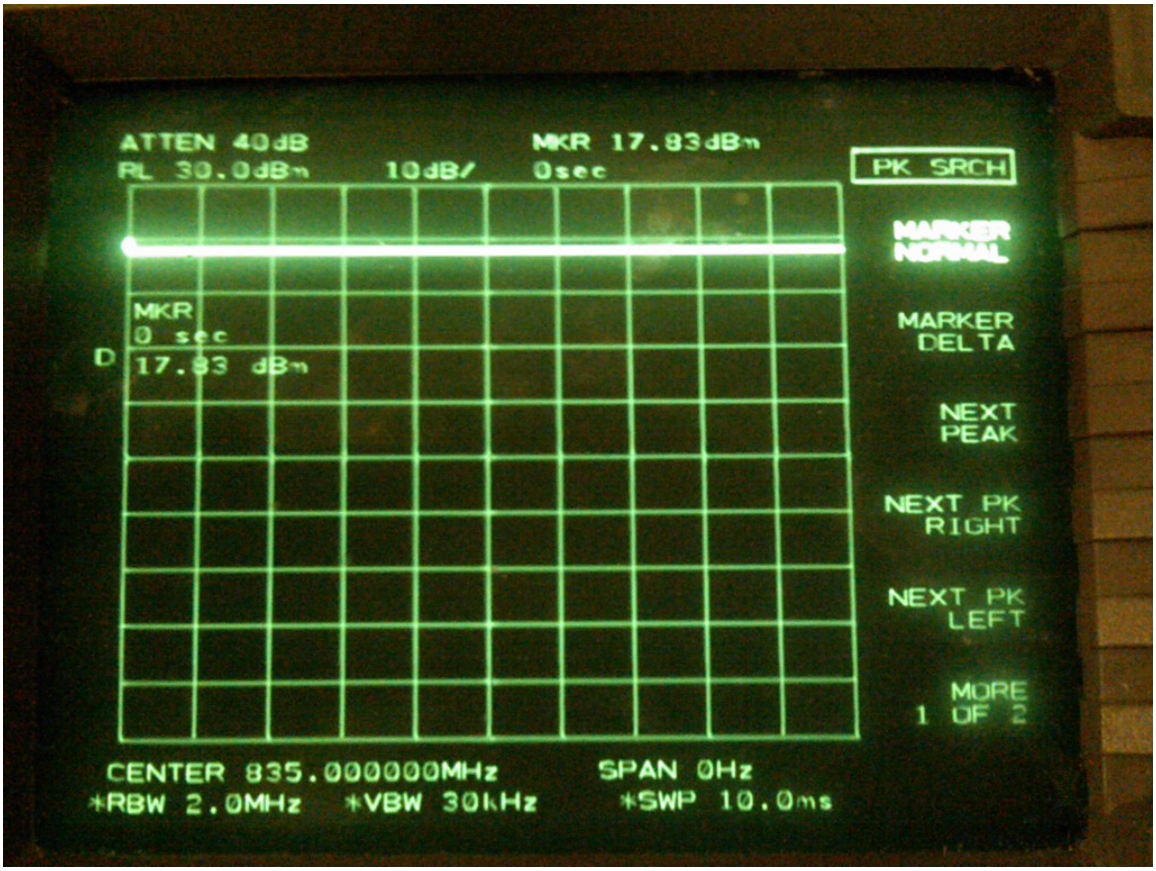
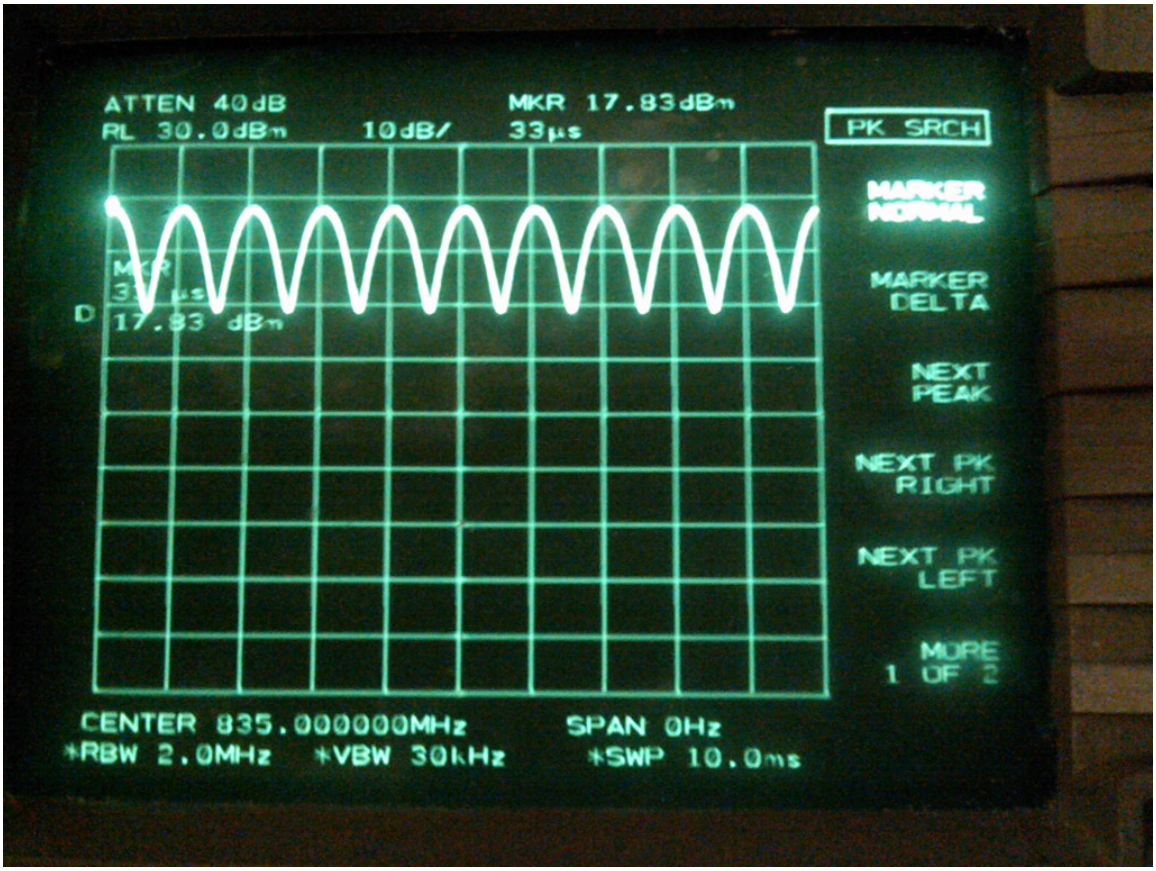
Annex A: Measurement plots and data

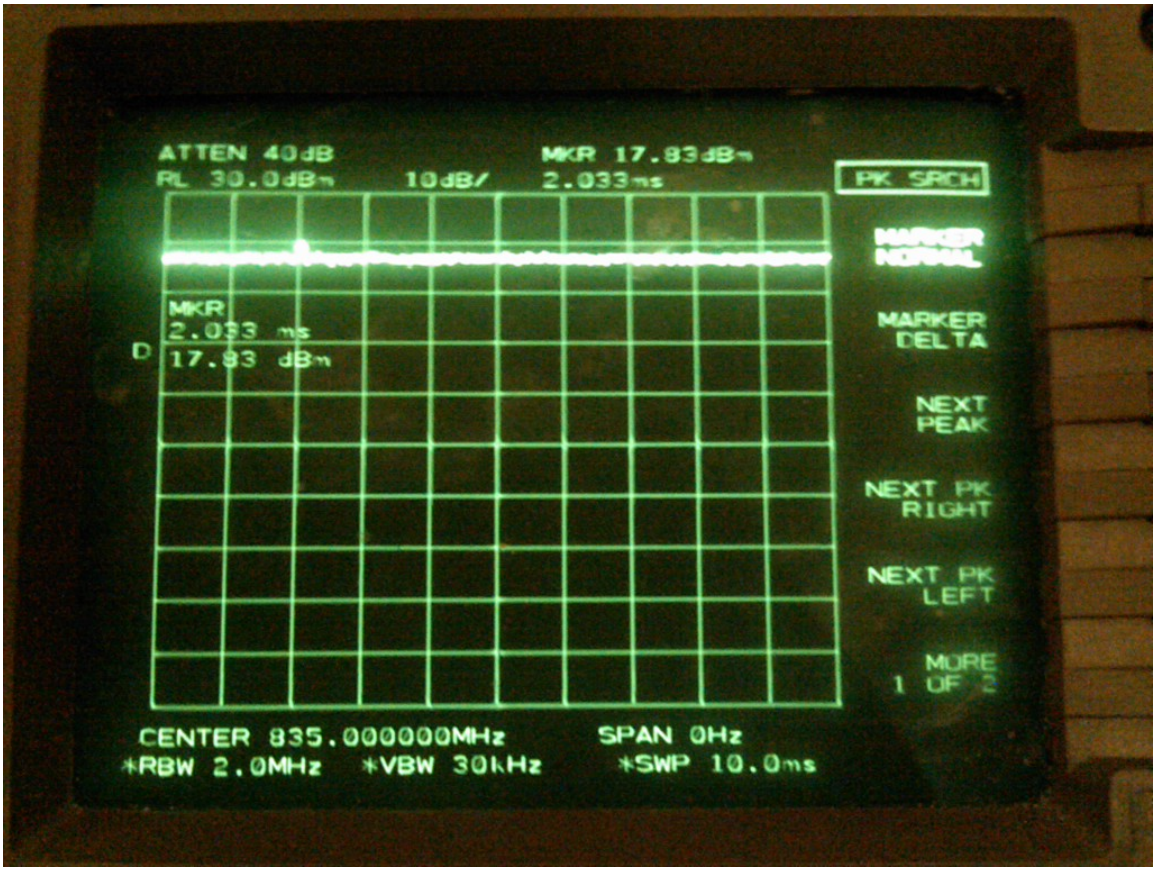
A.1 Spectrum analyser plots: CW, 80% AM and CDMA signals



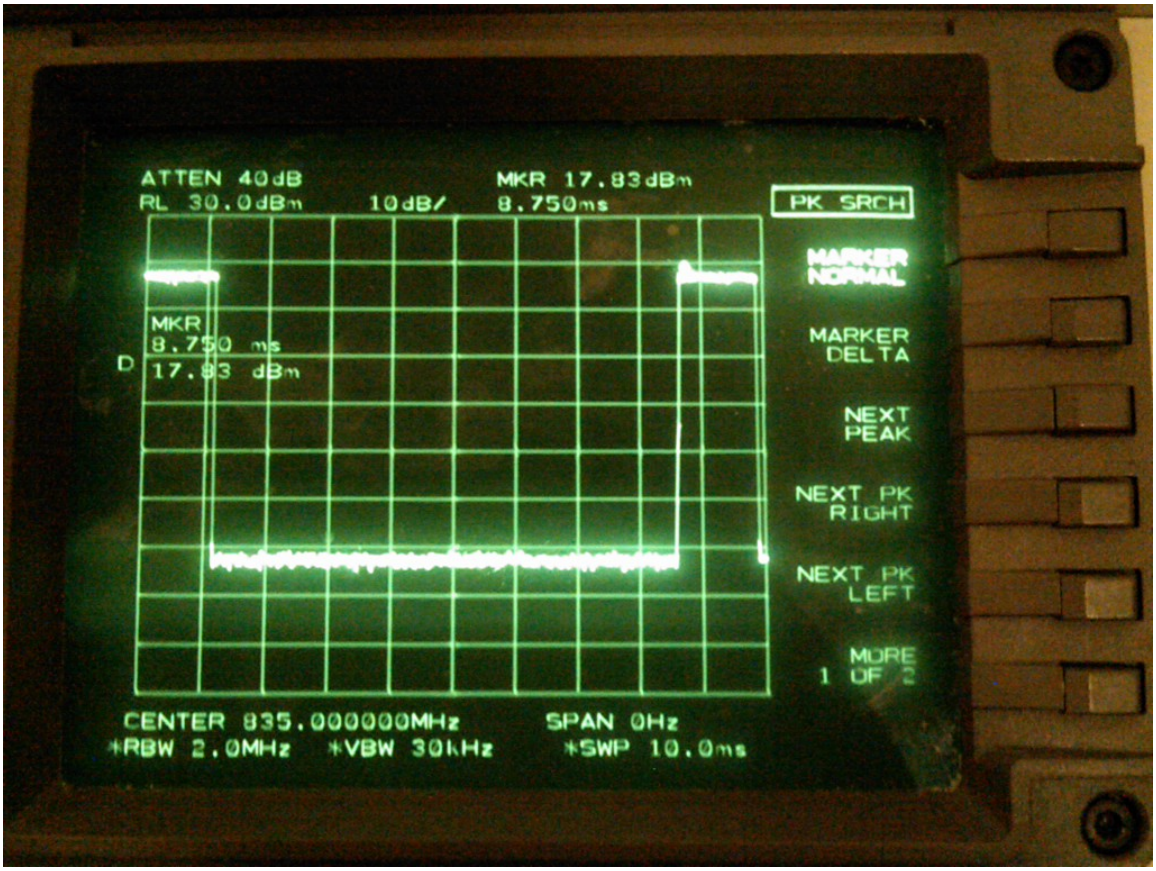
0 Hz Span CW Plot (835MHz)



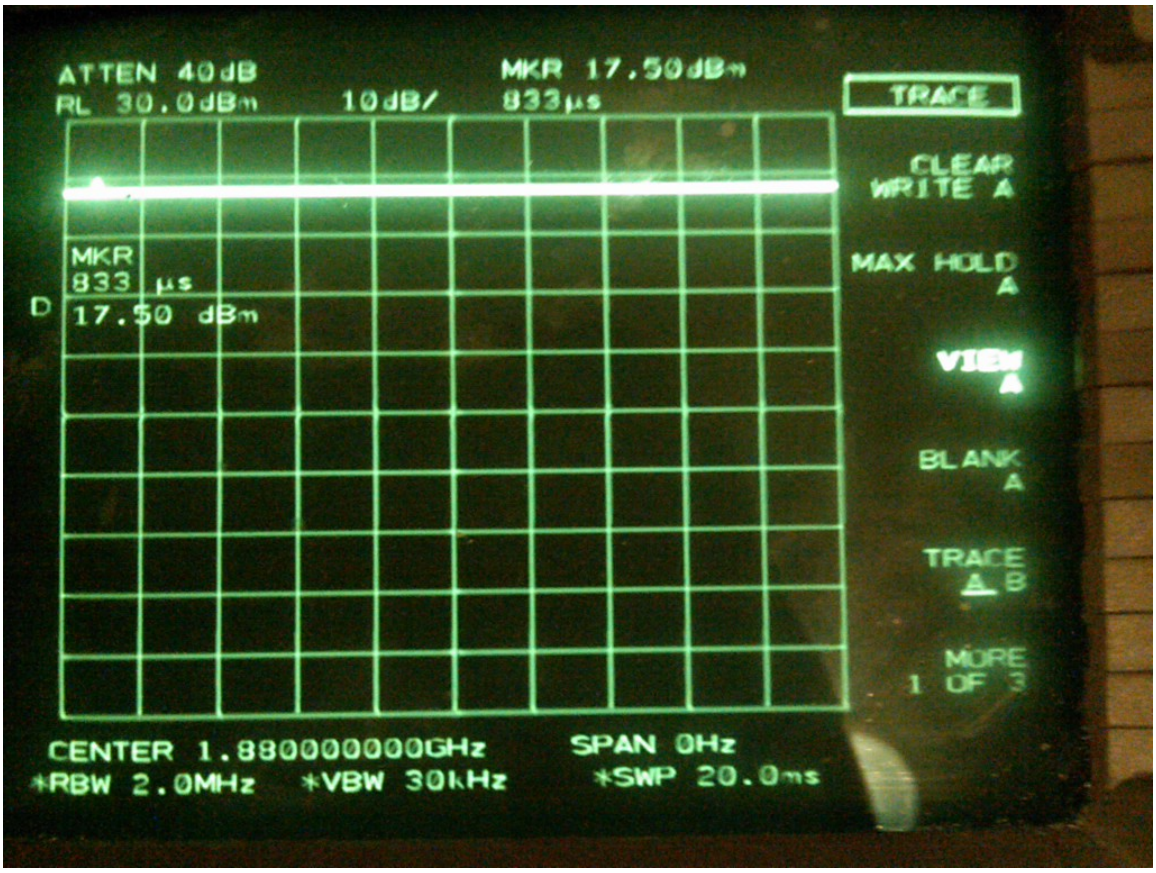
0 Hz Span 80% AM Plot (835MHz)



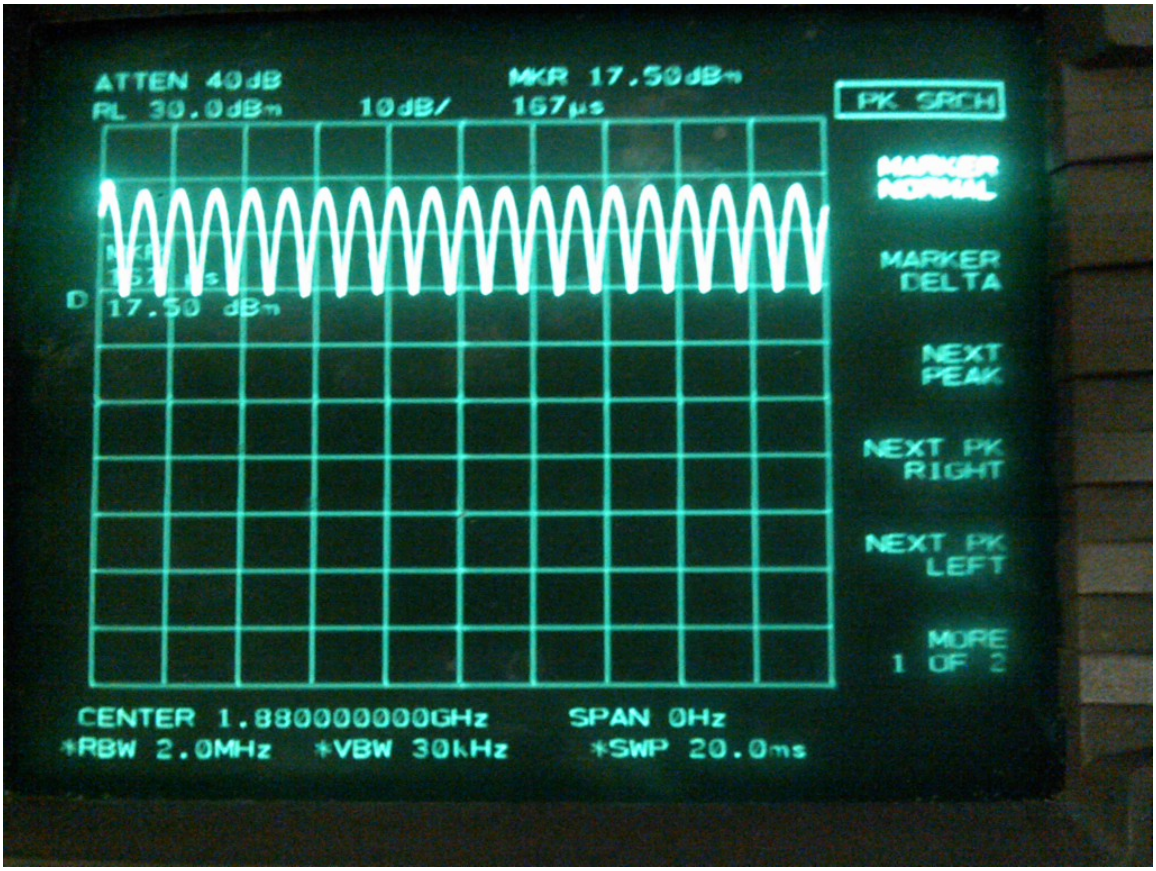
0 Hz Span CDMA Full Rate (835MHz)



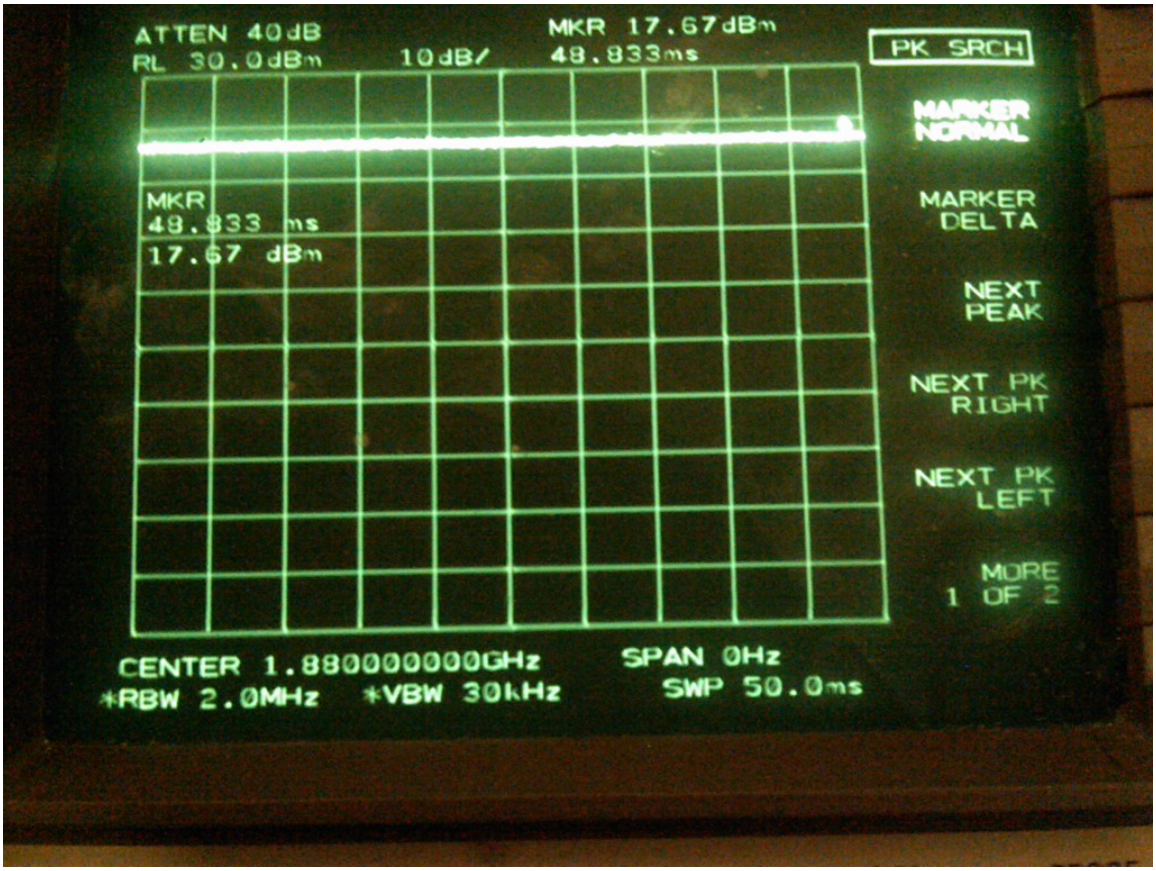
0 Hz Span CDMA 1/8 Rate (835MHz)



