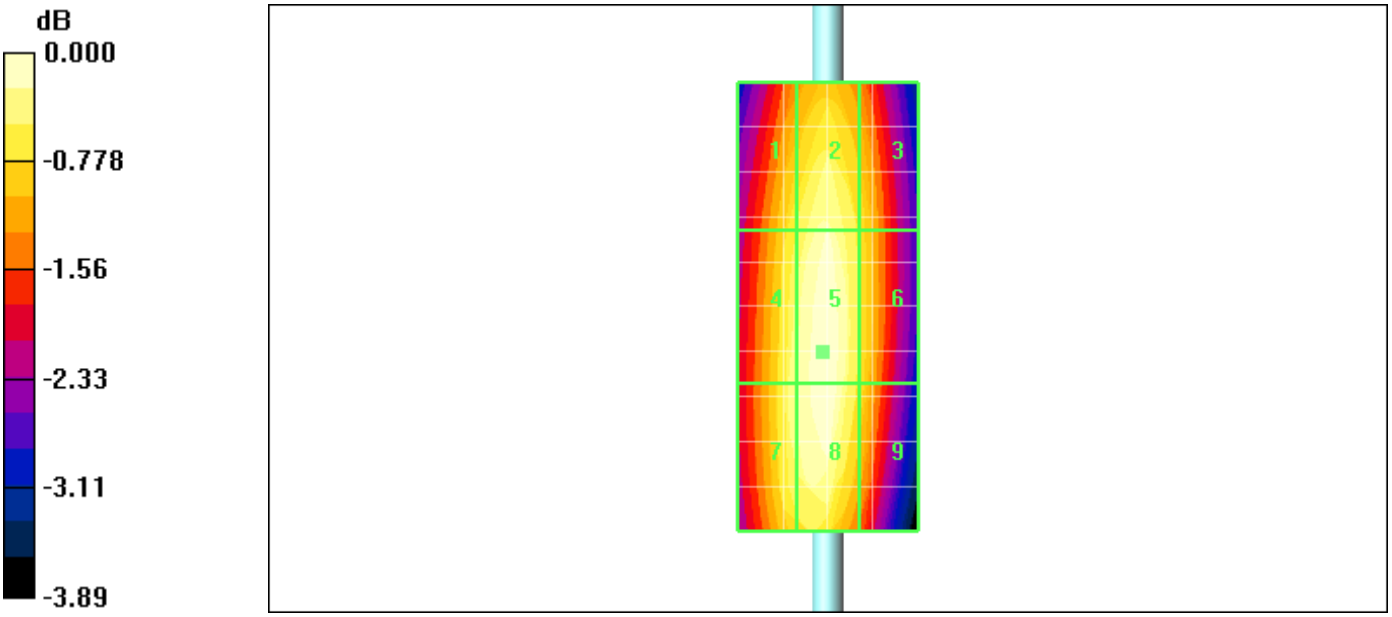
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.488 A/m; Power Drift = -0.126 dB

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

Peak H-field in A/m

Grid 1 **0.431 M4**	Grid 2 **0.445 M4**	Grid 3 **0.426 M4**
Grid 4 **0.444 M4**	Grid 5 **0.457 M4**	Grid 6 **0.431 M4**
Grid 7 **0.444 M4**	Grid 8 **0.456 M4**	Grid 9 **0.426 M4**



0 dB = 0.457A/m

Date/Time: 31/10/2009 4:49:17 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW835_PMF_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.475 A/m; Power Drift = -0.109 dB

Maximum value of Total (measured) = 0.443 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 = 0.446 A/m

Probe Modulation Factor = 1.00

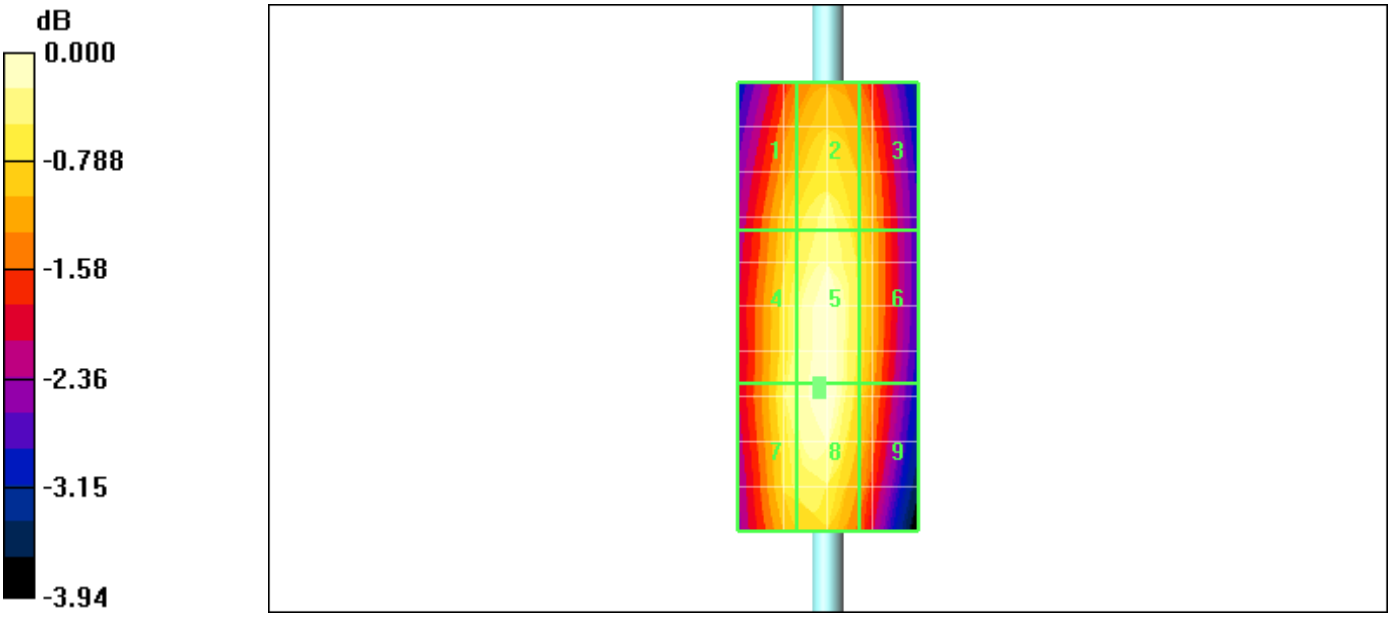
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.475 A/m; Power Drift = -0.109 dB

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

Peak H-field in A/m

Grid 1 **0.417 M4**	Grid 2 **0.428 M4**	Grid 3 **0.413 M4**
Grid 4 **0.434 M4**	Grid 5 **0.446 M4**	Grid 6 **0.418 M4**
Grid 7 **0.435 M4**	Grid 8 **0.446 M4**	Grid 9 **0.413 M4**



0 dB = 0.446A/m

Date/Time: 31/10/2009 4:56:25 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM835_PMF_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 (5x13x1):

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.304 A/m; Power Drift = -0.104 dB

Maximum value of Total (measured) = 0.284 A/m

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 = 0.285 A/m

Probe Modulation Factor = 1.00

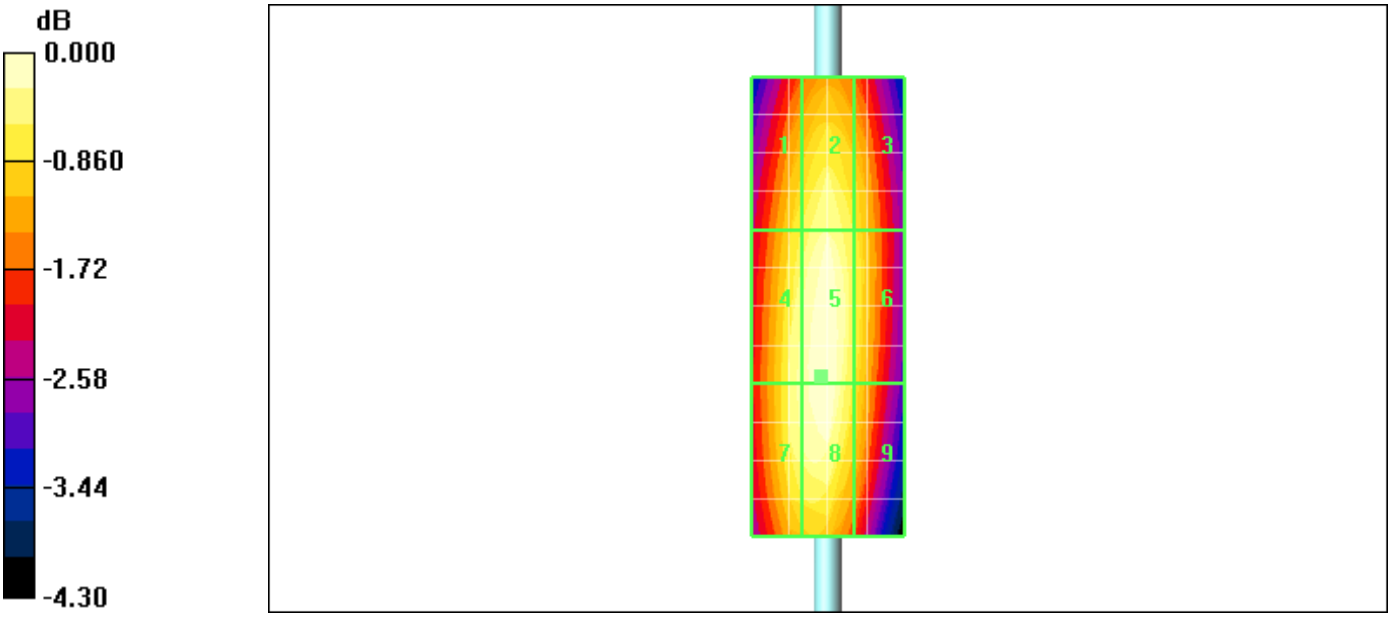
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.304 A/m; Power Drift = -0.104 dB

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

Peak H-field in A/m

Grid 1 **0.267 M4**	Grid 2 **0.276 M4**	Grid 3 **0.265 M4**
Grid 4 **0.279 M4**	Grid 5 **0.285 M4**	Grid 6 **0.269 M4**
Grid 7 **0.279 M4**	Grid 8 **0.285 M4**	Grid 9 **0.264 M4**



0 dB = 0.285A/m

Date/Time: 31/10/2009 5:08:40 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_GSM835

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: GSM 850; Frequency: 835 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

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 (5x13x1):

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.171 A/m; Power Drift = 0.055 dB

Maximum value of Total (measured) = 0.160 A/m

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 = 0.161 A/m

Probe Modulation Factor = 1.00

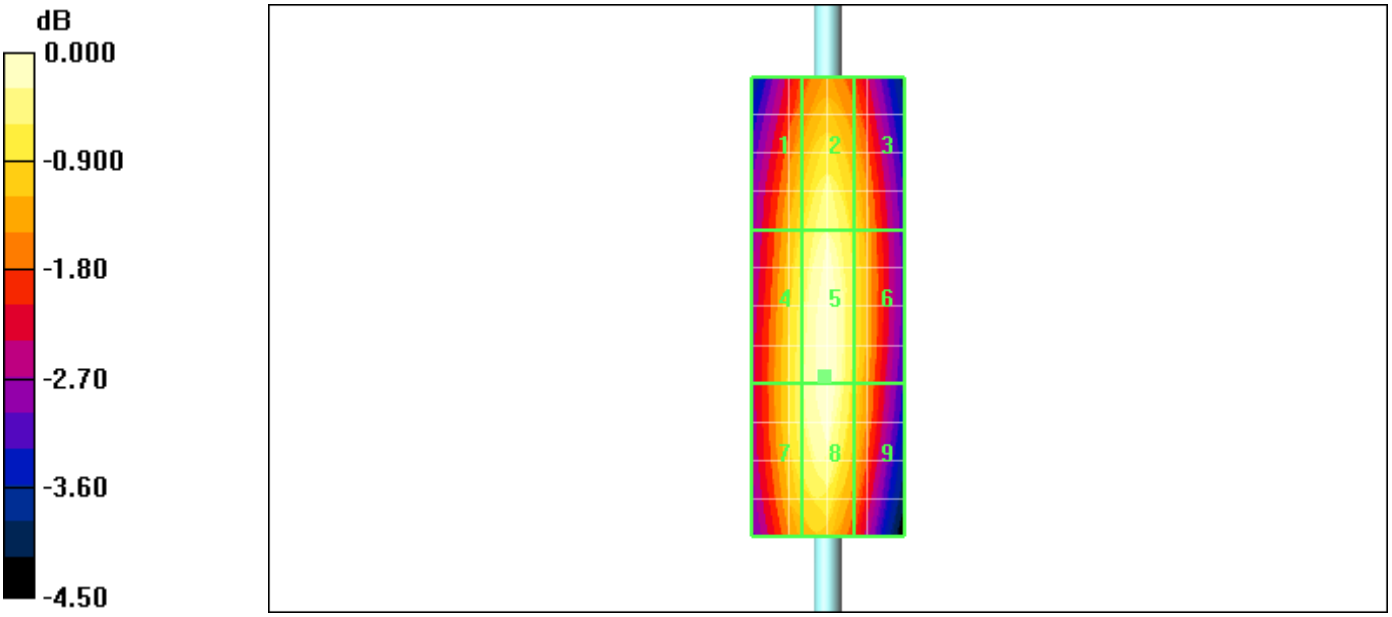
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.171 A/m; Power Drift = 0.055 dB

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

Peak H-field in A/m

Grid 1 **0.148 M4**	Grid 2 **0.155 M4**	Grid 3 **0.147 M4**
Grid 4 **0.154 M4**	Grid 5 **0.161 M4**	Grid 6 **0.150 M4**
Grid 7 **0.154 M4**	Grid 8 **0.161 M4**	Grid 9 **0.147 M4**



0 dB = 0.161A/m

Date/Time: 31/10/2009 4:52:15 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW835_PMF_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.200 A/m; Power Drift = -0.056 dB

Maximum value of Total (measured) = 0.188 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 = 0.189 A/m