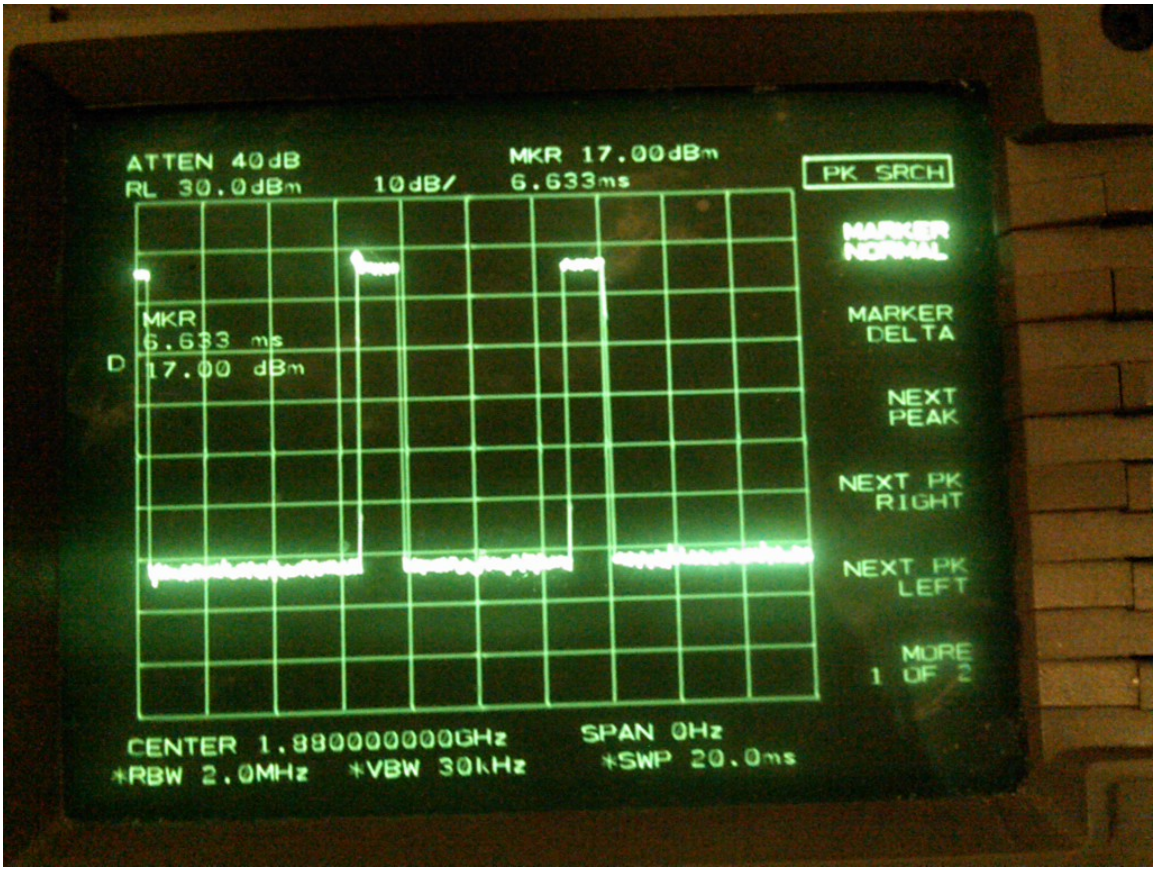
0 Hz Span CW Plot (1880MHz)



0 Hz Span 80% AM Plot (1880MHz)



0 Hz Span CDMA Full Rate (1880MHz)



0 Hz Span CDMA 1/8 Rate (1880MHz)

A.2 Dipole validation and probe modulation factor plots

Date/Time: 09/12/2008 1:54:30 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CW835_20.00dBm.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 112.5 V/m; Power Drift = -0.060 dB

Maximum value of Total (measured) = 148.5 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 = 150.6 V/m

Probe Modulation Factor = 1.00

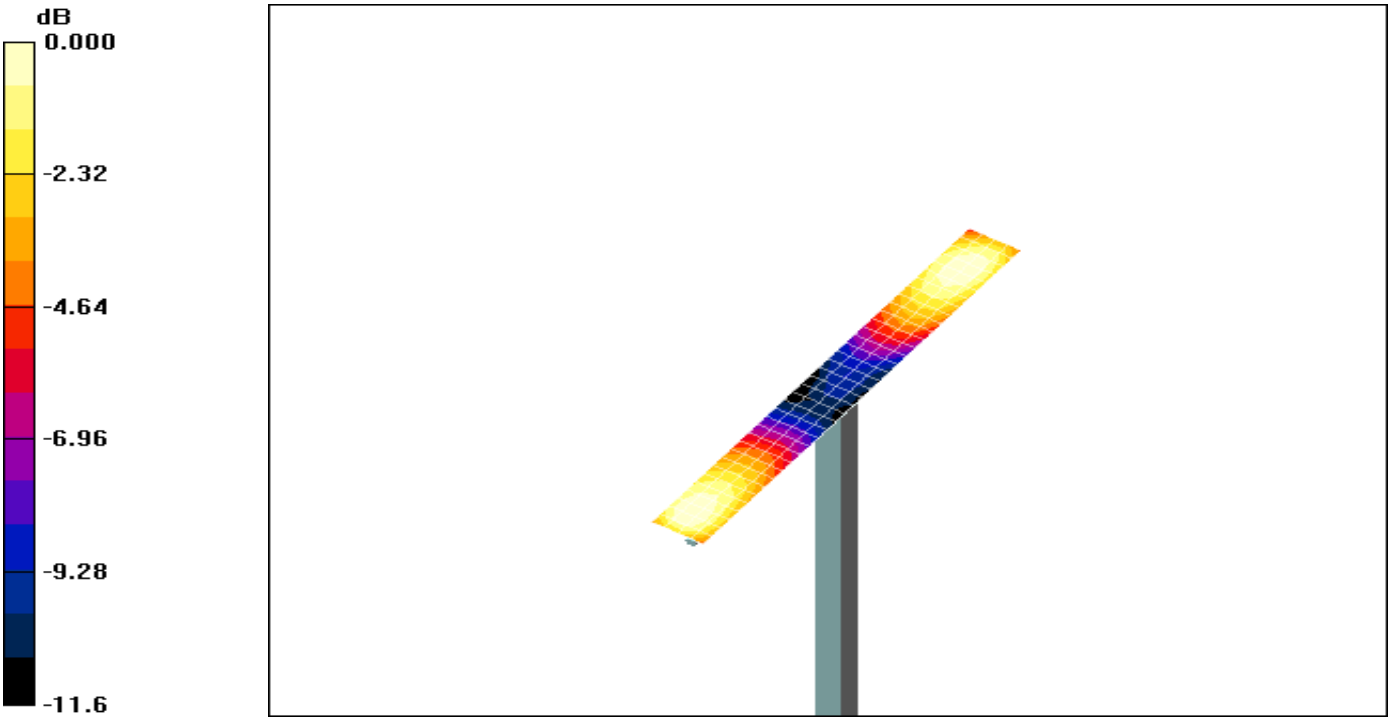
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 112.5 V/m; Power Drift = -0.060 dB

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

Peak E-field in V/m

Grid 1 **141.1 M4**	Grid 2 **150.6 M4**	Grid 3 **150.3 M4**
Grid 4 **78.0 M4**	Grid 5 **82.1 M4**	Grid 6 **81.5 M4**
Grid 7	Grid 8	Grid 9



0 dB = 150.6V/m

Date/Time: 09/12/2008 1:39:29 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CW835_PMF_CDMA.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 88.0 V/m; Power Drift = -0.109 dB

Maximum value of Total (measured) = 115.8 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 = 117.0 V/m

Probe Modulation Factor = 1.00

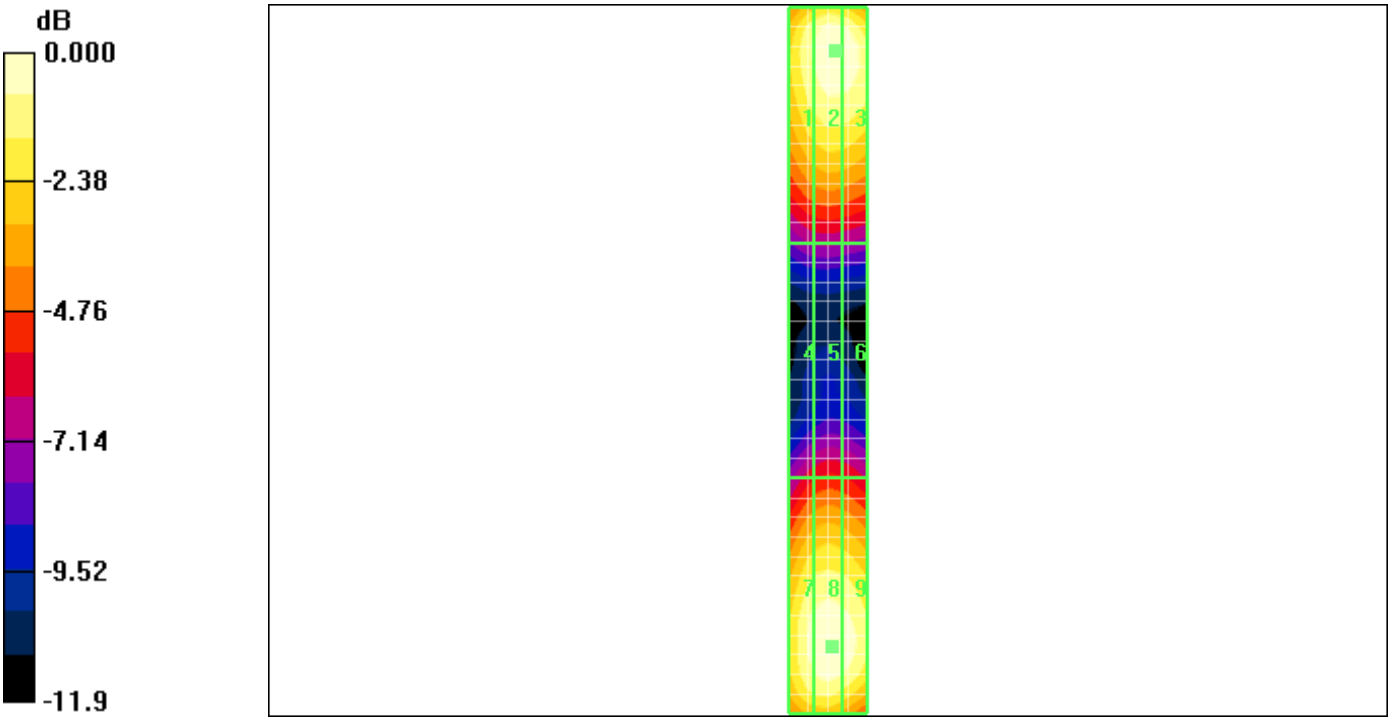
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 88.0 V/m; Power Drift = -0.109 dB

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

Peak E-field in V/m

Grid 1 **109.8 M4**	Grid 2 **117.0 M4**	Grid 3 **116.3 M4**
Grid 4 **61.7 M4**	Grid 5 **63.9 M4**	Grid 6 **63.0 M4**
Grid 7	Grid 8	Grid 9



0 dB = 117.0V/m

Date/Time: 09/12/2008 1:47:08 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_AM835_PMF_CDMA.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 52.8 V/m; Power Drift = -0.074 dB

Maximum value of Total (measured) = 69.3 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 = 70.3 V/m

Probe Modulation Factor = 1.00

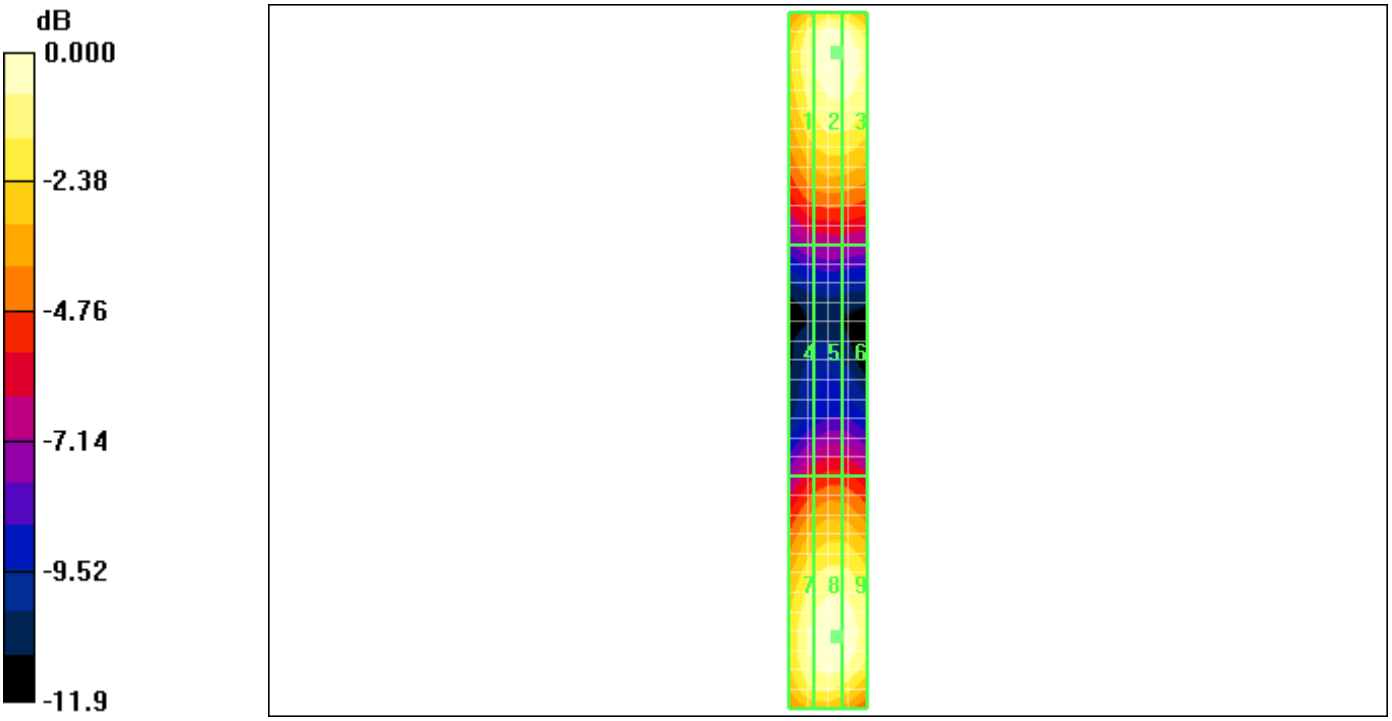
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 52.8 V/m; Power Drift = -0.074 dB

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

Peak E-field in V/m

Grid 1 **65.9 M4**	Grid 2 **70.3 M4**	Grid 3 **70.2 M4**
Grid 4 **37.1 M4**	Grid 5 **38.9 M4**	Grid 6 **38.8 M4**
Grid 7	Grid 8	Grid 9



0 dB = 70.3V/m

Date/Time: 09/12/2008 1:19:30 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CDMA835.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 85.5 V/m; Power Drift = 0.055 dB

Maximum value of Total (measured) = 112.8 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 = 115.1 V/m

Probe Modulation Factor = 1.00

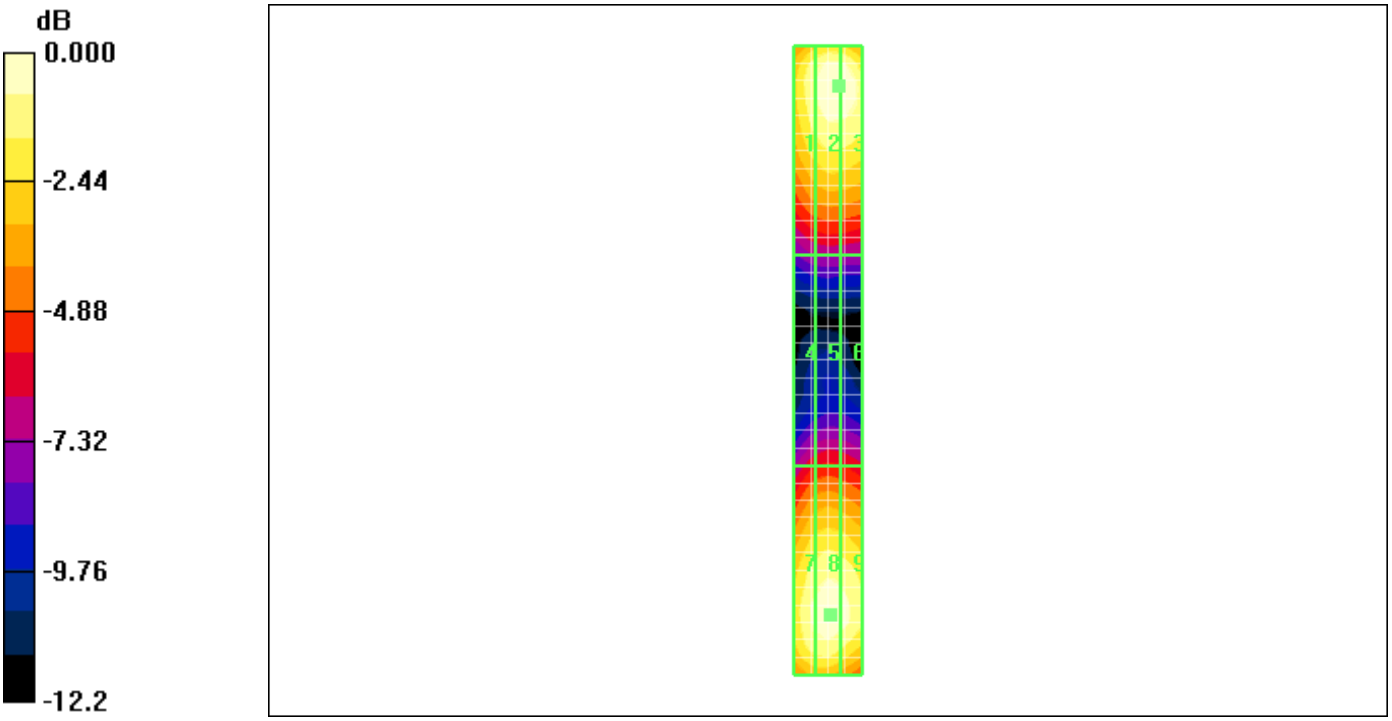
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 85.5 V/m; Power Drift = 0.055 dB

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

Peak E-field in V/m

Grid 1 **106.7 M4**	Grid 2 **115.1 M4**	Grid 3 **115.0 M4**
Grid 4 **59.6 M4**	Grid 5 **61.4 M4**	Grid 6 **60.5 M4**
Grid 7	Grid 8	Grid 9



0 dB = 115.1V/m

Date/Time: 09/12/2008 1:31:11 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CDMA835_One_Eigth.da4

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

Program Name: HAC RF E Dipole

Communication System: CDMA 800; Frequency: 835 MHz;Duty Cycle: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 30.5 V/m; Power Drift = -0.024 dB

Maximum value of Total (measured) = 43.6 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 = 43.7 V/m

Probe Modulation Factor = 1.00

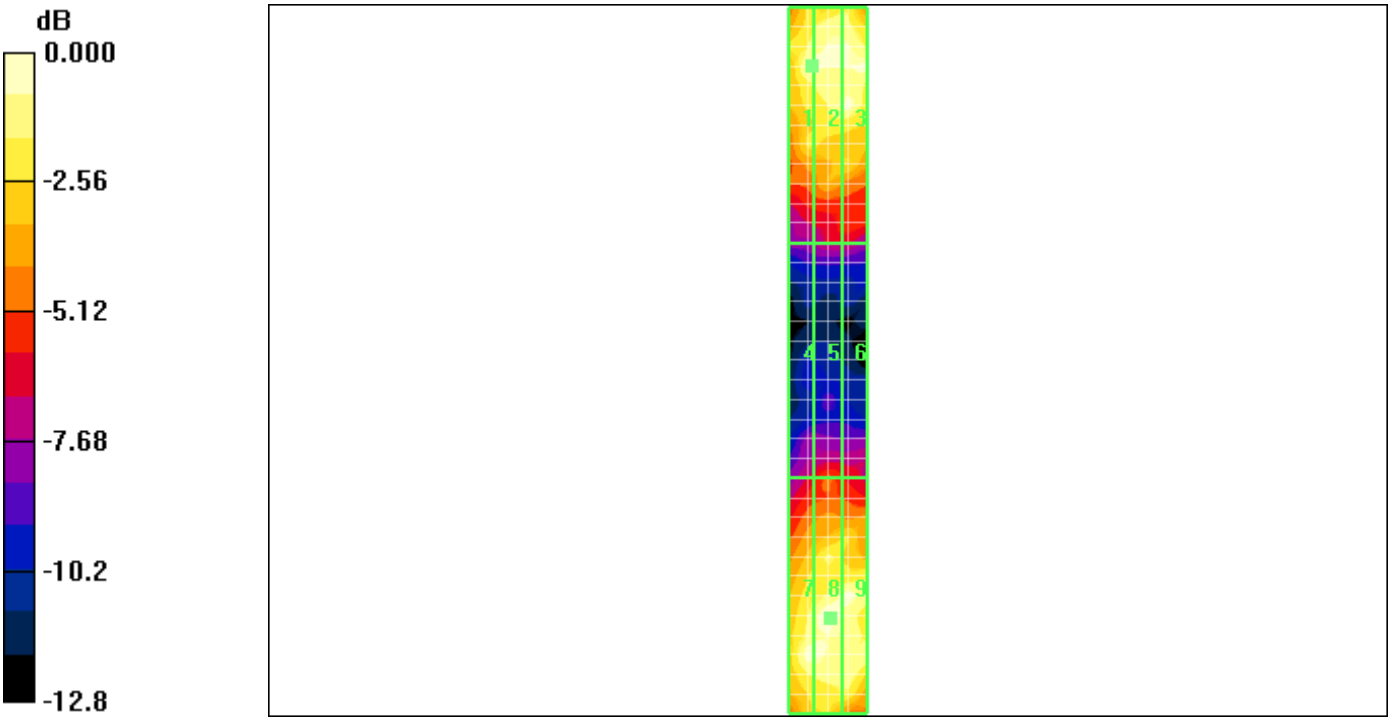
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 30.5 V/m; Power Drift = -0.024 dB

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

Peak E-field in V/m

Grid 1 **41.6 M4**	Grid 2 **41.5 M4**	Grid 3 **41.5 M4**
Grid 4 **21.4 M4**	Grid 5 **25.0 M4**	Grid 6 **22.4 M4**
Grid 7	Grid 8	Grid 9



0 dB = 43.7V/m

Date/Time: 09/12/2008 2:19:14 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CW1880_20.00dBm.da4

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

Program Name: HAC RF E Dipole

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 123.2 V/m; Power Drift = -0.008 dB

Maximum value of Total (measured) = 119.2 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 = 120.5 V/m

Probe Modulation Factor = 1.00

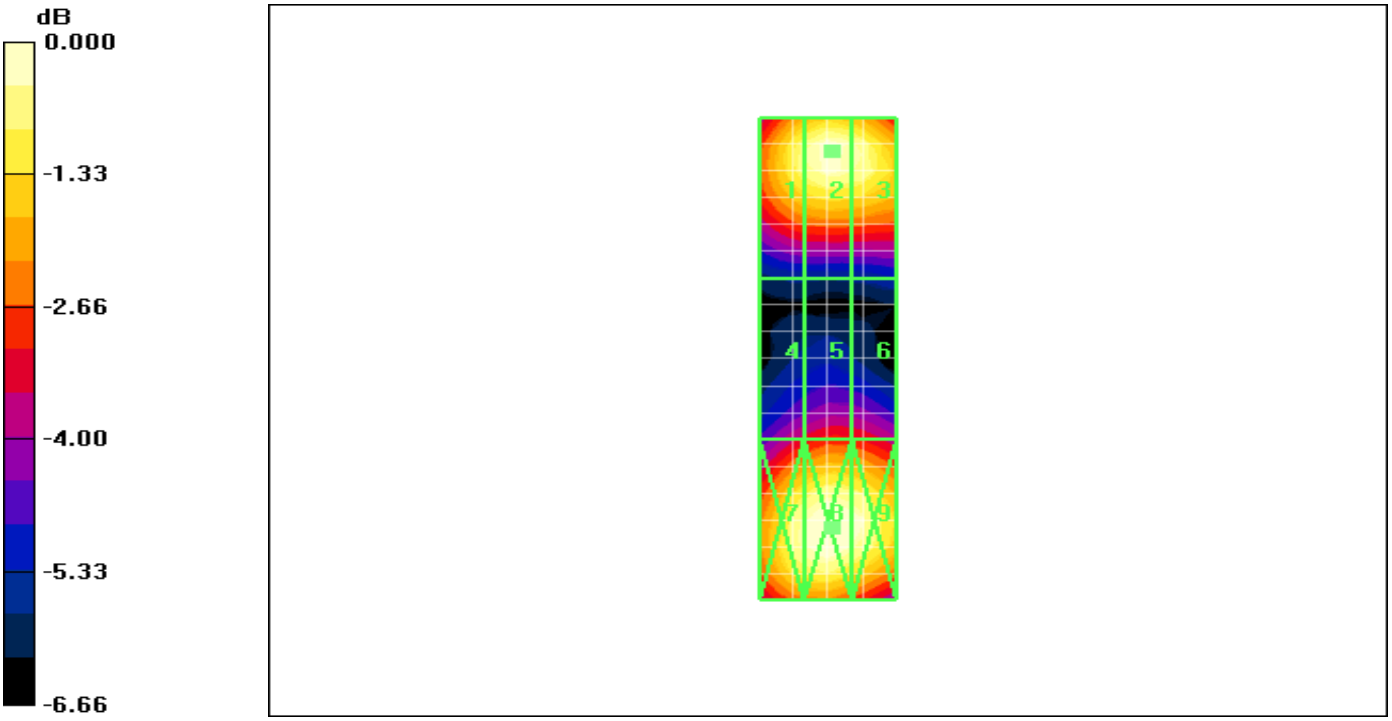
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 123.2 V/m; Power Drift = -0.008 dB

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

Peak E-field in V/m

Grid 1 **114.6 M2**	Grid 2 **119.5 M2**	Grid 3 **116.9 M2**
Grid 4 **82.0 M3**	Grid 5 **87.6 M3**	Grid 6 **87.4 M3**
Grid 7	Grid 8	Grid 9



0 dB = 120.5V/m

Date/Time: 09/12/2008 2:28:41 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CW1880_PMF_CDMA.da4

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

Program Name: HAC RF E Dipole

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 86.0 V/m; Power Drift = 0.005 dB

Maximum value of Total (measured) = 83.2 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 = 84.0 V/m

Probe Modulation Factor = 1.00

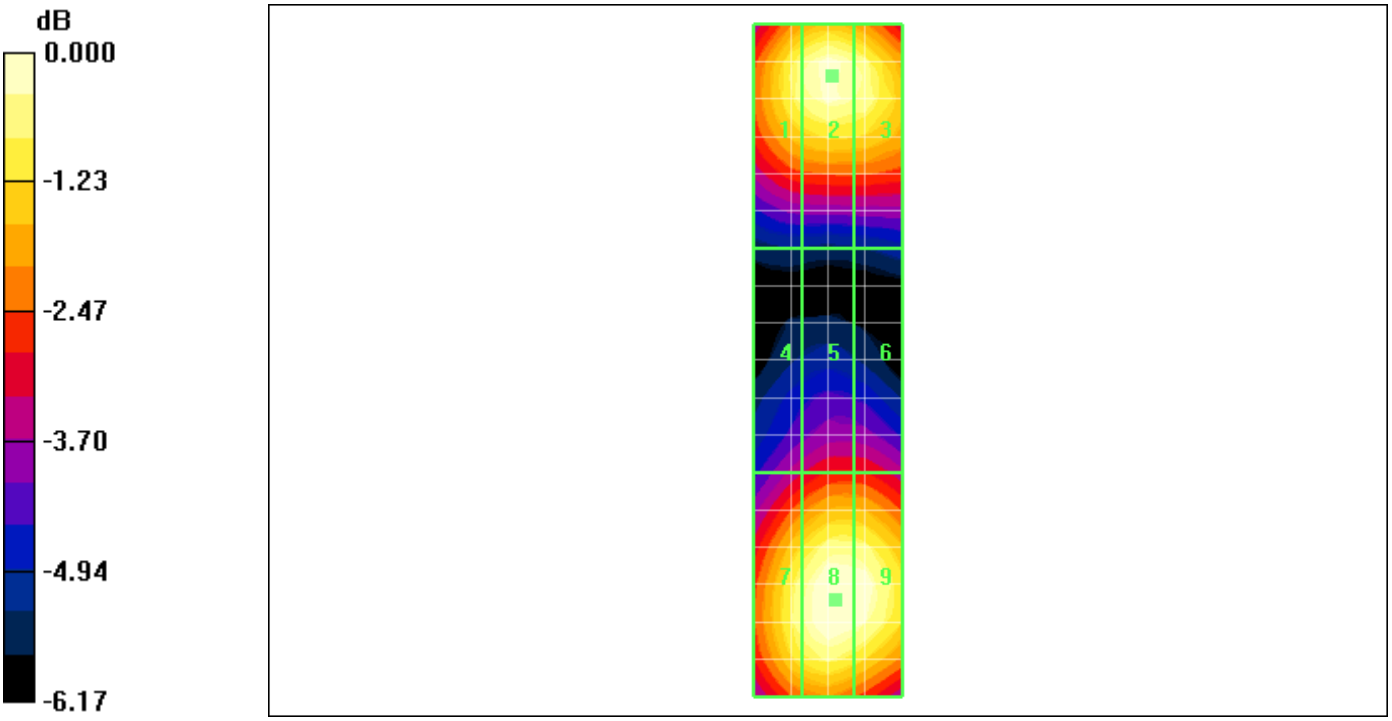
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 86.0 V/m; Power Drift = 0.005 dB

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

Peak E-field in V/m

Grid 1 **79.9 M3**	Grid 2 **83.1 M3**	Grid 3 **81.4 M3**
Grid 4 **57.5 M4**	Grid 5 **61.3 M4**	Grid 6 **61.2 M4**
Grid 7	Grid 8	Grid 9



0 dB = 84.0V/m

Date/Time: 09/12/2008 2:24:30 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_AM_1880_PMF_CDMA.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 54.3 V/m; Power Drift = -0.118 dB

Maximum value of Total (measured) = 52.5 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 = 53.1 V/m

Probe Modulation Factor = 1.00

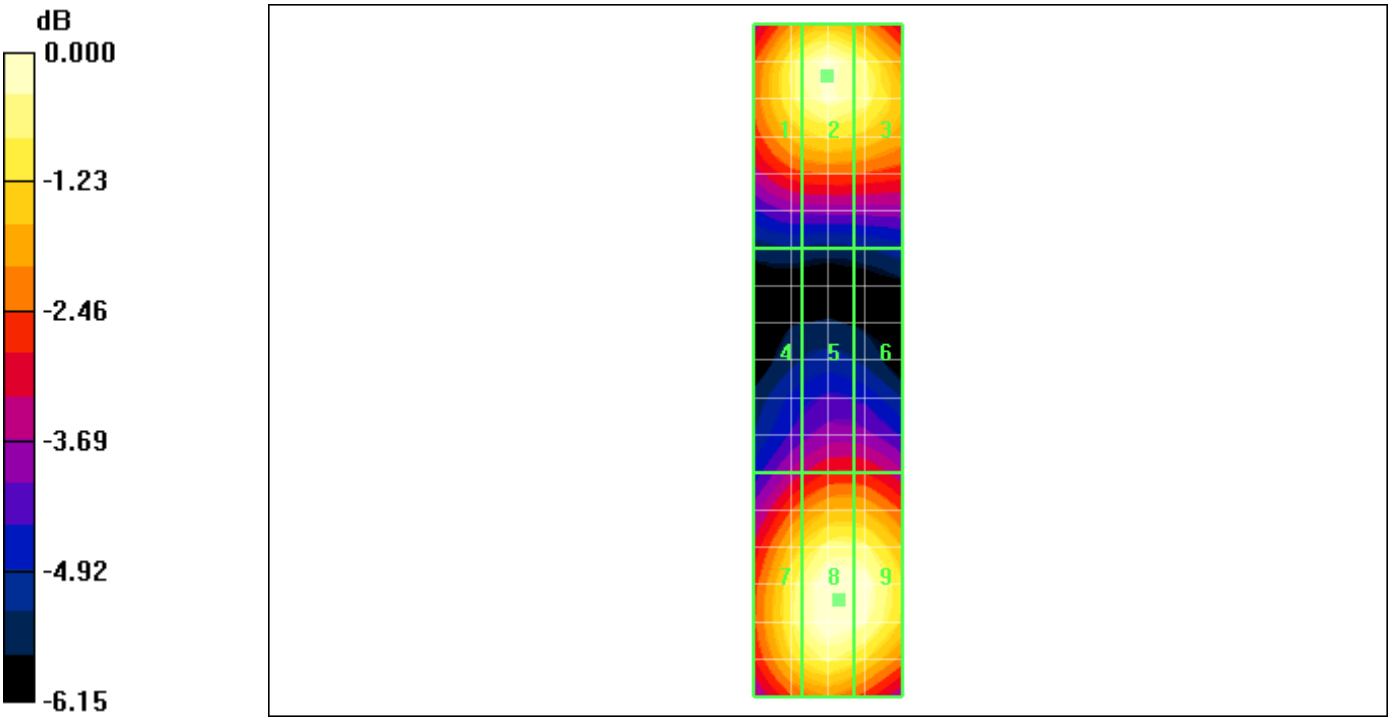
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 54.3 V/m; Power Drift = -0.118 dB

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

Peak E-field in V/m

Grid 1 **50.6 M4**	Grid 2 **52.5 M4**	Grid 3 **51.0 M4**
Grid 4 **36.3 M4**	Grid 5 **38.6 M4**	Grid 6 **38.6 M4**
Grid 7	Grid 8	Grid 9



0 dB = 53.1V/m

Date/Time: 09/12/2008 2:36:08 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CDMA1880.da4

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

Program Name: HAC RF E Dipole

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 79.0 V/m; Power Drift = -0.016 dB

Maximum value of Total (measured) = 77.6 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 = 78.2 V/m

Probe Modulation Factor = 1.00

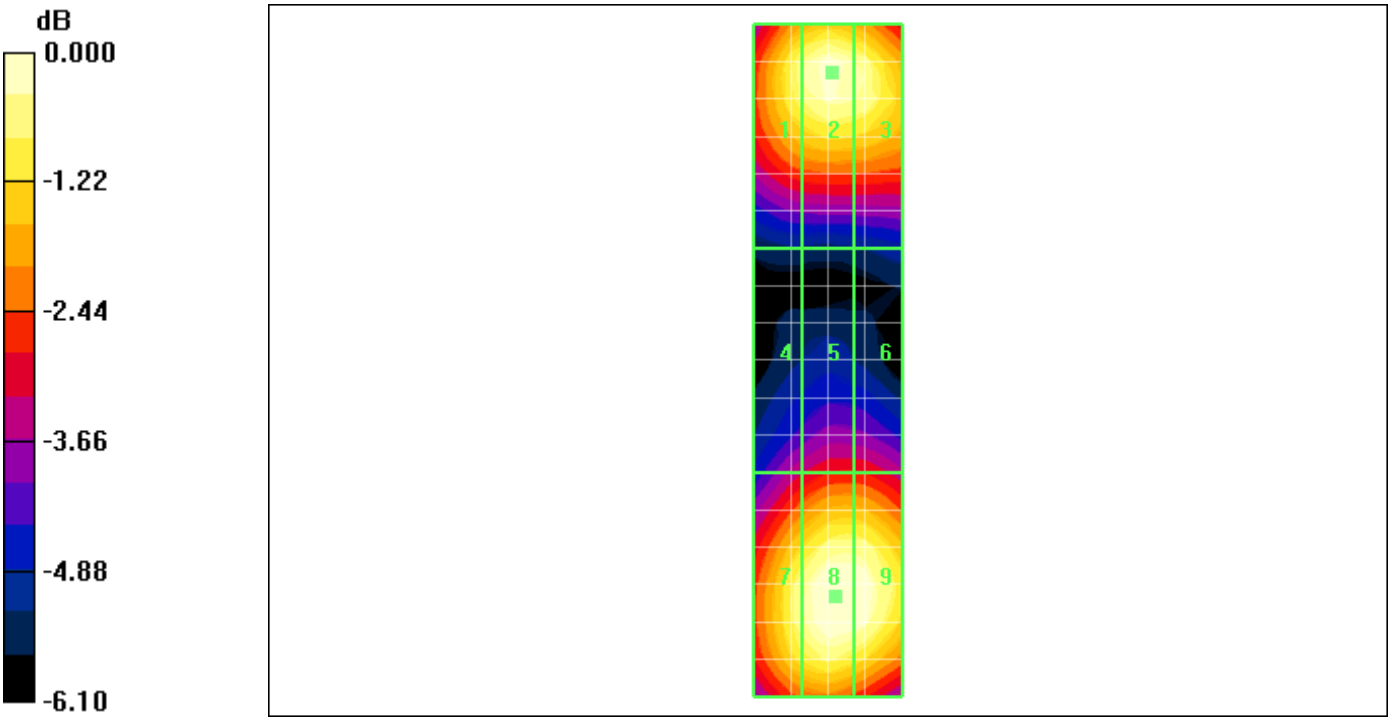
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 79.0 V/m; Power Drift = -0.016 dB

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

Peak E-field in V/m

Grid 1 **74.4 M3**	Grid 2 **77.4 M3**	Grid 3 **76.0 M3**
Grid 4 **53.8 M4**	Grid 5 **57.0 M4**	Grid 6 **56.9 M4**
Grid 7	Grid 8	Grid 9



0 dB = 78.2V/m

Date/Time: 09/12/2008 2:43:11 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_CDMA1880_One_Eigth.da4

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

Program Name: HAC RF E Dipole

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 28.2 V/m; Power Drift = 1.16 dB

Maximum value of Total (measured) = 28.8 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 = 29.6 V/m

Probe Modulation Factor = 1.00

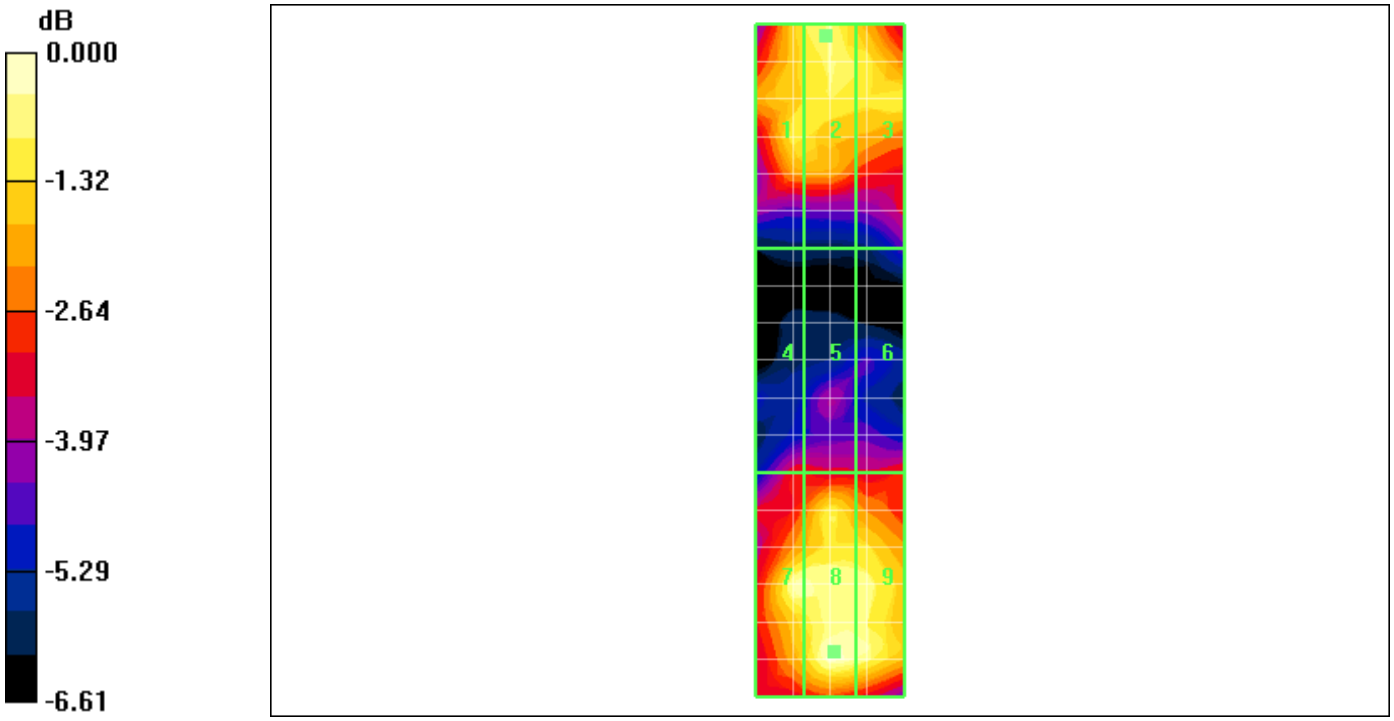
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 28.2 V/m; Power Drift = 1.16 dB

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

Peak E-field in V/m

Grid 1 **26.8 M4**	Grid 2 **27.1 M4**	Grid 3 **26.8 M4**
Grid 4 **20.9 M4**	Grid 5 **20.9 M4**	Grid 6 **21.0 M4**
Grid 7	Grid 8	Grid 9



0 dB = 29.6V/m

Date/Time: 09/12/2008 4:03:06 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CW835_20.00dBm.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.436 A/m; Power Drift = -0.007 dB

Maximum value of Total (measured) = 0.416 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 = 0.418 A/m

Probe Modulation Factor = 1.00

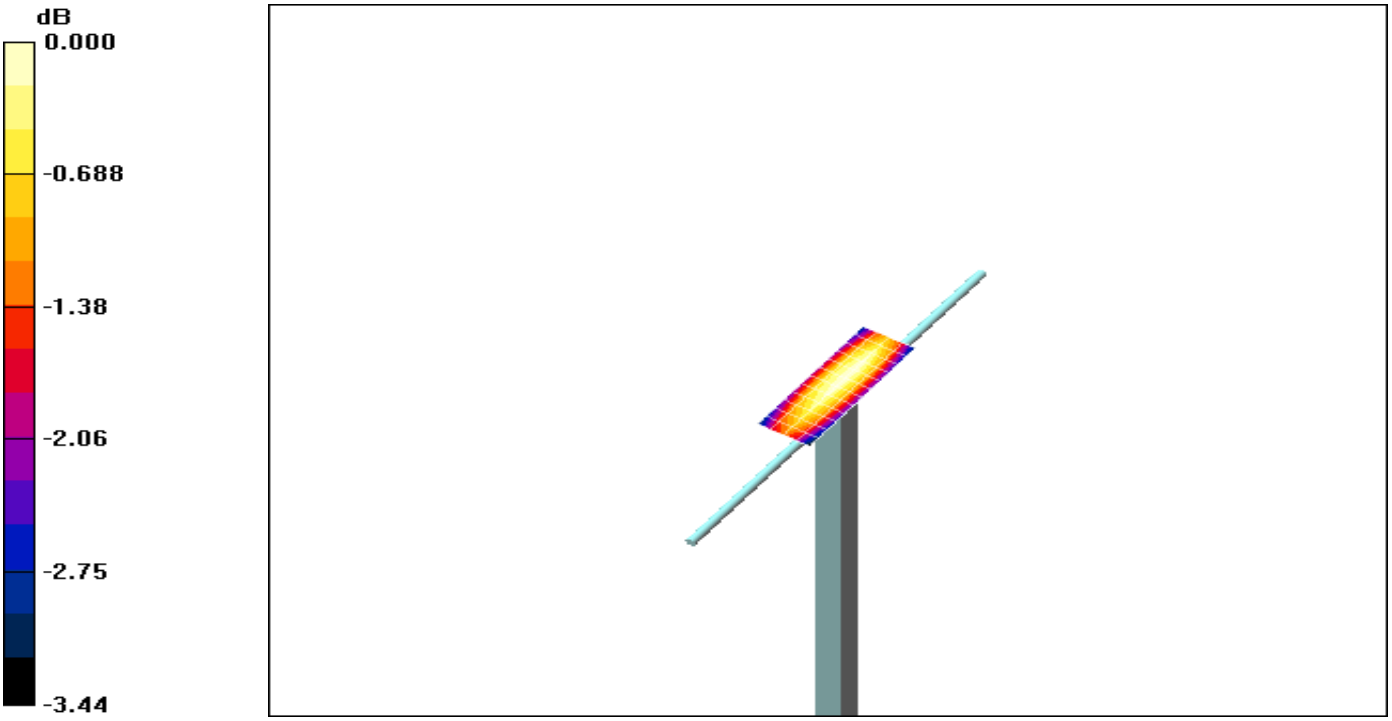
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.436 A/m; Power Drift = -0.007 dB

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

Peak H-field in A/m

Grid 1 **0.386 M4**	Grid 2 **0.407 M4**	Grid 3 **0.402 M4**
Grid 4 **0.395 M4**	Grid 5 **0.418 M4**	Grid 6 **0.412 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.418A/m

Date/Time: 09/12/2008 3:55:15 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CW835_PMF_CDMA.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.338 A/m; Power Drift = -0.008 dB

Maximum value of Total (measured) = 0.323 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 = 0.324 A/m