Probe Modulation Factor = 1.00

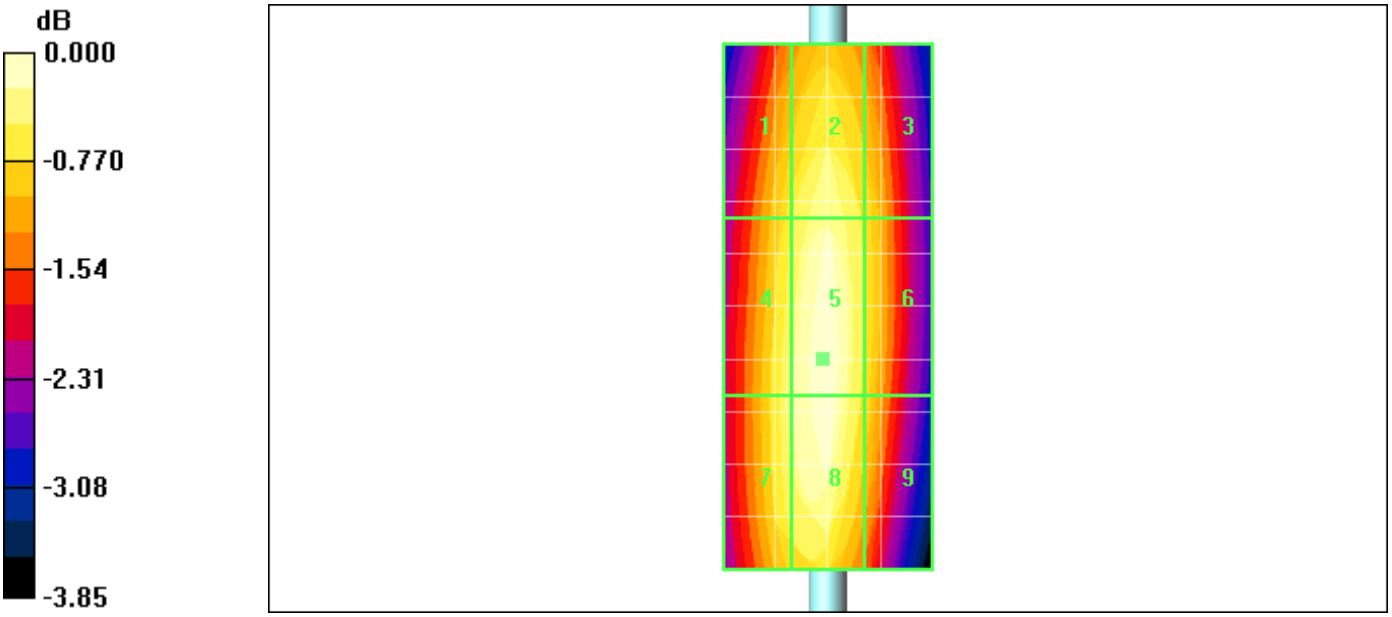
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.200 A/m; Power Drift = -0.056 dB

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

Peak H-field in A/m

Grid 1 **0.178 M4**	Grid 2 **0.183 M4**	Grid 3 **0.176 M4**
Grid 4 **0.183 M4**	Grid 5 **0.189 M4**	Grid 6 **0.178 M4**
Grid 7 **0.183 M4**	Grid 8 **0.188 M4**	Grid 9 **0.176 M4**



0 dB = 0.189A/m

Date/Time: 31/10/2009 4:59:46 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM835_PMF_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 (5x13x1):

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.142 A/m; Power Drift = 0.070 dB

Maximum value of Total (measured) = 0.135 A/m

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 = 0.135 A/m

Probe Modulation Factor = 1.00

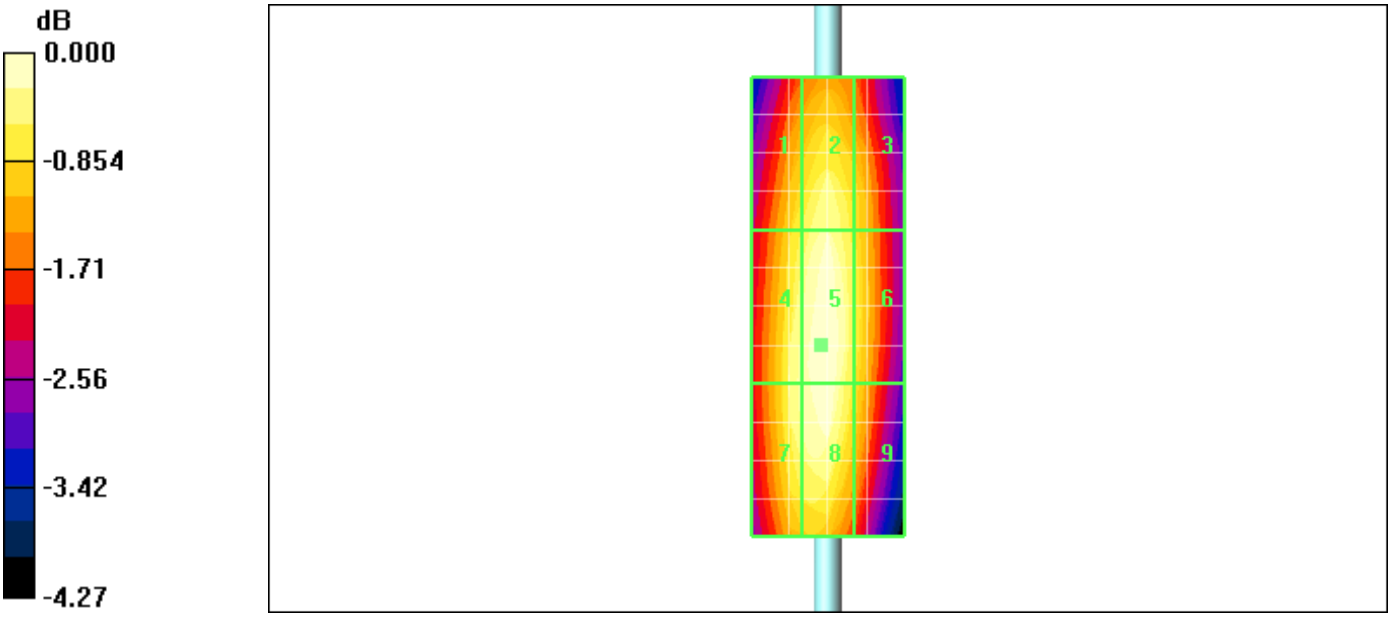
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.142 A/m; Power Drift = 0.070 dB

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

Peak H-field in A/m

Grid 1 **0.127 M4**	Grid 2 **0.131 M4**	Grid 3 **0.125 M4**
Grid 4 **0.132 M4**	Grid 5 **0.135 M4**	Grid 6 **0.127 M4**
Grid 7 **0.132 M4**	Grid 8 **0.134 M4**	Grid 9 **0.125 M4**



0 dB = 0.135A/m

Date/Time: 31/10/2009 5:04:09 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA835

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: Not Specified

Communication System: CDMA 800; Frequency: 835 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.191 A/m; Power Drift = -0.078 dB

Maximum value of Total (measured) = 0.179 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 = 0.179 A/m

Probe Modulation Factor = 1.00

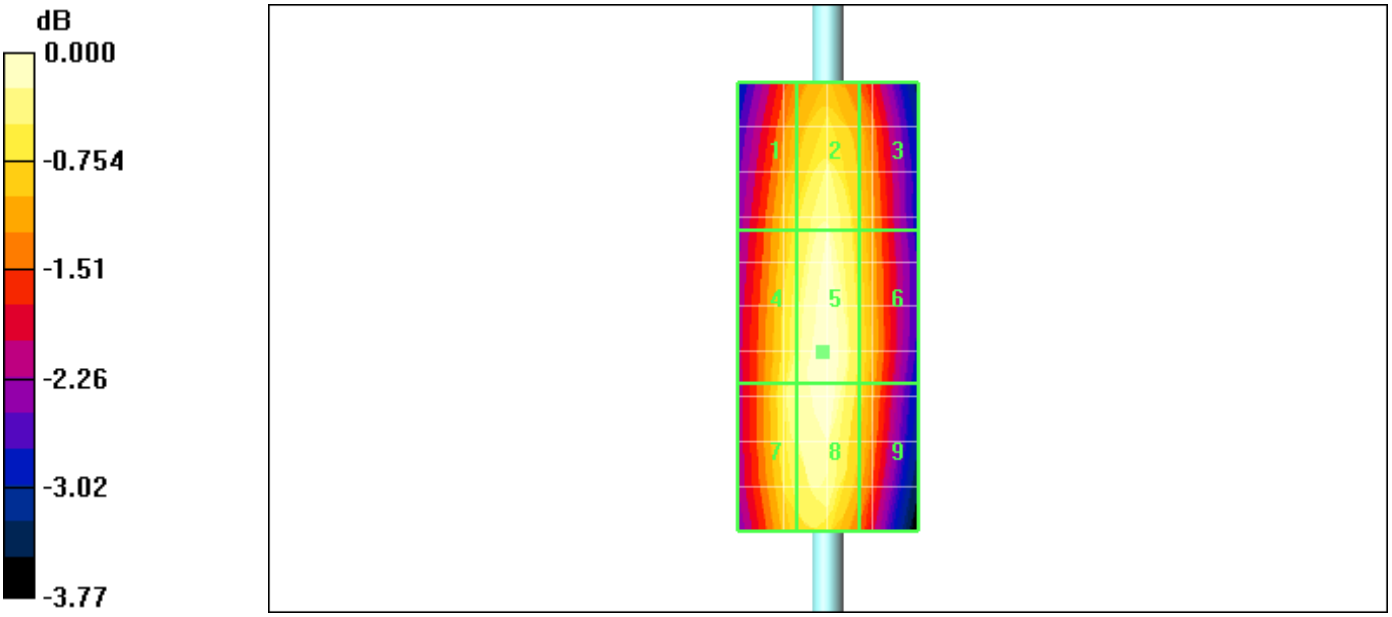
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.191 A/m; Power Drift = -0.078 dB

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

Peak H-field in A/m

Grid 1 **0.169 M4**	Grid 2 **0.174 M4**	Grid 3 **0.166 M4**
Grid 4 **0.174 M4**	Grid 5 **0.179 M4**	Grid 6 **0.169 M4**
Grid 7 **0.175 M4**	Grid 8 **0.178 M4**	Grid 9 **0.167 M4**



0 dB = 0.179A/m

Date/Time: 31/10/2009 3:51:17 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW1880_20.00dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 (5x13x1):

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.461 A/m; Power Drift = 0.037 dB

Maximum value of Total (measured) = 0.435 A/m

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x121x1):

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

Maximum value of peak Total field = 0.436 A/m

Probe Modulation Factor = 1.00

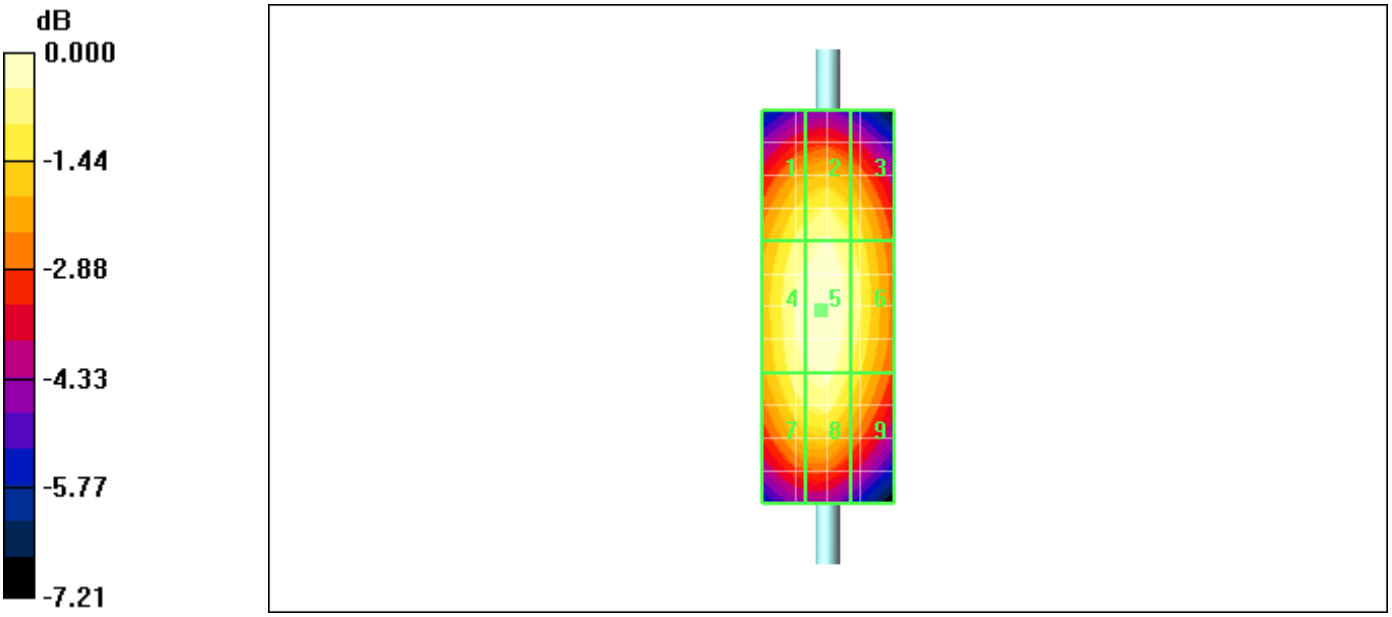
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.461 A/m; Power Drift = 0.037 dB

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

Peak H-field in A/m

Grid 1 **0.406 M2**	Grid 2 **0.417 M2**	Grid 3 **0.394 M2**
Grid 4 **0.425 M2**	Grid 5 **0.436 M2**	Grid 6 **0.409 M2**
Grid 7 **0.414 M2**	Grid 8 **0.422 M2**	Grid 9 **0.389 M2**



0 dB = 0.436A/m

Date/Time: 31/10/2009 3:55:16 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW1880_PMF_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.288 A/m; Power Drift = -0.101 dB

Maximum value of Total (measured) = 0.269 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 = 0.270 A/m