Probe Modulation Factor = 1.00

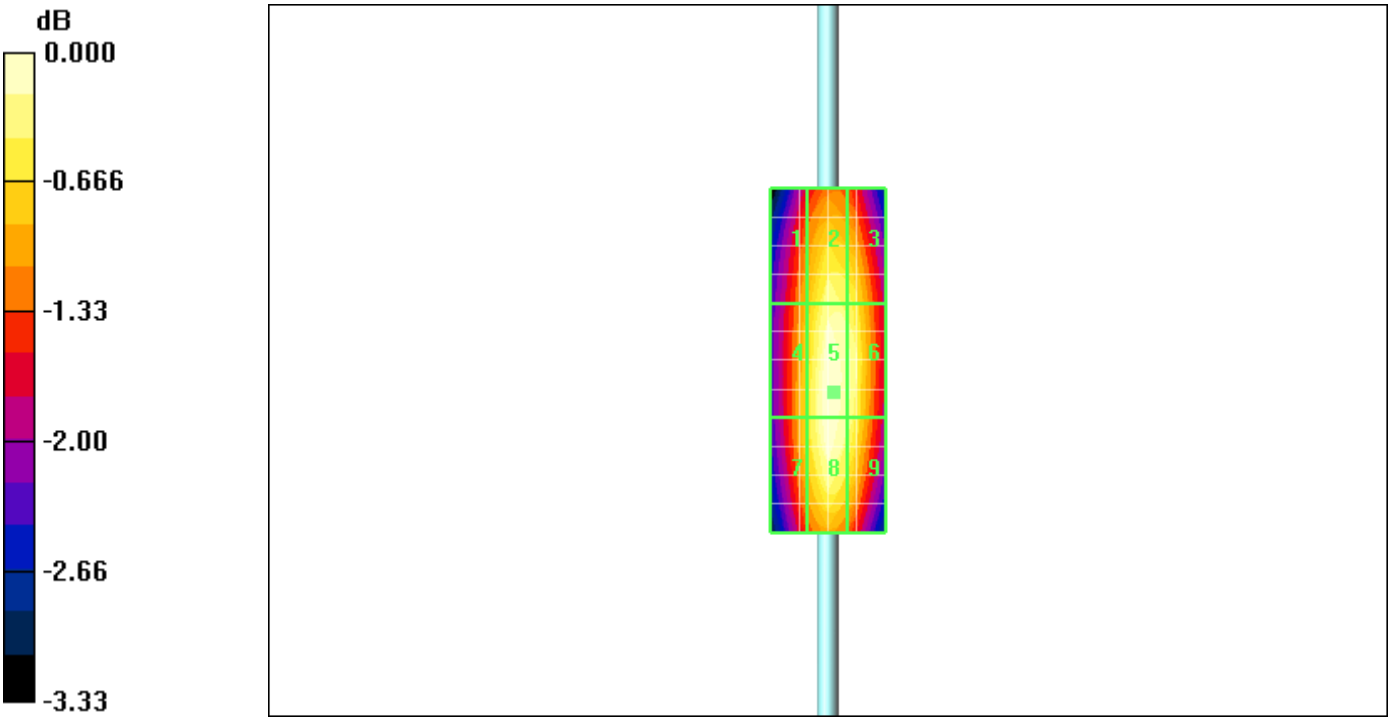
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.338 A/m; Power Drift = -0.008 dB

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

Peak H-field in A/m

Grid 1 **0.297 M4**	Grid 2 **0.314 M4**	Grid 3 **0.311 M4**
Grid 4 **0.305 M4**	Grid 5 **0.324 M4**	Grid 6 **0.319 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.324A/m

Date/Time: 09/12/2008 3:59:20 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_AM835_PMF_CDMA.da4

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

Program Name: HAC RF H3DV6 Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.206 A/m; Power Drift = 0.011 dB

Maximum value of Total (measured) = 0.197 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 = 0.198 A/m

Probe Modulation Factor = 1.00

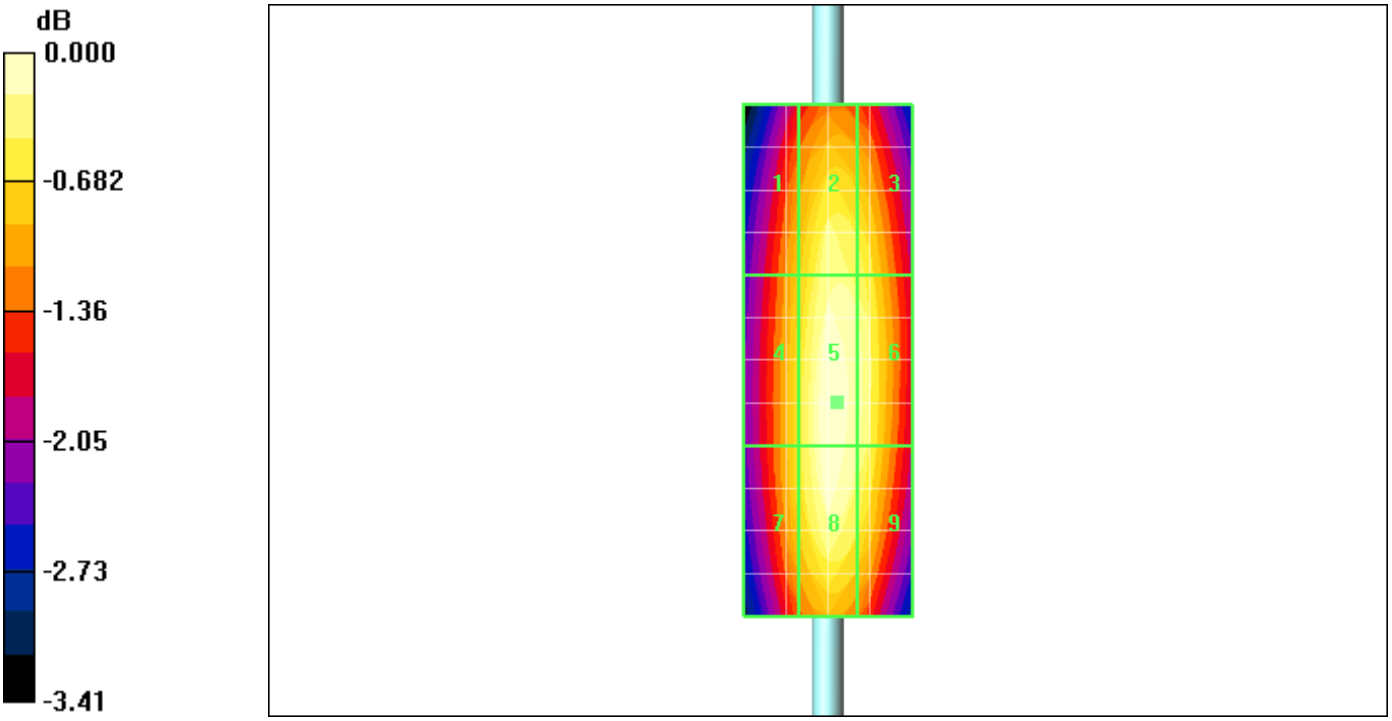
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.206 A/m; Power Drift = 0.011 dB

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

Peak H-field in A/m

Grid 1 **0.182 M4**	Grid 2 **0.192 M4**	Grid 3 **0.190 M4**
Grid 4 **0.186 M4**	Grid 5 **0.198 M4**	Grid 6 **0.195 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.198A/m

Date/Time: 09/12/2008 3:45:33 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CDMA835.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.327 A/m; Power Drift = -0.151 dB

Maximum value of Total (measured) = 0.308 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 = 0.309 A/m

Probe Modulation Factor = 1.00

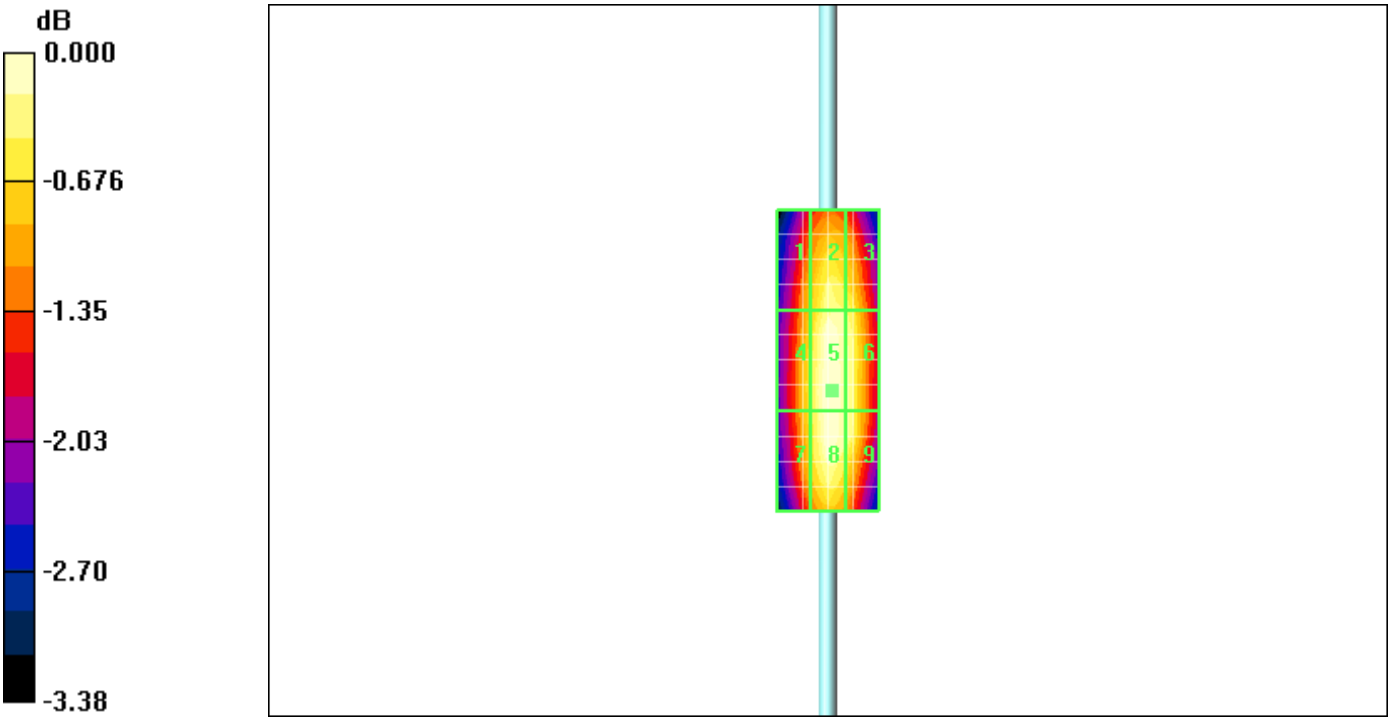
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.327 A/m; Power Drift = -0.151 dB

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

Peak H-field in A/m

Grid 1 **0.285 M4**	Grid 2 **0.301 M4**	Grid 3 **0.299 M4**
Grid 4 **0.293 M4**	Grid 5 **0.309 M4**	Grid 6 **0.305 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.309A/m

Date/Time: 09/12/2008 3:49:24 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CDMA835_One_Eigth.da4

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

Program Name: HAC RF H3DV6 Dipole

Communication System: CDMA 800; Frequency: 835 MHz;Duty Cycle: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.120 A/m; Power Drift = -0.095 dB

Maximum value of Total (measured) = 0.123 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 = 0.125 A/m

Probe Modulation Factor = 1.00

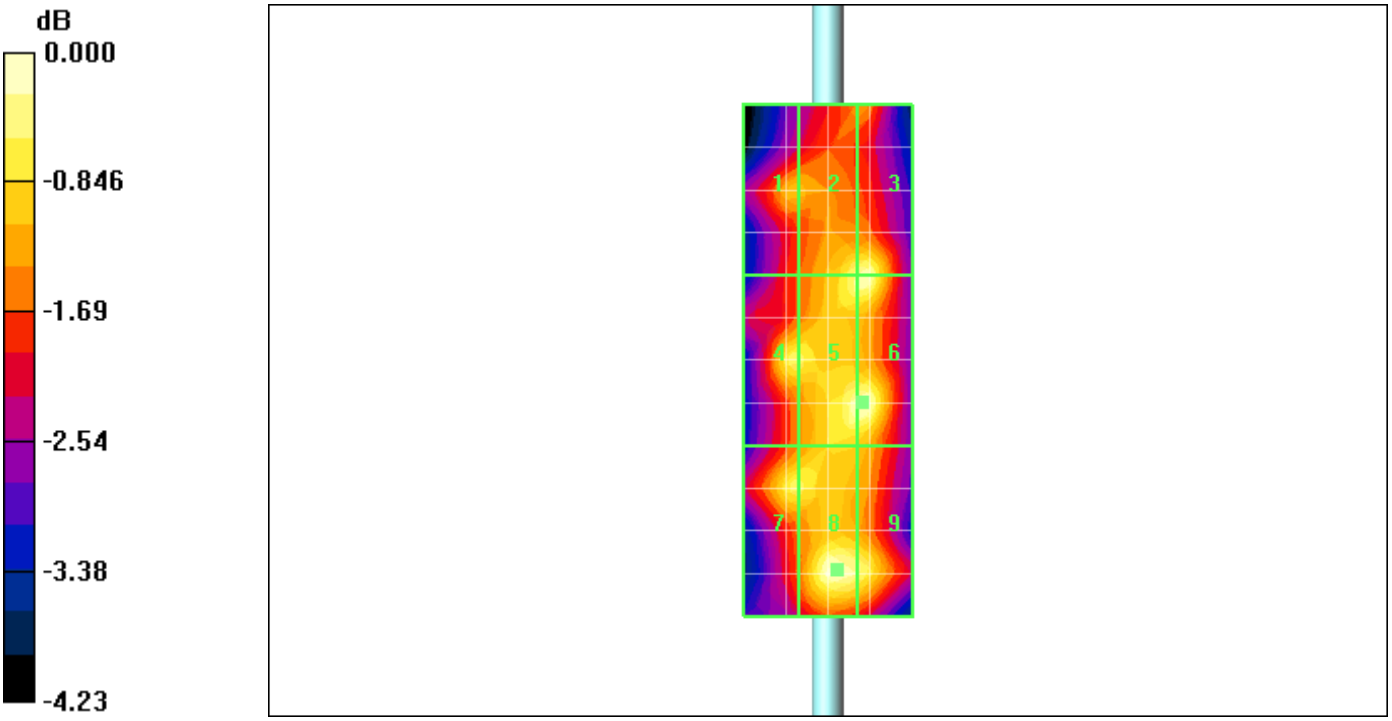
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.120 A/m; Power Drift = -0.095 dB

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

Peak H-field in A/m

Grid 1 **0.112** **M4**	Grid 2 **0.123** **M4**	Grid 3 **0.124** **M4**
Grid 4 **0.119** **M4**	Grid 5 **0.124** **M4**	Grid 6 **0.125** **M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.125A/m

Date/Time: 09/12/2008 3:39:04 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CW1880_20.00dBm.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.451 A/m; Power Drift = -0.056 dB

Maximum value of Total (measured) = 0.427 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 = 0.429 A/m

Probe Modulation Factor = 1.00

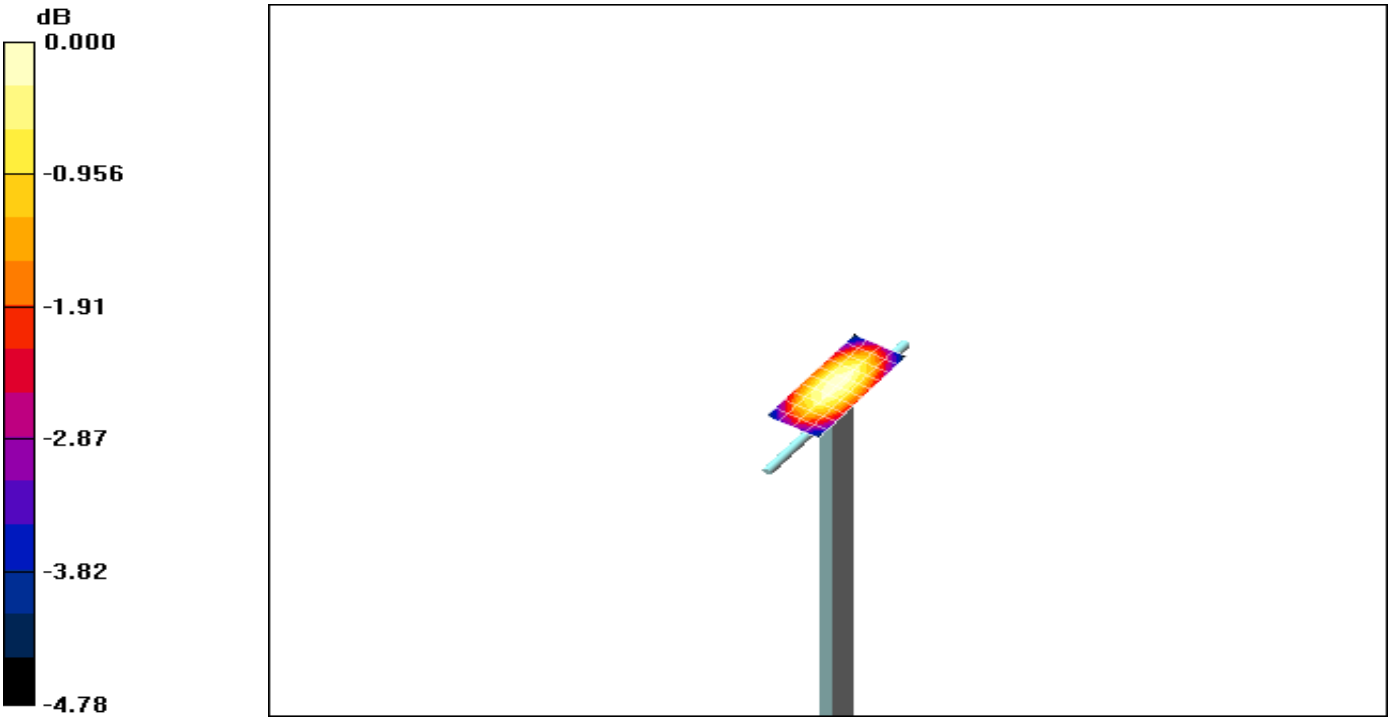
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.451 A/m; Power Drift = -0.056 dB

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

Peak H-field in A/m

Grid 1 **0.394 M2**	Grid 2 **0.415 M2**	Grid 3 **0.410 M2**
Grid 4 **0.405 M2**	Grid 5 **0.429 M2**	Grid 6 **0.423 M2**
Grid 7	Grid 8	Grid 9



0 dB = 0.429A/m

Date/Time: 09/12/2008 3:07:07 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CW1880_PMF_CDMA.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.310 A/m; Power Drift = -0.010 dB

Maximum value of Total (measured) = 0.294 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 = 0.295 A/m

Probe Modulation Factor = 1.00

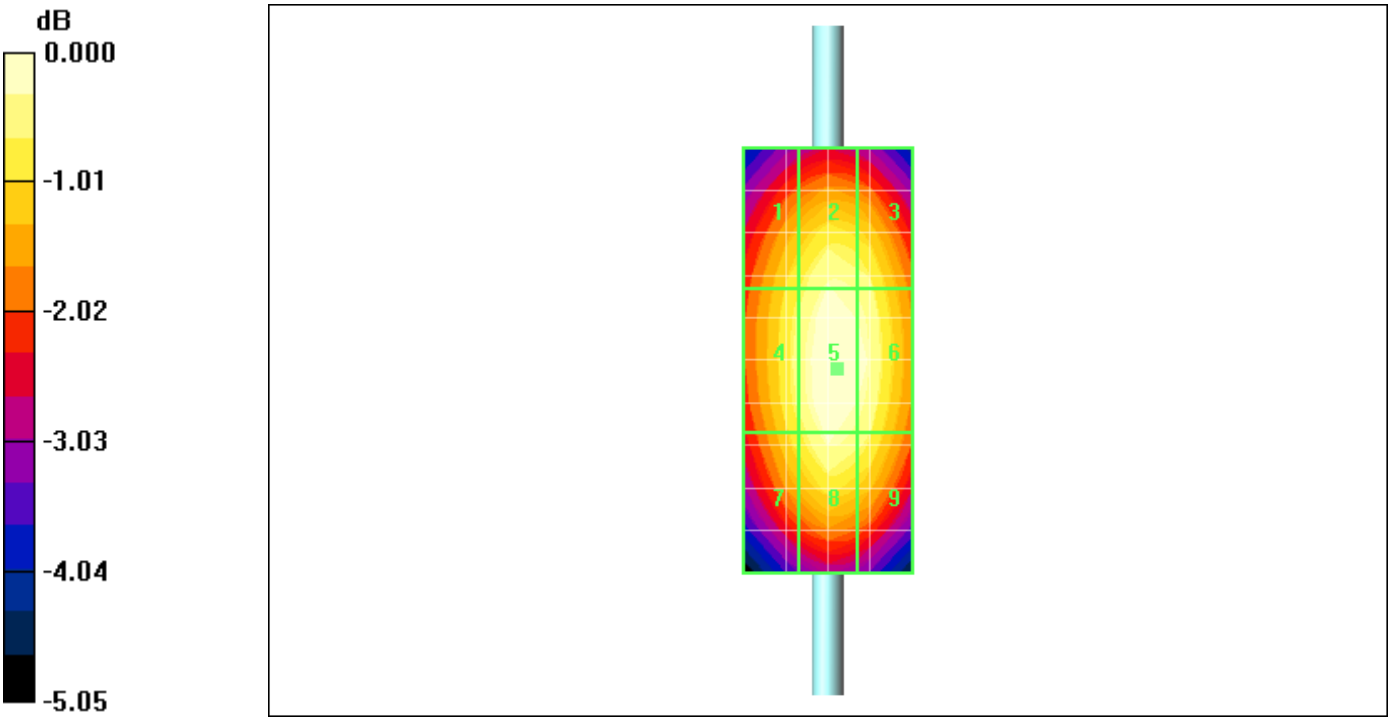
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.310 A/m; Power Drift = -0.010 dB

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

Peak H-field in A/m

Grid 1 **0.272 M3**	Grid 2 **0.286 M3**	Grid 3 **0.282 M3**
Grid 4 **0.279 M3**	Grid 5 **0.295 M3**	Grid 6 **0.291 M3**
Grid 7	Grid 8	Grid 9



0 dB = 0.295A/m

Date/Time: 09/12/2008 3:10:38 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_AM1880_PMF_CDMA.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

H 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, 353.7 mm

Reference Value = 0.198 A/m; Power Drift = 0.055 dB

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

H 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 = 0.190 A/m

Probe Modulation Factor = 1.00

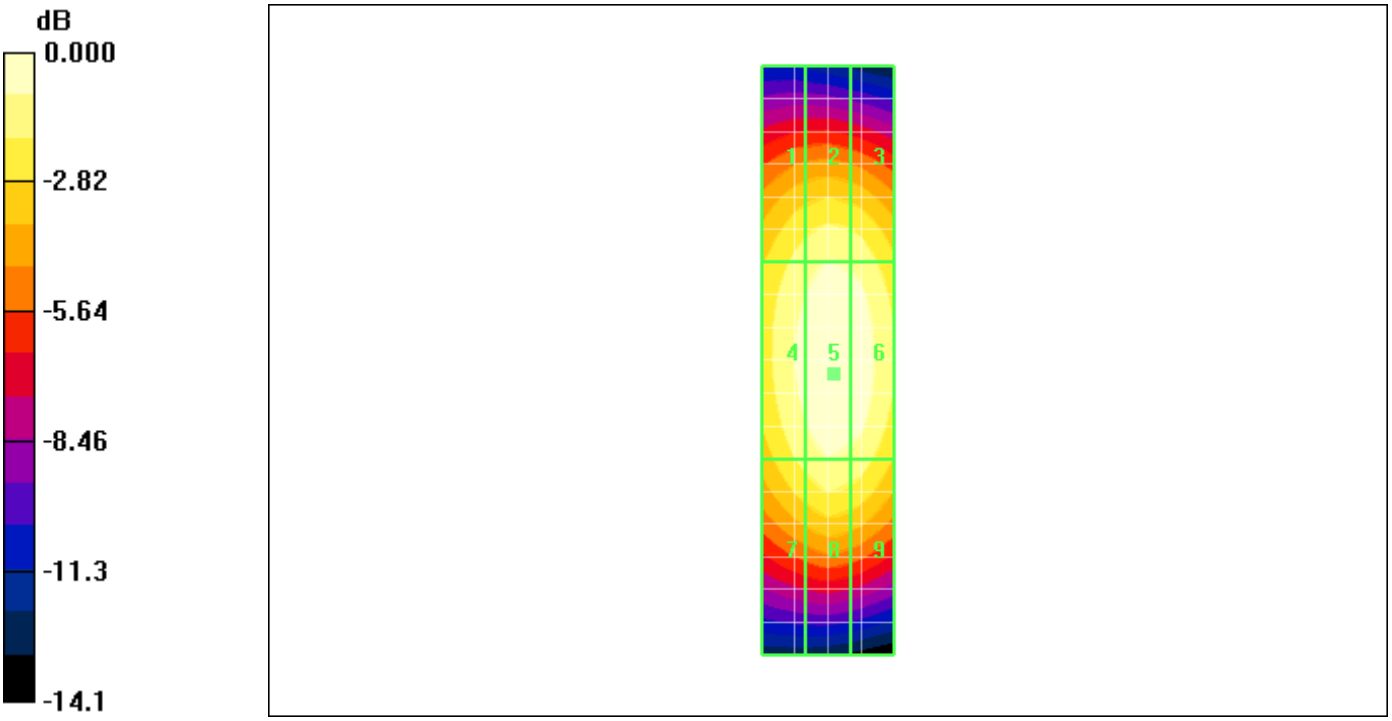
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.198 A/m; Power Drift = 0.055 dB

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

Peak H-field in A/m

Grid 1 **0.163 M4**	Grid 2 **0.172 M4**	Grid 3 **0.169 M4**
Grid 4 **0.177 M4**	Grid 5 **0.190 M4**	Grid 6 **0.186 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.190A/m

Date/Time: 09/12/2008 2:58:16 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CDMA1880.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

H 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, 353.7 mm

Reference Value = 0.301 A/m; Power Drift = 0.081 dB

Maximum value of Total (measured) = 0.285 A/m

H 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 = 0.287 A/m

Probe Modulation Factor = 1.00

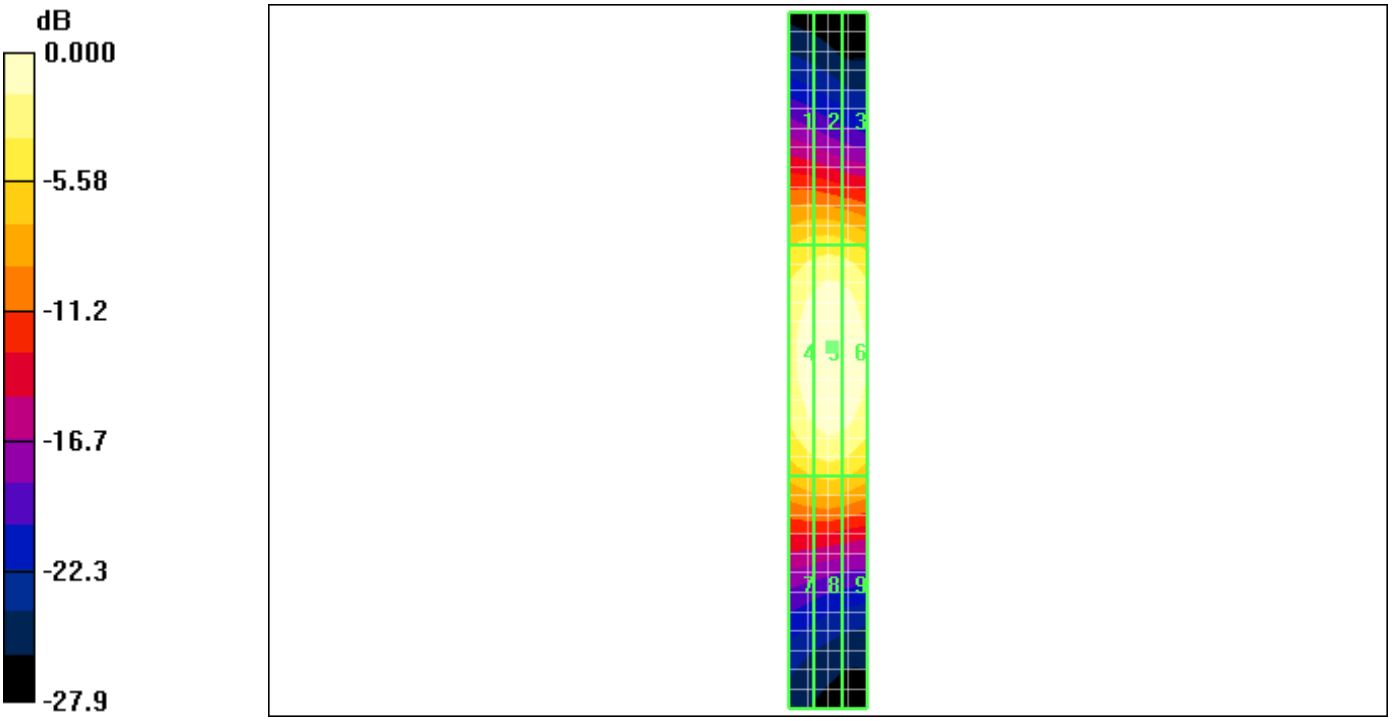
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.301 A/m; Power Drift = 0.081 dB

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

Peak H-field in A/m

Grid 1 **0.167 M4**	Grid 2 **0.169 M4**	Grid 3 **0.166 M4**
Grid 4 **0.267 M3**	Grid 5 **0.287 M3**	Grid 6 **0.281 M3**
Grid 7	Grid 8	Grid 9



0 dB = 0.287A/m

Date/Time: 09/12/2008 2:53:31 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_CDMA1880_One_Eigth.da4

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

Program Name: HAC RF H3DV6 Dipole

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

H 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, 353.7 mm

Reference Value = 0.117 A/m; Power Drift = -0.035 dB

Maximum value of Total (measured) = 0.119 A/m

H 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 = 0.120 A/m

Probe Modulation Factor = 1.00

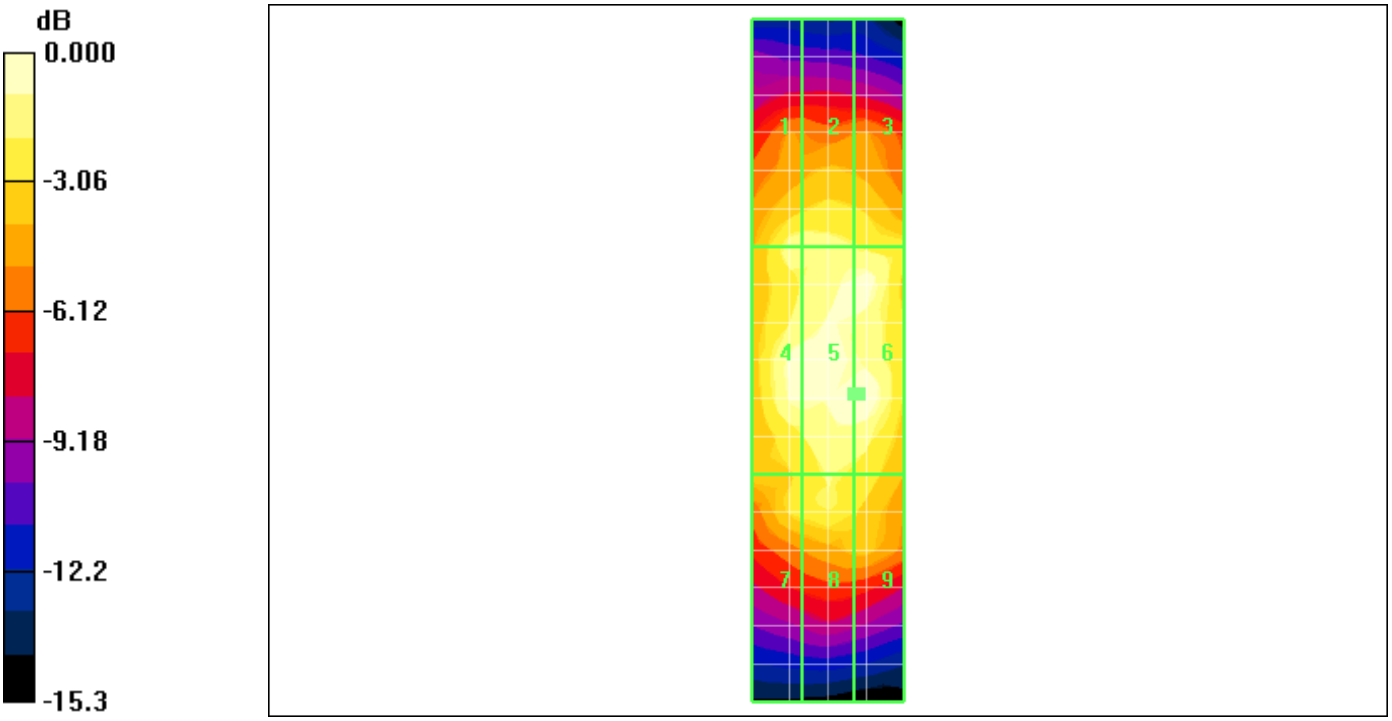
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.117 A/m; Power Drift = -0.035 dB

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

Peak H-field in A/m

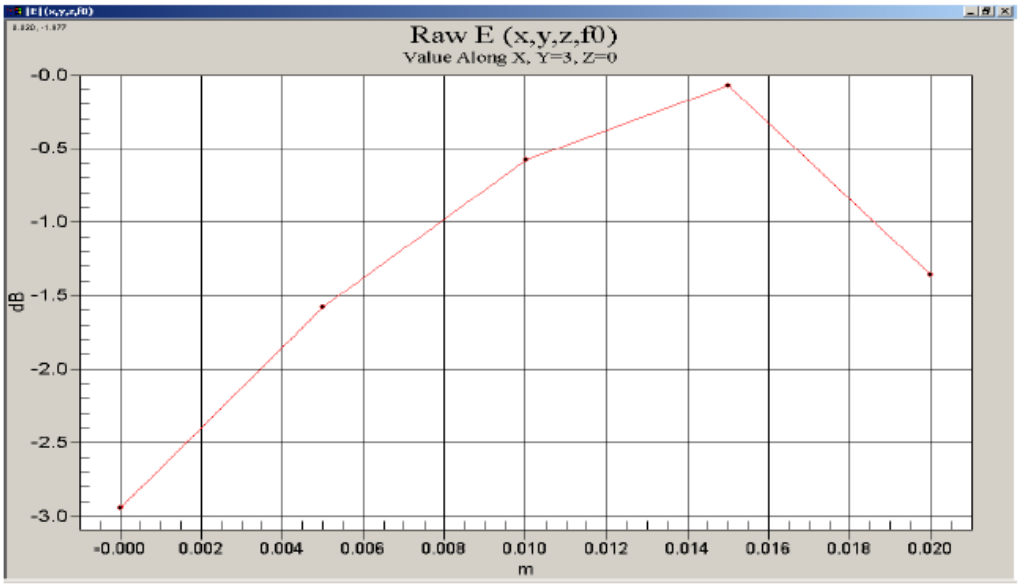
Grid 1 **0.102 M4**	Grid 2 **0.102 M4**	Grid 3 **0.096 M4**
Grid 4 **0.114 M4**	Grid 5 **0.119 M4**	Grid 6 **0.120 M4**
Grid 7	Grid 8	Grid 9



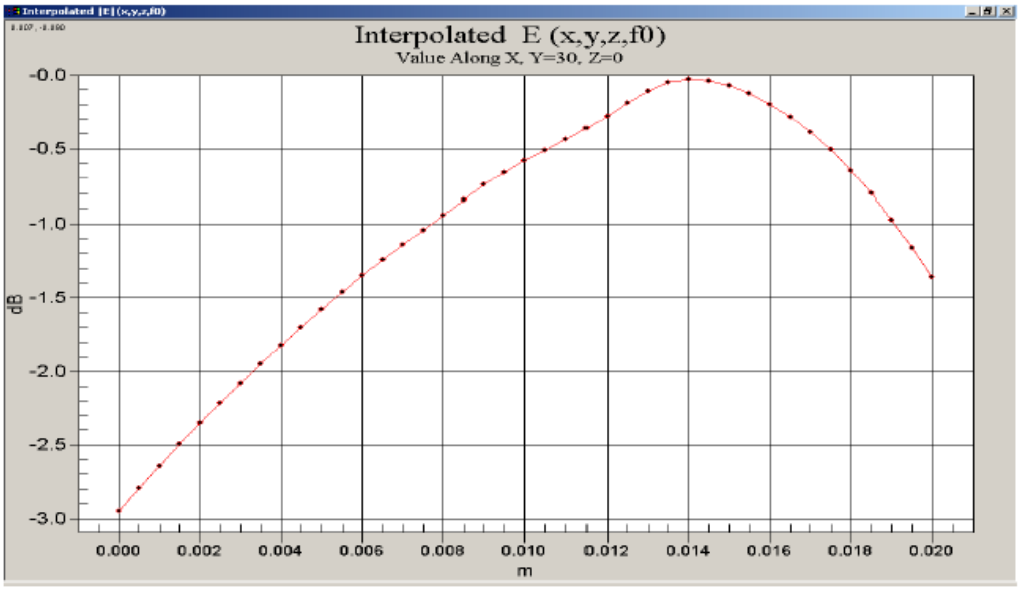
0 dB = 0.120A/m

Justification of Step Size and Interpolation

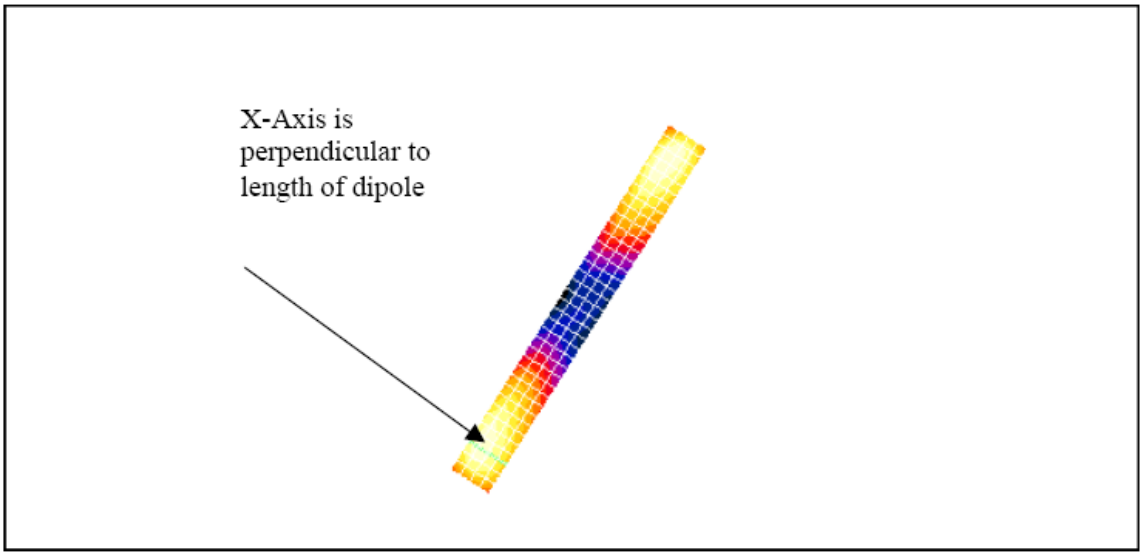
This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.



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)

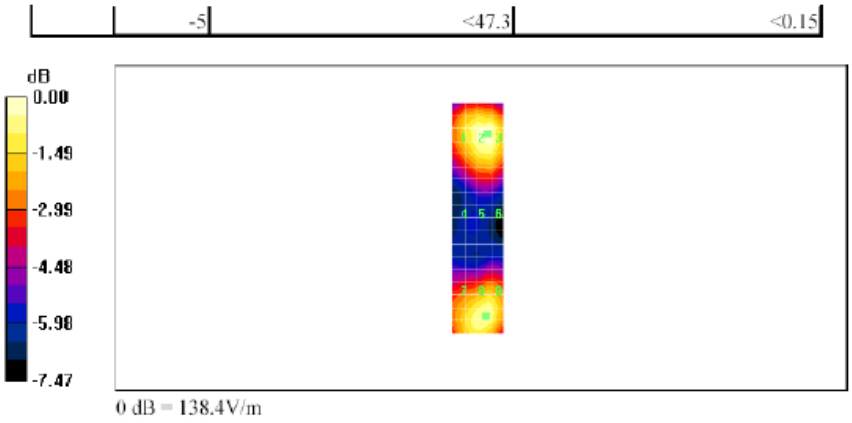
E in V/m (Time averaged)

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)

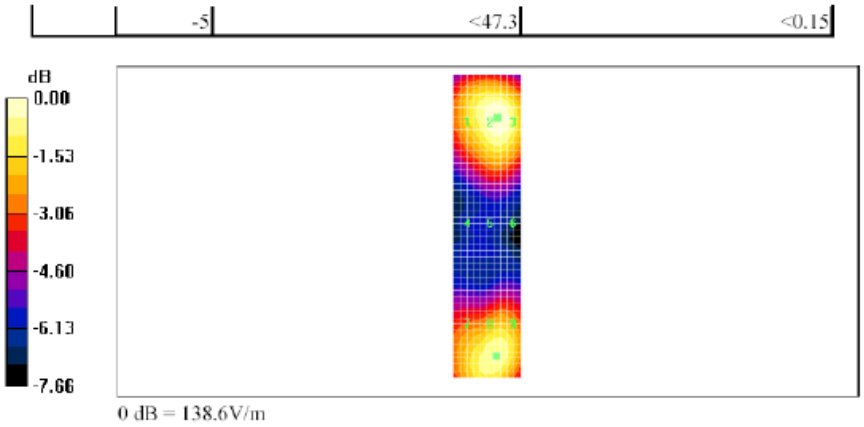
Grid 1	Grid 2	Grid 3
123.1	**138.6**	**138.6**
Grid 4	Grid 5	Grid 6
81.4	**92.1**	**91.6**
Grid 7	Grid 8	Grid 9
121.3	**131.2**	**131.0**

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

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



0 dB = 138.6V/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

H in A/m (Time averaged)

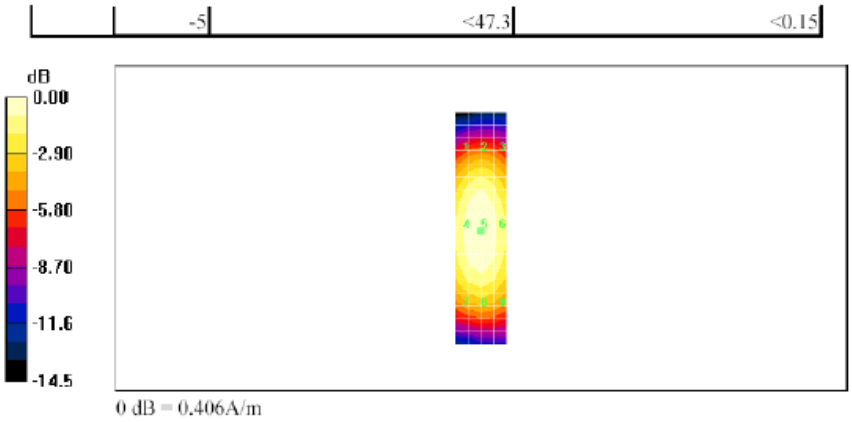
Grid 1	Grid 2	Grid 3
0.342	**0.359**	**0.344**
Grid 4	Grid 5	Grid 6
0.389	**0.406**	**0.389**
Grid 7	Grid 8	Grid 9
0.363	**0.378**	**0.363**

H in A/m (Slot averaged)

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

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

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



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

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

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

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

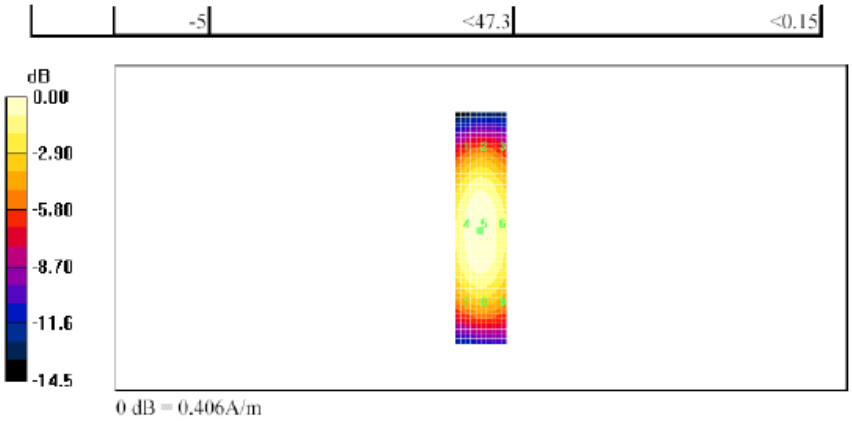
H in A/m (Time averaged)

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

H in A/m (Slot averaged)

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

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



A.3 RF emission field and ambient noise plots

Date/Time: 09/12/2008 4:33:20 PM

Test Laboratory: RTS

File Name: HAC_E_CDMA800_Low_Chan_FR.da4

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

Program Name: HAC RF ER3D Device

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 101.5 V/m; Power Drift = -0.185 dB

Maximum value of Total (measured) = 79.1 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 81.1 V/m

Probe Modulation Factor = 1.02

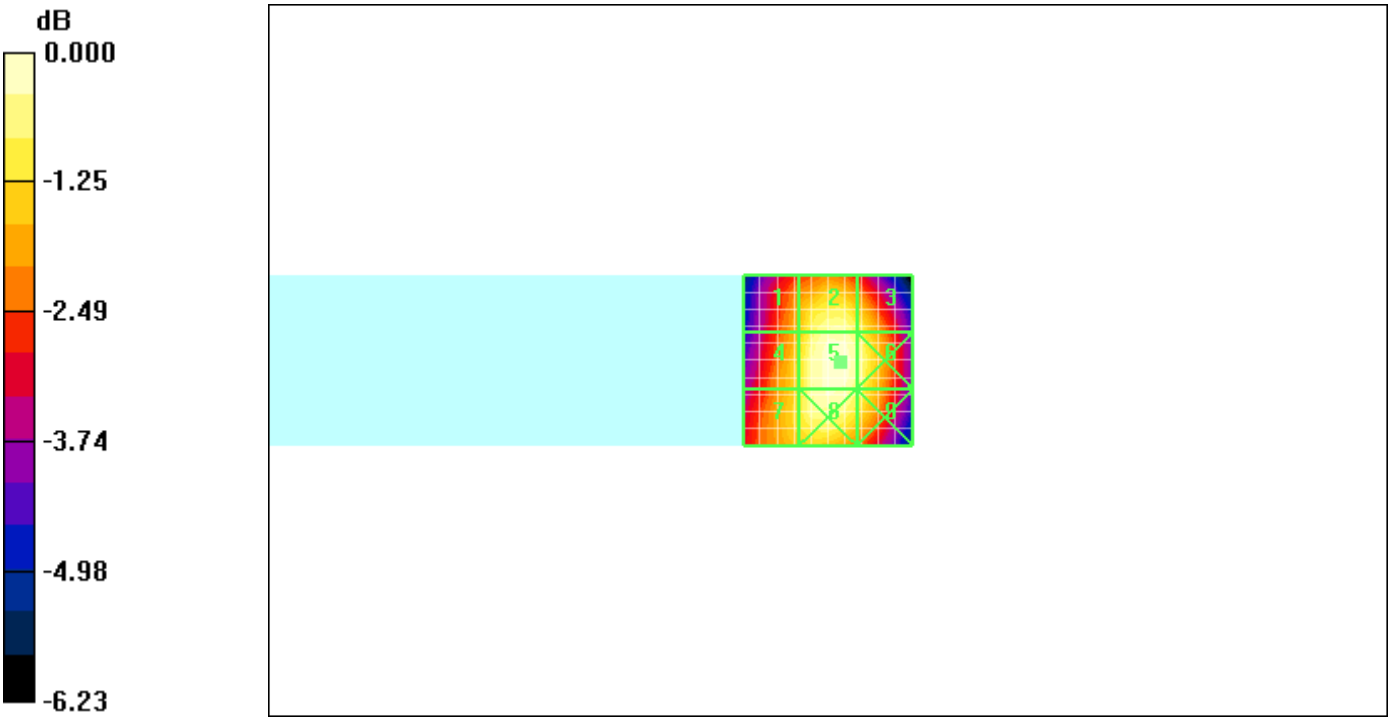
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 101.5 V/m; Power Drift = -0.185 dB