Probe Modulation Factor = 1.00

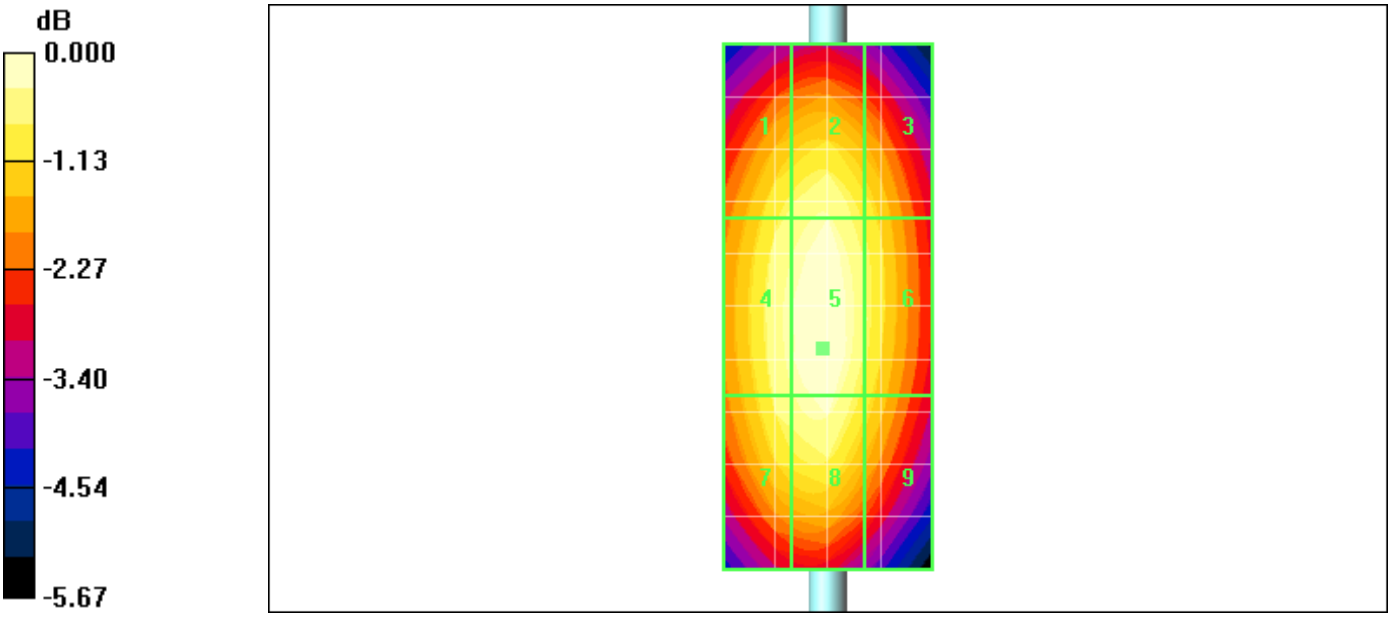
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.288 A/m; Power Drift = -0.101 dB

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

Peak H-field in A/m

Grid 1 **0.253 M3**	Grid 2 **0.259 M3**	Grid 3 **0.246 M3**
Grid 4 **0.262 M3**	Grid 5 **0.270 M3**	Grid 6 **0.252 M3**
Grid 7 **0.257 M3**	Grid 8 **0.263 M3**	Grid 9 **0.244 M3**



0 dB = 0.270A/m

Date/Time: 31/10/2009 4:03:31 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM1880_PMF_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.192 A/m; Power Drift = 0.075 dB

Maximum value of Total (measured) = 0.180 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 = 0.180 A/m

Probe Modulation Factor = 1.00

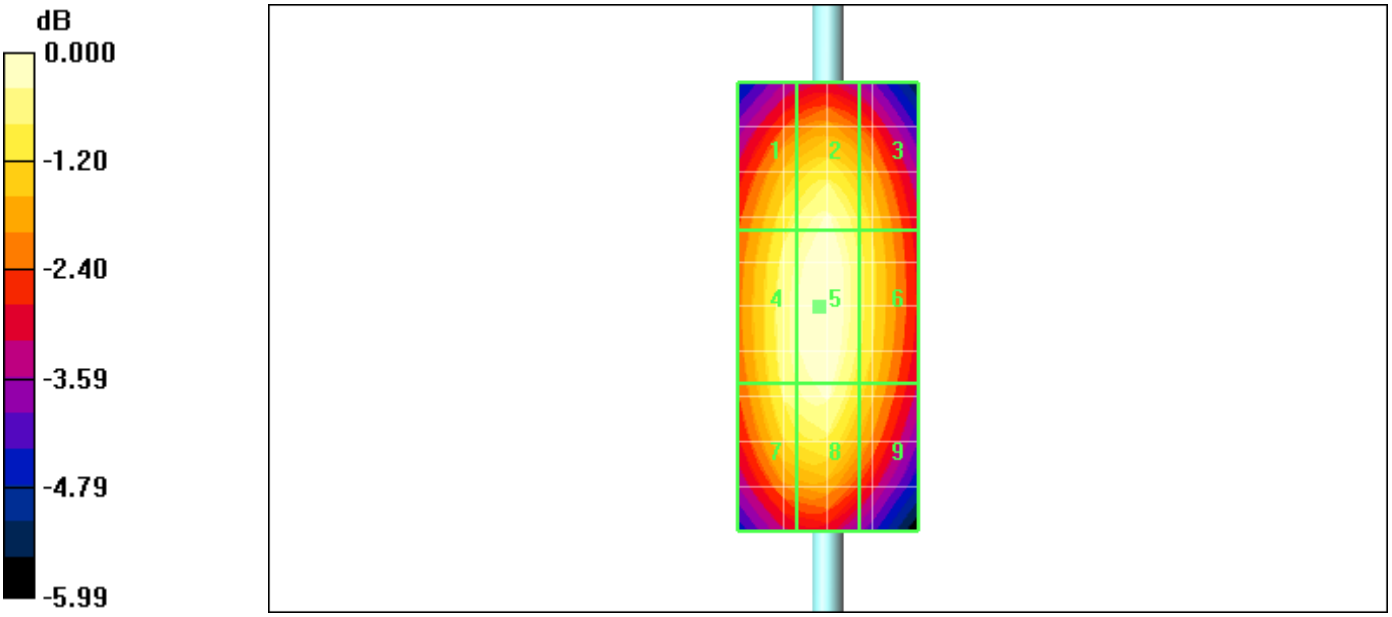
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.192 A/m; Power Drift = 0.075 dB

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

Peak H-field in A/m

Grid 1 **0.169 M4**	Grid 2 **0.175 M4**	Grid 3 **0.164 M4**
Grid 4 **0.175 M4**	Grid 5 **0.180 M4**	Grid 6 **0.167 M4**
Grid 7 **0.172 M4**	Grid 8 **0.176 M4**	Grid 9 **0.161 M4**



0 dB = 0.180A/m

Date/Time: 31/10/2009 4:11:45 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_GSM1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: GSM 1900; Frequency: 1880 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

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.125 A/m; Power Drift = 0.051 dB

Maximum value of Total (measured) = 0.116 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 = 0.116 A/m

Probe Modulation Factor = 1.00

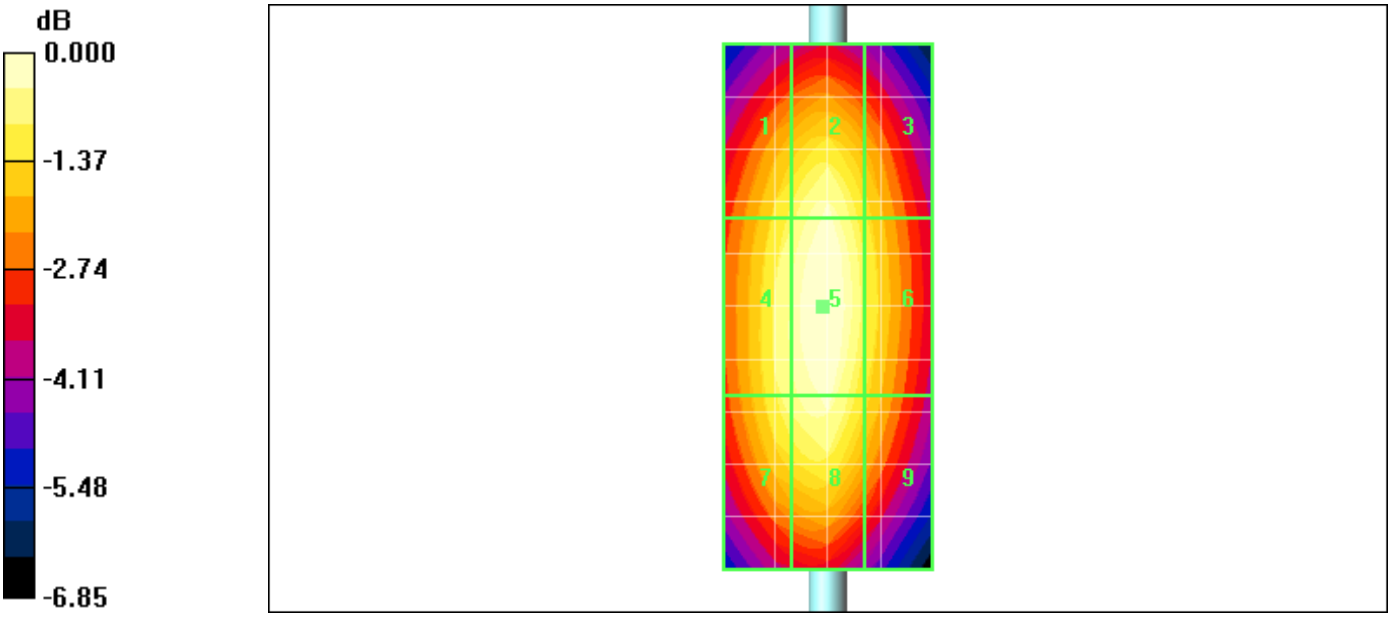
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.125 A/m; Power Drift = 0.051 dB

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

Peak H-field in A/m

Grid 1 **0.106 M4**	Grid 2 **0.112 M4**	Grid 3 **0.102 M4**
Grid 4 **0.111 M4**	Grid 5 **0.116 M4**	Grid 6 **0.105 M4**
Grid 7 **0.109 M4**	Grid 8 **0.112 M4**	Grid 9 **0.101 M4**



0 dB = 0.116A/m

Date/Time: 31/10/2009 3:59:32 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.164 A/m; Power Drift = -0.013 dB

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

Probe Modulation Factor = 1.00

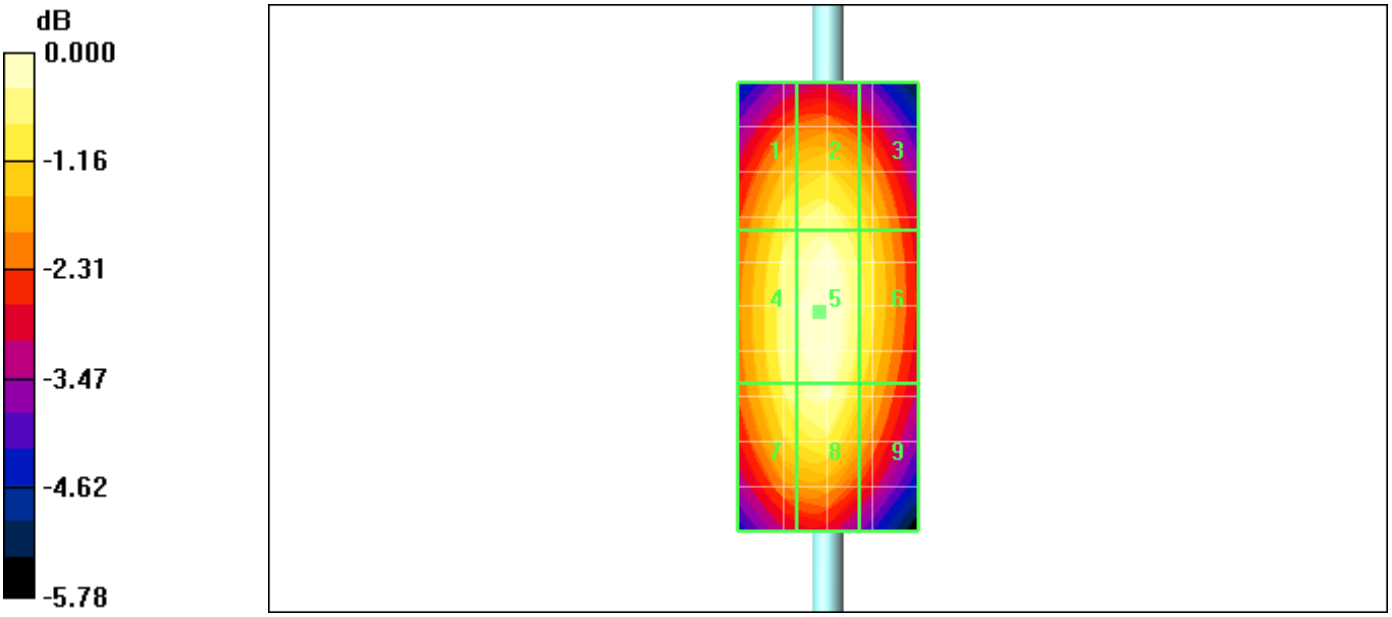
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.164 A/m; Power Drift = -0.013 dB

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

Peak H-field in A/m

Grid 1 **0.146 M4**	Grid 2 **0.150 M4**	Grid 3 **0.142 M4**
Grid 4 **0.152 M4**	Grid 5 **0.157 M4**	Grid 6 **0.146 M4**
Grid 7 **0.149 M4**	Grid 8 **0.153 M4**	Grid 9 **0.140 M4**



0 dB = 0.157A/m

Date/Time: 31/10/2009 4:06:37 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM1880_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.110 A/m; Power Drift = -0.053 dB

Maximum value of Total (measured) = 0.103 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 = 0.104 A/m

Probe Modulation Factor = 1.00

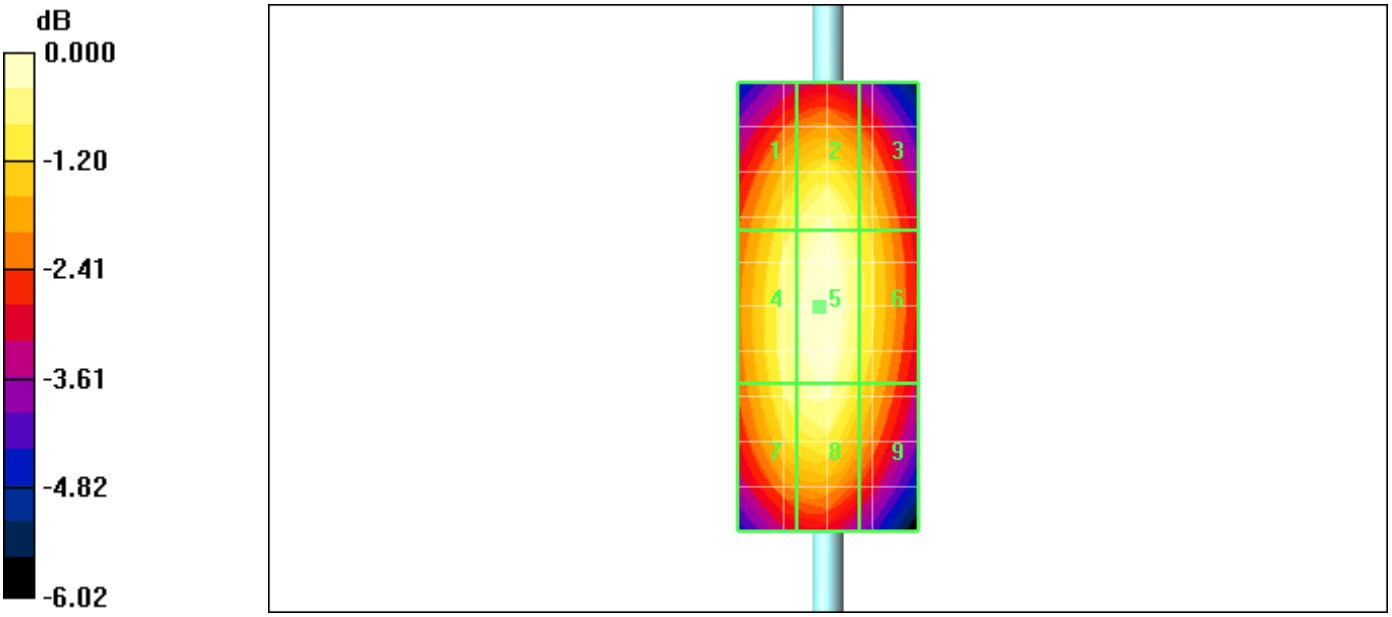
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.110 A/m; Power Drift = -0.053 dB

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

Peak H-field in A/m

Grid 1 **0.097 M4**	Grid 2 **0.101 M4**	Grid 3 **0.094 M4**
Grid 4 **0.101 M4**	Grid 5 **0.104 M4**	Grid 6 **0.096 M4**
Grid 7 **0.099 M4**	Grid 8 **0.101 M4**	Grid 9 **0.093 M4**



0 dB = 0.104A/m

Date/Time: 31/10/2009 4:41:00 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: Not Specified

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 (5x10x1):

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.174 A/m; Power Drift = -0.026 dB

Maximum value of Total (measured) = 0.163 A/m

H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x91x1):

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

Maximum value of peak Total field = 0.163 A/m

Probe Modulation Factor = 1.00

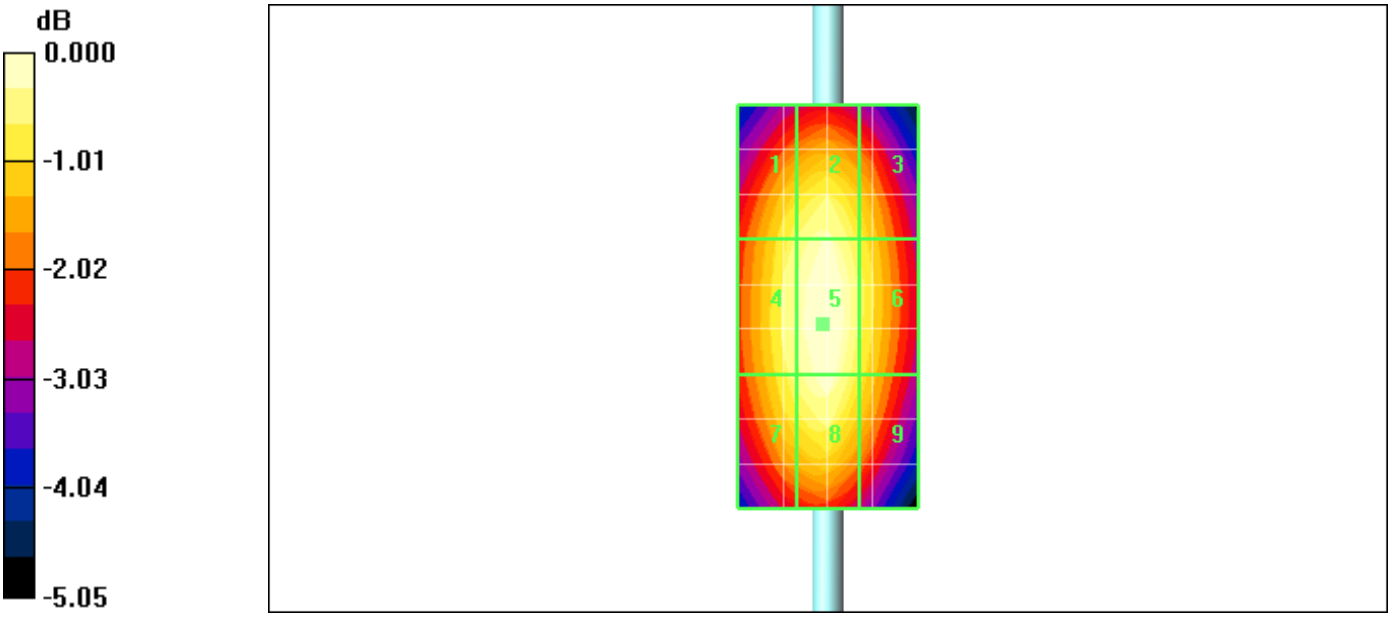
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.174 A/m; Power Drift = -0.026 dB

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

Peak H-field in A/m

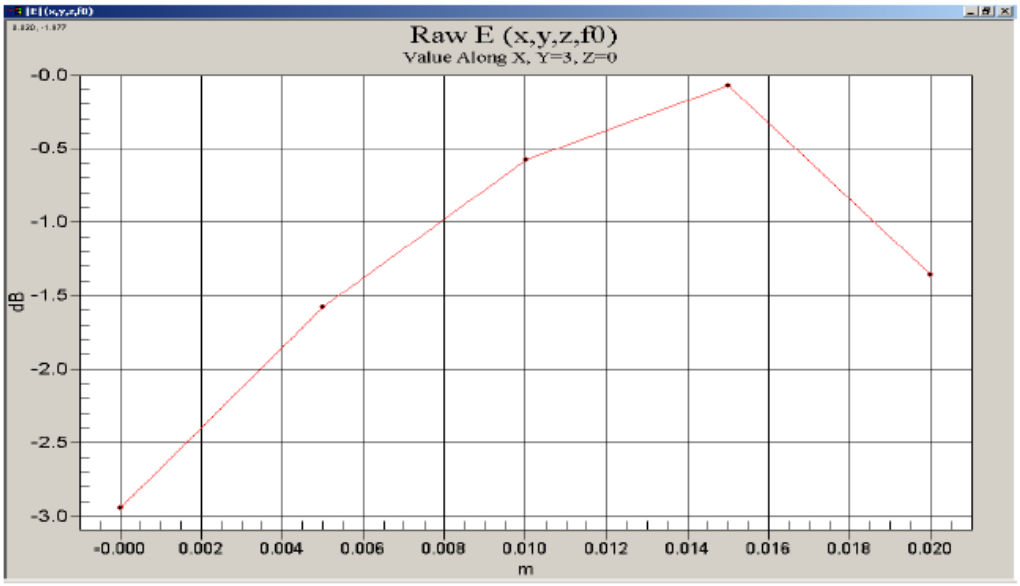
Grid 1 **0.154 M4**	Grid 2 **0.158 M4**	Grid 3 **0.150 M4**
Grid 4 **0.158 M4**	Grid 5 **0.163 M4**	Grid 6 **0.153 M4**
Grid 7 **0.155 M4**	Grid 8 **0.161 M4**	Grid 9 **0.150 M4**



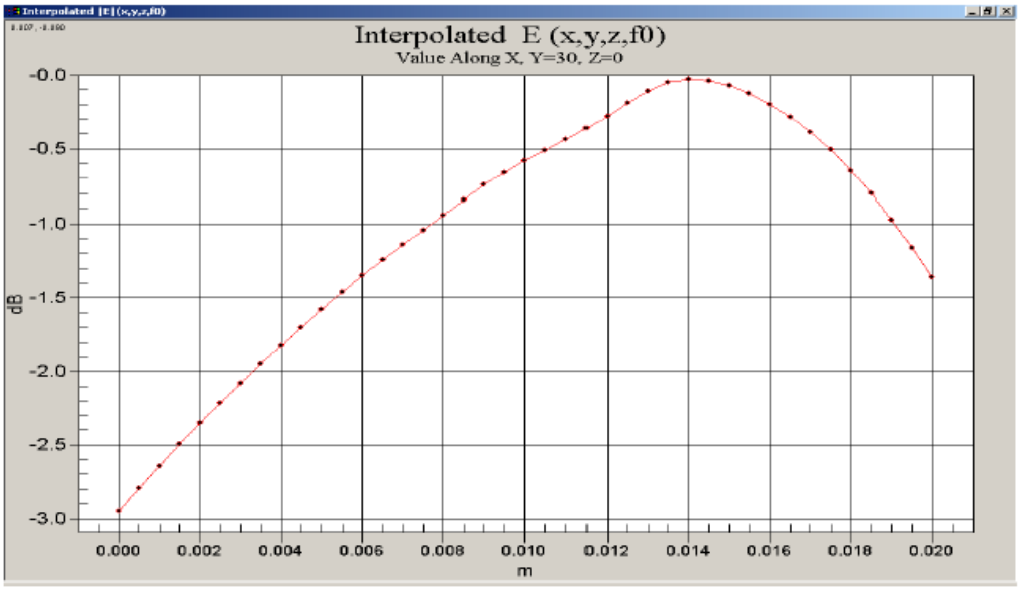
0 dB = 0.163A/m

Justification of Step Size and Interpolation

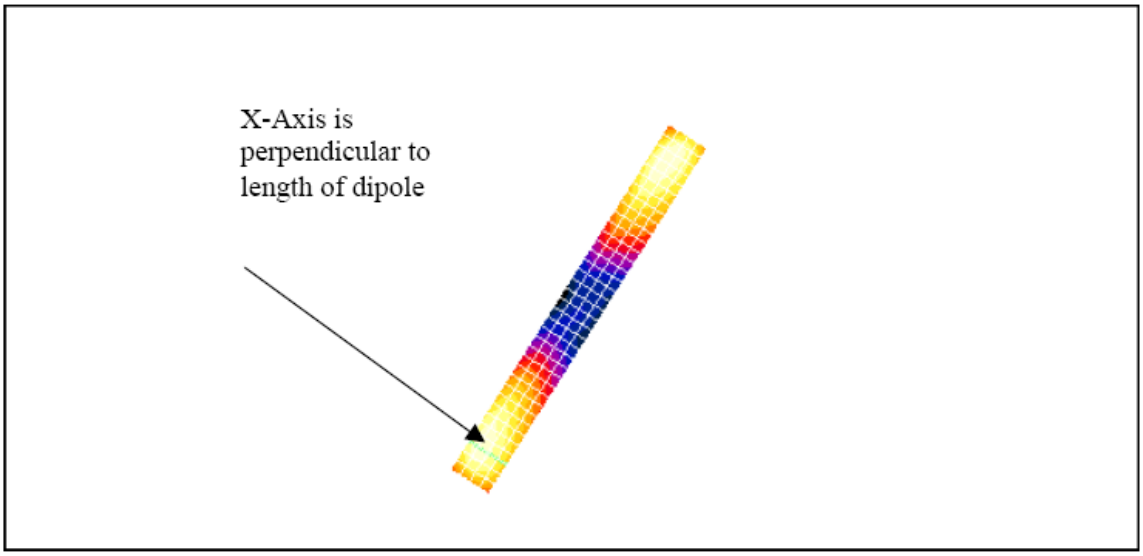
This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.



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: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: H Device Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (5x19x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total (measured) = 134.8 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of Total field (slot averaged) = 131.0 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

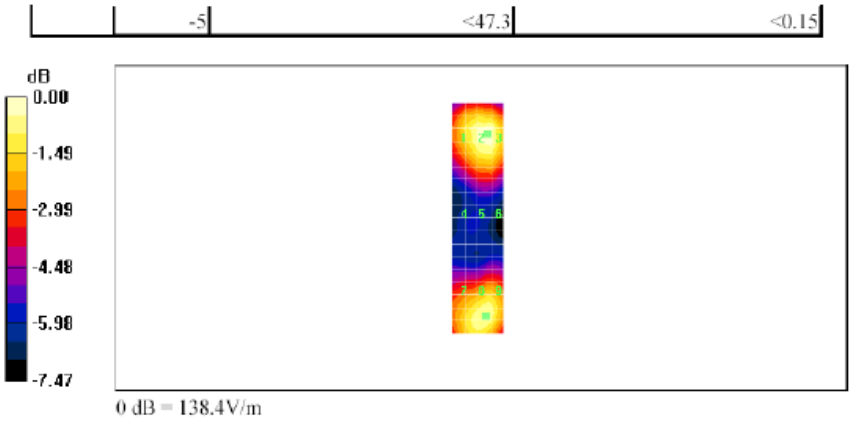
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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

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



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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

DASY4 Configuration:
- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 10/12/2004
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 138.0 V/m

E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 131.2 V/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

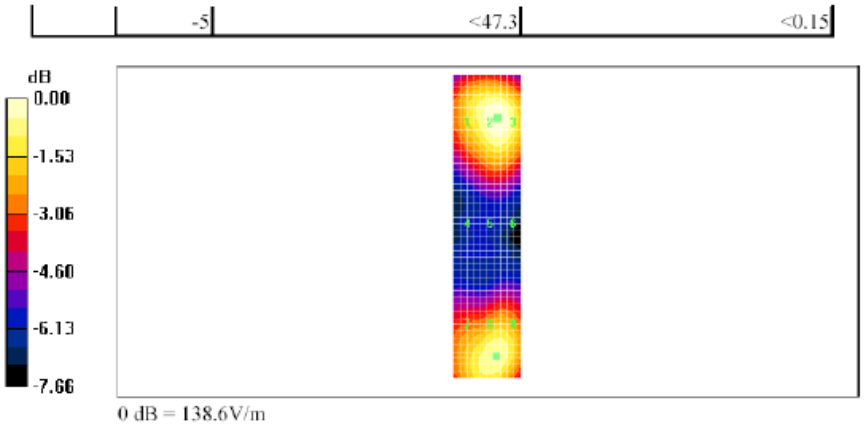
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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