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

Peak E-field in V/m

Grid 1 **68.7 M4**	Grid 2 **78.4 M4**	Grid 3 **74.9 M4**
Grid 4 **71.9 M4**	Grid 5 **81.1 M4**	Grid 6 **77.7 M4**
Grid 7	Grid 8	Grid 9



0 dB = 81.1V/m

Date/Time: 09/12/2008 4:47:05 PM

Test Laboratory: RTS

File Name: HAC_E_CDMA800_Mid_Chan_FR.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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 106.1 V/m; Power Drift = 0.005 dB

Maximum value of Total (measured) = 80.2 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 = 82.2 V/m

Probe Modulation Factor = 1.02

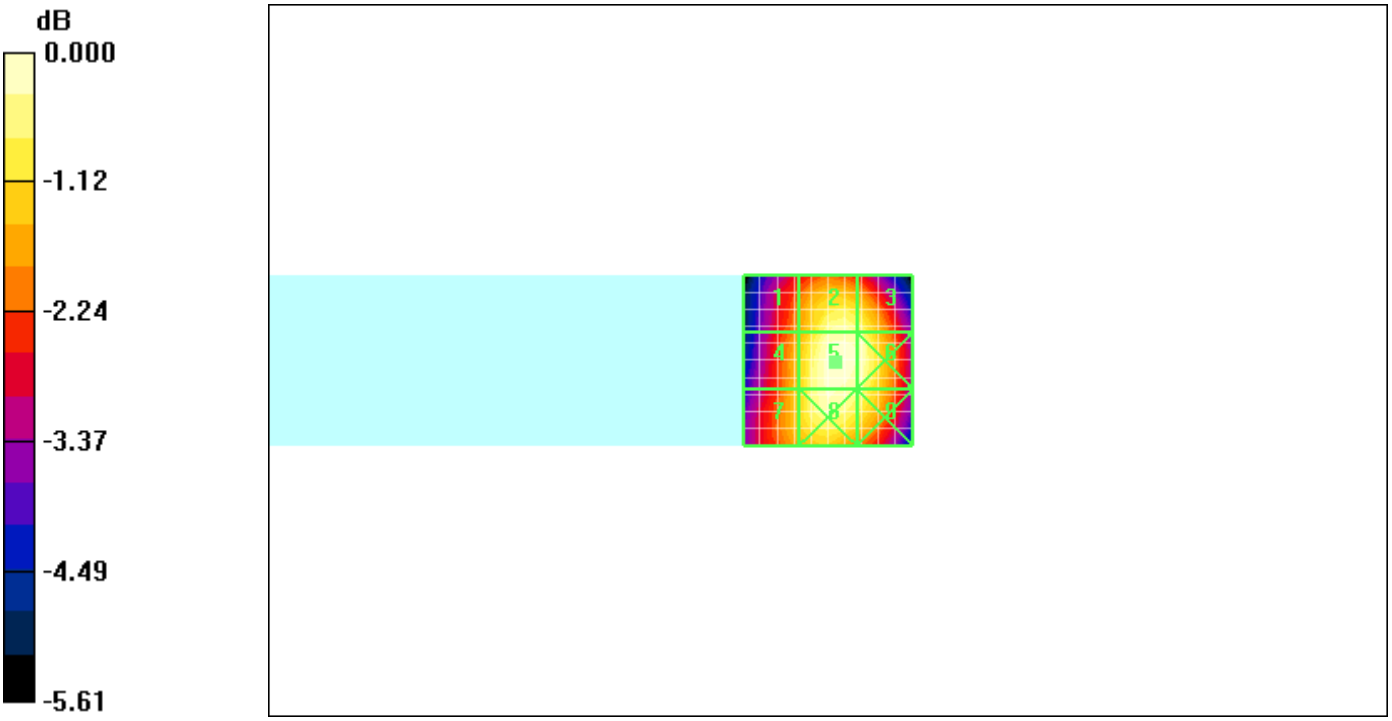
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 106.1 V/m; Power Drift = 0.005 dB

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

Peak E-field in V/m

Grid 1 **68.2 M4**	Grid 2 **79.9 M4**	Grid 3 **78.3 M4**
Grid 4 **72.3 M4**	Grid 5 **82.2 M4**	Grid 6 **80.9 M4**
Grid 7	Grid 8	Grid 9



0 dB = 82.2V/m

Date/Time: 09/12/2008 4:56:41 PM

Test Laboratory: RTS

File Name: HAC_E_CDMA800_High_Chan_FR.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: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 108.3 V/m; Power Drift = 0.065 dB

Maximum value of Total (measured) = 83.4 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 = 85.1 V/m

Probe Modulation Factor = 1.02

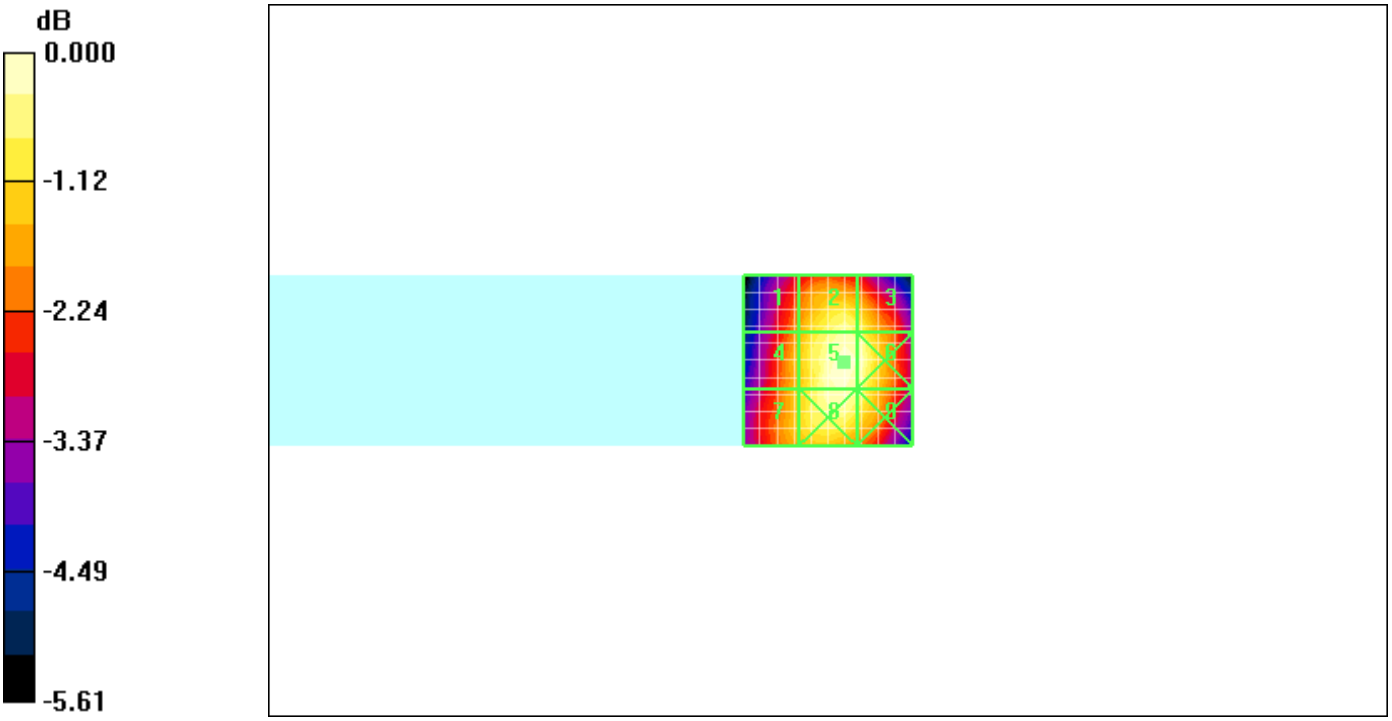
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 108.3 V/m; Power Drift = 0.065 dB

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

Peak E-field in V/m

Grid 1 **70.9 M4**	Grid 2 **81.9 M4**	Grid 3 **80.1 M4**
Grid 4 **74.5 M4**	Grid 5 **85.1 M4**	Grid 6 **83.6 M4**
Grid 7	Grid 8	Grid 9



0 dB = 85.1V/m

Date/Time: 10/12/2008 9:04:51 AM

Test Laboratory: RTS

File Name: HAC_E_CDMA800_High_Chan_One_Eigth.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: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 42.7 V/m; Power Drift = 0.112 dB

Maximum value of Total (measured) = 32.9 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 = 88.2 V/m

Probe Modulation Factor = 2.68

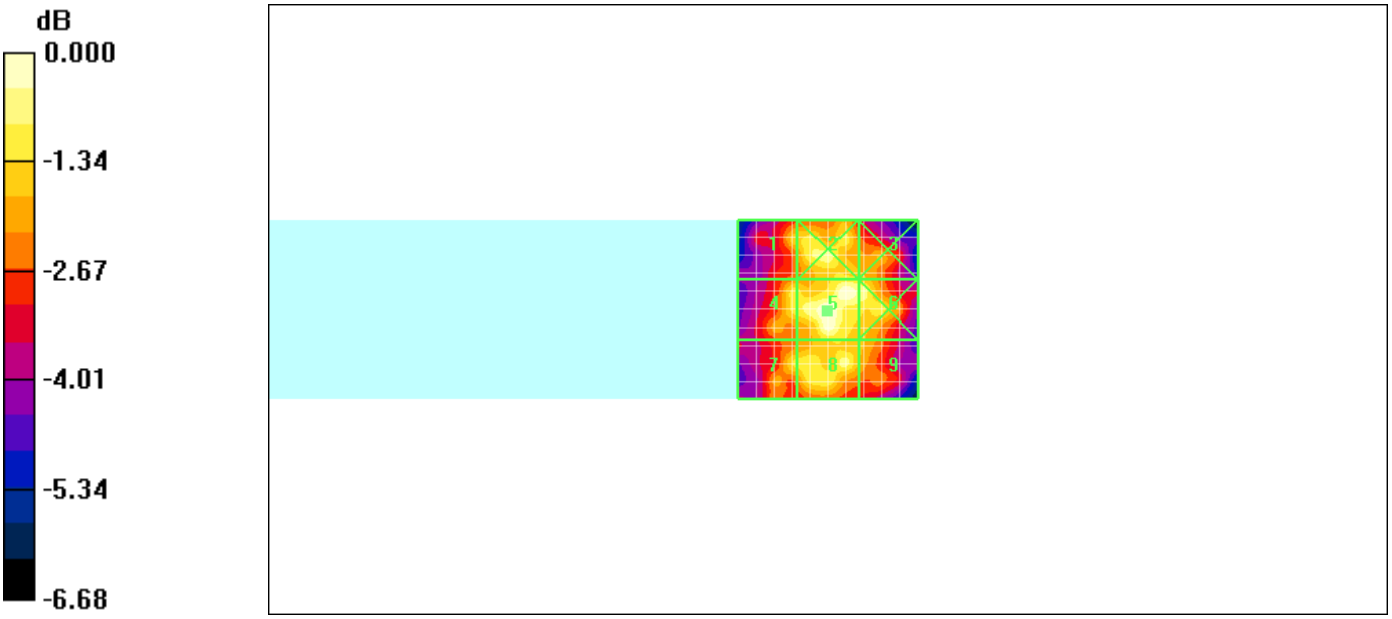
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 42.7 V/m; Power Drift = 0.112 dB

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

Peak E-field in V/m

Grid 1 **75.0 M4**	Grid 2 **82.2 M4**	Grid 3 **75.5 M4**
Grid 4 **78.8 M4**	Grid 5 **88.2 M4**	Grid 6 **83.5 M4**
Grid 7	Grid 8	Grid 9



0 dB = 88.2V/m

Date/Time: 10/12/2008 9:21:17 AM

Test Laboratory: RTS

File Name: HAC_E_CDMA1900_Low_Chan_FR.da4

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

Program Name: HAC RF ER3D Device

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 26.6 V/m; Power Drift = 0.139 dB

Maximum value of Total (measured) = 32.8 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 30.5 V/m

Probe Modulation Factor = 1.07

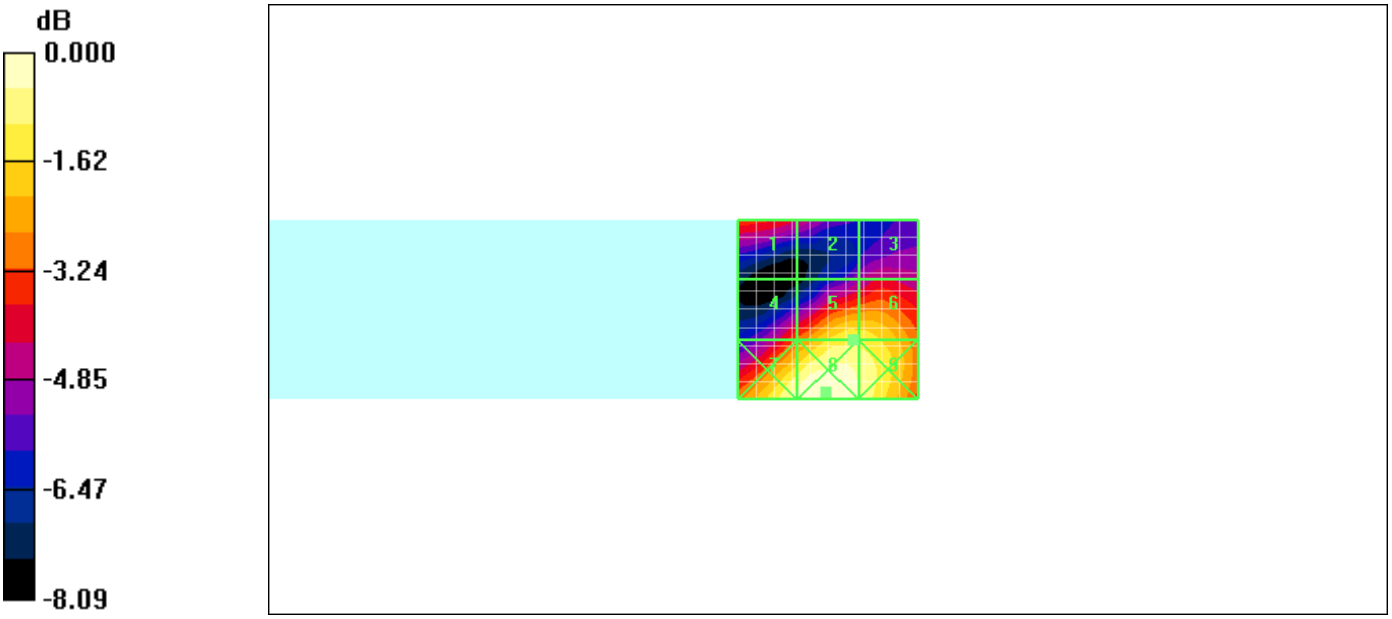
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 26.6 V/m; Power Drift = 0.139 dB

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

Peak E-field in V/m

Grid 1 **23.7 M4**	Grid 2 **21.6 M4**	Grid 3 **21.7 M4**
Grid 4 **24.8 M4**	Grid 5 **30.5 M4**	Grid 6 **30.5 M4**
Grid 7	Grid 8	Grid 9



0 dB = 35.3V/m

Date/Time: 10/12/2008 9:36:54 AM

Test Laboratory: RTS

File Name: HAC_E_CDMA1900_Mid_Chan_FR.da4

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

Program Name: HAC RF ER3D Device

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 24.6 V/m; Power Drift = 0.380 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 = 31.6 V/m

Probe Modulation Factor = 1.07

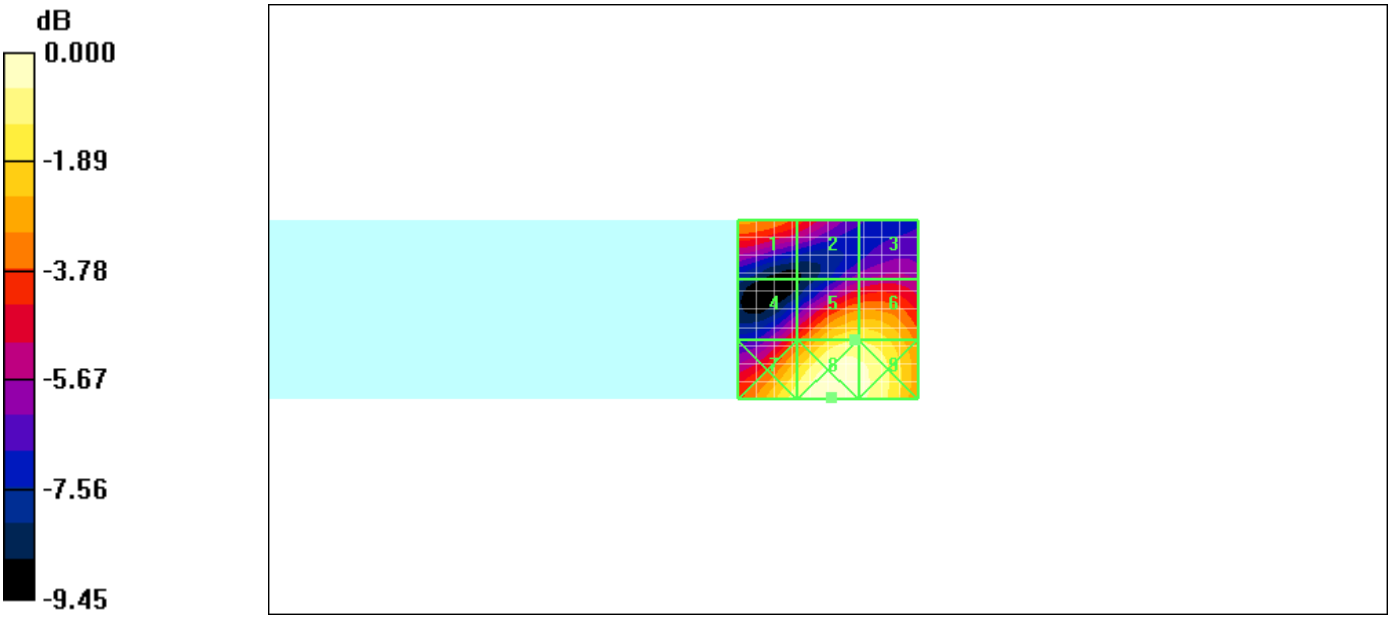
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 24.6 V/m; Power Drift = 0.380 dB

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

Peak E-field in V/m

Grid 1 **26.4 M4**	Grid 2 **23.1 M4**	Grid 3 **20.0 M4**
Grid 4 **23.5 M4**	Grid 5 **31.6 M4**	Grid 6 **31.6 M4**
Grid 7	Grid 8	Grid 9



0 dB = 36.8V/m

Date/Time: 10/12/2008 9:44:20 AM

Test Laboratory: RTS

File Name: HAC_E_CDMA1900_High_Chan_FR.da4

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

Program Name: HAC RF ER3D Device

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 22.8 V/m; Power Drift = 0.239 dB

Maximum value of Total (measured) = 32.8 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 29.8 V/m

Probe Modulation Factor = 1.07

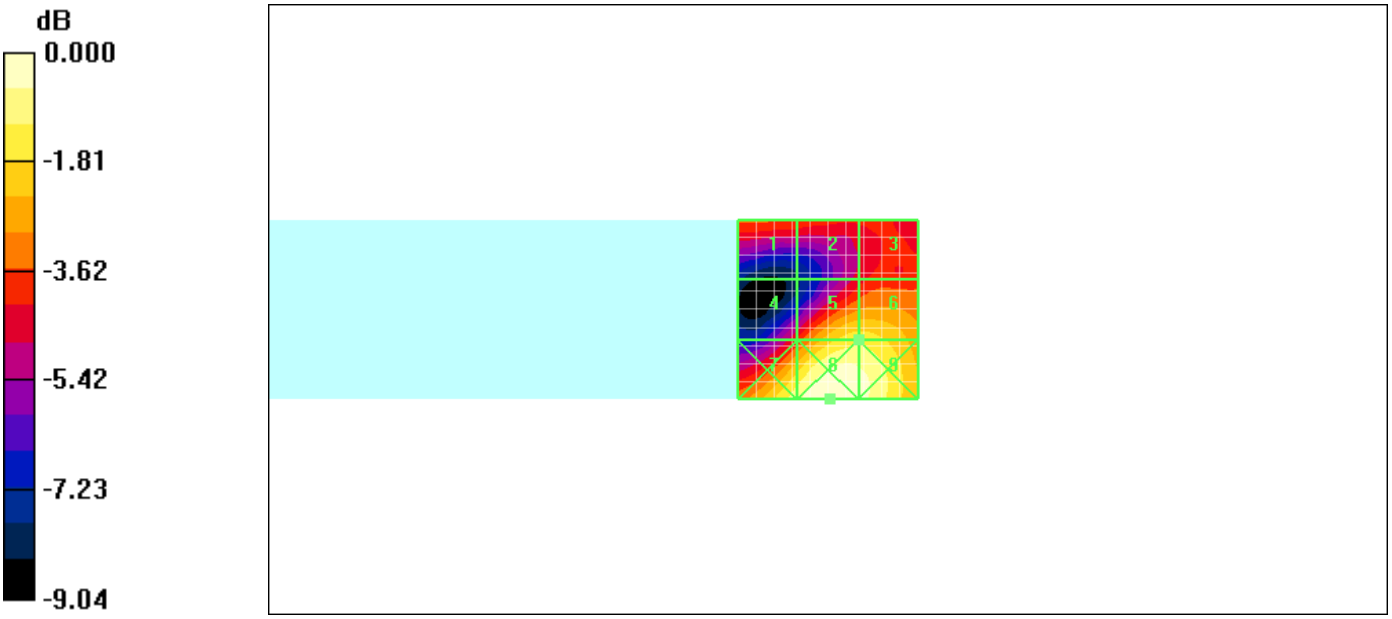
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 22.8 V/m; Power Drift = 0.239 dB

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

Peak E-field in V/m

Grid 1 **23.7 M4**	Grid 2 **23.1 M4**	Grid 3 **23.0 M4**
Grid 4 **22.2 M4**	Grid 5 **29.8 M4**	Grid 6 **29.8 M4**
Grid 7	Grid 8	Grid 9