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



0 dB = 138.6V/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

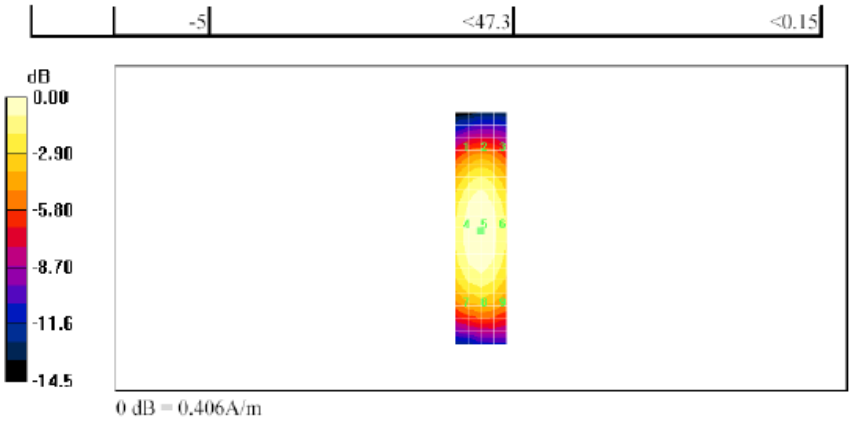
H in A/m (Time averaged)

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

H in A/m (Slot averaged)

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

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



0 dB = 0.406A/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (11x46x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total (measured) = 0.406 A/m

H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (101x451x1):
Measurement grid: dx=2mm, dy=2mm
Maximum value of Total field (slot averaged) = 0.406 A/m
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

H in A/m (Time averaged)

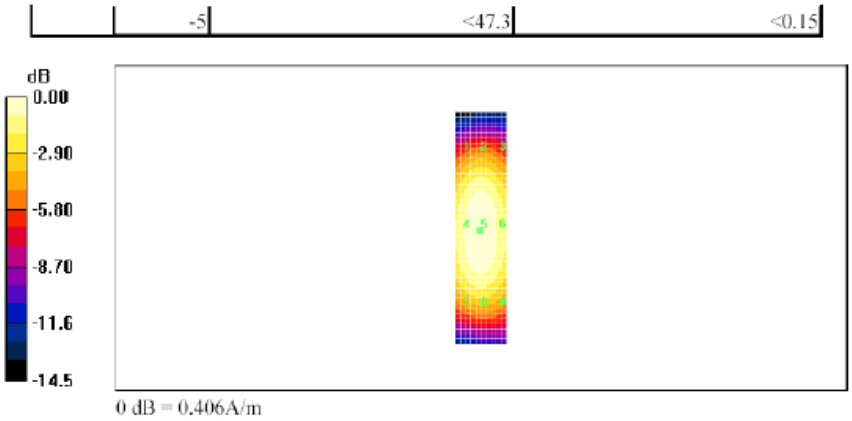
Grid 1 **0.347**	Grid 2 **0.361**	Grid 3 **0.348**
Grid 4 **0.394**	Grid 5 **0.406**	Grid 6 **0.391**
Grid 7 **0.367**	Grid 8 **0.380**	Grid 9 **0.365**

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

Date/Time: 14/07/2005 12:53:40 PM Page 2 of 2



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

A.3 RF emissions plots

Date/Time: 05/11/2009 5:40:59 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM850_low_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 824.2 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

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 29.2 V/m; Power Drift = 0.062 dB

Maximum value of Total (measured) = 24.4 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 = 69.4 V/m

Probe Modulation Factor = 2.84

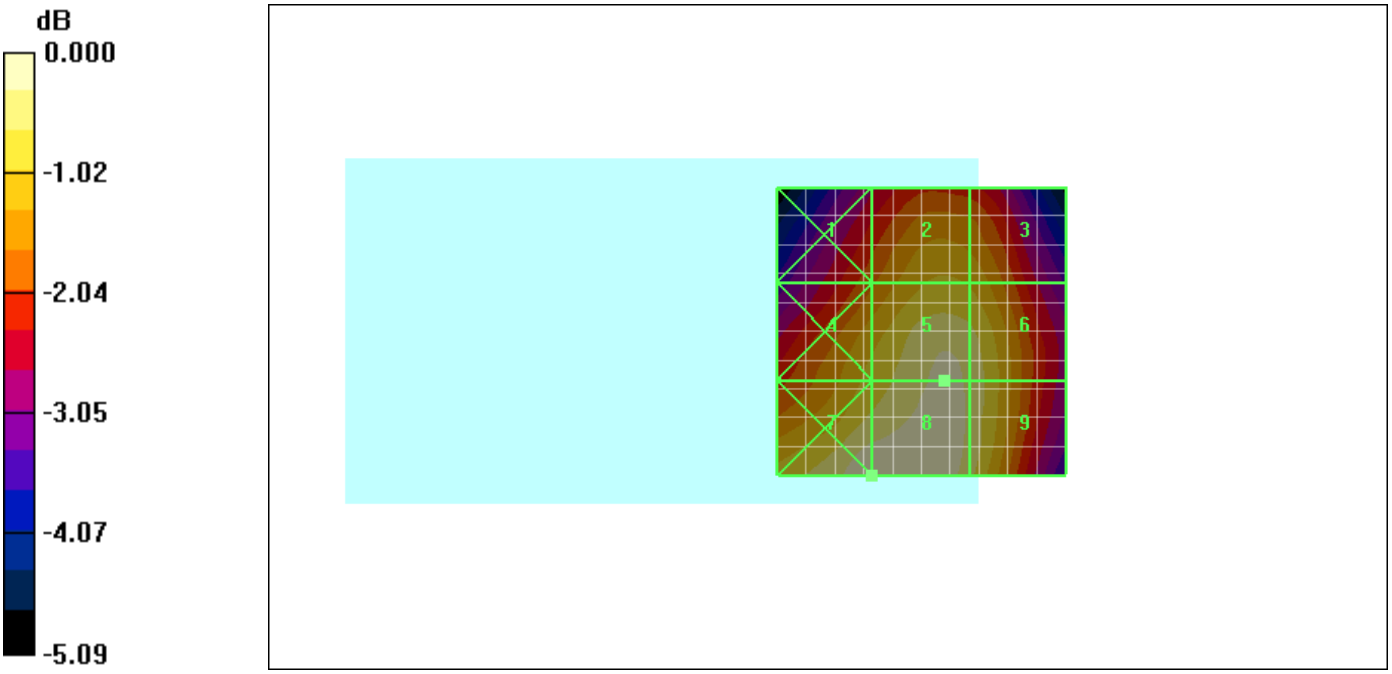
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 29.2 V/m; Power Drift = 0.062 dB

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

Peak E-field in V/m

Grid 1 **56.7 M4**	Grid 2 **62.2 M4**	Grid 3 **61.4 M4**
Grid 4 **62.8 M4**	Grid 5 **67.4 M4**	Grid 6 **66.1 M4**
Grid 7 **69.4 M4**	Grid 8 **69.4 M4**	Grid 9 **66.3 M4**



0 dB = 69.4V/m

Date/Time: 05/11/2009 5:51:50 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM850_mid_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

Communication System: GSM 850; Frequency: 836.8 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

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 30.9 V/m; Power Drift = -0.041 dB

Maximum value of Total (measured) = 26.0 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 = 74.2 V/m

Probe Modulation Factor = 2.84

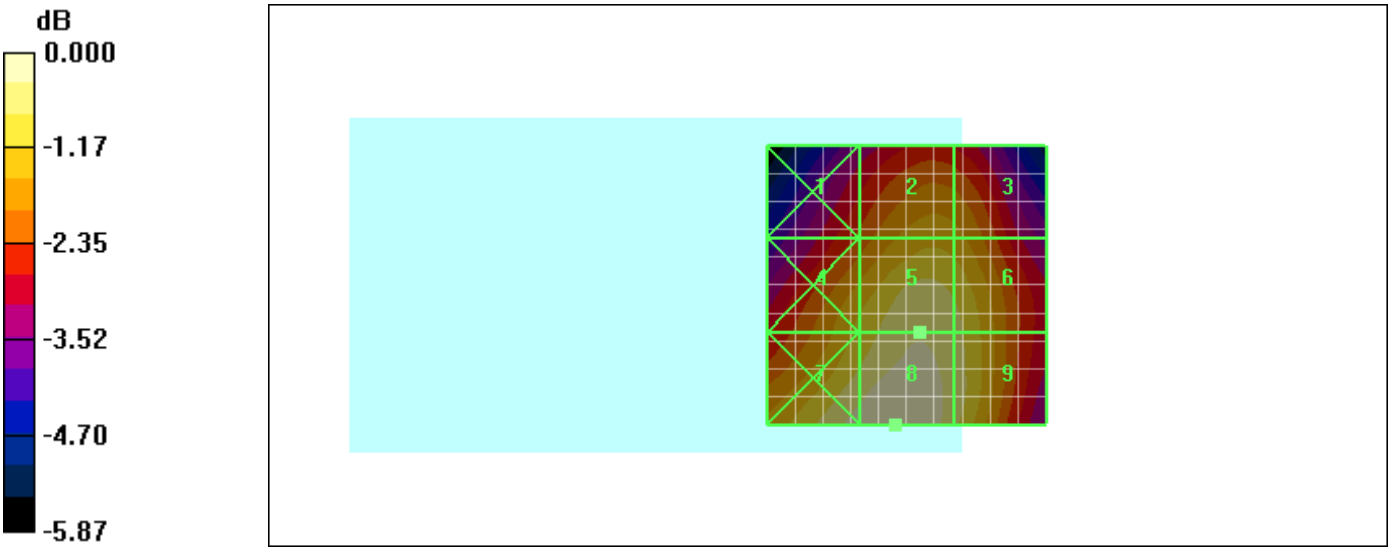
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 30.9 V/m; Power Drift = -0.041 dB

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

Peak E-field in V/m

Grid 1 **57.5 M4**	Grid 2 **63.9 M4**	Grid 3 **63.2 M4**
Grid 4 **65.7 M4**	Grid 5 **70.7 M4**	Grid 6 **69.0 M4**
Grid 7 **72.4 M4**	Grid 8 **74.2 M4**	Grid 9 **69.8 M4**



0 dB = 74.2V/m

Date/Time: 05/11/2009 6:00:42 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM850_high_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 30.3 V/m; Power Drift = 0.024 dB

Maximum value of Total (measured) = 24.6 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 = 70.1 V/m

Probe Modulation Factor = 2.84

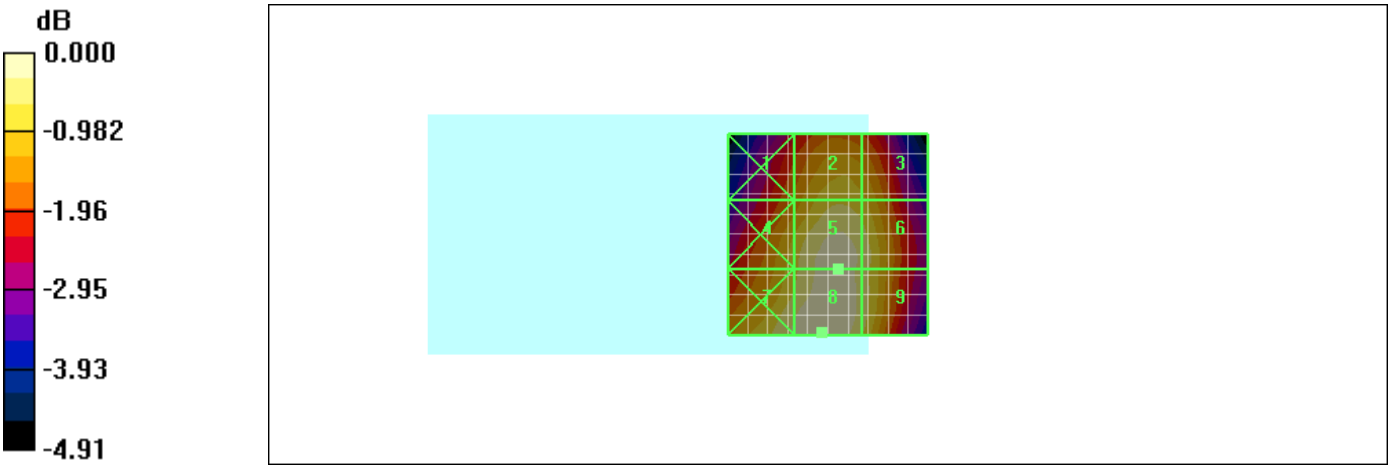
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 30.3 V/m; Power Drift = 0.024 dB

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

Peak E-field in V/m

Grid 1 **58.9 M4**	Grid 2 **64.7 M4**	Grid 3 **63.4 M4**
Grid 4 **64.3 M4**	Grid 5 **68.7 M4**	Grid 6 **67.0 M4**
Grid 7 **68.1 M4**	Grid 8 **70.1 M4**	Grid 9 **66.7 M4**



0 dB = 70.1V/m

Date/Time: 05/11/2009 9:36:29 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA800_low_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

Communication System: CDMA 800; Frequency: 836.52 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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 34.4 V/m; Power Drift = -0.073 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 = 29.8 V/m

Probe Modulation Factor = 1.03

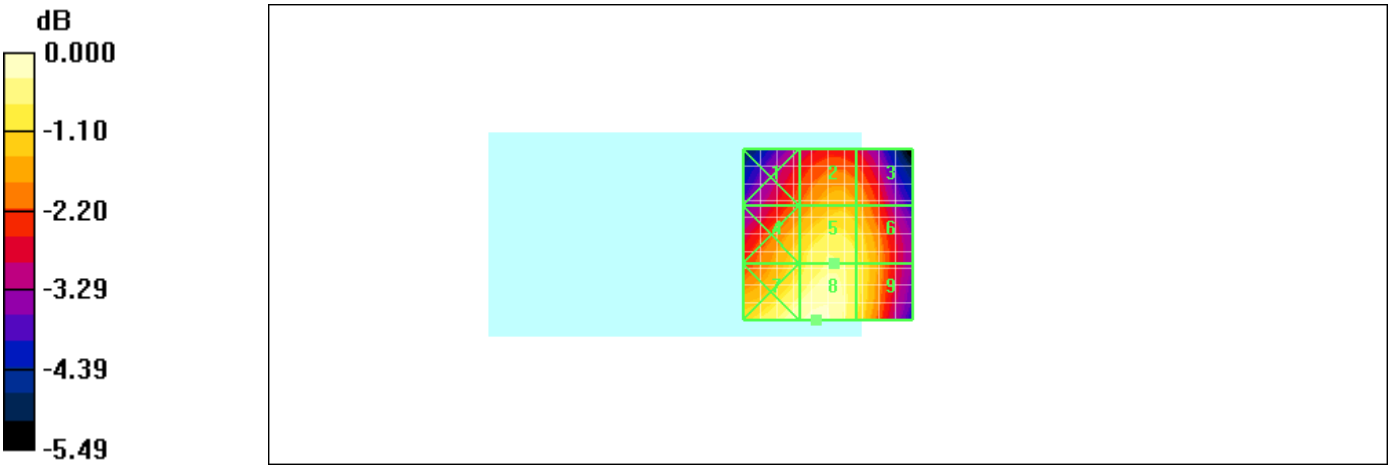
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 34.4 V/m; Power Drift = -0.073 dB

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

Peak E-field in V/m

Grid 1 **24.0 M4**	Grid 2 **25.9 M4**	Grid 3 **25.3 M4**
Grid 4 **26.9 M4**	Grid 5 **28.4 M4**	Grid 6 **27.5 M4**
Grid 7 **29.3 M4**	Grid 8 **29.8 M4**	Grid 9 **27.6 M4**



0 dB = 29.8V/m

Date/Time: 05/11/2009 9:42:29 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA800_mid_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

Communication System: CDMA 800; Frequency: 836.52 MHz;Duty Cycle: 1:1

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 43.0 V/m; Power Drift = -0.207 dB

Maximum value of Total (measured) = 35.7 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 = 36.9 V/m

Probe Modulation Factor = 1.03

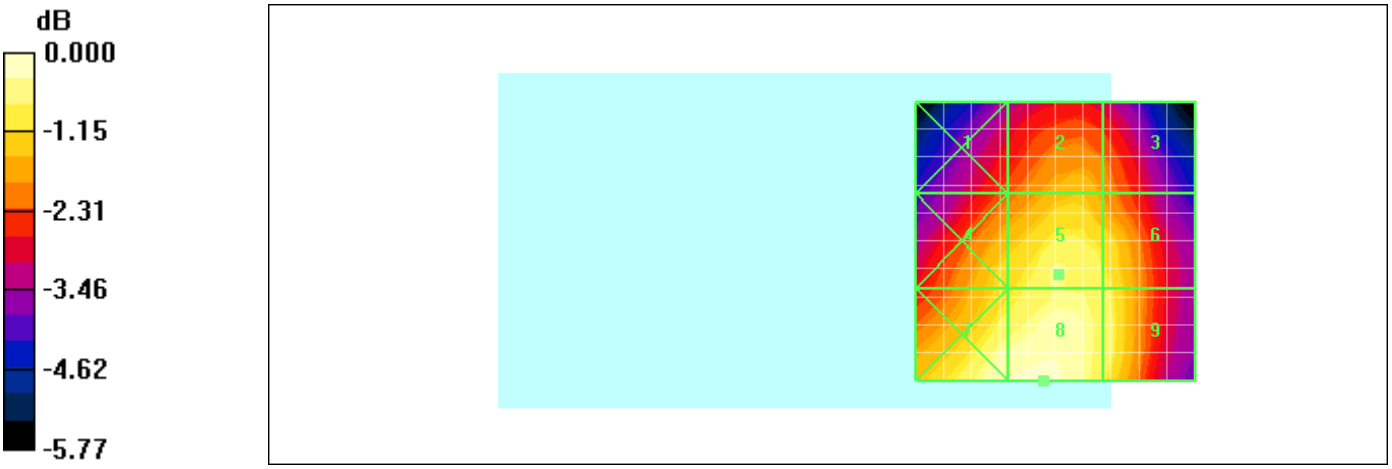
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 43.0 V/m; Power Drift = -0.207 dB

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

Peak E-field in V/m

Grid 1 **29.0 M4**	Grid 2 **31.9 M4**	Grid 3 **30.5 M4**
Grid 4 **33.1 M4**	Grid 5 **35.1 M4**	Grid 6 **34.2 M4**
Grid 7 **36.6 M4**	Grid 8 **36.9 M4**	Grid 9 **34.8 M4**



0 dB = 36.9V/m

Date/Time: 05/11/2009 9:51:58 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA800_high_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

Communication System: CDMA 800; Frequency: 848.52 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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 49.4 V/m; Power Drift = 0.085 dB

Maximum value of Total (measured) = 41.9 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 = 43.4 V/m

Probe Modulation Factor = 1.03

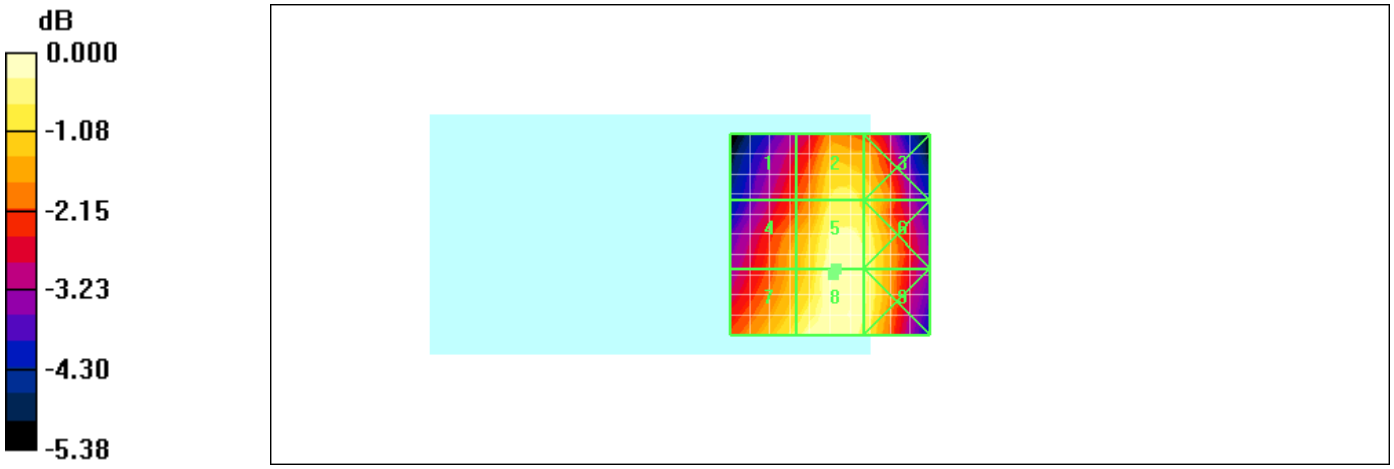
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 49.4 V/m; Power Drift = 0.085 dB

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

Peak E-field in V/m

Grid 1 **34.3 M4**	Grid 2 **40.6 M4**	Grid 3 **39.7 M4**
Grid 4 **37.5 M4**	Grid 5 **43.1 M4**	Grid 6 **41.7 M4**
Grid 7 **40.5 M4**	Grid 8 **43.4 M4**	Grid 9 **41.8 M4**



0 dB = 43.4V/m

Date/Time: 05/11/2009 8:51:59 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM1900_low_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 15.4 V/m; Power Drift = 0.034 dB

Maximum value of Total (measured) = 24.9 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 = 73.2 V/m

Probe Modulation Factor = 2.94

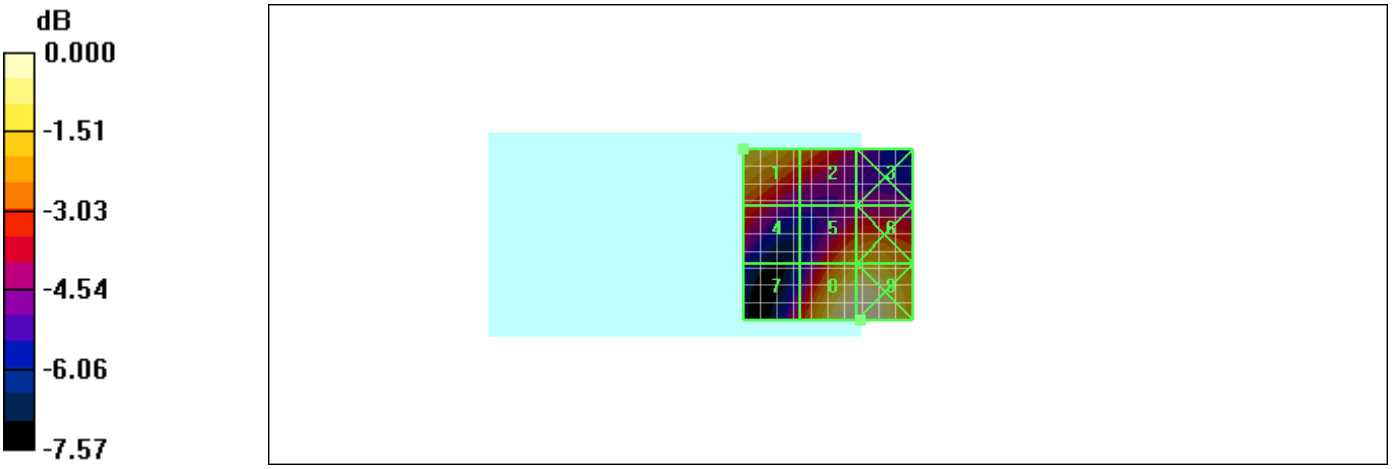
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 15.4 V/m; Power Drift = 0.034 dB

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

Peak E-field in V/m

Grid 1 **66.4 M3**	Grid 2 **56.5 M3**	Grid 3 **43.9 M4**
Grid 4 **53.0 M3**	Grid 5 **60.9 M3**	Grid 6 **62.4 M3**
Grid 7 **48.7 M3**	Grid 8 **73.2 M3**	Grid 9 **73.3 M3**



0 dB = 73.3V/m

Date/Time: 05/11/2009 9:01:47 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM1900_mid_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 17.1 V/m; Power Drift = 0.252 dB

Maximum value of Total (measured) = 25.5 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 = 74.7 V/m

Probe Modulation Factor = 2.94

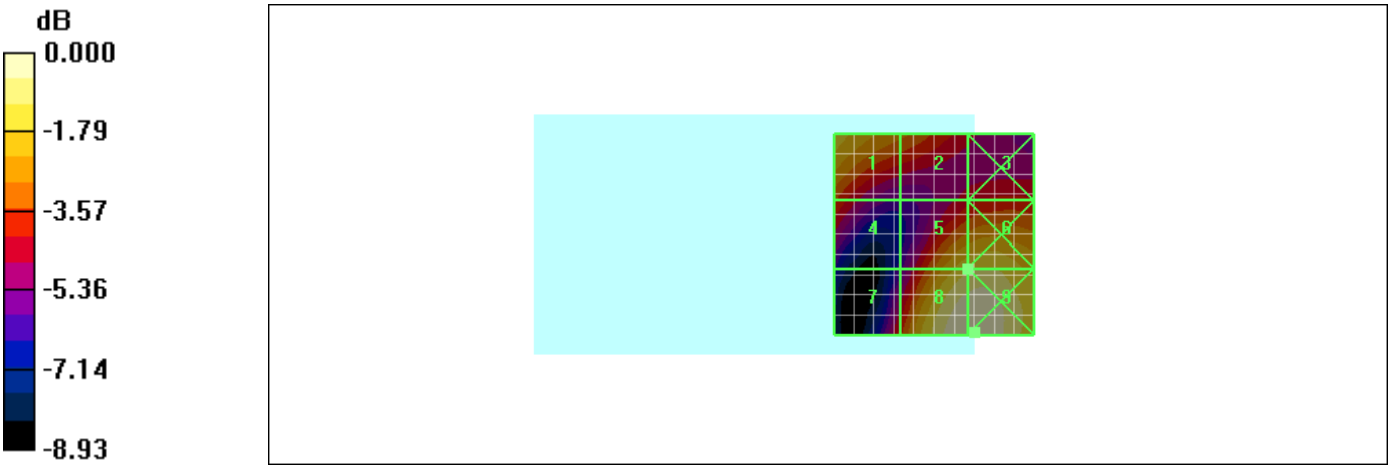
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 17.1 V/m; Power Drift = 0.252 dB

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

Peak E-field in V/m

Grid 1 **64.2 M3**	Grid 2 **54.4 M3**	Grid 3 **47.4 M3**
Grid 4 **50.5 M3**	Grid 5 **64.2 M3**	Grid 6 **65.7 M3**
Grid 7 **48.7 M3**	Grid 8 **74.7 M3**	Grid 9 **74.9 M3**



0 dB = 74.9V/m

Date/Time: 05/11/2009 9:09:30 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_GSM1900_high_Chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF ER3D Device

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 16.7 V/m; Power Drift = -0.003 dB

Maximum value of Total (measured) = 24.6 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 = 72.2 V/m

Probe Modulation Factor = 2.94

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 16.7 V/m; Power Drift = -0.003 dB

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

Peak E-field in V/m

Grid 1 **58.3 M3**	Grid 2 **54.3 M3**	Grid 3 **48.2 M3**
Grid 4 **48.1 M3**	Grid 5 **58.8 M3**	Grid 6 **59.7 M3**
Grid 7 **50.8 M3**	Grid 8 **72.2 M3**	Grid 9 **72.3 M3**

0 dB = 72.3V/m

Date/Time: 05/11/2009 10:06:51 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_CDMA1900_low_Chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Communication System: CDMA 1900; Frequency: 1851.25 MHz;Duty Cycle: 1:1

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 22.6 V/m; Power Drift = 0.055 dB

Maximum value of Total (measured) = 34.3 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 = 29.9 V/m