0 dB = 35.2V/m

Date/Time: 10/12/2008 10:25:15 AM

Test Laboratory: RTS

File Name: HAC_E_CDMA1900_Mid_Chan_One_Eigth.da4

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

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 8.67 V/m; Power Drift = 0.691 dB

Maximum value of Total (measured) = 13.1 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 31.1 V/m

Probe Modulation Factor = 2.84

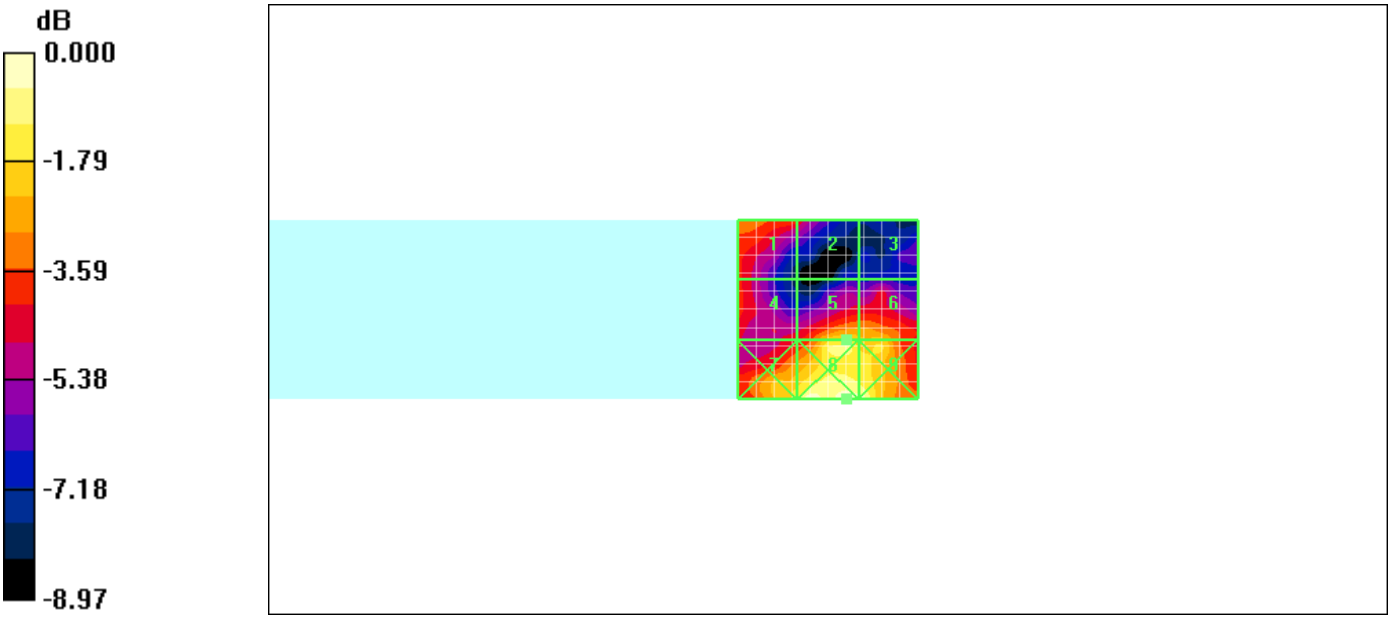
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 8.67 V/m; Power Drift = 0.691 dB

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

Peak E-field in V/m

Grid 1 **25.9 M4**	Grid 2 **24.0 M4**	Grid 3 **18.4 M4**
Grid 4 **24.0 M4**	Grid 5 **31.1 M4**	Grid 6 **29.4 M4**
Grid 7	Grid 8	Grid 9



0 dB = 37.3V/m

Date/Time: 10/12/2008 11:06:21 AM

Test Laboratory: RTS

File Name: HAC_H_CDMA800_Low_Chan_FR.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: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.097 A/m; Power Drift = -0.088 dB

Maximum value of Total (measured) = 0.169 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 = 0.175 A/m

Probe Modulation Factor = 1.05

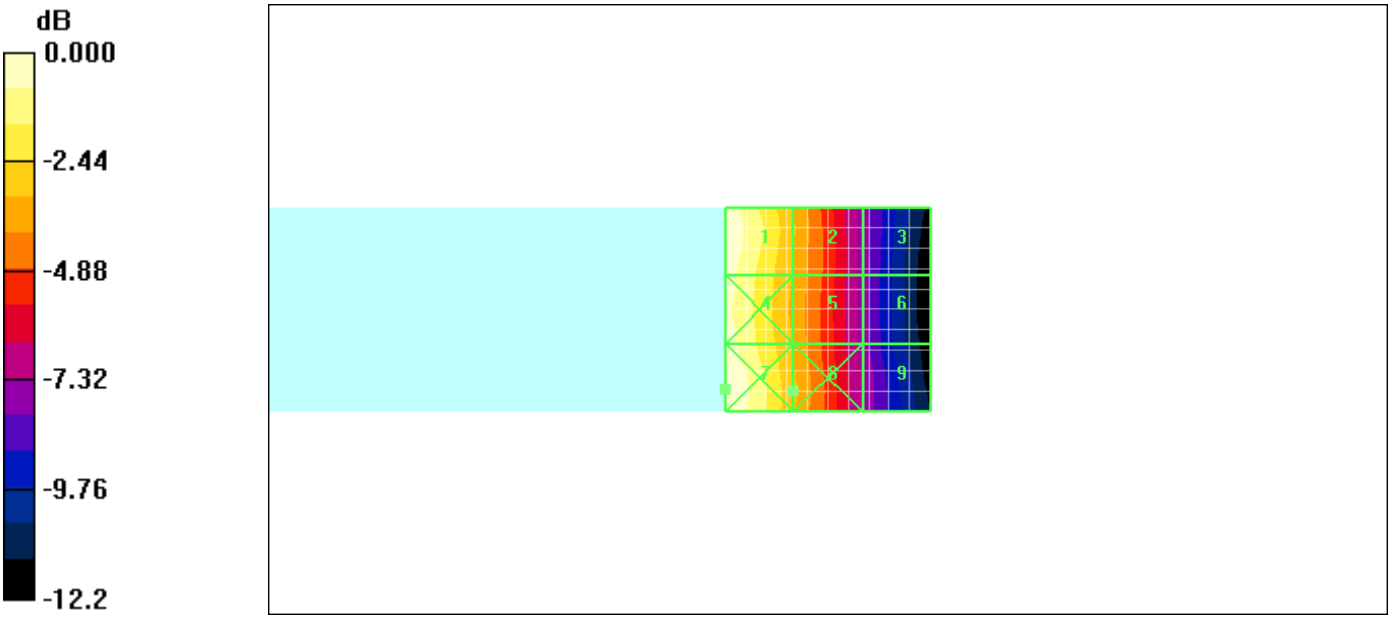
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.097 A/m; Power Drift = -0.088 dB

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

Peak H-field in A/m

Grid 1 **0.175 M4**	Grid 2 **0.124 M4**	Grid 3 **0.074 M4**
Grid 4 **0.170 M4**	Grid 5 **0.122 M4**	Grid 6 **0.074 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.178A/m

Date/Time: 10/12/2008 11:21:35 AM

Test Laboratory: RTS

File Name: HAC_H_CDMA800_Mid_Chan_FR.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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.080 A/m; Power Drift = -0.129 dB

Maximum value of Total (measured) = 0.132 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 = 0.136 A/m

Probe Modulation Factor = 1.05

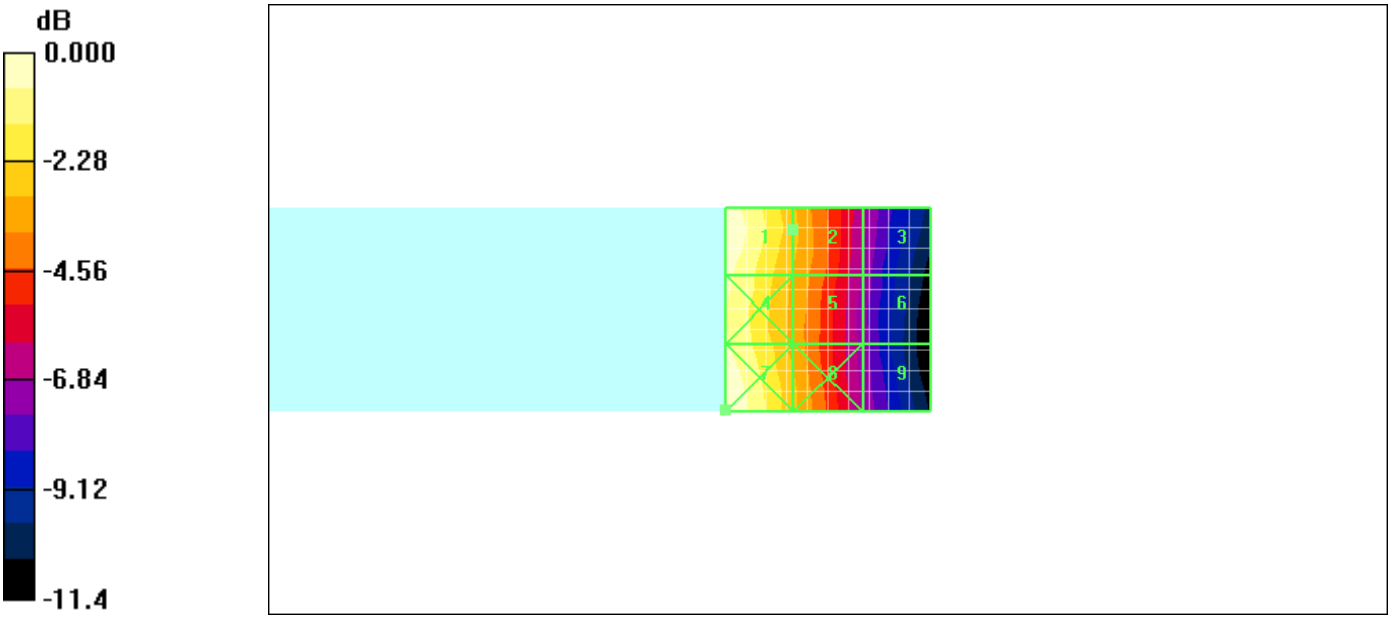
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.080 A/m; Power Drift = -0.129 dB

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

Peak H-field in A/m

Grid 1 **0.136 M4**	Grid 2 **0.100 M4**	Grid 3 **0.065 M4**
Grid 4 **0.130 M4**	Grid 5 **0.097 M4**	Grid 6 **0.062 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.138A/m

Date/Time: 10/12/2008 11:28:18 AM

Test Laboratory: RTS

File Name: HAC_H_CDMA800_High_Chan_FR.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: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.089 A/m; Power Drift = -0.009 dB

Maximum value of Total (measured) = 0.163 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 = 0.159 A/m

Probe Modulation Factor = 1.05

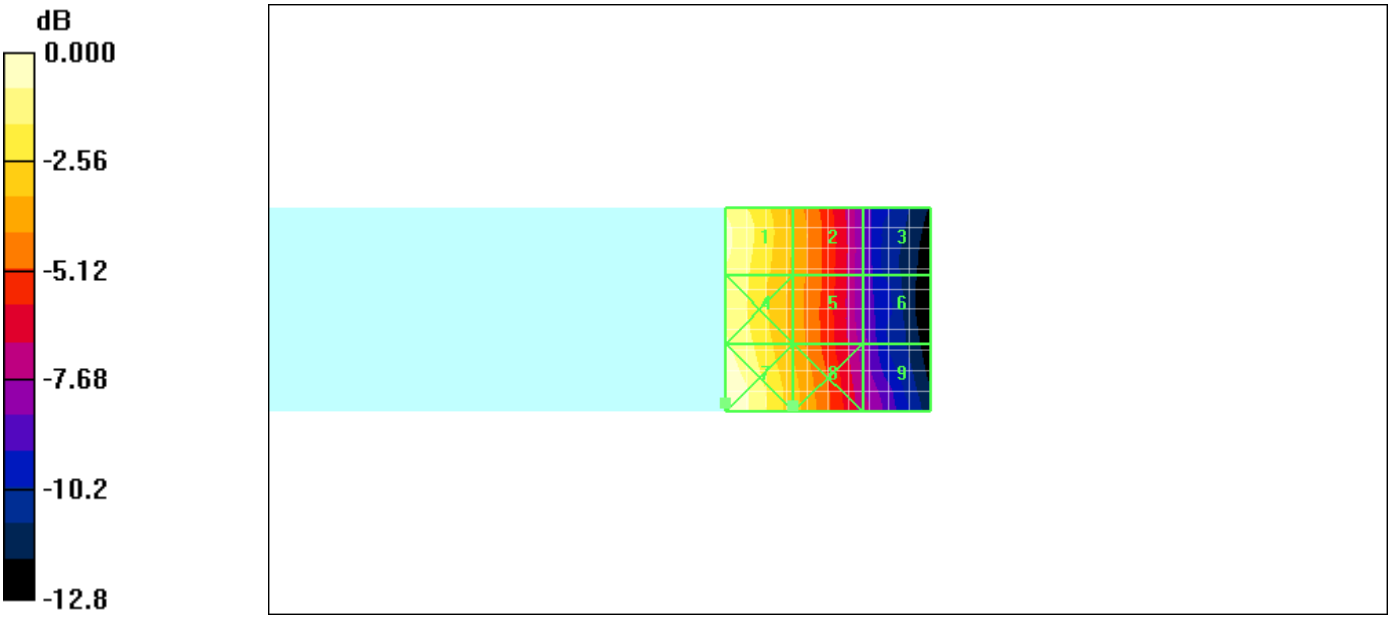
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.089 A/m; Power Drift = -0.009 dB

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

Peak H-field in A/m

Grid 1 **0.159 M4**	Grid 2 **0.114 M4**	Grid 3 **0.064 M4**
Grid 4 **0.157 M4**	Grid 5 **0.113 M4**	Grid 6 **0.068 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.171A/m

Date/Time: 10/12/2008 11:47:44 AM

Test Laboratory: RTS

File Name: HAC_H_CDMA800_Low_Chan_One_Eigth.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: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.033 A/m; Power Drift = 0.036 dB

Maximum value of Total (measured) = 0.061 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 = 0.159 A/m

Probe Modulation Factor = 2.59

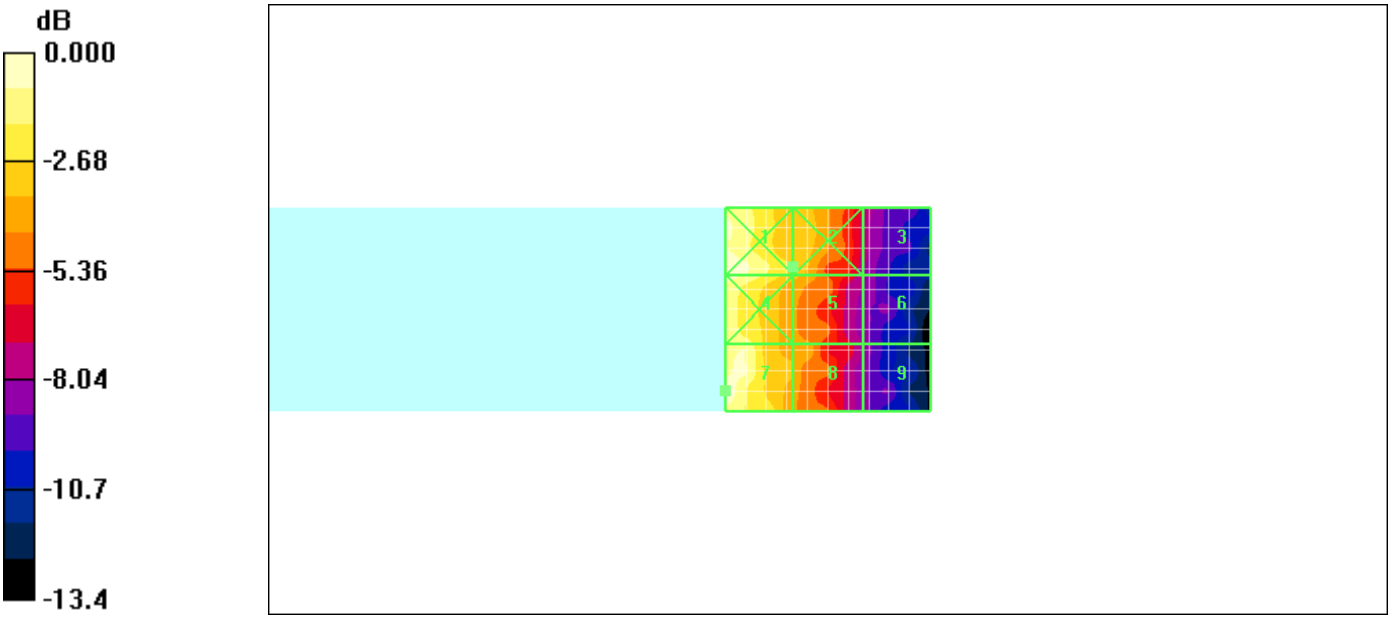
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.033 A/m; Power Drift = 0.036 dB

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

Peak H-field in A/m

Grid 1 **0.159 M4**	Grid 2 **0.115 M4**	Grid 3 **0.070 M4**
Grid 4 **0.155 M4**	Grid 5 **0.111 M4**	Grid 6 **0.064 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.159A/m

Date/Time: 10/12/2008 12:10:06 PM

Test Laboratory: RTS

File Name: HAC_H_CDMA1900_Low_Chan_FR.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: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

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

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

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.084 A/m

Probe Modulation Factor = 1.03

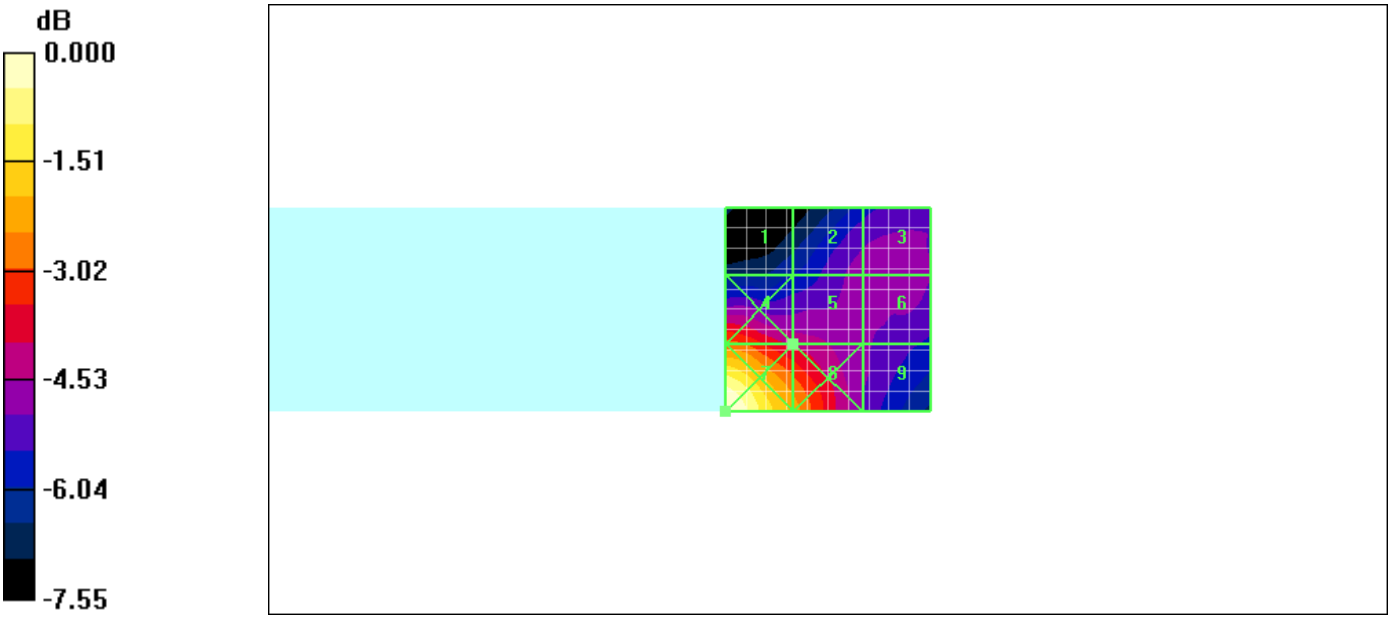
Device Reference Point: 0.000, 0.000, 353.7 mm

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

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

Peak H-field in A/m

Grid 1 **0.067 M4**	Grid 2 **0.077 M4**	Grid 3 **0.078 M4**
Grid 4 **0.097 M4**	Grid 5 **0.084 M4**	Grid 6 **0.078 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.134A/m

Date/Time: 10/12/2008 12:16:23 PM

Test Laboratory: RTS

File Name: HAC_H_CDMA1900_Mid_Chan_FR.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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.084 A/m; Power Drift = -0.167 dB

Maximum value of Total (measured) = 0.123 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.082 A/m

Probe Modulation Factor = 1.03

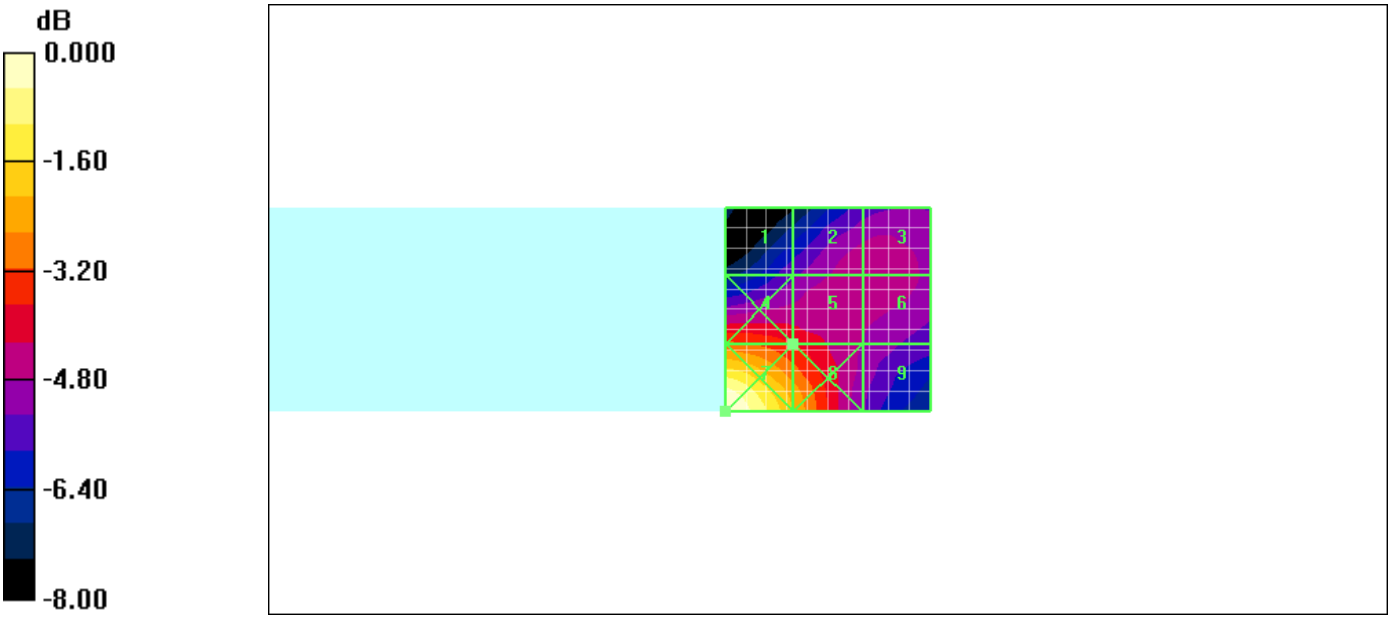
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.084 A/m; Power Drift = -0.167 dB