Probe Modulation Factor = 1.01

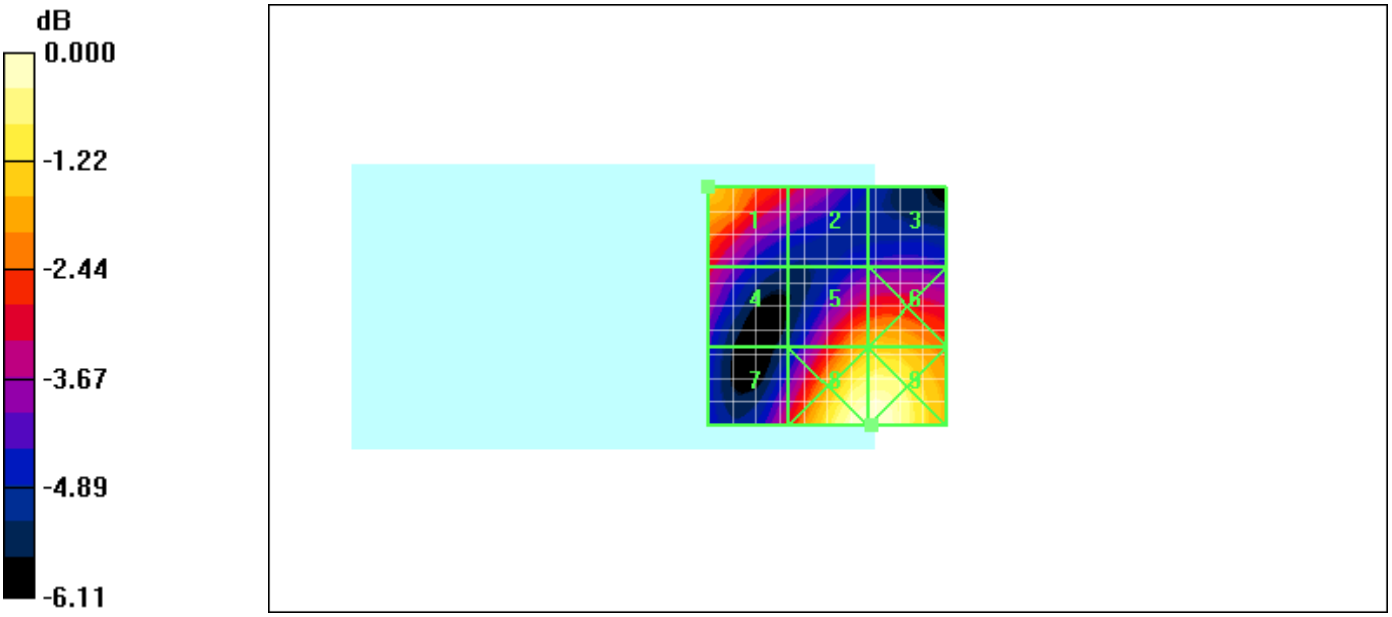
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 22.6 V/m; Power Drift = 0.055 dB

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

Peak E-field in V/m

Grid 1 **29.9 M4**	Grid 2 **24.8 M4**	Grid 3 **21.6 M4**
Grid 4 **24.7 M4**	Grid 5 **29.3 M4**	Grid 6 **29.8 M4**
Grid 7 **24.8 M4**	Grid 8 **34.7 M4**	Grid 9 **34.7 M4**



0 dB = 34.7V/m

Date/Time: 05/11/2009 10:12:45 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_CDMA1900_mid_Chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Communication System: CDMA 1900; 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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 21.2 V/m; Power Drift = -0.001 dB

Maximum value of Total (measured) = 32.2 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 = 27.5 V/m

Probe Modulation Factor = 1.01

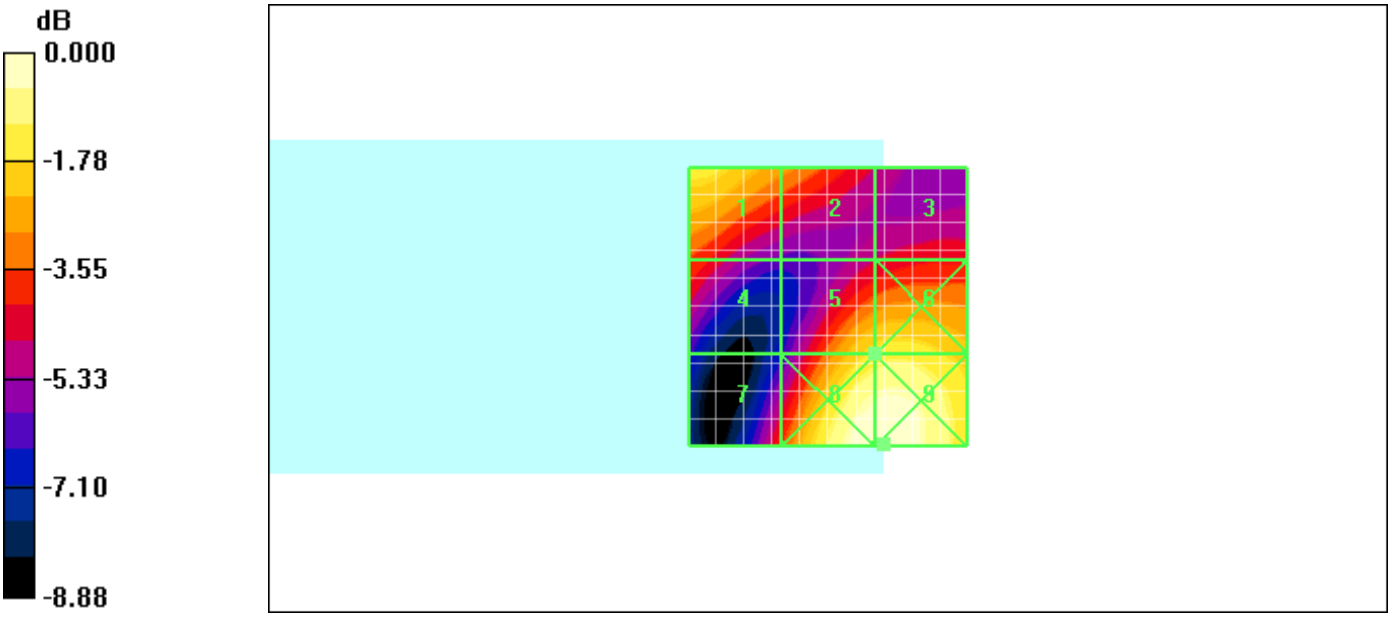
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 21.2 V/m; Power Drift = -0.001 dB

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

Peak E-field in V/m

Grid 1 **27.5 M4**	Grid 2 **24.0 M4**	Grid 3 **20.1 M4**
Grid 4 **21.8 M4**	Grid 5 **27.5 M4**	Grid 6 **28.1 M4**
Grid 7 **21.3 M4**	Grid 8 **32.4 M4**	Grid 9 **32.5 M4**



0 dB = 32.5V/m

Date/Time: 05/11/2009 10:19:02 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_CDMA1900_high_Chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Communication System: CDMA 1900; Frequency: 1908.5 MHz;Duty Cycle: 1:1

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 - SN2286; ConvF(1, 1, 1); Calibrated: 08/01/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 18.6 V/m; Power Drift = 0.157 dB

Maximum value of Total (measured) = 28.2 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 = 26.7 V/m

Probe Modulation Factor = 1.01

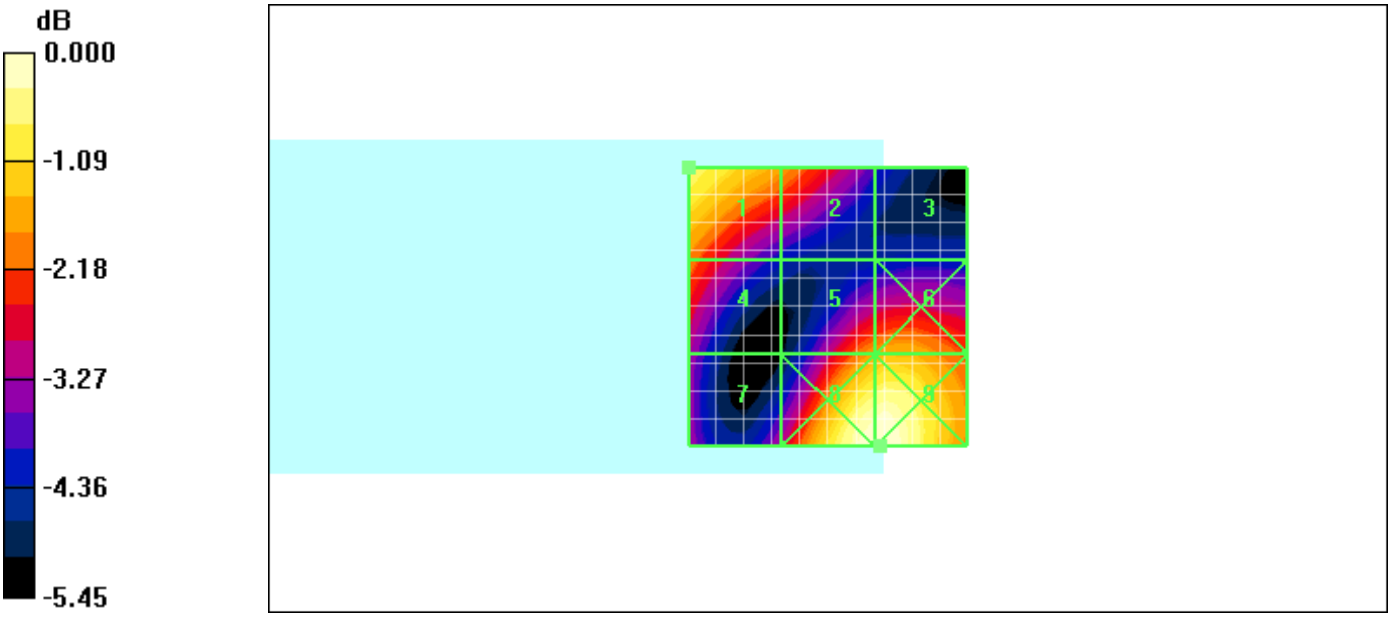
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 18.6 V/m; Power Drift = 0.157 dB

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

Peak E-field in V/m

Grid 1 **26.7 M4**	Grid 2 **23.7 M4**	Grid 3 **18.3 M4**
Grid 4 **23.1 M4**	Grid 5 **23.9 M4**	Grid 6 **24.4 M4**
Grid 7 **20.0 M4**	Grid 8 **28.4 M4**	Grid 9 **28.5 M4**



0 dB = 28.5V/m

Date/Time: 05/11/2009 11:05:28 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_850_low_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.041 A/m; Power Drift = -0.097 dB

Maximum value of Total (measured) = 0.058 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 = 0.125 A/m

Probe Modulation Factor = 2.77

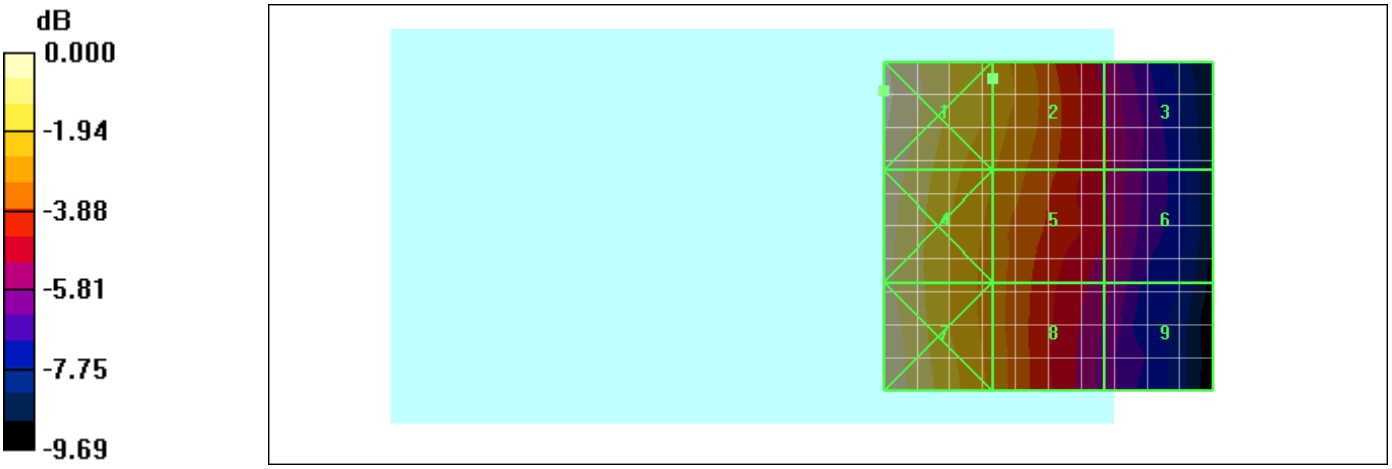
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.041 A/m; Power Drift = -0.097 dB

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

Peak H-field in A/m

Grid 1 **0.160 M4**	Grid 2 **0.125 M4**	Grid 3 **0.090 M4**
Grid 4 **0.156 M4**	Grid 5 **0.120 M4**	Grid 6 **0.090 M4**
Grid 7 **0.157 M4**	Grid 8 **0.116 M4**	Grid 9 **0.085 M4**



0 dB = 0.160A/m

Date/Time: 05/11/2009 11:18:45 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_850_mid_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 824.2 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.040 A/m; Power Drift = -0.058 dB

Maximum value of Total (measured) = 0.058 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 = 0.121 A/m

Probe Modulation Factor = 2.77

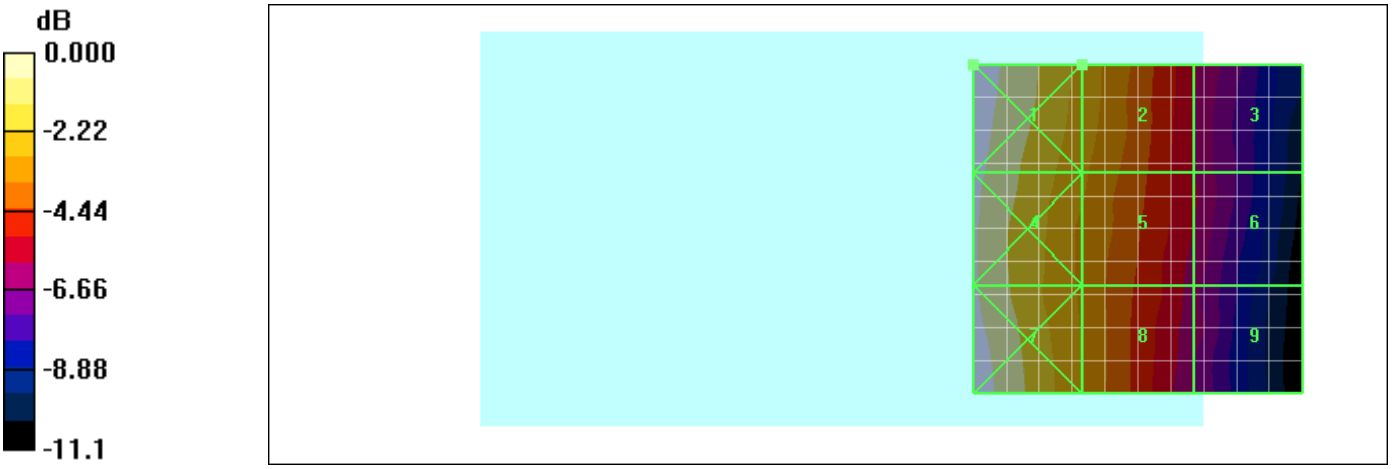
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.040 A/m; Power Drift = -0.058 dB

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

Peak H-field in A/m

Grid 1 **0.160 M4**	Grid 2 **0.121 M4**	Grid 3 **0.082 M4**
Grid 4 **0.151 M4**	Grid 5 **0.116 M4**	Grid 6 **0.082 M4**
Grid 7 **0.155 M4**	Grid 8 **0.114 M4**	Grid 9 **0.078 M4**



0 dB = 0.160A/m

Date/Time: 05/11/2009 11:25:03 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_850_high_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: GSM 850; Frequency: 848.8 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.038 A/m; Power Drift = -0.285 dB

Maximum value of Total (measured) = 0.063 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 = 0.130 A/m

Probe Modulation Factor = 2.77

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.038 A/m; Power Drift = -0.285 dB

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

Peak H-field in A/m

Grid 1 **0.154 M4**	Grid 2 **0.117 M4**	Grid 3 **0.078 M4**
Grid 4 **0.160 M4**	Grid 5 **0.120 M4**	Grid 6 **0.080 M4**
Grid 7 **0.173 M4**	Grid 8 **0.130 M4**	Grid 9 **0.084 M4**

0 dB = 0.173A/m

Date/Time: 05/11/2009 10:46:12 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_800_low_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800; Frequency: 824.7 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.045 A/m; Power Drift = -0.019 dB

Maximum value of Total (measured) = 0.064 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 = 0.053 A/m

Probe Modulation Factor = 1.06

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.045 A/m; Power Drift = -0.019 dB

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

Peak H-field in A/m

Grid 1 **0.068 M4**	Grid 2 **0.053 M4**	Grid 3 **0.039 M4**
Grid 4 **0.065 M4**	Grid 5 **0.051 M4**	Grid 6 **0.039 M4**
Grid 7 **0.067 M4**	Grid 8 **0.050 M4**	Grid 9 **0.036 M4**

0 dB = 0.068A/m

Date/Time: 05/11/2009 10:52:19 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_800_mid_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800; Frequency: 836.52 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.131 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 = 0.061 A/m

Probe Modulation Factor = 1.06

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.050 A/m; Power Drift = 0.131 dB

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

Peak H-field in A/m

Grid 1 **0.079 M4**	Grid 2 **0.061 M4**	Grid 3 **0.041 M4**
Grid 4 **0.076 M4**	Grid 5 **0.058 M4**	Grid 6 **0.041 M4**
Grid 7 **0.079 M4**	Grid 8 **0.059 M4**	Grid 9 **0.040 M4**

0 dB = 0.079A/m

Date/Time: 05/11/2009 10:34:41 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_800_high_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800; Frequency: 848.52 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.059 A/m; Power Drift = 0.031 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 = 0.079 A/m

Probe Modulation Factor = 1.06

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.059 A/m; Power Drift = 0.031 dB

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

Peak H-field in A/m

Grid 1 **0.097 M4**	Grid 2 **0.073 M4**	Grid 3 **0.048 M4**
Grid 4 **0.097 M4**	Grid 5 **0.074 M4**	Grid 6 **0.050 M4**
Grid 7 **0.105 M4**	Grid 8 **0.079 M4**	Grid 9 **0.054 M4**

0 dB = 0.105A/m

Date/Time: 05/11/2009 11:36:36 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_1900_low_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.063 A/m; Power Drift = 0.165 dB

Maximum value of Total (measured) = 0.074 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 = 0.168 A/m

Probe Modulation Factor = 2.33

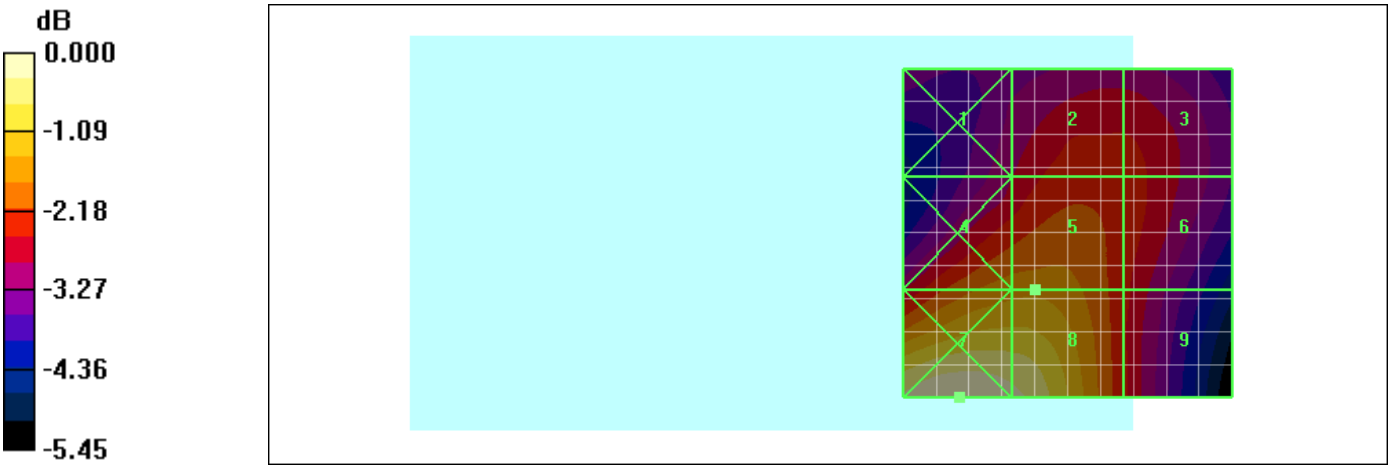
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.063 A/m; Power Drift = 0.165 dB

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

Peak H-field in A/m

Grid 1 **0.124 M4**	Grid 2 **0.133 M4**	Grid 3 **0.132 M4**
Grid 4 **0.144 M3**	Grid 5 **0.145 M3**	Grid 6 **0.133 M4**
Grid 7 **0.173 M3**	Grid 8 **0.168 M3**	Grid 9 **0.131 M4**



0 dB = 0.173A/m

Date/Time: 05/11/2009 11:42:31 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_1900_mid_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.063 dB

Maximum value of Total (measured) = 0.079 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 = 0.181 A/m

Probe Modulation Factor = 2.33

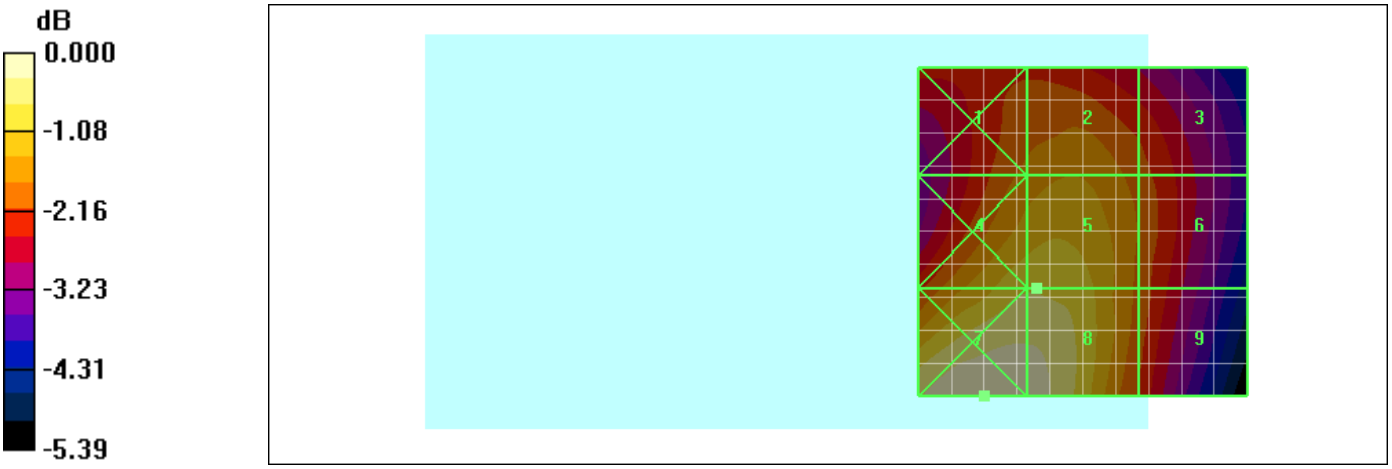
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.075 A/m; Power Drift = 0.063 dB

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

Peak H-field in A/m

Grid 1 **0.152 M3**	Grid 2 **0.156 M3**	Grid 3 **0.147 M3**
Grid 4 **0.168 M3**	Grid 5 **0.169 M3**	Grid 6 **0.149 M3**
Grid 7 **0.184 M3**	Grid 8 **0.181 M3**	Grid 9 **0.148 M3**



0 dB = 0.184A/m

Date/Time: 05/11/2009 11:48:39 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_GSM_1900_high_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: GSM 1900; Frequency: 1909.8 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.070 A/m; Power Drift = -0.140 dB

Maximum value of Total (measured) = 0.071 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 = 0.161 A/m

Probe Modulation Factor = 2.33

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.070 A/m; Power Drift = -0.140 dB

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

Peak H-field in A/m

Grid 1 **0.147 M3**	Grid 2 **0.142 M3**	Grid 3 **0.137 M4**
Grid 4 **0.147 M3**	Grid 5 **0.148 M3**	Grid 6 **0.138 M4**
Grid 7 **0.166 M3**	Grid 8 **0.161 M3**	Grid 9 **0.132 M4**

0 dB = 0.166A/m

Date/Time: 05/11/2009 11:56:38 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_1900_low_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900; Frequency: 1851.25 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.088 A/m; Power Drift = -0.118 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 = 0.092 A/m

Probe Modulation Factor = 0.960

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.088 A/m; Power Drift = -0.118 dB

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

Peak H-field in A/m

Grid 1 **0.072 M4**	Grid 2 **0.076 M4**	Grid 3 **0.075 M4**
Grid 4 **0.081 M4**	Grid 5 **0.081 M4**	Grid 6 **0.076 M4**
Grid 7 **0.095 M4**	Grid 8 **0.092 M4**	Grid 9 **0.073 M4**

0 dB = 0.095A/m

Date/Time: 06/11/2009 12:02:15 AM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_1900_mid_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900; Frequency: 1880 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = -0.095 dB

Maximum value of Total (measured) = 0.096 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 = 0.091 A/m

Probe Modulation Factor = 0.960

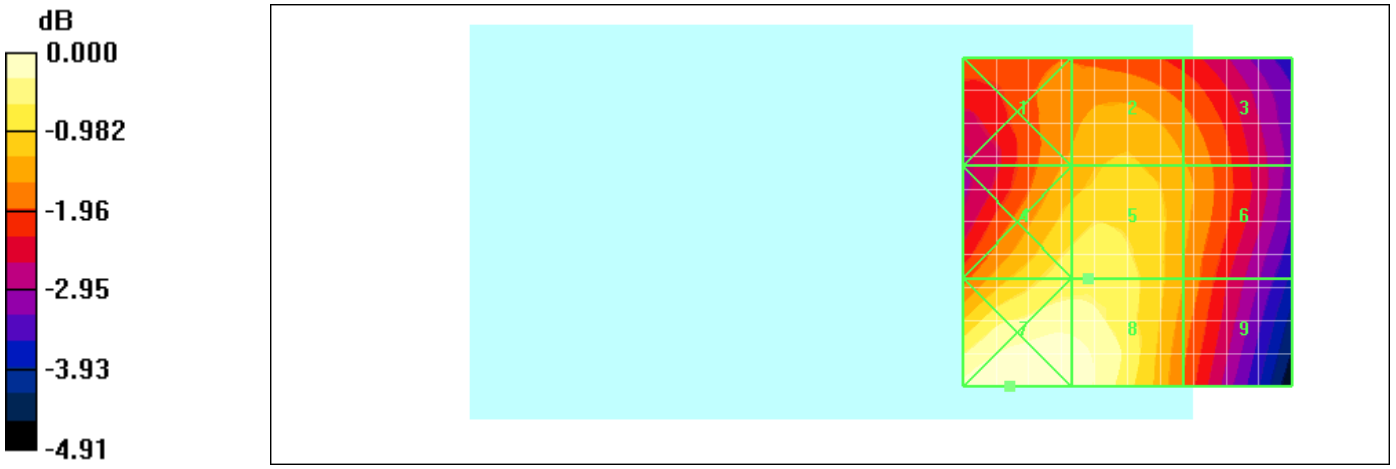
Device Reference Point: 0.000, 0.000, -6.30 mm

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

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

Peak H-field in A/m

Grid 1 **0.077 M4**	Grid 2 **0.080 M4**	Grid 3 **0.077 M4**
Grid 4 **0.084 M4**	Grid 5 **0.084 M4**	Grid 6 **0.077 M4**
Grid 7 **0.092 M4**	Grid 8 **0.091 M4**	Grid 9 **0.076 M4**



0 dB = 0.092A/m

Date/Time: 06/11/2009 12:07:29 AM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA_1900_high_chan.da4

DUT: BlackBerry Smartphone; Type: Sample ; Serial: Not Specified

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900; Frequency: 1908.5 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: 03/03/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- 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 = 0.082 A/m; Power Drift = 0.100 dB

Maximum value of Total (measured) = 0.085 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 = 0.960

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.082 A/m; Power Drift = 0.100 dB

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

Peak H-field in A/m

Grid 1 **0.068 M4**	Grid 2 **0.070 M4**	Grid 3 **0.069 M4**
Grid 4 **0.074 M4**	Grid 5 **0.074 M4**	Grid 6 **0.069 M4**
Grid 7 **0.082 M4**	Grid 8 **0.081 M4**	Grid 9 **0.068 M4**

0 dB = 0.082A/m