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

Peak H-field in A/m

Grid 1 **0.068 M4**	Grid 2 **0.076 M4**	Grid 3 **0.076 M4**
Grid 4 **0.089 M4**	Grid 5 **0.082 M4**	Grid 6 **0.076 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.126A/m

Date/Time: 10/12/2008 12:22:13 PM

Test Laboratory: RTS

File Name: HAC_H_CDMA1900_High_Chan_FR.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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.078 A/m; Power Drift = -0.006 dB

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

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.085 A/m

Probe Modulation Factor = 1.03

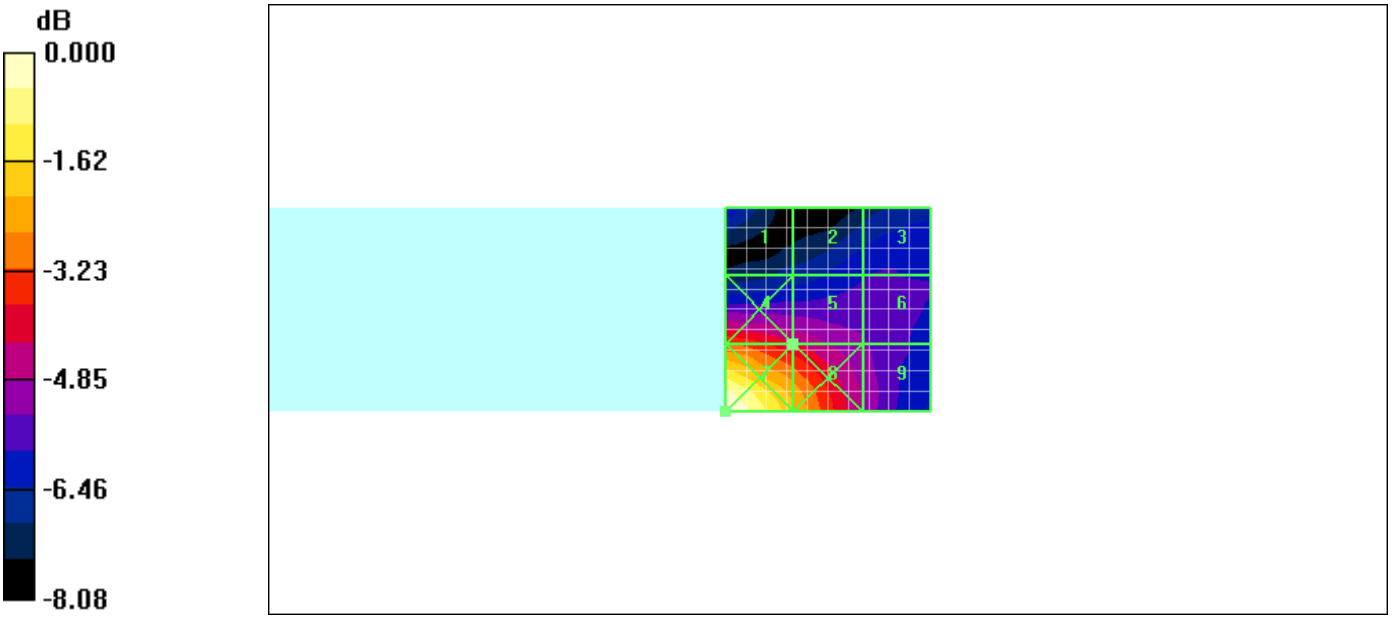
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.078 A/m; Power Drift = -0.006 dB

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

Peak H-field in A/m

Grid 1 **0.070 M4**	Grid 2 **0.069 M4**	Grid 3 **0.070 M4**
Grid 4 **0.095 M4**	Grid 5 **0.085 M4**	Grid 6 **0.075 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.138A/m

Date/Time: 10/12/2008 12:29:36 PM

Test Laboratory: RTS

File Name: HAC_H_CDMA1900_High_Chan_One_Eigth.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: 1:8

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 0.027 A/m; Power Drift = -0.041 dB

Maximum value of Total (measured) = 0.050 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the

Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.076 A/m

Probe Modulation Factor = 2.46

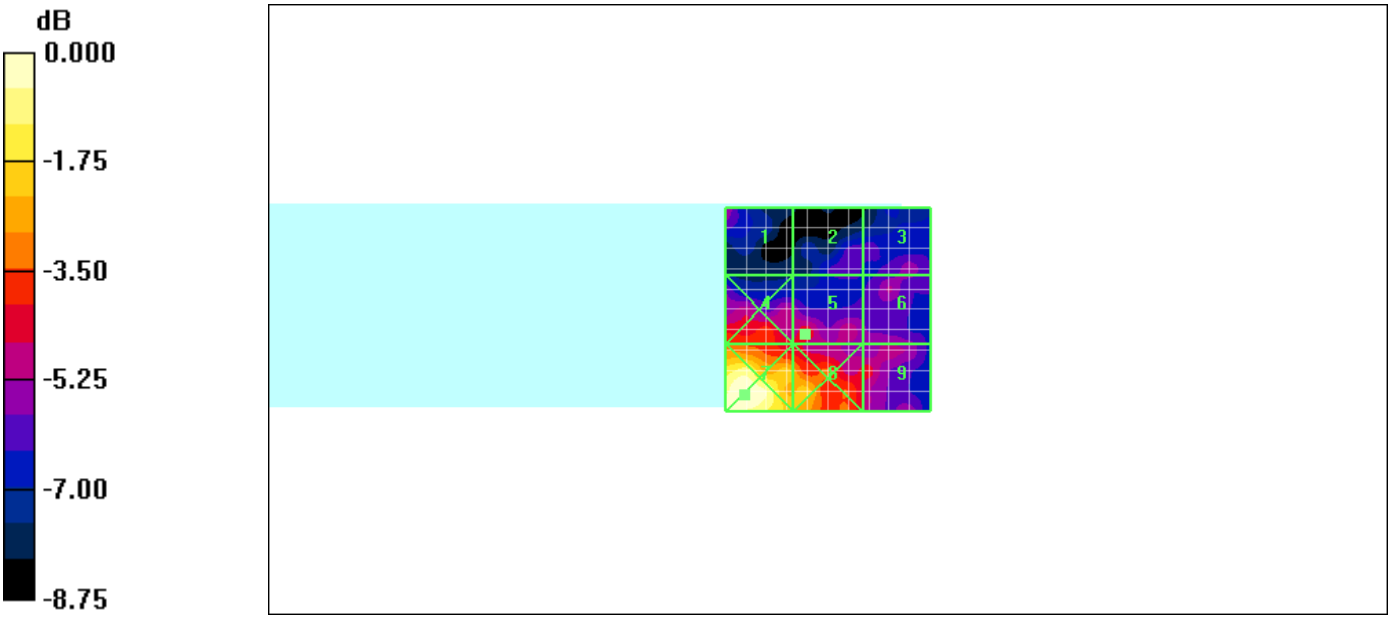
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.027 A/m; Power Drift = -0.041 dB

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

Peak H-field in A/m

Grid 1 **0.070 M4**	Grid 2 **0.063 M4**	Grid 3 **0.066 M4**
Grid 4 **0.084 M4**	Grid 5 **0.076 M4**	Grid 6 **0.069 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.124A/m

Date/Time: 18/11/2008 3:00:40 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_Ambient_835.da4

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

Program Name: HAC RF E Dipole

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

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

Phantom section: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 2.22 V/m; Power Drift = -0.268 dB

Maximum value of Total (measured) = 2.82 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 = 5.64 V/m

Probe Modulation Factor = 1.00

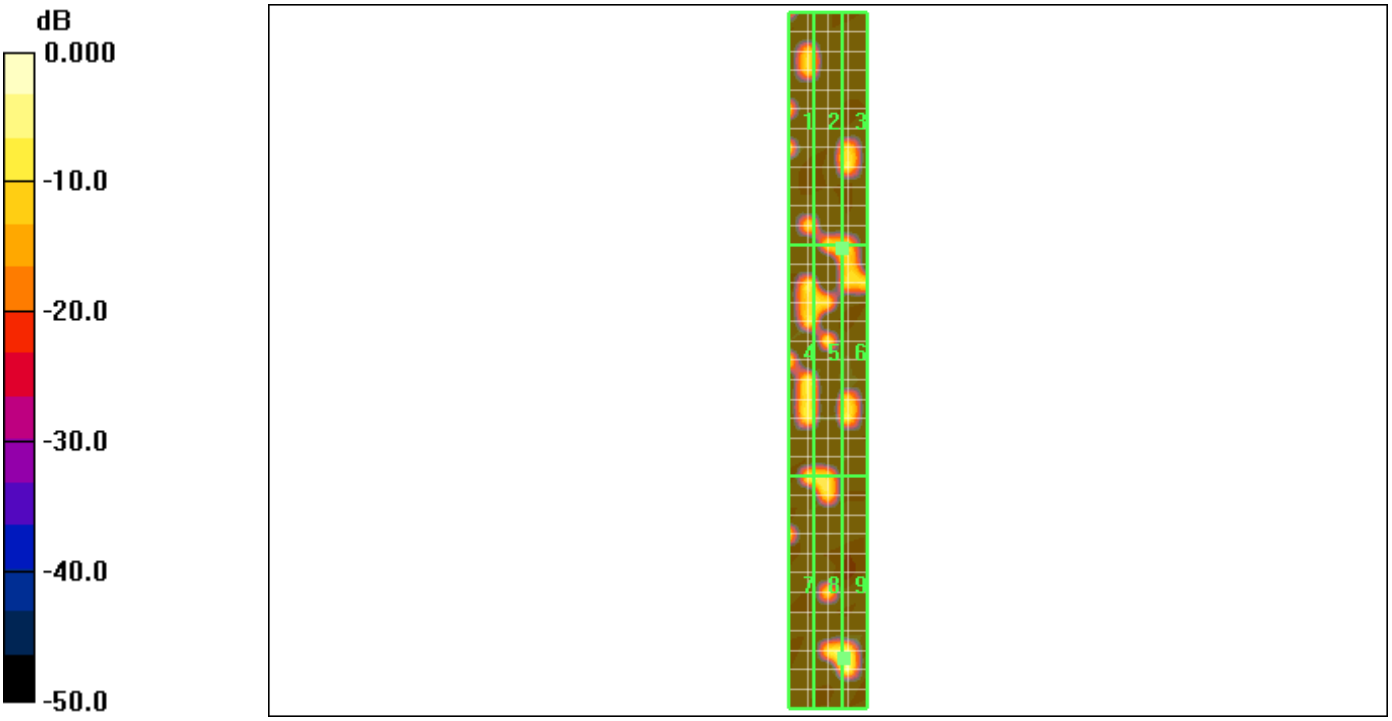
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 2.22 V/m; Power Drift = -0.268 dB

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

Peak E-field in V/m

Grid 1 **2.13 M4**	Grid 2 **2.13 M4**	Grid 3 **2.64 M4**
Grid 4 **2.72 M4**	Grid 5 **2.91 M4**	Grid 6 **3.15 M4**
Grid 7	Grid 8	Grid 9



0 dB = 5.64V/m

Date/Time: 18/11/2008 2:04:40 PM

Test Laboratory: RTS

File Name: HAC_E_Dipole_Ambient_1880.da4

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

Program Name: HAC RF E Dipole

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: E Device Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2285; ConvF(1, 1, 1); Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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, 353.7 mm

Reference Value = 2.44 V/m; Power Drift = 0.383 dB

Maximum value of Total (measured) = 1.66 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 = 3.40 V/m

Probe Modulation Factor = 1.00

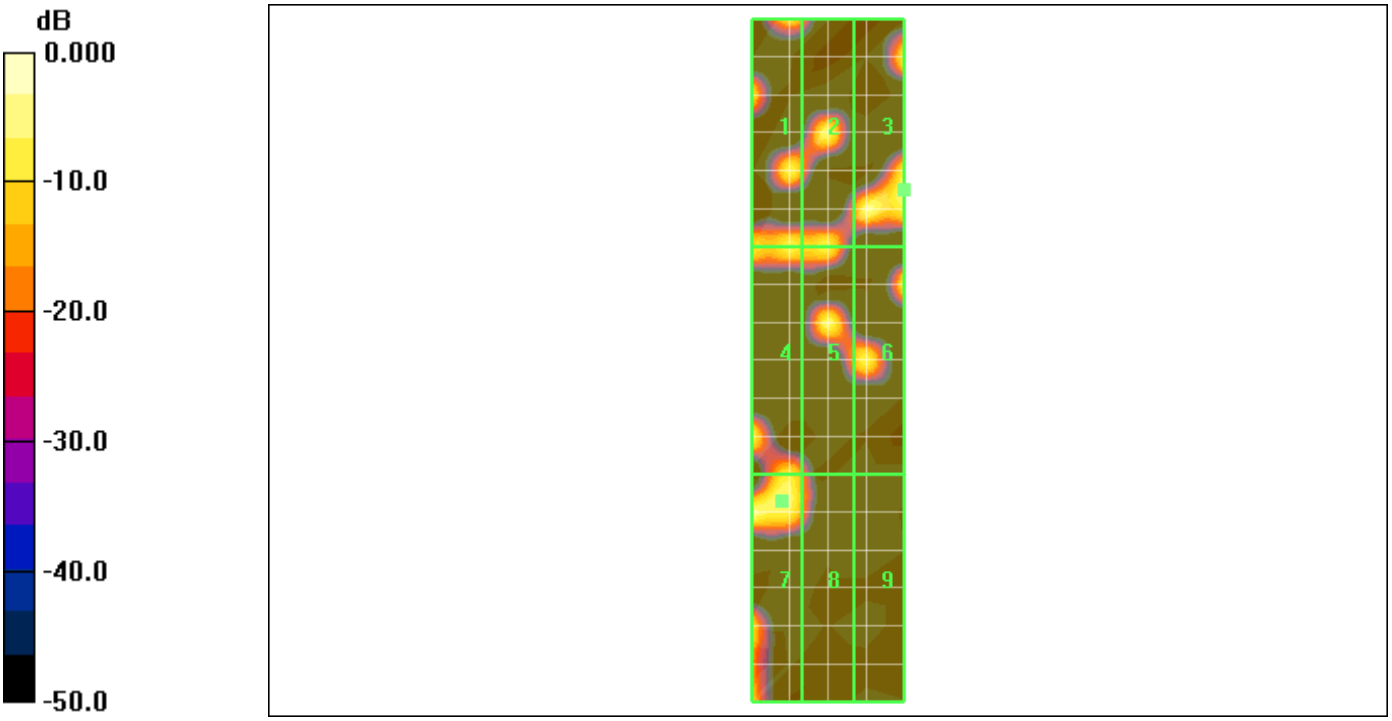
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 2.44 V/m; Power Drift = 0.383 dB

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

Peak E-field in V/m

Grid 1 **1.49 M4**	Grid 2 **1.64 M4**	Grid 3 **3.40 M4**
Grid 4 **1.60 M4**	Grid 5 **1.66 M4**	Grid 6 **1.51 M4**
Grid 7	Grid 8	Grid 9



0 dB = 3.40V/m

Date/Time: 18/11/2008 4:54:54 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_Ambient_835.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

H 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, 353.7 mm

Reference Value = 0.006 A/m; Power Drift = 0.626 dB

Maximum value of Total (measured) = 0.009 A/m

H 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 = 0.014 A/m

Probe Modulation Factor = 1.00

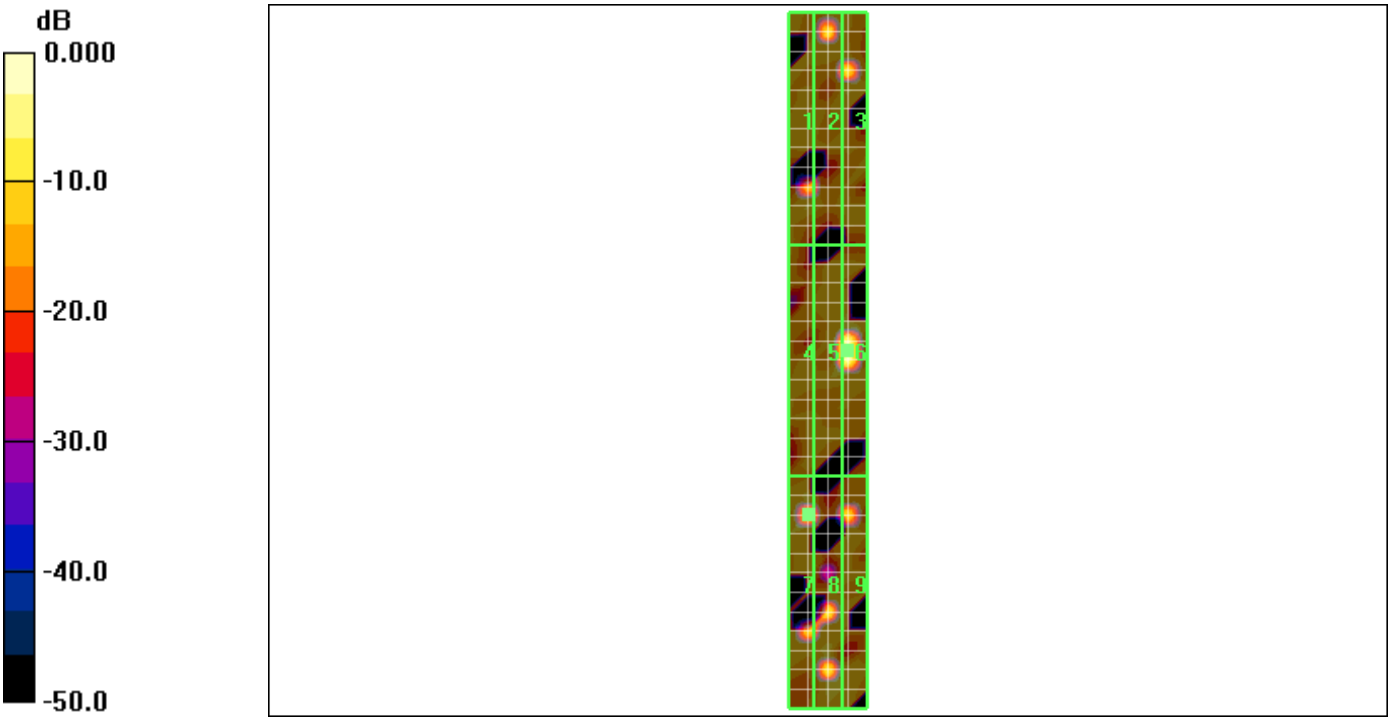
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.006 A/m; Power Drift = 0.626 dB

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

Peak H-field in A/m

Grid 1 **0.003 M4**	Grid 2 **0.005 M4**	Grid 3 **0.005 M4**
Grid 4 **0.000 M4**	Grid 5 **0.005 M4**	Grid 6 **0.014 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.014A/m

Date/Time: 18/11/2008 1:47:20 PM

Test Laboratory: RTS

File Name: HAC_H_Dipole_Ambient_1880.da4

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

Program Name: HAC RF H3DV6 Dipole

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: E Device Section

DASY4 Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 07/03/2008
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn472; Calibrated: 05/03/2008
- Phantom: HAC Test Arch; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

H 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, 353.7 mm

Reference Value = 0.003 A/m; Power Drift = 0.462 dB

Maximum value of Total (measured) = 0.002 A/m

H 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 = 0.004 A/m

Probe Modulation Factor = 1.00

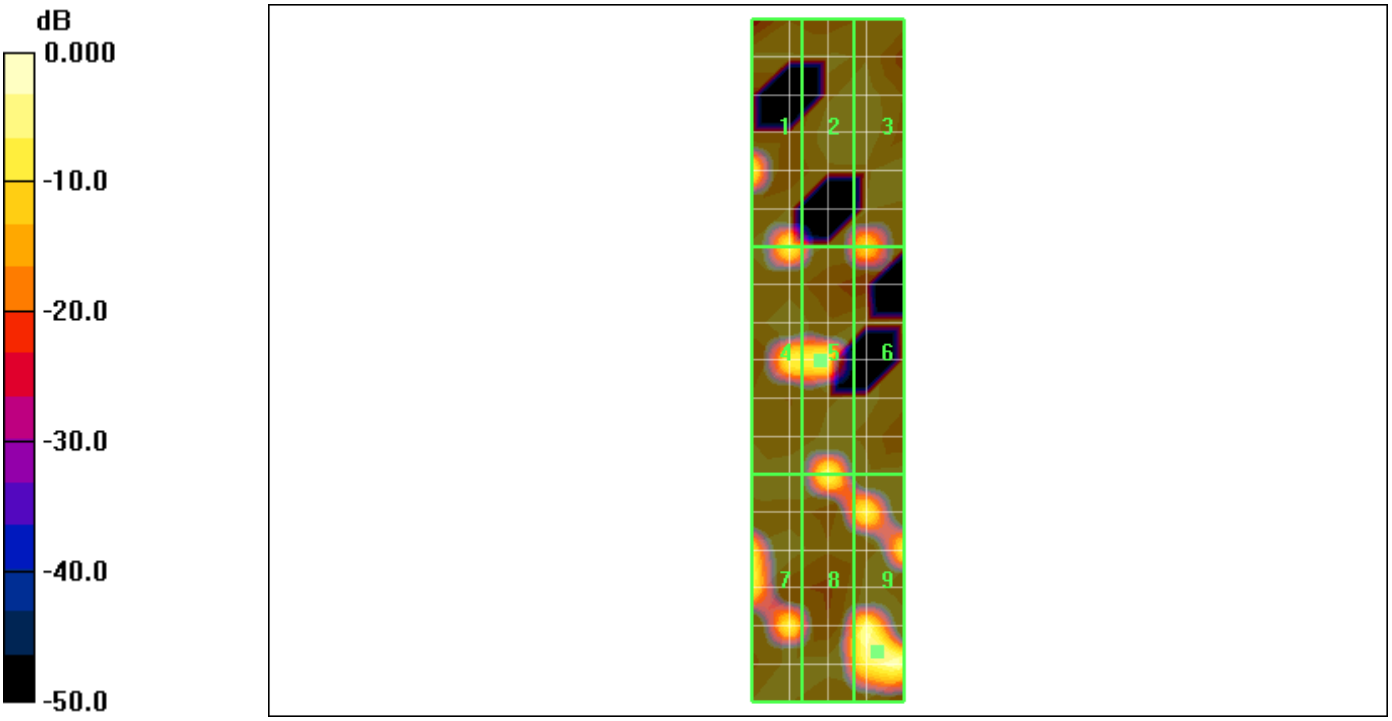
Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.003 A/m; Power Drift = 0.462 dB

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

Peak H-field in A/m

Grid 1 **0.002 M4**	Grid 2 **0.000 M4**	Grid 3 **0.001 M4**
Grid 4 **0.002 M4**	Grid 5 **0.002 M4**	Grid 6 **0.001 M4**
Grid 7	Grid 8	Grid 9



0 dB = 0.004A/m